LEGAL DESCRIPTION

LOTS 1 AND 2, EXCHANGE AT SAINT CLOUD ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 33, PAGE 159, OF THE PUBLIC RECORDS OF OSCEOLA COUNTY FLORIDA.

CONSTUCTION PLANS
FOR
PUFFIN ROAD COMMERCIAL

PID# 05-26-31-0105-0001-0010
PID# 05-26-31-0105-0001-0020

SECTION 05, TOWNSHIP 26 S, RANGE 31 E
CITY OF ST. CLOUD, FLORIDA
DECEMBER 2025

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

811 Know what's below. Call before you dig.

PREPARED FOR:
FERBER CONSTRUCTION MANAGEMENT, LLC
151 SAWGRASS CORNERS DRIVE, SUITE 202
PONTE VEDRA BEACH, FL 32082

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C-04	EROSION CONTROL DETAILS
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C-06	DEWATERING PLAN POND A
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C-27	PLAN & PROFILE PUFFIN ROAD STA. 1000+00 THRU STA. 1007+50
C-28	PLAN & PROFILE PUFFIN ROAD STA. 1007+50 THRU STA. 1014+95
C-29	PLAN & PROFILE E. IRLO BRONSON MEM. HWY STA. 10+00 THRU 20+00
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C-50	SPECIFICATIONS

THE FOLLOWING LIST OF CONTACTS IS BASED UPON INFORMATION FROM SUNSHINE STATE ONE CALL OF FLORIDA, INC. AND THE BEST AVAILABLE INFORMATION AT THE TIME. THE CONTRACTOR SHALL COMPLETE THEIR OWN DUE DILIGENCE TO ENSURE THERE ARE NO ADDITIONAL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. IF ADDITIONAL UTILITIES ARE DISCOVERED, CONTACT THE ENGINEER PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE FOLLOWING AGENCIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION:

1. WATER, SANITARY SEWER & RECLAIM
TOHO WATER AUTHORITY
951 MARTIN LUTHER KING BLVD.
TEL.: (407) 944-5000

2. ELECTRIC
ORLANDO UTILITIES COMMISSION
2903 17TH ST
ST. CLOUD, FL 34769
(407) 957-7231

3. CABLE TELEVISION
BRIGHT HOUSE NETWORKS
3767 ALL AMERICAN BLVD
ORLANDO, FL 32810
(407) 532-8509

4. TELEPHONE
COMCAST COMMUNICATIONS
8130 CR. 44, LEG A
LEESBURG, FL 34768
(352) 315-8528

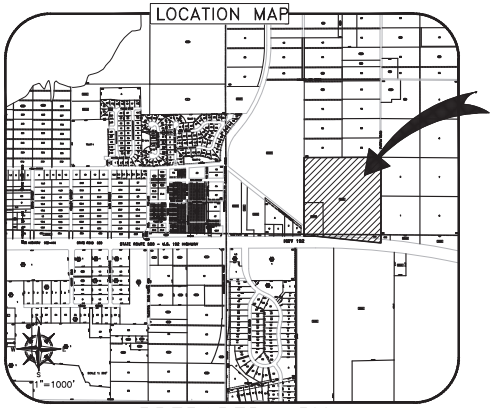
5. CENTURYLINK
33 N. MAIN ST
WINTER GARDEN, FL 34787
(407) 814-5344

7. CITY OF ST CLOUD ENGINEERING
1300 9TH STREET
ST. CLOUD, FL 34769
407-957-7269

8. FDOT ITS INFRASTRUCTURE
(AGENCY MAY NOT BE INCLUDED IN 811)
CONTACT DIRECTLY: DANIEL SIMPSON
PHONE NUMBER: 321-257-7271

NO.	DATE	DESCRIPTION	BY

LOCATION MAP



SITE INFORMATION:

1.) OWNER:
SLS INVESTMENTS OF CENTRAL FLORIDA, LLLP
2725 13TH STREET
ST. CLOUD, FL 34769

OWNER:
DD RETAIL ST CLOUD, LLC
3300 NE EXPRESS WAY BLDG. L
ATLANTA, GA 30341

2.) OBJECTIVES:
THE INTENT OF THIS PROJECT IS TO CREATE A RETAIL/COMMERCIAL CENTER FOR LOT 1 AND THE MASS GRADING OF LOTS 2 THRU 9.

3.) THE EXISTING ZONING FOR THIS SITE IS: HB (HIGHWAY BUSINESS)
THE FUTURE LAND USE FOR THIS SITE IS: COM (COMMERCIAL)

4.) 11 LOTS AND THE ASSOCIATED RIGHT OF WAY DEDICATION TO OSCEOLA COUNTY

5.) SETBACK:
FRONT..... 25'
REAR ..... 15'
STREET SIDE ..... 25'
SIDE..... 10'
ADJACENT TO RESIDENTIAL ZONING .... 30'

6.) FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. IF CONFLICTS ARISE NOTIFY ENGINEER PRIOR TO CONSTRUCTION.

7.) TRIP GENERATION:
REFER TO THE ITE.

8.) THIS SITE WILL BE DEVELOPED IN ONE PHASE.

9.) THE PROPOSED DEVELOPMENT WILL BE SUPPLIED WITH WATER, SEWER AND RE-USE PROVIDED BY CITY OF ST. CLOUD.

10.) ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FIRM MAP NO. 12097C0280 G, EFFECTIVE 6-18-2013, THIS PROPERTY IS LOCATED IN FLOOD ZONE "X" (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

11.) MAXIMUM BUILDING HEIGHT: NO LIMIT PER LDC.

UTILITIES

WATER

12" PVC:	25±	LF	(WM)
8" PVC:	4,940±	LF	(WM)
6" PVC:	725±	LF	(WM)
4" PVC:	546±	LF	(WM)
3" PVC:	104±	LF	(WM)
2" PVC:	68±	LF	(WM)
1" PVC:	90±	LF	(WM)
8" PVC:	149±	LF	(FL)
1" PVC:	32±	LF	(FL)
4" PVC:	1,338±	LF	(IRRIG)
2" PVC:	590±	LF	(IRRIG)
8" HDPE:	200±	LF	(RM)
6" PVC:	1,381±	LF	(RM)
4" PVC:	150±	LF	(RM)
FIRE HYDRANTS:	14		

SEWER

10" HDPE:	14±	LF	(SM)
8" GRAVITY:	2,412±	LF	(SM)
6" GRAVITY:	571±	LF	(SM)
6" HDPE:	190±	LF	(FM)
4" FORCEMAIN:	973±	LF	(FM)

MANHOLES

60" POLYMER:	2	TOTAL
48" POLYMER:	2	TOTAL
48" SANITARY:	11	TOTAL

PREPARED BY:

8 BROADWAY AVE. KISSIMMEE, FLORIDA 34741-5481
PHONE: (407) 847-9433 FAX: (407) 847-2499
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PSP25-00004
HWA JOB # 5450-05
SHEET C-01 OF C-50

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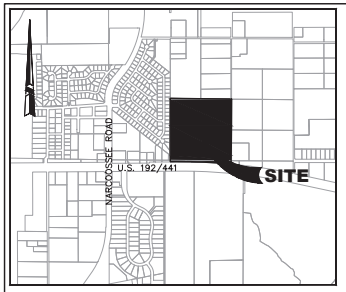
I:\5450-05\ENGINEERING\CAD\PLANS\5450-05 COVER.dwg 1-Dec-25, 2025-3:44pm 1 plotted by Rbower

PLAT OF SURVEY

LEGAL DESCRIPTION:

LOTS 1 AND 2 OF EXCHANGE AT SAINT CLOUD, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN PLAT BOOK 33, PAGE 159 OF THE PUBLIC RECORDS OF OSCEOLA COUNTY, FLORIDA.

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988



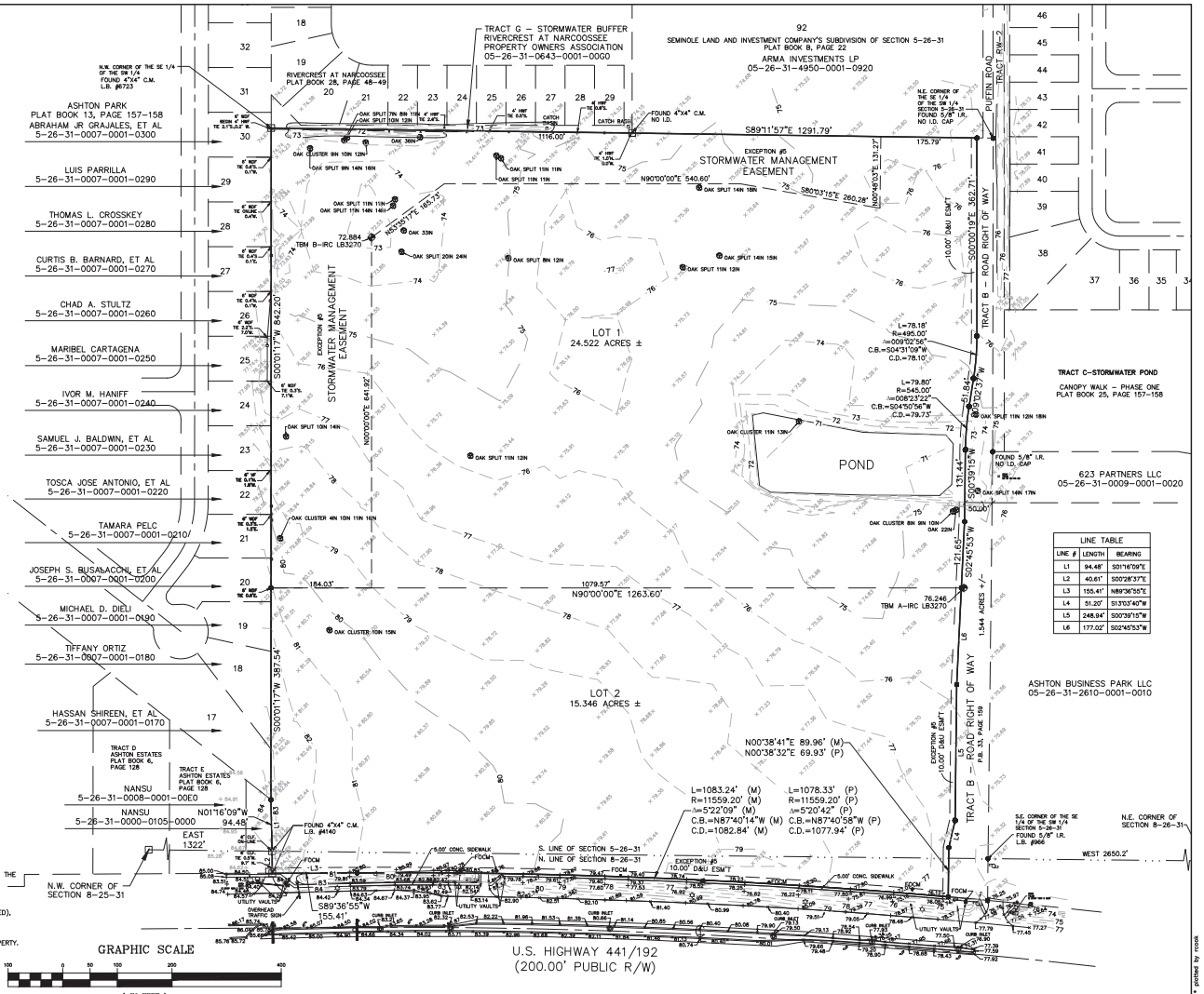
LOCATION MAP
NOT TO SCALE

TITLE EXCEPTION NOTES TO THE BII EXCEPTIONS CONTAINED IN THE STEWART TITLE GUARANTY COMPANY'S TITLE COMMITMENT NUMBER 25000030836, EFFECTIVE DATE AUGUST 28, 2025 @ 8:00 A.M.

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I – REQUIREMENTS ARE MET.
2. STANDARD EXCEPTIONS:
   a. rights or claims of parties in possession not shown by the public records.
   b. easements, or claims of easements, not shown by the public records.
   c. encroachments, overlaps, boundary line disputes, or other matters which would be disclosed by an accurate survey and inspection of the premises.
   d. any lien, or right to a lien, for services, labor, or material heretofore or hereafter furnished, imposed by law and not shown by the public records.
   e. any adverse ownership claim by the state of Florida by right of sovereignty to any portion of the lands insured hereunder, including submerged, filled, and artificially exposed lands and lands accreted to such lands.
3. GENERAL OR SPECIAL TAXES AND ASSESSMENTS FOR THE YEAR 2025 AND SUBSEQUENT YEARS, WHICH ARE NOT YET DUE AND PAYABLE.
4. ANY LIEN ARISING UNDER CHAPTER 159, FLORIDA STATUTES, IN FAVOR OF ANY CITY, TOWN, VILLAGE OR PORT AUTHORITY FOR UNPAID SERVICE CHARGES FOR SERVICE BY ANY WATER SYSTEM, SEWER SYSTEM OR GAS SYSTEM SERVICING THE LANDS DESCRIBED HEREIN.
5. ALL MATTERS SHOWN ON THE PLAT RECORDED IN PLAT BOOK 33, PAGE 159, OF THE PUBLIC RECORDS OF OSCEOLA COUNTY, FLORIDA. (AFFECTS THE SUBJECT PROPERTY, AS SHOWN)
6. MASTER EASEMENT AGREEMENT RECORDED IN OFFICIAL RECORDS BOOK 6392, PAGE 2439, OF THE PUBLIC RECORDS OF OSCEOLA COUNTY, FLORIDA. (AFFECTS THE SUBJECT PROPERTY, NOT PLOTTABLE)
7. CITY OF ST. CLOUD, FLORIDA RESOLUTION NO. 85-14 RECORDED 08/06/1985 IN OFFICIAL RECORDS BOOK 781, PAGE 2898, OF THE PUBLIC RECORDS OF OSCEOLA COUNTY, FLORIDA. (AFFECTS THE SUBJECT PROPERTY, NOT PLOTTABLE)
8. CITY OF ST. CLOUD, FLORIDA RESOLUTION NO. 85-Q, RECORDED 09/03/1985 IN OFFICIAL RECORDS BOOK 783, PAGE 2351, OF THE PUBLIC RECORDS OF OSCEOLA COUNTY, FLORIDA. (AFFECTS THE SUBJECT PROPERTY, NOT PLOTTABLE)
9. CITY OF ST. CLOUD, FLORIDA RESOLUTION NO. 2005-112, RECORDED 03/28/2006 IN OFFICIAL RECORDS BOOK 3108, PAGE 1667, OF THE PUBLIC RECORDS OF OSCEOLA COUNTY, FLORIDA. (AFFECTS THE SUBJECT PROPERTY, NOT PLOTTABLE)
10. ST. CLOUD, FLORIDA RESOLUTION NO. 2022-184R, RECORDED 10/06/2022 IN OFFICIAL RECORDS BOOK 6295, PAGE 2021, OF THE PUBLIC RECORDS OF OSCEOLA COUNTY, FLORIDA. (AFFECTS THE SUBJECT PROPERTY, NOT PLOTTABLE)
11. TOHOPEKALIGA WATER AUTHORITY WATER, REUSE, AND WASTEWATER SYSTEM DEVELOPER'S SERVICE AGREEMENT RECORDED 10/17/2023 IN OFFICIAL RECORDS BOOK 6491, PAGE 64, OF THE PUBLIC RECORDS OF OSCEOLA COUNTY, FLORIDA. (AFFECTS THE SUBJECT PROPERTY, NOT PLOTTABLE)
12. TOHOPEKALIGA WATER AUTHORITY SUBMETERING AGREEMENT RECORDED 10/17/2023 IN OFFICIAL RECORDS BOOK 6491, PAGE 77, OF THE PUBLIC RECORDS OF OSCEOLA COUNTY, FLORIDA. (AFFECTS THE SUBJECT PROPERTY, NOT PLOTTABLE)
13. RIGHTS OF TENANTS UNDER ANY UNRECORDED LEASES.
14. AS TO SCHEDULE B-II, ITEM 4, SATISFACTORY EVIDENCE OF PAYMENT OF ANY MUNICIPAL LIENS OR ASSESSMENTS FOR PUBLIC IMPROVEMENTS OR ASSESSMENTS, AS PROVIDED FOR BY CHAPTER 159, FLORIDA STATUTES, IN FAVOR OF ANY CITY, TOWN, VILLAGE OR PORT AUTHORITY FOR UNPAID SERVICE CHARGES FOR SERVICE BY ANY WATER, SEWER OR GAS SYSTEMS SUPPLYING THE LANDS DESCRIBED HEREIN. A MUNICIPAL LIEN SEARCH WILL NEED TO BE ORDERED AND WILL TAKE 10 TO 15 BUSINESS DAYS TO COMPLETE. SUGGESTED VENDORS ARE:

SURVEY NOTES:

1. BEARINGS SHOWN HEREON ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT). THE NORTH LINE OF THE S.E. 1/4 OF THE S.W. 1/4 OF SECTION 5, RANGE 26 SOUTH, RANGE 31, EAST, BEING N89°11'57"E.
2. ALL COURSES AND DISTANCES SHOWN HEREON, ARE MEASURED UNLESS OTHERWISE STATED.
3. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAP NO. 12097C0280 G, COMMUNITY NO. 120189, EFFECTIVE JUNE 18, 2013, THIS PROPERTY IS LOCATED IN ZONE "X" (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
4. LOT 1 IS ADJACENT AND CONTIGUOUS TO A PUBLICLY DEDICATED RIGHT-OF-WAY AND HAS LEGAL AND PHYSICAL ACCESS TO U.S. HIGHWAY 441/192 AND PUFFIN ROAD VIA TRACT B, EXCHANGE AT SAINT CLOUD AS RECORDED IN PLAT BOOK 33, PAGE 159 OF THE PUBLIC RECORDS OF OSCEOLA COUNTY. TRACT B IS A PUBLICLY DEDICATED ROAD RIGHT-OF-WAY LYING TO THE EAST OF THE PROPERTY.
5. LOT 2 HAS DIRECT ACCESS TO U.S. HIGHWAY 441/192.
6. LOTS 1 AND 2 ARE CONTIGUOUS ALONG COMMON BOUNDARY LINES WITHOUT GAP, GORE, OVERLAP OR HIATUS.
7. ADDRESS OF PHYSICAL LOCATION IS EAST IRLO BRONSON MEMORIAL HIGHWAY, SAINT CLOUD, FLORIDA 34771
8. AS TO ITEMS 7, 8, 9, & 16 OF TABLE A, THE SUBJECT PROPERTY IS AN ABANDONED ORANGE GROVE, VOID OF ANY IMPROVEMENTS AND WITH NO SIGNS OF EARTH MOVING AT THE TIME OF SURVEY.



LINE TABLE		
LINE #	LENGTH	BEARING
L1	94.48'	S01°16'09"E
L2	40.61'	S00°28'37"E
L3	155.41'	N89°36'55"E
L4	51.20'	S13°03'40"W
L5	248.94'	S00°39'15"W
L6	177.02'	S02°45'53"W

AC = AIR CONDITIONER
BFP = BACK FLOW PREVENTER
BK = BOOK
BLDG. = BUILDING
BM = BENCHMARK
BOC = BACK OF CURB
BOL = BOLLARD
BWF = BARB WIRE FENCE
BX = BOX
C.H. = CHORD BEARING
CB = CATCH BASIN
C.B.S. = CONCRETE BLOCK STRUCTURE
C.D. = CHORD DISTANCE
C.E. = COMMON ELEMENT
CLF. = CHAIN LINK FENCE
C.M. = CONCRETE MONUMENT
CMP = CORREGATED METAL PIPE
C.O. = CLEAN OUT
COM. = COMMUNICATION
CONC. = CONCRETE
CLP = CONCRETE LIGHT POLE
CPP = CONCRETE POWER POLE
CR = CABLE RISER
C.S. = CONTROL STRUCTURE
D = DRAINAGE
DBH = DIAMETER AT BREAST HEIGHT
DCO = DRAINAGE CLEAN OUT
DIA. = DIAMETER
DMH = DRAIN MANHOLE
E = ELECTRIC
EB = ELECTRIC BOX
EL. = ELEVATION
EMH = ELECTRIC MAN HOLE
EOP = EDGE OF PAVEMENT
EOW = EDGE OF WATER
ECRCP= ECLIPTAL REINFORCED CONC. PIPE
ESMT = EASEMENT
FDC = FIRE DEPARTMENT CONNECTION
F.F.E. = FINISH FLOOR ELEVATION
F.M. = FORCED MAIN
FND = FOUND
FOC = FACE OF CURB
FOCM = FIBER OPTIC CABLE MARKER
FOCV = FIBER OPTIC CABLE VAULT
G = GAS
GA = GUY ANCHOR
GM = GAS MARKER
GPST = GATE POST
GR = GUARD RAIL
GW = GUY WIRE
GV = GAS VALVE
HC = HANDICAP
HWA = HANSON, WALTER & ASSOCIATES
HWF = HOG WIRE FENCE
HYD = FIRE HYDRANT
I.C.V. = IRRIGATION CONTROL VALVE
I.D. = IDENTIFICATION
IE. = INVERT
I.P. = IRON PIPE
I.R. = IRON ROD
I.R.C. = IRON ROD & CAP
L = LENGTH
L.B. = LICENSED SURVEYING BUSINESS
L.C.E. = LIMITED COMMON ELEMENT
L.S. = LICENSED SURVEYOR
MB = MAIL BOX
MES. = MITERED END SECTION
MTL. = METAL
MKR. = MARKER
N.T.S. = NOT TO SCALE
N.R. = NON-RADIAL
NAD = NAIL AND DISC
OE = OVERHEAD ELECTRIC
O/S = OFFSET
O.R.B. = OFFICIAL RECORD BOOK
P.B. = PLAT BOOK
P.C. = POINT OF CURVATURE
PG. = PAGE
P.I. = POINT OF INTERSECTION
P.L.S. = PROFESSIONAL LAND SURVEYOR
P.C.C. = POINT OF COMPOUND CURVE
P.O.B. = POINT OF BEGINNING
P.O.C. = POINT OF COMMENCEMENT
P.R.C. = POINT OF REVERSE CURVE
PP = POWER POLE
PR = PHONE RISER
PRM = PERMANENT REFERENCE MONUMENT
PSM = PROFESSIONAL SURVEYOR & MAPPER
P.T. = POINT OF TANGENCY
PVC = POLY VINYL CHLORIDE
R = RADIUS
RCP = REINFORCED CONCRETE PIPE
RCW = RECLAIM WATER
RCWV = RECLAIM WATER VALVE
RES. = RESIDENCE
RGE = RANGE
R.L.S. = REGISTERED LAND SURVEYOR
RO = ROOF OVERHANG
RU = RE-USE LINE
R/W = RIGHT OF WAY
SCO = SEWER CLEAN OUT
SEC = SECTION
SS = SANITARY SEWER
SV = SEWER VALVE
SW = SIDEWALK
T = TANGENT LENGTH OF CURVE
TBM = TEMPORARY BENCHMARK
TEL = TELEPHONE
TOB = TOP OF BANK
TOG = TOP OF GRATE
TOS = TOE OF SLOPE
TR. = TRAFFIC
TRAN = TRANSFORMER
TWP = TOWNSHIP
U = UTILITY
UG = UNDERGROUND
W = WATER
WDF = WOOD FENCE
WF = WIRE FENCE
WG = WATER GATE
WK = WALK
WLF = WETLAND FLAG
WM = WATER METER
WPP = WOOD POWER POLE
WV = WATER VALVE
W/ = WITH
℄ = CENTERLINE
Δ = DELTA (CENTRAL ANGLE)
(C) = CALCULATED DATA
(D) = DEED DATA
(L) = LEGAL DATA
(M) = MEASURED DATA
(P) = PLAT DATA
= PK NAIL
= CONCRETE MONUMENT
= NAIL & DISC
= IRON PIPE
= FND 5/8" IRON ROD & CAP L.B. #3270 (UNLESS NOTED OTHERWISE)
= FIRE HYDRANT
BUILDING SETBACK LINE
OE OVERHEAD ELECTRIC LINE
OHW OVERHEAD WIRE
G GAS LINE
W WATER LINE
UTILITY/POWER POLE
GUY WIRE
TELEPHONE BOX
ELECTRIC BOX
LIGHT POLE
CLEANOUT
SANITARY SEWER MANHOLE
STORM DRAINAGE MANHOLE
TREE
CABLE BOX
VALVE(W/NOTE)
PARKING SPACES
SIGN
TEMPORARY BENCHMARK

To:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes items 1, 2, 3, 4, 5, 6(a), 6(b), 7(a), 7(b1), 7(c), 8, 9, 10, 11, 11(a), 11(b), 13, 14, 15, 16, 17, 18, 19, AND 20, of Table A thereof.

The field work was completed on October 9, 2025.

Date of Plat or Map: October 16, 2024.

John M. Hughes, P.S.M. # 6367 Date Signed

DESIGN	N/A	FB#	DCF	SEC	5		
DRAWN	R.C.	PAGE	DCF	TWP	26 S.		
CK'D	J.H.	SCALE	1" = 100'	RGE	31 E.		
CAD#	5450-6	DATE OF SURVEY	10-09-25	10/30/25	RC	UPDATED ALTA SURVEY	
				DATE	BY	REVISIONS	

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741
PHONE (407) 847-9433 FAX (407) 847-2499
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PREPARED FOR:
FERBER CONSTRUCTION MANAGEMENT, LLC

ALTA/NSPS LAND TITLE SURVEY

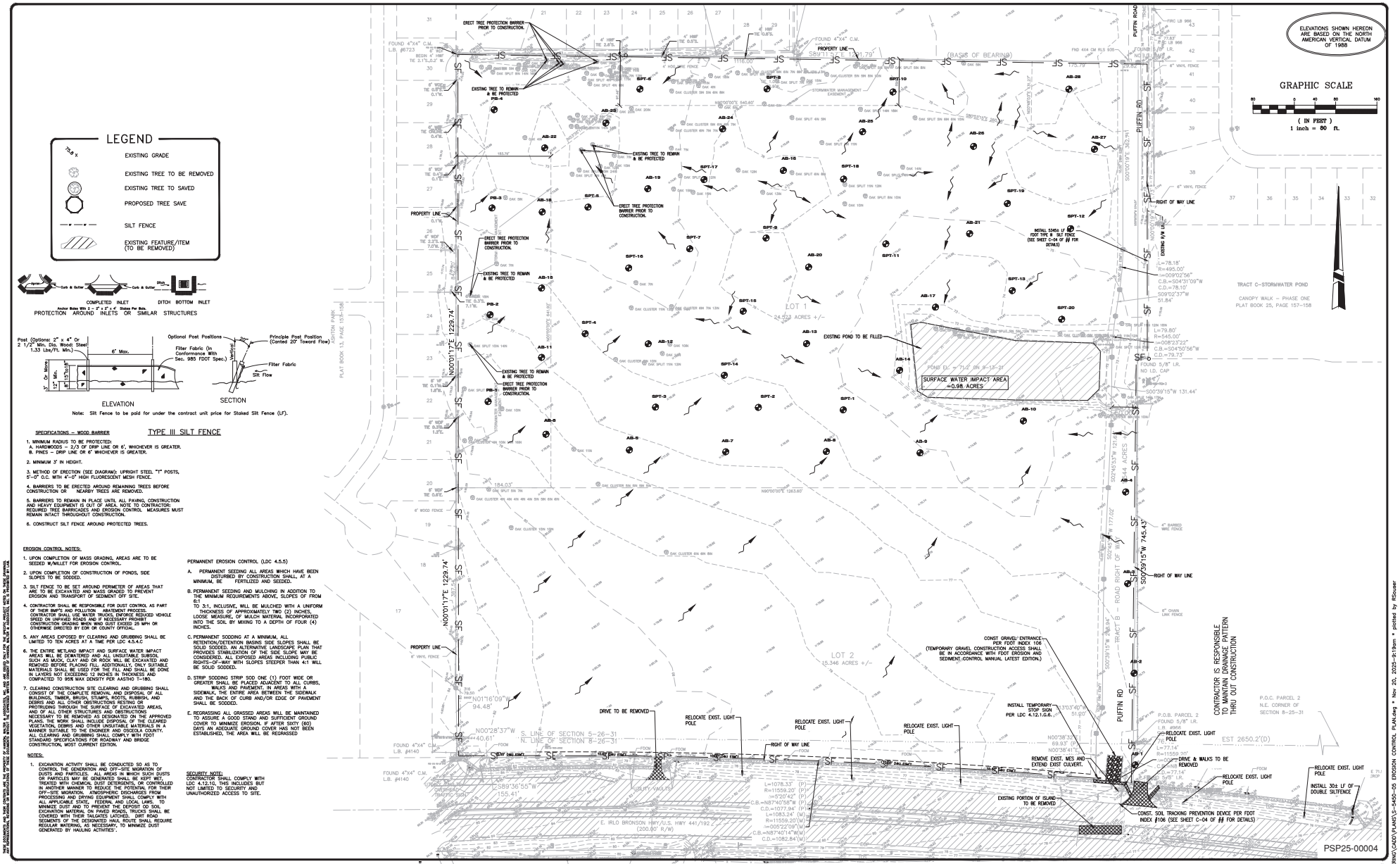
NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

SHEET NO. 1 of 1

JOB# 5450-06

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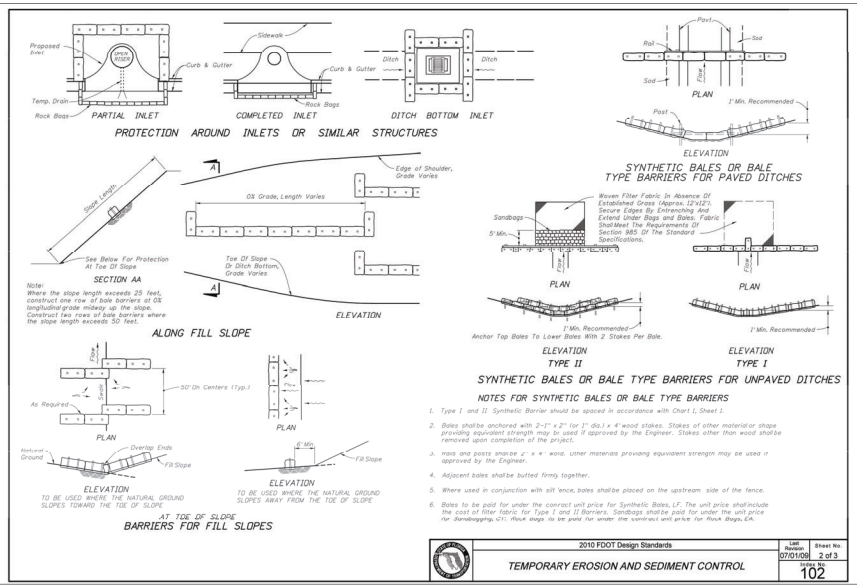
I:\5450-06\SURVEY\CAD\[ATA\5450-06_ALTA.dwg • Oct 30, 2025 - 5:01pm • plotted by rcook



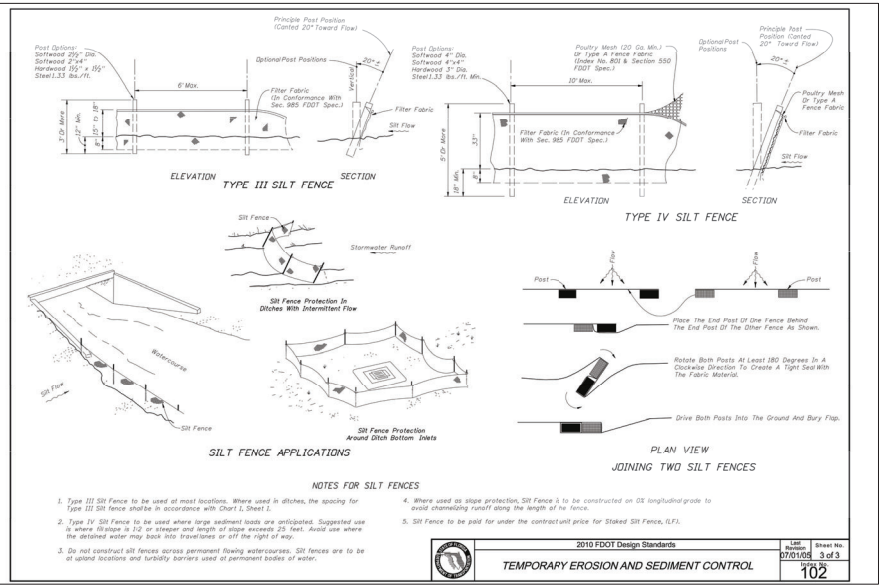
DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	EROSION CONTROL PLAN	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET Nº C-03 of C-50
DRAWN RS	PAGE –	TWP. 26 S							
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							JOB Nº 5450-05
CAD# (see stamp)	DATE 11/6/25		DATE	BY	REVISIONS				

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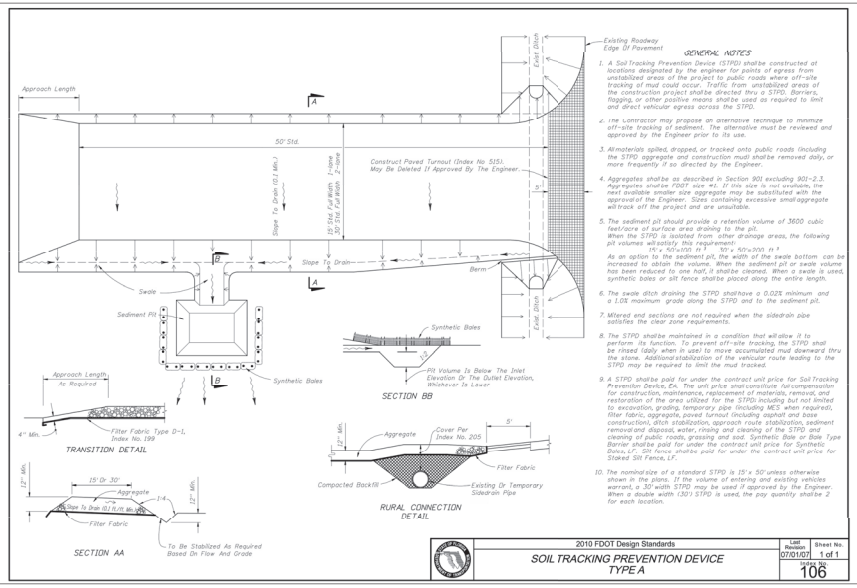
2010 FDOT Design Standards — TEMPORARY EROSION AND SEDIMENT CONTROL — Last Revision 07/01/06 — Sheet No. 2 of 3 — Index No. 102



NOTES FOR SILT FENCES

1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt fence shall be in accordance with Chart 1, Sheet 1.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detained water may back into travel lanes or off the right of way.
3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of he fence.
5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).

