BAPTIST WEST NASSAU MEDICAL VILLAGE PHASE 1

NASSAU COUNTY, FLORIDA

PREPARED FOR

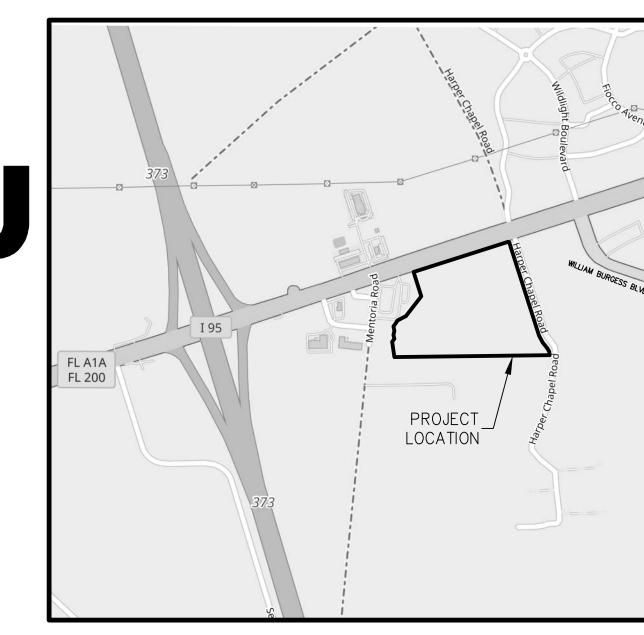
BAPTIST HEALTH PROPERTIES, INC.

1660 PRUENTIAL DRIVE, SUITE 101 JACKSONVILLE, FL 904-202-5626



England-Thims & Miller, Inc.

14775 Old St. Augustine Road Jacksonville, FL 32258 TEL: (904) 642-8990 FAX: (904) 646-9485 CA - 00002584 LC - 0000316



LOCATION MAP

	DRAWING INDEX	
DRAWING NUMBER	SHEET TITLE	REVISION
1	COVER SHEET	
2	GENERAL NOTES	
3	DEMOLITION PLAN	
4	MASTER SITE PLAN	
5A-5E	SITE GEOMETRY PLANS	
7	POST DEVELOPMENT DRAINAGE PLAN	
7A-7E	PAVING AND DRAINAGE PLANS	
8A-8F	PAVING AND DRAINAGE DETAILS	
9	MASTER UTILITY PLAN	
10A-10G	WATER AND SEWER PLANS	
11A-11L	JEA STANDARD UTILITY NOTES AND DETAILS	
12	FIRE MAIN RESTRAINT SCHEDULE	
13	SEDIMENT AND EROSION CONTROL PLAN	
14	SEDIMENT AND EROSION CONTROL DETAILS	
15	STORMWATER POLLUTION PREVENTION PLAN	
16	SWPPP CONTRACTORS CERTIFICATION	
17A-17B	MAINTENANCE OF TRAFFIC PLANS	

SHEET

DRAWING NUMBER

F YOU DIG IN FLORIDA, YOU ARE REQUIRED TO CALL SUNSHINE STATE ONE-CALL OF FLORIDA, INC. 1-800-432-4770 FOR LOCATES. IT'S THE

JEA FLOW TEST

FLOW TEST DATE: 07/24/2020 • 10:01 AM FLOW HYDRANT LOCATION
DAYDREAM AV 200' N OF SR200/A1A (538034) STATIC RESIDUAL HYDRANT LOCATION
N OF MENTORIA RD & SR200/A1A (404594)

DIAMETER OF PORTS (IN): 2.5 PITOT PRESSURE (PSI): STATIC PRESSURE (PSI): RESIDUAL PRESSURE (PSI): 40

FLOW AT TEST (GPM): FLOW AT 20 PSI (GPM): 2,980 **JEA AVAILABILITY #: 2019-2065**

GENERAL SITE NOTES:

- ALL WORK SHALL BE PERFORMED IN A SAFE MANNER. ALL SAFETY RULES AND GUIDELINES OF O.S.H.A. SHALL BE FOLLOWED. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ANY INJURIES TO HIS EMPLOYEES, AND FOR ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT. ALL COSTS ASSOCIATED WITH COMPLYING WITH OSHA REGULATIONS AND THE FLORIDA TRENCH SAFETY ACT MUST BE INCLUDED IN THE CONTRACTORS BID.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE JOB SITE PRIOR TO PREPARING THE BID FOR THE PURPOSE OF FAMILIARIZING HIMSELF WITH THE NATURE AND THE EXTENT OF THE WORK AND LOCAL CONDITIONS, EITHER SURFACE OR SUB-SURFACE, WHICH MAY AFFECT THE WORK TO BE PERFORMED, AND THE EQUIPMENT, LABOR AND MATERIALS REQUIRED. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THE CONSTRUCTION CONTRACT. THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA (811) FOR UTILITY LOCATES IN ACCORDANCE WITH STATE LAW PRIOR TO EXCÁVATING. THE CONTRACTOR IS ALSO URGED TO TAKE COLOR PHOTOGRAPHS ALONG THE ROUTE OF OR WITHIN THE PROJECT TO RECORD EXISTING CONDITIONS PRIOR TO CONSTRUCTION, AND TO AID IN RESOLVING POSSIBLE FUTURE ISSUES THAT MAY OCCUR DUE TO THE CONSTRUCTION OF THE PROJECT.
- THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING STRUCTURES, IMPROVEMENTS, UTILITIES, PROPERTY LINES, AND CONFIRM ALL PROPOSED DIMENSIONS AND ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF SOD AND/OR GRASS PER NASSAU COUNTY STANDARDS AND MEETING THE NPDES FINAL STABILIZATION REQUIREMENTS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EITHER CONDUCT ANY FIELD EXPLORATION OR ACQUIRE ANY GEOTECHNICAL ASSISTANCE REQUIRED TO ESTIMATE THE AMOUNT OF UNSUITABLE MATERIAL THAT WILL REQUIRE REMOVAL AND/OR TO ESTIMATE THE AMOUNT OF OFF SITE BORROW THAT WILL BE REQUIRED. FAILURE OF THE CONTRACTOR TO IDENTIFY/QUANTIFY THE AMOUNT OF UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED DURING THE BID PROCESS WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THE CONSTRUCTION
- ALL MATERIALS AND WORKMANSHIP ARE TO BE WARRANTED BY THE CONTRACTOR TO THE OWNER AND THE NASSAU COUNTY FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY THE OWNER AND THE NASSAU COUNTY. A 26 MONTH MAINTENANCE BOND WILL BE REQUIRED FOR ALL WORK WITHIN NASSAU COUNT ROW.
- THE LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND IMPROVEMENTS SHOWN ON THE DRAWINGS IS BASED ON LIMITED INFORMATION AND MAY NOT HAVE BEEN FIELD VERIFIED. THE LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY RESPECTIVE UTILITY OWNERS AND FIELD VERIFY LOCATIONS OF EXISTING UTILITIES AND OTHER IMPROVEMENTS PRIOR TO COMMENCING ANY CONSTRUCTION. IF THE LOCATIONS SHOWN ARE CONTRARY TO THE ACTUAL LOCATIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF THE DISCREPANCY. THIS DISCREPANCY SHOULD BE RESOLVED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN AREAS NEAR EXISTING UTILITIES AND IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR AND SHALL REPAIR OR PAY FOR ALL DAMAGE MADE TO EXISTING UTILITIES OR OTHER IMPROVEMENTS. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL GRADES, INVERTS AND TYPE OF MATERIAL OF EXISTING UTILITIES TO WHICH HE SHALL CONNECT, AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES.
- UNLESS DIRECTED OTHERWISE BY THE OWNER OR THE ENGINEER, THE CONTRACTOR WILL CONTRACT WITH AN INDEPENDENT TESTING LABORATORY TO PERFORM MATERIAL TESTING AND SOIL TESTING IN ACCORDANCE WITH COUNTY REQUIREMENTS.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE REQUIRED FOR THE PROJECT INCLUDING NASSAU COUNTY RIGHT-OF-WAY PERMITS FOR WORK IN THE COUNTY RIGHT-OF-WAY OR EASEMENT. CONTRACTOR IS RESPONSIBLE FOR CONTROL OF SEDIMENTATION AND RUNOFF RESULTING FROM RAINFALL EVENTS DURING THE CONSTRUCTION OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH REGULATORY PERMITS ISSUED FOR
- 10. THE CONTRACTOR SHALL COORDINATE THE WORK WITHIN COUNTY OR STATE RIGHT-OF-WAY WITH THE APPROPRIATE AGENCIES FOR MAINTENANCE OF TRAFFIC AND METHOD OF CONSTRUCTION & REPAIR.
- IF DEWATERING CAPACITY REQUIRES A CONSUMPTIVE USE PERMIT (C.U.P.) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE PERMIT THROUGH THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND THE ENGINEER FOR APPROVAL OF ALL DEWATERING OPERATIONS PRIOR TO COMMENCEMENT.

GENERAL SITE NOTES:

- 12. PRIOR TO ANY DISCHARGE OF GROUND WATER (DEWATERING) FROM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT TO WATERS OF THE STATE (INCLUDING, BUT NOT LIMITED TO, WETLANDS, SWALES AND MUNICIPAL STORM SEWERS), THE CONTRACTOR SHALL TEST THE EFFLUENT (WATER TO BE DISCHARGED) IN ACCORDANCE WITH RULE 62-621.300(2), F.A.C. IF THE TEST RESULTS ON THE EFFLUENT ARE BELOW THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL SUBMIT A SUMMARY OF THE PROPOSED CONSTRUCTION ACTIVITY AND THE TEST RESULTS TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DISTRICT OFFICE, WITHIN ONE (1) WEEK AFTER DISCHARGE BEGINS. THE CONTRACTOR SHALL CONTINUE TO SAMPLE THE EFFLUENT AS REQUIRED THROUGHOUT THE PROJECT AND COMPLY WITH ALL CONDITIONS OF RULE 62-621.300(2), F.A.C. IF THE GROUND WATER EXCEEDS THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL COMPLY WITH OTHER APPLICABLE RULES AND REGULATIONS PRIOR TO DISCHARGE OF THE EFFLUENT (GROUND WATER) TO SURFACE WATERS OF THE STATE.
- 13. ALL AREAS SHOWN TO BE FILLED SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WITH NASSAU COUNTY STANDARDS AND SHALL BE FILLED WITH CLEAN STRUCTURAL FILL COMPACTED AND TESTED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT.
- 14. CLEARING AND GRUBBING REQUIRED FOR ALL ROADWAY, UTILITIES, DITCHES, BERMS, RIGHTS-OF-WAYS AND EASEMENTS (INCLUDING ELECTRIC EASEMENTS) ARE INCLUDED IN THIS PROJECT.
- 15 ALL ACCESS EASEMENTS ARE TO BE STABILIZED AND DRIVABLE.
- 16. ALL DEBRIS RESULTING FROM ALL ACTIVITIES SHALL BE DISPOSED OF OFF-SITE BY CONTRACTOR.
- 17. BURNING OF TREES, BRUSH AND OTHER MATERIAL SHALL BE APPROVED, PERMITTED AND COORDINATED WITH NASSAU COUNTY FIRE MARSHAL AND ALL OTHER PERMITTING AUTHORITIES BY THE CONTRACTOR.
- 18. UNSUITABLE MATERIALS UNDER UTILITY OR STORM PIPE, STRUCTURES, PAVEMENT, BUILDING PADS, OR HARDSCAPE ELEMENTS SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL, PROPERLY COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- 19. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY AND PROPERTY MONUMENTS. IF A MONUMENT IS DISTURBED, THE CONTRACTOR SHALL CONTRACT WITH THE SURVEYOR OF RECORD FOR REINSTALLATION OF THE MONUMENT
- 20. ALL UNDERGROUND UTILITIES TO BE INSTALLED UNDER PAVEMENT MUST BE INSTALLED PRIOR TO PREPARATION OF SUBGRADE FOR PAVEMENT.
- 21. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION WITH ALL OTHER CONTRACTORS. IN THE EVENT OF ANY CONFLICT WHATSOEVER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 22. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL MATERIALS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PURCHASE OR CONSTRUCTION OF ANY UTILITY OR STORM PIPE OR STRUCTURE.
- 23. AUGER BORINGS PROVIDED BY MESKEL & ASSOCIATES ENGINEERING, DATED: 12/19/2017,
- 24. FLOOD ZONE BASED UPON FEMA INSURANCE RATE MAPS PANEL NOS. 12089C0335F, DATED: 12/17/2020,
- 25. FOR SEDIMENT AND EROSION CONTROL PLANS, DETAILS AND NOTES REFER TO DRAWINGS 13 AND 14. CONTRACTOR TO COORDINATE WITH AUTHORITY FOR INSPECTIONS PRIOR TO CLEARING OPERATIONS.
- 26. ELEVATIONS ARE BASED ON NAVD 1988.
- 27. TOPOGRAPHIC INFORMATION BASED ON SURVEY PROVIDED BY ETM SURVEYING & MAPPING, INC., DATED: 02/26/2019,
- 28. BOUNDARY INFORMATION BASED ON SURVEY PROVIDED BY JMM SURVEYING & MAPPING, LLC, DATED: 01/26/2018,
- 29. ALL WORK AND MATERIALS SHALL BE IN COMPLETE ACCORDANCE WITH ALL RELATIVE SECTIONS OF "NASSAU COUNTY ORDINANCE 99-17 (LATEST EDITION)" AND ALL CURRENT COUNTY STANDARD DETAILS. THE WORK RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL INVESTIGATION REPORT PROVIDED BY MESKEL & ASSOCIATES ENGINEERING, DATED: 12/19/2017, IF MORE STRINGENT THAN COUNTY REQUIREMENTS.
- 30. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CIVIL ENGINEER TO DETERMINE IF THIS PROJECT IS WITHIN THE COUNTY'S JURISDICTION FOR INSPECTION. IF SO THEN, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH NASSAU COUNTY FOR PRE-CONSTRUCTION MEETING AND INSPECTIONS AT 904-530-6225.
- PROJECT LOCATION: NASSAU COUNTY, FLORIDA.

PAVING AND DRAINAGE LEGEND

- 32. THESE PLANS WERE GENERATED UTILIZING AUTOCAD CIVIL 3D 2019.
- 33. THESE PLANS ARE PREPARED IN GENERAL COMPLIANCE WITH THE NASSAU COUNTY COUNTY LAND DEVELOPMENT CODE.

PAVING AND DRAINAGE NOTES:

- 1. ALL DRAINAGE STRUCTURES TO HAVE TRAFFIC BEARING GRATES.
- 2. ALL DRAINAGE PIPE JOINTS ARE TO BE FILTER FABRIC WRAPPED.
- 3. ALL INVERTS IN DRAINAGE STRUCTURES TO BE PRECAST OR BRICK WITH LAYER OF MORTAR BETWEEN EACH LAYER OF BRICK, OR REDDI-MIX CONCRETE WITH #57 STONE.
- ALL PIPE LENGTHS ARE SCALED DIMENSIONS. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED TO CONFORM WITH COUNTY REQUIREMENTS AND SHALL BE CONSTRUCTED TO CONFORM WITH CURBING, PROPERTY LINES AND LOW POINTS AS SHOWN ON THE PLANS.
- 5. CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEAN AND FUNCTIONING PROPERLY AT TIME OF ACCEPTANCE. ALL STORM PIPING WITHING NASSAU COUNTY ROW SHALL BE VIDEOED/LASER PROFILED PER FDOT SECTION 430.
- 6. "AS-BUILT" DRAWINGS DRAINAGE AS-BUILTS PROVIDED TO NASSAU COUNTY AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT ARE REQUIRED TO BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. THEREFORE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTRACT WITH A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA FOR THE PREPARATION, FIELD LOCATIONS, CERTIFICATION AND SUBMITTAL OF "AS-BUILT" DRAWINGS IN ACCORDANCE WITH CURRENT NASSAU COUNTY STANDARDS AND SPECIFICATIONS AND SJRWMD REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROCESS THE AS-BUILT DRAWINGS FOR APPROVAL BY NASSAU COUNTY. IN ADDITION TO THE DRAINAGE SYSTEM THE "AS-BUILTS" SHALL SHOW THE ELEVATIONS AND LOCATION OF THE TOP OF BANK, WATER LEVEL, ANY POINTS OF CHANGE IN SLOPE, TOE OF SLOPE AND POND BOTTOM AT 100' MAXIMUM INTERVALS ALONG POND BANK FOR ALL POND CONSTRUCTION. ALL DIMENSIONS AND ELEVATIONS ON THE CONTROL STRUCTURE DETAILS SHALL BE SHOWN ON AS-BUILT DRAWINGS. ALL DEVIATIONS FROM PLANS SHALL BE CLEARLY INDICATED ON THE AS-BUILT DRAWNGS. AS-BUILT CHECK LIST CAN BE OBTAINED FROM NASSAU COUNTY ENGINEERING SERVICES DEPARTMENT AT 904-530-6225.
- THE CONTRACTOR SHALL PROVIDE ACCESSIBLE CURB RAMPS AT ALL SIDEWALK AND CURB CONNECTIONS. RAMPS SHALL MEET ALL APPLICABLE ADA REQUIREMENTS.
- 8. FOR SPECIAL PAVING AND DRAINAGE DETAILS SEE DRAWING NO. 7A-7E. FOR ALL STANDARD DETAILS SEE NASSAU COUNTY STANDARD SPECIFICATIONS AND DETAILS, LATEST REVISION.
- UNDERDRAIN SHOWN HEREON IS THE MINIMUM REQUIRED BASED ON GEOTECHNICAL REPORT, PREPARED BY MESKEL & ASSOCIATES ENGINEERING, DATED: 12/19/2017, FINAL DETERMINATION OF LIMITS OF UNDERDRAIN WILL BE MADE BASED ON TEST HOLE OBSERVATION AT TIME OF ROADWAY CONSTRUCTION.
- 10. ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING SILT FENCE, COIR BALES. AND FILTER FABRIC INSIDE DRAINAGE STRUCTURES SHALL BE REMOVED PRIOR TO FINAL INSPECTION, UNLESS OTHERWISE DIRECTED BY THE OWNER OR THE ENGINEER.
- 11. PAVEMENT MARKINGS SHOULD BE PLACED AS SHOWN ON THE PLANS AND DETAIL SHEETS.
- 12. ANY REQUIRED TEMPORARY MARKINGS MUST BE IN PLACE BEFORE OPENING LANES OF TRAFFIC. PAY ITEMS FOR TEMPORARY PAVEMENT MARKINGS ARE TO BE INCLUDED IN THE TABULATION OF QUANTITIES.
- 13. THE REMOVAL OF EXISTING PAVEMENT MARKINGS WILL BE CONSIDERED AN INCIDENTAL ITEM WITH NO ADDITIONAL COMPENSATION PROVIDED.
- 14. ALL PERMANENT PAVEMENT MARKINGS IN RIGHT-OF-WAY SHALL BE EXTRUDED THERMOPLASTIC AND MEET CURRENT NASSAU COUNTY SPECIFICATIONS AND/OR FDOT STANDARD SPECIFICATIONS, LATEST EDITION.
- 15. THERMOPLASTIC PAVEMENT MARKINGS ARE TO BE PLACED NO SOONER THAN 30 CALENDAR DAYS AFTER THE COMPLETION OF THE FINAL PAVEMENT LAYER.
- 16. A BITUMINOUS REFLECTIVE PAVEMENT MARKER (RPM) ADHESIVE MEETING CURRENT NASSAU COUNTY AND/OR FDOT SPECIFICATIONS SHALL BE USED ON ASPHALT ROADWAYS.
- 17. THE CONTRACTOR SHALL USE CLASS-B REFLECTIVE PAVEMENT MARKERS (RPM'S) INSTALLED TO MEET CURRENT NASSAU COUNTY SPECIFICATIONS AND/OR FDOT STANDARD SPECIFICATIONS.
- 18. REFLECTIVE PAVEMENT MARKERS THAT DO NOT CONFLICT WITH PERMANENT (THERMOPLASTIC) MARKINGS SHALL BE PLACED ON ALL FINAL ASPHALTIC CONCRETE SURFACES IMMEDIATELY AFTER THE TEMPORARY PERMANENT STRIPING IS IN PLACE.
- 19. PAVEMENT MARKINGS REMOVAL: 19.a. PAINT BLACKOUT METHOD OF PAVEMENT MARKINGS REMOVAL IS NOT

ASPHALT SURFACES.

- 19.6. GRINDING OR HYDRO BLAST METHODS SHALL BE USED ON WEATHERED
- REMOVAL ON NEW ASPHALT SURFACES SHALL BE BY HYDRO BLAST
- NASSAU COUNTY ROADWAY OR STREET, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE NASSAU COUNTY CONSTRUCTION INSPECTOR. 21. IN THE EVENT OF A CONFLICT BETWEEN THE SPECIFICATIONS OF THE

20. 48 HOURS PRIOR TO INSTALLING ANY PAVEMENT MARKINGS ON ANY

- NASSAU COUNTY AND THE SPECIFICATIONS OF THE FDOT, THE NASSAU COUNTY WILL PREVAIL.
- 22. ANY DISTURBED LAND SHALL BE SEEDED/SODDED TO PREVENT EROSION AND SEDIMENTATION. ANY DISTURBED AREA WITHIN NASSAU COUNTY ROW SHALL BE SODDED WITH BERMUDA.
- 23. ALL ASPHALT MILLINGS FROM COUNTY ROW SHALL BE DELIVERED TO NASSAU COUNTY LAYDOWN YARD ON GENE LASSERE.

WATER, REUSE, & SEWER REQUIREMENTS

- 1. ALL WATER, REUSE WATER, SANITARY SEWER AND STORM SEWER CONSTRUCTION SHALL BE ACCOMPLISHED BY AN UNDERGROUND UTILITY CONTRACTOR, LICENSED UNDER THE PROVISIONS OF CHAPTER 489 FLORIDA STATUTES. THE CONTRACTOR SHALL FURNISH COPY OF THE CURRENT LICENSE AND QUALIFIERS TO THE DESIGN ENGINEER PRIOR TO START OF CONSTRUCTION. ALL WATER, REUSE WATER AND SEWER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH JEA STANDARDS, DETAILS AND MATERIALS MANUAL (LATEST REVISIONS) UNLESS MORE STRINGENT STANDARDS ARE SPECIFIED.
- FIRE PROTECTION MAINS (NON-JEA OWNED WATER SYSTEMS) SHALL BE C-900 PVC DR18 PIPE AND SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA REQUIREMENTS BY A FLORIDA LICENSED CONTRACTOR QUALIFIED TO INSTALL FIRE PROTECTION MAINS. LOCAL PERMITTING AND INSPECTION OF FIRE PROTECTION SYSTEM INSTALLATION, FLUSHING AND TESTING IS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR LOCAL PERMIT, NOTICE, AND COMPLIANCE WITH PERMIT.
- 3. FINAL CONNECTION TO THE JEA SYSTEM MAY BE CONTINGENT UPON THE CONSTRUCTION, DEDICATION, AND FINAL ACCEPTANCE OF OFF-SITE SYSTEMS.
- 4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER (AND THE JEA IF REQUIRED) ON ALL STRUCTURES AND MATERIALS, FOR REVIEW AND APPROVAL PRIOR TO PURCHASÉ OR FABRICATION OF ANY UTILITY PIPE OR STRUCTURE.
- UNSUITABLE MATERIALS UNDER UTILITY PIPES AND STRUCTURES SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL, PROPERLY COMPACTED IN ACCORDANCE WITH THE
- MECHANICALLY RESTRAINED JOINTS ARE REQUIRED ON PRESSURE MAINS AT VALVES, FITTINGS AND DEAD ENDS IN ACCORDANCE WITH JEA STANDARDS.
- CONTRACTOR SHALL FURNISH AND INSTALL LOCATE WRING ON ALL PVC WATER MAINS, REUSE MAINS, FORCE MAINS, POLYETHYLENE AND PVC WATER SERVICES, INSTALLATION SHALL BE IN ACCORDANCE WITH JEA STANDARDS, DETAILS AND MATERIAL MANUAL, LATEST EDITION.
- ALL POINTS OF CONNECTION FOR WATER, REUSE WATER AND SEWER MUST BE IN ACCORDANCE WITH THE AVAILABILITY RESPONSE FROM JEA.
- 9. F.D.E.P. PERMITS SUBMITTED THROUGH THE DEPARTMENT FOR PROCESSING SHALL BE IN CONFORMANCE WITH BOTH THE DESIGN PLANS AND THE WATER AND SEWER AVAILABILITY RESPONSE. ANY MINOR OR MAJOR DEVIATIONS BETWEEN THE PRELIMINARY DESIGN AND FINAL DESIGN SUBMITTAL SHALL REQUIRE REVISED F.D.E.P. PERMITS REFLECTING THESE
- 10. A JEA PRE-CONSTRUCTION CONFERENCE MUST BE HELD PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL CONTACT THE JEA NEW DEVELOPMENT PROJECT COORDINATOR: CHRIS BARRINGTON OR JEA DESIGNEE AT (904) 665-4081 TO SCHEDULE THIS CONFERENCE.
- 11. A TAP APPLICATION FEE IS REQUIRED AND SHALL BE PAID @ 515 N. LAURA ST., 1ST FLOOR. THIS MUST BE ACCOMPLISHED PRIOR TO CONNECTION TO THE JEA'S SYSTEM (WATER, SEWER, REUSE). IN ADDITION, CAPACITY FEES MUST BE PAID AT TIME OF OR PRIOR TO THE TAP FEE AND WILL BE BASED ON THE TOTAL NUMBER OF FIXTURE UNITS AND OR AVERAGE DAILY
- 12. THE CONTRACTOR SHALL MINIMIZE SERVICE INTERRUPTIONS AND MAINTAIN ANY EXISTING WATER AND SEWER SERVICE TO MEET THE SYSTEM DEMANDS AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF AFFECTED CUSTOMERS AND UTILITY A MINIMUM OF 48 HOURS IN ADVANCE OF ANY INTERRUPTION OF SERVICE.
- 13. CONTRACTOR SHALL OBTAIN A COPY OF THE F.D.E.P. OR JEA WATER AND SEWER PERMITS FROM THE ENGINEER PRIOR TO START OF CONSTRUCTION AND MUST COMPLY WITH ALL CONDITIONS OF PERMIT(S).
- 14. ALL JEA ELECTRICAL CONDUIT WORK SHALL BE COMPLETED PRIOR TO THE PRESSURE TESTING OF WATER MAINS, REUSE MAINS AND SEWAGE FORCE MAINS. ALL PRESSURE TESTING AND PUMP TESTING SHALL BE WITNESSED BY JEA AND THE ENGINEER.

WATER AND REUSE MAINS

EXISTING

PROPOSED

- 15. UNLESS OTHERWISE INDICATED. ALL WATER MAINS AND REUSE MAINS WILL BE PVC DR18, C-900/C-905 (AS APPROPRIATE) PIPE. ALL 2" MAINS SHALL BE HDPE CTS SDR 9.
- 16. WATER MAINS AND REUSE MAINS SHALL HAVE A MINIMUM OF 30" COVER UNDER UNPAVED AREAS AND 36" MINIMUM COVER FROM FINISHED GRADE UNDER PAVED AREAS UNLESS OTHERWISE SHOWN. ADDITIONAL COVER IS REQUIRED FOR VALVE INSTALLATION CLEARANCE FOR PIPE GREATER THAN 8 INCHES IN DIAMETER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT INSTALLED PIPING UNTIL FINAL ACCEPTANCE BY F.D.E.P AND JEA.
- 17. ALL WATER MAINS AND REUSE MAINS SHALL BE FLUSHED IN ACCORDANCE WITH, AND UNDER THE DIRECTION OF THE JEA.
- 18. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER MAINS AND REUSE MAINS AND IORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER MAINS AND REUSE MAINS TO OTHER UTILITIES SHALL BE IN ACCORDANCE WITH JEA AND F.D.E.P. REQUIREMENTS.
- 19. ALL GATE VALVES SHALL BE JEA STANDARD. VALVES SHALL BE MECHANICAL JOINT, CAST IRON, BRONZE FITTED WITH RESILIENT SEAT. ALL VALVES SHALL OPEN BY TURNING TO THE LEFT. VALVES SHALL BE RATED AT 250 PSI WORKING PRESSURE AND 500 PSI TEST
- 20. ALL NEW AND / OR RELOCATED WATER MAIN AND REUSE MAIN PIPE AND FITTINGS SHALL NOT CONTAIN MORE THAN EIGHT PERCENT LEAD, AND ALL PACKING AND JOINT MATERIALS USED IN THE JOINTS SHALL CONFORM WITH ALL APPLICABLE AWWA STANDARDS. ALL NEW AND / OR RELOCATED SERVICES AND PLUMBING SHALL CONTAIN NO MORE THAN EIGHT PERCENT LEAD AND ALL SOLDERS AND FLUX SHALL CONTAIN NO MORE THAN 0.2 PERCENT

SANITARY SEWER LINE

CLEANOUT

WATER MAIN

REUSE WATER MAIN

FIRE PROTECTION MAIN

SANITARY SEWER SERVICE

SANITARY SEWER MANHOLE

WATER, REUSE, & SEWER REQUIREMENTS

- ALL FIRE HYDRANTS SHALL BE JEA STANDARD. FIRE HYDRANTS LOCATED WITHIN JEA RIGHT OF WAYS OR EASEMENTS SHALL BE PAINTED YELLOW. ALL PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED, OR IN ACCORDANCE WITH LOCAL REQUIREMENTS.
- 22. ALL FIRE HYDRANTS THAT ARE SUPPLIED BY A FIRE PUMP AND SUBJECT TO HIGH PRESSURE (IN EXCESS OF 60 P.S.I.) SHALL BE PAINTED GREEN WITH RED LETTERS "H.P." APPROXIMATELY 2" HIGH. THESE LETTERS SHALL BE STENCILED ON THE HYDRANT IN A CONSPICUOUS / VISIBLE AREA.
- ALL NEW FIRE HYDRANT INSTALLATIONS, PUBLIC AND PRIVATE, SHALL HAVE A BLUE F.D.O.T. TYPE REFLECTIVE PAVEMENT MARKER INSTALLED IN THE CENTER OF THE TRAFFIC LANE
- 24. ALL WATER MAINS SHALL BE BACTERIOLOGICAL AND PRESSURE TESTED AT 150 PSI FOR 2 HOURS IN ACCORDANCE WITH AWWA STANDARDS AND JEA STANDARD REQUIREMENTS. NO CONNECTION TO THE EXISTING POTABLE WATER SYSTEM SHALL BE ALLOWED UNTIL ALL PROPOSED WATER LINES HAVE BEEN PRESSURE TESTED, DISINFECTED, AND CLEARED FOR SERVICE. THE ENGINEER MUST BE NOTIFIED 48 HOURS PRIOR TO PERFORMING THE PRESSURE TEST. DISINFECTION SHALL BE IN ACCORDANCE WITH AWWA-C-651. REUSE MAINS REQUIRE PRESSURE TEST ONLY.
- 25. ALL BACKFLOW PREVENTORS SHALL BE IN ACCORDANCE WITH JEA CROSS CONNECTION CONTROL PROGRAM. BACKFLOW PREVENTORS MUST BE TESTED AFTER INSTALLATION BY A CERTIFIED TESTER AND ANNUALLY THEREAFTER. THE CONTRACTOR SHALL CONTACT JEA COORDINATOR OR JEA DESIGNEE: BILL POUND AT (904) 665-5787. BACKFLOW PREVENTORS ON FIRE LINES OR COMBINATION FIRE/POTABLE MAINS SHALL BE HAVE FREEZE PROTECTION.
- 26. THE WATER TAPS DEPICTED ON THESE DESIGN PLANS SHALL BE CONSTRUCTED AS FOLLOWS: ALL POTABLE, REUSE, AND IRRIGATION WATER TAPS, FIRE LINE SERVICES AND FIRE HYDRANT INSTALLATIONS SHALL BE PERFORMED BY A LICENSED MASTER PLUMBER OR UNDERGROUND UTILITY CONTRACTOR UNDER THE FOLLOWING CONDITIONS: 1.) THE TAPS ARE TO BE SCHEDULED 48 HOURS IN ADVANCE WITH JEA. TAPS REQUIRING METER INSTALLATIONS OF SIZE 2" AND BELOW MUST INCLUDE THE
- SÉRVICE PIPE, METER BOX, AND CORP. STOP SIZED READY TO ACCEPT THE METER INSTALLATION BY JEA FORCES. 3.) JEA FORCES WILL INSTALL THE METER UPON APPLICATION AND PAYMENT BY LICENSED MÁSTER PLUMBER OR UTILITY CONTRACTOR AT JEA WATER AND SEWER, 515 N. LAURA ST.,
- 4.) ALL TAPS REQUIRING METER INSTALLATIONS OF SIZE 3" AND ABOVE SHALL TERMINATE SIŹED READY FOR VAULT, METER AND BYPASS INSTALLATION. VAULT FURNISHED BY CONTRACTOR. INSTALLATION BY JEA FORCES. SPECIAL ESTIMATE REQUIRED.
- 27. WATER METERS SHALL NOT BE LOCATED WITHIN PAVEMENT, CURB AND GUTTER OR DRIVEWAYS.
- 28. IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE IRON PIPE, FITTINGS AND SOLVENT RESISTANT GASKET MATERIAL SUCH AS FLUOROCARBON SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED. ANY CONTAMINATED SOIL THAT IS EXCAVATED SHALL BE PLACED ON AN IMPERMEABLE MAT AND COVERED WITH A WATERPROOF COVERING. THE PROPER AUTHORITIES WILL BE NOTIFIED AND THE CONTAMINATED SOIL HELD FOR PROPER DISPOSAL.

- 29. ALL SEWER MAINS, SERVICES, AND FITTINGS SHALL BE PVC (ASTM-3034) SDR 26 UNLESS OTHERWISE INDICATED. FORCE MAINS SHALL BE PVC DR 18 PIPE UNLESS OTHERWISE INDICATED. FORCE MAINS SHALL BE PRESSURE TESTED THE SAME AS WATER AND REUSE
- 30. SANITARY SEWER SERVICES SHALL BE 6" PVC WITH A MINIMUM SLOPE OF 1.04% AND SHALL BE TERMINATED AT THE RIGHT-OF-WAY LINE WITH A DEPTH OF 30" TO 60" UNLESS OTHERWISE DETAILED OR RESTRICTED DUE TO DEPTH OF SEWER MAIN. FORCE MAINS SHALL HAVE A MINIMUM COVER OF 30 INCHES IN UNPAVED AREAS AND 36 INCHES IN PAVED AREAS UNLESS OTHERWISE INDICATED. SEE FORCE MAIN PROFILE SHEET(S).
- SEWER LINES AND FORCE MAINS ARE DESIGNED TO FINISHED GRADES AND SHALL BE PROTECTED UNTIL WORK IS COMPLETED AND ACCEPTED BY F.D.E.P AND JEA.
- 32. PRIOR TO THE PLACEMENT OF THE LIMEROCK BASE COURSE, THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER A SCHEDULE OF INVERT ELEVATIONS OF ALL SANITARY MANHOLES. THIS SCHEDULE SHALL BE PROVIDED BY THE REGISTERED LAND SURVEYOR SUBMITTING THE "AS-BUILT" DRAWINGS FOR THIS PROJECT.
- 33. THE CONTRACTOR SHALL INSTALL ANY ADDITIONAL AIR RELEASE VALVES AT CHANGES IN ELEVATION OF 2 FT. DUE TO ACTUAL FIELD CONDITIONS OR CONFLICTS NOT IDENTIFIED ON THESE DESIGN PLANS.
- 34. TELEVISION INSPECTION SHALL BE REQUIRED ON ALL GRAVITY SEWER MAINS. INSPECTION SHALL BE RECORDED ON VIDEO TAPE OR DVD. ALL LINES ARE TO BE CLEANED AND FLUSHED PRIOR TO INSPECTION. A FULL WRITTEN REPORT AS TO THE CONDITION OF THE PIPE WITH PERTINENT DATA SUCH AS DISTANCE BETWEEN MANHOLES, LOCATION OF SERVICES. ETC. SHALL BE SUBMITTED TO THE OWNER AND ENGINEER PRIOR TO ACCEPTANCE AND ONE COPY OF THE VIDEO INSPECTION SHALL BE SUBMITTED TO THE JEA. ALL DEFECTIVE AREAS AND ITEMS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL ACCEPTANCE. ALL REPAIRED SECTIONS MUST BE REINSPECTED PRIOR TO ACCEPTANCE. THE MAXIMUM DEFLECTION SHALL NOT EXCEED 7.5% OF THE NOMINAL DIAMETER IN ACCORDANCE WITH JEA STANDARDS. INFILTRATION AND/OR EXFILTRATION TESTING OF GRAVITY SEWERS MAY BE REQUIRED IF DEEMED NECESSARY BY THE ENGINEER. THE MAXIMUM ALLOWABLE INFILTRATION-EXFILTRATION RATE WILL BE 50 GALLONS PER INCH DIAMETER PER MILE PER

FIRE HYDRANT

GATE VALVE

WATER METER

BACKFLOW PREVENTER

REDUCER

FLUSHING HYDRANT



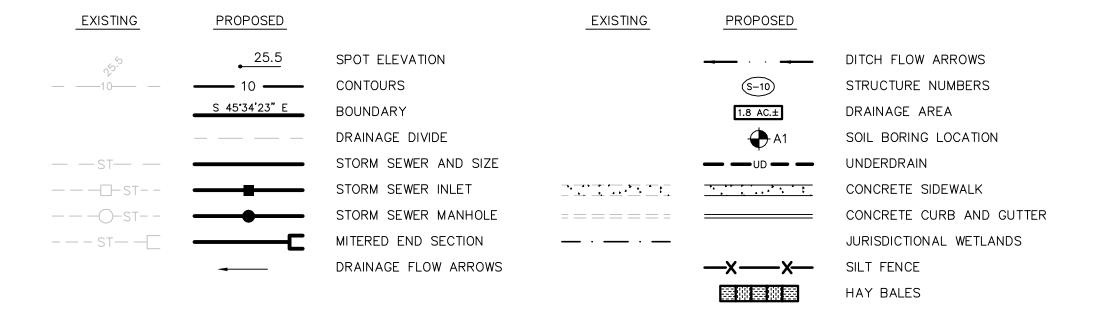
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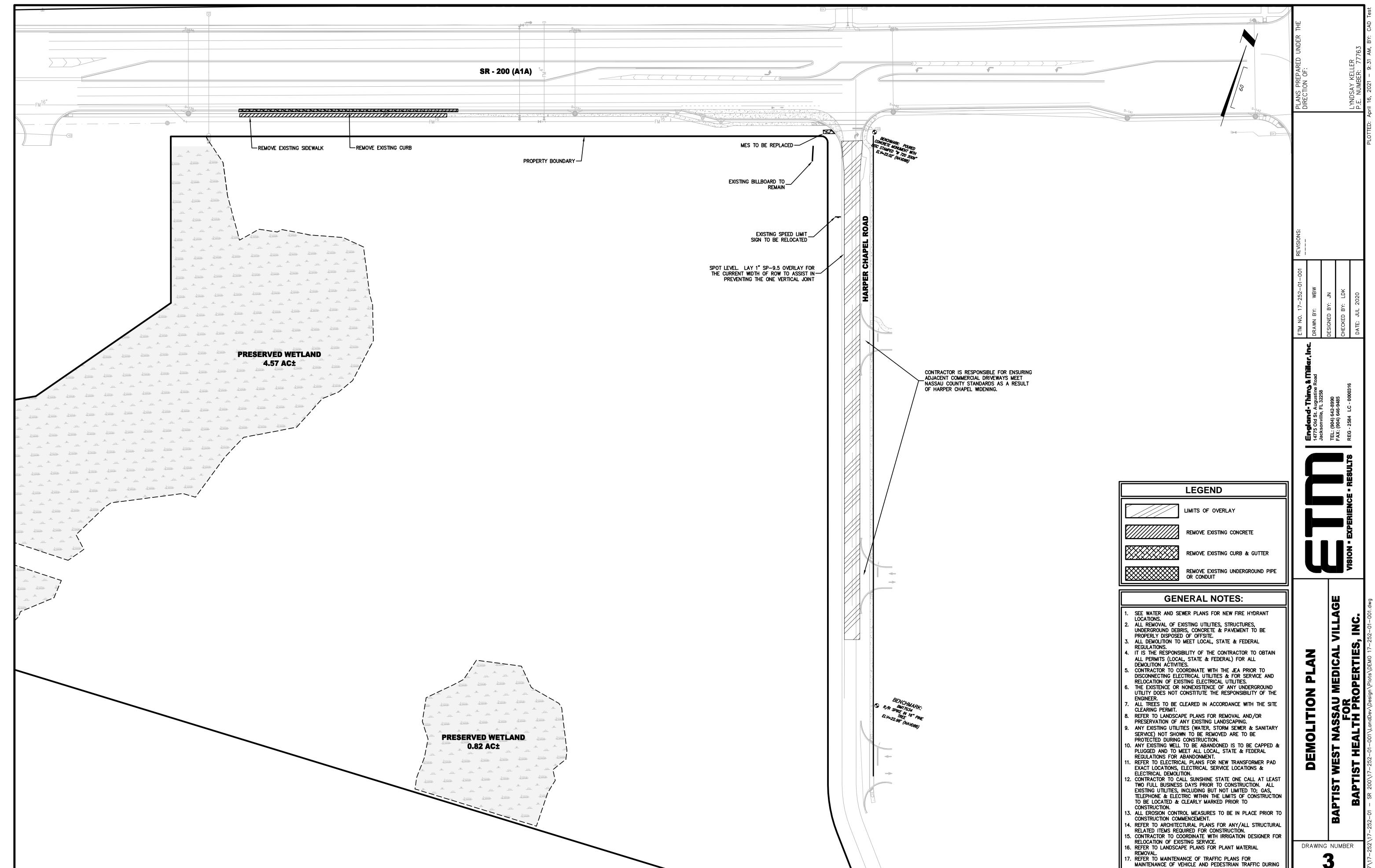
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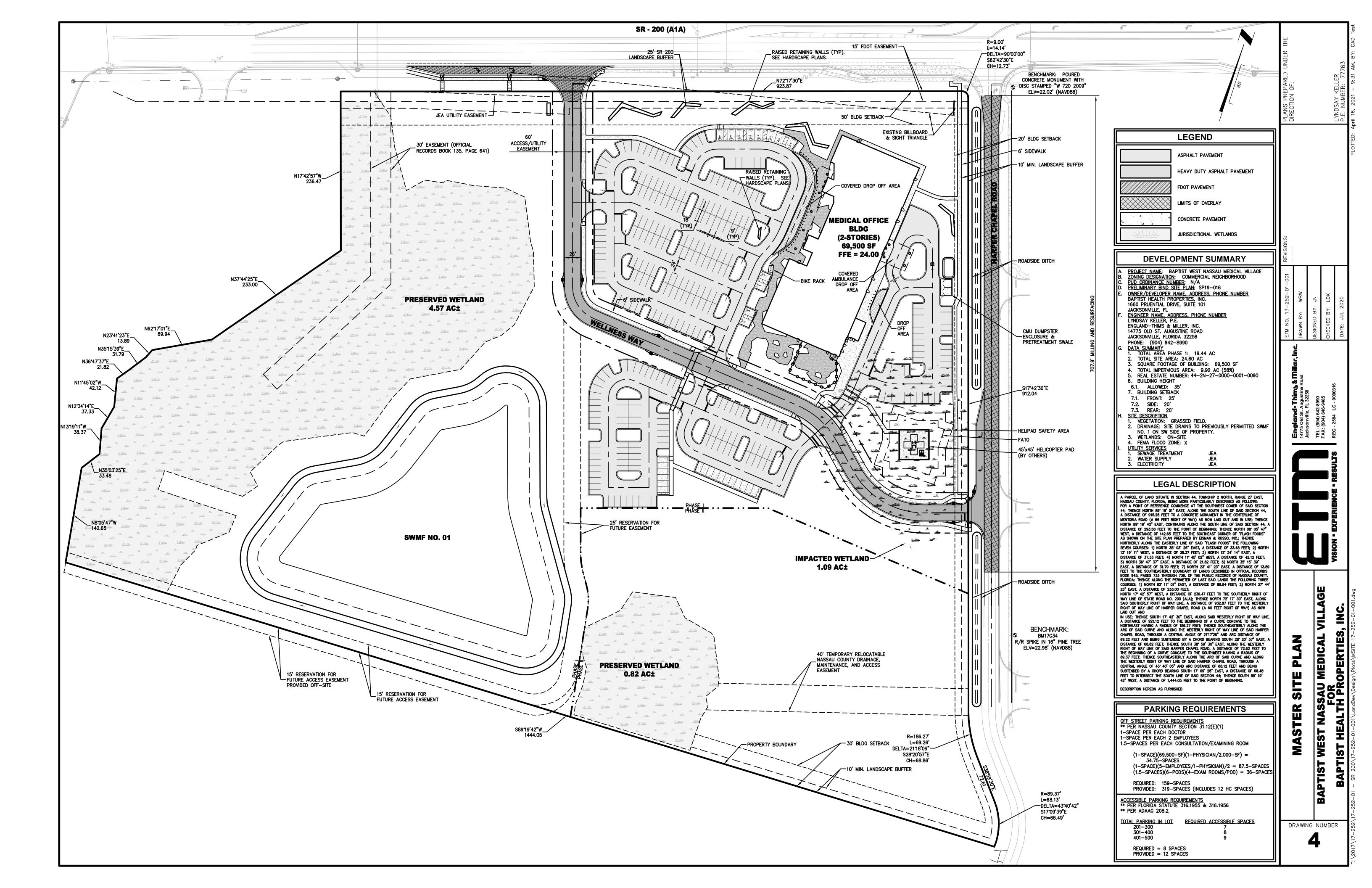
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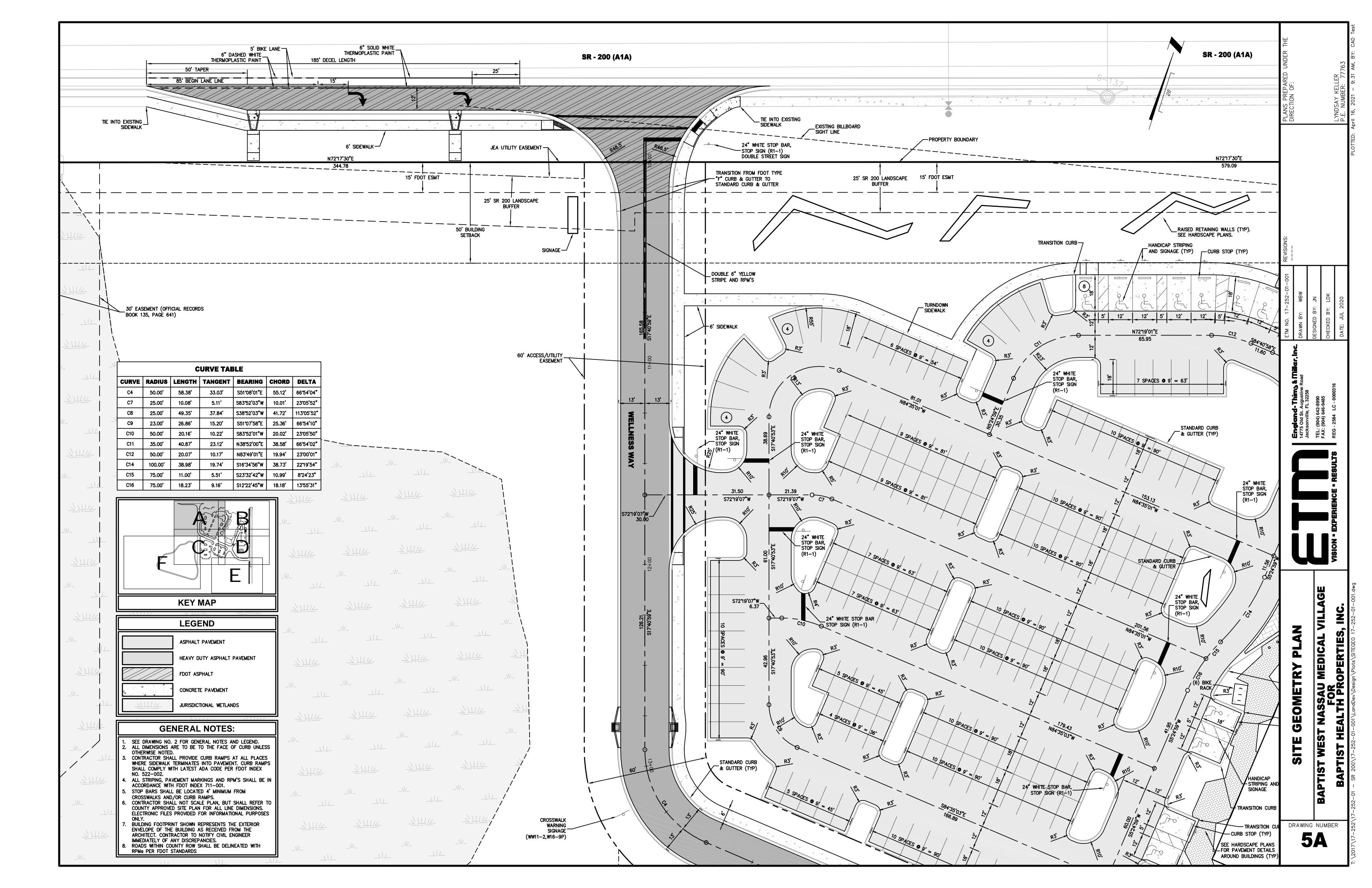
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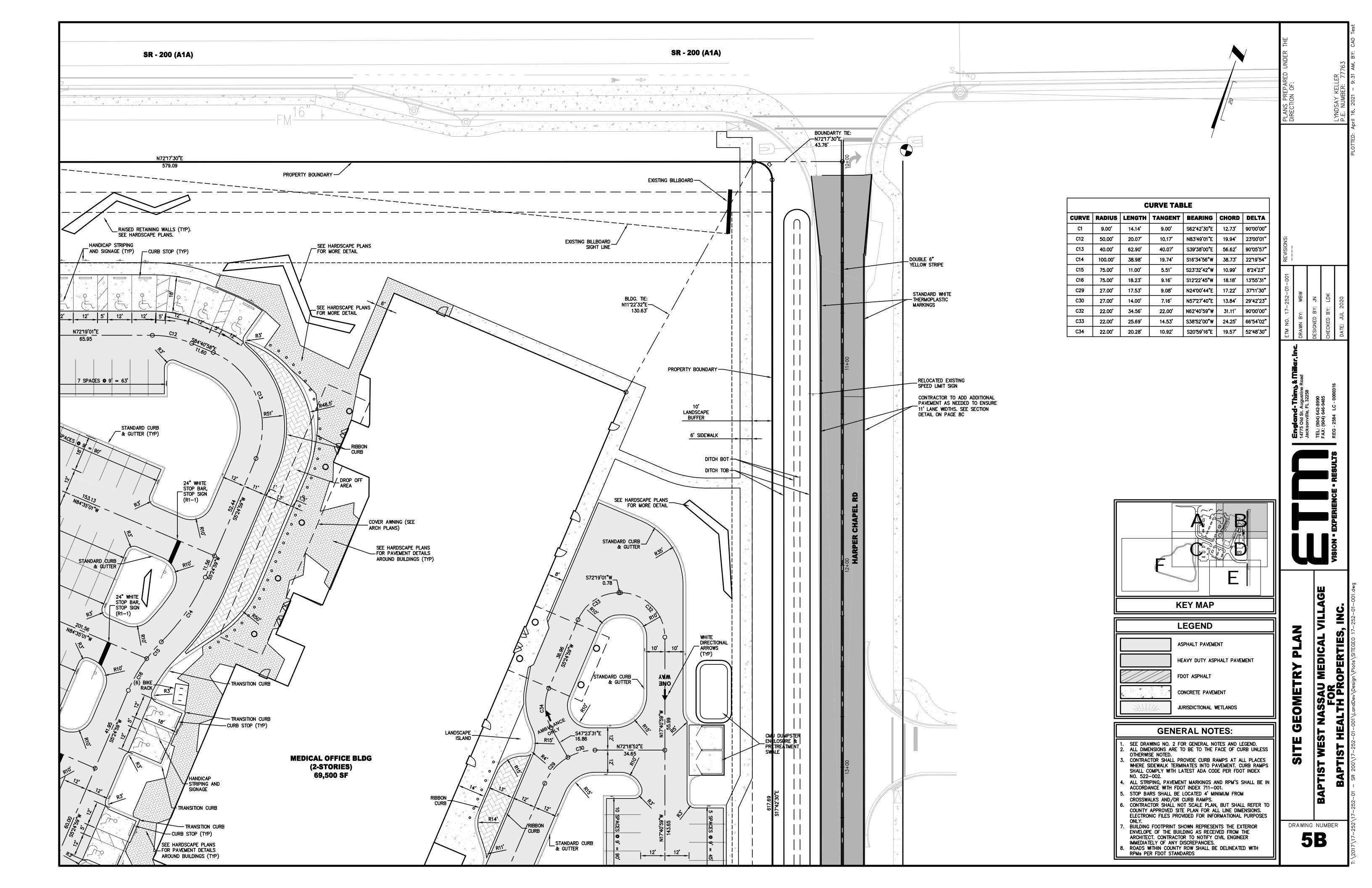
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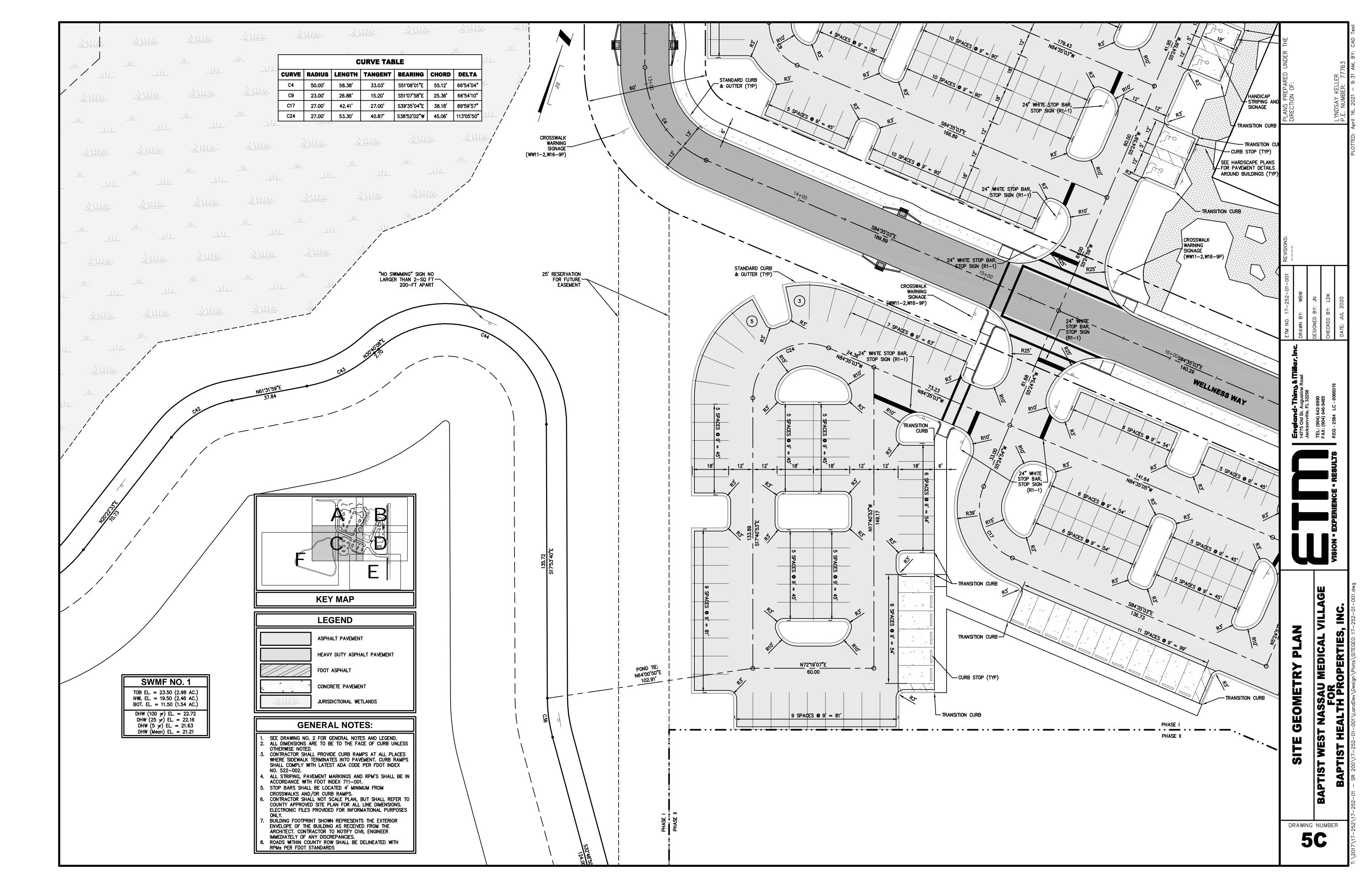


