## CONSTRUCTION PLANS FOR

# Pine Top Subdivision

A PROPOSED 73 LOT RESIDENTIAL SUBDIVISION OF A PORTION OF SECTION 3, TOWNSHIP 1 NORTH, RANGE 31 WEST ESCAMBIA COUNTY, FLORIDA ZONING: LDR FLU: MU-S DSAP CONSERVATION NEIGHBORHOOD (OPT OUT CASE NUMBER OSP-2020-02 HAS BEEN APPROVED) MARCH 2022

# -OOLEY-RD -RIDGE WAY PROJECT WELLEINE RD TO -- O

VICINITY MAP (NOT TO SCALE)

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**ECUA Engineering Manual Reference Note\*** \*note shall be inserted in the upper right corner of title sheet

\* applicable only to ECUA infrastructure to be constructed in public ROW or in utility easement; not to be applied to private water/sewer facilities on private property (see Building Code)

### A. ECUA Engineering Manual Incorporated by Reference

The ECUA Engineering Manual, dated December 18, 2014, along with Update # 1 dated September 1, 2016 (hereinafter "Manual"), located at www.ecua.fl.gov, is hereby incorporated by reference into this Project's official contract documents as if fully set forth therein. It is the Contractor's responsibility to be knowledgeable of the Manual's contents and to construct the Project in accordance with the Manual. The Contractor shall provide its employees access to the Manual at all times, via Project site or office, via digital or paper format. In the event of a conflict between the Manual and Plans, Contractor shall consult Engineer of Record for proper resolution.

### B. Additional Documents (to be completed by the Engineer of Record)

Does this Project have additional technical specifications or construction details that supplement and/or supersede the Manual listed above? XYES NO□. If yes, Contractor shall construct Project in accordance with said documents as listed and located below:

	Docum	ent Type	Location	
Document Name	Specifi- cation	Specifi- cation Detail		Project Manual*
LPFM DETAIL		×	×	
				П

\*Project Manuals used only with ECUA CIP Projects

### C. Engineer of Record Responsibilities

The Engineers of Record (EORs) that have affixed their seals and signatures on these plans warrant their portions of the plans have been designed in accordance with the Manual (unless otherwise directed by the ECUA Project Engineer). The EORs shall be knowledgeable of the Manual's contents and shall assume responsibility for its use on this Project.

ALL POTABLE WATER WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH COTTAGE HILL WATER SPECIFICATIONS. ALL SANITARY SEWER WORK SHALL BE CONSTRUCTED IN ACCORDANCE

### WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL.

### OWNER AND DEVELOPER

TEN MILE ROAD, LLC 5805 SAUFLEY FIELD ROAD PENSACOLA, FL 32526 PHONE: (850) 572-3005

### **SURVEYOR**

MERRILL PARKER SHAW, INC. 4928 N. DAVID HWY PENSACOLA, FL 32503 P: (850)478-4923

# ENGINEER OF RECORD

DAVID W. FITZPATRICK, P.E, P.A. PROFESSIONAL ENGINEER 10250 NORTH PALAFOX STREET PFNSACOLA, FLORIDA 32534 (850) 476-8677

### DRAINAGE FEE

Imperv. Surf. 52193.0 Sq ft Stormwater Ret. 0.74 % (F) Total Drainage Fee \$ 1,931.14 Pond Maint. Fee: MSBU

### **UTILITY CONTACTS**

CONTRACTOR SHALL NOTIFY SUNSHINE 1 48 HOURS PRIOR TO COMMENCING CONSTRUCTION 1-800-432-4770

PERMIT SET

NOT RELEASED FOR CONSTRUCTION

GULF POWER CO. ALLEN THOMPSON 850-429-2603

PENSACOLA ENERGY DIANE MOORE 850-474-5319

AT&T STEPHEN KENNINGTON 850-512-4848

COX COMMUNICATIONS TROY YOUNG 850-232-5044

PETER KUMMER 850-969-6643

COTTAGE HILL WATER RONALD REYNOLDS 850-968-5485

This document has been reviewed in accordance with requirements of applicable Escambia County Regulations and Ordinances and does not in any way relieve the submitting Architect, Engineer, Surveyor, or

other signatory from responsibility of details as drawn.



**GENERAL NOTES:** 

### 1. CONTRACTOR SHALL NOTIFY ESCAMBIA COUNTY DESIGNEE AND/OR COUNTY INSPECTOR 48 HOURS PRIOR TO COMMENCEMENT OF THIS PROJECT.

2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO WIPE OUT OR ADJUST THE CROWN WHERE SO NOTED BY THE ENGINEER AND/OR REQUIRED FOR POSITIVE DRAINAGE. PROPERTY OBSTRUCTIONS WHICH ARE TO REMAIN IN PLACE, SUCH AS BUILDINGS, SEWERS, DRAINS, WATER, OR GAS PIPES, CONDUITS, RAILROAD TRACK, POLES, WALLS, POSTS, BRIDGES, ETC., ARE TO BE CAREFULLY PROTECTED AND ARE NOT TO BE DISPLACED, UNLESS NOTED.

4. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENTS OF THE WATER, GAS, SEWER, TELEPHONE, AND POWER COMPANIES 10 DAYS IN ADVANCE, THAT HE INTENDS TO START WORK IN A SPECIFIC AREA. THE OWNER DISCLAIMS ANY RESPONSIBILITY FOR THE SUPPORT AND PROTECTION OF SEWERS, DRAINS, WATER PIPES, GAS PIPES, CONDUITS OF ANY KIND, UTILITIES OR OTHER STRUCTURES OWNED BY THE CITY, COUNTY, STATE OR BY PRIVATE OR PUBLIC UTILITIES LEGALLY OCCUPYING ANY STREET, ALLEY, PUBLIC

LOCATION OF EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION BEFORE CONSTRUCTION. FAILURE OF THE PLANS TO SHOW THE EXISTENCE OF ANY UNDERGROUND UTILITIES, STRUCTURES, ETC., SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PRESERVING AND PROTECTING SAID UTILITY OR STRUCTURES.

6. THE DEVELOPER/ CONTRACTOR SHALL INSTALL PRIOR TO THE START OF CONSTRUCTION AND MAINTAIN DURING CONSTRUCTION ALL SEDIMENT CONTROL MEASURES AS REQUIRED TO RETAIN ALL SEDIMENTS ON THE SITE. IMPROPER SEDIMENT CONTROL MEASURES MAY RESULT IN CODE ENFORCEMENT VIOLATION. CONTROL OF SEDIMENTATION AND EROSION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. AREAS OF CONTROL AND TYPICAL SECTION OF BARRIER ARE SUGGESTIONS ONLY AND DOES NOT RELIEVE THE

WHERE UNSUITABLE MATERIALS ARE ENCOUNTERED IN THE PAVED AREAS, THE UNSUITABLE MATERIAL SHALL BE EXCAVATED AND THE AREA BACK FILLED WITH GOOD SAND AND SAND/CLAY MATERIALS. THE SAME SHALL APPLY WHERE THE SUB-BASE IS SUBJECT TO RISING WATER TABLE.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILIZATION OF STREET AND ROAD SHOULDERS IN ACCORDANCE WITH REQUIREMENTS OF ESCAMBIA COUNTY L.D.C. AND F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. 9. WATER SUPPLY FACILITIES, INCLUDING MAINS, SHALL BE INSTALLED, CLEANED, DISINFECTED, AND BACTERIOLOGIC ALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE

LATEST APPLICABLE AWWA STANDARDS AND COORDINATED WITH LOCAL UTILITY ENGINEER/INSPECTOR IN ACCORDANCE WITH COTTAGE HILL WATER'S STANDARDS. 10. CONTRACTOR SHALL BE RESPONSIBLE FOR AND COMPLY WITH ANY TESTING REQUIRED BY THE LOCAL GOVERNING AGENCY IN ADDITION TO THE TESTING REQUIREMENTS

- 11. GRADING AROUND TREES WHICH ARE TO REMAIN SHALL BE AWAY FROM THE TREE IN A MANNER TO CAUSE NO DAMAGE TO THE TREE
- 12. SOD SHALL BE PLACE IN ACCORDANCE WITH SEC. 573 F.D.O.T. SPECIFICATIONS.

13. CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS DURING CONSTRUCTION WHICH SHOW ASBUILT CONDITIONS OF ALL WORK INCLUDING PIPING, DRAINAGE STRUCTURES, OUTLET STRUCTURES, DIMENSIONS, ELEVATIONS, GRADING ETC. RECORD DRAWINGS SHALL BE PROVIDED TO THE ENGINEER OF RECORD PRIOR TO REQUESTING FINAL INSPECTION.

14. ALL PROPOSED UNDERGROUND UTILITIES WITHIN THE RIGHT-OF-WAY SHALL BE INSTALLED PRIOR TO PAVING. NO STREETS UNDER THE TWO YEAR WARRANTY WILL BE ALLOWED TO BE OPEN-CUT OR JACK AND BORED. TO ACCOMPLISH THIS REQUIREMENT, COMMON TRENCHING IS REQUIRED. COMMON TRENCHING SHALL NOT TAKE PLACE UNTIL ALL ROW ROUGH GRADES HAVE BEEN ESTABLISHED TO ENSURE PROPER UTILITY DEPTHS. IF COMMON TRENCHING IS NOT A FEASIBLE OPTION, THE DEVELOPER SHALL INSTALL CONDUIT FOR THE UTILITY NOT PARTICIPATING IN THE COMMON TRENCHING FOR ALL ROAD CROSSINGS AND THE UTILITY COMPANY WILL BE REQUIRED TO USE THE CONDUIT. THIS SHALL REQUIRE PLANNING BETWEEN THE DEVELOPER AND THE UTILITY.

15. ROUGH GRADING OF RIGHT OF WAY MUST BE ESTABLISHED PRIOR TO COMMON TRENCH UTILITY INSTALLATION TO ENSURE UTILITIES ARE INSTALLED AT PROPER DEPTHS. A MINIMUM OF 30" OF COVER IS REQUIRED OVER ALL UTILITIES. THIS DIMENSION SHALL BE MEASURED FROM PROPOSED GRADE IF ROAD IS IN FILL AND MEASURED FROM TOP

16. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD AT LEAST 2 WEEKS PRIOR TO PLACEMENT OF BASE MATERIAL TO ASSIST IN COORDINATION OF ALL OTHER

17. THE PROJECT ENGINEER (ENGINEER OF RECORD) SHALL PROVIDE TO ESCAMBIA COUNTY "ASBUILT" RECORD DRAWINGS FOR VERIFICATION AND APPROVAL BY ESCAMBIA COUNTY ONE WEEK PRIOR TO REQUEST A FINAL INSPECTION, OR PROVIDE ASBUILT CERTIFICATION THAT THE PROJECT CONSTRUCTION ADHERES TO THE PERMITTED PLANS AND SPECIFICATIONS. THE ASBUILT CERTIFICATION OR THE ASBUILT RECORD DRAWINGS MUST BE SIGNED AND SEALED AND DATED BY A REGISTERED FLORIDA PROFESSIONAL

18. ALL DISTURBED AREAS WHICH ARE NOT PAVED SHALL BE STABILIZED WITH SEEDING, FERTILIZER AND MULCH, HYDROSEED AND/ OR SOD. SEEDED AREAS SHALL INCLUDE A BAHIA MIX TO ENSURE CONTINUED GROWTH AFTER WINTER MONTHS IN ACCORDANCE WITH FDOT SECTION 570 AND STANDARD INDEX 105

19. THE OWNER OR HIS AGENT SHALL ARRANGE/ SCHEDULE WITH HE COUNTY A FINAL INSPECTION OF THE DEVELOPMENT UPON COMPLETION AND ANY INTERMEDIATE INSPECTIONS AT (850) 595-3472. ASBUILT CERTIFICATION IS REQUIRED PRIOR TO REQUEST FOR FINAL INSPECTION/ APPROVAL.

20. ALL ASPECTS OF THE STORMWATER/ DRAINAGE COMPONENTS AND OR TRANSPORTATION COMPONENTS SHALL BE COMPLETED PRIOR TO REQUESTING A FINAL INSPECTION. 21. NO DEVIATION OR REVISIONS FROM THESE PLANS BY THE CONTRACTOR SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE DESIGN ENGINEER OR RECORD, ESCAMBIA COUNTY, AND ECUA. ANY DEVIATIONS MAY RESULT IN DELAYS IN COUNTY ACCEPTANCE OF IMPROVEMENTS.

22. DENSITY TESTS AND CORE SAMPLES WILL BE REQUIRED TO DEMONSTRATE COMPLIANCE WITH COUNTY STANDARDS PRIOR TO FINAL ACCEPTANCE OF ROADWAY

23. THE GENERAL CONTRACTOR IS REQUIRED TO FILE NPDES PHASE II PERMIT FOR THE PROJECT, NO WORK MAY COMMENCE ON THE PROJECT UNTIL THE NOTICE OF INTENT HAS BEEN PROPERLY SUBMITTED. CONTRACTOR IS TO TO COMPLY WITH NPDES REQUIREMENTS, ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AFTER EACH 1/2" RAINFALL EVENT OR AT LEAST WEEKLY. THE CONTRACTOR SHALL DOCUMENT SUCH INSPECTIONS AND EROSION CONTROL MAINTENANCE EFFORTS.

24. NOTIFY SUNSHINE UTILITIES 48 HOURS IN ADVANCE PRIOR TO DIGGING WITHIN R/W. 1-800-432-4770

25. ECUA INSPECTOR OR AUTHORIZED REPRESENTATIVE MUST OBSERVE ALL CONNECTIONS TO ECUA'S EXISTING SANITARY SEWER SYSTEMS. 26. ELECTRIC/PHONE/CABLE/GAS STRUCTURES INSTALLED WITHIN DRAINAGE ACCESS EASEMENTS SHALL BE LOCATED ALONG THE BOUNDARY OF THE EASEMENT TO MAXIMIZE CLEAR

27. THE SUBGRADE IS TO BE TESTED FOR COMPACTION AT A FREQUENCY OF NOT LESS THAN ONE TEST PER 300 LINEAR FEET IN THE PROPOSED ROADWAY AREAS. COMPLIANCE TESTS WITHIN THE FILL/BACKFILL AREAS ARE TO BE PERFORMED AT A FREQUENCY OF NOT LESS THAN ONE TEST PER 300 LINEAR FEET. 28. ALL CONCRETE PIPE JOINTS SHALL BE WRAPPED WITH FABRIC/SOCK.

29. A HEALTHY GROWTH OF GRASS WITHIN DISTURBED RIGHT-OF-WAY AREAS IS REQUIRED PRIOR TO COUNTY APPROVAL /ACCEPTANCE. IF TIME CONTRAINTS EXIST DURING THE FINAL PLAT APPROVAL AND ACCEPTANCE PROCESS, A MINIMUM OF TWO STRIPS OF SOD (MINIMUM 2' WIDE) BEHIND THE BACK OF CURB WITH ALL OTHER DISTURBED AREAS SEEDED /MULCHED/FERTILIZED WILL BE ACCEPTABLE.

30. SAG FILTERS IN CURB THROATS ARE NOT AN ALLOWABLE SEDIMENT CONTROL METHOD.

31. A MINIMUM ONE (1) FOOT GROUND COVER IS REQUIRED FOR ALL UNDERGROUND PIPES.

32. CONSTRUCTION PLAN APPROVAL IS REQUIRED TO DOCUMENT THE DESIGN OF INFRASTRUCTURE TO ADEQUATELY SERVE THE CREATED LOTS. THE APPROVAL ALLOWS THE CONSTRUCTION OF THE SUBDIVISION INFRASTRUCTURE TO PROCEED, BUT IT DOES NOT ALLOW DEVELOPMENT ON THE INDIVIDUAL SUBDIVISION LOTS. PROPOSED RESIDENTIAL LOTS SHALL REMAIN IN THEIR NATURAL STATE (TREES INCLUDED) UNTIL SUCH TIME AS A BUILDING PERMIT FOR THE DWELLING IS ISSUED. FUTHERMORE, PER CODE, NO LAND DISTURBANCE ACTIVITIES SHALL OCCUR ONSITE, INCLUDING LAND CLEARING, PLACING OF FILL MATERIALS, GRADING ACTIVITIES, ETC. OR THE REMOVAL OF TREES, UNTIL SUCH TIME AS CONSTRUCTION PLANS ARE APPROVED AND APPROPRIATE PERMIT(S) ARE ISSUED FOR THE DEVELOPMENT WORK OR OTHERWISE.

33. THERE ARE NO HERITAGE OR CHAMPION TREES ONSITE.

34. ALL TREE REMOVAL, LAND CLEARING, PLACEMENT OF FILL, & ANY OTHER LAND DISTURBING ACTIVITIES AS DEFINED IN ESCAMBIA COUNTY'S LAND DEVELOPMENT CODE SHALL BE PERMITTED OR OTHERWISE APPROVED BY THE COUNTY PRIOR TO INITIATION OF SITE WORK.

35. RETENTION/DETENTION AREAS SHALL BE SUBSTANTIALLY COMPLETE PRIOR TO ANY CONSTRUCTION ACTIVITIES THAT MAY INCREASE STORMWATER RUNOFF RATES. THE CONTRACTOR SHALL CONTROL STORMWATER DURING ALL PHASES OF CONSTRUCTION AND TAKE ADEQUATE MEASURES TO PREVENT SEDIMENTS FROM ENTERING THE EXCAVATED

36. DEVELOPER/CONTRACTOR/HOA SHALL RESHAPE PER PLAN SPECIFICATIONS, CLEAN OUT ACCUMULATED SILT, AND STABILIZE RETENTION/DETENSION POND(S) AT THE END OF CONSTRUCTION WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED AND AT THE END OF THE 2-YEAR WARRANTY PERIOD.

