

# ALCANTARA MULTI-FAMILY

CITY OF EDGEWATER - VOLUSIA COUNTY, FL

## FINAL ENGINEERING

### OWNER:

LEON ALCANTARA  
2521 KUMQUAT DRIVE  
EDGEWATER, FL 32141  
(386) 314-7806  
CONTACT PERSON: LEON ALCANTARA  
e-mail: leatherman2009@hotmail.com

### CIVIL ENGINEER:

ZEV COHEN & ASSOCIATES, INC.  
300 INTERCHANGE BLVD, SUITE C  
ORMOND BEACH, FL 32174  
PHONE NUMBER: (386) 677-2482  
FAX NUMBER: (386) 677-2505  
CONTACT PERSON: JOHN A. DILLARD, P.E.  
email: jdillard@zevcohen.com

### SURVEYOR:

EFIRD SURVEYING GROUP, INC.  
475 S. BLUE LAKE AVENUE  
DELAND, FL 32724  
PHONE NUMBER: (386) 740-4144  
FAX NUMBER: (386) 740-4155  
CONTACT PERSON: LARRY R. EFIRD JR.  
e-mail: larry@efirdsurveying.com

### GEOTECHNICAL ENGINEER:

ECS FLORIDA, LLC.  
3890 TURTLE CREEK ROAD  
PORT ORANGE, FL 32127  
(386) 233-1111  
CONTACT PERSON: ELLIOT MEADOWS  
e-mail: elliot@maiermeadows.com

### LANDSCAPE ARCHITECT:

ZEV COHEN & ASSOCIATES, INC.  
300 INTERCHANGE BLVD, SUITE C  
ORMOND BEACH, FL 32174  
PHONE NUMBER: (386) 677-2482  
FAX NUMBER: (386) 677-2505  
CONTACT PERSON: JAKE STEHR, LA  
e-mail: jstehr@zevcohen.com

### PROJECT DESCRIPTION:

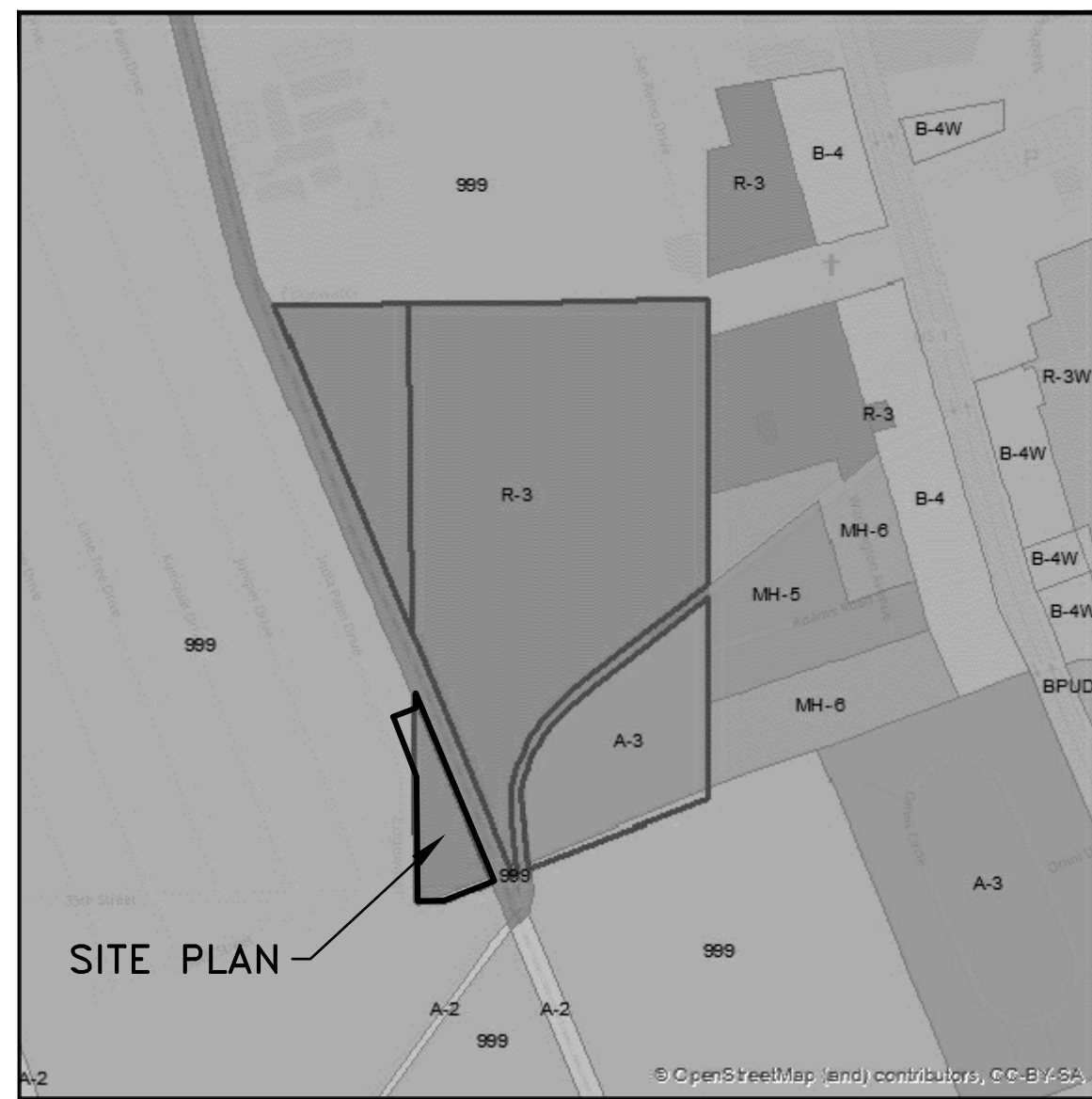
THIS PROJECT INCLUDES THE CONSTRUCTION OF 10 RESIDENTIAL DUPLEX UNITS (20 TOTAL UNITS) ALONG WITH DRIVEWAYS, UTILITIES AND A STORM WATER MANAGEMENT AREA.

### SITE INFORMATION:

SITE ADDRESS:	251 VOLCO RD, EDGEWATER 32141
SITE AREA:	4.05 AC
PROJECT AREA:	3.82 AC
TAX PARCEL I.D. #:	841100000010
EXISTING ZONING:	R-3
PROPOSED ZONING:	RPUD-RESIDENTIAL PLANNED UNIT DEVELOPMENT
EXISTING LAND USE:	VACANT
PROPOSED LAND USE:	MULTI-FAMILY RESIDENTIAL
EXISTING FUTURE LAND USE:	LOW DENSITY RESIDENTIAL
UNIT/LOT COUNT:	18 UNITS/9 LOTS
UNIT/LOT DENSITY:	4.7 UNITS PER ACRE
SETBACKS:	
FRONT:	30 FT
SIDE:	10 FT
REAR:	25 FT
REQUIRED LANDSCAPE BUFFER(S):	0 FT - ALONG INDIA PALMS DRIVE 10 FT - ALONG THIRTYFIFTH STREET
MINIMUM LOT AREA:	8,625 SF
MAXIMUM BUILDING LOT COVERAGE:	30 %
MAXIMUM BUILDING HEIGHT	35 FT
UTILITIES:	PROVIDED BY CITY OF EDGEWATER

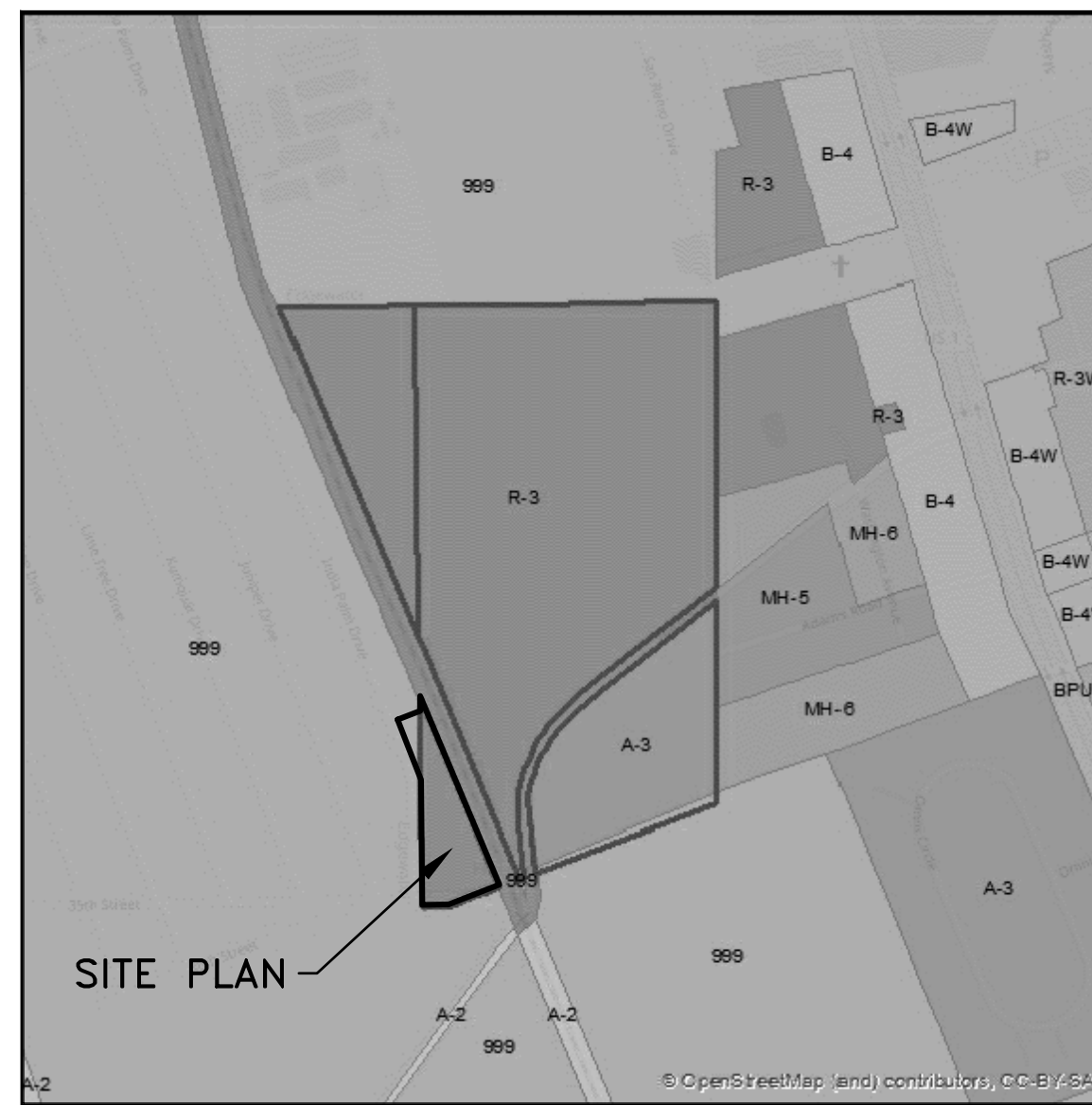
LAND USE TABLE:		
	ACREAGE	PERCENTAGE
EXISTING CONDITIONS:		
WETLAND AREA	0.0 AC	0.0%
UPLAND AREA	3.82 AC	100%
PROPOSED IMPROVEMENTS:		
BUILDING(S)	0.76 AC	19.90%
PAVEMENT & SIDEWALK	0.25 AC	6.44%
POND AREA(S)	0.63 AC	16.49%
LANDSCAPE/OPEN SPACE	2.18 AC	57.08%
TOTAL PERVIOUS	2.81 AC	73.6%
TOTAL IMPERVIOUS	1.01 AC	24.4%

PARKING CALCULATIONS:			
USE	PARKING REQUIREMENT	SF/UNITS	SPACES REQUIRED
RESIDENTIAL (RPUD)	2 SPACE PER UNIT	18	36
TOTAL =			36
PARKING SPACES PROVIDED:		36	



VICINITY MAP

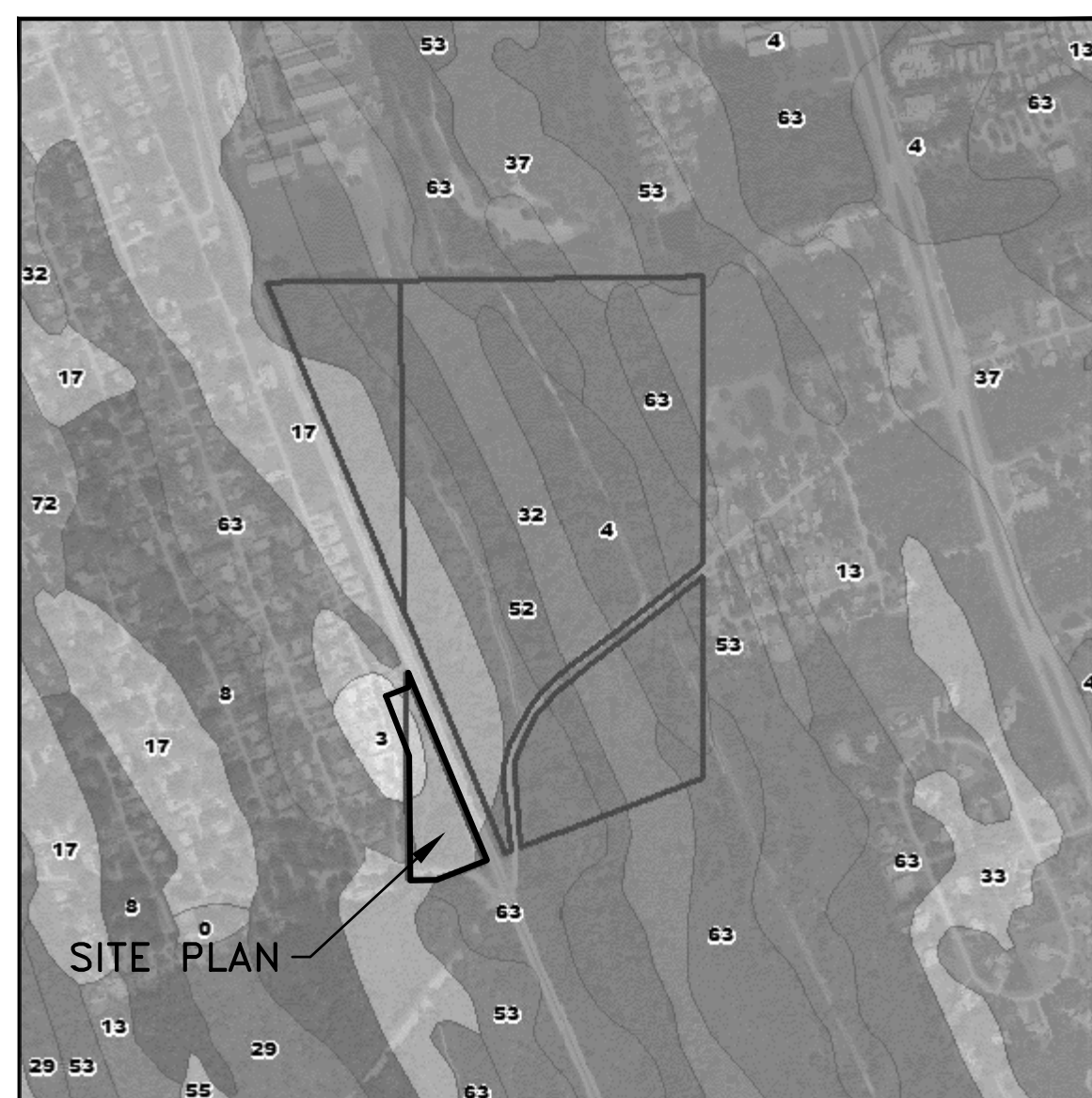
SCALE: 1" = 800'



ZONING MAP

SCALE: 1" = 800'

CURRENT ZONING FOR THIS SITE IS: R-3



SOILS MAP

SCALE: 1" = 800'

THE SITE LIES WITHIN THE FOLLOWING VOLUSIA COUNTY SOIL CLASSIFICATIONS: 3 ARENTS, (4) ASTATULA SAND, (13) CASSIA SAND, (17) DAYTONA SAND, (32) MYAKKA SAND, (52) POMPANO SAND, (53) POMPANO-PLACID COMPLEX, AND (63) TAVARES SAND



FLOOD ZONE MAP

SCALE: 1" = 800'

THE PROPERTY LIES IN:  
FLOOD ZONE X PER FEMA MAPS 12127C0700J AND 12127C0685J

### SHEET INDEX:

C1	COVER SHEET
C2-C4	CONSTRUCTION NOTES
C5	DEMOLITION & EROSION CONTROL PLAN
C6	GEOMETRY, SIGNAGE & STRIPING PLAN(S)
C7	PAVING, GRADING & DRAINAGE PLAN(S)
C8	UTILITY PLAN(S)
C9-C13	CONSTRUCTION DETAILS

TP1	TREE PROTECTION PLAN & DETAILS
LA1-LA2	LANDSCAPE PLAN & DETAILS

PL1	PRELIMINARY PLAT EXHIBIT
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### LEGAL DESCRIPTION:

LOTS 8259, 8260, 8261, 8262, AND 8263, BLOCK 241, FLORIDA SHORES UNIT NO. 9, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN PLAT BOOK 23, PAGE 134, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND A PORTION OF GOVERNMENT LOT 1, SECTION 11, TOWNSHIP 18 SOUTH, RANGE 34 EAST, VOLUSIA COUNTY, FLORIDA LYING WEST OF FLORIDA EAST COAST RAILWAY RIGHT OF WAY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

AS A POINT OF REFERENCE, COMMENCE AT THE SOUTHEAST CORNER OF SAID GOVERNMENT LOT 1; THENCE, SOUTH 68°33'30" WEST ALONG THE NORTH LINE OF THE JANE MURRAY GRANT, SECTION 48, TOWNSHIP 18 SOUTH, RANGE 34 EAST, VOLUSIA COUNTY, FLORIDA, A DISTANCE OF 955.40 FEET TO THE INTERSECTION OF SAID LINE AND THE EASTERLY RIGHT OF WAY OF THE FLORIDA EAST COAST RAILWAY; THENCE, SOUTH 68°33'30" WEST ALONG SAID NORTH LINE A DISTANCE OF 100.03 FEET TO THE INTERSECTION OF SAID LINE AND THE WESTERLY RIGHT OF WAY OF SAID FLORIDA EAST COAST RAILWAY AND THE POINT OF BEGINNING OF THE LANDS HEREIN DESCRIBED; THENCE, SOUTH 68°33'30" WEST ALONG SAID NORTH LINE, A DISTANCE OF 239.77 FEET TO THE INTERSECTION OF SAID LINE AND THE SOUTH LINE OF GOVERNMENT LOT 1; THENCE, SOUTH 88°57'20" WEST ALONG SAID SOUTH LINE, A DISTANCE OF 115.88 FEET TO THE SOUTHWEST CORNER THEREOF; THENCE, NORTH 00°33'40" WEST ALONG THE WEST LINE OF GOVERNMENT LOT 1, A DISTANCE OF 550.65 FEET TO THE SOUTHERLY CORNER OF SAID LOT 8259; THENCE, NORTH 21°12'05" WEST, A DISTANCE OF 284.63 FEET TO THE NORTHWEST CORNER OF SAID LOT 8263; THENCE, NORTH 68°46'07" EAST ALONG THE NORTH LINE OF LOT 8263, A DISTANCE OF 107.23 FEET TO THE NORTHEAST CORNER THEREOF, SAID CORNER LYING ON THE WEST LINE OF GOVERNMENT LOT 1; THENCE, NORTH 00°33'40" WEST ALONG SAID WEST LINE, A DISTANCE OF 65.15 FEET TO THE INTERSECTION OF SAID LINE AND THE WESTERLY RIGHT OF WAY OF FLORIDA EAST COAST RAILWAY; THENCE, SOUTH 22°44'40" EAST ALONG SAID WESTERLY RIGHT OF WAY, A DISTANCE OF 900.21 FEET TO THE POINT OF BEGINNING AND CLOSE. SAID PARCEL CONTAINING 176,452 SQ.FT. OR 4.05 ACRES, MORE OR LESS.

City of Edgewater  
Received  
in  
Development Services  
on  
December 20th, 2023

\*\*NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.\*\*



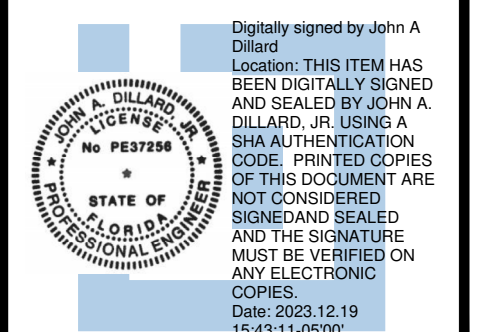
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL  
PLANNING  
TRANSPORTATION

NO.	DATE	BY	REVISIONS
1	08-17-22	TKR	ISSUED FOR CITY COMMENTS DATED 07-19-2022
2	08-17-22	TKR	REVISED PER CITY COMMENTS DATED 07-19-2022

ALCANTARA MULTI-FAMILY  
FINAL ENGINEERING PLANS  
COVER SHEET

PROJECT NO.: ZC 18114  
DESIGNED BY: JD  
DRAFTED BY: TR  
CHECKED BY: JD

DRAWING FILE: 01-18114-COV  
XREFS: 18114-BAS.DWG  
XREFS: 18114-SURV.DWG



12/19/2023  
JOHN A. DILLARD, JR., P.E. NO. 37256  
NOT VALID WITHOUT SEAL

SHEET: C1 OF 13

1. ALL CONSTRUCTION, DRAINAGE STRUCTURES AND OTHER SITE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITIONS OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE CITY OF EDGEWATER'S LAND DEVELOPMENT CODE REQUIREMENTS, STANDARD CONSTRUCTION DETAILS & STANDARD SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.
2. SHOP DRAWINGS AND CERTIFICATIONS FOR ALL MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL REVIEW AND SIGN SHOP DRAWINGS. THE CONTRACTOR SHALL SUBMIT REVIEWED SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.
3. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL REQUIRED PERMITS. THE CONTRACTOR SHALL MAINTAIN COPIES OF ALL RELEVANT PERMITS AND CONSTRUCTION DOCUMENTS AVAILABLE ON THE JOB SITE AT ALL TIMES.
4. CONTRACTOR TO MAINTAIN THE SITE IN A SAFE AND SECURE MANNER TO PROTECT PUBLIC SAFETY AND THE CONDITIONS OF THE IMPROVEMENTS.
5. THE CONTRACTOR SHALL MAINTAIN, AT THE JOB SITE, A CHAIR, A RECORD COPY OF ALL CONSTRUCTION DRAWINGS AND SPECIFICATIONS ON WHICH THE PROJECT IS TO BE CONSTRUCTED. THESE CHANGES ARE TO BE INCORPORATED IN THE "AS-BUILT" SURVEY FURNISHED TO THE ENGINEER.
6. SHOULD CONDITIONS VARY FROM THOSE SHOWN ON THESE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD PRIOR TO CONTINUING CONSTRUCTION.
7. ANY FIELD MODIFICATIONS OR DEVIATIONS TO THESE CONSTRUCTION PLANS REQUIRES APPROVAL BY BOTH THE ENGINEER OF RECORD AND THE CITY OF EDGEWATER PRIOR TO PERFORMING THE WORK.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AN "AS-BUILT" SURVEY OF THE COMPLETED CONSTRUCTION. THE "AS-BUILT" SURVEY SHALL BE PREPARED IN ACCORDANCE WITH APPROPRIATE GOVERNMENTAL REGULATIONS AND ZCA REQUIREMENTS. THE "AS-BUILT" SURVEY SHALL BE SUBMITTED TO THE CITY OF EDGEWATER FOR REVIEW. ELECTRONIC AND PAPER COPIES OF THE "AS-BUILT" SURVEY SHALL BE PROVIDED TO THE ENGINEER OF RECORD. THE "AS-BUILT" SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL LAND SURVEYOR.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING VEHICULAR AND PEDESTRIAN TRAFFIC SAFELY THROUGH THE WORK ZONE AT ALL TIMES. IF APPLICABLE, ANY SIDEWALK, LANE OR ROAD CLOSURE REQUIRES REVIEW AND APPROVAL IN ADVANCE AND A SEVEN (7) DAY MINIMUM NOTICE TO THE OF EDGEWATER/VOLUSIA COUNTY TRAFFIC OPERATIONS (386-239-6535). THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REQUIRED COORDINATION.
10. MAINTENANCE OF TRAFFIC WILL BE IN ACCORDANCE WITH THE MANUAL ON URBAN TRAFFIC CONTROL, DEVIATIONS TO THE MANUAL, AND THE RECOMMENDATIONS OF THE CITY OF EDGEWATER AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, LATEST EDITIONS.
11. CONTRACTOR TO NOTIFY THE REGULATORY AGENCIES FORTY EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL TESTING REPORTS TO THE REGULATORY AGENCIES AND THE ENGINEER OF RECORD.
12. SURVEY INFORMATION PROVIDED BY EFSD SURVEYING GROUP, INC. DATED 07/11/2020, ALL ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29) / NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND ARE SHOWN IN FEET. STATE PLANE COORDINATES ARE BASED UPON NAD 83.
13. ALL PUBLIC LAND CORNERS AND MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. THE CONTRACTOR SHALL EMPLOY A SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REPLACE/RESTORE ANY PROPERTY OR LAND MARKERS DISTURBED BY CONSTRUCTION ACTIVITIES.
14. NO LAND SHALL BE CLEARED, EXCAVATED OR FILLED AND NO STRUCTURES SHALL BE ERRECTED, REPAIRED OR DEMOLISHED WITHOUT PROPER PERMITS(S).
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS THE REQUIREMENTS OF ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND E.P.A. (NPDES). CONTRACTOR SHALL ESTABLISH BEST MANAGEMENT PRACTICES AND EROSION CONTROL METHODS PRIOR TO COMMENCING ANY SITE CLEARING OR DEMOLITION AND SHALL MAINTAIN THOSE BARRIERS UNTIL FINAL ACCEPTANCE OF THE PROJECT.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROJECT'S NPDES PERMITTING, INSPECTION AND REPORTING, IF APPLICABLE.
17. ALL DELINEATED WETLAND AREAS SHALL BE STAKED AND FENCED WITH TYPE III SILT FENCING PRIOR TO CONSTRUCTION. FENCING SHALL NOT BE REMOVED UNTIL ALL CONSTRUCTION IS COMPLETED. LIMITS OF SILT FENCE SHOWN ON PLANS ARE APPROXIMATE AND ARE TO BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER.
18. THE EROSION, SEDIMENT AND TURBIDITY CONTROL MEASURES DELINEATED HEREON ARE THE MINIMUM REQUIRED. ADDITIONAL CONTROLS MAY BE NEEDED, DEPENDING UPON THE ACTUAL SITE CONDITIONS. JURISDICTIONAL AGENCY PERMIT REQUIREMENTS AND CONSTRUCTION OPERATIONS STAKED SILT FENCE SHALL BE UTILIZED TO CONTROL EROSION AND RELEASE OF SUSPENDED SOLIDS. SEDIMENT TRACKING CONTROL DEVICES SHALL BE USED TO PREVENT THE OFFSITE TRANSPORT OF SEDIMENT BY MOTORIZED VEHICLES. CONTROL MEASURES DO NOT PROVE SATISFACTORY, WORK SHALL CEASE UNTIL NEW MEASURES ARE ADOPTED WITH SATISFACTORY RESULTS.
19. ALL EROSION AND SEDIMENT TRACKING CONTROL DEVICES SHALL BE INSPECTED DAILY AND IMMEDIATELY FOLLOWING A RAINFALL EVENT. REFER TO PROJECT'S STORMWATER POLLUTION PREVENT PLAN (SWPPP). ANY DEFICIENCIES FOUND IN THE EROSION CONTROL MEASURES SHALL BE REPAIRED IMMEDIATELY. THE CONTRACTOR SHALL KEEP A LOG BOOK DOCUMENTING THESE DAILY INSPECTIONS, DEFICIENCIES AND REMEDIAL ACTIONS.
20. ALL UNSUITABLE SOLIDS AND UNSUITABLE MATERIALS (SUCH AS CLAY, ORGANICS, ROCK, CEMENTED COQUINA, DEBRIS, ETC.) SHALL BE REMOVED, DISPOSED OF IN A LEGAL MANNER AND REPLACED WITH DRY CRUSHED GRANULAR FILL. CONTRACTOR SHALL ADJUST OFFSET ALL STRUCTURE INVERT AND/OR STRUTTURE LOCATION AND MATERIALS IS TO BE INCLUDED IN THE UNIT PRICE OF THE ASSOCIATED CONSTRUCTION ITEMS UNLESS OTHERWISE SHOWN IN THE PLANS.
21. IN THE EVENT THAT WATER IS ENCOUNTERED DURING CONSTRUCTION, Dewatering SHALL BE PERFORMED AS NEEDED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, PERMITTING, INSTALLATION, OPERATION AND SUBSEQUENT REMOVAL OF DEWATERING SYSTEMS AND THEIR SAFETY AND CONFORMITY WITH APPLICABLE CODES AND REGULATIONS.
22. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE AGENCIES, UTILITIES, COMMUNICATIONS, ETC. COMPANIES TO DETERMINE THE TYPE AND LOCATION OF ALL UNDERGROUND FACILITIES IN THE AREA OF CONSTRUCTION.
23. ALL UNDERGROUND UTILITIES HAVE BEEN LOCATED HORIZONTALLY AND VERTICALLY BASED ON THE BEST INFORMATION AVAILABLE AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL ELEVATIONS OF EXISTING UTILITIES (PUBLIC AND PRIVATE) SHOWN OR NOT SHOWN PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITIES AND OBTAINING NECESSARY ADVANCEMENTS FOR ANY RELOCATION, DISRUPTION OF SERVICE OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING NEAR OR CROSSING A UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND OBTAIN THE NECESSARY ADVANCEMENTS FOR UTILITIES WHICH NEED TO BE RELOCATED FOR THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO PAY FOR ANY REPAIR, RELOCATION OR TEMPORARY MEASURES NEEDED FOR EXISTING OR PROPOSED UTILITIES.
24. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND AVOID ALL UTILITIES, OTHER STRUCTURES AND OBSTRUCTIONS BOTH ABOVE AND BELOW GROUND. ALL DAMAGE RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
25. THE CONTRACTOR SHALL NOTIFY ALL UTILITY PROVIDERS AT LEAST TWO (2) BUSINESS DAYS PRIOR TO ANY CONSTRUCTION.
26. THE CONTRACTOR SHALL MAINTAIN UNINTERRUPTED SERVICE AT ALL SERVICE CONNECTIONS. THE MANNER IN WHICH THIS IS ACCOMPLISHED SHALL BE LEFT TO THE DISCRETION OF THE CONTRACTOR, SUBJECT TO THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS.
27. ALL EXISTING DRAINAGE STRUCTURES AND UTILITIES WITHIN THE CONSTRUCTION LIMITS SHALL REMAIN, UNLESS OTHERWISE NOTED IN PLANS.
28. THE LENGTH OF ALL DRAINAGE PIPES AND LOCATION OF ALL DRAINAGE STRUCTURES ARE APPROXIMATE. THE LOCATION OF THE DRAINAGE STRUCTURE SHALL DETERMINE THE LENGTH OF PIPE.
29. THE TOP OF CASTING ELEVATIONS (TC) OF ALL STRUCTURES ARE SHOWN. HOWEVER, THE CONTRACTOR SHALL INSTALL ALL FRAMES SO AS TO PROVIDE A SMOOTH SURFACE FOR VEHICULAR AND/OR PEDESTRIAN TRAFFIC.
30. CONTRACTOR SHALL CONFIRM PROPOSED TOP OF CASTING (TC) ELEVATIONS WILL ALLOW POSITIVE DRAINAGE TO PROPOSED INLETS. IF POSITIVE DRAINAGE DOES NOT EXIST, CONTRACTOR TO COORDINATE WITH ENGINEER OF RECORD FOR SOLUTION AND ADJUST PROPOSED INLETS AS NECESSARY AT NO COST.
31. CONTRACTOR SHALL CONFIRM ELEVATION OF EXISTING GRADE PRIOR TO PLACING DRAINAGE OUTFALL STRUCTURES. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD IF EXISTING GRADE DOES NOT MATCH PROPOSED ELEVATION. CONTRACTOR SHALL ADJUST OFFSET ALL STRUCTURE INVERT AND/OR STRUTTURE LOCATION AS DIRECTED BY ENGINEER OF RECORD AT NO COST.
32. ANY DRAINAGE PROBLEMS CREATED BY CONSTRUCTION OR EXISTING BEFORE CONSTRUCTION AND NOT ALLEVIATED, SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD AT THE TIME OF DISCOVERY.
33. ALL STORMWATER PIPES AND INLETS SHALL BE CLEANED OF DEBRIS AND ERODED MATERIALS AT LAST STAGES OF AND PRIOR TO COMPLETION OF CONSTRUCTION.

