

July 10, 2024

PROJECT NAME: MIDWAY POINT

PROJECT NUMBER: 2022080122

APPLICATION: MAJOR SITE PLAN #29062

- 1 DEPARTMENT: ENGDRN - STORMWATER REVIEW  
REVIEW ITEM: 6.13.10.B - Copy of NPDES Permit or NOI  
STATUS OF REVIEW: INFO  
REMARKS: Please provide a copy of the NPDES Permit or NOI prior to construction.
- 2 DEPARTMENT: ENGDRN - STORMWATER REVIEW  
REVIEW ITEM: Copy of District Permit (County Interest)  
STATUS OF REVIEW: INFO  
REMARKS: Please provide a copy of the District permit prior to construction.
- 3 DEPARTMENT: ENGIN - DEVELOPMENT REVIEW  
REVIEW ITEM: 2.12.4.K - List of approved waivers, their conditions, and the date of approval  
STATUS OF REVIEW: INFO  
REMARKS: 11/4/22 - add waivers if requested in the future
- 4 DEPARTMENT: ENGIN - DEVELOPMENT REVIEW  
REVIEW ITEM: Additional Development Review Comments  
STATUS OF REVIEW: INFO  
REMARKS: After approval, plans will be electronically stamped by the County. The applicant will receive an email indicating that approved plans are available for download and are located in the ePlans project Approved folder. For Development Review submittals, with the exception of Final Plats and Minor Site Plans, applicants are required to print, obtain required signatures, and sign and seal two 24"x 36" sets of the electronically stamped approved plan and deliver them to the Office of County Engineer, Development Review Section, located at 412 SE 25th Avenue Ocala, FL 34471. Upon receipt, a development order will be issued. Until such time as that development order is issued, the project does not have final approval and construction, if applicable, shall not commence. For plans requiring As-Builts, As-Builts and associated documentation shall be submitted on paper in accordance with current county requirements.
- 5 DEPARTMENT: DOH - ENVIRONMENTAL HEALTH  
REVIEW ITEM: Additional Health comments  
STATUS OF REVIEW: INFO  
REMARKS: N/A
- 6 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION  
REVIEW ITEM: Additional Landscape comments  
STATUS OF REVIEW: INFO  
REMARKS: Live Oak at Southwest corner of property is very close to proposed Forcemain. Recommend root barrier in Forcemain trench to prevent infiltration of roots
- 7 DEPARTMENT: ZONE - ZONING DEPARTMENT  
REVIEW ITEM: 4.4.4 -Sign (provisions for advertising signage), if it is a multi occupancy complex like shopping centers they must submit a master sign plan.  
STATUS OF REVIEW: INFO  
REMARKS: will there be signs?

8 DEPARTMENT: ZONE - ZONING DEPARTMENT  
REVIEW ITEM: Additional Zoning comments  
STATUS OF REVIEW: INFO  
REMARKS: Zoning: R-3  
FLU: UR



**Marion County  
Board of County Commissioners**

29062

Office of the County Engineer

412 SE 25th Ave.  
Ocala, FL 34471  
Phone: 352-671-8686  
Fax: 352-671-8687

**DEVELOPMENT REVIEW PLAN APPLICATION**

Date: \_\_\_\_\_

**A. PROJECT INFORMATION:**

Project Name: \_\_\_\_\_

Parcel Number(s): \_\_\_\_\_

Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_ Land Use \_\_\_\_\_ Zoning Classification \_\_\_\_\_

Commercial Residential Industrial Institutional Mixed Use Other \_\_\_\_\_

Type of Plan: \_\_\_\_\_

Property Acreage \_\_\_\_\_ Number of Lots \_\_\_\_\_ Miles of Roads \_\_\_\_\_

Location of Property with Crossroads \_\_\_\_\_

Additional information regarding this submittal: \_\_\_\_\_

**B. CONTACT INFORMATION** (*Check the appropriate box indicating the point for contact for this project. Add all emails to receive correspondence during this plan review.*)

**Engineer:**

Firm Name: \_\_\_\_\_ Contact Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone # \_\_\_\_\_ Alternate Phone # \_\_\_\_\_

Email(s) for contact via ePlans: \_\_\_\_\_

**Surveyor:**

Firm Name: \_\_\_\_\_ Contact Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone # \_\_\_\_\_ Alternate Phone # \_\_\_\_\_

Email(s) for contact via ePlans: \_\_\_\_\_

**Property Owner:**

Owner: \_\_\_\_\_ Contact Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone # \_\_\_\_\_ Alternate Phone # \_\_\_\_\_

Email address: \_\_\_\_\_

**Developer:**

Developer: \_\_\_\_\_ Contact Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone # \_\_\_\_\_ Alternate Phone # \_\_\_\_\_

Email address: \_\_\_\_\_

Revised 6/2021



INDEX OF SHEETS	
SHEET NO.	SHEET TITLE
C000	COVER SHEET
C100	SITE PLAN
C101	FIRE TRUCK
C200	DEMOLITION PLAN
C300	GRADING PLAN
C400	UTILITY PLAN
C401	OFFSITE UTILITY PLAN
C402	OFFSITE UTILITY PLAN
C500	SITE PLAN DETAILS
C600	UTILITY DETAILS
C601	UTILITY DETAILS
C700	STORMTECH DETAILS
C701	STORMTECH DETAILS
C800	MOT PLAN
C900	LIFT STATION DETAILS

**GENERAL NOTES:**

- NO CHANGE TO THE WORK AS SHOWN ON THE APPROVED PLANS SHALL BE MADE WITHOUT NOTIFICATION TO AND APPROVAL BY THE OFFICE OF THE COUNTY ENGINEER.
- SPRUCE CREEK CIVIL ENGINEERING INC HAS ASSUMED THE WORK OF THE PREVIOUS ENGINEER OF RECORD AND WILL NOW BE THE NEW ENGINEER OF RECORD.

**CONCURRENCY:**

THIS PROPOSED PROJECT HAS NOT BEEN GRANTED CONCURRENCY APPROVAL AND/OR GRANTED AND/OR RESERVED ANY PUBLIC FACILITY CAPACITIES. FUTURE RIGHTS TO DEVELOP THE PROPERTY ARE SUBJECT TO A DEFERRED CONCURRENCY DETERMINATION, AND FINAL APPROVAL TO DEVELOP THE PROPERTY HAS NOT BEEN OBTAINED. THE COMPLETION OF CONCURRENCY REVIEW AND/OR APPROVAL HAS BEEN DEFERRED TO LATER DEVELOPMENT REVIEW STAGES, SUCH AS, BUT NOT LIMITED TO, BUILDING PERMIT REVIEW

**OWNER CERTIFICATION:**

I HEREBY CERTIFY THAT I, MY SUCCESSORS, AND ASSIGNS SHALL PERPETUALLY OPERATE AND MAINTAIN THE IMPROVEMENTS IN ACCORDANCE WITH THE SPECIFICATIONS SHOWN HEREIN AND ON THE APPROVED PLAN.

CYNTHIA TORO, OWNER

**ENGINEER CERTIFICATION:**

I HEREBY CERTIFY THAT THESE PLANS AND CALCULATIONS WERE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE MARION COUNTY LAND DEVELOPMENT CODE, EXCEPT AS WAIVED.

DAVID F. GLUNT, P.E.



ALL AGENCY PERMITS MUST BE SUBMITTED TO THE CITY PRIOR TO SCHEDULING A PRECONSTRUCTION MEETING.

PROVIDE SCREENING DURING SITE CONSTRUCTION, TYPICALLY CONSIST OF A 6' CHAIN LINK FENCE WITH FABRIC. CONSTRUCTION SHALL ADHERE TO CITY'S CONSTRUCTION SITE MANAGEMENT GUIDELINES ORDINANCE 60-19.

# MAJOR SITE PLAN #29062 FOR MIDWAY PRESERVE

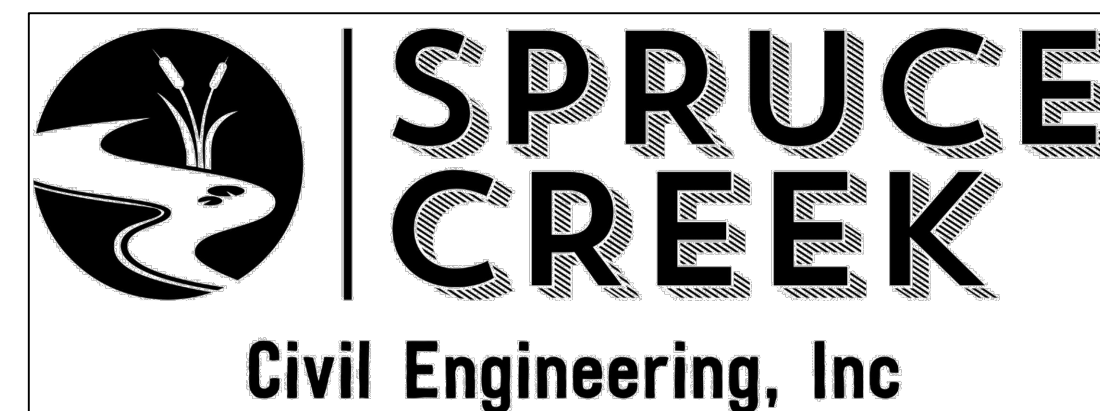
MARION COUNTY, FLORIDA

PARCEL ID NO:  
9007-0101-15

TBD MIDWAY TER.  
OCALA, FL 34472

FOR

**MALAK, LLC**  
1700 35TH STREET, UNIT 108  
ORLANDO, FL 32839  
PH (813) 786-1629



1982 STATE ROAD 44, SUITE 360  
NEW SMYRNA BEACH, FLORIDA 32168  
PHONE (407) 325-5579

**PROJECT TEAM MEMBERS:**

**POTABLE WATER**

MARION COUNTY UTILITIES  
11800 S. US HIGHWAY 441  
BELLEVUE, FL 34420  
PHONE: (352) 307-6000

**ENGINEER**

SPRUCE CREEK CIVIL ENGINEERING, INC.  
1982 STATE ROAD 44, SUITE 360  
NEW SMYRNA BEACH, FL 32168  
PHONE: (407) 325-5579

**WASTEWATER**

MARION COUNTY UTILITIES  
11800 S. US HIGHWAY 441  
BELLEVUE, FL 34420  
PHONE: (352) 307-6000

**SURVEYOR**

JULIO RODRIGUEZ, P.S.M.  
GLOBAL PROJECTS SURVEYING,  
6528 US-301 UNIT 106  
RIVERVIEW, FL 33578  
PHONE: (813) 423-3483

**DEVELOPER**

LUIS ORTIZ  
MALAK LLC  
PO BOX 116  
WINDERMERE, FL 34786  
PHONE: (407) 601-7675

**OWNER/MAINTENANCE ENTITY**

CYNTHIA TORO  
LUXTRO LLC  
2100 PONCE DELEON BLVD., SUITE 860  
CORAL GABLES, FL 33134  
PHONE: (407) 601-7675

**UTILITIES: ELECTRIC**

DUKE ENERGY

**LEGAL DESCRIPTION (PROVIDED BY SURVEYOR):**

LOT 15 OF BLOCK 101 OF "SILVER SPRINGS SHORES UNIT NO. 7", ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK J AT PAGE 94 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

**FLOOD ZONE INFORMATION:**

COMMUNITY: MARION COUNTY - 120160  
MAP/PANEL NO. 12083C0735D  
SUFFIX: D  
FIRM DATE: 08/28/2008  
FLOOD ZONE: X

**SITE DATA:**

EXISTING IMPERVIOUS AREA - 0SF, 0.00AC, 0.00%  
PROPOSED IMPERVIOUS AREA - 24,475SF, 0.56 AC., 66.3%  
EXISTING PERVIOUS AREA - 36,929SF, 0.85 AC., 100.0%  
PROPOSED PERVIOUS AREA - 12,454SF, 0.29 AC., 33.7%

**TRAFFIC IMPACT STATEMENT:**

PER ITE TRIP GENERATION RATES, THE SUBJECT PROJECT WILL PRODUCE APPROXIMATELY 58 ADT (AVERAGE DAILY TRIPS) AND 5 PM PEAK HOUR TRIPS PER ITE CODE 230.

**ADVISORY STATEMENTS:**

THE PROJECT SHALL COMPLY WITH THE FLORIDA STATE STATUTE DEFINITION OF A TOWNHOME. EACH UNIT SHALL BE INDIVIDUALLY PARCELED PER THE STATUTE.

DEVELOPMENT OF THE PROPERTY AS SHOWN ON THIS SITE PLAN IS SUBJECT TO THE TERMS AND CONDITIONS OF THE SILVER SPRINGS SHORES VESTED DRI AND ITS CORRESPONDING VESTED RIGHTS DETERMINATIONS, AS MAY BE AMENDED FROM TIME TO TIME, INCLUDING PROVISIONS REGARDING THE CONCURRENCY OF PUBLIC FACILITIES.

**PROJECT DISCRIPTION:**

10 TOWNHOME UNITS, INDIVIDUALLY OWNED.

**RECREATION FACILITIES:**

THERE WILL BE NO RECREATIONAL FACILITIES.

**PHASING:**

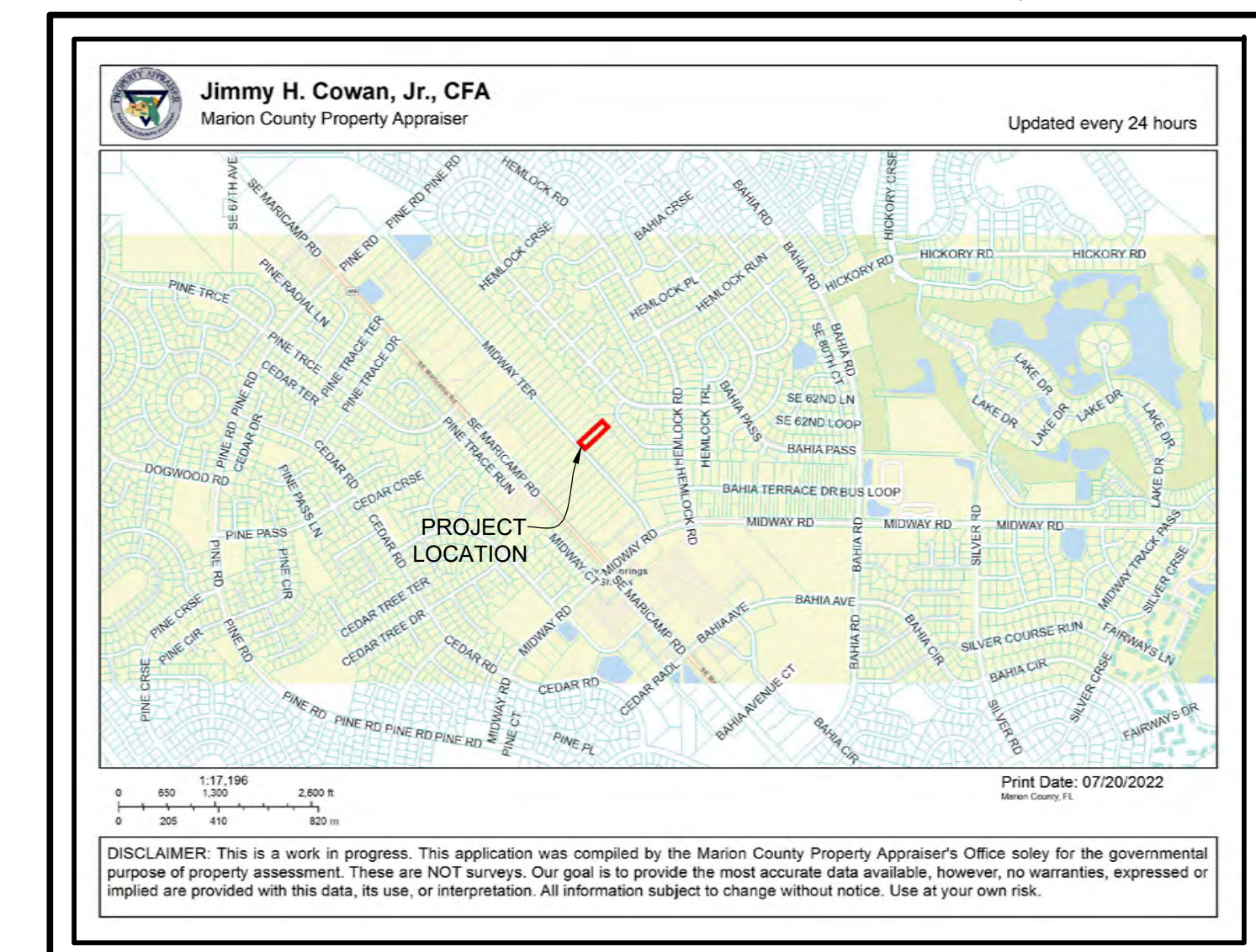
PROJECT TO BE COMPLETED IN ONE PHASE.

**WAIVER REQUEST:**

NONE.

**VICINITY MAP**

SECTION 05, TOWNSHIP 16S, RANGE 24E



- 02/22/23 PER COUNTY
- 12/12/23 PER COUNTY
- 02/15/24 PER COUNTY
- 05/03/24 PER COUNTY

2023-010 BLITCHTON TOWNHOMES

DAVID F. GLUNT, P.E. #67469  
CERTIFICATE OF AUTHORIZATION NO. 33151



**SITE DATA**

PROPERTY LOCATION: MIDWAY TERRACE, OCALA, FL 34472 (NO ADDRESS - VACANT)  
 PARCEL ID (ALT-KEY): 9007-0101-15  
 LOCAL MUNICIPALITY: MARION COUNTY, FLORIDA  
 PROPERTY ZONING: R-3 (MULTIFAMILY)  
 OVERLAY ZONE: PRIMRY SPRINGS PROTECTION ZONE  
 PROPERTY FUTURE LAND USE DESIGNATION: URBAN RESIDENTIAL (8-16 DU/AC)  
 PROPOSED OCCUPANCY: MULTIFAMILY  
 PROPOSED TOTAL DWELLING UNITS: 10  
 TOTAL PROPOSED LAND AREA: 36,929 S.F. (0.848 Ac.)  
 EXISTING I.S.R.: 0.00 (VACANT)  
 PROPOSED I.S.R.: 0.663 = (24,475 / 36,929)  
 EXISTING F.A.R.: 0.00 (VACANT)  
 PROPOSED F.A.R.: 0.379 = (14,000 / 36,929)  
 PROPOSED OPEN SPACE: 0.337 = (12,454 / 36,929)  
 BUILDING HEIGHT: 21.5 FT.

**ADJACENT ZONING**

FRONT (SOUTHWEST): B-4 (REGIONAL BUSINESS)  
 REAR (NORTHEAST): R-1 (SINGLE FAMILY DWELLING)  
 SIDE (NORTHWEST): R-3 (MULTIFAMILY)  
 SIDE (SOUTHEAST): R-3 (MULTIFAMILY)

**BUILDING SETBACKS**

	REQUIRED	PROVIDED
FRONT (SOUTHWEST):	25'	25.0' $\Delta$
REAR (NORTHEAST):	25'	68.6'
SIDE (NORTHWEST):	8'	8.0'
SIDE (SOUTHEAST):	8'	46.5'

**STORM WATER**

THE PROPOSED RESIDENTIAL COMPLEX WILL UTILIZE UNDERGROUND EXFILTRATION SYSTEM FOR STORMWATER RUNOFF FROM THE 100-YEAR STORM.

**FLOOD ZONE**

THE PROPOSED RESIDENTIAL DEVELOPMENT IS IN ZONE X, PER THE FIRM MAP OF MARION COUNTY, PANEL NO. 12083C0735D, DATED AUGUST 28, 2008.

**SCS SOILS**

22 - CANDLER SAND, 0-5% SLOPES, HYDROLOGIC SOIL GROUP "A"; MORE THAN 80 INCHES TO SEASONAL HIGH GROUND WATER TABLE.

**WETLANDS**

THERE ARE NO JURISDICTIONAL WETLANDS WITHIN THE PROPERTY.

**PHASES OF DEVELOPMENT**

THE SUBJECT PROJECT SHALL BE DEVELOPED IN ONE PHASE

**SITE NOTES**

- ALL PUBLIC IMPROVEMENTS, INCLUDING ADJACENT SIDEWALKS, WILL BE CHECKED AT FINAL INSPECTION. ANY DAMAGED, BROKEN, OR CRACKED SECTIONS SHALL BE REPLACED PRIOR TO ISSUANCE OF CERTIFICATIONS OF OCCUPANCY.
- SEWER WILL BE PROVIDED VIA LIFT STATION/FORCE MAIN TO EXISTING GRAVITY SYSTEM IN MIDWAY TERRACE. WATER IS AVAILABLE VIA MARION COUNTY 10" WATER MAIN DIRECTLY ADJACENT TO THE SITE.
- ALL CONSTRUCTION SHALL MEET MARION COUNTY REQUIREMENTS. ALL MATERIALS, INSTALLATION AND TESTING SHALL BE IN ACCORDANCE WITH THE MARION COUNTY AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. WHERE THE SPECIFICATIONS CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
- ALL SITE IMPROVEMENTS SHALL CONFORM TO A.D.A AND FLORIDA ACCESSIBILITY CODE.
- THE CONTRACTOR IS RESPONSIBLE FOR THE NOTIFICATION, LOCATION AND PROTECTION OF ALL UTILITIES THAT MAY EXIST WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOTIFY SUNSHINE LOCATORS TWO (2) BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION AT 1-800-432-4770, MONDAY THROUGH FRIDAY 7:00 AM TO 4:30 PM.
- ALL DIMENSIONS ARE SHOWN TO THE FACE OF CURB.
- THE EXISTING SITE IS VACANT AND CONSISTS OF GRASS TREES.
- ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER, IN WRITING, WITHIN 48 HOURS OF DISCOVERY. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO SUCH DIFFERING CONDITIONS WILL BE ALLOWED IF HE OR SHE FAILS TO PROVIDE THE WRITTEN NOTIFICATION.
- THERE ARE NO PROPOSED RECREATIONAL FACILITIES.
- PERVIOUS PAVERS SHALL BE SUFFICIENT TO SUPPORT THE WEIGHT OF A 32-TON FIRE APPARATUS.

**NFPA FIRE FLOW CALCULATIONS**

STEP 1 - BUILDING DATA:  
 CONSTRUCTION TYPE: FBC TYPE IIB, UNSPRINKLERED  
 FIRE AREA: 5,556 SF  
 STEP 2:  
 MIN. REQUIRED FIRE FLOW: 1,500 GPM  
 SPRINKLER CREDIT: 1,500 X 0.0 = 1,500 GPM  
 THEREFORE USE 1,500 GPM  
 STEP 3:  
 THEREFORE MIN. REQUIRED FIRE FLOW = 1,500 GPM

STEP 3:  
 HYDRANTS REQUIRED: 1 HYDRANT REQUIRED  
 (MAX. 400 FT. TO HYDRANT)

1 EXISTING HYDRANT  
 MEET SPACING REQUIREMENT.

DISTANCE TO NEAREST HYDRANT FROM FARTHEST  
 BUILDING: APPROX. 185.5 FT.  $\Delta$

**DEVELOPER:**

LUIS ORTIZ, MSIE, MBA, CGC, CMC  
 MALAK, CORP.  
 6979 KINGSPONTE PKWY., SUITE 7  
 ORLANDO, FL 32819  
 MOBILE: (813) 786-1629  
 EMAIL: LUISORTIZ@MALAKCORP.COM

**OWNER:**

CYNTHIA TORO  $\Delta$   
 LUXTRO LLC  
 2100 PONCE DELEON BLVD., SUITE 860  
 CORAL GABLES, FL 33134  
 MOBILE: (407) 601-7675  
 EMAIL: LUISORTIZ@MALAKCORP.COM

**LEGAL DESCRIPTION**

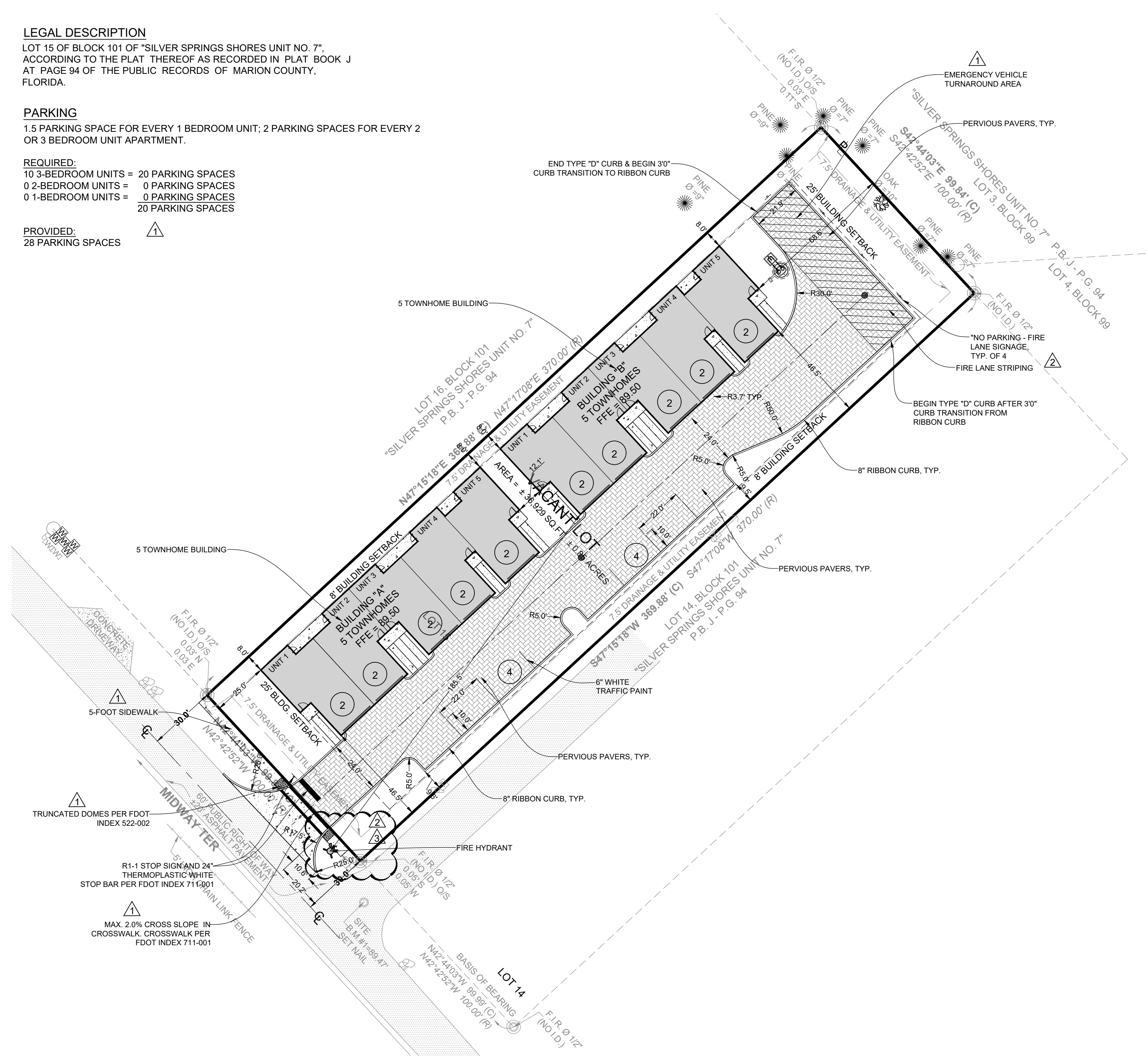
LOT 15 OF BLOCK 101 OF "SILVER SPRINGS SHORES UNIT NO. 7", ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 4 AT PAGE 94 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

**PARKING**

1.5 PARKING SPACE FOR EVERY 1 BEDROOM UNIT; 2 PARKING SPACES FOR EVERY 2 OR 3 BEDROOM UNIT APARTMENT.

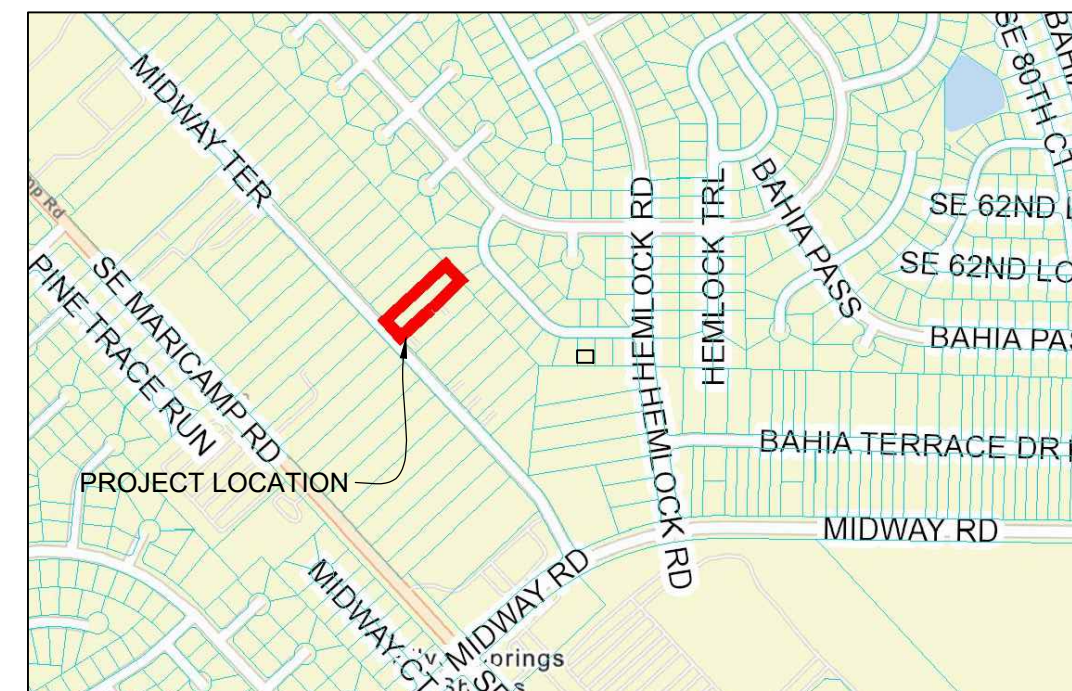
REQUIRED:  
 10 3-BEDROOM UNITS = 20 PARKING SPACES  
 0 2-BEDROOM UNITS = 0 PARKING SPACES  
 0 1-BEDROOM UNITS = 0 PARKING SPACES  
 20 PARKING SPACES

PROVIDED:  
 28 PARKING SPACES  $\Delta$



**LOCATION MAP:**

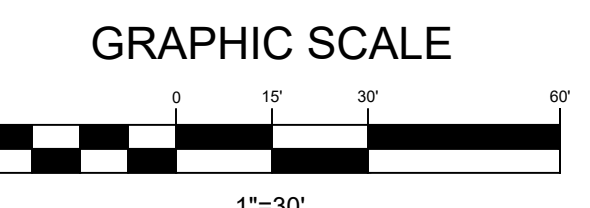
SECTION 16, TOWNSHIP 23S, RANGE 5E



**AERIAL PHOTO:**



REVISED BOTH BUILDINGS  $\Delta$



**LEGEND**

- PERVIOUS PAVERS
- STANDARD PAVERS
- PROPOSED BUILDING
- NEW CONCRETE WALKS, SLABS & PAVEMENT
- NEW ASPHALT
- EXISTING CONCRETE WALKS, SLABS & PAVEMENT
- EXISTING ASPHALT
- EXISTING BUILDING
- 10 PARKING SPACES

**SPRUCE CREEK**  
 Civil Engineering, Inc.  
 1982 State Road 44  
 Suite 360  
 New Smyrna Beach, Florida 32168  
 (407) 525-5579

**SITE PLAN**  
 FOR  
**MIDWAY PRESERVE**  
 MARION COUNTY, FLORIDA

OWNER(S):  
 LUXTRO LLC  
 2100 PONCE DELEON BLVD., SUITE 860  
 CORAL GABLES, FL 33134  
 CYNTHIA TORO

ENGINEER IN CHARGE:  
 DAVID F. GLUNT, PE #59459  
 CERTIFICATE OF AUTHORIZATION NO. 33151

NO.	DATE	REVISIONS
1	2/22/23	PER COUNTY PER COUNTY PER COUNTY
2	12/21/23	PER COUNTY PER COUNTY PER COUNTY
3	1/25/24	PER COUNTY PER COUNTY PER COUNTY
4		
5		
6		
7		
8		
9		
10		
11		

