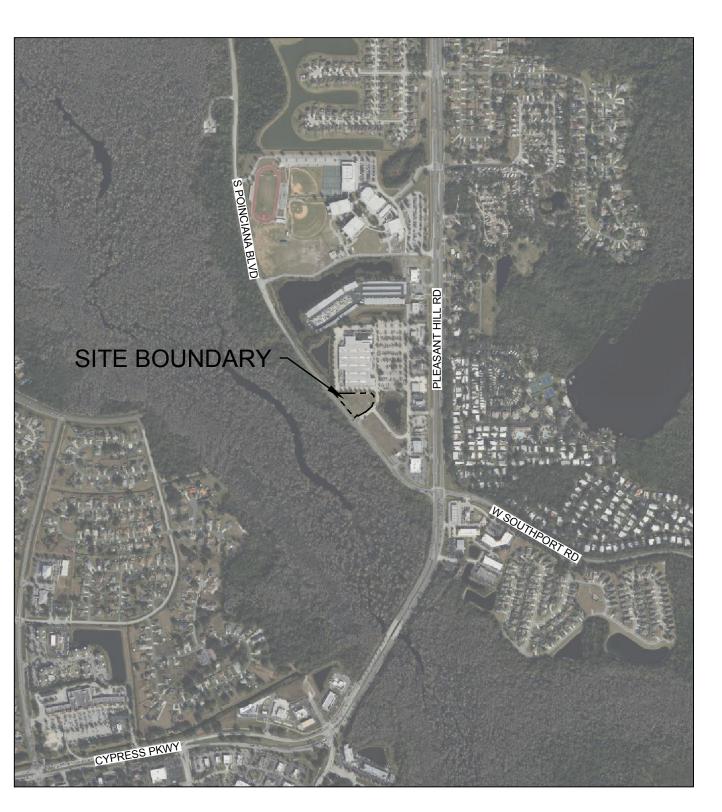
SITE DEVELOPMENT PLAN FOR NORTHSTAR POINCIANA MULTI-TENANT RETAIL

(POINTE PD LOT 2) KISSIMMEE, FL

> PARCEL ID: 062729296700010020

> > SDP23-0122

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LIGHTING PLANS
TREE & TOPO SURVEY



VICINITY MAP 1"=1000'

EVANS ENGINEERING, INC. LAND PLANNING PERMITTING SERVICES 719 IRMA AVENUE ORLANDO, FLORIDA 32803 (407) 872-1515 www.evansenginc.com CERTIFICATE OF AUTHORIZATION NO. 00006788



LEGAL DESCRIPTION:

LOT 2, POINTE-PHASE ONE, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 19 AT PAGE 127, OF THE PUBLIC RECORDS OF OSCEOLA COUNTY, FLORIDA.

PROJECT TEAM:

<u>OWNER:</u> NORTHSTAR RETAIL LLC 7325 HARLIE ST ORLANDO, FL 32819

ARCHITECT: LARSON DESIGN GROUP 495 NORTH KELLER ROAD, SUITE 101MAITLAND, FL 32751 RSMITH@LARSONDESIGNGROUP.COM

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910 BELLE AVENUE, SUITE 1100 CASSELBERRY, FL 32708 PHONE: 407-667-0200

ELECTRICAL: LARSON DESIGN GROUP 495 NORTH KELLER ROAD, SUITE 101MAITLAND, FL 32751 ROB SMITH RSMITH@LARSONDESIGNGROUP.COM

UTILITY PROVIDERS:

POTABLE WATER, REUSE WATER, SEWER TOHO WATER AUTHORITY 951 MARTIN LUTHER KING BLVD,

KISSIMMEE, FL 34741 CONTACT: DIANA WILLIAMS PHONE: 407-944-5000 EMIAL: CUSTOMERSERVICE@TOHO.CO

ELECTRIC
KISSIMMEE UTILITY AUTHORITY 1701 W CARROLL ST, KISSIMMEE, FL CONTACT: TINA JORDAN PHONE: 407-933-7777

EMAIL: CUSTOMERSERVICE@KUA.COM

GAS UTILITIES
TECO PEOPLE GAS 600 W ROBINSON ST, ORLANDO, FL CONTACT: J.J. MORRIS PHONE: 877-832-6747 EMAIL: JMORRIS@TECOENERGY.COM



NOTES

1. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NGVD 88). 2. THE FOLLOWING PROPOSED FACILITIES SHOWN ON THE DEVELOPMENT PLANS ARE FOR REFERENCE PURPOSES ONLY AND EACH SHALL REQUIRE A SEPARATE BUILDING PERMIT. THIE LIST INCLUDES, BUT IS NOT LIMITED TO: PROPOSED BUILDINGS, SANITARY LIFT STATIONS, AND LIGHT FIXTURES (POLES) THAT ARE INDEPENDENT FROM ANY BUILDING

SHEET NUMBER

C1.0

C2.0

C3.0

C3.1

C4.0

C5.0

C6.0

C7.0

C8.0

C8.1

3. PROJECT SITE IS LOCATED ON 1.50 ACRES OF DEVELOPABLE LAND.

GENERAL NOTES:

THESE GENERAL NOTES APPLY TO ALL WORK IN THIS SET OF DRAWINGS.

MISSICONTRACTOR SHALL REVIEW ALL PERMITS PRIOR TO CONSTRUCTION FOR ANY CHANGES TO THE DESIGN INCLUDED THEREIN. NOTIFY ENGINEER/OWNER OF ANY REQUIRED CHANGES PRIOR TO CONSTRUCTION.

- BISCULT WILL BESTHE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THEREIN. PERMITS INCLUDED (BUT NOT NECESSARILY LIMITED TO) ARE: - WATER MANAGEMENT DISTRICT CONSUMPTIVE USE (WATER USE) FOR CONSTRUCTION DEWATERING
- WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE PERMIT
- FDEP WATER DISTRIBUTION FDEP DREDGE AND FILL
- ACOE INDIVIDUAL DREDGE AND FILL
- LOCAL RIGHT OF WAY USE - LOCAL UNDERGROUND UTILITIES - EPA NPDES STORMWATER PERMIT
- CONTRACTOR IS ADVISED THAT THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REQUIRES THAT OPERATORS FILE A NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES GENERAL PERMIT PRIOR TO BEGINNING WORK. IT IS CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN SAME. A COPY SHALL BE SENT TO EVANS ENGINEERING, INC.
- FLORIDA LAW (F.S. 553.851) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION IN ANY PUBLIC OR PRIVATE STREET, ALLEY, RIGHT-OF-WAY DEDICATED TO THE PUBLIC USE, OR GAS UTILITY EASEMENT WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF THE PROPOSED EXCAVATION." THIS INCLUDES ANY OPERATION UTILIZING HAND TOOLS OR POWER TOOLS WHICH MOVES OR REMOVES ANY STRUCTURE, EARTH, ROCK, OR OTHER MASS OF MATERIAL BY SUCH METHODS AS DIGGING, BACKFILLING, DEMOLITION, GRADING, DITCHING, DRILLING, BORING AND CABLE PLOWING. THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATING (EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS).
- CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS; INCLUDING BUT NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, GAS AND CABLE TV
- CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN TO BOTH CITY/COUNTY AND EVANS ENGINEERING, LLC ENGINEERS FOR APPROVAL PRIOR TO SCHEDULING THE PRE-CONSTRUCTION MEETING.
- PRIOR TO COMMENCEMENT, CONTRACTOR SHALL PROVIDE EVANS ENGINEERING, INC. WITH CONSTRUCTION SCHEDULE FOR VARIOUS SITE WORK ELEMENTS SO THAT PERIODIC SITE VISITS MAY BE COORDINATED TO ENSURE TIMELY CERTIFICATION OF COMPLETION TO AGENCIES AND AVOID DELAYS IN ISSUANCE OF CERTIFICATES OF OCCUPANCY/COMPLETION.
- THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS. WHICH SHALL BE DONE IN A TIMELY FASHION TO MINIMIZE IMPACT ON THE CONSTRUCTION SCHEDULE. ANY DELAY OR INCONVENIENCE CAUSED THE CONTRACTOR BY THE RELOCATION OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED
- ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND OWNER IN WRITING. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED. WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND OWNER.
- CONTRACTOR SHALL PROTECT ADJACENT LAKES AND WETLANDS AND ALL ADJACENT PROPERTIES FROM DAMAGE BY SEDIMENTATION OR OTHER POTENTIAL CONSTRUCTION RELATED CAUSES.
- 12. ALL RECOMMENDATIONS AND REQUIREMENTS OF INSPECTION PERSONNEL OTHER THAN OWNER'S SHALL BE REPORTED TO ENGINEER/OWNER PRIOR TO IMPLEMENTATION. COMPENSATION WILL NOT BE ALLOWED FOR WORK WHICH IS NOT AUTHORIZED BY ENGINEER/OWNER.
- 13. CONTRACTOR SHALL BE EXTREMELY CAUTIOUS WHEN WORKING NEAR TREES WHICH ARE TO BE SAVED, WHETHER SHOWN IN THE PLANS OR DESIGNATED IN THE FIELD. CONTRACTOR SHALL BECOME FAMILIAR WITH AND CONFORM WITH ALL TREE PROTECTION/PRESERVATION PROVISIONS OF THE CONTRACT DOCUMENTS AND LOCAL
- 14. ALL WORK SHALL BE OPEN TO AND SUBJECT TO INSPECTION BY AUTHORIZED PERSONNEL OF THE COUNTY/CITY, OWNER, INVOLVED UTILITY COMPANIES, PROJECT ENGINEER AND REGULATORY AGENCIES.
- 15. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE PLAT AND COORDINATES PROVIDED IN THESE PLANS. CONTRACTOR SHALL CONFIRM WITH THE ENGINEER THAT THE PLAT IS CURRENT PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONFIRM THE BUILDING DIMENSIONS SHOWN HEREIN WITH THOSE IN THE FINAL ARCHITECTURAL DRAWINGS PRIOR TO STAKEOUT. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL AND VERTICAL, INCLUDING MINIMUM BUILDING SETBACKS PRIOR TO THE INSTALLATION OF ANY IMPROVEMENT.
- CONTRACTOR SHALL CONFIRM COMPATIBILITY OF PIPE SLOPES AND INVERTS DURING SHOP DRAWING AND MATERIALS ORDERING PHASE OF PROJECT AND ADVISE ENGINEER OF ANY DISCREPANCIES.
- 17. CONTRACTOR SHALL FURNISH OWNER WITH SURVEYED RECORD DRAWINGS SHOWING AS-CONSTRUCTED HORIZONTAL AND VERTICAL DIMENSIONING OF THE WORK. THE SUBMITTAL COPY OF THE RECORD DRAWINGS WILL NOT BE RETURNED. THE RECORD DRAWING OR A REPRODUCIBLE COPY PREPARED BY ENGINEER SHALL BE CERTIFIED BY THE CONTRACTOR AS CORRECT. ALL INFORMATION WHICH IS UNCHANGED AND CURRENT SHALL BE NOTED BY CHECKING OFF OR CIRCLING. ALL REVISED INFORMATION SHALL BE CROSSED THROUGH AND NEW DATA ADDED. ADDITIONAL REQUIREMENTS ARE NOTED IN PAVING, GRADING AND DRAINAGE AND WATER AND SEWER NOTES.
- 18. CONTRACTOR SHALL CERTIFY VIA THE RECORD DRAWINGS THAT CONSTRUCTION CONFORMS WITH THE FOLLOWING CRITERIA:
- STORMWATER MANAGEMENT AREAS, MAINTENANCE BERMS, BERM BACK SLOPES AND OUTFALL CONVEYANCE ARE CONSTRUCTED WITHIN DESIGNATED TRACT OR
- ELEVATIONS ARE WITHIN THE FOLLOWING SPECIFIED TOLERANCES OF DESIGN **ELEVATIONS:**
- TOP OF BERM, TOE OF SLOPE, POND BOTTOM +/- 0.50 FT.
- OUTFALL STRUCTURE AND PIPING +/- 0.20 FT
- PIPE INVERTS, GUTTER LINE AND ROAD CENTERLINE AT SAG INLETS +/- 0.20 FT.
- COMPENSATING STORAGE AREAS +/- 0.50 FT. 19. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES
- 20. NO EXISTING MATERIAL SHALL BE USED IN NEW CONSTRUCTION UNLESS APPROVED
- 21. THE CONTRACTOR SHALL VERIFY THE LIMIT, DEPTH AND TYPE OF EXISTING FRICTION COURSE, IF ANY, PRIOR TO INITIATING OFFSITE ROADWAY IMPROVEMENTS.

PAVING, GRADING & DRAINAGE NOTES:

- THE GENERAL NOTES SHOWN ON DRAWING 1 APPLY TO PAVING, GRADING AND DRAINAGE
- 2. EXISTING TOPOGRAPHY AND CONTOURS ARE BASED ON THE FOLLOWING: SURVEYOR: HAMILTON ENGINEERING & SURVEYING INC.
- 3. BENCHMARK LOCATION AND ELEVATION ARE AS REPRESENTED BY SURVEYOR AT THE TIME OF THE SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY MONUMENTATION. DISTURBED MONUMENTATION SHALL BE RESTORED BY A LICENSED LAND SURVEYOR AS DIRECTED BY THE OWNER AT CONTRACTOR'S EXPENSE.
- SITE GRADING, PAVING AND DRAINAGE MATERIALS AND CONSTRUCTION SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION (AND CITY/COUNTY REGULATORY STANDARD SPECIFICATIONS).
- IMMEDIATELY AT ONSET OF CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES CRITICAL TO COMPLETING THE PROJECT (INCLUDING WATER, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV) AND SHALL EVALUATE POTENTIAL CONFLICTS. ALL SUCH CONFLICTS SHALL BE REPORTED TO ENGINEER/OWNER IMMEDIATELY UPON DISCOVERY.
- CONTRACTOR SHALL INSTRUCT THE GEOTECHNICAL TESTING LABORATORY PROVIDING CONSTRUCTION TESTING TO PROVIDE EVANS ENGINEERING, INC. & OWNER WITH COPIES OF ALL SITE-WORK TEST REPORTS AS THEY ARE GENERATED. CONTRACTOR SHALL MAINTAIN THE RESPONSIBILITY OF CONSTRUCTING THE PROJECT IN STRICT ACCORDANCE WITH THE PROJECT PLANS, SPECIFICATIONS AND REQUIREMENTS. RECEIPT OF COPIES OF GEOTECHNICAL REPORTS BY EVANS ENGINEERING, INC. IN NO WAY OBLIGATES EVANS ENGINEERING, INC. TO ANY REVIEW, COMMENTS OR ACTIONS REGARDING THE WORK.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO INSURE AGAINST POLLUTING, SILTING, OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEM AND ADJACENT WATER BODIES AND WETLANDS. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES. METHODS MAY INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION OF TEMPORARY EROSION CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, OR SILT SCREENS. ANY MEASURES SHOWN OR DETAILED IN THESE DRAWINGS SHALL BE CONSIDERED MINIMUMS AND SHALL NOT ALLEVIATE CONTRACTOR FROM THE RESPONSIBILITY TO IMPLEMENT ANY MEASURES NECESSARY TO PROVIDE PROTECTION.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD STAKE AND ROPE OFF CONSERVATION AREA LINES. OWNER RESERVES THE RIGHTS TO CHECK THE STAKING AND ROPING AND REQUIRE IT TO BE RELOCATED IF NECESSARY. IT SHALL REMAIN IN PLACE UNTIL ADJACENT CONSTRUCTION IS COMPLETE.
- NO WATER VALVE BOXES, METERS, PORTIONS OF MANHOLES, OR OTHER APPURTENANCES OF ANY KIND RELATING TO ANY UNDERGROUND UTILITIES SHALL BE LOCATED IN ANY PORTION OF A CURB-AND-GUTTER SECTION. ADVISE ENGINEER IMMEDIATELY UPON DISCOVERY OF A POTENTIAL CONFLICT.
- ALL SIGNAGE, PAVEMENT MARKING AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS" AND FHWA "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
- 12. REGULATORY SIGNS (STOP, ETC.) SHALL BE PAID FOR BY DEVELOPER AND IN PLACE PRIOR TO FINAL INSPECTION OF PAVING AND DRAINAGE IMPROVEMENTS.
- BLUE REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED OPPOSITE FIRE HYDRANTS IN THE CENTER OF THE NEAREST TRAVELED LANE TO MARK THEIR LOCATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING PROPER TRAFFIC MAINTENANCE AND CONTROLS IN ACCORDANCE WITH REGULATORY STANDARDS. WHERE A TRAFFIC MAINTENANCE PLAN IS REQUIRED, THE CONTRACTOR SHALL PREPARE AND SUBMIT THE PLAN FOR APPROVAL.
- 15. EVANS ENGINEERING, INC. SHALL PROVIDE ACCURATE AS-BUILT DIMENSIONS AND ELEVATIONS OF THE STORMWATER MANAGEMENT AREAS IN THE RECORD DRAWINGS.
- 16. GEOTECHNICAL SERVICES HAVE BEEN PROVIDED AS REFERENCED BELOW. GEOTECHNICAL RECOMMENDATIONS ARE NOT THE RESPONSIBILITY OF EVANS ENGINEERING, INC. EVANS ENGINEERING, INC. HAS RELIED ON THE BELOW REFERENCED GEOTECHNICAL REPORT(S) IN PREPARATION OF THE DRAWINGS. ANY CONFLICT BETWEEN INFORMATION WITHIN THE REPORT AND THESE DRAWINGS SHALL BE REPORTED TO ENGINEER/OWNER. EVANS ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS, COMPLETENESS OR ACCURACY OF GEOTECHNICAL INFORMATION. GEOTECHNICAL ENGINEER: UNIVERSAL ENGINEERING SCIENCES.
- CONTRACTOR IS RESPONSIBLE FOR GRADING ALL PAVEMENTS TO DRAIN POSITIVELY. INTERSECTIONS SHALL BE TRANSITIONED TO PROVIDE SMOOTH DRIVING SURFACE WHIL MAINTAINING POSITIVE DRAINAGE. SHOULD AREAS OF POOR DRAINAGE BE OBSERVED. CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF CURBS OR PAVEMENT COURSES, SO THAT RECOMMENDATIONS FOR CORRECTION MAY BE MADE.
- 18. CONTRACTOR SHALL COORDINATE WITH MUNICIPAL AUTHORITY FOR PRE-POUR INSPECTION PRIOR TO ANY SIDEWALK AND/OR RAMP CONCRETE POURS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THAT ALL RAMP TEXTURED SURFACE. AND SIDEWALK LONGITUDINAL AND CROSS SLOPES ARE IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL ADA STANDARDS.
- 19. PROPOSED AND EXISTING SIDEWALKS SHALL BE RAMPED FLUSH WITH PAVEMENT. RAMPS SHALL NOT EXCEED SLOPES OF 12 HORIZONTAL TO 1 VERTICAL.
- 20. FINISHED FLOOR ELEVATION IS TYPICALLY 6 INCHES ABOVE DESIGN FINISHED GRADE AT OUTSIDE PERIMETER OF BUILDINGS EXCEPT AT ENTRIES AND WHERE OTHERWISE
- 21. 100-YEAR FLOOD ELEVATIONS SHOWN HEREIN ARE DERIVED FROM FEMA/FLOOD INSURANCE RATE MAP OF OSCEOLA COUNTY, MAP NUMBER 12097C024G DATED JUNE 18,
- 22. FINISHED FLOOR ELEVATIONS ARE MINIMUM ELEVATIONS REQUIRED TO SATISFY DRAINAGE AND/OR 100-YEAR FLOODPLAIN REQUIREMENTS. PAD ELEVATIONS, IMMEDIATELY OUTSIDE OF BUILDING WALLS, SHALL BE NO MORE THAN 8 INCHES BELOW THE FINISHED FLOOR ELEVATIONS SHOWN.
- 23. ALL OFF-SITE DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION, OR BETTER.
- 24. OVER-EXCAVATION OF RETENTION BASINS SHALL NOT BE ALLOWED UNLESS SPECIFICALLY AUTHORIZED BY ENGINEER/OWNER. SHOULD UNAUTHORIZED OVER-EXCAVATION OCCUR, IT SHALL BE BACKFILLED, REGRADED, RESODDED AND/OR RESEEDED AS REQUIRED AT CONTRACTOR'S EXPENSE TO OWNER'S SPECIFICATIONS.
- 25. CONTRACTOR SHALL NOT COMPACT, STABILIZE, OR CONSTRUCT BASE COURSE WITHIN LANDSCAPE ISLANDS OR MEDIANS. WHERE SUCH TREATMENT DOES OCCUR, IT SHALL BE REMOVED AND REPLACED WITH SUITABLE PLANTING SOILS ACCEPTABLE TO OWNER'S LANDSCAPE ARCHITECT.

26. ENGINEER RESERVES THE RIGHT TO WITHHOLD AUTHORIZATION FOR PAYMENT FOR ANY

- ROADWORK WHICH HAS NOT BEEN TESTED BY A FLORIDA-REGISTERED GEOTECHNICAL ENGINEER AND REPORTED TO CONFORM TO PROJECT SPECIFICATIONS.
- 27. ELEVATIONS OF GRASSED AREAS ARE GIVEN AT FINISHED GRADE (TOP OF SOD OR SEEDED SURFACE).
- 28. SEE WATER AND SEWER NOTES FOR REQUIREMENTS AT CROSSINGS OF STORM DRAINS AND UTILITY PIPE.
- 29. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN CENTERLINES OF DRAINAGE STRUCTURES AND FROM INVERTS OF ENDWALLS AND/OR MITERED END SECTIONS. BIDDERS SHALL ADJUST FOR PIPE LENGTHS WHEN BIDDING MITERED END
- 30. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND DISPOSING ALL WASTE MATERIALS CONSISTENT WITH ALL RULES AND REGULATIONS APPLICABLE TO THE SPECIFIC
- 31. ROAD GRADING AND CONSTRUCTION SHALL INCLUDE BRINGING THE 10-FT. UTILITY EASEMENTS ADJACENT TO THE RIGHT-OF-WAY LINE TO WITHIN 6 INCHES OF FINAL

- 32. INLETS WHICH ARE GRAPHICALLY SHOWN ON LOT LINES AND NOT OTHERWISE LOCATED BY STATIONING SHALL BE LOCATED SUCH THAT THE CENTERLINE OF THE INLET BOTTOM IS ALIGNED WITH THE LOT LINE.
- 33. RETAINING WALL DESIGN BY OTHERS.
- 34. NEW PIPES SHALL BE CONNECTED TO EXISTING PIPES AT AN EXISTING FACTORY MADE JOINT. REMOVE PARTIAL PIPES IF AND AS NEEDED.
- 35. MINIMUM CURB SLOPE SHALL BE 0.30 PERCENT.
- 36. ALL MITERED END SECTIONS SHALL BE 2:1 FACE SLOPE UNLESS OTHERWISE INDICATED
- 37. ALL SIDEWALKS DIRECTLY ADJACENT TO RETENTION POND ACCESS DRIVES SHALL BE INCH THICK CONCRETE.
- ALL PIPE END TREATMENTS SHALL CONFORM TO FDOT INDEX NO. 280, "CONCRETE JACKET FOR CONNECTING DISSIMILAR TYPES OF PIPE AND CONCRETE PIPES WITH DISSIMILAR JOINTS." CONTRACTOR MAY SUBMIT ALTERNATE DESIGN FOR REVIEW AND
- THE CURBS, CURB AND GUTTERS, CURB AND GUTTER ENDINGS, CONCRETE SIDEWALKS, SIDEWALK CURB RAMPS, DETECTABLE WARNINGS, DRIVEWAYS, CROSSWALKS, STOP MARKINGS AND SIGNS, MUST ALL COMPLY WITH THE FDOT STANDARDS.
- 40. CURB RAMPS SHALL BE 6" THICK.
- 41. CONTRACTOR MUST REPAIR THE EXISTING ROAD, SIDEWALKS, CURBS, LANDSCAPING, AND UTILITIES, IF IT IS DISTURBED BY THE CONSTRUCTION PROCESS.
- 42. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR MUST SUBMIT TO THE REGULATORY AGENCY SIGNED AND SEALED RECORD DRAWINGS ACCOMPANIED BY A CD WITH PDF AND ACAD FILES OF THE SIGNED AND SEALED RECORD DRAWINGS AS WELL AS AN EXCEL SPREADSHEET SHOWING THE COLLECTED X, Y, AND Z COORDINATES OF

MATERIAL SPECIFICATIONS (PAVING AND DRAINAGE)

- PAVING MATERIALS SHALL CONFORM WITH FDOT STANDARD SPECIFICATIONS, LATEST EDITION AND CITY/COUNTY REGULATORY STANDARD SPECIFICATIONS.
- STORM DRAINS SHALL BE REINFORCED CONCRETE PIPE, PER ASTM C-76 CLASS III, UNLESS OTHERWISE SPECIFIED. LIFTING HOLES ARE PROHIBITED.
- 3. ALL PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC. IN ALL OTHER MUNICIPALITIES PIPES BETWEEN LOTS, ADJACENT TO BUILDINGS OR BELOW THE WATER TABLE SHALL BE WRAPPED WITH FILTER FABRIC. FILTER FABRIC TO EXTEND A MINIMUM OF 3' TO EACH SIDE OF THE PIPE JOINT. THE FILTER FABRIC SHALL HAVE A MINIMUM OF 2' OF OVERLAP, AS IT IS WRAPPED AROUND THE PIPE JOINT.
- ALL STORM STRUCTURES SHALL CONFORM WITH FDOT STANDARD INDEX DRAWINGS AND SPECIFICATIONS EXCEPT THAT DITCH BOTTOM INLETS IN PAVED AREAS SHALL HAVE TRAVERSABLE, TRAFFIC BEARING, GRATES SUPPORTED BY STEEL ANGLE SEATS OR SUPPORTED ON FOUR SIDES. GRATES SHALL BE CAST IRON UNLESS OTHERWISE SPECIFIED OR APPROVED.
- 5. UNDERDRAIN SHALL BE HEAVY-DUTY CORRUGATED POLYETHYLENE PIPE WITH FACTORY-INSTALLED FILTER FABRIC AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS (ADS), OR APPROVED EQUAL.
- UNDERDRAIN DISCHARGE PIPE SHALL BE PVC PER ASTM D3034 SDR 35 WITH ELASTOMERIC JOINTS, NON-PERFORATED.
- 7. ALL TYPE "P" STRUCTURE BOTTOMS SHALL BE ROUND UNLESS OTHERWISE SPECIFIED AND SHALL HAVE 4 FT. MINIMUM DIAMETER.
- ALL CONCRETE CURBS, SIDEWALKS, INLET TOPS, ETC. SHALL BE 3000 PSI MINIMUM, UNLESS OTHERWISE SPECIFIED.

SEED AND MULCH SPECIFICATIONS

WINTER (SEPTEMBER THROUGH JANUARY) RYE GRASS BAHIA GRASS (90% GREEN OR BETTER) FERTILIZER 10-10-10 STAGE 1 (AT PLANTING) STAGE 2 (AT GERMINATION)	PER ACRE 30 POUNDS 70 POUNDS 400 POUNDS 400 POUNDS
SPRING (FEBRUARY THROUGH MARCH) RYE GRASS BROWN TOP MILLET BAHIA GRASS (90% GREEN OR BETTER) FERTILIZER 10-10-10 STAGE 1 (AT PLANTING) STAGE 2 (AT GERMINATION)	PER ACRE 20 POUNDS 20 POUNDS 70 POUNDS 400 POUNDS 400 POUNDS
SUMMER (MARCH THROUGH AUGUST) BROWN TOP MILLET BAHIA GRASS (90% GREEN OR BETTER) FERTILIZER 10-10-10 STAGE 1 (AT PLANTING) STAGE 2 (AT GERMINATION)	PER ACRE 35 POUNDS 70 POUNDS 400 POUNDS 400 POUNDS

ALL OPEN SPACE AREAS NOT CLEARLY DEPICTED AS 'TO BE SODDED' ON LANDSCAPE PLANS SHALL BE SODDED.

UTILITY NOTES

STRINGENT, SHALL BE ADHERED TOO.

AND NO EXTRA COMPENSATION WILL BE ALLOWED.

(PIPE SEPARATION REQUIREMENTS)

- 1. ALL CONSTRUCTION SHALL CONFORM WITH THE STANDARDS AND SPECIFICATIONS SET FORTH BY LOCAL, STATE AND FEDERAL REGULATIONS, WHICH SO EVER ARE MORE
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING (HORIZONTALLY AND VERTICALLY) ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND FOR NOTIFYING VARIOUS UTILITY COMPANIES TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, TEMPORARY DISTRIBUTION SERVICE OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FILED LOCATED. ALL UTILITIES, WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION, SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR SHALL COOPERATE WITH THEM FULLY DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT
- PROVIDE MINIMUM OF 3 FEET COVER FOR ALL UTILITIES UNLESS OTHERWISE NOTED IN THE CONSTRUCTION PLANS.
- COMPACT ALL UTILITIES TRENCHES WITHIN THE ROADWAYS ASSOCIATED WITH THIS PROJECT TO 98% OF THE PROCTOR MAXIMUM DENSITY.
- THE SPECIFICATIONS, NOTES AND PLANS CALL ATTENTION TO CERTAIN REQUIRED FEATURES OF THE CONSTRUCTION BUT DO NOT PURPORT TO COVER ALL DETAILS OF DESIGN AND CONSTRUCTION. HOWEVER, THE CONTRACTOR SHALL FURNISH AND INSTALL THE WORKS IN ALL DETAILS AND READY FOR OPERATION.
- 6. ALL EQUIPMENT AND MATERIAL ASSOCIATED WITH ANY UTILITY WORK ON THIS PROJECT SHALL BE HANDLED, STORED, INSTALLED, TESTED AND OPERATED IN STRICT ACCORDANCE WITH THE APPLICABLE MANUFACTURERS INSTRUCTIONS. LOCATION OF PUBLIC WATER SYSTEM (PWS) MAINS

THE TERM "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE (3) INCHES OR GREATER

STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. A. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET BETWEEN THE OUTSIDE OF THE

1. HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR

- WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER. STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER
- B. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
- C. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE HORIZONTAL DISTANCE OF AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

TOHO WATER AUTHORITY (TWA) GENERAL NOTES

REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

- 1. CONSTRUCT UTILITIES IN ACCORDANCE TO TOHO APPROVED PLANS AND SHOP DRAWINGS. ANY DEVIATION FROM THE APPROVED PLANS SHALL BE APPROVED BY THE DEVELOPER'S ENGINEER AND TOHO.
- 2. A PRECONSTRUCTION MEETING WITH THE TOHO'S STAFF IS REQUIRED PRIOR TO INITIATING CONSTRUCTION.
- 3. ALL REQUIRED PERMITS SHALL BE OBTAINED PRIOR TO INITIATING CONSTRUCTION.
- 4. A MINIMUM 12 FOOT WIDE ACCESS ROAD SHALL BE PROVIDED FOR ALL TOHO OWNED UTILITIES, WHICH ARE LOCATED OUTSIDE OF ROADWAYS. THE TOP 8" OF THE ACCESS ROAD SHALL BE STABILIZED TO A FLORIDA BEARING VALUE OF 75 PSI, AND COMPACTED TO 98% OF AASHTO T-180.
- PIPE DEFLECTION CANNOT EXCEED 25% OF THE PIPE MANUFACTURER'S RECOMMENDATION.
- REFERENCE TOHO'S STANDARDS, SPECIFICATIONS AND DETAILS, LATEST EDITION FOR ISSUES NOT SPECIFICALLY ADDRESSED BELOW OR ON THE TOHO ACCEPTED CONSTRUCTION PLANS.
- CURRENT EDITION OF TOHO'S STANDARDS, SPECIFICATIONS AND DETAILS, AT TIME OF TOHO PLAN ACCEPTANCE SHALL SUPERSEDE ACCEPTED PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE TOHO STANDARDS, SPECIFICATIONS AND DETAILS ARE ADHERED TO IN CONSTRUCTION.

PERMITS, PLANS, SHOP DRAWINGS:

- PERMITS OR LETTERS OF DETERMINATION FROM FDEP SHALL BE OBTAINED FOR THE SANITARY SEWER COLLECTION SYSTEM AND WATER DISTRIBUTION SYSTEM PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- A STAMPED ACCEPTED SET OF PLANS BY TOHO SHALL BE PRESENT ON THE SITE AT ALL TIMES. ACCEPTED PLANS ARE VALID FOR 12 MONTHS FROM THE DATE OF PLAN ACCEPTANCE. IF CONSTRUCTION DOES NOT BEGIN WITHIN THIS 12 MONTH PERIOD, THE DEVELOPER MUST CONTACT TOHO FOR A PROJECT STATUS REVIEW AND POSSIBLE APPROVAL FOR EXTENSION.
- 3. SHOP DRAWINGS FOR ALL WATER, REUSE, AND SANITARY SEWER MATERIALS AND STRUCTURES SHALL BE SUBMITTED TO TOHO PRIOR TO INITIATING CONSTRUCTION.
- 4. INSTALLATION OF MATERIALS AND/OR STRUCTURES PRIOR TO SHOP DRAWING APPROVAL IS DONE AT THE CONTRACTOR'S OWN RISK.
- 5. TWO HARD COPIES AND ONE ELECTRONIC COPY OF RECORD DRAWINGS SHALL BE SUBMITTED TO TOHO BEFORE THE FINAL INSPECTION. RECORD DRAWINGS SHALL CONFORM TO SECTIONS 11.6 OF TOHO'S STANDARDS, SPECIFICATIONS AND DETAILS, LATEST EDITION.

