APOPKA DEVELOPMENT REVIEW COMMITTEE AGENDA
March 25, 2026 9:00 AM
Apopka City Hall Commission Chambers

SPECIAL EXCEPTION

1. **SPX-26-2 - 1030 E Sandpiper SPX - Special Exception (SPX), 1st Submittal**
   Owner(s): Lincoln D Haynes and Lauren E Haynes
   Applicant(s): Lincon Haynes
   Location: 1030 E Sandpiper Street
   Proposed Use: ADU to House Elderly Parents
   Project Manager: Amer Hamza

SITE PLAN:

CONSTRUCTION SITE PLAN

1. **CSP-26-7 - Wekiva Shopping Center Building H - Construction Site Plan (CSP) 1st Submittal**
   Owner(s): Woolbright Wekiva LLC
   Applicant(s): Sun-Tech Engineering Inc - Clifford Loutan
   Location: 2121 East Semoran Blvd
   Proposed Use: Construction of 8,046 Sq FT Commercial Building, Sidewalk and Parking
   Project Manager: Jun Sohn

2. **CSP-26-8 - 7-11 Ocoee Apopka Road - Construction Site Plan (CSP), 1st Submittal**
   Owner(s): Shoppes at East Shore LLC
   Applicant(s): Kimley-Horn and Associates Inc - Derek Ramsburg, PE
   Location: 2501 Ocoee Apopka Road
   Proposed Use: Convenience Store With Fuel Sales and Associated Infrastructure
   Project Manager: Jean Sanchez

DISCUSSION

ADJOURNMENT

Individuals with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk at least two (2) working days in advance of the meeting date and time at (407) 703-1704. F.S. 286.0105 If a person decides to appeal any decision or recommendation made by Commission with respect to any matter considered at this meeting, he will need record of the proceedings, and that for such purposes he may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Any opening invocation that is offered before the official start of the Commission meeting shall be the voluntary offering of a private person, to and for the benefit of the Commission. The views or beliefs expressed by the invocation speaker have not been previously reviewed or approved by the City Commission or the city staff, and the City is not allowed by law to endorse the religious or non-religious beliefs or views of such speaker. Persons in attendance at the City Commission meeting are invited to stand during the opening ceremony. However, such invitation shall not be construed as a demand, order, or any other type of command. No person in attendance at the meeting shall be required to participate in any opening invocation that is offered or to participate in the Pledge of Allegiance. You may remain seated within the City Commission or exit the City Commission and return upon completion of the opening invocation and/or Pledge of Allegiance if you do not wish to participate in or witness the opening invocation and/or the recitation of the Pledge of Allegiance.

1030 E. Sandpiper St. - Accessory Dwelling Unit

Apopka, FL. 32712

V4



WESTCOTT DESIGN GROUP

January 2026

Zoning Requirements

Residential RCE Zoning
AHJ - City of Apopka
Minimum Lot Size: 43,560 SF (1AC)
Actual Lot Size: 78,018 SF (1.79AC)
Setbacks:

35’	FRONT	
35’	REAR	
15’	SIDE	
35’	SIDE (Street)	(N/A)

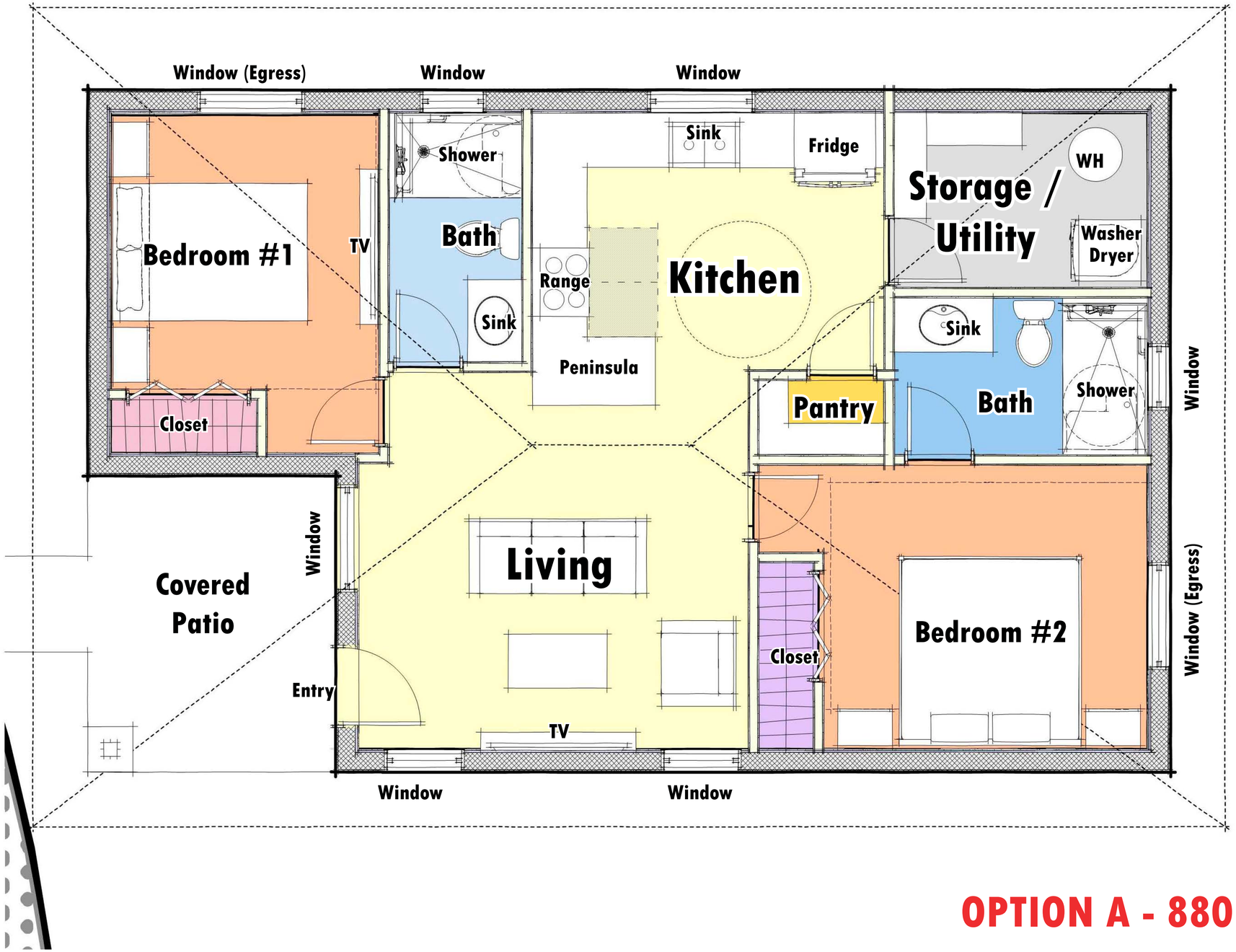
Max Height: 35’
Max Lot Coverage: N/A
Under 2 Acres

ADU Requirements:

The ADU may be attached to or detached from the principal dwelling. The ADU shall have a maximum gross floor area of 1,000 square feet . Owner Occupancy Required; Declaration of Restrictions. The property owner shall occupy either the principal structure or the ADU. Prior to the issuance of a building permit for construction of an ADU, an applicant shall record in the public records of Orange County a declaration of restrictions containing a reference to the legal description of the property and the deed under which the property was conveyed to the present owner stating that:

(a)The ADU shall not be sold or conveyed separate from the principal residence;
(b)The ADU is restricted to the approved size;
(c)The use permit for the ADU shall be in effect only so long as either the principal residence or the ADU is occupied by the owner of record as their principal residence;
(d)The declarations shall run with the land, shall be binding upon any successor in ownership of the property and that noncompliance shall be cause for code enforcement and/or revocation of the conditional use permit;
(e)The deed restrictions shall only be removed with the express, written approval of the City, but shall lapse upon removal of the accessory unit; and
(f)The ADU shall not be used for commercial purposes other than being leased for residential purposes.

Only one ADU shall be allowed for each lot or parcel.
The ADU shall meet the front, side and rear yard regulations for the zoning district in which it is located.
A mobile home or similar off-site constructed dwelling unit shall not be used as an ADU.



OPTION A - 880 SF

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WESTCOTT DESIGN GROUP

1030 E. Sandpiper Street - Apopka, FL.

PROPOSED ENLARGED PLAN

N 0’ 2’ 4’ 8’ 16’

January 22nd, 2026

Zoning Requirements

Residential RCE Zoning
AHJ - City of Apopka
Minimum Lot Size: 43,560 SF (1AC)
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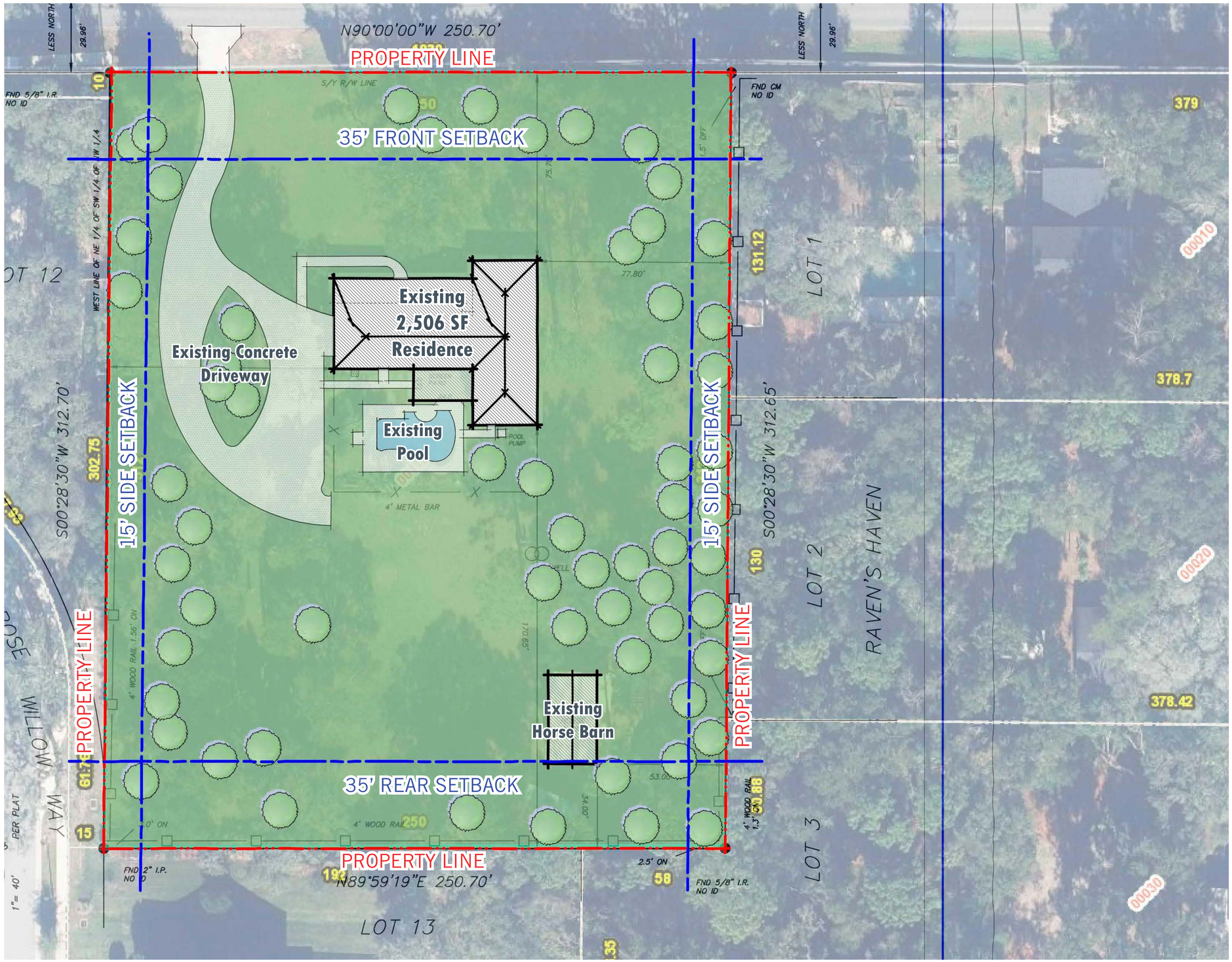
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1030 E. Sandpiper Street - Apopka, FL.

EXISTING SITE PLAN

N
0’ 10’ 20’ 40’ 80’
1”= 40’

January 22nd, 2026

Zoning Requirements

Residential RCE Zoning
AHJ - City of Apopka
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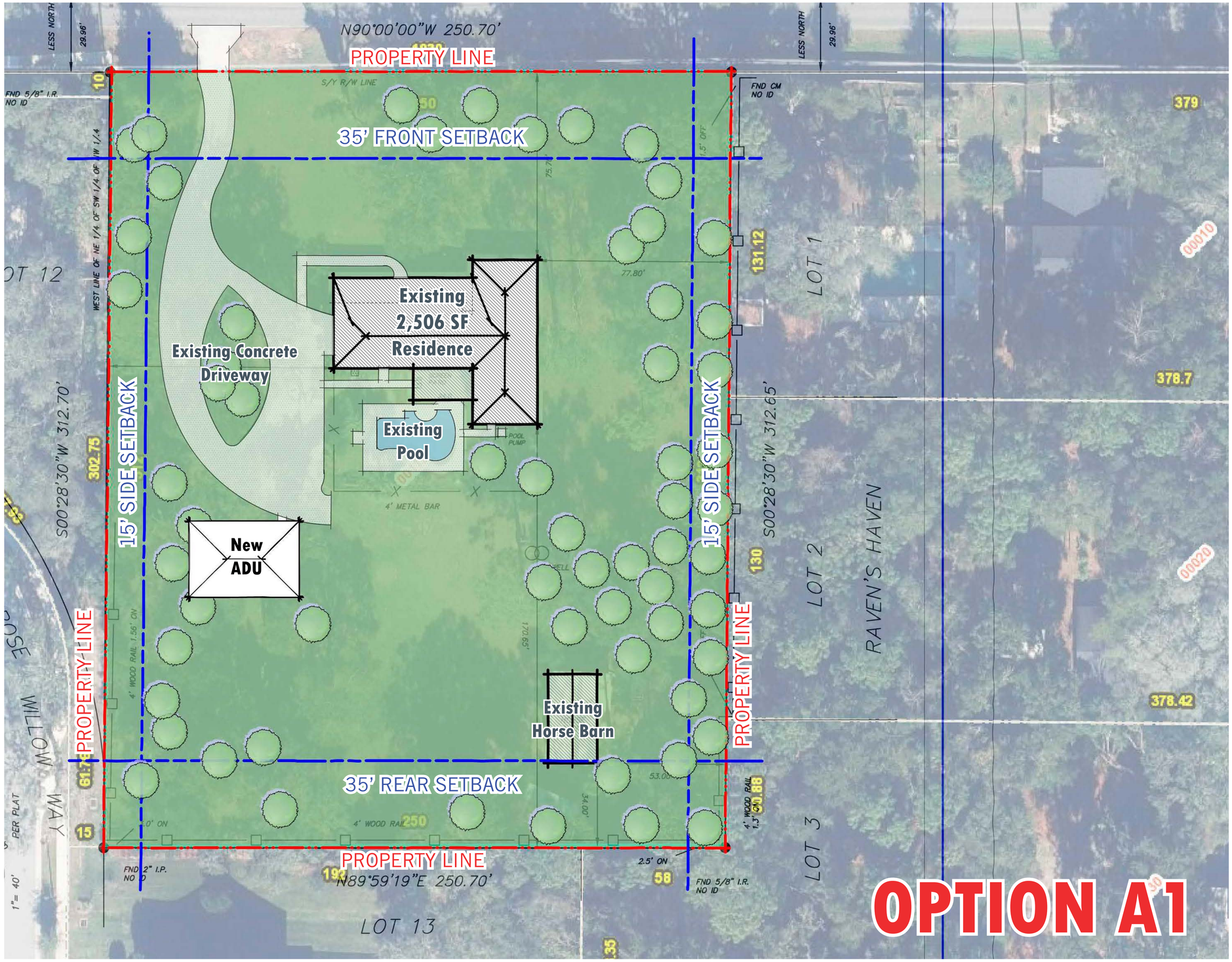
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1030 E. Sandpiper Street - Apopka, FL.

PROPOSED SITE PLAN

N
0’ 10’ 20’ 40’ 80’

January 22nd, 2026

Zoning Requirements

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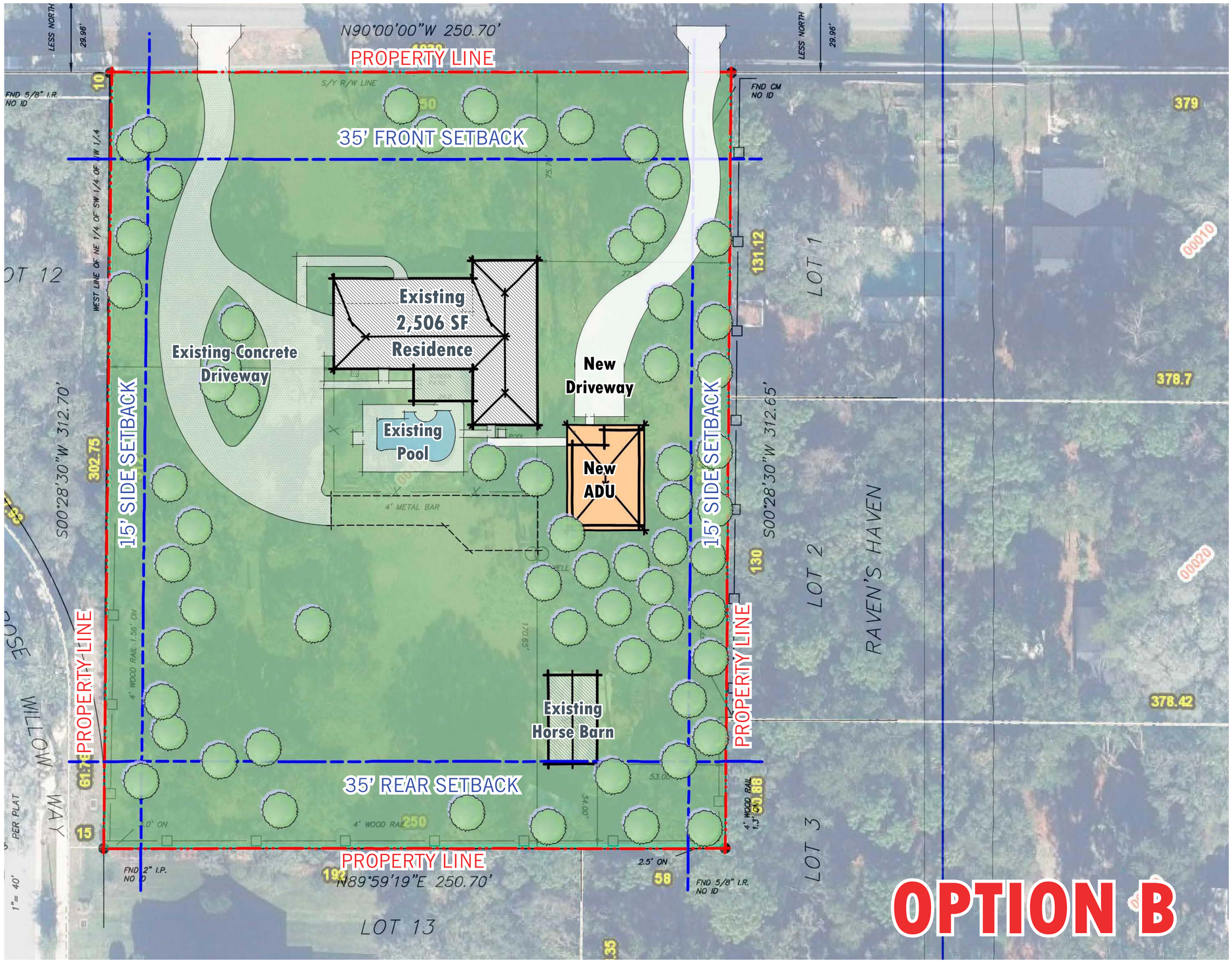
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WESTCOTT DESIGN GROUP

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PROPOSED SITE PLAN

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0’ 10’ 20’ 40’ 80’

January 22nd, 2026

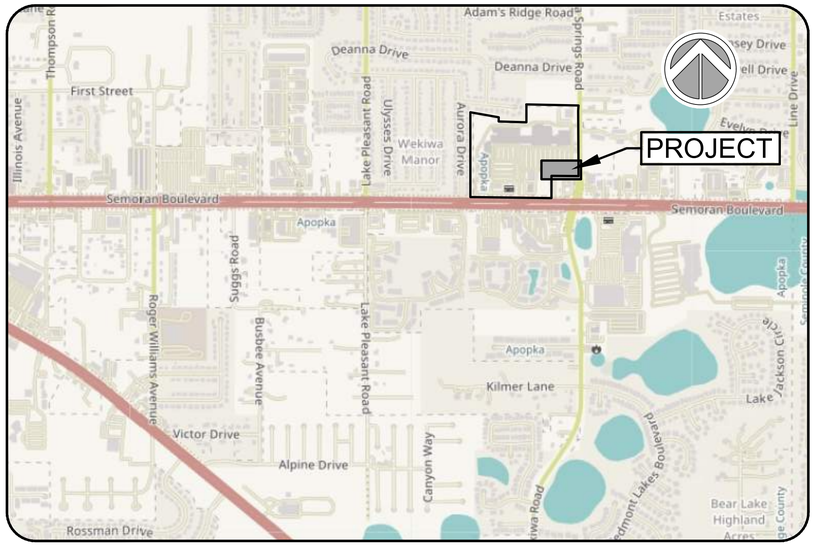
WEKIVA RIVERWALK SHOPPING CENTER
BUILDING 'H'
City of Apopka, Orange County, Florida
CONSTRUCTION SITE PLAN

OWNER:
WOOLBRIGHT WEKIVA, LLC
SORAYA TYRIVER
3200 N. MILITARY TRAIL, 4th FLOOR
BOCA RATON, FLORIDA 33431
styriver@woolbright.net
(561)989-2241

ENGINEER:
SUN-TECH ENGINEERING, INC.
CLIFFORD R. LOUTAN, P.E.
4577 NOB HILL ROAD, SUITE 102
SUNRISE, FL. 33351
cloutan@suntecheng.com
(954) 777-3123

SURVEYOR:
ACCURIGHT SURVEYS OF ORLANDO, INC.
RONALD K. SMITH, PSM
2012 E. ROBINSON STREET
ORLANDO, FL 32803
accu@accurightsurveys.net
(407) 894-6314

LANDSCAPE ARCHITECT:
ARCHITECTURAL ALLIANCE LANDSCAPE
HUGH JOHNSON
612 SW 4th AVENUE
FT. LAUDERDALE, FL 33315
hjohnson@archall.net
(954) 764-8858



SECTION 12, TOWNSHIP 21 SOUTH, RANGE 28 EAST

LOCATION MAP

N.T.S.

INDEX OF DRAWINGS	
SHEET NO.	TITLE
	COVER SHEET
SP1 - SP-2	SITE PLAN
D-1	PARKING DEMO PLAN
PD-1	PAVING, GRADING AND DRAINAGE PLAN
PD-2	PAVING AND DRAINAGE DETAILS
PMS-1	PAVEMENT MARKING AND SIGNAGE PLAN
SWPP-1 - SWPP-2	STORMWATER POLLUTION PREVENTION PLAN
WS1	WATER AND SEWER PLAN
WS2 - WS5	WATER AND SEWER DETAILS
A-1.1	ARCHITECTURAL FLOOR PLAN
A-2.1	ARCHITECTURAL ELEVATIONS
L200	LANDSCAPE PLAN
L201	LANDSCAPE DETAILS
L210	TREE DISPOSITION PLAN

LEGAL DESCRIPTION:

PARCEL 1:

LOTS 1, 2, 4 AND 5, WEKIVA RIVER WALK REPLAT, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 77, PAGES 26 AND 27, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

PARCEL 2:

A NON-EXCLUSIVE EASEMENT FOR INGRESS, EGRESS AND VEHICULAR AND PEDESTRIAN PASSAGE AS DESCRIBED IN THAT CERTAIN RECIPROCAL INGRESS-EGRESS EASEMENT AGREEMENT RECORDED IN OFFICIAL RECORDS BOOK 4543, PAGE 1155, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

CONTAINS 1,162,250 SQUARE FEET OR 26.682 ACRES MORE OR LESS.

PROJECT NARRATIVE:

CONSTRUCTION OF 8,046 S.F. RETAIL BUILDING, KNOWN AS BUILDING "H" AND ASSOCIATED PARKING LOT.

STE Sun-Tech Engineering, Inc.
Engineers • Planners • Surveyors

4577 Nob Hill Road, Suite 102
Sunrise, FL 33351
www.suntecheng.com

Certificate of Auth. #7097/LB 7019
Phone (954) 777-3123
Fax (954) 777-3114

CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

Date: **February 17, 2026**

This item has been digitally signed and sealed by CLIFFORD R. LOUTAN, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.

Digitally signed by Clifford R Loutan
Date: 2026.02.18 14:31:58-05'00'

DRAWINGS MAY BE OUT OF SCALE DUE TO XEROX REPRODUCTION ERROR.

Always call 811 two full business days before you dig to have underground utilities located and marked.
Sunshine811.com

REVISIONS		
NO.	DATE:	DESCRIPTION
1	12/10/25	SITE PLAN SUBMITTAL

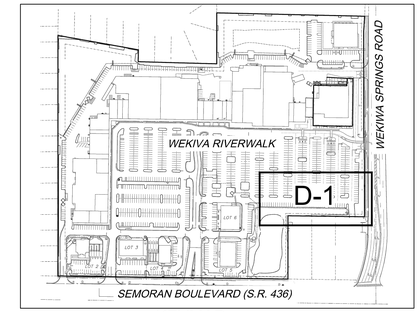
PROJECT NO. 25-4276
DESIGN DATE: SEP. 2025

DEMOLITION NOTES

1. THIS PLAN DEPICTS THE DEMOLITION OF ALL EXISTING BUILDINGS, PAVEMENT AND OTHER IMPROVEMENTS WITHIN THE LIMIT OF WORK BOUNDARY, AS INDICATED.
2. CONTRACTOR SHALL CONTACT THE UNDERGROUND UTILITIES NOTIFICATION CENTER SUNSHINE STATE ONE CALL AT 1-800 432-4770, F.P.& L., THE CITY OF APOPKA, ORANGE COUNTY WATER AND SEWER AUTHORITY AND ALL OTHER UTILITY COMPANIES 48 HOURS PRIOR TO DIGGING TO VERIFY THE EXACT LOCATION OF EXISTING UTILITIES.
3. EXISTING UTILITIES ARE PLOTTED FROM BEST AVAILABLE INFORMATION. CONTACT UTILITY AGENCIES BEFORE CONSTRUCTION IS STARTED TO VERIFY LOCATION AND DEPTH OF UNDERGROUND UTILITIES.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UNDERGROUND FACILITIES PRIOR TO THE START OF CONSTRUCTION AND COORDINATE WITH THE VARIOUS UTILITIES TO RELOCATE, BYPASS OR OTHERWISE ENSURE THAT UTILITY SERVICES WILL NOT BE INTERRUPTED DURING CONSTRUCTION.
5. IT IS THE INTENT OF THESE PLANS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION, ANY DISCREPANCY BETWEEN THESE PLANS AND APPLICABLE CODES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
6. MONUMENTS OR PROPERTY LINE MARKERS LOCATED WITHIN THE LIMITS OF CONSTRUCTION SHALL NOT BE DISTURBED.
7. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR LEAVE EXCAVATED TRENCHES, OR PARTS OF, EXPOSED OR OPEN AT THE END OF THE WORKING DAY, WEEKENDS, HOLIDAYS OR OTHER TIMES WHEN THE CONTRACTOR IS NOT WORKING, UNLESS OTHERWISE DETERMINED, ALL TRENCHES SHALL BE COVERED, FIRMLY SECURED AND MARKED ACCORDINGLY FOR PEDESTRIAN AND VEHICULAR TRAFFIC.
8. ALL ELEVATIONS SHOWN REFER TO N.A.V.D. OF 1988.
9. CONTRACTOR TO COMPLY WITH THE REQUIREMENTS OF THE 'TRENCH SAFETY ACT' FOR ALL TRENCHING OPERATIONS.
10. CONTRACTOR TO COORDINATE AND OBTAIN ALL NECESSARY PERMITS FROM LOCAL, STATE AND FEDERAL AGENCIES HAVING JURISDICTION OVER THE SITE OR REGULATING CONSTRUCTION OPERATIONS.
11. EXISTING DRAINAGE INLETS NOTED TO REMAIN SHALL BE COVERED TO PREVENT THE ENTRY OF CONSTRUCTION DEBRIS.
12. CONTRACTOR TO DISPOSE DEBRIS TO AN APPROVED SITE.
13. CARE SHALL BE TAKEN TO PROTECT EXISTING IMPROVEMENTS OUTSIDE THE SCOPE OF WORK.
14. CONTRACTOR TO PROTECT EXISTING FACILITIES (CATCH BASIN, EXFILTRATION TRENCH, ETC.) NOT BEING DEPICTED AS DEMOLISHED ON THIS PLAN.
15. EXIST. TREES TO BE REMOVED/RELOCATED IN ACCORDANCE W/LANDSCAPE PLANS & COORDINATE W/LANDSCAPE ARCHITECT.
16. THIS DRAWING IS BASED ON A 'BOUNDARY & TOPOGRAPHIC SURVEY' PREPARED BY LEITER, PEREZ & ASSOC. DATED JANUARY 13TH 2017.
17. ALL REMOVED MATERIAL CANNOT BE RE-USED OR RELOCATED; FIRE HYDRANTS CANNOT BE RELOCATED.

20 10 0 20

GRAPHIC SCALE
1" = 20'



KEYMAP

EXIST. CURB & LANDSCAPE ISLAND (TO BE REMOVED)
EXIST. PAVEMENT (TO BE REMOVED)
EXIST. CURB & LANDSCAPE ISLAND (TO BE REMOVED)
CART CORAL
CART CORAL
EXIST. FORCE MAIN (TO REMAIN)
EXIST. STORM DRAIN (TO REMAIN)
EXIST. CATCH BASIN (TO REMAIN)
EXIST. SAN. SWR. MAIN (TO REMAIN)
EXIST. SAN. SWR. MAIN (TO REMAIN)
EXIST. SAN. SWR. M.H. (TO REMAIN)
EXIST. CURB & LANDSCAPE ISLAND (TO BE REMOVED)
EXIST. PAVEMENT (TO BE REMOVED)
EXIST. CATCH BASIN (TO REMAIN)
EXIST. STORM DRAIN (TO REMAIN)
EXIST. CURB & LANDSCAPE ISLAND (TO BE REMOVED)
EXIST. PAVEMENT (TO BE REMOVED)
N00°02'32"E 240.12'

LEGEND:

EXIST. ASPHALT & CURBING TO BE REMOVED. AREA TO BE LEVELED OFF.

EXIST. OPEN SPACE TO BE CLEARED & GRUBBED AND LEVELED OFF.

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276demo.dwg
PLOT DATE: 2/17/2026 1:20 PM BY: Andy Vennemon
LAYOUT: [D-1]

4577 Nob Hill Road, Suite 102
Sunrise, FL 33351
www.sunteceng.com
Certificate of Auth. #7097/LB 7019
Phone (954) 777-3123
Fax (954) 777-3114

STE Sun-Tech Engineering, Inc.
Engineers • Planners • Surveyors

REVISIONS

NO.	DATE:	DESCRIPTION
1	12/10/25	SITE PLAN SUBMITTAL

WEKIVA SHOPPING CENTER

CITY OF APOPKA FLORIDA

DEMOLITIO PLAN

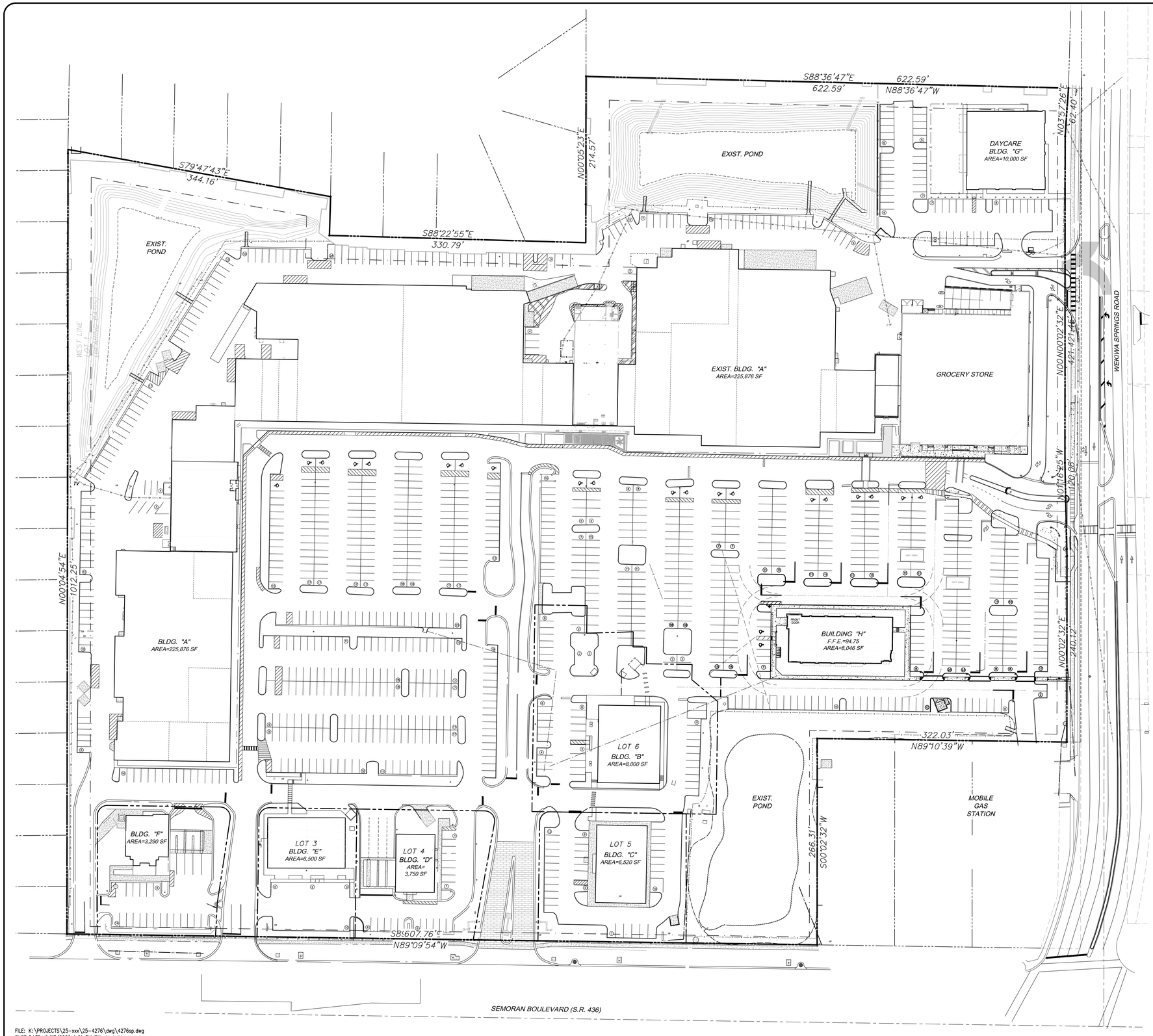
DATE: 05-21-2025
SCALE: 1"=20'
DESIGNED BY: C.L.
DRAWN BY: A.V.
JOB #: 25-4276

CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

Date: **February 17, 2026**

This item has been digitally signed and sealed by CLIFFORD R. LOUTAN, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.

SHEET No.
D-1



60 30 0 60 120

GRAPHIC SCALE
1" = 60'

PROJECT DATA				
OVERALL PARCEL DATA TABLE				
PARCEL ID NUMBER	12-21-28-9093-00-010			
ADRESS:	2121 EAST SEMORAN BLVD. APOPKA, FLORIDA 32703			
FUTURE LAND USE	COMMERCIAL			
ZONING	C-C (COMMUNITY COMMERCIAL)			
ADJACENT LAND USE	NORTH: R-1	EAST: C-1	SOUTH: C-1	WEST: R-1
ADJACENT ZONING	NORTH: R-1	EAST: C-1	SOUTH: C-1	WEST: R-1
ACREAGE/SQUARE FOOTAGE	ACRES: 28.38	PARCEL S.F. 1,236,651.98		BUILDING S.F. 271,982
BUILDING HEIGHT	MAX : 35'			
FLOOR AREA RATIO	MAX : 0.25		ACTUAL : 0.25	
BUILDING HEIGHT	EXISTING: FRONT: 50' SIDE: 10' REAR: 30' CORNER REQUIRED: FRONT: 50' SIDE: 10' REAR: 30' CORNER			
OPEN SPACE	MIN : 7.5%		ACTUAL : 21%	

BUILDING DATA	SQ. FT.
BUILDING A	225,876
BUILDING B	8,000
BUILDING C	6,520
BUILDING D	3,750
BUILDING E	6,500
BUILDING F	3,290
BUILDING G	10,000
BUILDING H	8,046
TOTAL CENTER	271,982

PARKING DATA

TOTAL SPACES REQUIRED (PER SECT. 5.1.6 CITY OF APOPKA LAND DEVELOPMENT CODE)	1,189
MAIN CENTER	1,157
RETAIL (8046 SF@ 1 SP/250 SF)	32
TOTAL SPACES PROVIDED	1,134
REGULAR SPACES	1,099
HANDICAP SPACES	35
BICYCLE PARKING PROVIDED	
BICYCLE PARKING REQUIRED (8066 SF @ 1 SP/2000 SF)	5
BICYCLE PARKING ROVIDED	5

Green Building Point System Calculation Per LDC 5.11.4			
Section	Item	Points	Points Earned
Transportation	Provide more bicycle parking than required by Sec. 5.1.11, Bicycle Parking Standards, while ensuring that all other bicycle parking standards in Section 5.1, Off-Street Parking, Bicycle Parking, and Loading Standards are met	0.50 per additional 5 percent bicycle parking spaces	2.5
Energy Conservation	Use of only solar or tank-less water heating systems throughout the structure	0.50	0.50
TOTAL			3.00

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REVISIONS

NO.	DATE:	DESCRIPTION
1	12/10/25	SITE PLAN SUBMITTAL

WEKIVA SHOPPING CENTER
CITY OF APOPKA FLORIDA
MASTER SITE PLAN

DATE:	05-21-2025
SCALE:	1"=60'
DESIGNED BY:	C.L.
DRAWN BY:	A.V.
JOB #:	25-4276

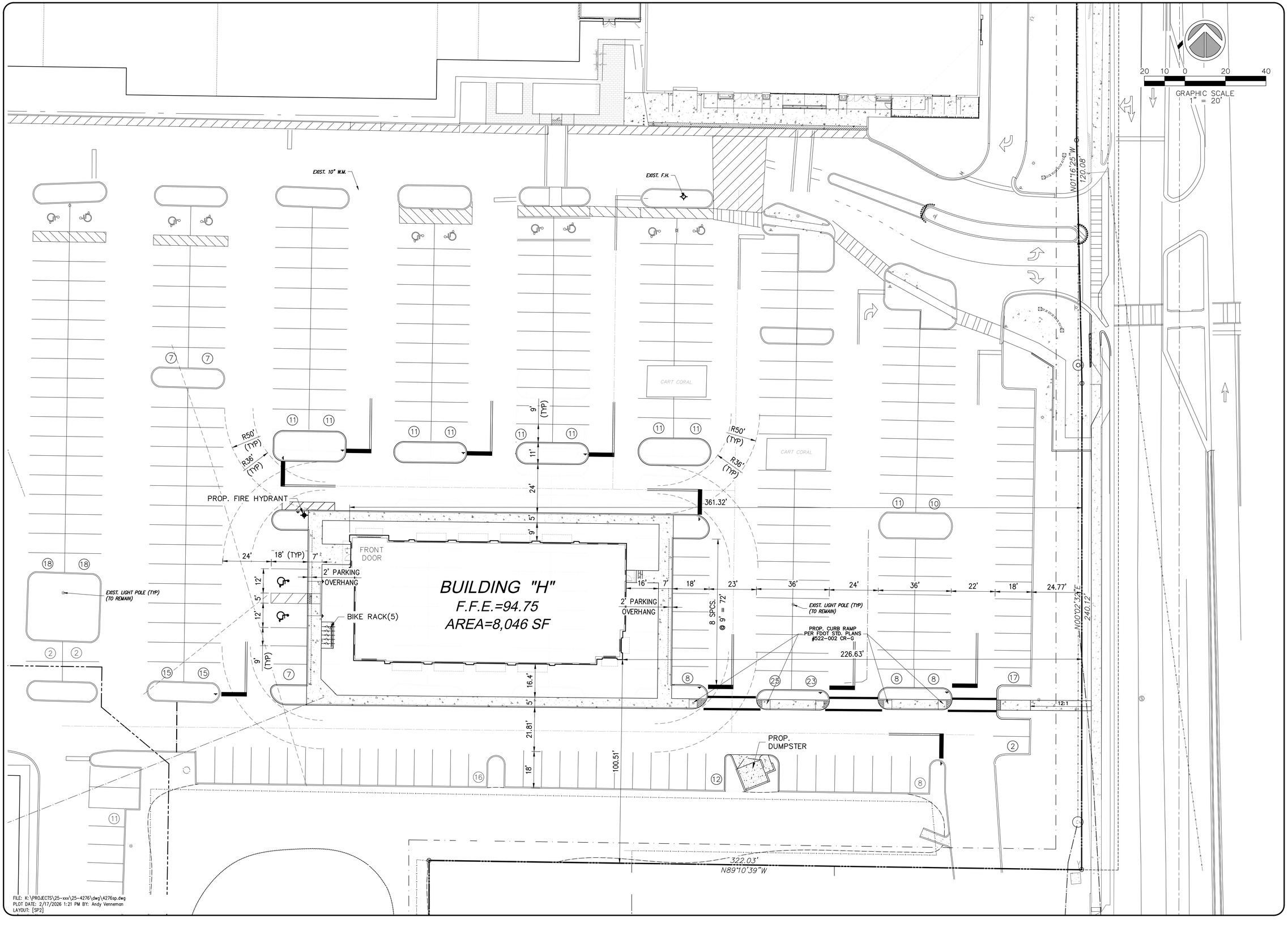
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SHEET No.
SP1

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276sp.dwg
PLOT DATE: 2/17/2026 1:21 PM BY: Andy Venneman
LAYOUT: [SP1]



FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276sp.dwg
PLOT DATE: 2/17/2026 1:21 PM BY: Andy Venneman
LAYOUT: [SP2]

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REVISIONS

NO.	DATE:	DESCRIPTION
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WEKIVA SHOPPING CENTER
CITY OF APOPKA FLORIDA
SITE PLAN

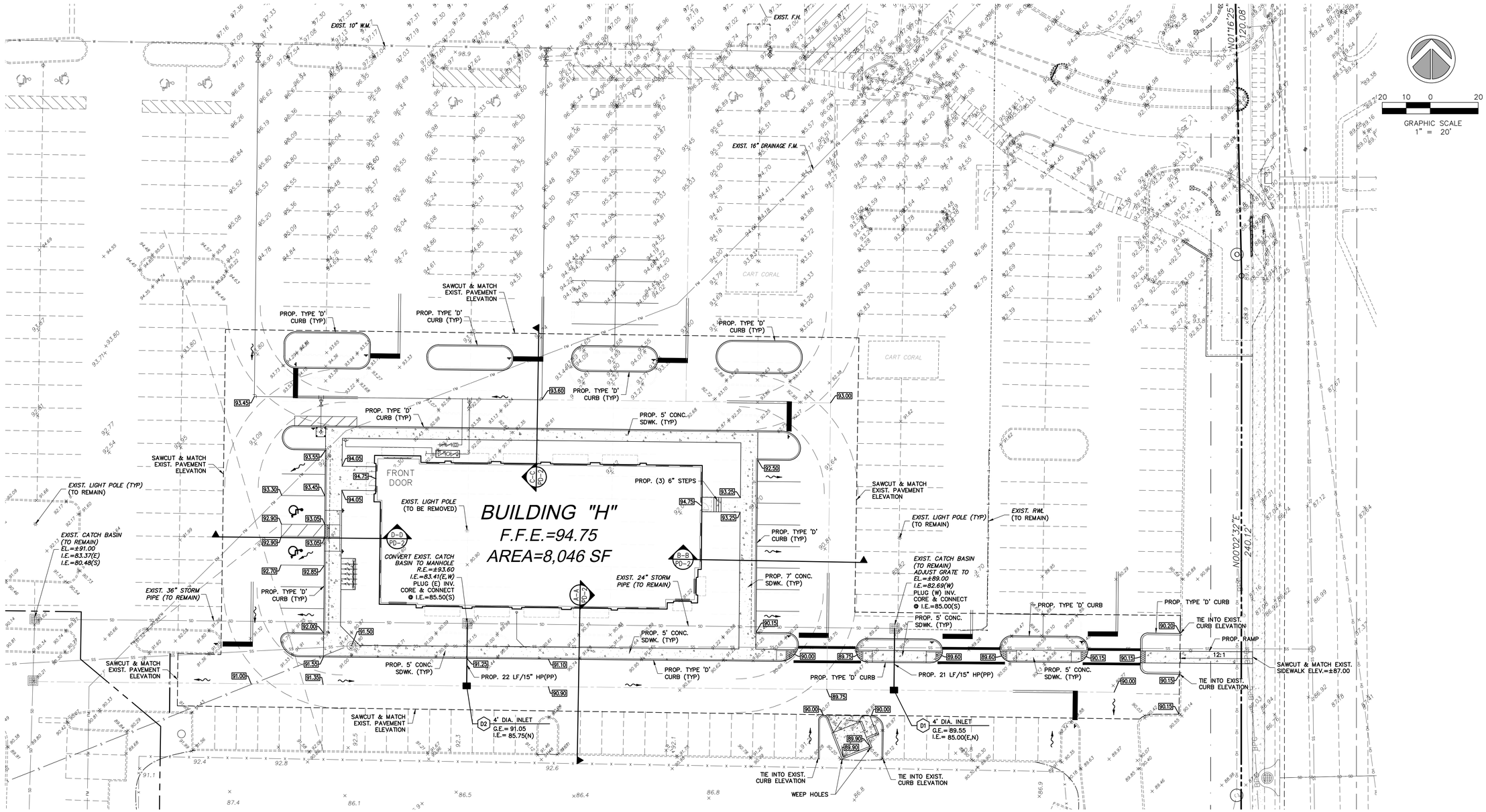
DATE:	05-21-2025
SCALE:	1"=20'
DESIGNED BY:	C.L.
DRAWN BY:	A.V.
JOB #:	25-4276

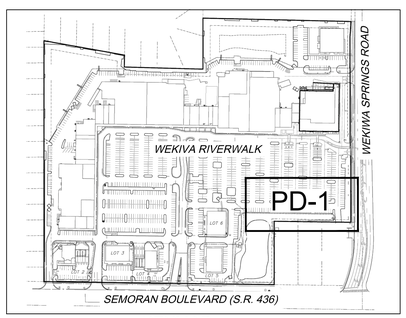
CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

Date: **February 17, 2026**

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SHEET No.
SP2





KEYMAP

PAVING & DRAINAGE LEGEND

———	PROPERTY LINE
———	RIGHT-OF-WAY LINE
R.E.	RIM ELEVATION
G.E.	GRATE ELEVATION
I.E.	INVERT ELEVATION
~→	DIRECTION OF FLOW
150' @ 0.5%	PAVEMENT SLOPE
P.R.B.	POLLUTION RETARDANT BASIN
F.F.= 10.00	FINISHED FLOOR ELEVATION
- - - - -	EXISTING OR FUTURE UTILITIES
CATCH BASIN G.E. = I.E. =	STRUCTURE DESIGNATION
100 L.F./ 15"	LENGTH, SIZE OF STORM DRAIN
0.00	EXISTING GRADE
0.00	PROPOSED GRADE
	D.I.P. PIPE

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276d.dwg
PLOT DATE: 2/17/2026 1:32 PM BY: Andy Vennemon
LAYOUT: [PD-1]

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REVISIONS

NO.	DATE:	DESCRIPTION
1	12/10/25	SITE PLAN SUBMITTAL

WEKIVA SHOPPING CENTER

CITY OF APOPKA — FLORIDA

PAVING, GRADING & DRAINAGE PLAN

DATE:	05-21-2025
SCALE:	1"=20'
DESIGNED BY:	C.L.
DRAWN BY:	A.V.
JOB #:	25-4276

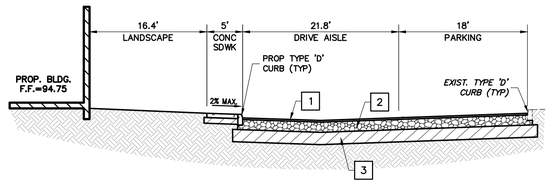
CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

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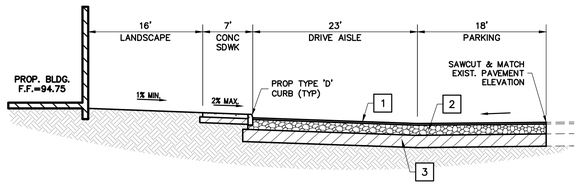
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PD-1

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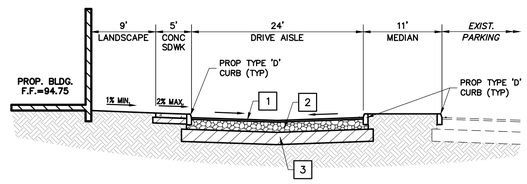
SECTION A-A

SCALE: 1"=10'



SECTION B-B

SCALE: 1"=10'

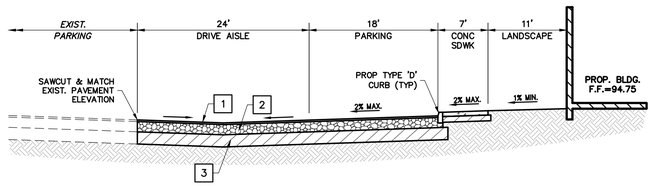


SECTION C-C

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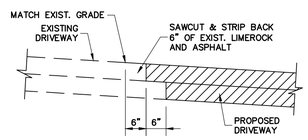
ON-SITE PAVEMENT NOTES:

1. THE WEARING SURFACE SHALL BE 1½" THICK TYPE SP 9.5 ASPHALT INSTALLED IN (2) ¾" LIFTS. LIMEROCK TO BE PRIMED AND TACK COAT TO BE APPLIED BETWEEN FIRST AND SECOND LIFT OF ASPHALT.
2. THE BASE COURSE SHALL BE LIMEROCK (70% CALCIUM), 8" THICK COMPACTED IN ACCORDANCE WITH A.A.S.H.T.O. SPECIFICATION T-180 TO 98% DENSITY. MIN. LBR TO BE 100.
3. ALL ORGANIC AND YIELDING MATERIAL WITHIN THE LIMITS SHOWN SHALL BE REMOVED AND REPLACED WITH CLEAN FILL. THE SUBBASE SHALL EXTEND 12" BELOW THE BASE COURSE, SHALL HAVE A MINIMUM DRY DENSITY OF 115 PCF AND SHALL BE COMPACTED TO 98% OF MAXIMUM DRY DENSITY PER A.A.S.H.T.O. SPECIFICATION T-180, METHOD "C". MINIMUM LBR TO BE 40.