JOB # 2024-007  
 DATE: 03/15/24  
 SCALE: AS SHOWN  
 DESIGNED BY: DEG  
 DRAWN BY: DEG  
 APPROVED BY: DEG

C100





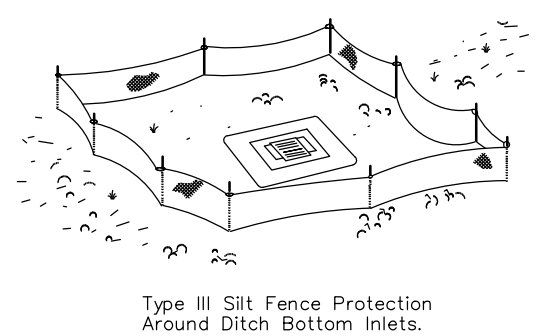


**EROSION CONTROL NOTES:**

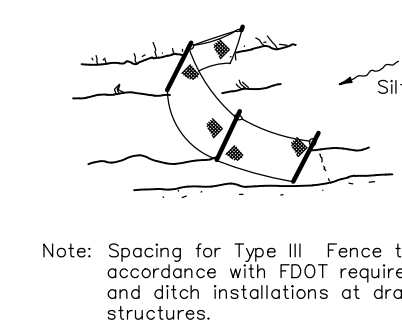
- THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE & LOCAL CODES, ORDINANCES & REGULATIONS GOVERNING POLLUTION OF THE ENVIRONMENT & SHALL IMPLEMENT ALL MEASURES NEEDED TO ENSURE ADEQUATE EROSION & SEDIMENT CONTROL DURING THE ENTIRE DURATION OF CONSTRUCTION. EROSION & SEDIMENT CONTROL MEASURES SHALL CONFORM TO MARION COUNTY, ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, & FLORIDA DEPARTMENT OF TRANSPORTATION REQUIREMENTS. INSTALLATION OF SILT FENCES & TURBIDITY BARRIERS SHALL BE IN ACCORDANCE WITH FDOT ROADWAY & TRAFFIC DESIGN STANDARDS & STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION.
- EROSION & SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. EROSION & SEDIMENT CONTROL MEASURES ARE TO BE APPLIED AS A PERIMETER DEFENSE AGAINST THE TRANSPORTATION OF SILT & SEDIMENTS OFF THE PROJECT SITE OR INTO ADJACENT WATER BODIES OR WETLANDS.
- THE CONTRACTOR SHALL PREPARE & IMPLEMENT AN EROSION CONTROL PLAN AS PART OF THE SCOPE OF WORK COVERED BY THESE PLANS. THE CONTRACTOR SHALL USE THE BEST MANAGEMENT PRACTICES IN CONTROLLING EROSION & SEDIMENT TRANSPORT DURING CONSTRUCTION. THE FLORIDA DEVELOPMENT MANUAL "A GUIDE TO SOUND LAND & WATER MANAGEMENT" MAY BE USED AS REFERENCE FOR RECOMMENDED BEST MANAGEMENT PRACTICES RELATED TO EROSION & SEDIMENT CONTROL.
- ALL EROSION & SEDIMENT CONTROL MEASURES WHICH ARE NECESSARY TO LIMIT THE TRANSPORT OF SILTS & SEDIMENTS TO OUTSIDE THE LIMITS OF THE WORK AREA OR TO WATER BODIES OR WETLANDS ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE BEST MANAGEMENT PRACTICES & IMPLEMENT STRUCTURAL MEASURES AS NEEDED TO PREVENT EROSION & SEDIMENT TRANSPORT FROM THE WORK AREAS. THE FOLLOWING ARE MINIMUM RECOMMENDED GUIDELINES TO BE IMPLEMENTED DURING THE CONSTRUCTION AS PART OF THE EROSION & SEDIMENT CONTROL PLAN:
  - STOCKPILING OF MATERIAL**  
NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.
  - EXPOSED AREA LIMITATION & PROTECTION**  
THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING & GRUBBING OPERATIONS OR EXCAVATION & FILLING OPERATIONS SHALL BE LIMITED AS NEEDED TO MINIMIZE THE POTENTIAL OF OFF-SITE SEDIMENT TRANSPORT. ALL EXPOSED AREAS SHALL BE PROTECTED BY INSTALLING EFFECTIVE EROSION & SEDIMENT CONTROL MEASURES SUCH AS SILT SCREENS, SYNTHETIC BALES, TURBIDITY BARRIERS, SWALES, OR A COMBINATION OF THESE & OTHER MEASURES AS WARRANTED.
  - INLET PROTECTION**  
INLETS & CATCH BASINS SHALL BE PROTECTED DURING CONSTRUCTION FROM SEDIMENT LADEN STORMWATER RUNOFF BY PROVIDING A COMBINATION OF SILT SCREENS, SYNTHETIC BALES, FILTER FABRIC COVERS OR OTHER MEASURES AS NECESSARY TO CONTROL THE TRANSPORT OF SEDIMENT.
  - TEMPORARY GRASSING**  
AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED OR RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED. TEMPORARY SEEDING SHALL BE CONTROLLED AS TO NOT ALTER OR COMPETE WITH PERMANENT GRASSING. SLOPES STEEPER THAN 6:1 SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES OF LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF 4 INCHES. THE SEEDED OR SEEDED & MULCHED AREAS SHALL BE ROLLED & WATERED AS NEEDED TO ENSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. IF AFTER 14 DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% OF GOOD GRASS COVER, THE AREAS WILL BE REWORKED & ADDITIONAL SEED APPLIED TO ESTABLISH THE DESIRED VEGETATION COVER.
  - MAINTENANCE**  
EROSION & SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED DURING THE ENTIRE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL INSPECT THE EROSION & CONTROL MEASURES ON A WEEKLY BASIS & 24 HOURS FOLLOWING RAINFALL EVENTS (0.5" OR GREATER) & IMMEDIATELY REPAIR ANY OBSERVED DAMAGED CONTROLS. ALL EROSION & SEDIMENT CONTROLS SHALL BE MAINTAINED AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.
- AREAS OF SOILS DISTURBANCE IS AT A MINIMUM THE AREA AS SHOWN ON THIS PLAN.
- BASINS SHALL NOT BE UTILIZED UNLESS DEEMED NECESSARY BY THE CONTRACTOR.
- FERTILIZERS AND PESTICIDES WILL BE USED IN ACCORDANCE WITH ALL LABEL DIRECTIONS AND APPLICATION RATES. THEY SHALL BE STORED UNDER COVER AND PROTECTED FROM WEATHER.
- ONLY SYNTHETIC BALES ARE TO BE USED. NO HAY OR STRAW IS ALLOWED.
- WHEN ANY ROOTS OF EXISTING TREES ARE ENCOUNTERED DURING LAND CLEARING AND/OR GRADING OF THE SITE, THE ROOTS MUST BE CUT OFF EVENLY WITH CLEAN, SHARP PRUNING TOOLS. THE CONTRACTOR/DEVELOPER SHALL MINIMIZE THE DAMAGE TO THE EXISTING TREE ROOT SYSTEMS.
- LAND PREPARATION PROCESSES SHALL CONFORM TO "CHAPTER 6: STORMWATER AND EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES FOR DEVELOPING AREAS OF THE FLORIDA DEVELOPMENT MANUAL. A GUIDE TO SOUND LAND AND WATER MANAGEMENT" (JUNE 1998) PREPARED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

**EROSION CONTROLS FOR NON STORMWATER DISCHARGES:**

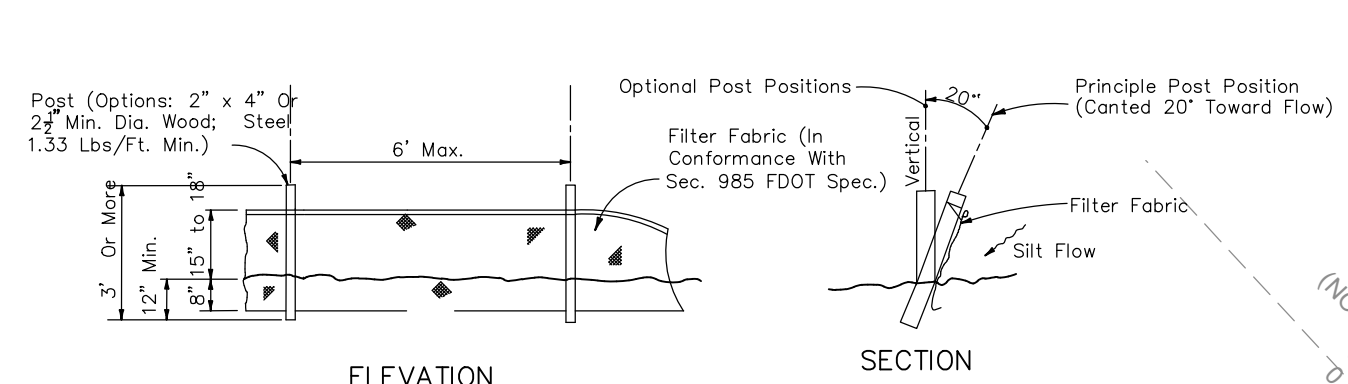
- WASTE DISPOSAL:**  
**WASTE MATERIAL:**  
ALL WASTE MATERIAL SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER WHICH SHALL BE MAINTAINED BY A LICENSED SOLID WASTE MANAGEMENT COMPANY IN MARION COUNTY. THE DUMPSTER SHALL MEET ALL LOCAL, STATE AND FEDERAL REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER SHALL BE EMPTIED AT LEAST ONCE A WEEK OR MORE OFTEN IF NECESSARY. THE TRASH SHALL BE HAULED TO AN APPROVED MARION COUNTY LANDFILL. NO CONSTRUCTION WASTE SHALL BE BURIED ON-SITE. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED AT THE SUPERINTENDENT CONSTRUCTION TRAILER. THE INDIVIDUAL RESPONSIBLE FOR MANAGING THIS TASK SHALL BE IDENTIFIED BY THE CONTRACTOR.  
**HAZARDOUS WASTE:**  
ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH THE APPLICABLE LOCAL, STATE & FEDERAL REGULATIONS. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR HAZARDOUS WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED AT THE SUPERINTENDENT CONSTRUCTION TRAILER. THE INDIVIDUAL RESPONSIBLE FOR MANAGING THIS TASK SHALL BE IDENTIFIED BY THE CONTRACTOR.  
**SANITARY WASTE:**  
ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY LOCAL REGULATION.
- OFFSITE VEHICLE TRACKING:**  
A GRAVEL CONSTRUCTION ENTRANCE HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE SHALL BE SWEEPED DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE SHALL BE COVERED WITH A TARPULIN.



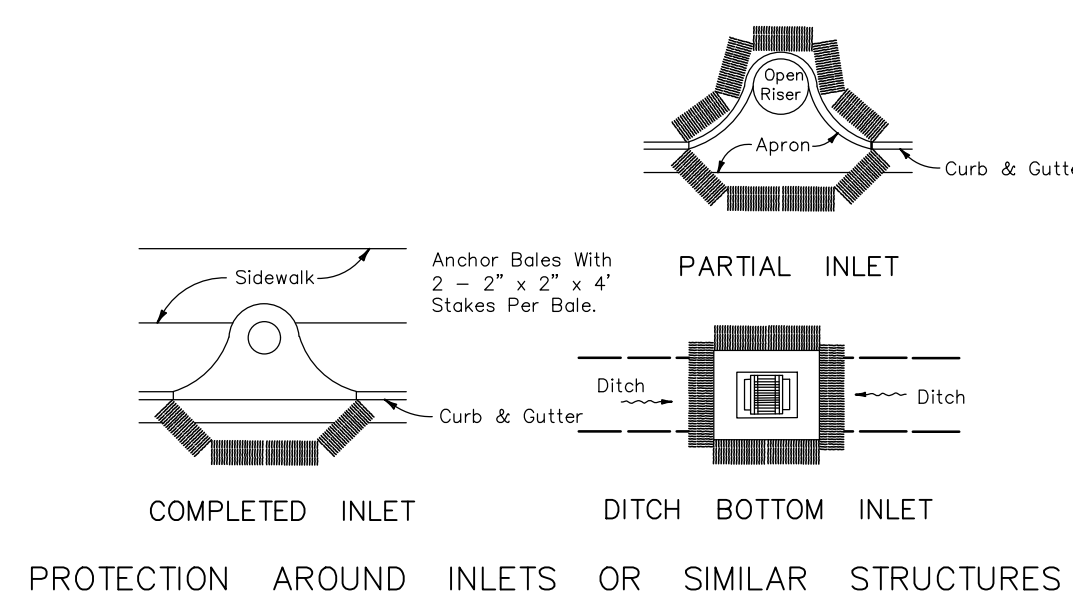
Type III Silt Fence Protection Around Ditch Bottom Inlets.



Type III Silt Fence

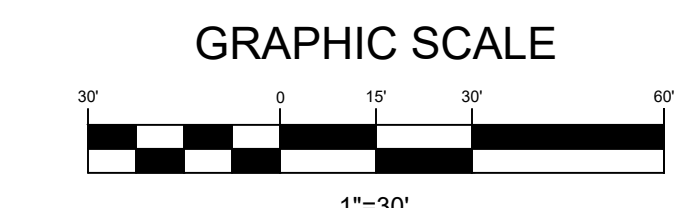
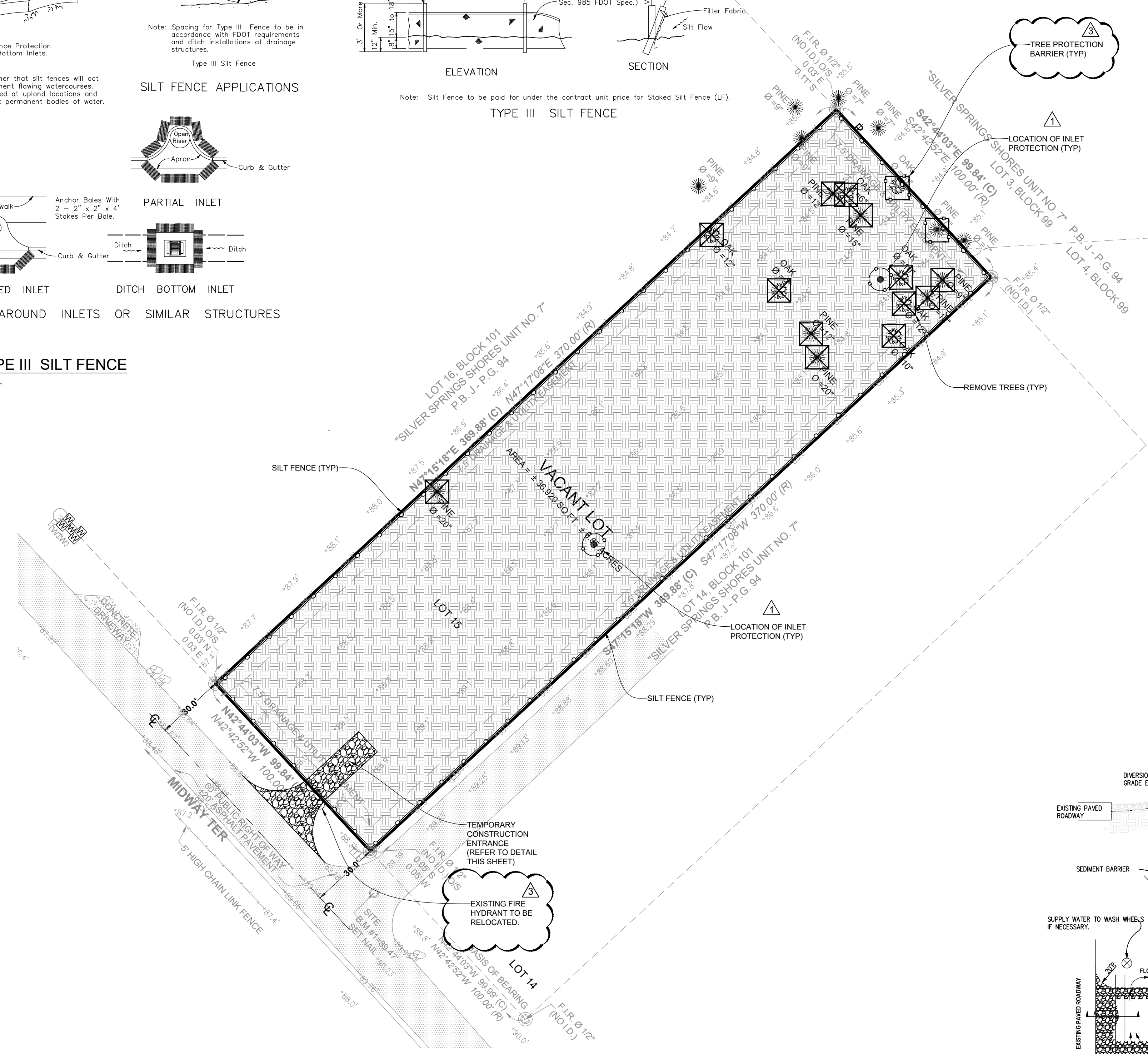


TYPE III SILT FENCE



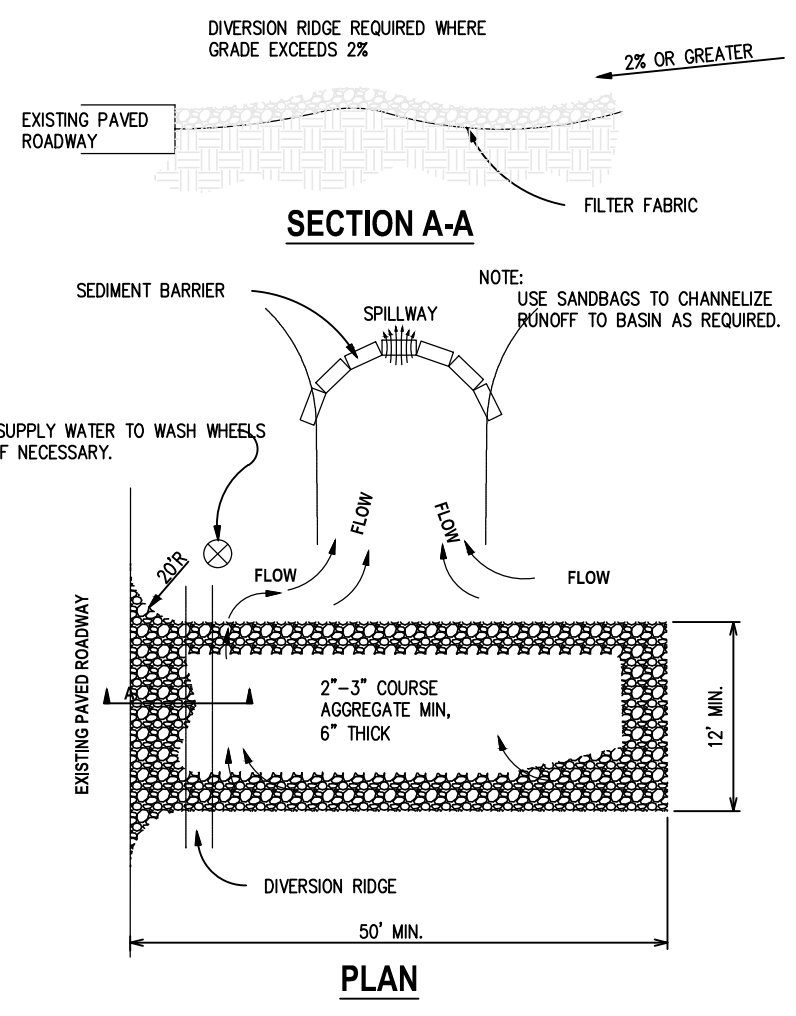
TYPE III SILT FENCE  
N.T.S.

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



**LEGEND**

- EXISTING IMPERVIOUS AREA TO BE REMOVED
- PERVIOUS AREA TO BE DISTURBED DURING CONSTRUCTION
- SILT FENCE
- TREE TO BE REMOVED (SEE LANDSCAPE PLAN)
- TREE PROTECTION BARRIER (SEE LANDSCAPE PLAN)
- INLET PROTECTION



**NOTE(S):**

- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- ALL EROSION CONTROL MATERIALS, CONSTRUCTION & MAINTENANCE TO BE PER APPLICABLE SECTIONS OF FDOT STANDARD SPECIFICATION #104.
- USE SANDBAGS, SYNTHETIC BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN REQUIRED.
- COURSE AGGREGATE & FILTER FABRIC TO BE PER SECTIONS OF FDOT STANDARD SPECIFICATION #901 & #985 RESPECTIVELY.

**TEMPORARY GRAVEL CONSTRUCTION ENTRANCE DETAIL**  
N.T.S.

**DEMOLITION NOTES:**

- THE LOCATIONS, ELEVATIONS, & THE DIMENSIONS OF EXISTING UTILITIES & OTHER FEATURES ARE SHOWN ON THE PLANS ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, & THE DIMENSIONS OF ALL EXISTING UTILITIES & OTHER FEATURES AFFECTING THE WORK PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES WHICH MAY AFFECT THE PROPOSED WORK.
- THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION AND PREPARATION OF SHOP DRAWINGS.
- THE CONTRACTOR SHALL, PRIOR TO INITIATION OF ANY SITE CLEARING OR OTHER CONSTRUCTION ACTIVITIES, INSTALL SILT SCREENS DOWNSTREAM OF ALL AREAS WHICH HAVE POTENTIAL OF EROSION OR SEDIMENT TRANSPORT OFF-SITE OR TO WATER BODIES. THE CONTRACTOR SHALL IMPLEMENT OTHER STRUCTURAL EROSION CONTROL MEASURES IF REQUIRED TO PREVENT SEDIMENT TRANSPORT TO OFF-SITE AREAS & WATER BODIES.
- ALL TRASH, DEBRIS, & OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE & FEDERAL REGULATIONS.
- ANY EXCAVATED TRENCHES ARE TO BE BACKFILLED WITH CLEAN SAND COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557). ENGINEERING FILL SHALL BE PLACED AT A MOISTURE CONTENT NEAR OPTIMUM IN UNIFORM LIFTS NOT EXCEEDING 12" IN LOOSE THICKNESS. REFER TO GEOTECHNICAL REPORT OR BUILDING PLANS FOR SPECIFIC COMPACTION REQUIREMENTS UNDER BUILDING & OTHER STRUCTURES.
- THE CONTRACTOR SHALL CALL 1-800-432-4770 FOR SUNSHINE LOCATES BEFORE EXCAVATION. F.S. 556.101 THROUGH 111.
- WHEN ANY ROOTS OF EXISTING TREES ARE ENCOUNTERED DURING LAND CLEARING AND/OR GRADING OF THE SITE, THE ROOTS MUST BE CUT OFF EVENLY WITH CLEAN, SHARP PRUNING TOOLS. THE CONTRACTOR/DEVELOPER SHALL MINIMIZE THE DAMAGE TO EXISTING TREE ROOT SYSTEMS.

**SPRUCE CREEK**  
Civil Engineering, Inc.  
1982 State Road 44  
Suite 360  
New Smyrna Beach, Florida 32168  
(407) 325-3579

DEMOLITION PLAN  
FOR  
**MIDWAY PRESERVE**  
MARION COUNTY  
FLORIDA

OWNER(S):  
**LUXTRO LLC**  
2100 PONCE DELEON BLVD., SUITE 860  
CORAL GABLES, FL 33134  
CYNTHIA TORO

ENGINEER IN CHARGE:  
DAVID F. GLUNT, PE #59459  
CERTIFICATE OF AUTHORIZATION NO. 33151

DATE	REVISIONS
2/22/23	PER COUNTY
02/25/24	PER COUNTY

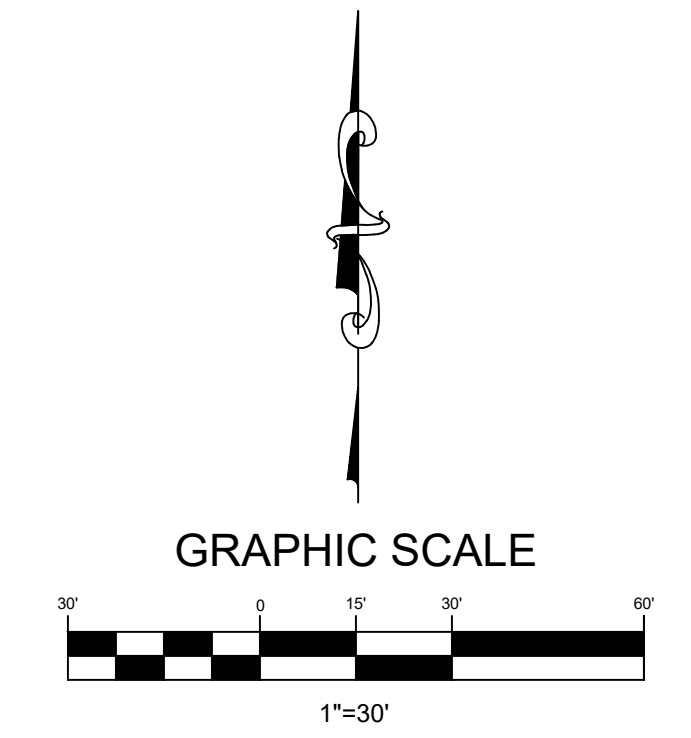
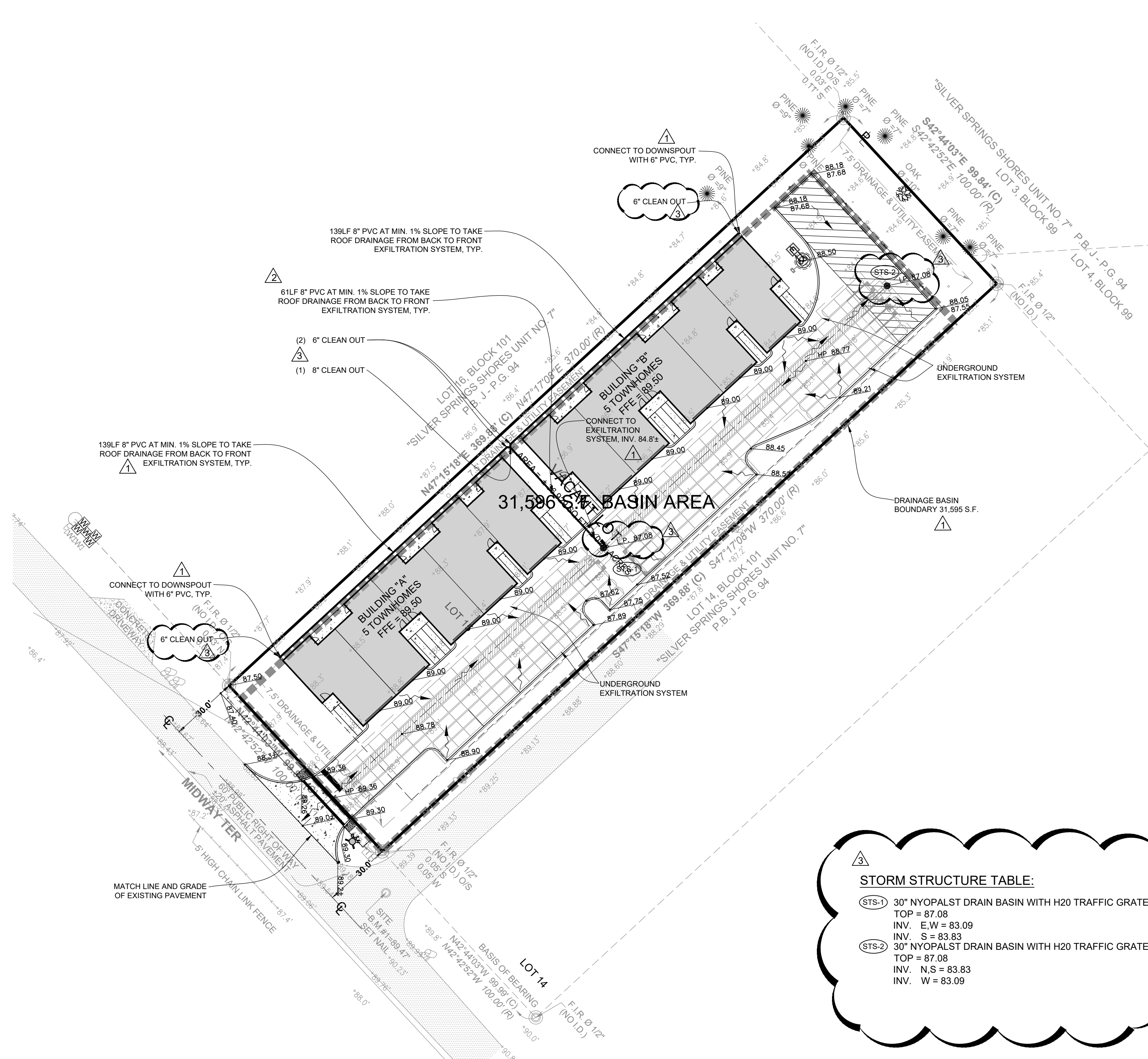
JOB # 2024-007  
DATE: 03/15/24  
SCALE: AS SHOWN  
DESIGNED BY: DEG  
DRAWN BY: DEG  
APPROVED BY: DEG

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**PAVING AND DRAINAGE NOTES**

1. THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO ASSURE HIMSELF OF EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED, OR FOR REMOVAL AND DISPOSAL OF EXCESS MATERIALS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY TESTING TO ASSURE THAT THE PROPER COMPACTION HAS BEEN ACHIEVED ON THE SUBGRADE, BASE, AND ALL OTHER PERTINENT AREAS THAT HAVE BEEN COMPLETED. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH TESTING AND SHALL PROVIDE THE OWNER AND THE ENGINEER WITH COPIES OF THE CERTIFICATION OF COMPACTION FROM THE TESTING COMPANY.
3. PRIOR TO BID PREPARATION, THE CONTRACTOR MUST BECOME FAMILIAR WITH THE OVERALL SITE CONDITIONS AND PERFORM ADDITIONAL INVESTIGATIONS AS DETERMINED NECESSARY TO UNDERSTAND THE LIMIT AND DEPTH OF EXPECTED ORGANIC SILT PEAT AREAS, ADEQUACY OF EXISTING MATERIALS AS FILL, DEWATERING REQUIREMENTS, CLEAN FILL REQUIRED FROM OFF-SITE AND MATERIALS TO BE DISPOSED OF OFF-SITE, ALL OF WHICH WILL AFFECT HIS PRICING. ANY DELAY, INCONVENIENCE, OR EXPENSE CAUSED TO THE CONTRACTOR DUE TO INADEQUATE INVESTIGATION OF EXISTING CONDITIONS SHALL BE INCIDENTAL TO THE CONTRACT, AND NO EXTRA COMPENSATION WILL BE ALLOWED. THE MATERIALS ANTICIPATED TO BE ENCOUNTERED DURING CONSTRUCTION MAY REQUIRE DRYING PRIOR TO USE AS BACKFILL, AND THE CONTRACTOR MAY HAVE TO IMPORT MATERIALS, AT NO EXTRA COST, FROM OFF-SITE TO MEET THE REQUIREMENTS FOR COMPACTION AND PROPER FILL.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING SITE SOIL CONDITIONS PRIOR TO NOTICE TO PROCEED TO DETERMINE IF ANY OFF-SITE MATERIALS WILL NEED TO BE IMPORTED TO ACHIEVE THE GRADES SPECIFIED ON THE PLANS.
5. ALL FILL MATERIALS SHALL BE FREE OF MUCK, STUMPS, ROOTS, BRUSH, VEGETATIVE MATTER, RUBBISH, OR OTHER UNSUITABLE MATTER.
6. ALL MATERIALS EXCAVATED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STOCKPILED AT ON-SITE LOCATIONS AS SPECIFIED BY THE OWNER. MATERIALS SHALL BE STOCKPILED SEPARATELY AS TO USEABLE (NONORGANIC) FILL STOCKPILES AND ORGANIC (MUCK) STOCKPILES IF MUCK IS ENCOUNTERED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNSUITABLE FILL MATERIALS FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF EXCESS MATERIALS.
7. FILL MATERIALS PLACED UNDER ROADWAYS SHALL BE COMPACTED TO AT LEAST 98% MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. ALL OTHER AREAS ARE TO BE COMPACTED TO AT LEAST 95% MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-99. FILL MATERIALS SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 12" LIFTS. REFER TO SOILS REPORT FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND THE OWNER WITH ALL (PASSING AND FAILING) TESTING RESULTS. RESULTS SHALL BE PROVIDED ON A TIMELY AND REGULAR BASIS PRIOR TO CONTRACTOR'S PAY REQUEST SUBMITTAL.
8. GRADING SHOWN ON THESE PLANS IS PROVIDED TO THE CONTRACTOR TO EXPRESS THE GENERAL GRADING INTENT OF THE PROJECT. THE CONTRACTOR SHALL GRADE THE ENTIRE SITE TO PROVIDE POSITIVE DRAINAGE IN ALL AREAS. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN CONTOURS OR SPOT ELEVATIONS AS SHOWN ON THE PLANS TO ACCOMPLISH THE GRADING INTENT. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING HAS BEEN COMPLETED. CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER A MINIMUM OF FORTY-EIGHT(48) HOURS PRIOR TO DEMOBILIZATION OF GRADING EQUIPMENT TO DETERMINE THAT THE GRADING INTENT HAS BEEN ACHIEVED.
9. ALL OTHER RELATED ITEMS REQUIRED FOR THE CONSTRUCTION OF THE STORM SEWER (OUTFALL PROTECTION, POLLUTION CONTROL, ETC.) ARE TO BE IN ACCORDANCE WITH DETAILS SHOWN ON THE CONSTRUCTION PLANS, FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, AND FDOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION).
10. ALL PIPE CALL OUTS ARE MEASURED CENTERLINE TO CENTERLINE FOR MANHOLES AND INLETS.
11. ALL ON-SITE AREAS DISTURBED BY THE CONSTRUCTION SHALL BE STABILIZED WITH A SEED AND MULCH MIXTURE UNLESS OTHERWISE NOTED OR AS PER THE LANDSCAPE PLAN.
12. ALL OFF-SITE AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED WITH BAHIA.
13. NO HARD WOOD TREES MAY BE PLANTED OVER OR WITHIN 5' OF UTILITY LINES OR STORM PIPES. ONLY SOD OR SOFT WOOD SHRUBS MAY BE PLANTED OVER UTILITY LINES.
14. EXISTING DRAINAGE PATTERNS SHALL NOT BE ALTERED.