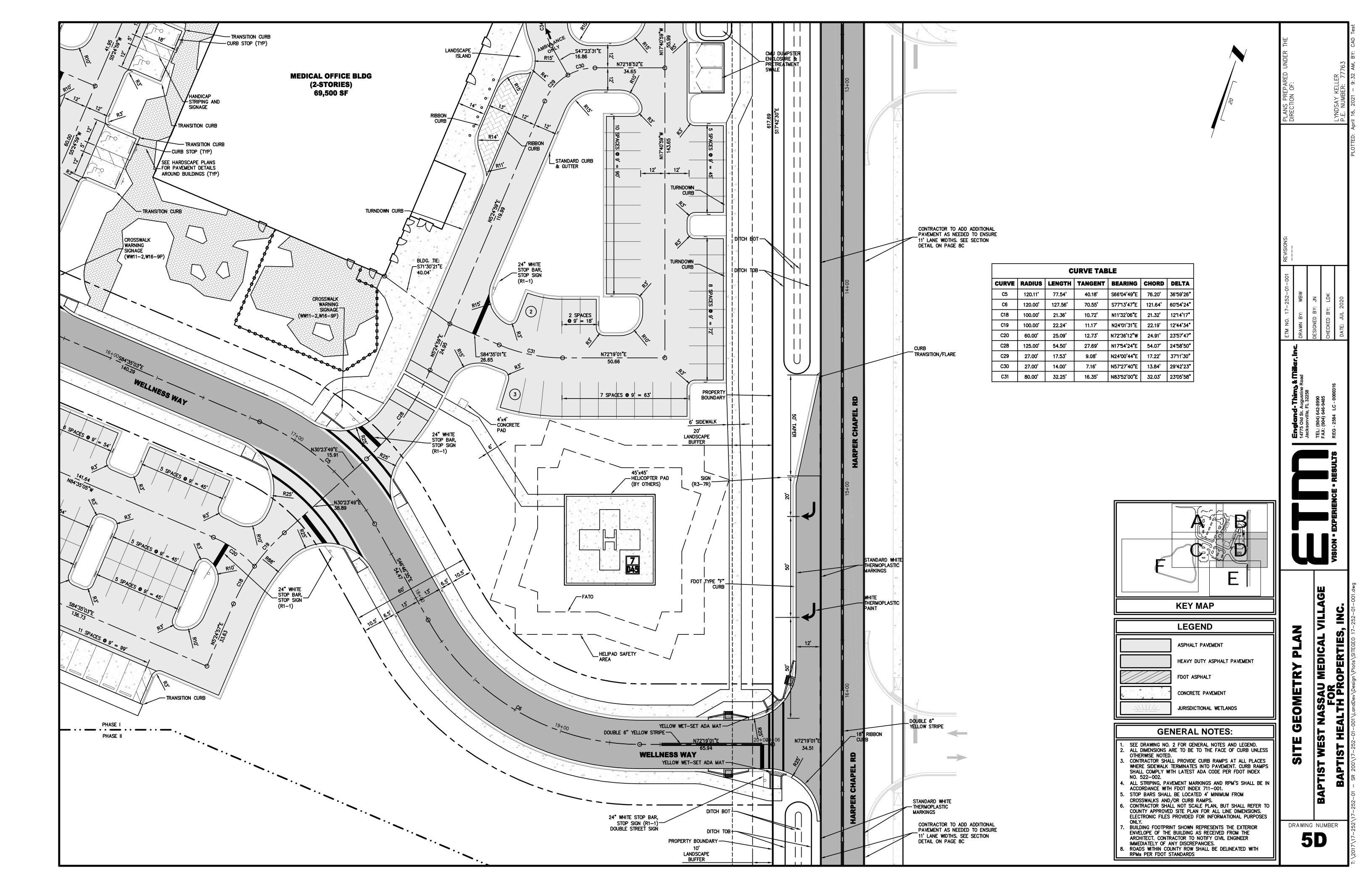


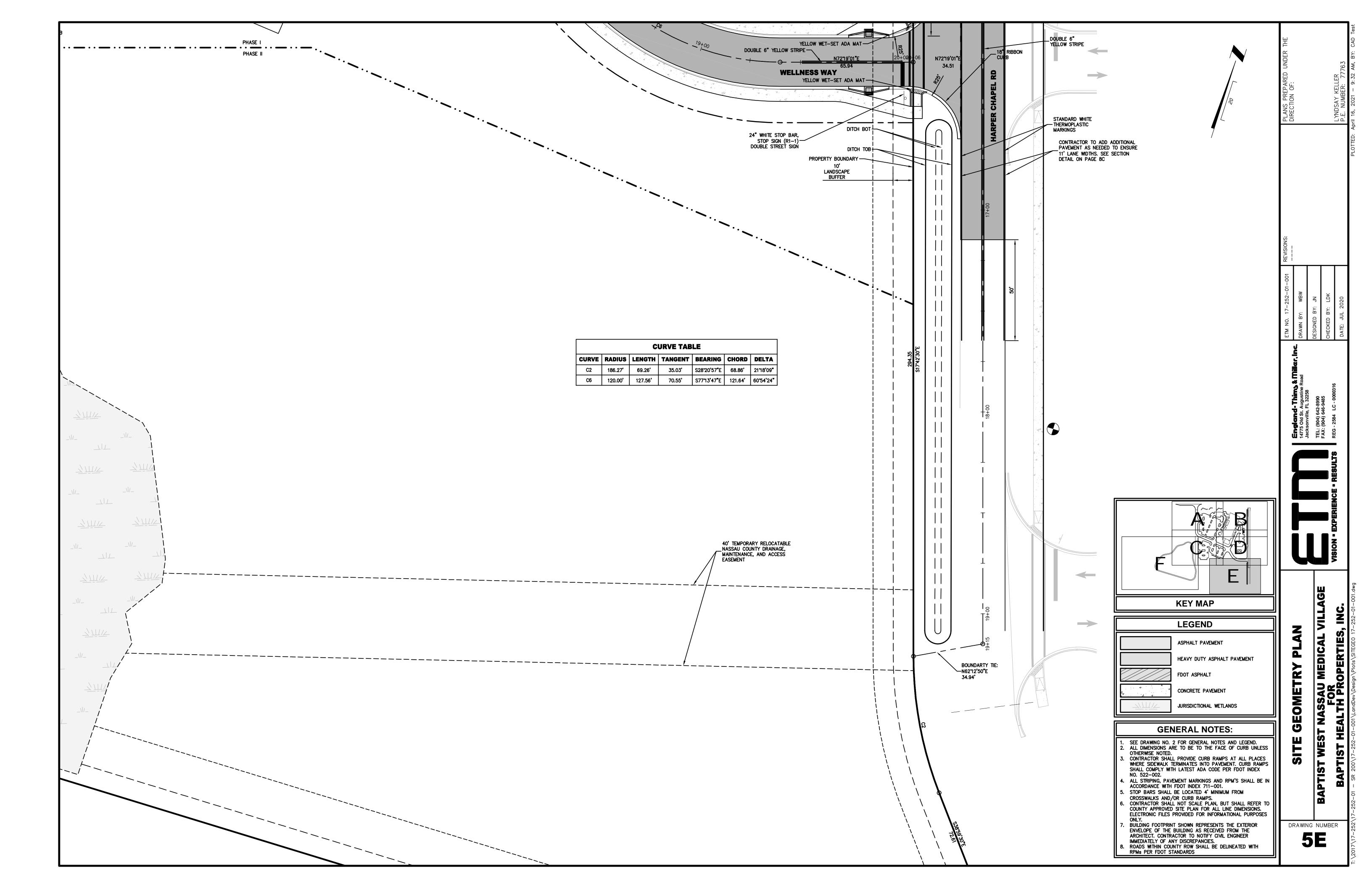


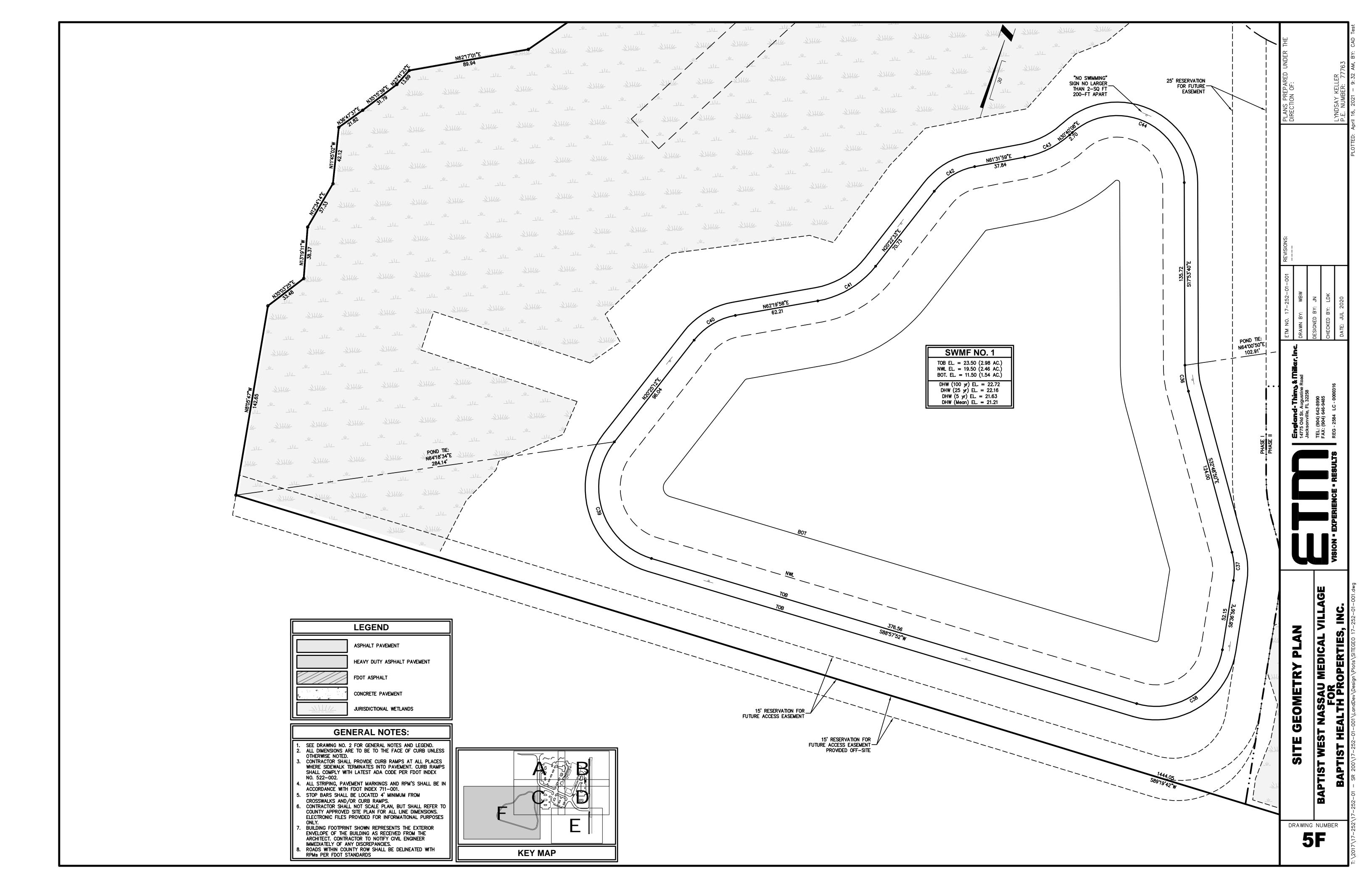


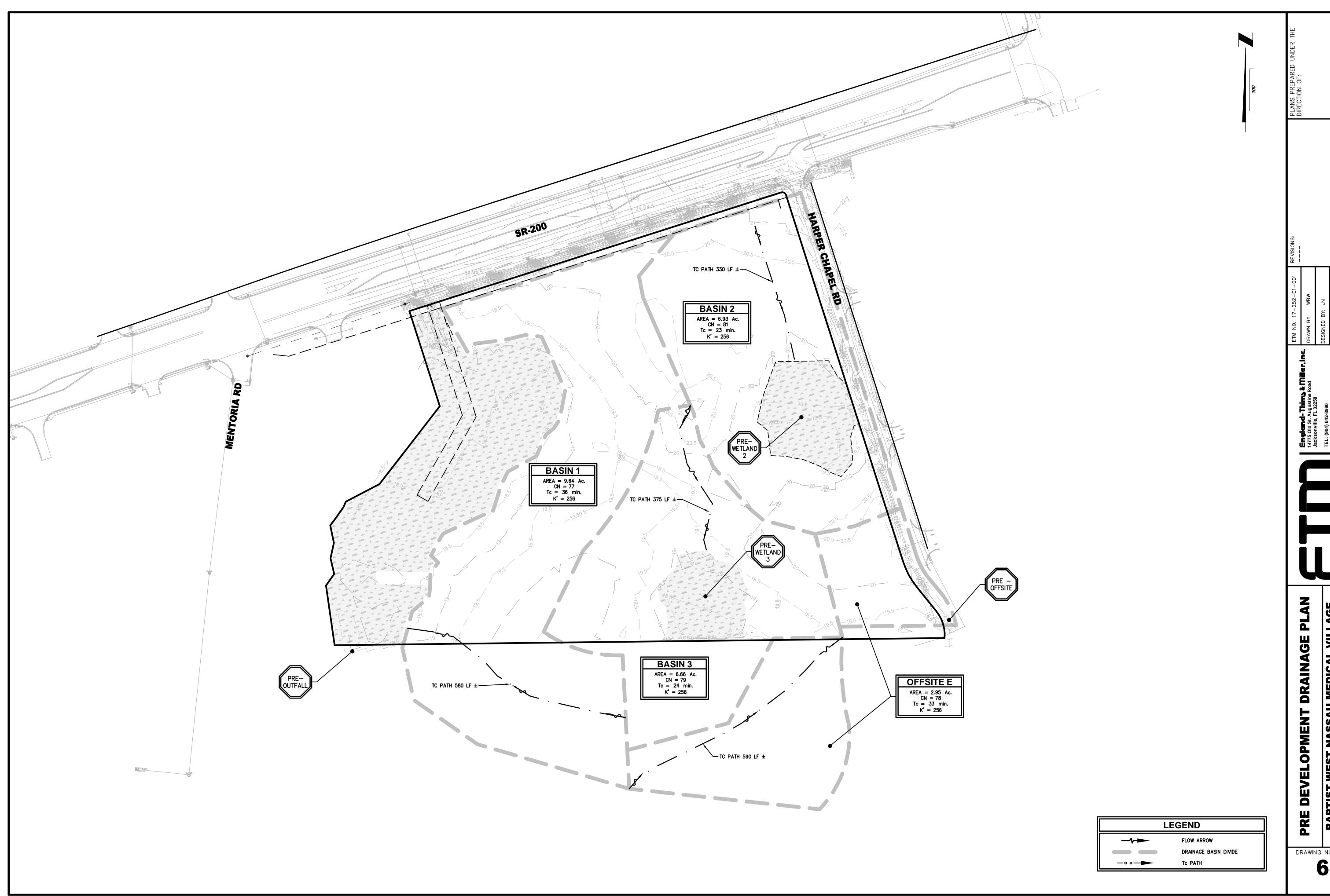


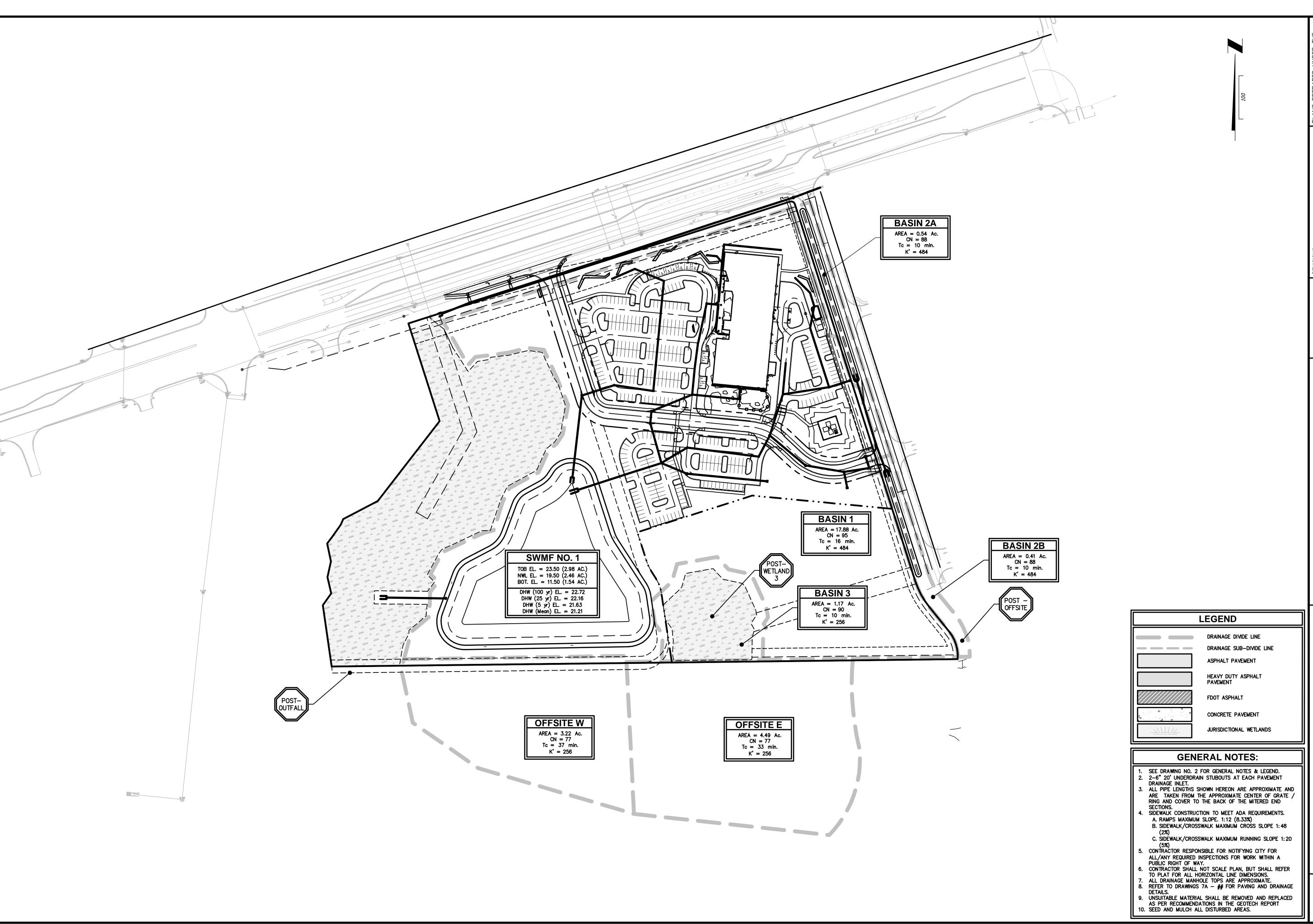


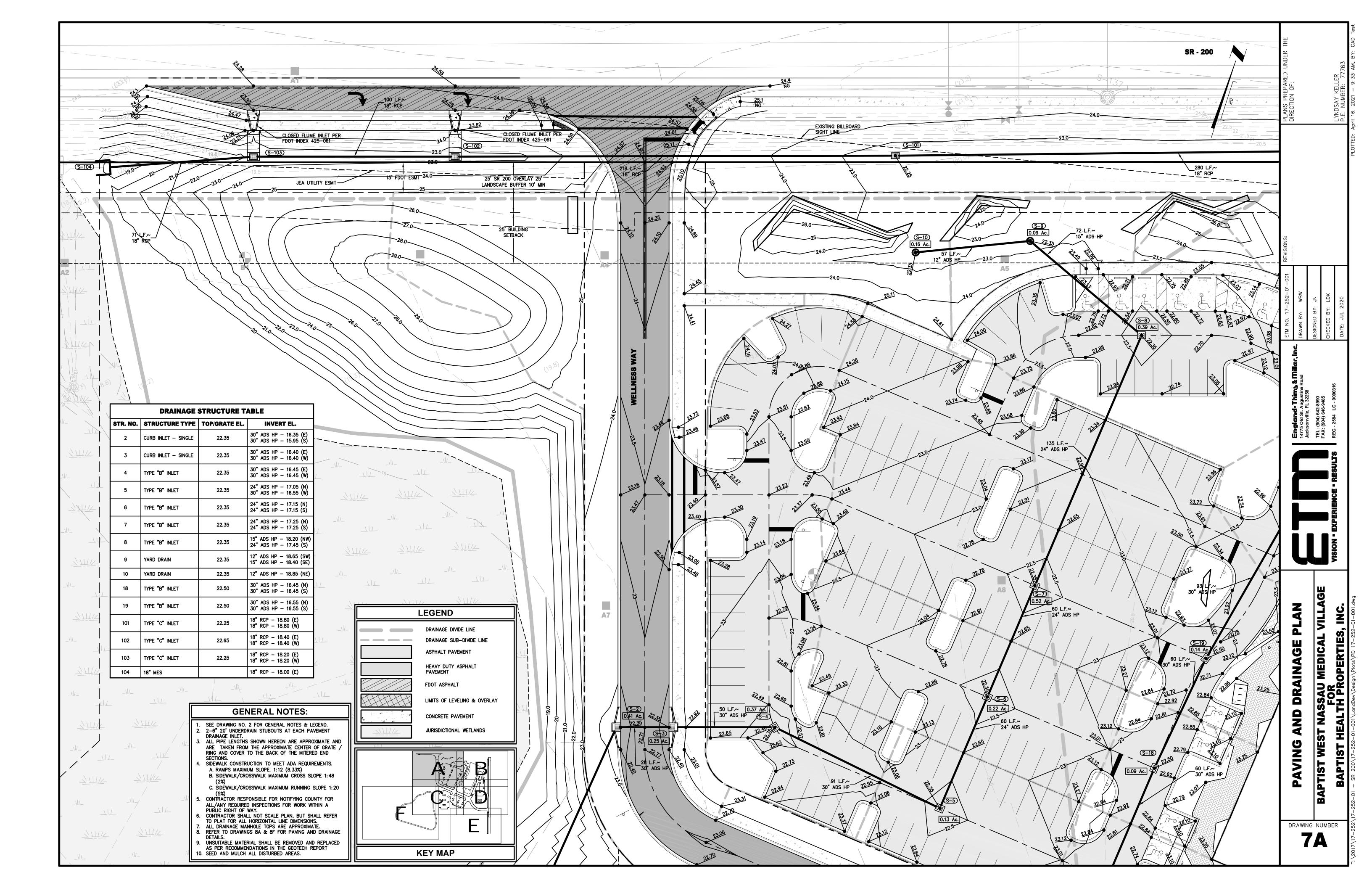


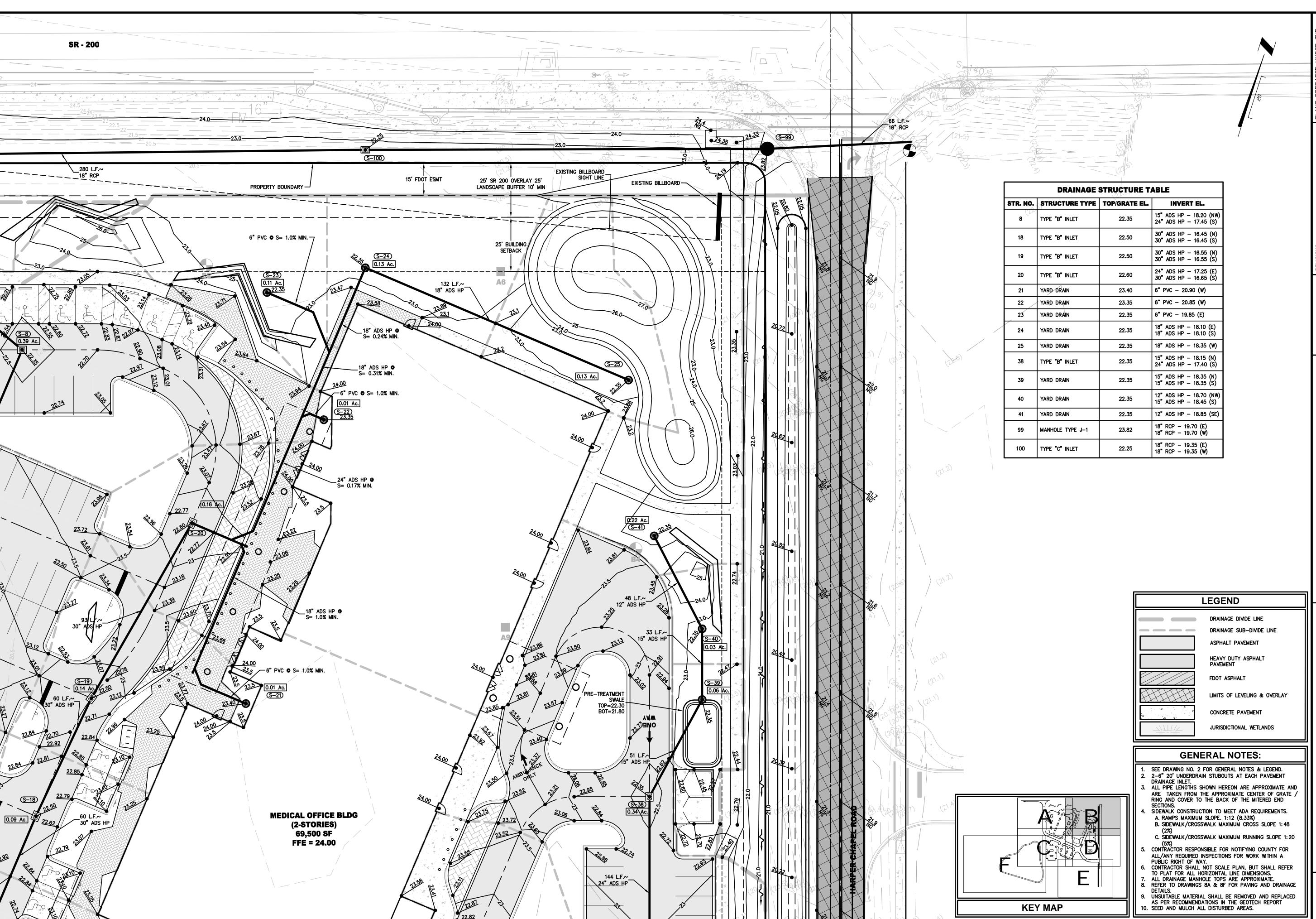












LYNDSAY KELLI P.E. NUMBER:

wBw r: JN r: LDK 2020

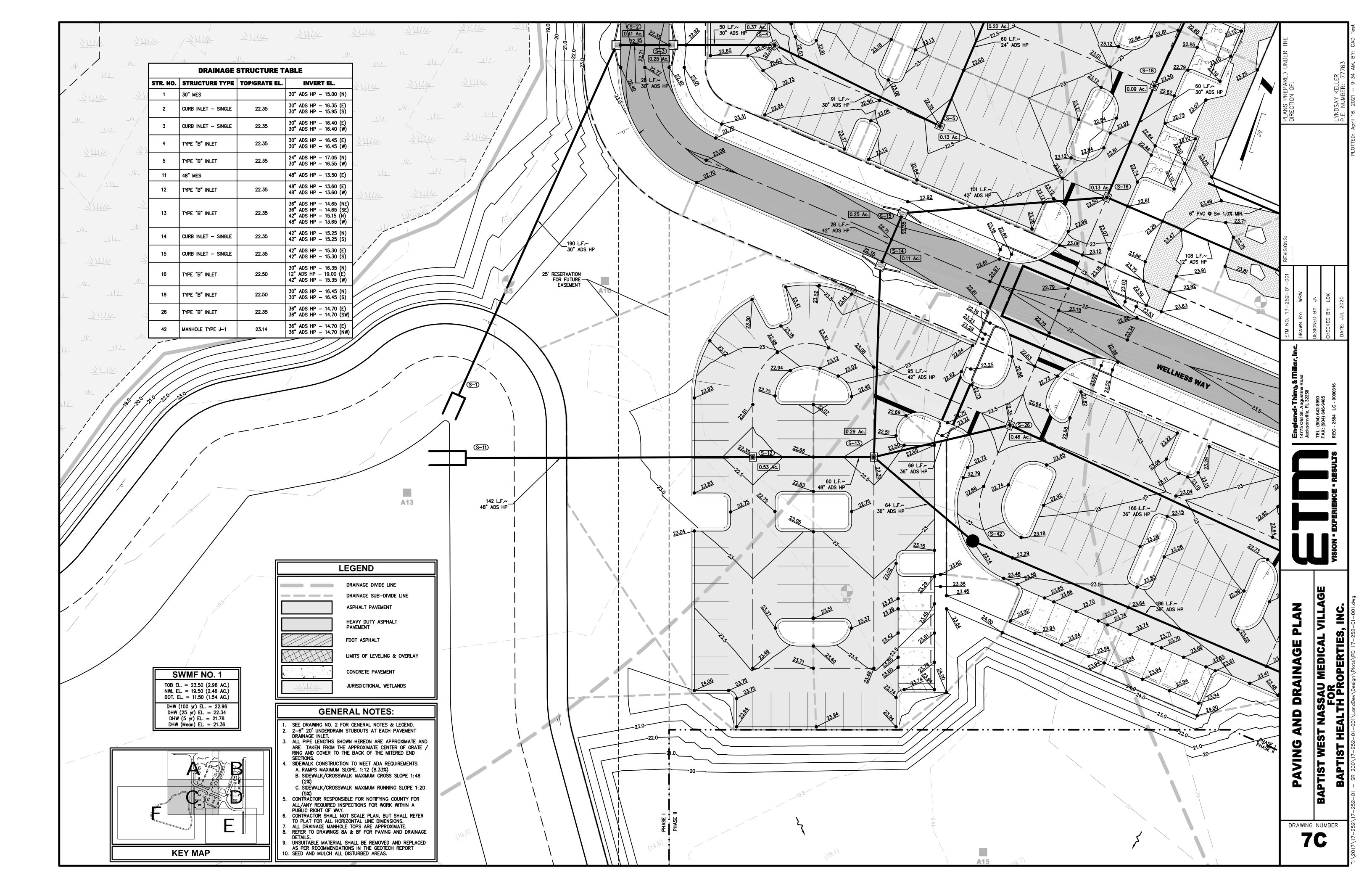
75 Old St. Augustine Road :ksonville, FL 32258 .: (904) 642-8990 K: (904) 646-9485 G - 2584 LC - 0000316

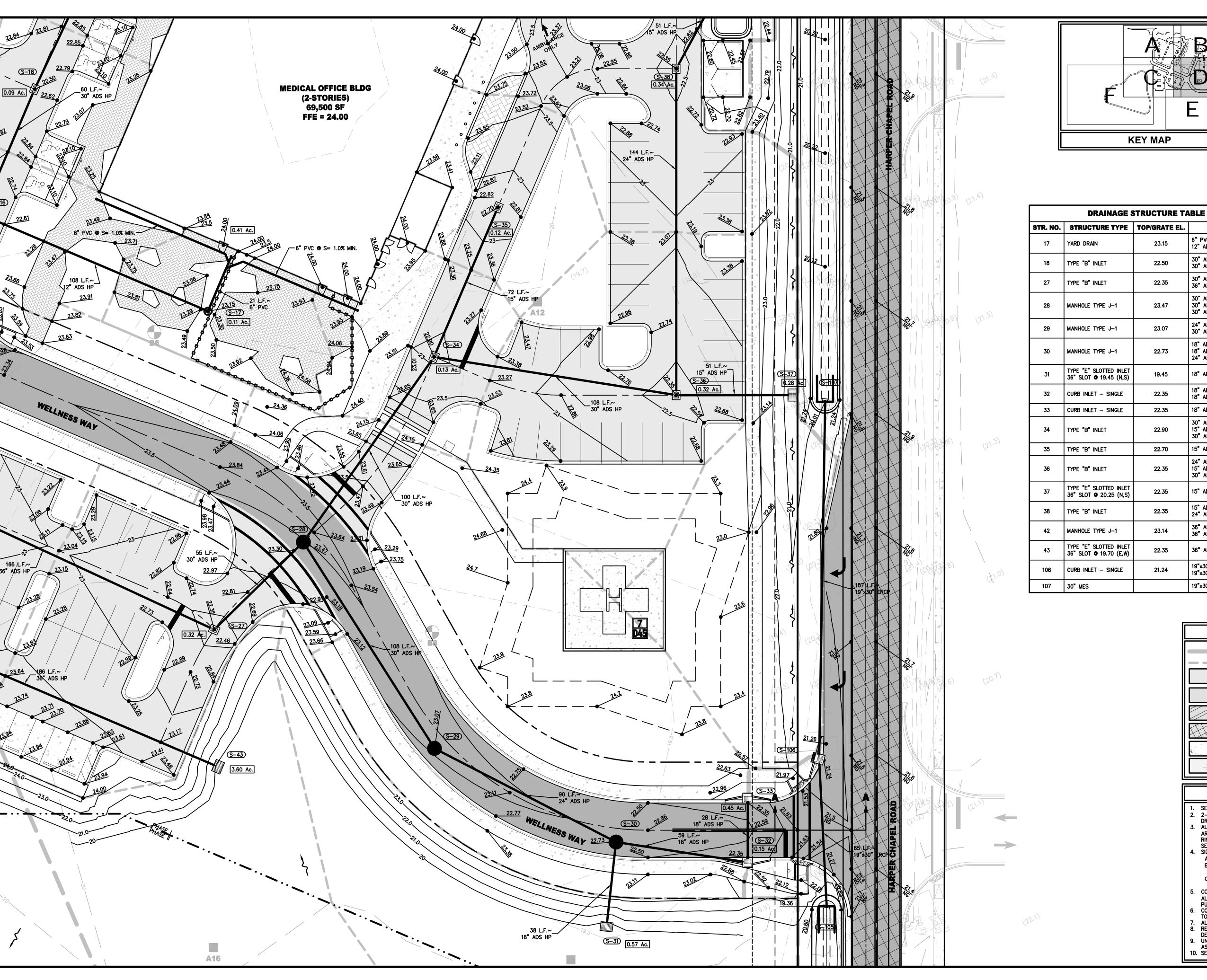
VISION - EXPERIENCE - RESULTS

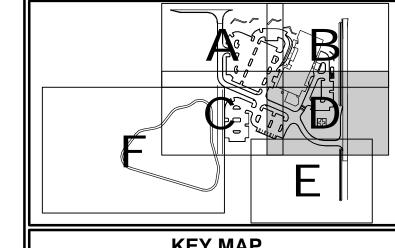
DRAINAGE PLAN

DRAWING NUMBER

TB







DRAINAGE STRUCTURE TABLE									
STR. NO.	STRUCTURE TYPE	TOP/GRATE EL.	INVERT EL.						
17	YARD DRAIN	23.15	6" PVC - 0.00 (N) 12" ADS HP - 19.55 (W)						
18	TYPE "B" INLET	22.50	30" ADS HP - 16.45 (N) 30" ADS HP - 16.45 (S)						
27	TYPE "B" INLET	22.35	30" ADS HP - 15.30 (NE) 36" ADS HP - 14.80 (W)						
28	MANHOLE TYPE J-1	23.47	30" ADS HP - 15.95 (SE) 30" ADS HP - 16.40 (N) 30" ADS HP - 15.35 (SW)						
29	MANHOLE TYPE J-1	23.07	24" ADS HP - 16.55 (E) 30" ADS HP - 16.05 (NW)						
30	MANHOLE TYPE J-1	22.73	18" ADS HP - 18.10 (E) 18" ADS HP - 17.20 (S) 24" ADS HP - 16.70 (W)						
31	TYPE "E" SLOTTED INLET 36" SLOT 19.45 (N,S)	19.45	18" ADS HP - 17.30 (N)						
32	CURB INLET - SINGLE	22.35	18" ADS HP - 18.25 (N) 18" ADS HP - 18.25 (W)						
33	CURB INLET - SINGLE	22.35	18" ADS HP - 18.35 (S)						
34	TYPE "B" INLET	22.90	30" ADS HP - 16.55 (E) 15" ADS HP - 18.75 (N) 30" ADS HP - 16.55 (S)						
35	TYPE "B" INLET	22.70	15" ADS HP - 18.95 (S)						
36	TYPE "B" INLET	22.35	24" ADS HP - 17.20 (N) 15" ADS HP - 18.40 (E) 30" ADS HP - 16.70 (W)						
37	TYPE "E" SLOTTED INLET 36" SLOT	22.35	15" ADS HP - 18.60 (W)						
38	TYPE "B" INLET	22.35	15" ADS HP - 18.15 (N) 24" ADS HP - 17.40 (S)						
42	MANHOLE TYPE J-1	23.14	36" ADS HP - 14.70 (E) 36" ADS HP - 14.70 (NW)						
43	TYPE "E" SLOTTED INLET 36" SLOT ● 19.70 (E,W)	22.35	36" ADS HP - 14.85 (W)						
106	CURB INLET - SINGLE	21.24	19"x30" ERCP - 18.61 (N) 19"x30" ERCP - 18.61 (S)						
107	30" MES		19"x30" ERCP - 18.90 (S)						
	•	•	•						

LEGEND

DRAINAGE DIVIDE LINE DRAINAGE SUB-DIVIDE LINE ASPHALT PAVEMENT FDOT ASPHALT LIMITS OF LEVELING & OVERLAY CONCRETE PAVEMENT

HEAVY DUTY ASPHALT PAVEMENT

JURISDICTIONAL WETLANDS

GENERAL NOTES:

- 1. SEE DRAWING NO. 2 FOR GENERAL NOTES & LEGEND.
 2. 2-6" 20' UNDERDRAIN STUBOUTS AT EACH PAVEMENT DRAINAGE INLET.
 3. ALL PIPE LENGTHS SHOWN HEREON ARE APPROXIMATE AND ARE TAKEN FROM THE APPROXIMATE CENTER OF GRATE / RING AND COVER TO THE BACK OF THE MITERED END SECTIONS.
- SECTIONS.
 SIDEWALK CONSTRUCTION TO MEET ADA REQUIREMENTS.
 A. RAMPS MAXIMUM SLOPE. 1:12 (8.33%)
 B. SIDEWALK/CROSSWALK MAXIMUM CROSS SLOPE 1:48
- C. SIDÉWALK/CROSSWALK MAXIMUM RUNNING SLOPE 1:20

- C. SIDEWALK/CROSSWALK MAXIMOM ROUNING SLOPE 1:20
 (5%)

 CONTRACTOR RESPONSIBLE FOR NOTIFYING COUNTY FOR ALL/ANY REQUIRED INSPECTIONS FOR WORK WITHIN A PUBLIC RIGHT OF WAY.

 CONTRACTOR SHALL NOT SCALE PLAN, BUT SHALL REFER TO PLAT FOR ALL HORIZONTAL LINE DIMENSIONS.

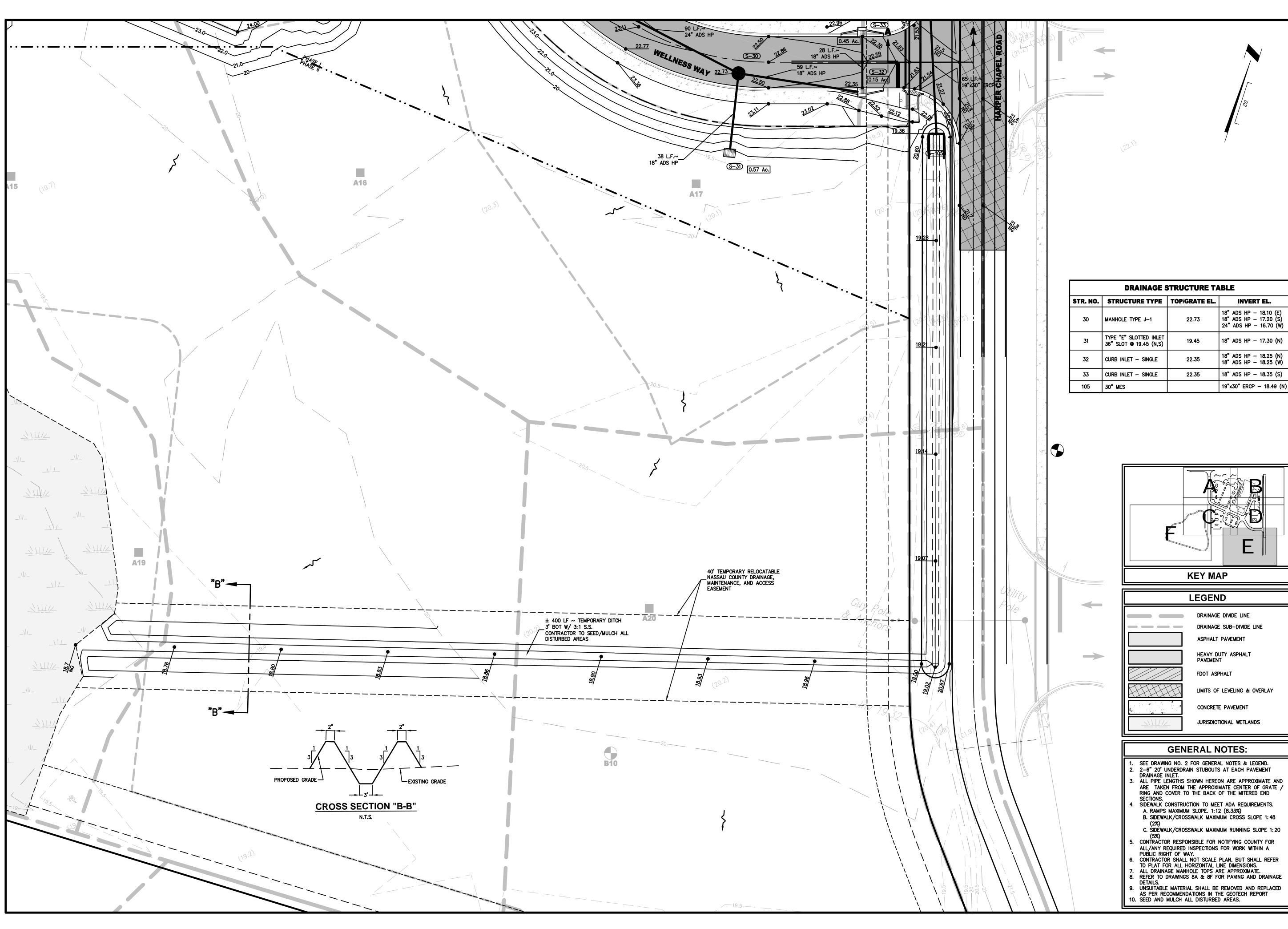
 ALL DRAINAGE MANHOLE TOPS ARE APPROXIMATE.

 REFER TO DRAWINGS 8A & 8F FOR PAVING AND DRAINAGE DETAILS.

DETAILS.

9. UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED AS PER RECOMMENDATIONS IN THE GEOTECH REPORT

10. SEED AND MULCH ALL DISTURBED AREAS.



INVERT EL.