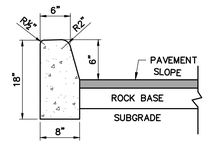


SECTION D-D

SCALE: 1"=10'

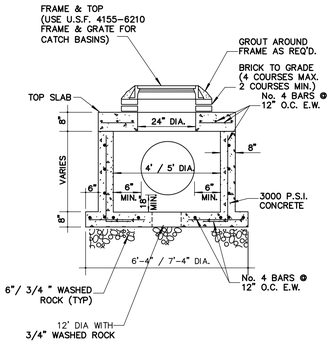


ASPHALT TIE-IN DETAIL



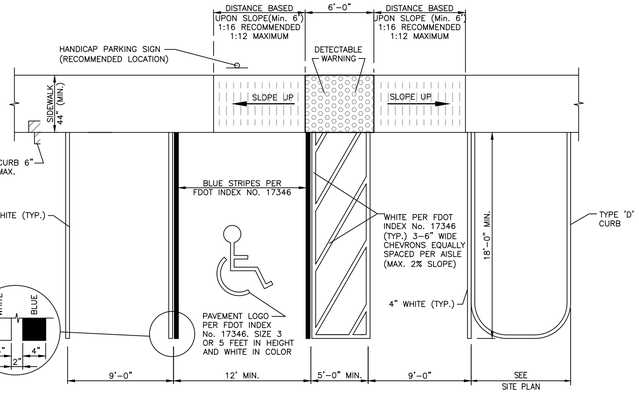
TYPE "D" CURB

N.T.S.



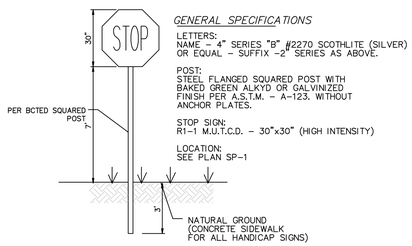
4' / 5' DIAMETER CATCH BASIN

N.T.S.



TYPICAL HANDICAP PARKING DETAIL

N.T.S.



GENERAL SPECIFICATIONS

LETTERS:
NAME – 4" SERIES "B" #2270 SCOTHLITE (SILVER) OR EQUAL – SUFFIX –2" SERIES AS ABOVE.

POST:
STEEL FLANGED SQUARED POST WITH BAKED GREEN ALKYD OR GALVINIZED FINISH PER A.S.T.M. – A-123. WITHOUT ANCHOR PLATES.

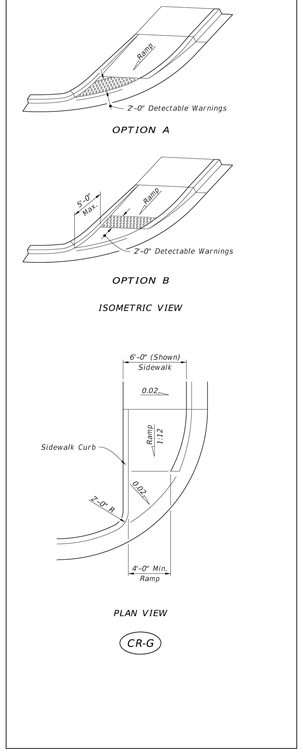
STOP SIGN:
R1-1 M.U.T.C.D. – 30"x30" (HIGH INTENSITY)

LOCATION:
SEE PLAN SP-1

NOTE:
ALL HANDICAP SIGNS SHALL BE LOCATED 2' FROM THE EDGE OF PAVEMENT.

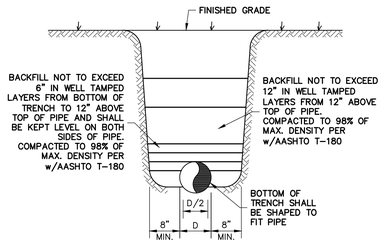
SIGN DETAIL

NOT TO SCALE



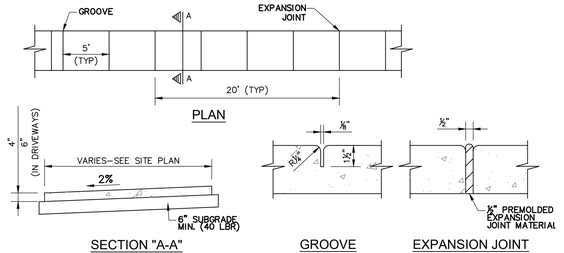
SIDEWALK CURB RAMPS

N.T.S.



PIPE BEDDING DETAIL

N.T.S.



SECTION "A-A" GROOVE EXPANSION JOINT

NOTE:
1. ALL CONCRETE SHALL BE 3000 P.S.I., 4" THICK 6" THICK w/6"x 6" W.W.M. AT DRIVEWAYS ONLY.
2. SIDEWALK CROSS SLOPES SHALL NOT EXCEED 2% AND SIDEWALK RUNS SHALL NOT EXCEED 5% UNLESS IT IS A RAMP. ALL RAMPS IN EXCESS OF 6 FT. REQUIRE HANDRAILS.

SIDEWALK DETAIL

N.T.S.

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276ddt.dwg
PLOT DATE: 2/17/2026 1:21 PM BY: Andy Venneman
LAYOUT: [PD2]

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NO.	DATE:	DESCRIPTION
1	12/10/25	SITE PLAN SUBMITTAL

WEKIVA SHOPPING CENTER
CITY OF APOPKA FLORIDA
PAVING AND DRAINAGE DETAILS

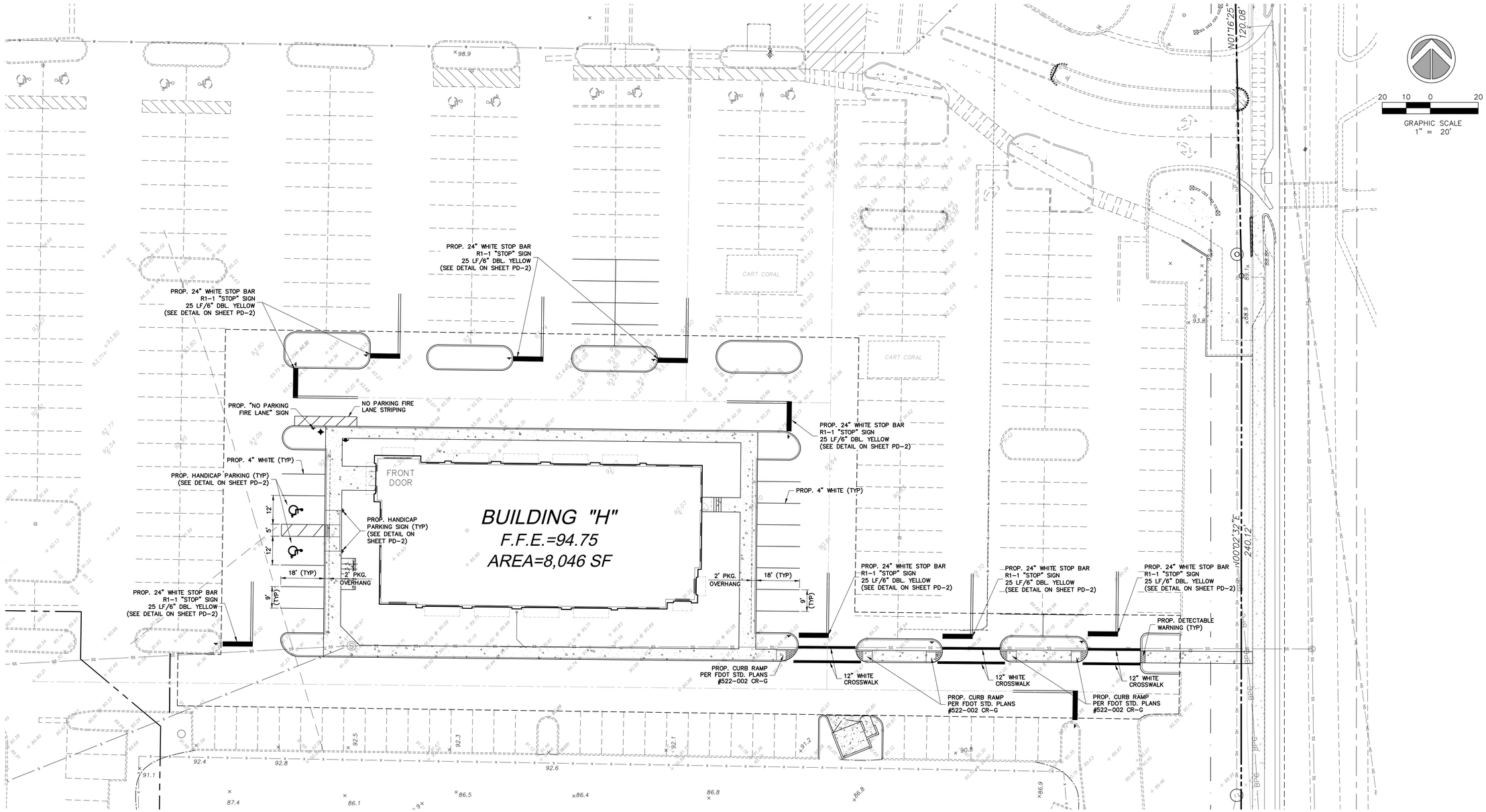
DATE:	05-21-2025
SCALE:	N.T.S.
DESIGNED BY:	C.L.
DRAWN BY:	A.V.
JOB #:	25-4276

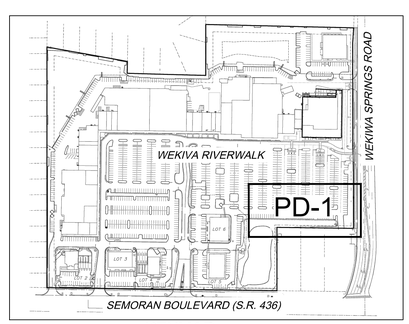
CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

Date: **February 17, 2026**

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SHEET No.
PD2





KEYMAP

PAVING & DRAINAGE LEGEND

	PROPERTY LINE
	RIGHT-OF-WAY LINE
R.E.	RIM ELEVATION
G.E.	GRATE ELEVATION
I.E.	INVERT ELEVATION
	DIRECTION OF FLOW
150' @ 0.5%	PAVEMENT SLOPE
P.R.B.	POLLUTION RETARDANT BASIN
F.F.= 10.00	FINISHED FLOOR ELEVATION
	EXISTING OR FUTURE UTILITIES
CATCH BASIN G.E. = I.E. =	STRUCTURE DESIGNATION
100 L.F./ 15"	LENGTH, SIZE OF STORM DRAIN
0.00	EXISTING GRADE
0.00	PROPOSED GRADE
	D.I.P. PIPE

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276pms.dwg
PLOT DATE: 2/17/2026 1:22 PM BY: Andy Vennemon
LAYOUT: [PMS-1]

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NO.	DATE:	DESCRIPTION
1	12/10/25	SITE PLAN SUBMITTAL

WEKIVA SHOPPING CENTER

CITY OF APOPKA — FLORIDA

PAVEMENT MARKING AND SIGNAGE PLAN

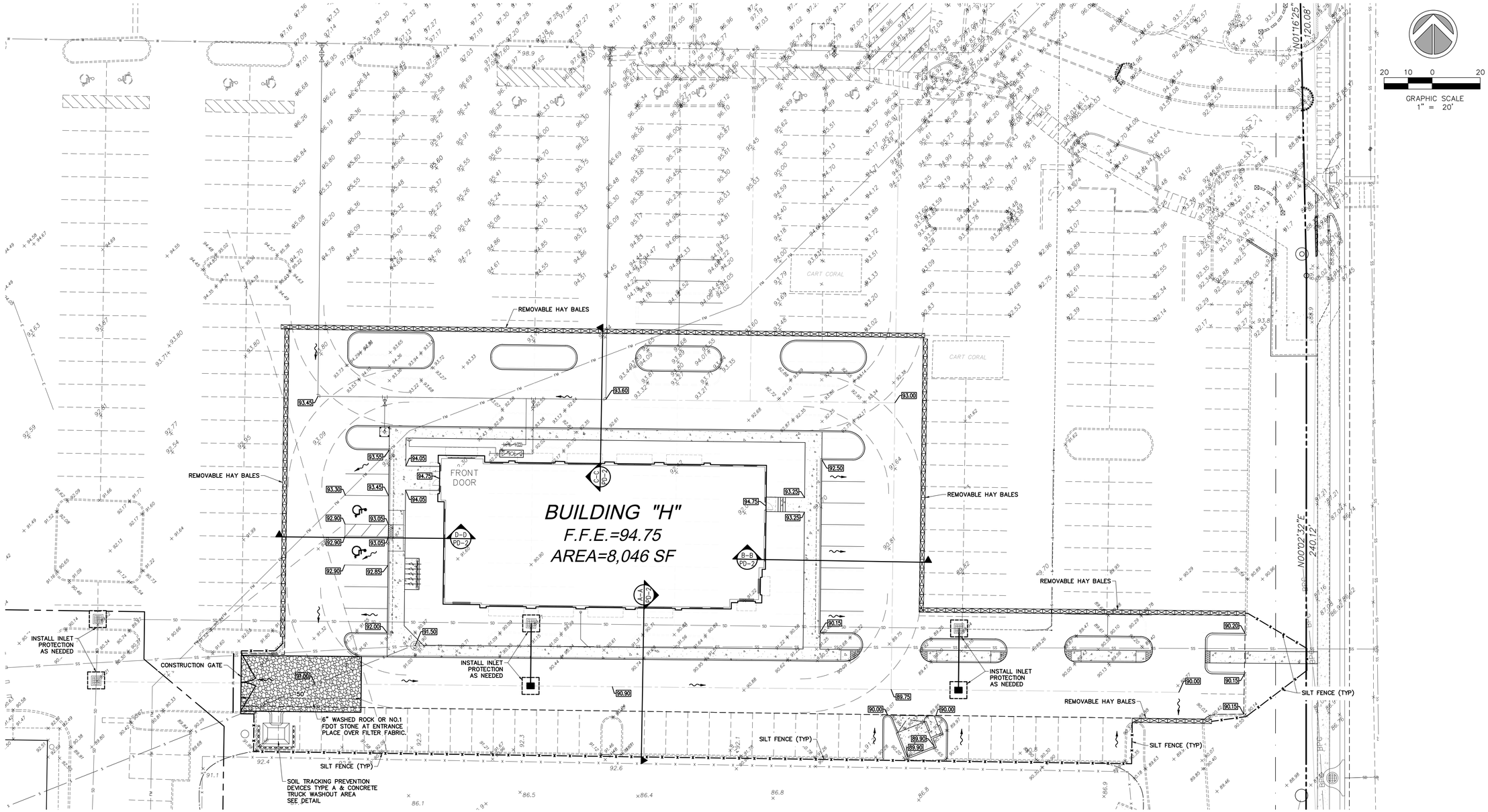
DATE:	05-21-2025
SCALE:	1"=20'
DESIGNED BY:	C.L.
DRAWN BY:	A.V.
JOB #:	25-4276

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SHEET No.
PMS-1



LEGEND

- OVERLAND FLOW
- 0.00 PROPOSED GRADE
- SILT FENCE
- REMOVABLE HAY BALES

NOTES:

1. PLACE FILTER FABRIC IN INLET GRATES AFTER INSTALLATION.
2. AREAS THAT HAVE BEEN DISTURBED AND ARE INACTIVE FOR MORE THAN 7 DAYS SHALL BE STABILIZED WITH RYE GRASS AND/OR MULCH APPLIED PER MANUFACTURER'S RECOMMENDATIONS.
3. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED SHALL BE STABILIZED WITH PERMANENT SOD AND/OR SEEDING NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. PERMANENT SEEDING SHALL BE MULCHED IMMEDIATELY UPON COMPLETION OF SEED APPLICATION.
4. DRAINAGE SWALES OR EARTH DIKES SHALL BE CONSTRUCTED IF NECESSARY TO DIRECT SEDIMENT-LADEN RUNOFF TO THE SEDIMENT TRAP/BASIN(S).
5. CONTRACTOR TO INSTALL INLET PROTECTION ON ALL EXISTING INLETS WITHIN PROXIMITY OF CONSTRUCTION LIMITS.
6. SPILL KIT MUST BE PROVIDED ON-SITE DURING ENTIRE DURATION OF PROJECT OR UNTIL REMOVAL IS APPROVED BY THE CITY. SPILL KIT MUST BE APPROPRIATE FOR SCOPE OF WORK AND EQUIPMENT ON-SITE

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276swpp.dwg
PLOT DATE: 2/17/2026 1:22 PM BY: Andy Vennemon
LAYOUT: [SWPP-1]

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NO.	DATE:	DESCRIPTION
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WEKIVA SHOPPING CENTER
CITY OF APOPKA
STORMWATER POLLUTION PREVENTION PLAN
FLORIDA

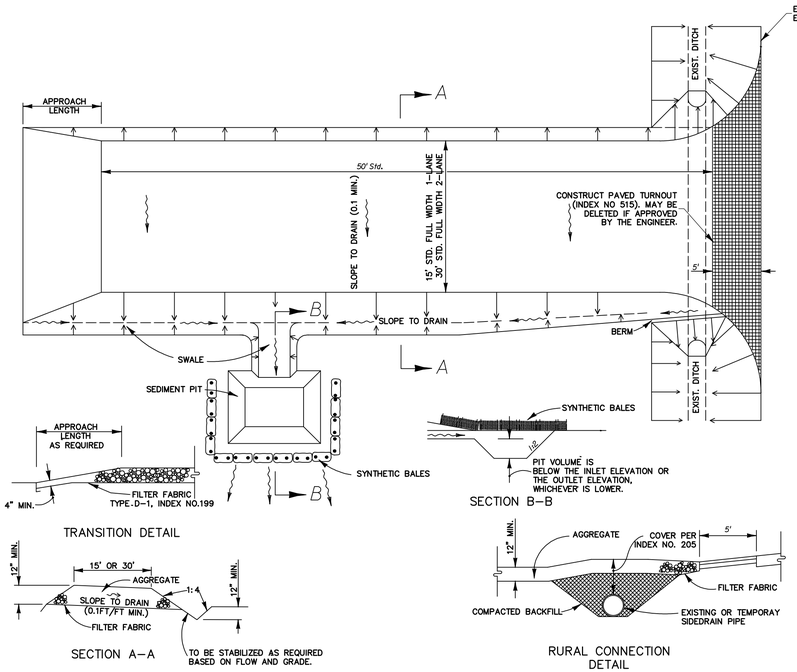
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SWPP-1



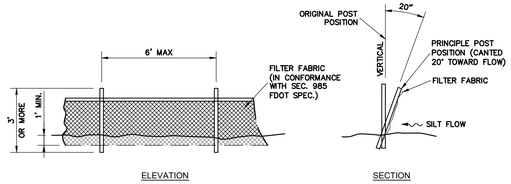
GENERAL NOTES

1. A SOIL TRACKING PREVENTION DEVICE (S.T.P.D.) SHALL BE CONSTRUCTED AT ALL LOCATIONS DESIGNATED BY THE ENGINEER FOR POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFFSITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE CONSTRUCTION PROJECT SHALL BE DIRECTED THRU A S.T.P.D. BARRIERS, FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT AND DIRECT VEHICULAR EGRESS ACROSS THE S.T.P.D.
2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFFSITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED AND APPROVED BY THE ENGINEER APPROVED TO ITS USE.
3. ALL MATERIALS SPILLED, DROPPED OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE S.T.P.D. AGGREGATE AND CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER.
4. AGGREGATES SHALL BE AS DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATES SHALL BE FDOT SIZE #1. IF THIS SIZE IS NOTE AVAILABLE, THE NEXT AVAILABLE SMALLER SIZE AGGREGATE MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT AND ARE UNSUITABLE.
5. THE SEDIMENT PIT SHOULD PROVIDE A RETENTION VOLUME OF 3600 CUBIC FEET/ACRE OF SURFACE AREA DRAINING TO THE PIT. WHEN THE S.T.P.D. IS ISOLATED FROM OTHER DRAINAGE AREAS, THE FOLLOWING PIT VOLUMES WILL SATISFY THIS REQUIREMENT:

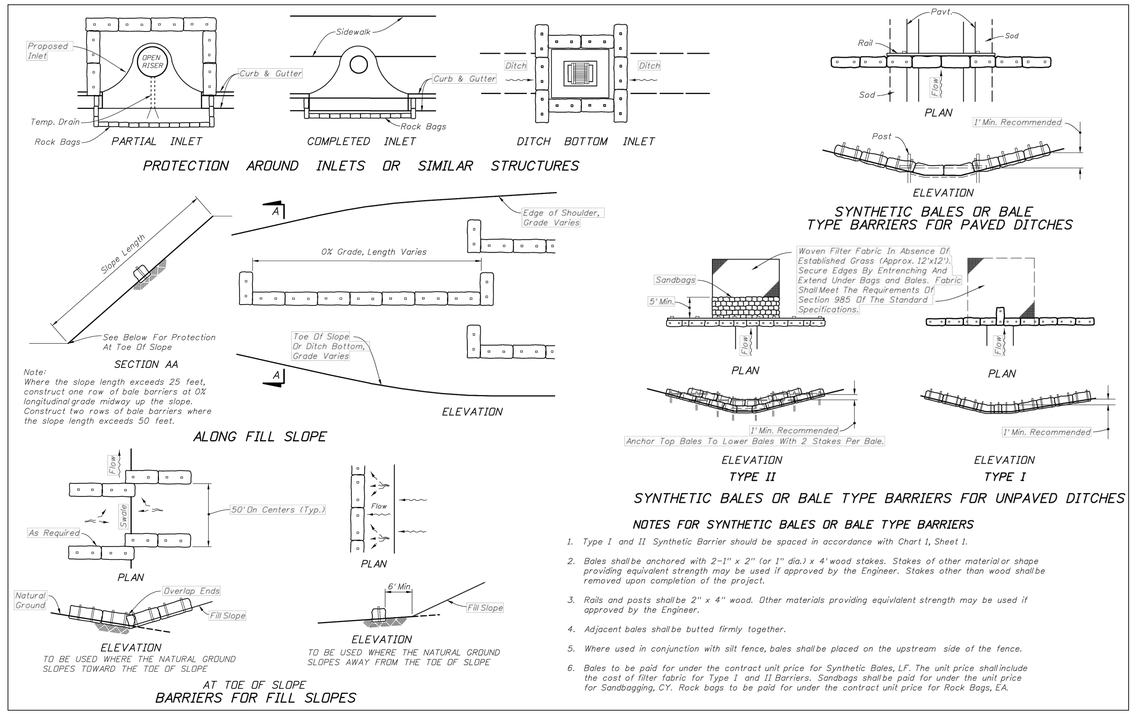
   $15'x50' = 100\ FT^3$ $30'x50' = 200\ FT^3$

   AS AN OPTION TO THE SEDIMENT PIT, THE WIDTH OF THE SWALE BOTTOM CAN BE INCREASED TO OBTAIN THE VOLUME. WHEN THE SEDIMENT PIT OR SWALE VOLUME HAS BEEN REDUCED TO ONE HALF, IT SHALL BE CLEANED. WHEN A SWALE IS USED, SYNTHETIC BALES OR SILT FENCE SHALL BE PLACE ALONG THE ENTIRE LENGTH.
7. THE SWALE DITCH DRAINING THE S.T.P.D, SHALL HAVE A 0.2% MINIMUM AND A 1.0% MAXIMUM GRADE ALONG THE S.T.P.D. AND TO THE SEDIMENT PIT.
6. MITERED END SECTIONS ARE NOT REQUIRED WHEN THE SIDE DRAIN PIPE SATISFIES THE CLEAR ZONE REQUIREMENTS.
8. THE S.T.P.D. SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION. TO PREVENT OFFSITE TRACKING, THE S.T.P.D. SHALL BE RINSED (DAILY WHEN IN USE) TO MOVE ACCUMULATED MUD DOWNWARD THRU THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE S.T.P.D. MAY BE REQUIRED TO LIMIT THE MUD TRACKED.
9. A S.T.P.D. SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR SOIL TRACKING PREVENTION DEVICE, EA. THE UNIT PRICE SHALL CONSTITUTE FULL COMPENSATION FOR CONSTRUCTION, MAINTENANCE, REPLACEMENT OF MATERIALS, REMOVAL, AND RESTORATION OF THE AREA UTILIZED FOR THE S.T.P.D.; INCLUDING BUT NOT LIMITED TO EXCAVATION, GRADING, TEMPORARY PIPE (INCLUDING M.E.S. WHEN REQUIRED), FILTER FABRIC, AGGREGATE, PAVED TURNOUT (INCLUDING ASPHALT AND BASE CONSTRUCTION), DITCH STABILIZATION, APPROACH ROUTE STABILIZATION, SEDIMENT REMOVAL AND DISPOSAL, WATER, RINSING AND CLEANING OF THE S.T.P.D. AND CLEANING OF PUBLIC ROADS, GRASSING AND SOD. SYNTHETIC BALES OR BALE TYPE BARRIER SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR SYNTHETIC HAY BALES, LF. SILT FENCE SHALL BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE, LF.
10. THE NOMINAL SIZE OF A STANDARD S.T.P.D. IS 15'x50' UNLESS OTHERWISE SHOWN IN THE PLANS. IF THE VOLUME OF ENTERING AND EXITING VEHICLES WARRANT, A 30' WDTH S.T.P.D. MAY BE USED IF APPROVED BY THE ENGINEER. WHEN A DOUBLE WIDTH (30') S.T.P.D. IS USED, THE PAY QUANTITY SHALL BE 2 FOR EACH LOCATION.

SOIL TRACKING PREVENTION DEVICE - TYPE 'A'



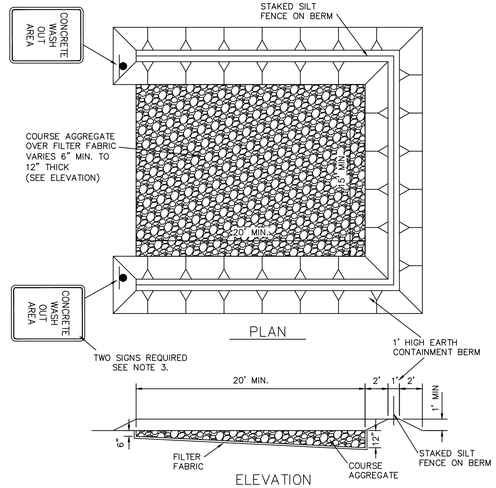
SILT FENCE DETAIL



NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

1. *Type I and II Synthetic Barrier should be spaced in accordance with Chart 1, Sheet 1.*
2. *Bales shall be anchored with 2-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.*
3. *Rails and posts shall be 2" x 4" wood. Other materials providing equivalent strength may be used if approved by the Engineer.*
4. *Adjacent bales shall be butted firmly together.*
5. *Where used in conjunction with silt fence, bales shall be placed on the upstream side of the fence.*
6. *Bales to be paid for under the contract unit price for Synthetic Bales, LF. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sandbags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.*

HAY BALES (TEMPORARY SEDIMENT & EROSION CONTROL)



NOTES:
1. ALL MATERIAL SHALL BE REMOVED FROM THE SITE AT THE END OF THE PROJECT.
2. AGGREGATE SHALL BE REPLACED AS DIRECTED BY THE ENGINEER OF RECORD AND/OR THE CITY WHEN EXCESSIVE MATERIALS BUILDUP RENDERS THE WASH OUT AREA NO LONGER FUNCTIONAL.
3. SIGNS SHALL BE 18" X 12" MIN. SIZE WITH 2" BLACK LETTERING ON A WHITE BACKGROUND AND MOUNTED A MINIMUM OF 7 FEET ABOVE GRADE FROM THE LOWEST EDGE OF THE SIGN FACE.

CONCRETE TRUCK WASH OUT AREA D-26
NOT TO SCALE

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WEKIVA SHOPPING CENTER

CITY OF APOPKA

STORMWATER POLLUTION PREVENTION DETAILS

FLORIDA

DATE:	05-21-2025
SCALE:	N.T.S.
DESIGNED BY:	C.L.
DRAWN BY:	A.V.
JOB #:	25-4276

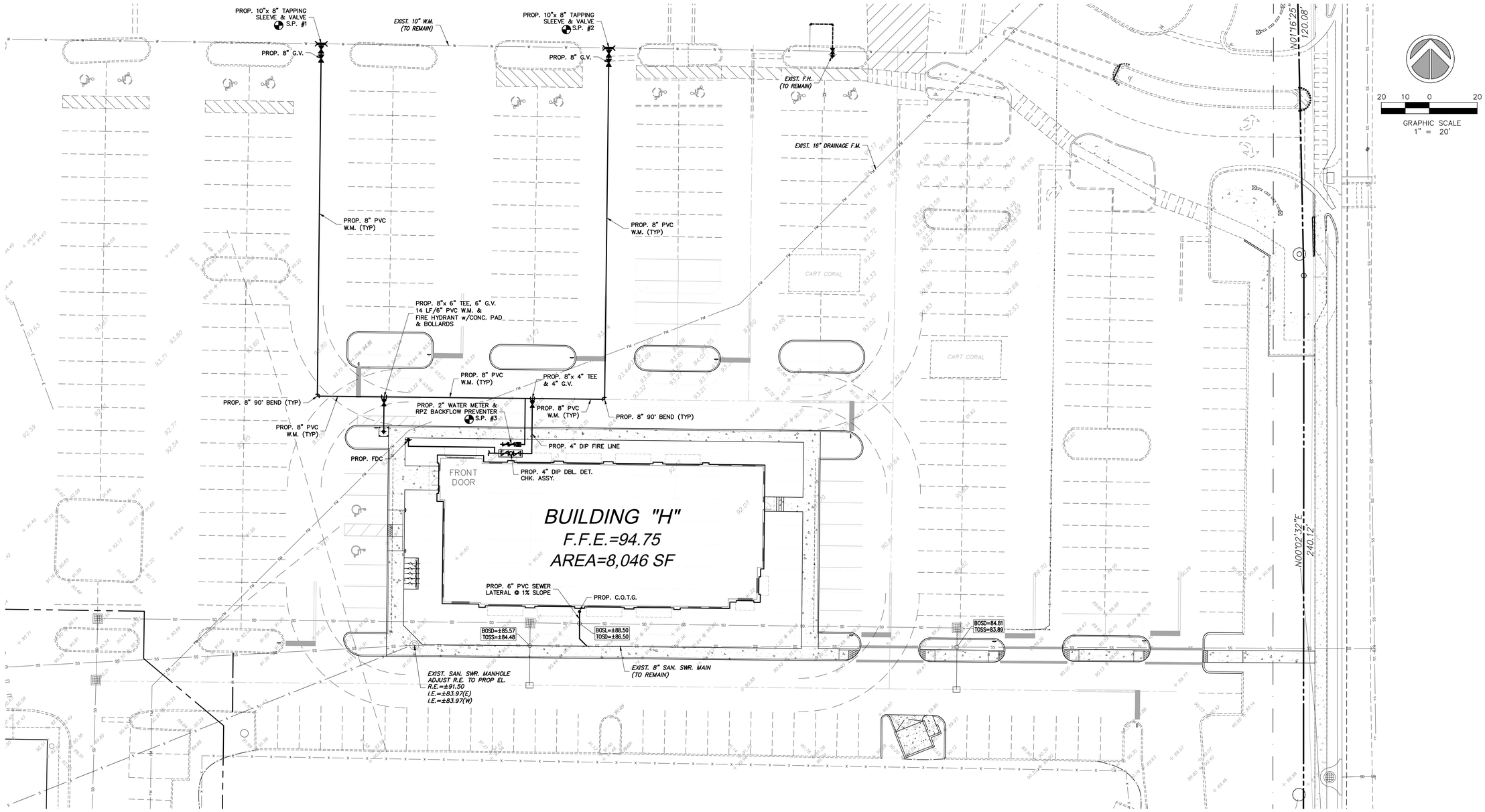
CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

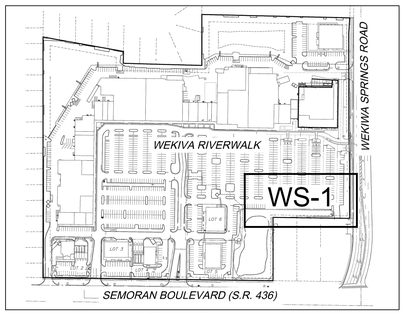
Date: **February 17, 2026**

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SHEET No.
SWPP-2

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276swpp.dwg
PLOT DATE: 2/17/2026 1:22 PM BY: Andy Vennemon
LAYOUT: [SWPP-2]





KEYMAP

WATER & SEWER LEGEND

	PROPERTY LINE	w	EXISTING OR FUTURE UTILITIES
	RIGHT-OF-WAY LINE		DRAINAGE STRUCTURE w/PIPE
	DOUBLE WATER METER SERVICE		D.I.P. PIPE
	SINGLE WATER METER SERVICE		EXIST. UTILITY DEMOLITION
85 L.F./8" W.M.	LENGTH, SIZE & TYPE OF WATER MAIN	R.E.	RIM ELEVATION
	FIRE HYDRANT, GATE VALVE & TEE ASSEMBLY	I.E.	INVERT ELEVATION
	PROPOSED GATE VALVE	MANHOLE O.F. = 0.00 O.E. = 0.00	MANHOLE DESIGNATION
	PROPOSED CHECK VALVE	25 L.F./8" S.S. @ 0.42%	LENGTH & SLOPE OF PIPE
S.P.#2	BACTERIOLOGICAL SAMPLING POINT		DOUBLE SEWER LATERAL
	PROP LIGHT POLE		SINGLE SEWER LATERAL
		C.O.T.G.	CLEAN OUT TO GRADE

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276ws.dwg
PLOT DATE: 2/17/2026 1:22 PM BY: Andy Vennemon
LAYOUT: [WS-1]

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REVISIONS

NO.	DATE:	DESCRIPTION
1	12/10/25	SITE PLAN SUBMITTAL

WEKIVA SHOPPING CENTER
CITY OF APOPKA FLORIDA
WATER & SEWER PLAN

DATE:	05-21-2025
SCALE:	1"=20'
DESIGNED BY:	C.L.
DRAWN BY:	A.V.
JOB #:	25-4276

CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

Date: **February 17, 2026**

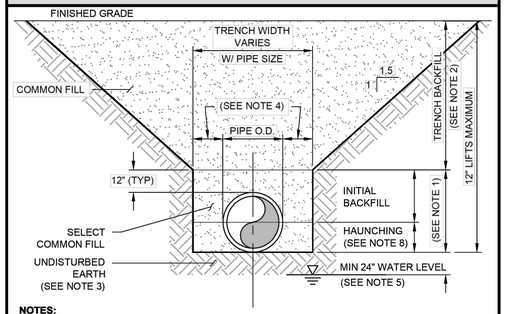
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SHEET No.
WS-1

OCU GENERAL NOTES

1. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN PROXIMITY OF INCLUDING, BUT NOT LIMITED TO; WATER MAINS, WASTEWATER FORCE MAINS, GRAVITY MAINS, RECLAIMED WATER MAINS, ELECTRIC, GAS, CABLE TV, TELECOMMUNICATIONS, STORM WATER, FIBER OPTIC AND OTHER UNDERGROUND FACILITIES. MAIN LOCATIONS SHOWN ON PLANS MAY NOT BE EXACT. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING UTILITY LOCATIONS.
2. SHOULD A PIPE EMERGENCY OCCUR, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OCU DISPATCH OPERATOR (407-836-2777) AND THE OCU INSPECTOR.
3. THE CONTRACTOR SHALL NOTIFY THE OCU CONSTRUCTION INSPECTION SECTION, FIELD SERVICES DIVISION AT LEAST 10 CALENDAR DAYS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION PROJECT BY CALLING (407) 254-9798.
4. THE CONTRACTOR SHALL NOTIFY THE OCU CONSTRUCTION INSPECTOR IN ACCORDANCE WITH TABLE 4110-1 "UTILITIES' SCHEDULE OF NOTIFICATIONS IN THIS MANUAL.
5. THE MATERIALS, PRODUCTS, AND CONSTRUCTION OF ALL UTILITIES CONNECTING TO THE OCU SYSTEM SHALL BE IN CONFORMANCE WITH THE STANDARDS, CONSTRUCTION SPECIFICATIONS, AND APPENDIX D IN THIS MANUAL.
6. ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO; WATER MAINS, FORCE MAINS, RECLAIMED WATER MAIN, SANITARY GRAVITY PIPES, STORM WATER PIPES, ELECTRIC, TELEPHONE, GAS, POLES AND STAYS, CABLE TV AND OTHER UTILITY FACILITIES WITHIN THE LIMITS OF THE PROJECT WILL BE SUPPORTED AND PROTECTED AGAINST DAMAGE DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL ADJUST ALL EXISTING OCU MAINS AND FACILITIES IN CONFLICT WITH NEW GRADE, NEW OR ALTERED ROADWAYS, SIDEWALKS, DRIVEWAYS, CURBS, OR STORM WATER IMPROVEMENTS. OCU FACILITIES TO BE ADJUSTED INCLUDE, BUT ARE NOT LIMITED TO; PIPELINES, PUMP STATIONS, VALVE BOXES, AIR RELEASE VALVES, FIRE HYDRANTS, MANHOLE COVERS, AND METERS. ALL ADJUSTMENTS SHALL BE MADE TO CURRENT STANDARDS.
8. ONLY OCU PERSONNEL SHALL OPERATE EXISTING OCU WATER, WASTEWATER, AND RECLAIMED WATER VALVES. THE CONTRACTOR IS RESPONSIBLE FOR OPERATING ANY NEWLY INSTALLED VALVE THAT HAS NOT BEEN CLEARED FOR USAGE BY FDEP AND OCU. THE CONTRACTOR SHALL COORDINATE VALVE OPERATION WITH THE OCU INSPECTOR. FOR OPERATION OF MAINS NOT OWNED BY OCU, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE APPROPRIATE UTILITY REPRESENTATIVE.
9. CONSTRUCTION ACTIVITIES SHALL NOT CAUSE INTERRUPTIONS IN WATER, WASTEWATER, OR RECLAIMED WATER SERVICE. THE CONTRACTOR SHALL COORDINATE PRE-APPROVED INTERRUPTIONS OF SERVICE WITH THE OCU INSPECTOR 7 WORKING DAYS IN ADVANCE AND WRITTEN NOTICE SHALL BE GIVEN TO AFFECTED CUSTOMERS AT LEAST 4 WORKING DAYS IN ADVANCE.
10. THE CONTRACTOR SHALL PROVIDE FOR BYPASSING AND / OR HAULING OF WASTEWATER DURING APPROVED INTERRUPTIONS OF WASTEWATER FLOWS AND CONNECTIONS. THE CONTRACTOR SHALL SUBMIT A BYPASS OR HAUL PLAN, REVIEWED AND APPROVED BY A PROFESSIONAL ENGINEER TO OCU DEVELOPMENT ENGINEERING AND TO THE INSPECTOR FOR APPROVAL PRIOR TO IMPLEMENTATION BY CONTRACTOR.
11. ALL VALVES INSTALLED AS PART OF THIS CONSTRUCTION PROJECT SHALL REMAIN CLOSED DURING CONSTRUCTION. KEEP VALVES ON ALL WET TAPS CLOSED UNTIL CLEARED BY FDEP. DO NOT CONNECT NEWLY CONSTRUCTED WATER MAINS TO ANY EXISTING WATER MAINS UNLESS CLEARED BY FDEP AND OCU.
12. THE CONTRACTOR SHALL PROVIDE A JUMPER ASSEMBLY WITH AN APPROVED BACKFLOW PREVENTER FOR MAKING TEMPORARY CONNECTIONS TO AN EXISTING POTABLE WATER SOURCE IN ORDER TO CHLORINATE AND FLUSH NEW WATER MAINS WITH POTABLE WATER. ANY TEMPORARY POTABLE WATER CONNECTIONS TO RECLAIMED WATER OR FORCE MAIN SHALL ALSO BE EQUIPPED WITH AN APPROVED BACKFLOW PREVENTER.
13. FOR PVC PIPE, NO JOINT DEFLECTION OR PIPE BENDING IS ALLOWED. ALIGNMENT CHANGE SHALL BE MADE ONLY WITH FITTINGS.
14. FOR DIP PIPE, LONG RADIUS CURVES, EITHER HORIZONTAL OR VERTICAL, MAY BE INSTALLED WITH STANDARD PIPE BY DEFLECTIONS AT THE JOINTS. MAXIMUM DEFLECTIONS AT PIPE JOINTS, FITTINGS AND LAYING RADIUS FOR THE VARIOUS PIPE LENGTHS SHALL NOT EXCEED 75 PERCENT OF THE PIPE MANUFACTURER'S RECOMMENDATION.
15. FOR APPROVED PVC OR HDPE PIPE USED IN A HORIZONTAL DIRECTIONAL DRILL INSTALLATION, THE CURVATURE AND/OR DEFLECTION SHALL NOT EXCEED THE PARAMETERS ESTABLISHED IN THIS MANUAL.
16. ALL DAMAGE TO ORANGE COUNTY INFRASTRUCTURE, PIPELINES, AND ASSETS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE WITH AN APPROVED METHOD BY THE COUNTY. IF THE REPAIR IS NOT PERFORMED IN A TIMELY MANNER, AS DETERMINED BY THE ORANGE COUNTY UTILITY INSPECTOR, ORANGE COUNTY MAY PERFORM REPAIRS AND THE CONTRACTOR WILL BE CHARGED FOR ALL EXPENSES ASSOCIATED WITH THE REPAIR.
17. THE CONTRACTOR SHALL BE LIABLE FOR ANY AND ALL SANITARY SEWER OVERFLOWS (SSO) ASSOCIATED WITH THE WORK, REGARDLESS OF FAULT. THE CONTRACTOR WILL BE ASSESSED PENALTIES FOR ANY AND EACH SSO AS SPECIFIED IN SECTION 3110, GENERAL CONSTRUCTION REQUIREMENTS.