34. SPECIAL ATTENTION IS DIRECTED TO THE FACT THAT PORTIONS OF SOME DRAINAGE STRUCTURES MAY EXTEND INTO THE STABILIZED PORTION OF THE ROAD BED. EXTREME CAUTION WILL BE NECESSARY DURING COMPACTION AND STABILIZATION OPERATIONS AT THESE LOCATIONS TO AVOID DAMAGE AND ACHIEVE THE REQUIRED COMPACTION.
35. DURING CONSTRUCTION, AN ALL-WEATHER ACCESSIBLE ROADWAY SHALL BE MAINTAINED AT ALL TIMES FOR FIRE ACCESS.
36. ALL REQUIRED FIRE LINES & HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL & STATE REQUIREMENTS AND OPERATIONAL PRIORITY TO THE START OF VERTICAL CONSTRUCTION.
37. NONE OF THE EXISTING LIMEROCK BASE THAT IS REMOVED IS TO BE USED IN THE CONSTRUCTION OF THE NEW LIMEROCK BASE UNLESS OTHERWISE NOTED ON PLANS.
38. EXISTING DRIVEWAYS WITHIN THE LIMITS OF THIS PROJECT ARE TO BE REPLACED AT THE SAME LOCATION AND WIDTH WITH THE SAME TYPE OF MATERIAL, UNLESS OTHERWISE SHOWN IN THE PLANS.
39. ALL RAMPS, SIDEWALKS AND ACCESSIBLE ROUTES ARE TO BE IN COMPLIANCE WITH CURRENT A.D.A. REQUIREMENTS.
40. SIGNS THAT ARE REMOVED AND ARE TO BE RELOCATED SHALL BE STOCK PILED BY THE CONTRACTOR, ANY EXISTING SIGNS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT HIS COST.
41. ROADWAY AND PARKING SIGNAGE AND MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
42. UNLESS OTHERWISE NOTED, PROPOSED GRADES SHOWN ARE FINISHED GRADES.
43. OPERATION AND MAINTENANCE OF THE STORMWATER SYSTEM WILL BE PROVIDED BY THE OWNER OF PROPERTY. MAINTENANCE IS TO INCLUDE BI-WEEKLY MOWING OF SIDE SLOPES FOR VEGETATION CONTROL AND MONTHLY INSPECTION/CLEANING OF CULVERTS & STORM SYSTEMS.
44. ALL DISTURBED AREAS SHALL BE SOODED, UNLESS OTHERWISE SHOWN, AND SHALL HAVE SOD/ VEGETATED COVER ESTABLISHED PRIOR TO THE INSPECTION FOR THE CERTIFICATE OF OCCUPANCY.
45. INSTALLATION OF THE REQUIRED STREET SIGNS, TRAFFIC SIGNS, PAVEMENT STRIPING, STREET LIGHTS AND SIDEWALKS ALONG WITH THE PAINTING OF THE FIRE HYDRANTS MUST BE COMPLETED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF COMPLETION.
46. CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND PRE-TESTING PRIOR TO SCHEDULING A TEST OR WALK-THROUGH WITH THE UTILITY REPRESENTATIVES, MUNICIPAL REPRESENTATIVES AND ENGINEER OF RECORD. ANY COST ASSOCIATED WITH RETESTING SHALL BE PAID FOR BY THE CONTRACTOR.
47. THE ENGINEER OF RECORD AND LOCAL UTILITY SHALL BE GIVEN SEVENTY-TWO (72) HOURS NOTICE OF ALL REQUESTED MEETINGS AND/OR TESTING MEASURES.
48. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE REGULATORY REPRESENTATIVES TO DETERMINE THE INSPECTIONS NEEDED FOR THE PROJECT. CONTRACTOR SHALL PROVIDE PROPER NOTIFICATION TO INSPECTING AUTHORITIES BEFORE AND DURING CONSTRUCTION.

THE INSPECTION AND TESTING OF MATERIALS AND FINISHED ARTICLES TO BE INCORPORATED IN THE WORK SHALL BE PROVIDED BY BUREAUX, LABORATORIES, OR AGENCIES APPROVED BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAMPLING AND TESTING OF MATERIALS. THE MATERIALS AND FINISHED ARTICLES MAY REQUIRE THE CONTRACTOR SHALL NOT INCORPORATE ANY MATERIAL OR FINISHED ARTICLE INTO THE WORK UNTIL THE RESULTS OF THE INSPECTIONS OR TESTS ARE KNOWN AND THE CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER OF RECORD THAT THE MATERIAL OR FINISHED ARTICLE IS ACCEPTED. ALL MATERIALS MUST BE OF THE SPECIFICATIONS AND QUALITIES SPECIFIED AND THE TESTS BEING REQUIRED SHALL BE DONE BY THE ENGINEER OF RECORD. COPIES OF ALL TESTS MADE SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AS WELL AS TO THE CITY'S DESIGNATED SITE INSPECTOR. THE CITY'S DESIGNATED SITE INSPECTOR MUST RECEIVE COPIES OF ALL TESTING REPORTS AND CERTIFY THE REPORT TO THE ENGINEER OF RECORD. NO TESTING A FINAL PROJECT INSPECTION FROM THE CITY.

**B. LABORATORY CONTRACT AND CERTIFICATES**

**1. SPECIFICATIONS, SAMPLING, TESTING, AND LABORATORY METHODS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE AASHTO OR ASTM, WHERE AASHTO OR ASTM SPECIFICATIONS ARE USED. THE REFERENCED SHALL BE CONSTRUED TO BE THE MOST RECENT STANDARD SPECIFICATIONS OR TENTATIVE SPECIFICATIONS OF THE AASHTO OR ASTM IN FORCE ON THE DATE OF THE TEST.**

**2. TEST & CERTIFICATES.** THE CONTRACTOR SHALL ENGAGE AN APPROVED TESTING LABORATORY TO PROVIDE THE FOLLOWING TESTS AND CERTIFICATIONS SIGNED BY A REGISTERED ENGINEER OF THE STATE OF FLORIDA. ALL TECHNICIANS PERFORMING THE TESTS SHALL BE STATE LICENSED. THE TESTING LABORATORY SHALL BE APPROVED BY THE ENGINEER OF RECORD. THE TESTING LABORATORY SHALL ALSO BE PROVIDED BY THE CONTRACTOR, AND THE FOLLOWING SHALL NOT BE TAKEN AS A COMPLETE AND EXHAUSTIVE LIST OF THE TESTS AND CERTIFICATIONS REQUIRED:

- A. **BRIQ. ANALYSIS FOR STRUCTURAL FLAT MATERIAL, PRIOR TO INSTALLATION.**
- B. **POROSITY, DENSITIES, MOISTURE, CONTENT, COMPACTED FLAT DENSITIES, AND ATBERG LIMITS.**
- C. **SOIL, CEMENT MIX DESIGN, COMPRESSIVE STRENGTH TESTS FOR CEMENT ROAD BASE ONLY.**
- D. **SUPERVISION OF ALL SOIL CEMENT BASE CONSTRUCTION.**
- E. **ANALYSIS OF REVISED CONCRETE BASE MATERIAL, PRIOR TO INSTALLATION.**
- F. **ASPHALT MIX DESIGN, BITUMEN CONTENT, SEVE ANALYSIS, HUBBARD FLAT STABILITY TESTS, NUCLEAR DENSITY TESTS (BACKSCATTER METHOD), AND ANALYSIS OF CORE SAMPLES.**
- G. **PHYSICAL AND CHEMICAL ANALYSIS INCLUDING PAVEMENT, CAST-IN-PLACE STRUCTURES, CURBING, GUTTERS, SIDEWALKS, BIKES PATHWAYS AND DRIVEWAYS.**
- H. **COMBUSTION TEST DULCULUM AND SLIMP TESTS FOR ALL APPLICATIONS OF CONCRETE, INCLUDING PAVEMENT, CAST-IN-PLACE STRUCTURES, CURBING GUTTERS, SIDEWALKS, BIKES PATHS, APRONS, AND DRIVEWAYS.**
- I. **COMBUSTION AND MICROSCOPICAL TESTING OF WATER MAINS.**
- J. **PRESSURIZED LEAK TESTING OF WATER MAINS, FORCE MAINS, AND RECLAIMED WATER MAINS.**

- 1 -CALL VOLUSIA COUNTY ENG. OFFICE AT (386-736-5926), ONE DAY PRIOR TO BEGINNING ALL PERMITTED WORK, ALL INSPECTIONS, ANY CHANGES FROM APPROVED PLANS AND WHEN COMPLETED.
- 2 - VOLUSIA COUNTY TRAFFIC ENGINEERING (386 736-5968) IS NOT A MEMBER OF SUNSHINE ONE CALL. PLEASE CALL FOR LOCATES TWO DAYS PRIOR OF PROPOSED WORK.
- 3 -ALL ROAD CLOSURES/LANE CLOSURES/LANE SHIFTS/SIDEWALK CLOSURES (& FLAGGING OPS) ARE SEPARATE FROM THE PERMIT AND REQUIRE MOT PLAN REVIEW & APPROVAL WITH 7 DAY PRIOR NOTICE FROM VOLUSIA COUNTY TRAFFIC OPERATIONS AT (386-238-6535) PRIOR TO ANY CLOSURES. MOT IS REQUIRED ON ALL JOBS.
- 4 -THE VOLUSIA COUNTY (STAMPED) APPROVED PLANS & PERMIT PLACARD MUST BE ONSITE AT ALL TIMES.
- 5 -NO DRIVING OR PARKING OF ANY VEHICLE IS ALLOWED ON SIDEWALKS/TRAILS. ANY DAMAGES TO SIDEWALKS/TRAILS TO BE REPAIRED/REPLACED WITH 6-INCH CONCRETE BY THE CONTRACTOR, PER ADA STANDARDS.
- 6 -NO TRENCH/EXCAVATIONS/DROP-OFFS SHALL BE LEFT UNSAFE, OPEN OR UNATTENDED OVERNIGHT WITHIN THE RIGHT OF WAY.
- 7 -RE-GRADE & SOD ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY.
- 8 -APPLICANT/CONTRACTOR IS RESPONSIBLE FOR PRE/POST CONSTRUCTION VIDEO/PHOTOS OF EXISTING SITE, ADJACENT LOTS & RIGHT OF WAYS TO INCLUDE BUILDINGS, ROADWAYS, DRIVEWAYS, SIDEWALKS, DITCH SWALES, CULVERTS AND ABOVE GROUND UTILITIES.

1. WATER/SEWER/RECLAIM PROVIDED IS CITY OF EDGEMORE ENVIRONMENTAL SERVICES DEPARTMENT-386-424-2400 X4007 M-F 7:00A.M.-3:30 P.M.
2. A DUMPSTER OF SUITABLE SIZE IS REQUIRED TO BE PRESENT DURING ALL PHASES OF CONSTRUCTION ACTIVITIES, WHICH IS EMPTIED AT AN APPROPRIATELY PERMITTED FACILITY AND REPLACED AS NEEDED.
3. INSPECT SILT FENCE AND ALL OTHER STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROLS WEEKLY AND WITHIN 24-HOURS OF A RAIN EVENT 1/2 INCH OR GREATER, MAKING ANY REPAIRS IMMEDIATELY.

- IN ORDER TO ENSURE THAT NEW SUBDIVISIONS AND SITE PLANS ARE CONSTRUCTED  
SUBSTANTIALLY IN ACCORDANCE WITH CITY REGULATIONS AND THE APPROVED DRAWINGS,  
THE FOLLOWING INFORMATION IS REQUIRED ON ALL SUBDIVISION AS-BUILT DRAWINGS.
1. PAVEMENT AND CURB WIDTHS SHALL BE VERIFIED AND DIMENSIONED FOR EACH STREET AT EACH BLOCK.  
(FOR SUBDIVISIONS) AND AS APPROPRIATE TO CONFIRM PAVING LIMITS (ON SITE PLANS).
2. ALL RADI AT INTERSECTIONS SHALL BE VERIFIED AND DIMENSIONED. THIS INFORMATION IS TO BE  
CLEARLY INDICATED ON THE AS-BUILT.
3. ROADWAY ELEVATIONS SHALL BE RECORDED AT ALL GRADE CHANGES, 100' INTERVALS ALONG ROADWAY,  
AND OTHER INTERVALS AS NEEDED ALONG ALL STREETS. STREET CENTERLINE AND CURB INVERT ELEVATIONS  
SHALL BE RECORDED AS NOTED. THE AS-BUILT CENTERLINE PROFILE OF ALL STREETS SHALL ALSO BE  
SHOWN ON THE PLAT. PROFILE DATA MAY COMPARED TO THE DESIGN PROFILE GRADE LINES.  
IN THE EVENT THAT THE AS-BUILT CENTERLINE LONGITUDINAL GRADE DOES NOT MEET THE CITY MINIMUM  
STANDARDS, ADDITIONAL LONGITUDINAL GRADES OF THE ADJACENT CURBING AND SIMILAR ROADWAY  
CROSS-SECTION SURVEYS TO VERIFY CORRECT CROSS SLOPE, SHALL BE REQUIRED TO VERIFY THAT  
THE SYSTEM WILL FUNCTION AS ORIGINALLY DESIGNED.
4. STORM DRAINAGE STRUCTURES SHALL BE LOCATED AND /OR DIMENSIONED FROM CENTERLINES OR LOT  
LINES AS APPROPRIATE.
5. STORM DRAINAGE PIPE INVERT AND ELEVATION SHALL BE RECORDED AND CLEARLY DENOTED AS  
AS-BUILT INFORMATION. DESIGN ELEVATIONS SHALL BE CROSSED OUT AND AS-BUILT INFORMATION  
WRITTEN NEXT TO IT.
6. STORM DRAINAGE PIPE MATERIAL, LENGTH, AND SIZE SHALL BE MEASURED AND /OR VERIFIED. THIS  
INFORMATION IS TO BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION .
7. ALL APPLICABLE TOPOGRAPHIC INFORMATION PERTINENT TO THE ON-SITE DRAINAGE SYSTEM, SUCH AS  
DITCHES, SWALES, LAKES, CANALS, ETC. THAT ARE DEEMED NECESSARY BY THE CITY TO VERIFY THE  
FUNCTIONAL PERFORMANCE OF THE DRAINAGE SYSTEM SHALL BE NOTED. NORMALLY, RECORDING  
ELEVATIONS EVERY 100 FEET AT THE TOP OF BANK AND TOE OF SLOPE WILL BE REQUIRED. MEASUREMENTS  
SHALL BE TAKEN AND RECORDED IN ORDER TO ACCURATELY TIE DOWN THESE FEATURES TO THE ROADWAY  
CENTERLINE AND CENTERLINE TO PLAT. IF POSSIBLE, CONTOUR LINES SHALL BE UTILIZED TO  
GRAPHICALLY DESCRIBE THESE TOPOGRAPHIC FEATURES .
8. RETENTION AREAS SHALL HAVE THEIR TOP-OF-BANK AND BOTTOM ELEVATIONS RECORDED. ACTUAL  
MEASUREMENTS SHALL BE TAKEN AND DIMENSIONS RECORDED OF THE SIZE OF SITE RETENTION AREAS.  
DESIGN RESULTS SHALL BE DONE FROM TOP-OF-BANK TO TOP-OF-BANK WITH SLOPE SIZES INDICATED.  
SEPARATE CALCULATIONS SHALL BE SUBMITTED TO INDICATE REQUIRED AND ALLOWED RETENTION  
VOLUMES.
9. ACTUAL MATERIAL USED AND ELEVATIONS AND DIMENSIONS OF OVERFLOW HURD STRUCTURES AND  
SKIMMERS SHALL BE NOTED ON THE AS-BUILT.
10. STORM DRAINAGE SUE CENTERLINES SHALL BE LOCATED AND ELEVATIONS OF FLOW LINE AND TOP  
OF BANK SHALL BE RECORDED EVERY 100 FEET. SIDE SLOPES SHALL ALSO BE INDICATED.
11. SANITARY SEWER MANHOLES SHALL BE VERIFIED AND DIMENSIONED FROM STREET CENTERLINES OR LOT  
LINES AS APPROPRIATE. ALL RIM AND INVERT ELEVATIONS SHALL BE VERIFIED AND RECORDED. THIS  
INFORMATION SHALL BE NOTED AS AS-BUILT INFORMATION. DESIGN ELEVATIONS  
SHALL BE CROSSED OUT AND AS-BUILT INFORMATION WRITTEN NEXT TO IT.
12. FOR SUBDIVISIONS, PROPOSED DESIGN FINISHED FLOOR ELEVATIONS SHALL APPEAR ON ALL SUBDIVISION  
LOTS ON THE APPROPRIATE PLAN AND PROJECT SHEET AS WELL AS ON THE MASTER DRAINAGE PLAN.

M-11

- THE CITY'S PUBLIC UTILITIES DEPARTMENT (424-2460) SHALL BE GIVEN A MINIMUM OF 48 HOURS ADVANCE NOTICE (INCLUDING HOLIDAYS OR WEEKENDS) PRIOR TO BEGINNING ANY POTABLE WATER SYSTEM CONSTRUCTION.
- DEWATERING SHALL BE PROVIDED TO KEEP GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW WATER MAIN BEING LAID
- ALL WATER MAINS SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
- TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE CITY WITH A MINIMUM COMPACTION OF 98% IN PAVED AREAS AND 95% IN UNPAVED AREAS IN ACCORDANCE WITH ASD 90.1-180.
  - IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS BE PROVIDED AT POINTS 1 FOOT ABOVE THE PIPE AND AT 1 FOOT VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET.
  - 3" METALLIZED PIPE LOCATION TAPE SHALL BE LOCATED BETWEEN 15" AND 24" BELOW FINISHED GRADE AS SPECIFIED BY MANUFACTURER FOR ALL PVC LINES. MARKER TAPE SHALL BE USED ON ALL DUCTILE IRON PIPE, AND 12 GAUGE TRACING WIRE AS WELL.
- ALL SINGLE RESIDENTIAL WATER SERVICES SHALL BE 3/4", DOUBLE RESIDENTIAL SERVICES SHALL BE 1" AND COMMERCIAL SERVICES 1 1/2" OR 2". POLYETHYLENE TUBING SHALL BE USED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
  - POLYETHYLENE TUBING SHALL BE CTS 3408 HIGH DENSITY TUBING, BLUE IN COLOR, AND RATED FOR A MINIMUM OF 200 P.S.I. WITH SDR OF 9 (CTS), THE TUBING SHALL HAVE A VIRGIN HIGH DENSITY POLYETHYLENE CENTER FOR WHICH THE MANUFACTURER SHALL FURNISH A CERTIFICATE. THE TUBING SHALL BE USED IN THE MANNER SPECIFIED AND SHALL NOT BE AFFECTED BY DIRECT SUNLIGHT. THE TUBING SHALL COMPLY WITH OR EXCEED THE APPLICABLE STANDARDS OF A.S.T.M. D1248, D3350, D2239, D2737, N.S.F. 14 AND A.W.W.A. C901 AND SHALL COME WITH A LIFETIME WARRANTY.
- ACCEPTABLE MANUFACTURERS: ENDOT ENDO PURE OR APPROVED EQL.
- ALL WATER SERVICE ENDINGS SHALL BE MARKED WITH A 2" X 4" LUMBER (PRESSURE TREATED EXTENDED LENGTH) TO BE PLACED WITH WATER SERVICES SECURED 12" MAXIMUM ABOVE THE GROUND AND ANY "U" BRANCHES FOR DOUBLE SERVICES SHALL BE AT GROUND LEVEL. ALL SERVICES SHALL BE LOCKED.
- WATER VALVES SHALL BE PLACED AT ALL STREET INTERSECTIONS AND AT MAXIMUM SPACINGS OF 750 FEET.
- AT ALL WATER MAIN TEES AND CROSSES, VALVES SHALL BE INSTALLED ON ALL LEGS UPSTREAM.

W-22

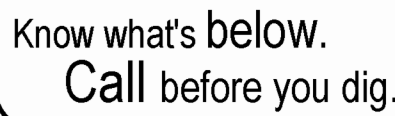
3. SANITARY SEWER LINE LENGTHS, SIZES, MATERIAL, ETC., SHALL BE VERIFIED AND RECORDED. THIS INFORMATION IS TO BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION.
14. SEWER LATERALS SHALL BE VERIFIED AND RECORDED AT THEIR CLEAN-OUT LOCATIONS. STATIONING AND OFFSET DISTANCES SHALL BE MEASURED FROM DOWNSTREAM MANHOLES TOWARDS UPSTREAM MANHOLES.
15. LIFT STATIONS AND FORCE MAINS SHALL BE VERIFIED AND DIMENSIONED FROM STREET CENTERLINES OR LOT CORNERS AS APPROPRIATE. FORCE MAIN DEPTH AND LOCATION INCLUDING VALVES WILL BE PROVIDED AND TIED TO PERMANENT ABOVE GRADE FEATURES. DIMENSIONAL AND ELEVATION INFORMATION INDICATED ON THE APPROVED PLAN SHALL BE VERIFIED AND RECORDED. THIS INFORMATION SHALL BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION. BURIED ELECTRICAL SERVICE LINE SHALL BE CLEARLY DIMENSIONED, LOCATED, AND LABELED.
16. CURB CUTS OR METAL TAPS, USED TO MARK SEWER LATERALS, WATER SERVICES AND WATER VALVES, SHALL BE VERIFIED FOR PRESENCE AND ACCURACY OF LOCATION.
17. POTABLE AND RECLAIMED WATER MAIN LINES SHALL BE DIMENSIONED OFF THE BACK OF CURB, OR EDGE OF PAVEMENT IF CURB IS PRESENT. WATER MAIN LINE MATERIAL, LINE MATERIAL SIZE, LENGTH AND DEPTH PLACED SHALL ALSO BE NOTED. LOCATIONS OF VALVES SHALL BE TIED TO PERMANENT ABOVE GRADE FEATURES. THIS INFORMATION SHALL BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION.
18. POTABLE AND RECLAIMED WATER VALVES, TEES, BENDS, ALL SERVICES, AND FIRE HYDRANTS SHALL BE LOCATED BY TYING THEM TO SANITARY SEWER MANHOLES. SIMILARLY, FORCE MAIN VALVES, TEES, AND BENDS SHALL BE LOCATED BY TYING THEM TO SANITARY SEWER MANHOLES. OFFSET DISTANCES SHALL BE MEASURED FROM DOWNSTREAM MANHOLES TO UPSTREAM MANHOLES.
19. FOR PERPENDICULAR CROSSINGS OF STORMWATER, SANITARY SEWER, POTABLE WATER, OR RECLAIMED WATER, THE AS-BUILT PLANS SHALL CLEARLY INDICATE WHICH UTILITIES ARE LOCATED OVER OR UNDER OTHER UTILITIES, AS NECESSARY.
20. ANY SPECIAL FEATURES SUCH AS, CONCRETE FLUMES, LAKE BANKS, WALLS, FENCING, ETC., WHICH WERE A PART OF THE APPROVED CONSTRUCTION DRAWINGS SHOULD ALSO BE LOCATED AND DIMENSIONED.
21. IF AN APPROVED SUBDIVISION PLAN OR SITE PLAN SHOWS A CONSERVATION EASEMENT, THE PROJECT SURVEYOR SHOULD PROVIDE THE EXACT LOCATION OF THE SPECIMEN TREE(S) FROM THE RIGHT-OF-WAY OR PROPERTY LINES AND PROPOSED EASEMENT BOUNDARIES ON THE AS-BUILT DRAWING. THE AS-BUILT DRAWING OF THE EXISTING CONDITIONS SHALL BE SUFFICIENT TO VERIFY THE CONSERVATION EASEMENT PRIOR TO TAP RECORDING OR CERTIFICATE OF OCCUPANCY.
22. WHEN STORMWATER, POTABLE WATER, RECLAIMED WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWING SHALL ACCURATELY DEPICT THE LOCATION OF THE EASEMENT ITSELF AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO EXPLAIN ANY DISCREPANCY BETWEEN THE AS-BUILT DRAWING AND THE REPAIR CAN BE ACCOMPLISHED WITHOUT DISTURBANCE BEYOND THE EASEMENT.

1. REFERENCES TO WATER SHALL MEAN BOTH POTABLE AND RECLAIMED WATER.

**M-12**

15. ALL FIRE HYDRANTS SHALL BE CONSTRUCTED TO MAKE THEM EASILY ACCESSIBLE TO FIRE PERSONNEL IN CASE OF A FIRE. THE PRIMARY HYDRANT PORT SHOULD ALWAYS FACE THE STREET.
16. AS STANDARD PRACTICE, WATER MAINS SHALL BE INSTALLED 4 FEET OFF THE BACK OF CURB OR AS APPROVED BY THE CITY.
17. ALL WATER MAINS SHALL BE NSF-APPROVED FOR POTABLE WATER USE, AND SHALL HAVE A MINIMUM COVER OF 36 INCHES.
18. ALL PROPOSED WATER MAINS SHALL BE FLUSHED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
19. WATER MAINS SHALL BE 24" O.D. PVC OR C-900 "BELL" OR D.I.P. PRESSURE CLASS 350 STANDARD CEMENT LINED UNLESS OTHERWISE APPROVED BY THE CITY.
20. UPON CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE SYSTEM, IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THAT THE SYSTEM IS PROPERLY CERTIFIED AND ACCEPTED BY THE DEPARTMENT OF HEALTH AND AS-BUILTS ARE PROVIDED TO THE CITY PRIOR TO ANY USE OF THIS SYSTEM.
21. WATER DISTRIBUTION SYSTEM SHALL BE DESIGNED TO COMPLY WITH THE CITY'S FIRE (WATER) FLOW CODE.
22. IN AREAS WHERE RECLAIMED WATER IS NOT AVAILABLE THE CONTRACTOR SHALL BE REQUIRED TO (UPON SATISFACTORY COMPLETION OF THE PRESSURE TEST) TRANSFER THE WATER FROM THE POTABLE WATER LINES TO THE RECLAIMED WATER LINES FOR UTILIZATION IN THEIR PRESSURE TEST.
23. IN AREAS WHERE RECLAIMED WATER IS AVAILABLE, RECLAIMED WATER WILL BE UTILIZED IN THE PRESSURE TESTING OF NEW RECLAIMED WATER LINES.
24. ALL POTABLE WATER MAINS SHALL USE A THRUST RESTRAINT JUNT METHOD IN COMPLIANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) GUIDELINES. IN THE EVENT THAT PVC FITTINGS ARE SPECIFIED, THE RESTRAINT SHALL BE MODIFIED IN ACCORDANCE WITH THE RECOMMENDED ADDITIONAL RESTRAINT LENGTH REQUIRED FOR PIPE WRAPPED WITH POLYETHYLENE.
25. MEGALUGS, BOLTLESS RESTRAINED JUNTS, GRIPPER GASKETS, OR STAR GRIPS SHALL BE USED ON ALL RESTRAINED JUNT INSTALLATIONS. MINIMUM DEPTH OF BURY ON PIPES NOT MEETING REQUIRED COVER REQUIREMENTS SHALL FOLLOW THE MOST RECENT DIPRA THRUST RESTRAINT DESIGN GUIDELINES.
26. GRIPPER RING GASKETS BY ROMAC AND OR STAR AU-GRIP MAY BE USED AS APPROPRIATE FOR RESTRAINING PRESSURE PIPE TO FITTINGS, VALVES, ETC.
27. WATER SYSTEMS SHALL BE PRESSURE TESTED AT 150 PSI STATIC PRESSURE FOR A PERIOD OF 4 HOURS PER AWWA STANDARDS.
28. ALL WATER SERVICES SHALL BE MARKED WITH AN "A" SAW CUT INTO THE CURB AND METAL TABS SET INTO THE PAVEMENT.
29. ALL WATER VALVES SHALL BE MARKED WITH AN "X" SAW CUT INTO THE CURB AND METAL TABS SET INTO THE PAVEMENT. BLOW-OFFS SHALL BE MARKED SIMILARLY, AS WELL.
30. WATER SERVICES SHALL BE NORMALLY DOUBLE "1" SERVICES LOCATED AT SIDE LOT LINES. IN INSTANCES WHERE SERVICES NEED TO BE OFFSET, 3/4" SINGLE SERVICES SHALL BE SPECIFIED. THESE SERVICES MAY BE OFFSET A MAXIMUM OF 2.0' FROM SIDE LOT LINES.
31. ALL TAPPING OF MAINS SHALL BE SUPERVISED BY THE CITY SCHEDULING OF THESE CONNECTIONS SHALL REQUIRE A MINIMUM 48 HOUR NOTIFICATION (MEASURED ON NORMAL WORK DAYS) TO THE CITY. THE CITY DESIGNED SITE SPECIFIC TAPPING CONNECTION SHALL BE SCHEDULED TO COMMENCE BETWEEN 8:00 A.M. AND NOON ON THE APPROPRIATE DAY.

W-25





2011-06-30

FILE NAME:  
EW\_W24.DWG

DETAIL REF:  
W-24



FILE NAME:  
EW\_S23.DWG

DETAIL REF:  
**S-23**

FILE NAME:  
EW\_S24.DWG

DETAIL REF:  
**S-24**

FILE NAME:  
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DETAIL REF:  
**S-25**

FILE NAME:  
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S-26

FILE NAME:  
EW\_ST4.DWG

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ST-4

FILE NAME:  
EW\_ST5.DWG

DETAIL REF:  
ST-5

FILE NAME:  
EW\_ST6.DWG

DETAIL REF:  
ST-6

## PLANNING

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SHEET: C.3 OF 13

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## ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES

(CONT'D.)

27. CONCRETE CURBING, SIDEWALKS, PAVEMENT AND SIMILAR CONCRETE AREAS SHALL BE SAW CUT WITHIN 4 TO 18 HOURS OF PLACEMENT. SAW CUTS SHALL BE 1/4" IN DEPTH OF 1/4" OF THE TOTAL DEPTH OF CONCRETE OR 1-1/2", WHICHEVER IS LESS. SAW CUTS SHALL BE LOCATED AT INTERVALS OF TEN FEET (10') WITH EXPANSION JOINTS AT STREET INTERSECTIONS, RADIUS POINTS, STRUCTURES, AND ALONG CURVES AT SIXTY FEET (60') INTERVALS. ALL EXPANSION JOINT MATERIAL IS REQUIRED TO BE INSTALLED THROUGH THE ENTIRE DEPTH OF THE CONCRETE CURB. FOR LINEAL SECTIONS OF CURBS, EXPANSION JOINTS SHALL BE LOCATED AT A MAXIMUM SPACING OF FIVE-HUNDRED FEET (500') AND SHALL BE 1/2" IN WIDTH.
28. AN "X" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF WATER DISTRIBUTION SYSTEM VALVE.
29. A "V" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF ALL SEWER SERVICES.
30. A "I" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF ALL RECLAIMED WATER SERVICES.
31. A "A" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF ALL POTABLE WATER SERVICES.
32. BLUE REFLECTORS SHALL BE PLACED IN THE MIDDLE OF THE DRIVING LANE ON THE SIDE OF THE ROADWAY AND IN FRONT OF WHERE FIRE HYDRANTS ARE LOCATED.
33. THREE (3) CONCRETE CYLINDERS SHALL BE TAKEN AND TESTED (I IN 14 DAYS AND 1 IN 28 DAYS) FOR EVERY SEVENTY-FIVE (75) CUBIC YARDS OF CONCRETE, OR LESS PLACED. TEST RESULTS SHALL THEN BE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR AS THEY BECOME AVAILABLE.
34. A CONCRETE SLUMP TEST SHALL BE REQUIRED WITHIN THE FIRST 30 CUBIC YARDS OF CONCRETE. THEREAFTER, SLUMP TESTS SHALL BE REQUIRED FOR EVERY THIRTY (30) CUBIC YARDS OF CONCRETE, OR FRACTION THEREOF, WITH COPIES OF THE RESULTS PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR. THE SLUMP TEST SHALL MEET THE REQUIRED MIX DESIGN ON EACH LOAD DELIVERED.
35. THE DEVELOPER SHALL PROVIDE ALL REQUIRED PAVEMENT MARKINGS ON ALL ROADWAYS PER CITY, COUNTY, AND STATE REQUIREMENTS. CENTERLINE STRIPES SHALL BE PROVIDED ON EXTENSIONS OF CITY COLLECTOR OR ARTERIAL ROADS, COUNTY ROADS, STATE HIGHWAYS, AND ALONG LOCAL STREETS IN THE VICINITY OF THEIR INTERSECTION WITH THE ABOVE MENTIONED ROADWAYS.
36. A FDOT APPROVED STOP SIGN AND A 24"-WIDE WHITE THERMOPLASTIC STOP BAR ARE REQUIRED AT ALL ROADWAY INTERSECTIONS.
37. ALL TRAFFIC CONTROL DEVICES PLACED AT INTERSECTIONS, PRIVATE STREETS, PUBLIC STREETS, COUNTY ROADS, AND STATE HIGHWAYS WITHIN THE CITY LIMITS SHALL BE INSTALLED ACCORDING TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. THE MAINTENANCE-OF-TRAFFIC (MOT) INSTALLATION AND SUBSEQUENT OPERATION SHALL BE OVERSEEN BY A CONTRACTOR CERTIFIED BY THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION, OR EQUIVALENT CERTIFICATION RECOGNIZED BY FDOT.