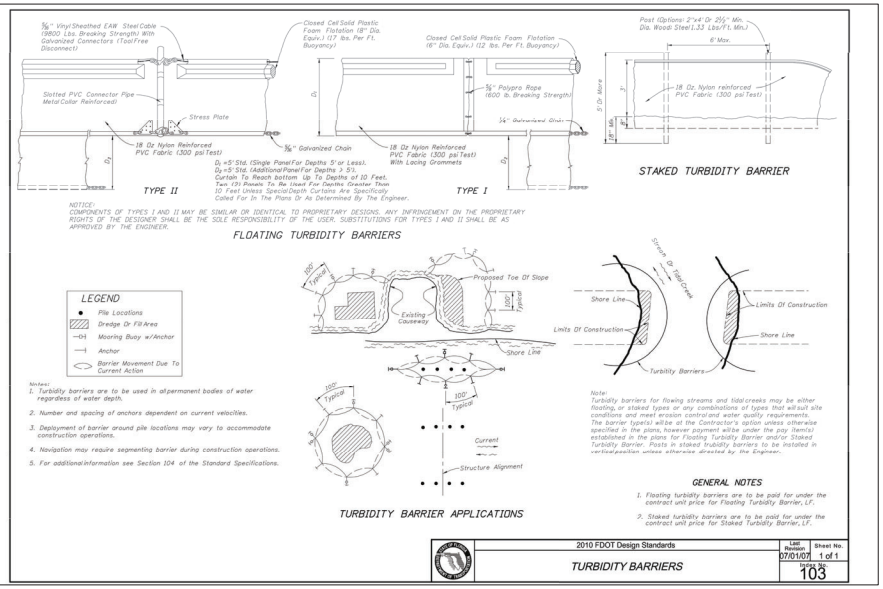
2010 FDOT Design Standards — TEMPORARY EROSION AND SEDIMENT CONTROL — Last Revision 07/01/05 — Sheet No. 3 of 3 — Index No. 102



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'=500 ft² 50' x 50'=2500 ft²
   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 sideslope 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 — SOIL TRACKING PREVENTION DEVICE TYPE A — Last Revision 07/01/07 — Sheet No. 1 of 1 — Index No. 106



NOTICE:
COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

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

GENERAL NOTES

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

Note: Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractor's option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked trubidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

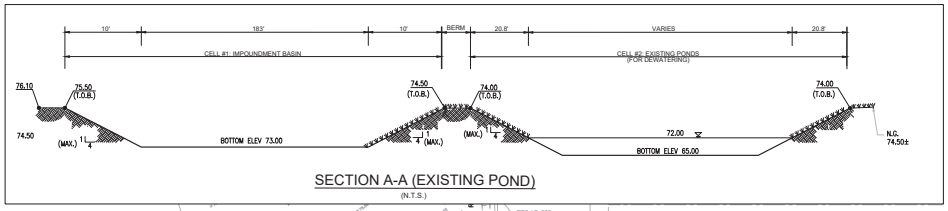
2010 FDOT Design Standards — TURBIDITY BARRIERS — Last Revision 07/01/07 — Sheet No. 1 of 1 — Index No. 103

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DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	EROSION CONTROL DETAILS	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET NO. C-04 of C-50
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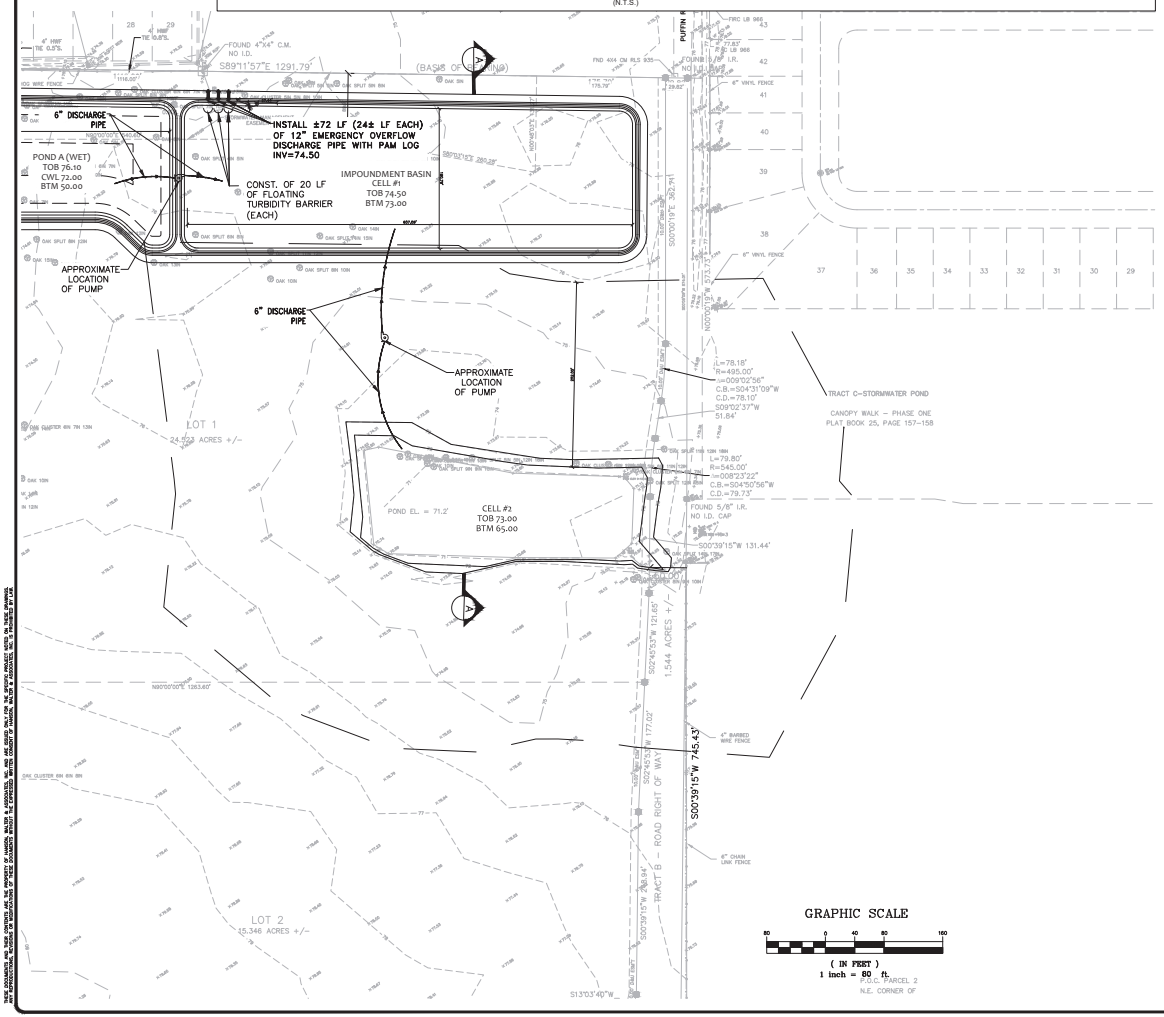
THE DOCUMENTS ARE NOT COMPLETE WITHOUT ALL THE CONTENT IN THE SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

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SECTION A-A (EXISTING POND)

(N.T.S.)



GRAPHIC SCALE

80 0 40 80 160

(IN FEET)

1 inch = 80 ft.

NOTE

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

PUFFIN ROAD COMMERCIAL (HWA-JOB-5450-05)

Assume 358' x 129' De-Watering (MUST PUT IN WHAT ANS DIMESIONS)

Del Webb: 88%bay, 126feet nearby model (56-01067) T= 11280 gpd/ft S=.2

Aquifer thickness:	30 feet	(a)	9.144 meters
Aquifer Kh	15 feet/day	(a)	5.292E-05 met/sec
Excavation Trench:			
Length	358 feet	(b)	109.113 meters
Width	129 feet	(b)	39.317 meters
Dewater depth	6 feet	(c)	1.829 meters

$R_o = 3000(H-h)\sqrt{(K)}$

aquifer thickness H		9.144 meters
dewater thickness h		7.315 meters
R_o	39.91 meters	130.9 feet
$r_e = \sqrt{(L \times W)}/\pi$		
r_e	36.954 meters	121.24 feet
Total R:		252.18 feet

Dewatering Flow Rate A direct calculation of flow rate may be derived from the following equation:

$$H^2 - h^2 = \frac{n \cdot q}{\pi \cdot k}\left(\ln R_o - \ln r_e\right)$$

Q

$n * q = \pi * Kh * [(H2 - h2)/(ln Ro - ln re)]$

			n*Q		
$H^2 - h^2$	30.066	for n =	m3/sec	GPM	MGD
$\ln R_o - \ln r_e$	0.07692	1	6.505E-02	1031.037	1.485
$\pi * Kh$	1.662E-04	10		103.10	

PUMP CALCULATIONS:

PUMP INFLOW:

PUMP CAPACITY = 500 GPM

THE ESTIMATED AVERAGE DAILY WATER USE IS CALCULATED AT:
1 PUMP @ 500 GPM x (60 MIN./1 HR.) (12 HRS./1 DAY) = 360,000 GPD.

THE ESTIMATED MAXIMUM DAILY WATER USE IS CALCULATED AT:
1 PUMP @ 500 GPM x (60 MIN./1 HR.) x (24 HRS./1 DAY) = 720,000 GPD (2.21 AC-FT)

DIRECT RAINFALL (P):
ASSUME 10 YR./72 HR. DESIGN STORM P = 8.20 INCHES

CELL #2 IMPOUNDMENT
SURFACE AREA OF CELL #2 IMPOUNDMENT AREA = 1.55 AC
RAINFALL VOLUME (Rv) = 8.2 INCHES X $\frac{1 \text{ FT}}{12 \text{ INCHES}}$ X 1.55 AC = 1.06 AC-FT

TOTAL INFLOW TO IMPOUNDMENT AREA:

TOTAL INFLOW = PUMP INFLOW + DIRECT RAINFALL
TOTAL INFLOW = 2.21 AC-FT + 1.06 AC-FT = 3.27 AC-FT

IMPOUNDMENT STORAGE RELATIONSHIP:

CELL #1 STORAGE RELATIONSHIP:

STAGE (FT)	AREA (AC)	STORAGE (AC-FT)
73.00	2.67	0.00
74.00	2.82	2.75
74.50	2.89	4.17

CELL #1 PROVIDES ADEQUATE STORAGE FOR DEWATERING PURPOSES.

DEWATERING NOTES:

1. DEWATERING WILL BE HELD IN CELL 1 WITH ONSITE DISCHARGE. THE IMPOUNDMENT AREA IS 1.5 FT. HEIGHT. ONLY SUITABLE FILL MATERIALS WILL BE USED FOR EMBANKMENT AND SHALL BE DONE IN LAYERS NOT EXCEEDING 12" IN THICKNESS AND COMPACTED TO 95% MAX DENSITY PER ASTM D-1557 AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. THE IMPOUNDMENT WILL BE CONSTRUCTED PRIOR TO DEWATERING ACTIVITIES (REFER TO SECTION A-A).
2. ALL SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
3. CONSTRUCTION PHASING OF CELLS:
   (A) CONSTRUCT IMPOUNDMENT AREA (CELL 1) PER SECTION A-A.
   (B) DEWATER PROPOSED POND WHILE PUMPING INTO CELL 1. WATER LEVEL MUST BE MAINTAINED 1 FT. BELOW TOP IMPOUNDMENT AREA.
   (C) DISCHARGE WILL MEET STATE WATER QUALITY STANDARDS. CONTRACTOR SHALL USE ADDITIONAL MEASURES NECESSARY TO ENSURE WATER QUALITY STANDARDS ARE MET, SPECIFICALLY TURBIDITY.
   (D) SPRAY ALUM AS NEEDED TO MEET WATER QUALITY STANDARDS.
   (E) DEWATERING WILL BE DONE IN ONE PHASE AND WILL CEASE DURING HEAVY RAINFALL EVENTS.
   (F) INSTALL PAM LOG INSIDE FLOATING 12" INTAKE PIPE TO PREVENT TURBIDITY TO BE MONITORED AT SAMPLE POINT (TMSP#1) AS SHOWN ON THE PLAN.
   (G) WATER LEVELS IN SWALES WILL BE MAINTAINED WITHIN ONE FOOT OR LESS OF THE TOP OF BERM/NATURAL GROUND SURFACE DURING AND AFTER THE DEWATERING OPERATIONS CONTRACTOR TO MAINTAIN WATER LEVEL TO ENSURE THAT THE TREATMENT SWALE DOES NOT OVERFLOW THE BERM.
   (I) ALL SILT FENCES WILL BE IN PLACE PRIOR TO DEWATERING ACTIVITIES.
4. NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH MANNER AS TO DIRECT RUNNOFF DIRECTLY OFF THE PROJECT SITE OR ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY PER LDC 4.5.4. D
5. DEWATERING OPERATIONS SHALL ABIDE BY LDC 4.12.1.F AND PROVIDE MINIMUM DRAWDOWN OF THE GROUNDWATER OUTSIDE THE ACTUAL POND EXCAVATION SITE. SHOULD THE COUNTY RECEIVE COMPLAINTS THAT THE DEWATERING OPERATION CAUSED FLUCTUATIONS IN THE GROUND WATER TABLE IN ADJACENT WATER BODIES, WETLAND AREAS OF WATER SUPPLY WELLS, DEWATERING OPERATION SHALL BE TERMINATED UNTIL SUCH TIME A MITIGATION PLANS IS DEVELOPED AND APPROVED BY THE COUNTY.
6. PERIODIC MAINTENANCE OF THE RECHARGE TRENCH MUST BE CONDUCTED TO ENSURE IT IS FREE OF SILT AND DEBRIS SINCE PAM LOG WILL BE USED.

TURBIDITY MONITORING PLAN

MONITORING REQUIRED:

DESCRIPTION: TURBIDITY EXPRESSED IN NEPHELOMETRIC TURBIDITY UNITES (NTU).
LOCATION: BACKGROUND – SAMPLES SHALL BE TAKEN 200 FEET UPSTREAM OF ANY CONSTRUCTION ACTIVITY WITHIN SURFACE WATER OF THE STATE COMPLIANCE – SAMPLES SHALL BE TAKEN 200 FEET DOWNSTREAM.

FREQUENCY: TWICE DAILY, WITH AT LEAST A FOUR-HOUR INTERVAL, DURING ALL WORK AUTHORIZED BY THIS PERMIT.

DURATION: MONITORING SHALL BEGIN ON THE FIRST DAY OF CONSTRUCTION FOR ALL ACTIVITIES RELATED TO THE PROPOSED ACTIVITIES THAT ARE CLASSIFIED AS SURFACE WATERS OF THE STATE.
MONITORING SHALL CEASE WHEN ALL CONSTRUCTION ACTIVITIES RELATED TO THE PROPOSED ACTIVITIES ARE COMPLETED.

THE MONITORING DATA MUST DEMONSTRATE THAT TURBIDITY 200 FEET DOWNSTREAM OF ALL PROPOSED ACTIVITIES IS LESS THAN OR EQUAL TO 29 NTU'S ABOVE NATURAL BACKGROUND TURBIDITY 200 FEET UPSTREAM OF EACH PROPOSED ACTIVITY FOR A PERIOD OF 7 CONSECUTIVE DAYS AFTER COMPLETION OF CONSTRUCTION.
ALL MONITORING DATA SHALL BE SUBMITTED WITHIN ONE WEEK OF ANALYSIS WITH DOCUMENTS CONTAINING THE FOLLOWING INFORMATION:
(1) PERMIT AND APPLICATION NUMBER;
(2) DATES OF SAMPLING AND ANALYSIS;
(3) A STATEMENT DESCRIBING THE METHODS USED IN COLLECTION, HANDLING, STORAGE AND ANALYSIS OF THE SAMPLES;
(4) A MAP INDICATING THE SAMPLING LOCATIONS AND
(5) A STATEMENT BY THE INDIVIDUAL RESPONSIBLE FOR IMPLEMENTATION OF THE SAMPLING PROGRAM CONCERNING THE AUTHENTICITY, PRECISION, LIMITS OF DETECTION AND ACCURACY OF THE DATA.
MONITORING REPORTS SHALL ALSO INCLUDE THE FOLLOWING INFORMATION FOR EACH SAMPLE THAT IS TAKEN:
(A) TIME OF DAY SAMPLES TAKEN;
(B) DEPTH OF WATER BODY;
(C) DEPTH OF SAMPLES;
(D) ANTECEDENT WEATHER CONDITIONS;
(E) WIND DIRECTION AND VELOCITY;

IF MONITORING REVEALS VIOLATIONS OF THE STATE WATER QUALITY STANDARD FOR TURBIDITY, CONSTRUCTION ACTIVITIES SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL CORRECTIVE MEASURES HAVE BEEN TAKEN AND TURBIDITY HAS RETURNED TO ACCEPTABLE LEVELS. ANY SUCH OCCURRENCE SHALL ALSO BE IMMEDIATELY (WITHIN A 24 HOUR PERIOD) REPORTED TO THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AT 1707 ORLANDO CENTRAL PARKWAY, ORLANDO, FL 32809.

THIS PROJECT MEETS THE "GENERAL PERMITS BY RULE" REQUIREMENTS IN 40E2.061(2),F.A.C.
A) HAS A MAXIMUM DAILY PUMPAGE OF LESS THAN 5 MILLION GALLONS (MG) AND A MAXIMUM TOTAL PROJECT PUMPAGE OF LESS THAN 100 MG OVER A ONE YEAR PERIOD;
PUMPS LESS THAN 5MG A DAY AND LESS THAN 100 MG OVER A ONE YEAR PERIOD.

B) WILL RETAIN ALL DISCHARGE ON THE PROJECT SITE UNLESS ASSOCIATED WITH AN AQUIFER PERFORMANCE TEST;
THE DISCHARGE WILL BE RETAINED ONSITE.

C) WILL NOT DEWATER TO A DEPTH BELOW 0.0 FEET NGVD WITHIN 1,000 FEET OF SALINE WATER,EXCEPT WHEN DEWATERING WATER WITH CHLORIDE CONCENTRATION OF GREATER THAN 1,000MILLIGRAMS PER LITER;
SITE IS DEWATERING TO A MAXIMUM DEPTH OF 41.50 NGVD FOR SOUTH POND AND 45.50 NGVD FOR NORTH POND.

D) WILL NOT OCCUR WITHIN 100 FEET OF A WASTEWATER TREATMENT PLANT RAPID-RATE LAND APPLICATION SYSTEM PERMITTED UNDER PART IV OF CHAPTER 62-610, F.A.C.;
THERE ARE NO WASTEWATER TREATMENT FACILITIES WITHIN 100 FEET.

E) WILL NOT OCCUR WITHIN 1,000 FEET OF A KNOWN LANDFILL OR CONTAMINATION; AND
THERE ARE NO KNOWN LANDFILLS WITHIN 1,000 FEET.

F) WILL NOT OCCUR WITHIN 1,000 FEET OF A FRESHWATER WETLAND UNLESS DEWATERING ACTIVITIES ARE COMPLETED WITHIN 60 DAYS.
DEWATERING WILL BE COMPLETED WITHIN 60 DAYS.

PSP25-00004

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8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX. (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
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PUFFIN ROAD COMMERCIAL

DEWATERING PLAN
EXISTING POND

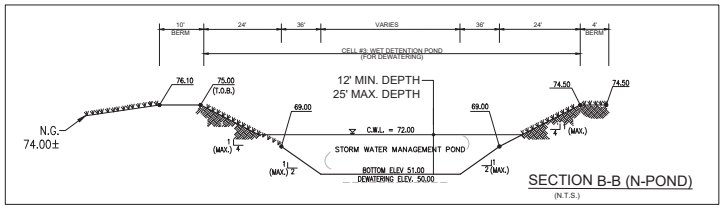
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Signature must be verified on any electronic copies.

SHEET Nº C-05 of C-50

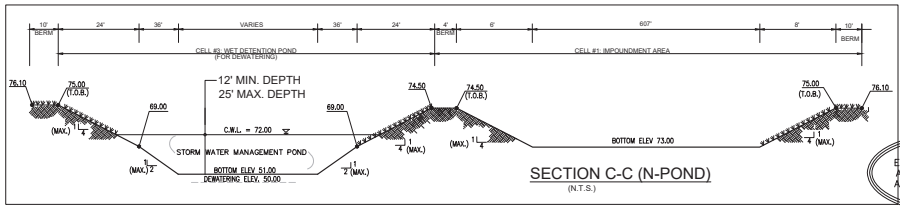
JOB Nº 5450-05

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SECTION B-B (N-POND)

(N.T.S.)

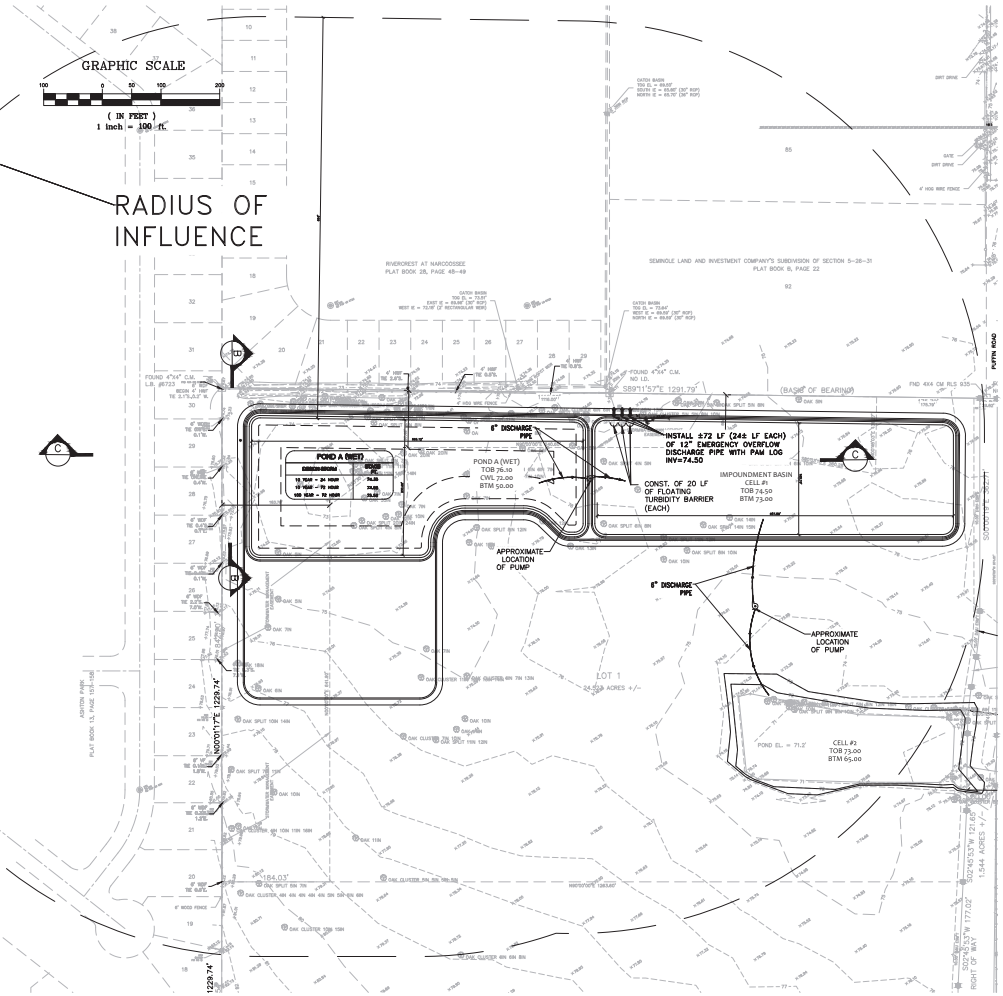


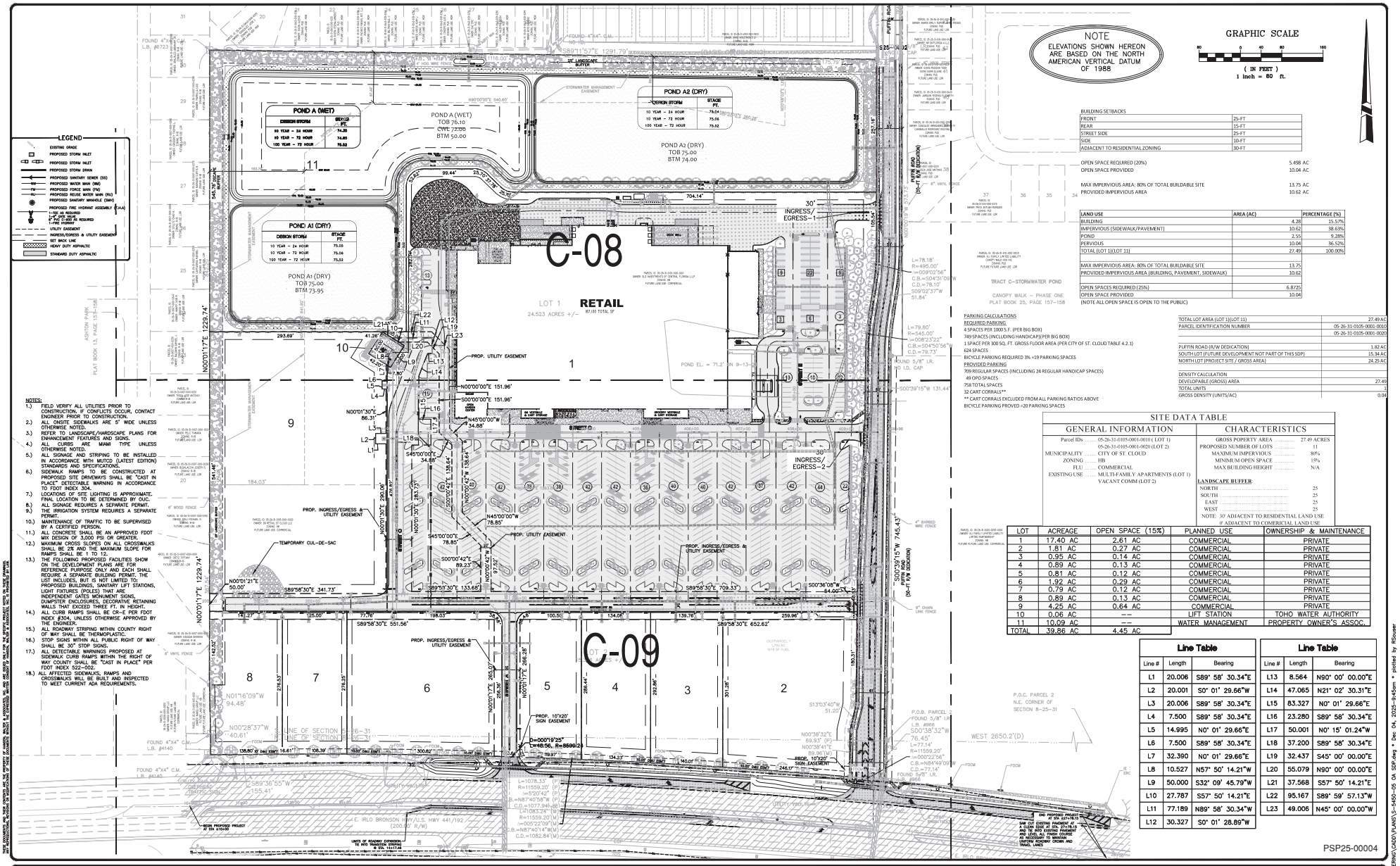
SECTION C-C (N-POND)

(N.T.S.)

NOTE

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988


GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.
RADIUS OF INFLUENCE
POND A (WET)
6" DISCHARGE PIPE
POND A (WET)
TOB 76.10
CWL 72.00
BTM 50.00
INSTALL ±72 LF (24± LF EACH) OF 12" EMERGENCY OVERFLOW DISCHARGE PIPE WITH PAM LOG INV=74.50
CONST. OF 20 LF OF FLOATING TURBIDITY BARRIER (EACH)
IMPOUNDMENT BASIN
CELL #1
TOB 74.50
BTM 73.00
APPROXIMATE LOCATION OF PUMP
6" DISCHARGE PIPE
APPROXIMATE LOCATION OF PUMP
CELL #2
TOB 73.00
BTM 65.00
POND EL. = 71.2
LOT 1
24.00 ACRES +/-
1,544 ACRES +/-
PUFFIN ROAD
(BASIS OF BEARING)
S89°11'57"E 1291.79'
N00°01'17"E 1229.74'
S02°45'53"W 1229.74'
S02°45'53"W 177.02'
N89°58'07"E 1363.60'
S89°58'07"W 1184.03'
FOUND 4"X4" C.M. L.B. #6723
FOUND 4"X4" C.M. NO I.D.
FND 4X4 CM RLS 935
RIVEREST AT NARCOOSSEE PLAT BOOK 28, PAGE 48-49
SEMINOLE LAND AND INVESTMENT COMPANY'S SUBDIVISION OF SECTION 5-26-31 PLAT BOOK 6, PAGE 22
ASTON PARK PLAT BOOK 13, PAGE 154-155
SOUTH 1/4 CORNER SECTION 31
ROOT OF WET MARSH
CATCH BASIN TOG EL = 69.80' EAST IE = 69.80' (30" RCP) WEST IE = 69.80' (30" RCP) NORTH IE = 69.70' (30" RCP)
CATCH BASIN TOG EL = 73.80' EAST IE = 73.80' (30" RCP) WEST IE = 69.80' (30" RCP) NORTH IE = 69.80' (30" RCP)
CATCH BASIN TOG EL = 73.80' EAST IE = 70.70' (RECTANGULAR WEIR)
DIRT DRIVE
GATE
4' HOG WIRE FENCE
6' WOOD FENCE
6' WIRE FENCE
4' WOOD TIE
4' WIRE TIE
OAK SPLIT 10IN 14IN
OAK SPLIT 8IN 9IN
OAK 10IN
OAK 7IN
OAK 8IN
OAK 18IN
OAK CLUSTER 4IN 4IN 4IN 4IN 5IN 5IN 6IN 6IN
OAK CLUSTER 10IN 10IN
OAK CLUSTER 4IN 7IN 13IN
OAK CLUSTER 6IN 6IN 8IN
OAK 11IN
OAK SPLIT 8IN 10IN 11IN 16IN
OAK SPLIT 5IN 7IN
OAK SPLIT 8IN 13IN
OAK SPLIT 10IN 13IN
OAK SPLIT 8IN 8IN
OAK SPLIT 10IN 14IN
OAK SPLIT 8IN 15IN
OAK SPLIT 8IN 10IN
OAK SPLIT 8IN 8IN
OAK SPLIT 8IN 9IN
OAK SPLIT 8IN 10IN
OAK SPLIT 8IN 8IN
OAK SPLIT 8IN 8IN
OAK SPLIT 8IN 8



NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

GRAPHIC SCALE
80 0 40 80 160
(IN FEET)
1 inch = 80 ft.