37. TO COMPLY WITH NPDES REQUIREMENTS, ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AFTER EACH 1/2" RAINFALL EVENT OR AT LEAST WEEKLY. THE CONTRACTOR SHALL DOCUMENT SUCH INSPECTIONS AND EROSION CONTROL MAINTENANCE EFFORTS; INSPECTION RECORDS SHALL BE PROVIDED TO THE NPDES PERMIT APPLICANT FOR PROPER

38. ALL WETLAND, WETLAND BUFFERS (& ANY OTHER ESL, NR, OR H&AR FEATURES IF DISCOVERED IN FOLLOW-UP SURVEYS) SHALL REMAIN IN THEIR NATURAL, VEGETATED

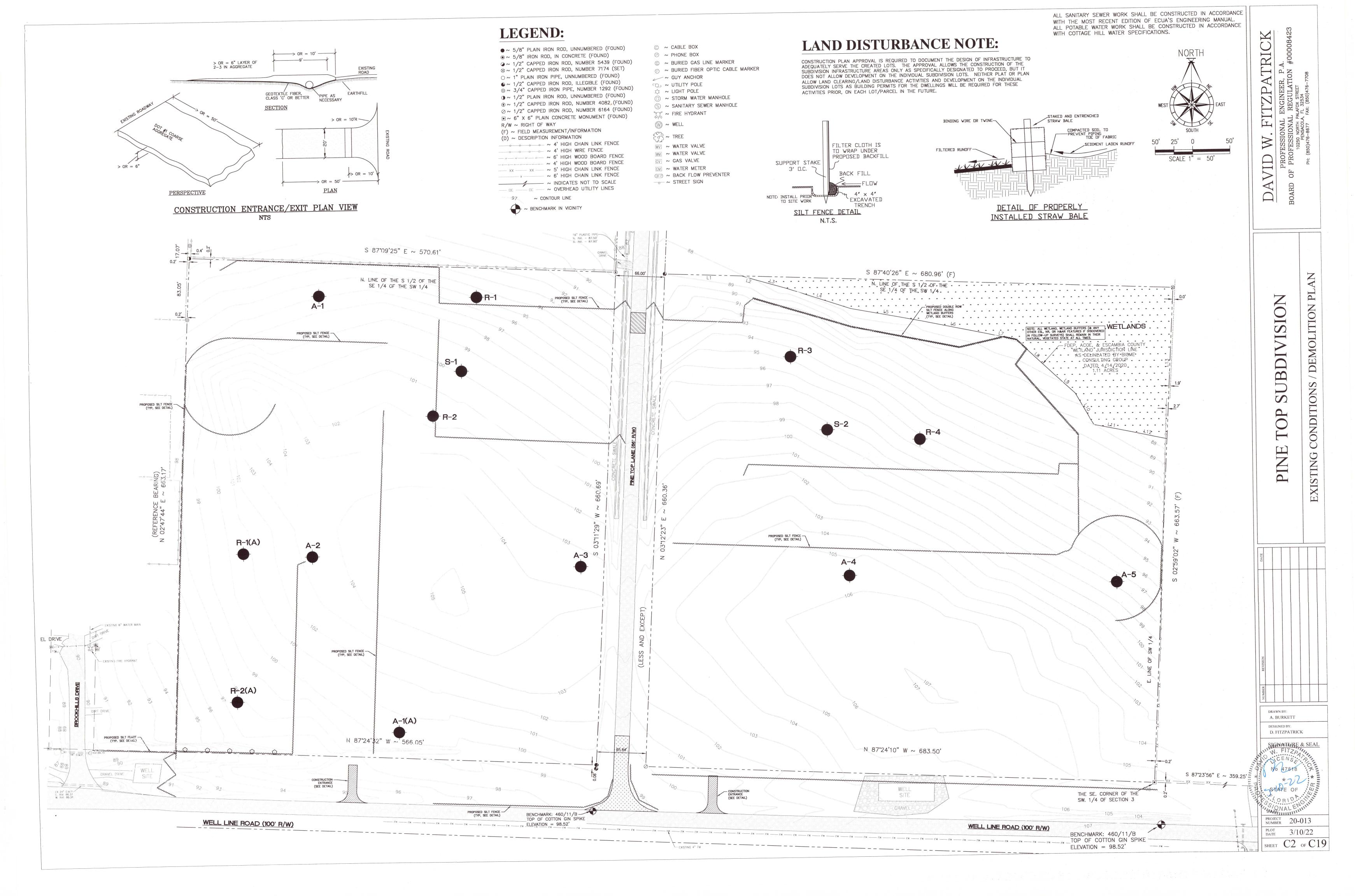
39. ALL LAND SHALL REMAIN VEGETATED & IN ITS NATURAL STATE UNTIL SUCH TIME AS DRC SITE PLANS/PLATS AND ADDITIONAL PERMITTING APPROVALS ALLOW FOR ADDITIONAL LAND DISTURBING ACTIVITIES, PER CODE. ALL TREE REMOVAL, LAND CLEARING, PLACEMENT OF FILL MATERIALS, SWALES, TRENCHING, BERMING, OR OTHER "LAND DISTURBING ACTIVITIES", ETC. SHALL BE PERMITTED OR OTHERWISE APPROVED BY THE COUNTY PRIOR TO INITIATION.

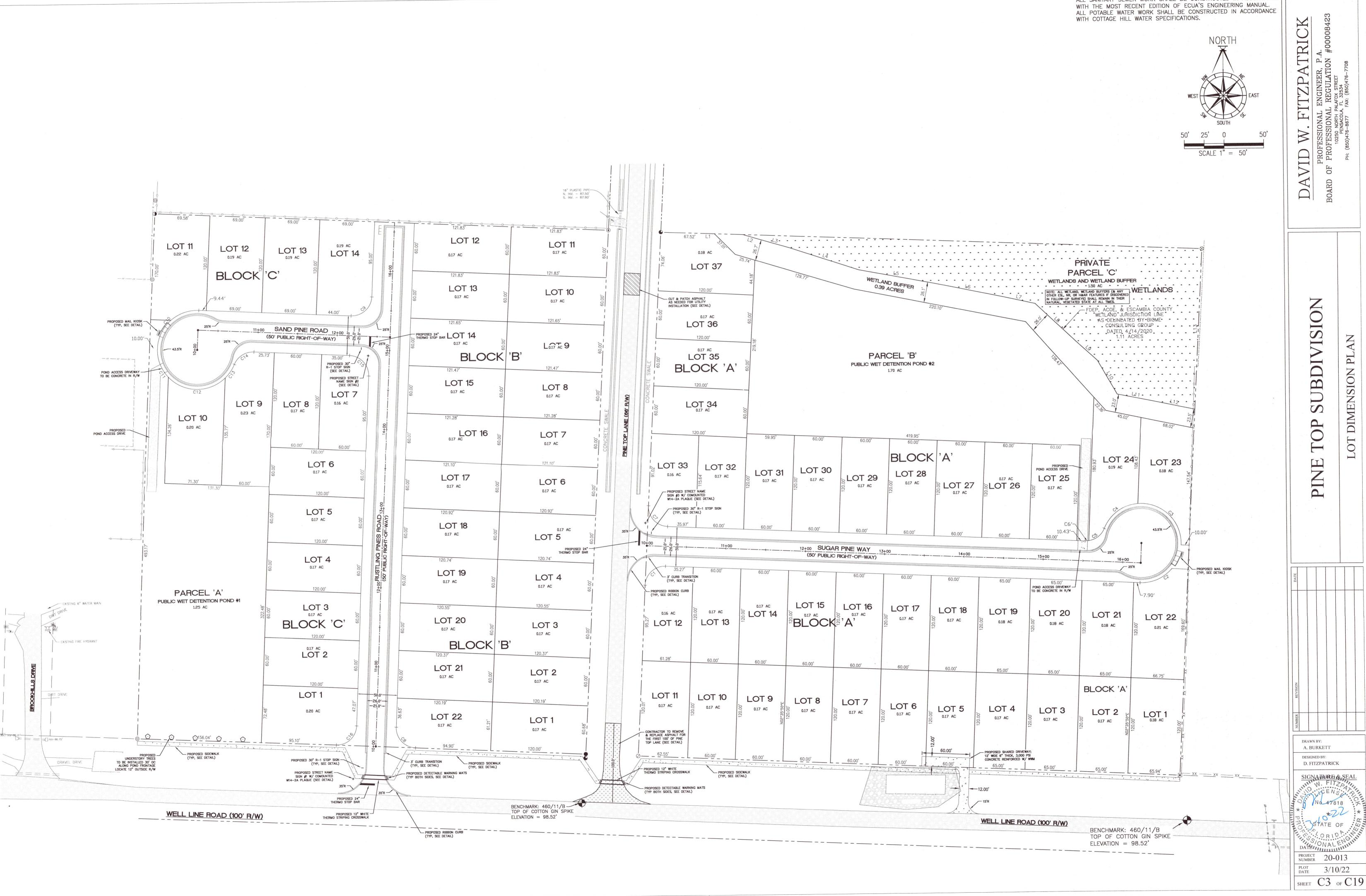
### **LEGAL DESCRIPTION:**

THE SOUTH ONE-HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 3, TOWNSHIP 1 NORTH, RANGE 31 WEST, ESCAMBIA COUNTY, FLORIDA, LESS AND EXCEPT THAT PORTION OF FOR ROAD RIGHT-OF-WAY.

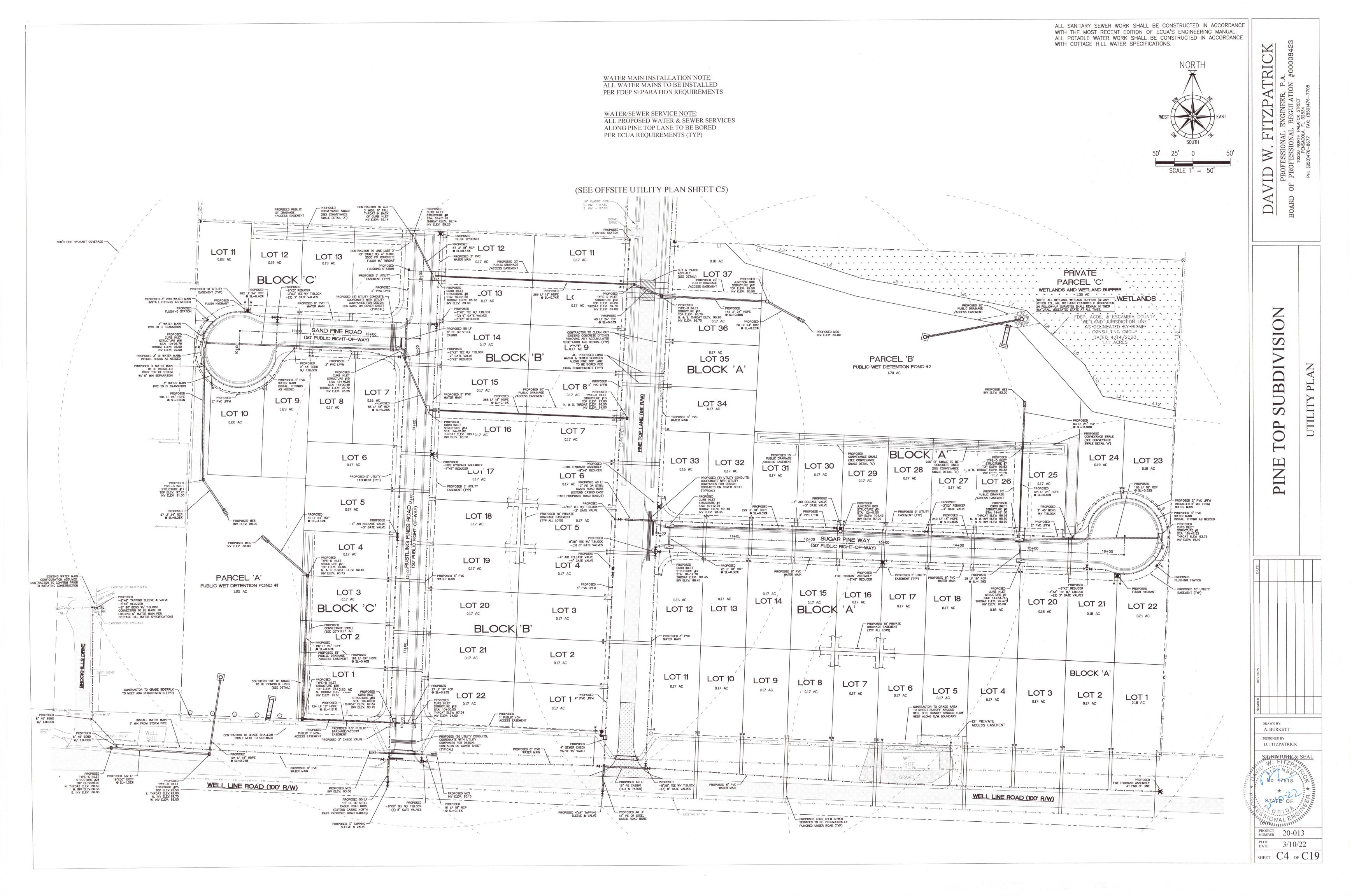
# FLOOD ZONE NOTE:

THE SUBJECT PROPERTY AS SHOWN HEREON IS LOCATED IN FLOOD ZONE X, (MINIMAL RISK AREAS OUTSIDE THE 1-PERCENT AND .2-PERCENT-ANNUAL-CHANCE FLOODPLAINS. NO BFEs OR BASE FLOOD DEPTHS ARE SHOWN WITHIN THESE ZONES), AS DETERMINED FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP OF ESCAMBIA COUNTY, FLORIDA, COMMUNITY 120080, FIRM MAP PANEL NUMBERS 12033C0280G, MAP REVISION DATED SEPTEMBER 29, 2006.





ALL SANITARY SEWER WORK SHALL BE CONSTRUCTED IN ACCORDANCE

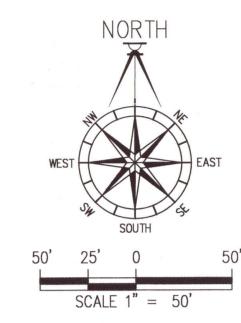


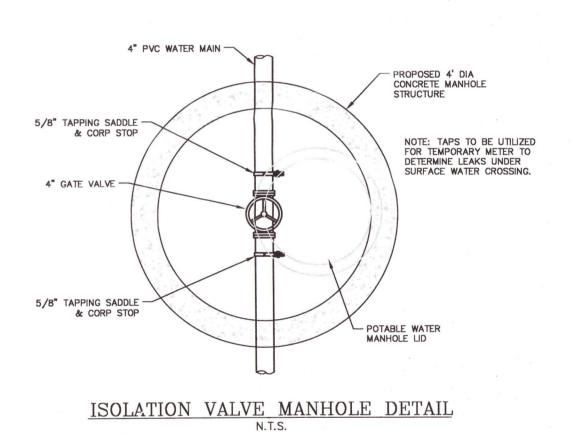
16" PLASTIC PIPE N. INV. = 87.50' S. INV. = 87.90'

PINE TOP LANE - WATER EXTENSION

LOT 11 0.17 AC

BROPDSED 20' — BLIC TRAINAGE ESS FASEMENT EXISTING 3" FLUSH VALVE





OFFSITE

DAVID W. FITZPATRICK
PROFESSIONAL ENGINEER, P.A.
30ARD OF PROFESSIONAL REGULATION #0000842

NUMBER REVISION DATE

DRAWN BY:
A. BURKETT

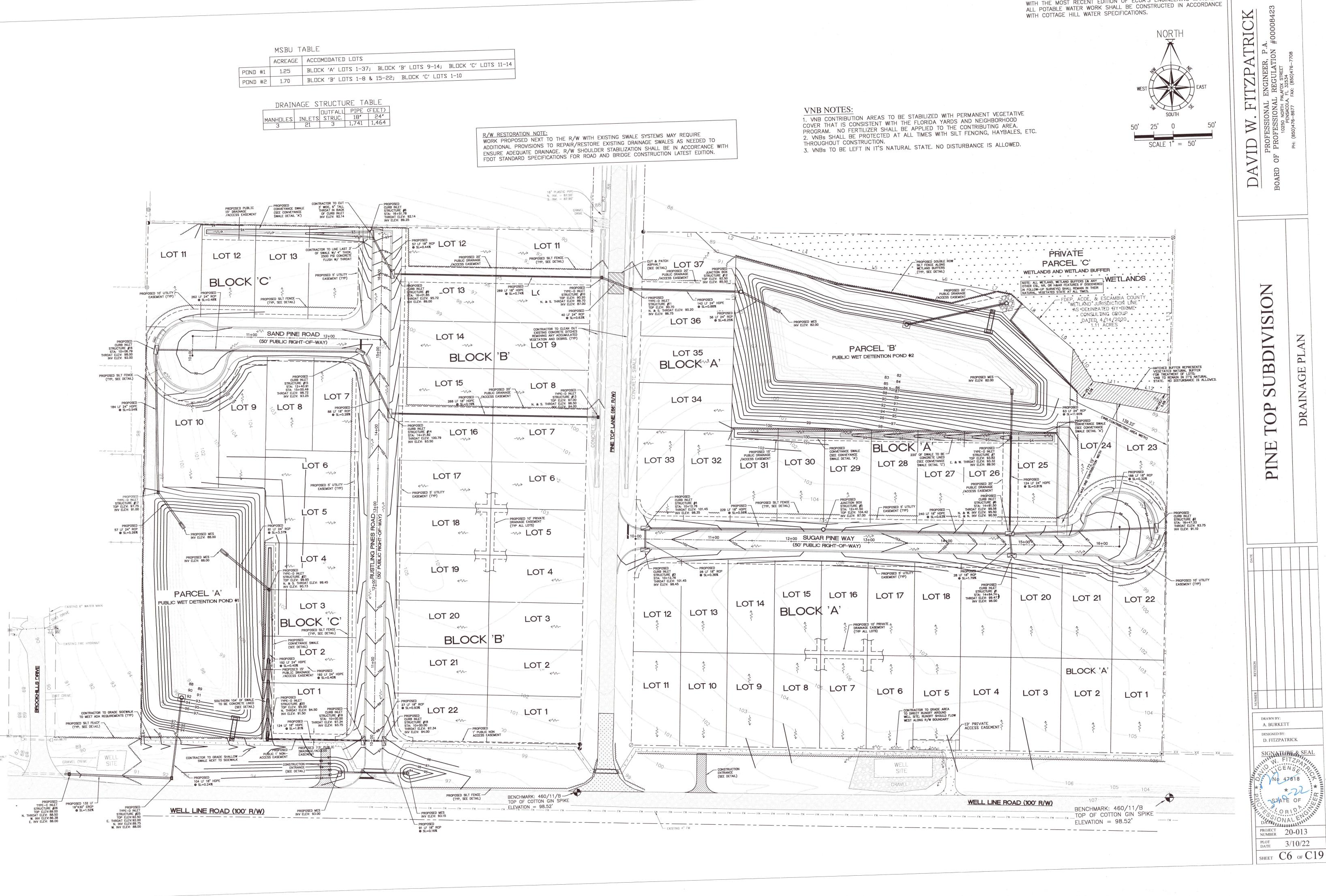
DESIGNED BY:
D. FITZPATRICK

SIGNATURE & S NO 17818 NO 17818 STATE OF ORIDAGE

PROJECT 20-013

PLOT 3/10/22

SHEET C5 OF C19



WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL.

