

DONALD W. MCINTOSH
ASSOCIATES, INC.
CERTIFICATE OF
AUTHORIZATION NO. 68

JOHN T. TOWNSEND
FLORIDA P.E. NO. 52127
DATE: _____

FINAL ENGINEERING PLANS

SAWGRASS BAY

PHASE 4A & 4B

LAKE COUNTY, FLORIDA

PREPARED FOR

**TRILOGY LAND HOLDINGS LLC &
LEGACY LAND PARTNERS LLC**

**4100 NEWPORT PLACE, SUITE 800
NEWPORT BEACH, CA 92660**

DESCRIPTION:

That part of Sections 14 and 15, Township 24 South, Range 26 East, Lake County, Florida, described as follows:

Begin at the Southeast corner of Tract 1 (Conservation Easement), THE SAVANNAS, according to the plat thereof, as recorded in Plat Book 36, Pages 10 through 12, of the Public Records of Lake County, Florida; thence run the following four (4) courses and distances along the boundaries of said Tract 1; thence run N00°57'50"E for a distance of 90.63 feet; thence run N53°50'24"W for a distance of 967.29 feet; thence run N54°13'36"W for a distance of 598.44 feet; thence run N72°21'05"W for a distance of 988.66 feet; thence leaving said boundaries of Tract 1, run N20°17'44"W for a distance of 1409.67 feet to a point on the North line of the Northeast 1/4 of said Section 15; thence run N89°25'32"E along said North line for a distance of 1455.99 feet to the Northeast corner of said Section 15; thence run N89°52'49"E along the North line of the Northwest 1/4 of said Section 14 for a distance of 2666.45 feet to the North 1/4 of said Section 14; thence run N89°52'52"E along the North line of the Northeast 1/4 of said Section 14 for a distance of 2658.42 feet to the Northeast corner thereof; thence run S00°17'53"W along the East line of the Northeast 1/4 of said Section 14 for a distance of 2654.52 feet to the Southeast corner of the Northeast 1/4 of said Section 14; thence run S89°56'25"W along the South line of the Northeast 1/4 of said Section 14 for a distance of 2641.60 feet to the Southwest corner of the Northeast 1/4 of said Section 14; thence run S89°56'17"W along the South line of the Northwest 1/4 of said Section 14 for a distance of 1429.30 feet to the POINT OF BEGINNING.

Containing 348.654 acres more or less and being subject to any rights-of-way, restrictions and easements of record.

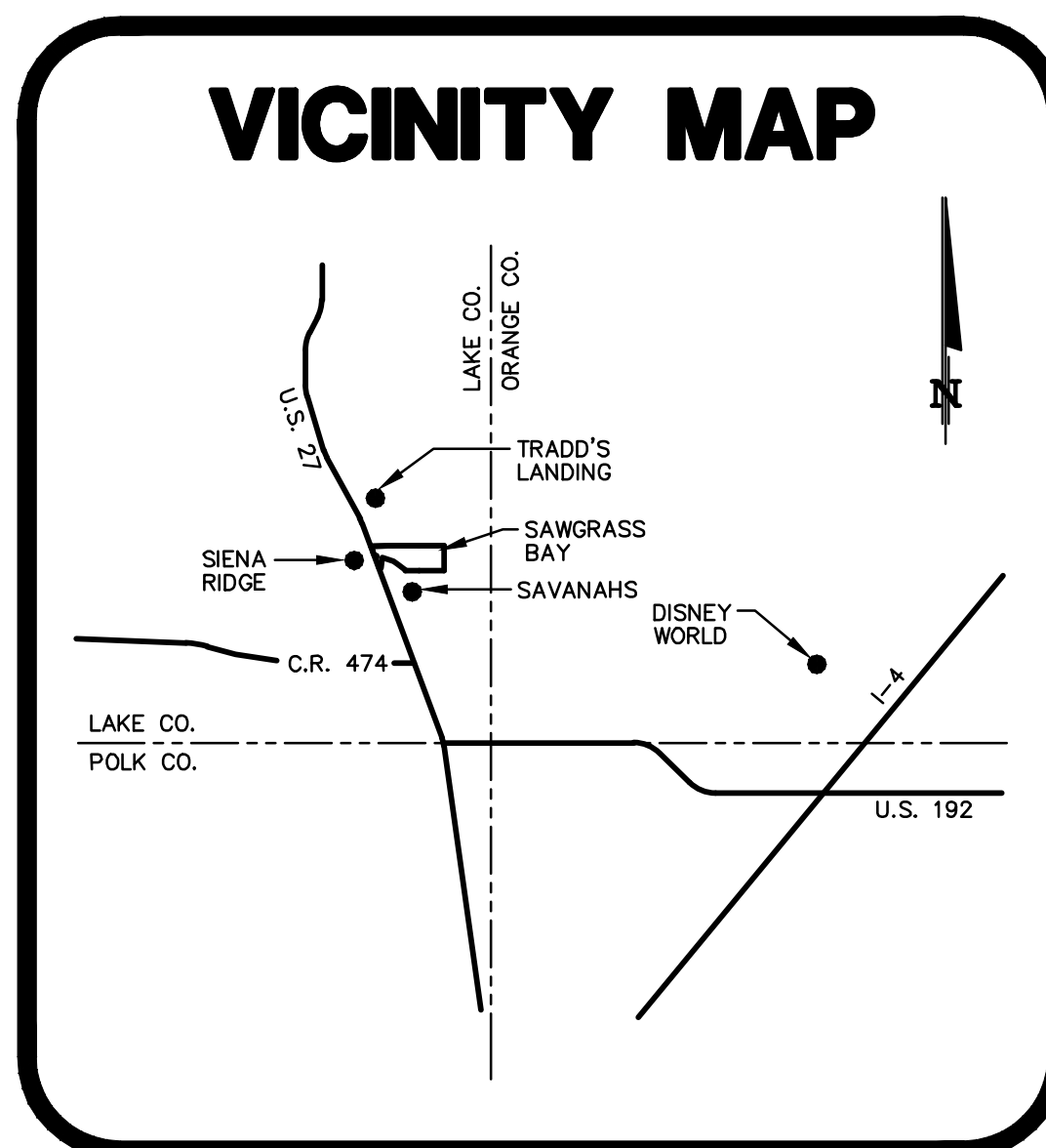
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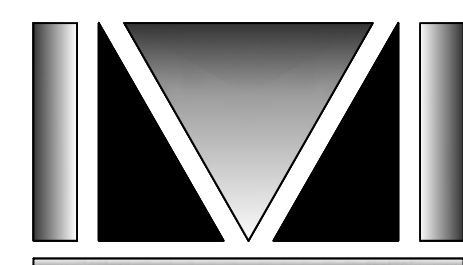
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VICINITY MAP



SECTIONS 14 AND 15, TOWNSHIP 24 SOUTH, RANGE 26 EAST

REVISED JULY 31, 2017
MAY, 19 2017



DONALD W. MCINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2200 PARK AVENUE NORTH, WINTER PARK, FL 32789 407.644.4068
CERTIFICATE OF AUTHORIZATION NO. 68

DEVELOPMENT REVIEW

PROJECT NO.: _____ ALT. KEY: _____

PROJECT NAME: _____ DATE _____ INITIALS _____

WATER RESOURCE MGMT: _____

COMMENTS: _____

911 COMMUNICATIONS: _____

(EMERGENCY 911) COMMENTS: _____

HEALTH DEPT. _____

COMMENTS: _____

PLANNING & DEVELOPMENT: _____

COMMENTS: _____

FIRE & EMERGENCY SERVICES: _____

COMMENTS: _____

CONCURRENCY MANAGEMENT: _____

COMMENTS: _____

PUBLIC WORKS: _____

COMMENTS: _____

PRELIMINARY/FINAL DEVELOPMENT REVIEW

APPROVAL _____

DATED _____ DIRECTOR OF PLANNING & DEVELOPMENT SERVICES (OR DESIGNEE)

SAWGRASS BAY PHASE 4A & 4B - FINAL ENGINEERING - 24018 - 5/19/17 REVISED JULY 31, 2017

SHEET NO. 1 OF 2 PROJECT: SAWGRASS BAY PHASE 4A & 4B SHEET TITLE: COVER

DONALD W. MCINTOSH ASSOCIATES, INC. RESERVES THE EXCLUSIVE COPYRIGHT AND PROPERTY RIGHTS TO THIS DRAWING WHICH MAY NOT BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER, NOR CAN IT BE ASSIGNED TO ANY PARTY WITHOUT DONALD W. MCINTOSH ASSOCIATES, INC.'S WRITTEN CONSENT.

GENERAL NOTES:

- 01. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THEREIN. PERMITS INCLUDED (BUT NOT NECESSARILY LIMITED TO) ARE:
- WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE
- FDEP WATER DISTRIBUTION
- FDEP SANITARY SEWER COLLECTION AND TRANSMISSION
- FDEP NPDES NOI
02. IF DEWATERING METHODS TO BE USED BY CONTRACTOR INCLUDE DISCHARGE OF ANY WATER OFFSITE, CONTRACTOR SHALL OBTAIN DEWATERING PERMIT FROM SURWMD. WHEN ISSUED, CONTRACTOR SHALL PROVIDE COPY TO DONALD W. MCINTOSH ASSOC.
03. CONTRACTOR SHALL SUBMIT TO FDEP A NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES GENERAL PERMIT AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. COPIES OF THE NOTICE SHALL BE SENT TO DONALD W. MCINTOSH ASSOCIATES AND COUNTY.
04. WHERE PERMIT CONDITIONS DIFFER FROM REQUIREMENTS SHOWN IN THE PLANS, CONTRACTOR SHALL NOTIFY ENGINEER FOR CLARIFICATION. TYPICALLY THE MORE STRINGENT REQUIREMENTS WILL APPLY, SUBJECT TO ENGINEER'S DETERMINATION.
05. PRIOR TO COMMENCEMENT, CONTRACTOR SHALL PROVIDE DONALD W. MCINTOSH ASSOCIATES, INC. WITH CONSTRUCTION SCHEDULE FOR VARIOUS SITE WORK ELEMENTS SO THAT PERIODIC SITE VISITS MAY BE COORDINATED TO ENSURE TIMELY CERTIFICATION OF COMPLETION TO AGENCIES AND AVOID DELAYS IN ISSUANCE OF CERTIFICATES OF OCCUPANCY/COMPLETION.
06. CONTRACTOR SHALL FURNISH OWNER WITH ACCURATE RECORD DRAWINGS SHOWING AS-CONSTRUCTED HORIZONTAL AND VERTICAL DIMENSIONING OF THE WORK. THE SUBMITTAL COPY OF THE RECORD DRAWINGS WILL NOT BE RETURNED. THE RECORD DRAWING OR A REPRODUCIBLE COPY PREPARED BY ENGINEER SHALL BE CERTIFIED BY THE CONTRACTOR AS CORRECT. ALL INFORMATION WHICH IS UNKNOWN AND CURRENT SHALL BE NOTED BY CHECKING OFF OR CIRCLING. ALL REVISED INFORMATION SHALL BE CROSSED THROUGH AND NEW DATA ADDED. ADDITIONALLY CONTRACTOR SHALL FURNISH LAKE COUNTY PUBLIC WORKS DEPARTMENT WITH TWO FULL SETS OF ASBUILT PLANS UPON PROJECT COMPLETION AND PRIOR TO COUNTY ACCEPTANCE.
07. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY FASHION TO MINIMIZE IMPACT ON THE CONSTRUCTION SCHEDULE. ANY DELAY OR INCONVENIENCE CAUSED BY THE CONTRACTOR BY THE RELOCATION OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
08. ANY DIFFERING SITE CONDITIONS FROM THOSE WHICH ARE REPRESENTED HEREON, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND OWNER IN WRITING. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND OWNER.
09. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS IN THE DRAWINGS OR DISCREPANCIES FOUND BETWEEN DRAWINGS AND THE FIELD CONDITIONS PRIOR TO CONSTRUCTION IN THE AREA IMPACTED BY THE CONFLICT.
10. FLORIDA LAW (F.S. 553.851) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION IN ANY PUBLIC OR PRIVATE STREET, ALLEY, RIGHT-OF-WAY DEDICATED TO THE PUBLIC USE, OR GAS UTILITY EASEMENT WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF THE PROPOSED EXCAVATION." THIS INCLUDES ANY OPERATION UTILIZING HAND TOOLS OR POWER TOOLS WHICH MOVES OR REMOVES ANY STRUCTURE, EARTH, ROCK, OR OTHER MASS OF MATERIAL BY SUCH METHODS AS DIGGING, BACKFILLING, DEMOLITION, GRADING, DRILLING, BORING AND CABLE PLOWING. THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATING (EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS).
11. ALL RECOMMENDATIONS AND REQUIREMENTS OF INSPECTION PERSONNEL OTHER THAN OWNER'S SHALL BE REPORTED TO ENGINEER/OWNER PRIOR TO IMPLEMENTATION. COMPENSATION WILL NOT BE ALLOWED FOR WORK WHICH IS NOT AUTHORIZED BY ENGINEER/OWNER.
12. CONTRACTOR SHALL PROTECT ADJACENT WETLANDS AND ALL ADJACENT PROPERTIES FROM DAMAGE BY SEDIMENTATION OR OTHER POTENTIAL CONSTRUCTION RELATED CAUSES.
13. ALL WORK SHALL BE OPEN TO AND SUBJECT TO INSPECTION BY AUTHORIZED PERSONNEL OF THE COUNTY, OWNER, INVOLVED UTILITY COMPANIES, PROJECT ENGINEER AND REGULATORY AGENCIES.
14. CONTRACTOR SHALL BE EXTREMELY CAUTIOUS WHEN WORKING NEAR TREES WHICH ARE TO BE SAVED, WHETHER SHOWN IN THE PLANS OR DESIGNATED IN THE FIELD.
15. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE PLAT. CONTRACTOR SHALL CONFIRM WITH THE ENGINEER THAT THE PLAT IS CURRENT PRIOR TO CONSTRUCTION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL AND VERTICAL, INCLUDING MINIMUM BUILDING SETBACKS PRIOR TO THE INSTALLATION OF ANY IMPROVEMENT.
16. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF PIPE SLOPES AND INVERTS DURING SHOP DRAWING AND MATERIALS ORDERING PHASE OF PROJECT AND ADVISE ENGINEER OF ANY DISCREPANCIES.
17. BOUNDARY BASED ON THE FOLLOWING:
SURVEYOR: DONALD W. MCINTOSH ASSOCIATES, INC.
DRAWING NO.: SG_GTR-TOPO-COMPOSITE.DWG
DATE: 6/10/04
18. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROJECT SITE DURING CONSTRUCTION, TO PREVENT TRESPASSING OF UNAUTHORIZED PEDESTRIANS AND/OR VEHICLES IN ALL WORK AREAS. THE CONTRACTOR SHOULD POST SIGNS, CONSTRUCT BARRIERS OR IMPLEMENT OTHER METHODS NECESSARY TO CONTROL ACCESS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR TRESPASSING ON THE CONSTRUCTION SITE OR DAMAGES TO ANY WORK RELATED THERETO.
19. CONTRACTOR SHALL COMPLY WITH OSHA TRENCH SAFETY STANDARDS 29 C.F.R., S. 926.650, SUBPART F, AND ALL SUBSEQUENT REVISIONS OR UPDATES ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY AND WITH SECTION 553.82, FLORIDA STATUTES.

PAVING, GRADING & DRAINAGE NOTES:

- 01. EXISTING TOPOGRAPHY AND CONTOURS BASED ON THE FOLLOWING:
SURVEYOR: DONALD W. MCINTOSH ASSOCIATES, INC.
DRAWING NO.: SG_GTR-TOPO-COMPOSITE.DWG
DATE: 6/10/04
02. ELEVATIONS SHOWN HEREON ARE BASED ON A 4" X 4" CONCRETE MONUMENT AT THE SOUTHWEST CORNER OF TRACT "B", ORANGE TREE PHASE 1, AS RECORDED IN PLAT BOOK 43, PAGES 72 THROUGH 75, OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA. ELEVATION 127.66 (NAVD 88)
03. SURVEYOR'S SITE BENCHMARK:
DESCRIPTION: CONCRETE CATCH BASIN
ELEVATION: 134.25
LOCATION: NORTHEAST CORNER CONC (755'± FROM SOUTHWEST PROP. CORNER IN MEDIAN)
04. SURVEYOR'S SITE BENCHMARK:
DESCRIPTION: SET 1/2" IRC #LB68
ELEVATION: 150.78
LOCATION: 44'± SW OF CENTER OF GATE (NORTHWEST PROPERTY CORNER)
05. SURVEYOR'S SITE BENCHMARK:
DESCRIPTION: 1/2" IRC #LB68
ELEVATION: 133.09
LOCATION: 18'± EAST OF EDGE OF PAVEMENT OF NORTHBOUND LANE OF U.S. 27

- 06. BENCHMARK LOCATION AND ELEVATION ARE AS REPRESENTED BY SURVEYOR AT THE TIME OF THE SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.
07. SITE GRADING, PAVING AND DRAINAGE MATERIALS AND CONSTRUCTION SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2002 EDITION, AND TO LAKE COUNTY STANDARD SPECIFICATIONS.
08. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY MONUMENTATION. DISTURBED MONUMENTATION SHALL BE RESTORED BY A FLORIDA-LICENSED LAND SURVEYOR SELECTED BY THE OWNER AT CONTRACTOR'S EXPENSE.
09. IMMEDIATELY AT ONSET OF CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES CRITICAL TO COMPLETING THE PROJECT (INCLUDING WATER, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV) AND SHALL EVALUATE POTENTIAL CONFLICTS. ALL SUCH CONFLICTS SHALL BE REPORTED TO ENGINEER/OWNER IMMEDIATELY UPON DISCOVERY.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO INSURE AGAINST POLLUTING, SILTING, OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEM AND ADJACENT WATER BODIES AND WETLANDS. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES. METHODS MAY INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION OF TEMPORARY EROSION CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, OR SILT SCREENS. ANY MEASURES SHOWN OR DETAILED IN THESE DRAWINGS SHALL BE CONSIDERED MINIMUMS AND SHALL NOT ALLEViate CONTRACTOR FROM THE RESPONSIBILITY TO IMPLEMENT ANY MEASURES NECESSARY TO PROVIDE PROTECTION.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING PROPER TRAFFIC MAINTENANCE AND CONTROLS IN ACCORDANCE WITH REGULATORY STANDARDS. WHERE A TRAFFIC MAINTENANCE PLAN IS REQUIRED, IT SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED FOR APPROVAL.
12. CONTRACTOR SHALL INCLUDE ACCURATE AS-BUILT DIMENSIONS AND ELEVATIONS OF THE STORMWATER MANAGEMENT AREAS IN THE RECORD DRAWINGS.
13. GEOTECHNICAL SERVICES HAVE BEEN PROVIDED AS REFERENCED BELOW. GEOTECHNICAL RECOMMENDATIONS ARE NOT THE RESPONSIBILITY OF DONALD W. MCINTOSH ASSOCIATES, INC. DONALD W. MCINTOSH ASSOCIATES, INC. HAS RELIED ON THE BELOW REFERENCED GEOTECHNICAL REPORT(S) IN PREPARATION OF THE DRAWINGS. ANY CONFLICT BETWEEN INFORMATION WITHIN THE REPORT AND THESE DRAWINGS SHALL BE REPORTED TO ENGINEER/OWNER. DONALD W. MCINTOSH ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS, COMPLETENESS OR ACCURACY OF GEOTECHNICAL INFORMATION.
GEOTECHNICAL ENGINEER: DEVO ENGINEERING
PROJECT NO: 04-711.01 - PRELIMINARY GEOTECHNICAL ENGINEERING ASSESSMENT
DATE: JUNE 11, 2004
PROJECT NO: 04-711.01 - PHASE 1 ENVIRONMENTAL SITE ASSESSMENT
DATE: JUNE 11, 2004
PROJECT NO: 04-711.01 - GEOTECHNICAL ENGINEERING REPORT
DATE: APRIL 20, 2005
14. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL PAVEMENTS TO DRAIN POSITIVELY. INTERSECTIONS SHALL BE TRANSITIONED TO PROVIDE SMOOTH DRIVING SURFACE WHILE MAINTAINING POSITIVE DRAINAGE. SHOULD AREAS OF POOR DRAINAGE BE OBSERVED, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF CURBS OR PAVEMENT COURSES, SO THAT RECOMMENDATIONS FOR CORRECTION MAY BE MADE.
15. ELEVATIONS OF GRASSED AREAS ARE GIVEN AT FINISHED GRADE (TOP OF SOD OR SEEDED SURFACE).
16. SEE SHEET 22 FOR REQUIREMENTS AT CROSSINGS OF STORM DRAINS AND UTILITY PIPE.
17. NO WATER VALVE BOXES, METERS, OR OTHER APPURTENANCES OF ANY KIND RELATING TO ANY UNDERGROUND UTILITIES SHALL BE LOCATED IN ANY PORTION OF A CURB-AND-GUTTER SECTION OR IN PAVEMENT. ADVISE ENGINEER IMMEDIATELY UPON DISCOVERY OF A POTENTIAL CONFLICT.
18. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN CENTERLINES OF DRAINAGE STRUCTURES AND FROM INVERTS OF ENDWALLS AND/OR MITERED END SECTIONS.
19. OVER-EXCAVATION OF RETENTION BASINS SHALL NOT BE ALLOWED UNLESS SPECIFICALLY AUTHORIZED BY ENGINEER/OWNER. SHOULD UNAUTHORIZED OVER-EXCAVATION OCCUR, IT SHALL BE BACKFILLED, REGRADED, RESEDED AND/OR RESEDED AS REQUIRED AT CONTRACTOR'S EXPENSE TO OWNER'S SPECIFICATIONS.
20. CONTRACTOR SHALL NOT COMPACT, STABILIZE, OR CONSTRUCT BASE COURSE WITHIN LANDSCAPE ISLANDS OR MEDIANS. WHERE SUCH TREATMENT DOES OCCUR, IT SHALL BE REMOVED AND REPLACED WITH SUITABLE PLANTING SOILS ACCEPTABLE TO OWNER'S LANDSCAPE ARCHITECT.
21. ENGINEER RESERVES THE RIGHT TO WITHHOLD AUTHORIZATION FOR PAYMENT FOR ANY ROADWORK WHICH HAS NOT BEEN TESTED BY A FLORIDA-REGISTERED GEOTECHNICAL ENGINEER AND REPORTED TO CONFORM TO PROJECT SPECIFICATIONS.
22. ALL OFF-SITE DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION, OR BETTER.
23. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND DISPOSING OF ALL WASTE MATERIALS CONSISTENT WITH ALL RULES AND REGULATIONS APPLICABLE TO THE SPECIFIC MATERIAL FOUND.
24. LOT GRADING PLANS ARE PROVIDED FOR AGENCY REVIEW AND TO ESTABLISH A MASTER GRADING AND DRAINAGE SYSTEM FOR USE IN DEVELOPMENT OF INDIVIDUAL LOTS AS THEY ARE CONSTRUCTED AT A LATER TIME. FINISH GRADE BY SITE CONTRACTOR SHALL BE 10" BELOW THE FINISHED FLOOR ELEVATION SHOWN ON PLANS.
25. INLETS WHICH ARE GRAPHICALLY SHOWN ON LOT LINES AND NOT OTHERWISE LOCATED BY STATIONING SHALL BE LOCATED SUCH THAT THE CENTERLINE OF THE INLET BOTTOM IS ALIGNED WITH THE LOT LINE.
26. DRAINAGE MANHOLES AND INLETS (NOT INCLUDING CONTROL STRUCTURES) SHOWN IN THE PLANS ARE IDENTIFIED BY TOP TYPE ONLY. CONTRACTOR SHALL PROVIDE STANDARD DITCH BOTTOM INLET, (STANDARD J OR P STRUCTURES BOTTOMS) AS REQUIRED TO ACCOMMODATE PIPE SIZES SHOWN. ALL DITCH BOTTOM INLETS (NOT INCLUDING CONTROL STRUCTURES) SHALL HAVE NONTRAVERSABLE SLOTS.
27. ALL SIGNING AND PAVEMENT MARKING AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS" (LATEST EDITION) AND FHWA "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
28. BLUE REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED OPPOSITE FIRE HYDRANTS IN THE CENTER OF THE NEAREST TRAVELED LANE TO MARK THEIR LOCATIONS.
29. REGULATORY SIGNS (STOP, ETC.) SHALL BE FURNISHED BY CONTRACTOR AND IN PLACE PRIOR TO FINAL INSPECTION OF PAVING AND DRAINAGE IMPROVEMENTS.
30. ALL STORM PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC. SEE DETAIL ON SHEET 17.

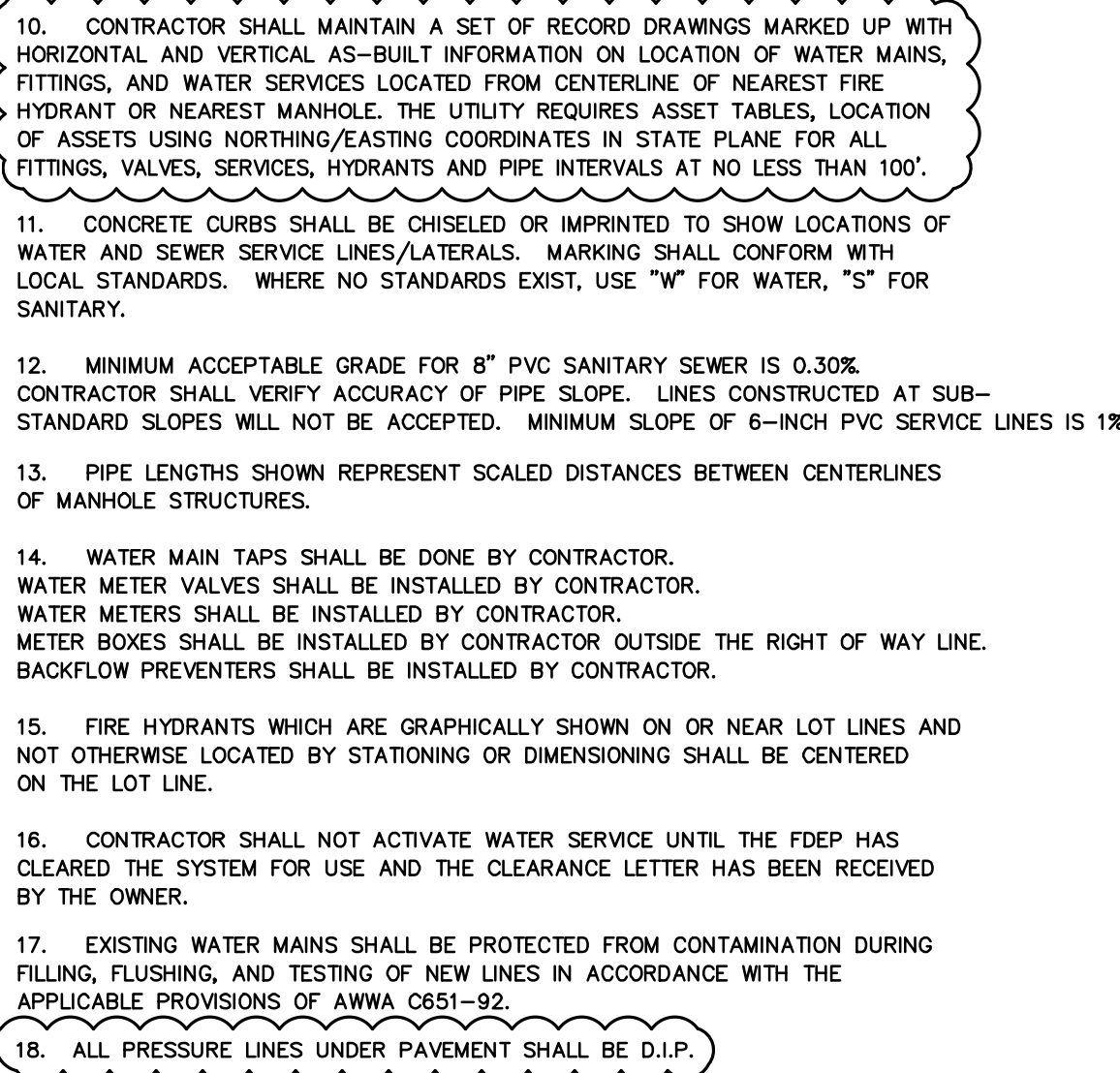
MATERIAL SPECIFICATIONS (PAVING AND DRAINAGE):

- 01. PAVING MATERIALS SHALL CONFORM WITH FDOT STANDARD SPECIFICATIONS, LATEST EDITION, AND LAKE COUNTY STANDARD SPECIFICATIONS.
02. STORM DRAINS SHALL BE REINFORCED CONCRETE PIPE, PER ASTM C-76 CLASS III, UNLESS OTHERWISE SPECIFIED.
03. ALL STORM STRUCTURES SHALL CONFORM WITH FDOT STANDARD INDEX DRAWINGS AND SPECIFICATIONS. GRATES SHALL BE CAST IRON UNLESS OTHERWISE SPECIFIED OR APPROVED.
04. ALL TYPE "P" STRUCTURE BOTTOMS SHALL BE ROUND UNLESS OTHERWISE SPECIFIED AND SHALL HAVE 4 FT. DIAMETER.
05. ALL PAVEMENT STRIPING SHALL BE THERMOPLASTIC.
06. ALL STOP SIGNS SHALL BE 30"x30" AND HIGH INTENSITY PRISMATIC AND ROAD SIGNS PER COUNTY STANDARDS.
07. ALL CONCRETE (PAVEMENT, CURBS, ETC.) SHALL BE 3,000 PSI.

WATER AND SEWER NOTES:

- 01. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR CONSTRUCTION OF THE WATER AND SEWER SYSTEM. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE SPECIFICATIONS AND REQUIREMENTS OF THE UTILITY COMPANY AND WILL BE SUBJECT TO THEIR INSPECTION AND ACCEPTANCE.
02. CONTRACTOR SHALL COORDINATE WORK, SPECIFICALLY, BUT NOT LIMITED TO, CONNECTIONS TO EXISTING MAINS OR STRUCTURES AND SYSTEM TESTING WITH THE APPLICABLE UTILITY COMPANIES.
03. CONTRACTOR SHALL PROVIDE WATER MAIN DISINFECTION IN ACCORDANCE WITH AWWA C651, HYDROSTATIC PRESSURE AND LEAKAGE TESTING IN ACCORDANCE WITH AWWA C600 OR M23 AS APPLICABLE, AND BACTERIOLOGICAL TEST REPORTS, ALL IN ACCORDANCE WITH PROJECT SPECIFICATIONS, FDEP PERMIT CONDITIONS, AND AWWA STANDARDS.
04. CONTRACTOR SHALL PROVIDE SANITARY SEWER LAMPING/TELEVISION ALL IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS.
05. CONTRACTOR SHALL COORDINATE ALL WATER AND SEWER SYSTEM TEST SCHEDULING TO ALLOW ENGINEER'S ATTENDANCE AND PROVIDE FIVE (5) WORKING DAYS NOTICE OF WATER AND SEWER TESTS. CONTRACTOR'S FAILURE TO PROPERLY NOTIFY ENGINEER MAY RESULT IN RETESTING AT ENGINEER'S OPTION AND AT CONTRACTOR'S EXPENSE.
06. ENGINEER RESERVES THE RIGHT TO WITHHOLD AUTHORIZATION OF PAYMENT FOR ANY PORTION OF THE WATER OR SEWER PIPE WORK WHICH HAS NOT BEEN TESTED (OBSERVED BY ENGINEER) AND REPORTED TO CONFORM TO PROJECT SPECIFICATIONS.
07. AS APPLICABLE, SITE CONTRACTOR SHALL COORDINATE AND VERIFY ALL UTILITY SERVICES WITH FINAL ARCHITECTURAL DRAWINGS AND BUILDING CONTRACTOR.
08. SEPARATION REQUIREMENTS - SEE SHEET 22
09. CONTRACTOR SHALL VERIFY SIZE AND TYPE OF EXISTING MAIN PRIOR TO ORDERING TAPPING MATERIALS FOR TIE-INS.
10. CONTRACTOR SHALL MAINTAIN A SET OF RECORD DRAWINGS MARKED UP WITH HORIZONTAL AND VERTICAL AS-BUILT INFORMATION ON LOCATION OF WATER MAINS, FITTINGS, AND WATER SERVICES LOCATED FROM CENTERLINE OF NEAREST FIRE HYDRANT OR NEAREST MANHOLE. THE UTILITY REQUIRES ASSET TABLES, LOCATION OF ASSETS USING NORTHING/EASTING COORDINATES IN STATE PLANE FOR ALL FITTINGS, VALVES, SERVICES, HYDRANTS AND PIPE INTERVALS AT NO LESS THAN 100'.

- 11. CONCRETE CURBS SHALL BE CHISELED OR IMPRINTED TO SHOW LOCATIONS OF WATER AND SEWER SERVICE LINES/LATERALS. MARKING SHALL CONFORM WITH LOCAL STANDARDS. WHERE NO STANDARDS EXIST, USE "W" FOR WATER, "S" FOR SANITARY.
12. MINIMUM ACCEPTABLE GRADE FOR 8" PVC SANITARY SEWER IS 0.30% CONFORMANCE WITH THE VERIFICATION OF PIPE SLOPE. LINES CONSTRUCTED AT SUB-STANDARD SLOPES WILL NOT BE ACCEPTED. MINIMUM SLOPE OF 6-INCH PVC SERVICE LINES IS 1%.
13. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN CENTERLINES OF MANHOLE STRUCTURES.
14. WATER MAIN TAPS SHALL BE DONE BY CONTRACTOR. WATER METER VALVES SHALL BE INSTALLED BY CONTRACTOR. WATER METERS SHALL BE INSTALLED BY CONTRACTOR. METER BOXES SHALL BE INSTALLED BY CONTRACTOR OUTSIDE THE RIGHT OF WAY LINE. BACKFLOW PREVENTERS SHALL BE INSTALLED BY CONTRACTOR.
15. FIRE HYDRANTS WHICH ARE GRAPHICALLY SHOWN ON OR NEAR LOT LINES AND NOT OTHERWISE LOCATED BY STATIONING OR DIMENSIONING SHALL BE CENTERED ON THE LOT LINE.
16. CONTRACTOR SHALL NOT ACTIVATE WATER SERVICE UNTIL THE FDEP HAS CLEARED THE SYSTEM FOR USE AND THE CLEARANCE LETTER HAS BEEN RECEIVED BY THE OWNER.
17. EXISTING WATER MAINS SHALL BE PROTECTED FROM CONTAMINATION DURING FILLING, FLUSHING, AND TESTING OF NEW LINES IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF AWWA C651-92.
18. ALL PRESSURE LINES UNDER PAVEMENT SHALL BE D.I.P.



WATER AND SEWER SPECIFICATIONS:

- GENERAL:
01. ALL MATERIALS FURNISHED BY THE CONTRACTOR UNDER THIS SECTION SHALL BE NEW, HIGH GRADE AND FREE FROM DEFECTS. ALL PLASTIC PIPE AND FITTINGS FOR WATER DISTRIBUTION SHALL BE APPROVED BY THE NSF FOR POTABLE WATER AND BEAR THE NSF SEAL. PLASTIC PIPE AND FITTINGS SHALL BE SUPPLIED FROM THE SAME MANUFACTURER.
02. WHEREVER LOCAL STANDARD SPECIFICATIONS DIFFER FROM THESE, CONTRACTOR SHALL NOTIFY ENGINEER FOR CLARIFICATION. TYPICALLY THE MORE STRINGENT SHALL GOVERN.
03. ALL NEW AND RELOCATED PROJECT COMPONENTS THAT WILL COME INTO CONTACT WITH DRINKING WATER OR DRINKING WATER TREATMENT CHEMICALS (EXCEPT COMPONENTS THAT WILL COME INTO CONTACT WITH RAW WATER PRIOR TO ITS TREATMENT BE REVERSE OSMOSIS) SHALL BE IN CONFORMANCE WITH AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)/NSF INTERNATIONAL (NSF) STANDARD 61. ALSO, ALL DRINKING WATER TREATMENT CHEMICALS SUPPLIED UNDER THIS PROJECT EXCEPT FLUORIDATION CHEMICALS SHALL BE IN CONFORMANCE WITH ANSI/NSF STANDARD 60 AND ALL FLUORIDATION CHEMICALS SUPPLIED UNDER THIS PROJECT SHALL BE IN CONFORMANCE WITH ANSI AND AMERICAN WATER WORKS ASSOCIATION STANDARD 8701, 8702, OR 8703 AS APPLICABLE.
04. ALL UNDERGROUND LINES AND SERVICES SHALL BE WIRED IN ACCORDANCE WITH THE REQUIREMENTS OF UTILITIES, INC. OF FLORIDA. UTILITIES, INC. OF FLORIDA REQUIRES THAT THE POTABLE WATER AND REUSE LINES HAVE CONTINUOUS TO GAUGE COPPER WIRE FOR TRACING.

- WATER DISTRIBUTION:
01. PIPE 4" TO 12": PVC AWWA C900 CLASS 150 DR18 AND ASTM D1784, WITH INTEGRAL BELLS AND ELASTOMERIC JOINTS PER ASTM D3139 WITH GASKETS PER ASTM F477.
02. PIPE 1 1/2" TO 3" AND FITTINGS LESS THAN 4": PVC ASTM D2241 CLASS 200, SDR 21, WITH INTEGRAL BELLS AND ELASTOMERIC JOINTS PER ASTM D3139 WITH GASKETS PER ASTM F477. (PIPE SHALL BEAR NSF LOGO FOR POTABLE WATER USE.)
03. PIPE (D.I.P. WHEN CALLED FOR): ANSI/AWWA C151/A21.51, CLASS 50 UNLESS OTHERWISE DESIGNATED, ANSI/AWWA C150/A21.50, WITH MECHANICAL OR PUSH ON JOINTS PER ANSI/AWWA C111/A21.11, WITH INTERIOR LINING OF CEMENT MORTAR AND ASPHALTIC MATERIAL SEAL COAT IN ACCORDANCE WITH ANSI/AWWA C104/A21.10 AND EXTERIOR COATING PER ANSI/AWWA C151/A21.51 OF 1.0 MIL MINIMUM THICKNESS.

- 04. FITTINGS 4" AND OVER: DUCTILE IRON CONFORMING TO ANSI/AWWA C110/A21.10, 250 PSI, WITH CEMENT MORTAR LINING CONFORMING TO ANSI/AWWA C104/A21.10, STANDARD THICKNESS, WITH COMPRESSION TYPE JOINTS/MECHANICAL JOINTS AS RESPECTIVELY SPECIFIED IN ASTM D3139 AND ANSI/AWWA C110/A21.11.
05. VALVES: 3" TO 12": RESILIENT SEAT GATE VALVES 250 PSI CONFORMING TO ANSI/AWWA C509, OPENING COUNTERCLOCKWISE, WITH O-RING STEM SEAL AND OPENING EQUAL TO OR GREATER THAN THE NOMINAL DIAMETER OF THE VALVE.
06. VALVES 2" AND SMALLER: BRONZE, WEDGE DISC, NON-RISING STEM TYPE, 150 PSI MINIMUM WORKING PRESSURE, EQUIPPED WITH WROUGHT STEEL OR CAST IRON OPERATING HANDWHEELS AND WITH ENDS SUITABLE FOR JOINTING TO THE PIPE USED.
07. VALVE BOXES: ADJUSTABLE, CAST IRON, MINIMUM INTERIOR DIAMETER OF 5 INCHES WITH COVERS LEGIBLY CAST WITH THE INSCRIPTION "WATER" ON THE TOP, AND WITH A HEAVY COATING OF BITUMINOUS PAINT. BOXES SHALL BE SUITABLE FOR THE APPLICABLE SURFACE LOADING AND VALVE SIZE. ALL VALVES SHALL HAVE BOXES.
08. FIRE HYDRANTS: AWWA C502, CONFORMING TO STANDARD SPECIFICATIONS OF THE LOCAL JURISDICTION AND UTILITY COMPANY WHERE DIFFERENT.
09. BACKFLOW PREVENTION DEVICES: CONFORM TO STANDARDS OF THE APPLICABLE UTILITY COMPANY.

- SEWAGE COLLECTION/TRANSMISSION:
01. GRAVITY PIPE AND FITTINGS 4" TO 15": PVC ASTM D3034, SDR 35 WITH ELASTOMERIC JOINTS PER ASTM D3212.
02. GRAVITY PIPE: (D.I.P. WHEN CALLED FOR) ANSI/AWWA C151/A21.51, CLASS 50 UNLESS OTHERWISE DESIGNATED, ANSI/AWWA C150/A21.50, WITH MECHANICAL OR PUSH ON JOINTS PER ANSI/AWWA C111/A21.11. AN INTERIOR PROTECTIVE LINING OF COAL TAR EPOXY SHALL BE PROVIDED WITH A MINIMUM DRY THICKNESS OF 30 MILS AND EXTERIOR COATING PER ANSI/AWWA C151/A21.51 OF 1.0 MIL MINIMUM THICKNESS.
03. MANHOLES: ASTM C478 WITH 5" MINIMUM WALL, 4000 PSI CONCRETE.
REUSE DISTRIBUTION:
01. REUSE MAIN: PVC AWWA CLASS 900, DR 18 COLOR CODED BY PURPLE PIGMENTATION AWWA C900-C901C, 150 DR18 ASTM D1784 D2241, NSF APPROVED.
02. ALL REUSE MAINS UNDER PAVEMENT SHALL BE D.I.P. (ALL ROADWAYS).
03. ALL REUSE SERVICES THAT ARE LONGSIDE SHALL BE INSTALLED WITH SCH 40 PVC CASING 2x THE O.D. OF THE SERVICE LINE.
04. FITTINGS 4" AND OVER: MECHANICAL JOINT DUCTILE IRON OR GRAY IRON CONFORMING TO ANSI/AWWA A-21.10/C-110, 350 PSI MINIMUM PRESSURE RATING, OR DUCTILE IRON COMPACT FITTINGS CONFORMING TO ANSI/AWWA A-21.53/C-115.

