100% CONSTRUCTION DOCUMENTS FOR:

CRS - LAKE CITY SR 247 AT CR 242

COLUMBIA COUNTY, FLORIDA

SECTION 20, TOWNSHIP 4 SOUTH, RANGE 16 EAST

SUBMITTED TO:

COLUMBIA COUNTY

SUWANNEE RIVER WATER MANAGEMENT DISTRICT FLORIDA DEPARTMENT OF TRANSPORTATION FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION





REQUIRED PERMITS

() COLUMBIA COUNTY SITE PLAN APPROVAL PERMIT
() COLUMBIA COUNTY PARKING VARIANCE
() DOH FOR WELL AND SEPTIC (BY OTHERS)

() FDEP NOI () SRWMD 10/2 SELF CERTIFICATION () FDOT DRIVEWAY CONNECTION PERMIT () FDOT DRAINAGE CONNECTION PERMIT

DEVELOPER/APPLICANT

MATT CASON, PRESIDENT CONCEPT DEVELOPMENT, INC. 3324 W UNIVERSITY AVE #151 GAINESVILLE, FL. 32607 (352) 333-3233

DANIEL H. YOUNG, P.E.

CHW
11801 RESEARCH DRIVE
ALACHUA, FL 32615
(352) 331-1976
EMAIL: DanielY@chw-inc.com

LANDSCAPE ARCHITECT

BRIAN D. BORTON, R.L.A.
BORTON DESIGN, INC.
1354 N. KYLE WAY
SAINT JOHNS, FLORIDA 32259
(904) 287-1996

<u>ow</u>

RALPH NORRIS - TRUSTEE OF THE RALPH NORRIS REVOCABLE LIVING TRUST 319 SW RALPH TERRACE LAKE CITY, FL 32024 COLUMBIA PARCEL NO. 20-4S-16-03077-002

SURVEYOR OF RECORD AARON H. HICKMAN, P.S.M.

CHW
11801 RESEARCH DRIVE
ALACHUA, FL 32615
(352) 331-1976
EMAIL: AaronH@chw-inc.com

ZONING: C-1 COMMERCIAL INTENSIVE

TRAFFIC STATEMENT:

PROPOSED LAND USE ITE LU AREA RATE AADT AM PEAK PM PEAK
VARIETY STORE (814) 9,100SFT 63.47 578 29 62

1.) BASED ON ITE 10TH EDITION AND GROSS BUILDING SQUARE FOOTAGE.

PARKING CALCULATION: 9,100 SF AT 1 SPACE PER 150 SF OF NON STORAGE FLOOR AREA = 53 SPACES REQUIRED PROVIDED: 30 SPACES (VARIANCE SUBMITTED)

REQUIRED: 2 HANDICAP SPACES; PROVIDED: 2 HANDICAP SPACES

DEVELOPMENT D. LAND USE: GENERAL COMMERCIAL				
ZONING: CN - COMMERCIAL, NEIGHBOR	HOOD			
	ON-SITE			
DEVELOPMENT AREA:	133,729 S.F.	3.07 AC		
BUILDING AREA:	9,100 S.F.	6.80 %		
ROADS/CURB/CONCRETE:	22,718 S.F.	16.99 %		
STORM MAGEMENT FACILITY	52,550 S.F.	39.29 %		
IMPERVIOUS AREA:	31,818 S.F.	23.79 %		
OPEN SPACE:	49,085 S.F.	14.27 %		
PARKING SPACES	30			
MAX BUILDING HEIGHT:	LESS THAN 22 FEET			
TAX PARCEL: 20-4S-16-03077-002				

SHEET NUMBER	DESCRIPTION
C0.00	COVER SHEET AND INDEX
C0.10	GENERAL NOTES
C0.11	LEGEND
1 OF 1	ALTA/NSPS LAND TITLE SURVEY
C0.20	STORMWATER POLLUTION PREVENTION NOTES
C0.21	STORMWATER POLLUTION PREVENTION PLAN
C0.30	DEMOLITION AND TREE PROTECTION PLAN
C1.00	HORIZONTAL CONTROL AND SITE PLAN
C1.20	ACCESSIBILITY SITE PLAN
C2.00	MASTER GRADING AND DRAINAGE PLAN
C2.10	DETAILED GRADING AND DRAINAGE PLAN
C2.20	STORMWATER MANAGEMENT FACILITY
C2.30	CONSTRUCTION DETAILS
C3.00	UTILITY PLAN
A2	EXTERIOR ELEVATIONS & EXTERIOR FINISH SCHEDULE
LS-01 - LS-04	LANDSCAPE PLANS



11801 Research Drive Alachua, Florida 32615 (352) 331-1976 www.chw-inc.com est. 1988 **FLORIDA**

al Consultants

SCALE EINCH ON DRAWING EINCH ON T, ADJUST

VERIFY SCALE

VERIFY SCALE

BAR IS ONE INCH ON

ORIGINAL DRAWING

IF NOT ONE INCH ON

THIS SHEET, ADJUST

SCALES ACCORDINGLY

AL

E CITY - SR 247 AT CR 242
FR SHEET AND INDEX

C THORTON
QUALITY CONTROL:
D YOUNG
SHEET TITT
PROJECT NUMBER:
20-0425

DANIEL H. YOUNG

Daniel H.Young, P.E. State of Florida, Professional Engineer, License No. 70780

This item has been digitally signed and sealed by Daniel H. Young, P.E. on the date indicated here. 06/17/2021

Printed copies of this document are not considered signed and sealed and the

FL PE No. 70780
SHEET NO.:
CO.OO

GENERAL NOTES

- 1. THE TOPOGRAPHIC AND EXISTING INFORMATION SHOWN HEREON WERE TAKEN FROM AN ALTA/NSPS LAND TITLE SURVEY PREPARED BY CHW, AND
- 2. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAS BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE NECESSARY ARRANGEMENTS FOR ANY RELOCATION OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. THE RESPECTIVE UTILITY COMPANIES SHALL RELOCATE ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES DURING THE RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
- 3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE APPROPRIATE UTILITY COMPANIES IN ORDER TO ALLOW MARKING OF THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES IN ADVANCE OF CONSTRUCTION BY CALLING THE FLORIDA SUNSHINE STATE ONE-CALL CENTER, INC. AT 1-800-432-4770 OR 811. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY "SUNSHINE" 48 HOURS PRIOR TO ANY CLEARING OF CONSTRUCTION TO IDENTIFY ALL UTILITY LOCATIONS. NO CONSTRUCTION ACTIVITY MAY OCCUR UNTIL THE UTILITIES HAVE BEEN PROPERLY MARKED.
- 4. THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL LOCATION AND VERTICAL LOCATION OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE PROJECT ENVELOPE SHOWN PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL CALL ALL UTILITY COMPANIES TO HAVE THE LOCATIONS OF ALL UTILITIES FIELD MARKED PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONTINUING CONSTRUCTION.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR.
- 6. ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS BEFORE COMMENCING CONSTRUCTION WORK, UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.
- 7. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK INCLUDING LANDSCAPING.
- 8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY AND/OR MUNICIPALITY INSTRUCTIONS.
- 9. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND SHALL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPES ARE BEING PLACED. DEWATERING SHALL BE USED AS REQUIRED, AND PERMITTED THROUGH LOCAL GOVERNMENTAL AGENCIES AND WATER MANAGEMENT DISTRICT PER CURRENT REGULATIONS AT THE SOLE COST OF THE CONTRACTOR.
- 11. CONTRACTOR TO REVIEW GEOTECHNICAL REPORT AND BORINGS PRIOR TO BIDDING THE PROJECT AND FOLLOW OUTLINED CONSTRUCTION TECHNIQUES.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SERVICES OF AN APPROVED TESTING LABORATORY AND/OR SOILS ENGINEER, APPLICABLE REGULATORY AGENCIES, AND AS MAY BE FOUND IN THE ENGINEERING CONSTRUCTION DRAWINGS OR SPECIFICATIONS. CONTRACTOR TO VERIFY ALL TESTING WITH THE OWNER PRIOR TO COMMENCING CONSTRUCTION. UPON COMPLETION OF THE WORK, THE TESTING LABORATORY AND/OR SOILS ENGINEER MUST SUBMIT TO THE OWNER'S ENGINEER CERTIFICATIONS STATING THAT ALL REQUIREMENTS HAVE BEEN MET.
- 13. INSTALL SILT FENCE PRIOR TO SITE DEMOLITION OR NEW SITE CONSTRUCTION. INSTALL SILT FENCE PER FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL AND PROVIDE TOE-IN. THE CONTRACTOR SHALL MAINTAIN THE SILT FENCE IN WORKING ORDER THROUGHOUT THE CONSTRUCTION PHASE. THE PROJECT SILT FENCE SHALL BE INSPECTED DAILY AND ANY CORRECTIVE MEASURES SHALL BE COMPLETED WITHIN 24 HOURS.
- 14. ALL TREE BARRICADES AND SILT FENCING SHALL BE INSTALLED AND INSPECTED BY COLUMBIA COUNTY PRIOR TO COMMENCEMENT OF ANY DEMOLITION OR CONSTRUCTION ACTIVITIES.
- 15. THE CONTRACTOR IS TO PREPARE THE SITE PRIOR TO BEGINNING ACTUAL CONSTRUCTION IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- 16. ALL DELETERIOUS MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS OR AS DIRECTED BY THE OWNER'S ENGINEER OR OWNER'S SOIL TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED AND REMOVED FROM THE SITE. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE AREAS.
- 17. CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. DISTURBED AREAS SHALL BE SODDED, SEEDED, MULCHED, OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL, AS DIRECTED BY THESE PLANS, IMMEDIATELY FOLLOWING CONSTRUCTION PER LOCAL INSPECTOR.
- 18. WORK BEING PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON THE SITE BY OTHER CONTRACTORS AND/OR UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY, WITH OTHER CONTRACTORS AND UTILITY COMPANIES.
- 19. ALL PAVEMENT DIMENSIONS SHOWN ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- 20. THE GOVERNING STANDARDS AND SPECIFICATIONS, UNLESS STATED OTHERWISE SHALL BE PER FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS (FY 2020-21 ROAD CONSTRUCTION), AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED JANUARY 2021, AS AMENDED BY CONTRACT DOCUMENTS. ALL MATERIALS AND METHODS SHALL MEET FDOT SPECIFICATIONS AND SHALL BE PRODUCED OR OBTAINED FROM AN FDOT APPROVED SOURCE.
- 21. ALL NEW TRAFFIC CONTROL DEVICES (SIGNS AND PAVEMENT MARKINGS) SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FDOT STANDARDS.
- 22. ALL STRIPING WITHIN THE FDOT RIGHT OF WAY SHALL BE PLACED FIRST AS TEMPORARY STRIPING FOLLOWED BY APPLICATION OF THERMOPLASTIC STRIPING 30 DAYS LATER.
- 23. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROPER BENCHMARKS ON-SITE. EXISTING BENCH MARKS SCHEDULED FOR REMOVAL SHALL BE RELOCATED AT CONTRACTORS EXPENSE AND RE-ESTABLISHED BY A LICENSED SURVEYOR.
- 24. ALL HANDICAP RAMPS SHALL COMPLY WITH THE FLORIDA ACCESSIBILITY CODE AND AMERICANS WITH DISABILITIES ACT.
- 25. A PRE-CONSTRUCTION CONFERENCE SHALL BE REQUIRED. THE CONTRACTOR, ENGINEER OF RECORD, AND THE OWNER SHALL MEET WITH THE COLUMBIA COUNTY PUBLIC WORKS DEPARTMENT PRIOR TO INITIATION OF SITE CONSTRUCTION.
- COLUMBIA COUNTY TOBLIC WORKS DELAKTMENT TRIOR TO INTITATION OF SITE CONSTRUCTION.
- 26. ANY CHANGE ORDER REQUESTS, SITE REVISIONS, AND PAY REQUESTS MUST BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD.
- 27. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING AS NEEDED THROUGHOUT ALL CONSTRUCTION ACTIVITIES COVERED BY THESE PLANS. DEWATERING SHALL BE DONE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS, JANUARY 2021 EDITION, SECTION 120.
- 28. THE CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE AND COST OF ALL CLEARING AND GRUBBING AND ALL WORK OF REMOVAL, DISPOSAL, AND REPAIR OR REPLACEMENT OF EXISTING IMPROVEMENTS WHERE SHOWN IN THE PLANS, OR ORDERED BY THE ENGINEER TO BE REMOVED, OR WHERE REQUIRED BECAUSE OF THE CONSTRUCTION OPERATIONS, IN ORDER TO CONSTRUCT THE PROPOSED IMPROVEMENTS (THIS INCLUDES BUT IS NOT LIMITED TO PROPOSED PIPING, STRUCTURES, UTILITIES, PAVING, CURBING, ETC.).
- 29. AN AS-BUILT SURVEY MAY BE REQUIRED BY REGULATORY AGENCIES. CONTRACTOR TO COORDINATE WITH PROJECT OWNER FOR COMPLETION OF AS-BUILT SURVEYS PRIOR TO PROJECT / PERMIT CLOSE-OUT.

MAINTENANCE OF TRAFFIC (MOT) NOTES

- 1. THE CONTRACTOR IS RESPONSIBLE FOR CREATING A MAINTENANCE OF TRAFFIC (MOT) PLAN FOR CONSTRUCTION ACTIVITY THAT OCCURS WITHIN THE PUBLIC RIGHT-OF-WAY, INCLUDING BUT NOT LIMITED TO SIDEWALK WORK AND ACTIVITIES THAT REQUIRE A LANE (OR ROAD) CLOSURE, SUCH AS CONNECTION TO SEWER MANHOLES AND WATER MAINS. THE MOT PLAN MUST BE CREATED BY A REGISTERED PROFESSIONAL ENGINEER WHO IS CERTIFIED TO DO SO BY THE FDOT MOT CERTIFICATION TRAINING. THE MOT PLAN MUST ALSO BE IN ACCORDANCE WITH FDOT STANDARDS PLANS AND FDOT STANDARD SPECIFICATIONS REQUIREMENTS AND MUST BE REVIEWED AND APPROVED BY THE FDOT AND COLUMBIA COUNTY.
- 2. THE CONTRACTOR SHALL SUBMIT THE MOT TO THE APPROPRIATE REGULATORY AUTHORITY PRIOR TO WORK REQUIRING THE MOT FOR APPROVAL. NO WORK IN THE ROW SHALL OCCUR UNTIL THE MOT IS APPROVED.

DEMOLITION GENERAL NOTES

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE TO DISPOSE OF ALL DEMOLITION MATERIALS IN A SAFE AND LAWFUL MANNER. THE CONTRACTOR SHALL SALVAGE TO THE OWNER ANY ITEM AS DETERMINED BY THE OWNER. ONCE DEMOLISHED, MATERIAL SHALL BE DISPOSED OF PROPERLY AND IMMEDIATELY.
- 2. REMOVE ALL IMPROVEMENTS DEFINED ON THE DEMOLITION PLAN. SALVAGE ITEMS TO OWNER AS DEFINED BY THE OWNER'S REPRESENTATIVE AND CONSTRUCTION DOCUMENT SPECIFICATIONS.
- 3. EXISTING PAVEMENT AND SIDEWALK EDGES THAT BORDER NEW CONSTRUCTION OR DEMOLITION ARE TO BE SAW-CUT TO PROVIDE A SMOOTH
- 4. ALL EXISTING TREES ARE TO REMAIN UNLESS OTHERWISE NOTED.
- 5. ROOTS LARGER THAN 1 INCH IN DIAMETER ON TREES TO BE PRESERVED THAT ARE ENCOUNTERED DURING CONSTRUCTION MUST BE CUT CLEANLY AND COVERED OVER WITH SOIL BY THE END OF THE WORKING DAY.
- 6. ALL ASPHALT AND LIMEROCK WILL BE COMPLETELY REMOVED FROM AREAS THAT WILL BE LANDSCAPED. IN PARTICULAR, AREAS WHERE ASPHALT WILL BE REMOVED MUST HAVE THE TOP HARD SURFACE, LIMEROCK, AND COMPACTED SOIL REMOVED. REPLACEMENT SOIL SHALL BE CLEAN DEEP FILL OF PH 5.5 6.5. THE DEPTH OF UNCOMPACTED SOIL PRIOR TO PLANTING MUST BE AT LEAST 3 FEET TO ACCOMMODATE FUTURE TREE ROOT GROWTH. NO LIMEROCK, LARGE STONES, OR OTHER CONSTRUCTION DEBRIS CAN REMAIN IN AREAS TO BE LANDSCAPED.

PAVING, GRADING, AND DRAINAGE GENERAL NOTES

- 1. THE CONTRACTOR IS RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL PRACTICES DURING CONSTRUCTION TO MINIMIZE ON-SITE EROSION/SEDIMENTATION AND TO PROTECT AGAINST DAMAGE TO OFF SITE PROPERTY. THE FOLLOWING PRACTICES SHALL BE EMPLOYED:
- A. EROSION AND SEDIMENTATION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. AREAS OF OFF-SITE DISCHARGE DURING CONSTRUCTION SHALL BE PROTECTED WITH A SEDIMENT BARRIER PER FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL TO PREVENT OFF-SITE DISCHARGE OF SEDIMENTS. A SILT BARRIER SHALL SPECIFICALLY BE REQUIRED, CONSTRUCTED, AND MAINTAINED AS INDICATED ON THIS SHEET. TEMPORARY SEED AND MULCH SHOULD BE USED TO CONTROL ON-SITE EROSION WHEN IT IS NOT PRACTICAL TO ESTABLISH PERMANENT VEGETATION. SOD SHALL BE PLACED AS EARLY AS POSSIBLE ON ALL SLOPES STEEPER THAN 5 (FT) HORIZONTAL TO 1 (FT) VERTICAL. SOD SHALL BE PINNED AS REQUIRED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED IN WORKING ORDER THROUGHOUT THE CONSTRUCTION PHASE. THE CONTRACTOR SHALL INSPECT AND REPAIR AS NECESSARY THE EROSION/SEDIMENTATION PROTECTION AT THE END OF EACH WORKING DAY.

NOTE: EROSION/SEDIMENTATION CONTROL SHALL BE PLACED PRIOR TO SITE EXCAVATION AND SHALL REMAIN IN PLACE UNTIL SITE VEGETATION AND LANDSCAPING IS COMPLETE.

B. ALL INLET STRUCTURES AND PIPE SHALL BE PROTECTED FROM SILTATION BY CONSTRUCTING INLET PROTECTION AS DEFINED BY THESE PLANS OR IN THE FDOT STANDARDS. IF SILTATION OCCURS, THE CONTRACTOR IS RESPONSIBLE TO REMOVE SILTATION AS PART OF THE BASE CONTRACT AT NO ADDITIONAL COST TO THE OWNER.

C. EXCAVATED STORMWATER FACILITIES SHALL BE CONSTRUCTED AS PART OF THE INITIAL CONSTRUCTION. THE FACILITIES SHALL BE ROUGH GRADED TO THE DESIGN ELEVATIONS. AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED. THE FACILITIES BOTTOM SHALL BE OVER-EXCAVATED BY SIX INCHES, SCARIFIED, BACKFILLED WITH ARCHER FILL (HAVING NO MORE THAN 5% PASSING NO. 200 SIEVE), AND GRADED TO FINAL DESIGN GRADES. EXCESS AND UNSUITABLE SOILS SHALL BE REMOVED FROM THE BASIN (REMOVE ALL ACCUMULATED SILTS, CLAYS, ORGANIC, AND DEBRIS). FINALLY, SCARIFY AND RAKE BOTTOM AND VEGETATE.

D. PERMANENT VEGETATIVE STABILIZATION SHALL BE APPLIED ON FINE GRADED SITES AS SOON AS PRACTICAL. TEMPORARY SEEDING SHOULD BE EMPLOYED TO PREVENT EXPOSURE OF BARREN SOILS UNTIL PERMANENT VEGETATION CAN BE APPLIED.

E. ALL SLOPES 1:3 OR STEEPER REQUIRE LAPPED OR PEGGED SOD.

F. EROSION, SEDIMENT AND TURBIDITY CONTROL ARE THE RESPONSIBILITY OF THE CONTRACTOR. THESE DELINEATED MEASURES ARE THE MINIMUM REQUIRED, WITH ADDITIONAL CONTROLS TO BE UTILIZED AS NEEDED, DEPENDENT UPON ACTUAL SITE CONDITIONS AND CONSTRUCTION OPERATION.