ALL SANITARY SEWER WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL. ALL POTABLE WATER WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH COTTAGE HILL WATER SPECIFICATIONS. ZPATRI(
SINEER, P.A.
SEGULATION #000 R/W RESTORATION NOTE: R/W SHOULDER STABILIZATION SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION. SWALE DETAIL 'A') PROPOSED
CONVEYANCE SWALE
(SEE CONVEYANCE PROPOSED 15' PUBLIC DRAINAGE
/ACCESS EASEMENT LOT 24 LOT 33 PROPOSED TYPE-D INLET
STRUCTURE #7
TOP ELEV: 93.82
E. & W. THROAT ELEV: 93.82
INV E' 1.7 LOT 23 220' OF SWALE TO BE CONCRETE LINED
(SEE CONVEYANCE SWALE DETAIL 'A') **LOT 30** -FIRE HYDRANT ASSEMBLY LOT 31 0.19 AC 0.16 AC -8"X4" REDUCER 0.17 AC 0.18 AC **LOT 29** LOT 6 0.17 AC 0.17 AC PROPOSED (5) UTILITY CONDUITS; COORDINATE WITH UTILITY COMPANIES FOR DESIGN; CONTACTS ON COVER SHEET 0.17 AC LOT 27 0.17 AC PROPOSED 40 LF — 10" PE OR STEEL CASED ROAD BORE LOT 26 0.17 AC 0.17 AC 101.10± - PROPOSED 0.17 AC 188 LF 18" RCP

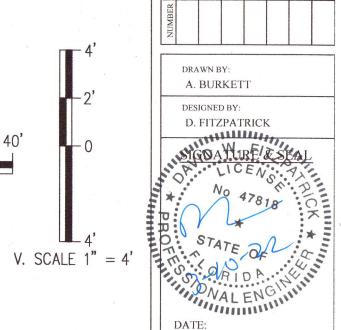
• SL=0.32% - PROPOSED (EXTEND CASING EAST PROPOSED 20' — PUBLIC DRAINAGE 124 LF 24" HDPE SL=0.81% PAST PROPOSED ROAD RADIUS) CURB INLET
STRUCTURE #4
STA: 10+12.76
THROAT ELEV: 101.45
INV ELEV: 98.35 PROPOSED -/ACCESS EASEMENT PROPOSED --3" AIR RELEASE VALVE 1 PROPOSED
JUNCTION BOX
STRUCTURE #5
STA: 12+41.50
TOP ELEV: 104.42
INV ELEV: 97.00 PROPOSED 2" PVC LPFM - PROPOSED -4"X3" TEE W/ T.BLOCK
-3" GATE VALVE -3" GATE VALVE INSTALLED 6' MIN FROM WATER MAIN PROPOSED -229 LF 18" HDPE © SL=0.59% PROPOSED -101.41± -3" GATE VALVE STRUCTURE #6
STA: 14+81.50
THROAT ELEV: 99.56
N. & W. INV ELEV: 95.50
E. & N. INV ELEV: 90.50 2" 45° BEND 10' PRIVATE PROPOSED 5' UTILITY EASEMENT LOTS) 3" PVC LPFM PROPOSED 3" PVC PROPOSED -0 LF 18" HDPE • SL=0.63% W/ T.BLOCK EASEMENT (TYP) WATER MAIN INSTALL FITTING AS NEEDED 0.17 AC LOT 5 PROPOSED -2" PVC LPFM CURB INLET
STRUCTURE #2
STA: 16+47.33
THROAT ELEV: 93.75
INV ELEV: 91.10 FH - FN - FN PROPOSED -12+00 SUGAR PINE WAY -8"X8" TEE W/ T.BLOCK 101.75 -(3) 8" GATE VALVES (50' PUBLIC RIGHT-OF-WAY) PROPOSED --4" AIR RELEASE VALVE 4" GATE VALVE LOT 4 PROPOSED
CURB INLET
STRUCTURE #3
STA: 10+12.76
THROAT ELEV: 101.45
INV ELEV: 98.45 - PROPOSED 28 LF 18" RCP • SL=0.36% PROPOSED 8" PVC — WATER MAIN 0.17 AC ←√√ - PROPOSED 5' UTILITY -FIRE HYDRANT ASEEMBLY PROPOSED 6" PVC --8"X6" REDUCER EASEMENT (TYP) - PROPOSED FLUSHING STATION PROPOSED -4" PVC LPFM INTERSECTION GRADING DETAIL -6"X3" REDUCER **LOT 15** - PROPOSED 10' UTILITY -3"X3" TEE W/ T.BLOCK -(2) 3" GATE VALVES 0.17 AC LOT 16 PINE TOP LANE - SUGAR PINE WAY LOT 17 EASEMENT (TYP) STRUCTURE #1 STA: 14+84.74 THROAT ELEV: 99.47 0.17 AC LOT 18 **LOT 14** 0.16 AC 0.17 AC 0.17 AC LOT 20 LOT 21 INV ELEV: 96.00 BLOCK .OT 3 0.17 AC LOT 22 LOT 12 LOT 13 0.17 AC SION 0.18 AC WAY 0.18 AC 0.18 AC 0.17 AC ← ✓ ✓ 0.21 AC PROPOSED 10' PRIVATE DRAINAGE EASEMENT **CUL-DE-SAC GRADING DETAIL** PINE SUGAR PINE WAY PROPOSED 8" PVC WATER MAIN AT A SUGAR B 山 50' VC PVI ELEV: 104.00 PVI ELEV: 103.50 , STA: 12+50.00 50' VC PVI ELEV: 102.75 30' VC PVI ELEV: 102.16 STA: 10+70.41 STA: 11+50.00 STA: 13+75.00 PINE PLAN/ 105 (SEE INTERSECTION GRADING DETAIL) (SEE CUL-DE-SAC GRADING DETAIL) PROPOSED
JUNCTION BOX
STRUCTURE #5
STA: 12+41.50
TOP ELEV: 104.42
INV ELEV: 97.00 PROPOSED — CURB INLET STRUCTURE #3 STA: 10+12.76 THROAT ELEV: 101.45 INV ELEV: 98.45 100 PROPOSED CURB INLET
STRUCTURE #4
STA: 10+12.76
THROAT ELEV: 101.45
INV ELEV: 98.35 - PROPOSED
CURB INLET
STRUCTURE #1
STA: 14+84.74
THROAT ELEV: 99.47
INV ELEV: 96.00 PROPOSED — 229 LF 18" HDPE SL=0.59% PROPOSED
CURB INLET
STRUCTURE #2
STA: 16+47.33
THROAT ELEV: 93.75
INV ELEV: 91.10 PROPOSED —
CURB INLET
STRUCTURE #6
STA: 14+81.50
THROAT ELEV: 99.56
N. & W. INV ELEV: 95.50
E. & N. INV ELEV: 90.50 PROPOSED

188 LF 18" RCP

• SL=0.32% DRAWN BY: A. BURKETT D. FITZPATRICK PROPOSED C/L GRADE-EXISTING C/L GRADE 105.2 103.63 105.3 V. SCALE 1" = 4103.00 105.4 103.91 10+00 12 + 0011 + 0013 + 0014 + 0016 + 0015+00PROJECT 20-013 PLOT DATE 3/10/22