**STANDARD CONSTRUCTION DETAIL**  
ROADWAY AND PARKING AREA DESIGN  
AND CONSTRUCTION NOTES

FILE NAME:


EW\_R15.DWG

DETAIL REF:

**R-15**

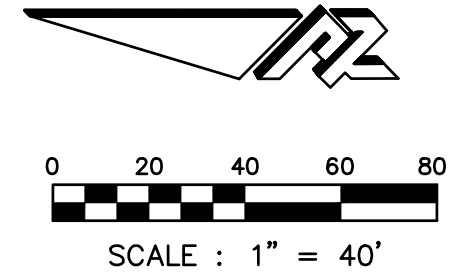
**CONTRACTOR REQUIREMENTS FOR SITE CLEARING,  
EROSION CONTROL, DESIGN AND  
CONSTRUCTION NOTES (CONT'D)**

9. FOR INDIVIDUAL CONSTRUCTION PROJECTS INVOLVING MULTIPLE PHASES, UPON COMPLETION OF EACH PHASE OF THE PROJECT, THE CONTRACTOR SHALL SEED AND MULCH THE ENTIRE LIMITS OF THE PROJECT PRIOR TO COMMENCING THE NEXT PHASE OF CONSTRUCTION.
10. ONCE AN AREA IS SEEDDED OR SODDED, IT MUST BE MAINTAINED BY THE CONTRACTOR TO ALLOW THE GRASS TO BECOME ESTABLISHED.
11. ANY BURNING OF CLEARED MATERIALS MUST BE INSPECTED AND PERMITTED ON A DAILY BASIS. CONTACT THE CITY FIRE MARSHALL AT 424-2412 PRIOR TO EACH DAY OF DESIRED BURNING.
12. ABSOLUTELY NO BURNING OF CLEARED MATERIALS IS PERMITTED.
13. THE REMOVAL OF ALL VEGETATION AND TOPSOIL ON THE FUTURE ROADWAY, PARKING AND BUILDING LOT AREAS IS REQUIRED TO BE COMPLETED PRIOR TO THE PLACEMENT OF FILL ON THOSE AREAS. THE TOPSOIL MAY BE TEMPORARILY STOCKPILED AND USED AS TOPSOIL OVER OVER PROPOSED GREEN AREAS SUCH AS PLANT BEDS, SODDED AREAS, AND WHERE TREES ARE TO BE INSTALLED OR RELOCATED.
14. A SIGNED, DATED, AND SEALED LETTER FROM A SOILS ENGINEER OR THE ENGINEER OF RECORD CERTIFYING THAT FILLING THAT IS FILLED FROM BROWN STRIPPED OF ORGANIC MATERIALS, MUST BE SUBMITTED TO THE CITY PRIOR TO FILLING.
15. FILL MATERIAL IS TO BE PLACED IN ONE FOOT LIFTS AND COMPACTED TO THE APPROPRIATE DENSITY (98% FOR PAVED AREAS AND 95% FOR BUILDING PADS AND ALL OTHER AREAS AS PER AASHTO T-180).
16. DURING SUBDIVISION DEVELOPMENT WHEN FUTURE BUILDING LOTS ARE FILLED AS PART OF THE OVERALL SUBDIVISION IMPROVEMENTS, COMPACTION TEST REPORTS MUST BE PERFORMED ON THE BUILDING LOTS AT 300 FOOT INTERVALS. THESE TESTS ARE TO BE PERFORMED IN ONE-FOOT VERTICAL INCREMENTS. THE RESULTS OF THESE TESTS ARE TO BE SUBMITTED TO THE CITY UPON COMPLETION OF THE TESTS.
17. IF ANY MUCK MATERIAL IS DISCOVERED, IT SHALL BE REQUIRED TO BE REMOVED AND REPLACED WITH A SUITABLE MATERIAL THAT IS PROPERLY BACKFILLED, COMPACTED AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
18. STOCKPILING IS NOT GENERALLY PERMITTED BY THE CITY. WHEN ALLOWED, STOCKPILES SHALL NOT EXCEED SIX FEET IN HEIGHT MEASURED FROM THE ORIGINAL GRADE. AT A MINIMUM, STOCK PILES THAT WILL REMAIN IN PLACE IN EXCESS OF TWENTY DAYS SHOULD BE SEEDDED AND MULCHED IMMEDIATELY UPON PLACEMENT OF THE FINAL LIFT.
19. SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION AND THE IMPACT TO NEIGHBORING COMMUNITIES. ADEQUATE WATERING METHODS SHOULD BE EMPLOYED TO ALLOW DAILY COVERAGE OF THE ENTIRE LIMITS OF ALL AREAS THAT DO NOT HAVE AN ESTABLISHED VEGETATIVE COVER. METHODS TO BE EMPLOYED INCLUDE, BUT ARE NOT LIMITED TO, WATER TRUCKS, PERMANENT IRRIGATION SYSTEMS, TEMPORARY SPRINKLER SYSTEMS, AND PUMPING LINES CONNECTED TO WET RETENTION POND AREAS. WATER CANNONS, TEMPORARY IRRIGATION SYSTEMS MOUNTED AUTO STOCKPILE AREAS, AND OTHER METHODS AS DEEMED NECESSARY BY THE CITY.
20. ALL FILL MATERIALS LOCATED BENEATH STRUCTURES AND PAVEMENT SHALL CONSIST OF CLEAN GRANULAR SAND FREE FROM ORGANICS AND SIMILAR MATERIAL THAT COULD DECOMPOSE.
21. ALL FILL TO BE PLACED IN LANDSCAPED AREAS SHALL HAVE A PH RANGE BETWEEN 5.5 AND 7.5, BE ORGANIC IN NATURE, FREE OF ROCKS AND DEBRIS, OR MATCH NATIVE EXISTING SOILS.

PROJECT NO:	ZC 18114
DESIGNED BY:	JD
DRAFTED BY:	JD
CHECKED BY:	TR
DRAWING FILE: 02-04-18114-NOT	
KREFS:	18114-BAS-DWG
KREFS:	18114-SURV-DWG
<div><div></div><div><p>Digitally signed by John A. Dillard Location: This ITEM has been digitally signed and sealed by JOHN A. DILLARD, JR. USING A CRYPTOCOMPTONIC CODE. PRINTED COPIES OF THIS DOCUMENT HAVE NOT BEEN DIGITALLY SIGNED AND THE SIGNATURE HAS NOT BEEN VERIFIED ON ANY ELECTRONIC COPIES.</p><p>Date: 2003.12.19 15:43:15 -0500</p></div></div>	
12/19/2003	
JOHN A. DILLARD, JR., P.E., NO. 37256 NOT VALID WITHOUT SEAL	
SHEET:	C4 OF 13



Know what's below.  
Call before you dig.



LEGEND:

- SF PROPOSED SILT FENCE
- X PROPOSED TEMPORARY CONSTRUCTION FENCE
- SOIL BORING LOCATION (REFER TO GEOTECHNICAL REPORT)
- EXISTING WETLANDS
- PROPOSED DEMOLITION/CLEARING AREA
- PROPOSED DIRECT WETLAND IMPACT



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL  
PLANNING  
TRANSPORTATION

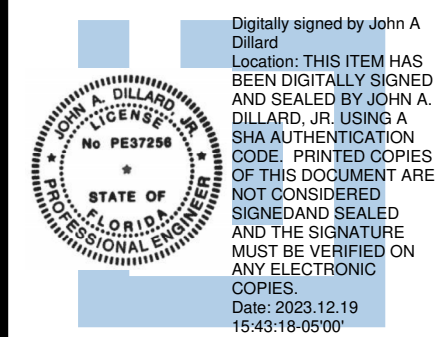
NO.	DATE	BY	SUBMITTALS / REVISIONS
1	08-17-22	TAK	ISSUED FOR PERMITS DATED 12-15-2021
2	08-17-22	TAK	REVISED PER CITY COMMENTS DATED 07-19-2022

ALCANTARA MULTI-FAMILY  
FINAL ENGINEERING PLANS  
DEMOLITION & EROSION  
CONTROL PLAN

CITY OF EDGEWATER  
VOLUSIA COUNTY, FLORIDA

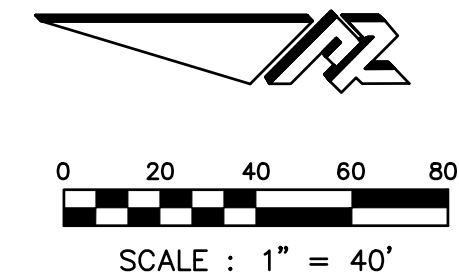
PROJECT NO.: ZC 18114  
DESIGNED BY: JD  
DRAFTED BY: TR  
CHECKED BY: JD

DRAWING FILE: 05-18114-ECP  
XREFS: 18114-BAS.DWG  
XREFS: 18114-SURV.DWG



12/19/2023  
JOHN A. DILLARD, JR., P.E. NO. 37256  
NOT VALID WITHOUT SEAL

SHEET: C5 OF 13



	PROPOSED ASPHALT OVERLAY
	PROPOSED ASPHALT PAVEMENT
	PROPOSED CONCRETE
	EXISTING WETLANDS
	PROPOSED PARKING COUNT
	PROPOSED HANDICAP PARKING SPACE
	PROPOSED STREET LIGHT

**NOTES:**  
1. ALL HANDICAP RAMPS ARE TO BE  
CONSTRUCTED PER FDOT INDEX NO. 522-002,  
LATEST EDITION.

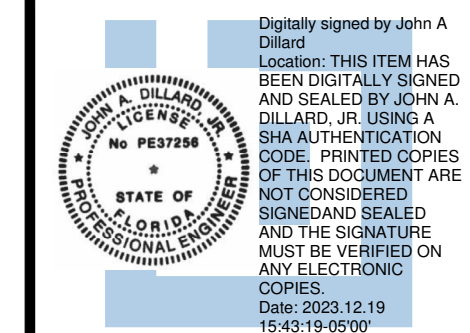
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# ALCANTARA MULTI-FAMILY FINAL ENGINEERING PLANS GEOMETRY, SIGNAGE & STRIPING PLAN

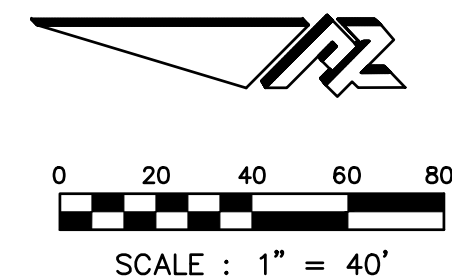
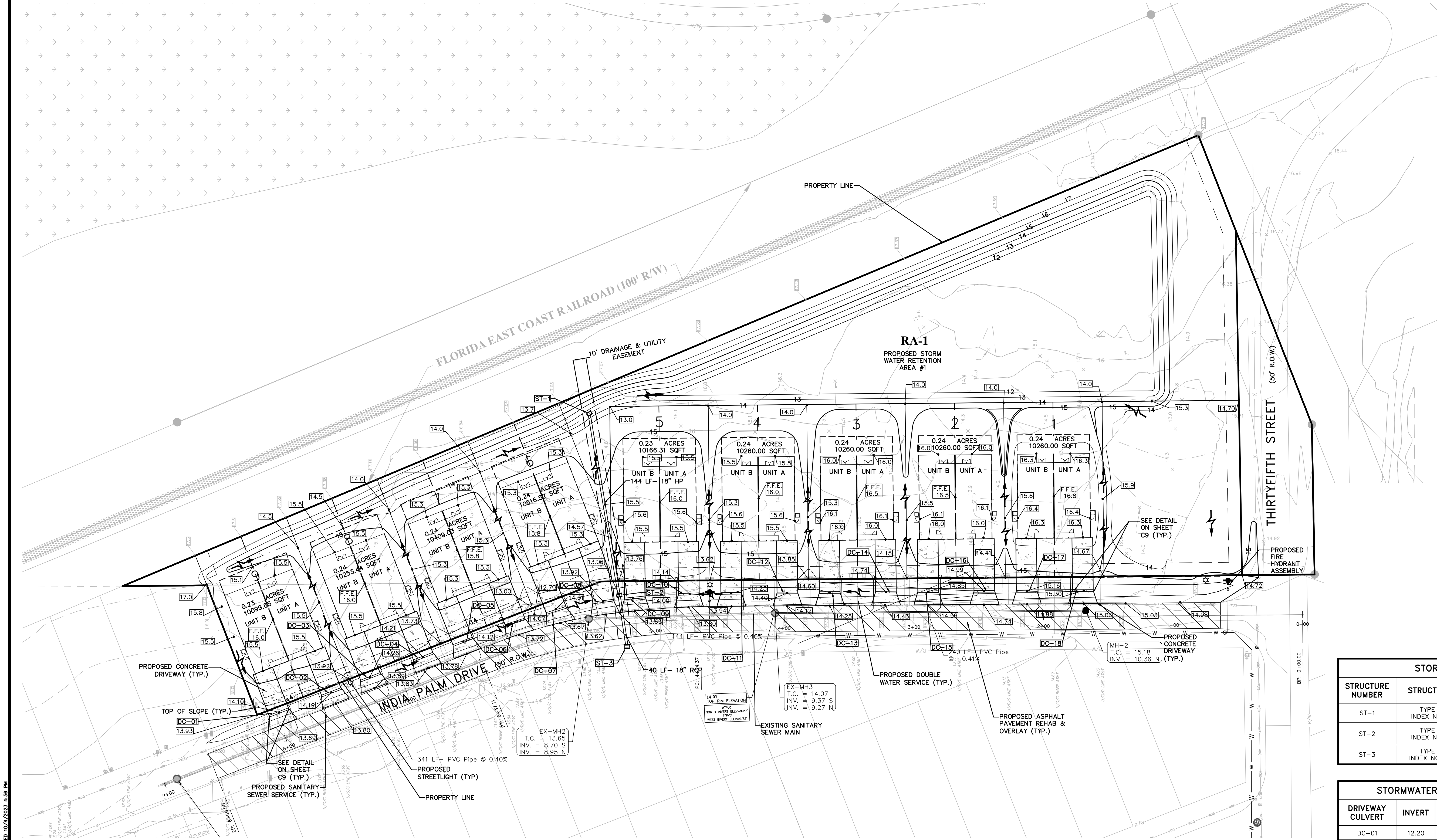
**CITY OF EDGEWATER**  
**VOILISA COUNTY FLORIDA**

PROJECT NO: ZC 18114
DESIGNED BY: JD
DRAFTED BY: TR
CHECKED BY: JD

DRAWING FILE: 06-18114-GS  
XREF'S: 18114-BAS.DWG  
XREF'S: 18114-SURV.DWG



12/19/2023  
JOHN A. DILLARD, JR., P.E., NO. 37256  
NOT VALID WITHOUT SEAL



LEGEND:

- PROPOSED ASPHALT PAVEMENT REHAB & OVERLAY
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE
- EXISTING WETLANDS
- OR PROPOSED STORMWATER INLET
- PROPOSED STORMWATER MANHOLE
- PROPOSED MES
- PROPOSED YARD DRAIN
- PROPOSED GRADE
- PROPOSED MATCH EXISTING GRADE LABEL
- E.G. EXISTING GRADE LABEL
- FFE PROPOSED FINISHED FLOOR ELEVATION
- PROPOSED FLOW DIRECTION
- PROPOSED LOT GRADING TYPE
- PROPOSED STREET LIGHT

- NOTES:
1. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR SOIL REQUIREMENTS AND RECOMMENDATIONS.
  2. MINIMUM FINISHED FLOOR ELEVATIONS SHALL COMPLY WITH LDC.
  3. STRUCTURES ST-1, ST-2, AND ST-3 SHALL HAVE HOLES IN BOTTOM FILLED WITH #57 STONE TO AVOID BREEDING MOSQUITOES BETWEEN RAIN EVENTS

STORMWATER STRUCTURE TABLE			
STRUCTURE NUMBER	STRUCTURE TYPE	STRUCTURE T.C.	PIPE INVERT(S), DIRECTION(S), SIZE(S)
ST-1	TYPE C INLET INDEX NO. 425-052	12.62	10.00 (W) 18" HP
ST-2	TYPE C INLET INDEX NO. 425-052	13.06	10.30 (E) 18" HP 6.50 (W) 18" RCP
ST-3	TYPE C INLET INDEX NO. 425-052	13.06	6.35 (E) 18" RCP

STORMWATER DRIVEWAY CULVERT TABLE				
DRIVEWAY CULVERT	INVERT	LENGTH	MATERIAL	END TREATMENT
DC-01	12.20	16'	12" HDPE	MITERED END
DC-02	12.20	16'	12" HDPE	MITERED END
DC-03	12.15	16'	12" HDPE	MITERED END
DC-04	12.15	16'	12" HDPE	MITERED END
DC-05	12.10	16'	12" HDPE	MITERED END
DC-06	12.10	16'	12" HDPE	MITERED END
DC-07	12.05	16'	12" HDPE	MITERED END
DC-08	12.00	16'	12" HDPE	MITERED END
DC-09	12.10	16'	12" HDPE	MITERED END
DC-10	12.20	16'	12" HDPE	MITERED END
DC-11	12.30	16'	12" HDPE	MITERED END
DC-12	12.40	16'	12" HDPE	MITERED END
DC-13	12.50	16'	12" HDPE	MITERED END
DC-14	12.60	16'	12" HDPE	MITERED END
DC-15	12.70	16'	12" HDPE	MITERED END
DC-16	12.80	16'	12" HDPE	MITERED END
DC-17	12.90	16'	12" HDPE	MITERED END
DC-18	13.00	16'	12" HDPE	MITERED END

- \* SEE MITERED END DETAIL ON SHEET C9 (TYP.)
- \* ALL CULVERTS ARE INSTALLED WITHOUT SLOPE.



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL  
PLANNING  
TRANSPORTATION

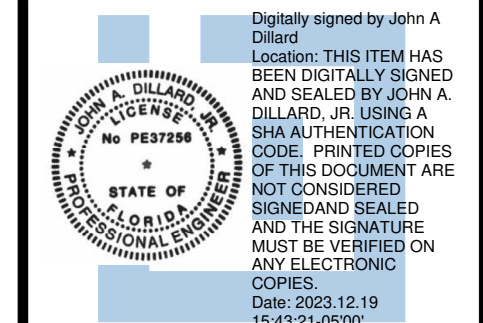
NO.	DATE	BY	REVISIONS
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2	08-17-22	TAK	REVISED PER CITY COMMENTS DATED 07-19-2022

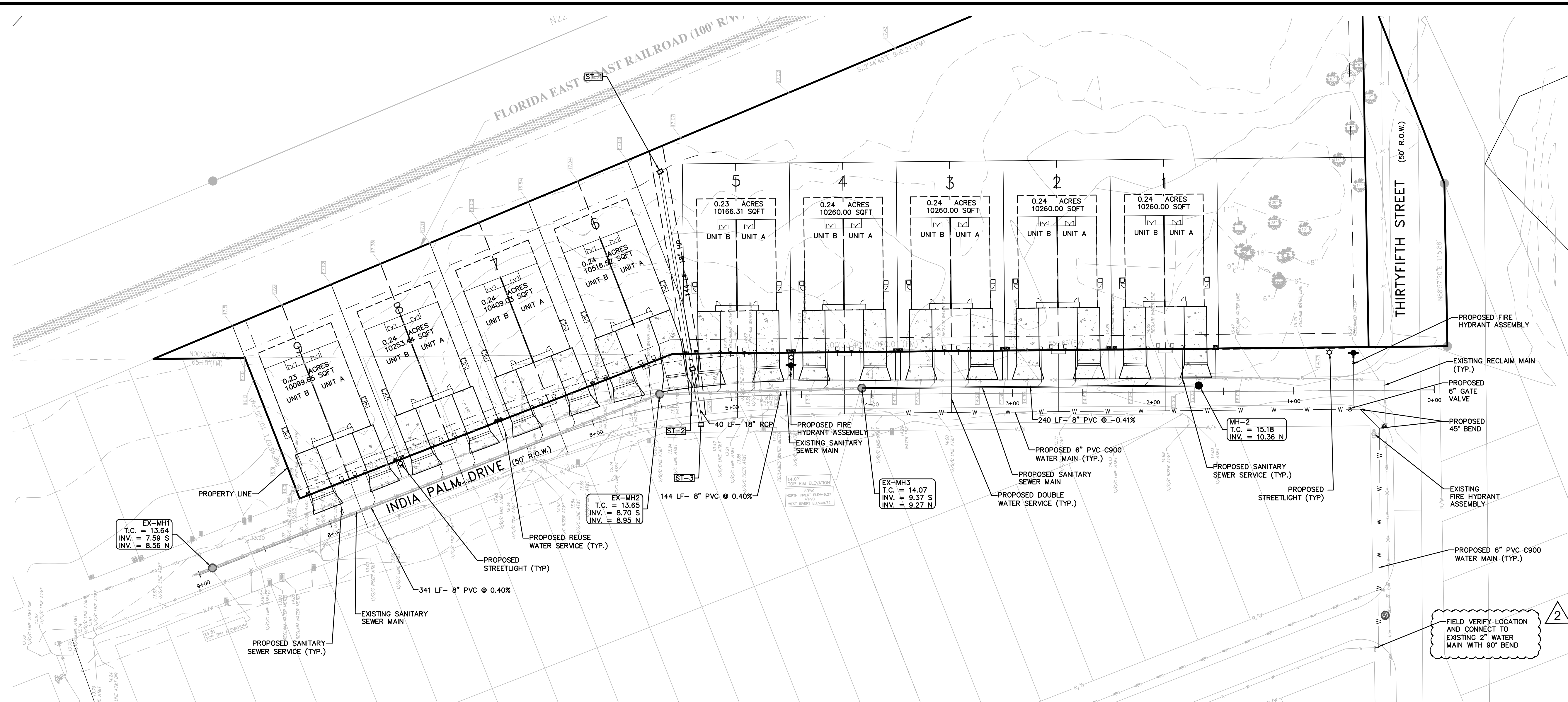
ALCANTARA MULTI-FAMILY  
FINAL ENGINEERING PLANS  
PAVING, GRADING &  
DRAINAGE PLAN

CITY OF EDEWATER  
VOLUSIA COUNTY, FLORIDA

PROJECT NO.: ZC 18114  
DESIGNED BY: JD  
DRAFTED BY: TR  
CHECKED BY: JD

DRAWING FILE: 07-18114-PGD  
XREFS: 18114-BAS.DWG  
XREFS: 18114-SURV.DWG

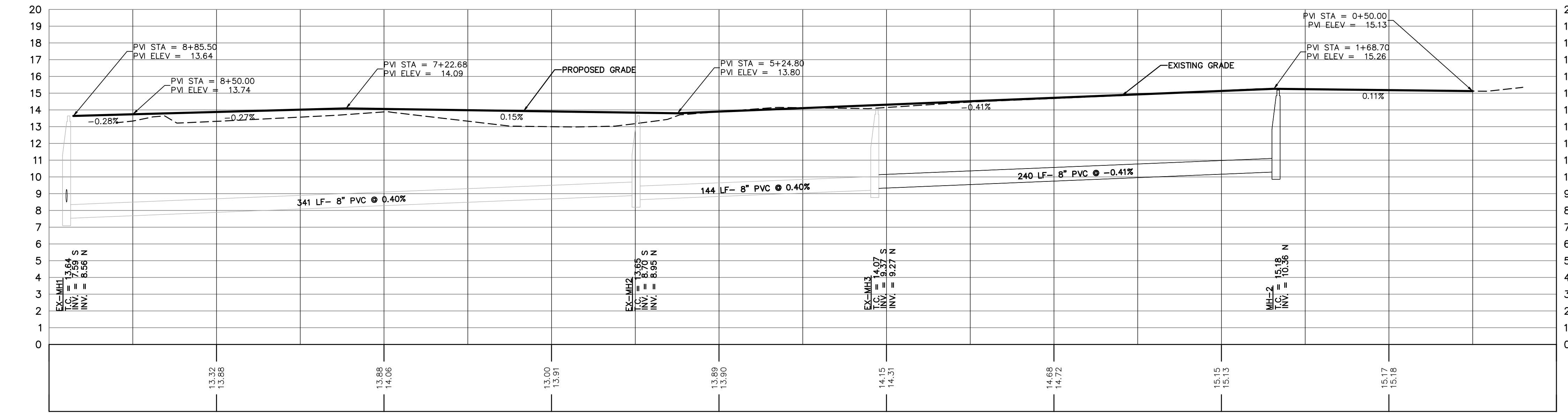




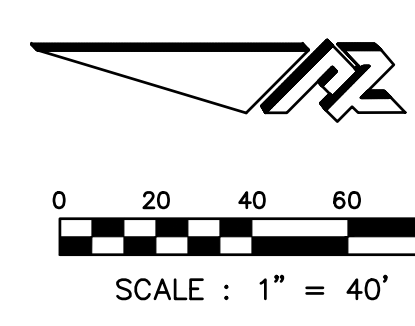
**LEGEND:**

- PROPOSED SANITARY MAIN AND MANHOLE
- PROPOSED SANITARY SERVICE
- PROPOSED WATERMAIN
- PROPOSED FIRE MAIN
- PROPOSED RECLAIMED WATERMAIN
- PROPOSED FORCEMAIN
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED RECLAIM MAIN (TYP.)
- PROPOSED 6" GATE VALVE
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED STREET LIGHT

- NOTES:**
- CONTRACTOR TO PROVIDE 10 LF CONCRETE ENCASUREMENT OF GRAVITY SEWER WHERE MINIMUM DEP. CLEARANCE CANNOT BE ACHIEVED AND/OR MAINTAINED.
  - ALL GRAVITY SEWER PIPE LESS THAN 4 FT OR GREATER THAN 10 FT IN DEPTH TO BE C-900 GREEN PVC WITH COMPATIBLE SERVICE FITTINGS.
  - WATER/SEWER/RECLAIM PROVIDER IS CITY OF EDGEWATER ENVIRONMENTAL SERVICES DEPARTMENT-386-424-2400 X4007 M-F 7:00AM-3:30PM.
  - A DUMPSTER OF SUITABLE SIZE IS REQUIRED TO BE PRESENT DURING ALL PHASES OF CONSTRUCTION ACTIVITIES, WHICH IS EMPTIED AT AN APPROPRIATELY PERMITTED FACILITY AND REPLACED AS NEEDED.
  - INSPECT SILT FENCE AND ALL OTHER STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROLS WEEKLY AND WITHIN 24 HOURS OF A RAIN EVENT 1/2-INCH OR GREATER, MAKING ANY REPAIRS IMMEDIATELY.
  - THE CONTRACTOR SHALL PROVIDE TO THE CITY A COPY OF THE NPDES PERMIT BEFORE CONSTRUCTION ACTIVITIES BEGIN ON SITE.



**India Palm Drive**  
PROFILE VIEW: HORIZ: 1"=40'  
VERT: 1"=4'



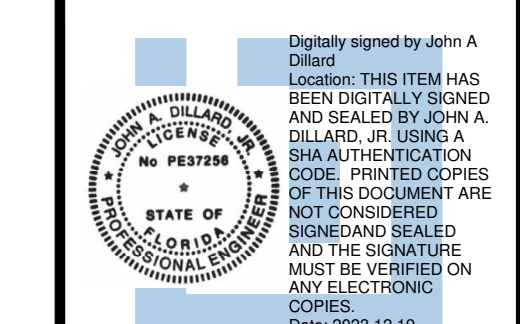
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL  
PLANNING  
TRANSPORTATION

NO.	DATE	BY	REVISIONS
1	08-17-23	TKR	ISSUED FOR CITY COMMENTS DATED 07-19-2022
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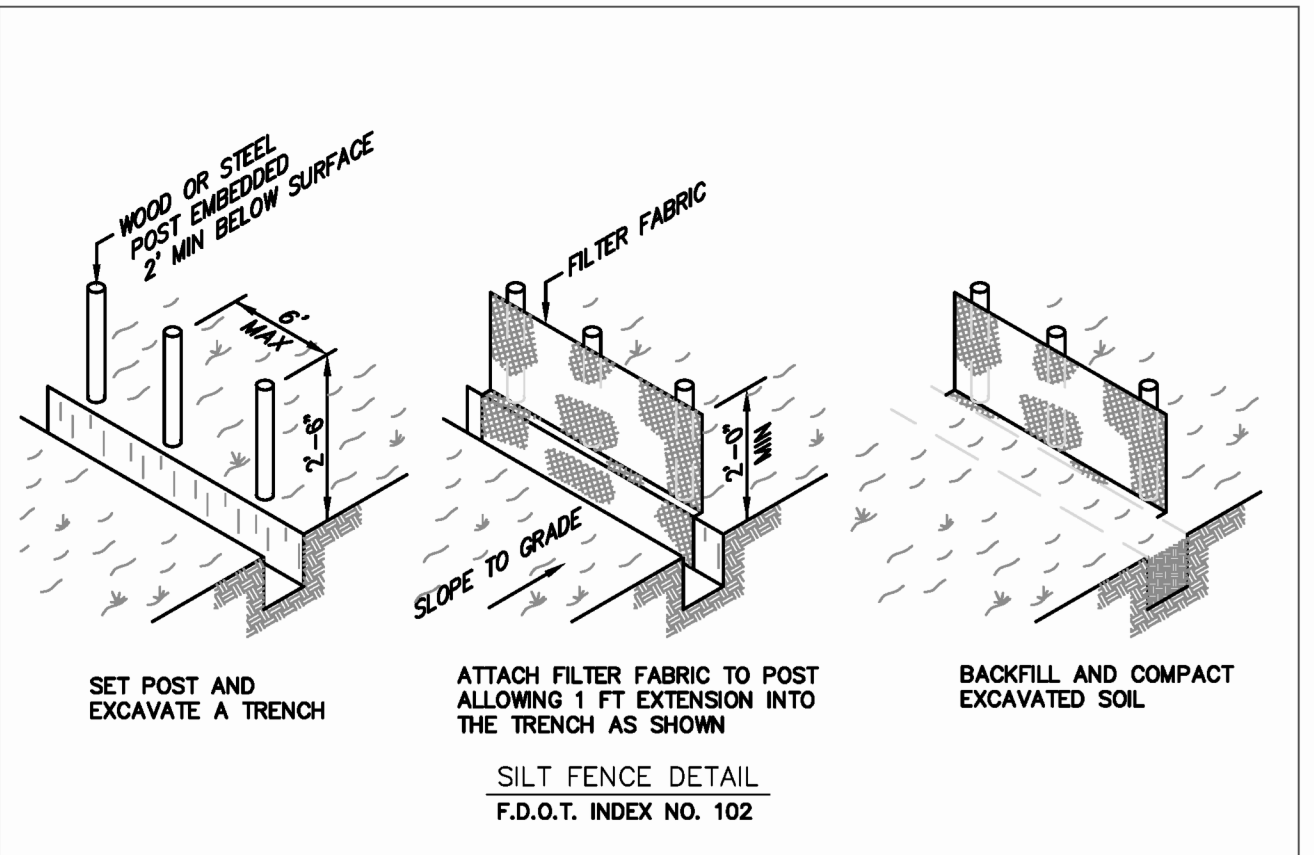
**ALCANTARA MULTI-FAMILY  
FINAL ENGINEERING PLANS  
UTILITY PLAN & PROFILE**

PROJECT NO.: ZC 18114  
DESIGNED BY: JD  
DRAFTED BY: TR  
CHECKED BY: JD

DRAWING FILE: 08-18114-UTL  
XREFS: 18114-BAS.DWG  
XREFS: 18114-SURV.DWG



12/19/2023  
JOHN A. DILLARD, JR., P.E. NO. 37256  
NOT VALID WITHOUT SEAL



- NOTES:
1. MATERIALS, CONSTRUCTION METHODS AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DESIGN STANDARDS CURRENT EDITION.
  2. CONTRACTOR SHALL PROVIDE SILT FENCES AND HAY BALES AT ALL STORMWATER DISCHARGE POINTS FOR EROSION CONTROL AND SEDIMENT CONTROL DURING CONST.
  3. CONTRACTOR SHALL ROUGH GRADE STORMWATER SWALES AND RETENTION AREAS PRIOR TO CONSTRUCTION OF SITE IMPROVEMENTS.
  4. CONTRACTOR SHALL MEET ALL PERMIT CONDITIONS AS ESTABLISHED BY THE CITY AND ALL OTHER APPLICABLE AGENCIES, INCLUDING BUT NOT LIMITED TO COUNTY, FDOT, AND THE SJRWMD.



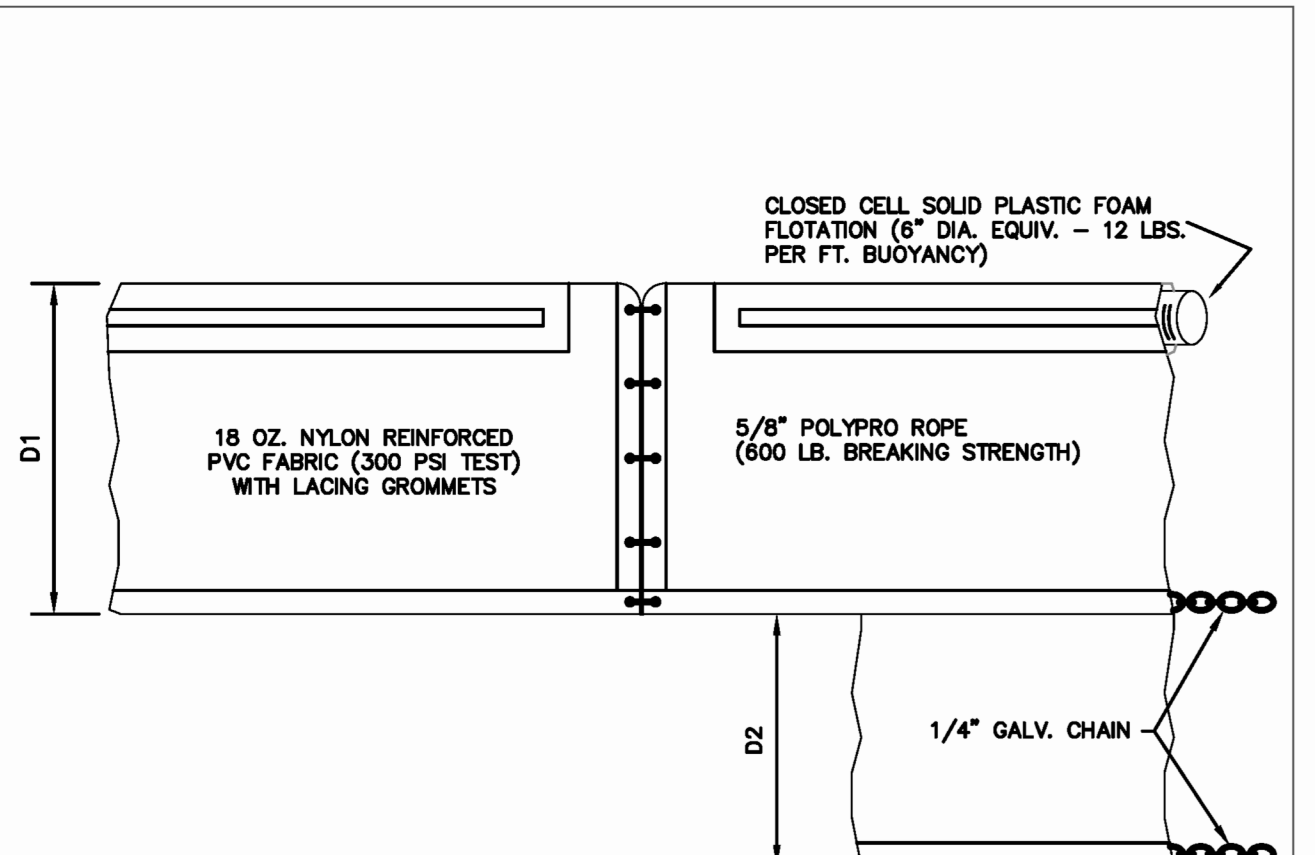
2016-03-21

**STANDARD CONSTRUCTION DETAIL**

SILT FENCE TURBIDITY BARRIER

FILE NAME:  
EW\_R22.DWG

DETAIL REF:  
**R-22**



- FLOATING TURBIDITY BARRIER**  
F.D.O.T. INDEX NO. 103
- D1 - 5 FT. STD. SINGLE PANEL FOR DEPTHS 5 FT. OR LESS  
D2 - 5 FT. STD. ADDITIONAL PANEL FOR DEPTHS GREATER THAN 5 FT.  
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FT.  
TWO PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FT.