BUILDING SETBACKS	
FRONT	25-FT
REAR	15-FT
STREET SIDE	25-FT
SIDE	10-FT
ADJACENT TO RESIDENTIAL ZONING	30-FT

OPEN SPACE REQUIRED (20%)	5.498 AC
OPEN SPACE PROVIDED	10.04 AC
MAX IMPERVIOUS AREA: 80% OF TOTAL BUILDABLE SITE	13.75 AC
PROVIDED IMPERVIOUS AREA	10.62 AC

LAND USE	AREA (AC)	PERCENTAGE (%)
BUILDING	4.28	15.57%
IMPERVIOUS (SIDEWALK/PAVEMENT)	10.62	38.63%
POND	2.55	9.28%
PERVIOUS	10.04	36.52%
TOTAL (LOT 1)(LOT 11)	27.49	100.00%
MAX IMPERVIOUS AREA: 80% OF TOTAL BUILDABLE SITE	13.75	
PROVIDED IMPERVIOUS AREA (BUILDING, PAVEMENT, SIDEWALK)	10.62	
OPEN SPACES REQUIRED (25%)	6.8725	
OPEN SPACE PROVIDED	10.04	
(NOTE ALL OPEN SPACE IS OPEN TO THE PUBLIC)		

PARKING CALCULATIONS
REQUIRED PARKING
4 SPACES PER 1000 S.F. (PER BIG BOX)
749 SPACES (INCLUDING HANDICAP/PER BIG BOX)
1 SPACE PER 300 SQ. FT. GROSS FLOOR AREA (PER CITY OF ST. CLOUD TABLE 4.2.1)
624 SPACES
BICYCLE PARKING REQUIRED 3% =19 PARKING SPACES
PROVIDED PARKING
709 REGULAR SPACES (INCLUDING 24 REGULAR HANDICAP SPACES)
49 OPD SPACES
758 TOTAL SPACES
32 CART CORRALS**
** CART CORRALS EXCLUDED FROM ALL PARKING RATIOS ABOVE
BICYCLE PARKING PROVED =20 PARKING SPACES

TOTAL LOT AREA (LOT 1)(LOT 11)	27.49 AC
PARCEL IDENTIFICATION NUMBER	05-26-31-0105-0001-0010
	05-26-31-0105-0001-0020
PUFFIN ROAD (R/W DEDICATION)	1.82 AC
SOUTH LOT (FUTURE DEVELOPMENT NOT PART OF THIS SDP)	15.34 AC
NORTH LOT (PROJECT SITE / GROSS AREA)	24.25 AC
DENSITY CALCULATION	
DEVELOPABLE (GROSS) AREA	27.49
TOTAL UNITS	1
GROSS DENSITY (UNITS/AC)	0.04

SITE DATA TABLE

GENERAL INFORMATION		CHARACTERISTICS	
Parcel IDs	05-26-31-0105-0001-0010 (LOT 1)	GROSS POPERTY AREA	27.49 ACRES
	05-26-31-0105-0001-0020 (LOT 2)	PROPOSED NUMBER OF LOTS	11
MUNICIPALITY	CITY OF ST. CLOUD	MAXIMUM IMPERVIOUS	80%
ZONING	HB	MINIMUM OPEN SPACE	15%
FLU	COMMERCIAL	MAX BUILDING HEIGHT	N/A
EXISTING USE	MULTI-FAMILY APARTMENTS (LOT 1) VACANT COMM (LOT 2)	LANDSCAPE BUFFER:	
		NORTH	25
		SOUTH	25
		EAST	25
		WEST	25
		NOTE: 30' ADJACENT TO RESIDENTIAL LAND USE 0' ADJACENT TO COMERICIAL LAND USE	

LOT	ACREAGE	OPEN SPACE (15%)	PLANNED USE	OWNERSHIP & MAINTENANCE
1	17.40 AC	2.61 AC	COMMERCIAL	PRIVATE
2	1.81 AC	0.27 AC	COMMERCIAL	PRIVATE
3	0.95 AC	0.14 AC	COMMERCIAL	PRIVATE
4	0.89 AC	0.13 AC	COMMERCIAL	PRIVATE
5	0.81 AC	0.12 AC	COMMERCIAL	PRIVATE
6	1.92 AC	0.29 AC	COMMERCIAL	PRIVATE
7	0.79 AC	0.12 AC	COMMERCIAL	PRIVATE
8	0.89 AC	0.13 AC	COMMERCIAL	PRIVATE
9	4.25 AC	0.64 AC	COMMERCIAL	PRIVATE
10	0.06 AC	--	LIFT STATION	TOHO WATER AUTHORITY
11	10.09 AC	--	WATER MANAGEMENT	PROPERTY OWNER'S ASSOC.
TOTAL	39.86 AC	4.45 AC		

Line Table

Line #	Length	Bearing
L1	20.006	S89° 58' 30.34"E
L2	20.001	S0° 01' 29.66"W
L3	20.006	S89° 58' 30.34"E
L4	7.500	S89° 58' 30.34"E
L5	14.995	N0° 01' 29.66"E
L6	7.500	S89° 58' 30.34"E
L7	32.390	N0° 01' 29.66"E
L8	10.527	N57° 50' 14.21"W
L9	50.000	S32° 09' 45.79"W
L10	27.787	S57° 50' 14.21"E
L11	77.189	N89° 58' 30.34"W
L12	30.327	S0° 01' 28.89"W

Line Table

Line #	Length	Bearing
L13	8.564	N90° 00' 00.00"E
L14	47.065	N21° 02' 30.31"E
L15	83.327	N0° 01' 29.66"E
L16	23.280	S89° 58' 30.34"E
L17	50.001	N0° 15' 01.24"W
L18	37.200	S89° 58' 30.34"E
L19	32.437	S45° 00' 00.00"E
L20	55.079	N90° 00' 00.00"E
L21	37.568	S57° 50' 14.21"E
L22	95.167	S89° 59' 57.13"W
L23	49.006	N45° 00' 00.00"W

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DESIGN	MW/CM	F.B. NO.	-
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CAD#	(see stamp)	DATE	11/26/25

SEC. 5 & 8
TWP. 26 S
RANGE 31 E

DATE	BY	REVISIONS

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

OVERALL SITE DIMENSION PLAN

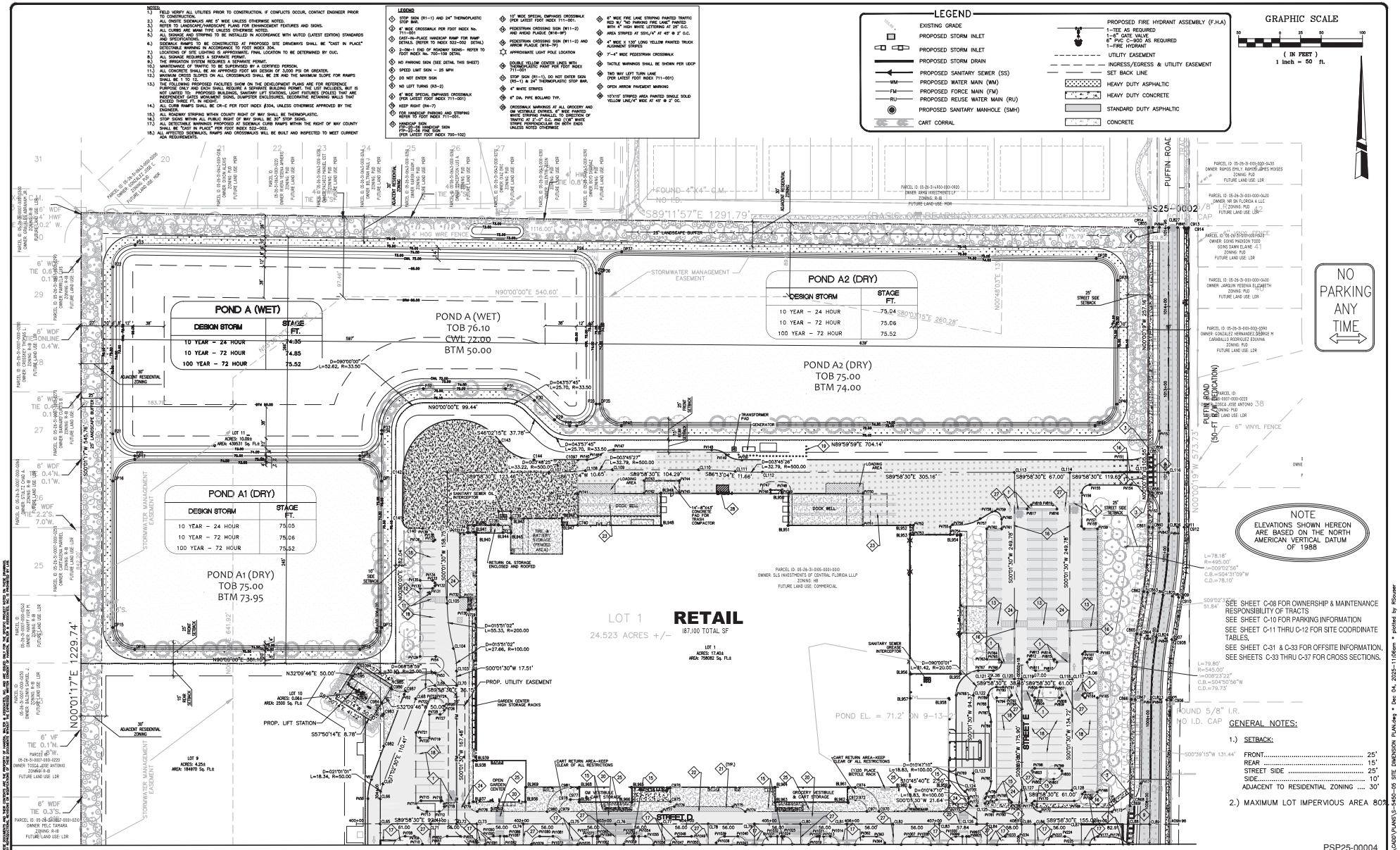
This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal.

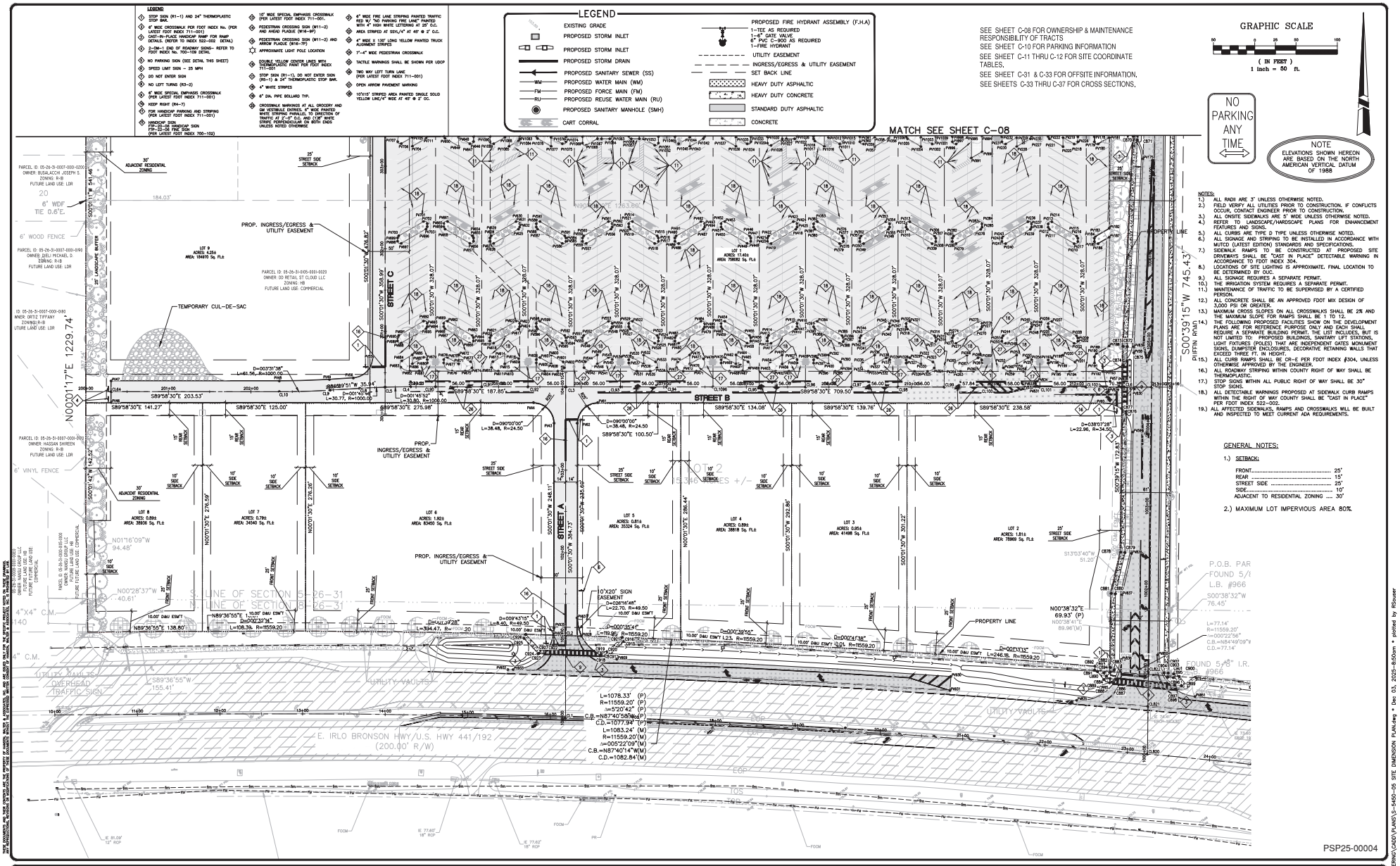
Signature must be verified on any electronic copies.

SHEET NO
C-07 of C-50
JOB NO 5450-05

THE DRAWINGS, AS SUCH, PREPARED BY THE COMPANY OF HANSON, WALTER & ASSOCIATES, INC. ARE, AND SHALL REMAIN THE PROPERTY OF HANSON, WALTER & ASSOCIATES, INC. AND SHALL NOT BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF HANSON, WALTER & ASSOCIATES, INC. ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHT, ARE HEREBY RESERVED.

I:\5450-05\ENGINEERING\CADD\PLANS\5-5450-05 OA SDP.dwg * Dec 04, 2025-8:45am * plotted by RSouser


NOTES:
1.) FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. IF CONFLICTS OCCUR, CONTACT ENGINEER PRIOR TO CONSTRUCTION.
2.) ALL ONSITE SIDEWALKS ARE 5' WIDE UNLESS OTHERWISE NOTED.
3.) REFER TO LANDSCAPE/HARDSCAPE PLANS FOR ENHANCEMENT FEATURES AND SIGNS.
4.) ALL CURBS ARE MIAMI TYPE UNLESS OTHERWISE NOTED.
5.) ALL SIGNAGE AND STRIPING TO BE INSTALLED IN ACCORDANCE WITH MUTCD (LATEST EDITION) STANDARDS AND SPECIFICATIONS.
6.) SIDEWALK RAMPS TO BE CONSTRUCTED AT PROPOSED SITE DRIVEWAYS SHALL BE "CAST IN PLACE" DETECTABLE WARNING PANELS PER FDOT INDEX 304.
7.) LOCATIONS OF SOLID WASTE AND RECYCLING TOTERS, FINAL LOCATION TO BE DETERMINED BY OUC.
8.) THE IRRIGATION SYSTEM IS A SEPARATE PERMIT.
9.) MAINTENANCE OF TRAFFIC TO BE SUPERVISED BY A CERTIFIED PERSON.
10.) ALL CONCRETE SHALL BE AN APPROVED FDOT MIX DESIGN OF 3,000 PSI OR GREATER.
11.) MAXIMUM CROSS SLOPES ON ALL CROSSWALKS SHALL BE 2% AND THE MAXIMUM SLOPE FOR RAMPS SHALL BE 1 TO 12.
12.) THE FOLLOWING PROPOSED FACILITIES SHOW ON THE DEVELOPMENT PLANS ARE FOR REFERENCE PURPOSE ONLY AND EACH SHALL REQUIRE A SEPARATE BUILDING PERMIT. THE LIST INCLUDES, BUT IS NOT LIMITED TO: PROPOSED BUILDINGS, SANITARY LIFT STATIONS, LIGHT FIXTURES (POLES) THAT ARE EXCESS THREE FEET IN HEIGHT, MONUMENT SIGNS, DUMPSTER ENCLOSURES, DECORATIVE RETAINING WALLS THAT EXCEED THREE FEET IN HEIGHT.
13.) ALL CURB RAMPS SHALL BE OR-E PER FDOT INDEX #304, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
14.) ALL ROADWAY STRIPING WITHIN COUNTY RIGHT OF WAY SHALL BE THERMOPLASTIC.
15.) STOP SIGNS WITHIN ALL PUBLIC RIGHT OF WAY SHALL BE 30" STOP SIGNS.
16.) ALL DETECTABLE WARNINGS PROPOSED AT SIDEWALK CURB RAMPS WITHIN THE RIGHT OF WAY COUNTY SHALL BE "CAST IN PLACE" PER FDOT INDEX 522-002.
17.) ALL AFFECTED SIDEWALKS, RAMPS AND CROSSWALKS WILL BE BUILT AND INSPECTED TO MEET CURRENT ADA REQUIREMENTS.
LEGEND
STOP SIGN (R1-1) AND 24" THERMOPLASTIC STOP BAR.
6" WIDE CROSSWALK PER FDOT INDEX No. 711-001
CAST-IN-PLACE HANDICAP RAMP FOR RAMP DETAILS (REFER TO INDEX 522-002 DETAIL)
2-DIR-11 END OF ROADWAY SIGNS- REFER TO FDOT INDEX No. 700-100 DETAIL
NO PARKING SIGN (SEE DETAIL THIS SHEET)
SPEED LIMIT SIGN - 25 MPH
DO NOT ENTER SIGN
NO LEFT TURNS (R3-2)
6" WIDE SPECIAL EMPHASIS CROSSWALK (PER LATEST FDOT INDEX 711-001)
KEEP RIGHT (R4-7)
FOR HANDICAP PARKING AND STRIPING REFER TO FDOT INDEX 711-001.
HANDICAP SIGN FIX-25-SE HANDICAP SIGN (PER LATEST FDOT INDEX 700-102)
10' WIDE SPECIAL EMPHASIS CROSSWALK (PER LATEST FDOT INDEX 711-001.
PEDESTRIAN CROSSING SIGN (W11-2) AND AHEAD PLAQUE (W16-9P)
PEDESTRIAN CROSSING SIGN (W11-2) AND ARROW PLAQUE (W16-7P)
APPROXIMATE LIGHT POLE LOCATION
DOUBLE YELLOW CENTER LINES WITH 6" WIDE THERMOPLASTIC PAINT PER FDOT INDEX 711-001.
STOP SIGN (R1-1), DO NOT ENTER SIGN (R5-1) & 24" THERMOPLASTIC STOP BAR.
4" WHITE STRIPES
6" DIA. PIPE BOLLARD TYP.
CROSSWALK MARKINGS AT ALL GROCERY AND GM VESTIBULE ENTRIES, 6" WIDE PAINTED WHITE STRIPING PARALLEL TO DIRECTION OF TRAFFIC AT 2'-0" O.C. AND 1'-0" WHITE STRIPE PERPENDICULAR ON BOTH ENDS UNLESS NOTED OTHERWISE
6" WIDE FIRE LANE STRIPING PAINTED TRAFFIC RED W/ "NO PARKING FIRE LANE" PAINTED WITH 4" HIGH WHITE LETTERING AT 25' O.C.
AREA STRIPED AT 55%/4" AT 45° @ 2' O.C.
4" WIDE X 120' LONG YELLOW PAINTED TRUCK ALIGNMENT STRIPES
7'-4" WIDE PEDESTRIAN CROSSWALK
TACTILE WARNINGS SHALL BE SHOWN PER UDCP
TWO WAY LEFT TURN LANE (PER LATEST FDOT INDEX 711-001)
OPEN ARROW PAVEMENT MARKING
10'X15' STRIPED AREA PAINTED SINGLE SOLID YELLOW LINE/4" WIDE AT 45° @ 2' OC.
LEGEND
EXISTING GRADE
PROPOSED STORM INLET
PROPOSED STORM INLET
PROPOSED STORM DRAIN
PROPOSED SANITARY SEWER (SS)
WM PROPOSED WATER MAIN (WM)
FM PROPOSED FORCE MAIN (FM)
RU PROPOSED REUSE WATER MAIN (RU)
PROPOSED SANITARY MANHOLE (SMH)
CART CORRAL
PROPOSED FIRE HYDRANT ASSEMBLY (F.H.A)
1-TEE AS REQUIRED
1-6" GATE VALVE
6" PVC C-900 AS REQUIRED
1-FIRE HYDRANT
UTILITY EASEMENT
INGRESS/EGRESS & UTILITY EASEMENT
SET BACK LINE
HEAVY DUTY ASPHALTIC
HEAVY DUTY CONCRETE
STANDARD DUTY ASPHALTIC
CONCRETE
GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.
POND A (WET)
DESIGN STORM | STAGE FT.
10 YEAR - 24 HOUR | 74.35
10 YEAR - 72 HOUR | 74.85
100 YEAR - 72 HOUR | 75.52
POND A (WET)
TOB 76.10
CWL 72.00
BTM 50.00
POND A2 (DRY)
DESIGN STORM | STAGE FT.
10 YEAR - 24 HOUR | 75.04
10 YEAR - 72 HOUR | 75.06
100 YEAR - 72 HOUR | 75.52
POND A2 (DRY)
TOB 75.00
BTM 74.00
POND A1 (DRY)
DESIGN STORM | STAGE FT.
10 YEAR - 24 HOUR | 75.05
10 YEAR - 72 HOUR | 75.06
100 YEAR - 72 HOUR | 75.52
POND A1 (DRY)
TOB 75.00
BTM 73.95
LOT 1
24.523 ACRES +/-
RETAIL
187,100 TOTAL SF
LOT 1
ACRES: 17.404
AREA: 758082 Sq. Ft.±
LOT 11
ACRES: 10.096
AREA: 439631 Sq. Ft.±
LOT 10
ACRES: 0.061
AREA: 2500 Sq. Ft.±
LOT 9
ACRES: 4.256
AREA: 184970 Sq. Ft.±
PROP. LIFT STATION
PROP. UTILITY EASEMENT
GARDEN CENTER HIGH STORAGE RACKS
OPEN GARDEN CENTER
RETURN OIL STORAGE ENCLOSED AND ROOFED
TRUCK BATTERY STORAGE (TYP.UNDER 4 AREAS)
DOCK WELL
LOADING AREA
TRANSFORMER PAD
GENERATOR
14'-8"X43' PAD FOR TRASH COMPACTOR
SANITARY SEWER OREASE INTERCEPTOR
POND EL. = 71.2' ON 9-13-
STREET D
STREET E
CART RETURN AREA-KEEP CLEAR OF ALL RESTRICTIONS
(130) PLACE BICYCLE RACK
GM VESTIBULE & CART STORAGE
GROCERY VESTIBULE & CART STORAGE
PUFFIN ROAD
(50-FT R/W DEDICATION)
PUFFIN ROAD COMMERCIAL
PARCEL ID: 05-26-31-4950-0001-0920 OWNER: KRMS INVESTMENTS LF ZONING: R-1B FUTURE LAND USE: MDR
PARCEL ID: 05-26-31-4950-0001-0910 OWNER: SLS INVESTMENTS OF CENTRAL FLORIDA LLLP ZONING: HB FUTURE LAND USE: COMMERCIAL
PARCEL ID: 05-26-31-3001-3001-3A30 OWNER: RAMOS EMILY, RAMOS JAMES MOSES ZONING: PUD FUTURE LAND USE: LDR
PARCEL ID: 05-26-31-3001-0001-0A20 OWNER: NR SN FLORIDA A LLC ZONING: PUD FUTURE LAND USE: LDR
PARCEL ID: 05-26-31-3001-0001-0100 OWNER: EGNS MADISON TODD EGNS DAWN ELAINE ZONING: PUD FUTURE LAND USE: LDR
PARCEL ID: 05-26-31-3001-0001-0600 OWNER: JARQUIN YESENIA ELIZABETH ZONING: PUD FUTURE LAND USE: LDR
PARCEL ID: 05-26-31-3001-0001-0390 OWNER: GONZALEZ HERNANDEZ GEORGE M CARABALLO RODRIGUEZ EDUVINA ZONING: PUD FUTURE LAND USE: LDR
PARCEL ID: 05-26-31-3007-0001-0220 OWNER: TOSCA JOSE ANTONIO ZONING: PUD FUTURE LAND USE: LDR
PARCEL ID: 05-26-31-3007-0001-0200 OWNER: PELC TAMARA ZONING: R-1B FUTURE LAND USE: LDR
6' VINYL FENCE
4' HOG WIRE FENCE
S89°11'57"E 1291.79'
BASIS OF BEARINGS
FOUND 4"X4" C.M. NO I.D.
FOUND 5/8" I.R. NO I.D. CAP
S25-00028
N00°01'17"E 1229.74'
S00°01'17"W 540.76'
N90°00'00"E 540.60'
N90°00'00"E 99.44'
N90°00'00"E 301.10'
S46°02'15"E 37.78'
N89°59'59"E 704.14'
S89°58'30"E 305.16'
S89°58'30"E 67.00'
S89°58'30"E 119.69'
S89°58'30"E 104.29'
S86°13'04"E 11.66'
S89°58'30"E 249.78'
S00°01'30"W 249.78'
S89°58'30"E 61.00'
S89°58'30"E 155.00'
S89°58'30"E 61.00'
S89°58'30"E 924.10'
S00°01'30"W 134.72'
S00°01'30"W 167.48'
S00°01'30"W 110.44'
S00°01'30"W 17.51'
S00°01'30"W 36.15'
S00°01'30"W 75.00'
S00°39'15"W 131.44'
N00°01'19"W 573.73'
N32°09'46"E 50.00'
S32°09'46"W 50.00'
S57°50'14"E 8.78'
N00°48'03"E 15.00'
S80°03'15"E 260.28'
N00°48'03"E 439.15'
N00°00'00"E 644.92'
S00°01'30"W 644.92'
N00°00'00"E 168.13'
S00°01'30"W 168.13'
S00°01'30"W 167.48'
S00°01'30"W 110.44'
S00°01'30"W 36.15'
S00°01'30"W 17.51'
S00°01'30"W 75.00'
S00°01'30"W 134.72'
S00°01'30"W 249.78'
S00°01'30"W 249.78'
S00°01'30"W 644.92'
S00°01'30"W 644.92'
S00°01'30"W 644.92



LEGEND

- STOP SIGN (R1-1) AND 24" THERMOPLASTIC STOP BAR.
- 6" WIDE CROSSWALK PER FDOT INDEX No. (PER LATEST FDOT INDEX 711-001)
- CAST-IN-PLACE HANDICAP RAMP FOR RAMP DETAILS. (REFER TO INDEX 522-002 DETAIL)
- 2-ONE-1 END OF ROADWAY SIGNS- REFER TO FDOT INDEX No. 700-150 DETAIL
- NO PARKING SIGN (SEE DETAIL THIS SHEET)
- SPEED LIMIT SIGN - 25 MPH
- DO NOT ENTER SIGN
- NO LEFT TURNS (R3-2)
- 6" WIDE SPECIAL EMPHASIS CROSSWALK (PER LATEST FDOT INDEX 711-001)
- KEEP RIGHT (R4-7)
- FOR HANDICAP PARKING AND STRIPING (PER LATEST FDOT INDEX 711-001)
- HANDICAP SIGN R7-8 & R7-8P/CAR SIGN FP-22-SE FINE SIGN (PER LATEST FDOT INDEX 700-102)
- 10' WIDE SPECIAL EMPHASIS CROSSWALK (PER LATEST FDOT INDEX 711-001.
- PEDESTRIAN CROSSING SIGN (W11-2) AND AHEAD PLAQUE (W16-9P)
- PEDESTRIAN CROSSING SIGN (W11-2) AND ARROW PLAQUE (W16-7P)
- APPROXIMATE LIGHT POLE LOCATION
- DOUBLE YELLOW CENTER LINES WITH THERMOPLASTIC PAINT PER FDOT INDEX 711-001
- STOP SIGN (R1-1), DO NOT ENTER SIGN (R5-1) & 24" THERMOPLASTIC STOP BAR.
- 4" WHITE STRIPES
- 6" DIA. PIPE BOLLARD TYP.
- CROSSWALK MARKINGS AT ALL GROCERY AND GM VESTIBULE ENTRIES. 4" WIDE PAINTED WHITE STRIPING PARALLEL TO DIRECTION OF TRAFFIC AT 2'-0" O.C. AND 1'(18" WHITE STRIPE PERPENDICULAR ON BOTH ENDS UNLESS NOTED OTHERWISE
- 4" WIDE FIRE LANE STRIPING PAINTED TRAFFIC RED W/ "NO PARKING FIRE LANE" PAINTED WITH 4" HIGH WHITE LETTERING AT 25' O.C.
- AREA STRIPED AT 55%/4" AT 45° @ 2' O.C.
- 4" WIDE X 130' LONG YELLOW PAINTED TRUCK ALIGNMENT STRIPES
- 7'-4" WIDE PEDESTRIAN CROSSWALK
- TACTILE WARNINGS SHALL BE SHOWN PER UDCP
- TWO WAY LEFT TURN LANE (PER LATEST FDOT INDEX 711-001)
- OPEN ARROW PAVEMENT MARKING
- 10'X15' STRIPED AREA PAINTED SINGLE SOLID YELLOW LINE/4" WIDE AT 45° @ 2' OC.

SEE SHEET C-08 FOR OWNERSHIP & MAINTENANCE RESPONSIBILITY OF TRACTS
SEE SHEET C-10 FOR PARKING INFORMATION
SEE SHEET C-11 THRU C-12 FOR SITE COORDINATE TABLES.
SEE SHEET C-31 & C-33 FOR OFFSITE INFORMATION.
SEE SHEETS C-33 THRU C-37 FOR CROSS SECTIONS.

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

NOTES:
1.) ALL RADII ARE 3' UNLESS OTHERWISE NOTED.
2.) FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. IF CONFLICTS OCCUR, CONTACT ENGINEER PRIOR TO CONSTRUCTION.
3.) ALL ONSITE SIDEWALKS ARE 5' WIDE UNLESS OTHERWISE NOTED.
4.) REFER TO LANDSCAPE/HARDSCAPE PLANS FOR ENHANCEMENT FEATURES AND SIGNS.
5.) ALL CURBS ARE TYPE D TYPE UNLESS OTHERWISE NOTED.
6.) ALL SIGNAGE AND STRIPING TO BE INSTALLED IN ACCORDANCE WITH MUTCD (LATEST EDITION) STANDARDS AND SPECIFICATIONS.
7.) SIDEWALK RAMPS TO BE CONSTRUCTED AT PROPOSED SITE DRIVEWAYS SHALL BE "CAST IN PLACE" DETECTABLE WARNING IN ACCORDANCE TO FDOT INDEX 304.
8.) LOCATIONS OF SITE LIGHTING IS APPROXIMATE. FINAL LOCATION TO BE DETERMINED BY OUC.
9.) ALL SIGNAGE REQUIRES A SEPARATE PERMIT.
10.) THE IRRIGATION SYSTEM REQUIRES A SEPARATE PERMIT.
11.) MAINTENANCE OF TRAFFIC TO BE SUPERVISED BY A CERTIFIED PERSON.
12.) ALL CONCRETE SHALL BE AN APPROVED FDOT MIX DESIGN OF 3,000 PSI OR GREATER.
13.) MAXIMUM CROSS SLOPES ON ALL CROSSWALKS SHALL BE 2% AND THE MAXIMUM SLOPE FOR RAMPS SHALL BE 1 TO 12.
14.) THE FOLLOWING PROPOSED FACILITIES SHOW ON THE DEVELOPMENT PLANS ARE FOR REFERENCE PURPOSE ONLY AND EACH SHALL REQUIRE A SEPARATE BUILDING PERMIT, THE LIST INCLUDES, BUT IS NOT LIMITED TO: PROPOSED BUILDINGS, SANITARY LIFT STATIONS, LIGHT FIXTURES (POLES) THAT ARE INDEPENDENT GATES MONUMENT SIGNS, DUMPSTER ENCLOSURES, DECORATIVE RETAINING WALLS THAT EXCEED THREE FT. IN HEIGHT.
15.) ALL CURB RAMPS SHALL BE CR-E PER FDOT INDEX #304, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
16.) ALL ROADWAY STRIPING WITHIN COUNTY RIGHT OF WAY SHALL BE THERMOPLASTIC.
17.) STOP SIGNS WITHIN ALL PUBLIC RIGHT OF WAY SHALL BE 30" STOP SIGNS.
18.) ALL DETECTABLE WARNINGS PROPOSED AT SIDEWALK CURB RAMPS WITHIN THE RIGHT OF WAY COUNTY SHALL BE "CAST IN PLACE" PER FDOT INDEX 522-002.
19.) ALL AFFECTED SIDEWALKS, RAMPS AND CROSSWALKS WILL BE BUILT AND INSPECTED TO MEET CURRENT ADA REQUIREMENTS.