PINE

RUSTLING PINES ROAD

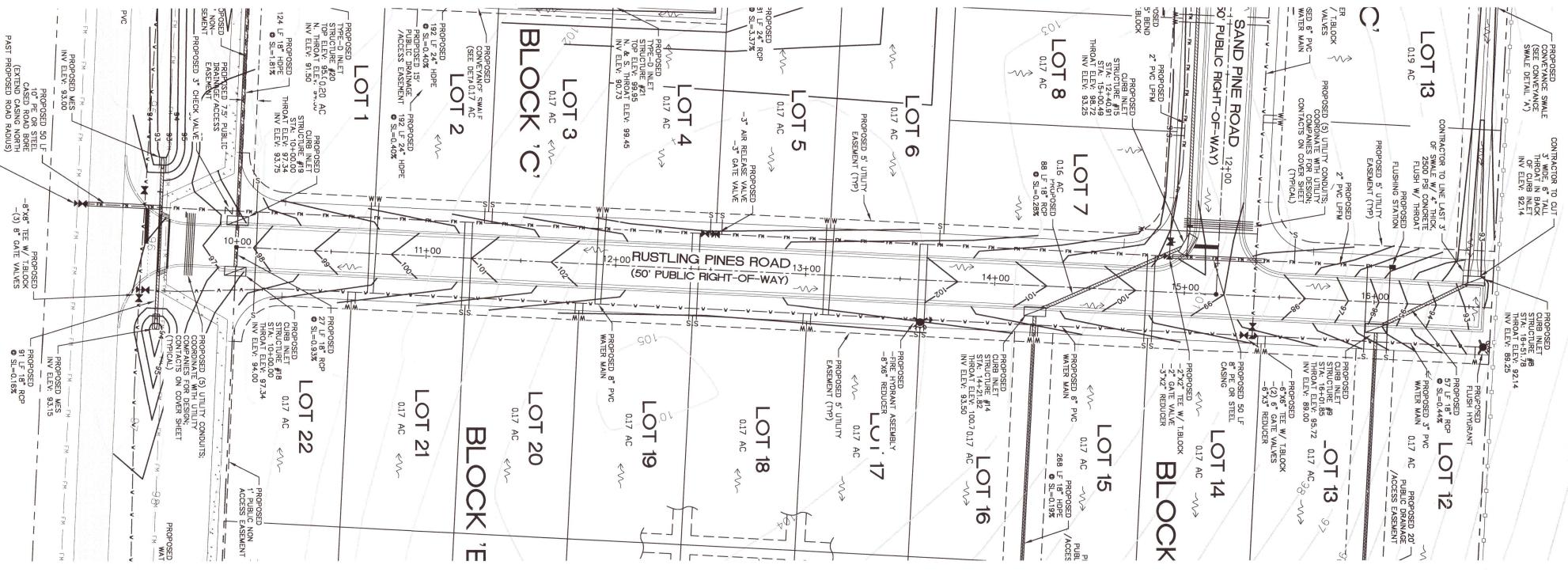


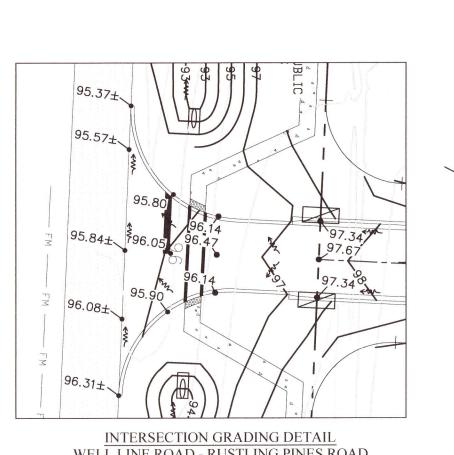
PROJECT 20-013 3/10/22 SHEET C8 OF C19

LOT 3 +00 RUSTLING PINES ROAD 13+00 (50' PUBLIC RIGHT-OF-WAY) OT 21 PROPOSED

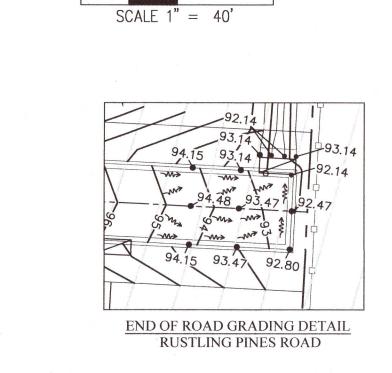
LF 18" HDPE

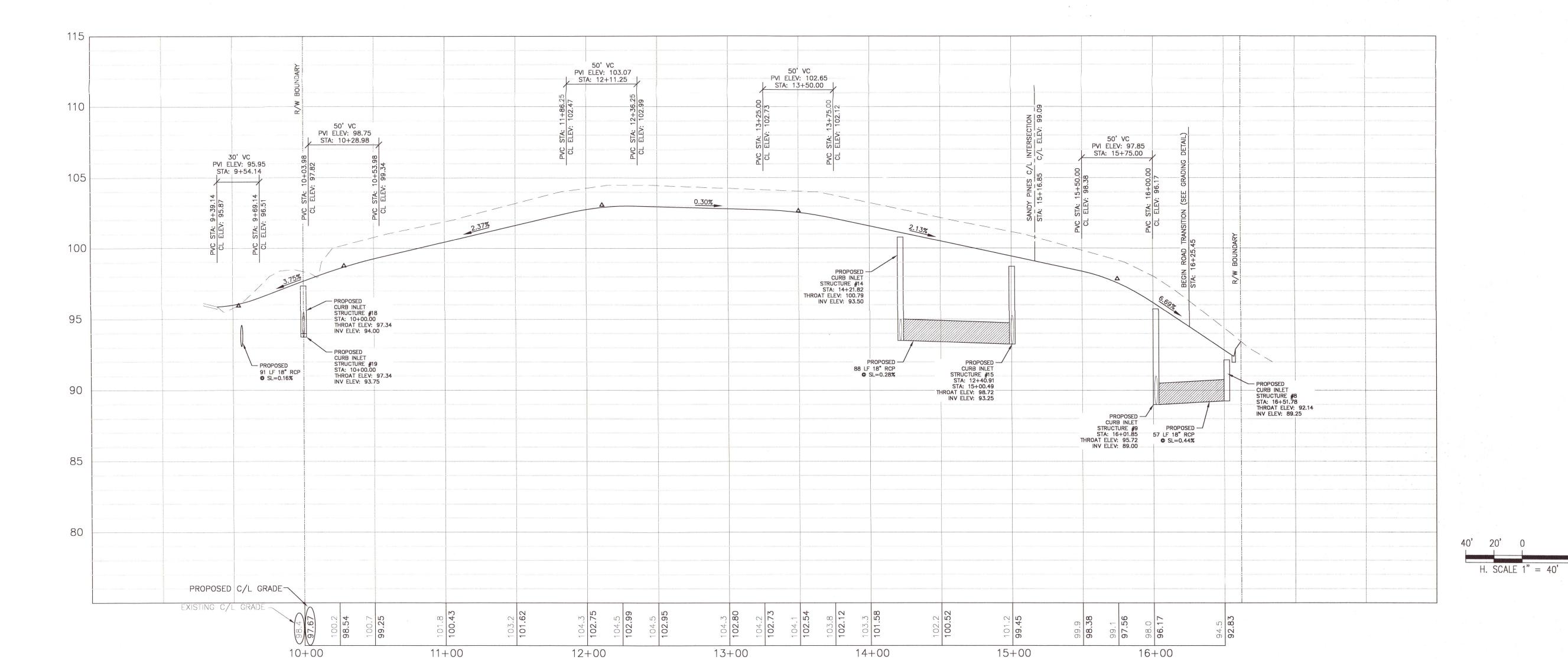
SL=0.19%  $\vec{\Box}$ 

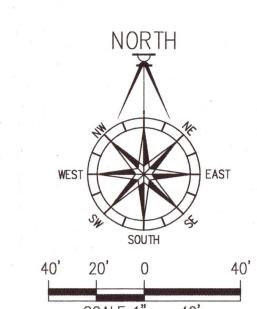


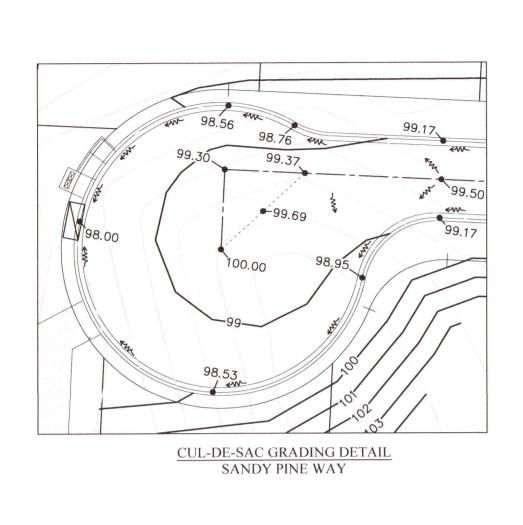


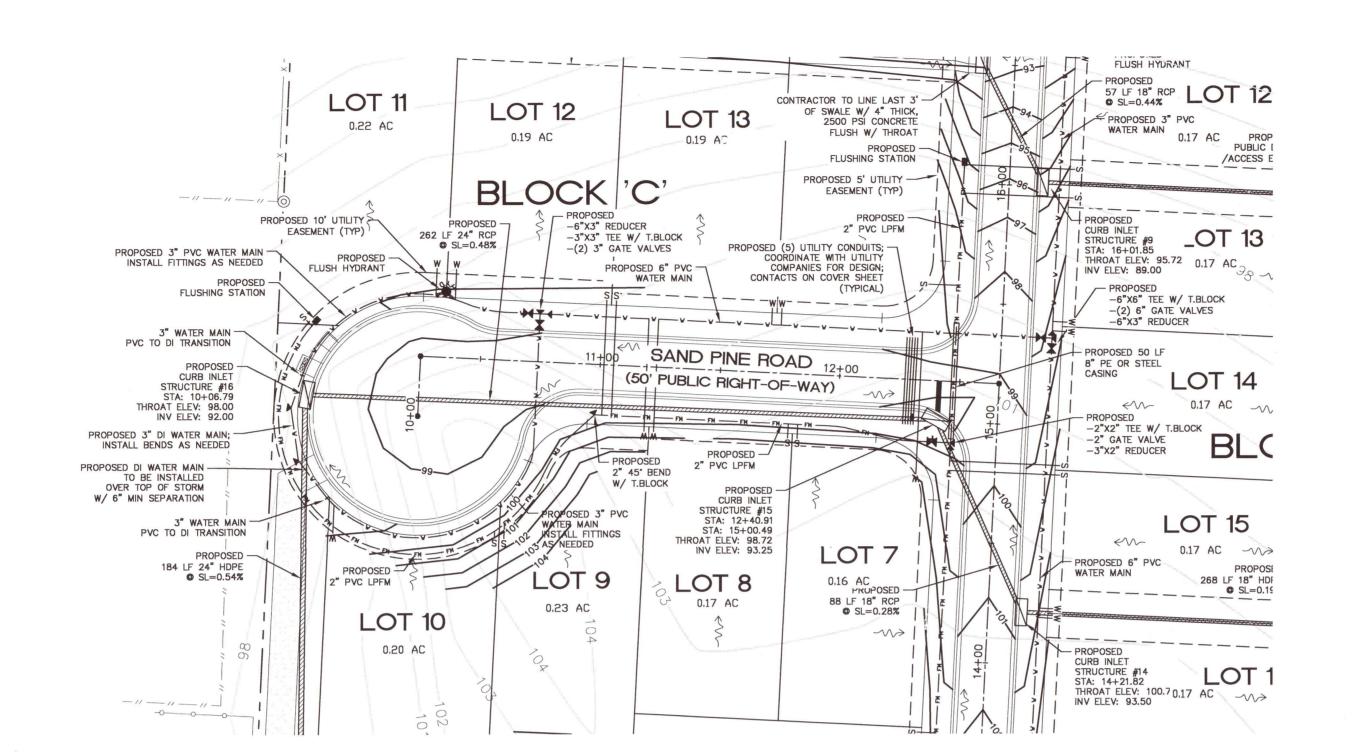
INTERSECTION GRADING DETAIL WELL LINE ROAD - RUSTLING PINES ROAD

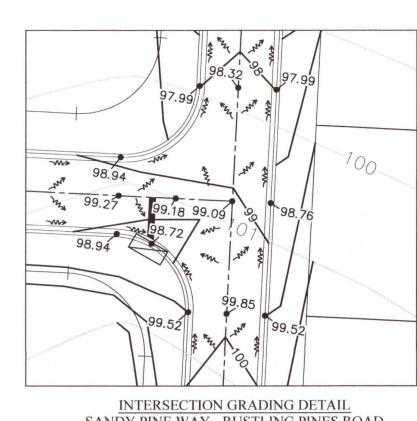


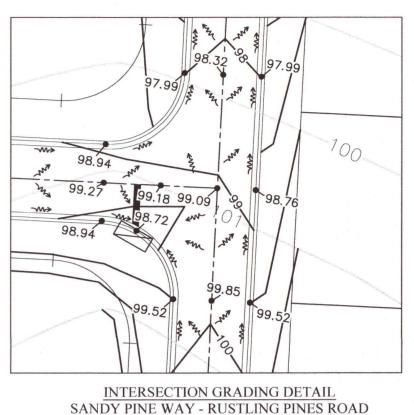


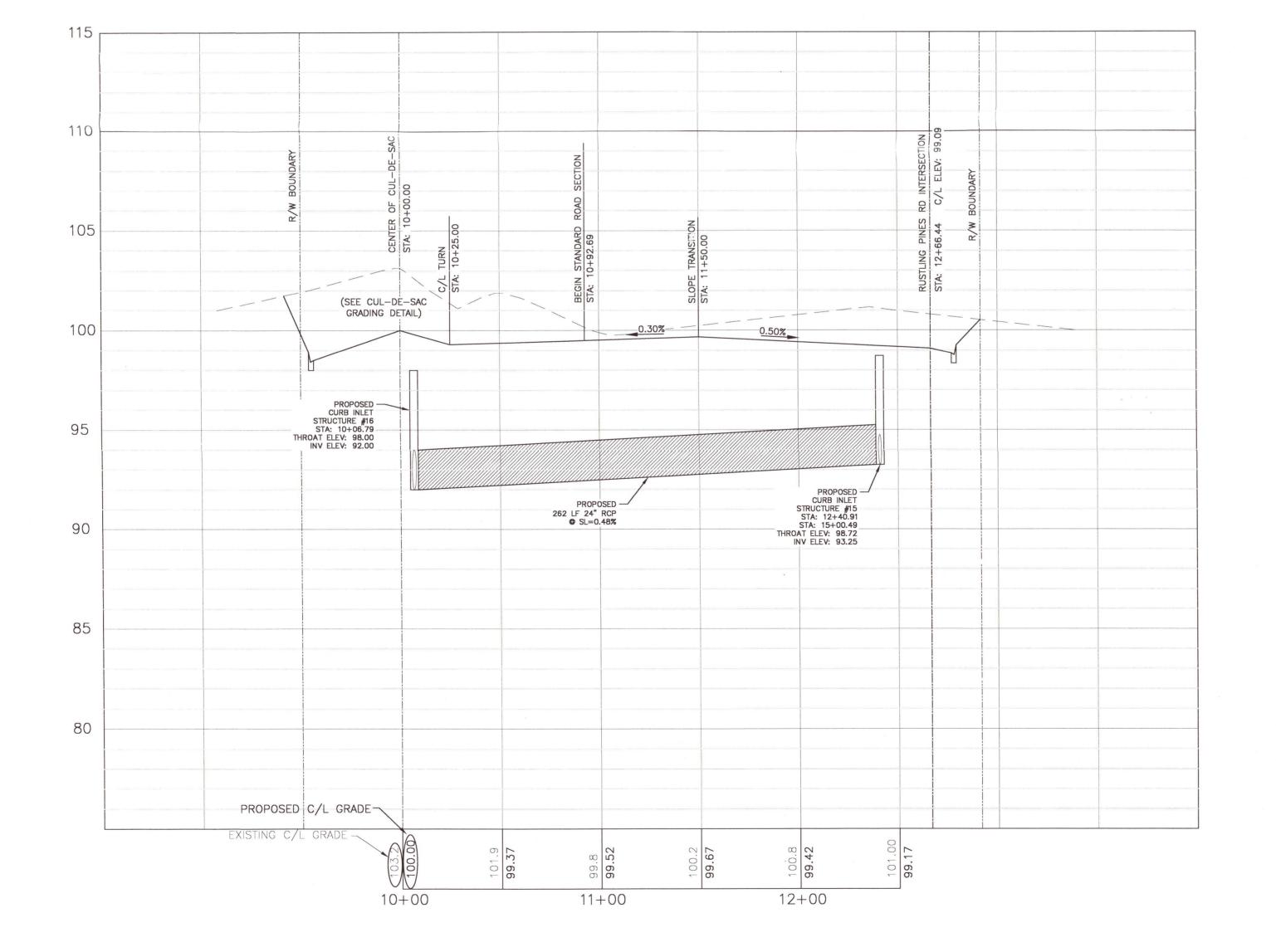


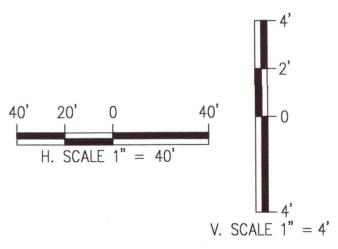






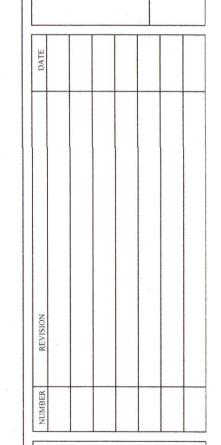








FITZPATRIC



DRAWN BY: A. BURKETT

PLOT 3/10/22 SHEET C9 OF C19

PROPOSED —
TYPE—D INLET
STRUCTURE #13
TOP ELEV: 97.00
N. & S. THROAT ELEV: 96.50
INV ELEV: 94.00

PROPOSED — 268 LF 18" HDPE SL=0.19%

FITZPATRIC VID

STORMWATER **NOISIA** MISC. S PROFILE

PINE

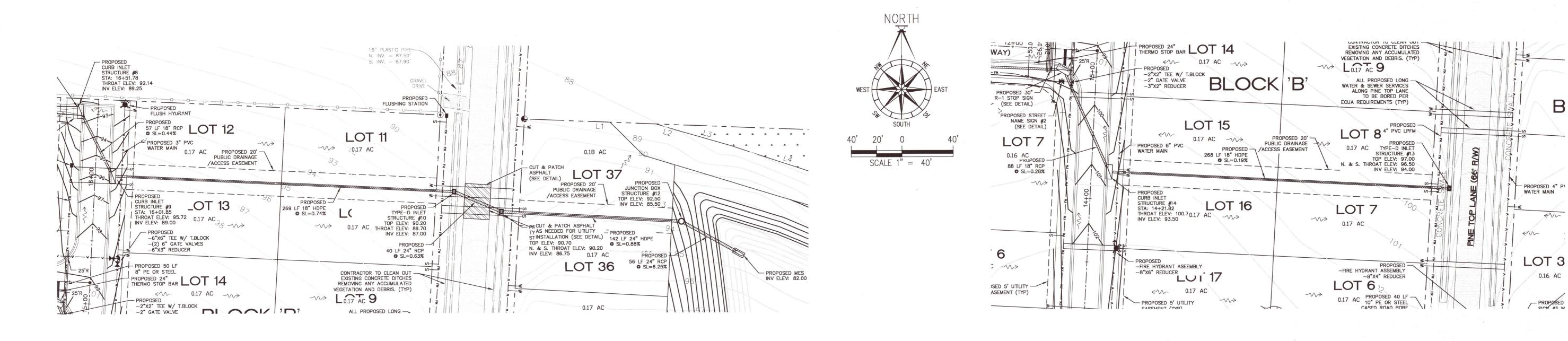
PLAN/

A. BURKETT DESIGNED BY:

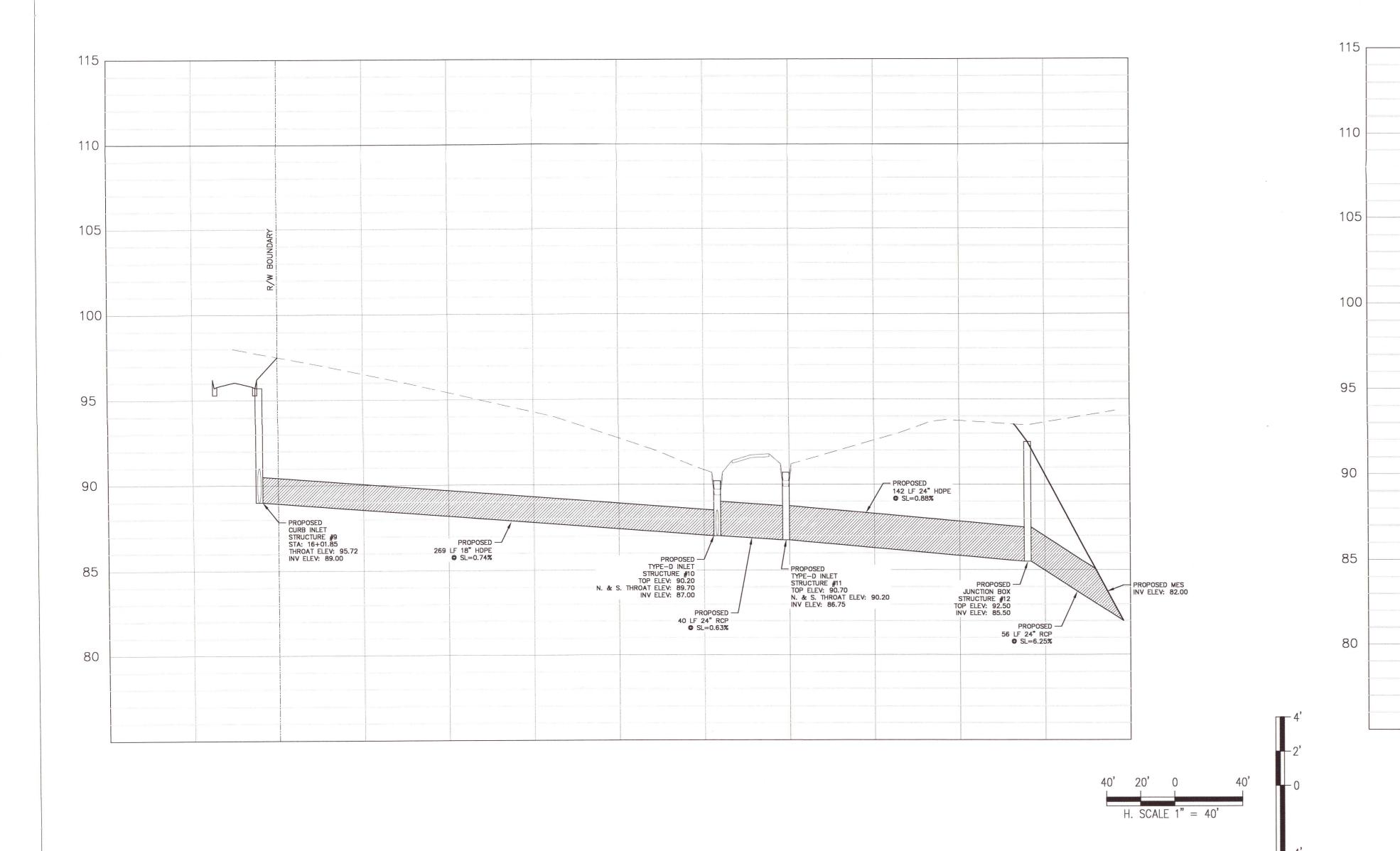
D. FITZPATRICK

PROJECT 20-013

PLOT 3/10/22 SHEET C10 OF C19



V. SCALE 1" = 4



ALL SANITARY SEWER WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL.
ALL POTABLE WATER WORK SHALL BE CONSTRUCTED IN ACCORDANCE
WITH COTTAGE HILL WATER SPECIFICATIONS.

# SUBDIVISION

- MISC. STORMWATER

PLAN / PROFILE

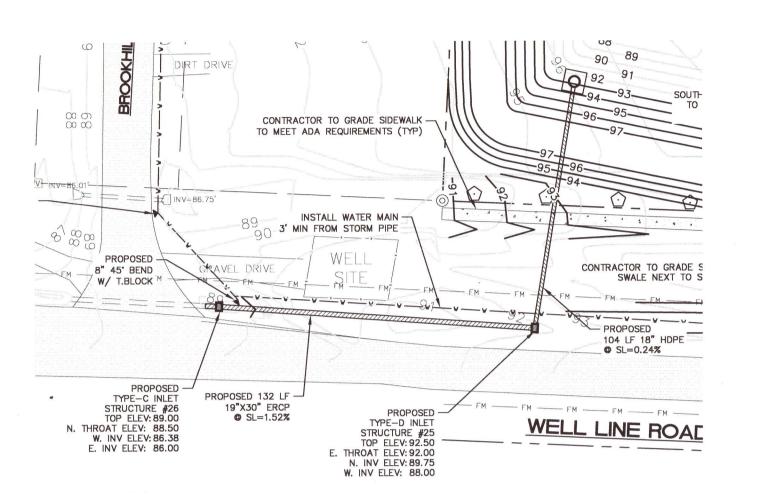
DAVID W

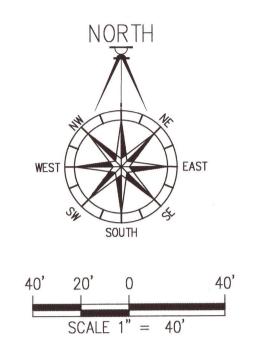
DRAWN BY: A. BÜRKETT DESIGNED BY:

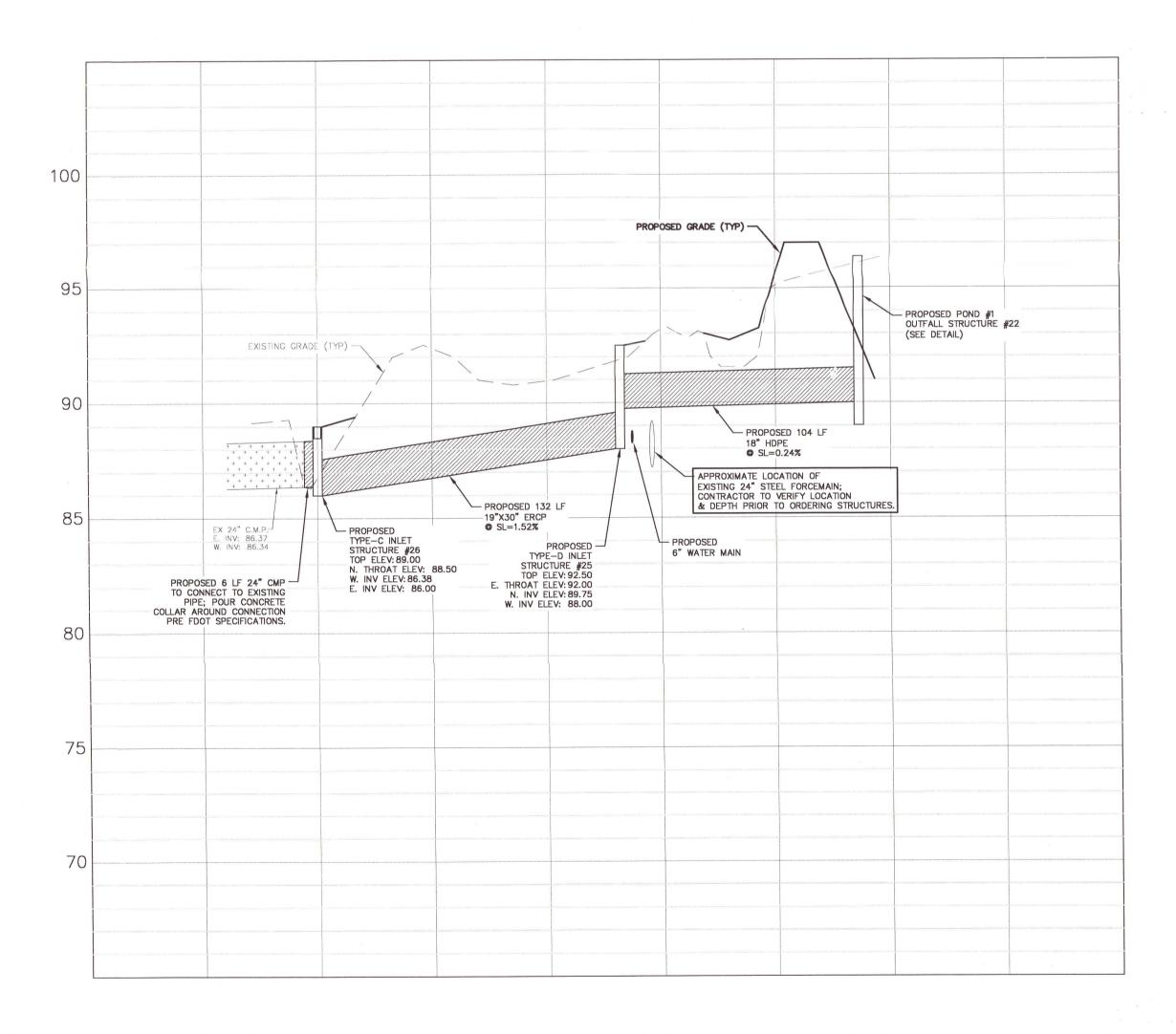
D. FITZPATRICK

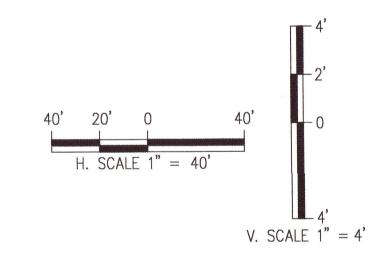
PROJECT 20-013
PLOT 3/10/22

SHEET C11 OF C19









PINE TOP SUBDIVISION
PLAN / PROFILE - MISC. STORMWATER

DAVID W. FITZPATRICK
PROFESSIONAL ENGINEER, P.A.
30ARD OF PROFESSIONAL REGULATION #00008428

R REVISION DATE

DRAWN BY:

A. BURKETT

DESIGNED BY:

D. FITZPATRICK

SIGNA FURE & SEAL

CENSE

NO 47818

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PARTE OF

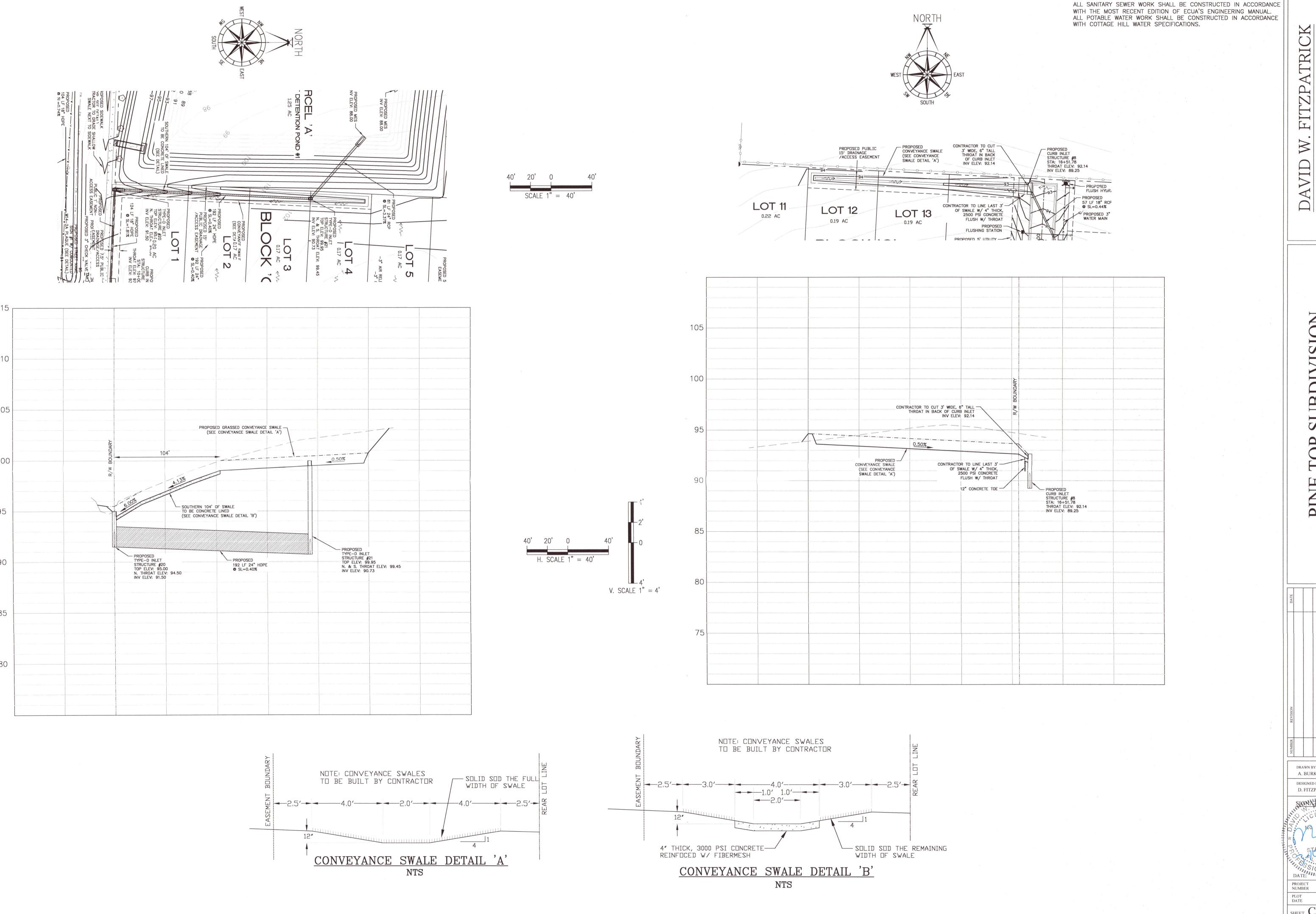
UNIVERSAL

DATE:

PROJECT NUMBER 20-013

PLOT DATE 3/10/22

SHEET C12 OF C19



**UBDIVISION** 

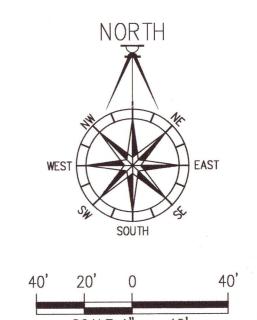
CONVEYANCE SWALES

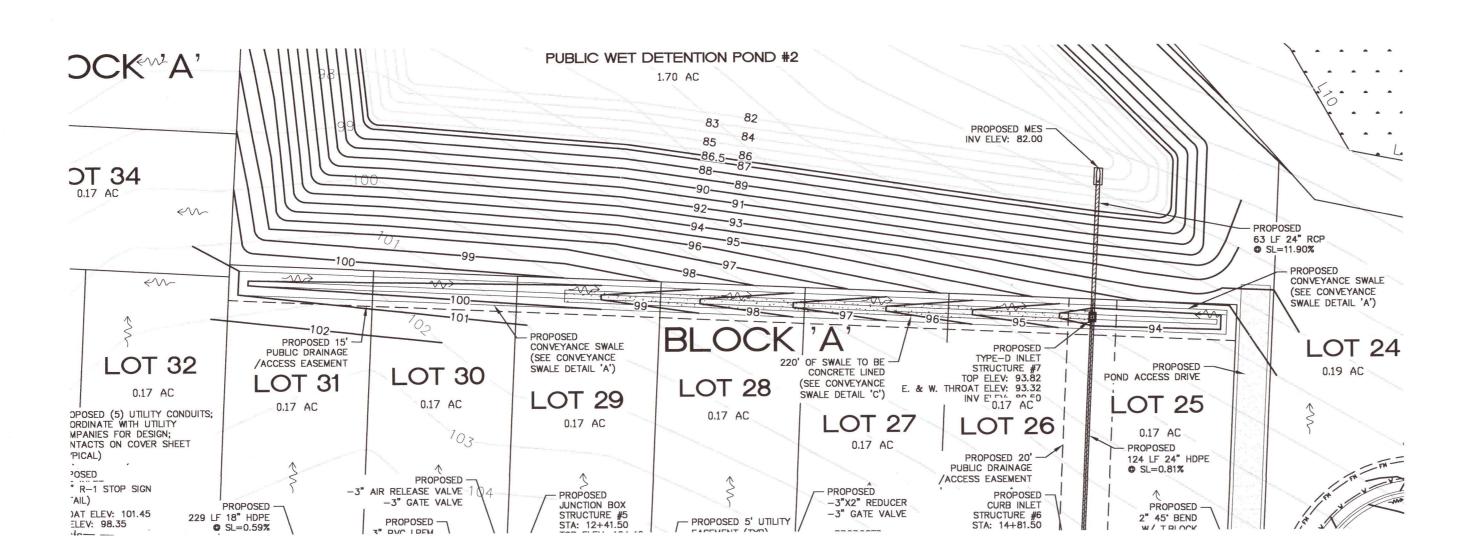
PLAN / PROFILE

DRAWN BY: A. BURKETT DESIGNED BY:

D. FITZPATRICK

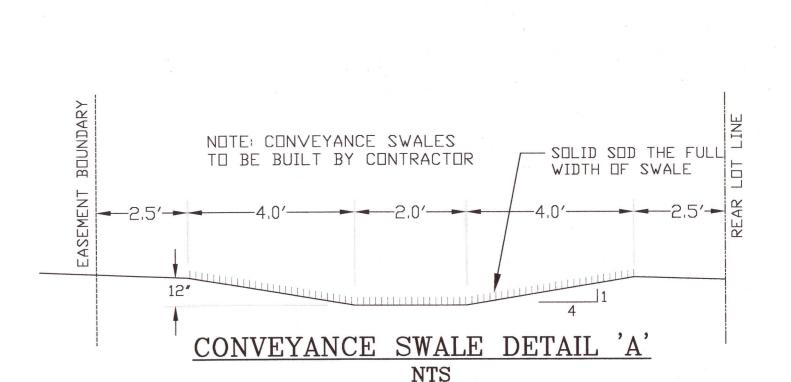
PROJECT 20-013 PLOT 3/10/22 SHEET C13 OF C19

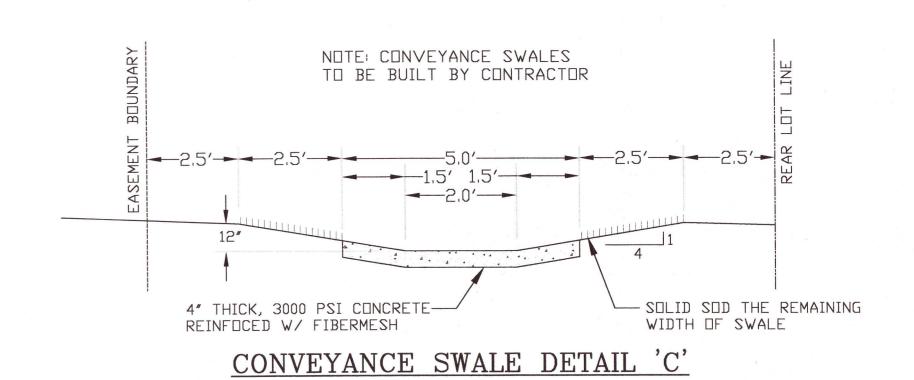




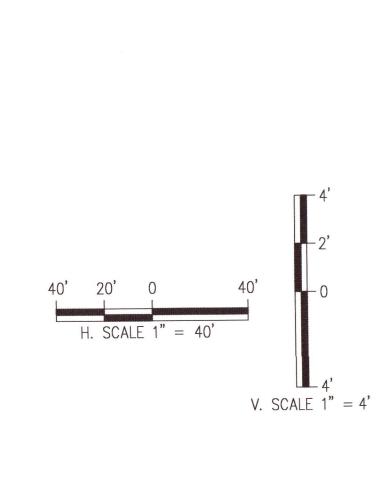
PROPOSED 5' UTILITY

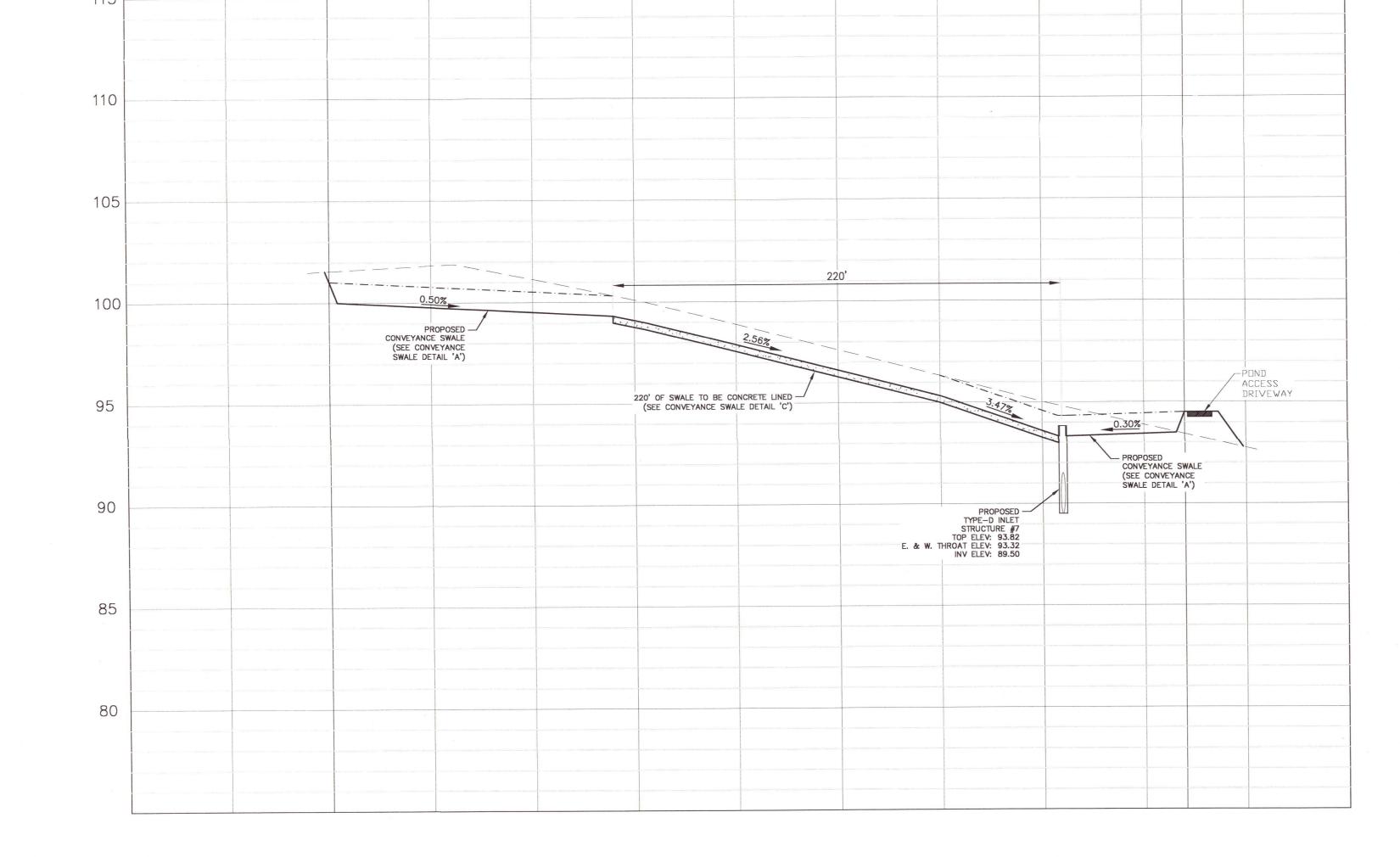
PROPOSED T





NTS





PROJECT 20-013 PLOT 3/10/22 SHEET C14 OF C19

SUBDIVISION

FITZPATRIC

DAVID

SWALES CONVEYANCE

PROFILE PLAN

M.U.I.C.D. SECTION 2D.38

• INSTALL STREET NAME SIGN
POST AT MID RADIUS, 10' OFF

DUILET" (W14-2P) PLAQUES

MAY BE CO-MOUNTED TO

STREET NAME SIGNS BENEATH STREET NAME SIGN BLADES IN ACCORDANCE WITH M.U.T.C.D. SECTION 2C.46.

VERTICAL 4" MAXIMUM

CLEARANCE ABOVE FINISHED GRADE

"DEAD END" (W14-1P) OR "NO MAJOR ROAL

ANCHOR POST 32" MINIMUM BELOW GROUND

PLAQUES TO
BE 9" BLADES
"OR POST
"M VERTICAL
CLEARANCE
WITH PLAQUE

EDGE OF ROAD.