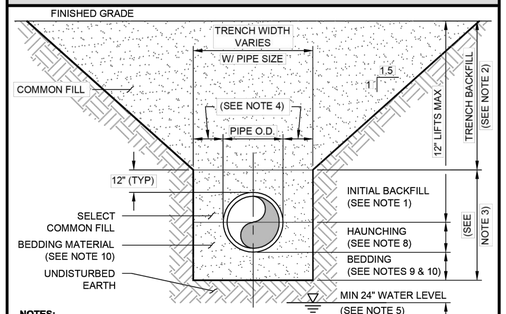
BEDDING & TRENCHING - TYPE A



NOTES:

1. INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO MIN 95% (98% UNDER PAVEMENT OR FUTURE PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO MIN 95% (98% UNDER PAVEMENT OR FUTURE PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL IN ACCORDANCE WITH "TYPE B" BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY UTILITIES.
4. 15-IN MAX. (12-IN MIN.) FOR PIPE DIAMETER LESS THAN 24-IN AND 24-IN MAX (12-IN MIN) FOR PIPE DIAMETER 24-IN AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION. DEWATERING AS REQUIRED.
6. ALL PIPE SHALL BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN ORANGE COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
8. FOR GRAVITY SEWER, THE FIRST LIFT SHALL BE PLACED TO THE SPRING LINE OF THE PIPE AND COMPACTED BY HAND TAMP.
9. CONTRACTOR SHALL USE BEDDING AND TRENCHING - TYPE B DETAIL FOR OVER EXCAVATION AND WHEN UNSUITABLE MATERIALS ARE ENCOUNTERED IN THE EXCAVATION.

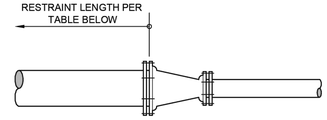
BEDDING & TRENCHING - TYPE B



NOTES:

1. INITIAL BACKFILL: SELECT COMMON FILL COMPACTED TO MIN 95% (98% UNDER PAVEMENT OR FUTURE PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO MIN 95% (98% UNDER PAVEMENT OR FUTURE PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL IN ACCORDANCE WITH "TYPE B" BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY UTILITIES.
4. 15-IN MAX. (12-IN MIN.) FOR PIPE DIAMETER LESS THAN 24-IN AND 24-IN MAX (12-IN MIN) FOR PIPE DIAMETER 24-IN AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION. DEWATERING AS REQUIRED.
6. ALL PIPE SHALL BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN ORANGE COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF R/W UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
8. FOR GRAVITY SEWER, THE FIRST LIFT SHALL BE PLACED TO THE SPRING LINE OF THE PIPE AND COMPACTED BY HAND TAMP.
9. BEDDING DEPTH SHALL BE 4-IN MINIMUM FOR PIPE DIAMETER UP TO 12-IN AND 6-IN MINIMUM FOR PIPE DIAMETER 16-IN AND LARGER.
10. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF REQUIRED BEDDING MATERIAL BELOW THE PIPE. UTILITIES SHALL DETERMINE REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION IN THE FIELD.

RESTRAINED PIPE TABLE - REDUCERS - WATER, WASTEWATER FORCE, & RECLAIMED WATER MAINS (150 PSI)



MINIMUM LENGTH (FEET) TO BE RESTRAINED ON LARGE SIDE OF REDUCER

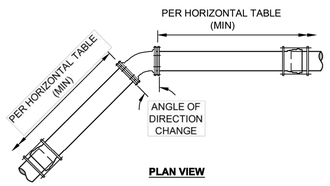
PVC & DI PIPE	REDUCER SMALL SIZE (IN)										
DIA (INCH)	4	6	8	12	16	20	24	30	36	42	48
6	31										
8	56	33									
12		79	58								
16			101	59							
20				105	59						
24				205	151	83					
30					233	180	116				
36						259	208	115			
42							281	205	110		
48								281	201	109	
54									282	204	112
60										253	170
64											222

* BASED ON WORKING PRESSURE 150 PSI

NOTES:

1. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH THE PROCEDURES IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE", GUIDELINES PUBLISHED BY DIPRA AND AWWA M23 "PVC PIPE - DESIGN AND INSTALLATION.
2. THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATED AND LAYING CONDITIONS.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. RESTRAINING REQUIREMENTS APPLY TO BOTH EXISTING AND PROPOSED MAINS.

RESTRAINED HORIZONTAL PIPE - WATER, WASTEWATER FORCE, & RECLAIMED WATER MAINS (150 PSI)



PLAN VIEW

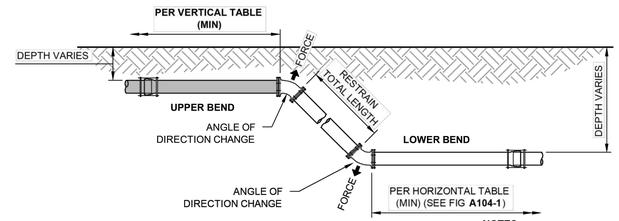
MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)

	TYPE	PVC AND DUCTILE IRON PIPE SIZE (IN)													
		4	6	8	12	16	20	24	30	36	42	48	54	60	64
HORIZONTAL	90° BEND	21	29	37	52	65	78	104	122	143	154	167	180	188	195
	45° BEND	9	12	16	22	27	33	43	51	60	64	70	75	78	81
	22-1/2° BEND	5	6	8	11	13	16	21	25	29	31	34	36	38	39
	11-1/4° BEND	2	3	4	6	7	8	11	12	15	16	17	18	19	20
	5 5/8° BEND OR MJ SLEEVE	1	2	2	3	4	4	6	6	8	8	9	9	10	10
	PLUG OR BRANCH OF TEE OR DEAD END	43	59	78	109	139	167	277	330	415	424	465	506	529	551
	VALVE OR LINE STOP	22	30	39	55	70	84	139	165	208	212	233	253	265	276
	HDPE CONNECTION	19	26	34	49	62	75	125	151	174	203	223			

NOTES:

1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. ALL INLINE VALVES SHALL BE RESTRAINED.
5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW:
   WORKING PRESSURE: **150 PSI**
   SOIL DESIGNATION: **SM (SAND SILT)**
   LAYING CONDITIONS: **3**
   DEPTH OF COVER: **3-FT**
   SAFETY FACTOR: **1.5**
   THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.
7. 90° BENDS ON VERTICAL PIPE ARE SUBJECT TO REVIEW AND APPROVAL OF UTILITIES.
8. IF 4-IN THRU 20-IN PIPE IS POLYETHLYENE ENCASED, USE 1.25 MULTIPLIER ON RESTRAINT LENGTH.
9. RESTRAINING REQUIREMENTS APPLY TO BOTH EXISTING AND PROPOSED MAINS.

RESTRAINED VERTICAL PIPE - WATER, WASTEWATER FORCE, & RECLAIMED WATER MAINS (150 PSI)



PROFILE VIEW

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

	TYPE	PVC AND DUCTILE IRON PIPE SIZE (IN)													
		4	6	8	12	16	20	24	30	36	42	48	54	60	64
VERTICAL (UPPER)	90° BEND	43	59	78	109	139	167	277	330	415	424	465	506	529	551
	45° BEND	18	25	32	45	58	69	115	137	172	176	193	210	219	229
	22-1/2° BEND	9	12	16	22	28	34	56	66	83	85	93	101	106	110
	11-1/4° BEND	5	6	8	11	14	17	28	33	41	42	46	50	53	55
	5 5/8° BEND OR MJ SLEEVE	3	3	4	6	7	9	14	17	21	21	23	25	26	28

NOTES:

1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. ALL INLINE VALVES SHALL BE RESTRAINED.
5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW:
   WORKING PRESSURE: **150 PSI**
   SOIL DESIGNATION: **SM (SAND SILT)**
   LAYING CONDITIONS: **3**
   DEPTH OF COVER: **3-FT**
   SAFETY FACTOR: **1.5**
   THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.
7. 90° BENDS ON VERTICAL PIPE ARE SUBJECT TO REVIEW AND APPROVAL OF UTILITIES.
8. IF 4-IN THRU 20-IN PIPE IS POLYETHYLENE ENCASED, USE 1.25 MULTIPLIER ON RESTRAINT LENGTH.
9. RESTRAINING REQUIREMENTS APPLY TO BOTH EXISTING AND PROPOSED MAINS.

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REVISIONS

NO.	DATE:	DESCRIPTION
1	12/10/25	SITE PLAN SUBMITTAL

WEKIVA SHOPPING CENTER
CITY OF APOPKA
WATER AND SEWER DETAILS
FLORIDA

DATE: 05-21-2025
SCALE: 1"=30'
DESIGNED BY: C.L.
DRAWN BY: A.V.
JOB #: 25-4276

CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

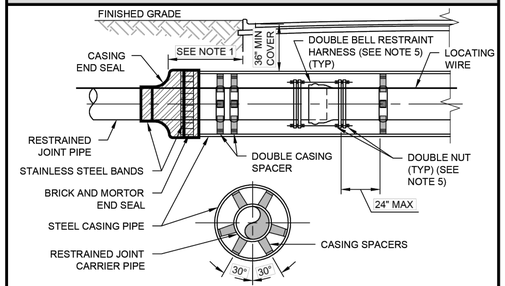
Date: **February 17, 2026**

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SHEET No.
WS-2

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276wsdl.dwg
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LAYOUT: [WS-2]

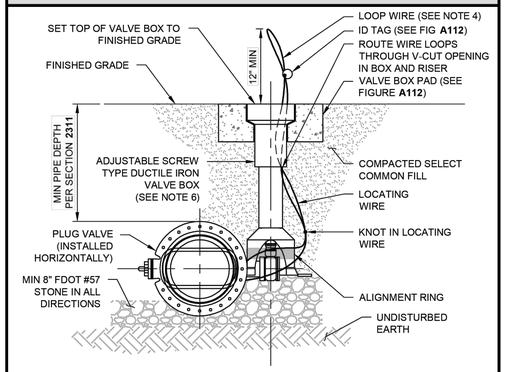
JACK & BORE - DETAIL A



CARRIER PIPE NOMINAL DIAMETER (IN)	4	6	8	10	12	16	20	24	30	36	42
MINIMUM CASING OUTSIDE DIAMETER (IN)	16	16	18	20	24	30	36	42	48	54	60
MINIMUM CASING WALL THICKNESS (IN)	0.25	0.25	0.25	0.25	0.25	0.31	0.38	0.50	0.50	0.50	0.50

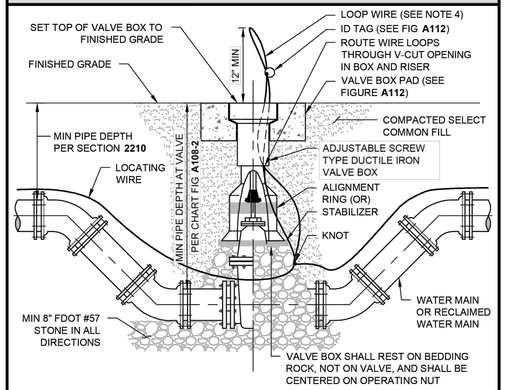
NOTES:
1. CASING SHALL EXTEND A MINIMUM OF 10-FT BEYOND THE EDGE OF PAVEMENT OR MEET FDOT REQUIREMENTS, WHICHEVER IS GREATER.
2. REQUIREMENTS OF OTHER JURISDICTIONS SHALL BE MET. WHEN CONSTRUCTION IS WITHIN FDOT JURISDICTION, ADDITIONAL REQUIREMENTS OF THE "FDOT UTILITY ACCOMMODATION GUIDE" SHALL BE MET.
3. DISTANCE BETWEEN SPACERS TO BE PER MANUFACTURER'S SPECIFICATIONS, OR MAX OF 6.5-FT, WHICHEVER IS MORE STRINGENT.
4. USE OF FLOWABLE FILL IN THE ANNULAR SPACE BETWEEN THE CASING AND CARRIER PIPE IS PROHIBITED.
5. PVC PIPE IN CASING SHALL HAVE A DOUBLE MECHANICAL BELL RESTRAINT HARNESS PER JOINT WHERE RODS ARE DOUBLE NUTTED TO PRECLUDE OVER-HOMING THE JOINT DURING INSTALLATION. BELL RESTRAINT PAIRS INSTALLED FACE TO FACE ON EACH SIDE OF BELL TO ALLOW FOR PROPER NUT INSTALLATION AND PREVENT BOTH OVER-HOMING AND BELL SEPARATION.
6. DI PIPE SHALL BE INTERNAL PUSH-ON RESTRAINED.
7. SEE DETAIL **A107-2** FOR FULL JACK AND BORE SECTION.

PLUG VALVE & BOX - WASTEWATER



NOTES:
1. PVC PIPE OR DUCTILE IRON PIPE SHALL NOT BE USED AS VALVE BOX.
2. THE VALVE ACTUATING NUT SHALL BE EXTENDED TO BE WITHIN 3-FT OF FINISHED GRADE.
3. PROVIDE A STABILIZER OR PLASTIC DEBRIS SHIELD / ALIGNMENT RING WHICH INSTALLS BELOW THE VALVE ACTUATING NUT. THE DEVICE SHALL CENTER THE RISER VALVE BOX OVER THE ACTUATING NUT AND MINIMIZE DEBRIS.
4. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 12-IN ABOVE TOP OF COLLAR. WIRE SHALL BE COLOR CODED TO MATCH THE UTILITY INSTALLED. WIRE SHALL BE COILED BACK INTO BOX AWAY FROM VALVE STEM.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.
6. REFER TO FIGURE **A111** FOR INSTALLATIONS WHERE THE OPERATING NUT IS DEEPER THAN 36-IN BELOW FINISHED GRADE.
7. DRILL HOLE IN ID TAG AND INSTALL ON TRACING WIRE.

GATE VALVE & BOX - WATER & RECLAIMED WATER MAINS



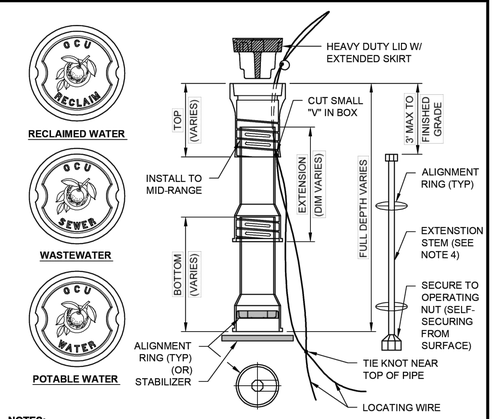
NOTES:
1. PVC PIPE OR DUCTILE IRON PIPE SHALL NOT BE USED AS VALVE BOX.
2. THE VALVE ACTUATING NUT SHALL BE EXTENDED TO BE WITHIN 3-FT OF FINISHED GRADE.
3. PROVIDE A STABILIZER OR PLASTIC DEBRIS SHIELD / ALIGNMENT RING WHICH INSTALLS BELOW THE VALVE ACTUATING NUT. THE DEVICE SHALL CENTER THE RISER VALVE BOX OVER THE ACTUATING NUT AND MINIMIZE DEBRIS.
4. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 12-IN ABOVE TOP OF COLLAR. WIRE SHALL BE COLOR CODED TO MATCH THE UTILITY INSTALLED. WIRE SHALL BE COILED BACK INTO BOX AWAY FROM VALVE STEM.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.
6. REFER TO FIGURE **A111** FOR INSTALLATIONS WHERE THE OPERATING NUT IS DEEPER THAN 36-IN BELOW FINISHED GRADE.
7. DRILL HOLE IN ID TAG AND INSTALL ON TRACING WIRE.

GATE VALVE & BOX - MINIMUM PIPE DEPTH AT VALVE PER MANUFACTURER

APPROVED APPENDIX D PRODUCTS VALVE SIZE (INCHES)	AMERICAN FLOW CONTROL	CLOW COMPANY	MUELLER COMPANY
	MIN COVER TO TOP OF PIPE (INCHES)	MIN COVER TO TOP OF PIPE (INCHES)	MIN COVER TO TOP OF PIPE (INCHES)
16	53	54	54
20	57	72	62
24	63	75	66
30	80	81	80
36	89	88	89
42	102	102	101
48	109	102	110
54	106		
60	122		
66	119		

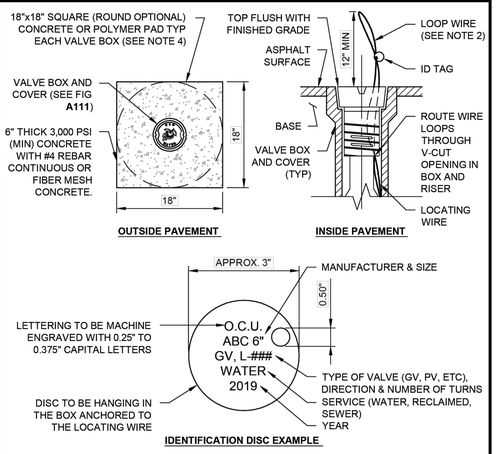
NOTES:
1. MINIMUM COVER OVER PIPE IS CALCULATED BASED ON INSTALLATION OF THE GATE VALVE OPERATING NUT AT 24-IN BELOW GRADE.
2. ADDITIONAL DEPTH MAY BE REQUIRED BASED ON SITE CONDITIONS OR ROAD DESIGN.
3. REFERENCE FIGURE **A108-1** FOR TYPICAL GATE VALVE STANDARD DRAWING.

TYPICAL VALVE BOX & COVER



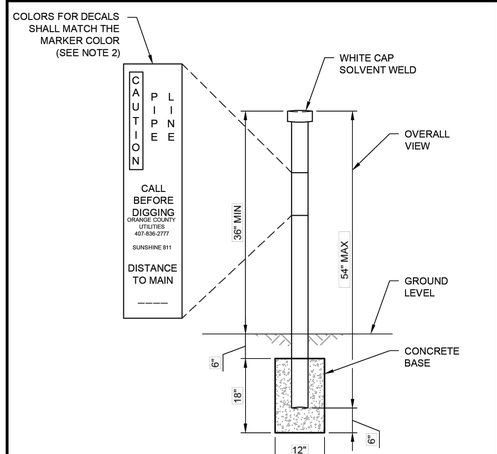
NOTES:
1. HEAVY DUTY VALVE BOX LIDS ARE REQUIRED FOR ALL VALVE BOXES.
2. TOP SECTION SHALL BE INSTALLED AT MID-RANGE FOR FUTURE ADJUSTMENT.
3. HEAVY DUTY VALVE BOX LID SHALL HAVE A 5-IN MIN DEPTH AND WEIGH A MINIMUM OF 22-LBS. LID SHALL HAVE POWDER COATING PAINT AT A MIN OF 3 MIL.
4. EXTENSION STEMS AND ALIGNMENT RING/WALL BRACKETS SHALL BE PROVIDED ON ALL BURIED VALVES SO THAT THE OPERATING NUT SHALL BE NO MORE THAN 36-IN BELOW FINISHED GRADE. MATERIAL SHALL BE MINIMUM 304 SST.
5. ADD ADD'L SCREW EXTENSION AS REQUIRED AFTER SCREW EXTENSION EXCEEDS 24-IN.
6. STACKING OF VALVE BOX BOTTOM SECTIONS IS NOT PERMITTED.
7. VALVE BOX SHALL REST ON BEDDING ROCK, NOT ON VALVE, AND SHALL BE CENTERED ON OPERATING NUT.

VALVE BOX PAD



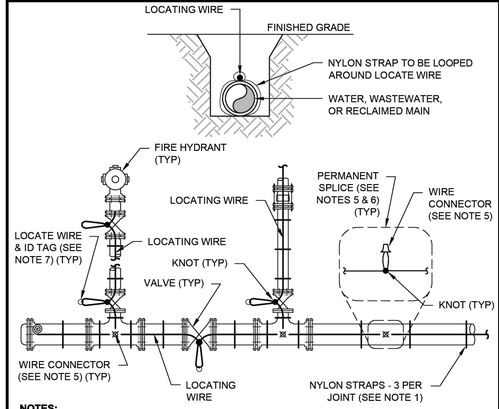
NOTES:
1. BRONZE, BRASS, OR STAINLESS STEEL IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES.
2. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 12-IN ABOVE TOP COLLAR. WIRE SHALL BE COLOR CODED TO MATCH THE UTILITY INSTALLED. WIRE SHALL BE COILED BACK INTO BOX AWAY FROM VALVE STEM.
3. NO VALVE SHALL BE DESIGNED OR INSTALLED WITHIN THE CURB.
4. ROUND OR SQUARE VALVE PAD TO BE UNIFORM PER PROJECT.

UTILITY MAIN MARKER



NOTES:
1. MARKERS ARE REQUIRED WHEN UTILITY MAIN IS LOCATED OVER 30-FT FROM EDGE OF PAVEMENT OR IN AN EASEMENT NOT ADJACENT TO THE RIGHT OF WAY.
2. MARKERS SHALL BE 4-IN DIAMETER SCH 80 OR DR18 PVC: BLUE FOR WATER; GREEN FOR WASTEWATER; AND PANTONE PURPLE 522C FOR RECLAIMED WATER.
3. MARKERS SHALL BE PLACED AT ALL DIRECTIONAL CHANGES AND AT ALL VALVES EXCEPT WATER VALVES NEAR FIRE HYDRANTS. ADDITIONAL MARKERS SHALL BE INSTALLED AS NEEDED SO THAT THE DISTANCE BETWEEN MARKERS DOES NOT EXCEED 500-FT.

PIPE LOCATING WIRE



NOTES:
1. ALL PIPE SHALL REQUIRE INSULATED LOCATING WIRE (10 GAUGE SOLID COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE WRAPPED WITH NYLON STRAPS, LOOPED AND SECURED TO TOP CENTERLINE OF THE PIPE.
2. LOCATING WIRE SHALL BE CONTINUOUS INSIDE VALVE BOXES AND SHALL EXTEND 12-IN ABOVE TOP OF COLLAR.
3. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.
4. WIRE SHALL BE CONTINUOUS AND CONNECTED FOR LOCATING IN ALL DIRECTIONS.
5. PERMANENT SPLICES MUST BE MADE IN THE LENGTH OF THE WIRE USING WIRE CONNECTORS SPECIFICALLY DESIGNED FOR DIRECT BURIAL, DIELECTRIC SILICONE GEL OR MOISTURE-RESISTANT GREASE FILLED.
6. AT ALL TRACING WIRE SPLICES, TEES, AND VALVE COLLARS, A KNOT IN THE WIRE SHALL BE MADE TO PREVENT THE WIRE FROM COMING APART.
7. REFER TO VALVE DETAILS FOR LOCATE WIRE UP AND IN VALVE BOX.

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REVISIONS

NO.	DATE:	DESCRIPTION
1	12/10/25	SITE PLAN SUBMITTAL

WEKIVA SHOPPING CENTER
CITY OF APOPKA FLORIDA
WATER AND SEWER DETAILS

DATE: 05-21-2025
SCALE: 1"=30'
DESIGNED BY: C.L.
DRAWN BY: A.V.
JOB #: 25-4276

CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

Date: **February 17, 2026**

This item has been digitally signed and sealed by CLIFFORD R. LOUTAN, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.

SHEET No.
WS-3

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276wsd1.dwg
PLOT DATE: 2/17/2026 1:23 PM BY: Andy Venneman
LAYOUT: [WS-3]

HORIZONTAL PIPELINE SEPARATION REQUIREMENTS

HORIZONTAL SEPARATION REQUIREMENTS (NOTES 1 & 2)

PROPOSED UTILITY		POTABLE WATER (NOTE 3)		RECLAIMED WATER MAIN (SEE NOTE 7)		WASTEWATER FORCEMAIN		SANITARY SEWER	STORM SEWER	STRUCTURAL FOUNDATION, WALLS, ETC. (SEE NOTE 8)
		4"-12"	16"-UP	4"-12"	16"-UP	4"-12"	16"-UP	ALL SIZES	ALL SIZES	ALL SIZES
POTABLE WATER (NOTE 3)	4"-12"	3'	5'	3'	5'	6'	6'	6'	3'	10'
	16"-UP	5'	5'	5'	5'	6'	6'	6'	5'	15' (NOTE 5)
RECLAIMED WATER MAIN (SEE NOTE 7)	4"-12"	3'	5'	3'	5'	3'	5'	3'	3'	10'
	16"-UP	5'	5'	5'	5'	5'	5'	5'	5'	15' (NOTE 5)
WASTEWATER FORCEMAIN	4"-12"	6'	6'	3'	5'	3'	5'	3'	3'	10'
	16"-UP	6'	6'	5'	5'	5'	5'	5'	5'	15' (NOTE 5)
SANITARY SEWER	ALL SIZES	6'	6'	3'	5'	3'	5'	3'	5'	VARIES PER DEPTH

NOTES:
1. DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
2. THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. FOR PIPES INSTALLED AT GREATER DEPTHS THAN THE MINIMUM OCU DESIGN STANDARDS, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH.
3. THIS SEPARATION REQUIREMENT COMPLIES WITH THE MINIMUM FDEP SEPARATION REQUIREMENTS OUTLINED IN 62-555.314, FAC. VARIANCES FROM THE FDEP REQUIREMENTS MUST COMPLY WITH 62-555.314(5), FAC AND MUST BE APPROVED INDIVIDUALLY BY BOTH FDEP AND UTILITIES PRIOR TO INSTALLATION.
4. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURE.
5. PRESSURE MAINS 16-IN TO 24-IN MAY HAVE 10-FT SEPARATION FROM STRUCTURAL FOUNDATION, WALLS, ETC IF NEW MAINS ARE RESTRAINED FOR THE ENTIRE LENGTH.
6. REFERENCE FIGURE **A116-2** FOR VERTICAL PIPELINE SEPARATION REQUIREMENTS.
7. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
8. ADDITIONAL SEPARATION SHALL BE REQUIRED BY UTILITIES FOR CONSTRUCTION OF, INCLUDING, BUT NOT LIMITED TO: LIVE LOADS, MULTI-STORY COMMERCIAL BUILDINGS, SUPERSTRUCTURES, EMBANKMENTS, RETAINING WALLS, BRIDGES, RAILROADS, HIGH VOLTAGE TRANSMISSION MAINS, GAS MAINS, ETC.

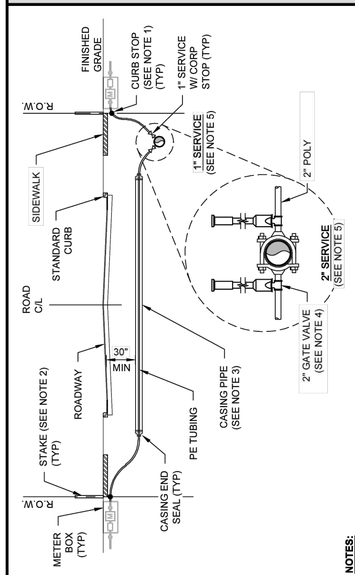
VERTICAL PIPELINE SEPARATION REQUIREMENTS

VERTICAL SEPARATION REQUIREMENTS (NOTES 1 & 2)

PROPOSED UTILITY	POTABLE WATER (NOTE 4)	RECLAIMED WATER MAIN	WASTEWATER FORCEMAIN	SANITARY SEWER	STORM SEWER (NOTE 3)
POTABLE WATER (NOTE 4)	12"	12"	12" / 18"	12" / 18"	12" / 18"
RECLAIMED WATER MAIN	12"	12"	12"	12"	12" / 18"
WASTEWATER FORCEMAIN	12"	12"	12"	12"	12" / 18"
SANITARY SEWER	12" / 18"	12"	12"	12"	12" / 18"

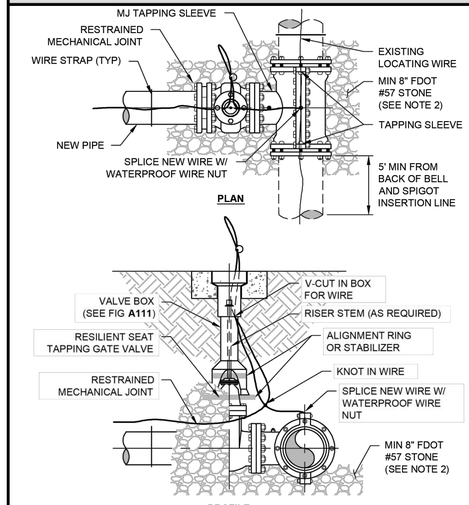
NOTES:
1. DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
2. THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE.
3. THE 18-IN SEPARATION REQUIREMENT APPLIES WHEN THE STORM PIPE OR SANITARY SEWER CROSSES ABOVE THE UTILITY MAIN, AND WHEN THE STORM PIPE HAS A DIAMETER EQUAL TO OR GREATER THAN 24-IN. OTHERWISE, THE REQUIRED SEPARATION IS 12-IN.
4. THIS SEPARATION REQUIREMENT COMPLIES WITH THE MINIMUM FDEP SEPARATION REQUIREMENTS OUTLINED IN 62-555.314, FAC. VARIANCES FROM THE FDEP REQUIREMENTS MUST COMPLY WITH 62-555.314(5), FAC AND MUST BE APPROVED INDIVIDUALLY BY BOTH FDEP AND UTILITIES.
5. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURE.
6. REFERENCE FIGURE **A116-1** FOR HORIZONTAL PIPELINE SEPARATION REQUIREMENTS.
7. JOINT SPACING AT CROSSING SHALL COMPLY WITH THE MINIMUM FDEP SEPARATION REQUIREMENTS OUTLINED IN 62-555.314, F.A.C.

WATER & RECLAIMED WATER SERVICES (TYPICAL)



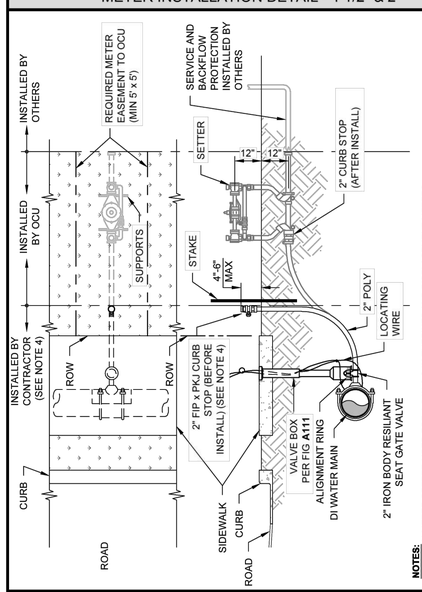
NOTES:
1. CURB STOP SHALL BE INSTALLED AT THE R.O.W. LINE.
2. CURB STOP SHALL BE MARKED WITH A 2-IN x 2-IN SQUARE STAKE RISING 24-IN ABOVE THE GROUND. TOP OF STAKE SHALL BE PAINTED THE COLOR OF THE UTILITY SERVICE AND LABELED WITH THE LOT NUMBER(S) IT SERVES.
3. CASING PIPE WITH END SEALS REQUIRED FOR SERVICES UNDER NON-LOCAL ROADS. CASING PIPE SHALL BE 2-IN PE FOR 1-IN SERVICE AND 4-IN HDPE FOR 2-IN SERVICE. EXTEND CASING A MINIMUM OF 24-IN BEYOND CURB. CASING PIPE NOT REQUIRED FOR LOCAL ROADS.
4. 2-IN SERVICE LINE REQUIRES 2-IN GATE VALVE W/ VALVE BOX TO FINISH GRADE.
5. CUT SERVICE LINE AT THE SADDLE AND INSTALL 1" SADDLE AND CORPORATION STOP WITH 1" SERVICE. THE ADDITIONAL LOCATION 1-IN SERVICE IN THE SADDLE AND CORPORATION STOP SHALL BE INSTALLED AT 9 OR 3 O'CLOCK FACING OUTWARDS TOWARDS THE SERVICE LOCATION.

MJ TAPPING SLEEVE & GATE VALVE ASSEMBLY FOR WATER & RECLAIMED WATER



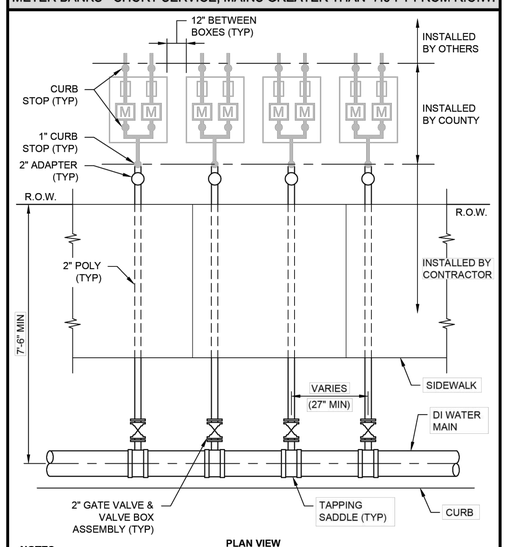
NOTES:
1. TAPPING SLEEVE INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION **3117**-SYSTEM CONNECTIONS.
2. BEDDING ROCK SHALL BE FULLY AND UNIFORMALLY SUPPORTING THE TAPPING SLEEVE & VALVE AT A MIN OF 8-IN IN ALL DIRECTIONS.

METER INSTALLATION DETAIL - 1 1/2" & 2"



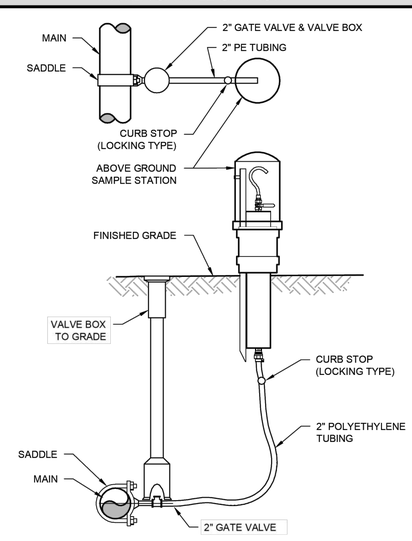
NOTES:
1. 2-IN METER SETTER USED FOR 1.5-IN & 2-IN TURBINES AND DISPLACEMENT METERS.
2. DOUBLE CHECK DETECTOR ASSEMBLY REQUIRED WHERE WATER IRRIGATION WILL NOT HAVE BYPASS.
3. TIE LOCATING WIRE INTO EXISTING WIRE WITH WATERPROOF WIRE NUT.
4. CONTRACTOR SHALL USE A 2-IN x 2-IN SQUARE STAKE RISING 24-IN ABOVE THE GROUND AND INSTALL 2-IN POLY AND CURB STOP STUBBED UP 4-IN TO 6-IN. TOP OF STAKE SHALL BE PAINTED THE COLOR OF THE UTILITY SERVICE AND LABELED WITH THE LOT NUMBER(S) IT SERVES.

METER BANKS - SHORT SERVICE, MAINS GREATER THAN 7.5-FT FROM R.O.W.



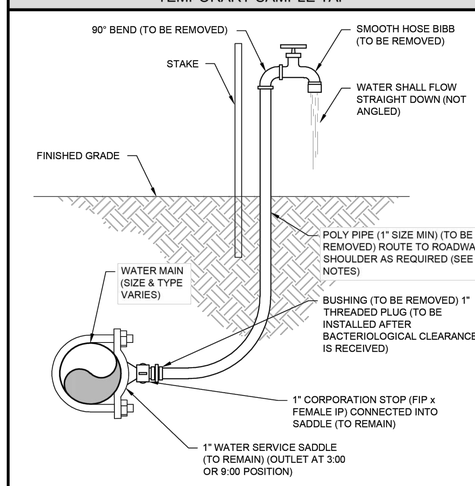
NOTES:
1. DI PIPE SHALL EXTEND A MIN OF 5-FT PAST FIRST AND LAST SERVICE CONNECTION ON ALL METER BANK INSTALLS.

WATER SAMPLE STATION



NOTES:
1. A 2-IN SAMPLE STATION INSTALLED AT THE END OF A CUL-DE-SAC CAN ALSO SERVE AS A BLOW-OFF VALVE WHEN BOTH ARE REQUIRED.

TEMPORARY SAMPLE TAP



NOTES:
1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
3. THE USE OF THE ABOVE CONSTRUCTION FOR A TEMPORARY SAMPLE POINT SHALL BE LIMITED TO AREAS WHERE A SAMPLE TAP BY ALTERNATIVE METHODS IS NOT FEASIBLE IF DIRECTED OTHERWISE BY OCU.

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1	12/10/25	SITE PLAN SUBMITTAL

WEKIVA SHOPPING CENTER

CITY OF APOPKA

WATER AND SEWER DETAILS

FLORIDA

DATE: 05-21-2025
SCALE: 1"=30'
DESIGNED BY: C.L.
DRAWN BY: A.V.
JOB #: 25-4276

CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

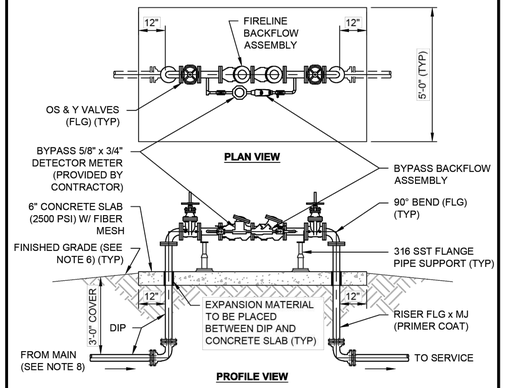
Date: **February 17, 2026**

This item has been digitally signed and sealed by CLIFFORD R. LOUTAN, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.

SHEET No.
WS-4

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276wsd1.dwg
PLOT DATE: 2/17/2026 1:23 PM BY: Andy Venneman
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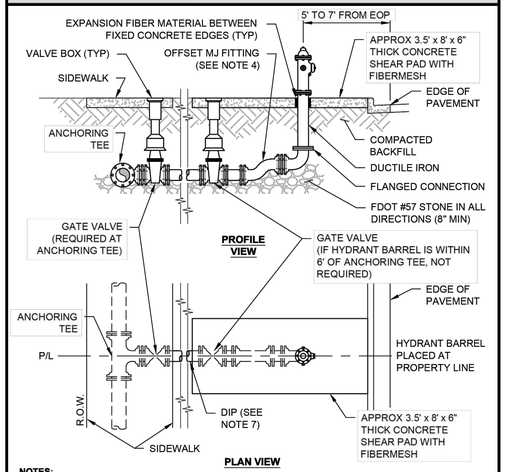
DOUBLE DETECTOR CHECK VALVE ASSEMBLY



NOTES:

1. REQUIRED FOR SITES WITH SEPARATE DOMESTIC AND FIRE SYSTEM SUPPLY PIPING.
2. BACKFLOW ASSEMBLY SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER. UTILITIES SHALL OWN AND MAINTAIN THE METER.
3. UTILITY EASEMENT REQUIRED FOR BY-PASS METER READING. MINIMUM EASEMENT SIZE IS 10-FT x 15-FT.
4. DETAIL NOT APPLICABLE WHEN AN RPZ IS REQUIRED IN ACCORDANCE WITH THE BACKFLOW PREVENTION MANUAL.
5. ALL FLANGES: PIPE, VALVES AND APPURTENANCES SHALL HAVE 316 SST HARDWARE.
6. FINISH GRADE AROUND METER ASSEMBLY SLAB SHALL ENSURE A SAFE WORK ENVIRONMENT. GRADING SLOPE DROP OFF SHALL NOT EXCEED 6-IN WITHIN 5-FT OF SLAB.
7. ASSEMBLY SHALL BE PAINTED IN ACCORDANCE WITH SECTION **3119**.
8. SERVICES 4-INCH AND LARGER SHALL BE DIP FROM THE POINT OF CONNECTION AT THE MAIN TO THE METER ASSEMBLY IF THE MAIN IS ON THE SAME SIDE OF THE STREET AS THE ASSEMBLY. IF THE MAIN IS ON THE OPPOSITE SIDE OF THE STREET AS THE ASSEMBLY, A MINIMUM OF ONE SEGMENT OF PIPE IMMEDIATELY UPSTREAM FROM THE METER ASSEMBLY SHALL BE DIP.

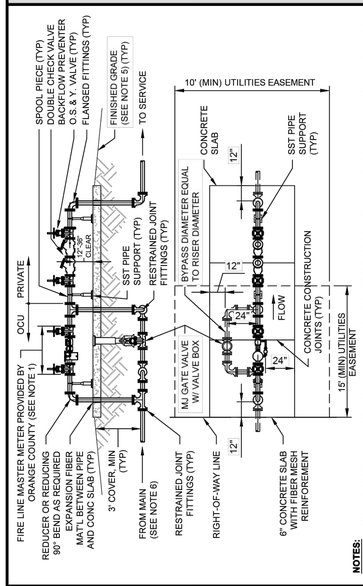
FIRE HYDRANT ASSEMBLY (STANDARD CONFIGURATION)



NOTES:

1. CENTER OF THE FLANGE CONNECTION SHALL BE 4-IN TO 6-IN FROM THE TOP OF THE SLAB.
2. BARREL COLORS: PRIVATE HYDRANTS - RED; PUBLIC HYDRANTS - SILVER.
3. BONNET COLORS: TO BE DETERMINED BY FLOW TEST.
4. OFFSET MJ FITTING ROTATED AS REQUIRED FOR HYDRANT BURY DEPTH ADJUSTMENT. HYDRANT EXTENSION RISERS SHALL NOT BE PERMITTED. ADDITIONAL RESTRAINT FITTINGS AS REQUIRED.
5. HYDRANT SHALL BE CENTERED ON SHEAR PAD.
6. PUMPER NOZZLE SHALL FACE ROADWAY.
7. ALL PIPE SHALL BE RESTRAINED DIP FROM ANCHORING TEE TO HYDRANT.
8. HYDRANT SHALL BE 5-FT TO 7-FT FROM EDGE OF PAVEMENT.