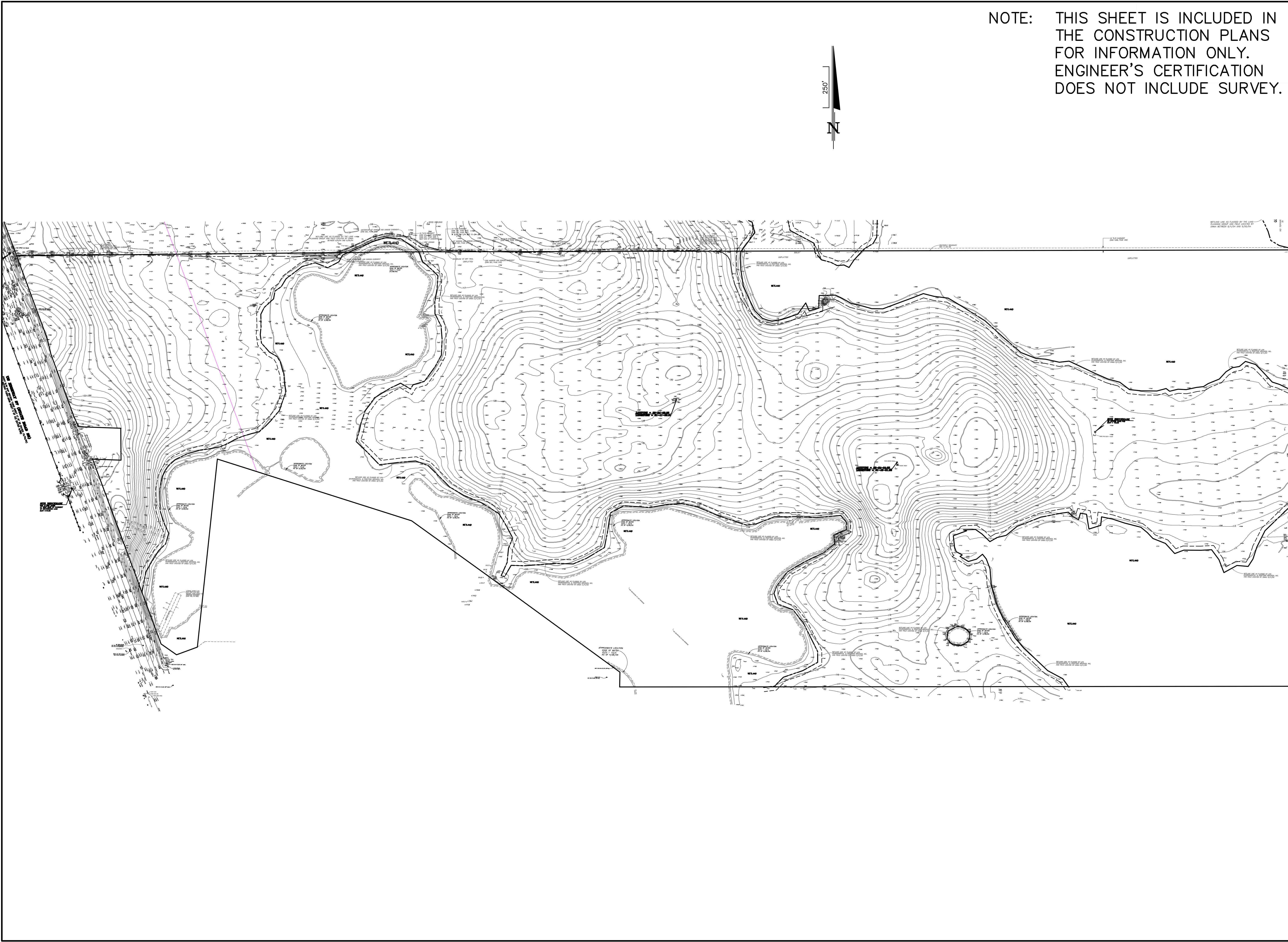
Project title block containing: DONALD W. MCINTOSH ASSOCIATES, INC. ENGINEERS PLANNERS SURVEYORS; SAUGRASS BAY - PHASE 4A & 4B; LAKE COUNTY, FLORIDA; NOTES, SPECIFICATIONS & LEGEND; 2 OF 21; and various revision and drawing control fields.

PROJECT: SAUGRASS BAY - PHASE 4A & 4B
SHEET TITLE: NOTES
DWG FILE NAME: 24018-Notes.dwg
XREF FILE NAME:

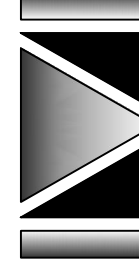
PROJECT: SAWGRASS BAY - PHASE 4A & 4B
 SHEET TITLE: SURVEY
 DWG FILE NAME: 24018-Survey.dwg
 XREF FILE NAME: SC_GTR-topo-composite.dwg

3 OF 21

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NOTE: THIS SHEET IS INCLUDED IN THE CONSTRUCTION PLANS FOR INFORMATION ONLY. ENGINEER'S CERTIFICATION DOES NOT INCLUDE SURVEY.

DRAWING 24018-Survey.dwg	SHEET	3 OF 21	SAWGRASS BAY - PHASE 4A & 4B LAKE COUNTY, FLORIDA TOPOGRAPHIC & BOUNDARY DATA	 DONALD W. MCINTOSH ASSOCIATES, INC. ENGINEERS 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068	DESIGNED BY N/A	CHECKED BY DWMA	DATE 5/19/17	SCALE 1"=250'	JOB NUMBER 24018	DONALD W. MCINTOSH ASSOCIATES, INC. CERTIFICATE OF AUTHORIZATION NO. 68 JOHN T. TOWNSEND FLORIDA P.E. NO. 52127 DATE:
					REVISIONS NO. DATE DESCRIPTION _____					

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Sawgrass Bay Preliminary Plot Notes Amended by PUD Ordinance #2005-08.

Residential Data:

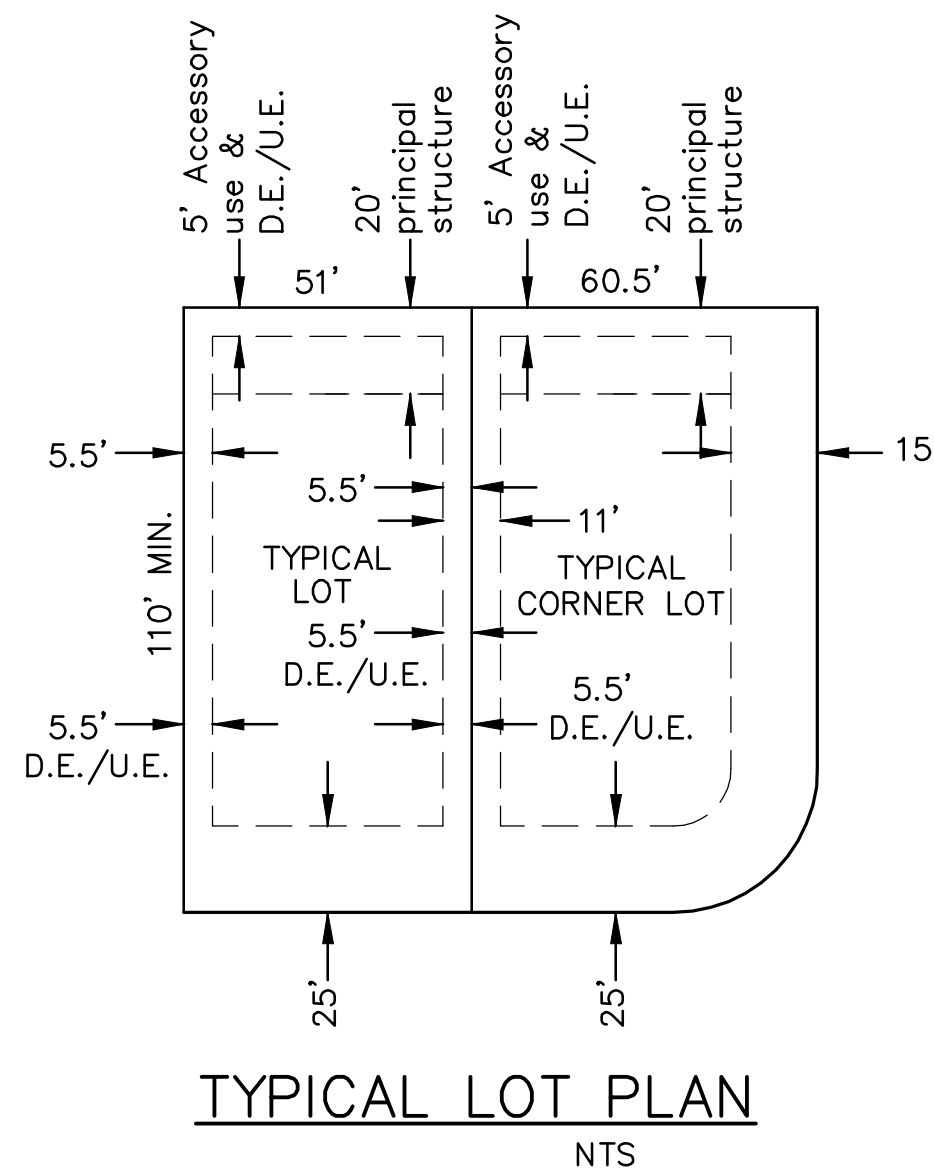
Min. lot size: 51' x 110'
 Min lot frontage: 25' (cul de sac lots only)
 Min. distance between bldgs.: 11'

Setbacks:
 front: 25' min.
 rear: 20' principal structure, 5' accessory structure/pool
 side: 5.5', 11' between buildings
 street side: 15'
 setback from natural water bodies: 100 yr. flood line per ord. #24-91

PHASE	# OF LOTS
1	163
2	152
3	164
4	150
5	N/A
TOTAL	629

General Notes:

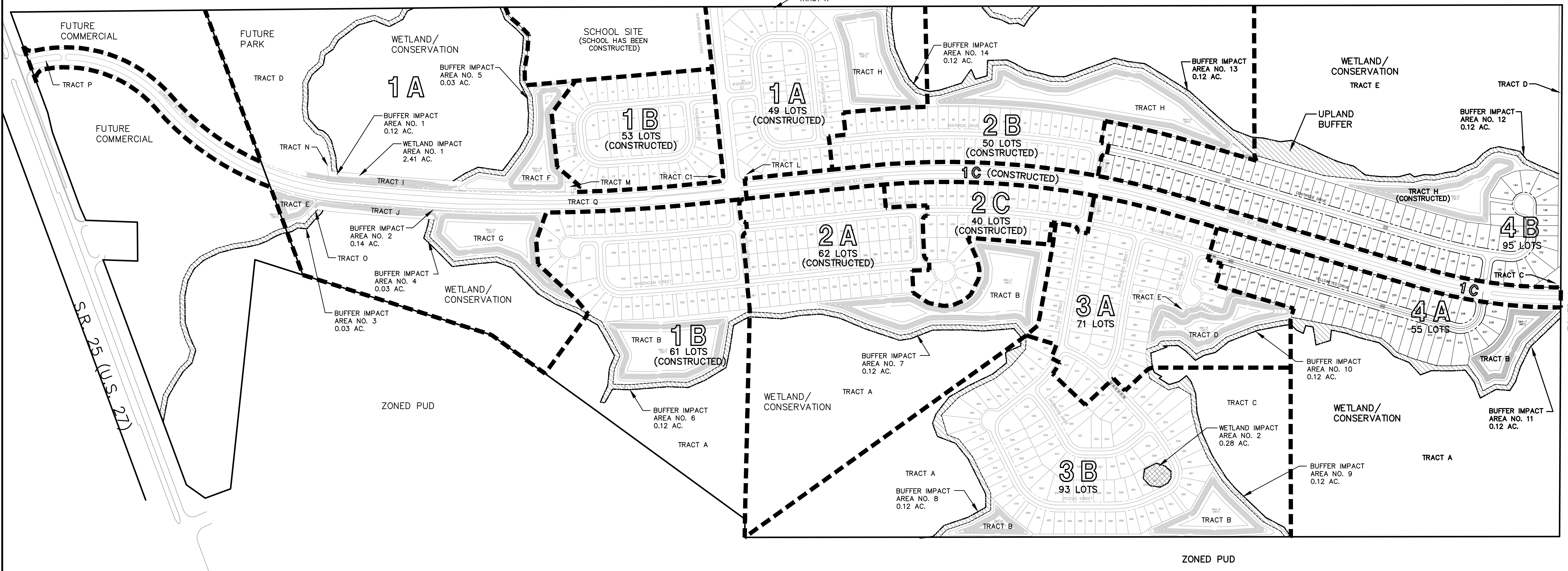
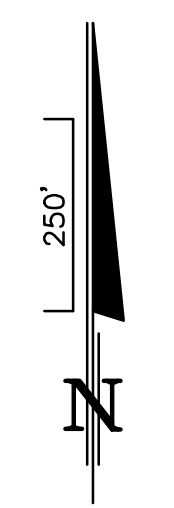
- Internal street rights-of-way will be 50' in width. Pavement width will vary based on V.P.D. (see cross section and table provided). Minimum centerline radius will be 100'.
- Landscape areas within the residential development will be maintained by a homeowners' association.
- Building types and structural concepts will be available during the final design phase of the project.
- Pools, hot tubs and similar structures shall meet the requirements of LDC 10.01.03, State of the Florida Building Code and state statutes.



TRACT SUMMARY:

NAME	DESIGNATION	OWNERSHIP/MAINTENANCE
A	CONSERVATION	HOA
B	STORMWATER/LANDSCAPE	HOA
C	WALL/LANDSCAPE/SIGN	HOA
D	WALL/LANDSCAPE/SIGN	HOA
E	CONSERVATION	HOA

PHASE 4A & 4B
 TOTAL AREA: 91.071 AC.



DONALD W. MCINTOSH ASSOCIATES, INC.
 ENGINEERS PLANNERS SURVEYORS
 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068

SAWGRASS BAY - PHASE 4A & 4B
 LAKE COUNTY, FLORIDA
OVERALL SITE AND PHASING PLAN

DRAWING: 24018-001.dwg
 SHEET: 4 OF 21

NO.	DATE	PER COUNTY COMMENTS OF	DESCRIPTION	REVISIONS
1	7/31/17	6/27/17	JTT	CHK.

DATE: _____

DESIGNED BY: JTT
 CHECKED BY: JTT
 DRAWN BY: CWS/EJT

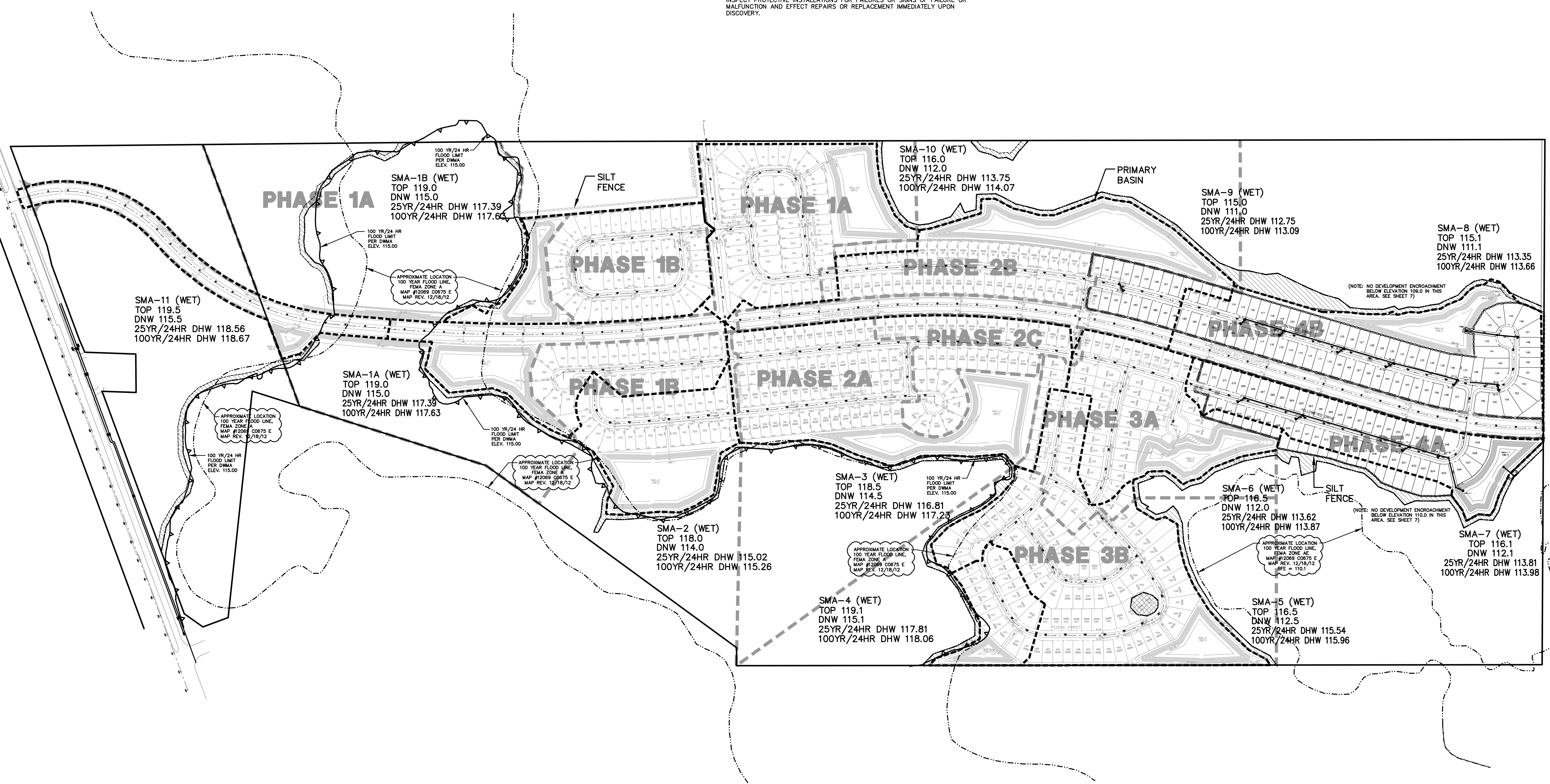
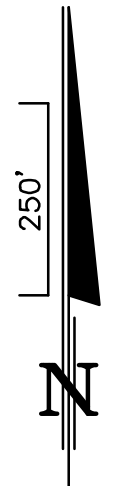
SCALE: 1"=250'
 JOB NUMBER: 24018

DONALD W. MCINTOSH ASSOCIATES, INC. CERTIFICATE OF AUTHORIZATION NO. 68
 JOHN T. TOWNSEND FLORIDA P.E. NO. 52127

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EROSION & SEDIMENT CONTROL NOTES:

01. BECAUSE OF THE PROJECT'S PROXIMITY TO ADJACENT WETLANDS, CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE EROSION, TO RETAIN SEDIMENT WHICH UNAVOIDABLY WILL RESULT FROM ONSITE CONSTRUCTION ACTIVITIES, TO PREVENT SEDIMENTATION AND OTHERWISE PROTECT ONSITE WETLANDS WHICH ARE TO BE RETAINED. THE BASIC PRINCIPLES DESCRIBED HEREIN ARE INTENDED TO DEFINE THE DEVELOPER'S INTENT AND REQUIRE THE CONTRACTOR TO SATISFY THE SPECIFIC REQUIREMENTS OF GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
 02. THE SCHEDULING, SEQUENCING AND CONTROL MEASURES, WHICH ARE OUTLINED HEREIN, ARE SUBJECT TO FINAL DEFINITION BY THE CONTRACTOR WHO WILL BE RESPONSIBLE FOR IMPLEMENTATION AND COMPLIANCE.
 03. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A CONSTRUCTION SCHEDULE DEPICTING EACH PHASE OF THE WORK. THE CONTRACTOR SHALL ALSO BE REQUIRED TO SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN TO THE OWNER, THE ENGINEER AND COUNTY ENCOMPASSING THE CONTRACTOR'S EXACT PLAN OF IMPLEMENTING THE PRINCIPLES AND THE REQUIREMENTS DESCRIBED HEREIN. NO CONSTRUCTION CAN BEGIN UNTIL SAID PLAN HAS BEEN APPROVED BY THE COUNTY.
 04. DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE AGAINST POLLUTING, SILTATION OR DISTURBANCE TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE ADJACENT WATER BODIES, IN COMPLIANCE WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES.
 05. EROSION CONTROL METHODS SHALL INCLUDE TEMPORARY CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, SILT SCREENS, TURBIDITY BARRIERS OR THEIR BEST MANAGEMENT PRACTICE AVAILABLE TO THE INDUSTRY.
 06. EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE MAINTAINED BY CONTRACTOR THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL NEW VEGETATIVE GROWTH HAS BEEN ESTABLISHED.
 07. THROUGHOUT THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL DAILY INSPECT PROTECTIVE INSTALLATIONS FOR FAILURES OR SIGNS OF FAILURE OR MALFUNCTION AND EFFECT REPAIRS OR REPLACEMENT IMMEDIATELY UPON DISCOVERY.
08. THE RECOMMENDED GENERAL SEQUENCE OF CONSTRUCTION FOR ALL BASINS IS AS FOLLOWS:
 - A. PLACEMENT OF PERIMETER PROTECTIVE MEASURES (SILT FENCE, HAY BALES, ETC.) AT POINTS OF OFFSITE DISCHARGE AND AROUND WORK AREAS.
 - B. REROUTE RUNOFF FROM AREAS OUTSIDE OF THE DEVELOPMENT AREA TO MINIMIZE FLOW THROUGH AREAS TO BE DISTURBED BY CONSTRUCTION. BERMS, SWALES AND OTHER MEANS USED FOR SUCH CONVEYANCE SHALL BE VEGETATED AND MEASURES TAKEN TO PROVIDE PROTECTION UNTIL STABILIZATION HAS BEEN ESTABLISHED.
 - C. SELECT LOCATIONS FOR PLACEMENT OF MATERIAL, WHETHER SUITABLE FOR FILL OR UNSUITABLE, AND CONSTRUCT CONTAINMENT BERMS AROUND THE AREA. THE USE OF STRIPPINGS FOR THIS PURPOSE MAY ACCELERATE BERM REVEGETATION. CONSTRUCT TEMPORARY OUTLETS FROM CONTAINMENT AREAS WITH SCREENS, HAY BALES, SETTLING BASINS OR OTHER MEASURES TO PREVENT SILT TRANSPORT.
 - D. SELECT/DESIGNATE ACCESS ROUTING FOR CONSTRUCTION EQUIPMENT AND VEHICLES AND PROVIDE PERIMETER PROTECTIVE MEASURES WHERE EXISTING TERRAIN WILL BE SUBJECT TO DISRUPTION BY SUCH TRAFFIC.
 - E. IF REQUIRED, CONSTRUCT ABOVE GROUND OR OTHER CONTAINMENT AREAS FOR CONSTRUCTION AREA RUNOFF. PROVIDE SCREENS, HAY BALES, ETC. TO FILTER DISCHARGE FROM THESE AREAS.
 - F. GRASSING, SODDING, ETC. SHALL BE IN PLACE IMMEDIATELY UPON COMPLETION OF DISTURBED AREAS WITHIN PROJECT AREA.
 - G. IN ANY EVENT, CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING ANY AND ALL MEASURES ARE TAKEN TO COMPLY WITH LOCAL, STATE, FEDERAL AND OWNER REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION.



DONALD W. MCINTOSH ASSOCIATES, INC.
 CERTIFICATE OF AUTHORIZATION NO. 68
 JOHN T. TOWNSEND
 FLORIDA P.E. NO. 59127
 DATE:

NO.	DATE	PER COUNTY COMMENTS OF	JTT	CHK.
1	7/31/17	PER COUNTY COMMENTS OF 6/27/17	JTT	CHK.

DONALD W. MCINTOSH ASSOCIATES, INC.
 ENGINEERS PLANNERS SURVEYORS
 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068

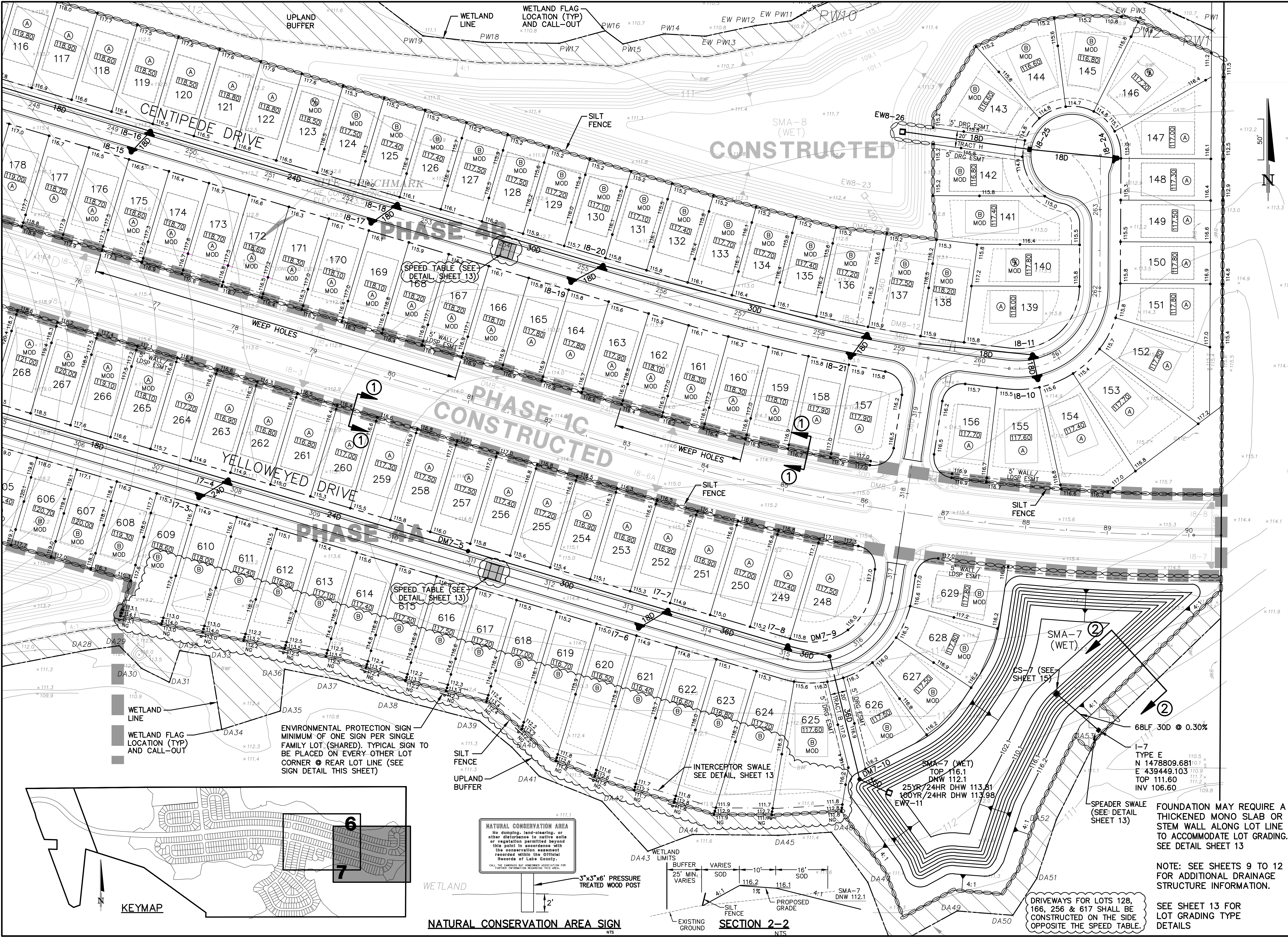
DESIGNED BY: JTT
 CHECKED BY: JTT
 DATE: 5/19/17
 SCALE: 1"=250'
 JOB NUMBER: 24018

SAWGRASS BAY - PHASE 4A & 4B
 LAKE COUNTY, FLORIDA
STORMWATER MANAGEMENT PLAN

DRAWING: 24018-Storm.dwg
 SHEET: 5 OF 21

PROJECT: SAWGRASS BAY - PHASE 4A & 4B
 SHEET TITLE: G&D PLAN
 DWG FILE NAME: 24018-GD.dwg
 XREF FILE NAME: 24018-4-Bases.dwg

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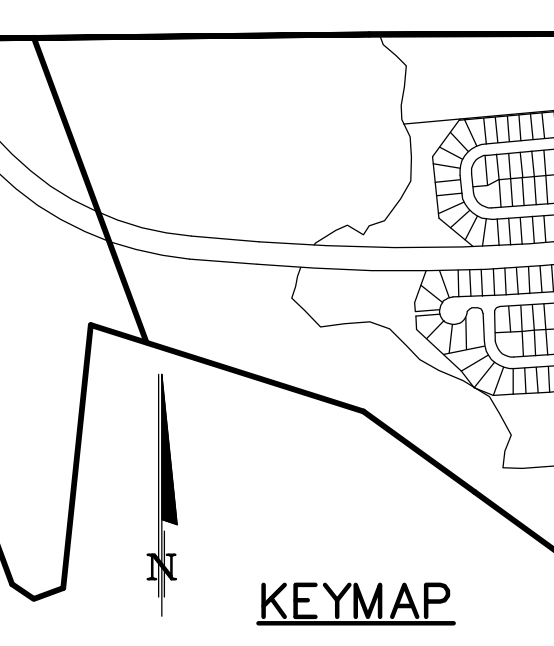


DONALD W. MCINTOSH ASSOCIATES, INC.
 ENGINEERS
 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068

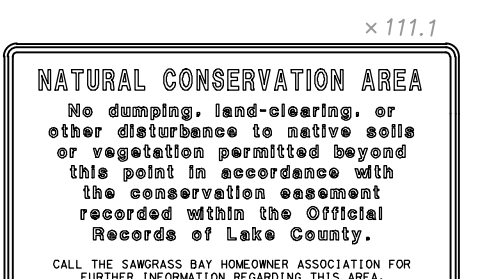
PLANNERS SURVEYORS
 JOB NUMBER 24018
 SCALE 1"=50'

SAWGRASS BAY - PHASE 4A & 4B
 LAKE COUNTY, FLORIDA
 GRADING & DRAINAGE PLAN

DATE 5/19/17
 CHECKED BY JTT
 DESIGNED BY RRO
 DRAWN BY CWS/EJT
 PER COUNTY COMMENTS OF 6/27/17
 DATE 7/31/17
 NO. 1
 DESCRIPTION
 REVISIONS
 JTT
 CHK.
 DATE
 NO.
 DESCRIPTION
 REVISIONS
 DONALD W. MCINTOSH ASSOCIATES, INC.
 CERTIFICATE OF AUTHORIZATION NO. 68
 JOHN T. TOWNSEND
 FLORIDA P.E. NO. 59127



ENVIRONMENTAL PROTECTION SIGN
 MINIMUM OF ONE SIGN PER SINGLE FAMILY LOT (SHARED). TYPICAL SIGN TO BE PLACED ON EVERY OTHER LOT CORNER @ REAR LOT LINE (SEE SIGN DETAIL THIS SHEET)



NATURAL CONSERVATION AREA SIGN

SECTION 2-2

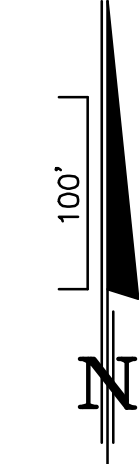
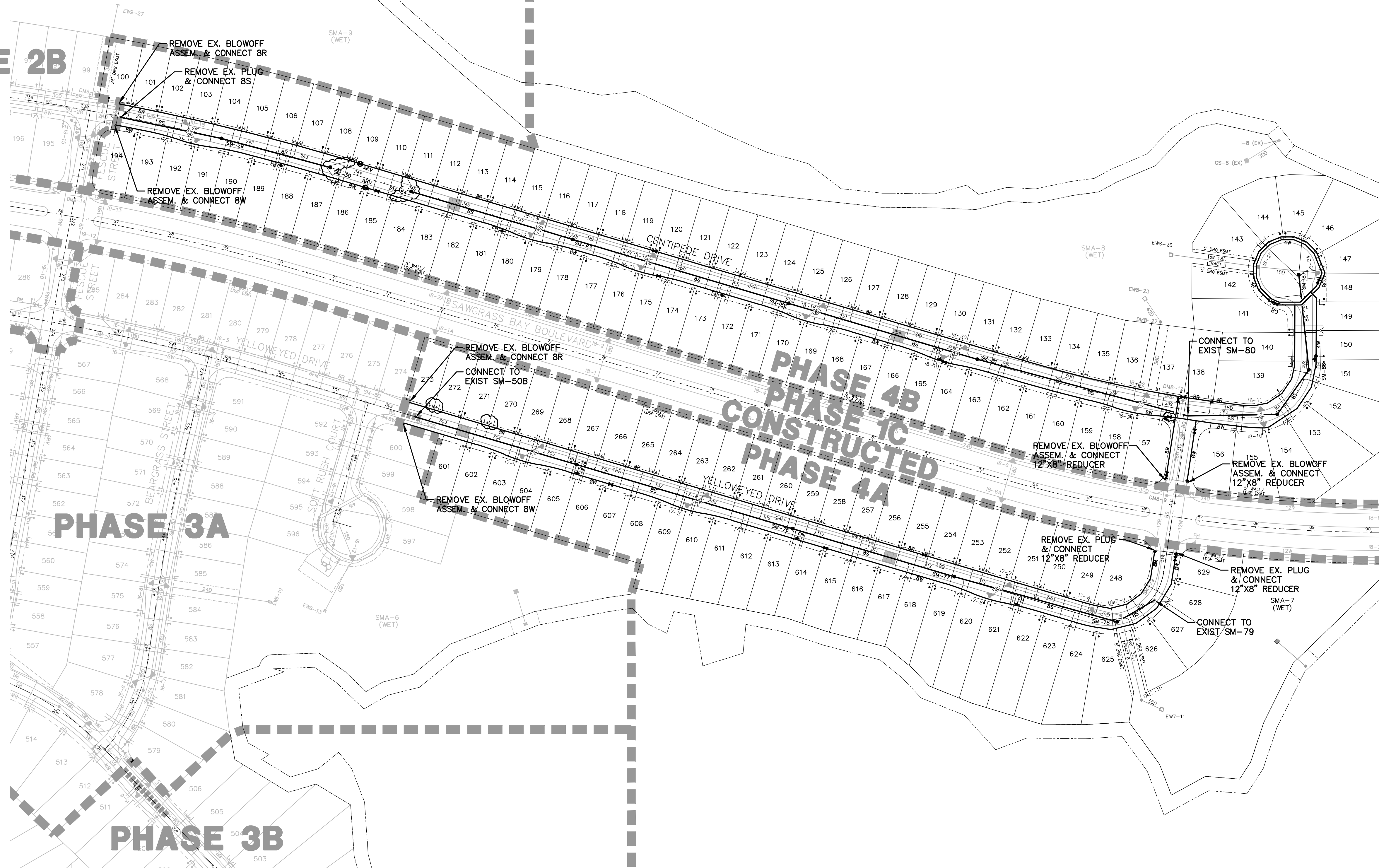
DRIVEWAYS FOR LOTS 128, 166, 256 & 617 SHALL BE CONSTRUCTED ON THE SIDE OPPOSITE THE SPEED TABLE.

FOUNDATION MAY REQUIRE A THICKENED MONO SLAB OR STEM WALL ALONG LOT LINE TO ACCOMMODATE LOT GRADING. SEE DETAIL SHEET 13.
 NOTE: SEE SHEETS 9 TO 12 FOR ADDITIONAL DRAINAGE STRUCTURE INFORMATION.
 SEE SHEET 13 FOR LOT GRADING TYPE DETAILS

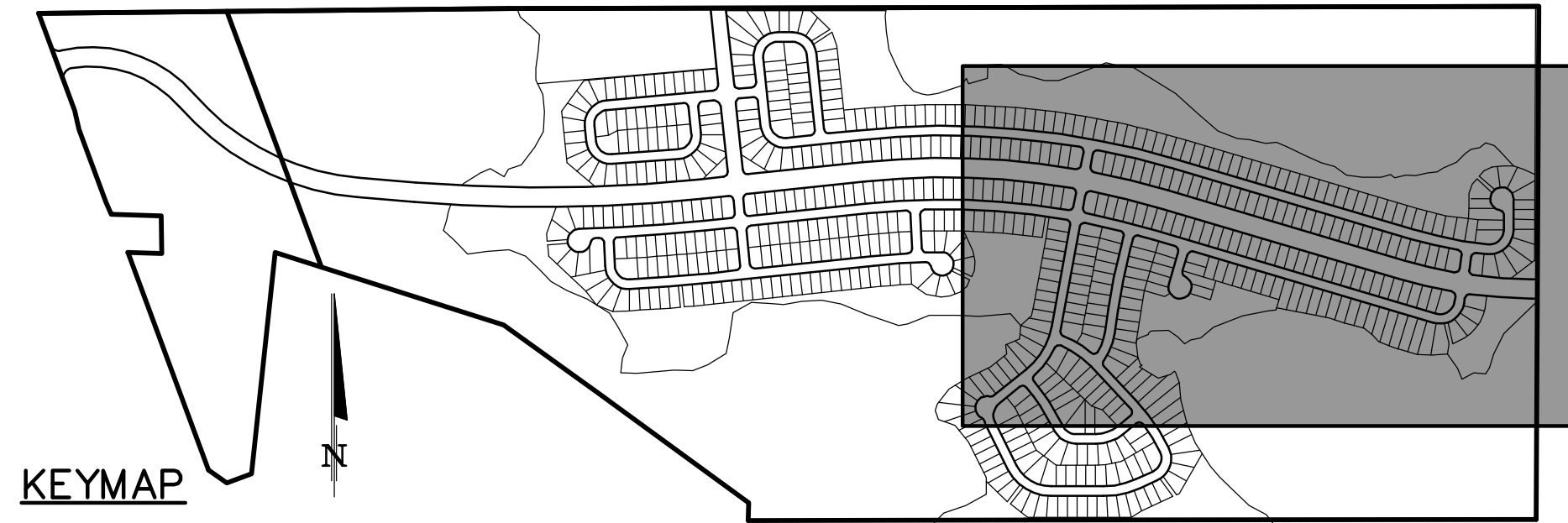
PROJECT: SAWGRASS BAY - PHASE 4A, 4B
 SHEET TITLE: W&S PLAN
 DWG FILE NAME: 24018-WS.dwg
 XREF FILE NAME: 24018-4-Bases.dwg

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PHASE 2B



ALL PRESSURE LINES UNDER PAVEMENT
 MUST BE ENCASED OR D.I.P.