MINIMUM

ATRI

S

BDI

1

DRAWN BY:

A. BURKETT

D. FITZPATRICE

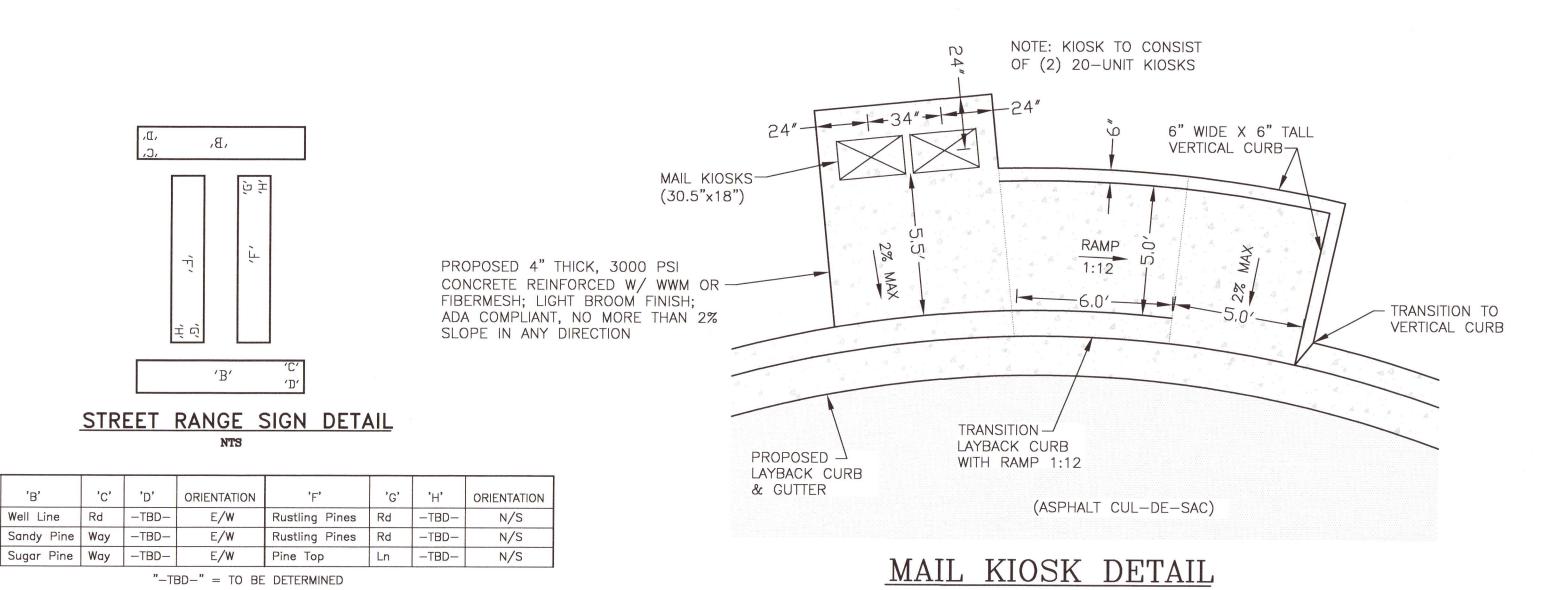
DESIGNED BY:

DATE:

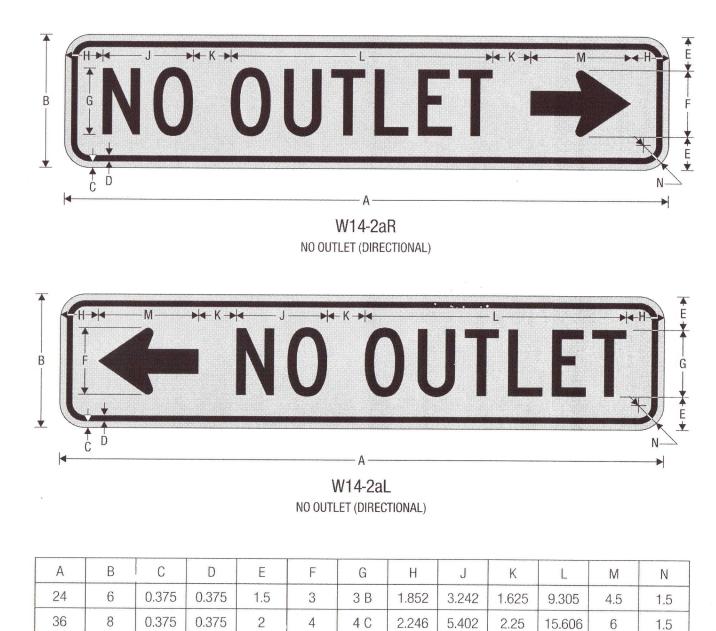
PROJECT NUMBER 20-013

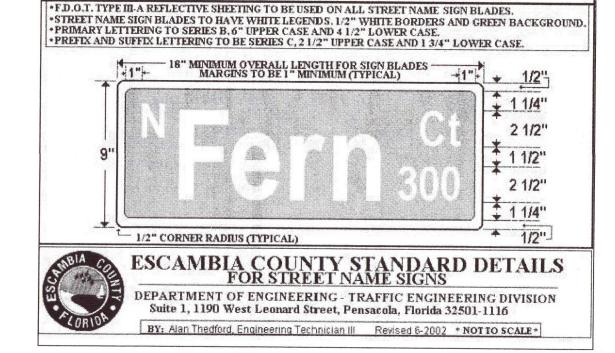
3/10/22

SHEET C15 OF C19



N.T.S.





STANDARD DETAILS FOR STREET NAME SIGN BLADE LAYOUT

REQUIRED ITEMS FOR STREET NAME SIGN INSTALLATION SIGN BLADE - .080" ALODIZED ALUMINUM CORNERS

3/16"X3/8" BLIND RIVETS (FNDS OF SIGN BLADES WILL BE

RIVETED TO GETHER) (4 REQUIRED PER INSTALLATION)

3.8" STEEL DRIVE RIVETS ("SOUTH CO" 3878 OR EQUIVALENT)

ROUNDED (1/2" RADIUS) FREE OF SHARP EDGES

TELSPAR SIGN POST SYSTEM (GALVANIZED) OR EQUIVALENT (COMPRISED OF PARTS 5a AND 5b) 1) 1 3/4"X 1 3/4"X 10" - 14 GAUGE TELESCOPING TOP POST

ALUMINUM PYRAMID RAINCAP

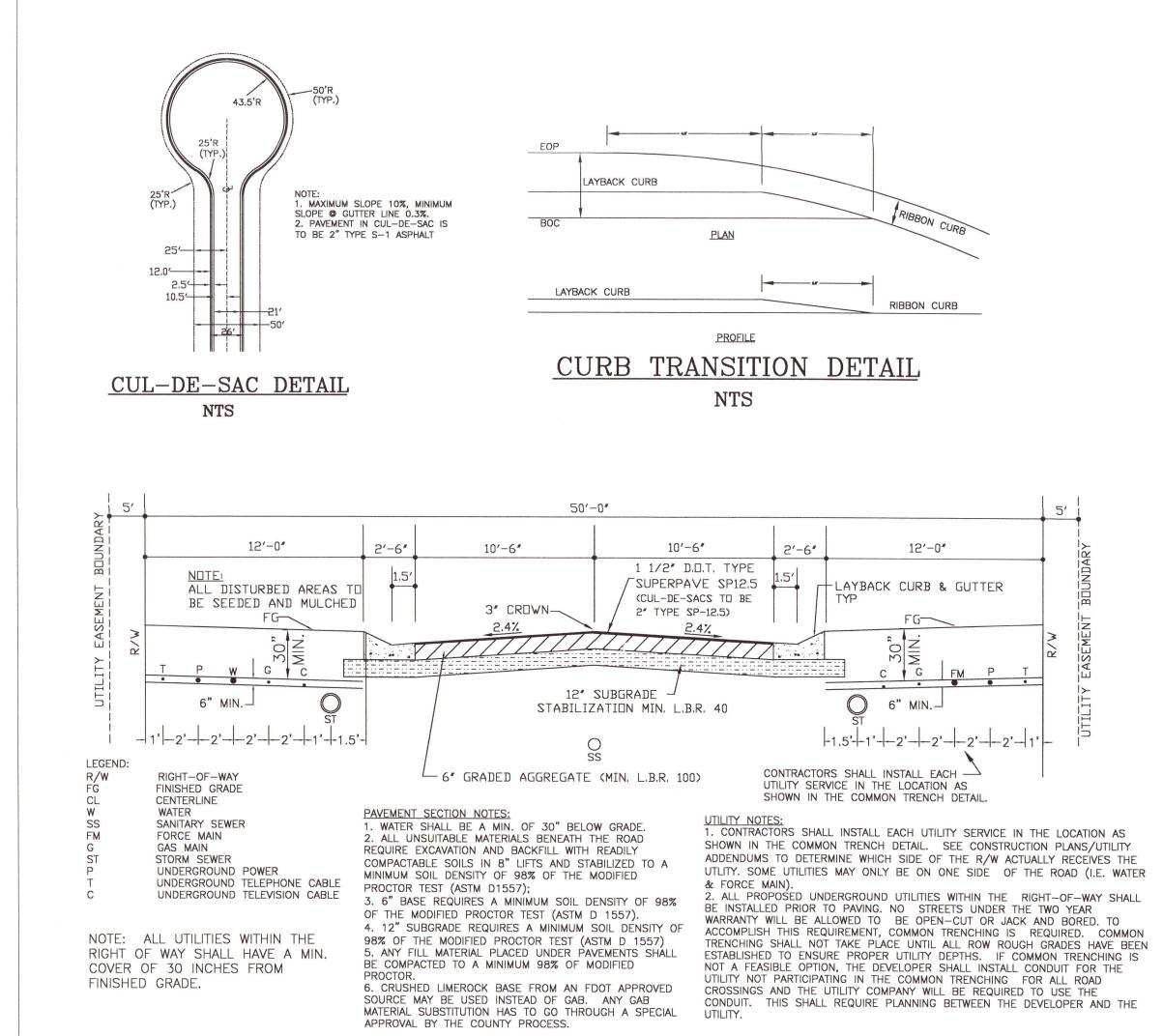
(8 REQUIRED PER INSTALLATION)

(ARC 176 OR EQUIVALENT)

W14-2A SIGN DETAIL

BACKGROUND - YELLOW (RETROREFLECTIVE)

COLORS: LEGEND, BORDER — BLACK

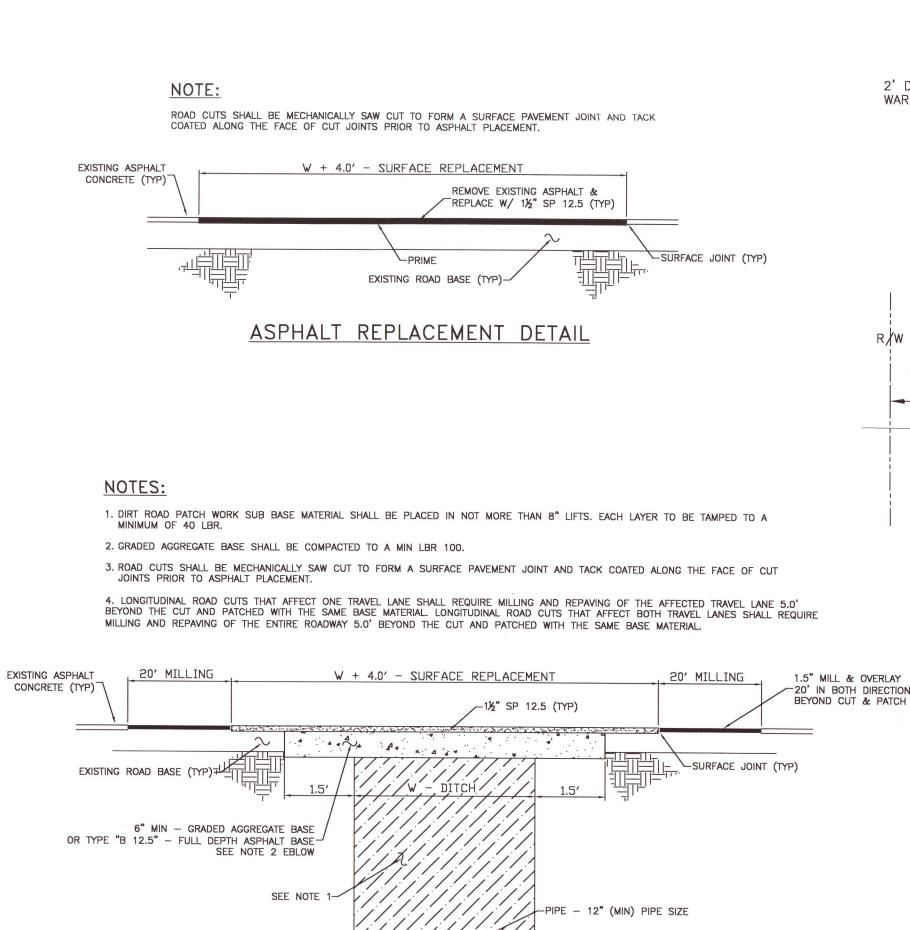


COMMON TRENCH DETAIL/ROAD CROSS SECTION

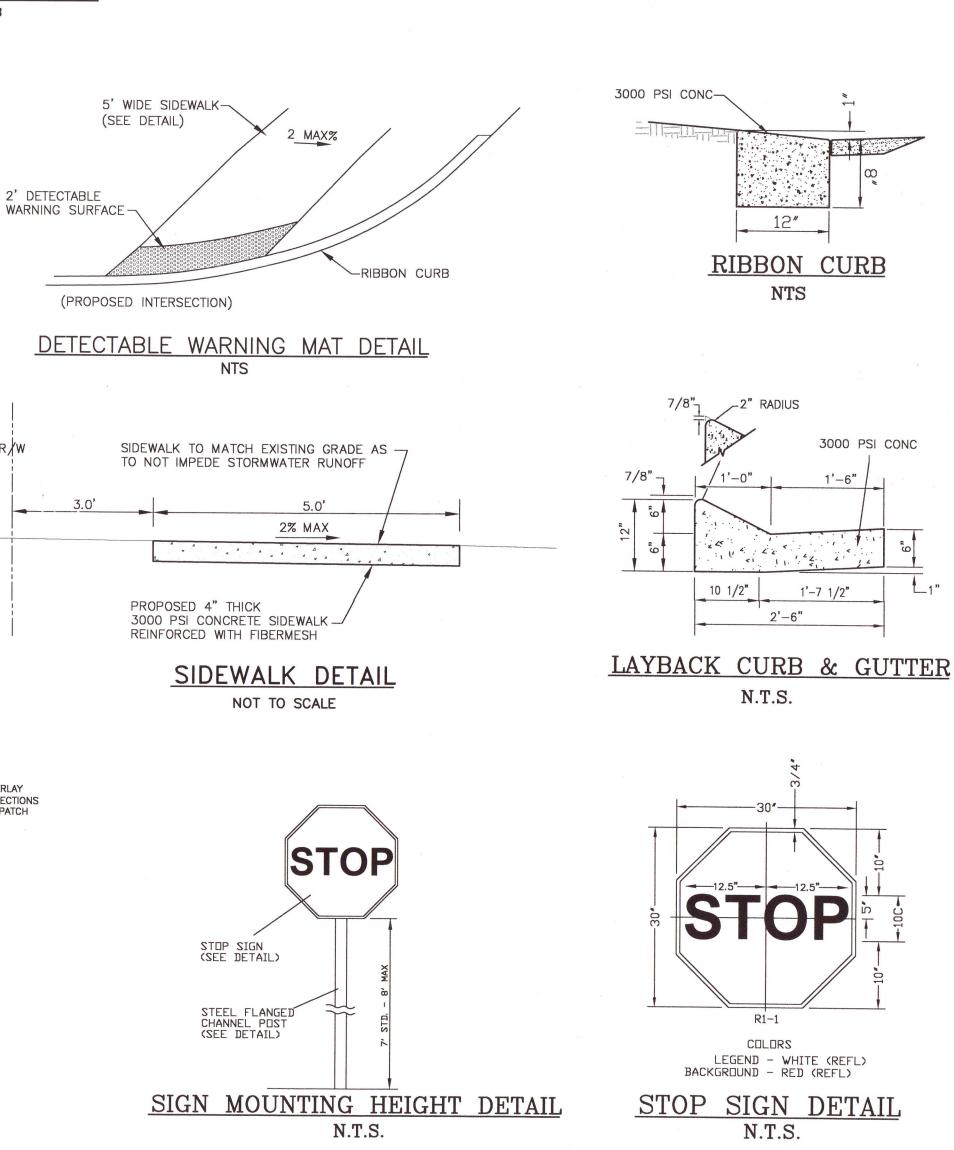
NOT TO SCALE

SIGN NUMBER

STREET RANGE SIGN TABLE



ASPHALT CUT & PATCH DETAIL FOR PATCHES 24" WIDE OR GREATER



Z

4

DETAIL

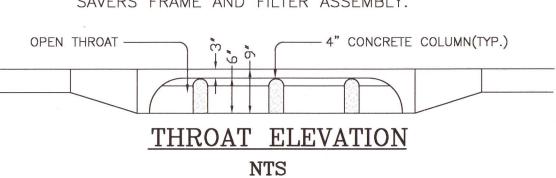
AGE

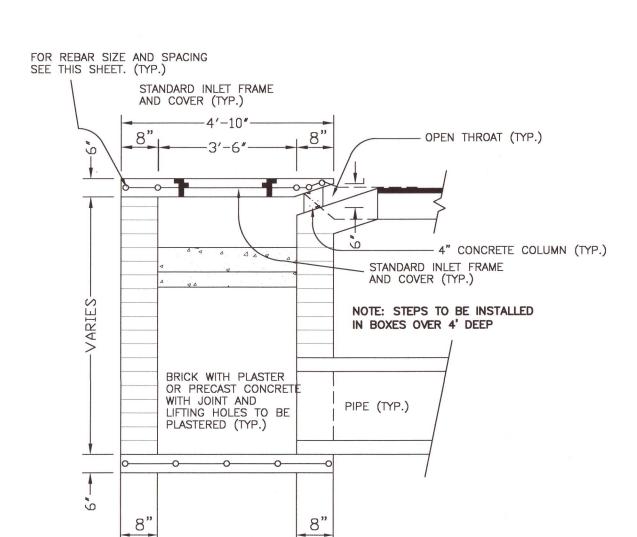
DRAIN.