- G. ALL SYNTHETIC BALES, SILT FENCE, AND OTHER EROSION CONTROL MEASURES SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT.
- 2. THE CONTRACTOR SHALL MAINTAIN IN HIS POSSESSION A COPY OF THE WATER MANAGEMENT DISTRICT CONSTRUCTION PERMIT. HE SHALL BE RESPONSIBLE FOR ADHERENCE TO ALL CONDITIONS CONTAINED IN THE PERMIT.
- 3. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADE UNLESS OTHERWISE NOTED ON DRAWINGS.
- CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE OWNER AND OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO BE USED ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR THE PERFORMANCE OF THE ITEM.
- 5. THE COST OF ALL TESTING OF COMPACTION AND OTHER REQUIRED TESTS SHALL BE PAID BY THE CONTRACTOR AND MADE AVAILABLE TO THE ENGINEER OF RECORD DURING SITE INSPECTIONS.
- 6. GENERAL CONTRACTOR TO CONTACT ENGINEER OF RECORD AND THE OWNER REPRESENTATIVE 48 HOURS IN ADVANCE PRIOR TO BACKFILLING TRENCHES FOR FIELD INSPECTION AND PRIOR TO LAYING ASPHALT FOR FIELD INSPECTION.
- 7. CONTRACTOR IS TO SUBMIT FDOT APPROVED ASPHALT DESIGN MIXES TO THE OWNER'S REPRESENTATIVE AND ENGINEER OF RECORD BEFORE ANY WORK IS TO COMMENCE ON PROJECT. THE MIXTURE AT THE PLANT OR ON THE ROAD SHALL NOT EXCEED 335 DEGREES. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND PROVIDE TEMPERATURE READINGS PRIOR TO LAYING ASPHALT.
- 8. AS DETERMINED NECESSARY AND DIRECTED BY COLUMBIA COUNTY PUBLIC WORKS DEPARTMENT OR ENGINEER OF RECORD, THE CONTRACTOR SHALL UNDERCUT ALL UNSUITABLE MATERIAL 24 INCHES BELOW THE BOTTOM OF ANY PROPOSED LIMEROCK BASE, AND SHALL BACKFILL WITH FILL MATERIAL MEETING FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. SEE FDOT INDEX 120-001 AND 120-002.
- 9. PROVIDE LEVEL PLATFORM IN FRONT OF ALL EGRESS DOORS. THE FLOOR SURFACE ON BOTH SIDES OF A DOOR SHALL BE AT THE SAME ELEVATION. THE FLOOR SURFACE OR LANDING ON EACH SIDE OF THE DOOR SHALL EXTEND FROM THE DOOR IN THE CLOSED POSITION A DISTANCE EQUAL TO THE DOOR WIDTH AND SHALL COMPLY WITH SECTION 4.13.6 MANEUVERING CLEARANCES AT DOORS OF THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION.
- 10. RAMPS SHALL HAVE LEVEL LANDINGS AT THE BOTTOM AND TOP OF EACH RAMP RUN. CURB RAMPS ARE NOT REQUIRED TO HAVE LANDINGS. LANDINGS SHALL HAVE THE FOLLOWING FEATURES:
- A. THE LANDING SHALL BE AT LEAST AS WIDE AS THE RAMP RUN LEADING TO IT.
- B. ALL LANDINGS ON RAMPS SHALL BE NOT LESS THAN 60" CLEAR, AND THE BOTTOM OF EACH RAMP SHALL HAVE NOT LESS THAN 72" OF STRAIGHT AND LEVEL CLEARANCE.
- C. IF RAMPS CHANGE DIRECTION AT LANDINGS, THE MINIMUM LANDING SIZE SHALL BE 60"X60". IF A RAMP RUN HAS A RISE GREATER THAN 6"
 OR A HORIZONTAL PROJECTION GREATER THAN 72" THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES. HANDRAILS ARE NOT REQUIRED ON
 CURB RAMPS. HANDRAILS SHALL BE SHOWN ON THE SITE PLAN.
- 11. THE CONTRACTOR SHALL STOCKPILE TOPSOIL AND CONSTRUCTION MATERIALS IN AREAS DESIGNATED BY THE OWNER.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING RECORD DRAWINGS AS NOTED IN NOTE #29 UNDER SITE GENERAL NOTES.
- 13. ALL CONCRETE USED SHALL BE 2,500 PSI MINIMUM.
- 14. ALL WELLS, CLEANOUTS, MANHOLE TOPS, PULL BOX COVERS AND OTHER UTILITY APPURTENANCES IN THE AREA OF REDEVELOPMENT SHALL BE PROTECTED AND TOPS ADJUSTED TO MATCH PROPOSED GRADES.
- 15. CONTRACTOR SHALL SAW CUT, TACK, AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS ANY EXISTING PAVEMENT.
- 16. SOD SHALL BE PLACED AROUND ALL STRUCTURES AS DIRECTED BY THE FDOT INDEX 524-001 AND FDOT INDEX 425- AND 430- SERIES AS APPROPRIATE. ALL OTHER DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
- 17. ALL STORM SEWER CURB AND DITCH BOTTOM INLETS SHALL CONFORM TO THE APPLICABLE FDOT INDEX. ALL DRAINAGE STRUCTURES WITH GRATES THAT ARE LOCATED IN GRASSED AREAS SHALL HAVE THE GRATE CHAINED TO THE STRUCTURE USING AN EYE BOLT AND CHAIN.
- 18. ALL CONCRETE STRUCTURES SHALL HAVE ALL EXPOSED EDGES CHAMFERED 3/4" AND CLASS I SURFACE FINISH.
- 19. ALL HDPE FITTINGS AND CONNECTORS SHALL BE WATER TIGHT. SEE SPECIFICATIONS FOR MORE INFORMATION.
- 20. COMPACTION OF ALL MATERIALS SHALL BE LIMITED TO STATIC MODE ONLY, UNLESS DIRECTED OTHERWISE BY THE ENGINEER OF RECORD.
- 21. ALL RCP PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION SECTION 430.

WATER AND WASTEWATER GENERAL NOTES

1. MATERIALS AND CONSTRUCTION METHODS FOR WATER AND WASTEWATER SYSTEMS SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY CODES, PLANS, AND SPECIFICATIONS FOR CONSTRUCTION, LATEST REVISION THEREOF AND SUPPLEMENTAL SPECIFICATIONS THERETO. APPROVAL AND CONSTRUCTION OF ALL UTILITY EXTENSIONS AND CONNECTIONS MUST BE COORDINATED THROUGH THE REGULATORY AGENCY DEPARTMENT FOR PURILIC UTILITIES.

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE.

3. THE CONTRACTOR IS RESPONSIBLE FOR ANY NECESSARY UTILITY FIELD LOCATION AND RELOCATION AS REQUIRED.

4. THE COST OF ALL TESTING OF COMPACTION AND OTHER REQUIRED TESTS SHALL BE PAID BY THE CONTRACTOR AND MADE AVAILABLE TO THE ENGINEER OF RECORD DURING SITE INSPECTIONS.

5. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATORY JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF PARTIES US THE CONTRACTOR'S RESPONSIBILITY.

6. ALL FORCE MAINS SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE TEST IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.

7. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE OWNER AND OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO BE USED ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR THE PERFORMANCE OF THE ITEM.

8. A HORIZONTAL SEPARATION OF TEN FEET PREFERRED, BUT NO LESS THAN SIX FEET, SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND GRAVITY OR PRESSURE WASTEWATER MAINS, WASTEWATER FORCE MAINS, AND RECLAIMED WATER MAINS NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. A HORIZONTAL SEPARATION OF TEN FEET PREFERRED, BUT NO LESS THAN THREE FEET, SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND VACUUM WASTEWATER MAINS. A HORIZONTAL SEPARATION OF THREE FEET SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND STORM SEWERS, STORMWATER FORCE MAINS, AND RECLAIMED WATER MAINS REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

9. WHEN POTABLE WATER MAINS CROSS OTHER PIPES, THE TWO PIPES SHALL HAVE JOINTS A MINIMUM OF SIX FEET FROM THE CROSSING. WHEN POTABLE WATER MAINS CROSS UNDERNEATH OTHER PIPES, THE MINIMUM VERTICAL SEPARATION IS TWELVE INCHES. WHEN POTABLE WATER MAINS CROSS ABOVE PRESSURE WASTEWATER MAINS, WASTEWATER FORCE MAINS, AND RECLAIMED WATER MAINS, THE MINIMUM VERTICAL SEPARATION IS TWELVE INCHES. WHEN POTABLE WATER MAINS CROSS ABOVE GRAVITY AND VACUUM WASTEWATER MAINS, STORM SEWERS, AND STORMWATER FORCE MAINS, THE PREFERRED VERTICAL SEPARATION IS TWELVE INCHES AND THE THE MINIMUM VERTICAL SEPARATION IS SIX INCHES.

10. ALL WATER MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.

- 11. RESTRAINED JOINTS SHALL BE PROVIDED AT ALL FITTINGS AND HYDRANTS IN ACCORDANCE WITH AWWA STANDARDS.
- 12. ALL PVC WATER SERVICE LINES SHALL BE SCH 40 PVC.

13. THE SITE WORK CONTRACTOR SHALL ENGAGE THE SERVICES OF A LICENSED UNDERGROUND UTILITY AND EXCAVATION CONSTRACTOR TO INSTALL THE NEW WATER SERVICE LINE.

14. ALL SANITARY SEWER SERVICE LATERALS SHALL BE 4" PVC SDR 35 OR 6" PVC SDR 35 WITH A CLEAN-OUT LOCATED PER THE PLANS. MINIMUM SLOPE FOR 4" LATERALS SHALL BE 1.0% AND A MINIMUM CLEANOUT SPACING OF 75 FEET ON-CENTER AND MINIMUM SLOPE FOR 6" LATERALS SHALL BE 0.6% AND A MINIMUM CLEANOUT SPACING OF 100 FEET ON-CENTER.

15. PUBLIC UTILITY EASEMENTS WILL BE PROVIDED AS REQUIRED FOR ALL UTILITIES SHOWN HEREON BY METES AND BOUND DESCRIPTION AND IN ACCORDANCE WITH THE REGULATORY AGENCY DEPARTMENT FOR PUBLIC UTILITIES.

ELECTRIC SERVICE GENERAL NOTES

1. ALL ELECTRICAL UTILITIES AND INFORMATION SHOWN ON THE CIVIL PLANS ARE FOR LOCATION AND COORDINATION PURPOSES ONLY. REFER TO ELECTRICAL PLANS BY OTHERS FOR THE ELECTRICAL DESIGN AND DETAILS.

2. ELECTRIC DESIGN PROVIDED BY OTHERS.

FDOT GENERAL NOTES

- 1. ALL WORK PERFORMED WITHIN THE FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY SHALL CONFORM TO THE FOLLOWING:
 - A. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JULY 2020).
 - B. FDOT STANDARD PLANS (FY 2019-20 ROAD CONSTRUCTION)
 C. FDOT DESIGN MANUAL (2020)
- D. FDOT FLEXIBLE PAVEMENT DESIGN MANUAL FOR NEW CONSTRUCTION AND PAVEMENT REHABILITATION

SHOULD A CONFLICT ARISE BETWEEN THE DETAILS SHOWN IN THE PLANS AND THE DEPARTMENT OF TRANSPORTATION STANDARDS THE ENGINEER/PERMITTEE SHALL IMMEDIATELY CONFER WITH THE DEPARTMENT'S ENGINEER IN ORDER TO RESOLVE THE DISCREPANCY. IN NO CASE WILL ANYTHING LESS THAT THE DEPARTMENT'S MINIMUM STANDARD BE ALLOWED.

- 2. ALL TRAFFIC STRIPING AND MARKINGS ARE TO BE LEAD-FREE, NON-SOLVENT BASED THERMOPLASTIC.
- 3. REMOVAL OF EXISTING STRIPING SHALL BE ACCOMPLISHED USING THE HYDRO-BLAST METHOD.
- 4. ALL CURB AND GUTTER AND SIDEWALK WILL BE REMOVED AND REPLACED JOINT TO JOINT.
- 5. ALL DISTURBED AREA WITH THE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY WILL RESTORED TO ORIGINAL OR BETTER CONDITION BY GRADING AND SODDING THE AREA DISTURBED (BERMUDA IN RURAL, CENTIPEDE IN UTILITY STRIPS).

lachua, Florida 32615 (352) 331-1976 www.chw-inc.com st. 1988 **FLORIDA** CA-5075

Professional Consultants

VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING
ORIGINAL DRAWING
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

SUBMITTALS: 2/15/21 - FIRST SUBMITT 4/12/21 - 100% CDS

CONCEPT DEVELOPMENT, INC.

PROJECT:

CRS LAKE CITY - SR 247 AT CR

SHEET TITLE:

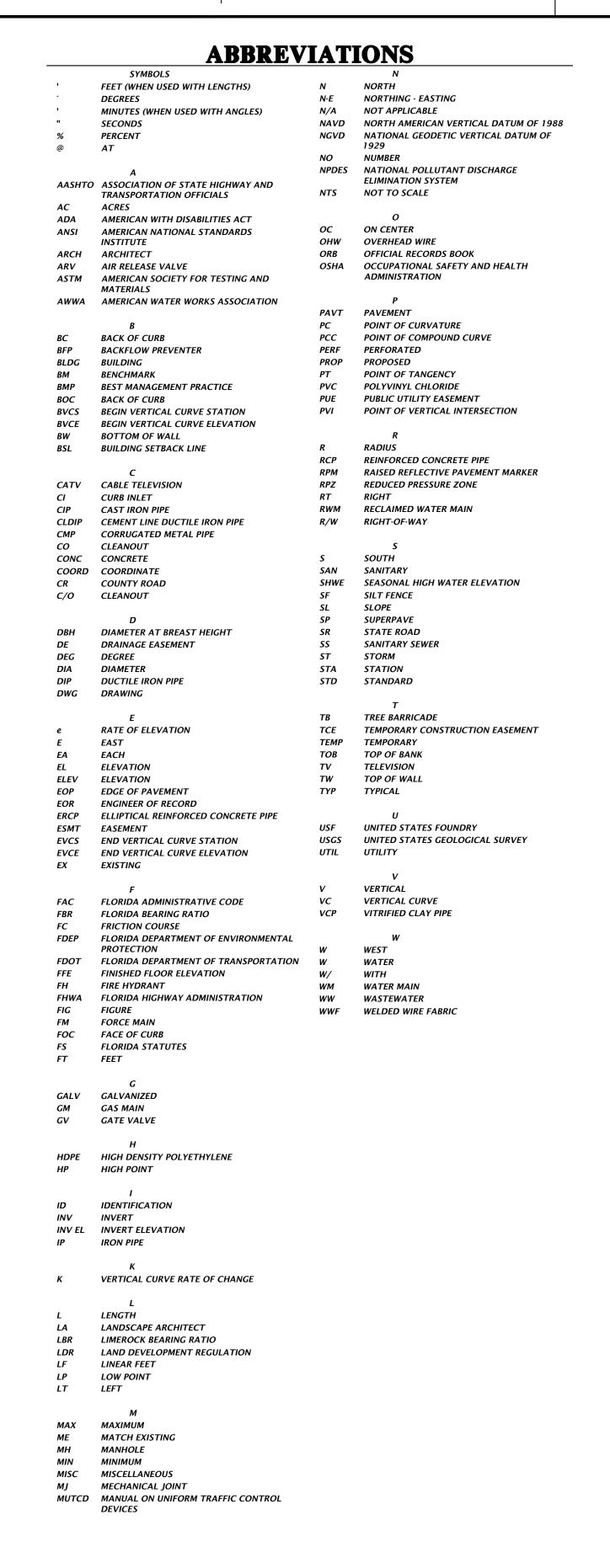
DANIEL H. YOUNG

Daniel H.Young, P.E. State of Florida, Professional Engineer, License No. 70780

This item has been digitally signed and sealed by Daniel H. Young, P.E. on the date indicated here. 06/17/2021

Printed copies of this document are not considere signed and sealed and the signature must be verified o

FL PE No. 70780



SIGNAGE

SIGNS ARE PER FDOT SPECIFICATIONS OR PER MUTCD. SIGN POSTS AND INSTALLATION SHALL BE PER FDOT INDEX NO. 700-010. SIGN PLACEMENT SHALL BE PER FDOT INDEX NO. 700-101.



FTP-20-06 (12" X 18") PER FDOT INDEX NO.



CITE INDODIATION

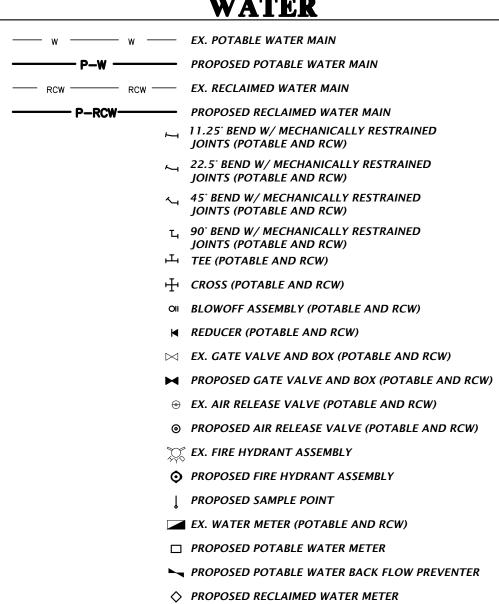
SITE	INFORMATION
	EX. PROPERTY LINE
· ·	LANDSCAPE BUFFER LINE
·	BUILDING SETBACK LINE
··	WETLAND LIMITS LINE
	WETLAND SETBACK LINE
	CENTER LINE
	EASEMENT LINE
·	RIGHT-OF-WAY LINE
—— SF ——— SF ——	SILT FENCE LINE
— тв — тв —	TREE BARRICADE LINE
	EX. STRUCTURE OR BUILDING
	PROPOSED BUILDING
	PROPOSED ASPHALTIC PAVEMENT
	PROPOSED CONCRETE PAVEMENT
0000000	PROPOSED DETECTABLE WARNING SURFACE
\rightarrow	DIRECTIONAL TRAFFIC ARROW PER FDOT INDEX NO. 17346
	WATERSHED DIVIDE
	EX. ELEVATION CONTOUR
99	PROPOSED CONTOUR
93.2×	EX. SPOT ELEVATION
93.23	PROPOSED SPOT ELEVATION
n	DIRECTION OF SURFACE DRAINAGE FLOW
	PROPOSED SWALE LINE
x x	EX. FENCE
	PROPOSED FENCE
12" PINE	EX. TREE (SIZE & TYPE)
1234	EX. TREE (TREE ID)
12" PINE	EX. TREE TO BE REMOVED (SIZE & TYPE)

1234 EX. TREE TO BE REMOVED (TREE ID)

PROJECT BENCHMARK

STORMWATER	\mathbf{W}	ASTEWATER
THE PROPOSED STORMWATER STRUCTURES DEPICTED BELOW ARE DRAWN PER FDOT	ww ww	EX. GRAVITY WASTEWATER MAIN
PECIFICATIONS AND TO SCALE WHEN SHOWN ON THE PLAN SHEETS. —— ST ———— ST ——— EX. GRAVITY STORMWATER MAIN		PROPOSED GRAVITY WASTEWATER N
P-ST PROPOSED GRAVITY STORMWATER MAIN (PIPE LENGTHS ARE		ARE FROM N-E LOCATION OF A STRU LOCATION OF A STRUCTURE)
FROM N-E LOCATION OF A STRUCTURE TO N-E LOCATION OF A STRUCTURE)	—— FM ——— FM ———	EX. WASTEWATER FORCE MAIN
N-E LOCATION ST EX. STORMWATER MANHOLE	———— P–FM ————	PROPOSED WASTEWATER FORCE MA
PROPOSED 48" DIA. STORMWATER MANHOLE PER FDOT INDEX. NO. 425-001 AND 425-010	N-E LOCATION	EX. WASTEWATER MANHOLE
PROPOSED CIRCULAR AREA DRAIN	RIM ELEV. LOCATION	PROPOSED WASTEWATER MANHOLE
N-E LOCATION OP/GRATE ELEV. LOCATION	8	EX. WASTEWATER CLEANOUT
PROPOSED SQUARE AREA DRAIN N-E LOCATION	•	PROPOSED WASTEWATER CLEANOUT
PROPOSED TYPE 1 CURB INLET TOP PER FDOT INDEX NO. 425-020 (SEE PLANS FOR BOTTOM SPECIFICATION)		PROPOSED WASTEWATER GREASE TI
N-E LOCATION	MH#	PROPOSED WASTEWATER MANHOLE
PROPOSED TYPE 2 CURB INLET TOP PER FDOT INDEX NO. 425-020 (SEE PLANS FOR BOTTOM SPECIFICATION)	H	11.25' BEND W/ MECHANICALLY RES' JOINTS (WW FORCE MAIN)
N-E LOCATION PROPOSED TYPE 3 CURB INLET TOP PER FDOT INDEX NO.	7	22.5° BEND W/ MECHANICALLY REST JOINTS (WW FORCE MAIN)
425-020 (SEE PLANS FOR BOTTOM SPECIFICATION)	٧,	45° BEND W/ MECHANICALLY RESTRA JOINTS (WW FORCE MAIN)
N-E LOCATION TOP ELEV. LOCATION PROPOSED TYPE 4 CURB INLET TOP PER FDOT INDEX NO. 425-020 (SEE PLANS FOR BOTTOM SPECIFICATION)	ц	90° BEND W/ MECHANICALLY RESTRA JOINTS (WW FORCE MAIN)
N-E LOCATION PROPOSED TYPE 5 CURB INLET TOP PER FDOT INDEX NO.	A	WYE W/ MECHANICALLY RESTRAINED JOINTS (WW FORCE MAIN)
N-E LOCATION 425-021 (SEE PLANS FOR BOTTOM SPECIFICATION)	\bowtie	EX. PLUG VALVE AND BOX (WW FORG
PROPOSED TYPE 6 CURB INLET TOP PER FDOT INDEX NO. 425-021 (SEE PLANS FOR BOTTOM SPECIFICATION)	H	PROPOSED PLUG VALVE AND BOX (W
N-E LOCATION TOP/GRATE ELEV. LOCATION	⊕	EX. AIR RELEASE VALVE (WW FORCE
PROPOSED TYPE 9 CURB INLET TOP PER FDOT INDEX NO. 425-024 (SEE PLANS FOR BOTTOM SPECIFICATION)	•	PROPOSED AIR RELEASE VALVE (WW
N-E LOCATION PROPOSED TYPE 'C' DITCH BOTTOM INLET TOP PER FDOT	MISCELL	ANEOUS UTIL
INDEX NO. 425-052 (SEE PLANS FOR GRATE MATERIAL AND BOTTOM SPECIFICATION)	THE PROPOSED UTILITIES BELO	W ARE DESIGN BY OTHERS AND ARE D LY. REFER TO PLANS BY OTHERS FOR
PROPOSED TYPE 'D' DITCH BOTTOM INLET TOP PER FDOT INDEX NO. 425-052 (SEE PLANS FOR GRATE MATERIAL AND	——————————————————————————————————————	PROPOSED AT&T LINE
BOTTOM SPECIFICATION)	——————————————————————————————————————	EX. BURIED CABLE LINE
N-E LOCATION TOP/GRATE ELEV. LOCATION PROPOSED TYPE 'E' DITCH BOTTOM INLET TOP PER FDOT	———— P-BC ———	PROPOSED BURIED CABLE LINE
INDEX NO. 425-052 (SEE PLANS FOR GRATE MATERIAL AND BOTTOM SPECIFICATION)	BTEL	EX. BURIED TELEPHONE LINE
N-F LOCATION	P-TEL	PROPOSED TELEPHONE LINE
PROPOSED TYPE 'F' DITCH BOTTOM INLET TOP WITH STEEL GRATE PER FDOT INDEX NO. 425-053 (SEE PLANS FOR	CATV —	EX. CABLE TELEVISION LINE
BOTTOM SPECIFICATION)	——————————————————————————————————————	PROPOSED CABLE/TELEVISION LINE
N-E LOCATION PROPOSED TYPE 'G' DITCH BOTTOM INLET TOP WITH STEEL	— FO — FO —	EX. FIBER OPTIC LINE
GRATE PER FDOT INDEX NO. 425-053 (SEE PLANS FOR BOTTOM SPECIFICATION)	UGTEL	EX. UNDERGROUND TELEPHONE LINI
N-E LOCATION REOPOSED TYPE 'UI DITCU POTTOM IN ET TOP PER EDOT	te	1
PROPOSED TYPE 'H' DITCH BOTTOM INLET TOP PER FDOT INDEX NO. 425-052 (SEE PLANS FOR GRATE MATERIAL AND	TA TA	EX. TELEVISION/CABLE PEDESTAL
BOTTOM SPECIFICATION)		EX. CHILLED WATER MAIN
N-E LOCATION PROPOSED TYPE 'J' DITCH BOTTOM INLET TOP WITH STEEL CRATE PER EDOT INDEX NO. 425-054 (SEE PLANS FOR	——————————————————————————————————————	PROPOSED CHILLED WATER MAIN
GRATE PER FDOT INDEX NO. 425-054 (SEE PLANS FOR BOTTOM SPECIFICATION)	——————————————————————————————————————	EX. FIRE MAIN
N-E LOCATION PROPOSED U-TYPE CONCRETE ENDWALLS WITH GRATES PER	P-FIRE	PROPOSED FIRE MAIN
FDOT INDEX NO. 430-010 (SEE PLANS FOR SIZE)		EX. IRRIGATION LINE
N-E LOCATION INV. ELEV. LOCATION PROPOSED FLARED END SECTION PER FDOT INDEX	— IRR — IRR —	PROPOSED IRRIGATION LINE
NO. 430-020 (SEE PLANS FOR SIZE)	STEAM	EX. STEAM LINE
PIPE INV. ELEV. LOCATION	P-STEAM	PROPOSED STEAM LINE
PROPOSED CROSS DRAIN MITERED END SECTION PER FDOT INDEX NO. 430-021 (SEE PLANS FOR SIZE)		PROPOSED STEAM LINE PROPOSED CLAY ELECTRIC LINE
N-E LOCATION	P-CLAY	EX. ELECTRIC LINE
PROPOSED SIDE DRAIN MITERED END SECTION PER FDOT	— E — E —	PROPOSED ELECTRIC LINE
INDEX NO. 430-022 (SEE PLANS FOR SIZE)	—— P-E —— FN ——	
	FN	LA. LINLING I LINL