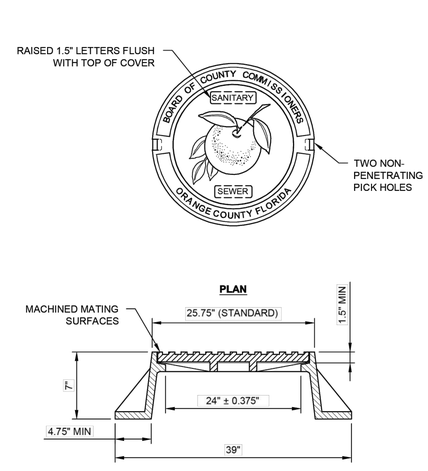
FIRE LINE MASTER METER ASSEMBLY



NOTES:

1. THE CONTRACTOR SHALL CONTACT THE UTILITIES INSPECTOR FOR EXACT METER ASSEMBLY LENGTH AND HEIGHT REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL PIPE, FITTINGS AND APPURTENANCES, EXCEPT FOR THE METER ASSEMBLY, WHICH SHALL BE PROVIDED BY UTILITIES AND INSTALLED BY THE CONTRACTOR.
2. ALL ADDITIONAL SURFACE AREA SHALL BE CONCRETE OR ASPHALT PAVED.
3. ASSEMBLY SHALL BE PAINTED IN ACCORDANCE WITH SECTION **3119**.
4. ALL FLANGES: PIPE, VALVES AND APPURTENANCES SHALL HAVE 316 SST HARDWARE.
5. FINISH GRADE AROUND METER ASSEMBLY SLAB SHALL ENSURE A SAFE WORK ENVIRONMENT. GRADING SLOPE DROP OFF SHALL NOT EXCEED 6-IN WITHIN 5-FT OF SLAB.
6. SERVICES 4-INCH AND LARGER SHALL BE DIP FROM THE POINT OF CONNECTION TO THE MAIN TO THE METER ASSEMBLY IF THE MAIN IS ON THE SAME SIDE OF THE STREET AS THE ASSEMBLY. IF THE MAIN IS ON THE OPPOSITE SIDE OF THE STREET AS THE ASSEMBLY, A MINIMUM OF ONE SEGMENT OF PIPE IMMEDIATELY UPSTREAM FROM THE METER ASSEMBLY SHALL BE DIP. ALL PIPING SHALL BE RESTRAINED.

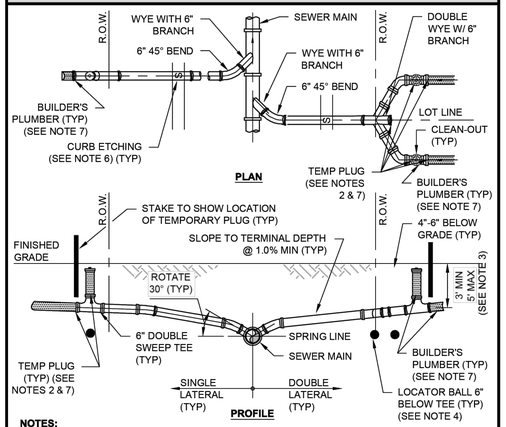
STANDARD MANHOLE FRAME & COVER



NOTES:

1. ONLY APPLIES TO UTILITIES OWNED AND MAINTAINED MANHOLES. "ORANGE COUNTY" SHALL NOT APPEAR ON PRIVATE MANHOLES.

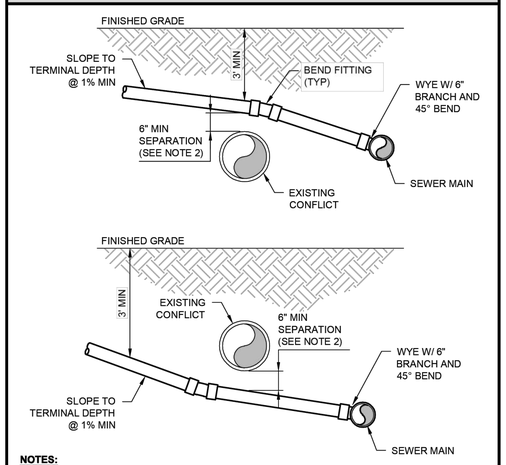
SERVICE LATERAL



NOTES:

1. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
2. SERVICE LATERAL AND DOUBLE SWEEP TEES SHALL BE CAPPED BY DEVELOPER'S SITE-WORK CONTRACTOR.
3. TEE & WYE SHALL BE NO SHALLOWER THAN 3-FT AND NO DEEPER THAN 5-FT.
4. LOCATOR BALLS TO BE INSTALLED BY DEVELOPER'S SITE-WORK CONTRACTOR, TWO PER DOUBLE SERVICE AND ONE PER SINGLE SERVICE AT MINIMUM.
5. ALL FITTINGS SHOWN ARE TO BE INSTALLED.
6. SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY CUTTING AN "S" IN THE CURB DIRECTLY OVER THE LATERAL.
7. BUILDER'S PLUMBER WILL REMOVE PLUG(S), INSTALL CLEANOUT ON DOUBLE SWEEP TEE, AND CONNECT SERVICE LATERAL TO HOUSE. NO DIRT OR DEBRIS SHALL ENTER THE SERVICE LATERAL THROUGHOUT CONSTRUCTION.

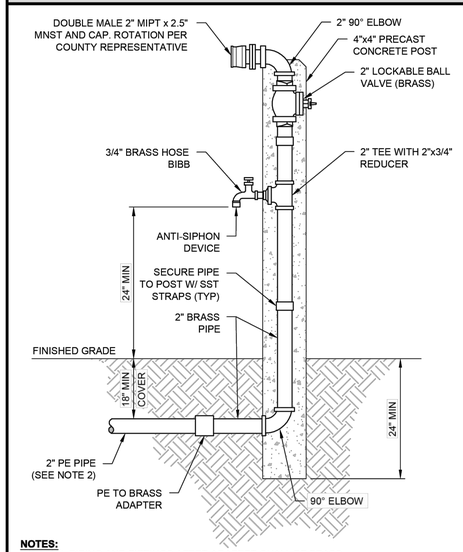
SERVICE LATERAL - PIPE CONFLICT



NOTES:

1. GRADE MAX CHANGE TO INSTALL SEWER LATERAL OVER OR UNDER AN EXISTING CONFLICT.
2. ALL CONFLICT SEPARATIONS LESS THAN THE MINIMUM SHALL NOT BE PERMITTED UNLESS APPROVED BY THE UTILITIES INSPECTOR.
3. MINIMUM SLOPE SHALL NOT BE LESS THAN 1%.
4. BEND FITTINGS SHALL BE USED TO ENSURE PROPER SEPARATION FROM ALL HORIZONTAL CONFLICTS.
5. IF A CONFLICT AT THE PROPERTY LINE EXISTS, TWO SINGLE SEWER SERVICES SHALL BE INSTALLED IN AN APPROVED LOCATION BY UTILITIES.

YARD HYDRANT / HOSE BIBB AT PUMP STATION



NOTES:

1. ALL PIPING AND FITTINGS AFTER ADAPTER SHALL BE BRASS.
2. CONNECT 2-IN PE TO EITHER 2-IN OCU METER OR 5/8-IN OUC METER.

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Sunrise, FL 33351
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STE Sun-Tech Engineering, Inc.
Engineers • Planners • Surveyors

REVISIONS

NO.	DATE:	DESCRIPTION
1	12/10/25	SITE PLAN SUBMITTAL

WEKIVA SHOPPING CENTER
CITY OF APOPKA FLORIDA
WATER AND SEWER DETAILS

DATE: 05-21-2025
SCALE: 1"=30'
DESIGNED BY: C.L.
DRAWN BY: A.V.
JOB #: 25-4276

CLIFFORD R. LOUTAN LICENSE No. 56890 STATE OF FLORIDA PROFESSIONAL ENGINEER

Date: **February 17, 2026**

This item has been digitally signed and sealed by CLIFFORD R. LOUTAN, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.

SHEET No.
WS-5

FILE: K:\PROJECTS\25-xxx\25-4276\dwg\4276wsd1.dwg
PLOT DATE: 2/17/2026 1:23 PM BY: Andy Venneman
LAYOUT: [WS-5]

CONSTRUCTION PLANS

FOR

7-11 OCOEE APOPKA RD

(7-ELEVEN STORE #42990 OCOEE APOPKA RD AND KEENE RD)

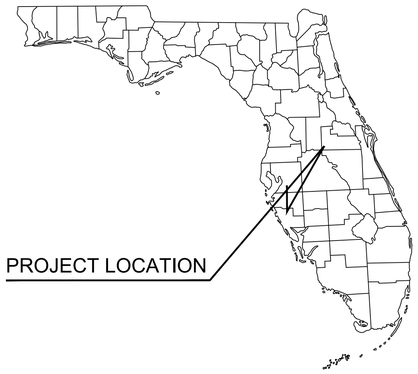
(SITE #1057689)

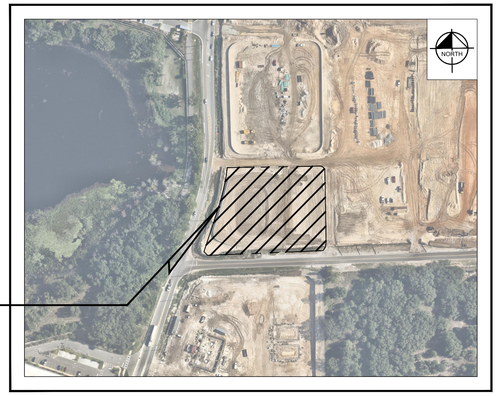
ORANGE COUNTY PARCEL ID NO:

20-21-28-8000-04-000

APOPKA, FLORIDA

FEBRUARY 13, 2026





AERIAL PHOTOGRAPH

N.T.S.



SECTION 20 , TOWNSHIP 21, RANGE 28

LOCATION MAP

N.T.S.

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER
C1.0	GENERAL NOTES
C1.1	GENERAL NOTES
C2.0	SWPPP
C3.0	EXISTING CONDITIONS
C4.0	SITE PLAN
C4.1	FIRE TRUCK ROUTING PLAN
C4.2	TRASH ROUTING PLAN
C4.3	SEMI TRUCK ROUTING PLAN
C5.0	PGD PLAN
C6.0	UTILITY PLAN
C7.0	STANDARD DETAILS
C7.1	STANDARD DETAILS
C7.2	7-11 STANDARD DETAILS
C7.3	7-11 STANDARD DETAILS
C7.4	7-11 STANDARD DETAILS
C7.5	7-11 STANDARD DETAILS
C8.0	CITY OF APOPKA DETAILS
C8.1	CITY OF APOPKA DETAILS
C8.2	CITY OF APOPKA DETAILS
C8.3	CITY OF APOPKA DETAILS
C8.4	CITY OF APOPKA DETAILS
C8.5	ORANGE COUNTY DETAILS

LEGAL DESCRIPTION:

A PORTION OF SECTION 20, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTH 1/4 CORNER OF SAID SECTION 20; THENCE RUN NORTH 00°31'31" EAST, ALONG THE EAST LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 20, A DISTANCE OF 30.03 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF WEST KEENE ROAD (A 60.00 FOOT WIDE PUBLIC RIGHT-OF-WAY PER OFFICIAL RECORDS BOOK 536, PAGES 680 AND 681, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA); THENCE DEPARTING SAID EAST LINE, RUN ALONG SAID NORTH RIGHT-OF-WAY LINE THE FOLLOWING TWO (2) COURSES AND DISTANCES: 1) THENCE RUN SOUTH 88°07'21" WEST, A DISTANCE OF 713.24 FEET TO THE POINT OF BEGINNING; 2) THENCE CONTINUE SOUTH 88°07'21" WEST, A DISTANCE OF 980.83 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF OCOEE-APOPKA ROAD (COUNTY ROAD 437A, A VARIABLE WIDTH PUBLIC RIGHT-OF-WAY); THENCE DEPARTING SAID NORTH RIGHT-OF-WAY LINE, RUN ALONG SAID EAST RIGHT-OF-WAY LINE THE FOLLOWING FIVE (5) COURSES AND DISTANCES: 1) THENCE RUN NORTH 18°51'04" EAST, A DISTANCE OF 160.47 FEET TO A POINT OF CURVATURE OF A 602.96 FOOT RADIUS CURVE, CONCAVE TO THE WEST, BEING SUBTENDED BY A CHORD BEARING OF NORTH 08°44'34" EAST AND A CHORD LENGTH OF 211.65 FEET; 2) THENCE RUN NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 20°13'00", AN ARC DISTANCE OF 212.75 FEET TO A POINT OF TANGENCY; 3) THENCE RUN NORTH 01°21'56" WEST, A DISTANCE OF 224.57 FEET TO A POINT OF CURVATURE OF A 1115.92 FOOT RADIUS CURVE, CONCAVE TO THE EAST, BEING SUBTENDED BY A CHORD BEARING OF NORTH 08°12'56" EAST AND A CHORD LENGTH OF 371.48 FEET; 4) THENCE RUN NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 19°09'45", AN ARC DISTANCE OF 373.22 FEET TO A POINT OF TANGENCY; 5) THENCE RUN NORTH 17°47'49" EAST, A DISTANCE OF 103.95 FEET TO A POINT ON THE SOUTH LINE OF THE LANDS DESCRIBED IN INSTRUMENT #20140486742. OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE DEPARTING SAID EAST RIGHT-OF-WAY LINE, RUN NORTH 88°54'46" EAST, ALONG SAID SOUTH LINE, A DISTANCE OF 1872.34 FEET TO A POINT ON THE EAST LINE OF THE LANDS DESCRIBED IN INSTRUMENT #20220679927, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE DEPARTING SAID SOUTH LINE, RUN SOUTH 00°34'25" WEST, ALONG SAID EAST LINE, A DISTANCE OF 272.54 FEET TO A POINT ON THE NORTH LINE OF HILLTOP STABLE SUBDIVISION, AS RECORDED IN PLAT BOOK 17, PAGE 129, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE DEPARTING SAID EAST LINE, RUN ALONG THE NORTH AND WEST LINE OF SAID LANDS THE FOLLOWING THREE (3) COURSES AND DISTANCES: 1) THENCE RUN SOUTH 89°58'58" WEST, A DISTANCE OF 332.67 FEET; 2) THENCE RUN SOUTH 88°52'51" WEST, A DISTANCE OF 713.20 FEET; 3) THENCE RUN SOUTH 00°30'13" WEST, A DISTANCE OF 769.07 FEET TO THE POINT OF BEGINNING.

SAID LANDS CONTAINING 27.991 ACRES, MORE OR LESS.

UTILITY PROVIDERS

WATER AND SEWER:
CITY OF APOPKA
120 E MAIN STREET
APOPKA, FL 32703
PHONE: (407) 703-1731

TELEPHONE/CABLE:
CHARTER
700 CARILLON PARKWAY, SUITE 6
ST. PETERSBURG, FL 33716

ELECTRIC :
DUKE ENERGY
452 E CROWN POINT RD
WINTER GARDEN, FL 34787
PHONE: (407) 938-6658

GAS:
LAKE APOPKA NATURAL GAS
1320 WINTER GARDEN-VINELAND RD
WINTER GARDEN, FL 34787

PROJECT TEAM

ARCHITECT:
INTERPLAN LLC
200 E. CENTRAL PKWY, SUITE 4000
ALTAMONTE SPRINGS, FL 32701
CONTACT: NICOLE WEIR
PHONE: (407) 645-5008

DEVELOPER:
APOPKA KEENE LLC (C/O BLACKFIN PARTNERS INVESTMENTS, LLC)
4440 PGA BOULEVARD, SUITE 600
PALM BEACH GARDENS, FL 33410
CONTACT: STEVE LIPOFSKY
PHONE: (561) 299-0036
EMAIL: DEVELOPMENT@BLACKFINPARTNERS.COM

CIVIL ENGINEER:
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200 SOUTH ORANGE AVENUE, SUITE 600
ORLANDO, FL 32801
CONTACT: DEREK E. RAMSBURG, P.E.
PHONE: (407) 427-1642
EMAIL: DEREK.RAMSBURG@KIMLEY-HORN.COM

OWNER:
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1200 NETWORK CENTRE DR
EFFINGHAM, IL 62401

SURVEYOR:
CFB SURVEYING
406 SILVER SPRINGS BLVD, SUITE 200
OCALA, FL 34470
CONTACT: JEREMY HALLICK

LANDSCAPE ARCHITECT:
KIMLEY-HORN AND ASSOCIATES, INC.
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ORLANDO, FL 32801
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PREPARED BY

Kimley»Horn

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200 S Orange Ave, Suite 600, Orlando, FL 32801
Phone: (407) 898-1511
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Derek E Ramsburg

Digitally signed by Derek E Ramsburg
DN: cn=Derek E Ramsburg, o=Kimley-Horn and Associates, Inc., ou=Orlando, email=derek.ramsburg@kimley-horn.com, c=US
Date: 2026.02.26 21:29:39-05'00'

No.	REVISIONS	DATE	BY

Plotted By: Lyndsey Chase Sheet Set: 7-11 OCOEE APOPKA RD Layout: C0.0 February 17, 2026 08:16:27am K:\Orl_civil\249168018_7-11 ocoee apopka rd\CADD\CONST\plansheets\C0.0 - COVER.dwg
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GENERAL

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING (HORIZONTALLY AND VERTICALLY) ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND FOR NOTIFYING THE VARIOUS UTILITY COMPANIES TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, TEMPORARY DISTRIBUTION SERVICE, OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. ALL OTHER UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR SHALL COOPERATE WITH THEM DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED. CONTRACTOR SHALL CALL "SUNSHINE ONE" AT 811 TO HAVE EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
2. THE LOCATIONS OF ALL EXISTING UTILITIES, STORM DRAINAGE SYSTEMS, AND TOPOGRAPHIC FEATURES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, WHICH WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS, THE CONTRACTOR SHALL HALT CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY.
3. PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ANY EXISTING UTILITIES INCLUDING GAS, WATER, ELECTRIC, CABLE TV, COMMUNICATIONS, SANITARY SEWERS AND STORM DRAINAGE SYSTEMS, ON AND / OR ADJACENT TO THE SITE. REMOVE OR CAP AS NECESSARY.
4. THE CONTRACTOR SHALL EXERCISE CAUTION IN AREAS OF BURIED UTILITIES AND SHALL CALL "SUNSHINE 811" AT 811 OR 1-800-432-4770 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO ARRANGE FOR FIELD LOCATIONS OF BURIED UTILITIES.
5. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED, BY THE CONTRACTOR OR SUB-CONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENTS.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, SUCH AS RIGHT OF WAY PERMIT(S), EXCAVATION/FILL PERMIT(S), FIRE PROTECTION PERMIT(S), OR UNDERGROUND UTILITY PERMIT(S), PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL INSPECTION CRITERIA OF APPLICABLE AGENCIES, SCHEDULING OF INSPECTIONS, AND OBTAINING REQUIRED INSPECTIONS FROM AGENCY.
7. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, ON ALL PRECAST AND MANUFACTURED ITEMS, TO THE OWNER'S ENGINEER FOR REVIEW. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
8. ALL UTILITY SERVICE STUB-OUTS (WATER, SANITARY SEWER, etc.) ARE TO BE INSTALLED WITHIN 5' OF BUILDING(S), UNLESS OTHERWISE NOTED ON PLANS.
9. CONTRACTOR TO COORDINATE WITH THE APPLICABLE ELECTRIC UTILITY SUPPLIER REGARDING ANY NECESSARY RELOCATION(S) OF UNDERGROUND AND/OR OVERHEAD ELECTRIC FACILITIES, AND FOR THE LOCATION AND INSTALLATION OF TRANSFORMER PAD(S) AND ASSOCIATED ELECTRIC FACILITIES.
10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN R-O-W UTILIZATION PERMIT (IF REQUIRED) FOR CONSTRUCTION OF THE PROPOSED UTILITIES. THIS PERMIT MUST BE OBTAINED BY A DULY LICENSED PLUMBING CONTRACTOR (OR CLASS A GENERAL CONTRACTOR) PRIOR TO THE START OF CONSTRUCTION. THESE PLANS AND ANY SUBSEQUENT REVISIONS TO THESE PLANS, THAT ARE ISSUED BY THE ENGINEER, WILL BE SUBJECT TO THE APPROVAL CONDITIONS OF THIS PERMIT.
11. THE GRAPHIC INFORMATION DEPICTED ON THESE PLANS HAS BEEN COMPILED TO PROPORTION BY SCALE AS ACCURATELY AS POSSIBLE. HOWEVER, DUE TO REPRODUCTIVE DISTORTION, REDUCTION, AND/OR REVISIONS, INFORMATION CONTAINED HEREIN IS NOT INTENDED TO BE SCALED FOR CONSTRUCTION PURPOSES.
12. ALL SPECIFICATIONS AND DOCUMENTS REFERENCED HEREIN SHALL BE OF THE LATEST REVISION.
13. ALL UNDERGROUND UTILITIES MUST BE IN-PLACE, TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.
14. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH ANY OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS/SUBCONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE GENERAL CONTRACTOR TO COORDINATE AND SCHEDULE HIS/HER ACTIVITIES ACCORDINGLY.
15. ALL DIMENSIONS ARE TO FACE OF CURB.
16. ALL SIGNAGE MUST COMPLY WITH THE LAND DEVELOPMENT CODE OF THE CITY OF APOPKA, FLORIDA.
17. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING ACTIVITIES NECESSARY TO PERFORM THE WORK WITHIN THESE PLANS.
18. THE CONTRACTOR SHALL RESTORE OFF-SITE CONSTRUCTION AREAS TO EQUAL AND/OR BETTER CONDITION THAN EXISTING PRIOR TO START OF CONSTRUCTION.
19. THE CONTRACTOR SHALL COMPLY WITH THE LEGAL LOAD RESTRICTIONS IN HAULING OF MATERIALS IN PUBLIC ROADS BEYOND THE LIMITS OF WORK. A SPECIAL PERMIT WILL NOT RELIEVE THE CONTRACTOR OF LIABILITY FOR THE DAMAGE WHICH MAY RESULT FROM THE MOVING OF MATERIAL AND EQUIPMENT.
20. SURVEY MONUMENTS OR BENCHMARKS, WHICH HAVE TO BE DISTURBED BY THIS WORK, SHALL BE REPLACED UPON COMPLETION OF WORK BY A A LICENSED LAND SURVEYOR CURRENTLY REGISTERED IN THE STATE OF FLORIDA.
21. CONTRACTOR IS TO ADJUST ANY UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN OUT MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.
22. ALL WORK PERFORMED WITHIN THE FDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF FDOT STANDARD PLANS, SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE LATEST UTILITY ACCOMMODATION MANUAL.

TREES AND VEGETATION

1. THE CONTRACTOR IS TO MINIMIZE THE REMOVAL OF VEGETATION TO THE GREATEST EXTENT PRACTICAL. SEE DEMOLITION PLAN FOR TREES TO BE REMOVED. TREES IN CLOSE PROXIMITY TO CONSTRUCTION SHALL BE PROTECTED BY WOOD FENCING PER DETAIL ON TREE PROTECTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE BUFFERS AND RETENTION AND DETENTION FACILITIES UNTIL THE WORK HAS BEEN ACCEPTED BY THE OWNER. ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.

DEMOLITION

1. CONTRACTOR SHALL SUBMIT DEMOLITION SCHEDULE TO OWNER PRIOR TO PROCEEDING WITH DEMOLITION ACTIVITIES.
2. EXTENT OF SITE CLEARING IS SHOWN ON DRAWINGS.
3. CONTRACTOR SHALL CONDUCT SITE DEMOLITION OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.
4. CONTRACTOR SHALL PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED ON PLAN "EXISTING TO REMAIN".
5. CONTRACTOR SHALL RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.
6. CONTRACTOR SHALL REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF-SITE IN A LEGAL MANNER.
7. CONTRACTOR SHALL DEMOLISH AND COMPLETELY REMOVE FROM SITE MATERIAL INDICATED ON PLAN OR NOTES "TO BE REMOVED".
8. CONTRACTOR SHALL PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.

STORM DRAINAGE SYSTEM

1. STANDARD INDEXES REFER TO THE LATEST EDITION OF F.D.O.T. "ROADWAY AND TRAFFIC DESIGN STANDARDS."
2. THE LATEST EDITION OF F.D.O.T. "DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE, AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM" IS REFERRED TO FOR THE STRUCTURAL DESIGN OF DRAINAGE STRUCTURES SPECIFIED IN THESE PLANS, AS REFERENCED BY STANDARD INDEX. ALL SPECIALTY DRAINAGE STRUCTURES REQUIRE SEPARATE STRUCTURAL DESIGN, WHICH IS NOT INCLUDED IN THESE PLANS. STATION OFFSETS ARE TO THE CENTERLINE OF THE STRUCTURE TOP (I.E. DITCH BOTTOM INLET OR CURB INLET TOP), AS OPPOSED TO THE STRUCTURE BASE.
3. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS III (ASTM C-76) UNLESS OTHERWISE NOTED ON PLANS. ALL DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS UNLESS OTHERWISE NOTED ON PLANS.
4. PIPE LENGTHS SHOWN ARE APPROXIMATE AND TO CENTER OF DRAINAGE STRUCTURES, WITH THE EXCEPTION OF MITERED END AND FLARED END SECTIONS. LENGTHS OF PIPE SHOWN WHICH TERMINATE WITH MITERED END OR FLARED END SECTIONS ARE MEASURED TO THE DOWNSTREAM INVERT OF THE MITERED END OR FLARED END SECTION.
5. ALL DRAINAGE STRUCTURE GRATES AND COVERS, EITHER EXISTING OR PROPOSED SHALL BE TRAFFIC RATED FOR H-20 LOADINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY UPGRADES TO EXISTING DRAINAGE STRUCTURES.
6. CONSTRUCTION OF THE STORMWATER MANAGEMENT SYSTEM MUST BE COMPLETE AND ALL DISTURBED AREAS STABILIZED IN ACCORDANCE WITH THE PERMITTED PLANS AND CONDITIONS PRIOR TO ANY OF THE FOLLOWING: ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY; INITIATION OF INTENDED USE OF THE INFRASTRUCTURE; OR TRANSFER OF RESPONSIBILITY FOR MAINTENANCE OF THE SYSTEM TO A LOCAL GOVERNMENT OR OTHER RESPONSIBLE ENTITY.
7. STORM WATER PIPES, STRUCTURES, MINIMUM COVER, AND INSTALLATION PROCEDURES TO BE IN ACCORDANCE WITH THE LAND DEVELOPMENT CODE OF THE CITY OF APOPKA, FLORIDA.
8. DURING CONSTRUCTION, NO DIRECT DISCHARGE OF WATER TO DOWNSTREAM RECEIVING WATERS WILL BE ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER QUALITY AND SHALL ROUTE DISCHARGE WATER IN SUCH A MANNER AS TO ADEQUATELY REMOVE SILT PRIOR TO RUNOFF FROM THE SITE.

DRAINAGE SYSTEM TESTING AND INSPECTION

1. THE STORM DRAINAGE PIPING SYSTEM SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.
2. THE CONTRACTOR SHALL MAINTAIN AND PROTECT FROM MUD, DIRT, DEBRIS, ETC. THE STORM DRAINAGE SYSTEM UNTIL FINAL ACCEPTANCE OF THE PROJECT. THE STORM SYSTEM WILL BE REINSPECTED BY THE OWNER'S ENGINEER PRIOR TO APPROVAL FOR CERTIFICATE OF OCCUPANCY PURPOSES. THE CONTRACTOR MAY BE REQUIRED TO RECLEAN PIPES AND INLETS AT THE CONTRACTORS EXPENSE AND PRIOR TO FINAL ACCEPTANCE.

SAFETY

1. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.
2. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL PROVIDE FOR THE SAFETY AND CONTROL OF LOCAL TRAFFIC DURING CONSTRUCTION. ADDITIONAL INFORMATION MAY BE REQUIRED IF LANE CLOSURE DURATIONS ARE LONGER THAN DAYTIME OPERATIONS.

PAVING, GRADING AND DRAINAGE

1. ALL PAVING SHALL BE PERFORMED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADES, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL TRIM, TACK AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.
4. CURBING SHALL BE PLACED AT THE EDGES OF ALL PAVEMENT, UNLESS OTHERWISE NOTED. REFER TO THE LATEST EDITION OF F.D.O.T. "DESIGN STANDARDS" FOR DETAILS AND SPECIFICATIONS OF ALL F.D.O.T. TYPE CURB AND GUTTERS CALLED FOR IN THESE PLANS.
5. PRIOR TO CONSTRUCTING CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE SOILS ENGINEER FOR APPROVAL.
6. CONTRACTOR TO PROVIDE A 1/2" TO 1" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER AT ABUTMENT OF CONCRETE AND OTHER MATERIALS (STRUCTURES, OTHER POURED)
7. ALL PAVEMENT MARKINGS SHALL BE MADE IN ACCORDANCE WITH F.D.O.T. DESIGN STANDARDS.
8. THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY OWNER. CONTRACTOR TO COORDINATE WITH OWNER REGARDING TYPE OF MATERIAL, LANDSCAPING AND IRRIGATION REQUIREMENTS.
9. THE CONTRACTOR SHALL RESTORE OFF-SITE CONSTRUCTION AREAS TO EQUAL AND/OR BETTER CONDITION THAN EXISTING PRIOR TO START OF CONSTRUCTION.
10. UNLESS OTHERWISE NOTED, GRADE TO MEET EXISTING ELEVATION AT PROPERTY LINES.
11. SURVEY MONUMENTS OR BENCHMARKS, WHICH HAVE TO BE DISTURBED BY THIS WORK, SHALL BE REPLACED UPON COMPLETION OF WORK BY A REGISTERED LAND SURVEYOR AT CONTRACTORS EXPENSE.
12. FINAL GRADES SHOWN INCLUDE SOD HEIGHT. ALL AREAS SHALL BE GRADED TO DRAIN AWAY FROM THE BUILDINGS.
13. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE AND JURISDICTIONAL PERMITTING AGENCIES.
14. ALL WORK SHALL COMPLY WITH THE GEOTECHNICAL REPORT BY UNIVERSAL ENGINEERING SCIENCES ON MARCH 25, 2021.
15. CONTRACTOR SHALL SOD ALL DISTURBED AREAS WITH BAHIA UNLESS OTHERWISE NOTED.

PAVING/GRADING TESTING AND INSPECTION

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE SOILS REPORT. UPON COMPLETION OF WORK THE SOILS ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER AND OWNER'S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.
2. A QUALIFIED TESTING LABORATORY SHALL PERFORM ALL TESTING NECESSARY TO ASSURE COMPLIANCE OF THE IN-PLACE MATERIALS AS REQUIRED BY THESE PLANS AND GEOTECHNICAL REPORT, THE VARIOUS AGENCIES AND PERMIT CONDITIONS. SHOULD ANY RETESTING BE REQUIRED DUE TO THE FAILURE OF ANY TESTS TO MEET THESE REQUIREMENTS, THE CONTRACTOR WILL BEAR ALL COSTS OF SAID RETESTING.

PAVEMENT MARKING AND SIGNAGE

1. THE INSTALLATION, SHAPE, AND SIZE OF ALL SIGNS AND THEIR LETTERING SHALL COMPLY WITH THE LATEST EDITIONS OF THE U.S. DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE F.D.O.T. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND THE F.D.O.T. "DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE, AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM". WHERE CONFLICTS EXIST BETWEEN THE PLANS AND THE ABOVE MENTIONED SPECIFICATIONS, THE MORE STRINGENT CRITERIA SHALL PREVAIL.

TEST, INSPECTION AND CLOSEOUT REQUIREMENTS

1. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER AND APPLICABLE MUNICIPALITY/AGENCY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION(S). THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS ASSOCIATED WITH A TELEVISED INSPECTION (TV) OF THE PROPOSED GRAVITY SEWER LINE CONSTRUCTION. TV INSPECTION SHALL BE IN ACCORDANCE TO THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL. THE CONTRACTOR SHALL PROVIDE COPIES OF THE TV INSPECTION TAPE TO THE ENGINEER, THE OWNER AND THE APPLICABLE MUNICIPALITY/AGENCY.
2. THE CONTRACTOR SHALL PERFORM LEAKAGE TESTS ON ALL GRAVITY SEWERS PER THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL.
3. AN AS-BUILT SURVEY SHALL BE PREPARED IN ACCORDANCE WITH CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE (F.A.C.), PURSAUNT TO CHAPTER 472, FLORIDA STATUTES (F.S.) SHALL BE REQUIRED.
4. THE CONTRACTOR SHALL PROVIDE UTILITY AS-BUILT AND GRADING/DRAINAGE AS-BUILT RECORD DRAWINGS BASED ON THE CIVIL DESIGN PLAN SHEETS. ALL AS-BUILTS SHALL BE OVERLAID ON THE CIVIL DESIGN PLANS WITH THE DESIGN SHADED BACK AND THE AS-BUILT BOLD. THE AS-BUILTS SHALL BE SIGNED AND SEALED BY A REGISTERED LAND SURVEYOR.
5. THE UTILITY AS-BUILT SHALL INCLUDE ALL SANITARY SEWERS AND FORCE MAIN SYSTEMS, POTABLE AND RECLAIMED WATER MAIN SYSTEMS, METERS, VALVES, FORCE MAINS, GAS MAINS, AND IRRIGATION LINES (2-INCH AND LARGER). CONTRACTOR TO PROVIDE ALL UTILITY CROSSING INFORMATION ON THE AS-BUILT. THE UTILITY AS-BUILTS SHALL IDENTIFY ALL WATER MAIN CROSSINGS WITH STORM AND SANITARY LINES INDICATING TOP OF PIPE AND INVERTS OF THE ABOVE CROSSING PIPE ALONG WITH CLEARANCE DIMENSIONS. THIS SHALL ALSO BE DONE FOR SANITARY/STORM CROSSINGS. ALL TEMPORARY SAMPLE POINT NUMBER (TSP#) LOCATIONS SHALL ALSO BE NOTED ON THE AS-BUILT. CONTRACTOR TO ALSO PROVIDE AN AS-BUILT ASSET TABLE IDENTIFYING SIZE OF PIPE OR FITTING AS WELL AS DEPTH TO TOP OF PIPE AND NORTHING AND EASTING OF EACH FITTING/VALVE, ETC. AS-BUILT DRAWINGS SHALL PROVIDE GPS COORDINATES FOR SANITARY STRUCTURES.
6. THE GRADING/DRAINAGE AS-BUILT SHALL INCLUDE ALL CONSTRUCTED IMPROVEMENTS THAT HAVE LOCATION AND/OR ELEVATION INFORMATION CALLED-OUT ON THE PLANS. THE AS-BUILT SHALL CLEARLY PROVIDE THE SAME INFORMATION IDENTIFIED ON THE DESIGN DOCUMENTS AND ALSO THE CONSTRUCTED LOCATIONS AND ELEVATIONS AS-BUILT INFORMATION.
7. THE CONTRACTOR SHALL PROVIDE A SIGNED AND SEALED LETTER FROM THE INDEPENDENT TESTING AGENCY THAT STATES CONFORMANCE WITH THE CONTRACT DOCUMENT REQUIREMENTS FOR COMPACTION TESTING. THE CONTRACTOR IS TO PROMPTLY NOTIFY THE OWNER AND ENGINEER OF RECORD WHEN ANY TESTING OR INSPECTIONS ARE DEFICIENT OR IRREGULAR.

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LICENSED PROFESSIONAL ENGINEER DEREK RAMSBURG STATE OF FLORIDA PROFESSIONAL ENGINEER DATE:

KHA PROJECT	249188018
DATE	2/13/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

GENERAL NOTES

7-11 OCOEE APOPKA RD

CITY OF APOPKA FLORIDA

SHEET NUMBER
C1.0

Plotted By:Casey, Chase Sheet Set:THE SHOPPES AT EAST SHORE CDS Layout:C1.0 February 17, 2026 08:16:37am K:\orl_civil\249188018-7-11 ocoee apopka rd\CADD\CDS*.dwg
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POTABLE WATER SYSTEM

1. ALL DIP PIPE SHALL BE CLASS 50 OR HIGHER. REFER TO NOTE #4 BELOW FOR ADDITIONAL DIP SPECIFICATIONS. ADEQUATE MEASURES AGAINST CORROSION SHALL BE UTILIZED.
2. ALL WATER MAIN PIPE FITTINGS AND APPURTENANCES SHALL BE INSTALLED TO COMPLY WITH THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL.
3. ALL WATER SERVICE LINES, VALVES AND METERS SHALL BE INSTALLED TO COMPLY WITH APPLICABLE MUNICIPALITY/AGENCY DEPARTMENT STANDARDS AND SPECIFICATIONS.
4. ALL DUCTILE IRON PIPE, 4" TO 24", SHALL BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C151/A21.51. PIPE SHALL BE FURNISHED IN 18 OR 20 FOOT SECTIONS, PIPE THICKNESS SHALL BE CLASS 50, UNLESS OTHERWISE SPECIFIED.
5. ALL WATER SYSTEM CONSTRUCTION, UP TO AND INCLUDING POINT OF METERING AND BACK FLOW PREVENTION (IF REQUIRED), SHALL BE BUILT ACCORDING TO THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL.
6. CONTRACTOR TO INSTALL TEMPORARY BLOWOFFS, AT THE END(S) OF PROPOSED WATER MAINS AND SERVICE LATERALS TO BUILDING(S), TO ASSURE ADEQUATE FLUSHING AND DISINFECTION/CHLORINATION.
7. ALL WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA MANUAL M23, CONCERNING HYDROSTATIC TESTING OF PVC PIPING, OR AWWA MANUAL M41, CONCERNING HYDROSTATIC TESTING OF DUCTILE IRON PIPING. OFF-SITE UTILITIES HYDROSTATIC TESTING TO BE WITNESSED BY THE CITY OF APOPKA.
8. ALL WATER MAINS SHALL BE STERILIZED IN ACCORDANCE WITH THE APPLICABLE SECTION OF THE LATEST AWWA SPECIFICATION C651 AND THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL.
9. ALL PVC WATER MAIN, 4" TO 8" DIAMETER PIPING, SHALL CONFORM TO ASTM D2241 AND ASTM 1784. PIPE SHALL BE AWWA C-900 DR-18. JOINTS SHALL BE RUBBER GASKETED PUSH-ON CONFORMING TO ASTM D1869.
10. ALL POLYVINYL CHLORIDE PIPE SHALL BE LAID WITH AN INSULATED 12 GAUGE A.W.G. SOLID STRAND COPPER WIRE WOUND AROUND THE PIPE FORMING ONE COMPLETE SPIRAL PER JOINT OF PIPE. THIS WIRE IS TO BE CONTINUOUS WITH SPLICES MADE ONLY BY METHODS APPROVED BY THE ENGINEER. THIS WIRE IS TO BE SECURED TO ALL VALVES, TEES AND ELBOWS.
11. ALL POTABLE WATER MATERIALS AND INSTALLATION SHALL CONFORM WITH THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL.

POTABLE WATER TESTING AND INSPECTION

1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL REMAIN UNCOVERED UNTIL PROPERLY PRESSURE TESTED AND ACCEPTED BY THE OWNER'S ENGINEER. PRESSURE TESTS TO BE IN ACCORDANCE WITH THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL. CONTRACTOR TO NOTIFY THE OWNER'S ENGINEER AND APPLICABLE AGENCY INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING TESTS.
2. CONTRACTOR TO PERFORM CHLORINATION AND BACTERIOLOGICAL SAMPLING, AND OBTAIN CLEARANCE OF DOMESTIC AND FIRE LINE WATER SYSTEM(S). COPIES OF ALL BACTERIOLOGICAL TEST RESULTS ARE TO BE SUBMITTED TO THE OWNER'S ENGINEER FOR CERTIFICATION PURPOSES.

SANITARY SYSTEM

1. ALL PVC PIPE SHALL BE SOLID WALL POLYVINYL CHLORIDE PIPE AND COMPLY WITH ASTM D 3034 AND ALL APPLICABLE ASTM DOCUMENTS AS COVERED IN SECTION NO. 2 OF ASTM D 3034. MAIN LINES SHALL BE A MINIMUM OF 8" DIAMETER, AND LATERALS SHALL BE A MINIMUM 6" DIAMETER.
2. ALL GRAVITY SEWER MAINS AND FITTINGS MUST BE SDR 26 PVC. ELASTOMERIC GASKET JOINTS SHALL BE UTILIZED FOR PVC PIPE, AND SHALL COMPLY WITH ASTM F477, ASTM D3034 & ASTM F679. JOINTS SHALL COMPLY WITH ASTM D3212.
3. ALL ON-SITE PVC FORCE MAINS (IF REQUIRED) SHALL BE CLASS 200, DR 14 FOR 4" DIAMETER, AND CLASS 150 DR 18 FOR 6" TO 12" DIAMETER PIPE, IN ACCORDANCE WITH AWWA C900 STANDARDS. PVC FORCE MAIN PIPE SMALLER THAN 4" DIAMETER SHALL BE CLASS 200, SDR 21, IN ACCORDANCE WITH ASTM D 2241. FORCE MAIN SHALL BE SPIRAL WRAPPED WITH 2 INCH WIDE DARK GREEN STICK-ON VINYL TAPE. FORCE MAINS WITHIN THE RIGHT-OF-WAY SHALL BE CLASS 52 DIP, MINIMUM 4" DIAMETER.
4. ALL SANITARY MANHOLES SHALL BE LOCATED NO MORE THAN 400 FEET APART AND SHALL CONFORM TO THE DETAILS CONTAINED HEREIN, AS WELL AS WITH ASTM C478.
5. ALL SLOPES FOR GRAVITY SEWER MAINS AND SERVICE CONNECTIONS SHALL COMPLY WITH THE FOLLOWING MINIMUM GRADES: 4" @ 2.00% ; 6" @ 1.00% ; 8" @ 0.40% ; and 10" @ 0.30%.
6. ALL SANITARY SEWER WORK SHALL CONFORM WITH APPLICABLE THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL.
7. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING PROPOSED FACILITIES TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION(S) OF EXISTING CONNECTION POINT(S) AND NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
8. SANITARY SEWER MAINS SHALL HAVE SUITABLE MAGNETIC LOCATOR TAPE(S) BURIED AT LEAST 18 INCHES ABOVE THE MAIN LINES.
9. ONSITE WASTEWATER COLLECTION SYSTEM, LIFTSTATION, AND FORCEMAIN ARE TO BE PRIVATELY OWNED AND MAINTAINED.

SANITARY TESTING AND INSPECTION

1. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER AND APPLICABLE MUNICIPALITY/AGENCY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION(S). THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS ASSOCIATED WITH A TELEVISED INSPECTION (TV) OF THE PROPOSED GRAVITY SEWER LINE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE COPIES OF THE TV INSPECTION TAPE TO THE ENGINEER, THE OWNER AND THE APPLICABLE MUNICIPALITY/AGENCY.
2. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATON TEST ON ALL GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. THE SCHEDULING, COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
3. LEAKAGE TESTS ARE SPECIFIED REQUIRING THAT:
   A. THE LEAKAGE EXFILTRATION OR INFILTRATION DOES NOT EXCEED 200 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM.
   B. EXFILTRATION OR INFILTRATION TESTS BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET
   C. AIR TESTS, AS A MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-828 FOR CLAY PIPE, ASTM C 924 FOR CONCRETE PIPE, ASTM F-1417 FOR PLASTIC PIPE, AND FOR OTHER MATERIALS APPROPRIATE TEST PROCEDURES.
4. CONTRACTOR TO PERFORM APPROPRIATE DEFLECTION TESTS FOR ALL FLEXIBLE PIPE. TESTING IS REQUIRED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM. TESTING REQUIREMENTS SPECIFY:
   A. NO PIPE SHALL EXCEED A DEFLECTION OF 5%.
   B. USING A RIGID BALL OR MANDREL FOR THE DEFLECTION TEST WITH A DIAMETER NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE, DEPENDING ON WHICH ISSPECIFIED IN THE ASTM SPECIFICATION, INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURED.
   C. PERFORMING THE TEST WITHOUT MECHANICAL PULLING DEVICES.
5. CONTRACTOR TO INSPECT & TEST MANHOLE FOR WATERTIGHTNESS OR DAMAGE PRIOR TO PLACING INTO SERVICE. AIR TESTING, IF SPECIFIED FOR CONCRETE SEWER MANHOLES, SHALL CONFORM TO THE TEST PROCEDURES DESCRIBED IN ASTM C-1244.

CITY OF APOPKA FIRE DEPARTMENT NOTES

1. ROADWAYS, WATER LINE INFRASTRUCTURE, AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.
2. FIRE HYDRANTS SHALL BE MARKED WITH A BLUE REFLECTIVE PAVEMENT MARKER.

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LICENSED PROFESSIONAL ENGINEER DEREK RAMSBURG 84236 STATE OF FLORIDA PROFESSIONAL ENGINEER

KHA PROJECT	249188018
DATE	2/13/2026
SCALE	AS SHOWN
DESIGNED BY	CRL
DRAWN BY	TJE
CHECKED BY	DER

GENERAL NOTES

7-11 OCOEE APOPKA RD

CITY OF APOPKA FLORIDA

SHEET NUMBER C1.1

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Plotted: Feb 17, 2026 - 8:16am by Chase Lasley

STORMWATER POLLUTION PREVENTION PLAN

SITE DESCRIPTION

PROJECT NAME AND LOCATION

7-11 OCOEE APOPKA RD
PARCEL ID #: 20-21-28-8000-04-000
CITY OF APOPKA, FLORIDA

*SEE COVER SHEET FOR LOCATION MAP

DEVELOPER NAME AND ADDRESS

APOPKA KEENE, LLC (C/O BLACKFIN PARTNERS INVESTMENTS, LLC)
4440 PGA BOULEVARD, SUITE 600
PALM BEACH GARDENS, FL 33410
CONTACT: STEVE LIPOFSKY
PHONE: (561) 299-0036)
EMAIL: DEVELOPMENT@BLACKFINPARTNERS.COM

PROJECT DESCRIPTION

THE PROPOSED PROJECT WILL CONSIST OF DEVELOPING A VACANT SITE WITH A 4,852 SF CONVENIENCE STORE, 6 FUELING STATIONS, AND MASTER INFRASTRUCTURE.