LEGEND DRAINAGE DIVIDE LINE

> DRAINAGE SUB-DIVIDE LINE ASPHALT PAVEMENT

HEAVY DUTY ASPHALT

FDOT ASPHALT

CONCRETE PAVEMENT

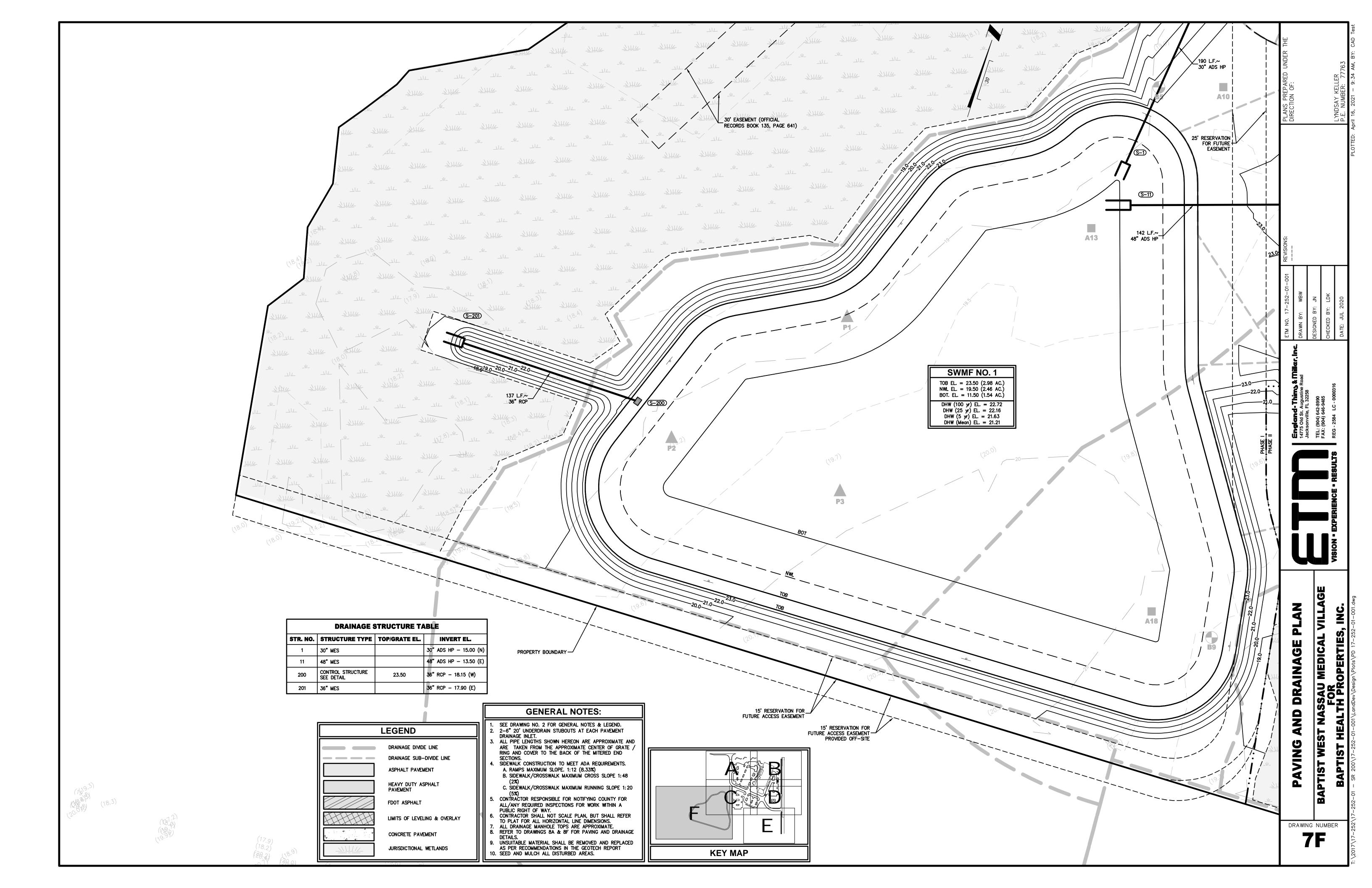
JURISDICTIONAL WETLANDS

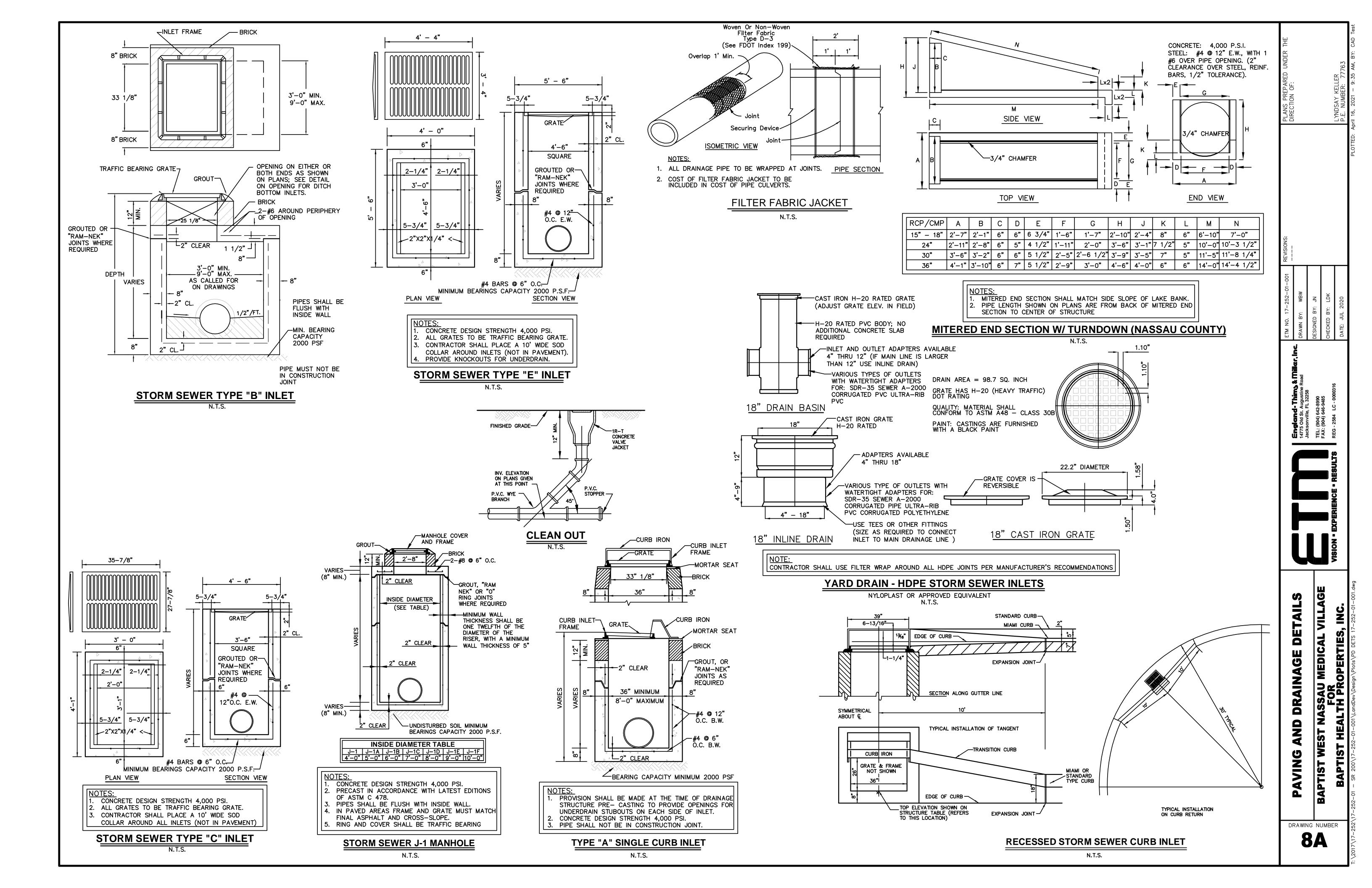
GENERAL NOTES:

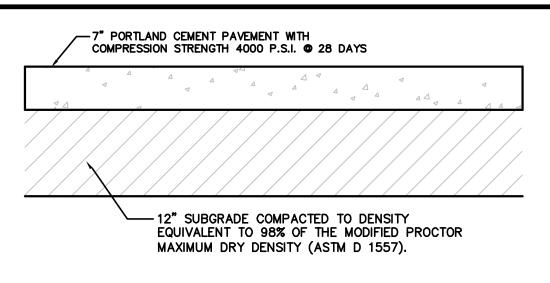
- SEE DRAWING NO. 2 FOR GENERAL NOTES & LEGEND. 2. 2-6" 20' UNDERDRAIN STUBOUTS AT EACH PAVEMENT DRAINAGE INLET.
- 3. ALL PIPE LENGTHS SHOWN HEREON ARE APPROXIMATE AND ARE TAKEN FROM THE APPROXIMATE CENTER OF GRATE / RING AND COVER TO THE BACK OF THE MITERED END
- SIDEWALK CONSTRUCTION TO MEET ADA REQUIREMENTS.
- B. SIDEWALK/CROSSWALK MAXIMUM CROSS SLOPE 1:48
- C. SIDÉWALK/CROSSWALK MAXIMUM RUNNING SLOPE 1:20
- (5%)
 5. CONTRACTOR RESPONSIBLE FOR NOTIFYING COUNTY FOR
- ALL/ANY REQUIRED INSPECTIONS FOR WORK WITHIN A PUBLIC RIGHT OF WAY.

DRAWING NUMBER

DRAIN

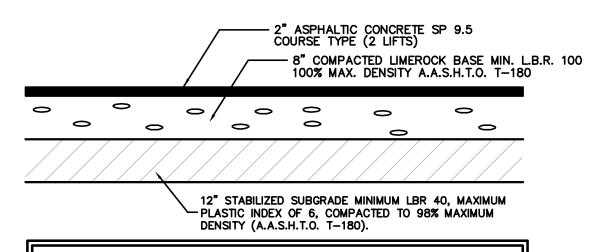






TYPICAL CONCRETE PAVEMENT SECTION

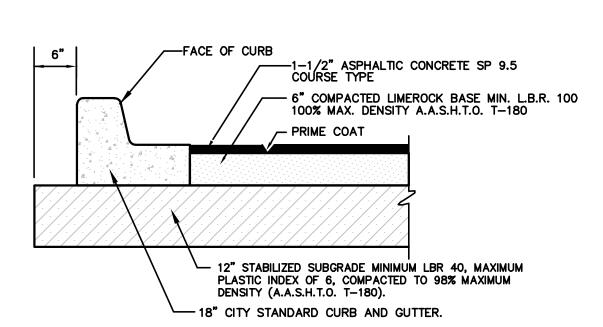
N.T.S.



ALL DISTURBED AREAS TO BE SEEDED AND MULCHED

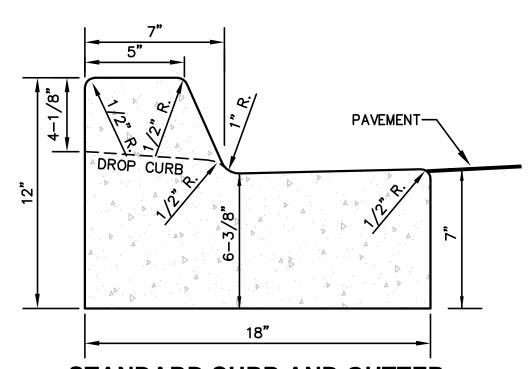
SOIL ANALYSIS MAY INDICATE THE NEED FOR THICKER BASE COURSES THAN THOSE HEREIN. THE PAVEMENT THICKNESS SHOWN HEREIN ARE NOT INTENDED TO BE ABSOLUTE. BUT ARE PRELIMINARY CRITERIA AND MAY BE MODIFIED TO ACCOMMODATE THE BEARING CAPACITY OF VARIOUS SUBGRADES. ALL ASPHALTIC CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 331 AND/OR 333, FDOT STANDARD SPECIFICATIONS, LATEST EDITION.

HEAVY DUTY ASPHALT PAVEMENT SECTION



. ALL DISTURBED AREAS TO BE SEEDED AND MULCHED SOIL ANALYSIS MAY INDICATE THE NEED FOR THICKER BASE COURSES THAN THOSE HEREIN. THE PAVEMENT THICKNESS SHOWN HEREIN ARE NOT INTENDED TO BE ABSOLUTE, BUT ARE PRELIMINARY CRITERIA AND MAY BE MODIFIED TO ACCOMMODATE THE BEARING CAPACITY OF VARIOUS SUBGRADES. ALL ASPHALTIC CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 331 AND/OR 333, FDOT STANDARD SPECIFICATIONS, LATEST EDITION.

TYPICAL PAVEMENT SECTION



STANDARD CURB AND GUTTER

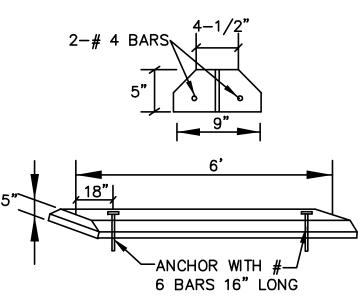
N.T.S.

CURB AND CURB & GUTTER NOTES

MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LATEST FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

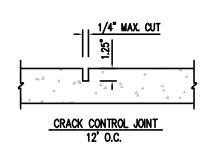
CONCRETE SHALL BE CLASS 1 CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI UNLESS OTHERWISE APPROVED BY THE ENGINEER OF

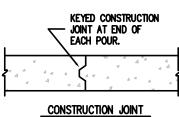
WHEN USED ON THE HIGH SIDE OF ROADWAY SECTIONS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. WHERE THIS CONDITION IS ENCOUNTERED, THE FRONT FACE VERTICAL DIMENSION SHALL REMAIN AS SHOWN FOR NORMAL SECTIONS SHOWN HEREON.



PREFABRICATED WHEEL STOP

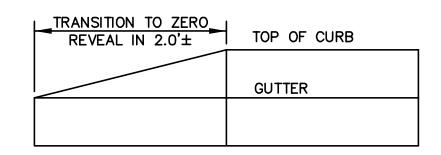
N.T.S.





CONCRETE JOINT DETAIL

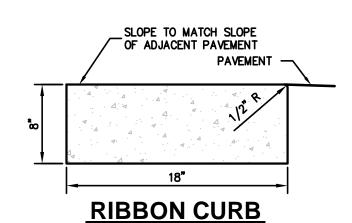
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SECTION

CURB TRANSITION DETAIL

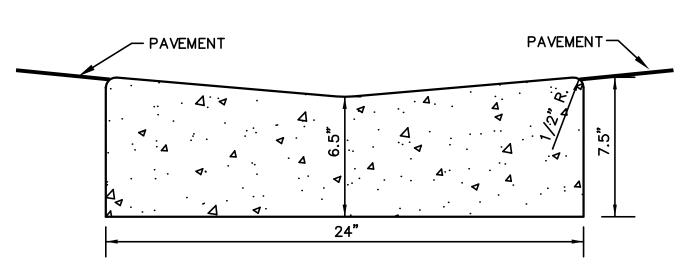
N.T.S.



MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LATEST FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

CONCRETE SHALL BE CLASS 1 CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI UNLESS OTHERWISE APPROVED BY THE ENGINEER OF

WHEN USED ON THE HIGH SIDE OF ROADWAY SECTIONS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. WHERE THIS CONDITION IS ENCOUNTERED, THE FRONT FACE VERTICAL DIMENSION SHALL REMAIN AS SHOWN FOR NORMAL SECTIONS SHOWN HEREON.



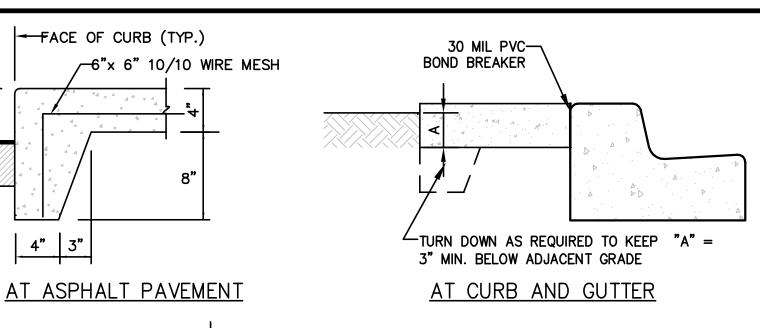
MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LATEST FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

CONCRETE SHALL BE CLASS 1 CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI UNLESS OTHERWISE APPROVED BY THE ENGINEER OF

RECORD. 3. 1/4" CRACK CONTROL JOINTS TO BE CUT AT 10' O.C.

4. 1/2" EXPANSION JOINTS TO BE AT 50' O.C. (MAX.)

CONCRETE VALLEY GUTTER



—8" COMPACTED SUBGRADE UNDER SIDEWALK 95% MAX. DENSITY (A.A.S.H.T.O. T-180). -TURN DOWN AS REQUIRED TO KEEP "A" = 3" MIN. BELOW ADJACENT GRADE

AT GRADE

CONSTRUCT STRAIGHT JOINTS WITH FACE PERPENDICULAR TO SURFACE OF CONCRETE. TRAVERSE JOINTS SHALL BE AT RIGHT ANGLES TO CENTERLINE UNLESS OTHERWISE INDICATED ON PLANS.

PROVIDE EXPANSION JOINTS AT 100' INTERVAL MAXIMUM SPACING ON CENTER. PROVIDE EXPANSION JOINTS FILLER FOR JOINTS ABUTTING CURBS, CATCH BASINS, MANHOLES,

INLETS STRUCTURES, WALKS AND OTHER FIXED OBJECTS UNLESS OTHERWISE INDICATED ON PLANS. EXTEND JOINTS FILLER FULL WIDTH AND DEPTH OF JOINT, AND 1/2" BELOW FINISHED SURFACE. PLACE SEALANT OVER JOINT FILLER PER MANUFACTURERS RECOMMENDATIONS.

USE PREMOLDED ASPHALT-IMPREGNATED FIBERBOARD, 1/2" THICK CONFORMING TO ASTM D1751. CONTRACTION JOINT SHALL BE SAW CUT (1/4" WIDE BY 1" DEEP).

FINISHED SURFACE FOR CONCRETE SIDEWALK SHALL BE GRAY CONCRETE WITH LIGHT BROOM FINISH

PERPENDICULAR TO LINE OF TRAFFIC (UNLESS OTHERWISE INDICATED ON PLANS).

PROVIDE CRACK CONTROL JOINTS @ (SAME AS WIDTH) O.C.

PROVIDE 16" STRIP SOD ADJACENT TO ALL EDGES OF SIDEWALK, CURB AND PAVEMENT AREAS. CONCRETE COMPRESSION STRENGTH 3000 P.S.I. @ 28 DAYS UNLESS OTHERWISE APPROVED BY

SIDEWALK TO BE CONSTRUCTED WITH SLOPES COMPLYING TO WITH LATEST ADA CODE AND FDOT INDEX 522-001. SIDEWALK MAX. VERTICAL SLOPE OF 5.0% AND MAX CROSS SLOPE OF 2.0%.

CONCRETE WALK

N.T.S.

- PROPOSED GRADE TOP OF 30" CURB TO G OF ROADWAY BACKFILL WITH CLEAN A-3 SAND SHALL BE NON-ORGANIC GRANULAR SOIL WITH LESS THAN 10% MATERIAL PASSING NO. 200 MESH SIEVE AND LESS THAN 4% ORGANICS. (TYP.) -FILTER FABRIC SHALL BE "US 160 NW" OR APPROVED EQUAL AND SHALL BE WRAPPED OVER THE TOP OF THE FILTER MEDIA, DOWN THE SIDES AND ACROSS THE BOTTOM TO COMPLETELY ENCASE IT. -COURSE AGGREGATE SHALL BE GRAVEL OR STONE MEETING THE REQUIREMENTS OF FDOT SECTION 901-2 OR 901-3 RESPECTIVELY. THE GRADUATION FILTER MATERIAL SHALL MEET SECTION 901-1.4 GRADES 4, 467, 56, OR 57 STONE. 5" PERFORATED PIPE SHALL MEET AASHTO M252 FOR CORRUGATED POLYETHYLENE SMOOTH INTERIOR PIPE OR ASTM F758 FOR POLYVINYL CHLORIDE PIPE AND ASTM C508 FOR PERFORATION REQUIREMENTS. o HOLES -UNDISTURBED SOIL

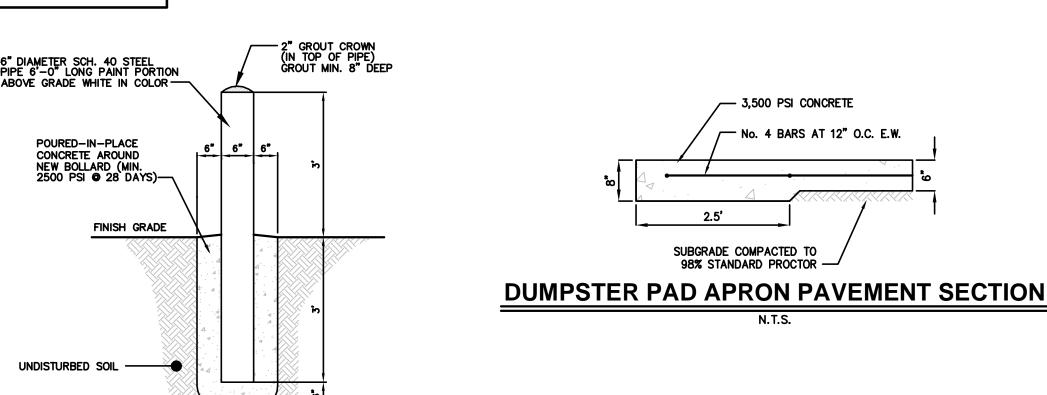
NOTES:
PIPE USED FOR SUB SOIL DRAINS SHALL MEET A.A.S.H.T.O. M177-721 SPECIFICATIONS FOR BITUMINOUS FIBER PIPE, A.A.S.H.T.O. M 198 FOR ASBESTOS CEMENT PIPE A.A.S.H.T.O. M 198 FOR ALUMINUM PIPE, A.S.T.M. C444 FOR CONCRETE PIPE OR A.S.T.M. D 3033 FOR POLYVINYL-CHLORIDE PIPE.

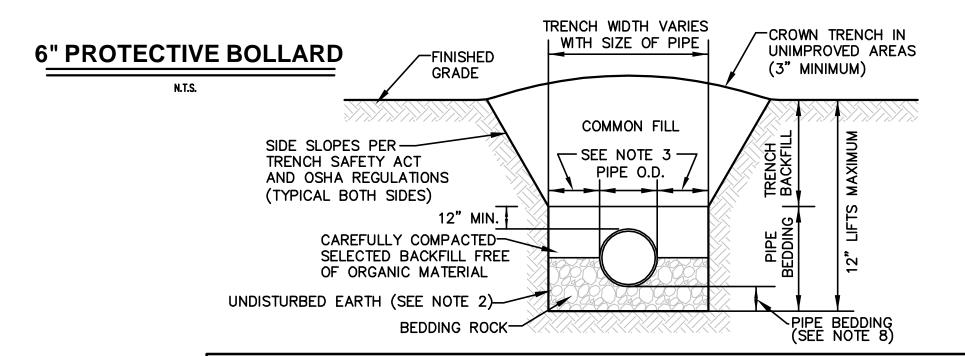
2. CONTRACTOR SHALL PROVIDE MINIMUM 20' STUBOUTS ON EACH SIDE OF ALL DRAINAGE INLETS. STUBOUT LENGTHS IN EXCESS OF 20' MINIMUM SHALL BE AS SHOWN ON PAVING AND DRAINAGE SHEETS.

3. MINIMUM PIPE SLOPE OF 0.30% 4. CONTRACTOR SHALL PROVIDE CLEAN OUTS AT EVERY 200 O.C. AND AT END OF PIPE. 5. CONTRACTOR SHALL CONNECT TO NEAREST STORM STRUCTURES WITH SOLID 6" PVC PIPE WITH FITTINGS AND BENDS AS REQUIRED TO CONNECT TO INVERTS.

TYPE "A" ROADWAY UNDERDRAIN DETAIL

N.T.S.





TRENCH AND PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% MAX. DENSITY (AASHTO T-180). USE TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE COUNTY.

15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.

ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW. REFER TO MANUAL FOR SHEETING AND BRACING IN EXCAVATIONS. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS

OF GOVERNING AGENCIES SURFACE RESTORATION WITHIN COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. THE COUNTY SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.

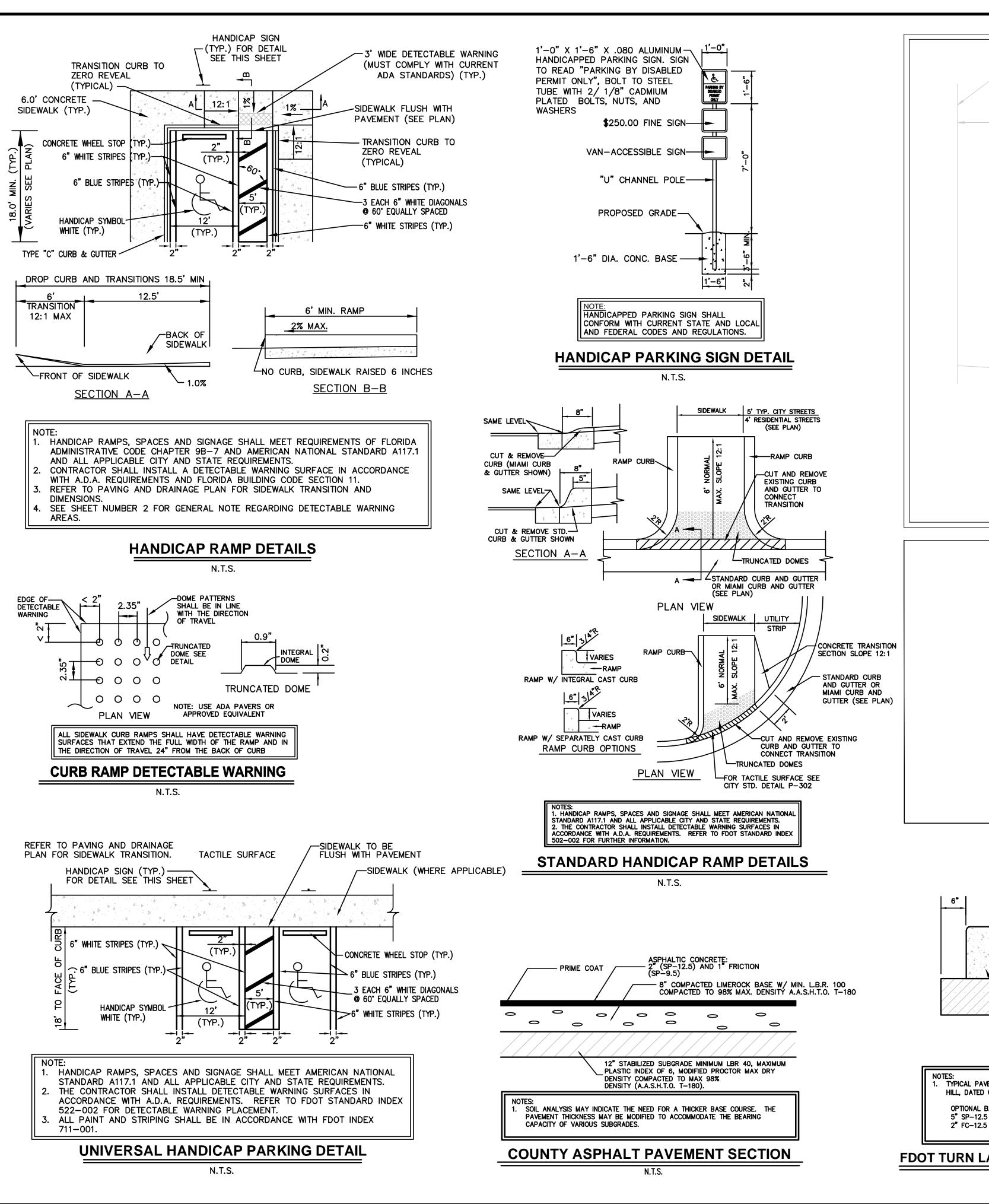
TYPE A BEDDING AND TRENCH DETAIL

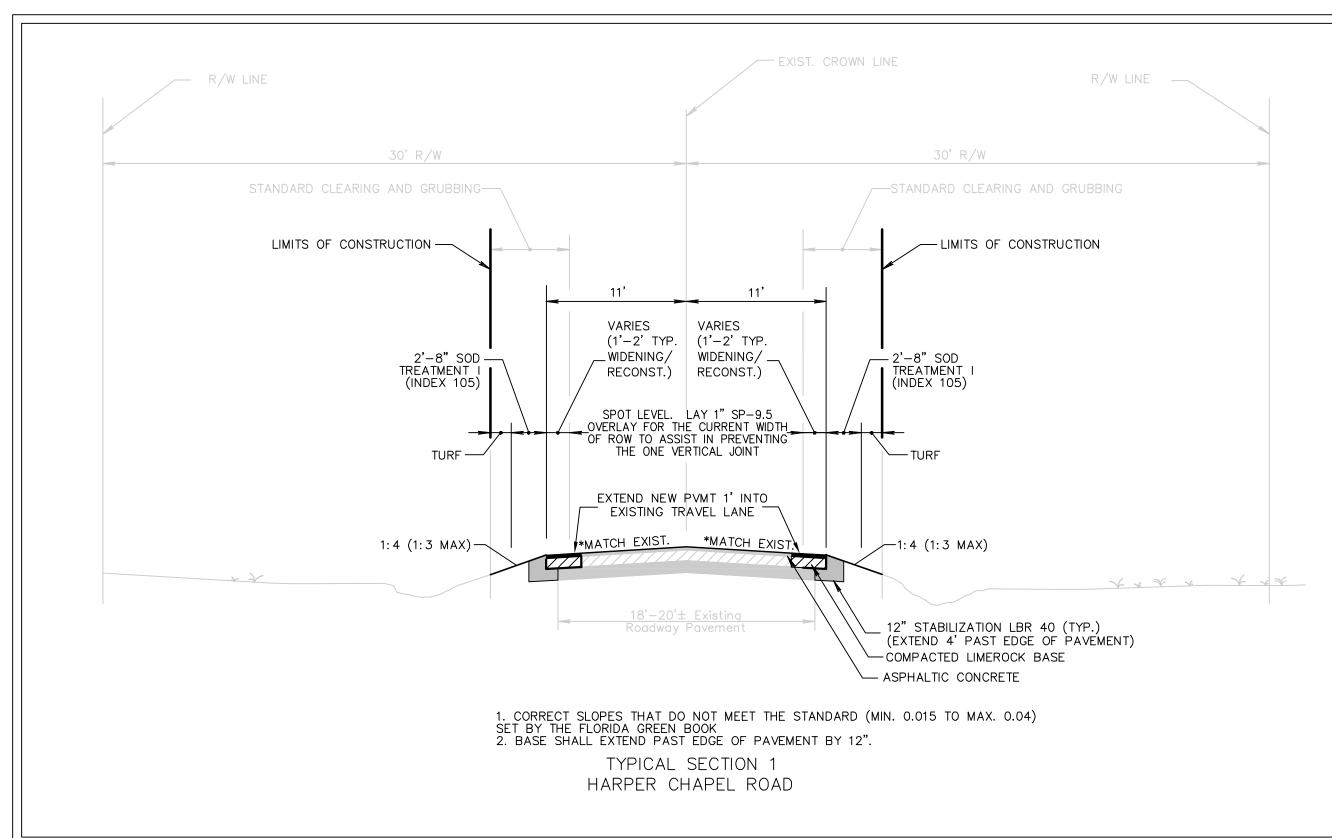
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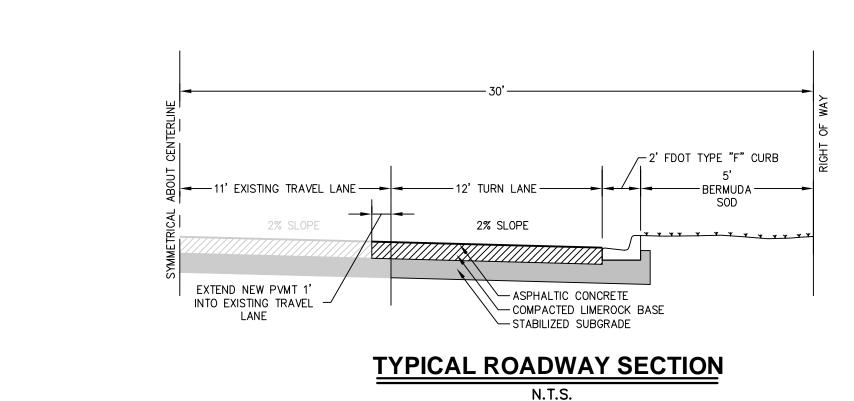
DET DRAIN

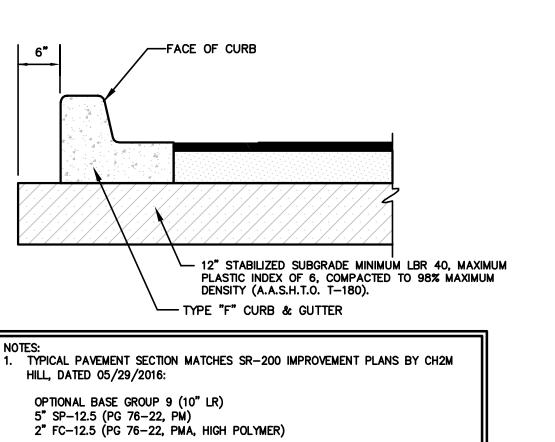
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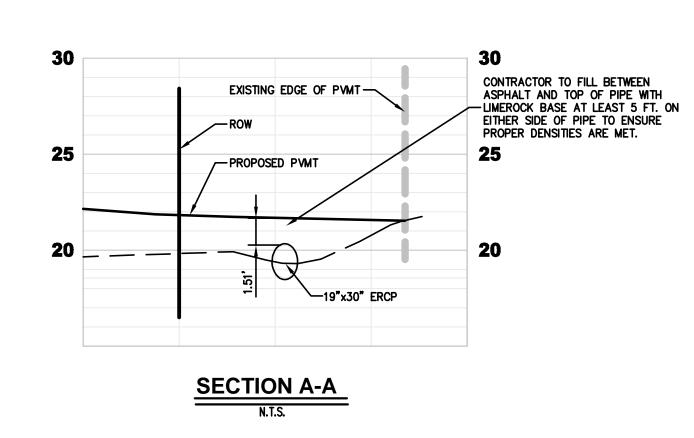






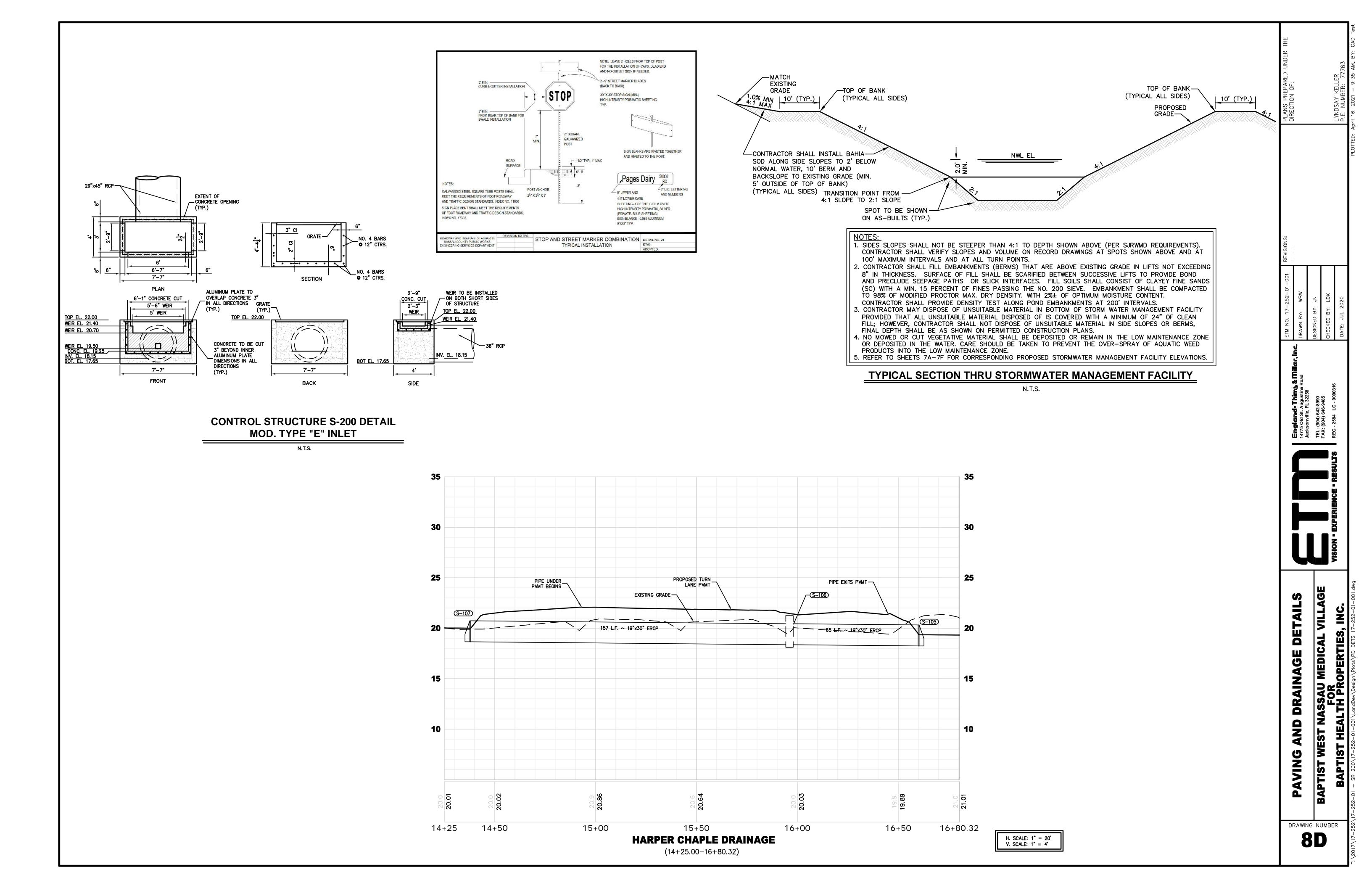


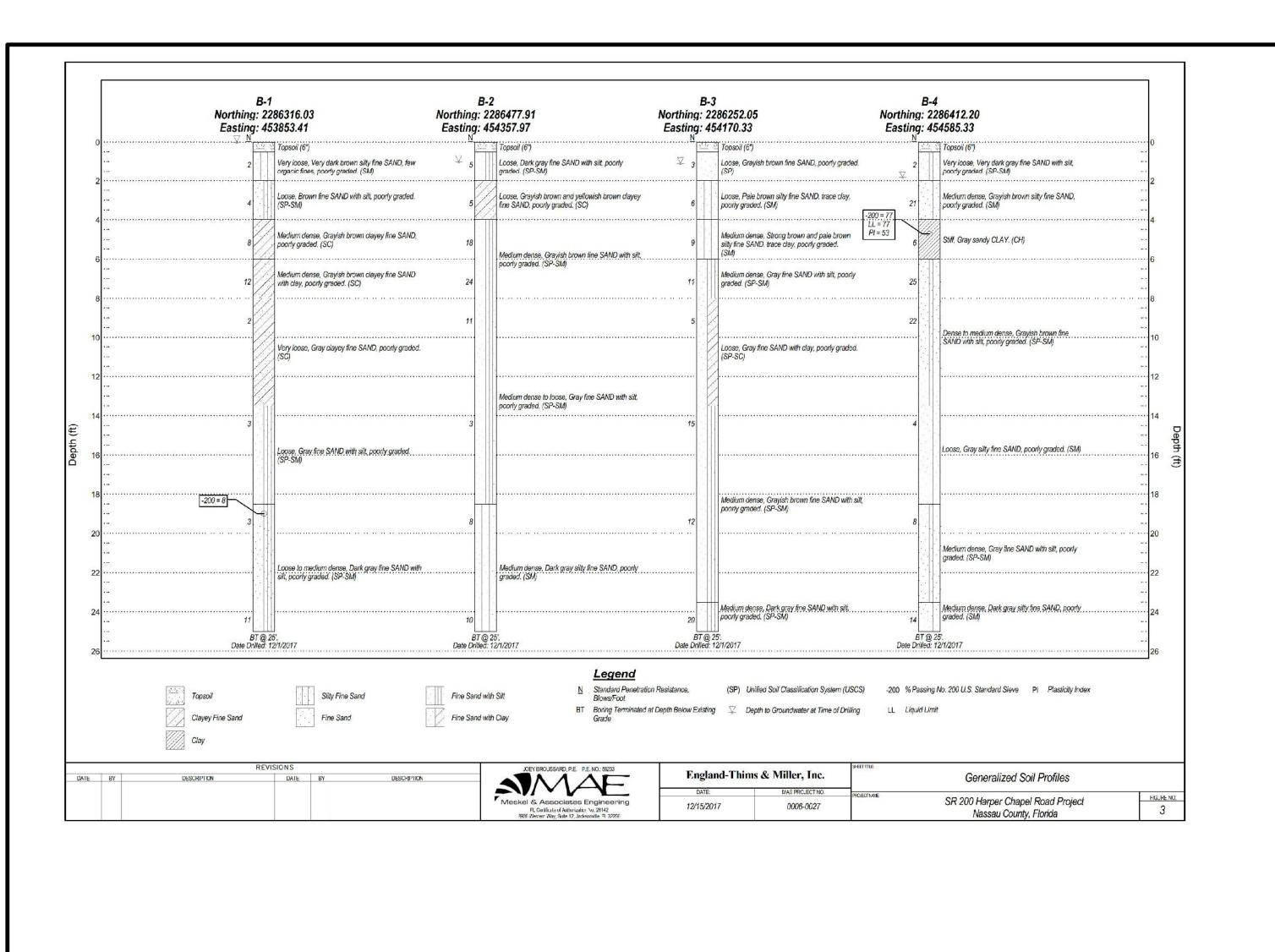
FDOT TURN LANE PAVEMENT SECTION (WITHIN ROW)



APTIST WEST NASSAU MEDICAL VILLAGE
FOR FOR THE PARTIES INC.

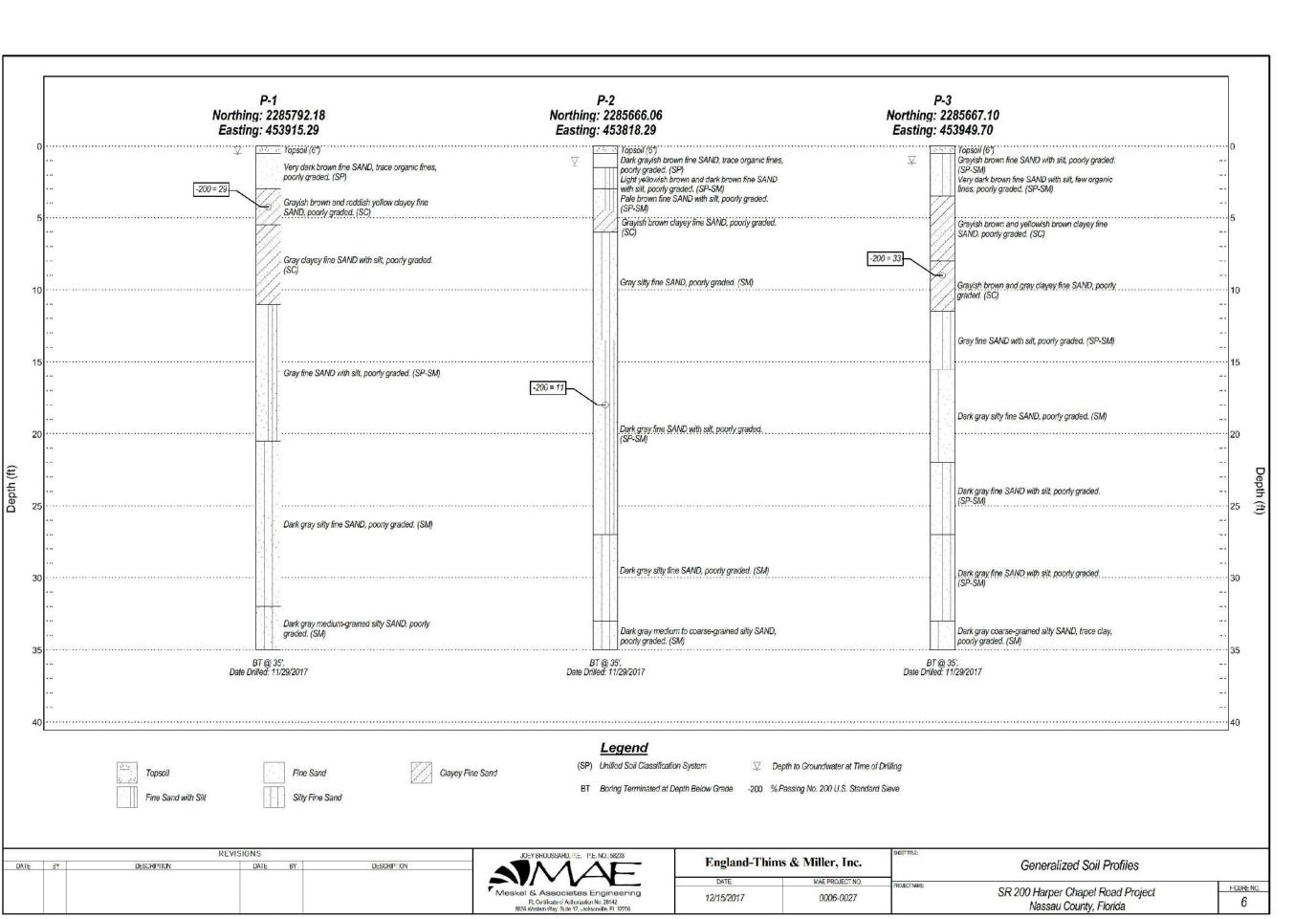
DRAWING NUMBER





	B-5 Northing: 22 Easting: 45	286022.09	B-6 Northing: 22 Easting: 45	286126.12	Northing	B-7 2285927.64 454290.86	B-8 Northing: 22 Easting: 48	286037.14	
	v	Topsoil (6")	<u> </u>	⊆ Topsoil (6") □		Topsoil (6")	<u> </u>	Topsoil (6")	0
· ·	3	Loose, Brown fine SAND with silt, trace organic fines, poorly graded. (SP-SM)	4	Loose, Brown fine SAND with silt, trace small roots, poorly graded. (SP-SM)	3	Loose, Very dark gray fine SAND with silt, trace organic fines, poorly graded. (SP-SM)	3	Loose, Very dark gray fine SAND with silt, few organic fines, poorly graded. (SP-SM)	
	4	Firm, Brovinish yellow and gray very sandy CLAY. (CL)	4//	Loose, Brownish yellow and strong brown clayey fine SAND, poorly graded. (SC)	15	Medium dense, Dark grayish brown fine SAND with clay, trace silt. poonly graded. (SP-SC)	12		
-20	00 = 23	Medium dense, Gray silty fine SAND, trace clay, poorly graded. (SM)	13	Medium dense. Gravish brown fine SAND with silt.	20	Medium dense. Dark gravish brown and yellowish	24	Medium dense, Brown fine SAND with silt, poorly graded. (SP-SM)	
	13	Medium dense, Gray silty fine SAND, trace clay, poorly graded. (SM)	22	Medium dense, Grayish brown fine SAND with silt, poorly graded. (SP-SM)	17	Medium dense, Dark grayish brown and yellowish brown silty fine SAND, trace clay, poorly graded. (SM)	19		
	5		15	-20	5	/ /	15		8
		Loose, Gray silly fine SAND with clay, poorly graded. (SM)				Loose, Gray clayey fine SAND, poorly graded. (SC)			
				Medium dense, Grayish brown fine SAND with silt, poorly graded. (SP-SM)				Medium dense, Grayish brown fine SAND with silt, poorly graded. (SP-SM)	1.
	7	Loose, Light gray fine SAND with silt, poorly graded. (SP-SM)	14		2	Very loose, Gray silty fine SAND, frace clay, poorly graded. (SM)	9		11
	6		4.		2		3		11
		Loose, Dark gray silty fine SAND, poorly graded. (SM)		Loose, Dark gray silty fine SAND, poorly graded. (SM)		Very loose, Dark gray slity fine SAND, poorly graded. (SM)		Loose, Dark gray silty fine SAND, poorly graded. (SM)	
	16	Medium dense, Dark gray fine SAND with silt, poorly graded. (SP-SM)	18	Medium dense, Dark gray fine SAND vith silt, poorly graded, (SP-SM)	15	Medium dense, Dark gray fine SAND with silt, poorly graded. (SP-SM)	13	Medium dense, Dark gray fine SAND with silt, poorly graded. (SP-SM)	2
	BT @ 2 Date Drilled: 1		BT @ 2 Date Drilled: 1	<u></u>	B Date Drill	@ 25'. d: 11/30/2017	BT @ 2 Date Drilled: 1	A Control of the second of the	26
Topsc Sitty F	oil Fine Sand	Fine Sand with Silt Clayey Fine Sand	Clay Fine Sand vitt	Legend N Standard Penetration Blows/Foot BT Boring Terminated a Grade		(SP) Unified Soil Classification System (USCS) String Depth to Groundwater at Time of Drilling	-200 % Passing	No. 200 U.S. Standard Sieve	
Y DESCRIPTION	50,000,000	ISIONS DATE BY DESCRIPTION		JOEY BROUSSWRD, P.E. P.E.NO.: 59233		gland-Thims & Miller, Inc.	TLE:	Generalized Soil Profiles	
				Meskel & Associates Engineering FL Cetificals of Authorization No. 28142	1	MAE PROJECT NO. PR	TNAME:	SR 200 Harper Chapel Road Project	FX

	Northing:	-9 2285644.59 454246.15	B-: Northing: 2 Easting: 4	2285652.21 154744.17	
	1	Very loose, Very dark gray fine SAND with silt, few organic fines, poorly graded. (SP-SM)	⊻ 2	Topsoil (6") Very loase, Dark brown fine SAND with silt, few organic fines, poorly graded. (SP-SM)	
	3	Loose to medium dense. Grayish brown and yellowish brown clayey fine SAND, poorly graded. (SC)	8 14	Medium dense. Brown fine SAND with silt, poorly graded. (SP-SM)	
	10	Medium dense, Grayish brown fine SAND with clay, trace siit, poorly graded. (SP-SC)	9	Medium dense. Grayish brown fine SAND with silt. trace clay, poorly graded. (SP-SM)	6
	5		34		8
•••		Loose, Grayish brown clayey fine SAND with silt, poorly graded. (SC)		Dense, Pale brown fine SAND with silt, poorly graded. (SP-SM)	
					14
 	23	Medium dense, Grayish brown fine SAND with silt. poorly graded. (SP-SM)	9	Medium dense, Pale brown and gray silty fine SAND, trace clay, poorly graded. (SM)	 16
	7		5		
		Loose, Dark gray fine SAND with silt, poorly gracled. (SP-SM)		Loose, Dark gray silly fine SAND, poorly graded. (SM)	22
	10	Medium dense, Dark gray silty fine SAND, trace clay, poorly graded. (SM)	14	Medium dense, Dark gray fine SAND with silt, poorly graded. (SP-SM)	24
Topsoil Clayey Fine S	Fine Sand with Silt	25: f. 11/30/2017 Legend Silty Fine Sand Silty Fine Sand Boning Terminated at Dept Grade		ystem (USCS)	26
BY DESCRIPTION	REVISIONS DAIE BY	DESCRIPTION JOEY BROUSSARD, P.E. P.E. NO.: 88233	England-Thims & Miller, Inc.		
		Meskel & Associates Engineering FL Calificated Authorizator No. 28142 3806 Wester Way, 3814 12, Jacksonswille R 32756	DATE: MAE PROJECT NO. 12/15/2017 0006-0027	SR 200 Harper Chapel Road Proje Nassau County, Florida	ect FIGURE 5