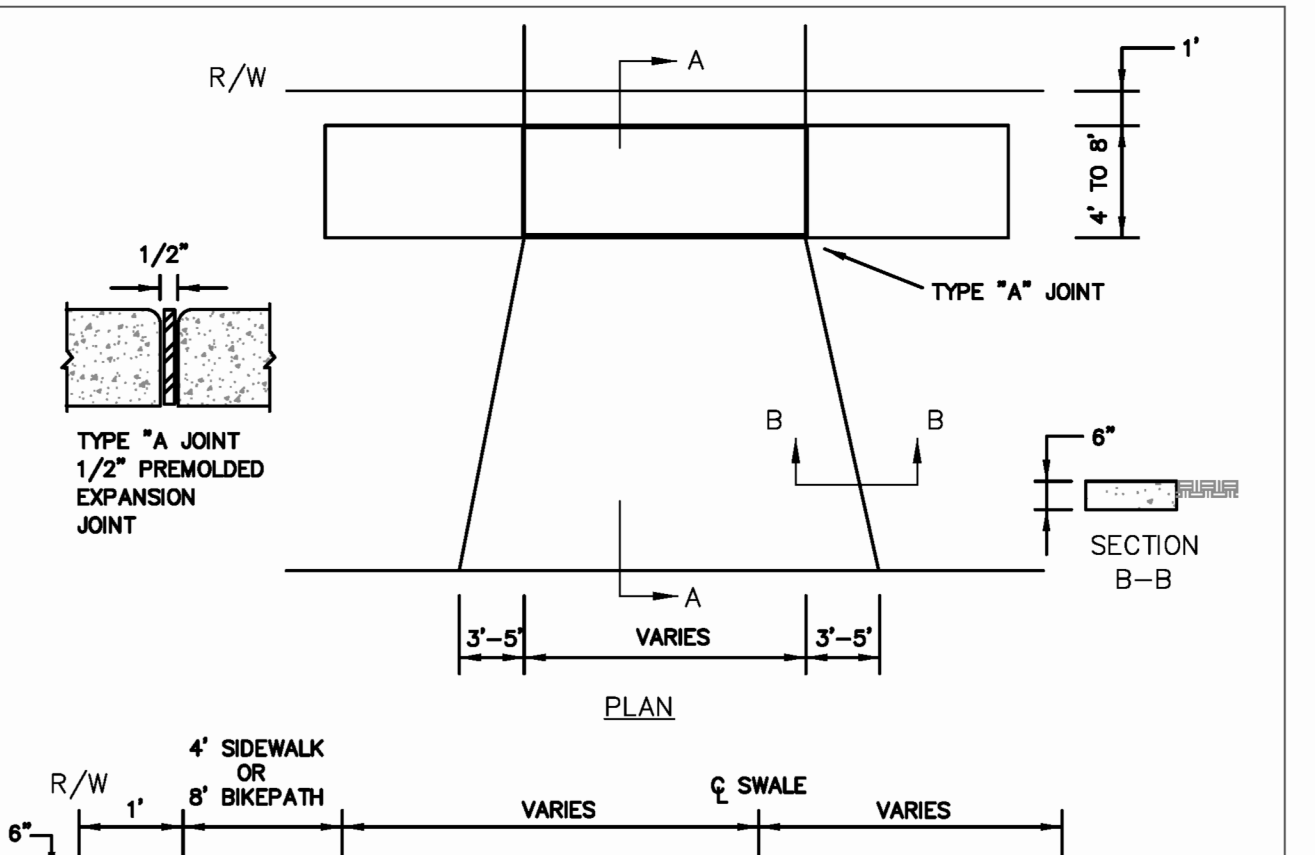
2016-03-21

**STANDARD CONSTRUCTION DETAIL**

FLOATING TURBIDITY BARRIER

FILE NAME:  
EW\_R24.DWG

DETAIL REF:  
**R-24**



- DRIVEWAY APRON**
- PLAN
- RURAL SECTION
- URBAN SECTION (SECTION A-A)



2016-03-21

**STANDARD CONSTRUCTION DETAIL**

DRIVEWAY APRON

FILE NAME:  
EW\_M4.DWG

DETAIL REF:  
**M-4**

	IN CITY RIGHT-OF-WAY:		ON RESIDENTIAL PRIVATE PROPERTY (SINGLE FAMILY OR DUPLEX)
	TRANSVERSE (FROM ROAD TO PROPERTY)	LONGITUDINAL (E.G. IMPROVING A SHELL ROAD)	
DRIVEWAY WIDTH:	9' MIN - 24' MAX (CUMULATIVE)	18' MIN - 50% R/W MAX	6' MIN
TURN-OUT GEOMETRY:	≤ 30 MPH: MAX 10' TOTAL WIDER THAN DRIVEWAY 35-45 MPH: R=25' MIN (SEE NOTE 5) >45 MPH: FDOT STANDARD	≤30-45 MPH: R=25' MIN >45 MPH: FDOT STANDARD	N/A
ALLOWABLE MATERIALS:	ASPHALT (PER DETAIL R-1, ITEMS E, F, & G) CONCRETE (PER DETAIL R-19) THE FOLLOWING ARE BY WRITTEN CONSENT ONLY: PAVERS (OR SIMILAR) TURFBLOCK (OR SIMILAR) THE FOLLOWING ARE NOT ALLOWED: GRANULAR MATERIALS PAVED WHEELPATHS	ASPHALT (PER DETAIL R-1, ITEMS E, F, & G) CONCRETE (PER DETAIL R-19) THE FOLLOWING ARE BY WRITTEN CONSENT ONLY: PAVERS (OR SIMILAR) TURFBLOCK (OR SIMILAR) IMPROVED GRANULAR MATLS PAVED WHEELPATHS	ASPHALT (PER DETAIL R-1, ITEMS E, F, & G) CONCRETE (PER DETAIL R-19) PAVERS (OR SIMILAR) TURFBLOCK (OR SIMILAR) IMPROVED GRANULAR MATLS PAVED WHEELPATHS

- NOTES:
1. PAVERS, GRAVEL, MILLINGS AND OTHER IMPROVED GRANULAR OR NON-UNIFORM SURFACES ARE ONLY ALLOWED IN LIMITED APPLICATIONS WITHIN THE CITY RIGHT-OF-WAY BY WRITTEN CONSENT OF THE TECHNICAL REVIEW COMMITTEE. SUCH SURFACES ARE NOT CONSIDERED EQUAL TO HARDCAPE PAVING (I.E. CONCRETE OR ASPHALT). PROPERTY OWNERS WISHING TO INSTALL SUCH SURFACE ADJACENT TO THEIR PROPERTY SHALL EXECUTE A HOLD HARMLESS AGREEMENT INDEMNIFYING THE CITY AGAINST THE MAINTENANCE, REPAIR, AND/OR REPLACEMENT OF SIMILAR SURFACE.
  2. FOR ASPHALT PAVEMENT, REFER TO ITEMS E, F, & G OF DETAIL R-1.  
FOR CONCRETE PAVEMENT, REFER TO DETAIL R-19. CAN BE MIN 4" THICK ON RESIDENTIAL PROPERTY WITH REINFORCEMENT.  
(THE LATEST VERSION OF FDOT SPECIFICATIONS SHALL BE ACCEPTED IN LIEU OF THE ABOVE.)  
FOR ALL OTHER SURFACES:  
12" SUBGRADE COMPACTED TO 98% MAX DENSITY MODIFIED PROCTOR ASSHTO T-180 MIN LBR=40
  3. FOR IMPROVED GRANULAR SURFACE (E.G. ANY GRANULAR SURFACE OTHER THAN SHELL OR DIRT):  
- CONSTRUCT CURBING ALONG ALL EDGES. SEE DETAIL R-9 FOR CURB OPTIONS AND SPECIFICATIONS.  
- FINISHED THICKNESS OF IMPROVED GRANULAR MATERIAL TO BE MIN 6". CAN BE MIN 4" THICK ON RESIDENTIAL PROPERTY.  
- COMPACT GRANULAR MATERIAL VIA ROLLER OR PLATE. MILLINGS MUST BE ROLLED.
  4. PAVERS, MILLINGS, AND OTHER SIMILAR SURFACES SHALL INCORPORATE A CROSS-SLOPE OF 1/4" / FT DIRECTED TO THE NEAREST ADJACENT STORMWATER FEATURE (EXISTING OR PLANNED).
  5. MINIMUM TURN-OUT RADIUS MAY BE INCREASED DUE TO ANTICIPATED TRAFFIC VOLUMES AT DISCRETION OF TECHNICAL REVIEW COMMITTEE.



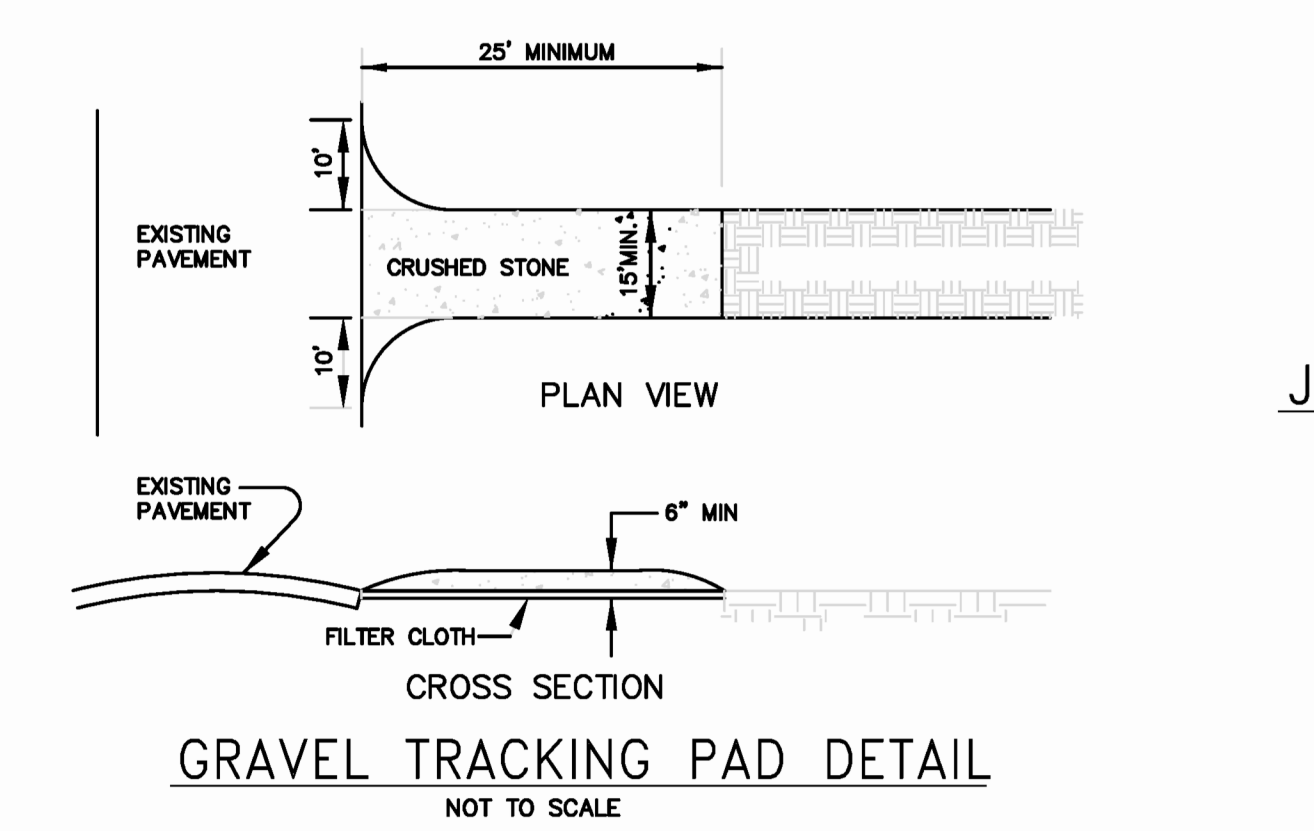
2016-03-17

**STANDARD CONSTRUCTION DETAIL**

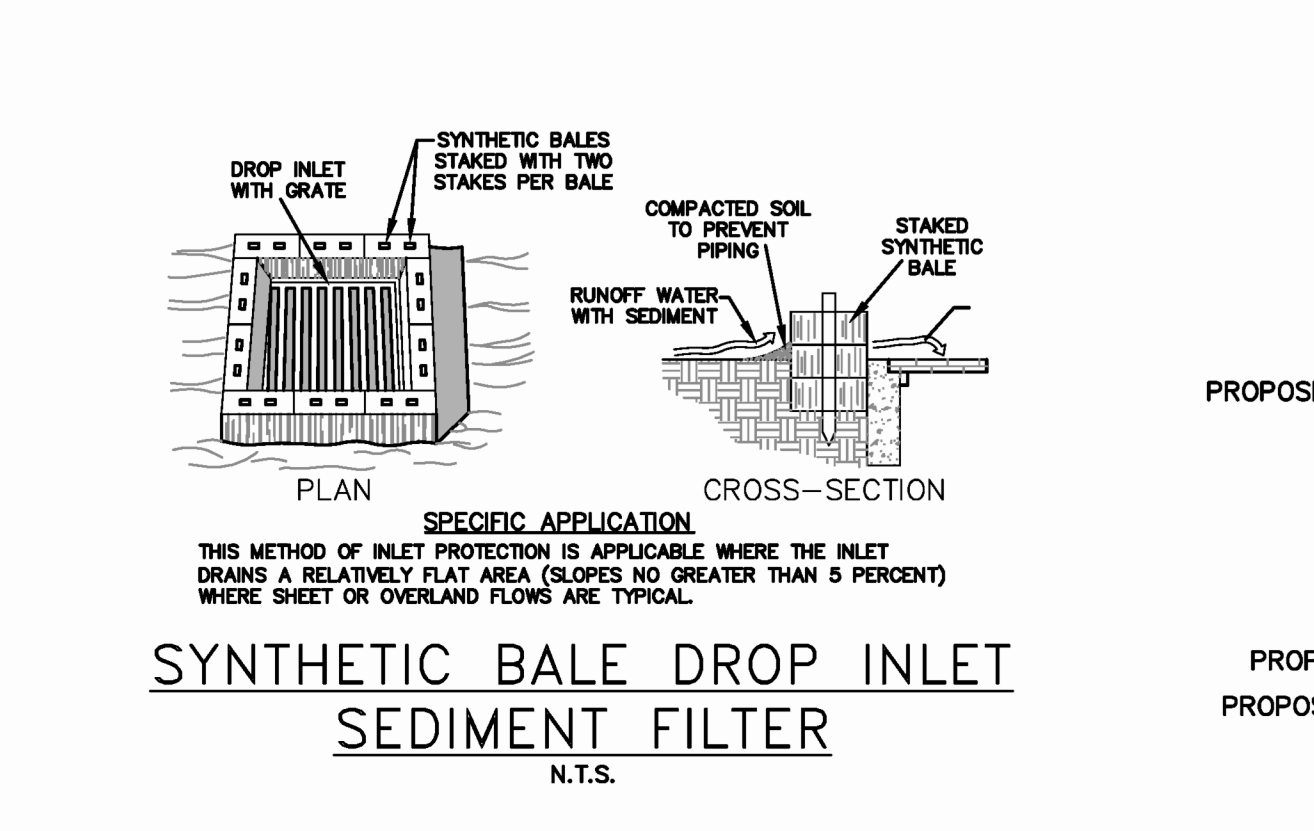
DRIVEWAY DETAIL - RESIDENTIAL

FILE NAME:  
EW\_R27.DWG

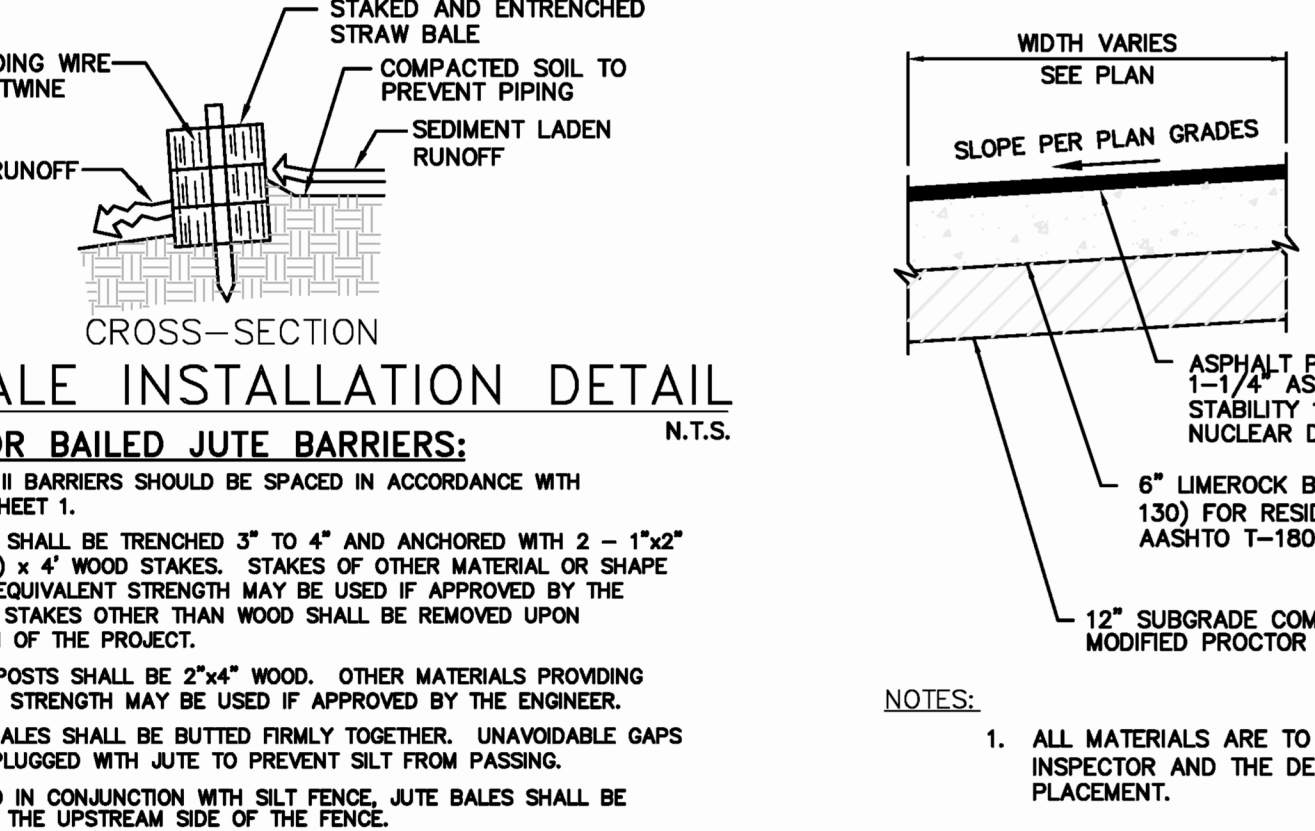
DETAIL REF:  
**R-27**



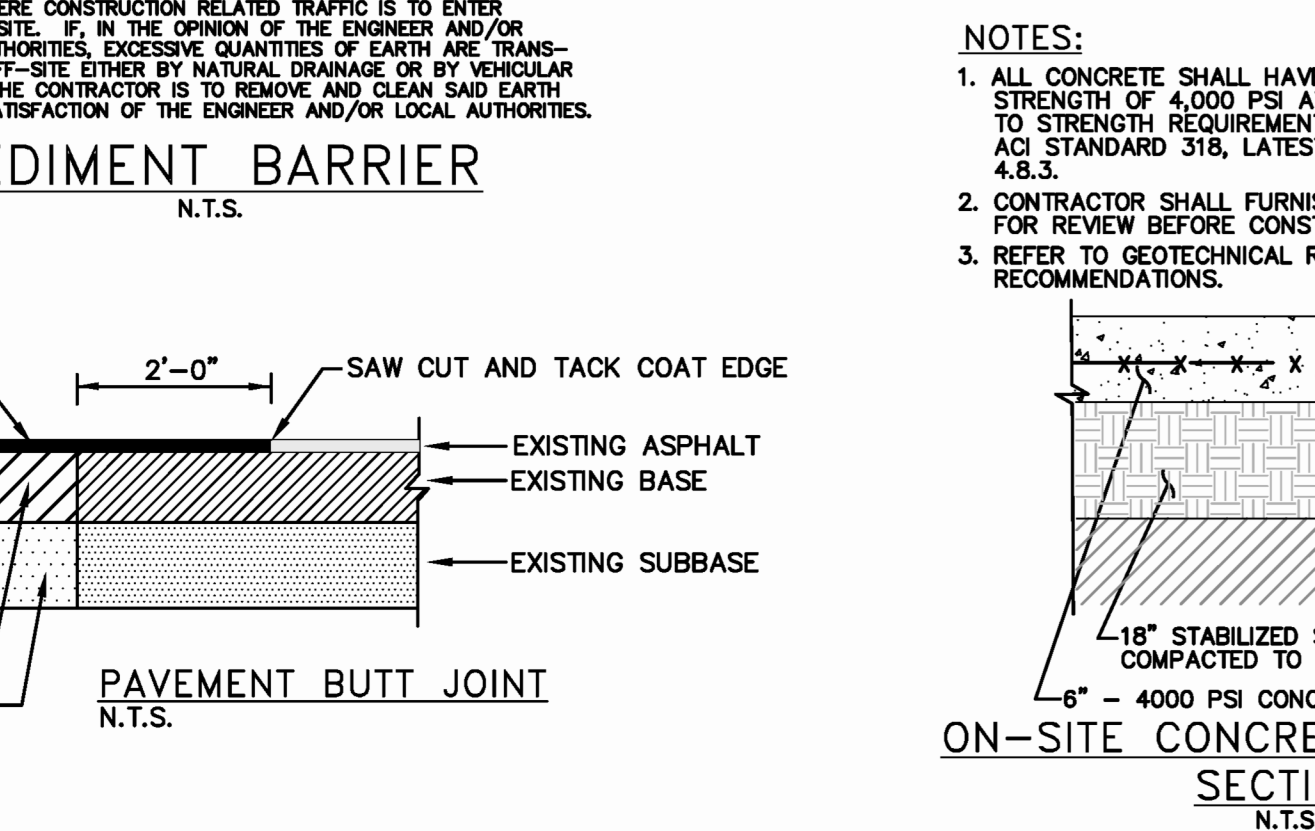
- GRAVEL TRACKING PAD DETAIL**  
NOT TO SCALE
- TRACKING PAD NOTES:  
STONE SIZE - USE 2" CRUSHED STONE
- FILTER CLOTH - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHOULD BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHOULD BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANING OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.



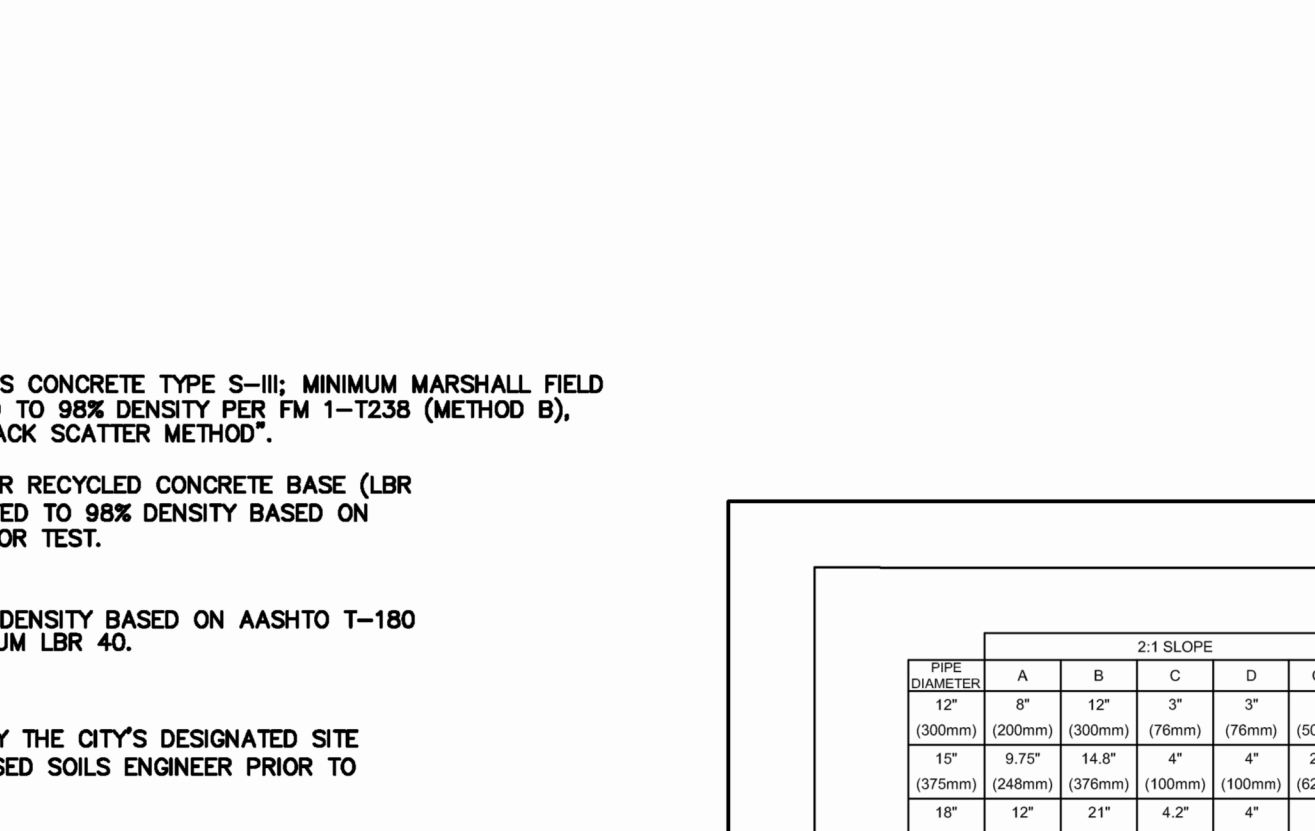
**SYNTHETIC BALE DROP INLET SEDIMENT FILTER**  
N.T.S.



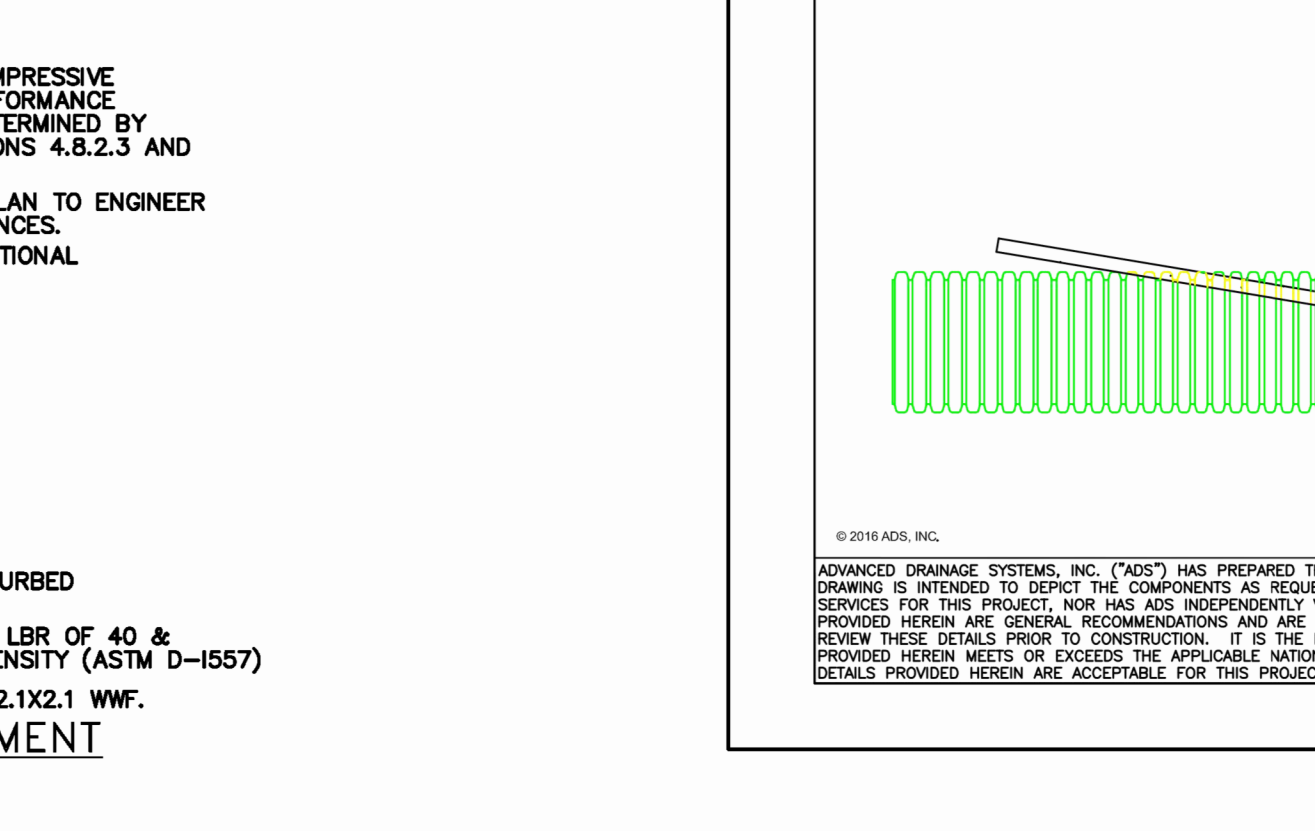
- NOTES FOR BAILED JUTE BARRIERS:**  
N.T.S.
1. TYPE I AND II BARRIERS SHOULD BE SPACED IN ACCORDANCE WITH CHART 1, SHEET 1.
  2. JUTE BALES SHALL BE TRENCHED 3" TO 4" AND ANCHORED WITH 2 - 1"x2" (OR 1" DIA.) x 4' WOOD STAKES. STAKES OF OTHER MATERIAL OR SHAPE PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER. STAKES OTHER THAN WOOD SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
  3. RAILS AND POSTS SHALL BE 2"x4" WOOD. OTHER MATERIALS PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER.
  4. ADJACENT BALES SHALL BE BUTTED FIRMLY TOGETHER. UNAVOIDABLE GAPS SHALL BE PLUGGED WITH JUTE TO PREVENT SILT FROM PASSING.
  5. WHERE USED IN CONJUNCTION WITH SILT FENCE, JUTE BALES SHALL BE PLACED ON THE UPSTREAM SIDE OF THE FENCE.
  6. BALES TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR BAILED JUTE, EA. THE UNIT PRICE SHALL INCLUDE THE COST OF FILTER FABRIC FOR TYPE I AND II BARRIERS. SAND BAGS SHALL BE PAID FOR UNDER THE UNIT PRICE FOR SAND BAGGING, CY. ROCK BAGS TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR ROCK BAGS, EA.



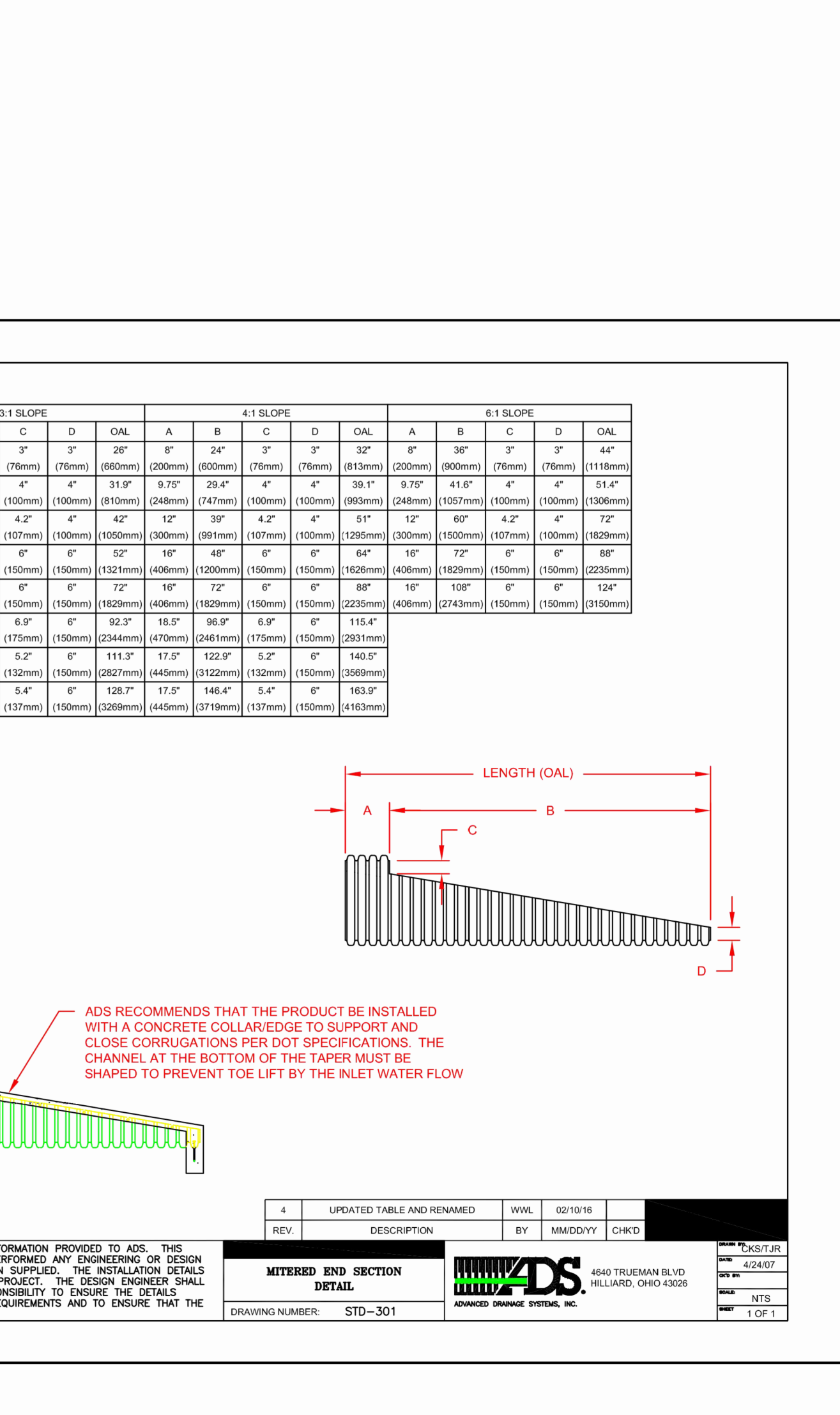
**SEDIMENT BARRIER**  
N.T.S.



