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A-06	DUMPSTER ENCLOSURE

# SITE PLAN DRAWINGS FOR LEGACY POINTE COTTAGES

SECTION 11, TOWNSHIP 12 S, RANGE 31 E  
11-12-31-0650-000D0-0050  
LESLIE STREET  
FLAGLER BEACH, FL 32136

OCTOBER 2024  
REVISED DECEMBER 2024

## PROJECT TEAM

PROPERTY OWNER / APPLICANT:	ALT HOMES LLC 39 AUDUBON LANE FLAGLER BEACH, FL 32136 PHONE: (386) 931-6018 EMAIL: ALTHOMESLLC@GMAIL.COM
ENGINEER/ LANDSCAPE ARCHITECT/ AGENT:	NEWKIRK ENGINEERING, INC. 1230 NORTH US1, SUITE 3 ORMOND BEACH, FL 32174 PHONE: (386) 872-7794 EMAIL: HARRY@NEWKIRK-ENGINEERING.COM
ARCHITECT:	ROBERT HALL ARCHITECTS, INC. 217 ROBERTS ROAD NEW SMYRNA BEACH, FL 32169 PHONE: (386) 214-4529 EMAIL: HALLARCHITECTS@RHALLARCH.COM
SURVEYOR:	CPH, INC. 520 PALM COAST PARKWAY SW PALM COAST, FL 32137 PHONE: (386) 445-6569
GEOTECHNICAL:	UNIVERSAL ENGINEERING SCIENCES 911 BEVILLE ROAD, SUITE 3 SOUTH DAYTONA BEACH, FL 32119 PHONE: (386) 756-1105 EMAIL: BPOHL@UNIVERSALENGINEERING.COM
ENVIRONMENTAL:	ECOLOGICAL CONSULTING SOLUTIONS, INC. 235 HUNT CLUB BOULEVARD, SUITE 202 LONGWOOD, FL 32779 PHONE: (407) 869-9434 EMAIL: BGRIFFY@ECSFL.CC

## CONTACT NUMBERS

PLANNING DIVISION - CITY OF FLAGLER BEACH (386) 517-2016  
BUILDING SERVICES - CITY OF FLAGLER BEACH (386) 517-2016  
WATER - CITY OF FLAGLER BEACH UTILITY DEPARTMENT (386) 517-2000  
WASTEWATER - FLAGLER BEACH UTILITY DEPARTMENT (386) 517-2000  
GAS - TECO PEOPLES GAS - (386) 672-2232  
ELECTRIC - FLORIDA POWER & LIGHT (386) 257-7502  
TELEPHONE/CABLE - AT&T (386) 254-8550

## PROJECT STATEMENT

PROPOSE A 22 UNIT, 1-STORY COTTAGE STYLE MULTIFAMILY DEVELOPMENT. THE SITE CONSISTS OF 3.159 ACRES WITH 1.096 ACRES IMPERVIOUS SURFACE.



1230 North US1, Suite 3  
Ormond Beach, Florida 32174  
Phone (386) 872-7794  
www.NewKirk-Engineering.com  
C.A. # 30209  
L.C. # 26000584  
© 2013  
Civil Engineering, Transportation, CEI & Landscape Architecture  
**NEWKIRK ENGINEERING INC.**

## LEGAL DESCRIPTION

DESCRIPTION: PARCEL 1:  
A PARCEL OF LAND LYING SOUTH OF STATE ROAD 100 WITHIN GOVERNMENT SECTION 11, TOWNSHIP 12 SOUTH, RANGE 31 EAST, FLAGLER COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
A POINT OF BEGINNING BEING THE NORTHWEST CORNER OF THE SOUTH HALF (1/2) OF TRACT 4, BLOCK D, ACCORDING TO THE PLAT BUNNELL DEVELOPMENT COMPANY, RECORDED IN MAP BOOK 1, PAGE 1, OF THE PUBLIC RECORDS OF FLAGLER COUNTY, FLORIDA, SAID NORTHWEST CORNER BEING THE NORTHWEST CORNER OF HILLCREST UNRECORDED SUBDIVISION, THENCE SOUTH 01° 20' 27" EAST ALONG THE WEST LINE OF TRACT 4, BLOCK D, A DISTANCE OF 320.00 FEET, THENCE DEPARTING TRACT 4, BLOCK D, SOUTH 88° 39' 33" WEST A DISTANCE OF 331.10 FEET, THENCE NORTH 01° 20' 27" WEST A DISTANCE OF 64.70 FEET TO A POINT ON THE BOUNDARY OF LANDS RECORDED IN OFFICIAL RECORDS BOOK 244, PAGE 576 THROUGH 578, THENCE NORTH 05° 21' 24" WEST A DISTANCE OF 267.29 FEET, THENCE SOUTH 89° 29' 02" EAST ALONG THE SOUTH LINE OF SAID LANDS RECORDED IN OFFICIAL RECORDS BOOK 244, PAGES 576 THROUGH 578, A DISTANCE OF 350.00 FEET TO THE POINT OF BEGINNING, PARCEL CONTAINING 2.5303 ACRES MORE OR LESS.

TOGETHER WITH, PARCEL 2:

A PARCEL OF LAND LYING SOUTH OF STATE ROAD 100 WITHIN GOVERNMENT SECTION 11, TOWNSHIP 12 SOUTH, RANGE 31 EAST, FLAGLER COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
A POINT OF REFERENCE BEING THE NORTHWEST CORNER OF THE SOUTH HALF (1/2) OF TRACT 4, BLOCK D, ACCORDING TO THE PLAT BUNNELL DEVELOPMENT COMPANY, RECORDED IN MAP BOOK 1, PAGE 1, OF THE PUBLIC RECORDS OF FLAGLER COUNTY, FLORIDA, SAID NORTHWEST CORNER BEING THE NORTHWEST CORNER OF HILLCREST UNRECORDED SUBDIVISION, THENCE SOUTH 01° 20' 27" EAST ALONG THE WEST LINE OF TRACT 4, BLOCK D, A DISTANCE OF 320.00 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION, THENCE CONTINUE SOUTH 01° 20' 27" EAST A DISTANCE OF 60.00 FEET, THENCE DEPARTING TRACT 4, BLOCK D, SOUTH 88° 39' 33" WEST A DISTANCE OF 391.10 FEET, THENCE NORTH 01° 20' 27" WEST A DISTANCE OF 126.65 FEET TO A POINT ON THE BOUNDARY OF LANDS RECORDED IN OFFICIAL RECORDS BOOK 244, PAGE 576 THROUGH 578, THENCE SOUTH 89° 29' 02" EAST ALONG THE SOUTH BOUNDARY LINE OF SAID LANDS RECORDED IN OFFICIAL RECORDS BOOK 244, PAGES 576 THROUGH 578, A DISTANCE OF 60.03 FEET, THENCE DEPARTING SAID BOUNDARY SOUTH 01° 20' 27" EAST A DISTANCE OF 64.70 FEET, THENCE NORTH 88° 39' 33" EAST A DISTANCE OF 331.10 FEET TO THE POINT OF BEGINNING, PARCEL CONTAINING 0.6292 ACRES MORE OR LESS.

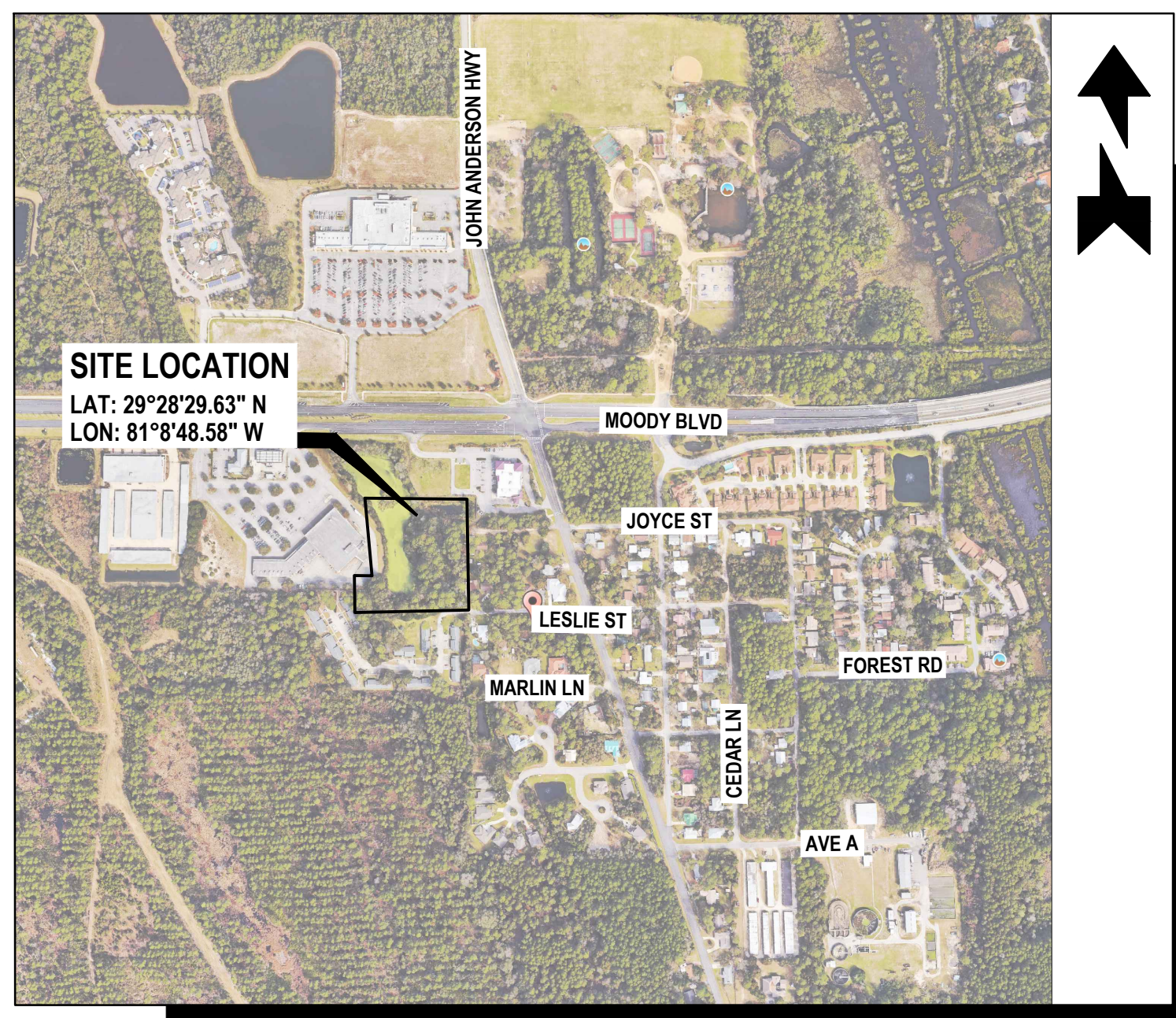
PARCEL 2, SUBJECT TO AN EXISTING EASEMENT FOR ACCESS AND UTILITIES.  
PARCELS 1 AND 2 CONTAINING 3.1595 ACRES MORE OR LESS.

## JURISDICTIONAL AGENCY PERMIT No.

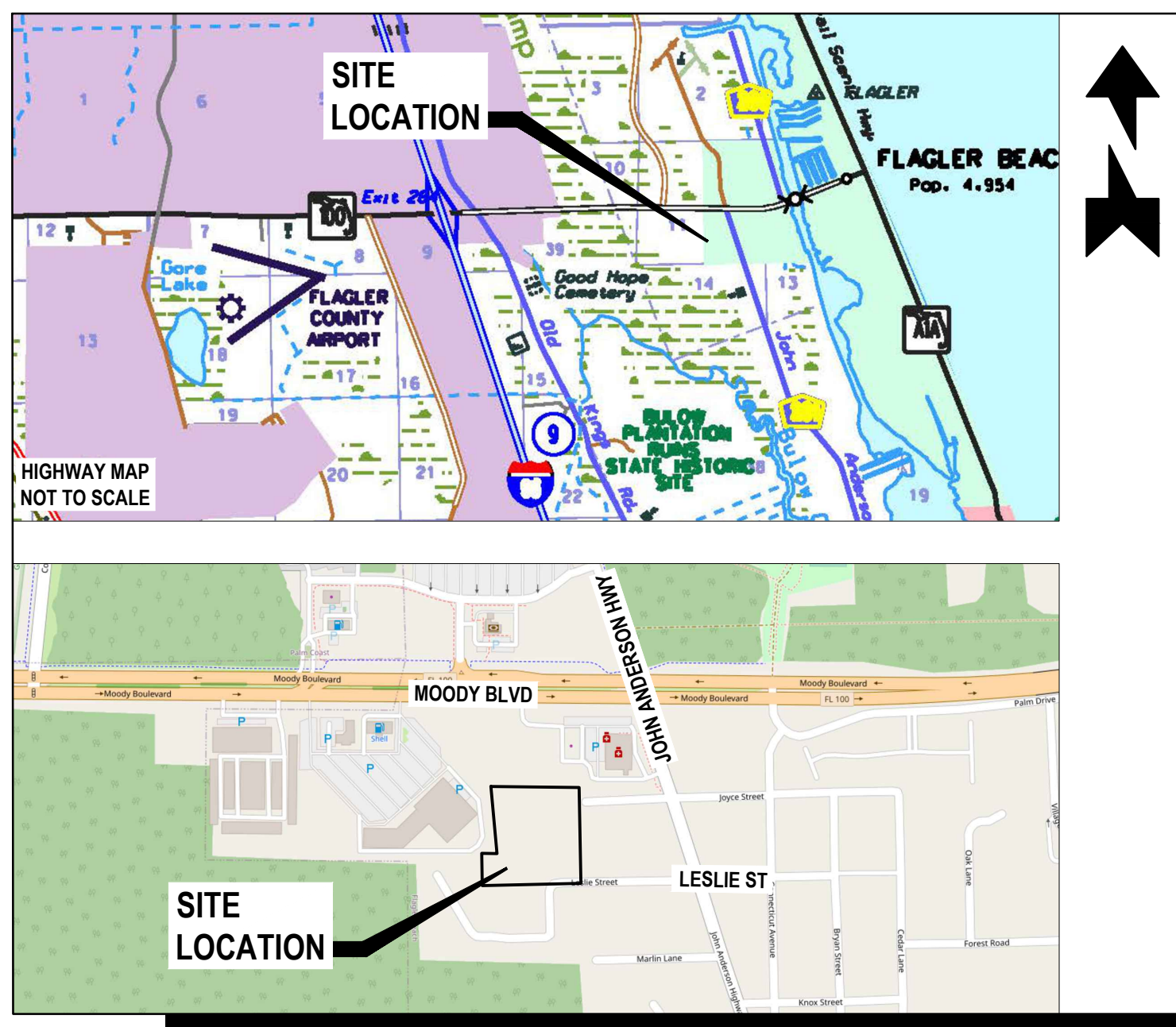
CITY OF FLAGLER BEACH (DEVELOPMENT ORDER)	SP#23-04-01
SJRWMD (STORMWATER)	199375-1
FDEP (WATER)	.
FDEP (WASTEWATER)	.
FDEP (NPDES NOI)	FLR

THE GENERAL CONTRACTOR SHALL ENSURE THAT ANY SUBCONTRACTOR HAS A COMPLETE SET OF CONSTRUCTION DRAWINGS FOR ITS RESPECTIVE WORK. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR SUBCONTRACTORS ONLY UTILIZING INDIVIDUAL DRAWINGS FOR ITS WORK WHERE ADDITIONAL INFORMATION MAY BE CONTAINED ON OTHER DRAWINGS WITHIN THE SET.

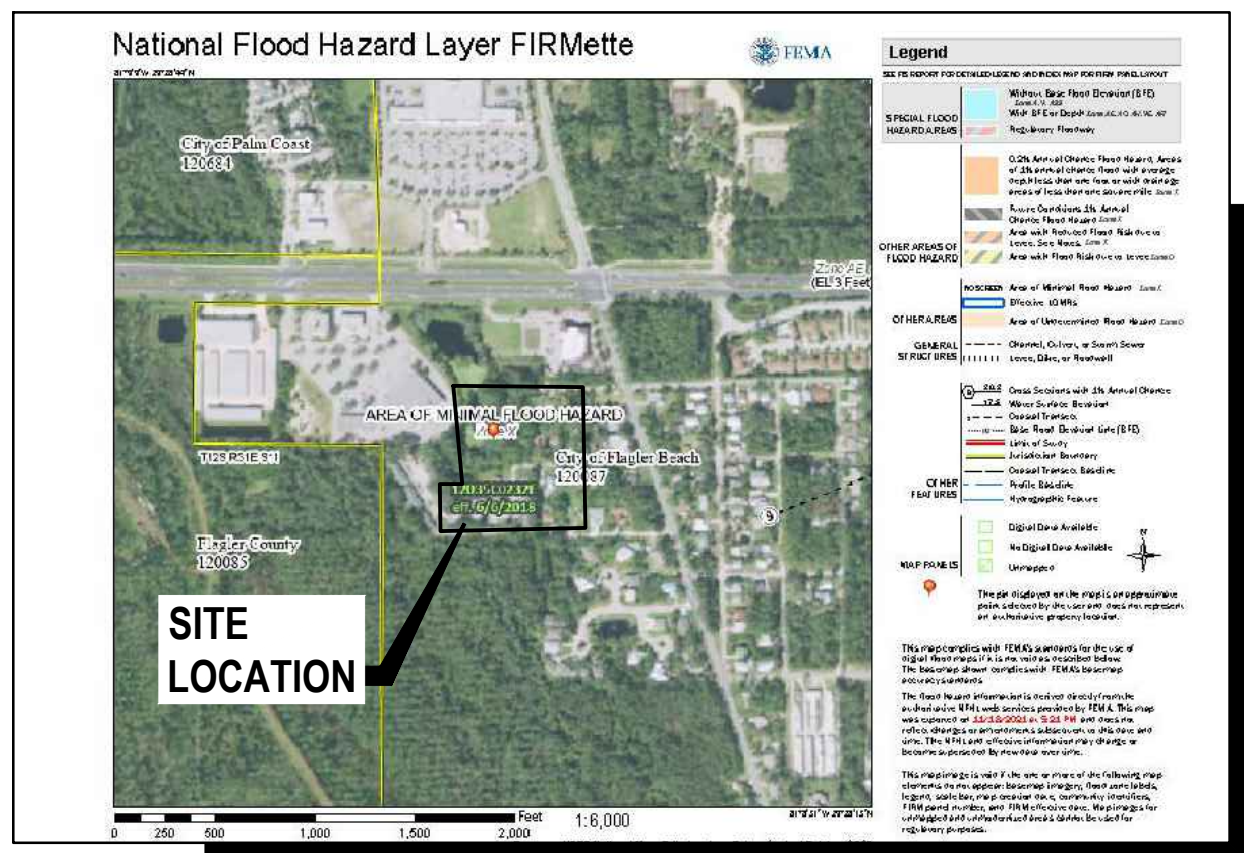
THESE DRAWINGS ARE THE PROPERTY OF NEWKIRK ENGINEERING, INC. ANY USE OR REPRODUCTION IN WHOLE OR PART IS PROHIBITED WITHOUT THE EXPRESSED WRITTEN CONSENT OF NEWKIRK ENGINEERING, INC. COPYRIGHT 2013 ALL RIGHTS RESERVED.



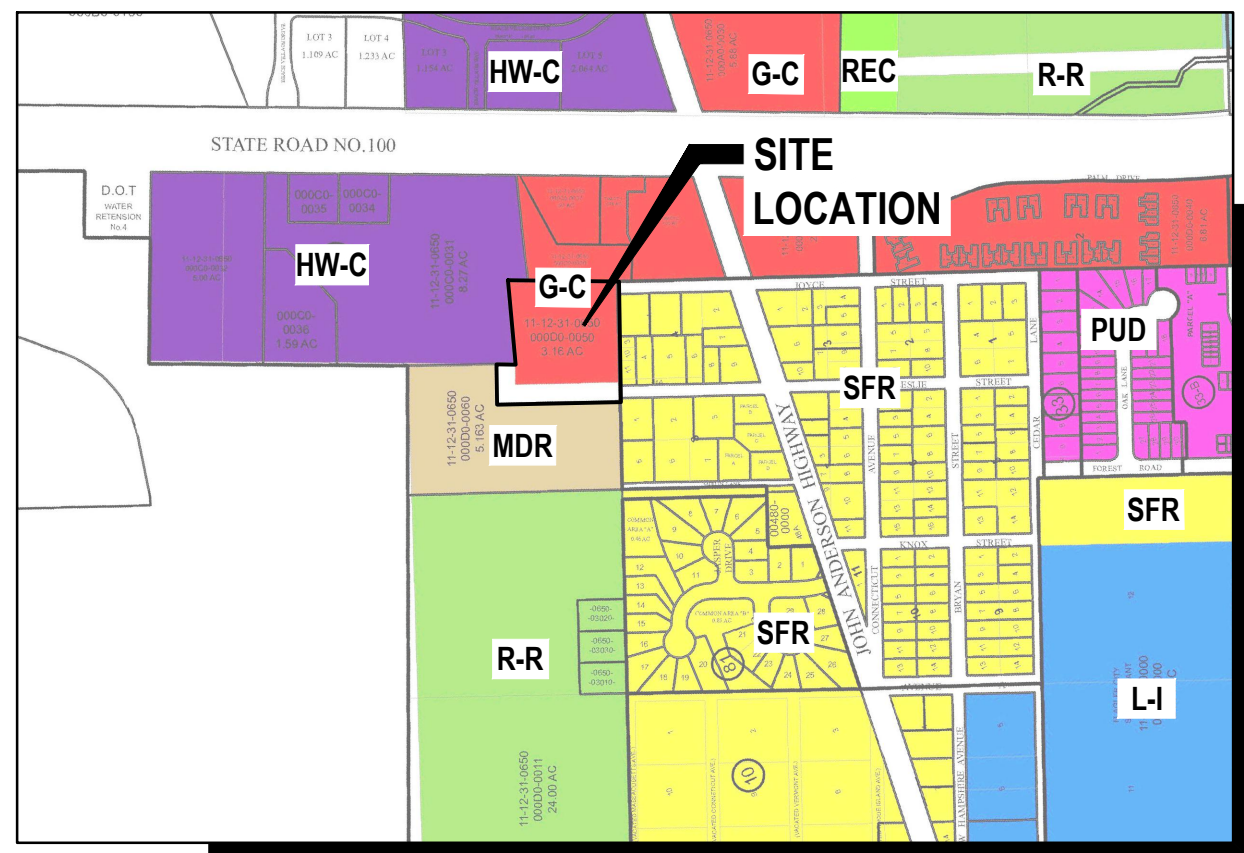
**AERIAL MAP**  
SCALE: 1" = 600'



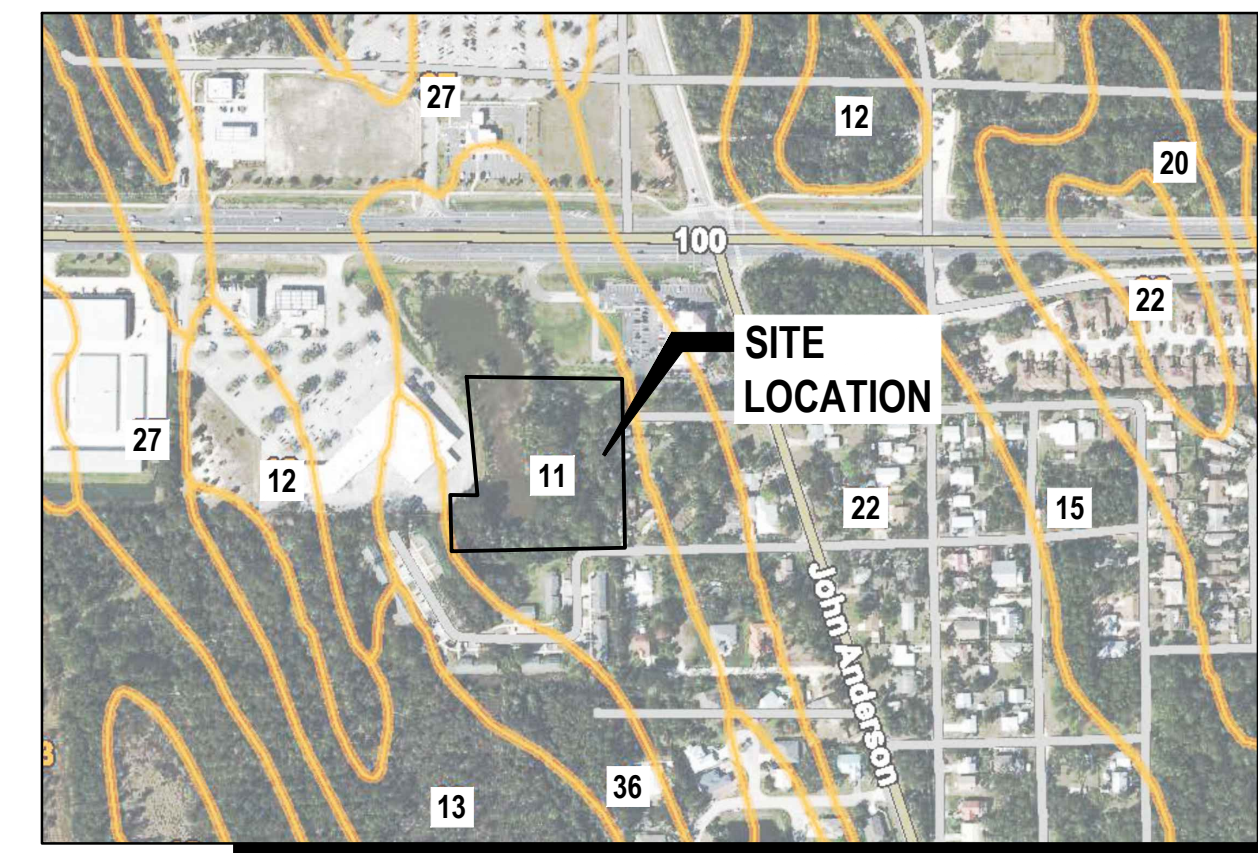
**LOCATION MAP**  
SCALE: 1" = 700'



**FLOOD ZONE MAP**  
SCALE: 1" = 600'  
PANEL NO. 12035C0232 E  
FLOOD ZONE "X"



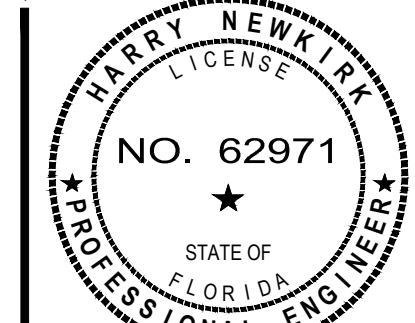
**ZONING MAP**  
SCALE: 1" = 700'  
PROJECT ZONING DISTRICT:  
GC (GENERAL COMMERCIAL)



**SOILS MAP**  
SCALE: 1" = 500'  
SOIL TYPES: (1) MYAKKA-MYAKKA, WET, FINE SANDS, 0 TO 2 PERCENT SLOPES

THIS DRAWING IS THE PROPERTY OF NEWKIRK ENGINEERING ANY USE OR REPRODUCTION IN WHOLE OR PART IS PROHIBITED WITHOUT THE EXPRESSED WRITTEN CONSENT OF NEWKIRK ENGINEERING. COPYRIGHT 2013 ALL RIGHTS RESERVED.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY HARRY NEWKIRK, PE # 62971 ON



HARRY H. NEWKIRK, P.E. # 62971  
DRAWING NUMBER

**1**





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Traffic / Transportation Development Coordination

Table with 4 columns: Field Crew, Drawn by, Checked by, Approved by, Scale, Date, File, D.S., B.B., R.L.B., J.W.P., N/A, 2/2/2022, U3401.1, © 2022

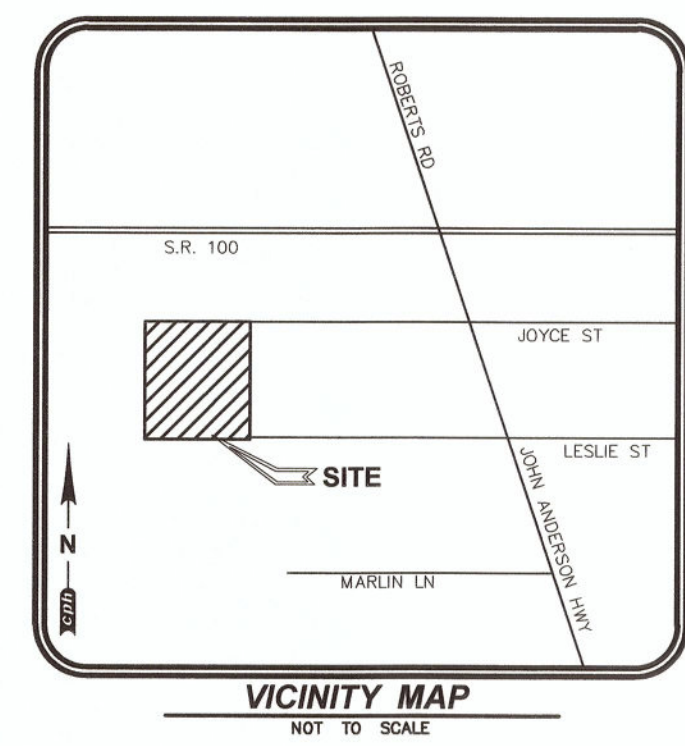
Table with 4 columns: D.S., B.B., R.L.B., J.W.P., N/A, 2/2/2022, U3401.1, © 2022

Survey Prepared By: CPH, Inc.
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Palm Coast, FL 32137
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Licenses: Eng. C.O.A. No. 3215, Survey L.B. No. 7143, Arch. Lic. No. AA2600926, Lndscp. Lic. No. LC0000298

BOUNDARY & TOPOGRAPHIC SURVEY
ALT HOMES LLC
FLAGLER BEACH
SECTION 11-TOWNSHIP 12 SOUTH-RANGE 31 EAST
FLAGLER COUNTY, FLORIDA

Sheet No. 1 of 2

BOUNDARY & TOPOGRAPHIC SURVEY FOR ALT HOMES LLC AT FLAGLER BEACH LYING IN SECTION 11-TOWNSHIP 12 SOUTH-RANGE 31 EAST FLAGLER COUNTY, FLORIDA



Legal Description: (PER ORB 2634, PG 1299, AS PROVIDED BY CLIENT)

DESCRIPTION: PARCEL 1:
A PARCEL OF LAND LYING SOUTH OF STATE ROAD 100 WITHIN GOVERNMENT SECTION 11, TOWNSHIP 12 SOUTH, RANGE 31 EAST, FLAGLER COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
A POINT OF BEGINNING BEING THE NORTHWEST CORNER OF THE SOUTH HALF (1/2) OF TRACT 4, BLOCK D, ACCORDING TO THE PLAT BUNNELL DEVELOPMENT COMPANY, RECORDED IN MAP BOOK 1, PAGE 1, OF THE PUBLIC RECORDS OF FLAGLER COUNTY, FLORIDA, SAID NORTHWEST CORNER BEING THE NORTHWEST CORNER OF HILLOREST UNRECORDED SUBDIVISION, THENCE SOUTH 01° 20' 27" EAST ALONG THE WEST LINE OF TRACT 4, BLOCK D, A DISTANCE OF 320.00 FEET, THENCE DEPARTING TRACT 4, BLOCK D, SOUTH 88° 39' 33" WEST A DISTANCE OF 331.10 FEET, THENCE NORTH 01° 20' 27" WEST A DISTANCE OF 64.70 FEET TO A POINT ON THE BOUNDARY OF LANDS RECORDED IN OFFICIAL RECORDS BOOK 244, PAGE 576 THROUGH 578, THENCE NORTH 05° 21' 24" WEST A DISTANCE OF 267.28 FEET, THENCE SOUTH 89° 29' 02" EAST ALONG THE SOUTH LINE OF SAID LANDS RECORDED IN OFFICIAL RECORDS BOOK 244, PAGES 576 THROUGH 578, A DISTANCE OF 350.00 FEET TO THE POINT OF BEGINNING, PARCEL CONTAINING 2.5303 ACRES MORE OR LESS.

TOGETHER WITH,
PARCEL 2:
A PARCEL OF LAND LYING SOUTH OF STATE ROAD 100 WITHIN GOVERNMENT SECTION 11, TOWNSHIP 12 SOUTH, RANGE 31 EAST, FLAGLER COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
A POINT OF REFERENCE BEING THE NORTHWEST CORNER OF THE SOUTH HALF (1/2) OF TRACT 4, BLOCK D, ACCORDING TO THE PLAT BUNNELL DEVELOPMENT COMPANY, RECORDED IN MAP BOOK 1, PAGE 1, OF THE PUBLIC RECORDS OF FLAGLER COUNTY, FLORIDA, SAID NORTHWEST CORNER BEING THE NORTHWEST CORNER OF HILLOREST UNRECORDED SUBDIVISION, THENCE SOUTH 01° 20' 27" EAST ALONG THE WEST LINE OF TRACT 4, BLOCK D, A DISTANCE OF 320.00 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION, THENCE CONTINUE SOUTH 01° 20' 27" EAST A DISTANCE OF 60.00 FEET, THENCE DEPARTING TRACT 4, BLOCK D, SOUTH 88° 39' 33" WEST A DISTANCE OF 391.10 FEET, THENCE NORTH 01° 20' 27" WEST A DISTANCE OF 126.65 FEET TO A POINT ON THE BOUNDARY OF LANDS RECORDED IN OFFICIAL RECORDS BOOK 244, PAGE 576 THROUGH 578, THENCE SOUTH 89° 29' 02" EAST ALONG THE SOUTH BOUNDARY LINE OF SAID LANDS RECORDED IN OFFICIAL RECORDS BOOK 244, PAGES 576 THROUGH 578, A DISTANCE OF 60.03 FEET, THENCE DEPARTING SAID BOUNDARY SOUTH 01° 20' 27" EAST A DISTANCE OF 64.70 FEET, THENCE NORTH 88° 39' 33" EAST A DISTANCE OF 331.10 FEET TO THE POINT OF BEGINNING, PARCEL CONTAINING 0.6292 ACRES MORE OR LESS.

PARCEL 2, SUBJECT TO AN EXISTING EASEMENT FOR ACCESS AND UTILITIES.
PARCELS 1 AND 2 CONTAINING 3.1595 ACRES MORE OR LESS.

Survey Notes:

- 1. COPIES OF THIS SURVEY ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
3. THIS SURVEY IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88)
THE SITE BENCHMARKS FOR THIS TOPOGRAPHIC SURVEY ARE DISPLAYED ON THE RESPECTIVE SURVEY FILE. THESE BENCHMARKS ARE BASED ON A CLOSED VERTICAL CONTROL LOOP HAVING AN ACTUAL ERROR OF CLOSURE OF 0.014" WHICH MEETS THE ALLOWABLE CLOSURE OF 0.054. THIS FIELDWORK WAS PERFORMED USING A NIKON LEVEL MODEL #AS-2 AND REFERENCES THE FOLLOWING PUBLISHED BENCHMARKS AS ESTABLISHED BY THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) AND ALL VERTICAL INFORMATION INCLUDING SPOT ELEVATIONS, NOTATIONS AND THE CONTOUR LINES DERIVED THEREFROM ARE BASED ON AND MATCHED TO VERTICAL CONTROL BENCHMARKS SUPPLIED BY NGS DATA SHEETS PUBLISHED AT WWW.LABINS.ORG AS FOLLOWS:
a) DESIGNATION #T 491, PID #DEB123, SURVEY DISK IN 4"x4" CONCRETE MONUMENT STAMPED "T 491 2000" (NAVD '88) ELEVATION = 12.01'
b) DESIGNATION #S 491, PID #DEB122, SURVEY DISK IN 4"x4" CONCRETE MONUMENT STAMPED "S 491 2000" (NAVD '88) ELEVATION = 21.28'
SITE BENCHMARKS ARE AS SHOWN ON SHEET 2 OF 2.
4. THIS SURVEY IS NOT VALID WITHOUT SHEETS 1 THROUGH 2 OF 2.
5. THE LAST DAY FIELD WORK WAS PERFORMED WAS 2/2/22; ALL BOUNDARY CORNERS WERE RECOVERED OR SET AS NOTED HEREON.
6. THE "LEGAL DESCRIPTION" HEREON IS IN ACCORD WITH THE INSTRUMENT OF RECORD, AND WAS PROVIDED BY THE CLIENT.
7. BEARINGS SHOWN HEREON ARE RELATIVE TO THE WEST LINE OF TRACT 4, BLOCK D, AS DESCRIBED IN OFFICIAL RECORDS BOOK 1814, PAGE 1479 OF THE PUBLIC RECORDS OF FLAGLER COUNTY, FLORIDA, SAID BEARING BEING SOUTH 01°20'27" EAST.
8. HAVING CONSULTED THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 1203500232E, CITY OF FLAGLER BEACH, REVISED DATE JUNE 6, 2018, THE SUBJECT PROPERTY APPEARS TO LIE IN ZONE X, WHICH ARE AREAS OF MINIMAL FLOOD HAZARD (NAVD '88). THIS DETERMINATION WAS BASED ON GEOSPATIAL DATA DOWNLOADED FROM WWW.FEMA.GOV AND THE SHAPE FILE DISPLAYED HEREON WAS REFERENCED TO ABOVE GROUND IMPROVEMENTS. THIS DETERMINATION WAS BASED ON A GRAPHIC INTERPOLATION OF SAID MAP AND NOT ON ACTUAL FIELD MEASUREMENTS.
9. HORIZONTAL WELL-IDENTIFIED FEATURES IN THIS SURVEY AND MAP HAVE BEEN MEASURED TO AN ESTIMATED HORIZONTAL POSITIONAL ACCURACY OF 0.05 (FT). THE EQUIPMENT USED TO VERIFY THE HORIZONTAL CONTROL ON THE SUBJECT SURVEY WAS A TOPCON GPS HIPER V). THE EQUIPMENT USED TO LOCATE THE FEATURES WAS A TOPCON GPS HIPER V.
10. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OR OPINION OF TITLE. NO INSTRUMENTS OF RECORD REFLECTING EASEMENTS, RIGHTS-OF-WAY, AND/OR OWNERSHIP WERE FURNISHED TO THIS SURVEYOR EXCEPT AS NOTED BELOW.
FLAGLER COUNTY PROPERTY APPRAISER INFORMATION DISPLAYED HEREON AS PARCEL# IS PER THE COUNTY PROPERTY APPRAISER'S WEBSITE FLAGLERPA.COM AS OF FEBRUARY 2, 2022.
11. NO UNDERGROUND UTILITIES, FOUNDATIONS OR IMPROVEMENTS, IF ANY, HAVE BEEN LOCATED EXCEPT AS SHOWN.
12. THIS SURVEY DOES NOT IDENTIFY THE LIMITS OR EXTENT OF POTENTIAL JURISDICTIONAL WETLAND BOUNDARIES.
13. FENCES AND WALLS EXISTING ON, OVER OR ADJACENT TO SUBJECT PROPERTY, ARE DISPLAYED HEREON; OWNERSHIP WHETHER SINGULAR OR JOINT WAS NOT DETERMINED BY THIS SURVEY.
14. VERTICAL FEATURE ACCURACY: "ELEVATIONS OF WELL-IDENTIFIED FEATURES CONTAINED IN THIS SURVEY AND MAP HAVE BEEN MEASURED TO AN ESTIMATED VERTICAL POSITIONAL ACCURACY OF 0.05 (FT)."
15. DIMENSIONS ARE SHOWN RELATIVE TO UNITED STATES STANDARD FEET AND DECIMALS THEREOF, UNLESS THE OBJECT SHOWN IS COMMONLY IDENTIFIED IN INCHES, I.E. TIRE DIAMETER, PIPE DIAMETER, ETC. TREES DEPICTED ARE COMMON NAMES AND MEASURED AND LABELED AS DIAMETER AT BREAST HEIGHT IN INCHES.
16. THE UNDERGROUND UTILITIES DEPICTED BY PIPE LINETYPES ARE APPROXIMATE IN NATURE BASED UPON AN INSPECTION OF THE MANHOLE, GRATE, ETC. OF EACH FACILITY. EXISTING PIPES WERE NOT LAMPED OR REMOTELY VIEWED FOR DIRECTION, OBSTRUCTIONS OR CONNECTIVITY.

Reference Material

- 1) MAP OF THE BUNNELL DEVELOPMENT COMPANY'S LAND, AS RECORDED IN MAP BOOK 1, PAGE 1 OF THE PUBLIC RECORDS OF FLAGLER COUNTY, FLORIDA.
2) OFFICIAL RECORDS BOOK 1814, PAGE 1479 OF THE PUBLIC RECORDS OF FLAGLER COUNTY, FLORIDA.

Abbreviation Legend:

Table listing abbreviations and their meanings, such as ACTUAL, AIR CONDITIONER, AMERICAN CONGRESS ON SURVEYING & MAPPING, etc.

Line Legend:

Table listing line styles and their meanings, such as 1 FOOT CONTOURS, 5 FOOT CONTOURS, ADJOINER PROPERTY LINES, etc.

Symbol Legend:

Table listing symbols and their meanings, such as AIR RELEASE VALVE, BORING HOLE LOCATION, BRICK PAVERS, etc.

Sign Legend:

Table listing sign symbols and their meanings, such as ROW NUMBER SIGN, BUS STOP SIGN, DEAD END SIGN, etc.

Index of Sheets

Table with 2 columns: Sheet Number, Description. Shows sheet 1 is the cover sheet and sheet 2 is the boundary & topographic survey.

Surveyor's Certification:

Certified to: ALT HOMES LLC
I hereby certify that the attached "Boundary & Topographic Survey" of the hereon-described property is true and correct to the best of my knowledge, information and belief as surveyed in the field on February 2, 2022, and that I am duly qualified to perform such surveying and mapping as required by the State of Florida and that this "Boundary & Topographic Survey" meets the standards of the Florida Administrative Code, Chapter 63J-17 of the Florida Administrative Code, and the Florida Statutes, Chapter 461, Part 1, F.S.
Professional Surveyor and Mapper
Florida Registration No. 6384

NOTE: THIS SURVEY IS NOT VALID WITHOUT SHEETS 1 THROUGH 2 OF 2.

Table with 4 columns: Title Block Abbreviations, Eng = Engineering, LB = Licensed Business, C.O.A. = Certificate of Authorization, Arch = Architectural, Landsc = Landscape, NA = Not Applicable, Lic = Licensed, No. = Number, P.O. = Post Office, © = Copyright.



- Florida
- Puerto Rico
- Connecticut
- Maryland
- Texas

Field Crew:	D.S.	By	Date
Drawn by:	B.L.B.		
Checked by:	R.L.R.		
Approved by:	J.W.P.		
Scale:	1"=20'		
Date:	2/2/2022		
Job No.:	U3401.1		
File:	U3401.1.dwg		

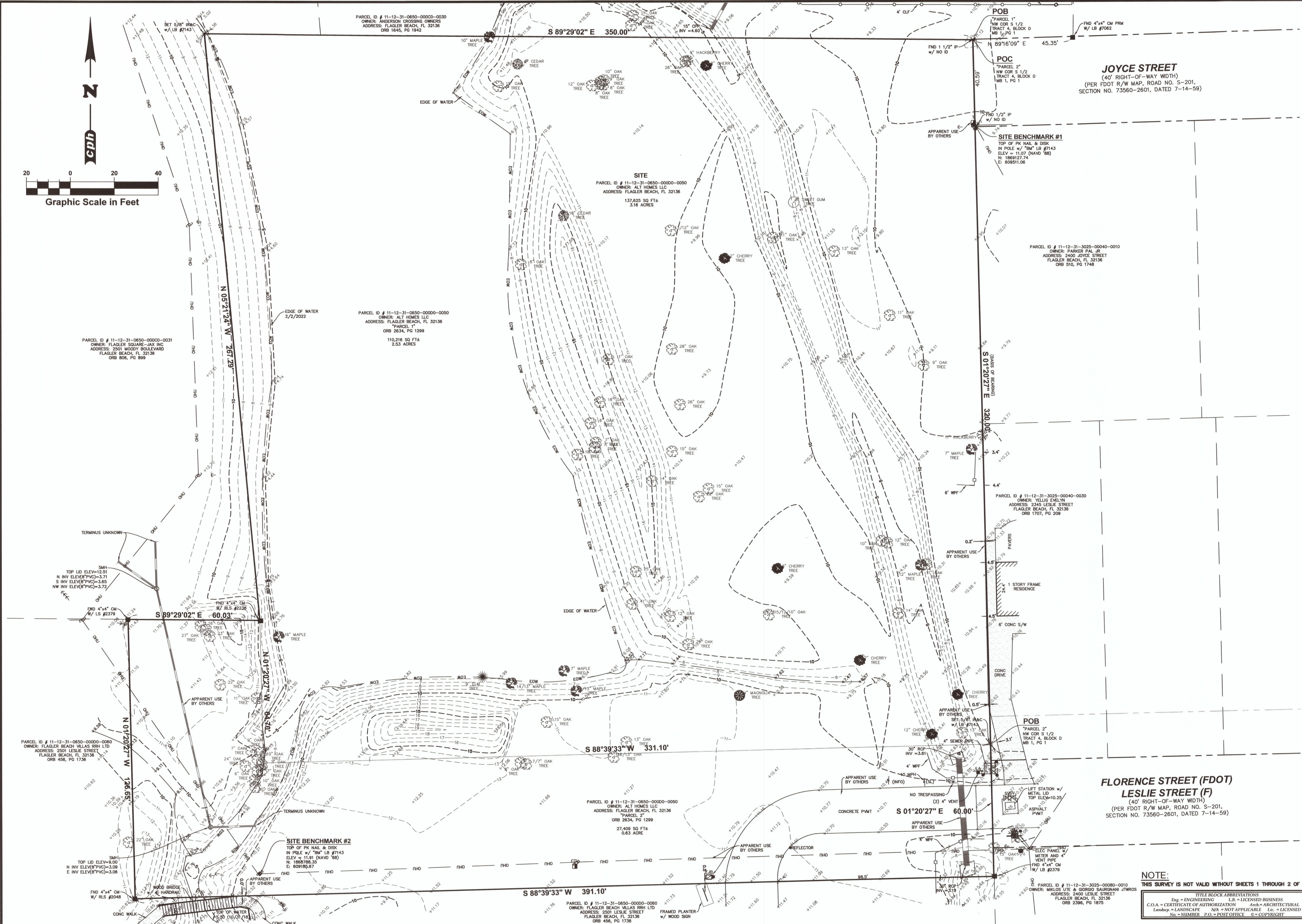
Survey Prepared By:  
CPH, Inc.  
520 Palm Coast Parkway SW  
Palm Coast, FL 32137  
Ph: 386.445.6569  
Licenses:  
Eng. C.O.A. No. 3215  
Survey L.B. No. 7143  
Arch. Lic. No. AA2600926  
Landscape Lic. No. LC000298

BOUNDARY & TOPOGRAPHIC SURVEY

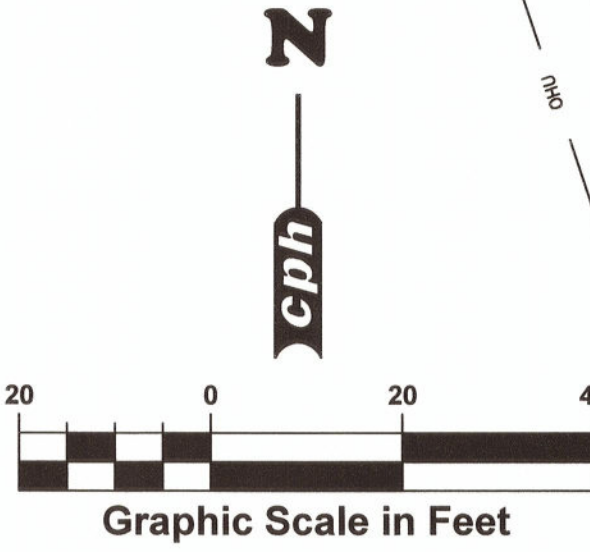
**ALT HOMES LLC**  
FLAGLER BEACH  
SECTION 11-TOWNSHIP 12 SOUTH-RANGE 31 EAST  
FLAGLER COUNTY, FLORIDA

Sheet No.

**2**  
of 2



**NOTE:**  
THIS SURVEY IS NOT VALID WITHOUT SHEETS 1 THROUGH 2 OF 2.  
TITLE BLOCK ABBREVIATIONS  
Eng. = ENGINEERING    L.B. = LICENSED BUSINESS  
C.O.A. = CERTIFICATE OF AUTHORIZATION    Arch. = ARCHITECTURAL  
Landsc. = LANDSCAPE    N/A = NOT APPLICABLE    Lic. = LICENSED  
No. = NUMBER    P.O. = POST OFFICE    © = COPYRIGHT





## GENERAL CONSTRUCTION NOTES

- GOVERNING SPECIFICATIONS: CITY OF FLAGLER BEACH LAND DEVELOPMENT CODE, CITY OF FLAGLER BEACH STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS, CURRENT EDITION.
- ALL CONSTRUCTION WITHIN THE FDOT RIGHT-OF-WAY SHALL CONFORM TO THE CURRENT EDITION OF THE FDOT DESIGN STANDARD INDEXES, THE FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND THE FDOT UTILITY ACCOMMODATIONS MANUAL.
- ALL UTILITY MATERIAL, CONSTRUCTION AND TESTING COVERED BY THESE DRAWINGS SHALL COMPLY WITH THE CITY OF FLAGLER BEACH STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS, LATEST EDITION. ALL UTILITY WORK AND CONNECTIONS SHALL BE COORDINATED WITH THE CITY OF FLAGLER BEACH INSPECTOR.
- THE CONTRACTOR SHALL PAY FOR AND OBTAIN A BUILDING PERMIT. THE ENGINEER WILL SCHEDULE THE PRECONSTRUCTION CONFERENCE BEFORE THE CONTRACTOR'S START OF WORK. THE CONTRACTOR SHALL CONTACT THE BUILDING DEPARTMENT AT (386) 517-2016 FOR INFORMATION ON ISSUANCE OF CITY PERMITS AND / OR OTHER REQUIREMENTS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER OF ANY DEFICIENCIES OR DISCREPANCIES AMONG THE DIVISIONS OF THE DRAWING AND SPECIFICATIONS PRIOR TO THE BID DATE. NEITHER THE OWNER OR ENGINEER WILL BE RESPONSIBLE FOR ANY DEFICIENCIES OR DISCREPANCIES RAISED AFTER THE BID OPENING. ACCORDINGLY, IN LIGHT OF THESE OBLIGATIONS, THE ENGINEER IS OBLIGATED TO INTERPRET THE DRAWINGS AND SPECIFICATIONS IN A MANNER THAT WILL PROVIDE THE OWNER WITH A COMPLETE, FUNCTIONING FACILITY FOR THE BID PRICE.
- THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLEMENTARY, AND ANY REQUIREMENT OF ONE SHALL BE A REQUIREMENT OF THE OTHER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CAREFULLY EXAMINE THE DRAWINGS AND SPECIFICATIONS AND TO COMPARE THE REQUIREMENTS OF EACH DIVISION AND ENSURE THAT EACH TRADE OR SUBCONTRACTOR IS MAKING THE ALLOWANCES NECESSARY TO PROVIDE THE OWNER A COMPLETE FACILITY, OPERATIONAL IN ALL RESPECTS, UNLESS OTHERWISE SPECIFICALLY STATED IN THE DRAWINGS.
- THE ENGINEER ASSUMES NO RESPONSIBILITY FOR INSTRUCTING THE CONTRACTOR IN THE METHODS OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE METHOD TO CONSTRUCT THE IMPROVEMENTS AS SHOWN ON THE PLANS.
- ONLY ONE TEMPORARY CONSTRUCTION SIGN IS PERMITTED, NOT TO EXCEED 32 SQUARE FEET IN SIGN AREA, MAXIMUM HEIGHT OF 8 FEET AND NO CLOSER THAN 10 FT FROM PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL APPLY FOR A TEMPORARY SIGN PERMIT AT THE CITY OF FLAGLER BEACH BUILDING DEPARTMENT. THE SIGN MUST BE REMOVED UPON RECEIPT OF THE CERTIFICATE OF OCCUPANCY.
- LITTER CONTROL MEASURES TO PREVENT WIND-DRIVEN DEBRIS SHALL BE IMPLEMENTED THROUGHOUT THE DURATION OF CONSTRUCTION. ALL DEBRIS SHALL BE REMOVED AND THE PROJECT SITE CLEANED WITHIN 30 DAYS OF COMPLETION OF CONSTRUCTION.
- AT NO TIME SHALL EXCAVATIONS BE LEFT UNCOVERED AFTER WORKING HOURS. CONTRACTOR SHALL SECURE THE WORK AREA AT THE END OF EACH DAY'S WORK.
- AT ALL TIMES, THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT UNDERGROUND UTILITIES, STRUCTURES AND OTHER ASSOCIATED FACILITIES FROM DAMAGE DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MEASURES OF PROTECTION. ANY DAMAGED FACILITIES SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE CITY OR ENGINEER AT THE CONTRACTOR'S EXPENSE.
- THERE SHALL BE NO DEVIATIONS FROM THESE PLANS UNLESS APPROVED IN WRITING BY THE ENGINEER AND THE OWNER.
- THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES INVOLVED IN PROJECT AND PAY ALL REQUIRED FEES AND COST.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF THE RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENGINEER, TEST RESULTS MUST INCLUDE, BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE AND BASE DENSITIES AT UTILITY CROSSINGS, MANHOLES, INLETS, STRUCTURES. TEST SHALL INCLUDE ASPHALT GRADATION REPORTS, CONCRETE CYLINDERS, ETC.
- WHERE NEW ASPHALT MEETS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE.
- PRIOR TO REMOVING CURB OR GUTTER, THE ADJACENT ASPHALT SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE.
- ALL PROPOSED ELEVATIONS REFER TO FINISHED GRADES.
- CONCRETE WALKS SHALL BE 4 INCHES THICK HAVING A 3,500 PSI STRENGTH, POURED OVER PROPERLY PREPARED SUBGRADE. ALL CONCRETE SIDEWALKS SHALL BE 8 INCHES THICK ACROSS DRIVEWAYS. 1/2 INCH EXPANSION JOINTS SHALL BE PLACED AT A MAXIMUM OF 50'. CRACK CONTROL JOINTS SHALL BE 5' ON CENTERS.
- CORE TESTS SHALL BE TAKEN TO VERIFY THICKNESS AND SUBSURFACE COMPACTION. PROVIDE FOR THREE SAMPLES, RANDOMLY LOCATED. TEST FOR EXTRACTION, GRADATION, LABORATORY DENSITY, AND MARSHALL'S STABILITY. PROVIDE A CERTIFICATE FROM THE TESTING AGENCY THAT MATERIALS AND INSTALLATION COMPLY WITH SPECIFICATIONS, SIGNED BY THE ASPHALTIC CONCRETE PRODUCER AND CONTRACTOR. ALL COSTS OF TESTS SHALL BE PAID BY THE CONTRACTOR. IF TESTS SHOW THE INSTALLATION DOES NOT MEET SPECIFICATIONS, THE PAVING SHALL BE REMOVED, REPLACED, AND RETESTED.
- IF ANY MUCK-LIKE MATERIAL IS DISCOVERED, IT WILL BE REQUIRED TO BE REMOVED, BACKFILLED WITH APPROPRIATE FILL, COMPACTED, AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
- FILL MATERIAL IS TO BE PLACED IN ONE FOOT LIFTS AND COMPACTED TO THE APPROPRIATE DENSITY (98% FOR PAVED AREAS AND 95% FOR BUILDING PADS AND ALL OTHER AREAS AS PER AASHTO T-180).
- NO BURYING OF ANY ORGANIC MATERIALS ALLOWED.
- THERE WILL BE NO PROPOSED OVERHEAD UTILITY AND SERVICE LINES ASSOCIATED WITH THIS PROJECT. ALL UTILITY LINES AND SERVICES WILL BE INSTALLED UNDERGROUND AT THE OWNER'S, DEVELOPER'S OR BUILDER'S EXPENSE.

## SITE AND GENERAL INFORMATION

- THE PROPERTY AREA BOUNDARY CONSISTS OF 137,625 SF OR 3.159 ACRES. FOR BOUNDARY AND TOPOGRAPHIC SURVEY REFER TO THE SURVEY PERFORMED BY SLIGER & ASSOCIATES, INC. (SEE SHEET No. 2 OF THESE PLANS).
- THE EXISTING AND PROPOSED ZONING IS GC (GENERAL COMMERCIAL).
- THE TAX PARCEL NUMBER IS 11-12-31-0650-000D0-0050.
- FLORIDA BUILDING CODE-ACCESSIBILITY (FBCA) AS THE CONTROLLING REGULATION FOR ACCESSIBLE PARKING REQUIREMENTS.
- THE EXISTING SITE CONDITION IS UNDEVELOPED AND PARTIALLY CLEARED AND GRADED. THE FLUCFCS LAND USE IS (191) UNDEVELOPED LAND WITHIN URBAN AREAS.
- PER THE USDA NATURAL RESOURCES CONSERVATION SERVICE FOR FLAGLER COUNTY, THE SCS SOILS MAP INDICATES THE SITE CONSISTS OF (11) MYAKKA-MYAKKA, WET, FINE SANDS, 0 TO 2 PERCENT SLOPES.
- THE SITE IS LOCATED WITHIN ZONE "X" PER FEMA MAP PANEL No. 12035C0232 E, DATED JUNE 6, 2018.
- ELECTRICAL UTILITY SERVICE WILL BE PROVIDED BY FLORIDA POWER & LIGHT. NATURAL GAS WILL BE PROVIDED BY TECO PEOPLES GAS COMPANY. TELEPHONE, CABLE AND INTERNET SERVICE WILL BE PROVIDED BY AT&T. CABLE TV AND INTERNET CAN ALSO BE PROVIDED BY SPECTRUM.
- SOLID WASTE WILL BE COLLECTED AND DISPOSED OF BY WASTE PRO, INC.
- THE SITE IS NOT LOCATED WITHIN THE LIMITS OF A WELLHEAD PROTECTION ZONE AND THERE IS NO ORDINARY HIGH WATER (OHW) LINE WITHIN THE SITE.
- STORMWATER WILL BE PROVIDED BY INTERCONNECTED DRY RETENTION TO EXFILTRATION TRENCH SYSTEM.
- POTABLE WATER AND WASTEWATER UTILITIES PROVIDED BY CITY OF FLAGLER BEACH.
- IRRIGATION SERVICE WILL BE PROVIDED BY A PRIVATE WELL.

## LEGEND

NOTE: NOT ALL SYMBOLS SHOWN HERE MAY BE APPLICABLE TO THESE DRAWINGS, ALSO THERE MAY BE ADDITIONAL SYMBOLS WITHIN PLANS NOT SHOWN HERE, SEE INDIVIDUAL DRAWING LEGEND WHERE APPLICABLE.

	BENCHMARK ID		4" BY 4" CONCRETE MONUMENT
	BORING ID		EXISTING EASEMENT
	EXISTING CABLE TV PEDESTAL		EXISTING UNDERGROUND FIBER OPTIC CABLE
	EXISTING CAP OR PLUG		EXISTING FORCE MAIN (# INDICATES SIZE)
	EXISTING CLEAN OUT		EXISTING GAS MAIN
	EXISTING CONDUIT RISER/ MARKER		EXISTING OVERHEAD ELECTRIC CABLES
	EXISTING ELECTRIC METER		EXISTING OVERHEAD TRAFFIC SIGNAL CABLE
	EXISTING ELEVATION (SOFT)		EXISTING RAW WATER MAIN (# INDICATES SIZE)
	PROPOSED ELEVATION (SOFT)		EXISTING RECLAIM WATER MAIN (# INDICATES SIZE)
	EXISTING ELEVATION (HARD)		PROPOSED SANITARY SEWER (# INDICATES SIZE)
	PROPOSED ELEVATION (HARD)		PROPOSED WATER MAIN (# INDICATES SIZE)
	EXISTING FIRE HYDRANT		EXISTING CONTOUR
	PROPOSED FIRE HYDRANT		PROPOSED CONTOUR (SOFT)
	EXISTING FLOW DIRECTION		PROPOSED CONTOUR (HARD)
	PROPOSED FLOW DIRECTION		EXISTING UNDERGROUND TELEPHONE CABLE
	EXISTING GAS METER		EXISTING UNDERGROUND TELEVISION CABLE
	EXISTING GAS VALVE		EXISTING UNDERGROUND ELECTRICAL POWER CABLE
	EXISTING GUY WIRE & ANCHOR PIN		JURISDICTIONAL WETLAND LINE
	EXISTING MAIL BOX		EXISTING SANITARY SEWER (# INDICATES SIZE)
	EXISTING MANHOLE (UNKNOWN)		EXISTING WATER MAIN (# INDICATES SIZE)
	PROPOSED MANHOLE		EXISTING PIPE OR CONDUIT (TYPE SPECIFIED)
	EXISTING SANITARY SEWER CLEANOUT		EXISTING SWALE OR CENTER OF DITCH
	EXISTING SANITARY SEWER MANHOLE		PROPOSED SWALE OR CENTER OF DITCH
	EXISTING ROAD SIGNS AND POSTS		EXISTING TOP OF DITCH BANK
	PROPOSED SIGN AND POST		EXISTING BOTTOM OF DITCH BANK
	EXISTING TEE		EXISTING WOOD FENCE
	EXISTING UTILITY POLE		EXISTING WIRE OR CHAIN LINK FENCE
	EXISTING VALVE IRRIGATION		PROPOSED WIRE OR CHAIN LINK FENCE
	EXISTING VALVE WATER		PROPOSED SILT/SEDIMENT FENCE
	PROPOSED WATER VALVE		PROPOSED COIR ROLL OR WATTLE
	EXISTING WATER METER		PROPOSED FLOATING TURBIDITY BARRIER
	EXISTING STORM SEWER WITH INLET		PROPOSED TREE PROTECTION
	PROPOSED STORM SEWER WITH INLET		
	1/2" IRON ROD (NO I.D.)		

## SITE DEVELOPMENT USAGE

<b>1. SETBACK:</b>	<b>BUILDING SETBACK REQUIRED</b>	<b>7. REQUIRED RECREATIONAL AREA</b>	
FRONT (EAST)	25 FEET	200 SF PER UNIT = 200 SF x 22 UNITS =	4,400 SF
REAR (WEST)	25 FEET	PROVIDED ACTIVE AREA = PLAY AREA AND GRILL AREA =	9,164 SF
SIDE (NORTH)	15 FEET	PROVIDED PASSIVE AREA = BENCHES, FLOATING FOUNTAIN AND CONVERSATION AREA =	571 SF
SIDE (SOUTH)	15 FEET	TOTAL RECREATION AREA =	9,735 SF
MAXIMUM BUILDING HEIGHT	35 FEET		
<b>ZONING</b>	<b>GC (GENERAL COMMERCIAL)</b>	<b>8. COMMON OPEN SPACE</b>	
<b>FLUM</b>	<b>MEDIUM DENSITY RESIDENTIAL</b>	REQUIRED COMMON OPEN SPACE	
<b>BUILDING HEIGHT</b>	<b>BUILDING 1 = 34'-11/2"</b>	250 SF PER UNIT = 250 SF x 22 UNITS =	5,500 SF
	<b>BUILDING 2 = 35'-0"</b>	PROVIDED COMMON OPEN SPACE =	15,313 SF
<b>DENSITY</b>	<b>12.35 UNITS/ACRE</b>	(ACTIVE AND PASSIVE RECREATION AND SIDEWALKS)	
<b>MULTI-FAMILY UNITS</b>			
<b>2 BEDROOM</b>	<b>22</b>		
<b>TOTAL UNITS</b>	<b>22 UNITS</b>		

### 2. PROPOSED SITE COVERAGE

SITE COVERAGE - PROPOSED			
AREA TYPE	SF	ACRE	% OF SITE
BUILDING	17,248	0.396	12.5%
ASPHALT PAVEMENT/ VUA	24,905	0.572	18.1%
CONCRETE / SIDEWALKS	5,578	0.128	4.1%
GREEN SPACE	89,894	2.064	65.3%
<b>TOTAL SITE</b>	<b>137,625</b>	<b>3.159</b>	<b>100.0%</b>
<b>TOTAL IMPERVIOUS</b>	<b>47,731</b>	<b>1.096</b>	<b>34.7%</b>
<b>TOTAL OPEN SPACE</b>	<b>89,894</b>	<b>2.064</b>	<b>65.3%</b>

FLOOR AREA RATIO (FAR) 0.125

### 3. PARKING REQUIREMENTS

MULTI-FAMILY: 2 SPACES PER DWELLING UNIT  
2 SPACES x 22 UNITS = 44  
TOTAL REQUIRED: 44 SPACES

<b>4. PARKING PROVIDED</b>	<b>SPACES</b>	<b>%</b>
HANDICAP	2	4.5
STANDARD	39	88.6
PARALLEL	3	6.9
<b>TOTAL PARKING PROVIDED</b>	<b>44</b>	<b>100.0</b>

### 5. BICYCLE PARKING REQUIRED

10% OF REQUIRED VEHICULAR PARKING  
0.1 x 44 SPACES = 4.4  
5 BICYCLE SPACES REQUIRED

### 6. BICYCLE PARKING PROVIDED

6 BICYCLE SPACES PROVIDED

## STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS - 2024 / 2025 AND QUALIFIED PRODUCTS LIST

INDEX NO.	DESCRIPTION	INDEX NO.	DESCRIPTION
102	TEMPORARY EROSION AND SEDIMENT CONTROL	514	OPTIONAL BASE GROUP AND STRUCTURAL NUMBERS
425-010	STRUCTURE BOTTOMS - TYPES J AND P	330-001	TURNOUTS
205	PIPE BACKFILL	546	SIGHT DISTANCE AT INTERSECTIONS
425-024	CURB INLET TOP - TYPE 9	102-600	GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES
425-052	DITCH BOTTOM INLETS - TYPES C, D, E AND H	102-602	TWO-LANE AND MULTILANE, WORK ON SHOULDER
430-022	SIDE DRAIN MITERED END SECTION	102-603	TWO-LANE, TWO-WAY, WORK WITHIN THE TRAVEL WAY
520-001	CURB & CURB AND GUTTER	700-101	TYPICAL SECTIONS FOR PLACEMENT OF SINGLE & MULTIPLE-COLUMN SIGNS
522-002	PUBLIC SIDEWALK CURB RAMPS	711-001	SPECIAL MARKING AREAS
350-001	CONCRETE PAVEMENT JOINTS		
522-001	CONCRETE SIDEWALK		
120-001	EMBANKMENT UTILIZATION		

## ABBREVIATIONS

AWWA WORKS	AMERICAN WATER ASSOCIATION	HOPE	HIGH DENSITY POLYETHYLENE	RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL	INV	INVERT	REQ'D	REQUIRED
PIPE		K <sub>H</sub>	HORIZONTAL PERMEABILITY	RPM	REFLECTIVE PAVEMENT MARKER
CPP	CORRUGATED PLASTIC PIPE	K <sub>v</sub>	VERTICAL PERMEABILITY	R/W	RIGHT-OF-WAY
CTV	CABLE TELEVISION	KO	KNOCK OUT	SAN	SANITARY
DIP	DUCTILE IRON PIPE	LF	LINEAL FEET	SH	SEASONAL HIGH
ESMT	EASEMENT	MB	MAP BOOK	SMH	SANITARY MANHOLE
EXIST	EXISTING	MES	MITERED END SECTION	SJRWMD	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
FAC	FLORIDA ADMINISTRATIVE CODE	MJ	MECHANICAL JOINT	SS	SANITARY SEWER
FDEP	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	MPD	MULTI-PRODUCT DISPENSER (FUEL PUMP)	SWPPP	STORMWATER POLLUTION PREVENTION PLAN
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY	N/A	NOT APPLICABLE	TSB	TEMPORARY SEDIMENT BASIN
FH	FIRE HYDRANT	NIC	NOT IN CONTRACT	TYP	TYPICAL
FOC	FIBER OPTIC CABLE	NGVD	NATIONAL GEODETIC VERTICAL DATUM	UGE	UNDERGROUND ELECTRIC
FF EL	FINISH FLOOR ELEVATION	OHE	OVERHEAD ELECTRIC	UGT	UNDERGROUND TELEPHONE
FM	FORCE MAIN	OR	OFFICIAL RECORD	USACOE	UNITED STATES ARMY CORP OF ENGINEERS
FPD	FEET PER DAY	PG	PAGE	W	WATER (POTABLE)
G	GAS	PSI	POUNDS PER SQUARE INCH		
GPC	GULF POWER COMPANY	PVC	POLYVINYL CHLORIDE		
GW	GROUND WATER	PVMT	PAVEMENT		
H/C	HANDICAP	PROP	PROPOSED		
		R	RADIUS		

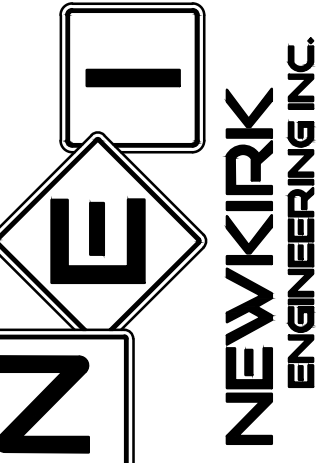
## SITE GEOTECHNICAL CONSIDERATIONS

SEE GEOTECHNICAL REPORT UNIVERSAL ENGINEERING SCIENCES. (REPORT No. 134233, DATED JANUARY 14, 2019) FOR ALL SUBSURFACE CONDITIONS, GROUNDWATER, SITE PREPARATION FOR PAVEMENT AND ALL EARTHWORK REQUIREMENTS.

## REVISIONS

DATE	DESCRIPTION

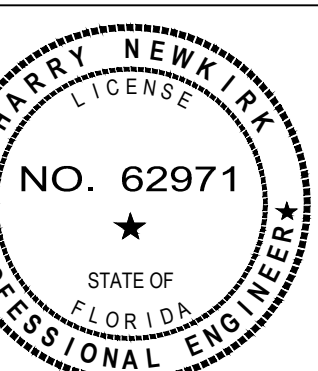
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DEVELOPMENT INFORMATION  
LEGACY POINTE COTTAGES  
LESLIE STREET  
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PROJECT No: 2023-17

DATE: OCTOBER 2024

DESIGN BY: HHN

DRAWN BY: NWS

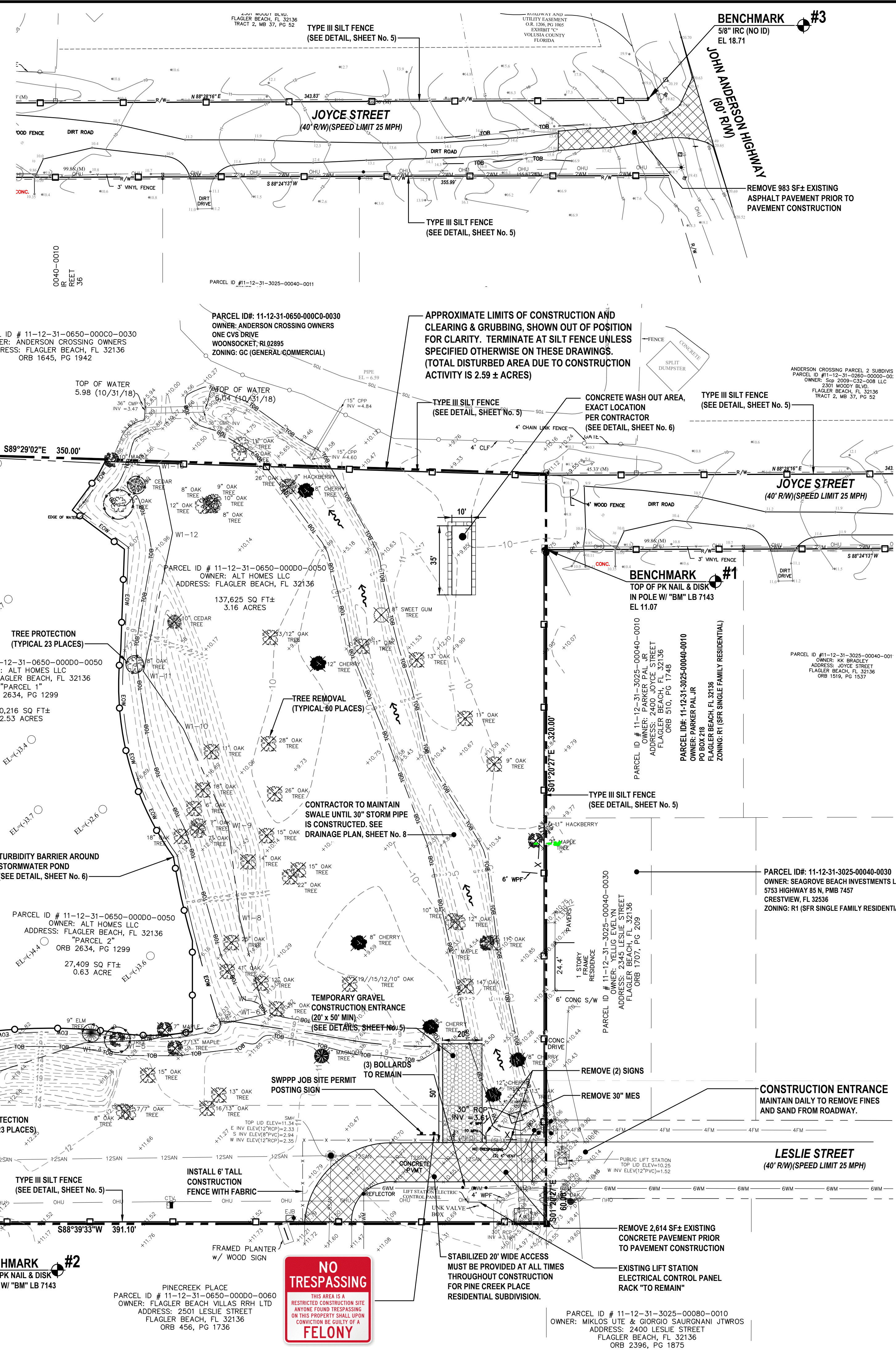
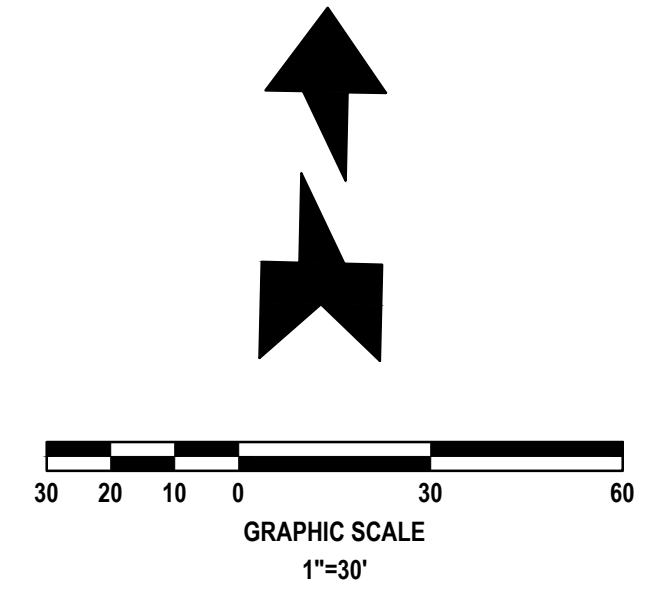
CHECKED BY: HHN

SCALE:

DRAWING NUMBER

3





**DEMOLITION AND EROSION CONTROL NOTES:**

- ALL EROSION CONTROL DEVICES AND VISIBLE BARRICADES SHALL BE INSTALLED AND APPROVED BY THE ENGINEER PRIOR TO THE START OF CLEARING AND GRUBBING.
- THE SITE SHALL BE CLEARED AND GRUBBED OF ALL VEGETATION AND DEBRIS WITHIN THE APPROXIMATE LIMITS OF CLEARING AS INDICATED ON THE DRAWING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE CITY FLAGLER BEACH UTILITY DEPARTMENT, FLORIDA SUNSHINE AND EMERGENCY SERVICES FOR RESPECTIVE UTILITY LOCATIONS AND "NOTICE" OF CONSTRUCTION ACTIVITY.
- ALL REMOVED MATERIAL SHALL BE HAULED OFF-SITE TO AN APPROVED LANDFILL. TREES MAY BE LOGGED OR MULCHED FOR OFF-SITE DISPOSAL AT THE CONTRACTOR'S DISCRETION.
- ALL EROSION CONTROL DEVICES SHALL BE PLACED PRIOR TO THE START OF WORK AND REMAIN IN PLACE UNTIL ALL WORK IS COMPLETE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PERIODIC INSPECTION AND REMOVAL OF DEBRIS AND SILT BEHIND EROSION CONTROL DEVICES.
- ALL OFF-SITE AREAS DISTURBED DURING CONSTRUCTION ACTIVITY SHALL BE IMMEDIATELY RESTORED TO PRIOR CONDITION UPON COMPLETION OF WORK.
- SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION, BLOWING SAND AND THE IMPACT TO NEIGHBORING PROPERTIES.
- IF PREHISTORIC OR HISTORIC ARTIFACTS, SUCH AS POTTERY OR CERAMICS, STONE TOOLS OR METAL IMPLEMENTS, DUGOUT CANOES, OR ANY OTHER PHYSICAL REMAINS THAT COULD BE ASSOCIATED WITH NATIVE AMERICAN CULTURES, OR EARLY COLONIAL OR AMERICAN SETTLEMENT ARE ENCOUNTERED AT ANY TIME WITHIN THE PROJECT SITE AREA, THE PERMITTED PROJECT SHOULD CEASE ALL ACTIVITIES INVOLVING SUBSURFACE DISTURBANCE IN THE IMMEDIATE VICINITY OF SUCH DISCOVERIES. THE PERMITEE, OR OTHER DESIGNEE, SHOULD CONTACT THE FLORIDA DEPARTMENT OF STATE, DIVISION OF HISTORICAL RESOURCES, REVIEW AND COMPLIANCE SECTION AT (850) 245-6333 OR (800) 847-7278, AS WELL AS THE APPROPRIATE PERMITTING AGENCY OFFICE. PROJECT ACTIVITIES SHOULD NOT RESUME WITHOUT VERBAL AND/OR WRITTEN AUTHORIZATION FROM THE DIVISION OF HISTORICAL RESOURCES. IN THE EVENT THAT UNMARKED HUMAN REMAINS ARE ENCOUNTERED DURING PERMITTED ACTIVITIES, ALL WORK SHALL STOP IMMEDIATELY AND THE PROPER AUTHORITIES NOTIFIED IN ACCORDANCE WITH SECTION 872.05, FLORIDA STATUTES.

**SWPPP INSPECTIONS AND RECORD KEEPING:**

INSPECTIONS ARE REQUIRED AT LEAST EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS FOLLOWING A RAINFALL EVENT OF ONE-HALF (1/2) OF AN INCH OF RAINFALL OR GREATER AND SHALL CONTINUE UNTIL THE SITE COMPLIES WITH FINAL STABILIZATION (NOTICE OF TERMINATION). INSPECTIONS MUST BE CONDUCTED BY A "QUALIFIED" INSPECTOR. "QUALIFIED" IS DEFINED AS A PERSON THAT A. HAS SUCCESSFULLY COMPLETED AND MET ALL REQUIREMENTS NECESSARY TO BE FULLY CERTIFIED THROUGH THE FDEP STORMWATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR TRAINING PROGRAM; B. HAS SUCCESSFULLY COMPLETED AN EQUIVALENT FORMAL TRAINING PROGRAM; OR C. THAT IS QUALIFIED BY OTHER TRAINING OR PRACTICAL EXPERIENCE IN THE FIELD OF STORMWATER POLLUTION PREVENTION AND EROSION AND SEDIMENTATION CONTROL. EACH INSPECTION MUST BE FOLLOWED UP BY A REPORT DOCUMENTING THE INSPECTOR'S FINDINGS AND REQUEST THE REQUIRED MAINTENANCE AND/OR REPAIR FOR THE EROSION AND SEDIMENTATION CONTROL MEASURES. THESE RECORDS ARE USED TO PROVE THAT THE REQUIRED INSPECTION AND MAINTENANCE WERE PERFORMED AND SHALL BE PLACED IN THE SWPPP LEDGER. IN ADDITION TO INSPECTION AND MAINTENANCE REPORTS, RECORDS SHOULD BE KEPT OF CONSTRUCTION ACTIVITIES THAT OCCUR ON THE SITE. THE CONTRACTOR SHALL RETAIN COPIES OF THE SWPPP, ALL REPORTS AND DATA FOR A MINIMUM OF FIVE (5) YEARS AFTER THE PROJECT IS COMPLETE IN PAPER AND CD FORMAT.

**LEGEND:**

- PROPOSED SILT FENCE WITH WIRE (SEE DETAIL, SHEET No. 5)
- PROPOSED TREE PROTECTION (SEE DETAIL, SHEET No. 5)
- PROPOSED TURBIDITY BARRIER (SEE DETAIL SHEET No. 6)
- PROPOSED 6' TALL CONSTRUCTION FENCE WITH FABRIC
- PROPOSED AGGREGATE
- CONCRETE PAVEMENT REMOVAL
- EXISTING TREE (No. INDICATES SIZE)
- TREE TO BE REMOVED
- INLET PROTECTION

**OVERALL TREE LEGEND:**

NAME	SYMBOL	EXISTING	REMOVE	REMAIN
CEDAR		2	1	1
CHERRY		7	7	0
ELM		1	0	1
HACKBERRY		2	1	1
MAGNOLIA		1	1	0
MAPLE		9	5	4
OAK		60	44	16
SWEET GUM		1	1	0
<b>TOTALS:</b>		<b>83</b>	<b>60</b>	<b>23</b>

**BENCHMARK INFORMATION:**

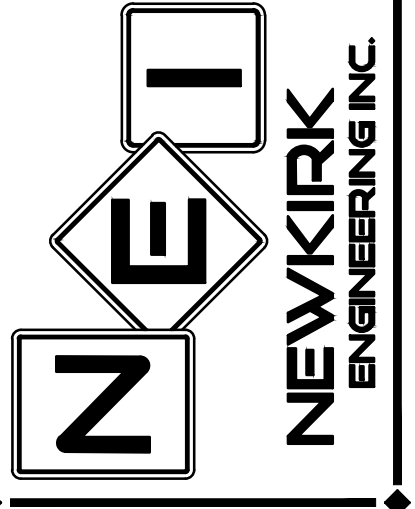
- #1** TOP OF PK NAIL & DISK IN POLE W/ "BM" LB 7143 ELEVATION = 11.07
- #2** TOP OF PK NAIL & DISK IN POLE W/ "BM" LB 7143 ELEVATION = 11.91
- #3** 5/8" IRC (NO ID) ELEVATION = 18.71

VERTICAL DATA ELEVATIONS REFER TO (NAVD) NORTH AMERICAN VERTICAL DATUM 1988. FEET AND DECIMAL PART THEREOF. BENCHMARK REFERENCE NAVD DATUM OF 1988.