POTARIE AND PECLAIMED



W EX. WATER WELL

 \diamond EX, HOSE BIB (POTABLE AND RECLAIMED)

• PROPOSED HOSE BIB (POTABLE AND RECLAIMED)

1) PROPOSED FITTING ID TAG (POTABLE AND RECLAIMED)

W .	<u>ASTEWATER</u>
ww	EX. GRAVITY WASTEWATER MAIN
P-WW	PROPOSED GRAVITY WASTEWATER MAIN (PIPE LENGTHS ARE FROM N-E LOCATION OF A STRUCTURE TO N-E LOCATION OF A STRUCTURE)
— FM — FM —	EX. WASTEWATER FORCE MAIN
P-FM	PROPOSED WASTEWATER FORCE MAIN
	EX. WASTEWATER MANHOLE
RIM ELEV. LOCATION	PROPOSED WASTEWATER MANHOLE
8	EX. WASTEWATER CLEANOUT
	PROPOSED WASTEWATER CLEANOUT
	PROPOSED WASTEWATER GREASE TRAP
	PROPOSED WASTEWATER MANHOLE ID
7	11.25' BEND W/ MECHANICALLY RESTRAINED JOINTS (WW FORCE MAIN)
~	22.5' BEND W/ MECHANICALLY RESTRAINED JOINTS (WW FORCE MAIN)
٧,	45' BEND W/ MECHANICALLY RESTRAINED JOINTS (WW FORCE MAIN)
•	90 [°] BEND W/ MECHANICALLY RESTRAINED JOINTS (WW FORCE MAIN)
۲	WYE W/ MECHANICALLY RESTRAINED JOINTS (WW FORCE MAIN)
\bowtie	EX. PLUG VALVE AND BOX (WW FORCE MAIN)
H	PROPOSED PLUG VALVE AND BOX (WW FORCE MAIN)
⊕	EX. AIR RELEASE VALVE (WW FORCE MAIN)
•	PROPOSED AIR RELEASE VALVE (WW FORCE MAIN)
MISCELL	ANEOUS UTILITIES
IE PROPOSED UTILITIES BELOV	N ARE DESIGN BY OTHERS AND ARE DEPICTED FOR Y. REFER TO PLANS BY OTHERS FOR EXACT DETAILS.
— вс — вс —	EX. BURIED CABLE LINE
P-BC	PROPOSED BURIED CABLE LINE
BTEL	EX. BURIED TELEPHONE LINE
——— P-TEL———	PROPOSED TELEPHONE LINE
CATV —	EX. CABLE TELEVISION LINE
P-TV	PROPOSED CABLE/TELEVISION LINE
— го — го —	EX. FIBER OPTIC LINE
	EX. UNDERGROUND TELEPHONE LINE

—— EN —— EN EX. ENERGY LINE

P-LIGHT PROPOSED PRIVATE LIGHTING LINE

— OHW — OHW — EX. OVERHEAD WIRE LINE

(S-10) proposed stormwater structure id tag

POTABLE AND RECLAIMED	—— UGE —— UGE — EX. UNDERGROUND ELECTRIC
WATER	☆ EX. LIGHT
w w EX. POTABLE WATER MAIN	EX. UTILITY POLE
P-W Proposed Potable Water Main	© EX. UTILITY POLE
RCW — RCW — EX. RECLAIMED WATER MAIN	© EX. WOOD POWER POLE
P-RCW PROPOSED RECLAIMED WATER MAIN	— EX. GUY ANCHOR
11.25° BEND W/ MECHANICALLY RESTRAINED	T PROPOSED TRANSFORMER
JOINTS (POTABLE AND RCW)	GAS GAS LINE
∠ 22.5° BEND W/ MECHANICALLY RESTRAINED JOINTS (POTABLE AND RCW)	P-GAS PROPOSED GAS LINE
45' BEND W/ MECHANICALLY RESTRAINED JOINTS (POTABLE AND RCW)	© EX. GAS MARKER
ON DEVICE WATERWAY DESTRANCE	G EX. GAS MARKER
JOINTS (POTABLE AND RCW)	
TEE (POTABLE AND RCW)	

2. SYMBOLS SHOWN ON THIS SHEET ARE FOR ILLUSTRATIVE PURPOSES ONLY. UNLESS NOTED OTHERWISE, SYMBOLS IN THESE PLANS MAY NOT BE REPRESENTATIVE OF SIZE.

DANIEL H. YOUNG Daniel H.Young, P.E. State of Florida, Professional Engineer, License No. 70780

This item has been digitally

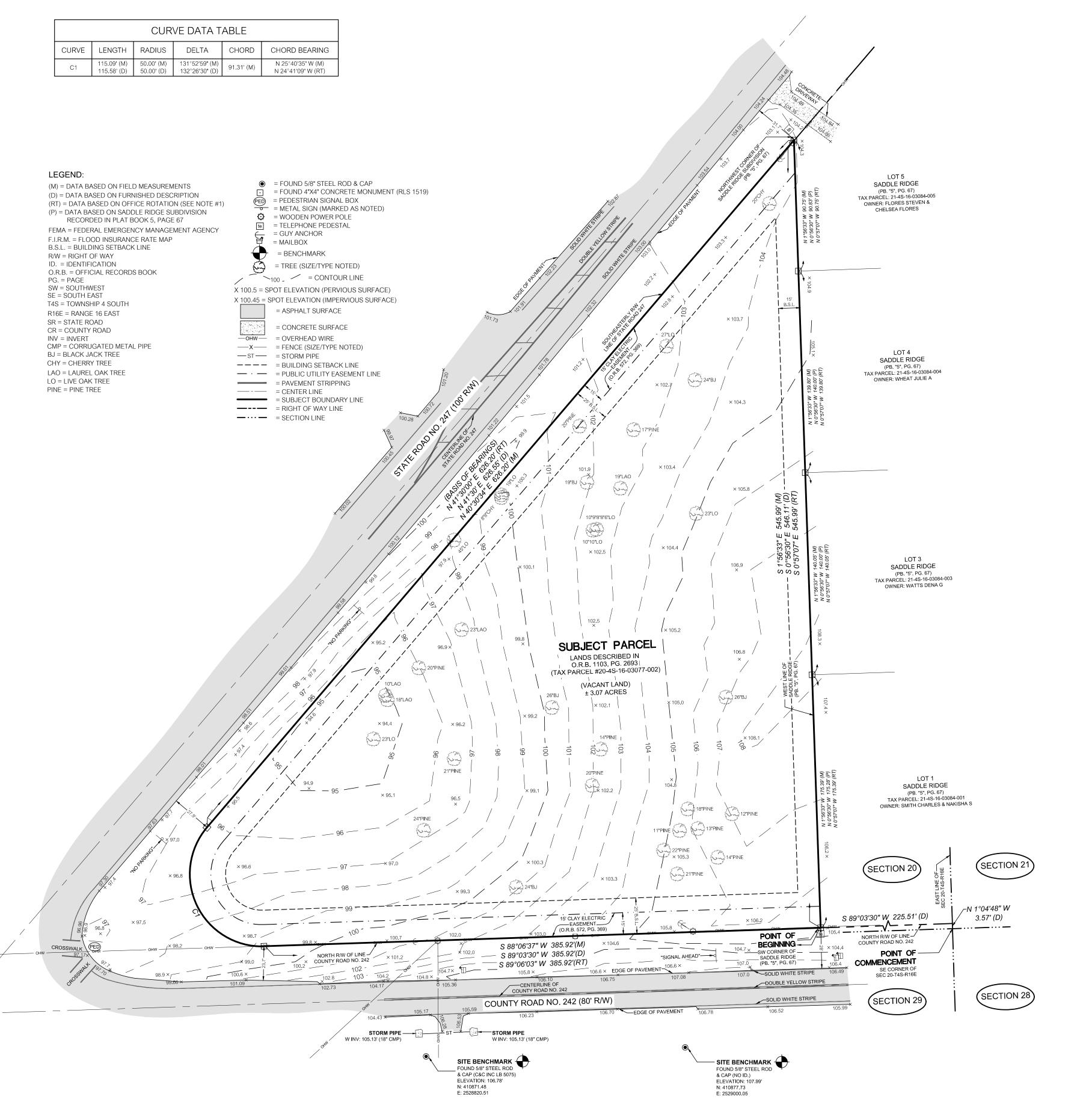
signed and sealed by Daniel H. Young, P.E. on the date indicated here. 06/17/2021

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

FL PE No. 70780

C0.11

1. THIS LEGEND IS ALL INCLUSIVE AND MAY INCLUDE ITEMS NOT A PART OF THIS PLAN SET.



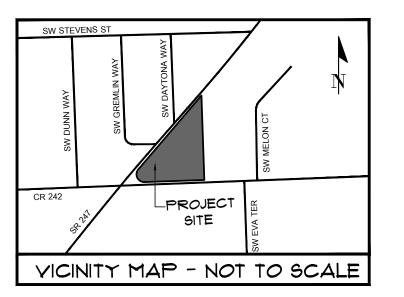
ALTA/NSPS LAND TITLE SURVEY

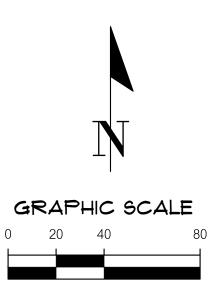
SITUATED IN THE SOUTHEAST QUARTER (SE 1/4)

OF THE SOUTHEAST QUARTER (SE 1/4) OF

SECTION 20, TOWNSHIP 4 SOUTH, RANGE 16 EAST,

COLUMBIA COUNTY, FLORIDA





LEGAL DESCRIPTION: (PER FIRST AMERICAN TITLE INSURANCE COMPANY, FILE NO.: 2076-5029700, COMMITMENT DATE: NOVEMBER 03, 2020)

COMMENCE AT THE SOUTHEAST CORNER OF SECTION 20, TOWNSHIP 4 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA AND RUN THENCE N 1°04'48" W ALONG THE EAST LINE OF SAID SECTION 20, 3.57 FEET TO THE NORTH RIGHT-OF-WAY LINE OF COUNTY ROAD NO. C- 242; THENCE S 89°03'30" W ALONG SAID NORTH RIGHT-OF-WAY LINE, 225.51 FEET TO THE SOUTHWEST CORNER OF SADDLE RIDGE, A SUBDIVISION ACCORDING TO PLAT THEREOF RECORDED IN PLAT BOOK 5, PAGE 67 OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA AND TO THE **POINT OF BEGINNING**; THENCE CONTINUE S 89°03'30" W ALONG SAID NORTH RIGHT-OF-WAY LINE 385.92 FEET TO A POINT OF CURVE; THENCE NORTHWESTERLY ALONG SAID CURVE CONCAVE TO THE RIGHT HAVING A RADIUS OF 50 FEET AND A TOTAL CENTRAL ANGLE OF 132°26'30", AN ARC DISTANCE OF 115.58 FEET TO THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD 247, THENCE N 41°30' E ALONG SAID SOUTHEASTERLY RIGHT-OF-WAY LINE, 626.55 FEET TO THE NORTHWEST CORNER OF SAID SADDLE RIDGE SUBDIVISION; THENCE S 0°56'30" E ALONG THE WEST LINE OF SAID SUBDIVISION, 546.11 FEET TO THE **POINT OF BEGINNING**.

SURVEYORS NOTES:

- 1. HORIZONTAL DATUM SHOWN HEREON IS BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM NAD 83, NORTH ZONE. ANY ROTATED BEARINGS "(RT)" SHOWN HEREON HAVE BEEN ROTATED CLOCKWISE 00°56'55" FROM GRID BEARINGS TO MATCH FURNISHED DESCRIPTION BEARING OF NORTH 41°30'00" EAST FOR THE EASTERLY RIGHT OF WAY LINE OF STATE ROAD NO. 247.
- 2. VERTICAL DATUM SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). ELEVATIONS WERE ESTABLISHED FROM GPS REAL TIME KINEMATIC OBSERVATIONS WHILE RECEIVING NETWORK CORRECTIONS FROM TRIMBLE'S VRS. ELEVATIONS FROM THE GPS WERE COMPARED TO FLORIDA DEPARTMENT OF TRANSPORTATION BENCHMARK 2902010 BM2, AND WERE FOUND TO BE WITHIN REASON.
- 3. NO UNDERGROUND INSTALLATION OF UTILITIES OR IMPROVEMENTS HAVE BEEN LOCATED EXCEPT AS SHOWN.
- 4. THE SURVEYOR HAS NO KNOWLEDGE OF UNDERGROUND FOUNDATIONS WHICH MAY ENCROACH.
- 5. FENCING, SYMBOLS AND MONUMENTATION SHOWN HEREON MAY BE EXAGGERATED IN SIZE AND PLACEMENT FOR PICTORIAL PURPOSES ONLY AND ARE NOT SHOWN TO SCALE.
- 6. IN THE OPINION OF THIS SURVEYOR, THE PERIMETER LINES AS SHOWN HEREON REPRESENT THE LOCATION OF THE BOUNDARY LINES OF THE SUBJECT PARCEL IN RELATION TO THE DESCRIPTION OF RECORD AND THOSE EXISTING LAND CORNERS FOUND TO BE ACCEPTABLE BY THIS SURVEYOR.
- 7. THIS SURVEY WAS PRODUCED WITH THE BENEFITS OF FURNISHED TITLE WORK VIA FIRST AMERICAN TITLE INSURANCE COMPANY, FILE NO.: 2076-5029700, COMMITMENT DATE: NOVEMBER 03, 2020. A SEARCH OF THE PUBLIC RECORDS HAS NOT BEEN DONE BY THE SURVEYOR.
- 8. INFORMATION FROM FEDERAL EMERGENCY MANAGEMENT AGENCY, (F.E.M.A.) FLOOD INSURANCE RATE MAP(S), SHOWN ON THIS MAP WAS CURRENT AS OF THE REFERENCED DATE. MAP REVISIONS AND AMENDMENTS ARE PERIODICALLY MADE BY LETTER AND MAY NOT BE REFLECTED ON THE MOST CURRENT MAP.
- 9. THERE WERE NO MARKED PARKING SPACES OBSERVED AT THE TIME OF THIS SURVEY.
- 10. THERE WAS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS BEING CONDUCTED AT THE TIME OF THIS SURVEY.
- 11. THERE WAS NO EVIDENCE OF CHANGES IN STREET RIGHT OF WAY LINES. THERE WAS NO OBSERVED EVIDENCE OF CURRENT STREET CONSTRUCTION OR REPAIRS. THERE WAS NO OBSERVED EVIDENCE OF CURRENT SIDEWALK CONSTRUCTION OR REPAIRS.
- 12. THERE IS NO OBSERVED EVIDENCE OF SITE USE AS A CEMETERY, SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
- 13. THERE HAS BEEN NO FIELD DELINEATION OF ANY WETLANDS ON THE SUBJECT PARCEL.
- 14. PROJECT LIMITS PER CLIENTS REQUEST.
- 15. THIS PROPERTY IS CONTIGUOUS WITH THE RIGHT OF WAYS AND ACCESS EASEMENTS WITHOUT ANY GAPS, GORES, OR HIATUS.
- 16. DISTANCE TO THE INTERSECTION OF S.W. STATE ROAD NO. 247 AND S.W. COUNTY ROAD NO. 242 IS 0 FEET.
- 17. ONLY TREES 8" IN DIAMETER OR GREATER ARE SHOWN HEREON AND WERE MEASURED AT CHEST HEIGHT.
- 18. ADDITIONAL POINTS MAY BE FOUND BY TURNING ON THE SV-NODE* LAYERS IN THE SUPPLIED DIGITAL FILE.
- 19. TOPOGRAPHIC INFORMATION SHOWN HEREON BASED ON GROUND SURVEY. CONTOURS SHOWN HEREON REFLECT 1-FOOT INTERVALS.
- 20. THE SUBJECT PROPERTY IS VACANT AND DOES NOT HAVE A POSTED ADDRESS.
- 21. THERE WAS NO EVIDENCE OF CHANGES IN STREET RIGHT OF WAY LINES. THERE WAS NO OBSERVED EVIDENCE OF CURRENT STREET CONSTRUCTION OR REPAIRS. THERE WAS NO OBSERVED EVIDENCE OF CURRENT SIDEWALK CONSTRUCTION OR REPAIRS.
- 22. THE SUBJECT PARCEL DOES NOT APPEAR TO HAVE ANY OFFSITE EASEMENTS/SERVITUDE NOR WERE ANY PROVIDED TO THIS SURVEYOR.

SCHEDULE B-II EXCEPTIONS: (PER FIRST AMERICAN TITLE INSURANCE COMPANY, FILE NO.: 2076-5029700, COMMITMENT DATE: NOVEMBER 03, 2020)

ITEM NO. 9: THIS PROPERTY IS SUBJECT TO THE EASEMENT GRANTED TO CLAY ELECTRIC COOPERATIVE, INC, BY INSTRUMENT RECORDED IN BOOK 572, PAGE 369. (AS SHOWN HEREON)

ZONING RESTRICTIONS: (AS FURNISHED) ZONE: CN - COMMERCIAL NEIGHBORHOOD MINIMUM SETBACK REQUIREMENTS:

- FRONT: 25 FEET - SIDE: 10 FEET - REAR: 15 FEET THIS PROPERTY IS LOCATED IN FEDERAL FLOOD ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS INTERPOLATED FROM FEMA F.I.R.M. PANEL NO. 380 OF 552, COMMUNITY PANEL NO. "120070 0380 C, EFFECTIVE DATE: FEBRUARY 4, 2009.

SURVEYOR'S CERTIFICATION:

TO: CONCEPT DEVELOPMENT, INC., A FLORIDA CORPORATION, PROVIDENCE TITLE COMPANY, LLC AND FIRST AMERICAN TITLE INSURANCE COMPANY.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(b), 8, 9, 11, 13, 14, 16, 17, 18 AND 19, OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON DECEMBER 15, 2020.

CHADA. COLSON, P.S.M.
FLORIDA SURVEYOR & MAPPER CERTIFICATE NUMBER 7142
CHADC@CHW-INC.COM

DATE OF PLAT OR MAP:

Alachua, Florida 32615 (352) 331-1976 www.chw-inc.com

Professional Consultants

OR'S CERTIFICATIONS)

S)

REVISION DATE:

N/A

PROJECT NUMBER:

OLSON ORE REPERTIFICATIONS) CARE

(SEE SURVEYOR'S CERT

This map prepared by:

ificate of Authorization No. L.B. 56

NOT VALID WITHOUT THE ORIGINAL

EET NO.:

INTRODUCTION

THIS DOCUMENT WAS PREPARED IN ORDER TO ILLUSTRATE COMPLIANCE WITH CHAPTER 62-621.300 (4) OF THE FLORIDA ADMINISTRATIVE CODE, WHICH PERTAINS TO THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES. THE ADMINISTRATIVE CODE GRANTS THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) THE AUTHORITY TO REGULATE POINT SOURCE DISCHARGE OF STORMWATER FROM CONSTRUCTION SITES. THIS DOCUMENT ESTABLISHES A STORMWATER POLLUTION PREVENTION PLAN FOR THE SITE USING STANDARD PRACTICE AND BEST MANAGEMENT PRACTICES (BMPs) AND IS ORGANIZED TO CORRESPOND TO 62-621.300(4)(a) GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES FDEP FORM 62-621.300(4)(b) IS TO BE SUBMITTED IN CONJUNCTION WITH THIS DOCUMENT. CONTRACTOR(S) MUST FILL IN THE ACTIVITIES SEQUENCE (SECTION ii. B. BELOW) AND SIGN THIS SHEET (REFER TO SIGNATURE TARLE THIS SHEET) AND RETAIN THIS SHEET AND ALL FOLLOWING SWPPP SHEETS ON SITE. ALTERNATIVELY CONTRACTOR(S) MAY PREPARE AND SIGN THEIR OWN SWPP PLAN MEETING THE REQUIREMENTS. IF THE SITE OR CONTRACTOR ACTIVITIES REQUIRE ANY BMPs THAT ARE NOT DESCRIBED ON THIS SHEET, THE CONTRACTOR MUST PREPARE AN ALTERNATIVE OR ADDITIONAL SWPPP DOCUMENT CONTAINING THE NECESSARY BMPs.

II. SITE DESCRIPTION

SITE LOCATION MAP

COLUMBIA COUNTY, FLORIDA SECTION, TOWNSHIP, RANGE: SECTION 20, TOWNSHIP 4 SOUTH, RANGE 16 EAST

COUNTY PARCEL NO.: *20-4S-16-03077-002* STREET ADDRESS: NORTHEAST CORNER OF SW SR 247 AND SW CR 242 INTERSECTION. PRO IECT AREA: 3.07 ACRES

SEE COVER SHEET OF CONSTRUCTION DRAWINGS

A. NATURE OF CONSTRUCTION ACTIVITY

THE PROPOSED DEVELOPMENT IS THE CONSTRUCTION OF +9.100 S.F. OF COMMERCIAL RETAIL STORE BUILDING AND ASSOCIATED PAVEMENT FOR DRIVEWAYS AND PARKING, SIDEWALKS, UTILITIES, AND STORMWATER MANAGEMENT FACILITY. THE PROJECT SITE IS LOCATED AT THE NORTHEAST PORTION OF THE INTERSECTION BETWEEM SW SR 247 AND SW CR 242, LAKE CITY FLORIDA. THE PROJECT SITE TOTAL AREA IS APPROXIMATELY 3.07 ACRES.

B. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES - CONTRACTOR MUST FILL IN DAYS

- 1. PRIOR TO CONSTRUCTION, SILT FENCING AND TREE PROTECTION FENCING SHALL BE INSTALLED AND ALL EXISTING STORM DRAINAGE SWALE AND INLETS SHALL BE PROTECTED IN ACCORDANCE WITH THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL
- DESIGNER AND REVIEWER MANUAL, DATED JULY 2013, AND THESE PLANS. 2. THE CONSTRUCTION SERVICE ENTRANCE SHALL BE STABILIZED TO MINIMIZE THE CREATION OF DUST AND OFF-SITE TRACKING OF
- SEDIMENTS. 3. ONLY THE AREA COMPRISING THE PROPOSED STORMWATER MANAGEMENT FACILITY(S) SHALL BE CLEARED AND GRUBBED OF
- 4. THE PROPOSED STORMWATER MANAGEMENT FACILITY(S) SHALL BE CONSTRUCTED.
- 5. IF SUITABLE, THE EXCAVATED SOIL FROM THE FACILITY(S) MAY BE USED AS FILL FOR ON-SITE GRADING THAT IS DEPICTED IN THESE CONSTRUCTION PLANS. THE CONTRACTOR SHALL DISPOSE OF ALL UNSUITABLE MATERIAL ON-SITE OR OFF-SITE TO A PERMITTED
- 6. THE REMAINING PORTION OF THE SITE THAT IS TREATED BY THE CONSTRUCTED STORMWATER MANAGEMENT FACILITY(S) SHALL BE CLEARED AND GRUBBED.
- . THE PERMANENT ROADWAYS/DRIVEWAYS SHALL BE ROUGHLY GRADED.
- 8. THE UNDERGROUND UTILITIES INFRASTRUCTURE AND STORMWATER PIPING SYSTEM SHALL BE INSTALLED. ANY DE-WATERING (PUMPED) SHALL BE DIVERTED TO THE ASSOCIATED STORMWATER MANAGEMENT FACILITY(S).
- 9. THE PERMANENT ROADWAY/DRIVEWAY SUBGRADE SHALL BE COMPACTED, A LIMEROCK BASE SHALL BE ESTABLISHED, AND THEN FOLLOWED BY AN OVERLAY OF ASPHALT.
- 10. UPON SIGNIFICANT COMPLETION OF CONSTRUCTION, THE STORMWATER PIPING SYSTEM SHALL BE FLUSHED OUT TO REMOVE ACCUMULATED DEBRIS AND SEDIMENT.
- 11. UPON COMPLETION OF THE DEBRIS AND SEDIMENT REMOVAL FROM THE STORMWATER PIPING SYSTEM. THE PROPOSED STORMWATER MANAGEMENT FACILITY(S) SHALL BE FINE GRADED AND SHALL BE EXCAVATED A MINIMUM OF SIX INCHES BELOW THE DESIGN BOTTOM ELEVATION AND REPLACED WITH FILL HAVING A MINIMUM PERMEABILITY RATE OF 20 FEET/DAY WITH A MAXIMUM OF 5% SOIL FINES PASSING THE NO. 200 SIEVE. THE BOTTOM SHALL BE SCARIFIED AND STABILIZED ACCORDING TO THESE PLANS. ONCE COMPLETED, NO HEAVY MACHINERY SHALL BE ALLOWED WITHIN THE STORMWATER MANAGEMENT FACILITY.
- 12. ALL REMAINING DISTURBED AREAS WITHIN THE CONSTRUCTION AREA SHALL BE COMPLETELY GRASSED AND/OR I ANDSCAPED ACCORDING TO THESE PLANS. TURF ESTABLISHMENT SHALL BE PER FDOT STANDARD SPECIFICATIONS SECTION 570. EVIDENCE OF GROWTH MUST BE PRESENT PRIOR TO REMOVAL OF SILT FENCING AND OTHER EROSION CONTROL APPLICATIONS.

C. SITE DEVELOPMENT DATA:

UNSATURATED VERTICAL INFILTRATION:

TOTAL PROJECT SITE AREA: TOTAL SITE AREA TO BE DISTURBED. TOTAL IMPERVIOUS AREA (AS SHOWN IN CONSTRUCTION DRAWINGS):

TOTAL DETENTION VOLUME:

D. SOIL CONDITIONS AND STORMWATER QUALITY

THE NRCS DATA FOR THE SITE REVEALS THAT THE SITE SOILS ARE COMPRISED OF ALPIN FINE SAND, 0 TO 5 PERCENT SLOPES, AND BLANTON FINE SAND 0 TO 5 PERCENT SLOES. GSE ENGINEERING & CONSULTING, INC. CONDUCTED A GEOTECHNICAL EXPLORATION OF THE PROPOSED STORMWATER MANAGEMENT FACILITY(S) LOCATION IN DECEMBER 2020. THE INVESTIGATION REVEALED THAT THE PROJECT SITE'S SURFACE SOILS HAVE THE FOLLOWING CHARACTERISTICS:

3.07 ACRES

3.79 ACRES

1.45 ACRES

4.40 ACRE-FEE

DEPTH TO EFFECTIVE OR MOBILIZED AOUIFER: DEPTH OF SEASONAL HIGH WATER TABLE: 12 FEET HORIZONTAL HYDRAULIC CONDUCTIVITY: 15.4 FFFT/DAY

10.3 FEET/DAY DESIGN PERCOLATION RATES FOR THE STORMWATER MANAGEMENT FACILITY(S) WERE DETERMINED BASED ON LABORATORY PERMEABILITY TEST RESULTS FROM BORING SAMPLES TAKEN WITHIN THE LIMITS OF THE STORMWATER MANAGEMENT FACILITY(S).

THE STORMWATER MANAGEMENT FACILITY(S) WAS DESIGNED TO PROVIDE FULL RATE AND VOLUME CONTROL AND WATER QUALITY TREATMENT OF THE STORMWATER RUNOFF RESULTING FROM THE POST-DEVELOPMENT SITE UNDER 100-YEAR CRITICAL STORM EVENT RAINFALL CONDITIONS. THE STORMWATER POLLUTION PREVENTION PLAN (CO.21) DEPICTS THE POST-DEVELOPMENT WATERSHED LIMITS AND THE TABLE BELOW SUMMARIZES THE WATERSHED.

WATERSHED ID	POST DEVELOPMENT AREA (ACRES)	POST DEVELOPMENT RUNOFF FACTOR (CN)	POST DEVELOPMENT IMPERVIOUS AREA (ACRES)	STORMWATER MANAGEMENT FACILITY TYPE	FACILITY DETENTION CAPACITY (ACRE-FEET)	100-YEAR FLOOD ELEVATION (FT)
POST-1 (ONSITE & OFSITE)	5.38	69	1.45	DRY RETENTION	4.40	96.04

E. SITE MAP

PLEASE SEE THE STORMWATER POLLUTION PREVENTION PLAN (CO.21) FOR DETAILS.

F. STORMWATER OUTFALL LOCATION AND RECEIVING WATER BODY

THE STORMWATER MANAGEMENT FACILITY IS DESIGNED AS A FULL DETENTION SYSTEM WITH 100-YEAR 24 HOUR NO DISCHARGE

III. CONTROLS TO REDUCE POLLUTION

AS OUTLINED IN THE SUWANNEE RIVER WATER MANAGEMENT DISTRICT (SRWMD) PERMIT. ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN A MANNER AS TO NOT VIOLATE STATE WATER QUALITY STANDARDS. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES REQUIRED TO RETAIN SEDIMENT ON-SITE. IF SITE CONDITIONS ARE SUCH THAT ADDITIONAL CONTROL MEASURES ARE REQUIRED OTHER THAN WHAT IS SPECIFIED IN THE EROSION AND SEDIMENTATION CONTROL PLAN, THEN THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL BEST MANAGEMENT PRACTICES. THESE MEASURES MUST BE INSPECTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PHASE AND UNTIL AS DIRECTED BY THESE PLANS. THE STORMWATER POLLUTION PREVENTION PLAN (CO.21) AND SECTION IV BELOW PROVIDE DETAILS ON THE SPECIFIC CONTROL MEASURES TO REDUCE STORMWATER POLLUTION.

IV. EROSION AND SEDIMENT CONTROLS

A. STABILIZATION PRACTICES

EXISTING TREES AND NATURAL VEGETATION TO REMAIN ON-SITE SHALL BE PROTECTED BY TREE BARRICADE FENCING AS DEPICTED ON THE STORMWATER POLLUTION PREVENTION PLAN (CO.21). TYPE III SILT FENCING SHALL PROTECT ALL DRAINAGE STRUCTURES AND SHALL BUFFER AREAS WITH POTENTIAL TO CONTRIBUTE OFF-SITE RUNOFF AND AS SPECIFICALLY DEPICTED ON THE STORMWATER POLLUTION PREVENTION PLAN (CO.21). STABILIZATION MEASURES SHALL BE INITIATED FOR EROSION AND SEDIMENT CONTROL ON DISTURBED AREAS AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS, IN PORTIONS OF THE SITE WHERE CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED. AS SPECIFIED IN SECTION II.B. ABOVE. UPON COMPLETION OF CONSTRUCTION. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE SCRAPED CLEAN OF ACCUMULATED SEDIMENT AFTER THE COMPLETION OF CONSTRUCTION. ALL TURF ESTABLISHMENT SHALL BE PERFORMED MEETING THE REQUIREMENTS OF SECTION 570 OF THE STANDARD SPECIFICATIONS. EVIDENCE OF GROWTH MUST BE PRESENT PRIOR TO FINAL RELEASE.

B. STRUCTURE PRACTICES

AS DEPICTED IN THE STORMWATER POLLUTION PREVENTION PLAN (CO.21), A STORMWATER MANAGEMENT SYSTEM WILL BE CONSTRUCTED AND WILL BE COMPRISED OF A DRY RETENTION FACILITY AND A STORM CONVEYANCE SYSTEM. TO PREVENT EROSION DURING CONSTRUCTION, TYPE III SILT FENCING WILL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS. ALL EXISTING AND PROPOSED STORM DRAINS AND DRAINAGE SWALES SHALL BE PROTECTED ACCORDING TO THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, DATED JULY 2013 OR PER DETAILS PROVIDED ON SHEET CO.21 UNTIL CONSTRUCTION IS COMPLETE. THE STORM PIPE CONVEYANCE SYSTEM SHALL BE FLUSHED OUT TO REMOVE ALL ACCUMULATED DEBRIS AND SEDIMENT UPON COMPLETION OF

C. DRAINAGE LOCATIONS THAT SERVE AREAS WITH LESS THAN 10 DISTURBED ACRES

AS SPECIFIED IN THE "SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES," THE SMF(S) WILL BE CONSTRUCTED PRIOR TO CLEARING AND GRUBBING OUTSIDE OF THE SMF(S) AREAS AND CONSTRUCTION OF THE PERMANENT PAVED AREAS. THE TOTAL CONTRIBUTING DRAINAGE AREA TO THE STORMWATER MANAGEMENT SYSTEM IS APPROXIMATELY 5.38 ACRES AND WILL CONSIST OF APPROXIMATELY 3.79 ACRES OF DISTURBED CONSTRUCTION AREA. THEREFORE, NO ADDITIONAL SEDIMENT TRAP BASINS ARE NECESSARY TO PROVIDE SEDIMENT STORAGE ON-SITE DURING CONSTRUCTION. AS SHOWN ON THE STORMWATER POLLUTION PREVENTION PLAN (CO.21). THE PROPOSED STORMWATER MANAGEMENT SYSTEM WILL PREVENT OFF-SITE EROSION DURING CONSTRUCTION. SILT FENCES OR EQUIVALENT SEDIMENT CONTROLS SHALL BE INSTALLED AT SIDE SLOPE AND DOWN SLOPE BOUNDARIES, INLET LOCATION, OUTLET LOCATIONS, AND OTHER LOCATIONS AS SHOWN ON THE STORMWATER POLLUTION PREVENTION PLAN, AS REQUIRED. BY COMPLETION OF CONSTRUCTION, THE SIDE SLOPES, SWALES, AND ALL DISTURBED AREAS SHALL BE STABILIZED WITH GRASS AND LANDSCAPING AS SPECIFIED ON THE CONSTRUCTION DRAWINGS.

D. DRAINAGE LOCATIONS THAT SERVE AREAS WITH MORE THAN 10 DISTURBED ACRES

NOT APPLICABLE, SEE SECTION C, ABOVE.

V. STORMWATER MANAGEMENT

A. BEST MANAGEMENT PRACTICES

AFTER CONSTRUCTION. THE STORMWATER MANAGEMENT SYSTEM SHALL BE MAINTAINED IN ACCORDANCE WITH THE SPECIFIED STORMWATER MAINTENANCE NOTES IN THE INCLUDED CONSTRUCTION DRAWINGS AND/OR RESPECTIVE MAINTENANCE REPORTS. SPECIFICALLY, THE PROPOSED SMF(S) SHALL BE MOWED REGULARLY IN THE SPECIFIED AREAS, STORM PIPES AND STRUCTURES WILL BE INSPECTED SEMI-ANNUALLY AND CLEANED ANNUALLY, SMF(S) SIDE SLOPES SHALL BE MAINTAINED TO PREVENT EROSION. AND LANDSCAPING AND GRASS THAT PREVENTS EROSION SHALL BE MAINTAINED. ADDITIONALLY. REMEDIAL ACTIONS SHALL BE TAKEN SHOULD THE SMF(S) NOT PERFORM AS DESIGNED.

B. VEGETATED SWALES

WHEN VEGETATED SWALES ARE UTILIZED. SILT FENCING OR EQUIVALENT SEDIMENT CONTROLS SHALL BE INSTALLED AT ADEQUATE INTERVALS TO COLLECT SEDIMENT ALONG THE SWALE. THE SEDIMENT SHALL BE REMOVED WHEN SEDIMENT REACHES ONE-THIRD OF THE HEIGHT OF THE SILT FENCING. SEE THE STORMWATER POLLUTION PREVENTION PLAN (C0.21) FOR DETAILS AND LOCATIONS, AS REQUIRED.

C. VELOCITY DISSIPATION DEVICES AT DISCHARGE POINTS

WHEN DISCHARGE POINTS ARE NOT LOCATED UNDER WATER, RIP RAP PADS HAVE BEEN PROVIDED AT LOCATIONS WHERE NECESSARY DUE TO ANTICIPATED DISCHARGE VELOCITIES. PLEASE SEE THE CONSTRUCTION PLANS FOR DETAILS AND LOCATIONS, AS NEEDED.

VL CONTROLS FOR OTHER POTENTIAL POLLUTANTS

A. WASTE DISPOSAL

THE CONTRACTOR SHALL PROVIDE LITTER COLLECTION CONTAINERS WITHIN THE PROJECT BOUNDARIES DURING CONSTRUCTION. CONTRACTOR SHALL DISPOSE OF ALL UNSUITABLE MATERIALS AND CONSTRUCTION DEBRIS IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.

B. DUST CONTROL

TO PREVENT OFF-SITE VEHICULAR TRACKING OF SEDIMENTS AND DUST GENERATION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE ESTABLISHED BY THE SITE CONTRACTOR. PLEASE SEE THE STORMWATER POLLUTION PREVENTION PLAN (CO.21) FOR DETAILS AND LOCATION(S).

C. EXISTING VERSUS PROPOSED POTABLE AND SANITARY SEWER SYSTEMS

THERE ARE NO EXISTING SANITARY SEWER AND POTABLE WATER SYSTEMS LOCATED ON THE PROJECT SITE. IF TEMPORARY SANITARY SYSTEMS ARE UTILIZED DURING CONSTRUCTION, THE CONTRACTOR SHALL PROPERLY CONTROL AND DISCHARGE ANY SANITARY WASTE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND

D. FERTILIZER & PESTICIDES

THE USE OF FERTILIZERS, HERBICIDES, AND PESTICIDES ON THE PROJECT SITE, WILL BE DIRECTED BY THE LANDSCAPE PLAN AND THE FDOT STANDARD SPECIFICATIONS SECTION 570, TO SUPPORT THE GROWTH OF THE PROPOSED VEGETATION. ESTABLISHING THIS VEGETATION WILL AID IN THE STABILIZATION OF THE PROJECT SITE AND REDUCE EROSION. APPLICATION RATES FOR THE FERTILIZERS, HERBICIDES, AND PESTICIDES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO GUARD AGAINST OVER-USE, WHICH CAN LEAD TO VIOLATIONS OF STATE WATER QUALITY STANDARDS.

E. TOXIC MATERIAL

THE CONSTRUCTION SITE WILL BE IN FULL COMPLIANCE WITH STATE AND FEDERAL REQUIREMENTS. A PLASTIC MAT, TAR PAPER, OR OTHER IMPERVIOUS MATERIAL SHALL BE PLACED UNDER AREAS WHERE TOXIC LIQUIDS ARE TO BE OPENED AND STORED.

F. HAZARDOUS MATERIALS

ALL HAZARDOUS MATERIALS SHALL BE STORED IN A SECURE LOCATION. UNDER COVER. AND IN APPROPRIATE TIGHTLY. SEALED CONTAINERS WHEN NOT IN USE. ALL PRODUCTS SHALL BE STORED IN AND USED FROM THE ORIGINAL CONTAINER WITH THE ORIGINAL PRODUCT LABEL. CONTAINERS MUST BE STORED IN A MANNER TO PROTECT THEM FROM THE ELEMENTS AND INCIDENTAL DAMAGE. THE MINIMUM PRACTICAL QUANTITY OF ALL SUCH MATERIALS SHALL BE KEPT ON THE JOB SITE AND SCHEDULED FOR DELIVERY AS CLOSE TO TIME OF USE AS PRACTICAL.

ALL PRODUCTS SHALL BE USED IN STRICT COMPLIANCE WITH THE INSTRUCTIONS ON THE PRODUCT LABEL.

SUFFICIENT EQUIPMENT AND/OR MATERIALS SHALL BE KEPT ONSITE TO CONTAIN AND CLEAN UP SPILLS OF HAZARDOUS MATERIALS IN THE AREAS WHERE THESE MATERIALS ARE STORED OR USED. SPILL CONTROL AND CONTAINMENT KIT SUPPLIES SHALL BE OF SUFFICIENT OUANTITIES AND APPROPRIATE CONTENT TO CONTAIN

CONTRACTOR TO CONTAIN AND CLEAN UP ANY SPILLS IMMEDIATELY AFTER THEY OCCUR. ANY SPILLS OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF REPORTABLE QUANTITIES AS DEFINED BY EPA, STATE, OR LOCAL AGENCY REGULATIONS SHALL BE REPORTED TO THE APPROPRIATE AGENCIES IN THE REQUIRED TIME FRAMES. THE CONTRACTOR SHALL PROVIDE A WRITTEN NOTICE TO THE OWNER IMMEDIATELY UPON IDENTIFICATION OF ANY SPILL.

ALL EXCESS, USED, OR SPILLED PRODUCTS, INCLUDING CONTAMINATED SOIL, SHALL BE DISPOSED OF BY THE CONTRACTOR IN STRICT COMPLIANCE WITH INSTRUCTIONS ON THE PRODUCT LABEL AND ALL APPLICABLE REGULATIONS.

VIL APPROVED STATE AND LOCAL PLANS

THE CONSTRUCTION DRAWINGS FOR THE PROJECT WERE APPROVED AND PERMITTED BY THE FOLLOWING AGENCIES: * SHWANNEE RIVER WATER MANAGEMENT DISTRICT * COLUMBIA COUNTY * FLORIDA DEPARTMENT OF TRANSPORTATION * FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

VIIL CONSTRUCTION ACTIVITY DISCHARGES

IN ACCORDANCE WITH THIS PLAN, THERE ARE NO ANTICIPATED DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES.

IX. CHANGES TO THE POLLUTION PREVENTION PLAN

THIS STORMWATER POLLUTION PREVENTION PLAN SHALL BE AMENDED TO REFLECT ANY APPLICABLE CHANGE IN A STATE, REGIONAL, OR LOCAL PERMIT FOR WHICH THE PERMITTEE RECEIVES WRITTEN NOTICE. WHEN WRITTEN NOTICE IS RECEIVED, THE PERMITTEE SHALL PROVIDE A RE-CERTIFICATION OF THIS POLLUTION PREVENTION PLAN. WHICH HAS BEEN REVISED TO ADDRESS SUCH CHANGES. AMENDMENTS TO THE PLAN SHALL BE PREPARED. SIGNED. DATE. AND KEPT AS ATTACHMENTS TO THE

X. ALTERNATIVE PERMIT REQUIREMENTS

NO ALTERNATIVE PERMIT REQUIREMENTS ARE REQUESTED

XI. MAINTENANCE

THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE, INSPECTION SCHEDULE, AND REPAIRS OUTLINED IN THIS PLAN. MAINTENANCE SHALL CONTINUE THROUGHOUT THE PROJECT UNTIL WORK IS COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER CONSTRUCTION IS COMPLETE. IN ADDITION TO THE TIMES MENTIONED IN THE PREVIOUS SECTIONS, THE CONTRACTOR SHALL INITIATE ANY REPAIRS WITHIN 24 HOURS OF BEING REPORTED. IN THE EVENT THAT THE SMF(S) DO NOT PERFORM PROPERLY OR IF A SINKHOLE DEVELOPS. THE PROJECT ENGINEER SHALL BE NOTIFIED TO ASSIST IN COORDINATING REMEDIAL ACTION. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM SILT FENCING WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE SILT FENCE. UPON FINAL COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY BOTH THE CITY AND OWNER, THE OPERATION AND MAINTENANCE ENTITY WILL BE

XIL INSPECTIONS

THE CONTRACTOR SHALL INSPECT ALL POINTS OF POTENTIAL DISCHARGE FROM THE PROJECT SITE FOR ALL DISTURBED AREAS ON THE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. FOR POINTS OF DISCHARGE INTO SURFACE WATERS OF THE STATE OR AN MS4, A QUALIFIED INSPECTOR (PROVIDED BY THE OPERATOR) SHALL PERFORM THE REQUIRED INSPECTIONS. THE CONTRACTOR SHALL INSTALL A RAIN GAUGE AT THE SITE TO MONITOR AND DOCUMENT RAINFALL EVENTS 0.50 INCHES OR GREATER. LOCATIONS WHERE THE SITE IS COMPLETELY CONSTRUCTED AND STABILIZED. SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE A MONTH. ALL INSPECTIONS SHALL BE RECORDED ON THE CONSTRUCTION INSPECTION FORM. THE CONTRACTOR MAY USE THEIR OWN FORM (MEETING FDEP SWPPP REQUIREMENTS) OR A SAMPLE FORM FROM FDEP. A SAMPLE CONSTRUCTION FORM IS AVAILABLE AT: "HTTPS://FLORIDADEP.GOV/WATER/STORMWATER/DOCUMENTS/CONSTRUCTION-SWPPP". MORE SPECIFICALLY, THE INSPECTION SHALL ENSURE THE FOLLOWING CATEGORIES.