- RE-HAB TRAVEL LANE - PAVEMENT SECTION**  
N.T.S.
- NOTES:
1. ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND THE DEVELOPER'S LICENSED SOILS ENGINEER PRIOR TO PLACEMENT.
  2. A CITY APPROVED REPRESENTATIVE OF A CERTIFIED SOILS LABORATORY SHALL BE PRESENT DURING ALL CONSTRUCTION PHASES UTILIZING A SOIL CEMENT BASE. THE REPRESENTATIVE SHALL BE CERTIFIED BY F.D.O.T. IN THE INSTALLATION OF SOIL CEMENT.



**ON-SITE CONCRETE PAVEMENT**  
SECTION  
N.T.S.



**GRAVEL TRACKING PAD DETAIL**  
NOT TO SCALE



CIVIL ENGINEERING	LANDSCAPE ARCHITECTURE	ENVIRONMENTAL PLANNING	TRANSPORTATION
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NO.	DATE	BY	REVISIONS
1	08-17-22	TKR	REVISED PER CITY COMMENTS DATED 07-19-2022
2	08-17-22	TKR	REVISED PER CITY COMMENTS DATED 07-19-2022

**ALCANTARA MULTI-FAMILY FINAL ENGINEERING PLANS CONSTRUCTION DETAILS**

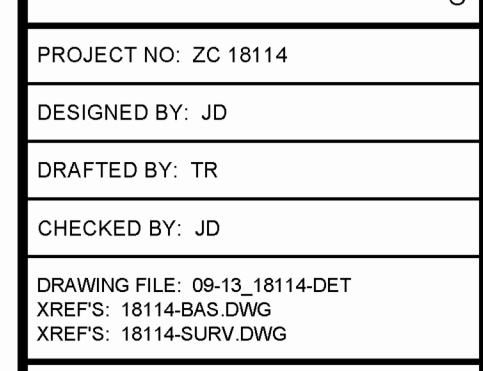
PROJECT NO.: ZC 18114

DESIGNED BY: JD

DRAFTED BY: TR

CHECKED BY: JD

DRAWING FILE: 09-13\_18114-DET  
XREFS: 18114-BAS.DWG  
XREFS: 18114-SURV.DWG



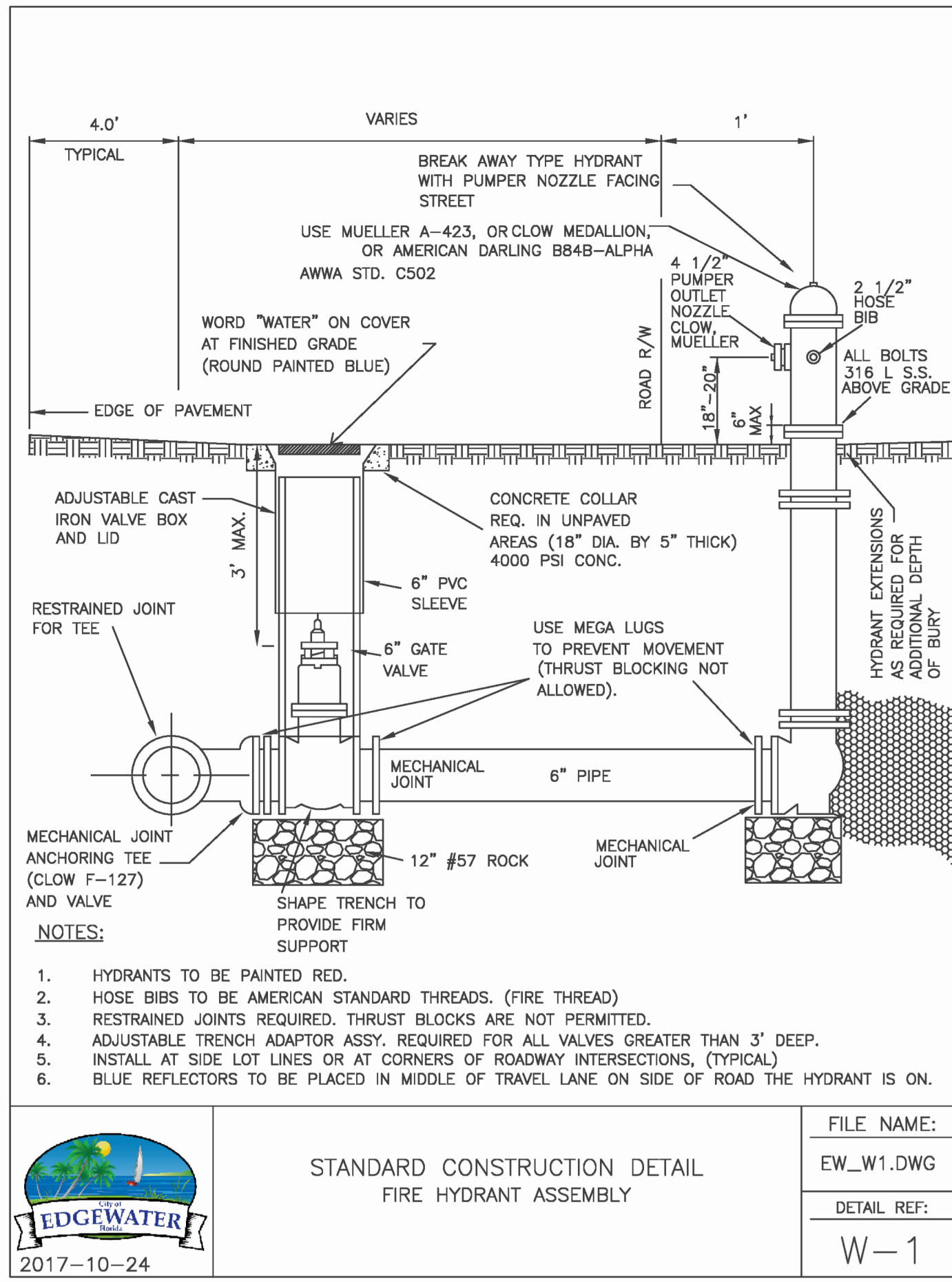
12/19/2023

JOHN A. DILLARD, JR., P.E. NO. 37256  
NOT VALID WITHOUT SEAL

SHEET: **C9** OF **13**

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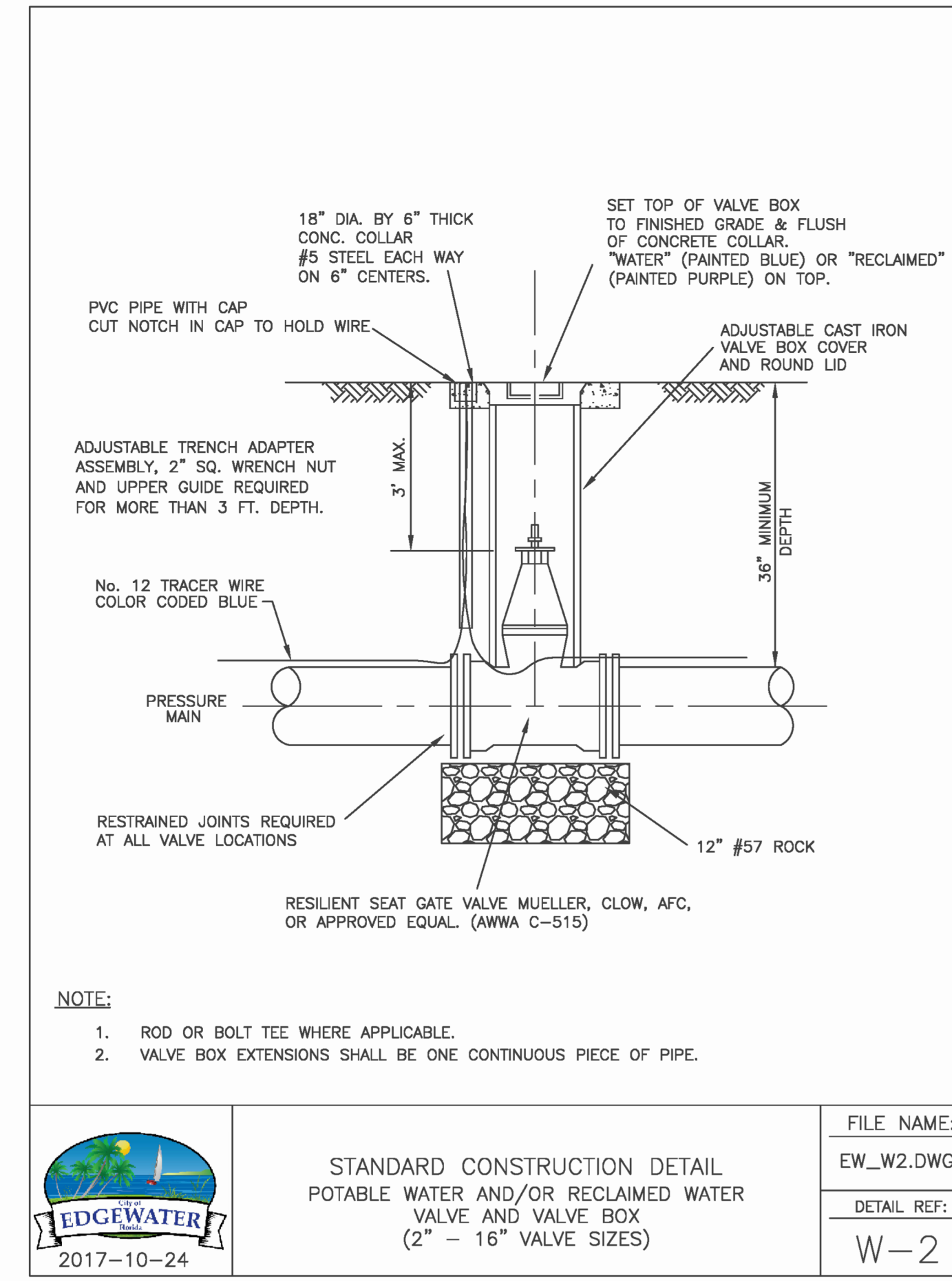
2017-10-24


STANDARD CONSTRUCTION DETAIL  
FIRE HYDRANT ASSEMBLY

FILE NAME:  
EW\_W1.DWG

DETAIL REF:  
W-1

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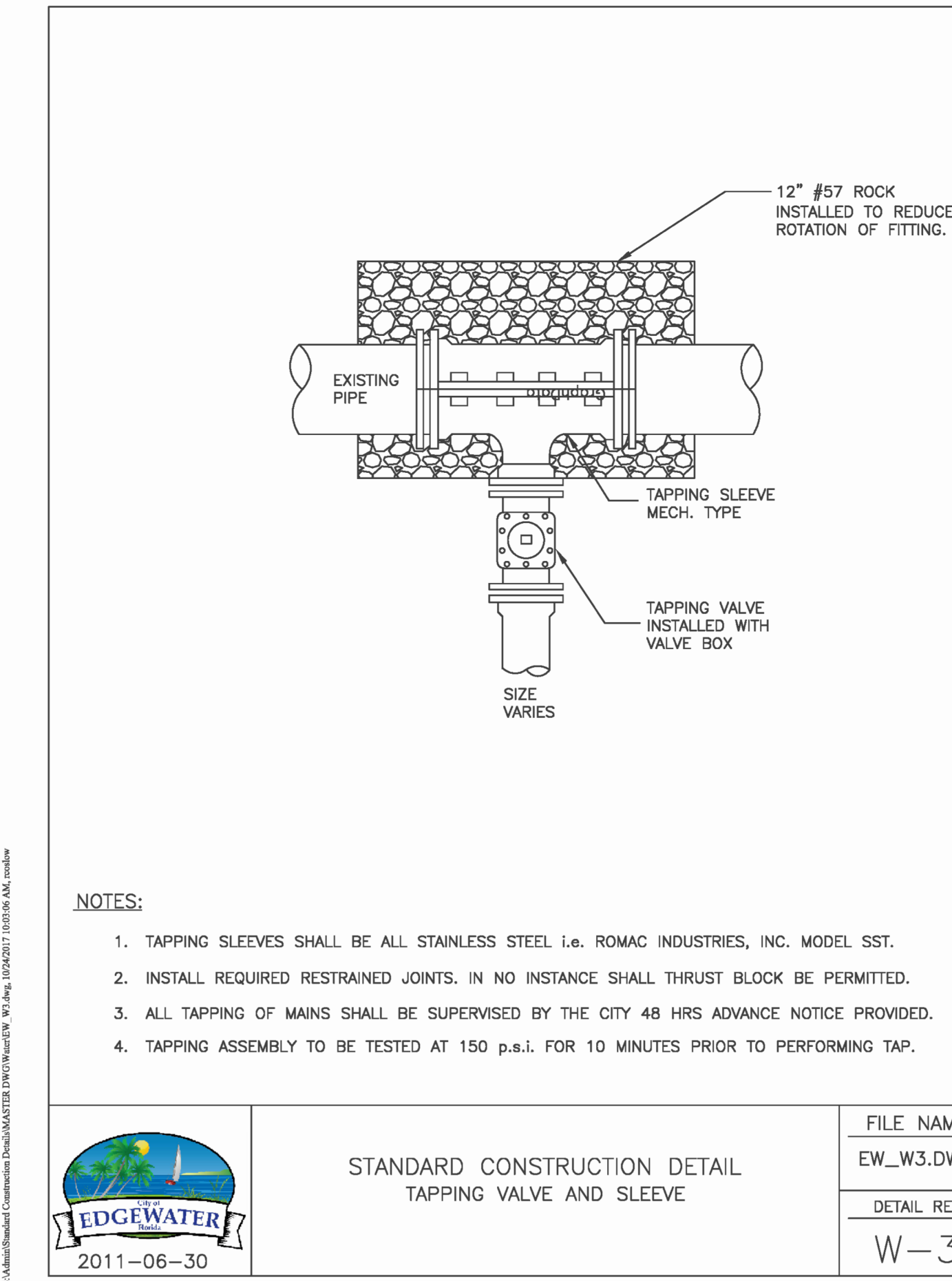
2017-10-24


STANDARD CONSTRUCTION DETAIL  
POTABLE WATER AND/OR RECLAIMED WATER  
VALVE AND VALVE BOX  
(2" - 16" VALVE SIZES)

FILE NAME:  
EW\_W2.DWG

DETAIL REF:  
W-2

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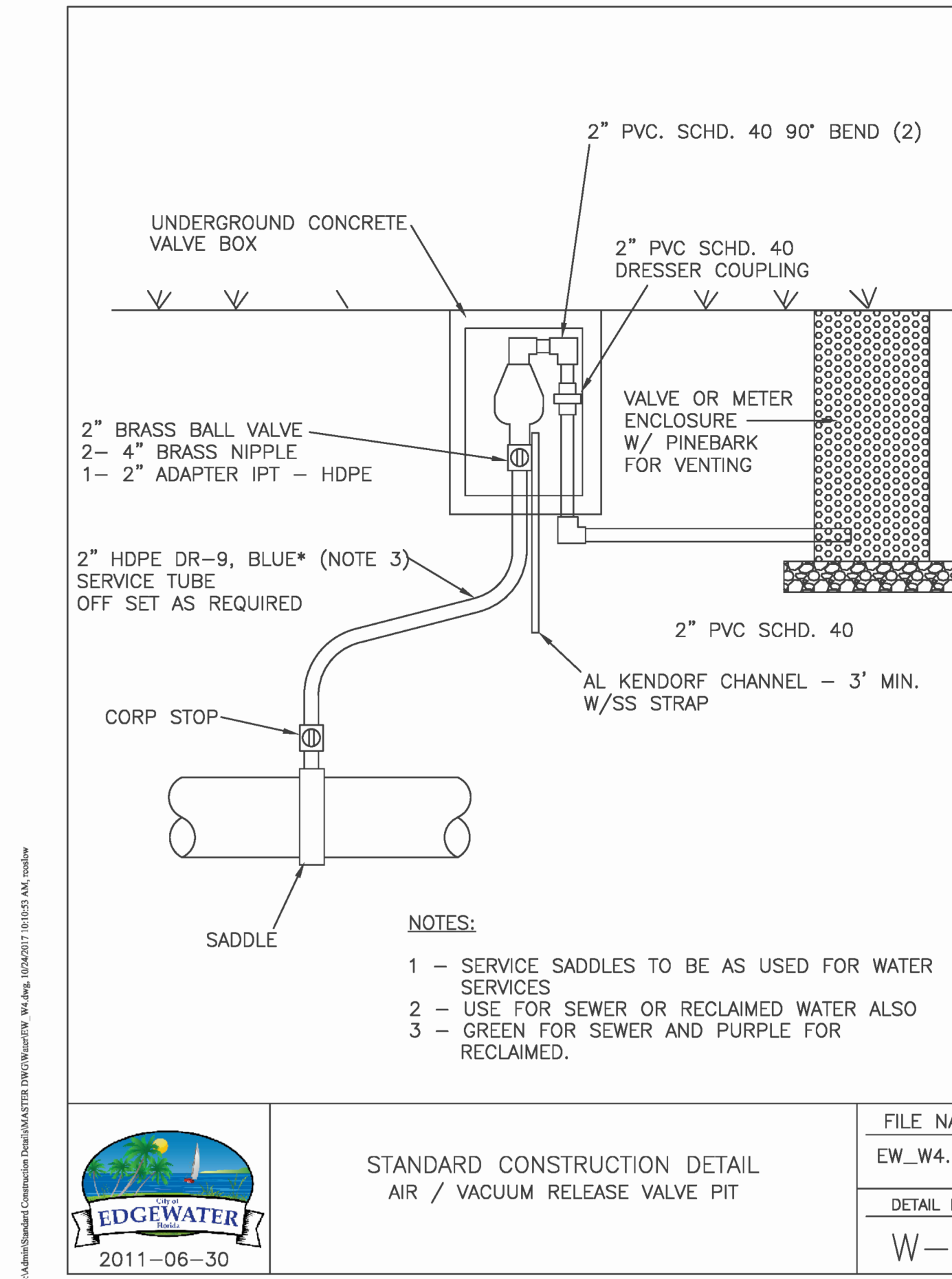
2011-06-30

STANDARD CONSTRUCTION DETAIL  
TAPPING VALVE AND SLEEVE

FILE NAME:  
EW\_W3.DWG

DETAIL REF:  
W-3

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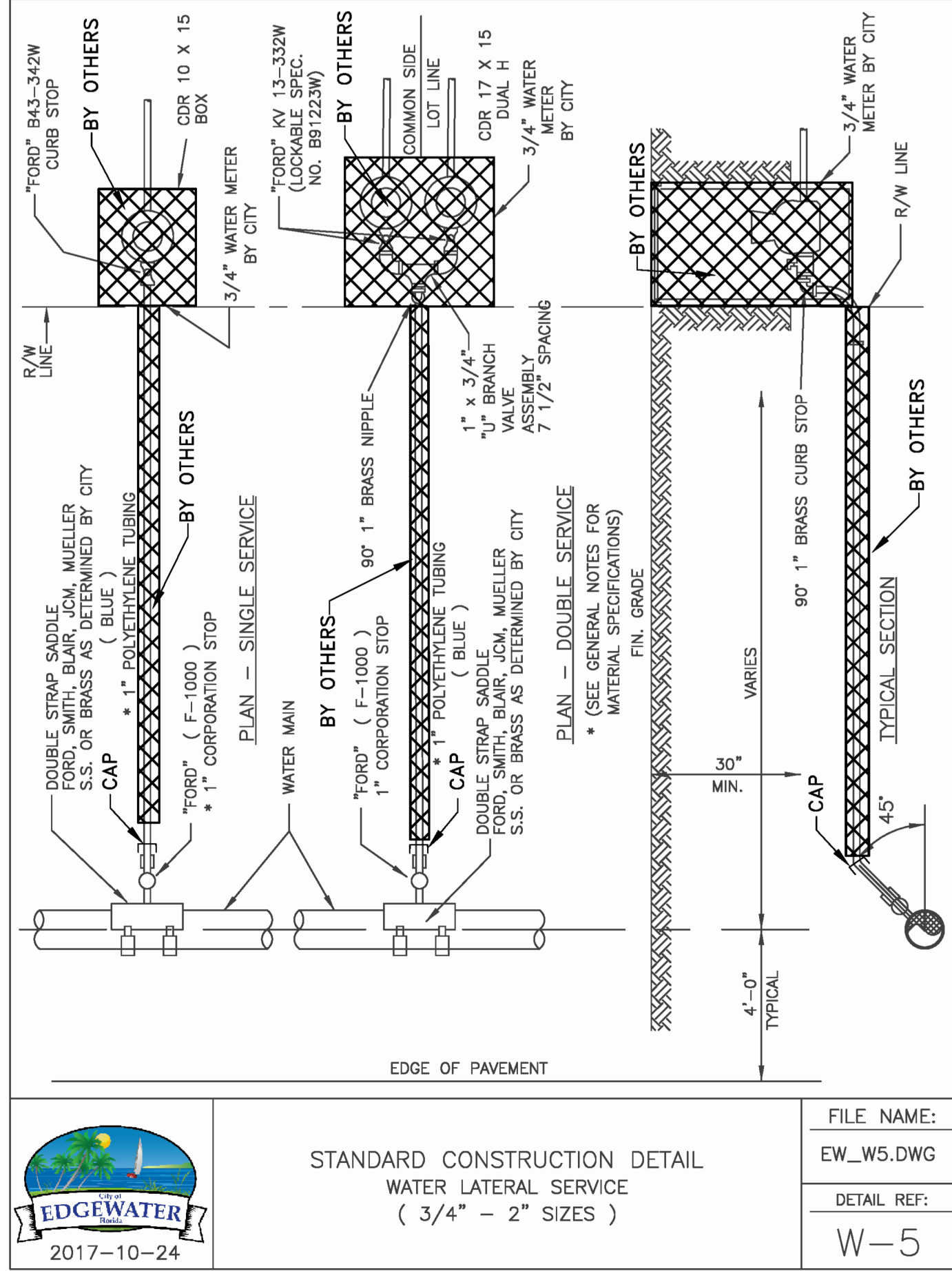
2011-06-30


STANDARD CONSTRUCTION DETAIL  
AIR / VACUUM RELEASE VALVE PIT

FILE NAME:  
EW\_W4.DWG

DETAIL REF:  
W-4

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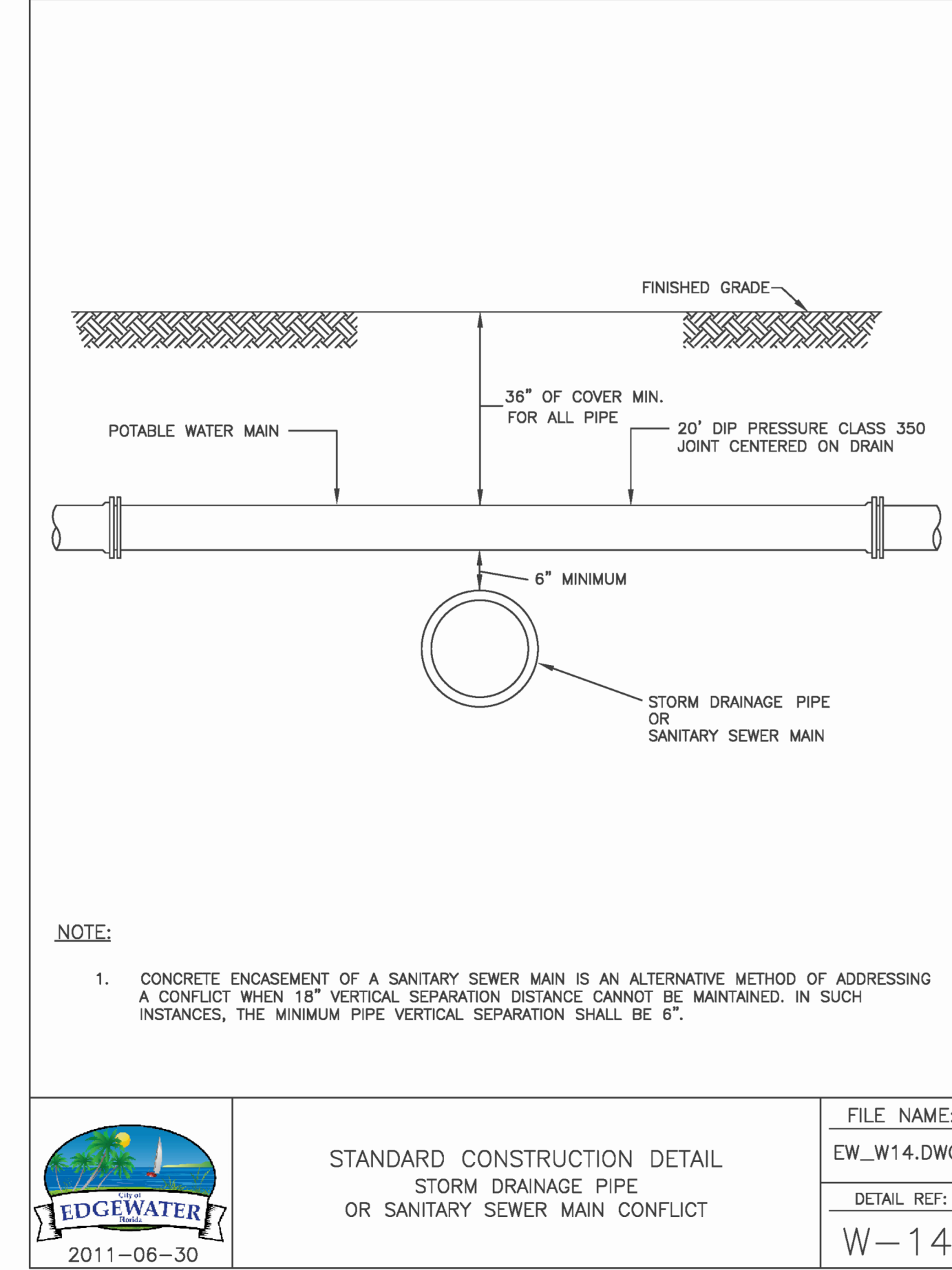
2017-10-24

STANDARD CONSTRUCTION DETAIL  
WATER LATERAL SERVICE  
( 3/4" - 2" SIZES )

FILE NAME:  
EW\_W5.DWG

DETAIL REF:  
W-5

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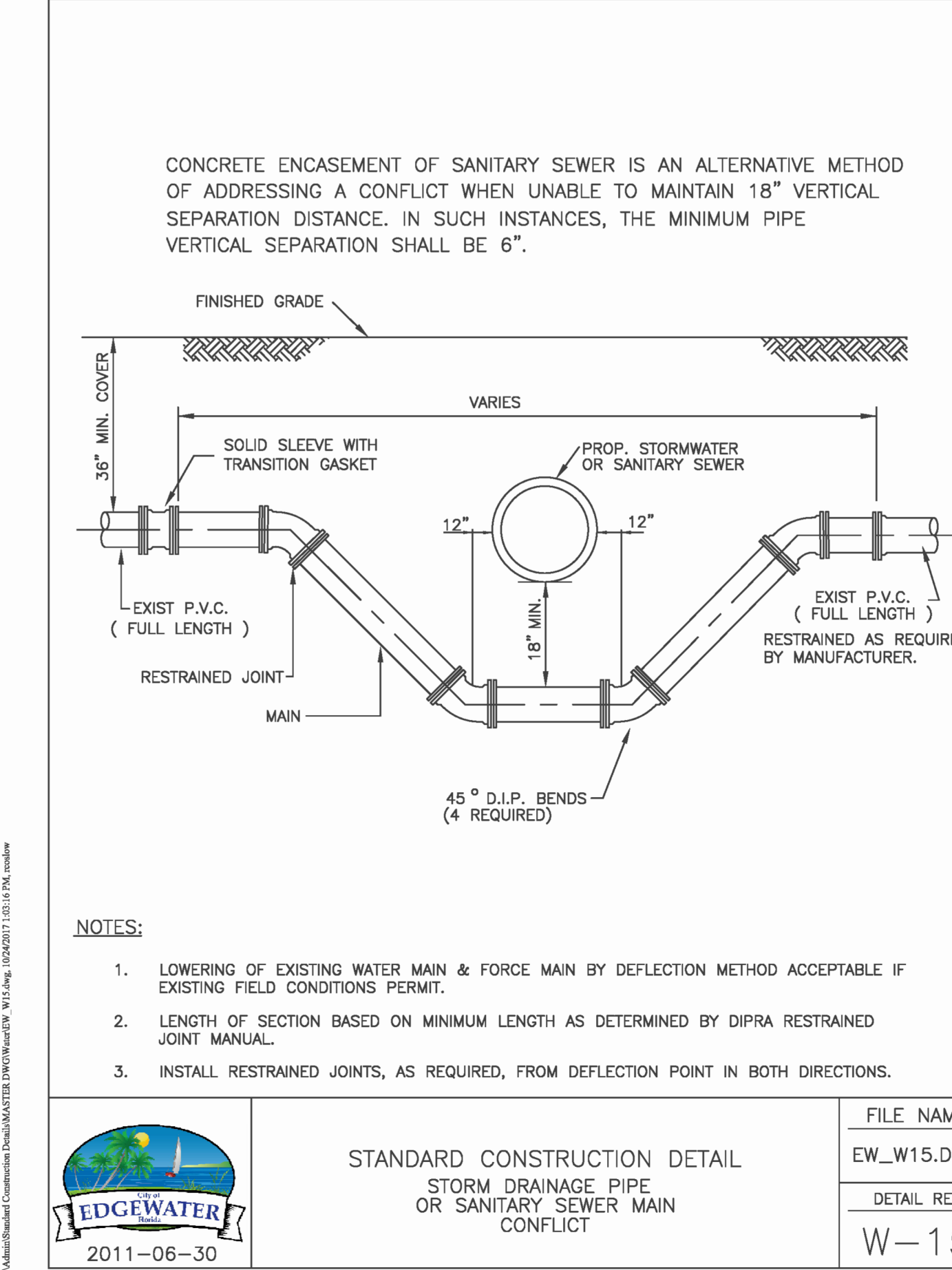
2011-06-30


STANDARD CONSTRUCTION DETAIL  
STORM DRAINAGE PIPE  
OR SANITARY SEWER MAIN CONFLICT

FILE NAME:  
EW\_W14.DWG

DETAIL REF:  
W-14

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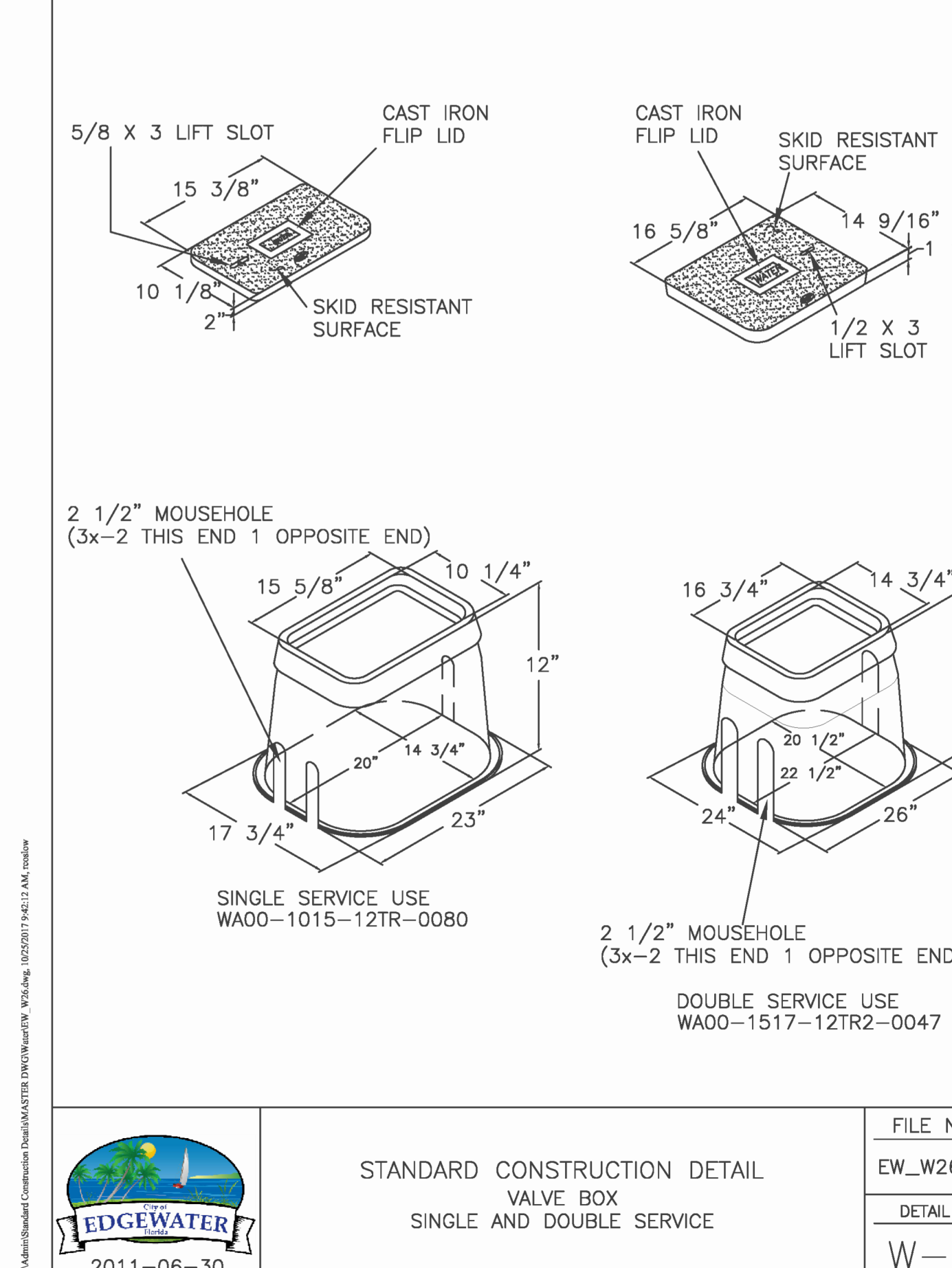
2011-06-30