**REVISIONS**

DATE	DESCRIPTION

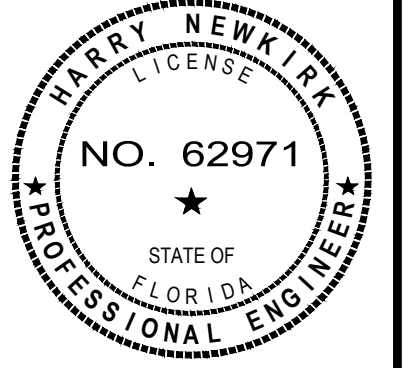
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**DEMOLITION, TREE REMOVAL AND SWPPP PLAN**  
**LEGACY POINTE COTTAGES**  
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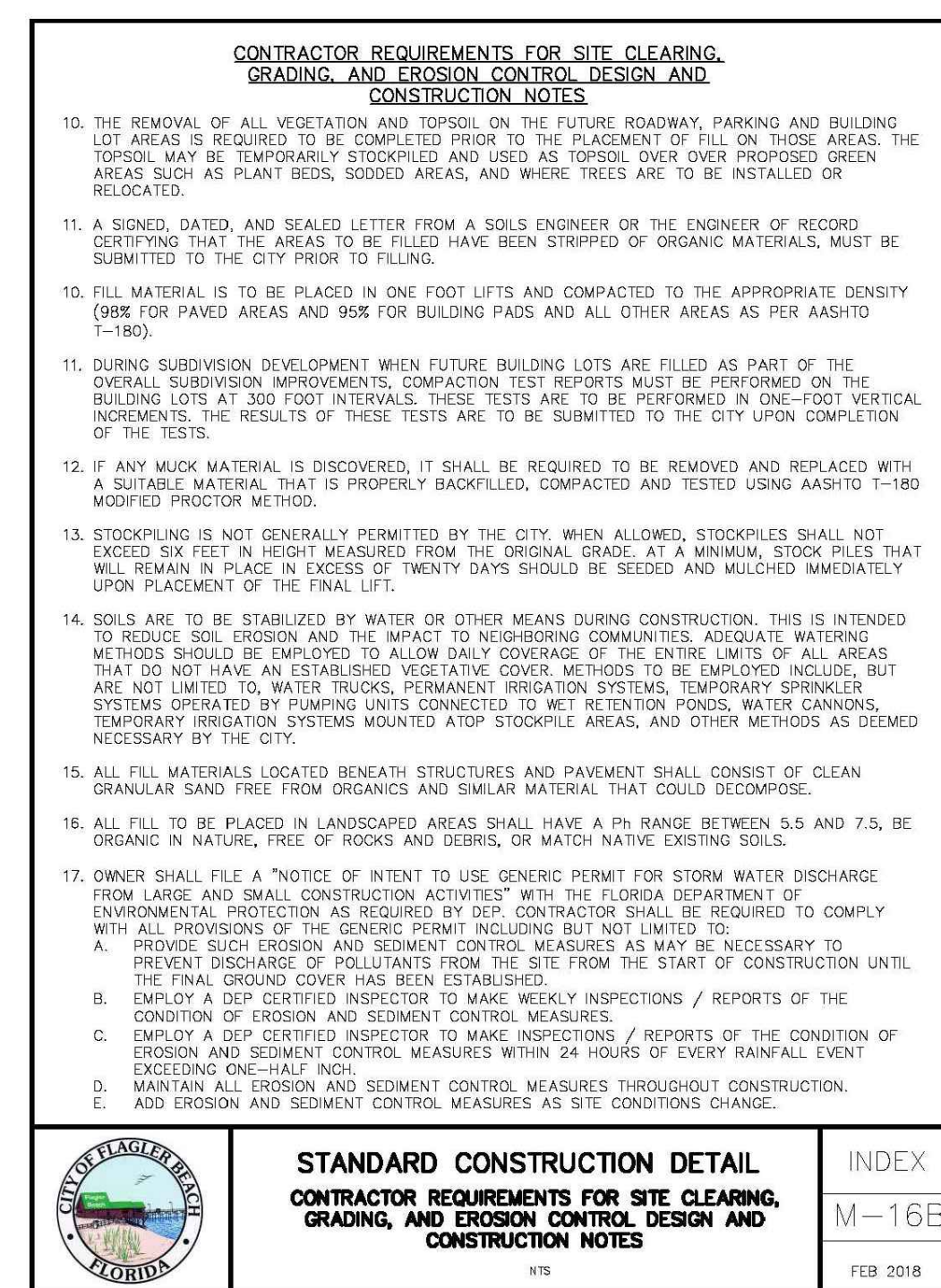
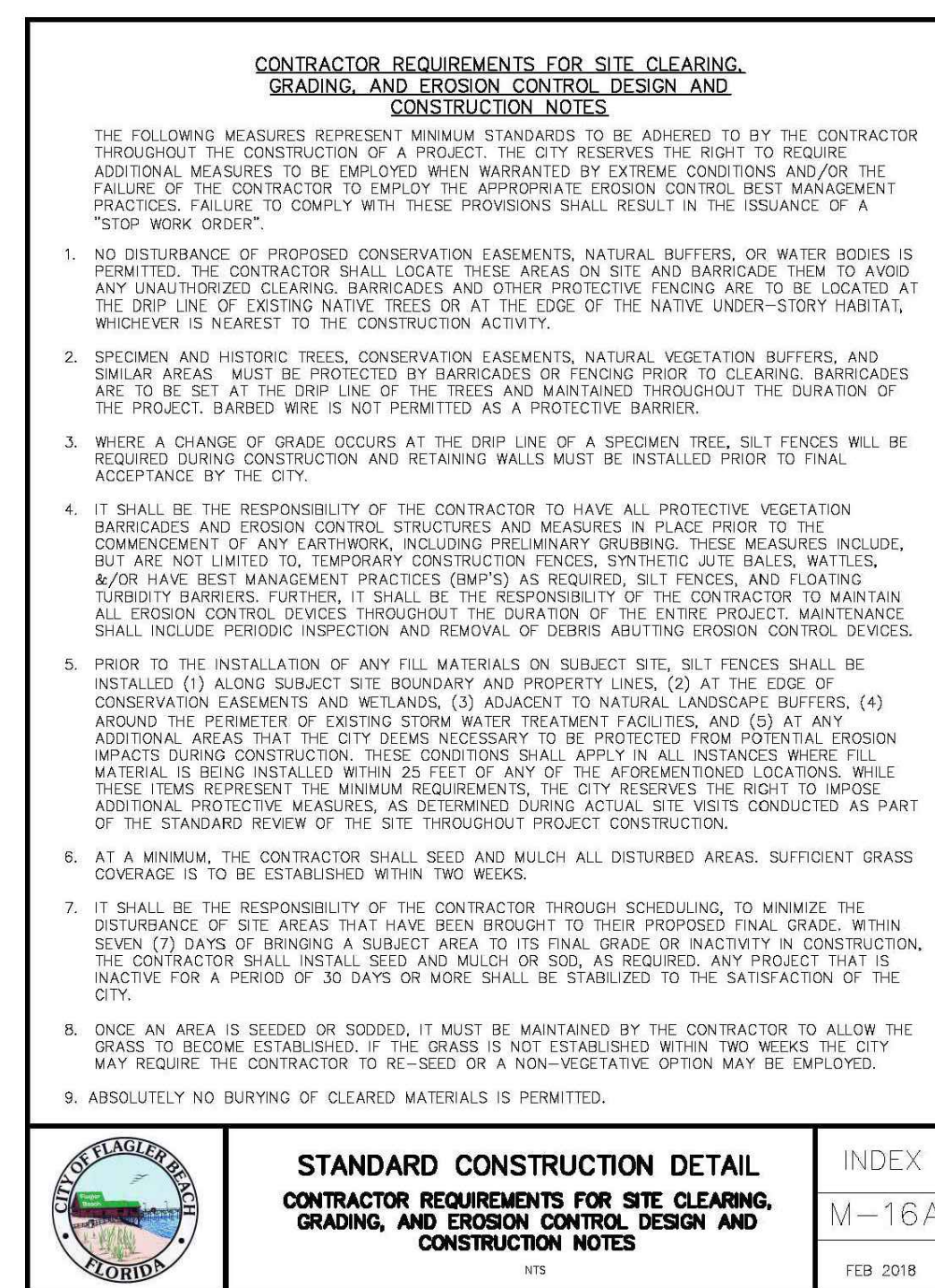
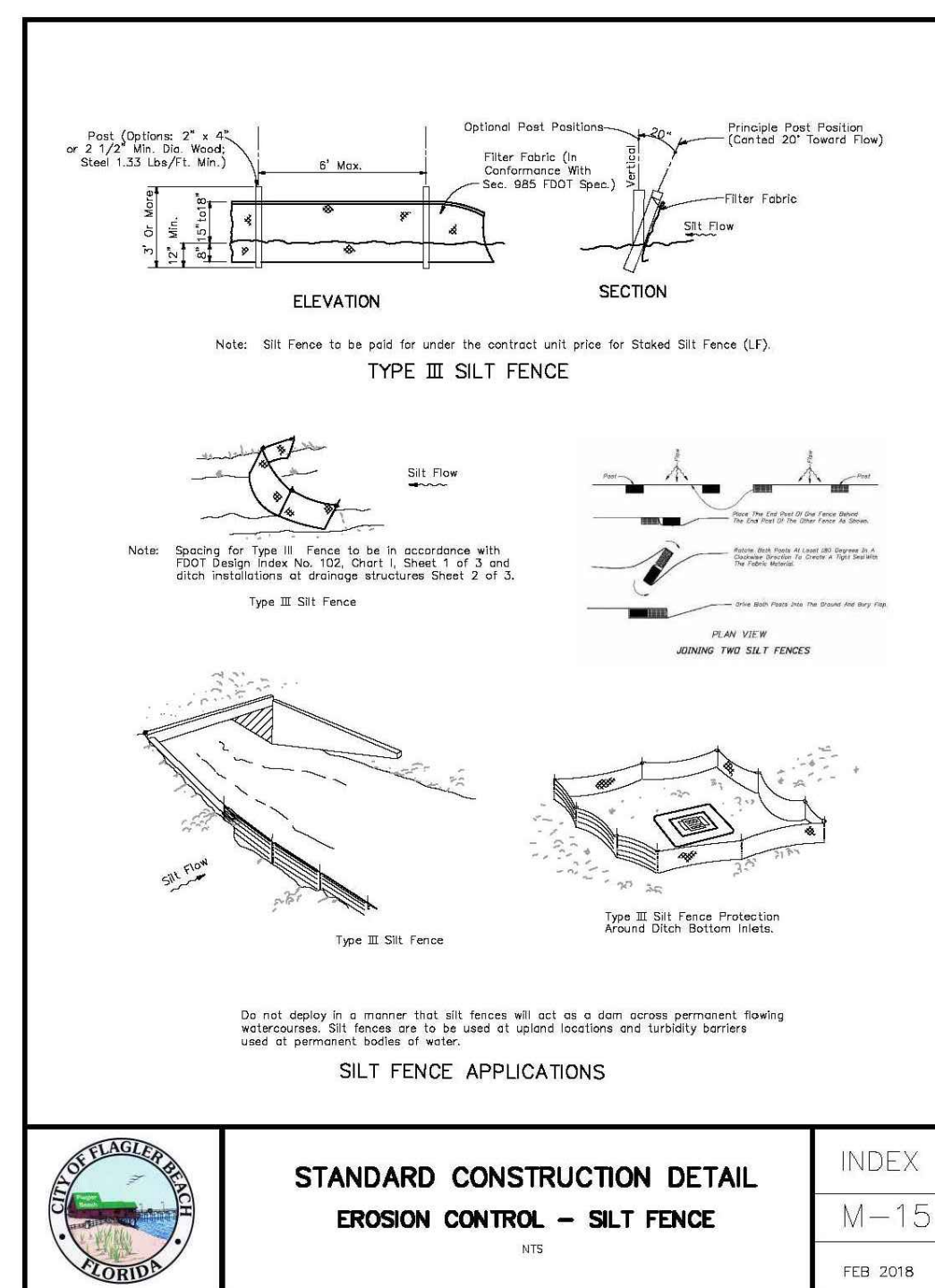
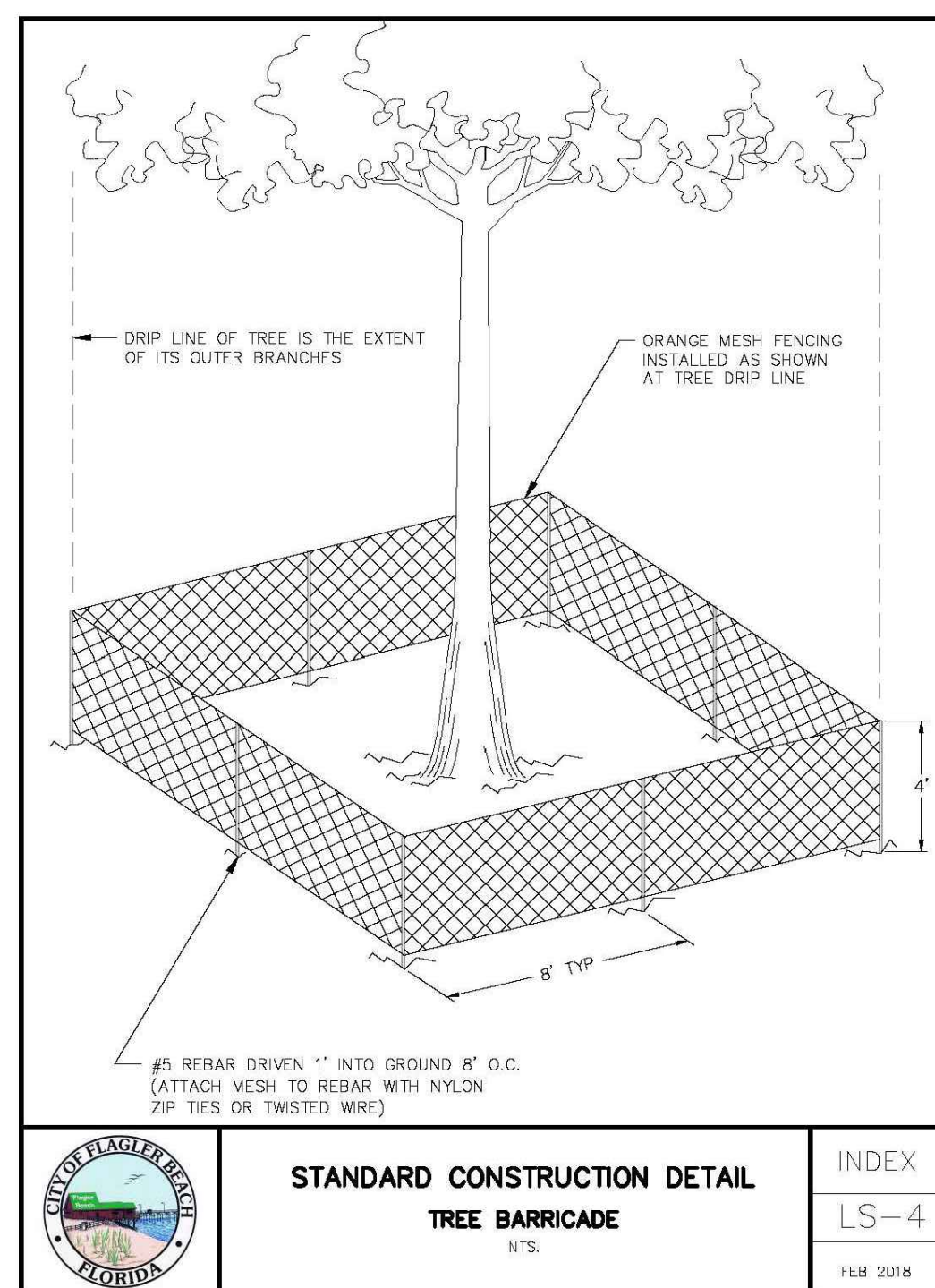
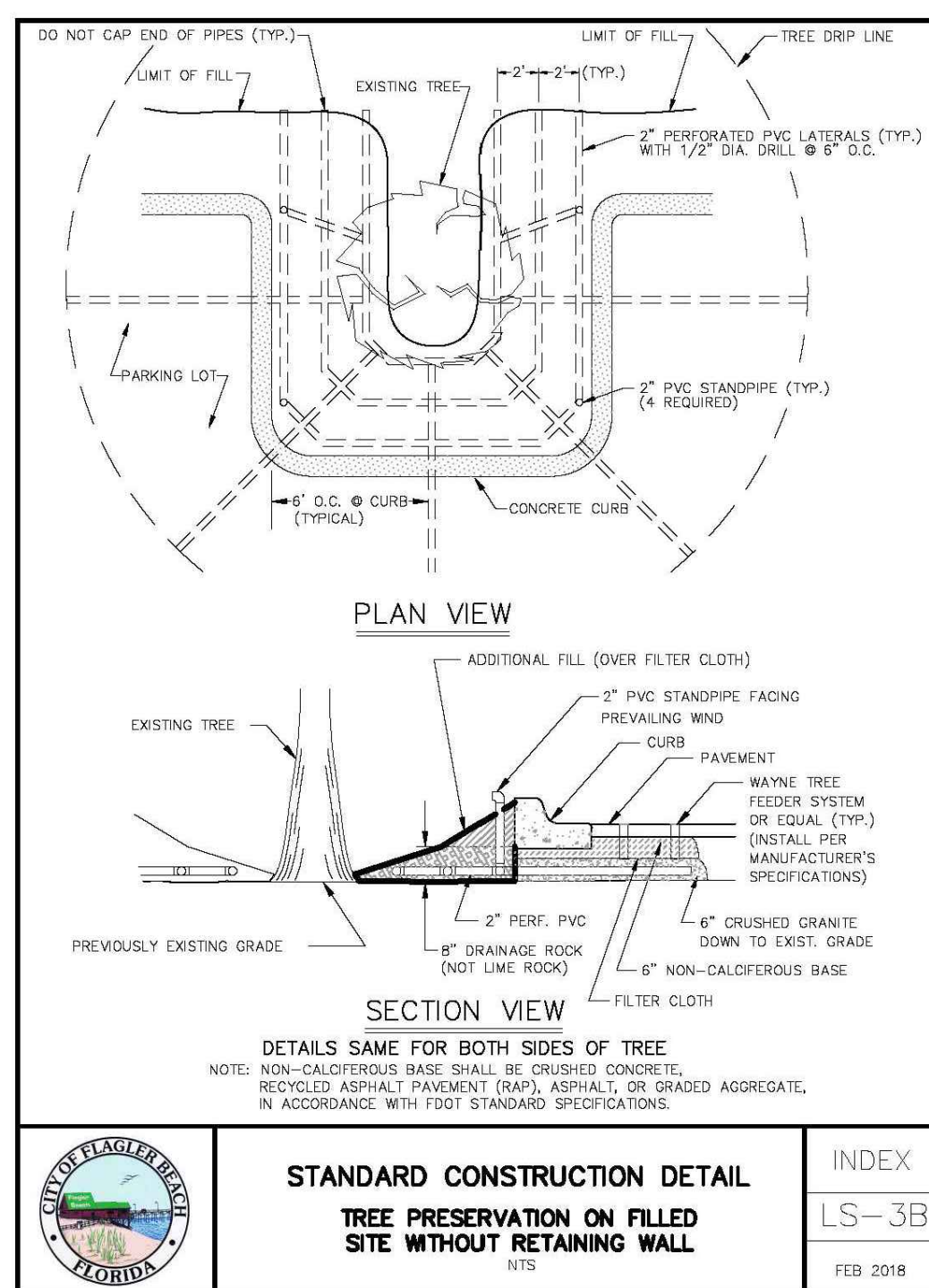
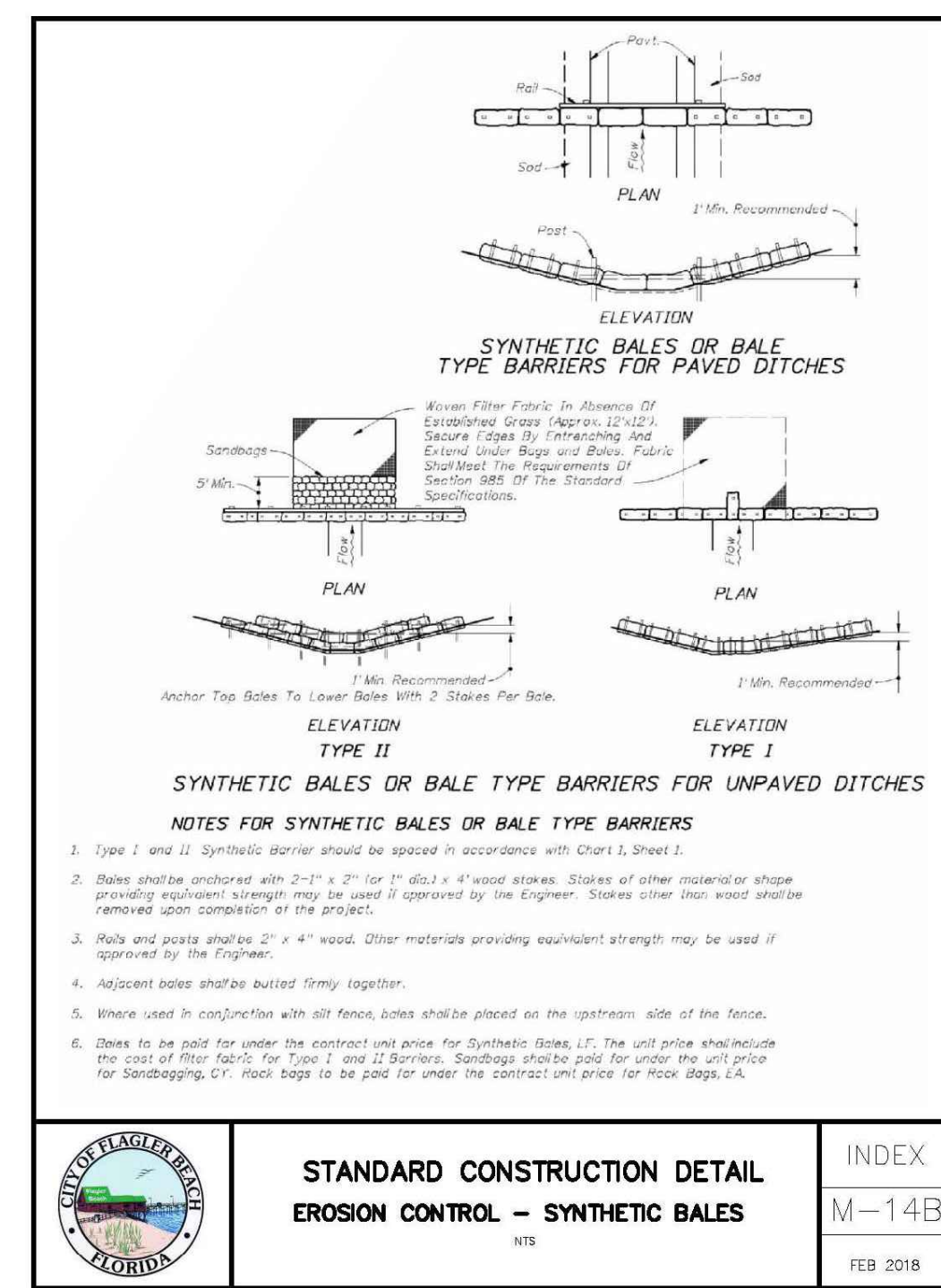
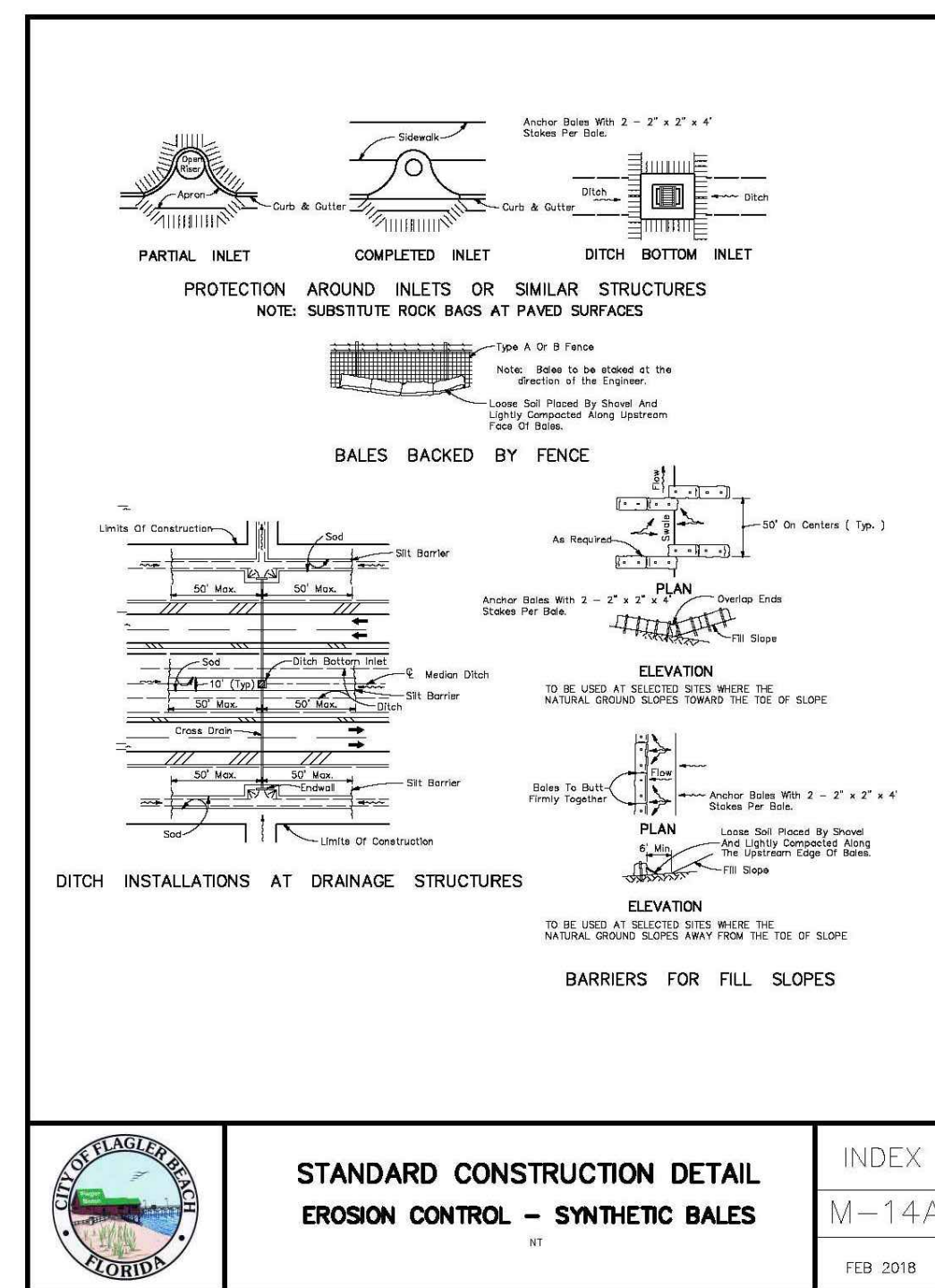
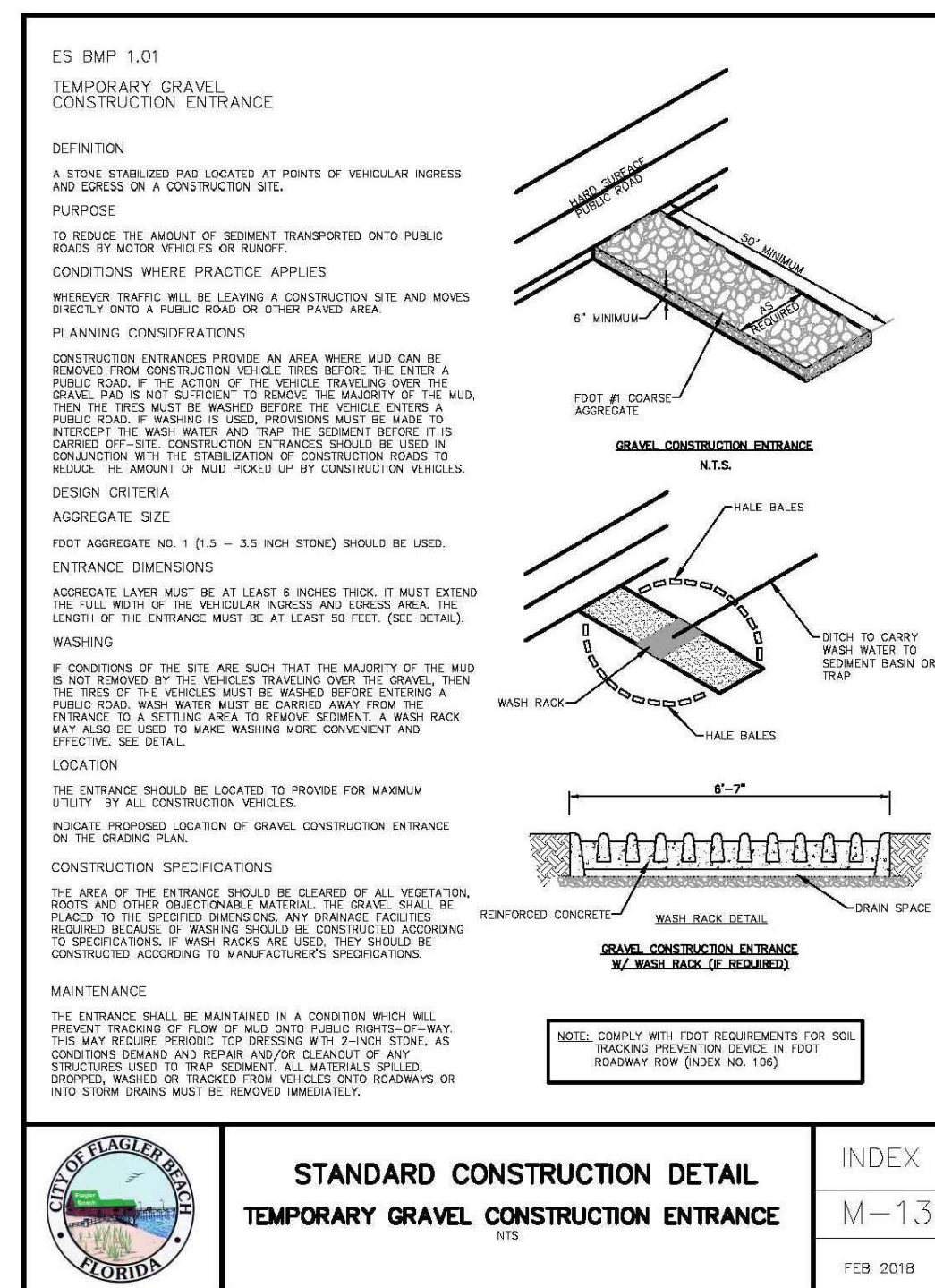
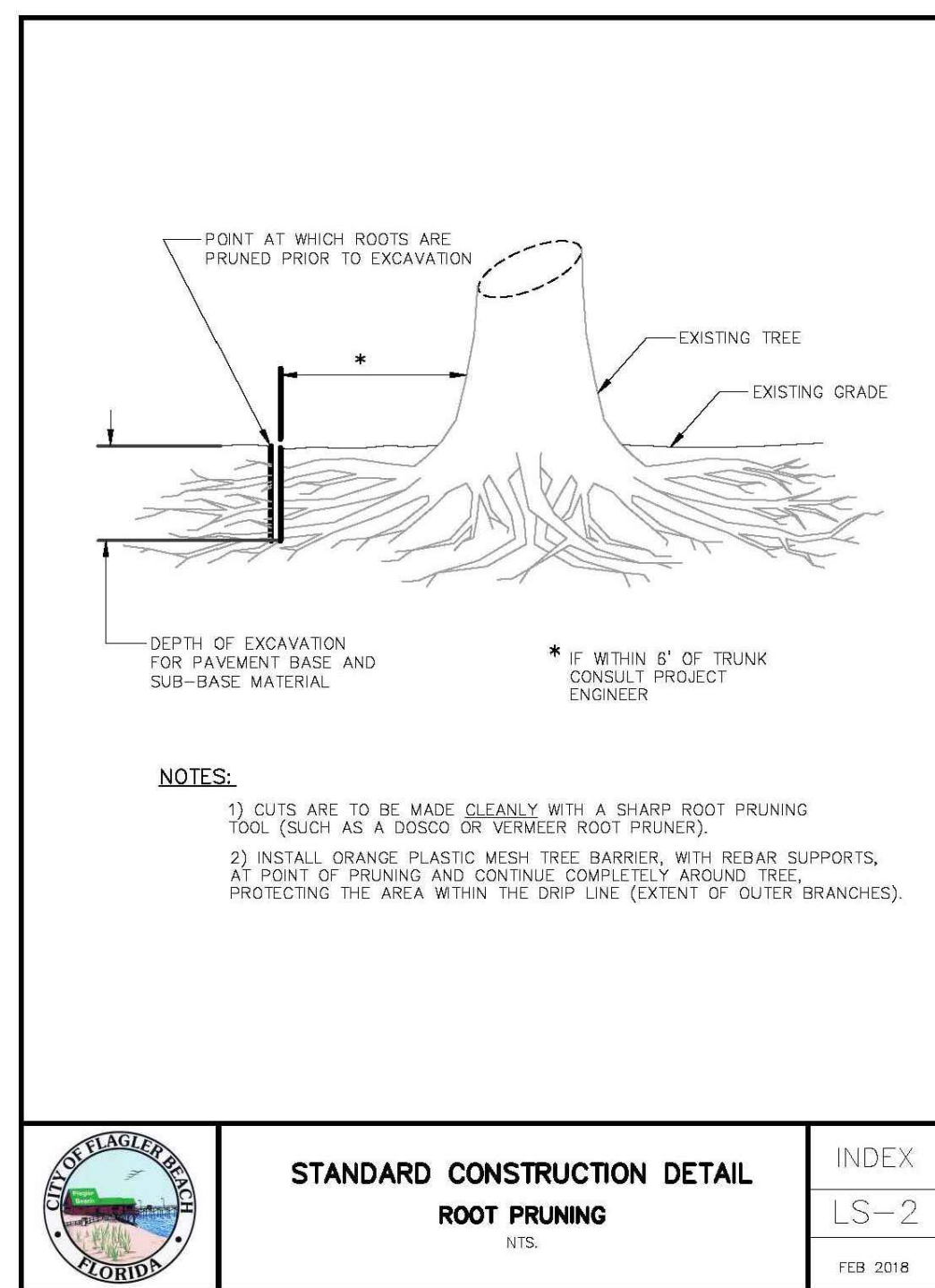
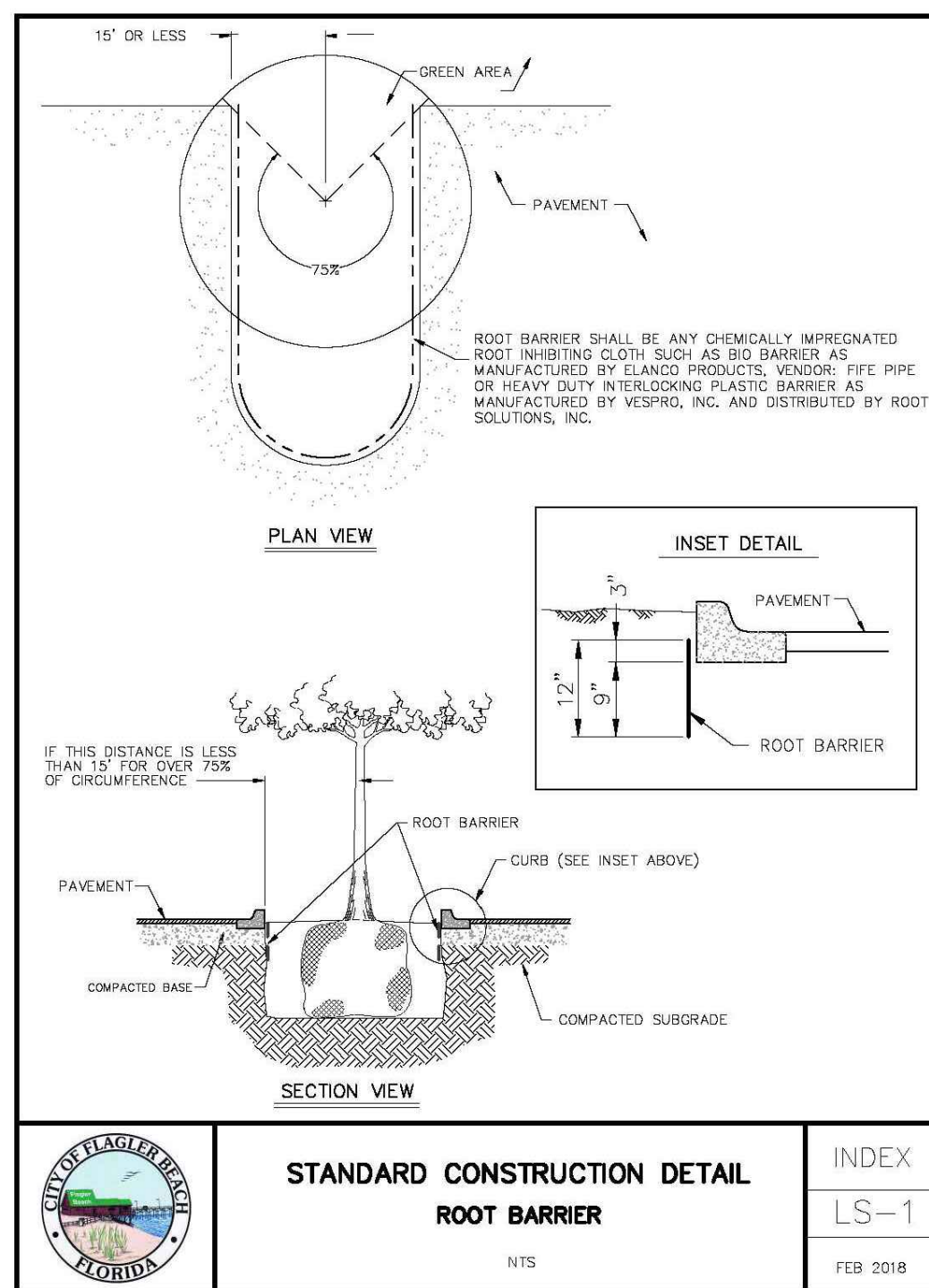
PROJECT No: 2023-17  
DATE: OCTOBER 2024  
DESIGN BY: HHN  
DRAWN BY: NWS  
CHECKED BY: HHN  
SCALE: 1" = 30'  
DRAWING NUMBER

**4**



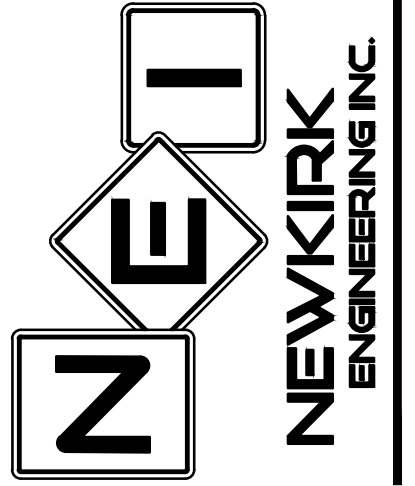
**WARNING !!**  
CONTRACTOR SHALL TAKE ALL PRECAUTIONS DURING CONSTRUCTION TO AVOID CONTACT WITH EXISTING UNDERGROUND UTILITIES, GAS MAINS AND OVERHEAD ELECTRIC IN THE RIGHT-OF-WAY.





REVISIONS	
DATE	DESCRIPTION

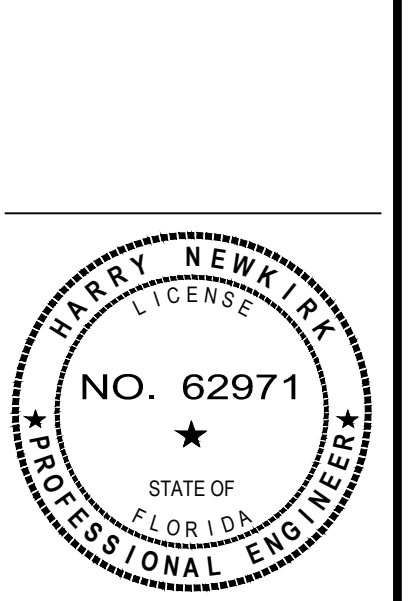
1230 North US1, Suite 3  
Ormond Beach, Florida 32174  
Phone (386) 872-7794  
www.newkirk-engineering.com  
C.A. # 30209  
L.C. # 2600584  
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**SWPPP DETAILS AND NOTES**  
**LEGACY POINTE COTTAGES**  
LESLIE STREET  
FLAGLER BEACH, FL 32136

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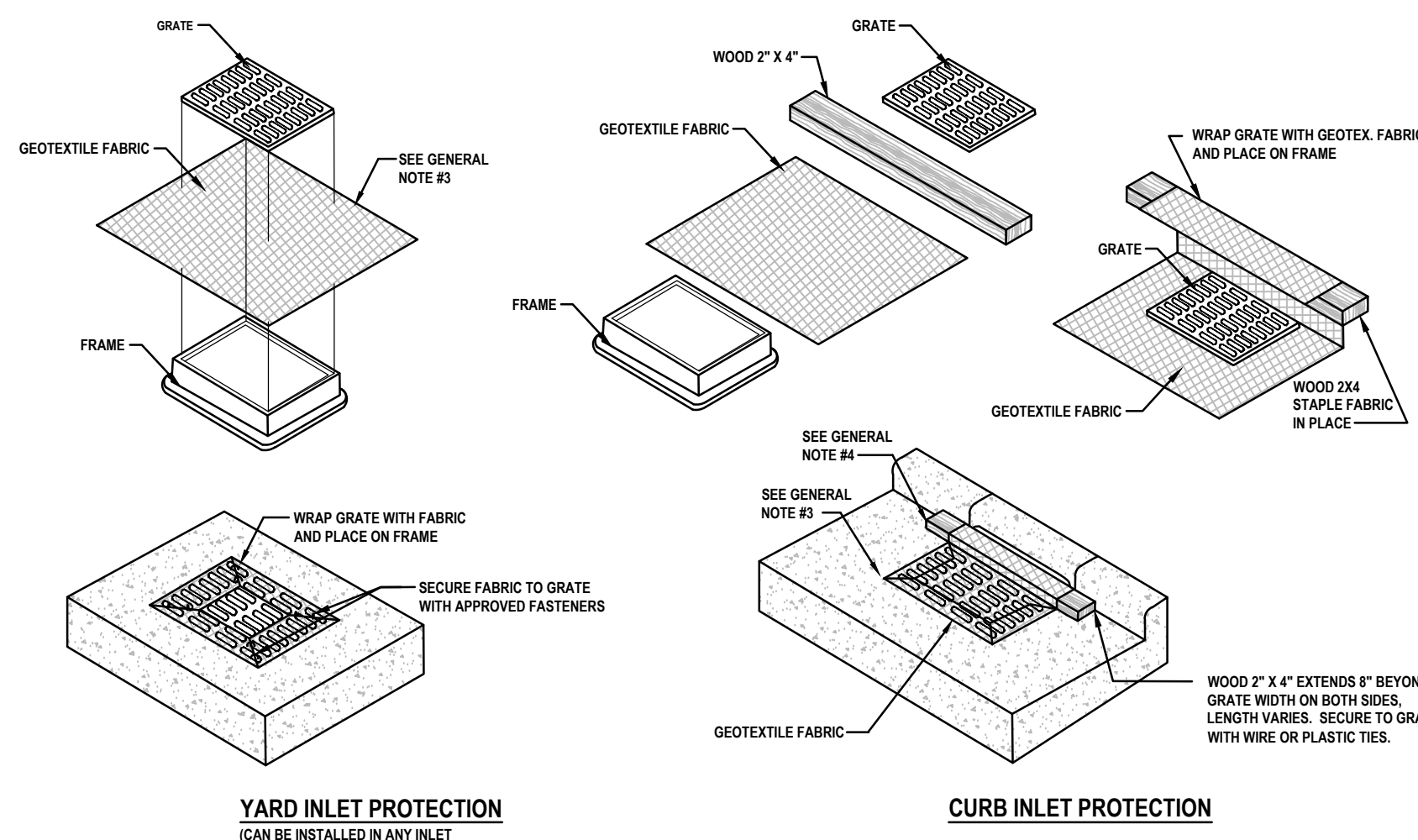


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SCALE:  
DRAWING NUMBER

**5**



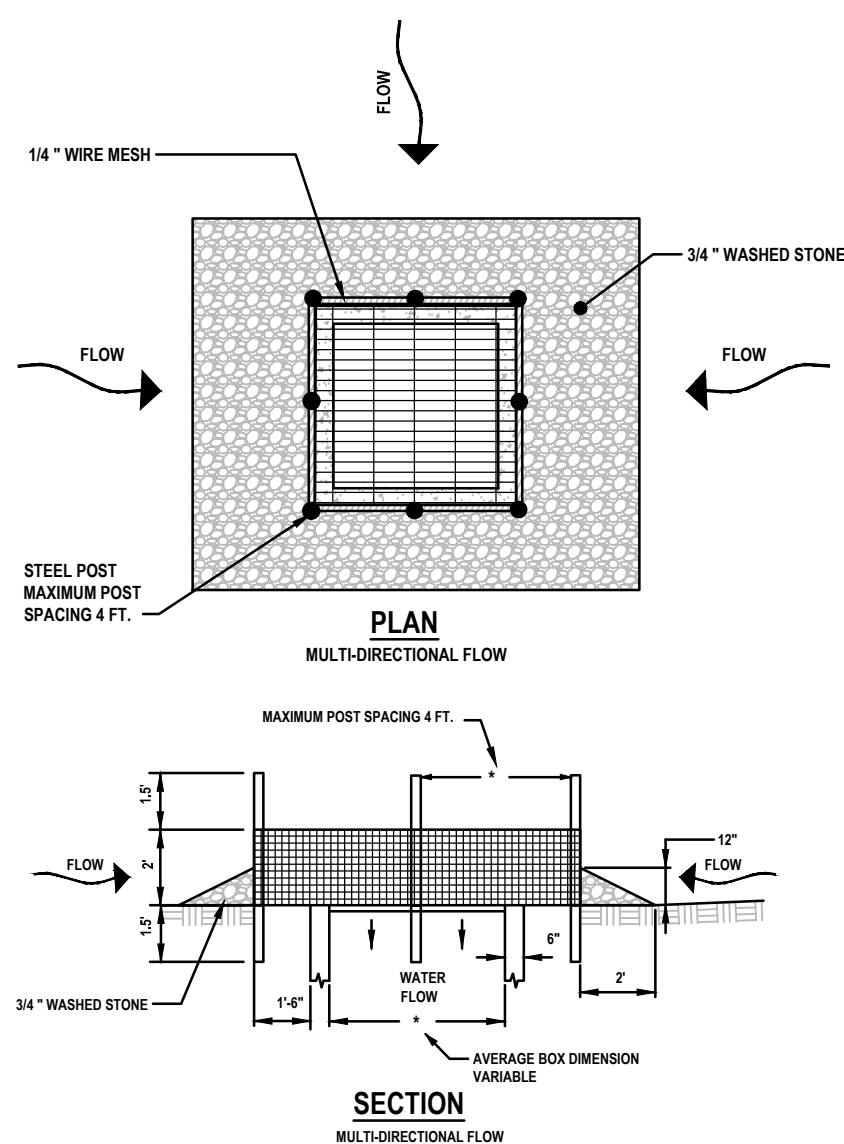


**GENERAL NOTES:**

1. GEOTEXTILE TO BE MIRAFI FILTERWEAVE 402 OR GEOTEX 111F. ALTERNATIVES INCLUDE APPROVED EQUAL ASTM D4491 OR 100 TO 150 GALLON PER MINUTE PER SQUARE FOOT.
2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
3. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
4. FOR CURB INLET PROTECTION AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
5. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
6. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS, OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**GEOTEXTILE FABRIC INLET PROTECTION**

NOT TO SCALE

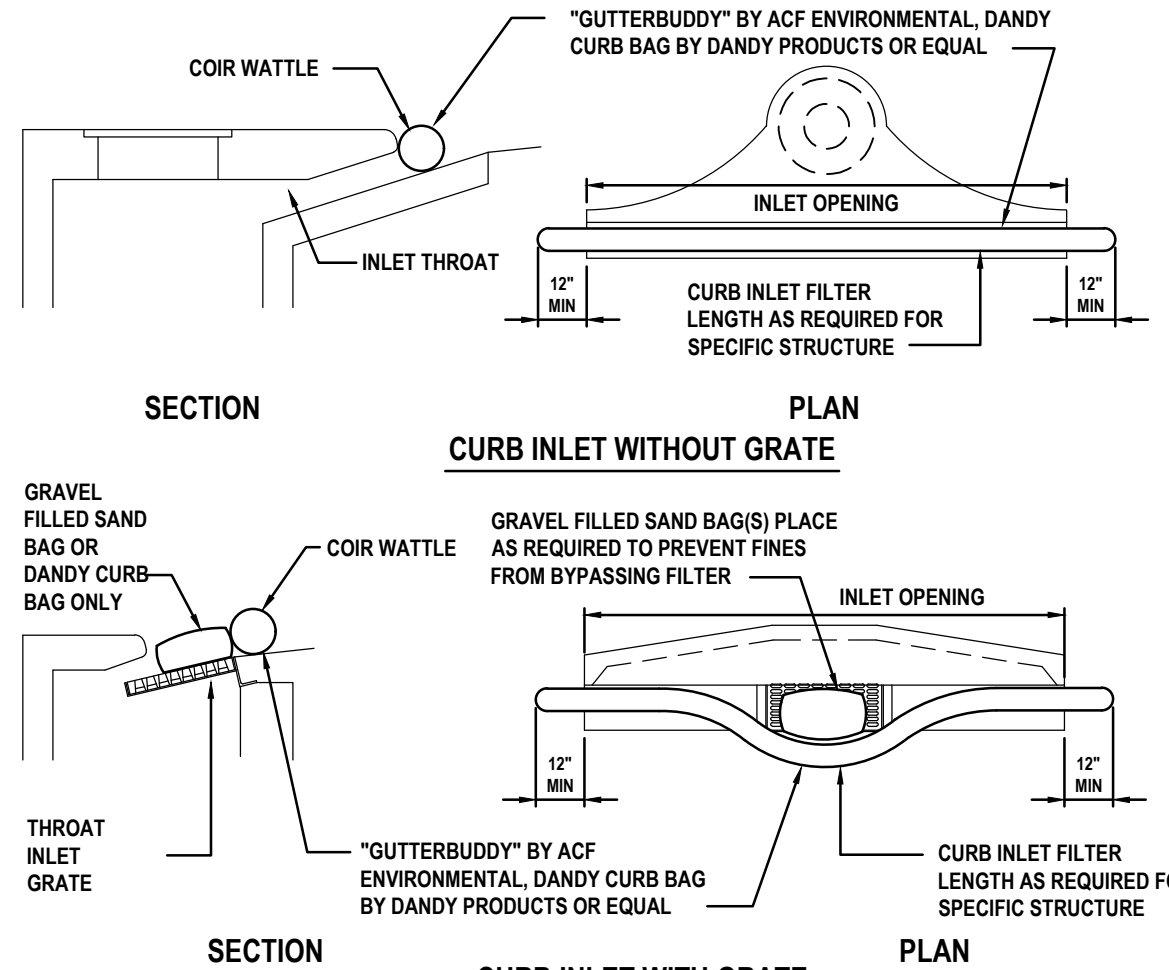


**NOTE:**

1. SEDIMENT CONTROL STONE SHALL BE 3/4" WASHED STONE.
2. WIRE MESH SHALL BE HARDWARE CLOTH 23 GAUGE MIN. AND SHALL HAVE 1/4 INCH MESH.
3. TOP OF WIRE MESH SHALL BE A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.
4. STEEL POST SHALL BE 5 FT. IN LENGTH, BE INSTALLED 1.5 FT. DEEP MINIMUM, AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
5. WOOD POST SHALL BE 5 FT. IN HEIGHT, BE INSTALLED TO 1.5 FT. DEEP MINIMUM, AND BE 3 INCHES IN DIAMETER.
6. POST SPACING SHALL BE A MAXIMUM OF 4 FT.

**HARDWARE CLOTH INLET PROTECTION**

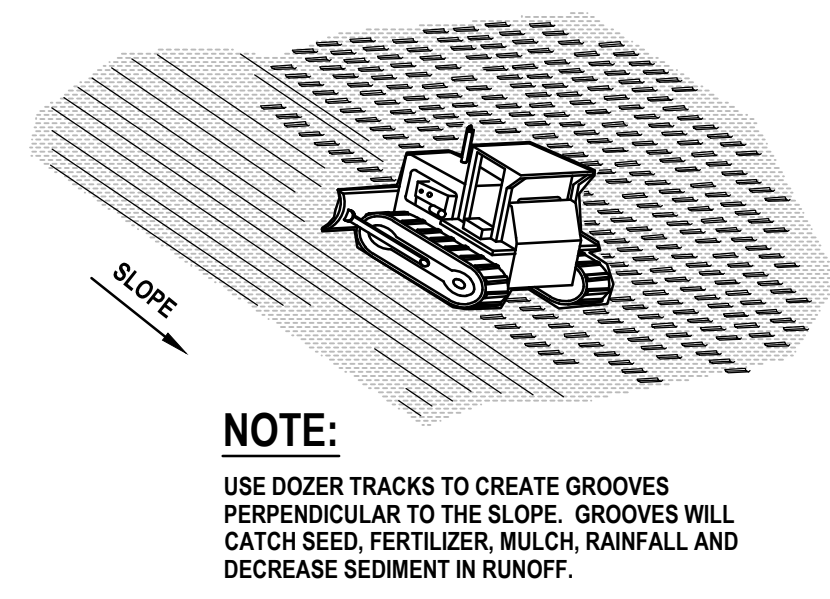
NOT TO SCALE



- NOTES:**
1. INSTALL FILTER PRIOR TO BEGINNING CONSTRUCTION.
  2. INSPECT ONCE EACH WEEK AND AFTER ANY RAIN EVENT. REMOVE ANY FINES AND DEBRIS THAT MAY HAVE ACCUMULATED AND DISPOSE OF PROPERLY.

**CURB INLET SEDIMENT PREVENTION DETAIL**

NOT TO SCALE

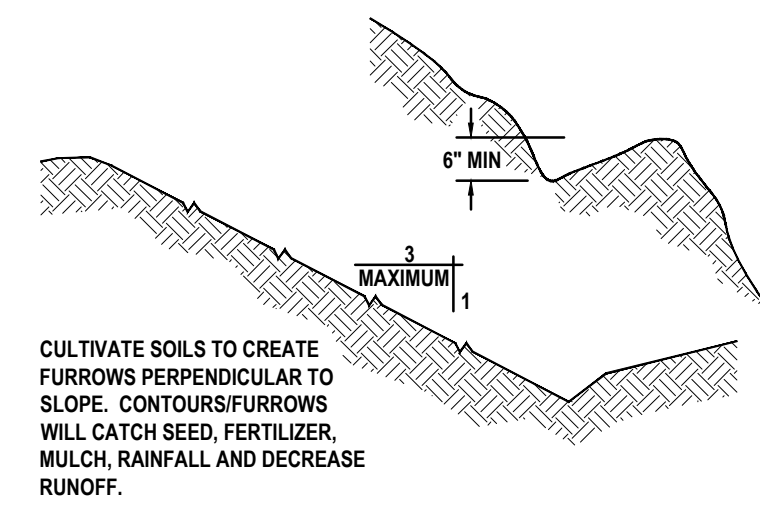


**NOTE:**

USE DOZER TRACKS TO CREATE GROOVES PERPENDICULAR TO THE SLOPE. GROOVES WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE SEDIMENT IN RUNOFF.

**TRACKING DETAIL**

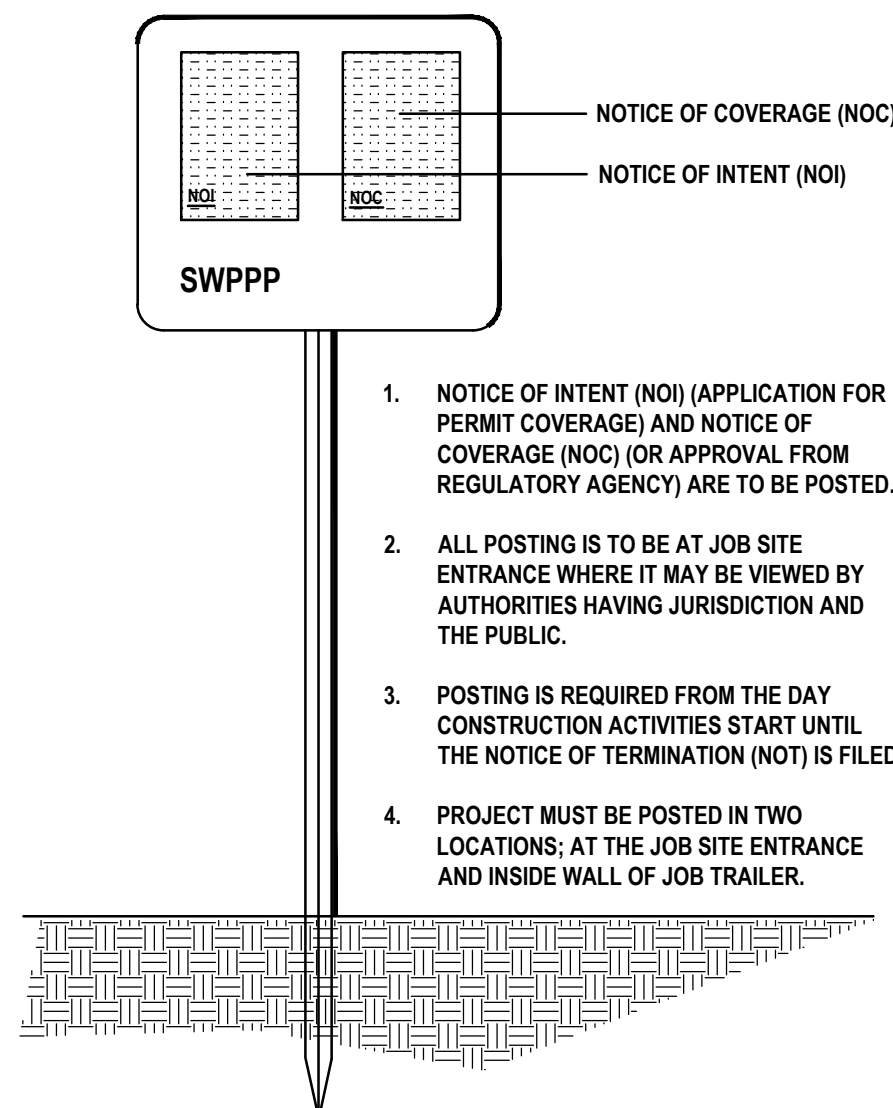
NOT TO SCALE



CULTIVATE SOILS TO CREATE FURROWS PERPENDICULAR TO SLOPE. CONTOUR/FURROWS WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE RUNOFF.

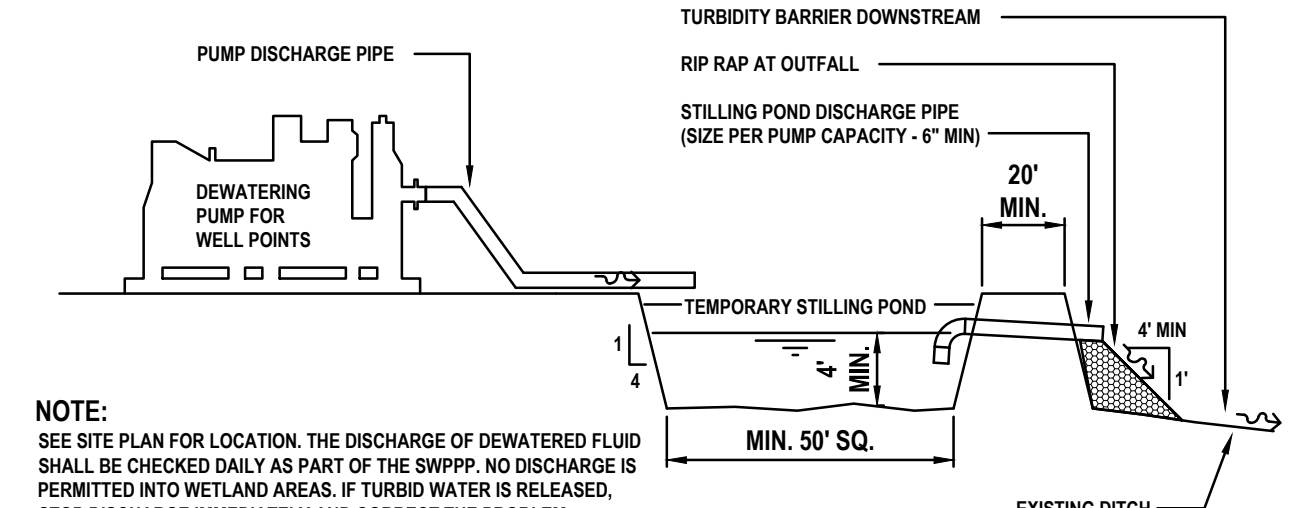
**SURFACE ROUGHENING**

(NOT TO SCALE)



**JOB SITE POSTING DETAIL**

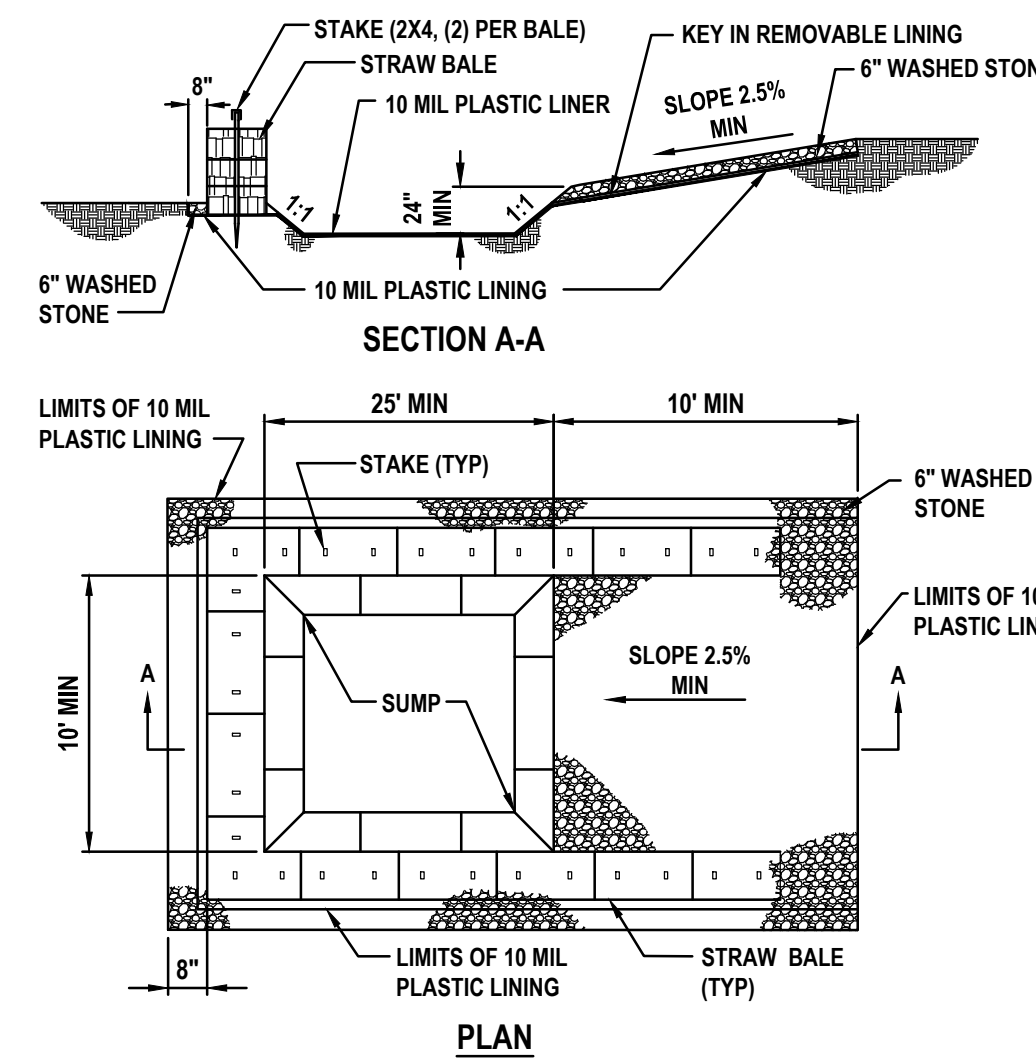
NOT TO SCALE



**NOTE:**

SEE SITE PLAN FOR LOCATION. THE DISCHARGE OF DEWATERED FLUID SHALL BE CHECKED DAILY AS PART OF THE SWPPP. NO DISCHARGE IS PERMITTED INTO WETLAND AREAS. IF TURBID WATER IS RELEASED, STOP DISCHARGE IMMEDIATELY AND CORRECT THE PROBLEM.

**TYPICAL DEWATERING DISCHARGE DETAIL**

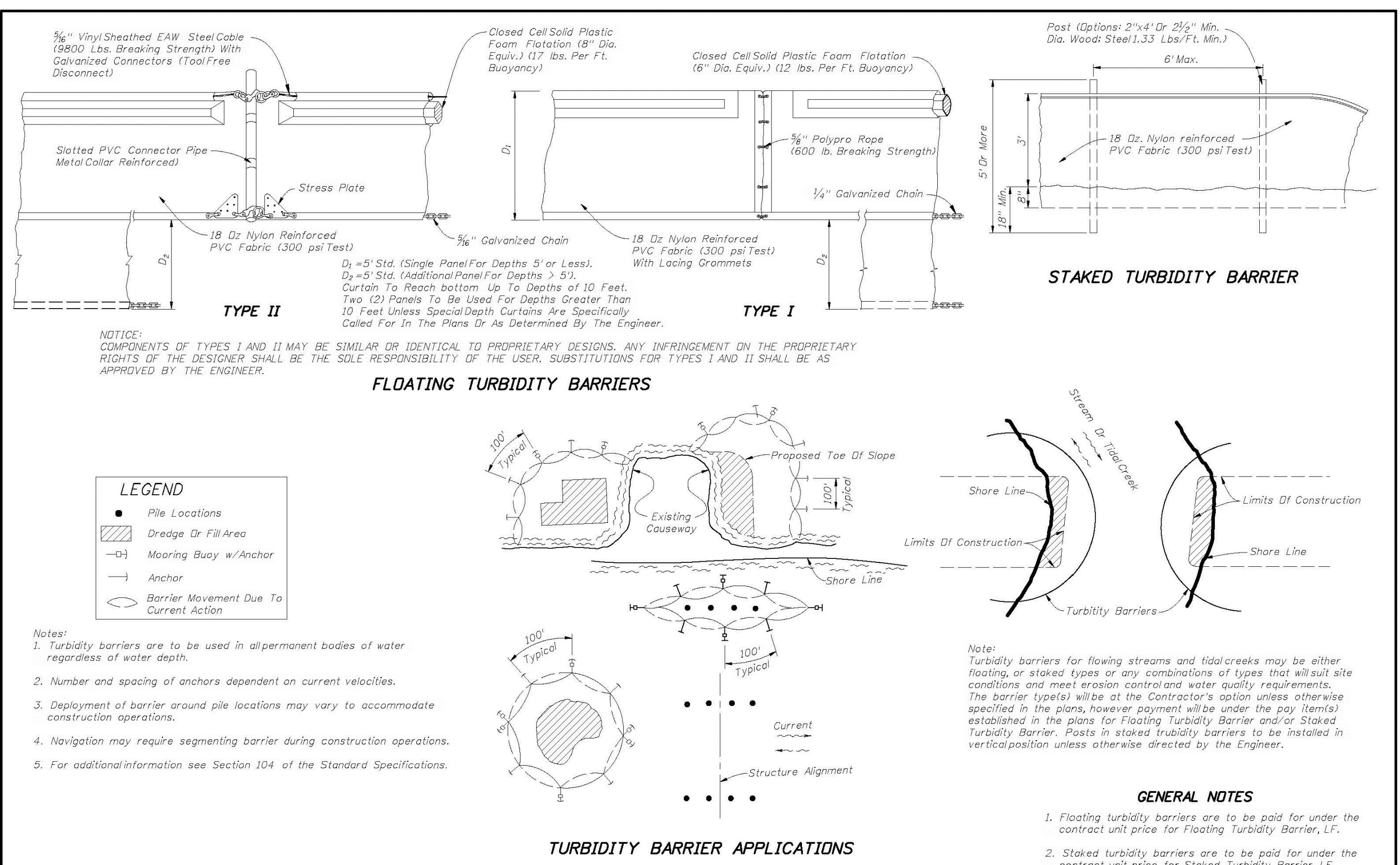


**CONCRETE WASHOUT AREA**

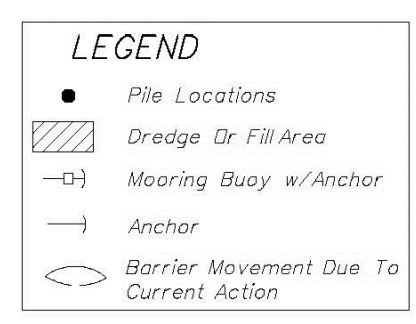
NOT TO SCALE

**NOTES:**

1. PIT IS SPECIFICALLY DESIGNATED, DIKED AND IMPERVIOUS CONTAINMENT TO PREVENT CONTACT BETWEEN CONCRETE WASH AND STORMWATER.
2. WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE WATER.
3. FACILITY MUST HOLD SUFFICIENT VOLUME TO CONTAIN CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12".
4. FACILITY SHALL NOT BE FILLED BEYOND 95% CAPACITY UNLESS A NEW FACILITY IS CONSTRUCTED.
5. SAW CUT PORTLAND CEMENT CONCRETE, RESIDUE FROM SAWCUT & GRINDING TO BE DISPOSED OF IN THE PIT.
6. CONCRETE WASHOUTS SHALL BE LOCATED A MINIMUM OF 100' FROM DRAINAGE WAYS, INLETS, & SURFACE WATERS.
7. MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED IF REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.



**FLOATING TURBIDITY BARRIERS**



- Notes:**
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
  2. Number and spacing of anchors dependent on current velocities.
  3. Deployment of barrier around pile locations may vary to accommodate construction operations.
  4. Navigation may require segmenting barrier during construction operations.
  5. For additional information see Section 104 of the Standard Specifications.

**TURBIDITY BARRIER APPLICATIONS**

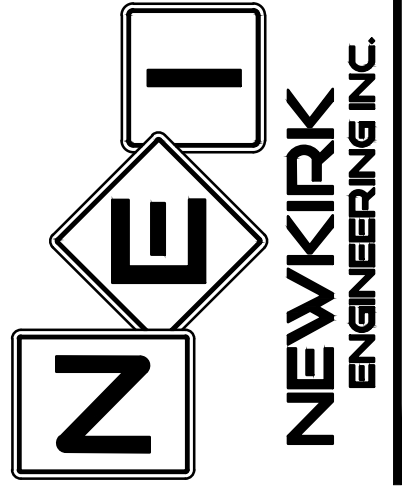
**GENERAL NOTES**

1. Floating turbidity barriers are to be paid for under the contract unit price for Floating Turbidity Barrier, LF.
2. Staked turbidity barriers are to be paid for under the contract unit price for Staked Turbidity Barrier, LF.

**REVISIONS**

DATE	DESCRIPTION

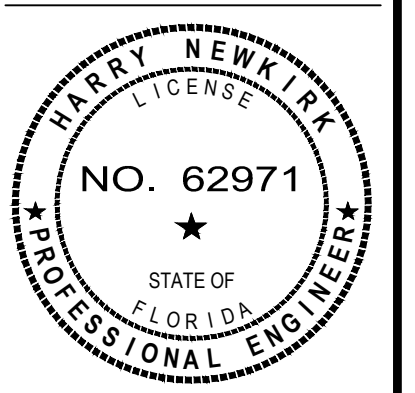
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**SWPPP DETAILS AND NOTES**  
**LEGACY POINTE COTTAGES**  
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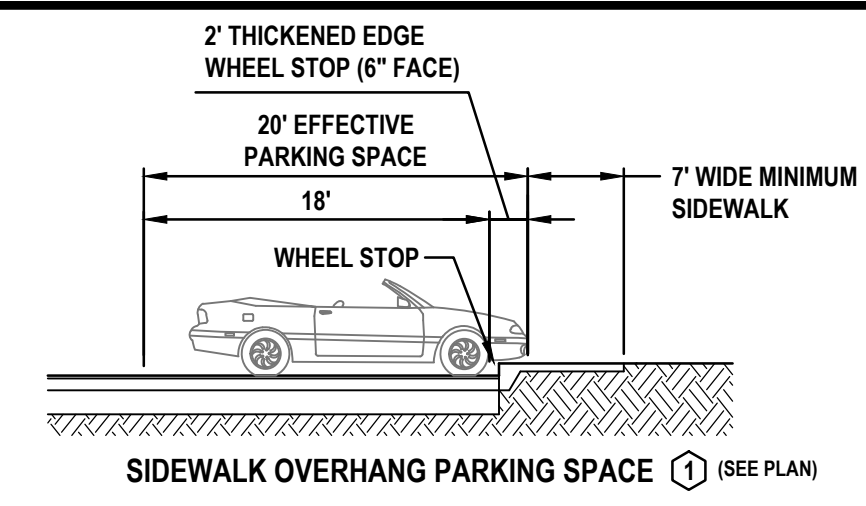
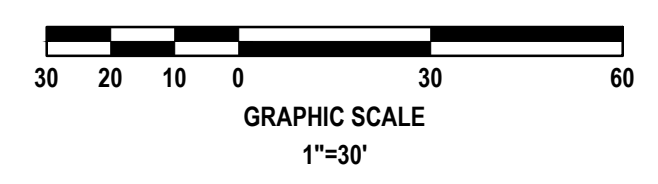
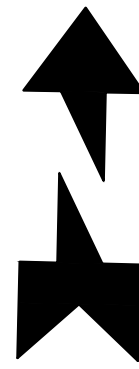
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PROJECT No: 2023-17  
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DRAWN BY: NWS  
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SCALE:

DRAWING NUMBER  
**6**

2010 FDOT Design Standards  
Turbidity Barriers  
Last Revision: 07/01/07  
Sheet No: 1 of 1  
Index No: 103





### PAVING LEGEND

- ASPHALT PAVEMENT**
  - 1.5" SP-12.5 (TL-C) WITH TACK COAT PER FDOT SPECIFICATIONS
  - 6" CRUSHED CONCRETE (LBR=130) MIN OF 98% MODIFIED PROCTOR MAX DENSITY PER AASHTO T-180 (4" MAX. LIFTS)
  - 12" STABILIZED SUBBASE (LBR 40) MIN OF 98% MODIFIED PROCTOR MAX DENSITY PER AASHTO T-180 (TYPE B STABILIZATION)
  - \* ALTERNATE 12" STABILIZED SUBBASE: 6.5" CRUSHED CONCRETE (LBR=130) MIN OF 98% MODIFIED PROCTOR MAX DENSITY PER AASHTO T-180 (4" MAX. LIFTS) (TYPE B STABILIZATION)
  - \*ALTERNATE PAVEMENT TO ASPHALT IS CONCRETE PAVEMENT
- CONCRETE PAVEMENT**
  - 6" CONCRETE (4,000 P.S.I. @ 28 DAYS)
  - 12" STABILIZED SUBGRADE (LBR 40) MIN OF 98% MODIFIED PROCTOR MAX DENSITY PER ASTM D1557, AASHTO T-180 (6" LIFTS) (TYPE B STABILIZATION). SEE DETAIL, SHEET No. 21 & 24
- CONCRETE SIDEWALK**
  - 4" THICK CLASS I CONCRETE (3,000 P.S.I. @ 28 DAYS) PER FDOT INDEX 522-001 (SEE DETAIL, SHEET No. 20, 24 & 25)
- ARTIFICIAL TURF**
  - ARTIFICIAL TURF (INSTALL PER MANUFACTURER SPECIFICATIONS)

### LEGEND

- TYPE 'F' CURB
- MIAMI CURB
- 24" DETECTABLE WARNING MAT
- TRANSITION FROM "F1" CURB ENVIRONMENTAL CURB
- SITE LIGHTING
- SEE SITE LIGHTING PLAN FOR COMPLETE SPECIFICATIONS (SITE LIGHTING SHALL NOT EMIT MORE THAN 0.5 FOOT-CANDLES AT THE PROPERTY LINE. ADD GLARE GUARDS IF REQUIRED). (SEE SHEET, No. 29-30)
- FLOATING FOUNTAIN
- FOUNTAIN SPECIFICATIONS: MANUFACTURER - EAGLE FOUNTAINS MODEL - EFS-3000 (BIG FOUNTAIN) MOTOR - 230V, 1 PHASE
- 6" BENCH
- SEE DETAIL, SHEET No. 9

### SIDEWALK RAMP KEYNOTES:

- (A) SIDEWALK CURB RAMP C (SEE DETAIL, SHEET No. 25)
- (B) SIDEWALK CURB RAMP E (SEE DETAIL, SHEET No. 25)
- (C) SIDEWALK CURB RAMP G (SEE DETAIL, SHEET No. 25)

### GENERAL NOTES:

- CITY OF FLAGLER BEACH BUILDING PERMITS ARE REQUIRED FOR BUILDING, CANOPIES, DUMPSTER ENCLOSURE, LIGHT POLES, FENCE AND SIGNS. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING APPROPRIATE INFORMATION (ENGINEERING, SPECIFICATIONS, ETC.) AT TIME OF BUILDING PERMIT.
- ALL CONSTRUCTION IN THE FDOT ROW SHALL CONFIRM TO THE LATEST EDITIONS OF THE FDOT DESIGN STANDARDS [INDEXES], THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE FDOT UTILITY ACCOMMODATION MANUAL.
- ALL DIMENSIONS AND TIES ARE TO THE EDGE OF PAVEMENT AND OUTSIDE FACE OF BUILDING.
- ALL IMPROVEMENTS SHALL BE STAKED FOR CONSTRUCTION BY MEANS OF DIGITAL COORDINATES BY SURVEYOR UTILIZING GEODETIC TOTAL STATION OR GPS. SCALING OF DRAWINGS FOR PURPOSES OF STAKING ARE AT THE SURVEYOR'S RISK.
- THE CONTRACTOR SHALL COORDINATE WITH THE EXISTING ADJACENT BUSINESSES TO ENSURE THERE IS NO DISRUPTION TO THEIR RESPECTIVE OPERATIONS.
- THE CONTRACTOR AT ITS OWN DISCRETION SHALL MAINTAIN THE CONSTRUCTION SITE SECURE FROM TRESPASS.
- SOD ALL DISTURBED AREAS IN RIGHT-OF-WAY WITH BAHIA SOD.
- ALL CURB RAMPS SHALL COMPLY WITH SECTION 406 OF FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION (FACBC).
- ALL PAVEMENT EDGE SHALL HAVE TYPE "F-1" CURBING UNLESS OTHERWISE NOTED ON THESE PLANS.
- ALL WALL-MOUNTED EQUIPMENT SUCH AS ELECTRICAL METERS, IRRIGATION METERS, PHONE/CABLE BOXES, EXTERNAL VENTS AND LOUVERS, ETC., SHALL BE PAINTED TO MATCH THE WALL ON WHICH IT IS MOUNTED OR OTHERWISE CONSISTENT WITH THE COLOR(S) OF THE BUILDING.
- ALL MATERIALS, MACHINERY AND VEHICLES SHALL BE STORED ON-SITE IN AN ORDERLY ORGANIZED FASHION.
- COMMERCIAL IMPACT FEE SHALL BE CALCULATED, DUE AND PAYABLE WITHIN 30 DAYS OF INITIATION OF PERMANENT ELECTRIC SERVICE.
- CONTRACTOR TO PROVIDE PREMISE IDENTIFICATION FOR BUILDING DURING CONSTRUCTION.
- THE PROPOSED FIVE FOOT SIDEWALK THAT CONNECTS TO THE EXISTING SIDEWALK ALONG SR-100 SHALL BE MAINTAINED BY THE PROPERTY OWNER.
- ALL PROPOSED CURBING SHALL BE TYPE 'F1'.
- ALL COMPACTION SHALL BE 98% OF THE MODIFIED PROCTOR MAXIMUM DENSITY (AASHTO T-180).
- THE USES PROPOSED AS PART OF THIS SITE PLAN DO NOT REQUIRE A SUBMITTAL OF A RISK MANAGEMENT PLAN (RMP) PURSUANT TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGULATIONS AND SHALL NOT EXCEED EPA'S RMP THRESHOLD QUANTITIES OF LISTED SUBSTANCES.
- THE SIGN PERMIT WILL BE UNDER SEPARATE APPLICATION TO BE REVIEWED BY THE CITY'S PLANNING AND ZONING DEPARTMENT.

### PAVEMENT MARKING NOTES:

- PARKING STALL LINES AND LOADING ZONE PAVEMENT MARKINGS COMPLY WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, AND MAINTAINED IN A CLEAR AND VISIBLE CONDITION.
- PAINTED PAVEMENT MARKINGS SHALL BE APPLIED AFTER PAVEMENT SURFACE HAS CURED. SURFACE SHALL BE FREE OF FINE SAND AND DEBRIS PRIOR TO APPLICATIONS.
- APPLY PAINTED PAVEMENT MARKINGS AT LAST STAGE OF CONSTRUCTION AFTER LANDSCAPE PLANTINGS ARE INSTALLED.
- PAINT SHALL BE SHERWIN WILLIAMS LOW-VOC ACRYLIC PRO PARK PAINT, APPLY PER MANUFACTURER'S RECOMMENDATIONS. REFER TO DRAWINGS FOR LOCATIONS OF SPECIFIC COLORS.
- ALL STOP BARS SHALL BE THERMOPLASTIC.
- ALL REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 706-101.
- LOCATION OF SIGNS IS APPROXIMATE ONLY AND IS SUBJECT TO CHANGE AS DIRECTED BY THE ENGINEER.
- FOR ADDITIONAL DETAILS SEE INDEX NO. 700-010, 700-101 AND 711-001.

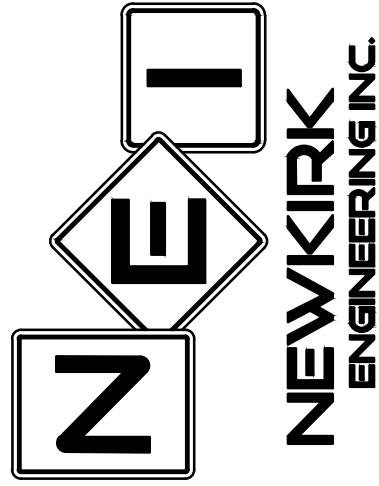
### STRIPING KEYNOTES: (PER FDOT INDEX No. 711-001, ONLY THERMOPLASTIC IN R/W)

- 1 6" SOLID WHITE LINE
- 2 24" WHITE STOP BAR
- 3 WHITE DIRECTIONAL ARROW

### REVISIONS

DATE	DESCRIPTION
12/10/24	CITY COMMENTS
12/19/24	CITY COMMENTS

1230 North US1, Suite 3  
Ormond Beach, Florida 32174  
Phone (386) 872-7794  
www.Newkirk-Engineering.com  
C.A. # 30209  
L.C. # 26000584  
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**SITE LAYOUT PLAN**  
**LEGACY POINTE COTTAGES**  
LESLIE STREET  
FLAGLER BEACH, FL 32136

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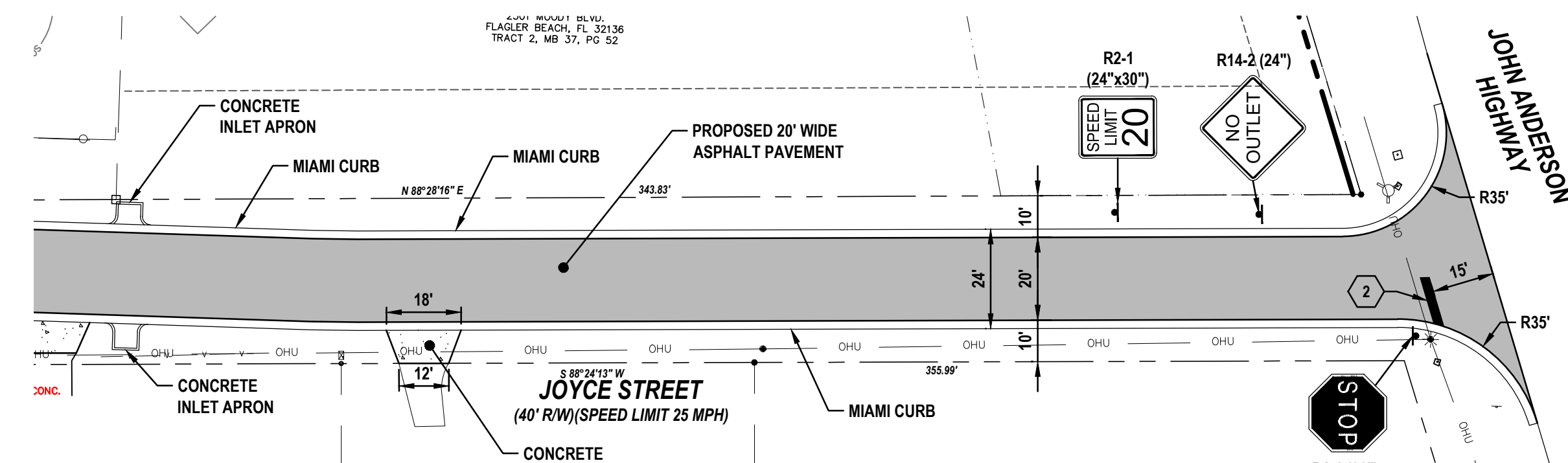
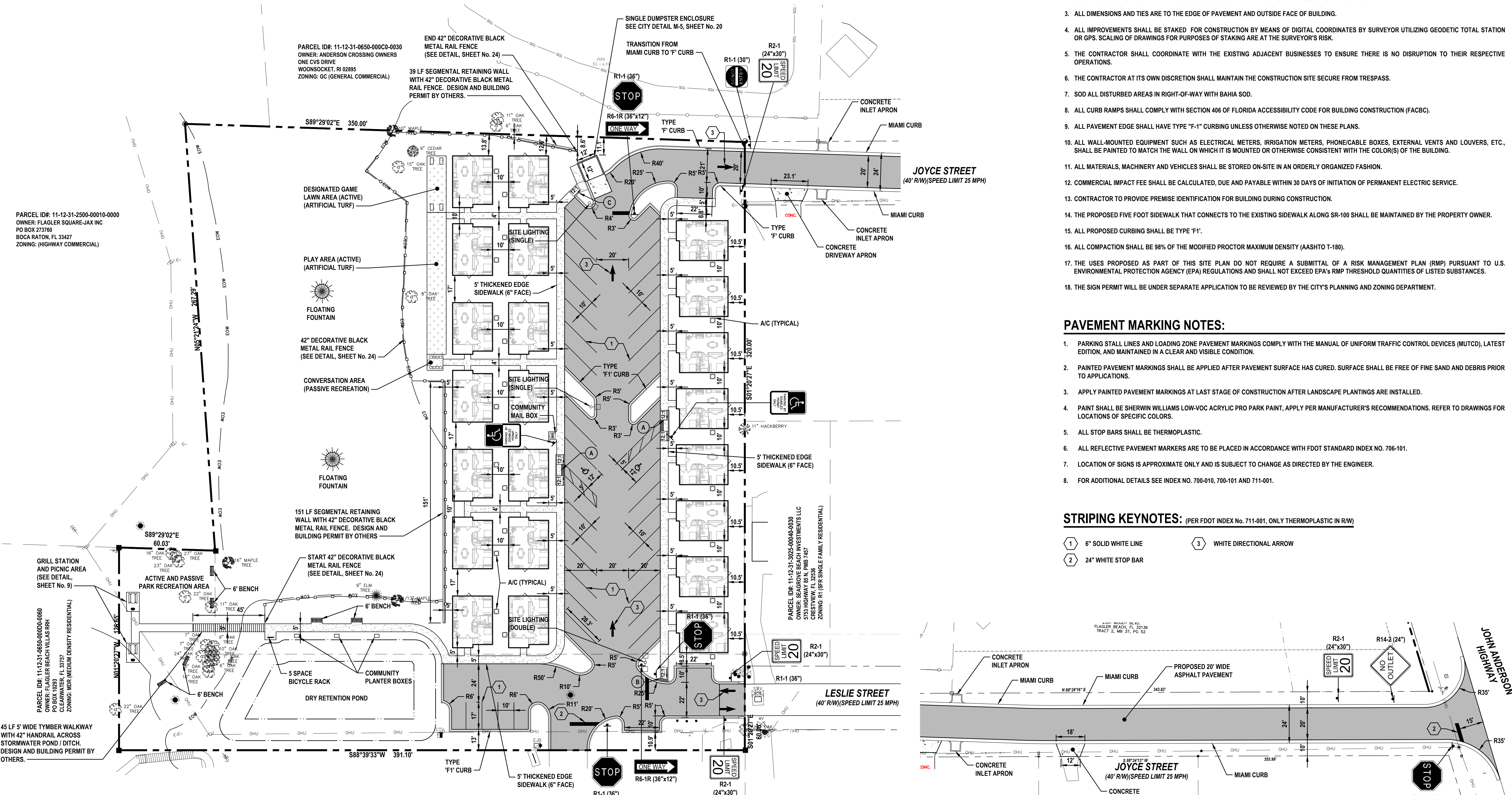
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DRAWN BY: NWS  
CHECKED BY: HHN  
SCALE: 1" = 30'  
DRAWING NUMBER

# 7



PARCEL ID#: 11-12-31-2500-00010-0000  
OWNER: FLAGLER SQUARE-JAX INC  
PO BOX 273760  
BOCA RATON, FL 33427  
ZONING: (HIGHWAY COMMERCIAL)

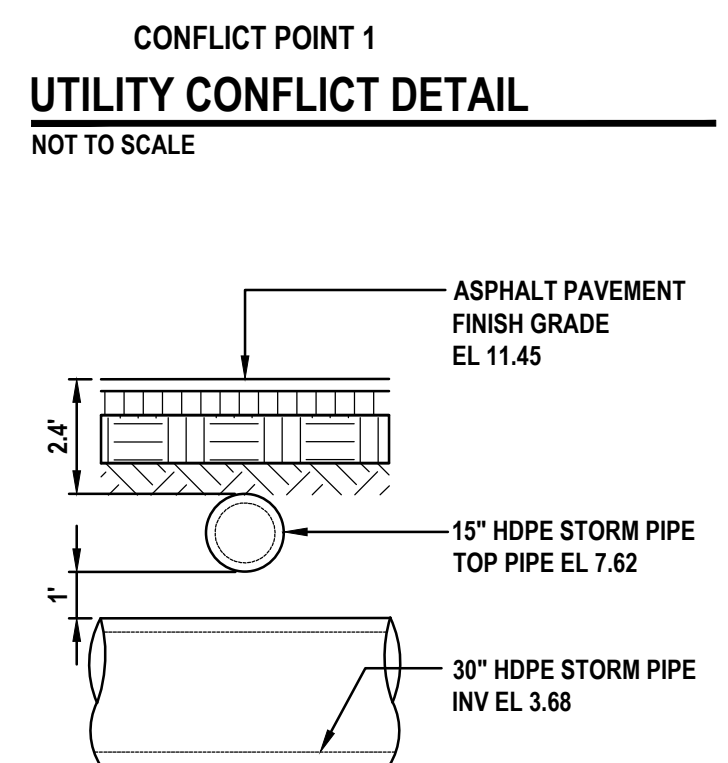
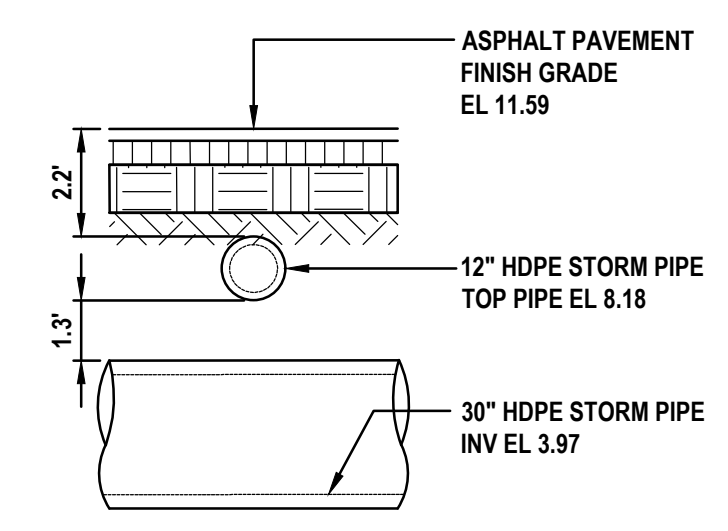
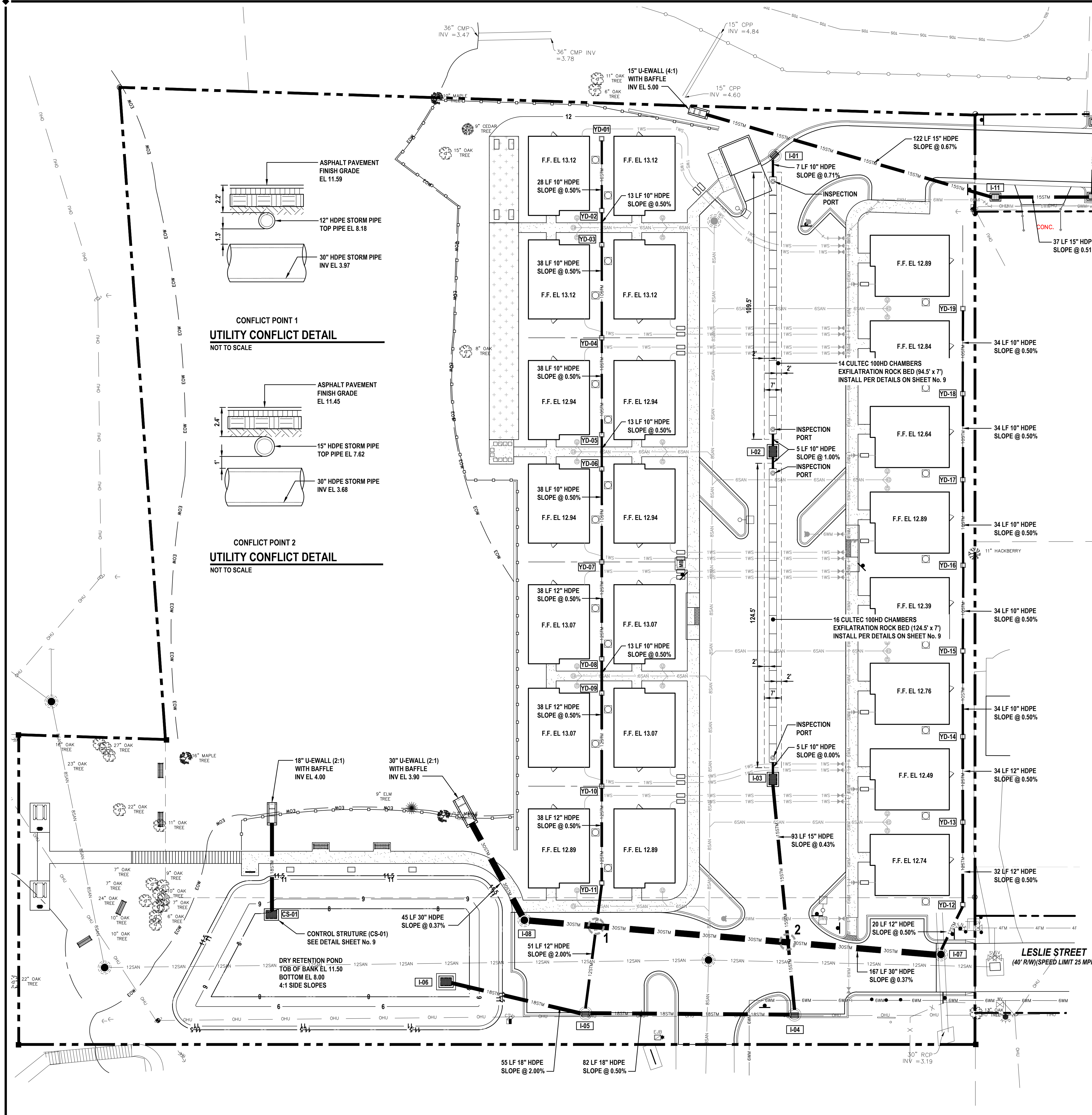
PARCEL ID#: 11-12-31-0650-000C0-0030  
OWNER: ANDERSON CROSSING OWNERS  
ONE CIVIC DRIVE  
WOONSOCKET, RI 02895  
ZONING: GC (GENERAL COMMERCIAL)

PARCEL ID#: 11-12-31-3025-00040-0030  
OWNER: SEAGROVE BEACH INVESTMENTS LLC  
5753 HIGHWAY 85 N, PMB 7457  
ZONING: R1 (SFR SINGLE FAMILY RESIDENTIAL)

PARCEL ID#: 11-12-31-0650-000D0-0080  
OWNER: FLAGLER BEACH VILLAS RRH  
PO BOX 10293  
CLEARWATER, FL 33757  
ZONING: MDR (MEDIUM DENSITY RESIDENTIAL)

PARCEL ID#: 11-12-31-0650-000D0-0060  
OWNER: FLAGLER BEACH VILLAS RRH  
PO BOX 10293  
CLEARWATER, FL 33757  
ZONING: MDR (MEDIUM DENSITY RESIDENTIAL)





**DRAINAGE STRUCTURE NOTES:**

- SEE SHEET No. 9 FOR STORM STRUCTURE SCHEDULE AND CONTROL STRUCTURE DETAIL.
- ROUND STRUCTURE BOTTOMS ARE FDOT ALTERNATE 'A'.
- SQUARE / RECTANGULAR STRUCTURE BOTTOMS ARE FDOT ALTERNATE 'B'.
- 4'-0" DIAMETER AND SMALLER AND 3'-6" SQUARE STANDARD STRUCTURE BOTTOMS ARE FOOT TYPE DESIGNATED 'P' LARGER STANDARD STRUCTURE BOTTOMS ARE DESIGNATED TYPE 'J'.
- ALL STRUCTURES SHALL HAVE A 12" SUMP.
- NO WEEP HOLES ALLOWED.
- CONTRACTOR SHALL WORK WITH STRUCTURE FABRICATOR TO DETERMINE ADEQUATE STRUCTURE BOTTOM SIZE FOR THE PROPOSED PIPE SIZES AND ANGLES.

**SUMMARY OF DRAINAGE:**

THE MINIMUM WATER QUALITY TREATMENT VOLUME REQUIRED IS THE GREATER OF 0.5-INCHES OF RUNOFF OVER THE DRAINAGE RETENTION AREA OR 1.25-INCHES OVER THE IMPERVIOUS SURFACE. STORMWATER TREATMENT IS PROVIDED BY DRY RETENTION. AN ADDITIONAL 0.5-INCH IS ADDED TO THE REQUIRED TREATMENT VOLUME FOR AN ONLINE SYSTEM. THE STORMWATER SYSTEM DISCHARGES TO AN OFW, THEREFORE AN ADDITIONAL 50% IS ADDED TO THE REQUIRED TREATMENT VOLUME. THE TREATMENT SYSTEM IS DESIGNED TO ENSURE THE POST DEVELOPMENT DISCHARGE RATE AND VOLUME DOES NOT EXCEED THE PRE-DEVELOPMENT RATE AND VOLUME FOR THE MEAN ANNUAL, 25 YEAR-24 HOUR, AND 100 YEAR-24 HOUR STORM EVENTS.

Design Storm	Rainfall (inches)	Discharge Rate (cfs)	Outflow Volume (ft <sup>3</sup> )	Peak Stage (ft)
Mean Annual, 24-Hour	PRE	4.5	16,223	10.39
	POST	0.17	4,909	
25 Year, 24-Hour	PRE	8.9	44,888	10.98
	POST	6.36	31,300	

**EXFILTRATION NOTES:**

- CULTEC CONTACTOR 100 HD STORM CHAMBERS TO BE INSTALLED PER CULTEC DETAILS AND MANUFACTURER SPECIFICATIONS (SEE DETAILS ON SHEET No. 10). CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR APPROVAL BY ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
- CONTRACTOR TO PROVIDE SHOP DRAWING OF CLASS 1 AND CLASS 2 NON-WOVEN FILTER FABRIC.
- SELECT BACKFILL SHALL CONSIST OF WELL-GRADED ROCK, OR ROCK AND COARSE SAND FILL. FILL HAVING A HIGH PROPORTION OF SAND AND/OR FINES WILL NOT BE ACCEPTED. BACKFILL SHALL BE COMPACTED BY MECHANICAL TAMPERS TO 98% MAX. DENSITY (AASHTO T-180). CALICAREOUS MATERIAL IS PROHIBITED.
- TRENCH MATERIAL SHALL CONSIST OF 1.5-INCH TO 3-INCH ANGULAR COARSE AGGREGATE MEETING F.D.O.T. SECTION 901 AND ASTM C-33 AND SHALL BE WASHED, AND FREE OF DELETERIOUS MATERIAL. CRUSHED RECYCLED CONCRETE IS ACCEPTABLE.
- STONE SHALL BE CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION 1.5-INCHES TO 3-INCHES WITH A 50% VOID RATIO. CONTRACTOR TO PROVIDE SHOP DRAWING TO ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
- AFTER AGGREGATE HAS BEEN PLACED TO DESIRED ELEVATION, WASH DOWN WITH CLEAR WATER TO ALLOW FOR INITIAL SETTLEMENT. IF SETTLEMENT OCCURS ADD ADDITIONAL AGGREGATE TO REQUIRED ELEVATION.
- AGGREGATE SHALL BE COMPACTED IN TWO LIFTS, THE FIRST PRIOR TO PLACING PIPE, AND THE SECOND AFTER THE TOP AGGREGATE IS PLACED WITH MECHANICAL TAMPERS. DO NOT COMPACT WITH VIBRATORY ROLLERS.
- TRENCH TO BE CONSTRUCTED AND ADHERED TO OSHA'S TRENCH SAFETY CODE. CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT CONTAMINATION OF THE TRENCH BY FOREIGN MATERIAL.
- INSPECTION PORT TO BE INSTALLED ON EACH CULTEC CONTACTOR 100 HD TERMINAL END CAP AND MIDDLE POINT ON LONG RUNS. (SEE INSPECTION PORT DETAIL SHEET No. 9).
- OPERATION, INSPECTION AND MAINTENANCE TO BE PERFORMED PER GUIDELINES PROVIDED ON SHEET No. 10.

**GENERAL DRAINAGE NOTES:**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO DRAINAGE SYSTEM AND SHALL RESTORE ANY DAMAGED STRUCTURES.
- ALL PIPE FROM THE BUILDING DRAINS SHALL BE PVC SDR 35 OR SMOOTH INTERIOR HDPE.
- ALL STORM PIPE SHALL BE CONSTRUCTED OF HDPE (SIC) PIPE WITH CERTIFIED WATERTIGHT JOINTS BY THE MANUFACTURER. ACCEPTABLE HDPE PIPE SHALL BE HANCOR SUR-LOK WT, ADS SERIES 35, ADS N-12 WITH WT JOINT OR EQUAL. ALTERNATE STORM PIPE MATERIAL IS RCP PER FDOT SPECIFICATIONS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL MATERIAL AND STRUCTURES TO THE ENGINEER (NEWKIRK ENGINEERING, INC.) FOR APPROVAL PRIOR TO THE PRECONSTRUCTION MEETING. WASH DOWN WITH CLEAR WATER TO PREVENT SOIL INTRUSION. THE FABRIC SHALL BE PERIODICALLY CLEANED OF SAND & DEBRIS FABRIC SHALL REMAIN IN PLACE UNTIL PAVING IS COMPLETE.
- ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING TREES, & ETC., WITHIN THE CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFFSITE.
- ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST PER FDOT SPECIFICATIONS.
- ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY PER FDOT STANDARD SPECIFICATIONS AND MANUFACTURER SPECIFICATIONS RESPECTIVELY.
- ALL DRAINAGE STRUCTURES AND PIPES SHALL BE CLEANED OF SAND AT THE LAST STAGE OF CONSTRUCTION PRIOR TO THE FINAL INSPECTION.
- ALL STORM INLET GRATES SHALL BE STEEL (TRAFFIC RATED).