**LEGEND**

- PERVIOUS PAVERS
- STANDARD PAVERS
- PROPOSED BUILDING
- NEW CONCRETE WALKS, SLABS & PAVEMENT
- NEW ASPHALT
- EXISTING CONCRETE WALKS, SLABS & PAVEMENT
- EXISTING ASPHALT
- EXISTING BUILDING
- FLOW ARROWS
- SPOT ELEVATIONS
- STRUCTURE NO.
- DRAINAGE STRUCTURE
- DRAINAGE PIPE
- EXFILTRATION SYSTEM (STORM)

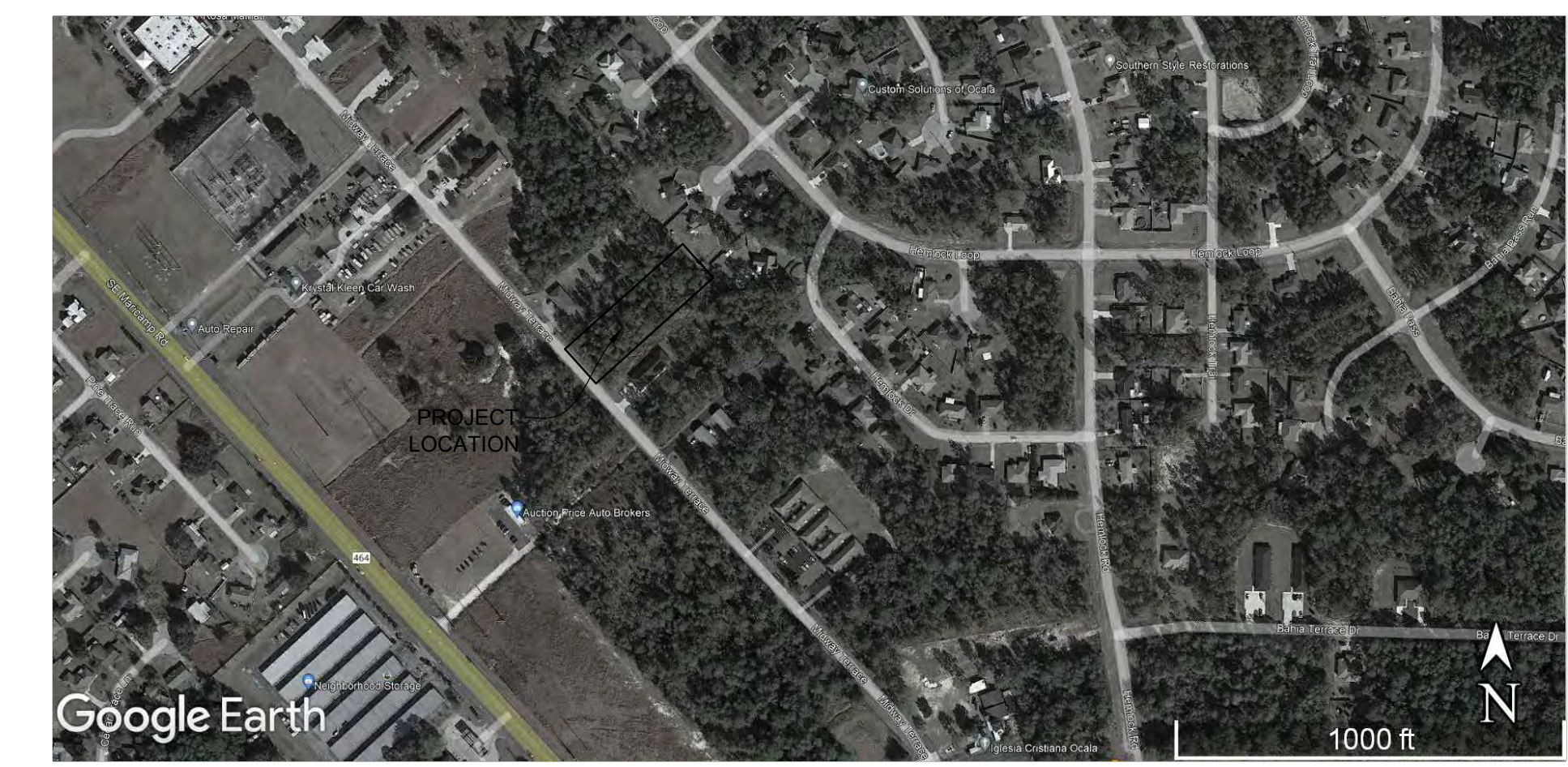
**STORM STRUCTURE TABLE:**

(STS-1)	30" NYOPALST DRAIN BASIN WITH H2O TRAFFIC GRATE
	TOP = 87.08
	INV. E.W = 83.09
	INV. S = 83.83
(STS-2)	30" NYOPALST DRAIN BASIN WITH H2O TRAFFIC GRATE
	TOP = 87.08
	INV. N.S = 83.83
	INV. W = 83.09

**DRAINAGE NARRATIVE:**  
 THE PROPOSED RESIDENTIAL MULTIFAMILY PROJECT PROPOSES TO INSTALL AN UNDERGROUND EXFILTRATION SYSTEM UNDER THE PERVIOUS PAVERS TO CONTAIN THE RUNOFF FROM THE 100-YEAR STORM EVENT. SEE STORM WATER REPORT FOR RUNOFF, STAGE-STORAGE, AND DRAWDOWN CALCULATIONS.

**ROOF DRAIN CALCULATIONS:**  
 MAXIMUM ROOF RUNOFF, Q = CIA = 0.82 CFS, WHERE:  
 RUNOFF COEFFICIENT, C = 0.95  
 INTENSITY, I = 7.4 IPH  
 ROOF DRAINAGE AREA, A = (5,088 / 43,560) = 0.117  
 AT 1% SLOPE, 8" PVC PROVIDES 1.49 CFS WHEN FLOWING FULL.  
 THIS IS ADEQUATE TO PROVIDE FOR THE ROOF DRAIN RUNOFF.

**DRA LOCATION:**



**SPRUCE CREEK**  
 Civil Engineering, Inc.  
 1982 State Road 44  
 Suite 360  
 New Smyrna Beach, Florida 32168  
 (407) 323-3579

GRADING PLAN  
 FOR  
**MIDWAY PRESERVE**  
 MARION COUNTY FLORIDA

OWNER(S):  
 LUXTRO LLC  
 2100 PONCE DELEON BLVD., SUITE 860  
 CORAL GABLES, FL 33134  
 CYNTHIA TORO

ENGINEER IN CHARGE:  
 DAVID F. GLUNT, PE #59459  
 CERTIFICATE OF AUTHORIZATION NO. 33151

NO.	DATE	REVISIONS
1	2/22/23	PER COUNTY
2	12/22/23	PER COUNTY
3	1/22/24	PER COUNTY
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JOB # 2024-007  
 DATE: 03/15/24  
 SCALE: AS SHOWN  
 DESIGNED BY: DEG  
 DRAWN BY: DEG  
 APPROVED BY: DEG

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**UTILITY SEPARATION NOTE:**

**HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS**  
 UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER. UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER. NEW UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE (3) FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE SEWER. UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN (10) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."

**VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS AND RECLAIMED WATER PIPELINES**  
 UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX (6) INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE. UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.

**SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES**  
 NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE. EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE. WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THIS REQUIREMENT (I.E., WHERE THERE IS A CONFLICT WITH THE WATER MAIN AND A STORM SEWER, AND WHERE ALTERNATIVE ROUTING OF THE WATER MAIN OR THE STORM SEWER IS NOT TECHNICALLY FEASIBLE OR IS NOT ECONOMICALLY SENSIBLE), THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THIS REQUIREMENT (I.E., THE DEPARTMENT SHALL ALLOW CONSTRUCTION OF CONFLICT MANHOLES), BUT SUPPLIERS OF WATER OR PERSONS PROPOSING TO CONSTRUCT CONFLICT MANHOLES MUST FIRST OBTAIN A SPECIFIC PERMIT FROM THE DEPARTMENT IN ACCORDANCE WITH PART V OF CHAPTER 62-555 AND MUST PROVIDE IN THE PRELIMINARY DESIGN REPORT OR DRAWINGS, SPECIFICATIONS, AND DESIGN DATA ACCOMPANYING THEIR PERMIT APPLICATION THE FOLLOWING INFORMATION:

1. TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH CONFLICT MANHOLE.
2. A STATEMENT DENYING THE PARTY RESPONSIBLE FOR MAINTAINING EACH CONFLICT MANHOLE.
3. ASSURANCE OF COMPLIANCE WITH THE DESIGN AND CONSTRUCTION REQUIREMENTS IN SUB-PARAGRAPHS A. THROUGH D. BELOW.
  - A. EACH WATER MAIN PASSING THROUGH A CONFLICT MANHOLE SHALL HAVE A FLEXIBLE, WATERTIGHT JOINT ON EACH SIDE OF THE MANHOLE TO ACCOMMODATE DIFFERENTIAL SETTLING BETWEEN THE MAIN AND THE MANHOLE.
  - B. WITHIN EACH CONFLICT MANHOLE, THE WATER MAIN PASSING THROUGH THE MANHOLE SHALL BE INSTALLED IN A WATERTIGHT CASTING PIPE HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE).
  - C. EACH CONFLICT MANHOLE SHALL HAVE AN ACCESS OPENING, AND SHALL BE SIZED, TO ALLOW FOR EASY CLEANING OF THE MANHOLE.
  - D. GRATINGS SHALL BE INSTALLED AT ALL STORM SEWER INLETS UPSTREAM OF EACH CONFLICT MANHOLE TO PREVENT LARGE OBJECTS FROM ENTERING THE MANHOLE.

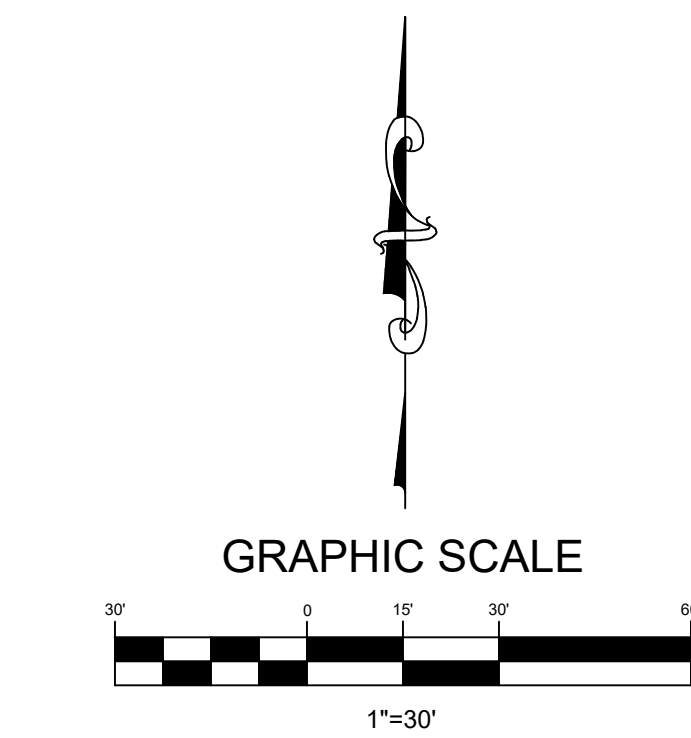
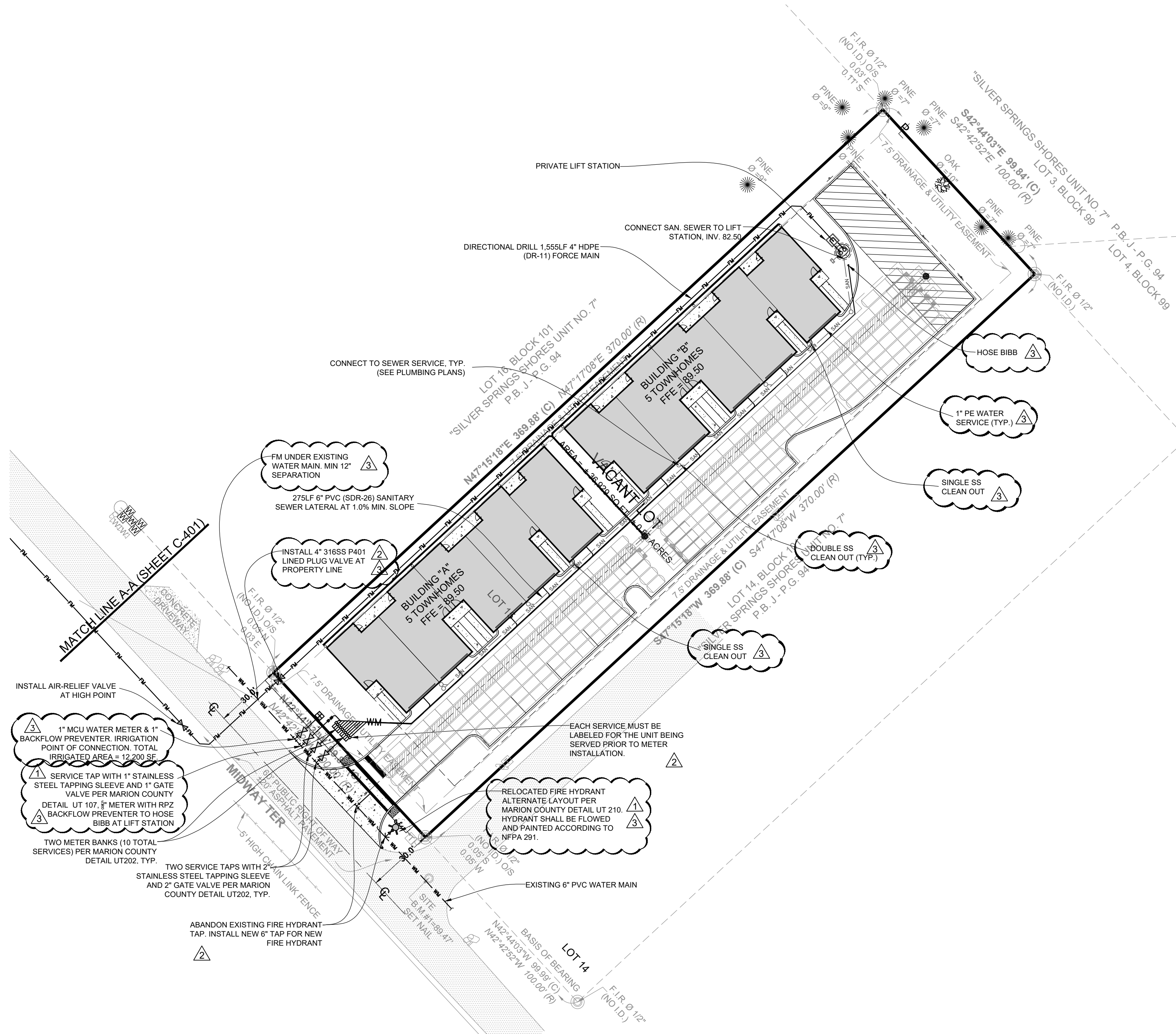
**SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS**  
 FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST (3) THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER, AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER, AND AT LEAST TEN (10) FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."

**EXCEPTIONS:**  
 WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THE REQUIREMENTS THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THESE REQUIREMENTS IF SUPPLIERS OF WATER OR CONSTRUCTION PERMIT APPLICANTS PROVIDE TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH EXCEPTION AND PROVIDE ALTERNATIVE CONSTRUCTION FEATURES THAT AFFORD A SIMILAR LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION. ACCEPTABLE ALTERNATIVE CONSTRUCTION FEATURES INCLUDE THE FOLLOWING:

- A) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN OTHER PIPELINES:
  1. USE OF PRESSURE-RATED PIPE CONFORMING TO THE AMERICAN WATER WORKS ASSOCIATION STANDARDS INCORPORATED INTO RULE 62-555.330, F.A.C., FOR THE OTHER PIPELINE IF IT IS A GRAVITY- OR VACUUM-TYPE PIPELINE.
  2. USE OF WELDED, FUSED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE, OR
  3. USE OF WATERTIGHT CASTING PIPE OR CONCRETE ENCASUREMENT AT LEAST FOUR (4) INCHES THICK FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE.
- B) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THREE FEET HORIZONTALLY FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND IS BEING LAID LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE:
  1. USE OF PIPE, OR CASTING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASUREMENT AT LEAST FOUR INCHES THICK FOR THE WATER MAIN; AND
  2. USE OF PIPE, OR CASTING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASUREMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

**GENERAL NOTES:**

1. MCU PERSONNEL ARE TO INSPECT ANY WORK PERFORMED ON OR AROUND EXISTING MCU INFRASTRUCTURE. A PRE-CONSTRUCTION MEETING IS REQUIRED TO BE HELD A MINIMUM OF 48 HOURS PRIOR TO START OF ANY CONSTRUCTION. IF THE PRE-CONSTRUCTION MEETING IS NOT COMPLETED, ANY WORK MAY BE HALTED, TO SCHEDULE. CONTACT MARK RUDOWSKIE AT 352-843-0476 OR MARK.RUDOWSKIE@MARIONFL.ORG.
2. AS-BUILT WILL BE REQUIRED FOR TAPPING AND SERVICE CONNECTION TO MCU MAIN.
3. METERS AND CURB STOPS WILL BE REQUIRED TO HAVE IDENTIFICATION TO SHOW WHICH SERVICE GOES TO WHICH TOWNHOME.



**LEGEND**

- PERVIOUS PAVERS
- STANDARD PAVERS
- PROPOSED BUILDING
- NEW CONCRETE WALKS, SLABS & PAVEMENT
- NEW ASPHALT
- EXISTING CONCRETE WALKS, SLABS & PAVEMENT
- EXISTING ASPHALT
- EXISTING BUILDING
- WATER DOUBLE CONNECTION
- WATER SINGLE CONNECTION
- SANITARY LATERAL SINGLE
- SANITARY LATERAL DOUBLE
- WATER BLOWOFF
- VALVE
- HYDRANT
- SANITARY MANHOLE
- LIFT STATION
- SANITARY GRAVITY MAIN / SERVICE
- SANITARY FORCE MAIN
- WATER MAIN / SERVICE
- STRUCTURE NO.
- EXFILTRATION SYSTEM (STORM)

**SPRUCE CREEK**  
 Civil Engineering, Inc.  
 1982 State Road 44  
 Suite 360  
 New Smyrna Beach, Florida 32168  
 (407) 325-3579

UTILITY PLAN FOR  
**MIDWAY PRESERVE**  
 MARION COUNTY FLORIDA

OWNER(S):  
 LUXTRO LLC  
 2100 PONCE DELEON BLVD., SUITE 860  
 CORAL GABLES, FL 33134  
 CYNTHIA TORO

ENGINEER IN CHARGE:  
 DAVID F. GLUNT, PE #59459  
 CERTIFICATE OF AUTHORIZATION NO. 33151

NO.	DATE	REVISIONS
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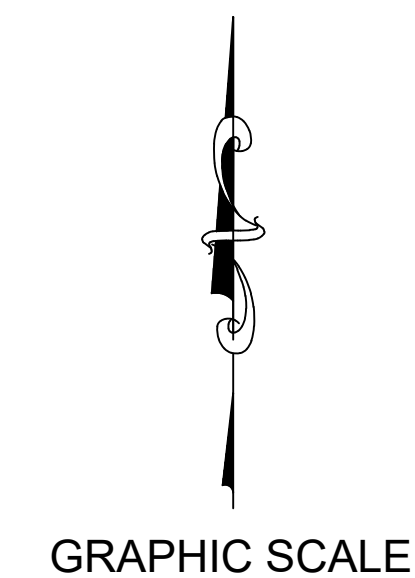
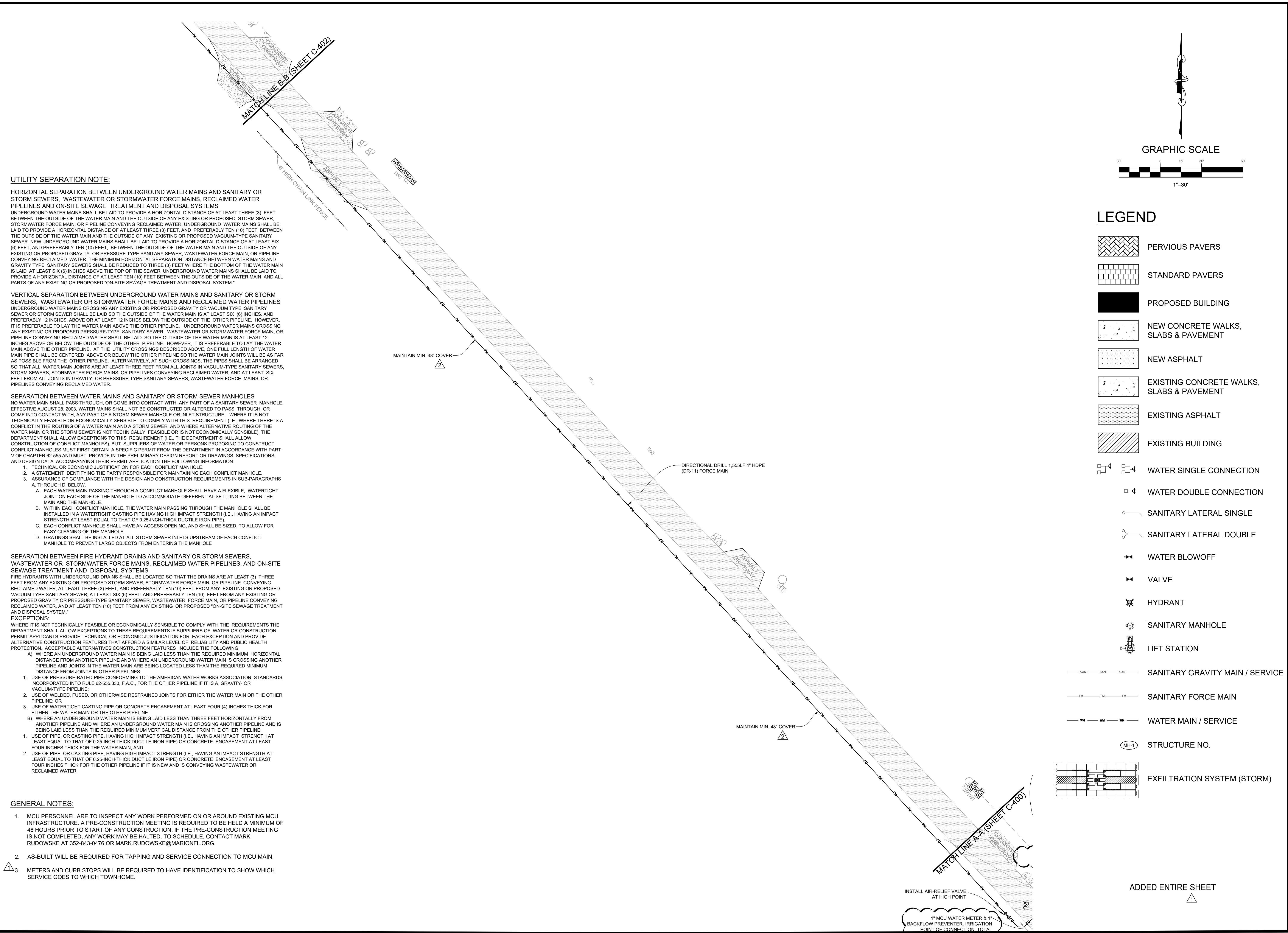
JOB # 2024-007  
 DATE: 03/15/24  
 SCALE: AS SHOWN  
 DESIGNED BY: DEG  
 DRAWN BY: DEG  
 APPROVED BY: DEG

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APPROVED BY:	DEG



**UTILITY SEPARATION NOTE:**

**HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS**  
UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER. UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER. NEW UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE (3) FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE SEWER. UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN (10) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."

**VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS AND RECLAIMED WATER PIPELINES**  
UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX (6) INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE. UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.

**SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES**  
NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE. EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE. WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THIS REQUIREMENT (I.E., WHERE THERE IS A CONFLICT IN THE ROUTING OF A WATER MAIN AND A STORM SEWER AND WHERE ALTERNATIVE ROUTING OF THE WATER MAIN OR THE STORM SEWER IS NOT TECHNICALLY FEASIBLE OR IS NOT ECONOMICALLY SENSIBLE), THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THIS REQUIREMENT (I.E., THE DEPARTMENT SHALL ALLOW CONSTRUCTION OF CONFLICT MANHOLES), BUT SUPPLIERS OF WATER OR PERSONS PROPOSING TO CONSTRUCT CONFLICT MANHOLES MUST FIRST OBTAIN A SPECIFIC PERMIT FROM THE DEPARTMENT IN ACCORDANCE WITH PART V OF CHAPTER 62-555 AND MUST PROVIDE IN THE PRELIMINARY DESIGN REPORT OR DRAWINGS, SPECIFICATIONS, AND DESIGN DATA, ACCOMPANYING THEIR PERMIT APPLICATION THE FOLLOWING INFORMATION:

1. TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH CONFLICT MANHOLE.
2. A STATEMENT IDENTIFYING THE PARTY RESPONSIBLE FOR MAINTAINING EACH CONFLICT MANHOLE.
3. ASSURANCE OF COMPLIANCE WITH THE DESIGN AND CONSTRUCTION REQUIREMENTS IN SUB-PARAGRAPHS A THROUGH D, BELOW.
  - A. EACH WATER MAIN PASSING THROUGH A CONFLICT MANHOLE SHALL HAVE A FLEXIBLE, WATERTIGHT JOINT ON EACH SIDE OF THE MANHOLE TO ACCOMMODATE DIFFERENTIAL SETTLING BETWEEN THE MAIN AND THE MANHOLE.
  - B. WITHIN EACH CONFLICT MANHOLE, THE WATER MAIN PASSING THROUGH THE MANHOLE SHALL BE INSTALLED IN A WATERTIGHT CASTING PIPE HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE).
  - C. EACH CONFLICT MANHOLE SHALL HAVE AN ACCESS OPENING, AND SHALL BE SIZED, TO ALLOW FOR EASY CLEANING OF THE MANHOLE.
  - D. GRATINGS SHALL BE INSTALLED AT ALL STORM SEWER INLETS UPSTREAM OF EACH CONFLICT MANHOLE TO PREVENT LARGE OBJECTS FROM ENTERING THE MANHOLE.

**SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS**  
FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST (3) THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER, AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET FROM ANY EXISTING OR PROPOSED VACUUM TYPE SANITARY SEWER, AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER, AND AT LEAST TEN (10) FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."

**EXCEPTIONS:**  
WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THE REQUIREMENTS THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THESE REQUIREMENTS IF SUPPLIERS OF WATER OR CONSTRUCTION PERMIT APPLICANTS PROVIDE TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH EXCEPTION AND PROVIDE ALTERNATIVE CONSTRUCTION FEATURES THAT AFFORD A SIMILAR LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION. ACCEPTABLE ALTERNATIVES CONSTRUCTION FEATURES INCLUDE THE FOLLOWING:  
A) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN OTHER PIPELINES:  
1. USE OF PRESSURE-RATED PIPE CONFORMING TO THE AMERICAN WATER WORKS ASSOCIATION STANDARDS INCORPORATED INTO RULE 62-555.330, F.A.C., FOR THE OTHER PIPELINE IF IT IS A GRAVITY-OR VACUUM-TYPE PIPELINE.  
2. USE OF WELDED, FUSED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE, OR  
3. USE OF WATERTIGHT CASTING PIPE OR CONCRETE ENCASUREMENT AT LEAST FOUR (4) INCHES THICK FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE.  
B) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THREE FEET HORIZONTALLY FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND IS BEING LAID LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE:

1. USE OF PIPE, OR CASTING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASUREMENT AT LEAST FOUR INCHES THICK FOR THE WATER MAIN, AND
2. USE OF PIPE, OR CASTING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASUREMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

**GENERAL NOTES:**

1. MCU PERSONNEL ARE TO INSPECT ANY WORK PERFORMED ON OR AROUND EXISTING MCU INFRASTRUCTURE. A PRE-CONSTRUCTION MEETING IS REQUIRED TO BE HELD A MINIMUM OF 48 HOURS PRIOR TO START OF ANY CONSTRUCTION. IF THE PRE-CONSTRUCTION MEETING IS NOT COMPLETED, ANY WORK MAY BE HALTED. TO SCHEDULE, CONTACT MARK RUDOWSKE AT 352-843-0476 OR MARK.RUDOWSKE@MARIONFL.ORG.
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3. METERS AND CURB STOPS WILL BE REQUIRED TO HAVE IDENTIFICATION TO SHOW WHICH SERVICE GOES TO WHICH TOWNHOME.

**LEGEND**

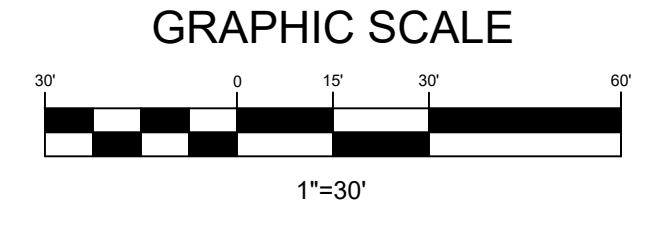
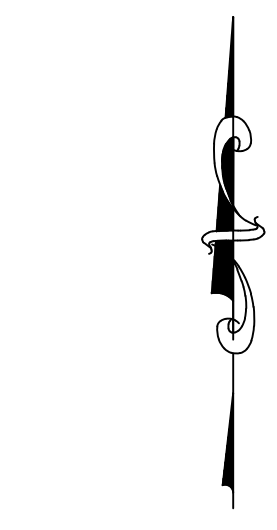
- PERVIOUS PAVERS
- STANDARD PAVERS
- PROPOSED BUILDING
- NEW CONCRETE WALKS, SLABS & PAVEMENT
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- EXISTING CONCRETE WALKS, SLABS & PAVEMENT
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- HYDRANT
- SANITARY MANHOLE
- LIFT STATION
- SANITARY GRAVITY MAIN / SERVICE
- SANITARY FORCE MAIN
- WATER MAIN / SERVICE
- STRUCTURE NO.
- EXFILTRATION SYSTEM (STORM)

ADDED ENTIRE SHEET



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JOB #	2024-007
DATE:	03/15/24
SCALE:	AS SHOWN
DESIGNED BY:	DEG
DRAWN BY:	DEG
APPROVED BY:	DEG



**UTILITY SEPARATION NOTE:**

**HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS**  
UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER. UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER. NEW UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE (3) FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE SEWER. UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN (10) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."

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UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX (6) INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE. UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.

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  - B. WITHIN EACH CONFLICT MANHOLE, THE WATER MAIN PASSING THROUGH THE MANHOLE SHALL BE INSTALLED IN A WATERTIGHT CASTING PIPE HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE).
  - C. EACH CONFLICT MANHOLE SHALL HAVE AN ACCESS OPENING, AND SHALL BE SIZED, TO ALLOW FOR EASY CLEANING OF THE MANHOLE.
  - D. GRATINGS SHALL BE INSTALLED AT ALL STORM SEWER INLETS UPSTREAM OF EACH CONFLICT MANHOLE TO PREVENT LARGE OBJECTS FROM ENTERING THE MANHOLE.