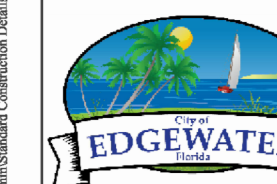
STANDARD CONSTRUCTION DETAIL  
STORM DRAINAGE PIPE  
OR SANITARY SEWER MAIN  
CONFLICT

FILE NAME:  
EW\_W15.DWG

DETAIL REF:  
W-15

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2011-06-30

STANDARD CONSTRUCTION DETAIL  
VALVE BOX  
SINGLE AND DOUBLE SERVICE

FILE NAME:  
EW\_W26.DWG

DETAIL REF:  
W-26

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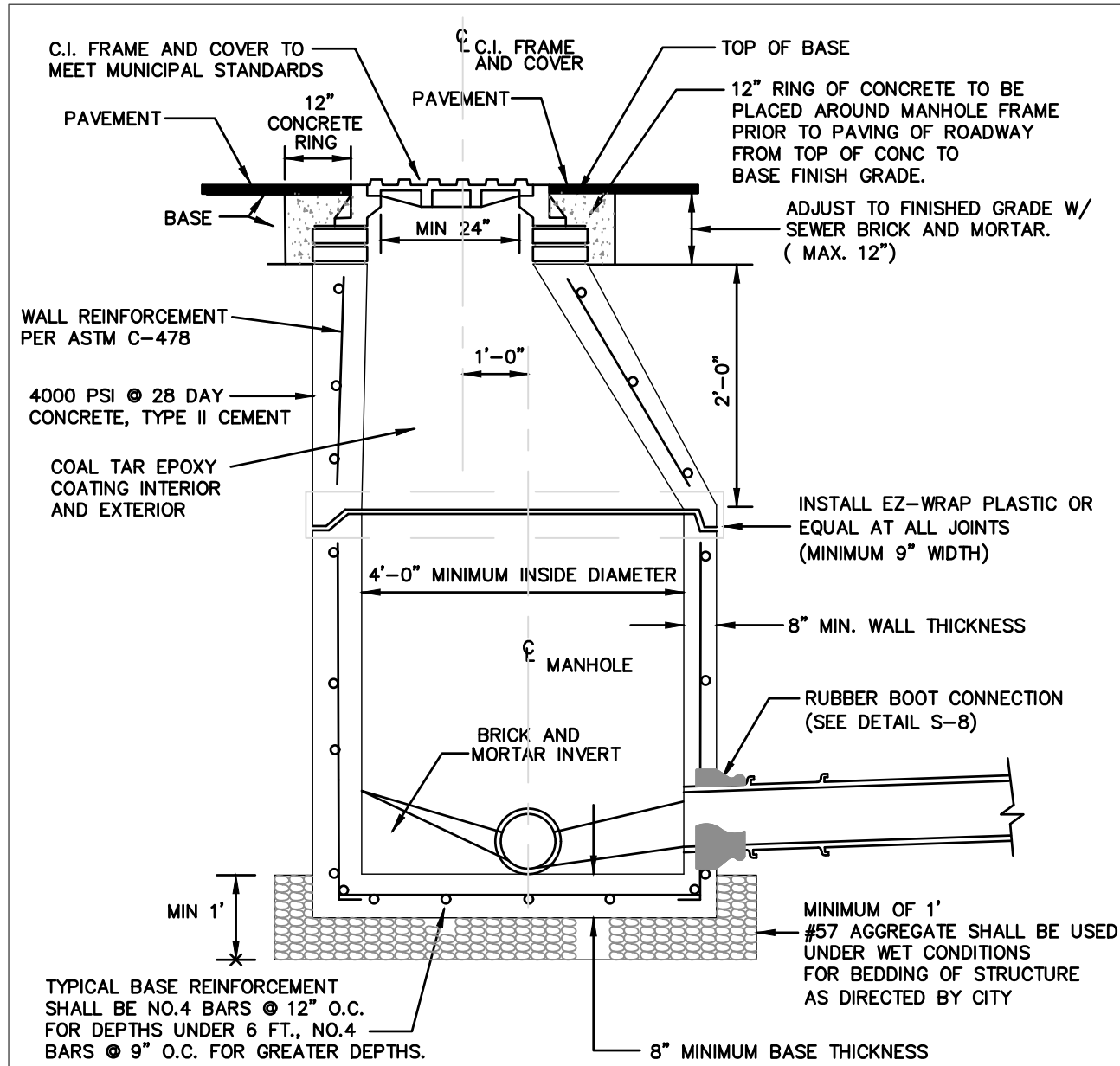
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL  
PLANNING  
TRANSPORTATION

NO.	DATE	BY	REVISIONS
1	08-17-23	TKR	REVISED PER CITY COMMENTS DATED 07-19-2022
2	08-17-23	TKR	REVISED PER CITY COMMENTS DATED 07-19-2022

ALCANTARA MULTI-FAMILY  
FINAL ENGINEERING PLANS  
CONSTRUCTION DETAILS

VOLUSIA COUNTY, FLORIDA  
CITY OF EDGEWATER

PROJECT NO.: ZC 18114  
DESIGNED BY: JD  
DRAFTED BY: TR  
CHECKED BY: JD  
DRAWING FILE: 08-13\_18114-DET  
XREFS: 18114-BAS.DWG  
XREFS: 18114-SURV.DWG  
Digitally signed by John A. Dillard  
Location: THIS ITEM HAS  
BEEN DIGITALLY SIGNED  
AND SEALED BY JOHN A.  
DILLARD, JR. USING A  
DIGITAL SIGNATURE  
CODE. PRINTED COPIES  
OF THIS DOCUMENT ARE  
NOT CONSIDERED  
SIGNED AND SEALED  
AND THE SIGNATURE  
MUST BE VERIFIED ON  
ANY ELECTRONIC  
COPIES.  
Date: 2023.12.19  
15:43:25-0500  
12/19/2023  
JOHN A. DILLARD, JR., P.E. NO. 37256  
NOT VALID WITHOUT SEAL  
SHEET: C10 OF 13

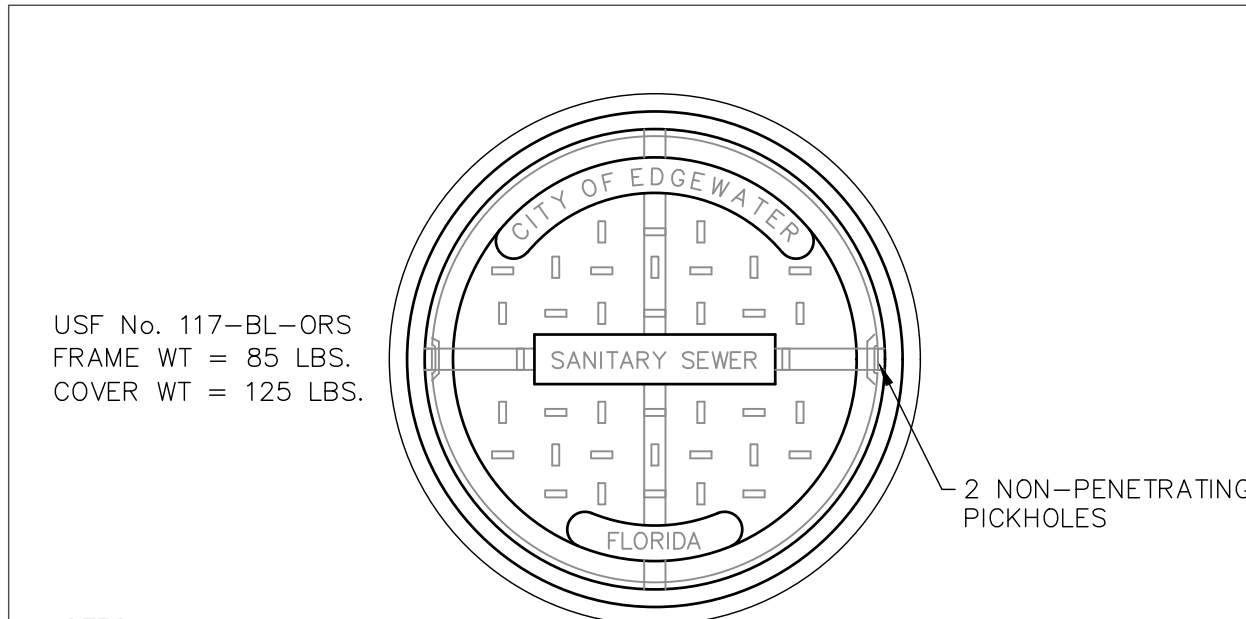


- NOTES:
- ON TRANSITIONS BETWEEN LARGER DIAMETER AND SMALLER SEWER COLLECTORS, OUTVERTS OF SEWERS SHALL BE MATCHED.
  - NON-PENETRATING PICK-HOLES IN ALL CONCRETE SECTIONS.
  - USE FARBERITE BITUMASTIC SEALER BETWEEN SECTIONS OF MANHOLES.
  - 0.1" - DROP ACROSS MANHOLE TYP.
  - ALL MANHOLE TROUGHS AND BENCHES ARE TO BE EPOXY PAINTED BEFORE FINAL INSPECTION.



**STANDARD CONSTRUCTION DETAIL**  
STANDARD MANHOLE DETAIL

FILE NAME:  
EW\_S1.DWG  
DETAIL REF:  
**S-1**

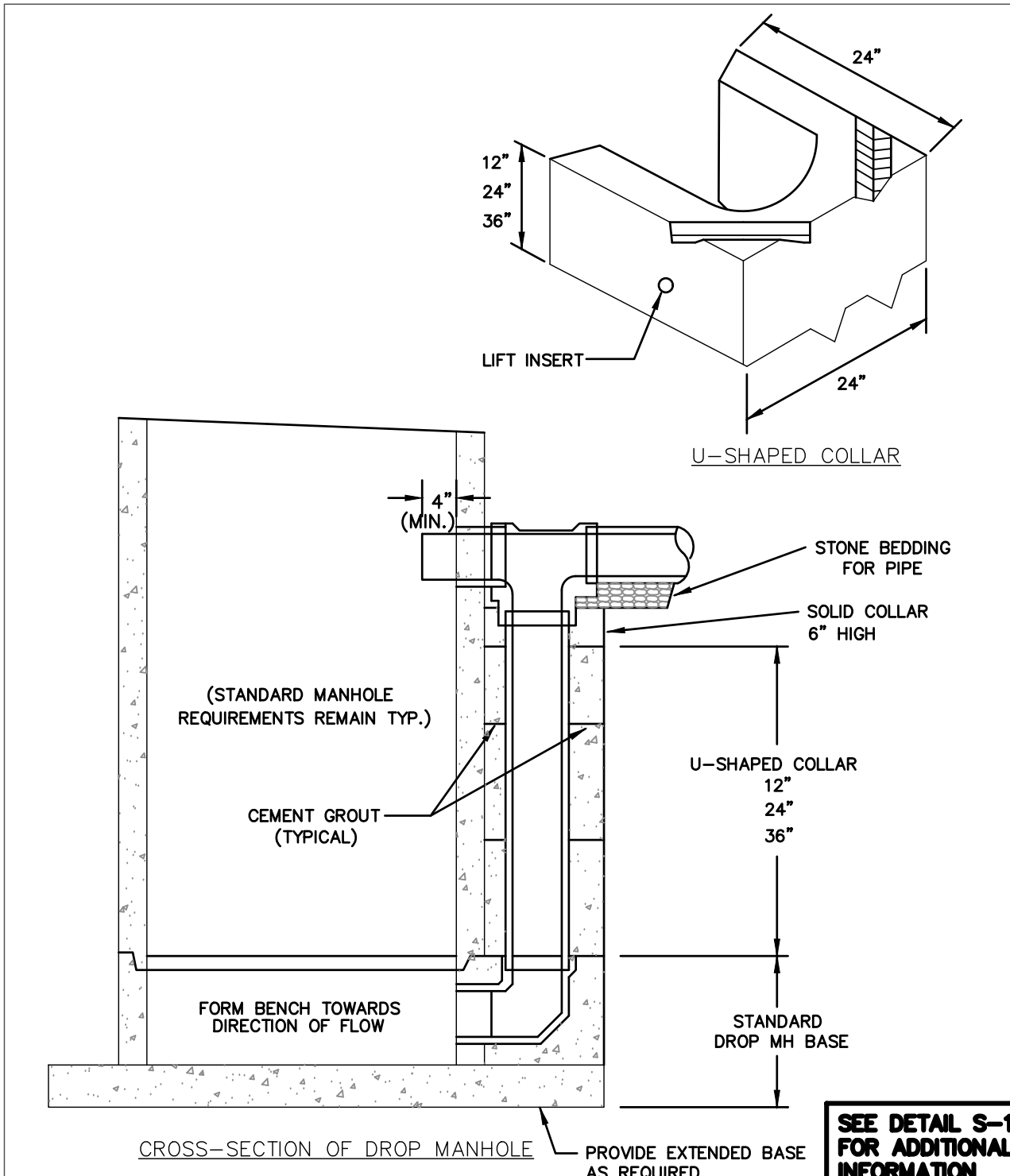


- NOTES:
- CEMENT USED IN PRECAST CONCRETE MIX SHALL BE TYPE II, ACID RESISTANT AND SULFIDE RESISTANT CONCRETE.
  - MORTAR TO CONTAIN "HYDRATITE", OR APPROVED EQUAL, TO PREVENT SHRINKAGE.
  - SUB-GRADE BENEATH MANHOLES SHALL BE UNDISTURBED GRANULAR UNSATURATED SOIL. NO. 57 AGGREGATE STONE SHALL BE USED IN WET CONDITIONS AND/OR WHERE UNSUITABLE MATERIAL IS ENCOUNTERED.
  - ALL SEWER LINES SHALL BE VIDEOTAPE WITH "PAN AND TILT" CAMERA AND COPIES OF VIDEOS SUPPLIED TO THE ENVIRONMENTAL SERVICES DEPT. THE CITY MAY REQUIRE ADDITIONAL VIDEO TAPING, VIDEO TAPING OF LATERALS, AND/OR INFILTRATION/EXFILTRATION TESTS IF DEFECTS ARE APPARENT OR WORKMANSHIP IS QUESTIONABLE.
  - UNLESS DETAILED PLANS SHOW OTHERWISE, ALL MANHOLE RING AND COVER CASTINGS IN PAVED AREAS ARE TO BE ADJUSTED TO FINAL GRADE, SEALED AND SECURED IN PLACE WITH A CONCRETE COLLAR AFTER THE ROAD BASE IS PLACED AND JUST PRIOR TO PLACEMENT OF ASPHALT WEARING SURFACE.
  - CONTRACTOR SHALL PROVIDE THICKER MANHOLE WALLS AND BASES AS REQUIRED TO PREVENT FLOTATION BASED ON HISTORIC HIGH GROUND WATER TABLE ELEVATIONS AS DETERMINED USING ACCEPTED ENGINEERING PRACTICES AND/OR APPROVED BY ENVIRONMENTAL SERVICES DEPT.
  - CONCRETE COLLAR AROUND MANHOLE FRAME IS REQUIRED IN PAVED AREAS ONLY.
  - SHOP DRAWINGS FOR ALL STRUCTURES SHALL BE SUBMITTED TO AND APPROVED BY THE DESIGN ENGINEER PRIOR TO INSTALLATION WITH TWO COPIES FORWARDED BY THE DESIGN ENGINEER TO THE CITY.
  - TWO (2) COATS OF BITUMASTIC COATING INSIDE: 16 MIL
  - ONE (1) COAT OF BITUMASTIC COATING OUTSIDE: 8 MIL
  - FRAME AND COVER TO BE USF #117-BL-ORS
  - NO BUG HOLES OR HONEYCOMB WILL BE ACCEPTED.
  - ENDS OF SECTION SHALL FIT FLUSH TOGETHER
  - SEDIMENTATION BOWLS REQUIRED FOR ALL NEW MANHOLES AND REHABILITATION STRUCTURES. RAINGARD OR APPROVED EQUAL.



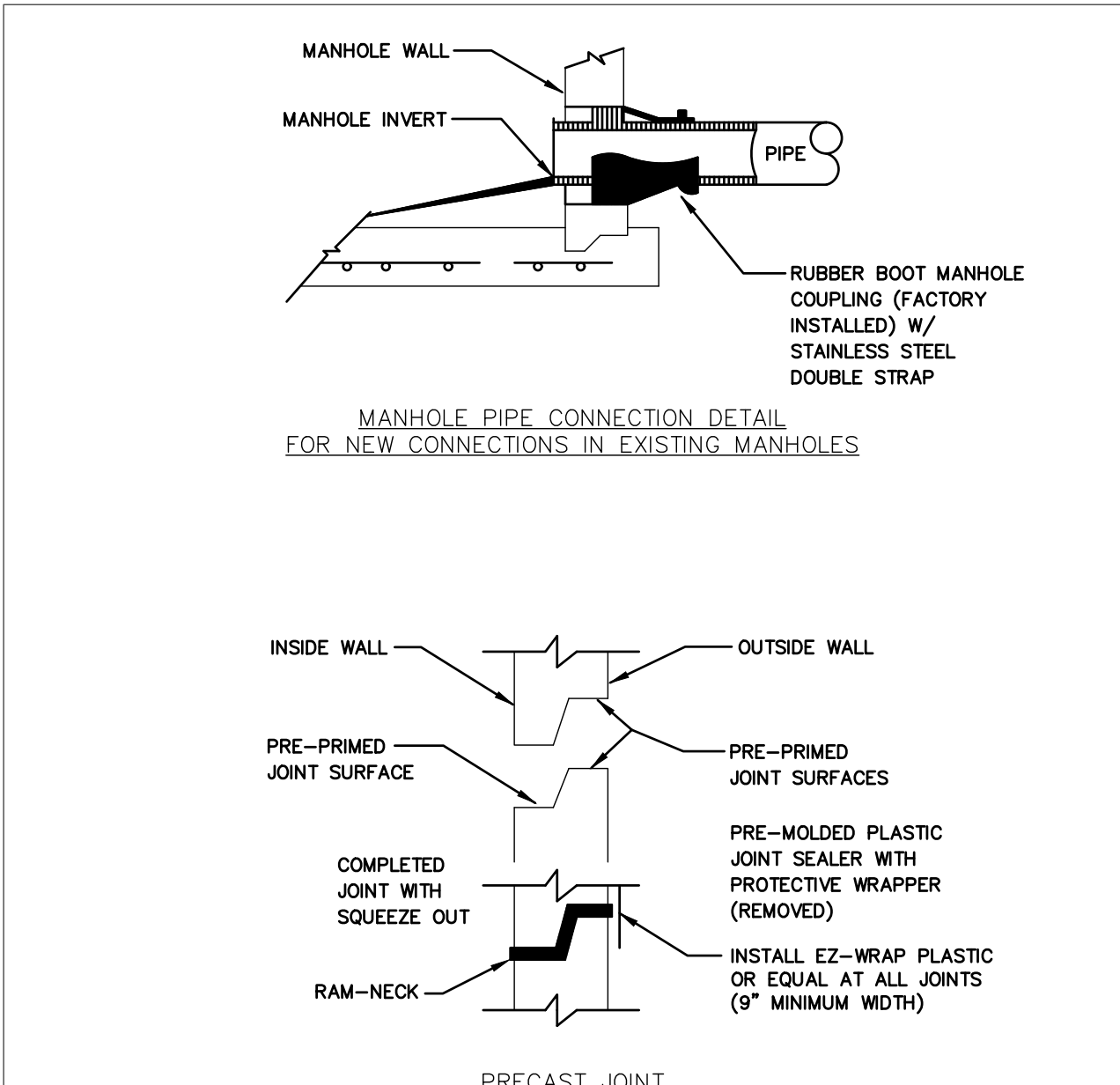
**STANDARD CONSTRUCTION DETAIL**  
SANITARY SEWER COVER & GENERAL NOTES

FILE NAME:  
EW\_S2.DWG  
DETAIL REF:  
**S-2**



**STANDARD CONSTRUCTION DETAIL**  
OUTSIDE DROP MANHOLE  
(STANDARD NEW CONSTRUCTION)

FILE NAME:  
EW\_S4.DWG  
DETAIL REF:  
**S-4**

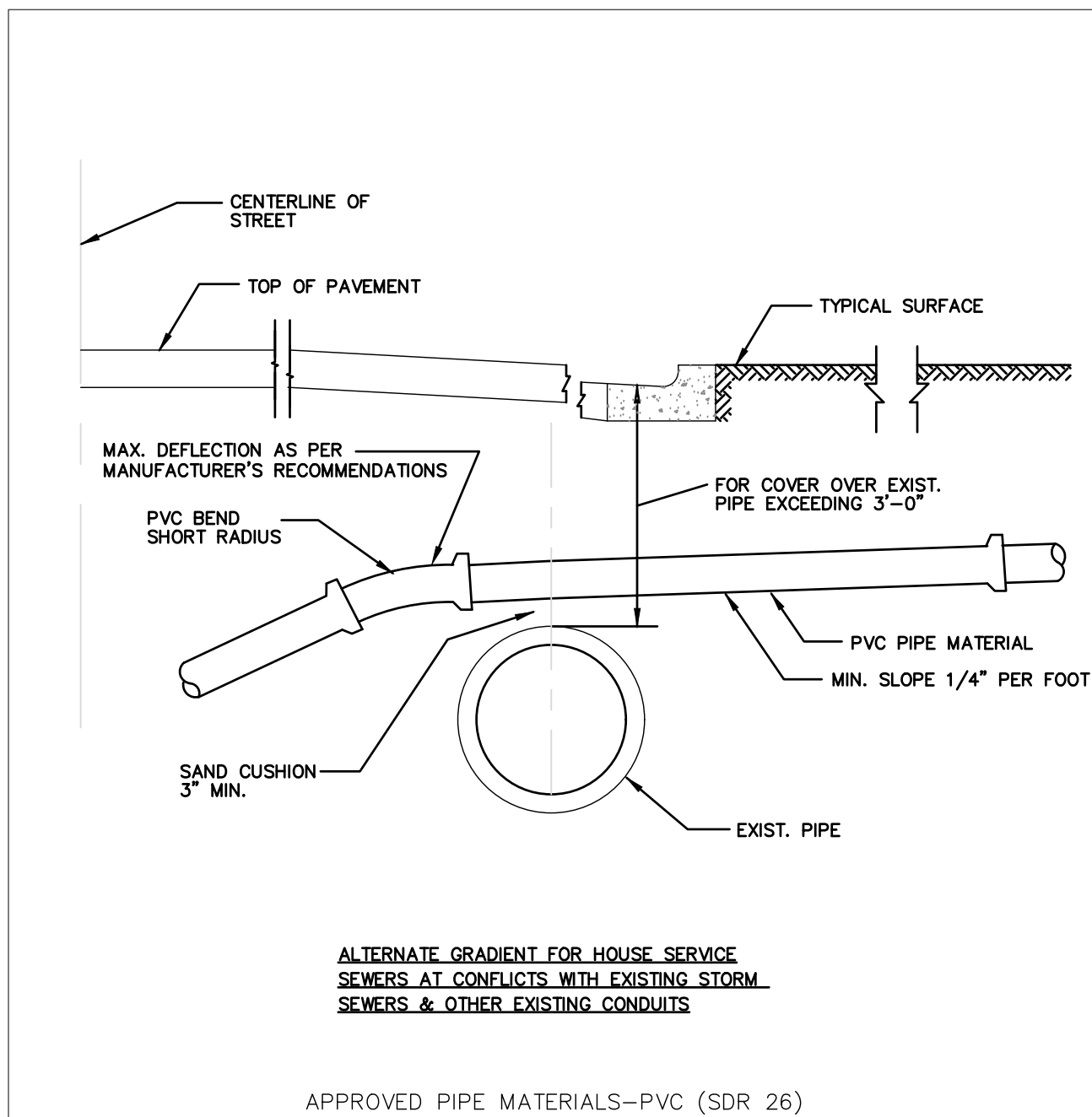


- NOTES:
- ALL NEW CONNECTIONS TO EXISTING SANITARY SEWER MANHOLES SHALL UTILIZE A CORING METHOD AND THE IN-FIELD INSTALLATION OF A RUBBER BOOT INTO THE MANHOLE.



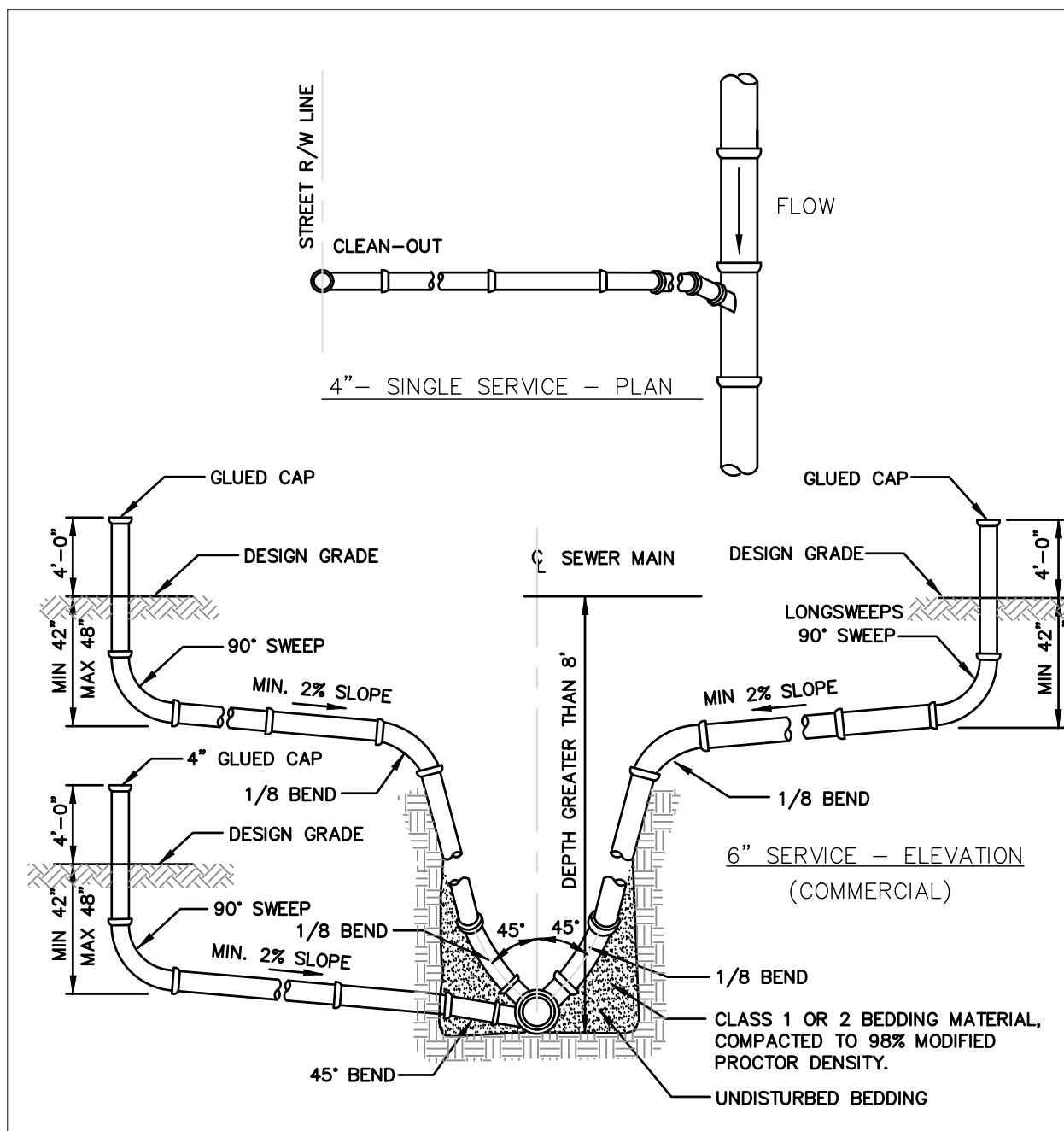
**STANDARD CONSTRUCTION DETAIL**  
RUBBER BOOT AND PRECAST JOINT  
CONNECTION DETAIL

FILE NAME:  
EW\_S8.DWG  
DETAIL REF:  
**S-8**



**STANDARD CONSTRUCTION DETAIL**  
SEWER LINE UTILITY CROSSING DETAIL

FILE NAME:  
EW\_S9.DWG  
DETAIL REF:  
**S-9**

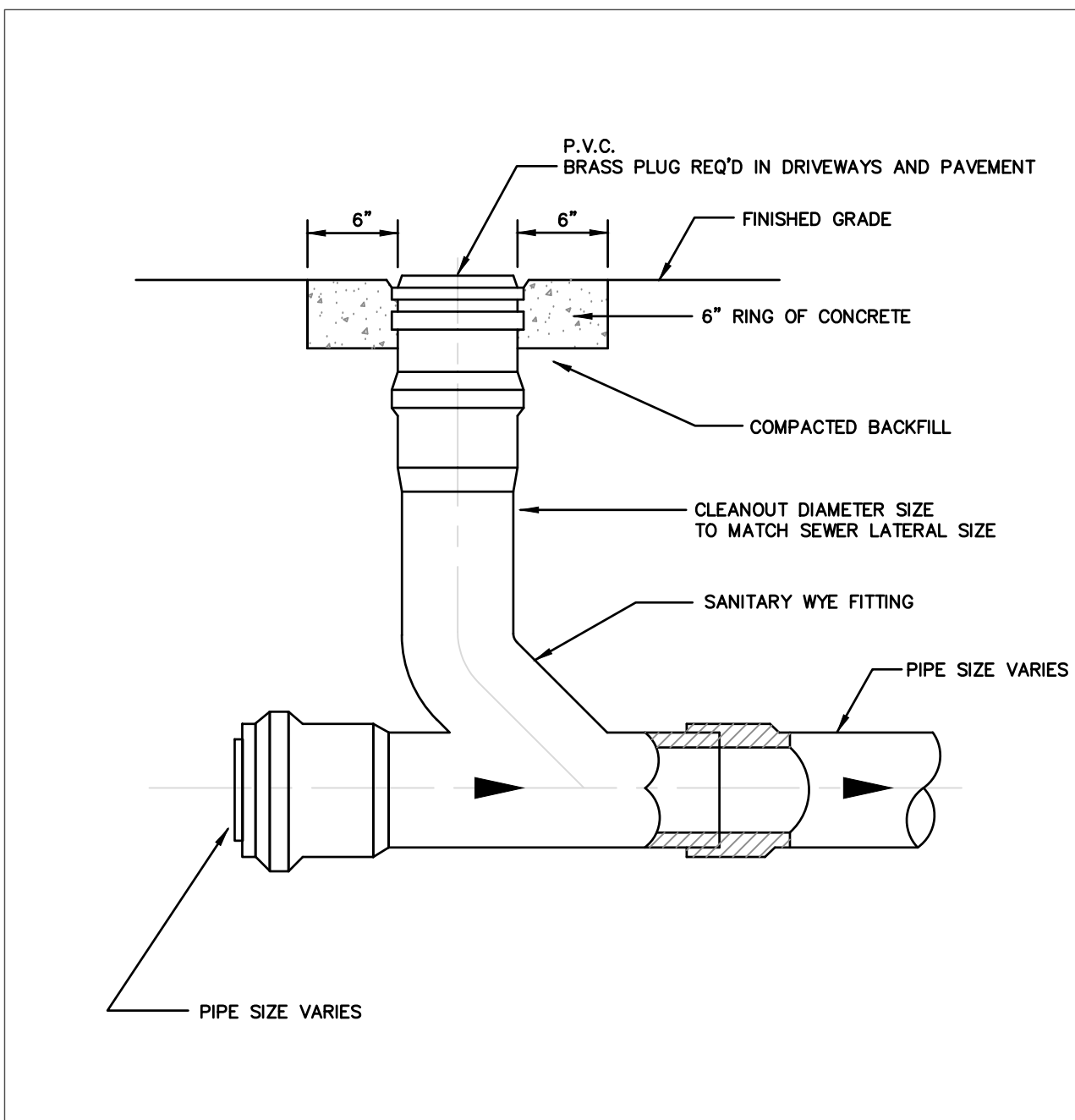


- NOTES:
- USE OF STYRENE MATERIAL WILL NOT BE PERMITTED.
  - ALL JOINTS TO BE RUBBER GASKET (NO GLUED FITTINGS) TYPICAL.
  - USE ALL HARCO SDR-26 FITTINGS OR CITY APPROVED EQUAL.