POTABLE WATER AND REUSE WATER - TESTING:

- 1. WATER LINE SHALL BE INSTALLED, CLEANED, FLUSHED, DISINFECTED AND BACTERIOLOGICALLY TESTED AND CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND FDEP RULES AND REGULATIONS. ALL WATER DISTRIBUTION SYSTEMS SHALL BE FLUSHED CLEAN OF ALL DELETERIOUS MATERIAL PRIOR TO ANY TESTING. LINES 4" AND GREATER SHALL BE PIGGED.
- IRON PIPE) AND AWWA-C605/M23 (PVC PIPE) SPECIFICATIONS AT 150 PSI AND WITNESSED BY TOHO PERSONNEL. NO LEAKAGE SHALL BE ALLOWED.

2. WATER LINE SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA-C600 (DUCTILE

- 3. ALL TAPPING SADDLES AND SLEEVES SHALL BE PRESSURE TESTED AT 150 PSI AND WITNESSED BY TOHO PERSONNEL PRIOR TO INITIATING THE TAP. 4. ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH THE LATEST VERSION
- OF AWWA C651 AND WITNESSED BY TOHO PERSONNEL.. 5. ALL BACTERIOLOGICAL SAMPLES SHALL BE WITNESSED BY TOHO PERSONNEL.

WATER - MATERIALS:

- 1. PVC PIPE: FOUR (4) INCHES THROUGH TWELVE (12) INCHES SHALL BE AWWA C-900, LATEST EDITION. FOURTEEN (14) INCHES THROUGH THIRTY-SIX (36) INCHES SHALL BE AWWA C-905. LATEST EDITION.
- 2. DIP PIPE: FOUR (4)" THROUGH FIFTY-FOUR (54)" SHALL BE ANSI/AWWA A21.51/C151 WITH A MINIMUM WORKING PRESSURE CLASS 150 PIPE. ANY FITTINGS REQUIRED SHALL BE MECHANICAL JOINT DUCTILE IRON CONFORMING TO ANSI/AWWA A21.10/C110, 250 PSI MINIMUM PRESSURE RATING, OR DUCTILE IRON COMPACT FITTINGS IN ACCORDANCE WITH ANSI/AWWA A21.53/C153.
- JOINTS FOR DUCTILE IRON PIPE SHALL BE PUSH-ON OR MECHANICAL JOINTS CONFORMING TO ANSI/AWWA A21.11/C111. ABOVE GROUND JOINTS SHALL BE FLANGED WITH STAINLESS STEEL BOLTS, NUTS AND WASHERS. FLANGED JOINTS SHALL CONFORM TO ANSI STANDARD B 16.1-125 LB. WHERE DUCTILE IRON PIPE AND FITTINGS ARE TO BE BELOW GROUND OR INSTALLED IN A
- CASING PIPE THE COATING SHALL BE A MINIMUM 1.0 MIL THICK IN ACCORDANCE WITH ANSI/AWWA A21.51/C151. WHERE DUCTILE IRON PIPE AND FITTINGS ARE TO BE INSTALLED ABOVE GROUND, PIPE, FITTINGS AND VALVES SHALL BE THOROUGHLY CLEANED AND GIVEN ONE FIELD COAT (MINIMUM 1.5 MILS DRY THICKNESS) OF RUST INHIBITOR PRIMER, AND TWO FINISH COATS
- (MINIMUM 1.5 MILS DRY THICKNESS EACH). ALL DUCTILE IRON PIPE AND FITTINGS SHALL HAVE AN INTERIOR PROTECTIVE LINING OF CEMENT-MORTAR WITH A SEAL COAT OF ASPHALTIC MATERIAL IN ACCORDANCE WITH ANSI/AWWA A21.4/C104. THE PIPE SHALL BE POLYETHYLENE ENCASED (8 MIL) WHERE SHOWN ON THE PLANS, IN
- ACCORDANCE WITH ANSI/AWWA A21.51/C105. POLYETHYLENE PIPE: FOUR (4)" THROUGH TWELVE (12)" SHALL BE AWWA STANDARD C906, PE3408 LATEST EDITION. THE POLYETHYLENE PIPE SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 160 PSI AND SHALL HAVE A STANDARD DIMENSION RATIO (SDR) OF 11. PIPE SHALL BE THE SAME ID ASDUCTILE IRON PIPE.

POLYETHYLENE PIPE SHALL HAVE FUSION BONDED JOINTS.

4. SERVICE PIPES: ALL SERVICE LINES SHALL BE ¾", 1", 1-1/2" OR 2", BLUE FOR POTABLE WATER AND PURPLE FOR REUSE WATER, PC200, SDR9, POLYETHYLENE TUBING CONFORMING TO SPECIFICATIONS IN AWWA C901, PE3608. 4" AND LARGER SERVICE PIPE SHALL BE C-900 PVC OR DIP. 3" SERVICE PIPE SHALL NOT BE PERMITTED

FITTINGS USED WITH POLYETHYLENE PIPE SHALL BE FUSION FITTINGS IN ACCORDANCE

5. VALVES SHALL BE RESILIENT WEDGE GATE VALVES.

WITH AWWA STANDARD C906.

- VALVES SHALL BE LOCATED AT NOT MORE THAN 500 FOOT INTERVALS IN COMMERCIAL, INDUSTRIAL AND HIGH DENSITY RESIDENTIAL AREAS AND AT NOT MORE THAN 1000 FOOT INTERVALS IN ALL OTHER AREAS. APPROPRIATE VALVING SHALL ALSO BE PROVIDED ON ALL SIDES OF TEES AND CROSSES AND ON BOTH SIDES OF A DIRECTIONAL BORE OR JACK
- 7. ALL METERS SHALL BE INSTALLED BY TOHO AFTER ALL PAYMENT OF APPLICABLE FEES AND CHARGES. ALL METERS 2" AND LESS IN SIZE SHALL BE INSTALLED UNDERGROUND IN AN APPROVED METER BOX. METERS LARGER THAN 2" SHALL BE INSTALLED ABOVE GROUND. IN GENERAL, METERS 2" AND LARGER SHALL BE LOCATED IN A METER EASEMENT LOCATED ADJACENT TO THE PUBLIC RIGHT OF WAY AND OUTSIDE OF PAVED AREAS.

PRIOR TO ANY TESTING TO BE WITNESSED, ALL PASSING SOIL DENSITY TESTS AND SLOPE

- SURVEYS SHALL BE SUBMITTED TO THE TOHO ENGINEER AND TO THE TOHO INSPECTOR
- ALL SANITARY MANHOLES SHALL BE INSPECTED BY TOHO PERSONNEL
- SANITARY SEWERS SHALL BE VIDEO INSPECTED AND WITNESSED BY TOHO PERSONNEL IN ACCORDANCE WITH THE TOHO STANDARDS, SPECIFICATIONS, AND DETAILS MANUAL,
- SANITARY SEWERS SHALL BE LOW PRESSURE AIR TESTED WITH NO ALLOWABLE LOSS AND WITNESSED BY TOHO PERSONNEL.
- GRAVITY SANITARY SEWER MAINS SHALL REQUIRE A MANDREL TEST WHICH SHALL BE WITNESSED BY THE TOHO INSPECTOR IN ACCORDANCE WITH THE TOHO STANDARDS, SPECIFICATIONS, AND DETAILS MANUAL, LATEST EDITION.

GRAVITY SEWER - MATERIALS:

- PVC PIPE: FOUR (4)" THROUGH FIFTEEN (15)" SHALL BE ASTM D3034, SDR 35. THE JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477/ APPLICABLE UNI-BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI B-4.
- PVC PIPE: EIGHTEEN (18)" THROUGH TWENTY-SEVEN (27)" SHALL BE ASTM F679, SDR 35. THE JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477/ APPLICABLE UNI-BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI B-7. ALL PVC PIPE SHALL BEAR THE NSF-DW SEAL. THE MINIMUM STANDARD LENGTH OF PIPE SHALL BE THIRTEEN (13) FEET. PVC PIPE WITH LESS THAN 15 FT OF COVER SHALL BE SDR

35; 15 TO 20 FT SHALL BE SDR 26; AND 20 TO 30 FT SHALL BE SDR 18.

- DIP PIPE: ANSI/AWWA A21.51/C151, CLASS THICKNESS DESIGNED PER ANSI/AWWA A21.50/C150, WITH FLANGE JOINTS. AN INTERIOR PROTECTIVE LINING OF "PROTECTO 401" EPOXY, OR EQUAL, WITH A MINIMUM DRY FILM THICKNESS 40 MILS. DIP SHALL ONLY BE USED ON ABOVE GROUND PIPE ATSANITARY LIFT STATIONS.
- JOINT MATERIALS:
 - PVC SEWER PIPE JOINTS SHALL BE FLEXIBLE ELASTOMERIC SEALS PER ASTM D3212. JOINTS BETWEEN PIPES OF DIFFERENT MATERIALS SHALL BE MADE WITH A RIGID PVC, ADAPTOR COUPLING. FERNCO ADAPTERS SHALL ONLY BE PERMITTED WHEN TRANSITIONING BETWEEN CLAY PIPE AND PVC.

SEWER FORCE MAINS – TESTING:

- 1. FORCE MAIN PIPING SHALL BE INSTALLED AND PIGGED UNTIL CLEAN.
- FORCE MAIN SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA-C600 (DUCTILE IRON PIPE) AND AWWA-C605/M23(PVC PIPE) SPECIFICATIONS AT 100 PSI OR 1.5 TIMES THE OPERATING PRESSURE, WHICHEVER IS GREATER FOR A MINIMUM OF 2 HOURS AND WITNESSED BY TOHO PERSONNEL. NO LEAKAGE SHALL BE ALLOWED.

- PVC PIPE: FOUR (4)" THROUGH TWELVE (12)" SHALL BE AWWA STANDARD C900 AND A DIMENSION RATIO (DR) OF 25. PVC PIPE SHALL BE INTEGRAL BELL, PUSH-ON TYPE JOINTS.
- DIP PIPE: FOUR (4)" THROUGH FIFTY-FOUR (54)" SHALL BE ANSI/AWWA A21.51/C151 WITH A MINIMUM OF PRESSURE CLASS 150 AND LINED WITH PROTECTO 401 OR EQUAL. ABOVE GROUND FITTINGS AND JOINTS SHALL BE FLANGED WITH T5 CADMIUM PLATED BOLTS, NUTS, AND WASHERS. FLANGED JOINTS SHALL CONFORM TO ANSI STANDARD B16.1-125 I B. DUCTILE IRON PIPE, FITTINGS, AND VALVES SHALL BE THOROUGHLY CLEANED AND GIVEN
- ONE FIELD COAT (MINIMUM 1.5 MILS DRY THICKNESS) OF RUST INHIBITOR PRIMER, AND TWO FINISH COATS (MINIMUM 1.5 MILS DRY THICKNESS EACH). ALL DUCTILE IRON PIPE AND FITTINGS SHALL HAVE AN INTERIOR PROTECTIVE LINING OF "PROTECTO 401" EPOXY OR EQUAL WITH A MINIMUM DRY FILM THICKNESS OF 40 MILS. POLYETHYLENE (PE3408) PIPE: FOUR (4)" THROUGH TWELVE (12)" SHALL BE IN

ACCORDANCE WITH AWWA STANDARD C906, LATEST EDITION. THE POLYETHYLENE PIPE

SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 100 PSI AND SHALL HAVE A

- DIMENSION RATIO (DR) OF 17. POLYETHYLENE PIPE SHALL HAVE FUSION BONDED JOINTS. FITTINGS USED WITH POLYETHYLENE PIPE SHALL BE FUSION FITTINGS IN ACCORDANCE WITH AWWA STANDARD C906.
- AT PIPING HIGH POINTS IMMEDIATELY UPSTREAM OF DIPS, OR OTHER ELEVATION
- 9. VALVES SHALL BE RESILIENT WEDGE GATE VALVES.

SEPARATION REQUIREMENTS:

MARKING TAPE SHALL BE PLACE 12" ABOVE THE PIPE.

EVERY 100 SQUARE FEET OF BACKFILL AROUND STRUCTURES.

PER F.D.E.P. REQUIREMENTS AND SUBJECT TO TOHO APPROVAL

APPROVED MATERIALS.

- ALL TIE-INS TO EXISTING MANHOLES SHALL BE CORE DRILLED. CONNECT PIPE TO
- MANHOLE USING A FLEXIBLE CONNECTOR OR APPROVED A-LOK. ALL MECHANICAL JOINTS SHALL BE RESTRAINED. THRUST BLOCKS ARE NOT PERMITTED ON TOHO MAINTAINED INFRASTRUCTURE.
- MAINTAIN A MINIMUM 36" OF COVER MEASURED FROM THE BOTTOM OF THE SUB-GRADE TO THE TOP OF ALL WATER, REUSE, AND SANITARY SEWER PIPES. IF 36" OF COVER CANNOT BE MAINTAINED NOTIFY ENGINEER AND TOHO FOR EVALUATION.
- GALVANIZED PIPE IS NOT ALLOWED AND IF ENCOUNTERED SHALL BE REPLACED WITH
- 3M LOCATE TAPE SHALL BE INSTALLED 12" TO 18" OVER ALL PIPE BUT NO DEEPER THAN 4 IF A MAIN IS MORE THAN 60" DEEP TO TOP OF PIPE THE 3M MARKER TAPE SHALL BE PLACED WITHIN THE TOP 3' OF FILL AND AN ADDITIONAL LAYER OF STANDARD METALLIC
- ALL PVC PIPE SHALL BE GREEN IN COLOR (FOR SEWER), BLUE IN COLOR (FOR WATER) AND PURPLE IN COLOR (FOR REUSE). DIP SHALL HAVE A CONTINUOUS 2" WIDE, PERMANENT BLUE/PURPLE STRIPE (OIL BASED ENAMEL) ON THE TOP OF THE PIPE
- COPPER WIRE. ONE COMPACTION TEST SHALL BE TAKEN FOR EACH 12" LAYER OF FILL FROM THE SPRINGLINE OF THE PIPE TO THE FINISH GRADE FOR EACH 300 FEET OF PIPE AND FOR

DIRECTIONAL BORES SHALL USE 1 - 8 GAUGE STEEL CORE COPPER AND 1 - 8 GAUGE

- ALL EXISTING WATER, REUSE AND SANITARY APPURTENANCES ON A PROJECT SITE WHICH MIGHT BE AFFECTED BY PROJECT WORK SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE BROUGHT TO FINISHED GRADE PER THE TOHO STANDARDS, SPECIFICATIONS, AND DETAILS MANUAL, LATEST EDITION.
- 10. ALL TREE AND SHRUB ROOT BALLS SHALL BE PLACED WITH A MINIMUM OF 5' HORIZONTAL SEPARATION FROM TOHO MAINTAINED UTILITIES.
- 11. IF THE UNDERGROUND CONTRACTOR DE-MOBILIZES BETWEEN PHASES OF A PROJECT AND THE WATER DISTRIBUTION SYSTEM HAS BEEN CLEARED FOR USE BY FDEP, THE CONTRACTOR WILL BE REQUIRED TO INSTALL AUTOMATIC FLUSHING DEVICES ON ALL WATER MAIN DEAD-ENDS WHETHER INTENDED AS STUB-OUTS OR AS INCOMPLETE CONSTRUCTION. IF THE SITE HAS NOT BEEN CLEARED FOR USE BY FDEP, THE CONTRACTOR WILL BE REQUIRED TO PHYSICALLY DISCONNECT ALL UN-CLEARED MAINS FROM THE POINTS-OF-CONNECTION TO CLEARED MAINS.
- 12. WHEN REQUIRED BY ANOTHER REGULATORY AGENCY, MASONRY WALLS AROUND LIFT STATIONS SHALL REQUIRE BARBED WIRE AT THE TOP OF THE WALL. AT TOHO'S DISCRETION, ALTERNATIVE ANTI-CLIMB MEASURES MAY ALSO BE UTILIZED IN PLACE OF BARBED WIRE, HOWEVER, SIGNAGE WILL BE REQUIRED ON ALL EXTERIOR WALLS INDICATING THE USE OF ANTI-CLIMB MEASURES THAT MAY NOT BE VISIBLE.
- 13. ALL PERMANENT STRUCTURES INCLUDING, BUT NOT LIMITED TO BUILDING FOUNDATIONS, WALLS, AND LIGHT POLES SHALL BE PLACED WITH A MINIMUM 12' HORIZONTAL SEPARATION FROM ALL TOHO OWNED INFRASTRUCTURE.