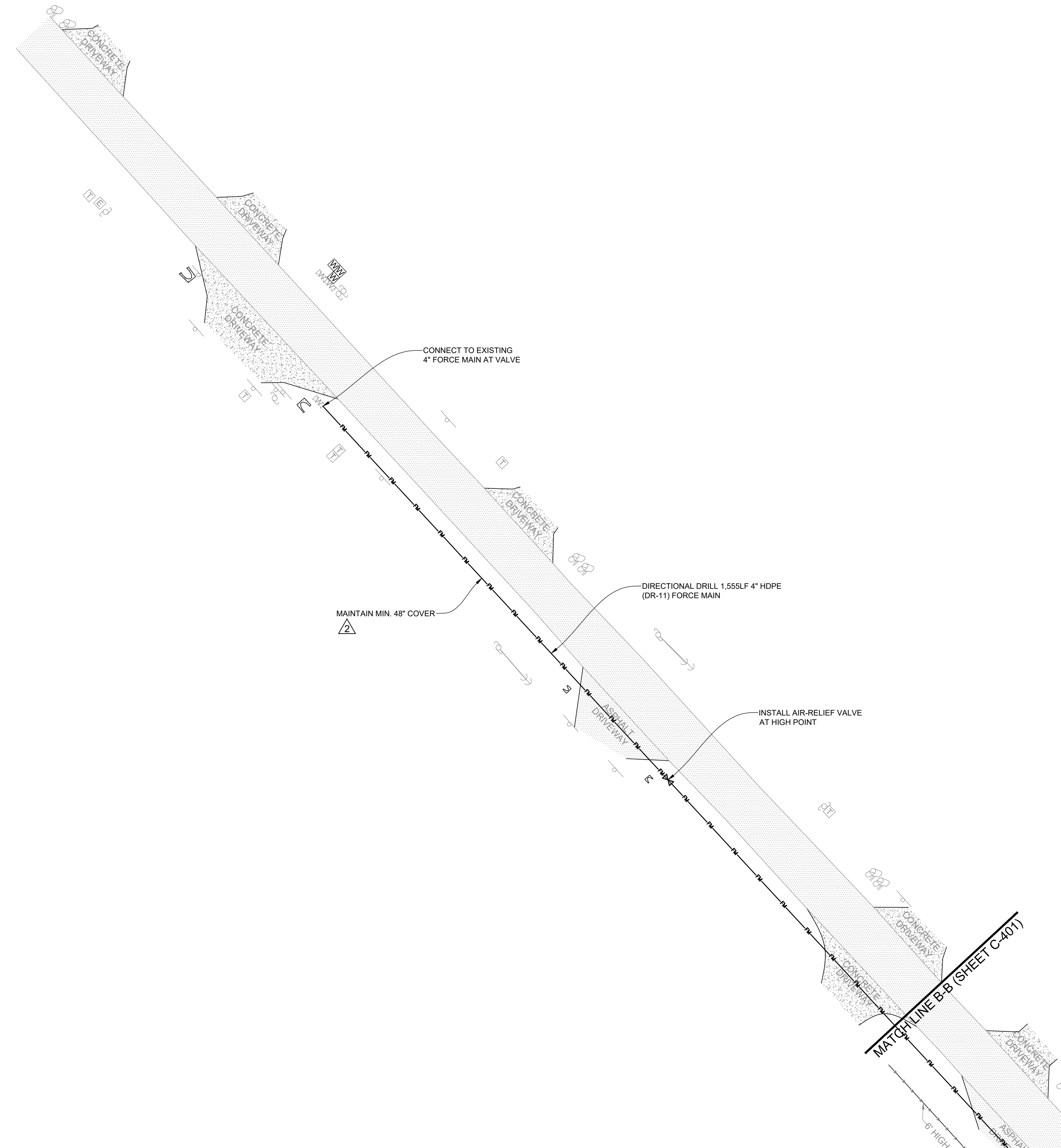
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  2. USE OF PIPE, OR CASTING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

**GENERAL NOTES:**

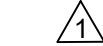
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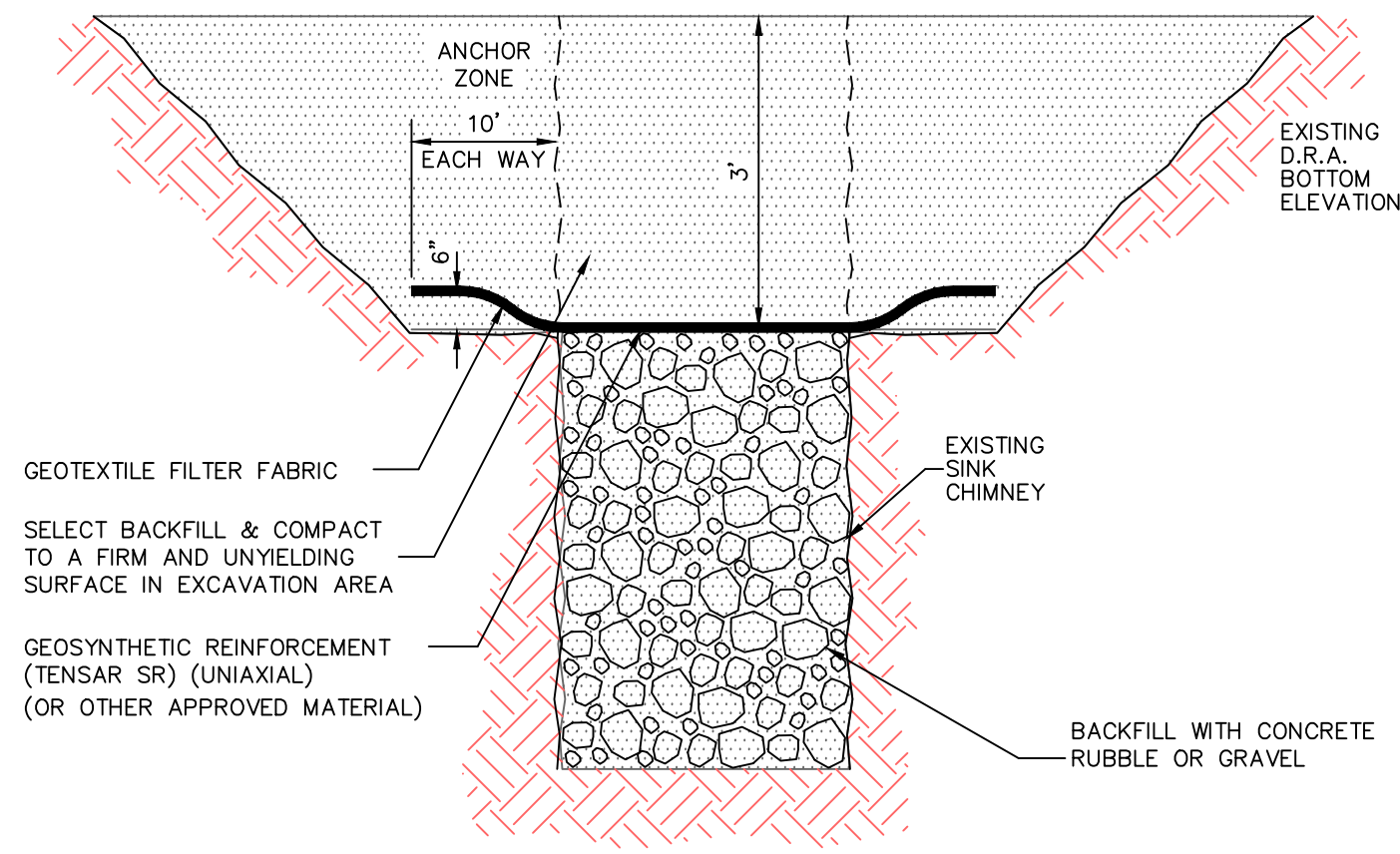
**LEGEND**

- PERVIOUS PAVERS
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- NEW CONCRETE WALKS, SLABS & PAVEMENT
- NEW ASPHALT
- EXISTING CONCRETE WALKS, SLABS & PAVEMENT
- EXISTING ASPHALT
- EXISTING BUILDING
- WATER SINGLE CONNECTION
- WATER DOUBLE CONNECTION
- SANITARY LATERAL SINGLE
- SANITARY LATERAL DOUBLE
- WATER BLOWOFF
- VALVE
- HYDRANT
- SANITARY MANHOLE
- LIFT STATION
- SANITARY GRAVITY MAIN / SERVICE
- SANITARY FORCE MAIN
- WATER MAIN / SERVICE
- STRUCTURE NO.
- EXFILTRATION SYSTEM (STORM)

ADDED ENTIRE SHEET



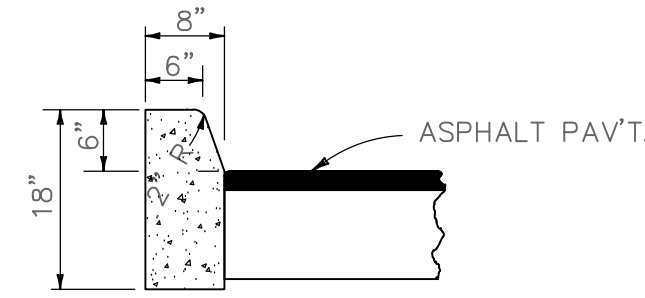




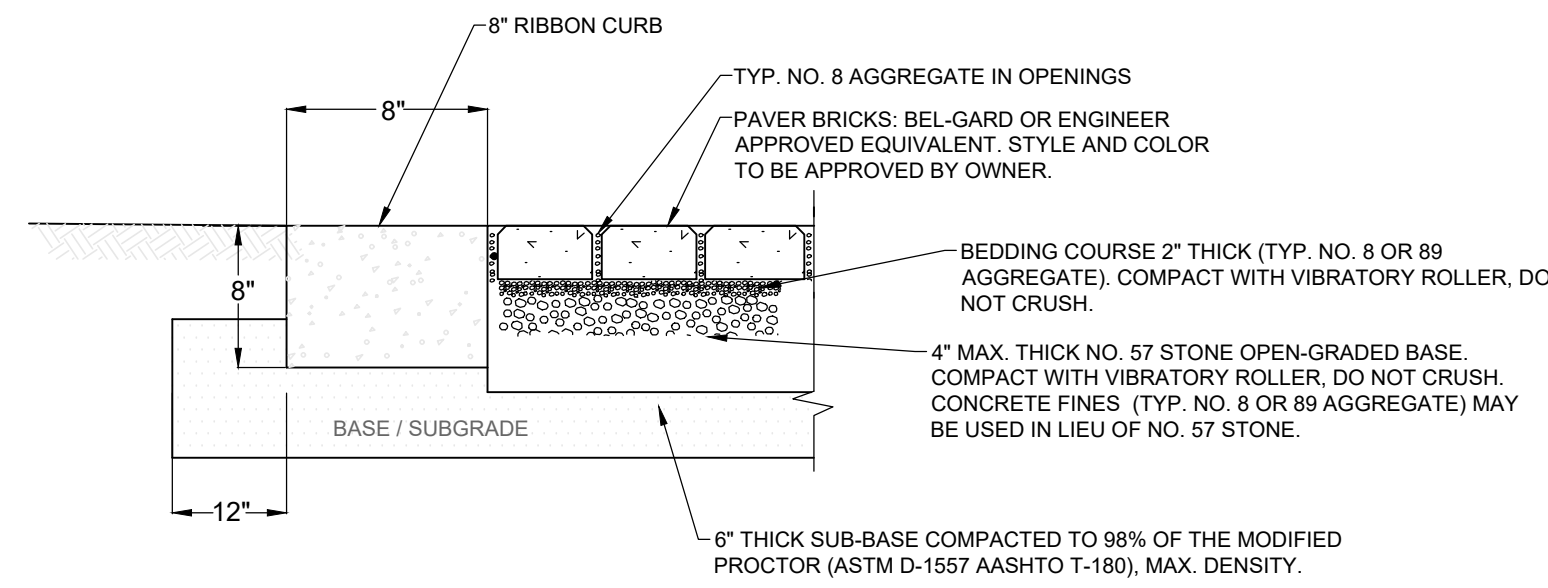
**NOTES:**

1. IF LIMESTONE IS ENCOUNTERED OR A SINKHOLE OR SOLUTION PIPE FORMS DURING CONSTRUCTION, CONSTRUCTION OF THE BASIN MUST BE HALTED AND THE PROJECT GEOTECHNICAL ENGINEER MUST BE NOTIFIED IMMEDIATELY.
2. THE SINKHOLE OR SOLUTION PIPE MUST BE REPAIRED WITHIN 10 DAYS OF THE DISCOVERY USING A DISTRICT APPROVED METHOD.
3. THE STORMWATER SYSTEM MUST BE INSPECTED MONTHLY FOR THE OCCURANCE OF SINKHOLES OR SOLUTION PIPES.

**TYPICAL SINK CHIMNEY REPAIR DETAIL**  
N.T.S.

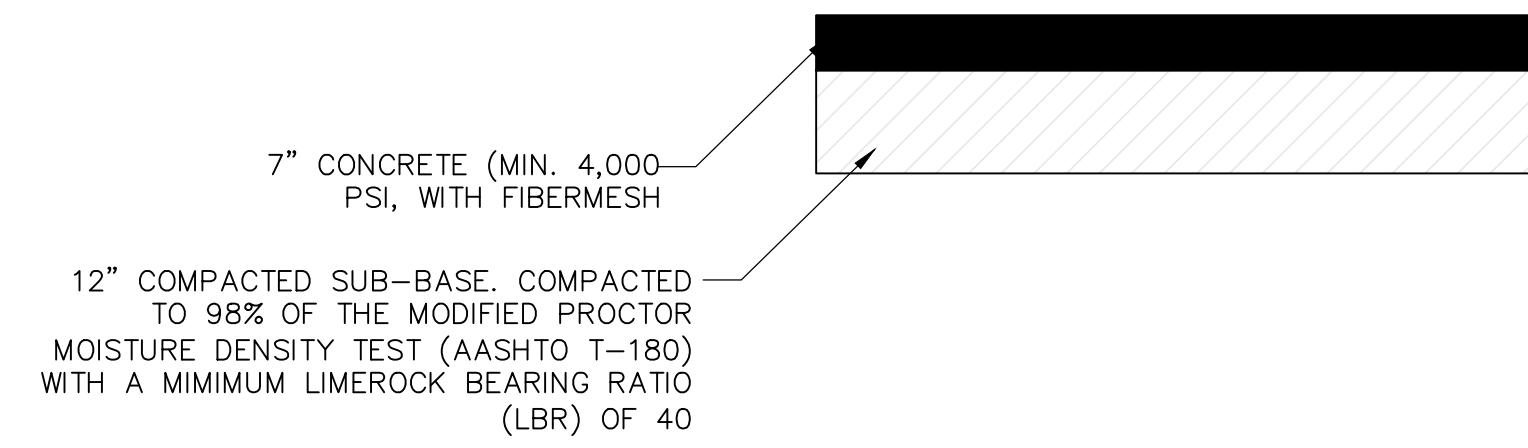


**TYPE D CONCRETE CURB**  
N.T.S.



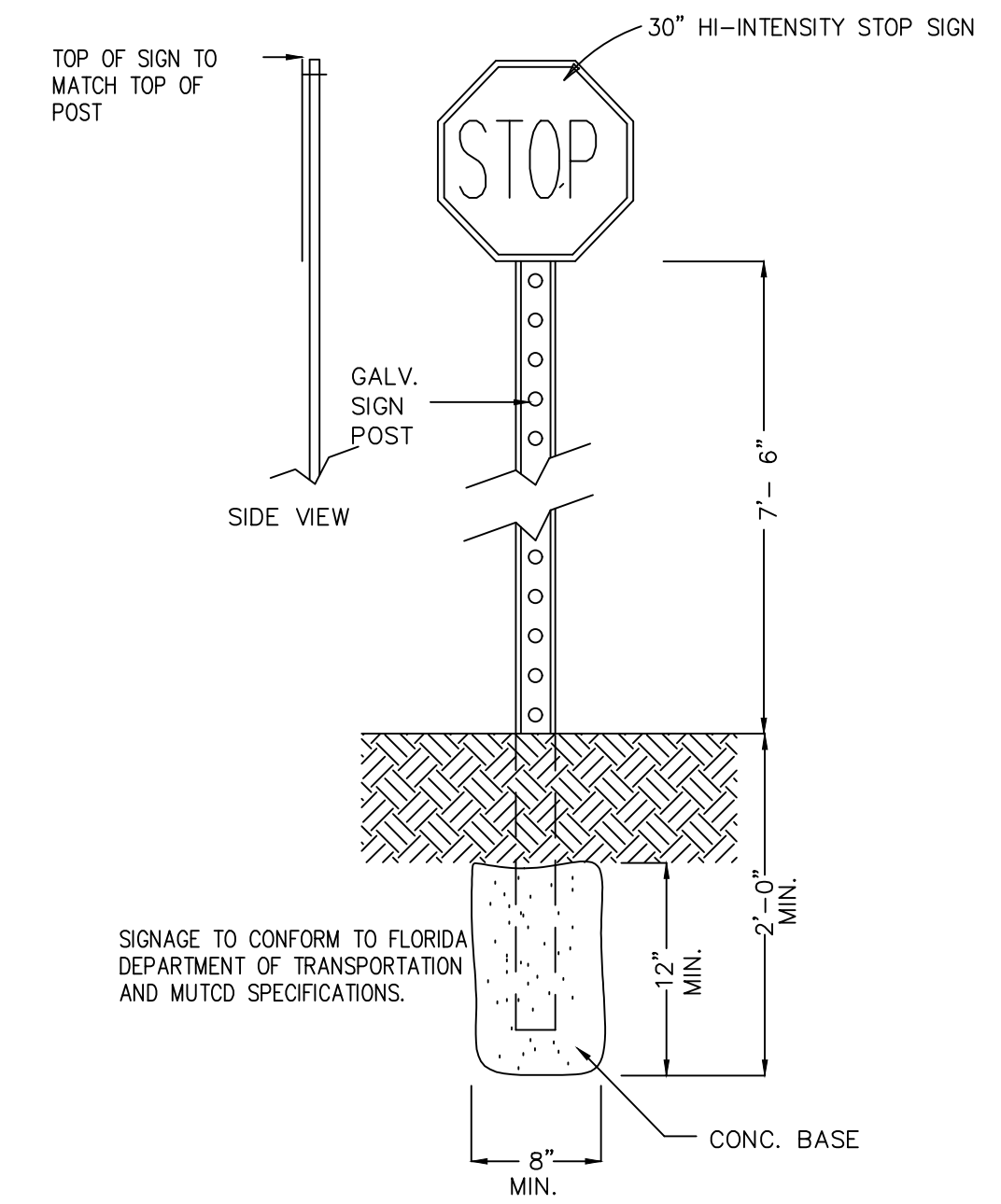
**PAVER DRIVEWAY AND PARKING SECTION**  
N.T.S.

NOTE: THE USE OF LIMESTONE AS AGGREGATE FOR PERVIOUS PAVERS IS UNACCEPTABLE DUE TO ITS COMPACTION AND DEGRADATION OVER TIME.

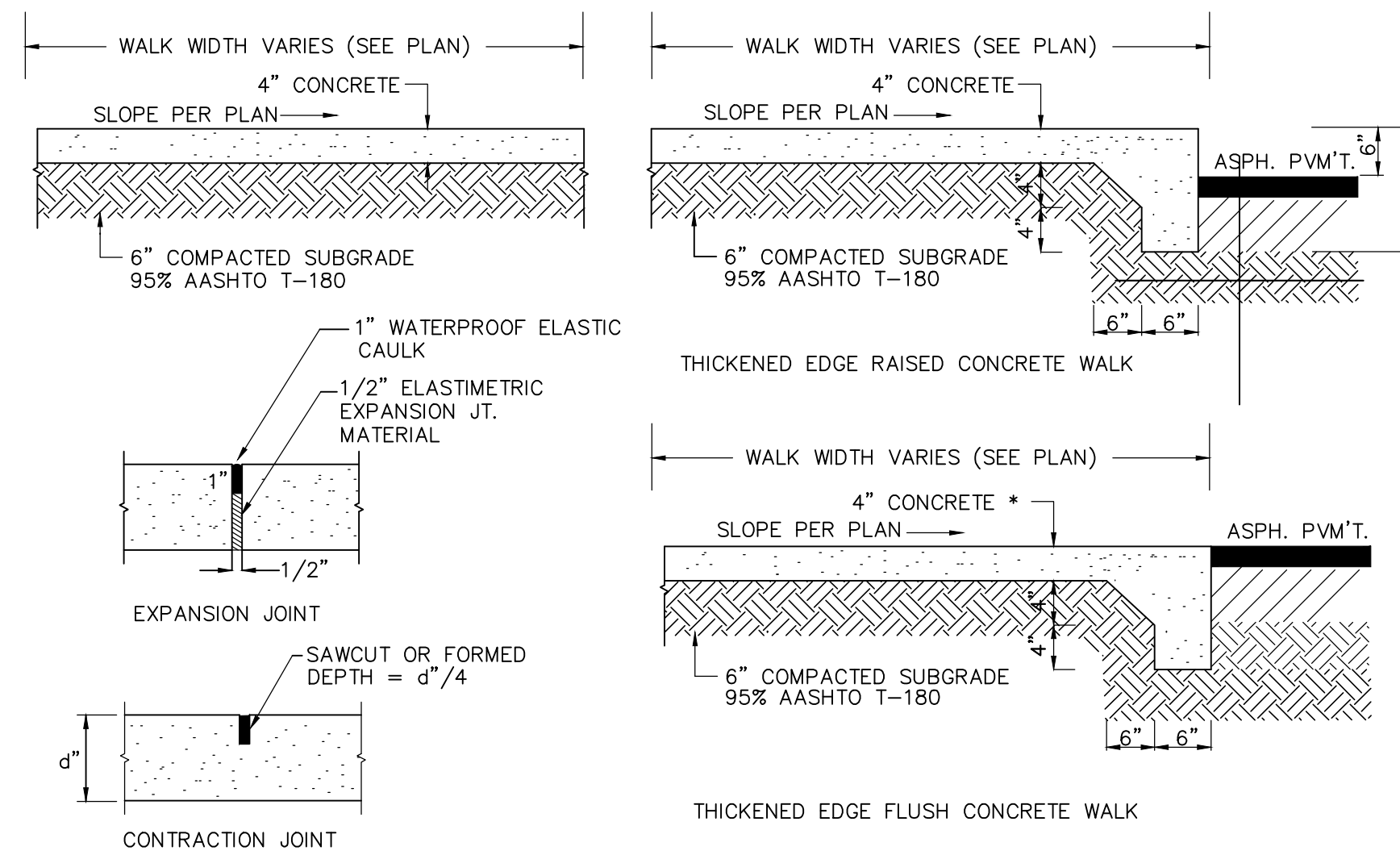


**CONCRETE PAVEMENT DETAIL**  
N.T.S.

NOTE: CONTROL JOINTS MUST BE AT A MAXIMUM OF 12'X12' INTERVALS



SEE PLANS FOR LOCATIONS  
**STOP SIGNAGE**  
N.T.S.



NOTE: ALL CONCRETE SIDEWALKS SHALL HAVE A FULL 1/2" EXPANSION JOINT AT A MAXIMUM DISTANCE OF 40 LINEAR FEET AND A SAW CUT OR FORMED DUMMY CONTRACTION JOINT AT EVENLY SPACED INTERVALS NOT TO EXCEED 8 LINEAR FEET.

NOTE:  
1. 4" THICK SIDEWALK W/LIGHT BROOM FINISH & TROWELED EDGE.  
2. SIDEWALK IN RIGHT-OF-WAY SHALL BE REINFORCED PER SEMINOLE COUNTY REQUIREMENTS.

**CONCRETE WALK DETAILS**  
N.T.S.

NO.	DATE	REVISIONS
1	2/22/23	PER COUNTY
2	03/15/24	PER COUNTY
3		
4		
5		
6		
7		
8		
9		
10		
11		











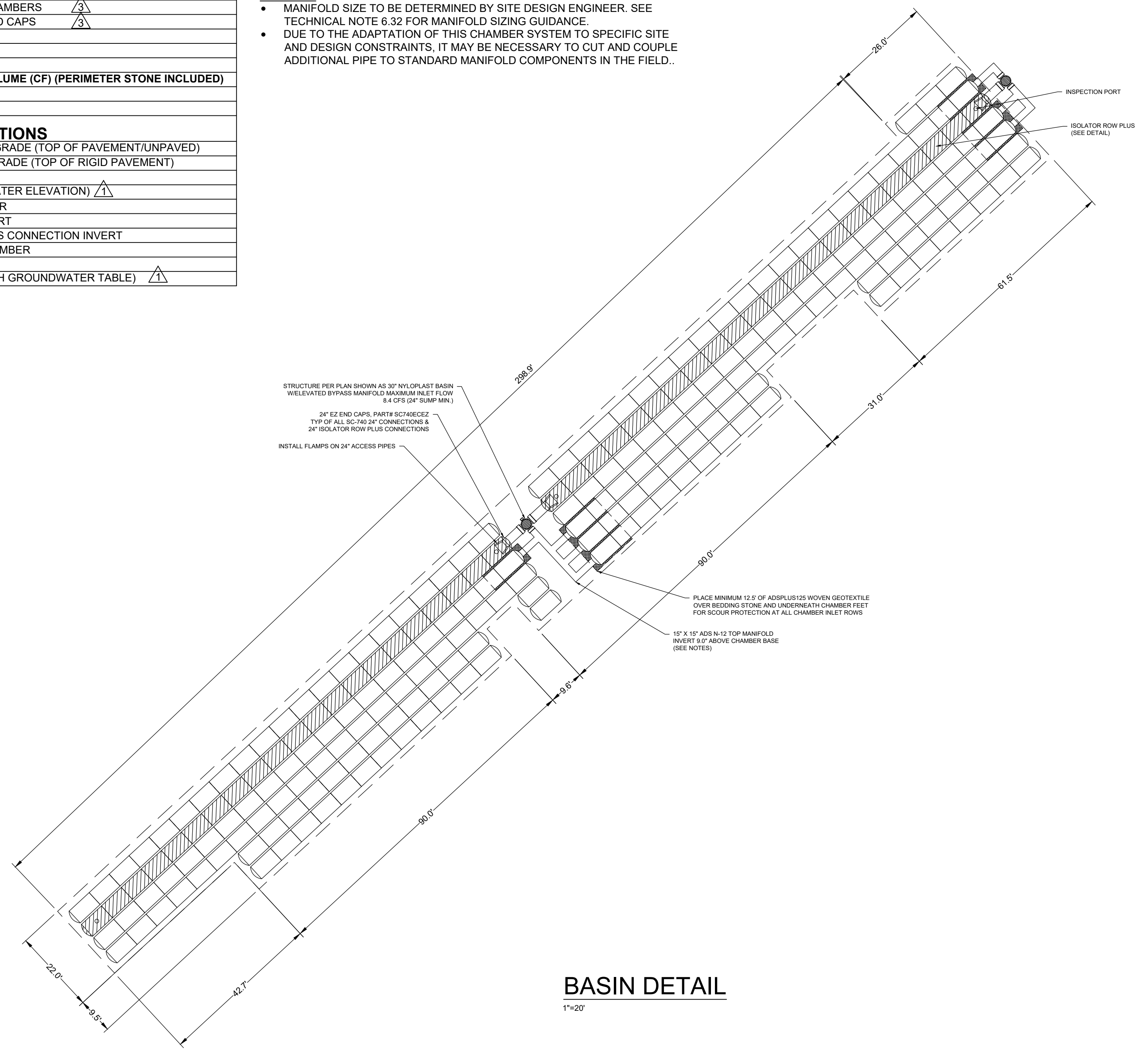




PROPOSED BASIN LAYOUT		
235	STORMTECH SC-740 CHAMBERS	△3
34	STORMTECH SC-740 END CAPS	△3
6	STONE ABOVE (in)	
6	STONE BELOW (in)	
40	% STONE VOID	
<b>19,852</b>	<b>INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED)</b>	

PROPOSED BASIN ELEVATIONS		
93.58	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)	
87.08	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)	
86.08	TOP OF STONE	
85.94	DHWE (DESIGN HIGH WATER ELEVATION) △1	
85.58	TOP OF SC-740 CHAMBER	
83.83	15" TOP MANIFOLD INVERT	
83.09	24" ISOLATOR ROW PLUS CONNECTION INVERT	
83.08	BOTTOM OF SC-740 CHAMBER	
82.58	BOTTOM OF STONE	
79.60	SHGWT (SEASONAL HIGH GROUNDWATER TABLE) △1	

- NOTES**
- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
  - DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.



**BASIN DETAIL**  
1"=20'

DATE: \_\_\_\_\_ DRAWN: \_\_\_\_\_  
PROJECT #: \_\_\_\_\_ CHECKED: \_\_\_\_\_

4640 TRUEMAN BLVD  
HILLIARD, OH 43026

**ADS**

SHEET OF 7

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCTS DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

UPDATED ENTIRE SHEET  
△

UPDATED ENTIRE SHEET  
△



STORMTECH DETAILS  
FOR  
**MIDWAY PRESERVE**  
MARION COUNTY FLORIDA

OWNER(S):  
LUXTRO LLC  
2100 PONCE DELEON BLVD., SUITE 860  
CORAL GABLES, FL 33134  
CYNTHIA TORO

ENGINEER IN CHARGE:  
DAVID F. GLUNT, PE #59459  
CERTIFICATE OF AUTHORIZATION NO. 33151

NO.	DATE	REVISIONS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

JOB # 2024-007  
DATE: 03/15/24  
SCALE: AS SHOWN  
DESIGNED BY: DEG  
DRAWN BY: DEG  
APPROVED BY: DEG

C701







NO.	DATE	REVISIONS
1	2/23/23	ISSUE FOR PERMIT
2		
3		
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JOB # 2024-007  
DATE: 03/15/24  
SCALE: AS SHOWN  
DESIGNED BY: DEG  
DRAWN BY: DEG  
APPROVED BY: DEG

# RILEY & Company, Inc. (H-20 GP)

w/ BATTERY BACK-UP FOR AUDIO AND VISUAL ALARMS,  
RILEY & COMPANY GUARD PROIII MONITORING SYSTEM.

NOTE: COMPLETE SYSTEM TO BE SUPPLIED BY:  
**RILEY & COMPANY, INC.**  
SANFORD, FL 32773  
(407)265-9963

**NO SUBSTITUTIONS - NO ALTERNATES**

The H-20 Load Rated Fiberglass Wetwell Must Be Manufactured By L.F. Manufacturing, Giddings, Texas, Which Includes a 20 Yr. Warranty. Certification of the wetwell H-20 load rating must be supplied with submittals. H-20 certification must be signed and sealed by an engineer registered in the State of Florida. After the H-20 load rated wetwell has been installed, the ASTM Certification Number and Serial Tracking Number must be visible inside wetwell.

**PUMPS: (3 YR. WARRANTY)**

Submersible pumps shall be LIBERTY Model RCLGV05. The pumps shall be installed in the H-20 GP FRP wetwell utilizing a slide rail system. The grinder pumps shall be capable of pumping materials normally found in domestic and commercial sewage which will pass through the pump and the discharge piping.

Stator winding shall be open type with Class H insulation and shall be heat-shrink fitted into the stator housing. The use of pins, bolts, or other fastening devices is not acceptable.

A heat sensor thermostat shall be attached to the top end of the motor winding and shall be connected in series with the magnetic contactor coil in the control panel to stop motor if winding temperature exceeds 140 C., but shall automatically reset when the winding temperature returns to normal. Two heat sensor thermostats shall be used on three phase motors.

The pump motor grinder shaft shall be AISI 430F SS threaded to take the pump impeller and the grinder impeller.

Upper & lower mechanical seals shall be Silicon Carbide vs Silicon Carbide.

**DUPLEX CONTROL PANEL: (3 YR. WARRANTY)**

To insure complete unit and warranty responsibility the electrical control panel must be manufactured and built by the pump supplier. The pump supplier must be a TUV (UL508A CERTIFIED) manufacturing facility, with a minimum of 10 years history in the manufacturing of electrical control panels.

The enclosure shall be NEMA 4X, minimum 30" high x 30" wide x 10" deep fiberglass with 4 point latching system.

The enclosure shall have external mounting feet to allow for wall mounting.

The following components shall be mounted through the enclosure:

- 1- ea. Red Alarm Beacon (Light) 4" x 4" Minimum Diameter
- 1- ea. Alarm Horn (minimum 95 DCB)
- 1- ea. Generator Receptacle w/ weatherproof cover (SCM460 -UL 1686)
- 1- ea. Alarm Silence Pushbutton

The back panel shall be fabricated from .125, 5052-H32 marine alloy aluminum. All components shall be mounted by machined stainless steel screws.

The following components shall be mounted to back panel:

- 1- ea. RILEY & COMPANY GUARD PRO III MONITORING SYSTEM
- 2- ea. Motor Contactors
- 1- ea. Phase Monitor (3 Ph) w/2 N/O & 1 N/C Contacts
- 1- ea. Control Transformer (480 Volt Only) (Min. 500VA)
- 1- ea. Lightning Arrestor
- 1- ea. Silence Relay Module
- 1- ea. Duplex Alternator w/ Pump Selector Switch
- 1- ea. Model RCBB5AH Battery Back-Up w/ Smart Charger For The High Level Alarm System
- 20- ea. Terminals For Field Connections
- 6- ea. Terminals For Motor Connections (Single Phase Only)
- 7- ea. Grounding Lugs
- 1- ea. Seal Failure Relay

The inner door shall be fabricated from .080, 5052-H32 marine alloy aluminum. The inner door shall have a continuous aluminum piano hinge.

The following components shall be mounted through the inner door:

- 1- ea. Main Circuit Breaker
- 1- ea. Emergency Circuit Breaker
- 1- ea. Mechanical Interlock For Emergency And Main Breakers (UL Listed)
- 2- ea. Short Circuit Protectors w/ Auxiliary Contacts
- 1- ea. Control Circuit Breaker
- 2- ea. Seal Failure Indicator Lights
- 1- ea. Hand-Off-Auto Selector Switches
- 2- ea. Pump Run Pilot Lights
- 1- ea. Power On Pilot Light
- 2- ea. Elapse Time Meters (Non-Resettable)
- 1- ea. GFI Duplex Convenience Outlet

RILEY & COMPANY, INC. / GUARD PRO III MONITORING SYSTEM:  
The GUARD PRO II offers a remote control and maintenance solution which allows you to create a decentralized system or monitor and control devices. With the GUARD PRO III upto eight (8) different lift station inputs can be monitored and upto four (4) outputs can be controlled remotely. The GUARD PRO III can also notify upto eight (8) different recipients via sms text, cell phone or e-mail.

PUMP DATA		ELEVATIONS	
PRIMARY PUMP CAPACITY	101 GPM	TOP OF WETWELL	88.50
PRIMARY TDH	32.5' TDH	INLET INVERT	83.25
PUMP MANUFACTURER	HOMA	HIGH LEVEL ALARM (HLA)	82.75
PUMP MODEL #	RC30045(T)	2nd PUMP ON (LAG)	82.25
R.P.M.	3450	1st PUMP ON (LEAD)	81.75
HORSEPOWER	4.1	PUMPS OFF (OFF)	80.75
ELECTRICAL/ VOLTS / PHASE	230V/3	BOTTOM OF WETWELL	76.50
FULL LOAD AMPS/ PER PUMP	10.4/5.2	WETWELL DIAMETER	72"
PUMP DISCHARGE SIZE	3"		

LIFT STATION WILL BE PRIVATELY OWNED AND MAINTAINED.