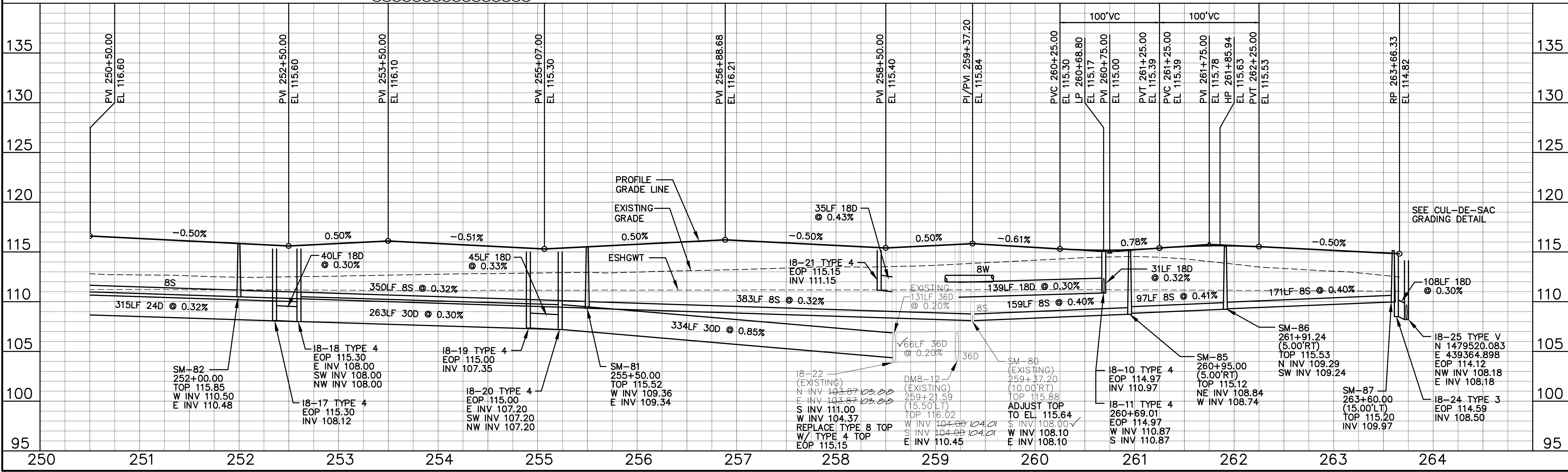
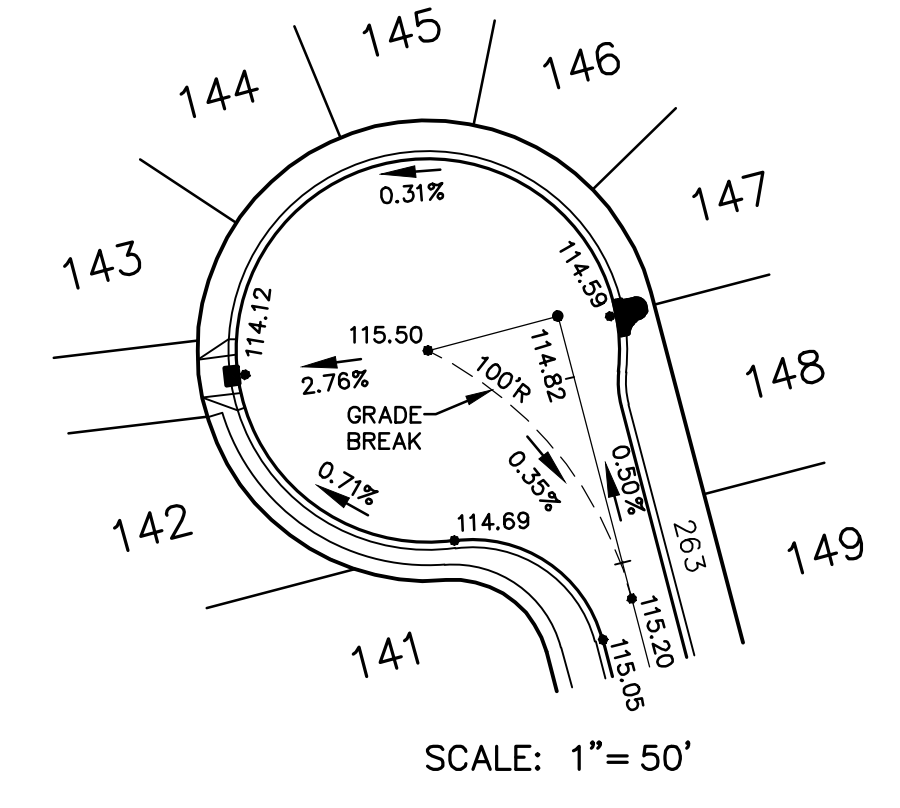
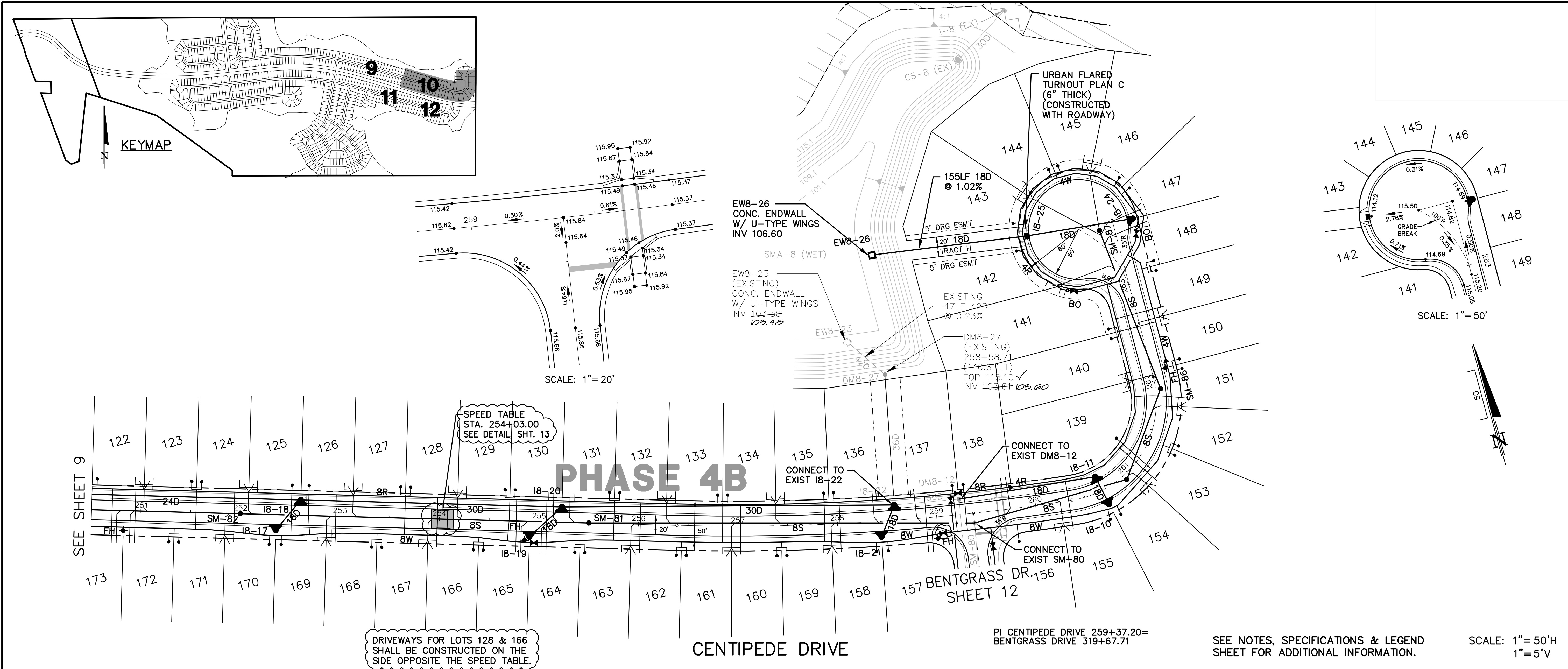


DRAWING 24018-WS.dwg SHEET 8 OF 21	SAWGRASS BAY - PHASE 4A & 4B LAKE COUNTY, FLORIDA WATER, SEWER & REUSE PLAN		DONALD W. MCINTOSH ASSOCIATES, INC. ENGINEERS PLANNERS SURVEYORS 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068	JOB NUMBER 24018	SCALE 1"=100'	DATE 5/19/17	CHECKED BY JTT	DESIGNED BY JTT	DRAWN BY CWG/EJT
	NO. 1	DATE 7/28/17		DESCRIPTION COMMENTS OF 7/28/17	CHK. JTT	REVISIONS			

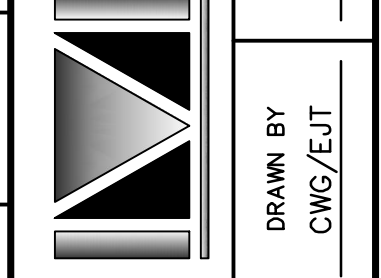
DONALD W. MCINTOSH ASSOCIATES, INC. CERTIFICATE OF AUTHORIZATION NO. 68
 JOHN T. TOWNSEND FLORIDA P.E. NO. 52127
 DATE:

PROJECT: SAWGRASS BAY - PHASE 4A & 4B
 SHEET TITLE: CENTIPEDE DRIVE
 DWG FILE NAME: 24018-PP.dwg
 XREF FILE NAME: 24018-4-Bases.dwg

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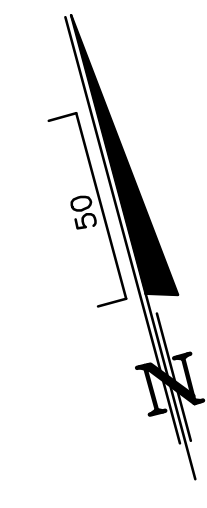
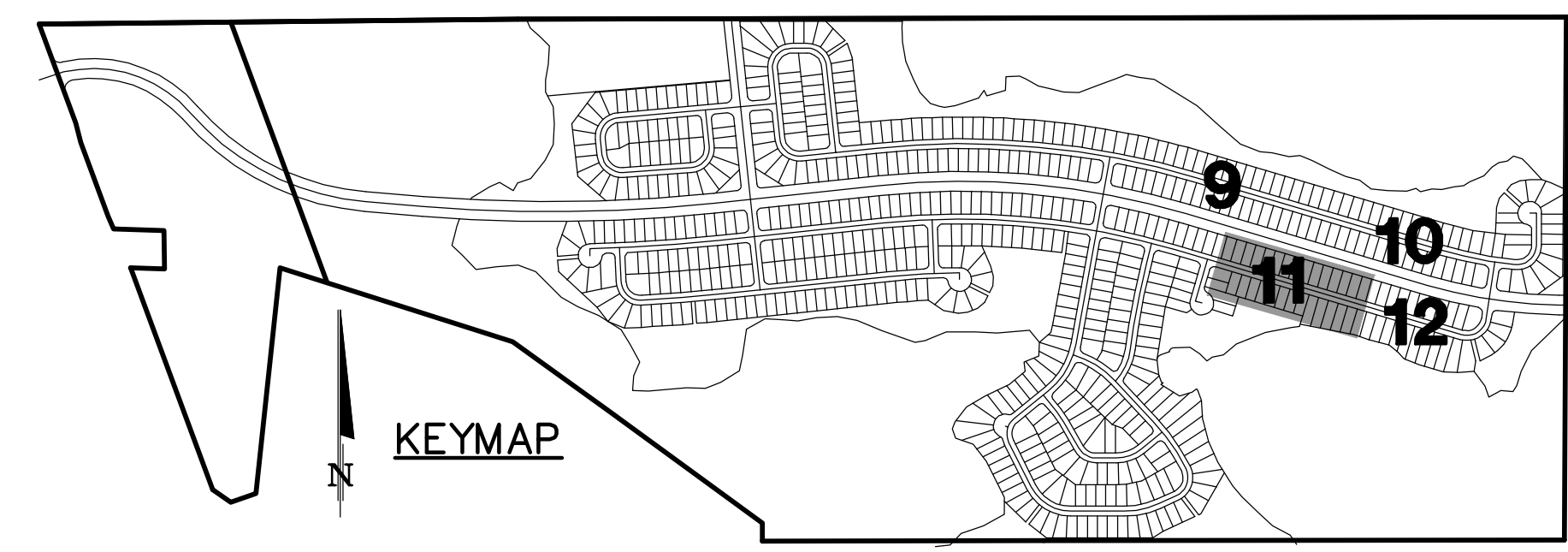
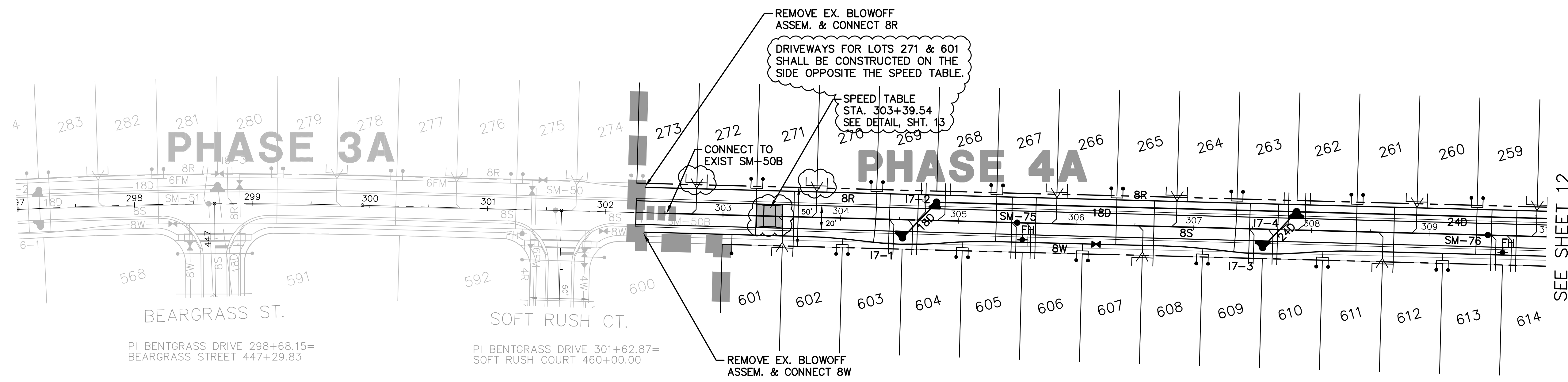


DONALD W. MCINTOSH ASSOCIATES, INC. ENGINEERS		PLANNERS SURVEYORS	
2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068		JOB NUMBER 24018	
DRAWN BY CWS/EJT	CHECKED BY JTT	DATE 5/19/17	SCALE 1"=50'H/1"=5'V
DESIGNED BY RRO		PER COUNTY COMMENTS OF 6/27/17	
DRAWING 24018-PP.dwg		SHEET 10 OF 21	
SAWGRASS BAY - PHASE 4A & 4B LAKE COUNTY, FLORIDA PLAN & PROFILE CENTIPEDE DRIVE			
DONALD W. MCINTOSH ASSOCIATES, INC. CERTIFICATE OF AUTHORIZATION NO. 68		JOHN T. TOWNSEND FLORIDA P.E. NO. 52127	
1		7/31/17	
1		7/28/17	
1		6/27/17	
NO.		DATE	
DESCRIPTION		REVISIONS	
1		PER COUNTY COMMENTS OF 6/27/17	
1		PER COUNTY COMMENTS OF 6/27/17	
1		PER COUNTY COMMENTS OF 6/27/17	
NO.		DATE	
DESCRIPTION		REVISIONS	



PROJECT: SAWGRASS BAY - PHASE 4A & 4B
 SHEET TITLE: YELLOWEYED DRIVE
 DWG FILE NAME: 24018-PP.dwg
 XREF FILE NAME: 24018-4-Bases.dwg

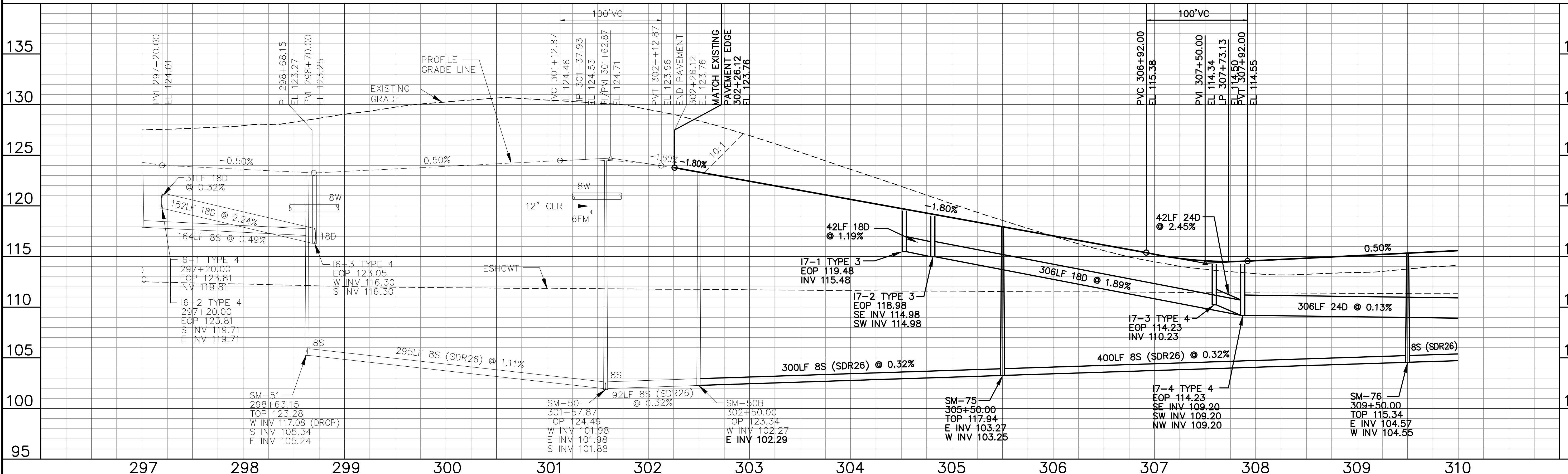
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YELLOWEYED DRIVE

SEE NOTES, SPECIFICATIONS & LEGEND SHEET FOR ADDITIONAL INFORMATION.

SCALE: 1" = 50'H
 1" = 5'V

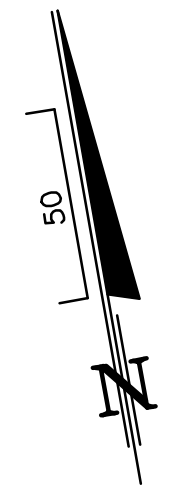
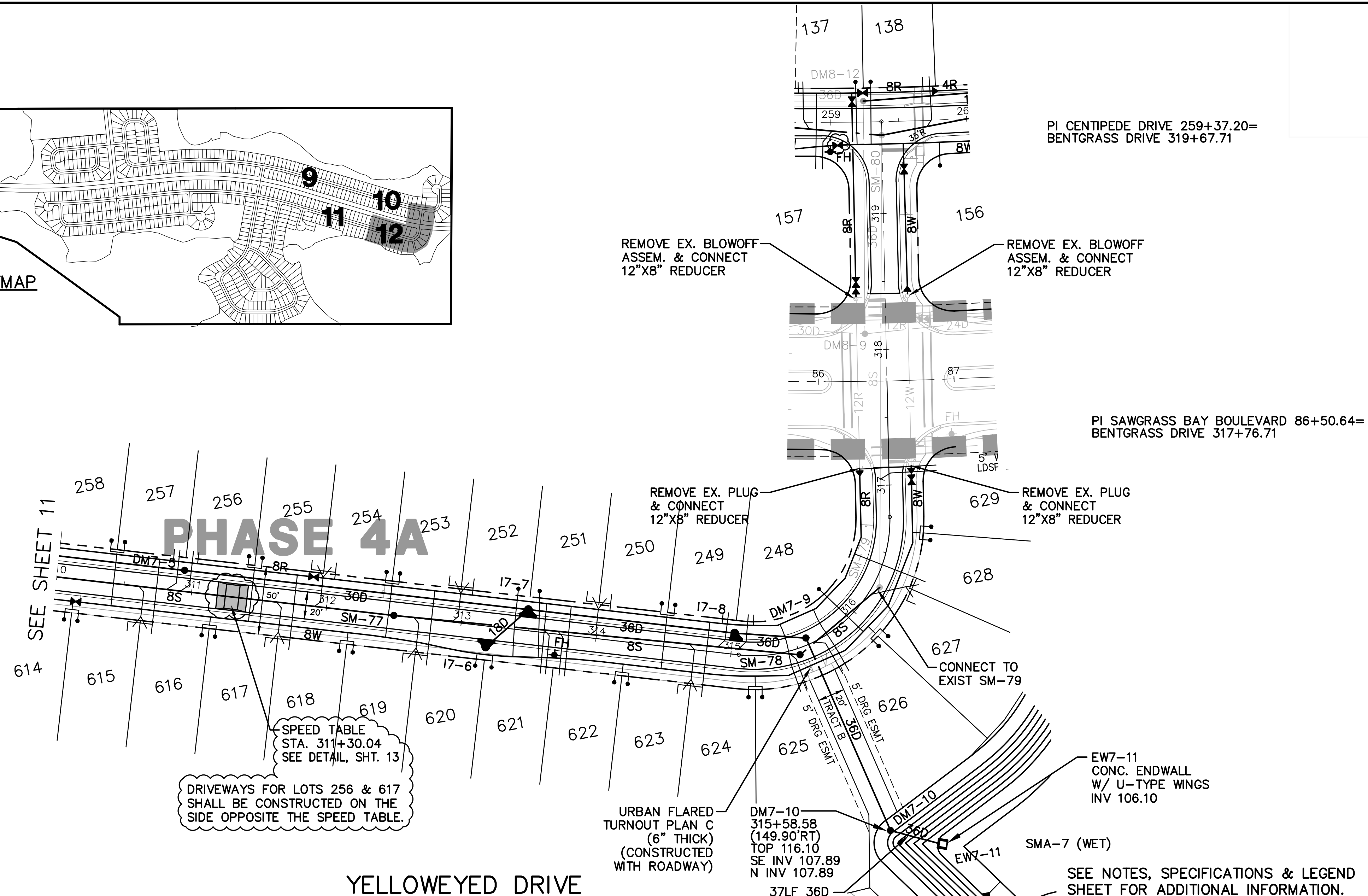
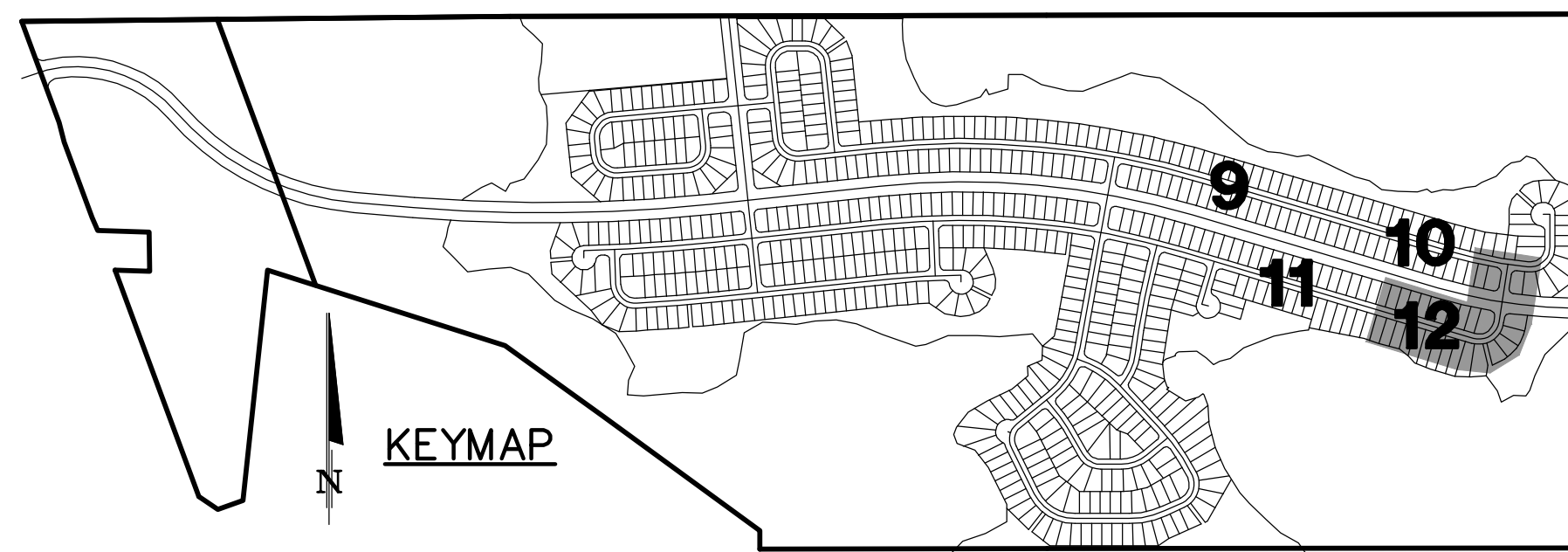


SEE SHEET 12

DONALD W. MCINTOSH ASSOCIATES, INC. ENGINEERS 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068		JOB NUMBER 24018
SAWGRASS BAY - PHASE 4A & 4B LAKE COUNTY, FLORIDA PLAN & PROFILE YELLOWEYED DRIVE		SCALE 1" = 50'H / 1" = 5'V
DRAWN BY CWS/EJT	CHECKED BY JTT	DATE 5/19/17
DESIGNED BY RRO		PER COUNTY COMMENTS OF 6/27/17 JTT PER UTILITIES, INC. COMMENTS OF 7/28/17 JTT
SHEET 11 OF 21		REVISIONS NO. DATE DESCRIPTION 1 7/31/17 PER UTILITIES, INC. COMMENTS OF 7/28/17 JTT 2 PER COUNTY COMMENTS OF 6/27/17 JTT
DONALD W. MCINTOSH ASSOCIATES, INC. CERTIFICATE OF AUTHORIZATION NO. 68		JOHN T. TOWNSEND FLORIDA P.E. NO. 52127

PROJECT: SAWGRASS BAY - PHASE 4A & 4B
 SHEET TITLE: YELLOWEYED DRIVE
 DWG FILE NAME: 24018-PP.dwg
 XREF FILE NAME: 24018-4-Bases.dwg

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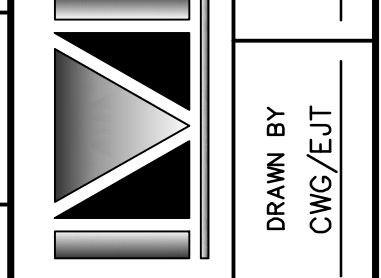


DONALD W. MCINTOSH ASSOCIATES, INC.
 CERTIFICATE OF AUTHORIZATION NO. 68
 JOHN T. TOWNSEND
 FLORIDA P.E. NO. 52127
 DATE:

NO.	DATE	PER COUNTY COMMENTS OF	JTT
1	7/31/17	PER COUNTY COMMENTS OF 6/27/17	JTT

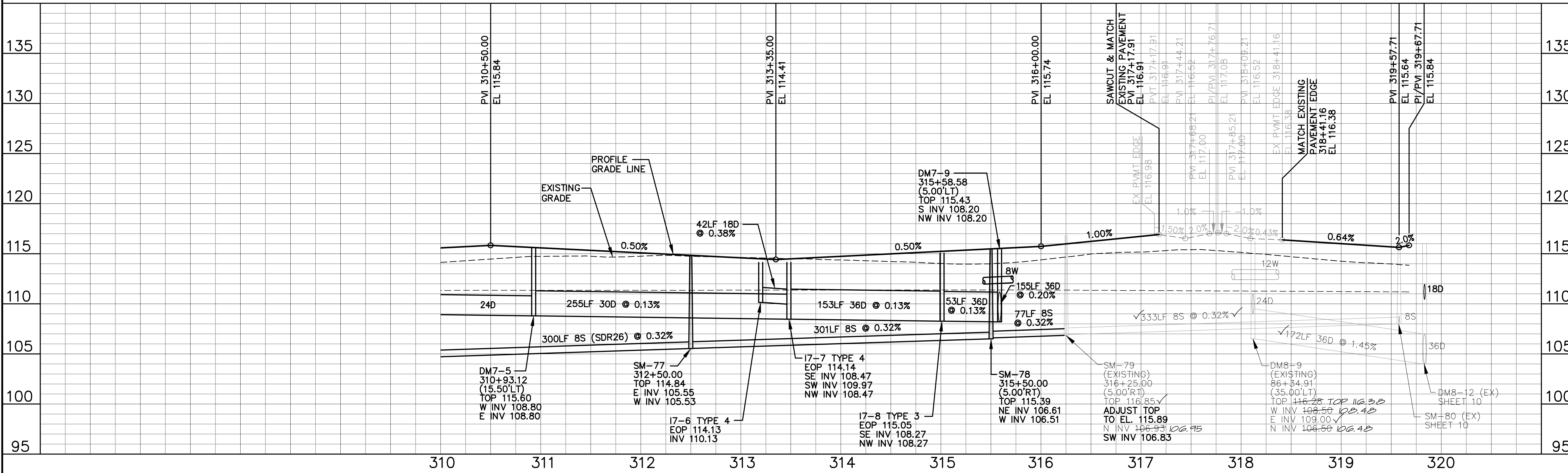
DONALD W. MCINTOSH ASSOCIATES, INC.
 ENGINEERS PLANNERS SURVEYORS
 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068

DESIGNED BY: RRO
 CHECKED BY: JTT
 DATE: 5/19/17
 SCALE: 1"=50'H/1"=5'V
 JOB NUMBER: 24018

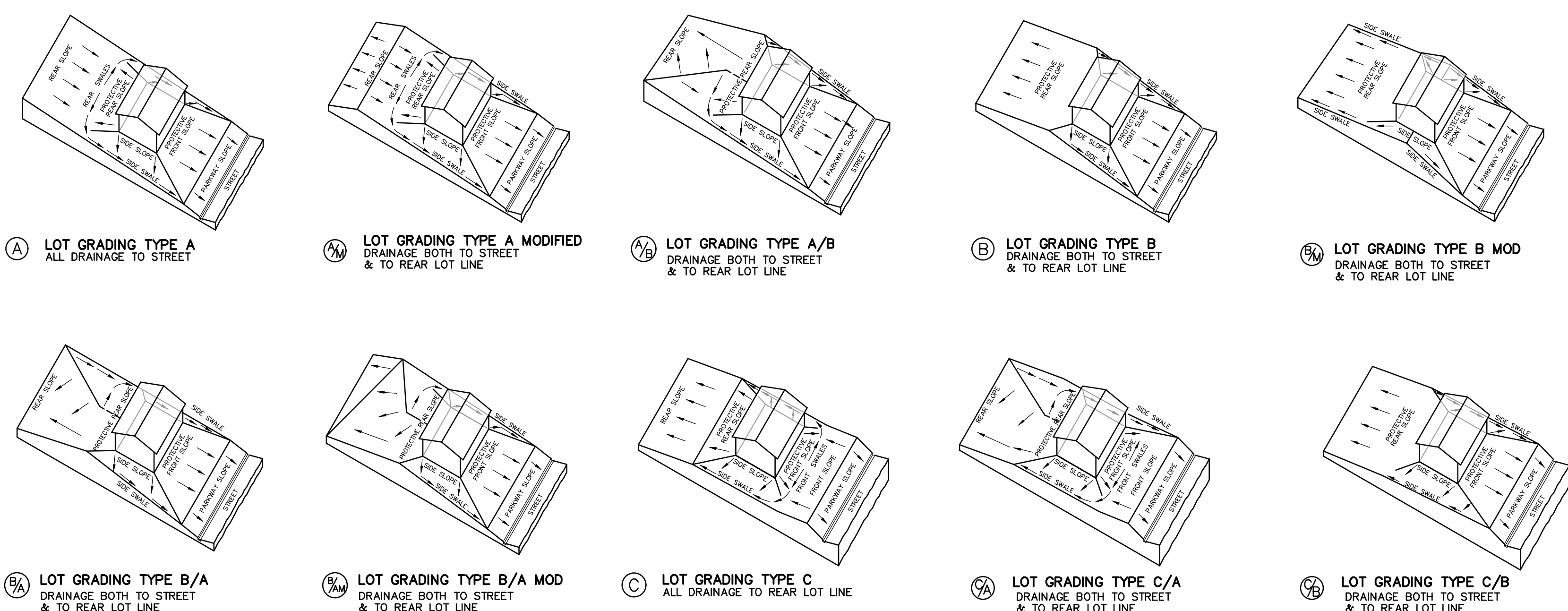


SAWGRASS BAY - PHASE 4A & 4B
 LAKE COUNTY, FLORIDA
PLAN & PROFILE
 YELLOWEYED DRIVE

DRAWING: 24018-PP.dwg
 SHEET: 12 OF 21

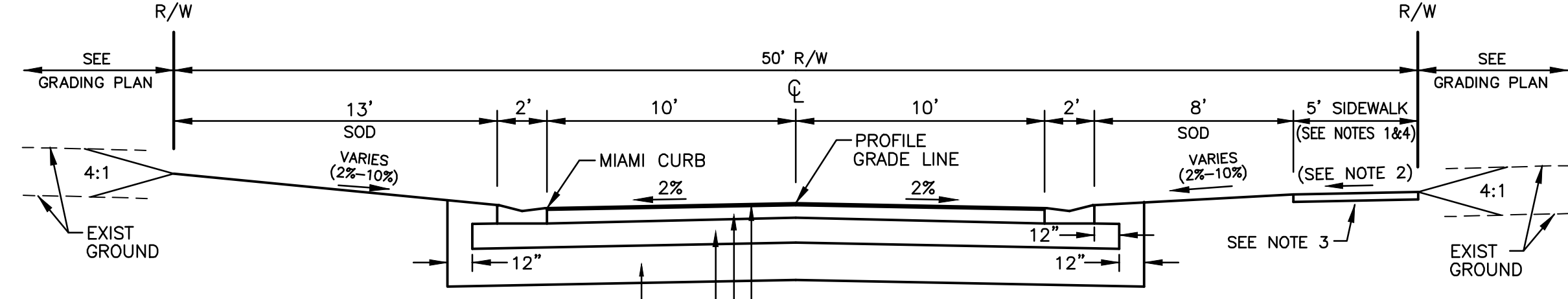


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LOT GRADING TYPE

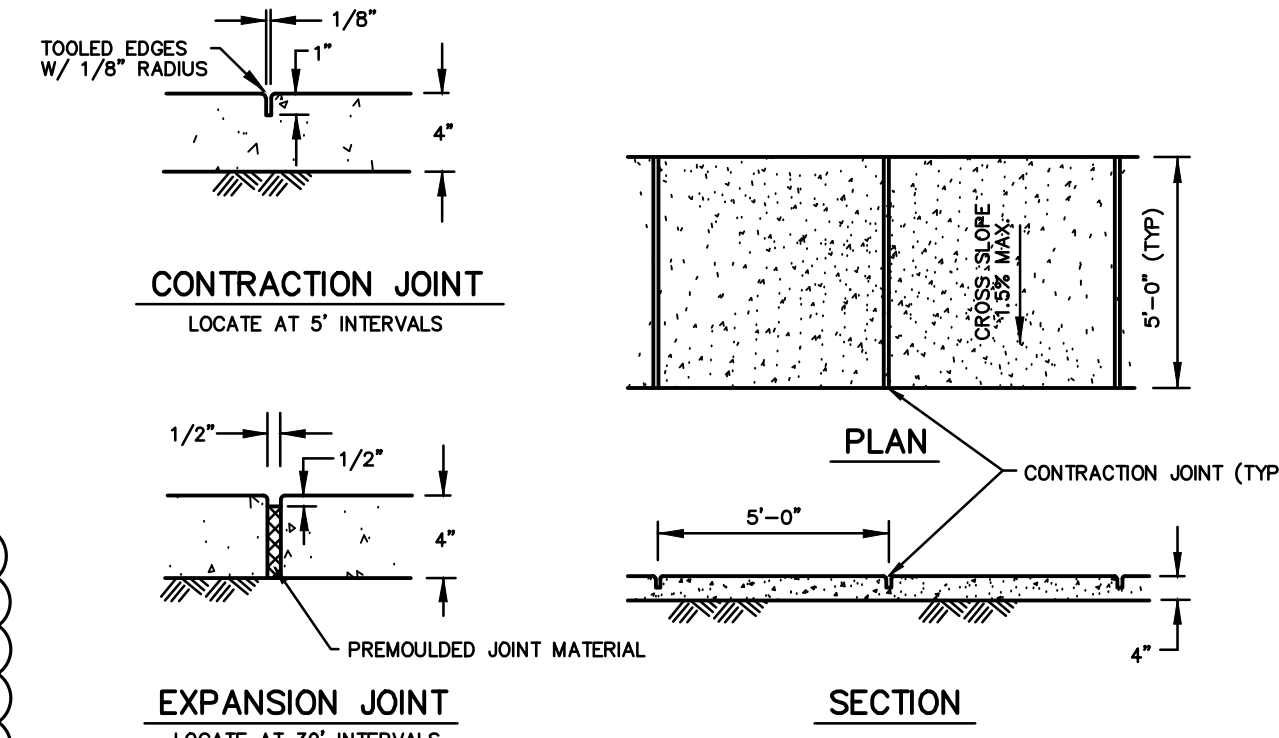
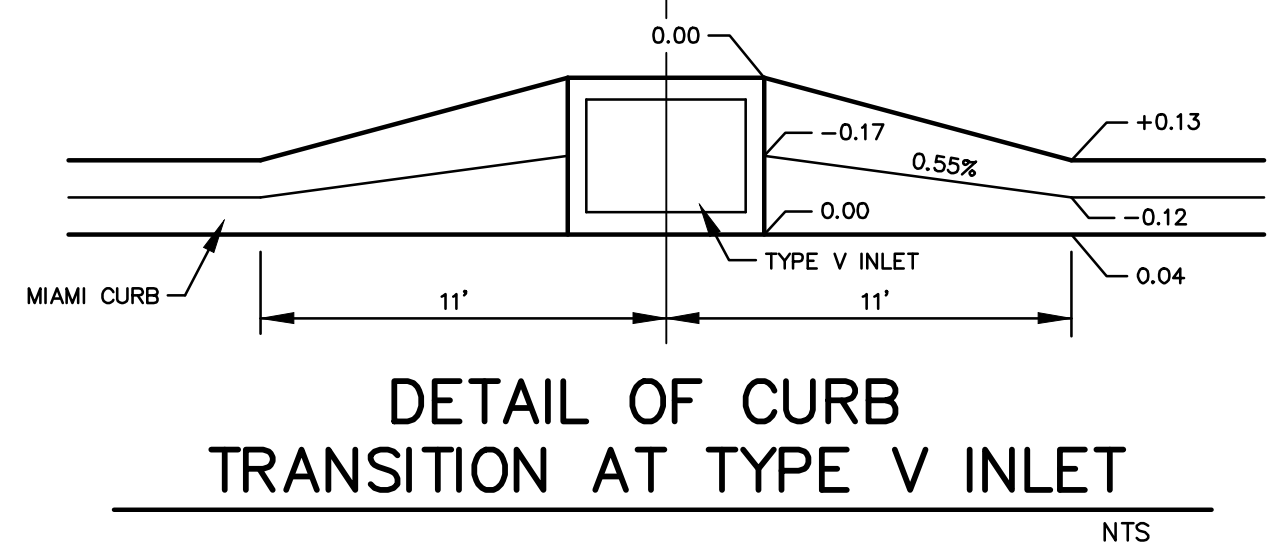
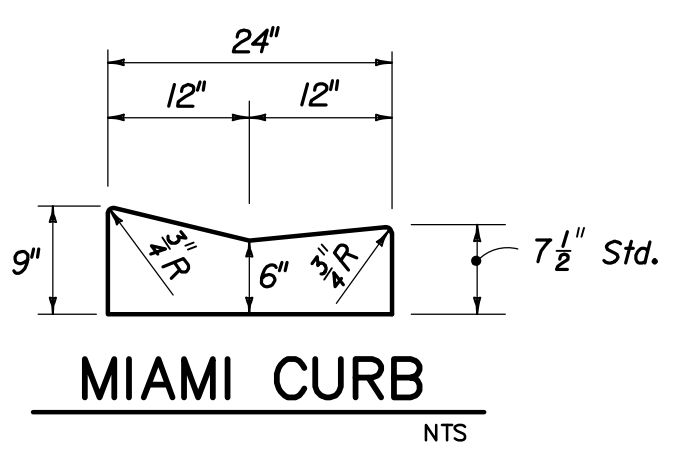
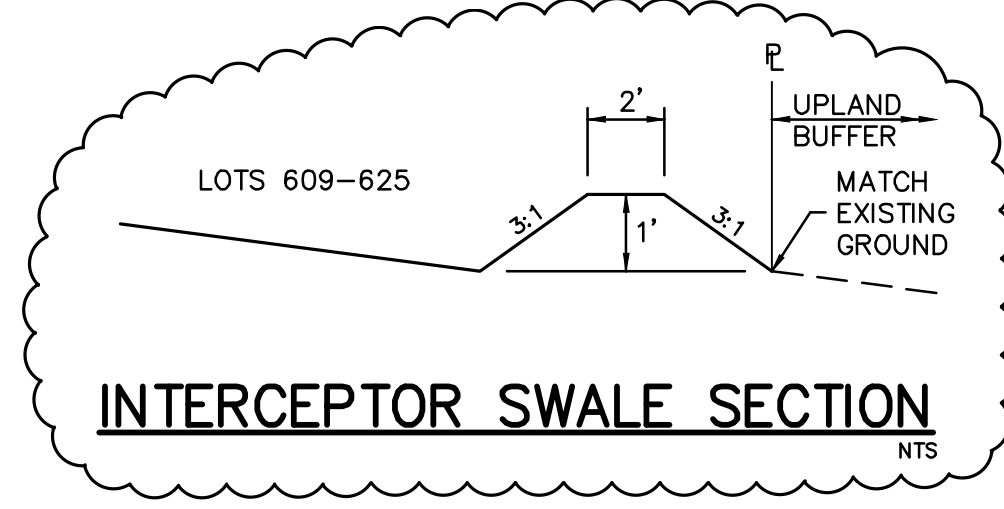
NOTE:
GRADING ON CORNER LOTS TO MAINTAIN PROTECTIVE SLOPE AND MATCH PROPOSED R/W GRADING ON LOT SIDE PARALLEL TO ROAD.



IF CLAYEY FINE SANDS ARE ENCOUNTERED THEY SHALL BE EXCAVATED TO 18 INCHES BELOW THE BOTTOM OF THE BASE TO THE LIMITS SHOWN. SUBGRADE SURFACE SHALL BE SCARIFIED AND BACKFILLED IN CONFORMANCE WITH THE GEOTECHNICAL REPORT REFERENCED IN THE GENERAL NOTES.