		ETM NO. 17-252-01-001	REVISIONS:	PLANS PREPARED UNDER THE DIRFCTION OF:
4	Engigne - I nims & I illef, Inc. 14775 Old St. Augustine Road Jacksonville El 32358	DRAWN BY: WBW		
	TEL: (904) 642-8990	DESIGNED BY: JN		
g	FAX: (904) 646-9485 DEG _ 2584 C _ 0000346	СНЕСКЕD ВY: LDK		
D	NEG-2304 EC-0000310	DATE: JUL 2020	<u> </u>	LYNDSAY KELLER P.E. NUMBER: 77763
ĺ				

DETAILS

DRAINAGE

AND

PAVING

DRAWING NUMBER

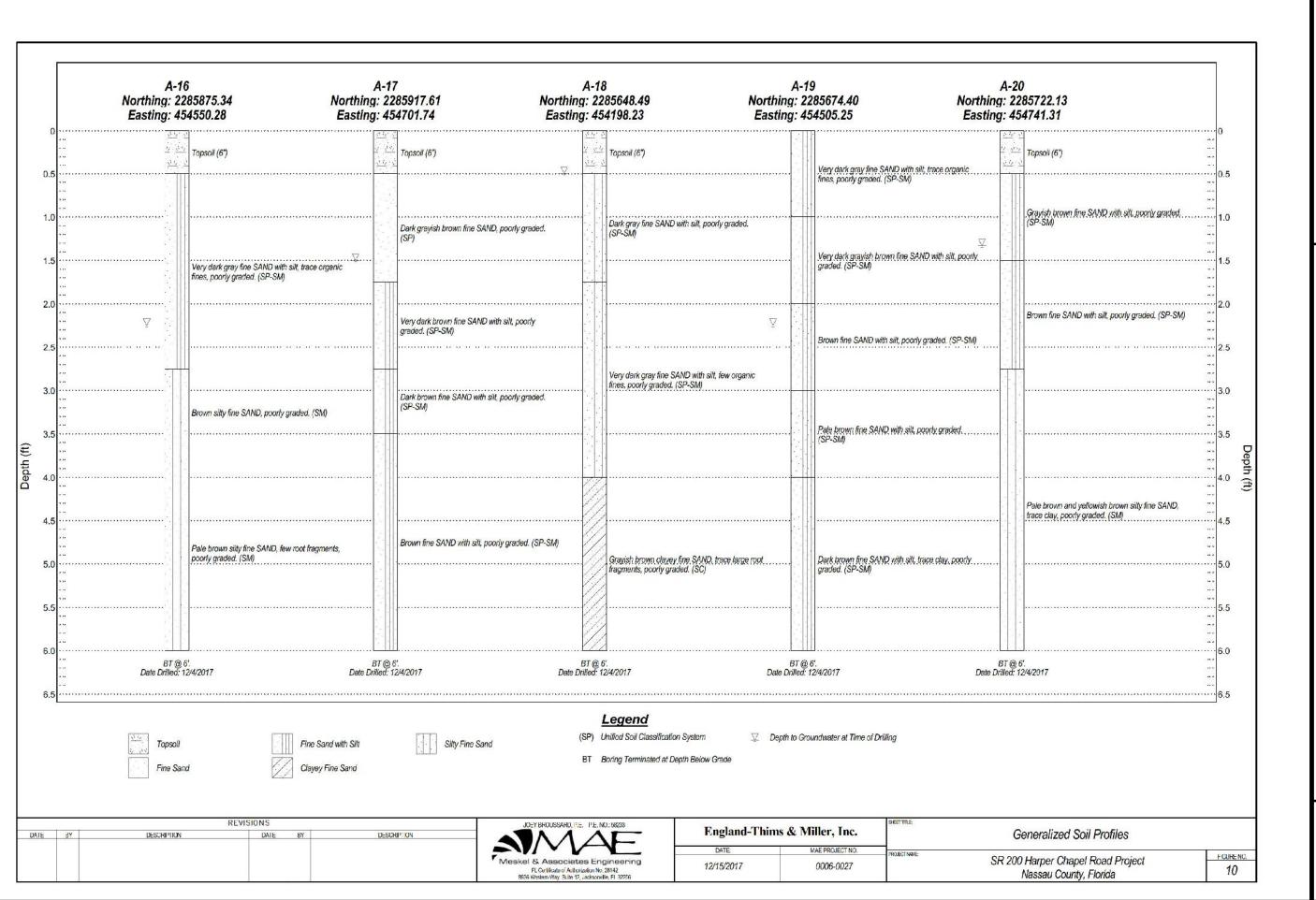
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PTIST WEST NASSAU MEDICAL V FOR BAPTIST HEALTH PROPERTIES,

***********	Northing: 22 Easting: 45	286411.84 Northin 53849.51 Eastin	A-2 g: 2286286.13 g: 453769.62	A-3 Northing: 2286343.89 Easting: 453936.20	Northing: Easting:	: 2286 : 4540	6371.73 Northing 023.58 Easting	g: 22 g: 45	86430.36 4213.25	0	0
		Topsoil (6")	Topsoil (6")			··· 7	Topsoil (6")	12 - 312 12 - 312 13 - 6 - 1	Topsoil (6")		
 				Very dark gray org graded. (Muck) (SN	anic stity fine SAND, poorly		/any dark mray fina SAND with silt trans nomanic			······································	0.5
 		Dark gravish brown line SAND, trace limerock fragments, poorly graded. (SP)			-	fi	/ery dark gray fine SAND with silt, trace organic ines, poorly graded. (SP-SM)		vananaanaanaanaanaanaanaanaanaanaanaanaa		1.0
 		ragments, poorly graded. (SP)			Ž.		又		Dark gray fine SAND, trace organic fines, poorly graded. (SP)		
			() ()	Dark gray fine SAN	D with silt, poorly graded.					1	1.5
* * 			Dark gray fine SAND with silt, poor	rfy graded. (SP-SM)			saasaasa maanamamamamaaa	111		2	2.0
" "		Brown fine SAND with stit, poorly graded. (SP-SM)					fany dae's grow fing SAND with ailt peach graded				
						, is	/ery dark gray fine SAND with silt, poorly graded. SP-SM)			2	2.5
 				Grayish brown fine	SAND with silt, poorly graded.					3	3.0
		Very dark brown fine SAND with silt, poorly graded. (SP-SM)		7					Grayish brown fine SAND with silt, poorly graded. (SP-SM)	3	3.5
			Grayish brown fine SAND with silt,	, poorly graded.						4	4.0
v "			(SP-SM)								
				Gray clayey fine SA	NND, poorly graded. (SC)					4	4.5
		Very dark gray silty fine SAND, poorly graded. (SM)				P	Park gray fine SAND with silt, poorly graded. SP-SM)		a	5	5.0
" "			Grayish brown and yellowish brow SAND, trace clay, poorly graded. ((SM)			-200 = 28			n.	= =
		Grayish brown fine SAND with silt, poorly graded. (SP-SM)		4,					Yellowish brown and strong brown clayey fine SAND, poorly graded. (SC)		5.5
	BT @		8T@6'		70	T@E		BT @ 4	y	6	6.0
'' ''	BT @ Date Drilled: 1		BT @ 6'. rilled: 12/4/2017	BT @ 6'. Date Drilled: 12/4/2017	BT Date Drille				3'. 2/4/2017		C E
				Legend							6.5
	Topsoil	Fine Sand	Fine Sand with Sift	(OD) 11-15-10-10115			lwater at Time of Drilling				
	Silty Fine	ne Sand Organic Silty Fine San	fine Sand with Silt Clayey Fine Sand	BT Boring Terminated at	Depth Below Grade -200 % Passin	ing No. 2	200 U.S. Standard Sieve				
BA	DESCRIPTION	REVISIONS BY	DESCRIPTION	JOEY BROUSSARD, P.E. P.E. NO.: 56233	England-Thims &	: Mille	er, Inc.	G	eneralized Soil Profiles		
			M	leskel & Associates Engineering Fl. Celificate of Authorization No. 28142	DATE: 12/15/2017		PROJECTNO. PROJECTNAME SI	R 200	Harper Chapel Road Project	FI	-IGURE N
			<u>.</u>	8936 Western Way, Suite 12, Jacksonville, Fl. 32956		31			Nassau County, Florida		1

	Northing: 22 Easting: 45	54488.88 Easti	ing: 2286206.10 ing: 454076.99	Northing: 2286278.99 Easting: 454259.64	Northing: 2286360.82 Easting: 454540.73	Northing: 2286037.73 Easting: 454130.41	
	77.8 7.7.7 7.7.8	7 Topsoil (6")	Topsoil (6")	Topsoil (6")	Topsoil (6")	Dark grayish brown fine SAND with silt, poorly graded. (SP-SM)	
		Gray and dark gray fine SAND with silt, poorly graded. (SP-SM)		Derk grayish brown fine SAND, p	orly graded. Very dark gray time SAND with silt trac	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
.,,,,,,,,,	Ϋ́	Very dark gray fine SANO with silt trace organic		(SP)	orly graded. Very dark gray fine SAND with silt, trac fines, poorly graded. (SP-SM)	Very dark brown fine SAND with silt, poorly graded. (SP-SM)	
		Very dark gray fine SAND with silt, trace organic fines, poorly graded. (SP-SM)		¥ ()			
			Dark gravish brown fine SAND with graded. (SP-SM)	ı siit, poorly			
				Very dark gray fine SAND with sill fines, poorly graded. (SP-SM)	few organic Very dark gray sitly fine SAND, few org poorly graded. (SM)	enic fines.	
		Grayish brown fine SAND with silt, poorly graded. (SP-SM)			poorly graded. (SM)	Dark brown fine SAND with silt, poorly graded. (SP-SM)	
				<u> </u>			· · · · · · · · · · · · · · · · · · ·
		Yellovish brown and grayish brown silty fine SAND, trace clay, poorly graded. (SM)	Gray and yellowish brown clayey fin poorly graded. (SC)	ne SAND, Yeliowish brown clayey fine SANI (SC)	poorly graded. Grayish brown fine SAND with silt, poo (SP-SM)	rly graded. Gray silty fine SAND, trace clay, poorly graded. (SM)	
.000.000.000			[//				
	BT @ Date Drilled:	6'. 12/4/2017 Date	BT @ 6'. Drilled: 12/4/2017	BT @ 6'. Date Drilled: 12/4/2017	BT @ 6'. Date Drilled: 12/4/2017	BT @ 6'. Date Drilled: 12/4/2017	
	Fine Sai	nd with Slit Silty Fine Sand	Topsoil	Legend (SP) Unified Soil Classification System	□ Depth to Groundwater at Time of Drilling		
		Fine Sand Fine Sand	17.5° J	BT Boring Terminated at Depth Below 0	rade		
		REVISIONS		JOEY BROUSSARD, P.E. P.E. NO.: 58233	gland-Thims & Miller, Inc.	Generalized Soil Profiles	

Northing: 2 Easting: 4	1 286093.53 Northii 54319.68 Eastii	A-12 ng: 2286188.99 North ng: 454599.40 East	A-13 ing: 2285907.59 Northing ing: 454068.61 Easting	A-14 g: 2286063.53 Northing g: 454775.42 Easting	A-15 : 2285824.88 : 454394.73
<u>주주</u> . <u>주</u> . 주 . '주.*	Topsoil (6")	Topsoil (6")	Topsoil (6")	7 Topsoil (6")	Very dark gray fine SAND with sift, few organic fines, poorly graded. (SP-SM)
	Dark gray fine SAND with silt, trace organic fines, poorly graded.	Very dark gray fine SAND with silt, few small roots, trace organic fines, poorly graded. (SP-SM)	Dark grayish brown fine SAND with silt, poorly graded. (SP-SM)	Very dark gray fine SAND with slft, trace organic fines, poorly graded. (SP-SM)	Brown fine SAND with silt, poorly graded. (SP-SM)
	Dark brown fine SAND with silt, poorly graded.		graded. (SP-SM)		
	Grayish brown fine SAND with silt, poorly graded.	Grayish brown fine SAND with silt, poorly graded. (SP-SM)			
	· · ·		Grayish brown fine SAND with silt, poorly graded. (SP-SM)	Dark brown fine SAND with silt, trace organic fines, poorly graded. (SP-SM)	Pale brown fine SAND with silt, poonly graded. (SP-SM)
	Grayish brown silty fine SAND, trace day, poorly graded.	Brown fine SAND with silt, poorly graded. (SP-SM)	Yellowish brown and gray dayey fine SAND, poorly graded. (SC)	Brown fine SAND with silt, poorly graded. (SP-SM)	Yellowish brown fine SAND with silt, trace clay, poorly graded. (SP-SM)
BT @ Date Drilled:			BT @ 6'. E To Drilled: 12/4/2017 Date Dri		IT @ 6'. lled: 12/4/2017
Topsoil Clayey F	Fine Sand with Silt	Silty Fine Sand	Legend (SP) Unified Soil Classification System ☑ Depth to BT Boring Terminated at Depth Below Grade	to Groundwater at Time of Drilling	



ETM NO. 17–252–01–001 DRAWN BY: WBW DESIGNED BY: JN CHECKED BY: LDK DATE: JUL 2020	
REVISIONS: 	
	REVISIONS:

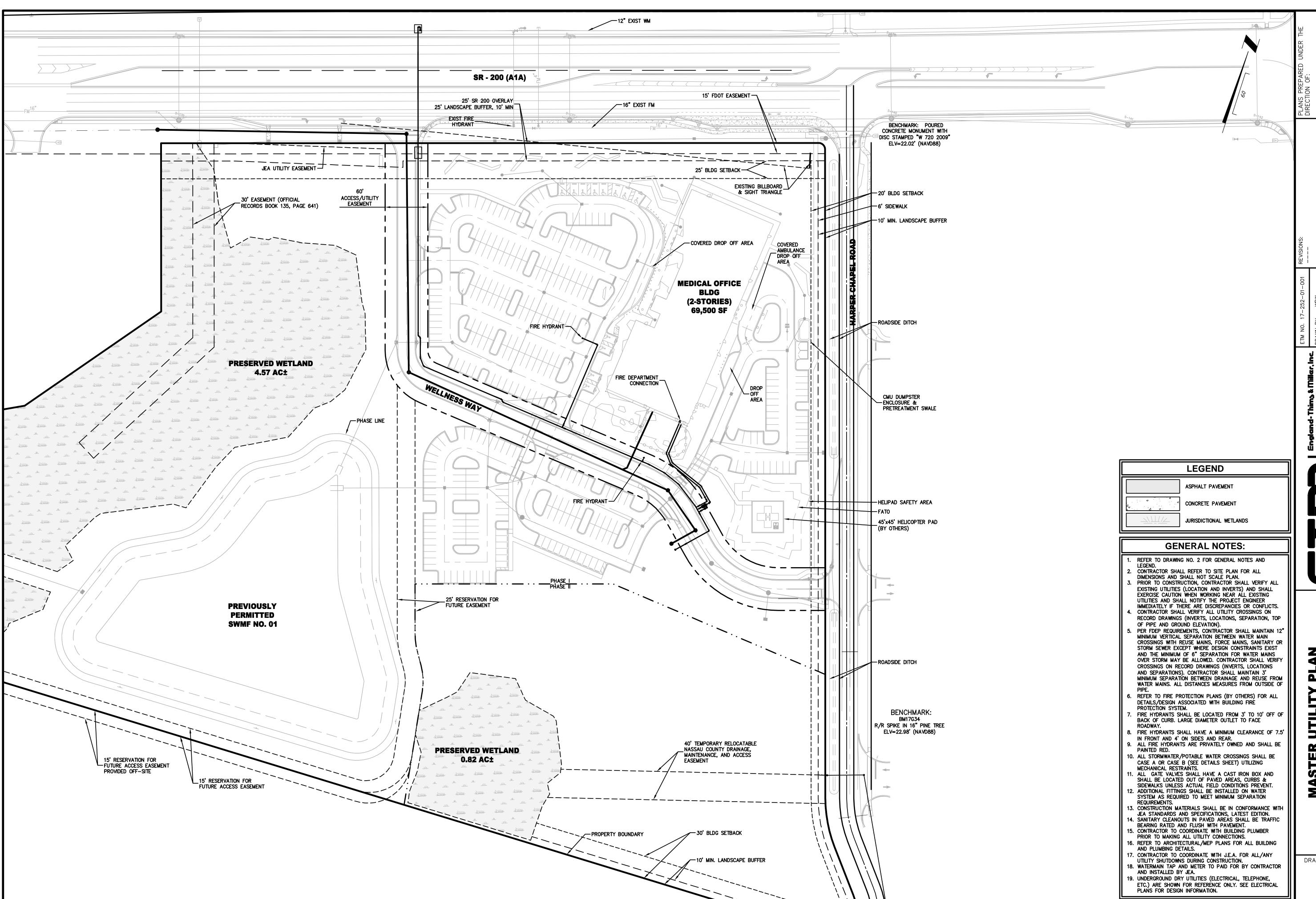
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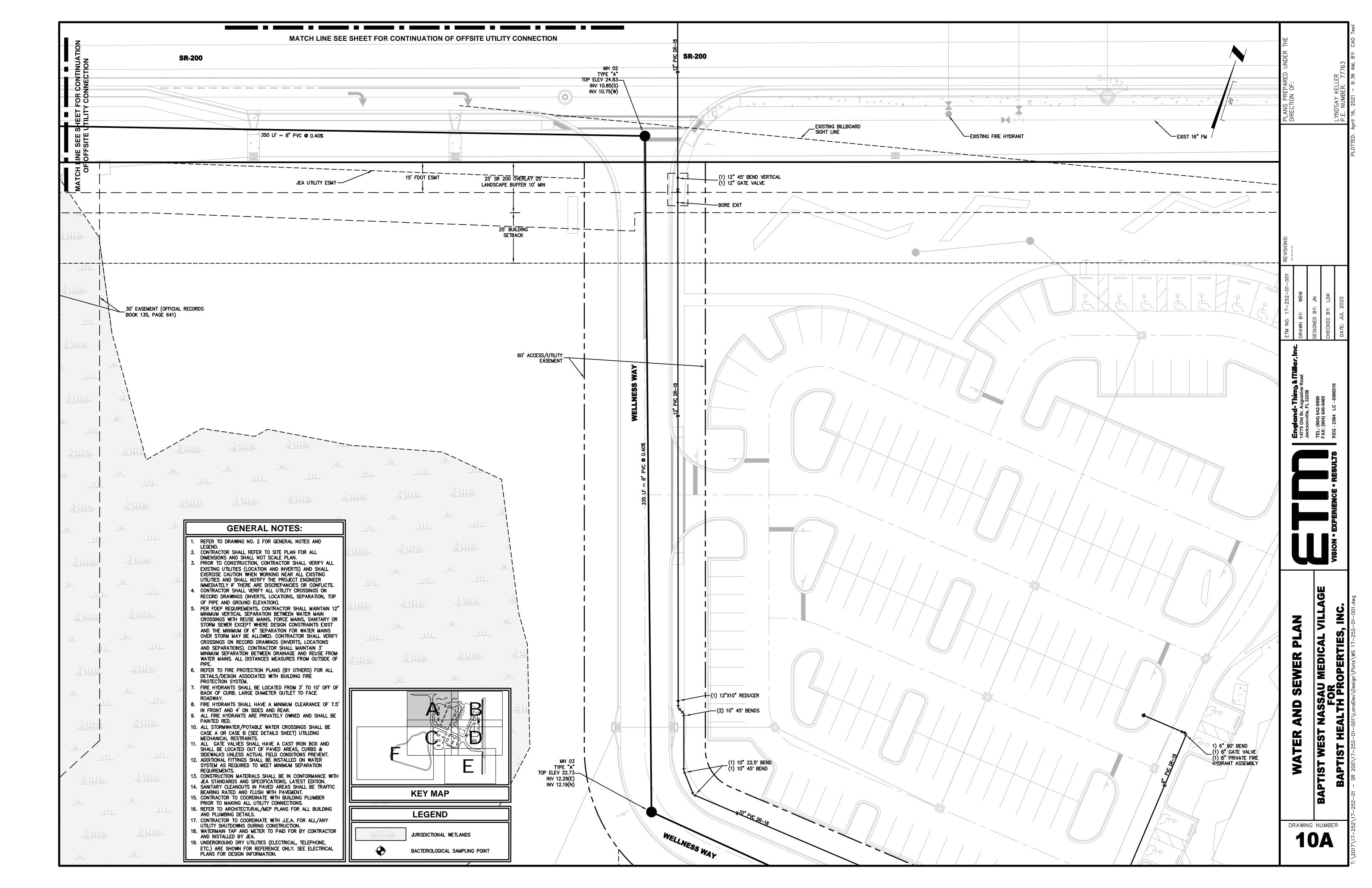
PAVING AND DRAINAGE DETAILS

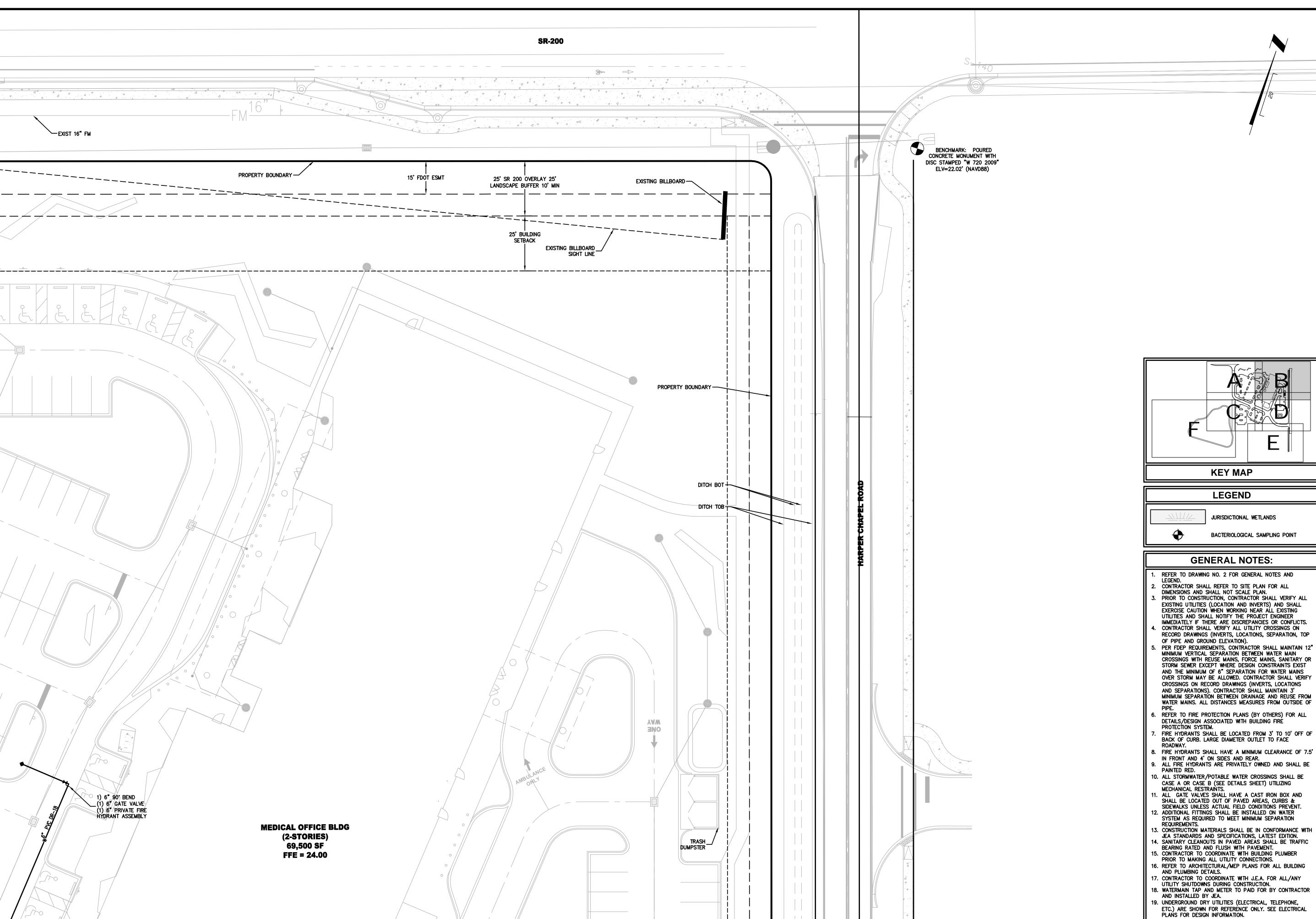
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FOR

BAPTIST HEALTH PROPERTIES, INC.

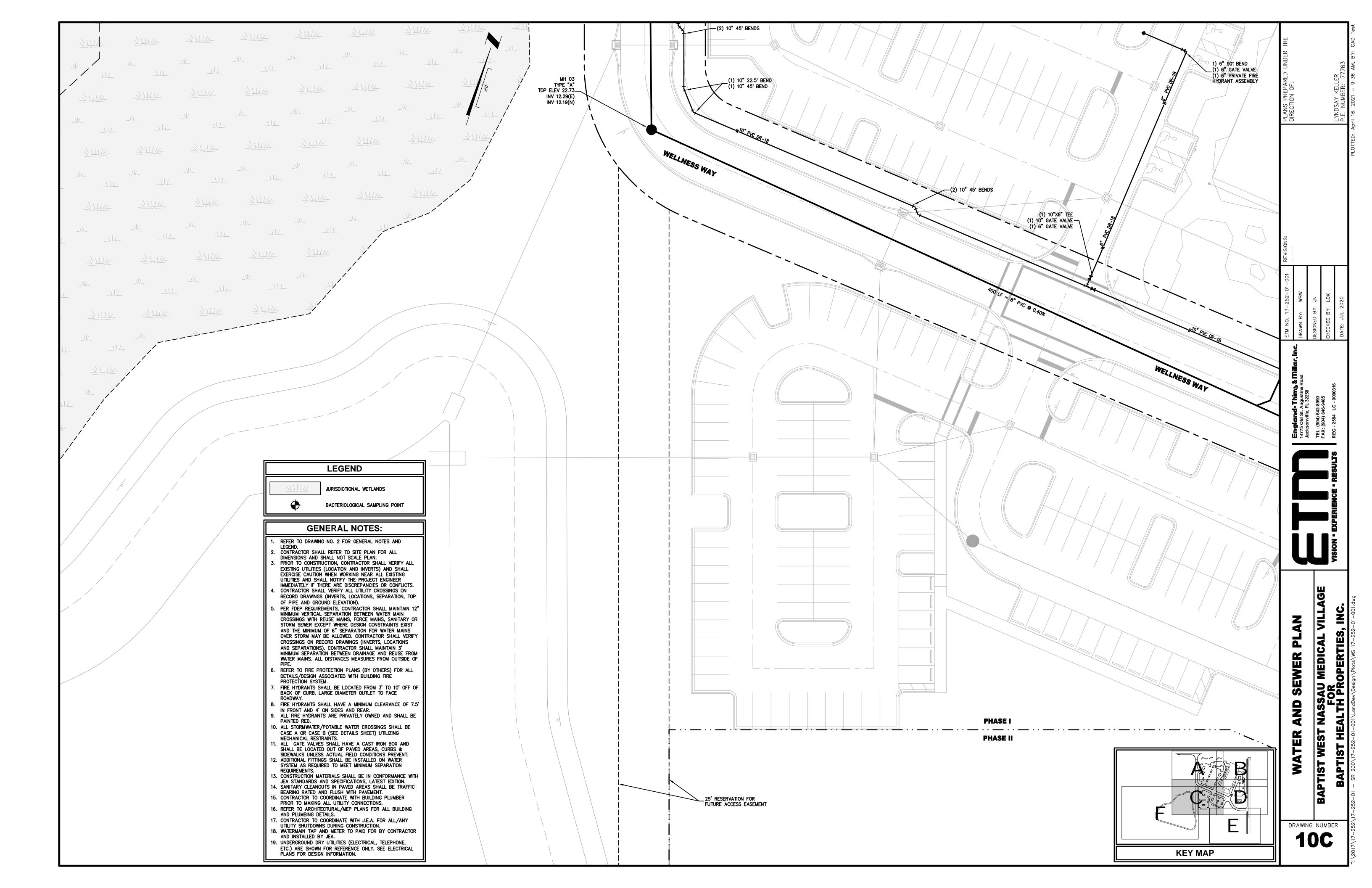
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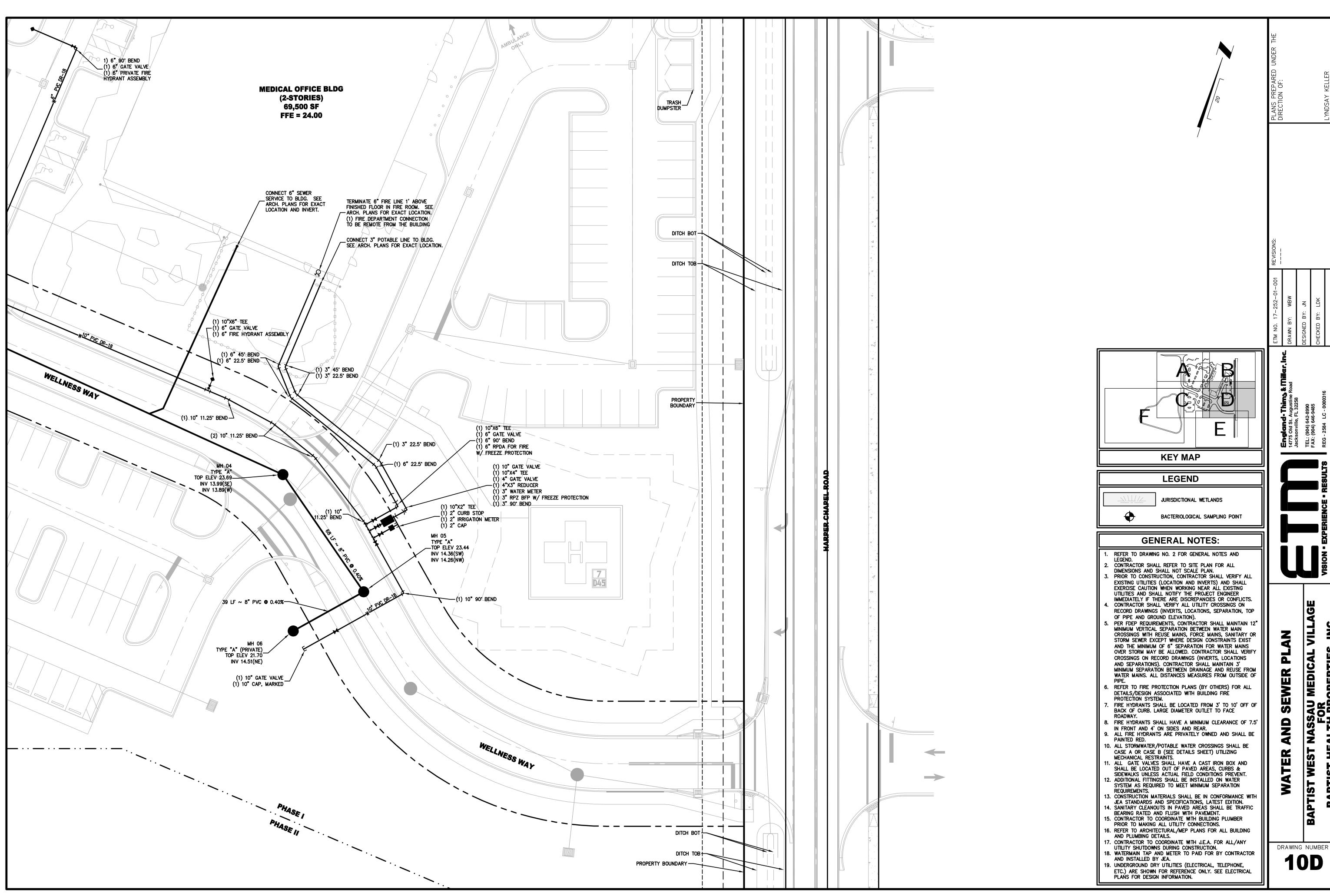


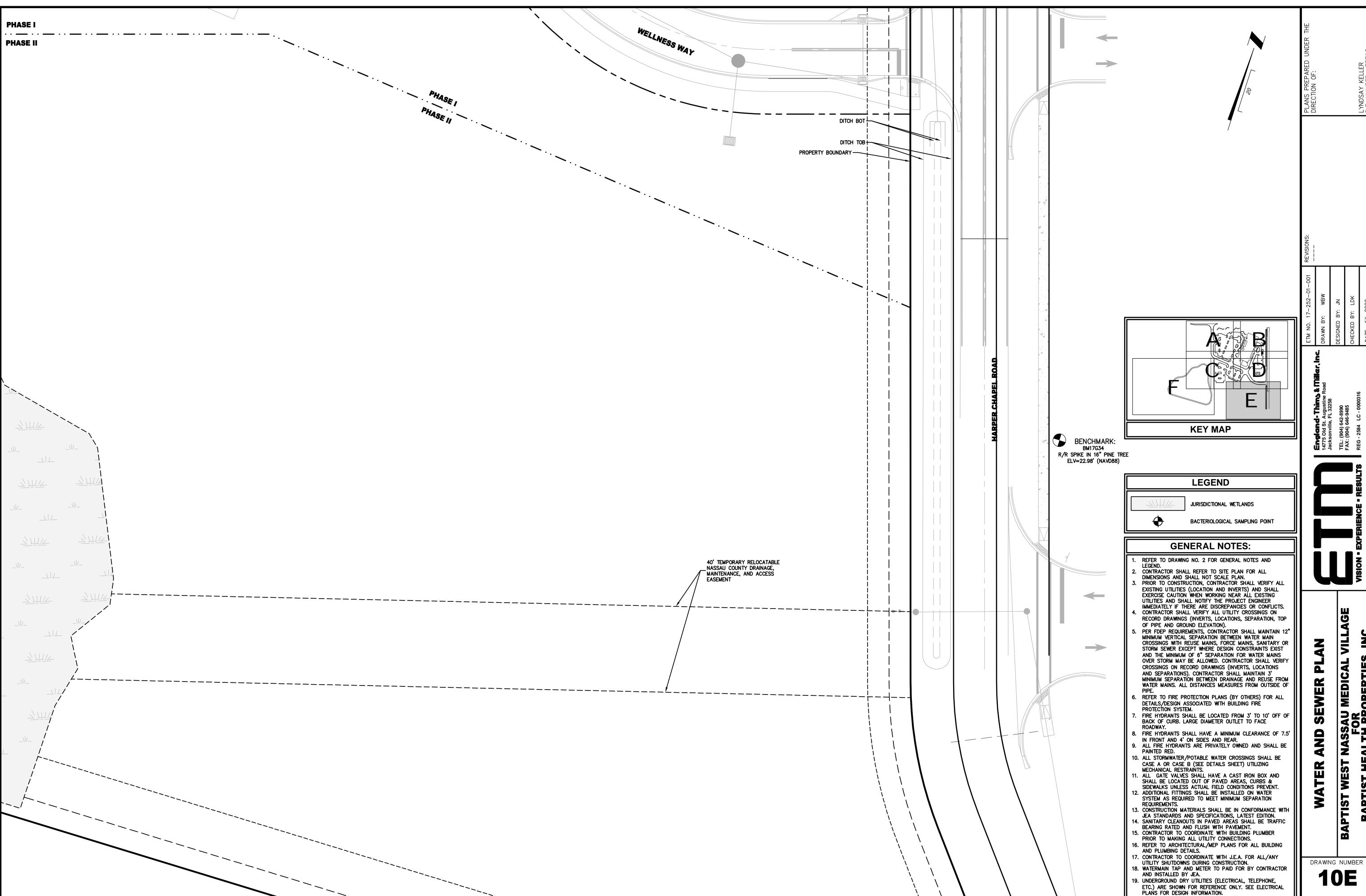




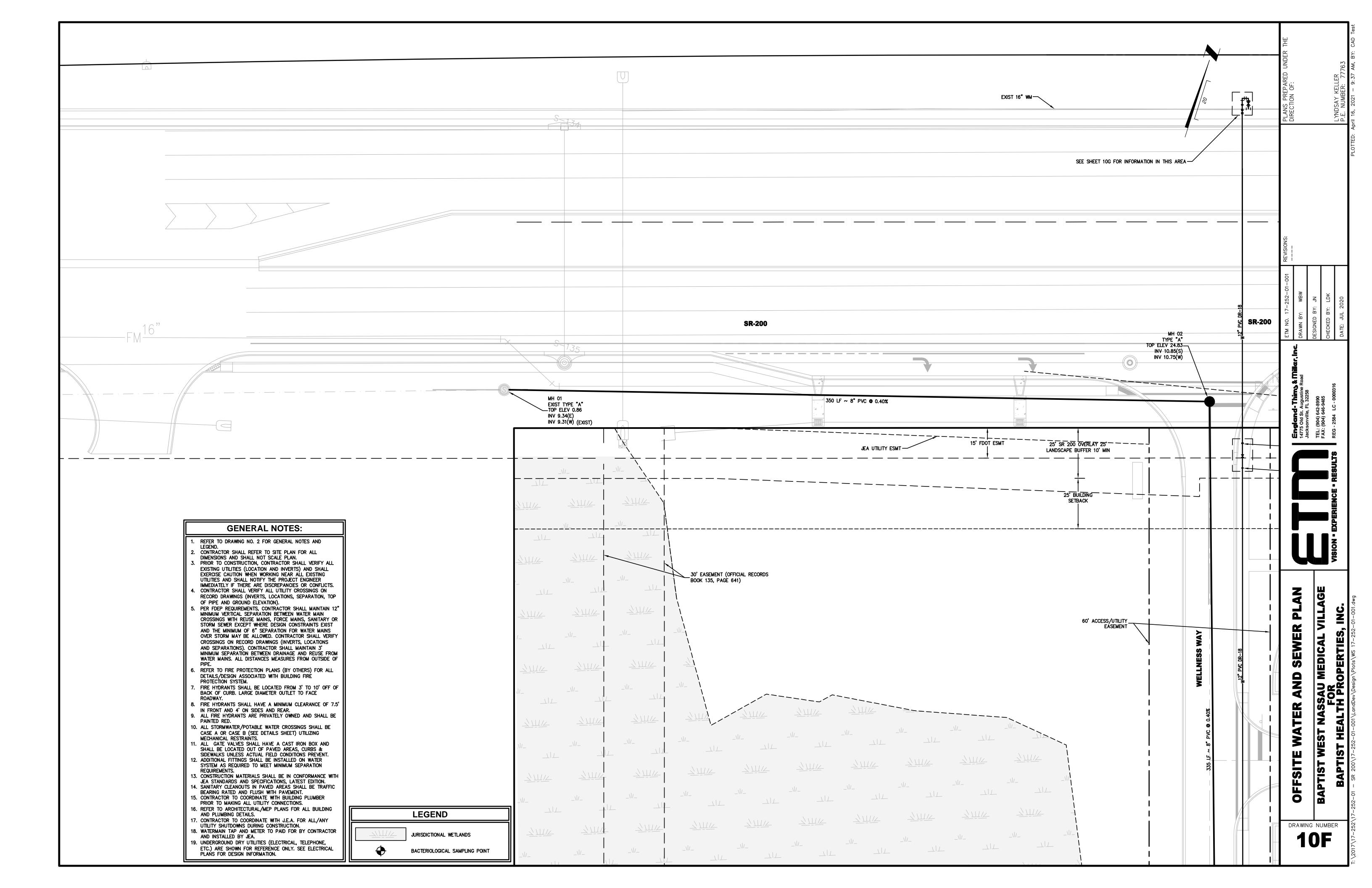
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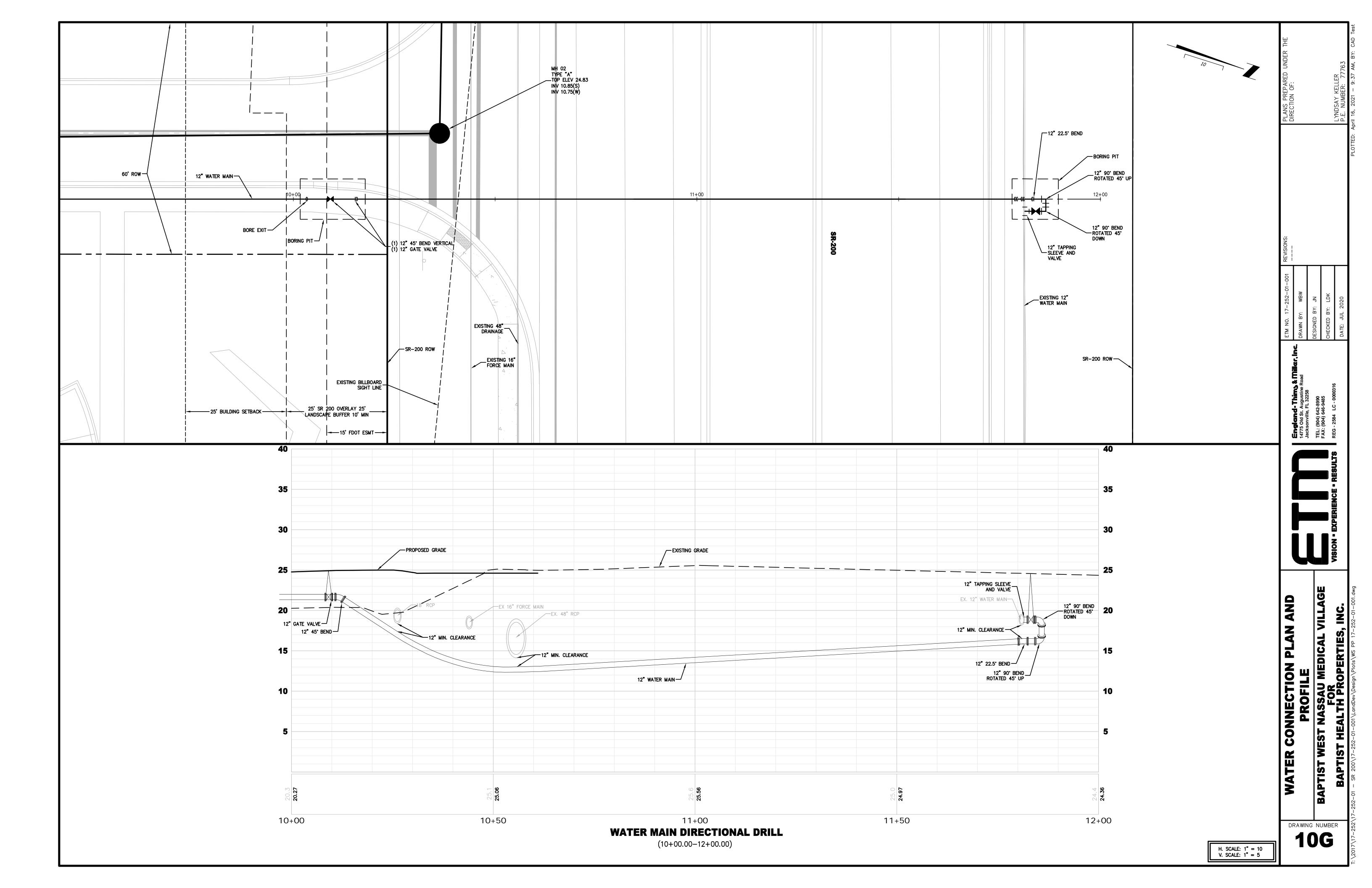






SEWER





NOT APPLICABLE	APPLICABLE	SURVEY AND LOCATE DATA:
		1. ALL ELEVATIONS ARE BASED ON U.S.C.&G.S. DATUM AND SHOWN IN FEET.
		2. ELEVATIONS ARE BASED ON NAVD 1988.
		3. LOCATION OF EXISTING UTILITIES OBTAINED BY SOFT DIG LOCATES WHERE SHOWN ON PLANS, OR INCLUDED WITH BID SPI
		4. EXISTING WATER AND SEWER LINES ARE SHOWN AS PER FIELD LOCATES AND SUBDIVISION AS-BUILT PLANS.
		5. UNDERGROUND UTILITIES WERE LOCATED UTILIZING GROUND PENETRATING RADAR (GPR) AND A DIGITAL LOCATOR. CONTRACTOR SHALL BE AWARE THAT IN SOME CASES UTILITIES HAVE BEEN LOCATED, AND SURVEY HAS BEEN COMPLETIONLY ON ONE SIDE OF THE ROAD.
		6. ALL PIPE LENGTHS SHOWN ON PLAN AND PROFILES ARE FROM CENTER TO CENTER OF MANHOLES, CATCH BASINS, INLET ETC. OR ALONG THE CENTER LINE OF FORCE MAINS AND WATER MAINS.
		7. INVERT ELEVATIONS SHOWN ON DRAWINGS REFER TO THE CENTERLINE OF MANHOLES, UNLESS OTHERWISE INDICATED.
		8. THE LOCATION OF ALL EXISTING SEWER AND WATER SERVICE LINES MAY NOT BE INDICATED ON THESE PLANS. THE LOCATION OF NEW SERVICES SHALL BE VERIFIED IN THE FIELD.
		9. BENCHMARK DATA:
		PERMIT REQUIREMENTS (NOT ALL INCLUSIVE):
		1. CONTRACTOR TO OBTAIN ALL REQUIRED RIGHT-OF-WAY PERMITS.
		2. CONTRACTOR SHALL NOT OPEN CUT STREETS IN THE PROJECT AREA UNLESS SPECIFICALLY SHOWN ON PLANS
		3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A CONSUMPTIVE USE PERMIT (C.U.P.) THROUGH THE ST. JOHNS WATE MANAGEMENT DISTRICT SHOULD DEWATERING ACTIVITIES BE REQUIRED.
		4. THE DEPARTMENT OF TRANSPORTATION, RAILROAD COMPANIES AND C.O.J. ARE TO BE NOTIFIED IN ADVANCE OF CONSTRUCTION PER THEIR RESPECTIVE PERMIT CONDITIONS.
		5. ALL WORK SHALL BE IN ACCORDANCE WITH BID DOCUMENTS, JEA WATER AND SEWER STANDARDS, DETAILS AND MATERIA MANUAL, REV. 2018. AND CITY OF JACKSONVILLE STANDARD SPECIFICATIONS AND DETAILS AND ALL APPLICABLE STATE AN LOCAL REGULATIONS.
		6. IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE IRON PIPE, FITTINGS AND SOLVENT RESISTANT GASKE MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST 100 FEET BEYO ANY SOLVENT NOTED.
		7. THE CONTRACTOR SHALL NOTIFY APPLICABLE UTILITY CONTACT PERSONNEL NOT LESS THAN ONE WEEK PRIOR TO CONSTRUCTION OF FACILITIES IN THEIR RESPECTIVE AREAS.
		8. TREE PROTECTION SHALL BE IN ACCORDANCE WITH JACKSONVILLE ORDINANCE CODE 656 AND/OR AS DETAILED ON SPECIFIC PLAN SHEETS. NO TRIMMING OF OVERHANGING TREE LIMBS WILL BE ALLOWED. USE SMALLER EQUIPMENT IF NECESSARY.
		9. THE CONTRACTOR SHALL LOCATE THE DRAINAGE INLET STRUCTURES IN THE PROJECT AREA AND ERECT SEDIMENTATION CONTROL DEVICES AS NECESSARY PER THE CITY OF JACKSONVILLE STORMWATER POLLUTION PREVENTION PLAN.
		10. CONTRACTOR TO COORDINATE WORK WITH OTHER UTILITIES DURING CONSTRUCTION.
		EXISTING UTILITY PROTECTION:
	1.	IN ORDER TO REDUCE THE DISRUPTION AND COST OF UTILITY DAMAGES OCCURRING IN THE DUVAL COUNTY RIGHT-OF-WAY AND EASEMENTS, THE CONTRACTOR SHALL PREVENT DAMAGES TO EXISTING UTILITIES CAUSED BY HIS WORK THROUGH FIELD VERIFICATION OF THE LOCATION OF THE EXISTING UTILITIES. IN THE CASE OF OPEN EXCAVATION, VERIFICATION MAY BE PERFORMED DURING THE CONTRACTORS WORK. IN THE CASE OF DIRECTIONAL DRILLING, VERIFICATION SHALL TAKE PLACE PRIOR TO MOBILIZATION OF THE DRILLING EQUIPMENT.
	2.	THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES AS NEEDED TO AVOID CONTACT. EXISTING UTILITIES SHALL BE EXPOSED USING DETECTION EQUIPMENT OR OTHER ACCEPTABLE MEANS. SUCH METHODS MAY INCLUDE BUT SHALL NOT BE LIMITED TO "SOFT DIG" EQUIPMENT AND GROUND PENETRATING RADAR (GPR). THE EXCAVATOR SHALL BE HELD LIABLE FOR DAMAGES CAUSED TO THE CITY'S/JEA'S INFRASTRUCTURE AND THE EXISTING FACILITIES OF OTHER UTILITY COMPANIES.
	3.	IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND AVOID ALL UTILITIES, OTHER STRUCTURES AND OBSTRUCTIONS BOTH ABOVE AND BELOW GROUND SURFACE. ALL DAMAGE RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

RESTORATION NOTES:

- 1. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REFERENCE AND RESTORE PROPERTY CORNERS AND LANDMARKS WHICH MAY BE DISTURBED BY CONSTRUCTION, KNOWN CORNER LOCATIONS ARE AVAILABLE FROM THE CITY OF JACKSONVILLE ENGINEERING DIVISION.
- 2. THE CONTRACTOR SHALL RESTORE/REPLACE ALL CULVERTS, HEADWALLS AND STORM DRAIN INLETS REMOVED OR DISTURBED BY THE CONSTRUCTION OPERATION.
- 3. TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION IN ACCORDANCE WITH CITY OF JACKSONVILLE/FDOT STANDARD SPECIFICATIONS.
- 4. SIDEWALKS, DRIVEWAYS AND CURBING DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH JACKSONVILLE STANDARD SPECIFICATIONS. SIDEWALKS REMOVED AND REPLACED IN CURB AND GUTTER AREAS AT INTERSECTIONS SHALL HAVE HANDICAP RAMPS INSTALLED. DRIVEWAYS AND SIDEWALKS SHALL BE SAWCUT ALONG THE RIGHT-OF-WAY LINE OR NEAREST JOINT AND REMOVED AND REPLACED TO THE EDGE OF STREET.
- 5. GRASS SOD SHALL BE FURNISHED AND PLACED IN THE AREAS DISTURBED OR DAMAGED BY THE CONSTRUCTION OPERATION.
- 6. ALL PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH THE CITY OF JACKSONVILLE/FDOT STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.
- 7. UNLESS OTHERWISE NOTED, REMOVE AND REPLACE EXISTING PAVEMENT AS PER C.O.J. CASE X (10) PAVEMENT REPLACEMENT DETAIL.
- 8. CONTRACTOR MUST MAINTAIN AND PRESERVE NEWLY GRADED AREAS AND REPAIR AREAS WHERE SETTLING AND EROSION HAVE OCCURRED

UTILITY CONTACTS:

A. AT&T ~ GENERAL NUMBER— — — — — — — — — — — — — — — — — — —	- — — — — — — — — 9 04-519-2529
B. AT&T ~ ADAM DUGAN ~ NORTH DISTRICT— — — — — — — — — — — — — — — — — — —	
C. AT&T ~ BILL LAKE ~ SOUTH DISTRICT — — — — — — — — — — — — — — — — — — —	
D. CITY OF JACKSONVILLE ~ PUBLIC WORKS DEPT.— — — — — — — — — — — — — — — — — — —	
E. CITY OF JACKSONVILLE ~ TRAFFIC OPERATIONS— — — — — — — — — — — — — — — — — — —	
F. FLORIDA DEPT. OF TRANSPORTATION— — — — — — — — — — — — — — — — — — —	
G. JEA ~ WATER COLLECTION & DISTRIBUTION ~ BOB ALLSBROOK — — — — — — — — — — — —	
H. JEA ~ SEWER COLLECTION & DISTRIBUTION ~ BOB ALLSBROOK — — — — — — — — — — —	
I. JEA ~ GENERAL INFORMATION— — — — — — — — — — — — — — — — — — —	—————— —904-665-6000
J. JEA ~ PROJECT OUTREACH— — — — — — — — — — — — — — — — — — —	
K. JEA ~ POWER OUTAGES— — — — — — — — — — — — — — — — — — —	
L. JEA ~ SEWER PROBLEMS— — — — — — — — — — — — — — — — — — —	
M. JEA ~ WATER PROBLEMS— — — — — — — — — — — — — — — — — — —	
N. JEA ~ WATER & SEWER LOCATES— — — — — — — — — — — — — — — — — — —	
O. NASSAU COUNTY ~ PUBLIC WORKS ~ CHARLES HOUSTON— — — — — — — — — — — — —	
P. ST. JOHNS COUNTY ~ RIGHT-OF-WAY PERMITTING ~ RICK MAULDIN— — — — — — — — — —	
Q. ST. JOHNS COUNTY ~ TRAFFIC SIGNALS ~ HANK MEIN— — — — — — — — — — — — —	
R. COMCAST ~ EMERGENCY HOTLINE— — — — — — — — — — — — — — — — — — —	
S. TECO/PEOPLES GAS ~ BEN MOBLEY— — — — — — — — — — — — — — — — — — —	
T. SUNSHINE ONE CALL———————————————————————————————————	

Ε	NOT APPLICABLE	APPLICABLE	<u>IN</u>	ISTALLATION NOTES:	ims & Miller, Inc. stine Road 258 5 6 - 0000316
			1.	CONTRACTOR TO REHABILITATE ALL MANHOLES ON PIPE BURST SEWERS VIA COATING/LINING PER JEA SPECIFICATION 446-2, UNLESS OTHERWISE NOTED ON THE PLANS.	ind-Th 1 St. Augu 1 St. Augu 1ile, FL 32 1 642-899(2 646-948(2 584 LC
			2.	CONTRACTOR TO RENEW, REHABILITATE, REPLACE OR REINSTALL AS APPLICABLE ALL SERVICE LATERALS TO R.O.W. LINE.	75 Ok 1800 1904 1: (904 2: (904
R G			3.	CONTRACTOR TO INSTALL SEWER SERVICE PIPING A MINIMUM OF 60 INCHES BELOW GRADE. WHERE NEW SANITARY SEWER MAIN IS LESS THAN 5 FEET DEEP, THE SEWER SERVICE PIPE SHALL BE INSTALLED AS DEEP AS POSSIBLE.	A L L L S A S A S A S A S A S A S A S A
			4.	WHEN THE DISTANCE BETWEEN A POWER POLE AND THE TRENCH IS LESS THAN THE TRENCH DEPTH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH JEA ELECTRICAL PERSONNEL TO SECURE POWER POLES. THE CONTACTS FOR JEA ARE AS FOLLOWS: NORTHSIDE~EAST of US-1 MIKE CORBITT @ 665-7991 (mobile 662-0635) NORTHSIDE~WEST of US-1 ANDY YEAGER @ 665-7998 (mobile 662-0622) NORTHSIDE~BACKUP ALAN AINSLEY @ 665-7303 (mobile 662-6557) SOUTHSIDE~SOUTH of BEACH BLVD. TOM KERNS @ 665-6847 (mobile 860-1687) SOUTHSIDE~NORTH of BEACH BLVD. DERYL BASFORD @ 665-6855 (mobile 662-0616) SOUTHSIDE~BACKUP EDDIE GALES @ 665-6855 (mobile 662-0616) A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED FOR AN OUTSIDE MEETING WITH JEA ELECTRICAL TO DISCUSS THE REQUIRED WORK. ADDITIONAL TIME WILL BE REQUIRED BY JEA ELECTRICAL FOR ANY REQUIRED WORK TO BE ACCOMPLISHED.	TSION - EXPERIENCE - RESULT
			5.	ALL NEW STORM DRAIN PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.	
2529			6.	THE DESIGN FOR THE PROJECT IS BASED UPON THE "OPEN-CUT" METHOD OF CONSTRUCTION. IF USING ALTERNATIVE MEANS OR METHODS, THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE STANDARDS FOR THAT MEANS OR METHOD.	TAKE
0741 8754 8762 8861			7.	THE CONTRACTOR SHALL MINIMIZE SERVICE INTERRUPTIONS AT SERVICE CONNECTIONS. THE MEANS AND METHODS SHALL BE LEFT TO THE DISCRETION OF THE CONTRACTOR, SUBJECT TO THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. NO EXISTING ACTIVE SERVICE SHALL BE LEFT INTERRUPTED AT THE END OF THE WORK DAY.	WN ON 1 .E.A. WE DESIGN
5200 7299 7299			8.	CONTRACTOR SHALL PROVIDE ADDITIONAL CORPORATION STOPS FOR FILLING AND DRAINING PURPOSES DURING CONSTRUCTION AS NEEDED. CORPORATION STOPS ARE TO BE PLUGGED AND LEFT IN PLACE. INDICATE CORPORATION STOP LOCATIONS ON RECORD DRAWINGS (AS-BUILTS).	AS SHOY Y THE J
6000 7500 6000			9.	WATER AND SEWER SERVICES SHALL BE TRANSFERRED TO THE NEW MAIN UPON COMPLETION AND F.D.E.P./J.E.A. CERTIFICATION, AND PRIOR TO THE EXISTING MAINS BEING ABANDONED.	TAILS, ARE B' TION T
4802 4801 8410 6225			10.	IF EXISTING VALVES ARE IN UNPAVED AREAS AND ARE TO BE TAKEN OUT OF SERVICE, THEY SHALL BE CLOSED AND THE VALVE BOX AND COVER SHALL BE REMOVED. IF THE VALVES ARE UNDER PAVED AREAS, THEY SHALL BE CLOSED, THE VALVE BOX GROUT FILLED AND THE COVER REMOVED.	ESE DE AWING EXCEP
0134 0173			11.	CONTRACTOR SHALL REPLACE EXISTING WATER METER BOXES WHEN DEEMED NECESSARY BY THE JEA INSPECTOR.	DR.
6274 8958			12.	CONTRACTOR TO PROVIDE ADDITIONAL DEPTH OF BURY VIA PIPE JOINT DEFLECTION TO ACCOMMODATE VALVE SELECTION PER JEA	

☐ ☐ 15. SHEET PILING WILL BE REQUIRED ON ALL EXCAVATIONS DEEPER THAN 16 FEET.

SURVEY DATA AND LOCATIONS OF ABOVE GROUND AND UNDERGROUND UTILITIES. SHOULD THE CONTRACTOR DISCOVER ANY

INACCURACIES, ERRORS OR OMISSIONS IN THE SURVEY DATA, HE SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER IN ORDER THAT

☐ ☐ 13. WATER METERS MAY REQUIRE RELOCATION FOR CONSTRUCTION, CONTRACTOR SHALL CONTACT JEA METER DEPARTMENT AND

☐ ☐ 14. PRIOR TO COMMENCING ANY EXCAVATION OR GRADING, THE CONTRACTOR SHALL OBTAIN ALL GEOTECHNICAL AND TOPOGRAPHIC

RELOCATE WATER METERS AS NECESSARY.

PROPER ADJUSTMENTS CAN BE ANTICIPATED AND ORDERED.

PROJ. NO. 17-252-01-001

DATE: JANUARY 2017

GENERAL NOTES LEGEND, AND SHEET INDEX
SCALE: AS NOTED

BAPTIST WEST NASSAU MEDICAL VILLAGE

EXCALE: AS NOTED

SCALE: AS NOTED

BAPTIST WEST NASSAU MEDICAL VILLAGE

EXCALE: AS NOTED

EXCALE: AS NOTED

FIXED TO THE STANDARD

EXALT: AS NOTED

FIXED TO THE STANDARD

EXALT: AS NOTED

FIXED TO THE STANDARD

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HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

					PRO	OPOSE	ED UT	ILITY	,			
	POTABLE WATER		WASTEWATER GRAVITY AND FORCE MAIN		RECLAIMED WATER		VACUUM SEWERS					
CONFLICTING UTILITY	HORIZ.	VERT.	JOINT SPACING*	HORIZ.	VERT.	JOINT SPACING*	HORIZ.	VERT.	JOINT SPACING*	HORIZ.	VERT.	JOINT SPACING*
POTABLE WATER	3' NOTE 1	12"	3' NOTE 2	6' to 10'	12" NOTE 5	6' NOTE 2	3'	12"	6' NOTE 2	3' to 10'	12"	3' NOTE 2
RECLAIMED WATER	3'	12"	6' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3'	12"	6' NOTE 2	3' NOTE 1	12"	3' NOTE 2
WASTEWATER (GRAVITY AND FORCE MAIN)	6' to 10'	12"	6' NOTE 2	3' NOTE 1	12"	6"	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
VACUUM SEWERS	3' to 10'	12"	3' NOTE 2	3' NOTE 1	12"	6"	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
RIGHT OF WAYS	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A
PERMANENT STRUCTURES (SIGNS, POLES, ETC.)	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A
STORM SEWERS	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
GAS	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
TREES	3'-6' NOTE 6	N/A	N/A	3'-6' NOTE 6	N/A	N/A	3'-6' NOTE 6	N/A	N/A	3'-6' NOTE 6	N/A	N/A
ALL OTHER UTILITIES	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2

- 1. THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. THREE FEET OF HORIZONTAL SEPARATION IS THE MINIMUM FOR PIPES WITH THREE FEET OF COVER. FOR PIPES INSTALLED AT GREATER DEPTH, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH.
- 2. THE MINIMUM JOINT SPACING REQUIRED FROM CROSSING FROM OTHER UTILITIES WHILE STILL MAINTAINING MINIMUM VERTICAL SEPARATION.
- 3. DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
- 4. NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURES.
- 5. WATER MAIN SHOULD CROSS ABOVE OTHER PIPES WHENEVER POSSIBLE. WHEN WATER MAIN MUST BE BELOW OTHER UTILITY PIPING, THE MINIMUM SEPARATION SHALL BE 12 INCHES.
- 6. REFER TO POTABLE WATER PIPING- SECTION 350, III.4.11.

SEPARATION REQUIREMENTS FOR WATER, WASTEWATER AND RECLAIMED WATER MAINS

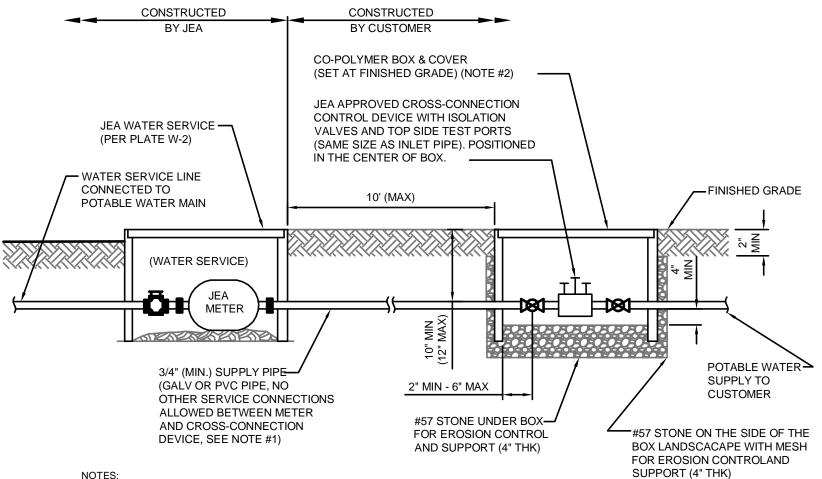
JANUARY 2020

WATER MAIN AND NON-WATER MAIN SEPARATION REQUIREMENTS - NOTES

- 1. IT IS REQUIRED THAT "WATER MAINS" BE INSTALLED, CLEANED, DISINFECTED AND HAVE A SATISFACTORY BACTERIOLOGICAL SURVEY PERFORMED IN ACCORDANCE WITH THE LATEST APPLICABLE AWWA STANDARDS, CHAPTER 62-555, F.A.C. AND LATES' JEA WATER AND SEWER STANDARDS. FOR THE PURPOSE OF THIS SECTION, THE PHRASE "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 HAVE AN INSIDE DIAMETER OF THREE (3) INCHES OR GREATER. IN ADDITION, THE PHRASE "RECLAIMED WATER" REFERS TO THE WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- 2. 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 WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER.
- 3. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A 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. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS MAY BE REDUCED TO THREE (3) FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE SEWER (SPECIAL CASE).
- 4. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX (6) INCHES, AND PREFERABLE TWELVE (12) INCHES, ABOVE OR AT LEAST TWELVE (12) INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- 5. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS A LEAST TWELVE (12) INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- 6. AT THE UTILITY CROSSINGS DESCRIBED IN NOTES 4 AND 5 ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE (3) FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX (6) FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINE CONVEYING RECLAIMED WATER.
- 7. NEW OR RELOCATED FIRE HYDRANTS SHALL BE LOCATED SO THAT THE HYDRANTS ARE AT LEAST THREE (3) FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER: AT LEAST THREE (3) FEET. AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER OR WASTEWATER FORCE MAIN.
- 8. WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE. THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER TO OBTAIN APPROVAL OF ANY ALTERNATIVE CONSTRUCTION METHODS, PRIOR TO CONSTRUCTION.

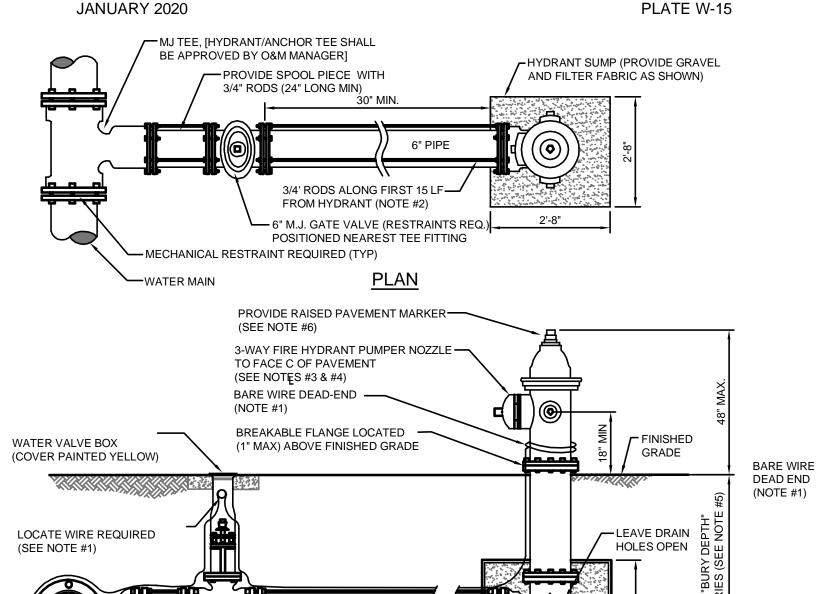
NOTES ON UTILITY SEPARATION REQUIREMENTS

JANUARY 2020 PLATE W-11



- 1. THE POTABLE WATER CUSTOMER IS REQUIRED TO INSTALL AND MAINTAIN A JEA APPROVED CROSS-CONNECTION DEVICE ON THEIR POTABLE WATER SERVICE LINE. OPERATION AND MAINTENANCE OF THIS CROSS-CONNECTION DEVICE SHALL COMPLY WITH JEA'S CROSS-CONNECTION CONTROL PROGRAM AND ASSOCIATED OPERATIONS POLICIES. ALL REDUCED PRESSURE ASSEMBLIES SHALL BE MOUNTED ABOVE GRADE.
- 2. ONLY DOUBLE CHECK VALVE ASSEMBLIES MAY BE INSTALLED BELOW GROUND. THESE DEVICES MAY BE INSTALLED IN A TYPICAL 1" (CO-POLYMER) METER BOX WITH SOLID LID (GENERIC LID WITH NO "JEA" LOGO, SEE ALSO W-3). THE SIZE OF BOX SHALL BE 12"x20", AT A MINIMUM. IT SHALL BE NOTED THAT IF THE HIGH MEAN GROUND WATER LEVEL FALLS INSIDE THIS BOX, THEN THE CROSS-CONNECTION CONTROL DEVICE MUST BE INSTALLED ABOVE GROUND. ACCEPTABLE DOUBLE CHECK VALVE ASSEMBLIES (BRONZE BODY WITH TWO CHECK VALVES, TWO BALL VALVES AND UNION CONNECTIONS BETWEEN BALL VALVES AND THE DEVICE). INCLUDE: WATTS U007M2QT, WILKINS 950XLTU OR JEA APPROVED EQUAL.
- BACKFLOW PREVENTION DEVICES REQUIRED WHEN: IRRIGATION SYSTEMS - REQUIRED ON IRRIGATION SYSTEMS AT THE CONNECTION TO POTABLE SYATEM RESIDENTIAL SYSTEMS - REQUIRED ON WATER SERVICE IF RECLAIMED SERVICE WATER AVAILABLE TO SITE COMMERCIAL SITES - REQUIRED ON ALL WATER SERVICES INDUSTRIAL SITES - REQUIRED ON BOTH WATER AND RECLAIMED SERVICE ON, WATER SERVICE EVEN IF NO RECLAIMED
- 4. JEA IRRIGATION SERVICE CONNECTIONS REQUIRE ABOVE GRADE REDUCED PRESSURE BACKFLOW PREVENTERS. (SEE

RECLAIM CROSS CONNECTION CONTROL DEVICE



PROVIDE FILTER FABRIC (MARAFI 700X, 140'S -

OR EQUAL) TO TOP AND ALL 4 SIDES.

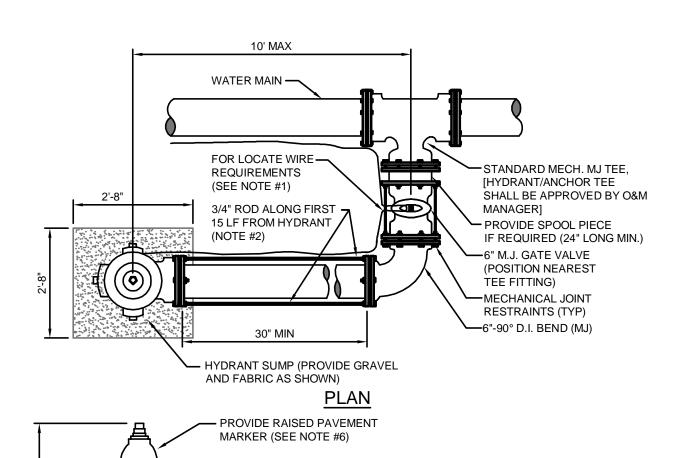
1. LOCATE WIRE SHALL BE ROUTED FROM THE VALVE TO THE HYDRANT AS SHOWN ABOVE LEAVING ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE. THE END OF THE WIRE SHALL BE SECURED TO THE PIPE MAIN. SEE SECTION 350, LOCATE WIRE

HYDRANT SUMP

- FIRE HYDRANTS SHALL BE INSTALLED BETWEEN BACK OF CURB AND FACE OF SIDEWALK AND NOT WITHIN SWALE/DITCH AREAS. THE DISTANCE RANGE FROM EDGE OF ADJACENT PAVEMENT, BACK OF CURB AND FACE OF SIDEWALK SHALL BE IN COMPLIANCE WITH LOCAL COUNTY FIRE DEPARTMENT RULES AND AS APPROVED BY JEA AND APPLICABLE PERMITTING AGENCIES. DISTANCE SHALL BE MEASURED TO THE CLOSEST PART OF THE FIRE HYDRANT (I.E. THE PUMPER NOZZLE). THE MAXIMUM DISTANCE (BACK OF CURB) SHALL BE IN COMPLIANCE WITH LOCAL COUNTY FIRE DEPARTMENT RULES AND AS APPROVED BY JEA. FOR OTHER LOCATION LIMITATIONS SEE PLATES W-10 AND W-11. IF PIPING BETWEEN TEE AND HYDRANT IS LONGER THAN 80 LF, AN ADDITIONAL 6" GATE VALVE IS REQUIRED AT THE HYDRANT LOCATION (PROVIDE 30" SEPARATION). ALL PIPING, VALVES AND FITTINGS ALONG THE HYDRANT BRANCH MAIN WHICH IS WITHIN 15 LF OF THE HYDRANT SHALL BE RESTRAINED UTILIZING ONLY TWO 3/4" DIA (THREADED ENDS) STEEL RODS AND EYE BOLTS (NO JOINT RESTRAINT DEVICES REQUIRED). A SPLIT SERRATED RING WITH RESTRAINT EARS (EBAA 15 PF06 or EQUAL) MAYBE USED IN THIS ASSEMBLY. ALL OTHER JOINTS ALONG THE HYDRANT BRANCH MAIN OUTSIDE OF THE FIRST 15 LF SHALL INCLUDE JOINT RESTRAINTS.
- OPERATION OF THE FIRE HYDRANT SHALL BE EITHER FULL OPEN POSITION OR TOTALLY CLOSED POSITION. THE HYDRANT SHALL NOT BE UTILIZED TO THROTTLE OUTLET FLOW.
- PRIOR TO PROJECT FINAL INSPECTION, THE HYDRANT AND ALL ABOVE GROUND PIPING SHALL BE RE-OILED, GREASED AND REPAINTED (RUS- KIL ENAMEL-INTERNATIONAL YELLOW OR EQUAL). PRIVATELY OWNED AND MAINTAINED FIRE HYDRANTS SHALL BE PAINTED RED.
- FIRE HYDRANTS SHALL BE ORDERED WITH PROPER "BURY DEPTH" TO MEET ACTUAL FIELD CONDITIONS. THIS IS ESPECIALLY IMPORTANT FOR BRANCH LINES WHICH TEE-OFF A 12" OR LARGER WATER MAIN. UNLESS APPROVED OTHERWISE BY JEA, THE INSTALLATION OF (45°) BENDS IS NOT ACCEPTABLE WHEN UTILIZED TO CORRECT AN IMPROPERLY FURNISHED HYDRANT. THE USE OF HYDRANT EXTENSIONS SHOULD BE MINIMIZED.
- BLUE REFLECTIVE MARKERS SHALL BE INSTALLED IN SUCH A MANNER THAT THE REFLECTIVE FACE OF THE MARKER IS PERPENDICULAR TO A LINE PARALLEL TO THE ROADWAY CENTERLINE. THE BLUE REFLECTIVE MARKERS SHALL BE PLACED IN THE CENTER OF THE TRAVEL LANE, DIRECTLY ACROSS FROM AND ADJACENT TO EACH FIRE HYDRANT.

FIRE HYDRANT INSTALLATION **USING MECHANICAL JOINT TEE**

JANUARY 2020 PLATE W-13



NOZZLE TO FACE Ç OF PAVEMENT

(1" MAX) ABOVE FINISHED GRADE

BREAKABLE FLANGE LOCATED

FINISHED GRADE

ALL 4 SIDES

4'x4' SQUARE x 6" THICK CONCRETE

BREAKABLE FLANGE (SEE NOTE 2)

SLAB IMMEDIATELY BELOW

(3000 psi CONCRETE WITH #4

LOCATE WIRE REQUIRED

— WATER VALVE BOX & COVER

(COVER PAINTED YELLOW)

(SEE NOTE #1)

REBAR AT 12" O.C. EACH WAY).

(NOTES #3 & #4)

1. LOCATE WIRE SHALL BE ROUTED FROM THE VALVE TO THE HYDRANT AS SHOWN ABOVE LEAVING ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE. THE END OF THE WIRE SHALL BE SECURED TO THE PIPE MAIN. SEE SECTION 350, LOCATE WIRE INSTALLATION PARAGRAPH.

PROVIDE FILTER FABRIC (MARAFI

700X, 140'S OR EQUAL) TO TOP AND

- 2. FIRE HYDRANTS SHALL BE INSTALLED BETWEEN BACK OF CURB AND FACE OF SIDEWALK. ALL HYDRANTS SHALL BE LOCATED NO LESS THAN THREE (3) FEET FROM THE EDGE OF PAVEMENT OR BACK OF CURB OF THE ADJACENT ROADWAY AND NO LESS THAN THREE (3) FEET FROM ANY PHYSICAL FEATURE WHICH MAY OBSTRUCT ACCESS OR VIEW OF ANY HYDRANT UNLESS OTHERWISE APPROVED BY THE JEA. THE MAXIMUM DISTANCE (BACK OF CURB) SHALL BE IN COMPLIANCE WITH LOCAL COUNTY FIRE DEPARTMENT RULES AND AS APPROVED BY JEA. FOR OTHER LOCATION LIMITATIONS SEE PLATES W-10 AND W-11. IF PIPING BETWEEN TEE AND HYDRANT IS LONGER THAN 80 LF, AN ADDITIONAL 6" GATE VALVE IS REQUIRED AT THE HYDRANT LOCATION (PROVIDE 30" SEPARATION). ALL PIPING, VALVES AND FITTINGS ALONG THE HYDRANT BRANCH MAIN WHICH IS WITHIN 15 LF OF THE HYDRANT SHALL BE RESTRAINED UTILIZING ONLY TWO 3/4" DIA (THREADED ENDS) STEEL RODS AND EYE BOLTS (NO JOINT RESTRAINT DEVICES REQUIRED). A SPLIT SERRATED RING WITH RESTRAINT EARS (EBAA 15 PF06 or EQUAL) MAYBE USED IN THIS ASSEMBLY. ALL OTHER JOINTS ALONG THE HYDRANT BRANCH MAIN OUTSIDE OF THE FIRST 15 LF SHALL INCLUDE JOINT RESTRAINTS.
- 3. OPERATION OF THE FIRE HYDRANT SHALL BE EITHER FULL OPEN POSITION OR TOTALLY CLOSED POSITION. THE HYDRANT SHALL NOT BE UTILIZED TO THROTTLE OUTLET FLOW.
- 4. PRIOR TO PROJECT FINAL INSPECTION, THE HYDRANT AND ALL ABOVE GROUND PIPING SHALL BE RE-OILED, GREASED AND REPAINTED (RUS- KIL ENAMEL-INTERNATIONAL YELLOW OR EQUAL). PRIVATELY OWNED AND MAINTAINED FIRE HYDRANTS
- 5. FIRE HYDRANTS SHALL BE ORDERED WITH PROPER "BURY DEPTH" TO MEET ACTUAL FIELD CONDITIONS. THIS IS ESPECIALLY IMPORTANT FOR BRANCH LINES WHICH TEE-OFF A 12" OR LARGER WATER MAIN. UNLESS APPROVED OTHERWISE BY JEA, THE INSTALLATION OF (45°) BENDS IS NOT ACCEPTABLE WHEN UTILIZED TO CORRECT AN IMPROPERLY FURNISHED HYDRANT. THE USE OF HYDRANT EXTENSIONS SHOULD BE MINIMIZED.
- 6. BLUE REFLECTIVE MARKERS SHALL BE INSTALLED IN SUCH A MANNER THAT THE REFLECTIVE FACE OF THE MARKER IS PERPENDICULAR TO A LINE PARALLEL TO THE ROADWAY CENTERLINE. THE BLUE REFLECTIVE MARKERS SHALL BE PLACED IN THE CENTER OF THE TRAVEL LANE, DIRECTLY ACROSS FROM AND ADJACENT TO EACH FIRE HYDRANT.

FIRE HYDRANT INSTALLATION LIMITED SPACE

JANUARY 2020

PLATE W-14

ETAILS AS SHOWN C ARE BY THE J.E.A.



1. WATER SERVICE CONNECTIONS REQUIRE ABOVE GRADE REDUCED PRESSURE BACKFLOW PREVENTERS. (SEE PLATE W-15)

- BACKFLOW PREVENTION DEVICES REQUIRED WHEN:
 IRRIGATION SYSTEMS REQUIRED ON IRRIGATION SYSTEMS AT THE CONNECTION TO POTABLE SYSTEM
 RESIDENTIAL SYSTEMS REQUIRED ON WATER SERVICE IF RECLAIMED SERVICE WATER AVAILABLE TO SITE
 COMMERCIAL SITES REQUIRED ON ALL WATER SERVICES
 INDUSTRIAL SITES REQUIRED ON BOTH WATER AND RECLAIMED SERVICE CONNECTIONS.
- 3. RESIDENTIAL IRRIGATION SERVICES MAY UTILIZE AN ALTERNATE BACKFLOW PREVENTER LOCATION IF THE FOLLOWING
- CONDITIONS EXITS:
 3.a. CUSTOMER HAS SUBMITTED A COMPLETED "CUSTOMER AFFIDAVIT" FORM AND

DEVICE, SEE NOTE #1)

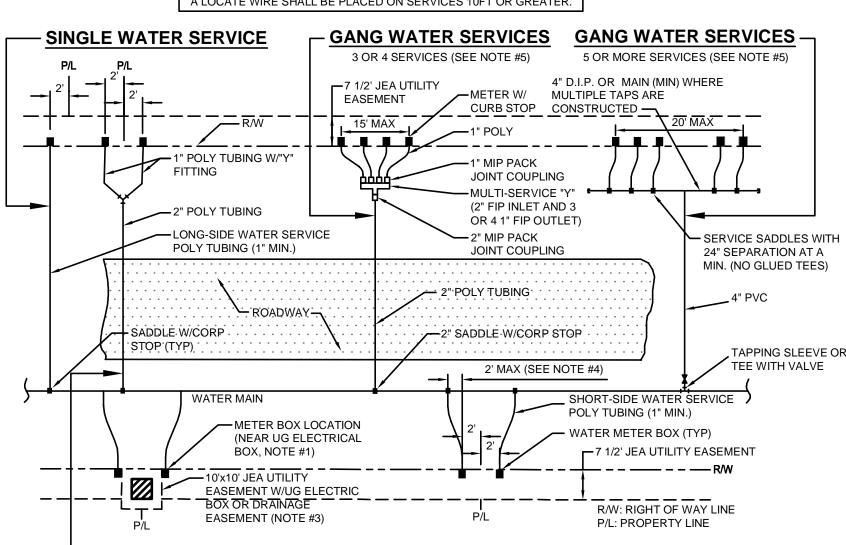
3.b. THERE ARE NO ADDITIONAL CONNECTIONS BETWEEN THE METER AND THE BACKFLOW PREVENTER, AND 3.c. THE ALTERNATE BACKFLOW LOCATION IS EASILY ACCESSIBLE TO JEA AND BACKFLOW TESTERS.

CROSS CONNECTION CONTROL DEVICE

PLATE W-15A

JANUARY 2020 JEA IRRIGATION SERVICE CONNECTIONS

A LOCATE WIRE SHALL BE PLACED ON SERVICES 10FT OR GREATER.



NOTES

- 1. THE SKETCHES ABOVE INDICATE TYPICAL WATER SERVICE AND METER BOX LOCATIONS. ACTUAL LOCATIONS OF BOXES MAY VARY SLIGHTLY ACCORDING TO FIELD CONDITIONS ENCOUNTERED. TYPICALLY, THE METER BOX SHALL LOCATED AT THE RW LINE BUT INSIDE THE 7 1/2' ELECTRIC EASEMENT.
- 2. UNLESS SPECIFIED OTHERWISE BY THE APPLICABLE COUNTY (NASSAU, CLAY OR ST. JOHNS COUNTY), THE METER BOX SHALL BE LOCATED IN THE JEA 7 1/2' UTILITY EASEMENT, AND TWO FEET INSIDE OF THE PROLONGATION OF ONE OF THE SIDE PROPERTY LINES. IF A CONFLICT EXISTS WITH OTHER UTILITIES, THE METER BOX MAY BE ADJUSTED TO FOUR FEET (MAX.) INSIDE PROPERTY LINES (IN LIEU OF TWO FEET). UNLESS APPROVED OTHERWISE BY JEA, THE WATER METER BOX SHALL BE LOCATED IN NON-TRAFFIC AREAS (NOT IN SIDEWALKS OR DRIVEWAYS). IF THE METER BOX IS APPROVED BY JEA TO BE LOCATED IN A DRIVEWAY OR SIDEWALK, THEN THE CONSTRUCTION SHALL MEET STANDARD DETAIL NUMBERS W-3&4, AT A MINIMUM (SEE W-3 AND W-4 FOR THE REQUIREMENTS OF SPECIAL ORDER POLYMER BOX AND TOP). SET TOP OF BOX AT FINISHED GRADE. IF AN UNAPPROVED METER BOX IS IDENTIFIED BY JEA, THEN THE CONTRACTOR OR CUSTOMER SHALL BE RESPONSIBLE FOR THE COST OF RELOCATING ANY METER BOX WHICH IS LOCATED IN THE SIDEWALK OR DRIVEWAY OR THE COST TO PROVIDE THE CORRECT METER BOX. JEA SHALL APPROVE ALL DEVIATIONS TO THE ABOVE PRIOR TO CONSTRUCTION.
- 3. IF DRAINAGE OR OTHER EASEMENT LOCATED BETWEEN LOTS, METER BOXES SHALL BE LOCATED AT THE EASEMENT LINE BUT OUTSIDE THE EASEMENT
- 4. FOR SINGLE SERVICES, THE HORIZONTAL DISTANCE (PERPENDICULAR TO THE MAIN)BETWEEN THE SERVICES SADDLE AND THE METER BOX SHALL BE 2 FEET MAXIMUM. FOR DOUBLE 1" SERVICES, THE 2" POLY MAIN SHALL BE LOCATED CENTERED BETWEEN THE TWO METER BOXES. LOCATE WIRE IS REQUIRED ON ALL SERVICES 10' OR GREATER IN LENGTH. IF LOCATE WIRE IS REQUIRED, THE WIRE SHALL RUN FROM THE METER BOX (W/ PIG TAIL) TO THE MAIN (DEAD END SHALL BE TAPED WITH NO CONNECTION TO MAIN WIRE WITH THE LAST 24 INCHES STRIPED OF INSULATION/BARE WIRE AS GROUND). ALL EXCEPTIONS TO THIS REQUIREMENT MUST BE APPROVED BY JEA. THIS WILL ASSIST IN LOCATING EXISTING SERVICE LINES IN THE
- 5. GANG WATER SERVICES: FOR 3 OR 4 SERVICES IN ONE AREA, A DUCTICLE IRON PIPE (D.I.P.) WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG SIDE SERVICES WHERE SHOWN ON THE DRAWINGS. LOCATE WIRE SHALL EXTEND FROM ONE METER BOX TO CORP STOP AT WATER MAIN. FOR 5 OR MORE SERVICES IN ONE AREA, A WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG SIDE SERVICES WHERE SHOWN ON THE DRAWINGS (TAPS STAGGERED AND AT 2 FEET ON CENTER-MIN). FOR WATER SUPPLY HEADERS WHERE 5 OR MORE TAPS ARE CONSTRUCTED, THE HEADER PIPE SHALL BE 4" AT A MINIMUM. EXAMPLE: CONSTRUCT A 4" MAIN PVC CROSSING THE STREET FOR 5 RESIDENTIAL CUSTOMERS, UTILIZING 4" DIP, 4" PIPE, 4"X1" SADDLES AND 1" CORP STOPS (NO GLUED TEE FITTINGS). THE 4" OR LARGER D.I.P. WATER MAIN MUST BE SIZED AND DESIGNED BY THE P.E. ENGINEER.
- 6. DOUBLE 1" WATER SERVICES IS ALLOWED FOR SHORT SIDE OR LONG SIDE SERVICES AND WHERE SHOWN ON THE DRAWINGS.
- 7. A 1" IRRIGATION SERVICE MAYBE TAPPED INTO THE (1" MIN) DOMESTIC WATER SERVICE LINE (WHICH SERVES THE SAME CUSTOMER) UTILIZING A 1" BRONZE "Y" FITTING. (IN AREAS WHERE NO RECLAIMED WATER IS AVAILABLE).
- 8. No 2" AND SMALLER WATER SERVICE TAPS PERMITTED ON WATER MAINS WHICH ARE 20" AND LARGER SIZE.

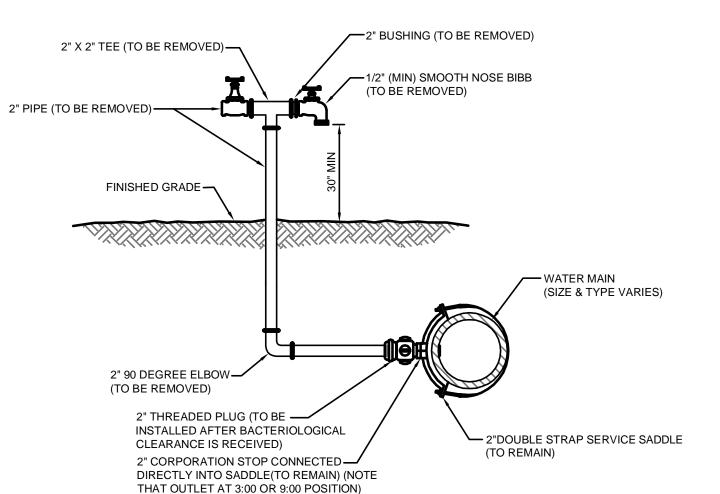
DOUBLE 1" WATER SERVICE

- 9. RECLAIMED WATER METER BOXES OR SERVICES SHALL BE CONSTRUCTED SIMILAR TO THE ABOVE AND SHALL BE LOCATED, AT A MIN. OF 10' FROM THE
- POTABLE WATER SERVICE, AND/OR BOX AND NOT ALLOWED IN CONCRETE OR ASPHALT UNLESS APPROVED OTHERWISE BY JEA.

 10. SERVICE SIZE SHALL BE SAME AS THE METER SIZE.

WATER OR RECLAIM SERVICE INSTALLATIONS 2" AND SMALLER METER

JANUARY 2020 PLATE W-1

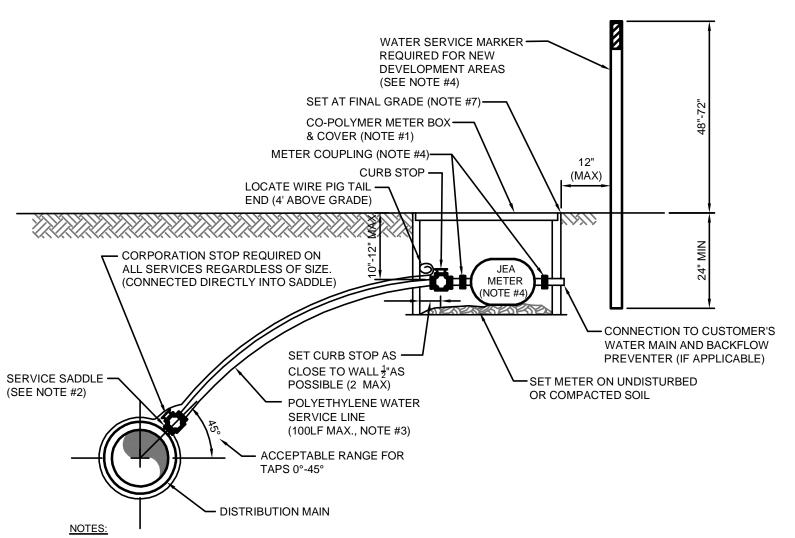


NOTES:

- 1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).
- 2. ALL PIPE & FITTING SHALL BE GALVANIZED MATERIAL OR PVC (S-40).
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTING (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICES AS OUTLINED BY THE JEA'S ENVIRONMENTAL RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

2" TEMPORARY SAMPLE TAP FOR STUB OUT

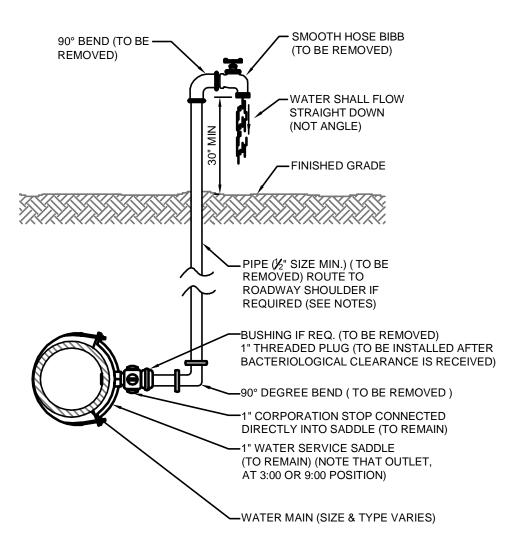
JANUARY 2020 PLATE W-26



- SEE PLATE W-1 FOR METER LOCATION REQUIREMENTS.
- 2. SINGLE BAND SADDLES SHALL BE UTILIZED ON NEW 1" WATER SERVICES WHICH ARE INSTALLED ON A DRY 10" SIZE OR SMALLER WATER MAIN (NEW WATER MAIN CONSTRUCTION). FOR WET TAPS OR WATER MAINS 12" SIZE AND LARGER, A DOUBLE BAND SADDLE IS REQUIRED. BRASS SADDLES MAY BE UTILIZED ON NEW 1 INCH AND SMALLER WATER SERVICES WHICH ARE INSTALLED ON A DRY 10 INCH OR SMALLER PVC WATER MAIN.
- 3. NO OPEN CUT UNDER ROADWAY PAVING ALLOWED UNLESS THE ROADWAY IS BEING RECONSTRUCTED OR IF DIRECTED OTHERWISE BY J.E.A. CONSTRUCT POLY LINE WITH 24" (MIN.) COVER UNDER ROADWAYS. THE POLY WATER SERVICE LINE SHALL BE SAME SIZE AS THE METER (1" MINIMUM) AND BE INSTALLED PERPENDICULAR TO THE MAIN AND NOT EXCEED 100LF UNLESS APPROVED OTHERWISE BY JEA.
- 4. INSTALL PVC PLUG IN ALL CURB STOPS IF WATER SERVICE IS "NOT IN USE" (I.E.: IF NO METER IS INSTALLED). WATER SERVICES SERVING VACANT LOTS (SERVICE NOT IN USE), SHALL INCLUDE A "W" CUT INTO THE CURB (CLOSEST TO THE METER BOX), AND PAINTED BLUE (PAINTED PURPLE FOR RECLAIMED WATER). IN ADDITION, FOR NEW DEVELOPMENT AREAS WHERE THE WATER SERVICE IS "NOT IN USE", A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED BLUE OR PURPLE FOR RECLAIMED WATER). THE REMOVAL OR TRANSFER OF A WATER SERVICE SHALL INCLUDE BRASS METER COUPLINGS (HEX ON BARREL TYPE).
- 5. NO 2" AND SMALLER WATER SERVICE TAPS PERMITTED ON WATER MAINS WHICH ARE 20" AND LARGER SIZE.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE METER OR ELECTRONIC DEVICES IF DAMAGED BY THE CONTRACTOR DURING THE CONSTRUCTION PERIOD.
- 7. METER BOX AND TOP SHALL BE CLEAR OF ALL DEBRIS TO ALLOW FULL ACCESS TO BOX (i.e. NO DIRT, TRASH OR OTHER DEBRIS
- 8. LOCATE WIRING REQUIRED ON ALL SERVICES 10' OR GREATER IN LENGTH. SEE PLATE W-44.

WATER SERVICE DETAIL- 2" AND SMALLER METER

JANUARY 2020 PLATE W-2

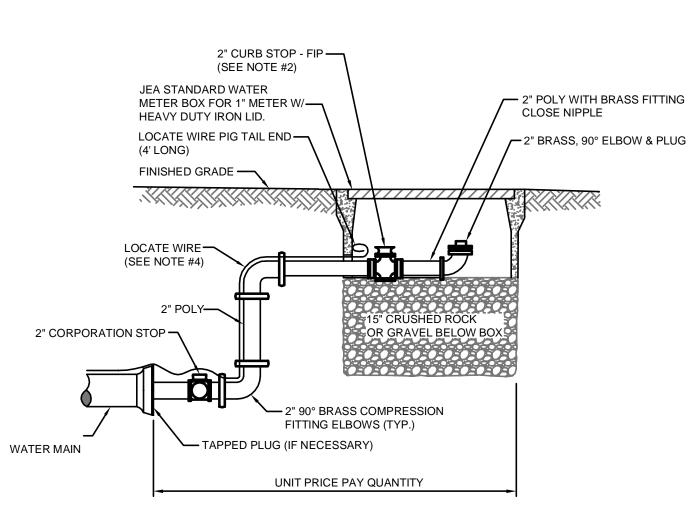


NOTES:

- LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY
 SHOULD DERS (NON-TRAFFIC AREAS)
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED), AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
- 3. PIPE AND FITTINGS SHALL BE PVC (SCH. 40) OR GALV. MATERIAL
- 4. THE USE OF THE ABOVE CONSTRUCTION FOR A TEMPORARY SAMPLE POINT SHALL BE LIMITED TO AREAS WHERE A SAMPLE TAP BY ALTERNATIVE METHODS (SEE W-24) IS NOT FEASIBLE OR IF DIRECTED OTHERWISE BY JEA.
- 5. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICIES AS AS OUTLINED BY JEA'S ENVIRONMENTAL RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

TEMPORARY SAMPLE TAP

JANUARY 2020 PLATE W-25



NOTES:

- 1. PIPE SHALL BE POLYETHYLENE. FITTINGS SHALL BE BRASS.
- 2. THE 2" CURB STOP SHALL BE ALL BRONZE. FITTINGS SHALL BE BRASS.
- 3. ANY RECLAIMED WATER VALVE SHALL HAVE RECLAIMED EMBLEM
- 4. LOCATE WIRE FOR 10' OR GREATER IN LENGTH.
- 5. CANNOT BE PLACED UNDER CONCRETE OR PAVEMENT.
- 6. PLACE 2 FEET PAST LAST WATER MAIN SERVICE CONNECTION.

FLUSHING VALVE BELOW GRADE

JANUARY 2020 PLATE W-28

ARE BY THE J.E.A. WE TAKE
PTION TO THE DESIGN

DESIGN ENGINEER

LYNDSAY KELLER

FLORIDA REGISTRATION NO. 3.

Building Communityen

ANDARD
ECLAIM DETAILS

JEA STANDARE WATER AND RECLAIM I PTIST WEST NASSAU MED

SCALE: JANUARY 2020
SCALE: AS NOTED

E

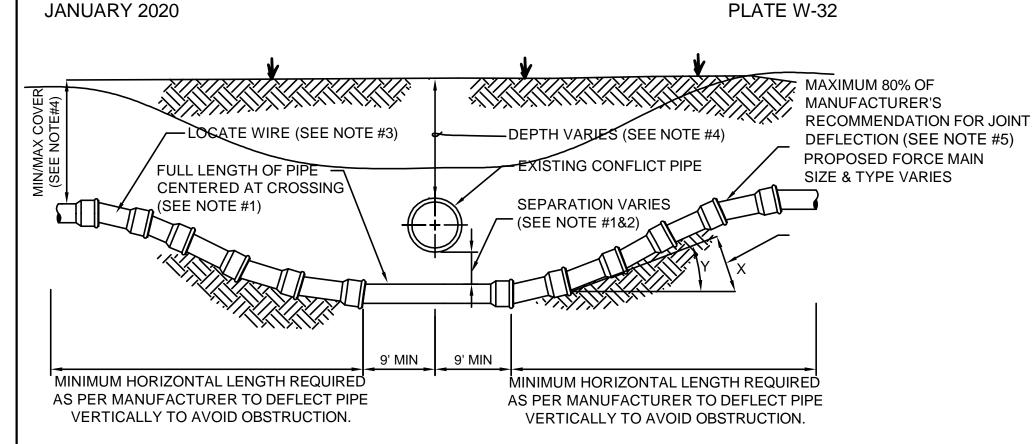
SHEET NO.
5 SCALE:
11C

W 28

CASE "A" CROSSING

- THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.
- 2. FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAIL (W-10 AND W-11).
- 3. LOCATING WIRE REQUIRED: SEE DETAIL W-44.
- THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60". UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
- IF UTILITY CONFLICT IS LOCATED IN A NON-TRAFFIC AREA (NO TRAFFIC LOADS) AND THE NEW PIPE IS D.I.P., THEN THE MINIMUM COVER MAY BE REDUCED TO 24 INCHES (ONLY IN THE AREA OF THE CONFLICT).