PROJECT AREA: 1.92 ACRES
CONTRIBUTING DRAINAGE AREA: 1.92 ACRES

LONGITUDE : W 81° 32' 21.6" LATITUDE: N 28° 38' 25.0"

ULTIMATE RECEIVING WATERS: MEDICINE LAKE

ACTIVITIES THAT REQUIRE EROSION CONTROL

PROVIDING A STABILIZED CONSTRUCTION ENTRANCE, PERIMETER, AND OTHER EROSION AND SEDIMENT CONTROLS; EXCAVATION FOR THE RETENTION POND; SITE GRADING; INSTALLATION OF STORM WATER, SANITARY SEWER, AND WATER STRUCTURES; CURB, ROADWAYS, AND PARKING FACILITIES.

*SEE PLANS FOR THE LOCATION OF TEMPORARY SEDIMENT BARRIERS AND OTHER EROSION CONTROL METHODS.

SOIL PARAMETERS

SOIL TYPES:

SERIES NAME	HYDROLOGIC GROUP
CHANDLER FINE SAND, 0-5% SLOPES	A
CHANDLER FINE SAND, 5-12% SLOPES	A

SEQUENCE OF MAJOR ACTIVITIES

THE ORDER OF CONSTRUCTION IS AS FOLLOWS:

1. PROVIDE STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AND OTHER EROSION CONTROL METHODS
3. CLEAR SITE AND GRUB IN ACCORDANCE WITH DEMOLITION PLAN
4. CONSTRUCT EARTH DIKE AND SEDIMENT BASIN
5. FINISH CLEARING AND GRUBBING
6. REMOVE AND STORE TOPSOIL
7. PROVIDE INITIAL GRADING AS REQUIRED
8. STABILIZE ALL DISTURBED AREAS AS SOON AS POSSIBLE
9. INSTALL UTILITIES, STORM SEWER, CURB AND GUTTER
10. INSTALL BASE TO ROAD AND PARKING AREA
11. FINISH GRADING ENTIRE SITE
12. CONSTRUCT FINAL PAVING
13. REMOVE ACCUMULATED SEDIMENT
14. REMOVE ANY ITEMS THAT ARE NOT REQUIRED

TIMING OF CONTROL MEASURES

THE INSTALLATION OF SILT FENCE (AND OTHER EROSION CONTROL MEASURES), A STABILIZED ENTRANCE AND SEDIMENT BASIN SHALL OCCUR PRIOR TO CLEARING AND GRUBBING ACTIVITY. AFTER CONSTRUCTION IS COMPLETE, THE ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE AREAS SHALL BE REGRADED AND PERMANENTLY STABILIZED AS SHOWN ON THE PLANS.

EROSION AND SEDIMENT CONTROLS

BEST MANAGEMENT PRACTICES SHALL BE USED FOR THIS PROJECT TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN-OFF. THE LOCATION AND DETAILS OF EROSION CONTROL METHODS ARE SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR PLACING AND MAINTAINING THESE CONTROL METHODS AS SHOWN ON THE PLANS OR AS REQUIRED. HE/SHE SHALL ALSO PROVIDE THE REQUIRED EROSION PROTECTION AS REQUIRED BY LOCAL, STATE AND FEDERAL LAW.

STORM WATER MANAGEMENT

STORMWATER COLLECTION SHALL BE PROVIDED BY CATCH BASINS. THE RUNOFF FROM THE SITE WILL DISCHARGE TO THE PROPOSED STORMWATER POND. THE POND IS DESIGNED IN ACCORDANCE WITH SJRWMD AND CITY OF APOPKA LAND DEVELOPMENT CODE.

STABILIZATION PRACTICES:

TEMPORARY STABILIZATION - TOPSOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE, SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH WITHIN 7 DAYS OF THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. THE TEMPORARY SEED REQUIRED CAN BE FOUND IN TABLE 1.65 A OF THE FLORIDA DEVELOPMENT MANUAL. PRIOR TO SEEDING, WHERE SOILS ARE ACIDIC 2 TONS OF PULVERIZED AGRICULTURAL LIMESTONE SHOULD BE ADDED PER ACRE AND 450 POUNDS OF 10-20-20 FERTILIZER SHALL BE APPLIED TO EACH ACRE. AFTER SEEDING, EACH AREA SHALL BE IMMEDIATELY MULCHED WITH STRAW OR EQUIVALENT EQUAL. AREAS OF THE SITE WHICH ARE TO BE PAVED SHALL BE TEMPORARILY STABILIZED BY APPLYING GEOTEXTILE AND STONE SUB-BASE UNTIL BITUMINOUS PAVEMENT CAN BE APPLIED.

PERMANENT STABILIZATION - DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASE SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE APPROPRIATE PERMANENT SEED MIX CAN BE FOUND IN TABLES 1.66A, 1.66B AND 1.66C OF THE FLORIDA DEVELOPMENT MANUAL. PRIOR TO SEEDING, 2 TONS/ACRE OF FINELY GROUND AGRICULTURAL LIMESTONE AND THE PROPER FERTILIZER BASED ON THE TYPE OF SEEDING SHALL BE APPLIED TO EACH ACRE TO PROVIDE PLANT NUTRIENTS. AFTER SEEDING, EACH AREA SHALL BE MULCHED IMMEDIATELY.

STRUCTURAL PRACTICES:

EARTH DIKE - IF REQUIRED, AN EARTH DIKE SHALL BE CONSTRUCTED ALONG THE SITE PERIMETER. A PORTION OF THE DIKE SHALL DIVERT RUN-ON AROUND THE CONSTRUCTION SITE. THE REMAINING PORTION OF THE DIKE SHALL COLLECT RUNOFF FROM THE DISTURBED AREA AND DIRECT THE RUNOFF TO THE SEDIMENT BASIN.

SEDIMENT BASIN - A SEDIMENT BASIN SHALL BE CONSTRUCTED IN THE COMMON DRAINAGE AREA FOR THE SITE. ALL SEDIMENT COLLECTED IN THE BASIN MUST BE REMOVED FROM THE BASIN UPON COMPLETION OF CONSTRUCTION. SEDIMENT FROM THE BASIN MAY BE USED AS FILL ON THE SITE IF IT IS SUITABLE SOIL.

WASTE DISPOSAL

WASTE MATERIALS - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A METAL DUMPSTER WITH A SECURE LID IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITIES TO HAVE THE DUMPSTER EMPTIED AT LEAST TWICE A WEEK AND THE WASTE TAKEN TO AN APPROPRIATE LANDFILL. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE. THE SUPERINTENDENT SHALL ORGANIZE TRAINING FOR THE EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH WASTE MATERIALS. THE SUPERINTENDENT SHALL BE RESPONSIBLE FOR POSTING AND ENFORCING WASTE MATERIAL PROCEDURES.

HAZARDOUS WASTE - HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS OR AS DIRECTED BY THE MANUFACTURER. THE SUPERINTENDENT SHALL ORGANIZE THE PROPER TRAINING FOR EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH HAZARDOUS WASTE MATERIALS. THESE PROCEDURES SHALL BE POSTED ON THE SITE. THE PERSON WHO MANAGES THE SITE SHALL BE RESPONSIBLE FOR ENFORCING THE PROCEDURES.

SANITARY WASTE - SANITARY WASTE SHALL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITY FOR COLLECTION OF THE SANITARY WASTE AT LEAST THREE TIMES A WEEK TO PREVENT SPILLAGE ONTO THE SITE.

OFF-SITE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO REDUCE SEDIMENT TRACKING OFFSITE. THE MAJOR ROAD CONNECTED TO THE PROJECT SHALL BE CLEANED ONCE A DAY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK RESULTING FROM CONSTRUCTION TRAFFIC. ALL TRUCKS HAULING MATERIALS OFFSITE SHALL BE COVERED WITH A TARPAULIN.

DUST & DEBRIS CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL WITHIN THE CONSTRUCTION LIMITS AS WELL AS ALONG HAUL ROUTES AND ROADWAYS USED BY THE EQUIPMENT AND VEHICLES. THE CONTRACTOR SHALL ENSURE THAT EXCESSIVE DUST IS NOT TRANSPORTED BEYOND THE LIMITS OF CONSTRUCTION IN POPULATED AREAS. THE CONTRACTOR MAY CONTROL DUST FOR EMBANKMENTS OR OTHER CLEARED OR UNSURFACED AREAS BY APPLYING WATER. INSTALL MULCH, SEED, SOD, OR TEMPORARY PAVING AS EARLY AS PRACTICAL. CONTROL DUST DURING STORAGE AND HANDLING OF DUSTY MATERIALS BY WETTING, COVERING, OR OTHER MEANS AS APPROVED BY THE ENGINEER. CONTRACTOR SHALL ENFORCE REDUCED VEHICLE SPEEDS ON UNPAVED ROADS AND IF NECESSARY PROHIBIT CONSTRUCTION GRADING WHEN WIND GUSTS EXCEED 25 MPH, OR OTHERWISE DIRECTED BY E.O.R. OR COUNTY INSPECTOR.

ITEMS REQUIRING POLLUTION PREVENTION

THE FOLLOWING ITEMS ARE EXPECTED TO BE PRESENT ON THE PROJECT SITE:

-ASPHALT
-CONCRETE
-FERTILIZERS
-METAL PIECES
-PETROLEUM BASED PRODUCTS
-TAR
-CLEANING SUPPLIES
-DETERGENTS
-MASONARY BLOCK/BRICKS
-PAINT
-WOOD

THE FOLLOWING ARE NON-STORM WATER SOURCES THAT WILL BE ENCOUNTERED AT THE SITE AND SHOULD BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE:

-UNCONTAMINATED GROUNDWATER EXPOSED DURING EXCAVATION
-WATER FROM WATER LINE FLUSHING
-PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

SPILL PREVENTION AND CONTROL

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING

SUPERINTENDENT SHALL INSPECT PROJECT AREA DAILY FOR PROPER STORAGE, USE, AND DISPOSAL OF CONSTRUCTION MATERIALS.

STORE ONLY ENOUGH MATERIAL ON SITE FOR PROJECT COMPLETION.

ALL SUBSTANCES SHOULD BE USED BEFORE DISPOSAL OF CONTAINER.

ALL CONSTRUCTION MATERIALS STORED SHALL BE ORGANIZED AND IN THE PROPER CONTAINER AND IF POSSIBLE, STORED UNDER A ROOF OR PROTECTIVE COVER.

PRODUCTS SHALL NOT BE MIXED UNLESS DIRECTED BY THE MANUFACTURER.

ALL PRODUCTS SHALL BE USED AND DISPOSED OF ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

HAZARDOUS PRODUCTS

MATERIALS SHOULD BE KEPT IN ORIGINAL CONTAINER WITH LABELS UNLESS THE ORIGINAL CONTAINERS CANNOT BE RESEALED. IF ORIGINAL CONTAINERS CANNOT BE USED, LABELS AND PRODUCT INFORMATION SHALL BE SAVED.

PROPER DISPOSAL PRACTICES SHALL ALWAYS BE FOLLOWED IN ACCORDANCE WITH MANUFACTURER AND LOCAL/STATE REGULATIONS.

PRODUCT SPECIFIC PRACTICES

PETROLEUM PRODUCTS MUST BE STORED IN PROPER CONTAINERS AND CLEARLY LABELED. VEHICLES CONTAINING PETROLEUM PRODUCTS SHALL BE PERIODICALLY INSPECTED FOR LEAKS. PRECAUTIONS SHALL BE TAKEN TO AVOID LEAKAGE OF PETROLEUM PRODUCTS ON SITE.

THE MINIMUM AMOUNT OF FERTILIZER SHALL BE USED AND MIXED INTO THE SOIL IN ORDER TO LIMIT EXPOSURE TO STORM WATER. FERTILIZERS SHALL BE STORED IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINT CONTAINERS SHALL BE SEALED AND STORED WHEN NOT IN USE. EXCESS PAINT MUST BE DISPOSED OF IN AN APPROVED MANNER.

CONCRETE TRUCKS SHALL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

-SPILL CLEANUP INFORMATION SHALL BE POSTED ON SITE TO INFORM EMPLOYEES ABOUT CLEANUP PROCEDURES AND RESOURCES.

-THE FOLLOWING CLEAN-UP EQUIPMENT MUST BE KEPT ON-SITE NEAR THE MATERIAL STORAGE AREA: GLOVES, MOPS, RAGS, BROOMS, DUST PANS, SAND, SAWDUST, LIQUID ABSORBER, GOGGLES, AND TRASH CONTAINERS.

-ALL SPILLS SHALL BE CLEANED UP AS SOON AS POSSIBLE.

-WHEN CLEANING A SPILL, THE AREA SHOULD BE WELL VENTILATED AND THE EMPLOYEE SHALL WEAR PROPER PROTECTIVE COVERING TO PREVENT INJURY.

-TOXIC SPILLS MUST BE REPORTED TO THE PROPER AUTHORITY REGARDLESS OF THE SIZE OF THE SPILL.

-AFTER A SPILL, THE PREVENTION PLAN SHALL BE REVIEWED AND CHANGED TO PREVENT FURTHER SIMILAR SPILLS FROM OCCURRING. THE CAUSE OF THE SPILL, MEASURES TO PREVENT IT, AND HOW TO CLEAN THE SPILL UP SHALL BE RECORDED.

-THE SUPERINTENDENT SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR AND IS RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS. THE SUPERINTENDENT ALSO OVERSEES THE SPILL PREVENTION PLAN AND SHALL BE RESPONSIBLE FOR EDUCATING THE EMPLOYEES ABOUT SPILL PREVENTION AND CLEANUP PROCEDURES.

MAINTENANCE AND INSPECTION PRACTICES

THE FOLLOWING ARE MAINTENANCE AND INSPECTION PRACTICES THAT SHALL BE COMPLETED BY THE CONTRACTOR:

-ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE CHECKED DAILY AND AFTER EACH 0.5 INCH OR GREATER RAINFALL BY THE SUPERINTENDENT OR SOMEONE UNDER HIS/HER DIRECT SUPERVISION.

-ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE KEPT IN GOOD CONDITION. REPAIRS MUST BE MADE WITHIN 24 HOURS OF REPORT.

-THE SILT FENCE SHALL BE INSPECTED PERIODICALLY FOR HEIGHT OF SEDIMENT AND CONDITION OF FENCE.

-THE SILT FENCE SHALL BE CLEARED OF SEDIMENT WHEN SEDIMENT MEASURES ONE-THIRD THE HEIGHT OF THE FENCE.

-THE SEDIMENT BASINS/DITCHES SHALL BE CHECKED MONTHLY FOR DEPTH OF SEDIMENT. THEY SHALL BE CLEANED WHEN SEDIMENT REACHES 10% OF TOTAL CAPACITY AND AFTER CONSTRUCTION IS COMPLETE.

-DIVERSION DIKES SHALL BE INSPECTED MONTHLY. ANY BREACHES SHALL BE PROMPTLY REPAIRED.

-ALL SEEDING SHALL BE CHECKED FOR PROPER GROWTH AND UNIFORMITY. UNSTABALIZED AREAS SHALL BE RE-SODDED.

-A MAINTENANCE REPORT SHALL BE COMPLETED DAILY AFTER EACH INSPECTION OF THE SEDIMENT AND EROSION CONTROL METHODS. THE REPORTS SHALL BE FILED IN AN ORGANIZED MANNER AND RETAINED ON-SITE DURING CONSTRUCTION. AFTER CONSTRUCTION IS COMPLETED, THE REPORTS SHALL BE SAVED FOR AT LEAST THREE YEARS. THE REPORTS SHALL BE AVAILABLE FOR ANY AGENCY THAT HAS JURISDICTION OVER EROSION CONTROL.

-THE SUPERINTENDENT SHALL ORGANIZE THE TRAINING FOR INSPECTION PROCEDURES AND PROPER EROSION CONTROL METHODS FOR EMPLOYEES THAT COMPLETE INSPECTIONS AND REPORTS.

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNED: _____ DATE: _____

DEREK RAMSBURG
FLORIDA REGISTRATION NUMBER: 88965
PROFESSIONAL ENGINEER

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FORM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

SIGNATURE AND DATE	NAME AND TITLE, COMPANY / ADDRESS AND TELEPHONE NUMBER	RESPONSIBILITY

No.	REVISIONS	DATE	BY

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LICENSED PROFESSIONAL ENGINEER DEREK RAMSBURG 88965 STATE OF FLORIDA PROFESSIONAL ENGINEER

KHA PROJECT	249188018
DATE	2/13/2026
SCALE	AS SHOWN
DESIGNED BY	CRL
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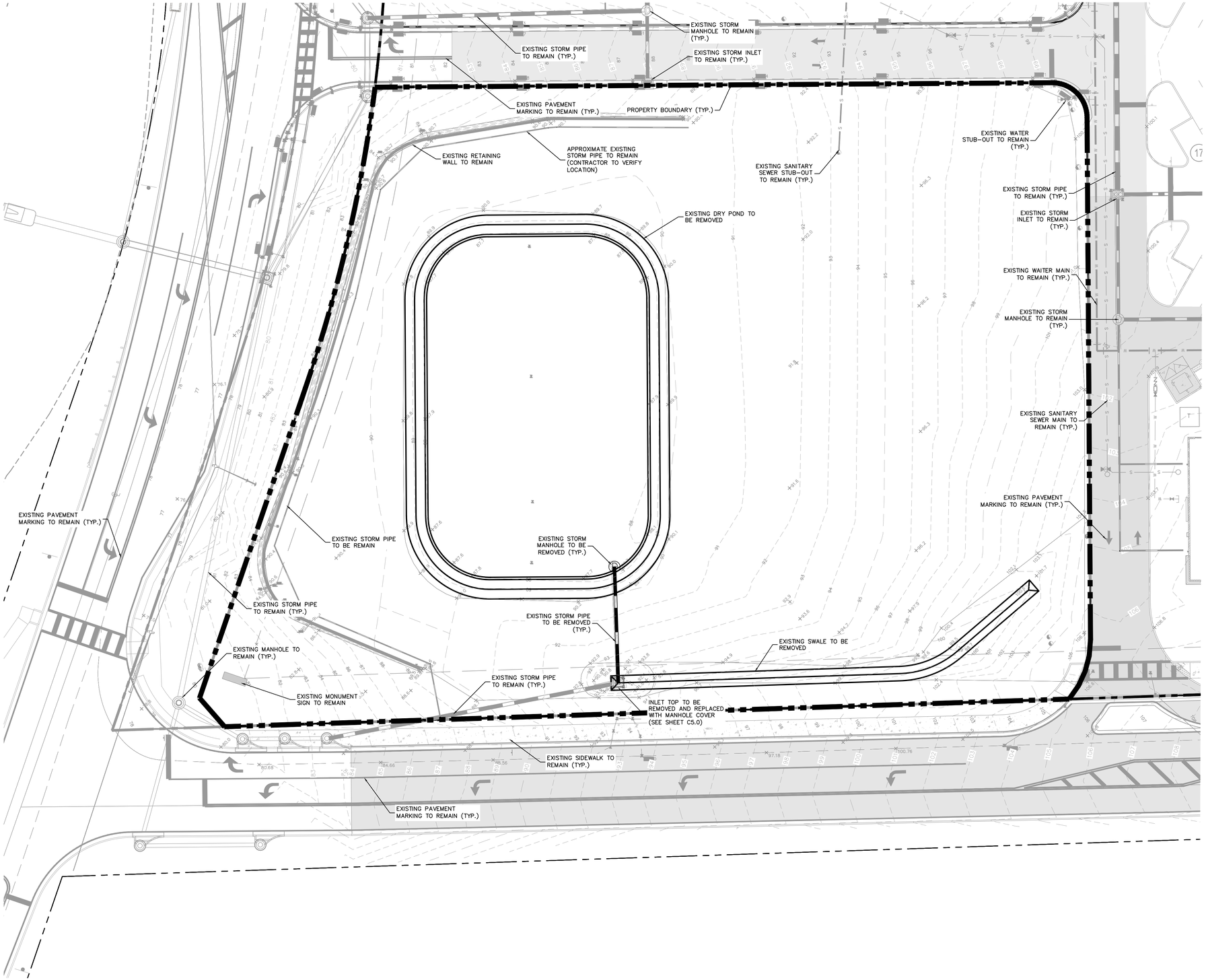
SWPPP

7-11 OCOEE APOPKA RD
CITY OF APOPKA FLORIDA

SHEET NUMBER
C2.0

Plotted By: Lasley, Chase Sheet Set: 7-11 OCOEE APOPKA RD Layout: C2.0 February 17, 2026 08:16:52am K:\orl_civil\249188018-7-11 ocoee apopka rd\CADD\CONST\plotsheets\C2.0 - SWPPP.dwg
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NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AN FDEP NPDES PERMIT PRIOR TO CONSTRUCTION.
2. THE INTENT OF THE DEMOLITION PLAN IS TO DEPICT EXISTING FEATURES THAT ENCUMBER THE PROPOSED CONSTRUCTION AREA AND ARE SCHEDULED FOR REMOVAL. SOME INCIDENTAL ITEMS MAY HAVE BEEN INADVERTENTLY OMITTED FROM THE PLAN. UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR. THE CONTRACTOR IS ENCOURAGED TO THOROUGHLY INSPECT THE SITE AS WELL AS REVIEW THE SURVEY, PLANS, AND SPECIFICATIONS PRIOR TO SUBMITTING PRICING. CONTRACTOR WILL NOT RECEIVE ADDITIONAL COMPENSATION FOR REQUIRED DEMOLITION OF INCIDENTAL ITEMS NOT SHOWN ON THIS DEMOLITION PLAN.
3. ALL DEMOLITION MATERIALS ARE TO BE REMOVED FROM SITE AND PROPERLY DISPOSED OF AN IN A LEGAL MANNER. AFTER DEMOLITION IS COMPLETE THE SITE SHALL BE DELIVERED IN A CONDITION SUITABLE FOR DEVELOPMENT.
4. THIS DEMOLITION PLAN IS BASED ON AVAILABLE UTILITY INFORMATION AND MAY OR MAY NOT BE ALL INCLUSIVE FOR THIS SITE. ANY UTILITIES ENCOUNTERED DURING DEMOLITION THAT ARE NOT DEPICTED/ADDRESSED ON THIS DRAWING SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER, ARCHITECT, AND ENGINEER.
5. VARIATIONS TO CONDITIONS OR DISCREPANCIES IN ACTUAL FIELD CONDITIONS AS THEY APPLY TO THE DEMOLITION OR SITE DEVELOPMENT WORK MUST BE BROUGHT TO THE OWNER'S REPRESENTATIVE AND ENGINEER'S ATTENTION PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION.
6. CONTRACTOR IS RESPONSIBLE FOR CONTROLLING AIRBORNE DUST AND POLLUTANTS BY USING WATER SPRINKLING OR OTHER SUITABLE MEANS OF CONTROL.
7. DEMOLITION CONTRACTOR SHALL CONSTRUCT EROSION CONTROL MEASURES AS SHOWN ON THESE PLANS AS NECESSARY DURING DEMOLITION OPERATIONS OR AS DIRECTED BY THE ENGINEER, CITY, OR COUNTY INSPECTOR TO PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM SOIL EROSION AND SEDIMENTATION.
8. CONTRACTOR TO USE CARE IN HANDLING DEBRIS FROM SITE TO ENSURE THE SAFETY OF THE PUBLIC. HAUL ROUTE IS TO BE CLOSELY MONITORED FOR DEBRIS OR MATERIALS TRACKED ONTO ADJOINING ROADWAYS, SIDEWALKS, ETC. ALL ROADWAYS AND WALKWAYS ARE TO BE CLEARED DAILY OR AS NECESSARY TO MAINTAIN PUBLIC SAFETY.
9. THE DEMOLITION CONTRACTOR MUST NOTIFY ALL UTILITY COMPANIES, FIRE MARSHAL, AND OWNER'S REPRESENTATIVE PRIOR TO INTERRUPTION OF ANY UTILITY SERVICE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH AND ADHERENCE TO THE REGULATIONS REGARDING SERVICE INTERRUPTION OF EACH UTILITY COMPANY AND FIRE MARSHAL.
10. THE DEMOLITION CONTRACTOR MUST PROTECT ALL LANDSCAPING AND OTHER FEATURES DESIGNATED TO REMAIN, AND REPLACE SUCH ITEMS WITHOUT ADDITIONAL PAYMENT IF DISTURBED DURING DEMOLITION.
11. ALL ASPHALT TO BE REMOVED SHALL BE SAW CUT ADJACENT TO REMAINING IMPROVEMENTS.
12. THE DEMOLITION CONTRACTOR MUST PROTECT BENCH MARKS PROPERTY CORNERS, AND ALL OTHER SURVEY MONUMENTS FROM DAMAGE OR DISPLACEMENT. IF A MARKER MUST BE REMOVED, IT SHALL BE REPLACED BY A LICENSED LAND SURVEYOR AND REPLACED.
13. THE DEMOLITION CONTRACTOR SHALL ACQUIRE ALL PERMITS AND PAY ALL ASSOCIATED FEES PERTAINING TO THE DEMOLITION AND DISPOSAL REQUIREMENTS. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ADHERENCE TO ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING THIS WORK. IF THERE ARE NO LOCAL, STATE, OR FEDERAL REQUIREMENTS THE DEMOLITION CONTRACTOR SHALL ACQUIRE AN ENGINEER'S CERTIFICATION THAT THE WORK HAS BEEN DONE IN ACCORDANCE WITH THE PLANS.
14. CONTRACTOR SHALL FIELD VERIFY THAT THE SHOULDER BASE IS FULL DEPTH. IF SHOULDER BASE IS NOT FULL DEPTH, THE EXISTING SHOULDER BASE AND PAVEMENT SHALL BE REMOVED AND REPLACED AT THE PAVEMENT CONNECTION TO MATCH EXISTING.

LEGEND

	PROPERTY BOUNDARY
PJ PJ PJ	FORCEMAIN
MS MS MS	RECLAIM PIPE
no no	OVERHEAD POWER LINE

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LICENSED PROFESSIONAL ENGINEER DEREK RAMSBURG STATE OF FLORIDA PROFESSIONAL ENGINEER

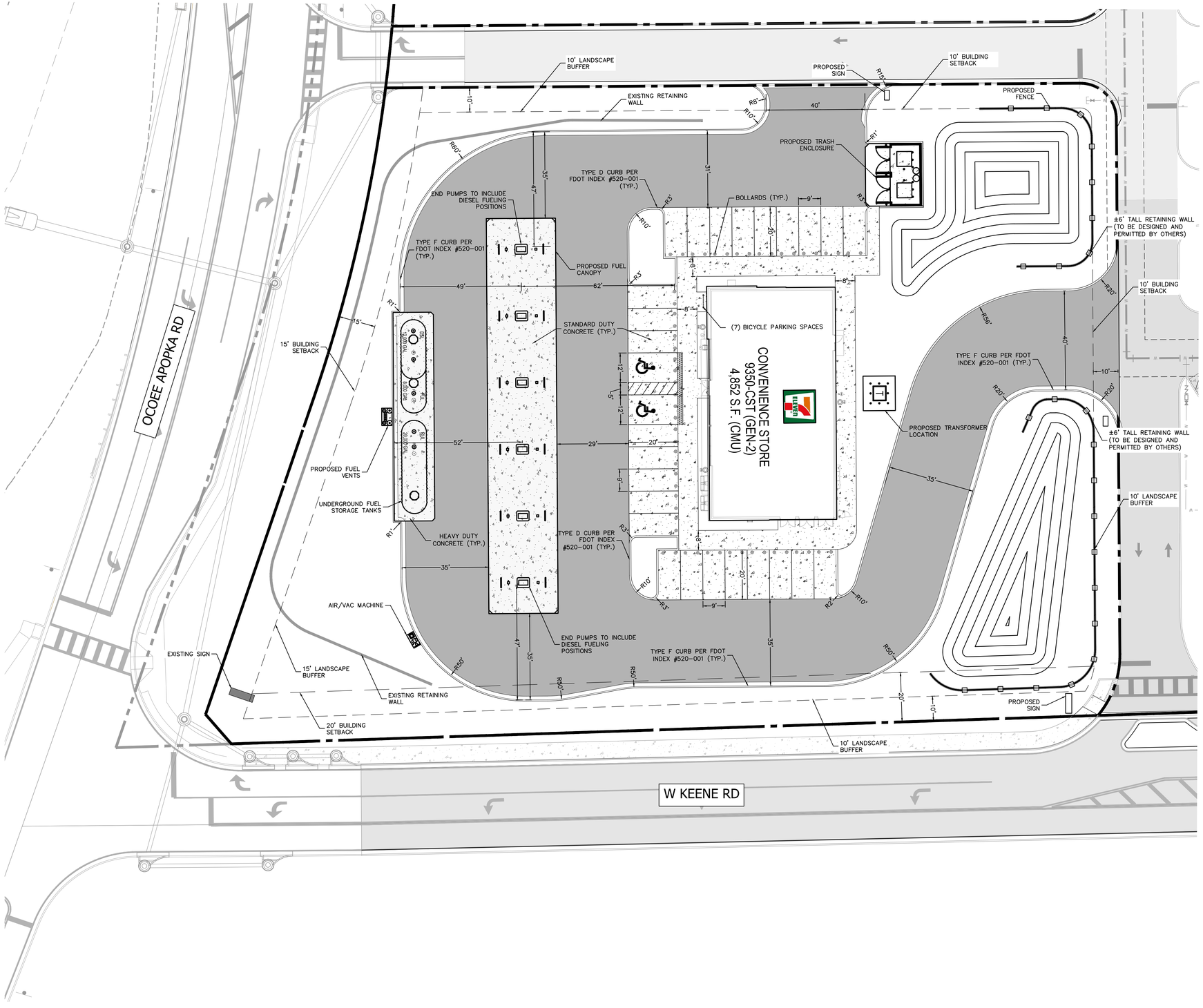
KHA PROJECT	249188018
DATE	2/13/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

EXISTING CONDITIONS PLAN

7-11 OCOEE APOPKA RD

CITY OF APOPKA FLORIDA

SHEET NUMBER
C3.0



NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

SITE DATA:

SITE AREA:	85,698 SF (1.97 ACRES)
PARCEL ID:	20-21-28-8000-04-000
ZONING	PD: PLANNED DEVELOPMENT
FUTURE LAND USE:	MU: MIXED-USE
PROPOSED USE:	COMMERCIAL
MAXIMUM BUILDING HEIGHT:	45'
PROPOSED BUILDING HEIGHT:	24'-8"

ADJACENT ZONING

NORTH	PD : PLANNED DEVELOPMENT
SOUTH	O : OFFICE
EAST	PD : PLANNED DEVELOPMENT
WEST	PD : PLANNED DEVELOPMENT

BUILDING COVERAGE

MAXIMUM ALLOWABLE F.A.R.:	1.0
PROPOSED BUILDING AREA:	4,852 SF
F.A.R.	0.057

BUILDING SETBACKS	REQUIRED	PROVIDED
FRONT (WEST):	15 FT	142 FT
SIDE (NORTH):	10 FT	24 FT
SIDE (SOUTH):	20 FT	64 FT
REAR (EAST):	10 FT	114 FT

PAVING SETBACKS	REQUIRED	PROVIDED
FRONT (WEST):	15 FT	18 FT
SIDE (NORTH):	10 FT	10 FT
SIDE (SOUTH):	10 FT	13 FT
REAR (EAST):	10 FT	10 FT

REQUIRED PARKING:	REQUIRED	PROVIDED
CONVENIENCE STORE W/ FUEL SALES: 1 SPACE/300 SF	16 SPACES	27 SPACES

PROPOSED PARKING:	
REGULAR SPACES: (9'x20'):	25 SPACES
ADA SPACES (12'x20'):	2 SPACES
TOTAL =	27 SPACES

BICYCLE PARKING:	REQUIRED	PROVIDED
	2 SPACES	7 SPACES

IMPERVIOUS CALCULATIONS

TOTAL MAX. ALLOWABLE IMPERVIOUS COVERAGE = 1.58 AC (80%)
CONVENIENCE STORE W/ FUEL SALES = 1.09 AC (55.3%)

PROPOSED IMPERVIOUS AREA:
BUILDING AREA: 4,852 SF
ASPHALT AREA: 27,047 SF
CONCRETE AREA: 13,991 SF

LEGEND

- PROPERTY BOUNDARY
- LANDSCAPE BUFFER
- BUILDING SETBACK
- PROPOSED STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED STANDARD DUTY CONCRETE PAVEMENT

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SITE PLAN

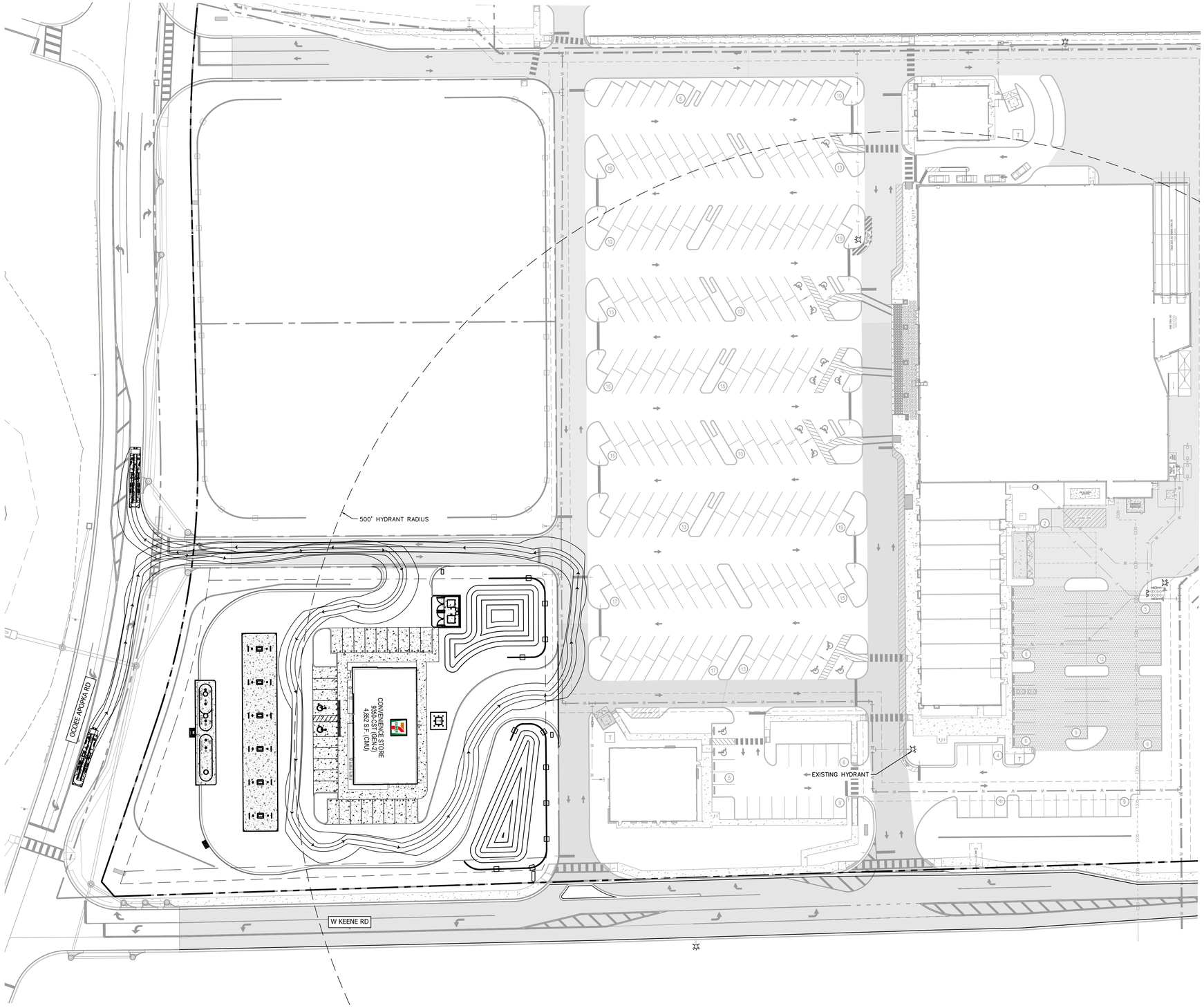
7-11 OCOEE APOPKA RD

CITY OF APOPKA FLORIDA

SHEET NUMBER
C4.0

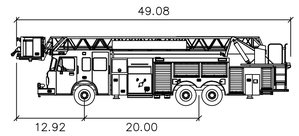
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NORTH

GRAPHIC SCALE IN FEET
0 20 40 80



Smeal Platform RM 100ft

	feet
Width	: 8.33
Track	: 7.83
Lock to Lock Time	: 6.0
Steering Angle	: 48.0

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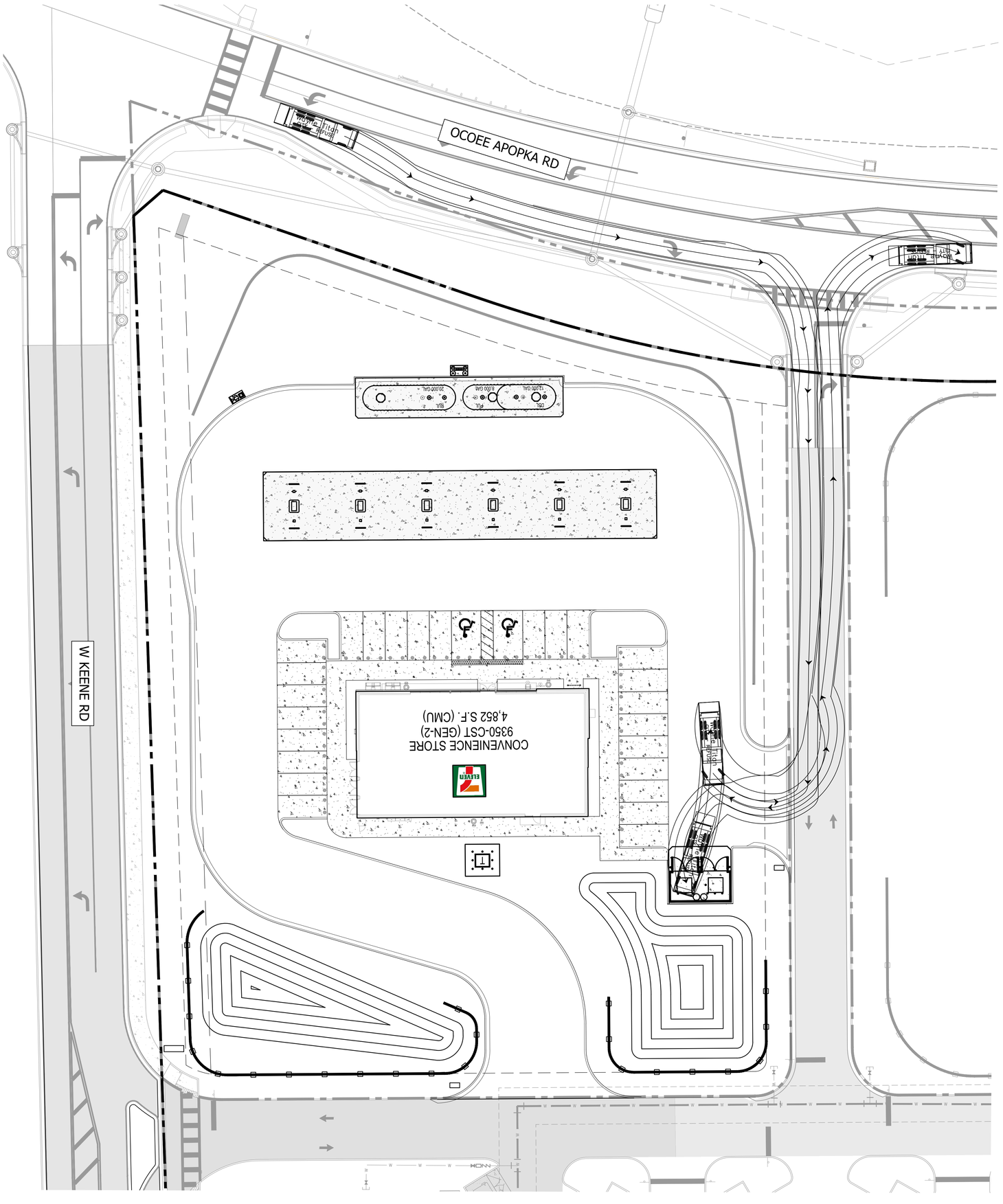
FIRE TRUCK ROUTING PLAN

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SHEET NUMBER
C4.1

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Wayne Titan
feet
Width : 8.46
Track : 4.87
Lock to Lock Time : 6.0
Steering Angle : 45.0
4.87
17.67
33.83

GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

SHEET NUMBER C4.2

7-11 OCOEE APOPKA RD

CITY OF APOPKA FLORIDA

TRASH ROUTING PLAN

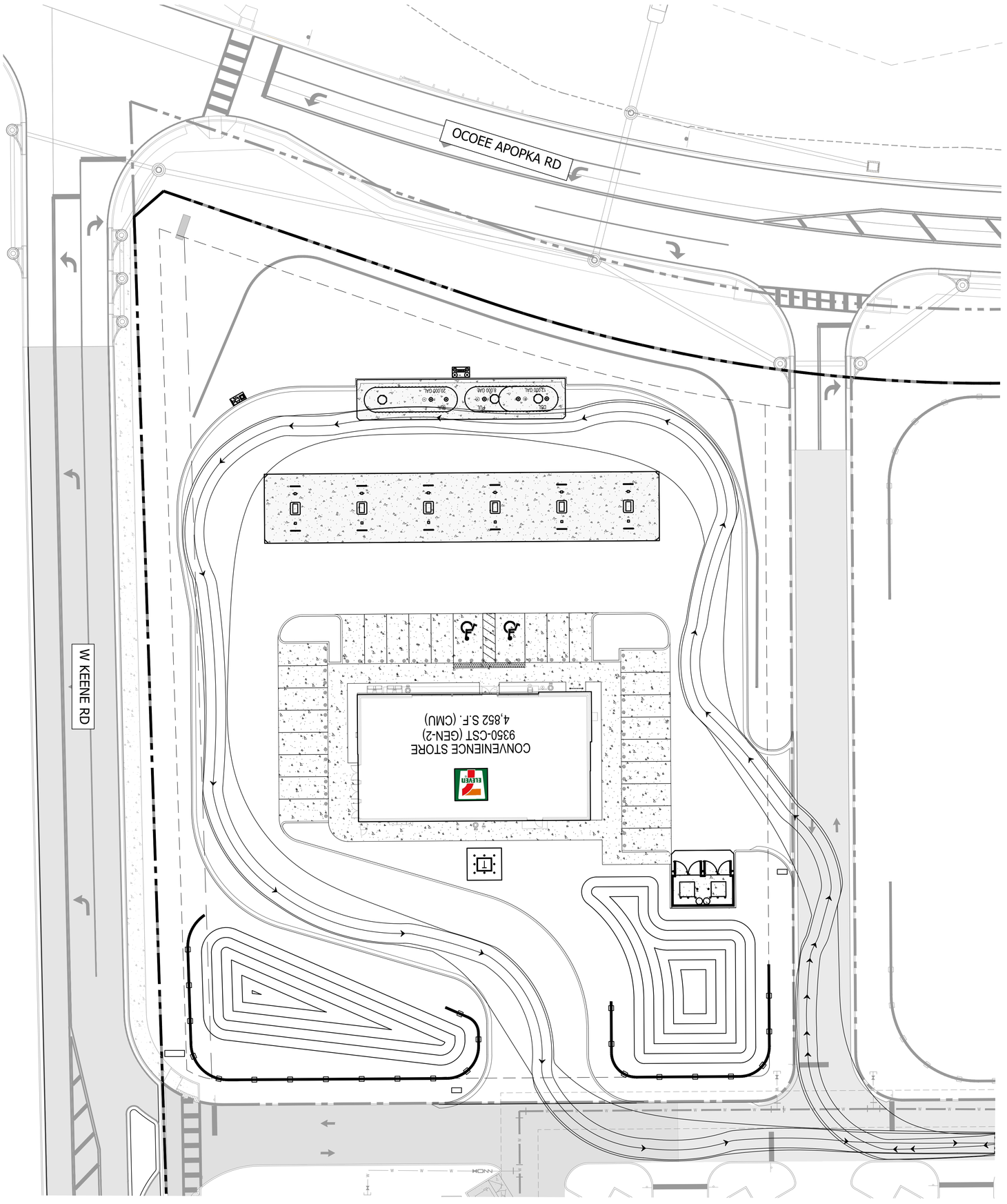
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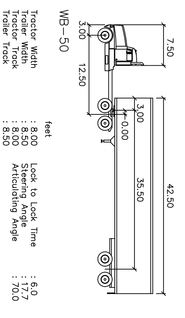
LICENSED PROFESSIONAL DEREK E. RAMSBURG LICENSE NUMBER 78922 STATE OF FLORIDA PROFESSIONAL ENGINEER
DATE:

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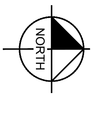


Tractor Width : 8.00
Trailer Width : 8.50
Tractor to Trailer Track : 8.50

feet

Lock to Lock Time : 6.0
Steering Angle : 17.7
Articulating Angle : 70.0





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SHEET NUMBER C4.3

7-11 OCOEE APOPKA RD

CITY OF APOPKA FLORIDA

SEMI TRUCK ROUTING PLAN

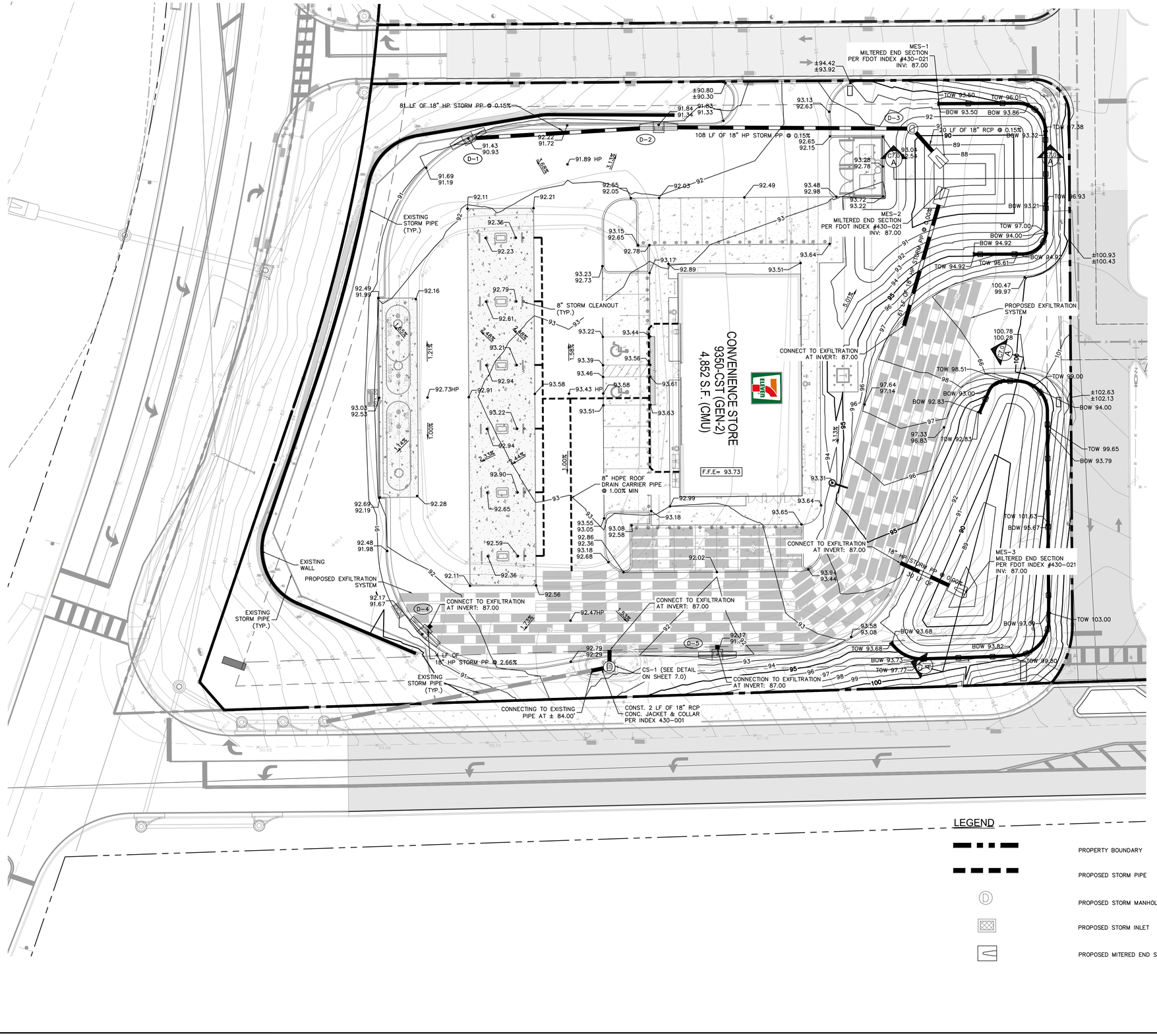
KHA PROJECT	249188018
DATE	2/13/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

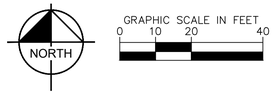
LICENSED PROFESSIONAL ENGINEER DEREK E. RAMSBURG LICENSE NUMBER 70233 STATE OF FLORIDA DATE:

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NOTES:

1. STORM PIPE MATERIALS SHALL BE A-2000 PVC, N-12 HP STORM, RIGID WALL WATER TIGHT HDPE, OR RCP, AND CONFORM WITH THE LATEST EDITION OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS WELL AS CITY OF APOPKA REQUIREMENTS.
2. STORM PIPE MATERIALS LOCATED WITHIN THE KEENE ROAD RIGHT OF WAY SHALL BE RCP AND CONFORM WITH THE LATEST EDITION OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS WELL AS ORANGE COUNTY REQUIREMENTS.
3. CURB RAMPS ALONG PUBLIC STREETS AND IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BASED ON THE CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
4. CONSTRUCTION WITHIN THE KEENE ROAD RIGHT-OF-WAY SHALL BE CONSTRUCTED BASED ON ORANGE COUNTY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS AND CONFORM TO ORANGE COUNTY CODES.
5. PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA STANDARDS AND SHALL HAVE A DETECTABLE WARNING SURFACE THAT IS FULL WIDTH AND FULL DEPTH OF THE CURB RAMP, NOT INCLUDING FLARES.
6. ALL ACCESSIBLE ROUTES, GENERAL SITE AND BUILDING ELEMENTS, RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION.
7. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA AND FHA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL, IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
8. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.
9. ALL PEDESTRIAN SIDEWALKS, PATHWAYS, AND CROSSWALKS SHALL BE CONSTRUCTED NOT TO EXCEED MAX. 2.0% CROSS SLOPE, MAX. 5.0% RUNNING SLOPE.
10. ALL HANDICAP ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED NOT TO EXCEED MAX. 2.0% CROSS SLOPE IN ALL DIRECTIONS.
11. PROPOSED GRADES TO MATCH EXISTING ELEVATIONS AT PROPERTY LINE.
12. CONTRACTOR TO FIELD VERIFY ELEVATIONS AT ALL EXISTING SIDEWALK AND ROAD CONNECTION POINTS WITH ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY IMPROVEMENTS.
13. FOR EROSION CONTROL NOTES REFER TO SHEET C2.0.
14. CONTRACTOR TO ENSURE ADEQUATE COVER REMAINS OVER ALL EXISTING UTILITIES.

STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D-1	TYPE "6" CURB INLET PER FDOT INDEX #425-021 TOP: 90.93 E. INV OUT: 87.22
D-2	TYPE "6" CURB INLET PER FDOT INDEX #425-021 TOP: 91.35 W. INV IN: 87.10 E. INV OUT: 87.10
D-3	TYPE "P7" MANHOLE PER FDOT INDEX #425-010 TOP: 91.00 W. INV IN: 86.94 SE. INV OUT: 86.94
D-4	TYPE "6" CURB INLET PER FDOT INDEX #425-021 TOP: 91.68 NE. INV OUT: 87.10
D-5	TYPE "6" CURB INLET PER FDOT INDEX #425-021 TOP: 91.67 N. INV IN: 87.10

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Kimley»Horn
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PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

DEREK RAMSBURG
LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DATE:

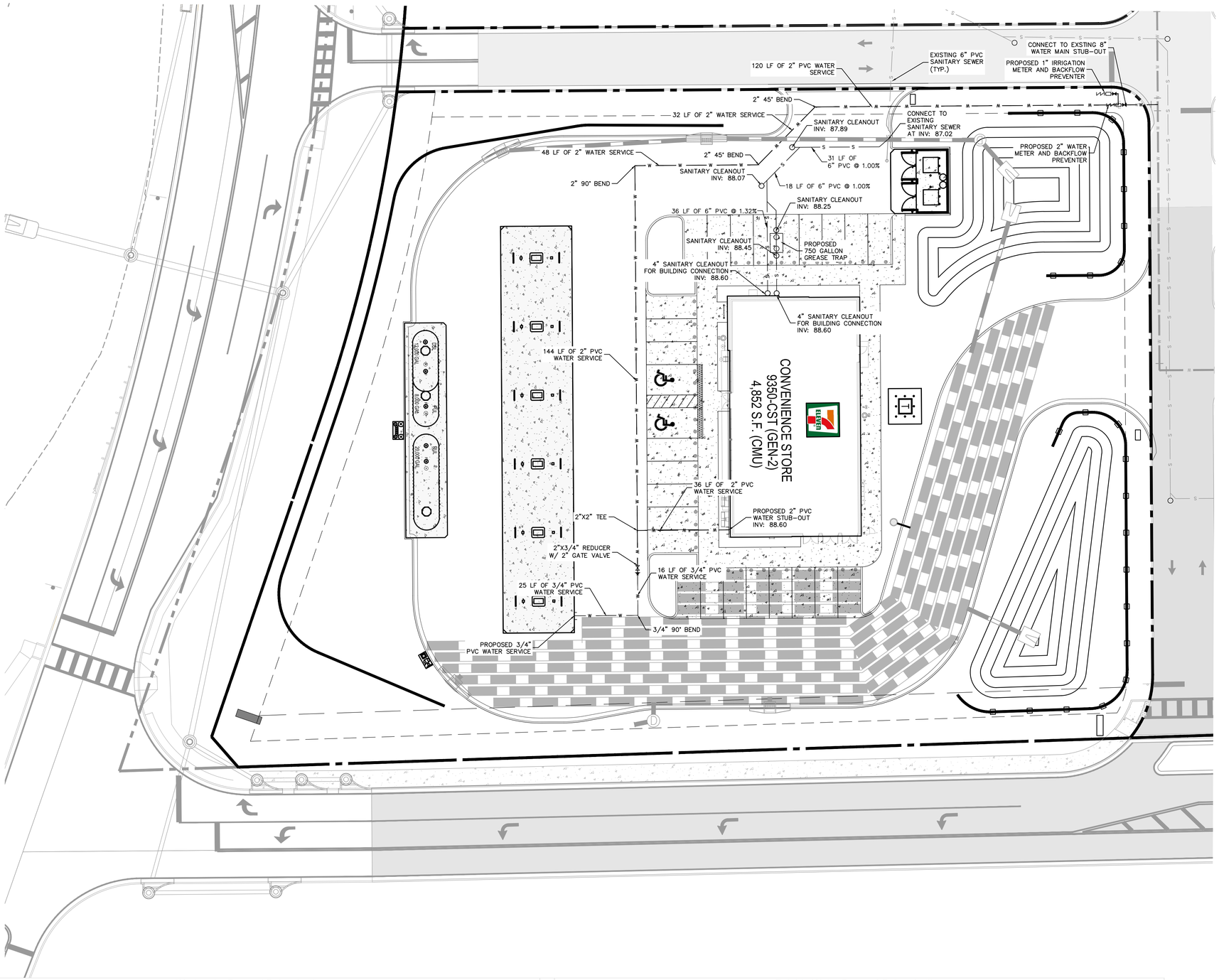
KHA PROJECT	249188018
DATE	2/13/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

PAVING, GRADING, AND DRAINAGE PLAN

7-11 OCOEE APOPKA RD

CITY OF APOPKA FLORIDA

SHEET NUMBER
C5.0



NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

NOTES:

1. ALL ONSITE UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED UNLESS OTHERWISE NOTED.
2. MAINTAIN A MINIMUM OF 3-FT OF COVER OVER ALL PROPOSED UTILITIES.
3. ALL WATER MAINS, AND DOMESTIC LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF APOPKA STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL.
4. CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.
5. ALL ELECTRIC AND TELEPHONE EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.
6. CONTRACTOR TO CALL "SUNSHINE STATE ONE CALL OF FLORIDA" (1-800-432-4770) TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
7. PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE ENGINEER AND THE OWNER/ DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION. THE CITY OF APOPKA SHALL BE NOTIFIED OF ANY AND ALL CHANGES TO THE DESIGN PLANS.
8. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
9. CONTRACTOR TO AVOID DISRUPTION OF ANY ADJACENT TENANT'S TRAFFIC OPERATIONS, TO THE MAXIMUM EXTENT, DURING INSTALLATION OF UTILITIES. IF TRAFFIC IS TO BE OBSTRUCTED CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL PLAN WITH THE LOCAL MUNICIPALITY.
10. ALL DIMENSIONS ARE TO CENTERLINE OF PIPE OR CENTER OF MANHOLE UNLESS NOTED OTHERWISE.
11. SEE PLUMBING PLANS FOR EXACT UTILITY CONNECTION LOCATIONS AT BUILDING.
12. LIGHT POLES SHOWN FOR COORDINATION PURPOSES ONLY AND DO NOT REPRESENT ACTUAL SIZE. SEE SITE LIGHTING PLANS BY OTHERS FOR MORE INFORMATION.
13. ELECTRIC, TELEPHONE, AND OTHER DRY UTILITIES SHALL BE PLACED WITHIN CONDUIT, MEETING PRIVATE UTILITY STANDARDS, WHEN ROUTE CROSSES PAVED DRIVES AND PARKING AREAS.
14. ALL UNDERGROUND WATER MAINS AND HYDRANTS SHALL BE INSTALLED, COMPLETED AND IN SERVICE PRIOR TO ANY COMBUSTIBLES BEING BROUGHT ONSITE.
15. CONTRACTOR TO ENSURE ADEQUATE COVER REMAINS OVER ALL EXISTING UTILITIES.
16. CONTRACTOR TO VERIFY EXISTING COVER OVER ALL UTILITIES BEFORE START OF CONSTRUCTION AND TO COORDINATE WITH THE ENGINEER OF RECORD PRIOR TO START OF CONSTRUCTION IF DESIGN DOES NOT PROVIDE 36" COVER.
17. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES AT ALL POINTS OF CONNECTION TO, AND AT ALL AREAS OF CONFLICT WITH CITY OF APOPKA MAINS.
18. ALL UTILITIES (INCLUDING PUMP STATION IF APPLICABLE) LOCATED OUTSIDE PUBLIC RIGHT-OF-WAYS AND PUBLIC EASEMENTS SHALL BE PRIVATELY OWNED AND MAINTAINED.
19. PRIOR TO INITIATING CONSTRUCTION, CONTACT THE CITY OF APOPKA AT (407) 703-1731 TO SCHEDULE A PRECONSTRUCTION MEETING. THE PRECONSTRUCTION MEETING CANNOT BE HELD UNTIL THE STAMPED PLANS ARE RELEASED BY THE BUILDING DEPARTMENT. CONSTRUCTION SHALL NOT BE PERMITTED WITHOUT A CITY OF APOPKA PRECONSTRUCTION MEETING AND SET OF STAMPED PLANS LOCATED ON THE PROJECT SITE.
20. ALL EXISTING UTILITIES HAVE BEEN FIELD VERIFIED AT ALL POINTS OF CONNECTION TO, AND AT ALL AREAS OF CONFLICT WITH CITY OF APOPKA MAINS.
21. PROJECT SHALL CONFORM TO FFPC 8TH EDITION (NFPA 1 AND 101 2021 EDITION)
22. PRIOR TO FIRE LINE INSTALLATION, THE FLORIDA LICENSED CONTRACTOR SHALL SUBMIT LAYOUT DESIGN DRAWINGS TO THE OFFICE OF THE FIRE MARSHAL. IF REQUIRED BY FLORIDA STATUE 553.79, DRAWINGS MUST BE SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER. THE DRAWINGS MUST SHOW ALL UNDERGROUND FIRE LINES AND COMPONENTS STARTING FROM THE "POINT OF SERVICE" AS DEFINED UNDER FLORIDA STATUE 633.102. THE DESIGN SHALL BE IN ACCORDANCE TO THE CURRENT FLORIDA FIRE PREVENTION CODE AND ALL ADOPTED NFPA CODES AND STANDARDS.
23. CONTRACTOR TO ENSURE THAT 36" CLEAR IS PROVIDED AROUND ALL FIRE HYDRANTS.
24. ALL IMPORT FILL THAT WILL BE UTILIZED FOR POND RECOVERY MUST MEET A MINIMUM HORIZONTAL INFILTRATION RATE OF 36 FT/DAY AND A MINIMUM VERTICAL INFILTRATION RATE OF 24 FT/DAY. PROJECT GEOTECHNICAL ENGINEER MUST VERIFY THE INFILTRATION RATE AND ADVISE LIMITS OF RECOVERY INFLUENCE AREA WHERE SOIL MUST BE PLACE TO AVOID POND RECOVERY ISSUES.

LEGEND

- PROPERTY BOUNDARY
- W W — PROPOSED WATER LINE
- S S — PROPOSED SANITARY SEWER LINE
- PROPOSED FORCE MAIN
- (S) PROPOSED SANITARY MANHOLE
- PROPOSED STORM PIPE
- (D) PROPOSED STORM MANHOLE
- PROPOSED STORM INLET

Needed Fire Flow (NFF)
per Florida Fire Prevention Code (8th Edition)

7-Eleven Store

Building Fire Area=	4,852	SF
Building Type (per NFPA 220) =	II (000)	
Associated Min. Required Fire Flow= (per Table 18.4.5.1.2 of the NFPA Uniform Fire Code Handbook)	1,500	GPM
Fire Sprinkler - Yes or No=	NO	
Calculated Fire Flow= (with 75% fire sprinkler credit, if applicable)	1,500	GPM
Minimum Fire Flow Required=	1,500	GPM

Fire Flow Provided= 1,500 GPM

Wastewater Demand Determination
(per City of Apopka Land Development Code Sec. 5.14 & 2023 Florida Building Code, Plumbing, Eighth Edition)

Building	Unit Type	# Units	LEVEL OF SERVICE	ERC per Unit	Total ERC's	GPD ADF	GPD MDF	GPD PHF	GPM ADF	GPM MDF	GPM PHF
Convenience Store	Restroom	7	1	per Unit	1	7.000	2100	4200	8400	1.46	2.92	5.84
	3" Floor Drain	3	1	per Unit	0.2083	0.625	188	376	752	0.13	0.26	0.52
	Urinal	4	1	per Unit	0.1667	0.667	200	400	800	0.14	0.28	0.56
	Water Closet	3	1	per Unit	0.1667	0.500	150	300	600	0.10	0.20	0.40
	3" Floor Sink	6	1	per Unit	0.2083	1.250	375	750	1500	0.26	0.52	1.04
	Mop Sink	3	1	per Unit	0.0833	0.250	75	150	300	0.05	0.10	0.20
Total							**3,088**	**6,176**	**12,352**	**2.14**	**4.28**	**8.56**

Potable Water Demand Determination
(per City of Apopka Land Development Code Sec. 5.14 & 2023 Florida Building Code)

Building	Unit Type	# Units	LEVEL OF SERVICE	ERC per Unit	Total ERC's	GPD ADF	GPD MDF	GPD PHF	GPM ADF	GPM MDF	GPM PHF
Convenience Store	Restroom	7	1	per Unit	1	7.000	2275	4550	9100	1.58	3.16	6.32
	3" Floor Drain	3	1	per Unit	0.2083	0.625	203	406	812	0.14	0.28	0.56
	Urinal	4	1	per Unit	0.1667	0.667	217	434	868	0.15	0.30	0.60
	Water Closet	3	1	per Unit	0.1667	0.500	163	326	652	0.11	0.22	0.44
	3" Floor Sink	6	1	per Unit	0.2083	1.250	406	812	1624	0.28	0.56	1.12
	Mop Sink	3	1	per Unit	0.0833	0.250	81	162	324	0.06	0.12	0.24
Total							**3,345**	**6,690**	**13,380**	**2.32**	**4.64**	**9.28**

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LICENSED PROFESSIONAL ENGINEER DEREK RAMSBURG STATE OF FLORIDA PROFESSIONAL ENGINEER

KHA PROJECT	249188018
DATE	2/13/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

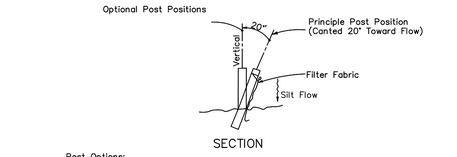
UTILITY PLAN

7-11 OCOEE APOPKA RD

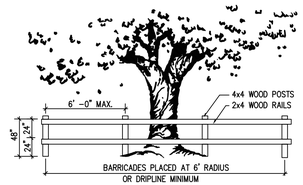
CITY OF APOPKA FLORIDA

SHEET NUMBER
C6.0

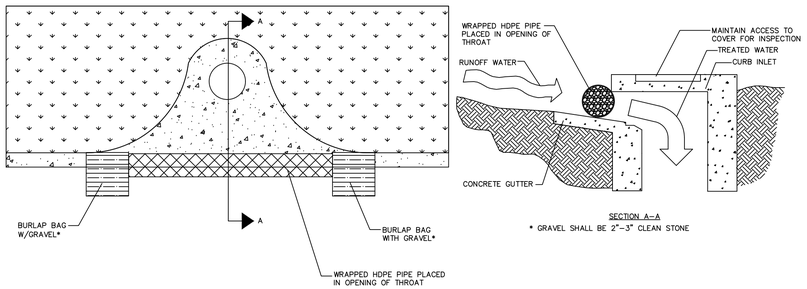
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TYPE III SILT FENCE
NTS

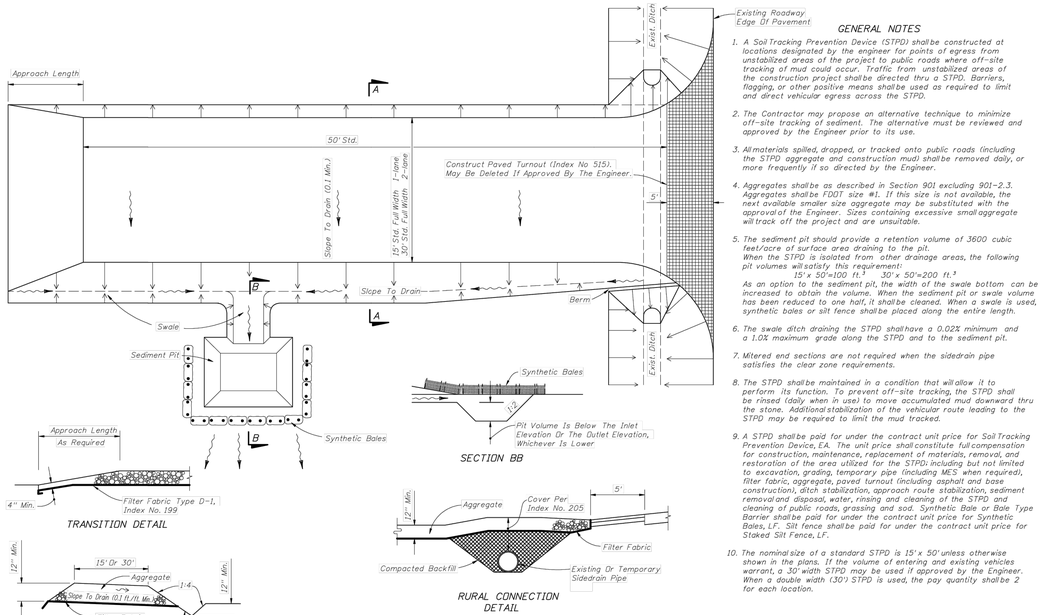


TREE PROTECTION DETAIL
NTS



SOCK DRAIN INLET SEDIMENT FILTER
NTS

NOTE: THE PERFORATED PIPE MUST EXTEND AT LEAST 1' BEYOND THE CURB OPENING ON EACH SIDE AND BE ANCHORED WITH GRAVEL BAGS, OR SIMILAR, ON EACH END. A SPACER MUST BE PROVIDED FOR BETWEEN THE INLET OPENING AND THE PIPE TO ALLOW FOR OVERFLOW, PREVENT FLOODING AND TO PREVENT THE PIPE FROM FALLING INTO THE INLET.



GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where off-site tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.
2. The Contractor may propose an alternative technique to minimize off-site tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.
3. All materials spilled, dropped, or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.
4. Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size #1. If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.
5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit. When the STPD is isolated from other drainage areas, the following pit volumes will satisfy this requirement:
   15'x 50'=100 ft.³ 30' x 50'=200 ft.³
   As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, synthetic bales or silt fence shall be placed along the entire length.
6. The swale ditch draining the STPD shall have a 0.02% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent off-site tracking, the STPD shall be rinsed (daily when in use) to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.
9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD; including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, grassing and sod. Synthetic Bale or Bale Type Barrier shall be paid for under the contract unit price for Synthetic Bales, LF. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.
10. The nominal size of a standard STPD is 15'x 50' unless otherwise shown in the plans. If the volume of entering and existing vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.

2010 FDOT Design Standards	Last Revision	Sheet No.
SOIL TRACKING PREVENTION DEVICE TYPE A	07/01/07	1 of 1
	Index No.	106

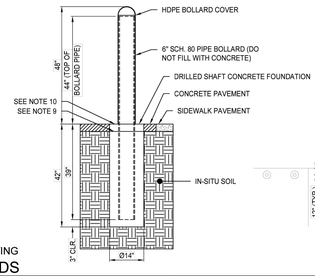
REMOVED DRAIN HOLE REFERENCES PER CR2024-3007

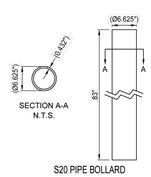
ADMIN: REORGANIZED SHEET PER CR2024-3007

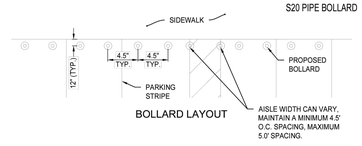
GENERAL NOTES:

1. MAXIMUM BOLLARD SPACING IS 5' ON CENTER
2. CONCRETE TO BE 4,000 PSI MIN. UNCONFINED COMPRESSIVE STRENGTH.
3. REINFORCING STEEL CONFORMS TO ASTM A615 GRADE 60.
4. BOLLARD PIPE IS ASTM A53, TYPE E, GRADE B OR A500 GRADE B/C.
5. PROVIDE HIGH-DENSITY POLYETHYLENE (HDPE) BOLLARD COVER. COVER TO BE IDEALSHIELD (OR APPROVED EQUAL) 1/8" THICK, BLACK, 6" PIPE FIT, DOME TOP, 48" TALL.
6. DO NOT FILL BOLLARD PIPE WITH CONCRETE. TEMPORARILY SEAL BOTTOM AS NECESSARY TO PREVENT CONCRETE INTRUSION WHILE POURING.
7. USE SONOTUBE IN SANDY OR OTHER SOILS THAT MIGHT CAVE IN.
8. DIMENSIONS IN PARENTHESIS ARE NOMINAL.
9. COLD JOINT ACCEPTABLE THIS LINE FOR NEW INSTALLATIONS IN MONOLITHIC POUR CONCRETE PAVEMENT.
10. SLOPE TOP OF CONCRETE AWAY FROM BOLLARD 1/4" FROM PIPE TO EDGE OF DRILLED SHAFT OR CAP.
11. INCREASE DEPTH OF CAISSON AND BOLLARD PIPE TO MEET LOCAL JURISDICTION MIN. FROST DEPTH REQUIREMENT.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY NO UTILITY CONFLICTS EXIST WHERE BOLLARDS ARE TO BE INSTALLED, PRIOR TO INSTALLATION.

DESIGN SPECIFICATIONS: ASTM F3016-19 CONDITION DESIGNATION S20

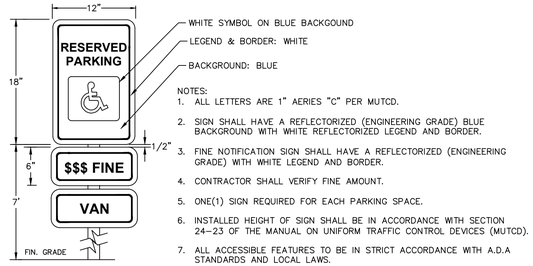






BOLLARD LAYOUT

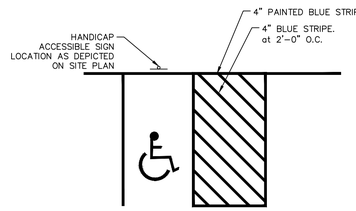
1 DEEP MOUNT S20 BOLLARD IN CONCRETE PAVING
STORE FRONT GUARD BOLLARDS
NOT TO SCALE



SIGNAGE

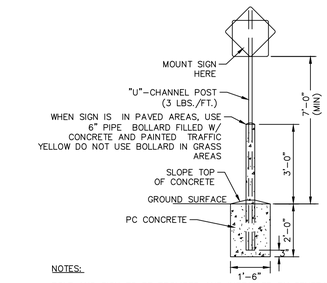
NOTES:
1. ALL LETTERS ARE 1" AERIES "C" PER MUTCD.
2. SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. FINE NOTIFICATION SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WITH WHITE LEGEND AND BORDER.
4. CONTRACTOR SHALL VERIFY FINE AMOUNT.
5. ONE(1) SIGN REQUIRED FOR EACH PARKING SPACE.
6. INSTALLED HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
7. ALL ACCESSIBLE FEATURES TO BE IN STRICT ACCORDANCE WITH A.D.A STANDARDS AND LOCAL LAWS.
8. VAN PLAQUE TO BE INSTALLED AS NECESSARY.

ACCESSIBLE PARKING SIGNAGE
N.T.S.



NOTE: REFER TO PLAN FOR DETAILED LAYOUT AND DIMENSIONS

TYPICAL HANDICAP STRIPING
N.T.S.

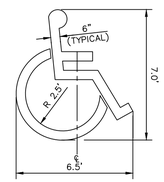


NOTES:

POLE AND SIGN TO BE PROVIDED AND INSTALLED BY GENERAL CONTRACTOR.

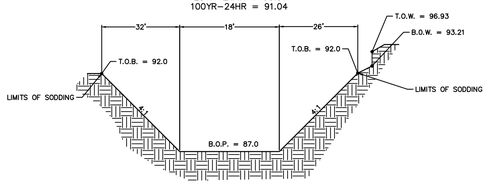
ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

STANDARD SIGN BASE
N.T.S.



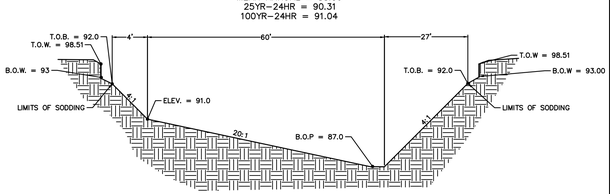
ACCESSIBLE PARKING SYMBOL
N.T.S.

POND MAX. STAGES
MEAN ANNUAL = 88.56
25YR-24HR = 90.31
100YR-24HR = 91.04



SECTION A-A
DRY DETENTION POND
NTS

POND MAX. STAGES
MEAN ANNUAL = 88.56
25YR-24HR = 90.31
100YR-24HR = 91.04



SECTION B-B
DRY DETENTION POND
NTS

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No.	REVISIONS	DATE	BY

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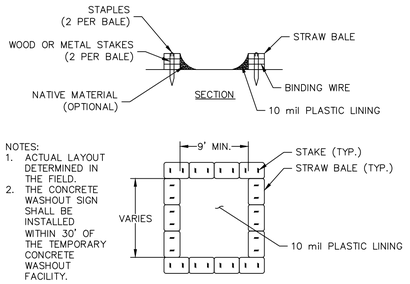
LICENSED PROFESSIONAL ENGINEER DEREK E. RAMSBURG STATE OF FLORIDA
DEREK E. RAMSBURG, P.E. LICENSE NUMBER 88966
DATE: 2/13/2026

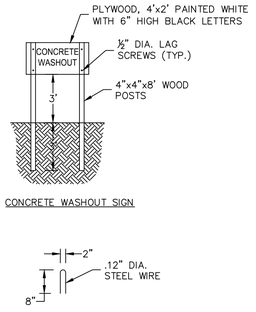
KHA PROJECT	249188018
DATE	2/13/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

STANDARD DETAILS

7-11 OCOEE APOPKA RD
FLORIDA
CITY OF APOPKA

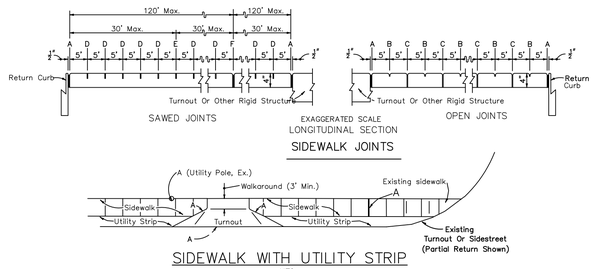
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CONCRETE & STUCCO WASTE MANAGEMENT

N.T.S



SIDEWALK WITH UTILITY STRIP

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JOINT LEGEND

A– ½" EXPANSION JOINTS (PREFORMED JOINT FILLER)
B– ½" DUMMY JOINTS, TOOLED
C– ¼" FORMED OPEN JOINTS
D– ⅛" SAW CUT JOINTS, ½" DEEP (96 HOUR) MAX. 5' CENTERS
E– ⅛" SAW CUT JOINTS, ½" DEEP (12 HOUR) MAX. 30' CENTERS
F– ½" EXPANSION JOINT WHEN RUN OF SIDEWALK EXCEEDS 120'
G– COLD JOINT WITH BOND BREAKER, TOOLED

FOOTNOTES:

ALL 1/2" JOINTS SHALL BE CONSTRUCTED WITH PREFORMED JOINT FILLER.

* 1/8" OPEN JOINTS PLACED AT EQUAL (20' MAX.) INTERVALS FOR DRIVEWAYS OVER 20' WIDE. JOINTS IN CURB AND GUTTER TO MATCH JOINTS IN DRIVEWAYS.

◊ DRIVEWAYS (6" CONCRETE) SHALL BE OF A UNIFORM WIDTH (W) AS SHOWN ON SHT. P–1.

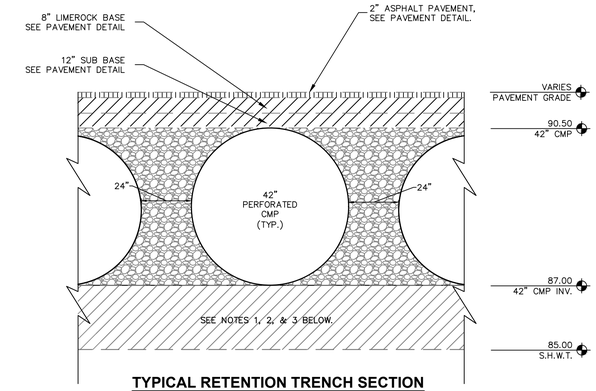
GENERAL NOTES

SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION NO. 522 EXCEPT FOR CURB CUT RAMP RUNS WHICH SHALL BE FINISHED IN ACCORDANCE WITH FDOT INDEX 522–002.

BOND BREAKER MATERIAL CAN BE ANY IMPERMEABLE COATED OR SHEET MEMBRANE OR PREFORMED MATERIAL HAVING A THICKNESS OF NOT LESS THAN 6 MILS NOR MORE THAN 1/2".

CONCRETE SIDEWALK DETAIL

NTS

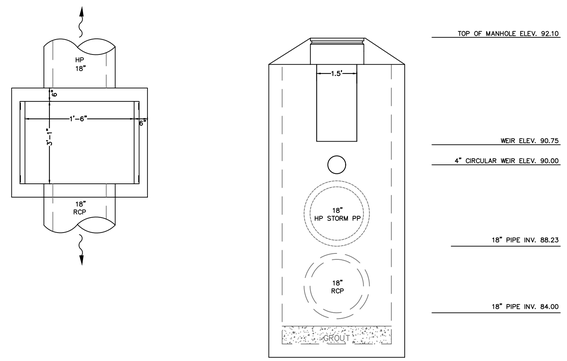


TYPICAL RETENTION TRENCH SECTION

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NOTE:

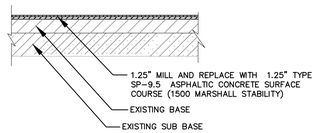
1. SEE SHEET C5.0 FOR DETAILS REGARDING DESIGN OF RETENTION TRENCH.
2. CONTRACTOR TO ENSURE FILL PLACED AROUND RETENTION TRENCH SHALL BE CLEAN, GRANULAR, INORGANIC SANDY SOILS WITH LESS THAN 5 PERCENT PASSING THE US NO. 200 SIEVE.
3. BACKFILL MATERIAL WILL NEED TO BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT TO ENSURE THAT IT IS CONSISTENT WITH EXISTING SOIL CONDITIONS AND WILL NOT AFFECT INFILTRATION.



CS-1 CONTROL STRUCTURE DETAIL

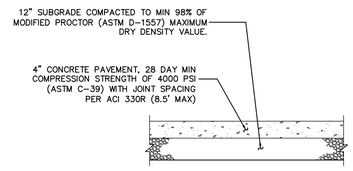
N.T.S.

USE TYPE "J7" MANHOLE
PER F.D.O.T. INDEX NO. 425–010



MILL & RESURFACE SECTION

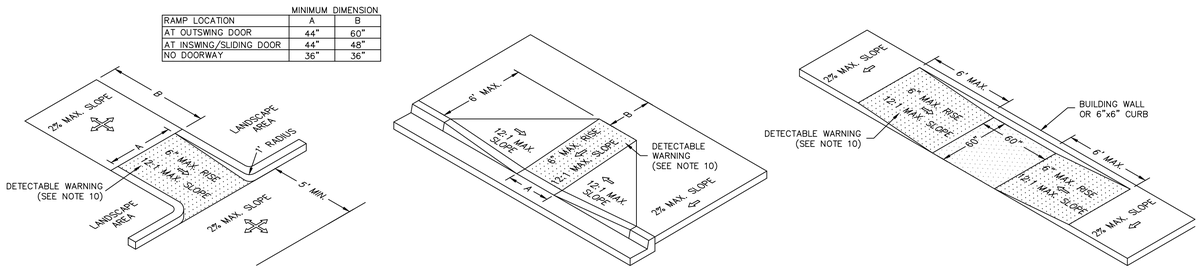
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CONCRETE SIDEWALK DETAIL

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RAMP LOCATION	MINIMUM DIMENSION A	MINIMUM DIMENSION B
AT OUTSWING DOOR	44"	60"
AT INSWING/SLIDING DOOR	44"	48"
NO DOORWAY	36"	36"

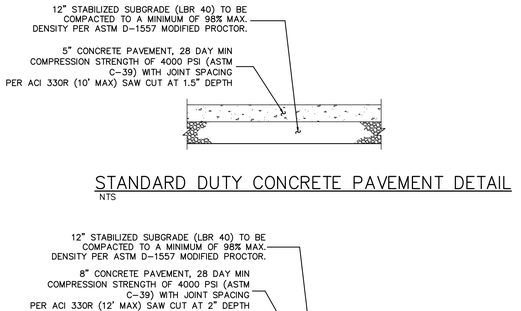


NOTES:

1. ALL CURB CUT ACCESSIBLE RAMPS AND DETECTABLE WARNING SURFACES SHALL BE INSTALLED BY THE SITE CONTRACTOR.
2. THE STANDARD COLOR FOR THE DETECTABLE WARNING SURFACE SHALL BE YELLOW. ANY TYPE OF ADHESIVE OR GLUE DOWN MATS; STAMPED CONCRETE OR ANY VARIATION OTHER THAN WHAT IS SPECIFIED ABOVE WILL NOT BE ACCEPTED BY CLAY COUNTY. CLAY COUNTY WILL CONSIDER ALTERNATIVES THAT ARE EQUAL TO THE PRODUCTS SPECIFIED ABOVE. COUNTY ENGINEER AND THE CHIEF ENGINEER FOR DEVELOPMENT SERVICES WILL HAVE THE SOLE RESPONSIBILITY FOR DETERMING THE PRODUCT ACCEPTABILITY.
3. ALL DETECTABLE WARNING SURFACES FOR SIDEWALKS AT CURB CUT HANDICAP RAMP SHALL BE A COUNTY APPROVED YELLOW COLORED COMPOSITE MATERIAL ANCHORED IN THE CONCRETE SIDEWALK RAMP. ANCHORED COMPOSITE WARNING AREA INSERTS ARE TO BE COLORED "SAFETY YELLOW", ARE TO BE SET INTO THE CONCRETE AND ARE TO BE FLUSH WITH CONCRETE SURFACE ALONG ALL FOUR SIDES. DESIGN DIMENSIONS OF DETECTABLE WARNING AREA SHALL CONFORM TO FDOT STANDARD INDEX 522–002, CODE OF FEDERAL REGULATIONS PART 36, AND SJC REQUIREMENTS.

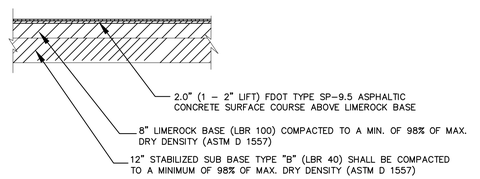
ACCESSIBLE RAMPS

N.T.S



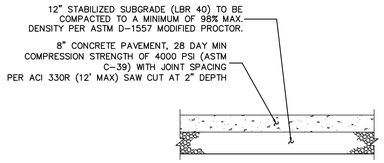
STANDARD DUTY CONCRETE PAVEMENT DETAIL

NTS



STANDARD/HEAVY DUTY ASPHALT PAVEMENT SECTION

NTS



HEAVY DUTY CONCRETE PAVEMENT DETAIL

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LICENSED PROFESSIONAL ENGINEER DEREK E. RAMSBURG STATE OF FLORIDA
DEREK E. RAMSBURG, P.E. LICENSE NUMBER 89868
DATE: 2/13/2026

KHA PROJECT 249188018
DATE 2/13/2026
SCALE AS SHOWN
DESIGNED BY CRL
DRAWN BY TJE
CHECKED BY DER

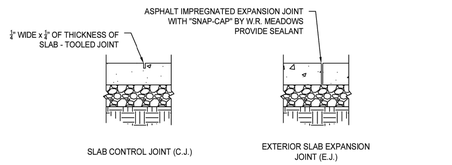
STANDARD DETAILS

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FOR 5' OR 8' WALKS, INSTALL A CONTROL JOINT EVERY 5' AND ONE IN THE CENTER (5' FROM THE BACK OF THE BUILDING FOR EXAMPLE)

DETAILS ONLY APPLY TO BUILDING SIDEWALK. THEY DO NOT APPLY TO INTERIOR SLAB OR SITE CONCRETE.

10 CONCRETE WALK JOINTING SECTIONS
NOT TO SCALE

ASPHALT SEALING

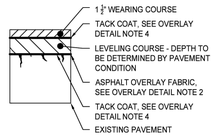
1. SURFACE CLEANING
   THE SURFACE TO BE SEALED SHALL BE FREE FROM DIRT AND OTHER FOREIGN MATTER. ANY ACCUMULATIONS OF OIL PR GREASE SHALL BE CLEANED OFF THE PAVEMENT WITH DETERGENT SOLUTION. THE RESIDUE OF WHICH SHALL BE THOROUGHLY WASHED AWAY WITH CLEAN WATER BEFORE SEALANT IS APPLIED.

2. SEALING:
   THE SEAL COATING MATERIAL SHALL BE COMPRISED OF A RUBBERIZED COAL-TAR PITCH EMULSION AND SHALL MEET OR EXCEED FEDERAL SPECIFICATION R-P-355e. SUPPLIED IN CONCENTRATED FORM, IT SHALL BE DILUTED A MINIMUM OF 15% AND A MAXIMUM OF 25% WITH FRESH, CLEAN WATER. THE SEALANT MATERIAL SHALL CONTAIN 5-6 LBS. PER GALLON OF FINE , CLEAN, DRY SILICAS AND MEETING THE FOLLOWING GRADATION:

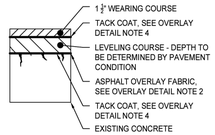
SIEVE SIZE	% PASSING
#16	100
#30	80-100
#50	10-60
#100	0-5

THE SEALANT SHALL BE APPLIED TO THE PAVEMENT IN TWO COATS AT THE RATE OF 0.08 TO 0.12 GALLONS PER SQUARE YARD. A LATEX ADDITIVE MAY ALSO BE ADDED TO THE SEALANT TO ALLOW FOR QUICKER DRYING TIME IN THOSE AREAS SPECIFIED BY OWNER'S REPRESENTATIVE.

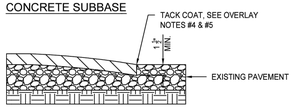
7 ASPHALT SEALING NOTES
NO SCALE



ASPHALT SUBBASE



CONCRETE SUBBASE



WHERE OVERLAY IS NOT SPECIFIED FOR ENTIRE EXISTING SURFACE, THE INTERFACE BETWEEN THE NEW OVERLAY AND THE OLD PAVEMENT SURFACE SHALL BE PER THE ABOVE DETAIL. FEATHERING OF THE ASPHALT TO MEET THE EXISTING PAVEMENT WILL NOT BE ACCEPTABLE.

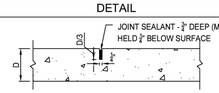
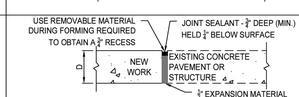
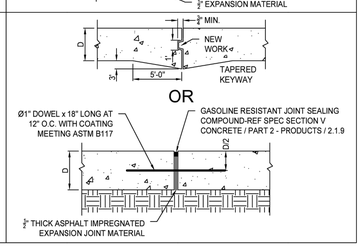
EDGE DETAIL

OVERLAY DETAIL NOTES:

1. THE OVERLAY SHALL BE PLACED IN ACCORDANCE WITH OWNER'S SPECIFICATIONS.
2. ALL FAILED AREAS SHALL BE REPAIRED WITH PROPER PATCHES BEFORE OVERLAY IS PLACED.
3. IF THE SURFACE IS DISTURBED, THE CONTRACTOR SHALL CONSTRUCT LEVELING COURSES TO RESTORE PROPER LINE AND CROSS SECTION.
4. THE PAVEMENT SHALL BE THOROUGHLY CLEANED AND A TACK COAT OF ASPHALT SHALL BE APPLIED BEFORE THE OVERLAY IS PLACED.
5. ALL VERTICAL SURFACES COMING IN CONTACT WITH THE OVERLAY SHALL BE SPRAYED OR PAINTED WITH A UNIFORM COATING OF EMULSIFIED ASPHALT IMMEDIATELY PRIOR TO PAVEMENT CONSTRUCTION.
6. CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPER SURFACE DRAINAGE. PONDING OR PUDDLING OF WATER ON THE FINAL SURFACE WILL BE UNACCEPTABLE.
7. REPLACE IN KIND ANY EXISTING TRAFFIC LOOPS AND/OR RELATED SENSOR EQUIPMENT THAT IS REMOVED OR DAMAGED DUE TO PAVEMENT MILLING ACTIVITY.