PRIVATE  
SANITARY SEWER  
PUMP STATION

IN CASE OF EMERGENCY CONTACT THE  
FOLLOWING NUMBERS:

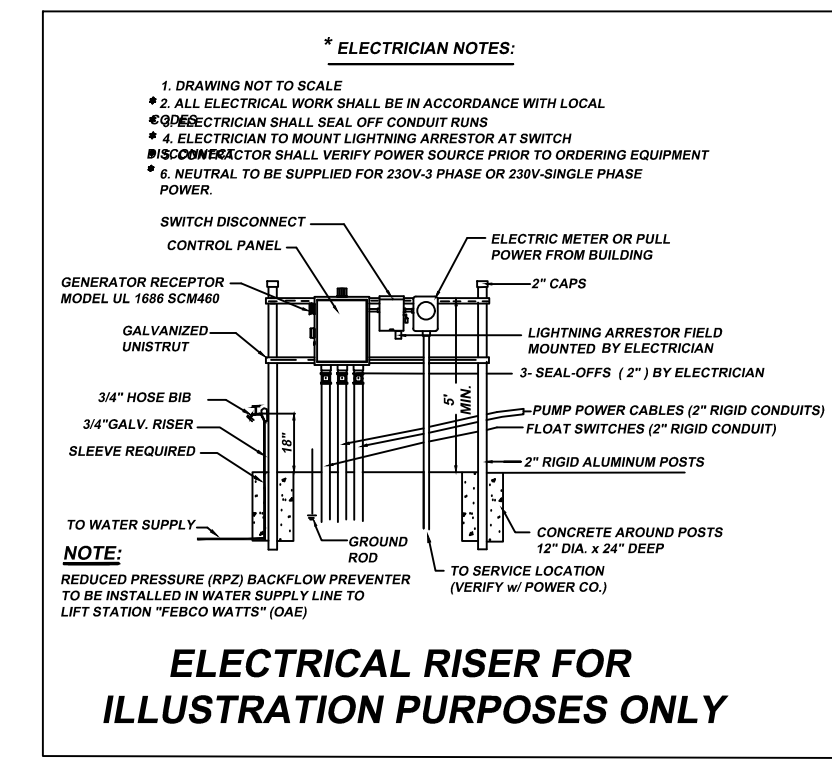
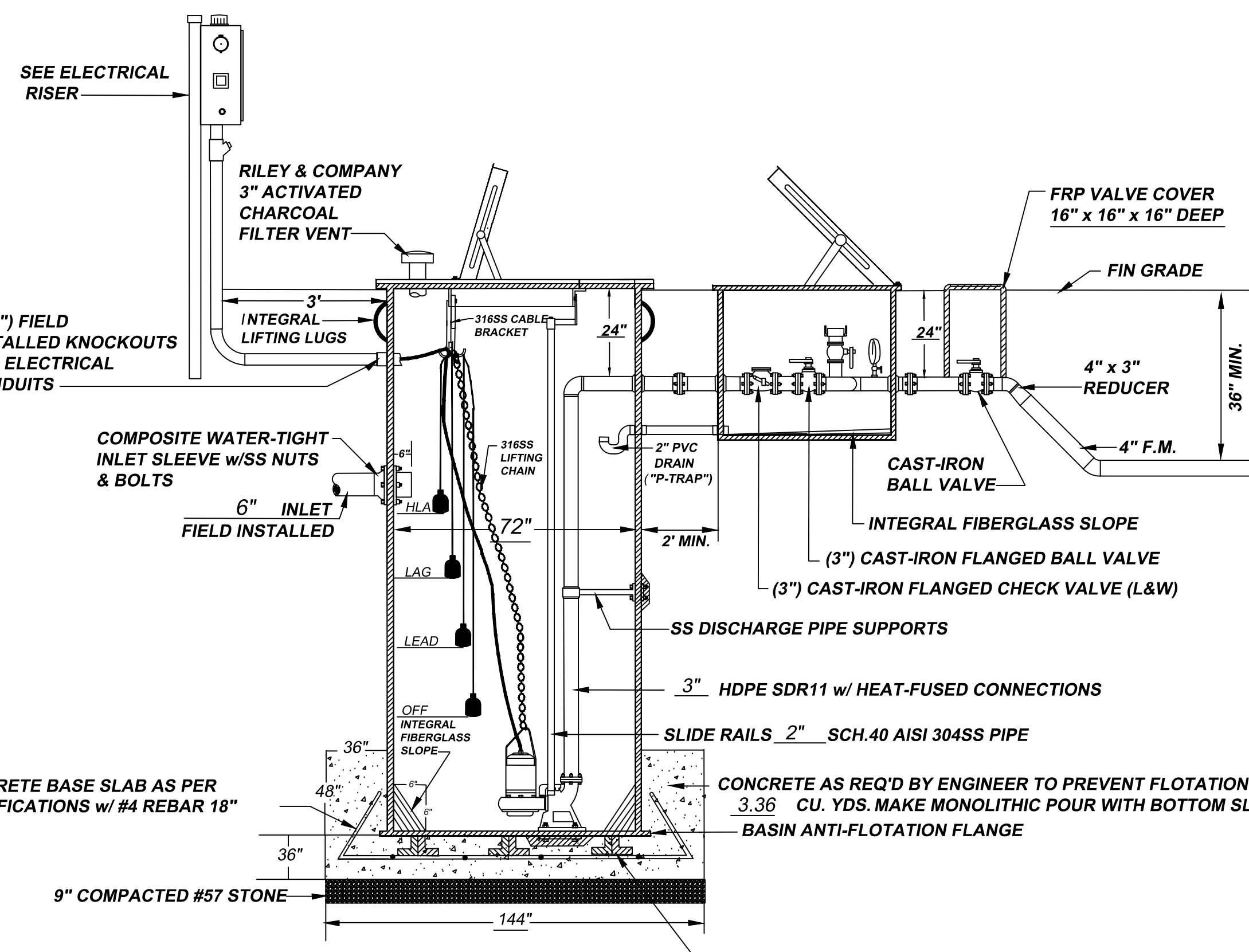
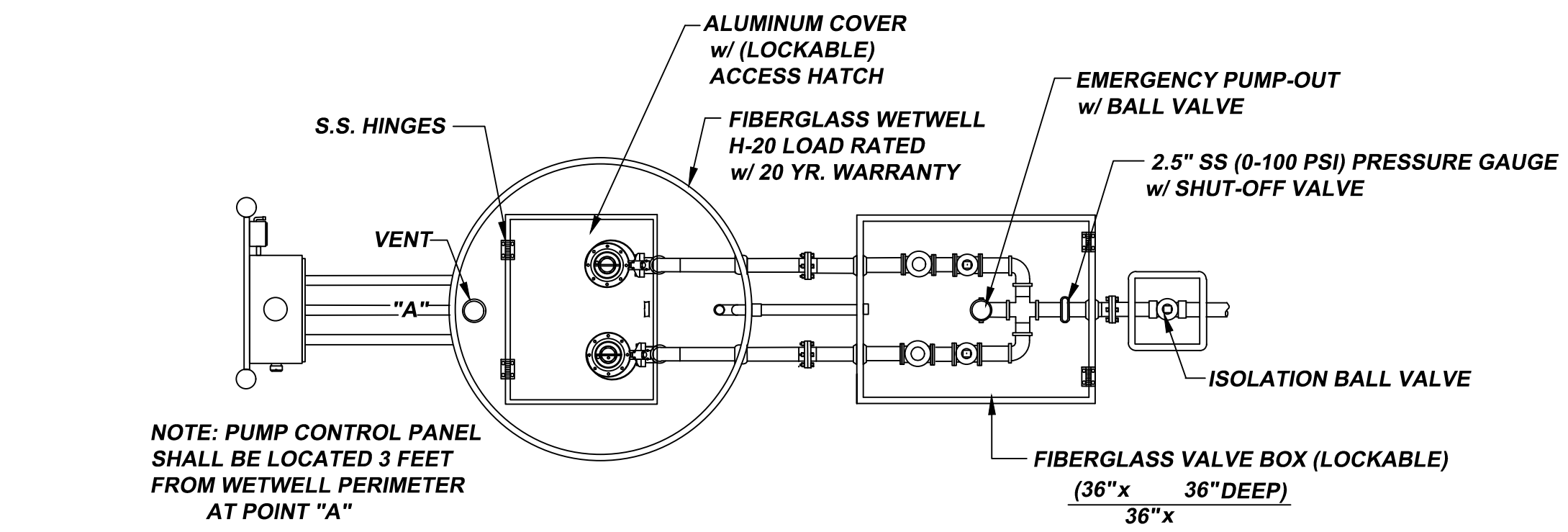
FACILITY OWNED BY:  
NAME: \_\_\_\_\_  
PHONE NUMBER: \_\_\_\_\_

FACILITY MAINTAINED BY:  
NAME: \_\_\_\_\_  
PHONE NUMBER: \_\_\_\_\_  
STATION NUMBER: \_\_\_\_\_

NOTE: CONTRACTOR MUST SUPPLY  
INFORMATION SIGN AT START-UP.

**NOTES:**

1. Water service with hose bibb and reduced pressure backflow preventer to be installed near lift station. (See Electrical Riser Illustration)
2. System shall be operated and maintained to provide uninterrupted service as required by DEP Chapter 62-604.500.
3. Approved Operation & Maintenance Manual(O&M) shall be kept available for operation and maintenance personnel
4. A weather resistant emergency contact sign shall be installed at the lift station and made visible to the public (Lettering shall be min. 2" in height).
5. INSPECTION & TESTING: A factory representative shall be provide for a one (1) time start-up and shall have complete knowledge of the proper operation and maintenance for the complete system.





QTY	CODE	BOTANICAL/COMMON NAME	SPECIFICATIONS
3	IV*	Ilex vomitoria Yaupon holly	6-8' x 42", 1 1/2" c, mt, 3 tr, spec, female
2	IVP*	Ilex vomitoria 'Pendula' Weeping yaupon holly	6-8' x 42", 1 1/2" c, mt, 3 tr, spec, female
266	MCA*	Muhlenbergia capillaris Muhly grass	full, 1g, 30" oc
164	MYFR*	Myrcianthes fragrans Simpson's stopper	full, 18-24" oa, 3g, 4" oc
1	QV*	Quercus virginiana** Live oak	13-15' x 6-8', 3 1/2" c
10	TD*	Taxodium distichum** Bald cypress	11-12' x 5-6', 3 1/2" c
11	UA*	Ulmus alata** Winged elm	12-14' x 5-6', 3 1/2" c
64	VOBM*	Viburnum obovatum 'Mrs. Schiller's Delight' Mrs. Schiller's Delight Viburnum	12-15" oa, 3g, 36" oc
	PNO	Paspalum notatum 'Argentine' Argentine Bahia grass	whole, solid pieces, as required, denoted w/ PNO
	*	Native	1/2" - 1 1/2" size at 3" depth and as noted
	**	Used for tree replacement (QV, TD, UA)	

**LANDSCAPE NOTES**

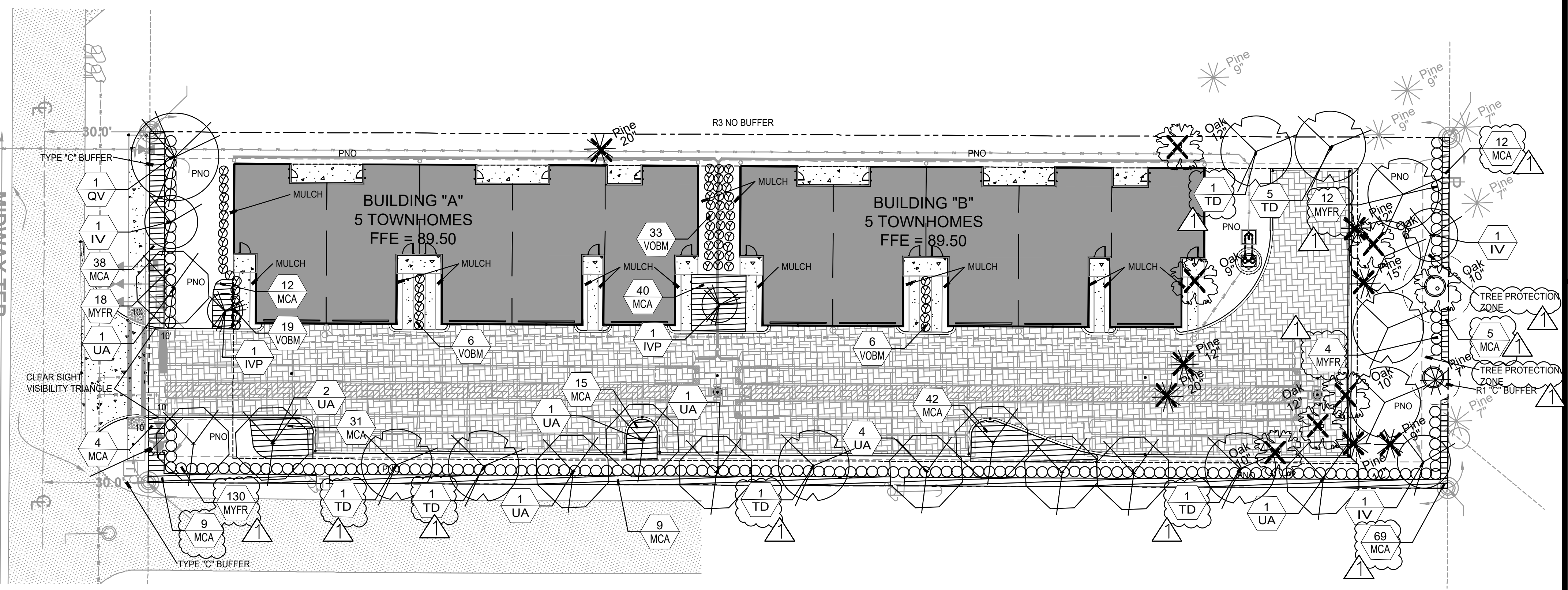
- Landscape contractor (LC) shall be responsible for all materials and work called for on the landscape plans and in the landscape notes and legend. Plant specifications are minimum acceptable sizes. Under sizing/substitution of plants and/or shortages in quantity are contract breaches. Plans shall rule if there are any quantity discrepancies between the legend and plans. Final quantity takeoffs are the responsibility of the LC. Notify the Landscape Architect of any discrepancies.
- Refer to construction details for planting, staking, and/or guying instructions.
- All trees and palms shall be placed in planting beds where possible to eliminate narrow strips of sod.
- LC shall coordinate with all local codes and ordinances and obtain all permits and bonds necessary to construct the project.
- LC shall coordinate their work with other contractors to assure efficient and timely completion of the work.
- LC shall be responsible for supplying all materials, labor, and equipment for the performance of their portion of the work.
- LC shall verify all existing grades, dimensions, suitable drainage, and soil for plantings specified, proposed and existing underground utilities, and field conditions and notify owner of discrepancies or problems before proceeding with work. **Per FL Statutes, call Sunshine State One (811) 72 hours prior to digging to have all utilities located.**
- The LC shall be familiar with and accept the existing site conditions prior to initiation of the work.
- The LC shall protect existing utilities, structures, surfaces, and vegetation noted to be saved and be responsible for repair/replacement at no cost to the Owner.
- Protect trees to be saved. All material storage, dumping of any materials, or soil removal/addition is not permitted within driplines. All temporary construction activities including all digging, trenching, construction lay-down areas and parking of vehicles are prohibited within the undisturbed area around existing trees to be preserved. Tunneling for the installation of underground utilities is allowed. An undisturbed area shall be established around every existing tree to be preserved. The undisturbed area is measured from the center of each individual tree in a group. The minimum undisturbed area is a radius of one foot per dbh (diameter at breast height, 54" ht above the soil line). Trees of 6" dbh or less shall have a minimum undisturbed area of 5 feet or more. The maximum radius of an undisturbed area shall be 24 feet. The minimum radius for off-site trees within 10 feet of the property line shall be 0.5 feet per dbh. No tree root system that one fifth the diameter of a mature tree (9" dbh or greater) shall be cut for trenching, installation of walkways, patios, fountains, etc., nor shall the total root system of a mature tree be reduced more than 20%. Whenever possible utilities should be installed by tunneling under the root system.
- Round-Up or equal shall be applied twice with the second application after a ten-day interval onto all existing vegetation not noted to be saved in areas that are to be replanted. Overspray shall not drift onto existing plant material to be saved. Mfr's recommendations shall be followed. Remaining plants and their roots shall be removed by hand prior to installation of plants. Resprouting weeds and plants are the responsibility of the LC through the appropriate warranty periods.
- Invasive plants onsite shall be removed. Reference the latest Florida Invasive Species Council (FISC) (formerly FLEPPC) list at <https://newfleppc.baywoodcloud.org/plantlist2019.cfm>
- All plant materials shall be graded Florida No. 1 or better as outlined under current Grades and Standards for Nursery Plants, Division of Plant Industry, State of Florida, unless otherwise noted. All plants not listed shall conform to a Florida No. 1 or better as to: (1) health and vigor, (2) condition of foliage, (3) root system, (4) 85% free of pests or mechanical damage, (5) heavily branched and densely foliated according to the accepted normal shape of the species. **LC to obtain written certification from nurseries that plant materials are Florida No. 1 or better.** All plants are subject to verification of species. Trees up to 4" caliper are measured at 6" above soil line and over 4" caliper at 12" above soil line unless otherwise noted. All specifications to be met or exceeded unless otherwise noted. Trees shall not be larger in size or caliper compared to the root ball per Grades and Standards for Nursery Plants. All root balls and containers shall be free of living weeds and their roots. All Grades and Standards for Nursery Plants shall be followed.
- Planting soil of Fla. peat mixed one-half with clean topsoil for the backfilling of plant pits and beds shall be required only if existing soil is unsuitable for planting and/or contains construction debris which shall be removed.
- Trees and palms shall be installed so their top main root at the trunk is visible and 2" above finished grade. If root is buried, remove soil from the top of the rootball prior to installation. Rootballs shall be free of circling roots. Do not apply the 1 1/2" of mulch to the top of the rootball until after inspection of each tree or palm.**
- Landscape Architect is not responsible for adverse soil or drainage conditions, determining sub-surface soil conditions, underground objects/utilities, or the accuracy of property lines or information portrayed on surveys or on documents or plans provided by others. Owner or their agent is solely responsible for future maintenance of all plantings to maintain safe visibility within all visibility sight triangles and vehicular use and pedestrian areas within and immediately adjacent to the site.
- Any FDOT visibility sight lines are provided by the civil engineer.
- Some plants in the legend or existing on site may have irritating or toxic parts that may be hazardous to the health of humans or animals.
- Existing trees/palms onsite or in the area may be in a hazardous condition and should be inspected for hazardous conditions by a consulting certified arborist at least once a year and after every weather event.
- Finished grade prior to mulching or sodding to be 3" below top of adjacent surfaces such as walks, curbs and driveways extending perpendicularly from the surface edge for a minimum distance of 18" (see detail). Soil excavated during planting to be removed from the site. Do NOT raise soil levels!**
- All trees, shrubs, and groundcovers shall be fertilized with Agriform 20-10-5 or SierraTabs 16-8-12 planting tablets. One tablet/ 1 gal, 2 tablets/ 3 gal, 3 tablets/ 5 or 7 gal, 4 tablets/ 10 gal and one tablet/ every 1/2" of tree trunk diameter. Palms/cycads to receive palm fertilizer. Application shall be as per local ordinance, the details, and mfr's recommendation.
- All planting beds (except for annuals) and trees to receive pine bark mulch. **Due to environmental concerns, cypress mulch shall NOT be used.** All tree rootballs (which require 4-foot-wide mulch rings in turf areas) shall be mulched to a maximum 1 1/2" depth (to aid water penetration) following inspection. All other planting beds to receive a 3" depth. Mulch shall not touch trunks or stems or be applied within the crowns of groundcovers/shrubs or over their branches or foliage. **Mulch is to be applied by hand and shall not be "blown in."**
- LC to maintain all plant material in a plumb, upright, and stable condition. Stake/guy all trees/palms per planting details.
- LC shall remove all bags (unless biodegradable), tags, ties, wires, ropes, stakes, and nursery attachments from all plant material. Wire baskets shall be removed from the top third of the root ball.
- LC shall be responsible to keep plant material in a healthy, watered, insect/pest free condition until owner's final acceptance.
- LC shall provide a one-year warranty for trees/palms, ninety days for shrubs, groundcovers, and vines and thirty days for sod. Warranty period shall start with final acceptance by owner. All plant material shall be alive and in satisfactory growth at the end of the warranty period. Replacement plant material shall be warranted for ninety days (sod for thirty days) from replacement date.
- Warranty shall apply only to material that dies due to poor quality, improper handling, or installation practices. Generally, material transplanted on-site shall not be warranted. Adverse weather conditions shall not apply. Proper watering and maintenance are the owner's responsibility during the warranty period.
- DO NOT SUBSTITUTE! Contact Landscape Architect/Designer if there is difficulty obtaining specified plant materials.**
- Hedges shall be maintained at a 4' height or at sill height at windows.
- Provide 100% coverage of all landscape areas except for sod, using automatic irrigation system with rain.
- Provide irrigation sleeves to all planter areas and containers within/on paver, stone, or concrete areas. Above ground piping/risers/backflow to be painted flat black.
- IF THIS SITE HAS POORLY DRAINING SOILS, prior to delivery of plant material to the site perform percolation tests and check for proper drainage in all planting areas. Correct drainage problems prior to any plant material installation. This may include augering, French drainage or under-drainage. If soils are not well draining, plant so top main root at trunk of trees is 6" above finished grade. Install shrubs and groundcovers with tops of root balls 2" above grade. Fill against sides of exposed rootballs. Crown landscape areas so water drains to edges but follow detail for grades at pavement edges, so mulch does not wash away. Since curbing prevents drainage of water from planting areas, the curbs may be perforated with six-inch deep saw cuts a minimum of every six feet apart to facilitate drainage.**
- Refer to Marion County code Division 8 - Landscaping Sec. 6.8.11 through 6.8.15 for other requirements.

**MARION COUNTY LANDSCAPE CODE CALCULATIONS 2023-07-12, 2023-12-22**  
**West/Midway Ter./ROW:** Buffer C. 99.84' - 26' (26' pavement) = 73.84'/100 = .73 x 2 = 1.47 canopy trees required. **Provided:** 1 canopy tree (1 QV) with shrubs and groundcovers  
**West/Midway Ter./ROW:** Buffer C. 99.84' - 26' (26' pavement) = 73.84'/100 = .73 x 2 = 1.47 understory trees required. **Provided:** 1 understory tree (1 IV)  
**North R3 -** No buffer required  
**South/R3 -** No buffer required  
**East/R1:** Buffer C. 99.84'/100 = .99 x 2 = 2 canopy trees required. **Provided:** 2 canopy trees (2 existing) with shrubs and groundcovers  
**East/R1:** Buffer C. 99.84'/100 = .99 x 2 = 2 understory trees required. **Provided:** 2 understory trees (2 IV)  
**Parking area/UA at ROW:** Buffers provide shrubs and groundcovers  
**Parking area/UA at Property Line:** Provided shrubs and groundcovers  
**Building landscapes facing ROW:** Provided 1 IVP, shrubs and groundcovers  
**Shade trees required on site:** 36,929 SF (site) - 10,176 SF (buildings) = 26,753 SF/3000 = 9 shade trees required. **Provided:** 24 shade trees (22 proposed trees and two preserved trees).  
**SPZ:** site is within a Primary SPZ w/ 20% required to be MFLA. **Provided:** landscape area of 12,903 SF with 9,948 SF (77%) MFLA (no high-volume irrigation, no lawn chemicals, and only low water use/drought tolerant plants).

**MARION COUNTY TREE REMOVAL, PRESERVATION AND REPLACEMENT CODE NOTES\***  
 Trees to save: 1 oak at 10" DBH and 1 pine at 7" DBH.  
 Trees 10-15" to remove: 4 oaks (10", 10", 12", 12" = 46" DBH) and 5 pines (9", 12", 12", 12", 15" = 60" DBH) = 106" DBH  
 Replacement: 106"/2 x 1" = 53"  
 Trees 20-29" to remove: 2 pines (20", 20") = 40" DBH  
 Replacement: 40"/2 x 1.5" = 30"  
 Total replacement: 53" + 30" = 83"/3.5" = 24 trees required. **Provided:** 24 trees (2 existing @ 7", 10" and 1 QV, 10 TD, 11 UA @ 3.5" DBH).

- MARION COUNTY LANDSCAPE CODE NOTES**
- All proposed plant materials except for sod are native and are low water use.
  - Three native canopy tree species and two native understory tree species are proposed.
  - No plants noted as follows shall be allowed to remain on site or be planted - UF/IFAS Assessment of Non-native Plants in Florida's Natural Areas prohibited or invasive plants <https://assessment.ifas.ufl.edu/> and Category I or II Invasive Species as listed by the latest Florida Invasive Species Council (FISC) (formerly FLEPPC) <https://newfleppc.baywoodcloud.org/plantlist2019.cfm>
  - Cypress mulch is prohibited.
  - Refer to Marion County code Division 8 - Landscaping Sec. 6.8.11 through 6.8.15 for other requirements
  - Upon completion of the installation, the contractor shall request an inspection by the design professional. A Landscape and Irrigation As-Built Certification shall be signed and sealed by the design professional and submitted to the county landscape architect prior to the issuance of a certificate of occupancy.
  - Upon completion of the irrigation system installation and the acceptance of the as-built diagram and operational information, a final inspection and landscape/irrigation release shall be signed and sealed by the irrigation design professional and submitted to the county's landscape architect.

- Sec. 6.7.3.E. Tree protection shall continue during the course of construction. The following requirements shall be conditions of tree removal permits, all permits for construction in the right-of-way, and all development permits issued under and pursuant to this Code:**
- The cleaning of construction equipment or material or the disposal of waste materials including but not limited to, paint, oil, solvents, asphalt, concrete, and mortar within the TPZ of any tree which is being protected is not allowed.
  - The movement of equipment or the storage of equipment, materials, debris, or fill within the TPZ of any tree which is being protected is not allowed.
  - The contractor shall inspect all tree protection barricades and signs on a weekly basis during the course of construction. Any barricade or sign which has been damaged or is missing shall be replaced immediately.
  - If any tree which has not been approved to be removed is destroyed, or receives major damage during construction, with the exception of natural events, so as to place its long-term survival in question, the tree(s) must be replaced at an inch-to-inch basis of the total (combined) DBH of the tree(s) so destroyed or damaged. The replacement tree(s) shall be of comparable species of the destroyed or damaged tree(s) with a minimum replacement size of 3.5-inch caliper. The County reserves the right to establish a replacement value for such trees and payment into the Tree Mitigation Fund may be authorized by the County's Landscape Architect.

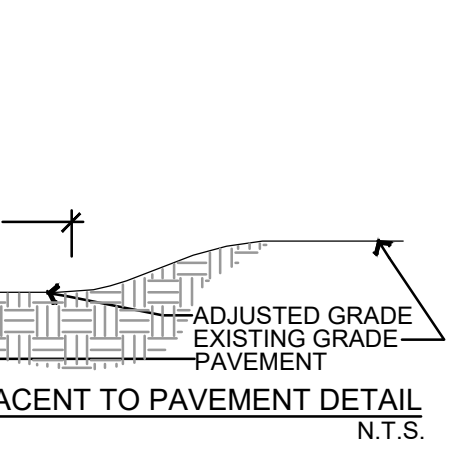
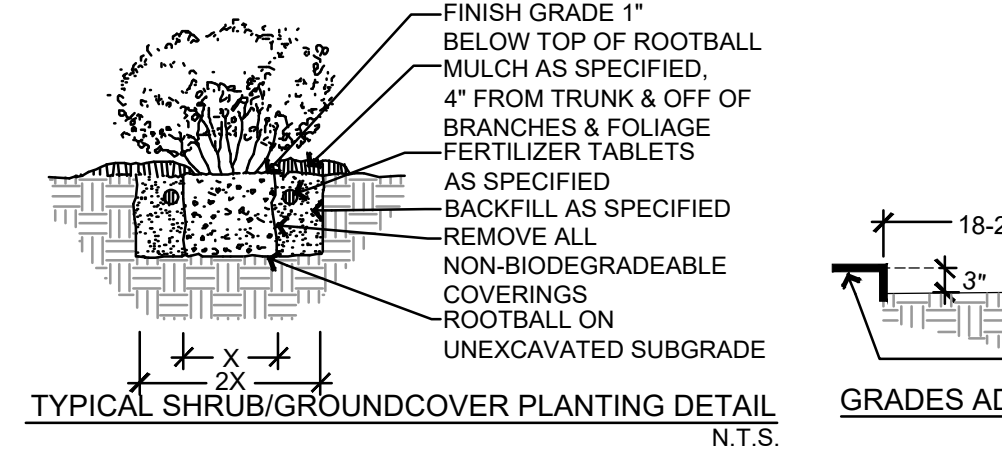


Count	SIZE	TYPE
1	9"	Oak
1	6"	Oak
2	12"	Oak
2	10"	Oak
1	9"	Pine
1	15"	Pine
2	20"	Pine
3	12"	Pine
13	159	

Count	SIZE	TYPE
1	10"	Oak
1	7"	Pine
2	17	

**ABBREVIATION LEGEND**

- b&b balled & burlapped
- bt boots
- bpp bibbs per pot
- c caliper
- cn canopy
- cnc collected
- cont container
- ct clear trunk
- cy cubic yards
- dia diameter
- exstg existing
- fg field grown
- fg full to ground
- gal gallon
- ht height
- hvy heavy
- lf linear feet
- lvs leaves
- mt multi-trunk
- oc overall
- oc on center
- sf square feet
- spd spread
- spec specimen
- ss single straight trunk
- st single trunk
- stk staked in pot
- stm stems
- tr trellis
- tr trunks
- trans transplant
- typ typical



**PLANT SYMBOLS**

**TREES**

- IV
- IVP
- TD
- QV
- UA

**SHRUBS**

- VOBM
- MYFR
- MCA

**GROUNDCOVERS**

- PNO

**TREE TO REMAIN**

- (Symbol)

**TREE TO REMOVE**

- (Symbol)

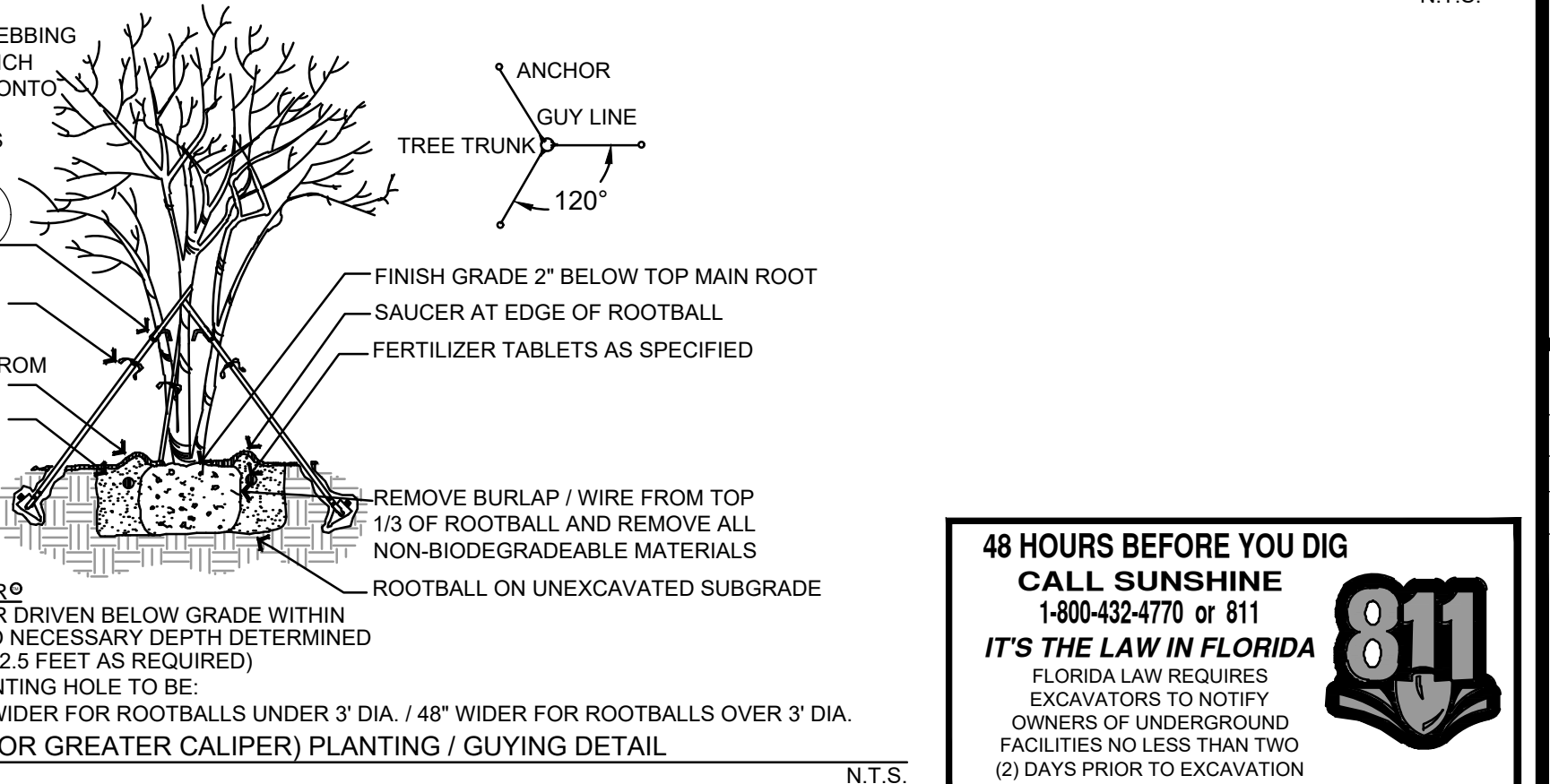
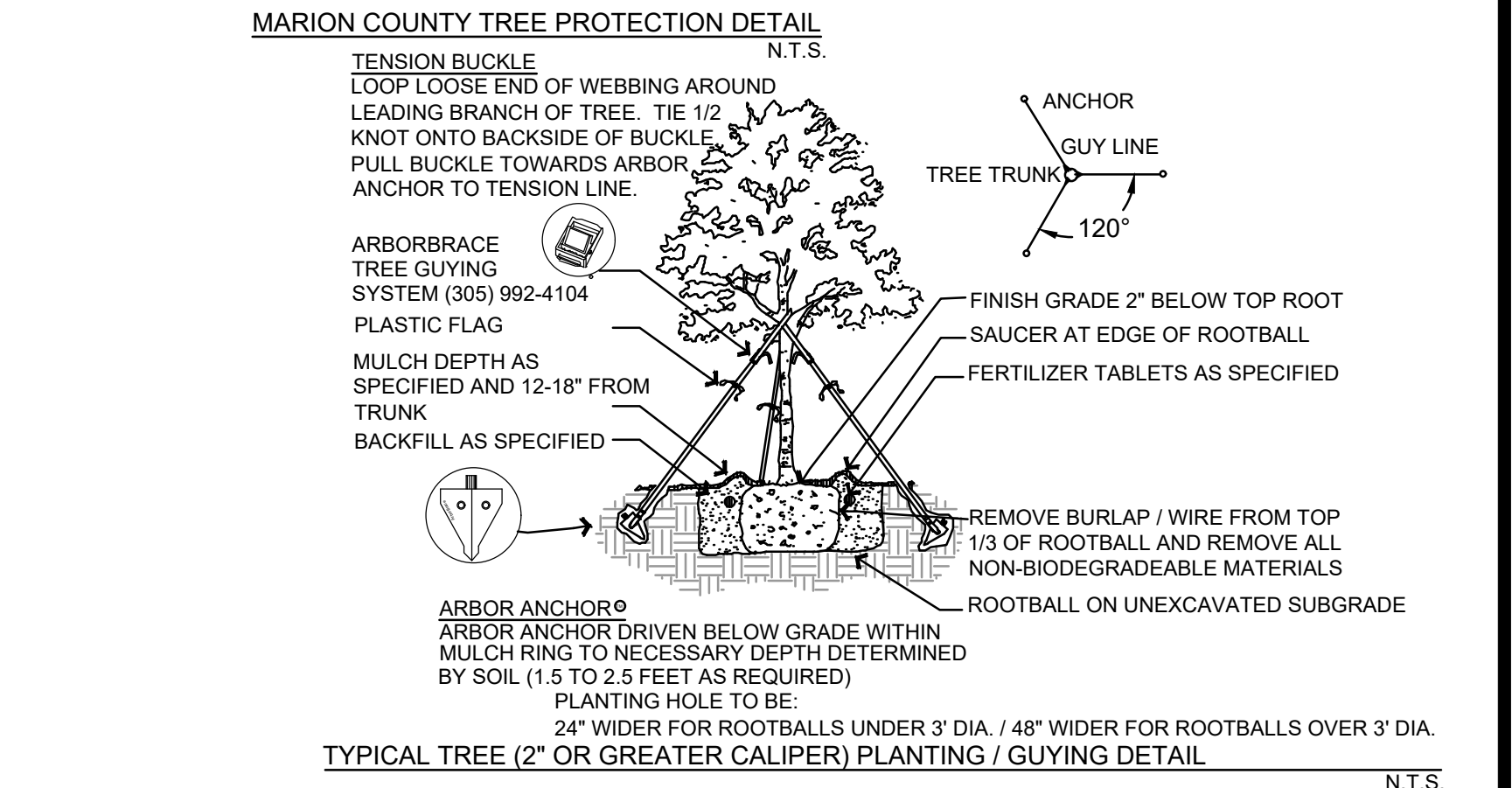
TREE PROTECTION UNDISTURBED AREA SHALL BE PROVIDED BASED UPON TREE DBH. BARRIER SHALL BE ERRECTED PRIOR TO ANY CONSTRUCTION IN GENERAL AREA OF TREES TO BE PROTECTED.