1.5" MIN. TYPE SP9.5 ASPHALTIC CONCRETE SURFACE COURSE (LAKE CO SPEC.)
 6" LIMEROCK BASE, COMPACTED TO 98% AASHTO T-180, PRIMED & SANDED L.B.R. 100
 12" SUBGRADE COMPACTED TYPE B TO 98% AASHTO T-180, STABILIZED TO 40 LBR

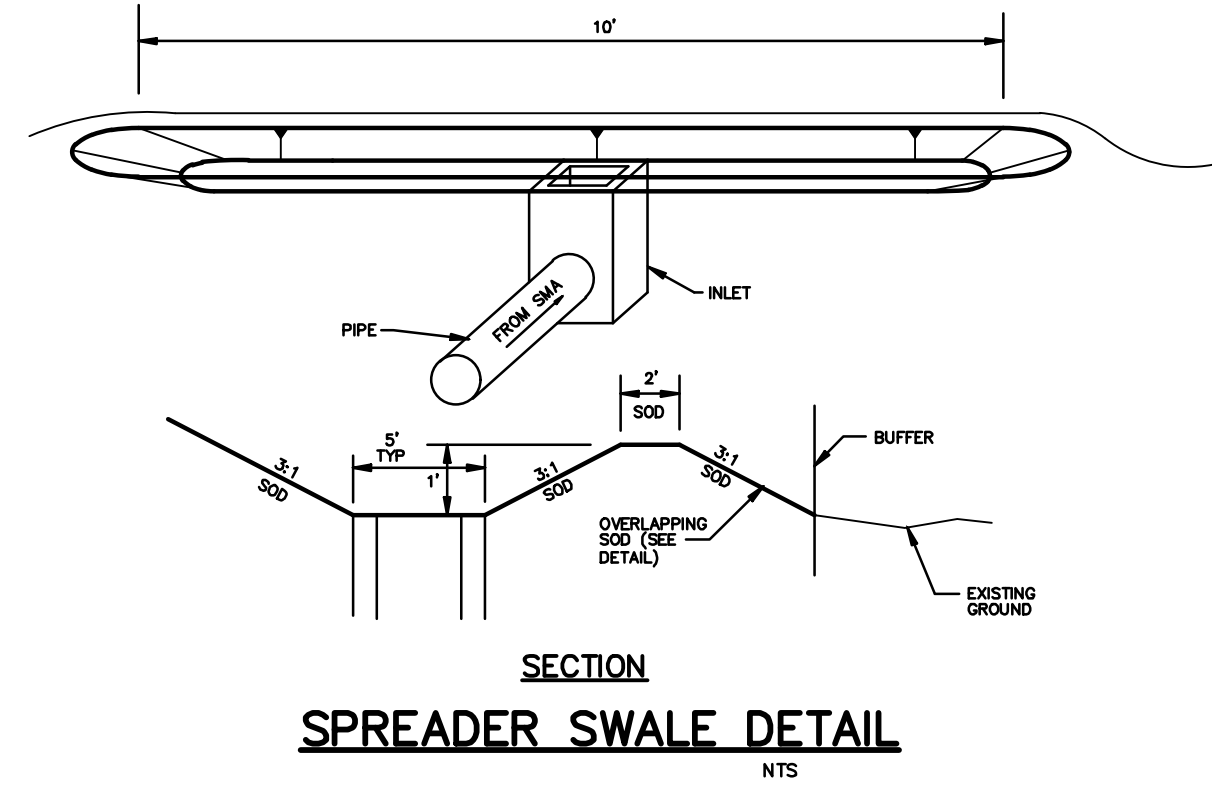
SIDEWALK NOTES
 (1) SEE SHEET 22 FOR LOCATION OF SIDEWALKS
 (2) SIDEWALK CROSS SLOPE-1.5% MAX.
 (3) 6" COMPACTED BASE, MIN. 95% AASHTO T-99
 (4) 3000 PSI CONCRETE WITH FIBER REINFORCEMENT



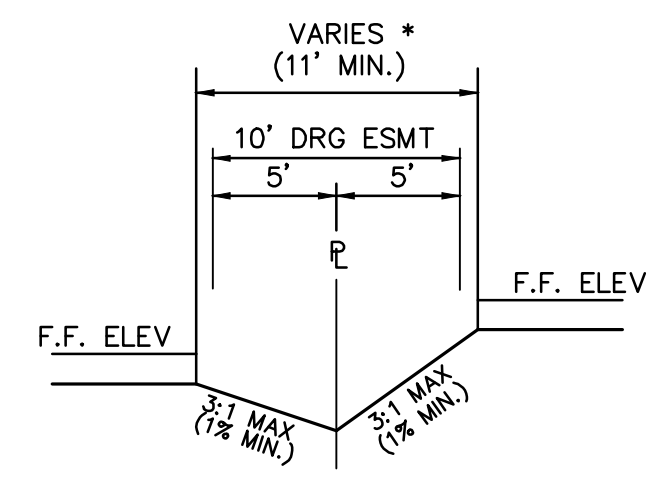
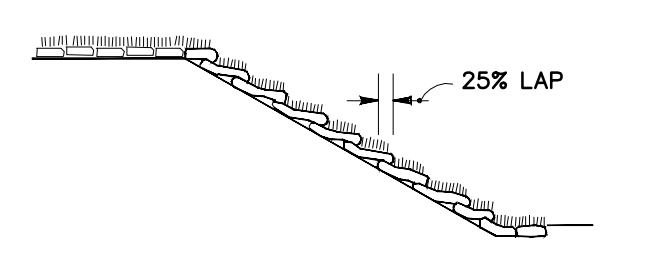
NOTE: ALL CONCRETE TO BE 3,000 PSI

APPLICABLE FDOT STANDARD DRAWINGS

INDEX #	DESCRIPTION
102	BALED HAY OR STRAW BARRIERS AND SILT FENCES
103	TURBIDITY BARRIERS
200	STRUCTURE BOTTOMS TYPES J AND P
201	SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS
210	CURB INLET TOPS TYPES 1, 2, 3 AND 4
232	DITCH BOTTOM INLETS TYPES C, D, E AND H
233	DITCH BOTTOM INLETS TYPES F AND G
266	WINGED CONCRETE END WALLS-SINGLE ROUND PIPE
273	SIDE DRAIN MITERED END SECTION
280	MISCELLANEOUS DRAINAGE DETAILS
300	CURB & CURB AND GUTTER
310	CONCRETE SIDEWALK
400	GUARDRAIL
452	FENCE - TYPE B
515	URBAN FLARED TURNOUT
600	TRAFFIC CONTROL THROUGH WORK ZONES
611	TWO LANE, TWO-WAY B RURAL TEMPORARY DETOUR DAY OR NIGHT OPERATIONS SPECIAL MARKING AREAS (PARKING)
17346	

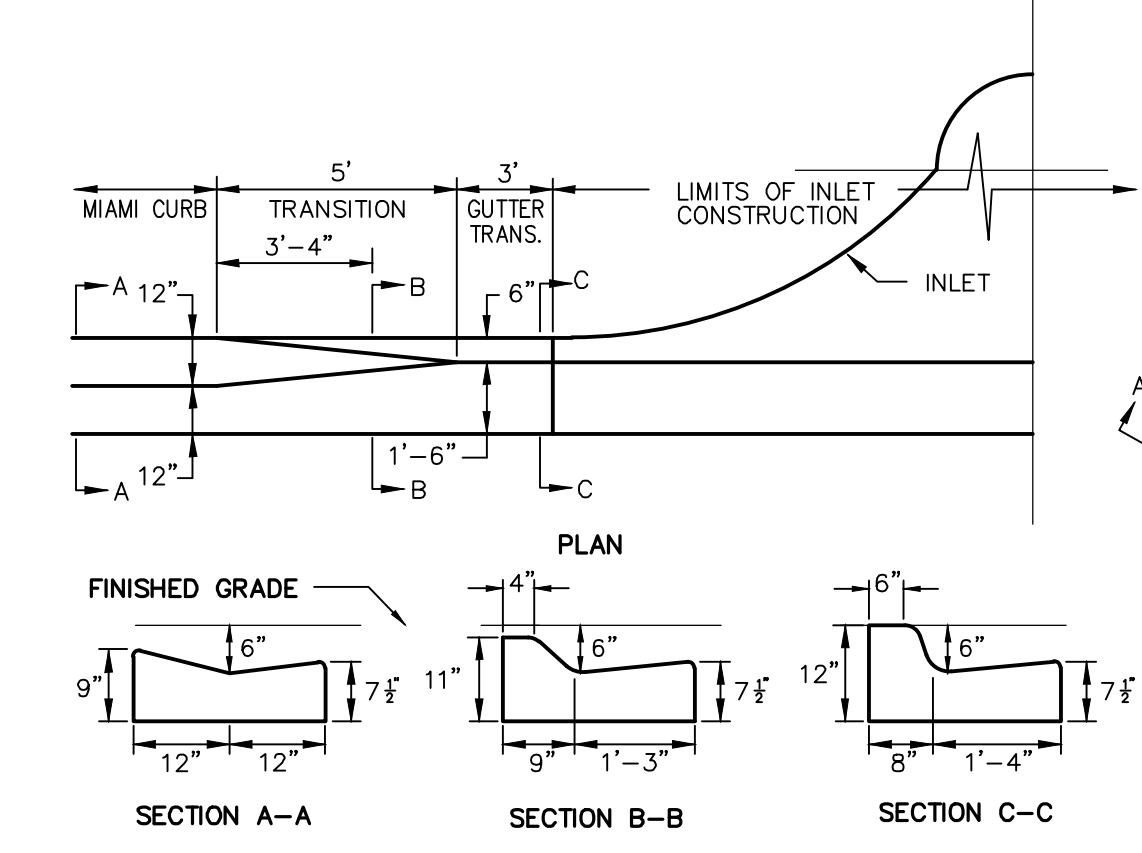


OVERLAPPING SOD DETAIL

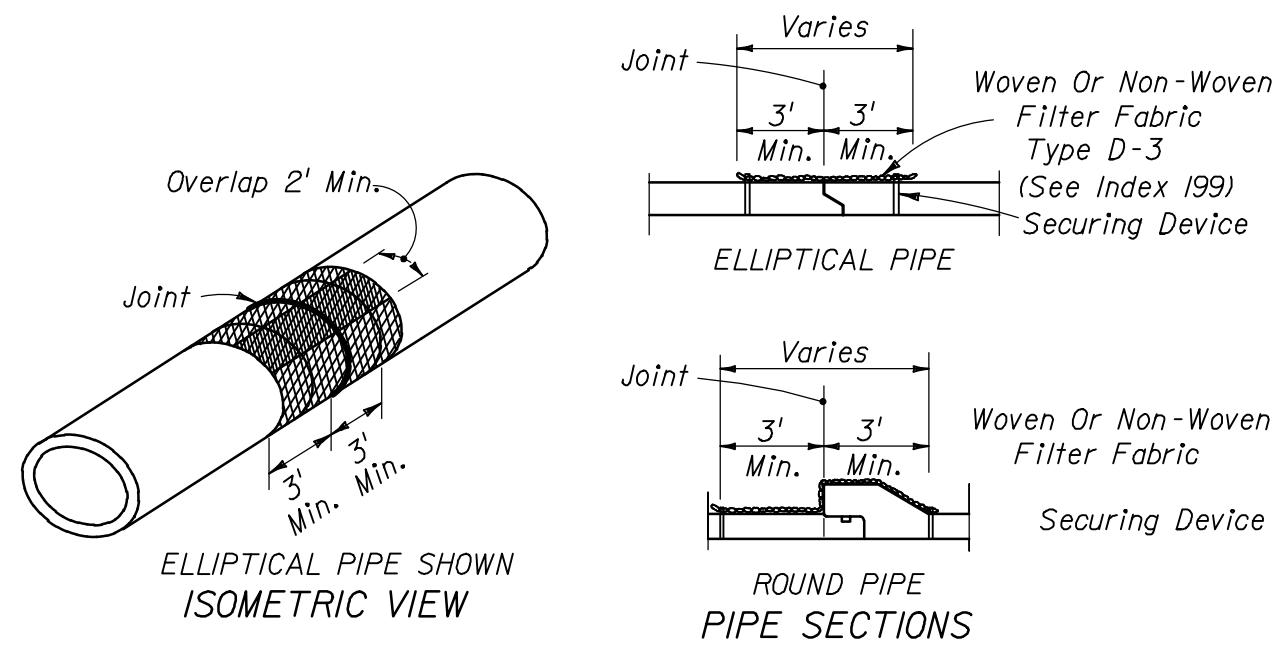


TYPICAL SIDE YARD SECTION

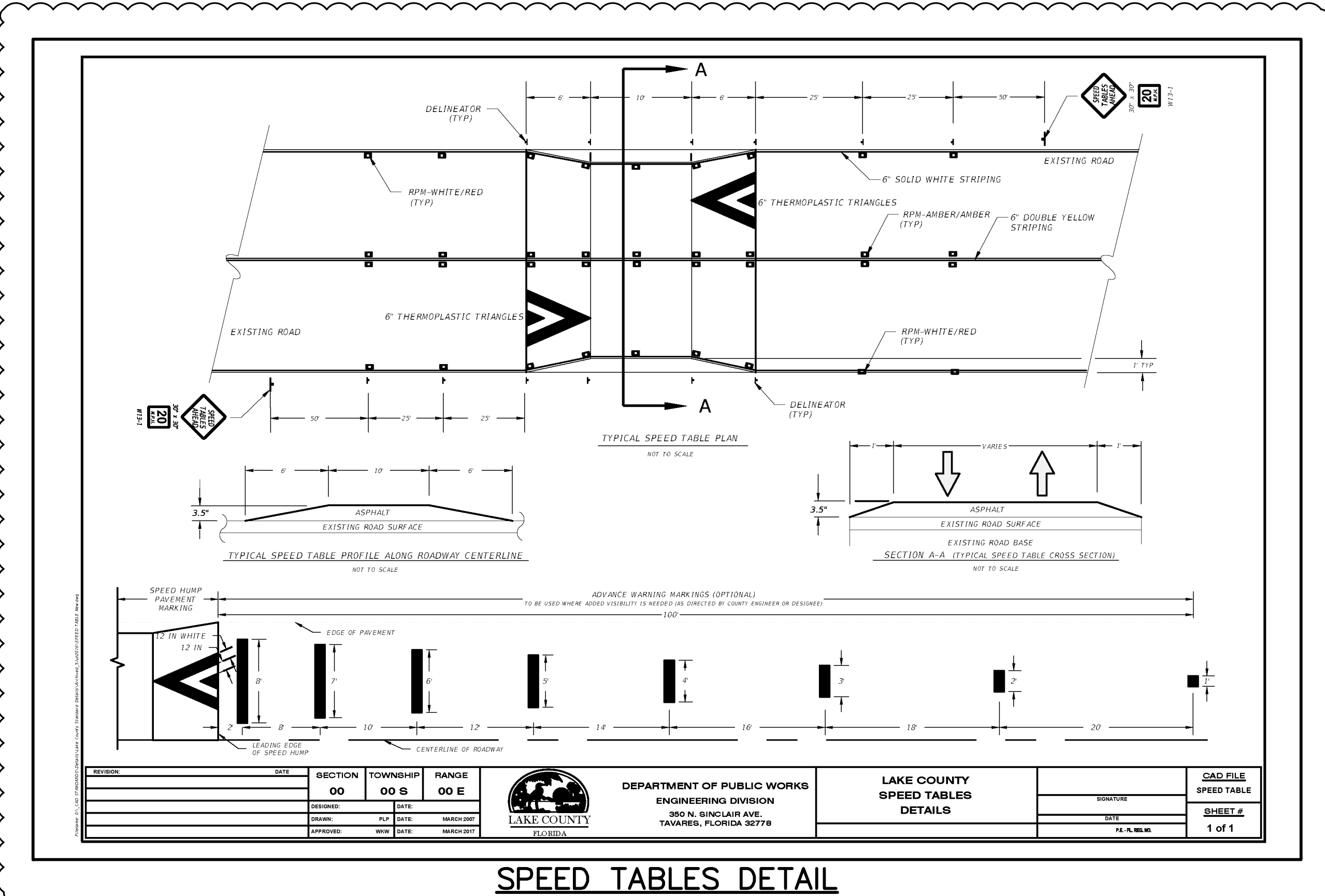
* NOTE:
ACTUAL SIDE YARD BUILDING SEPARATION IS TYPICALLY 12.5'-14 FEET (DUE TO ACTUAL CONSTRUCTED PAD WIDTH BEING LESS THAN THE PLANNED MAXIMUM WIDTH SHOWN HEREON). SIDE YARD GRADING WILL INCORPORATE, WHERE NECESSARY, RELOCATION OF A/C PADS TO REAR OF THE HOME. FOUNDATION MAY REQUIRE A THICKENED MONO SLAB OR STEM WALL ALONG LOT LINE WHERE SIDE YARD SLOPE EXCEEDS 3:1 TO BE DETERMINED ON A CASE BY CASE (I.E. LOT BY LOT) BASIS.



DETAIL OF CURB TRANSITION AT INLET



Cost of filter fabric jacket to be included in cost of pipe culverts.
 FOR ALL PIPE TYPES - CONCRETE PIPE SHOWN



NO.	DATE	PER COUNTY COMMENTS OF	DESCRIPTION	REVISIONS
1	7/31/17	6/27/17	JTT	CHK.

SECTION	TOWNSHIP	RANGE	DEPARTMENT OF PUBLIC WORKS	LAKE COUNTY SPEED TABLES DETAILS	CAD FILE SPEED TABLE
00	00 E	00 E	ENGINEERING DIVISION 300 N. BUNCLAIR AVE. TAVARES, FLORIDA 32778		

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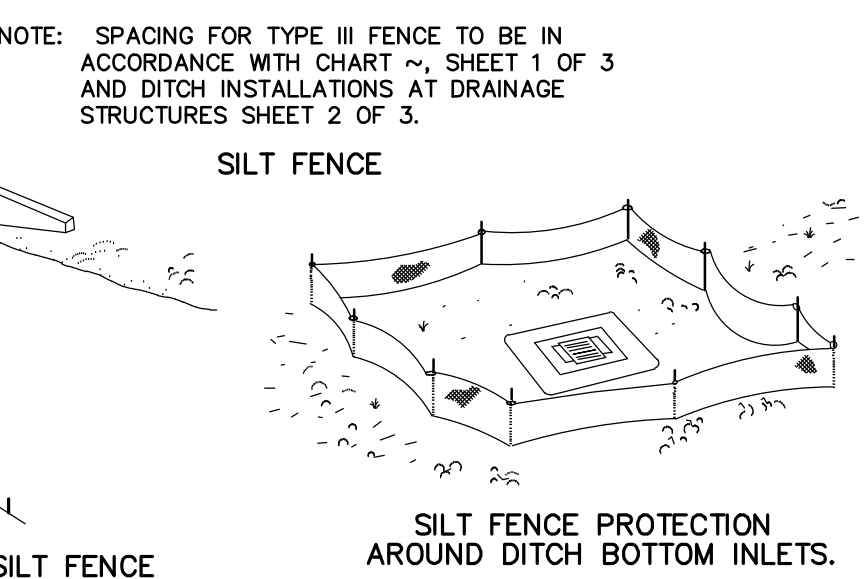
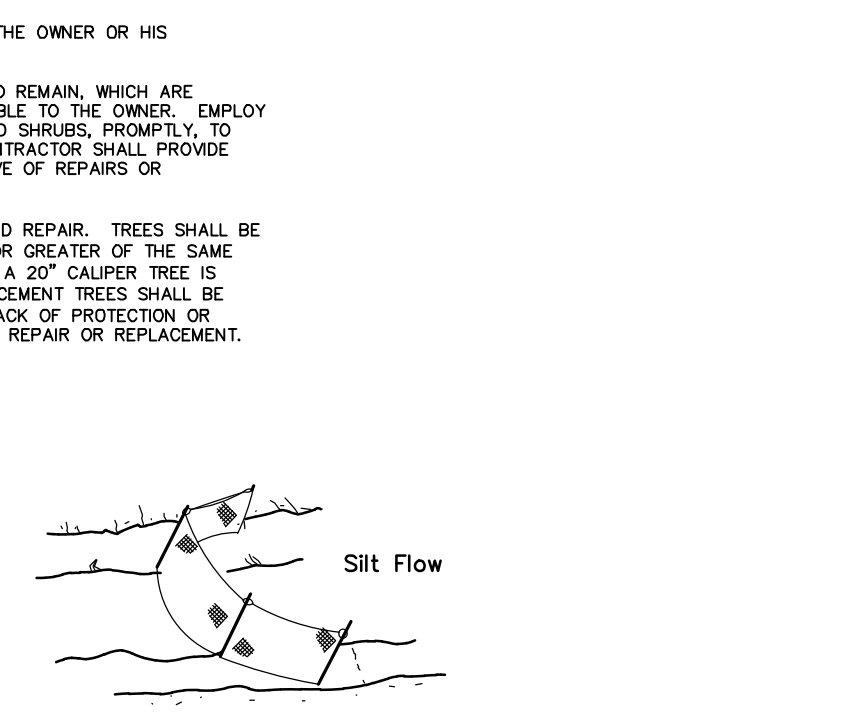
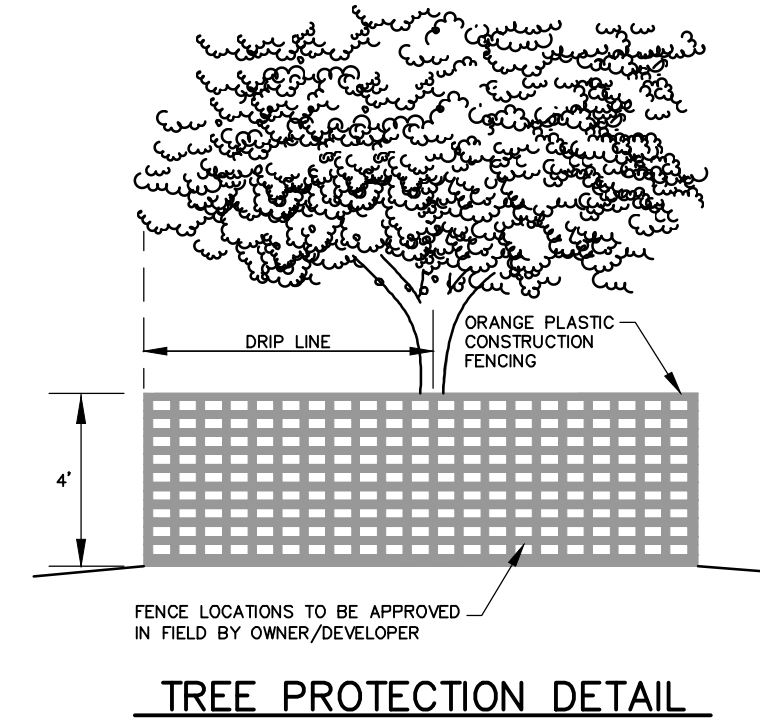
PROJECT: SAWGRASS BAY - PHASE 4A & 4B
 SHEET TITLE: EROSION CONTROL DETAILS
 DWG FILE NAME: F:\proj\2004\24018\EDWG\Phase 4\24018-Eros Dtl.dwg
 XREF FILE NAME:

EROSION AND SEDIMENT CONTROL NOTES:

01. BECAUSE OF THE PROJECT'S PROXIMITY TO ADJACENT LAKES AND WETLANDS, CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE EROSION, TO RETAIN SEDIMENT WHICH UNAVOIDABLY WILL RESULT FROM ON-SITE CONSTRUCTION ACTIVITIES, TO PREVENT SEDIMENTATION AND OTHERWISE PROTECT ON-SITE WETLANDS WHICH ARE TO BE RETAINED. THE BASIC PRINCIPLES DESCRIBED HEREIN ARE INTENDED TO DEFINE THE DEVELOPER'S INTENT AND REQUIRE THE CONTRACTOR TO SATISFY THE SPECIFIC REQUIREMENTS OF GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
02. THE SCHEDULING, SEQUENCING AND CONTROL MEASURES, WHICH ARE OUTLINED HEREIN, ARE SUBJECT TO FINAL DEFINITION BY THE CONTRACTOR WHO WILL BE RESPONSIBLE FOR IMPLEMENTATION AND COMPLIANCE.
03. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A CONSTRUCTION SCHEDULE DEPICTING EACH PHASE OF THE WORK. THE CONTRACTOR SHALL ALSO BE REQUIRED TO SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN TO THE OWNER, THE ENGINEER AND LAKE COUNTY ENCOMPASSING THE CONTRACTOR'S EXACT PLAN OF IMPLEMENTING THE PRINCIPLES AND THE REQUIREMENTS DESCRIBED HEREIN. NO CONSTRUCTION CAN BEGIN UNTIL SAID PLAN HAS BEEN APPROVED BY LAKE COUNTY.
04. DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE AGAINST POLLUTING, SILTATION OR DISTURBANCE TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE ADJACENT WATER BODIES IN COMPLIANCE WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES.
05. EROSION CONTROL METHODS SHALL INCLUDE TEMPORARY CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, SILT SCREENS, TURBIDITY BARRIERS OR THEIR BEST MANAGEMENT PRACTICE AVAILABLE TO THE INDUSTRY.
06. EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE MAINTAINED BY CONTRACTOR THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL NEW VEGETATIVE GROWTH HAS BEEN ESTABLISHED.
07. THROUGHOUT THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL DAILY INSPECT PROTECTIVE INSTALLATIONS FOR FAILURES OR SIGNS OF FAILURE OR MALFUNCTION AND EFFECT REPAIRS OR REPLACEMENT IMMEDIATELY UPON DISCOVERY.
08. THE RECOMMENDED GENERAL SEQUENCE OF CONSTRUCTION FOR ALL BASINS IS AS FOLLOWS:
 - A. PLACEMENT OF PERIMETER PROTECTIVE MEASURES (SILT FENCE, SYNTHETIC BALES, ETC.) AROUND ON-SITE LAKES, AT POINTS OF OFF-SITE DISCHARGE, AND AROUND WORK AREAS.
 - B. REROUTE RUNOFF FROM AREAS OUTSIDE OF THE DEVELOPMENT AREA TO MINIMIZE FLOW THROUGH AREAS TO BE DISTURBED BY CONSTRUCTION BERMS, SHALES AND OTHER MEANS USED FOR SUCH CONVEYANCE SHALL BE VEGETATED AND MEASURES TAKEN TO PROVIDE PROTECTION UNTIL STABILIZATION HAS BEEN ESTABLISHED.
 - C. SELECT LOCATIONS FOR PLACEMENT OF MATERIAL, WHETHER SUITABLE FOR FILL OR UNSUITABLE, AND CONSTRUCT CONTAINMENT BERMS AROUND THE AREA. THE USE OF STRIPPINGS FOR THIS PURPOSE MAY ACCELERATE BERM VEGETATION. CONSTRUCT TEMPORARY OUTLETS FROM CONTAMINANT AREAS WITH SCREENS, SYNTHETIC BALES, SETTLING BASINS OR OTHER MEASURES TO PREVENT SILT TRANSPORTATION.
 - D. SELECT/DENIGATE ACCESS ROUTING FOR CONSTRUCTION EQUIPMENT AND VEHICLES AND PROVIDE PERIMETER PROTECTIVE MEASURES WHERE EXISTING TERRAIN WILL BE SUBJECT TO DISRUPTION BY SUCH TRAFFIC.
 - E. IF REQUIRED, CONSTRUCT ABOVE GROUND OR OTHER CONTAINMENT AREAS FOR CONSTRUCTION AREA RUNOFF, PROVIDE SCREENS, SYNTHETIC BALES, ETC. TO FILTER DISCHARGE THESE AREAS.
 - F. GRASSING, SODDING, ETC. SHALL BE IN PLACE IMMEDIATELY UPON COMPLETION OF DISTURBED AREAS WITHIN PROJECT AREA.
 - G. IN ANY EVENT, CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING ANY AND ALL MEASURES ARE TAKEN TO COMPLY WITH LOCAL, STATE, FEDERAL AND OWNER REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION.
09. BAHIA SOD REQUIRED AROUND ALL STORM INLETS IN UNPAVED AREAS.
10. THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY HAS AUTHORIZED THE STATE OF FLORIDA TO ADMINISTER THE NATIONAL POLLUTANTS DISCHARGE ELIMINATION SYSTEM (N.P.D.E.S.). CONTRACTOR IS ADVISED THAT OPERATORS ARE REQUIRED TO FILE WITH F.D.E.P. A NOTICE OF INTENT TO USE THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES THAT DISTURBS ONE OR MORE ACRES OF LAND. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO SUBMIT THE NOTICE OF INTENT (N.O.I.) TO F.D.E.P. WITH A COPY TO THE OWNER, THE ENGINEER AND THE COUNTY AT LEAST 48 HOURS BEFORE INITIATING CONSTRUCTION.
11. AS REQUIRED BY THE GENERIC PERMIT, CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) PURSUANT TO ALL REQUIREMENTS OF THE GENERIC PERMIT.
12. PURSUANT TO THE N.P.D.E.S., CONTRACTOR SHALL MAINTAIN RECORDS OF DATES WHEN MAJOR GRADING ACTIVITIES TEMPORARILY CEASE AND SHALL INITIATE STABILIZATION MEASURES WITHIN 7 DAYS AFTER SUCH TEMPORARY OR PERMANENT CESSATION OF CONSTRUCTION ACTIVITY. STABILIZATION REQUIREMENTS (SODDING WHERE SHOWN ON THE PLANS, SEEDING AND MULCHING ELSEWHERE) APPLY TO ALL AREAS DISTURBED BY CONSTRUCTION, ON-SITE AND OFF-SITE.
13. CONTRACTOR SHALL PROVIDE INSPECTIONS BY QUALIFIED PERSONNEL OF ALL POINTS OF DISCHARGE, DISTURBED AREAS NOT YET FINALLY STABILIZED, STORAGE AREAS EXPOSED TO RAINFALL, STRUCTURAL CONTROLS AND VEHICULAR ACCESS LOCATIONS. INSPECTIONS SHALL BE MADE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER.
14. CONTRACTOR SHALL MAINTAIN A COPY OF THE S.W.P.P.P. AT THE SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.
15. CONTRACTOR SHALL AMEND THE S.W.P.P.P. WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OF MAINTENANCE THAT MAY HAVE A SIGNIFICANT EFFECT ON THE POTENTIAL FOR OFF-SITE DISCHARGE OF POLLUTANTS, INCLUDING THE ADDITION OF OR CHANGE IN LOCATION OF DISCHARGE POINTS AND REVISION TO CONTROLS WHICH MAY HAVE PROVED TO BE INEFFECTIVE.
16. CONTRACTOR SHALL REMAIN RESPONSIBLE FOR OPERATION AND MAINTENANCE OF POLLUTION PROTECTION MEASURES UNTIL CONSTRUCTION HAS BEEN COMPLETED IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT PLANS, CERTIFIED AS SUCH BY THE ENGINEER AND ACCEPTED BY THE (CITY/COUNTY), WHETHER OR NOT CONTRACTOR HAS SUBMITTED A NOTICE OF TERMINATION (N.O.T.) TO F.D.E.P.
17. IF CONTRACTOR PROPOSES TO DISCHARGE DETAILED EFFLUENT OFF-SITE, HE SHALL COMPLY WITH F.D.E.P. GENERIC PERMIT FOR DISCHARGE OF PRODUCED GROUND WATER FROM ANY NON-CONTAMINATED SITE ACTIVITY. PERMIT REQUIREMENTS CAN BE OBTAINED FROM FWP AT (407)884-7555 EXT.3885. THIS PERMIT IS INDEPENDENT OF AND IN ADDITION TO WATER MANAGEMENT DISTRICTS PERMITS FOR CONSTRUCTION WHICH MAY HAVE BEEN OBTAINED.
18. AT ANY PROJECT CONNECTION TO PUBLIC OR PRIVATE ROADWAYS THAT ARE TO BE USED BY CONSTRUCTION TRAFFIC, CONTRACTOR SHALL PROVIDE A SOIL TRACKING PREVENTION DEVICE (SEE DETAIL THIS SHEET).

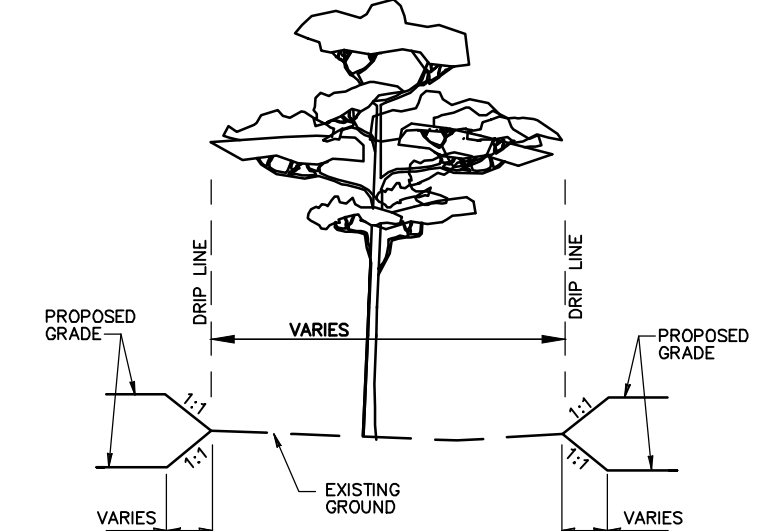
TREE PROTECTION NOTES:

1. PROTECT EXISTING TREES AND UNDERGROWTH TO REMAIN AGAINST:
 - UNNECESSARY CUTTING, BREAKING, OR SKINNING OF ROOTS AND LIMBS
 - SPINNING AND BRUISING OF BARK
 - SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION OR EXCAVATION MATERIAL WITHIN DRIP-LINE
 - EXCESS FOOT OR VEHICULAR TRAFFIC
 - PARKING VEHICLES WITHIN DRIP-LINE
2. ERECT TEMPORARY CONSTRUCTION FENCING BEFORE COMMENCEMENT OF ANY SITE CLEARING OR GRADING. FENCE SHALL BE A MINIMUM HEIGHT OF 4 FT. WITH STEEL POSTS SET DEEP ENOUGH IN THE GROUND TO BE STABLE WITHOUT ADDITIONAL SUPPORT. ALL FENCING SHOULD BE SET BEYOND THE DRIP-LINE OF EXISTING TREES AND A MINIMUM OF 10' CLEAR DISTANCE FROM THE FACE OF ANY TREES AND SHALL FULLY ENCLOSE ALL TREES AND UNDERGROWTH SCHEDULED TO REMAIN. NOTHING SHALL BE PLACED INSIDE OF THE FENCE, INCLUDING BUT NOT LIMITED TO, CONSTRUCTION MATERIALS, MACHINERY, CHEMICALS, OR TEMPORARY SOIL DEPOSITS. FOR TREES LARGER THAN 20" DBH, THE FENCE SHALL BE NO CLOSER THAN 15' FROM FACE OF TREE. WHEN PAVING, EXCAVATION, OR HARDSCAPE MUST BE DONE WITHIN THE FENCE, THE FENCE SHALL BE MOVED TO A SECONDARY LOCATION AT THE EDGE OF WORK. EXTRA CARE MUST BE TAKEN AT THIS TIME BY THE CONTRACTOR TO INSURE THAT NO DAMAGE TO THE TREE AND UNDERGROWTH OCCURS.
3. PROVIDE WATER TO TREES AND UNDERGROWTH AS REQUIRED TO MAINTAIN THEIR HEALTH DURING CONSTRUCTION.
4. FOR GRADE CUTS WITHIN THE DRIP LINES, ROOTS SHALL NOT BE TRACTOR CLEARED. LIMIT OF CONSTRUCTION SHALL BE DETERMINED, FENCE PLACED, AND ROOTS CUT CLEAN WITH A POWER SAW. CLEAN CUTS WILL AVOID "SHEARING" OF ROOTS. COVER EXPOSED ROOTS WITH MOST MULCH TO PREVENT DRYING AND COVER WITH EARTH AS SOON AS POSSIBLE.
5. NO CLEARING OF UNDERGROWTH SHALL TAKE PLACE WITHOUT PRIOR APPROVAL OF THE OWNER OR THEIR REPRESENTATIVE. WHEN THE CLEARING OF UNDERGROWTH DOES TAKE PLACE, IT SHALL BE DONE BY QUALIFIED PERSONNEL (LANDSCAPE CONTRACTOR) UNDER THE DIRECTION OF THE OWNER OR THEIR REPRESENTATIVE. MULCH SHALL BE IMMEDIATELY PLACED OVER ANY CLEARED UNDERGROWTH AREA TO PROTECT SURFACE ROOTS OF TREES.
6. NO GRADE CHANGES ARE TO BE MADE WITHIN THE FENCE WITHOUT PRIOR APPROVAL OF THE OWNER OR THEIR REPRESENTATIVE.
7. INTERFERING BRANCHES MAY BE REMOVED AT THE DIRECTION OF THE OWNER OR HIS REPRESENTATIVE BY A QUALIFIED TREE SURGEON.
8. THE CONTRACTOR SHALL REPAIR OR REPLACE TREES INDICATED TO REMAIN, WHICH ARE DAMAGED IN THE CONSTRUCTION OPERATIONS, IN A MANNER ACCEPTABLE TO THE OWNER. EMPLOY A QUALIFIED TREE SURGEON TO REPAIR MAJOR DAMAGE TO TREES AND SHRUBS, PROMPTLY, TO PREVENT PROGRESSIVE DEGRADATION CAUSED BY THE DAMAGE. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE OWNER OR THEIR DESIGNATED REPRESENTATIVE OF REPAIRS OR RECOMMENDATIONS FROM THE TREE SURGEON.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR TREES DAMAGED BEYOND REPAIR. TREES SHALL BE REPLACED ON AN INCH FOR INCH BASIS WITH TREES OF 5" CALIPER OR GREATER OF THE SAME SPECIES EQUIV. THE OVERALL CALIPER OF THE TREE, REMOVED, IF A 20" CALIPER TREE IS REMOVED, IT SHALL BE REPLACED WITH 4-5" CALIPER TREES. REPLACEMENT TREES SHALL BE "FLORIDA #1 GRADE" OR BETTER. IF TREES ARE HARMED THROUGH LACK OF PROTECTION OR NEGLIGENCE, THE CONTRACTOR SHALL BEAR THE BURDEN OF COST OF REPAIR OR REPLACEMENT.



DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

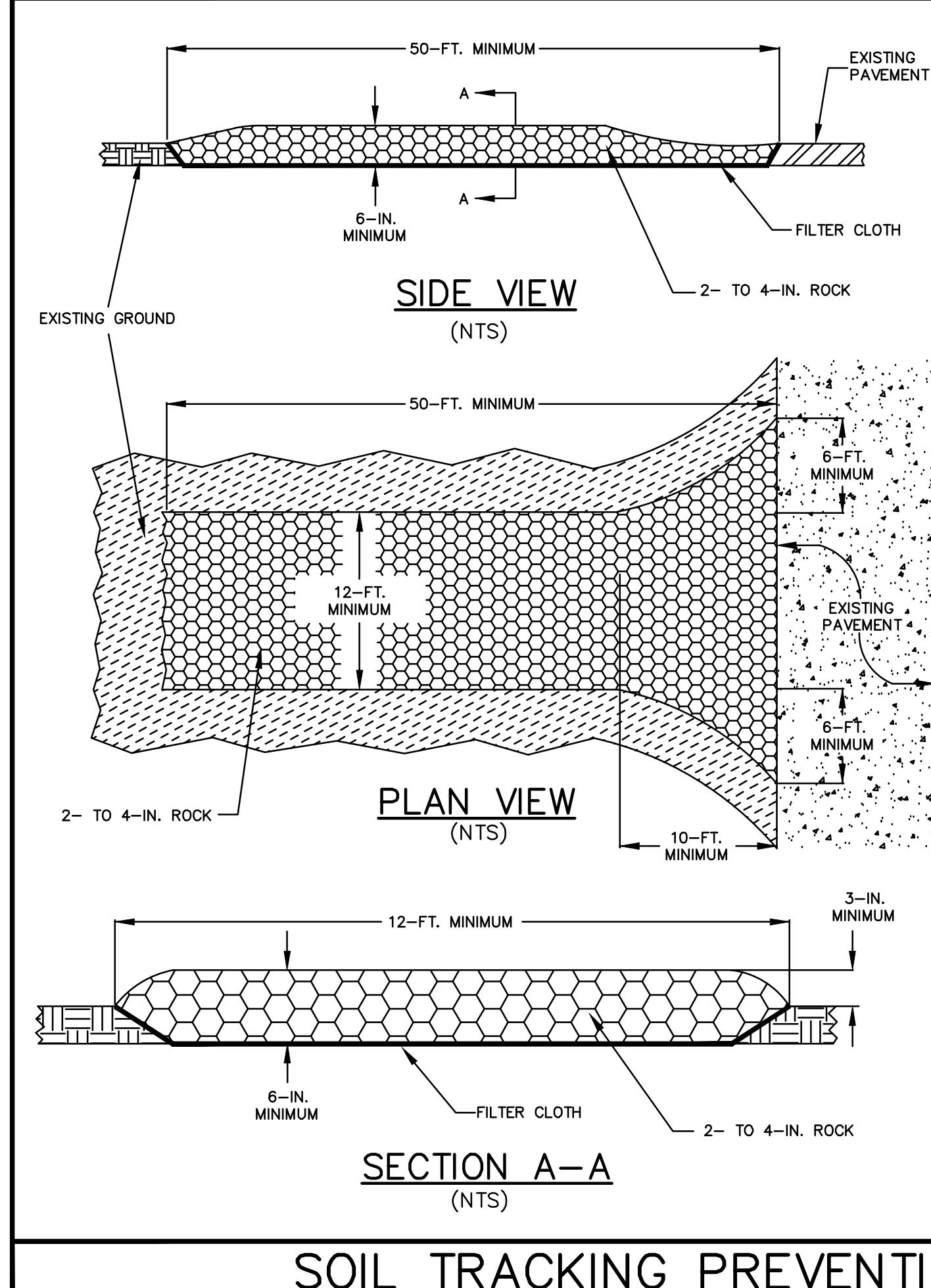
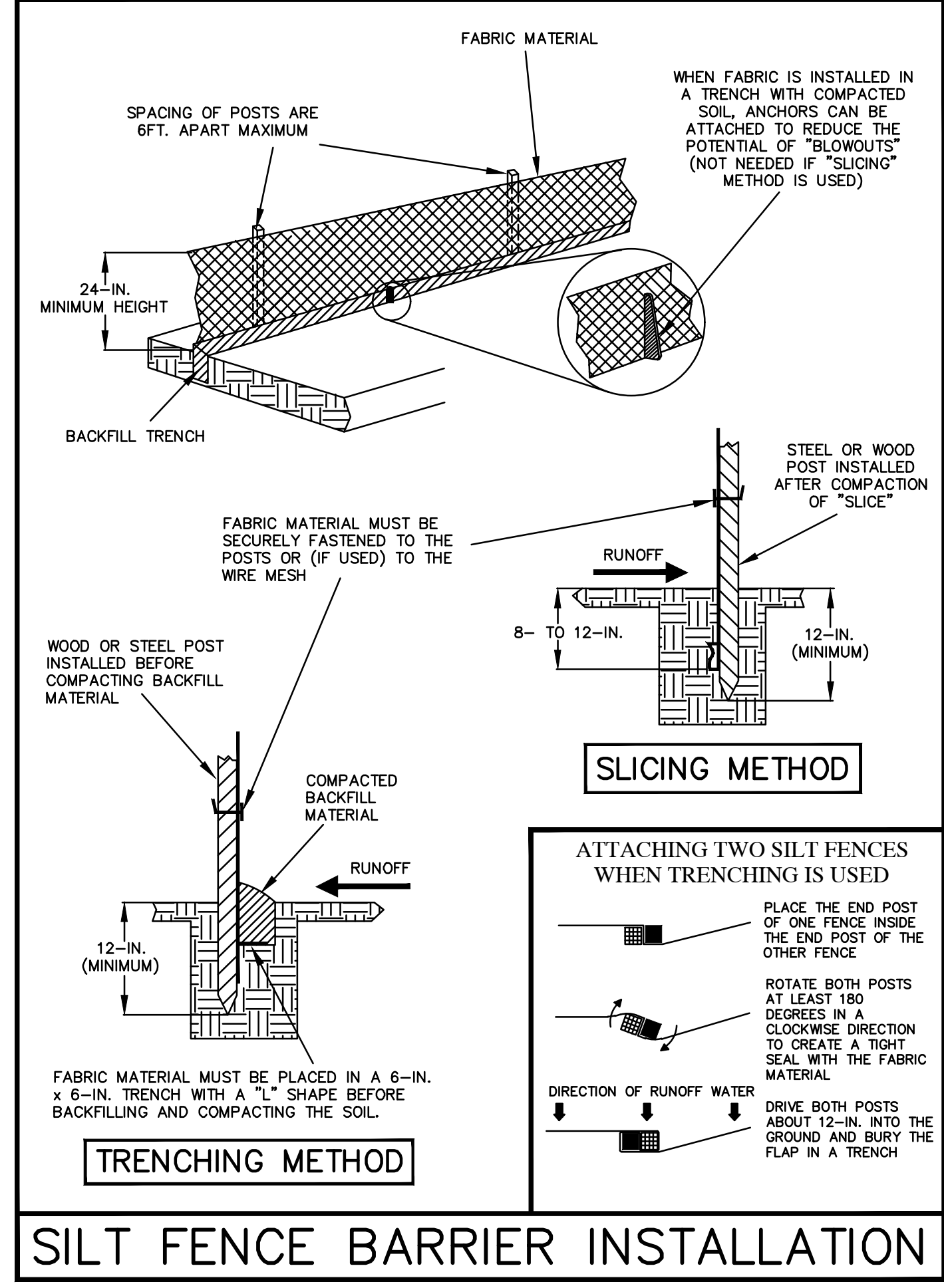
SILT FENCE APPLICATIONS



- NOTES:**
1. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING AROUND TREES.
 2. NO WORK SHALL BE DONE EXCEPT BY HAND WITHIN TREE ROOT IMPACT ZONE.