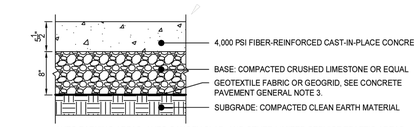
8 ASPHALT OVERLAY PAVEMENT SECTIONS
NOT TO SCALE

CONCRETE PAVEMENT JOINT DETAILS

TYPE OF JOINT	USE DESCRIPTION	DETAIL
A. CONTROL JOINT ("SJ" ON FUEL PROTOTYPES) 1. SAWN 2. PREMOLD STRIP 3. HAND FORMED AND SAWN AT CRITICAL JOINTS	USE SPECIFICATION ACI 360R-06 TO PLACE CONTROL JOINTS SO AS TO UNIFORMLY DIVIDE SLABS INTO NOMINAL 12' x 12' (STANDARD-DUTY) OR 16' x 16' (HEAVY-DUTY) SECTIONS. (SEAL CONTROL JOINTS ONLY IF SPECIFIED ON DRAWINGS OR BY OWNER'S REPRESENTATIVE.	
B. EXPANSION JOINT (ISOLATION JOINT)	PLACE AGAINST CONCRETE TANK SLAB, ABUTTING ROADWAY PAVEMENTS AND STRUCTURES (BUILDINGS, CANOPY COLUMNS, CATCH BASINS, ETC.)	
C. CONSTRUCTION JOINT ("CJ" ON FUEL PROTOTYPES)	CONSTRUCTION JOINTS MUST BE APPROVED BY OWNER'S REPRESENTATIVE. PLACE WHEN CONTINUOUS POUR OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES.	

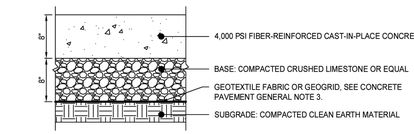
9 CONCRETE PAVEMENT JOINTING SECTIONS
NO SCALE

LAYERED SECTION DEPTHS REVISED PER CR2025-3002



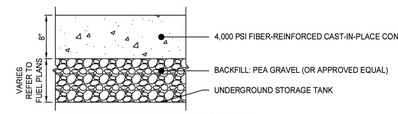
AUTO PARKING AREAS, AUTO CANOPY SLAB, AND OTHER LIMITED SERVICE TRAFFIC AREAS

1 STANDARD-DUTY CONCRETE PAVEMENT SECTION
1 1/2" = 1'-0"



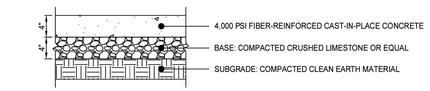
HEAVY LOAD TRAFFIC AREAS

2 HEAVY-DUTY CONCRETE PAVEMENT SECTION
1 1/2" = 1'-0"



AUTO TANKS, CFL TANKS, AND COMBINED TANK PITS

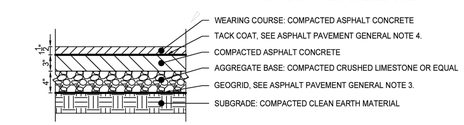
3 TANK SLAB CONCRETE PAVEMENT SECTION
1 1/2" = 1'-0"



PEDESTRIAN TRAFFIC AREAS

4 CONCRETE WALK PAVEMENT SECTION
1 1/2" = 1'-0"

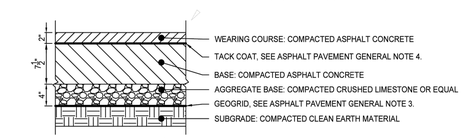
ADDED WEARING COURSE & TACK COAT PER CR2025-3002



AUTO PARKING AREAS AND OTHER LIMITED SERVICE TRAFFIC AREAS

5 STANDARD-DUTY ASPHALT PAVEMENT SECTION
1 1/2" = 1'-0"

LAYERED SECTION DEPTHS REVISED PER CR2025-3002



HEAVY LOAD TRAFFIC AREAS

6 HEAVY-DUTY ASPHALT PAVEMENT SECTION
1 1/2" = 1'-0"

PAVING EXECUTION NOTES:

1. LOCATE AND INSTALL CONSTRUCTION, ISOLATION, AND EXPANSION JOINTS AS INDICATED OR REQUIRED.
2. PLACE CONCRETE IN A CONTINUOUS OPERATION WITHIN PLANNED JOINTS OR SECTIONS. DO NOT ADD WATER TO ADJUST SUMP.
3. FLOAT SURFACES TO TRUE PLANES WITHIN A TOLERANCE OF ¼ INCH IN 10 FEET.
4. TOOL EDGES AND JOINTS TO A RADIUS OF ½ INCH FOR SIDEWALKS.
5. ALLOW CONCRETE PAVING TO CURE FOR A MINIMUM OF 28 DAYS AND DRY BEFORE STARTING PAVEMENT MARKING.
6. APPLY TRAFFIC PAINT WITH MECHANICAL EQUIPMENT TO A MINIMUM WET FILM THICKNESS OF 15 MILS.
7. PROTECT CONCRETE PAVING FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVING FOR AT LEAST 14 DAYS.

CONCRETE PAVEMENT GENERAL NOTES:

1. SEE FUEL PROTOTYPE FOR ADDITIONAL REQUIREMENTS FOR TANK SLABS.
2. SEE FUEL PROTOTYPE FOR ADDITIONAL REQUIREMENTS FOR DISPENSER ISLAND SLABS.
3. A GEOTEXTILE OR GEOGRID IS ONLY NEEDED WHEN THE GEOTECHNICAL REPORT AND/OR A GEOTECH EXPERT REQUIRES IT FOR THE SPECIFIC SITE'S SOIL CONDITIONS.
4. UNDISTURBED SOIL OR COMPACTED BACK FILL NOT LESS THAN 95% OF MODIFIED PROCTOR DENSITY (AASHTO-T-180).
5. REFER TO CIVIL DESIGN GUIDELINES (CDG) FOR PAVEMENT LOCATION GUIDANCE.
6. CONTRACTOR REFER TO THE GEOTECH REPORT FOR PAVEMENT AND FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS IF MORE STRINGENT THAN PROTOTYPE DETAILS.
7. COMPACTION IS NOT REQUIRED OVER THE TANK PIT(S).

ASPHALT PAVEMENT GENERAL NOTES:

1. ALL WORK SHALL BE IN CONFORMANCE WITH OWNER'S SPECIFICATIONS FOR ASPHALTIC CONCRETE PAVING.
2. GEOGRID IS ONLY NEEDED WHEN THE GEOTECHNICAL REPORT AND/OR A GEOTECH EXPERT REQUIRES IT FOR THE SPECIFIC SITE'S SOIL CONDITION.
3. FOR SUBSURFACE DRAINAGE OR STABILITY ISSUES DURING CONSTRUCTION (UNDER DIRECTION BY GEOTECH EXPERT):
   A. SUBSURFACE DRAINAGE ISSUE - REFER TO GUIDELINES FOR DEWATERING ISSUES TO DERIVE ACCEPTABLE OPTIONS.
   B. SUBSURFACE STABILITY ISSUE - INSTALL GEOGRID PER GEOTECH EXPERT RECOMMENDATION.
4. THE PAVEMENT SHALL BE THOROUGHLY CLEANED AND A TACK COAT OF ASPHALT SHALL BE APPLIED BEFORE THE OVERLAY IS PLACED.
5. REFER TO CIVIL DESIGN GUIDELINES (CDG) FOR PAVEMENT LOCATION GUIDANCE.

CONTRACTOR MUST REFER TO THE GEOTECH REPORT FOR PAVEMENT AND FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS

No.	Description	Date	Rev. #
1	REVISIONS	DATE	BY

CIVIL STANDARD PROTO

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING, TEXAS 75063

7-ELEVEN #XXXXX
STREET ADDRESS
ANYTOWN, USA 00000

PAVEMENT AND JOINTING DETAILS

Job#:	SEI-XXXXX
Scale:	AS NOTED
Date:	XX/XX/XXXX
Drawn By:	x.x.x.
Checked By:	x.x.x.

SHEET:
CPC-1

Kimley»Horn
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LICENSED PROFESSIONAL ENGINEER DEREK E. RAMSBURG 79867 STATE OF FLORIDA

LICENSED PROFESSIONAL ENGINEER TIMOTHY E. RAMSBURG, P.E. 79867 STATE OF FLORIDA

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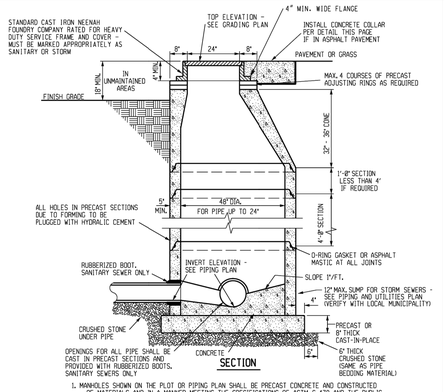
7-11 STANDARD DETAILS

7-11 OCOEE APOPKA RD
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SHEET NUMBER
C7.2

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DRAINAGE & UTILITY DETAILS & SPECIFICATIONS



SECTION

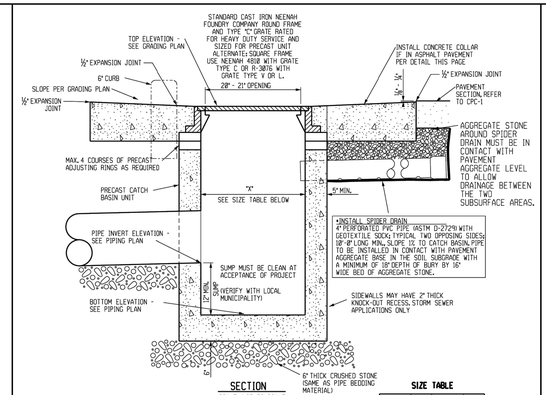
1. MANHOLES SHOWN ON THE PLOT OR PIPING PLAN SHALL BE PRECAST CONCRETE AND CONSTRUCTED OF MATERIALS AND IN A MANNER MEETING THE SPECIFICATIONS OF ASTM C-478 AND THE PUBLIC AUTHORITY HAVING JURISDICTION.
2. SEE GRADING AND/OR PIPING PLAN FOR TOP AND INVERT ELEVATIONS, SIZE AND ARRANGEMENT OF INLET/OUTLET PIPING.
3. ADDITIONAL MASONRY BRICK OR BLOCK WORK IS NOT PERMITTED TO MEET SURFACE ELEVATION.
4. OBTAIN APPROVAL OF MANUFACTURER'S STRUCTURAL ENGINEER FOR DEPTHS EXCEEDING 18'.

FOR SANITARY SEWERS ONLY

5. THE BOTTOM OF THE MANHOLE SHALL BE CONTOURED WITH CONCRETE TO CHANNEL THE FLOW THROUGH THE MANHOLE.
6. WHEN SPECIFIED ON THE PLANS, AN EXTERIOR "DROP" MANHOLE SHALL BE CONSTRUCTED PER LOCAL SPECIFICATIONS.

(A) STANDARD MANHOLE

SCALE: NOT TO SCALE



SECTION

SCALES: NOT TO SCALE

SIZE TABLE				
LARGEST PIPE DIA.	"X" SQUARE C.B.	LARGEST PIPE DIA.	"X" ROUND C.B.
21"	24"	15"	30"
33"	36"	24"	42"
42"	48"	30"	48"
54"	68"	36"	68"
68"	72"	48"	72"

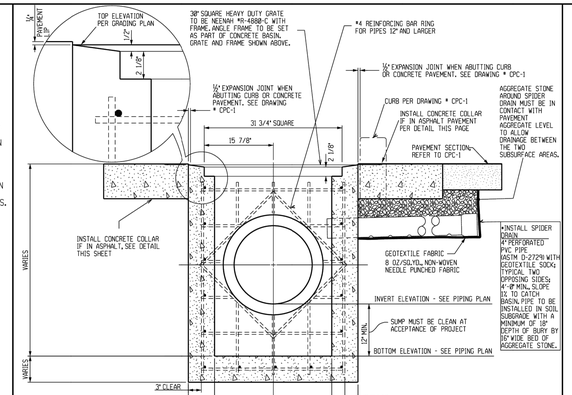
NOTE: TRAFFIC RATED REINFORCED PRE-CAST CONCRETE TOP TO BE USED WITH LARGER CATCH BASINS.

VERIFY STRUCTURE SIZE IS ADEQUATE FOR MULTIPLE PIPES AND PIPE ANGLES.

- THE PRECAST CATCH BASIN UNIT SHALL CONFORM TO THE APPLICABLE STANDARD STATE D.O.T. SPECIFICATIONS AND ASTM C913. THE UNIT SHALL BE PROPERLY REINFORCED TO PREVENT DAMAGE DURING TRANSPORT AND INSTALLATION.
- SEE GRADING AND/OR PIPING PLAN FOR TOP, INVERT, AND BOTTOM ELEVATIONS, SIZE, AND ARRANGEMENT OF INLET/OUTLET PIPING.
- MORTAR ALL INLET, OUTLET PIPE OPENINGS WITH HYDRAULIC CEMENT GROUT.
- ADDITIONAL MASONRY BRICK OR BLOCK WORK IS NOT PERMITTED TO MEET SURFACE ELEVATION.

(B) STANDARD DUTY CATCH BASIN

TO BE USED IN NORMAL STRENGTH PAVEMENT AREAS ONLY



1. SEE GRADING AND/OR PIPING PLAN FOR TOP, INVERT, AND BOTTOM ELEVATIONS, SIZE, AND ARRANGEMENT OF INLET/OUTLET PIPING.
2. MORTAR ALL INLET, OUTLET PIPE OPENINGS WITH HYDRAULIC CEMENT GROUT.
3. REINFORCEMENT: PLACE *4 REBARS AT 8" - CENTER TO CENTER BOTH WAYS IN WALLS AND FLOOR. INCLUDE *4 REBAR RING AROUND ALL OPENINGS 12" AND LARGER.
4. ADDITIONAL MASONRY BRICK OR BLOCK WORK IS NOT PERMITTED TO MEET SURFACE ELEVATION.

NOTE: PREFAB UNIT, MEETING STRENGTH EQUIVALENCE, MAY BE SUBSTITUTED IF APPROVED BY OWNER'S REP.

SECTION

SCALES: NOT TO SCALE

(C) HEAVY DUTY CATCH BASIN

FOR OUTLETS UP TO 18" R.C.P. TO BE USED IN HIGH STRENGTH PAVEMENT AREAS

(D) GEOTEXTILE FABRIC SPECIFICATIONS

8 OZ. NONWOVEN NEEDLE PUNCHED FABRIC; AMOCO 4553, PHILLIPS SUPAC 8NP, OR EQUAL

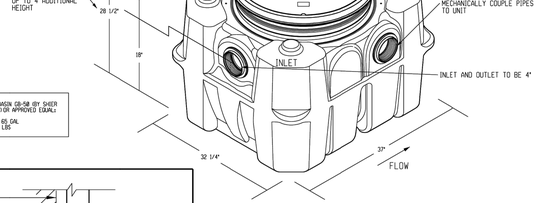
GENERAL NOTES:

1. ALL STORM AND SANITARY PIPING SHALL BE THE SIZE AND TYPE SHOWN ON THE GRADING OR PIPING PLAN, AND SHALL CONFORM TO THE ASTM AND AASHTO STANDARD SPECIFICATIONS LISTED HERE, UNLESS OTHERWISE REQUIRED BY GOVERNING AUTHORITIES.
2. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF DIVISION 15 OF SPEEDWAY'S STANDARD SPECIFICATIONS.
3. CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO STARTING ANY BELOW GRADE WORK TO LOCATE UNDERGROUND FACILITIES.
4. ALL SANITARY SEWERS SHALL HAVE "PREMIUM" SEALED JOINTS. STORM SEWERS WITHIN 20' OF HYDROCARBON PRODUCT PIPING OR UNDERGROUND TANKS SHALL HAVE "PREMIUM SEALED JOINTS.
5. THE PIPE INVERT SHALL BE STRAIGHT LINE GRADED BETWEEN ELEVATIONS SHOWN ON THE PLAN.
6. PIPE SHALL BE LAID FROM THE LOWER ELEVATION TO THE HIGHER ELEVATION.
7. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS PRIOR TO BEGINNING WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
8. PIPING TO BE MIN. 12" BELOW TOP OF RIGID PAVEMENT, BOTTOM OF FLEXIBLE PAVEMENT, OR FINISHED GRADE IN NON-TRAFFIC AREAS, APPLICABLE AASHTO OR ASSI GUIDELINES SHALL OVERRIDE AND GOVERN MINIMUM COVER HEIGHTS WHEN GREATER THAN STATED ABOVE.
9. SEE DRAWING * SCB-1 FOR CANOPY DOWNSPOUT DRAIN DETAILS.

MINIMUM DEPTH OF BURY:

(SEE NOTE *8)

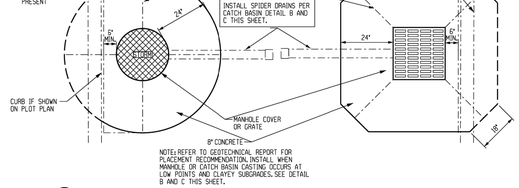
PVC	18"
RCP	12"
HDPE	18"



NOTE:
1. PROVIDE GREAT BASIN GB-5B (BY SHERR PRODUCTS COMPANY) OR APPROVED EQUAL:
FLOW = 5.0 GPM
WATER CAPACITY = 65 GAL
CAPACITY = 47#'S LBS

(E) EXTERIOR GREASE INTERCEPTOR

SCALE: NOT TO SCALE



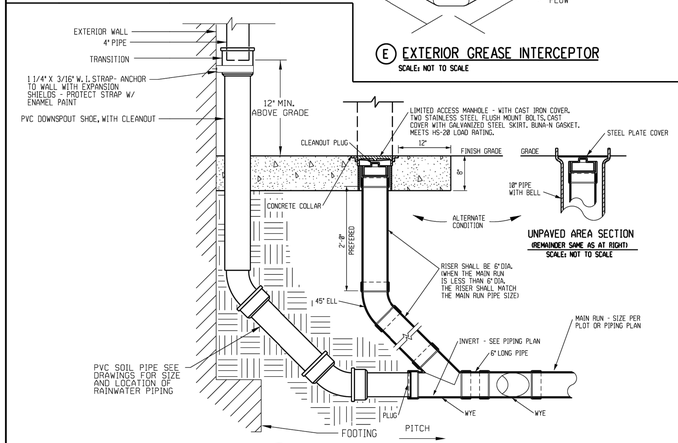
NOTE: REFER TO GEOTECHNICAL REPORT FOR PLACEMENT RECOMMENDATION. INSTALL WHEN MANHOLE OR CATCH BASIN CASTING OCCURS AT LOW POINTS AND CLAYEY SUBGRADES. SEE DETAIL B AND C THIS SHEET.

(F) CONCRETE COLLAR - ROUND GRATE & FRAME

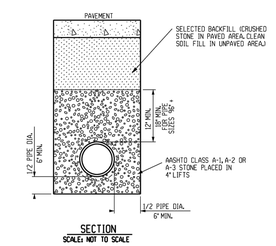
SCALE: NOT TO SCALE

CONCRETE COLLAR - SQUARE GRATE & FRAME

SCALE: NOT TO SCALE



(G) DOWNSPOUT BOOT AND UTILITIES PIPE CLEAN-OUT



SECTION

SCALE: NOT TO SCALE

(H) PIPE BEDDING

PIPE SPECIFICATIONS

TYPE OF PIPE	"n" VALUES	SIZES PERMITTED	SEVICE AND USE	PIPE SPECIFICATION	INSTALLATION SPECIFICATION	JOINT SPECIFICATION	PREMIUM JOINTS
POLY-VINYL CHLORIDE (PVC)	0.01	6"	SANITARY SEWER	ASTM D-3034 SDR 35	ASTM D-2321	ASTM D-3212	ASTM F-477
		8" - 12"	STORM DRAINAGE	STANDARD SPECIFICATION FOR TYPE PSM PVC SEWER PIPE AND FITTINGS	STANDARD PRACTICE FOR INSTALLATION OF FLEXIBLE THERMOPLASTIC SEWER PIPE PIPE BEDDING PER DETAIL	STANDARD SPECIFICATION FOR JOINTS FOR DRAIN AND SEWER PLASTIC PIPES USING FLEXIBLE ELASTOMERIC SEALS	ELASTOMERIC SEALS FOR JOINING PLASTIC PIPE (OIL RESISTANT) HIGH NITRILE (NBR), EPICHLORHYDRIN (ECO), NEOPRENE (CR), POLYSULFIDE (T), OR FLUORO ELASTOMER (FPM)
REINFORCED CONCRETE (RCP)	0.013	12" DIA. AND LARGER	STORM DRAINAGE	ASTM C-76, ASTM C1479 CLASS 3, WALL B - TONGUE AND GROOVE STANDARD SPECIFICATION FOR REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE	PIPE BEDDING PER DETAIL WHEN OUTLETTING TO SURFACE GRADE FLARED END SECTION MUST BE USED	BITUMINOUS MASTIC	ASTM C-443 STANDARD SPECIFICATION FOR JOINTS FOR CIRCULAR CONCRETE SEWER AND CULVERT PIPE, USING RUBBER GASKETS (OIL RESISTANT)
SMOOTH LINED CORRUGATED HDPE N-12 BY ADVANCED DRAINAGE SYSTEMS (800) 733-9554 SURE-LOK BY HANCOR (800) 537-1620	0.012 0.012	8" AND LARGER 12" AND LARGER	STORM DRAINAGE STORM DRAINAGE	AASHTO M294-S AASHTO M294-S	ASTM D-2321 PIPE BEDDING PER DETAIL ASTM D-2321 PIPE BEDDING PER DETAIL	STANDARD COUPLERS (PRO LINK) USE GASKET IN FINE SOILS BELL & SPIGOT WITH GASKET (SURE-LOK)	PVC DOUBLE BELL COUPLER WITH GASKET (PRO LINK (BLB) AVAILABLE THROUGH 24" BELL & SPIGOT WITH POLYISOPRENE GASKET (SURE-LOK (BLB) AVAILABLE THROUGH 36"
DUCTILE IRON (DI)	0.012	4" - 12"	SPECIAL	ASTM A-746 CLASS 50 STANDARD SPECIFICATION FOR DUCTILE IRON GRAVITY SEWER PIPE	PIPE BEDDING PER DETAIL	RUBBER GASKET COMPRESSION TYPE JOINT	GASKET TO BE OIL RESISTANT NITRILE-BUTADIENE (NBR)
POLYETHYLENE (PE)	0.010	4" - 6"	UNDERDRAINS AND SEPTIC DISPOSAL FIELDS ONLY	ASTM F-405 STANDARD SPECIFICATION FOR CORRUGATED POLYETHYLENE TUBING AND FITTINGS	SEE UNDERDRAIN DETAIL	STANDARD COUPLINGS	N/A
CORRUGATED METAL PIPE (CMP)	0.022	12" DIA. AND LARGER	STORM DRAINAGE	ASTM A-760 STANDARD SPECIFICATION FOR CORRUGATED METAL PIPE, METALLIC-COATED FOR SEWERS AND DRAINS	ASTM A-807 STANDARD SPECIFICATION FOR INSTALLING CORRUGATED METAL STRUCTURAL PLATE PIPE FOR SEWERS	STANDARD COUPLINGS	N/A
HIGH PERFORMANCE (HP) PIPING	0.012	12" - 60"	STORM DRAINAGE	AASHTO M330 ASTM F2881	ASTM D2321	WATER TIGHT ASTM D-3212	EXTENDED REINFORCED INTEGRAL BELL AND GASKETED SPIGOT

CUD-1 DGN 5/6/2022 2:19:01 PM jnw:\speedway-pw.bentley.com:speedway-pw-01\Documents\Retail Engineering\Retail Standards\1 - White Box Retail Construction Standards\1 - CIVIL\TYPICAL SERVICE STATION DRAINAGE & UTILITY DETAILS & SPECIFICATIONS

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No.	REVISIONS	DATE	BY
1			

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WWW.KIMLEY-HORN.COM REGISTRY No. 35106

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING, TX 75063

LICENSED PROFESSIONAL ENGINEER — DEREK E. RAMSBURG — FLORIDA LICENSE NUMBER 89866 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — DATE: 2/13/2026

KHA PROJECT	249188018
DATE	2/13/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

MARK	REVISION	DATE

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STORE OR BLDG NO.: N/A

VERSION OR PROJECT ID: N/A

DESIGN TEAM

DGNR. J.EMRICK

PM/DP. M. MIHALIK

RVWR. M.E. SMITH

ISSUE DATE: 02/11/2022

ADDRESS: N/A

SCALE 0 N/A — AS SHOWN

SHEET TITLE: DRAINAGE AND UTILITY DETAILS

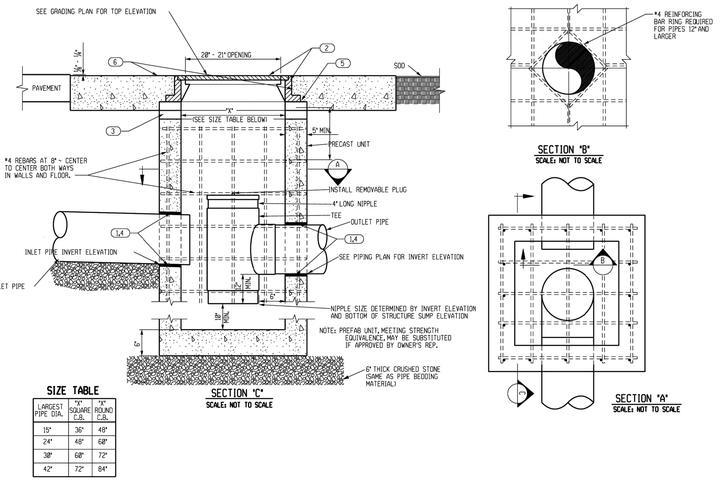
DRWG. NO. CUD-1

7-11 STANDARD DETAILS

7-11 OCOEE APOPKA RD — FLORIDA — CITY OF APOPKA

SHEET NUMBER C7.3

DRAINAGE & UTILITY DETAILS & SPECIFICATIONS



SECTION "C"
SCALE: NOT TO SCALE

SECTION "B"
SCALE: NOT TO SCALE

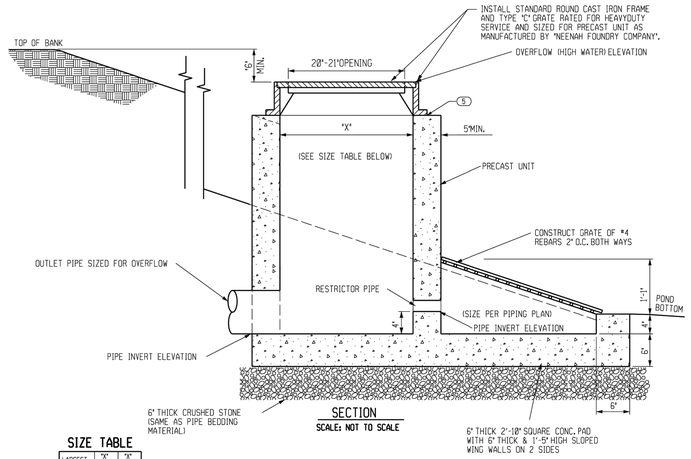
SECTION "A"
SCALE: NOT TO SCALE

SIZE TABLE

LARGEST PIPE DIA.	"X" SQUARE C.B.	"X" ROUND C.B.
15"	36"	48"
24"	48"	68"
38"	68"	72"
42"	72"	84"

NOTE: SEE CIVIL DESIGN GUIDELINES FOR ENVIRONMENTAL CATCH BASIN USE AND LOCATION GUIDANCE

(T) HEAVY DUTY ENVIRONMENTAL CONTROL STRUCTURE/CATCH BASIN

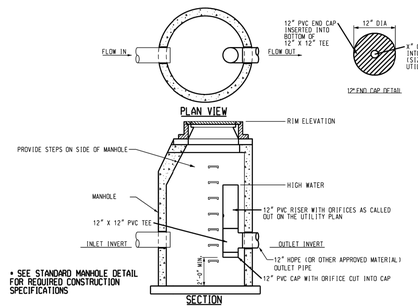


SECTION
SCALE: NOT TO SCALE

SIZE TABLE

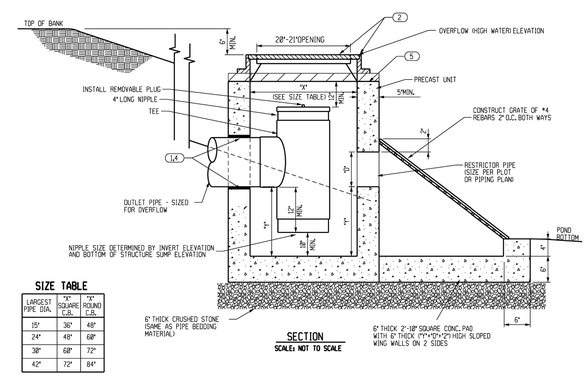
LARGEST PIPE DIA.	"X" SQUARE C.B.	"X" ROUND C.B.
15"	24"	36"
24"	36"	42"
38"	48"	48"
42"	68"	68"

(U) OVERFLOW CONTROL STRUCTURE



SECTION

(V) OUTLET CONTROL STRUCTURE
SCALE: NOT TO SCALE

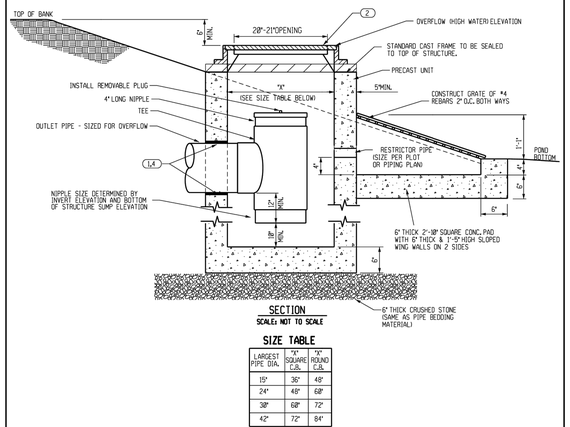


SECTION
SCALE: NOT TO SCALE

SIZE TABLE

LARGEST PIPE DIA.	"X" SQUARE C.B.	"X" ROUND C.B.
15"	36"	48"
24"	48"	68"
38"	68"	72"
42"	72"	84"

(X) WET BOTTOM POND ENVIRONMENTAL OVERFLOW CONTROL STRUCTURE

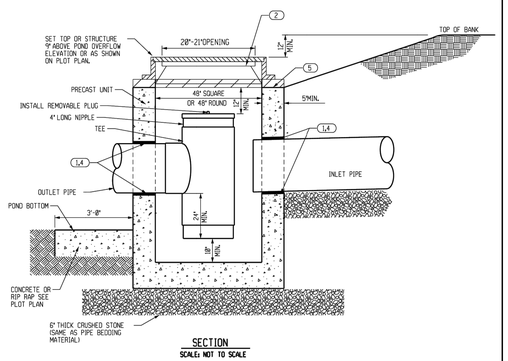


SECTION
SCALE: NOT TO SCALE

SIZE TABLE

LARGEST PIPE DIA.	"X" SQUARE C.B.	"X" ROUND C.B.
15"	36"	48"
24"	48"	68"
38"	68"	72"
42"	72"	84"

(Y) ENVIRONMENTAL OVERFLOW CONTROL STRUCTURE



SECTION
SCALE: NOT TO SCALE

(Z) POND INLET CONTAINMENT STRUCTURE
(USE ONLY IF CALLED FOR ON PLOT PLAN)

GENERAL NOTES:

ALL PRECAST UNIT SHALL CONFORM TO THE APPLICABLE STANDARD STATE D.O.T. SPECIFICATIONS. THE UNIT SHALL BE PROPERLY REINFORCED TO PREVENT DAMAGE DURING TRANSPORT AND INSTALLATION.

A TRAFFIC RATED REINFORCED PRE-CAST CONCRETE TOP SHALL BE USED WITH INSTALLATION OF LARGER PRECAST UNITS.

SEE GRADING AND/OR PIPING PLAN FOR ALL ELEVATIONS, SIZE, AND ARRANGEMENT OF INLET/OUTLET PIPING, PRECAST UNITS, AND/OR DETENTION/RETENTION PONDS.

ALL CONTROL STRUCTURES MUST BE CLEAN AT ACCEPTANCE OF THE PROJECT.

CONSTRUCTION NOTES:

1 MORTAR ALL INLET/OUTLET PIPE OPENINGS WITH HYDRAULIC CEMENT GROUT.

2 INSTALL STANDARD ROUND CAST IRON FRAME AND TYPE "C" GRATE RATED FOR HEAVY DUTY SERVICE AND SIZED FOR PRECAST UNIT AS MANUFACTURED BY "NEENAH FOUNDRY COMPANY". SUBSTITUTE LIGHT DUTY TYPE "B" IN NON TRAFFIC AREAS.

3 INSTALL PRECAST ADJUSTING RINGS AS REQUIRED TO REACH FINISHED ELEVATION. A MAXIMUM OF FOUR (4) COURSES IS PERMITTED. ADDITIONAL MASONRY BRICK OR BLOCK WORK IS NOT PERMITTED TO MEET FINISHED ELEVATION.

4 SIDEWALLS MAY HAVE 2" THICK KNOCK-OUT RECESS.

5 STANDARD CAST FRAME TO BE SEALED TO TOP OF STRUCTURE.

6 INSTALL CONCRETE COLLAR IF WITHIN AN ASPHALT PAVEMENT AREA PER DETAILS ON DRAWING * CUD-1

No.	REVISIONS	DATE	BY
1			

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3200 HACKBERRY ROAD, IRVING, TX 75063

LICENSED PROFESSIONAL ENGINEER DEREK E. RAMSBURG FLORIDA PE 89868 — DEREK E. RAMSBURG, PE — DATE: 2/13/2026

KHA PROJECT 249188018
DATE 2/13/2026
SCALE AS SHOWN
DESIGNED BY CBL
DRAWN BY TJE
CHECKED BY DER

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STORE OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A
DESIGN TEAM
DGNR. J. EMRICK
PM/DP. M. MIHALIK
RVWR. M.E. SMITH
ISSUE DATE: 02/11/2022
ADDRESS: N/A
SCALE 0 N/A
AS SHOWN

SHEET TITLE
DRAINAGE AND UTILITY DETAILS

DRWG. NO.
CUD-3

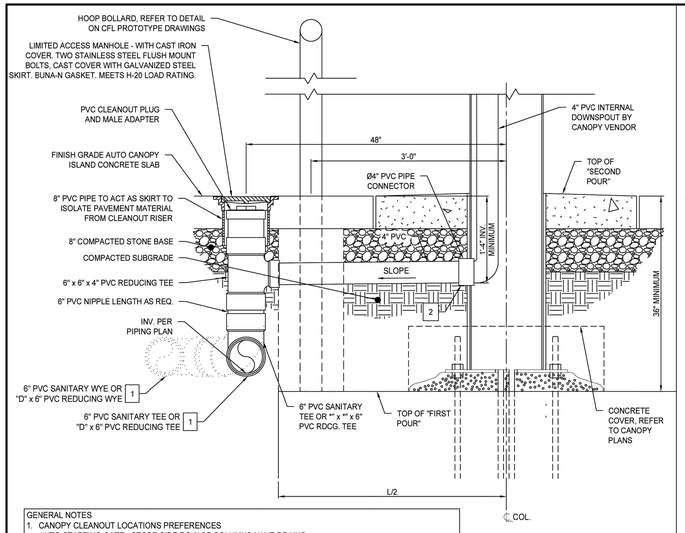
7-11 STANDARD DETAILS

7-11 OCOEE APOPKA RD
CITY OF APOPKA FLORIDA

SHEET NUMBER
C7.4

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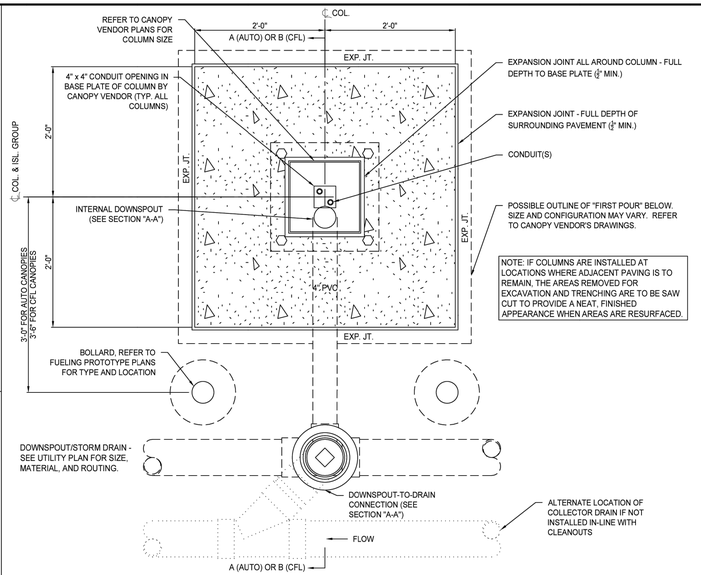
CUD-3.DGN 3/9/2022 10:24:26 AM jse \\speedway-pw.bentley.com:speedway-pw-01\Documents\Retail Engineering\Retail Standards\1 - White Book Retail Construction Standards\1 - CIVIL\SUPPLEMENTAL SERVICE STATION DRAINAGE & UTILITY DETAILS



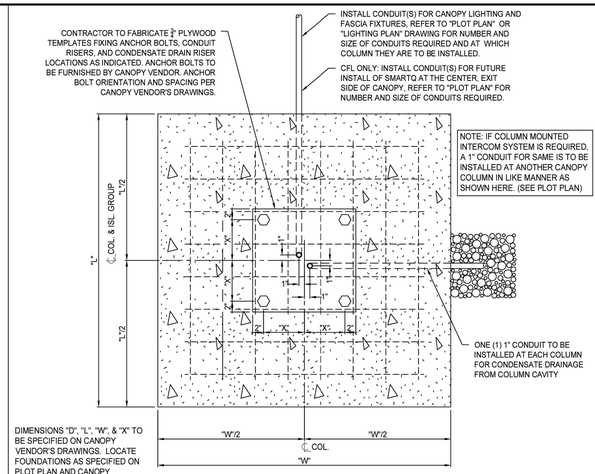
GENERAL NOTES
1. CANOPY CLEANOUT LOCATIONS PREFERENCES
   AUTO STARTING GATE - STORE SIDE ROW OF COLUMNS HAVE DRAINS
   AUTO STACKED - BOTH ROWS OF COLUMNS HAVE DRAINS
2. REFER TO FUEL PROTOTYPE DRAWINGS FOR AUTO DISPENSER ISLAND (NOT SHOWN HEREON) DETAILS.
3. REFER TO CIVIL PROTOTYPE DRAWINGS SHEET CPC-1 FOR AUTO CANOPY PAVEMENT DETAIL.

SECTION "A-A" KEY NOTES
1. "D" = SIZE OF ROOF DRAIN COLLECTOR PIPE. REFER TO PIPING PLAN TO VERIFY SIZE OF COLLECTOR PIPE.
2. REFER TO DIVISION OF WORK FOR G.C. CONNECTION TO ROOF DRAIN AT COLUMN.

3 SECTION "A-A" - INTERNAL DOWNSPOUT (AUTO CANOPY COLUMNS)
1"=1'-0"

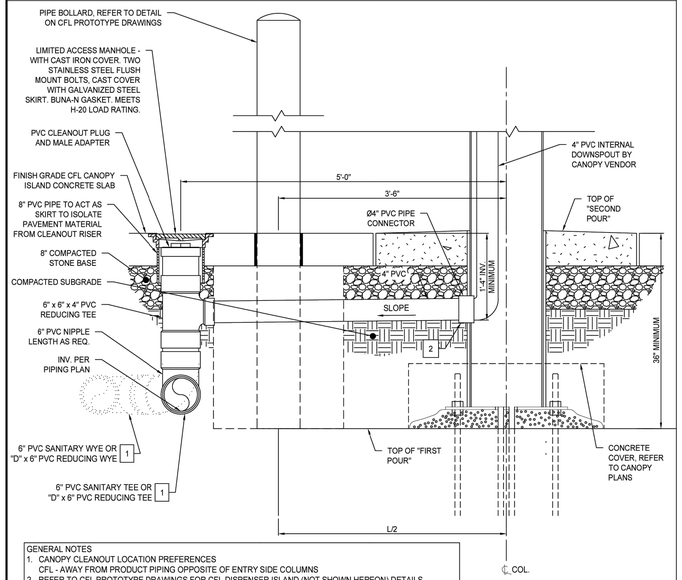


PLAN VIEW



NOTE: COLUMN FOUNDATION MAY BE SQUARE (4 BOLTS) OR RECTANGULAR (6 BOLTS). REFER TO VENDOR'S DRAWINGS TO VERIFY ORIENTATION OF RECTANGULAR BASES RELATIVE TO ISLAND GROUP CENTERLINE.

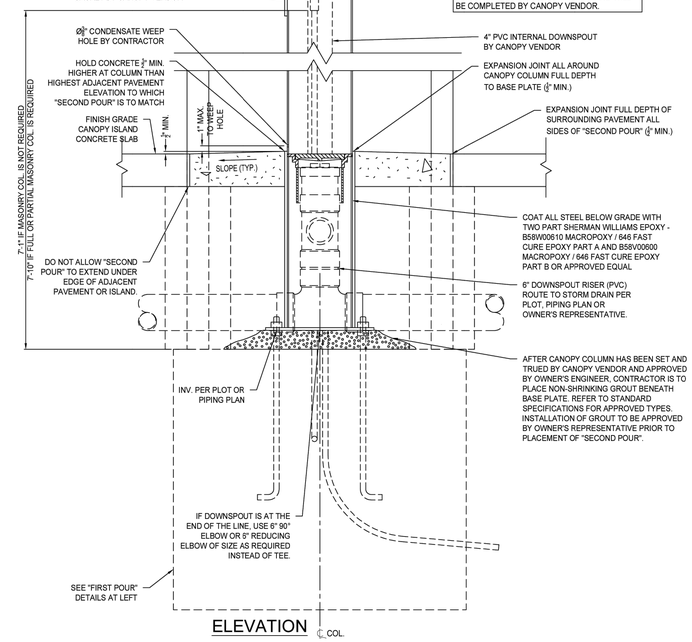
PLAN VIEW



GENERAL NOTES
1. CANOPY CLEANOUT LOCATION PREFERENCES
   CFL - AWAY FROM PRODUCT PIPING OPPOSITE OF ENTRY SIDE COLUMNS
2. REFER TO CFL PROTOTYPE DRAWINGS FOR CFL DISPENSER ISLAND (NOT SHOWN HEREON) DETAILS.
3. REFER TO CIVIL PROTOTYPE DRAWINGS SHEET CPC-1 FOR CFL CANOPY PAVEMENT DETAIL.

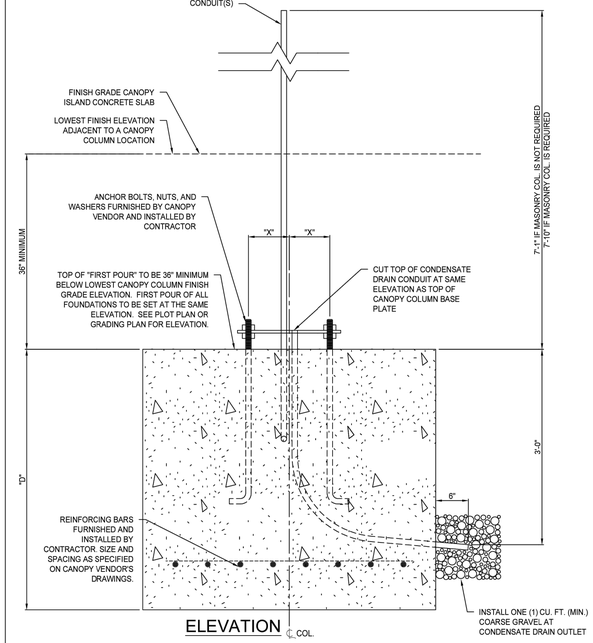
SECTION "B-B" KEY NOTES
1. "D" = SIZE OF ROOF DRAIN COLLECTOR PIPE. REFER TO PIPING PLAN TO VERIFY SIZE OF COLLECTOR PIPE.
2. REFER TO DIVISION OF WORK FOR G.C. CONNECTION TO ROOF DRAIN AT COLUMN.