A. BURKETT DESIGNED BY: D. FITZPATRICK SIGNAPURE & SEAI

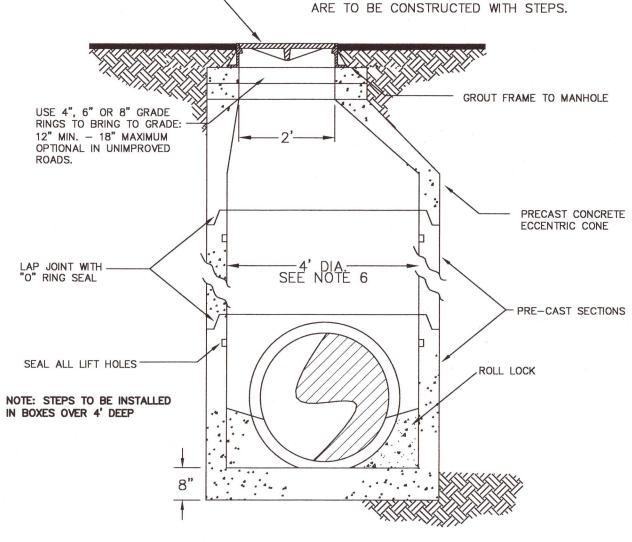
PROJECT 20-013 PLOT 3/10/22 SHEET C16 OF C19

NOTE: ALL INLETS ARE TO UTILIZE SILT SAVERS FRAME AND FILTER ASSEMBLY.





SECTION "B-B"

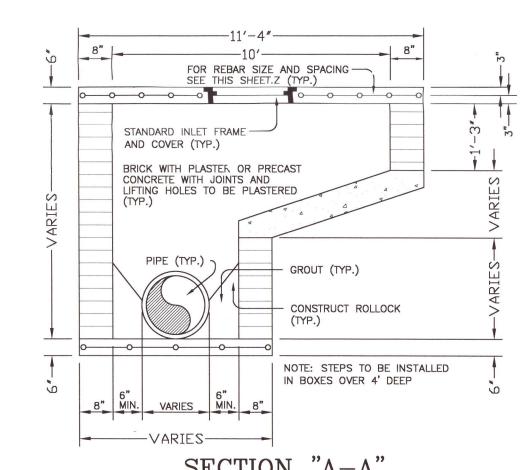


# STANDARD JUNCTION BOX

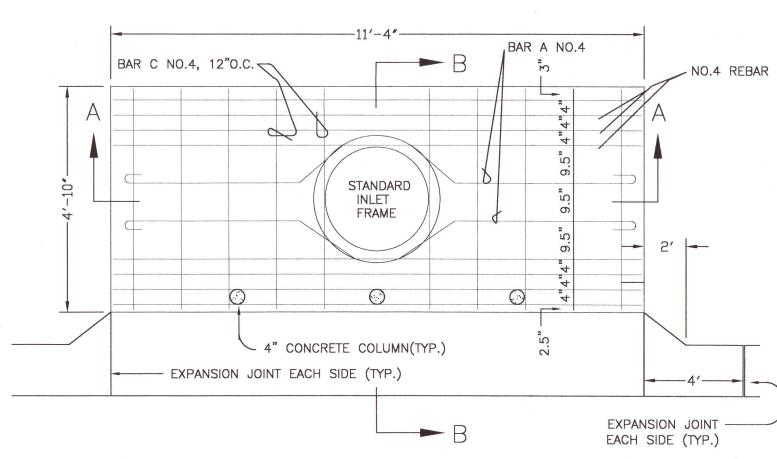
### JUNCTION BOX NOTES:

STANDARD FRAME & COVER -

- 1. MANHOLE SHALL CONFORM TO A.S.T.M. C 478 SPECIFICATIONS.
- 2. DIAMETER OF OPENING FOR PIPE SHALL BE 1" LARGER DIAMETER THAN BELL OF THE PIPE BEING USED. 3. JOINTING COMPOUND SHALL BE RAM NECK, TYPE 1, ROPE FORM PLASTIC
- GASKET OR EQUAL. 4. ALL PATCHING TO BE DONE WITH HYDRAULIC CEMENT. NO MORTAR REPAIRS
- PERMITTED.
- 5. CONCRETE TO BE 2500 P.S.I., REINFORCING STEEL TO BE A.S.T.M. A 615 GRADE 60.
- 6. FRAME AND COVER SHALL BE VULCAN 1337-2 (ASTM SPEC. A-48, CLASS 30 CAST IRON) OR APPROVED EQUAL. REFER TO SPECIFICATIONS
- 7. CONTRACTOR IS CAUTIONED TO DETERMINE IF A 4' DIAMETER MANHOLE IS LARGE ENOUGH TO CONTAIN SOME OF THE LARGER PIPES OR CONFIGURATIONS. IT MAY BE NECESSARY TO PROVIDE A LARGER DIAMETER JUNCTION BOX. RECTANGULAR JUNCTION BOXES ARE ACCEPTABLE PROVIDED THEY MEET ESCAMBIA COUNTY REQUIREMENTS AND FDOT SPEC.



SECTION "A-A' NTS



TYPE-A CURB INLET DETAIL NTS

STANDARD

FRAME

TYPE 'A-1' DROP INLET DETAIL

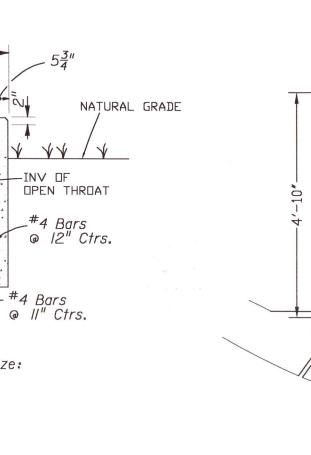
4" CONCRETE COLUMN(TYP.)

BAR C NO.4, 12"O.C.

EXPANSION JOINT EACH SIDE (TYP.)

BAR A NO.4

NO.4 REBAR



# 6" TALL X 2' WIDE OPEN THROAT 4'-1" PLAN

 $-\frac{1}{2}$ " (Corrugation Depth)

Ditch Grade —

MES DIMENSIONS AND QUANTITIES

4.18'

2.5' 14.43' 16.93'

16.49' 18.99'

4.74' 2.0'

14.0' 16.0'

18.0'

X

TOP VIEW

Concrete Slab, 3" Or  $5\frac{1}{2}$ " Thick,

Reinforced With WWF 6x6-WI.4xWI.4

G

1.23

2.45' 2.65' 2.83'

Slope Varies See General Notes Nos. 3 & 4

3" Or 51/2"

Paid For As

Pipe Culvert

NOTE: MES SHALL NOT BE CONSTRUCTED OF PVC (A2000) OR HDPE (ADS) PIPE. USE ONLY CONCRETE OR

CONJUNCTION WITH CORRUGATED MES, CONNECTION SHALL BE BY EITHER A FORMED METAL BAND SPECIFICALLY DESIGNED TO JOIN HDPE OR PVC PIPE. WHEN USED IN CONJUNCTION WITH A CONCRETE MES, CONNECTION

SHALL BE BY CONCRETE JACKET CONSTRUCTED IN ACCORDANCE WITH FDOT DESIGN STANDARD PLAN NO. 430-001.

METAL MITERED END SECTIONS AS INDICATED IN FDOT STANDARD SPECIFICATIONS 430-4.6. WHEN USE IN

FDOT MES DETAIL

18.0' 20.0'

22.0' 3.00'

Rerolled End Required

1.41'

H ?

4.58'

5.08

5.58'

6.58

8.08

Saddle -

F (Pipe To Be Included Under Unit

<u>SECTION</u>

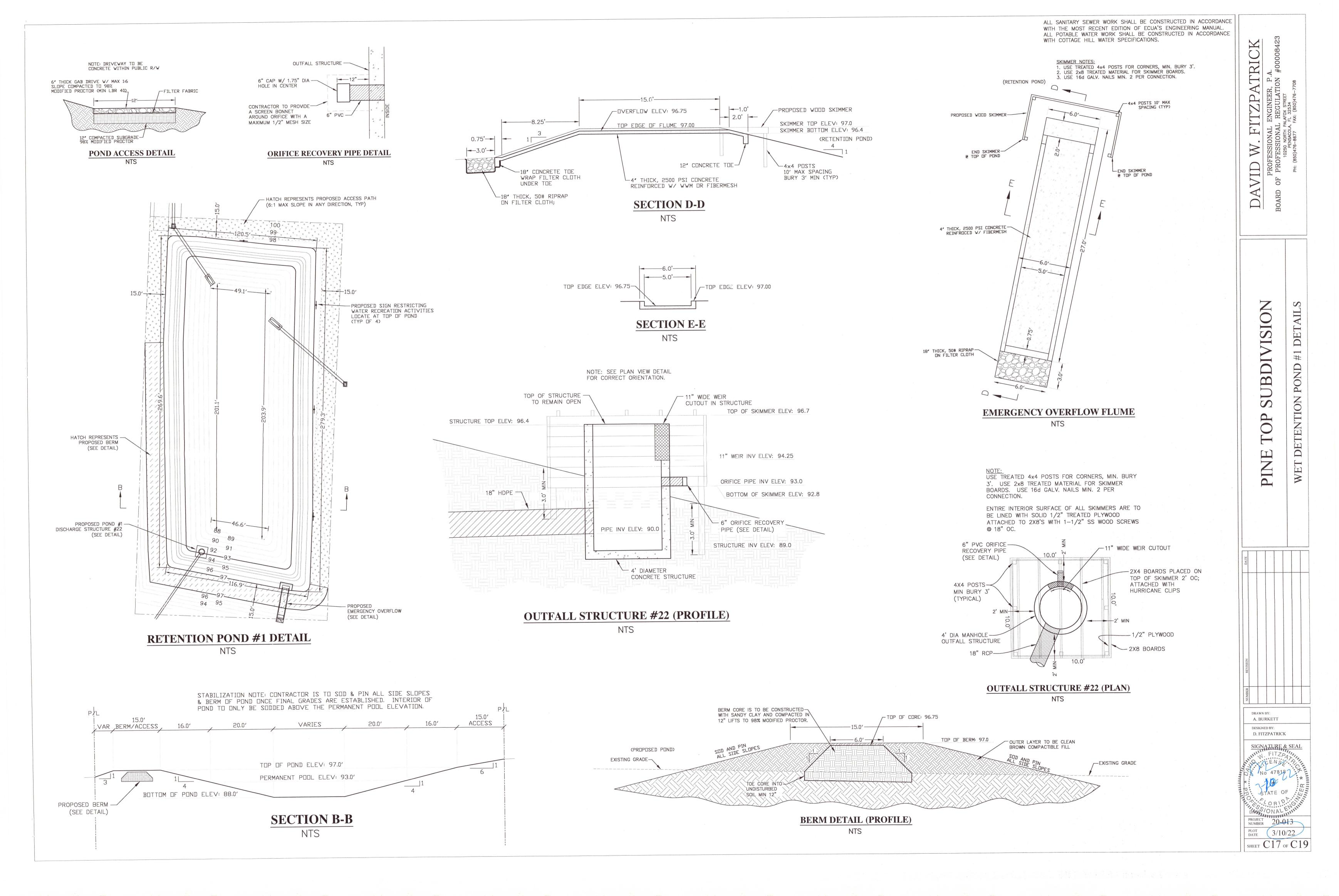
Price For Mitered End Section)

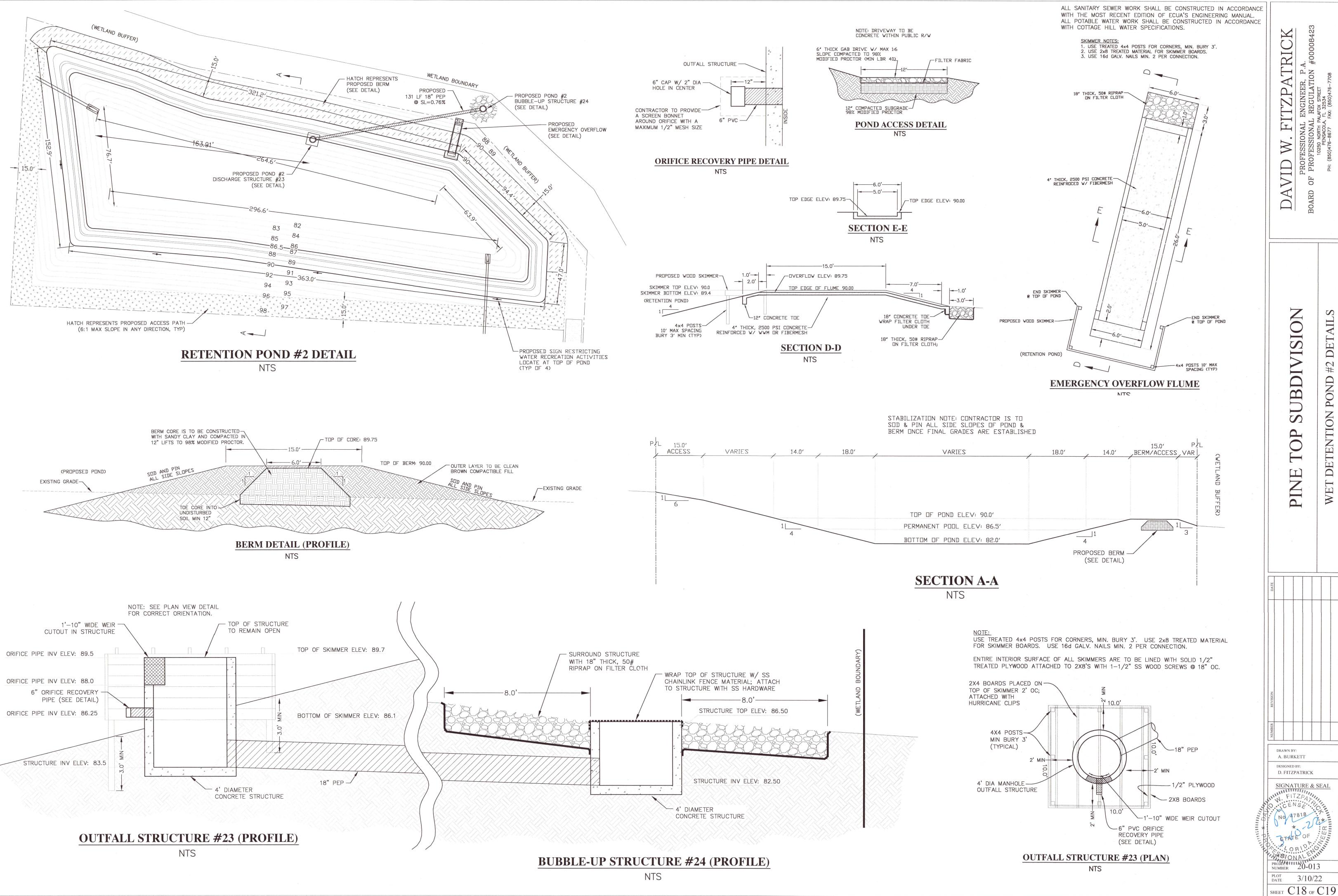
4' 7.08' 4' 7.58'

NOTE: ALL INLETS ARE TO UTILIZE SILT SAVERS OR SILTFENCE RETAINAGE BOXES.

### INV OF INLET SECTION Recommended Maximum Pipe Size: 3'-1" Wall - 24" Pipe 4'-1" Wall - 36" Pipe

# FDOT TYPE-D INLET DETAIL





SION PINE

DETAILS

#2

POND

DRAWN BY: A. BURKETT DESIGNED BY:

D. FITZPATRICK SIGNATURE & SEAL PROJECT 20-013

3/10/22

### CHLORINE REQUIRED FOR STERILIZATION

PIPE SIZE	SPECIFICATION	I.D. INCHES	GALLS/100'	CHLORINE REQUIRED PER 100' FOR 25ppm	CHLORINE REQUIRED PER 100' FOR 50ppm
2'	D2241 DR26	2.193	20	0.10 oz.	0.20 oz.
3"	D2241 DR26	3.230	43	0.22 oz.	0.44 oz.
4"	C-900 DR18	4.230	73	0.37 oz.	0.75 oz.
6"	C-900 DR25	4.390	79	0.40 oz.	0.81 oz.
	C-900 DR18	6.090	151	0.78 oz.	1.55 oz.
	C-900 DR25	6.300	162	0.83 oz.	1.66 oz.
8"	C-900 DR18	7.980	260	1.33 oz.	2.67 oz.
	C-900 DR25	8.280	280	1.44 oz.	2.87 oz.
12"	C-900 DR18	11.650	554	2.84 oz.	5.69 oz.
	C-900 DR25	12.080	595	3.06 oz.	6.12 oz.
16"	C-905 DR18	15.470	977	5.01 oz.	10.03 oz.
	C-905 DR25	16.010	1,046	5.37 oz.	10.74 oz.
20"	C-905 DR18	19.200	1,504	7.72 oz.	15.45 oz.
	C-905 DR25	19.870	1,611	8.27 oz.	16.55 oz.
24"	C-905 DR18	N/A	N/A	N/A	N/A
	C-905 DR25	23.742	2,300	11.81 oz.	23.62 oz.

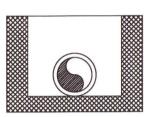
- FOR HTH WITH 65% AVAILABLE CHLORINE

- 16", 20" AND 24" PIPE SIZES ARE C.I.O.D.

- 1 US GALLON WEIGHS 8.345 # APPROX. 1 oz./100 gal FOR 50 ppm

APPROX. 0.5 oz./100 gal FOR 25 ppm

CHLORINE REQUIRED FOR STERILIZATION N.T.S.