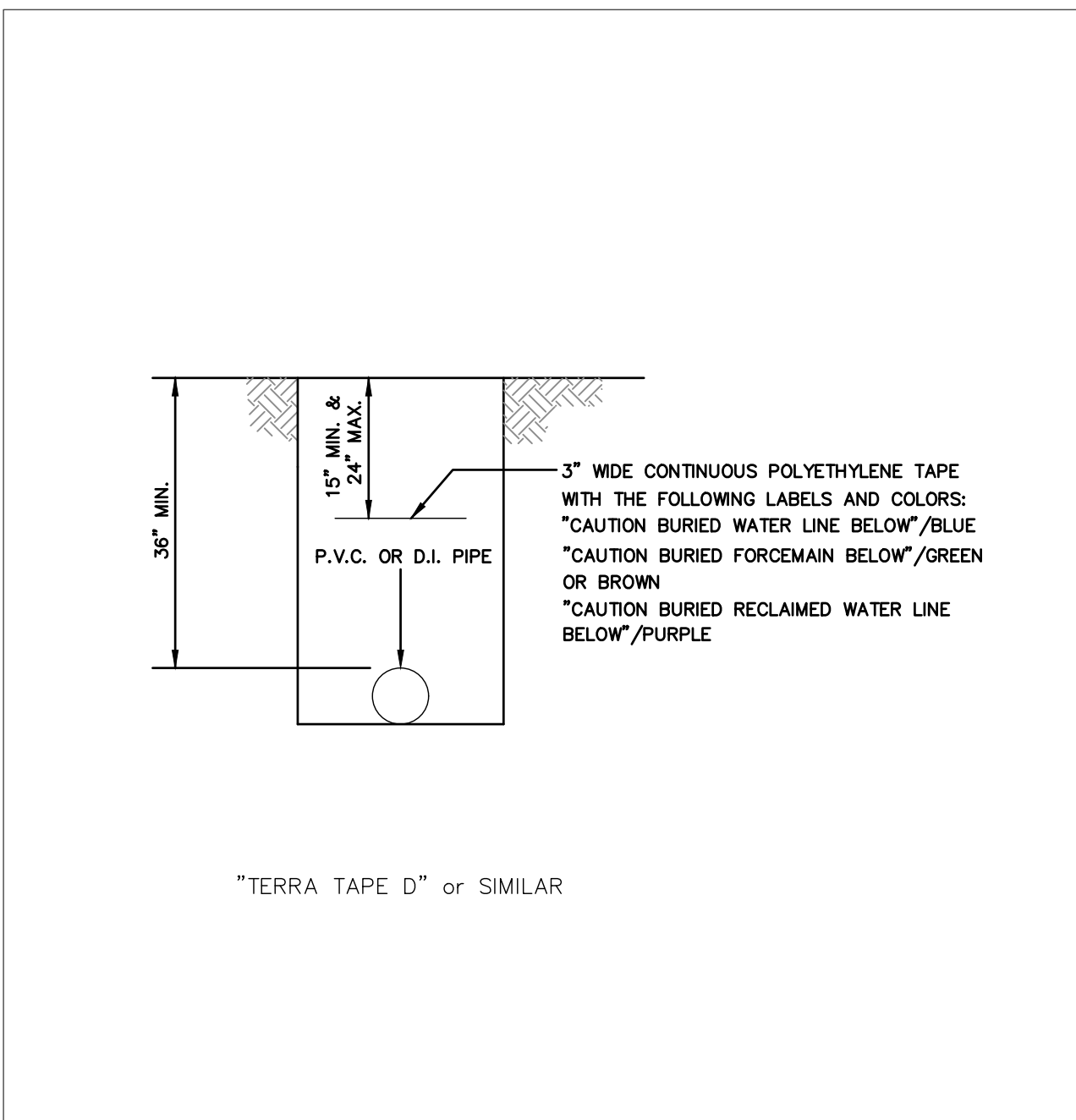
**STANDARD CONSTRUCTION DETAIL**  
SEWER LATERAL DETAIL  
(SINGLE 4" RESIDENTIAL)  
(SINGLE 6" COMMERCIAL)

FILE NAME:  
EW\_S10.DWG  
DETAIL REF:  
**S-10**



**STANDARD CONSTRUCTION DETAIL**  
CLEANOUT DETAIL

FILE NAME:  
EW\_S12.DWG  
DETAIL REF:  
**S-12**



**STANDARD CONSTRUCTION DETAIL**  
LOCATOR TAPE INSTALLATION FOR  
SEWER, WATER AND RECLAIMED WATER PIPELINES

FILE NAME:  
EW\_S13.DWG  
DETAIL REF:  
**S-13**



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL  
PLANNING  
TRANSPORTATION

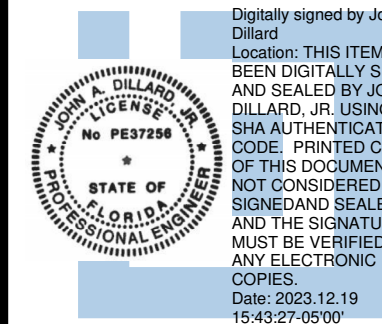
NO.	DATE	BY	REVISIONS
1	08-17-22	TKR	ISSUED FOR CITY COMMENTS DATED 07-19-2022
2	08-17-22	TKR	REVISED PER CITY COMMENTS DATED 07-19-2022

**ALCANTARA MULTI-FAMILY  
FINAL ENGINEERING PLANS  
CONSTRUCTION DETAILS**

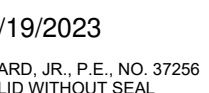
CITY OF EDGEWATER  
VOLUSIA COUNTY, FLORIDA

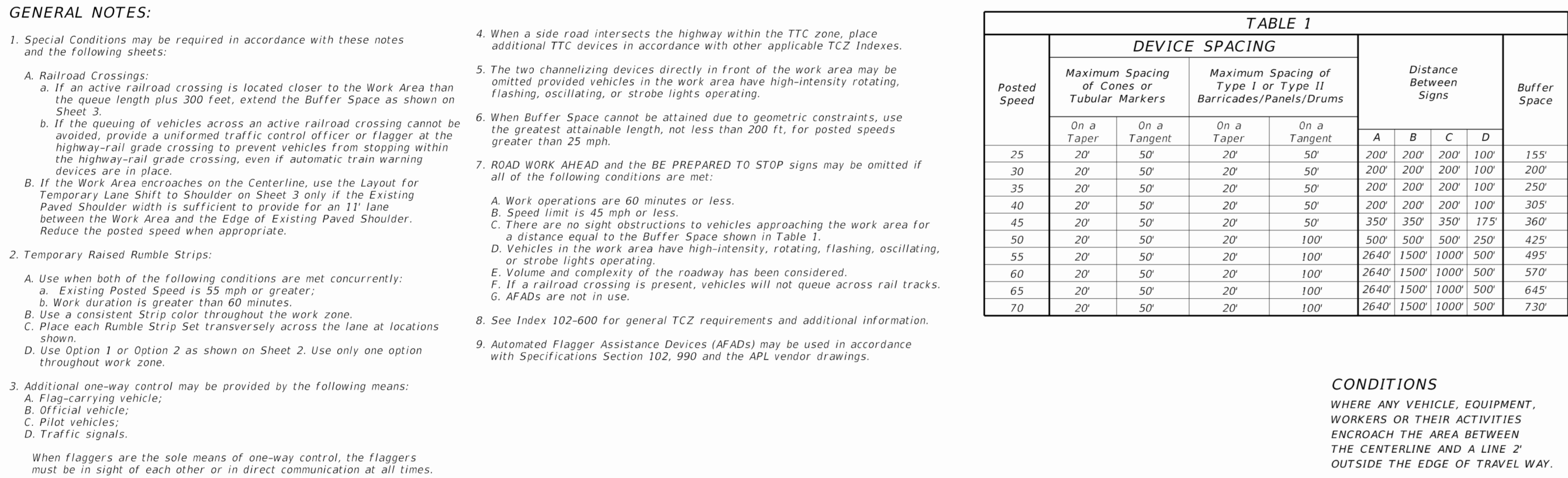
PROJECT NO.: ZC 18114  
DESIGNED BY: JD  
DRAFTED BY: TR  
CHECKED BY: JD

DRAWING FILE: 09-13\_18114-DET  
XREFS: 18114-BAS.DWG  
XREFS: 18114-SURV.DWG



12/19/2023  
JOHN A. DILLARD, JR., P.E. NO. 37256  
NOT VALID WITHOUT SEAL

[illegible]



**15' FROM ADJACENT PROPERTY LINE,  
15' FROM EASEMENT LINE AND  
5' FROM RIGHT-OF-WAY LINE**

**2' MIN.**

**TOP OF BANK FOR REQUIRED STORMWATER  
TREATMENT AND 100-YEAR, 24-HOUR  
STORM PEAK ATTENUATION**

**SOD**

**CASE 1**

**1**

**3**

**1**

**4**

**MAX. SLOPE**

**SOD**

**BOTTOM OF DRY POND**

**15' FROM ADJACENT PROPERTY LINE  
15' FROM EASEMENT LINE AND  
5' FROM RIGHT-OF-WAY LINE**

**1" / 1' MIN.  
4:1 MAX.**

**TOP OF BANK FOR REQUIRED STORMWATER  
TREATMENT AND 100-YEAR, 24-HOUR  
STORM PEAK ATTENUATION**

**SOD**

**CASE 2**

**1**

**4**

**MAX. SLOPE**

**SOD**

**BOTTOM OF DRY POND**

**NOTES:**

1. SOD IS TO BE PLACED TO BOTTOM OF DRY POND.
2. BOTTOM OF DRY POND IS TO BE SEEDED AND MULCHED (EXCEPT WHERE "A"-TYPE SOILS ARE PRESENT WHICH REQUIRES SODDING OF ENTIRE BOTTOM OF POND).
3. CASE 1 BERM SHALL REQUIRE THE INSTALLATION OF LIMITING SOILS OR OTHER MATERIALS TO REDUCE LATERAL TRANSMISSIVITY.

**STANDARD CONSTRUCTION DETAIL**

**DRY RETENTION POND**

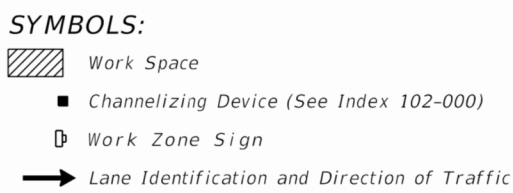
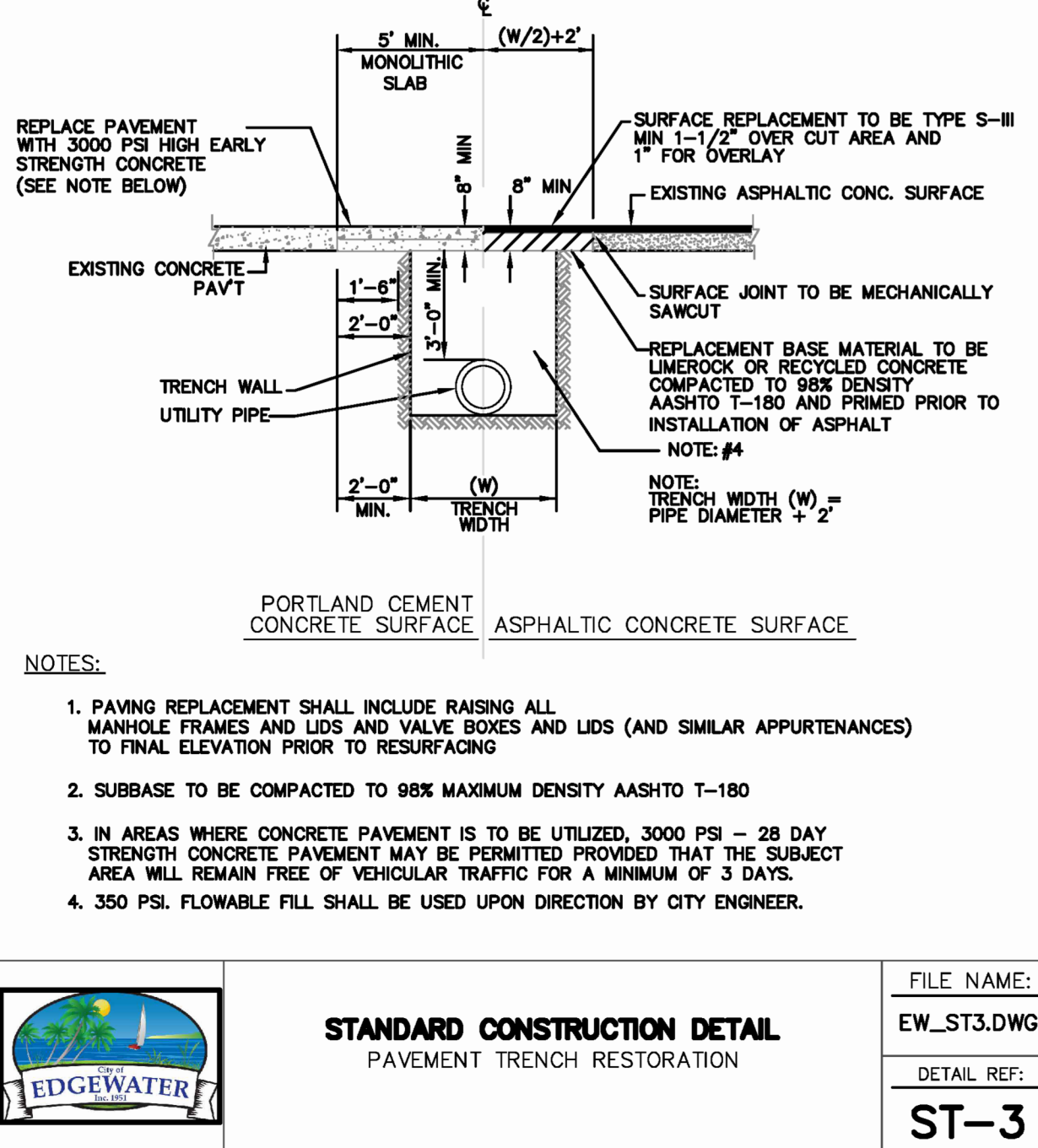
**PLACEMENT BY R/W AND EASEMENT LINES**

**FILE NAME:**  
EW\_ST9.DWG

**DETAIL REF:**

**ST-9**

**EDGEWATER**



**PLAN**

**SECTION**

**HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 1)**

WALL DEPTH	SCHEDULE	AREA (in./ft.)	MAX. SPACING BARS	WWR
0'-15"	A12	0.20	12"	8"

**TYPE C**

Recommended Maximum Pipe Size:  
 2'-0" Wall - 18" Pipe  
 3'-1" Wall - 24" Pipe (18" where an 18" pipe enters a 2'-0" wall)

**PLAN**

**SECTION**

**HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 2)**

WALL DEPTH	SCHEDULE	AREA (in./ft.)	MAX. SPACING BARS	WWR
0'-6"	A12	0.20	12"	8"
6'-10"	A6	0.20	6"	5"
10'-13"	A4	0.20	4"	3"
10'-15"	B5.5	0.24	5 1/2"	5"

**TYPE D**

Recommended Maximum Pipe Size:  
 3'-1" Wall - 24" Pipe  
 4'-1" Wall - 36" Pipe

**PLAN**

**SECTION**

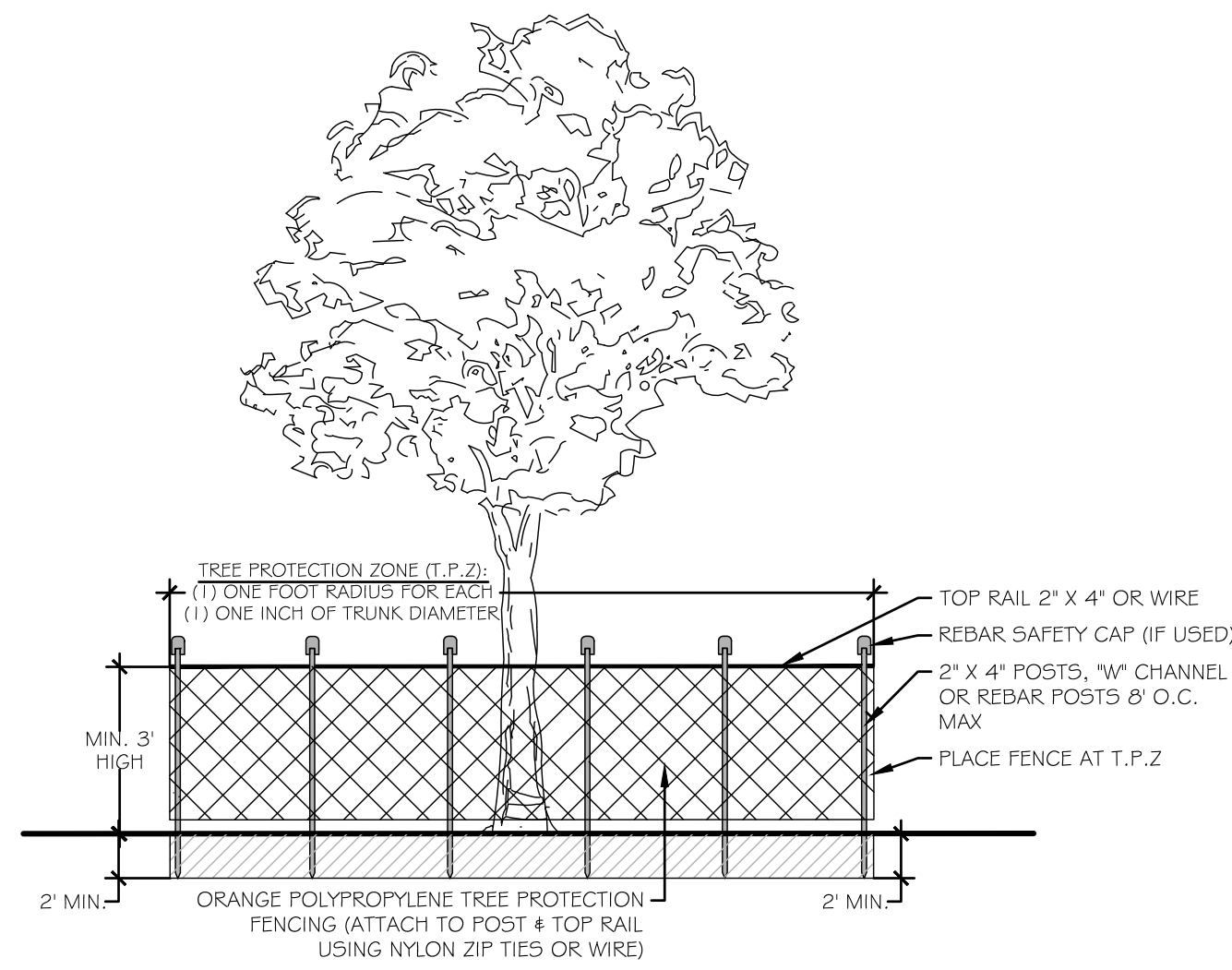
**HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 3)**

WALL DEPTH	SCHEDULE	AREA (in./ft.)	MAX. SPACING BARS	WWR
0'-5"	A12	0.20	12"	8"
0'-7.5"	A6	0.20	6"	5"
7.5'-10"	B5.5	0.24	5 1/2"	5"
10'-15"	C6.5	0.37	6 1/2"	6"

**TYPE E**

Recommended Maximum Pipe Size:  
 3'-0" Wall - 24" Pipe  
 4'-6" Wall - 36" Pipe

10/14/2019 9:13:13 AM



- NOTES:
1. SEE PLANS FOR LOCATION OF TREE PROTECTION FENCES
  2. ALL TREE PROTECTION FENCES MUST BE INSTALLED PRIOR TO CLEARING
  3. NO GRADING SHALL OCCUR WITHIN THE T.P.Z AREA
  4. NO PARKING VEHICLES WITHIN DRIP-LINE
  5. NO SKINNING OR BRUISING OF TREE BARK
  6. NO STOCK PILING OF DEBRIS OR MATERIALS
  7. REMOVE ALL BARRIERS UPON COMPLETION OF PROJECT
  8. ANY VEGETATION REMOVED WITHIN THE T.P.Z SHALL ONLY BE DONE BY HAND

### TREE PROTECTION FENCING DETAIL


N.T.S


P-LA-TRE-TREE I-OI

SPECIMEN TREE REQUIREMENTS	
SITE ACREAGE	4.05
SPECIMEN TREES ON SITE	16.7
SPECIMEN TREES PER ACRE	65
SPECIMEN TREES REQUIRED TO BE PRESERVED 16 (CALCULATION: 4 TREES $\times$ 4.05 = 16 TREES) SEE TABLE BELOW	
SPECIMEN TREES PRESERVED	12
NOTE: SPECIMEN TREE COUNTS INCLUDE HISTORIC TREES. ONE DEAD, DYING & DISEASED HISTORIC TREE NOT INCLUDED IN ANY COUNTS.	

SPECIMEN TREES PER ACRE	EXISTING SPECIMEN TREES TO BE PRESERVED
LESS THAN 2.9	80%
3.0-4.0	65%
4.1-6.0	50%
6.0 PLUS	4 PER ACRE

SPECIMEN TREES PER ACRE	EXISTING SPECIMEN TREES TO BE PRESERVED
LESS THAN 2.9 _____	80%
3.0-5.0 _____	65%
5.1-8.0 _____	50%
8.0 PLUS _____	4 PER ACRE 

TREE LEGEND	
SIZE & SYMBOL	TREE TYPE
	LIVE OAK
30"	LAUREL OAK
8"	PINE

MINIMUM ON SITE TREES	
TOTAL SITE AREA	4.05
MINIMUM TREES REQUIRED ON SITE	118
CALCULATION: $17641 \times 0.5 F / 1,500 \times 5 F = 118$	
EXISTING TREES TO BE PRESERVED (PER SURVEY)	26
NUMBER OF SPECIMEN AND HISTORIC TREES PRESERVED	12
NUMBER OF TREES PROVIDED ON LANDSCAPE PLAN **	73
TOTAL NUMBER OF TREES EXISTING PLUS PROVIDED	**190+

\* TREES ACCOUNT FOR FULL BUILD-OUT OF EACH LOT (CONTAINING 1 TREES/1,500 S.F. PALMS COUNT 2:1 TO SHADE TREES

\*\* TREE DEFFICI WILL BE ACCOUNTED FOR WITHIN THE NATURAL VEGETATION AREA, CONSISTING OF TREES FROM 2' - 6' D.B.H







\* TREES ACCOUNT FOR FULL BUILD-OUT OF EACH LOT (CONTAINING 1 TREE/1,500 S.F. PALMS COUNT 2:1 TO SHADE TREES  
 \*\* TREE DEFICIT WILL BE ACCOUNTED FOR WITHIN THE NATURAL VEGETATION AREA, CONSISTING OF TREES FROM 2" - 6" D.B.H

15% TREE PROTECTION AREA

TOTAL SITE AREA	4.05 AC.
TOTAL PRESERVATION AREA REQUIRED (CALCULATION: 4.05 AC. x 15% = .60 AC.)	.60 AC.
NATURAL TREE PROTECTION AREA PROVIDED	.65 AC.
YARD AREA PROVIDED	.96 AC.
TOTAL PROTECTION AREA PROVIDED	1.61 AC.

NATURAL TREE PROTECTION AREA PROVIDED	.65 AC.
YARD AREA PROVIDED	.96 AC.
TOTAL PROTECTION AREA PROVIDED	1.61 AC.

### LEGEND

- |   |  |
|---|--|
|  | EXISTING TREE TO REMAIN                                    |
|  | EXISTING TREE TO BE REMOVED                                |
|  | EXISTING SPECIMEN TREE TO REMAIN                           |
|  | EXISTING SPECIMEN TREE TO BE REMOVED                       |
|  | EXISTING HISTORIC TREE TO BE REMOVED                       |
|  | DENOTES NATURAL PRESERVATION / CONSERVATION AREA TO REMAIN |



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL  
PLANNING  
TRANSPORTATION

**FOR REVIEW ONLY NOT FOR CONSTRUCTION**

# ALCANTARA MULTI-FAMILY FINAL ENGINEERING PLANS TREE PROTECTION PLAN & DETAILS

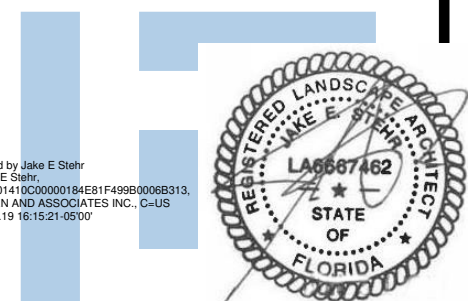
CITY OF EDGEWATER

PROJECT NO: ZC 18114

DESIGNED BY: SMG

DRAFTED BY: SMG

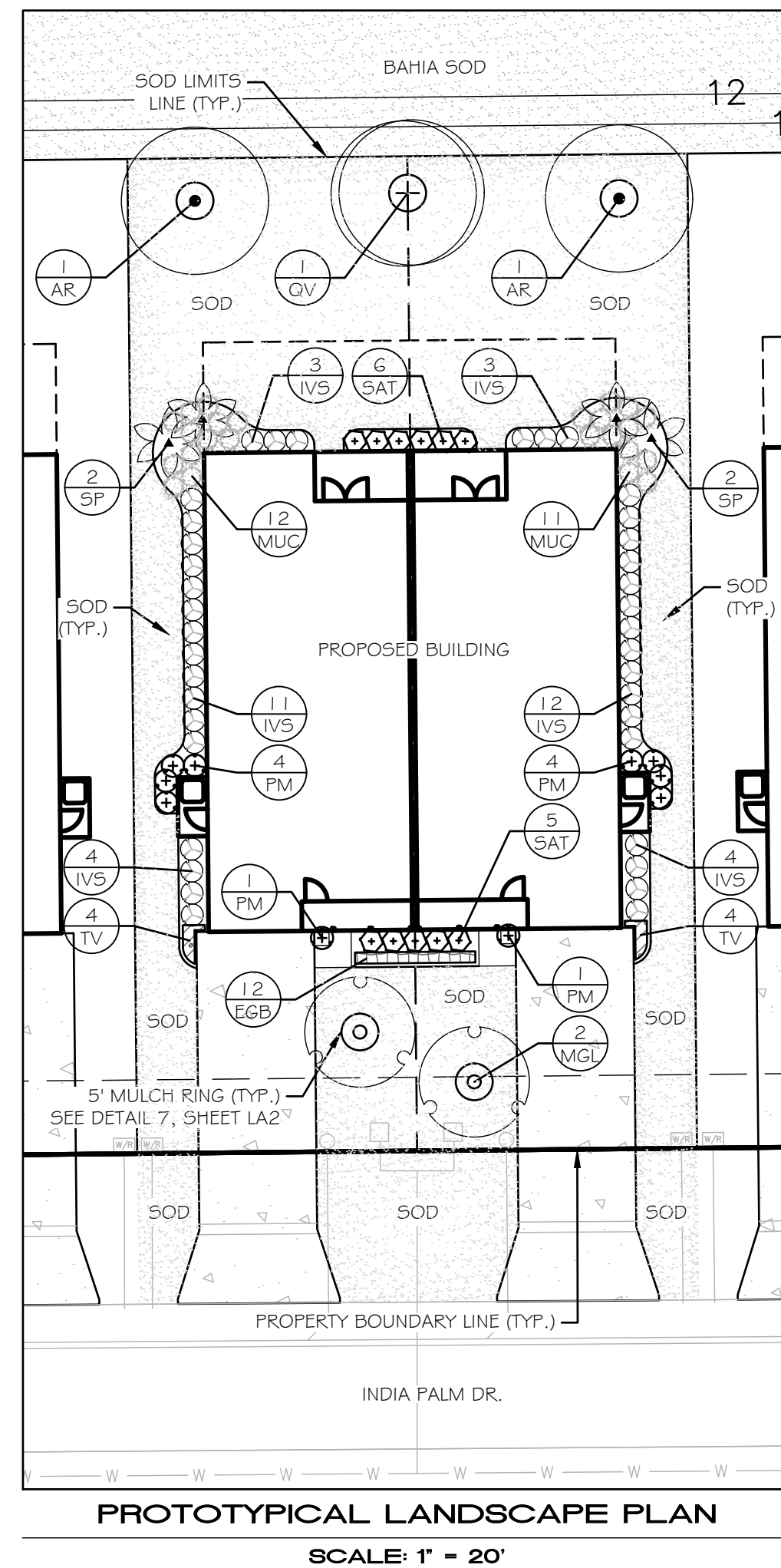
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XREF'S: 18114-SURV.DWG



JAKE STEHR, LA, NO. 6667462  
NOT VALID WITHOUT SEAL

SHEET: **TP1** OF **1**





## PROTOTYPICAL PLANT SCHEDULE

REFS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS	
AR	2	ACER RUBRUM	RED MAPLE	2.5' CAL., 8' HT., MIN.			
MGL	1	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	DWARF SOUTHERN MAGNOLIA	2.5' CAL., 8' HT., MIN.		FULL TO GROUND	
QV	2	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	2.5' CAL., 8' HT., MIN.			
PALMS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	REMARKS	
SP	4	SABAL PALMETTO	CABBAGE PALMETTO	VARY C.T. HEIGHTS, 8' - 14'			
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING	REMARKS
IVS	39	ILEX VOMITORIA 'SCHILLINGS DWARF'	SCHILLINGS DWARF YAUPOH HOLLY	24" HT. X 24" SP.	7 GAL.	36" o.c.	
PM	10	PODOCARPUS MACROPHYLLUS MAKI	SHRUBBY YEW	30-36" HT. X 36" SP.	7 GAL.	36" o.c.	
SAT	11	SCHIFFELERA ARBORICOLA 'TRINETTE'	SCHIFFELERA	24" HT. X 24" SP.	7 GAL.	36" o.c.	FULL
GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING	REMARKS
MUC	24	MUHLENBERGIA CARILLARIIS	MUHLY GRASS	12-18" HT. X 12-18" SP.	3 GAL.	36" o.c.	
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING	REMARKS
ECB	12	EVOLVULUS GLOMERATUS 'BLUE DAZE'	BRAZILIAN DWARF MORNING GLORY	8-10" HT. X 8-10" SP.	1 GAL.	18" o.c.	
TV	8	TULBAGHIA VIOLACEA	SOCIETY GARLIC	8-10" HT. X 8-10" SP.	1 GAL.	18" o.c.	
SOD	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING	REMARKS
SSF	5,568 SF	STENOTAPHRUM SECUNDATUM 'FLORITAM'	ST. AUGUSTINE GRASS	---			

PLANT SCHEDULE ONLY ACCOUNTS FOR ONE (1) BUILDING. CONTRACTOR RESPONSIBLE FOR QUANTIFYING ALL PROPOSED LANDSCAPING, SOD AND ASSOCIATED MATERIALS FOR REMAINING LOTS.