EVANS ENGINEERING, INC. CERTIFICATE OF **AUTHORIZATION NO. 6788**

LAND PLANNING PERMITTING SERVI

719 IRMA AVENUE

ORLANDO, FLORIDA 3280

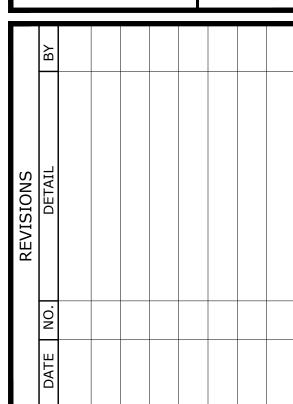
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CERTIFICATE OF AUTHORIZATION NO. 00006788

DAVID L. EVANS FLORIDA P.E. NO. 46586

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DRAWN BY: DATE: JOB #: CHECKED BY: 30801

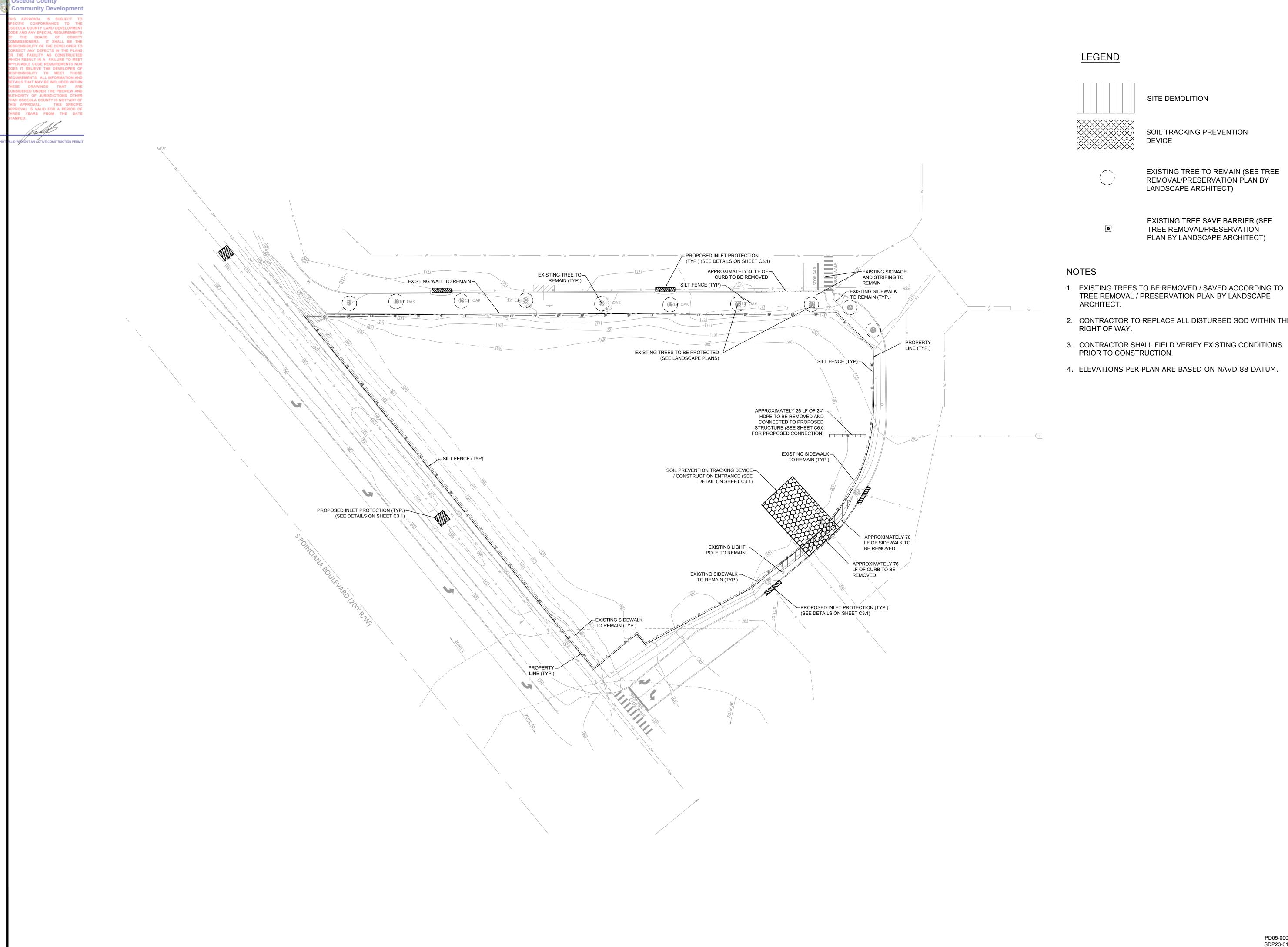
08/01/24

PD05-00005

SDP23-0122

FOUND BETWEEN DRAWINGS AND THE FIELD CONDITIONS PRIOR TO CONSTRUCTION IN THE AREA IMPACTED BY THE CONFLICT. DURING THE SHOP DRAWING APPROVAL PROCESS.

WASTEWATER FORCE MAINS SHALL BE EQUIPPED WITH AIR RELEASE VALVES LOCATED 10. VALVES SHALL BE LOCATED AT NOT MORE THAN 2,000 FOOT INTERVALS IN ALL AREAS.



VIL ENGINEERING LAND PLANNING PERMITTING SERVICE 719 IRMA AVENUE ORLANDO, FLORIDA 32803 (407) 872-1515

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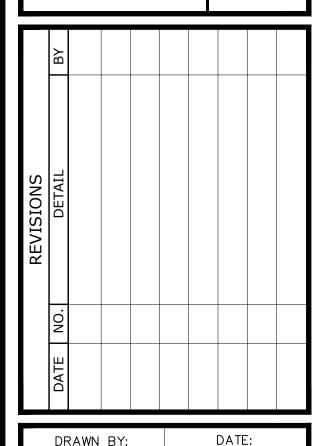
> EVANS ENGINEERING, INC. CERTIFICATE OF

AUTHORIZATION NO. 6788

DAVID L. EVANS FLORIDA P.E. NO. 46586

- TREE REMOVAL / PRESERVATION PLAN BY LANDSCAPE
- 2. CONTRACTOR TO REPLACE ALL DISTURBED SOD WITHIN THE RIGHT OF WAY.

CONDITIONS, AND SWPP PLAN EXISTING DEMOLITION,



DRAWN BY: 08/01/24 CHECKED BY: JOB #: 30801 DLE

GRAPHIC SCALE 1 Inch = 30 Ft.

PD05-00005 SDP23-0122 GENERAL

THE CONTRACTORS SHALL IMPLEMENT THE REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE CIVIL DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO UNDERTAKE ADDITIONAL MEASURES AS REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS.

CONSTRUCTION SEQUENCE:

- I. FLAG ALL WORK LIMITS. 2. NOTIFY SEDIMENT CONTROL INSPECTOR 24 HOURS PRIOR TO START OF CONSTRUCTION.
- 3. IDENTIFY ALL EXISTING VEGETATION TO BE SAVED. INSTALL CONSTRUCTION ENTRANCE TO PREVENT TRACKING AND SILTING OF MUD INTO PUBLIC
- 5 INSTALL STORM DRAINAGE INLET PROTECTION ON EXISTING INLETS. 6./ MSTALL PERIMETER RUNOFF CONTROLS; NOTIFY SEDIMENT INSPECTOR AND OBTAIN APPROVAL BEFORE PROCEEDING FURTHER.
- PERFORM CLEARING AND GRADING REQUIRED. 8. COMPLETE ALL NECESSARY STOCKPILING, SITE CLEARING/REMOVALS, AND GRADING. 9. COMPLETE PARKING BASE, BUILDING FOUNDATION, AND REMOVE, RELOCATE, INSTALL SITE
- 10. INSTALL STORM DRAINAGE INLET PROTECTION ON NEW INLETS.
- 11. WEATHER IN BUILDING.
- 12. COMPLETE PARKING LOT CONSTRUCTION. 13. COMPLETE FINAL GRADING, STABILIZATION, AND LANDSCAPING
- 14. NOTIFY SEDIMENT CONTROL INSPECTOR AND OBTAIN APPROVAL TO REMOVE SEDIMENT AND EROSION CONTROL.

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED B' STORM WATER RUN OFF. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROL MEASURES AND TO ENSURE THAT THESE CONTROLS ARE PROPERLY INSTALLED. MAINTAINED, AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION CONTROLS AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR.

EROSION AND SEDIMENT CONTROLS STABILIZATION PRACTICES

- 1. FILTER FABRIC BARRIERS: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET EROSION WITH THE FOLLOWING LIMITATIONS:
- A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 3:1. B. IN MINOR SWALES WHERE THE MAXIMUM CONTRIBUTION DRAINAGE AREA IS LESS THAN 2
- 2. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUN-OFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR
- STORM WATER SYSTEM. 3. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUN-OFF UNTIL THE COMPLETION OF ALL
- CONSTRUCTION ACTIVITIES THAT MAY CONTRIBUTE SEDIMENT TO THE INLET. 4. UNLESS SPECIFIED, SILT FENCES MAY BE USED IN LIEU OF SYNTHETIC BARRIERS.
- TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE REWORKED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 14 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL NOT LATER COMPETE WITH THE
- 6. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.
- 7. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED TO ASSURE OPTIMUM GROWING CONDITIONS.
- 8. TEMPORARY RE-GRASSING: IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT OBTAINED A MINIMUM OF 75 PERCENT GOOD GRASS GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEEDS APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE
- 9. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.
- 10. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD

- BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFF-SITE FACILITIES.
- 11. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED OR SODDED.
- 12. AIR POLLUTION: THE BURNING OF BRUSH OR SLASH SHALL ADHERE TO STATE AND LOCAL REGULATIONS. FIRE PREVENTION MEASURES SHALL BE TAKEN TO PREVENT THE START OR SPREADING OF WILDFIRES THAT MAY RESULT FROM PROJECT ACTIVITIES. ALL DUST CONTROL METHODS SHALL ENSURE SAFE CONSTRUCTION OPERATIONS AT ALL TIMES.

STRUCTURAL CONTROLS

- 1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT TRAPPING FACILITY.
- 2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP IS USUALLY INSTALLED IN A DRAINAGE WAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA.
- 3. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME. THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE AREA PER ACRE OF DISTURBED AREA. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACK-FILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE MATERIALS - DISPOSAL

ALL WASTE MATERIALS EXCEPT LAND CLEARANCE DEBRIS SHALL BE COLLECTED AND STORED IN A SECURE LIDDED METAL DUMPSTER. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT.

HAZARDOUS WASTE - DISPOSAL

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATIONS OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

SANITARY WASTE - DISPOSAL

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

OFF-SITE VEHICLE TRACKING

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

EQUIPMENT PLACEMENT

THE CONTRACTOR WILL USE BEST MANAGEMENT PRACTICES TO DETERMINE THE LOCATIONS OF EQUIPMENT TO BE LEFT ON-SITE.

THE FOLLOWING PRACTICES WILL BE FOLLOWED BY THE CONTRACTOR TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF SUBSTANCES TO STORM WATER RUN-OFF.

THE FOLLOWING PRACTICES WILL BE FOLLOWED ON-SITE DURING THE CONSTRUCTION PROJECT.

- 1. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB. 2. ALL MATERIALS STORED ON-SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR
- ORIGINAL CONTAINERS
- 3. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- 4. MANUFACTURER'S RECOMMENDATION FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED. 5. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ON-SITE RECEIVE
- PROPER USE AND DISPOSAL. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

IN ADDITION TO THE SPILL PREVENTION PRACTICES LISTED THE FOLLOWING WILL BE FOLLOWED FOR SPILL CONTROL:

- 1. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN-UP WILL BE CLEARLY POSTED ON-SITE AND SITE PERSONNEL WILL BE $\operatorname{\mathsf{MADE}}\nolimits$ AWARE OF THE PROCEDURES AND THE LOCATION OF THE CLEAN-UP SUPPLIES.
- 2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEAN-UP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO: BROOMS, DUST PANS, MOPS, RAGS, CLOVES, GOGGLES, LIQUID ABSORBENT, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- 3. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
- 4. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- 5. SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR
- 6. THE SITE SUPERINTENDENT WILL BE THE SPILL PREVENTION AND CLEAN-UP COORDINATOR. AT LEAST ONE OTHER SITE PERSONNEL WILL RECEIVE SPILL PREVENTION AND CLEAN-UP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE AND PREVENTION OF CLEAN-UP. THE NAMES OF THE RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA IN THE OFFICE TRAILER ON-SITE.

PRODUCT SPECIFIC PRACTICES

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON-SITE:

LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

1. PETROLEUM PRODUCTS

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

THE USE OF FERTILIZERS ARE TO MEET REQUIREMENTS OF CITY OF DEBARY ORDINANCE 17-2122. FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. FERTILIZERS WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

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

4. CONCRETE TRUCKS

CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING AREA FOR CONCRETE TRUCK WASH OUT. CONCRETE TRUCKS THAT WASH OUT ON-SITE MUST WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER INTO A DESIGNATED SEDIMENT BASIN ON SITE PRIOR TO DISCHARGE INTO STORM WATER MANAGEMENT AREAS. CONTRACTOR WILL BE RESPONSIBLE FOR MEETING STATE AND LOCAL REQUIREMENTS.

MAINTENANCE / INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

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

- ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.5 INCH OR GREATER.
- ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER: IF A REPAIR IS NECESSARY. IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
- 3. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAD REACHED ONE-THIRD
- THE HEIGHT OF THE FENCE. 4. SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT AND TEARS TO SEE IF THE FABRIC
- IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
- 5. THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED.
- 6. DIKES AND SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM SHALL BE COMPLETED BY THE INSPECTOR. THE REPORTS WILL BE KEPT ON-SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER, OR ANY FEDERAL. STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION

PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY

ANY INCIDENTS OF NON-COMPLIANCE. 9. THE SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR MANAGING THE INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE

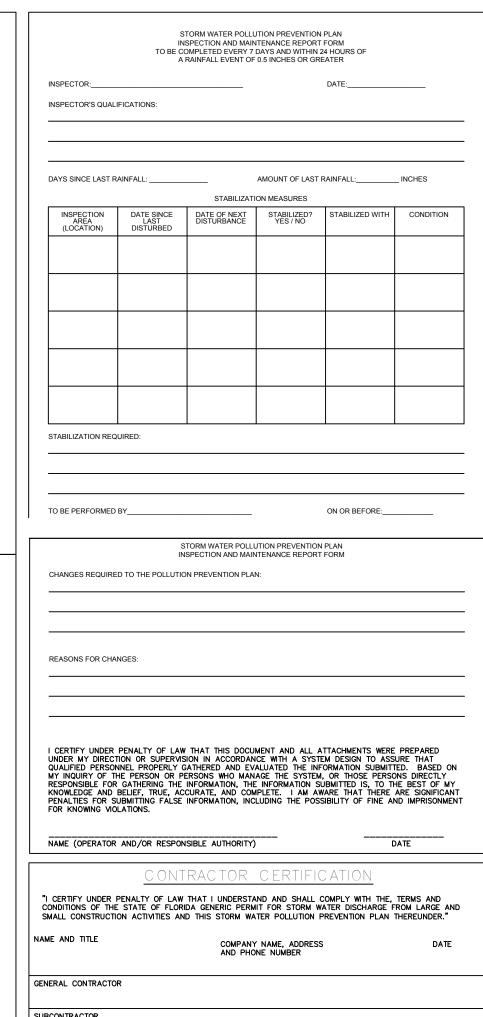
NON-STORM WATER

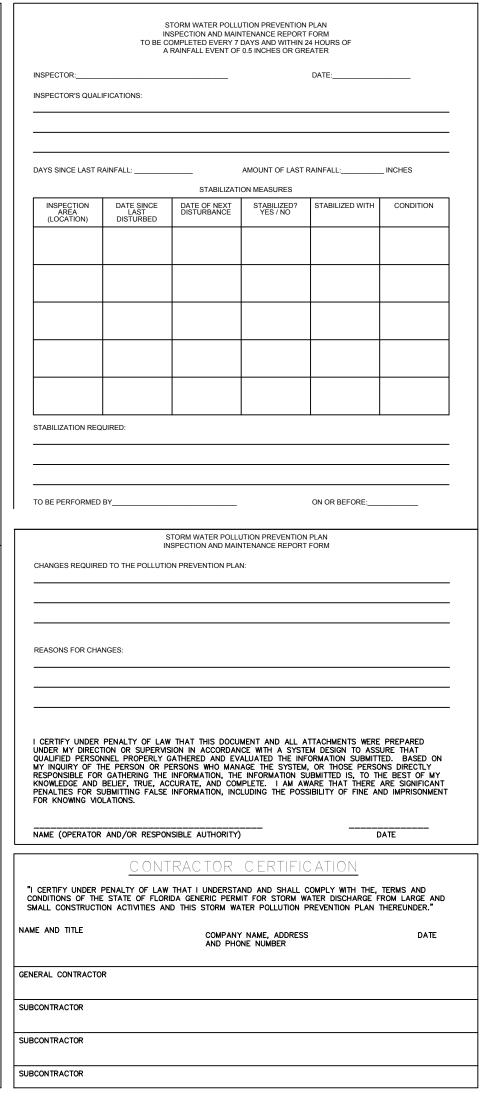
IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