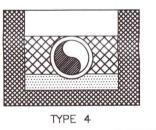


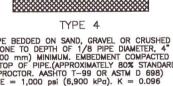


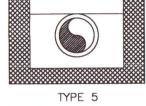
FLAT-BOTTOM\*TRENCH, EMBEDMENT LIGHTLY CONSOLIDATED TO CENTERLINE OF PIPE. E = 200 psi (1,380 kPa). K = 0.110



TYPE 3





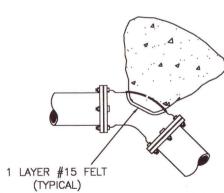


NOTE: REQUIRED EMBEDMENT TYPE WILL DEPEND ON THE PIPE'S DIMENSION RATIO, INTERNAL OPERATIING PRESSURE, AND EXTERNAL LOAD, AND SHALL BE SPECIFIED BY THE PURCHASER.(SEE SEC. 5.3)

\*"FLAT-BOTTOM" IS DEFINED AS UNDISTURBED EARTH.

\*"LOOSE SOIL" OR "SELECT MATERIAL" IS DEFINED AS NATIVE SOIL EXCAVATED FROM THE TRENCH, FREE OF ROCKS
FOREIGN MATERIAL, AND FROZEN EARTH. A SOFT "LOOSE SOIL" BEDDING WILL CONTOUR TO THE PIPE BOTTOM. CAUTION
MUST BE EXERCISED TO ENSURE PROPER PLACEMENT OF EMBEDMENT MATERIAL UNDER THE HAUNCHES OF THE PIPE.

UNDERGROUND INSTALLATION OF PVC PIPE PIPE ENVELOPE REQUIREMENTS



45° BEND - M.J.

TEE - M.J.

MINIMUM THRUST BLOCK DIMENSIONS:

SURFAC	E AREA A	GAINST U	ADISTORBE	D SOIL
FITTING PIPE SIZE	DEAD END OR TEE	90° BEND	45* BEND	22.5° BEND
4"	1' X 2'	1.5' X 1.5'	1' X 1.5'	1' X 1'
6"	2' X 2'	2.5' X 2.5'	2' X 1.5'	1' X 1.5'
8"	2.25' X 3'	3' X 3'	2' X 2.5'	1.5' X 1.5'
10"	3.5' X 3'	4' X 3.75'	2.75' X 3'	2' X 2'
12"	4' X 4'	4' X 5'	3' X 4'	2' X 3'
16"	5' X 5.5'	6' X 6.5'	4' X 5'	3' X 3.5'

NOTES:

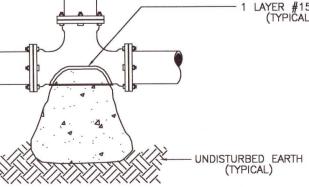
SLEEVES, AND DEAD ENDS.

1. ONE LAYER OF #15 FELT TO BE USED TO PREVENT ADHESION OF CONCRETE TO FITTING.

BLOCKS REQUIRED ON 90" BENDS, 45" BENDS, TEES, TAPPING

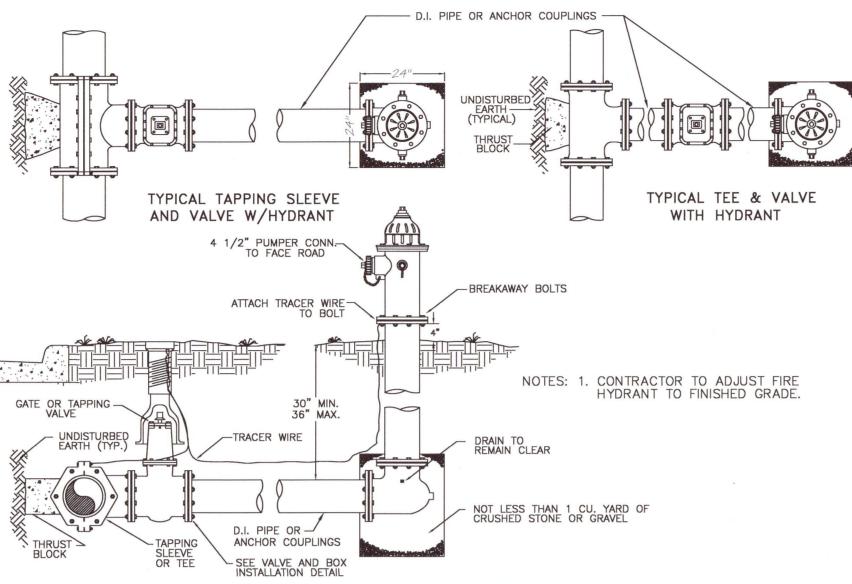
2. ALL THRUST BLOCKS TO BE BACKED BY UNDISTURBED SOIL 3. THRUST BLOCK DIMENSIONS BASED ON SM SOIL CLASSIFICATION 4. CONCRETE MIN. 2,500 PSI. 5. JOINT RESTRAINTS ARE TO BE USED ON ALL FITTINGS. TRUST

1 LAYER #15 FELT-(TYPICAL)



90° BEND - M.J.

TYPICAL THRUST BLOCK INSTALLATIONS N.T.S.



TYPICAL FIRE HYDRANT INSTALLATION: TAPPING SLEEVE & VALVE and TEE CONNECTION

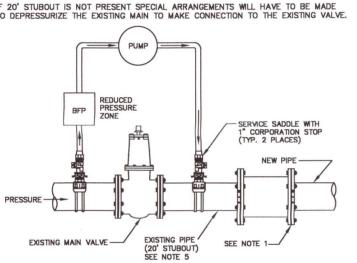
NEW PIPE SHALL BE CAPPED OR PLUGGED FOR PRESSURE TEST. ONCE TEST IS SATISFACTORILY COMPLETED NEW MAIN IS TO BE CONNECTED TO EXISTING MAIN IN A MANNER ACCEPTABLE TO SSRU

2. THE CONTRACTOR SHALL FLUSH LINE PRIOR TO STARTING THE CHLORINATION PROCEDURE. ALL FLUSHING SHALL BE DONE THROUGH THE EXISTING VALVE WITH ALL HYDRANTS AND SERVICE LINES OPEN. SSRU INSPECTOR SHALL BE THE ONLY PERSON ALLOWED TO OPERATE THE VALVE AND SHALL BE PRESENT DURING FLUSHING OPERATION.

ONCE FLUSHING IS COMPLETE THE INSPECTOR SHALL CLOSE THE VALVE. ONCE SATISFACTORY BACTERIOLOGICAL SAMPLES ARE OBTAINED THE CONTRACTOR SHALL CLOSE BOTH CORPORATION STOPS AND REMOVE SERVICE TUBING, PUMP AND BACKFLOW PREVENTER; CAP CORPORATION STOPS WITH BRASS CAPS.

4. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY FOR FILLING, CHLORINATING AND TESTING PROCEDURES. CONTRACTOR SHALL PROVIDE SAMPLING TAPS AT THOSE LOCATIONS APPROVED BY THE SSRU INSPECTOR. SSRU SHALL COLLECT TEST SAMPLES.

IF 20' STUBOUT IS NOT PRESENT SPECIAL ARRANGEMENTS WILL HAVE TO BE MADE TO DEPRESSURIZE THE EXISTING MAIN TO MAKE CONNECTION TO THE EXISTING VALVE.



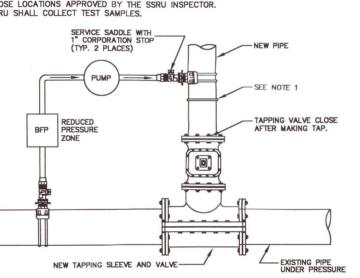
TYPICAL CONNECTION FOR NEW LINE FILLING, PRESSURE TESTING, FLUSHING AND CHLORINATION. (EXISTING STUBOUT)

NEW PIPE SHALL BE CAPPED OR PLUGGED FOR PRESSURE TEST. ONCE TEST IS SATISFACTORILY COMPLETED NEW MAIN IS TO BE CONNECTED TO TAPPING VALVE.

TAPPING VALVE IS TO REMAIN CLOSED. 2. THE CONTRACTOR SHALL FLUSH LINE PRIOR TO STARTING THE CHLORINATION PROCEDURE. ALL FLUSHING SHALL BE DONE THROUGH THE TAPPING VALVE WITH ALL HYDRANTS AND SERVICE LINES OPEN. SSRU INSPECTOR SHALL BE THE ONLY PERSON ALLOWED TO OPERATE THE VALVE AND SHALL BE PRESENT DURING FLUSHING OPERATION. ONCE FLUSHING IS COMPLETE THE INSPECTOR SHALL CLOSE THE VALVE.

3. ONCE SATISFACTORY BACTERIOLOGICAL SAMPLES ARE OBTAINED THE CONTRACTOR SHALL CLOSE BOTH CORPORATION STOPS AND REMOVE SERVICE TUBING, PUMP AND BACKFLOW PREVENTER; CAP CORPORATION STOPS WITH BRASS CAPS.

4. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY FOR FILLING, CHLORINATING AND TESTING PROCEDURES. CONTRACTOR SHALL PROVIDE SAMPLING TAPS AT THOSE LOCATIONS APPROVED BY THE SRU INSPECTOR. SSRU SHALL COLLECT TEST SAMPLES.



TYPICAL CONNECTION FOR NEW LINE FILLING, PRESSURE TESTING, FLUSHING AND CHLORINATION. (TAPPING SLEEVE AND VALVE)

TYPICAL DISINFECTION & CHLORINATION N.T.S.

### PIPE JOINT RESTRAINT TABULATION

SHOWING DISTANCES IN FEET FROM THE FITTING TO BE RESTRAINED TO THE LAST RESTRAINING GLAND REQUIRED

PIPE SIZE	HORIZONTAL BENDS					TEES (LENGTH ALONG
AND TYPE	90 Deg.	45 Deg.	22.5 Deg.	11.25 Deg.	DEAD ENDS	BRANCH)
3" DI	18	8	4	2	33	20
4" DI	22	9	4	2	39	25
6" DI	31	13	6	3	55	37
8" DI	40	17	8	4	72	49
10" DI	48	20	9	5	86	60
12" DI	56	23	11	5	101	71
16" DI	70	29	14	7	129	92
20" DI	84	35	17	8	156	112
24" DI	96	40	19	9	181	131
4" PVC	28	12	6	3	62	39
6" PVC	39	16	8	4	87	58
8" PVC	50	21	10	5	114	78
10" PVC	60	25	12	6	136	94
12" PVC	70	29	14	7	160	112
16" PVC	88	36	17	9	205	146
20" PVC	105	43	21	10	247	177
24" PVC	120	50	24	12	287	207

NOTES 1. VALVES ARE BASED ON TEST PRESSURE =150 PSI, SOIL =SM, TRENCH TYPE =3, DEPTH =2.5', SAFETY

FACTOR =2.0 (1.5 FOR TEES WITH LR =2'). 2. AS A MINIMUM ALL FITTINGS SHALL BE RESTRAINED TO THE NEXT JOINT. FOR OVERLAPPING JOINT RESTRAINTS, THE MOST RESTRICTIVE WILL APPLY. THE FARM HILL UTILITIES ENGINEER OR INSPECTOR MAY MAKE AN EXCEPTION IF THE DISTANCE TO BE RESTRAINED REQUIRES TEARING UP

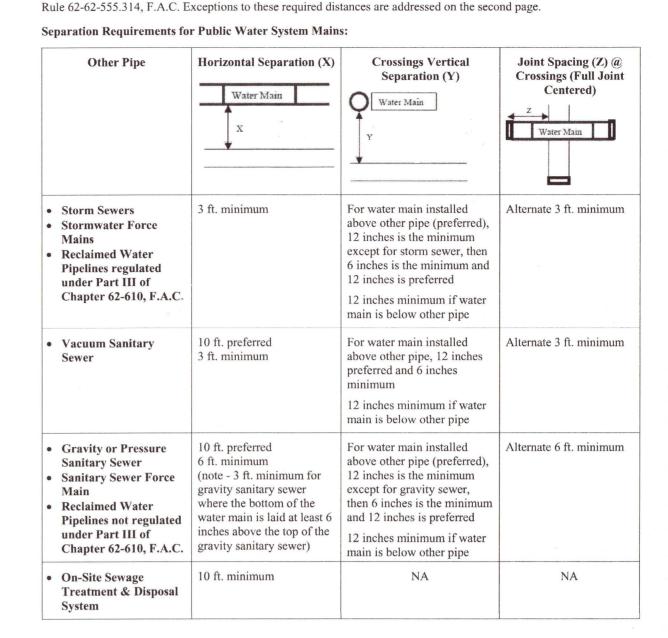
6. RESTRAINED LENGTHS FOR A VERTICAL OFFSETS MUST BE INDIVIDUALLY CALCULATED.

4. AN UNEQUAL TEE IS A TEE WHERE ONE OF THE DIAMETERS IS UNEQUAL (I.E. 6X6X4). RESTRAINED LENGTH FOR AN UNEQUAL TEE IS BASED ON DISTANCES FOR THE LARGER DIAMETER SHOWN IN THE TABLE. THE DESIGN ENGINEER MAY PROVIDE CALCULATIONS TO JUSTIFY A REVISED RESTRAINT DISTANCE. 5. IF A DEAD-END IS WITHIN A FEW FEET OF A REDUCER, THEN RESTRAIN THE REDUCER AS A DEAD-END BASED ON THE LARGER DIAMETER PIPE. OTHERWISE RESTRAIN THE REDUCER AT THE NEAREST JOINT OR A MINIMUM OF 20 FEET (WHICHEVER IS GREATER).

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH RULE 62-555.314, F.A.C. The following table summarizes the required separation distances from public water mains to other pipes as provided in

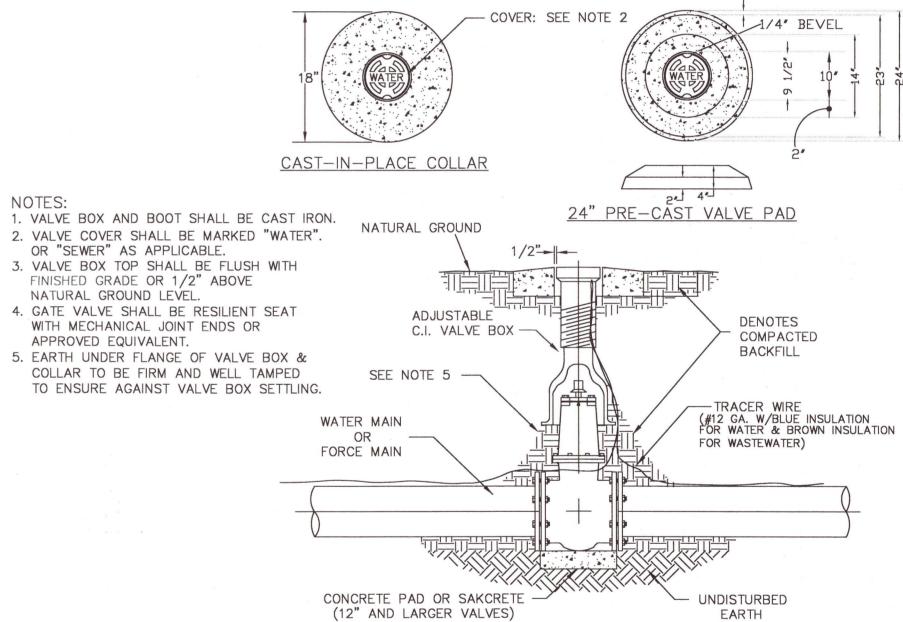
ALL SANITARY SEWER WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL. ALL POTABLE WATER WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH COTTAGE HILL WATER SPECIFICATIONS.

H1/2" BEVEL

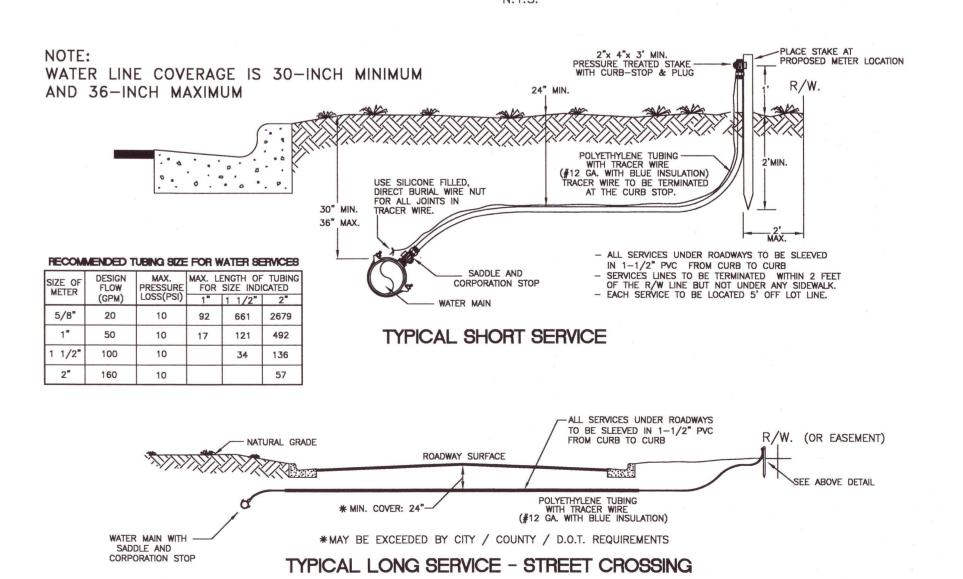


Refer to the next page for exceptions to the minimum separation requirements provided above.

Disclaimer - This document is provided for your convenience only. Please refer to Rule 62-555.314, F.A.C., for additional construction requirements.



TYPICAL VALVE & BOX INSTALLATION N.T.S.



TYPICAL WATER SERVICE INSTALLATION

AIL ATER > H BL T 4

DRAWN BY:

A. BURKETT

SIGNATURE & SE

PROJECT 20-013

3/10/22

SHEET C19 OF C19

DESIGNED BY: D. FITZPATRICK