A. DISTURBED AREAS

ALL DISTURBED AREAS AND AREAS USED FOR MATERIAL STORAGE SHALL BE INSPECTED FOR POLLUTANTS ENTERING THE STORMWATER SYSTEM. THE STORMWATER MANAGEMENT SYSTEM AND EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE INSPECTED TO ENSURE THEY ARE OPERATING CORRECTLY. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

B. MAINTENANCE PERFORMANCE

BASED ON THE RESULTS OF THE INSPECTION, ALL MAINTENANCE OPERATIONS NEEDED TO ASSURE PROPER COMPLIANCE WITH THIS PLAN SHALL BE DONE IN A TIMELY MANNER, BUT IN NO CASE LATER THAN 7 DAYS FOLLOWING THE INSPECTION.

C. REPORTING REQUIREMENTS

ALL INSPECTIONS SHALL BE RECORDED ON THE CONSTRUCTION INSPECTION FORM. THIS FORM IS CREATED TO SUMMARIZE THE SCOPE OF THE INSPECTION, THE NAME(S) AND QUALIFICATION OF THE INSPECTOR(S). THE DATE OF INSPECTION. RAINFALL DATA. OBSERVATIONS. THE ACTIONS TAKEN TO CORRECT INCIDENTS OF NON-COMPLIANCE WITH THE PROVISIONS OF THIS PLAN. IF NO INCIDENTS OF NON-COMPLIANTS ARE OBSERVED. THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE ASSOCIATED PERMIT.

XIII. NON-STORMWATER DISCHARGES

IN ADDITION TO STORMWATER RUNOFF, THIS PLAN APPLIES TO RUNOFF FROM IRRIGATION OPERATIONS AND CONSTRUCTION PRACTICES. THIS PLAN DOES NOT PERTAIN TO DISCHARGES FROM FIRE FIGHTING ACTIVITIES.

XIV. CONTRACTORS CERTIFICATION

THE CONTRACTORS OR SUB-CONTRACTORS SHALL PHOTOCOPY AND COMPLETE THE FORM ON THIS PAGE. IT SHALL BE PROVIDED TO THE OWNER AND KEPT ON FILE PURSUANT TO SECTION XV REGARDING PROJECT RECORDS.

XV. RETENTION OF RECORDS

THE PERMITTEE SHALL RETAIN COPIES OF STORMWATER POLLUTION PREVENTION PLANS AND ALL REPORTS REQUIRED BY THIS PERMIT. AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT. FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED.

THE PERMITTEE SHALL RETAIN A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN AND ALL REPORTS, RECORDS, AND DOCUMENTATION REQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE, OR AN APPROPRIATE ALTERNATIVE LOCATION AS SPECIFIED IN THE NOTICE OF INTENT, FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

XVI. NOTICE OF TERMINATION

- 1. WHERE A SITE HAS BEEN FINALLY STABILIZED AND ALL STORMWATER DISCHARGES AUTHORIZED BY THIS PERMIT ARE FLIMINATED. THE PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION (DEP FORM 62-621.300(6)), SIGNED IN ACCORDANCE WITH PART VII.C OF DEP DOCUMENT NO. 62-621.300(4)(a), WITHIN 14 DAYS OF FINAL STABILIZATION OF THE SITE TO TERMINATE COVERAGE UNDER THIS PERMIT. 2. ELIMINATION OF STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY MEANS THAT ALL DISTURBED SOILS AT THE SITE HAVE BEEN FINALLY
- STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FROM THE SITE THAT ARE AUTHORIZED BY THIS GENERIC PERMIT HAVE OTHERWISE BEEN

STABILIZED AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN REMOVED OR WILL BE REMOVED AT AN APPROPRIATE TIME. OR THAT ALL

3. FOR CONSTRUCTION ACTIVITIES WHERE THE OPERATOR CHANGES, THE EXISTING OPERATOR SHALL FILE AN N.O.T. IN ACCORDANCE WITH THIS PART WITHIN 14 DAYS OF RELINOUISHING CONTROL OF THE PROJECT TO A NEW OPERATOR.

THE PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE FOLLOWING ADDRESS:

NPDES STORMWATER NOTICES CENTER MS# 2510 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

2600 BLAIR STONE ROAD TALLAHASSEE, FLORIDA 32399-2400

PROJECTS THAT DISCHARGED STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY TO A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) SHALL SUBMIT A COPY OF THE N.O.T. TO THE OPERATOR OF THE MS4.

Contractor/Subcontractor Certification Statement Stormwater Pollution Prevention Plan

Site Name: Commercial Retail Store - Lake City SR 247 at CR 242 Site Location: Northeast Corner of SW SR 247 and Sw CR 242 Intersection Columbia County, Florida

THE CONTRACTOR(S) OR SUB-CONTRACTOR(S) RESPONSIBLE FOR COMPLYING WITH THIS STORMWATER POLLUTION PREVENTION PLAN SHALL SIGN THE CERTIFICATION STATEMENT BELOW. MULTIPLE COPIES OF THIS CERTIFICATION STATEMENT MAY BE NECESSARY DEPENDING ON THE NUMBER OF SUB-CONTRACTORS ASSOCIATED WITH THE PROJECT

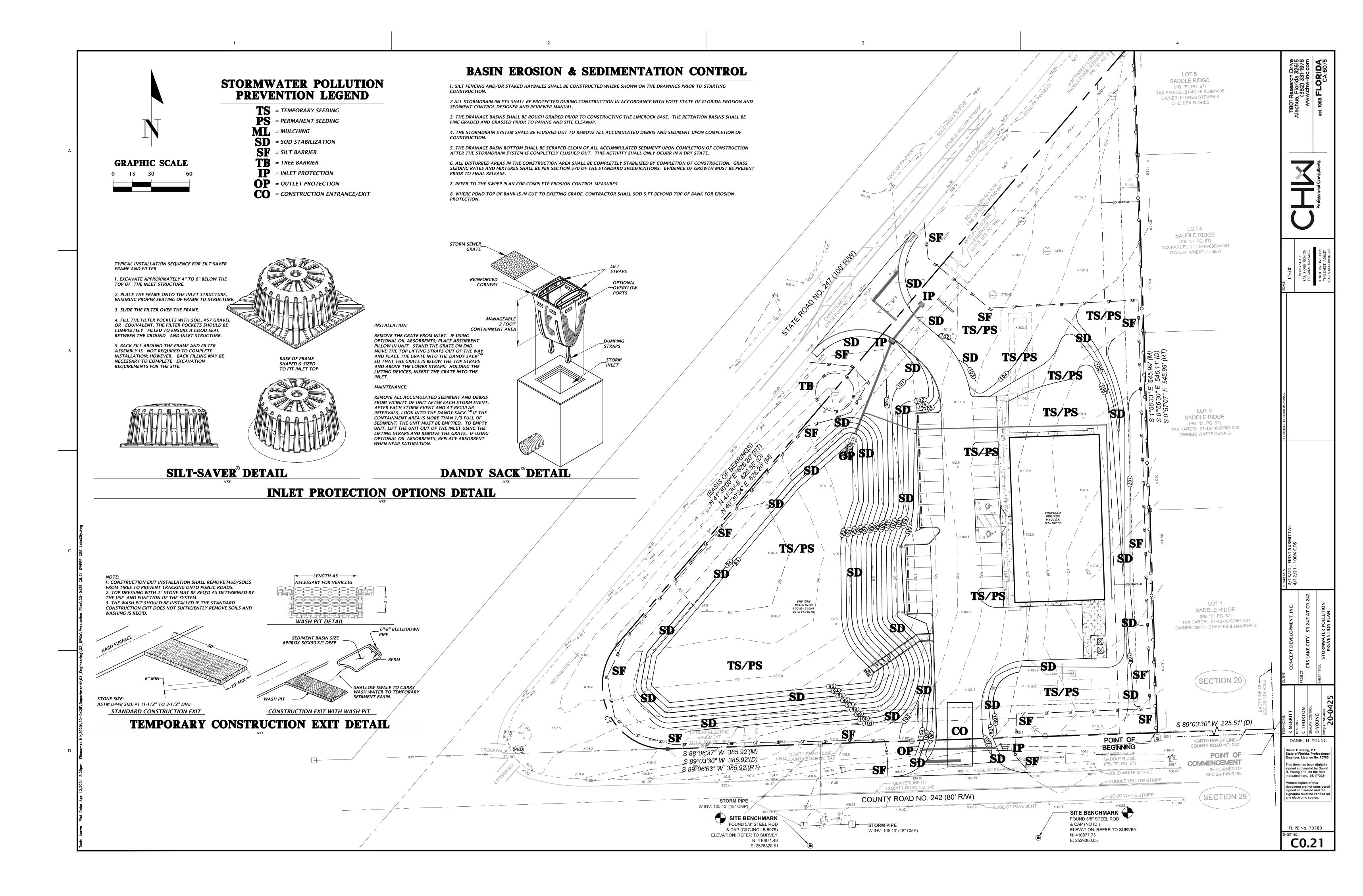
I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUND.

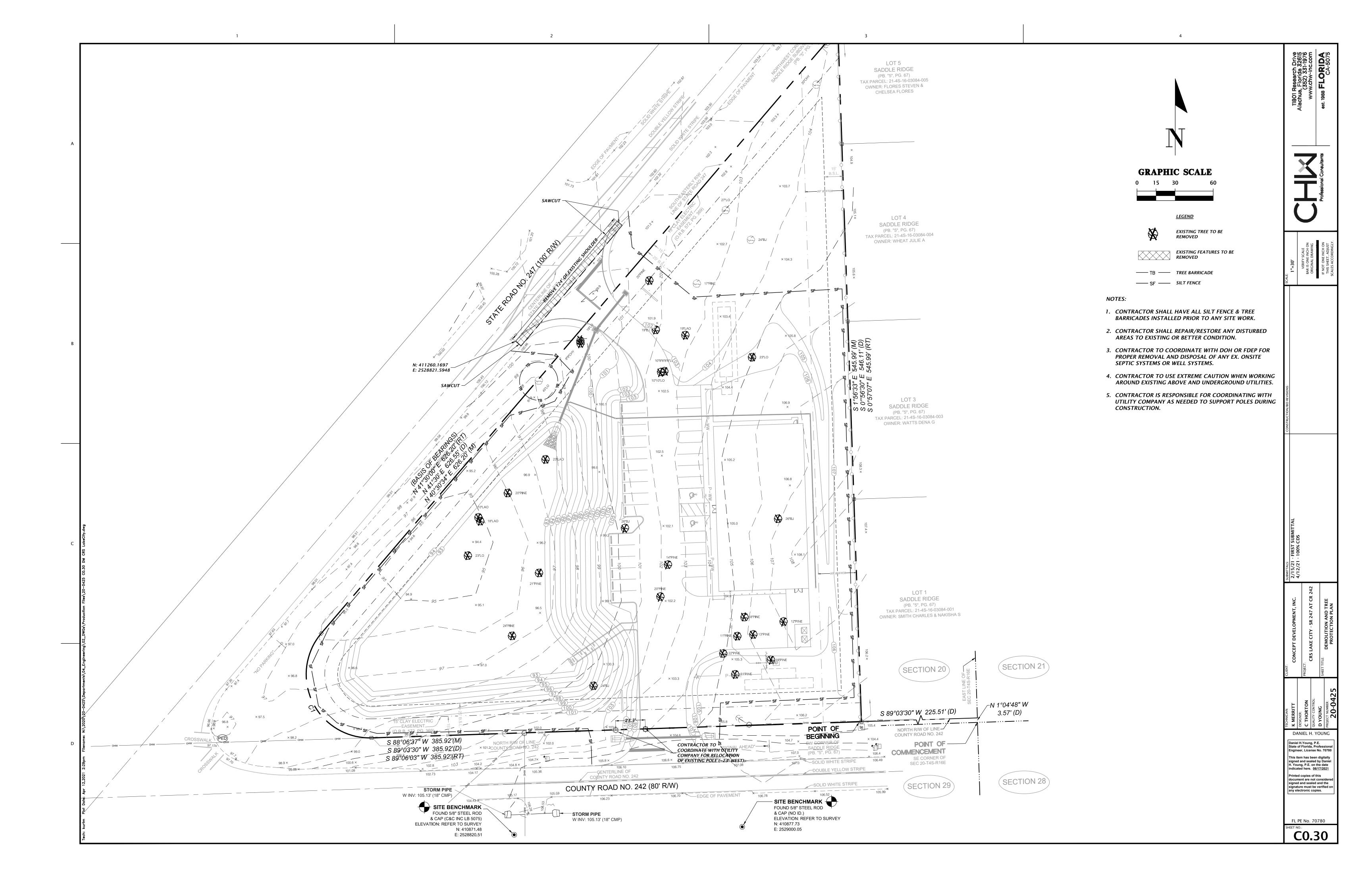
DATE	RESPONSIBLE INDIVIDUAL'S NAME	RESPONSIBLE INDIVIDUAL'S SIGNATURE	TITLE	COMPANY NAME, ADDRESS, AND PHONE NUMBER

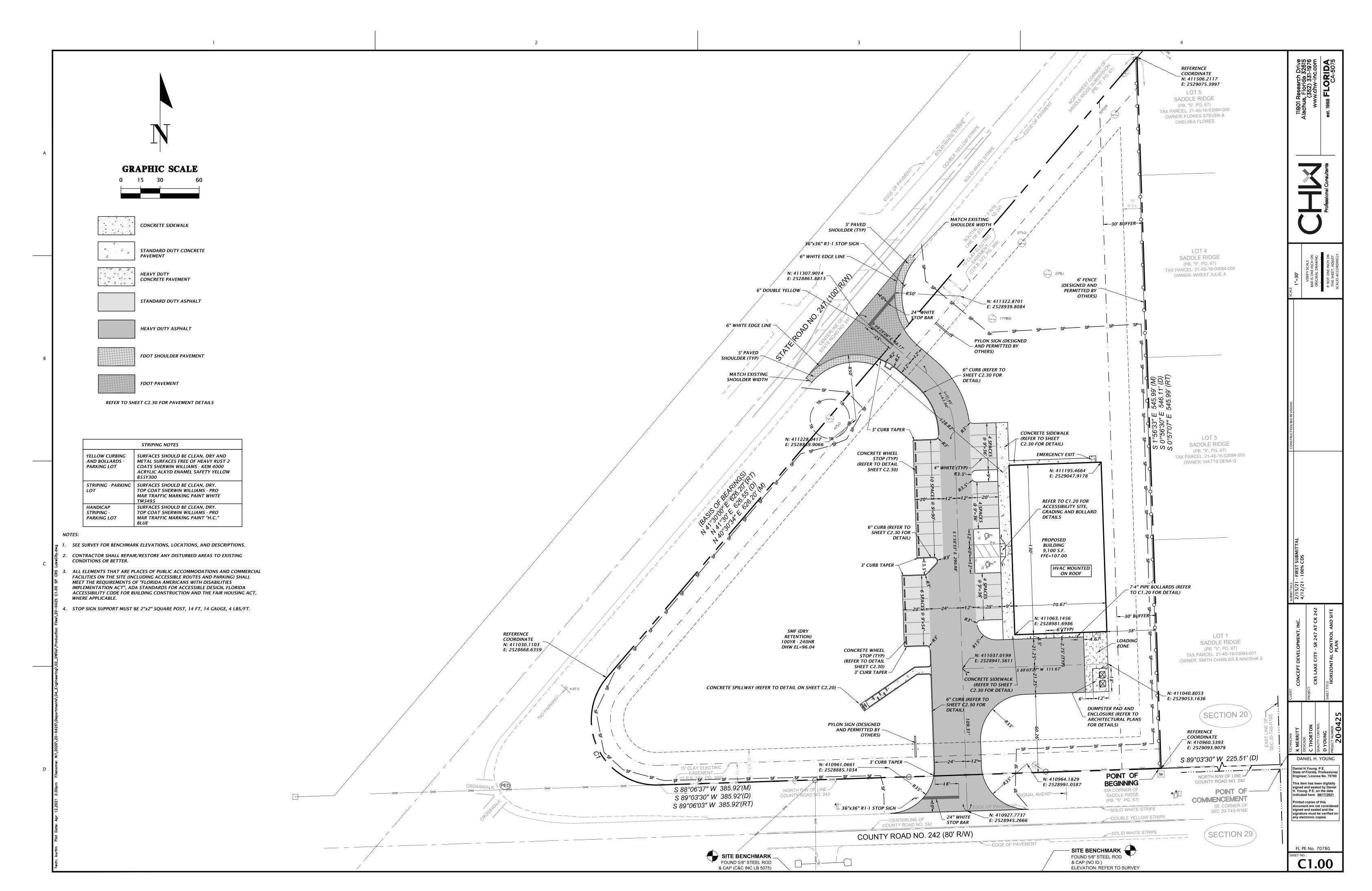
DANIEL H. YOUNG ingineer, License No. 7078

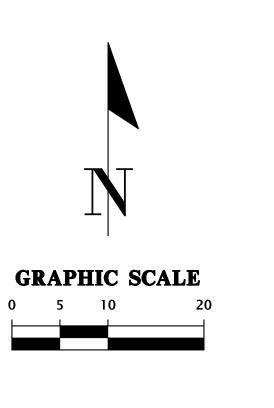
This item has been digitally signed and sealed by Danie H. Young, P.E. on the date rinted copies of this igned and sealed and the gnature must be verified