GENERAL NOTES:

1.) SETBACK:

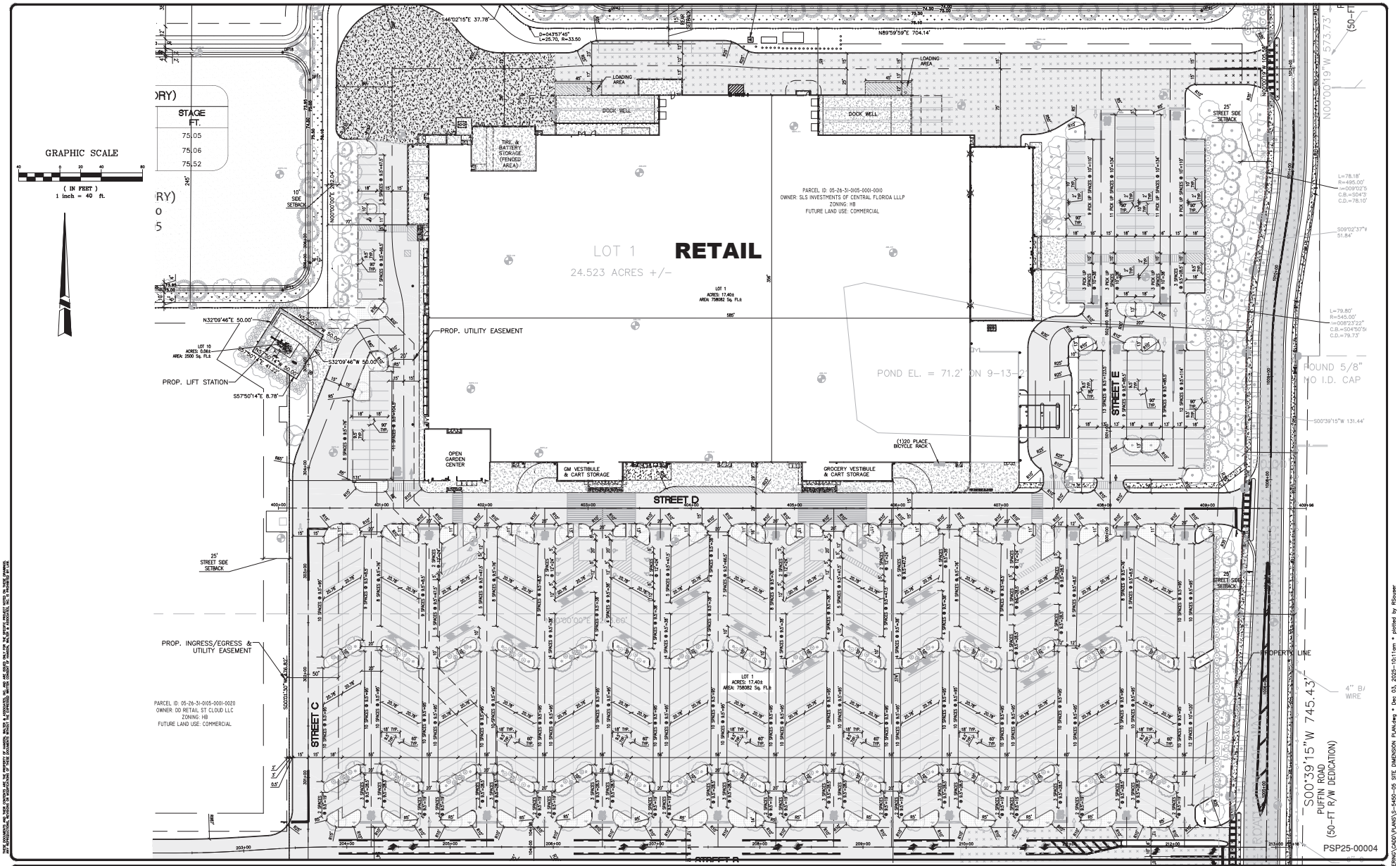
FRONT	25'
REAR	15'
STREET SIDE	25'
SIDE	10'
ADJACENT TO RESIDENTIAL ZONING	30'

2.) MAXIMUM LOT IMPERVIOUS AREA 80%

PSP25-00004

DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	SITE DIMENSION PLAN 2	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET NO C-09 of C-50 JOB NO 5450-05
DRAWN RS	PAGE –	TWP. 26 S							
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							
CAD# (see stamp)	DATE 12/3/25		DATE	BY	REVISIONS				

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DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8					
DRAWN RS	PAGE –	TWP. 26 S					
CHECKED RN	SCALE AS SHOWN	RANGE 31 E					
CAD# (see stamp)	DATE 12/3/25		DATE	BY	REVISIONS		

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

PARKING INFORMATION

This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

SHEET NO. C-10 of C-50

JOB NO. 5450-05

THE DRAWINGS, AS SUCH, PREPARED BY THE OFFICES OF HANSON, WALTER & ASSOCIATES, INC. ARE, AND SHALL REMAIN, THE PROPERTY OF THE OFFICES OF HANSON, WALTER & ASSOCIATES, INC. WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THE DRAWINGS ARE NOT TO BE USED BY ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE EXPRESS WRITTEN PERMISSION OF HANSON, WALTER & ASSOCIATES, INC.

I:\5450-05\ENGINEERING\CAD2D\PLANS\S-5450-05 SITE DIMENSION PLAN.dwg • Dec 03, 2025 - 10:11am • plotted by RSouser

CENTERLINE LOCATION SYSTEM

Marker #	Northing	Easting	Description
CL1	N 1422264.4083	E 579563.0448	Centerline Location
CL2	N 1422364.4522	E 579563.0819	Centerline Location
CL3	N 1422665.1740	E 579563.2126	Centerline Location
CL4	N 1422665.2537	E 579375.3645	Centerline Location
CL5	N 1422864.7949	E 579344.5733	Centerline Location
CL6	N 1422864.8815	E 580226.2150	Centerline Location
CL7	N 1422864.8656	E 580227.7172	Centerline Location
CL8	N 1422863.3881	E 579313.8399	Centerline Location
CL9	N 1422661.1924	E 579277.9657	Centerline Location
CL10	N 1422659.3248	E 579216.4412	Centerline Location
CL64	N 1422659.4132	E 579012.9121	Centerline Location
CL65	N 1422993.3392	E 579344.7161	Centerline Location
CL66	N 1423023.7836	E 579344.7263	Centerline Location
CL67	N 1423041.7112	E 579346.0633	Centerline Location
CL68	N 1423144.7621	E 579387.7070	Centerline Location
CL69	N 1423160.7859	E 579411.0508	Centerline Location
CL70	N 1423160.7745	E 579437.2014	Centerline Location
CL71	N 1422993.3126	E 579405.7161	Centerline Location
CL72	N 1422993.2990	E 579437.1286	Centerline Location
CL73	N 1422993.2883	E 579461.7161	Centerline Location
CL74	N 1422993.2640	E 579517.7160	Centerline Location
CL75	N 1422993.2396	E 579573.7160	Centerline Location
CL76	N 1422993.2153	E 579629.7160	Centerline Location
CL77	N 1422993.1909	E 579685.7160	Centerline Location
CL78	N 1422993.1666	E 579741.7160	Centerline Location
CL79	N 1422993.1423	E 579797.7160	Centerline Location
CL80	N 1422993.1179	E 579853.7160	Centerline Location
CL81	N 1422993.0936	E 579909.7160	Centerline Location
CL82	N 1422993.0692	E 579965.7160	Centerline Location
CL83	N 1422993.0449	E 580021.7160	Centerline Location
CL84	N 1422993.0187	E 580079.5526	Centerline Location
CL85	N 1422993.0015	E 580121.4470	Centerline Location
CL86	N 1422992.9945	E 580137.5526	Centerline Location
CL87	N 1422992.9702	E 580193.5526	Centerline Location
CL88	N 1422993.4719	E 580251.0205	Centerline Location
CL89	N 1422992.9342	E 580276.4627	Centerline Location
CL90	N 1422665.2426	E 579405.5735	Centerline Location
CL91	N 1422665.2182	E 579461.5734	Centerline Location
CL92	N 1422665.1939	E 579517.5734	Centerline Location
CL93	N 1422665.1452	E 579629.5734	Centerline Location
CL94	N 1422665.1208	E 579685.5734	Centerline Location
CL95	N 1422665.0722	E 579797.5734	Centerline Location
CL96	N 1422665.0478	E 579853.5734	Centerline Location
CL97	N 1422665.0235	E 579909.5734	Centerline Location
CL98	N 1422664.9991	E 579965.5734	Centerline Location
CL99	N 1422664.9748	E 580021.5734	Centerline Location
CL100	N 1422664.9497	E 580079.4100	Centerline Location
CL101	N 1422664.9244	E 580137.4100	Centerline Location
CL102	N 1422664.9001	E 580193.4100	Centerline Location
CL103	N 1423178.2884	E 579437.2090	Centerline Location
CL104	N 1423205.6012	E 579433.4185	Centerline Location
CL105	N 1423280.2307	E 579425.8377	Centerline Location
CL106	N 1423418.9826	E 579425.9067	Centerline Location
CL107	N 1423418.9289	E 579549.3689	Centerline Location
CL108	N 1423420.7202	E 579593.1923	Centerline Location
CL109	N 1423421.8091	E 579625.9584	Centerline Location
CL110	N 1423421.7638	E 579730.2450	Centerline Location
CL111	N 1423419.9057	E 579774.6447	Centerline Location
CL112	N 1423418.8168	E 579807.4060	Centerline Location
CL113	N 1423418.6841	E 580112.5895	Centerline Location
CL114	N 1423418.6550	E 580179.5895	Centerline Location
CL115	N 1423418.6782	E 580274.0221	Centerline Location
CL116	N 1423418.6030	E 580299.2190	Centerline Location
CL117	N 1423168.8711	E 580162.5233	Centerline Location
CL118	N 1423168.8725	E 580179.4609	Centerline Location
CL119	N 1423168.8974	E 580121.5234	Centerline Location
CL120	N 1423168.9013	E 580112.4659	Centerline Location
CL121	N 1423168.9144	E 580083.0775	Centerline Location
CL122	N 1423148.9230	E 580063.0688	Centerline Location
CL123	N 1423054.5506	E 580063.0281	Centerline Location
CL124	N 1423035.8361	E 580064.7867	Centerline Location
CL125	N 1423014.6689	E 580067.0114	Centerline Location
CL126	N 1422993.0252	E 580067.0020	Centerline Location
CL127	N 1423034.1734	E 580121.4649	Centerline Location
CL128	N 1423034.1489	E 580162.4647	Centerline Location
CL620	N 1422220.8358	E 580267.6840	Centerline Location
CL621	N 1422278.4546	E 580268.3269	Centerline Location
CL622	N 1422320.8295	E 580268.8048	Centerline Location
CL623	N 1423143.6031	E 580278.1829	Centerline Location
CL624	N 1423219.4024	E 580284.6130	Centerline Location
CL625	N 1423270.5974	E 580292.7613	Centerline Location
CL626	N 1423352.3822	E 580299.2252	Centerline Location
CL627	N 1423714.7384	E 580299.1910	Centerline Location
CL1086	N 1422665.0965	E 579741.5734	Centerline Location

DRY POND LOCATION SYSTEM

Marker #	Northing	Easting	Description
DP11	N 1423408.1572	E 579346.4302	Dry Pond Location Point
DP12	N 1423230.8854	E 579346.4541	Dry Pond Location Point
DP13	N 1423204.3854	E 579319.9541	Dry Pond Location Point
DP14	N 1423204.3854	E 579047.3678	Dry Pond Location Point
DP15	N 1423230.8953	E 579020.8678	Dry Pond Location Point
DP16	N 1423408.1671	E 579020.9099	Dry Pond Location Point
DP17	N 1423434.6572	E 579047.4099	Dry Pond Location Point
DP18	N 1423434.6572	E 579319.9302	Dry Pond Location Point
DP35	N 1423501.4291	E 579610.1127	Dry Pond Location Point
DP36	N 1423659.1177	E 579610.1127	Dry Pond Location Point
DP37	N 1423685.6152	E 579636.9778	Dry Pond Location Point
DP38	N 1423677.6961	E 580221.6005	Dry Pond Location Point
DP39	N 1423651.0105	E 580237.7346	Dry Pond Location Point
DP40	N 1423501.2409	E 580236.6712	Dry Pond Location Point
DP41	N 1423474.9291	E 580210.1719	Dry Pond Location Point
DP42	N 1423474.9291	E 579636.6127	Dry Pond Location Point

POND LOCATION SYSTEM

Marker #	Northing	Easting	Description
P19	N 1423438.6572	E 579319.9302	Pond Location Point
P20	N 1423438.6572	E 579347.4312	Pond Location Point
P21	N 1423465.1572	E 579320.9312	Pond Location Point
P23	N 1423693.7339	E 579047.8955	Pond Location Point
P24	N 1423686.3709	E 579580.9211	Pond Location Point
P25	N 1423659.9033	E 579606.1127	Pond Location Point
P26	N 1423501.4291	E 579606.1127	Pond Location Point
P27	N 1423474.9291	E 579582.6064	Pond Location Point
P28	N 1423474.9291	E 579574.1127	Pond Location Point
P29	N 1423462.3545	E 579555.7167	Pond Location Point
P30	N 1423505.7787	E 579531.4283	Pond Location Point
P31	N 1423519.9291	E 579496.3719	Pond Location Point
P32	N 1423519.9291	E 579396.9302	Pond Location Point
P33	N 1423469.4291	E 579346.4302	Pond Location Point
P34	N 1423465.1572	E 579346.4302	Pond Location Point

CONCRETE LOCATION SYSTEM

Marker #	Northing	Easting	Description
C140	N 1423350.676	E 579381.925	Concrete Location
C141	N 1423360.737	E 579371.848	Concrete Location
C142	N 1423417.218	E 579372.194	Concrete Location
C144	N 1423433.937	E 579530.820	Concrete Location
C734	N 1423345.592	E 579916.449	Concrete Location
C735	N 1423355.092	E 579430.906	Concrete Location
C736	N 1423355.076	E 579487.906	Concrete Location
C737	N 1423371.409	E 579487.913	Concrete Location
C738	N 1423371.403	E 579502.913	Concrete Location
C739	N 1423383.236	E 579502.910	Concrete Location
C740	N 1423354.873	E 579383.906	Concrete Location
C849	N 1423143.478	E 580289.182	Concrete Location
C850	N 1422940.642	E 580280.026	Concrete Location
C851	N 1422290.305	E 580325.302	Concrete Location
C852	N 1422245.953	E 580727.857	Concrete Location
C853	N 1422224.048	E 580725.593	Concrete Location
C854	N 1423715.088	E 580275.191	Concrete Location
C855	N 1423715.091	E 580280.122	Concrete Location
C856	N 1423446.370	E 580280.218	Concrete Location
C857	N 1423441.418	E 580275.217	Concrete Location
C858	N 1423395.849	E 580275.221	Concrete Location
C859	N 1423360.898	E 580280.222	Concrete Location
C860	N 1423352.392	E 580280.225	Concrete Location
C861	N 1423352.391	E 580275.225	Concrete Location
C862	N 1423274.381	E 580269.060	Concrete Location
C863	N 1423273.595	E 580273.998	Concrete Location
C864	N 1423222.544	E 580285.872	Concrete Location
C865	N 1423223.332	E 580280.924	Concrete Location
C866	N 1423143.889	E 580254.185	Concrete Location
C867	N 1423143.821	E 580259.184	Concrete Location
C868	N 1423020.017	E 580257.558	Concrete Location
C869	N 1423015.365	E 580252.717	Concrete Location
C870	N 1422968.953	E 580250.584	Concrete Location
C871	N 1422963.906	E 580255.343	Concrete Location
C872	N 1422714.039	E 580243.277	Concrete Location
C873	N 1422714.108	E 580238.277	Concrete Location
C874	N 1422691.299	E 580238.017	Concrete Location
C875	N 1422690.130	E 580243.072	Concrete Location
C876	N 1422622.852	E 580242.350	Concrete Location
C877	N 1422627.859	E 580237.457	Concrete Location
C878	N 1422495.093	E 580235.434	Concrete Location
C879	N 1422464.573	E 580240.428	Concrete Location
C880	N 1422414.699	E 580228.858	Concrete Location
C881	N 1422415.220	E 580223.864	Concrete Location
C882	N 1422325.436	E 580222.854	Concrete Location
C883	N 1422322.997	E 580227.712	Concrete Location
C884	N 1422315.043	E 580227.973	Concrete Location
C885	N 1422312.018	E 580222.328	Concrete Location
C886	N 1422311.282	E 580229.661	Concrete Location
C887	N 1422306.555	E 580226.700	Concrete Location
C888	N 1422307.043	E 580221.830	Concrete Location
C889	N 1422310.707	E 580215.049	Concrete Location
C890	N 1422320.446	E 580207.177	Concrete Location
C891	N 1422322.283	E 580203.727	Concrete Location
C892	N 1422327.124	E 580204.341	Concrete Location
C893	N 1422323.455	E 580211.174	Concrete Location
C894	N 1422318.932	E 580214.830	Concrete Location
C895	N 1422313.213	E 580208.957	Concrete Location
C896	N 1422304.873	E 580294.522	Concrete Location
C897	N 1422304.269	E 580300.559	Concrete Location
C898	N 1422299.172	E 580301.276	Concrete Location
C899	N 1422303.420	E 580309.037	Concrete Location
C900	N 1422314.653	E 580306.155	Concrete Location
C901	N 1422317.698	E 580299.458	Concrete Location
C902	N 1422318.724	E 580292.783	Concrete Location
C903	N 1422313.758	E 580292.297	Concrete Location
C904	N 1422318.792	E 580287.758	Concrete Location
C905	N 1423143.375	E 580297.182	Concrete Location
C906	N 1423143.318	E 580302.181	Concrete Location
C907	N 1423216.404	E 580303.377	Concrete Location
C908	N 1423215.619	E 580308.315	Concrete Location
C909	N 1423207.599	E 580311.525	Concrete Location
C910	N 1423266.814	E 580316.463	Concrete Location
C911	N 1423352.373	E 580318.225	Concrete Location
C912	N 1423352.373	E 580323.225	Concrete Location
C913	N 1423714.724	E 580318.191	Concrete Location
C914	N 1423714.656	E 580323.191	Concrete Location
C915	N 1422356.891	E 579636.223	Concrete Location
C916	N 1422356.974	E 579633.725	Concrete Location
C917	N 1422339.643	E 579615.200	Concrete Location
C918	N 1422340.016	E 579605.160	Concrete Location
C919	N 1422345.275	E 579598.304	Concrete Location
C920	N 1422344.715	E 579613.303	Concrete Location
C921	N 1422361.950	E 579631.725	Concrete Location
C922	N 1422346.671	E 579541.295	Concrete Location
C923	N 1422341.900	E 579538.216	Concrete Location
C924	N 1422342.124	E 579530.274	Concrete Location
C925	N 1422360.738	E 579512.683	Concrete Location
C926	N 1422365.606	E 579514.962	Concrete Location
C927	N 1422347.064	E 579532.485	Concrete Location

CONCRETE LOCATION SYSTEM

Marker #	Northing	Easting	Description
C970	N 1423008.510	E 579848.874	Concrete Location
C971	N 1423008.517	E 579934.054	Concrete Location
C972	N 1423022.523	E 579920.060	Concrete Location
C973	N 1423022.527	E 579910.763	Concrete Location
C974	N 1423037.343	E 579920.065	Concrete Location
C975	N 1423020.236	E 579896.099	Concrete Location
C976	N 1423037.153	E 579896.106	Concrete Location
C977	N 1423022.576	E 579585.930	Concrete Location
C978	N 1423022.581	E 579574.930	Concrete Location
C979	N 1423008.358	E 579561.447	Concrete Location
C980	N 1423008.219	E 579546.836	Concrete Location
C981	N 1423037.443	E 579574.936	Concrete Location
C982	N 1423087.411	E 579349.060	Concrete Location
C983	N 1423126.656	E 579349.077	Concrete Location
C984	N 1423139.781	E 579346.405	Concrete Location
C985	N 1423157.416	E 579357.549	Concrete Location
C986	N 1423156.383	E 579359.184	Concrete Location
C987	N 1423154.093	E 579375.475	Concrete Location
C1094	N 1423182.016	E 579318.619	Concrete Location
C1095	N 1423169.511	E 579310.756	Concrete Location
C1097	N 1423433.914	E 579583.941	Concrete Location

PAVING LOCATION SYSTEM

Marker #	Northing	Easting	Description
PV-43	N 1422621.1801	E 579549.1935	Pavement
PV-44	N 1422646.1910	E 579524.2043	Pavement
PV-46	N 1422646.4132	E 579512.9238	Pavement
PV-47	N 1422672.4131	E 579512.9034	Pavement
PV-48	N 1422672.3263	E 579216.4469	Pavement
PV-49	N 1422674.1672	E 579277.1563	Pavement
PV-50	N 1423023.7871	E 579329.7293	Pavement
PV-51	N 1423047.0969	E 579334.0636	Pavement
PV-52	N 1423150.1478	E 579373.7073	Pavement
PV-53	N 1423175.7808	E 579411.6781	Pavement
PV-54	N 1423195.8069	E 579411.8392	Pavement
PV-55	N 1422700.8821	E 579329.5889	Pavement
PV-56	N 1422675.9387	E 579306.1009	Pavement
PV-57	N 1422671.8878	E 580222.2911	Pavement
PV-58	N 1422706.4906	E 580251.1910	Pavement
PV-59	N 1422610.4911	E 580250.0950	Pavement
PV-60	N 1422645.8907	E 580215.1125	Pavement
PV-61	N 1422646.1571	E 579602.2043	Pavement
PV-62	N 1422621.1680	E 579577.1934	Pavement
PV-63	N 1423285.5650	E 579577.0910	Pavement
PV-129	N 1423166.8151	E 579392.8952	Pavement
PV-130	N 1423278.3141	E 579392.9201	Pavement
PV-131	N 1423278.3108	E 579408.0585	Pavement
PV-132	N 1423281.3052	E 579410.9212	Pavement
PV-133	N 1423284.8052	E 579410.9240	Pavement
PV-134	N 1423287.8076	E 579407.9253	Pavement
PV-135	N 1423287.8141	E 579392.9264	Pavement
PV-136	N 1423335.3141	E 579392.9468	Pavement
PV-137	N 1423335.3076	E 579408.9849	Pavement
PV-138	N 1423336.8986	E 579410.9018	Pavement
PV-139	N 1423350.7835	E 579395.9498	Pavement
PV-143	N 1423454.9164	E 579490.1254	Pavement
PV-145	N 1423433.9091	E 579594.9722	Pavement
PV-146	N 1423439.8811	E 579611.1984	Pavement
PV-147	N 1423445.8532	E 579627.4245	Pavement
PV-148	N 1423445.8021	E 579745.9687	Pavement
PV-149	N 1423439.8151	E 579763.6458	Pavement
PV-150	N 1423433.6253	E 579782.7631	Pavement
PV-151	N 1423433.6253	E 580244.1579	Pavement
PV-152	N 1423468.6403	E 580288.2142	Pavement
PV-153	N 1423368.6287	E 580288.2237	Pavement
PV-154	N 1423403.6253	E 580253.2237	Pavement
PV-155	N 1423403.6253	E 580203.8972	Pavement
PV-156	N 1423393.6297	E 580193.8972	Pavement
PV-157	N 1423353.4124	E 580193.8739	Pavement
PV-158	N 1423350.4120	E 580196.9524	Pavement
PV-159	N 1423350.2881	E 580213.0392	Pavement
PV-160	N 1423201.7881	E 580212.9751	Pavement
PV-161	N 1423201.7946	E 580198.0370	Pavement
PV-162	N 1423198.7959	E 580195.0357	Pavement
PV-163	N 1423148.8658	E 580195.0142	Pavement
PV-164	N 1423145.8645	E 580198.0129	Pavement
PV-165	N 1423145.8580	E 580213.0129	Pavement
PV-166	N 1423031.8580	E 580212.9637	Pavement
PV-167	N 1423031.8645	E 580197.7969	Pavement
PV-168	N 1423029.3449	E 580194.8343	Pavement
PV-169	N 1423020.9460	E 580194.9590	Pavement
PV-170	N 1423020.9667	E 580136.9590	Pavement
PV-171	N 1423017.9667	E 580133.9577	Pavement
PV-172	N 1423007.9917	E 580143.9534	Pavement
PV-173	N 1423007.8377	E 580230.6299	Pavement
PV-174	N 1423042.4358	E 580266.0272	Pavement
PV-175	N 1422941.2705	E 580262.2626	Pavement
PV-176	N 1422977.9587	E 580227.3034	Pavement
PV-177	N 1422977.9660	E 580213.4511	Pavement
PV-178	N 1422967.9674	E 580203.4496	Pavement
PV-179	N 1422961.7713	E 580203.4488	Pavement
PV-180	N 1422959.1726	E 580207.9484	Pavement
PV-181	N 1422966.9649	E 580221.4495	Pavement
PV-182	N 1422857.2683	E 580221.4339	Pavement
PV-183	N 1422847.7444	E 580204.3525	Pavement
PV-184	N 1422845.1465	E 580203.4322	Pavement
PV-185	N 1422841.1051	E 580203.4316	Pavement
PV-186	N 1422838.5064	E 580207.9312	Pavement
PV-187	N 1422846.2987	E 580221.4323	Pavement
PV-188	N 1422714.6828	E 580221.4136	Pavement
PV-189	N 1422705.7830	E 580206.0282	Pavement
PV-190	N 1422701.4532	E 580203.5276	Pavement
PV-191	N 1422693.8928	E 580203.5265	Pavement
PV-192	N 1422683.8914	E 580213.5222	Pavement
PV-193	N 1422683.8901	E 580216.4676	Pavement
PV-194	N 1422683.9087	E 580173.5222	Pavement
PV-195	N 1422683.9157	E 580157.5213	Pavement
PV-196	N 1422693.9171	E 580147.5257	Pavement
PV-197	N 1422697.8483	E 580147.5262	Pavement
PV-198	N 1422700.4457	E 580152.0266	Pavement
PV-199	N 1422692.6915	E 580165.4096	Pavement
PV-200	N 1422703.6611	E 580165.4545	Pavement
PV-201	N 1422695.2429	E 580180.0305	Pavement
PV-202	N 1422720.4268	E 580183.4135	Pavement

PAVING LOCATION SYSTEM

Marker #	Northing	Easting	Description
PV-203	N 1422717.8293	E 580178.9132	Pavement
PV-204	N 1422735.1541	E 580148.9156	Pavement
PV-205	N 1422737.7524	E 580147.4160	Pavement
PV-206	N 1422741.7939	E 580147.4166	Pavement
PV-207	N 1422744.3913	E 580151.9170	Pavement
PV-208	N 1422727.0665	E 580151.9145	Pavement
PV-209	N 1422724.4682	E 580183.4141	Pavement
PV-210	N 1422838.4955	E 580178.9304	Pavement
PV-211	N 1422855.8203	E 580148.9328	Pavement
PV-212	N 1422858.4186	E 580147.4332	Pavement
PV-213	N 1422862.4601	E 580147.4338	Pavement
PV-214	N 1422865.0575	E 580151.9341	Pavement
PV-215	N 1422875.9387	E 580181.9317	Pavement
PV-216	N 1422845.1344	E 580183.4313	Pavement
PV-217	N 1422841.0930	E 580183.4307	Pavement
PV-218	N 1422959.1613	E 580178.9484	Pavement
PV-219	N 1422966.9579	E 580165.4487	Pavement
PV-220	N 1422955.9862	E 580165.4471	Pavement
PV-221	N 1422965.5162	E 580148.9496	Pavement
PV-222	N 1422968.1690	E 580147.4505	Pavement
PV-223	N 1423187.9859	E 580187.4531	Pavement
PV-224	N 1422977.9789	E 580173.4540	Pavement
PV-225	N 1422967.9775	E 580183.4496	Pavement
PV-226	N 1422961.7587	E 580183.4488	Pavement
PV-227	N 1422965.5695	E 580125.9738	Pavement
PV-228	N 1422956.0334	E 580109.4514	Pavement
PV-229	N 1422966.9659	E 580109.4530	Pavement
PV-230	N 1422959.2108	E 580095.9519	Pavement
PV-231	N 1422961.8095	E 580091.4523	Pavement
PV-232	N 1422968.0116	E 580091.4531	Pavement
PV-233	N 1422978.0102	E 580101.4575	Pavement
PV-234	N 1422978.0033	E 580117.4805	Pavement
PV-235	N 1422968.2383	E 580127.4733	Pavement
PV-236	N 1422865.0989	E 580122.9385	Pavement
PV-237	N 1422862.5001	E 580127.4381	Pavement
PV-238	N 1422858.4587	E 580127.4375	Pavement
PV-239	N 1422855.8608	E 580125.9372	Pavement
PV-240	N 1422838.5446	E 580095.9347	Pavement
PV-241	N 1422845.2004	E 580091.4523	Pavement
PV-242	N 1422845.1948	E 580091.4356	Pavement
PV-243	N 1422847.7826	E 580092.9360	Pavement
PV-244	N 1422727.1164	E 580092.9188	Pavement
PV-245	N 1422744.4326	E 580122.9213	Pavement
PV-246	N 1422741.8339	E 580127.4209	Pavement
PV-247	N 1422737.7925	E 580127.4204	Pavement
PV-248	N 1422735.1946	E 580125.9200	Pavement
PV-249	N 1422717.8784	E 580095.9175	Pavement
PV-250	N 1422701.7881	E 580212.9751	Pavement
PV-251	N 1422724.5186	E 580091.4185	Pavement
PV-252	N 1422695.3821	E 580094.9494	Pavement
PV-253	N 1422703.7314	E 580109.4155	Pavement
PV-254	N 1422692.7637	E 580109.4174	Pavement
PV-255	N 1422700.6184	E 580123.0266	Pavement
PV-256	N 1422698.0197	E 580127.5263	Pavement
PV-257	N 1422693.9317	E 580127.5257	Pavement
PV-258	N 1422683.9331	E 580117.5213	Pavement
PV-259	N 1422683.9409	E 580101.5251	Pavement
PV-260	N 1422688.1632	E 580093.3674	Pavement
PV-261	N 1422693.9580	E 580067.0257	Pavement
PV-262	N 1422683.9594	E 580057.0214	Pavement
PV-263	N 1422683.9662	E 580041.4370	Pavement
PV-264	N 1422683.9694	E 580033.8832	Pavement
PV-265	N 1422695.4253	E 580034.8521	Pavement
PV-266	N 1422703.7266	E 580049.2578	Pavement
PV-267	N 1422692.7589	E 580049.2996	Pavement
PV-268	N 1422700.4125	E 580062.5282	Pavement
PV-269	N 1422697.8129	E 580067.0263	Pavement
PV-270	N 1422735.2073	E 580065.8301	Pavement
PV-271	N 1422717.9084	E 580035.8177	Pavement
PV-272	N 1422720.5097	E 580031.3195	Pavement
PV-273	N 1422724.5512	E 580031.3224	Pavement
PV-274	N 1422727.1482	E 580032.8243	Pavement
PV-275	N 1422744.4471	E 580062.8368	Pavement
PV-276	N 1422741.8458	E 580067.3349	Pavement
PV-277	N 1422737.8043	E 580067.3320	Pavement
PV-278	N 1422855.8735	E 580065.9169	Pavement
PV-279	N 1422838.5746	E 580035.9045	Pavement
PV-280	N 1422841.1759	E 580031.4064	Pavement
PV-281	N 1422845.2174	E 580031.4093	Pavement
PV-282	N 1422847.8144	E 580032.9111	Pavement
PV-283	N 1422865.1133	E 580062.9236	Pavement
PV-284	N 1422862.5120	E 580067.4217	Pavement
PV-285	N 1422858.4705	E 580067.4211	Pavement
PV-306	N 1422847.7758	E 580009.9442	Pavement
PV-307	N 1422845.1775	E 580011.4438	Pavement
PV-308	N 1422841.1361	E 580011.4432	Pavement
PV-309	N 1422838.5387	E 580006.9429	Pavement
PV-310	N 1422855.8634	E 579976.9453	Pavement
PV-311	N 1422858.4617	E 579975.4457	Pavement
PV-312	N 1422862.5032	E 579975.4463	Pavement