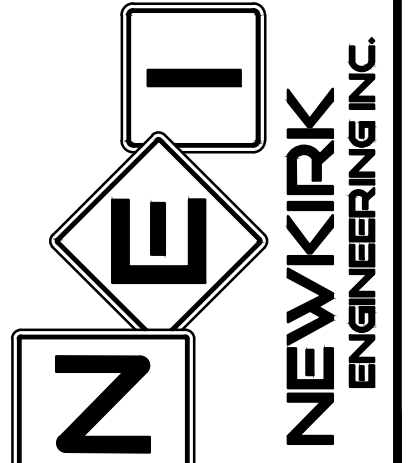
**HDPE PIPE MINIMUM SLOPE REQUIREMENTS**

PIPE SIZE (IN)	SELF-CLEANSING VELOCITY (FPS)	MANNINGS (N)	RADIUS (FT)	CROSS-SECTIONAL AREA (FT <sup>2</sup> )	WETTED PERIMETER (FT)	MINIMUM SLOPE (FT/FT)
12	3.0	0.012	0.5	0.78538	1.1415	0.0036
15	3.0	0.012	0.6	1.22715	3.9269	0.0027
18	3.0	0.012	0.8	1.76709	4.7123	0.0021
24	3.0	0.012	1.0	3.14150	6.2830	0.0015
30	3.0	0.012	1.3	4.90859	7.8538	0.0011

**REVISIONS**

DATE	DESCRIPTION

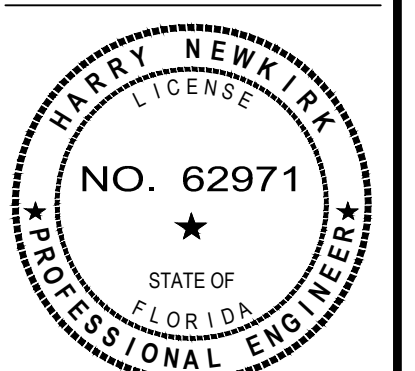
1230 North US1, Suite 3  
Ormond Beach, Florida 32174  
Phone (386) 872-7794  
www.NewKirk-Engineering.com  
C.A. # 30209  
L.C. # 2600584  
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**DRAINAGE PLAN**  
**LEGACY POINTE COTTAGES**  
LESLIE STREET  
FLAGLER BEACH, FL 32136

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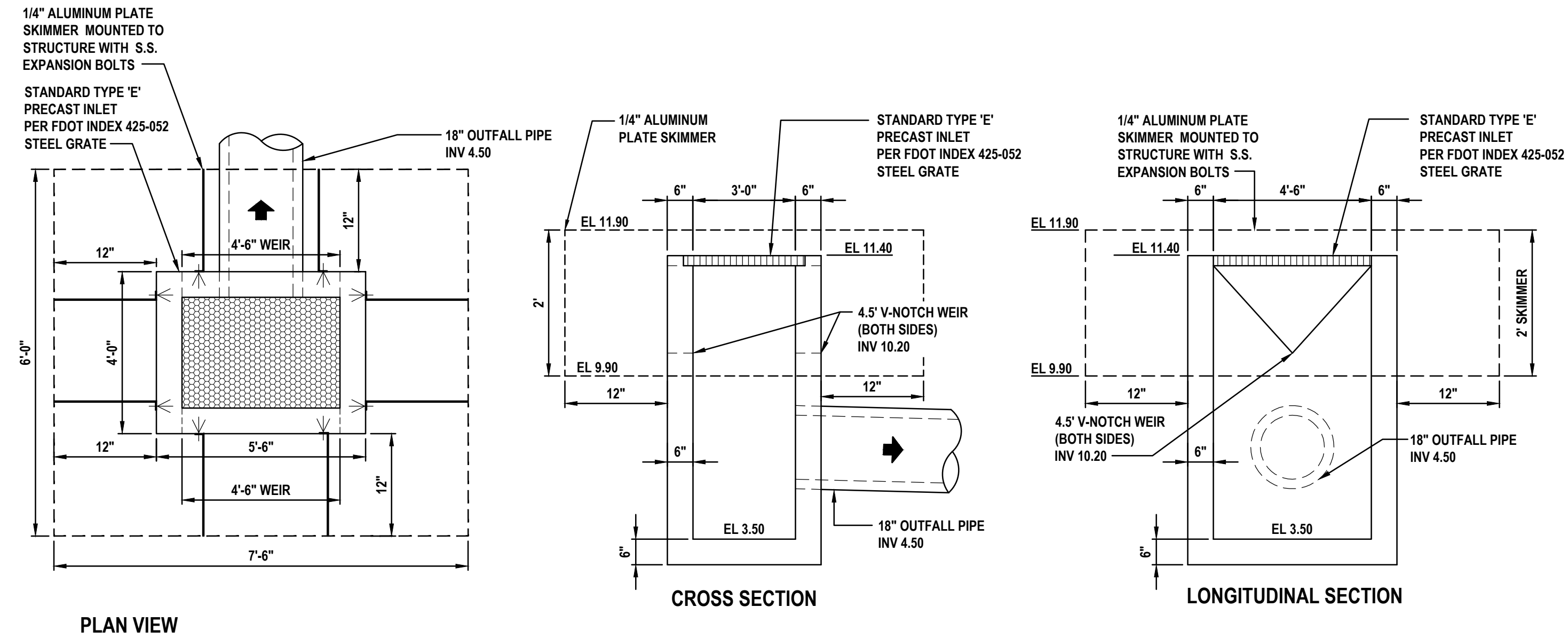
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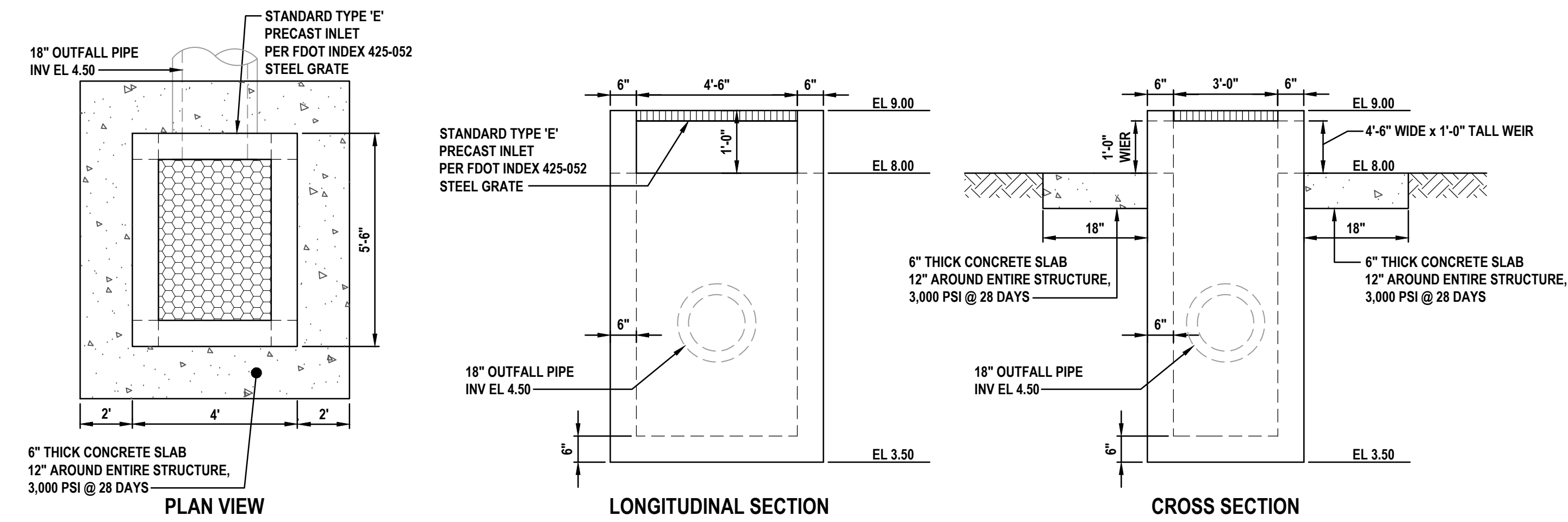
PROJECT No: 2023-17  
DATE: OCTOBER 2024  
DESIGN BY: HHN  
DRAWN BY: NWS  
CHECKED BY: HHN  
SCALE: 1" = 20'  
DRAWING NUMBER





**CONTROL STRUCTURE CS-01 DETAIL**

NOT TO SCALE



**TYPE 'E' BUBBLE-UP STRUCTURE DETAIL: INLET 06**

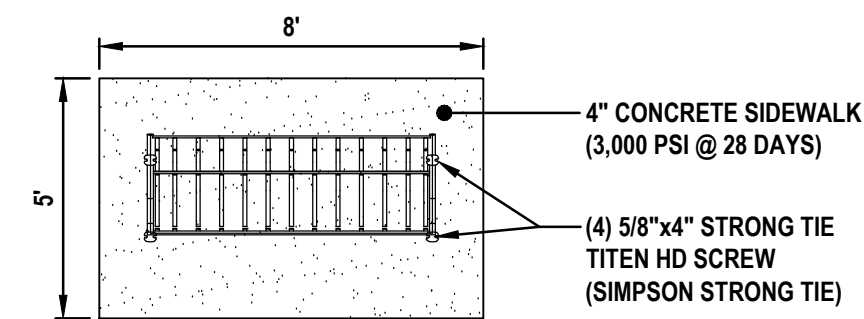
NOT TO SCALE



46" METAL ROUND OR SQUARE PICNIC TABLE BY ULINE. COLOR = BLACK



BELSON OUTDOORS (MODEL G620-3)  
ADJUSTABLE ROTATING METAL PEDESTAL GRILL (14"x20")  
POST: 3.5" DIAMETER x 40" HEIGHT  
MOUNT PER MANUFACTURER SPECIFICATIONS



**BENCH MOUNTING WITH CONCRETE PAD DETAIL**

NOT TO SCALE

**STORM STRUCTURE SCHEDULE**

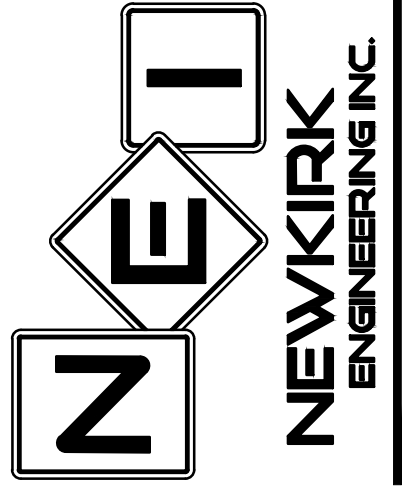
I.D.	SIZE	TYPE BOT	TYPE TOP	TOP ELEV	BOT ELEV	N INV	S INV	E INV	W INV
I-01	...	ALT-B	E	10.90	7.55	...	10"	8.55	...
I-02	...	ALT-B	E	10.90	7.55	10"	10"	8.55	...
I-03	...	ALT-B	E	10.90	6.90	10"	15"	7.90	...
I-04	...	ALT-A	9	EOP 10.90	6.50	15"	7.50	...	18"
I-05	...	ALT-A	9	EOP 10.90	4.60	12"	7.50	...	18"
I-06	...	ALT-B	E	9.00	3.50	...	...	18"	4.90
I-07	5' DIA.	ALT-B	M.H.	10.50	2.45	12"	30"	3.45	30"
I-08	5' DIA.	ALT-B	M.H.	11.65	3.07	4.07	...	30"	4.07
I-09	...	ALT-B	C	9.60	5.10	...	15"	6.10	...
I-10	...	ALT-B	C	9.60	5.01	6.01	...	...	15"
I-11	...	ALT-B	C	9.60	4.82	...	...	15"	5.82
CS-01	...	ALT-B	E	SEE DETAIL, THIS SHEET					

I.D.	SIZE	TOP ELEV	N INV	S INV	E INV	W INV
YD-01	12"	12.00	...	10"	10.00	...
YD-02	12"	12.00	10"	10"	9.86	9.86
YD-03	12"	12.00	10"	10"	9.80	9.80
YD-04	12"	12.00	10"	10"	9.61	9.61
YD-05	12"	12.00	10"	10"	9.42	9.42
YD-06	12"	12.00	10"	10"	9.35	9.35
YD-07	12"	12.00	10"	12"	9.16	9.16
YD-08	12"	12.00	12"	12"	8.97	8.97
YD-09	12"	12.00	12"	12"	8.90	8.90
YD-10	12"	12.00	12"	12"	8.71	8.71
YD-11	12"	12.00	12"	12"	8.52	8.52
YD-12	12"	10.00	12"	12"	6.57	6.57
YD-13	12"	10.00	12"	12"	6.73	6.73
YD-14	12"	10.50	10"	12"	6.90	6.90
YD-15	12"	10.50	10"	10"	7.07	7.07
YD-16	12"	10.00	10"	10"	7.24	7.24
YD-17	12"	10.00	10"	10"	7.41	7.41
YD-18	12"	10.00	10"	10"	7.58	7.58
YD-19	12"	10.00	...	10"	7.75	7.75

**REVISIONS**

DATE	DESCRIPTION

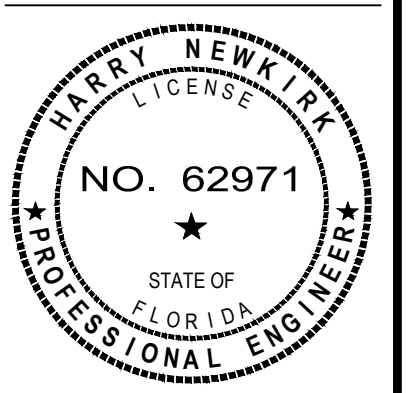
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**DRAINAGE DETAILS**  
**LEGACY POINTE COTTAGES**  
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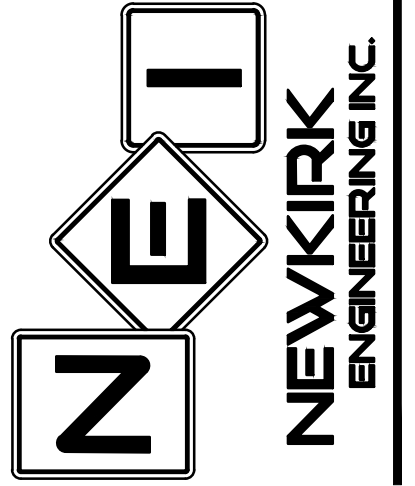
**9**



REVISIONS

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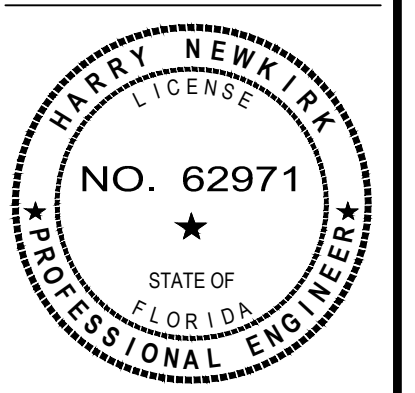
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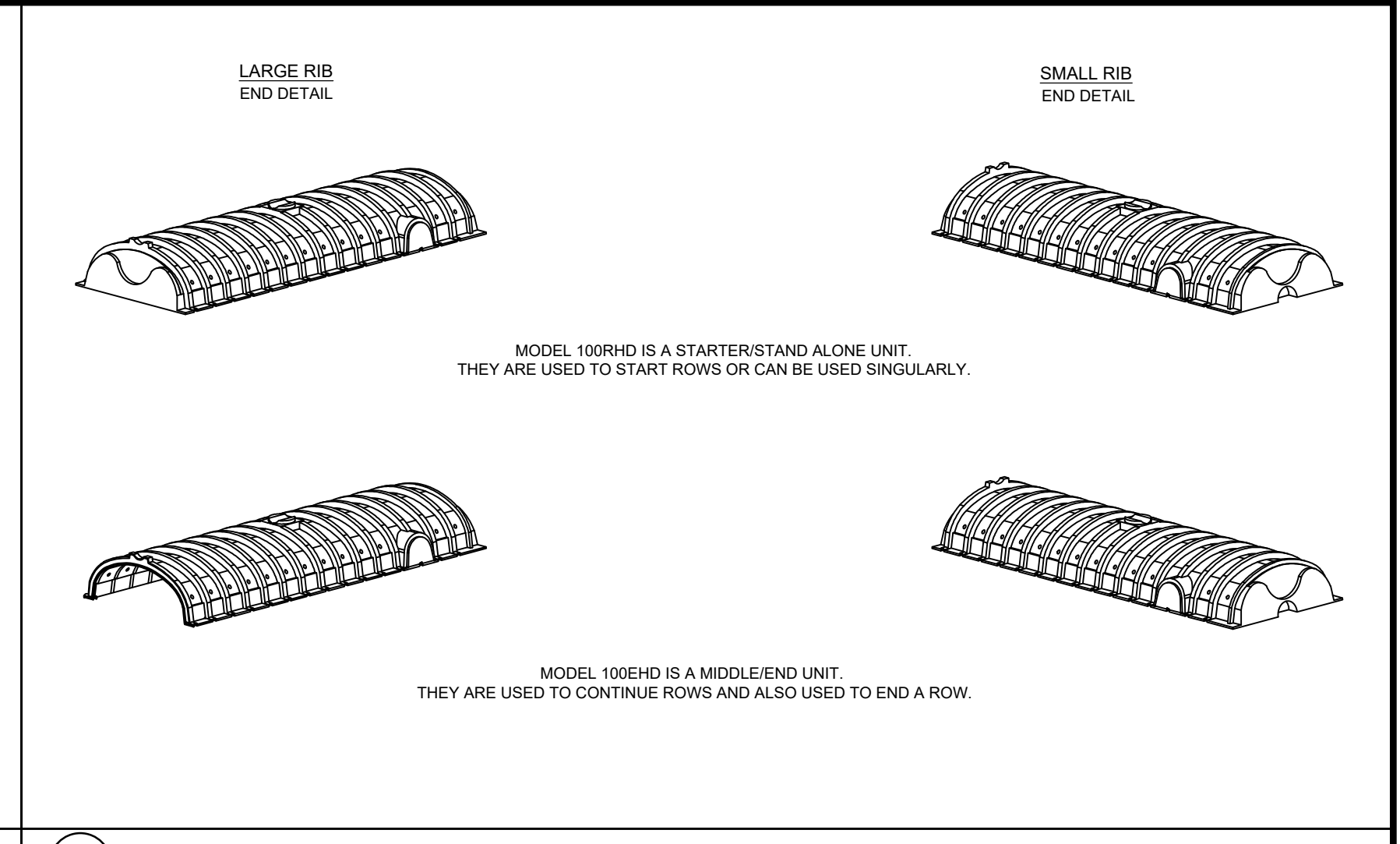
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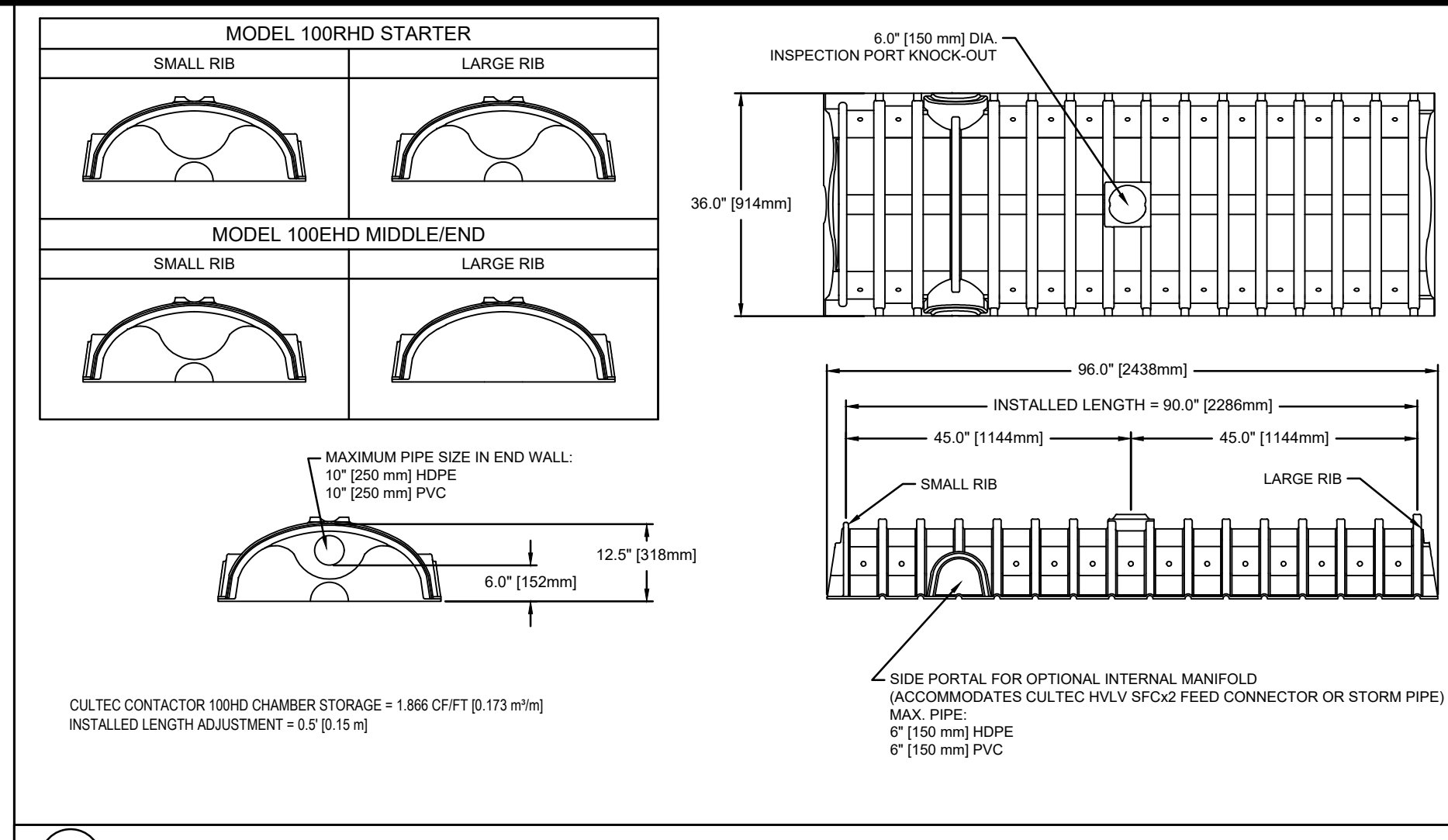


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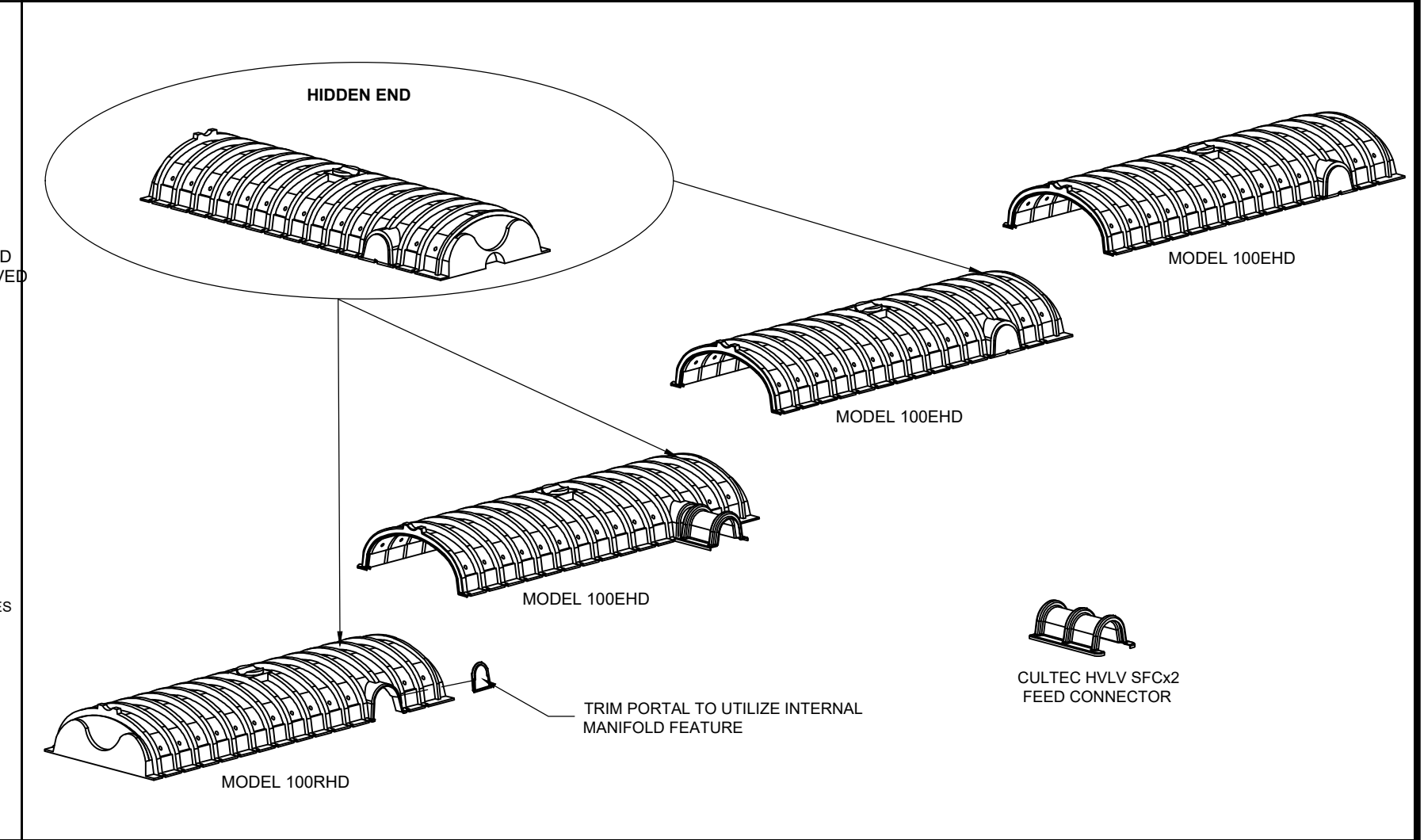
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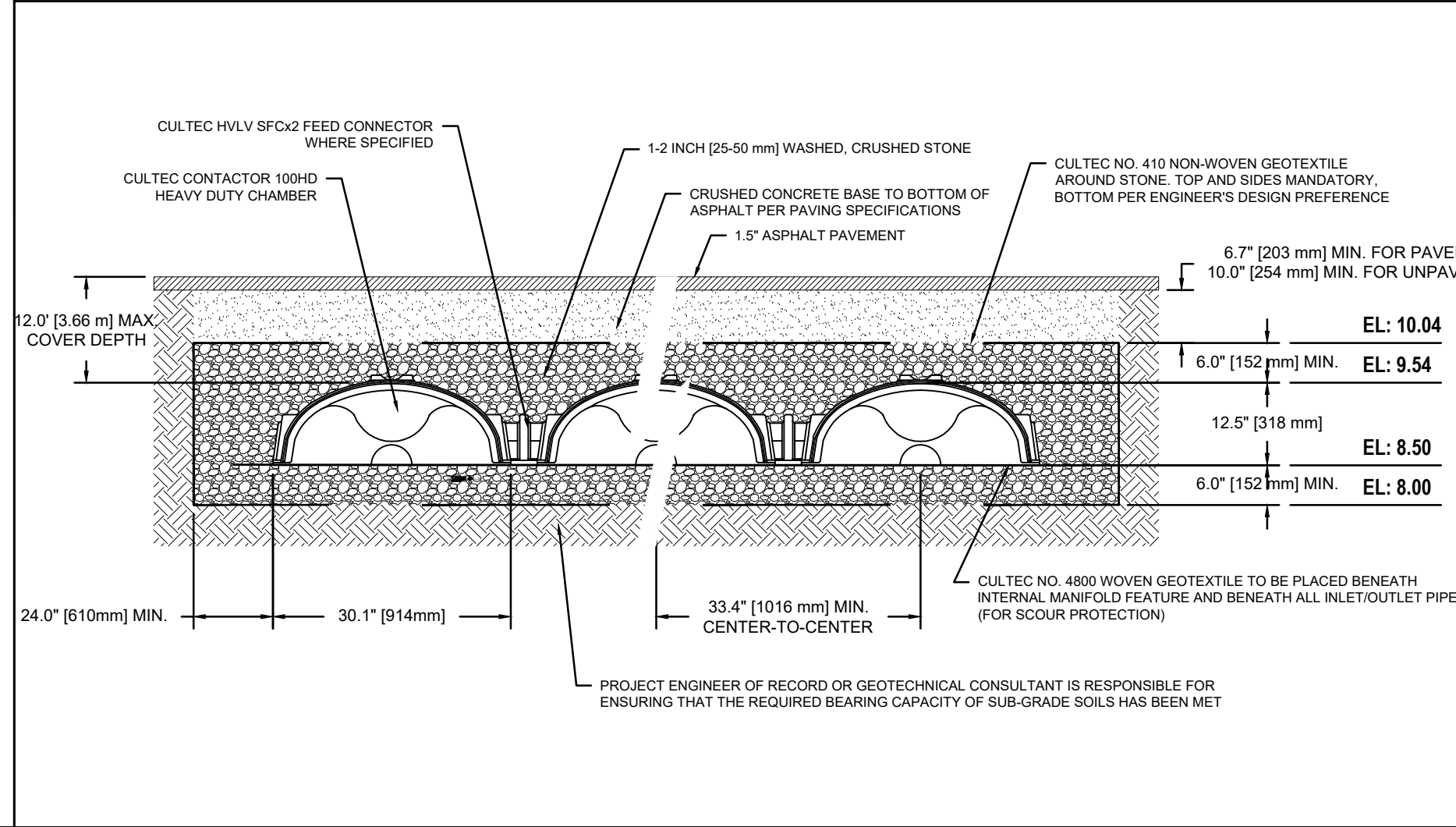
CULTEC CONTACTOR 100HD HEAVY DUTY END DETAIL INFORMATION



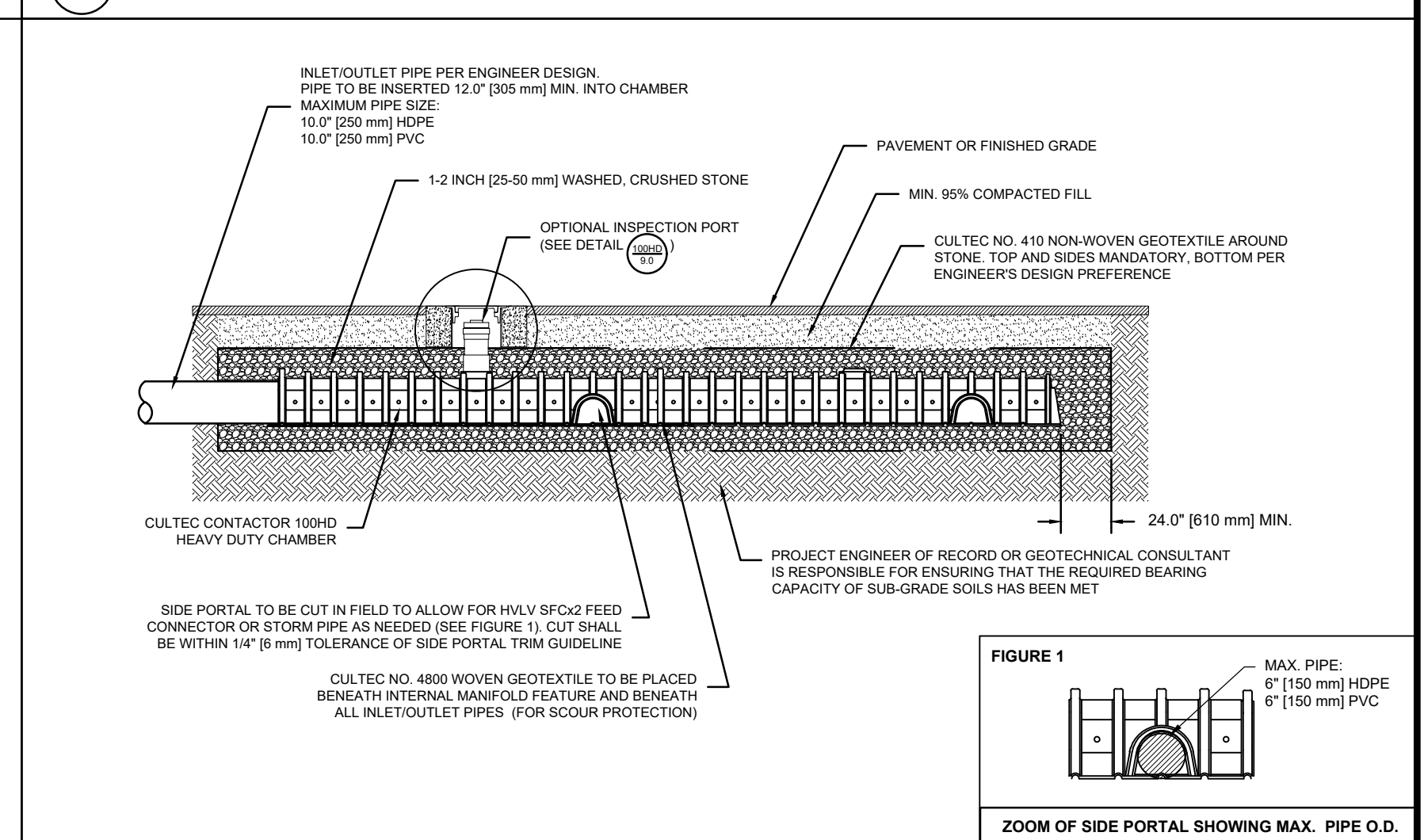
CULTEC CONTACTOR 100HD HEAVY DUTY THREE VIEW



CULTEC CONTACTOR 100HD HEAVY DUTY TYPICAL INTERLOCK



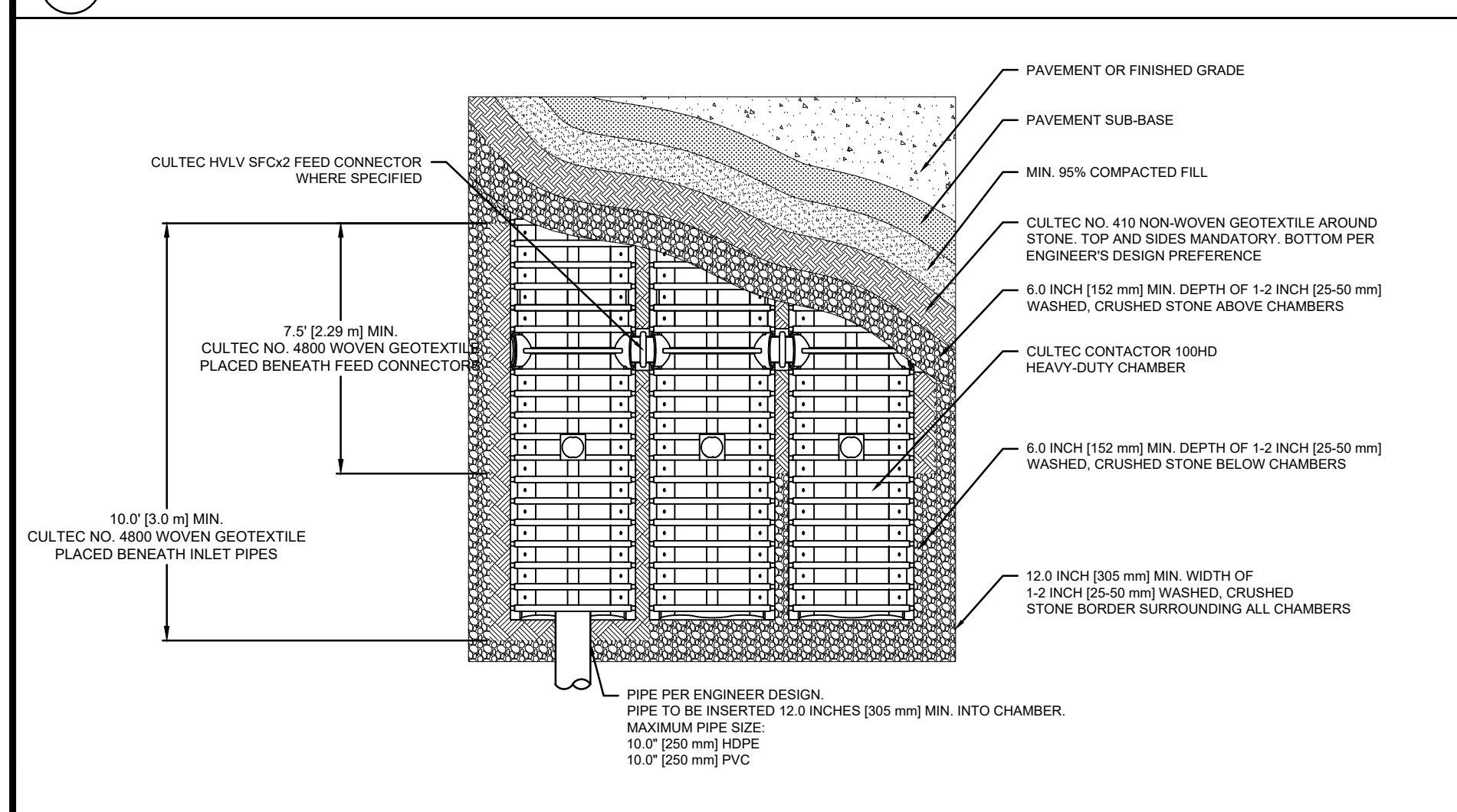
CULTEC CONTACTOR 100HD HEAVY DUTY SYSTEM CROSS SECTION



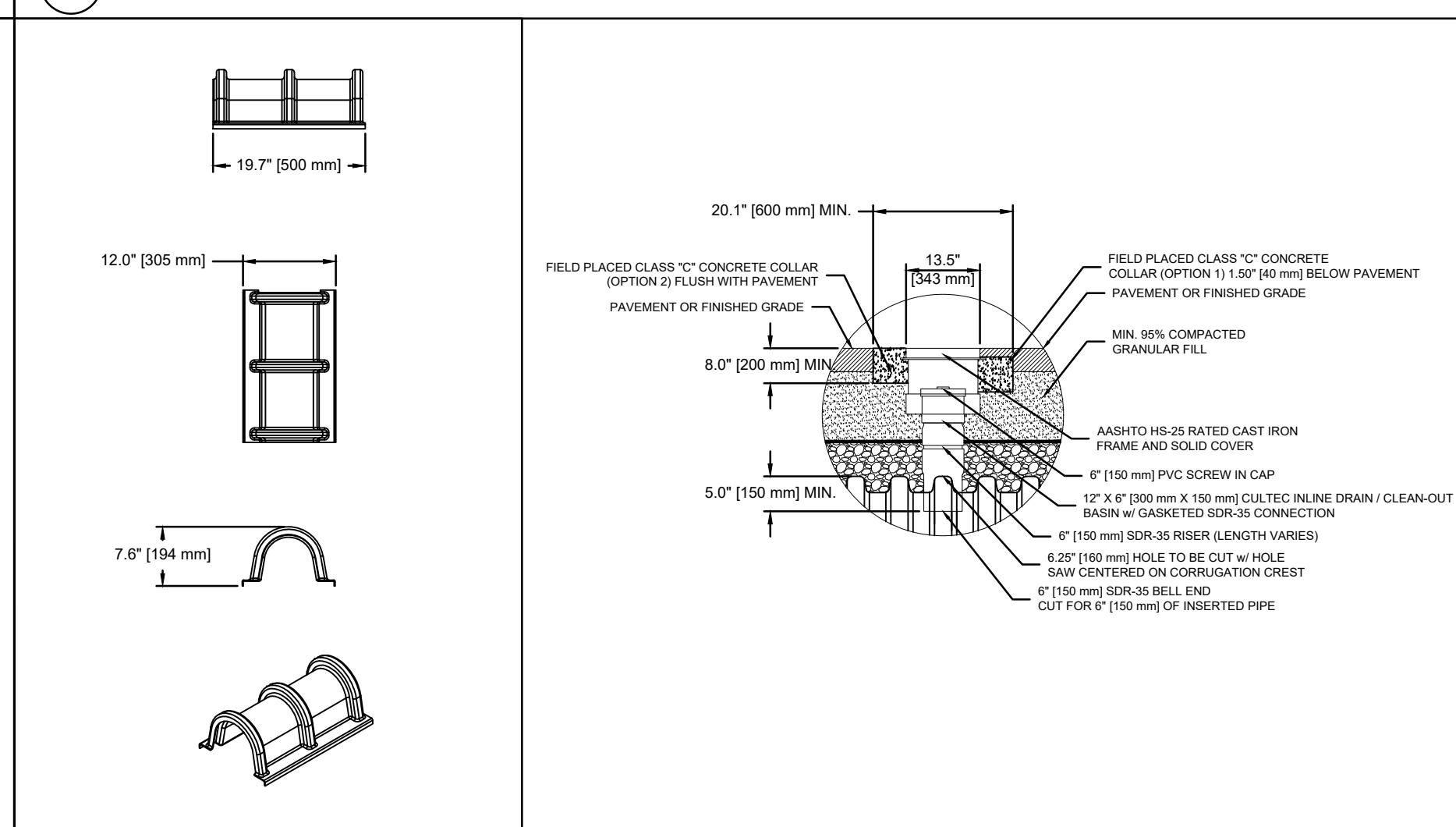
CULTEC MANIFOLD - OPTIONAL INSPECTION PORT DETAIL

CULTEC CONTACTOR 100HD CHAMBER PRODUCT SPECIFICATIONS
GENERAL
CULTEC CONTACTOR 100HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT...
CHAMBER PARAMETERS
1. THE CHAMBERS SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE EXTERIOR.
3. THE CHAMBER SHALL BE ARCHED IN SHAPE.
4. THE CHAMBER SHALL BE OPEN BOTTOMED.
5. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COURSEWORK OR SEPARATE END WALLS.
6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC CONTACTOR 100HD SHALL BE 12.5 INCHES (318 mm) TALL, 36 INCHES (914 mm) WIDE AND 8 FEET (2.44 m) LONG. THE INSTALLED LENGTH OF A JOINED CONTACTOR 100HD SHALL BE 7.5 FEET (2.29 m).
7. MAXIMUM INLET OPENING ON THE CHAMBER ENDWALL IS 10 INCHES (250 mm).
8. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV SFC2x2 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. THE NOMINAL INSIDE DIMENSIONS OF EACH SIDE PORTAL SHALL BE 5.75 INCHES (146 mm) HIGH BY 7.5 INCHES (191 mm) WIDE. MAXIMUM ALLOWABLE OUTER DIAMETER (O.D.) PIPE SIZE IN THE SIDE PORTAL IS 6.5 INCHES (165 mm).
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV SFC2x2 FEED CONNECTOR SHALL BE 7.5 INCHES (191 mm) TALL, 12 INCHES (305 mm) WIDE AND 19.7 INCHES (500 mm) LONG.
10. THE NOMINAL STORAGE VOLUME OF THE CONTACTOR 100HD CHAMBER SHALL BE 1.866 FT³ (0.173 m³) MIN. WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED CONTACTOR 100HD SHALL BE 13.955 FT³ (UNIT) (0.396 m³ UNIT) - WITHOUT STONE.
11. THE NOMINAL STORAGE VOLUME OF THE HVLV SFC2x2 FEED CONNECTOR SHALL BE 0.294 FT³ (0.027 m³) MIN. WITHOUT STONE.
12. THE CONTACTOR 100HD CHAMBER SHALL HAVE FORTY-FOUR DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNITS CORE TO PROMOTE LATERAL CONVEYANCE OF WATER.
13. THE CONTACTOR 100HD CHAMBER SHALL HAVE 16 CORRUGATIONS.
14. THE ENDWALL OF THE CHAMBER, WHEN PRESENT, SHALL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE END PLATES CANNOT BE USED WITH THIS UNIT.
15. THE CONTACTOR 100RH STARTER UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO FULLY FORMED INTEGRAL ENDWALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS.
16. THE CONTACTOR 100EH MIDDLE/END UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL ENDWALL AND ONE FULLY OPEN END WALL AND HAVING NO SEPARATE END PLATES OR END WALLS.
17. THE HVLV SFC2x2 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CONTACTOR 100HD AND ACT AS CROSS FEED CONNECTIONS.
18. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS.
19. THE CHAMBER SHALL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
20. HEAVY DUTY UNITS ARE DESIGNATED BY A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
21. THE CHAMBER SHALL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN-OUT.
22. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION.
23. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2015 CERTIFIED FACILITY.
24. THE CHAMBER SHALL BE DESIGNED AND MANUFACTURED TO MEET THE MATERIAL AND STRUCTURAL REQUIREMENTS OF ASTM PS 83-2019, INCLUDING RESISTANCE TO AASHTO H-19 AND H-20 HIGHWAY LIVE LOADS, WHEN INSTALLED IN ACCORDANCE WITH CULTEC'S INSTALLATION INSTRUCTIONS.
25. MAXIMUM ALLOWED COVER ON TOP OF UNIT SHALL BE 12.0 FEET (3.66 m).

GENERAL NOTES



CULTEC CONTACTOR 100HD HEAVY DUTY PLAN VIEW



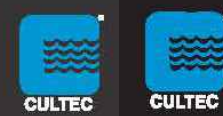
CULTEC HVLV SFC2x2 FEED CONNECTOR

CULTEC, Inc. Subsurface Stormwater Management Systems
P.O. Box 280, 878 Federal Road, Brookfield, CT 06804
PH: (203) 775-4416, PH: (800) 4-CULTEC, FX: (203) 775-1462, tech@cultec.com

THIS DRAWING WAS PREPARED TO SUPPORT THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. IT IS THE ULTIMATE RESPONSIBILITY OF THE PROJECT ENGINEER OF RECORD TO ENSURE THAT THE CULTEC SYSTEM'S DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IT IS THE PROJECT ENGINEER OF RECORD'S RESPONSIBILITY TO ENSURE THAT THE CULTEC PRODUCTS ARE DESIGNED IN ACCORDANCE WITH CULTEC'S MINIMUM REQUIREMENTS. CULTEC DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS.

CONTACTOR 100HD DETAIL SHEET TRAFFIC APPLICATION
CULTEC STORMWATER CHAMBER
PROJECT NO: DATE: 2019
DRAWN BY: CHECKED BY:
SCALE: N.T.S. SHEET NO:





This manual contains guidelines recommended by CULTEC, Inc. and may be used in conjunction with, but not to supersede, local regulations or regulatory authorities. OSHA Guidelines must be followed when inspecting or cleaning any structure.

**Introduction**

The CULTEC Subsurface Stormwater Management System is a high-density polyethylene (HDPE) chamber system arranged in parallel rows surrounded by washed stone. The CULTEC chambers create arch-shaped voids within the washed stone to provide stormwater detention, retention, infiltration, and reclamation. Filter fabric is placed between the native soil and stone interface to prevent the intrusion of fines into the system. In order to minimize the amount of sediment which may enter the CULTEC system, a sediment collection device (stormwater pretreatment device) is recommended upstream from the CULTEC chamber system. Examples of pretreatment devices include, but are not limited to, an appropriately sized catch basin with sump, pretreatment catchment device, oil grit separator, or baffled distribution box. Manufactured pretreatment devices may also be used in accordance with manufacturer's recommendations. Installation, operation, and maintenance of these devices shall be in accordance with manufacturer's recommendations. Almost all of the sediment entering the stormwater management system will be collected within the pretreatment device.

Best Management Practices allow for the maintenance of the preliminary collection systems prior to feeding the CULTEC chambers. The pretreatment structures shall be inspected for any debris that will restrict inlet flow rates. Outfall structures, if any, such as outlet control must also be inspected for any obstructions that would restrict outlet flow rates. OSHA Guidelines must be followed when inspecting or cleaning any structure.

**Operation and Maintenance Requirements**

**I. Operation**

CULTEC stormwater management systems shall be operated to receive only stormwater run-off in accordance with applicable local regulations. CULTEC subsurface stormwater management chambers operate at peak performance when installed in series with pretreatment. Pretreatment of suspended solids is superior to treatment of solids once they have been introduced into the system. The use of pretreatment is adequate as long as the structure is maintained and the site remains stable with finished impervious surfaces such as parking lots, walkways, and pervious areas are properly maintained. If there is to be an unstable condition, such as improvements to buildings or parking areas, all proper silt control measures shall be implemented according to local regulations.

**II. Inspection and Maintenance Options**

- A. The CULTEC system may be equipped with an inspection port located on the inlet row. The inspection port is a circular cast box placed in a rectangular concrete collar. When the lid is removed, a 6-inch (150 mm) pipe with a screw-in plug will be exposed. Remove the plug. This will provide access to the CULTEC Chamber row below. From the surface, through this access, the sediment may be measured at this location. A stadia rod may be used to measure the depth of sediment if any in this row. If the depth of sediment is in excess of 3 inches (76 mm), then this row should be cleaned with high pressure water through a culvert cleaning nozzle. This would be carried out through an upstream manhole or through the CULTEC StormFilter Unit (or other pretreatment device). CCTV inspection of this row can be deployed through this access port to determine if any sediment has accumulated in the inlet row.
- B. If the CULTEC bed is not equipped with an inspection port, then access to the inlet row will be through an upstream manhole or the CULTEC StormFilter.
  - 1. **Manhole Access**  
This inspection should only be carried out by persons trained in confined space entry and sewer inspection services. After the manhole cover has been removed a gas detector must be lowered into the manhole to ensure that there are not high concentrations of toxic gases present. The inspector should be lowered into the manhole with the proper safety equipment as per OSHA requirements. The inspector may be able to observe sediment from this location. If this is not possible, the inspector will need to deploy a CCTV robot to permit viewing of the sediment.

For more information, contact CULTEC at (203) 775-4416 or visit [www.cultec.com](http://www.cultec.com).

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- 2. **StormFilter Access**  
Remove the manhole cover to allow access to the unit. Typically a 30-inch (750 mm) pipe is used as a riser from the StormFilter to the surface. As in the case with manhole access, this access point requires a technician trained in confined space entry with proper gas detection equipment. This individual must be equipped with the proper safety equipment for entry into the StormFilter. The technician will be lowered onto the StormFilter unit. The hatch on the unit must be removed. Inside the unit are two filters which may be removed according to StormFilter maintenance guidelines. Once these filters are removed the inspector can enter the StormFilter unit to launch the CCTV camera robot.
- C. The inlet row of the CULTEC system is placed on a polyethylene liner to prevent scouring of the washed stone beneath this row. This also facilitates the flushing of this row with high pressure water through a culvert cleaning nozzle. The nozzle is deployed through a manhole or the StormFilter and extended to the end of the row. The water is turned on and the inlet row is back-flushed into the manhole or StormFilter. This water is to be removed from the manhole or StormFilter using a vacuum truck.

**III. Maintenance Guidelines**

The following guidelines shall be adhered to for the operation and maintenance of the CULTEC stormwater management system:

- A. The owner shall keep a maintenance log which shall include details of any events which would have an effect on the system's operational capacity.
- B. The operation and maintenance procedure shall be reviewed periodically and changed to meet site conditions.
- C. Maintenance of the stormwater management system shall be performed by qualified workers and shall follow applicable occupational health and safety requirements.
- D. Debris removed from the stormwater management system shall be disposed of in accordance with applicable laws and regulations.

**IV. Suggested Maintenance Schedules**

- A. **Minor Maintenance**  
The following suggested schedule shall be followed for routine maintenance during the regular operation of the stormwater system:

Frequency	Action
Monthly in first year	Check inlets and outlets for clogging and remove any debris, as required.
Spring and Fall	Check inlets and outlets for clogging and remove any debris, as required.
One year after commissioning and every third year following	Check inlets and outlets for clogging and remove any debris, as required.

- B. **Major Maintenance**  
The following suggested maintenance schedule shall be followed to maintain the performance of the CULTEC stormwater management chambers. Additional work may be necessary due to insufficient performance and other issues that might be found during the inspection of the stormwater management chambers. (See table on next page)

For more information, contact CULTEC at (203) 775-4416 or visit [www.cultec.com](http://www.cultec.com).

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	Frequency	Action
Inlets and Outlets	Every 3 years	<ul style="list-style-type: none"> <li>• Obtain documentation that the inlets, outlets and vents have been cleaned and will function as intended.</li> </ul>
	Spring and Fall	<ul style="list-style-type: none"> <li>• Check inlet and outlets for clogging and remove any debris as required.</li> </ul>
CULTEC Stormwater Chambers	2 years after commissioning	<ul style="list-style-type: none"> <li>• Inspect the interior of the stormwater management chambers through inspection port for deficiencies using CCTV or comparable technique.</li> <li>• Obtain documentation that the stormwater management chambers and feed connectors will function as anticipated.</li> </ul>
	9 years after commissioning every 9 years following	<ul style="list-style-type: none"> <li>• Clean stormwater management chambers and feed connectors of any debris.</li> <li>• Inspect the interior of the stormwater management structures for deficiencies using CCTV or comparable technique.</li> <li>• Obtain documentation that the stormwater management chambers and feed connectors have been cleaned and will function as intended.</li> </ul>
	45 years after commissioning	<ul style="list-style-type: none"> <li>• Clean stormwater management chambers and feed connectors of any debris.</li> <li>• Determine the remaining life expectancy of the stormwater management chambers and recommended schedule and actions to rehabilitate the stormwater management chambers as required.</li> <li>• Inspect the interior of the stormwater management chambers for deficiencies using CCTV or comparable technique.</li> <li>• Replace or restore the stormwater management chambers in accordance with the schedule determined at the 45-year inspection.</li> <li>• Attain the appropriate approvals as required.</li> <li>• Establish a new operation and maintenance schedule.</li> </ul>
Surrounding Site	Monthly in 1 <sup>st</sup> year	<ul style="list-style-type: none"> <li>• Check for depressions in areas over and surrounding the stormwater management system.</li> </ul>
	Spring and Fall	<ul style="list-style-type: none"> <li>• Check for depressions in areas over and surrounding the stormwater management system.</li> </ul>
	Yearly	<ul style="list-style-type: none"> <li>• Confirm that no unauthorized modifications have been performed to the site.</li> </ul>

For additional information concerning the maintenance of CULTEC Subsurface Stormwater Management Chambers, please contact CULTEC, Inc. at 1-800-428-5832.

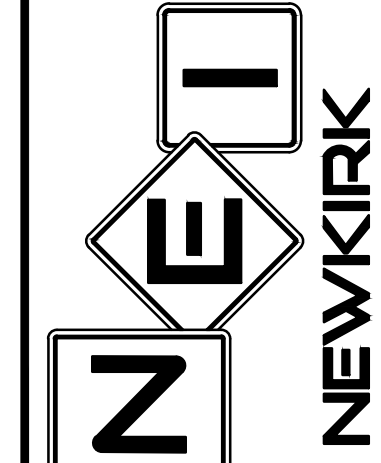
For more information, contact CULTEC at (203) 775-4416 or visit [www.cultec.com](http://www.cultec.com).

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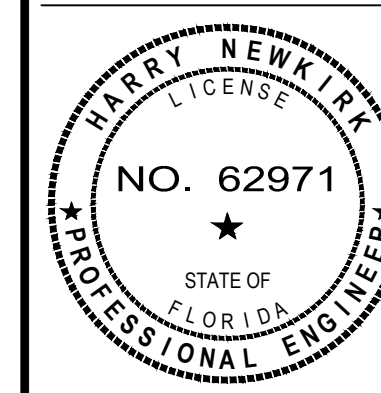
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CULTEC OPERATION AND MAINTENANCE  
LEGACY POINTE COTTAGES  
LESLIE STREET  
FLAGLER BEACH, FL 32136

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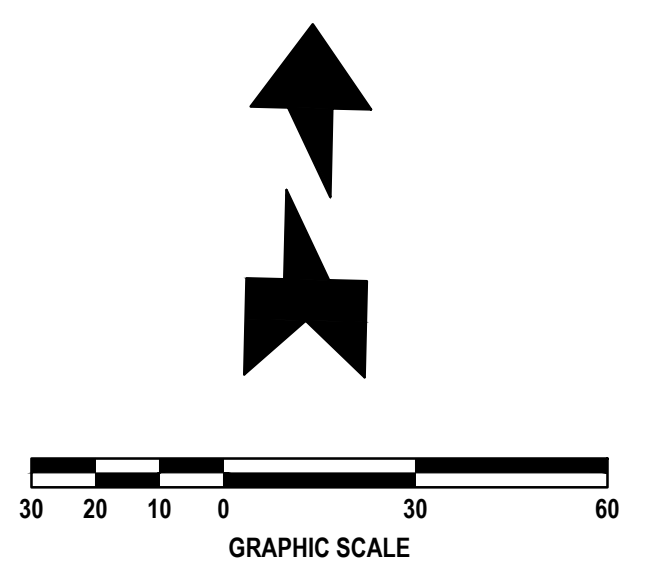
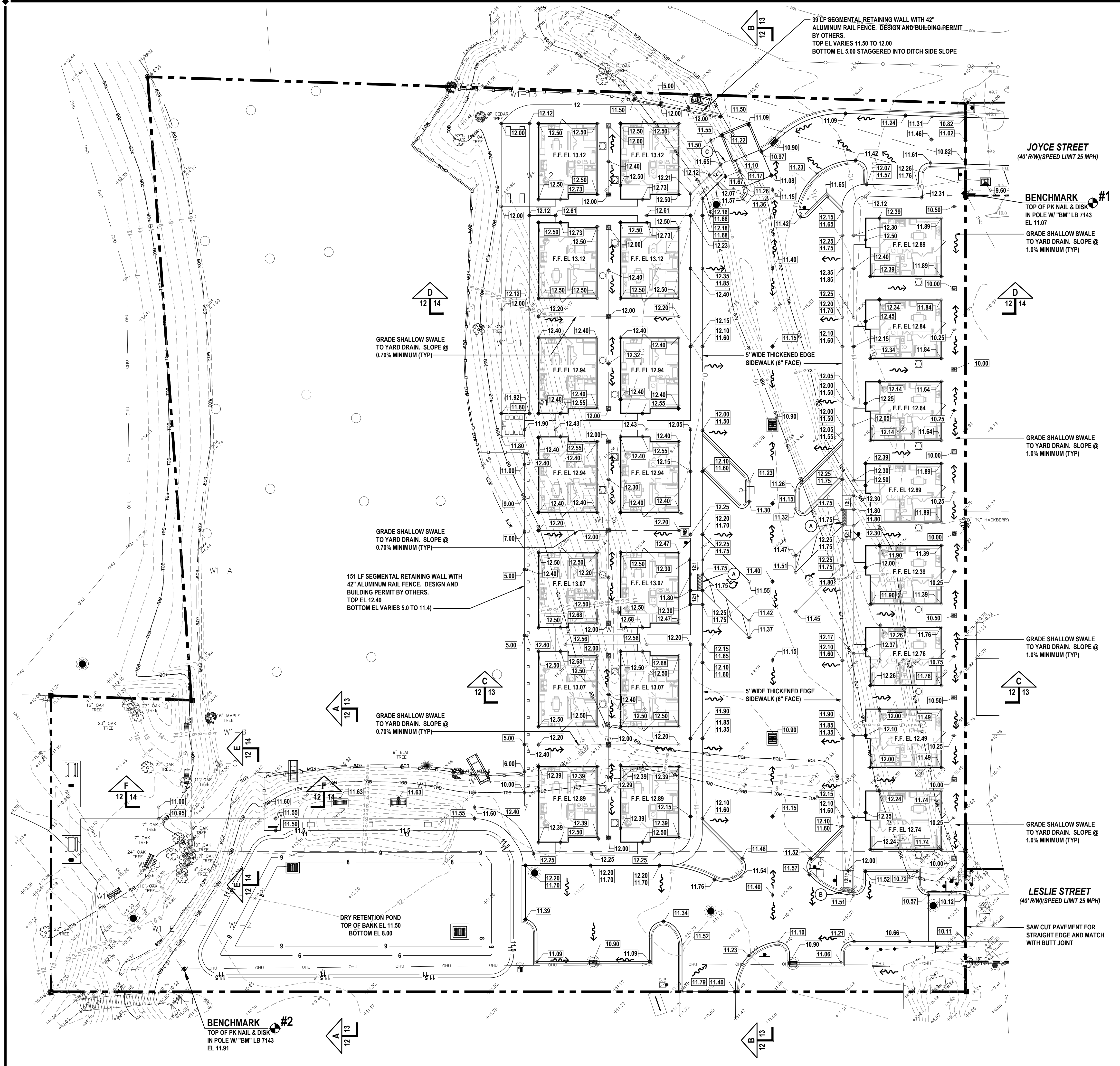
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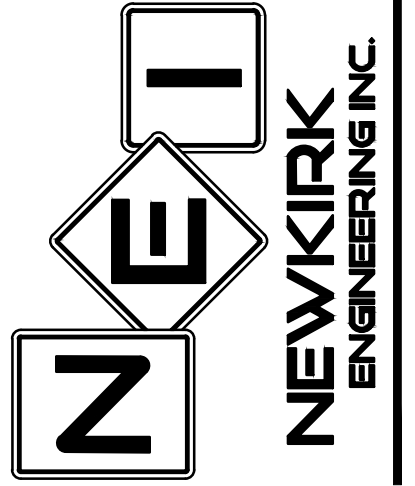




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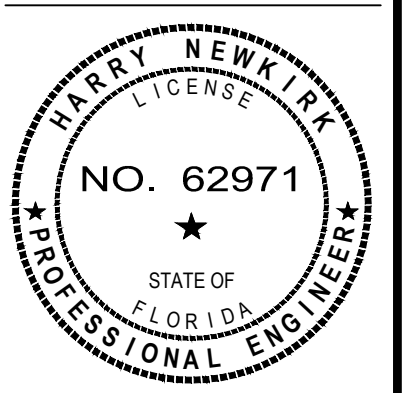
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**GRADING PLAN**  
**LEGACY POINTE COTTAGES**  
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**GENERAL EARTHWORK NOTES:**

- REMOVE ALL ORGANIC OR UNSUITABLE MATERIALS. IF ANY MUCK OR MUCK-LIKE MATERIAL IS DISCOVERED, IT WILL BE REQUIRED TO BE REMOVED, BACKFILLED WITH APPROPRIATE FILL, COMPACTED, AND TESTED USING AASHTO T-100 MODIFIED PROCTOR METHOD.
- ALL FILLING IS TO BE PERFORMED IN ONE-FOOT LIFTS. THE COMPACTION REQUIREMENT IS 98% FOR PAVED AREAS AND 95% FOR UNPAVED AREAS PER AASHTO T-100 MODIFIED PROCTOR TEST.
- TEMPORARY FILL STOCKPILING IS NOT PERMITTED IN LIFTS GREATER THAN SIX FEET.
- SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION AND THE IMPACT TO NEIGHBORING COMMUNITIES.
- ONCE AN AREA IS SEEDED OR SODDED, IT MUST BE MAINTAINED TO ALLOW THE GRASS TO GROW.
- ALL NON-PAVED AREAS MUST BE PLANTED, GRASSED, OR MULCHED.

**GENERAL GRADING NOTES:**

- CROSS SLOPES OF ACCESSIBLE PARKING SPACES AND ACCESS AISLE SHALL NOT EXCEED 1/48 IN ACCORDANCE WITH SECTION 502.4 OF FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION (FACBC).
- THE MAXIMUM ELEVATION CHANGE AT THE ENTRANCE DOOR MAY NOT EXCEED 1/2 INCH.
- ALL SIDEWALK LANDINGS SHALL HAVE SLOPES NO GREATER THAN 1/4 INCH / 1 FOOT IN MANEUVERING SPACES AT ALL DOORWAYS.
- ALL SIDEWALKS SHALL HAVE A 1.0% CROSS SLOPE (2.0% MAXIMUM) AND 5.0% MAXIMUM LONGITUDINAL SLOPE.
- ALL CURB RAMPS SHALL COMPLY WITH SECTION 406 OF FACBC. LANDINGS OF 36 INCHES AT HEAD OF CURB RAMPS SHALL COMPLY WITH FACBC SECTION 406.4.
- ALL IMPROVEMENTS SHALL BE STAKED FOR CONSTRUCTION BY MEANS OF DIGITAL COORDINATES BY SURVEY OR UTILIZING GEODETIC TOTAL STATION. SCALING OF DRAWINGS FOR PURPOSES OF STAKING ARE AT THE SURVEYOR.

**BENCHMARK INFORMATION:**

- #1** TOP OF PK NAIL & DISK IN POLE W/ "BM" LB 7143 ELEVATION = 11.07
- #2** TOP OF PK NAIL & DISK IN POLE W/ "BM" LB 7143 ELEVATION = 11.91
- #3** 5/8" IRC (NO ID) ELEVATION = 18.71

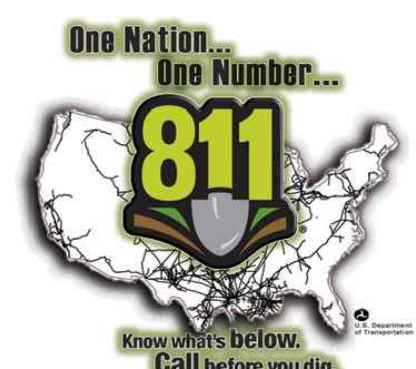
VERTICAL DATA ELEVATIONS REFER TO (NAVD) NORTH AMERICAN VERTICAL DATUM 1988. FEET AND DECIMAL PART THEREOF. BENCHMARK REFERENCE NAVD DATUM OF 1988.

**GRADING LEGEND:**

- - - - - EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- DRAINAGE FLOW ARROW
- x 20.5 EXISTING SPOT ELEVATION
- x.XXX PROPOSED SPOT ELEVATION
- M.E.G. MATCH EXISTING GRADE

**SIDEWALK RAMP KEYNOTES:**

- (A) SIDEWALK CURB RAMP C (SEE DETAIL, SHEET No. 25)
- (B) SIDEWALK CURB RAMP E (SEE DETAIL, SHEET No. 25)
- (C) SIDEWALK CURB RAMP G (SEE DETAIL, SHEET No. 25)

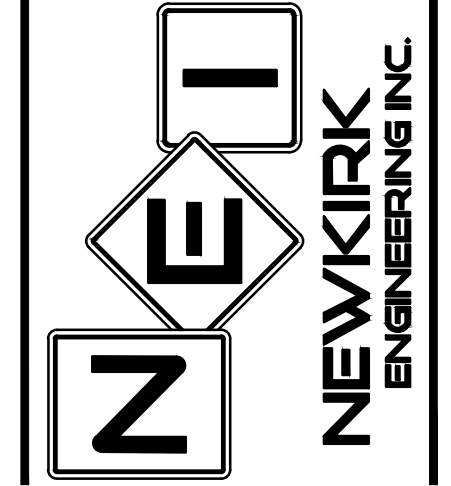


**WARNING !!**  
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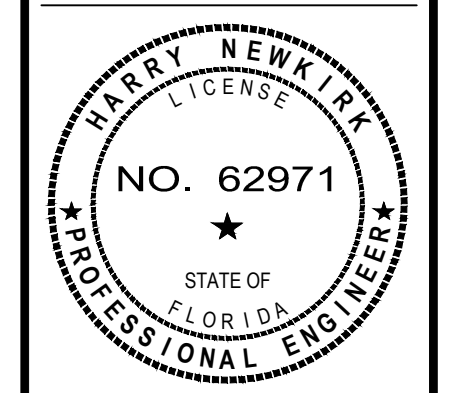
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CROSS SECTIONS  
LEGACY POINTE COTTAGES  
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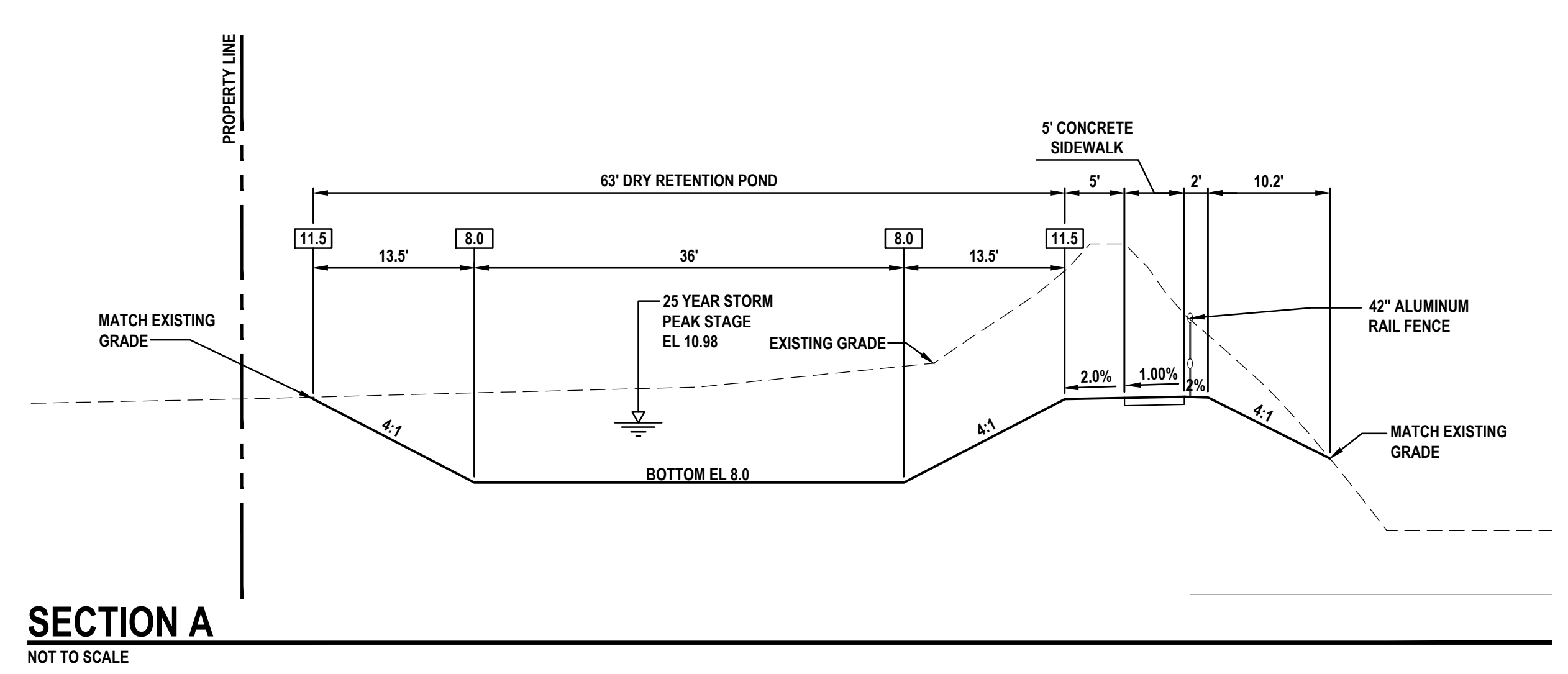
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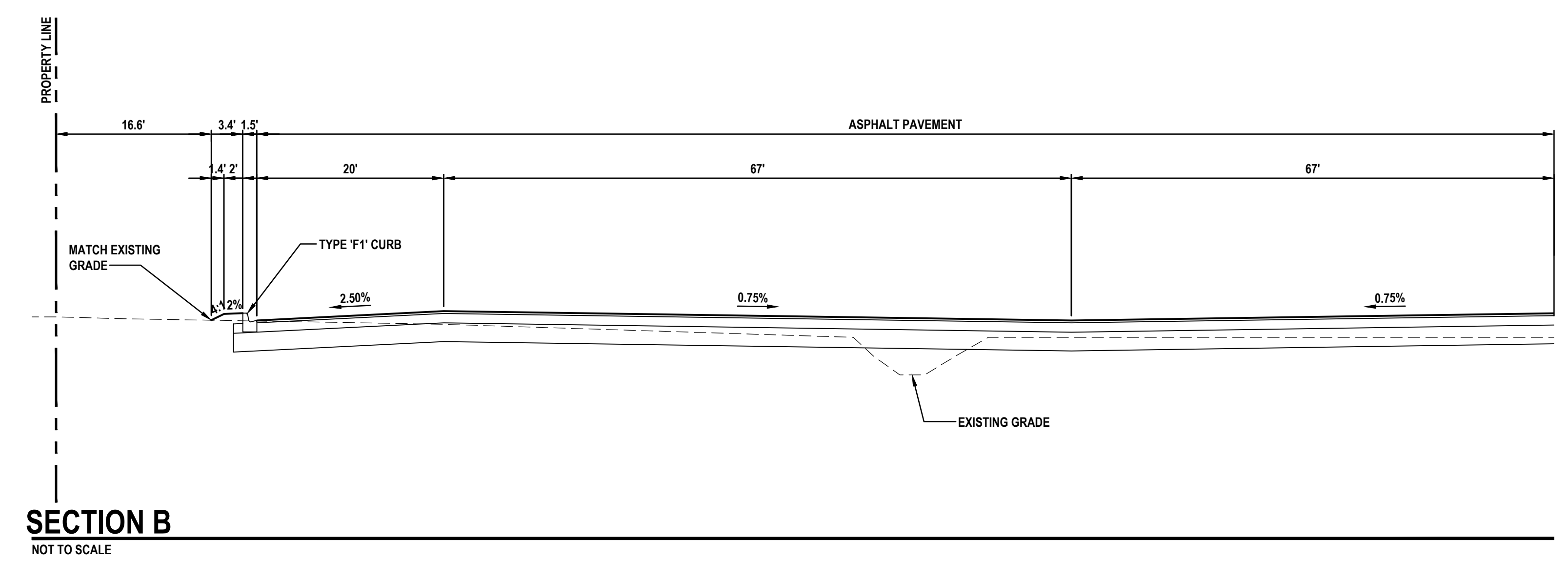
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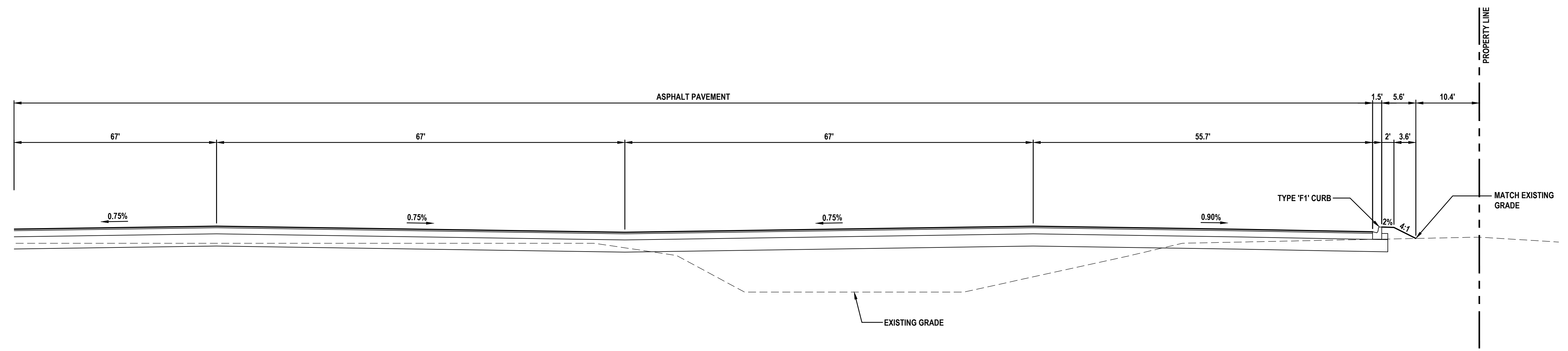
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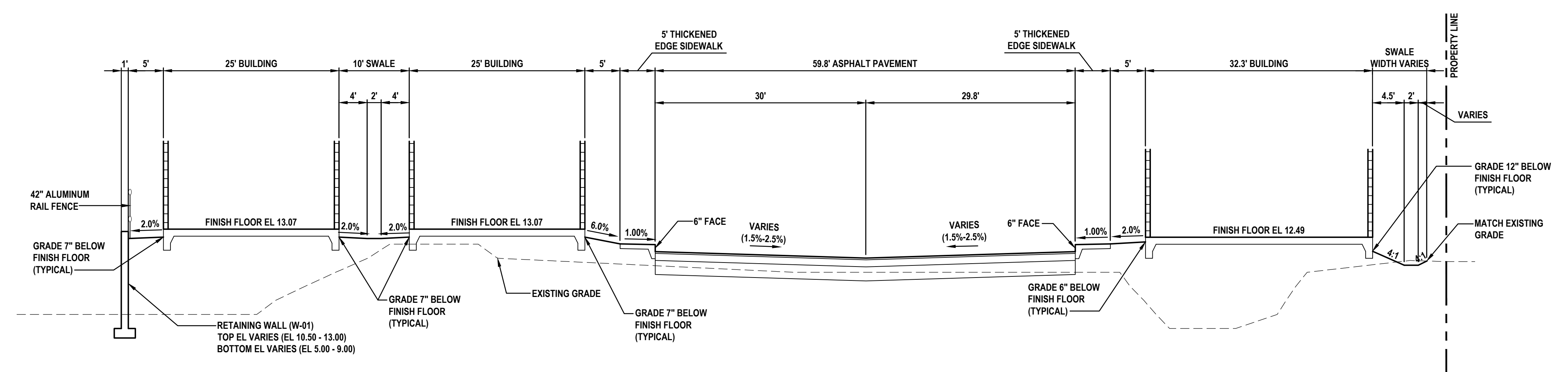
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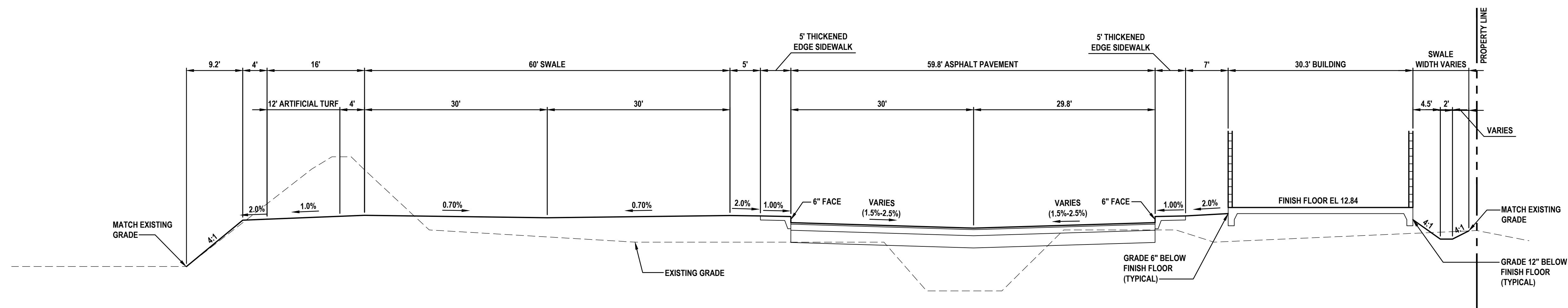


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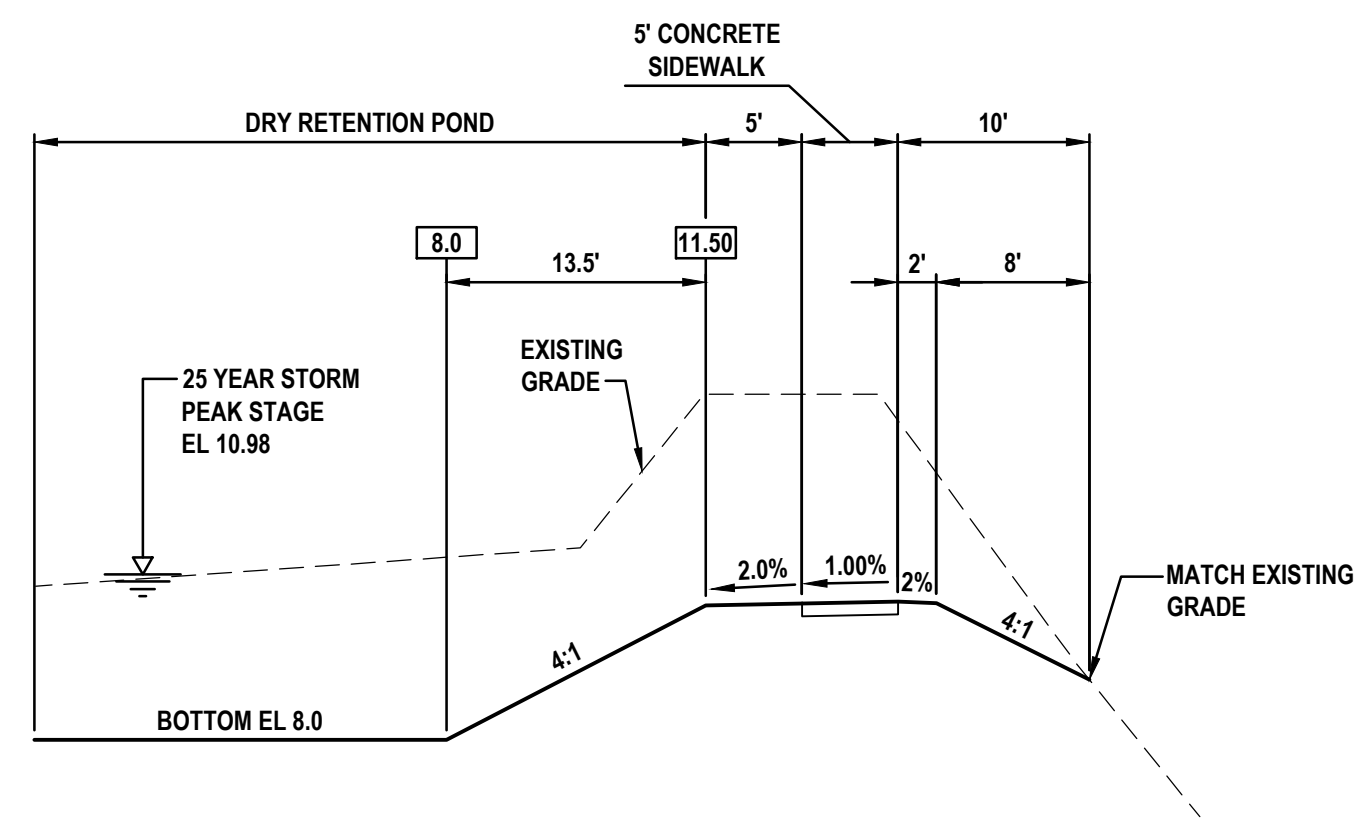


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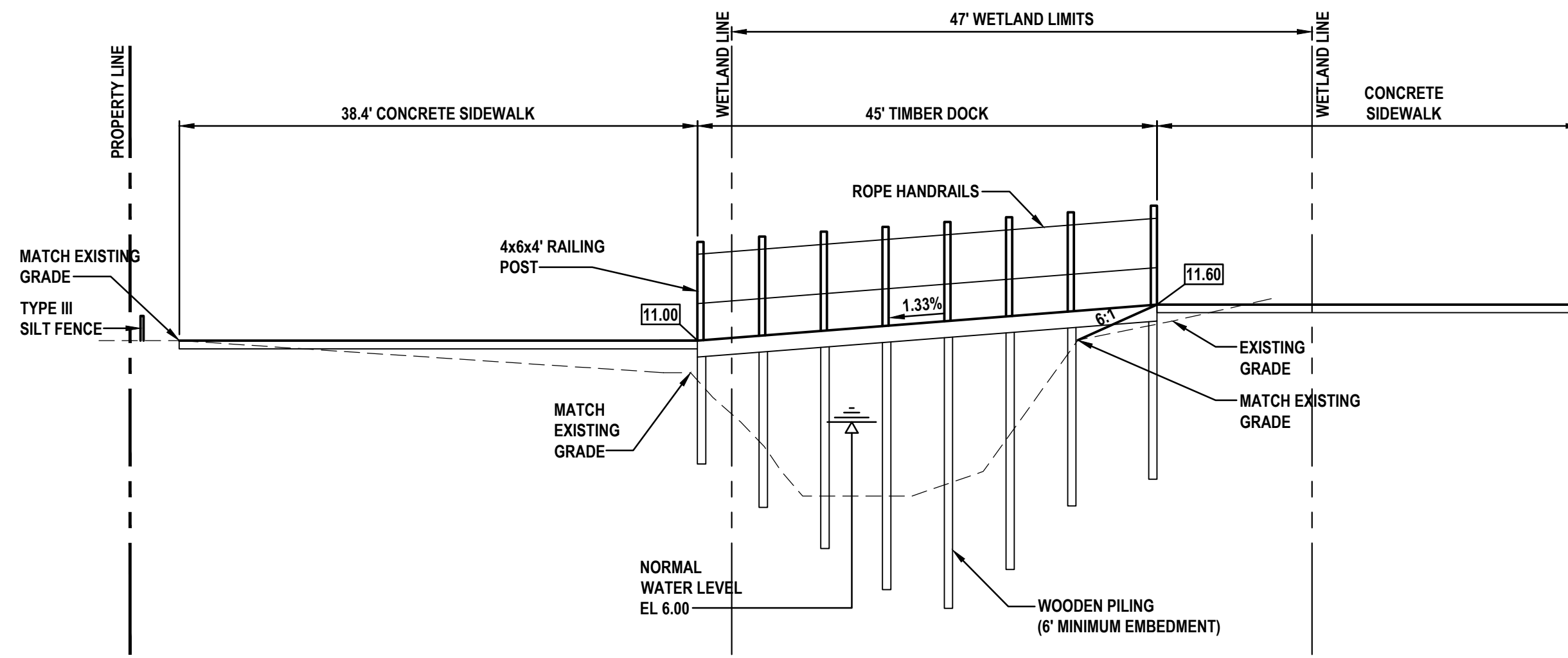




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**SECTION E**  
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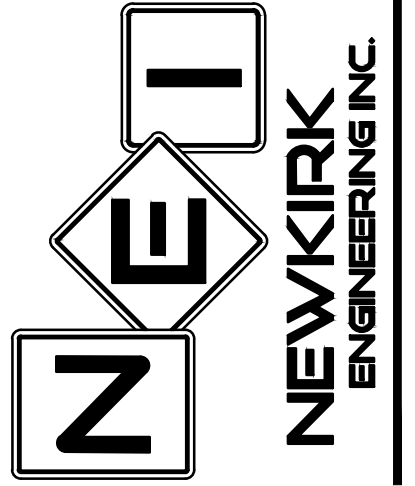


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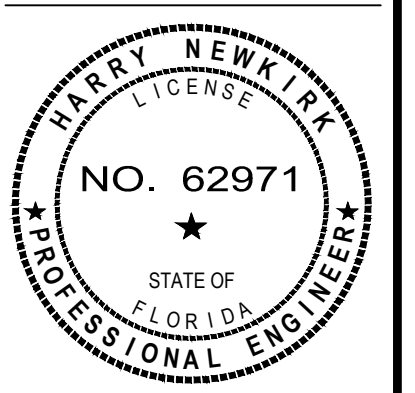
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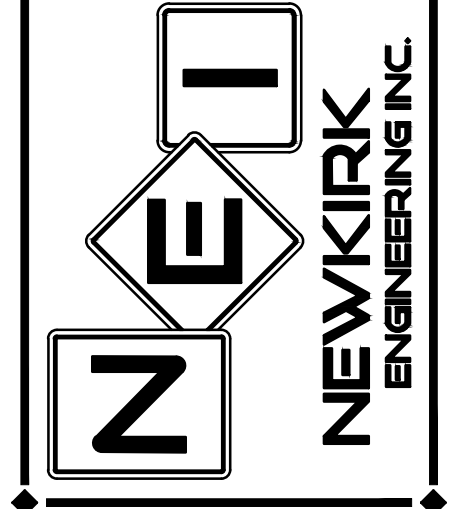
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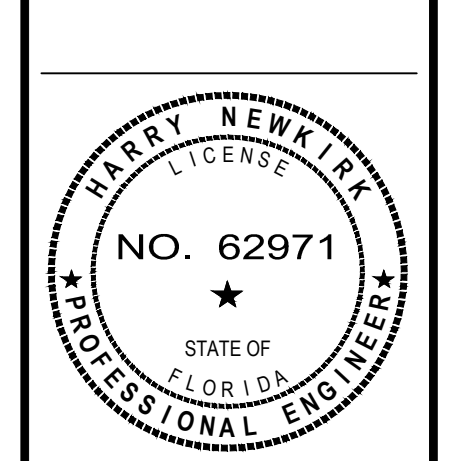


**UTILITY PLAN**  
**LEGACY POINTE COTTAGES**  
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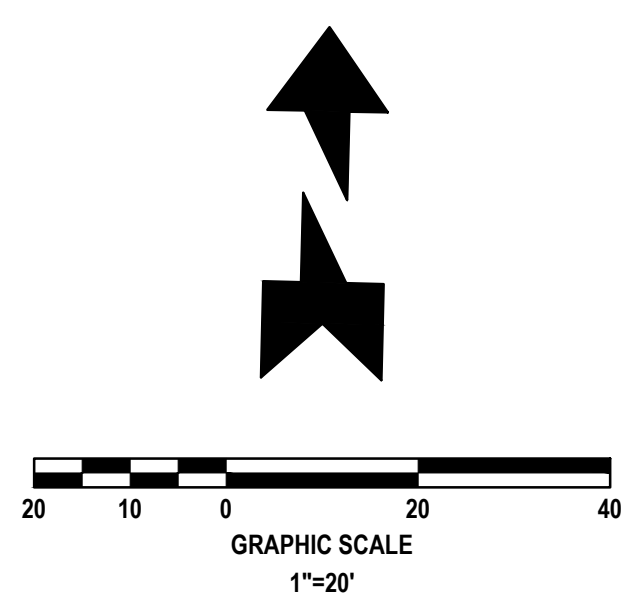
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**15**

**15**



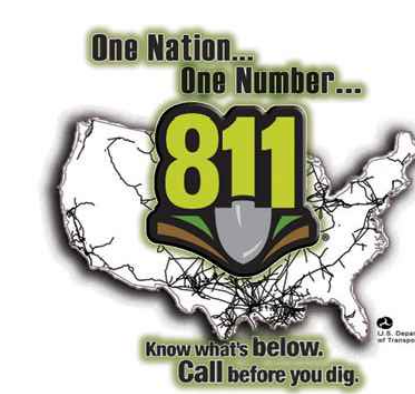
**BUILDING FIRE PROTECTION NOTES:**

- FIRE ALARM PER NEFA 72.

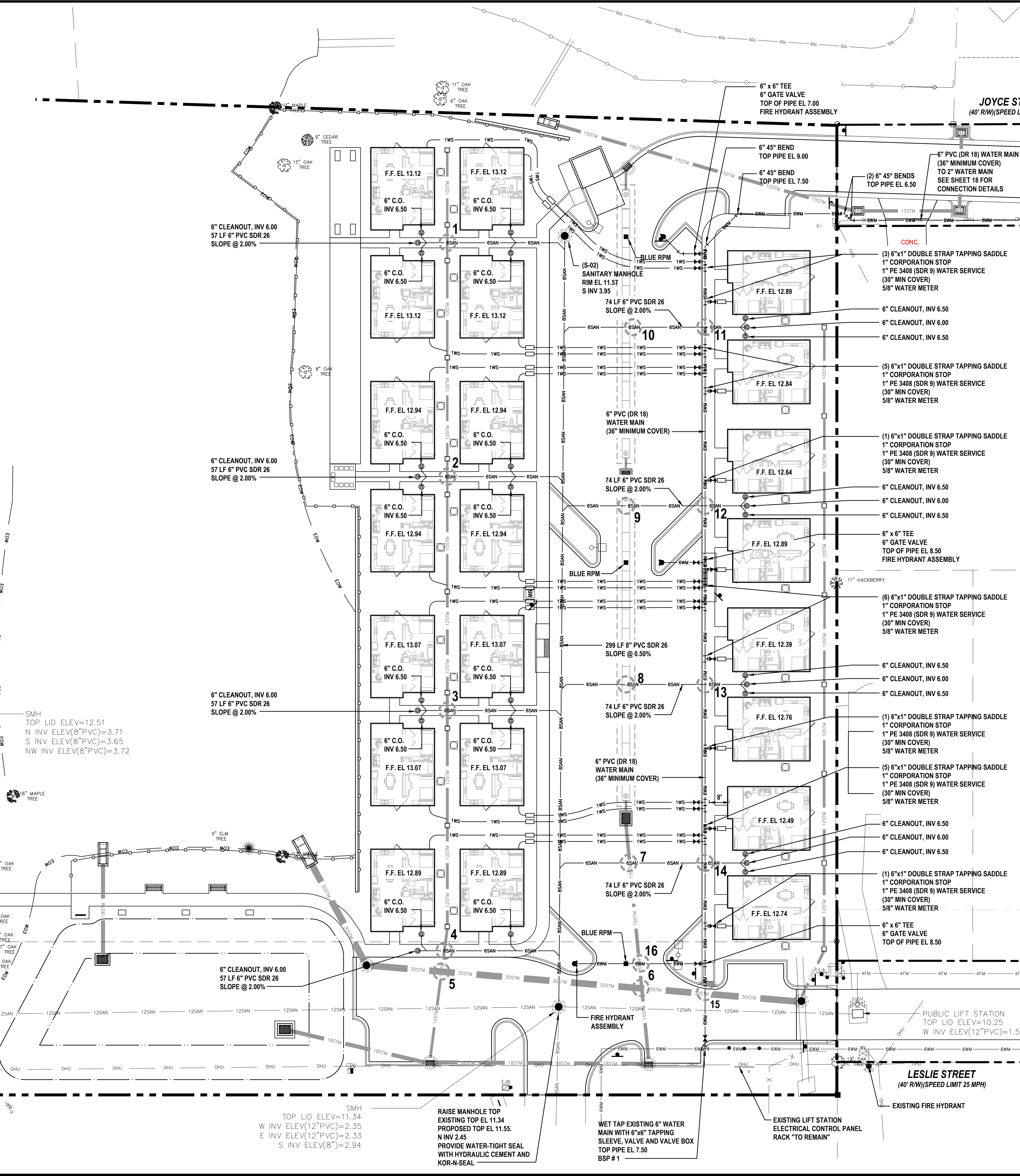
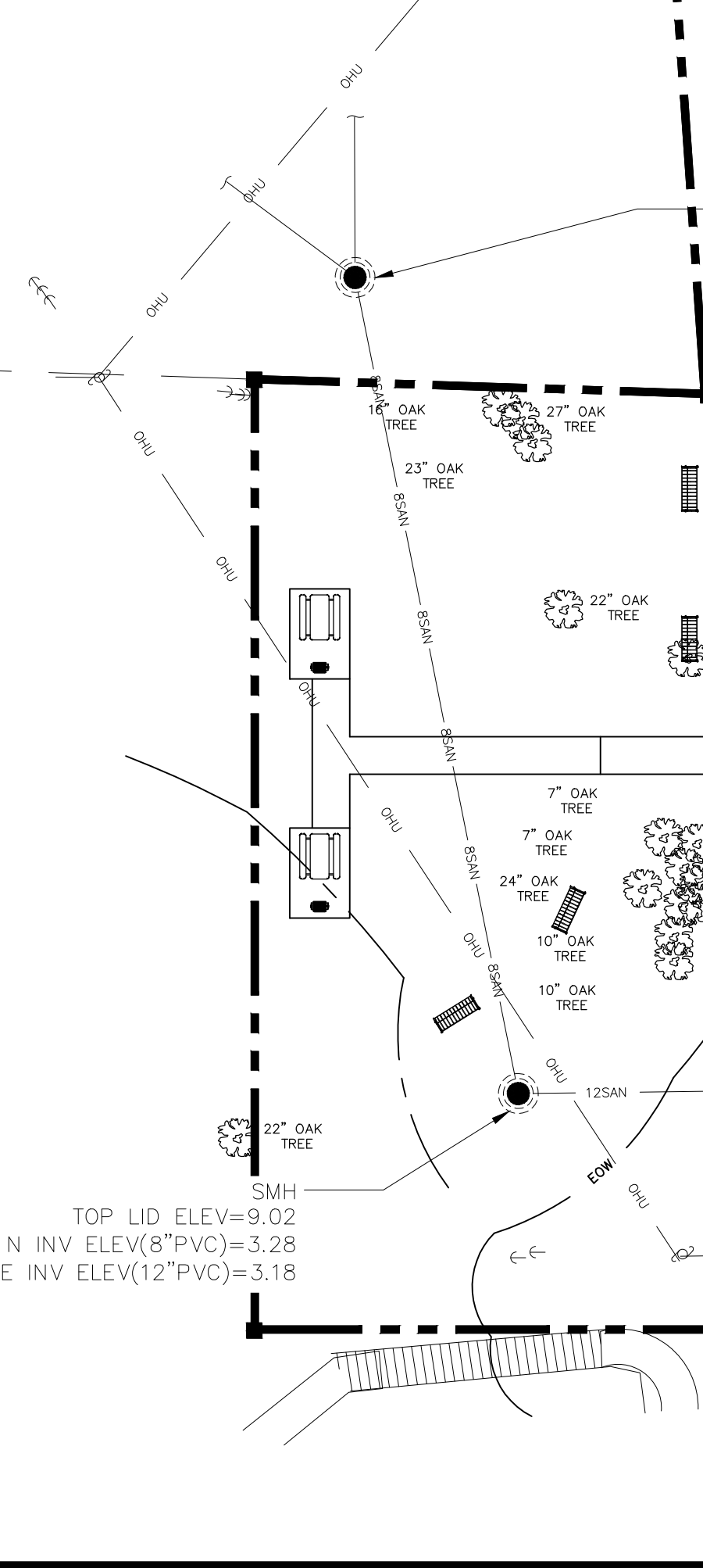
**REQUIRED FIRE FLOW:**

\*SITE DESIGNED IN ACCORDANCE TO THE FLORIDA FIRE PREVENTION CODE, 8TH EDITION (2023).

FLORIDA BUILDING CODE CONSTRUCTION TYPE:	VB - UN-PROTECTED
FIRE AREA:	784 SF
REQUIRED FIRE FLOW:	1,500 GPM @ 2 HOURS
FIRE SPRINKLER SYSTEM REDUCTION (75%):	0 GPM
REQUIRED FIRE FLOW:	1,500 GPM @ 2 HOURS



**WARNING !!**  
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**UTILITY LEGEND**

- 11.25° BEND
- 22.5° BEND
- 45° BEND
- 90° BEND
- TEE
- GATE VALVE
- FIRE HYDRANT ASSEMBLY
- RPZ
- REDUCED PRESSURE BACKFLOW PREVENTER
- 1" SERVICE SADDLE, 1" CORPORATION STOP, 1" PE 3408 (SDR 9), 5/8" WATER METER. SEE CITY DETAIL W-3 ON SHEET 23.
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED 6" PVC CLASS 150 (DR-18) WATER MAIN (36" MIN. COVER)
- PROPOSED 8" PVC SDR 26 SANITARY MAIN SLOPE @ 0.50% MIN.
- PROPOSED 6" PVC SDR 26 SANITARY SERVICE WITH 2.0% MIN. SLOPE
- UTILITY CONFLICT (SEE DETAILS, SHEET NO. 19)

**GENERAL WATER NOTES:**

- THE CITY OF FLAGLER BEACH WATER UTILITY DEPARTMENT SHALL BE NOTIFIED PRIOR TO BEGINNING ANY WATER SYSTEM CONSTRUCTION.
- ALL WATER DISTRIBUTION CONSTRUCTION SHALL BE IN ACCORDANCE WITH FDEP REGULATIONS AND THE CITY OF FLAGLER BEACH UTILITY DETAILS AND SPECIFICATIONS (LATEST EDITION).
- CONTRACTOR IS TO VERIFY THE LOCATION (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES (UNDERGROUND AND OVERHEAD) PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY CONFLICTS SHALL BE REPORTED TO THE ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ANY EXISTING PAVEMENT, SIDEWALK, CURBING, UTILITIES AND DRAINAGE SYSTEMS DAMAGED DURING CONSTRUCTION. ALL DAMAGED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
- LOCATION OF TELEPHONE, T.V. CABLE AND ELECTRICAL SERVICE CONNECTIONS TO BE DETERMINED BY APPROPRIATE UTILITIES PERSONNEL IN COOPERATION WITH CONTRACTOR.
- ALL WATER MAINS SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
- TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE CITY WITH A MINIMUM COMPACTION OF 98 PERCENT (AASHTO-T198).
- WATER SERVICES FROM 3/4" TO 2" POLYETHYLENE (ENDOTRACE) WITH 30" MINIMUM COVER.
- WATER MAIN FROM 4" TO 12" SHALL BE PVC CLASS 150 (DR 18) WITH 36" MINIMUM COVER.
- ALL WATER AND FIRE SERVICES ARE REQUIRED TO HAVE A HARD BODY GATE VALVE OFF THE MAIN LINE.
- ALL VALVES SHALL BE BOLTED TO TEES.
- ALL POTABLE WATER PIPE SHALL HAVE "NSF POTABLE WATER" IMPRINTED ON THE PIPE.
- ALL WATER MAIN FITTINGS 4 INCHES OR LARGER SHALL BE CEMENT LINED DIP.
- A TAPPING CONTRACTOR ACCEPTABLE TO THE CITY OF FLAGLER BEACH WILL BE REQUIRED FOR TAPS.
- THE CONTRACTOR SHALL MAKE ALL ATTEMPTS TO LOCATE BURIED UTILITIES AND NOTIFY THE UTILITY COMPANIES 48 HOURS PRIOR TO CONSTRUCTION.
- UTILITY TRENCH CONSTRUCTION SHALL CONFORM TO CITY OF FLAGLER BEACH AND OSHA REQUIREMENTS.
- IN THE CASE WHERE SOLVENT CONTAMINATION IS FOUND IN THE TRENCH, WORK WILL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH THE APPROVAL OF THE CITY OF FLAGLER BEACH UTILITY DEPARTMENT, DUCTILE IRON PIPE, FITTINGS AND APPROVED SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE WILL EXTEND AT LEAST 100 FEET BEYOND ANY DISCOVERED SOLVENT.

**GENERAL SEWER NOTES:**

- CITY OF FLAGLER BEACH SHALL BE NOTIFIED PRIOR TO ANY SEWER CONSTRUCTION.
- ALL SEWER CONSTRUCTION MUST COMPLY WITH FDEP REGULATIONS AND THE CITY OF FLAGLER BEACH UTILITY DETAILS AND SPECIFICATIONS (LATEST EDITION).
- ALL SANITARY SEWER LINES SHALL BE PVC SDR 26 DUE TO THE MINIMUM AMOUNT OF COVER. WATER LINES, RECLAIMED LINES AND STORM DRAINAGE CROSSINGS SHALL FOLLOW THE C-900 OR CONCRETE ENCLOSURE REQUIREMENT PER THESE STANDARDS AND AS FDEP REQUIREMENTS.
- SEWER LINE CONSTRUCTION SHALL BE ACCOMPLISHED BY THE USE OF A LASER INSTRUMENT UNLESS ANOTHER METHOD IS PREVIOUSLY APPROVED BY CITY OF FLAGLER BEACH.
- THE CONTRACTOR SHALL AT ALL TIMES, DURING PIPE LAYING, DEWATER THE GROUND SUFFICIENTLY TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6" BELOW THE PIPE BEING LAID WITHIN THE AREA OF THE TRENCH.
- ALL PIPES SHALL BE LAID ON A FIRM FOUNDATION. SOFT OR SPONGY BEDDING FOR PIPES WILL NOT BE ACCEPTED. ANY UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH A DRY, COMPACTED, GRANULAR MATERIAL SATISFACTORY TO THE CITY OF FLAGLER BEACH.
- SANITARY SEWER PIPE SHALL BE PVC SDR 26.
- EXCAVATION AND BACKFILL: THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING AND BRACING OF EXCAVATION WORK IN ORDER TO PROVIDE FOR THE SAFETY OF WORKMEN, AS WELL AS REPRESENTATIVES OF THE CITY OF FLAGLER BEACH, THE DESIGN ENGINEER, AND THE DEVELOPER.
- ALL TRENCHES SHALL BE BACKFILLED WITH ACCEPTABLE MATERIAL AND COMPACTED TO MINIMUM COMPACTION OF (95) PERCENT OF THE OPTIMUM DENSITY OF THAT MATERIAL BASED ON THE AASHTO-T180 MODIFIED PROCTOR TEST.
- ALL TESTING REQUIRED BY THE CITY SHALL BE PAID FOR BY THE CONTRACTOR.
- GRAVITY MAINS MUST HAVE A TELEVISION INSPECTION. A VIDEO INSPECTION FORM MUST BE FAXED TO THE CITY OF FLAGLER BEACH WASTEWATER COLLECTION DEPARTMENT 48 HOURS PRIOR TO VIDEO INSPECTION. A CITY INSPECTOR MUST BE PRESENT.
- SEWER CLEANOUT LOCATED ON PAVEMENT AND SIDEWALK AREA SHALL BE TRAFFIC BEARING FLAT TOP BRASS CAP.
- ALL GREASE TANKS SHALL HAVE A MINIMUM CAPACITY OF 1250 GALLONS.
- PLUMBING CONTRACTOR SHALL INSTALL TANK AND COORDINATE PIPE INVERTS TO BUILDING WITH UTILITY CONTRACTOR.