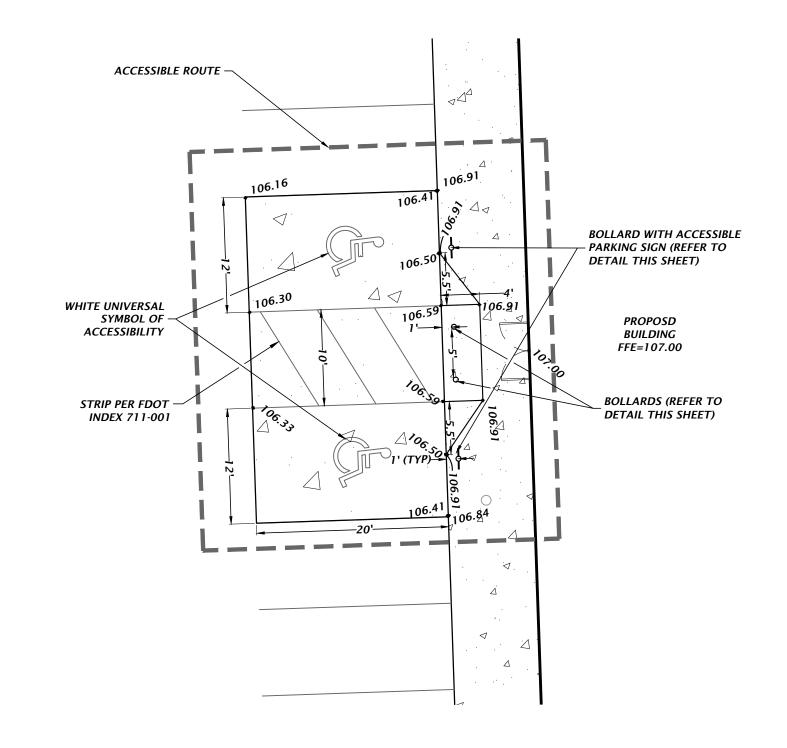
FI PF No. 70780

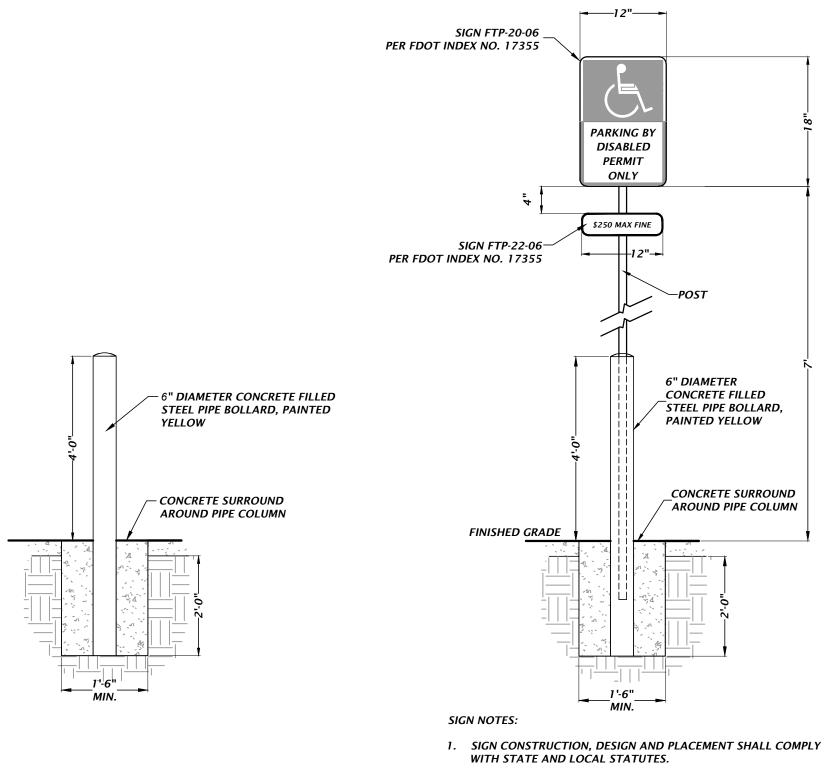






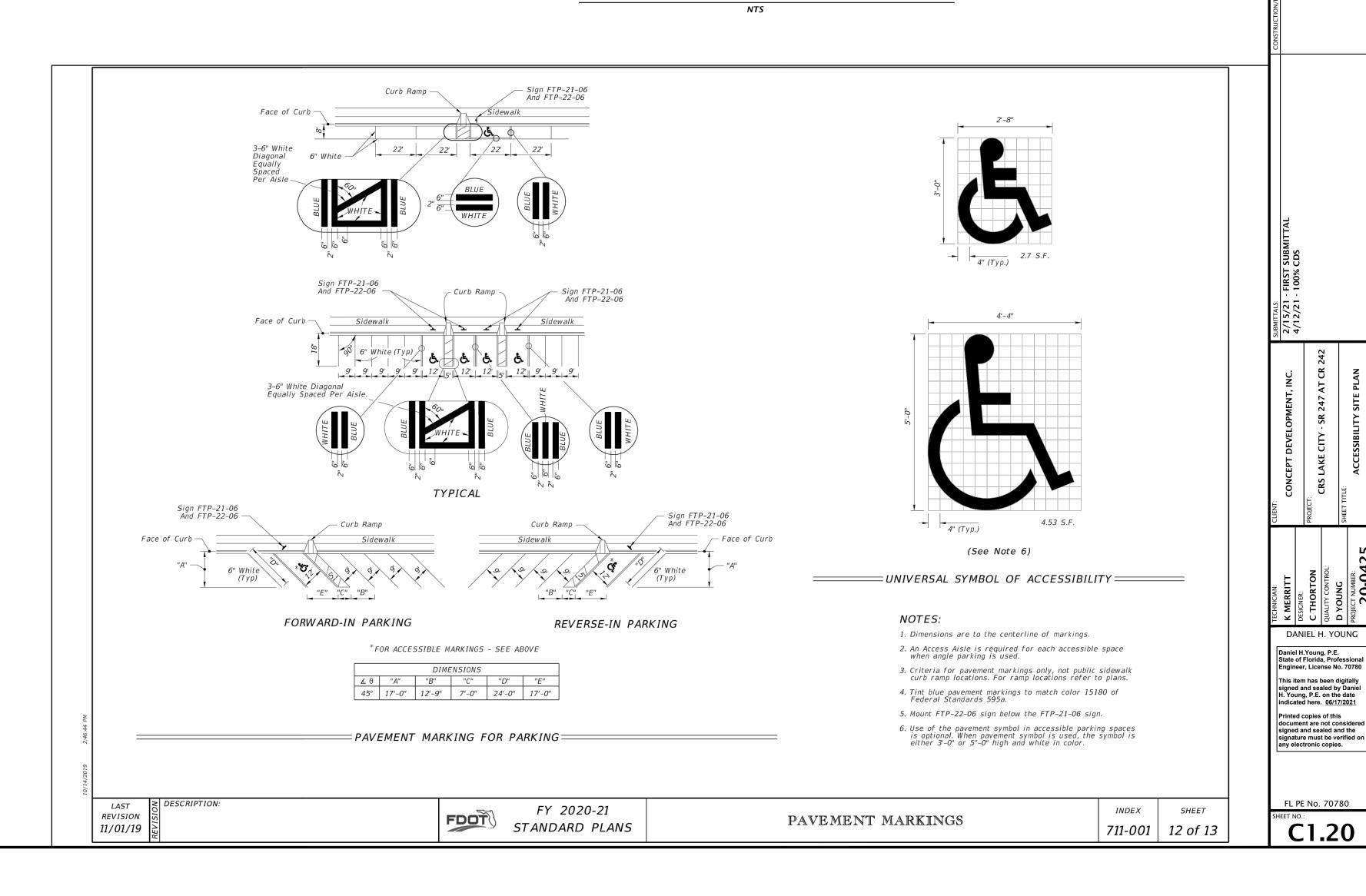


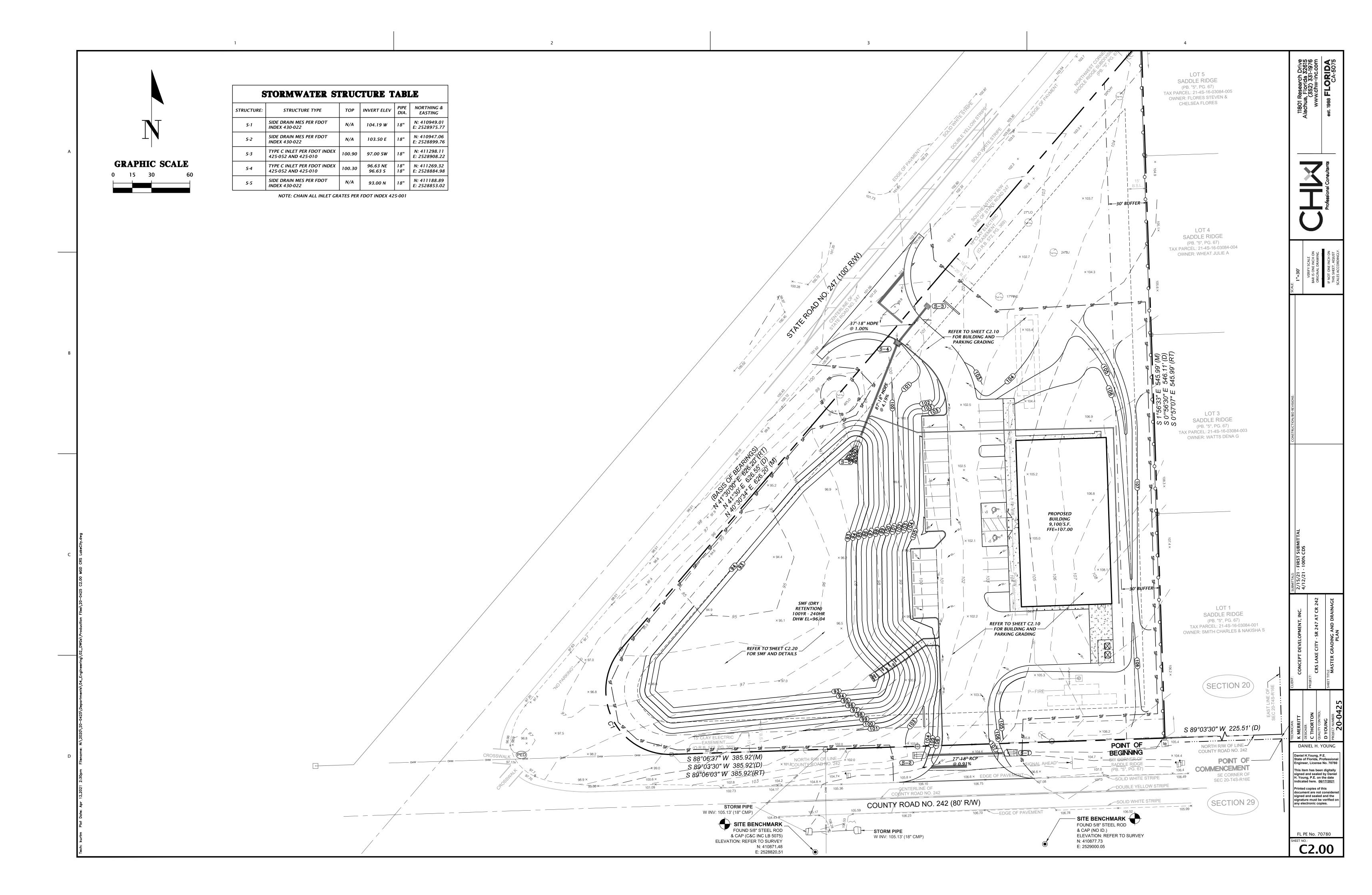


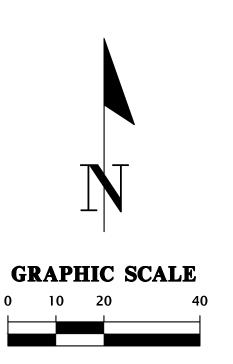


BOLLARD DETAIL

BOLLARD WITH ACCESSIBLE PARKING SIGN

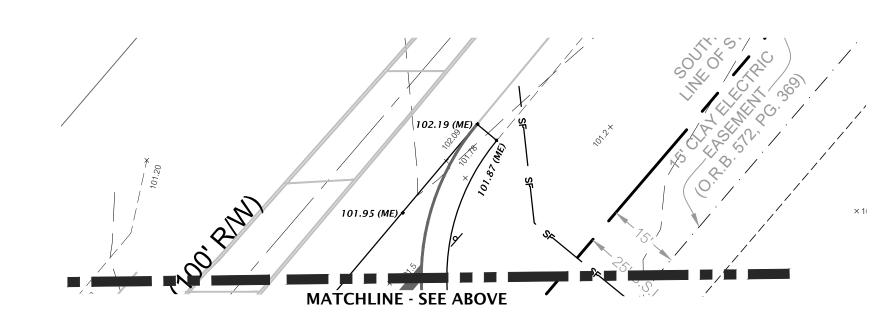


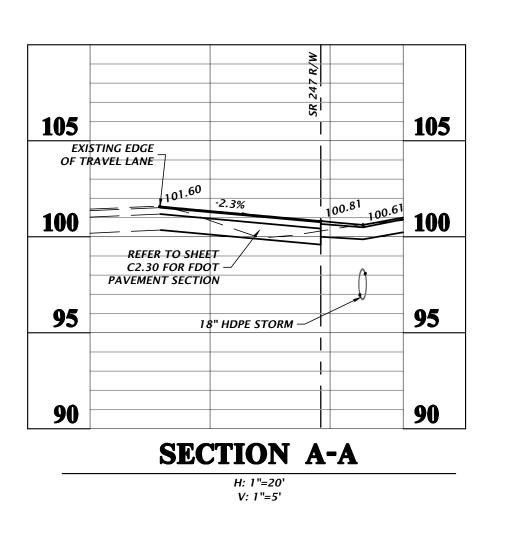


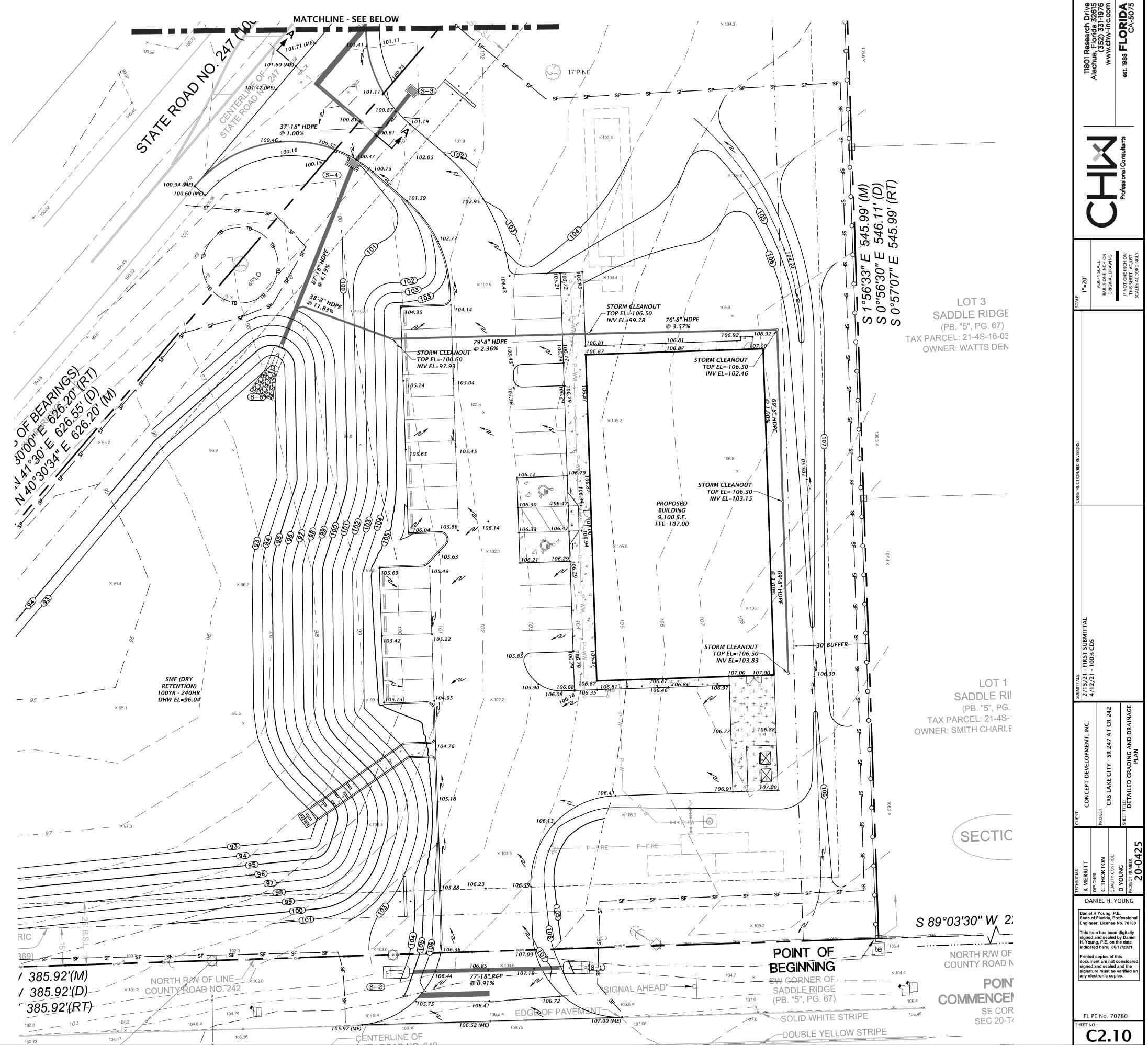


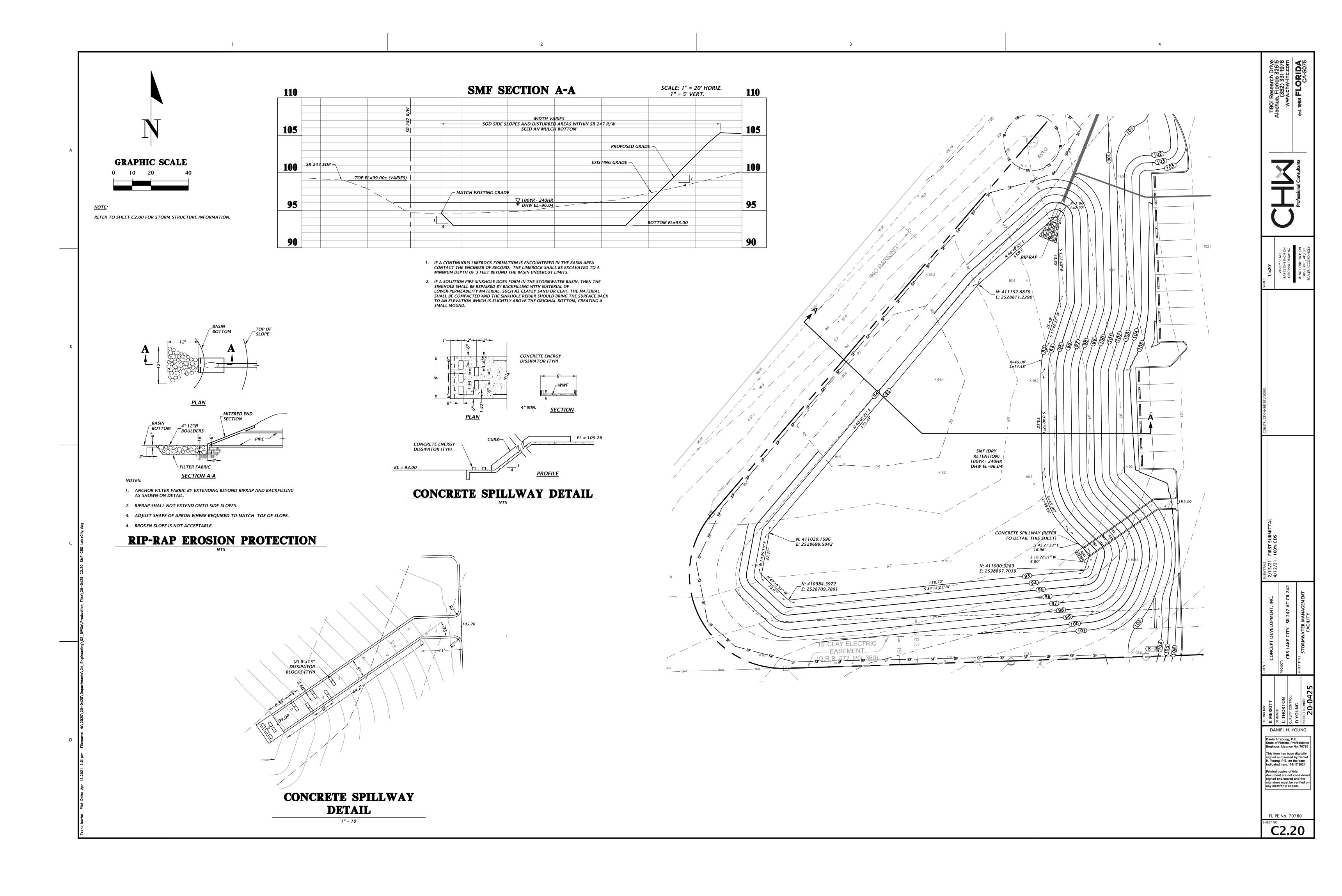
STORMWATER STRUCTURE TABLE					
STRUCTURE:	STRUCTURE TYPE	ТОР	INVERT ELEV	PIPE DIA.	NORTHING & EASTING
S-1	SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	104.19 W	18"	N: 410949.01 E: 2528975.77
S-2	SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	103.50 E	18"	N: 410947.06 E: 2528899.76
S-3	TYPE C INLET PER FDOT INDEX 425-052 AND 425-010	100.90	97.00 SW	18"	N: 411298.11 E: 2528908.22
S-4	TYPE C INLET PER FDOT INDEX 425-052 AND 425-010	100.30	96.63 NE 96.63 S	18" 18"	N: 411269.32 E: 2528884.98
S-5	SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	93.00 N	18"	N: 411188.89 E: 2528853.02

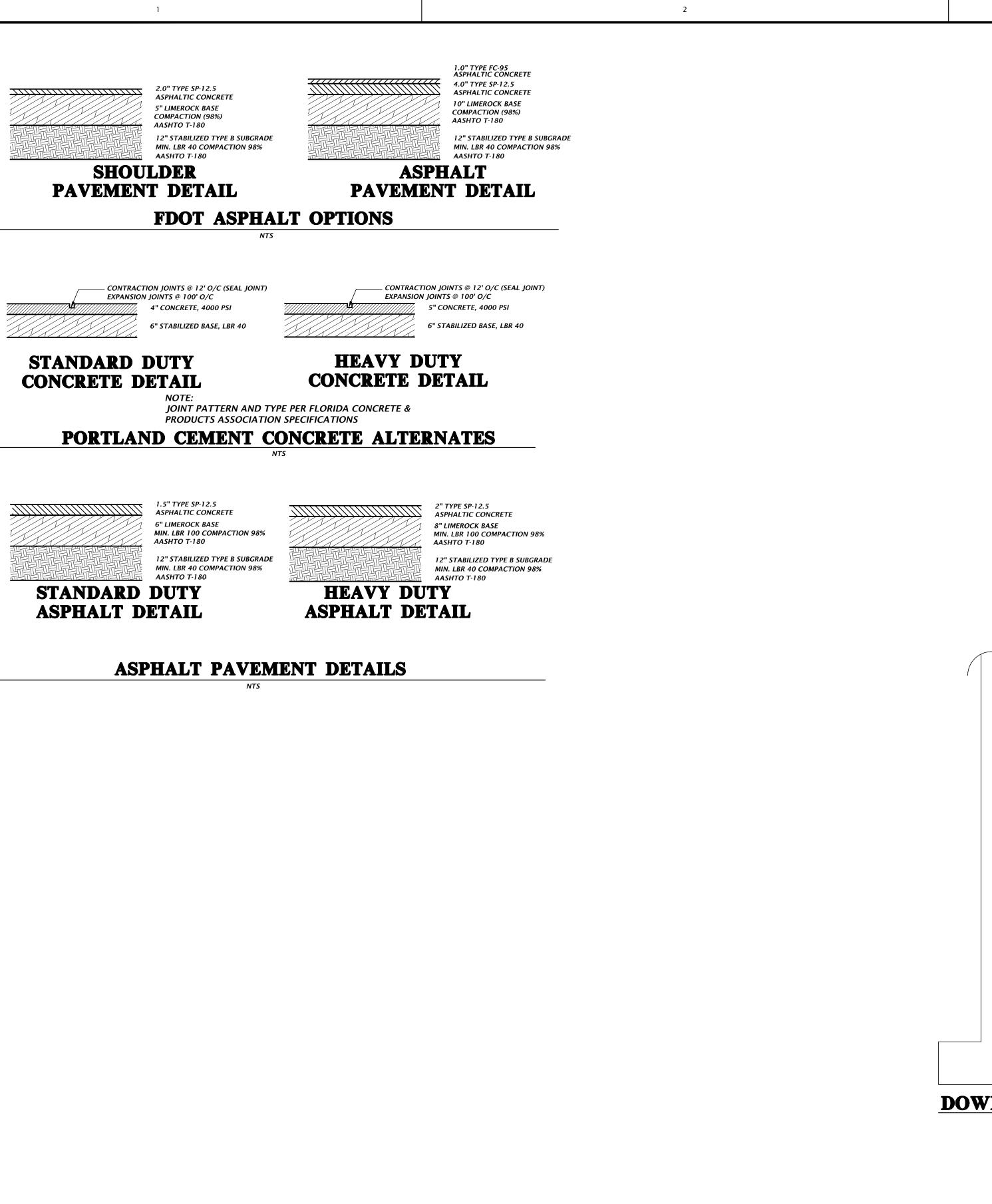
NOTE: CHAIN ALL INLET GRATES PER FDOT INDEX 425-001