PAVING LOCATION SYSTEM

Marker #	Northing	Easting	Description
PV-313	N 1422865.1006	E 579979.9466	Pavement
PV-314	N 1422727.1096	E 580009.9270	Pavement
PV-315	N 1422724.5113	E 580011.4266	Pavement
PV-316	N 1422720.4699	E 580011.4261	Pavement
PV-317	N 1422717.8725	E 580006.9257	Pavement
PV-318	N 1422735.1972	E 579976.9281	Pavement
PV-319	N 1422737.7955	E 579975.4285	Pavement
PV-320	N 1422741.8370	E 579975.4291	Pavement
PV-321	N 1422744.4344	E 579979.9295	Pavement
PV-322	N 1422703.7293	E 579993.4237	Pavement
PV-323	N 1422695.3350	E 580007.9582	Pavement
PV-324	N 1422688.0270	E 580009.4737	Pavement
PV-325	N 1422683.9835	E 580001.4370	Pavement
PV-326	N 1422683.9905	E 579985.5339	Pavement
PV-327	N 1422683.9919	E 579975.5382	Pavement
PV-328	N 1422697.8914	E 579975.5388	Pavement
PV-329	N 1422700.4889	E 579980.0391	Pavement
PV-330	N 1422682.7789	E 579993.3887	Pavement
PV-331	N 1422694.0064	E 579955.5382	Pavement
PV-332	N 1422688.0078	E 579945.5339	Pavement
PV-333	N 1422684.0148	E 579929.5429	Pavement
PV-334	N 1422688.2435	E 579921.3807	Pavement
PV-335	N 1422695.4598	E 579922.9646	Pavement
PV-336	N 1422703.8100	E 579937.4327	Pavement
PV-337	N 1422682.8404	E 579937.4312	Pavement
PV-338	N 1422700.2613	E 579951.2891	Pavement
PV-339	N 1422688.0957	E 579955.5388	Pavement
PV-340	N 1422735.0230	E 579953.9337	Pavement
PV-341	N 1422717.9571	E 579923.9347	Pavement
PV-342	N 1422703.5058	E 579919.4551	Pavement
PV-343	N 1422724.5972	E 579919.4357	Pavement
PV-344	N 1422727.1951	E 579920.9360	Pavement
PV-345	N 1422744.5113	E 579950.9385	Pavement
PV-346	N 1422741.9126	E 579955.4381	Pavement
PV-347	N 1422737.8711	E 579955.4376	Pavement
PV-348	N 1422855.9095	E 579953.9544	Pavement
PV-349	N 1422838.6233	E 579923.9519	Pavement
PV-350	N 1422841.2220	E 579919.4523	Pavement
PV-351	N 1422845.2634	E 579919.4529	Pavement
PV-352	N 1422847.8613	E 579920.9532	Pavement
PV-353	N 1422865.1775	E 579950.9557	Pavement
PV-354	N 1422862.5788	E 579955.4553	Pavement
PV-355	N 1422858.5374	E 579955.4547	Pavement
PV-356	N 1422965.6454	E 579953.9863	Pavement
PV-357	N 1422956.1121	E 579937.4686	Pavement
PV-358	N 1422967.0090	E 579937.4702	Pavement
PV-359	N 1422959.2895	E 579923.9691	Pavement
PV-360	N 1422961.8882	E 579919.4695	Pavement
PV-361	N 1422968.0864	E 579919.4704	Pavement
PV-362	N 1422978.0850	E 579929.4747	Pavement
PV-363	N 1422978.0780	E 579945.4930	Pavement
PV-364	N 1422970.2476	E 579955.4857	Pavement
PV-376	N 1422847.8564	E 579897.9533	Pavement
PV-377	N 1422845.2581	E 579899.4529	Pavement
PV-378	N 1422841.2167	E 579899.4523	Pavement
PV-379	N 1422838.6192	E 579894.9519	Pavement
PV-380	N 1422855.9440	E 579864.9544	Pavement
PV-381	N 1422858.5423	E 579863.4548	Pavement
PV-382	N 1422862.5838	E 579863.4554	Pavement
PV-383	N 1422865.1812	E 579867.9557	Pavement
PV-384	N 1422744.5150	E 579867.9385	Pavement
PV-385	N 1422727.1902	E 579897.9361	Pavement
PV-386	N 1422724.5919	E 579899.4357	Pavement
PV-387	N 1422720.0712	E 579899.4333	Pavement
PV-388	N 1422717.9530	E 579894.9348	Pavement
PV-389	N 1422703.2778	E 579864.9372	Pavement
PV-390	N 1422737.8761	E 579863.4376	Pavement
PV-391	N 1422741.9176	E 579863.4382	Pavement
PV-392	N 1422703.7848	E 579881.4761	Pavement
PV-393	N 1422695.3669	E 579896.0516	Pavement
PV-394	N 1422688.0421	E 579897.5547	Pavement
PV-395	N 1422684.0322	E 579889.5429	Pavement
PV-396	N 1422684.0391	E 579873.5429	Pavement
PV-397	N 1422684.0406	E 579863.5473	Pavement
PV-398	N 1422697.9720	E 579863.5478	Pavement
PV-399	N 1422700.5894	E 579868.0482	Pavement
PV-400	N 1422682.8081	E 579881.4937	Pavement
PV-401	N 1422684.0665	E 579833.5429	Pavement
PV-402	N 1422684.0635	E 579817.5330	Pavement
PV-403	N 1422688.2800	E 579809.3794	Pavement
PV-404	N 1422695.5022	E 579810.9590	Pavement
PV-405	N 1422703.8502	E 579825.4228	Pavement
PV-406	N 1422682.8605	E 579825.4212	Pavement
PV-407	N 1422700.

PAVING LOCATION SYSTEM

Marker #	Northing	Easting	Description
PV-543	N 1422688.4006	E 579585.5305	Pavement
PV-544	N 1422695.6112	E 579587.1183	Pavement
PV-545	N 1422703.9639	E 579601.5903	Pavement
PV-546	N 1422692.9942	E 579601.5888	Pavement
PV-547	N 1422700.8285	E 579615.1625	Pavement
PV-548	N 1422735.4271	E 579618.0948	Pavement
PV-549	N 1422718.1109	E 579588.0923	Pavement
PV-550	N 1422720.7096	E 579583.5927	Pavement
PV-551	N 1422724.7511	E 579583.5933	Pavement
PV-552	N 1422727.3489	E 579585.0937	Pavement
PV-553	N 1422744.6652	E 579615.0961	Pavement
PV-554	N 1422742.0664	E 579619.5958	Pavement
PV-555	N 1422738.0250	E 579619.5952	Pavement
PV-556	N 1422856.0933	E 579618.1120	Pavement
PV-557	N 1422836.7771	E 579588.1095	Pavement
PV-558	N 1422841.3758	E 579583.6099	Pavement
PV-559	N 1422845.4173	E 579583.6105	Pavement
PV-560	N 1422848.0151	E 579585.1108	Pavement
PV-561	N 1422865.3314	E 579615.1133	Pavement
PV-562	N 1422862.7326	E 579619.6129	Pavement
PV-563	N 1422858.6912	E 579619.6124	Pavement
PV-564	N 1422845.4243	E 579583.6441	Pavement
PV-565	N 1422841.3828	E 579583.6435	Pavement
PV-566	N 1422838.7854	E 579589.1432	Pavement
PV-567	N 1422856.1102	E 579529.1456	Pavement
PV-568	N 1422858.7085	E 579527.6460	Pavement
PV-569	N 1422862.7499	E 579527.6466	Pavement
PV-590	N 1422865.3474	E 579532.1469	Pavement
PV-591	N 1422848.0226	E 579562.1445	Pavement
PV-592	N 1422727.3564	E 579562.1273	Pavement
PV-593	N 1422724.7581	E 579563.6269	Pavement
PV-594	N 1422720.7166	E 579563.6264	Pavement
PV-595	N 1422718.1192	E 579559.1260	Pavement
PV-596	N 1422735.4440	E 579529.1284	Pavement
PV-597	N 1422738.0423	E 579527.6288	Pavement
PV-598	N 1422742.0837	E 579527.6294	Pavement
PV-599	N 1422744.6812	E 579532.1298	Pavement
PV-600	N 1422703.9510	E 579546.6673	Pavement
PV-601	N 1422695.5406	E 579560.2298	Pavement
PV-602	N 1422688.2435	E 579561.7534	Pavement
PV-603	N 1422684.1782	E 579553.7005	Pavement
PV-604	N 1422684.1851	E 579537.7341	Pavement
PV-605	N 1422684.1865	E 579527.7385	Pavement
PV-606	N 1422688.1382	E 579527.7391	Pavement
PV-607	N 1422700.7356	E 579532.2394	Pavement
PV-608	N 1422692.9813	E 579545.6658	Pavement
PV-609	N 1422699.3087	E 579506.3365	Pavement
PV-610	N 1422684.2025	E 579497.7342	Pavement
PV-611	N 1422684.2095	E 579481.6525	Pavement
PV-612	N 1422688.4634	E 579473.4726	Pavement
PV-613	N 1422695.6684	E 579475.0678	Pavement
PV-614	N 1422703.9752	E 579489.4706	Pavement
PV-615	N 1422693.0055	E 579489.5151	Pavement
PV-616	N 1422700.3760	E 579502.2590	Pavement
PV-617	N 1422735.2027	E 579506.0448	Pavement
PV-618	N 1422718.1550	E 579476.0332	Pavement
PV-619	N 1422720.7563	E 579471.5351	Pavement
PV-620	N 1422724.7978	E 579471.5380	Pavement
PV-621	N 1422727.3948	E 579473.0399	Pavement
PV-622	N 1422744.6937	E 579503.0523	Pavement
PV-623	N 1422742.0924	E 579507.5504	Pavement
PV-624	N 1422738.0509	E 579507.5475	Pavement
PV-625	N 1422856.1201	E 579506.1325	Pavement
PV-626	N 1422838.8212	E 579476.1200	Pavement
PV-627	N 1422841.4225	E 579471.6219	Pavement
PV-628	N 1422845.4639	E 579471.6248	Pavement
PV-629	N 1422848.0609	E 579473.1267	Pavement
PV-630	N 1422865.3599	E 579503.1391	Pavement
PV-631	N 1422862.7586	E 579507.6373	Pavement
PV-632	N 1422858.7171	E 579507.6343	Pavement
PV-645	N 1422968.2956	E 579451.6959	Pavement
PV-646	N 1422962.1057	E 579451.6950	Pavement
PV-647	N 1422959.5083	E 579447.1947	Pavement
PV-648	N 1422967.3044	E 579433.6958	Pavement
PV-649	N 1422956.3348	E 579433.6942	Pavement
PV-650	N 1422965.8926	E 579417.1451	Pavement
PV-651	N 1422968.5703	E 579415.6465	Pavement
PV-652	N 1422978.3040	E 579425.6473	Pavement
PV-653	N 1422978.2970	E 579451.7003	Pavement
PV-654	N 1422848.0793	E 579450.1788	Pavement
PV-655	N 1422845.4810	E 579451.6784	Pavement
PV-656	N 1422841.4395	E 579451.6776	Pavement
PV-657	N 1422838.8421	E 579447.1775	Pavement
PV-658	N 1422856.1669	E 579417.1799	Pavement
PV-659	N 1422858.7652	E 579415.6803	Pavement
PV-660	N 1422862.8066	E 579415.6809	Pavement
PV-661	N 1422865.4040	E 579420.1813	Pavement
PV-662	N 1422744.7379	E 579420.1561	Pavement
PV-663	N 1422727.4131	E 579450.1616	Pavement
PV-664	N 1422724.8148	E 579451.6612	Pavement

PAVING LOCATION SYSTEM

Marker #	Northing	Easting	Description
PV-665	N 1422720.7733	E 579451.6607	Pavement
PV-666	N 1422718.1759	E 579447.1603	Pavement
PV-667	N 1422735.5007	E 579417.1628	Pavement
PV-668	N 1422738.0989	E 579415.6631	Pavement
PV-669	N 1422742.1404	E 579415.6637	Pavement
PV-670	N 1422700.8312	E 579420.2064	Pavement
PV-671	N 1422693.0380	E 579433.6567	Pavement
PV-672	N 1422704.0077	E 579433.7016	Pavement
PV-673	N 1422895.6284	E 579448.2103	Pavement
PV-674	N 1422888.3703	E 579449.7625	Pavement
PV-675	N 1422884.2269	E 579441.6525	Pavement
PV-676	N 1422884.2338	E 579425.6953	Pavement
PV-677	N 1422894.2498	E 579415.6997	Pavement
PV-678	N 1422898.2381	E 579415.7061	Pavement
PV-679	N 1422898.3401	E 579395.6803	Pavement
PV-680	N 1422894.2341	E 579395.6733	Pavement
PV-681	N 1422884.2512	E 579385.6690	Pavement
PV-682	N 1422884.2560	E 579374.5817	Pavement
PV-683	N 1422888.9343	E 579363.7043	Pavement
PV-684	N 1422896.7053	E 579364.8329	Pavement
PV-685	N 1422704.0929	E 579377.6327	Pavement
PV-686	N 1422693.1232	E 579377.6311	Pavement
PV-687	N 1422700.9435	E 579391.1807	Pavement
PV-688	N 1422718.2399	E 579364.1347	Pavement
PV-689	N 1422720.8386	E 579359.6350	Pavement
PV-690	N 1422724.8600	E 579359.6356	Pavement
PV-691	N 1422727.4779	E 579361.1360	Pavement
PV-692	N 1422744.7941	E 579391.1385	Pavement
PV-693	N 1422742.1954	E 579395.6381	Pavement
PV-694	N 1422738.1540	E 579395.6375	Pavement
PV-695	N 1422735.5561	E 579394.1371	Pavement
PV-696	N 1422856.2223	E 579394.1543	Pavement
PV-697	N 1422838.9061	E 579364.1519	Pavement
PV-698	N 1422841.5048	E 579359.6522	Pavement
PV-699	N 1422845.5462	E 579359.6528	Pavement
PV-700	N 1422848.1441	E 579361.1532	Pavement
PV-701	N 1422865.4603	E 579391.1556	Pavement
PV-702	N 1422862.8616	E 579395.6553	Pavement
PV-703	N 1422859.1562	E 579395.6504	Pavement
PV-704	N 1422956.3949	E 579377.6686	Pavement
PV-705	N 1422967.3646	E 579377.6701	Pavement
PV-706	N 1422959.6212	E 579364.2538	Pavement
PV-707	N 1422961.9428	E 579359.7669	Pavement
PV-708	N 1422978.3261	E 579374.7095	Pavement
PV-709	N 1422978.3214	E 579385.6746	Pavement
PV-710	N 1422968.5988	E 579395.6664	Pavement
PV-711	N 1422965.9173	E 579394.1672	Pavement
PV-712	N 1423008.2775	E 579416.1353	Pavement
PV-713	N 1423008.3261	E 579401.1488	Pavement
PV-714	N 1423012.7675	E 579390.5009	Pavement
PV-715	N 1423021.2870	E 579394.0545	Pavement
PV-716	N 1423035.7911	E 579419.9410	Pavement
PV-717	N 1423017.3159	E 579422.1424	Pavement
PV-718	N 1423014.2749	E 579422.1379	Pavement
PV-719	N 1423097.2834	E 579404.1738	Pavement
PV-720	N 1423097.2884	E 579392.7941	Pavement
PV-721	N 1423103.7850	E 579388.0255	Pavement
PV-722	N 1423139.3878	E 579401.7220	Pavement
PV-723	N 1423145.7973	E 579411.0595	Pavement
PV-724	N 1423145.7854	E 579412.1929	Pavement
PV-725	N 1423135.7911	E 579422.1886	Pavement
PV-726	N 1423130.7758	E 579422.1865	Pavement
PV-727	N 1423125.7779	E 579417.1843	Pavement
PV-728	N 1423125.7835	E 579404.1860	Pavement
PV-729	N 1423252.2581	E 579452.2402	Pavement
PV-730	N 1423252.2589	E 579450.5287	Pavement
PV-731	N 1423267.5922	E 579450.5353	Pavement
PV-732	N 1423267.5964	E 579440.8687	Pavement
PV-733	N 1423345.5964	E 579440.9023	Pavement
PV-741	N 1423392.8681	E 579583.5227	Pavement
PV-742	N 1423393.5001	E 579664.1730	Pavement
PV-743	N 1423408.8335	E 579664.1796	Pavement
PV-744	N 1423408.8149	E 579707.1796	Pavement
PV-745	N 1423393.4816	E 579707.1730	Pavement
PV-746	N 1423393.4342	E 579817.0896	Pavement
PV-747	N 1423397.4342	E 579817.0913	Pavement
PV-748	N 1423397.4281	E 579831.4247	Pavement
PV-749	N 1423393.4281	E 579831.4230	Pavement
PV-750	N 1423393.3859	E 579929.2563	Pavement
PV-751	N 1423354.7192	E 579929.2396	Pavement
PV-752	N 1423354.6930	E 579990.2395	Pavement
PV-753	N 1423343.4325	E 579990.2347	Pavement
PV-754	N 1423343.4134	E 580034.7013	Pavement
PV-755	N 1423352.3648	E 580034.7051	Pavement
PV-756	N 1423355.3635	E 580037.7064	Pavement
PV-757	N 1423362.5117	E 580071.1416	Pavement
PV-758	N 1423371.2253	E 580085.6310	Pavement
PV-759	N 1423363.2096	E 579964.9099	Pavement
PV-760	N 1423362.0735	E 580097.0442	Pavement
PV-761	N 1423350.3381	E 580097.0391	Pavement

PAVING LOCATION SYSTEM

Marker #	Northing	Easting	Description
PV-762	N 1423350.3459	E 580079.0393	Pavement
PV-763	N 1423192.3459	E 580078.9710	Pavement
PV-764	N 1423192.3394	E 580093.9710	Pavement
PV-765	N 1423188.7485	E 580096.9894	Pavement
PV-766	N 1423178.7528	E 580086.9922	Pavement
PV-767	N 1423178.7292	E 580068.7023	Pavement
PV-768	N 1423148.9317	E 580042.0688	Pavement
PV-769	N 1423082.8421	E 580042.0289	Pavement
PV-770	N 1423032.3217	E 580052.7336	Pavement
PV-771	N 1423024.1135	E 580057.0154	Pavement
PV-772	N 1423018.0013	E 580057.0128	Pavement
PV-773	N 1423008.0056	E 580047.0082	Pavement
PV-774	N 1423008.1140	E 579786.7568	Pavement
PV-775	N 1423014.1206	E 579771.4261	Pavement
PV-776	N 1423014.1510	E 579700.7394	Pavement
PV-777	N 1423008.1576	E 579685.4235	Pavement
PV-778	N 1423008.2881	E 579462.1350	Pavement
PV-779	N 1423018.2924	E 579452.1394	Pavement
PV-780	N 1423008.0113	E 580098.9534	Pavement
PV-781	N 1423008.0165	E 580087.0085	Pavement
PV-782	N 1423018.0208	E 580077.0128	Pavement
PV-783	N 1423024.1049	E 580077.0154	Pavement
PV-784	N 1423030.1039	E 580079.0179	Pavement
PV-785	N 1423045.1013	E 580084.0240	Pavement
PV-786	N 1423116.6538	E 580084.0549	Pavement
PV-787	N 1423125.6281	E 580082.3927	Pavement
PV-788	N 1423134.6024	E 580080.7306	Pavement
PV-789	N 1423148.9150	E 580080.7368	Pavement
PV-790	N 1423158.9107	E 580090.7411	Pavement
PV-791	N 1423158.9071	E 580099.0187	Pavement
PV-792	N 1423148.9028	E 580109.0144	Pavement
PV-793	N 1423145.9041	E 580106.0131	Pavement
PV-794	N 1423145.9106	E 580091.0129	Pavement
PV-795	N 1423022.4108	E 580090.9597	Pavement
PV-796	N 1423022.4041	E 580105.9597	Pavement
PV-797	N 1423019.4027	E 580108.9584	Pavement
PV-798	N 1423060.3907	E 580136.9760	Pavement
PV-799	N 1423060.3778	E 580166.9760	Pavement
PV-800	N 1423057.3765	E 580169.9747	Pavement
PV-801	N 1423047.3808	E 580159.9704	Pavement
PV-802	N 1423047.3877	E 580143.9704	Pavement
PV-803	N 1423057.3920	E 580133.9747	Pavement
PV-804	N 1423145.8907	E 580137.0129	Pavement
PV-805	N 1423148.8920	E 580134.0142	Pavement
PV-806	N 1423158.8877	E 580144.0185	Pavement
PV-807	N 1423158.8808	E 580160.0185	Pavement
PV-808	N 1423148.8765	E 580170.0142	Pavement
PV-809	N 1423145.8778	E 580167.0129	Pavement
PV-810	N 1423178.8834	E 580153.9653	Pavement
PV-811	N 1423178.8903	E 580137.9653	Pavement
PV-812	N 1423188.8946	E 580127.9696	Pavement
PV-813	N 1423192.3234	E 580130.9710	Pavement
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PV-815	N 1423188.8791	E 580163.9696	Pavement
PV-816	N 1423374.3092	E 580164.0494	Pavement
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PV-818	N 1423379.3226	E 580133.0516	Pavement
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PV-828	N 1422870.0283	E 580234.3283	Pavement
PV-829	N 1422665.8630	E 580233.2260	Pavement
PV-830	N 1422662.7638	E 580251.8070	Pavement
PV-831	N 1422665.9260	E 580134.3479	Pavement
PV-832	N 1422668.4270	E 580131.8490	Pavement
PV-833	N 1422669.4260	E 580131.8494	Pavement
PV-834	N 1422671.9250	E 580134.3505	Pavement
PV-835	N 1422285.7181	E 580181.8549	Pavement
PV-836	N 1422334.9685	E 580235.9614	Pavement
PV-837	N 1422413.6473	E 580236.8469	Pavement
PV-838	N 1422463.5207	E 580248.4170	Pavement
PV-839	N 1422713.7094	E 580251.2734	Pavement
PV-840	N 1423143.7287	E 580267.1836	Pavement
PV-841	N 1423221.1314	E 580273.7497	Pavement
PV-842	N 1423272.3264	E 580281.8980	Pavement
PV-843	N 1423352.3812	E 580288.2252	Pavement
PV-844	N 1423715.1774	E 580288.1213	Pavement
PV-845	N 1423714.8699	E 580310.1217	Pavement
PV-846	N 1423352.3832	E 580310.2252	Pavement
PV-847	N 1423268.8684	E 580303.6245	Pavement
PV-848	N 1423017.6734	E 580295.4762	Pavement
PV-928	N 1422363.6641	E 579582.1321	Pavement
PV-929	N 1422335.5777	E 579625.2351	Pavement
PV-930	N 1422314.7271	E 580029.6981	Pavement
PV-931	N 1422297.6386	E 580028.5624	Pavement
PV-932	N 1422323.0204	E 579460.1821	Pavement
PV-933	N 1422323.0369	E 579499.6665	Pavement
PV-934	N 1422364.6974	E 579548.3760	Pavement
PV-935	N 1422373.9695	E 579549.0856	Pavement
PV-946	N 1423363.2096	E 579564.9099	Pavement
PV-947	N 1423354.8763	E 579564.9063	Pavement
PV-990	N 1422949.7015	E 580067.4901	Pavement

PAVING LOCATION SYSTEM

Marker #	Northing	Easting	Description
PV-991	N 1422942.2053	E 580054.4847	Pavement
PV-992	N 1422978.0276	E 580054.5105	Pavement
PV-993	N 1422978.0390	E 580057.4877	Pavement
PV-994	N 1422968.2418	E 580067.5010	Pavement
PV-995	N 1422967.0349	E 580049.5026	Pavement
PV-996	N 1422959.2504	E 580035.9970	Pavement
PV-997	N 1422961.8517	E 580031.4988	Pavement
PV-998	N 1422968.0479	E 580031.5033	Pavement
PV-999	N 1422978.0459	E 580041.4931	Pavement
PV-1000	N 1422978.0424	E 580049.5105	Pavement
PV-1001	N 1422961.7836	E 580011.5151	Pavement
PV-1002	N 1422959.1862	E 580007.0148	Pavement
PV-1003	N 1422967.0106	E 579993.4668	Pavement
PV-1004	N 1422966.0410	E 579993.4653	Pavement
PV-1005	N 1422965.5692	E 579976.9673	Pavement
PV-1006	N 1422968.2086	E 579975.4679	Pavement
PV-1007	N 1422978.0703	E 579985.4713	Pavement
PV-1008	N 1422978.0633	E 580001.5264	Pavement
PV-1009	N 1422968.0522	E 580011.5104	Pavement
PV-1010	N 1422961.8767	E 579899.5024	Pavement
PV-1011	N 1422959.2793	E 579895.0021	Pavement
PV-1012	N 1422967.0912	E 579881.4759	Pavement
PV-1013	N 1422978.1155	E 579881.4775	Pavement
PV-1014	N 1422978.1120	E 579889.5077	Pavement
PV-1015	N 1422968.1106	E 579899.5033	Pavement
PV-1016	N 1422956.1177	E 579876.4822	Pavement
PV-1017	N 1422962.7634	E 579864.9753	Pavement
PV-1018	N 1422965.3617	E 579863.4757	Pavement
PV-1019	N 1422968.4426	E 579863.3678	Pavement
PV-1020	N 1422978.1189	E 579873.4804	Pavement
PV-1021	N 1422978.0919	E 579876.5455	Pavement
PV-1022	N 1422965.4692	E 579840.4950	Pavement
PV-1023	N 1422965.4706	E 579830.4657	Pavement
PV-1024	N 1422978.1376	E 579830.4675	Pavement
PV-1025	N 1422978.1363	E 579833.5077	Pavement
PV-1026	N 1422968.6118	E 579843.4920	Pavement
PV-1027	N 1422965.3373	E 579825.4730	Pavement
PV-1028	N 1422957.5408	E 579811.9646	Pavement
PV-1029	N 1422960.1395	E 579807.4650	Pavement
PV-1030	N 1422968.1447	E 579807.4661	Pavement
PV-1031	N 1422978.1433	E 579817.4704	Pavement
PV-1032	N 1422978.1388	E 579825.4675	Pavement
PV-1033	N 1422962.0362	E 579787.4925	Pavement
PV-1034	N 1422959.4387	E 579782.9922	Pavement
PV-1035	N 1422967.2397	E 579769.4850	Pavement
PV-1036	N 1422956.2700	E 579769.4834	Pavement
PV-1037	N 1422965.7965	E 579752.9884	Pavement
PV-1038	N 1422970.3181	E 579751.4598	Pavement
PV-1039	N 1422978.1676	E 579761.4695	Pavement
PV-1040	N 1422978.1607	E 579777.4978	Pavement
PV-1041	N 1422968.1592	E 579787.4934	Pavement
PV-1042	N 1422965.7473	E 579730.0102	Pavement
PV-1043	N 1422956.2515	E 579713.5575	Pavement
PV-1044	N 1422967.2211	E 579713.5590	Pavement
PV-1045	N 1422959.4288	E 579700.0579	Pavement
PV-1046	N 1422962.0275	E 579695.5583	Pavement
PV-1047	N 1422968.1934	E 579695.5592	Pavement
PV-1048	N 1422978.1919	E 579705.5635	Pavement
PV-1049	N 1422978.1850	E 579721.5168	Pavement
PV-1050	N 1422968.4048	E 579731.5041	Pavement
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PV-1053	N 1422965.3858	E 579657.6205	Pavement
PV-1054	N 1422978.2221	E 579657.6297	Pavement
PV-1055	N 1422978.2093	E 579655.5908	Pavement
PV-1056	N 1422968.2079	E 579675.5865	Pavement
PV-1057	N 1422965.4936	E 579652.6266	Pavement
PV-1058	N 1422965.5008	E 579642.6112	Pavement
PV-1059	N 1422968.5030	E 579639.6227	Pavement
PV-1060	N 1422978.2163	E 579649.6119	Pavement
PV-1061	N 1422978.2257	E 579652.6297	Pavement
PV-1062	N 1422968.6156	E 579619.6276	Pavement
PV-1063	N 1422965.5010	E 579616.6294	Pavement
PV-1064	N 1422965.5025	E 579606.6332	Pavement
PV-1065	N 1422978.2345	E 579606.6351	Pavement
PV-1066	N 1422978.2336	E 579609.6392	Pavement
PV-1067	N 1422965.5805	E 579601.7672	Pavement
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PV-1069	N 1422960.3095	E 579583.6325	Pavement
PV-1070	N 1422968.2420	E 579583.6336	Pavement
PV-1071	N 1422978.2406	E 579593.6380	Pavement
PV-1072	N 1422978.2371	E 579601.6351	Pavement
PV-1073	N 1422968.2548	E 579583.6673	Pavement
PV-1074	N 1422962.0587	E 579583.6664	Pavement
PV-1075	N 1422959.4612	E 579559.1660	Pavement
PV-1076	N 1422967.2478	E 579545.6615	Pavement
PV-1077	N 1422956.2877	E 579545.6606	Pavement
PV-1078	N 1422965.8155	E 579529.1665	Pavement
PV-1079	N 1422968.4769	E 579527.6695	Pavement
PV-1080	N 1422978.2649	E 579537.6716	Pavement

PAVING LOCATION SYSTEM

Marker #	Northing	Easting	Description
PV-1081	N 1422978.2580	E 579553.6853	Pavement
PV-1082	N 1422968.2809	E 579507.6946	Pavement
PV-1083	N 1422965.5252	E 579507.6942	Pavement
PV-1084	N 1422962.9264	E 579506.1923	Pavement
PV-1085	N 1422956.3037	E 579494.7023	Pavement
PV-1086	N 1422978.2836	E 579494.6580	Pavement
PV-1087	N 1422978.2823	E 579497.6989	Pavement
PV-1088	N 1422967.2815	E 579469.7181	Pavement
PV-1089	N 1422959.4734	E 579476.1715	Pavement
PV-1090	N 1422962.0729	E 579471.6734	Pavement
PV-1091	N 1422968.2907	E 579471.6743	Pavement
PV-1092	N 1422978.2893	E 579481.6786	Pavement
PV-1093	N 1422978.2815	E 579469.7260	Pavement

BUILDING LOCATION SYSTEM

Marker #	Northing	Easting	Description
BL-946	N 1423363.2100	E 579564.9100	Building
BL-947	N 1423354.8760	E 579564.9060	Building
BL-936	N 1423020.0620	E 579520.3450	Building
BL-944	N 1423345.7460	E 579493.1580	Building
BL-937	N 1423020.0950	E 579457.4280	Building
BL-938	N 1423069.9120	E 579457.4500	Building
BL-939	N 1423069.7630	E 579461.0780	Building
BL-940	N 1423345.7800	E 579461.1520	Building
BL-941	N 1423346.3200	E 579458.4280	Building
BL-942	N 1423354.3200	E 579458.4320	Building
BL-943	N 1423363.2360	E 579502.9100	Building
BL-945	N 1423345.7410	E 579503.1520	Building
BL-948	N 1423354.3610	E 579985.1250	Building
BL-949	N 1423393.6630	E 579984.5060	Building
BL-950	N 1423393.5970	E 579839.1730	Building
BL-951	N 1423354.2950	E 579838.5210	Building
BL-952	N 1423354.8860	E 579986.4900	Building
BL-953	N 1423343.6360	E 579986.4850	Building
BL-954	N 1423343.5800	E 580047.2350	Building
BL-955	N 1423174.7670	E 580047.1820	Building
BL-956	N 1423174.7940	E 579986.4120	Building
BL-957	N 1423145.2470	E 579986.3990	Building
BL-958	N 1423145.2270	E 580033.1660	Building
BL-959	N 1423037.5130	E 580033.1200	Building
BL-960	N 1423037.5330	E 579986.3850	Building
BL-961	N 1423037.3180	E 579911.0200	Building
BL-962	N 1423019.0650	E 579911.3450	Building
BL-963	N 1423019.2700	E 579822.5120	Building
BL-964	N 1423037.6040	E 579822.5200	Building
BL-965	N 1423037.5070	E 579648.8010	Building
BL-966	N 1423019.5060	E 579649.4280	Building
BL-967	N 1423019.7060	E 579585.6790	Building
BL-968	N 1423037.7060	E 579585.6860	Building
BL-969	N 1423037.7340	E 579521.0200	Building

NOTE: DIMENSIONS, AS SHOWN HEREON, ARE THE PROPERTY OF HANSON, WALTER & ASSOCIATES, INC. AND ARE NOT TO BE USED, PUBLISHED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN CONSENT OF HANSON, WALTER & ASSOCIATES, INC. ANY UNAUTHORIZED USE OF THESE DRAWINGS WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO HANSON, WALTER & ASSOCIATES, INC.