- NOTES:**
1. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING AROUND TREES.
 2. ALL UTILITY WORK SHALL BE DONE BY HAND WITHIN TREE ROOT IMPACT ZONE.
 3. ALL EARTHWORK WITHIN A 10 FOOT RADIUS ZONE AROUND SAVED TREES SHALL BE NON-COMPACTED.
 4. GRAVEL AND FILTER FABRIC SHALL BE INSTALLED AROUND SAVED TREES IN FILL AREAS A MINIMUM OF 12 FEET FROM EDGE OF TREE TRUNK AND TERMINATE AT PROPOSED CURB LINE AND/OR DRIP LINE CANOPY OF SAVED TREE. INSTALLATION SHALL BE FIELD DIRECTED TO DETERMINE LIMITS.

TREE SAVE GRADING DETAIL



- NOTES:**
1. BEFORE CONSTRUCTION ACTIVITIES BEGIN, CONTRACTOR SHALL INSTALL A SOIL TRACKING PREVENTION DEVICE (S.T.P.D.) TO BE USED AT LOCATIONS FOR POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFFSITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE CONSTRUCTION PROJECT SHALL BE DIRECTED THRU A S.T.P.D. BARRIERS, FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT AND DIRECT VEHICULAR EGRESS ACROSS THE S.T.P.D.
 2. THE MINIMUM WIDTH OF THE S.T.P.D. SHALL BE 12' FOR SINGLE LANE USAGE. WHEN CONSTRUCTION TRAFFIC WARRANTS TWO LANE USAGE, THE MINIMUM WIDTH SHALL BE 24'.
 3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE S.T.P.D. AGGREGATE AND CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER, CITY OR COUNTY INSPECTOR.
 4. AGGREGATES SHALL BE AS DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATES SHALL BE 2" TO 4" IN SIZE. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT AND ARE UNSUITABLE.
 5. THE S.T.P.D. SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION. TO PREVENT OFFSITE TRACKING, THE S.T.P.D. SHALL BE RINSED (DAILY WHEN IN USE) TO MOVE ACCUMULATED MUD DOWNWARD THRU THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE S.T.P.D. MAY BE REQUIRED TO LIMIT THE MUD TRACKED.
 6. PAYMENT FOR THE S.T.P.D. SHALL CONSTITUTE FULL COMPENSATION FOR CONSTRUCTION, MAINTENANCE, REPLACEMENT OF MATERIALS, REMOVAL AND RESTORATION OF THE AREA UTILIZED FOR THE S.T.P.D.; INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING, SEDIMENT REMOVAL AND DISPOSAL, WATER, RINSING AND CLEANING OF THE S.T.P.D. AND CLEANING OF PUBLIC ROADS, GRASSING AND SOD.

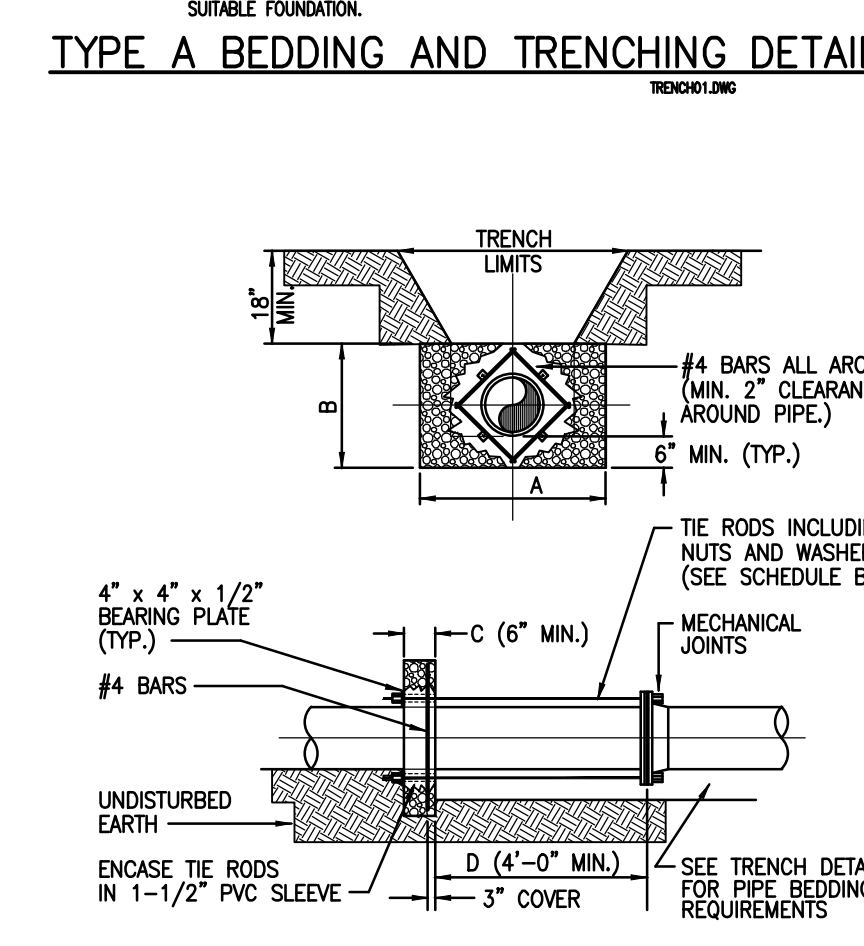
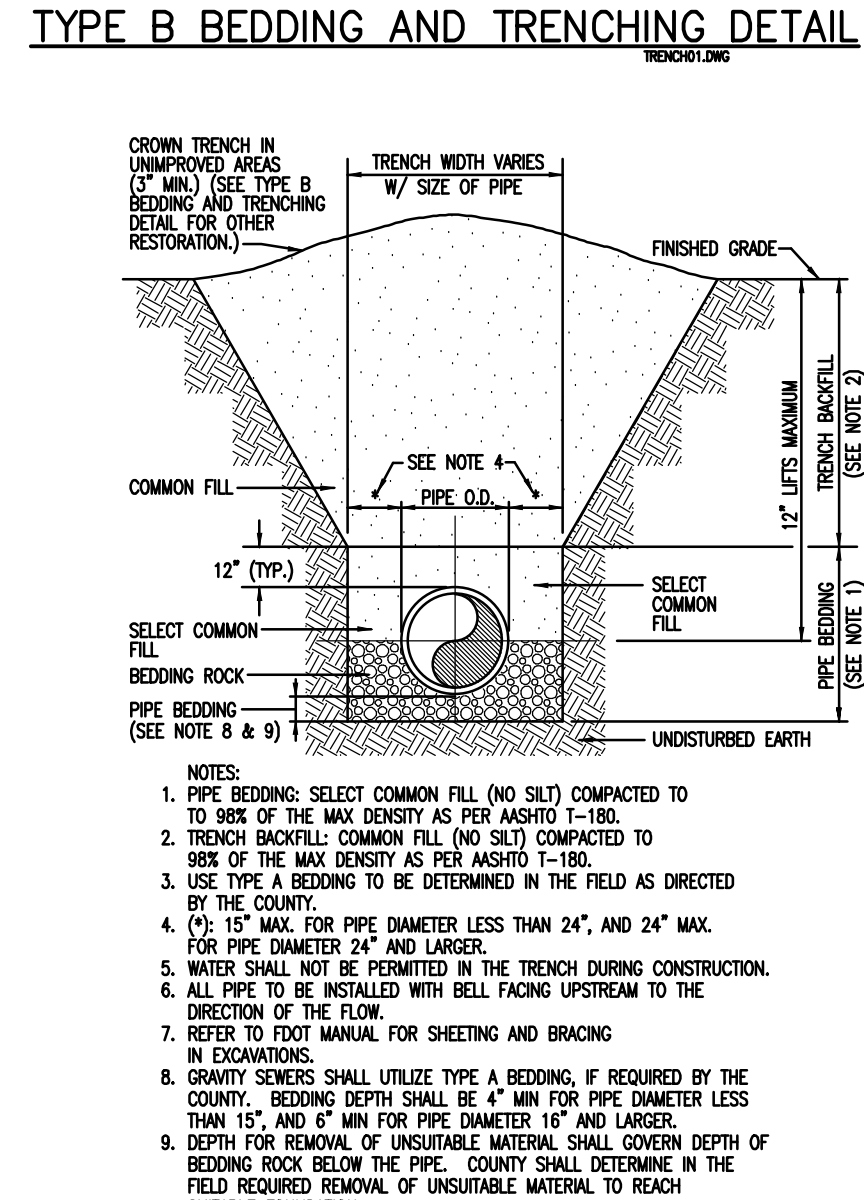
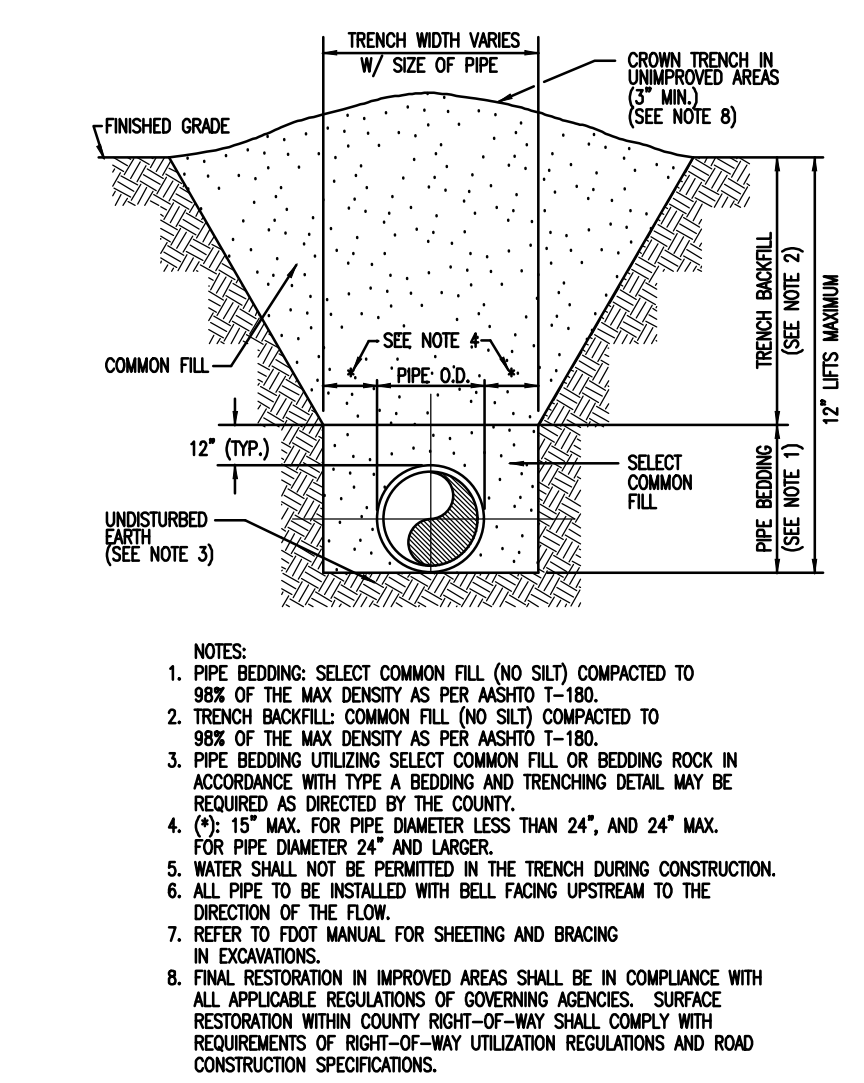
SEE NOTES, SPECIFICATIONS & LEGEND SHEET FOR ADDITIONAL INFORMATION INCLUDING VERTICAL DATUM.

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

<p>DONALD W. MCINTOSH ASSOCIATES, INC. ENGINEERS 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068</p>		<p>SAWGRASS BAY - PHASE 4A & 4B LAKE COUNTY, FLORIDA</p>	<p>EROSION CONTROL DETAILS</p>
<p>DRAWING 24018-Eros Dtl.dwg</p>	<p>SHEET</p>	<p>14 OF 21</p>	<p>DATE: 5/19/17</p>
<p>CHECKED BY JTT</p>	<p>DESIGNED BY JTT</p>	<p>SCALE NTS</p>	<p>JOB NUMBER 24018</p>
<p>NO.</p>	<p>DATE</p>	<p>DESCRIPTION</p>	<p>REVISIONS</p>
<p>CHK.</p>	<p>DATE</p>	<p>DESCRIPTION</p>	<p>REVISIONS</p>

PROJECT: SAWGRASS BAY - PHASE 4A & 4B
 SHEET TITLE: WM DETAILS
 DWG FILE NAME: 24018-WS Dt.dwg
 XREF FILE NAME:

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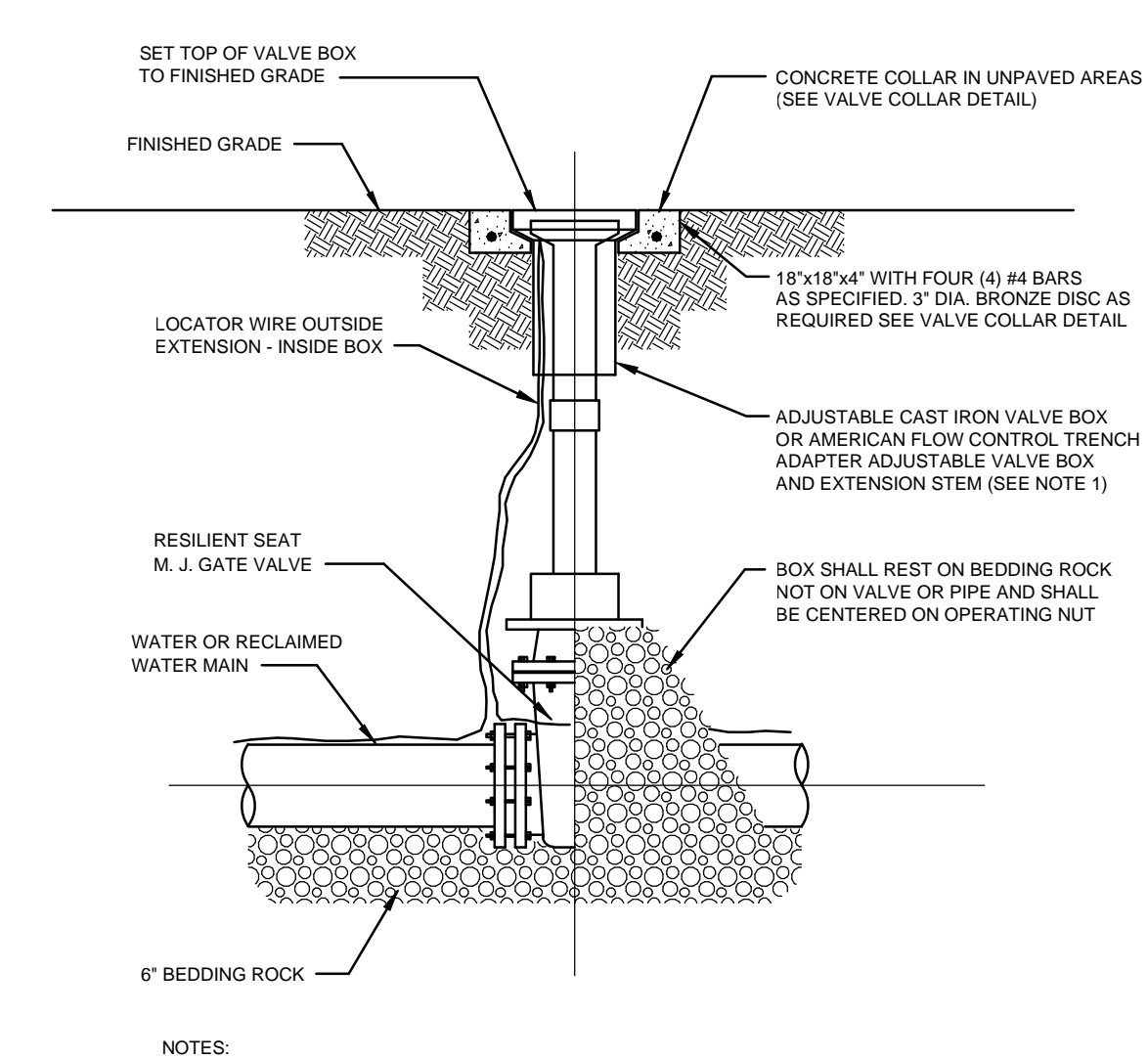
SCHEDULE OF DIMENSIONS AND MATERIALS

PIPE SIZE (INCHES)	DIMENSIONS				TIE RODS REQ'D
	A	B	C	D	
4"	26"	17"	8"	4'-0"	5/8" 4
6"	37"	19"	8"	4'-0"	5/8" 4
8"	47"	21"	8"	4'-0"	5/8" 4
10"	61"	23"	8"	4'-0"	5/8" 4

NOTE: THURST BLOCK AREAS TO BE COMPLETED ON BASIS OF 3000 PSI MIN. SOIL TEST RESULTS (SEE NOTE 1)

NOTES:

- ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
- MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
- BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
- ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
- NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
- DESIGN PRESSURE: 150 P.S.I.



NOTES:

- PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION, EXCEPT FOR THE AMERICAN FLOW CONTROL TRENCH ADAPTER WITH 2" SQUARE NUT WRENCH AND EXTENSION STEM SPACERS AND STOP.
- COVER TO BE MARKED "WATER", "RECLAIMED", "NPW", OR "SEWER" AS APPROPRIATE.
- VALVES SHALL NOT BE LOCATED IN STREET CURBS.

UTILITIES, INC. of Florida
 200 WATERBURY AVE. ALACHUA, FLORIDA 32314
 904-866-1919

SCALE: NONE
 DATE: 6-28-02
 FILE: VALVEBOX.DWG

GENERAL DETAILS
 VALVE AND VALVE BOX DETAIL

STANDARD DETAIL NUMBER
 G-1

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

Other Pipe	Horizontal Separation	Crossings (1)	Joint Spacing @ Crossings (Full Joint Centered)
Storm Sewer, Stormwater Force Main, Reclaimed Water (2)	Water Main 3 ft. minimum	Water Main 12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 3 ft. minimum
Vacuum Sanitary Sewer	Water Main 10 ft. preferred 3 ft. minimum	Water Main 12 inches preferred 6 inches minimum	Alternate 3 ft. minimum
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)	Water Main 10 ft. preferred 6 ft. minimum (3)	Water Main 12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 6 ft. minimum
On-Site Sewage Treatment & Disposal System	10 ft. minimum	---	---

- Water main should cross above other pipe. When water main must be below other pipe, the minimum separation is 12 inches.
- Reclaimed water regulated under Part III of Chapter 62-610, F.A.C.
- 3 ft. for gravity sanitary sewer where the bottom of the water main is laid at least 6 inches above the top of the gravity sewer.
- Reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.

MIN LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S).

	PIPE SIZE									
	6"	8"	10"	12"	16"	20"	24"	30"	36"	
90° BEND	45	59	72	86	113	138	165	203	242	
45° BEND	19	25	30	36	47	58	69	84	100	
22 1/2° BEND	9	12	15	17	23	28	33	41	48	
11 1/4° BEND	5	6	7	9	11	14	17	20	24	
PLUG OR BRANCH OF TEE	99	128	157	187	246	301	360	442	527	

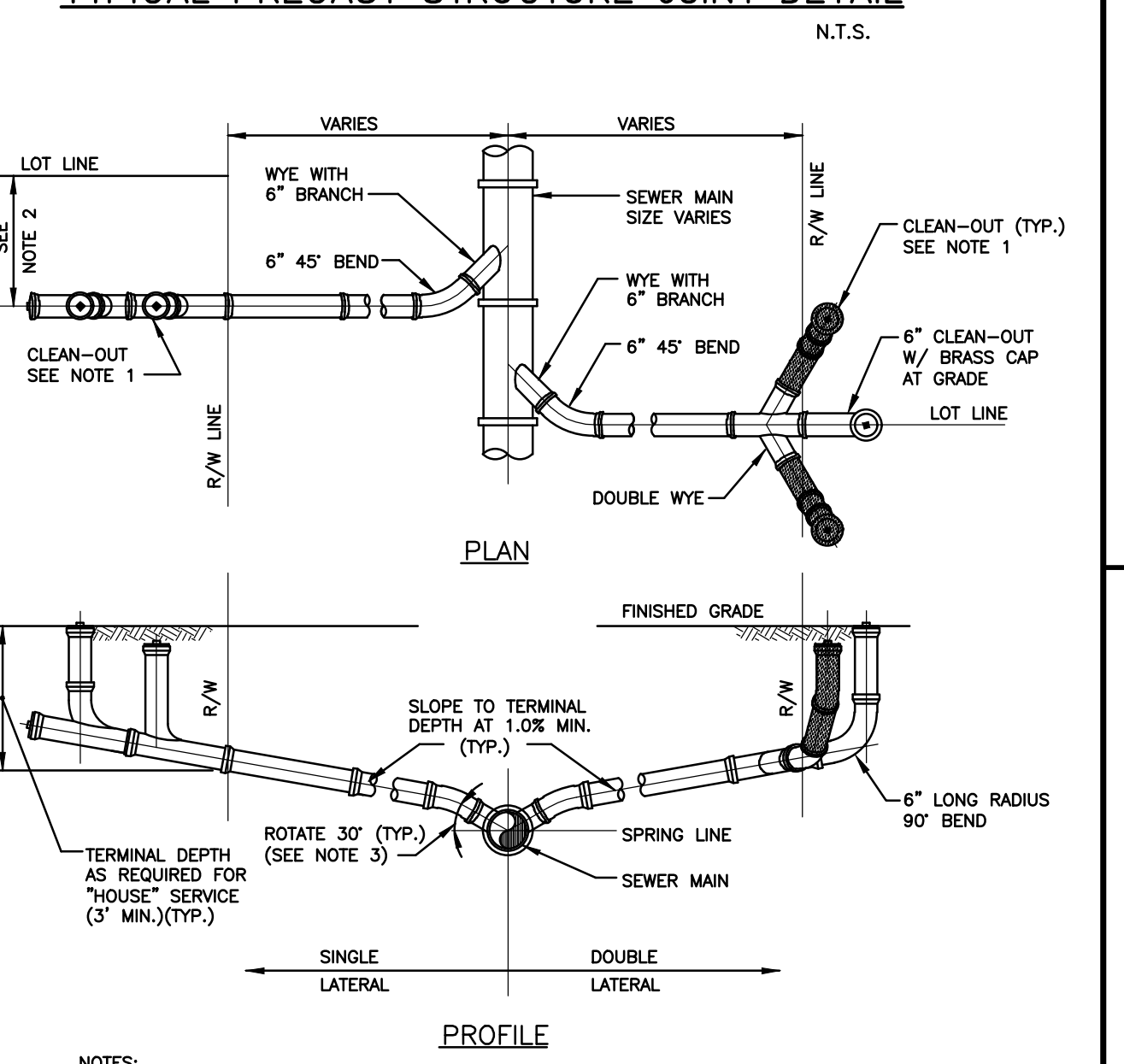
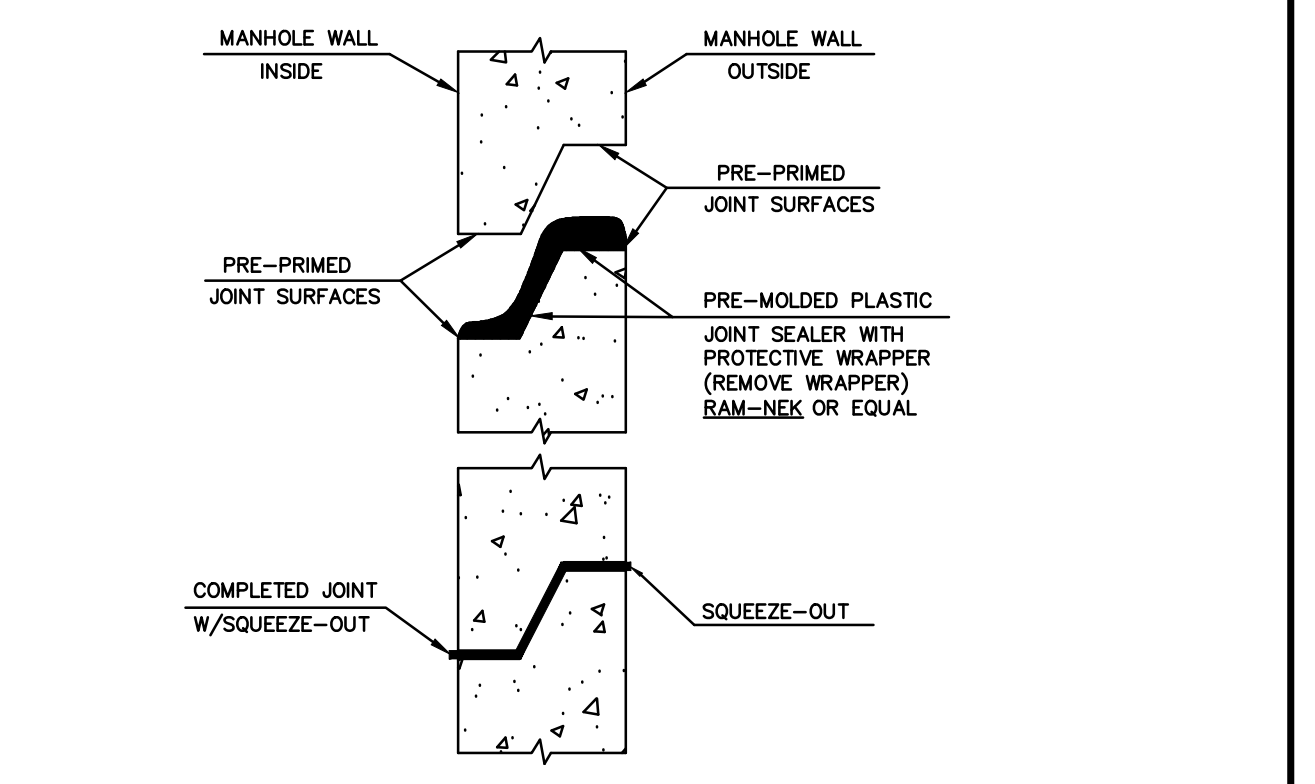
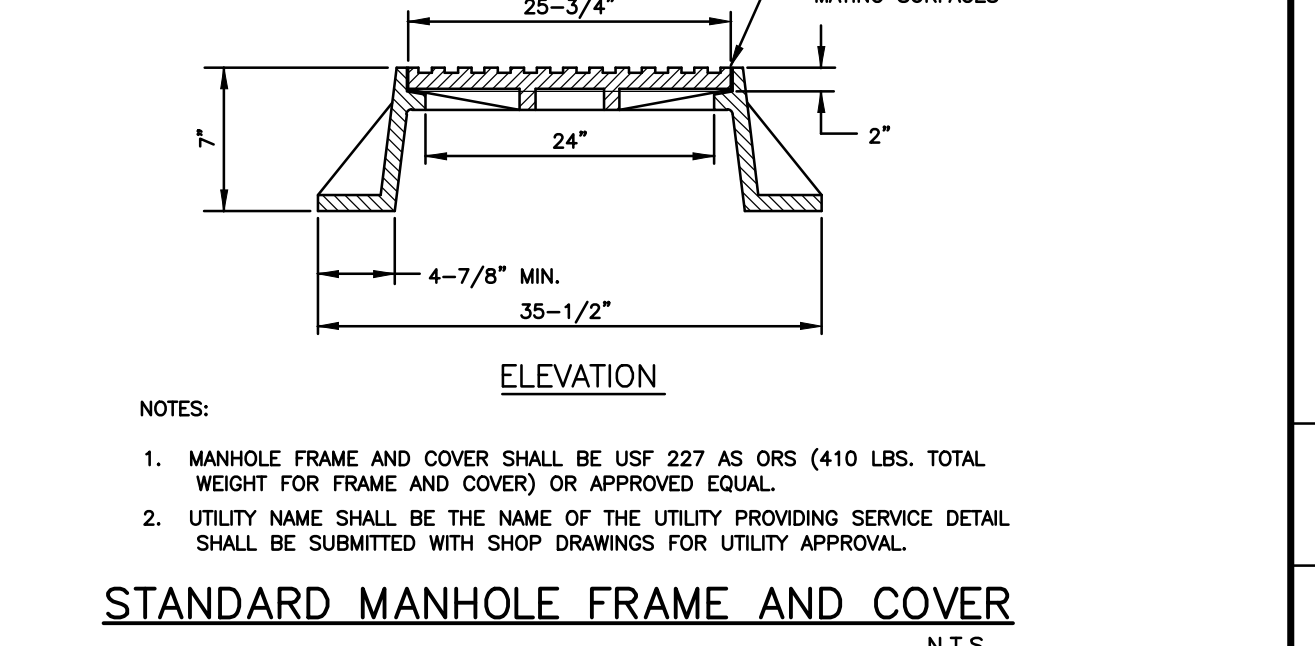
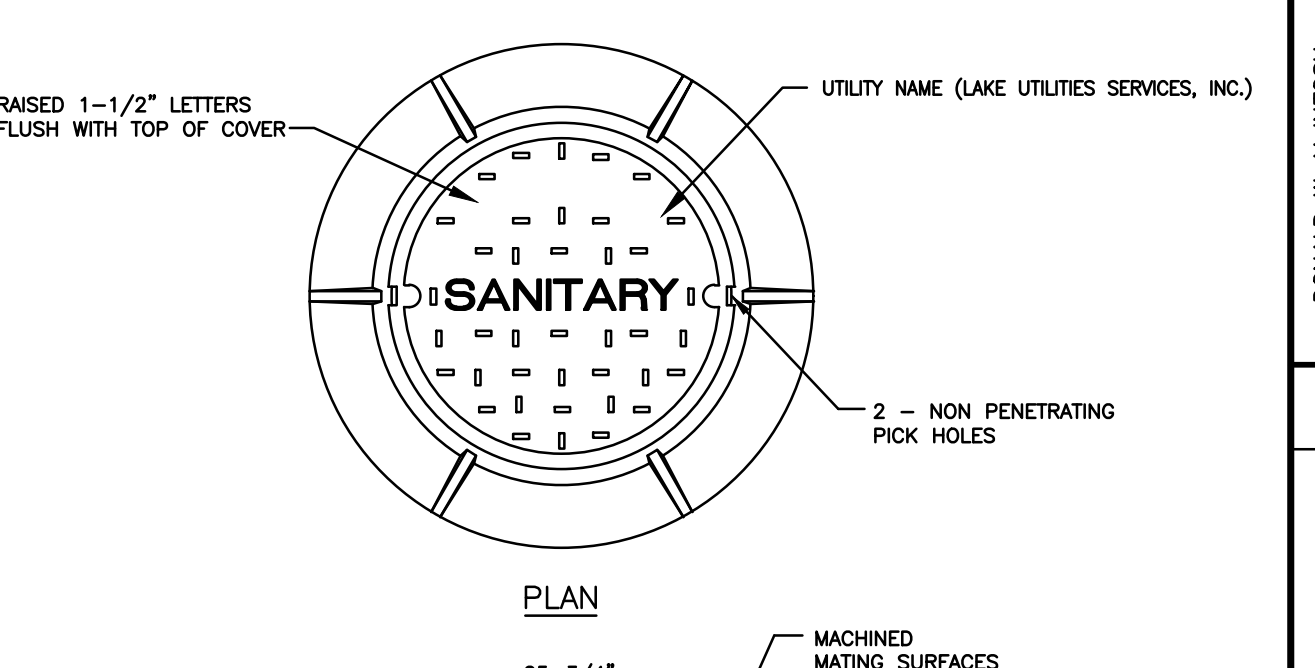
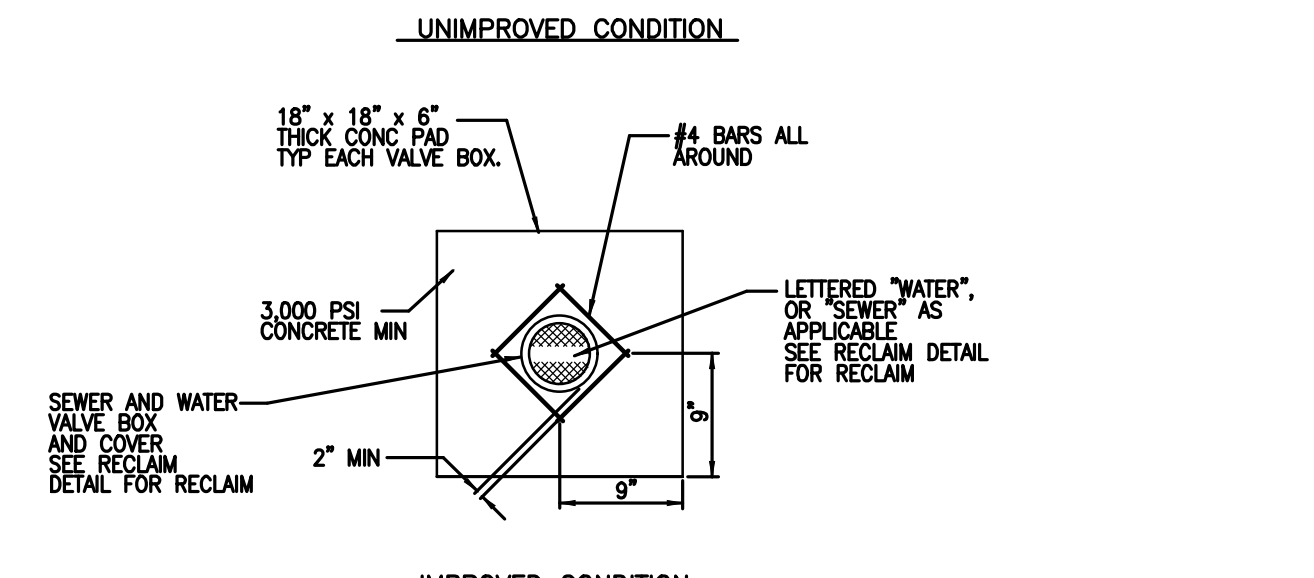
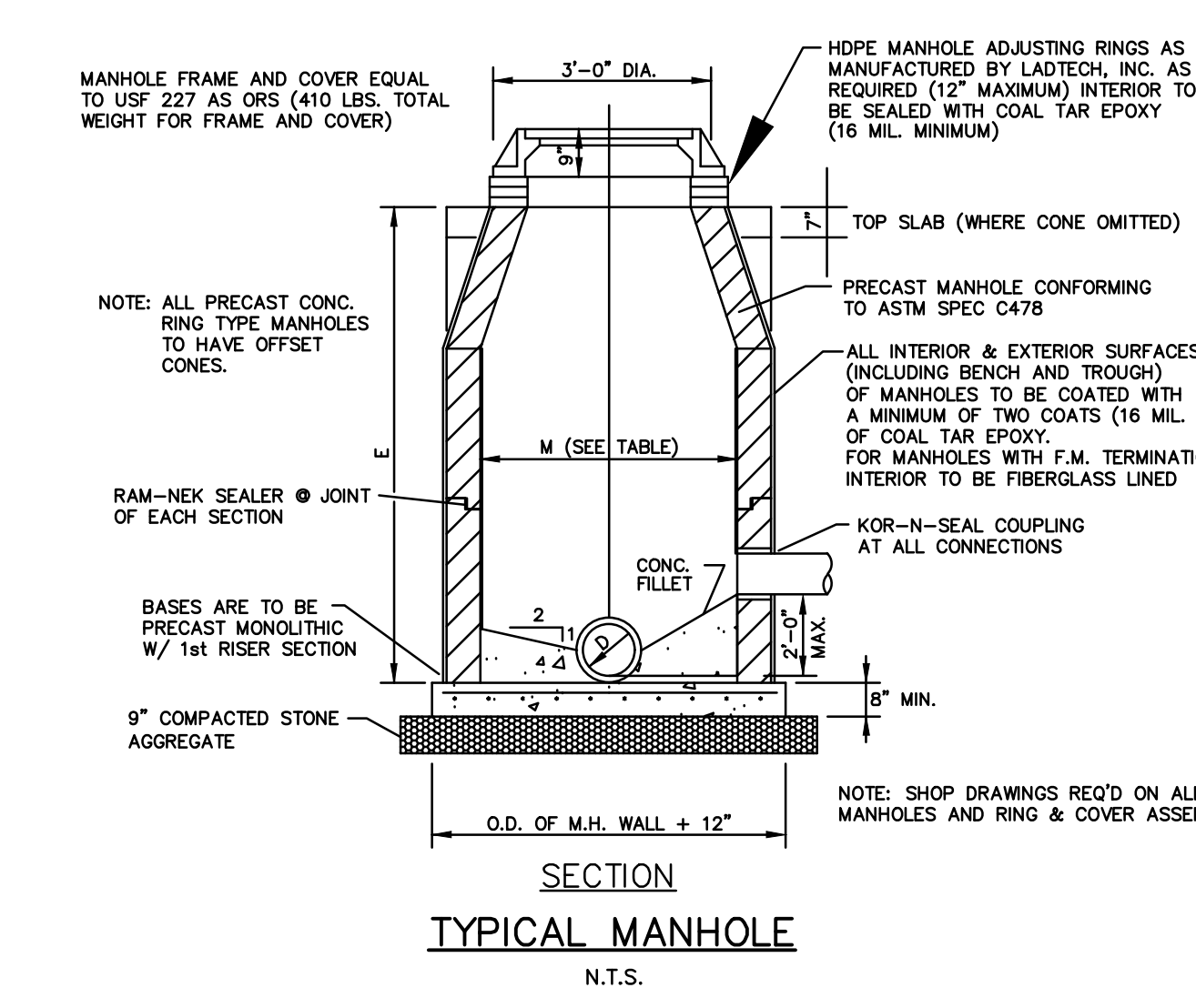
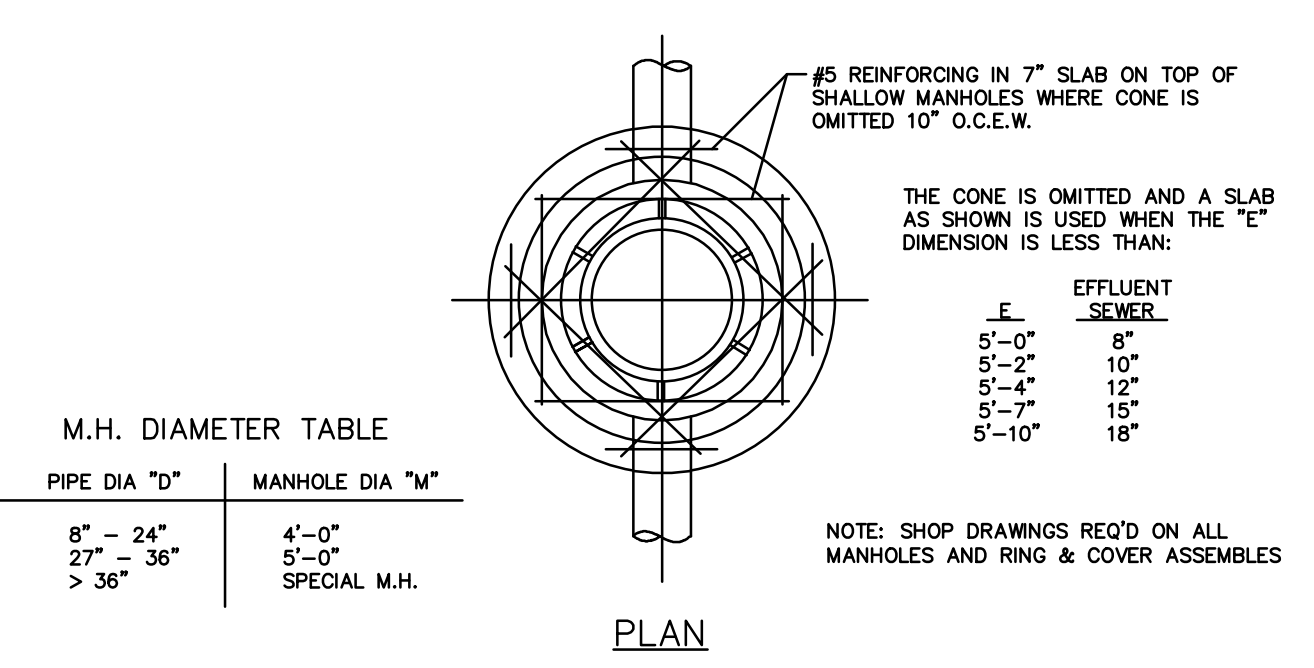
RESTRAINED PIPE TABLE

(104)

NOTES:

- PROVIDED ARE THE MIN ALLOWABLE RESTRAINED PIPE LENGTHS FOR WORKING PRESSURE OF 150 PSI (TOP OF BOX) AND 100 PSI (BOTTOM OF BOX). SPECIFIC SOIL SURVEY SHALL BE REQUIRED TO DEVIATE FROM THESE STANDARDS.
- FITTINGS SHALL BE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
- INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
- WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
- IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
- LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPA, WITH THE FOLLOWING ASSUMPTIONS:
 WORKING PRESSURE: 150 PSI / 100 PSI
 SOIL DESIGNATION: 2,000 PSF
 LAYING CONDITIONS: TABLE 3, CONDITION 2
- FOR PIPE ENCASED IN POLYETHYLENE, USE VALUES GIVEN IN PARENTHESES OR INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.