PROHIBITED WITHIN THIS AREA:  
 1. PARKING OR USE OF VEHICLES, EQUIPMENT, OR MACHINERY  
 2. STORAGE OR DUMPING OF ANY MATERIALS OR LIQUID.  
 3. CONSTRUCTION, EXCAVATION, OR TRENCHING  
 EXISTING VEGETATION REMAINING AFTER GRUBBING FOR BUILDING PADS, STRUCTURES, RIGHT OF WAY, PARKING AREAS OR SIGNIFICANT GRADE CHANGES SHALL BE PROTECTED DURING THE CONSTRUCTION PROCESS.

FOR EACH TREE TO BE PRESERVED, ESTABLISH AN UNDISTURBED AREA/TREE PROTECTION ZONE (TPZ) MEASURED FROM THE CENTER OF EACH TREE. THE MINIMUM UNDISTURBED AREA IS A RADIUS OF 1" FOR EACH INCH OF DBH (DIAMETER AT BREAST HEIGHT, 54" HT ABOVE THE SOIL LINE). TREES OF 6" DBH OR LESS SHALL HAVE A MINIMUM UNDISTURBED RADIUS OF 5 FEET. ALSO SEE LANDSCAPE NOTES.

BARRIERS TO REMAIN IN PLACE UNTIL ALL PAVING AND CONSTRUCTION IS COMPLETED.  
 UPRIGHTS - THE EQUIVALENT OF 4 X 4 LUMBER AT 4' MINIMUM HEIGHT ON 5' MAX. CENTERS. ON AN UPRIGHT IN EACH QUADRANT PLACE A SIGN STATING "TREE PROTECTION ZONE"  
 HORIZONTALS - THE EQUIVALENT OF TWO COURSES OF 2" X 2" LUMBER.  
 ATTACH "TREE PROTECTION ZONE" SIGNS AT EACH QUADRANT

THE CRITICAL ROOT ZONE (CRZ) IS THE AREA OF SOIL AROUND A TREE TRUNK WHERE ROOTS ARE LOCATED THAT PROVIDE STABILITY AND UPTAKE OF WATER AND MINERALS REQUIRED FOR TREE SURVIVAL.  
 (A) NO EXCAVATION, FILLING, TRENCHING, OR OTHER INTENSE DISRUPTION OF THE ROOT ZONE IS ALLOWED WITHIN THE CRZ.  
 (B) THE CRZ IS ESTABLISHED ON A TREE BY TREE BASIS THROUGH ON-SITE REVIEW AND ASSESSMENT BY EITHER A LANDSCAPE ARCHITECT OR A CERTIFIED ARBORIST PRIOR TO CONSTRUCTION.  
 (C) DAMAGE TO ROOTS IN THIS AREA MAY RESULT IN PENALTIES OR FINES.



**REVISIONS:**

#	DATE	NOTE
1	12/21/23	County Comment

STEPHEN G. PATEGAS, R.L.A., A.S.I.A.  
 Landscape Architect - LC20000103  
 KRISTIN G. PATEGAS, A.P.L.D., F.C.I.D.  
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[gardn@hortusinc.com](mailto:gardn@hortusinc.com)  
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**Landscape Plan**  
**Midway Point**  
 MIDWAY TERRACE  
 Ocala, Florida

DESIGN	DRAFT	CHECK
SP	JB	SP

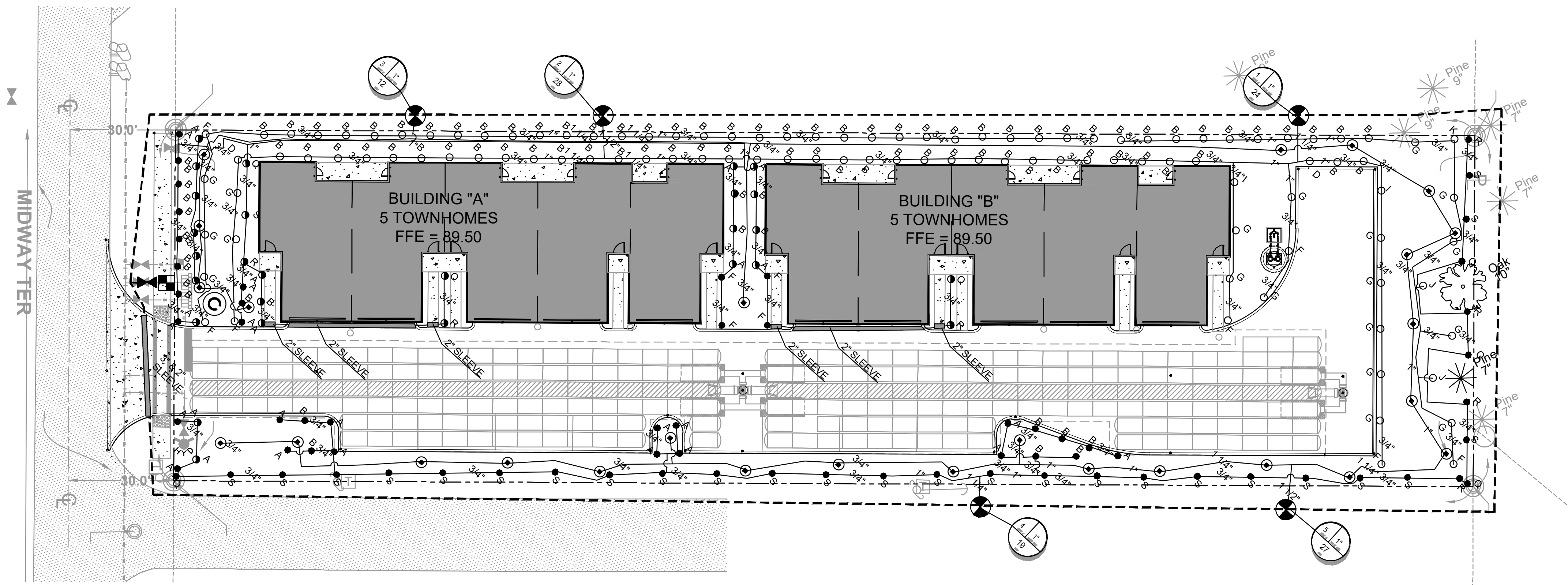
PROJECT #: 222-052  
 DATE: 07/10/2023  
 SCALE: 1:20  
 SHEET: L-1  
 TOTAL: L-1 to L-3

**811**  
**IT'S THE LAW IN FLORIDA**  
 FLORIDA LAW REQUIRES EXCAVATORS TO NOTIFY OWNERS OF UNDERGROUND FACILITIES NO LESS THAN TWO (2) DAYS PRIOR TO EXCAVATION

**48 HOURS BEFORE YOU DIG**  
 CALL SUNSHINE  
 1-800-432-4770 or 811

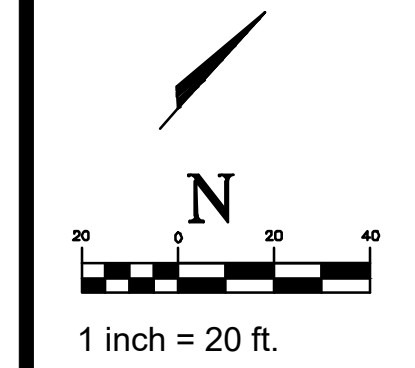
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#	DATE	NOTE
1	12/21/23	County Comment


STEPHEN G. PATEGAS, R.I.A., A.S.I.A.  
 Landscape Architect - LC20000115  
 KRISTIN G. PATEGAS, A.P.L.D., F.C.I.D.  
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 WINTER PARK, FL 32789  
 gander@hortusois.com  
 www.hortusois.com



**IRRIGATION PLAN**  
**Midway Point**  
 MIDWAY TERRACE  
 Ocala, Florida

DESIGN	DRAFT	CHECK
SP	JB	SP
PROJECT # 223-052		
DATE: 07/10/2023		
SCALE: 1"=20'		
SHEET L-2		
TOTAL: L-1, L-2, L-3		

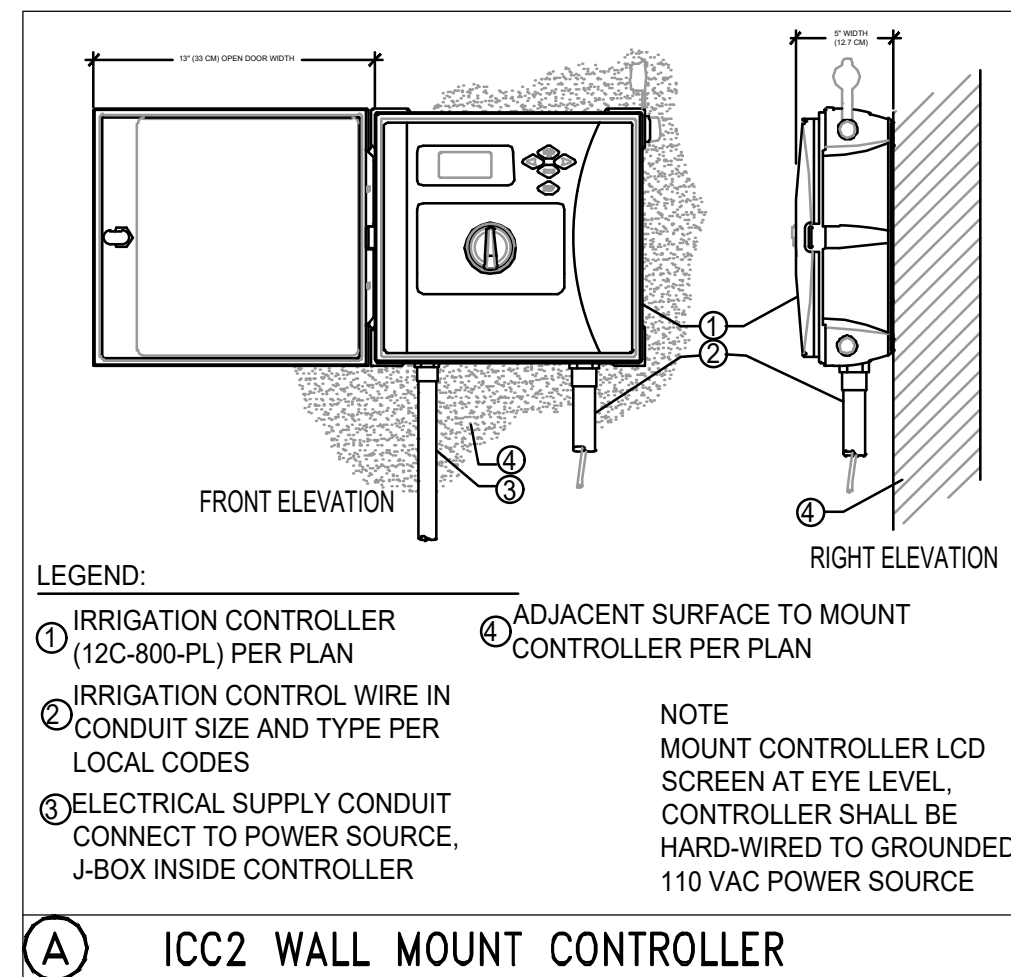
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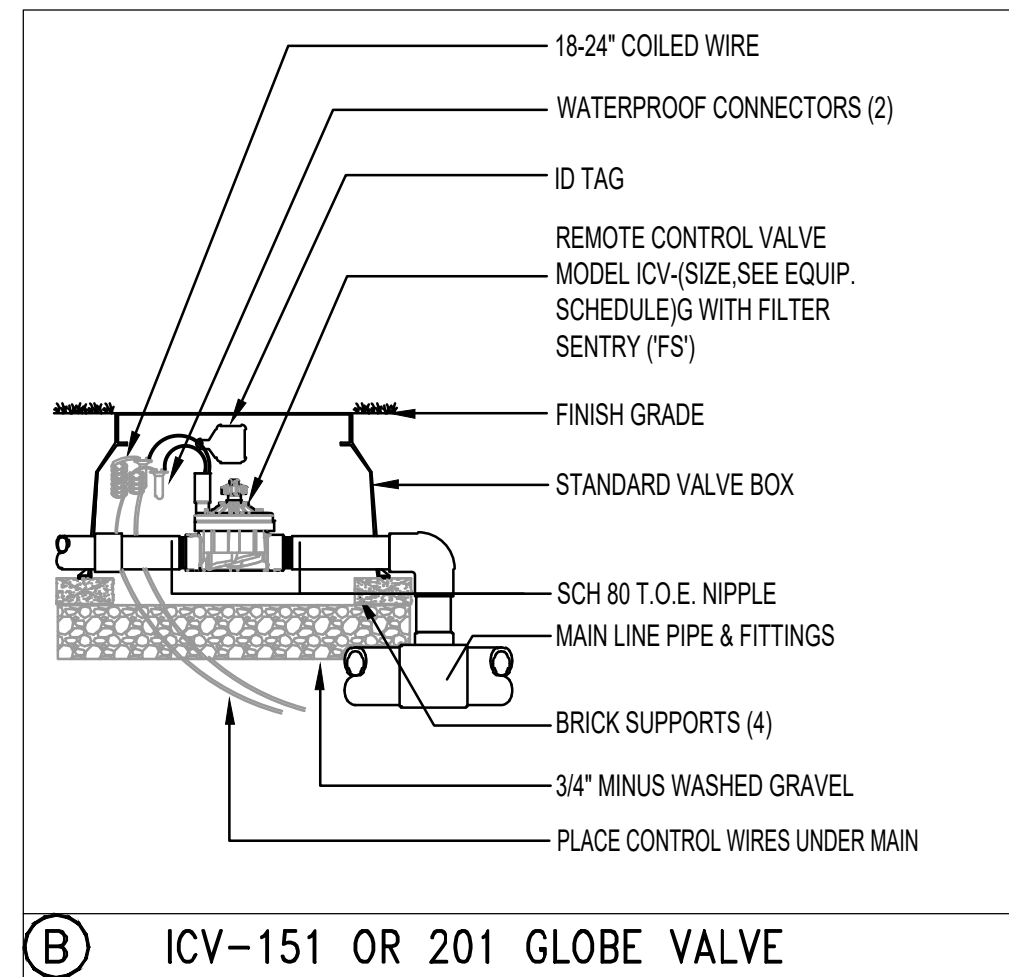
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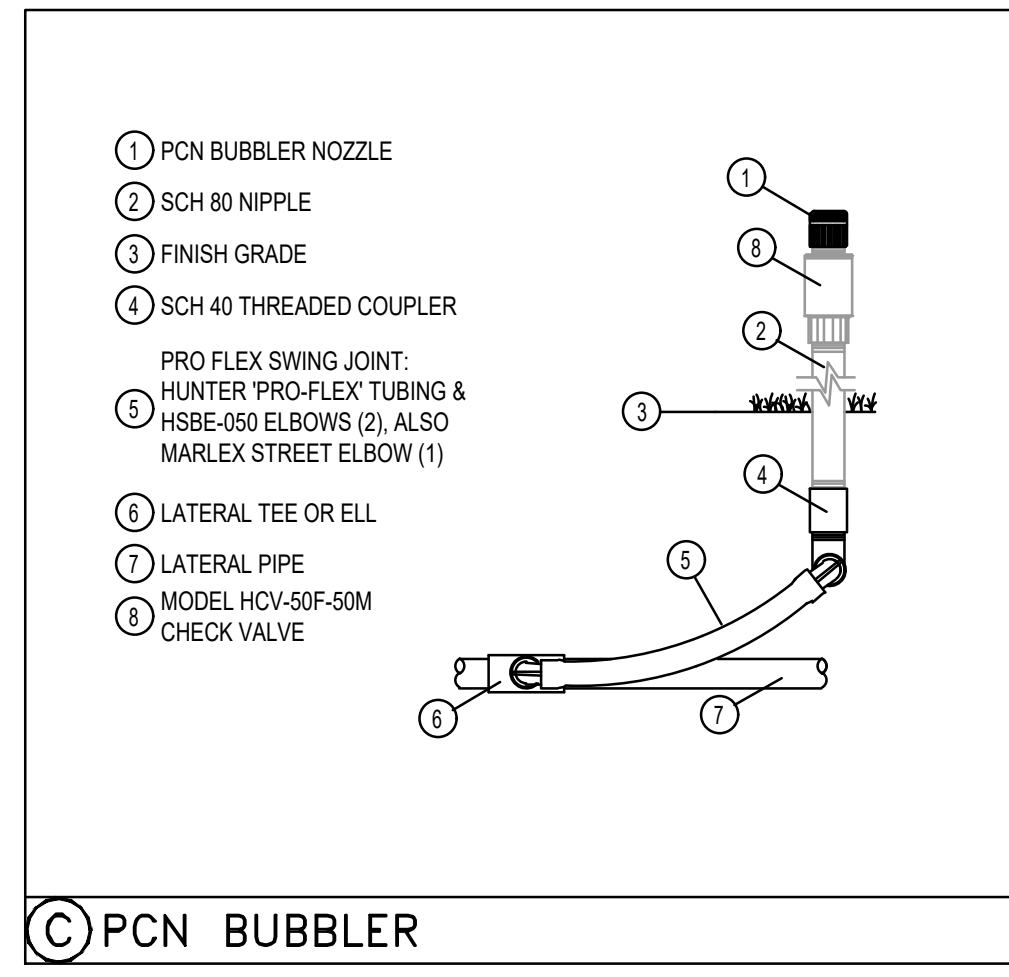
**IRRIGATION DETAILS**