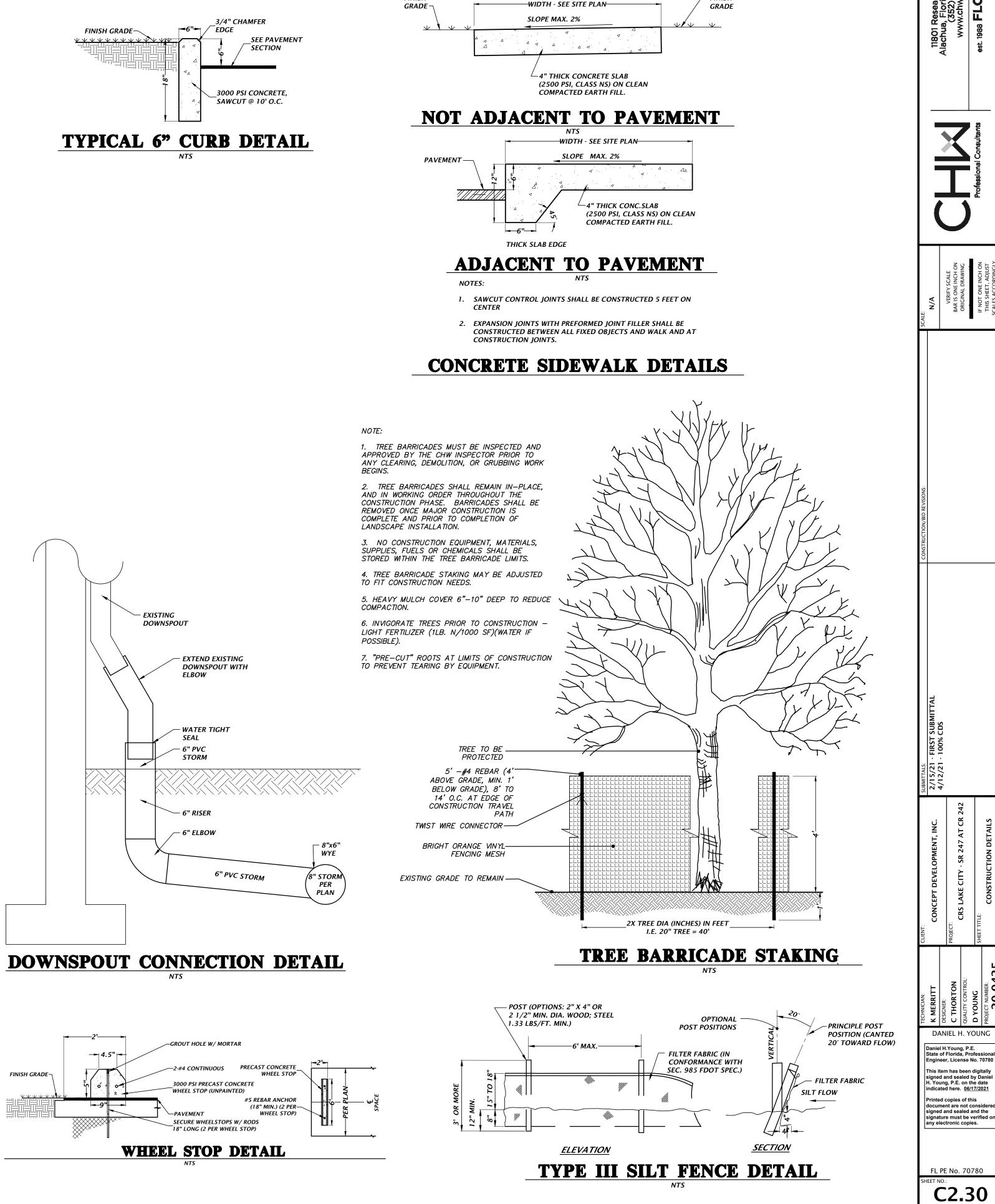


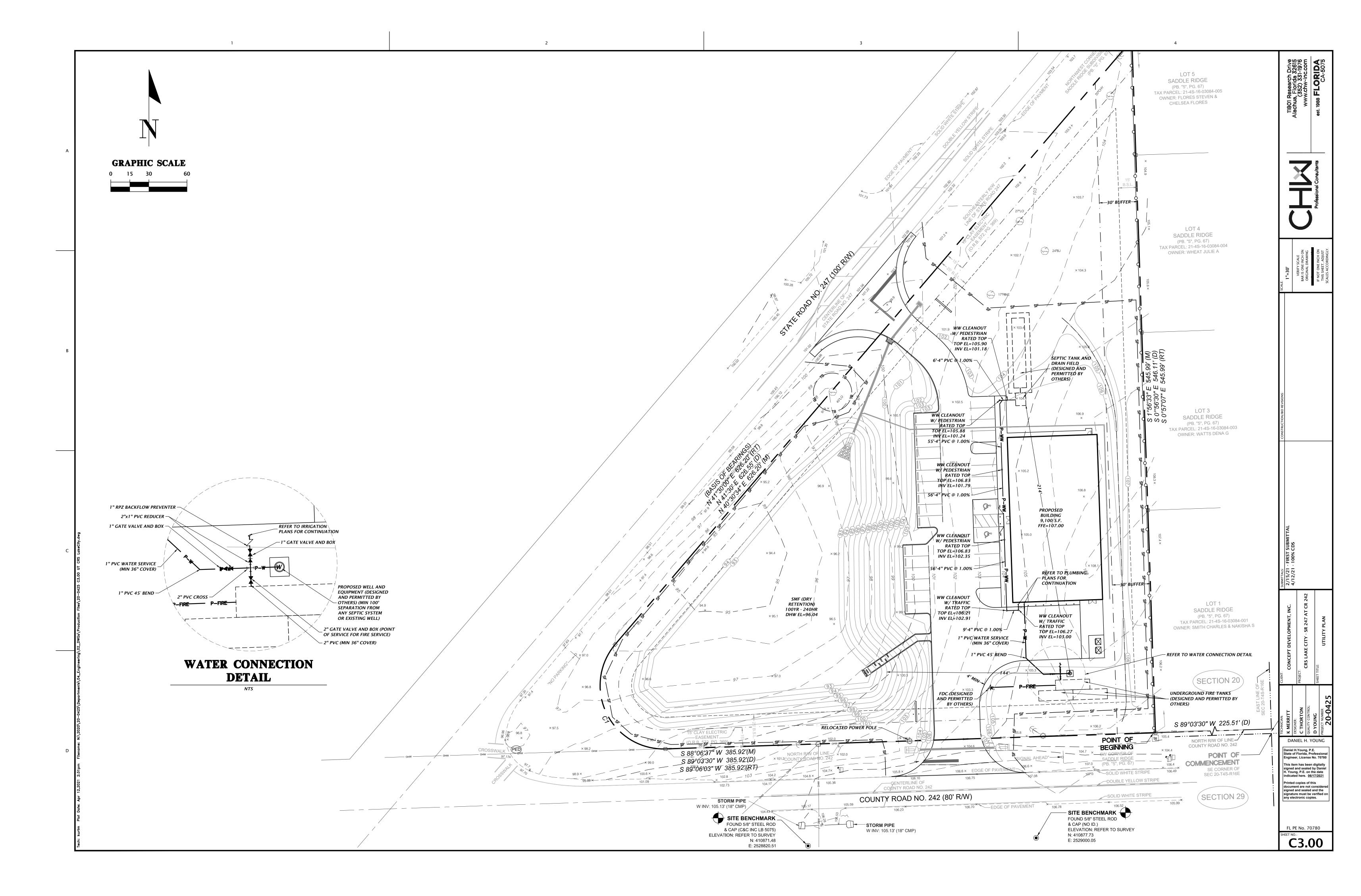


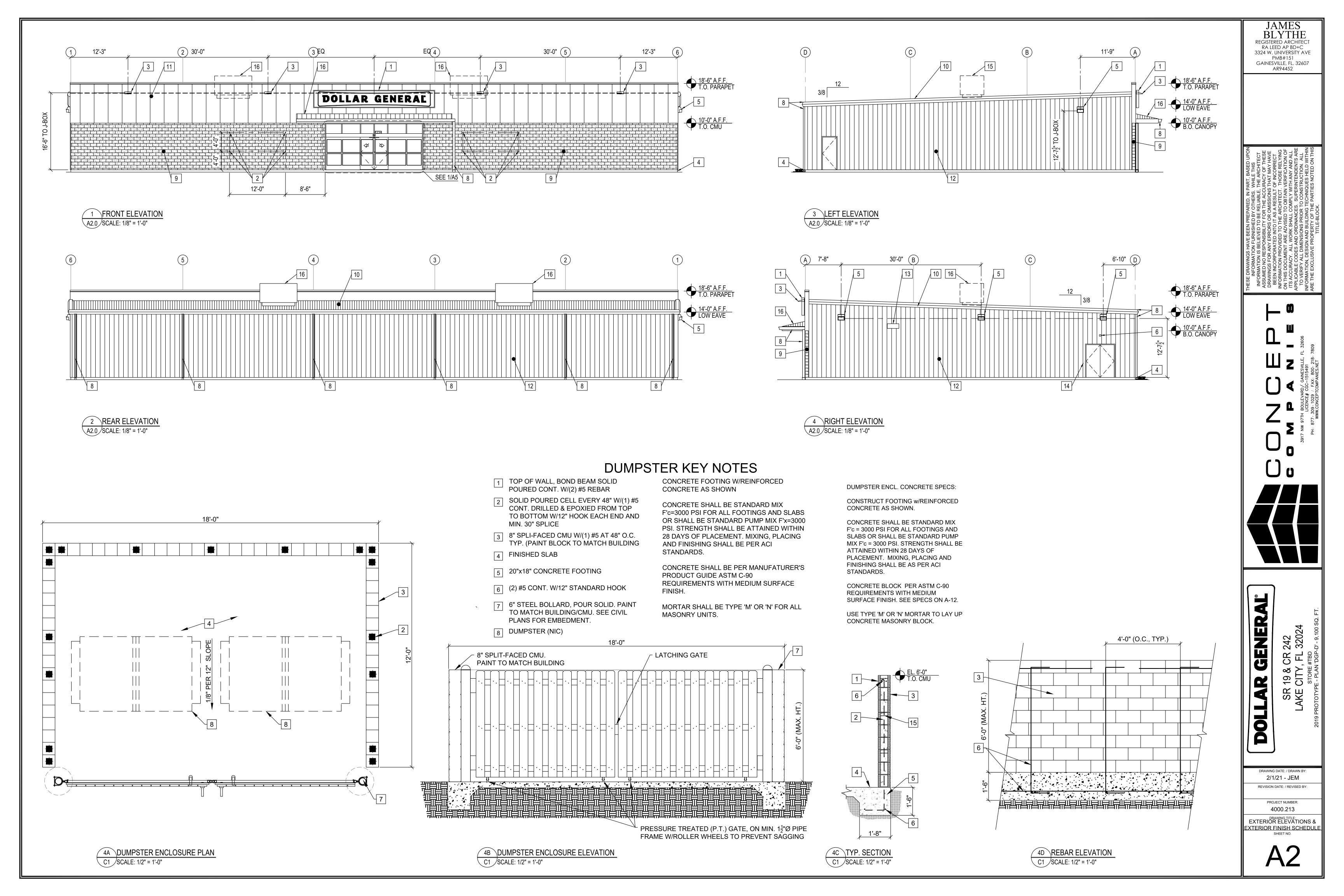


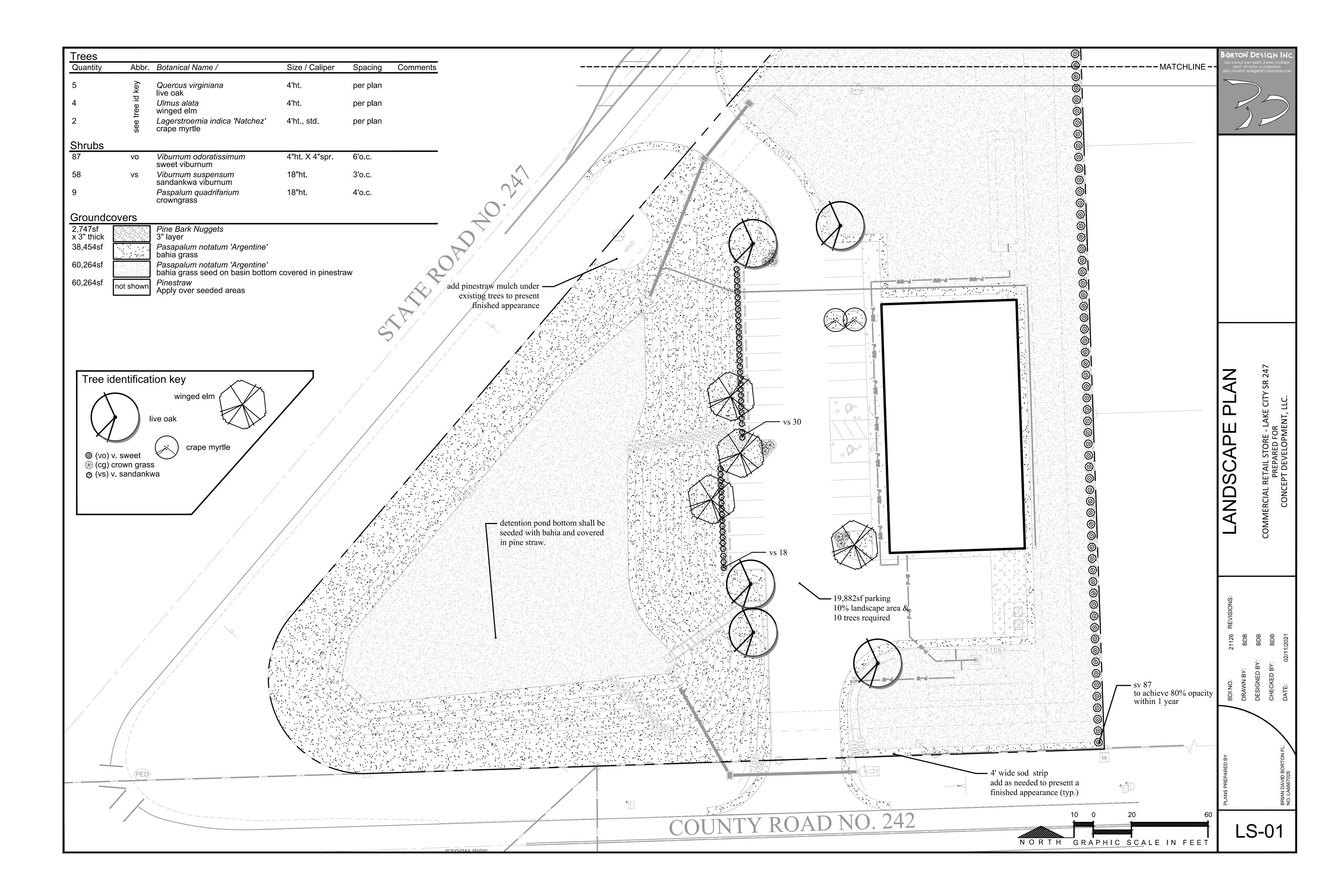


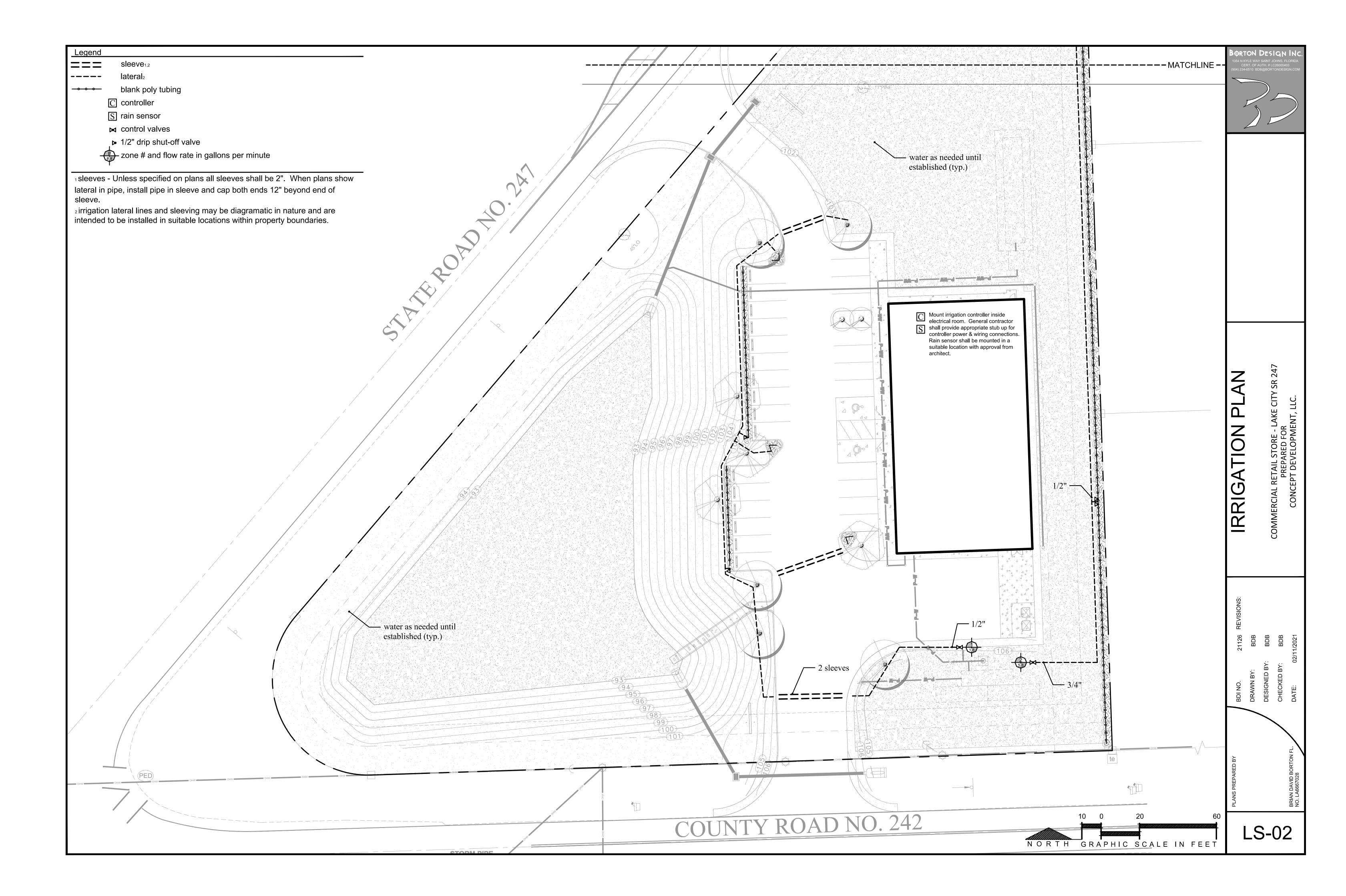












Irrigation Notes

- 1. Dripline. Drip shall be installed on top of soil and covered with mulch.
- 2. Control Valves & Regulators. Control valves shall be installed and set 5% over proposed flow.
- 3. Pipe. 1/2" pipe shall be Class 315 PVC. Piping larger than 1/2" shall use Class 200 PVC.
- 4. Irrigation materials not identified on irrigation schedule or in specifications as to brand and model # shall be either Rainbird, Nelson, or Hunter and sized appropriately by contractor to meet requirements by the manufacturer. Contractor shall include all materials including quantity, model, size, and installed price for each item on bid form.
- 5. All irrigation revisions shall be submitted to Columbia County for review and approval prior to
- 6. No irrigation to be provided at sod. Contractor shall irrigate with a water truck as needed for the first two weeks.
- 7. Pipe shall not be installed within 50% of any existing tree dripline UNLESS piping is installed via a trenchless installation method.

Watering Schedule for Zone 1 & 2

Water all plants listed once per day for 60 minutes during the first month and every other day until established afterwards. Shrub drip valves may be shut-off after 3 months. After one year trees should be sufficiently rooted into existing soil for shutdown; however, it is recommended that a review be performed by a certified arborist before shutting off the system. After establishment irrigation should be turned on IF a drought occurs. Bahia grass shall be temporarily watered via hand moved sprinklers for two weeks if rainfall is not occurring as needed.

Number of emitters per tree/shrub

2-2gph emitters live oak winged elm 2-2gph emitters 2-2gph emitters crape myrtle 1-1gph emitter v. sandankwa 1-1gph emitter v. sweet 1-.5gph emitter crown grass

Irrigation Schedule

Description
Rainbird XFD blank tubing
Rainbird ESP-RZX Series Controller
Rainbird WR2 - RC sensor
Rainbird 075-DV
Rainbird PSI-M50X-100
Rainbird QKCHK100 drip filters
Rainbird XB-05PC drip emitter
Rainbird XB-10PC drip emitter
Rainbird XB-20PC drip emitter
Rainbird BVAL50-1S139 drip valve
1/2" Perma-Loc EndCap w/ Flush Valve

Landscape General Notes

- 1. Contractor shall provide proposed soil amendment quantities on bid form to ensure healthy vigorous growth of plant material, lateral movement of irrigation water within soil, & soil nutrient holding capacity.
- 2. Any vegetation planted adjacent to a parking stall where it may interfere with a vehicles door opening shall be offset 2' from back of curb. Trim plant material as needed to keep a 6" clearance from back of curb in these areas.
- 3. ALL mulched areas adjacent to edge of curb, pavement, shall be composed of a compressed 3" thick layer of mulch. Top of mulch shall be 1/2" below edge of adjacent surface so mulch has a containment edge.
- 4. ALL proposed sod areas adjacent to edge of curb/pavement shall be excavated so the sod does not impede water runoff into the pervious areas.
- 5. All revisions shall be submitted to the Columbia County for review and approval prior to installation.

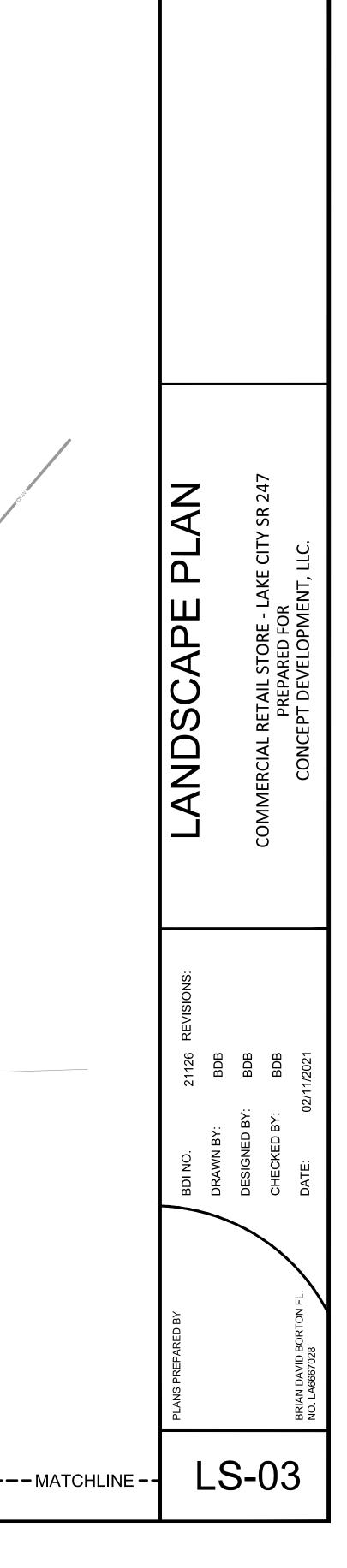
Soil Testing

LANDSCAPE ——

← IRRIGATION

established (typ.)