NOTE: THIS SHEET CONTAINS STANDARD DRAWINGS AND NOTES OF THE UTILITY SERVICE PROVIDER. IT MAY CONTAIN INFORMATION THAT DIFFERS FROM THAT CONTAINED IN PROJECT NOTES, SPECIFICATIONS AND DETAILS SHOWN ELSEWHERE IN THE PLANS. TYPICALLY, THE MORE STRINGENT REQUIREMENTS SHALL APPLY, SUBJECT TO DETERMINATION BY THE ENGINEER AND THE UTILITY SERVICE PROVIDER. ITEMS SHOWN THAT MAY BE OUTSIDE OF THE DISCIPLINE OF THE CIVIL/SITE ENGINEER ARE NOT INCLUDED IN THE ENGINEER'S CERTIFICATION.



DONALD W. MCINTOSH ASSOCIATES, INC.
 ENGINEERS PLANNERS SURVEYORS
 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068

SAWGRASS BAY - PHASE 4A & 4B
 LAKE COUNTY, FLORIDA

WATER & SEWER DETAILS

DRAWING: 24018-WS Dt.dwg
 SHEET: 16 OF 21

DESIGNED BY: JTT
 CHECKED BY: JTT
 DATE: 5/19/17
 SCALE: NTS
 JOB NUMBER: 24018

NO. DATE DESCRIPTION REVISIONS

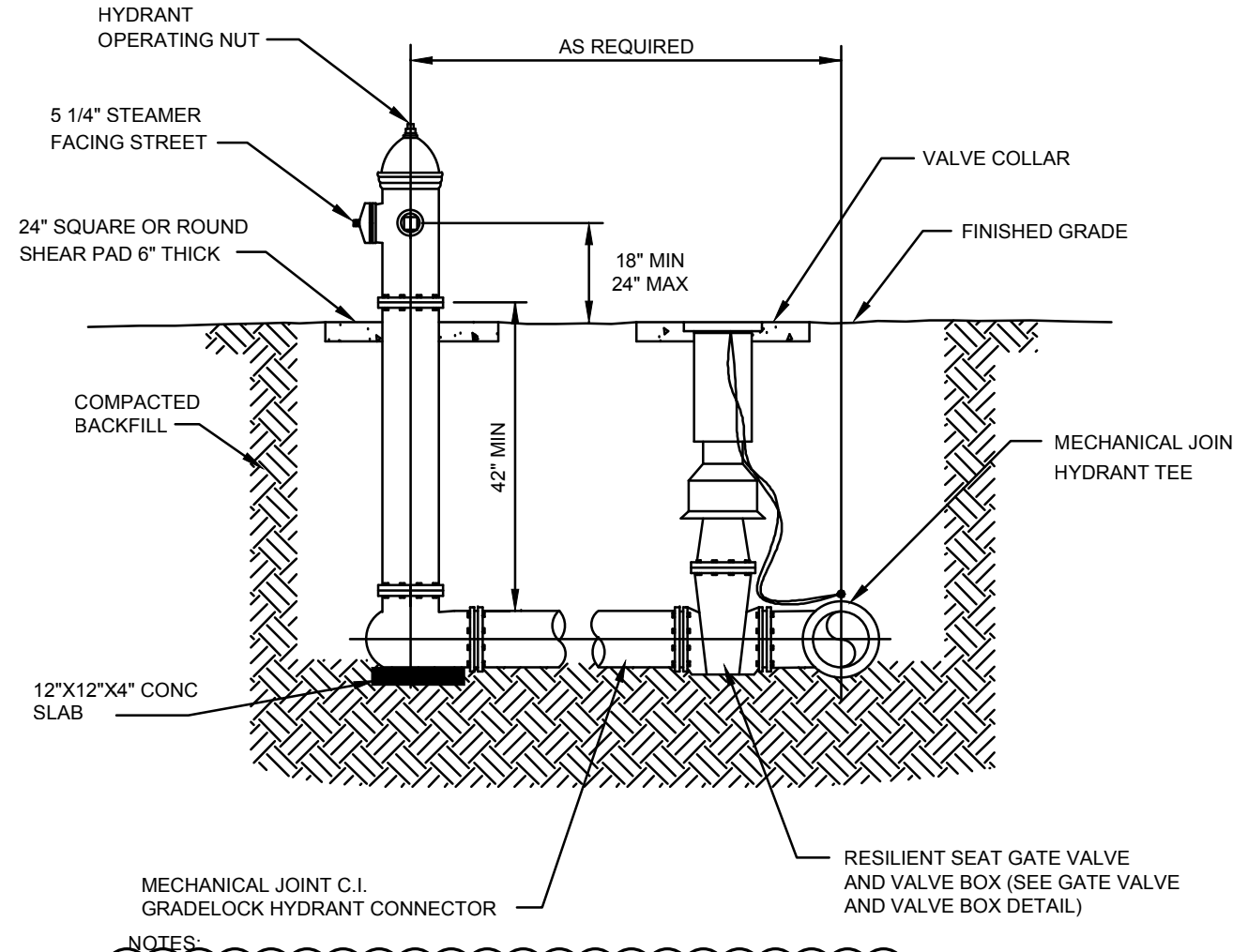
CHK. DATE DESCRIPTION REVISIONS

DATE: _____

JOHN T. TOWNSEND
 FLORIDA P.E. NO. 59127

DONALD W. MCINTOSH ASSOCIATES, INC.
 CERTIFICATE OF AUTHORIZATION NO. 68

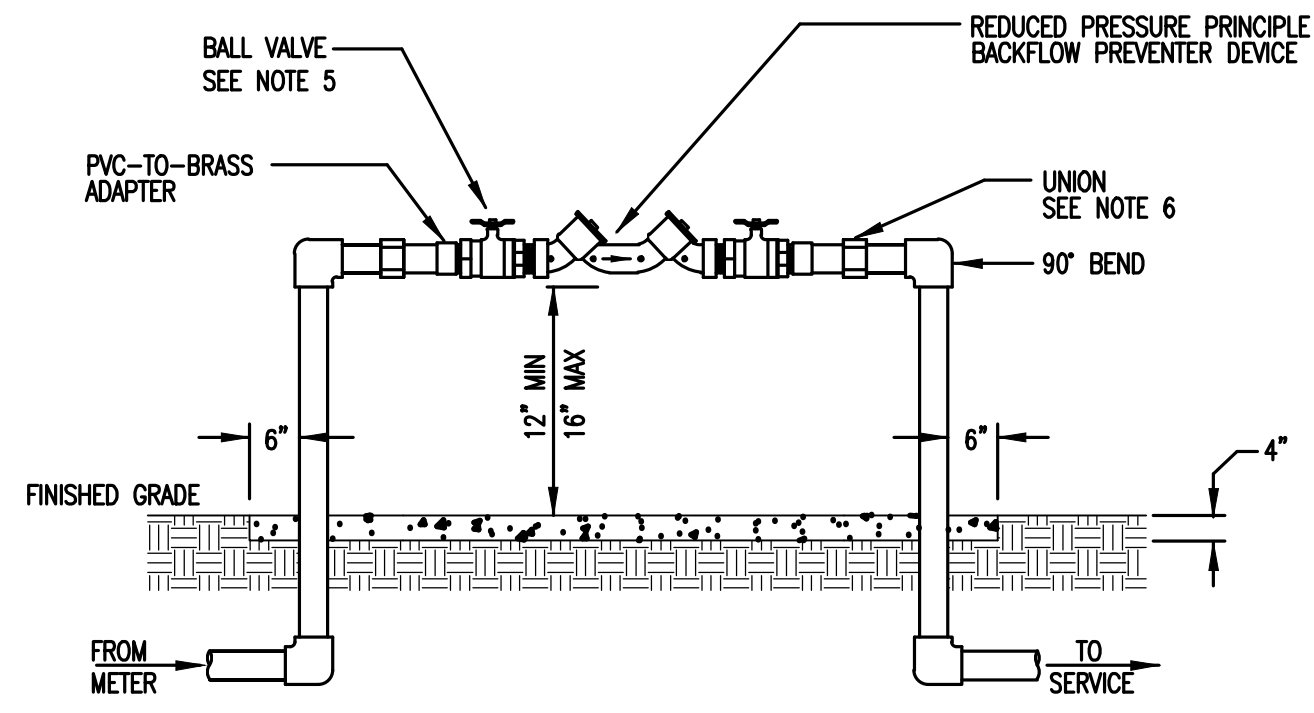
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- NOTES:**
1. FIRE HYDRANT SHALL BE AMERICAN DARLING B-84-B WITHOUT WEEP HOLE.
 2. PROVIDE A BLUE REFLECTORIZED MARKER IN THE PAVEMENT.
 3. THE SHEAR PAD MAY BE INSTALLED UP TO 4\"/>

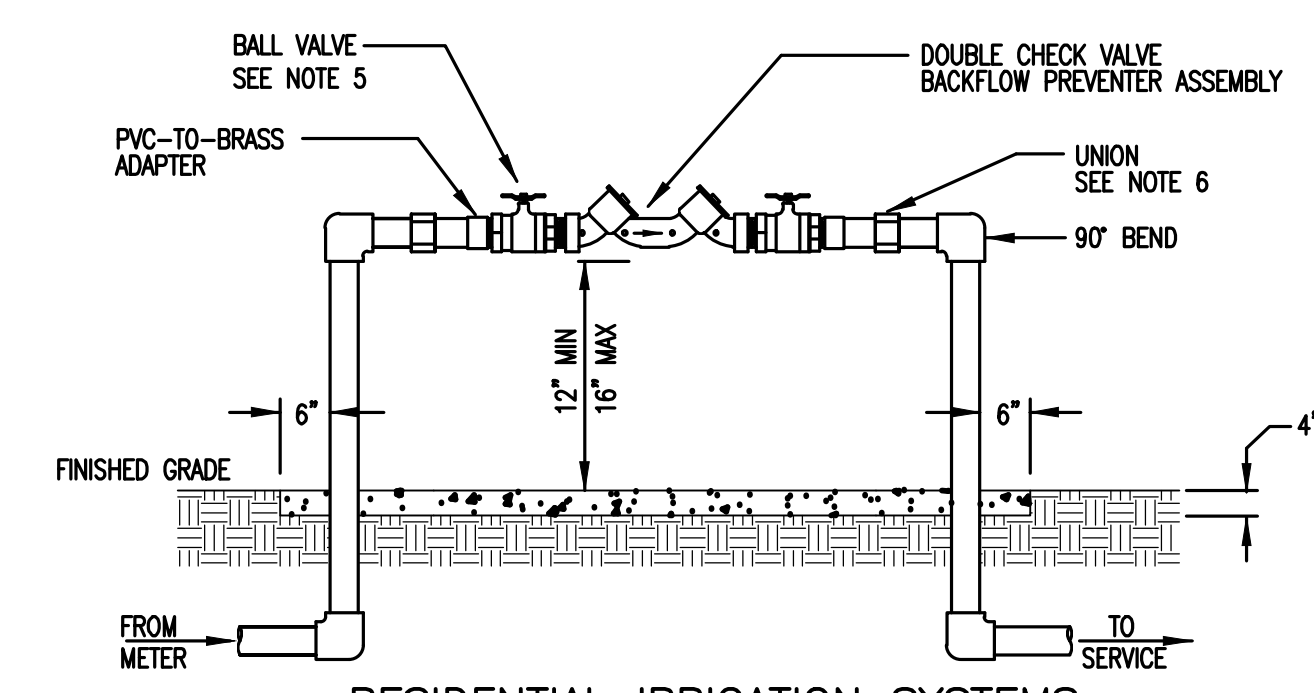
FIRE HYDRANT ASSEMBLY DETAIL
N.T.S.

	SCALE: NONE	WATER DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	FIRE HYDRANT ASSEMBLY DETAIL	W-1
	FILE: FIREHYD.DWG		



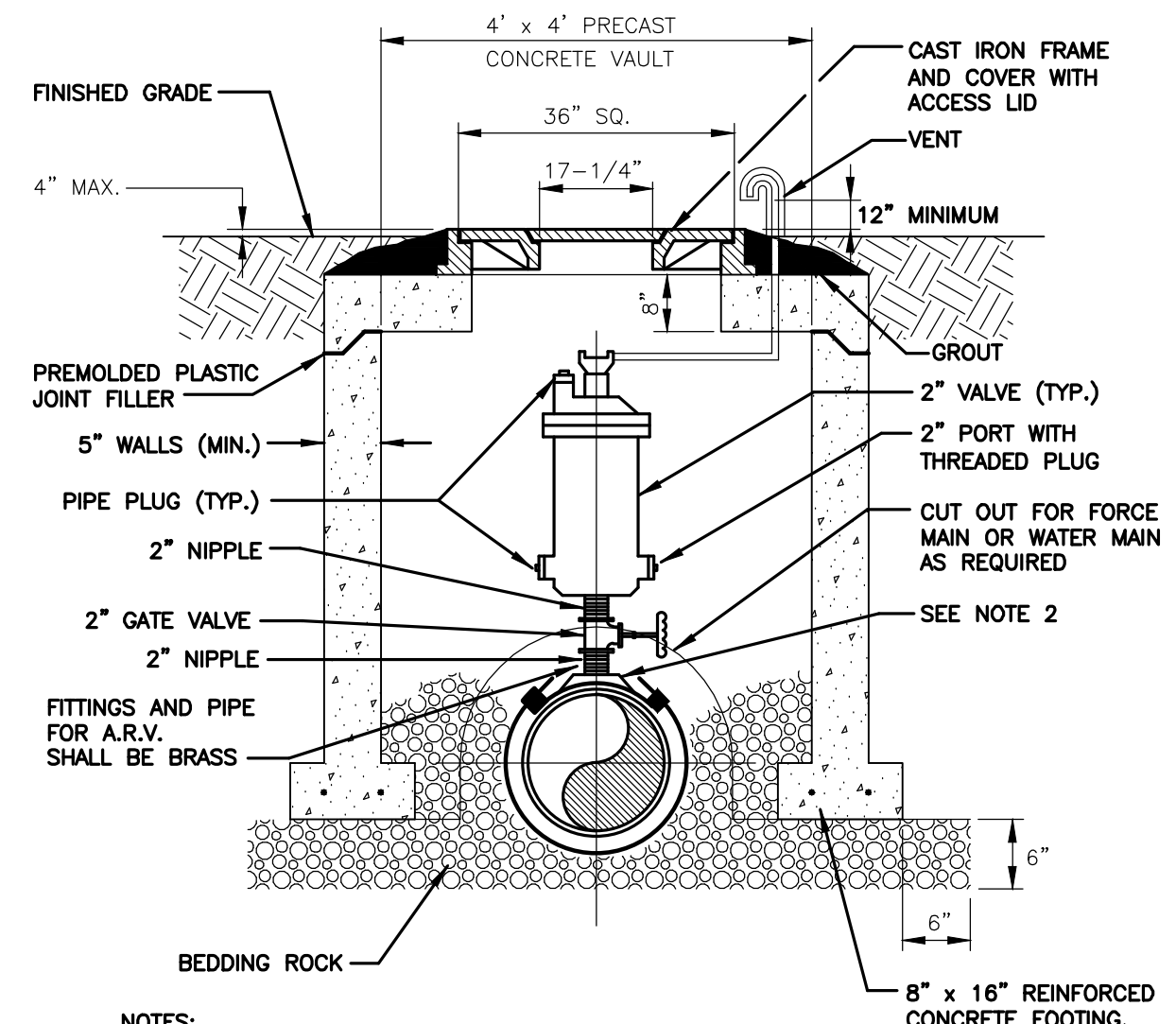
- NOTES:**
1. BACKFLOW ASSEMBLY DETAIL IS TYPICAL FOR A DOUBLE CHECK AND REDUCED PRESSURE BACKFLOW PREVENTER, 3/4", 1", AND 2" SINGLE SERVICE SETUP. DETAIL IS TYPICAL FOR COMMERCIAL AREAS AND RESIDENTIAL IRRIGATION SYSTEMS.
 2. CONCRETE SLAB IS REQUIRED FOR ALL COMMERCIAL AREAS. SLABS SHALL BE 24" WIDE AND 4" THICK.
 3. PIPE SHALL BE PVC SCH 80 FOR ABOVE GROUND CONNECTIONS. APPROVAL FROM THE COUNTY FOR OTHER PIPE MATERIAL IS REQUIRED.
 4. BACKFLOW PREVENTER ASSEMBLY INCLUDES BACKFLOW PREVENTER DEVICE 2 RESILIENT SEATED BALL VALVES, AND 4 TEST COCKS.
 5. RESILIENT SEATED BALL VALVES ARE REQUIRED ON ALL BACKFLOW PREVENTION ASSEMBLIES 2" AND SMALLER.
 6. UNIONS ARE NOT REQUIRED, BUT ARE RECOMMENDED AND SHALL BE PLACED OUTSIDE OF THE BACKFLOW PREVENTER ASSEMBLY IF USED.
 7. DEVIATIONS FROM TYPICAL BACKFLOW ASSEMBLY DETAILS REQUIRE COUNTY'S APPROVAL.

DOUBLE CHECK VALVE OR REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY DETAIL
(SINGLE SERVICE: 3/4", 1", 2")



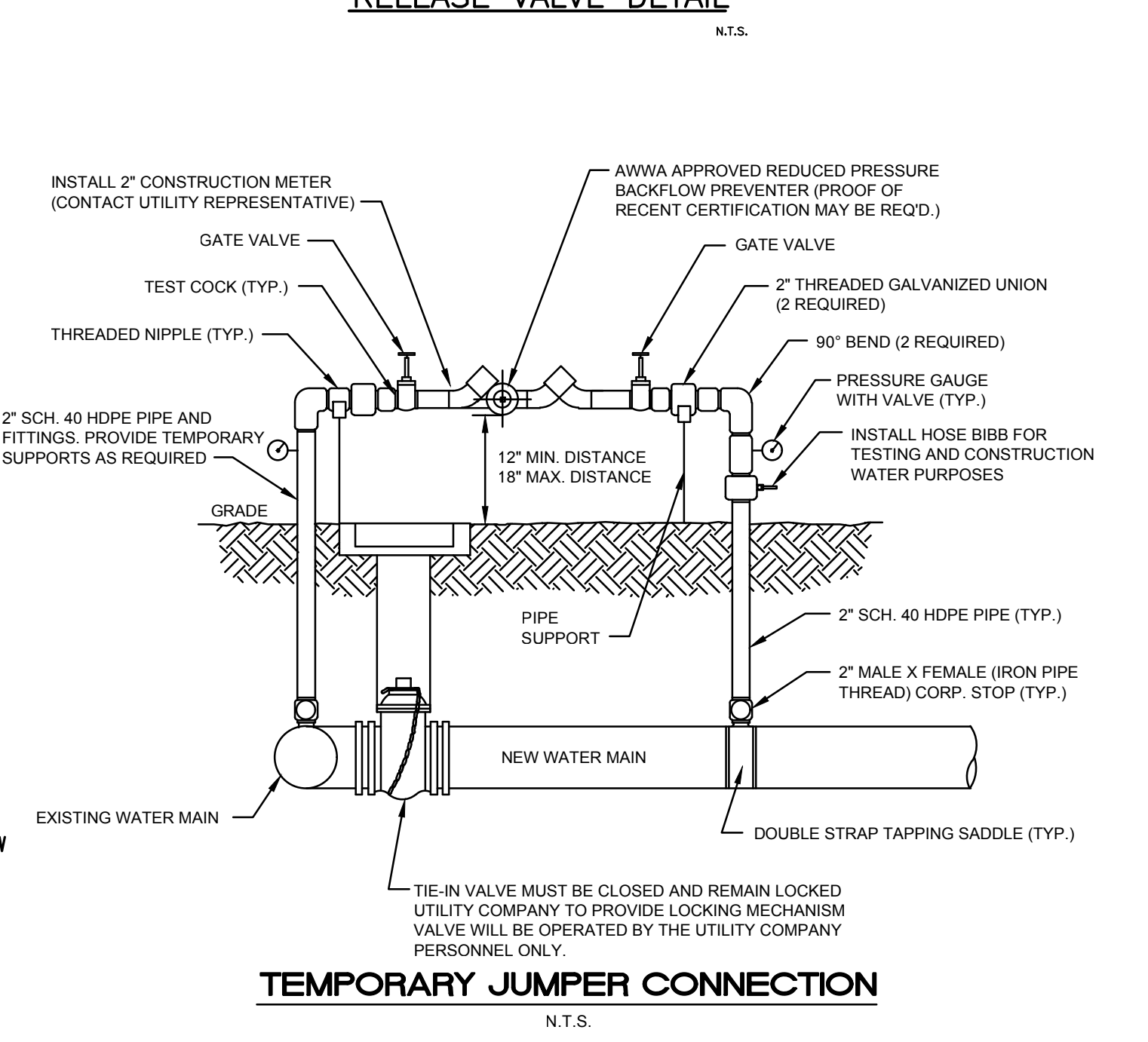
- NOTES:**
1. BACKFLOW ASSEMBLY DETAIL IS TYPICAL FOR A DOUBLE CHECK BACKFLOW ASSEMBLY, 3/4", 1", AND 2" SINGLE SERVICE SETUP.
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 5. RESILIENT SEATED BALL VALVES ARE REQUIRED ON ALL BACKFLOW PREVENTION ASSEMBLIES 2" AND SMALLER.
 6. UNIONS ARE NOT REQUIRED, BUT ARE RECOMMENDED AND SHALL BE PLACED OUTSIDE OF THE BACKFLOW PREVENTER ASSEMBLY IF USED.
 7. DEVIATIONS FROM TYPICAL BACKFLOW ASSEMBLY DETAILS REQUIRE COUNTY'S APPROVAL.
 8. DOUBLE CHECK ASSEMBLY SHALL BE INSTALLED IN AN INCONSPICUOUS LOCATION THAT IS ACCESSIBLE FOR TESTING/MAINTENANCE.
 9. USE OF NON-POTABLE WATER REQUIRES A DUAL CHECK DEVICE BE INSTALLED ON THE POTABLE WATER LINE (INSTALLED BY COUNTY).

DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY DETAIL
(SINGLE SERVICE: 3/4", 1", 2")



- NOTES:**
1. ABOVE DETAIL IS BASED ON 2" COMBINATION AIR/VACUUM RELEASE VALVE. CHANGE PIPE AND FITTINGS ACCORDINGLY FOR OTHER VALVE SIZES AND TYPES. VALVE SIZES TO BE DETERMINED BY THE ENGINEER AND APPROVED BY THE UTILITY PRIOR TO INSTALLATION.
 2. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.
 3. IF THE REQUIREMENT FOR AN ABOVE GRADE VENT IS WAIVED BY FDEP, THEN A DOWNTURNED VENT SPOUT MUST BE PLACED INSIDE THE VAULT.

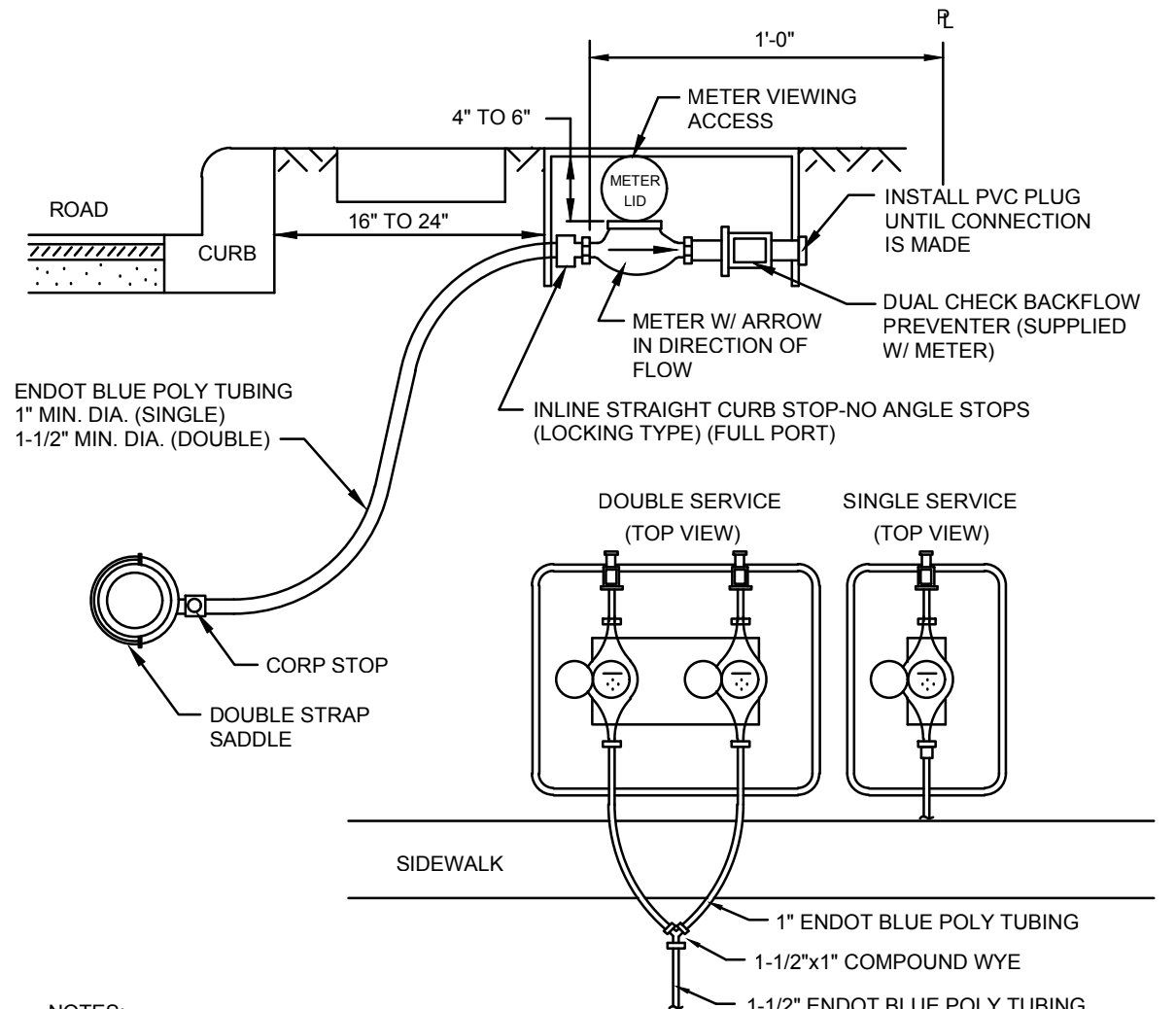
AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL
N.T.S.



- NOTES:**
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PAK JOINT TYPE CONNECTIONS.
 2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY OR A SIDEWALK.
 3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH THE TOP PAINTED BLUE AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
 4. ALL WATER SERVICES AND METER BOXES SHALL BE LOCATED AT THE LOT, ON THE RESIDENT'S SIDE OF SIDEWALK.
 5. CORP. STOPS AND CURB STOPS SHALL BE BRASS EQUIPPED WITH CONNECTION COMPATIBLE TO CONNECTING SERVICE TYPE AS MANUFACTURED BY MUELLER CO. B25170 WITH A 1" x 3/4" BRASS BUSHING OR APPROVED EQUAL.
 6. DOUBLE SERVICE METER BOXES SHALL BE HEFCO PLASTIC JUMBO W/ CAST IRON LID OR APPROVED EQUAL (MINIMUM DIMENSIONS: LENGTH x WIDTH = 21.5"x15").
 7. WATER METER VALVES AND WATER METER BOXES SHALL BE INSTALLED BY THE CONTRACTOR. WATER METERS SHALL BE INSTALLED BY THE UTILITY.
 8. LONG SERVICES UNDER PAVEMENT TO BE INSTALLED IN 3" PVC SLEEVE, MINIMUM 3' DEEP.
 9. SINGLE SERVICE METER BOXES SHALL BE HEFCO PLASTIC W/ CAST IRON LID OR APPROVED EQUAL (MINIMUM DIMENSIONS: LENGTH x WIDTH = 21.5"x10").

TEMPORARY JUMPER CONNECTION
N.T.S.

	SCALE: NONE	WATER DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	TEMPORARY JUMPER CONNECTION	W-2
	FILE: JUMPER.DWG		

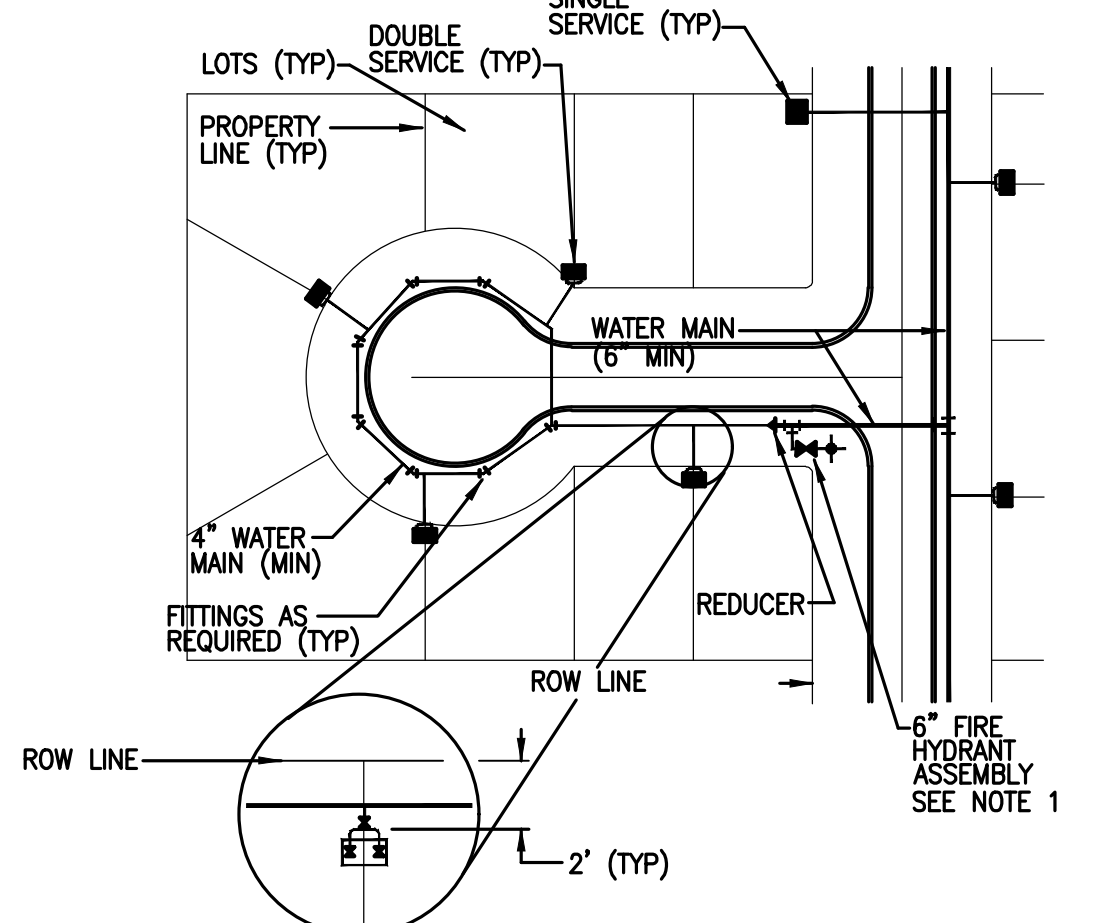


- NOTES:**
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PAK JOINT TYPE CONNECTIONS.
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 3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH THE TOP PAINTED BLUE AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
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WATER SERVICE CONNECTION
N.T.S.

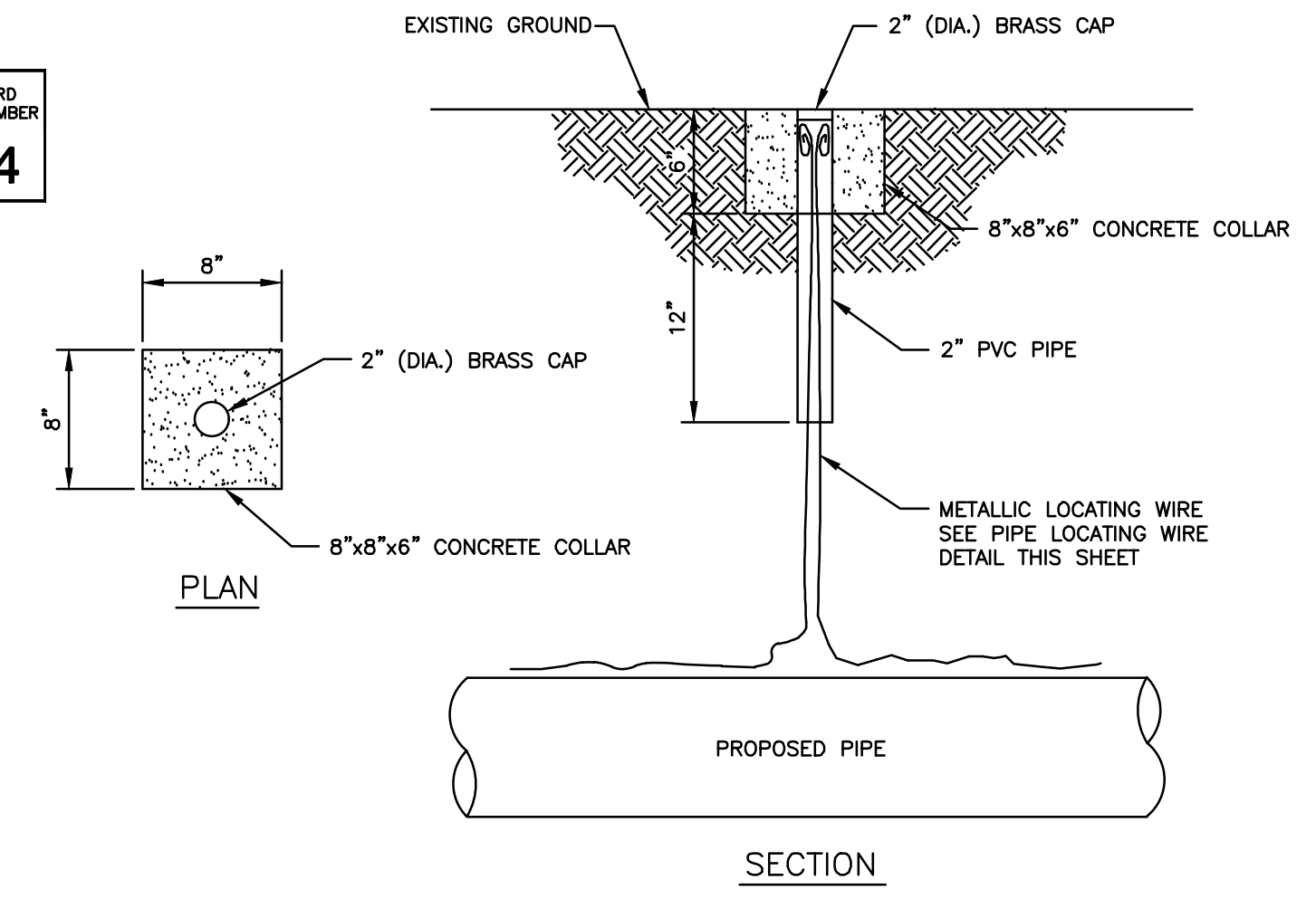
	SCALE: NONE	WATER DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	WATER SERVICE CONNECTION	W-4
	FILE: WSERVICE.DWG		

METER BOXES TO BE LOCATED OUTSIDE OF R/W LINE.



- NOTES:**
1. ANCHORING TYPE 90° BEND SHALL ONLY BE USED WHERE RIGHT-OF-WAY CONSTRUCTIONS WILL NOT ALLOW INSTALLATION OF A STRAIGHT ASSEMBLY.

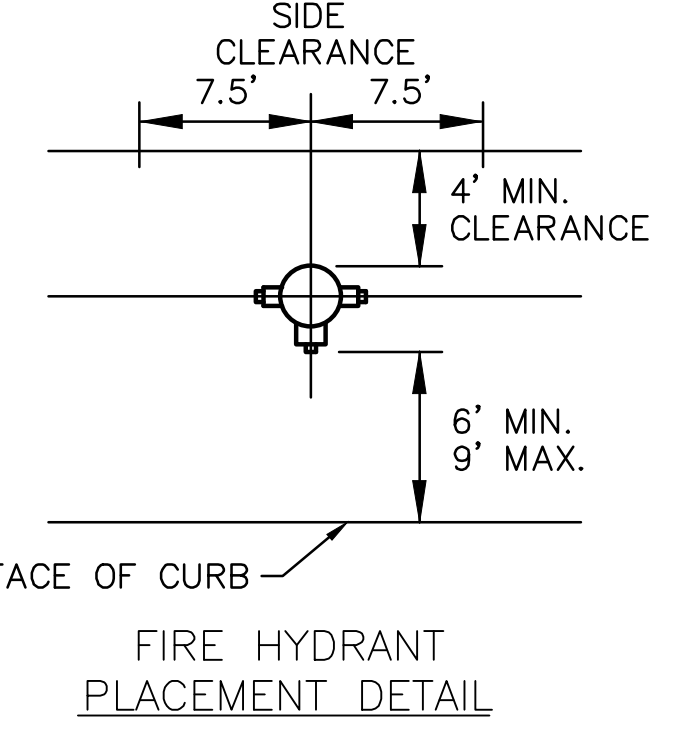
WATER SERVICE LOCATION DETAIL
N.T.S.



TRACER WIRE PORT DETAIL
N.T.S.

	SCALE: NONE	GENERAL DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	TRACER WIRE PORT DETAIL	G-23
	FILE: WIREPORT.DWG		

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FIRE HYDRANT PLACEMENT DETAIL
N.T.S.

- TEMPORARY JUMPER NOTES:**
1. A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS.
 2. THE DETAIL ABOVE IS TO BE USED FOR FILLING ANY NEW WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 8" IN DIAMETER (2.5 FPS MINIMAL VELOCITY) AND FOR FILLING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING, AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT ENVIRONMENTAL PROTECTION (FDEP) & OTHER PERTINENT AGENCIES HAS BEEN RECEIVED BY UTILITIES, INC. THIS JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS ALL THE TIME AFTER DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED. ADEQUATE TRUST BLOCKING AND/OR RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, 1992 EDITION. THIS TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABING PER SECTION II OF AWWA C651-92.
 3. FLUSHING OF 10" DIAMETER AND LARGER WATER MAINS MAY BE DONE THROUGH THE TIE-IN VALVE UNDER VERY CONTROLLED CONDITIONS.

- THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
- A. THE TIE-IN VALVES SHALL BE OPERATED AND PRESSURE TESTED IN THE PRESENCE OF THE UTILITY COMPANY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO TIE-IN. VALVES WHICH ARE NOT WATER TIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.
 - B. THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN AND FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT.
 - FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAINS.
 - ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO OPENING THE TIE-IN VALVE.
 - PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT. THE PRESSURE ON THE EXISTING MAIN MUST NOT DROP BELOW 35 PSI.
 - TIE-IN VALVE SHALL BE OPENED A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALVE IS ALWAYS GREATER THAN 10 PSI.
 - C. THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE UTILITY COMPANY UNTIL FLUSHING BEGINS.
 - D. THE TIE-IN VALVE SHALL BE OPENED ONLY FOR FLUSHING OF THE NEW MAIN. THE PROCEDURE SHALL BE DIRECTED BY THE UTILITY COMPANY AND OBSERVED BY THE ENGINEER.
 - E. AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED, THEN VERIFIED BY THE UTILITY.
4. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION DEMONSTRATING THAT THE DOUBLE CHECK BACKFLOW PREVENTION DEVICE HAS BEEN TESTED WITHIN ONE YEAR AT THE TIME OF INSTALLATION, & IS IN GOOD WORKING ORDER AT THE TIME OF INSTALLATION. THE TEST SHALL BE PERFORMED BY A QUALIFIED BACK FLOW PREVENTION TECHNICIAN AS APPROVED BY THE UTILITIES CROSS-CONNECTION CONTROL PROGRAM.
 5. EXCEPT AS REQUIRED TO FLUSH LINES OF GREATER THAN 8" IN DIAMETER, THE TIE-IN VALVE SHALL REMAIN CLOSED, LOCKED, AND VERIFIED BY THE UTILITY COMPANY. THE TIE-IN VALVE SHALL REMAIN LOCKED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER PERTINENT AGENCIES.
 6. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER PERTINENT AGENCIES, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS.
 7. ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION DEVICE, FITTINGS, VALVE, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

DONALD W. MCINTOSH ASSOCIATES, INC. CERTIFICATE OF AUTHORIZATION NO. 68
JOHN T. TOWNSEND FLORIDA P.E. NO. 59127
DATE: _____

NO.	DATE	DESCRIPTION	REVISIONS
1	7/31/17	PER UTILITIES, INC. COMMENTS OF 7/28/17	JTT
			CHK

DONALD W. MCINTOSH ASSOCIATES, INC.
ENGINEERS PLANNERS SURVEYORS
2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068

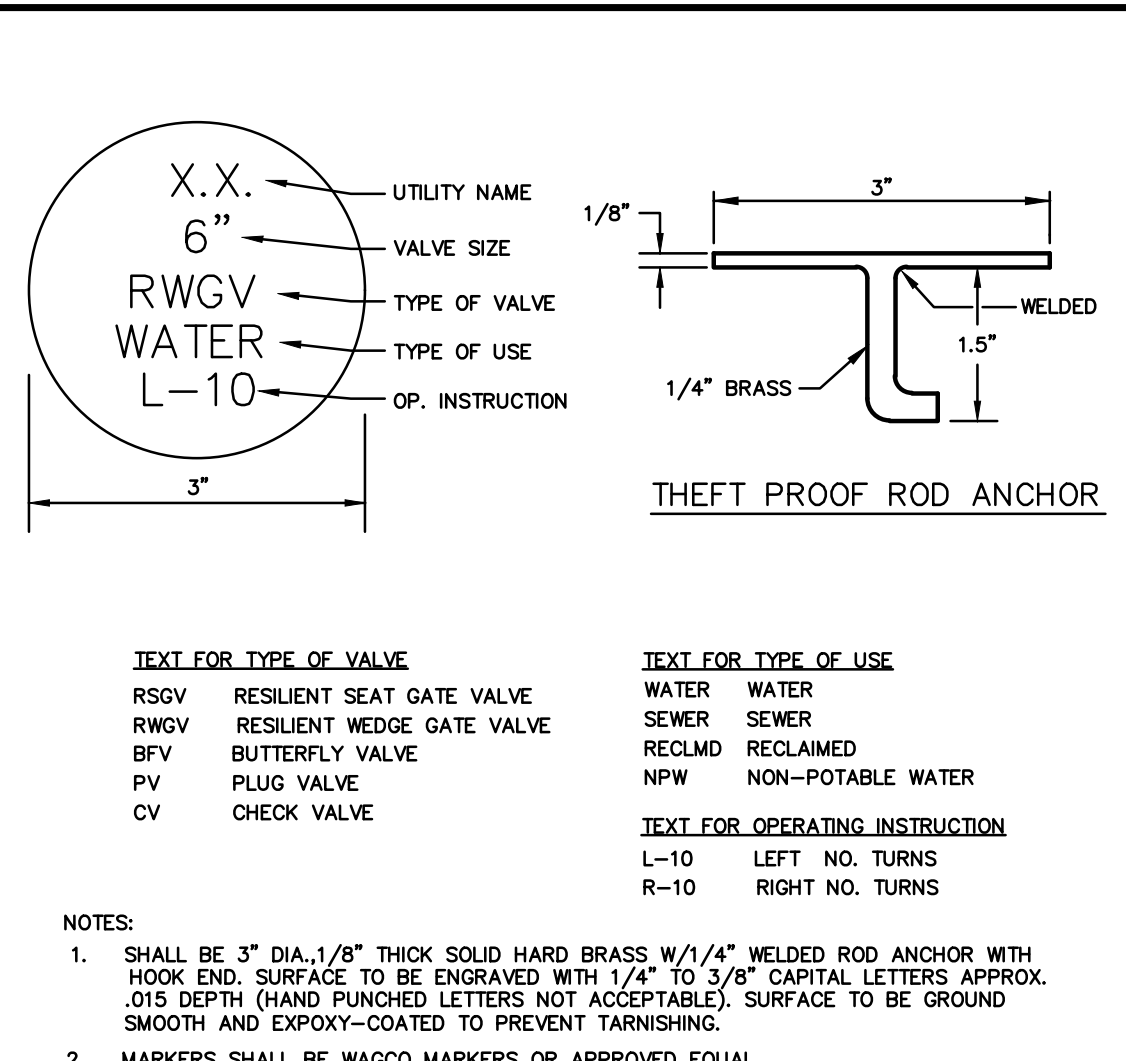
DESIGNED BY: JTT
CHECKED BY: JTT
DATE: 5/19/17
SCALE: N.T.S.
JOB NUMBER: 24018

SAWGRASS BAY - PHASE 4A & 4B
LAKE COUNTY, FLORIDA

DRAWING: 24018-W D1.dwg
SHEET: WATER DETAILS
17 OF 21

PROJECT: SAWGRASS BAY - PHASE 4A & 4B
SHEET TITLE: WATER DETAILS
DWG FILE NAME: 24018-W D1.dwg
XREF FILE NAME:

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TEXT FOR TYPE OF VALVE

RSOV RESILIENT SEAT GATE VALVE
RWGV RESILIENT WEDGE GATE VALVE
BTV BUTTERFLY VALVE
PV PLUG VALVE
CV CHECK VALVE

TEXT FOR TYPE OF USE

WATER WATER
SEWER SEWER
RECLMD RECLAIMED
NPW NON-POTABLE WATER

TEXT FOR OPERATING INSTRUCTION

L-10 LEFT NO. TURNS
R-10 RIGHT NO. TURNS

NOTES:

- SHALL BE 3" DIA. 1/8" THICK SOLID HARD BRASS W/ 1/4" WELDED ROD ANCHOR WITH HOOK END. SURFACE TO BE ENGRAVED WITH 1/4" TO 3/8" CAPITAL LETTERS APPROX. 0.15" DEPTH (HAND FINGER LETTERS NOT ACCEPTABLE). SURFACE TO BE GRIND SMOOTH AND EPOXY-COATED TO PREVENT FURNISHING.
- MARKERS SHALL BE WAGO MARKERS OR APPROVED EQUAL.
- MARKERS SHALL BE INSPECTED BY THE UTILITY PRIOR TO INSTALLATION.
- REFER TO UTILITY SPECIFICATION AND PAVED VALVE \ UV1 LOCATION DETAIL FOR PLACEMENT.
- UTILITY NAME SHALL BE THE INITIALS OF THE UTILITY PROVIDING SERVICE

UNDERGROUND VALVE MARKER (UV1) DETAIL

PROPOSED UTILITY	MINIMUM HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS						ACCEPTABLE VARIANCES
	POTABLE WATER	RECLAIMED WATER*	SANITARY SEWER (GRAVITY & F.M.)	STORM SEWER			
	HORIZ. VERT.	HORIZ. VERT.	HORIZ. VERT.	HORIZ. VERT.			
POTABLE WATER	- -	5' C/C 18"	10' 18"	10' 18"	SEE NOTE NO. 4 BELOW		
RECLAIMED WATER	5' C/C 18"	3' O/O 18"	5' C/C 18"	- -			
SANITARY SEWER	10' 18"	3' O/O 18"	5' C/C 18"	- -			

1) THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN FDEP RULES PER THE FLORIDA ADMINISTRATION CODE (F.A.C.). THESE SEPARATION REQUIREMENTS SHALL APPLY BETWEEN NEWLY PROPOSED UTILITIES LINES AND EXISTING OR PROPOSED UTILITY LINES.

2) FOR THE PURPOSE OF THIS TABLE RECLAIMED WATER SHALL MEAN UNRESTRICTED PUBLIC ACCESS REUSE WATER AS DEFINED BY F.A.C. 17-810. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED RAW SEWAGE AND SEPARATION LISTED FOR SANITARY SEWER SHALL APPLY.

3) ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE SPECIFIED. CRITERION PRODUCING GREATER CLEARANCE SHALL BE USED.

- C/C - DENOTES CENTER OF PIPE TO CENTER OF PIPE.
- O/O - DENOTES OUTSIDE OF PIPE TO OUTSIDE OF PIPE.

4) ACCEPTABLE VARIANCES/CONSTRUCTION METHODS

A. WHERE MINIMUM HORIZONTAL SEPARATION IS NOT ATTAINABLE BETWEEN THE WATER MAIN AND THE GRAVITY SANITARY SEWER, THE SEWER MATERIALS SHALL BE WATERWORKS GRADE 150 PSI PRESSURE RATED OR EQUIVALENT AND SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS.

B. WHERE MINIMUM VERTICAL SEPARATION IS NOT ATTAINABLE BETWEEN THE WATER MAIN AND THE GRAVITY SANITARY SEWER, THE SEWER MATERIALS SHALL BE WATERWORKS GRADE 150 PSI PRESSURE RATED OR EQUIVALENT AND SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS.

5) NO WATER PIPE SHALL PASS THROUGH OR BE CONSTRUCTED TOUCHING ANY PART OF A SANITARY OR STORM WATER MANHOLE OR STRUCTURE.

MINIMUM HORIZONTAL AND VERTICAL SEPARATION REQUIREMENTS

PIPE RESTRAINT FOR PVC PIPE (C-900/C-905 DR 18)

FITTING TYPE	PIPE SIZE - INCHES											
	4	6	8	10	12	14	16	18	20	24	30	36
VERT. UP OR HORIZ.	2	3	4	5	6	7	8	9	10	11	12	
11-1/4 BEND	5	6	8	10	12	13	15	16	17	20	24	
22-1/2 BEND	5	6	8	10	12	13	15	16	17	20	24	
45 BEND	10	13	17	21	24	27	30	33	36	41	48	
90 BEND	23	32	42	50	58	66	73	80	87	100	120	

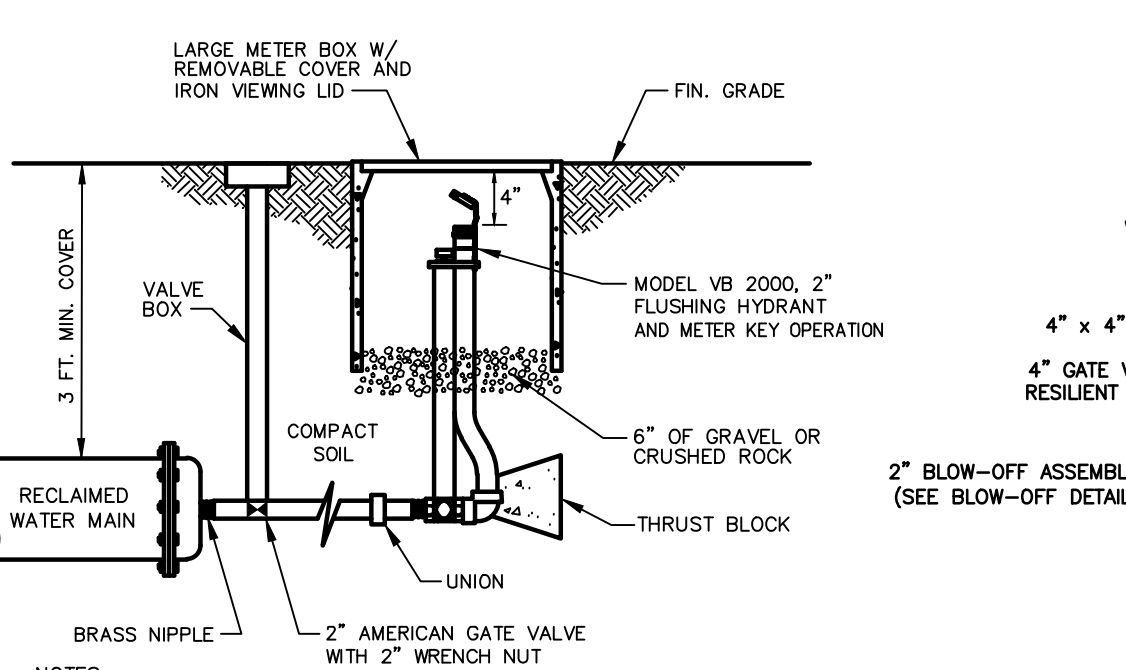
PIPE RESTRAINT FOR D.I. PIPE

FITTING TYPE	PIPE SIZE - INCHES											
	4	6	8	10	12	14	16	18	20	24	30	36
VERT. UP OR HORIZ.	2	3	4	5	6	7	8	9	10	11	12	
11-1/4 BEND	5	6	7	9	10	12	13	14	16	18	20	
22-1/2 BEND	4	6	7	9	10	12	13	14	16	18	20	
45 BEND	8	12	17	21	24	27	30	33	36	41	48	
90 BEND	23	32	42	50	58	66	73	80	87	100	120	

NOTES:

- SAND-SILT SOIL (COHESIONLESS SOIL WITH 30% INTERNAL FRICTION ANGLE. PIPE FRICTION/SOIL FRICTION RATIO = 0.6, SOIL DENSITY 90 PCF).
- PIPE LAYING CONDITION 3 (NO SELECT BEDDING OR BACKFILL).
- 150 PSI DESIGN PRESSURE. FOR 200 PSI DESIGN PRESSURE (FIRE LINES), INCREASE RESTRAINED LENGTH BY 50%.
- 3 FOOT MINIMUM COVER ON THE PIPE.
- ALL RESTRAINED JOINT LENGTHS IN FEET.

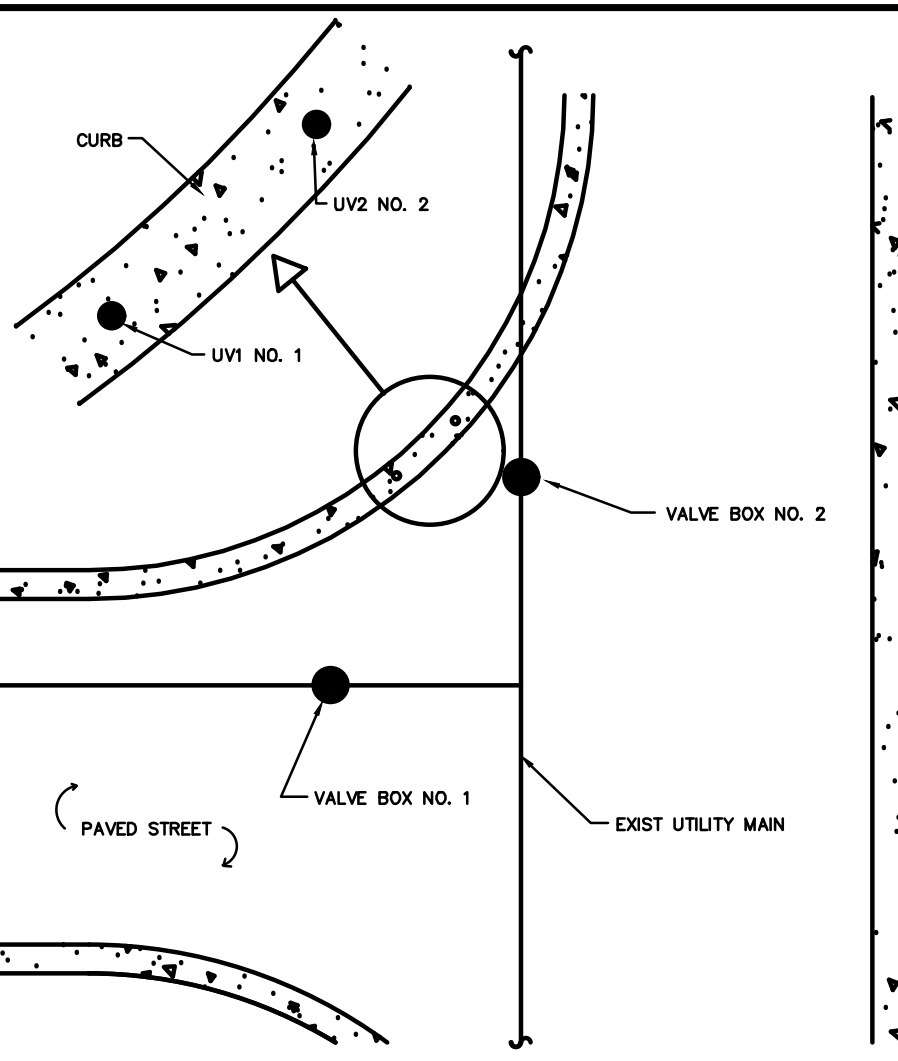
RESTRAINED JOINT PIPE LENGTHS



BLOW-OFF (FLUSH HYDRANT) DETAIL

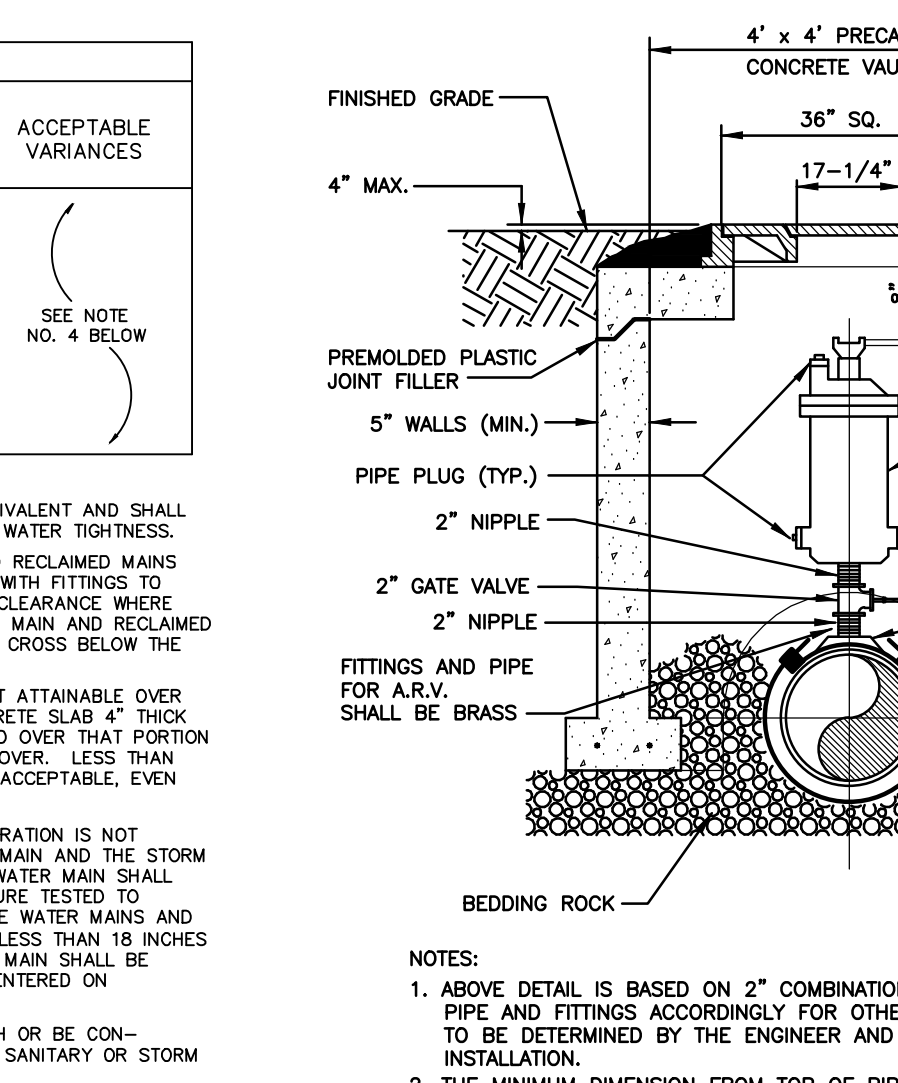
NOTES:

- NO GALVANIZED FITTINGS PERMITTED.
- ALL BRASS FITTINGS SHALL BE 2" IPT INLET AND 2 1/2" NST OUTLET.
- FLUSHING HYDRANT ASSEMBLY SHALL BE WATER PLUS CORPORATION, PENSACOLA, FL (800) 842-9878
- CONTRACTOR SHALL PROVIDE DIFFUSER DESIGNED FOR FLUSHING.



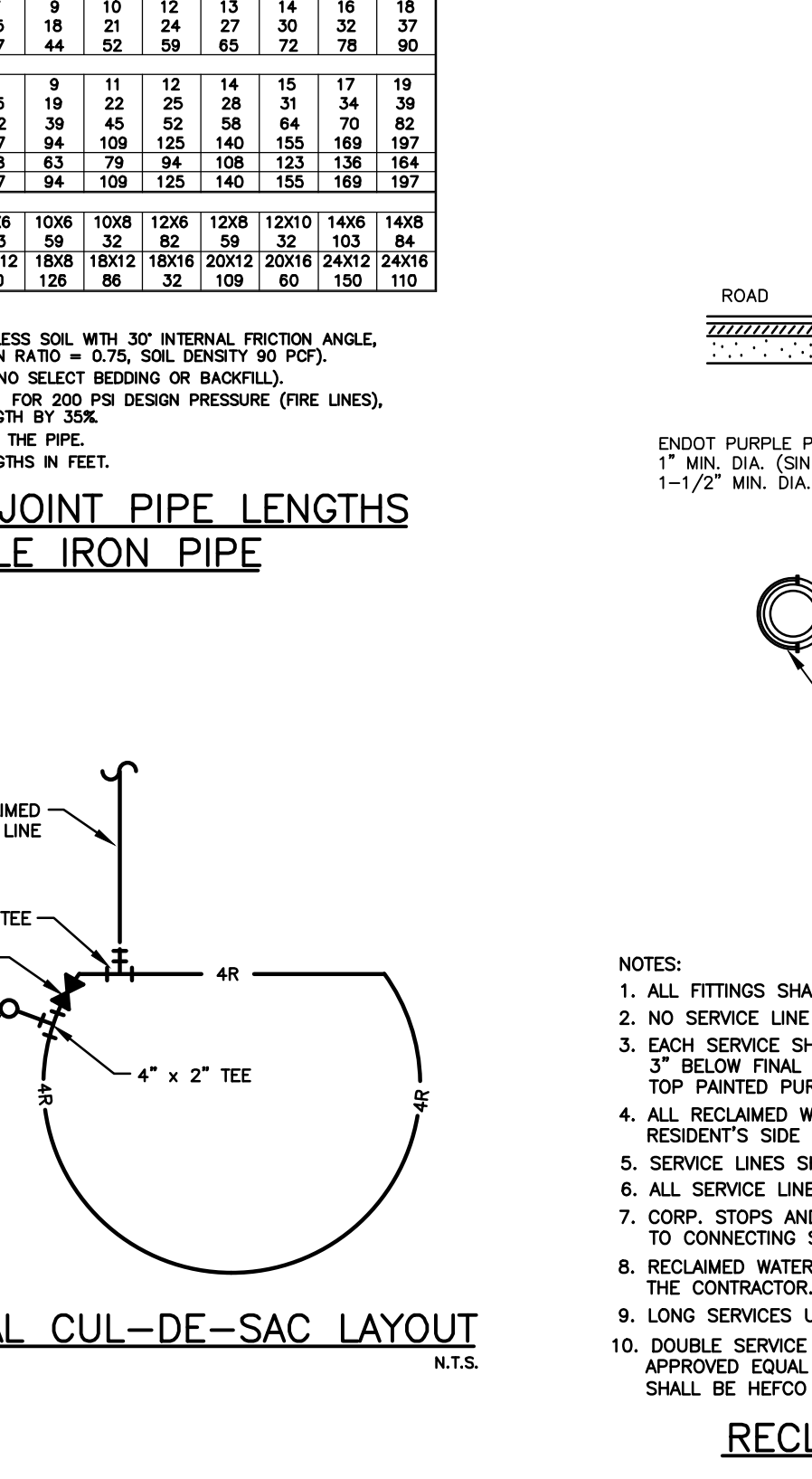
NOTES:

- VALVES SHALL NOT BE PLACED UNDER PAVEMENT UNLESS PRIOR WRITTEN APPROVAL FROM THE UTILITY IS OBTAINED.
- UNDERGROUND VALVE IDENTIFICATION MARKER UV1 TO BE PLACED IN SAME LOCATION ORIENTATION AS VALVE.
- LOCATION OF UV1 TO BE APPROVED BY UTILITY PRIOR TO INSTALLATION.



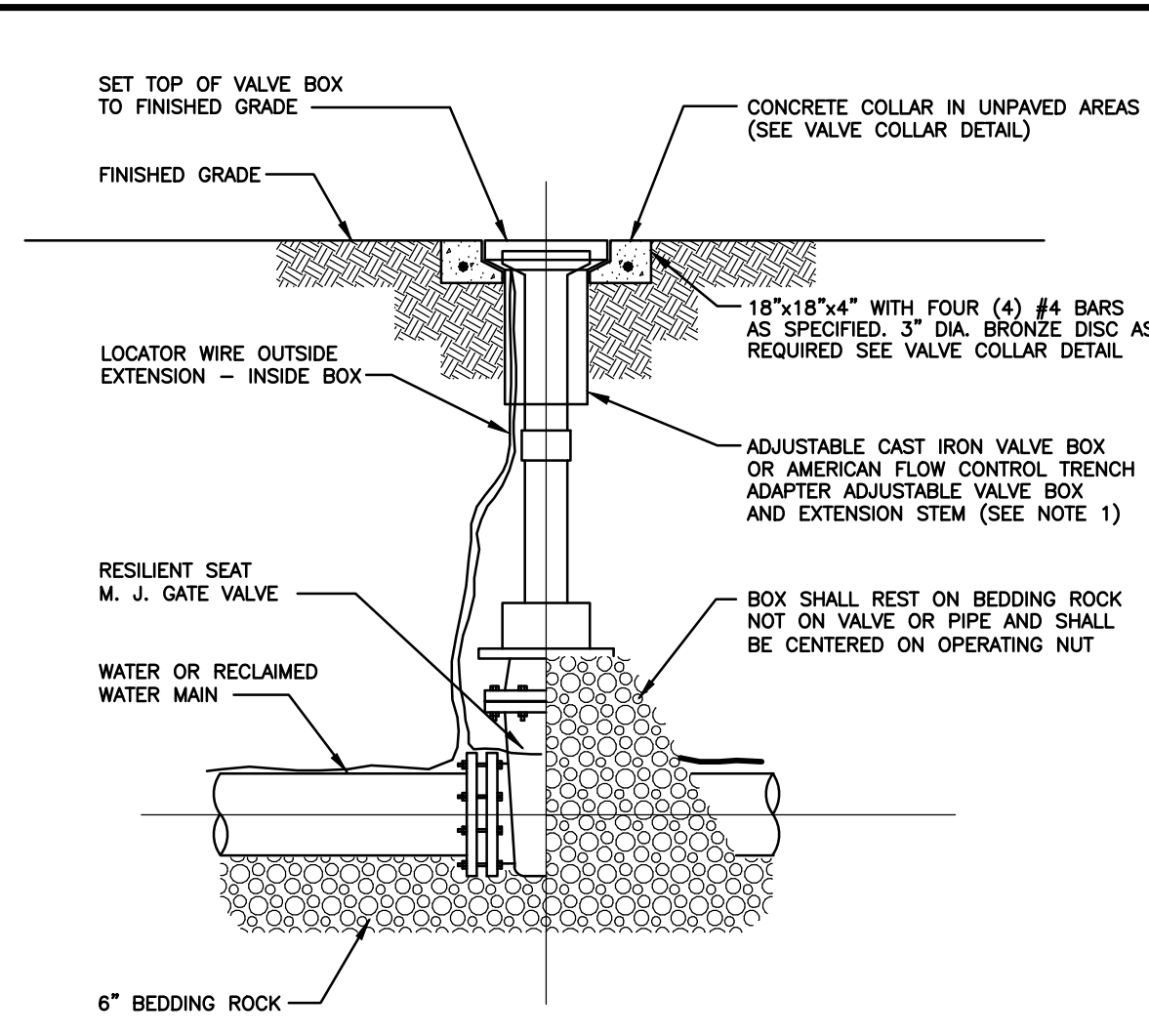
NOTES:

- ABOVE DETAIL IS BASED ON 2" COMBINATION AIR/VACUUM RELEASE VALVE. CHANGE PIPE AND FITTINGS ACCORDINGLY FOR OTHER VALVE SIZES AND TYPES. VALVE SIZES TO BE DETERMINED BY THE ENGINEER AND APPROVED BY THE UTILITY PRIOR TO INSTALLATION.
- THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.
- IF THE REQUIREMENT FOR AN ABOVE GRADE VENT IS WAIVED BY FDEP, THEN A DOWNTURNED VENT MUST BE PLACED INSIDE THE VAULT.



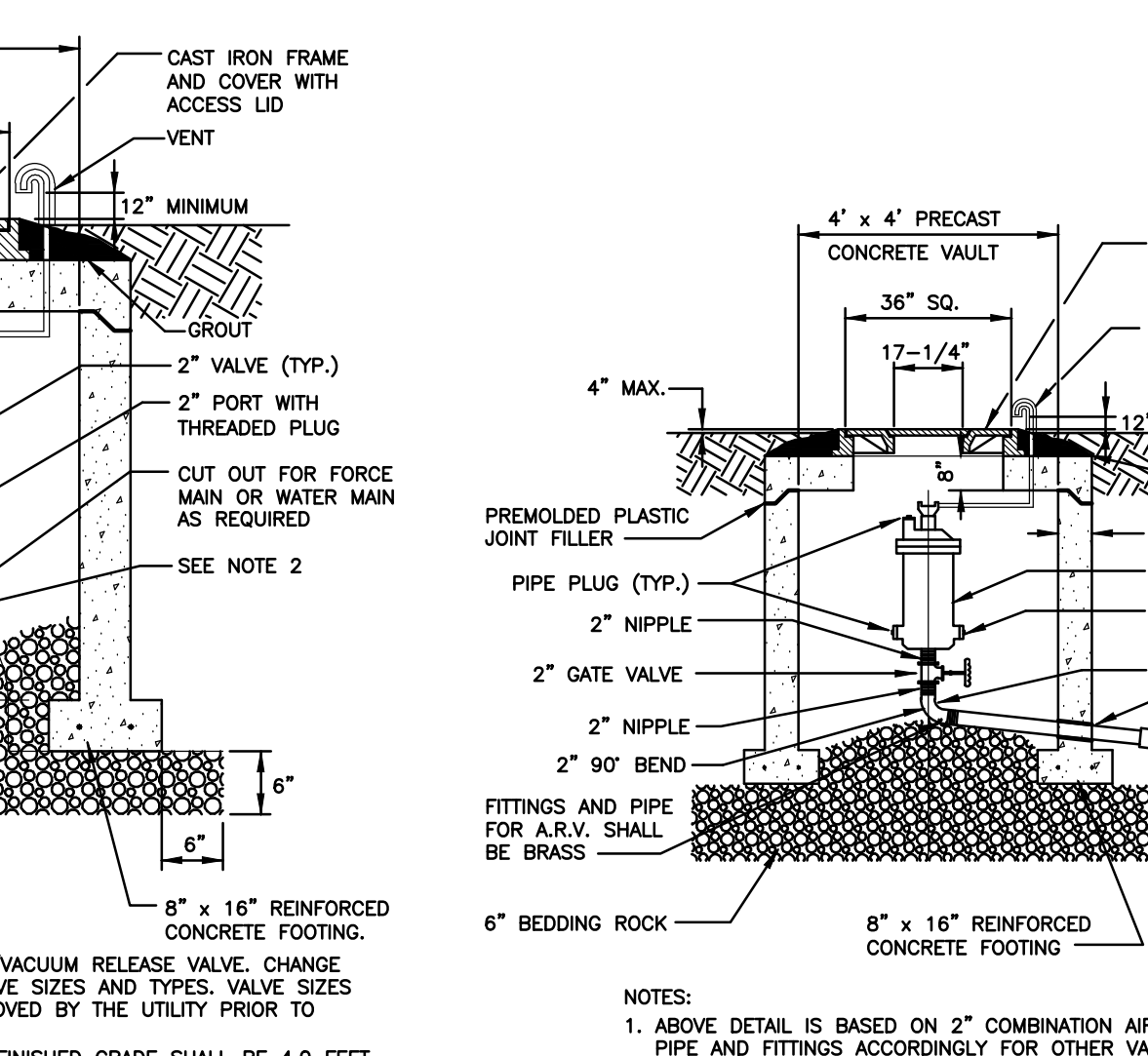
NOTES:

- ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
- NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY OR A SIDEWALK.
- EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2"x2"x18" STAKE WITH THE TOP PAINTED PURPLE AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
- ALL RECLAIMED WATER SERVICES AND METER BOXES SHALL BE LOCATED AT THE LOT LINE, ON THE RESIDENT'S SIDE OF THE SIDEWALK.
- SERVICE LINES SHALL BE CONTINUOUS FROM CORPORATION STOP TO CURB STOP.
- ALL SERVICE LINES SHALL BE DRISCO D.R.-9 TYPE "P" POLYETHYLENE TUBING (PURPLE).
- CORB. STOPS AND CURB STOPS SHALL BE BRASS EQUIPPED WITH CONNECTION COMPATIBLE TO CONNECTING SERVICE TYPE AS MANUFACTURED BY MUELLER CO. OR APPROVED EQUAL.
- RECLAIMED WATER METER VALVES AND RECLAIMED WATER METER BOXES SHALL BE INSTALLED BY THE CONTRACTOR. RECLAIMED WATER METERS SHALL BE INSTALLED BY THE UTILITY.
- LONG SERVICES UNDER PAVEMENT TO BE INSTALLED IN 3" PVC SLEEVE, MINIMUM 3' DEEP.
- DOUBLE SERVICE METER BOXES SHALL BE HEFCO PLASTIC JUMBO (PURPLE) W/ CAST IRON LID OR APPROVED EQUAL (MINIMUM DIMENSIONS: LENGTH x WIDTH = 21.5"x15"). SINGLE SERVICE METER BOXES SHALL BE HEFCO PLASTIC (PURPLE) W/ CAST IRON LID (MINIMUM DIMENSIONS: LENGTH x WIDTH 21.5"x10").



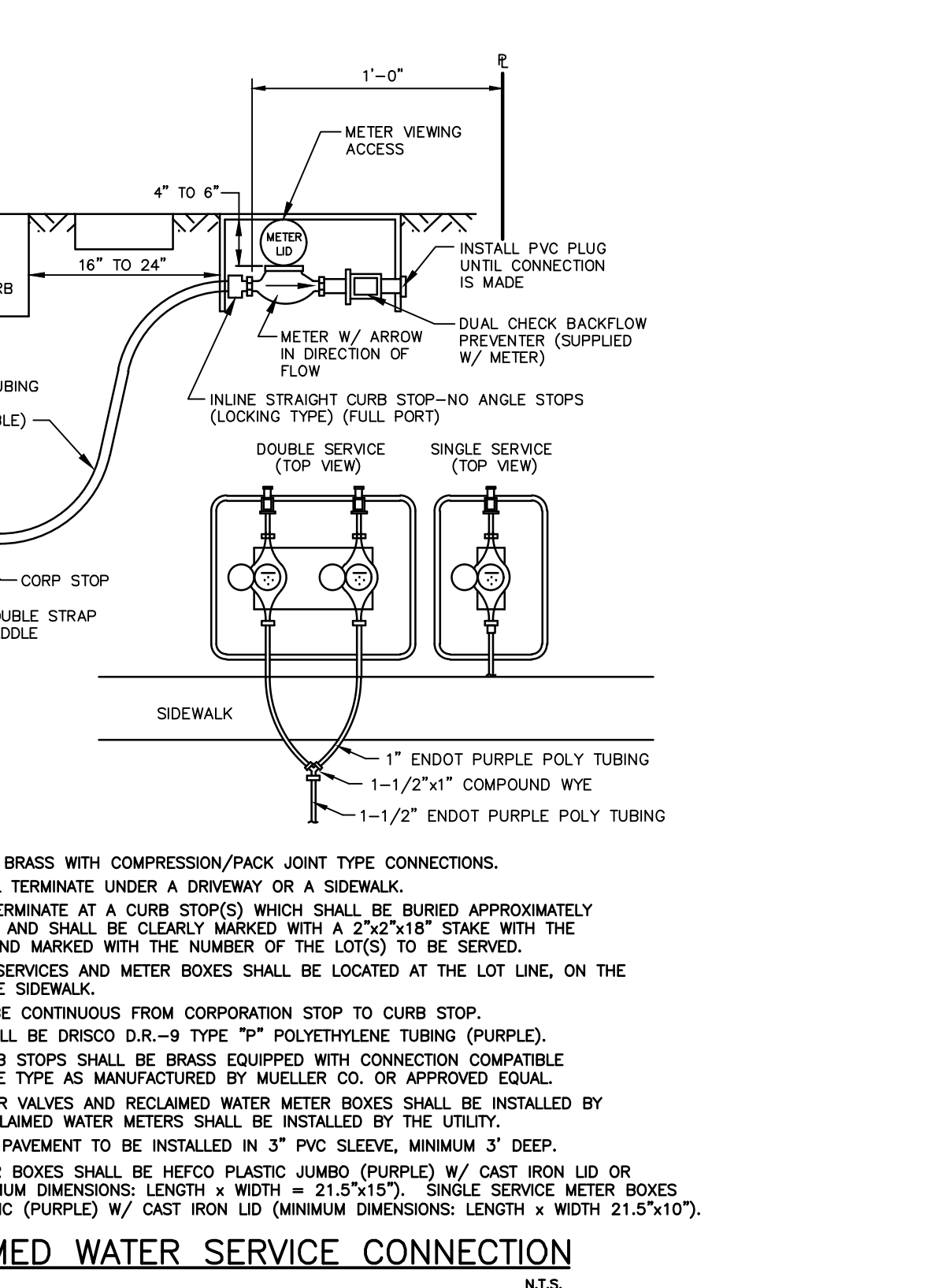
NOTES:

- PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION, EXCEPT FOR THE AMERICAN FLOW CONTROL TRENCH ADAPTER WITH 2" SQUARE NUT WRENCH
- COVER TO BE MARKED "WATER", "RECLAIMED", "NFW", OR "SEWER" AS APPROPRIATE.
- VALVES SHALL NOT BE LOCATED IN STREET CURBS.



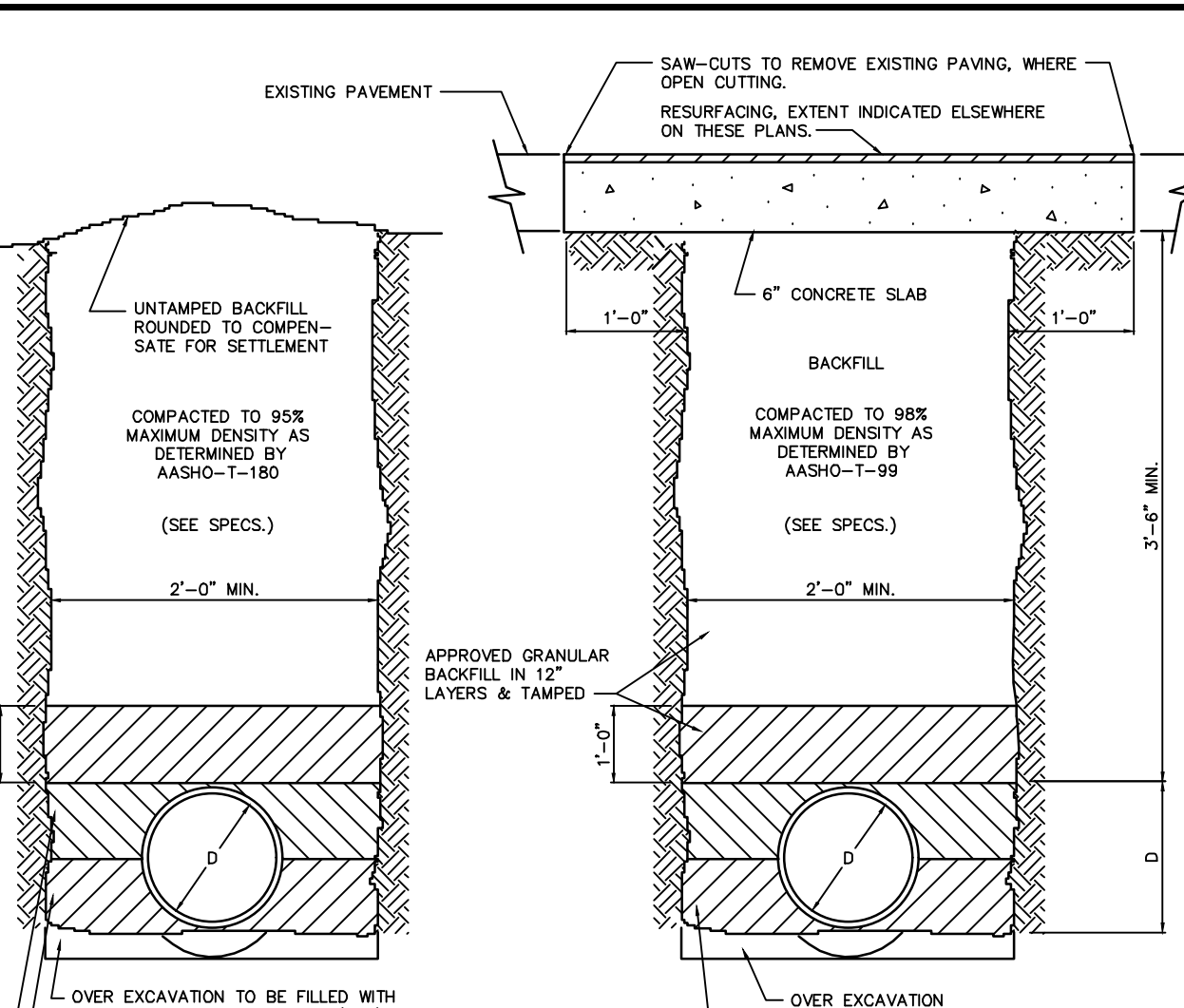
NOTES:

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- THE MINIMUM DIMENSION FROM ELBOW INVERT TO FINISHED GRADE SHALL BE 4.0 FEET.
- IF THE REQUIREMENT FOR AN ABOVE GRADE VENT IS WAIVED BY FDEP, THEN A DOWNTURNED VENT MUST BE PLACED INSIDE THE VAULT.