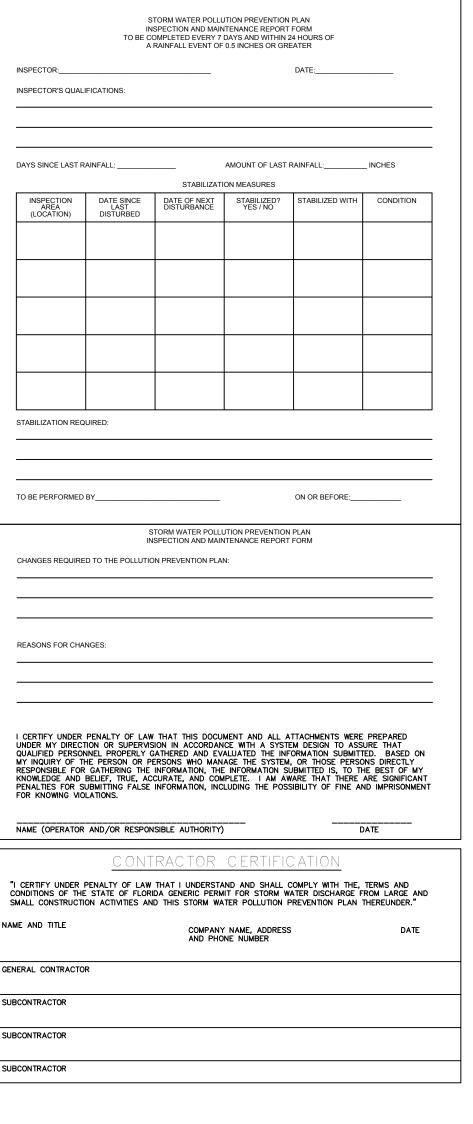
- WATER FROM WATER LINE FLUSHING 2. PAVEMENT WASH WATER (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS
- HAVE OCCURRED). 3. UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION)

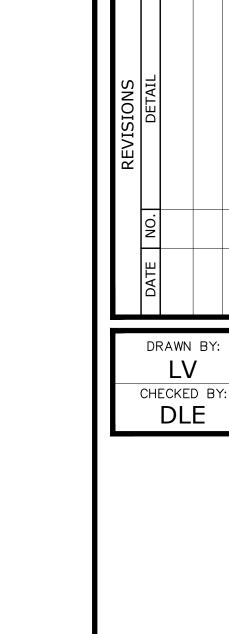
ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

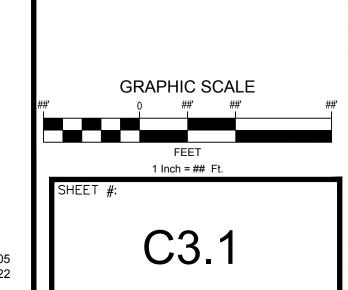
STORM WATER POLITION PREVENTION PLAN ECTION AND MAINTENANCE REPO STRUCTURAL CONTROLS MAINTENANCE REQUIRED FOR EARTH DIKE / SWALE CATCH BASIN / CURB INLET / OUTFALL TURBIDITY CONTROLS MAINTENANCE REQUIRED FOR CATCH BASIN / CURB INLET / OUTFALL TURBIDITY CONTROLS: TO BE PERFORMED BY ON OR BEFORE: INSPECTION AND MAINTENANCE REPORT FORM CONDITION OF OUTFALL FROM SEDIMENT BASIN OF SEDIMENT IN BASIN OF SEDIMENT SIDE BASIN MAINTENANCE REQUIRED FOR SEDIMENT BASIN TO BE PERFORMED BY_ ON OR BEFORE:___ OTHER CONTROLS STABILIZED CONSTRUCTION ENTRANCE MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE O BE PERFORMED BY ON OR BEFORE











LAND PLANNING PERMITTING SERVICE

719 IRMA AVENUE

ORLANDO, FLORIDA 3280

(407) 872-1515

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DAVID L. EVANS

FLORIDA P.E. NO. 46586

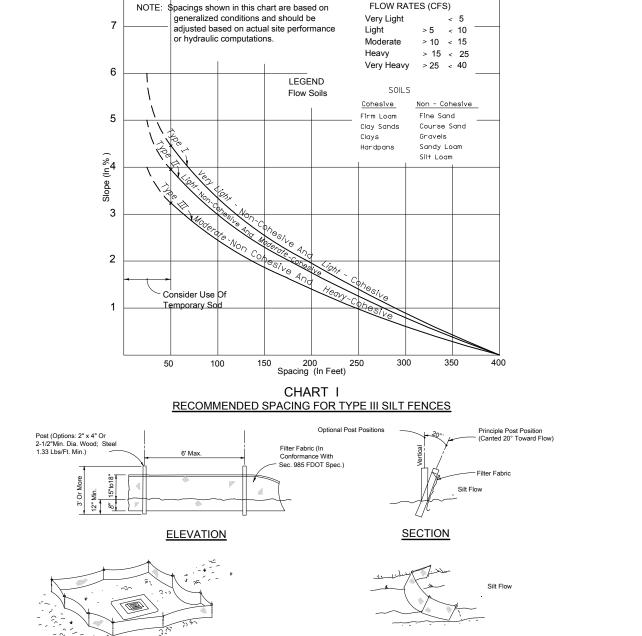
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DATE:

08/01/24

JOB #:

30801



. DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF 2. SPACING FOR TYPE III FENCE TO BE IN ACCORDANCE WITH CHART I ABOVE AND DITCH INSTALLATIONS AT DRAINAGE

SILT FENCE APPLICATIONS

Type III Silt

Fence ditch

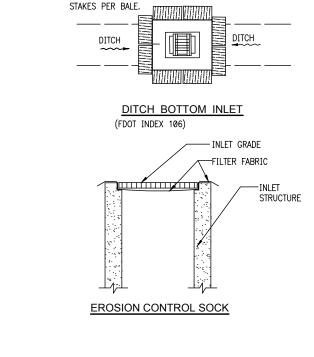
installations

TYPE III SILT FENCE

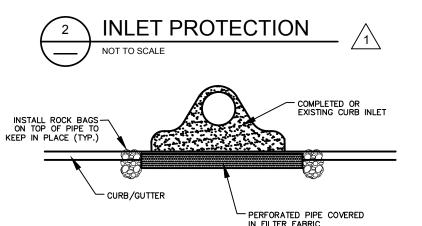
3. SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

Type III Silt Fence

Bottom Inlets.



ANCHOR BALES WITH 2 - 2" X 2" X 4'

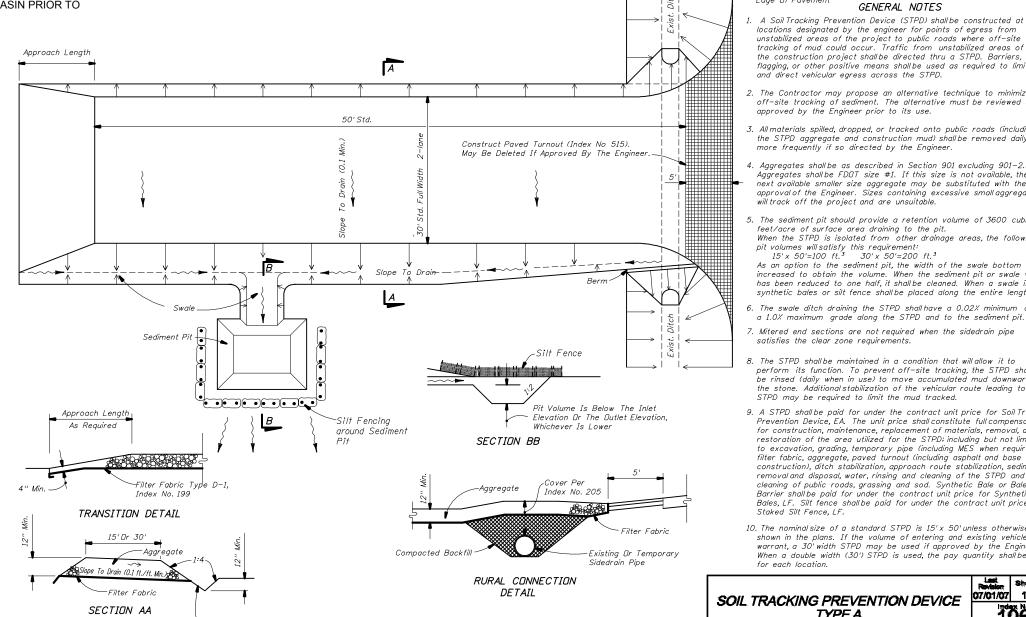


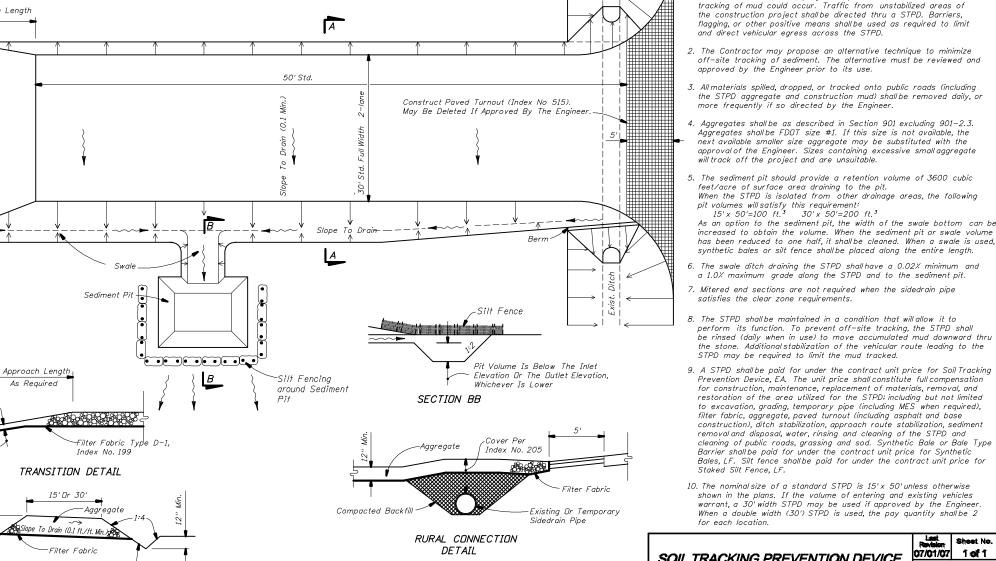
BARRIER FOR STORM CURB INLETS

POLLUTION PREVENTION

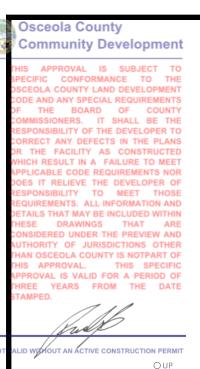
NOT TO SCALE

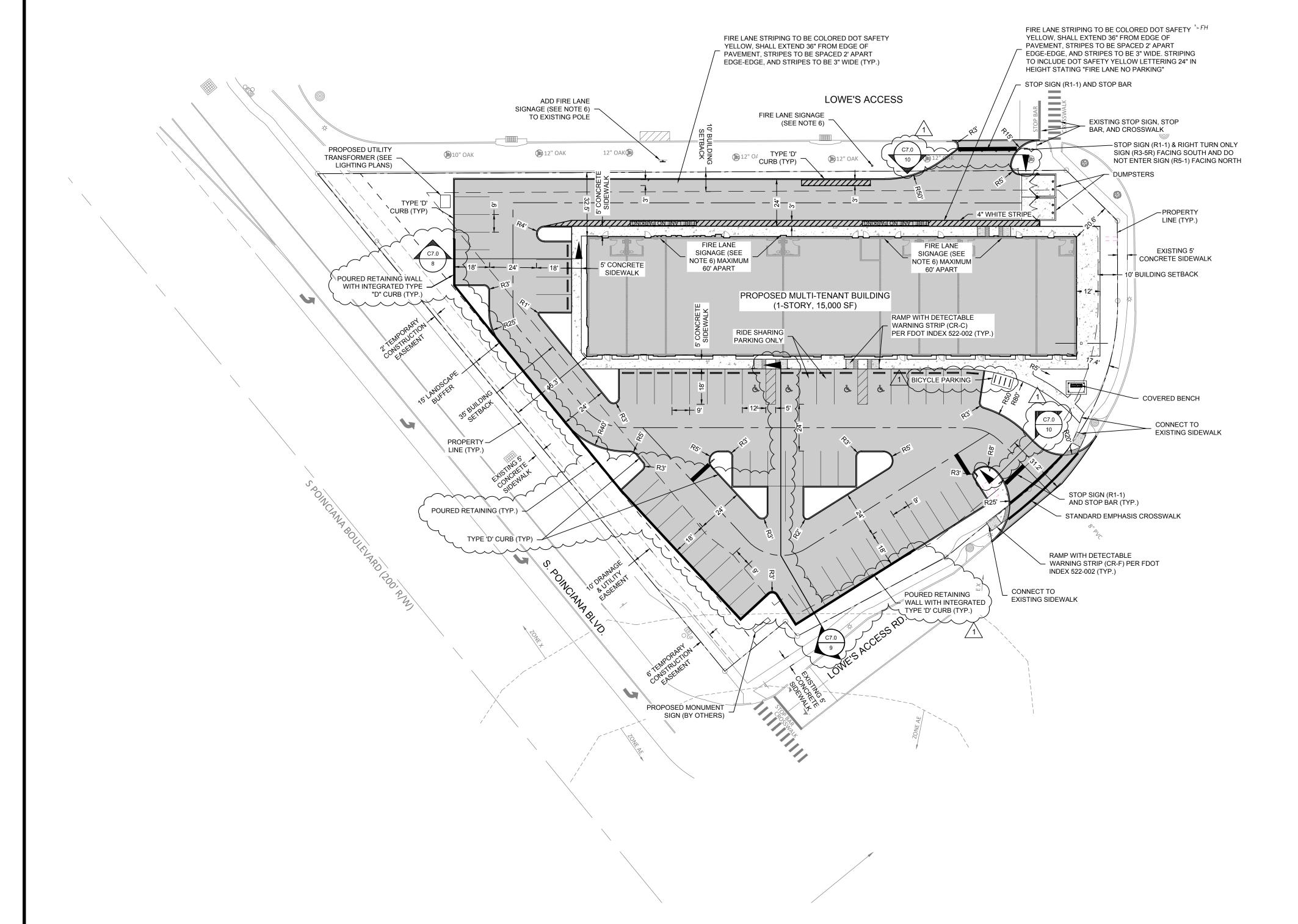






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SITE DATA				
PARCEL ID	062729296700010020			
PROJECT SITE AREA	1.50 ACRES			
ONSITE WETLANDS	0.00 AC			
ZONING	PD (THE POINT PD05-00005)			
EXISTING LAND USE	VACANT COMMERCIAL (POINCIANA)			
FUTURE LAND USE	POINCIANA			
PROPOSED LAND USE	COMMERCIAL RETAIL			
PHASING	1 PHASE			
BUILDING IMPERVIOUS	15,297 SF = 0.35 AC.			
ROAD/PARKING/SIDEWALK IMPERVIOUS	35,572 SF = 0.82 AC.			
PERVIOUS/OPEN SPACE	14,741 SF = 0.33 AC.			
IMPERVIOUS (80% MAX.)	1.15 AC. = 76.67%			
FLOOR AREA RATIO (FAR)	0.34 AC./1.50 AC. = 0.23			
IMPERVIOUS SURFACE RATIO (ISR)	1.15 AC./1.50 AC. = 0.77			
OWNERSHIP/MAINTENANCE	PRIVATE			
POTABLE WATER/REUSE WATER/ WASTEWATER	TOHO WATER AUTHORITY (TOHO)			
MAX BUILDING HEIGHT	2 STORY (1 STORY PROVIDED)			

	REQUIRED	PROVIDED
BUILDING SETBACKS		
FRONT (S. POINCIANA BLVD)	35'	45'
SIDE (LOWE'S ACCESS RD.)	10'	17'
REAR (LOWE'S ACCESS)	10'	33'
LANDSCAPE BUFFERS		
FRONT (S. POINCIANA BLVD)	15'	15'
SIDE (LOWE'S ACCESS RD.)	0'	7'
REAR (LOWE'S ACCESS)	0'	3'
OPEN SPACE	20% = 0.30 AC.	0.33 AC.