**CITY OF FLAGLER BEACH NOTES:**

- ALL UTILITIES SHALL BE LOCATED UNDERGROUND.
- CONTRACTOR TO ATTEND A MANDATORY PRECONSTRUCTION MEETING WITH CITY STAFF PRIOR TO ANY DISTURBANCE OF THE PROPERTY.

6" CLEANOUT, INV 6.00  
57 LF 6" PVC SDR 26  
SLOPE @ 2.00%

6" CLEANOUT, INV 6.00  
57 LF 6" PVC SDR 26  
SLOPE @ 2.00%

6" CLEANOUT, INV 6.00  
57 LF 6" PVC SDR 26  
SLOPE @ 2.00%

6" CLEANOUT, INV 6.00  
57 LF 6" PVC SDR 26  
SLOPE @ 2.00%

SMH  
TOP LID ELEV=11.34  
W INV ELEV(12"PVC)=2.35  
E INV ELEV(12"PVC)=2.33  
S INV ELEV(8")=2.94

RAISE MANHOLE TOP  
EXISTING TOP EL 11.34  
PROPOSED TOP EL 11.55  
N INV 2.45  
PROVIDE WATER-TIGHT SEAL  
WITH HYDRAULIC CEMENT AND  
KOR-N-SEAL

WET TAP EXISTING 6" WATER  
MAIN WITH 6"x6" TAPPING  
SLEEVE, VALVE AND VALVE BOX  
TOP PIPE EL 7.50  
BSP # 1

EXISTING LIFT STATION  
ELECTRICAL CONTROL PANEL  
RACK TO REMAIN

SMH  
TOP LID ELEV=12.51  
N INV ELEV(8"PVC)=3.71  
S INV ELEV(8"PVC)=3.65  
NW INV ELEV(8"PVC)=3.72

SMH  
TOP LID ELEV=9.02  
N INV ELEV(8"PVC)=3.28  
E INV ELEV(12"PVC)=3.18

SMH  
TOP LID ELEV=11.34  
W INV ELEV(12"PVC)=2.35  
E INV ELEV(12"PVC)=2.33  
S INV ELEV(8")=2.94

SMH  
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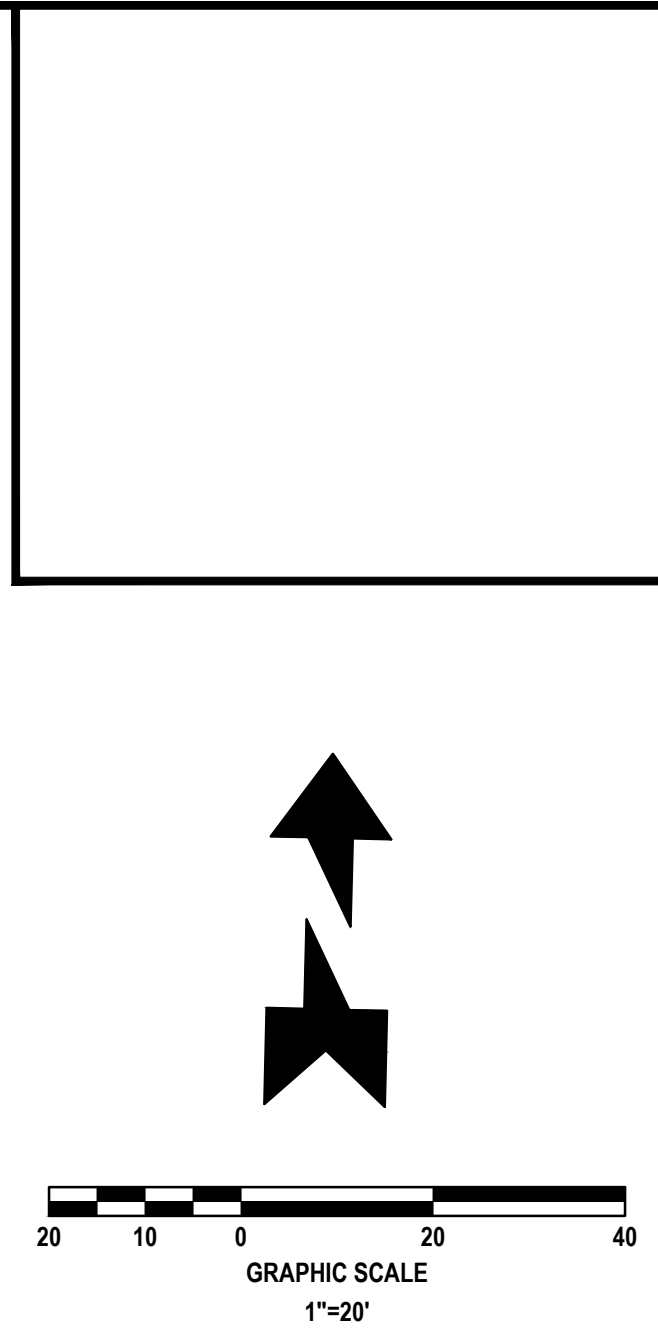
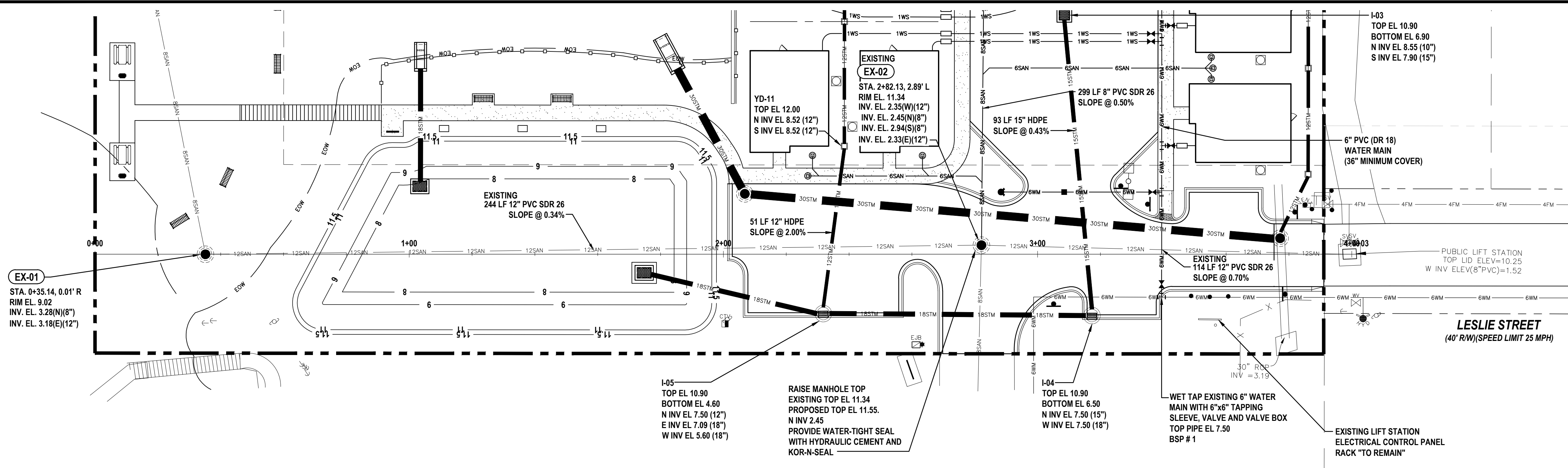
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E INV ELEV(12"PVC)=2.33  
S INV ELEV(8")=2.94

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TOP LID ELEV=11.34  
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E INV ELEV(12"PVC)=2.33  
S INV ELEV(8")=2.94

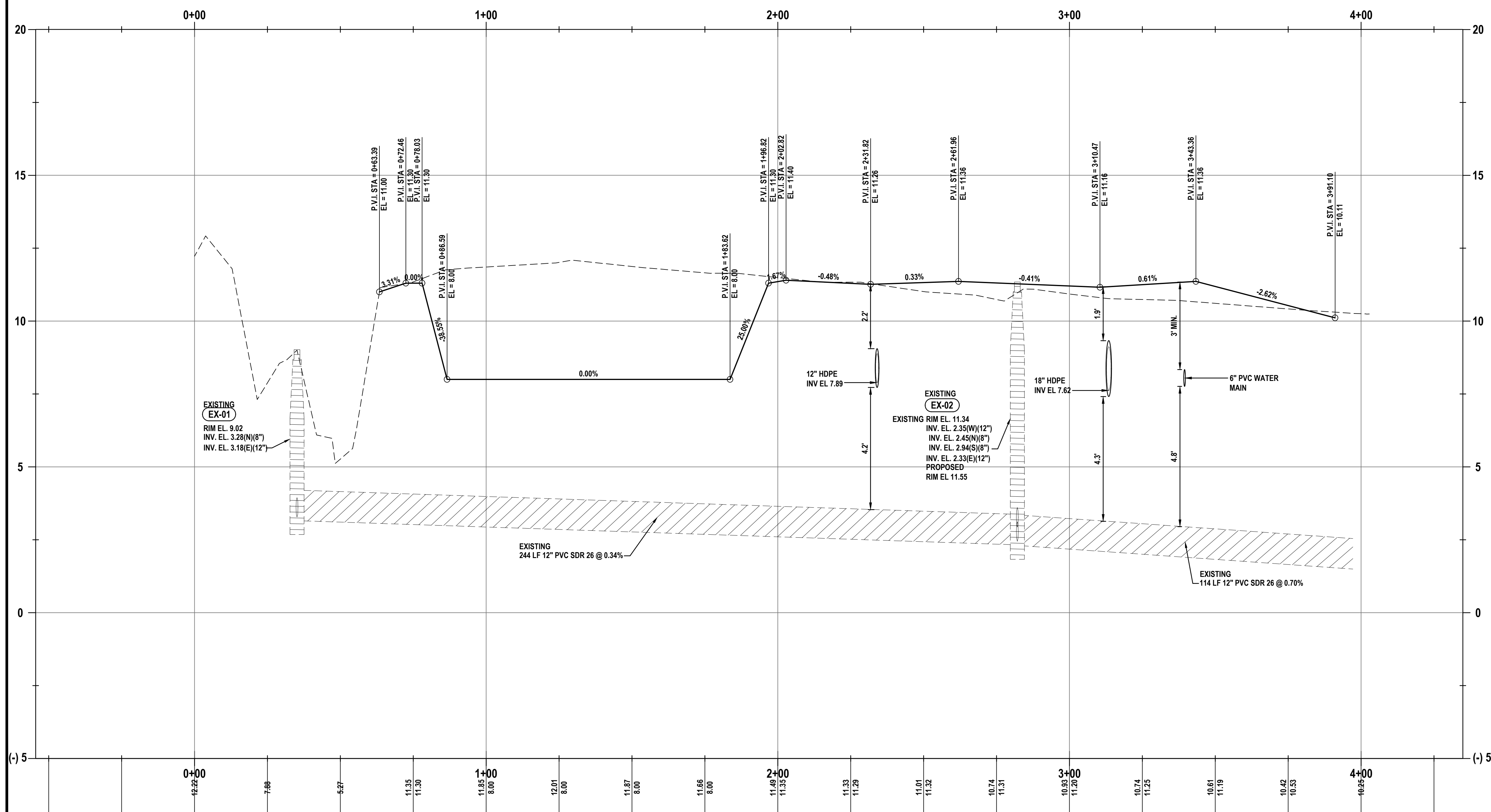
SMH  
TOP LID ELEV=11.34  
W INV ELEV(12"PVC)=2.35  
E INV ELEV(12"PVC)=2.33  
S INV ELEV(8")=2.94





**STATION 0+00 TO 4+03**

HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 2'



**UTILITY LEGEND**

	PROPOSED 11.25° BEND
	PROPOSED 22.5° BEND
	PROPOSED 45° BEND
	PROPOSED 90° BEND
	PROPOSED TEE
	PROPOSED GATE VALVE
	PROPOSED FIRE HYDRANT ASSEMBLY
	REDUCED PRESSURE BACKFLOW PREVENTER
	PROPOSED 6"x1" SERVICE SADDLE, 1" CORPORATION STOP, 1" PE 3408 (SDR 9), 5/8" WATER METER. SEE CITY DETAIL W-3 ON SHEET 23.
	PROPOSED SANITARY SEWER MANHOLE
	PROPOSED 6" PVC CLASS 150 (DR-18) WATER MAIN (36" MIN. COVER)
	PROPOSED 8" PVC SDR 26 SANITARY MAIN SLOPE @ 0.50% MIN.
	PROPOSED 6" PVC SDR 26 SANITARY SERVICE WITH 2.0% MIN. SLOPE

**REVISIONS**

DATE	DESCRIPTION

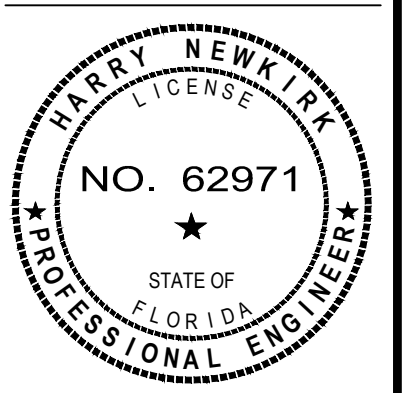
1230 North US1, Suite 3  
Ormond Beach, Florida 32174  
Phone (386) 872-7794  
www.Newkirk-Engineering.com  
C.A. # 30209  
L.C. # 2600584  
C 2013

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Transportation, CEI &  
Landscape Architecture

**PLAN AND PROFILE**  
**STA. 0+00 - 4+03**  
**LEGACY POINTE APARTMENTS**  
LESLIE STREET  
FLAGLER BEACH, FL 32136

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CHECKED BY: HHN  
SCALE: AS SHOWN  
DRAWING NUMBER

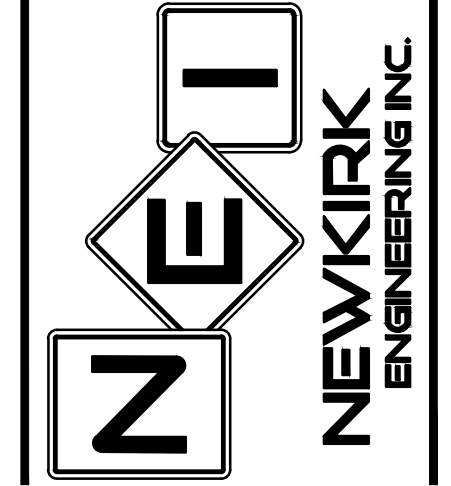


**WARNING !!**  
CONTRACTOR SHALL TAKE ALL PRECAUTIONS DURING CONSTRUCTION TO AVOID CONTACT WITH EXISTING UNDERGROUND UTILITIES, GAS MAINS AND OVERHEAD ELECTRIC IN THE RIGHT-OF-WAY.



REVISIONS	
DATE	DESCRIPTION

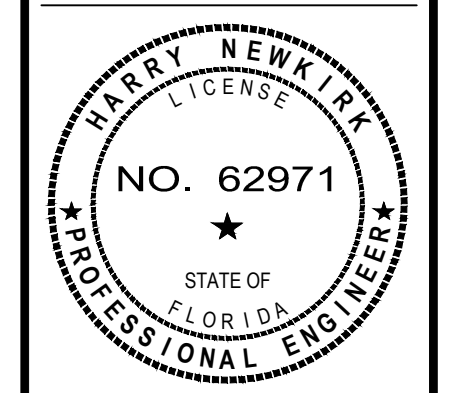
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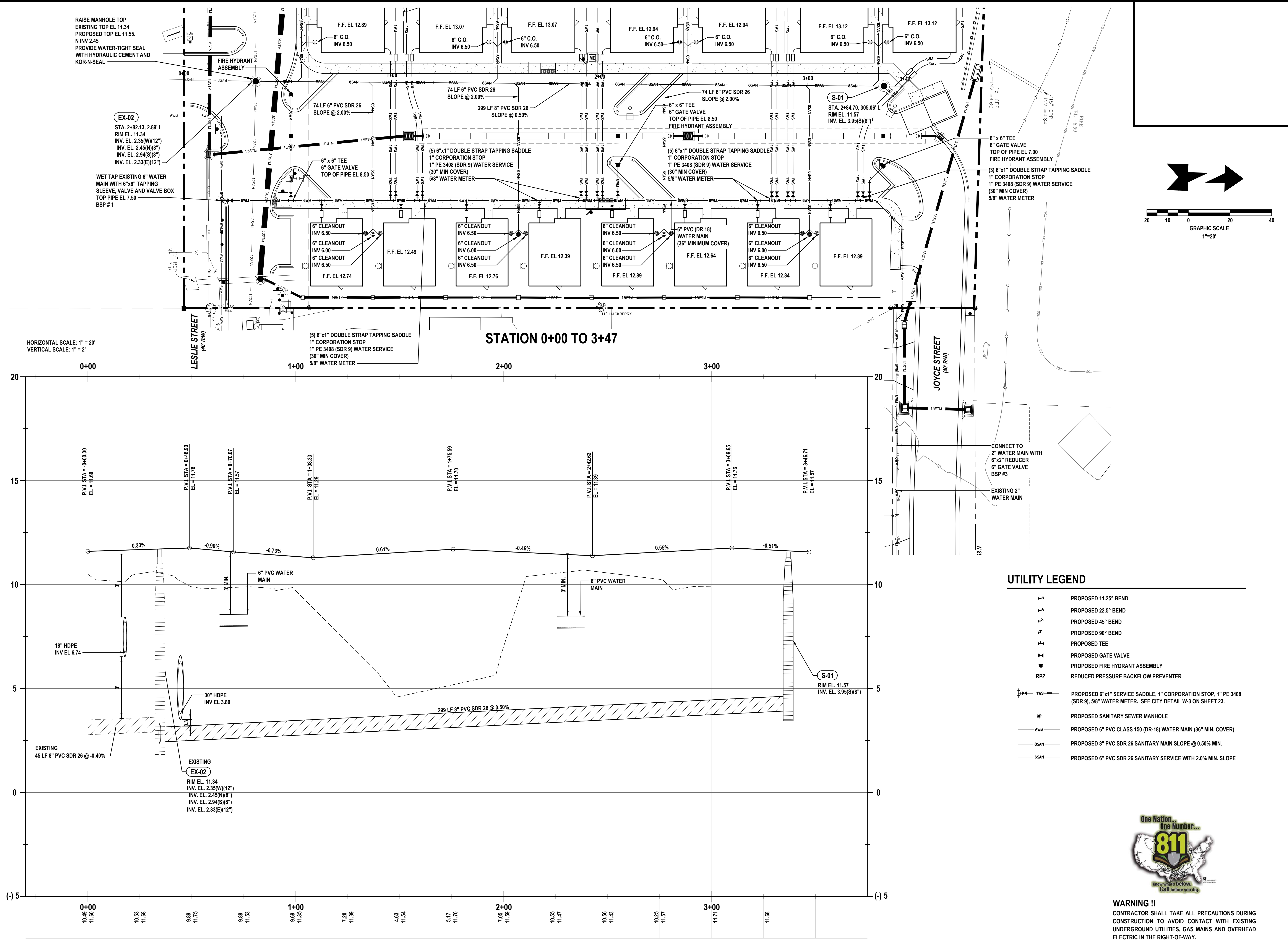
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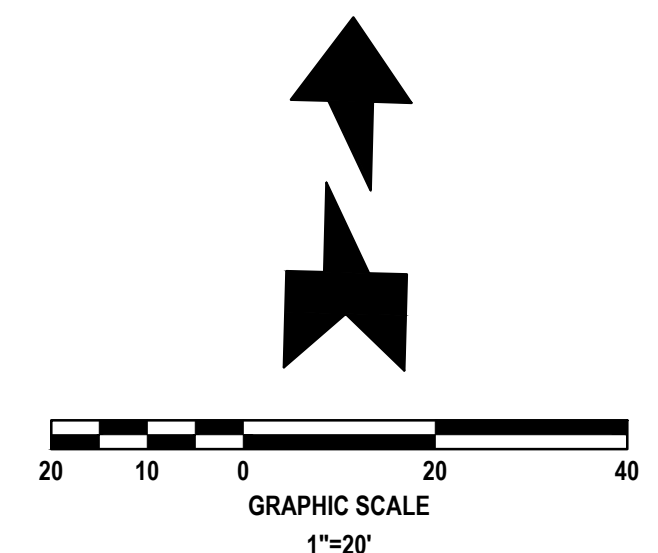
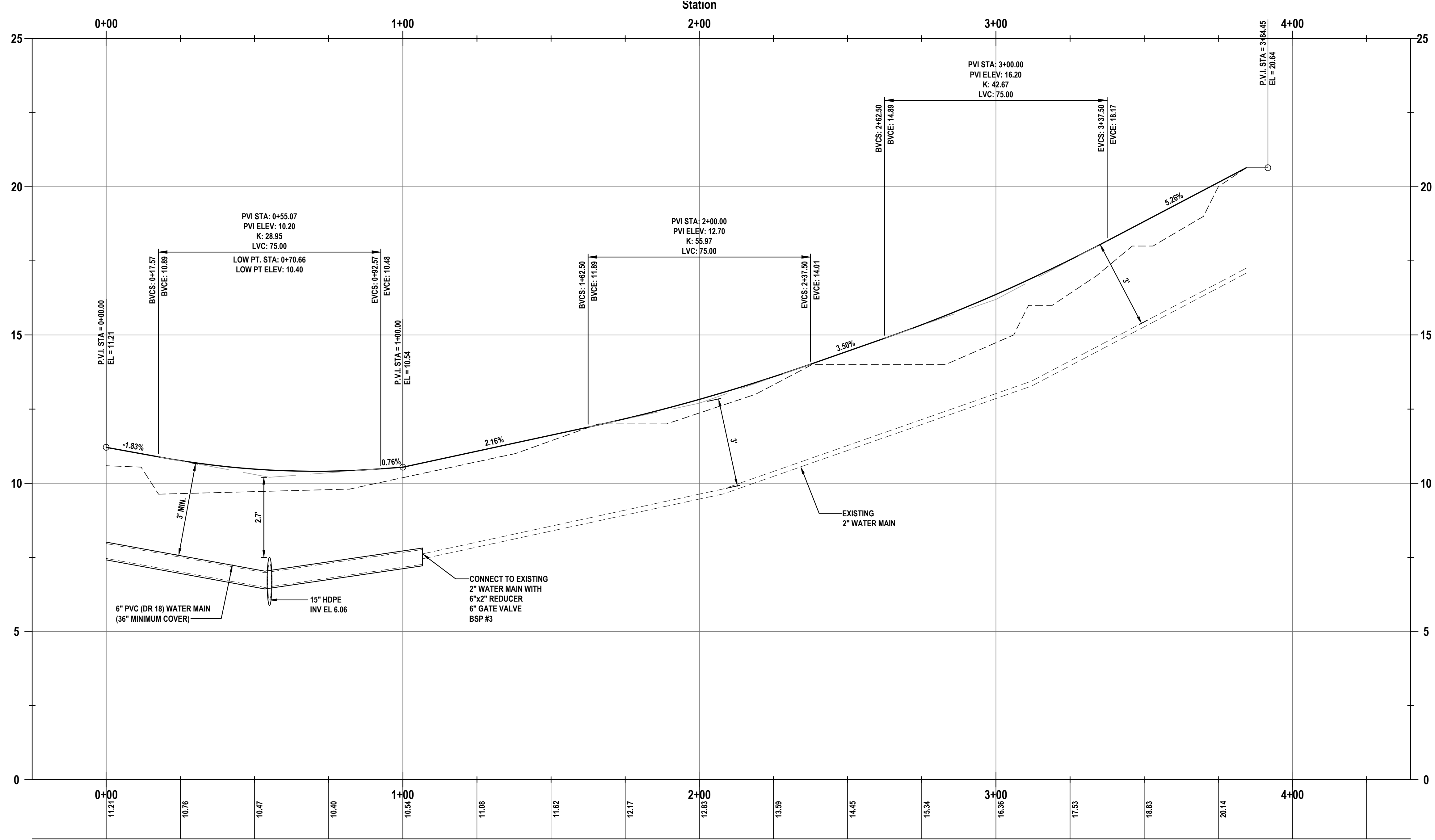
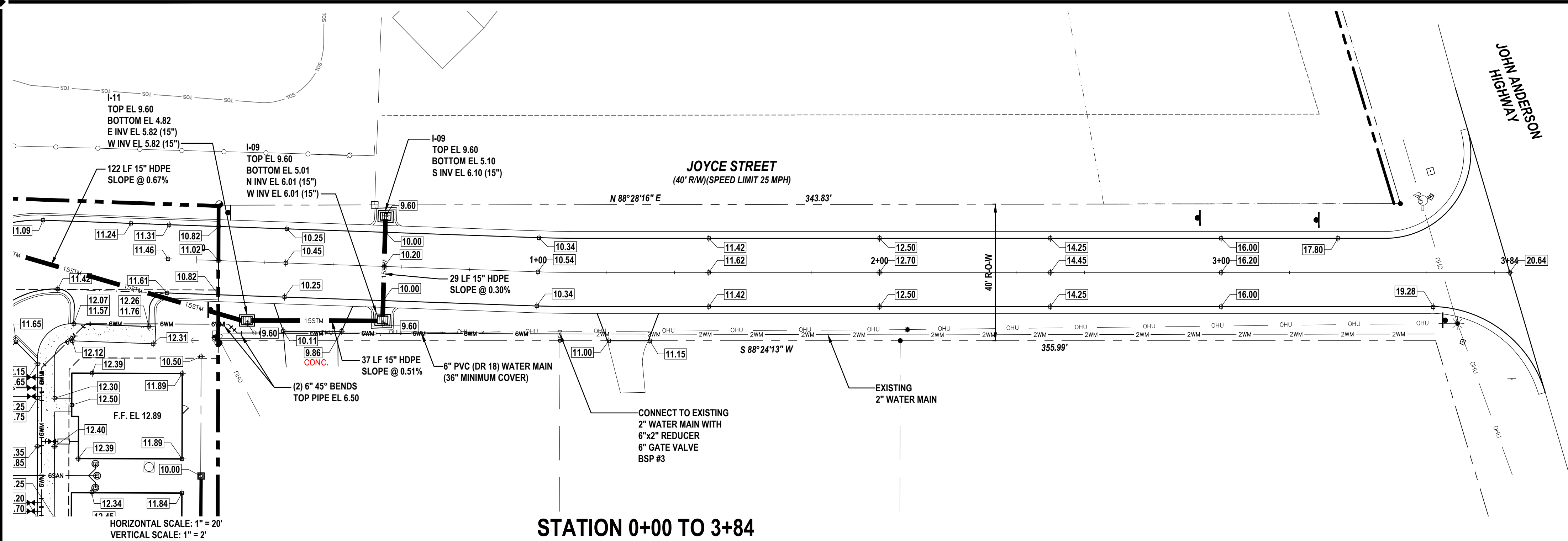
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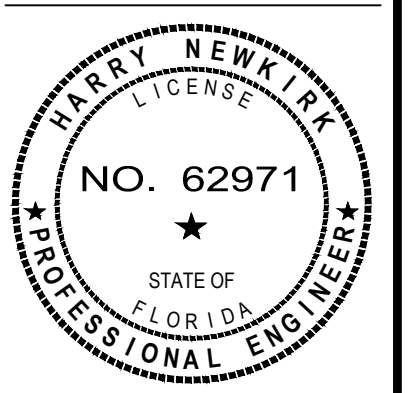
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**18**



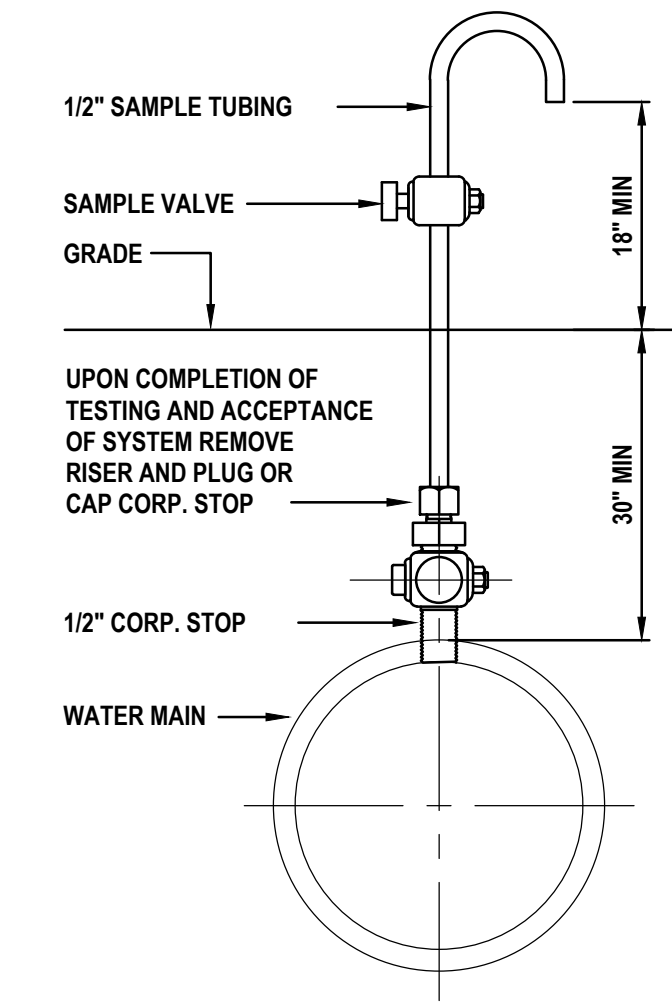
**TABLE 1: CLASSES OF EMBEDMENT AND BACKFILL MATERIALS**

ASTM D 2321 MATERIAL CLASS	ASTM D 2487 USCS SOIL GROUP	MATERIAL TYPE	% PASSING			ATTERBERG LIMITS	
			1 1/2 IN.	NO. 4	NO. 200	LL	PI
IA	NONE	MANUFACTURED OPEN GRADED AGGREGATES	100%	≤10%	<5%	NON PLASTIC	
IB	NONE	MANUFACTURED DENSE GRADED AGGREGATES	100%	≤50%	<5%	NON PLASTIC	
II	GW	COARSE-GRAINED SOILS, CLEAN	100%	<50% OF "COARSE FRACTION"	<5%	NON PLASTIC	
	GP						
	SW						
	SP						
III	GM	COARSE-GRAINED SOILS W/ FINES	100%	<50% OF "COARSE FRACTION"	12% TO 50%	<4 OR <"A" LINE <7 OR >"A" LINE >4 OR <"A" LINE >7 OR >"A" LINE	
	GC						
	SM						
	SC						
IV-A	ML	FINE-GRAINED SOILS	100%	100%	>50%	<4 OR <"A" LINE >7 OR >"A" LINE	
	CL						

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

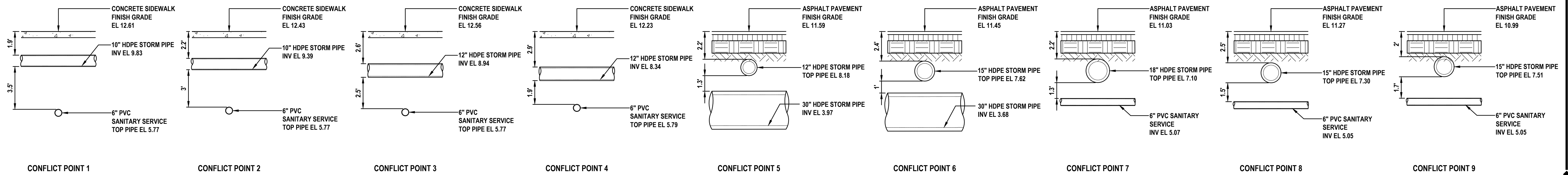
OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING AT CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (2)	3 FT MINIMUM	12 INCHES IS THE MINIMUM EXCEPT FOR STORM SEWER, THEN 6 INCHES IS THE MINIMUM AND 12 INCHES IS PREFERRED	ALTERNATE 3 FT MINIMUM
VACUUM SANITARY SEWER	10 FT PREFERRED 3 FT MINIMUM	12 INCHES PREFERRED 6 INCHES MINIMUM	ALTERNATE 3 FT MINIMUM
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (4)	10 FT PREFERRED 6 FT MINIMUM (3)	12 INCHES IS THE MINIMUM EXCEPT FOR STORM SEWER, THEN 6 INCHES IS THE MINIMUM AND 12 INCHES IS PREFERRED	ALTERNATE 6 FT MINIMUM
ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM	10 FT MINIMUM (3)	—	—

- (1) WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
- (2) RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- (3) 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 SANITARY SEWER.
- (4) RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.



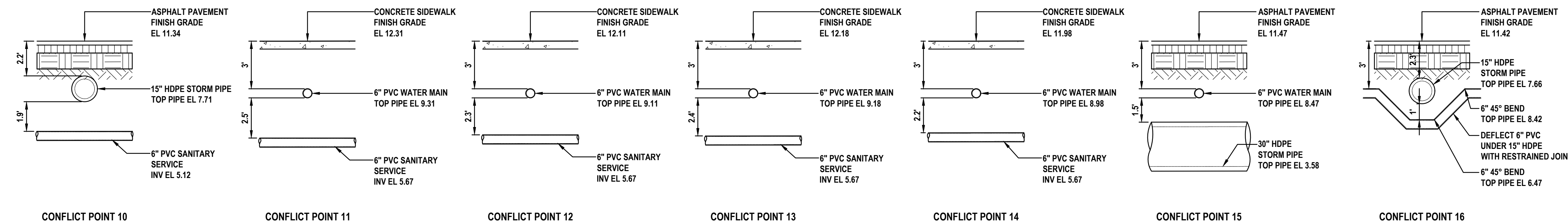
**BACTERIOLOGICAL SAMPLE POINT DETAIL**

NOT TO SCALE



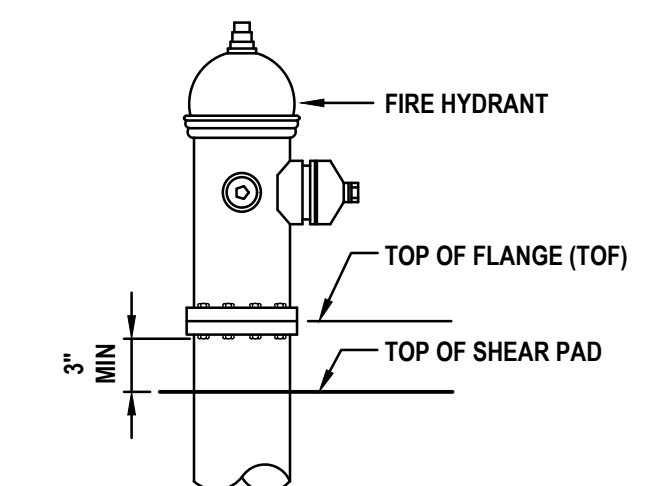
**UTILITY CONFLICT DETAIL**

NOT TO SCALE



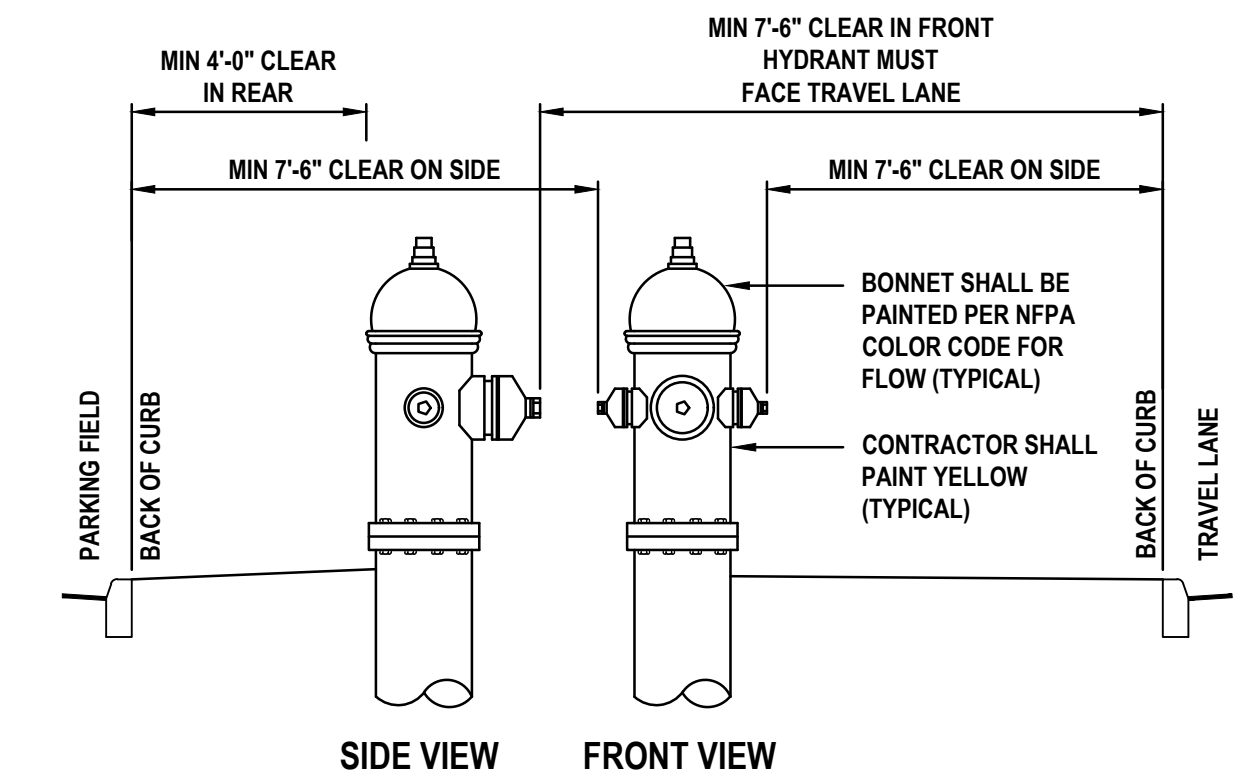
**UTILITY CONFLICT DETAIL**

NOT TO SCALE



**TOP OF FLANGE REFERENCE POINT DETAIL**

NOT TO SCALE



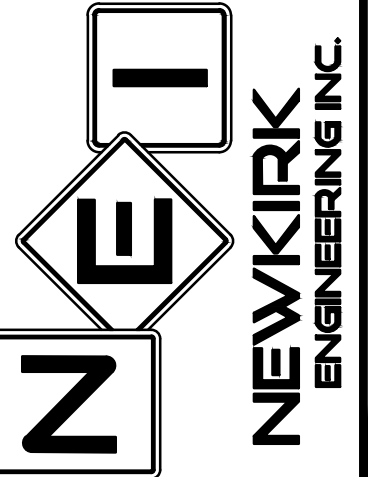
**TYPICAL FIRE HYDRANT CLEARANCE REQUIREMENT**

NOT TO SCALE

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Phone (386) 872-7794  
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**UTILITY DETAILS AND NOTES**  
**LEGACY POINTE COTTAGES**  
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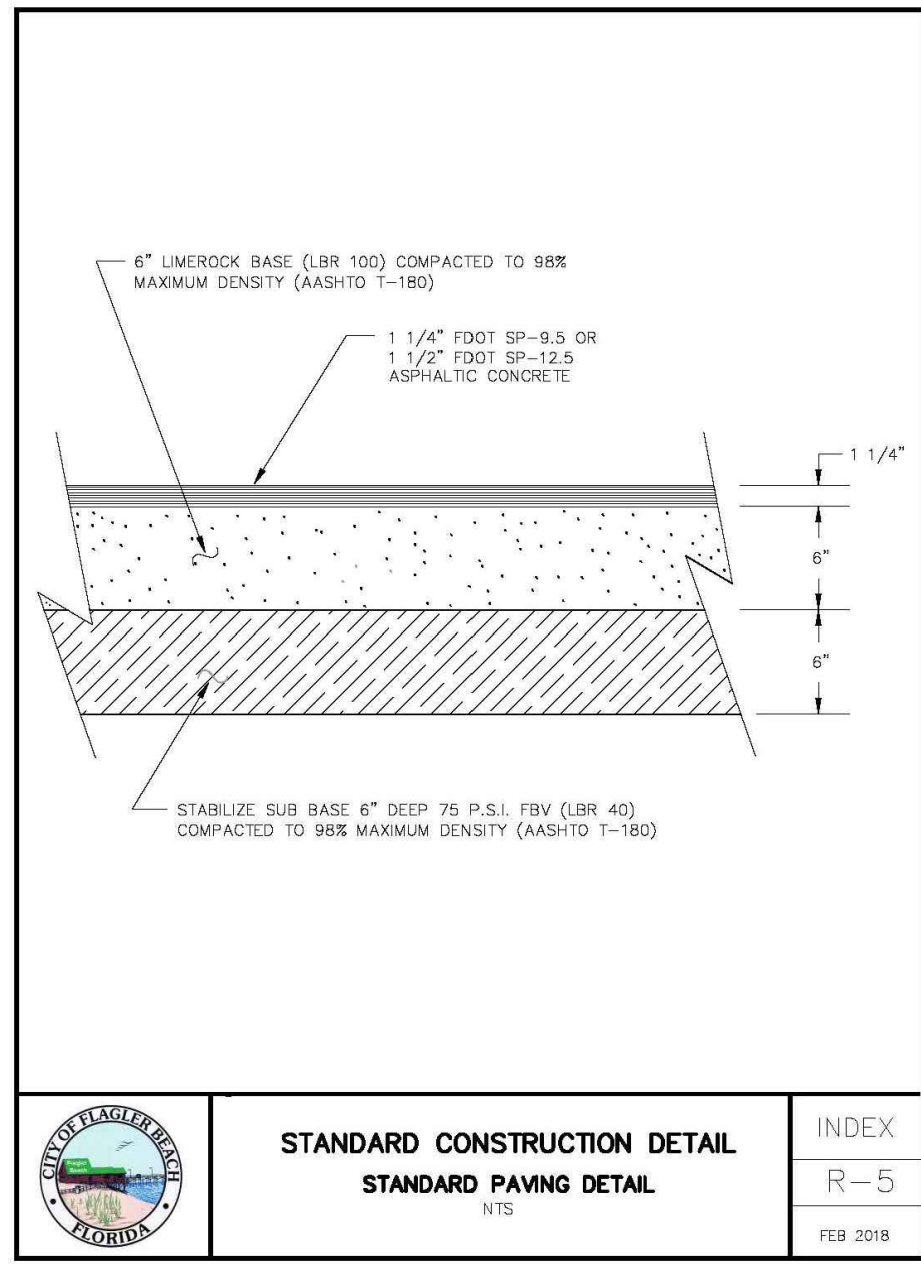
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**STANDARD CONSTRUCTION DETAIL**  
**STANDARD PAVING DETAIL**  
 NTS  
**R-5**  
 FEB 2016

**ROADWAY COMPACTION AND DENSITY TESTING REQUIREMENTS**

ITEM	TEST	FREQUENCY	STANDARD	TEST METHOD
ROADWAY SURFACE (SECTION 1-107)	N-PLACE DENSITY	ONE (1) TEST/200 LF	SEE MODIFIED PROCTOR (ASTM D-1557 OR AASHTO T-99)	ASTM D-2937 D-2922 D-1556
STABILIZED SUBBASE	N-PLACE DENSITY	ONE (1) TEST/200 LF	SEE MODIFIED PROCTOR (ASTM D-1557 OR AASHTO T-99)	ASTM D-2937 D-2922 D-1556
STABILIZED SUBBASE	FLUIDITY (WATER) (ASTM D-1557)	ONE (1) TEST/200 LF	FBV = 75	
STABILIZED SUBBASE	UNIFORMITY (ASTM D-1557)	ONE (1) TEST/200 LF	LBR = 40	
UNLOCKED BASE	N-PLACE DENSITY	ONE (1) TEST/200 LF	SEE MODIFIED PROCTOR (ASTM D-1557 OR AASHTO T-99)	ASTM D-2937 D-2922 D-1556
UNLOCKED BASE	UNIFORMITY (ASTM D-1557)	ONE (1) TEST/200 LF	LBR = 40	
UNLOCKED BASE	PROVE DEFLECTIVE FROM PLATE (ASTM D-1557)	ONE (1) TEST/200 LF	LBR = 40	
COURED CONCRETE BASE	N-PLACE DENSITY	ONE (1) TEST/200 LF	SEE MODIFIED PROCTOR (ASTM D-1557 OR AASHTO T-99)	ASTM D-2937 D-2922 D-1556
COURED CONCRETE BASE	UNIFORMITY (ASTM D-1557)	ONE (1) TEST/200 LF	LBR = 40	
ASPHALT	EXTRACTION (ASTM D-1557)	(1) PER DAY PER MIX	PER MIX DESIGN	D-2922
ASPHALT	THICKNESS (ASTM D-1557)	(1) PER 300 LF	PER MIX DESIGN AND JOB PRACTICE	CORING OR SECTION (CONCRETE)
SOIL OPTIMUM MOISTURE/DENSITY	PROCTOR TEST	(1) FOR EACH 10,000 SQ YD	SEE MODIFIED PROCTOR (ASTM D-1557 OR AASHTO T-99)	ASTM D-1557 (MODIFIED) (ASTM D-1557) (ASTM D-1557)
SOIL SUBBASE	N-PLACE DENSITY	ONE (1) TEST/200 LF	SEE MODIFIED PROCTOR (ASTM D-1557 OR AASHTO T-99)	ASTM D-2937 D-2922 D-1556
DAMP SUBBASE (LBR)	UNIFORMITY (ASTM D-1557)	(1) TEST/200 LF	LBR = 40	

**STANDARD CONSTRUCTION DETAIL**  
**TECHNICAL SPECIFICATIONS FOR TESTING REQUIREMENTS**  
 NTS  
**R-6A**  
 FEB 2016

**PIPED UTILITY INSTALLATION REQUIREMENTS**

ITEM	TEST	FREQUENCY	STANDARD	TEST METHOD
PVC TRENCH SUBBASE (1" SPECIFIED)	N-PLACE DENSITY	ONE (1) TEST/500 LF	SEE MODIFIED PROCTOR	ASTM D-2937 D-2922 D-1556
PIPED BACKFILL IN GRADE AREAS	N-PLACE DENSITY	ONE (1) TEST/500 LF PER ONE (1) FOOT VERTICAL LIFT OF FILL	SEE MODIFIED PROCTOR	ASTM D-2937 D-2922 D-1556
PIPED BACKFILL IN GREEN AREAS	N-PLACE DENSITY	ONE (1) TEST/500 LF PER ONE (1) FOOT VERTICAL LIFT OF FILL	SEE MODIFIED PROCTOR	ASTM D-2937 D-2922 D-1556
SOIL OPTIMUM MOISTURE/DENSITY	PROCTOR TEST	ONE (1) PER SOIL OR BASE TYPE	SEE MODIFIED PROCTOR (ASTM D-1557 OR AASHTO T-99)	ASTM D-1557 (MODIFIED) (ASTM D-1557) (ASTM D-1557)

**STANDARD CONSTRUCTION DETAIL**  
**TECHNICAL SPECIFICATIONS FOR TESTING REQUIREMENTS**  
 NTS  
**R-6B**  
 FEB 2016

**STANDARD CONSTRUCTION DETAIL**  
**SEEDING AND MULCHING**  
 NTS  
**R-7**  
 FEB 2016

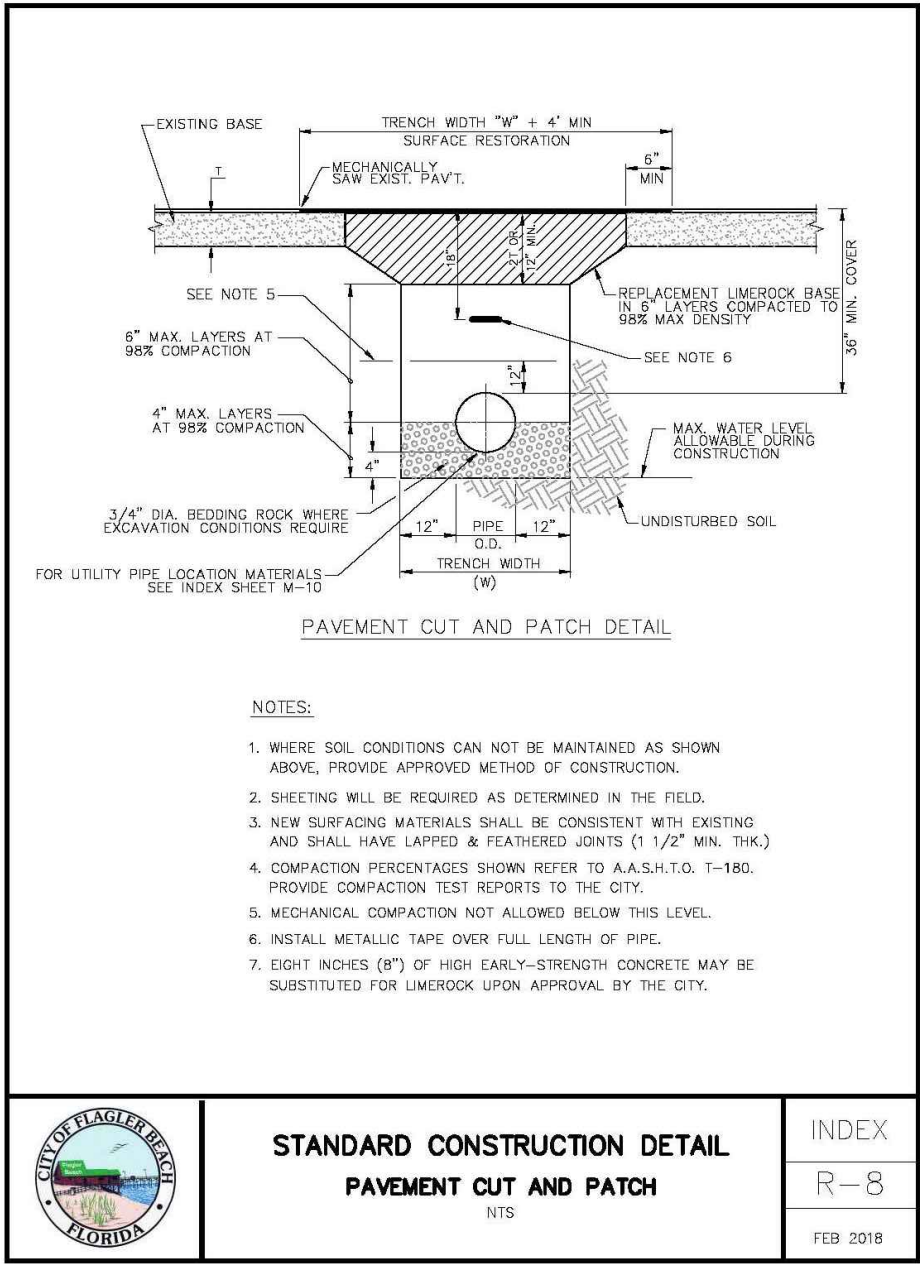
A. SCOPE OF WORK - THE WORK IN THIS SECTION CONSISTS OF FURNISHING AND COMPLETELY INSTALLING SEED AND MULCH OVER THE LIMITS CALLED FOR ON THE CONSTRUCTION DRAWINGS.

B. MATERIALS - GRASS SEED SHALL BE A MIXTURE OF:  
 PENSACOLA BAHIA (50% SCARIFIED SEED) 80 LBS/ACRE  
 HULLED BERBERIDA 20 LBS/ACRE  
 BROWNS TOP MILLET 20 LBS/ACRE

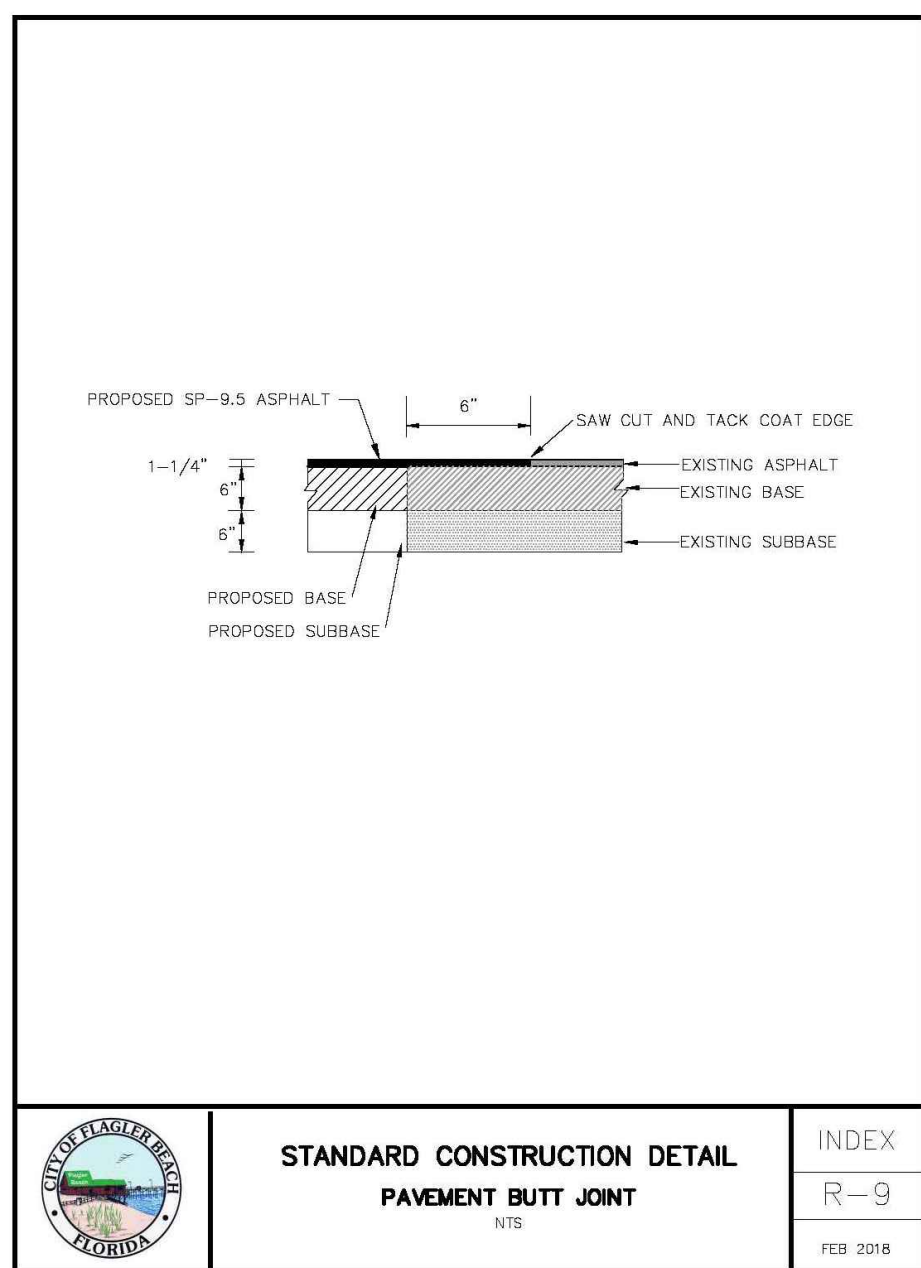
IN THE FALL AND WINTER MONTHS (OCT. THRU FEB.) AND WITH THE APPROVAL OF THE CITY, ANNUAL RYE GRASS SHALL BE SUBSTITUTED IN EQUAL AMOUNTS FOR THE BROWNS TOP MILLET SEED SHALL BE PROVIDED BY A SEED COMPANY TO THE PROPORTIONS DESCRIBED ABOVE, WITH CERTIFICATION FROM THE SUPPLIER PROVIDED TO THE CITY PRIOR TO USE. MULCH (WOOD SHAVINGS) SHALL BE STRAW OR HAY CONSISTING OF OATS, RYE, OR WHEAT STRAW OF PANOLA, PENALT CONASTA, BERBERIDA OR BAHIA GRASS HAY MULCH SHALL BE FREE FROM UNDESIRABLE WEED AND OTHER UNDESIRABLE GRASS.

C. METHODS - GRASSING SHALL BE DONE IMMEDIATELY UPON COMPLETION OF THE FINE GRADING OPERATION. HOWEVER NO SEEDING SHALL BE DONE WHEN THE GROUND IS FROZEN OR UNLIFTY. THE RATE OF SPREAD FOR THE SEED MATERIAL SHALL BE ONE HUNDRED AND THIRTY (130) POUNDS PER ACRE. APPROXIMATELY TWO INCHES (2") LOOSE THICKNESS OF MULCH MATERIAL SHALL BE APPLIED UNIFORMALLY OVER THE GRASSED AREAS (APPROXIMATELY 1 1/2 BALES PER 1000 SQUARE FEET). THE MULCH MATERIAL SHALL BE CUT INTO THE SOIL WITH A DISC HARROW OR OTHERWISE ANCHORED DOWN.

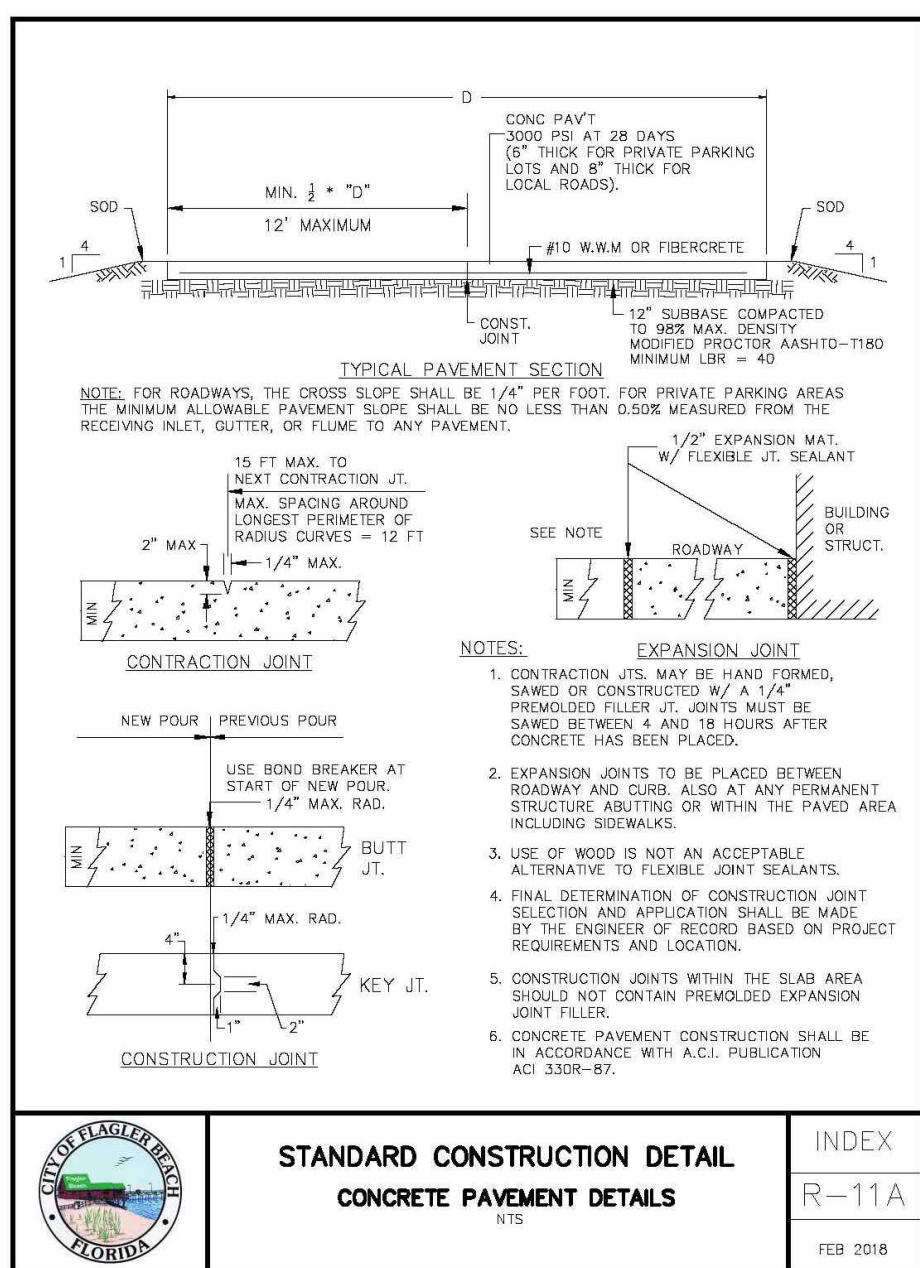
D. FERTILIZER  
 1. ANALYSIS OF SOILS SHALL BE OBTAINED BY SUBMITTAL OF SAMPLES TO FLAGLER COUNTY. ALL APPLICATION RATES WILL BE BASED ON THIS REPORT. SUBMIT A COPY OF THIS REPORT TO THE CITY PRIOR TO COMMENCING ANY SOIL MODIFICATION.  
 2. THE FERTILIZER SHALL BE A COMMERCIAL GRANULAR TYPE WITH A CHEMICAL DESIGNATION AS RECOMMENDED IN THE SOIL ANALYSIS REPORT.  
 3. THE NUMERICAL DESIGNATIONS FOR FERTILIZER INDICATE THE MINIMUM PERCENTAGES (RESPECTIVELY) OF (1) TOTAL NITROGEN, (2) AVAILABLE PHOSPHORUS ACID AND (3) WATER SOLUBLE POTASH CONTAINED IN THE FERTILIZER.  
 (a) AT LEAST 30 PERCENT (30%) OF THE PHOSPHORUS ACID SHALL BE FROM A NORMAL SUPER PHOSPHATE OR AN EQUIVALENT SOURCE WHICH WILL PROVIDE A MINIMUM OF TWO UNITS OF SULFUR.  
 (b) THE AMOUNT OF SULFUR SHALL BE INDICATED ON THE QUANTITATIVE ANALYSIS CARD ATTACHED TO EACH BAG OR CONTAINER.  
 4. COMMERCIAL FERTILIZERS SHALL COMPLY WITH THE STATE FERTILIZER LAWS.  
 5. FERTILIZER MAY, AT THE DISCRETION OF THE ENGINEER/ARCHITECT, UPON THE PRESENTATION BY THE MANUFACTURER OF SATISFACTORY FACTORY EVIDENCE OF ITS FEASIBILITY, BE APPLIED IN LIQUID FORM.



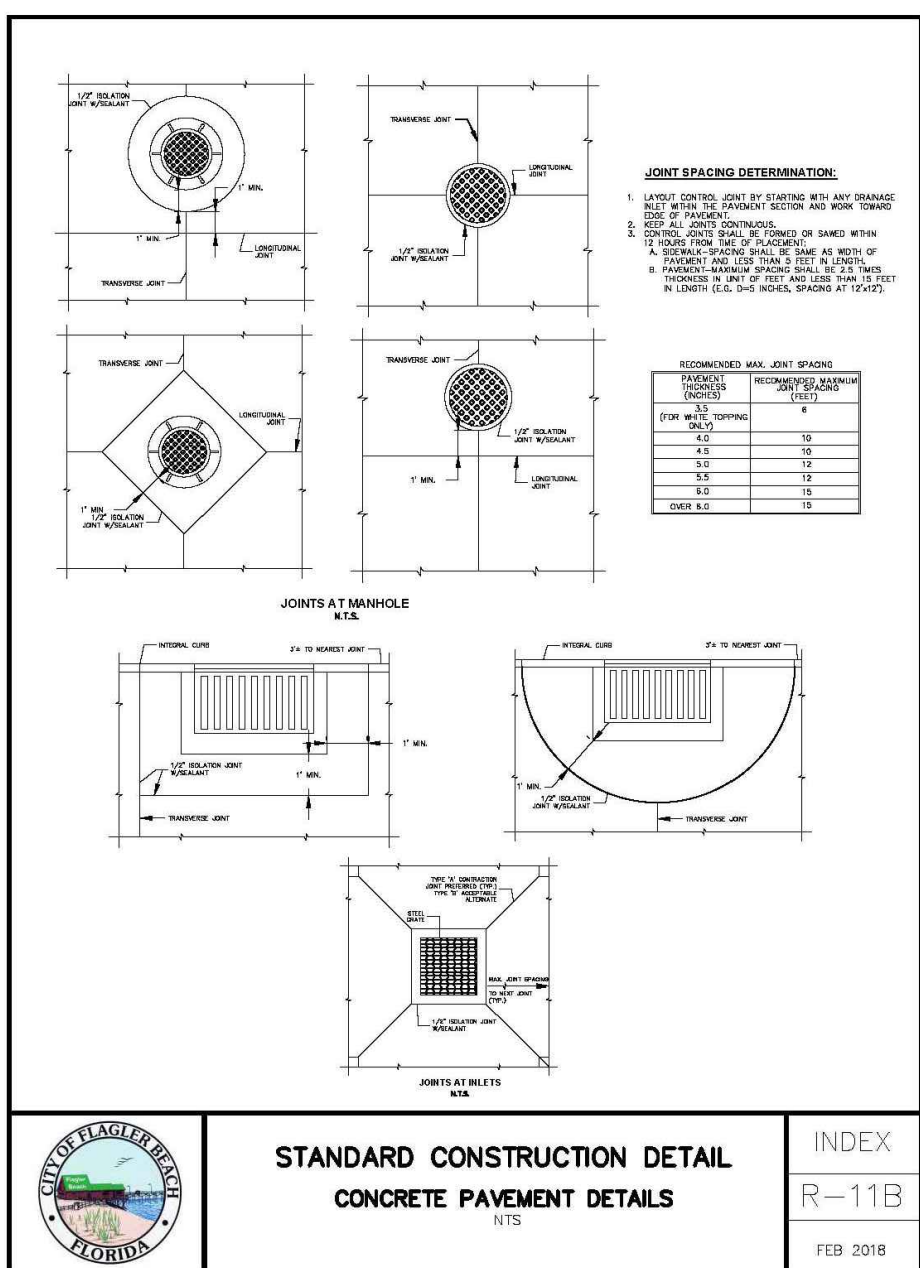
**STANDARD CONSTRUCTION DETAIL**  
**PAVEMENT CUT AND PATCH**  
 NTS  
**R-8**  
 FEB 2016



**STANDARD CONSTRUCTION DETAIL**  
**PAVEMENT BUTT JOINT**  
 NTS  
**R-9**  
 FEB 2016



**STANDARD CONSTRUCTION DETAIL**  
**CONCRETE PAVEMENT DETAILS**  
 NTS  
**R-11A**  
 FEB 2016

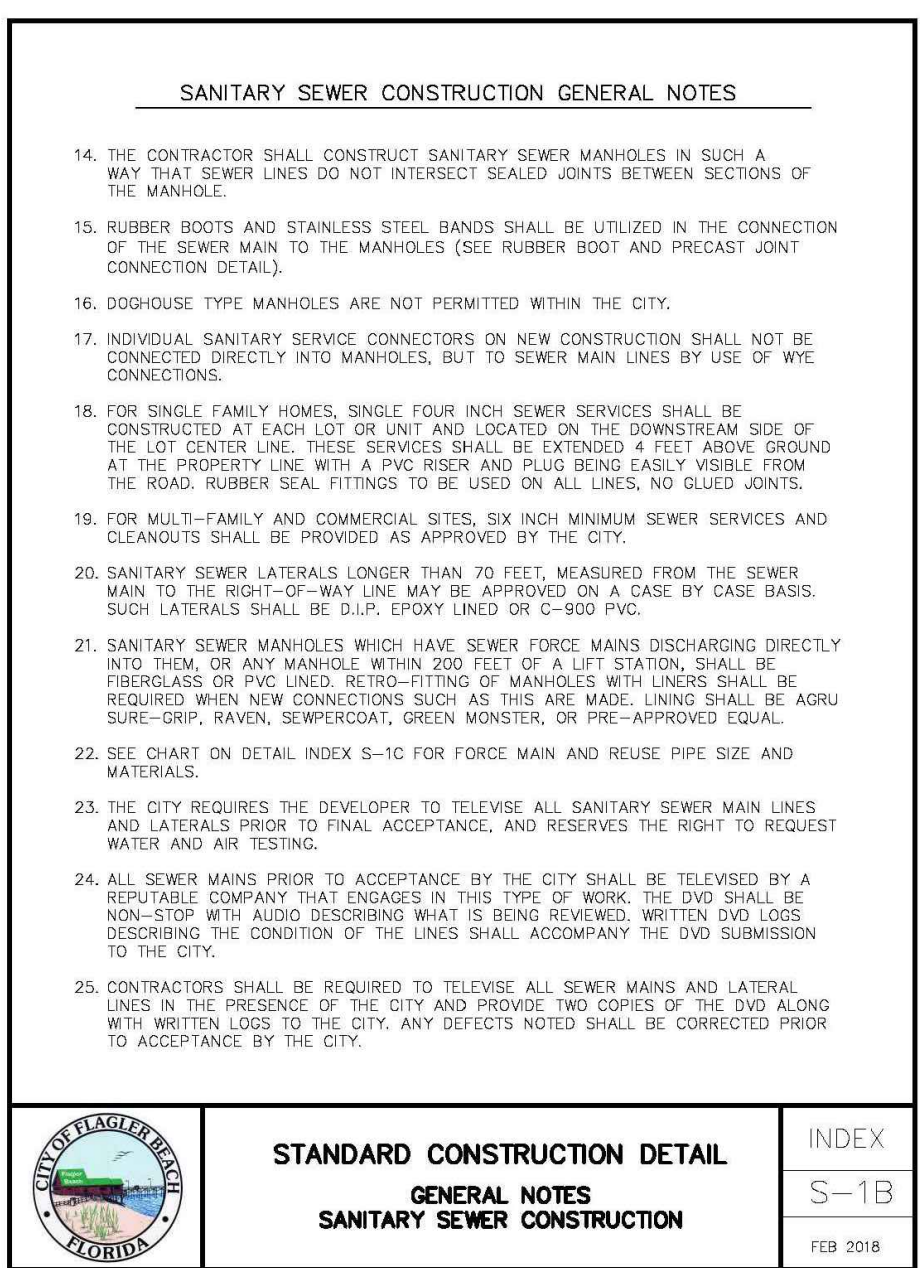


**STANDARD CONSTRUCTION DETAIL**  
**CONCRETE PAVEMENT DETAILS**  
 NTS  
**R-11B**  
 FEB 2016

**STANDARD CONSTRUCTION DETAIL**  
**GENERAL NOTES**  
**SANITARY SEWER CONSTRUCTION**  
 NTS  
**S-1A**  
 FEB 2016

**SANITARY SEWER CONSTRUCTION GENERAL NOTES**

- THE CITY SHALL BE NOTIFIED PRIOR TO BEGINNING ANY SEWER CONSTRUCTION.
- ALL GRAVITY SANITARY SEWER LINES SHALL BE A MINIMUM OF 8" IN DIAMETER. SERVICE LATERALS SHALL BE A MINIMUM OF 4" DIAMETER (RESIDENTIAL) OR A MINIMUM OF 6" DIAMETER (COMMERCIAL).
- ALL SANITARY SEWER LINES SHALL BE PVC SDR 26, IN PLACES WHERE A MINIMUM COVER OF 4.0' CANNOT BE MAINTAINED, C-900 GREEN PVC DR-26, CLASS 100 OR CONCRETE (COMMERCIAL) SHALL BE USED.
- MINIMUM ALLOWABLE SANITARY SEWER SLOPES ALLOWED ARE:  
 8" PIPE 0.40%  
 10" PIPE 0.30%  
 12" PIPE 0.22%
- SEWER LINE CONSTRUCTION SHALL BE ACCOMPLISHED BY THE USE OF A LASER INSTRUMENT.
- THE CONTRACTOR SHALL AT ALL TIMES, DURING PIPE LAYING, MAINTAIN THE GROUND SURFICED TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6" BELOW THE PIPE BEING LAID WITHIN THE TRENCH.
- ALL PIPES SHALL BE LAID ON A FIRM FOUNDATION, SOFT OR SPONGY BEDDING FOR PIPES WILL NOT BE ACCEPTED. ANY UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH A DRY, COMPACTED, GRANULAR MATERIAL SATISFACTORY TO THE CITY.
- TRENCHES SHALL BE BACKFILLED WITH CLEAN GRANULAR MATERIAL IN MAX. 1' LIFTS WITH A MINIMUM COMPACTION OF 98 PERCENT (ASTM D-1557) IN PAVED AREAS AND 90 PERCENT IN UNPAVED AREAS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS BE PROVIDED AT POINTS 1' FOOT ABOVE THE PIPE AND AT 1' FOOT VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET, AND TO FURNISH COPIES OF TEST REPORTS PROMPTLY TO THE CITY.
- EXCAVATION AND BACKFILL: THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING AND BRACING OF EXCAVATION WORK OR USE OF TRENCH BOX IN ORDER TO PROVIDE FOR THE SAFETY AND REPRESENTATIVES OF THE CITY, THE DESIGN ENGINEER, AND THE DEVELOPER.
- THE CONTRACTOR SHALL INSTALL A METALLIZED FOL LOCATOR TAPE, OR SIMILAR DEVICE AND MAY BE APPROVED BY THE CITY FOR THE FULL LENGTH OF ALL PVC LINES. THE TAPE SHALL BE INSTALLED (10) INCHES BELOW FINISHED GRADE OR AS DIRECTED BY THE MANUFACTURER AND IN ADDITION TO THE LOCATOR WIRE REQUIRED IN THE UTILITY PIPE LOCATION MATERIALS DETAIL (MISCELLANEOUS DETAILS SECTION - M10).
- CONTRACTORS SHALL BE LOCATED AT INTERVALS NOT EXCEEDING 400 FEET.
- MANHOLE RINGS SHALL MATCH FLUSH WITH THE FINISH GRADE ELEVATION IN PAVED AREAS AND A MINIMUM OF 0.2 FEET ABOVE GRADE IN UNPAVED AREAS.



**STANDARD CONSTRUCTION DETAIL**  
**GENERAL NOTES**  
**SANITARY SEWER CONSTRUCTION**  
 NTS  
**S-1B**  
 FEB 2016

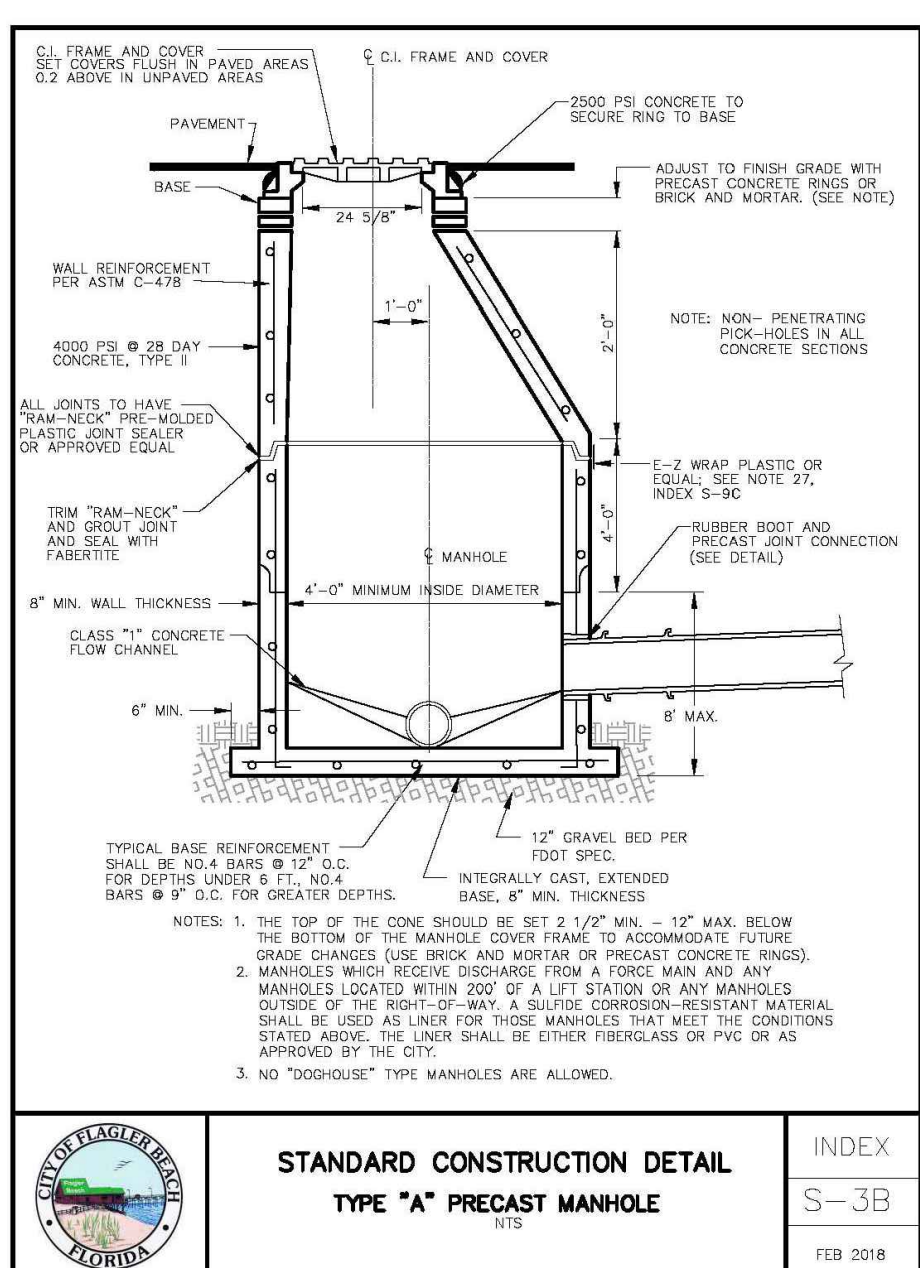
**SANITARY SEWER CONSTRUCTION GENERAL NOTES**

- ALL MANHOLES CONSTRUCTED IN SIDE YARDS, BACKYARDS, AND EASEMENTS OFF THE RIGHT-OF-WAY SHALL BE CONSTRUCTED WITH FIBERGLASS LINERS OR OTHER TYPES OF LINERS OR COATINGS APPROVED BY THE CITY. IN ADDITION THE CITY MAY REQUIRE LINERS OR COATINGS TO BE INSTALLED IN OTHER AREAS WHERE THE PUBLIC UTILITY DEPARTMENTS BELIEVE THE NEED IS JUSTIFIED.
- SEWER LINES WHICH ARE CONSTRUCTED OFF PUBLIC RIGHTS-OF-WAY WITHIN SIDE YARDS, BACKYARDS, AND OTHER POORLY ACCESSIBLE AREAS SHALL BE CONSTRUCTED OF C-900 PVC OR UNPLASTICIZED DUCTILE IRON PIPE. ABSOLUTELY NO USE OF PLASTIC FITTINGS SHALL BE ALLOWED.
- SEWER LATERAL LOCATIONS SHALL BE MARKED ALONG THE OUTSIDE OF THE CURB WITH A SAW CUT V, OR BY A METAL TAB SET INTO THE PAVEMENT.
- EZ-WRAP PLASTIC, AS MANUFACTURED BY PRESS-SEAL GASKET CORPORATION OR APPROVED EQUAL, SHALL BE USED ON THE OUTSIDE OF ALL MANHOLE AND WELL JOINTS. APPLY ONE LAYER OF 6" WRAP CENTERED ON EACH JOINT. THE CITY SHALL PERSONALLY INSPECT ALL JOINT SEALS PRIOR TO BACKFILLING OPERATIONS.
- ALL PROPOSED SEWER MAINS, 4" OR GREATER, SHALL BE FLUSHED AND CLEANED WITH A POLY RID IN ACCORDANCE WITH LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
- ALL SEWER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES AND A MAXIMUM DEPTH OF 12' TO ANY MANHOLE OR NETWORK. IN SPECIAL CASES WHERE IT IS IMPOSSIBLE OR UNAPPROPRIATE TO PROVIDE ADEQUATE COVER, DUCTILE IRON CLASS 350 OR CONCRETE ENCASMENT MAY BE USED AS APPROVED BY THE CITY.
- SEWER SYSTEMS SHALL BE PRESSURE TESTED AT 100 PSI STATIC PRESSURE FOR A PERIOD OF 2 HOURS PER AWWA STANDARDS. TESTS SHALL BE CONDUCTED BEFORE FINAL PAVING AND IN THE PRESENCE OF THE CITY.
- DURING CONSTRUCTION, CONTRACTOR SHALL ISOLATE NEW SANITARY SEWER CONSTRUCTION FROM EXISTING SANITARY SEWER MAINS. THIS ISOLATION MAY BE BY INSTALLATION OF A BLADDER/PLUG PLACED AT POINT OF CONNECTION OR BY OTHER METHODS. THE PURPOSE OF THIS ISOLATION IS TO ENSURE SURFACE WATER IS NOT RELEASED TO THE TREATMENT PLANT. SURFACE WATER SHALL BE REMOVED PRIOR TO THE BLADDER BEING REMOVED.

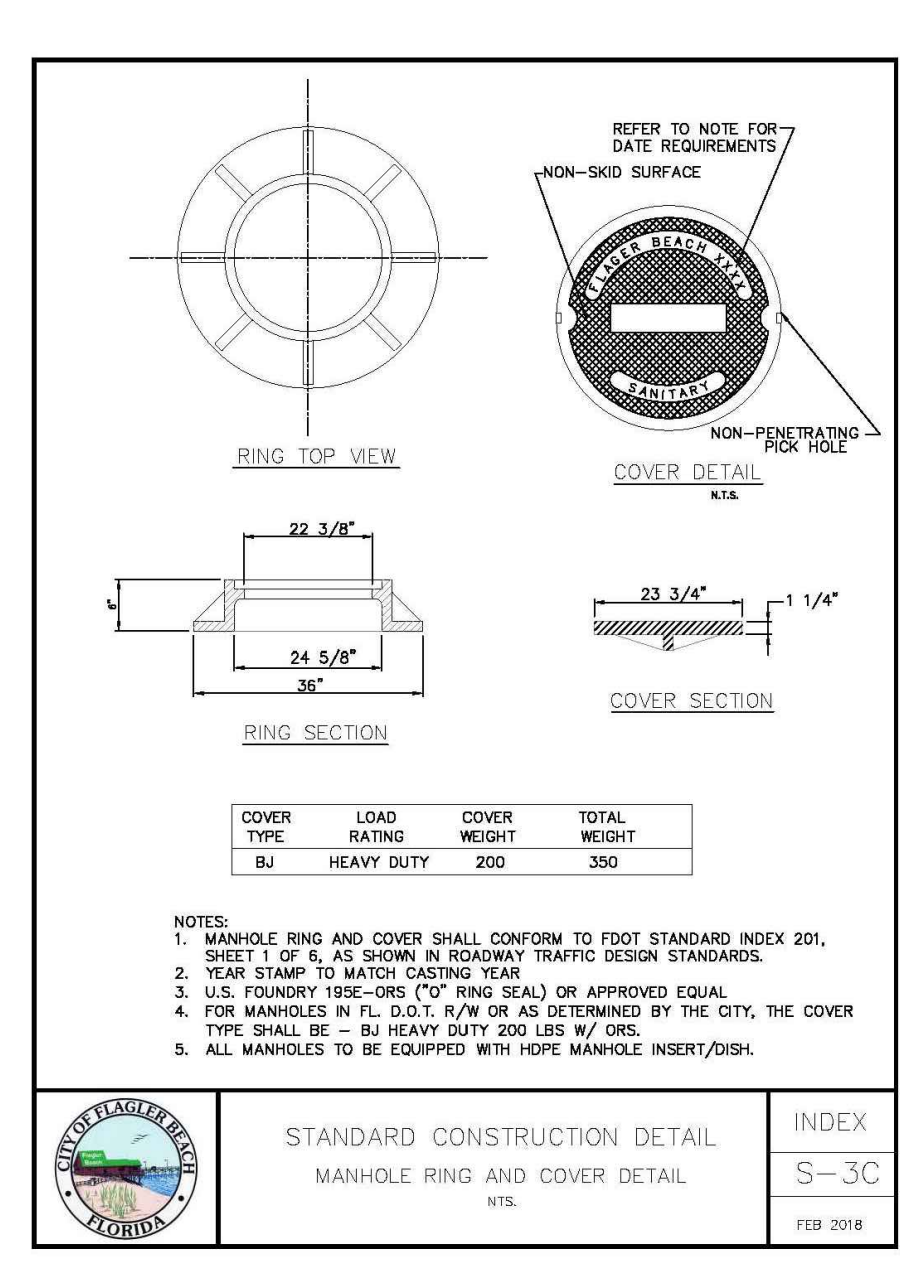
FORCE MAIN & REUSE MAIN STANDARDS			
DIAMETER	MATERIAL	STANDARD	
2" - 4"	PVC 1120 / SDR 21	ASTM D 2241	
> 4" - 12"	PVC 1120 / CLASS 100	AWWA C 900	
14" - 36"	PVC 1120	AWWA C 900	
{ 16" - 24" DR - 18 } { 30" - 36" DR - 21 }			
ALL SIZES	HOPE (DIPS) DR 13.5	ASTM F 714	

NOTE: PVC PIPE COLOR SHALL BE GREEN OR WHITE FOR SEWER FORCE MAIN, AND PURPLE FOR REUSE MAIN.