ADJUSTMENT OVER EXISTING UTILITIES MECHANICAL RESTRAINTS



NOTES:

CASE "B" CROSSING

- IF EXISTING CONFLICT PIPE IS A WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSING.
- 2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (W-10 & W-11).
- 3. LOCATING WIRE REQUIRED: SEE DETAIL W-44.
- 4. THE COVER OVER ALL PIPING LESS THAN 24" SIZE SHALL BE A MINIMUM OF 30" IN UNPAVED AREAS AND 36" IN PAVED AREAS WITH A MAXIMUM COVER OF 60" UNLESS APPROVED OTHERWISE BY JEA. COVER FOR PIPING 24" SIZE AND LARGER SHALL BE MINIMUM OF 36" (PAVED AND UNPAVED) AND MAXIMUM OF 84" UNLESS APPROVED OTHERWISE BY JEA. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.
- 5. JEA ONLY ALLOWS 80% OF THE PIPE MANUFACTURER'S RECOMMENDATION FOR JOINT DEFLECTION. BENDING THE PIPE BARREL IS NOT ALLOWED. UNLESS OTHERWISE APPROVED BY JEA, THE MAXIMUM ARE LISTED IN TABLE BELOW. ONLY MANUAL FORCE CAN BE UTILIZED TO OBTAIN THESE JOINT DEFLECTION. ALL OFFSETS ARE BASED ON MINIMUM 20LF PIPE LENGTH.

MAXIMUM ALLOWED OFFSET FOR PIPE BY JOINT DEFLECTION

JANUARY 2020

PVC PIPE			
PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7°	158 FT
4	10	2.4°	480 FT
6	10	2.4°	480 FT
8	10	2.4°	480 FT
10	10	2.4°	480 FT
12	8.5	2°	564 FT
14 - 24	5	1.2°	960 FT
30 - 48	3.25	0.8°	1477 FT

DUCTILE IRON PIPE (Mechanical Joint)

	(X)	(Y)	RESULTING RADIUS
PIPE SIZE	MAX. OFFSET	` '	OF CURVE WITH
(IN.)	(IN.)	ONE BELL	20FT. LENGTHS
-	-	-	-
4	27	6.5°	177 FT
6	24	5.7°	200 FT
8 - 12	17.5	4.2°	273 FT
14 - 16	12	2.9°	400 FT
18 - 20	10	2.4°	477 FT
24 - 30	8	1.9°	600 FT
36	7	1.7°	687 FT
42 - 48	6.7	1.6°	716 FT

PLATE W-40

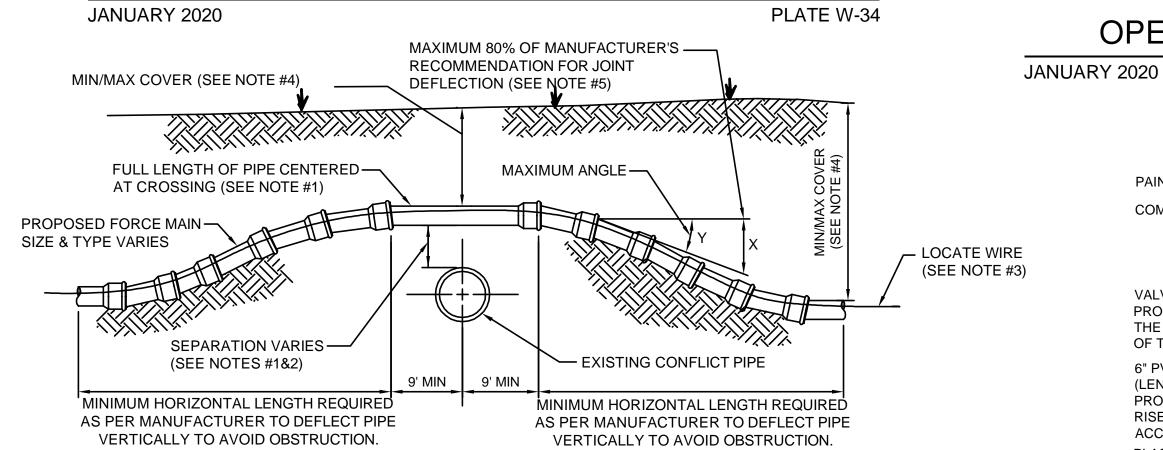
ADJUSTMENT UNDER EXISTING UTILITIES PIPE JOINT DEFLECTION

→ DEPTH VARIES FULL LENGTH OF PIPE — LOCATE WIRE CENTERED AT CROSSING EXISTING UTILITY PIPE (SEE NOTE #3) (SEE NOTE) -SEPARATION PROPOSED WATER MAIN SIZE & TYPE VARIES MECHANICAL JOINT 111/4°, 22\% OR 45° (SIZE VARIES) **RESTRAINED JOINT (TYP)** SIZE AS REQUIRED THE LENGTH OF THE PIPE TO BE RESTRAINED ON EACH SIDE OF BEND SHALL BE IN ACCORDANCE WITH TABLE FOR MECHANICAL RESTRAINT LENGTHS, (SEE DETAIL W-31 A&B)

CASE "B" CROSSING

- 1. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557
- 2. FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAILS (W-10 AND W-11)
- 3. LOCATING WIRE REQUIRED: SEE DETAIL W-44.
- THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREA, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84". UNLESS APPROVED BY JEA.

ADJUSTMENT UNDER EXISTING UTILITIES MECHANICAL RESTRAINTS



CASE "A" CROSSING

NOTES:

- 1. IF EXISTING CONFLICT PIPE IS A WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSING
- 2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-10 & W-11).
- 3. LOCATING WIRE REQUIRED: SEE DETAIL W-44.
- 4. THE COVER OVER ALL PIPING LESS THAN 24" SIZE SHALL BE A MINIMUM OF 30" IN UNPAVED AREAS AND 36" IN PAVED AREAS WITH A MAXIMUM COVER OF 60" UNLESS APPROVED OTHERWISE BY JEA. COVER FOR PIPING 24" SIZE AND LARGER SHALL BE MINIMUM OF 36" (PAVED AND UNPAVED) AND MAXIMUM OF 84" UNLESS APPROVED OTHERWISE BY JEA. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.
- 5. JEA ONLY ALLOWS 80% OF THE PIPE MANUFACTURER'S RECOMMENDATION FOR JOINT DEFLECTION. BENDING THE PIPE BARREL IS NOT ALLOWED. UNLESS OTHERWISE APPROVED BY JEA, THE MAXIMUM ARE LISTED IN TABLE BELOW. ONLY MANUAL FORCE CAN BE UTILIZED TO OBTAIN THESE JOINT DEFLECTION. ALL OFFSETS ARE BASED ON MINIMUM 20LF PIPE LENGTH

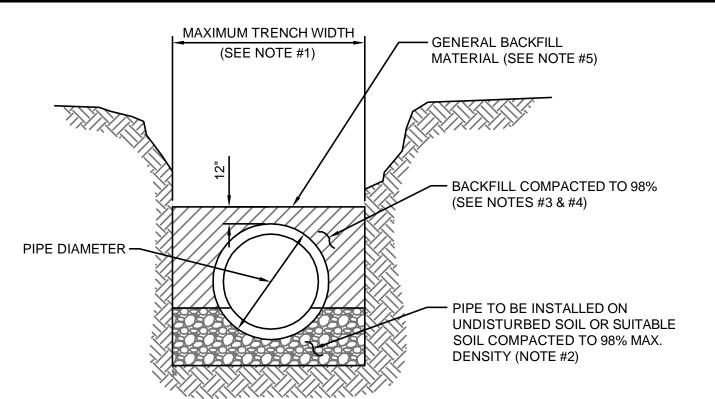
MAXIMUM ALLOWED OFFSET FOR PIPE BY JOINT DEFLECTION

PVC PIPE			
PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
2	30	7°	158 FT
4	10	2.4°	480 FT
6	10	2.4°	480 FT
8	10	2.4°	480 FT
10	10	2.4°	480 FT
12	8.5	2°	564 FT
14 - 24	5	1.2°	960 FT
30 - 48	3.25	0.8°	1477 FT

PIPE SIZE (IN.)	(X) MAX. OFFSET (IN.)	(Y) ANGLE AT ONE BELL	RESULTING RADIUS OF CURVE WITH 20FT. LENGTHS
-	-	-	-
4	27	6.5°	177 FT
6	24	5.7°	200 FT
8 - 12	17.5	4.2°	273 FT
14 - 16	12	2.9°	400 FT
18 - 20	10	2.4°	477 FT
24 - 30	8	1.9°	600 FT
36	7	1.7°	687 FT
42 - 48	6.7	1.6°	716 FT

ADJUSTMENT OVER EXISTING UTILITIES PIPE JOINT DEFLECTION

PLATE W-41 JANUARY 2020



TYPICAL TRENCH

- 1. TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE: OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION #801, PARAGRAPH #4)) TO DETERMINE MAXIMUM
- 2. BELL HOLE SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE UNDISTURBED TRENCH BOTTOM. BOULDERS OR LOOSE ROCKS LARGER THAN 3/4 INCH IN SIZE WILL NOT BE PERMITTED IN BACKFILL UP TO 1 FOOT ABOVE THE TOP OF THE PIPE.
- 3. BACK FILL MATERIAL UP TO A LEVEL OF 1 FOOT OVER THE PIPE SHALL CONSIST OF AASHTO CLASS A-3 SOIL (SUITABLE SOIL) AND SHALL EXCLUDE CLAY MATERIALS AND LOOSE ROCKS LARGER THAN 3/4 INCH SIZE.

IN CITY RIGHT OF WAY

- 4. BACKFILL MATERIAL UP TO A LEVEL 1 FOOT OVER THE TOP OF PIPE OR BOTTOM OF STRUCTURES SHALL BE PLACED IN 6 INCH COMPACTED THICKNESS LAYERS AND SHALL BE COMPACTED TO 98% OF IT'S MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D1557.
- 5. SEE " EXCAVATION AND EARTHWORK", SECTION 408 FOR ADDITIONAL REQUIREMENTS INCLUDING REMOVAL AND REPLACEMENT OF UNSUITABLE SOILS, DEWATERING, COMPACTION REQUIREMENTS AND DENSITY TESTING OF COMPACTED SOILS.

OPEN CUT TRENCH FOR PRESSURE PIPE

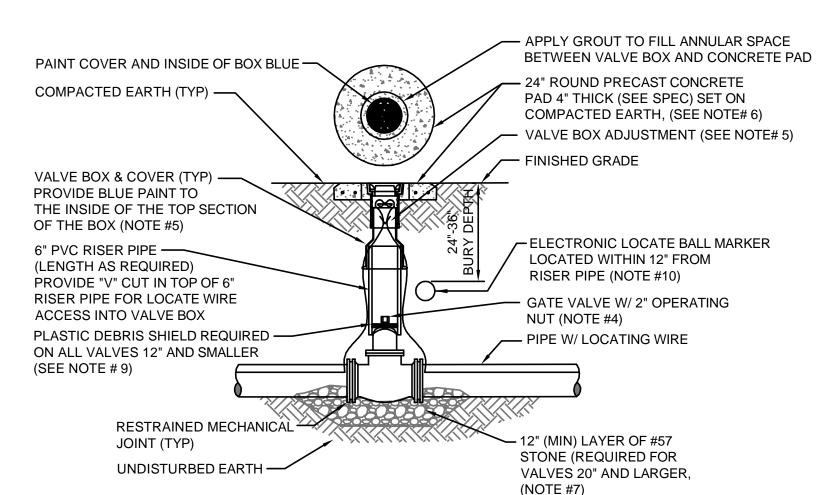


PLATE W-42

NOTES:

- FOR UNPAVED LOCATIONS, A PRECAST CONCRETE VALVE PAD SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. CONCRETE PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED OTHERWISE.
- 2. LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAILW-44).
- 3. A "V" CUT SHALL BE CARVED IN THE CURB CLOSEST/ADJACENT/(ASPHALT IF NO CURB) TO ALL BELOW GRADE VALVES. THE "V" CUT IS TO BE PAINTED BLUE WATER/PURPLE RECLAIMED.
- 4. IN PAVED AREAS, INSTALL VALVE AT A DEPTH TO ALLOW A 12" MIN. DISTANCE BETWEEN THE VALVE COVER PLATE AND THE TOP OF THE VALVE OPERATING NUT. OUTSIDE OF PAVED AREAS (GRASS), INSTALL VALVE AT A DEPTH TO ALLOW A 6" MINIMUM DISTANCE BETWEEN THE VALVE COVER AND THE TOP OF THE VALVE OPERATING NUT. OPERATING NUT/STEM EXTENSION SHALL BE PROVIDED (WHERE APPLICABLE) SO THAT THE OPERATING NUT WILL BE NO MORE THAN 30 INCHES BELOW FINISHED GRADE.
- 5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS. ROUTE LOCATE WIRES THRU A "V" CUT IN THE TOP OF THE 6" PVC RISER PIPE FOR LOCATE WIRE ACCESS INTO VALVE BOX. THE LOCATE WIRES WITH A 24" LONG PIG-TAIL AT THE TOP SHALL BE CONNECTED TOGETHER WITH A WIRE NUT.
- 6. BRASS IDENTIFICATION TAG INDICATING "WATER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A 1/2" HOLE IN BRASS TAG AND ATTACH TAG (TWIST WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.
- 7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2 #4 REBAR AROUND PERIMETER, MAY BE USED.
- 8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALV UP TO 1/3 THE OVERALL HEIGHT OF THE VALVE.
- 9. FOR VALVES 12 INCH AND SMALLER, PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE OPERATING NUT AND MINIMIZE INFILTRATION. SHIELD SHALL BE BY AFC, BOXLOK OR APPROVED EQUAL.
- 10. ALL VALVES SHALL BE INSTALLED WITH AN ELECTRIC LOCATE MARKER. MARKER SHALL BE 4" DIA. COLOR CODED BALL MARKER (3M-1403XR FOR WATER AND 1408XR FOR RECLAIMED WATER).

WATER VALVE INSTALLATION DETAIL

PLATE W-18 JANUARY 2020

TANDARE SECLAIM I SAU MED AND RI

- 1. THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
- 2. ASSUMPTIONS: PVC PIPE, SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE.
- 3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- 4. VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.
- 5. TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.
- 6. HDPE TO PVC TRANSITIONS: THE PVC PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).
- 7. THE INSTALLATION OF BELL HARNESS RESTRAINTS AT PVC JOINTS (DR-18 & 25 PIPE) SHALL BE COMPLETED PER THE MANUFACTURERS RECOMMENDATION, WHICH INCLUDES NOT OVER TIGHTENING THE PARALLEL RODS/NUTS. THESE NUTS SHOULD ONLY BE SNUG TIGHT. THE HOME MARKS ON THE PIPE SHOULD ALWAYS BE VISIBLE AFTER THE RESTRAINT IS INSTALLED. OVERHOMING THE JOINT MAY CAUSE A FAILURE AT THE BELL RESULTING IN A SERVICE OUTAGE.

JANUARY 2020

RING

SECTION

PLAIN END P.V.C.

RESTRAINED MECHANICAL JOINT

TYPICAL PROFILE

MECHANICAL JOINT TO PLAIN END W/MECHANICAL RESTRAINERS

MECHANICAL JOINT SLEEVES

PVC PIPE RESTRAINT JOINT SCHEDULE

TEE BOLT

ENGTH (L)	TO BE F	RESTRAI	NED				(SEE	E PLA	ATE Nos.	38C & 3	8D F	OR ADD	ITIONAL DE	TAILS)
NOMINAL		HORIZON	TAL BENDS	3	45° B	OFFSETS	VALVES OR		REDU	CERS			TEES SEE NOTE 5	
PIPE SIZE (IN.)	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	`	OTE 4) LOWER L (FT.)	DEAD ENDS L (FT.)		SIZE (IN.)	L (FT.)		RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
4	21	9	5	3	17	3	47		6x4	34		4	4	F.O.
6	30	13	6	3	23	4	66		8x6	36		4	6 4 < LESS	10 F.O.
8	38	16	8	4	30	6	86		8x4 10x8	62 35		8	8	29
10	45	19	9	5	36	7	103		10x6	63		10	6 < LESS 10	F.O. 45
12	53	22	11	6	43	8	121		12x10	36		10	8	13
14	61	26	13	6	50	9	140		12x8	64		12	6 < LESS 12	F.O. 62
16	66	28	14	7	55	10	154	1	16x12 16x10	66 92		12	10 8 < LESS	32 F.O.
18	73	30	15	8	60	11	170		20x18	35		16	16	94
20	79	33	16	8	66	12	186		20x16	66			12 10	39 5
24	79	33	16	8	77	15	185		20x12	117			10 < LESS	F.O.
30	93	39	19	10	97	17	222		24x20 24x18	56 80		20	20 16	125 76
36	106	39	21	11	107	20	257		24x16	101			12 10 < LESS	14 F.O.
42	117	49	24	12	120	24	289	1 1	30x24	78		24	24	124
48	144	53	26	13	133	26	321		30x20	121			20 16	84 36
								•	36x30	78			12 < LESS	F.O.
									36x24 42x36	141 75		30	30 24	159 104
									42x30	140			20	60
									12/100	170			16	5

PLATE W-31A

DUCTILE IRON PIPE RESTRAINT NOTES

- 1. THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
- ASSUMPTIONS: DUCTILE IRON PIPE (WITHOUT POLY WRAP), SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE. FOR D.I.P. W/POLY WRAP, USE RESTRAINT JOINT SCHEDULE FOR PVC PIPE.
- 3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- 4. VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45
- 5. TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.
- 6. HDPE TO D.I.P. TRANSITIONS: THE D.I.P. PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN)

LENGTH (L)	TO BE R	RESTRAI	NED				(S
NOMINAL PIPE		HORIZONT			45° B	OFFSETS SENDS IOTE 4)	VALVES OR
SIZE	90° BENDS	45° BENDS	22.5° BENDS	11.25° BENDS		LOWER	DEAD ENDS
(IN.)	L (FT.)	L (FT.)	L (FT.)	L (FT.)	L (FT.)	L (FT.)	L (FT.)
4	17	7	4	2	11	3	30
6	24	15	5	3	15	4	42
8	31	13	6	3	20	5	55
10	36	15	8	4	23	6	65
12	42	18	9	5	27	7	77
14	48	20	10	5	31	7	87
16	53	22	11	6	35	8	97
18	58	24	12	6	39	9	107
20	63	27	13	6	42	10	118
24	63	27	13	7	49	12	118
30	75	31	15	8	59	14	141
36	86	36	17	9	68	17	163
42	95	40	19	10	76	19	183
48	117	43	21	11	84	21	203

PLATE W -31B

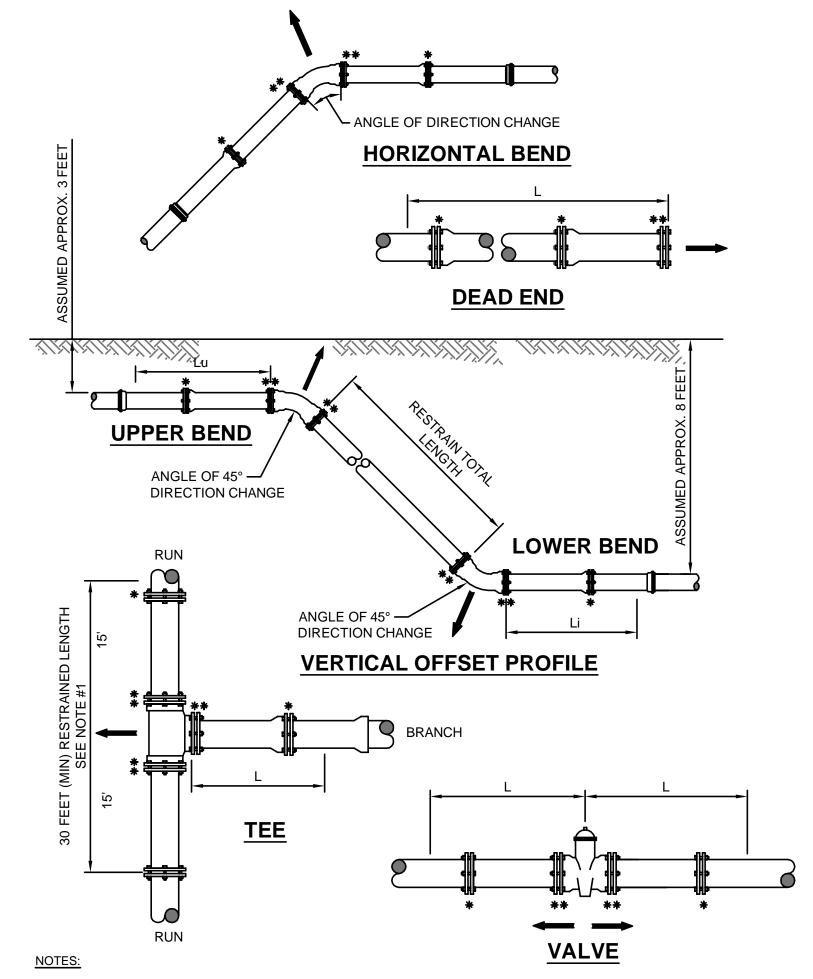
EE P	LATE No	s. 38C &	38D	FOR AD	DITIONAL E	DETAILS)
	REDU	ICERS			TEE SEE NOTE 5	
-	SIZE (IN.)	L (FT.)		RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
1	6x4	22		4	4	F.O.
1	8x6	23		4	6	_6
-	8x4	39			4 < LESS	F.O.
	10x8	22		8	8 6 < LESS	19 F.O.
	10x6	40		10	10	29
	12x10	23		10	8	9
1	12x8	41			6 < LESS	F.O.
1	16x12	42		12	12 10	40 21
	16x10	58			8 < LESS	F.O.
	20x18	22		16	16	60
	20x16	42			12 10	25 3
1	20x12	74			8 < LESS	F.O.
1	24x20	36		20	20	79
	24x18	51			16 12	48 9
	24x16	64			10 < LESS	F.O.
	30x24	50		24	24	79
1	30x20	77			20	54
J	36x30	50			16 12 < LESS	23 F.O.
	36x24	89		30	30	101
	42x36	48			24	66
	42x30	89			20 16	38 4
	48x42	48			12 < LESS	F.O.
	48x36	88		36	36	122

12 < LESS | F.O

20 < LESS F.O.

DUCTILE IRON PIPE RESTRAINT JOINT SCHEDULE

JANUARY 2020



F.O. = FITTING ONLY

178

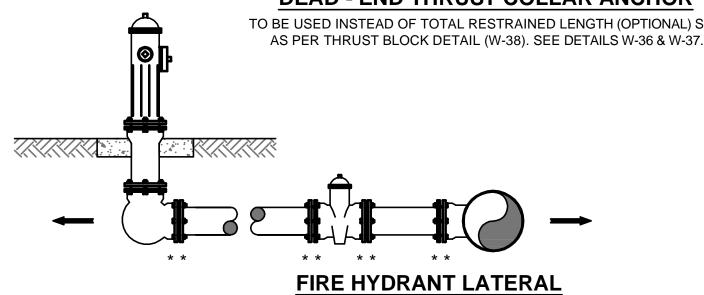
253

209 162 104

DEAD - END THRUST COLLAR ANCHOR

DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD) DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD)

TO BE USED INSTEAD OF TOTAL RESTRAINED LENGTH (OPTIONAL) SIZE



NO. OF TIE RODS REQUIRED

GENERAL NOTE:

- 1. PAY ITEM " * " DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIS.
- 2. PAY ITEM " ** " DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.
- 3. INDICATES DIRECTION OF THRUST FORCE.

RESTRAINED BELL JOINT

TYPICAL PROFILE

BELL JOINT TO PLAIN END

W/MECHANICAL RESTRAINERS

REDUCER

MECHANICAL RESTRAINT DETAILS - I

PLATE W-31C JANUARY 2020

- 1. TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN.).
- 2. PAY ITEM "*" DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIC.
- 3. PAY ITEM "**" DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.

MECHANICAL RESTRAINT DETAILS - II

PLATE W-31D JANUARY 2020

TEMPORARY SAMPLE TAP UTILIZING A NEW 1" WATER SERVICE

NOTES:

- 1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROAD SHOULDERS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
- 3. THE CONTRACTOR SHALL UTILIZE THE ABOVE ALTERNATIVE METHODS FOR CONSTRUCTION OF TEMPORARY SAMPLE POINTS IN ALL AREAS, WHERE POSSIBLE.
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICIES AS OUTLINED BY THE JEA'S ENVIRONMENTAL RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

THE CONTRACTOR SHALL UTILIZE THE ABOVE ALTERNATIVE METHODS FOR CONSTRUCTION OF TEMPORARY SAMPLE POINTS IN ALL AREAS, WHERE POSSIBLE. THE CONTRACTOR SHALL COMPLY WITH ALL JEA RULES AND POLICIES AS OUTLINED BY THE JEA'S ENVIRONMENTAL

1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROAD SHOULDERS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED)

MECHANICAL RESTRAINT (TYP)

AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.

RESPONSE COORDINATOR (ERC) AND OTHER ASSOCIATED JEA STANDARDS.

NOTES::

SMOOTH NOSE BIBB (1/2" MIN), WATER TO FLOW STRAIGHT DOWN

- 45° ELBOW & NIPPLES (1/2" MIN

GALVANIZED) (TO BE REMOVED)

TEMPORARY SAMPLE TAP UTILIZING PLUG AT FLUSHING LOCATION

- FINISHED GRADE

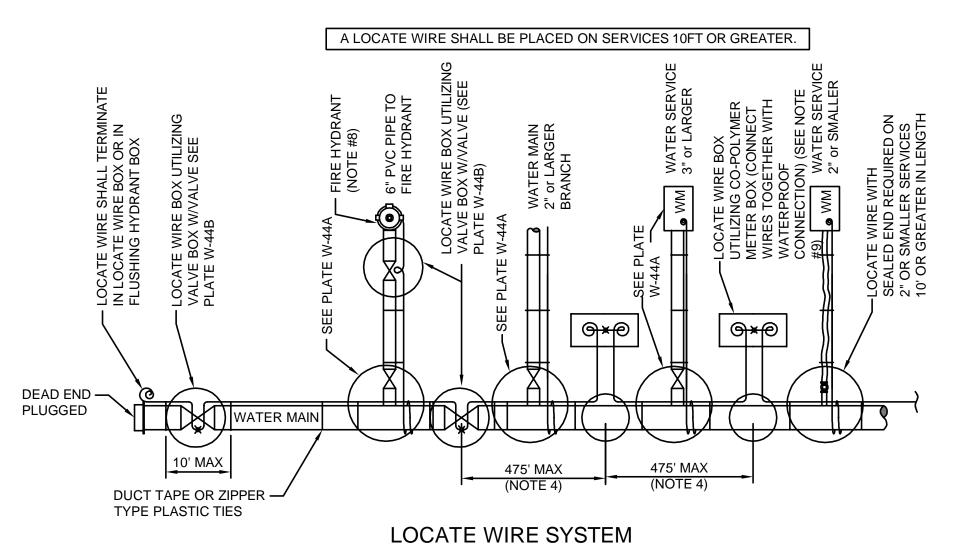
- WATER MAIN W/ LOCATE WIRE

(TO BE REMOVED)

-PLUG (TO BE REMOVED)

TEMPORARY SAMPLE TAP ALTERNATIVE METHOD A

JANUARY 2020 PLATE W-24



NOTES:

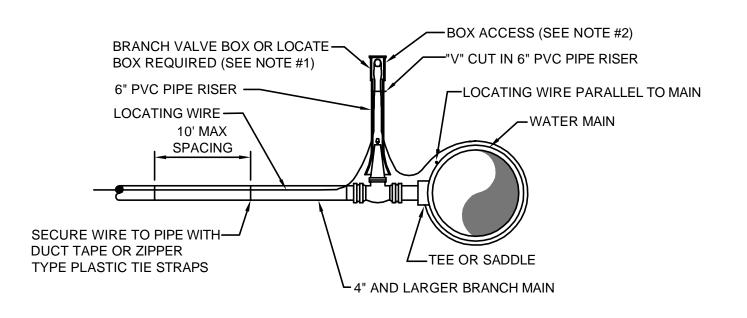
- 1. LOCATING WIRE TO BE INSTALLED IN EITHER THE ONE OR ELEVEN O'CLOCK POSITION ON ALL DUCTILE IRON OR PVC (PRESSURE MAINS). LOCATE WIRE SHALL ALSO BE INSTALLED ON ALL (HDPE) POLY MAIN PIPING (1:00 OR 11:00 POSITION, IF POSSIBLE).
- 2. SECURE LOCATING WIRE TO PVC & D.I.P. WATER MAIN BY USE OF DUCT TAPE OR ZIPPER TYPE PLASTIC TIE STRAPS SPACED AT A MAXIMUM DISTANCE OF TEN (10') AND AT EACH SIDE OF BELL JOINT OR FITTING.
- THE ENTIRE LOCATING SYSTEM SHALL BE SUBJECTED TO TESTING TO DETERMINE ITS RELIABILITY. WHERE INSTALLED UNDER
 PAVEMENT AREAS, TESTING SHALL BE DONE PRIOR TO THE PLACEMENT OF PAVEMENT, UNLESS APPROVED OTHERWISE BY JEA.
- 4. LOCATING WIRE SHALL TERMINATE WITHIN AN ACTIVE VALVE BOX (WITH A VALVE) OR A METER BOX (IF NO VALVE) AT 475' INTERVALS. SEE DETAIL PLATE W-44B. WIRE CONNECTIONS BELOW GROUND (OUTSIDE OF A BOX) SHALL BE AVOIDED.
- 5. REFER TO SECTION 350 FOR LOCATE WIRE SPECIFICATIONS.
- 6. "X" INDICATES THAT THE WIRES ARE CONNECTED TOGETHER WITH A WATERPROOF CONNECTION. (SEE DETAIL W-44B)
- 7. "o" INDICATES A WIRE PIG-TAIL (4' LONG)
- 8. FOR FIRE HYDRANT LOCATE WIRE REQUIREMENTS AND EXCLUSIONS, SEE PLATES W-12,13 AND 14.
- 9. AN "LW" CUT SHALL BE CARVED IN THE CONCRETE CURB AND PAINTED AT ALL LOCATE WIRE BOXES
- 10. FOUR LANES OF TRAFFIC (HAVING TWO LANES OF TRAFFIC IN EACH DIRECTION) OR GREATER THE LOCATE WIRE AND VALVE BOX SHALL BE OFF-SET TO THE RIGHT-OF-WAY.

LOCATE WIRE CONSTRUCTION FOR WATER MAINS

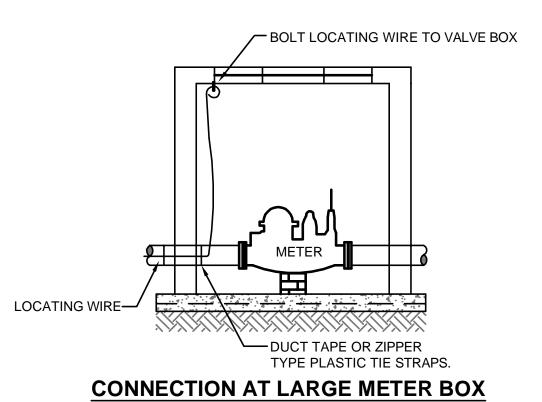
JANUARY 2020 PLATE W-44



JANUARY 2020 PLATE W-24A



BRANCH FORCE MAIN (2" AND LARGER WATER MAIN OR 3" AND LARGER WATER SERVICE PIPE)



JANUARY 2020

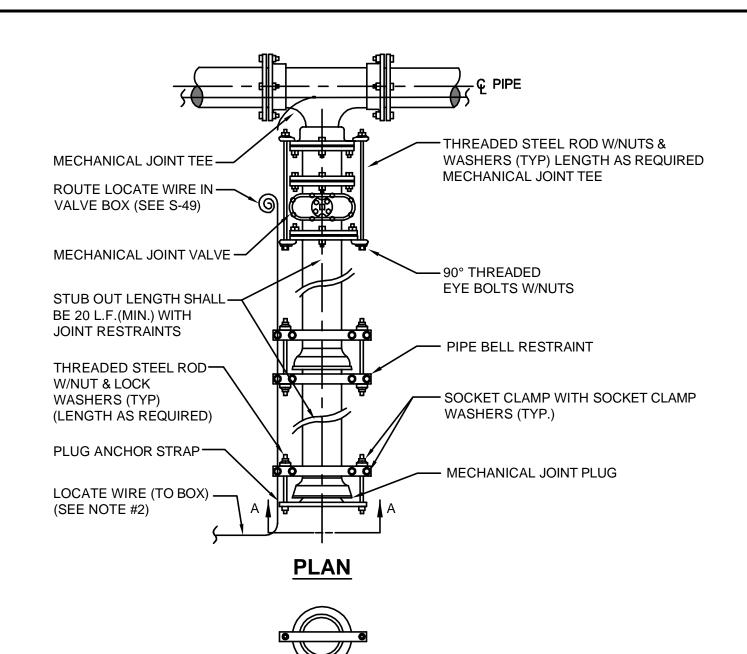
- NOTE THAT THE BRANCH WIRE IS NOT CONNECTED TO THE MAIN WIRE.
- 2. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE SECTION (SEE W-18).

(3" OR LARGER SERVICE)

3. LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE AND LOCATE POINTS.

LOCATE WIRE FOR BRANCH MAIN

PLATE W-44A



SECTION "A-A"

1. IN LIEU OF BELL/ROD RESTRAINTS, MECHANICAL JOINT RESTRAINTS MAY BE USED.

2. LOCATING WIRE REQUIRED, UTILIZING A LOCATE WIRE BOX INSTALLED AT PLUG LOCATION.

3. NUMBER OF TIE RODS REQUIRED IS AS FOLLOWS

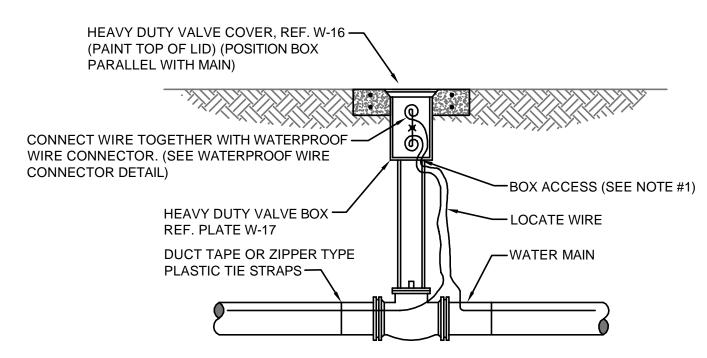
3" - 8" DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD)
10" - 12" DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD)
14" - 16" DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD)
18" - 20" DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD)
24" DIAMETER MAIN -12 TIE RODS REQUIRED PER JOINT (3/4" ROD)
30" - 36" DIAMETER MAIN -14 TIE RODS REQUIRED PER JOINT (1" ROD)
42" - 48" DIAMETER MAIN -16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
54" DIAMETER MAIN -18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)

4. THE LOCATION OF THE DEAD END PLUG SHALL NOT BE UNDER PAVEMENT, IF POSSIBLE. THE STUB OUT SHALL EXTEND BEYOND THE INTERSECTION AREAS OR ROAD CROSSING BY 10 FEET (MIN.) WHERE POSSIBLE.

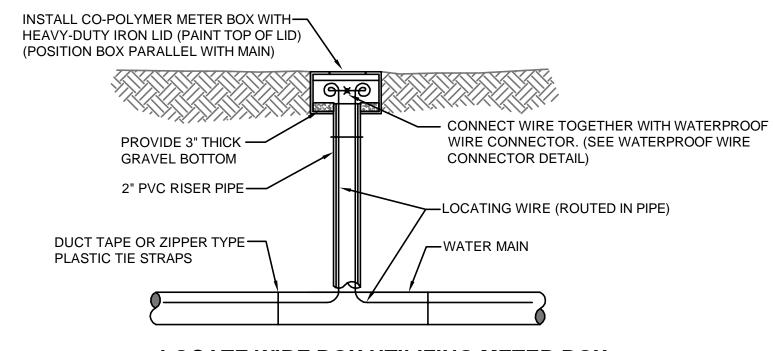
PLUGGED DEAD END USING MECHANICAL RESTRAINTS

JANUARY 2020

PLATE W-37



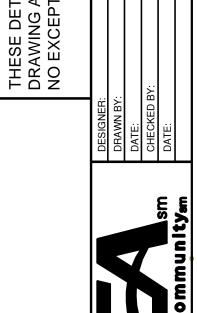
LOCATE WIRE BOX UTILIZING VALVE BOX



LOCATE WIRE BOX UTILIZING METER BOX

LOCATE WIRE BOX

JANUARY 2020 PLATE W-44B



Bullding Comm

JEA STANDARD ER AND RECLAIM DETAILS

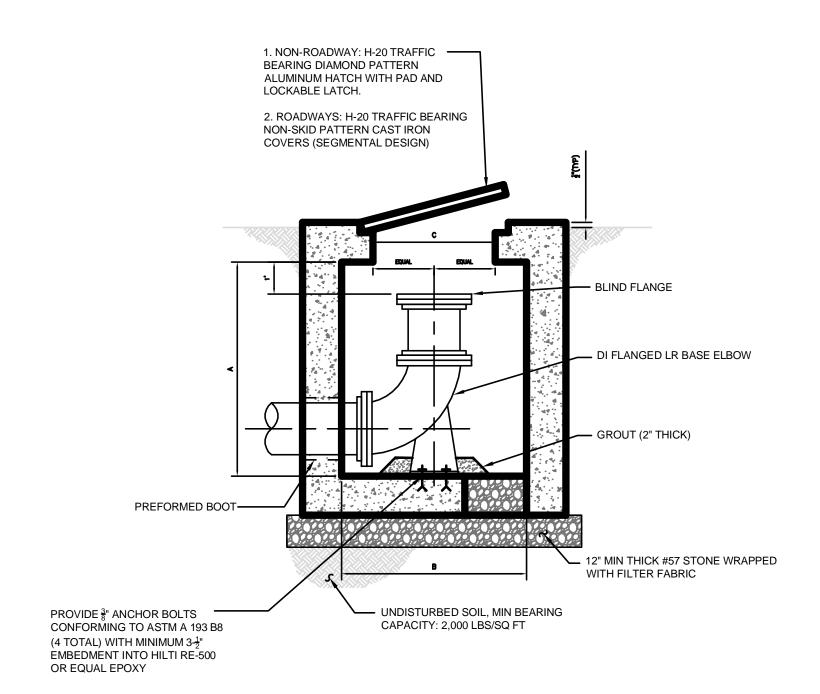
JEA ST WATER AND R BAPTIST WEST NAS

PROJ. NO. 17-252-01-001

DATE: JANUARY 2020

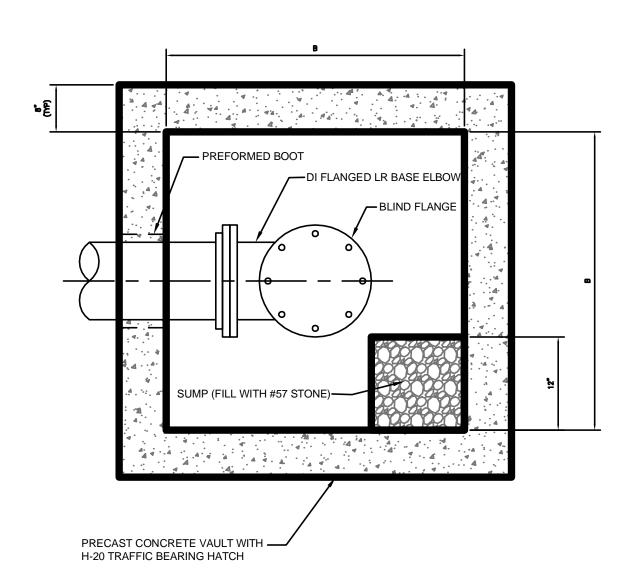
SCALE: AS NOTED

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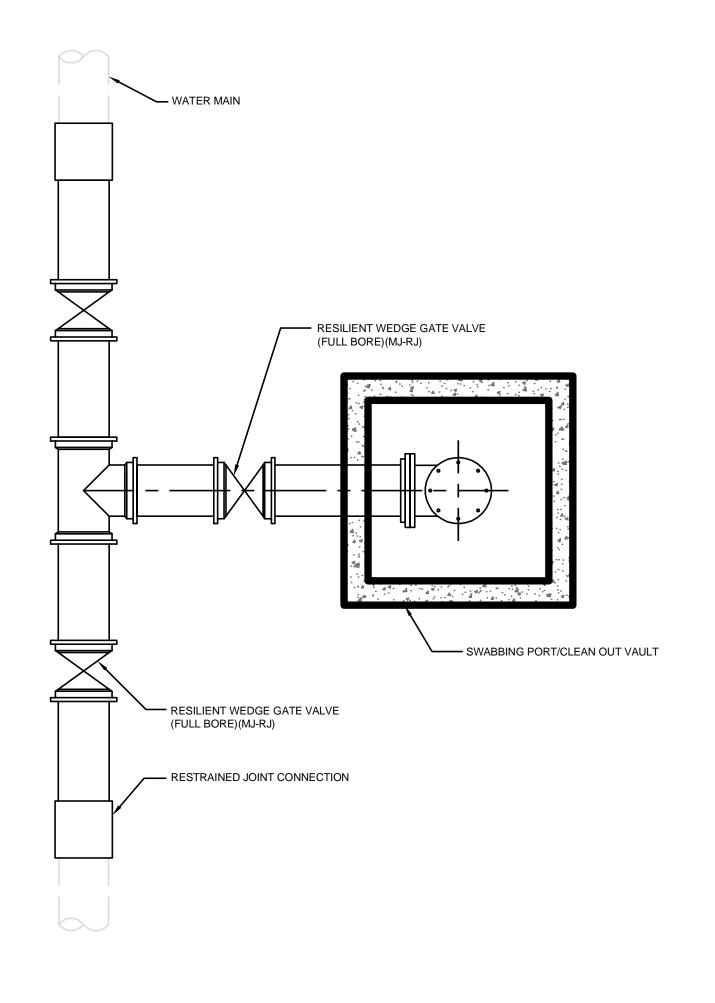
SWABBING PORT AND CLEAN OUT VAULT DETAIL - SECTION

JANUARY 2020 PLATE W-45



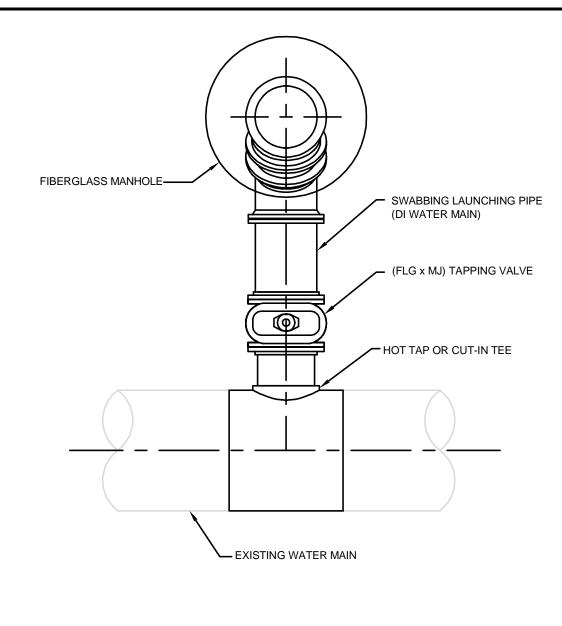
SWABBING PORT AND CLEAN OUT VAULT DETAIL - PLAN

JANUARY 2020 PLATE W-45A



SWABBING LAUNCHING STATION DETAIL FOR NEW WATER MAIN UP TO 24"

JANUARY 2020 PLATE W-45B

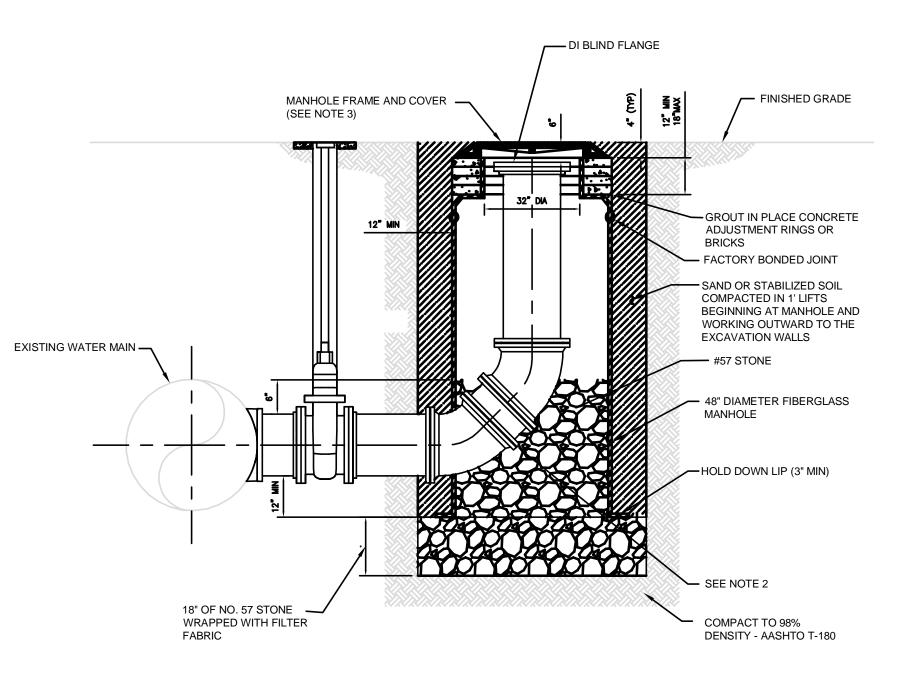


NOTES:

1. FOR HOT TAP CONNECTIONS ON EXISTING WATER MAINS 10° DIAMETER AND GREATER, DIAMETER OF TAPPING VALVE AND PIG LAUNCHING PIPE SHALL BE ONE NOMINAL SIZE LESS THAN EXISTING WATER MAIN.

SWABBING PIG LAUNCHING STATION DETAIL FOR WATER MAINS UP TO 24" - PLAN

JANUARY 2020 PLATE W-45C



NOTES:

JANUARY 2020

- PROVIDE ALL MATERIALS IN ACCORDANCE TO JEA WATER AND WASTEWATER STANDARD SPECIFICATIONS.
- 2. USE TWO VERTICAL 45 DEGREE MJ BENDS OR LONG RADIUS 90 DEGREE MJ BEND.
- 3. PROVIDE STANDARD JEA FRAME AND COVER.
- 4. RESTRAIN ALL JOINTS.