TRIP GENERATION TABLE¹

ITE CODE & DESCRIPTION		RATE ²	UNITS (KSF)	TRIPS
822 - STRIP	AM PEAK HOUR	2.36	15	35
RETAIL PLAZA	PM PEAK HOUR	6.93	15	104
(<40K SF)	AVERAGE DAILY	54.45	15	817

² TRIP RATES REFERENCED FROM THE INSTITUTE OF

REQUIRED PARKING SPACE CALCULATION

DESCRIPTION	CALCULATION	SPACES
MULTI-TENANT SHOPPING (<25K GSF)	ONE (1) SPACES PER 250 SF GROSS FLOOR AREA 1 SPACES/250 SF GFA X 15,000 SF GFA	60
	TOTAL	60

PROVIDED PARKING

PARKING TYPE	PROVIDED SPACES
STANDARD (9' x 18')	54
RIDE SHARE ONLY (9' X 18')	2
ADA ACCESSIBLE (12' X 18')	4
TOTAL	60

GENERAL NOTES

- 1. THIS PROPERTY IS DESIGNATED ZONE "X"; AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AS DETERMINED PER FEMA FIRM PANEL 12097C0240G (JUNE 18, 2013).
 2. PROJECT TO BE DEVELOPED IN ONE PHASE.
- DEVELOPMENT CODE.
- 4. FIRE DEPARTMENT ACCESS ROADS PROVIDED AT THE START OF A PROJECT AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. (NFPA 1, 16.1.4).
- 5. A SECOND ENTRANCE/EXIT MIGHT BE REQUIRED PER AHJ IF THE RESPONSE TIME FOR EMERGENCY IS EXCEEDED. (NFPA 1, SECTION 18.2.3.3 MULTIPLE
- ACCESS ROADS).

 6. FIRE LANE SIGNAGE TO BE 12" WIDE X 18" HIGH X 0.08" THICK ON ANODIZED ALUMINUM. SIGN SHALL STATE "NO PARKING FIRE LANE BY ORDER OF THE FIRE DEPARTMENT" IN RED LETTERS ON A WHITE BACKGROUND. THE SIGN SURFACE BACKGROUND IS THE COVERED WITH "SCOTCH-LITE" OR ANOTHER SUITABLE WHITE REFLECTIVE MATERAL. SIGN IS TO BE POSTED MAXIMUM 7' IN HEIGHT FROM THE ROADWAY TO THE BOTTOM OF THE SIGN. SIGNAGE LOCATIONS TO BE POSTED MAXIMUM 60' AND NOT FURTHER THAN 15' FROM THE END OF ANY FIRE LANE. ADDITIONAL SIGNAGE MAY BE REQUIRED AS DETERMINED BY THE FIRE MARSHAL OR DESIGNEE.

SITE D	DATA
ARCEL ID	062729296700010020
ROJECT SITE AREA	1.50 ACRES
NSITE WETLANDS	0.00 AC
ONING	PD (THE POINT PD05-00005)
XISTING LAND USE	VACANT COMMERCIAL (POINCIANA)
UTURE LAND USE	POINCIANA
ROPOSED LAND USE	COMMERCIAL RETAIL
HASING	1 PHASE
UILDING IMPERVIOUS	15,297 SF = 0.35 AC.
OAD/PARKING/SIDEWALK IMPERVIOUS	35,572 SF = 0.82 AC.
ERVIOUS/OPEN SPACE	14,741 SF = 0.33 AC.
MPERVIOUS (80% MAX.)	1.15 AC. = 76.67%
LOOR AREA RATIO (FAR)	0.34 AC./1.50 AC. = 0.23
MPERVIOUS SURFACE RATIO (ISR)	1.15 AC./1.50 AC. = 0.77
)WNERSHIP/MAINTENANCE	PRIVATE
OTABLE WATER/REUSE WATER/ WASTEWATER	TOHO WATER AUTHORITY (TOHO)
MAX BUILDING HEIGHT	2 CTORY (4 CTORY PROVIDED)

	REQUIRED	PROVIDED
BUILDING SETBACKS		
FRONT (S. POINCIANA BLVD)	35'	45'
SIDE (LOWE'S ACCESS RD.)	10'	17'
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LANDSCAPE BUFFERS		
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SIDE (LOWE'S ACCESS RD.)	0'	7'
REAR (LOWE'S ACCESS)	0'	3'
OPEN SPACE	20% = 0.30 AC.	0.33 AC.

¹ FOR ADDITIONAL INFORMATION, PLEASE SEE TRAFFIC IMPACT ANALYSIS TPD NO 5978 DATED OCTOBER 2024. MANUAL, 11TH EDITION (2021).

PARKING TYPE	PROVIDED SPACES
STANDARD (9' x 18')	54
RIDE SHARE ONLY (9' X 18')	2
ADA ACCESSIBLE (12' X 18')	4
TOTAL	60

- 3. PROJECT SIGNAGE WILL COMPLY WITH THE OSCEOLA COUNTY LAND



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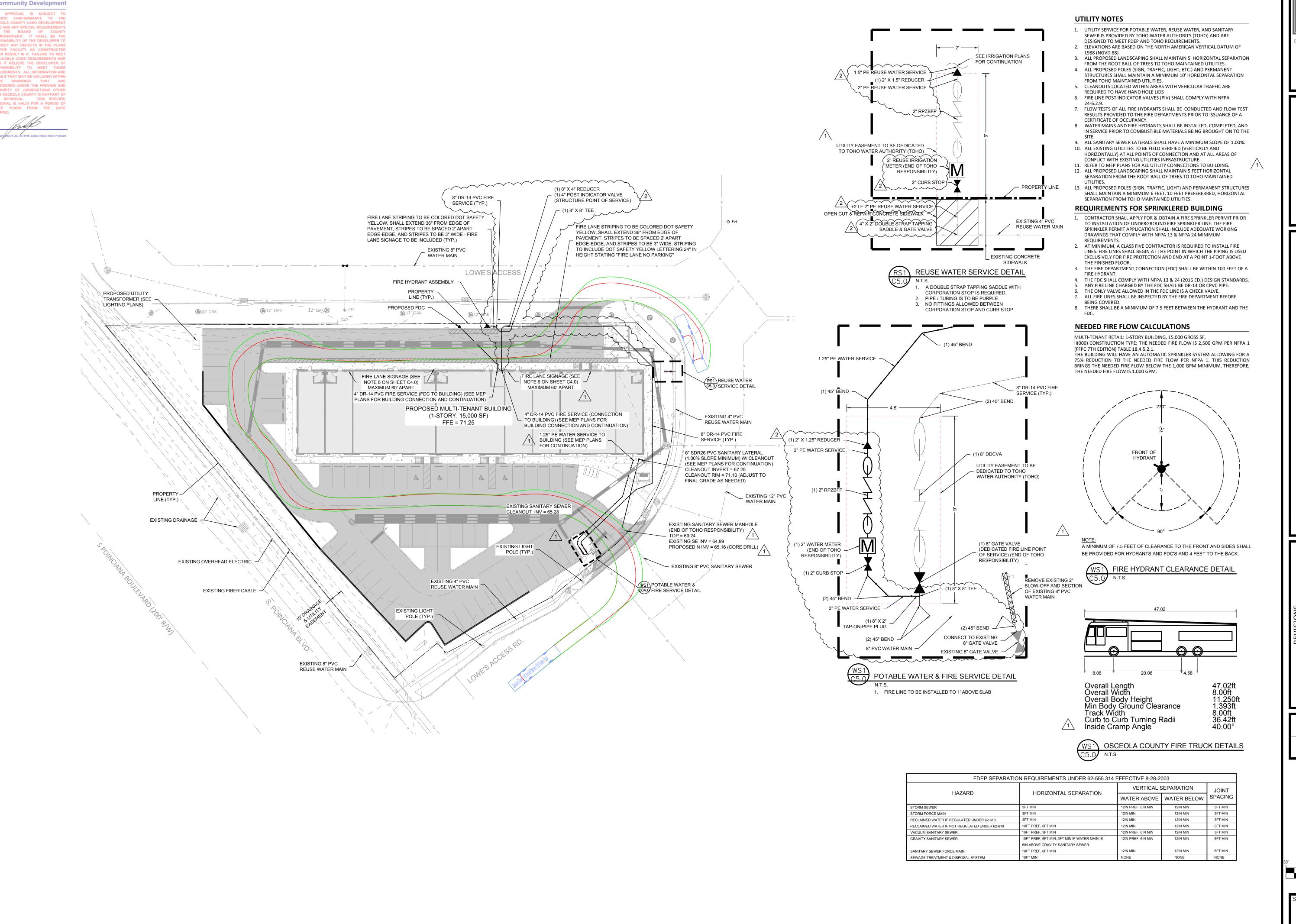
DAVID L. EVANS FLORIDA P.E. NO. 46586

DATE:

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DRAWN BY: DATE: 08/01/24 CHECKED BY: JOB #: 30801 DLE **GRAPHIC SCALE** 1 Inch = 30 Ft.

C4.0



IL ENGINEERING LAND PLANNING PERMITTING SERVIC 719 IRMA AVENUE ORLANDO, FLORIDA 3280 (407) 872-1515

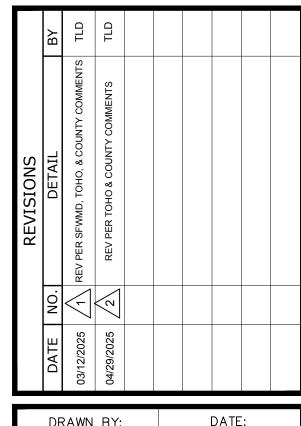
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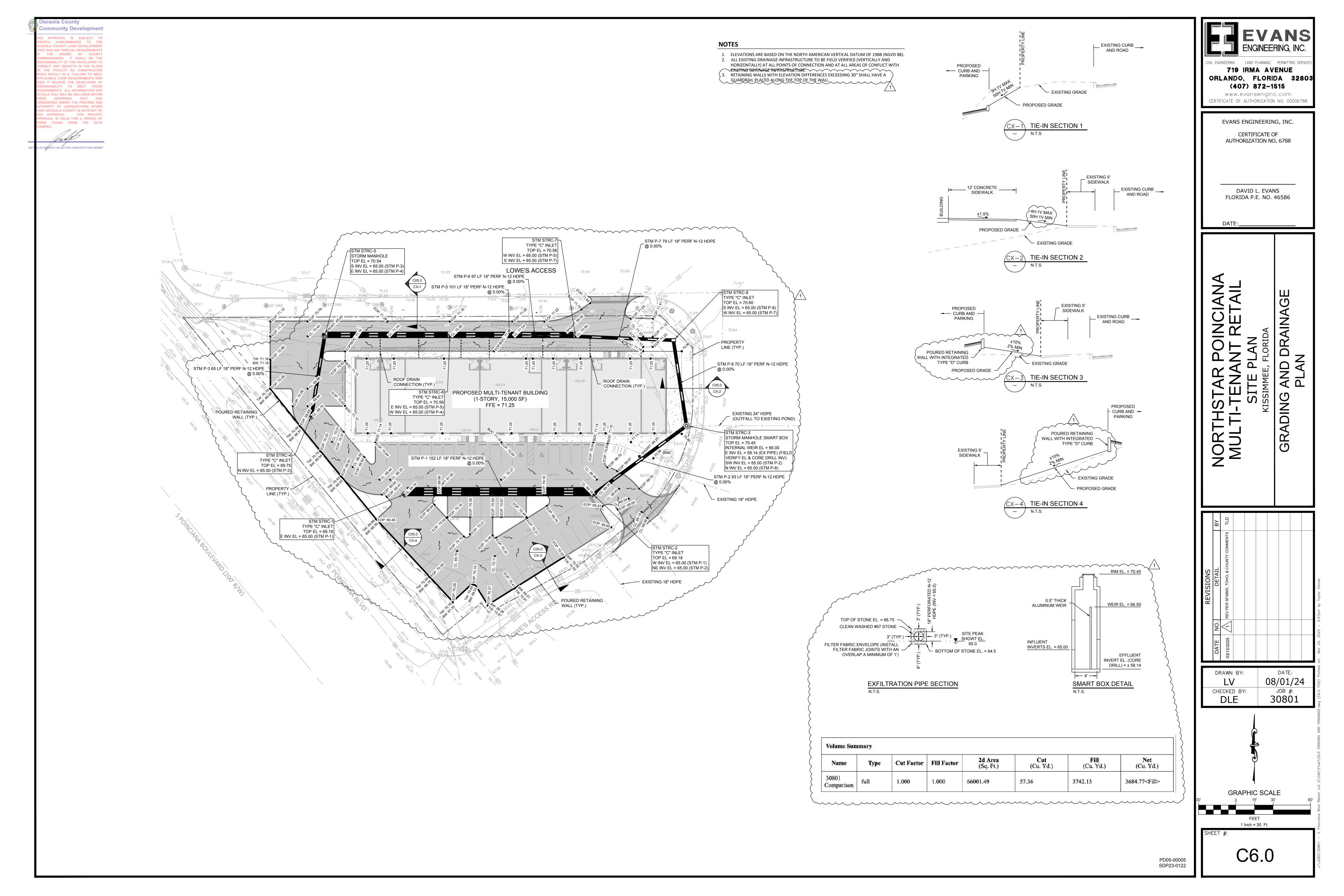
FLORIDA P.E. NO. 46586