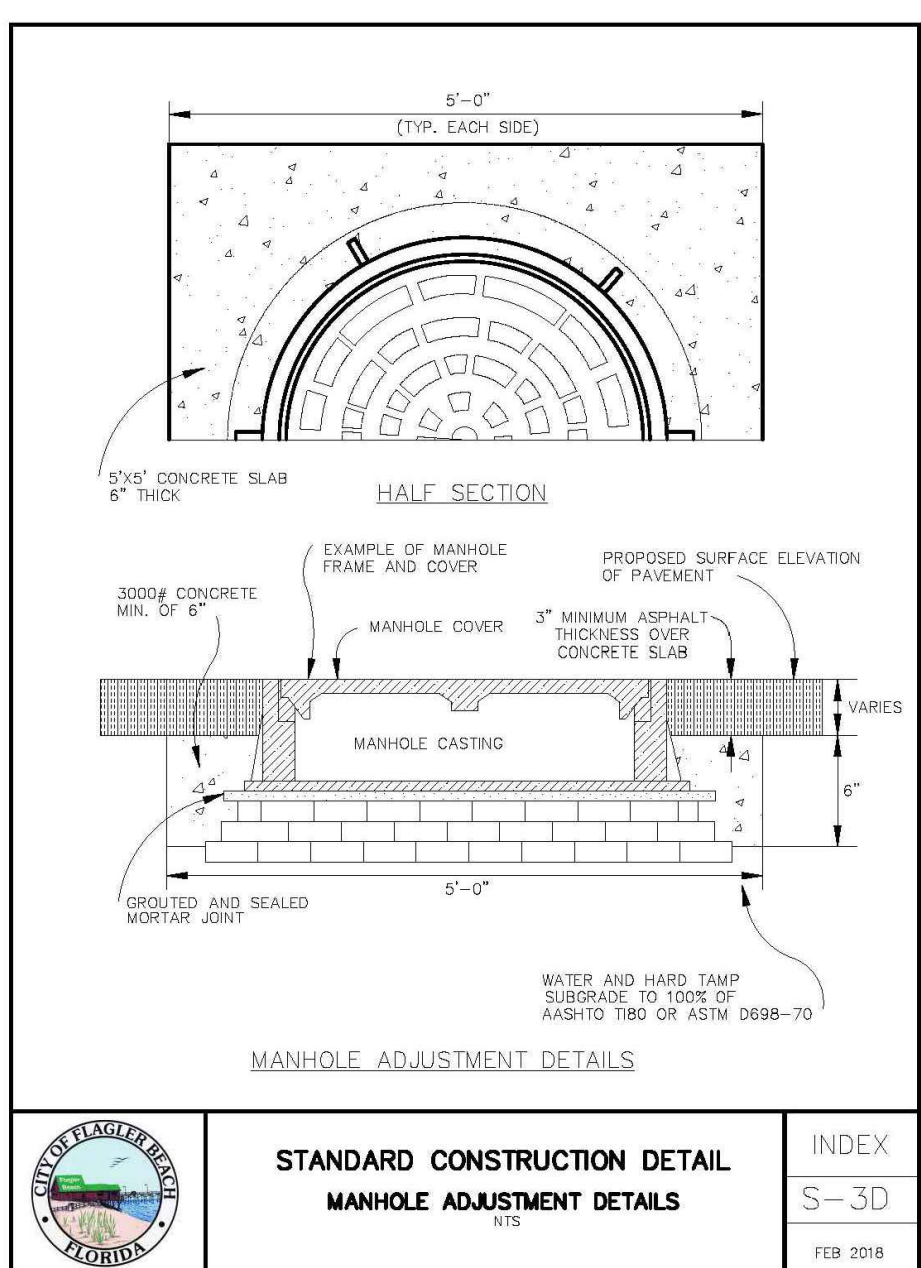
**STANDARD CONSTRUCTION DETAIL**  
**GENERAL NOTES**  
**SANITARY SEWER CONSTRUCTION**  
 NTS  
**S-1C**  
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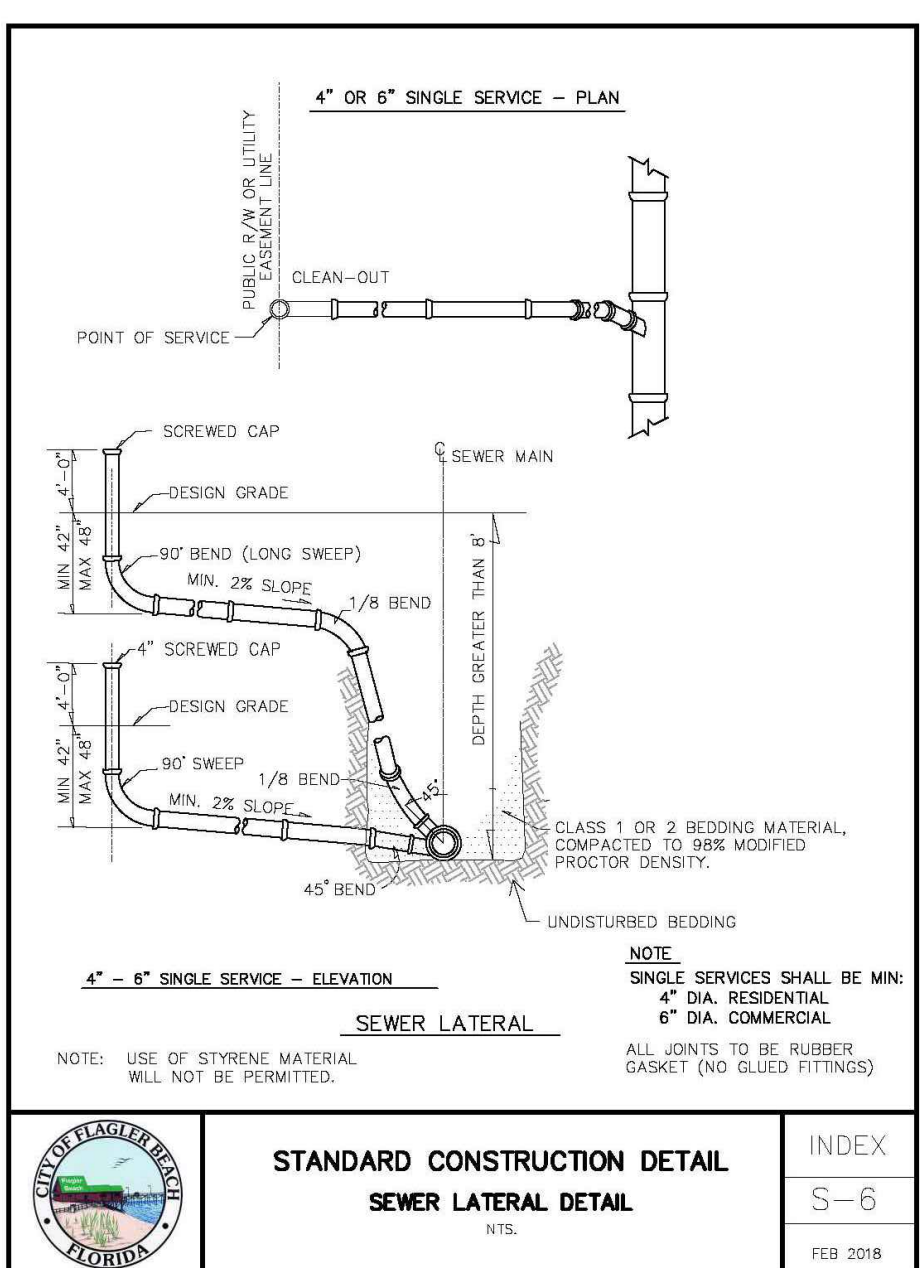
**STANDARD CONSTRUCTION DETAIL**  
**TYPE "A" PRECAST MANHOLE**  
 NTS  
**S-3B**  
 FEB 2016



**STANDARD CONSTRUCTION DETAIL**  
**MANHOLE RING AND COVER DETAIL**  
 NTS  
**S-3C**  
 FEB 2016



**STANDARD CONSTRUCTION DETAIL**  
**MANHOLE ADJUSTMENT DETAILS**  
 NTS  
**S-3D**  
 FEB 2016



**STANDARD CONSTRUCTION DETAIL**  
**SEWER LATERAL DETAIL**  
 NTS  
**S-6**  
 FEB 2016

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DATE	DESCRIPTION

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**NEWKIRK ENGINEERING INC.**

**CITY OF FLAGLER BEACH**  
**UTILITY DETAILS**  
**LEGACY POINTE COTTAGES**  
 LESLIE STREET  
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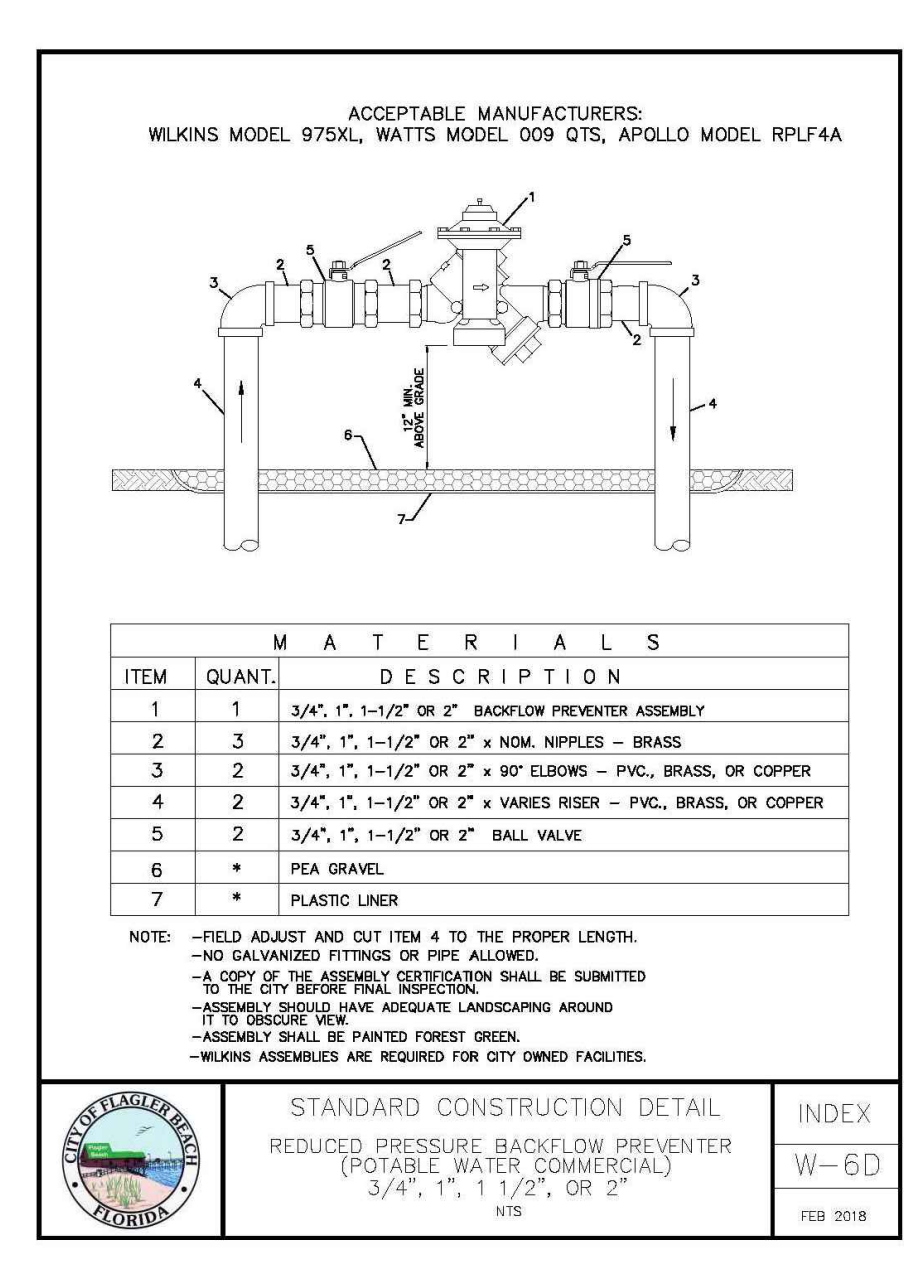
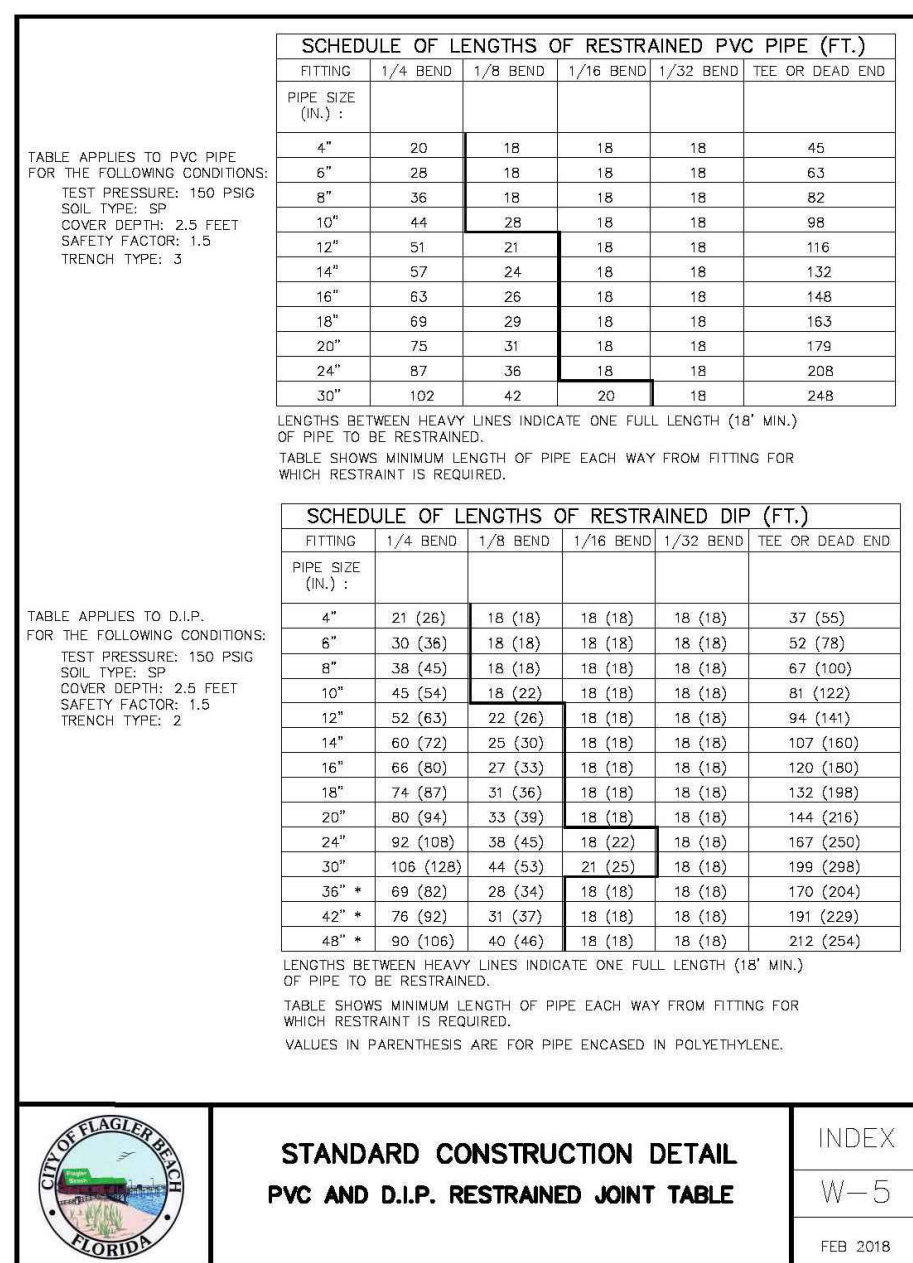
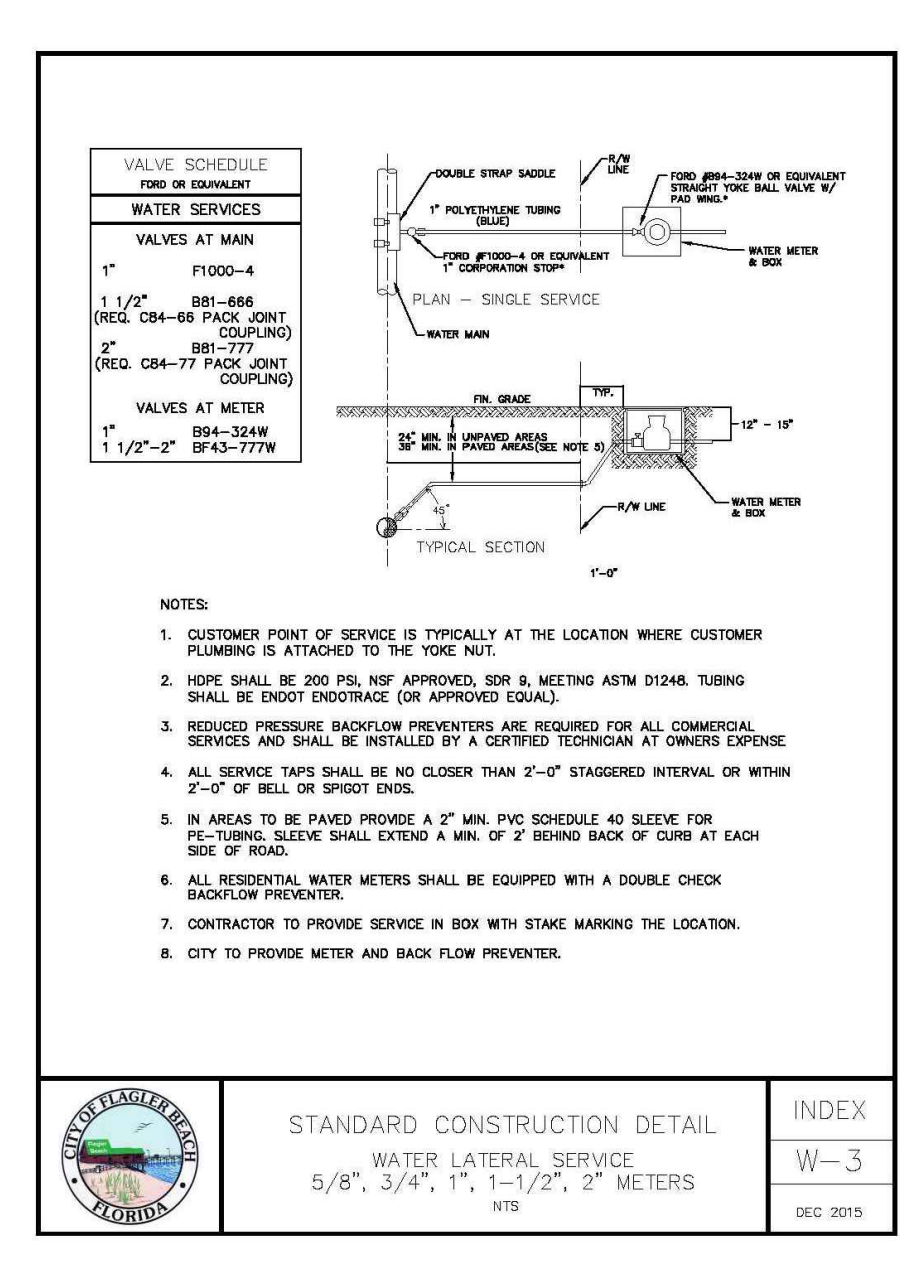
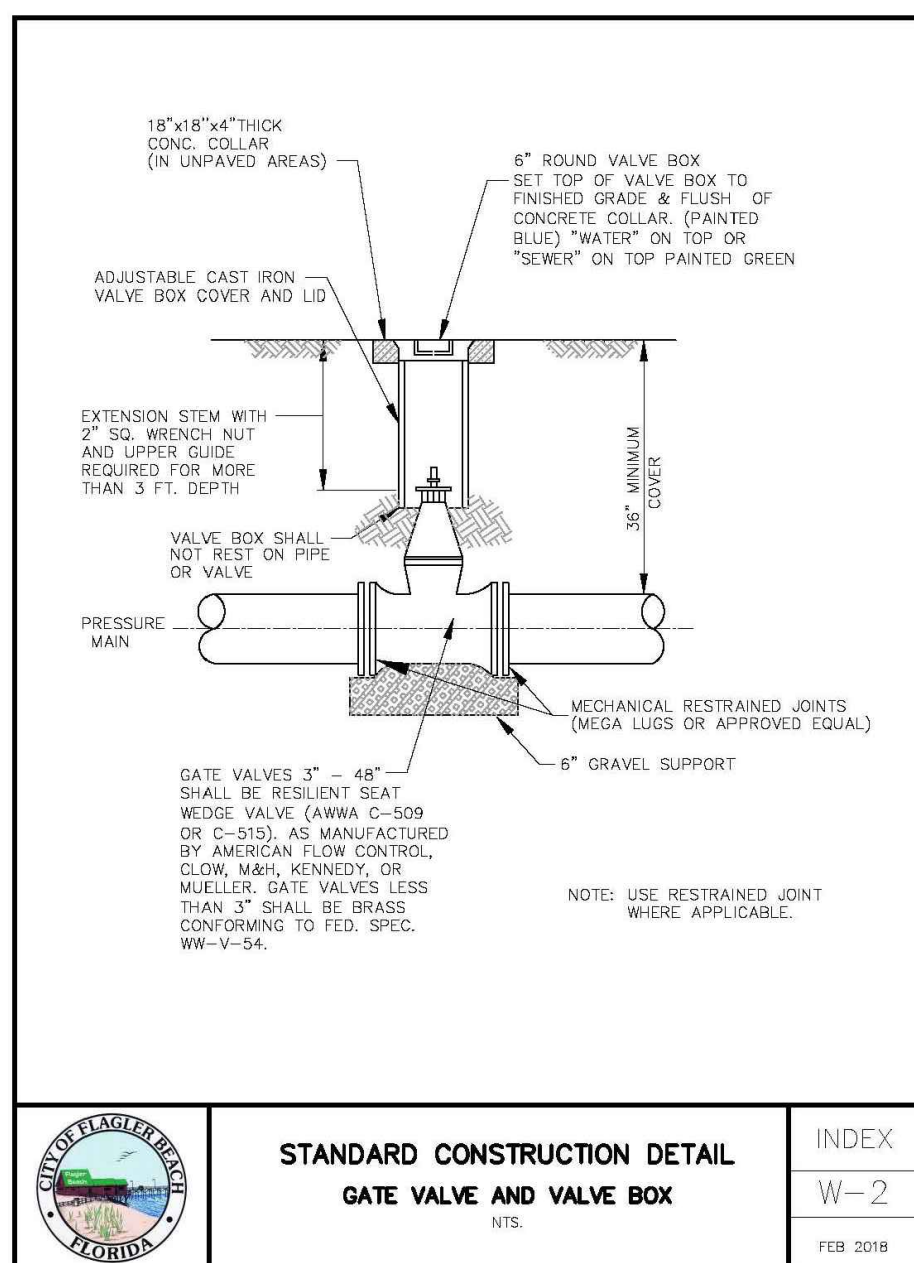
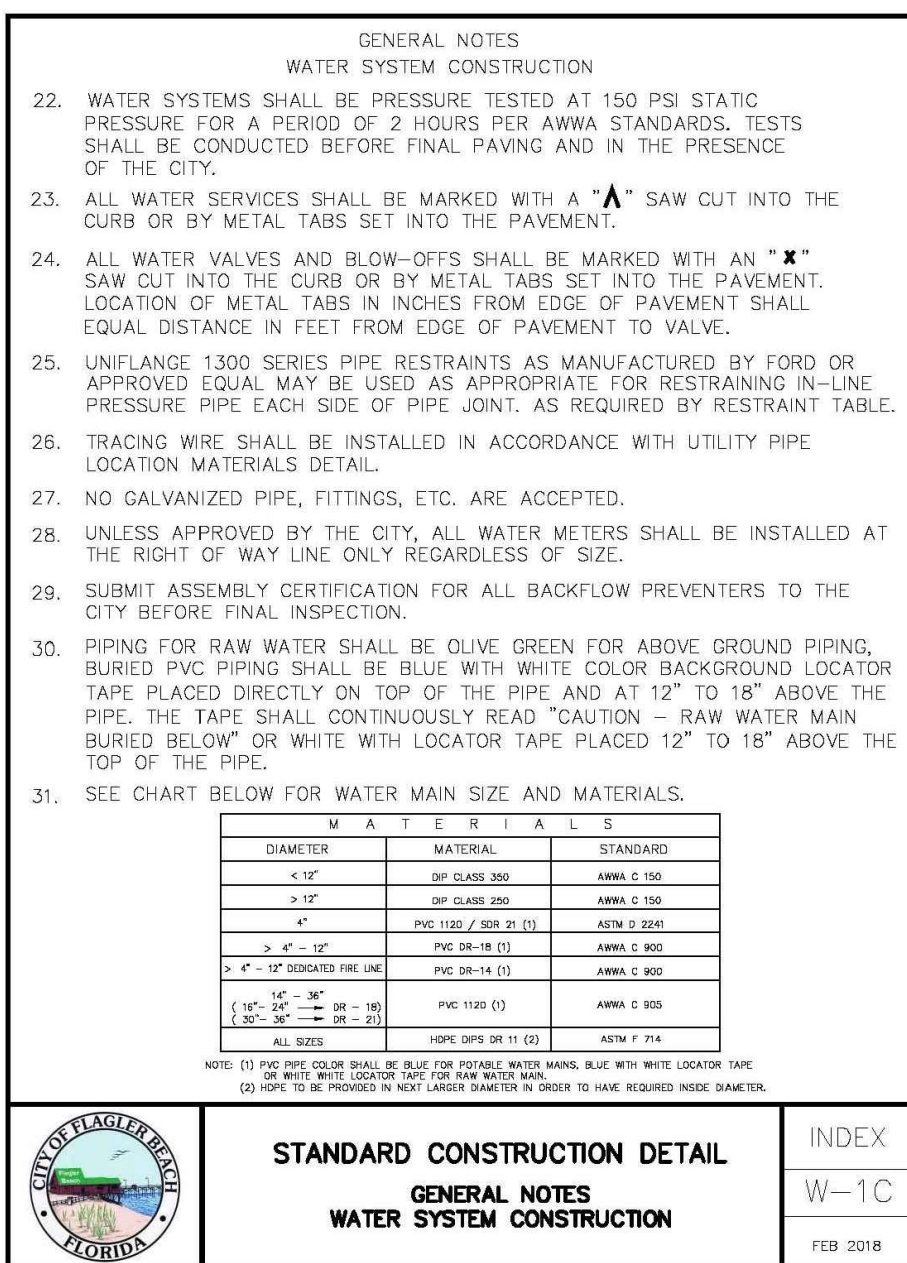
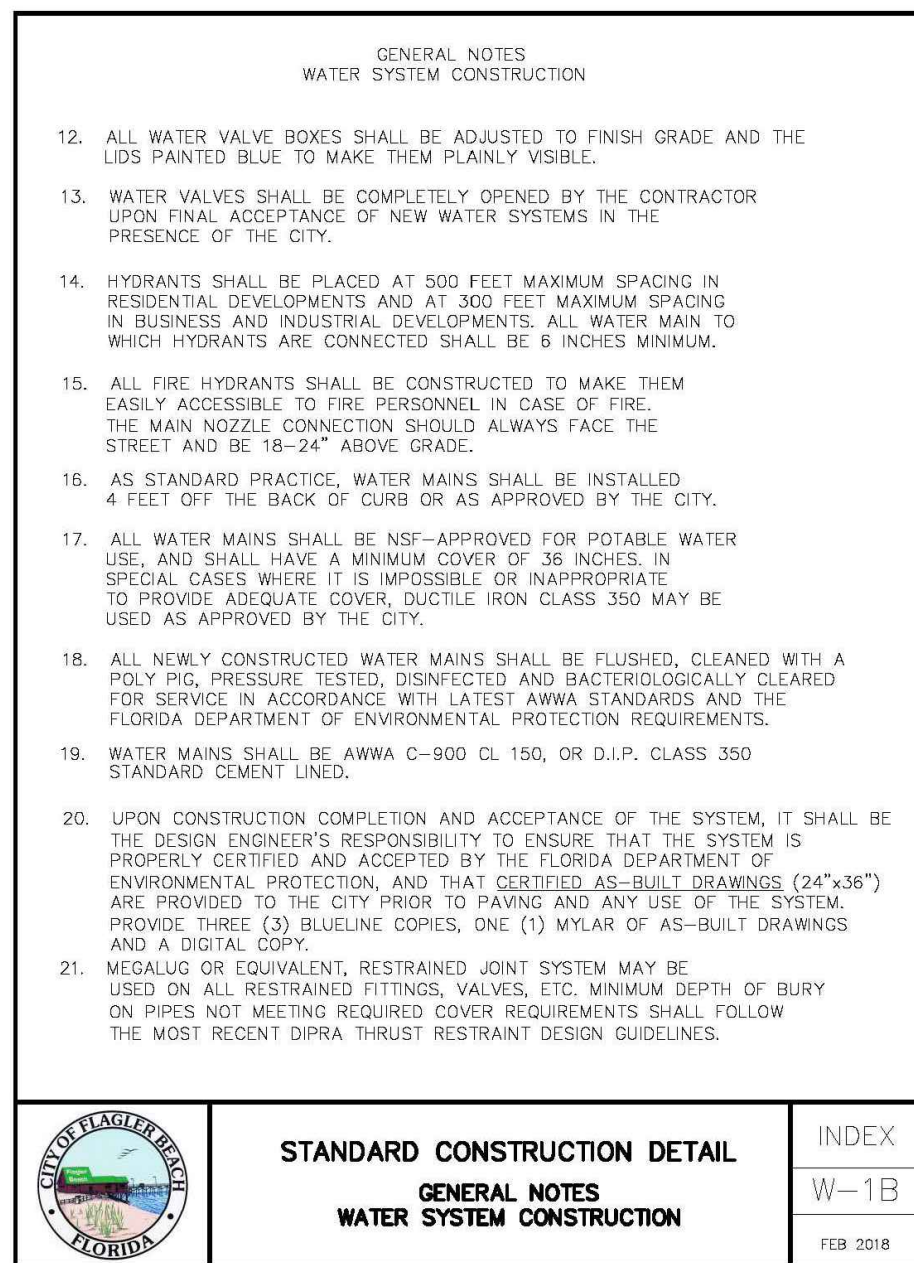
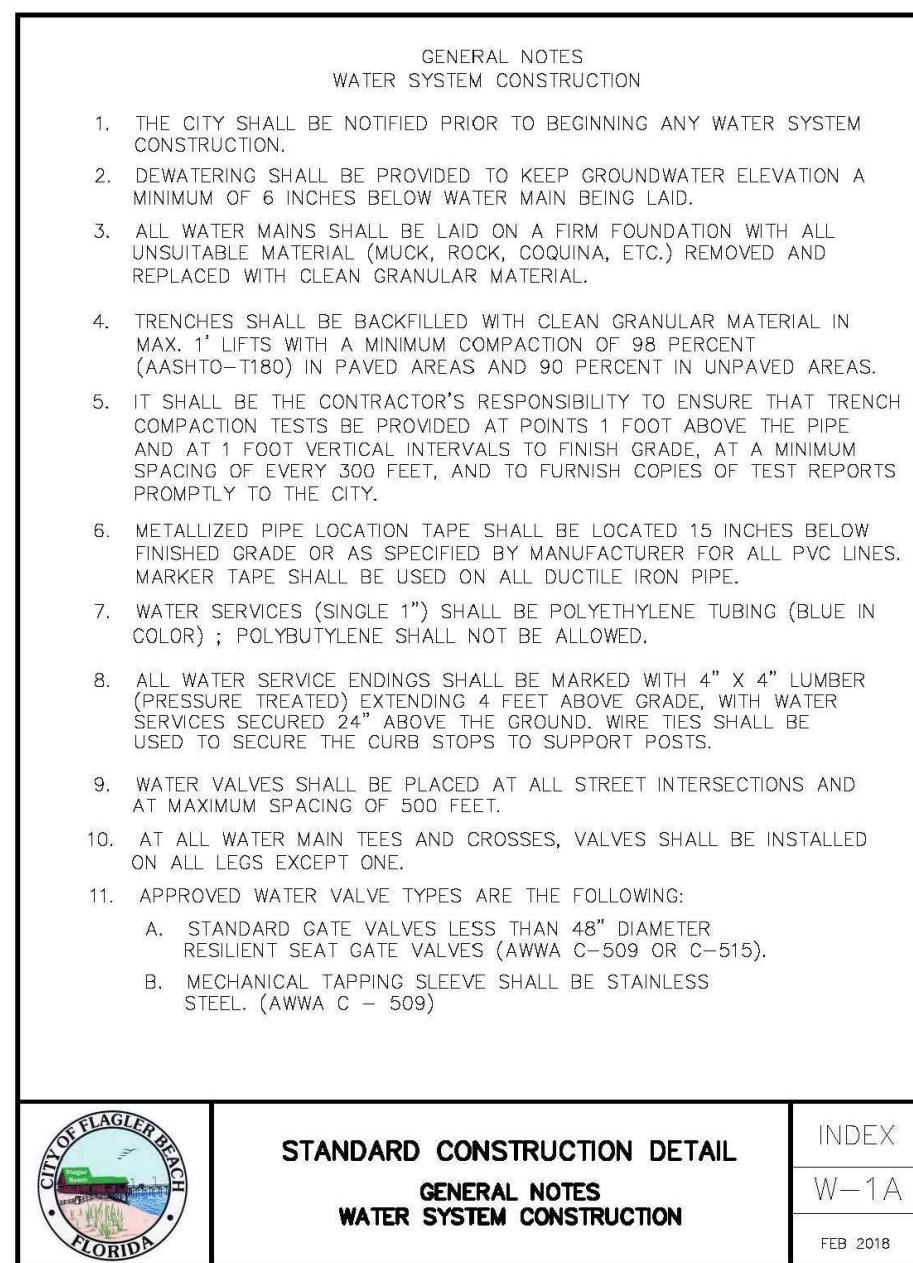
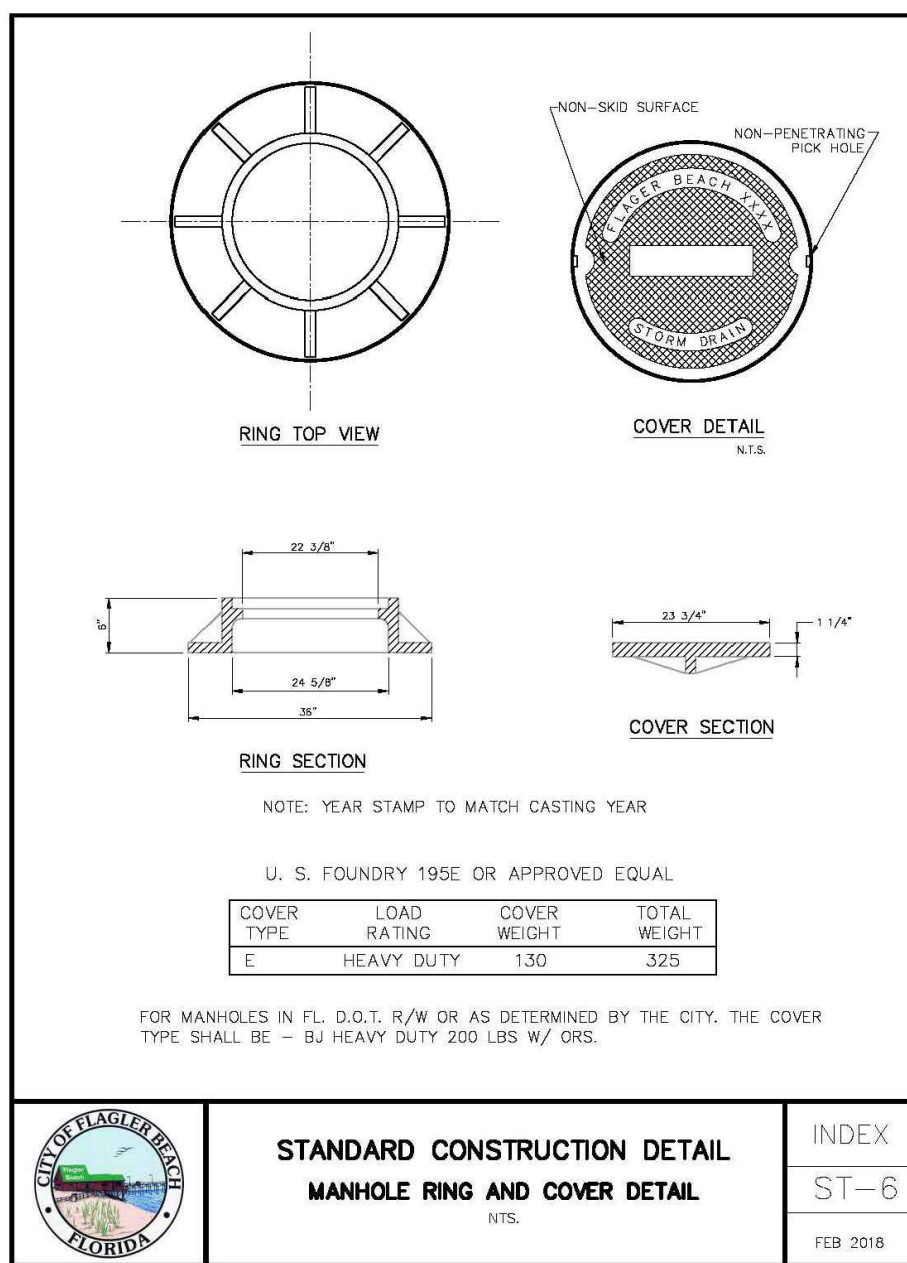
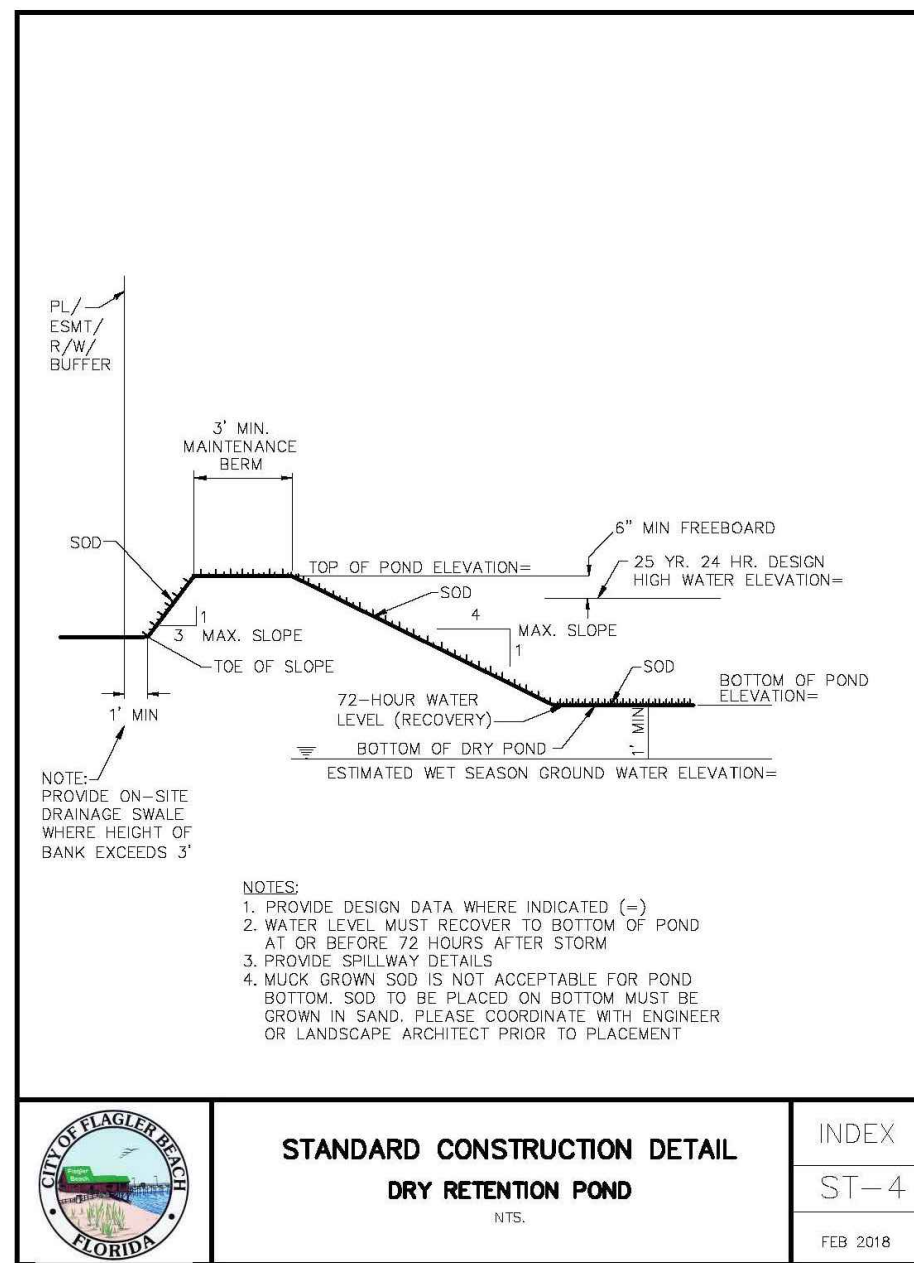
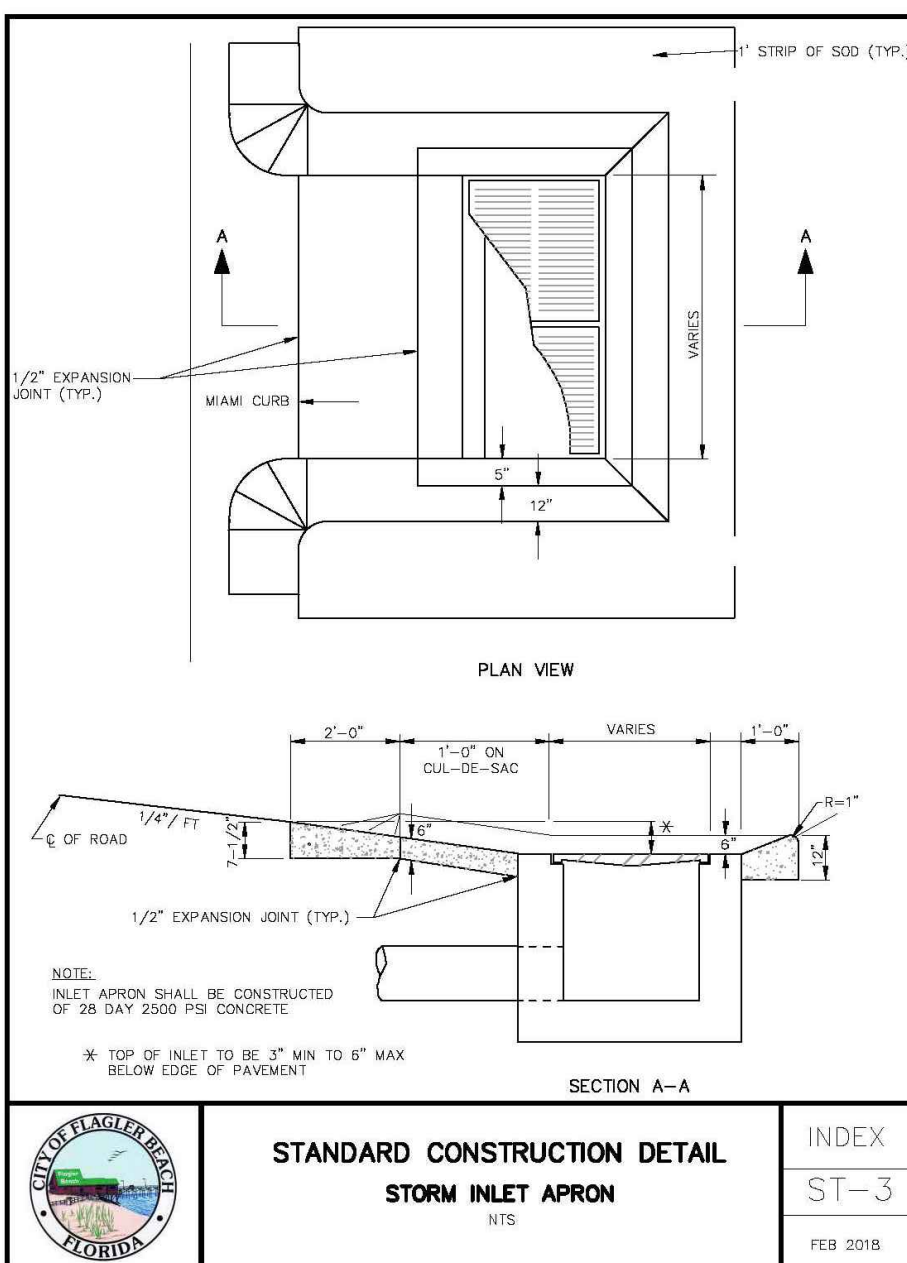
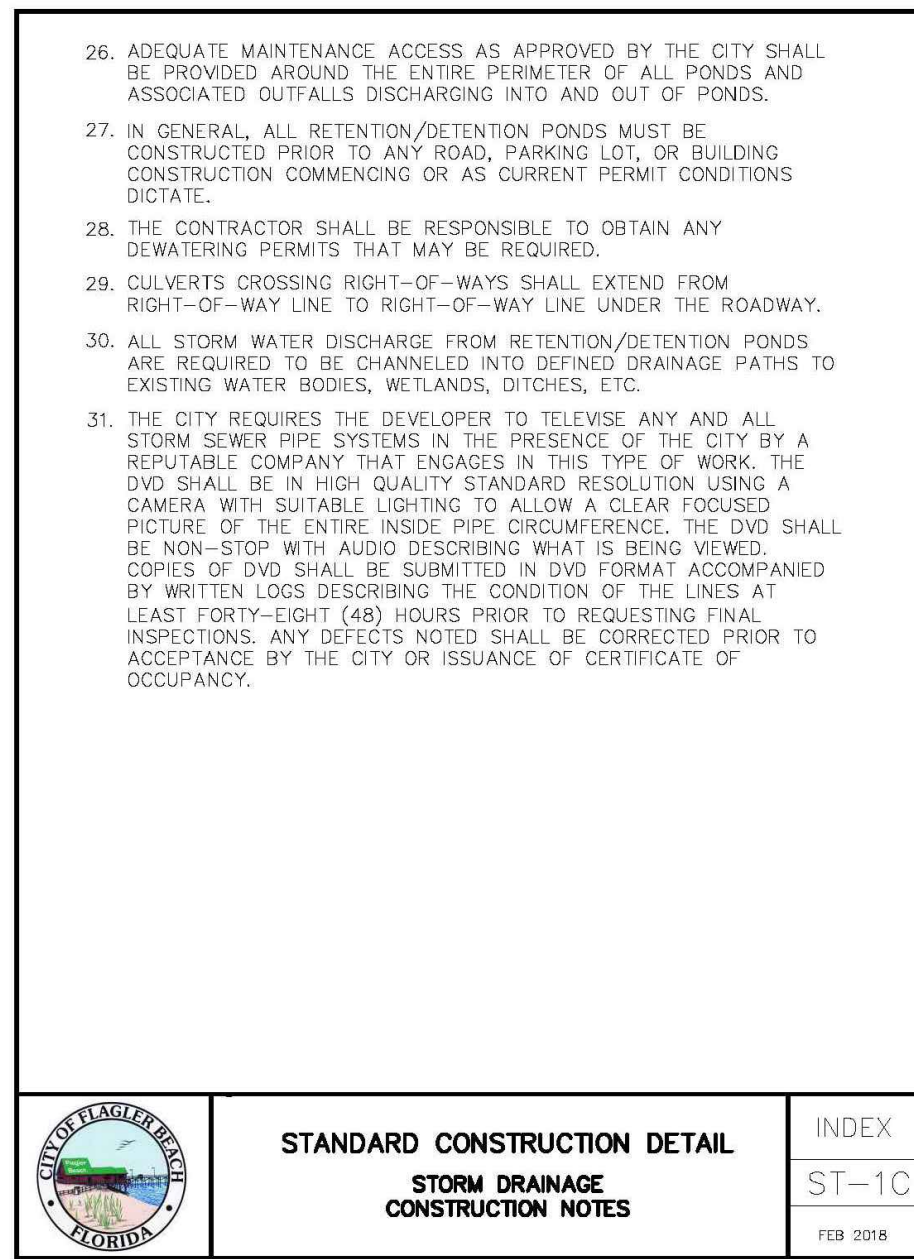
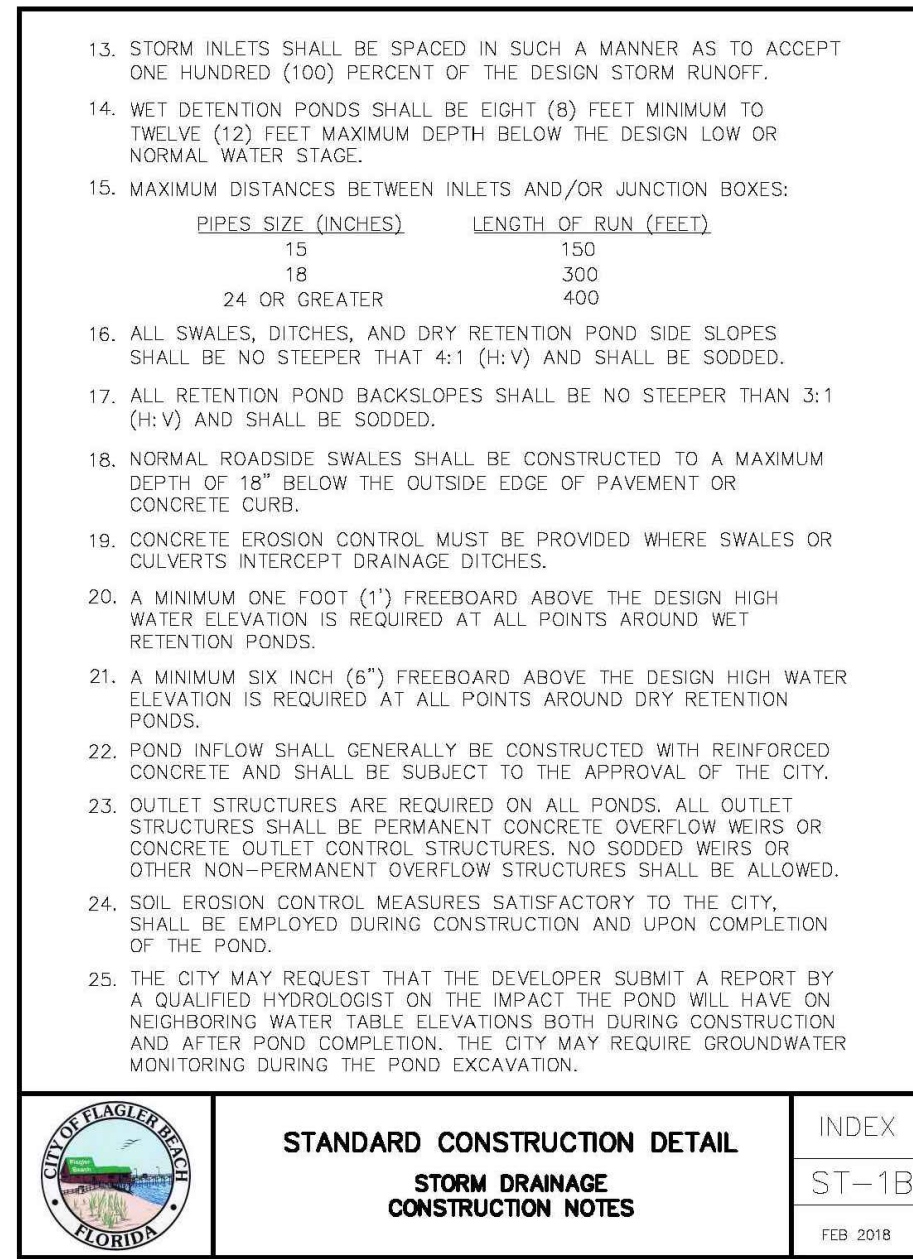
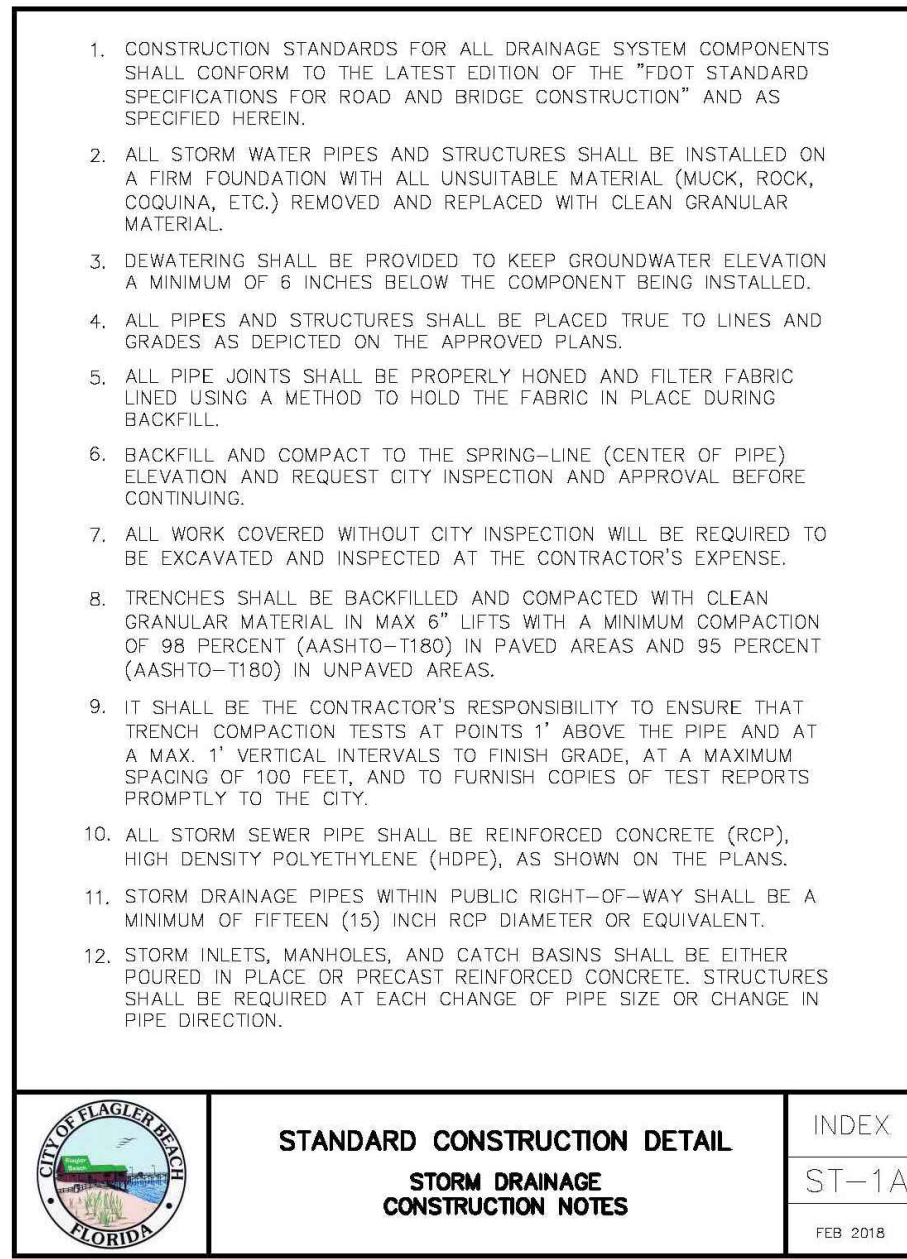
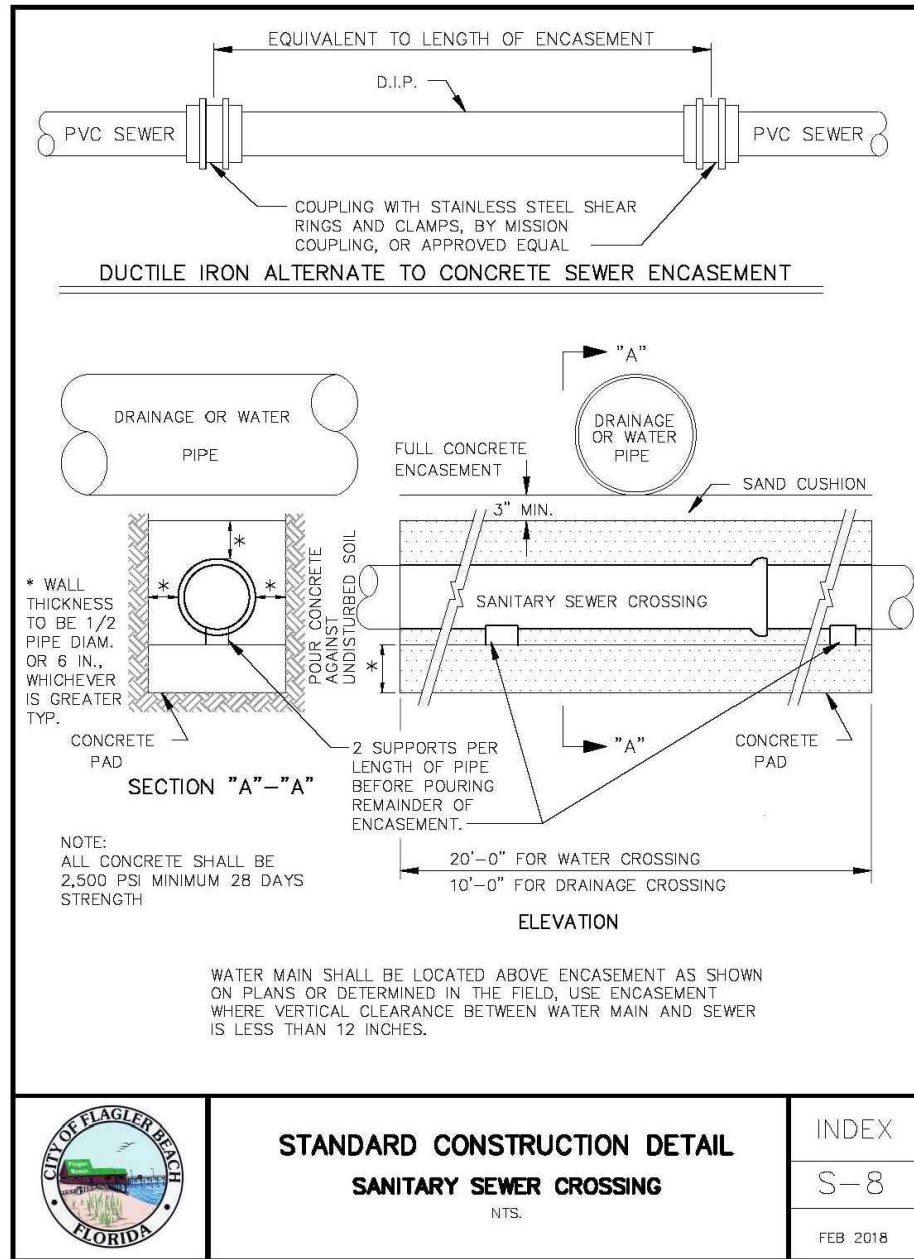
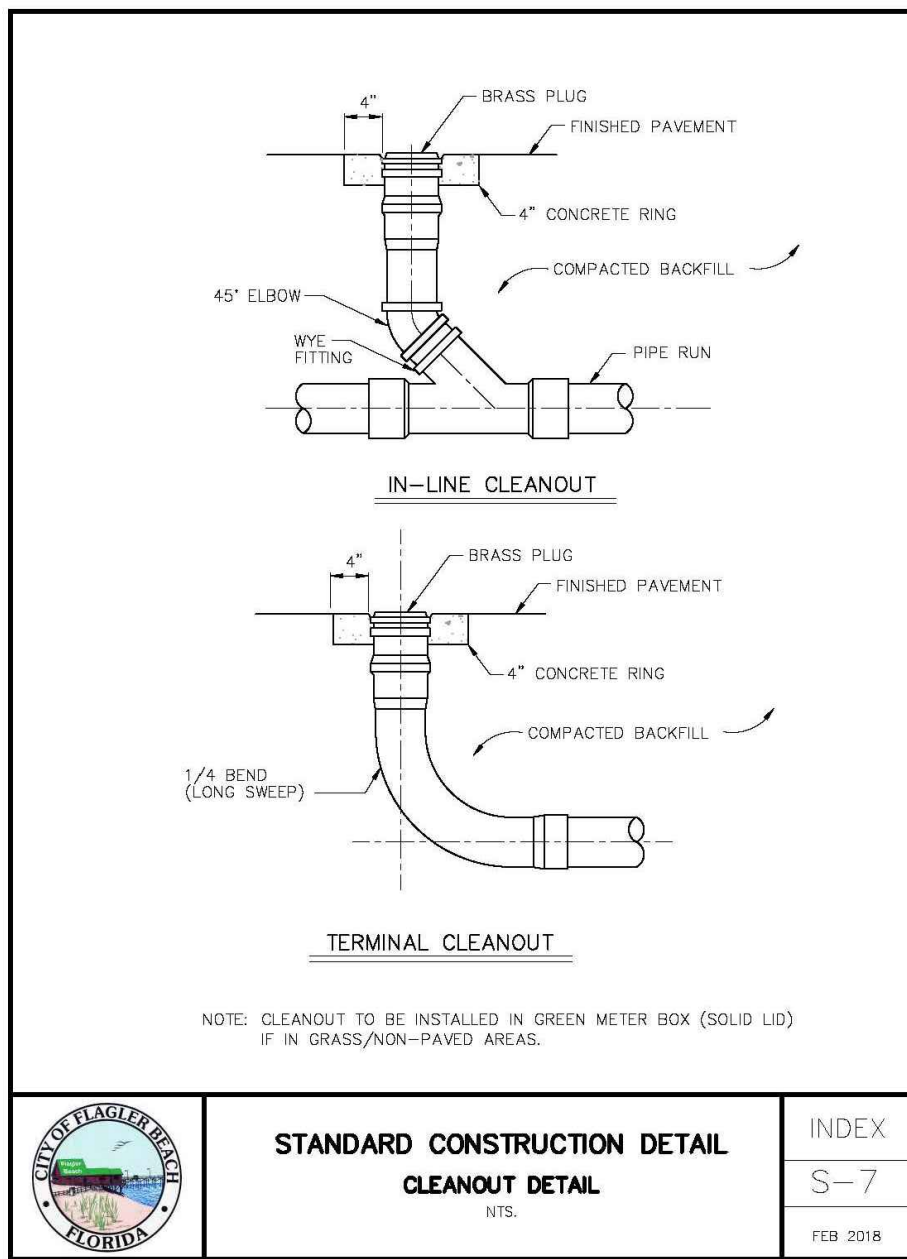
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 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

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 DRAWN BY: NWS  
 CHECKED BY: HHN  
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 DRAWING NUMBER

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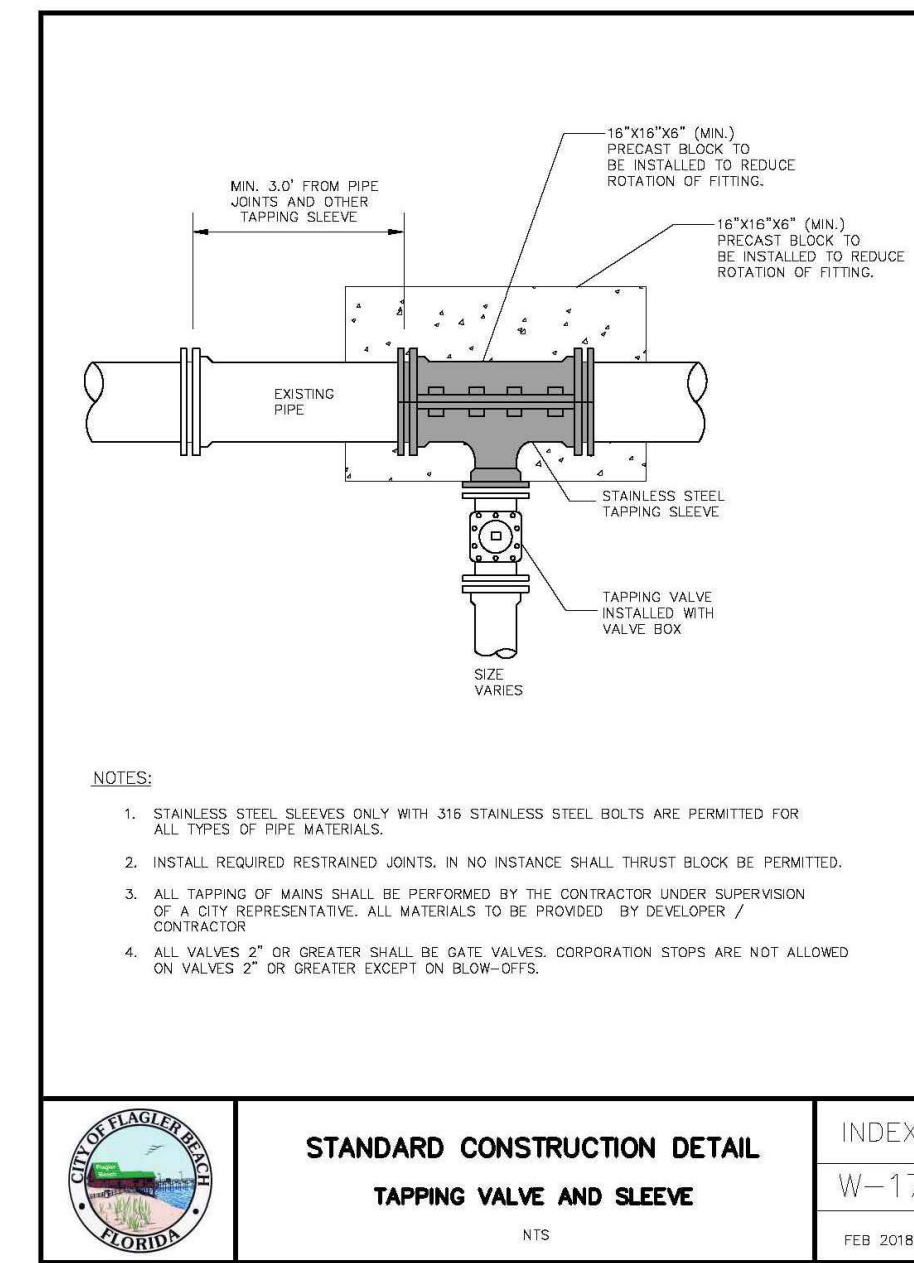
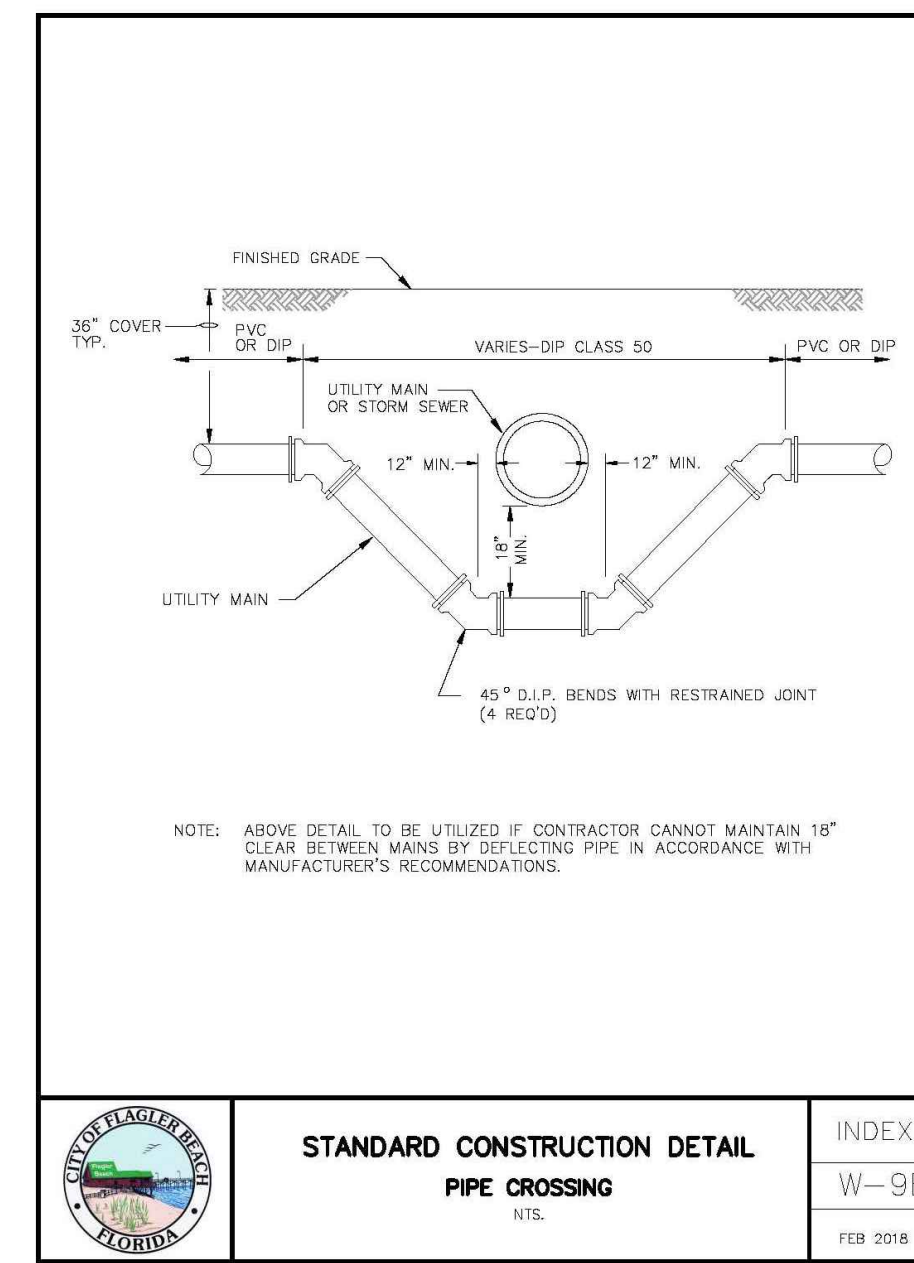
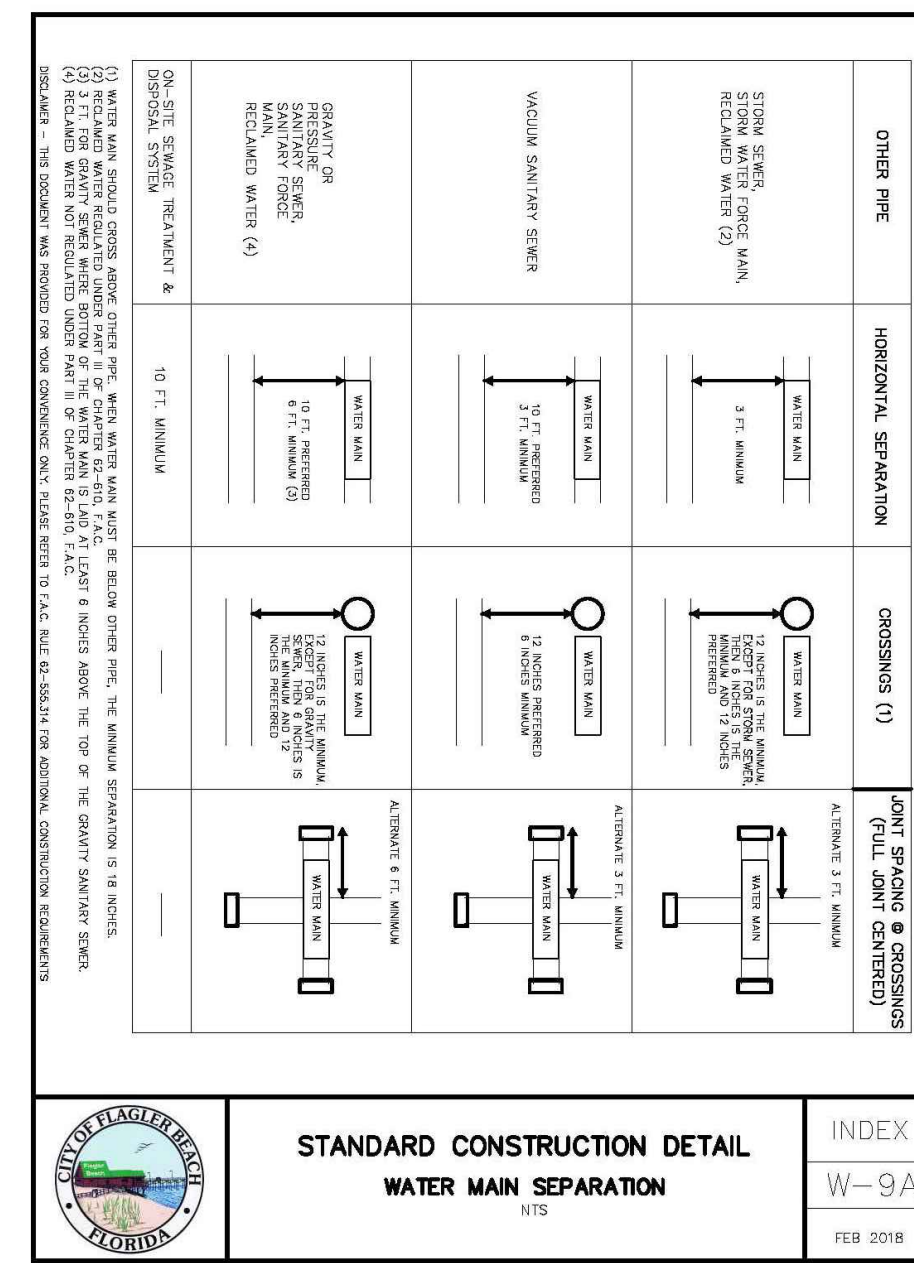
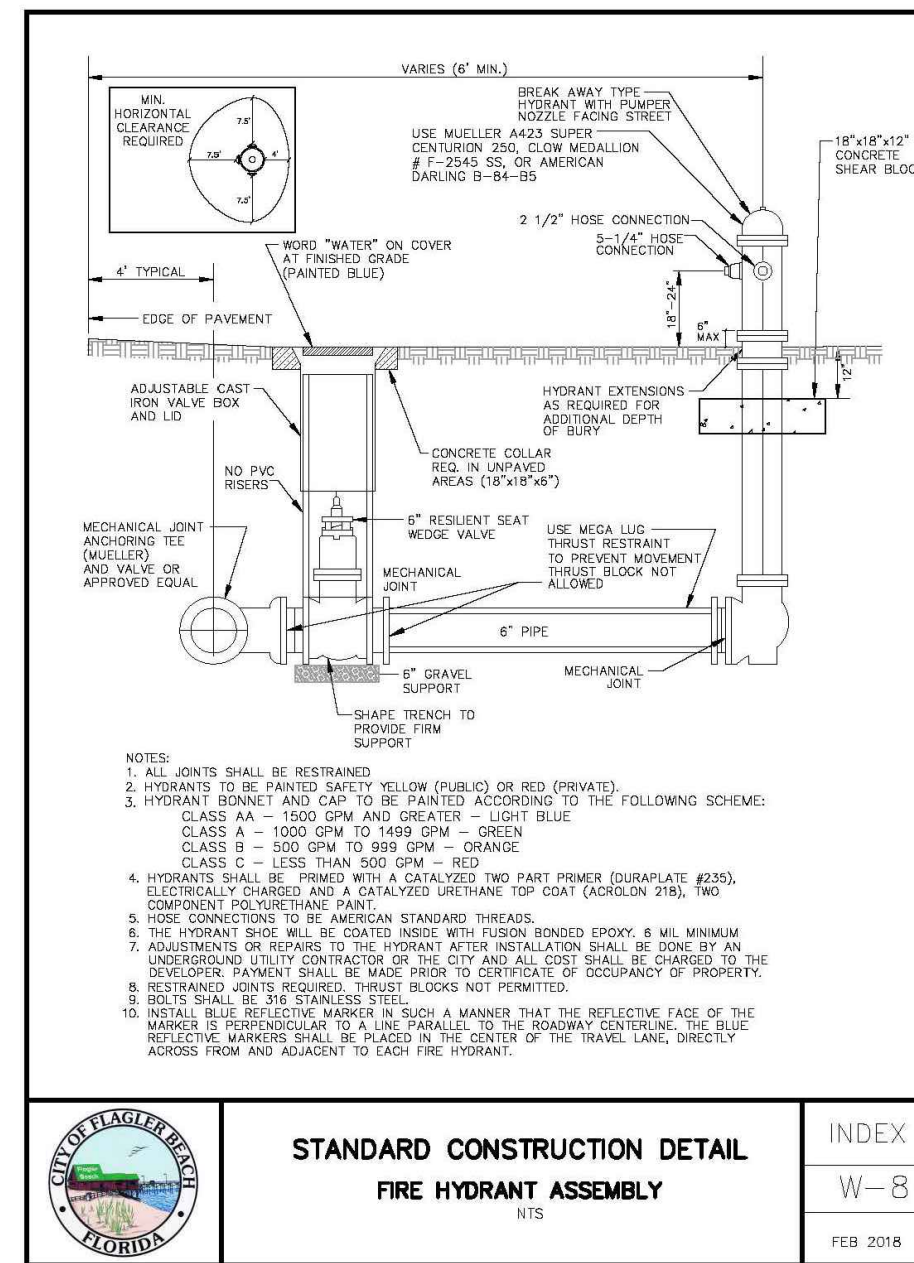
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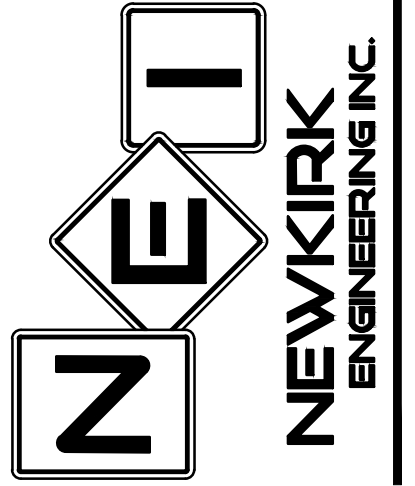
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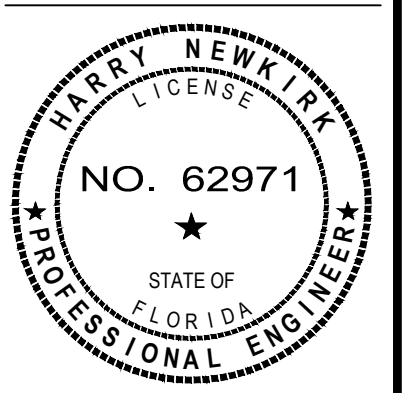
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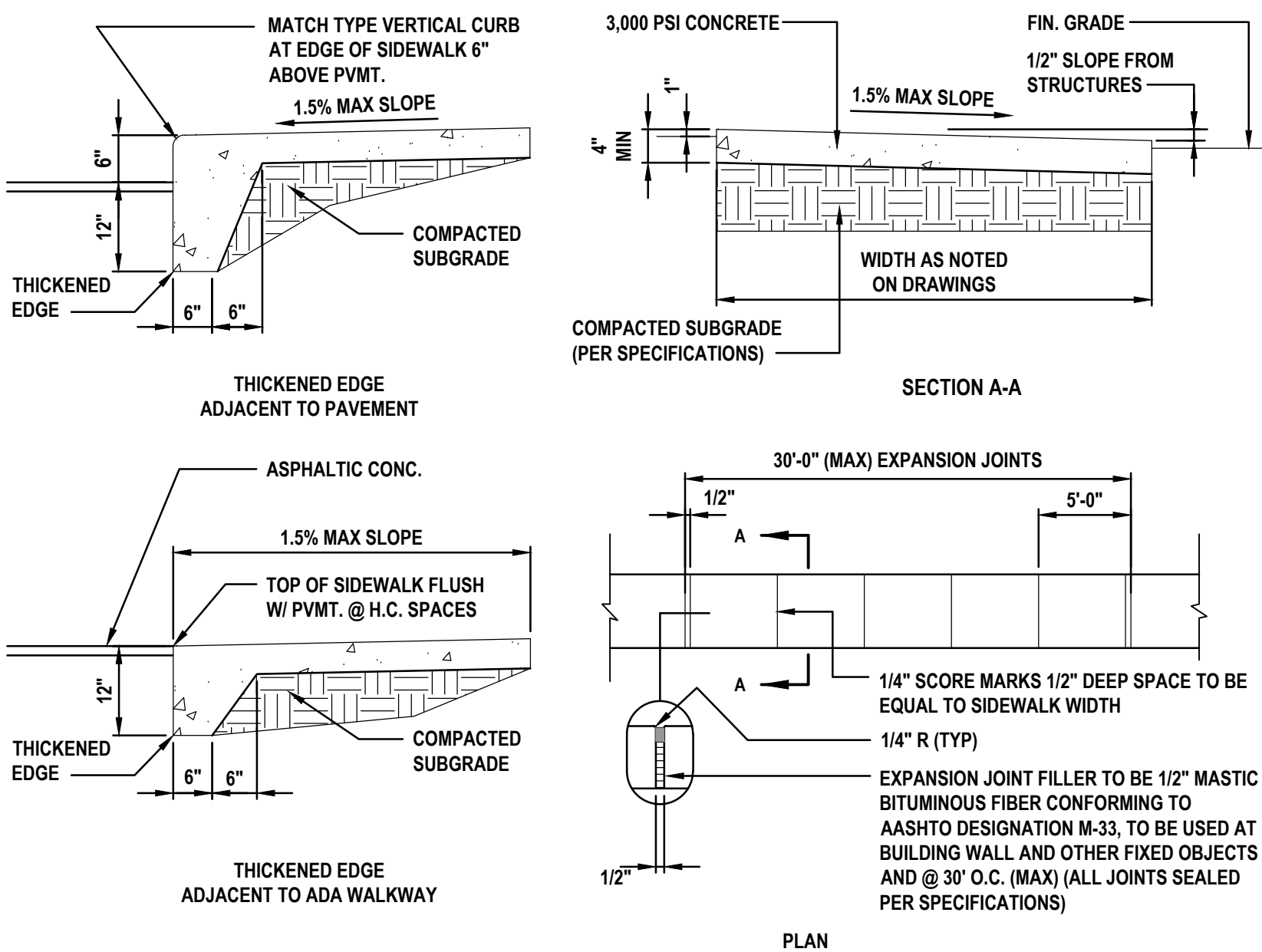
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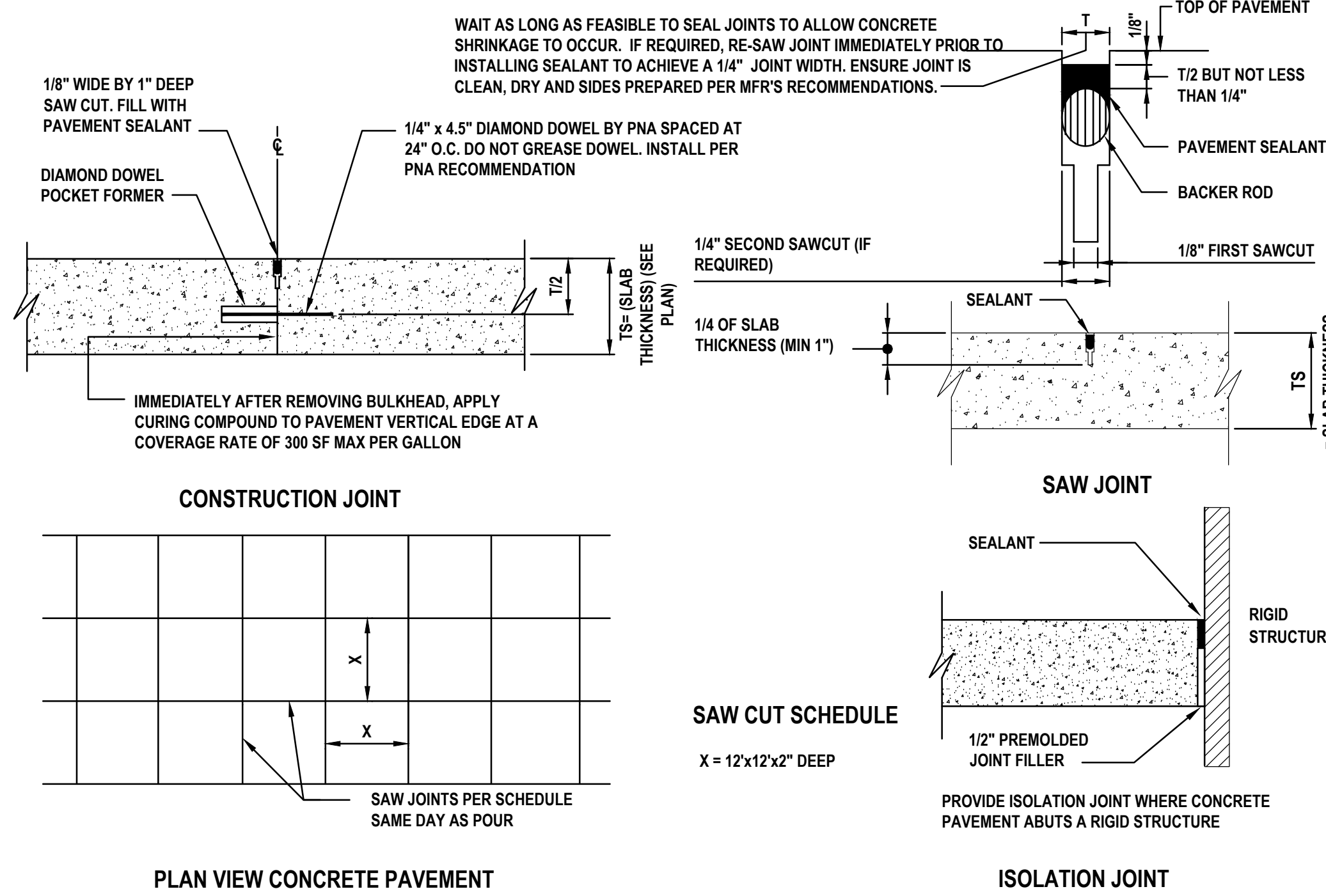


CONCRETE WALKS SHALL BE 4 INCHES THICK, CLASS 1, HAVING A 3,000 PSI STRENGTH @ 28 DAYS, POURED OVER PROPERLY PREPARED SUBGRADE. ALL CONCRETE SIDEWALKS SHALL BE 8 INCHES THICK ACROSS DRIVEWAYS. 1/2 INCH EXPANSION JOINTS SHALL BE PLACED AT A MAXIMUM OF 30'. CRACK CONTROL JOINTS SHALL BE 5' ON CENTERS.



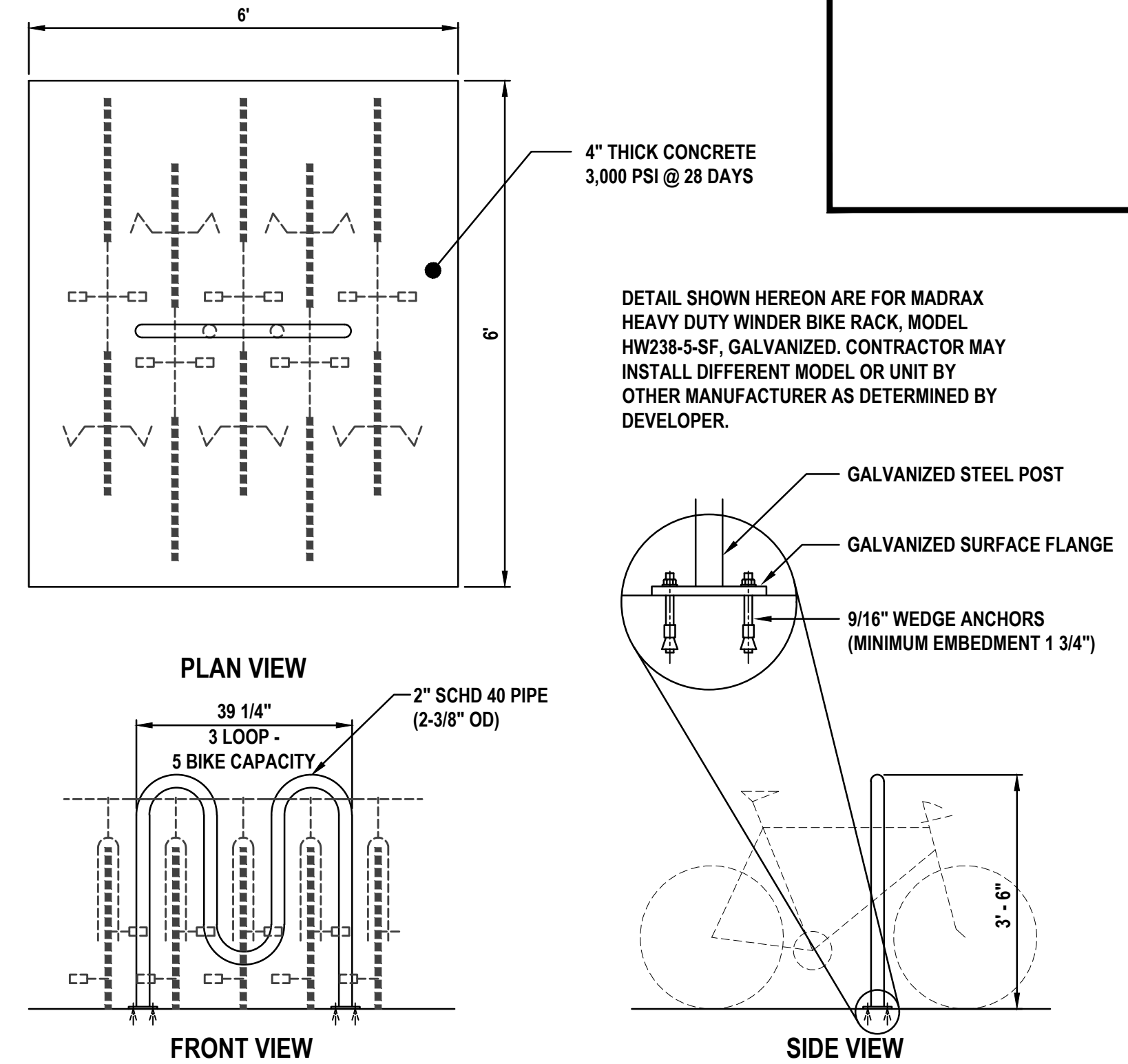
**SIDEWALK DETAILS**

NOT TO SCALE



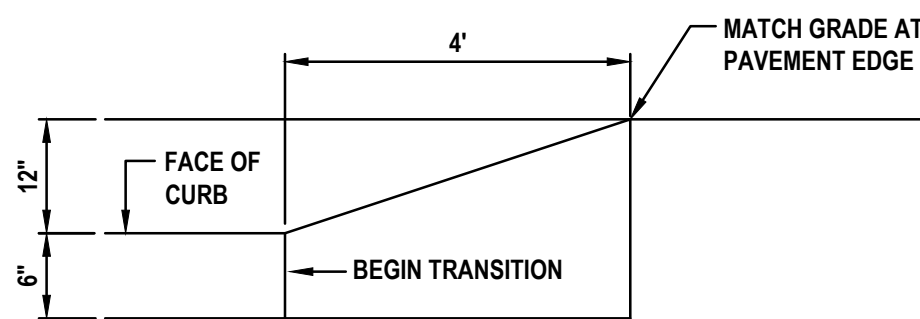
**CONCRETE PAVEMENT JOINT DETAILS**

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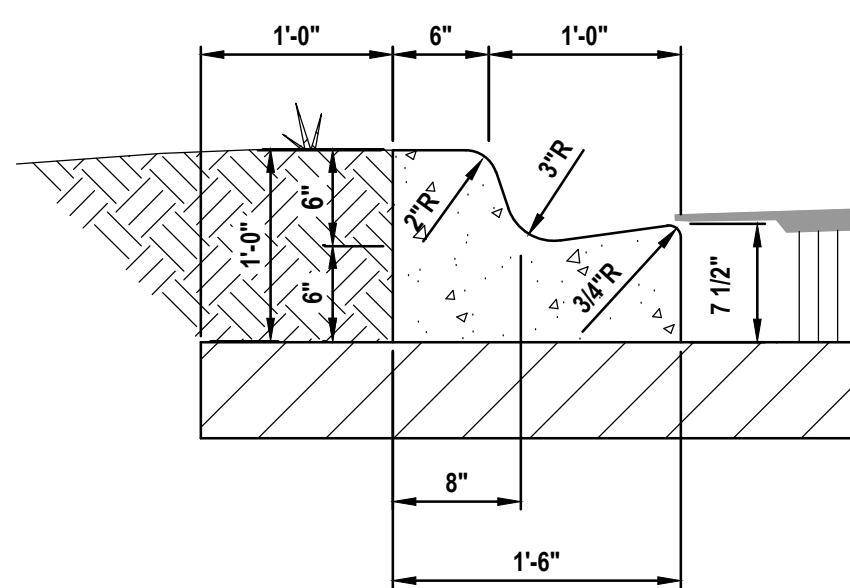
**BICYCLE RACK DETAIL**

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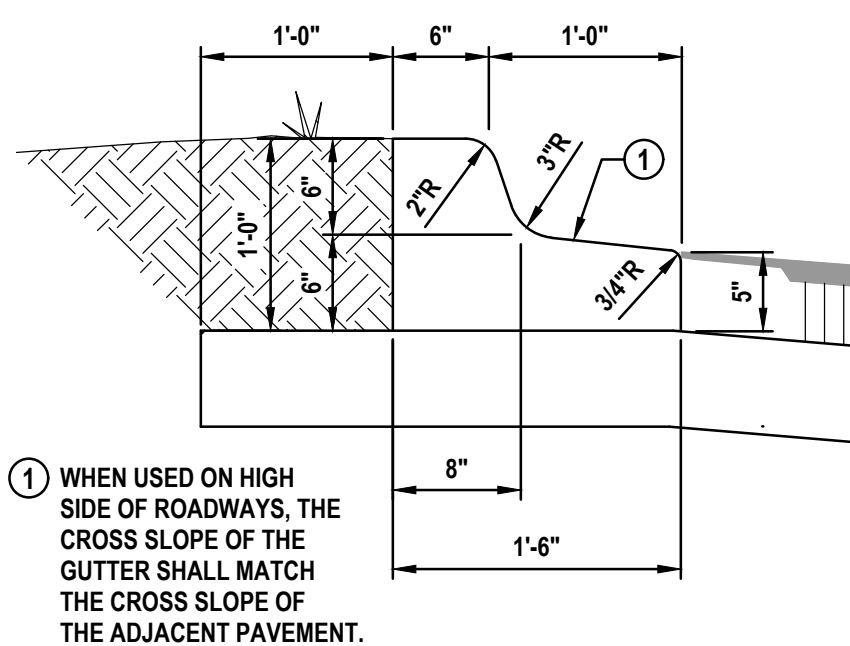
**"F1" CURB TRANSITION TO FLAT DETAIL**

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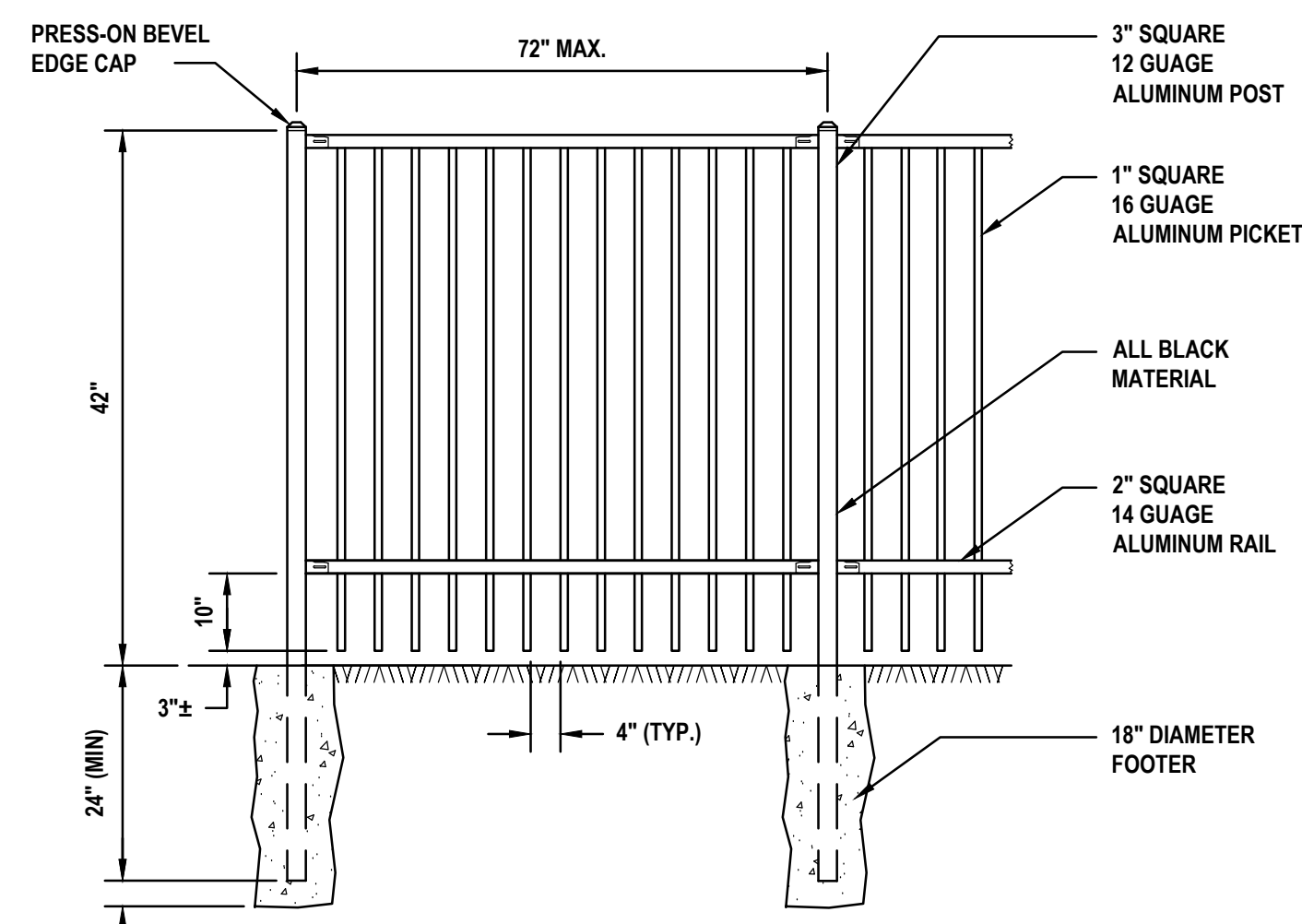
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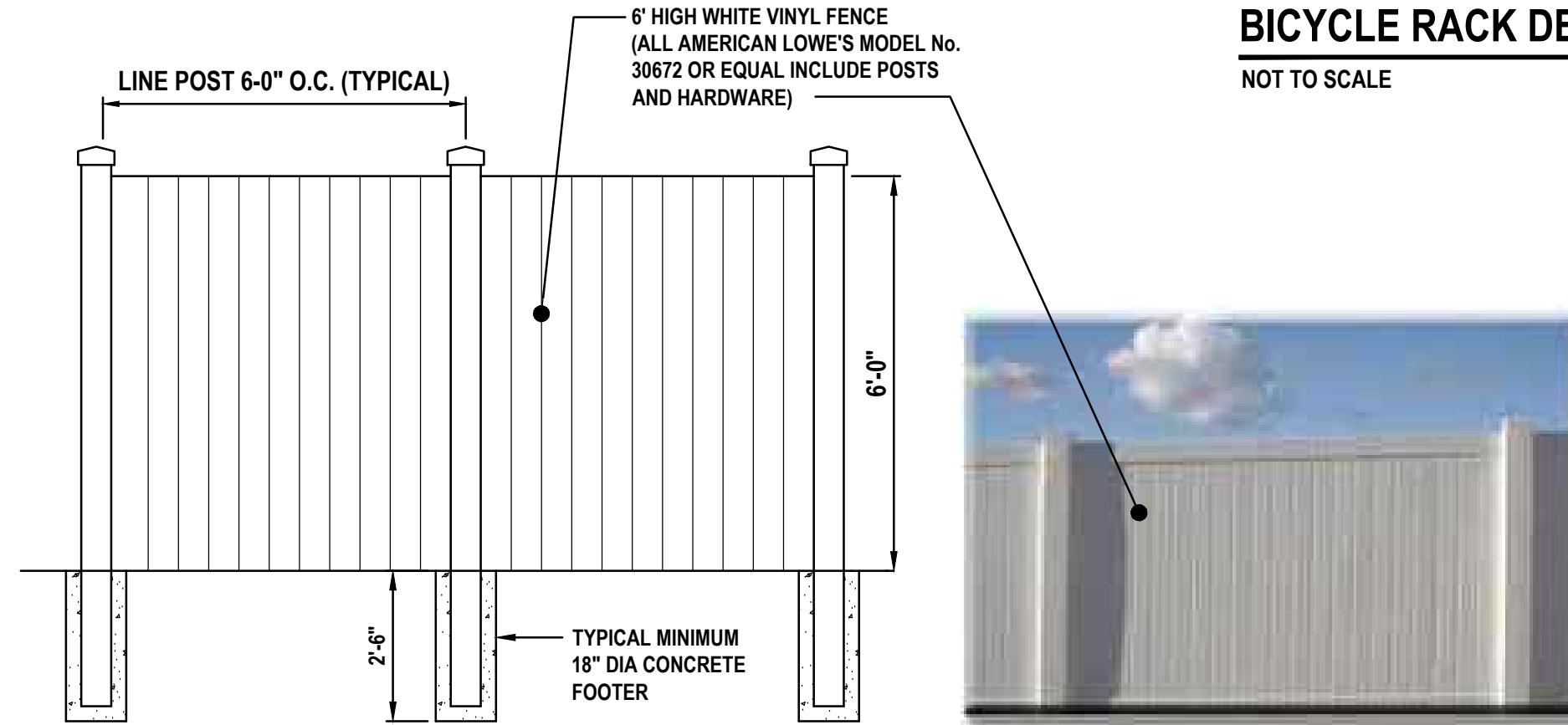
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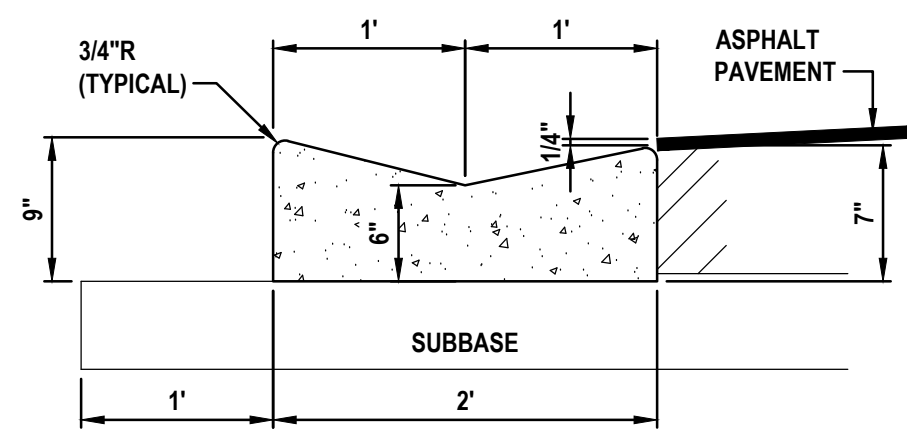
**ALUMINUM RAIL FENCE DETAIL**

NOT TO SCALE



**VINYL FENCE DETAIL**

NOT TO SCALE

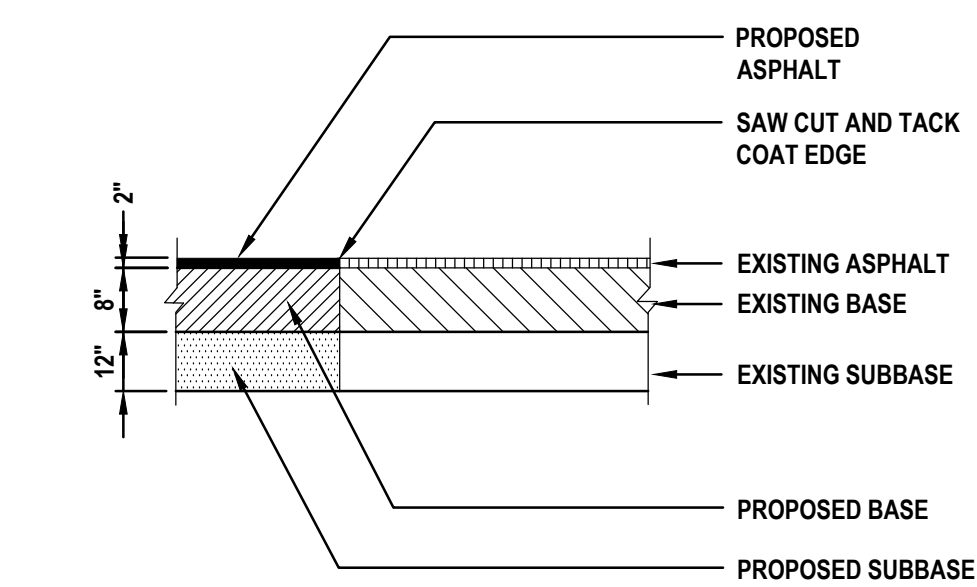


**MIAMI CURB**

NOT TO SCALE

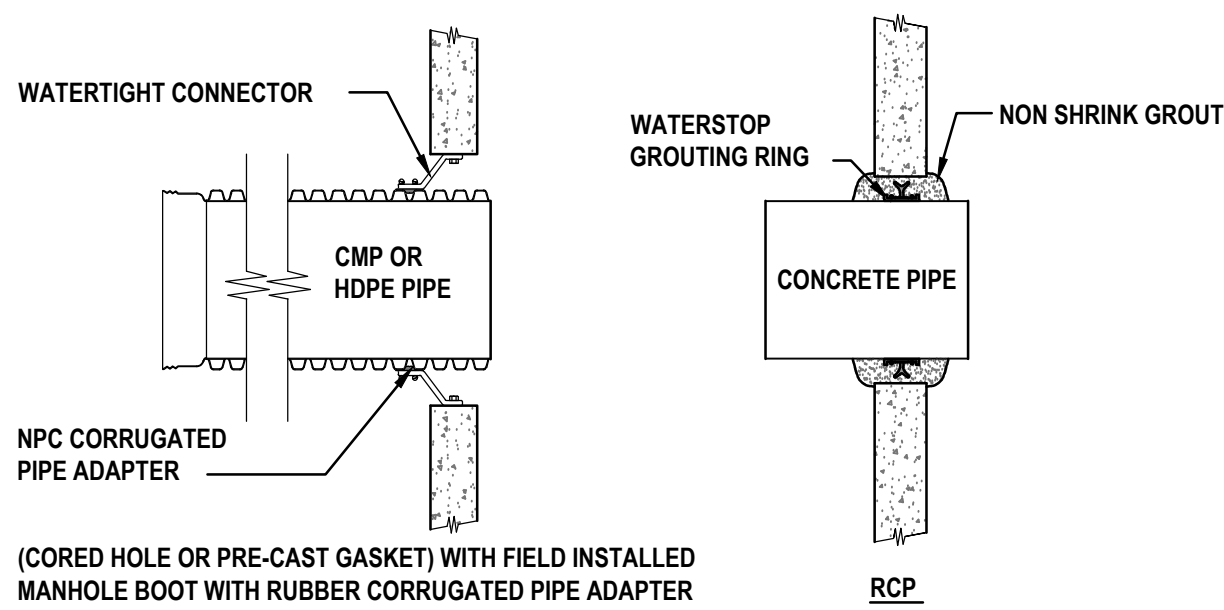
**CURB CONSTRUCTION NOTES**

- ALL CURBS TO BE CONSTRUCTED OF 28 DAY, 3000 P.S.I. CONCRETE.
- 1/2" PRE-MOLDED EXPANSION JOINT REQUIRED EVERY 50'. CONSTRUCTION JOINT REQUIRED EVERY 10' MAXIMUM (4' MINIMUM).
- 1/2" PRE-MOLDED EXPANSION JOINT REQUIRED AT EACH SIDE OF ALL STORM INLET STRUCTURES AND AT ALL RADIUS POINTS.
- 6" SUBBASE TO BE COMPACTED AND TESTED TO 98% DENSITY BASED ON AASHTO T-190 MODIFIED PROCTOR TEST AND SHALL BE STABILIZED TO A MINIMUM L.B.R. 40.
- EXPANSION JOINT MATERIAL MUST COVER ENTIRE CROSS SECTION OF CURB.
- IN NO INSTANCE SHALL EXTRUDED CURBS (DEFINED AS HEADER-TYPE CURBS INSTALLED DIRECTLY ON TOP OF PAVEMENT) BE PERMITTED.