RETROFIT SWABBING LAUNCHING STATION DETAIL FOR WATER MAINS UP TO 24" - SECTION

PLATE W-45D



EA STANDARD AND RECLAIM DETAILS FNASSAU MEDICAL VILLAGE

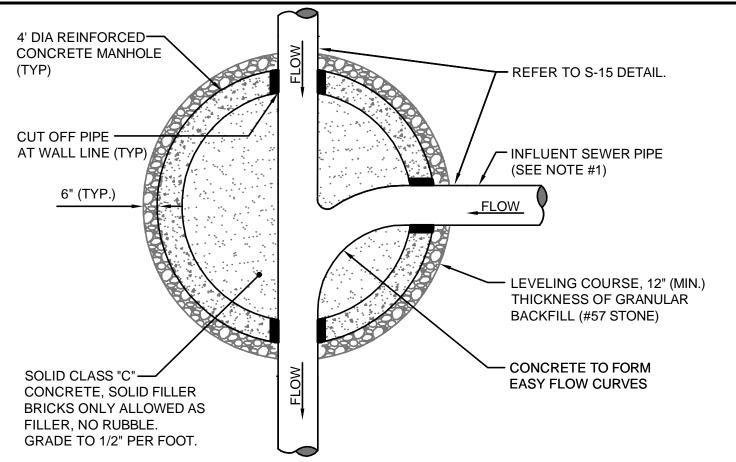
JEA STANDAR WATER AND RECLAIM PTIST WEST NASSAU ME

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DATE: JANUARY 2020

SCALE: AS NOTED

SHEET NO. DATE:

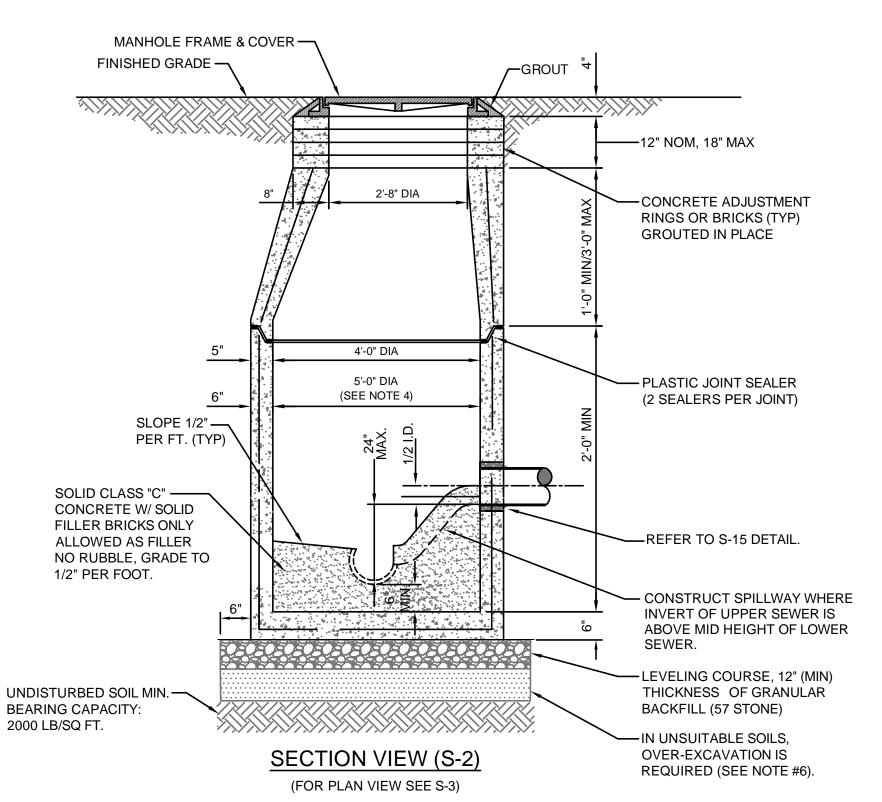


NOTES:

1. THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE BETWEEN 90° - 180° UNLESS OTHERWISE APPROVED BY JEA.

PLAN VIEW (S-3)

(FOR SECTION VIEW SEE S-2)

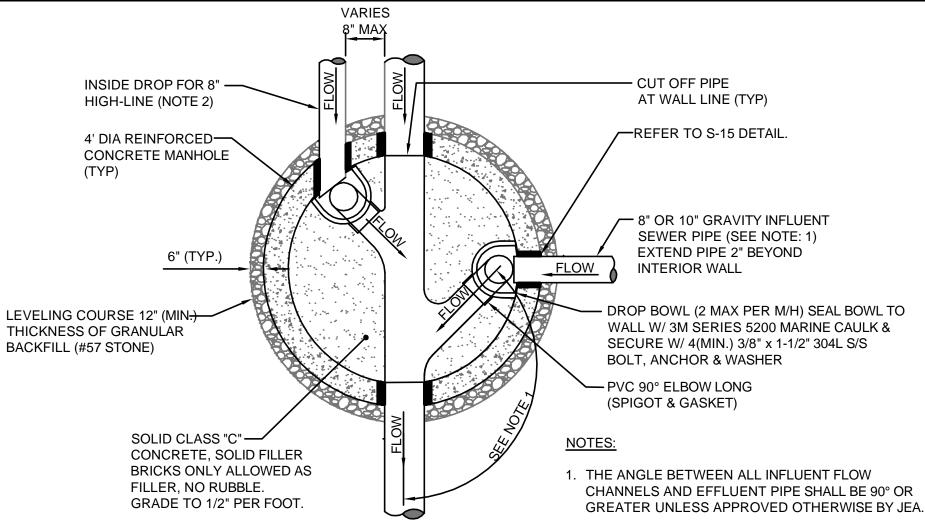


NOTES:

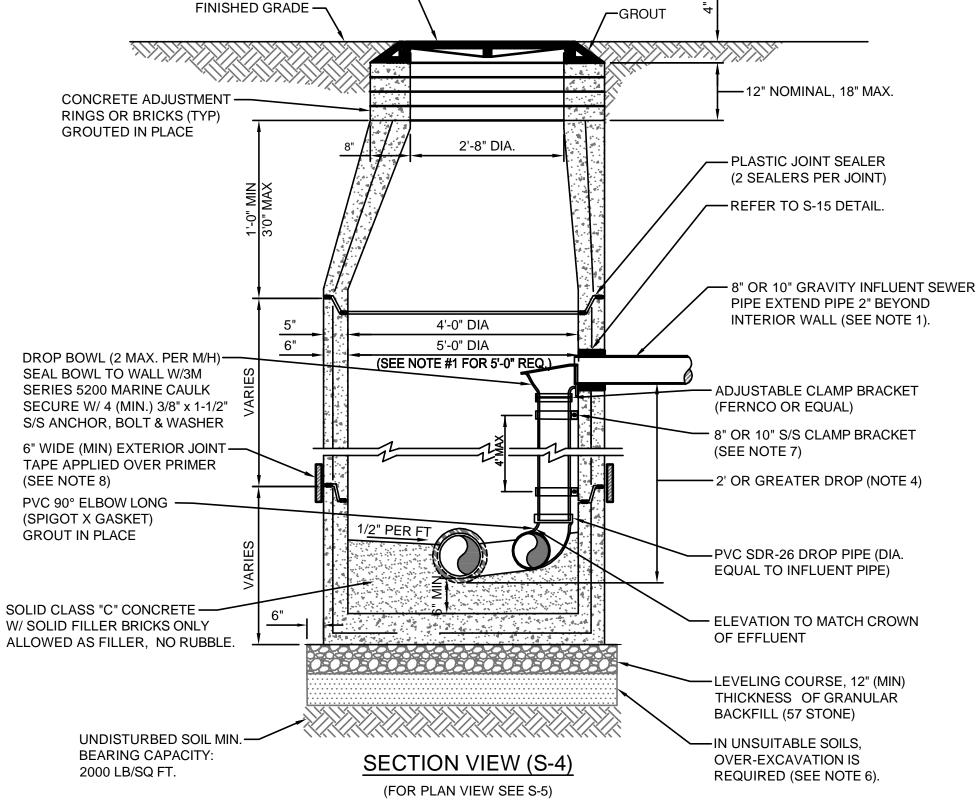
- PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
- 2. THE INTERIOR AND EXTERIOR OF MANHOLE AND ADJUSTING RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
- 3. IF SPECIALTY LINER IS TO BE INSTALLED ON INSIDE SURFACE OF MANHOLE, THE BITUMINOUS WATERPROOFING MATERIAL SHALL BE OMITTED ON THE INSIDE.
- 4. JUNCTION MANHOLE (CLOSEST TO WETWELL) SHALL BE 5' DIA WITH SPECIALTY LINER.
- ALL MANHOLE JOINTS BELOW THE TOP COVER SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (WITH PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL. SEE PLATE S-17.
- IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98%, ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

SANITARY SEWER TYPE "A" MANHOLE 8"-21" SEWERS

PLATES S-2, S-3 JANUARY 2020



2. THE 8" HIGH-LINE. WHERE UTILIZED. SHALL ENTER THE MANHOLE ON-CENTER OR OFF-CENTER AS PLAN VIEW (S-5) (FOR SECTION VIEW SEE S-4)



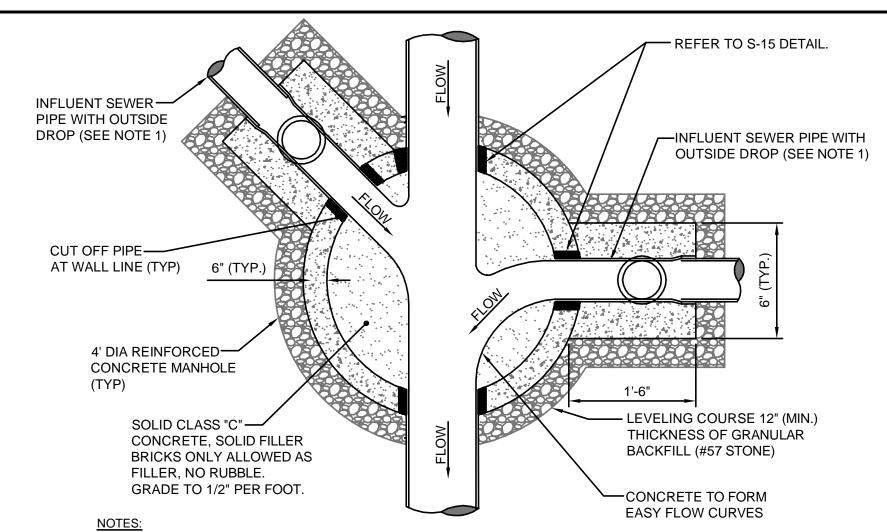
- THIS ASSEMBLY IS FOR 8" OR 10" GRAVITY INFLUENT LINES ONLY. NO DROPS ALLOWED FOR FORCE MAINS. MAXIMUM OF 2 INSIDE DROP BOWLS PER MANHOLE. A 5'-0" DIA. MANHOLE (6" THICK WALLS) IS REQUIRED IF TWO INSIDE DROPS ARE CONSTRUCTED WITH ONE OR BOTH BEING 10" SIZE. DROP BOWL BY RELINER OR APPROVED EQUAL REQUIRED. THE INSIDE DROP FOR AN 8" HIGH-LINE SHALL BE CONSTRUCTED SIMILAR TO ABOVE (SEE PLATE S-5).
- PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
- 3. THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
- 4. TYPE "B" MANHOLE MUST BE USED FOR 2' OR GREATER INFLUENT PIPE DROPS.
- THE DROP BOWL ASSEMBLY SHALL BE INSTALLED PRIOR TO APPLICATION OF SPECIALTY LINING MATERIAL

MANHOLE FRAME & COVER -

- 6. A TYPE "D" MANHOLE SHALL BE UTILIZED WHEN THREE OR MORE (2' OR GREATER) DROPS ARE INVOLVED OR WHEN INFLUENT PIPES AREA LARGER THAN 10" IN SIZE.
- ADJUSTABLE CLAMPING BRACKET (MIN. 2 PER DROP BOWL ASSY). 1-1/2" WIDE, 11 GA. W/ 3/8" DIA. 18-8 PINCH BOLTS AND NUTS. SECURE TO M/H WALL WITH (2) 3/8" X 1" BOLT, ANCHOR & WASHER PER BRACKET ASSY. ALL 304 OR 316 STAINLESS STEEL MATERIALS.
- ALL M/H JOINTS BELOW THE TOP CONE SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (W/PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL.
- IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98%, ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

SANITARY SEWER TYPE "B" MANHOLE 8"-10" SEWERS

JANUARY 2020 PLATES S-4, S-5



- THE ANGLE BETWEEN ALL INFLUENT FLOW CHANNELS AND EFFLUENT PIPE SHALL BE 90° OR GREATER UNLESS APPROVED OTHERWISE BY JEA.
- 2. THE INTERIOR AND EXTERIOR OF THE MANHOLE AND THE INTERIOR OF THE ADJUSTMENT RINGS SHALL BE GIVEN 2 COATS OF BITUMINOUS WATERPROOFING MATERIAL
- 3. IF SPECIALITY LINER IS TO BE INSTALLED ON INSIDE OF MANHOLE, THE BITUMINOUS WATERPROOFING MATERIAL SHALL BE OMITTED ON THE INSIDE.

4. TYPE "D" MANHOLES SHALL BE USED FOR 12" OR LARGER INFLUENT PIPES W/2' OR GREATER INFLUENT DROP. PLAN VIEW (S-8) (FOR SECTION VIEW SEE S-7) MANHOLE FRAME & COVER -FINISHED GRADE --GROUT -12" NOMINAL, 18" MAX. CONCRETE ADJUSTMENT -RINGS OR BRICKS (TYP) GROUTED IN PLACE 2'-8" DIA. — PLASTIC JOINT SEALER (2 SEALERS PER JOINT) REFER TO S-15 DETAIL -PVC PLUG W/TOP 1/2 AREA OPEN SEWER PIPE (SEE NOTE 4) 4'-0" DIA INVERT ELEV. GIVEN ON -PLANS AT THIS POINT 6" WIDE (MIN) EXTERIOR --STANDARD PVC TEE JOINT TAPE APPLIED SLOPE 1/2" PER-- 2' OR GREATER DROP (NOTE 4) OVER PRIMER FT. (TYP) (SEE NOTE #5) PVC RISER - LENGTH AS REQUIRED CAST IN-PLACED CONCRETE. SOLID CLASS "C" CONCRETE W/ SOLID FILLER BRICKS ONLY ALLOWED AS FILLER, NO RUBBLE. LEVELING COURSE, 12" (MIN) THICKNESS OF GRANULAR

SECTION VIEW (S-7)

(FOR PLAN VIEW SEE S-8)

UNDISTURBED SOIL MIN. —

BEARING CAPACITY:

2000 LB/SQ FT.

- PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
- THE INTERIOR AND EXTERIOR OF MANHOLE AND THE INTERIOR OF THE ADJUSTMENT RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL
- 3. IF SPECIALTY LINER IS TO BE INSTALLED ON INSIDE SURFACE OF MANHOLE, THE BITUMINOUS WATERPROOFING SHALL BE, OMITTED ON
- 4. TYPE "D" MANHOLE SHALL BE USED FOR 12" OR LARGER INFLUENT PIPES W/ 2' OR GREATER INFLUENT DROP.
- ALL M/H JOINTS BELOW THE TOP CONE SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (W/PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL.
- IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98%, ASTM

D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).

SANITARY SEWER TYPE "D" MANHOLE 12"-21" SEWERS

PLATES S-7, S-8

BACKFILL (57 STONE)

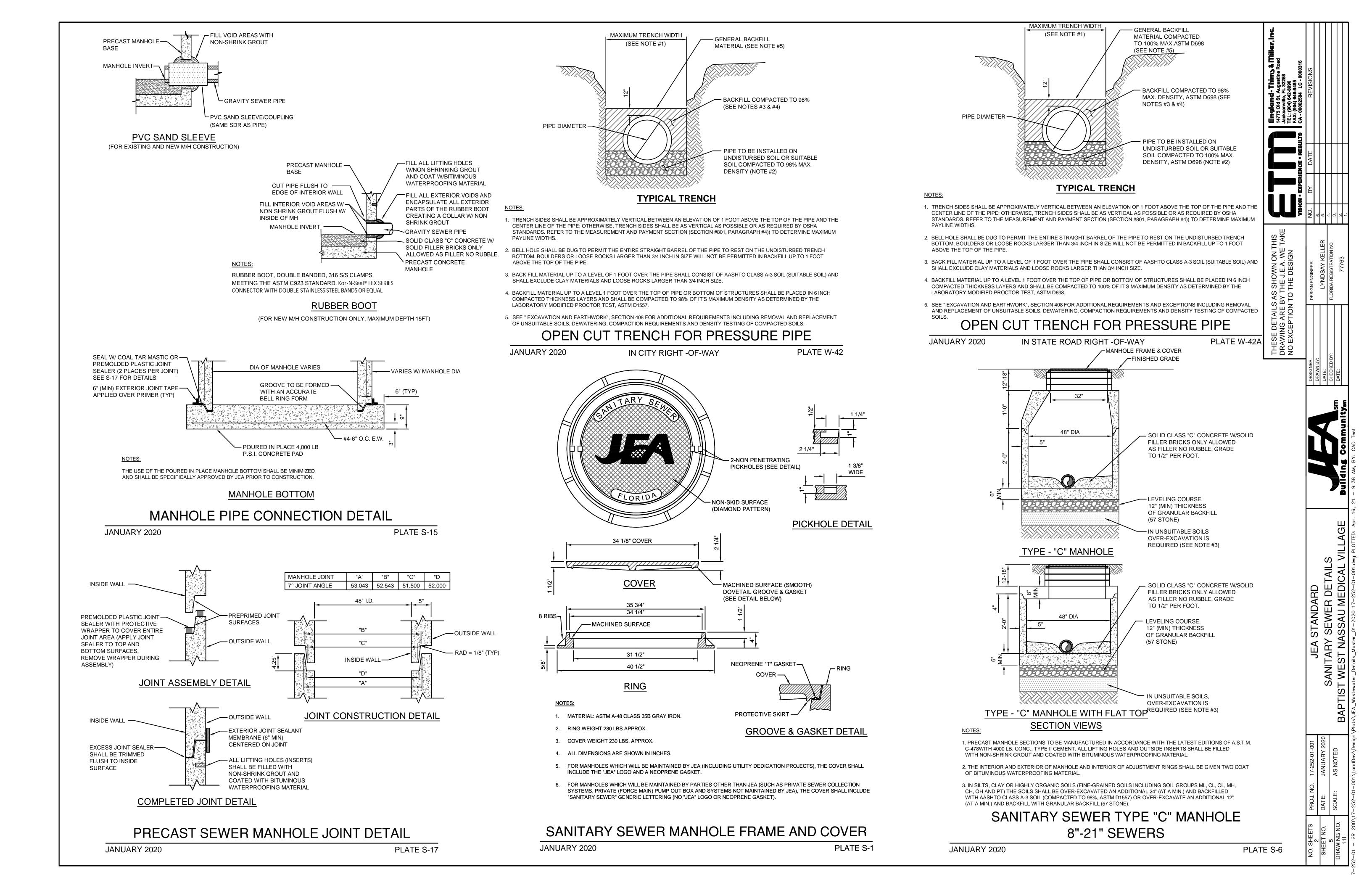
OVER-EXCAVATION IS

REQUIRED (SEE NOTE 6).

EA STANDARD RY SEWER DET. NASSAU MEDIC

SHOWN (

JANUARY 2020



CASE "A" CROSSING

- 1. IF EXISTING CONFLICT PIPE IS A WATER OR RECLAIMED WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED. A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSINGS.
- 2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-26 & S-27).

SEWER SERVICE LATERAL MARKER

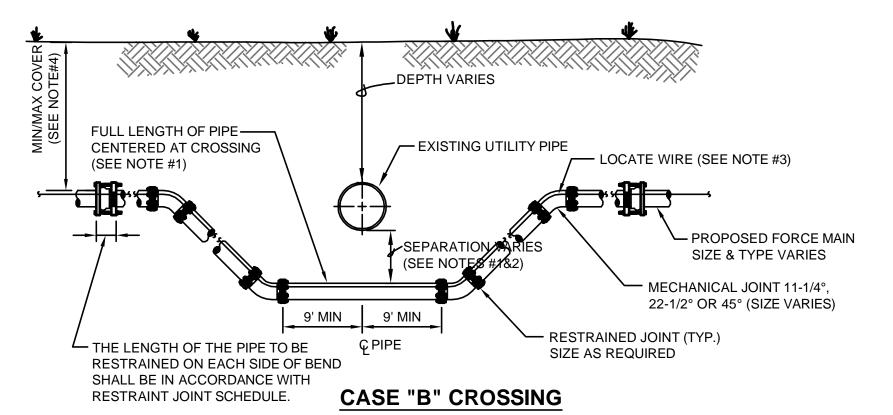
REQUIRED FOR NEW DEVELOPMENT

AREAS (SEE NOTE #1)

- LOCATING WIRE REQUIRED: SEE DETAIL S-49.
- 4. THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS PRE-APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
- 5. THE SOILS BETWEEN THE MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.

ADJUSTMENT OVER EXISTING UTILITIES MECHANICAL RESTRAINTS

JANUARY 2020 PLATE S-39

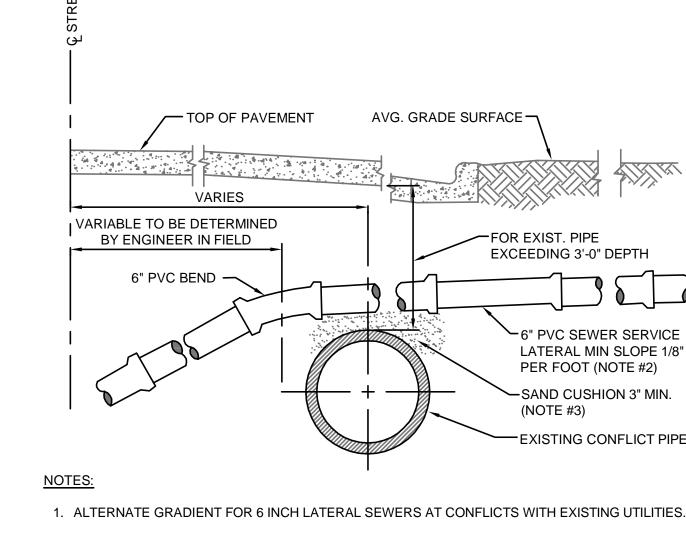


- 1. IF EXISTING CONFLICT PIPE IS A WATER OR RECLAIMED WATER MAIN, 12-INCHES OF SEPARATION IS REQUIRED.A FULL LENGTH OF PIPE SHALL BE CENTERED OVER EXISTING UTILITY MAIN TO PROVIDE MAXIMUM JOINT SPACING FOR ALL CROSSINGS.
- 2. FOR OTHER LOCATION LIMITATIONS SEE DETAIL (S-26 & S-27)
- LOCATING WIRE REQUIRED: SEE DETAIL S-49.
- 4. THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREAS, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS PRE-APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
- 5. THE SOILS BETWEEN THE MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST ASTM D 1557.

ADJUSTMENT UNDER EXISTING UTILITIES

JANUARY 2020 PLATE S-41

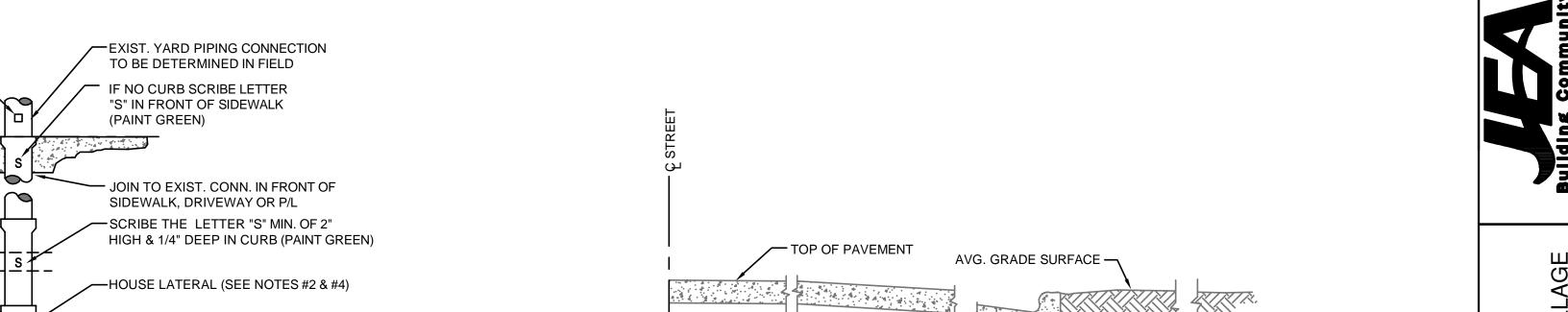
MECHANICAL RESTRAINTS

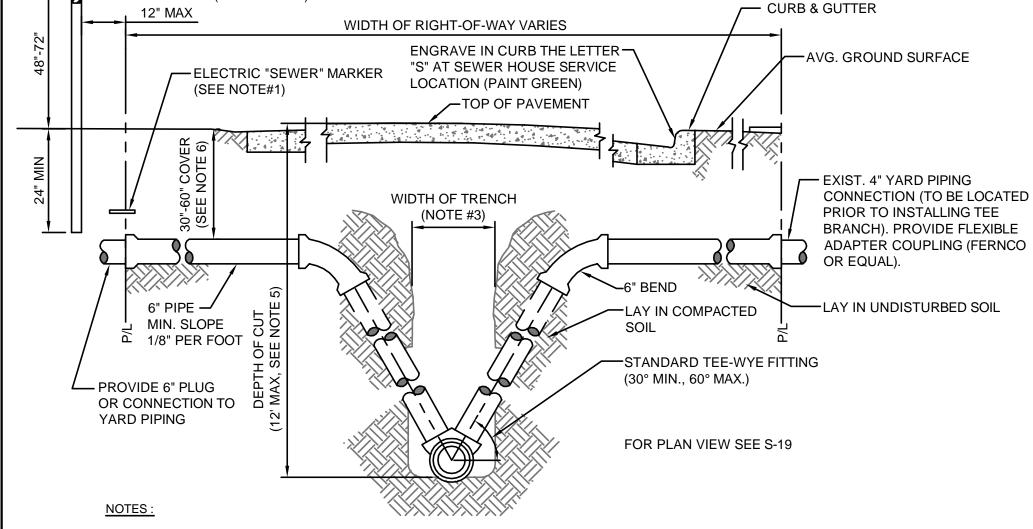


- 1. ALTERNATE GRADIENT FOR 6 INCH LATERAL SEWERS AT CONFLICTS WITH EXISTING UTILITIES.
- 2. FLATTER SLOPES MUST BE PRE-APPROVED BY JEA O&M MANAGER (ONLY) PRIOR TO CONSTRUCTION
- 3. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST. ASTM D 1557.

HOUSE LATERAL OVER CONFLICT PIPE

PLATE S-23 JANUARY 2020

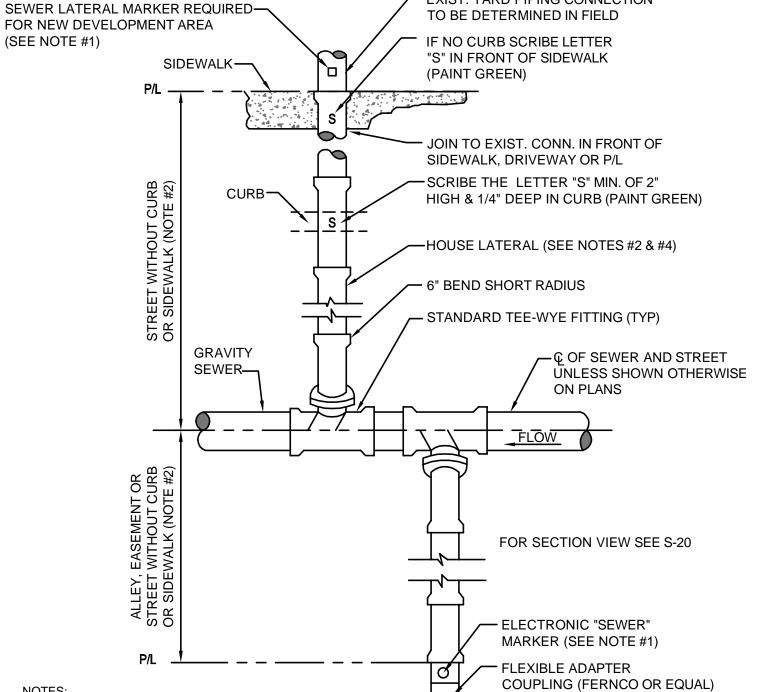




- 1. TO MARK THE LOCATION OF THE 6" PLUG FOR NEW SERVICE: FOR PROJECTS WHERE NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER IS REQUIRED FOR ALL LATERALS WHICH ARE"NOT" IN USE". FOR NEW DEVELOPMENT AREAS WHERE THE SEWER LATERAL IS "NOT IN USE", A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED GREEN) SHALL BE INSTALLED. WHERE REQUIRED BY JEA OR NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER SHALL BE INSTALLED TO MARKER SHALL ALSO
- 2. THE MINIMUM SIZE OF ALL HOUSE LATERALS SHALL BE 6 INCHES. THE MAXIMUM LENGTH OF A HOUSE LATERAL SHALL BE 60 FEET (LENGTH BETWEEN SEWER MAIN OR MANHOLE TO CUSTOMERS PROPERTY LINE).
- 3. SEE MEASUREMENT AND PAYMENT SECTION FOR MAXIMUM PAYMENT WIDTHS
- 4. ALL GRAVITY SEWER MAINS AND ASSOCIATED SEWER LATERAL PIPE AND FITTINGS (INCLUDING THE TEE-WYE FITTING) SHALL BE
- 5. UNLESS APPROVED OTHERWISE BY A JEA O&M MANAGER, NO GRAVITY SEWER MAIN WITH SEWER SERVICE LATERALS SHALL BE CONSTRUCTED WITH A "DEPTH OF CUT" GREATER THAN 12 FEET.
- 6. SEWER SERVICE LATERALS ASSOCIATED WITH GRAVITY SEWER MAINS WHICH ARE DEEPER THAN 12 FEET, MUST BE ROUTED TO A GRAVITY SEWER HIGH-LINE, A MANHOLE OR OTHER JEA APPROVED METHOD.
- THE SEWER SERVICE LATERAL SHALL BE CONSTRUCTED AT A DEPTH TO ALLOW A GRAVITY CONNECTION BY THE CUSTOMER, WHERE POSSIBLE (CONTINGENT UPON MEETING THE CUSTOMER'S ON-SITE CONDITIONS AND LOCAL CONSTRUCTION STANDARDS). A LATERAL REQUIRING MORE THAN 60" OF COVER MUST BE APPROVED, PRIOR TO CONSTRUCTION, BY JEA.

HOUSE LATERAL - SECTION VIEW

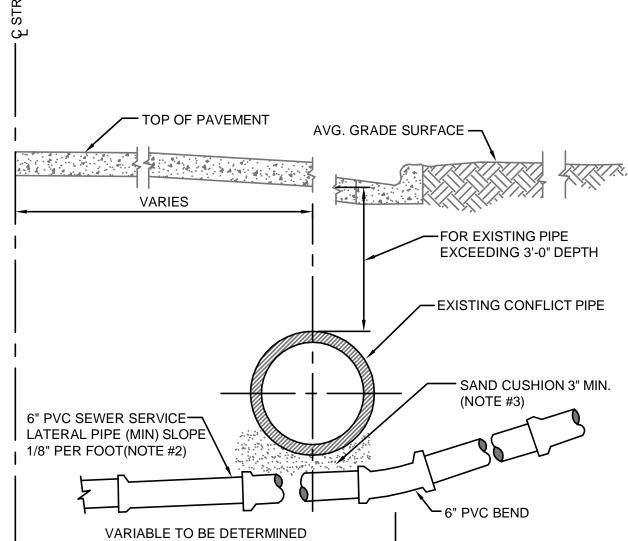
PLATE S-20 JANUARY 2020



- 1. TO MARK THE LOCATION OF THE 6" PLUG FOR NEW SERVICE: FOR PROJECTS WHERE NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER IS REQUIRED FOR ALL LATERALS WHICH ARE "NOT" IN USE". FOR NEW DEVELOPMENT AREAS WHERE THE SEWER LATERAL IS "NOT IN USE", A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED GREEN) SHALL BE INSTALLED. WHERE REQUIRED BY JEA OR NO CONCRETE CURB EXIST, AN ELECTRONIC "SEWER" MARKER SHALL BE INSTALLED TO MARKER SHALL ALSO BE INSTALLED.
- 2. THE MINIMUM SIZE OF ALL HOUSE LATERALS SHALL BE 6 INCHES. THE MAXIMUM LENGTH OF A HOUSE LATERAL SHALL BE 60 FEET (LENGTH BETWEEN SEWER MAIN OR MANHOLE TO CUSTOMERS PROPERTY LINE).
- 3. NO SEWER SERVICE CONNECTIONS PERMITTED ON GRAVITY SEWER PIPE WHICH ARE 16" AND LARGER.
- 4. ALL GRAVITY SEWER MAINS AND ASSOCIATED SEWER LATERAL PIPE AND FITTINGS (INCLUDING THE TEE-WYE FITTING)

HOUSE LATERAL - PLAN VIEW

PLATE S-19 JANUARY 2020



1. ALTERNATE GRADIENT FOR 6 INCH LATERAL SEWERS AT CONFLICTS WITH EXISTING UTILITIES.

BY ENGINEER IN FIELD

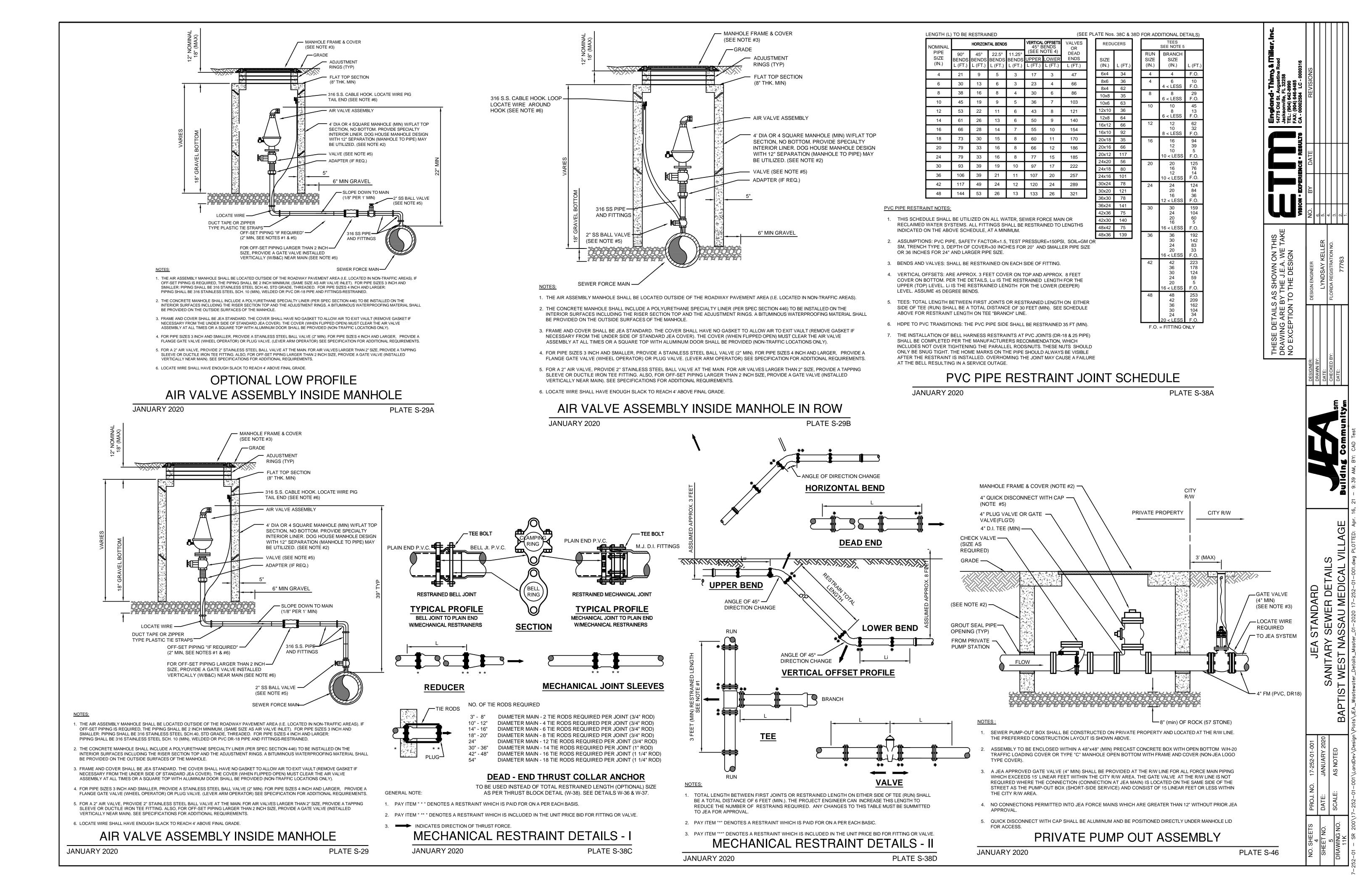
- 2. FLATTER SLOPE MUST BE PRE-APPROVED BY JEA O&M MANAGER (ONLY) PRIOR TO CONSTRUCTION
- 3. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.

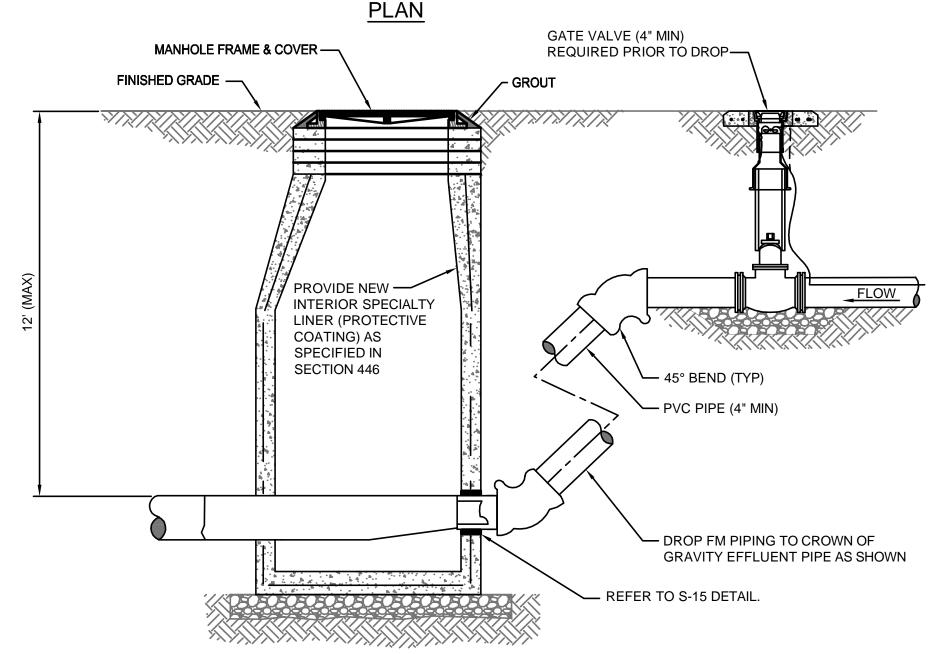
HOUSE LATERAL UNDER CONFLICT PIPE

PLATE S-24 JANUARY 2020



ETAILS AS SHOWN C ARE BY THE J.E.A.

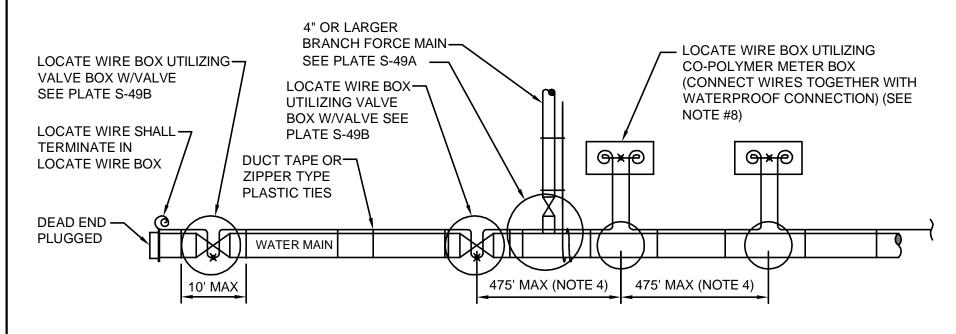




TYPICAL FORCE MAIN CONNECTION TO MANHOLE

JANUARY 2020

PLATE S-49



SECTION

LOCATE WIRE SYSTEM

- 1. LOCATING WIRE TO BE INSTALLED IN EITHER THE ONE OR ELEVEN O'CLOCK POSITION ON ALL DUCTILE IRON 0R PVC (PRESSURE MAINS). LOCATE WIRE SHALL ALSO BE INSTALLED ON ALL (HDPE) POLY MAIN PIPING (1:00 OR 11:00 POSITION, IF POSSIBLE).
- 2. SECURE LOCATING WIRE TO PVC FORCE MAIN BY USE OF DUCT TAPE OR ZIPPER TYPE PLASTIC TIE STRAPS SPACED AT A MAXIMUM DISTANCE OF TEN (10') AND AT EACH SIDE OF BELL JOINT OR FITTING.
- 3. THE ENTIRE LOCATING SYSTEM SHALL BE SUBJECTED TO TESTING TO DETERMINE ITS RELIABILITY. WHERE INSTALLED UNDER
- 4. LOCATING WIRE SHALL TERMINATE WITHIN AN ACTIVE VALVE BOX (WITH A VALVE) OR A METER BOX (IF NO VALVE) AT 475' INTERVALS. SEE DETAIL PLATE S-49B. WIRE CONNECTIONS BELOW GROUND (OUTSIDE OF A BOX) SHALL BE AVOIDED.
- 5. LOCATING WIRE SHALL BE 12 GAUGE COPPER WIRE WITH .03 INCHES (MINUMUM) HDPE INSULATION THICKNESS, 0.141 INCHES
- (MINIMUN) O.D. RATED BREAK LOAD 250LBS., UF RATED (DIRECT BURIAL), GREEN COLOR. FOR HDD INSTALLATIONS, THE LOCATE WIRE SHALL BE COPPER CODED STEEL AS SPECIFIED IN SPEC. SECTION 750.
- 6. "X" INDICATES THAT THE WIRES ARE CONNECTED TOGETHER WITH WATERPROOF CONNECTION. (SEE DETAIL W-49B)
- 7. "O" INDICATES A WIRE PIG-TAIL (24" LONG)

JANUARY 2020

NOTES:

- 8. AN "LW" CUT SHALL BE CARVED IN THE CONCRETE CURB AND PAINTED AT ALL LOCATE WIRE BOXES.
- 9. FOUR LANES OF TRAFFIC (HAVING TWO LANES OF TRAFFIC IN EACH DIRECTION) OR GREATER THE LOCATE WIRE AND VALVE BOX SHALL BE OFF-SET TO THE RIGHT-OF-WAY.

LOCATE WIRE CONSTRUCTION FOR FORCE MAINS

- APPLY GROUT TO FILL ANNULAR SPACE BETWEEN VALVE BOX AND CONCRETE PAD PAINT COVER AND INSIDE OF BOX GREEN — — 24" ROUND PRECAST CONCRETE COMPACTED EARTH (TYP) -PAD 4" THICK (SEE SPEC) SET ON COMPACTED EARTH, (SEE NOTE# 6) VALVE BOX ADJUSTMENT (SEE NOTE# 5) — FINISHED GRADE VALVE BOX & COVER (TYP) -PROVIDE GREEN PAINT TO THE INSIDE OF THE TOP SECTION OF THE BOX (NOTE #5) ELECTRONIC LOCATE BALL MARKER 6" PVC RISER PIPE — LOCATED WITHIN 12" FROM (LENGTH AS REQUIRED) RISER PIPE (NOTE #10) PROVIDE "V" CUT IN TOP OF 6" RISER PIPE FOR LOCATE WIRE GATE VALVE W/ 2" OPERATING ACCESS INTO VALVE BOX NUT (NOTE #4) PLASTIC DEBRIS SHIELD REQUIRED -— PIPE W/ LOCATING WIRE ON ALL VALVES 12" AND SMALLER (SEE NOTE #8) RESTRAINED MECHANICAL 12" (MIN) LAYER OF #57 JOINT (TYP) STONE (REQUIRED FOR UNDISTURBED EARTH VALVES 20" AND LARGER

NOTES:

1. FOR UNPAVED LOCATIONS, A PRECAST CONCRETE VALVE PAD SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. CONCRETE PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED

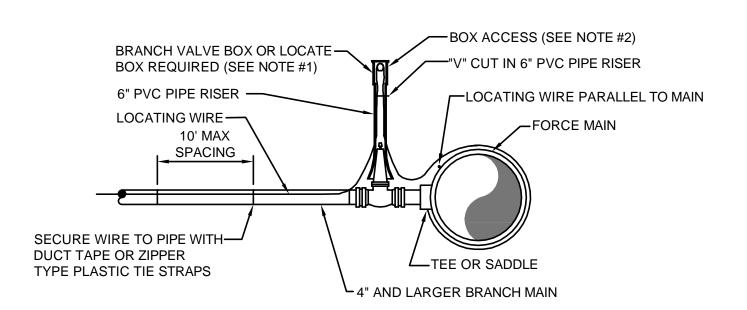
(NOTE #7)

- 2. LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAIL S-49).
- 3. A "V" CUT SHALL BE CARVED IN THE CURB CLOSEST/(ASPHALT IF NO CURB) ADJACENT TO ALL BELOW GRADE VALVES. THE "V" CUT IS TO BE PAINTED GREEN.
- 4. IN PAVED AREAS, INSTALL VALVE AT A DEPTH TO ALLOW A 12" MIN. DISTANCE BETWEEN THE VALVE COVER PLATE AND THE TOP OF THE VALVE OPERATING NUT. OUTSIDE OF PAVED AREAS (GRASS), INSTALL VALVE AT A DEPTH TO ALLOW A 6" MINIMUM DISTANCE BETWEEN THE VALVE COVER AND THE TOP OF THE VALVE OPERATING NUT. OPERATING NUT/STEM EXTENSION SHALL BE PROVIDED (WHERE APPLICABLE) SO THAT THE OPERATING NUT WILL BE NO MORE THAN 30 INCHES BELOW FINISHED GRADE.
- 5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS. ROUTE LOCATE WIRES THRU A "V" CUT IN THE TOP OF THE 6" PVC RISER PIPE FOR LOCATE WIRE ACCESS INTO VALVE BOX. THE LOCATE WIRES WITH A 24" LONG PIG-TAIL AT THE TOP SHALL BE CONNECTED TOGETHER WITH A WIRE NUT.
- 6. BRASS IDENTIFICATION TAG INDICATING "SEWER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A χ " HOLE IN BRASS TAG AND ATTACH TAG (TWIST WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.
- 7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2 #4 REBAR AROUND PERIMETER, MAY BE USED.
- 8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO 1/3 THE OVERALL HEIGHT OF THE VALVE.
- 9. FOR VALVES 12 INCH AND SMALLER, PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE OPERATING NUT AND MINIMIZE INFILTRATION. SHIELD SHALL BE BY AFC, BOXLOK OR APPROVED EQUAL
- 10. ALL VALVES SHALL BE INSTALLED WITH AN ELECTRIC LOCATE MARKER. MARKER SHALL BE 4" DIA. COLOR CODED BALL MARKER (3M-1404XR FOR SEWER).

SEWER VALVE DETAIL

JANUARY 2020

PLATE S-30



BRANCH FORCE MAIN

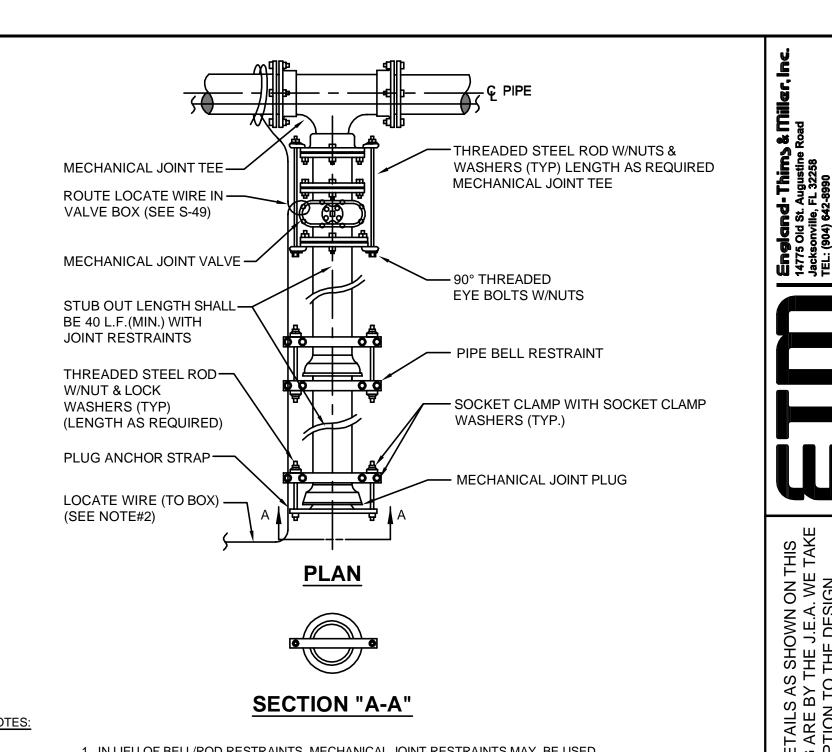
(4" AND LARGER SEWER MAIN)

NOTE:

- 1. NOTE THAT THE BRANCH WIRE IS NOT CONNECTED TO THE MAIN WIRE.
- 2. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE SECTION (SEE S-30)
- 3. LOCATE WIRE BOX SHALL BE INSTALLED OUTSIDE OF SIDEWALKS, DRIVEWAYS AND PAVEMENT.
- 4. "O" INDICATES A WIRE PIG-TAIL (4' LONG)

LOCATE WIRE FOR BRANCH MAIN

PLATE S-49A JANUARY 2020



SECTION "A-A"

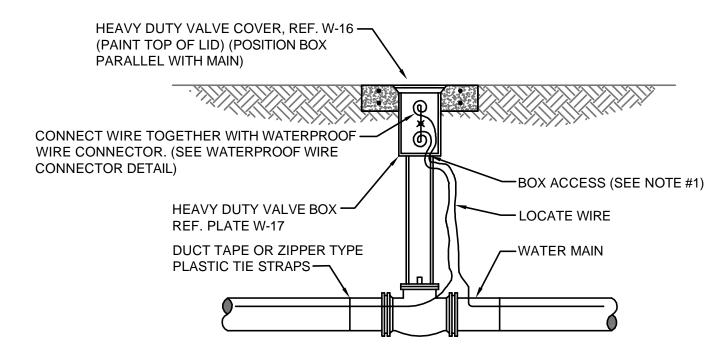
- 1. IN LIEU OF BELL/ROD RESTRAINTS, MECHANICAL JOINT RESTRAINTS MAY BE USED.
- 2. LOCATING WIRE REQUIRED, UTILIZING A LOCATE WIRE BOX INSTALLED AT PLUG LOCATION.
- 3. NUMBER OF TIE RODS REQUIRED IS AS FOLLOWS: 3" - 8" DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD) 10" - 12" DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD) 14" - 16" DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD) 18" - 20" DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD) DIAMETER MAIN -12 TIE RODS REQUIRED PER JOINT (3/4" ROD) 30" - 36" DIAMETER MAIN -14 TIE RODS REQUIRED PER JOINT (1" ROD) 42" - 48" DIAMETER MAIN -16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
 - 4. THE LOCATION OF THE DEAD END PLUG SHALL NOT BE UNDER PAVEMENT, IF POSSIBLE. THE STUB OUT SHALL EXTEND BEYOND THE INTERSECTION AREAS OR ROAD CROSSING BY 10 FEET (MIN.)

PLUGGED DEAD END USING

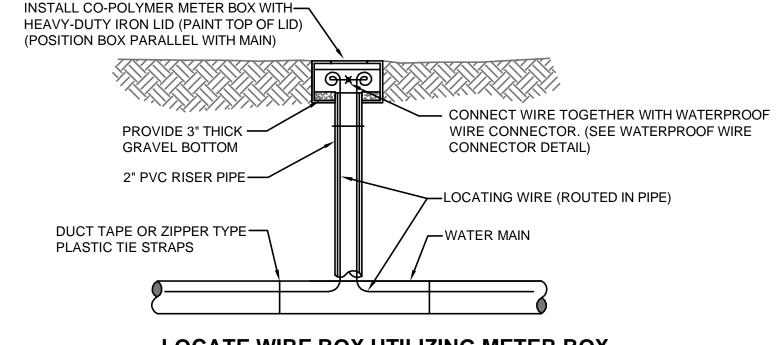
DIAMETER MAIN -18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)

MECHANICAL RESTRAINTS

JANUARY 2020



LOCATE WIRE BOX UTILIZING VALVE BOX



LOCATE WIRE BOX UTILIZING METER BOX

LOCATE WIRE BOX

JANUARY 2020



JEA SANITARY
WEST NA

PLATE S-49B

PLATE S-44

PVC PIPE RESTRAINT NOTES:

- THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER. SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
- ASSUMPTIONS: PVC PIPE, SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=36 INCHES.
- BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.
- TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 3 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE. THE PROJECT ENGINEER CAN INCREASE THIS DISTANCE TO REDUCE THE RESTRAINS REQUIRED ON THE BRANCH SIDE. ANY CHANGES MUST BE APPROVED BY THE ENGINEER.
- HDPE TO PVC TRANSITIONS: THE PVC PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).
- THE INSTALLATION OF BELL HARNESS RESTRAINTS AT PVC JOINTS (DR-18 & 25 PIPE) SHALL BE COMPLETED PER THE MANUFACTURERS RECOMMENDATION, WHICH INCLUDES NOT OVER TIGHTENING THE PARALLEL RODS/NUTS. THESE NUTS SHOULD ONLY BE SNUG TIGHT. THE HOME MARKS ON THE PIPE SHOULD ALWAYS BE VISIBLE AFTER THE RESTRAINT IS INSTALLED. OVERHOMING THE JOINT MAY CAUSE A FAILURE AT THE BELL RESULTING IN A SERVICE OUTAGE.