## SITE PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	
MC	46	MYRICA CERIFERA	WAX MYRTLE	5'-6" O.A.	FULL TO GROUND	
SOD	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS
PNA	49, 100 SF	PASPALUM NOTATUM 'ARGENTINE'	BAHIA SOD	---		

### LEGEND

EXISTING TREE TO REMAIN

DENOTES NATURAL PRESERVATION /  
CONSERVATION AREA TO REMAIN




### MINIMUM ON SITE TREES

TOTAL SITE AREA	4.05 AC.
MINIMUM TREES REQUIRED ON SITE CALCULATION: 176,418 S.F. / 1,500 S.F. = 118	118
EXISTING TREES TO BE PRESERVED (PER SURVEY)	9
NUMBER OF SPECIMEN AND HISTORIC TREES PRESERVED	7
NUMBER OF TREES PROVIDED ON LANDSCAPE PLAN	*73
TOTAL NUMBER OF TREES EXISTING PLUS PROVIDED	**118+

\* TREES ACCOUNT FOR FULL BUILD-OUT OF EACH LOT (CONTAINING 1 TREE/1,500 S.F. PALMS COUNT AS 2:1 TO SHADE TREES)

\*\* TREE DEFICIT WILL BE ACCOUNTED FOR WITHIN THE NATURAL AREA,  
CONSISTING OF TREES FROM 2" - 6" D.B.H

### TREE LEGEND

SIZE # SYMBOL	TREE TYPE
	LIVE OAK
	LAUREL OAK
	PINE



CIVIL ENGINEERING  
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PLANNING  
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# ALCANTARA MULTI-FAMILY FINAL ENGINEERING PLANS LANDSCAPE PLAN & DETAILS

PROJECT NO: ZC 18114

DESIGNED BY: SMG

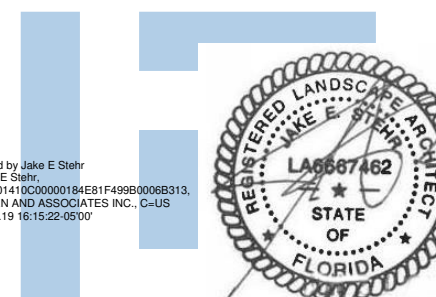
DRAFTED BY: SMG

CHECKED BY: MK

DRAWING FILE: 18114-PD\_LA  
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KREF'S: 18114-SURV.DWG

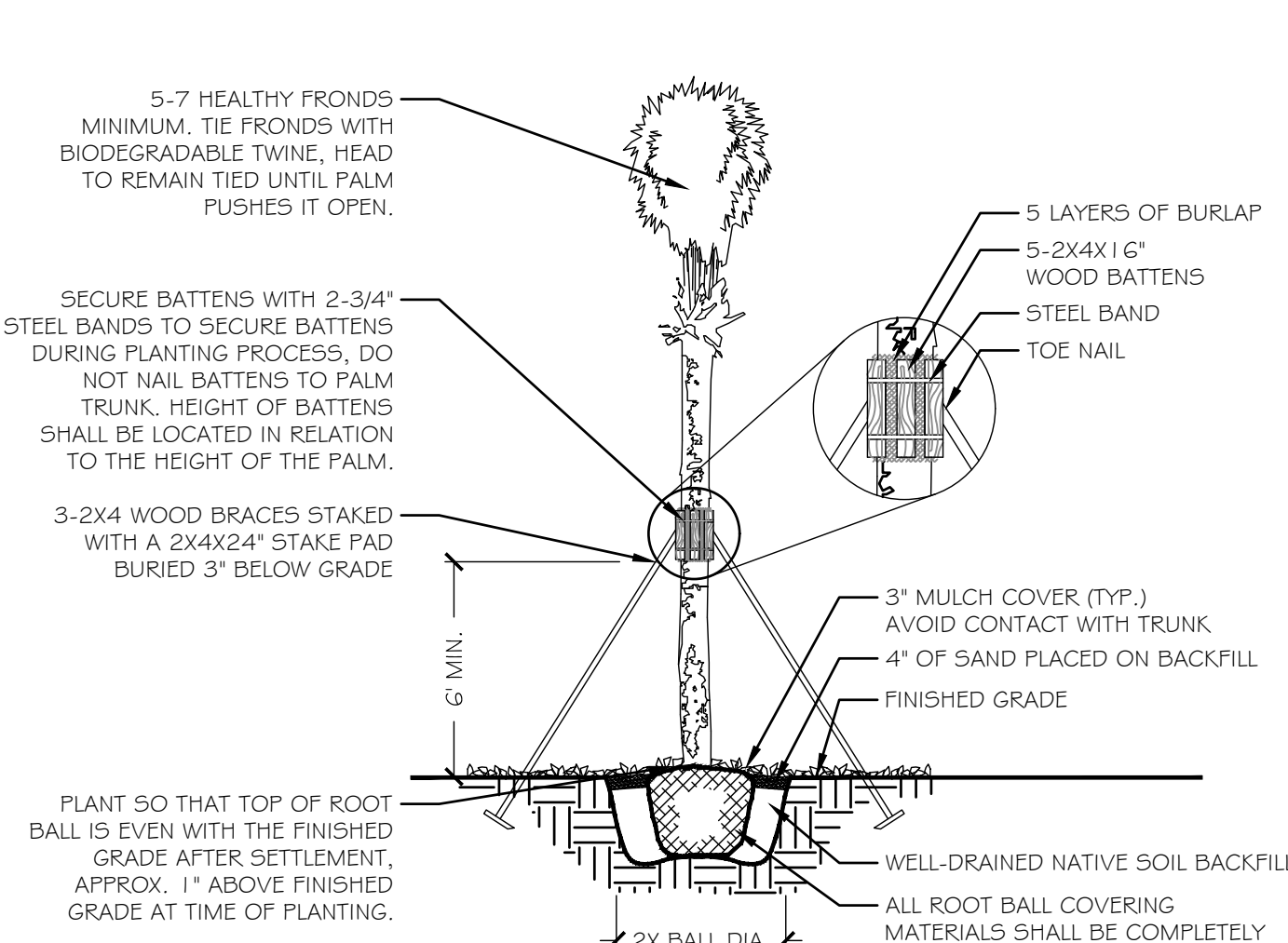
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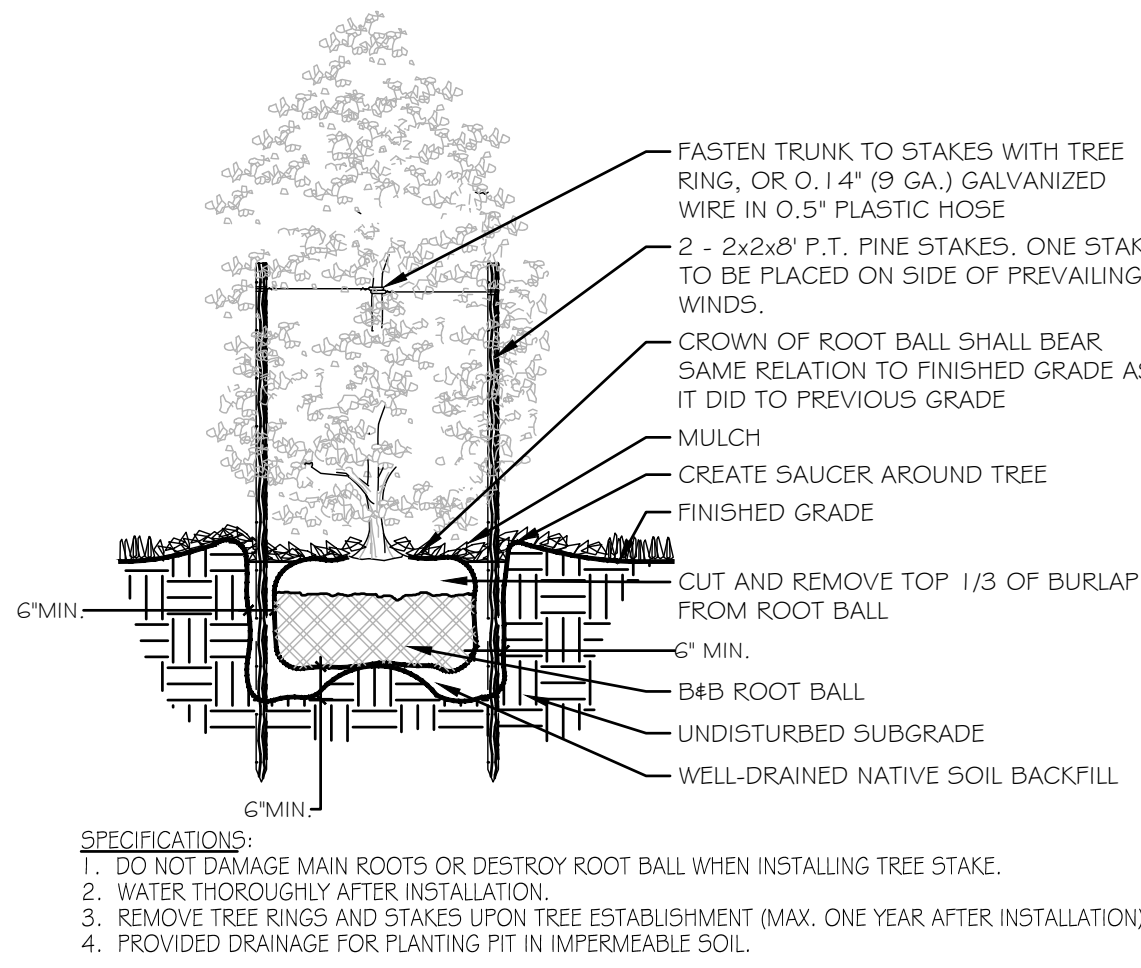
JAKE STEHR, LA, NO. 6667462  
NOT VALID WITHOUT SEAL

SHEET: LA1 OF 2

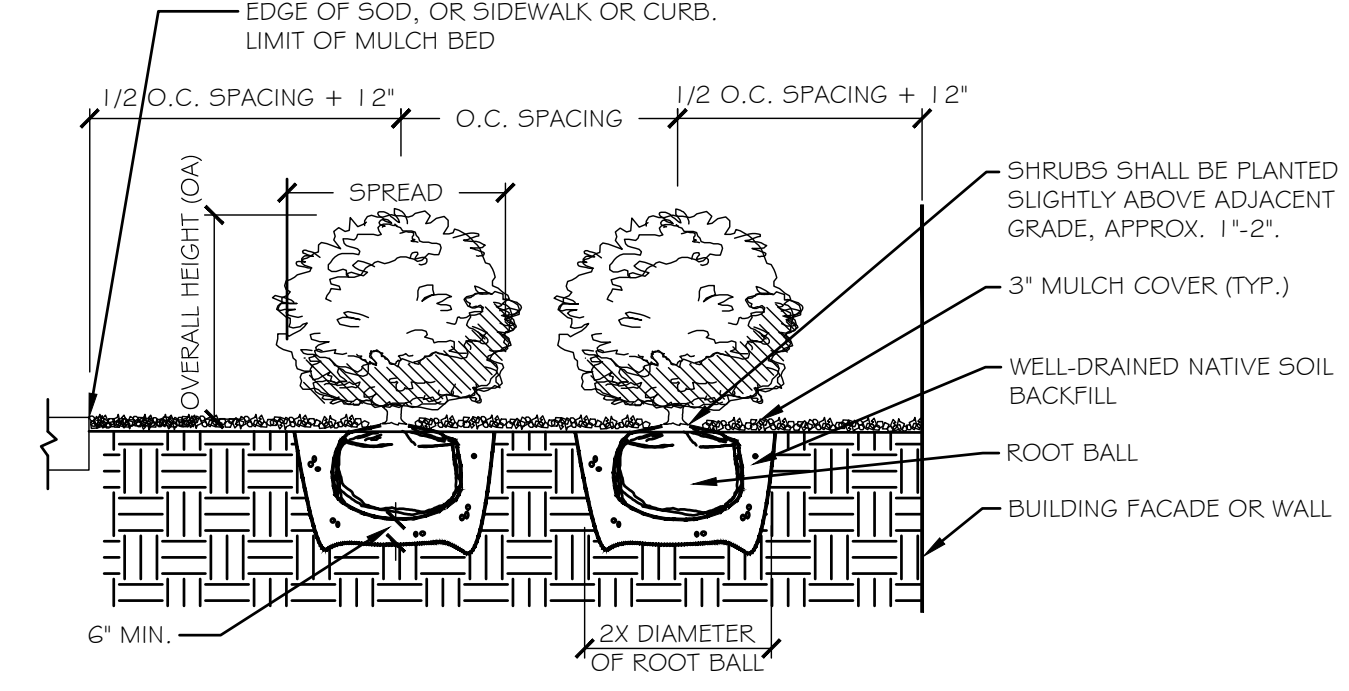
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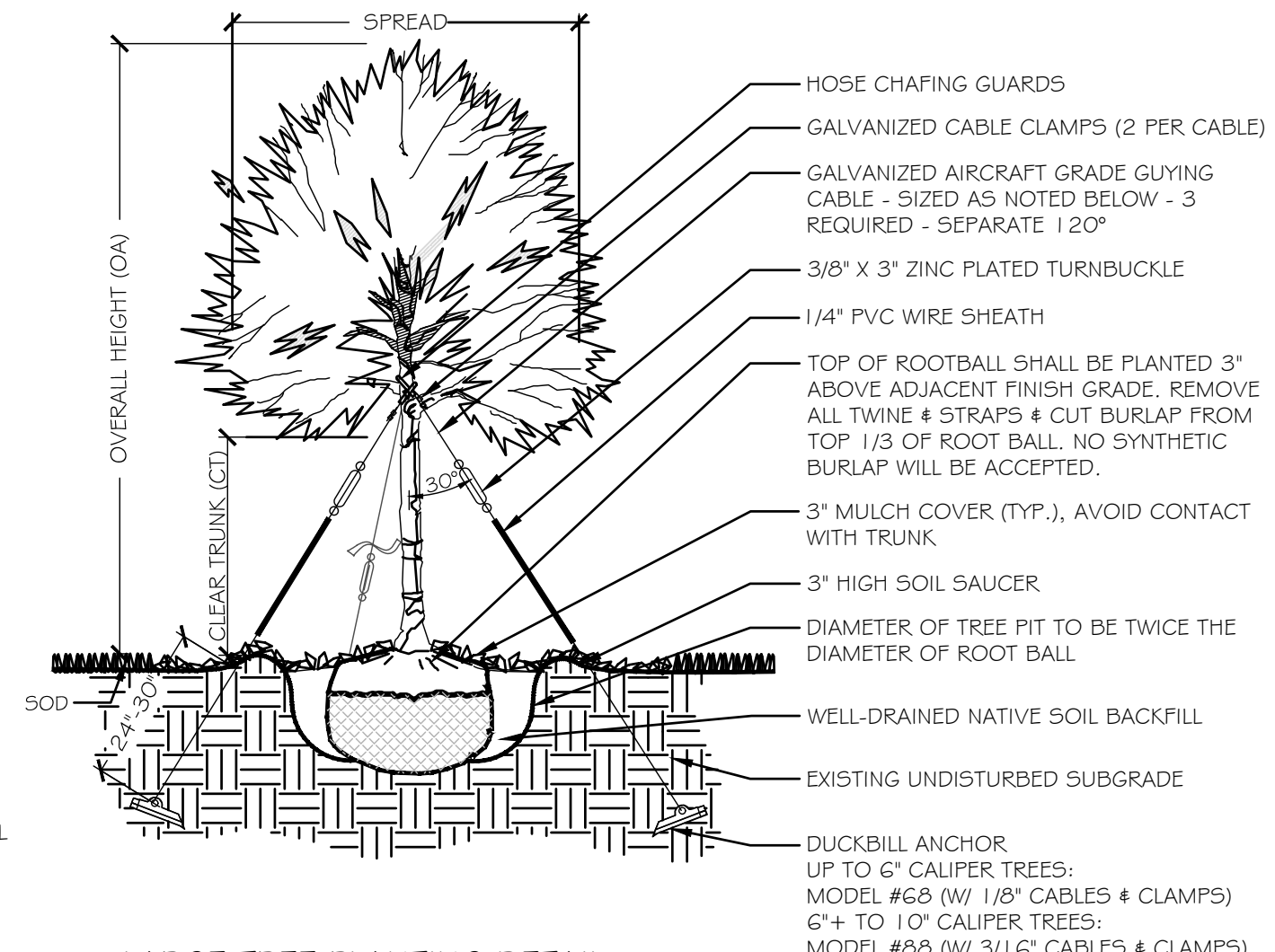
1 PALM PLANTING DETAIL  
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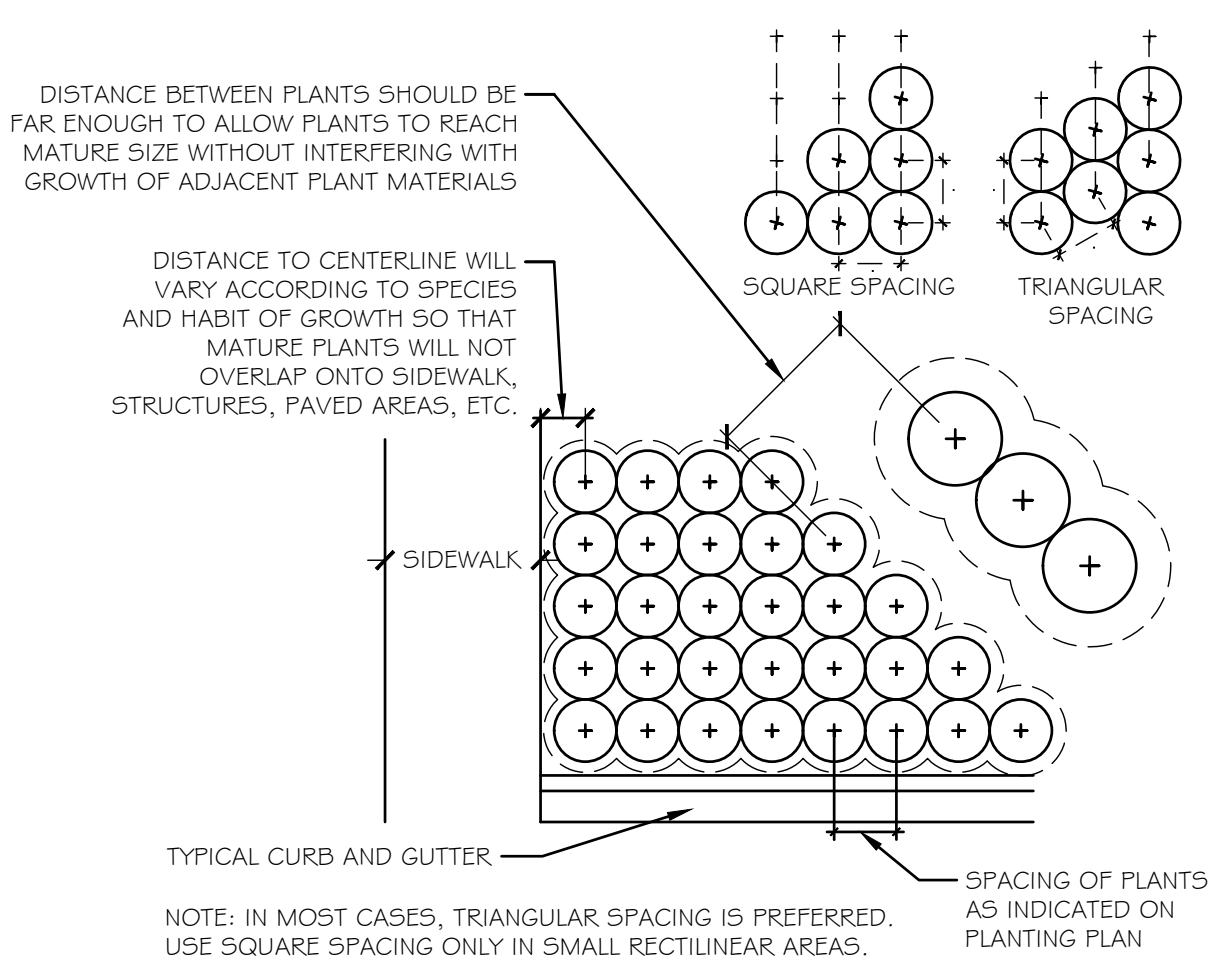
3 FULL TO GROUND TREE PLANTING DETAIL  
N.T.S. P-LA-TRE-I-02



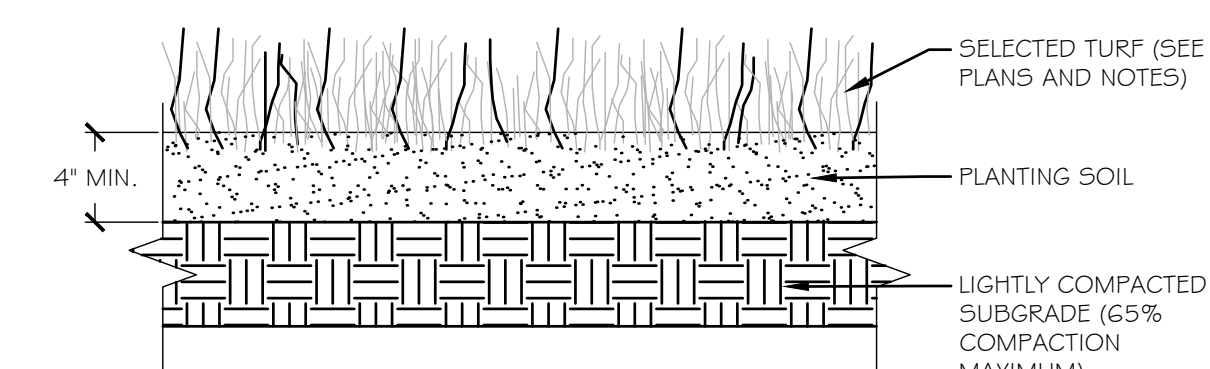
5 SHRUB PLANTING DETAIL  
N.T.S. P-LA-SHR-SHRU-02



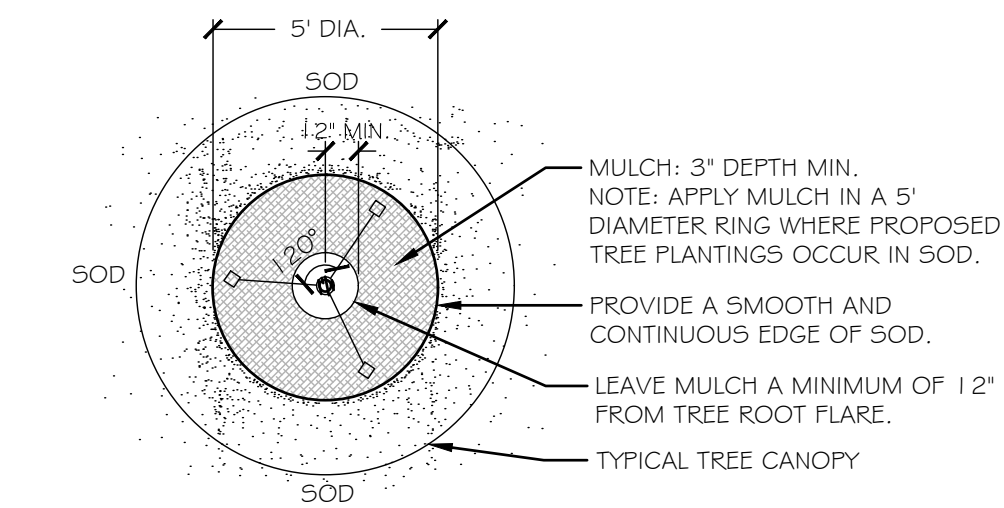
2 LARGE TREE PLANTING DETAIL  
N.T.S. P-LA-TRE-I-01



4 PLANT SPACING DETAIL  
N.T.S. P-LA-SHR-PLAN-01



6 TURF PLANTING DETAIL  
N.T.S. P-LA-SOD-01



7 TREE MULCHING DETAIL IN SOD AREAS  
N.T.S. P-LA-MUL-TREE-01

## LANDSCAPE SPECIFICATIONS

- FLORIDA #1:** ALL PLANT MATERIAL SHALL BE GRADE FLORIDA NO. 1 OR BETTER IN QUALITY AS DESIGNATED IN THE MOST RECENT PUBLICATION OF "GRADES AND STANDARDS FOR NURSERY PLANTS", PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
- EXISTING PLANTS:** IF EXISTING LANDSCAPING INTERFERES WITH PROPOSED PLANTINGS SHOWN ON PLAN, THE EXISTING LANDSCAPING IS TO BE REMOVED IN FAVOR OF THE NEW PLANTINGS, UNLESS OTHERWISE INDICATED. IF THE EXISTING VEGETATION IS INTENDED TO REMAIN, THE PROPOSED LANDSCAPING SHALL BE LOCATED AS CLOSE AS POSSIBLE TO ITS INTENDED LOCATION.
- MULCH:** ALL PLANTING BEDS SHALL BE TOP DRESSED WITH 3" PINE BARK MULCH, GRADE "B" OR APPROVED EQUAL. ALL TREES NOT IN BEDS SHALL HAVE A 5' DIAMETER MULCH RING. ALL PALMS NOT IN BEDS SHALL HAVE A 3' DIAMETER MULCH RING UNLESS OTHERWISE NOTED ON PLANS.
- SOD:** SOD SHALL BE FLORATAM ST. AUGUSTINE SOD UNLESS OTHERWISE SPECIFIED ON THE PLANS AS ARGENTINE BAHIA SOD. ALL SOD SHALL BE ROLLED UPON INSTALLATION. CONTRACTOR TO SOD ALL AREAS THAT ARE DISTURBED BY CONSTRUCTION RELATED ACTIVITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE SOD IS FREE OF WEEDS & INSECTS UPON INSTALLATION AND FOR THE DURATION OF THE 90 DAY MAINTENANCE PERIOD. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE NO GAPS BETWEEN SOD. SOD QUANTITY TAKEOFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- QUANTITIES:** IN THE EVENT OF A VARIATION BETWEEN THE QUANTITIES SHOWN ON THE PLANT LIST AND THE QUANTITIES OF PLANTS SHOWN ON THE PLAN, THE PLAN SHALL CONTROL.
- UNFORESEEN CONFLICTS:** CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY PORTION OF THE LANDSCAPE PLAN AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNFORESEEN OBSTRUCTIONS, GRADE DIFFERENCES, STANDING WATER, SOIL CONDITIONS OR OTHER CONFLICTS EXIST. SUCH UNFORESEEN CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- SUBSTITUTIONS:** NO SUBSTITUTIONS OR VARIATIONS OF ANY PLANT MATERIAL OR ITS INSTALLED LOCATION SHALL BE PERMITTED WITHOUT THE PRIOR CONSENT OF THE LANDSCAPE ARCHITECT.
- CONTAINERS:** IF GALLONAGE FOR PLANTS OR TREES IS SHOWN THEY SHALL BE CONTAINER GROWN AND THE SIZE SHOWN SHALL REPRESENT THE MINIMUM ALLOWABLE GALLONAGE. IN ALL CASES THE PLANT SPECIFIED SIZE SHALL GOVERN OVER THE GALLONAGE INDICATED.
- PLANTING SOIL:** CONTRACTOR SHALL VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO THE PLANT SPECIES SPECIFIED. IF SOIL CONDITIONS ARE DEEMED UNSUITABLE FOR PROPER PLANT HEALTH, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AND PROPER SUBSTITUTIONS SHALL BE SPECIFIED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. THE CONTRACTOR SHALL REMOVE LIME ROCK, CONCRETE AND OTHER DELETERIOUS DEBRIS FROM PLANTING BEDS. IF DEBRIS IS INTEGRATED IN THE SOIL, THE SOIL MUST BE EXCAVATED WITH ACCEPTABLE SOIL. ALL FILL TO BE PLACED IN LANDSCAPE AREAS MUST HAVE A pH RANGE BETWEEN 5.8 AND 7.5, BE ORGANIC IN NATURE, AND BE FREE OF ROCKS AND DEBRIS.
- TOPSOIL:** TOPSOIL MATERIAL SHALL BE FREE FROM ALL HARD CLODS, WEEDS, STONES OVER 1" IN DIAMETER, CLAY, HARD PAN, NOXIOUS OR OTHER UNDESIRABLE PLANTS, SOD, INSECTS, SEEDS, OR MATERIAL WHICH MAY BE HARMFUL FOR GROWTH.
- WEEDS:** IF PRESENT, THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE ANY WEEDS FROM PLANTING AND SOD AREAS PRIOR TO THE INSTALLATION OF PROPOSED PLANT MATERIAL AND MULCH COVER. CONTRACTOR SHALL BE RESPONSIBLE TO KEEP BEDS AND SOD FREE OF WEEDS FOR THE DURATION OF THE 90 DAY MAINTENANCE PERIOD.
- GRADING:** UNLESS OTHERWISE STATED ON THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL FINE GRADE ALL AREAS TO BE PLANTED AND SODDED IN ORDER TO ELIMINATE BUMPS AND DEPRESSIONS. FINE GRADING SHALL BE DEFINED AS THE FINAL 2" OF GRADE TO BE ACHIEVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND RE-GRADING WASHOUT AREAS CAUSED BY EROSION UNTIL FINAL ACCEPTANCE OF THE PROJECT.
- STAKING:** ALL TREES AND PALMS ARE TO BE STAKED ACCORDING TO THE DETAILS IN THESE PLANS. IF THE CONTRACTOR PREFERS TO USE OTHER STAKING METHODS THAN SHOWN IN THE DETAILS, HE OR SHE MUST SUBMIT PROPOSED STAKING DETAILS TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN, REPAIR, AND/OR REPLACE ANY PLANTS DAMAGED BY FAILURE TO PROPERLY STAKE OR GUY ANY TREES & PALMS ON SITE, AT THEIR OWN EXPENSE.
- BED LINES:** CONTRACTOR TO ENSURE CURVILINEAR LANDSCAPE BEDS ARE TO BE EDGED WITH SMOOTH FLOWING CURVES. STRAIGHT-LINE LANDSCAPE BEDS ARE TO BE EDGED IN A STRAIGHT LINE PARALLEL TO ADJACENT STRUCTURES UNLESS DESIGNED OTHERWISE.
- FERTILIZER:** OSMOCOTE SLOW RELEASE FERTILIZER OR EQUIVALENT SHALL BE APPLIED TO ALL TREE, SHRUB, AND GROUNDCOVER PLANTING AREAS AT THE RATE OF THREE (3) TABLESPOONS PER 2 S.F. OF PLANTING AREA.
- DRAINAGE:** THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THIS WORK DOES NOT INTERRUPT EXISTING OR PROPOSED DRAINAGE PATTERNS AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY SHALL A CONFLICT ARISE. CONTRACTOR IS RESPONSIBLE FOR ALL LANDSCAPE/SOD AREAS TO PROPERLY DRAIN AWAY FROM BUILDINGS/STRUCTURES.
- SPECIFICATIONS:** THE LANDSCAPE ARCHITECT SHALL BE PERMITTED THE RIGHT DURING INSTALLATION, TO REJECT ANY AND ALL PLANT MATERIAL AND WORKMANSHIP WHICH IN HIS OR HER OPINION DOES NOT MEET THE REQUIREMENTS OF THESE SPECIFICATIONS.
- PLANT SELECTION:** THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF THE NURSERY PLANT SOURCE LOCATION A MINIMUM OF 72 HOURS PRIOR TO PURCHASING THE MATERIAL. THE LANDSCAPE ARCHITECT SHALL ACCOMPANY THE CONTRACTOR AND THEIR DESIGNATED LANDSCAPE CONTRACTOR TO THE NURSERY TO REVIEW THE PLANT MATERIAL TAGGED BY THE CONTRACTOR. THE LANDSCAPE ARCHITECT WILL REVIEW THE TAGGED MATERIAL TO BE PURCHASED TO GENERALLY CONFIRM IT MEETS THE SPECIFICATION STANDARDS (STATED IN NOTE #1). THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE QUALITY, SPECIFICATION, INSTALLATION, AND SURVIVORSHIP OF THE PLANT MATERIAL.
- NATURAL AREAS:** NATURALLY PRESERVED VEGETATED AREAS SHALL BE CLEANED UP, INCLUDING BUT NOT LIMITED TO THE REMOVAL OF ANY DEBRIS OR WEEDS AND PRUNING OF DEAD OR YELLOW BRANCHES AND PALM FRONDS. MULCH EDGE OF NATURAL AREA 5' FEET.
- CLEARANCE PRUNING:** ANY TREE PRUNING OF LOWER LIMBS AND CANOPY OF CONSERVED AND PROTECTED TREES THAT ARE GROWING OVER SIDEWALK, ROADWAY AND/OR ON-SITE CONSTRUCTION ACTIVITIES SHALL BE OVERSEEN AND/OR CONDUCTED BY AN IS-A CERTIFIED ARBORIST TO ENSURE PROPER REDUCTION CUTS AND PRUNING IS CONDUCTED TO MAINTAIN THE STRUCTURAL INTEGRITY AND HEALTH OF THE TREE. TREES SHALL BE PRUNED TO ADHERE TO A MINIMUM OF EIGHT FEET (8') CLEARANCE OVER SIDEWALKS (PEDESTRIAN ACTIVITIES) AND SIXTEEN FEET (16') CLEARANCE OVER PARKING AREAS/ROADWAYS.
- WILDLIFE NOTIFICATION:** THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT WHO SHALL PROPOSE PLANT SUBSTITUTIONS UPON WRITTEN NOTIFICATION OF NUISANCE ANIMAL EXISTENCE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE ANY/ALL INSTALLED PLANT MATERIAL DESTROYED/DAMAGED BY WILDLIFE WITHIN THE MAINTENANCE PERIOD.
- TURNOVER:** CONTRACTOR SHALL CONTACT OWNERS REPRESENTATIVE FOR A TURNOVER DATE TO INCLUDE A WALK-THROUGH AND ACCEPTANCE OF WORK BY THE LANDSCAPE ARCHITECT OR OWNER. ANY WORK DEEMED UNACCEPTABLE SHALL BE CORRECTED IMMEDIATELY AND RE-INSPECTED AS SCHEDULED.
- MAINTENANCE:** CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE TO BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE 90 DAYS AFTER FINAL WRITTEN ACCEPTANCE BY THE OWNER. MAINTENANCE SHALL INCLUDE WATERING, PRUNING, WEEDING, MULCHING, MOWING, REPLACEMENT OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY IN ORDER TO MAINTAIN PROPER PLANT HEALTH AND SOIL MOISTURE CONTENT.
- GUARANTEE:** CONTRACTOR SHALL GUARANTEE AND REPLACE ALL INSTALLED PLANT MATERIAL FOR ONE (1) CALENDAR YEAR STARTING FROM THE TURNOVER DATE FOR WORK FOUND ACCEPTABLE. ANY CORRECTED WORK SHALL HAVE A PROPORTIONAL EXTENSION OF WARRANTY ONCE APPROVED. ANY SICK OR DEAD MATERIAL SHALL BE REPLACED IMMEDIATELY. THE LANDSCAPE CONTRACTOR SHALL NOT BE RESPONSIBLE TO HONOR ANY WARRANTY FOR THE LOSS OF ANY PLANT MATERIAL CAUSED BY FLOODING, FIRE, ABNORMAL FREEZING TEMPERATURES, WINDS OVER 50 MPH, LIGHTNING, ANY OTHER NATURAL DISASTER, OR ANY LOSS/DAMAGE CAUSED BY VANDALISM OR NEGLIGENCE ON THE PART OF THE OWNER.
- CALL BEFORE YOU DIG:** CONTRACTOR SHALL NOTIFY SUNSHINE 811 AND HAVE UTILITIES LOCATED, PRIOR TO DIGGING, BY CALLING 811. CONTRACTOR SHALL NOT PLANT TREES WITHIN 3' OF AN UNDERGROUND UTILITY EITHER AS AN UNDERGROUND UTILITY LOCATED OR AS SHOWN ON THE PLAN, WITHOUT FIRST OBTAINING WRITTEN PERMISSION FROM OWNERS REPRESENTATIVE.
- RECORD DRAWINGS:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT 'REDLINED' MARK-UPS OF THE LANDSCAPE AND IRRIGATION IMPROVEMENTS. THESE AS-BUILT 'REDLINES' SHALL BE REPRESENTED ON ZEV COHEN & ASSOCIATES, INC. PLAN SHEETS AND PROVIDED TO THE LANDSCAPE ARCHITECT.

## IRRIGATION NOTES

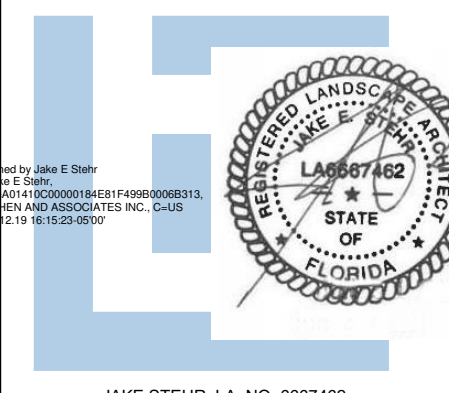
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING 'REDLINED' MARK-UPS OF THE IRRIGATION IMPROVEMENTS AND PROVIDE TO THE LANDSCAPE ARCHITECT.
- AN AUTOMATIC TIME CONTROLLED IRRIGATION SYSTEM WITH A RAIN SENSOR SHALL BE INSTALLED TO PROVIDE 100% HEAD TO HEAD COVERAGE OF ALL NEW PLANTINGS. IRRIGATION PLAN SHALL BE PROVIDED UPON SUBSTANTIAL SITE PLAN APPROVAL.



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
ENVIRONMENTAL  
PLANNING  
TRANSPORTATION

## ALCANTARA MULTI-FAMILY FINAL ENGINEERING PLANS LANDSCAPE PLAN & DETAILS

PROJECT NO: ZC 18114  
DESIGNED BY: SMG  
DRAFTED BY: SMG  
CHECKED BY: MK  
DRAWING FILE: 18114-PD-LA  
XREFS: 18114-BAS.DWG  
XREFS: 18114-SURV.DWG



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