4 SECTION "B-B" - INTERNAL DOWNSPOUT (CFL CANOPY COLUMNS)
1"=1'-0"



ELEVATION

2 CANOPY BASE - SECOND POUR PLAN AND ELEVATION
1"=1'-0"



ELEVATION

1 CANOPY BASE - FIRST POUR PLAN AND ELEVATION
1"=1'-0"

No.	REVISIONS	DATE	BY

Rev. #	Date	Description

CIVIL STANDARD PROTO

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200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL 32801
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LICENSED PROFESSIONAL ENGINEER DEREK E. RAMSBURG, P.E. No. 78966 STATE OF FLORIDA

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING, TEXAS 75063

7-ELEVEN #XXXXX
STREET ADDRESS
ANYTOWN, USA 00000

STANDARD CANOPY BASE DETAILS

Job#:	SEI-XXXXX
Scale:	AS NOTED
Date:	XX/XX/XXXX
Drawn By:	x.x.x.
Checked By:	x.x.x.

SHEET:
SCB-1

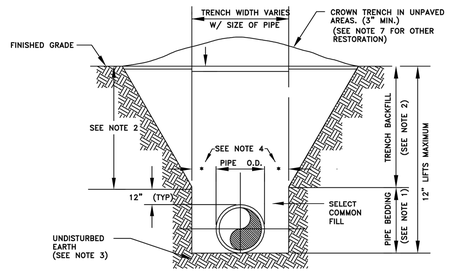
KHA PROJECT 249188018
DATE 2/13/2026
SCALE AS SHOWN
DESIGNED BY BMG
DRAWN BY TJE
CHECKED BY DER

7-11 STANDARD DETAILS

7-11 OCOEE APOPKA RD
FLORIDA
CITY OF APOPKA

SHEET NUMBER
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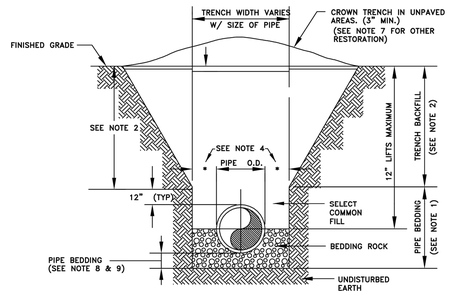


NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS TO AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETERS LESS THAN 24", AND 24" FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES.
8. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.

TYPE "B" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 100



NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. USE OF TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING IF REQUIRED BY THE CITY. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. THE CITY SHALL DETERMINE IN THE FIELD IF REMOVAL OF UNSUITABLE MATERIAL IS REQUIRED TO REACH A SUITABLE FOUNDATION.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.
10. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF THE GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.

TYPE "A" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 101

PROPOSED UTILITY	HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS									
	POTABLE WATER		RECLAIMED WATER*		SANITARY SEWER FORCE MAIN		SANITARY SEWER GRAVITY MAIN		STORM SEWER	
	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.
POTABLE WATER	–	–	3'	12"	6'	12"	6'	6"ABOVE 12"BELOW	3'	6"
RECLAIMED* WATER	3'	12"	–	–	3'	12"	3'	12"	–	–
SANITARY SEWER FORCE MAIN	6'	12"	3'	12"	–	–	–	–	–	–
SANITARY SEWER GRAVITY MAIN	6'	6"ABOVE 12"BELOW	3'	12"	–	–	–	–	–	–

GENERAL NOTES:

1. THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN F.D.E.P. RULES OF THE FLORIDA ADMINISTRATION CODE (F.A.C.). THESE SEPARATION REQIREMENTS SHALL APPLY BETWEEN NEWLY PROPOSED UTILITY LINES AND EXISTING OR PROPOSED UTILITY LINES.
2. FOR THE PURPOSE OF THIS TABLE, RECLAIMED WATER SHALL MEAN UNRESTRICTED PUBLIC ACCESS REUSE WATER AS DEFINED BY F.A.C. 17-610. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED RAW SEWAGE AND SEPARATIONS LISTED FOR SANITARY SEWER SHALL APPLY.
3. ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE SPECIFIED. CRITERION PRODUCING GREATER CLEARANCE SHALL BE USED.

   C/C – DENOTES CENTER OF PIPE TO CENTER OF PIPE.

   O/O – DENOTES OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
4. ACCEPTABLE VARIANCES:
   A. WHERE HORIZONTAL SEPARATION IS NOT ATTAINABLE, PVC-C-900 SDR-14 OR CONCRETE ENCASEMENT MUST BE USED FOR THE SANITARY SEWER LINE FOR AT LEAST ONE OF THE PIPES. PVC-C-900 SDR 14 OR CONCRETE ENCASEMENT MUST BE USED UNTIL MINIMUM CLEARANCE IS REGAINED.
   B. WHERE 18 INCH VERTICAL SEPARATION IS NOT ATTAINABLE AT CROSSINGS, USE ONE FULL LENGTH OF PVC-C-900 SDR-14 FOR SANITARY SEWERS OR ENCASED PIPE CENTERED AT THE POINT OF CROSSING SPECIAL SUPPORT MAY BE REQUIRED.
5. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITARY OR STORM WATER MANHOLE OR STRUCTURE.
6. CONCRETE ENCASEMENT SHALL NOT BE USED UNLESS APPROVED BY PUBLIC SERVICES DIRECTOR OR HIS DESIGNEE.

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 104

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *										
	PIPE SIZE									
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND	33	43	51	60						
45° BEND	14	18	22	25						
22-1/2° BEND	7	9	11	12						
11-1/4° BEND	4	5	6	6						
TEE**	1	7	24	44						
REDUCER (ONE SIZE SMALLER)		41	39	40						
DEAD END	74	96	115	136						

* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

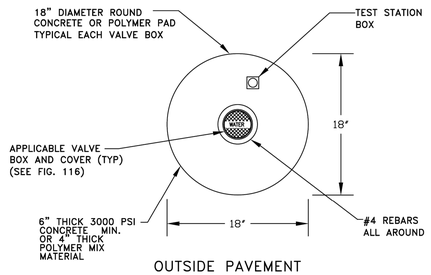
1. FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:

   TYPE OF PIPE: PVC
   WORKING PRESSURE: 150 P.S.I.**
   SOIL DESIGNATION: SM(SAND SILT)
   LAYING CONDITIONS: 3

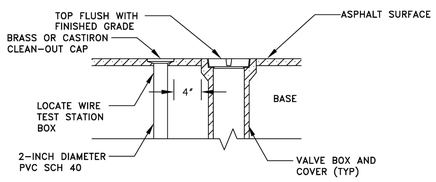
   ** FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
6. FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
7. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (PVC)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 105



OUTSIDE PAVEMENT

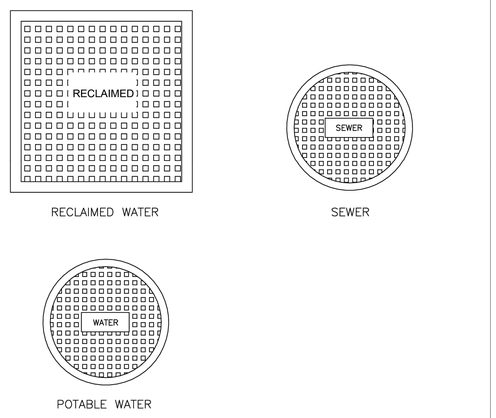


INSIDE PAVEMENT

VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

VALVE BOX

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 109



TYPICAL VALVE BOX COVER DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 116

Drawing name: K:\orl_civil\249188018-7-11 ocoee apopka rd\CADD\CONST\plonsheets\C8.0 – CITY OF APOPKA DETAILS.dwg C8.0 – CITY OF APOPKA DETAILS Feb 17, 2026 8:20am by: Chase.Losley
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LICENSED PROFESSIONAL ENGINEER DEREK R. WILLIAMSBURG FLORIDA LICENSE NO. 0088888 STATE OF FLORIDA PROFESSIONAL ENGINEER

KHA PROJECT	249188018
DATE	1/30/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

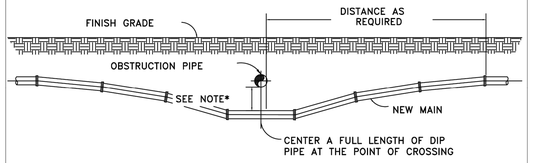
CITY OF APOPKA DETAILS

7-11 OCOEE APOPKA RD

FLORIDA

CITY OF APOPKA

SHEET NUMBER
C8.0



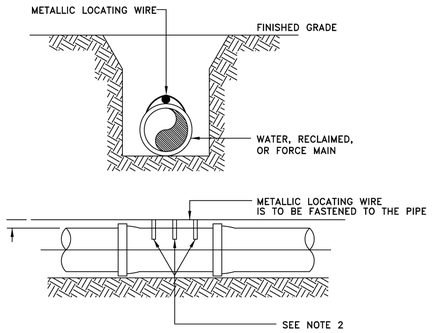
NOTES:

1. 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
2. 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
3. SEE ENCASEMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.

* CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

UTILITY CROSSING PIPE DEFLECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 117

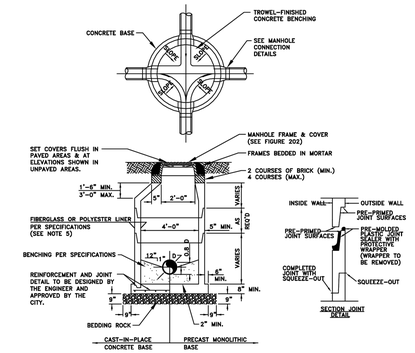


NOTES:

1. ALL PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE – 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PIPE LOCATING WIRE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 118



FORCE MAIN MANHOLE LINER

DIAMETER (INCHES)	THICKNESS (INCHES) HEIGHT (FEET) 3-6	7-12	13-17	MATERIAL	MANUFACTURER
48					
60					
72					

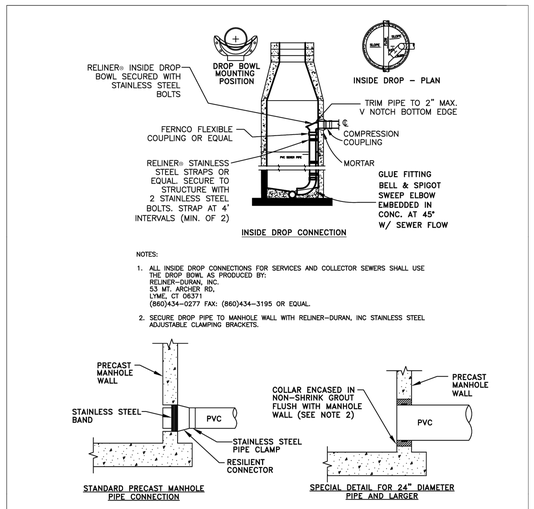
* TO BE COMPLETED BY THE ENGINEER

NOTES:

1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM
4. EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED WITH HDPE OR FIBERGLASS AS DIRECTED BY THE CITY.

TYPICAL MANHOLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 200

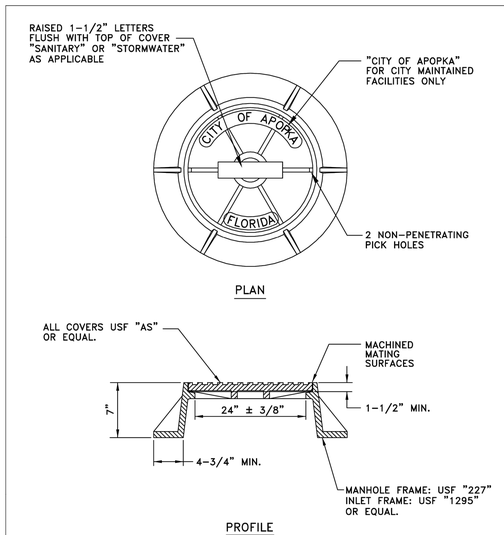


NOTES:

1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. THE CITY MAY APPROVE ALTERNATE WATERTIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
3. AN INSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 24" OR MORE ABOVE THE OUTFLOW PIPE INVERT.
4. CONCRETE TO BE MINIMUM OF 3000 PSI.

MANHOLE CONNECTION DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 201

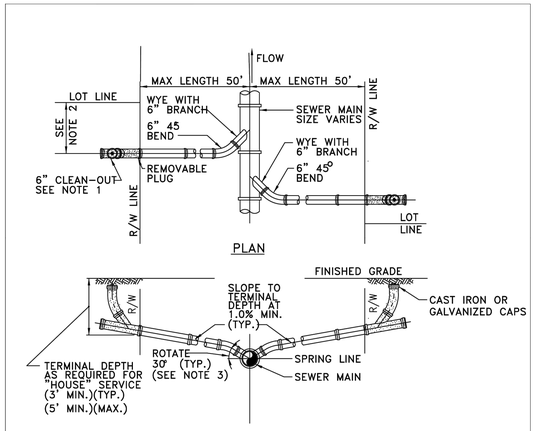


NOTES:

1. MANHOLE FRAME AND COVER ARE TO BE TRAFIC BEARING RATED H-20, CLASS 30 MEETING ASTM A 48.

STANDARD MANHOLE FRAME AND COVER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 202



NOTES:

1. CLEAN-OUT (SHOWN SHADED) SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
2. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE.
3. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
4. RESIDENTIAL SERVICES SHALL BE 4 INCHES & NON-RESIDENTIAL SERVICES SHALL BE 6 INCHES IN DIAMETER AS A MINIMUM.
5. GALVANIZED, OR CAST IRON CLEAN-OUT CAP SHALL BE USED ON THE STUBOUT FOR EACH SERVICE.
6. LATERAL SHALL BE MARKED WITH AN "S" STAMPED OR CUT IN THE CURB.

SERVICE LATERAL DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	MAY 2022	FIG. 204

No.	REVISIONS	DATE	BY

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LICENSED PROFESSIONAL ENGINEER BRENT R. MUNSELL LICENSE NUMBER 73922 STATE OF FLORIDA

KHA PROJECT	249188018
DATE	1/30/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

7-11 OCOEE APOPKA RD

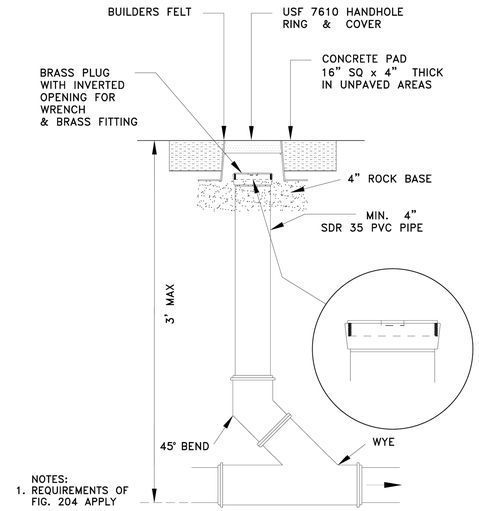
CITY OF APOPKA FLORIDA

CITY OF APOPKA DETAILS

SHEET NUMBER
C8.1

Drawing name: K:\orl_civil\249188018-7-11 ocoee apopka rd\CADD\CONST\plansheets\C8.0 – CITY OF APOPKA DETAILS.dwg C8.1 – CITY OF APOPKA DETAILS Feb 17, 2026 8:20am by: Chase.Lasley
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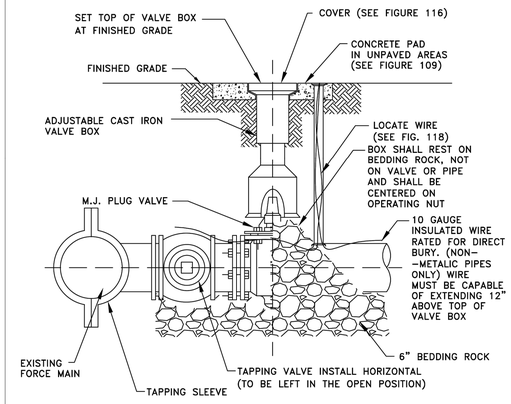
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SANITARY SEWER SERVICE TRAFFIC RATED CLEAN-OUT DETAIL

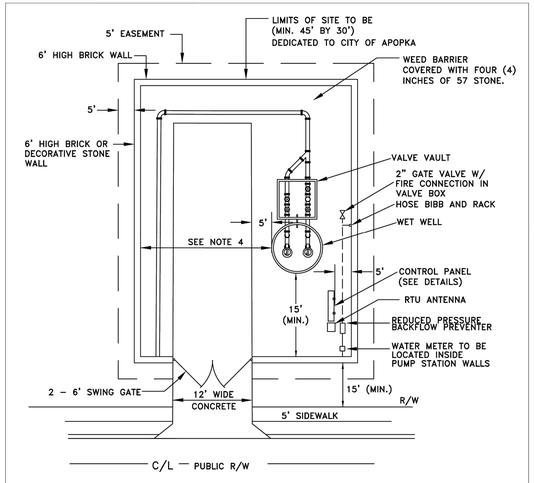
NTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 205



FORCE MAIN WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 206

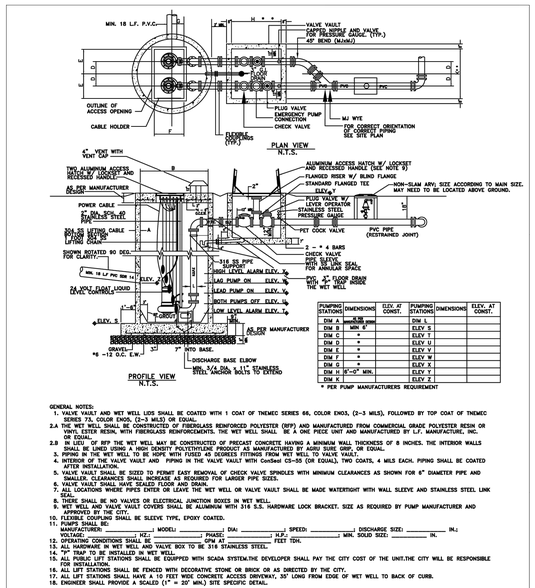


NOTES:

1. DRIVEWAY AND APRON SHALL BE SIX (6) INCH THICK, 3000 P.S.I. CONCRETE. WITH No.6X6 WIRE MESH OR FIBER MESH.
2. POWER TO THE PUMP STATION SHALL BE THROUGH UNDERGROUND CONDUIT FROM SUPPLY SOURCE IN RIGHT-OF-WAY.
3. GATE TO BE DECORATIVE BLACK POWDER COATED ALUMINUM W/PICKET SPACING = OR < 4"
4. MEASUREMENT SHALL BE EQUAL TO OR GREATER THAN THE DEPTH OF THE WET WELL.
5. WET WELL LID MUST OPEN TOWARD CONTROL PANEL (HINGE SIDE TOWARD PANEL).
6. LIFT STATION WALL TO BE PLACED AT LEAST 15FT. BEHIND THE R/W LINE.

PUMP STATION TYPICAL SITE PLAN

CITY OF APOPKA DESIGN ENGINEERING DIVISION	MAY 2022	FIG. 300



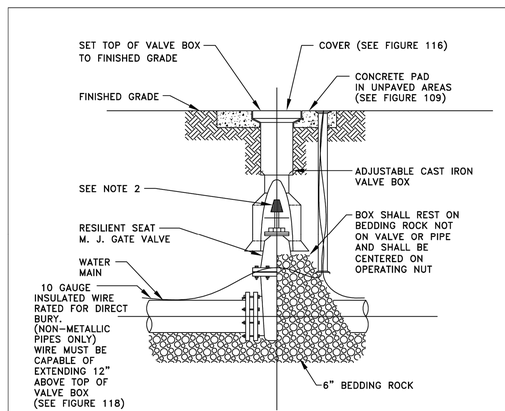
PUMPING STATIONS	DIMENSIONS	ELEV. AT CONST.	PUMPING STATIONS	DIMENSIONS	ELEV. AT CONST.
DIM A	4'-0" MIN.		DIM L		
DIM B	MIN. 6"		ELEV. S		
DIM C	*		ELEV. T		
DIM D	*		ELEV. U		
DIM E	*		ELEV. V		
DIM F	*		ELEV. W		
DIM G	*		ELEV. X		
DIM H	6'-0" MIN.		ELEV. Y		
DIM K	*		ELEV. Z		

* PER PUMP MANUFACTURERS REQUIREMENT

GENERAL NOTES:
1. VALVE VAULT AND WET WELL LIDS SHALL BE COATED WITH 1 COAT OF TNEMEC SERIES 66, COLOR ENGI, (2-3 MILS) FOLLOWED BY TOP COAT OF TNEMEC SERIES 1, COLOR ENGI, (2-3 MILS) OR EQUAL.
2.A THE WET WELL SHALL BE CONSTRUCTED OF FIBERGLASS REINFORCED POLYESTER (RPP) AND MANUFACTURED FROM COMMERCIAL GRADE POLYESTER RESIN OR VINYL ESTER RESIN, WITH FIBERGLASS REINFORCEMENTS. THE WET WELL SHALL BE A ONE PIECE UNIT AND MANUFACTURED BY L.F. MANUFACTURE, INC. OR EQUAL.
2.B IN LIEU OF RPP THE WET WELL MAY BE CONSTRUCTED OF PRECAST CONCRETE HAVING A MINIMUM WALL THICKNESS OF 8 INCHES. THE INTERIOR WALLS SHALL BE LINED USING A HIGH DENSITY POLYETHYLENE PRODUCT AS MANUFACTURED BY ALDEN SURE GRIP, OR EQUAL.
3. INTERIOR OF THE VALVE VAULT AND PIPING IN THE VALVE VAULT WITH Con-Spec CS-55 (OR EQUAL), TWO COATS, 4 MILS EACH.
4. INTERIOR OF THE VALVE VAULT AND PIPING IN THE VALVE VAULT WITH Con-Spec CS-55 (OR EQUAL), TWO COATS, 4 MILS EACH. PIPING SHALL BE COATED AFTER INSTALLATION.
5. VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE SPINDLES WITH MINIMUM CLEARANCES AS SHOWN FOR 6" DIAMETER PIPE AND SMALLER. CLEARANCES SHALL INCREASE AS REQUIRED FOR LARGER PIPE SIZES.
6. VALVE VAULT SHALL HAVE SEALED FLOOR AND DRAIN.
7. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE AND STAINLESS STEEL LINK SEAL.
8. THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
9. WET WELL AND VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE LOCK BRACKET. SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY THE CITY.
10. FLEXIBLE COUPLING SHALL BE SLEEVE TYPE, EPOXY COATED.
11. PUMP DATA: MANUFACTURER: _____; MODEL: _____; DIA: _____; SPEED: _____; DISCHARGE SIZE: _____ IN.; VOLTAGE: _____; HZ.: _____; PHASE: _____; H.P.: _____; MIN. SOLID SIZE: _____ IN.
12. OPERATING CONDITIONS SHALL BE _____ GPM AT _____ FEET TDH.
13. ALL HARDWARE IN WET WELL AND VALVE BOX TO BE 316 STAINLESS STEEL.
14. ALL PIPING TO BE INSTALLED IN THE WET WELL.
15. ALL PUBLIC LIFT STATIONS SHALL BE EQUIPPED WITH SCADA SYSTEM.THE DEVELOPER SHALL PAY THE CITY COST OF THE UNIT.THE CITY WILL BE RESPONSIBLE FOR INSTALLATION.
16. ALL LIFT STATIONS SHALL BE FENCED WITH DECORATIVE STONE OR BRICK OR AS DIRECTED BY THE CITY.
17. ALL LIFT STATIONS SHALL HAVE A 10 FEET WIDE CONCRETE ACCESS DRIVEWAY, 35' LONG FROM EDGE OF WET WELL TO BACK OF CURB.
18. ENGINEER SHALL PROVIDE A SCALED (1" = 20' MIN.) SITE SPECIFIC DETAIL.

PUMP STATION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	MAY 2022	FIG. 301

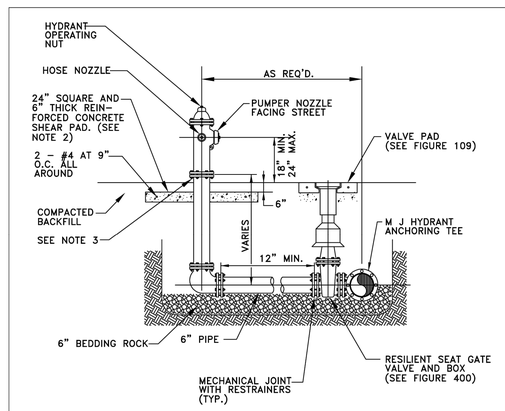


NOTES:

1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN A 3 FEET BELOW FINISHED GRADE.

GATE VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400



NOTES:

1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
2. THE SHEAR PAD SHALL BE RECESSED SIX (6) INCHES BELOW THE FINISHED GRADE AND THE RECESSED SECTION SODDED.
3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A TWELVE (12) INCH MINIMUM.
4. FIRE HYDRANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF APOPKA CONSTRUCTION DESIGN STANDARDS MANUAL.

FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 402

No.	REVISIONS	DATE	BY

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LICENSED PROFESSIONAL ENGINEER — STATE OF FLORIDA — JEREMY R. PRESSURE — No. 82826 — PROFESSIONAL ENGINEER

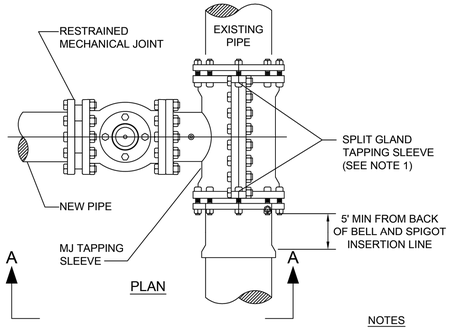
KHA PROJECT	249188018
DATE	1/30/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

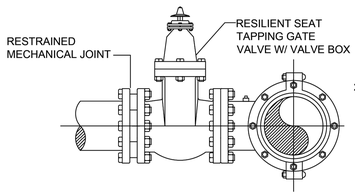
CITY OF APOPKA DETAILS

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SHEET NUMBER
C8.2





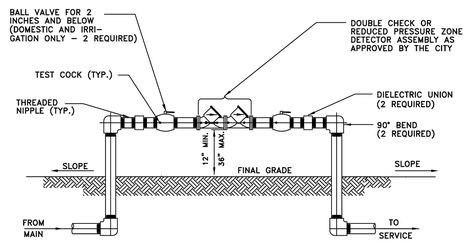
SECTION A - A

NOTES

1. SIZE ON SIZE WET TAPS WILL CALL FOR FULL ENCIRCLEMENT STAINLESS STEEL MJ TAPPING SLEEVE; MUELLER H-304, OR EQUAL.
2. ALL NEWLY INSTALLED TAPPING SLEEVES & TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150PSI FOR A PERIOD OF THIRTY MINUTES.

WATER AND RECLAIMED WATER MAINS WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 406



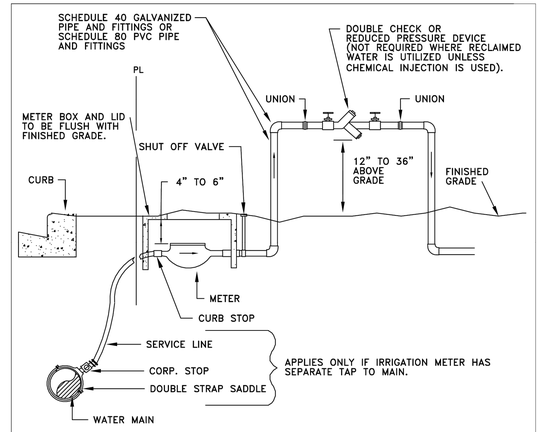
NOTES:

1. ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
2. ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL.

DOUBLE CHECK OR REDUCED PRESSURE ZONE DETECTOR ASSEMBLY

2 INCH AND BELOW ASSEMBLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 500 A



NOTES:

1. A POSITIVE DIELECTRIC CONNECTION SHALL BE MADE BETWEEN ALL GALVANIZED AND BRASS COMPONENTS.
2. METER SHALL BE INSTALLED JUST INSIDE THE ROW LINE OR PROPERTY LINE AND IN NO CASE SHALL IT BE INSTALLED IN THE SIDEWALK OR OTHER PAVED AREAS.
3. DOUBLE CHECK VALVES MAY BE USED AS LONG AS THEIR ARE NO CHEMICALS OR A WELL ON SITE.
4. A PVB DEVICE SHALL BE 12-INCHES MINIMUM ABOVE HIGHEST OUTLET OR SPRAYHEAD
5. ALL BACKFLOW PREVENTION DEVICES ARE TO BE AWWA APPROVED.

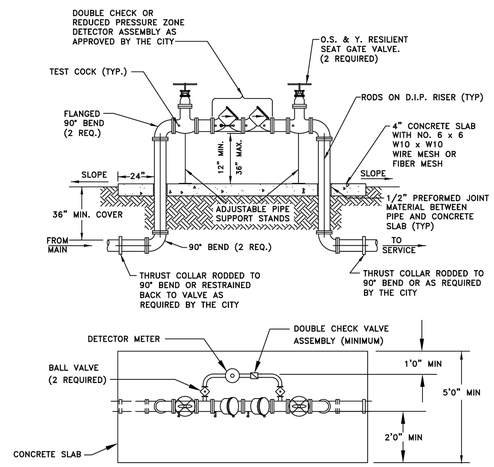
IRRIGATION METER AND DOUBLE CHECK VALVE OR REDUCED PRESSURE BACKFLOW PREVENTER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 502

GENERAL NOTES

1. Governing standards and specifications on this project are considered the Florida Department of Transportation (FDOT) Design Standards (2013 Edition), FDOT Standard Specifications for Road and Bridge Construction (2013 Edition), and City of Apopka Utilities Design and Construction Standards Manual (2014 Edition).
2. All personal property, except mail boxes located within the public right-of-way (not relocated by the property owner), shall be removed by the Contractor as necessary to construct the project in accordance with the Construction Plans. Mail boxes shall be relocated by the Contractor in accordance with FDOT Index No. 532.
3. The disposal of excess earthwork materials shall be the responsibility of the Contractor. Approval of disposal sites shall be obtained from the City of Apopka prior to disposal.
4. All existing trees and stumps within the right-of-way and limit of the project are to be removed as clearing and grubbing unless otherwise directed.
5. Sod and mulch all disturbed areas not covered by sod unless otherwise directed.
6. All pavement offsets shown are to the proposed centerline of construction, as where radius dimensions are to the edge of pavement, unless otherwise noted.
7. Turnout locations and widths shown in the Construction Plans are approximate and may be adjusted as necessary or as directed by the Engineer. All turnouts shall be constructed in accordance with FDOT Index No. 515.
8. The various permits included in the bid specifications payment are included in the bid price for Section 104. The Contractor shall perform his work in accordance with the requirements of "Prevention, Control, and Abatement of Erosion and Water Pollution", excluding items specified elsewhere. Environmental controls shall be used at locations designated in the plans and/or designated by the Engineer.
9. The information shown on these drawings concerning type and location of underground and other utilities are based on available records and surveys, but is not guaranteed to be accurate or all inclusive. The Contractor shall make his own determination as to the type and location of utilities as may be necessary to avoid damage there to, and is responsible for coordinating utility relocation.
10. Prior to ordering drainage structures, the Contractor shall determine if drainage utility conflicts exist. Information about possible conflicts shall be submitted to the Engineer as soon as possible after discovery of such for resolution.
11. The Contractor shall notify all gas utility companies a minimum of two working days prior to excavation as required by Chapter 77-153 of the Florida Statutes.
12. All inlet/manhole - pipe joints shall be filled with non-shrink grout, covered with an asphaltic mastic coating, and wrapped with a filter fabric material per Section 13.03.03 of the Orange County Road Construction Specifications.
13. All curb inlets, ditch bottom inlets, and manholes shall have traffic bearing frames and covers or grates meeting AASHTO-20 loading requirements.
14. Changes of pipe inverts not exceeding plus or minus one foot will not be considered as a basis for additional compensation for the pertinent pipe bid item or for modification of precast structures.
15. All benchmarks (irons and monuments) shown in the Construction Plans, or found, shall be preserved. Those shown in proposed pavement shall be protected with a cast iron valve box.
16. Public land corners within the limits of construction shall be protected. If a corner monument is in danger of being destroyed or disturbed, the Contractor shall notify the Engineer, without delay, by telephone. The Contractor shall provide written follow up confirmation within 48-hours of telephone notification.
17. Prior to beginning of any construction, the Contractor shall submit to the Engineer a set of field notes verifying the benchmark elevations and the reference point connections on the plan and profile view sheets, and/or a set of field notes for all additional benchmark and reference point connections proposed to be used in construcing the project with their location, description and elevation, based on North American Vertical Datum (NAVD88). All submittals shall be signed and sealed by a Professional Land Surveyor registered in the State of Florida.
18. Within 21 calendar days after notice to proceed, the Contractor shall stake the public right-of-way at 50 foot intervals and the right-of-way breaks with corresponding stations shown on the stakes. No invoice for payment for mobilization (Pay Item No. 101-1) will be processed until the right-of-way has been staked to the satisfaction of the Engineer.
19. Any United States Code (USC) and National Geodetic Survey (NGS) monuments within the limits of construction shall be protected. If in danger of damage, the Contractor shall notify the Engineer, and both shall notify:
    State Geodetic Advisor, NOAA
    1900 Commonwealth Blvd - MS105
    Tallahassee, FL Phone (850) 245-2606
20. It shall be the responsibility of the Contractor to acquire all necessary right-of-way and maintenance of traffic permits. The City will waive all permits required for construction activities within the limits of public right-of-way owned and maintained by the City of Apopka. For construction activity within the limits of public right-of-way maintained by the City but owned by Orange County or the State of Florida, the Contractor shall acquire the required permits from the agencies. It shall be the responsibility of the Contractor to insure that all required permits are obtained and in-hand before beginning any construction.
21. The location of all existing utilities, storm drainage systems, and topographic features shown on the plans have been determined from the best available information and are provided for the convenience of the Contractor. The Engineer assumes no responsibility for their inaccuracy. Should a discrepancy arise between these plans and actual field conditions, which would appreciably affect the execution of these plans, the Contractor shall halt construction and notify the Engineer immediately.
22. The Contractor shall be responsible for notifying the City within 48 hours before any inspections. Also, the Contractor shall be responsible for meeting all inspection criteria, schedules and signing said inspections.
23. The Contractor shall not excavate, remove or otherwise disturb any material, structure or part of a structure which is located outside the lines, grades or grading section, established for this project, except where such excavations or removal is provided or in the Contract Construction Plans or Technical Specifications.
24. All work and all materials furnished shall be in conformity with the lines, grades, grading sections, cross sections, dimensions, material requirements, and testing requirements that are specified in the Contract Construction Plans or Technical Specifications.
25. All work shall be accomplished in strict accordance with all applicable federal, state and local codes, ordinances and regulations.
26. Apparent errors, discrepancies or omissions in the Construction Plans shall be brought to the Engineer's attention before bidding.
27. After completion of construction, the Contractor shall provide to the City a completed as-built plan one week prior to the final inspection. Before the final acceptance it shall be the Contractor's responsibility to perform a site cleanup for the removal of trash, debris, excess materials, and equipment to present the project site clean and in good order.
28. No extra payments shall be allowed for any work required due to misunderstanding of job or site conditions affecting the work as described in the Technical Specifications or shown on the Construction Plans. The Contractor shall not take advantage of any apparent error or omission in the Construction Plans or Technical Specifications and the Engineer shall be permitted to make corrections and interpretation as may be deemed necessary for the fulfillment of the intent of the Contract Documents. By entering the bidding process the bidders acknowledge acceptance of these conditions.
29. The Contractor shall submit four (4) sets of detailed shop drawings of all major items proposed for this project to the Engineer prior to ordering any of the equipment or material. Two (2) copies of the shop drawings will be returned to the Contractor. Upon the Contractor's receipt of approved shop drawings from the Engineer, the Contractor may proceed with the work.
30. The Contractor shall comply with the legal load restrictions in hauling of materials in public roads beyond the limits of construction work. A special permit will not relieve the Contractor of liability for damage which may result from the moving of material and equipment.
31. During construction, no direct discharge of water to downstream receiving waters will be allowed. The Contractor is responsible for maintaining water quality and route discharge water in such a manner as to adequately remove silt prior to runoff from the site.
32. Connection to existing lines to which utility pipe of the Contract must connect, the following work shall be performed.
    A. Expose buried lines to confirm or determine end connection, pipe material and diameter.
    B. Furnishing and installing piping and making proper connections.

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. GN



NOTES: 1. BYPASS METER MUST MEET AWWA STANDARD C700 OR C701.
2. METER MUST MEET AWWA STANDARD C707 AND TRANSMITTER MUST BE COMPATIBLE WITH THE CITY'S AMR SYSTEM.
3. ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
4. ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL, OR BRASS.

ABOVE GROUND DEVICE WITH DETECTOR BY-PASS

2 INCH AND ABOVE ASSEMBLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 500 B

NOTES:

1. FREEZE PROTECTION TO BE INSTALLED ON REDUCED PRESSURE DETECTOR ASSEMBLY BACKFLOW PREVENTER AND 1.5" RPZ BACKFLOW PREVENTER.
2. FREEZE PROTECTION INSTALLED ON BACKFLOW PREVENTER SHALL COMPLETELY INSULATE AND WRAP DEVICE.
3. THE INSTALLATION OF FREEZE PROTECTION SHALL NOT INHIBIT ANY MAINTENANCE TO BE PERFORMED ON THE BACKFLOW PREVENTER DEVICE.

FREEZE PROTECTION DETAIL

No.	REVISIONS	DATE	BY

Kimley»Horn

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LICENSED PROFESSIONAL ENGINEER STATE OF FLORIDA
DEREK R. PEMBERTON * PROFESSIONAL ENGINEER *
No. 88226
DATE

KHA PROJECT 249188018	
DATE 1/30/2026	
SCALE AS SHOWN	
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

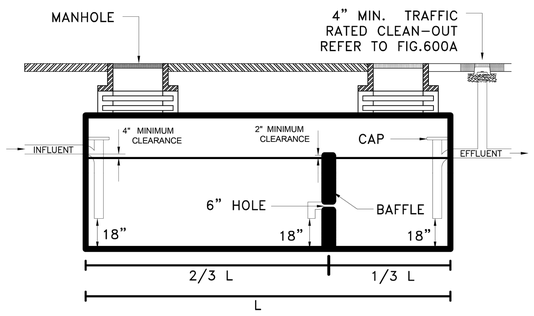
CITY OF APOPKA DETAILS

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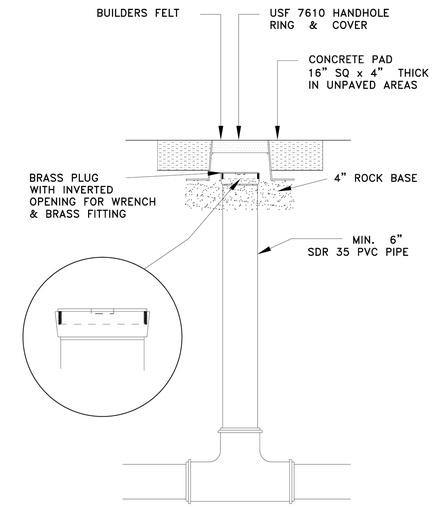
NOTES :
1. INTERCEPTOR TO BE CONSTRUCTED OF 4000 PSI CONCRETE

2. INTERCEPTOR TOTAL VOLUMN SHALL BE AT LEAST 750 GAL. BUT NOT EXCEED 1250 GAL.

3. ALL ACCESS RINGS AND COVERS NEED TO BE TRAFFIC RATED H-20.

GREASE INTERCEPTOR DETAIL
NTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 600



GREASE INTERCEPTOR TRAFFIC RATED CLEAN-OUT DETAIL
NTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 600 A

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LICENSED PROFESSIONAL ENGINEER * STATE OF FLORIDA * PROFESSIONAL ENGINEER

KHA PROJECT	249188018
DATE	1/30/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

CITY OF APOPKA
DETAILS

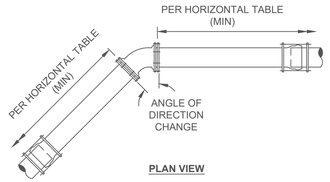
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RESTRAINED HORIZONTAL PIPE - WATER, WASTEWATER FORCE, & RECLAIMED WATER MAINS (150 PSI)



PLAN VIEW

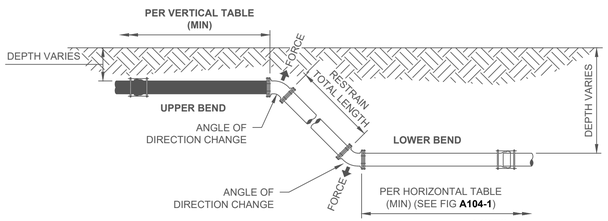
MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)

	TYPE	PVC AND DUCTILE IRON PIPE SIZE (IN)													
		4	6	8	12	16	20	24	30	36	42	48	54	60	64
HORIZONTAL	90° BEND	21	29	37	52	65	78	104	122	143	154	167	180	188	195
	45° BEND	9	12	16	22	27	33	43	51	60	64	70	75	78	81
	22-1/2° BEND	5	6	8	11	13	16	21	25	29	31	34	36	38	39
	11-1/4° BEND	2	3	4	6	7	8	11	12	15	16	17	18	19	20
	5 5/8° BEND OR MJ SLEEVE	1	2	2	3	4	4	6	6	8	8	9	9	10	10
	PLUG OR BRANCH OF TEE OR DEAD END	43	59	78	109	139	167	277	330	415	424	465	506	529	551
	VALVE OR LINE STOP	22	30	39	55	70	84	139	165	208	212	233	253	265	276
	HDPE CONNECTION	19	26	34	49	62	75	125	151	174	203	223			

NOTES:
1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. ALL INLINE VALVES SHALL BE RESTRAINED.
5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW:
   - WORKING PRESSURE: 150 PSI
   - SOIL DESIGNATION: SM (SAND SILT)
   - LAYING CONDITIONS: 3
   - DEPTH OF COVER: 3-FT
   - SAFETY FACTOR: 1.5

   THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.
7. 90° BENDS ON VERTICAL PIPE ARE SUBJECT TO REVIEW AND APPROVAL OF UTILITIES.
8. IF 4-IN THRU 20-IN PIPE IS POLYETHYLENE ENCASED, USE 1.25 MULTIPLIER ON RESTRAINT LENGTH.
9. RESTRAINING REQUIREMENTS APPLY TO BOTH EXISTING AND PROPOSED MAINS.

RESTRAINED VERTICAL PIPE - WATER, WASTEWATER FORCE, & RECLAIMED WATER MAINS (150 PSI)



PROFILE VIEW

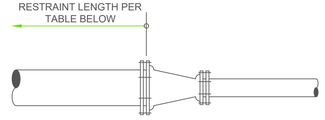
MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)

	TYPE	PVC AND DUCTILE IRON PIPE SIZE (IN)													
		4	6	8	12	16	20	24	30	36	42	48	54	60	64
VERTICAL (UPPER)	90° BEND	43	59	78	109	139	167	277	330	415	424	465	506	529	551
	45° BEND	18	25	32	45	58	69	115	137	172	176	193	210	219	229
	22-1/2° BEND	9	12	16	22	28	34	56	66	83	85	93	101	106	110
	11-1/4° BEND	5	6	8	11	14	17	28	33	41	42	46	50	53	55
	5 5/8° BEND OR MJ SLEEVE	3	3	4	6	7	9	14	17	21	21	23	25	26	28

NOTES:
1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
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   - WORKING PRESSURE: 150 PSI
   - SOIL DESIGNATION: SM (SAND SILT)
   - LAYING CONDITIONS: 3
   - DEPTH OF COVER: 3-FT
   - SAFETY FACTOR: 1.5

   THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.
7. 90° BENDS ON VERTICAL PIPE ARE SUBJECT TO REVIEW AND APPROVAL OF UTILITIES.
8. IF 4-IN THRU 20-IN PIPE IS POLYETHYLENE ENCASED, USE 1.25 MULTIPLIER ON RESTRAINT LENGTH.
9. RESTRAINING REQUIREMENTS APPLY TO BOTH EXISTING AND PROPOSED MAINS.

RESTRAINED PIPE TABLE - REDUCERS - WATER, WASTEWATER FORCE, & RECLAIMED WATER MAINS (150 PSI)



MINIMUM LENGTH (FEET) TO BE RESTRAINED ON LARGE SIDE OF REDUCER

PVC & DI PIPE	REDUCER SMALL SIZE (IN)										
DIA (INCH)	4	6	8	12	16	20	24	30	36	42	48
6	31										
8	56	33									
12		79	58								
16			101	59							
20				105	59						
24				205	151	83					
30					233	180	116				
36						259	208	115			
42							281	205	110		
48								281	201	109	
54									282	204	112
60										253	170
64											222

* BASED ON WORKING PRESSURE 150 PSI

NOTES:
1. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH THE PROCEDURES IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE", GUIDELINES PUBLISHED BY DIPRA AND AWWA M23 "PVC PIPE - DESIGN AND INSTALLATION.
2. THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATED AND LAYING CONDITIONS.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. RESTRAINING REQUIREMENTS APPLY TO BOTH EXISTING AND PROPOSED MAINS.

NO.	REVISIONS	DATE	BY

Kimley»Horn
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LICENSED PROFESSIONAL ENGINEER * STATE OF FLORIDA * PROFESSIONAL ENGINEER

KHA PROJECT	249188018
DATE	1/30/2026
SCALE	AS SHOWN
DESIGNED BY	CBL
DRAWN BY	TJE
CHECKED BY	DER

7-11 OCOEE APOPKA RD

CITY OF APOPKA FLORIDA

SHEET NUMBER
C8.5