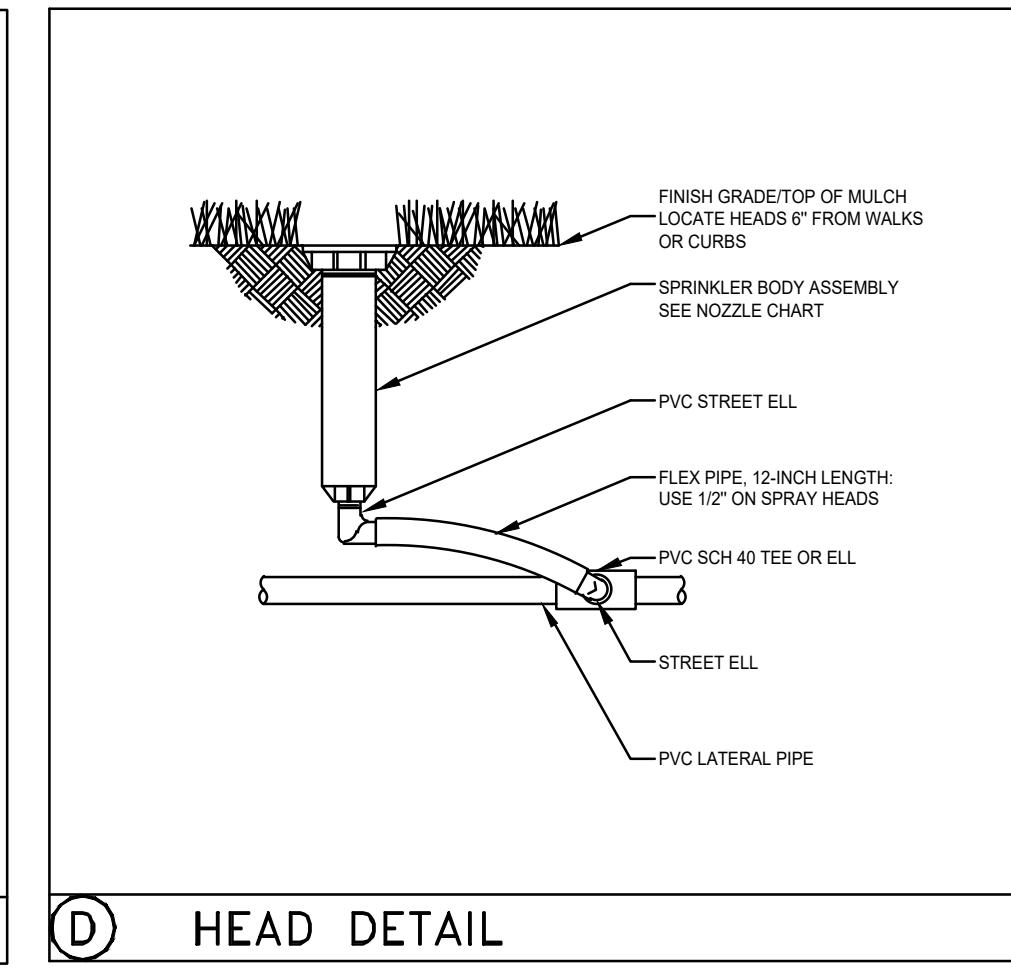
**A** ICC2 WALL MOUNT CONTROLLER



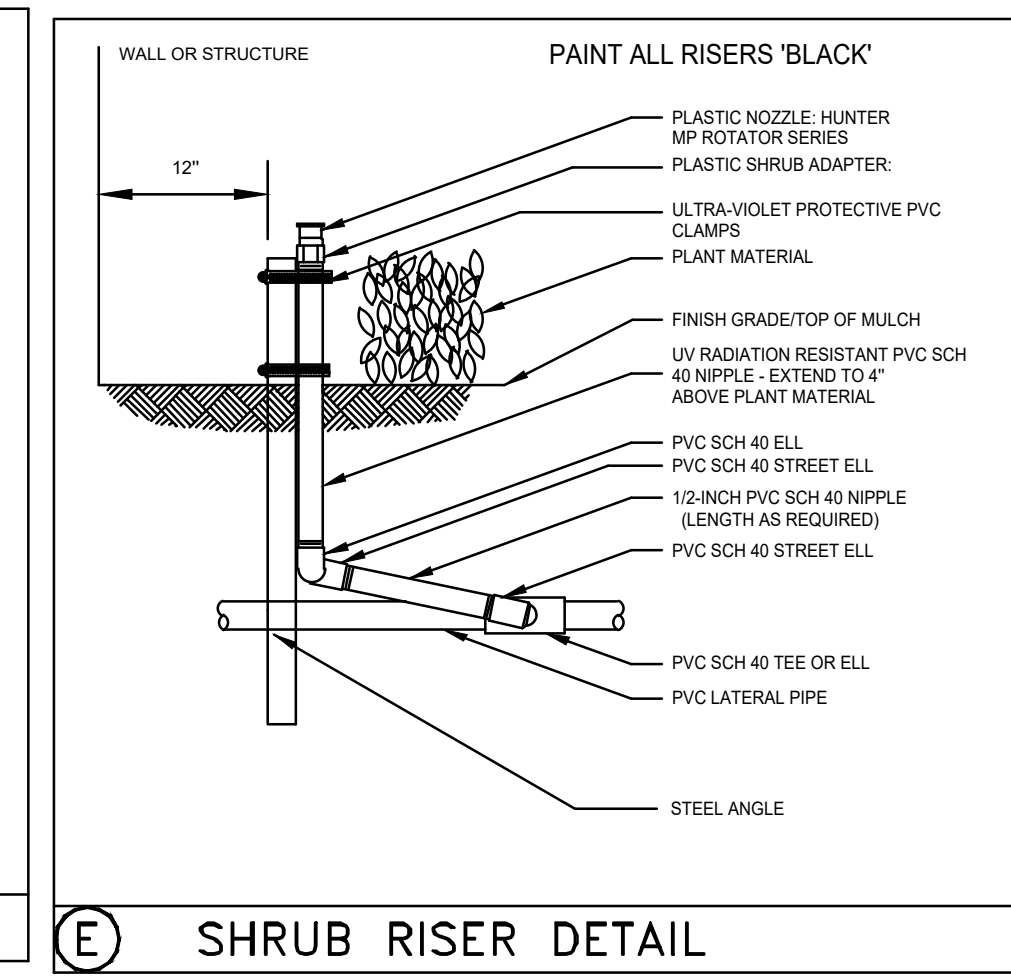
**B** ICV-151 OR 201 GLOBE VALVE



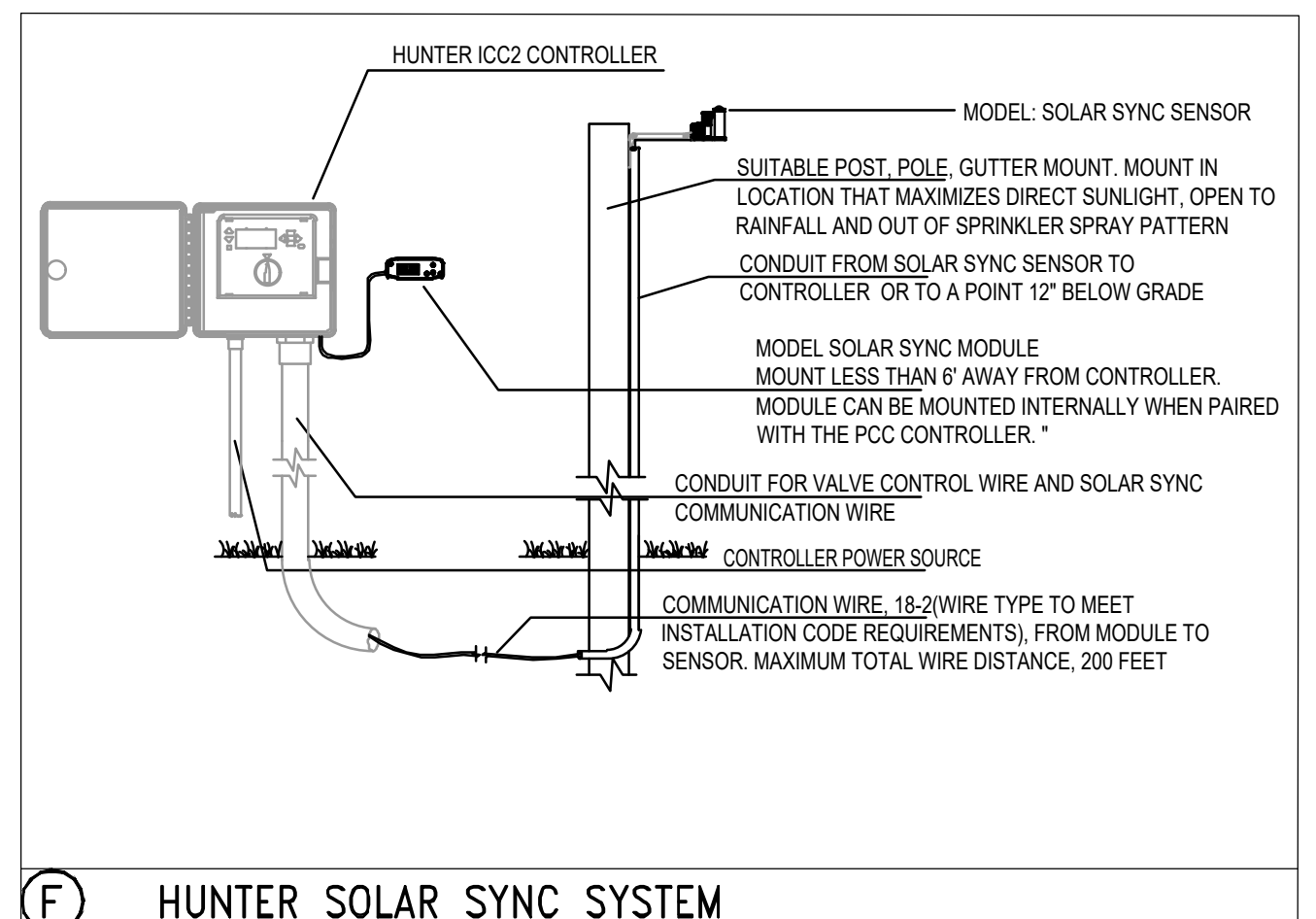
**C** PCN BUBBLER



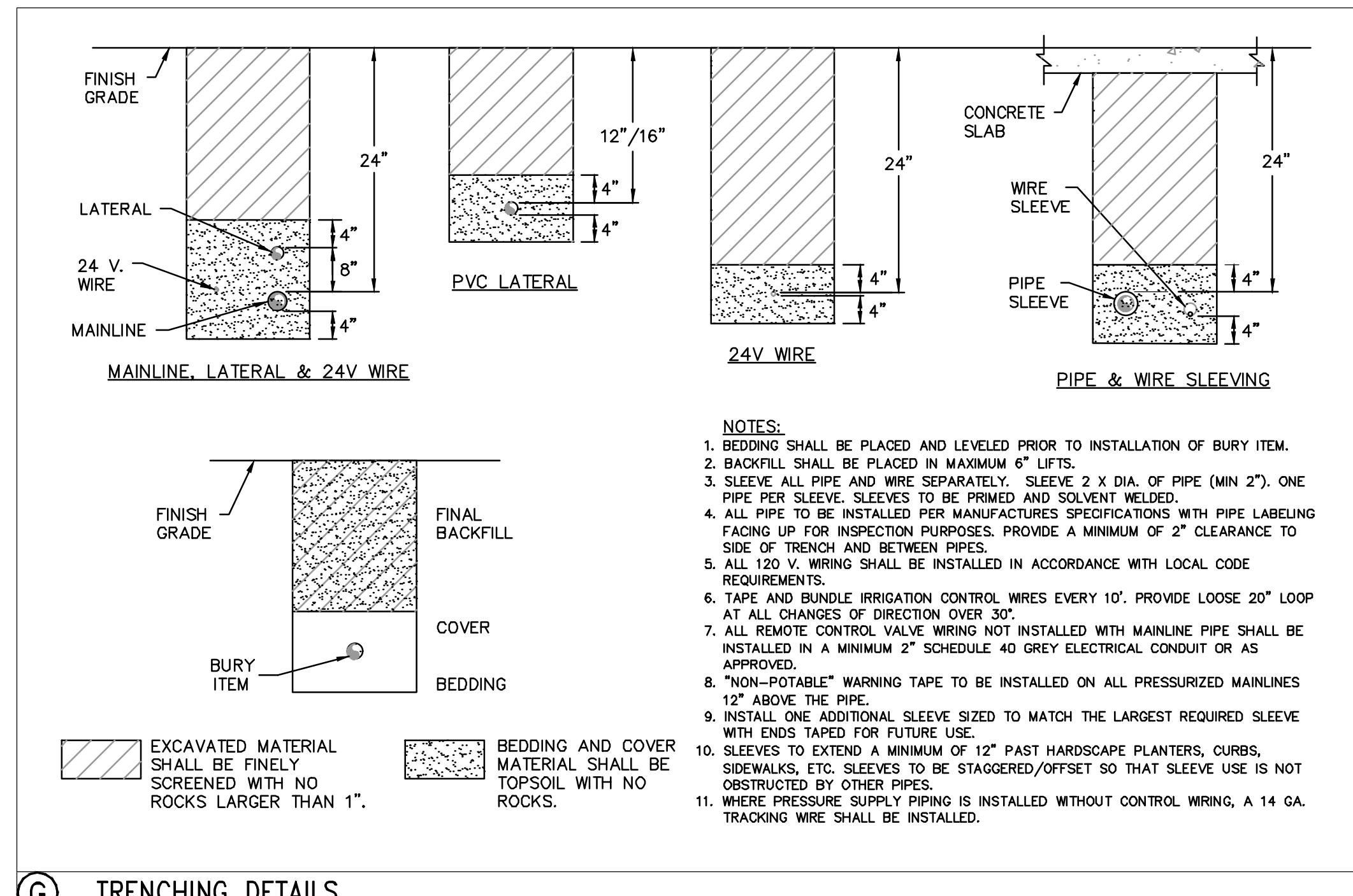
**D** HEAD DETAIL



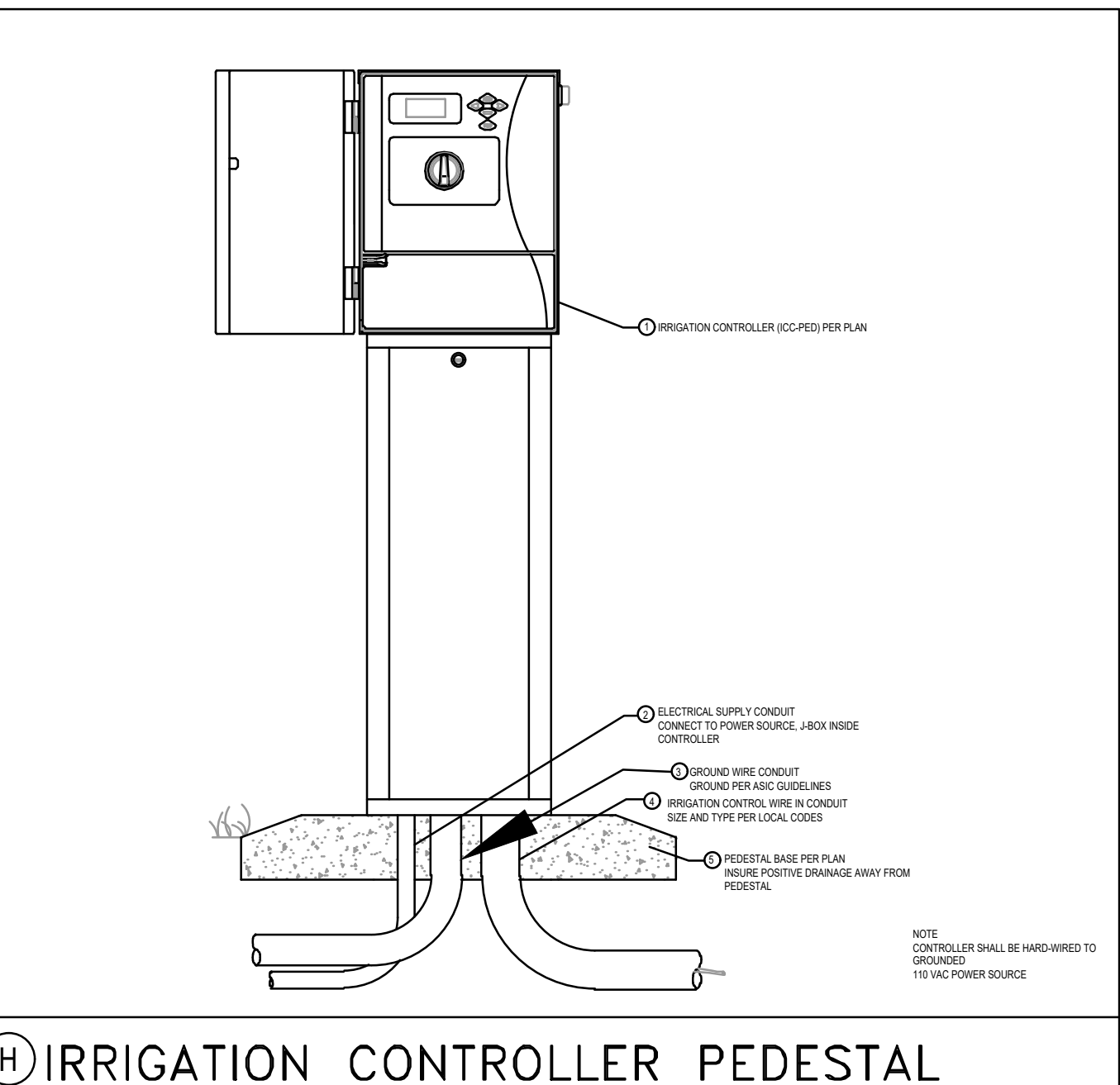
**E** SHRUB RISER DETAIL



**F** HUNTER SOLAR SYNC SYSTEM



**G** TRENCHING DETAILS



**H** IRRIGATION CONTROLLER PEDESTAL

**SPRAY NOZZLE CHART**

SYM	NOZZLE	NOZZLE PATTERN	GPM
MP1000 8'-15' radius	A MAROON	90° ADJUSTABLE ARC	.19
	B MAROON	180° ADJUSTABLE ARC	.37
	C LT. BLUE	210° ADJUSTABLE ARC	.43
	D LT. BLUE	270° ADJUSTABLE ARC	.57
	E OLIVE	360° ARC	.75
	F BLACK	90° ADJUSTABLE ARC	.40
MP2000 13'-21' radius	G BLACK	180° ADJUSTABLE ARC	.74
	H GREEN	210° ADJUSTABLE ARC	.86
	I GREEN	270° ADJUSTABLE ARC	1.10
	J RED	360° ARC	1.47
MP3000 22'-30' radius	K BLUE	90° ADJUSTABLE ARC	.86
	L BLUE	180° ADJUSTABLE ARC	1.82
	M YELLOW	210° ADJUSTABLE ARC	2.12
	N YELLOW	270° ADJUSTABLE ARC	2.73
	O GRAY	360° ARC	3.64
	P TURQUOISE	45°-105° ADJUSTABLE ARC	.45
STRIPS & CORNERS	Q IVORY	5'x15' LEFT STRIP	.22
	R COPPER	5'x15' RIGHT STRIP	.22
	S BROWN	5'x30' SIDE STRIP	.44
BUBBLERS AND MICRO-SPRAYS	T PCN10	1.00 GPM FLOOD BUBBLER	1.00
	U PCN50	.50 GPM FLOOD BUBBLER	.50
	V SR-2Q	90° 2' RADIUS	.11
	W SR-2H	180° 2' RADIUS	.16
	X MS-F	360° 5' RADIUS	.50

**IRRIGATION NOTES**

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- ALL POP-UP ROTORS AND SPRAY HEADS SHALL BE INSTALLED USING AN 18" P.V.C. FLEX PIPE CONNECTION. DO NOT USE FUNNY PIPE.
- ADJUST ALL NOZZLES TO REDUCE WATER WASTE ON HARD SURFACES AND BUILDING WALLS.
- THROTTLE ALL VALVES ON SHRUB LINES AS REQUIRED TO PREVENT FOGGING.
- ALL RISERS SHALL BE PAINTED BLACK.
- ALL RISERS SHALL BE STAKED WITH A STEEL ANGLE AND SECURED WITH ULTRA-VIOLET LIGHT PROTECTED P.V.C. CLAMPS.
- ALL CONTROL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING SNAP-TITE CONNECTORS AND SEALANT.
- THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING ON A REPRODUCIBLE PAPER (SEPIA OR MYLAR) SHOWING ALL INSTALLED IRRIGATION. A MYLAR OR SEPIA OF THE ORIGINAL PLAN MAY BE OBTAINED FROM THE LANDSCAPE ARCHITECT FOR A FEE. THE DRAWING SHALL LOCATE ALL MAINLINE AND VALVES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES.
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- ALL RISERS SHALL BE INSTALLED 12" FROM ANY WALL AND A MINIMUM OF 36" FROM ANY SIDEWALK, PATIO OR ROAD.
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- CONTRACTOR TO USE MIN. OF 12 GAUGE WIRE FOR ALL COMMON WIRES AND 14 GAUGE WIRE FOR ALL CONTROL WIRES. CONTRACTOR ALSO TO PROVIDE 3 SPARE CONTROL WIRES FOR ANY FUTURE USE.
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**EQUIPMENT LIST**

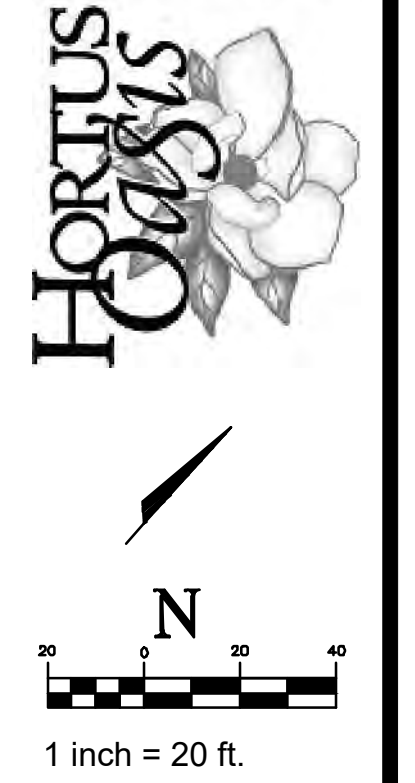
SYMBOL	DESCRIPTION	QUANTITY
⊙	0.50 GPM BUBBLER (2 PER TREE)	46
○	6" POP-UP SPRAY - HUNTER INDUSTRIES MPR40 W/MP2000 NOZZELS	194
●	12" POP-UP SPRAY - HUNTER INDUSTRIES MPR40 W/MP2000 NOZZELS	44
⊙	SPRAY ON RISER - HUNTER INDUSTRIES INST-00-CV-MP2000	28
▲	HUNTER INDUSTRIES - 4" POP-UP PGP ROTORS- PART RADIUS	0
⊙	HUNTER INDUSTRIES - 4" POP-UP PGP ROTORS- FULL RADIUS	0
▲	HUNTER INDUSTRIES - I-40 ROTORS - PART 60' RADIUS	0
⊙	HUNTER 'ICV' SERIES ELECTRIC VALVE WITH ACCU-SET PRESSURE REGULATOR 1"	5
⊙	HUNTER 'ICV' SERIES ELECTRIC VALVE WITH ACCU-SET PRESSURE REGULATOR 1 1/2"	0
⊙	HUNTER ICC2 8 STATION CONTROLLER, 120VOLT INSTALL WITH A SOLAR SYNC (WITH EVAPOTRANSPIRATION SENSOR AND RAIN SENSOR AND BY-PASS BOX.) GROUND WITH AN 8' COPPER CLAD ROD. TO BE INSTALLED ON A PEDESTAL.	1
■	1" POTABLE IRRIGATION METER TO PROVIDE 30 GPM AT 40 PSI	1
⊗	1" DOUBLE CHECK VALVE BACKFLOW PREVENTOR	1
—	LATERAL LINE SIZE PER PLAN	SEE PLAN
---	1-1/2" MAINLINE CLASS 200 P.V.C. SIZE PER PLAN	SEE PLAN
▬	SLEEVING - SCH. 40 P.V.C. MIN. DEPTH OF 24" (ALL 3" SLEEVES TO HAVE ACCOMPANYING 2" SLEEVE FOR WIRES)	SEE PLAN

Zone#	GPM	Water Use	Program
1	23	Bubblers	B
2	21	Shrubs	A
3	27	Sod	C
4	27	Sod	C
5	27	Sod	C

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REVISIONS:  
# DATE NOTE

STEPHEN G. PATEGAS, R.I.A., A.S.I.A.  
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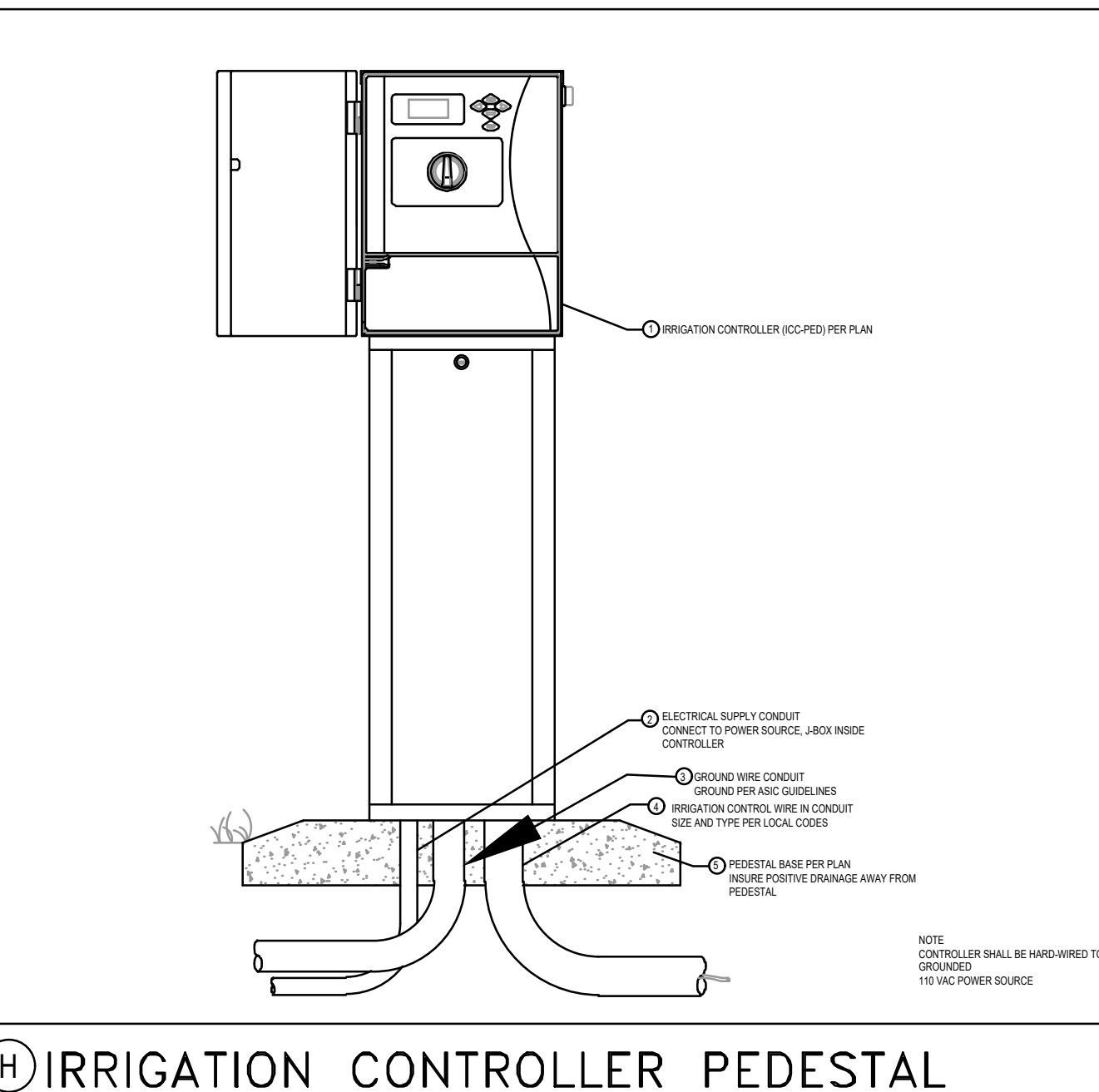
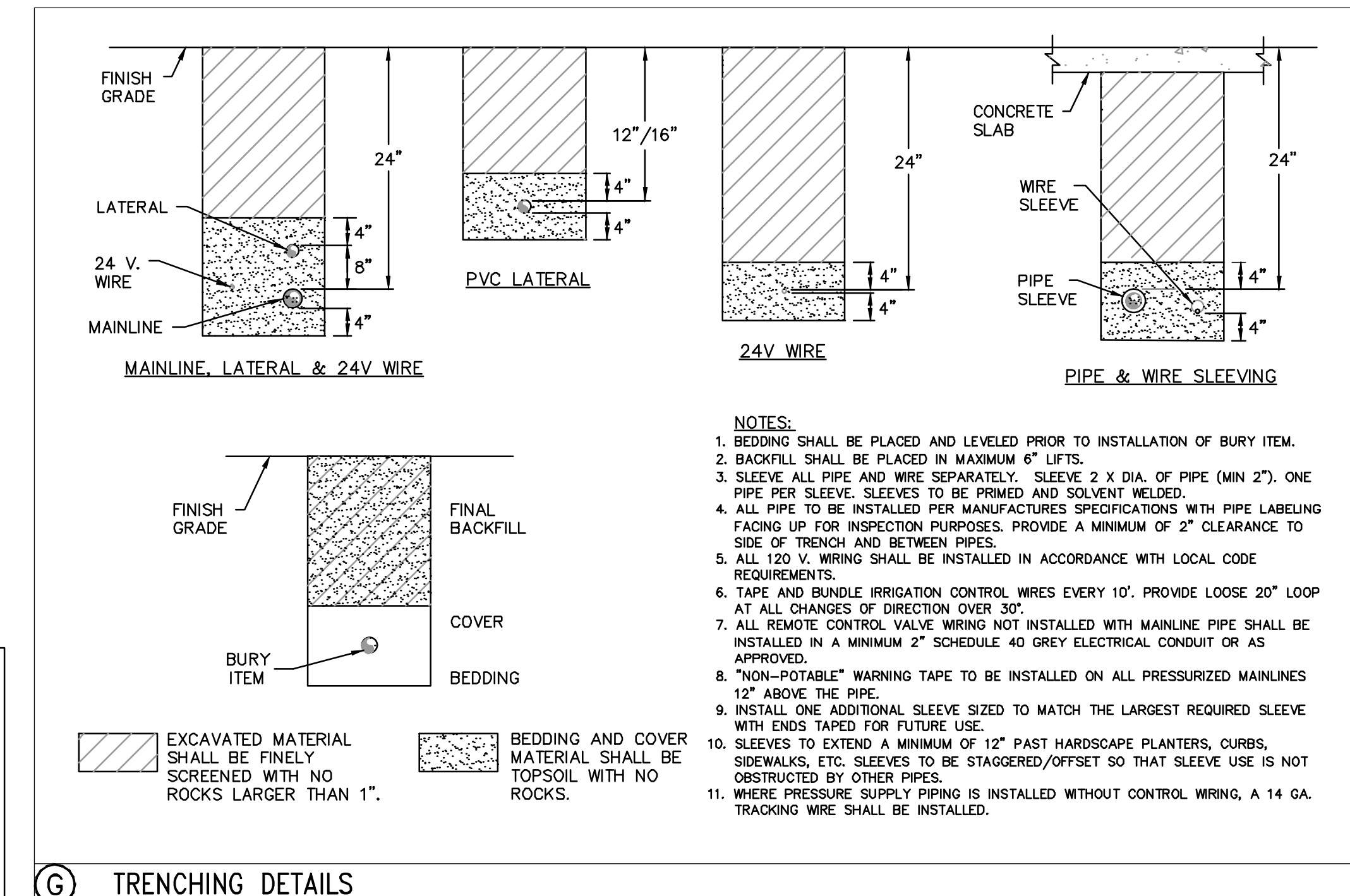
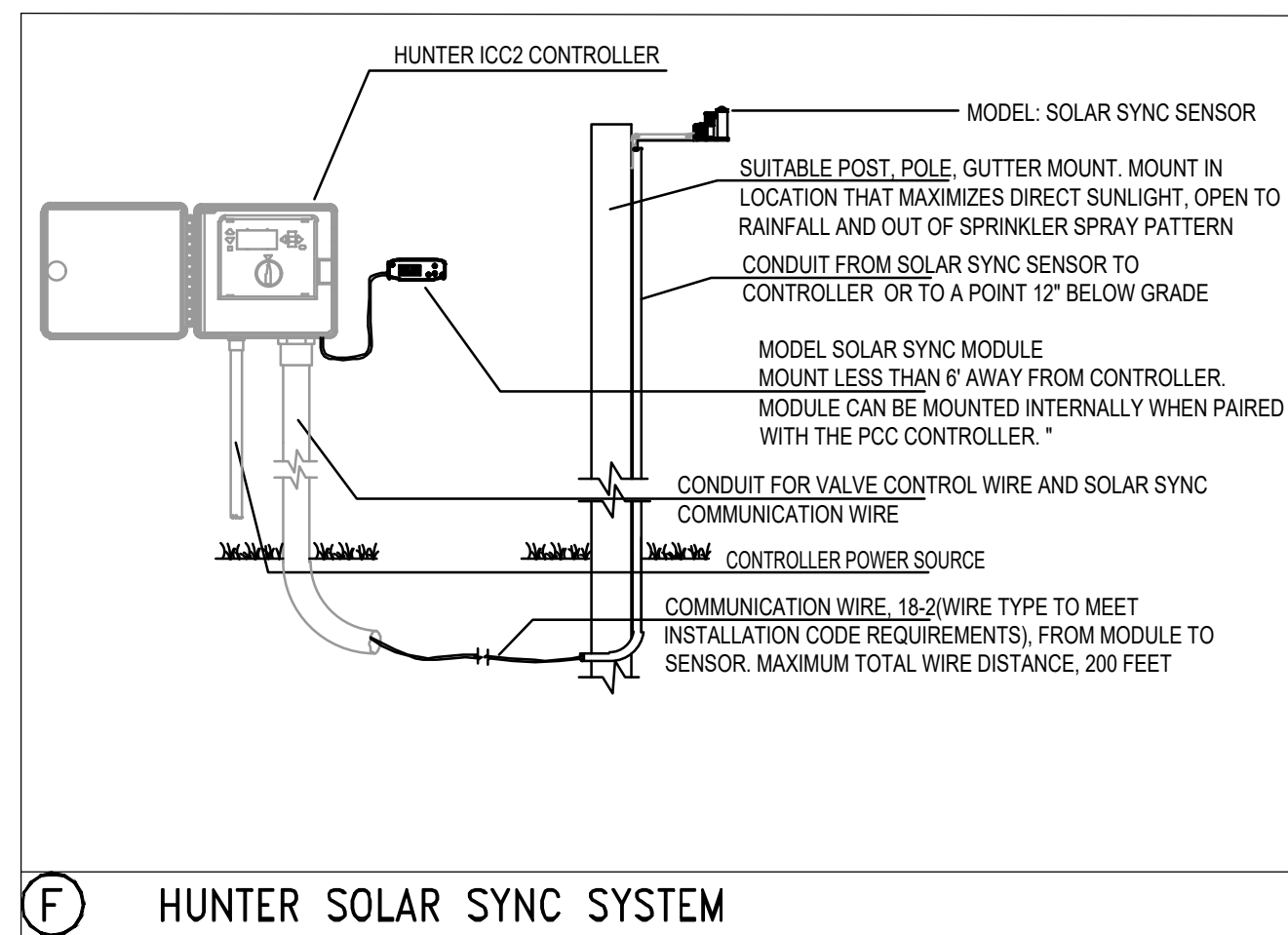
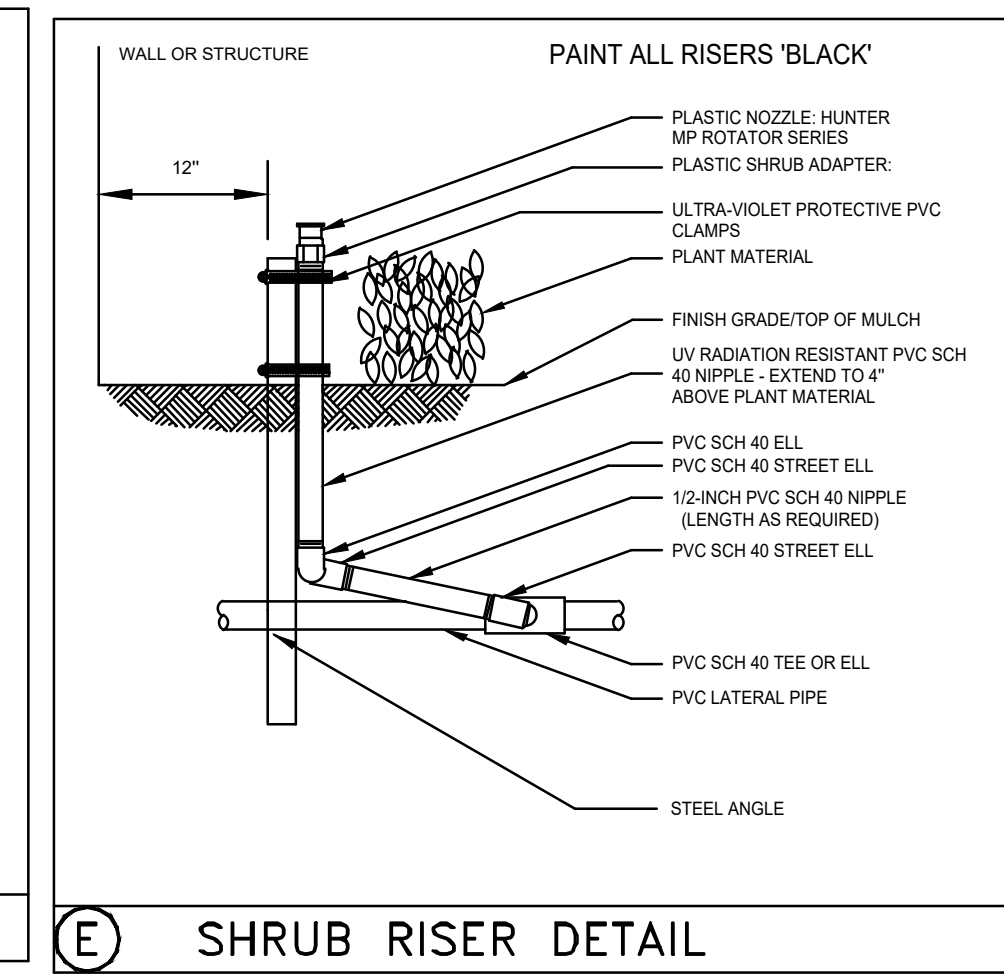
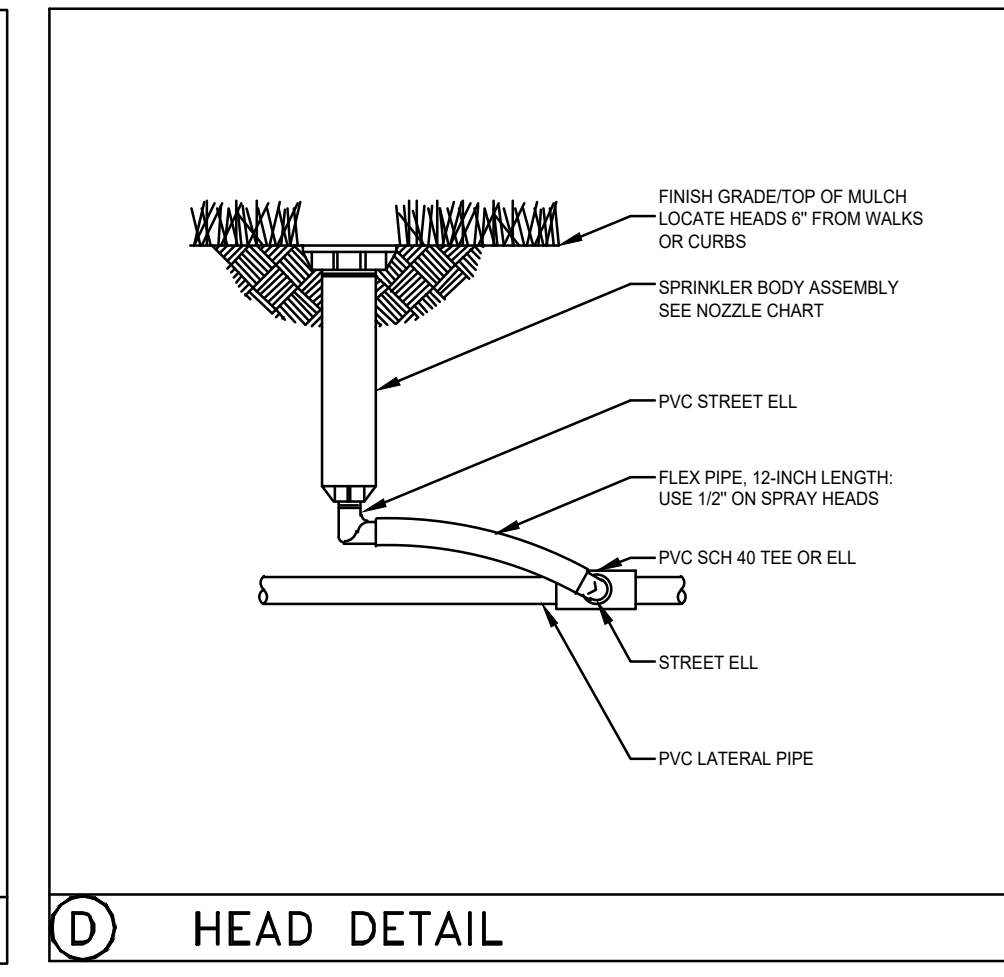
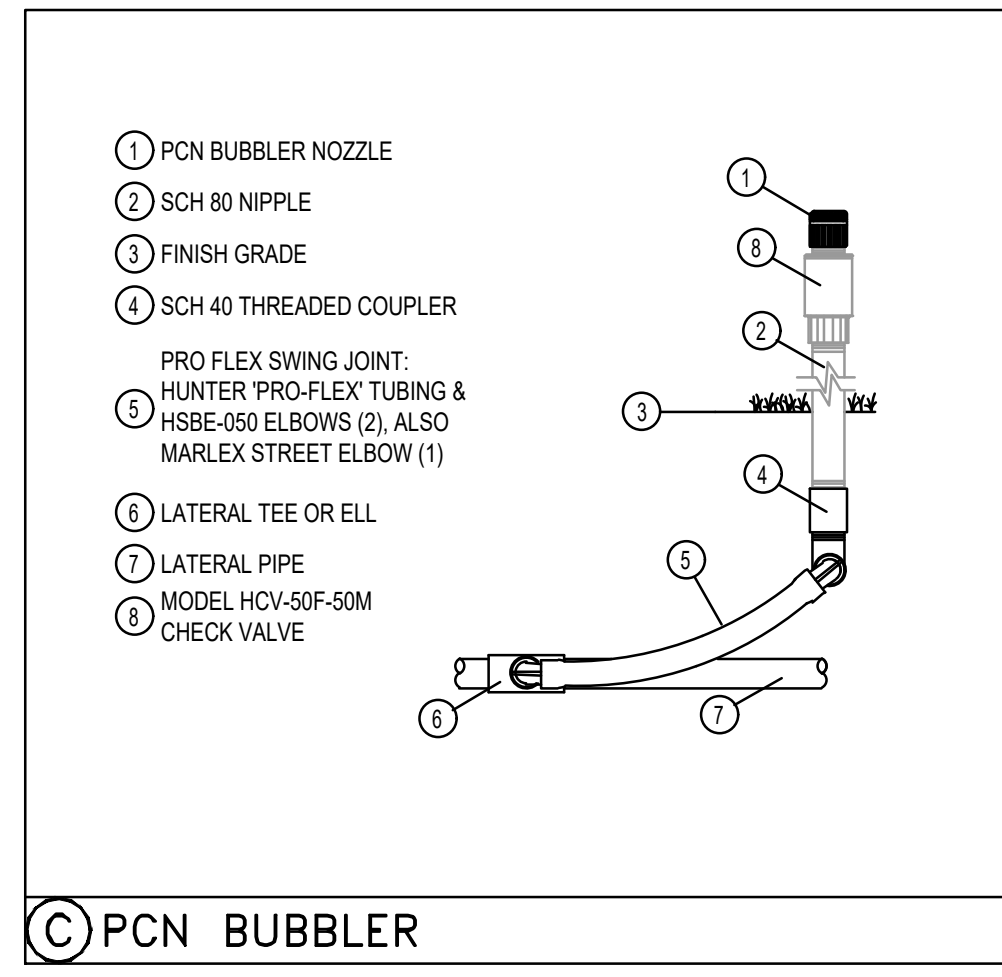
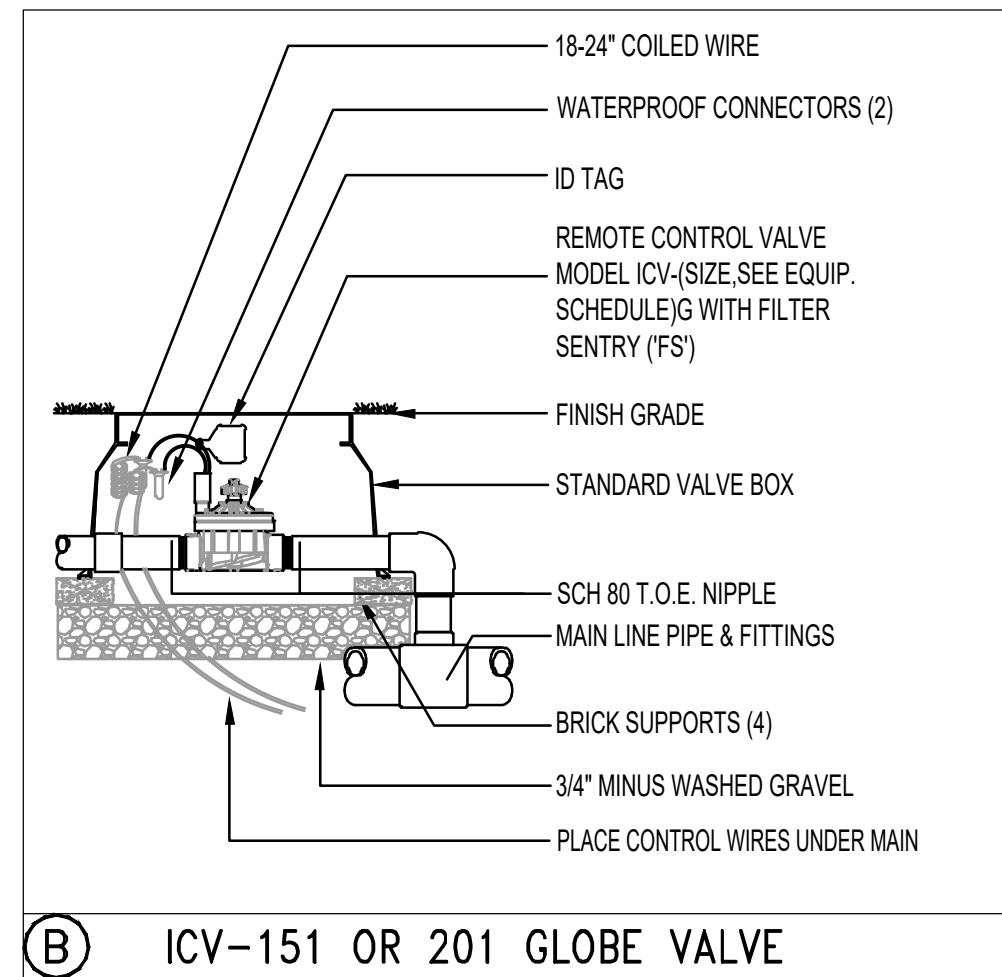
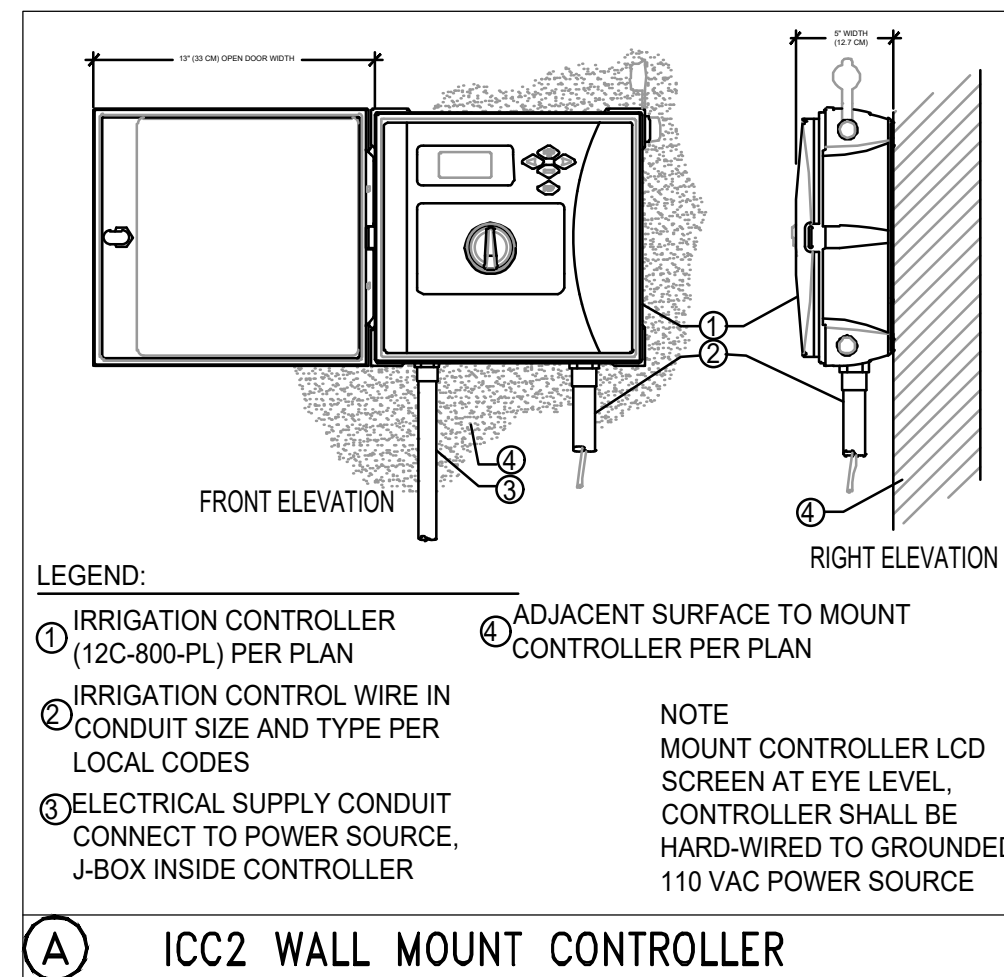
**Irrigation Plan**  
**Midway Apartments**  
 MIDWAY TERRACE  
 Ocala, Florida