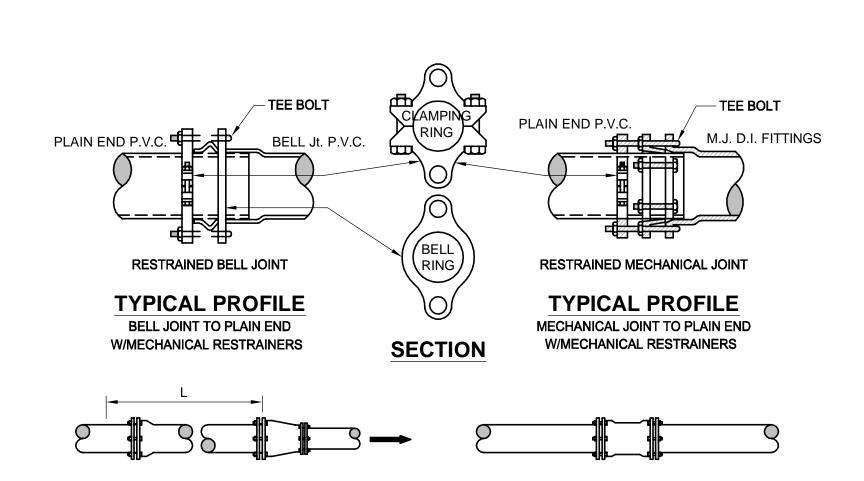
(SEE PL	ATE N	los. 31	IC & 3	1D FO	R ADD	DITION	AL DE	TAILS)					
			Р	.V.C.	PIPE	TEE	- L (F	T.) S	SEE NO	OTE 5.	FOR			
RUN SIZE					В	RANC	H SIZE	E (IN.)						
(IN.)	4	6	8	10	12	14	16	18	20	24	30	36	42	
4	29													
6	23	44												ĺ

RUN SIZE					В	RANC	H SIZE	E (IN.)						
(IN.)	4	6	8	10	12	14	16	18	20	24	30	36	42	
4	29													
6	23	44												
8	18	41	61											
10	12	37	58	75										
12	6	33	55	73	91									
14	1	29	52	71	89	107								
16	1	24	48	68	86	105	119							
18	1	19	45	65	84	103	118	133						
20	1	15	41	62	82	101	116	132	147					
24	1	4	34	56	76	97	112	128	144	173				
30	1	1	21	46	68	89	106	123	139	169	209			
36	1	1	8	35	59	82	99	117	134	165	206	244		
42	1	1	1	23	49	73	92	111	128	160	202	241	276	
48	1	1	1	10	39	64	84	104	122	155	198	238	273	307

ARGE END					;	SMALI	END	(IN.)					
(IN.)	4	6	8	10	12	14	16	18	20	24	30	36	42
6	29												
8	52	31											
10	71	53	29										
12	89	74	54	30									
14	105	95	78	57	31								
16	121	111	96	78	56	30							
18	136	127	114	98	79	56	30						
20	151	143	131	117	100	79	56	30					
24	179	172	163	151	137	120	101	80	56				
30	217	211	204	195	184	171	156	140	121	78			
36	253	249	243	235	226	216	204	190	175	141	78		
42	285	282	277	271	263	255	245	233	221	192	140	75	
48	318	315	310	305	299	292	283	273	263	238	194	139	75

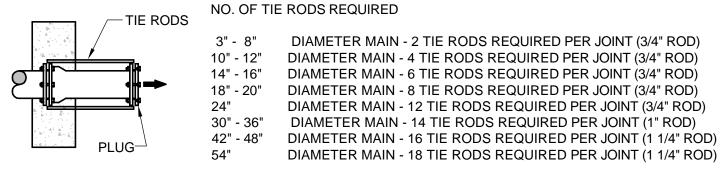
	P.V.	C. PIPE	FITTING	G, PLUGS	S & VALV	ES -L(F	T.)	
NOMINAL		HORIZONT	AL BENDS		VER ⁻	TICAL BEI	NDS	VALVES OR
PIPE SIZE (IN.)	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)		DEAD ENDS L (FT.)
4	18	8	4	2	17	8	4	39
6	25	11	5	3	23	11	6	55
8	33	14	7	4	30	15	8	72
10	39	16	8	4	36	18	9	87
12	45	19	9	5	43	21	11	102
14	52	22	11	6	50	24	12	119
16	57	24	12	6	55	27	13	131
18	63	26	13	7	60	29	15	145
20	68	29	14	7	66	32	16	159
24	79	33	16	8	77	37	19	185
30	93	39	19	10	92	45	22	222
36	106	44	21	11	107	52	26	257
42	117	49	24	12	120	58	29	289
48	128	53	26	13	133	64	32	321

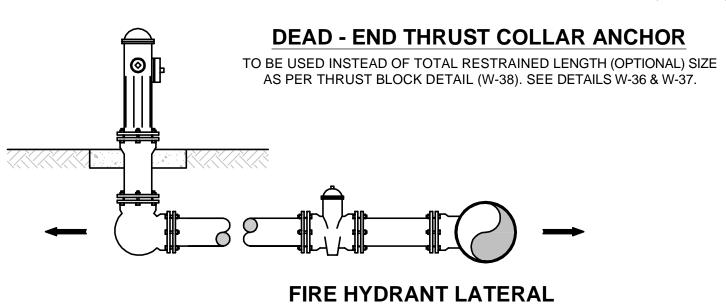
PVC PIPE RESTRAINT JOINT SCHEDULE



REDUCER

MECHANICAL JOINT SLEEVES

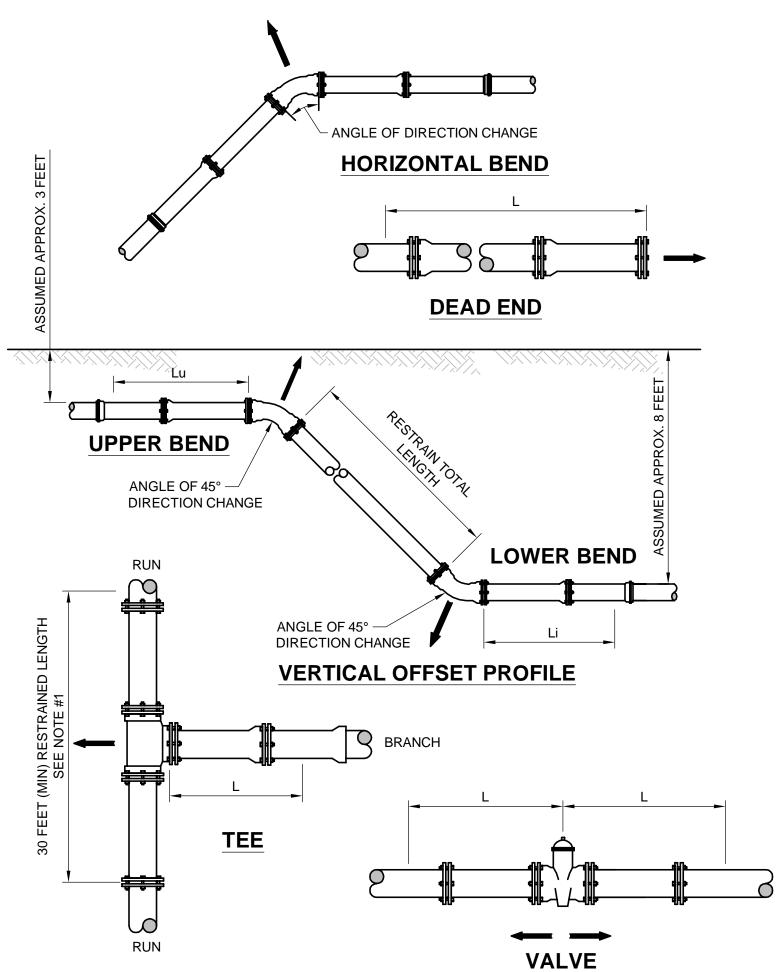




MECHANICAL RESTRAINT DETAILS - I

GENERAL NOTE:

1. INDICATES DIRECTION OF THRUST FORCE.



1. TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL

BE A TOTAL DISTANCE OF 30 FEET (MIN.).

MECHANICAL RESTRAINT DETAILS - II

(SEE PLATE Nos. 31C & 31D FOR ADDITIONAL DETAILS)

				D.I. PI	PE	TEE -	L (FT	.) SE	E NOT	E 5. F	OR			
RUN SIZE					В	RANC	H SIZE	E (IN.)						
(IN.)	4	6	8	10	12	14	16	18	20	24	30	36	42	
4	18													
6	15	29												
8	12	26	39											
10	8	24	37	48										
12	4	21	35	47	58									
14	1	18	33	45	57	67								
16	1	16	31	43	55	66	76							
18	1	13	29	42	54	64	75	85						
20	1	10	27	40	52	63	74	84	94					
24	1	3	22	36	49	60	71	82	92	110				
30	1	1	14	29	44	56	68	78	89	108	133			
36	1	1	5	23	38	51	63	74	85	105	131	155		
42	1	1	1	15	32	46	59	70	82	102	129	153	175	
48	1	1	1	7	25	40	54	66	78	99	126	151	173	19

								_ (.	,		•				
		LARGE END					,	SMALL	END	(IN.)					
		(IN.)	4	6	8	10	12	14	16	18	20	24	30	36	42
		6	19												
		8	34	20											
		10	45	34	19										
		12	57	48	35	20									
		14	67	59	48	35	19								
		16	77	71	61	50	36	19							
		18	87	81	73	63	50	36	19						
		20	96	91	84	75	64	51	36	19					
		24	114	109	103	96	87	77	64	51	36				
		30	138	135	130	124	117	109	100	89	77	50			
		36	161	158	154	150	144	137	130	121	111	89	50		
		42	181	179	176	172	167	162	155	148	140	122	89	48	
		48	201	199	196	193	189	184	179	173	166	150	122	88	48
.	,														

D.I. PIPE REDUCERS - L (FT.) SEE NOTE 5. FOR

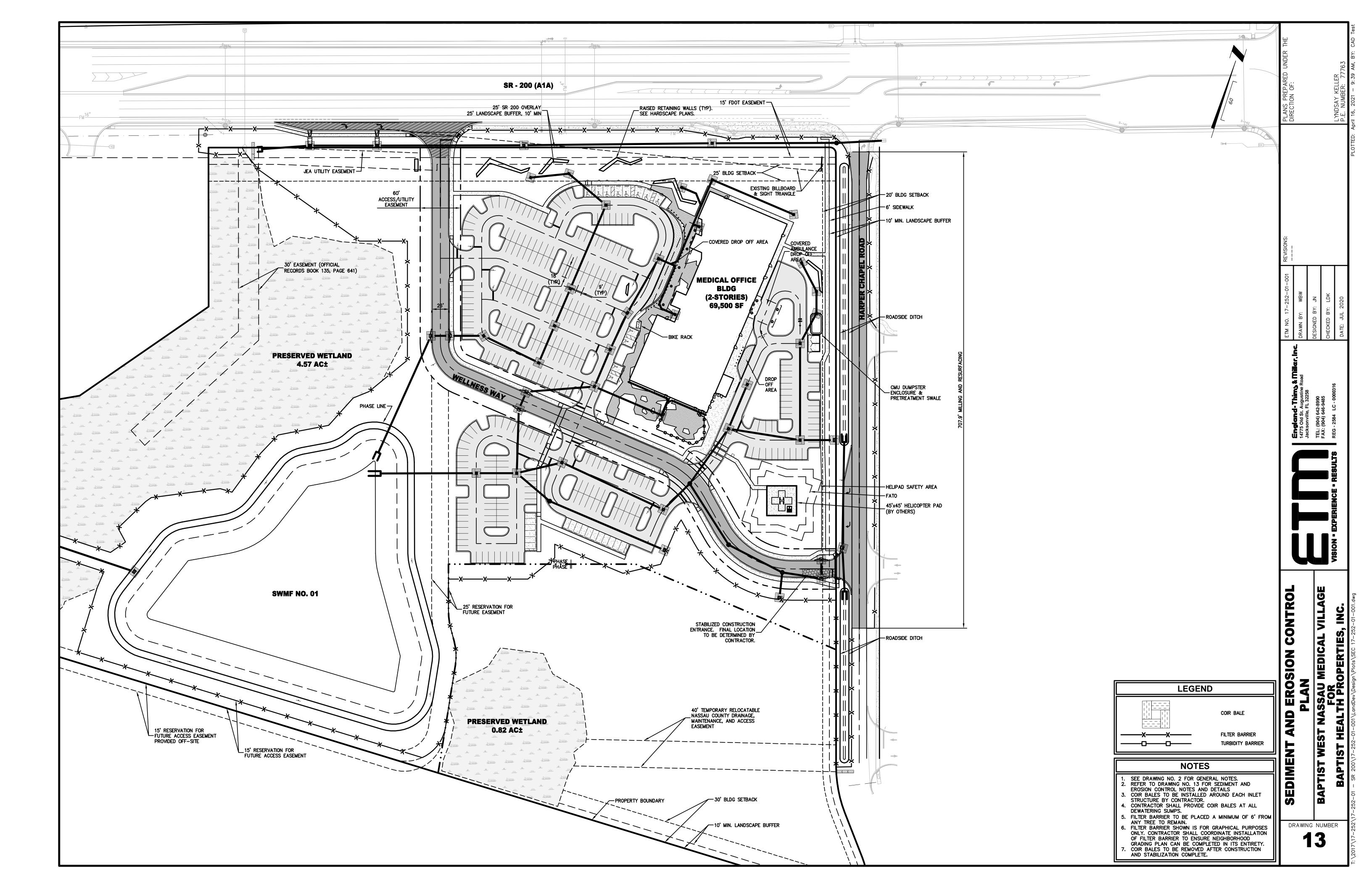
	D.I	. PIPE F	ITTING,	PLUGS	& VALVE	S - L (FT	.)	
NOMINAL		HORIZONT	AL BENDS		VER ⁻	TICAL BEI	NDS	VALVES OR
PIPE SIZE (IN.)	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	DEAD ENDS L (FT.)
4	15	6	3	2	11	5	3	25
6	20	9	4	2	15	7	4	36
8	26	11	6	3	20	10	5	47
10	31	13	7	4	23	11	6	56
12	36	15	8	4	27	13	7	65
14	41	17	9	4	31	15	8	74
16	46	19	10	5	35	17	9	84
18	50	21	10	5	39	19	10	92
20	55	23	11	6	42	21	10	101
24	63	27	13	7	49	24	12	118
30	75	31	15	8	59	28	14	141
36	86	36	17	9	68	33	17	163
42	95	40	19	10	76	37	18	183
48	104	43	21	11	84	41	20	203

DUCTILE IRON PIPE RESTRAINT NOTES:

- 1. THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
- 2. ASSUMPTIONS: DUCTILE IRON PIPE (WITHOUT POLY WRAP), SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=36 INCHES. FOR D.I.P. W/POLY WRAP, USE RESTRAINT JOINT SCHEDULE FOR PVC PIPE.
- 3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
- 4. VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. LI IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE
- 5. TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 3 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.THE PROJECT ENGINEER CAN INCREASE THIS DISTANCE TO REDUCE THE RESTRAINS REQUIRED ON THE BRANCH SIDE. ANY CHANGES MUST BE APPROVED BY THE ENGINEER.
- 6. HDPE TO D.I.P. TRANSITIONS: THE D.I.P. PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).

DUCTILE IRON PIPE RESTRAINT JOINT SCHEDULE



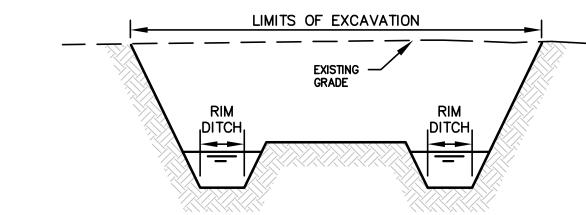


SEDIMENT AND EROSION CONTROL NOTES

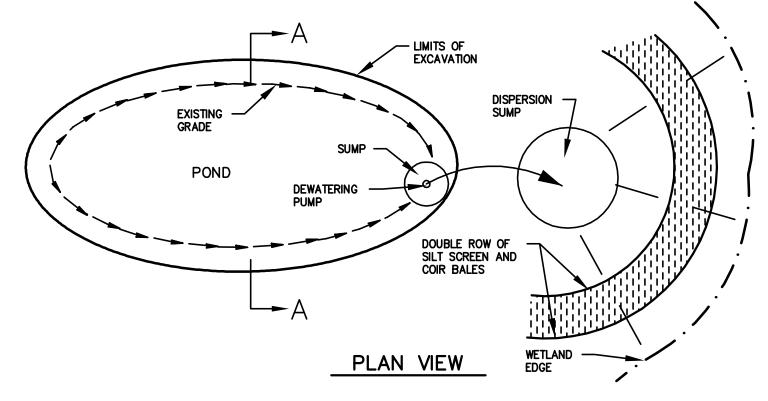
- 1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON—SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
- 2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
- 3. ADDITIONAL PROTECTION ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
- 4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
- 5. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS REQUIRED, THE STRIPS SHALL BE OVERLAPPED.
- 6. FDOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON SEDIMENT FILTER DETAIL (SEE DETAIL THIS SHEET). THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHÈS OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES
- 7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
- 8. BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
- 9. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
- 10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 4 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED
- 11. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
- 12. LOOSE COIR SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
- 13. COIR BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- 14. CLOSE ATTENTION SHALL BE GIVEN TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
- 15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
- 16. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. IT MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- 17. ANY SEDIMENT DEPOSITS REMAINING IN PLACE, AFTER THE COIR BALE OR FILTER BARRIERS, AND OR SILT FENCES ARE NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
- 18. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 19. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED
- 20. STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS
- 21. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- 22. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT RULES AND REGULATIONS.
- 23. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (F.D.E.P.) CHAPTER 6.
- 24. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAILS (THIS SHEET) FOR TYPICAL
- 25. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
- 26. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
- 27. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE ST. JOHNS RIVER WATER
- 28. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED AND MULCHED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR SHALL USE ADDITIONAL MEASURES TO STABILIZE DISTURBED AREAS THROUGH COMPACTION, SILT SCREENS, COIR BALES, AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
- 29. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL SHALL REMAIN IN PLACE UNTIL AFTER COMPLETION OF CONSTRUCTION, AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
- 30. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
- 31. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES, RELATIVE TO COMPLIANCE OF SJRWMD FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.
- 32. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS AND PRESERVATION EASEMENTS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION.
- 33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF SOD AND/OR GRASS PER THE CONTRACT DOCUMENTS AND MEETING THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, NASSAU COUNTY AND NPDES FINAL STABILIZATION REQUIREMENTS.
- 34. THESE PLANS INCLUDING THE POLLUTION PREVENTION PLAN INDICATE THE MINIMUM EROSION & SEDIMENT CONTROL MEASURES REQUIRED FOR THIS PROJECT. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO

SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (F.D.E.P.) CHAPTER 6. CONTRACTOR SHALL PROVIDE EROSION PROTECTION AND TURBIDITY CONTROL AS REQUIRED TO INSURE CONFORMANCE TO STATE AND FEDERAL WATER QUALITY STANDARDS AND MAY NEED TO INSTALL ADDITIONAL CONTROLS TO CONFORM TO AGENCIES REQUIREMENTS. IF A WATER QUALITY VIOLATION OCCURS, THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ALL DAMAGE AND ALL COSTS WHICH MAY RESULT INCLUDING LEGAL FEES, CONSULTANT FEES, CONSTRUCTION COSTS, AND FINES.

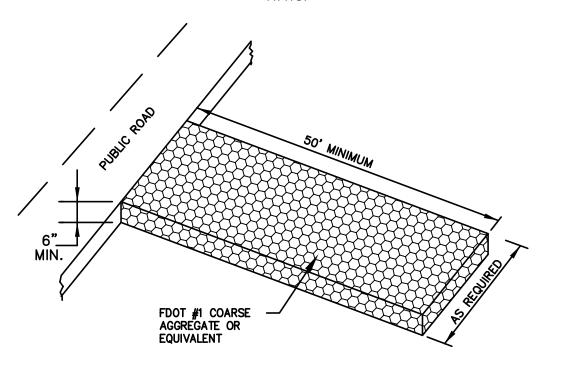
35. 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A "NOTICE OF INTENT" TO THE EPA IN ACCORDANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM RULES AND REGULATIONS. (FOR ANY CONSTRUCTION NOT COVERED BY THE OWNER'S "NOTICE OF INTENT" PERMIT)



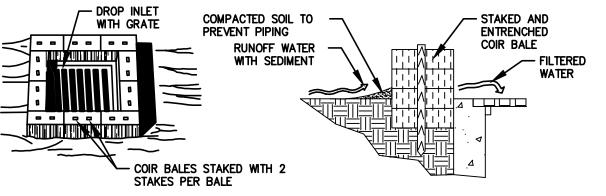
SECTION A-A



TEMPORARY DEWATERING DETAIL N.T.S.



STABILIZED CONSTRUCTION ENTRANCE N.T.S.

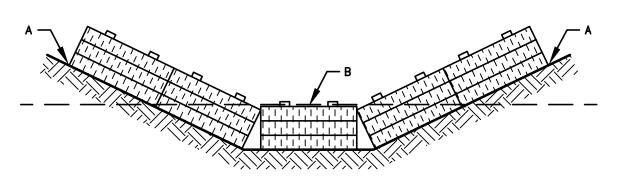


SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 cfs) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

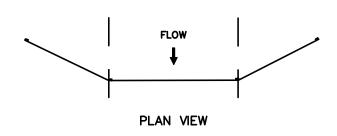
COIR BALE DROP INLET SEDIMENT FILTER

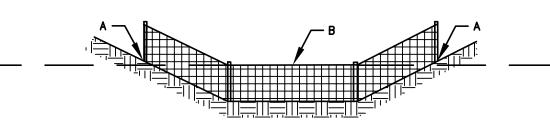
N.T.S.



POINTS A SHOULD BE HIGHER THAN POINT B

PROPER PLACEMENT OF COIR BALE IN A DRAINAGE WAY

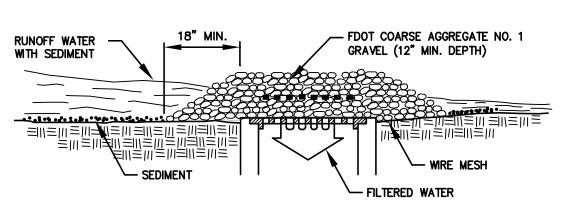




SECTION VIEW POINTS A SHOULD BE HIGHER THAN POINT E

PROPER PLACEMENT OF A FILTER BARRIER IN DRAINAGE WAY

N.T.S.

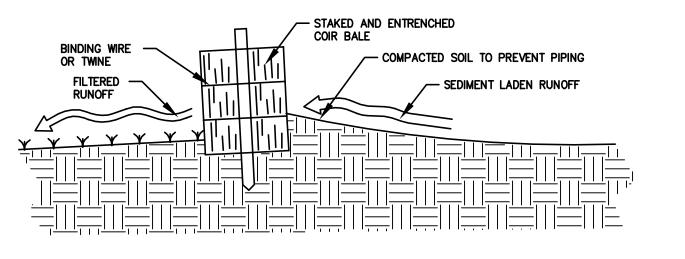


SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

GRAVEL AND WIRE MESH DROP INLET **SEDIMENT FILTER**

N.T.S.

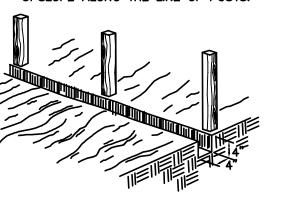


CROSS-SECTION OF A PROPERLY

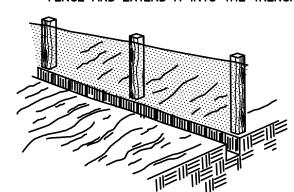
INSTALLED COIR BALE

N.T.S.

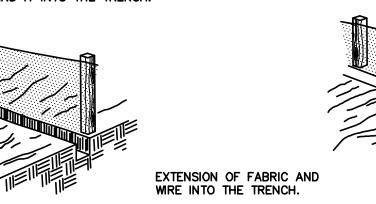
1. SET POSTS AND EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.

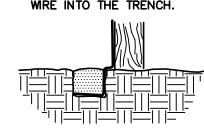


3. ATTACH THE FILTER FABRIC TO THE WIRE



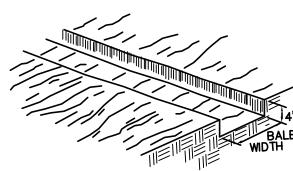
FENCE AND EXTEND IT INTO THE TRENCH.

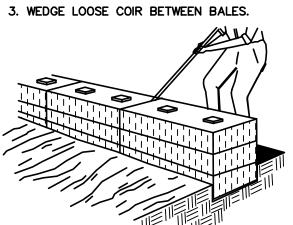




CONSTRUCTION OF SILT FENCE

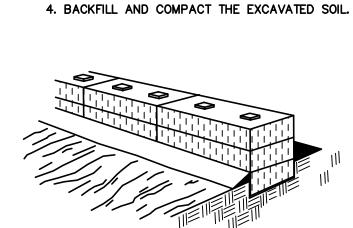
1. EXCAVATE THE TRENCH





2. STAPLE WIRE FENCING TO THE POSTS.

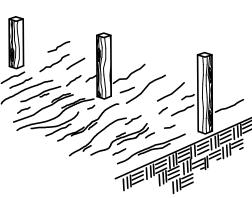
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



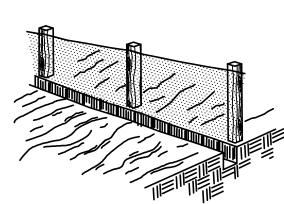
2. PLACE AND STAKE COIR BALES.

CONSTRUCTION OF A COIR BALE BARRIER

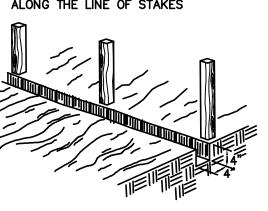
1. SET THE STAKES.



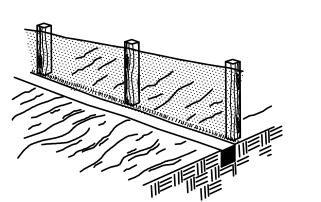
3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.



2. EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES



4. BACKFILL AND COMPACT THE EXCAVATED SOIL



CONSTRUCTION OF A FILTER BARRIER

INVENTORY FOR POLLUTION PREVENTION PLAN

SPILL PREVENTION

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE

USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED

* AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED

* ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN

THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER

Masonry Blocks

Metal Studs

Roofing Materials

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE

Petroleum Based Products

PRESENT ONSITE DURING CONSTRUCTION:

MATERIAL MANAGEMENT PRACTICES

THE ORIGINAL MANUFACTURER'S LABEL.

RECOMMENDED BY THE MANUFACTURER.

ONSITE RECEIVE PROPER USE AND DISPOSAL.

CONTAIN IMPORTANT PRODUCT INFORMATION.

DISPOSING OF THE CONTAINER.

WITH HAZARDOUS MATERIALS.

PRODUCT SPECIFIC PRACTICES

PETROLEUM PRODUCTS

CONCRETE TRUCKS

CLEANUP:

FOR THIS PURPOSE.

SIZE OF THE SPILL.

WILL BE FOLLOWED.

HAZARDOUS PRODUCTS

Concrete

Detergents

GOOD HOUSEKEEPING

TO DO THE JOB.

Asphalt

Fertilizers

Paints

ONSITE DURING THE CONSTRUCTION PROJECT.

Cleaning Solvents

OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

* PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH

* SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS

* WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE

* MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL

* THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS

* ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY

STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

* IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR

PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM

PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS

BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER.

PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A

STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR

RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED

SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS'

SPILL CONTROL PRACTICES

FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER

DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT

PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN. THE

FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE

PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP

INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS,

GLOVES, GOGGLES, LIQUID ABSORBENT (i.e. KITTY LITTER OR EQUAL),

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

CONTACT WITH A HAZARDOUS SUBSTANCE.

APPLICABLE, IN THE OFFICE TRAILER ONSITE.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE

APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO

PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP

THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT

OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE

CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE

HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO

PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF

WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE

OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL

WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT

SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY

IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL

CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE

* PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED

ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

SEALABLE PLASTIC BIN TO AVOID SPILLS.

INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

* ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.50 INCHES OR GREATER.

* ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING

* SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT. TEARS, TO

AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10

REPAIRED.

FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

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 AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS.

* THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WLL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE

* PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE. SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES

* WATER FROM WATER LINE FLUSHING

* PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

* UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT

CONTRACTOR'S CERTIFICATION

* NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME

REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

* THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT,

* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY

* TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED

INSPECTION. A COPY OF THE REPORT FORM SHALL BE COMPLETED BY THE

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.

SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND

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

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER

DEWATERING

PRIOR TO ANY DISCHARGE OF GROUND WATER (DEWATERING) FROM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT TO WATERS OF THE STATE (INCLUDING, BUT NOT LIMITED TO, WETLANDS, SWALES AND MUNICIPAL STORM SEWERS), THE CONTRACTOR SHALL TEST THE EFFLUENT (WATER TO BE DISCHARGED) IN ACCORDANCE WITH RULE 62-621.300(2). F.A.C. IF THE TEST RESULTS ON THE EFFLUENT ARE BELOW THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL SUBMIT A SUMMARY OF THE PROPOSED CONSTRUCTION ACTIVITY AND THE TEST RESULTS TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DISTRICT OFFICE, WITHIN ONE (1) WEEK AFTER DISCHARGE BEGINS. THE CONTRACTOR SHALL CONTINUE TO SAMPLE THE EFFLUENT AS REQUIRED THROUGHOUT THE PROJECT AND COMPLY WITH ALL CONDITIONS OF RULE 62-621.300(2), F.A.C. IF THE GROUND WATER EXCEEDS THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL COMPLY WITH OTHER APPLICABLE RULES AND REGULATIONS PRIOR TO DISCHARGE OF THE EFFLUENT (GROUND WATER) TO SURFACE WATERS OF THE STATE.

SIGNATURE BUSINESS NAME AND ADDRESS RESPONSIBLE FOR/DUTIES OF CONTRACTOR & ALL SUBS GENERAL CONTRACTOR SUB-CONTRACTOR SUB-CONTRACTOR SUB-CONTRACTOR SUB-CONTRACTOR

USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF

* BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS

SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.

PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB.

* A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH

BASIN PRIOR TO DISCHARGE.

CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

DRAWING NUMBER

SITE DESCRIPTION

PROJECT NAME AND LOCATION: BAPTIST WEST NASSAU MEDICAL VILLAGE NASSAU COUNTY, FLORIDA

OWNER/DEVELOPER NAME AND ADDRESS:

BAPTIST HEALTH PROPERTIES, INC. 1660 PRUENTIAL DRIVE, SUITE 101 JACKSONVILLE, FL 904-202-5626

DESCRIPTION:

THIS PROJECT WILL CONSIST OF:

CONSTRUCTION OF A COMMERCIAL DEVELOPMENT. CONSTRUCTION WILL CONSIST OF INSTALLATION OF UNDERGROUND UTILITIES, CLEARING, GRADING, ROADWAYS, PARKING AREAS, AND ASSOCIATED CONSTRUCTION.

SOIL DISTURBING ACTIVITIES WILL INCLUDE: CLEARING AND GRUBBING; INSTALLING A STABILIZED CONSTRUCTION ENTRANCE, PERIMETER, AND OTHER EROSION AND SEDIMENT CONTROLS; GRADING: EXCAVATION FOR THE SEDIMENTATION POND, STORM SEWER. UTILITIES, AND BUILDING FOUNDATION; CONSTRUCTION OF CURB AND GUTTER, ROAD, AND PARKING AREAS; AND PREPARATION FOR FINAL PLANTING AND SEEDING.

GENERALIZED RUNOFF CURVE NUMBERS (REFER TO DRAINAGE CALCULATIONS FOR ACTUAL CURVE NUMBER FOR EACH BASIN)

 $PRE-CONSTRUCTION = 80\pm$ DURING CONSTRUCTION = 98± $POST-CONSTRUCTION = 96\pm$

* SEE ATTACHED FOR SOILS DATA

* SEE ATTACHED DWG. No. 7A - 7E FOR POST DEVELOPMENT GRADES, AREAS OF SOILS, DISTURBANCE, LOCATION OF SURFACE WATERS, WETLANDS, PROTECTED AREAS, MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS AND STORM WATER DISCHARGE POINTS.

* SEE ATTACHED DWG. No. 13 FOR LOCATION OF TEMPORARY STABILIZATION PRACTICES, AND TURBIDITY BARRIERS

SITE AREA:

TOTAL AREA OF SITE = 24.60 AC± 2. TOTAL AREA TO BE DISTURBED = $10.36 \text{ AC} \pm$

NAME OF RECEIVING WATERS: HEADWATERS OF PLUMMER CREEK

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. DWG. No. XX AND XX HAVE BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS AS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS. REFER TO "CONTRACTORS REQUIREMENTS" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

AREAS WHICH ARE NOT DEVELOPED BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE.

REFER TO " CONTRACTORS REQUIREMENTS" FOR THE TIMING OF CONTROL/MEASURES. CERTIFICATION OF COMPLIANCE WITH

FEDERAL, STATE AND LOCAL REGULATIONS

IN AN EFFORT TO ENSURE COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS REGARDING EROSION AND TURBIDITY CONTROLS, THE FOLLOWING PERMITS HAVE

BEEN OBTAINED. D.E.P. DREDGE/FILL PERMIT C.O.E. DREDGE/FILL PERMIT S.J.R.W.M.D. M.S.S.W. PERMIT

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OF THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS. TO THE BEST OF MY KNOWLEDGE AND BELIEF. TRUE, ACCURATE, AND COMPLETE, I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

CORPORATE OFFICER, GENERAL PARTNER, PROPRIETOR, EXECUTIVE OFFICER, OR RANKING ELECTED OFFICIAL

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS. DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULANTS TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM

GENERAL

SEQUENCE OF MAJOR ACTIVITIES:

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED

GRUBBING

PRACTICABLE

CONSTRUCTION ENTRANCE

2. INSTALL SILT FENCES AND COIR

3. CLEAR AND GRUB FOR DIVERSION

CONSTRUCT SEDIMENTATION

6. STOCK PILE TOP SOIL IF REQUIRED

STABILIZE DENUDED AREAS AND

7. PERFORM PRELIMINARY GRADING

STOCKPILES AS SOON AS

ON SITE AS REQUIRED

CONTINUE CLEARING AND

SWALES/DIKES AND SEDIMENT

BALES AS REQUIRED

9. INSTALL UTILITIES, STORM SEWER, CURBS & GUTTER.

10. APPLY BASE TO PARKING AREAS 11. COMPLETE GRADING AND INSTALL PERMANENT

SEEDING/SOD AND PLANTING 12. COMPLETE FINAL PAVING 13. REMOVE ACCUMULATED SEDIMENT FROM BASINS

14. WHEN ALL CONSTRUCTION

ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED

NOTE: VERTICAL CONSTRUCTION OF THE BUILDING WILL BE TAKING

PLACE DURING ALL THE SEQUENCE STEPS LISTED ABOVE

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND COIR BALES. STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE SEDIMENT AND EROSION CONTROL PLAN (DRAWING NO. 13)

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED. MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE

REGULATORY AGENCIES.

COIR BALE BARRIER: COIR BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE

A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.

AGAINST WASHOUT. 2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW

A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.

B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM

4. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL LIP IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO

5. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.

6. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT

TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR

EROSION AND SEDIMENT CONTROLS

STABILIZATION PRACTICES

FOLLOWING LIMITATIONS:

BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE

CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED

OF SEDIMENTS.

CONTROLS

EROSION AND SEDIMENT CONTROL PLAN AND AS REQUIRED TO MEET THE SEDIMENT AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE

B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES. C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS. D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF COIR BALE

DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:

BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.

RECONCENTRATE AFTER RELEASE.

INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE

THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.

LATER COMPETE WITH THE PERMANENT GRASSING.

DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT -LADEN STORM

AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND

RECEIVE FINAL GRASSING TREATMENT WITHIN 7 DAYS SHALL BE SEEDED

WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY

RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS

TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS

COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT

9. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT

AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.

10. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S)

SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER

SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING

11. TEMPORARY REGRASSING: IF, AFTER 14 DAYS FROM SEEDING, THE

12. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND

CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE

MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO

13. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF

14. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY

FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.

THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE

CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. THE SEEDING MIX MUST

VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED

PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL

TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE

USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY.

DISCHARGE FROM A DISTURBED AREA WITH THE FOLLOWING

A. THE SEDIMENT TRAP MAY BE CONSTRUCTED EITHER

THE RECEIVING CHANNEL OR AREA.

3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND

PAVED CHANNEL SECTIONS WHERE THE VELOCITY OF FLOW AT DESIGN

SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE

LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES

AT ONE TIME, THE PROPOSED STORM WATER PONDS (OR TEMPORARY

PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE

SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF

STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE.

STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE

DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT

SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS

THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL

MUST BE REMOVED UPON FINAL STABILIZATION.

BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN

ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL

THE 3,600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT

APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS

CAPACITY OF THE OUTLET WILL EXCEED THE PERMISSIBLE VELOCITY OF

TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP IS USUALLY INSTALLED

IN AN DRAINAGEWAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF

INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION

VEGETATIVE COVER.

OFFSITE FACILITIES.

OR SODDED.

STRUCTURAL PRACTICES

LIMITATIONS:

CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.

TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75

PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND

ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED

FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 8 ABOVE

SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES

LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED

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

THAT THESE PRACTICES ARE FOLLOWED. SANITARY WASTE ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED

TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

OTHER CONTROLS

OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE

WHO MANAGES DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE

WASTE DISPOSAL

HAZARDOUS WASTE ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL

AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

OFFSITE VEHICLE TRACKING VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK

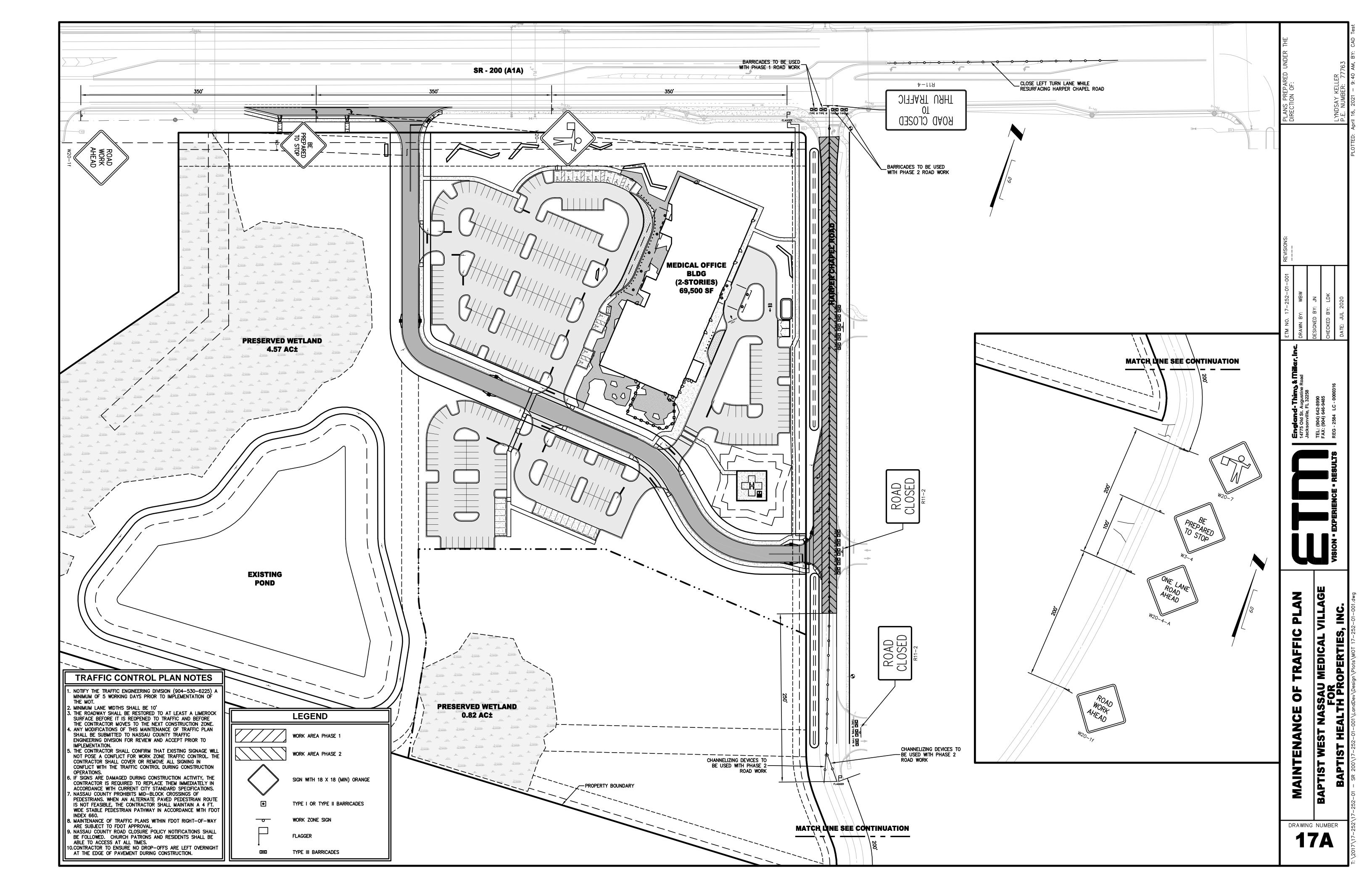
BAPTI: STR INSECTOR: THIS IS THE POLLUTION I PREVENTION CERTIFICATION OF 0.50 INC INSPECTOR'S QUALIFICATIONS: DAYS SINCE LAST RAINFALL: (DESCRIPTION OF	STORM WATE. STORM WATE. INSPECTION THE CONTRACTOR ON DISCHARGE EL THON PLAN FOR C. SATION MUST BE (O) INCHES OR GREAT ALL: DATE SINCE LAST	STORM WATER POLLUTION PREVENTION PLAN INSPECTION AND MAINTENANCE REPORT FORM THE CONTRACTORS CERTIFICATION REQUIRED BY THE EPA'S NATION PLAN FOR CONSTRUCTION SITES OVER 1.0 ACRES. THIS INCHES OR GREATER. AND DISCHARGE ELIMINATION SYSTEM (NPDES), STORM WATER PORTION PLAN FOR CONSTRUCTION SITES OVER 1.0 ACRES. THIS INCHES OR GREATER. AND DISCHARGE ELIMINATION MEASURES AND DISCHARGE ELIMINATION MEASURES STABILIZATION MEASURES BATE SINCE DATE SINCE DATE OF STABILIZED WENT AND AND MAINTENANT STABILIZED WINCH	SAU MEDICAL VIII TION PREVENTION P. VTENANCE REPORT I TION REQUIRED BY THE EPAY VSITES OVER 1.0 ACRES. T WEEKLY AND AFTER EVERY WEEKLY AND AFTER EVERY AMOUNT OF LAST RAINFALL STABILIZED ? STABILIZED ? STABILIZED ?	BAPTIST WEST NASSAU MEDICAL VILLAGE STORM MATER POLLUTION PREVENTION PLAN INSPECTION AND MAINTENANCE REPORT FORM THIS IS THE CONTRACTORS CERTIFICATION REQUIRED BY THE EPA'S NATIONAL POLUTION DISCHARGE ELIMINATION SYSTEM (NPDES), STORM WATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION SITES OVER 1.0 ACRES. THIS CERTIFICATION MUST BE COMPLETED WEEKLY AND AFTER EVERY RAINFALL EVENT OF 0.50 INCHES OR GREATER. T RAINFALL:	VENT CONDITION
	DISTURBED	DISTURBANCE	(YES/NO)		

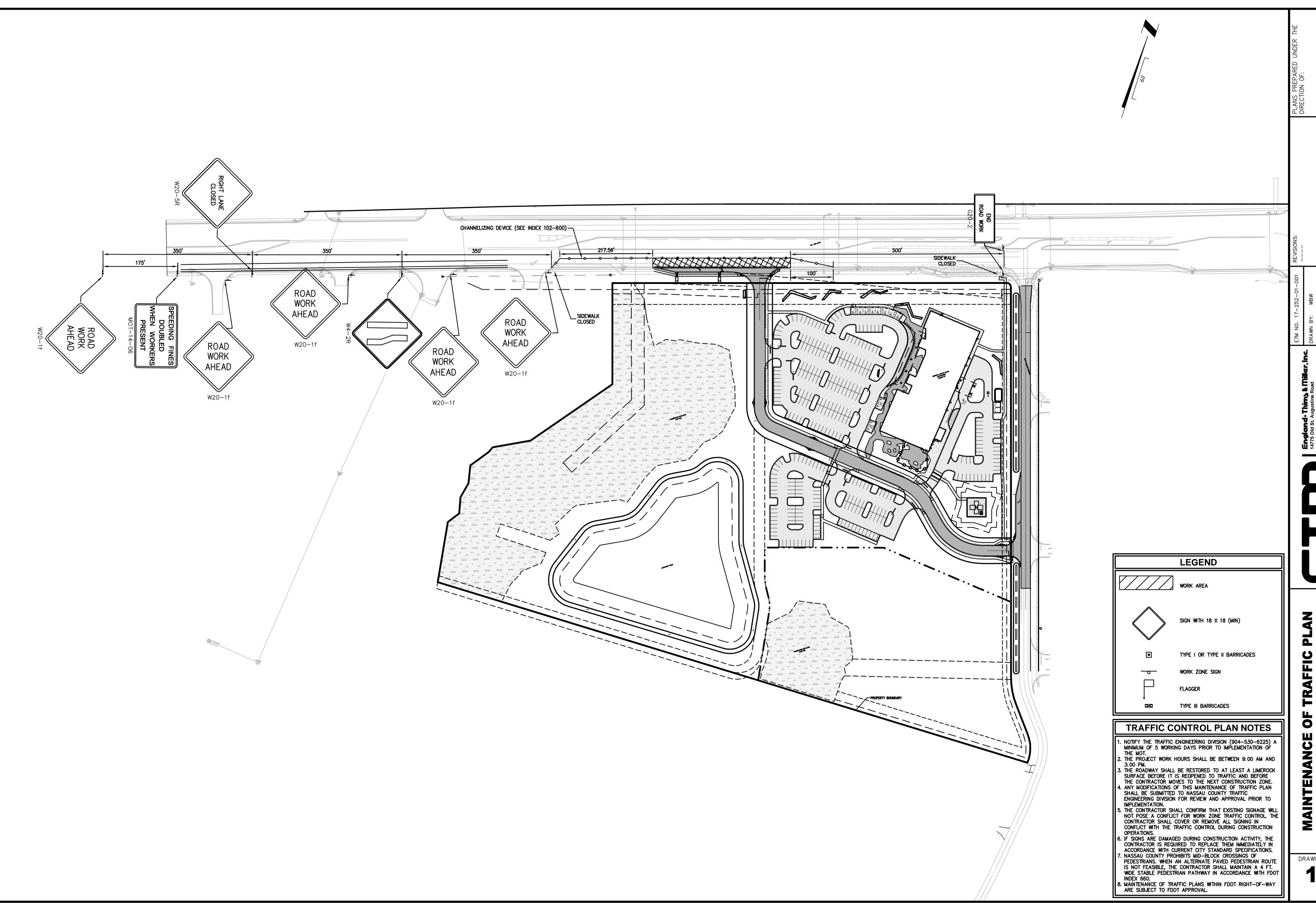
STRUCTURAL CONTROLS	STRUCTURAL CONTROLS	TROLS	
	EARTH DIKES/SWALES	swales	
DIKE OR SWALE	ОТ	IS DIKE/SWALE STABILIZED ?	IS THERE EVIDENCE WASHOUT OR OVERTOPPING
MAINTENANCE REQUIRED FOR EARTH DIKE/SWALE:	TH DIKE/SWALE:		
TO BE PERFORMED BY:		ON OR BEFORE	EFORE
CATCH E	CATCH BASIN/CURB INLET/OUTFALL TURBIDITY CONTROLS	LL TURBIDITY CONTROLS	Ø
STRUCTURE/ ARE TURBIDITY CONTROLS IN PLACE	ANY EVIDENCE OF CLOGGING/WASHOUT OR BYPASSING ?	ARE TURBIDITY CONTROLS IN NEED OF REPLACING	DOES SILT NEED BE REMOVED FROM A CONTROL
MAINTENANCE REQUIRED FOR CATCH BASIN/CURB INLETS/OUTFALLS TURBIDITY CONTROLS:	CH BASIN/CURB INLETS/(OUTFALLS TURBIDITY CO	NTROLS:
TO BE DEPENDATO BY:		ON OP REFORE	FEODE
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77	STORM WATER POLI INSPECTION AND M. SEDIN	STORM WATER POLLUTION PREVENTION PLAN INSPECTION AND MAINTENANCE REPORT FORM SEDIMENT BASIN	AN ORM
: SEDIMENT 3ASIN	DEPTH OF SEDIMENT SIDE BASIN	ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT ?	CONDITION OF OUTFALL FROM SEDIMENT BASIN
CE REQUIRED F	CE REQUIRED FOR SEDIMENT BASIN:		
FORMED BY:		ON OCHE REFORE	-ORF
	OTHER	OTHER CONTROLS	
	STABILIZED CON	CONSTRUCTION ENTRANCE	
MUCH ENT GET ED ON TO AD?	IS THE GRAVEL CLEAN OR IS IT FILLED WTH SEDIMENT?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THE SITE ?	IS THE CULVERT BENEATH THE ENTRANCE WORKING? (IF APPLICABLE)
CE REQUIRED F	CE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:	TION ENTRANCE:	
FORMED BY:		ON OR BEF	BEFORE
	PAGE :	3 OF 4	

STORM WATER POLLUTION PREVENTION PLAN INSPECTION AND MAINTENANCE REPORT FORM
HANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:
EASONS FOR CHANGES:
CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION R SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY ATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO ANAGE THE SYSTEM, OF THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE RE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND
IGNATURE:

CONDITION OF OUTFALL FROM SEDIMENT BASIN		
ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT ?		
DEPTH OF SEDIMENT SIDE BASIN		
DEPTH OF SEDIMENT IN BASIN		





OF