PSP25-00004

DESIGN	MW/CM	F.B. NO.	–	SEC.	5 & 8		
DRAWN	RS	PAGE	–	TWP.	26 S		
CHECKED	RN	SCALE	AS SHOWN	RANGE	31 E		
CAD#	(see stamp)	DATE	12/3/25				

DATE	BY	REVISIONS

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

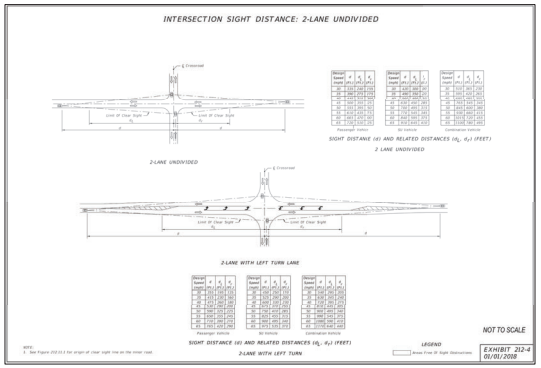
SITE DIMENSION PLAN 2

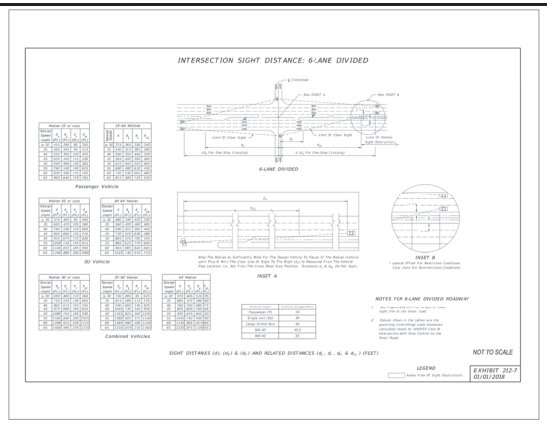
This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

SHEET NO
C-12 of C-50
JOB NO 5450-05

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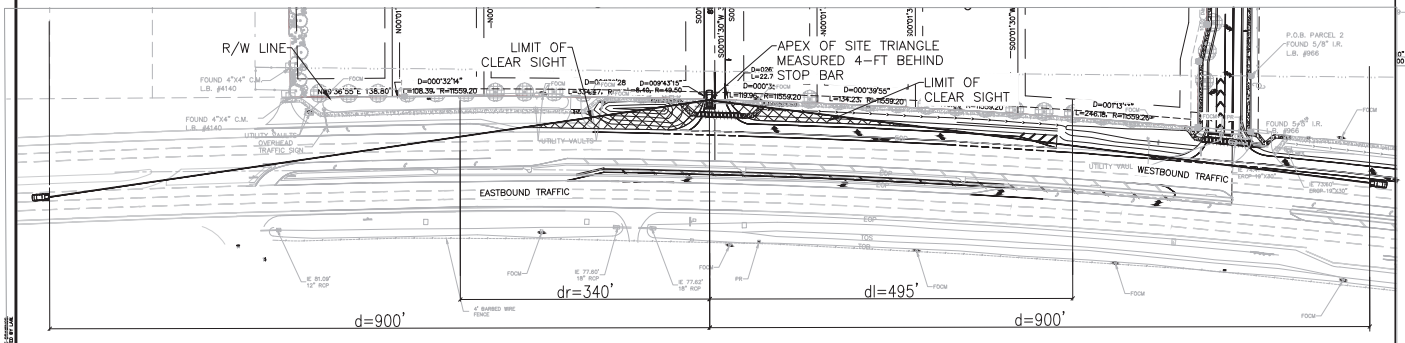




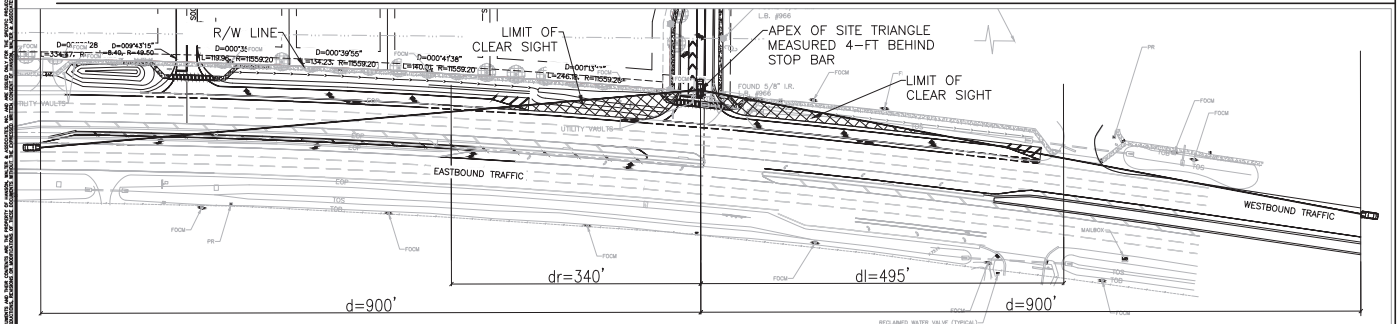
GRAPHIC SCALE

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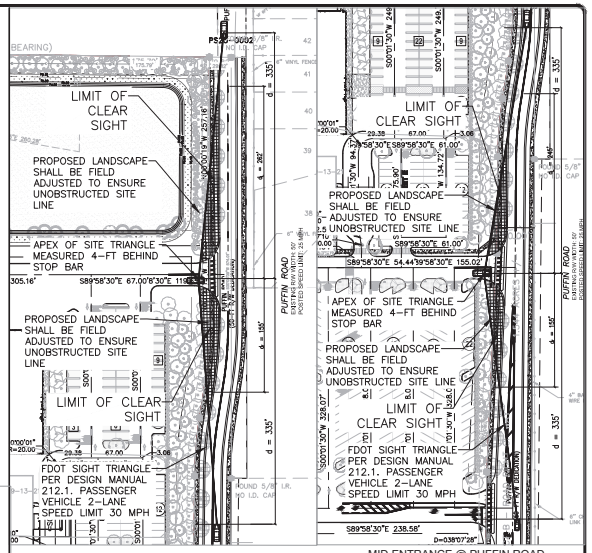
(IN FEET)
1 inch = 80 ft.



STREET A @ E. IRLO BRONSON MEMORIAL HWY
POSTED SPEED LIMIT: 50 MPH

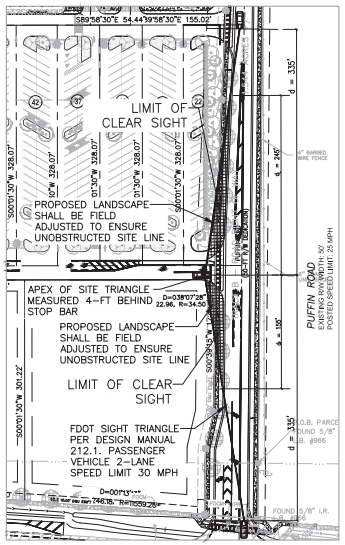


PUFFIN ROAD @ E. IRLO BRONSON MEMORIAL HWY
POSTED SPEED LIMIT: 50 MPH



NORTH ENTRANCE @ PUFFIN

MID ENTRANCE @ PUFFIN ROAD



STREET B @ PUFFIN ROAD

PSP25-00004

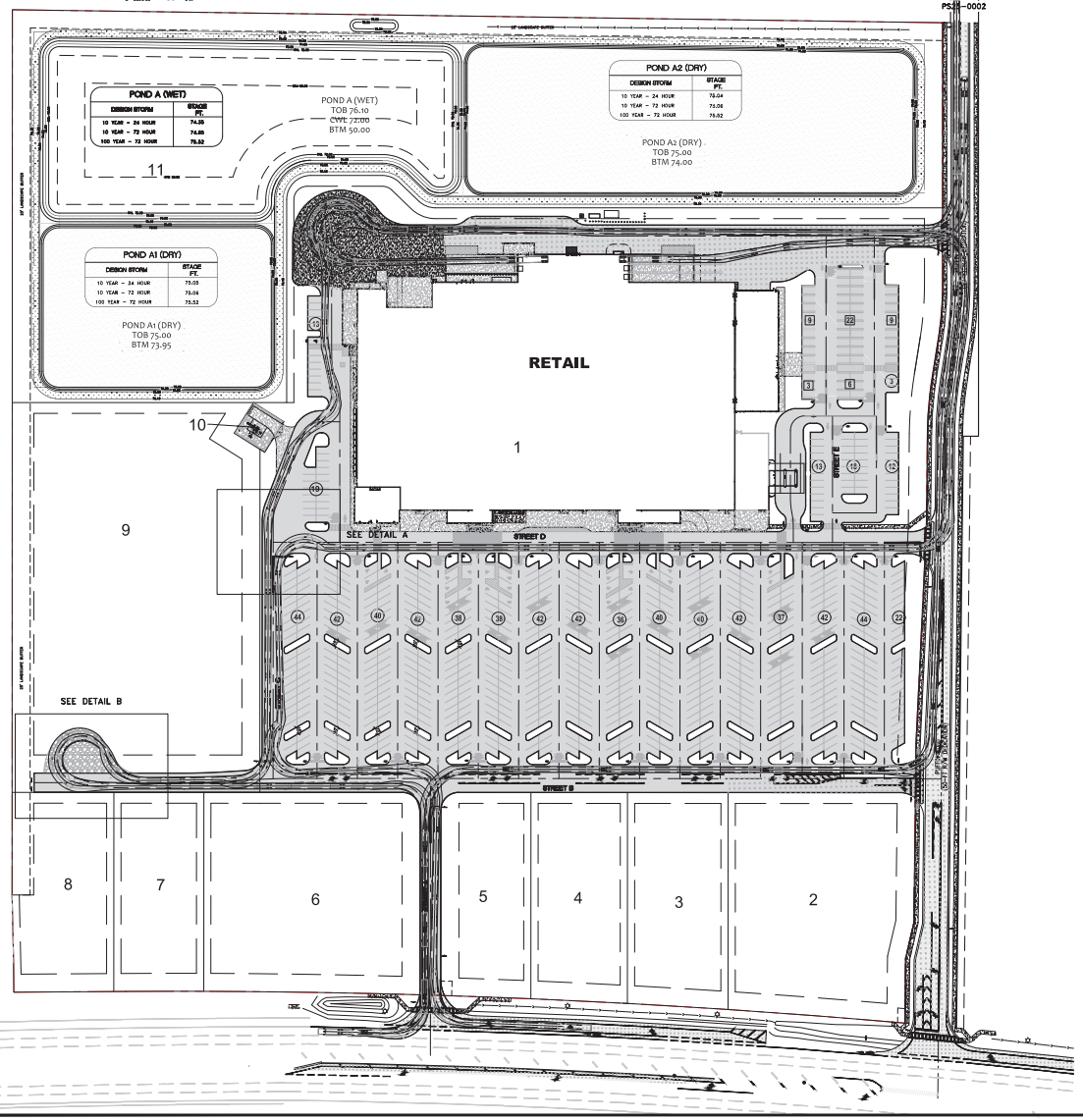
DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-8433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	SIGHT TRIANGLE PLAN	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET Nº C-13 of C-50
DRAWN RS	PAGE –	TWP. 26 S							
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							JOB Nº 5450-05
CAD# (see stamp)	DATE 11/24/25		DATE	BY	REVISIONS				

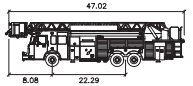
I:\5450-05\ENGINEERING\CADD\PLANS\5-5450-05 TRIANGLE SIGHT.dwg • Nov 26, 2025–11:45am • plotted by RDeaver

GRAPHIC SCALE

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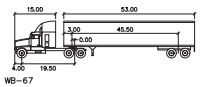
(IN FEET)
1 inch = 80 ft.





Pierce 100 Aerial Platform

feet	
Width	: 8.00
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 40.0



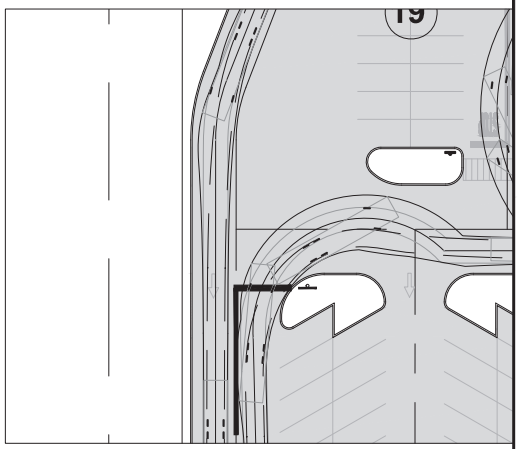
WB-67

feet			
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

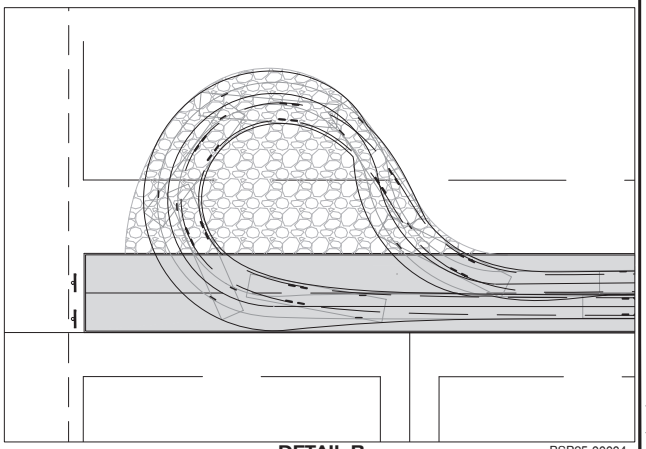
GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.



DETAIL A



DETAIL B

PSP25-00004

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CAD#	(see stamp)	DATE	11/17/25	DATE	BY	REVISIONS	

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PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

FIRE TRUCK & DELIVERY TRUCK AUTOTURN PLAN

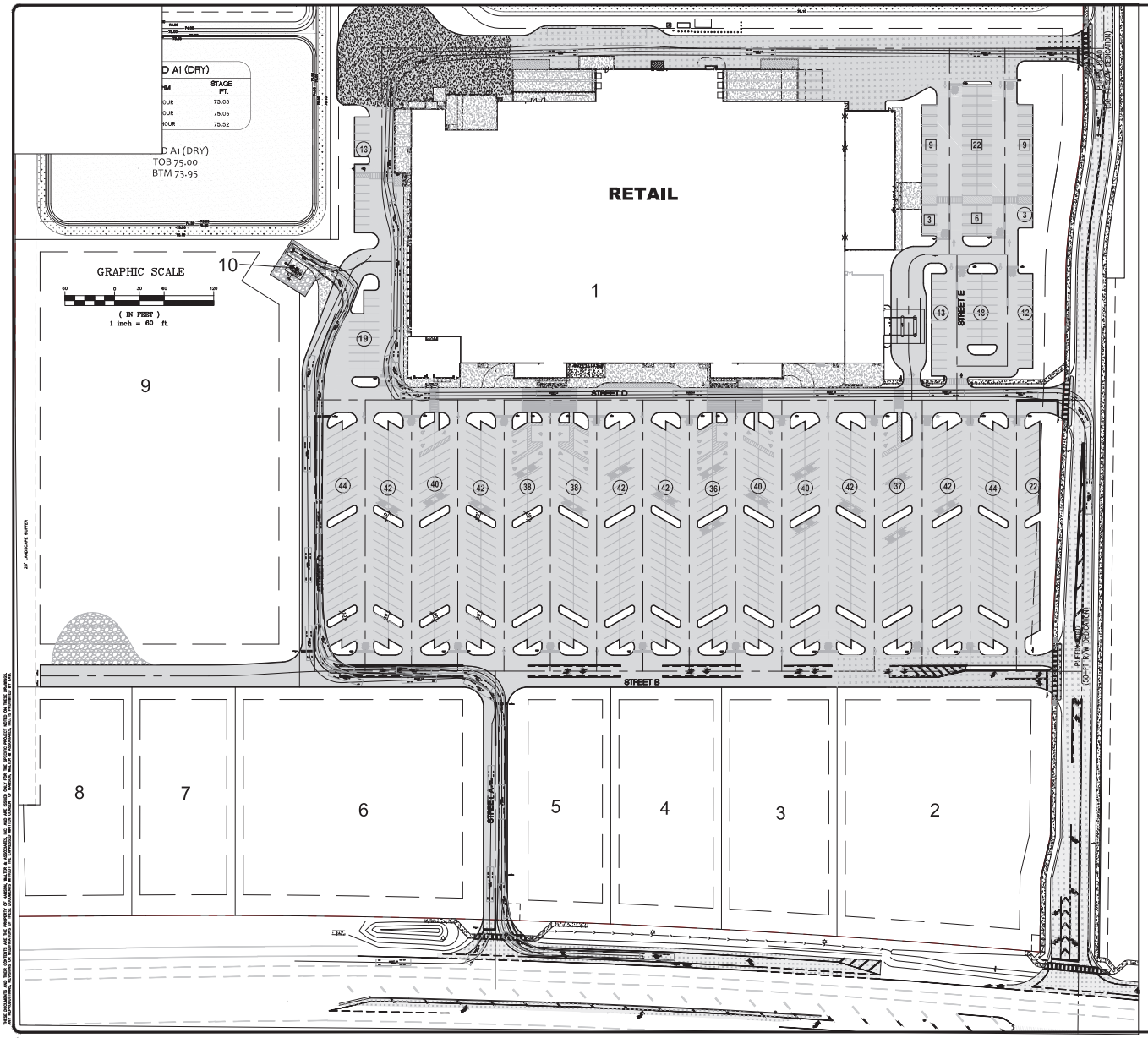
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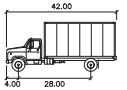
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SHEET Nº C-14 of C-50

JOB Nº 5450-05

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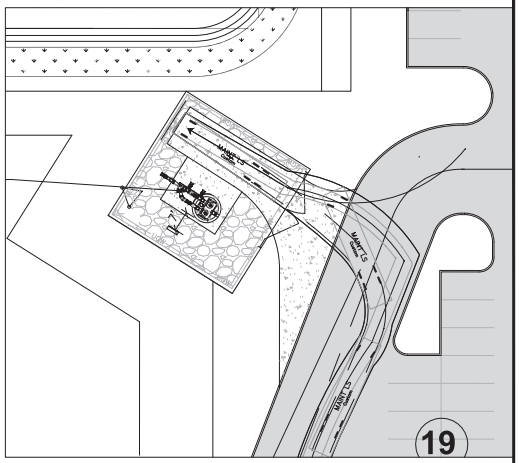


Mantenance LS 42

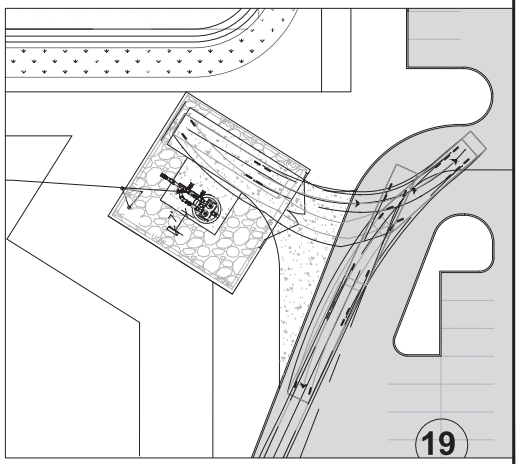
	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 69.0

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.



ENTER



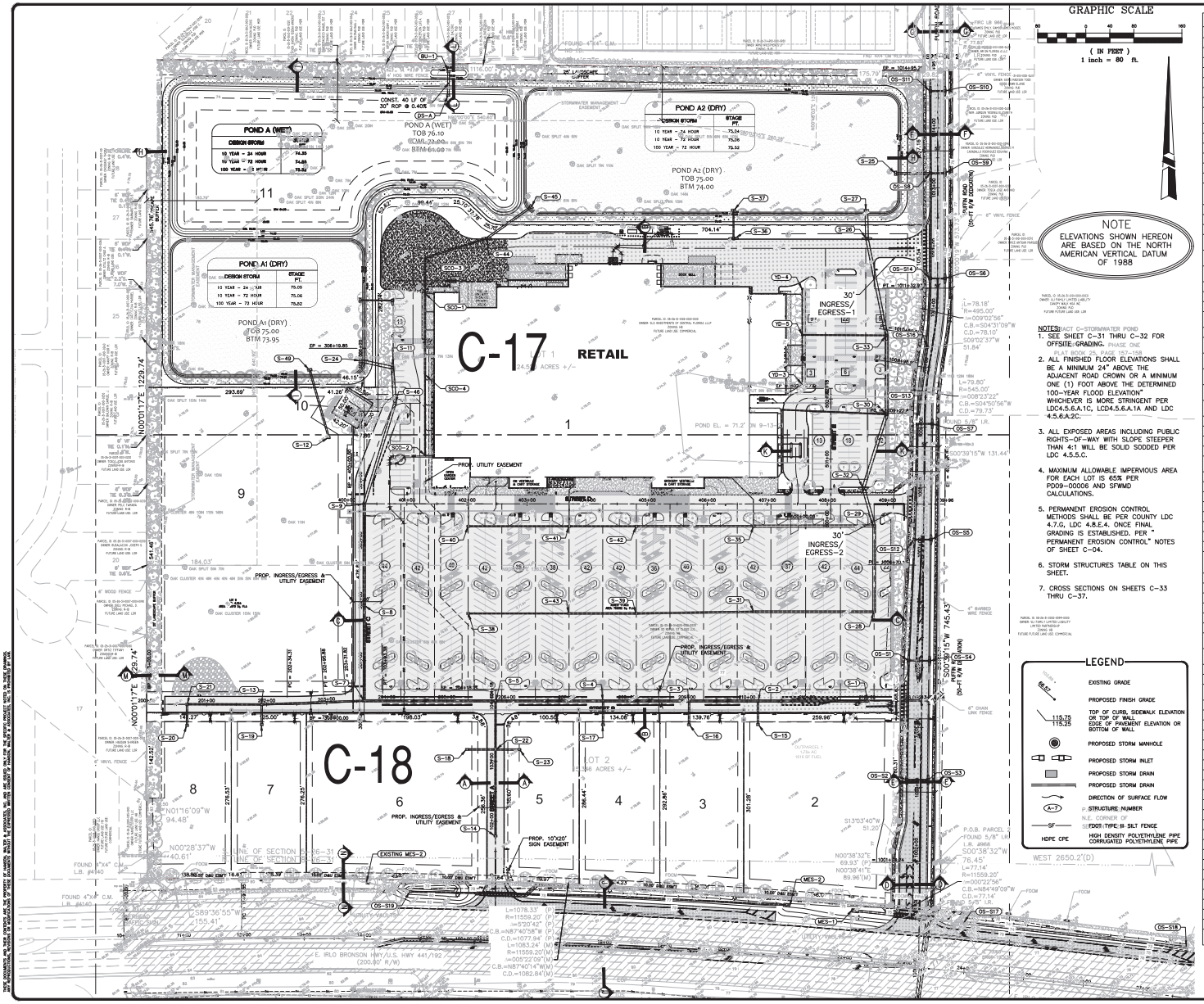
EXIT

PSP25-00004

DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 32655/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	MAINTENANCE TRUCK AUTOTURN PLAN	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET Nº C-15 of C-50
DRAWN RS	PAGE –	TWP. 26 S							
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							JOB Nº 5450-05
CAD# (see stamp)	DATE 11/17/25	DATE	BY	REVISIONS					

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E:\5450-05\ENGINEERING\CADD\PLANS\5-5450-05 AUTOTURN PLAN.dwg • Nov 20, 2025—9:25am • plotted by RSauser



STORM STRUCTURE TABLE

STRUCTURE #	LOCATION	DESCRIPTION	RIM ELEVATION	INVERT IN	INVERT OUT
BU–1	N 1423713.421 E 579485.088	BUBBLE UP STRUCTURE	72.00	S 68.50 – 30" HDPE	
DS–A	N 1423673.705 E 579484.555	CONTROL STRUCTURE	74.65		N 68.66 – 30" HDPE
EXISTING MES–1	N 1422304.211 E 580272.695	REMOVE EXISTING MES & EXTEND PIPE	76.44	W 74.41 – 19"X30" ERCP	E 74.41 – 19"X30" ERCP
EXISTING MES–2	N 1422362.840 E 579347.882	MITERED END SECTION	79.61	E 78.17 – 15" HDPE	
MES–1	N 1423316.314 E 580156.286	MITERED END SECTION	77.12		E 74.55 – 19"X30" ERCP
MES–2	N 1422324.938 E 580053.455	MITERED END SECTION	78.70	W 76.99 – 18" RCP	
MH–1	N 1422340.911 E 579735.213	STORM MANHOLE	82.18	W 77.63 – 18" RCP	E 77.63 – 18" RCP
OS–S1	N 1422732.430 E 580250.951	TYPE 6 INLET	75.35	E 71.20 – 15" RCP S 71.20 – 18" RCP	N 71.20 – 18" RCP
OS–S2	N 1422533.713 E 580247.899	TYPE 6 INLET	76.04	E 71.80 – 15" RCP	N 71.80 – 18" RCP
OS–S3	N 1422533.755 E 580283.357	TYPE 6 INLET	76.26		W 71.90 – 15" RCP
OS–S4	N 1422731.719 E 580285.790	TYPE 6 INLET	75.55		W 71.30 – 15" RCP
OS–S5	N 1422933.677 E 580287.987	TYPE 6 INLET	75.54		W 70.67 – 15" RCP
OS–S6	N 1423368.574 E 580311.424	TYPE 6 INLET	75.51		W 68.91 – 15" RCP
OS–S7	N 1423126.446 E 580290.286	TYPE 6 INLET	75.51		W 69.94 – 15" RCP
OS–S8	N 1423543.514 E 580287.686	TYPE 6 INLET	75.73	E 68.12 – 18" RCP S 68.12 – 24" RCP N 68.12 – 18" RCP	W 68.12 – 30" RCP
OS–S9	N 1423543.883 E 580311.480	TYPE 6 INLET	75.71		W 68.22 – 18" RCP
OS–S10	N 1423680.630 E 580311.134	TYPE 6 INLET	75.75		W 68.77 – 15" RCP
OS–S11	N 1423680.372 E 580287.217	TYPE 6 INLET	75.75	E 68.67 – 15" RCP	S 68.67 – 18" RCP
OS–S12	N 1422933.690 E 580260.695	TYPE 6 INLET	75.48	E 70.56 – 15" RCP S 70.56 – 18" RCP	N 70.56 – 24" RCP
OS–S13	N 1423126.655 E 580265.789	TYPE 6 INLET	75.51	E 69.79 – 15" RCP S 69.79 – 24" RCP	N 69.79 – 24" RCP
OS–S14	N 1423368.631 E 580287.204	TYPE 5 INLET LEFT	75.52	E 68.82 – 15" RCP S 68.82 – 24" RCP	N 68.82 – 24" RCP
OS–S16	N 1423254.292 E 580281.837	TYPE 6 INLET	75.97	S 69.27 – 24" RCP	N 69.27 – 24" RCP
OS–S17	N 1422295.797 E 580341.898	TYPE E DBI	76.40	W 73.70 – 19"X30" ERCP	E 73.70 – 19"X30" ERCP
OS–S18	N 1422254.841 E 580714.025	TYPE E DBI	74.25	W 71.54 – 19"X30" ERCP	
OS–S19	N 1422347.495 E 579420.958	REMOVE EXISTING MES CONST. TYPE E DBI	81.77		W 78.27 – 15" HDPE E 78.27 – 18" RCP
S–1	N 1422664.905 E 580182.838	TYPE F INLET	76.30		W 69.15 – 36" HDPE
S–2	N 1422664.984 E 580000.083	TYPE F INLET	76.15	E 68.41 – 36" HDPE S 68.41 – 24" HDPE	W 68.41 – 36" HDPE
S–3	N 1422665.034 E 579885.456	TYPE F INLET	76.96	E 67.95 – 36" HDPE S 67.95 – 24" HDPE	W 67.95 – 36" HDPE
S–4	N 1422665.096 E 579742.276	TYPE F INLET	78.28	E 67.38 – 36" HDPE S 67.38 – 24" HDPE	W 67.38 – 36" HDPE
S–5	N 1422665.174 E 579563.213	TYPE F INLET	79.01	E 66.66 – 36" HDPE S 71.13 – 24" HDPE	W 66.66 – 36" HDPE
S–7	N 1422665.269 E 579344.573	TYPE F INLET	79.22	E 65.80 – 36" HDPE W 65.70 – 24" HDPE	N 65.70 – 36" HDPE
S–8	N 1422823.615 E 579344.642	TYPE F INLET	78.21	S 65.04 – 36" HDPE	N 65.14 – 42" HDPE
S–9	N 1422993.339 E 579344.716	TYPE F INLET	76.40	S 63.99 – 42" HDPE	N 63.99 – 42" HDPE
S–11	N 1423220.035 E 579391.577	TYPE 6 INLET	76.48	S 63.05 – 48" HDPE	W 63.05 – 48" HDPE
S–12	N 1423103.612 E 579285.603	TYPE F INLET	76.95		N 72.95 – 24" HDPE
S–13	N 1422659.207 E 579173.911	TYPE F INLET	80.54	S 66.65 – 24" HDPE W 70.75 – 24" HDPE	E 67.28 – 24" HDPE
S–14	N 1422440.103 E 579063.204	TYPE F INLET	79.73		N 72.00 – 24" HDPE
S–15	N 1422625.663 E 580000.080	TYPE F INLET	76.50		N 68.55 – 24" HDPE
S–16	N 1422625.447 E 579885.280	TYPE F INLET	77.00		N 68.09 – 24" HDPE
S–17	N 1422625.282 E 579742.101	TYPE F INLET	78.45		N 67.52 – 24" HDPE
S–18	N 1422584.306 E 579515.672	TYPE F INLET	78.90		E 71.62 – 24" HDPE
S–19	N 1422625.700 E 579174.180	TYPE F INLET	80.45		N 67.50 – 24" HDPE
S–20	N 1422624.117 E 579049.604	TYPE F INLET	81.45		N 71.99 – 24" HDPE
S–21	N 1422659.599 E 578949.579	TYPE F INLET	81.49	S 71.84 – 24" HDPE	E 71.84 – 24" HDPE
S–22	N 1422584.307 E 579563.177	TYPE F INLET	78.68	S 71.43 – 24" HDPE E 71.43 – 24" HDPE W 71.43 – 24" HDPE	N 71.43 – 24" HDPE
S–23	N 1422584.047 E 579602.894	TYPE F INLET	78.95		W 71.59 – 24" HDPE
S–24	N 1423231.561 E 579336.298	TYPE H INLET	73.95	E 62.83 – 48" HDPE	
S–25	N 1423543.514 E 580239.400	TYPE H INLET	74.00	E 67.89 – 30" HDPE	
S–26	N 1423434.854 E 580181.642	TYPE 6 INLET	70.36	S 65.93 – 48" HDPE	N 65.93 – 48" HDPE
S–27	N 1423481.590 E 580180.663	TYPE H INLET	74.00	S 65.74 – 48" HDPE	
S–28	N 1422813.441 E 580193.429	TYPE F INLET	75.01	W 68.51 – 30" HDPE	N 68.51 – 48" HDPE
S–29	N 1422906.388 E 580193.553	TYPE F INLET	75.01	S 67.89 – 48" HDPE W 68.51 – 36" HDPE	N 67.89 – 48" HDPE
S–30	N 1423142.308 E 580214.211	TYPE S INLET RIGHT	72.04	S 67.12 – 48" HDPE W 67.80 – 15" HDPE	N 67.12 – 48" HDPE
S–31	N 1422813.527 E 579993.712	TYPE F INLET	76.05	W 69.31 – 24" HDPE	E 69.31 – 30" HDPE
S–32	N 1423019.750 E 580175.650	TYPE 6 INLET	71.51	S 67.63 – 48" HDPE	N 67.63 – 48" HDPE
S–33	N 1423273.720 E 580214.206	TYPE 6 INLET	71.51	S 66.54 – 48" HDPE W 68.18 – 15" HDPE	N 66.59 – 48" HDPE
S–35	N 1422956.121 E 579993.385	TYPE F INLET	76.05	W 69.31 – 24" HDPE	E 69.31 – 36" HDPE
S–36	N 1423434.951 E 579959.441	TYPE 6 INLET	75.08		N 69.19 – 15" HDPE
S–37	N 1423482.013 E 579959.390	TYPE H INLET	74.00	S 69.00 – 15" HDPE	
S–38	N 1422810.761 E 579517.661	TYPE F INLET	76.21		E 71.21 – 18" HDPE
S–39	N 1422810.761 E 579797.673	TYPE F INLET	76.45	W 70.09 – 24" HDPE	E 70.09 – 24" HDPE
S–40	N 1422955.892 E 579517.949	TYPE F INLET	76.21		E 71.21 – 18" HDPE
S–41	N 1422955.892 E 579685.907	TYPE F INLET	76.41	W 70.54 – 18" HDPE	E 70.54 – 18" HDPE
S–42	N 1422955.892 E 579797.768	TYPE F INLET	76.45	W 70.09 – 18" HDPE	E 70.09 – 24" HDPE
S–43	N 1422810.761 E 579685.637	TYPE F INLET	74.37	W 70.54 – 18" HDPE	E 70.54 – 24" HDPE
S–44	N 1423434.978 E 579546.373	TYPE 6 INLET	74.66	W 69.36 – 24" HDPE	NE 69.36 – 30" HDPE
S–45	N 1423487.786 E 579622.481	TYPE H INLET	74.00	SW 69.00 – 30" HDPE	
S–46	N 1423160.864 E 579395.827	TYPE F INLET	76.00	S 63.29 – 42" HDPE	N 63.29 – 48" HDPE
S–47	N 1423331.769 E 579391.699	TYPE S INLET RIGHT	75.73		W 70.73 – 15" HDPE
S–48	N 1423332.314 E 579337.992	TYPE H INLET	73.95	E 70.51 – 15" HDPE	
S–49	N 1423216.346 E 579253.870	TYPE H INLET	75.23	S 70.95 – 24" HDPE	
SCO–1	N 1423343.456 E 579445.901	STORM CLEANOUT	77.32	S 70.03 – 24" HDPE	N 70.03 – 24" HDPE
SCO–2	N 1423074.216 E 579445.855	STORM CLEANOUT	77.40		N 71.11 – 18" HDPE
SCO–3	N 1423402.997 E 579445.901	STORM CLEANOUT	76.68	S 69.79 – 24" HDPE	E 69.79 – 24" HDPE
SCO–4	N 1423208.361 E 579445.843	STORM CLEANOUT	78.34	S 70.57 – 18" HDPE	N 70.57 – 24" HDPE
YD–1	N 1423045.612 E 580039.361	YARD DRAIN	77.17		N 71.60 – 10" HDPE
YD–2	N 1423149.999 E 580038.678	YARD DRAIN	77.17	S 71.17 – 10" HDPE	E 70.70 – 15" HDPE
YD–3	N 1423192.379 E 580073.925	YARD DRAIN	77.17		N 71.17 – 10" HDPE
YD–4	N 1423350.846 E 580073.940	YARD DRAIN	78.11		S 71.17 – 10" HDPE
YD–5	N 1423274.446 E 580073.969	YARD DRAIN	78.11	S 70.84 – 10" HDPE N 70.84 – 10" HDPE	E 70.84 – 15" HDPE

SUB25-00041
PSP25-00004

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DRAWN	RS	PAGE	–	TWP.	26 S		
CHECKED	RN	SCALE	AS SHOWN	RANGE	31 E		
CAD#	(see stamp)	DATE	12/4/25				

REVISIONS

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

OVERALL STORMWATER PLAN

This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

SHEET NO. C-16 of C-50

JOB NO. 5450-05

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NOTES:

1.) FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. IF CONFLICTS OCCUR, CONTACT ENGINEER PRIOR TO CONSTRUCTION.
2.) REFER TO LANDSCAPE/HARDSCAPE PLANS FOR ENHANCEMENT FEATURES AND SIGNS.
3.) ALL HANDICAPPED ACCESSIBLE RAMPS OFFSITE SHALL BE CONSTRUCTED TO FDOT INDEX #0304 STANDARDS AND ALL ONSITE RAMPS SHALL MEET THE CURRENT FLORIDA BUILDING CODE STANDARDS.
4.) ALL SIGNAGE AND STRIPING TO BE INSTALLED IN ACCORDANCE WITH MUTCD (LATEST EDITION) STANDARDS AND SPECIFICATIONS.
5.) ALL DISTURBED AREAS SHALL BE SODDED AND RE-GRADED FOR POSITIVE DRAINAGE. THERE SHALL BE A 1 FOOT FLAT AREA IN ALL SODDED AREAS ADJACENT TO ALL SIDEWALKS AND CURBS TO PREVENT EROSION.
6.) MAXIMUM SLOPE FOR HANDICAP PARKING SPACES AND ACCESSIBLE ISLE IS 2%.
7.) MAXIMUM CROSS SLOPES ON ALL CROSSWALKS SHALL BE 2% AND THE MAXIMUM SLOPE FOR RAMPS SHALL BE 1 TO 12.
8.) SIDEWALK RAMPS TO BE CONSTRUCTED AT PROPOSED SITE DRIVEWAYS SHALL BE "CAST IN PLACE" DETECTABLE WARNING IN ACCORDANCE TO FDOT INDEX 304.
9.) THE STORMWATER MANAGEMENT POND BOTTOM AND SIDE SLOPES SHALL BE STABILIZED WITH PERMANENT VEGETABLE COVER. POND BOTTOM AND SLOPES SHALL BE WITH NON-MUCK SOD.
10.) LOT GRADING SHALL NOT IMPOSE ANY ADDITIONAL RUNOFF ONTO NOR IMPEDE RUNOFFS FROM ADJACENT PROPERTIES.