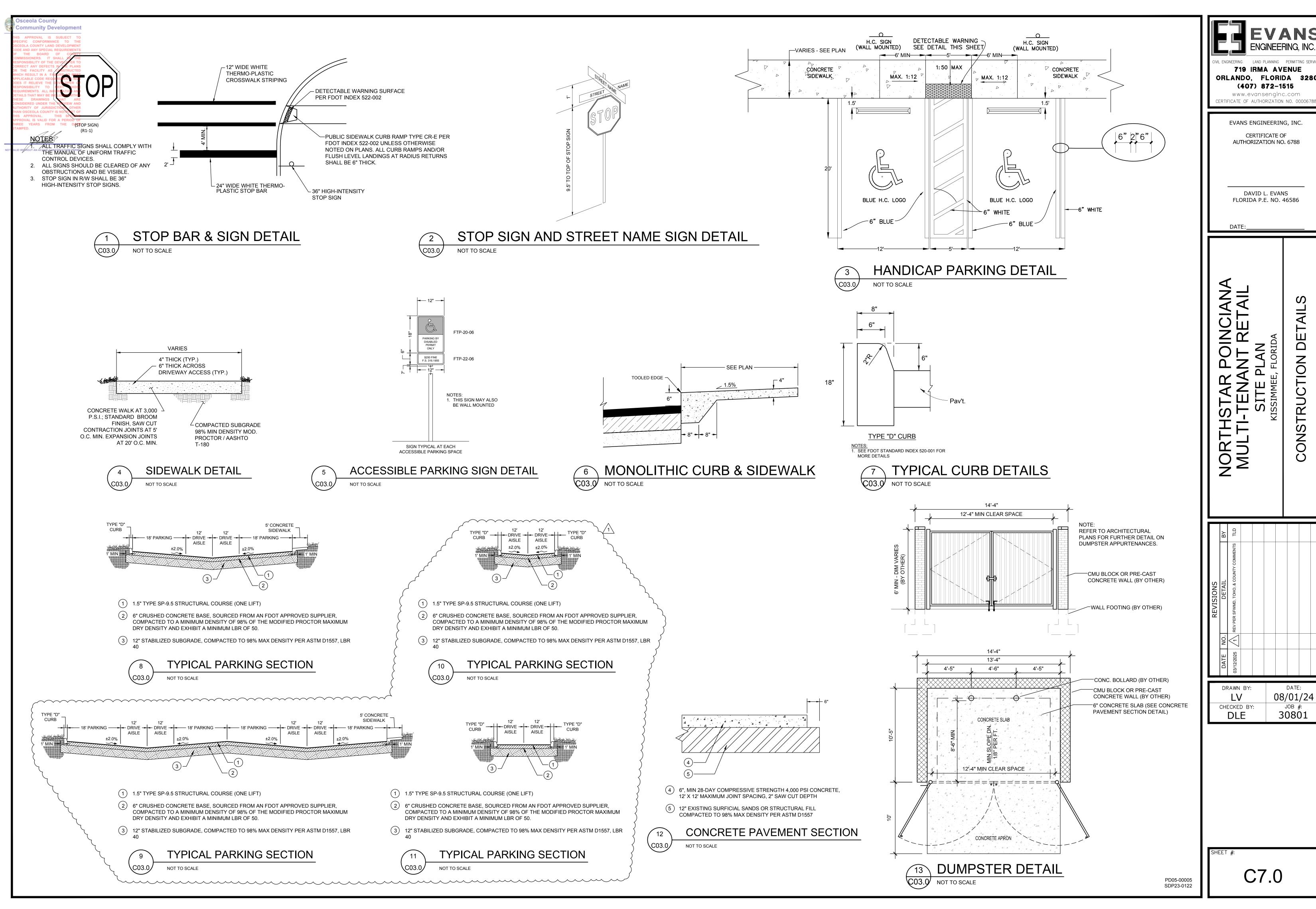


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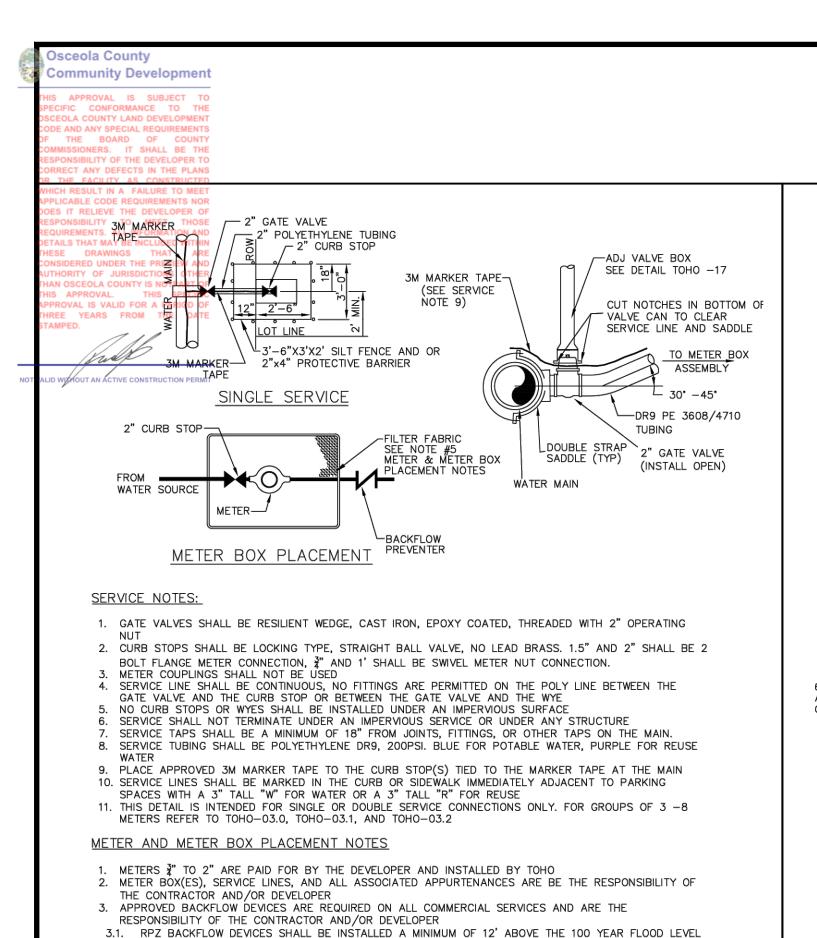
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3.2. PVB BACKFLOW DEVICES SHALL BE INSTALLED A MINIMUM OF 12" ABOVE THE HIGHEST OUTLET

5. PLACE FILTER FABRIC UNDER THE METER BOX EXTENDING 1' IN ALL DIRECTIONS. WRAP THE EXCESS

6. NO PLANTINGS, STRUCTURES, OR OTHER UTILITIES, INCLUDING BUT NOT LIMITED TO TELECOM PEDESTALS,

ELECTRICAL TRANSFORMERS OR POLES, ETC. SHALL BE INSTALLED WITHIN 36" OF ANY SIDE OF THE

7. BUILDER SHALL MAKE FINAL HORIZONTAL AND VERTICAL ADJUSTMENTS TO METER ASSEMBLY AND BOX

8. METER BOX LID SHALL BE SOLID PLASTIC WITH NO METAL ACCESS DOOR, BLACK FOR WATER, PURPLE

TYPICAL COMMERCIAL WATER SERVICE TOHO-02 2022

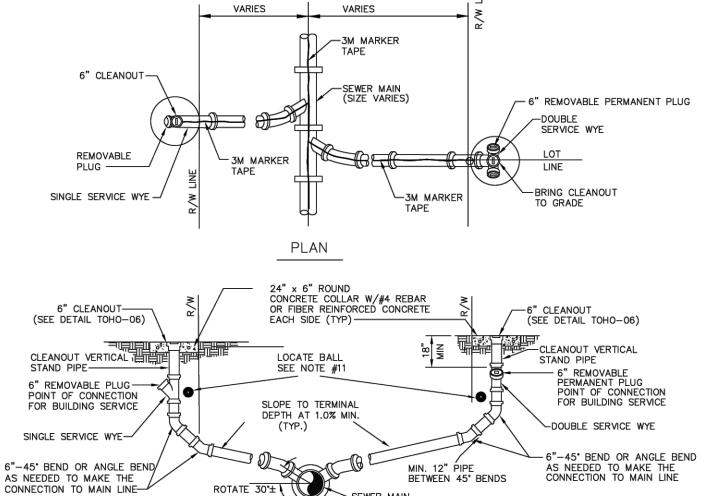
METER SHALL BE APPROXIMATELY 7" BELOW FINISHED GRADE AND CENTERED IN THE BOX

4. CURB STOP SHALL BE INSTALLED WITH THE OPERATING NUT FACING UP

METER BOXES SHALL BE PERPENDICULAR TO THE CURB OR SIDEWALK

AROUND THE SIDES OF THE BOX AND TAPE TIGHT TO THE BOX

TOP OF METER BOX SHALL BE FLUSH WITH FINISH GRADE

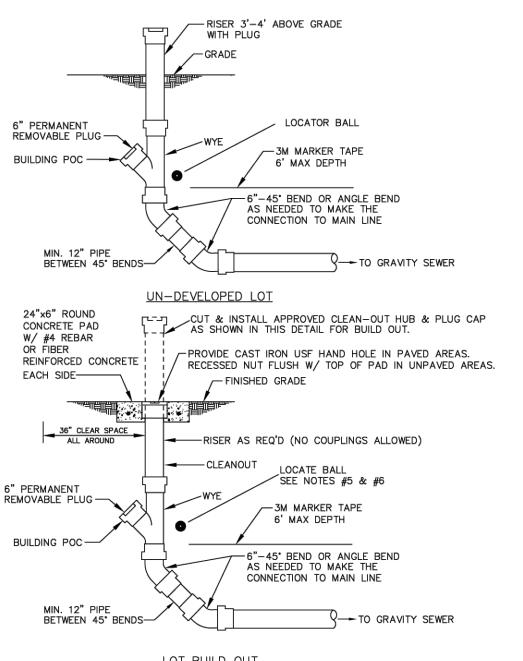


 ALL RESIDENTIAL AND COMMERCIAL LATERALS SHALL BE 6". THE SINGLE 6" RISER DENOTES THE END OF TOHO'S MAINTENANCE RESPONSIBILITY THE SINGLE 6" TOHO CLEANOUT SHALL BE PLACED ON THE LOT LINE AND WITHIN 24"

SINGLE DOUBLE LATERAL

- OF THE RIGHT-OF-WAY LINE NO CLEANOUTS SHALL BE PLACED WITHIN A RIGHT-OF-WAY OR IN A SIDEWALK
- LATERALS SHALL NOT EXCEED 100' FROM THE MAIN TO TOHO'S CLEANOUT CONNECTIONS TO THE TOHO CLEANOUT'S VERTICAL STANDPIPE ARE NOT PERMITTED FITTINGS USED SHALL NOT EXCEED 45 DEGREES. A MINIMUM OF 12" OF PIPE IS
- REQUIRED BETWEEN ALL FITTINGS 8. THE SERVICE WYE ON THE 6" VERTICAL STANDPIPE SHALL BE BETWEEN 18" AND 48" FROM FINISHED GRADE
- NO PLANTINGS, STRUCTURES, OR OTHER UTILITIES, INCLUDING BUT NOT LIMITED TO TELECOM PEDESTALS, ELECTRICAL TRANSFORMERS OR POLES, OR OTHER CLEANOUTS USED FOR TESTING PURPOSES SHALL BE INSTALLED WITHIN 36" OF ANY SIDE OF THE
- TOHO CLEANOUT. 10. PLACE TOHO APPROVED 3M MARKER TAPE FROM THE MAIN TO THE SINGLE OR DOUBLE SERVICE WYE. 10.1. TAPE SHALL BE BURIED NO DEEPER THAN 6'
- 10.2. IF MARKER TAPE IS INSTALLED MORE THAN 18" ABOVE A LATERAL DUE TO DEPTH OF THE PIPE, ADDITIONAL TOHO APPROVED WARNING TAPE SHALL BE REQUIRED 12" - 18" ABOVE THE PIPE
- PROVIDE TOHO APPROVED LOCATE BALLS AT ALL SINGLE AND DOUBLE SERVICE WYES 2. SEE SANITARY CLEANOUT DETAIL TOHO-06 FOR ADDITIONAL NOTES AND

SANITARY SEWER LATERAL TOHO-05 2022

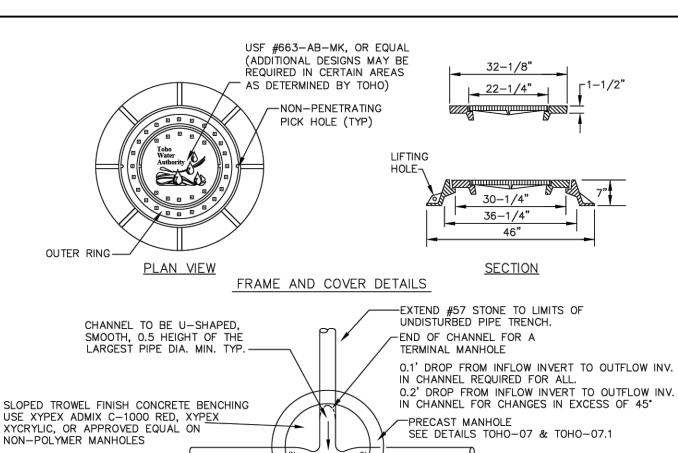


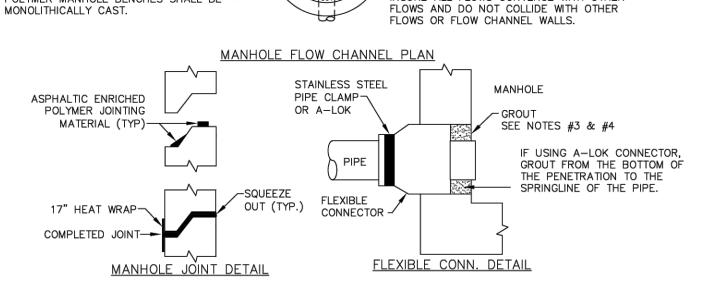
LOT BUILD OUT

NOTES:

- 1. SITE CONTRACTOR SHALL LEAVE THE CLEANOUT RISER 3' 4' ABOVE FINISHED GRADE. AT LOT BUILD THE RISER SHALL BE CUT AND CAPPED WITH A CLEANOUT HUB AND CAP INSTALLED IN A
- CONCRETE PAD SET FLUSH WITH FINISH GRADE CLEANOUT CAPS SHALL HAVE BE SLOTTED OR HAVE A RECESSED NUT
- LATERALS SHALL BE MARKED WITH A 3" HIGH "S" IN THE CURB OR SIDEWALK ADJACENT TO A PARKING SPACE WHERE THE LATERAL CROSSES THE CURB OR SIDEWALK.
- NO PLANTINGS, STRUCTURES, OR OTHER UTILITIES, INCLUDING BUT NOT LIMITED TO TELECOM PEDESTALS, ELECTRICAL TRANSFORMERS OR POLES, OR OTHER CLEANOUTS USED FOR TESTING PURPOSES SHALL BE INSTALLED WITHIN 36" OF ANY SIDE OF THE TOHO CLEANOUT.
- PROVIDE TOHO APPROVED LOCATE BALLS AT ALL SINGLE AND DOUBLE SERVICE WYES PLUMBER SHALL CONNECT TO SERVICE WYE WITH GASKETED PUSH FITTING ONLY. GLUE OR NON
- GASKETED FITTINGS SHALL NOT BE PERMITTED 7. SEE SANITARY SEWER LATERAL DETAIL TOHO-05 FOR ADDITIONAL NOTES AND REQUIREMENTS

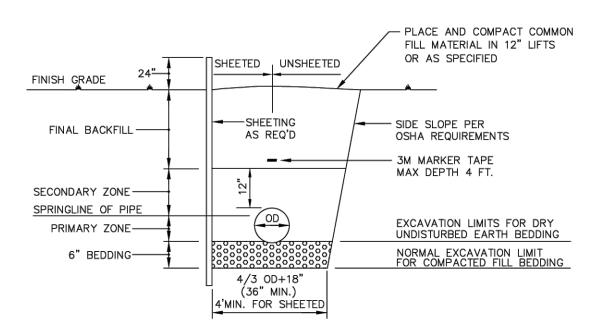
SANITARY CLEANOUT TOHO-06





- ALL EXTERIOR JOINTS SHALL BE CLEANED, PRIMED, AND SEALED WITH 17" HEAT SHRINK WRAP EXCESS JOINT COMPOUNG SHALL BE TRIMMED FROM INTERIOR WALLS ALL PORTLAND CEMENT, GROUT, OR CONCRETE FILL USED INSIDE NON-POLYMER MANHOLES OR OUTSIDE OF
- NON-POLYMER AND POLYMER MANHOLES SHALL REQUIRE XYPEX XYCRYLIC ADMIX OR EQUAL 4. ALL PORTLAND CEMENT, GROUT, OR CONCRETE FILL USED INSIDE POLYMER MANHOLES SHALL REQUIRE POLYMER GROUT AS SPECIFIED BY THE MANHOLE PRECASTER
- A-LOK CONNECTORS SHALL BE GROUTED FROM THE SPRINGLINE OF THE PIPE DOWN CONCENTRIC FLAT SLAB TRANSISTIONS TO THE CONE SECTION SHALL BE APPROVED BY TOHO ON A
- 7. CONNECTIONS TO BRICK MANHOLES SHALL BE COMPLETED UTILIZING SDR35 OR SDR 26 SAND COLLAR(S) AND 4,000PSI CONCRETE WITH XYPEX XYCRYLIC ADMIX OR EQUAL

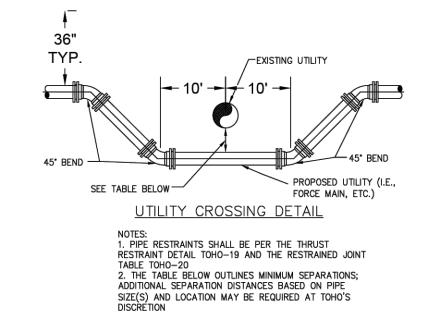
MISCELLANEOUS MANHOLE DETAILS TOHO-08 2022



SEE TOHO STANDARDS & SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

- BEDDING SHALL BE #57 STONE IF PIPE BEDDING IS YIELDING
- PRIMARY & SECONDARY ZONES SHALL BE INDIVIDUALLY COMPACTED LAYERS OF CLEAN FILL COMPACTION OF BACKFILL BENEATH PAVEMENT SHALL BE 98% OF AASHTO T-180, ALL OTHER AREAS SHALL BE 95% OF AASHTO T-180 UNLESS OTHERWISE REQUIRED BY AN AUTHORITY HAVING JURISDICTION
- 4. PLACE APPROVED 3M MARKER TAPE OR EQUAL DIRECTLY ABOVE THE CENTERLINE OF THE
- 4.1. TAPE SHALL BE 12"-18" ABOVE THE PIPE 4.2. TAPE SHALL NOT EXCEED 6' DEPTH
- 4.3. IF TOP OF PIPE IS GREATER THAN 7' DEEP, AN ADDITIONAL LAYER OF WARNING TAPE SHALL BE PROVIDED 12"-18" OVER THE PIPE AND THE MARKER TAPE SHALL BE PLACED AT A DEPTH OF 4'-5'
- 5. SLOPES, BENCHING, OR SHORTING SHALL BE PER OSHA REQUIREMENTS