DESIGN | DRAFT | CHECK  
 SP | JB | SP  
 PROJECT # 223-052  
 DATE: 07/10/2023  
 SCALE: N.T.S.  
 SHEET: L-3  
 TOTAL: L-1 to L-3

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**IRRIGATION DETAILS**



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**EQUIPMENT LIST**

SYMBOL	DESCRIPTION	QUANTITY
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●	12" POP-UP SPRAY - HUNTER INDUSTRIES MPR40 W/MP2000 NOZZELS	69
⦿	SPRAY ON RISER - HUNTER INDUSTRIES INST-00-CV-MP2000	27
▲	HUNTER INDUSTRIES - 4" POP-UP PGP ROTORS- PART RADIUS	0
⊖	HUNTER INDUSTRIES - 4" POP-UP PGP ROTORS- FULL RADIUS	0
⬛	HUNTER INDUSTRIES - I-40 ROTORS - PART 60° RADIUS	0
⊖	HUNTER 'ICV' SERIES ELECTRIC VALVE WITH ACCU-SET PRESSURE REGULATOR 1"	5
⊖	HUNTER 'ICV' SERIES ELECTRIC VALVE WITH ACCU-SET PRESSURE REGULATOR 1 1/2"	0
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⊖	1" POTABLE IRRIGATION METER TO PROVIDE 30 GPM AT 40 PSI	1
⊖	1" DOUBLE CHECK VALVE BACKFLOW PREVENTOR	1
—	LATERAL LINE SIZE PER PLAN	SEE PLAN
---	1-1/2" MAINLINE CLASS 200 P.V.C. SIZE PER PLAN	SEE PLAN
—	SLEEVING - SCH. 40 P.V.C. MIN. DEPTH OF 24" (ALL 3" SLEEVES TO HAVE ACCOMPANYING 2" SLEEVE FOR WIRES)	SEE PLAN

**SPRAY NOZZLE CHART**

SYM	NOZZLE	NOZZLE PATTERN	GPM
MP1000 8'-15' radius	A MAROON	90° ADJUSTABLE ARC	.19
	B MAROON	180° ADJUSTABLE ARC	.37
	C LT. BLUE	210° ADJUSTABLE ARC	.43
	D LT. BLUE	270° ADJUSTABLE ARC	.57
	E OLIVE	360° ARC	.75
MP2000 13'-21' radius	F BLACK	90° ADJUSTABLE ARC	.40
	G BLACK	180° ADJUSTABLE ARC	.74
	H GREEN	210° ADJUSTABLE ARC	.86
	I GREEN	270° ADJUSTABLE ARC	1.10
	J RED	360° ARC	1.47
MP3000 22'-30' radius	K BLUE	90° ADJUSTABLE ARC	.86
	L BLUE	180° ADJUSTABLE ARC	1.82
	M YELLOW	210° ADJUSTABLE ARC	2.12
	N YELLOW	270° ADJUSTABLE ARC	2.73
	O GRAY	360° ARC	3.64
STRIPS & CORNERS	P TURQUOISE	45°-105° ADJUSTABLE ARC	.45
	Q IVORY	5'x15' LEFT STRIP	.22
	R COPPER	5'x15' RIGHT STRIP	.22
	S BROWN	5'x30' SIDE STRIP	.44
BUBBLERS AND MICRO-SPRAYS	T PCN10	1.00 GPM FLOOD BUBBLER	1.00
	U PCN50	.50 GPM FLOOD BUBBLER	.50
	V SR-2Q	90° 2' RADIUS	.11
	W SR-2H	180° 2' RADIUS	.16
	X MS-F	360° 5' RADIUS	.50

**Zone Chart**

Zone#	GPM	Water Use	Program
1	24	Sod	C
2	28	Sod	C
3	12	Shrubs	A
4	19	Shrubs	A
5	27	Bubblers	B

REVISIONS:  
# DATE NOTE  
1 12/21/23 County Comment

STEPHEN G. PATEGAS, R.I.A., A.S.I.A.  
Landscape Architect - LC20000315  
KRISTIN G. PATEGAS, A.P.L.D., F.C.I.D.  
Landscape Designer  
407.622.4886 FAX 407.622.4887  
1425 BERKSHIRE AVENUE  
WINTER PARK, FL 32789  
garder@hortusois.com  
www.hortusois.com



**Irrigation Details**  
**Midway Point**  
MIDWAY TERRACE  
Ocala, Florida

DESIGN | DRAFT | CHECK  
SP | JB | SP  
PROJECT #: 223-052  
DATE: 07/10/2023  
SCALE: N.T.S.  
TOTAL: L-1 to L-3

**48 HOURS BEFORE YOU DIG**  
CALL SUNSHINE  
1-800-432-4770 or 811  
**IT'S THE LAW IN FLORIDA**  
FLORIDA LAW REQUIRES EXCAVATORS TO NOTIFY OWNERS OF UNDERGROUND FACILITIES NO LESS THAN TWO (2) DAYS PRIOR TO EXCAVATION

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# BOUNDARY AND TOPOGRAPHIC RIGHT OF WAY SURVEY

SECTION 10, TOWNSHIP 29S, RANGE 18E, HILLSBOROUGH COUNTY

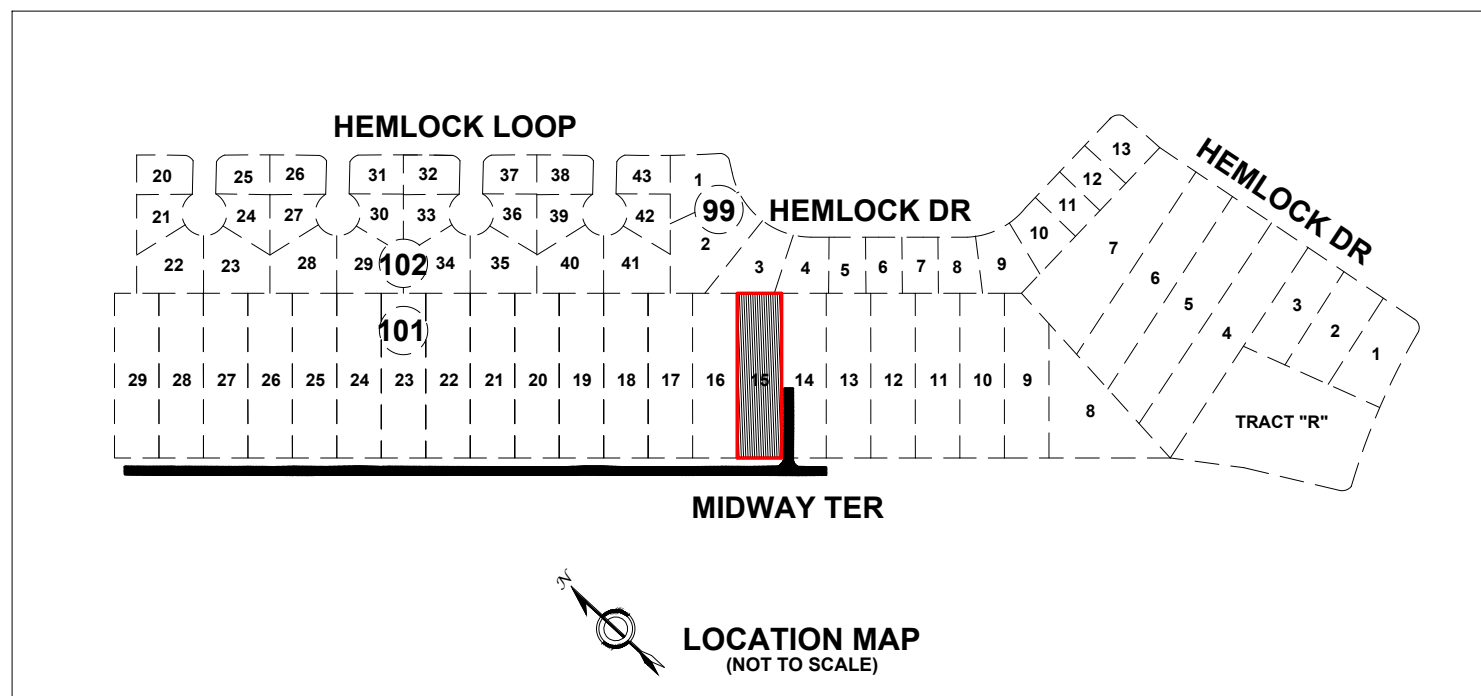
**PROPERTY ADDRESS:**  
XXXX MIDWAY TER,  
OCALA, FL 34472  
(FOLIO NO. 9007-0101-15)

**DESCRIPTION:**  
LOT 15 OF BLOCK 101 OF "SILVER SPRINGS SHORES UNIT NO. 7", ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK J AT PAGE 94 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

**FLOOD ZONE INFORMATION:**  
COMMUNITY: MARION COUNTY - 120160  
MAP/PANEL NO. 12083C0735D  
SUFFIX: D  
FIRM DATE: 08/28/2008  
FLOOD ZONE: X

**CERTIFY TO:**

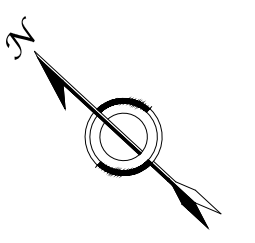
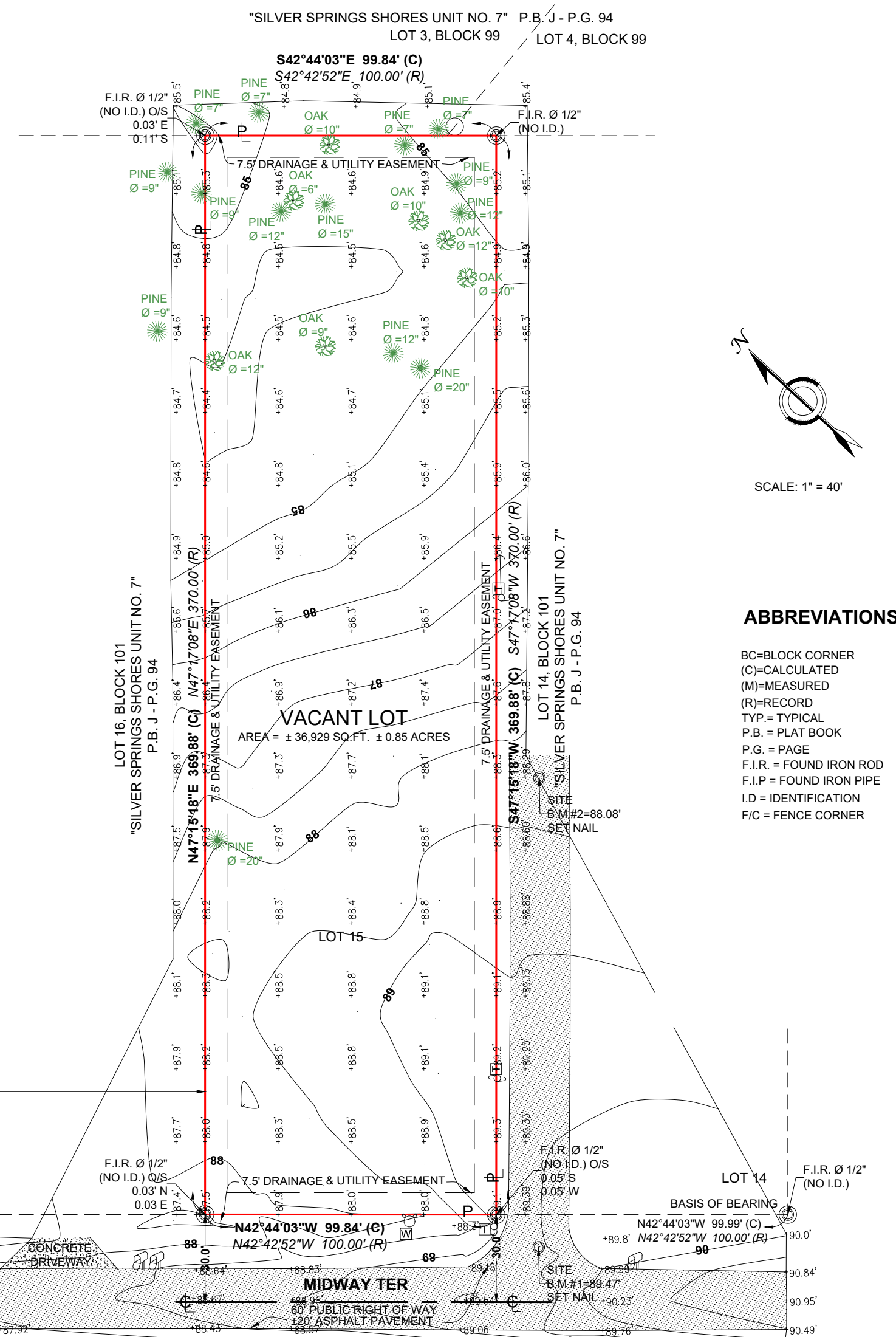
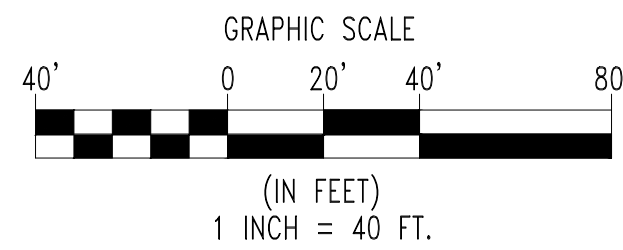
**CIELOS ABIERTOS LLC  
LUIS ORTIZ**



**LEGEND**

- |                    |                        |
|--------------------|------------------------|
| CENTER LINE        | UTILITY POLE           |
| PROPERTY CORNER    | METER (WATER)          |
| PROPERTY LINE      | GUY WIRE               |
| TREE               | FIRE HYDRANT           |
| GROUND ELEVATION   | VALVE (WATER)          |
| PAVEMENT ELEVATION | SIGN                   |
| TELECOMMUNICATION  | MAILBOX                |
|                    | BOX (ELECTRIC)         |
|                    | CONTOUR LINE ELEVATION |

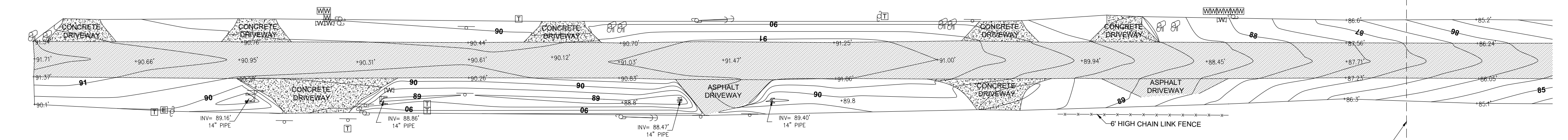
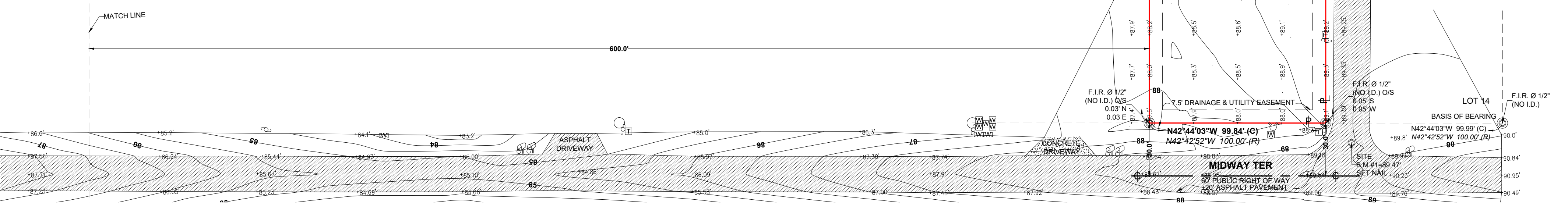
CONTROL POINTS	NORTHING (FL83-W)	EASTING (FL83-W)	ELEVATION (NAVD88)
BM#1	1740721.31'	647136.25'	89.47'
BM#2	1740830.45'	647254.59'	88.08'



SCALE: 1" = 40'

**ABBREVIATIONS**

- BC=BLOCK CORNER
- (C)=CALCULATED
- (M)=MEASURED
- (R)=RECORD
- TYP.=TYPICAL
- P.B.=PLAT BOOK
- P.G.=PAGE
- F.I.R.=FOUND IRON ROD
- F.I.P.=FOUND IRON PIPE
- I.D.=IDENTIFICATION
- F/C=FENCE CORNER





# BOUNDARY AND TOPOGRAPHIC SURVEY

SECTION 10, TOWNSHIP 29S, RANGE 18E, HILLSBOROUGH COUNTY

"SILVER SPRINGS SHORES UNIT NO. 7" P.B. J - P.G. 94  
LOT 3, BLOCK 99 LOT 4, BLOCK 99

**PROPERTY ADDRESS:**  
**XXXX MIDWAY TER,**  
**OCALA, FL 34472**  
(FOLIO NO. 9007-0101-15)

## ABBREVIATIONS

BC=BLOCK CORNER  
(C)=CALCULATED  
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TYP.=TYPICAL  
P.B. = PLAT BOOK  
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I.D = IDENTIFICATION  
F/C = FENCE CORNER

## DESCRIPTION:

LOT 15 OF BLOCK 101 OF "SILVER SPRINGS SHORES UNIT NO. 7", ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK J AT PAGE 94 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

## FLOOD ZONE INFORMATION:

COMMUNITY: MARION COUNTY - 120160  
MAP/PANEL NO. 12083C0735D  
SUFFIX: D  
FIRM DATE: 08/28/2008  
FLOOD ZONE: X

THERE MAY BE LEGAL RESTRICTIONS ON THE SUBJECT PROPERTY THAT ARE NOT SHOWN ON THE MAP OF SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF MARION COUNTY, OR THE RECORDS OF ANY OTHER PUBLIC AND PRIVATE ENTITIES AS THEIR JURISDICTIONS MAY APPEAR.

THE MAP OF SURVEY IS INTENDED TO BE DISPLAYED AT THE STATED GRAPHIC SCALE IN ENGLISH UNITS OF MEASUREMENT. ATTENTION IS BROUGHT TO THE FACT THAT SAID DRAWING MAY BE ALTERED IN SCALE BY THE REPRODUCTION PROCESS

THIS SURVEY WAS CONDUCTED FOR THE PURPOSE OF A TOPOGRAPHIC SURVEY ONLY AND IS NOT INTENDED TO DELINEATE THE REGULATORY JURISDICTION OF ANY FEDERAL, STATE, REGIONAL OR LOCAL AGENCY BOARD, COMMISSION OR OTHER ENTITY.

THE ELEVATIONS OF WELL-IDENTIFIED FEATURES AS DEPICTED ON THIS SURVEY AND MAP WERE MEASURED TO AN ESTIMATED VERTICAL POSITIONAL ACCURACY OF 1/10 FOOT FOR NATURAL GROUND SURFACES AND 1/100 FOOT FOR HARDSCAPE SURFACES, INCLUDING PAVEMENTS, CURBS AND OTHER MAN-MADE FEATURES AS MAY EXIST.

BENCH MARK: GPS - NAIL ELEVATION: 89.47 FEET (NAVD88)

LEGAL DESCRIPTION WAS FURNISHED BY THE CLIENT.

WELL-IDENTIFIED FEATURES AS DEPICTED ON THIS SURVEY AND MAP WERE MEASURED TO AN ESTIMATED HORIZONTAL POSITIONAL ACCURACY OF 1/10 FOOT UNLESS OTHERWISE SHOWN.

BEARINGS AS SHOWN HEREON ARE BASED UPON AN ASSUMED VALUE OF N42°44'03"W FOR THE NORTHEASTERLY OF RIGHT OF WAY LINE OF MIDWAY TER AS DEPICTED ON THE MAP OF SURVEY.

LEGAL DESCRIPTION SUBJECT TO ANY DEDICATIONS, LIMITATIONS, RESTRICTIONS, RESERVATIONS OR RECORDED EASEMENTS.

THE SURVEYOR MAKES NO REPRESENTATION AS TO OWNERSHIP, POSSESSION OR OCCUPATION OF THE SUBJECT PROPERTY BY ANY ENTITY OR INDIVIDUAL.

SUBSURFACE IMPROVEMENTS AND/OR ENCROACHMENTS WITHIN, UPON, ACROSS, ABUTTING OR ADJACENT TO THE SUBJECT PROPERTY WERE NOT LOCATED AND ARE NOT SHOWN.

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS AND DELETIONS TO THIS MAP OF SURVEY BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

THIS MAP OF SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF THE ENTITIES NAMED HEREIN AND THE CERTIFICATION DOES NOT EXTEND TO ANY UNNAMED PARTY.

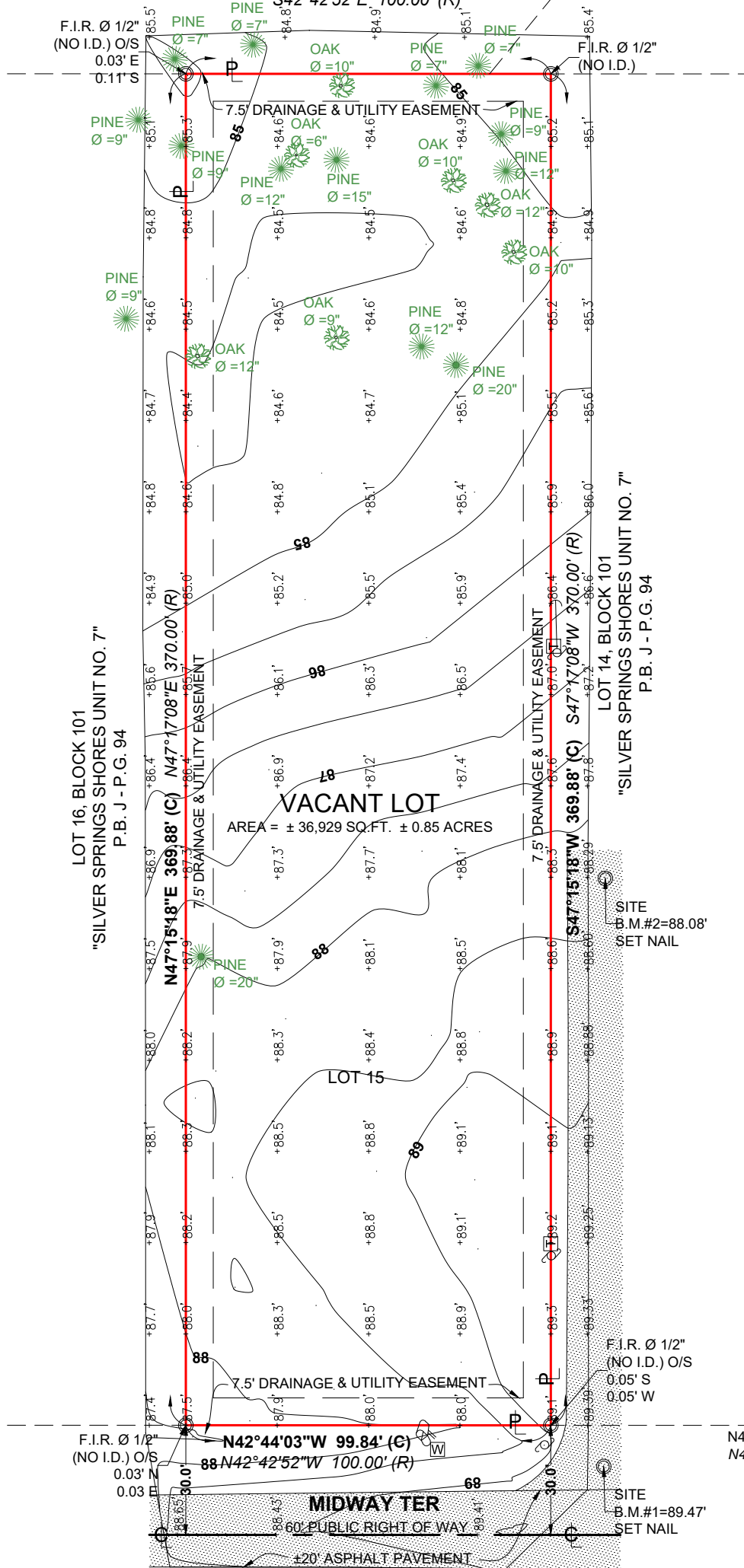
NO TREES FOUND 20' AWAY FROM PROPERTY UNLESS DEPICTED ON THIS MAP.

## CERTIFY TO:

**CIELOS ABIERTOS LLC**  
**LUIS ORTIZ**

## SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY: THAT THIS "TOPOGRAPHIC SURVEY" AND THE MAP OF SURVEY RESULTING THERE FROM WAS PERFORMED UNDER MY DIRECTION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND FURTHER, THAT SAID "TOPOGRAPHIC SURVEY" MEETS THE INTENT OF THE "MINIMUM TECHNICAL STANDARDS FOR LAND SURVEYING IN THE STATE OF FLORIDA", PURSUANT TO RULE 5J-17 OF THE FLORIDA ADMINISTRATIVE CODE AND ITS IMPLEMENTING RULE, CHAPTER 472.027 OF THE FLORIDA STATUTES.

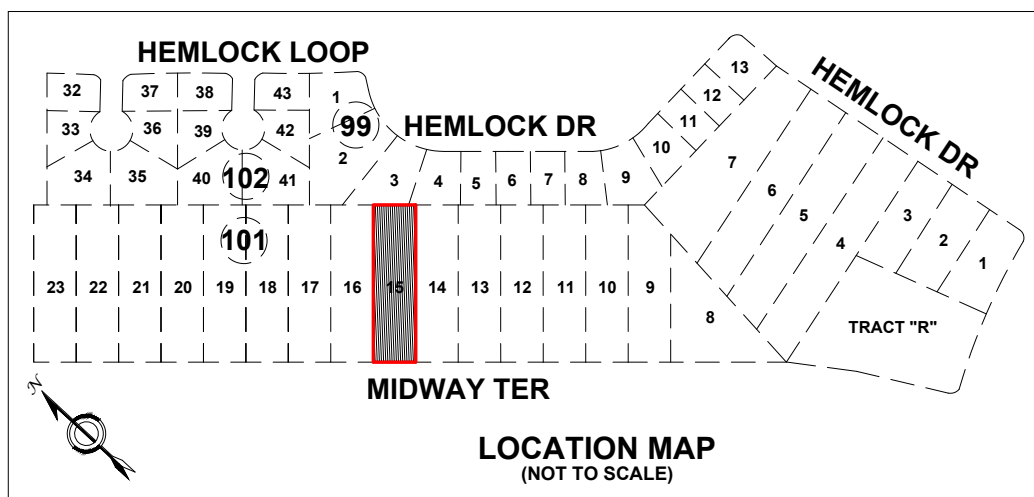
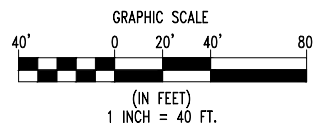
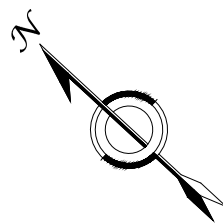


## LEGEND

- CENTER LINE
- PROPERTY CORNER
- PROPERTY LINE
- TREE
- TREE
- GROUND ELEVATION
- PAVEMENT ELEVATION
- TELEPHONE SERVICE BOX
- UTILITY POLE
- METER (WATER)
- GUY WIRE
- MAILBOX
- CONTOUR LINE ELEVATION

## HORIZONTAL COORDINATE TABLE

(NAD83)		
B.M.#	X {FEET}	Y {FEET}
1	647,136.16	1,740,721.37
2	647,254.65	1,740,830.31



**LOCATION MAP**  
(NOT TO SCALE)



PROFESSIONAL  
SURVEYOR AND MAPPER  
PHONE: (813) 423-3483  
FAX: (813) 398-0111  
www.gpsflorida.net

ORIGINAL FIELD DATE: 04/26/2022  
REVISIONS:

JOB NO. 22-4855

DRAWN CAL

SHEET  
1/1