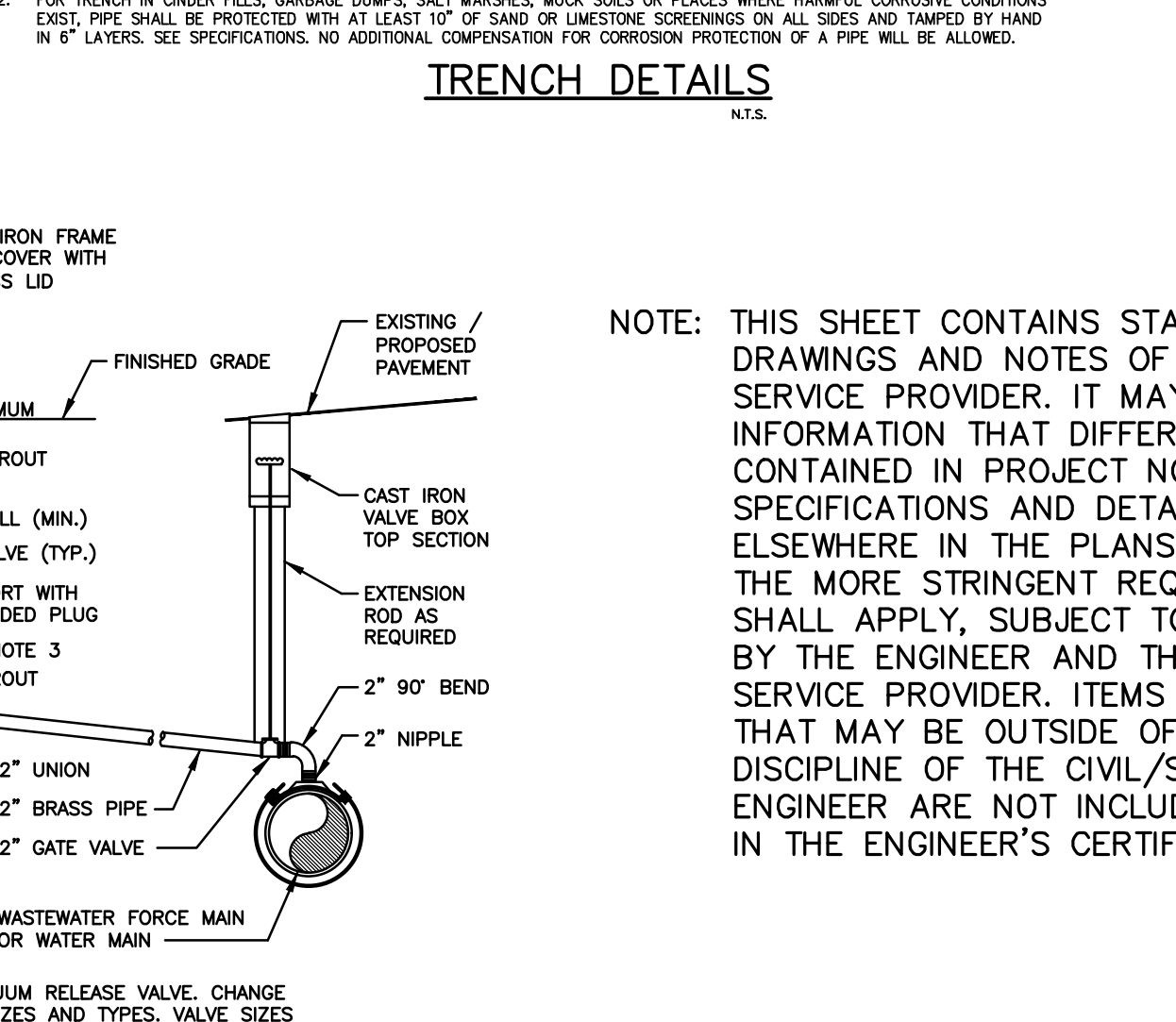
NOTES:

- RECLAIMED JOINTS SHALL ALWAYS BE USED INSTEAD OF THRUST BLOCKS FOR NEW CONSTRUCTION UNLESS SPECIFICALLY APPROVED IN WRITING BY THE UTILITY.
- THRUST BLOCK BEARING AREAS SHALL BE POURED AGAINST UNDISTURBED MATERIAL WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATED ALL LOOSE MATERIAL AND EXTEND TO UNDISTURBED MATERIAL.
- EXTEND THRUST BLOCK FULL LENGTH OF FITTINGS. PUT BOARD IN FRONT OF PLUG BEFORE POURING CONCRETE. JOINTS SHALL NOT BE COVERED BY THRUST BLOCK.
- ROUGH BLOCKING FORMS SHALL BE USED ALONG SIDE OF THRUST BLOCKS.
- THRUST BLOCKS SHALL BE USED IN COMBINATION, AS REQUIRED, TO SUIT THE SPECIFIC FITTING ARRANGEMENT.
- ALTERNATE DESIGNED RESTRAINING SYSTEMS SHALL BE PROVIDED WHERE STANDARD THRUST BLOCKING IS NOT SUITABLE, AND/OR SOIL BEARING CAPACITY IS LESS THAN 2,000 P.S.F. OR PIPE IS 16" OR GREATER.
- ALL WOOD BLOCKING SHALL BE PRESSURE TREATED WITH PRESERVATIVE.
- THRUST BLOCK AND RESTRAINING SEWER AND WATER MAIN SCHEDULES SHALL BE COMPLETED BY THE ENGINEER, BASED ON ALL DESIGN CONSIDERATIONS INCLUDING BUT NOT LIMITED TO: FOLLOWING PIPE TYPE, SOIL BEARING CAPACITY, SOIL TYPE, DEPTH OF COVER, TEST PRESSURE, LAYING CONDITIONS, SAFETY FACTOR.
- STEEL REINFORCEMENT FOR "DEAD MAN" SHALL BE DETERMINED BY ENGINEER.

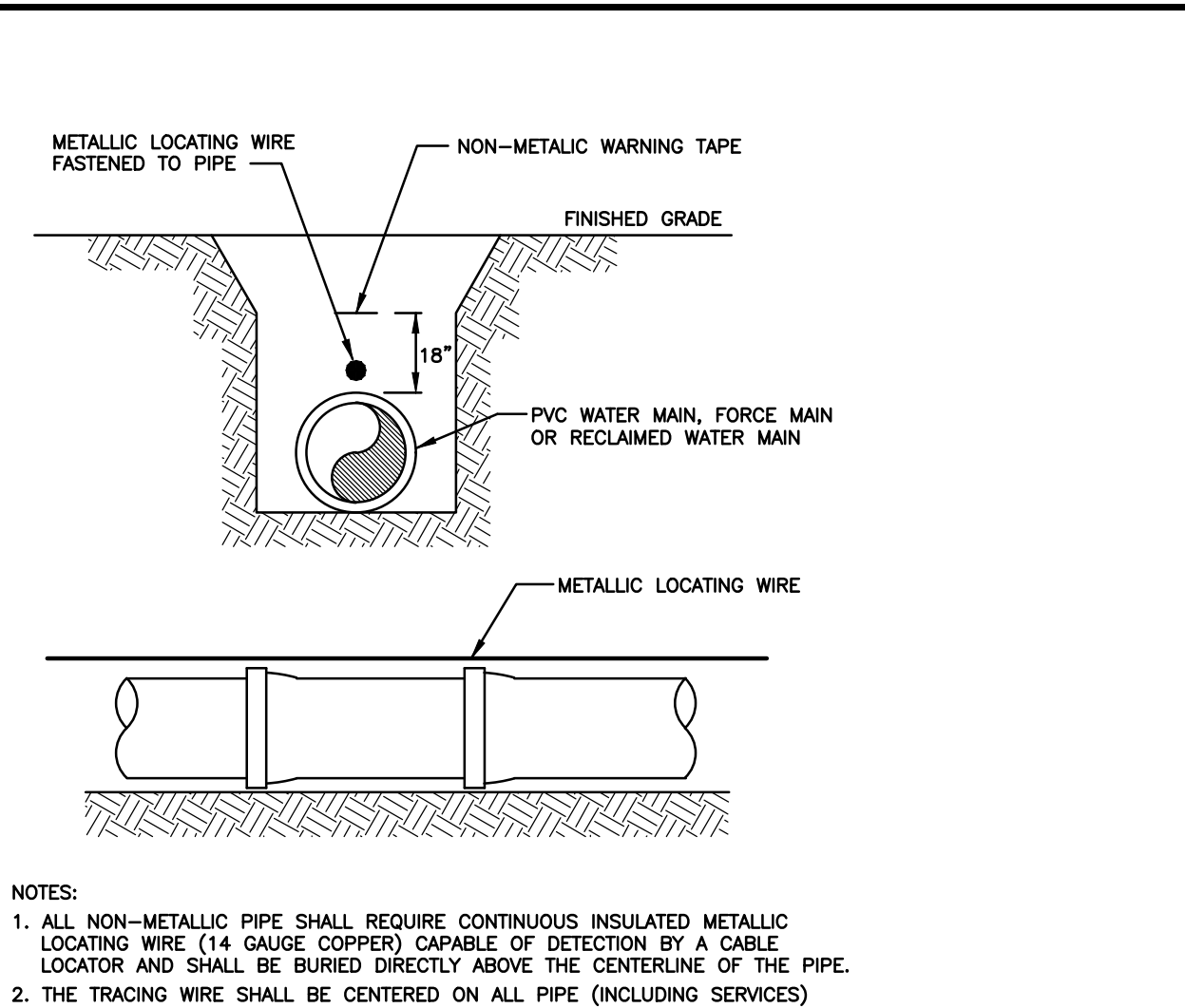
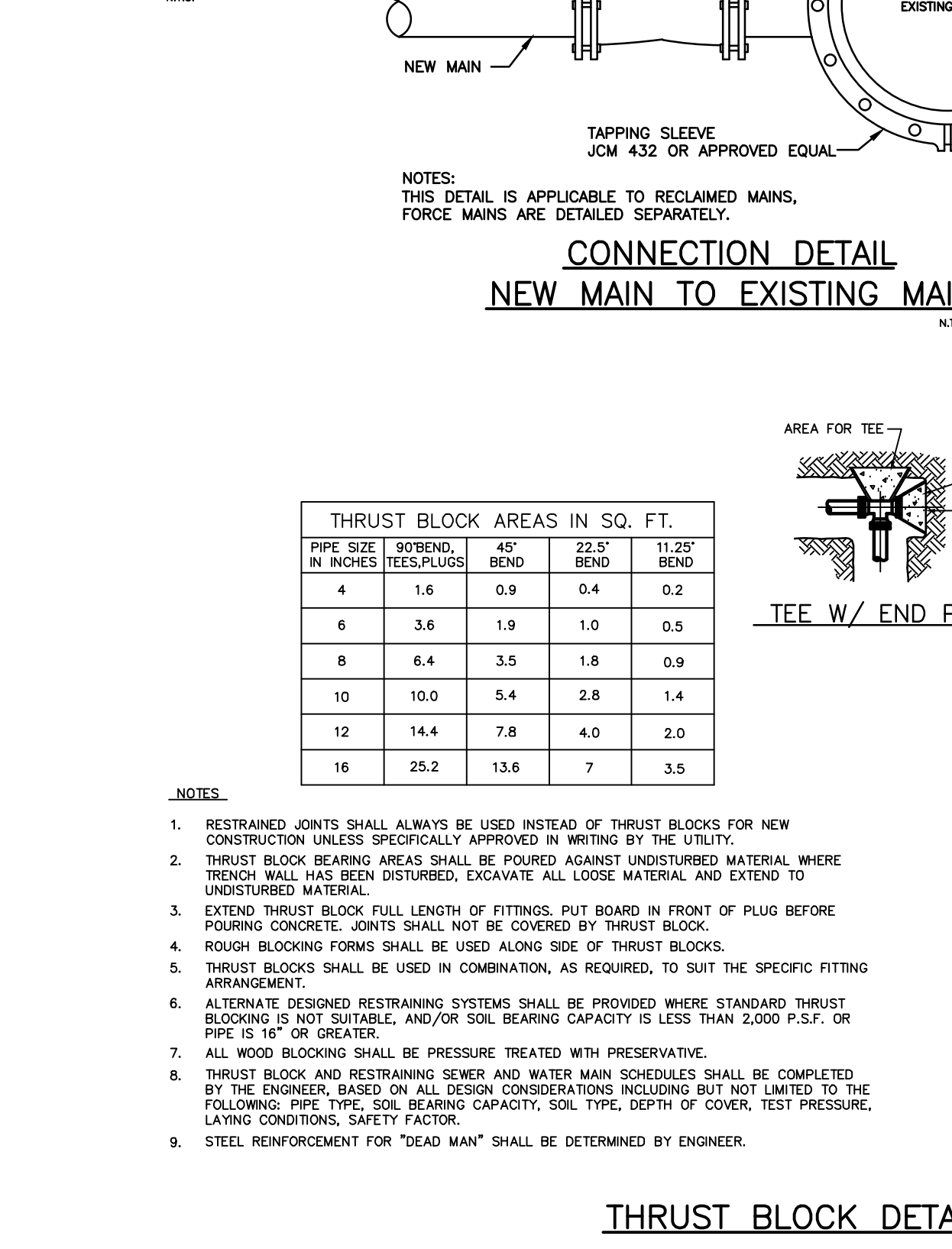


NOTES:

- NON-METALLIC PIPE SHALL REQUIRE CONTINUOUS INSULATED METALLIC LOCATING WIRE (14 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE.
- THE TRACING WIRE SHALL BE CENTERED ON ALL PIPE (INCLUDING SERVICES) AND TIED INTO ALL HYDRANTS, VALVE BOXES AND METER BOXES. TESTING FOR CONTINUITY IS REQUIRED.
- USE VINYL TIE-STRAIPS AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE. DUST TAPE SHALL NOT BE USED.
- WIRE CONNECTIONS MUST BE CLAMPED TOGETHER AND SEALED FOR MOISTURE.
- ALL WIRE SPLICE LOCATIONS SHALL BE SHOWN ON THE AS-BUILT DRAWINGS.
- WIRE AND WARNING TYP SHALL BE COLOR CODED AS FOLLOWS
WATER: BLUE
SEWER: GREEN
RECLAIMED: PURPLE

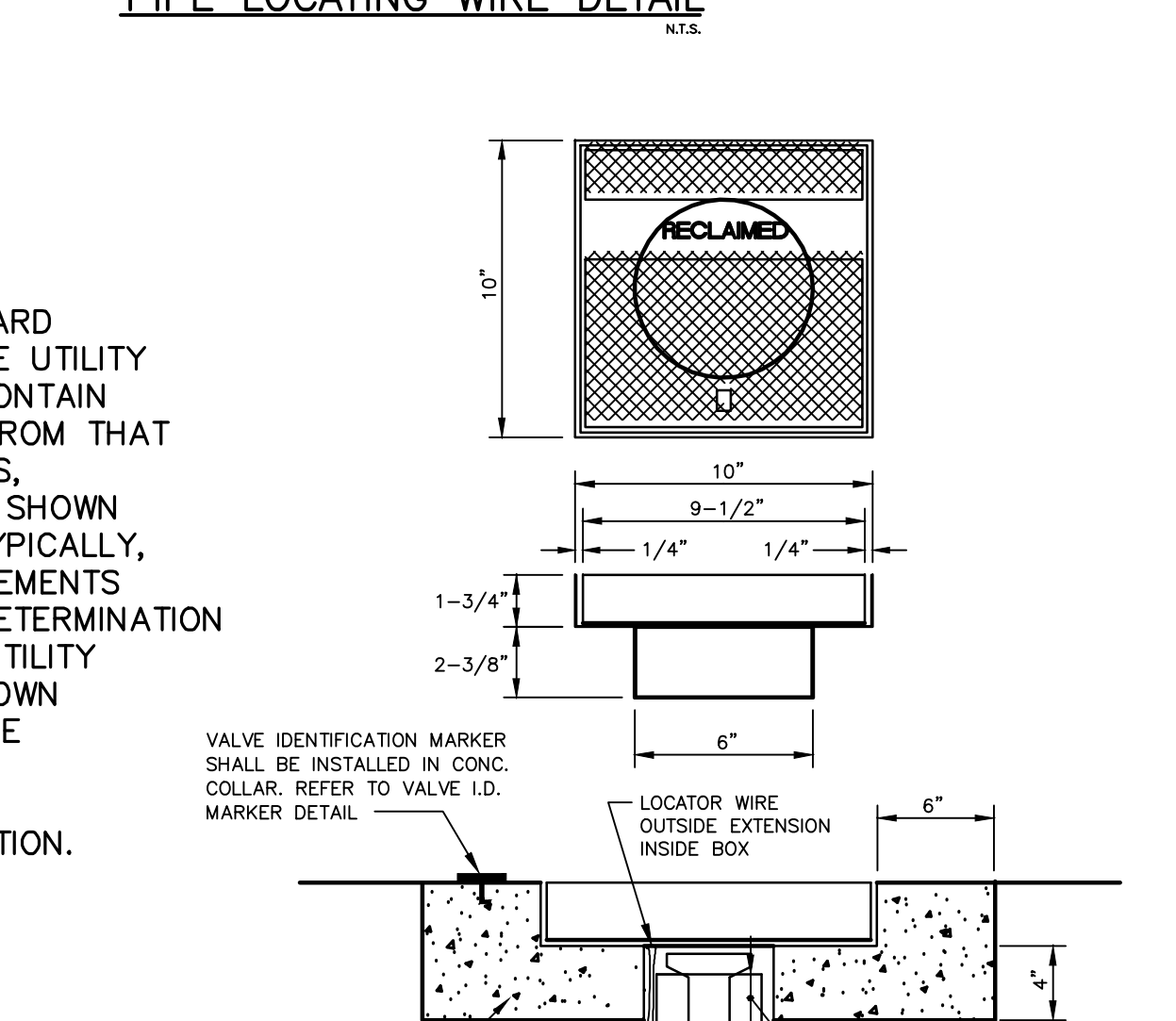


NOTE: THIS SHEET CONTAINS STANDARD DRAWINGS AND NOTES OF THE UTILITY SERVICE PROVIDER. IT MAY CONTAIN INFORMATION THAT DIFFERS FROM THAT CONTAINED IN PROJECT NOTES, SPECIFICATIONS AND DETAILS SHOWN ELSEWHERE IN THE PLANS. TYPICALLY, THE MORE STRINGENT REQUIREMENTS SHALL APPLY, SUBJECT TO DETERMINATION BY THE ENGINEER AND THE UTILITY SERVICE PROVIDER. ITEMS SHOWN THAT MAY BE OUTSIDE OF THE DISCIPLINE OF THE CIVIL/SITE ENGINEER ARE NOT INCLUDED IN THE ENGINEER'S CERTIFICATION.

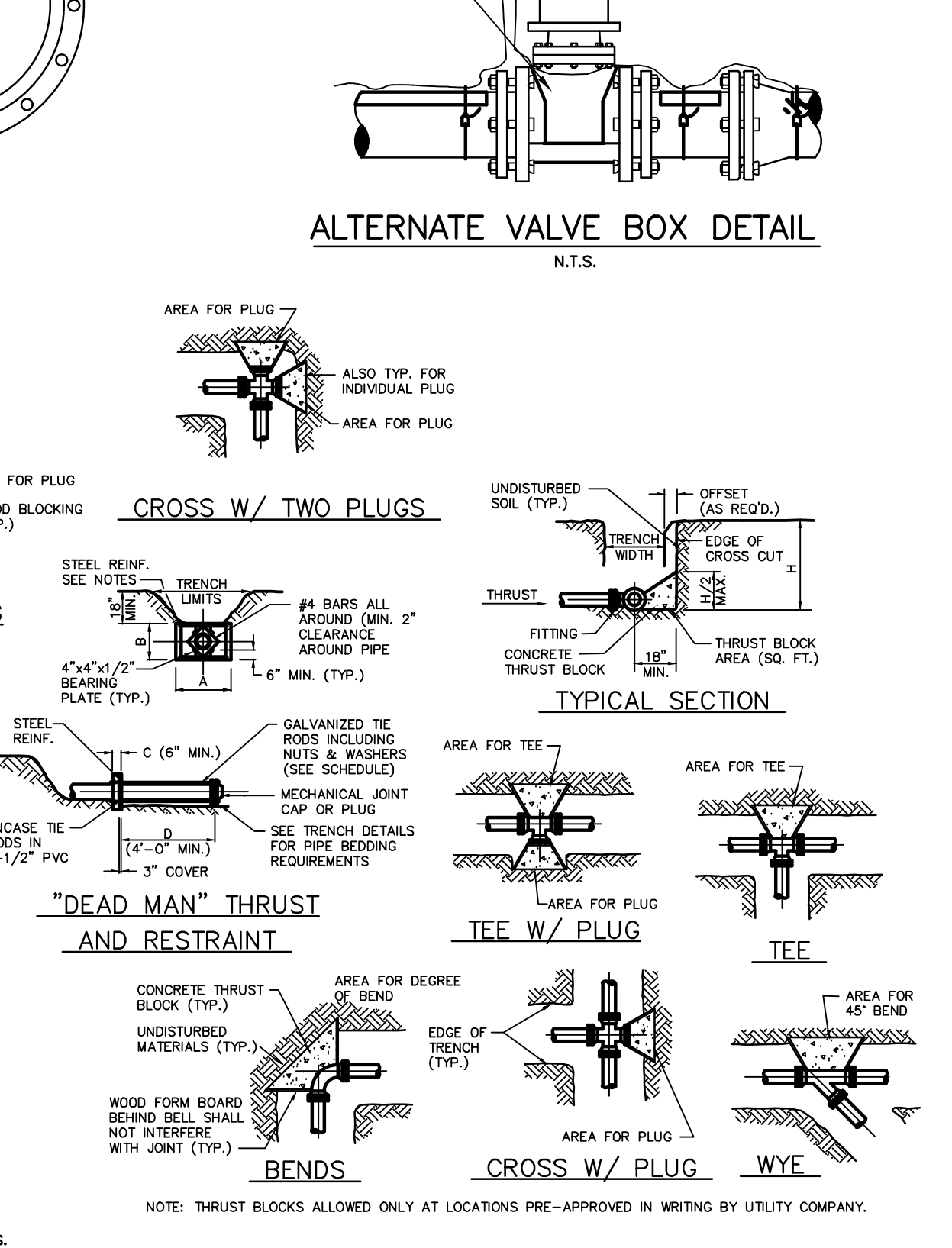


NOTES:

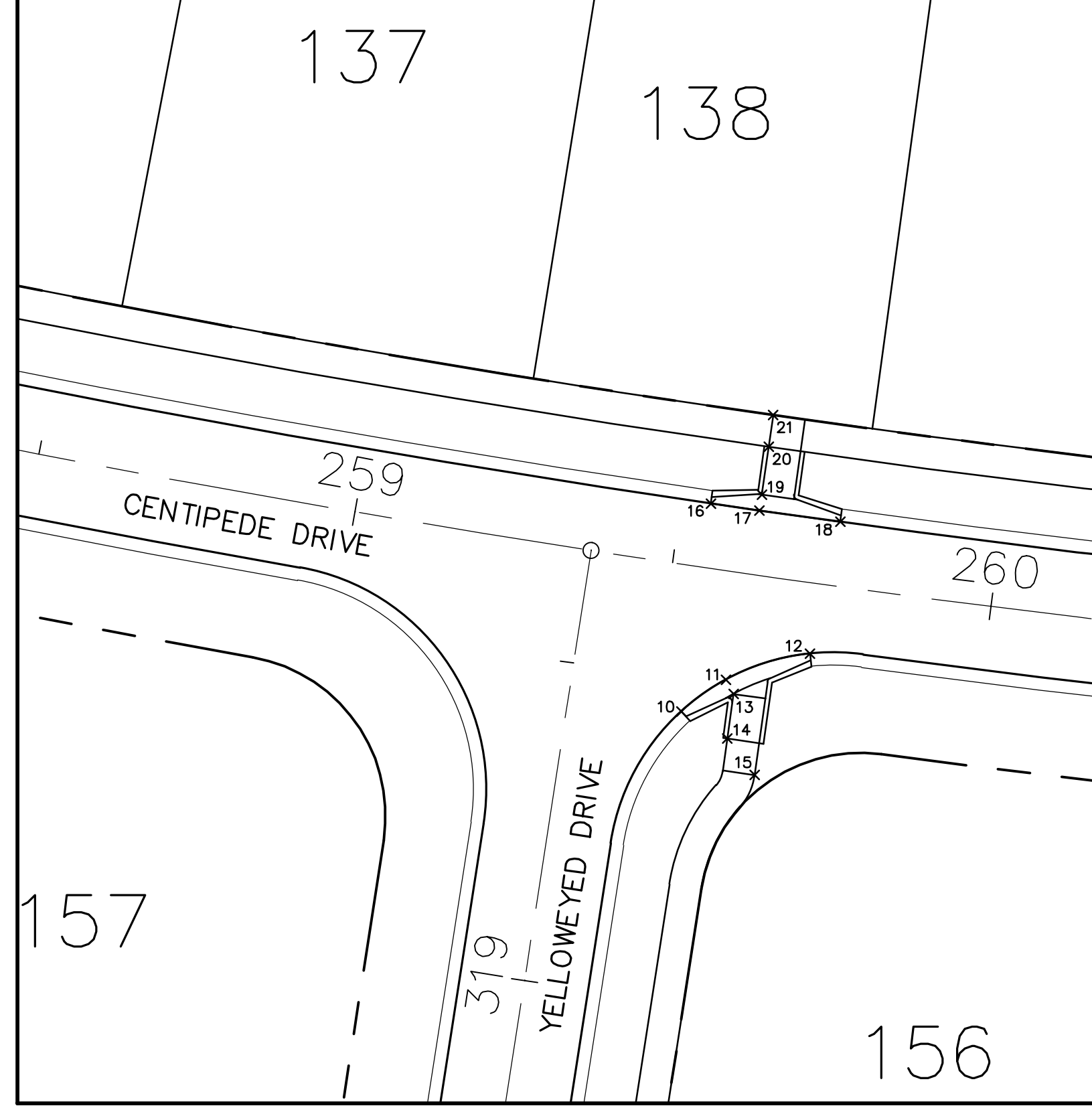
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SEWER: GREEN
RECLAIMED: PURPLE



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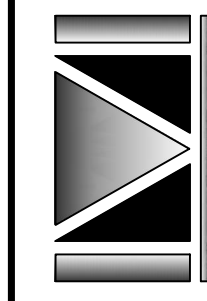


POINT TABLE		
POINT #	NORTHING	EASTING
10	1479239.887	439254.993
11	1479244.804	439261.900
12	1479248.855	439274.983
13	1479242.607	439263.092
14	1479235.676	439262.111
15	1479230.024	439266.360
16	1479272.251	439259.541
17	1479271.153	439267.134
18	1479269.397	439279.689
19	1479273.628	439267.487
20	1479281.054	439268.539
21	1479286.004	439269.241

SEE SHEET 19 FOR
 CURB RAMP DETAILS

DRAWING
 24018-Ramps.dwg

SAWGRASS BAY - PHASE 4A & 4B
 LAKE COUNTY, FLORIDA
CURB RAMP GEOMETRY



DONALD W. MCINTOSH ASSOCIATES, INC.
 ENGINEERS PLANNERS SURVEYORS
 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068

DONALD W. MCINTOSH ASSOCIATES, INC.
 CERTIFICATE OF AUTHORIZATION NO. 68

DRAWN BY: CWG/EJT
 DESIGNED BY: JTT
 CHECKED BY: JTT
 DATE: 5/19/17
 SCALE: 1"=20'
 JOB NUMBER: 24018

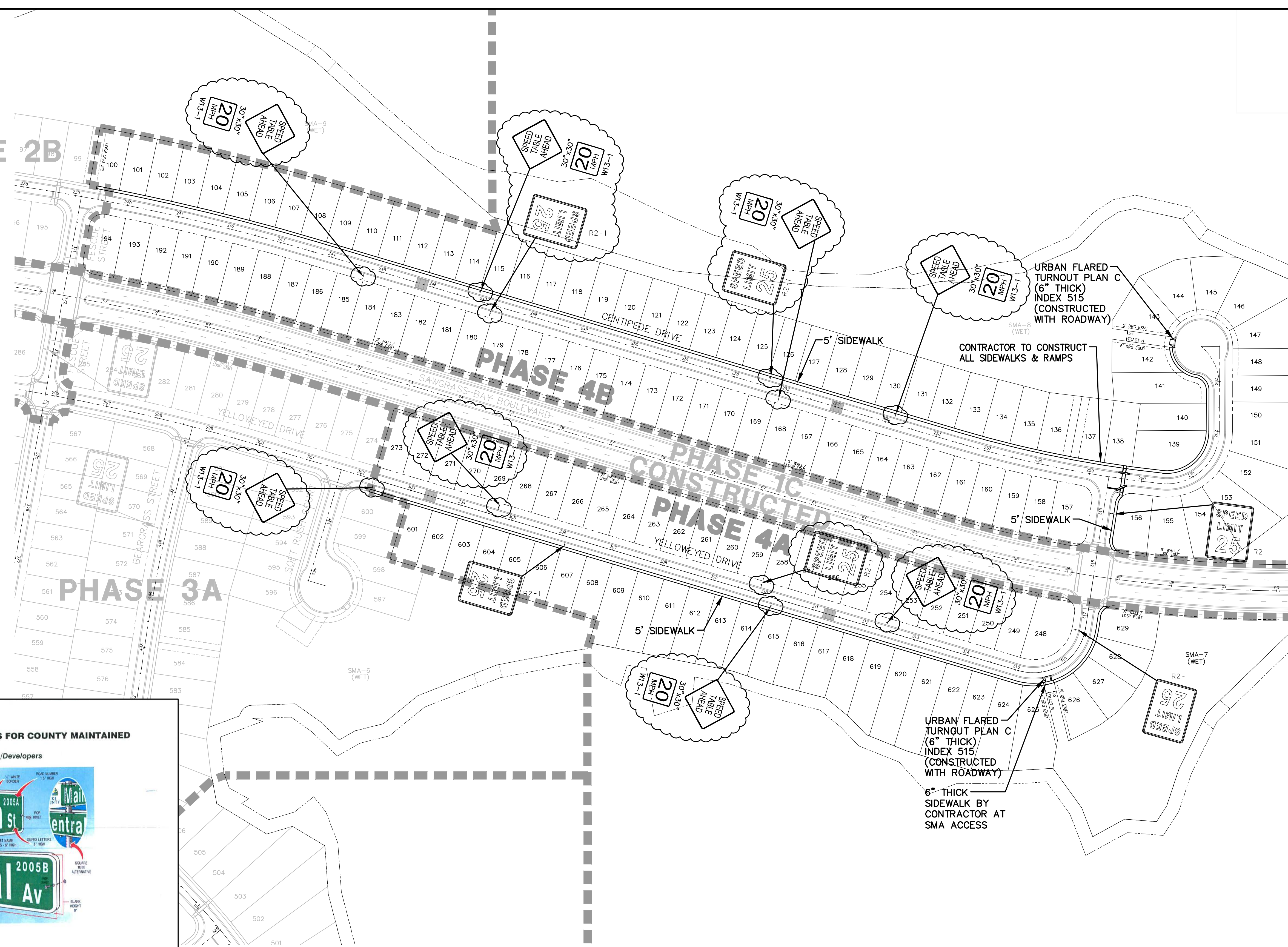
REVISIONS		
NO.	DATE	DESCRIPTION

DATE: _____
 JOHN T. TOWNSEND
 FLORIDA P.E. NO. 52127

PROJECT: SAWGRASS BAY - PHASE 4A, 4B & 4C
 SHEET TITLE: PEDESTRIAN CIRCULATION PLAN
 DWG FILE NAME: 24018-Ped_Circ.dwg
 XREF FILE NAME: 24018-4-Bases.dwg

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PHASE 2B

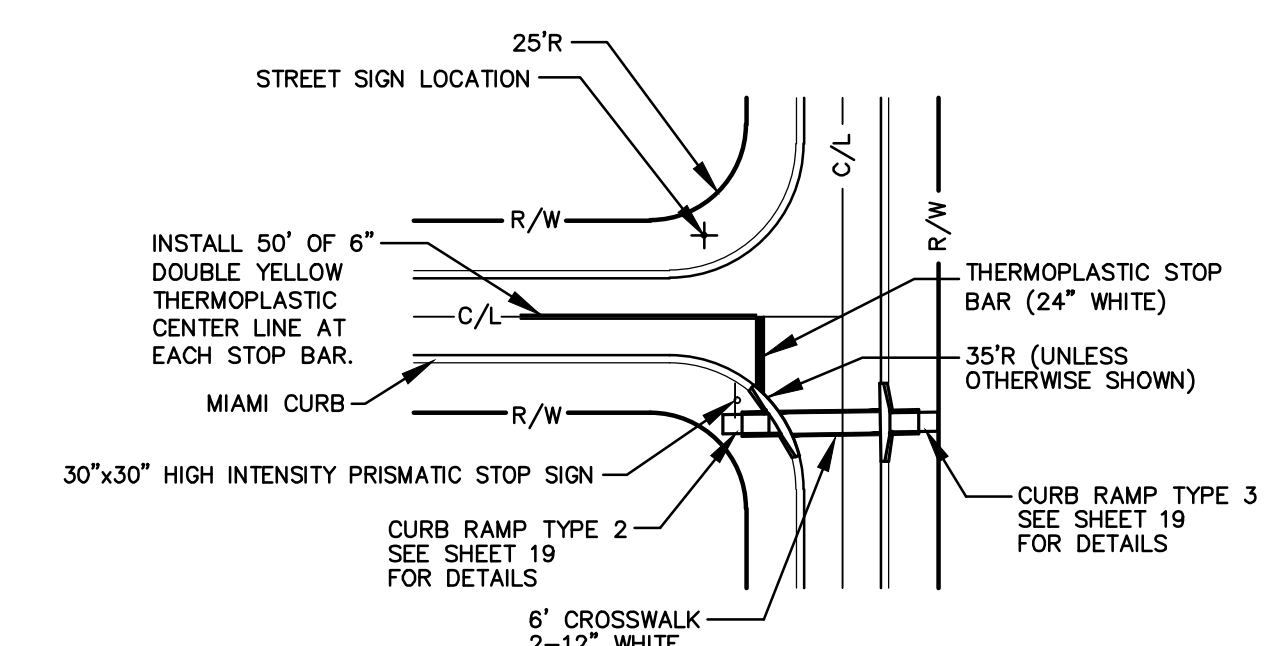


LAKE COUNTY SIGN SPECIFICATIONS FOR COUNTY MAINTAINED ROADS

For Builders/Contractors/Developers

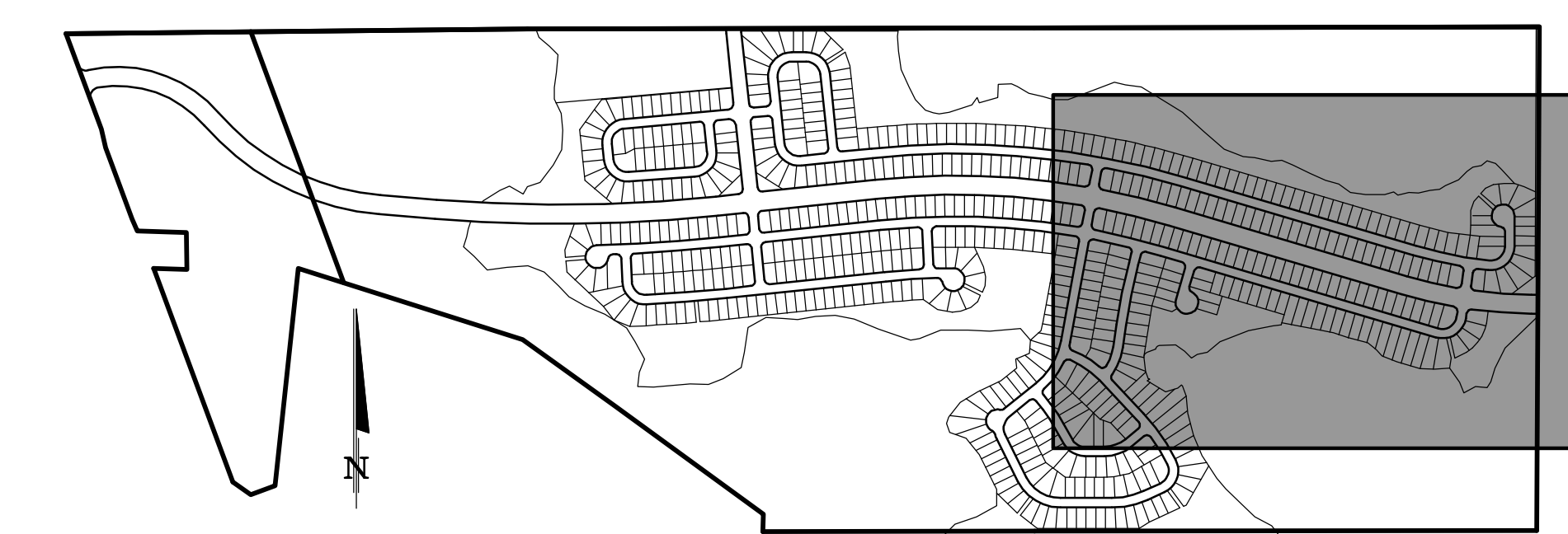


- Street Name Signs (D3's)**
- Sign Blanks**
 - .063" thick aluminum
 - Aluminum chemically treated to meet ASTM B449 standard (pretreatment for paint or reflective sheeting)
 - Dimensions are to be 9" high x 24" minimum, 50" maximum length
 - Color**
 - The background shall be high intensity prismatic or greater white sheeting, with green transparent overlay 5/8"
 - Legend/Lettering**
 - One-half inch (1/2") white border, 1/8" from the edge.
 - Street names shall be 6" series B letters
 - The abbreviated prefix "Tr", "Ave", "Ct", etc., shall be 3" series B
 - District number in the upper right corner of sign shall be 1 1/2" series B
 - Mounting**
 - Mounting shall be two single-sided signs with antibodies above, mounted back to back, with ends pop-ripped together, on a galvanized 2" metal bracket. No edge-clamping type mounting brackets are to be used.
 - Regulatory and Warning Signs**
 - Material/Sign Blanks & Facings**
 - .080 Gauge
 - With the exception of the Street Name Signs, all signs shall conform in color, size, legend and logo with specification in the Manual on Uniform Traffic Control Devices (MUTCD)
 - Stop sign minimum 30" x 30", minimum high intensity prismatic sheeting or greater. Sheeting for all signs shall be high intensity prismatic or greater.
 - Placement Specifications**
 - Placement shall be in accordance with the MUTCD (Sections 2A-21 through 2A-27) with respect to offset from edge of road, height, etc.
 - Posts should be treated to a minimum depth of 2' (30"), allowing 7" to bottom of sign from the level of the traveled roadway.
 - Posts are NOT to be concreted in place
 - Notes**
 - Sign posts shall be galvanized steel U-channel poles, not less than 12" in length (14" or 16" for covers shoulder drop-offs), with minimum weight of 3 lbs. per foot, or square tube, minimum 1 1/2" galvanized steel, minimum 14 gauge, drilled 3/8" holes on 1" centers full length.



TYPICAL PLAN AT STREET INTERSECTIONS & CURB RAMP TYPES

NOTE: SIDEWALK CONSTRUCTION IN FRONT OF LOTS MAY BE DEFERRED SHOULD THE DEVELOPER PROVIDE A PERFORMANCE BOND IN ACCORDANCE WITH LAKE COUNTY CRITERIA.



KEYMAP

DONALD W. MCINTOSH ASSOCIATES, INC. ENGINEERS PLANNERS SURVEYORS 2200 PARK AVENUE NORTH, WINTER PARK, FLORIDA 32789 (407) 644-4068		DONALD W. MCINTOSH ASSOCIATES, INC. CERTIFICATE OF AUTHORIZATION NO. 68 JOHN T. TOWNSEND FLORIDA P.E. NO. 59127 DATE:
DRAWN BY CWG/EJT	DESIGNED BY JTT	CHECKED BY JTT
DATE 5/ /17	SCALE 1"=100'	JOB NUMBER 24018
PER COUNTY COMMENTS OF 6/27/17	DATE 7/31/17	JTT CHK.
REVISIONS		
NO. DATE DESCRIPTION		
1 7/31/17 PER COUNTY COMMENTS OF 6/27/17		
SAWGRASS BAY - PHASE 4A & 4B LAKE COUNTY, FLORIDA PEDESTRIAN CIRCULATION, STRIPING & SIGNAGE PLAN		
DRAWING 24018-Ped_Circ.dwg	SHEET	21 OF 21