NOTES:

11.) LAND PREPARATION PROCESSES SHALL CONFORM TO "CHAPTER 6: STORMWATER AND EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES FOR DEVELOPING AREA OF THE FLORIDA DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT" (JUNE 1988) PREPARED BY FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION".
12.) WHEN ANY ROOTS OF EXISTING TREES THAT ARE TO REMAIN ARE ENCOUNTERED DURING LAND CLEARING AND/OR GRADING OF THE SITE, THE ROOTS MUST BE CUT OFF EVENLY WITH CLEAN SHARP PRUNING TOOLS. THE CONTRACTOR/DEVELOPER SHALL MINIMIZE THE DAMAGE TO EXISTING TREE ROOT SYSTEMS.
13.) ALL FINISHED FLOOR ELEVATIONS SHALL BE A MINIMUM 24" ABOVE THE ADJACENT ROAD CROWN OR A MINIMUM ONE (1) FOOT ABOVE THE DETERMINED 100-YEAR FLOOD ELEVATION WHICHEVER IS MORE STRINGENT PER LDC 4.5.6.A.1C, LDC 4.5.6.A.1.A AND LDC 4.5.6.A.2C.
14.) ALL EXPOSED AREAS INCLUDING PUBLIC RIGHTS OF WAY WITH SLOPE STEEPER THAN 4:1 WILL BE SOLID SODDED PER LDC 4.5.6.A.A1 AND LDC 4.5.6A.A.2C.
15.) PERMANENT EROSION CONTROL METHODS SHALL BE PER COUNTY LDC 4.5.5 ONCE FINAL GRADING IS ESTABLISHED.
16.) THE MINIMUM ROADWAY CROWN ELEVATION MUST BE SET HIGHER THAN THE GREATER OF EITHER THE 10 YEAR 24 HOUR STORM OR THE CONTROL WATER ELEVATION PLUS 2 FEET. THEREFORE, THE MINIMUM ROADWAY CROWN ELEVATION ALLOWED IS 67.72'.

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

POND A (WET)

DESIGN STORM	STAGE FT.
10 YEAR - 24 HOUR	74.35
10 YEAR - 72 HOUR	74.85
100 YEAR - 72 HOUR	75.52

POND A (WET)
TOB 76.10
CWL 72.00
BTM 61.00

POND A2 (DRY)

DESIGN STORM	STAGE FT.
10 YEAR - 24 HOUR	75.04
10 YEAR - 72 HOUR	75.06
100 YEAR - 72 HOUR	75.52

POND A2 (DRY)
TOB 75.00
BTM 74.00

POND A1 (DRY)

DESIGN STORM	STAGE FT.
10 YEAR - 24 HOUR	75.05
10 YEAR - 72 HOUR	75.06
100 YEAR - 72 HOUR	75.52

POND A1 (DRY)
TOB 75.00
BTM 73.95

LOT 1
24.523 ACRES +/-
RETAIL
FFE 77.67

POND EL. = 71.2' ON 9-13

STREET D

STREET E

SEE SHEET C-07 FOR OWNERSHIP & MAINTENANCE RESPONSIBILITY OF TRACTS

SEE SHEET C-16 FOR STORM STRUCTURE TABLE.

SEE SHEET C-31 & C-32 FOR OFFSITE INFORMATION,

SEE SHEETS C-33 THRU C-37 FOR CROSS SECTIONS.

LEGEND

- EXISTING GRADE
- PROPOSED FINISHED GRADE
- PROPOSED STORM MANHOLE
- PROPOSED STORM INLET
- PROPOSED STORM DRAIN
- POND CONTROL WATER LEVEL
- DIRECTION OF SURFACE FLOW
- STRUCTURE NUMBER
- UNDERDRAIN & CLEANOUT
- JURISDICTIONAL LINE

MATCH SEE SHEET C-18

SUB25-00041
PSP25-00004

DESIGN	MW/CM	F.B. NO.	-	SEC.	5 & 8		
DRAWN	RS	PAGE	-	TWP.	26 S		
CHECKED	RN	SCALE	AS SHOWN	RANGE	31 E		
CAD#	(see stamp)	DATE	12/4/25	DATE	BY	REVISIONS	

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

PAVING, GRADING & DRAINAGE 1

This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

SHEET No. C-17 of C-50

JOB No. 5450-05

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NOTES:
1.) FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. IF CONFLICTS OCCUR, CONTACT ENGINEER PRIOR TO CONSTRUCTION.
2.) REFER TO LANDSCAPE/HARDSCAPE PLANS FOR ENHANCEMENT FEATURES AND SIGNS.
3.) ALL HANDICAPPED ACCESSIBLE RAMPS OFFSITE SHALL BE CONSTRUCTED TO FDOT INDEX #0304 STANDARDS AND ALL ONSITE RAMPS SHALL MEET THE CURRENT FLORIDA BUILDING CODE STANDARDS.
4.) ALL SIGNAGE AND STRIPING TO BE INSTALLED IN ACCORDANCE WITH MUTCD (LATEST EDITION) STANDARDS AND SPECIFICATIONS.
5.) ALL DISTURBED AREAS SHALL BE SODDED AND RE-GRADED FOR POSITIVE DRAINAGE. THERE SHALL BE A 1 FOOT FLAT AREA IN ALL SODDED AREAS ADJACENT TO ALL SIDEWALKS AND CURBS TO PREVENT EROSION.
6.) MAXIMUM SLOPE FOR HANDICAP PARKING SPACES AND ACCESSIBLE ISLE IS 2%.
7.) MAXIMUM CROSS SLOPES ON ALL CROSSWALKS SHALL BE 2% AND THE MAXIMUM SLOPE FOR RAMPS SHALL BE 1 TO 12.
8.) SIDEWALK RAMPS TO BE CONSTRUCTED AT PROPOSED SITE DRIVEWAYS SHALL BE "CAST IN PLACE" DETECTABLE WARNING IN ACCORDANCE TO FDOT INDEX 304.
9.) THE STORMWATER MANAGEMENT POND BOTTOM AND SIDE SLOPES SHALL BE STABILIZED WITH PERMANENT VEGETABLE COVER. POND BOTTOM AND SLOPES SHALL BE WITH NON-MUCK SOD.
10.) LOT GRADING SHALL NOT IMPOSE ANY ADDITIONAL RUNOFF ONTO NOR IMPEDE RUNOFFS FROM ADJACENT PROPERTIES.

NOTES:
11.) LAND PREPARATION PROCESSES SHALL CONFORM TO "CHAPTER 6: STORMWATER AND EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES FOR DEVELOPING AREA OF THE FLORIDA DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT" (JUNE 1988) PREPARED BY FLORIDA DEPARTMENT OF ENVIROMENTAL REGULATION".
12.) WHEN ANY ROOTS OF EXISTING TREES THAT ARE TO REMAIN ARE ENCOUNTERED DURING LAND CLEARING AND/OR GRADING OF THE SITE, THE ROOTS MUST BE CUT OFF EVENLY WITH CLEAN SHARP PRUNING TOOLS. THE CONTRACTOR/DEVELOPER SHALL MINIMIZE THE DAMAGE TO EXISTING TREE ROOT SYSTEMS.
13.) ALL FINISHED FLOOR ELEVATIONS SHALL BE A MINIMUM 24" ABOVE THE ADJACENT ROAD CROWN OR A MINIMUM ONE (1) FOOT ABOVE THE DETERMINED 100-YEAR FLOOD ELEVATION WHICHEVER IS MORE STRINGENT PER LDC 4.5.6.A.1C, LDC 4.5.6.A.1.A AND LDC 4.5.6.A.2C.
14.) ALL EXPOSED AREAS INCLUDING PUBLIC RIGHTS OF WAY WITH SLOPE STEEPER THAN 4:1 WILL BE SOLID SODDED PER LDC 4.5.6.A.A1 AND LDC 4.5.6A.A.2C.
15.) PERMANENT EROSION CONTROL METHODS SHALL BE PER COUNTY LDC 4.5.5 ONCE FINAL GRADING IS ESTABLISHED.
16.) THE MINIMUM ROADWAY CROWN ELEVATION MUST BE SET HIGHER THAN THE GREATER OF EITHER THE 10 YEAR 24 HOUR STORM OR THE CONTROL WATER ELEVATION PLUS 2 FEET. THEREFORE, THE MINIMUM ROADWAY CROWN ELEVATION ALLOWED IS 67.72'.

MATCH SEE SHEET C-17

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

SEE SHEET C-07 FOR OWNERSHIP & MAINTENANCE RESPONSIBILITY OF TRACTS
SEE SHEET C-16 FOR STORM STRUCTURE TABLE.
SEE SHEET C-31 & C-32 FOR OFFSITE INFORMATION.
SEE SHEETS C-33 THRU C-37 FOR CROSS SECTIONS.

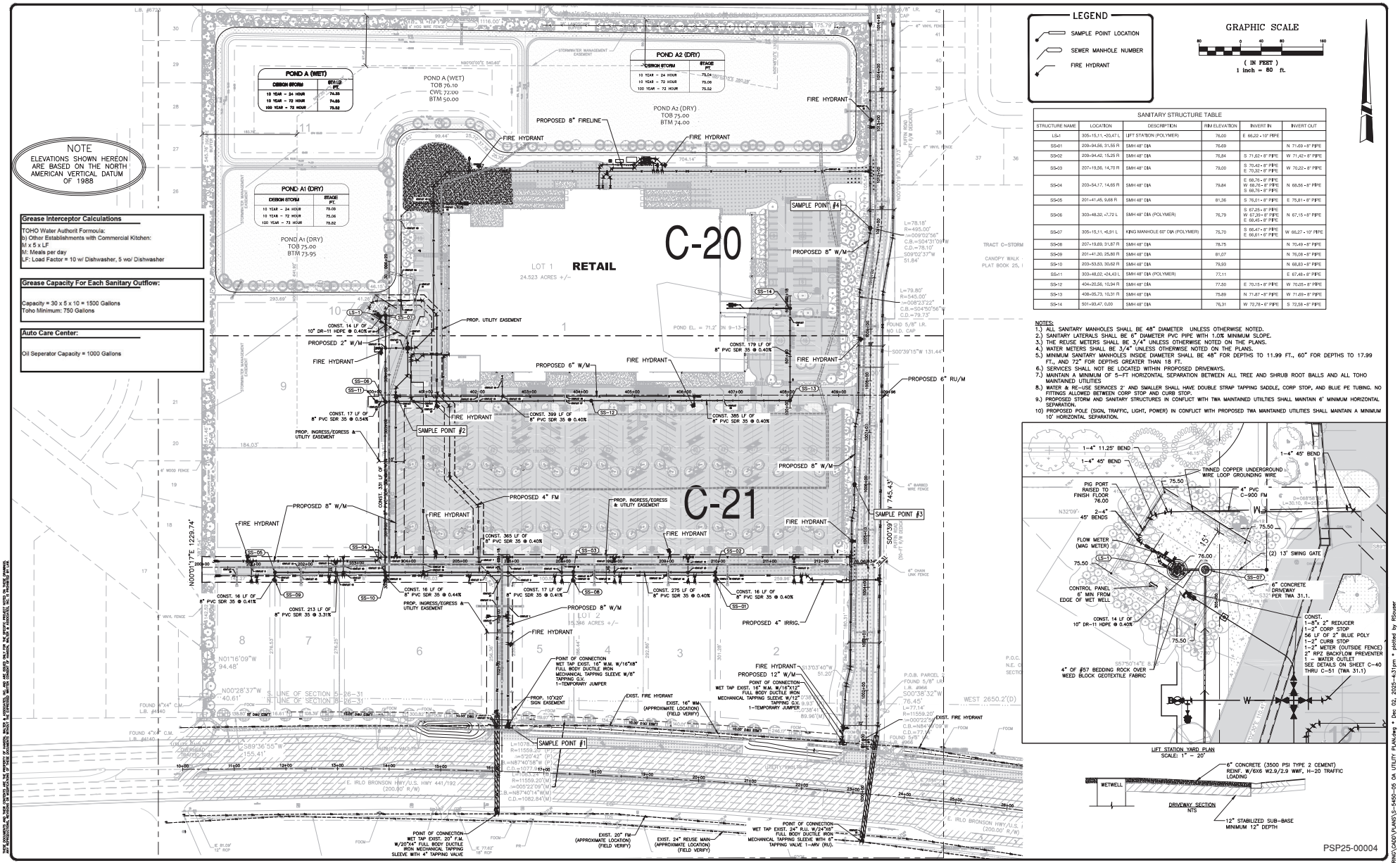
LEGEND
- EXISTING GRADE
- PROPOSED FINISHED GRADE
- PROPOSED STORM MANHOLE
- PROPOSED STORM INLET
- PROPOSED STORM DRAIN
- POND CONTROL WATER LEVEL
- DIRECTION OF SURFACE FLOW
- STRUCTURE NUMBER
- UNDERDRAIN & CLEANOUT
- JURISDICTIONAL LINE

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SUB25-00041
PSP25-00004

DESIGN MW/CM	F.B. NO. -	SEC. 5 & 8	DATE	BY	REVISIONS	8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	PAVING, GRADING & DRAINAGE 2	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET NO. C-18 of C-50 JOB NO 5450-05
DRAWN RS	PAGE -	TWP. 26 S							
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							
CAD# (see stamp)	DATE 12/4/25								

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PSP25-00004

DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8				PUFFIN ROAD COMMERCIAL	OVERALL UTILITY PLAN
DRAWN RS	PAGE –	TWP. 26 S					
CHECKED RN	SCALE AS SHOWN	RANGE 31 E					
CAD# (see stamp)	DATE 11/25/25		DATE	BY	REVISIONS		

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

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SHEET NO. C-19 of C-50

JOB NO. 5450-05

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I:\5450-05\ENGINEERING\CAD\PLANS\5-5450-05 OA UTILITY PLAN.dwg • Dec 02, 2025-4:31pm • plotted by RSouser

NOTES:
1.) ALL SANITARY MANHOLES SHALL BE 48" DIAMETER UNLESS OTHERWISE NOTED.
2.) SANITARY LATERALS SHALL BE 6" DIAMETER PVC PIPE WITH 1.00% MINIMUM SLOPE.
3.) THE REUSE METERS SHALL BE 3/4" UNLESS OTHERWISE NOTED ON THE PLANS.
4.) WATER METERS SHALL BE 3/4" UNLESS OTHERWISE NOTED ON THE PLANS.
5.) MINIMUM SANITARY MANHOLES INSIDE DIAMETER
SHALL BE 48" FOR DEPTHS TO 11.99 FT.,
60" FOR DEPTHS TO 17.99 FT., AND 72" FOR DEPTHS GREATER THAN 18 FT.
6.) SERVICES SHALL NOT BE LOCATED WITHIN PROPOSED DRIVEWAYS.
7.) MAINTAIN A MINIMUM OF 5'-FT HORIZONTAL SEPARATION BETWEEN ALL TREE AND SHRUB ROOT BALLS AND ALL TOHO MAINTAINED UTILITIES
8.) WATER & RE-USE SERVICES 2" AND SMALLER SHALL HAVE DOUBLE STRAP TAPPING SADDLE, CORP STOP, AND BLUE PE TUBING. NO FITTINGS ALLOWED BETWEEN CORP STOP AND CURB STOP.
9.) PROPOSED STORM AND SANITARY STRUCTURES IN CONFLICT WITH TWA MAINTAINED UTILITIES SHALL MAINTAIN 6" MINIMUM HORIZONTAL SEPARATION.
10) PROPOSED POLE (SIGN, TRAFFIC, LIGHT, POWER) IN CONFLICT WITH PROPOSED TWA MAINTAINED UTILITIES SHALL MAINTAIN A MINIMUM 10' HORIZONTAL SEPARATION.

LEGEND

11¼ PROPOSED 11 1/4° BEND	S-58 PROPOSED STORM MANHOLE
22½ PROPOSED 22 1/2° BEND	PROPOSED STORM HALF/FULL INLET
45 PROPOSED 45° BEND	PROPOSED STORM DRAIN
90 PROPOSED 90° BEND	SSS PROPOSED SINGLE SANITARY SERVICE
SWS PROPOSED SINGLE WATER SERVICE	DSS PROPOSED DOUBLE SANITARY SERVICE
DWS PROPOSED DOUBLE WATER SERVICE	SS MH-22 PROPOSED SANITARY MANHOLE
PROPOSED WATERMAIN	PROPOSED SANITARY SEWER
PROPOSED FIRE HYDRANT ASSEMBLY	SRS PROPOSED SINGLE REUSE SERVICE
PROPOSED GATE VALVE, TEE	DRS PROPOSED DOUBLE REUSE SERVICE

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

POND A (WET)

DESIGN STORM	STAGE FT.
10 YEAR – 24 HOUR	74.35
10 YEAR – 72 HOUR	74.85
100 YEAR – 72 HOUR	75.52

POND A (WET)
TOB 76.10
CWL 72.00
BTM 50.00

POND A2 (DRY)

DESIGN STORM	STAGE FT.
10 YEAR – 24 HOUR	75.04
10 YEAR – 72 HOUR	75.06
100 YEAR – 72 HOUR	75.52

POND A2 (DRY)
TOB 75.00
BTM 74.00

POND A1 (DRY)

DESIGN STORM	STAGE FT.
10 YEAR – 24 HOUR	75.05
10 YEAR – 72 HOUR	75.06
100 YEAR – 72 HOUR	75.52

POND A1 (DRY)
TOB 75.00
BTM 73.95

LOT 1
24.523 ACRES +/-
RETAIL
77.67
LOT 1
ACRES: 17.404
AREA: 758082 Sq. Ft.

PUFFIN ROAD (50-FT R/W DEDICATION)

STREET D

STREET E

PROP. UTILITY EASEMENT

MATCH SEE SHEET C-21

PSP25-00004

DESIGN	MW/CM	F.B. NO.	–	SEC.	5 & 8		
DRAWN	RS	PAGE	–	TWP.	26 S		
CHECKED	RN	SCALE	AS SHOWN	RANGE	31 E		
CAD#	(see stamp)	DATE	12/3/25	DATE	BY	REVISIONS	

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

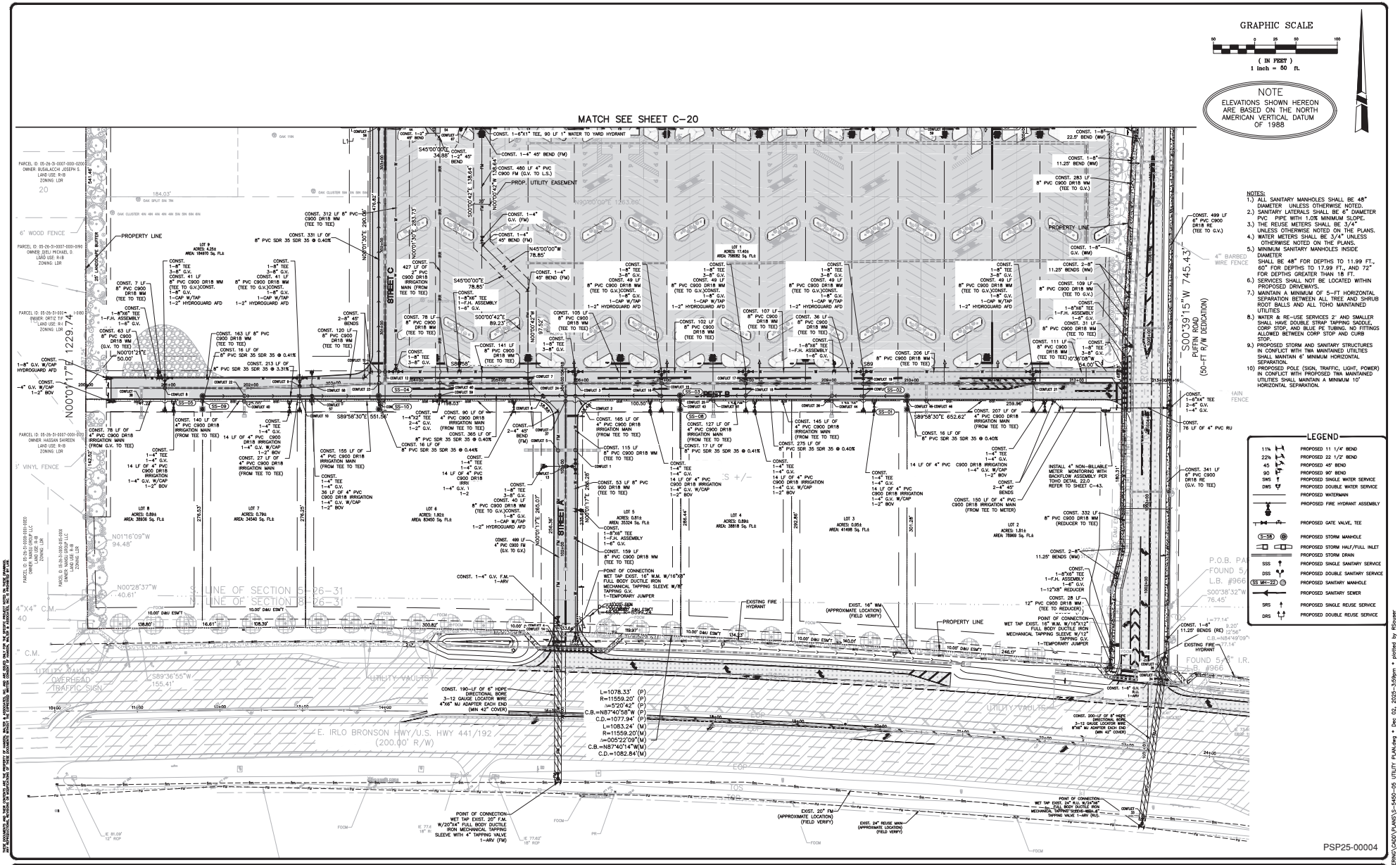
UTILITY PLAN 1

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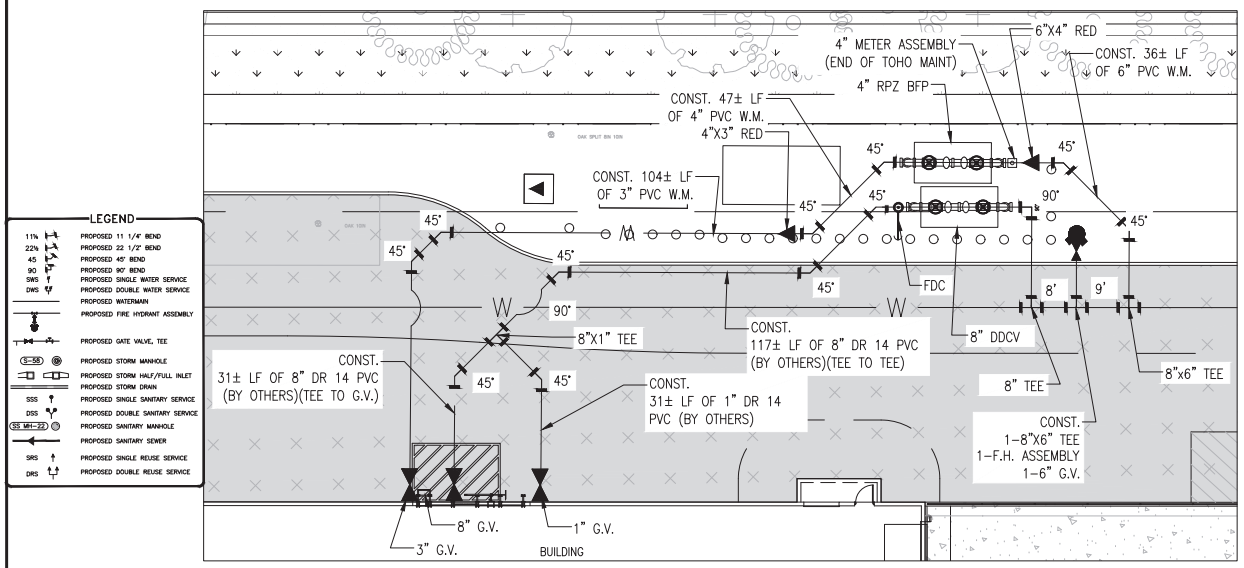
SHEET NO. C-20 of C-50
JOB NO. 5450-05

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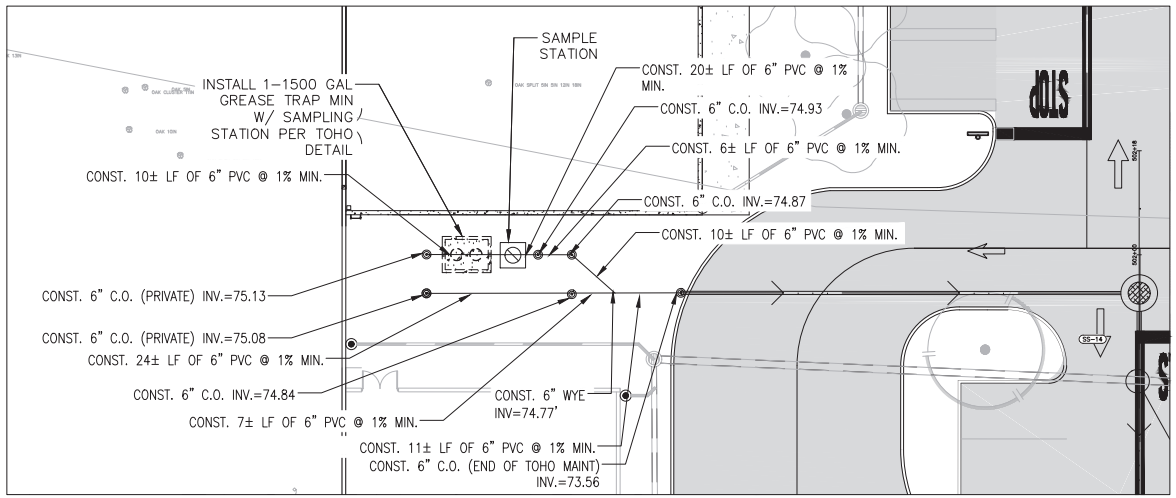


DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	UTILITY PLAN 2	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET NO. C-21 of C-50
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CHECKED RN	SCALE AS SHOWN	RANGE 31 E							
CAD# (see stamp)	DATE 12/2/25		DATE	BY	REVISIONS				

I:\5450-05\ENGINEERING\CADD\PLANS\5-5450-05 UTILITY PLAN.dwg • Dec 02, 2025-3:59pm • plotted by RSouser



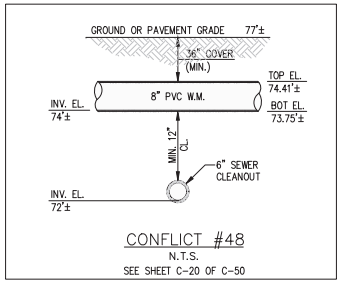
DETAIL A



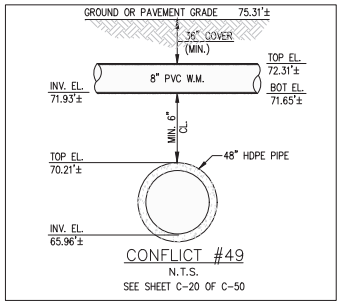
DETAIL B

LEGEND

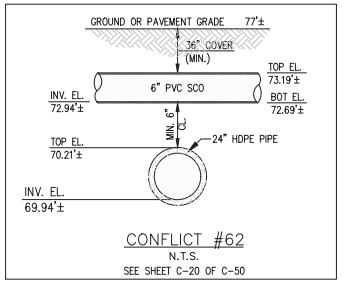
11¼	PROPOSED 11 1/4° BEND
22½	PROPOSED 22 1/2° BEND
45	PROPOSED 45° BEND
90	PROPOSED 90° BEND
SWS	PROPOSED SINGLE WATER SERVICE
DWS	PROPOSED DOUBLE WATER SERVICE
	PROPOSED WATERMAIN
	PROPOSED FIRE HYDRANT ASSEMBLY
	PROPOSED GATE VALVE, TEE
S-58	PROPOSED STORM MANHOLE
	PROPOSED STORM HALF/FULL INLET
	PROPOSED STORM DRAIN
SSS	PROPOSED SINGLE SANITARY SERVICE
DSS	PROPOSED DOUBLE SANITARY SERVICE
SS MH-22	PROPOSED SANITARY MANHOLE
	PROPOSED SANITARY SEWER
SRS	PROPOSED SINGLE REUSE SERVICE
DRS	PROPOSED DOUBLE REUSE SERVICE



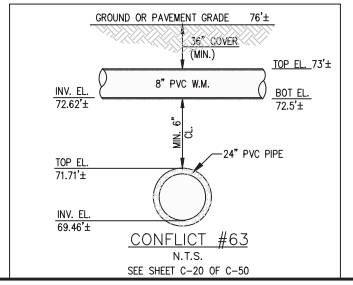
CONFLICT #48
N.T.S.
SEE SHEET C-20 OF C-50



CONFLICT #49
N.T.S.
SEE SHEET C-20 OF C-50



CONFLICT #62
N.T.S.
SEE SHEET C-20 OF C-50



CONFLICT #63
N.T.S.
SEE SHEET C-20 OF C-50

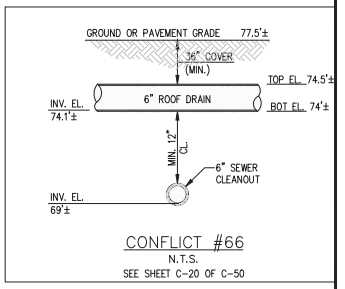
GRAPHIC SCALE

10 0 5 10 20

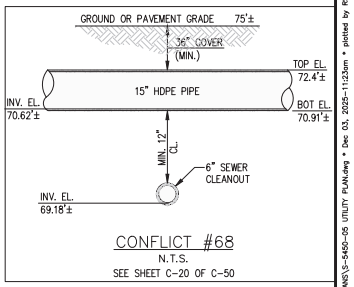
(IN FEET)
1 inch = 10 ft.