TYPICAL PIPE TRENCH SECTION TOHO-14 2022



	MINIMUM HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS							
PROPOSED	POTABLE WATER		RECLAIMED WATER		SANITARY SEWER (GRAVITY & F.M.)		STORM DRAIN	
UTILITY	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.
POTABLE WATER	3'	6"	3'	12"	6' ALLOWED 10' PREFERRED	12"	3'	12"
RECLAIMED WATER	3'	12"	12"	6"	3'	12"	3'	6"
SANITARY SEWER	6' ALLOWED 10' PREFERRED	12"	3'	12"	3'	6"	3'	6"

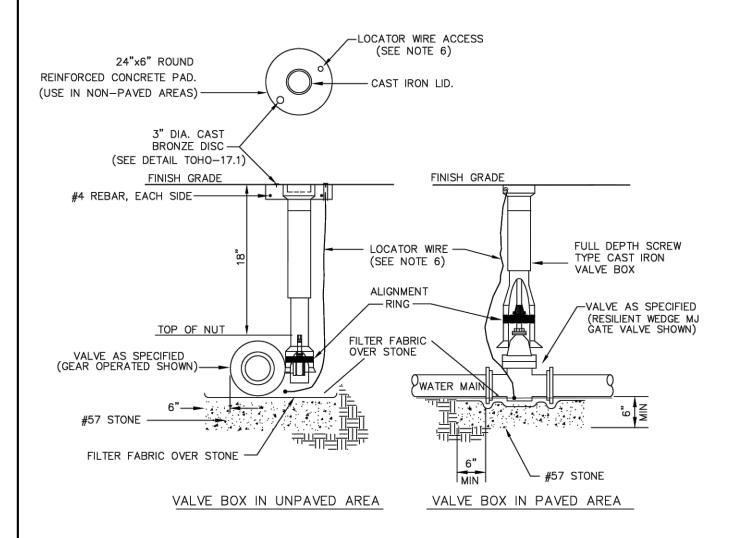
- 1. THIS TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN F.D.E.P. RULES OF THE FLORIDA ADMINISTRATION CODE (F.A.C.) AND TOHO'S SEPARATION REQUIREMENTS TO FACILITATE FUTURE MAINTENANCE. THESE REQUIREMENTS SHALL APPLY BETWEEN PROPOSED UTILITY LINES AND EXISTING OR PROPOSED
- OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED RAW SEWAGE AND SEPARATIONS LISTED FOR SANITARY SEWER

3. ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE SPECIFIED.

- ACCEPTABLE VARIANCES: 3.1. AT TOHO'S DISCRETION, THE HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY SANITARY SEWER MAINS MAY BE REDUCED TO 3' WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6" ABOVE
- 3.2. AT TOHO'S DISCRETION THE VERTICAL SEPARATION FOR WATER MAINS AND STORM SEWER MAINS OR GRAVITY SEWER MAINS MAY BE REDUCED TO 6" IF THE WATER MAIN IS LOCATED ABOVE THE STORM SEWER OR GRAVITY
- 4. WHERE POTABLE WATER AND SANITARY SEWER MAINS OR RECLAIM WATER MAINS CROSS, THE WATER MAIN SHALL
- BE CENTERED ON THE CROSSING. ALL WATER MAIN JOINTS SHALL BE AT LEAST 6' AWAY FROM ALL SEWER OR RECLAIM JOINTS AND AT LEAST 3' AWAY FROM ALL STORM SEWER JOINTS
- NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SEWER OR STORM MANHOLE,
- STRUCTURE, OR PIPE 6. IF 36" MINIMUM DEPTH OF COVER IS NOT MAINTAINED, SPECIAL PROTECTION OR PIPE MATERIAL UPGRADE MAY BE REQUIRED AT THE DIRECTION OF TOHO

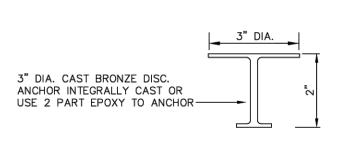
PIPING CLEARANCES TOHO-16 2022

THE TOP OF THE SEWER MAIN

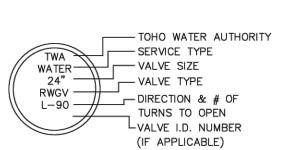


- #57 STONE BEDDING SHALL BE REQUIRED A MINIMUM DEPTH OF 6" BELOW ALL
- VALVES. PLACE FILTER FABRIC OVER STONE PRIOR TO SETTING VALVE MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF 3' FROM ALL PLANTINGS, STRUCTURES, OTHER UTILITY FIXTURES, ETC. AROUND ALL VALVES
- OPERATING NUT SHALL BE BOLTED, SHEER PINS ARE NOT PERMITTED WHERE THE OPERATING NUT CANNOT BE SET AT A MAXIMUM DEPTH OF 18", A
- BOLT ON VALVE NUT RISER SHALL BE REQUIRED FULL DEPTH CAST IRON SCREW TYPE ADJUSTABLE VALVE BOXES ARE
- REQUIRED. PVC OR DIP EXTENSIONS/RISERS SHALL NOT BE PERMITTED LOCATOR WIRE ACCESS FOR DIRECTIONAL BORE OR JACK AND BORE
- APPLICATIONS: 6.1. IN UNPAVED AREAS USE 2" SCH80 PVC, FEMALE ADAPTER COUPLING AND
- 2" BRASS PLUG W/ RECESSED NUT SET IN THE VALVE PAD IN PAVED AREAS TERMINATE THE LOCATE WIRE INSIDE THE TOP PORTION
- OF THE VALVE BOX 6.3. PROVIDE A MINIMUM OF 12" OF EXTRA WIRE ABOVE FINISHED GRADE
- 7. PRIVATELY MAINTAINED WATER SYSTEMS SHALL HAVE 'PRIVATE' STAMPED ON
- 8. DEDICATED FIRE LINES SHALL HAVE 'FIRE' STAMPED ON THE BRONZE DISC AND THE VALVE COVER SHALL BE PAINTED RED

VALVE AND BOX DETAILS TOHO-17 2022



POLYMER MANHOLE BENCHES SHALL BE



FLOW CHANNELS MUST BE INSTALLED TO

INSURE ALL FLOWS CONVERGE WITH OTHER

- 1. WHERE A VALVE FALLS WITHIN A PAVED AREA, THE BRONZE DISC SHALL BE PLACED BY THE CONTRACTOR AT THE DIRECTION OF TOHO BASED ON SITE
- FACTORS AND CONSTRAINTS 2. DISCS SHOULD BE SET IN VALVE PADS DURING CONSTRUCTION OF THE PAD 3. IF EPOXY IS USED TO SET A DISC THE ANCHOR MUST REMAIN AND A HOLE
- SHALL BE DRILLED IN THE PAD AND FILLED WITH EPOXY PRIOR TO SETTING THE DISC

VALVE ID TAG TOHO-17.1 2022

719 IRMA AVENUE ORLANDO, FLORIDA 3280:

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EVANS ENGINEERING, INC.

CERTIFICATE OF

AUTHORIZATION NO. 6788

DAVID L. EVANS

FLORIDA P.E. NO. 46586

DATE:

NE RE

LAND PLANNING PERMITTING SERV

PD05-00005 SDP23-0122 DATE:

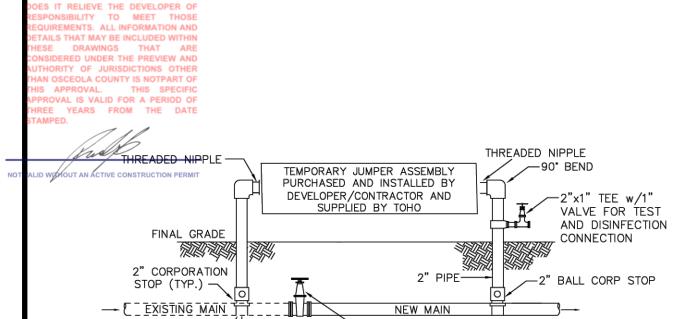
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JOB #:

30801

DRAWN BY:

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2" SERVICE SADDLE (TYP) -/

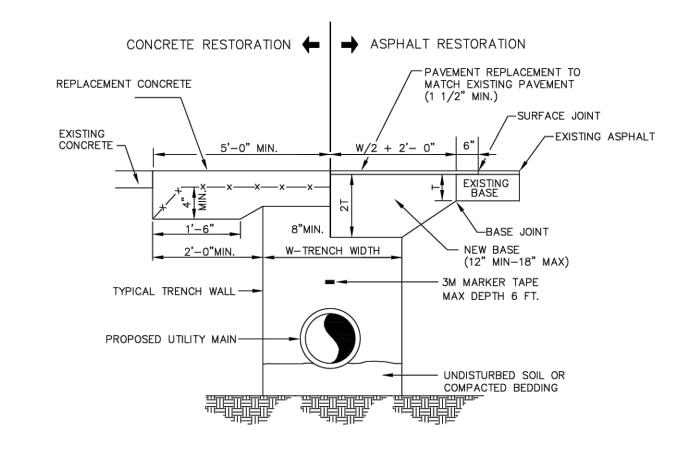
ceola County

mmunity Development APPROVAL IS SUBJECT TO **EOLA COUNTY LAND DEVELOPMENT** E AND ANY SPECIAL REQUIREMENTS THE BOARD OF COUNTY
IISSIONERS. IT SHALL BE THE

ECT ANY DEFECTS IN THE PLANS

- 1. A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE POTABLE AND REUSE WATER MAINS AND PROPOSED WATER AND REUSE MAIN
- IMPROVEMENTS 2. THE DETAIL ABOVE IS TO BE USED FOR PIGGING, FILLING, FLUSHING, AND PULLING SAMPLES FROM NEW WATER MAINS. UNTIL SUCH TIME AS FDEP HAS CLEARED THE POTABLE WATER MAIN FOR USE OR TOHO HAS CLEARED THE POTABLE OR REUSE MAIN FOR USE IF NO FDEP PERMIT IS REQUIRED, THE JUMPER MUST REMAIN ON AND THE VALVE BETWEEN THE OLD AND NEW
- SYSTEMS MUST REMAIN CLOSED 3. THE DEVELOPER AND/OR CONTRACTOR WILL PURCHASE THE TEMPORARY JUMPER ASSEMBLY
- FROM TOHO, ONLY JUMPERS PURCHASED DIRECTLY THRU TOHO ARE ALLOWED 4. THE INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER IS THE RESPONSIBILITY OF
- THE DEVELOPER AND/OR THE CONTRACTOR 5. 2" TAPS AND SERVICES UPSTREAM AND DOWNSTREAM OF THE JUMPER ASSEMBLY SHALL BE
- PER DETAIL TOHO-01 GALVANIZED PIPE AND/OR FITTINGS ARE NOT ALLOWED
- 7. ABANDONED JUMPER CONNECTIONS MUST BE INCLUDED ON THE FINAL RECORD DRAWINGS

TEMPORARY JUMPER CONNECTION TOHO-30 2022



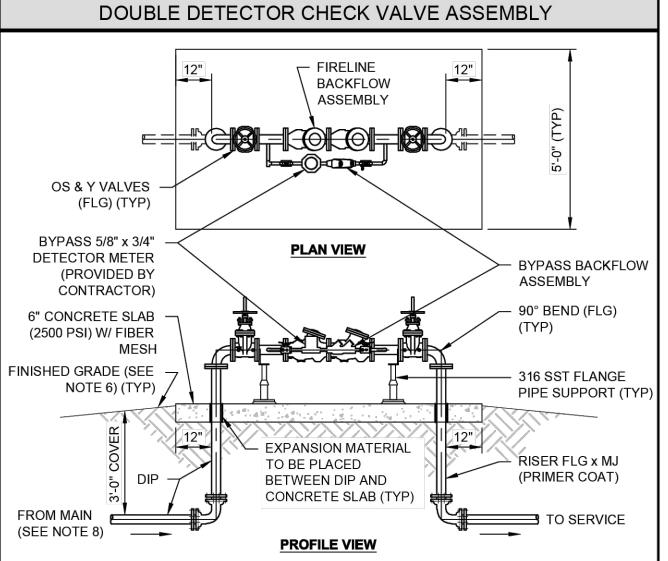
NOTES:

- SURFACE AND BASE CUTS SHALL BE SAW CUT
- 2. LONGITUDINAL OR DIAGONAL CUTS REQUIRE OVERLAY/RESURFACING OF THE COMPLETE WIDTH OF THE ROAD

TYPICAL SECTION

- 3. CUTS AT INTERSECTIONS REQUIRE COMPLETE OVERLAY/RESURFACING TO THE END OF ALL RETURN TURNOUTS AND/OR 10' BEYOND THE CUT(S), WHICHEVER IS GREATER
- . CUTS THRU TURNOUTS AND CUL-DE-SACS REQUIRE COMPLETE OVERLAY/RESURFACING COMPACTION OF BACKFILL SHALL BE 98% OF AASHTO T-180 ACE APPROVED 3M MARKER TAPE OR EQUAL DIRECTLY ABOVE THE CENTERLINE OF THE
- 6.1. TAPE SHALL BE 12"-18" ABOVE THE PIPE
- 6.2. TAPE SHALL NOT EXCEED 6' DEPTH 6.3. IF TOP OF PIPE IS GREATER THAN 7' DEEP, AN ADDITIONAL LAYER OF WARNING TAPE SHALL BE PROVIDED 12"-18" OVER THE PIPE AND THE MARKER TAPE SHALL BE PLACED AT A DEPTH OF 4'-5'
- 7. SLOPES, BENCHING, OR SHORTING SHALL BE PER OSHA REQUIREMENTS
 8. THIS DETAIL APPLIES TO OPEN CUTS NOT LOCATED WITHIN PUBLIC RIGHTS—OF—WAY OR OTHERWISE NOT DICTATED BY ANOTHER AUTHORITY HAVING JURISDICTION

OPEN CUT DETAIL TOHO-15 2022



- 1. REQUIRED FOR SITES WITH SEPARATE DOMESTIC AND FIRE SYSTEM SUPPLY PIPING. 2. BACKFLOW ASSEMBLY SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER. UTILITIES SHALL OWN AND MAINTAIN THE METER.
- 3. UTILITY EASEMENT REQUIRED FOR BY-PASS METER READING. MINIMUM EASEMENT SIZE IS 10-FT x 15-FT.
- 4. DETAIL NOT APPLICABLE WHEN AN RPZ IS REQUIRED IN ACCORDANCE WITH THE BACKFLOW
- PREVENTION MANUAL.
- 5. ALL FLANGES: PIPE, VALVES AND APPURTENANCES SHALL HAVE 316 SST HARDWARE. 6. FINISH GRADE AROUND METER ASSEMBLY SLAB SHALL ENSURE A SAFE WORK ENVIRONMENT. GRADING SLOPE DROP OFF SHALL NOT EXCEED 6-IN WITHIN 5-FT OF SLAB. ASSEMBLY SHALL BE PAINTED IN ACCORDANCE WITH SECTION 3119.
- 8. SERVICES 4-INCH AND LARGER SHALL BE DIP FROM THE POINT OF CONNECTION AT THE MAIN TO THE METER ASSEMBLY IF THE MAIN IS ON THE SAME SIDE OF THE STREET AS THE ASSEMBLY. IF THE MAIN IS ON THE OPPOSITE SIDE OF THE STREET AS THE ASSEMBLY, A MINIMUM OF ONE SEGMENT OF PIPE IMMEDIATELY UPSTREAM FROM THE METER ASSEMBLY SHALL BE DIP.

/IL ENGINEERING LAND PLANNING PERMITTING SERVIC

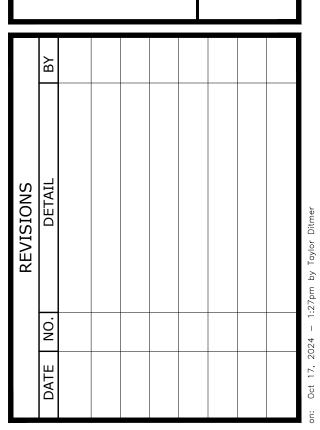
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DAVID L. EVANS FLORIDA P.E. NO. 46586

DATE:



08/01/24 JOB #: 30801 CHECKED BY:

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