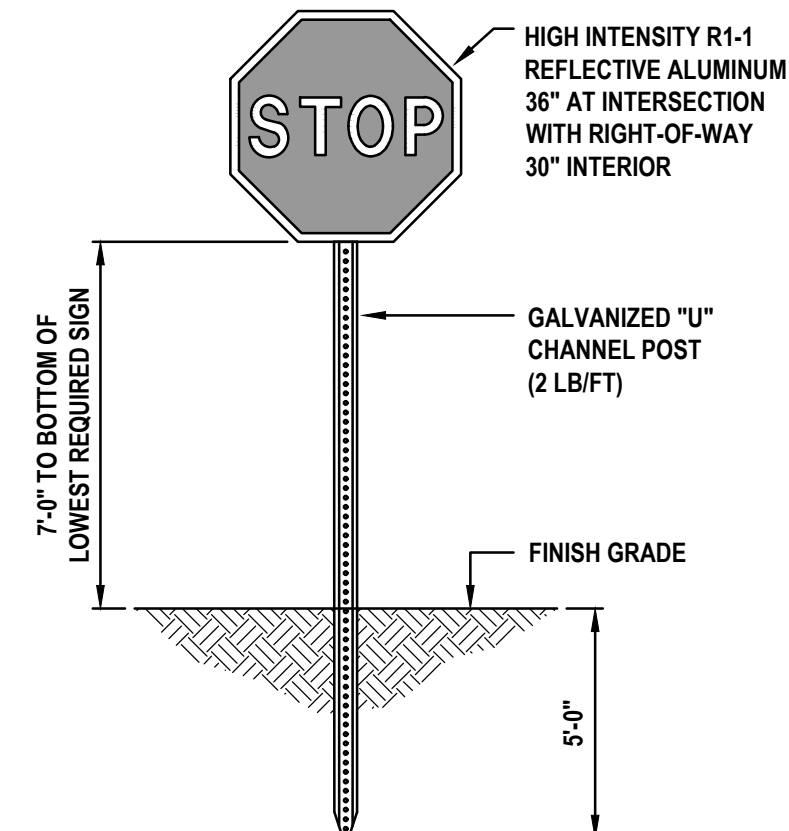
**PAVEMENT BUTT JOINT DETAIL**

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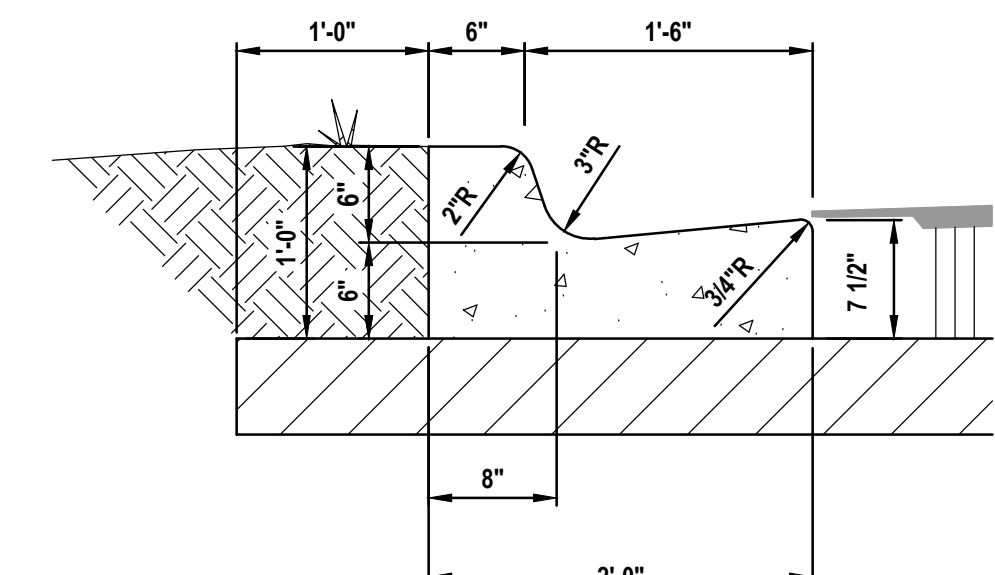
**WATER-TIGHT PIPE TO MANHOLE CONNECTION DETAIL**

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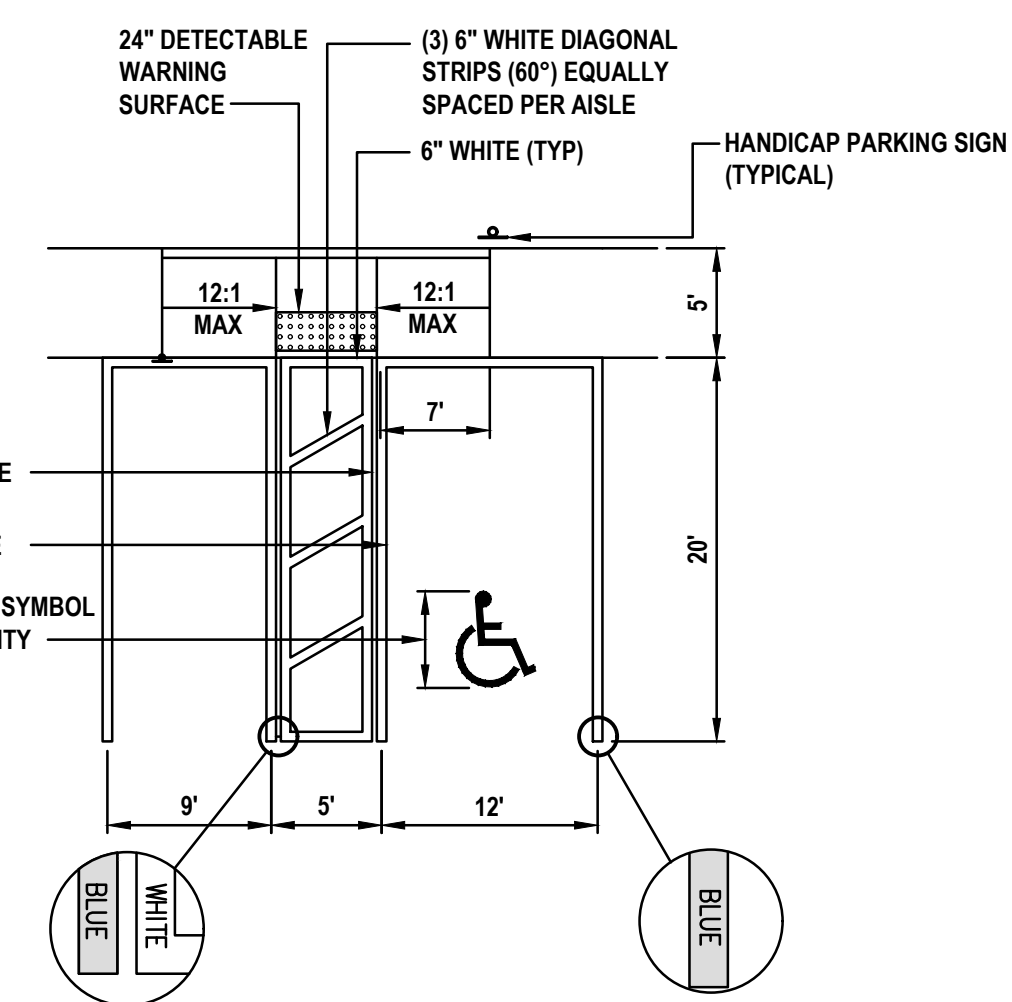
**STOP SIGN DETAIL**

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**TYPE "F" CATCH CURB DETAIL**

NOT TO SCALE



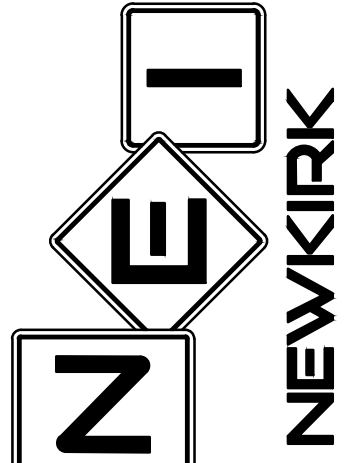
**HANDICAP PARKING STRIPING**

SCALE: 1" = 10'

**REVISIONS**

DATE	DESCRIPTION

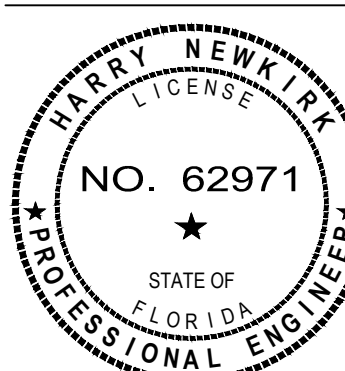
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MISCELLANEOUS  
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LEGACY POINTE COTTAGES  
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DRAWN BY: NWS  
CHECKED BY: HHN  
SCALE: AS SHOWN

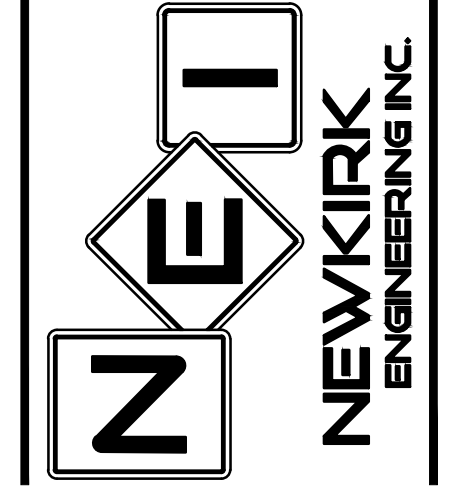
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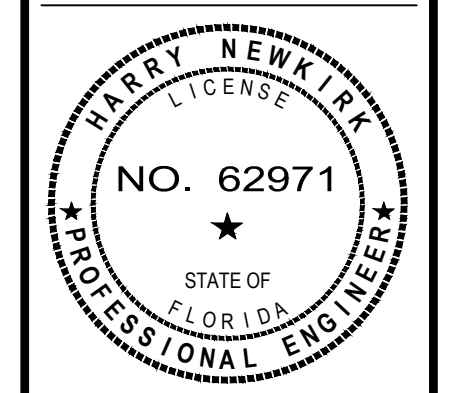
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FDOT DETAILS  
 LEGACY POINTE COTTAGES  
 LESLIE STREET  
 FLAGLER BEACH, FL 32136

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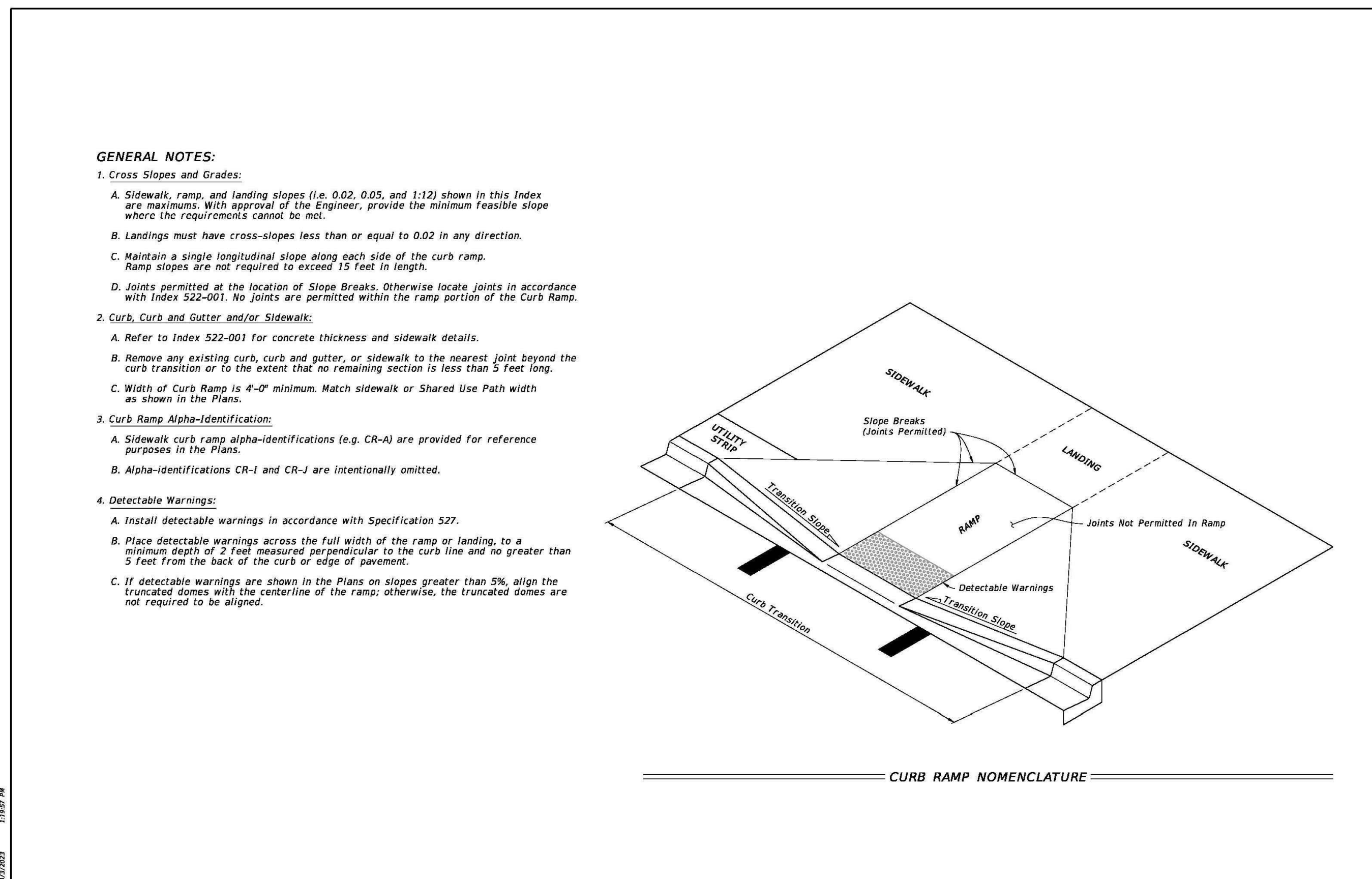
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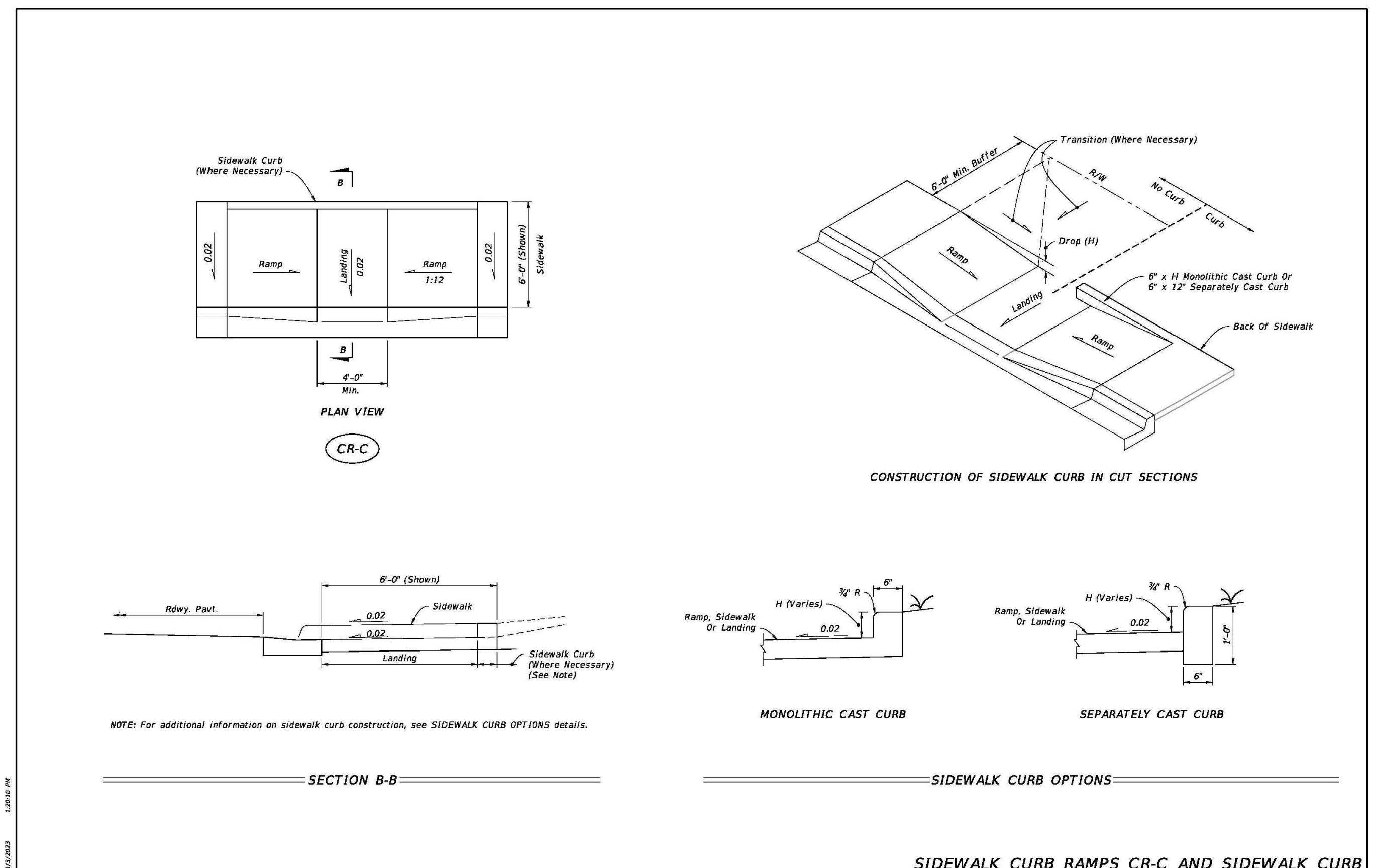
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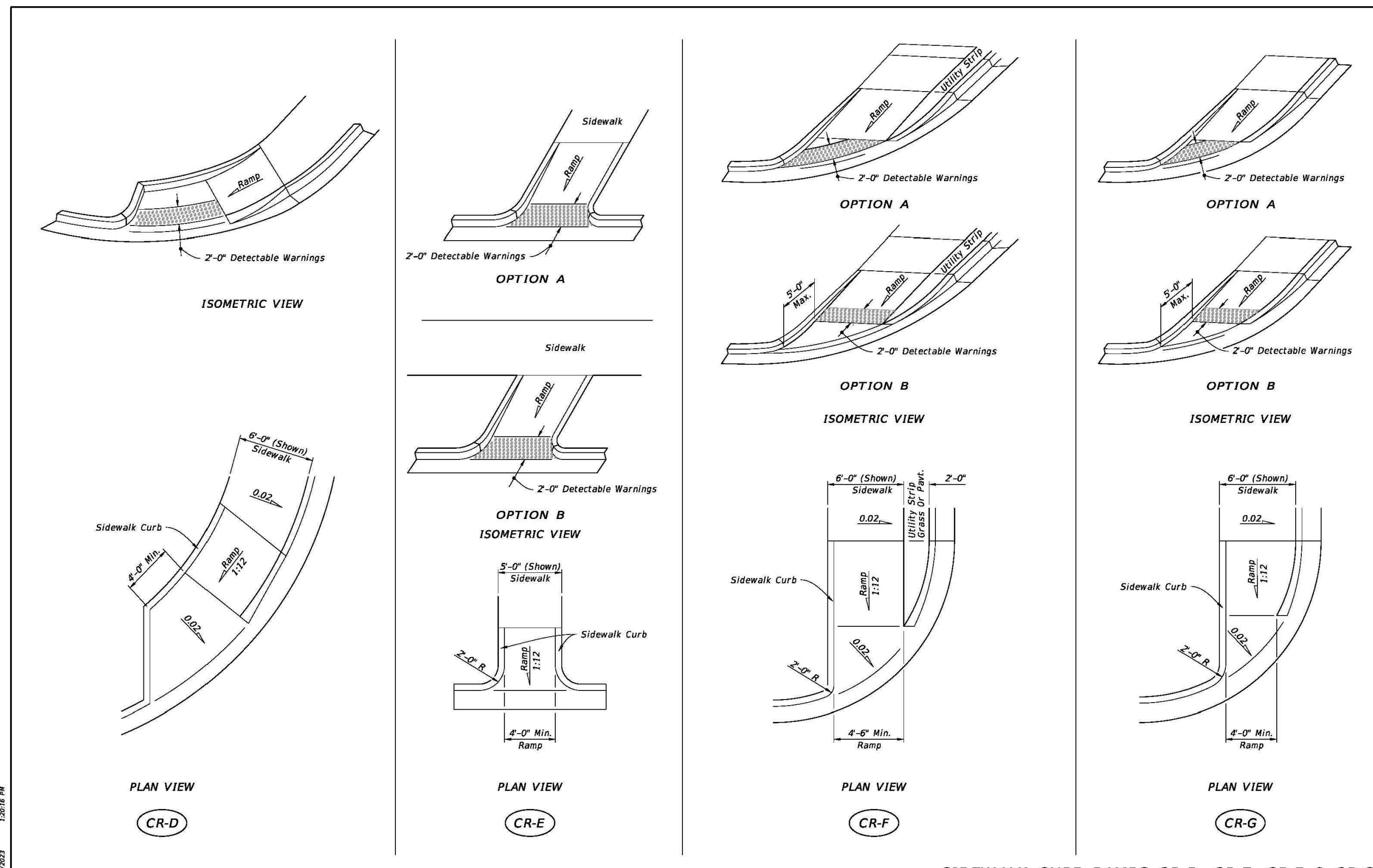
25



LAST REVISION 11/01/21	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	INDEX 522-002	SHEET 1 of 7
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LAST REVISION 11/01/20	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	INDEX 522-002	SHEET 3 of 7
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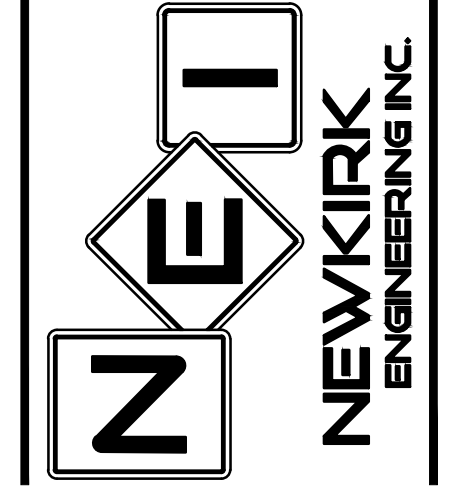


LAST REVISION 11/01/21	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	INDEX 522-002	SHEET 4 of 7
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REVISIONS	
DATE	DESCRIPTION

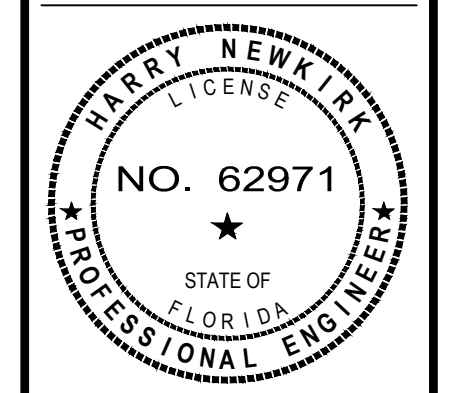
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MAINTENANCE OF TRAFFIC  
 LEGACY POINTE COTTAGES  
 LESLIE STREET  
 FLAGLER BEACH, FL 32136

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 CHECKED BY: HHN  
 SCALE:  
 DRAWING NUMBER

26

**NOTE:**

- This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work on the shoulder.
- L = Taper Length  
X = Work Zone Sign Spacing  
B = Buffer Length  
See Index 102-600 for "L", "X", "B", and channelizing device spacing values.
- Where work activities are between 2' and 15' from the edge of traveled way, the Engineer may omit signs and channelizing devices for work operations 60 minutes or less.
- When four or more work vehicles enter the through traffic lanes in a one hour period (excluding establishing and terminating the work area), use a Flagger or lane closure to accommodate work vehicle ingress and egress.
- For work less than 2' from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.
- The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" Signs (G20-2) along with the associated work zone sign spacing distances may be omitted when the work operation is in place for 24 hours or less.
- Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.
- Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median.
- When there is no paved shoulder, the "Warning" sign (W21-1) may be used instead of the "Shoulder Closed" sign (W21-5a).

**SYMBOLS:**

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Flagger
- Lane Identification and Direction of Traffic

**TWO-LANE ROADWAY  
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY  
WITH WORK ZONE SPEED OF 45 MPH OR LESS**

**TWO-LANE ROADWAY  
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY**

LAST REVISION  
11/01/21

DESCRIPTION:  
FY 2024-25  
STANDARD PLANS

INDEX SHEET  
102-602 1 of 2

**NOTE:**

- This Index applies to Two-Lane, Two-Way Roadways with work within the traveled way.
- L = Taper Length  
B = Buffer Length  
X = Work Zone Sign Spacing  
See Index 102-600 for "L", "B", "X" and channelizing device spacing values.
- Optionally, use "Flagger Ahead" sign with symbol (W20-7) instead of "Flagger Ahead" sign with text (W20-7A).
- Use temporary raised rumble strips when the existing posted speed is 55 mph or greater and the work duration is greater than 60 minutes. If temporary raised rumble strips are not used, omit "Rumble Strips Ahead" signs (MOT-18-10) and associated work zone sign spacing.
- Additional one-way control may be provided by the following means:  
a. Flag-carrying vehicle  
b. Official vehicle  
c. Pilot vehicles  
d. Traffic signals

When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.

**SYMBOLS:**

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Flagger
- Lane Identification and Direction of Traffic

**TWO-LANE, TWO-WAY  
WORK WITHIN THE TRAVEL WAY**

**RUMBLE STRIP SETS**

**OPTION - 1  
REMOVABLE STRIPING TYPE**

**OPTION - 2  
PORTABLE TYPE**

LAST REVISION  
11/01/21

DESCRIPTION:  
FY 2024-25  
STANDARD PLANS

INDEX SHEET  
102-603 1 of 2

**NOTE:**

- When work area encroaches on the centerline, a temporary lane shift to the shoulder may be implemented for work operations in place 24 hours or less. This requires a 11' minimum shifted lane width.

**SYMBOLS:**

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Flagger
- Lane Identification and Direction of Traffic

**TEMPORARY RAILROAD CROSSING BUFFER SPACE EXTENSION**

**TEMPORARY LANE SHIFT TO SHOULDER WHEN WORK AREA ENCLOSES ON THE CENTERLINE  
(For Work Operations In place 24 Hours or Less)**

LAST REVISION  
11/01/21

DESCRIPTION:  
FY 2024-25  
STANDARD PLANS

INDEX SHEET  
102-603 2 of 2

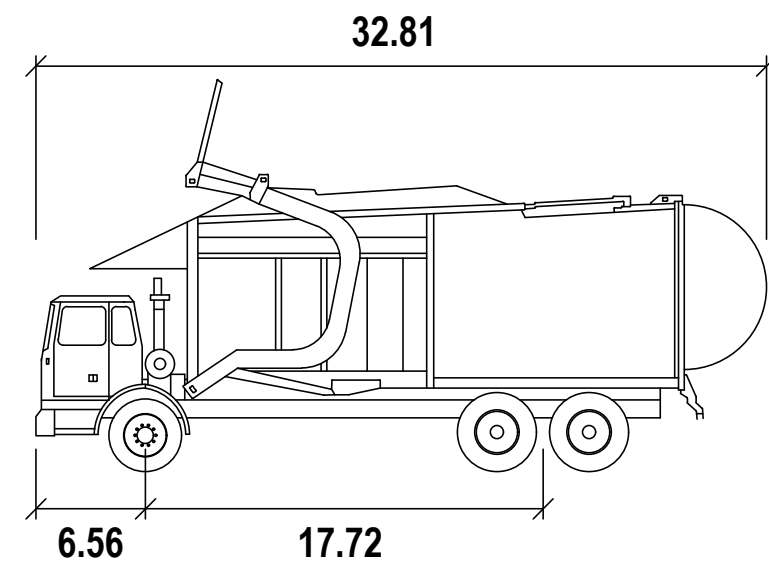
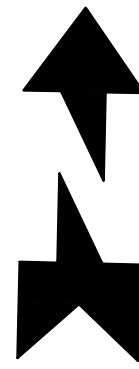
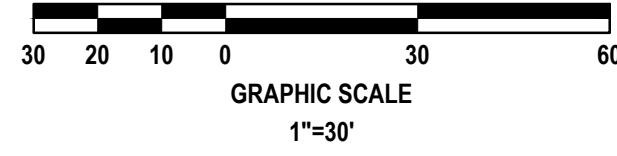
SPECIAL CONDITIONS

11/01/21

11/01/21

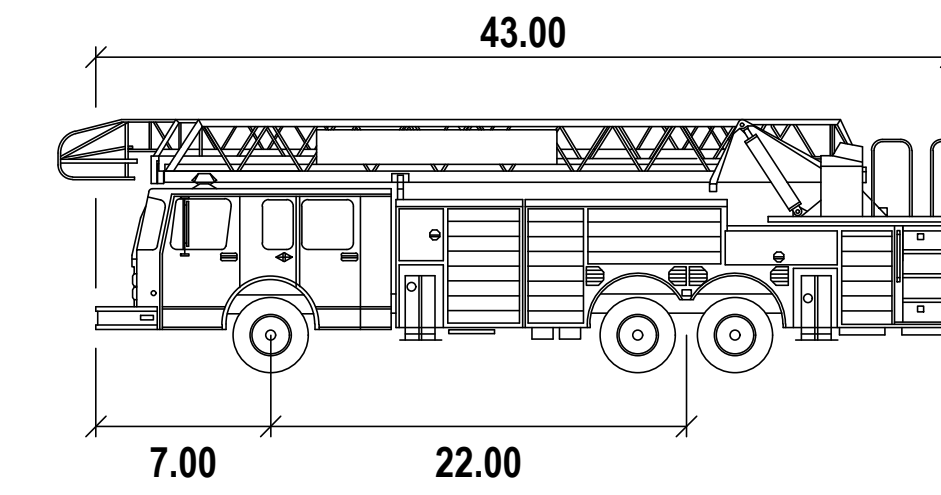
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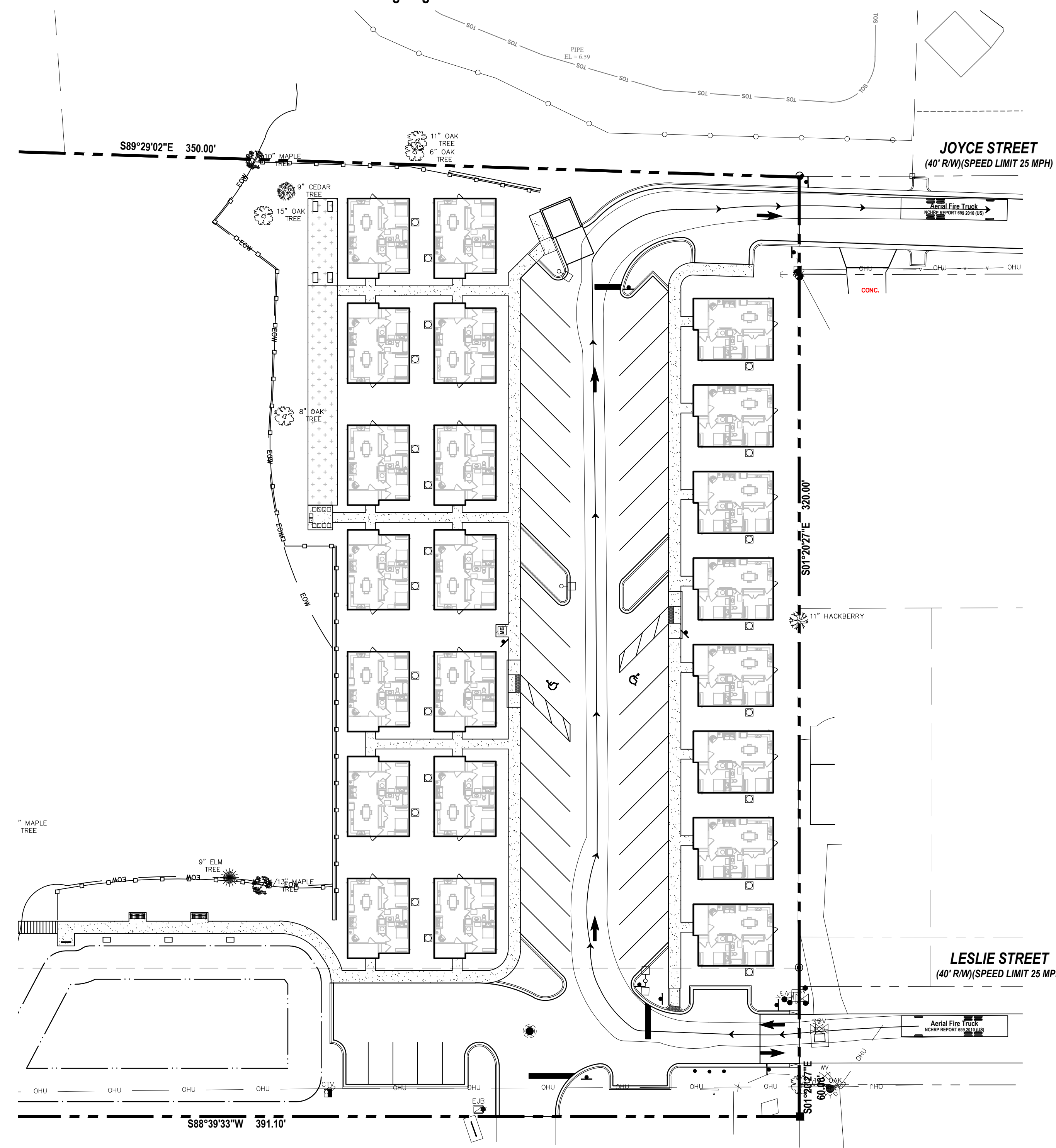
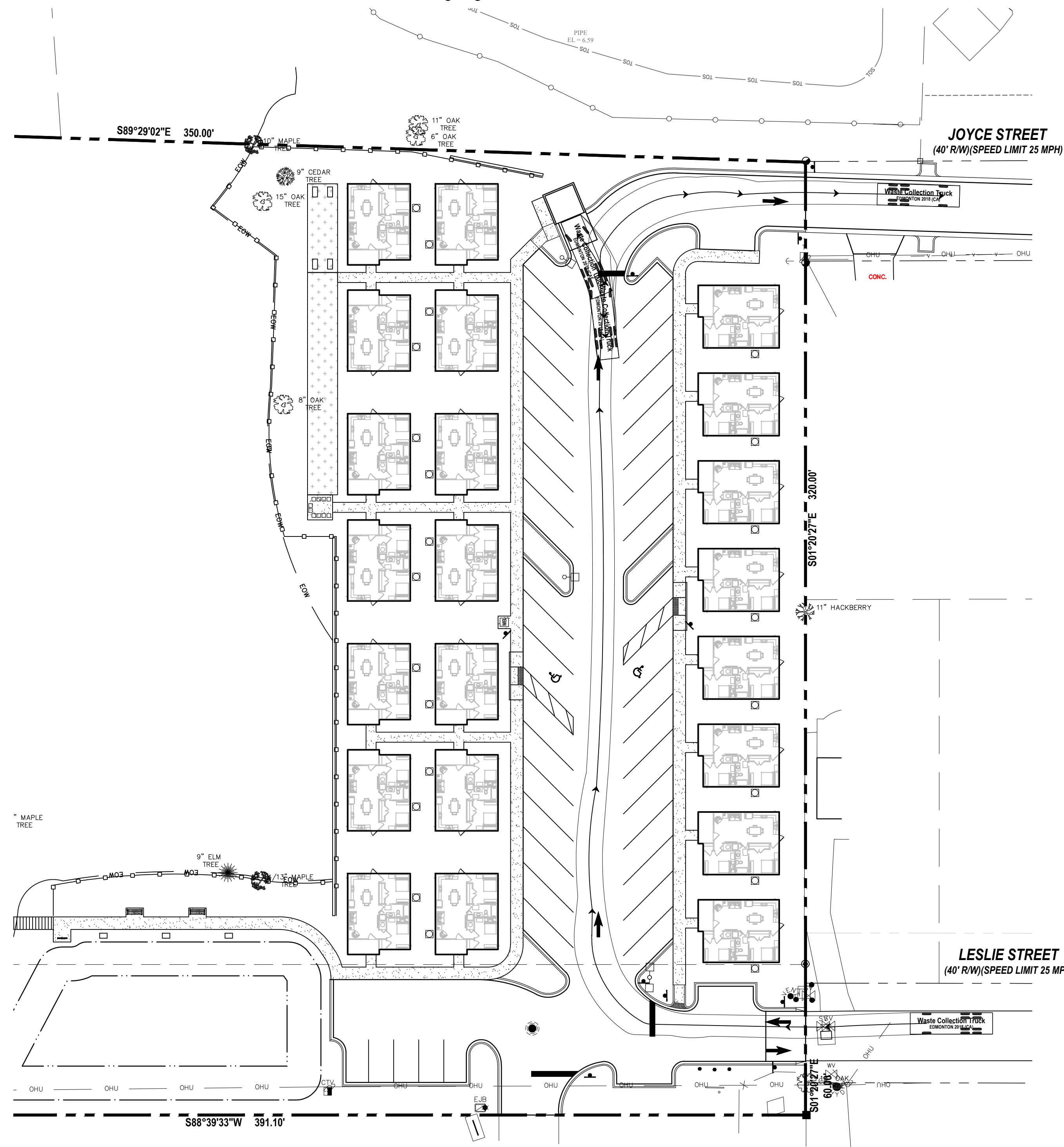
**Waste Collection Truck**

	feet
Width	: 8.53
Track	: 8.53
Lock to Lock Time	: 6.0
Steering Angle	: 27.7



**Aerial Fire Truck**

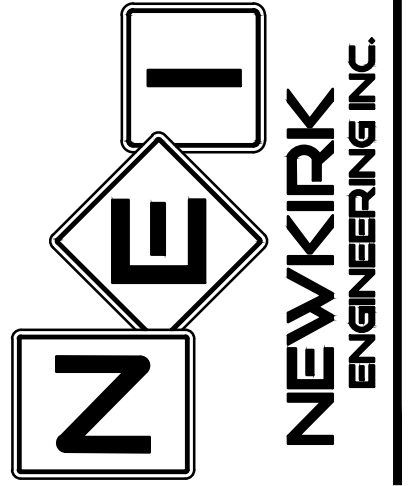
	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 33.3



**REVISIONS**

DATE	DESCRIPTION

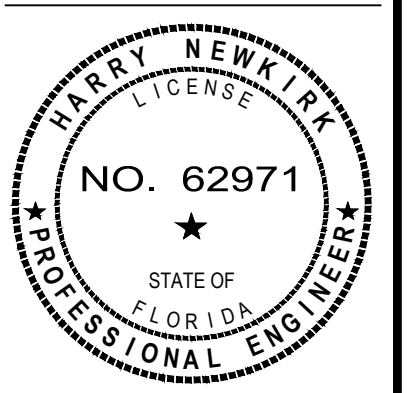
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**AUTOTURN TRUCK PLAN**  
**LEGACY POINTE COTTAGES**  
LESLIE STREET  
FLAGLER BEACH, FL 32136

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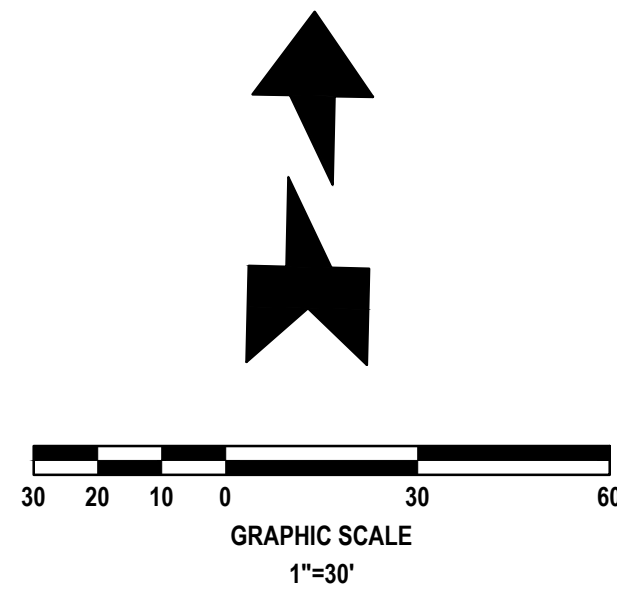


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CHECKED BY:	HHN
SCALE:	1" = 30'
DRAWING NUMBER	

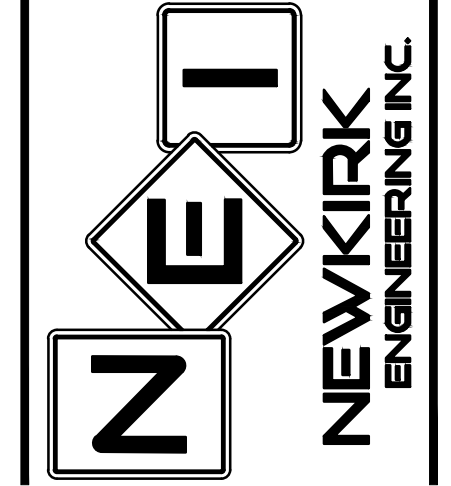
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REVISIONS	
DATE	DESCRIPTION

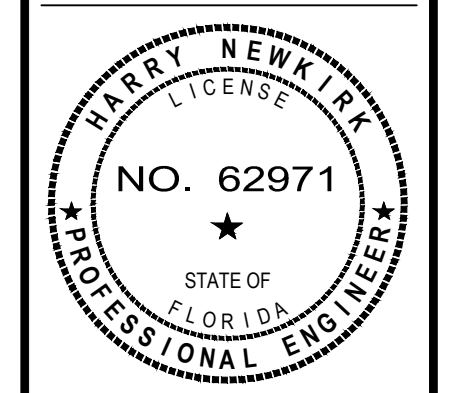
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**EASEMENT PLAN**  
**LEGACY POINTE COTTAGES**  
LESLIE STREET  
FLAGLER BEACH, FL 32136

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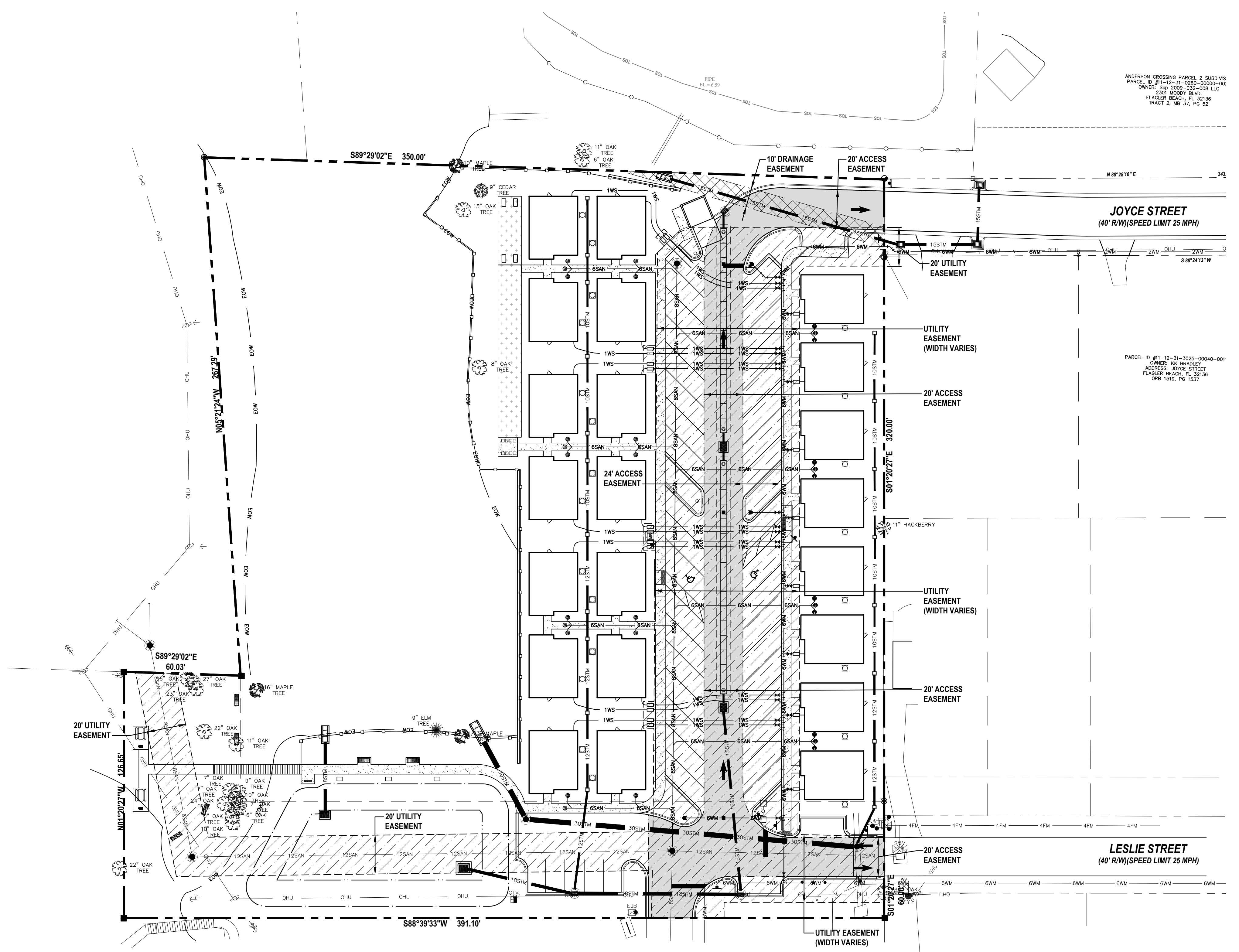
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DRAWING NUMBER

**28**

**EASEMENT LEGEND:**

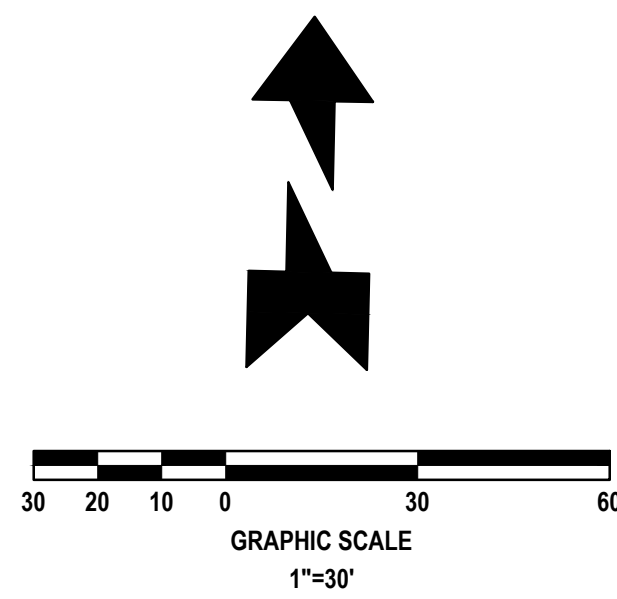
- PROPOSED ACCESS EASEMENT
- PROPOSED UTILITY EASEMENT
- PROPOSED DRAINAGE EASEMENT



ANDERSON CROSSING PARCEL 2 SUBDIVISION  
PARCEL ID: #11-12-31-0000-0000-001  
OWNER: SEP 2009-032-008 LLC  
3201 MOODY BLVD  
FLAGLER BEACH, FL 32136  
TRACT 2, MB 31, PG 52

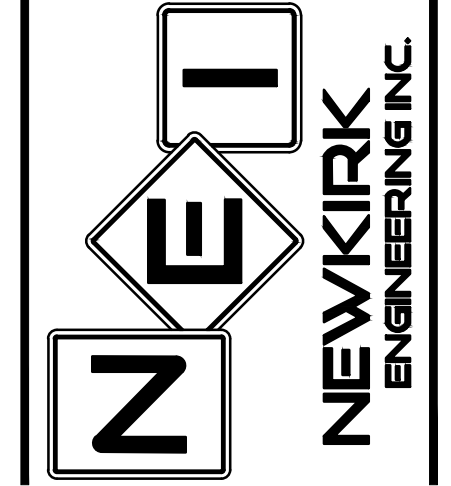
PARCEL ID: #11-12-31-0000-0000-001  
OWNER: KR BRUNLEY  
ADDRESS: 4015E STREET  
FLAGLER BEACH, FL 32136  
ORB 1519, PG 1537





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Luminaire Schedule				
Qty	Symbol	Label	Arrangement	LLF
1	☐	ML740-CA-24L40T4-MDL014-CA	SINGLE	1.000
1	☐	ML740-CA-24L40T3-MDL018-CA	SINGLE	1.000
1	☐☐	ML740-CA-24L40T4-MDL014-CA	BACK-TO-BACK	1.000

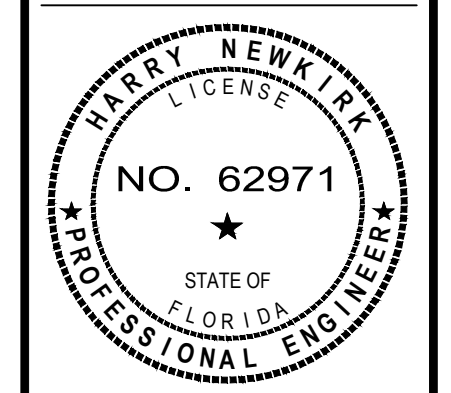
Calculation Summary				
Label	Units	Avg	Max	Min
BOUNDARY	Fc	0.29	0.5	0.0
SITE	Fc	0.32	7.1	0.0

- LIGHTING NOTES:**
- A. NO LIGHTS ALLOWED 90 DEGREES ABOVE HORIZONTAL PLANE, EXCEPT ACCENT LIGHTING.
  - B. LIGHT SHIELDING REQUIREMENTS SHALL PROTECT FROM GLARE, LIGHT SPILLAGE TO PEDESTRIANS, AIRCRAFT AND CARS.
  - C. MERCURY VAPOR SHALL NOT BE ALLOWED.
  - D. LIGHTING PLAN MEET THE REQUIREMENTS OF SECTION 14 OF IESNA RP-20-88 LIGHTING 1998 OR CURRENT EDITION.

**PHOTOMETRIC PLAN**  
**LEGACY POINTE COTTAGES**  
 LESLIE STREET  
 FLAGLER BEACH, FL 32136

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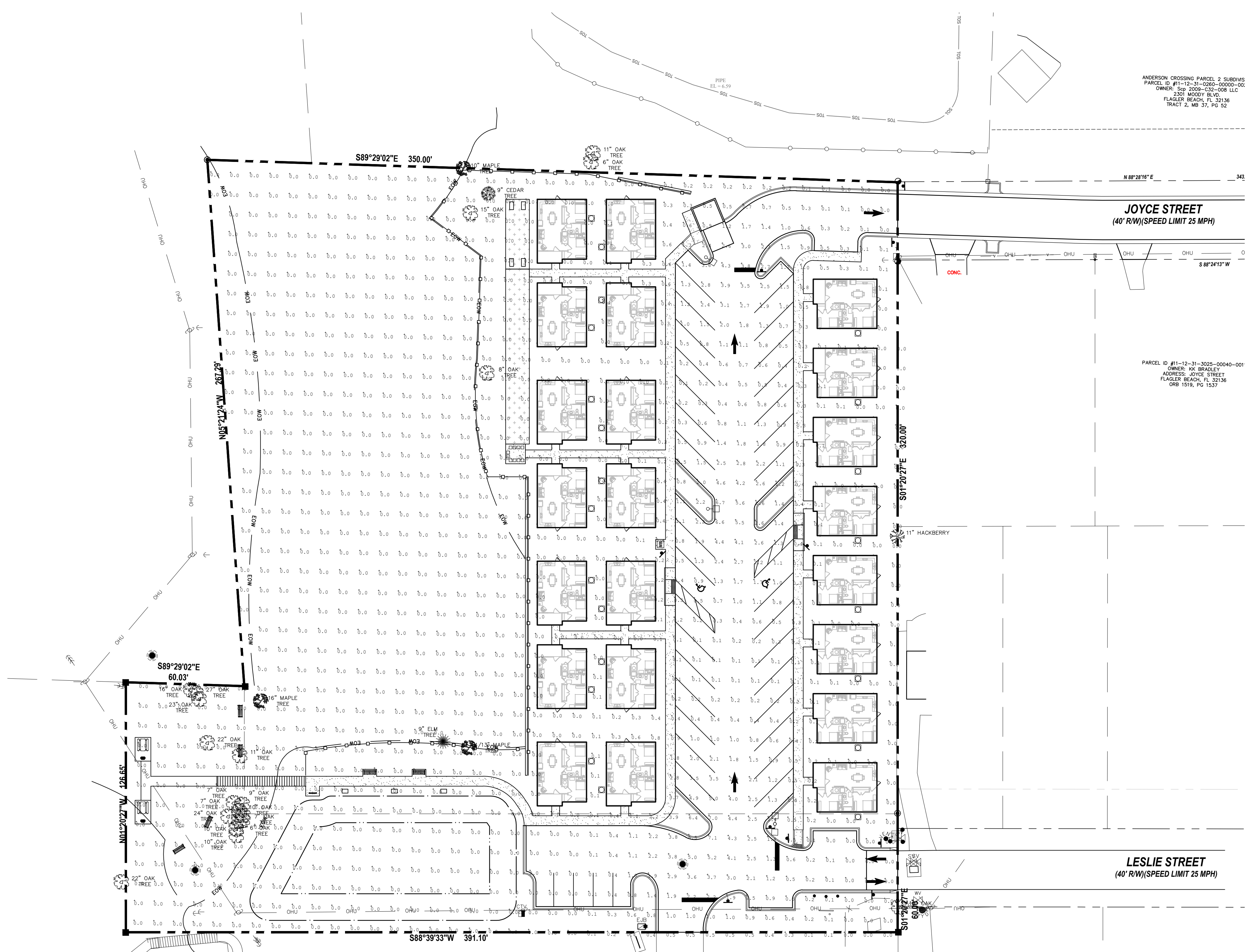
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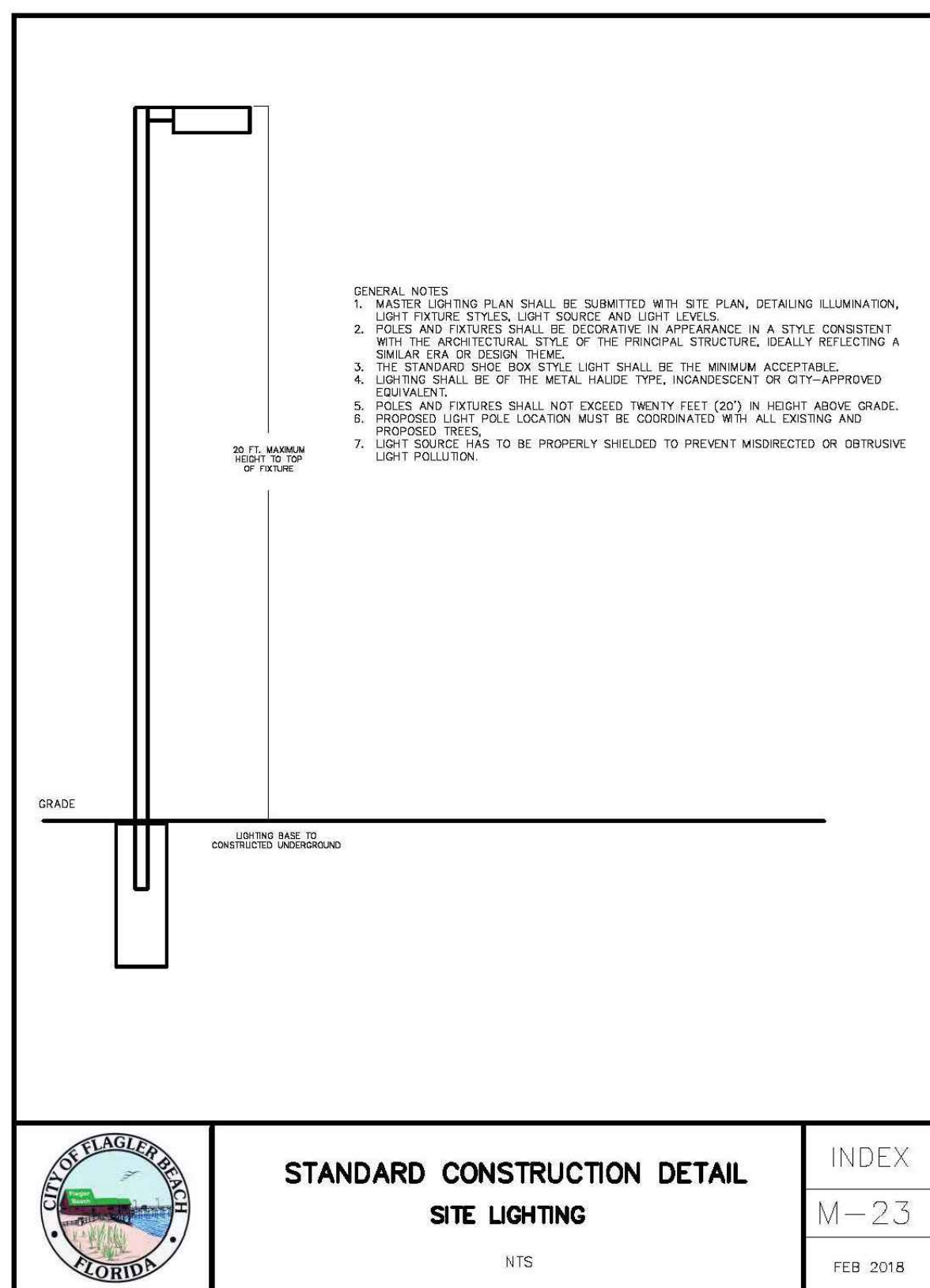
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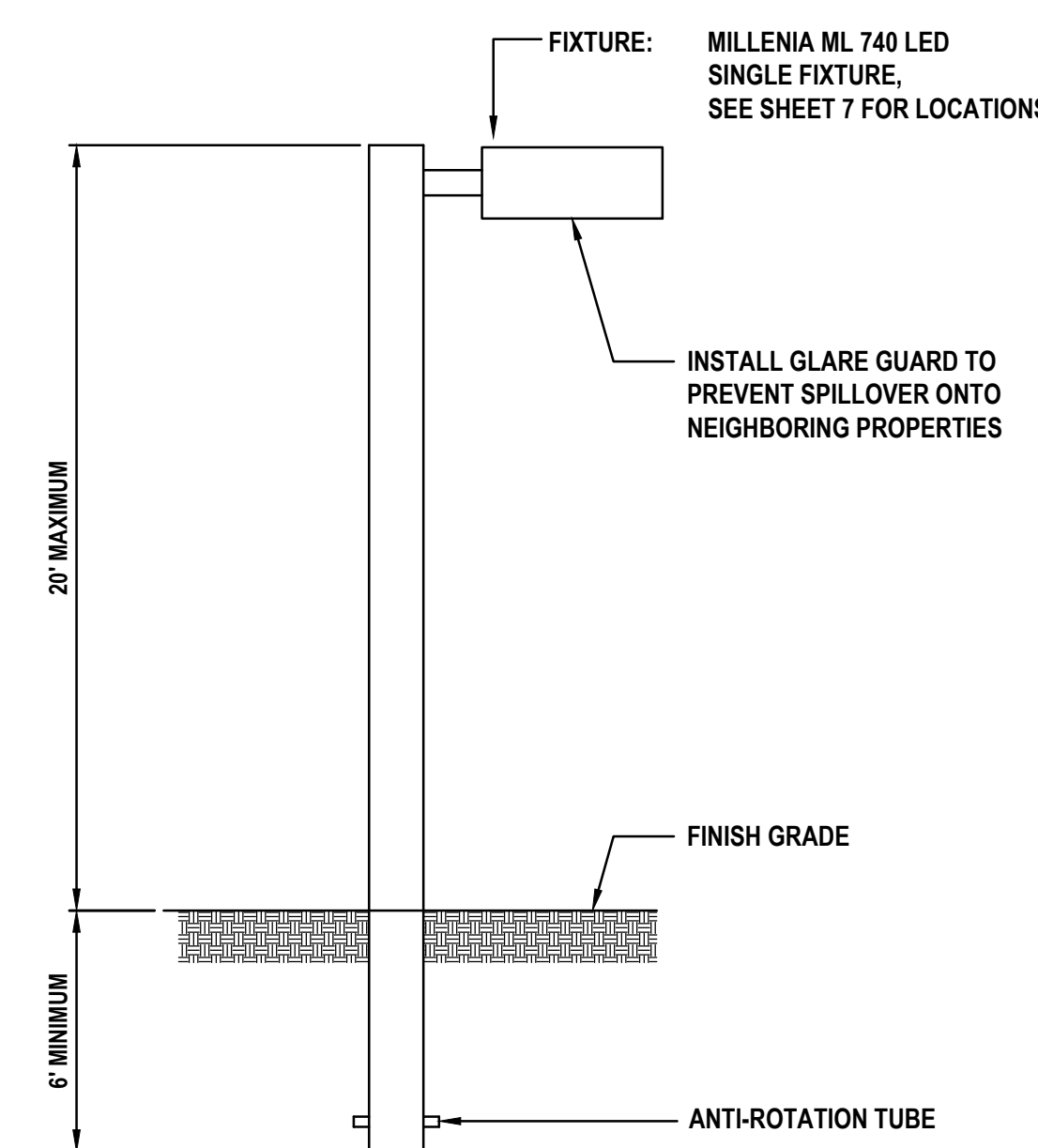
ANDERSON CROSSING PARCEL 2 SUBDIVISION  
 PARCEL ID: #11-12-31-0000-0000-000  
 OWNER: SGP 2009-032-008 LLC  
 5205 MOODY BLVD  
 FLAGLER BEACH, FL 32136  
 TRACT 2, MD 31, PG 52

PARCEL ID: #11-12-31-0000-00040-001  
 OWNER: KH BRISLEY  
 ADDRESS: JOYCE STREET  
 FLAGLER BEACH, FL 32136  
 ORB 1519, PG 1537





	<b>STANDARD CONSTRUCTION DETAIL</b>	INDEX
	<b>SITE LIGHTING</b>	M-23
NTS		FEB 2018



**POLE TYPE:** 5" X 5" STRAIGHT SQUARE DIRECT BURIAL LIGHT POLE  
STRENSBERG LIGHTING - URBANLINE

**POLE HEIGHT:** 25' MAXIMUM HEIGHT WITH 5' MINIMUM BURIAL

**FINISH:** SMOOTH BLACK OR SATIN ALUMINUM

**MATERIAL:** ALUMINUM

1. CONTRACTOR MUST OBTAIN CITY OF FLAGLER BEACH BUILDING PERMIT FOR LIGHT POLES. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING APPROPRIATE INFORMATION (ENGINEERING, SPECIFICATIONS, ETC.) FOR LIGHT FIXTURES AT TIME OF PERMIT REVIEW.
2. DESIGNED TO HANDLE A MINIMUM 140 MPH WIND SPEED, EXPOSURE B OR C.
3. MAKE THE HOLE, GENERALLY HOLES SHALL BE ROUND WITH SMOOTH VERTICAL SIDES CONSISTING OF UNDISTURBED SOIL FOR BEST COMPACTION AND STABILITY OF POLES. DIAMETER OF POLE SHALL BE ABOUT TWICE THE DIAMETER OF THE POLE AT ITS BASE. HOLES SHALL BE AUGURED.
4. WIRE THE POLE UTILIZING APPROVED METHODS.
5. INSTALL THE POLE, IN MANY CASES COMPOSITE POLES CAN BE MANUALLY LIFTED INTO PLACE AND INSERTED INTO THE HOLE.
6. ALIGN AND LEVEL THE POLE.
7. BACKFILL THE HOLE, FILL AND TAMP EVERY 6 TO 8 INCHES OF BACKFILL, FREQUENT TAMPING IS IMPORTANT FOR INSTALLATION.
8. SITE LIGHTING MUST NOT SHINE DIRECTLY UPON ANY ADJACENT RESIDENCE AND MUST NOT PRODUCE EXCESSIVE GLARE. GLARE GUARDS WILL BE INSTALLED IF NEEDED.

**SITE LIGHTING DETAIL**  
NOT TO SCALE

**ML740 MILLENIA SERIES** LED

EPA 22 (FF) WEIGHT 45 LBS | 7 YEAR WARRANTY | LUMEN RANGE 9,265 to 21,055 | LIFE SPAN L70 MINIMUM 100,000 HOURS | UL LISTED | CLICK FOR FAD'S

JOB NAME: \_\_\_\_\_  
FIXTURE TYPE: \_\_\_\_\_  
MEMO: \_\_\_\_\_

**BUILD A PART NUMBER**

ORDERING EXAMPLE: PT-ML740-32L40T3-MDL014-CA-FHD/55Q-14-188/UGMT

Mounting Config.	Fixture	LED	CCT	Distribution Type	Driver	Lens	Optim. Pole Adapter	Optional Control Receptacle	Option Control	Option Face	Option House Side Shield	Pole See Pole Spec Sheet	Finish
------------------	---------	-----	-----	-------------------	--------	------	---------------------	-----------------------------	----------------	-------------	--------------------------	--------------------------	--------

**Mounting Configuration**

- PT Post Top

**Fixture**

- ML740

**LED**

- 40L • 32L • 24L

**CCT - Color Temperature (K)**

- 2700K • 3000K • 4000K • 5000K

**Distribution Type**

- T2 • T3 • T4 • T5

**Driver**

- MDL01B (120V-277V, 180mA)
- MDL01B (347V-480V, 180mA)
- MDL01F (120V-277V, 180mA)
- MDL01F (347V-480V, 180mA)
- MDL014 (120V-277V, 140mA)
- MDL014 (347V-480V, 140mA)

**Lens**

- CA (Clear Acrylic)
- SV1 (Flat Soft Vue Light Diffused Acrylic)
- SV2 (Flat Soft Vue Moderate Diffused Acrylic)

**Options** [Click here to view accessories sheet](#)

- SQ4 Square pole adapter for 4" square pole shafts
- R 3-Pin control receptacle only
- RS 5-Pin control receptacle only
- RT 7-Pin control receptacle only
- PE Twix-Loch Photocontrol (120V-277V)
- PE2 Twix-Loch Photocontrol (200V-277V)
- PE4 Twix-Loch Photocontrol (480V)
- SC Shoring Cap
- FHD Double Fuse and Holder
- HSS 120" House Side Shield
- BLOC Back Light Optical Control

**Specifications**

**Fixture**

The large scale ML740 Millenia® vertical tenon mount luminaire is a breakthrough in modern area lighting technology. Its new world urban design transcends traditional lighting convention by seamlessly interweaving form and function to yet another level. Our convective AAD™ "Advanced Air-Flow Dynamics" maximizes heat sink expulsion to deliver unsurpassed thermal management for long-life LED performance and energy efficiency. Available with a myriad of options, the Millenia is perfect for commercial, institutional and municipal markets. The cast aluminum slipfitter slips a 3" OD x 3" tall tenon. The luminaire shall be UL listed in US and Canada.

**LEDs**

The luminaire shall use high output, high brightness LEDs. They shall be mounted in arrays, on printed circuit boards designed to maximize heat transfer to the heat sink surface. The arrays shall be roof mounted to minimize up-light. The LED's and printed circuit boards shall be 100% recyclable; they shall also be protected from moisture and corrosion by a conformal coating. They shall not contain lead, mercury or any other hazardous substances and shall be RoHS compliant. The LED life rating data shall be determined in accordance with IESNA LM-80. The High Performance white LED's will have a life expectancy of approximately 100,000 hours with not less than 70% of original brightness (lumen maintenance), rated at 25°C. The High Brightness, High Output LED's shall be 4000K (2700K, 3000K or 5000K option) color temperature with a minimum CRI of 70. Consult factory for custom color CCT. The luminaire shall have a minimum \_\_\_\_ (see table) delivered initial lumen rating when operated at steady state with an average ambient temperature of 25°C (77°F).

**Optics**

The luminaire shall be provided with refractor type optics applied to each LED array. The luminaire shall provide Type \_\_\_\_ (2, 3, 4 or 5) light distribution per the IESNA classifications. Testing shall be done in accordance with IESNA LM-79.

**BLOC Optic:** An optional "Back Light Optical Control" shield can be provided at the factory. This is an internal optic level "House Side Shield" offering significantly reduced backlight and glare while maintaining the original design aesthetics of the luminaire.

**Electronic Drivers**

The LED driver shall be UL Recognized. It shall be securely mounted inside the fixture, for optimized performance and longevity. It shall be supplied with a quick-disconnect electrical connector on the power supply, providing easy power connections and fixture installation. It shall have overload, overheat and short circuit protection, and have a DC voltage output constant current design, 50/60Hz. It shall be supplied with line-ground, line-neutral and neutral-ground electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines. It shall be a high efficiency driver with a THD less than 20% and a high power factor greater than .9. It shall be dimming capable.

**Sternberg Lighting** ESTABLISHED 1923 / EMPLOYEE OWNED

800-621-3376  
555 Lawrence Ave., Roselle, IL 60172  
info@sternberglighting.com  
www.sternberglighting.com

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**Independence Series**

Small LED Wall Light  
REPLACES UP TO 100W MH

3,913 LUMENS  
31 WATTS  
125 LPW  
80 CRI  
4500K CCT  
0-10V DIMMING  
REC MNT HT 10 FT to 12 FT

8.75"Wx8.5"Hx9.05"D  
6.6 LBS

Reduced Glare & Offensive Light  
Less Wasted Light  
More Footcandles on the Ground  
Creates a Smooth & Uniform Light Pattern

**ORDERING INFORMATION**

CATALOG #	DESCRIPTION	CCT	REPLACES UP TO	VOLTS
WSG4L45K	Small LED Wall Light	4500K	100W MH	120-277

Specs shown are for 4500K CCT. Also available in 3000K, 4000K and 5000K. See Cut Sheet for more information.

**FOOTCANDLES ON THE GROUND**

10' Mtg Height | 12' Mtg Height

Beam Spread	90'	45'	90'	45'	
0'	11.2	11.2	0'	7.6	7.6
5'	10.2	8.7	5'	7.5	6.4
10'	4.3	3.9	10'	3.9	3.6
15'	2.3	1.8	15'	2.2	1.8

Average 6.0 | Average 4.7

**ENERGY SAVINGS**

WATTAGE	LED		HID		ANNUAL SAVINGS
	ANNUAL COST	SOURCE WATTAGE	TOTAL WATTAGE USED	ANNUAL COST	
31	\$14	50	72	\$52	\$38
31	\$14	70	90	\$59	\$45
31	\$14	100	129	\$77	\$63

200,000+ HOURS | UL LISTED | The majority of Atlas Lighting Products are assembled in USA facilities by an American Workforce utilizing both Domestic and Foreign components. \*Qualifies for Buy American under ARRA.

**Atlas**

**REVISIONS**

DATE	DESCRIPTION

1230 North US1, Suite 3  
Ormond Beach, Florida 32174  
Phone (386) 872-7794  
www.newkirk-engineering.com

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Transportation, CEI &  
Landscape Architecture

C.A. # 30209  
L.C. # 26000584  
C 2013

**NEWKIRK ENGINEERING INC.**

**PHOTOMETRIC DETAILS**  
**LEGACY POINTE COTTAGES**  
LESLIE STREET  
FLAGLER BEACH, FL 32136

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LICENSE  
NO. 62971  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

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PROJECT No: 2023-17

DATE: OCTOBER 2024

DESIGN BY: HHN

DRAWN BY: NWS

CHECKED BY: HHN

SCALE:

DRAWING NUMBER  
**30**



**TREE PROTECTION AND ROOT PRUNING SPECIFICATIONS**

**PART 1 GENERAL**

**1.1 SUMMARY**

A. This item shall consist of furnishing all labor, materials, tools and equipment required to protect those trees designated to remain on the site. Protection of designated trees shall include directing heavy construction work activity away from the protected trees Section Includes the protection, trimming, and pruning of trees that interfere with, or are affected by, execution of the Work, whether temporary or new construction.

**1.2 SUBMITTALS**

- A. Product Data: For each type of product indicated.
- B. Tree Pruning Schedule: Written schedule from certified arborist detailing scope and extent of pruning of trees to remain that interfere with or are affected by construction.
- C. Qualification Data: For tree service firm and arborist, ISA certification required.
- D. Certification: From arborist, certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly pruned and repaired when damaged.
- E. Maintenance Recommendations: From certified arborist, for care and protection of trees affected by construction during and after completion of the Work.
- F. Provide final log of work performed including any damage that occurred during construction and subsequent repairs.

**1.3 QUALITY ASSURANCE**

- A. Tree Service Qualifications: An experienced tree service firm that has successfully completed tree protection and trimming work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site on a full-time basis during execution of the Work.
- B. Arborist qualifications: An arborist certified by the International Society of Arboriculture.
- C. Tree Pruning Standards: Comply with ANSI A300 (Part 1), Trees, Shrubs, and other Woody Plant Maintenance--Standard Practices (Pruning) and Part 8 - Root Management Standard.
- D. Pre-installation Conference: Before starting tree protection and trimming, meet with representatives of authorities having jurisdiction, Owner, Architect, consultants, and other concerned entities to review tree protection and trimming procedures and responsibilities.

**PART 2 PRODUCTS**

**2.1 MATERIALS**

A. Materials for tree/vegetation protection barriers shall conform to the following requirements:

1. Mesh Construction Fencing by Conwed or Approved Equal (orange or green color)
2. Wood Posts (minimum length 6.0 feet)
3. #14 gauge steel wire

**PART 3 EXECUTION**

**3.1 PREPARATION**

- A. Temporary Fencing: Install temporary fencing around the tree protection zones designated on the plans or where directed by the engineer to protect remaining vegetation from construction damage. Maintain temporary fence and remove when construction is complete. See detail this sheet.
- B. Root Zone Protection: During the entire construction period all reasonable efforts shall be made to protect from damage those trees and their root system designated to remain. Around the trees to be protected, the Contractor shall avoid excessive excavation or compaction and damage during the removal of trees and shrubs designated to be removed. All plant material designated to be saved, or outside of the limits of construction, shall be protected during subsequent construction work. Work under these items will include construction and maintenance of temporary fencing to protect the root zones of existing trees and other plantings, construction and maintenance of tree trunk protection.

A protection barrier or temporary fence of at least 4 feet in height shall be installed around each tree to be protected and preserved. The tree protection shall be installed prior to the actual construction start and maintained for the duration of the project.

Within this protection zone, construction materials shall not be stored, equipment operated and/or temporary storage buildings or work trailers placed.

The protection barrier shall be constructed of orange snow fencing securely fastened to fence posts spaced a maximum of 6 feet on center. Posts are 6 feet in length with 2 feet set into the ground and 4 feet extending above ground. The fencing shall be attached to the post with a minimum of four (4) nylon-locking ties evenly placed at each post.

**3.2 EXCAVATION**

- A. Install shoring or other protective support systems to minimize shoring or benching of excavations.
- B. Do not excavate within tree protection zones, unless otherwise indicated on plans.
- C. Where excavation for new construction is required within drip line of trees, clear and excavate to minimize damage to root systems. Use narrow-tine spading forks and comb soil to expose roots.

1. Relocate roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and relocate them without breaking. If encountered immediately adjacent to location of new construction and relocation is not practical; cut roots approximately 3 inches back from new construction.
2. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect

- D. Root Pruning: Cut roots with sharp pruning instruments. All roots that are broken or chopped by excavators during excavation will be required to be saw cut cleanly with a sharp saw and do not paint cut root end.
- E. When excavating, place excavated soil on opposite side of trench from tree.

**3.3 ROOT PRUNING**

- A. Root pruning shall take place only where the roots of existing trees have been damaged by the Contractor during construction of the Project, as directed by the Certified Arborist.
- B. If construction is to occur within the root zone of existing plant material, root pruning and special plant care including fertilizing and watering will be required, as directed by the Certified Arborist and hereinafter specified. Prior to root pruning, remove all weeds growing in existing tree mulch rings. Root pruning using an approved mechanical root pruning saw shall be performed prior to digging where noted on the plans, or directed by the Certified Arborist. Air Spading excavation consisting of hand and/or pneumatic excavation may be required if indicated on plans or as directed by Certified Arborist. Whenever roots of plant material to remain are exposed during construction, the damaged root ends are to be removed by cutting them off cleanly.
- C. Initial watering shall be performed on all trees, which are designated for root pruning. Water trees immediately by thoroughly saturating root balls and provide a horticultural watering bag, such as a Gator Bag or equivalent, filled with water to keep root balls thoroughly saturated during first three weeks following root pruning. Thereafter refill bags as required, according to weather conditions, to keep root balls in a moist condition during growing seasons, through the duration of the Project. Test root balls for optimal moisture once a week using a soil auger.
- D. All pruning shall be overseen by a professional arborist (someone whose principal occupation is the care and maintenance of trees). All pruning shall be done according to the National Arborist Association's Pruning Standards for Shade Trees Class 11 - Standard Pruning Specifications.
- E. Any damage to the root zone, as determined by the Certified Arborist, will be compensated by pruning an equivalent amount of the top vegetative growth of the material within 1 week following root damage, fertilization and supplemental watering.
- F. Fertilize damaged trees with fertilizer that promotes root growth. Fertilizer nutrients shall be applied within 48 hours after root damage occurs. Fertilizer nutrients shall be applied within 48 hours after root damage occurs. A fertilizer with a 1: 1: 1 ratio shall be applied at the rate of .5 pounds of nutrients per 1000 square feet (2 kg per 90 square meters).
- G. Application shall be accomplished by placing dry fertilizer in holes in the soil. The holes shall be 8 inches (200 mm) to 12 inches (300 mm) deep and spaced 24 inches (600 mm) apart in an area beginning 30 inches (1 meter) from the base of the plant. Holes can be punched with a punch bar, dug with a spade, drilled with an auger or any other method approved by the Certified Arborist.
- H. Approximately 0.02 pounds (10 grams) of fertilizer nutrients shall be placed in each hole 250 holes per 1000 square feet (90 square meters). Fertilizer Nutrients shall not be measured for payment but considered incidental to root pruning. If the Certified Arborist determines that the whole method of fertilizer placement is not practical or desirable, an approved method of uniform surface application will be allowed. Neither separate measurement nor payment will be made for fertilization, but will be considered incidental to the cost of TREE PROTECTION.
- I. Supplemental water shall be applied within 48 hours of any root damage. The water shall be applied at the rate of 7 quarts per square yard of surface area within the root zone of plant material having sustained damage to the root zone. Root zone shall be calculated as the areas, which extend three meters beyond the limits of the crown's branches. Subsequent weekly watering shall be applied if deemed necessary by the Certified Arborist. Neither separate measurement nor payment will be made for supplemental watering but will be considered incidental to the cost of TREE PROTECTION.
- J. The Contractor shall repair or replace any and all damage determined by the Certified Arborist and City of Flagler Beach to any existing or newly installed plant material at its own expense. Unnecessary damage to ground cover or turf shall be repaired or replaced as specified for restoration of similar areas within the plans, or as directed by the Certified Arborist and City of Flagler Beach, and shall be at the Contractor's expense.
- K. Materials shall be disposed of in accordance with specifications.

**3.4 REGRADING**

- A. Do not fill within tree protection zones, unless otherwise indicated.
- B. Where filling for new construction is required within drip line of trees, perform work by hand to minimize damage to root systems.
  1. Where existing grade is below elevation of finish grade, fill with topsoil. Place topsoil by hand in a single uncompacted layer and hand grade to required finish elevations.

**3.5 TREE PRUNING**

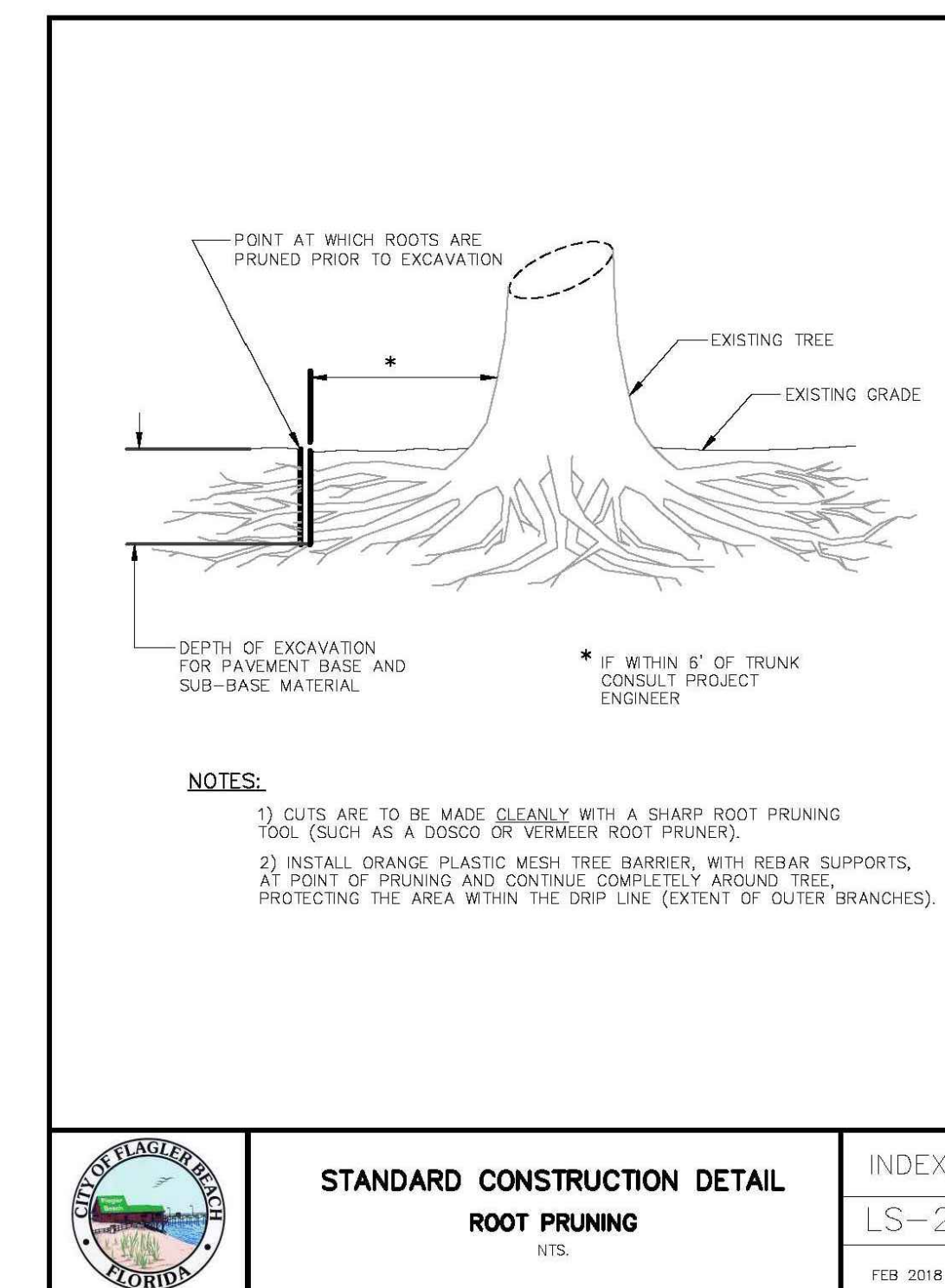
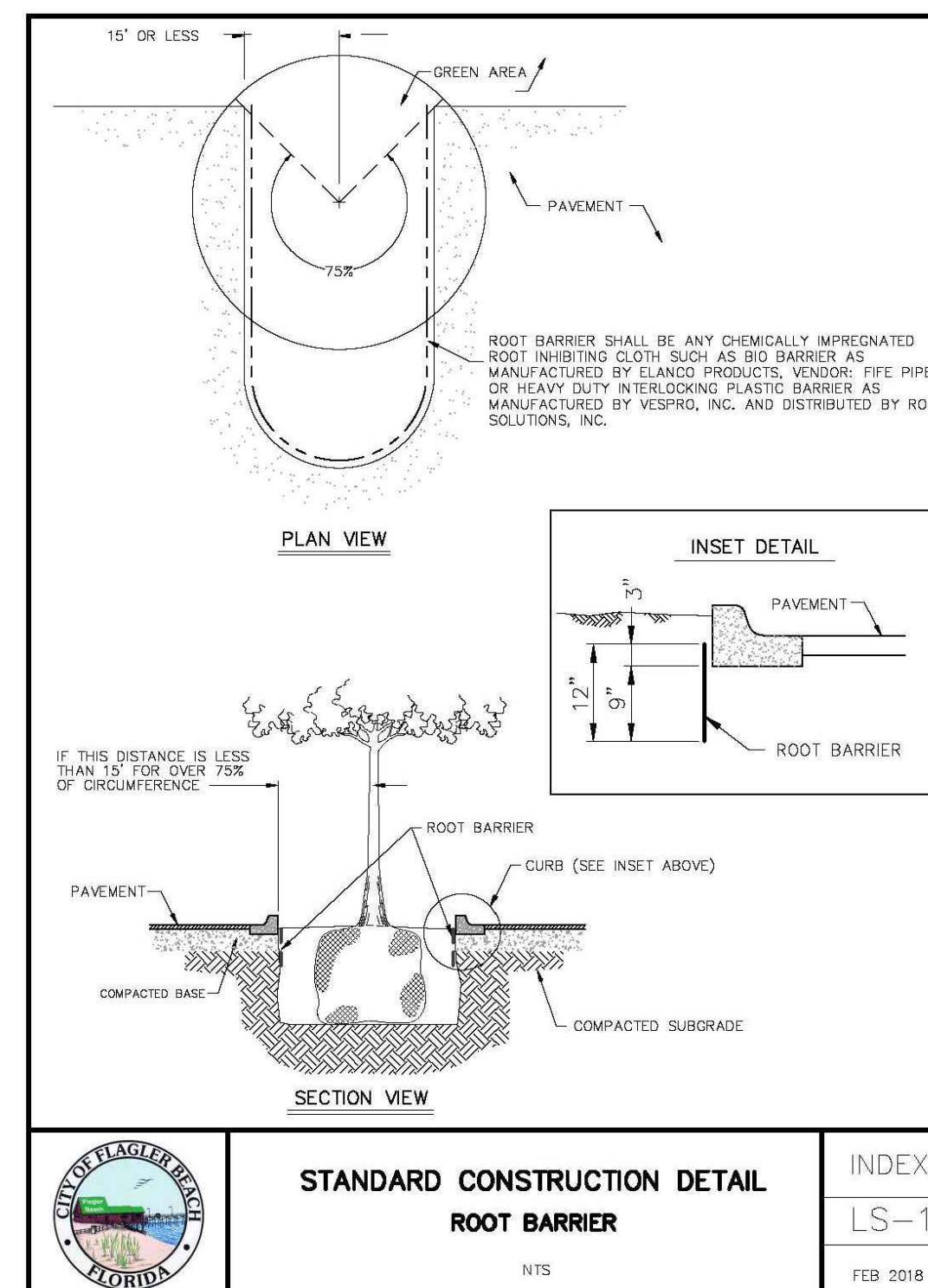
- A. Prune trees to remain that are affected by temporary and permanent construction.
- B. Pruning Standards: Prune trees according to ANSI A300 (Part 1).
- C. Cut branches with sharp pruning instruments; do not break or chop.
  1. Clean all pruning instruments with antimicrobial solution between performing work on separate trees to avoid the potential spread of pathogens.
- D. Chip removed tree branches and uses as organic mulch or dispose of off-site.

**3.6 TREE REPAIR AND REPLACEMENT**

- A. Promptly repair trees damaged by construction operations within 24 hours. Treat damaged trunks, limbs, and roots according to arborist's written instructions.
- B. Aerate surface soil, compacted during construction, 10 feet (3 m) beyond drip line. Drill 2-inch (50-mm) diameter holes a minimum of 12 inches (300 mm) deep at 24 inches (600 mm) o.c. Backfill holes with an equal mix of augered soil and sand.

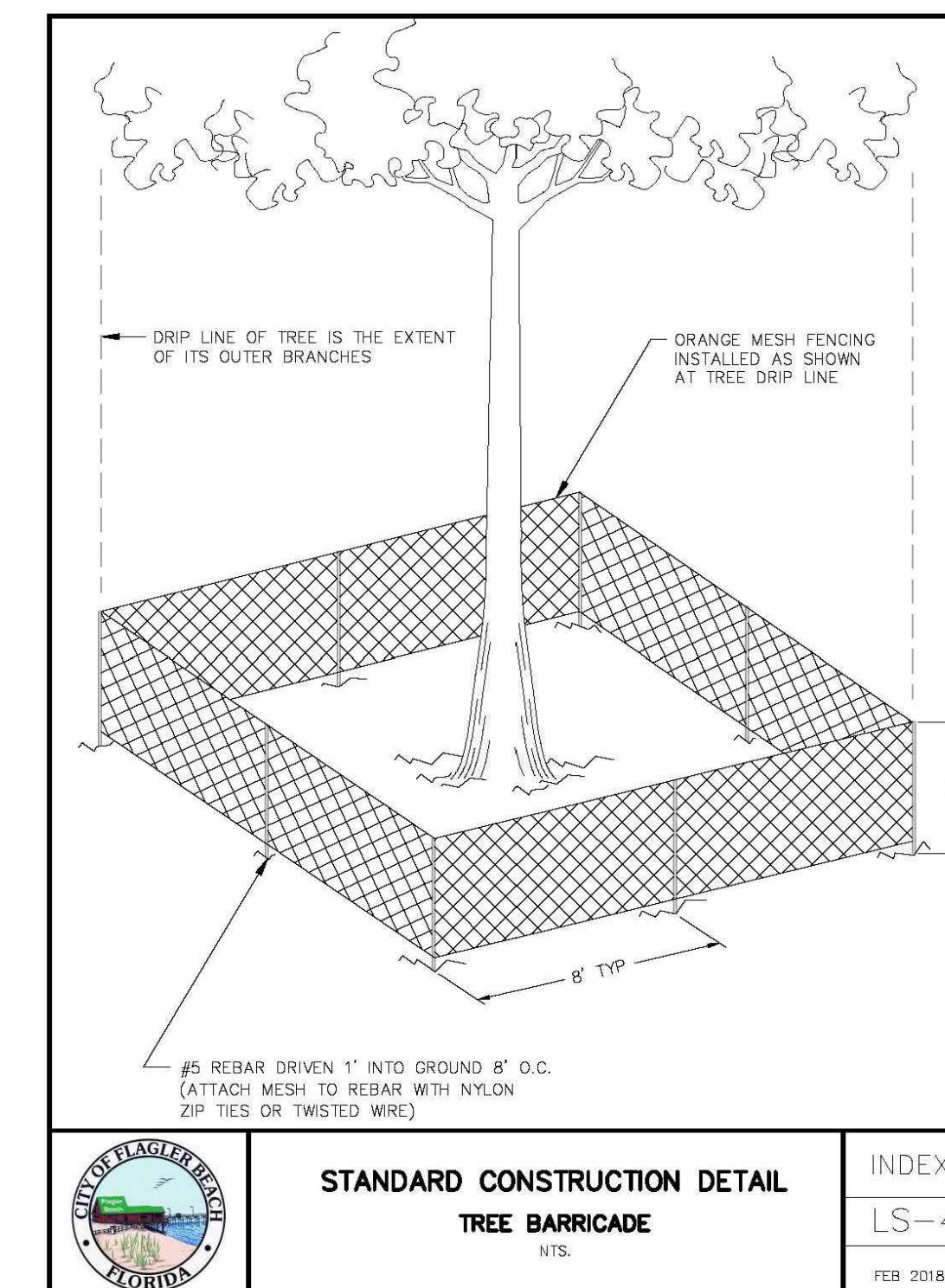
**3.7 DISPOSAL OF WASTE MATERIALS**

- A. Burning is not permitted.
- B. Disposal: Remove excess excavated material, displaced trees, and excess chips from Owner's property. Disposal shall be local landfill.