Existing soil composition has not been tested. Contractor excavate 2' depth all material used in construction of parking lots and buildings inside plant beds and infill with suitable soil and amendments to support healthy growth.



GERTON DESIGN I

construction.

Scope. This section includes all planting of shrubs, trees, ground covers, and other landscape supplementary work shown on the drawings and specified herein, complete. Applicable Documents. The following publications, specifications, and standards of the issues

listed in this paragraph (including the amendments and addenda designated), but referred to hereinafter by basic designation only, form a part of this specification to the extent required by the references thereto.

Publication of Reference. Publications as herein listed shall be held in basic reference:

Grades and Standards for Nursery Plants, Parts I and II, State Department of Agriculture and/or State Plant Board of Florida, Seagle Building, Gainesville, Florida. State of Florida Fertilizer Law, Office of the Secretary of State, Tallahassee, Florida.

American Standard for Nursery Stock (ANSIZ60.1-), American Association of Nurserymen. Standards for Tree Care Operations (ANSI A300)

Guideline Specifications to Sodding, America Sod Producers Association (ASPA) Plant Quantities. All plant quantities shown in the plans are approximate based on the plan locations. The Contractor shall be fully responsible for determining all final plant quantities and shall submit a revised plant schedule with final plant quantities as part of the contract and prior to

Substitutions of Plant Material. If a plant is found to be unavailable, submit proof of non-availability and a proposal for use of equivalent material. When authorized, adjustment of contract amount will be made. No substitutions will otherwise be authorized. To prove non-availability, The Contractor must provide at least eight (8) letters from growers or dealers from the States of Florida and Georgia explaining the non-Availability of the plant material.

On-Site Conditions and Adjustments. The locations of plants, as shown on the plans, are fairly accurate. Planting shall be adjusted only when necessary to accommodate actual as-built conditions on the site and any changes in locations caused thereby shall be made without additional cost to the Owner, Owner's Representative, or Landscape Architect. The Contractor shall immediately notify the Owner's Representative when conditions detrimental to plant growth are encountered, such as rubble fill, lime rock, or obstructions; and when field conditions are different than portrayed on the plans prior to planting. The owner or Owner's Representative may adjust the layout or location of specified plant materials to avoid these areas without additional

Coordination of Plantings. Coordinate all landscape work with the Owner's Representative and other contractors. Plant trees and shrubs after final grades are established and prior to planting of lawns, unless otherwise directed by the Owner's Representative.

Fine Grading. Provide fine grading necessary to establish finish grade in all landscape areas. Fine grading shall include only minor grading to correct random or infrequent grade irregularities of 12" or less, unless otherwise noted on plans.

Liability of Contractor. The Contractor shall be liable for any and all damages to property that result from his performance He shall, without extra cost, restore to original condition any areas and/or construction damaged, defaced, disturbed, or destroyed by him or his workmen. Tree Tagging. A tree tagging trip may be requested by Owner's Representative prior to approval

of plant material. Contractor shall be responsible for providing transportation and accommodations if necessary.

Inferior Materials. Contractor shall reject inferior materials. The Owner's Representative reserves the right to reject any or all materials not meeting the criteria specified herein or determined to be damaged or unhealthy.

Onsite Debris. Contractor shall be responsible for removing and disposing of offsite all stones over 1" in diameter, sticks, roots, and other extraneous matter in planted areas to a depth of 2'. If debris is excessive and results from construction waste please contact Owner's Representative for appropriate actions.

LANDSCAPE PART 2 SUBMITTALS

Soil Testing for Plant Material. The Contractor shall be responsible for testing soils in planted areas to confirm that soil is suitable for healthy plant growth and shall submit a report to the Owner's Representative prior to construction showing test data and any conflicts determined by the contractor.

Seed Certification. All seed must comply with regulatory agencies for fertilizer and herbicide composition Inspection Certificates, Manufacturer's Data. Upon request of Representative copies of

inspection certificates or manufacturer's data shall be provided for any material used onsite or for existing materials found onsite.

LANDSCAPE PART 3 MATERIALS

General Plant Material Requirements. Provide state inspected, nursery grown plants, and according to the plant schedule unless otherwise specified. Conform to the, "Florida Department of Agriculture Grades and Standards For Nursery Plants", local landscape ordinance, and, where applicable, to ANSI Z60.1 All plant materials shall be Nursery grown, Florida No. 1 stock. All materials shall be healthy, vigorous, free of diseases and insects, pruned for best shape without appearance of "de-horning", and without symptoms of nutritional deficiency. Furnish plants grown under climatic conditions must measure according to sizing required detailed on the drawings. Plants must be naturally bushy, dense, in good foliage, well branched, and of good appearance. The nursery/nurseries from which plants are derived shall be under regulatory inspection by the Florida State Department of Agriculture and/or the Florida State Plant Board, or an equivalent agency if derived from outside the State of Florida. Plants entering from outside the State of Florida must bear the entry certificate of the State Department of Agriculture of the State of Florida. All plant materials will be subject to approval of the Owners or Owner's Representative for quality, size and color.

Soil Additives. Contractor shall be responsible for adding peat, humus, fertilizer, manure, pH adjusters or any other commercially accepted soil additive to ensure normal, healthy plant growth or as noted on the plans.

Balled and Bur lapped Trees. Ensure that field grown material follows local industry standards for root pruning, digging, balling and bur lapping, etc. All balled and bur lapped materials must be hardened off before shipment. All materials are subject to approval by the Owner's Representative prior to shipping to project site. The top 5 inches of natural burlap shall be removed and completely remove any synthetic burlap wrapping or wire cages before installation. Spaded Trees. Trees shall have been spaded from a commercial nursery field that has been inspected by the Department of Agriculture and Consumer Services within the last 9 months. The Contractor shall provide a copy of the most recent Nursery, Stock dealer and Special Inspection Report for verification upon Owner's Representative request. Ball size shall be at least one size greater than recommended by ANSI Z60.1, American Standard for Nursery Stock, unless otherwise specified. Spaded material is subject to approval and tagging by the Owner's Representative prior to shipping to project site.

Container Plants. Provide container-grown plants with sufficient roots to hold the container soil together after removal from the container. Root bound plants and plants with inadequate root

Surface Mulch. Use mulch type specified in plans. Mulch shall be in a non-decomposed state;

not more than one (1) season old. Herbicides, Insecticides. Chemical sprays, dusts, or gaseous compounds used on or around plant materials, including but not limited to trees, shall be approved for such uses by the Environmental Protection Agency and the Florida Department of Agriculture. and Consumer Services. Such materials as may be used shall not constitute a hazard to human health or interfere with site working conditions and habitation.

Seed Requirements General. Where seeding may be required on the plans, the seed required shall comply with all minimum provisions of the Florida Seed Certification and Testing Law. Noxious weed seeds shall be non-existent and foreign materials shall not exceed two percent. Sod Requirements General. See plan for specified sod. All sod shall be healthy, strongly rooted and not less than two (2) years old, free of weeds and undesirable native grasses in 16" x 24" pads, 1-1/2" thick. Sod shall conform to "Nursery Grown" grade as established by American Sod Producers Association (ASPA). Sod shall be considered free of weeds if less than 5 weeds are found per 100 square feet of area. Brown, dry irregularly smooth, and/or unfresh sod will be

LANDSCAPE PART 4 PLANTING PROCEDURES

General. Prior to commencement of any work, the Landscape Contractor shall inspect the site, locate planting areas, placement of guying devices, locate electrical cables, conduits, and other underground and above utilities so that proper precautions and procedures may be followed during and throughout construction. The Contractor shall become familiar with other job trade activity which has an impact upon his work or upon which his work has an impact and shall arrange to carefully coordinate his work with other trades through the Owner's Representative. All planting practices listed herein shall ensure healthy plant growth

Layout. The location of plants, planting beds and plant quantities, are approximate. The

locations and bed lines shall be staked on the project site by the Contractor and approved by the Owner's Representative before any plant pits or beds are dug. The Owner's Representative may adjust plant material locations to meet field conditions. Contractor shall make minor adjustment without additional cost to the Owner.

Finish Grades. The Landscape Contractor is responsible for all fine grading and preparation for planting. Finish grades (top of soil) for all sod areas after settlement shall be one-half inch below the top of abutting curbs, walks, walls and abutments. The finish grade of all plant beds prior to mulching shall be three inches below finish grade of sod, abutting curbs, walks and walls. Three inches of mulch shall be added to all plant beds after planting.

Planting Seasons/Times. The planting of plant materials and lawns may proceed at any time, period, or season agreed upon by the Contractor and Owner or Owner's Representative Plant Installation. All plants existing rooball top shall be 0-1" above finished grade. Area surrounding tree shall excavated/loosened to 3X the width and 1X depth prior to installation. Plants shall be set plumb and straight. When backfilling lightly tamp layers in 6" lifts. Do not over compact. A ¼" probe should be able to penetrate to a depth of the rootball with hand pressure. A 3" mulch layer shall be applied over rootball excluding the area 6" from the trunk/stem. Stake and install trees according to details. Trees shall be secured loosely and allow trunk to sway. Sod. All areas to be either seeded, sprigged, or sodded shall be prepared in a manner to ensure normal, vigorous and healthy growth.

Fine grade lawn areas to smooth, even surface with with lose, uniformly fine texture. Roll, rake and drag lawn areas, remove ridges and fill depressions with topsoil as required to meet finish grades. In areas to be sodded, allow for sod thickness.

Sod Installation. Lay sod in straight, parallel rows to form a solid mass with tightly fitted joints, without overlap. Stagger strips to offset joints. Work topsoil into minor cracks. On 1:3 slopes or greater, lay sod with long dimension of pads parallel to contours and stake sod as necessary to stabilize. Drive sod stakes flush with top of sod.

Sprigging and Seeding. Sprigging/seeding shall be done in a manner to ensure a quick grow-in period achieving a uniform green lawn prior to final acceptance.

LANDSCAPE PART 5 MAINTENANCE

Plant Material. Maintain all plant materials until Final Acceptance. Maintenance shall include all required watering, cultivation, weeding, mowing, pruning, wound dressing, immediate replacement of dead and unacceptable material, straightening plants which lean or sag, adjustment of plants which are planted too low, and any other procedure consistent with good horticultural practice necessary to ensure normal, vigorous and healthy growth of all planting under the Contract.

Lawn. Maintain lawns until Final Acceptance. Reset settled or eroded sod areas to proper grade. Fill open joints with topsoil. Keep sod free of insects and disease.

LANDSCAPE PART 6 FINAL INSPECTION AND ACCEPTANCE

Final Cleanup. Upon final completion of work and before inspection and acceptance, all aspects of the project site shall be thoroughly and completely cleaned of debris, stains, materials, defacements, and temporary facilities. Likewise, any repairs which are the obligation of this Contractor shall be completed

Initial Inspection and Acceptance. Inspection shall be made by the Owner or Owner's Representative within (10) ten days of written notification from the Contractor that installation is complete. If all work and materials meet specifications, project will be accepted as is. Materials and work not in compliance with specifications shall be rejected by Owner's Representative and replaced by the contractor within (15) fifteen days of notification by Owner's Representative. Notification will graphically depict all rejected material on plans. Upon replacement of all rejected work and materials by the Contractor, the Owner's Representative shall conduct a final inspection within ten (10) days of written notification from the Contractor that all rejected work has been replaced according to specifications. Approval will be granted upon the acceptance of all replaced material noted on plans. After final acceptance, the Contractor will not be responsible for damage to work resulting from: neglect by Owner, conditions such as floods, excessive wind, severe freezing or abnormal rains; or other activities clearly beyond the Landscape Contractor's control.

LANDSCAPE PART 7 GUARANTEE

Guarantee. All plant materials and trees installed by the Contractor shall be guaranteed for 365 days from the date of final acceptance. The Contractor shall replace at no additional cost to the Owner, all plant materials which die and/or which are not healthy and in a good growing condition during the guarantee period. Replacement of such material shall occur within ten (10) days from Owner's written notification to the Contractor. The 365-day guarantee period for replaced plant materials shall commence on the date of acceptance of the replaced item or items of plant material. The Contractor shall not be required to replace, repair, or restore any portion of the work that is damaged, defaced, disturbed, improperly maintained, and/or destroyed by others after final acceptance.

IRRIGATION PART 1 GENERAL NOTES

Scope. This section includes irrigation and supplementary work shown on the drawings and specified herein,

Applicable Documents. The following publications, specifications, and standards of the issues listed in this paragraph (including the amendments and addenda designated), but referred to hereinafter by basic designation only, form a part of this specification to the extent required by the references thereto.

- Publication of Reference. Publications as herein listed shall be held in basic reference: HANDBOOK OF TECHNICAL IRRIGATION INFORMATION by Hunter Industries Inc. - 1996
- THE COMPLETE IRRIGATION WORKBOOK by Larry Keesen 1995
- PUBLICATIONS, NOTES, AND PAPERS by The Center of Irrigation Technology, California State University - Fresno, California
- PUBLICATIONS and STANDARDS by The Florida Irrigation Society Orlando, Florida
- PUBLICATIONS by The Irrigation Association Falls Church, Virginia INSTALLATION GUIDE FOR PVC Irrigation Quantities. All irrigation material quantities shown in the plans are approximate. The Contractor shall be fully responsible for determining all quantities. The Contractor shall submit a revised irrigation schedule with final irrigation quantities as part of the contract and prior to construction.

On-Site Conditions and Adjustments. Irrigation equipment shown on the plans is approximate. Irrigation shall be adjusted to fit actual as-built conditions on the site and any changes in locations caused thereby shall be made without additional cost to the Owner, Owner's Representative, or Landscape Architect.

Liability of Contractor. The Contractor shall be liable for any and all damages to property that result from his performance He shall, without extra cost and by licensed contractors, restore to original condition any areas and/or construction damaged, defaced, disturbed, or destroyed by him or his workmen. Substitution of Materials. Any substitution from the specified brands, models or sizes shall be submitted to the owner or the owner's representative for approval. Material substitutions or design changes must be shown to comply with the system design intent and rectify any necessary performance changes and be in compliance with

IRRIGATION PART 2 INSTALLATION PROCEDURES

all city, state, and federal regulations.

General. Prior to commencement of any work the Irrigation Contractor shall obtain all necessary permits and licenses, inspect the site and locate electrical cables, conduits, and other underground and above utilities so that proper precautions and procedures may be followed during and throughout construction. The Contractor shall become familiar with other job trade activity which has an impact upon his work or upon which his work has an impact and shall arrange to carefully coordinate his work with other trades through the Owner's Representative. Backflow Prevention. Backflow preventer shall be installed according to manufacturer's recommendations.

Filters and Strainers. Filter/Strainers shall be installed per manufacturer's recommendations. Irrigation Controller. The irrigation controller shall be UL listed, conform to the provisions of the National Electric

Code, and properly grounded in accordance with manufacturer's recommendations. Rainfall Shutoff Device. A rain sensor shall be installed as close as possible to the control equipment and per manufacturer's recommendations. Install the first 18 inches of rain sensor wire below ground level and all wire above ground in conduit. When systems are pressurized by a pump, provision shall be made to ensure shutoff device does not allow pump to activate.

1. Pipe shall be installed at sufficient depth below ground to protect it from hazards such as vehicular traffic. Landscape vehicular traffic areas are those landscaped areas subject to vehicular use such as traffic crossings, parking areas, etc. Depths of cover shall conform to NRCS-FL- 430-DD, Water Conveyance, as

a. Landscaped Vehicle Traffic Areas - Landscaped areas subject to routine automotive or heavy

equipment traffic. Pipe Size (Inches) Depth of Cover* (inches) 1/2" - 2-1/2" 3"-5"

D-2239-99, ASTM D-2564-96a, ASTM F-656-96a, ASAE S435.

6" and larger b. Non-Traffic and Non-Cultivated Areas Pipe Size (Inches) Depth of Cover* (inches)

1/2" - 1-1/2" 2"-3" 4"-6" More than 6"

2. The trench bottom must be uniform, free of debris, and of sufficient width to properly place pipe and support it over its entire length. Make all pipe joints and connections according to the material manufacturer's recommendations. Perform all solvent-weld connections in accordance with ASTM D-2855. Contractor shall install all piping and related materials in accordance with the manufacturer's specifications and the following standards: ASTM D-1785-99, ASTM D-2241-00, ASTM D-2466-01, ASTM D-2464-99, ASTM

3. Thrust blocks are required on all fittings at dead ends and whenever the line changes direction of 30 degrees or more. Thrust blocks shall be installed in a manner to ensure no pipe shifting occurs. Size thrust blocks in accordance with ASAE Standard S-376.2.

4. Contractor shall flush irrigation system installation at the appropriate stages based on commercially accepted methods.

5. After installation, flushing, and inspection or testing, contractor shall backfill the pipe trench with soil free from rocks or stones larger than 1-inch in diameter in a commercially accepted manner. Pipe Sleeving. Pipe sleeves shall be at least two pipe sizes larger than the carrier pipe or twice the diameter of

the wire bundle to be placed under the paving or roadway, and extending a distance at least equal to its installed depth beyond the paved area. Schedule 40 PVC pipe shall be used for sleeves Valves. Valve installation shall allow enough clearance for proper operation and maintenance. Where valves are

installed underground, they shall be provided with a valve box with cover extending from grade to the body of the valve. The top of the valve body should have a minimum of 6 inches of cover in non-traffic and non-cultivated areas and 18 inches of cover in traffic areas.

Locate manually operated control valves so they can be operated without wetting the operator.

Valve Boxes. Contractor shall install valve boxes according to the manufacturer's recommendations. Wire. Electrical control wire shall be sized in accordance with the valve manufacturer's specifications. Install only UL listed direct burial low voltage wire (30 volts or less) with a minimum depth of cover of 12 inches. Provide a sufficient length of wire at each connection to allow for thermal expansion/shrinkage. As a minimum, provide a 12-inch diameter loop at all splices and connections. Terminations at valves will have 24" minimum free wire. Provide common wires with a different color than the power wires (white shall be used for common wires). Use wire connectors that are approved for direct burial. A valve box shall be used for all underground wire splices. Install all above-ground wire runs and wire entries into buildings in conduit.

Sprinklers. Install sprinklers plumb unless they are installed on slopes where they can be tilted as required to prevent erosion. Sprinklers shall be adjusted to avoid unnecessary discharge on pavements and structures. Provide a minimum separation of 4 inches between sprinklers and pavement and 12 inches between sprinklers and vertical structures or as local codes dictate. Riser-mounted sprinklers shall be supported. Swing joints shall be constructed to provide a flexible, leak-free connection between the sprinkler and lateral pipeline to allow movement in any direction and to prevent equipment damage.

Micro Irrigation. Micro-irrigation equipment shall be installed according to the manufacturer's recommendations for the specific application. Stake all surface tubing every three to six feet depending on site conditions and manufacturer's recommendations with eight inch staples.

IRRIGATION PART 3 TESTING, SUBMITTALS, FINAL INSPECTION AND ACCEPTANCE Testing. All mainlines and laterals shall be tested to be free of leaks. Rainfall shutoff device shall be tested to

ensure proper shut-off of control equipment. Cleanup. Upon final completion of work and before inspection and acceptance, all aspects of the project site shall be thoroughly and completely cleaned of debris, stains, materials, defacements, and temporary facilities

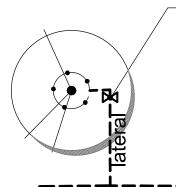
Likewise, any repairs which are the obligation of this Contractor shall be completed. Inspections and Acceptance. Inspection shall be made by the Owner or Owner's Representative within (10) ten days of written notification from the Contractor that installation is complete. If all work and materials meet specifications, project will be accepted as is. Materials and work not in compliance with specifications shall be rejected by Owner's Representative and replaced by the contractor within (15) fifteen days of notification by Owner's Representative. Notification will graphically depict all rejected material on plans. Upon replacement of all rejected work and materials by the Contractor, the Owner's Representative shall conduct a final inspection within ten (10) days of written notification from the Contractor that all rejected work has been replaced according to specifications. Approval will be granted upon the acceptance of all replaced material noted on plans. Post Construction Documentation & Instruction. The Contractor shall provide manufacturer's product literature, operation manuals, testing and inspection certificates, and record drawings to the owner or owner's representative. Record drawings shall show all changes in the design to indicate the actual installation sizes, types, and locations of all equipment and materials with the application for final payment. Contractor shall

IRRIGATION PART 4 GUARANTEES

operation of the system.

The irrigation system contractor shall assume full responsibility for the proper installation of the system. Contractor shall guarantee the installation workmanship for a minimum period of one (1) year from date of final acceptance. The irrigation system contractor shall make all necessary, reasonable efforts to handle any warranty claims within the guarantee period in a reasonable time period. The Contractor shall not be required to replace, repair, or restore any portion of the work without additional service fees that are damaged, defaced, disturbed, and/or destroyed by others after final acceptance. Repairs made by other licensed contractors during the guarantee period shall not void the guarantee.

provide minimal instruction to owner, if applicable, describing any need to know information regarding the daily

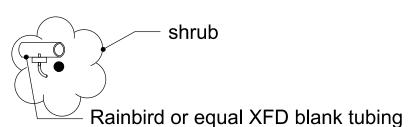


lateral

Install Rainbird BVAL50-1S139 or equal shut-off valve at all trees. Install Rainbird or equal XFD blank tubing around each tree with appropriate amount of equally spaced drip emitters. Quantity of Rainbird XB-#PC or equal emitters per tree are specified on the irrigation sheet. Drip shall encircle tree and be offset 2" from edge of rootball. Terminate drip encircling each tree with a compression hose end

Detail for individual tree drip

Not To Scale

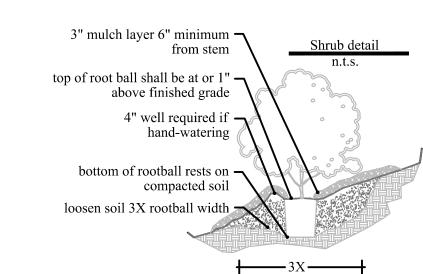


with Rainbird XB-#PC or equal emitter at same precipitation rate installed overtop of rootball or attach 1/4" tubing to emitter with bug cap to reach plant rootball off of 1/2" tubing when applicable. Use ground staples to secure emitter locations. Start all drip runs with a Rainbird BVAL50-1S139 shut-off valve. Terminate all drip runs with a compression hose end flush cap.

Detail for shrub emitters

Not To Scale

Use ground staples to secure emitter locations. Pressure regulators shall be used in appropriate locations so all emitters receive pressures between 20-50



ORTON DESIGN

etails ations/D

Specific