CONTRACTOR TO USE DOSKO OR VERMEER MECHANICAL ROOT PRUNER EQUIPMENT WHEN WITHIN CRITICAL ROOT ZONE OR TREE PROTECTION AREA FOR INSTALLATION OF 4" CONDUITS FOR ELECTRICAL, CABLE, TELECOMMUNICATIONS AND IRRIGATION SERVICES

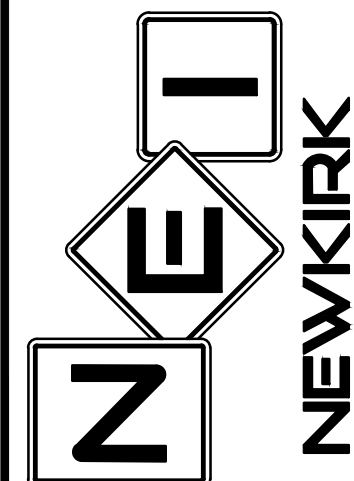
**MECHANICAL ROOT PRUNER EQUIPMENT DETAIL**  
NOT TO SCALE



**REVISIONS**

DATE	DESCRIPTION

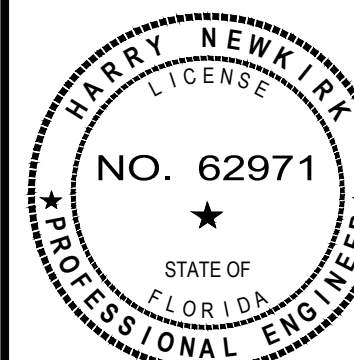
1230 North US1, Suite 3  
Ormond Beach, Florida 32174  
Phone (386) 872-7794  
www.Newkirk-Engineering.com  
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**TREE PROTECTION DETAILS**  
**LEGACY POINTE COTTAGES**  
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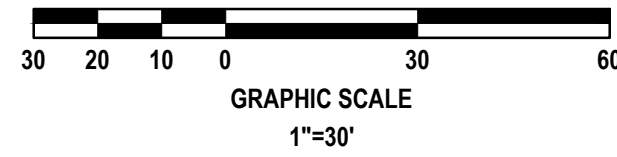
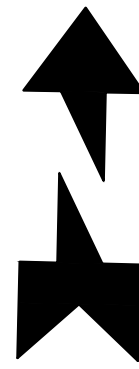
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PROJECT No: 2023-17  
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CHECKED BY: HHN  
SCALE: AS SHOWN

DRAWING NUMBER

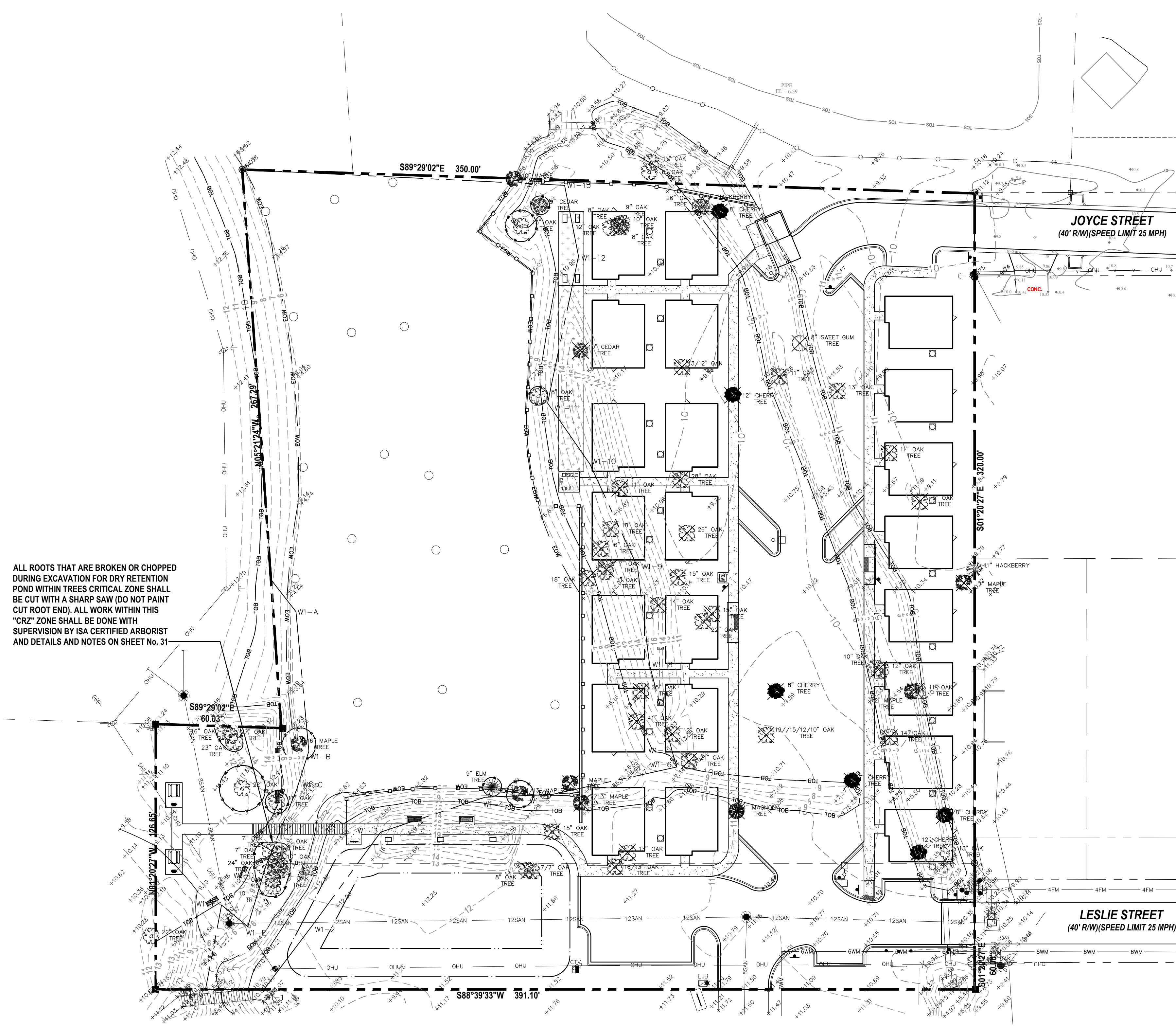
**31**





**OVERALL TREE LEGEND:**

NAME	SYMBOL	EXISTING	REMOVE	REMAIN
CEDAR		2	1	1
CHERRY		7	7	0
ELM		1	0	1
HACKBERRY		2	1	1
MAGNOLIA		1	1	0
MAPLE		9	5	4
OAK		60	44	16
SWEET GUM		1	1	0
TOTALS:		83	60	23



ALL ROOTS THAT ARE BROKEN OR CHOPPED DURING EXCAVATION FOR DRY RETENTION POND WITHIN TREES CRITICAL ZONE SHALL BE CUT WITH A SHARP SAW (DO NOT PAINT CUT ROOT END). ALL WORK WITHIN THIS "CRZ" ZONE SHALL BE DONE WITH SUPERVISION BY ISA CERTIFIED ARBORIST AND DETAILS AND NOTES ON SHEET No. 31

MAPLE	TREES REMOVED	TREES REMAIN
7"	3	
10"		1
12"	1	
13"	1	1
14"		1
16"		1
TOTAL	5	4

CEDAR	TREES REMOVED	TREES REMAIN
9"		1
10"	1	
TOTAL	1	1

OAK	TREES REMOVED	TREES REMAIN
6"	1	1
7"	4	3
8"	3	1
9"	2	1
10"	3	3
11"	4	1
12"	5	
13"	5	
14"	2	
15"	4	1
16"	1	1
18"	2	
19"	1	
21"	1	
22"	1	1
23"		1
24"		1
25"	1	
26"	2	
27"		1
28"	1	
41"	1	
TOTAL	44	16

ELM	TREES REMOVED	TREES REMAIN
9"		1
TOTAL	0	1

CHERRY	TREES REMOVED	TREES REMAIN
7"	1	
8"	3	
11"	1	
12"	2	
TOTAL	7	0

SWEET GUM	TREES REMOVED	TREES REMAIN
8"	1	
TOTAL	1	0

MAGNOLIA	TREES REMOVED	TREES REMAIN
14"	1	
TOTAL	1	0

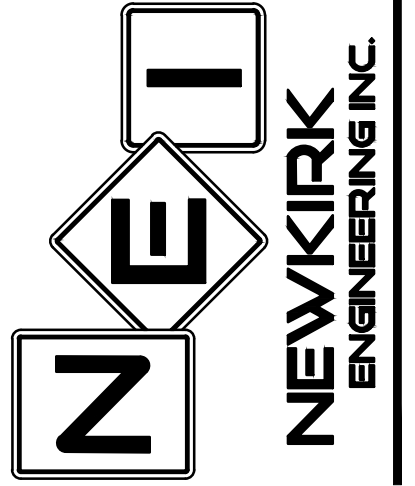
TOTALS	59	22
TOTAL TREES REMOVED	59	
TOTAL DBH REMOVED		767"

REQUIRED TREE REPLACEMENT: 59 CANOPY TREES (6' MINIMUM HEIGHT)

**REVISIONS**

DATE	DESCRIPTION

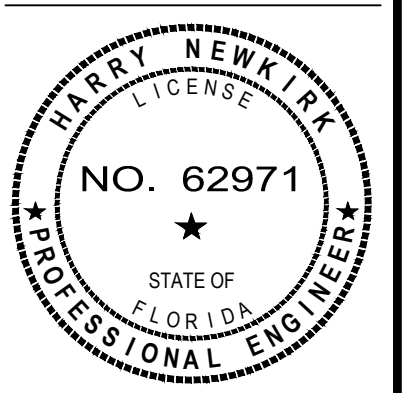
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**TREE PRESERVATION PLAN**  
**LEGACY POINTE COTTAGES**  
LESLIE STREET  
FLAGLER BEACH, FL 32136

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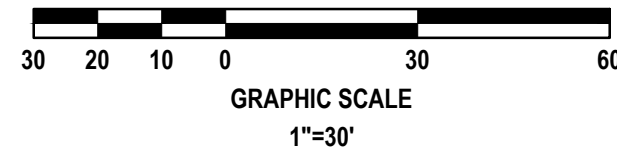
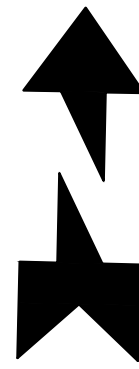
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CHECKED BY: HHN  
SCALE: 1" = 30'  
DRAWING NUMBER





GRAPHIC SCALE  
1"=30'



### WETLAND AREAS SUMMARY CHART

1. WETLAND / UPLAND AREAS:	SQ. FT.	ACRE	%
WETLAND/SURFACE WATER IMPACT AREA 1	468	0.011	0.9
WETLAND/SURFACE WATER IMPACT AREA 2	4,839	0.111	9.5
WETLAND/SURFACE WATER IMPACT AREA 3	773	0.018	1.5
<b>TOTAL WETLAND/SURFACE WATER IMPACTS</b>	<b>6,080</b>	<b>0.140</b>	<b>100.0</b>

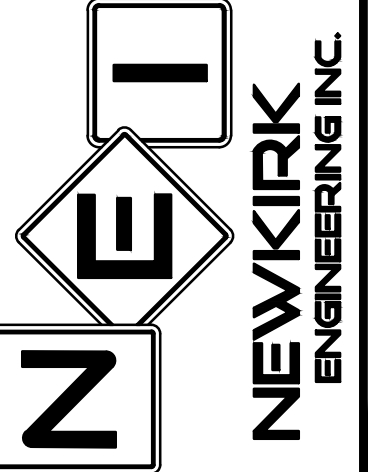
### LEGEND

- TOTAL WETLAND / SURFACE WATER  
(51,108 SF / 1.173 AC) TOTAL
- WETLAND / SURFACE WATER IMPACT AREA  
(6,080 SF / 0.140 AC) TOTAL

### REVISIONS

DATE	DESCRIPTION

1230 North US1, Suite 3  
Ormond Beach, Florida 32174  
Phone (386) 872-7794  
www.Newkirk-Engineering.com  
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C 2013  
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Landscape Architecture



**SURFACE WATER /  
WETLAND IMPACT PLAN**  
**LEGACY POINTE COTTAGES**  
LESLIE STREET  
FLAGLER BEACH, FL 32136

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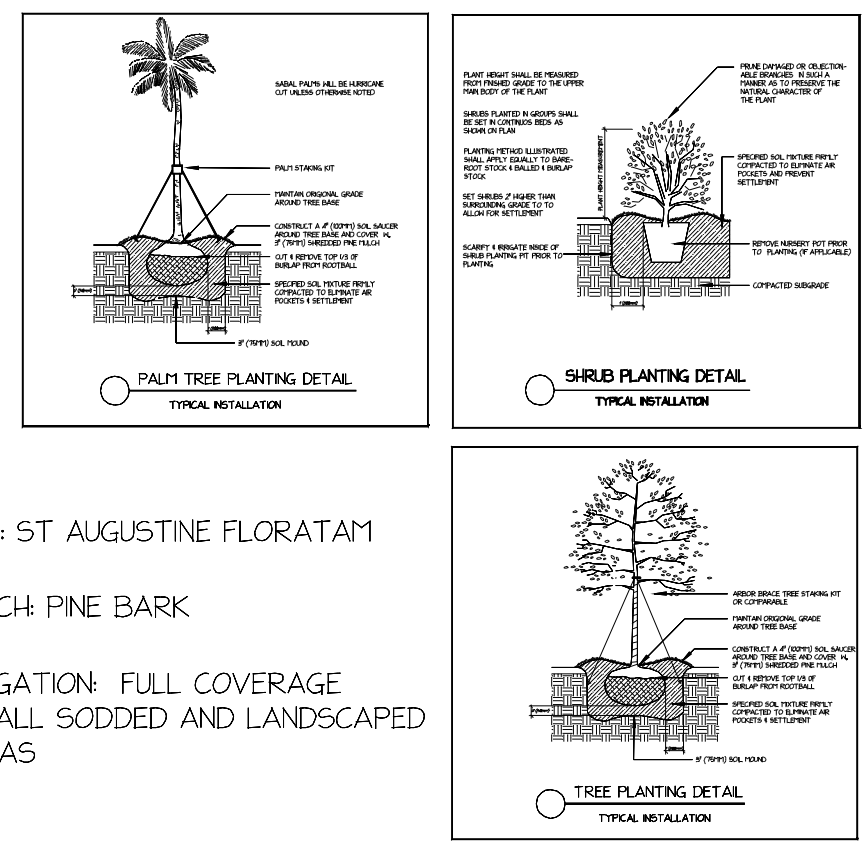
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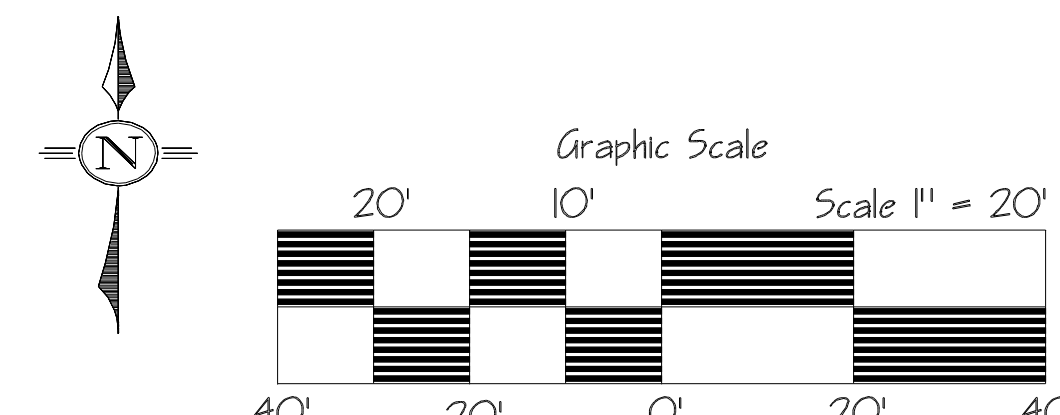


Key	Qty	Botanical Name	Common Name	Size/Condition	Spacing
<b>Trees</b>					
Qv	36	Quercus virginiana	SOUTHERN LIVE OAK	30g	2' cal. 8-10' ht.
Td	19	Taxodium distichum	CYPRESS, BALD	30g	2' cal. 8-10' ht.
<b>Palms</b>					
Pr	7	Phoenix roebelenii-Single	PYGMY DATE PALM, SINGLE	b4b	5'-6'
Pr	7	Phoenix roebelenii	PYGMY DATE PALM, DOUBLE	b4b	5'-6' oa
Sp	39	Sabal palmetto	SABAL PALM	b4b	12' ct.
<b>Shrubs</b>					
Lj	336	Ligustrum japonicum	LIGUSTRUM, GREEN	3g	16" x 16"
Lj	73	Ligustrum japonicum	LIGUSTRUM, GREEN	7g	24" hl.
Lm	124	Liriope muscari	LIRIOPE, EVERGREEN GIANT	3g	18" x 18"
JkP	81	Juniperus chinensis 'Parsonii'	JUNIPER, PARSONII	3g	14-16" Spread
Pm	49	Podocarpus macrophyllus	PODOCARPUS	7g	24" hl.
Pm	51	Podocarpus macrophyllus	PODOCARPUS	3g	18" x 18"
Ri	87	Rhaphiolepis indica	INDIAN HAWTHORN	3g	12' x 14"
<b>Perennials</b>					
Eh	620	Evolvulus hybrid	BLUE DAZE 'BLUE MY MIND'	lg	Full Plant
LmE	124	Liriope muscari 'Evergreen Giant'	LIRIOPE, EVERGREEN GIANT	lg	Full Plant
Nar	154	Neomarica caerulea 'regina'	IRIS, REGINA	3g	18" x 18"
TVP	36	Tulbaghia violacea 'Purple'	SOCIETY GARLIC, PURPLE	lg	Full Plant



- ### Landscape Notes
- All proposed materials shall be Florida #1 or better in quality based on the grades and standards for nursery plants by the Florida Department of Agriculture. All updated amendments apply.
  - All trees and plant material shall be planted in a professional manner according to the highest nursery standards.
  - Plant list quantities are for convenience only. The landscape contractor is responsible for all materials shown on the landscape plan. The plan always takes precedence over the plant list.
  - All mulch and stone beds are to have a 3" layer.
  - The landscape contractor is responsible for the stability and plumb condition of all trees planted. All hardwood and palm trees are to be staked.
  - All work performed on site must be done in a professional manner. The landscape contractor is responsible to leave the site clean of all materials and debris within the scope of their work.
  - All plant material will be trimmed as needed for a finished professional appearance. All labels and tags will be removed.
  - All work performed must meet or exceed all local codes and requirements.

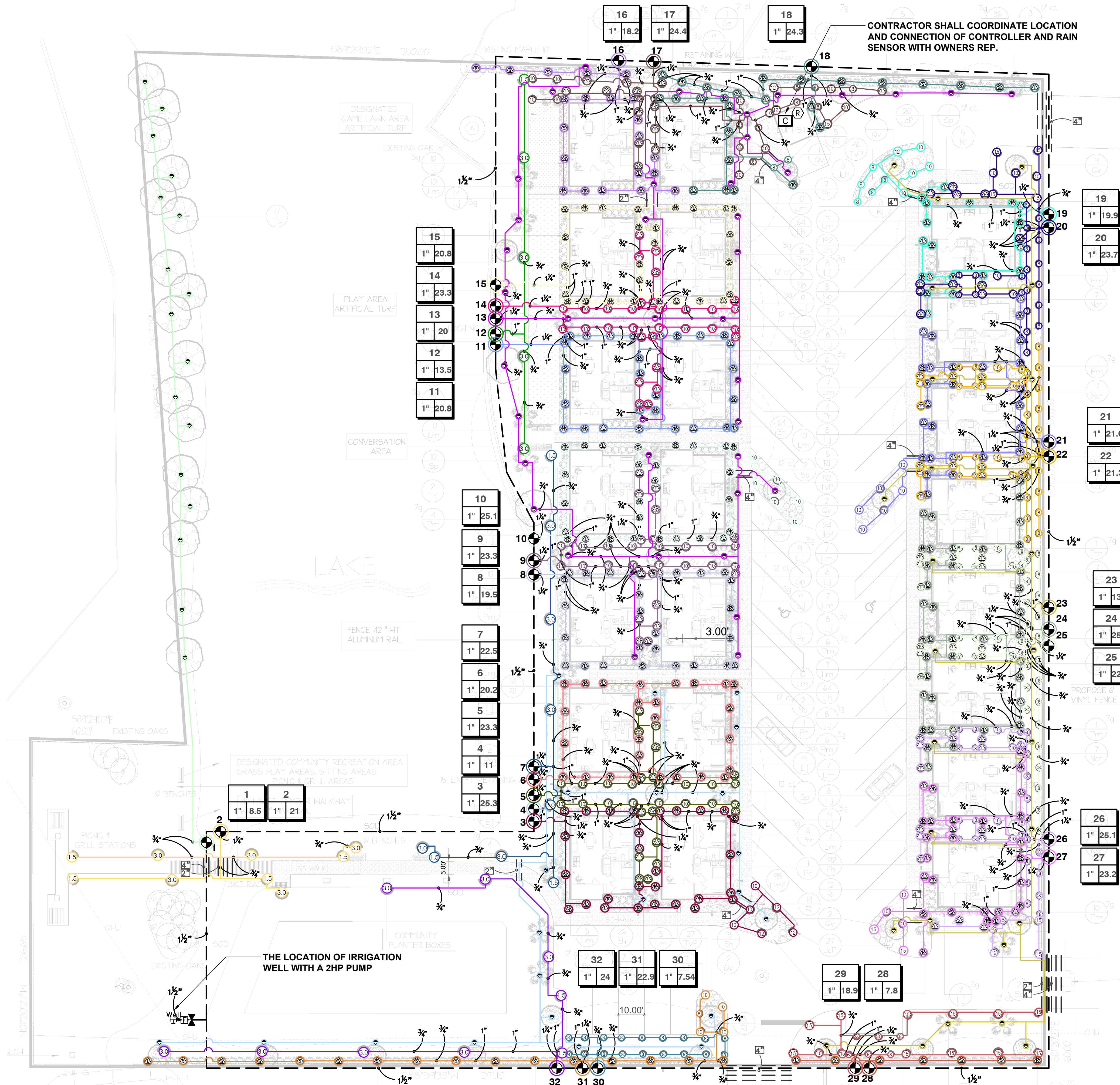
SOD: ST AUGUSTINE FLORATAM  
 MULCH: PINE BARK  
 IRRIGATION: FULL COVERAGE TO ALL SODDED AND LANDSCAPED AREAS



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	Job # Date 5-1-24	<h2>Landscape Design</h2>	
	Revisions 6-19-24 10-16-24	<h3>Legacy Pointe</h3> <h3>Leslie Street</h3> <h3>Flagler Beach, FL 32136</h3>	<p><b>VERDEGO</b> Design Center</p> <p>Main Office/Garden Center          3335 North State Street, Bunnell FL 32110          P. 386.437.3122 F. 386.437.6883</p>
	Designer B.P.		

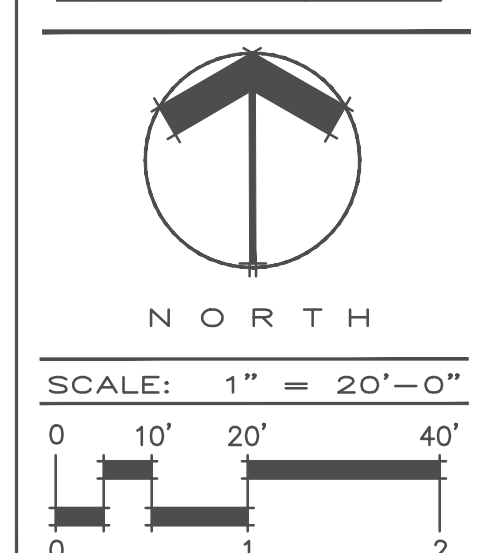




**LEGACY POINTE**  
 FLAGLER BEACH, FL 32136  
 Irrigation Plan

JOB NUMBER: 23FIS-01256  
 DRAWN BY: ZM  
 CHECKED BY: LG  
 DATE: 10-22-24

REVISIONS	DATE
1	00-00-00
2	00-00-00
3	00-00-00
4	
5	
6	
7	



IR-1.01A

HCSG  
 DESIGN  
 DISCLAIMER

A - The irrigation design services provided by HCSG are crafted to assist our customers during the project bidding process. These services are intended to facilitate preliminary planning and are not to be used for construction purposes. We strongly recommend that all designs, estimates, and related documents be reviewed and utilized by professionals who have the requisite experience and educational background in the field.

It is important to note that Heritage Commercial Services Group (HCSG), along with our brands, affiliates, vendors, and contractors, assumes no liability for inaccuracies, omissions, errors, or any potential financial losses (including lost income or revenue) arising from the use of our products and services. Our goal is to support your project planning efforts with quality designs and estimates, while emphasizing the need for further professional review and validation.

B - HCSG's irrigation design work is specifically tailored for bid preparation and is not intended for use in actual construction projects. For clients requiring detailed construction-ready drawings, our affiliate, WC3, a specialized irrigation design firm within the Heritage Landscape Supply Group, offers professional services. WC3 is equipped to create comprehensive construction drawings, which can be formally stamped and/or submitted for necessary approvals and reviews.

Please be aware that HCSG is not to be considered the "Designer/Architect of Record" for any irrigation design projects. Our role is to provide initial design assistance, with the understanding that final design responsibility and verification lie with the hiring of appropriately licensed professionals for construction purposes.



## VALVE\_SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Hunter PGV-101G	1"	Turf Spray	24.4	339.2	37.5	37.8	0.69 in/h
2	Hunter PGV-101G	1"	Turf Spray	18.87	190.4	35.4	36.5	0.82 in/h
3	Hunter PGV-101G	1"	Turf Spray	20.54	186.1	36.4	37.7	1.28 in/h
4	Hunter PGV-101G	1"	Shrub Spray	19.5	146.9	36.7	38.1	1.24 in/h
5	Hunter PGV-101G	1"	Bubbler	15	65.7	35.3	36.4	1.7 in/h
6	Hunter PGV-101G	1"	Turf Spray	20.87	65.7	37.6	40.1	0.89 in/h
7	Hunter PGV-101G	1"	Turf Spray	24.69	72.7	36.2	39.6	1.01 in/h
8	Hunter PGV-101G	1"	Shrub Spray	22.75	77.3	38.1	41.1	1.3 in/h
9	Hunter PGV-101G	1"	Turf Rotor	18	240.0	49.5	51.2	0.65 in/h
10	Hunter PGV-101G	1"	Shrub Spray	24.7	247.0	39.6	42.5	1.41 in/h
11	Hunter PGV-101G	1"	Turf Spray	20.87	252.5	36.6	38.7	1.14 in/h
12	Hunter PGV-101G	1"	Shrub Spray	22.1	414.2	36.7	39.2	1.48 in/h
13	Hunter PGV-101G	1"	Turf Spray	22.17	438.5	35.1	37.5	1.31 in/h
14	Hunter PGV-101G	1"	Turf Spray	21.59	650.4	37.7	40.0	0.74 in/h
15	Hunter PGV-101G	1"	Shrub Spray	23.4	654.8	37.7	40.4	1.53 in/h
16	Hunter PGV-101G	1"	Turf Spray	23.3	682.6	38.1	40.8	0.76 in/h
17	Hunter PGV-101G	1"	Shrub Spray	7.8	653.2	32.3	32.6	1.54 in/h
18	Hunter PGV-101G	1"	Turf Spray	21.97	648.1	34.6	36.7	1.3 in/h
19	Hunter PGV-101G	1"	Bubbler	21.5	638.9	39.7	41.7	1.7 in/h
20	Hunter PGV-101G	1"	Turf Spray	24.93	469.4	37.8	39.2	0.99 in/h
21	Hunter PGV-101G	1"	Shrub Spray	18.2	461.4	34.7	35.4	1.53 in/h
Common Wire								

## WATERING\_SCHEDULE

NUMBER	MODEL	TYPE	PRECIP	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	Hunter PGV-101G	Turf Spray	0.69 in/h	1.01	88	2,147	716
2	Hunter PGV-101G	Turf Spray	0.82 in/h	1.01	75	1,415	472
3	Hunter PGV-101G	Turf Spray	1.28 in/h	1.01	48	986	329
4	Hunter PGV-101G	Shrub Spray	1.24 in/h	1.01	50	975	325
5	Hunter PGV-101G	Bubbler	1.7 in/h	0.75	27	405	135
6	Hunter PGV-101G	Turf Spray	0.89 in/h	1.01	69	1,440	480
7	Hunter PGV-101G	Turf Spray	1.01 in/h	1.01	61	1,506	502
8	Hunter PGV-101G	Shrub Spray	1.3 in/h	1.01	47	1,069	356
9	Hunter PGV-101G	Turf Rotor	0.65 in/h	1.01	94	1,692	564
10	Hunter PGV-101G	Shrub Spray	1.41 in/h	1.01	43	1,062	354
11	Hunter PGV-101G	Turf Spray	1.14 in/h	1.01	54	1,127	376
12	Hunter PGV-101G	Shrub Spray	1.48 in/h	1.01	41	906	302
13	Hunter PGV-101G	Turf Spray	1.31 in/h	1.01	47	1,042	347
14	Hunter PGV-101G	Turf Spray	0.74 in/h	1.01	83	1,792	597
15	Hunter PGV-101G	Shrub Spray	1.53 in/h	1.01	40	936	312
16	Hunter PGV-101G	Turf Spray	0.76 in/h	1.01	80	1,864	621
17	Hunter PGV-101G	Shrub Spray	1.54 in/h	1.01	40	312	104
18	Hunter PGV-101G	Turf Spray	1.3 in/h	1.01	47	1,033	344
19	Hunter PGV-101G	Bubbler	1.7 in/h	0.75	27	581	194
20	Hunter PGV-101G	Turf Spray	0.99 in/h	1.01	62	1,546	515
21	Hunter PGV-101G	Shrub Spray	1.53 in/h	1.01	40	728	243
TOTALS:					1,163	24,564	8,188

## CRITICAL ANALYSIS

Generated:  
P.O.C. NUMBER: 01  
Water Source Information:

FLOW AVAILABLE  
Custom Max Flow: 25 GPM  
Flow Available: 25 GPM

PRESSURE AVAILABLE  
Static Pressure at POC: 65 PSI  
Pressure Available: 65 PSI

DESIGN ANALYSIS  
Maximum Station Flow: 24.93 GPM  
Flow Available at POC: 25 GPM  
Residual Flow Available: 0.07 GPM

Critical Station: 9  
Design Pressure: 45 PSI  
Friction Loss: 1.73 PSI  
Fittings Loss: 0.17 PSI  
Elevation Loss: 0 PSI  
Loss through Valve: 2.62 PSI  
Pressure Req. at Critical Station: 49.5 PSI  
Loss for Fittings: 0.15 PSI  
Loss for Main Line: 1.48 PSI  
Loss for POC to Valve Elevation: 0 PSI  
Loss for Backflow: 0 PSI  
Critical Station Pressure at POC: 51.2 PSI  
Pressure Available: 65 PSI  
Residual Pressure Available: 13.8 PSI

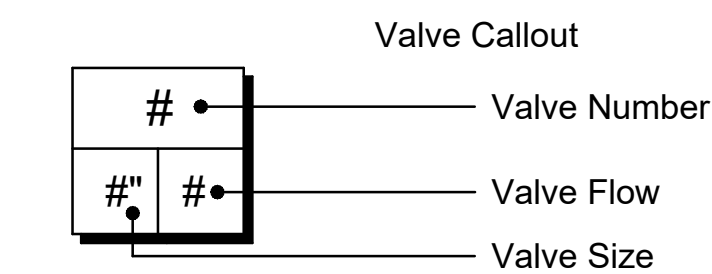
## IRRIGATION\_SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY
	Hunter PROS-06-NSI Strip Series	19
	Hunter PROS-06-NSI 8 Series	171
	Hunter PROS-06-NSI 10 Series	36
	Hunter PROS-06-NSI 12 Series	18
	Hunter PROS-06-NSI 15 Series	55
	Hunter PROS-06-NSI Adj Series	15
	Hunter PROS-12-NSI Strip Series on riser	147
	Hunter PCB-50 (One per Tree)	73

SYMBOL	MANUFACTURER/MODEL	QTY
	Hunter PGP-04 1.5	4
	Hunter PGP-04 3.0	4

SYMBOL	MANUFACTURER/MODEL	QTY
	Hunter PGV-101 Globe 1"	21
	Gate Valve 1-1/2"	1
	Hunter I-Core Controller-Wall Mount	1
	Hunter WR-CLIK	1
	Irrigation Well with a 2HP Pump	1

	Irrigation Lateral Line: PVC Class 160 SDR 26 3/4"	6,920 l.f.
	Irrigation Lateral Line: PVC Class 160 SDR 26 1"	860 l.f.
	Irrigation Lateral Line: PVC Class 160 SDR 26 1 1/4"	480 l.f.
	Irrigation Lateral Line: PVC Class 160 SDR 26 1 1/2"	10 l.f.
	Irrigation Mainline: PVC Class 200 SDR 21 1 1/2"	1,520 l.f.
	Pipe Sleeve: Conduit 1-1/4" (Control Wire)	100 l.f.
	Pipe Sleeve: PVC Schedule 40 2"	110 l.f.
	Pipe Sleeve: PVC Schedule 40 4"	160 l.f.



### SLEEVING SIZE SCHEDULE

PIPE SIZE	SLEEVE SIZE
3/4"	2" SLV
1"	2" SLV
1 1/4"	2" SLV
1 1/2"	4" SLV
2"	4" SLV
2 1/2"	4" SLV
3"	6" SLV

### VALVE SIZING REQUIREMENTS

MAX.FLOW RANGE	VALVE SIZE
1 TO 25 GPM	1"
26 TO 50 GPM	1-1/2"
51 TO 75 GPM	2"

### LATERAL PIPE SIZING REQUIREMENTS

PVC CLASS 200		PVC SCH 40	
3/4"	10 GPM	3/4"	8 GPM
1"	16 GPM	1"	12 GPM
1 1/4"	26 GPM	1 1/4"	22 GPM
1 1/2"	35 GPM	1 1/2"	30 GPM
2"	55 GPM	2"	50 GPM
2 1/2"	80 GPM	2 1/2"	70 GPM
3"	120 GPM	3"	110 GPM

## GENERAL IRRIGATION NOTES

- IRRIGATION SYSTEM DESIGN IS BASED ON 25 GPM AND 65 PSI. EACH IRRIGATION ZONE SHALL BE PROGRAMMED ON THE BASIS OF WATER REQUIREMENT 0.75 (LOW VOLUME IRRIGATION) 1 (HIGH VOLUME IRRIGATION) INCH WATER PER WEEK TO THE LANDSCAPE IRRIGATION SYSTEM.
- IRRIGATION DESIGN IS FROM THE POINT OF CONNECTION (POC) ONLY. THE DESIGN IS BASED ON GALLONS PER MINUTE (GPM) AND POUNDS PER SQUARE INCH (PSI) FURNISHED BY OTHERS.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATION OF ALL SITE UTILITIES AND MAKING THE NECESSARY ADJUSTMENTS TO THE IRRIGATION SYSTEM TO ACCOMMODATE THE INFRASTRUCTURE.
- THE PRESSURE REQUIREMENT AT THE POINT OF CONNECTION IS BASED ON NO MORE THAN 5 FEET OF ELEVATION CHANGE IN THE AREAS OF IRRIGATION.
- PIPE LOCATIONS ARE DIAGRAMATIC. MAINLINE, LATERAL & VALVES SHOWN IN OUTSIDE OF CURBS FOR GRAPHIC CLARITY ONLY.
- CONTRACTOR TO VERIFY WATER PRESSURE AND AVAILABILITY PRIOR TO INSTALLATION.
- ALL CONTROL WIRING DOWNSTREAM OF THE CONTROLLER IS TO BE 14-AWG, UL APPROVED DIRECT BURY.
- LOCATION OF IRRIGATION COMPONENTS SHOWN ON DRAWING IS APPROXIMATE. ACTUAL PLACEMENT MAY VARY SLIGHTLY AS REQUIRED TO ACHIEVE FULL, EVEN COVERAGE.
- CONTRACTOR SHALL INSTALL ADDITIONAL CHECK VALVES TO HEADS AND LATERALS AS REQUIRED TO PREVENT LOW HEAD DRAINAGE.
- ACTUAL LOCATION FOR THE INSTALLATION OF THE BACKFLOW AND THE CONTROLLER IS TO BE DETERMINED IN THE FIELD BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
- ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCE AND ANY HARD STRUCTURE.
- FINAL LOCATION OF THE AUTOMATIC CONTROLLER (S) SHALL BE APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION (INDOOR VS OUTDOOR).
- SLEEVE SHALL BE PLACED UNDER PAVEMENT AS SHOWN ON PLANS AND SHALL BE A MINIMUM OF 2X THE SIZE OF THE IRRIGATION PIPE. SEE SLEEVE SIZE CHART.
- ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER AND ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
- ALL REMOTE CONTROL VALVES, GATE VALVES AND QUICK COUPLER VALVE SHALL BE INSTALLED IN VALVE BOXES.
- ANY PIPING OR VALVES SHOWN OUTSIDE OF THE PROPERTY LINE OR OUTSIDE OF LANDSCAPE AREA IS SHOWN THERE FOR DESIGN CLARITY ONLY. ALL PIPING AND VALVES SHALL BE INSTALLED ON THE PROPERTY AND WITHIN LANDSCAPE AREAS.

PREPARED FOR:

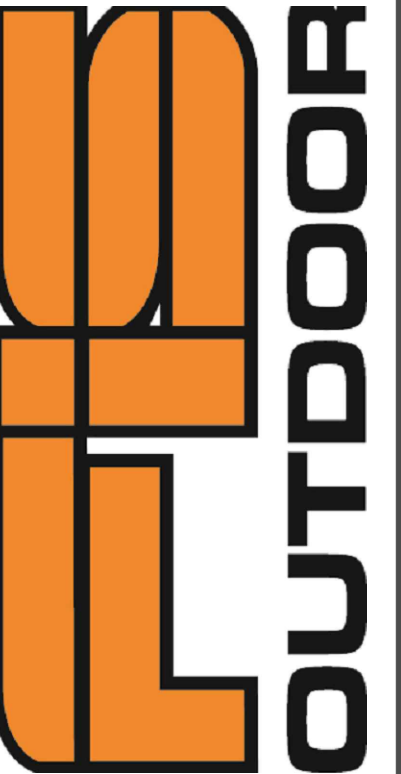
LEGACY POINTE APARTMENTS

FLAGLER BEACH, FL

PREPARED BY:

FIS OUTDOOR  
1112 Samples  
Industrial Dr.  
Cumming, GA 30041

770-844-7899  
www.fisoutdoor.com



## IRRIGATION DETAILS

REVISION	COMMENTS	DATE
1		02-28-2023
2		05-03-2023
3		08-25-2023
4		xx-xx-xxxx
5		xx-xx-xxxx

DRAWING SCALE: NTS

PROJECT NUMBER: F56801

DRAWING TITLE: IRRIGATION DETAILS

DRAWN BY: ZN

CHECKED BY: JF

AUTHORIZED: JF

ISSUE: DESIGN

ISSUE DATE: 02-14-2023

SHEET NUMBER:

IRR-02

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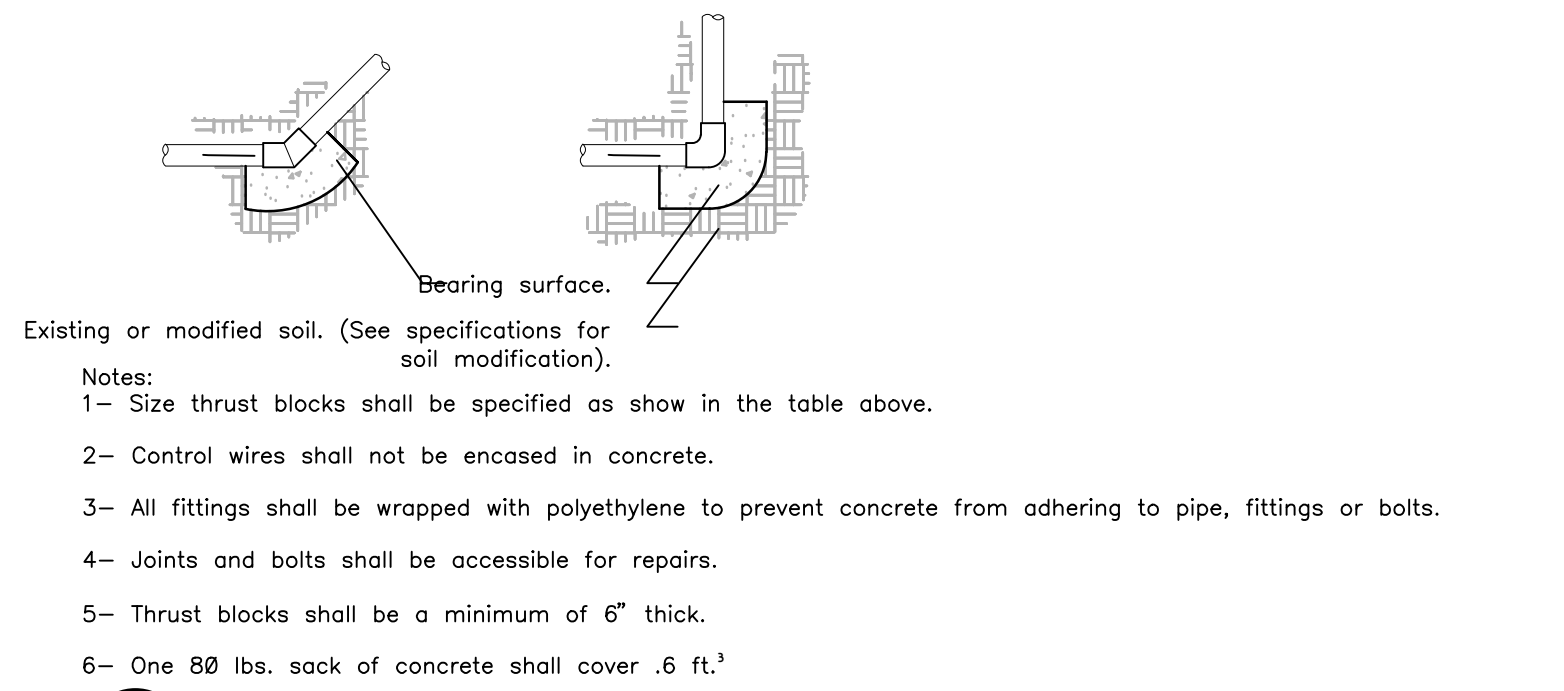
## IRRIGATION DETAILS LAYOUT



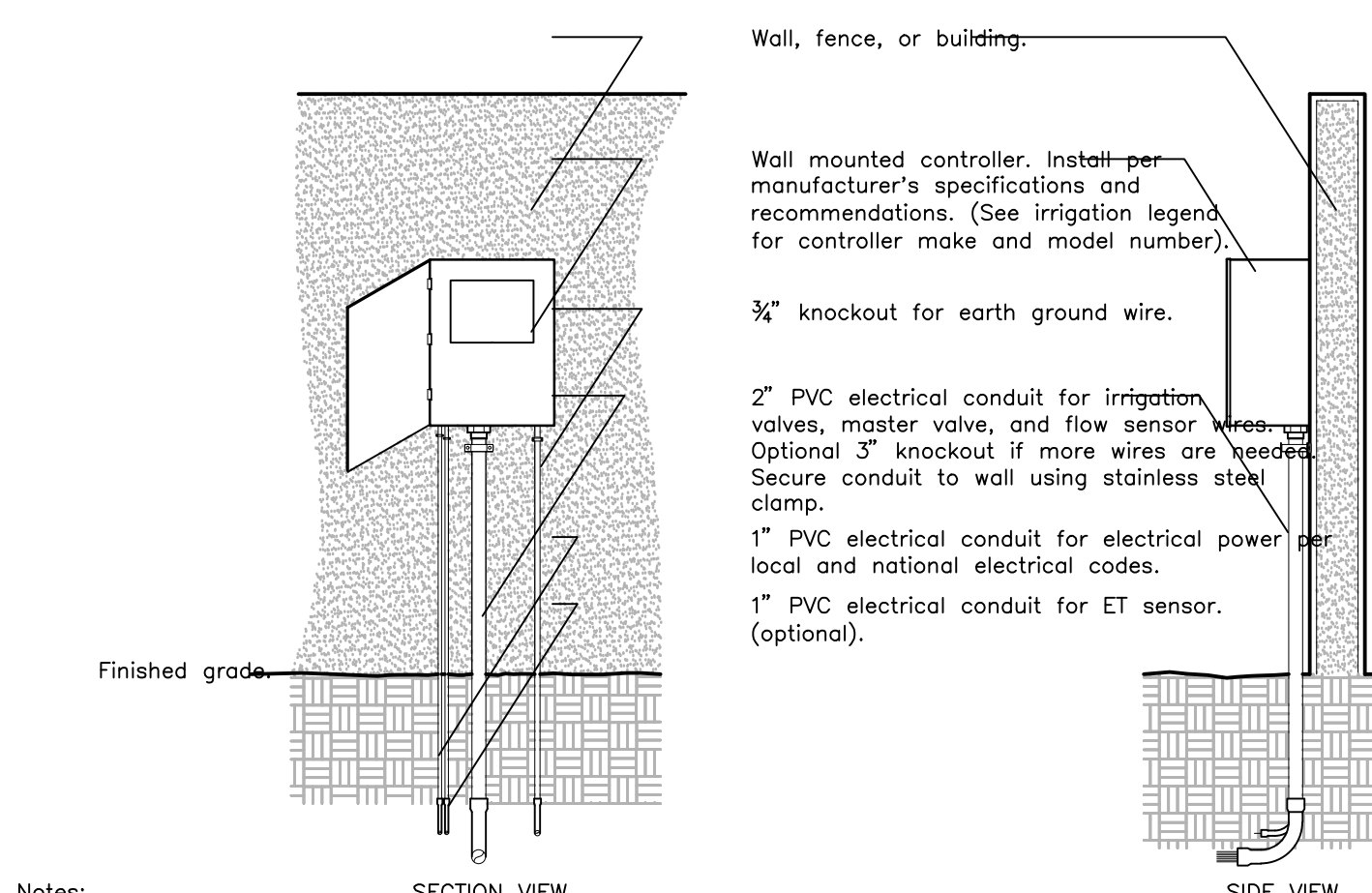


MINIMUM BEARING SURFACE AREA

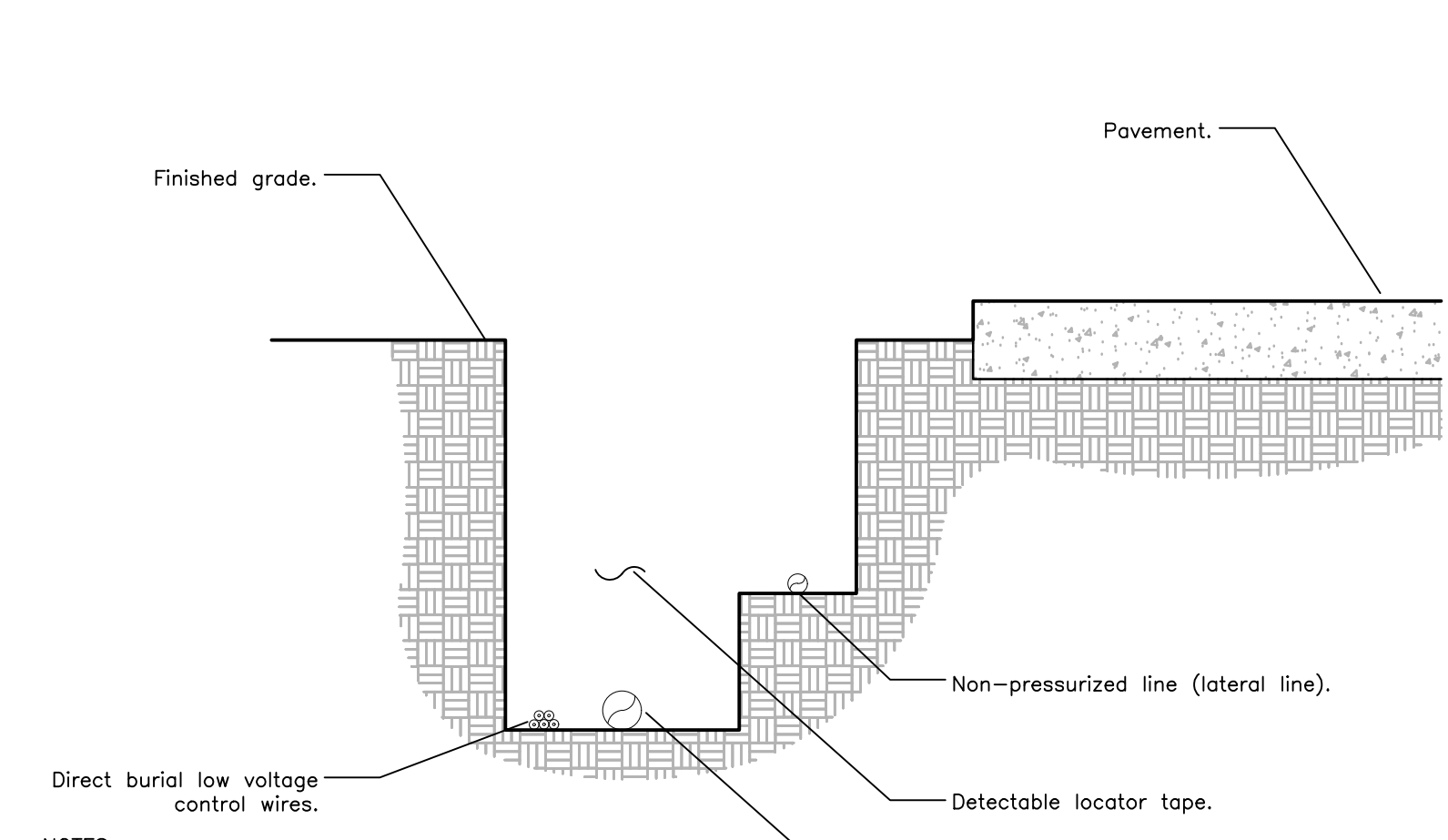
PIPE SIZE	TEE AND PLUG	90° BEND	45° BEND
1-1/2"	0.45 FEET <sup>2</sup>	0.63 FEET <sup>2</sup>	0.34 FEET <sup>2</sup>
2"	0.69 FEET <sup>2</sup>	0.97 FEET <sup>2</sup>	0.53 FEET <sup>2</sup>
2-1/2"	1.0 FEET <sup>2</sup>	1.41 FEET <sup>2</sup>	0.77 FEET <sup>2</sup>
3"	1.48 FEET <sup>2</sup>	2.10 FEET <sup>2</sup>	1.14 FEET <sup>2</sup>
4"	2.43 FEET <sup>2</sup>	3.45 FEET <sup>2</sup>	1.87 FEET <sup>2</sup>
6"	5.25 FEET <sup>2</sup>	7.41 FEET <sup>2</sup>	4.02 FEET <sup>2</sup>
8"	9.08 FEET <sup>2</sup>	12.83 FEET <sup>2</sup>	6.96 FEET <sup>2</sup>
10"	14.93 FEET <sup>2</sup>	21.07 FEET <sup>2</sup>	11.44 FEET <sup>2</sup>



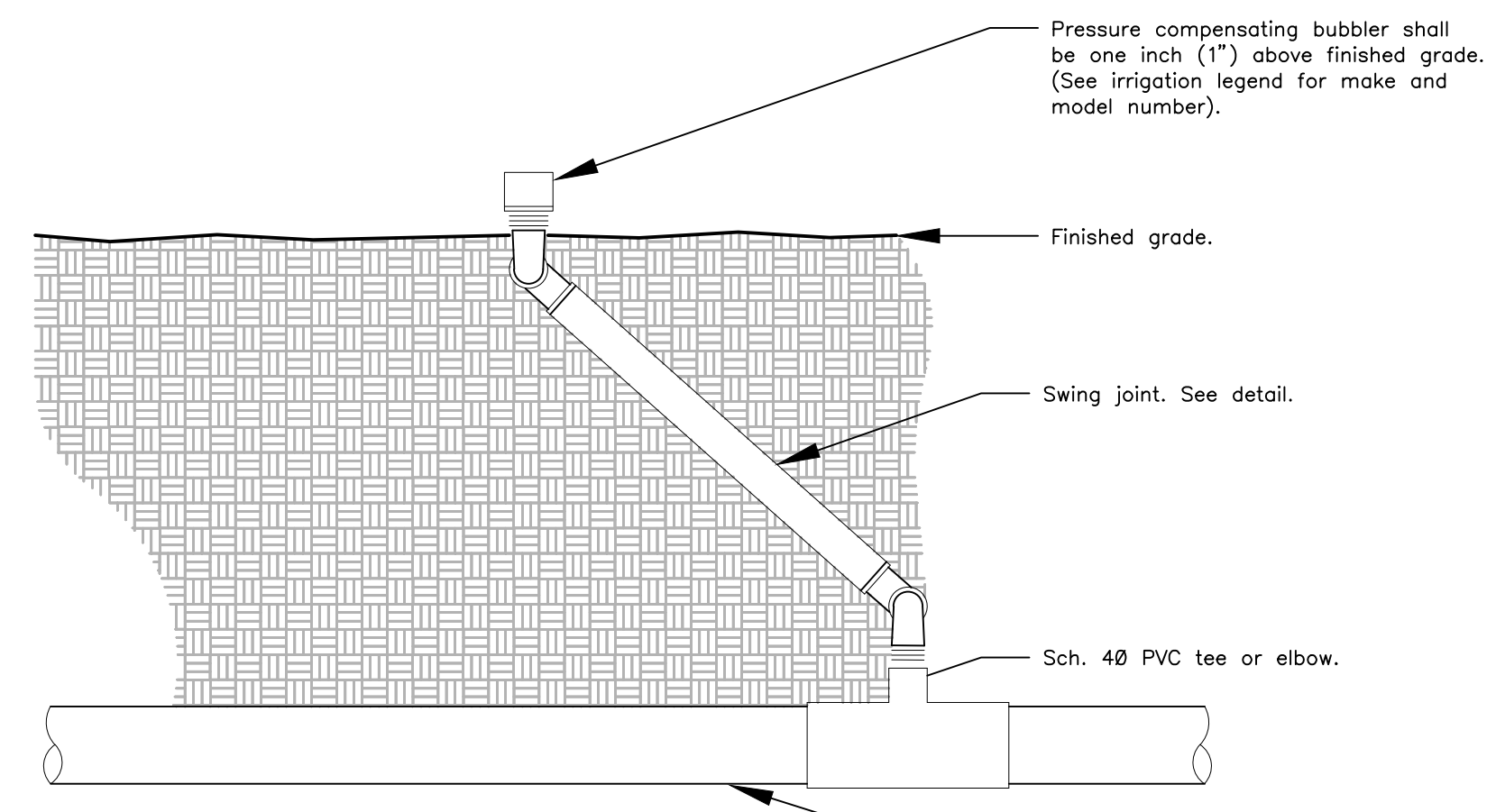
01 THRUST BLOCK



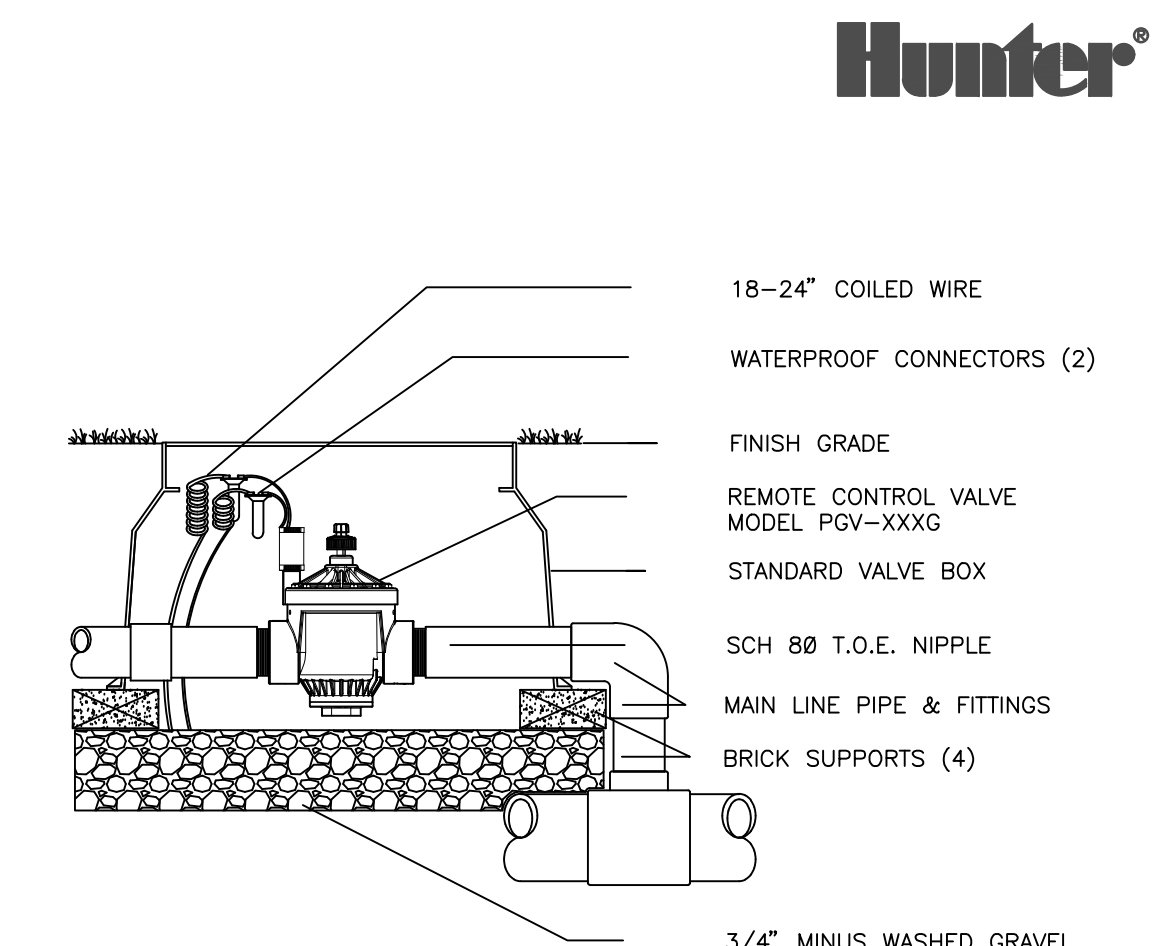
02 WALL MOUNTED CONTROLLER



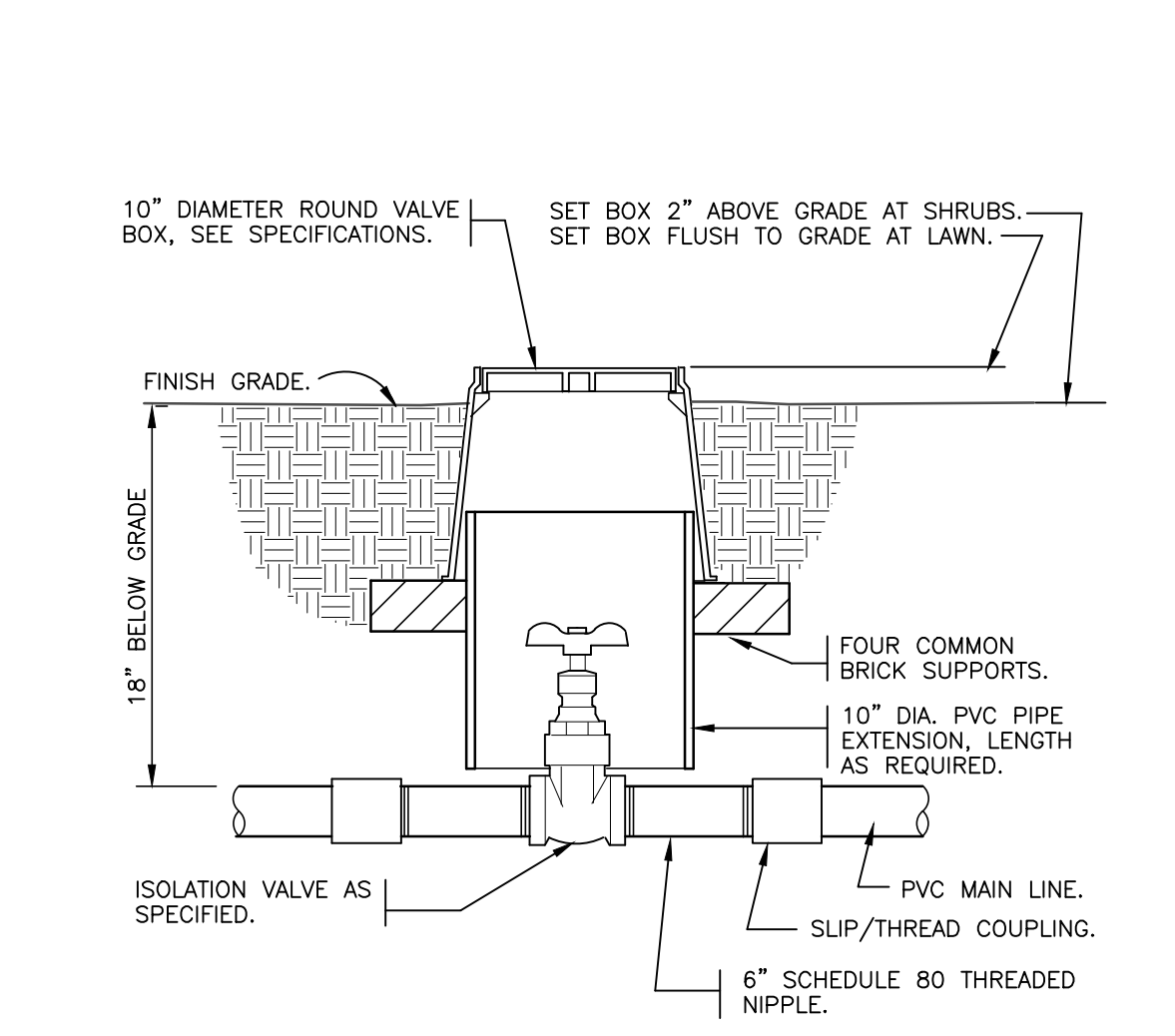
03 IRRIGATION TRENCHING



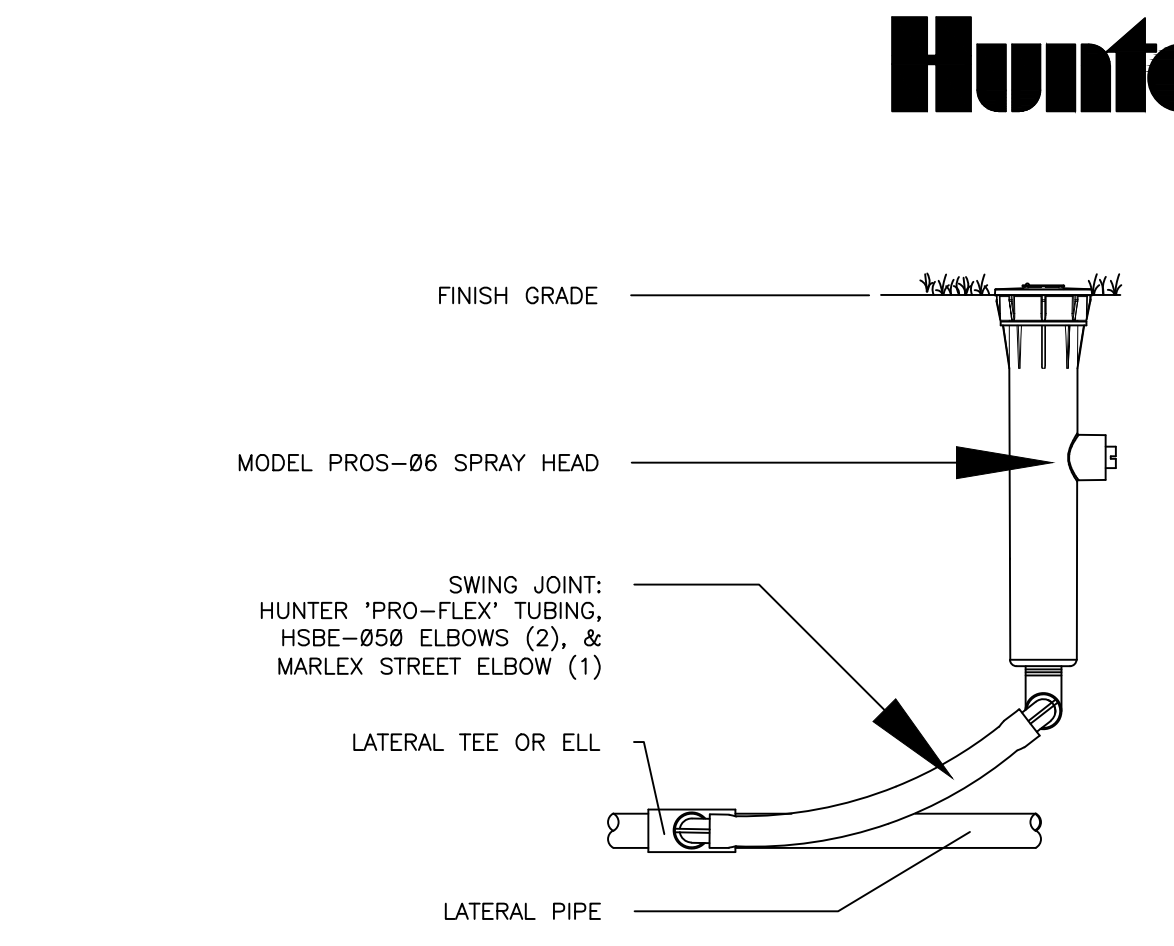
04 BUBBLER ON SWING JOINT



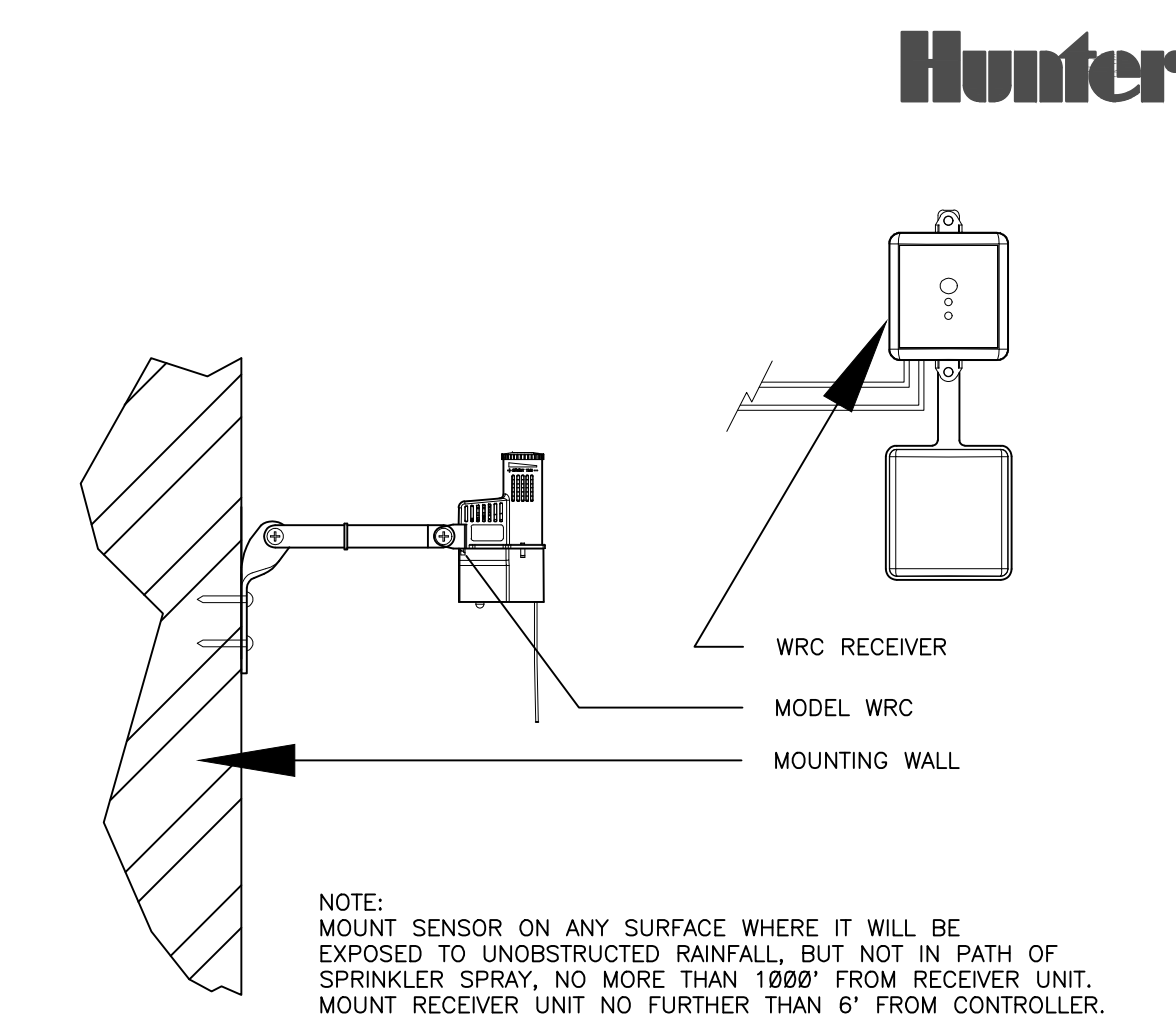
05 PGV GLOBE VALVE



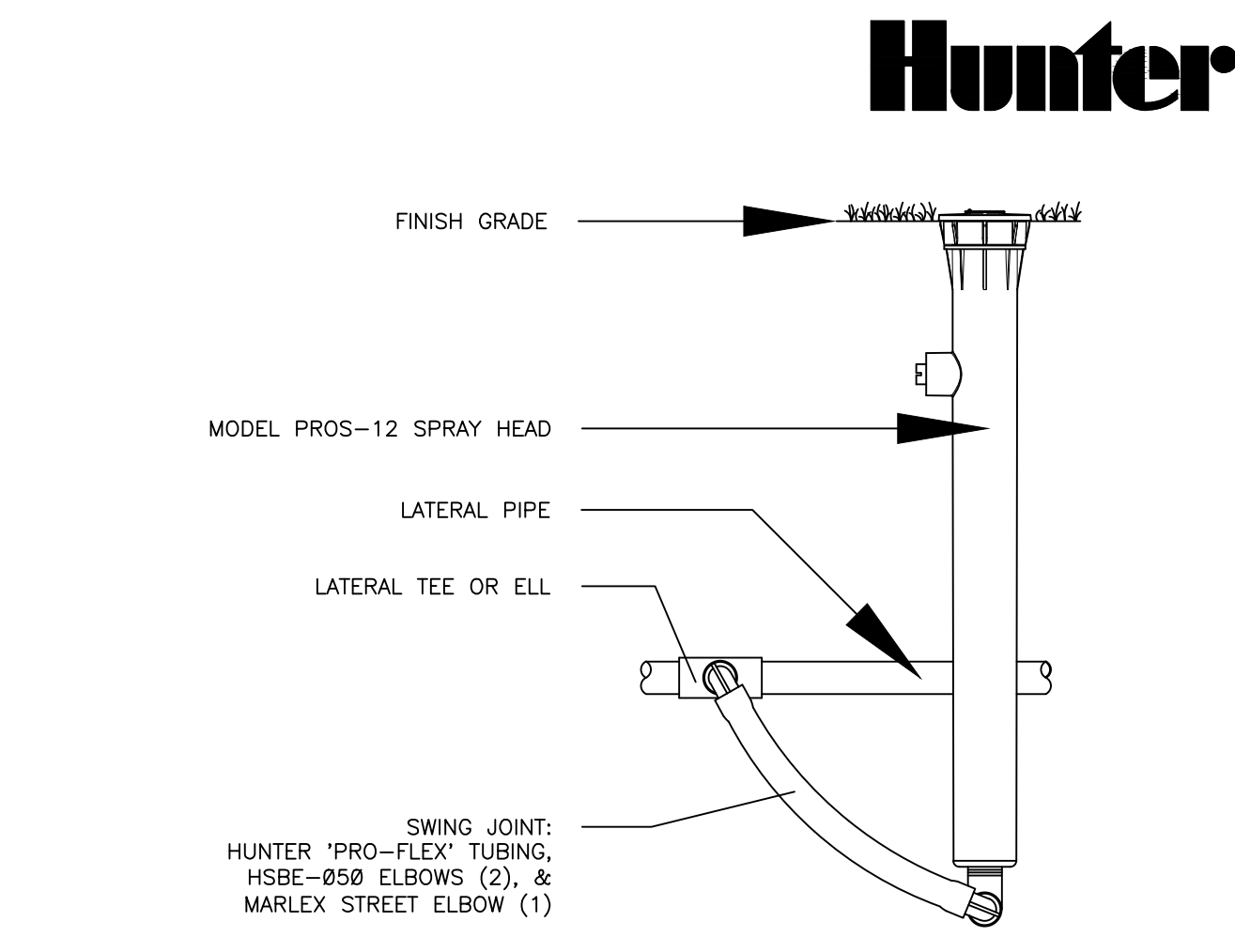
06 BRASS ISOLATION VALVE



07 PROS-06 SPRAY HEAD WITH PRO-FLEX TUBING



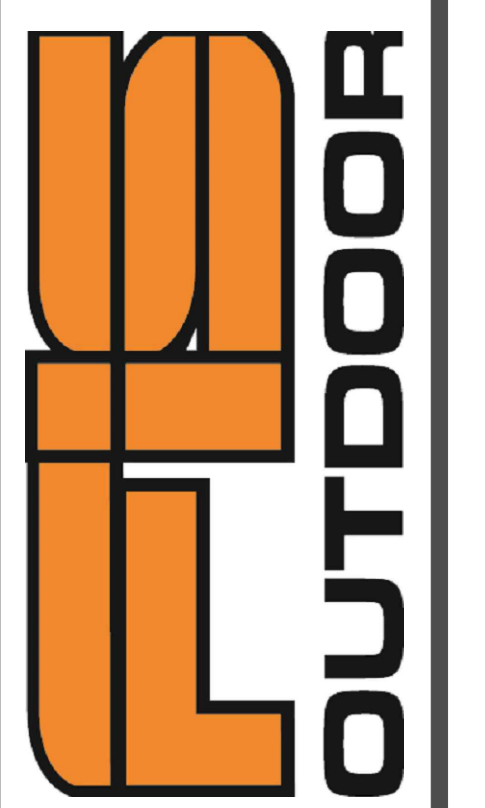
08 WIRELESS RAIN-CLIK



09 PROS-12 SPRAY HEAD WITH PRO-FLEX TUBING

PREPARED FOR:  
LEGACY POINTE APARTMENTS  
FLAGLER BEACH, FL

PREPARED BY:  
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INSTALLATION DETAILS

REVISION	COMMENTS	DATE
1		02-28-2023
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DRAWING SCALE: NTS

PROJECT NUMBER:  
F56801

DRAWING TITLE:  
IRRIGATION DETAILS

DRAWN BY: ZN

CHECKED BY: JF

AUTHORIZED: JF

ISSUE: DESIGN

ISSUE DATE: 02-14-2023

SHEET NUMBER:

IRR-03

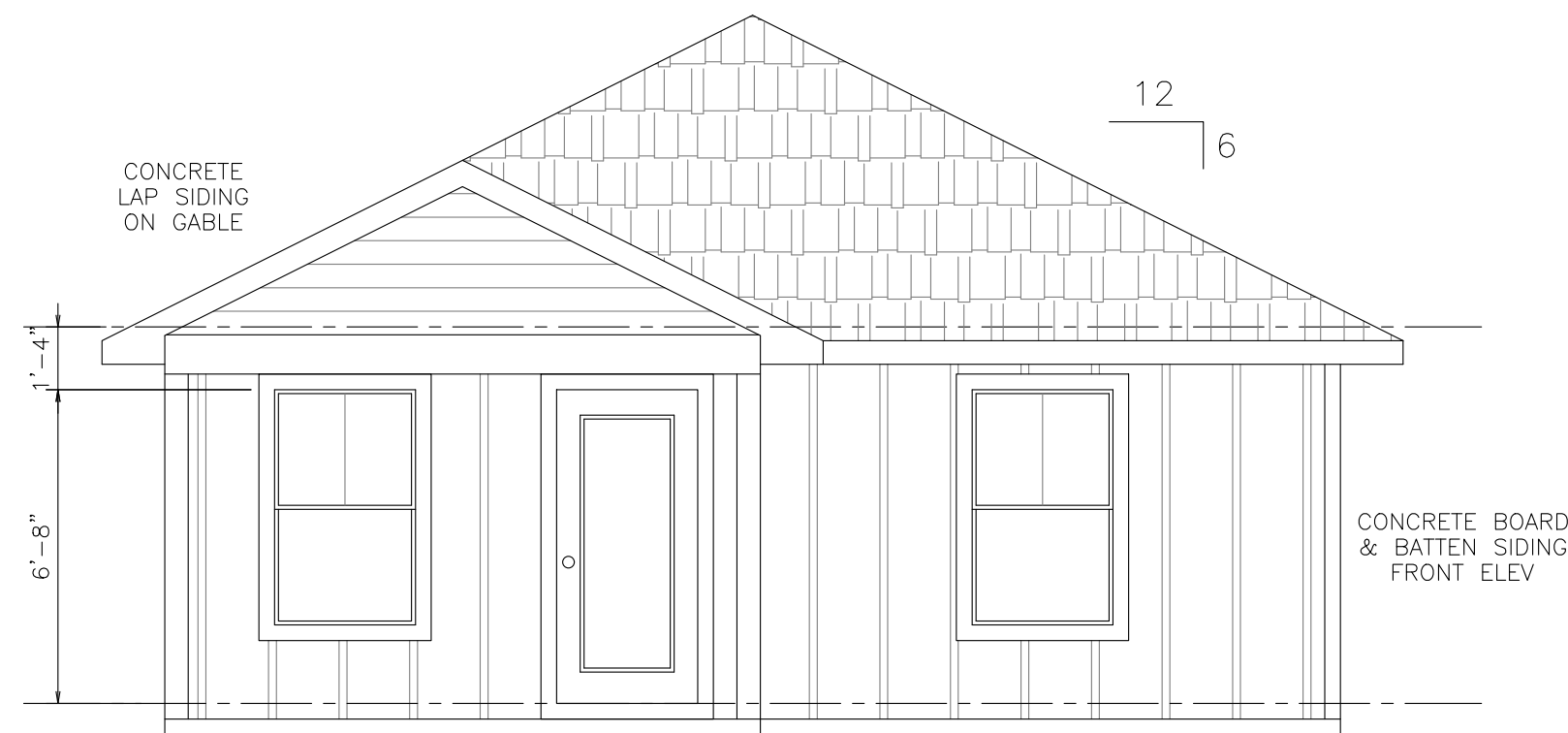
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# ELEVATION "A"

UNIT 1

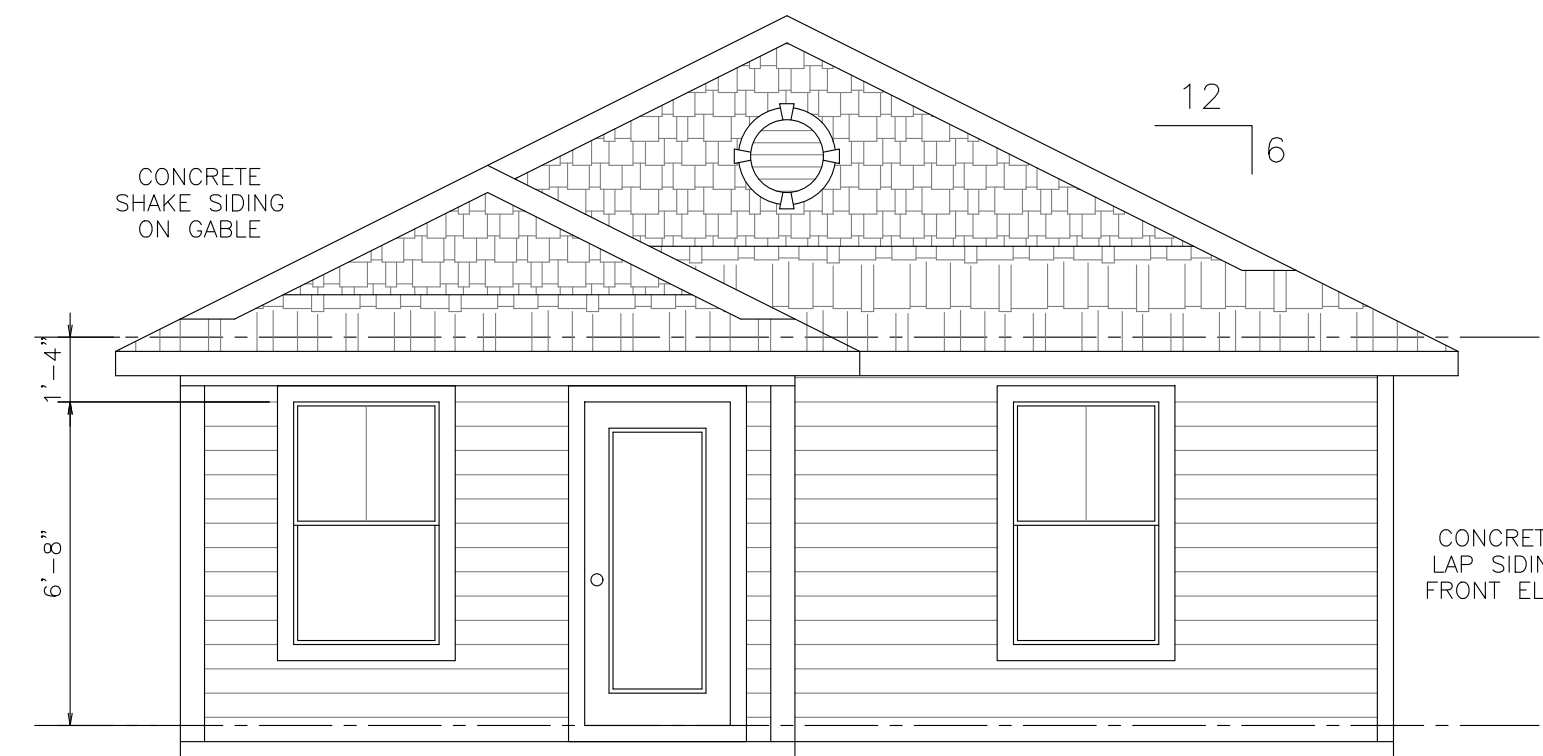


FRONT ELEVATION

SCALE: 1/4" = 1'-0"

# ELEVATION "B"

UNIT 2

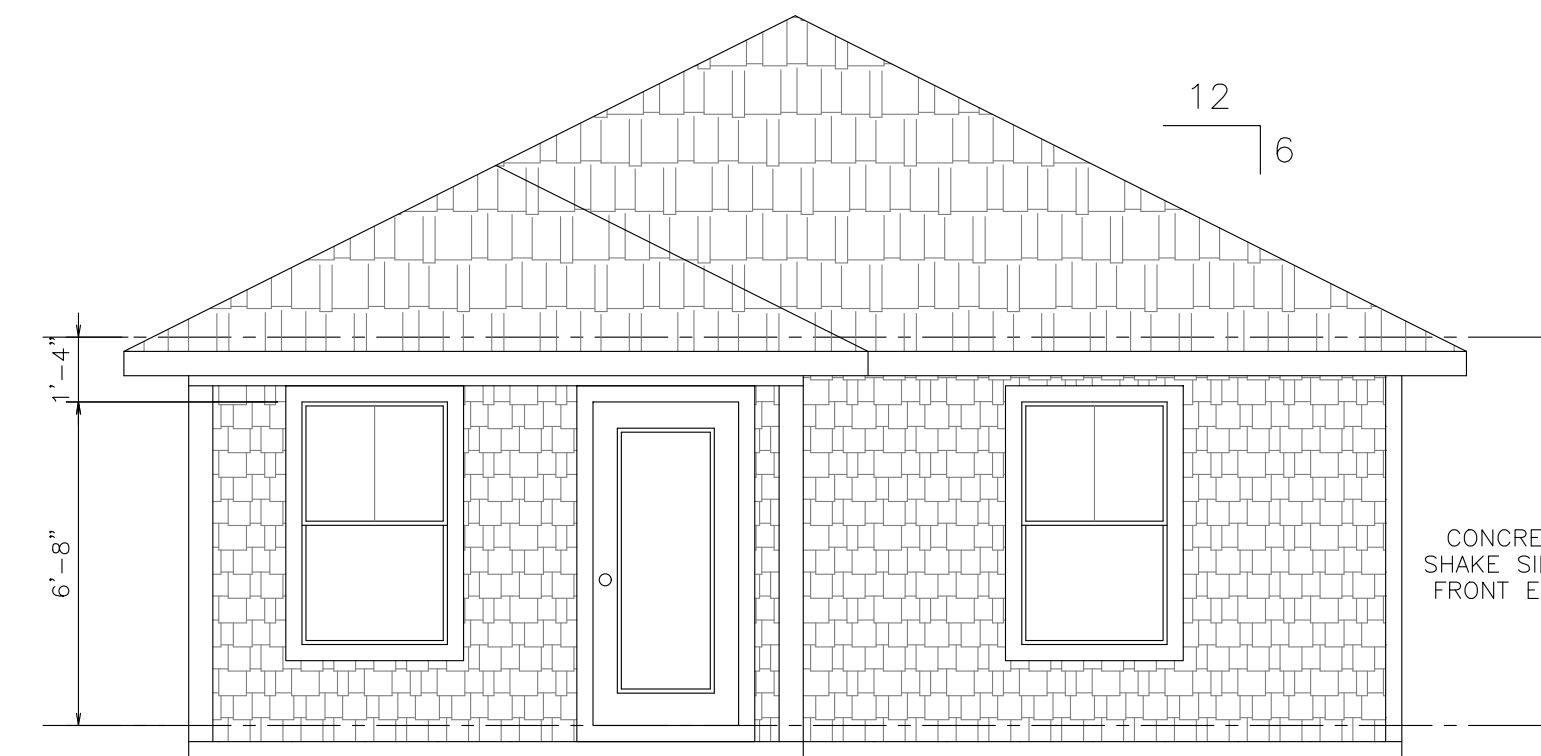


FRONT ELEVATION

SCALE: 1/4" = 1'-0"

# ELEVATION "C"

UNIT 3



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

# ELEVATION "D"

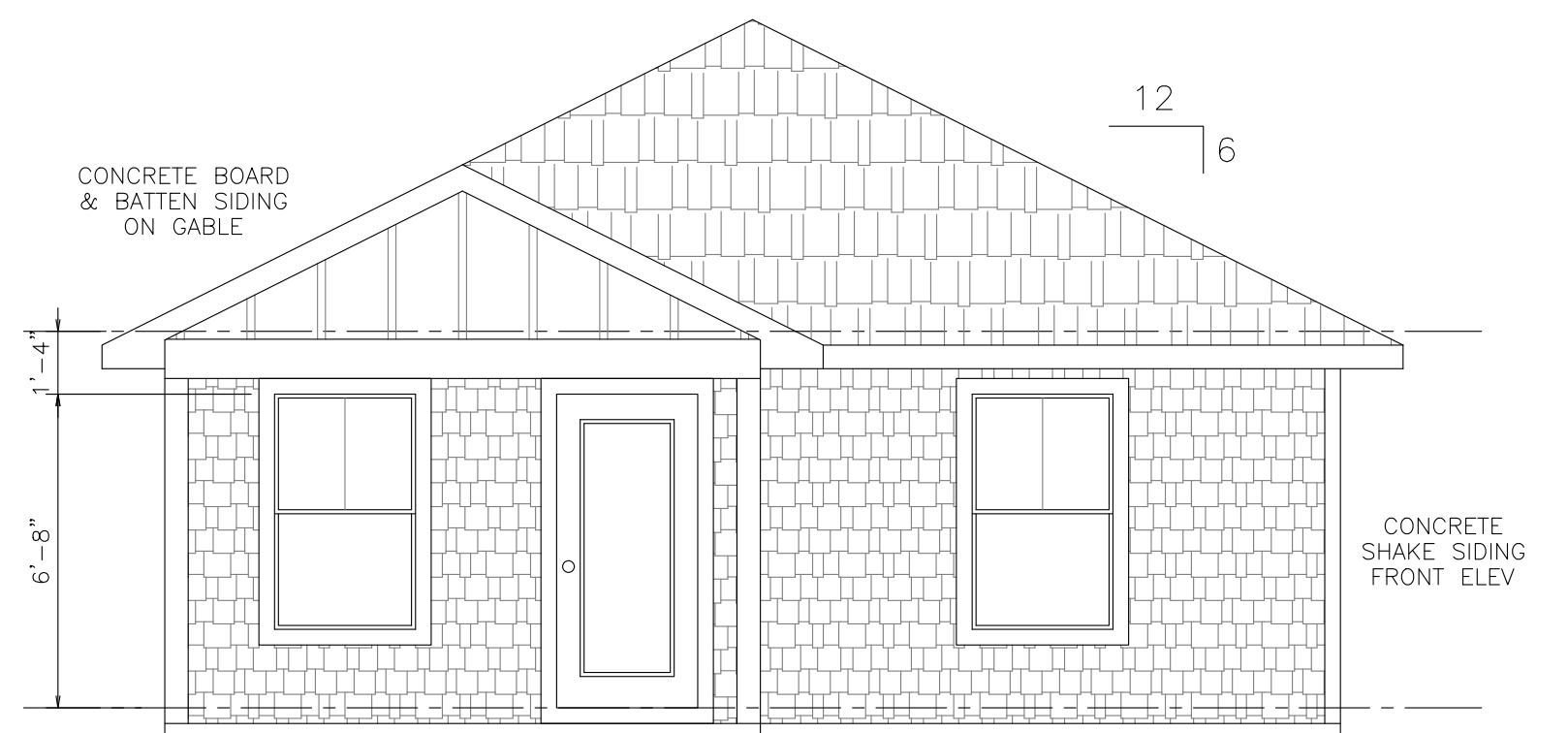
UNIT 4



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

UNIT 5



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

UNIT 6



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

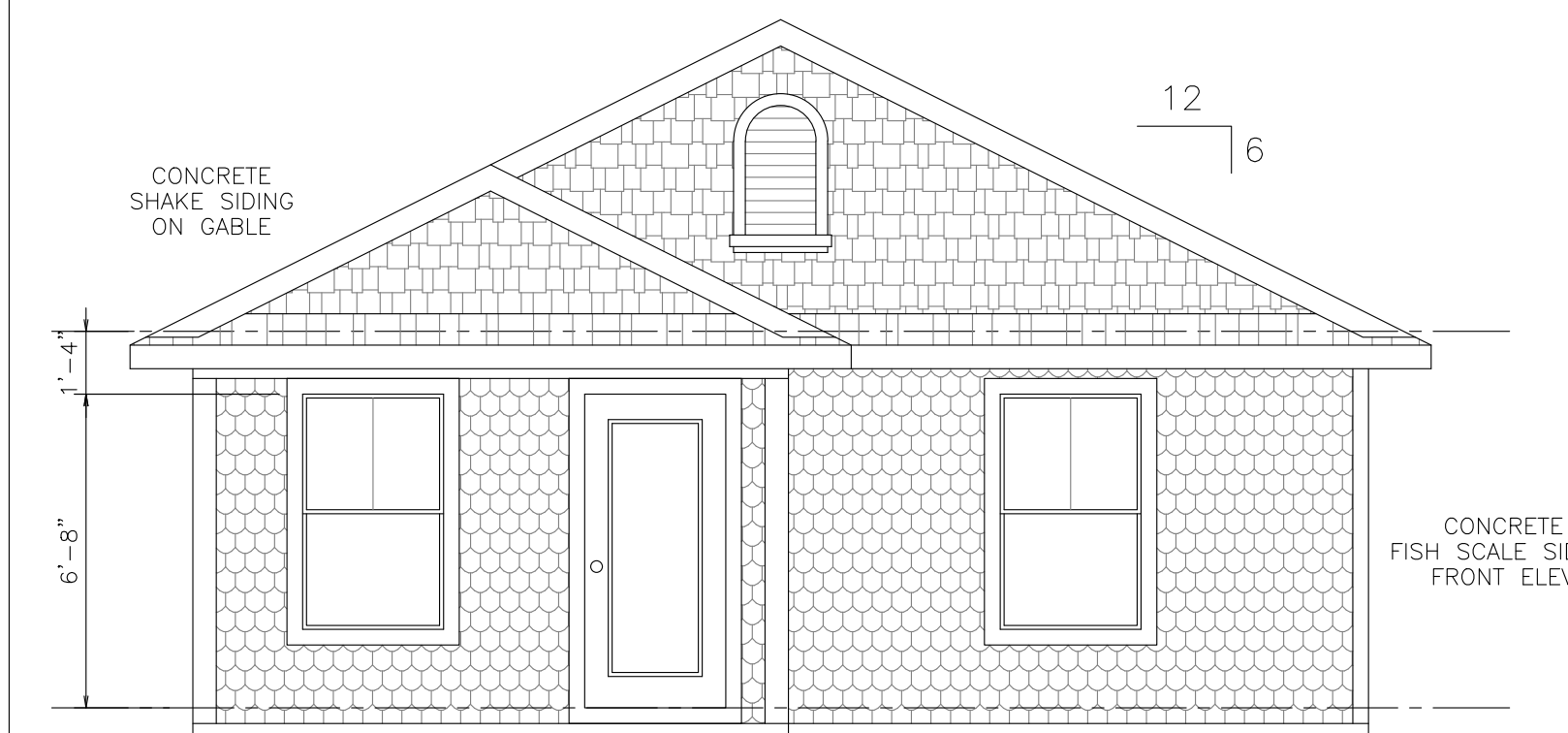
UNIT 7



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

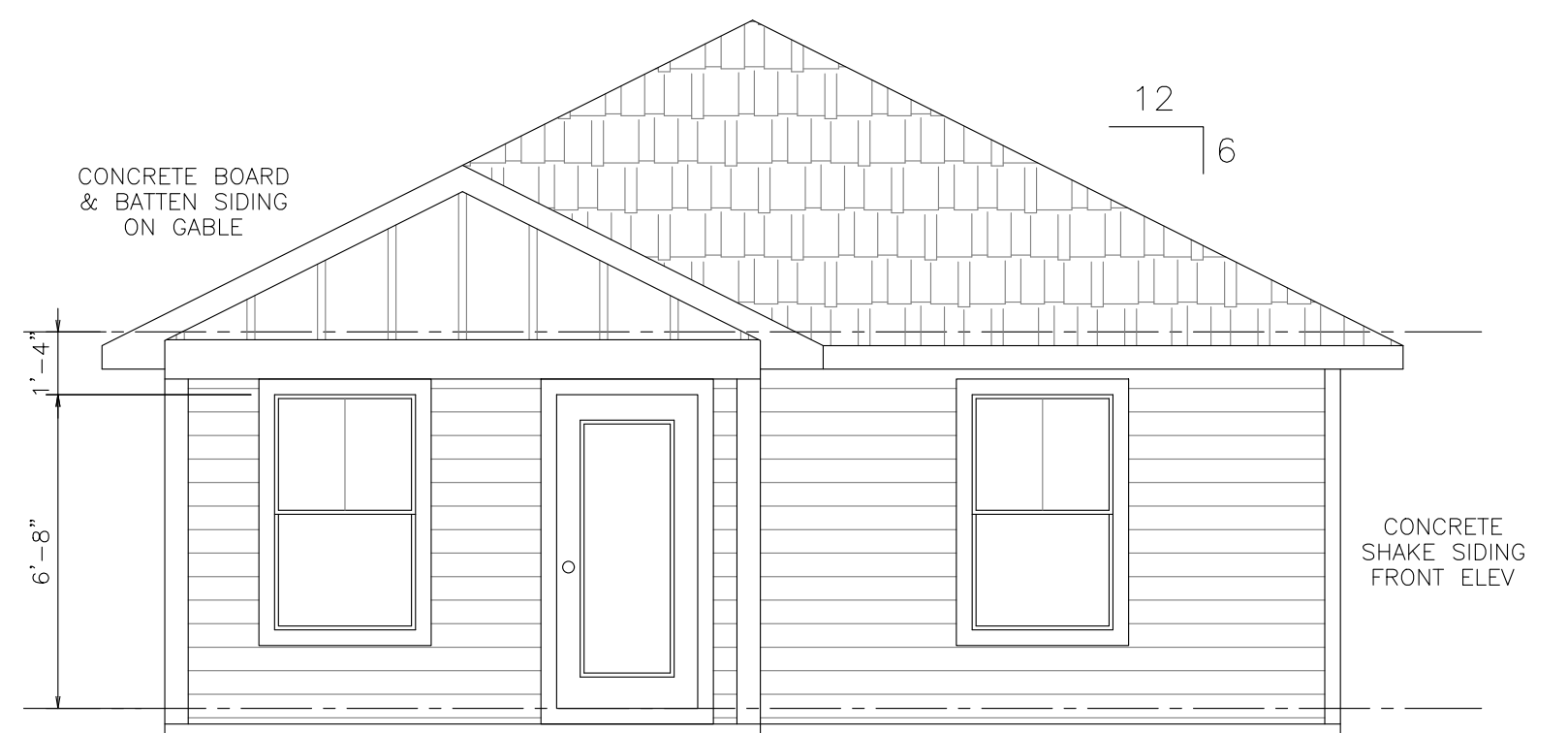
UNIT 8



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

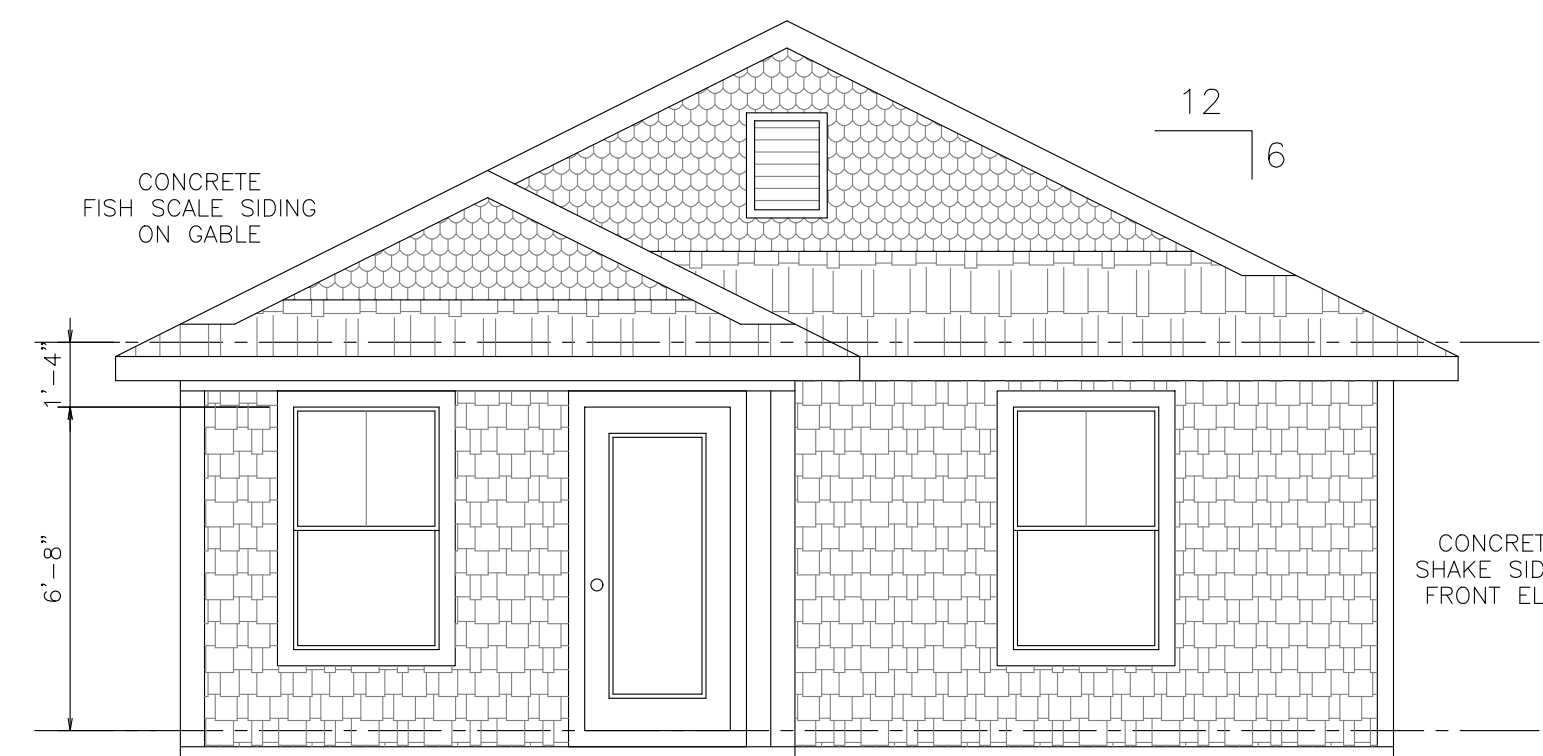
UNIT 9



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

UNIT 10



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

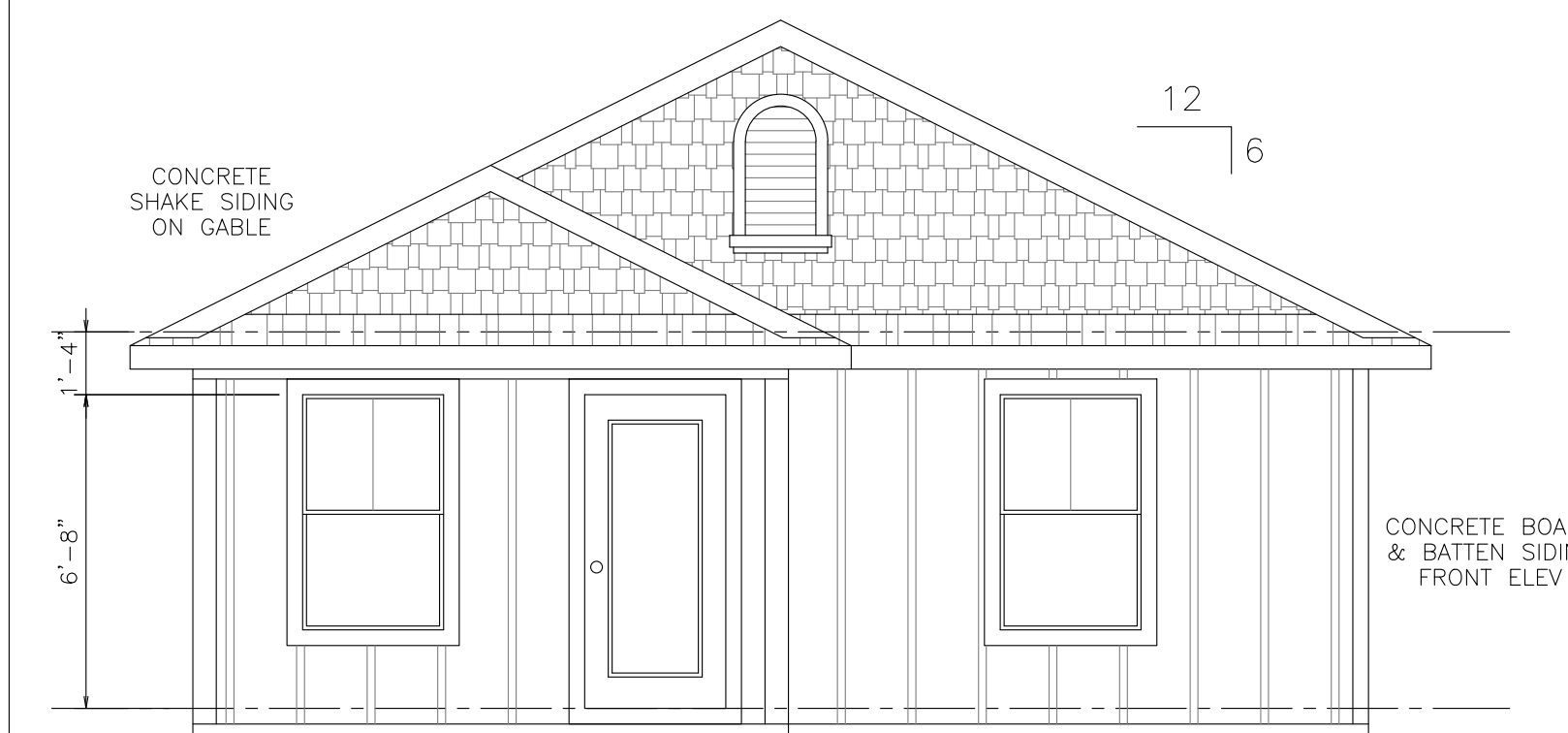
UNIT 11



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

UNIT 12



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

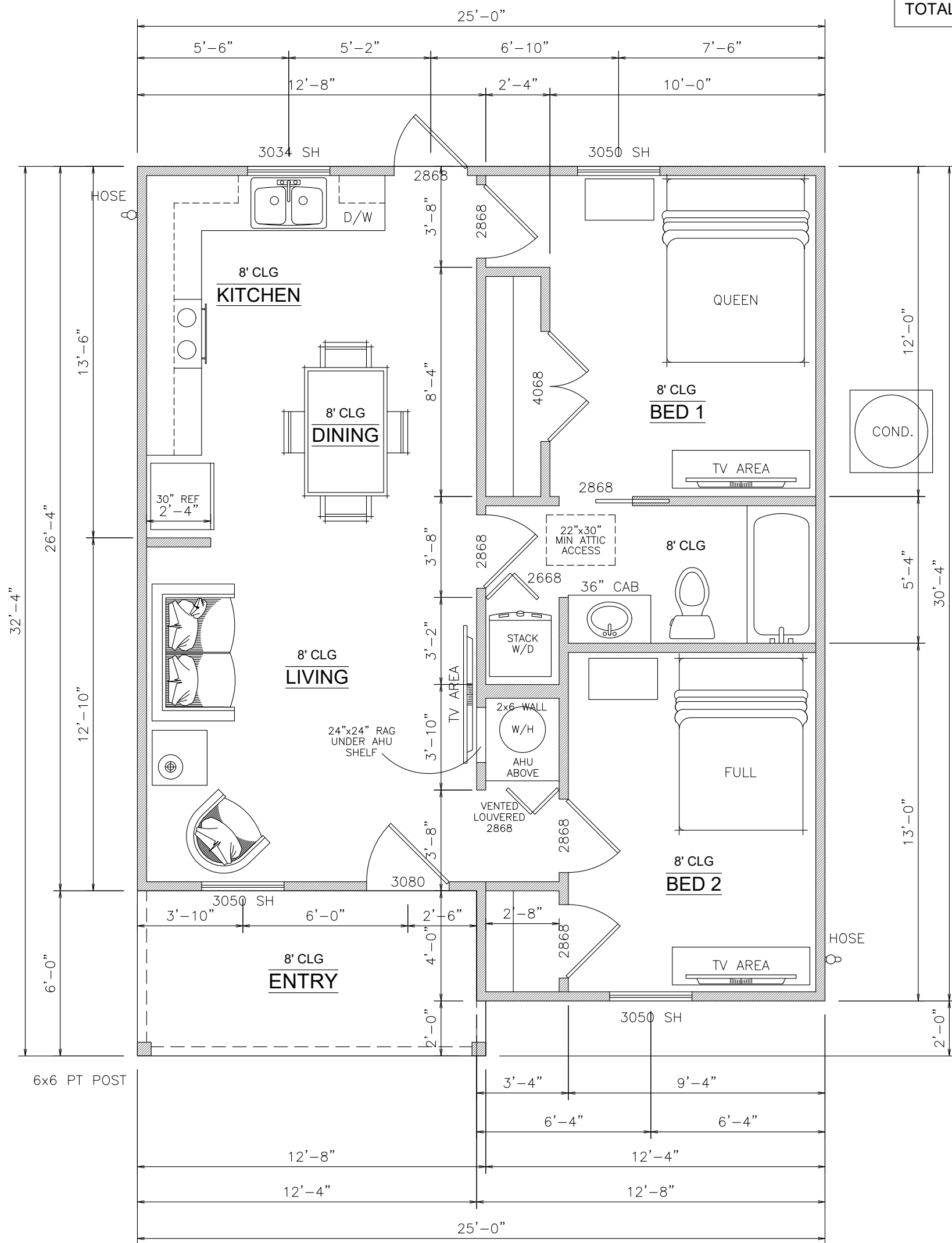






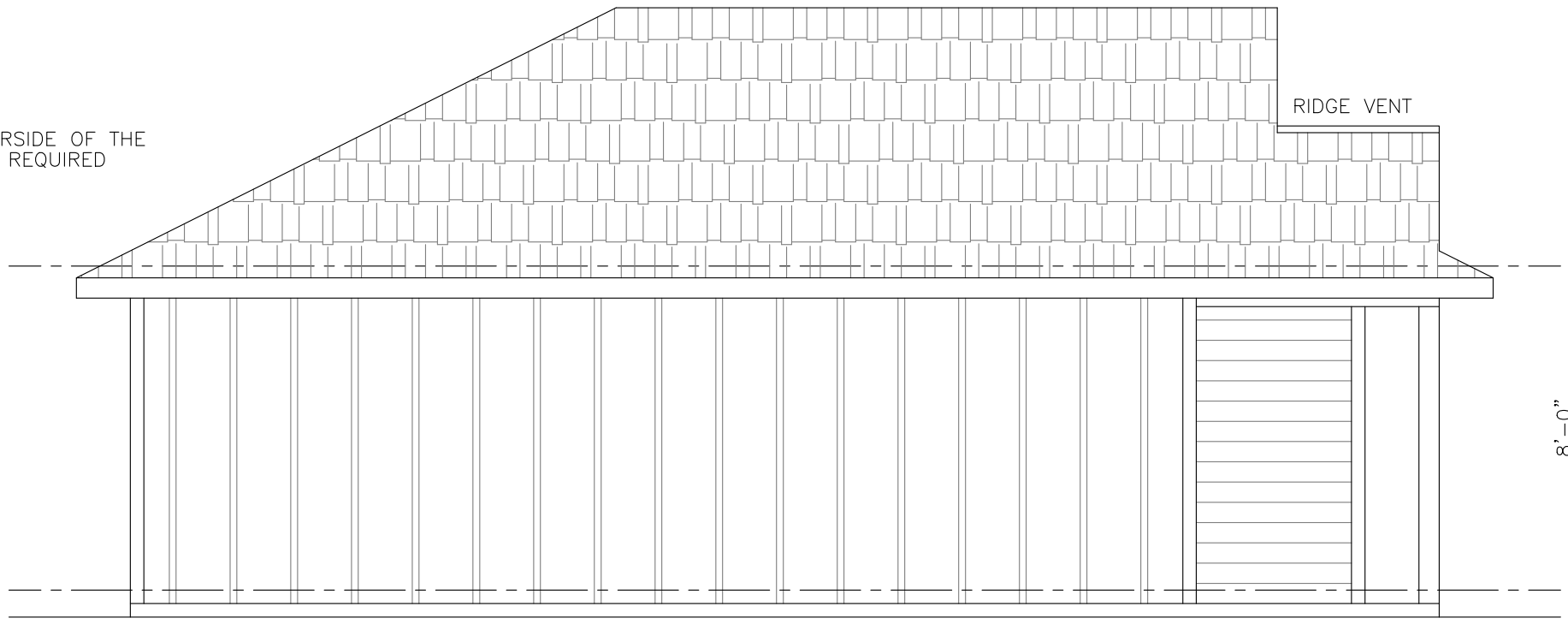
# FLOOR PLAN

SCALE: 1/4" = 1'-0"



LIVING	709 sf
ENTRY	75 sf
<b>TOTAL</b>	<b>784 sf</b>

**LIVING AREA ROOF VENTILATION**  
 SPRAY FOAM INSULATION BLOWN IN ON THE UNDERSIDE OF THE ROOF SHEATHING, NO ROOF OR SOFFIT VENTS REQUIRED



## LEFT ELEVATION

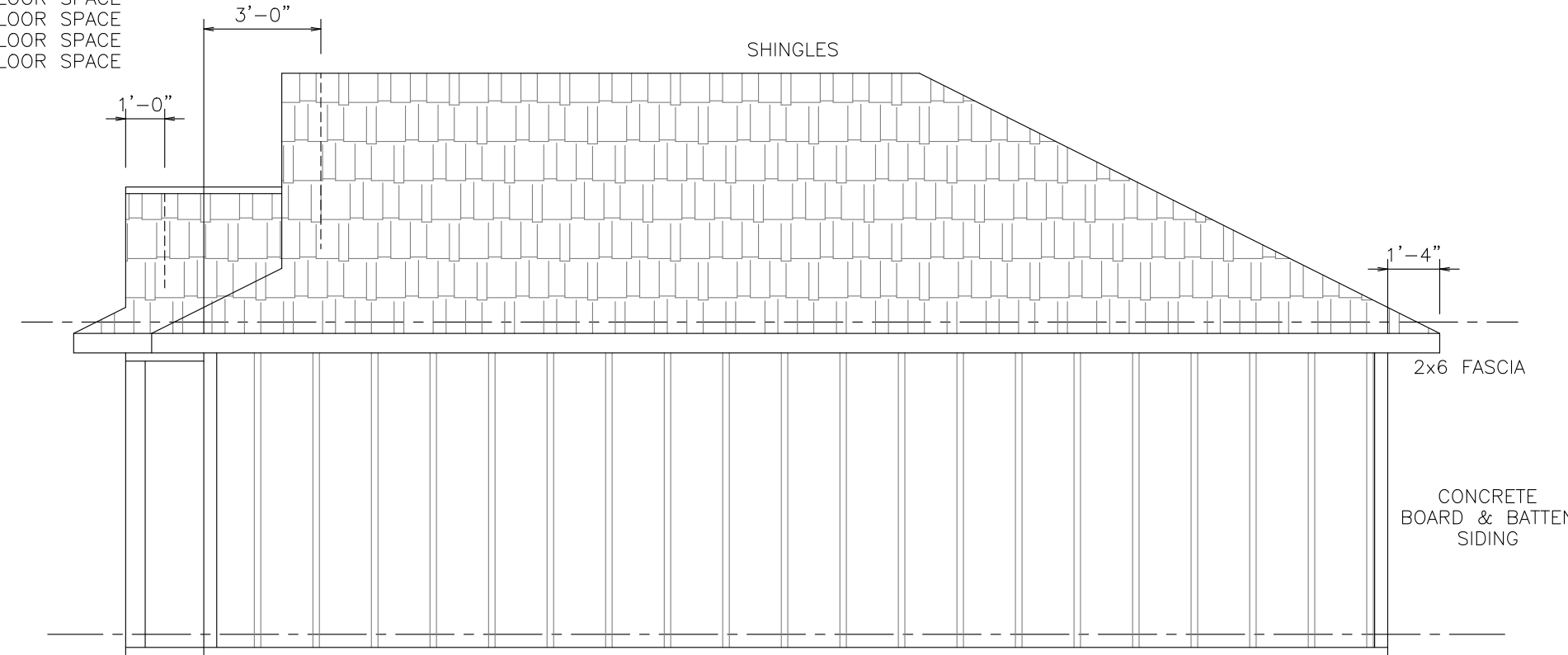
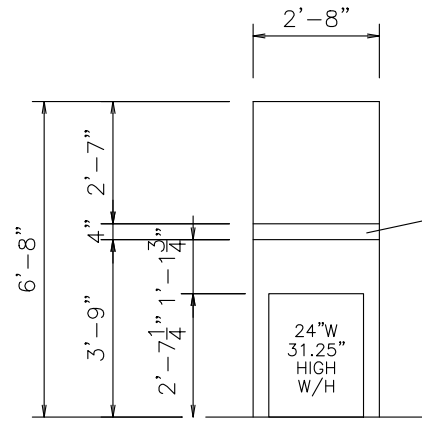
SCALE: 1/4" = 1'-0"

**ENTRY ROOF VENTILATION**

THE 1/300th RULE EQUATED TO 1 sq.ft. OF ATTIC VENTILATION # BETWEEN THE SOFFITS AND RIDGE OR HIGH LOW APPLICATIONS WHERE SOFFIT VENTS ARE ELIMINATED

METAL ROOF	=	1' OF RIDGE VENT	=	75 sq.ft. OF ATTIC FLOOR SPACE
SHINGLE ROOF	=	1' OF RIDGE VENT	=	75 sq.ft. OF ATTIC FLOOR SPACE
SHINGLE ROOF	=	4' OFF RIDGE VENT	=	1000 sq.ft. OF ATTIC FLOOR SPACE
TILE ROOF	=	1' OF RIDGE VENT	=	406 sq.ft. OF ATTIC FLOOR SPACE
TILE ROOF	=	FLAT VENT	=	411 sq.ft. OF ATTIC FLOOR SPACE
SOFFIT	=	1' sq.ft. OF VENT	=	102 sq.ft. OF ATTIC FLOOR SPACE

EXAMPLE:  
 ATTIC FLOOR SPACE = 3000 sq.ft.  
 1' OF RIDGE VENT = 75 sq.ft.  
 TOTAL RIDGE VENT = 40 feet



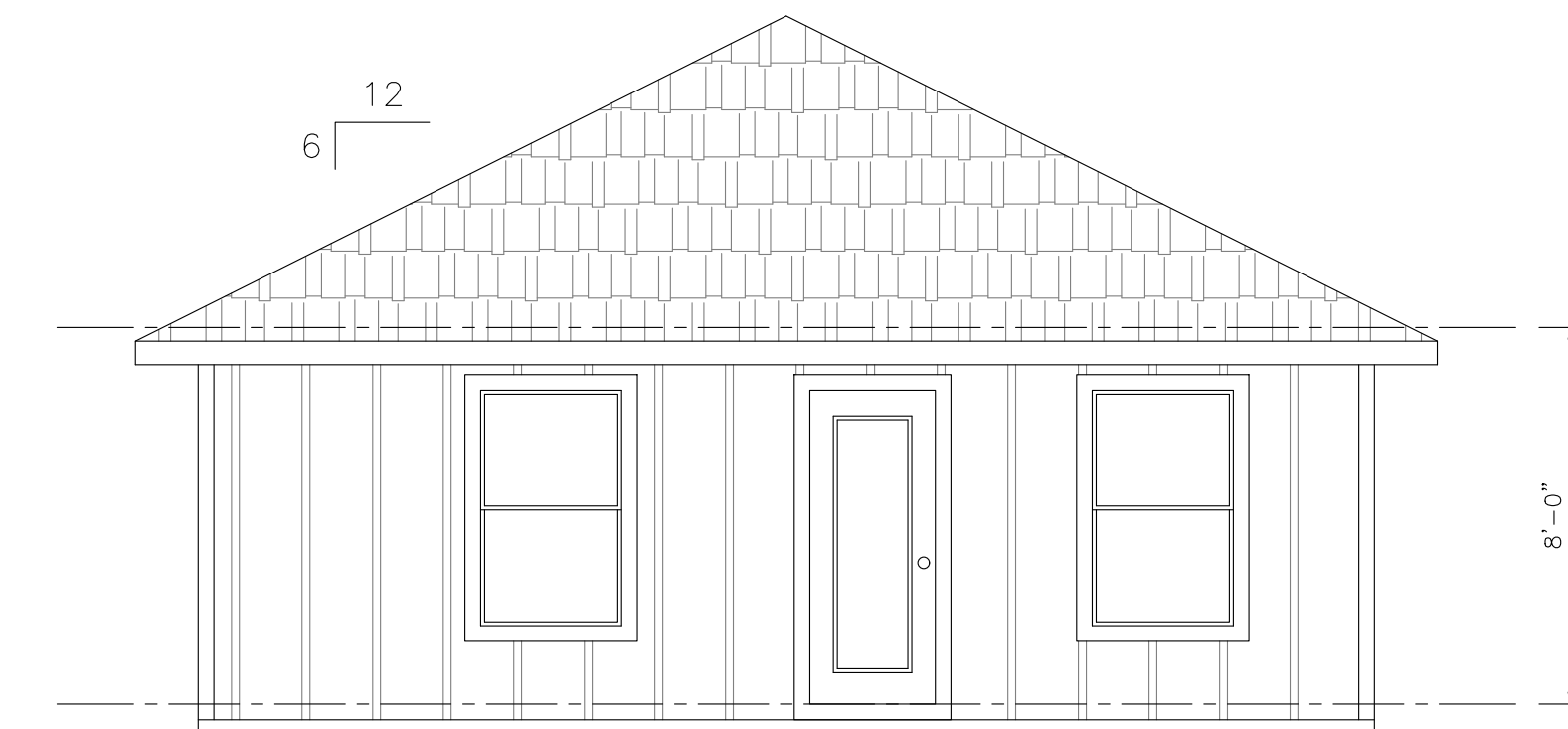
## RIGHT ELEVATION

SCALE: 1/4" = 1'-0"



## FRONT ELEVATION

SCALE: 1/4" = 1'-0"



## REAR ELEVATION

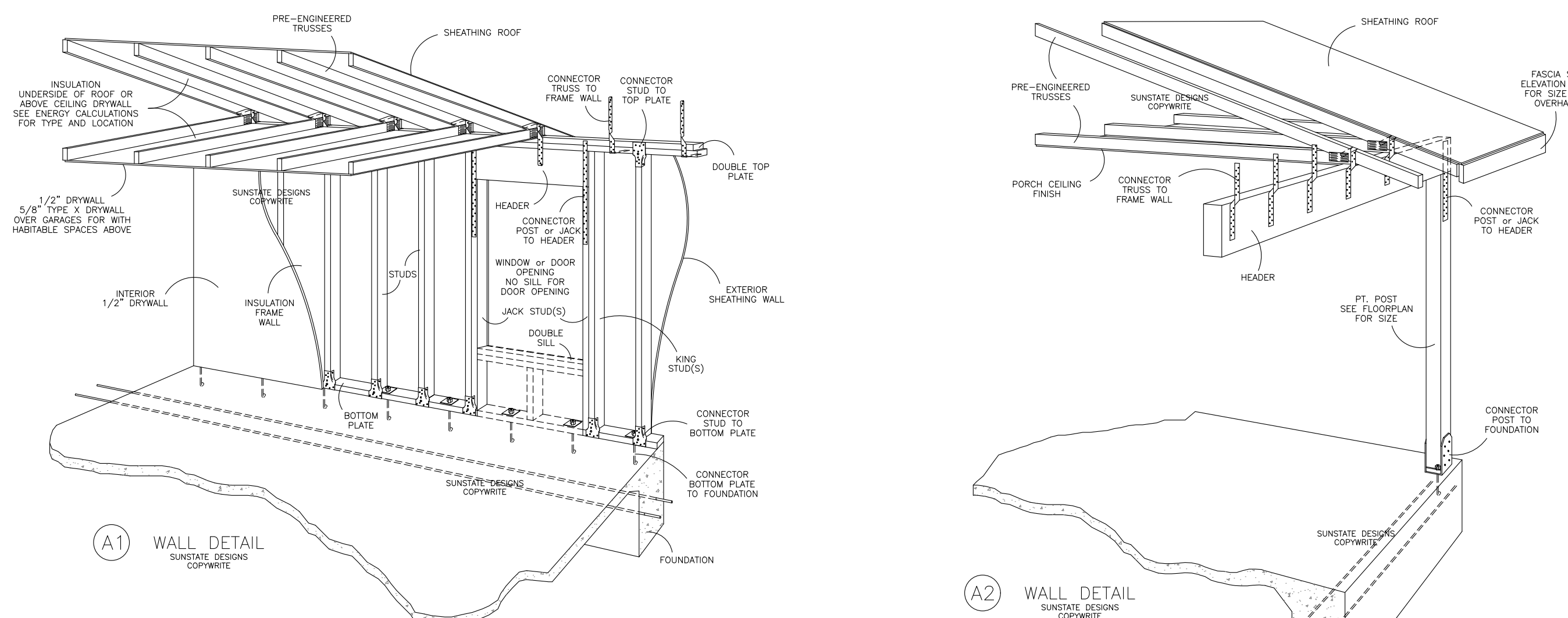
SCALE: 1/4" = 1'-0"

COMPONENTS AND CLADDING WALLS  
 Structures less than or equal to 60 ft

COMPONENT PRESSURES:

AREA	PRESSURE (psf)
4	MAX = 25.45
4	MIN = -27.61
5	MAX = 25.45
5	MIN = -34.08

Dimension a = 5.60 ft



### WALL SECTION NOTES:

**GENERAL**  
 ROOF/WALL SHEATHING 15/32" OR LESS (2 3/8"x113") RING SHANK NAILS 6" O.C. EDGE & FIELD  
 ROOF/WALL SHEATHING GREATER THAN 15/32" (2.5"x131") RING SHANK NAILS 6" O.C. EDGE & FIELD  
 ROOF SHINGLE AND TILE ROOF 20 PSF LIVE LOAD & 15 PSF DEAD LOAD

**FOUNDATION**  
 SEE FOUNDATION PLAN AND FOOTER DETAILS FOR INFORMATION.  
 BOTH MONOLITHIC AND OR STEMWALL FOUNDATIONS CAN BE USED FOR ALL WALL DETAILS.  
 ALL FOUNDATION AND WALL REBAR IS TO BE MINIMUM GRADE SCHEDULE 40 KSI!

**PORCH CEILINGS**  
 CEILING FINISH CAN BE MOISTURE RESISTANT DRYWALL, DENZBOARD STUCCO, CONCRETE PANELS, VINYL BEADBOARD, 1x6 T&G OR ANY OTHER STATE APPROVED EXTERIOR CEILING PRODUCTS

**FLOORS AND SEALED DECKS**  
 3/4" SHEATHING = T&G GLUED AND NAILED 10d SCREW OR RING SHANK 6" O.C. EDGES 6" O.C. FIELD

**EXTERIOR FINISH**  
 SEE ELEVATIONS FOR EXTERIOR FINISH (EXAMPLES: LAP SIDING OR TEXTURED FINISH).  
 MASONRY WALLS = ADD 1x2 PT FURRING HORIZ. OR VERT. 24" MAX. O.C. FOR LAP OR PANEL SIDING.  
 FRAME WALLS AND GABLES = 1 LAYER HOUSE WRAP, TEXTURED FINISH ADD PAPER BACK WIRE LATH.  
 TEXTURED FINISH = STUCCO OR EXTERIOR PORTLAND CEMENT PLASTER. 3-COAT WORK OVER METAL PLASTER BASE THICKNESS 0.875 MINIMUM. 2-COAT WORK OVER MASONRY UNIT THICKNESS 0.5 MINIMUM. 2-COAT WORK OVER CAST-IN-PLACE OR PRECAST CONCRETE THICKNESS 0.375 MINIMUM.

**ROOFING & SOFFIT STANDARD SHEATHING**  
 ROOF SHEATHING, EXPOSURE B MIN 7/16", EXPOSURE C MIN 15/32", EXPOSURE D MIN 19/32"  
 ROOF SHEATHING, MIN 19/32" FOR ALL FLAT OR BARREL TILE ROOF  
 ROOF SHEATHING (G) SPECIFIC GRAVITY, PLYWOOD 0.67, OSB 0.62  
 UNDERLAYMENT TYPE II  
 WOOD OR CONCRETE SOLID SOFFITS 3/8" THICK, 6d NAILS (2 x 0.099 x HEAD DIAMETER) GALVANIZED NAILS 8" O.C. OF STAINLESS STEEL NAILS 4" O.C.

**ZIP SYSTEM ROOF AND WALL SHEATHING**  
 ZIP SYSTEM STRUCTURAL SHEATHING WITH WATER-RESISTIVE BARRIER DOES NOT REQUIRE HOUSE WRAP OR FELT DRY IN UNLESS MENTIONED IN THE NOTES BELOW. ZIP SYSTEM TAPE ALL SEAMS.  
 ZIP WALL SHEATHING = 7/16" THICK PANELS WITH GREEN SURFACE EXTERIOR OUTSIDE.  
 ZIP ROOF SHEATHING = 1/2" THICK PANELS WITH RED SURFACE UP. USE STANDARD FLASHING FOR ROOF VALLEYS AND WHERE ROOF SURFACES MEET GABLE & WALL SURFACES.  
 SEE ELEVATIONS FOR ROOFING TYPE, EXAMPLES: SHINGLE, METAL OR TILE ROOFING.  
 SHINGLE ROOF = APPLY DIRECTLY TO ROOF SHEATHING ADD ONE LAYER 15lb FELT FOR ROOF PITCH FROM 2/12 TO LESS THAN 4/12  
 METAL ROOF = APPLY DIRECTLY TO ROOF SHEATHING  
 TILE ROOF = USE 5/8" THICK PANELS ADD ONE LAYER OF MIN 30lb FELT  
 1 LAYER OF SELF ADHERING SYNTHETIC UNDERLAYMENT CAN REPLACE ALL FELT REQUIREMENTS AND CAN BE ADDED TO ALL ROOFS EVEN WHERE FELT IS NOT REQUIRED

**FRAME WALLS**  
 SHEATHING WALL - 7/16" SHEATHING ON EXTERIOR SIDE OF WALL  
 USE PRESSURE TREATED LUMBER OR VAPOR BARRIER WHERE FRAMING IS IN CONTACT WITH CONCRETE STUDS - 2x4 MIN STUDS UNLESS OTHERWISE SPECIFIED ON PLAN = SPF#2 OR SYP#2, 18" O.C. TOP PLATE - (2) 2x4 OVERLAP ENDS 2' LOAD BEARING WALLS (2) 10d NAILS EA END 6" BETWEEN BOTTOM PLATE - SAME SIZE AS STUDS = SYP#2 PT TO CONCRETE FLOOR & SPF#2 TO WOOD FLOOR

**2x12 HEADERS SYP#2**  
 30lb LIVE LOAD, 10lb DEAD LOAD, DEFLECTION L/240, ALL FRAME HEADERS MIN (2) 2x12 UNLESS OTHERWISE SPECIFIED  
 HEADER TABLE (PT) DOWNLOAD POUNDS PER LINEAR FOOT (TOTAL) TOTAL MAX DOWNLOAD POUNDS

NUMBER	4' SPAN	6' SPAN	8' SPAN	10' SPAN	12' SPAN	14' SPAN	16' SPAN	18' SPAN
(1) RLY 2x12	2020	3080	4230	5460	6780	8190	9690	11280
(2) RLY 2x12	2420	3580	4830	6160	7580	9090	10690	12380
(3) RLY 2x12	3420	5080	6430	7960	9580	11290	13090	14980
(4) RLY 2x12	4560	6820	8360	10090	11910	13830	15850	17980

**HEADERS MAX DOWNLOAD NUMBER JACKS & KINGS**

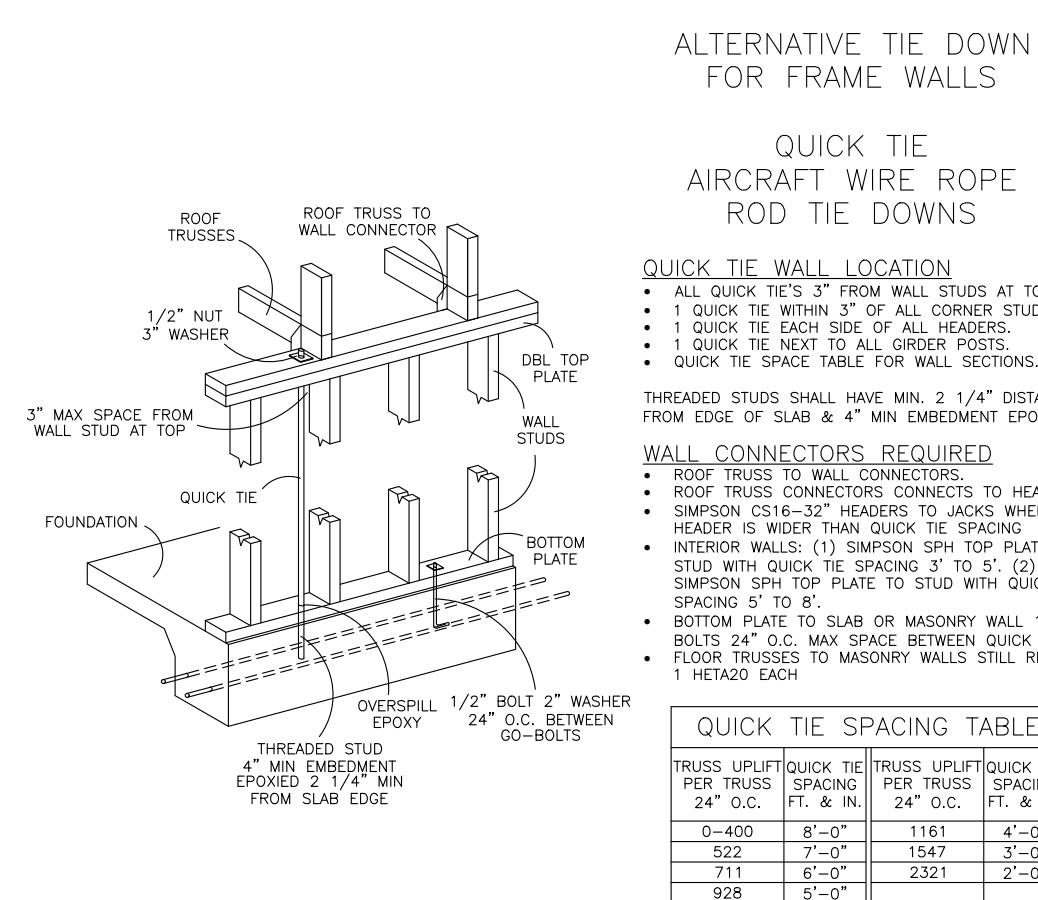
NUMBER	4' SPAN	6' SPAN	8' SPAN	10' SPAN	12' SPAN	14' SPAN	16' SPAN	18' SPAN
(1) RLY 2x12	1350	2020	2700	3400	4100	4800	5500	6200
(2) RLY 2x12	1650	2420	3230	4060	4900	5750	6600	7450
(3) RLY 2x12	2250	3380	4430	5580	6730	7880	9030	10180
(4) RLY 2x12	2950	4480	5830	7280	8730	10180	11630	13080

**SIMPSON HURRICANE TIE DOWN CONNECTORS**  
 TRUSS TO CONCRETE WALL - HTS16 OR LONGER 8x8 POST TO SLAB - ABUS6 (2) 5/8"x7" BOLTS  
 TRUSS TO FRAME WALL - MTS12 OR LONGER JACK/POST TO HEADER SPAN 0' TO 48" - (1) LSTA24 ea SIDE  
 STUD TO TOP PLATE - SP2 OR SP4, 6,8 JACK/POST TO HEADER SPAN 48' TO 96" - (2) LSTA24 ea SIDE  
 STUD TO BOTTOM PLATE - SP1 OR SP4, 6,8 JACK/POST TO HEADER SPAN 75' TO 97" - (2) LSTA24 ea SIDE  
 BOTTOM PLATE TO SLAB - 1/2" BOLT & 2" WASHER 2" O.C. 6' EMBEDMENT EXPOSED OR JACK/POST TO BOTTOM PLATE - SP1  
 WASHER 2" O.C. 6' EMBEDMENT EXPOSED OR (1) HEADER JACK TO BOTTOM PLATE - SP1  
 J-BOLT 2" MIN DIST FROM EDGE OF SLAB (2) HEADER JACKS TO SLAB - LTT208 1/2"x16" BOLT  
 4x4 POST TO SLAB - ABU44 5/8"x7" BOLT (3) HEADER JACKS TO SLAB - HTT4 5/8"x7" BOLT  
 6x6 POST TO SLAB - ABU66 5/8"x7" BOLT (4) HEADER JACKS TO SLAB - HTS5 5/8"x7" BOLT

OTHER CONNECTORS MAY BE CALLED OUT ON FLOOR, STRUCTURAL OR TRUSS SHEETS  
 OTHER SAME/SIMILAR USE TYPE CONNECTORS OF EQUAL OR GREATER STRENGTHS ARE ACCEPTABLE SUBSTITUTES

**TRUSS COMPANY NOTES:**  
 DO NOT START TRUSS DESIGN UNLESS TRUSS COMPANY ACCEPTS ALL TRUSS NOTES

- LOAD BEARING WALLS AND HEIGHTS ARE PROVIDED ON THE PLAN; PLEASE DO NOT ADD OR CHANGE LOAD BEARING WALLS WITHOUT CALLING THE DESIGNER OR RECORD THE REQUESTED CHANGE, NEVER EXPECT CHANGES TO BE FOUND ON THE TRUSS LAYOUT
- LEDGER BOARDS: ARE NEVER TO BE USED ON ANY 10 STORY HOUSES MASONRY OR FRAME WALLS
- ALL AREAS OF FLOOR AND ROOF TRUSS SYSTEM ARE TO BE PROVIDED BY TRUSS COMPANY, NO AREAS ARE TO BE PROVIDED BY OTHERS
- BALCONY FLOOR TRUSSES: 6" STEP DOWN TO BALCONY. BALCONY IS ROOF OVER AREA BLOW, MIN 1/4" IN 12" DOWN SLOPE TO ALL OUTER EDGES OF THE BALCONY
- LAMINATE BEAMS: CALLED OUT ON PLANS ARE TO BE PROVIDED BY TRUSS CO, THANKS



### ALTERNATIVE TIE DOWN FOR FRAME WALLS

### QUICK TIE AIRCRAFT WIRE ROPE ROD TIE DOWNS

**QUICK TIE WALL LOCATION**

- ALL QUICK TIES 3" FROM WALL STUDS AT TOP
- 1 QUICK TIE WITHIN 3" OF ALL CORNER STUDS
- 1 QUICK TIE EACH SIDE OF ALL HEADERS
- 1 QUICK TIE NEXT TO ALL GROUND POSTS
- QUICK TIE SPACE TABLE FOR WALL SECTIONS

**QUICK TIE SPACING TABLE**

TRUSS UPLIFTOURK TIE PER TRUSS SPACING	TRUSS UPLIFTOURK TIE PER TRUSS SPACING	TRUSS UPLIFTOURK TIE PER TRUSS SPACING	TRUSS UPLIFTOURK TIE PER TRUSS SPACING
24" O.C. FT. & IN.	24" O.C. FT. & IN.	24" O.C. FT. & IN.	24" O.C. FT. & IN.
0-400	8'-0"	1161	4'-0"
522	7'-0"	1447	3'-0"
711	6'-0"	2321	2'-0"
928	5'-0"		

CORY A BROCKETT, PE  
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THE TRILEGACY GROUP  
 UNIT 2  
 2401 LESLIE ST., FLAGLER BCH



JOB NUMBER  
**3748**  
 PLAN DATE  
**4/21/24**

"PLANS CONFORM TO"  
 2023 FLORIDA BUILDING CODE  
 2018 NFPA DESIGN CRITERIA  
 2014 ASCE24 FLOOD DESIGN  
 STRUCTURALLY ADEQUATE FOR  
 ALTERATION LEVEL N/A  
 RISK CATEGORY: 2  
 WIND VELOCITY (MPH): 140  
 EXPOSURE CATEGORY: C  
 INTERNAL PRESSURE: 18  
 CONSTRUCTION TYPE: VB

LOT:  
 2401 LESLIE ST  
 FLAGLER BEACH  
 FLORIDA

FLOOR ELEV

SHEET  
**A-03**

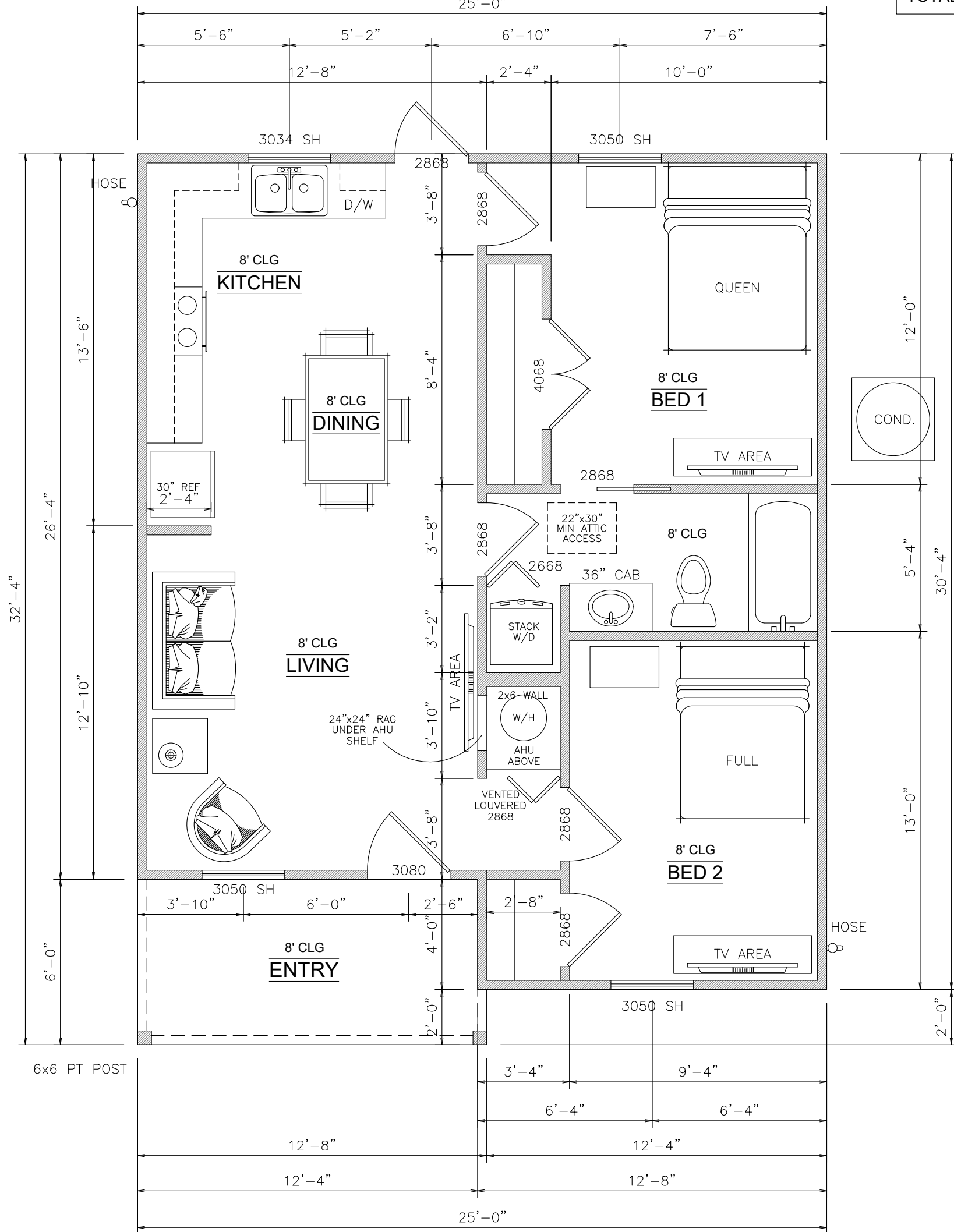






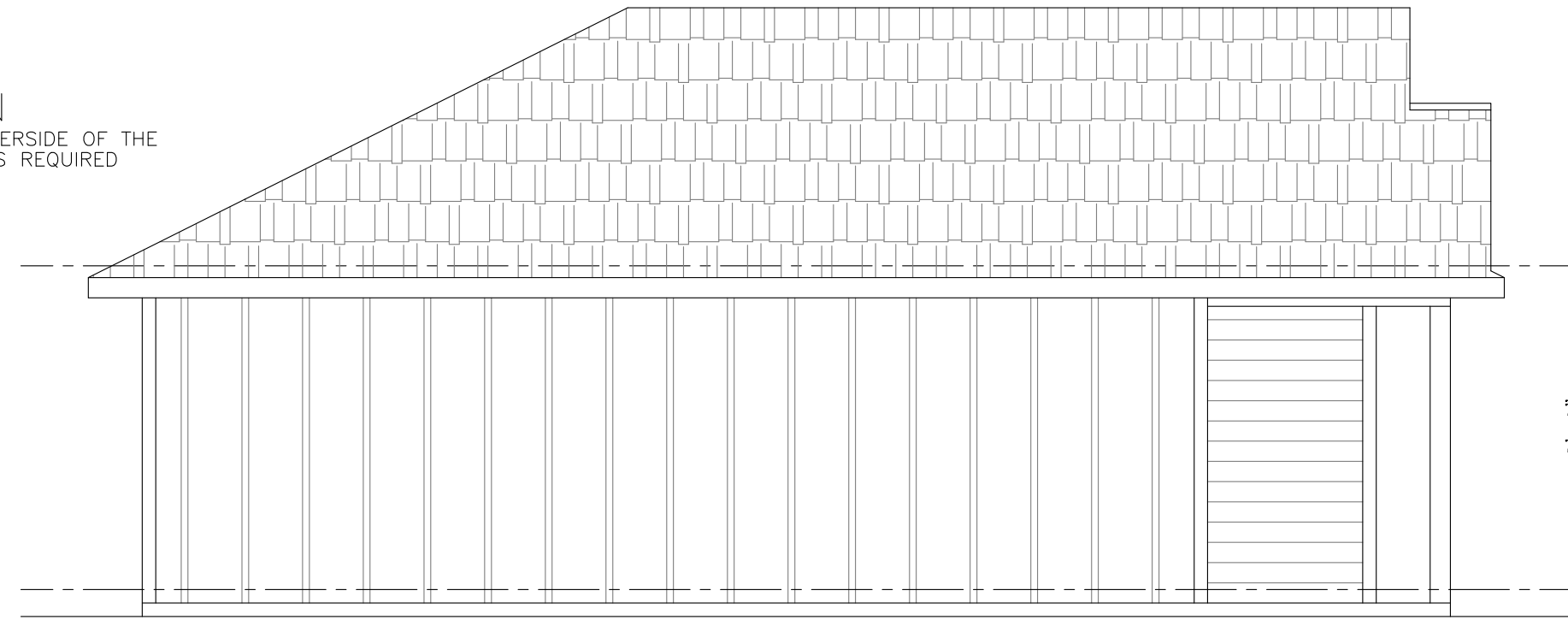
# FLOOR PLAN

SCALE: 1/4" = 1'-0"



LIVING	709 sf
ENTRY	75 sf
<b>TOTAL</b>	<b>784 sf</b>

**LIVING AREA ROOF VENTILATION**  
 SPRAY FOAM INSULATION BLOWN IN ON THE UNDERSIDE OF THE ROOF SHEATHING, NO ROOF OR SOFFIT VENTS REQUIRED



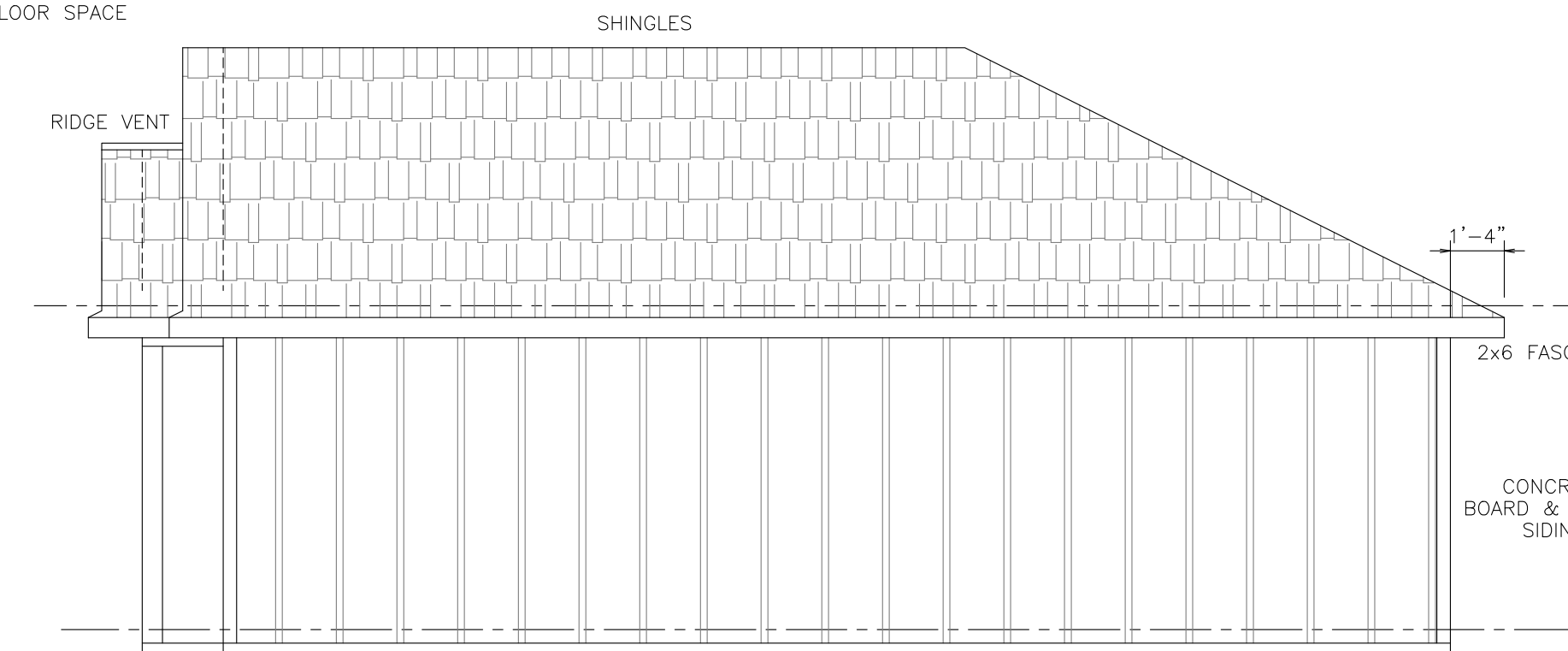
## LEFT ELEVATION

SCALE: 1/4" = 1'-0"



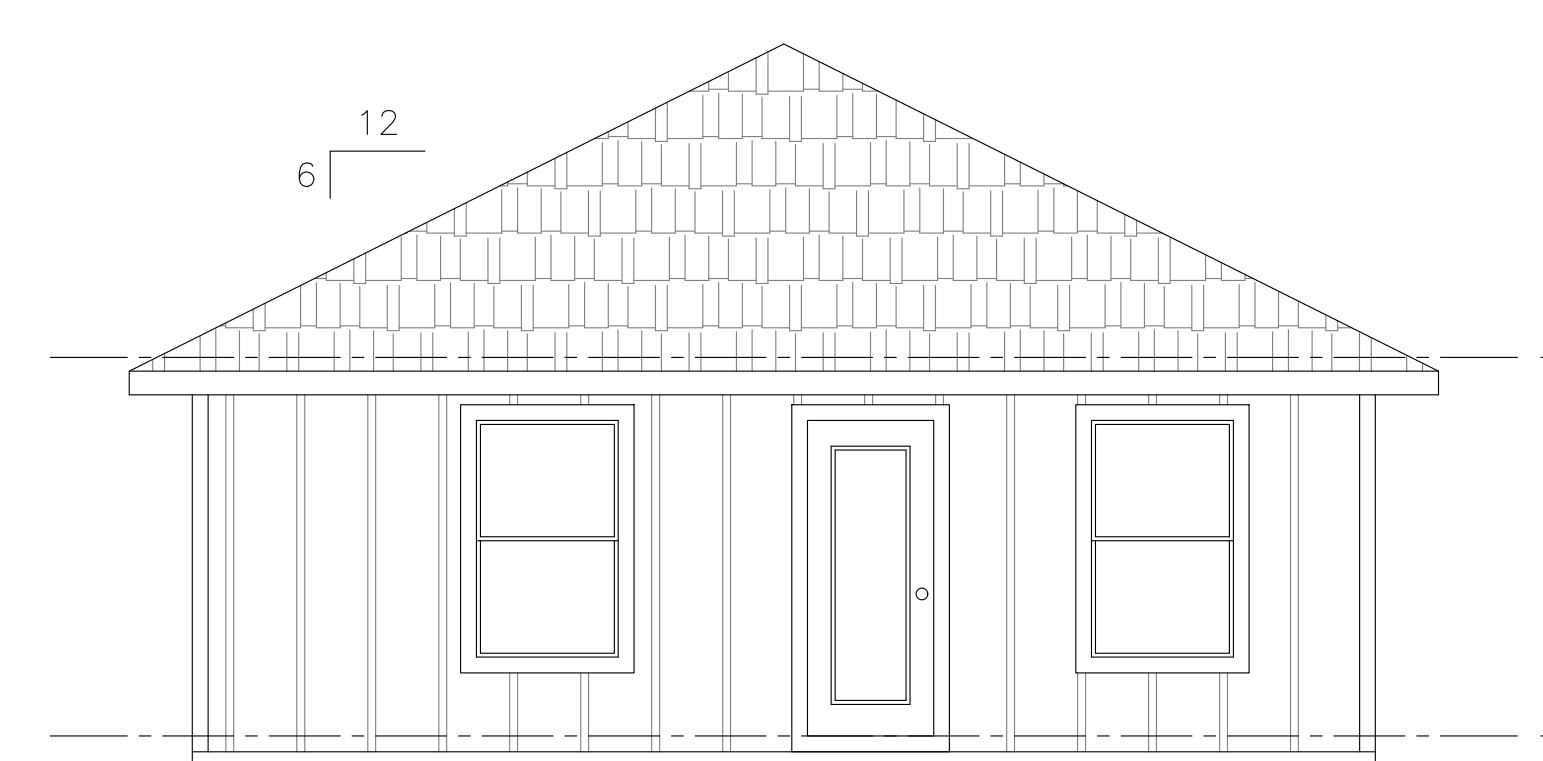
## FRONT ELEVATION

SCALE: 1/4" = 1'-0"



## RIGHT ELEVATION

SCALE: 1/4" = 1'-0"



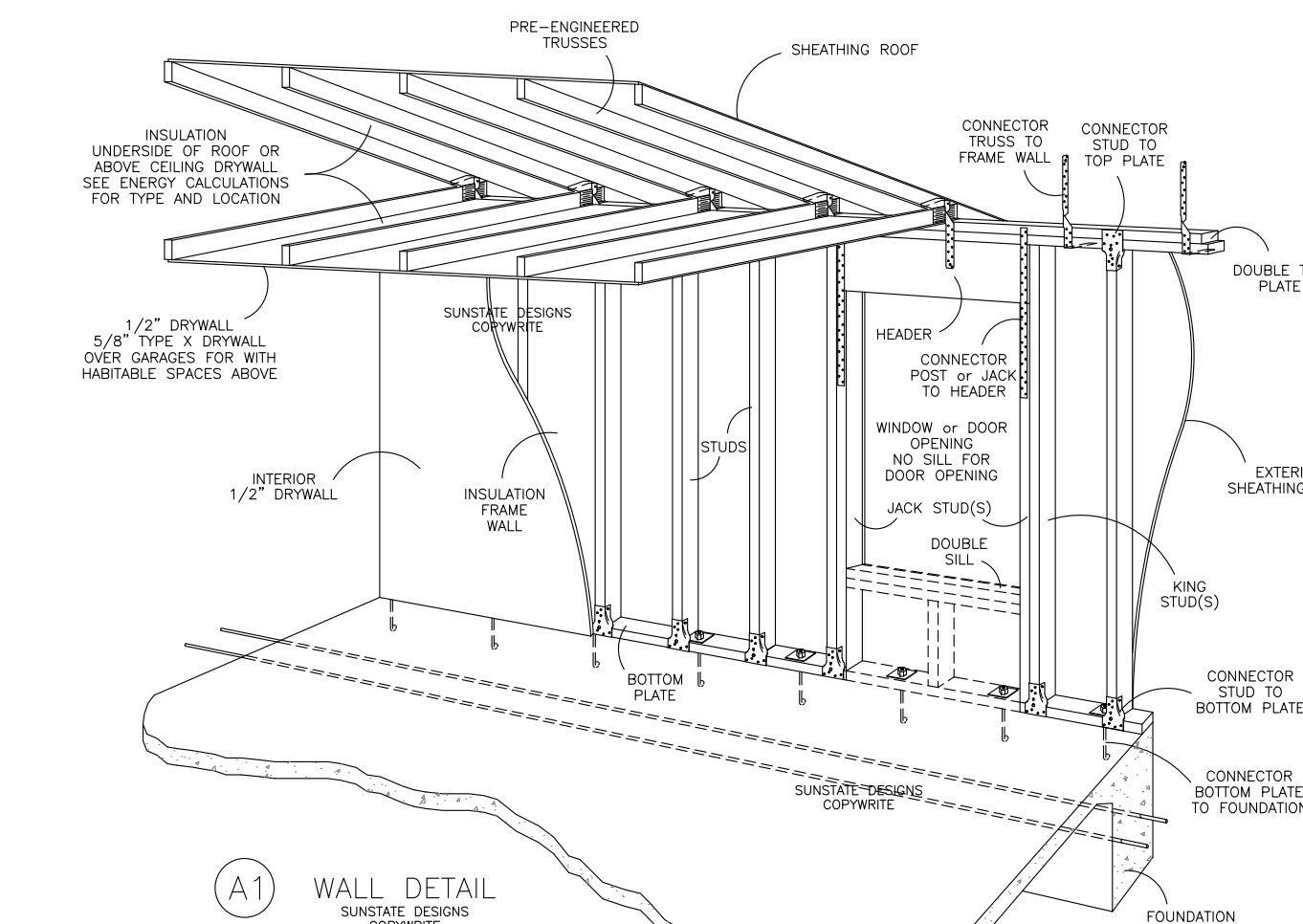
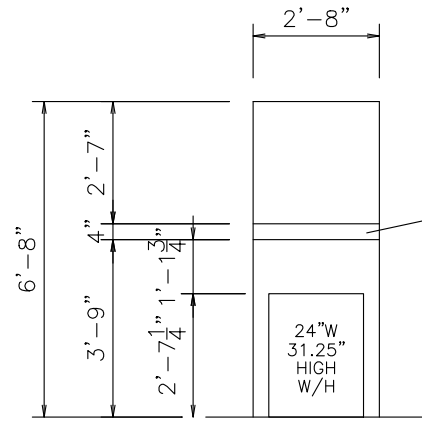
## REAR ELEVATION

SCALE: 1/4" = 1'-0"

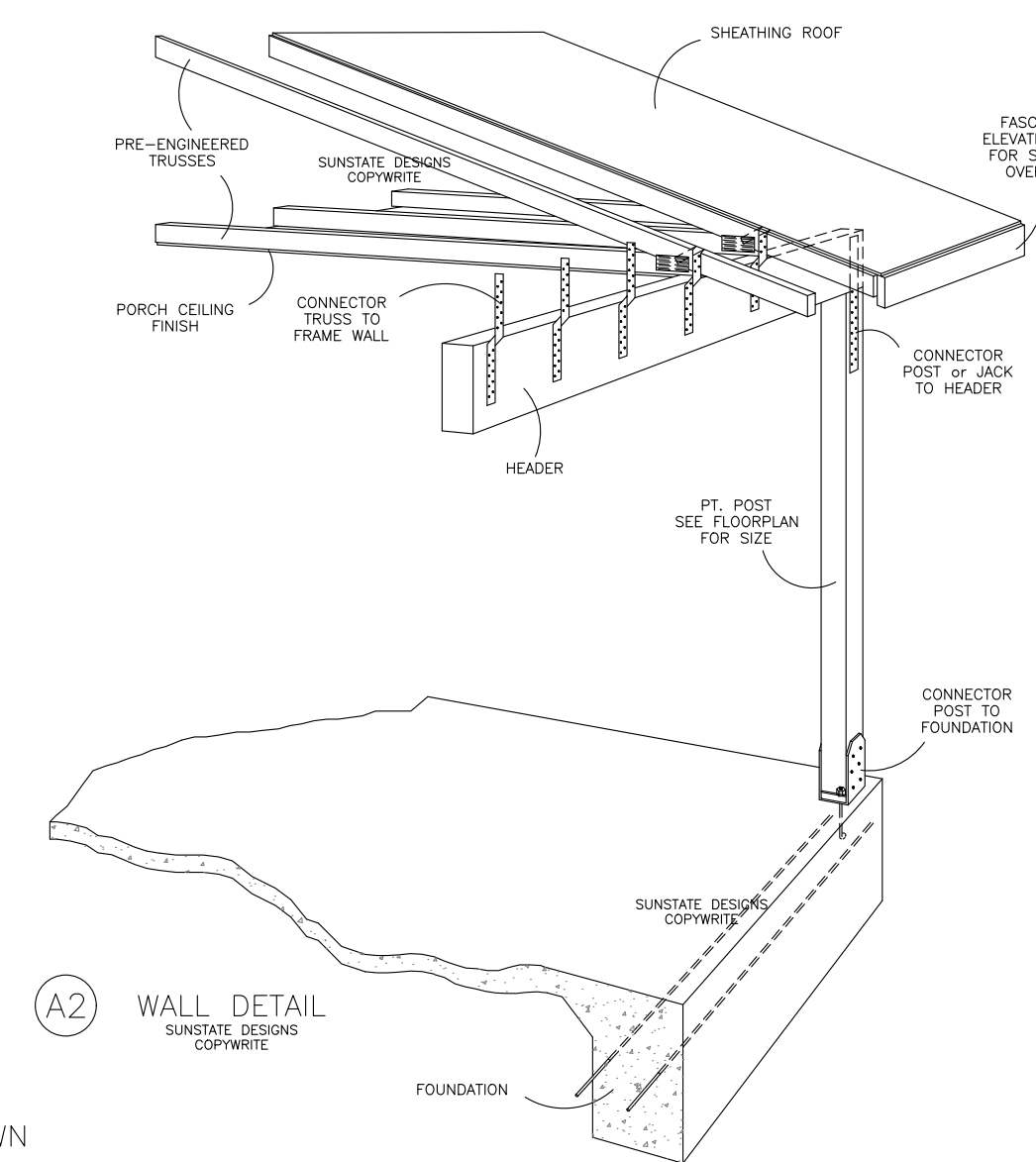
**ENTRY ROOF VENTILATION**  
 THE 1/300TH RULE EQUATED TO 1 sq.ft. OF ATTIC VENTILATION FOR EVERY 300 sq.ft. OF ATTIC FLOOR SPACE AND THEN SPLIT THE VENTILATION # BETWEEN THE SOFFITS AND RIDGE OR HIGH LOW APPLICATIONS WHERE SOFFIT VENTS ARE ELIMINATED

METAL ROOF	1' OF RIDGE VENT	=	75 sq.ft. OF ATTIC FLOOR SPACE
SHINGLE ROOF	1' OF RIDGE VENT	=	75 sq.ft. OF ATTIC FLOOR SPACE
SHINGLE ROOF	4' OFF RIDGE VENT	=	1000 sq.ft. OF ATTIC FLOOR SPACE
TILE ROOF	"S" VENT	=	406 sq.ft. OF ATTIC FLOOR SPACE
TILE ROOF	FLAT VENT	=	411 sq.ft. OF ATTIC FLOOR SPACE
SOFFIT	1' sq.ft. OF VENT	=	102 sq.ft. OF ATTIC FLOOR SPACE

EXAMPLE:  
 ATTIC FLOOR SPACE = 3000 sq.ft.  
 1' OF RIDGE VENT = 75 sq.ft.  
 TOTAL RIDGE VENT = 40 Feet



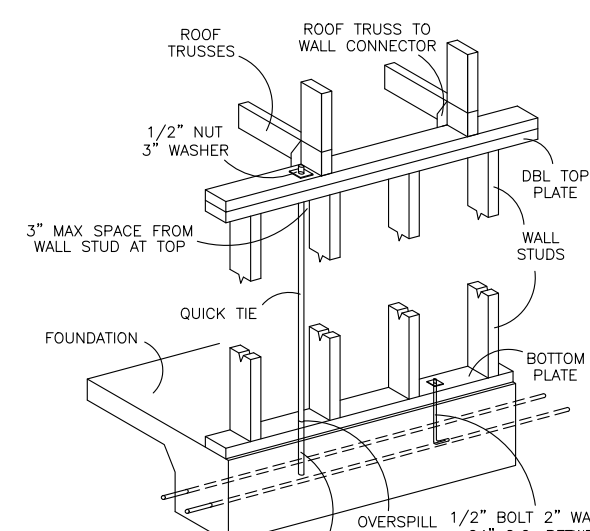
A1 WALL DETAIL  
 SUNSHADE EXTERIOR COPPERITE



A2 WALL DETAIL  
 SUNSHADE EXTERIOR COPPERITE

### ALTERNATIVE TIE DOWN FOR FRAME WALLS

### QUICK TIE AIRCRAFT WIRE ROPE ROD TIE DOWNS



- QUICK TIE WALL LOCATION**
- ALL QUICK TIES 3" FROM WALL STUDS AT TOP
  - 1 QUICK TIE WITHIN 3" OF ALL CORNER STUDS
  - 1 QUICK TIE EACH SIDE OF ALL HEADERS
  - 1 QUICK TIE NEXT TO ALL RIDGE POSTS
  - QUICK TIE SPACE TABLE FOR WALL SECTIONS
- THREADED STUDS SHALL HAVE MIN. 2 1/4" DISTANCE FROM EDGE OF SLAB & 4" MIN. EMBEDMENT EXPOSED**
- WALL CONNECTORS REQUIRED**
- ROOF TRUSS CONNECTORS CONNECTS TO HEADERS
  - SIMPSON CS16-32" HEADERS TO JACKS WHERE HEADERS IS WIDER THAN QUICK TIE BRACING
  - INTERIOR WALLS: (1) SIMPSON SPH TOP PLATE TO STUD WITH QUICK TIE BRACING 3" TO 3"
  - SIMPSON SPH TOP PLATE TO STUD WITH QUICK TIE BRACING 3" TO 8"
  - BOTTOM PLATE TO SLAB OR MASONRY WALL 1/2" BOLTS 24" O.C. MAX SPACE BETWEEN QUICK TIE BRACING 3" TO 8"
  - FLOOR TRUSSES TO MASONRY WALLS STILL REQUIRE 1 HETADZ EACH

**QUICK TIE SPACING TABLE**

TRUSS UP/ROCK THE TRUSS UP/ROCK THE TRUSS TO BOTTOM PLATE - SP2 or SP4, 6.8	TRUSS UP/ROCK THE TRUSS TO BOTTOM PLATE - SP1 or SP4, 6.8	TRUSS UP/ROCK THE TRUSS TO BOTTOM PLATE - SP1 or SP4, 6.8	TRUSS UP/ROCK THE TRUSS TO BOTTOM PLATE - SP1 or SP4, 6.8
24" O.C. FT. & IN.	24" O.C. FT. & IN.	24" O.C. FT. & IN.	24" O.C. FT. & IN.
0-400	8'-0"	1161	4'-0"
522	7'-0"	1447	3'-0"
711	6'-0"	2321	2'-0"
928	5'-0"		

### WALL SECTION NOTES:

**GENERAL**  
 ROOF/WALL SHEATHING 15/32" OR LESS (2 3/8"x113") RING SHANK NAILS 6" O.C. EDGE & FIELD ROOF/WALL SHEATHING GREATER THAN 15/32" (2.5"x131") RING SHANK NAILS 6" O.C. EDGE & FIELD ROOF SHINGLE AND TILE ROOF 20 PSF LIVE LOAD & 15 PSF DEAD LOAD

**FOUNDATION**  
 SEE FOUNDATION PLAN AND FOOTER DETAILS FOR INFORMATION. BOTH MONOLITHIC AND OR STEMWALL FOUNDATIONS CAN BE USED FOR ALL WALL DETAILS. ALL FOUNDATION AND WALL REBAR IS TO BE MINIMUM GRADE SCHEDULE 40 KSI!

**PORCH CEILINGS**  
 CEILING FINISH CAN BE MOISTURE RESISTANT DRYWALL, DENZBOARD STUCCO, CONCRETE PANELS, VINYL BEADBOARD, 1x6 T&G OR ANY OTHER STATE APPROVED EXTERIOR CEILING PRODUCTS

**FLOORS AND SEALED DECKS**  
 3/4" SHEATHING = T&G GLUED AND NAILED 10d SCREW OR RING SHANK 6" O.C. EDGES 6" O.C. FIELD

**EXTERIOR FINISH**  
 SEE ELEVATIONS FOR EXTERIOR FINISH (EXAMPLES: LAP SIDING OR TEXTURED FINISH). MASONRY WALLS = ADD 1x2 PT FURRING HORIZ. OR VERT. 24" MAX. O.C. FOR LAP OR PANEL SIDING. FRAME WALLS AND GABLES = 1 LAYER HOUSE WRAP, TEXTURED FINISH ADD PAPER BACK WIRE LATH. TEXTURED FINISH = STUCCO OR EXTERIOR PORTLAND CEMENT PLASTER. 3-COAT WORK OVER METAL PLASTER BASE THICKNESS 0.875 MINIMUM. 2-COAT WORK OVER MASONRY UNIT THICKNESS 0.5 MINIMUM. 2-COAT WORK OVER CAST-IN-PLACE OR PRECAST CONCRETE THICKNESS 0.375 MINIMUM.

**ROOFING & SOFFIT STANDARD SHEATHING**  
 ROOF SHEATHING, EXPOSURE B MIN 7/16", EXPOSURE C MIN 15/32", EXPOSURE D MIN 19/32" ROOF SHEATHING, MIN 19/32" FOR ALL FLAT OR BARREL TILE ROOF ROOF SHEATHING (GFI) SPECIFIC GRAVITY, PLYWOOD 0.57, OSB 0.62 UNDERLAYMENT TYPE II

**ZIP SYSTEM ROOF AND WALL SHEATHING**  
 ZIP SYSTEM STRUCTURAL SHEATHING WITH WATER-RESISTIVE BARRIER DOES NOT REQUIRE HOUSE WRAP OR FELT DRY IN UNLESS MENTIONED IN THE NOTES BELOW. ZIP SYSTEM TAPE ALL SEAMS. ZIP WALL SHEATHING = 7/16" THICK PANELS WITH GREEN SURFACE EXTERIOR OUTSIDE. ZIP ROOF SHEATHING = 1/2" THICK PANELS WITH RED SURFACE UP. USE STANDARD FLASHING FOR ROOF VALLEYS AND WHERE ROOF SURFACES MEET GABLE & WALL SURFACES. SEE ELEVATIONS FOR ROOFING TYPE, EXAMPLES: SHINGLE, METAL OR TILE ROOFING. SHINGLE ROOF = APPLY DIRECTLY TO ROOF SHEATHING ADD ONE LAYER 15lb FELT FOR ROOF PITCH FROM 2/12 TO LESS THAN 4/12 METAL ROOF = APPLY DIRECTLY TO ROOF SHEATHING TILE ROOF = APPLY 5/8" THICK PANELS ADD ONE LAYER OF MIN 30lb FELT 1 LAYER OF SELF ADHERING SYNTHETIC UNDERLAYMENT CAN REPLACE ALL FELT REQUIREMENTS AND CAN BE ADDED TO ALL ROOFS EVEN WHERE FELT IS NOT REQUIRED

**FRAME WALLS**  
 SHEATHING WALL = 7/16" SHEATHING ON EXTERIOR SIDE OF WALL USE PRESSURE TREATED LUMBER OR VAPOR BARRIER WHERE FRAMING IS IN CONTACT WITH CONCRETE STUDS = 2x4 MIN STUDS UNLESS OTHERWISE SPECIFIED ON PLAN = SPF#2 OR SYP#2, 16" O.C. TOP PLATE = (2) 2x4 OVERLAP ENDS 2' LOAD BEARING WALLS (2) 10d NAILS EA END 6" BETWEEN BOTTOM PLATE = SAME SIZE AS STUDS = SYP#2 PT TO CONCRETE FLOOR & SPF#2 TO WOOD FLOOR

**2x12 HEADERS SYP#2**

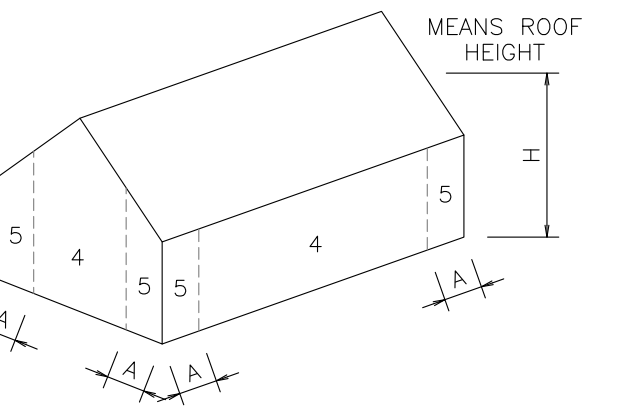
NUMBER	4' SPAN	6' SPAN	8' SPAN	10' SPAN	12' SPAN	14' SPAN	16' SPAN	18' SPAN
30lb live load, 10lb dead load, DEFLECTION L/240, ALL FRAME HEADERS MIN (2) 2x12 UNLESS OTHERWISE SPECIFIED	1	1	1	1	1	1	1	1
HEADER TABLE (P1) DOWNLOAD POUNDS PER LINEAR FOOT (TOTAL) TOTAL MAX DOWNLOAD POUNDS	PLF TOTAL PLF TOTAL	PLF TOTAL PLF TOTAL	PLF TOTAL PLF TOTAL	PLF TOTAL PLF TOTAL	PLF TOTAL PLF TOTAL	PLF TOTAL PLF TOTAL	PLF TOTAL PLF TOTAL	PLF TOTAL PLF TOTAL
(2) PLY 2x12	2020 8080	953 5718	545 4360	349 3490	242 2304	176 2464	133 2128	104 1872
(3) PLY 2x12	3425 13700	1633 9798	937 7498	603 6030	418 5016	305 4270	231 3696	180 2880
(4) PLY 2x12	4566 18264	2178 13068	1250 10000	804 8040	557 6684	406 5684	308 4928	241 4338

**HEADERS MAX DOWNLOAD NUMBER JACKS & KINGS**

1350 LBS DOWNLOAD PER STUD	HDR = HEADER, J = JACK, K = KING, J/KING & JACK STUD POSTS = SPF#2 OR SYP#2
NUMBER KINGS & JACKS EA SIDE OF HDR	(1)J (1)K (2)J (2)K (2)J (2)K (3)J (3)K (4)J (4)K
TOTAL STUDS UNDER BOTH SIDE OF HDR	(4) STUDS (8) STUDS (10) STUDS (12) STUDS (14) STUDS (16) STUDS
HEADER MAX LBS. POUNDS DOWNWARD	3,540 1,810 1,520 1,320 1,160 1,000 880 780 700

**SIMPSON HURRICANE TIE DOWN CONNECTORS**  
 TRUSS TO CONCRETE WALL - HTS16 or LONGER - 8x8 POST TO SLAB - ABUS6 (2) 5/8"x7" BOLTS TRUSS TO FRAME WALL - MTS12 or LONGER JACK/POST TO HEADER SPAN 0' TO 48" = (1) LSTA24 ea SIDE STUD TO TOP PLATE - SP2 or SP4, 6.8 JACK/POST TO HEADER SPAN 48' TO 72" = (2) LSTA24 ea SIDE STUD TO TOP PLATE - SP1 or SP4, 6.8 JACK/POST TO HEADER SPAN 72' TO 97' = (2) LSTA24 ea SIDE BOTTOM PLATE TO SLAB - 1/2" BOLT & UP JACK/POST TO HEADER SPAN 97' & UP - SP1 WASHER 2" O.C. 6" EMBEDMENT EXPOSED (1) HEADER JACK TO BOTTOM PLATE - SP1 J-BOLT 2" MIN DIST FROM EDGE OF SLAB (2) HEADER JACKS TO SLAB - HTT208 1/2"x16" BOLT 4x4 POST TO SLAB - ABU44 5/8"x7" BOLT (3) HEADER JACKS TO SLAB - HTT4 5/8"x7" BOLT 6x6 POST TO SLAB - ABU66 5/8"x7" BOLT (4) HEADER JACKS TO SLAB - HTS5 5/8"x7" BOLT

OTHER CONNECTORS MAY BE CALLED OUT ON FLOOR, STRUCTURAL OR TRUSS SHEETS OTHER SAME/SIMILAR USE TYPE CONNECTORS OF EQUAL OR GREATER STRENGTHS ARE ACCEPTABLE SUBSTITUTES



**COMPONENTS AND CLADDING**  
 WALLS  
 Structures less than or equal to 60 ft

**COMPONENT PRESSURES:**

AREA	PRESSURE (psf)
4	MAX = 25.45
4	MIN = -27.61
5	MAX = 25.45
5	MIN = -34.08

Dimension a = 5.60 ft

### TRUSS COMPANY NOTES:

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  - LEDGER BOARDS: ARE NEVER TO BE USED ON ANY 10 STORY HOUSES MASONRY OR FRAME WALLS
  - ALL AREAS OF FLOOR AND ROOF TRUSS SYSTEM ARE TO BE PROVIDED BY TRUSS COMPANY, NO AREAS ARE TO BE PROVIDED BY OTHERS
  - BALCONY FLOOR TRUSSES: 6" STEP DOWN TO BALCONY. BALCONY IS ROOF OVER AREA BLOW, MIN 1/4" IN 12" DOWN SLOPE TO ALL OUTER EDGES OF THE BALCONY
  - LAMINATE BEAMS: CALLED OUT ON PLANS ARE TO BE PROVIDED BY TRUSS CO, THANKS

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 ALTERATION LEVEL N/A  
 RISK CATEGORY: 2  
 WIND VELOCITY (MPH): 140  
 EXPOSURE CATEGORY: C  
 INTERNAL PRESSURE: 18  
 CONSTRUCTION TYPE: VB

LOT:  
 2401 LESLIE ST  
 FLAGLER BEACH  
 FLORIDA

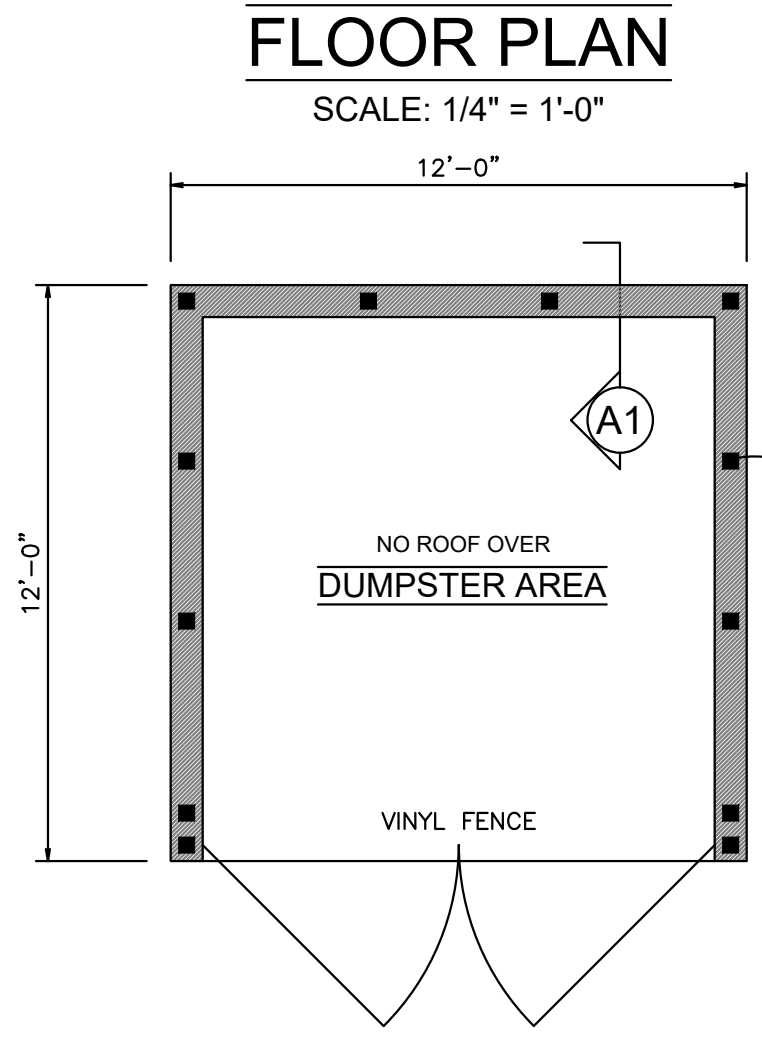
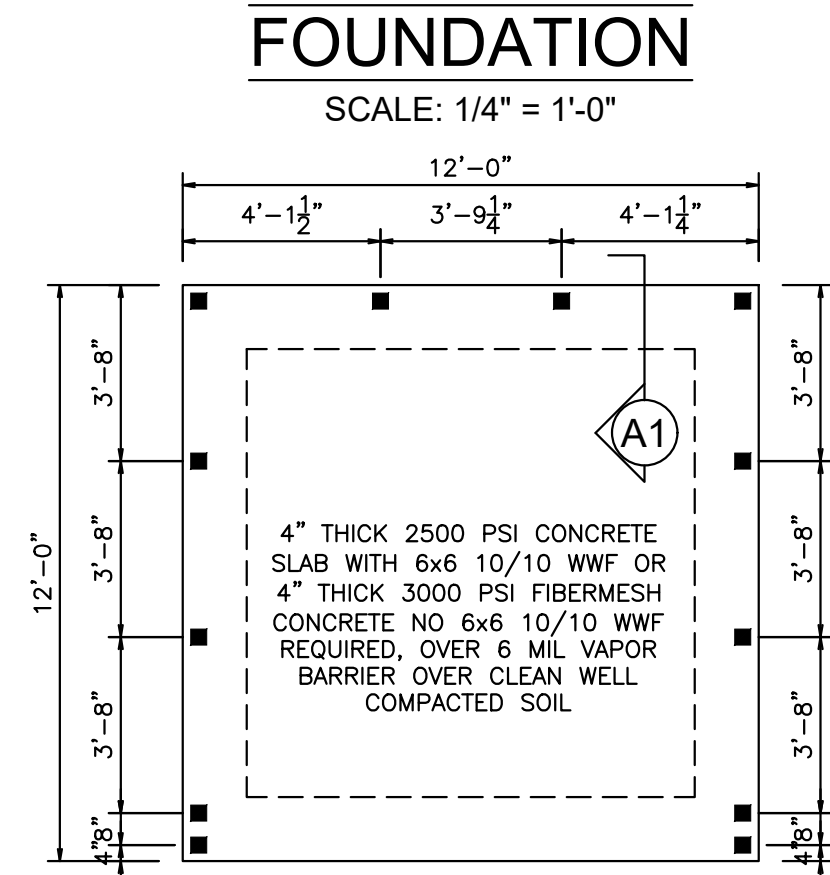
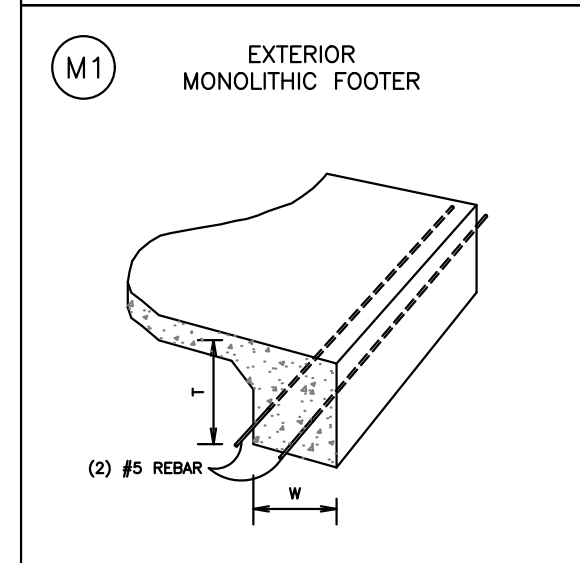
FLOOR ELEV

SHEET  
**A-05**

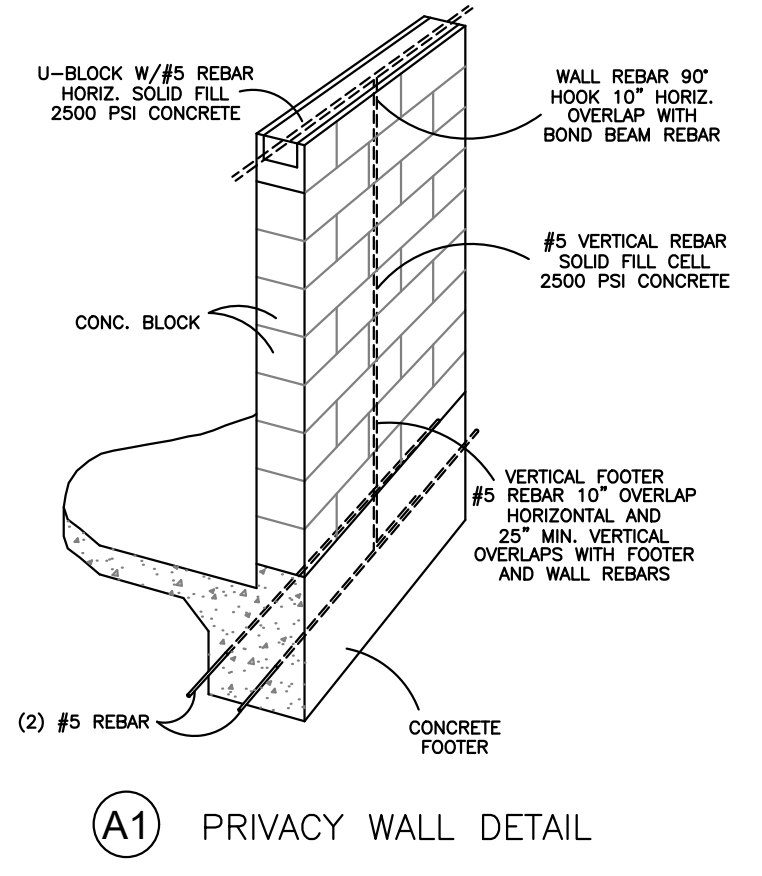


MONOLITHIC FRAME 1, 2, 3 STORY	(W) WIDTH 16" MIN	(T) THICKNESS 20" MIN
MONOLITHIC MASONRY 1 & 2 STORY	(W) WIDTH 16" MIN	(T) THICKNESS 20" MIN
MONOLITHIC MASONRY 3 STORY	(W) WIDTH 25" MIN	(T) THICKNESS 20" MIN

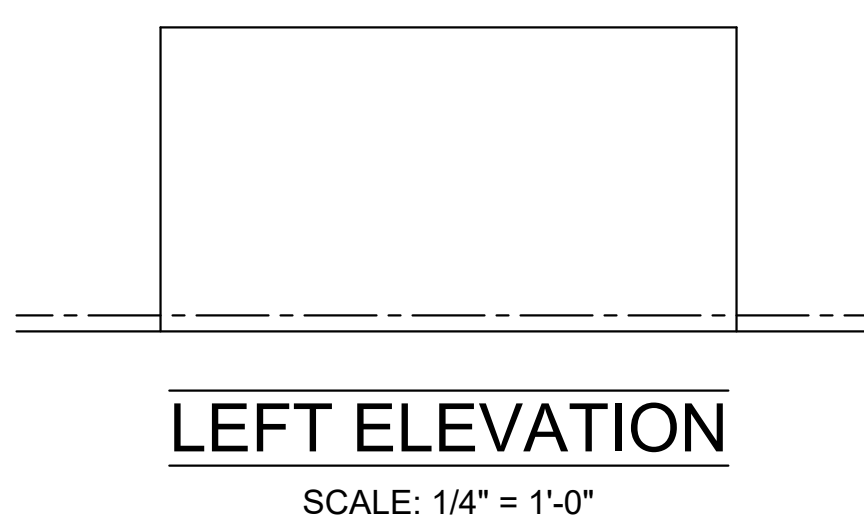
- BOTTOM OF ALL FOOTERS MIN 12" BELOW GRADE BELOW THE FROST LINE
- MONOLITHIC FOOTERS MIN 20" HIGH BOTTOM MIN 12" BELOW GRADE THE FROST LINE, TOP OF ALL SLABS 8" ABOVE GRADE.
- MONOLITHIC FOOTERS MAX 32" HIGH WITH (2) #5 REBAR
- MONOLITHIC FOOTERS 33" TO 48" HIGH USE FOOTER DETAIL H1 TO REPLACE M1, USE FOOTER DETAIL H2 TO REPLACE M2
- PORCH AND GARAGE SLAB SLOPE MIN 1/4" IN 12"



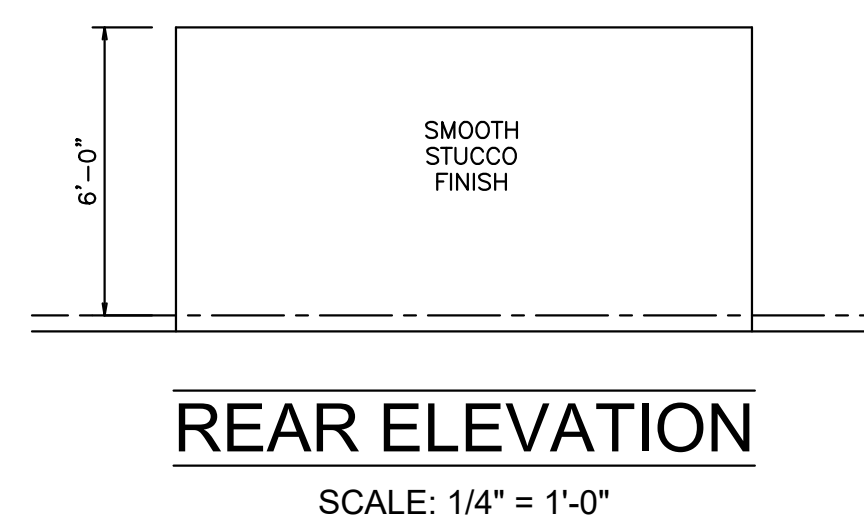
DUMPSTER 144 sf



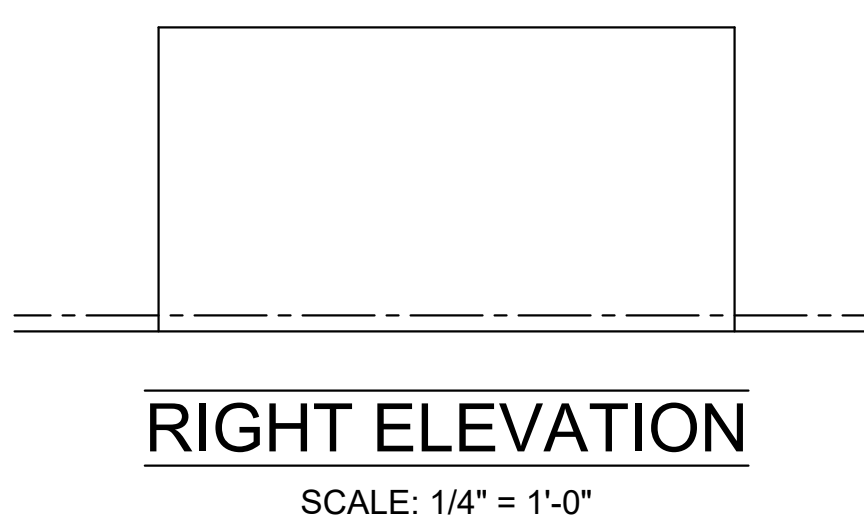
WALL SECTION NOTES:	
GENERAL	
ROOF/WALL SHEATHING 15/32" OR LESS (2 3/8"x113") RING SHANK NAILS 6" O.C. EDGE & FIELD. ROOF/WALL SHEATHING GREATER THAN 15/32" (2.5"x131") RING SHANK NAILS 6" O.C. EDGE & FIELD. ROOF SHINGLE AND TILE ROOF 20 PSF LIVE LOAD & 15 PSF DEAD LOAD.	
FOUNDATION	
SEE FOUNDATION PLAN AND FOOTER DETAILS FOR INFORMATION. BOTH MONOLITHIC AND OR STEMWALL FOUNDATIONS CAN BE USED FOR ALL WALL DETAILS. ALL FOUNDATION AND WALL REBAR IS TO BE MINIMUM GRADE SCHEDULE 40 KSI.	
PORCH CEILINGS	
CEILING FINISH CAN BE MOISTURE RESISTANT DRYWALL, DENZBOARD STUCCO, CONCRETE PANELS, VINYL BEADBOARD, 1x6 T&G OR ANYOTHER STATE APPROVED EXTERIOR CEILING PRODUCTS.	
FLOORS AND SEALED DECKS	
3/4" SHEATHING = T&G GLUED AND NAILED 10d SCREW OR RING SHANK 6" O.C. EDGES 6" O.C. FIELD.	
EXTERIOR FINISH	
SEE ELEVATIONS FOR EXTERIOR FINISH (EXAMPLES: LAP SIDING OR TEXTURED FINISH). MASONRY WALLS = ADD 1x2 PT FURRING HORIZ. OR VERT. 24" MAX. O.C. FOR LAP OR PANEL SIDING. FRAME WALLS AND GABLES = 1 LAYER HOUSE WRAP, TEXTURED FINISH ADD PAPER BACK WIRE LATH. TEXTURED FINISH = STUCCO OR EXTERIOR PORTLAND CEMENT PLASTER. 3-COAT WORK OVER METAL PLASTER BASE THICKNESS 0.875 MINIMUM. 2-COAT WORK OVER MASONRY UNIT THICKNESS 0.5 MINIMUM. 2-COAT WORK OVER CAST-IN-PLACE OR PRECAST CONCRETE THICKNESS 0.375 MINIMUM.	
MASONRY BLOCK WALLS	
CONCRETE = SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. BLOCK WALL = STANDARD 8" WIDE WALL. HEIGHT AND LENGTH OF EACH BLOCK CAN VARY. BLOCK COLUMN = SIZE, SHAPE AND HEIGHT MAY PER PLAN CAN VARY. W/(1) #5 REBAR MIN. VERTICAL SOLID FILLED CONCRETE. SEE FLOOR PLAN or STRUCTURAL PLAN FOR NUMBER OF REBAR. BOND BEAM = HORIZ COURSE U-BLOCK WITH (1)#5 REBAR HORIZONTAL SOLID CONCRETE FILLED REBAR CONTINUOUS OVERLAP = #5 REBAR OVERLAP MIN 25" CONTINUOUS HORIZ OR VERT REBAR 90° HOOK = (1)#5 REBAR 10" OVERLAP REBAR HORIZ. AND 25" OVERLAP REBAR VERTICAL. VERTICAL REINFORCED CELL = (1)#5 REBAR VERTICAL SOLID FILLED CONCRETE.	



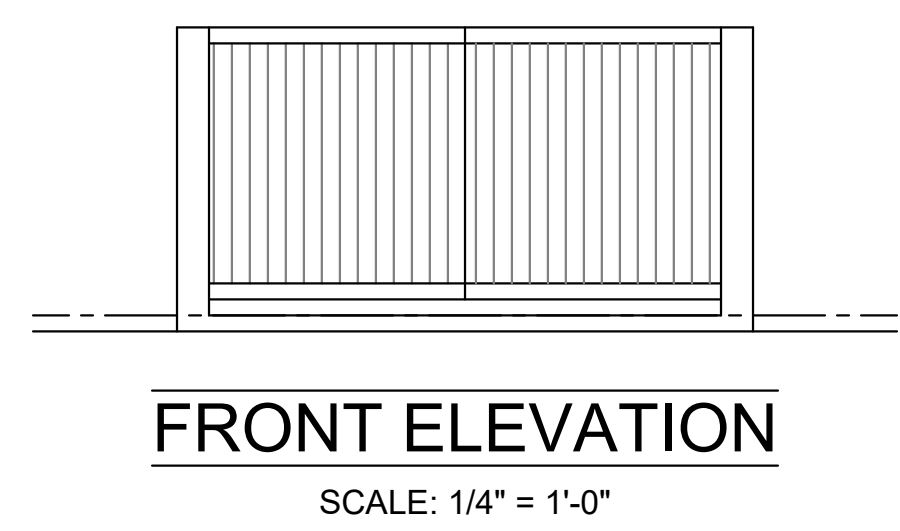
LEFT ELEVATION  
SCALE: 1/4" = 1'-0"



REAR ELEVATION  
SCALE: 1/4" = 1'-0"



RIGHT ELEVATION  
SCALE: 1/4" = 1'-0"



FRONT ELEVATION  
SCALE: 1/4" = 1'-0"

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FOR WORKS SECURING FEDERAL STATUTORY PROTECTION FOR THE FIRST TIME AND FALL INTO TWO CATEGORIES:  
WORKS CREATED ON OR AFTER JANUARY 1, 1978 THE LAW GOVERNMENTAL PROTECTION FROM COPYRIGHT INFRINGEMENT AND JANUARY 1, 1978, FROM THE MOMENT OF ITS CREATION AND OTHER THAN A TERM ADDITIONAL TO YEARS.  
FOR WORKS MADE FOR HIRE AND ANONYMOUS AND PSEUDONYMUS WORKS PROTECTION FROM FIRST PUBLICATION OR 140 YEARS FROM CREATION, WHICHEVER IS SHORTER, COMES INTO EFFECT. THE AUTHOR'S RECORDS, IN WHICH CASE THE TERM BECOMES THE AUTHOR'S LIFE PLUS 70 YEARS.

THE TRILEGACY GROUP  
DUMPSTER  
2401 LESLIE ST., FLAGLER BCH  
THE TRILEGACY GROUP

JOB NUMBER	3814
PLAN DATE	10/19/24
"PLANS CONFORM TO" 2023 FLORIDA BUILDING CODE 2020 NATIONAL ELEC CODE 2018 WFCM DESIGN CRITERIA 2014 ASCE24 FLOOD DESIGN STRUCTURALLY ADEQUATE FOR ALTERATION LEVEL: N/A RISK CATEGORY: 2 WIND VELOCITY (MPH): 140 EXPOSURE CATEGORY: C INTERNAL PRESSURE: .18 CONSTRUCTION TYPE: VB	

LOT:  
2401 LESLIE ST  
FLAGLER BEACH  
FLORIDA

SHEET  
A-06