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

NOTES:
1.) ALL SANITARY MANHOLES SHALL BE 48" DIAMETER UNLESS OTHERWISE NOTED.
2.) SANITARY LATERALS SHALL BE 6" DIAMETER PVC PIPE WITH 1.0% MINIMUM SLOPE.
3.) THE REUSE METERS SHALL BE 3/4" UNLESS OTHERWISE NOTED ON THE PLANS.
4.) WATER METERS SHALL BE 3/4" UNLESS OTHERWISE NOTED ON THE PLANS.
5.) MINIMUM SANITARY MANHOLES INSIDE DIAMETER SHALL BE 48" FOR DEPTHS TO 11.99 FT., 60" FOR DEPTHS TO 17.99 FT., AND 72" FOR DEPTHS GREATER THAN 18 FT.
6.) SERVICES SHALL NOT BE LOCATED WITHIN PROPOSED DRIVEWAYS.
7.) MAINTAIN A MINIMUM OF 5-FT HORIZONTAL SEPARATION BETWEEN ALL TREE AND SHRUB ROOT BALLS AND ALL TOHO MAINTAINED UTILITIES
8.) WATER & RE-USE SERVICES 2" AND SMALLER SHALL HAVE DOUBLE STRAP TAPPING SADDLE, CORP STOP, AND BLUE PE TUBING. NO FITTINGS ALLOWED BETWEEN CORP STOP AND CURB STOP.
9.) PROPOSED STORM AND SANITARY STRUCTURES IN CONFLICT WITH TWA MAINTAINED UTILITIES SHALL MAINTAIN 6' MINIMUM HORIZONTAL SEPARATION.
10.) PROPOSED POLE (SIGN, TRAFFIC, LIGHT, POWER) IN CONFLICT WITH PROPOSED TWA MAINTAINED UTILITIES SHALL MAINTAIN A MINIMUM 10' HORIZONTAL SEPARATION.



CONFLICT #66
N.T.S.
SEE SHEET C-20 OF C-50

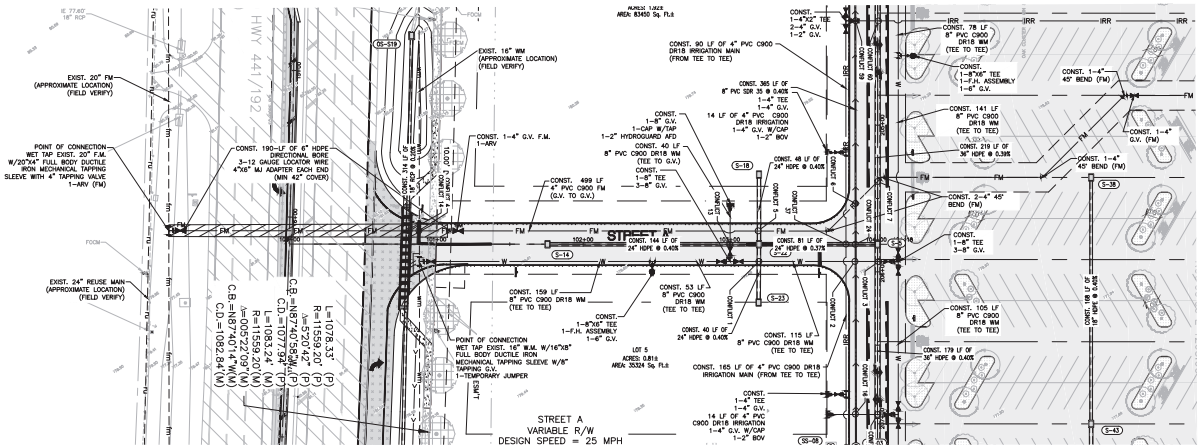


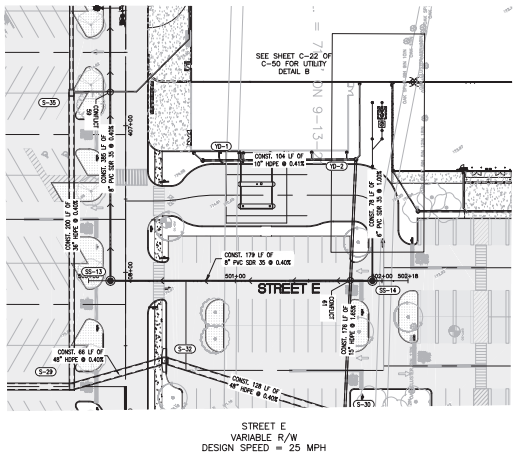
CONFLICT #68
N.T.S.
SEE SHEET C-20 OF C-50

PSP25-00004

DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 32655/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	UTILITY DETAILS	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET NO. C-22 of C-50
DRAWN RS	PAGE –	TWP. 26 S							JOB NO 5450-05
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							
CAD# (see stamp)	DATE 12/2/25	DATE	BY	REVISIONS					

I:\5450-05\ENGINEERING\CAD\PLANS\5-5450-05 UTILITY PLAN.dwg • Dec 03, 2025-11:23am • plotted by RSouser





STREET E
VARIABLE R/W
DESIGN SPEED = 25 MPH

LEGEND

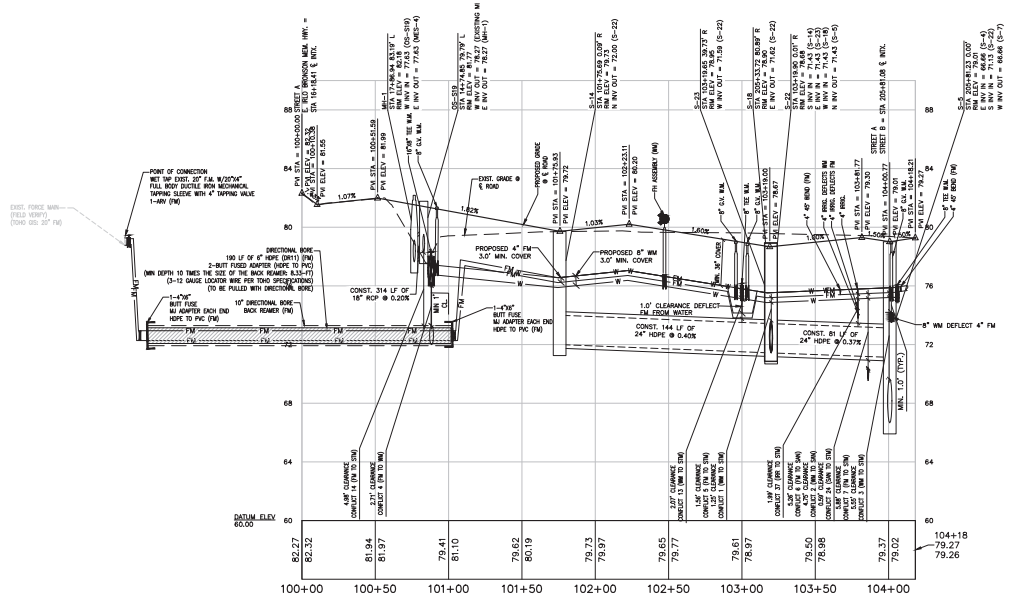
2 / 79.92 / B	LOT #, F.F. ELEVATION, LOT TYPE
x 74.60	EXISTING GRADE
74.60	PROPOSED GRADE
	SLOPED BANK
	PROPOSED SWALE
	PROPOSED STORM INLETS
	PROPOSED MITERED END
	PROPOSED STORM MANHOLE
	PROPOSED STORM MAIN
	PROPOSED SANITARY MANHOLE
	PROPOSED SANITARY MAIN
	EXISTING STORM INLETS
	EXISTING STORM MANHOLE
	EXISTING STORM MAIN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY MAIN
FLOOD ZONE A / FLOOD ZONE X	INDICATE FEMA FLOOD ZONE LINE
-JS- -JS-	INDICATE WETLAND JURISDICTIONAL LINE
-SF- -SF-	INDICATE PROPOSED SILT FENCE
SHWT 73.00	SEASONAL HIGH WATER ELEVATION

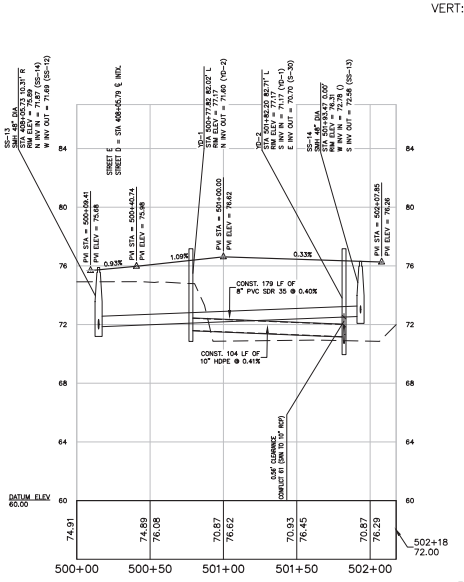
NOTES:
1. SEE DIMENSION PLAN SHEET C-07 THRU C-09 FOR L OF ROAD ALIGNMENT BEARING & DISTANCE, PC & PT AND STATION EQUATION INFORMATION, SIGNING AND MARKING INFORMATION.
2. SEE SHEET C-16 THRU C-18 FOR PAVING, GRADING AND DRAINAGE PLANS.
3. SEE SHEET C-19 THRU C-22 FOR UTILITY PLANS
4. SEE SHEET C-36 & C-37 FOR TYPICAL SECTION DETAILS.

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

NOTE: SPEED LIMIT = 25 MPH
DESIGN SPEED = 25 MPH

SCALES:
HORZ: 1" = 40'
VERT: 1" = 4'





PSP25-00004

DESIGN	MW/CM	F.B. NO.	–	SEC.	5 & 8	DATE	BY
DRAWN	RS	PAGE	–	TWP.	26 S		
CHECKED	RN	SCALE	AS SHOWN	RANGE	31 E		
CAD#	(see stamp)	DATE	12/4/25				REVISIONS

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

PLAN & PROFILE
STREET A AND
STREET E

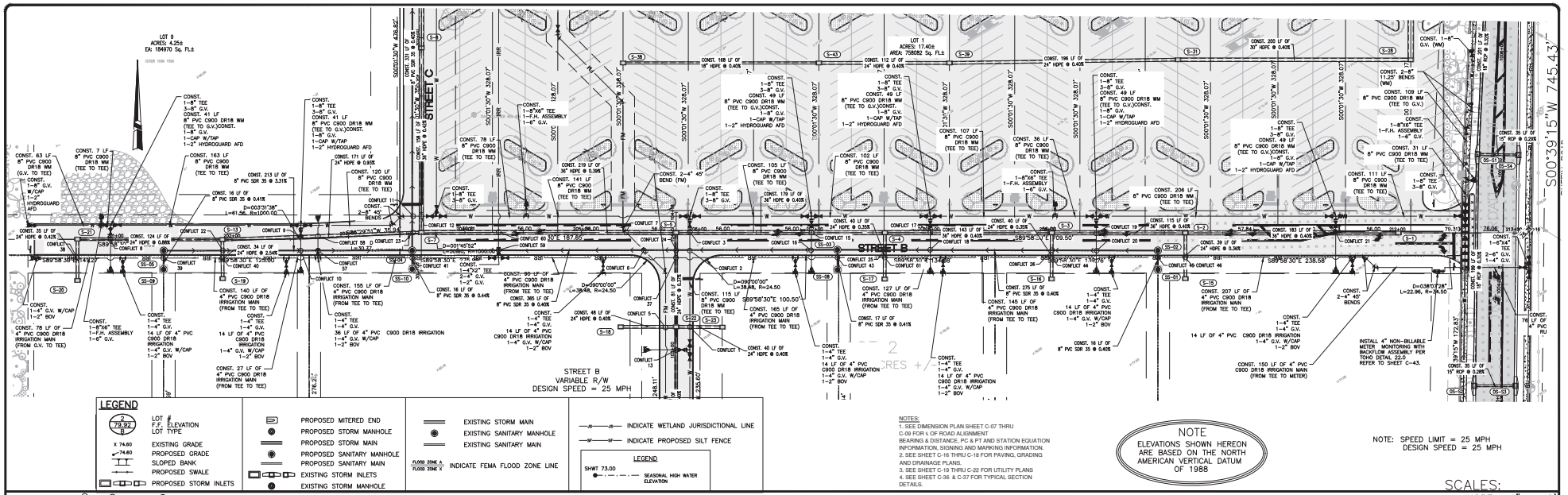
This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal.

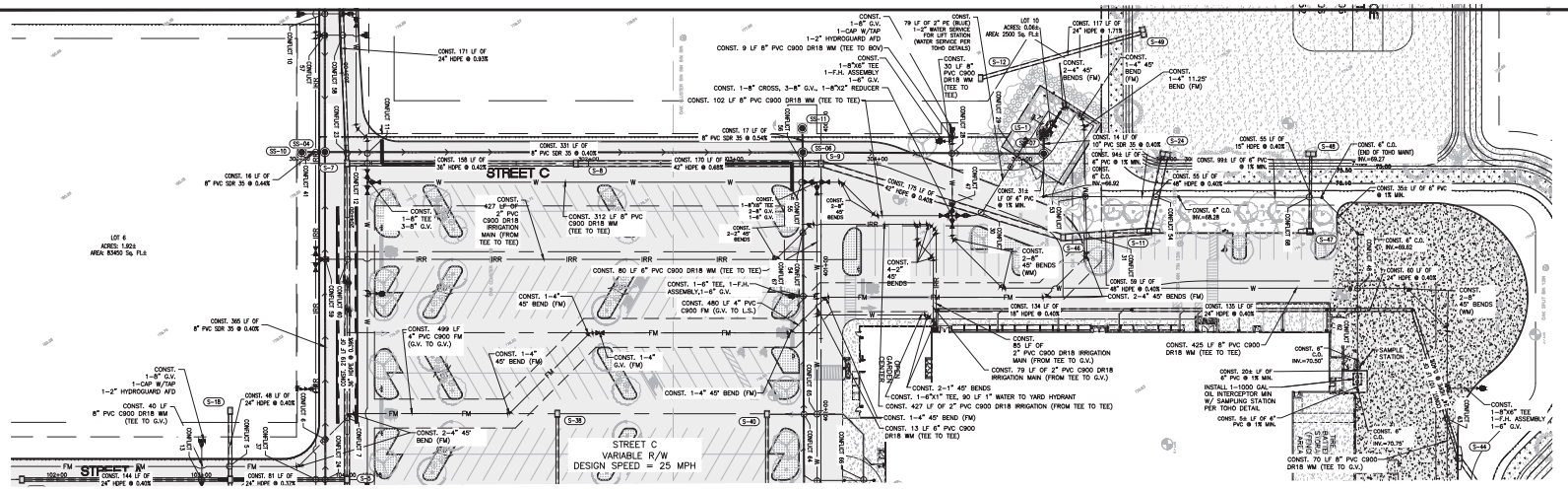
Signature must be verified on any electronic copies.

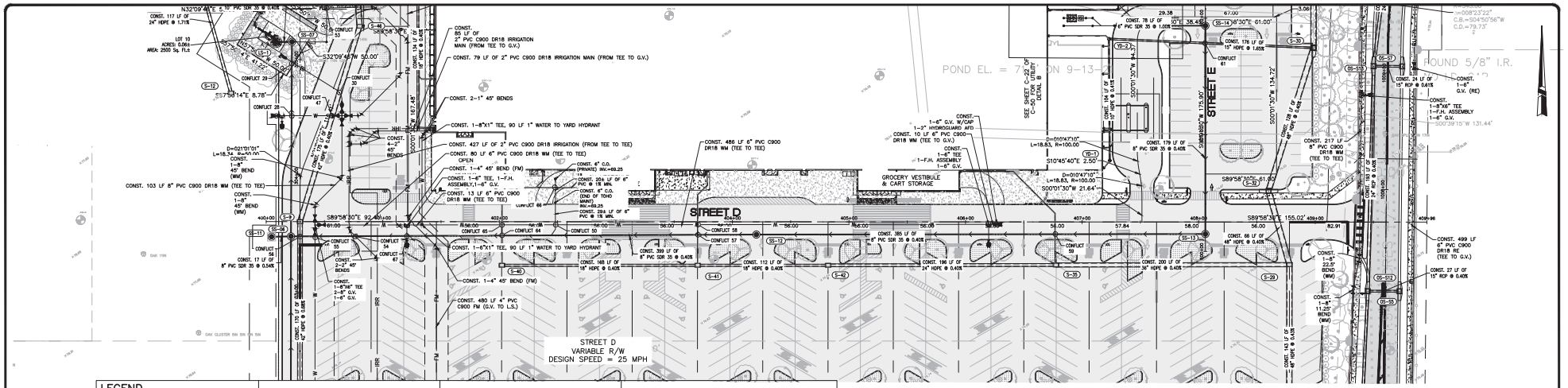
SHEET NO
C-23 of C-50
JOB NO 5450-05

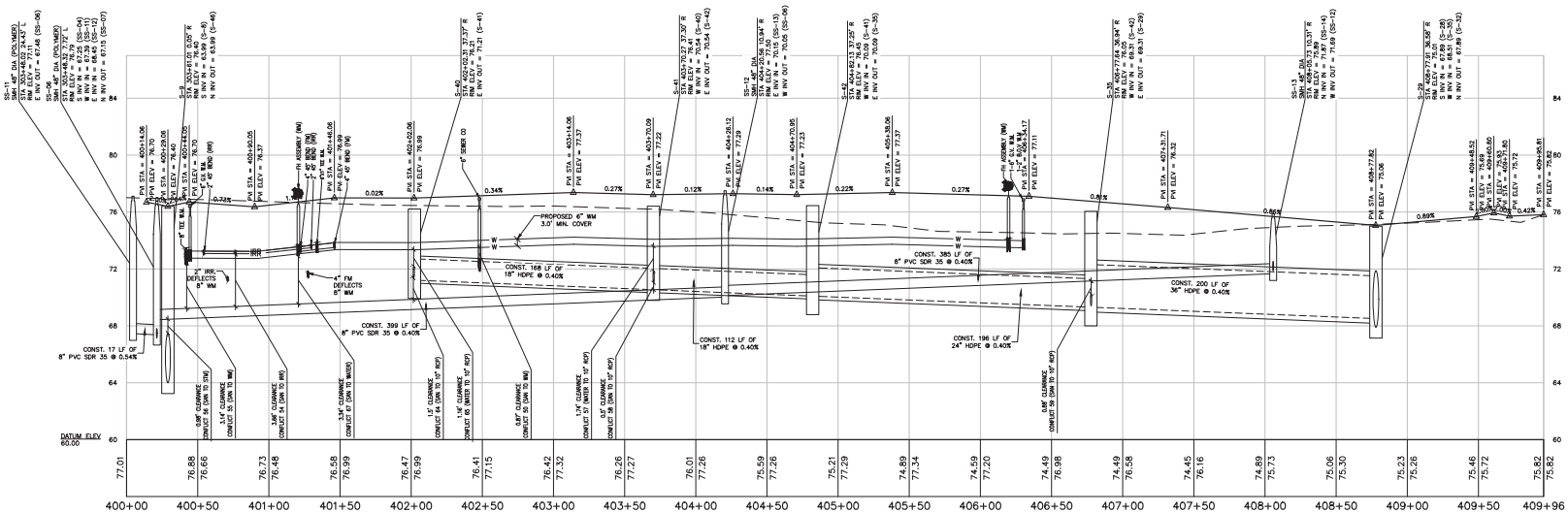
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STREET C
STREET B
VARIABLE R/W
DESIGN SPEED = 25 MPH
LOT 9
ACRES: 4.25±
EA: 184970 Sq. Ft.±
LOT 1
ACRES: 17.40±
AREA: 758082 Sq. Ft.±
S00°39'15"W 745.43'
S89°58'30"E 1,320.00'
S89°58'30"E 1,144.20'
S89°58'30"E 175.80'
S89°58'30"E 1,139.76'
S89°58'30"E 238.58'
S89°58'30"E 100.50'
S89°58'30"E 109.50'
S89°58'30"E 134.88'
S00°01'30"W 328.07'
S00°01'30"W 328.07'
S00°01'30"W 328.07


STREET C
VARIABLE R/W
DESIGN SPEED = 25 MPH
STREET NW
LOT 6
ACRES: 1.924±
AREA: 83,803 Sq. Ft.±
LOT 10
ACRES: 0.06±
AREA: 2500 Sq. Ft.±
CONST. 171 LF OF 24" HDPE @ 0.93%
CONST. 16 LF OF 8" PVC SDR 35 @ 0.44%
CONST. 158 LF OF 36" HDPE @ 0.42%
CONST. 331 LF OF 8" PVC SDR 35 @ 0.40%
CONST. 170 LF OF 42" HDPE @ 0.68%
CONST. 312 LF 8" PVC C900 DR18 WM (TEE TO TEE)
CONST. 427 LF OF 2" PVC C900 DR18 IRRIGATION MAIN (FROM TEE TO TEE)
CONST. 80 LF 8" PVC C900 DR18 WM (TEE TO TEE)
CONST. 480 LF 4" PVC C900 FM (G.V. TO L.S.)
CONST. 499 LF 4" PVC C900 FM (G.V. TO G.V.)
CONST. 365 LF OF 8" PVC SDR 35 @ 0.40%
CONST. 40 LF 8" PVC C900 DR18 WM (TEE TO G.V.)
CONST. 48 LF OF 24" HDPE @ 0.40%
CONST. 144 LF OF 24" HDPE @ 0.40%
CONST. 81 LF OF 24" HDPE @ 0.37%
CONST. 102 LF 8" PVC C900 DR18 WM (TEE TO TEE)
CONST. 9 LF 8" PVC C900 DR18 WM (TEE TO BOV)
CONST. 30 LF 8" PVC C900 DR18 WM (TEE TO TEE)
CONST. 79 LF OF 2" PE (BLUE) 1-4" WATER SERVICE FOR LIFT STATION (WATER SERVICE PER TOHO DETAIL)
CONST. 117 LF OF 24" HDPE @ 1.71%
CONST. 944 LF OF 6" PVC @ 1% MIN.
CONST. 55 LF OF 15" HDPE @ 0.40%
CONST. 6" C.O. (END OF TOHO MAINT) INV.=69.27
CONST. 6" C.O. INV.=69.02
CONST. 6" C.O. INV.=68.52
CONST. 6" C.O. INV.=68.28
CONST. 998 LF OF 6" PVC @ 1% MIN.
CONST. 354 LF OF 6" PVC @ 1% MIN.
CONST. 60 LF OF 24" HDPE @ 0.40%
CONST. 59 LF OF 48" HDPE @ 0.40%
CONST. 134 LF OF 18" HDPE @ 0.40%
CONST. 135 LF OF 24" HDPE @ 0.40%
CONST. 425 LF 8" PVC C900 DR18 WM (TEE TO TEE)
CONST. 85 LF OF 2" PVC C900 DR18 IRRIGATION MAIN (FROM TEE TO G.V.)
CONST. 79 LF OF 2" PVC C900 DR18 IRRIGATION MAIN (FROM TEE TO G.V.)
CONST. 427 LF OF 2" PVC C900 DR18 IRRIGATION (FROM TEE TO TEE)
CONST. 13 LF 6" PVC C900 DR18 WM (TEE TO TEE)
CONST. 70 LF 8" PVC C900 DR18 WM (TEE TO G.V.)
CONST. 55 LF OF 4" PVC @ 1% MIN.
CONST. 20± LF OF 6" PVC @ 1% MIN.
INSTALL 1-1000 GAL. OIL INTERCEPTOR MIN. W/ SAMPLING STATION PER TOHO DETAIL.
SAMPLE STATION
CONST. 1-8"X6" TEE 1-F.H. ASSEMBLY 1-6" G.V.
CONST. 1-4" 45° BEND (FM)
CONST. 2-4" 45° BENDS (FM)
CONST. 1-4" 11.25° BEND (FM)
CONST. 2-8" 45° BENDS (WM)
CONST. 1-6"x1" TEE, 90 LF 1" WATER TO YARD HYDRANT
CONST. 1-8"x8" TEE, 1-F.H. ASSEMBLY, 1-6" G.V.
CONST. 1-8" G.V. 1-CAP W/TAP 1-2" HYDROGUARD AFD
CONST. 1-8"x8" TEE 1-F.H. ASSEMBLY 1-6" G.V.
CONST. 1-8" CROSS, 3-8" G.V., 1-8"x2" REDUCER
CONST. 1-8"x6" TEE 3-8" G.V.
CONST. 2-4" 45° BENDS
CONST. 1-8" TEE 3-8" G.V.
CONST. 1-4" G.V. (FM)
CONST. 2-2" 45° BENDS
CONST. 1-4" 45° BEND (FM)
CONST. 2-4" 45° BEND (FM)
CONST. 1-4" 45° BEND (FM)
CONST. 2-4" 45° BENDS
CONST. 59 LF OF 48" HDPE @ 0.40%
CONST. 2-4" 45° BENDS (FM)
CONST. 1-4" 45° BENDS
CONST. 1-8" G.V. 1-CAP W/TAP 1-2" HYDROGUARD AFD
CONST. 16 LF OF 8" PVC SDR 35 @ 0.44%
CONST. 48 LF OF 24" HDPE @ 0.40%
CONST. 40 LF 8" PVC C900 DR18 WM (TEE TO G.V.)
CONST. 1-8"x8" TEE 3-8" G.V.
CONST. 1-8"x6" TEE 1-F.H. ASSEMBLY 1-6" G.V.
CONST. 1-4" 45° BEND (FM)
CONST. 2-4" 45° BEND (FM)
CONST. 1-4" 45° BEND (FM)
CONST. 1-4" 45° BEND (FM)
CONST. 1-4" G.V. (FM)
CONST. 1-4" 45° BEND (FM)
CONST. 1-4" 45° BEND (FM)
CONST. 1-4" 45° BEND

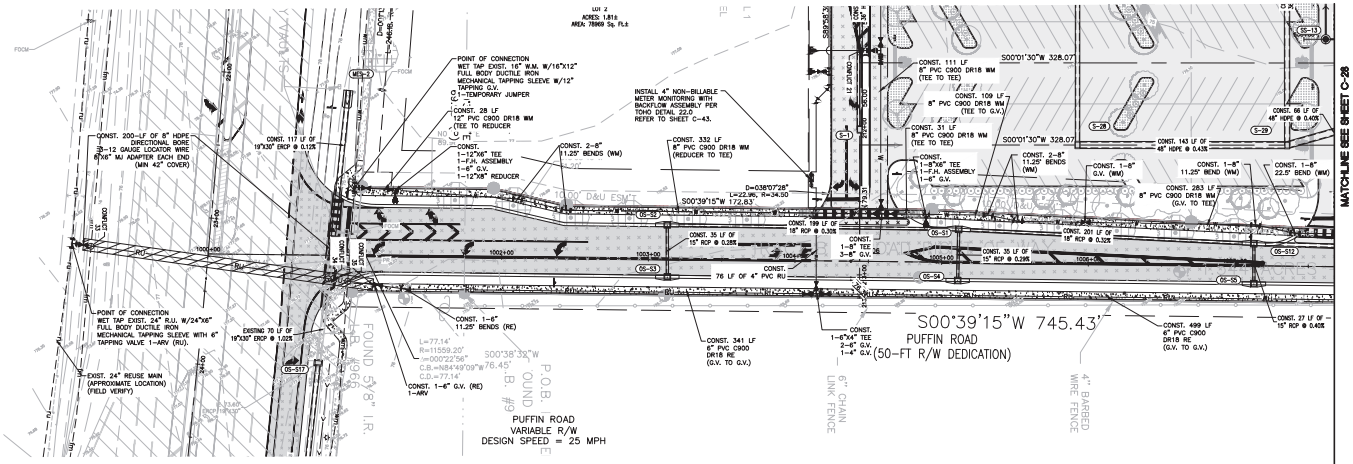


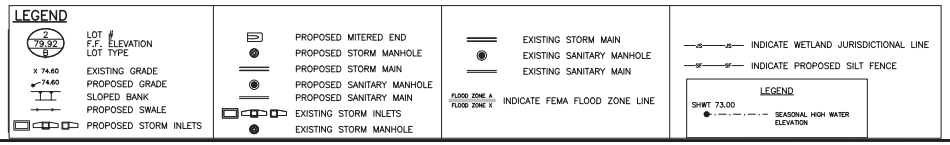


PSP25-00004

DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	PLAN & PROFILE STREET D	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET NO. C-26 of C-50
DRAWN RS	PAGE –	TWP. 26 S							
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							JOB NO 5450-05
CAD# (see stamp)	DATE 12/4/25	DATE	BY	REVISIONS					

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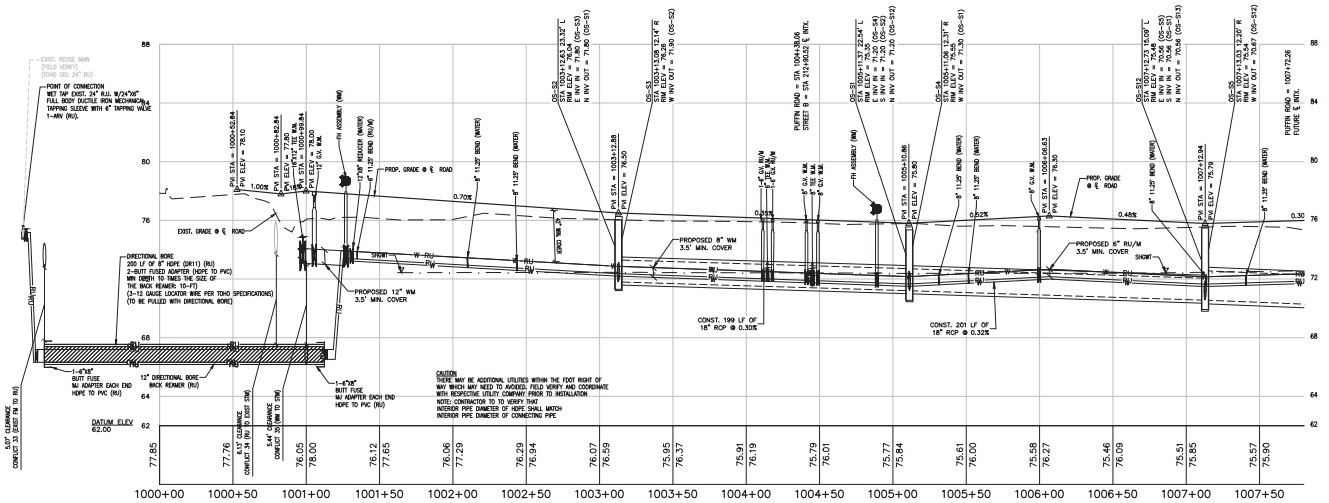




NOTES:
1. SEE DIMENSION PLAN SHEET C-07 THRU C-09 FOR ℄ OF ROAD ALIGNMENT BEARING & DISTANCE, PC & PT AND STATION EQUATION INFORMATION, SIGNING AND MARKING INFORMATION.
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NOTE
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SCALES:
HORZ: 1" = 40'
VERT: 1" = 4'

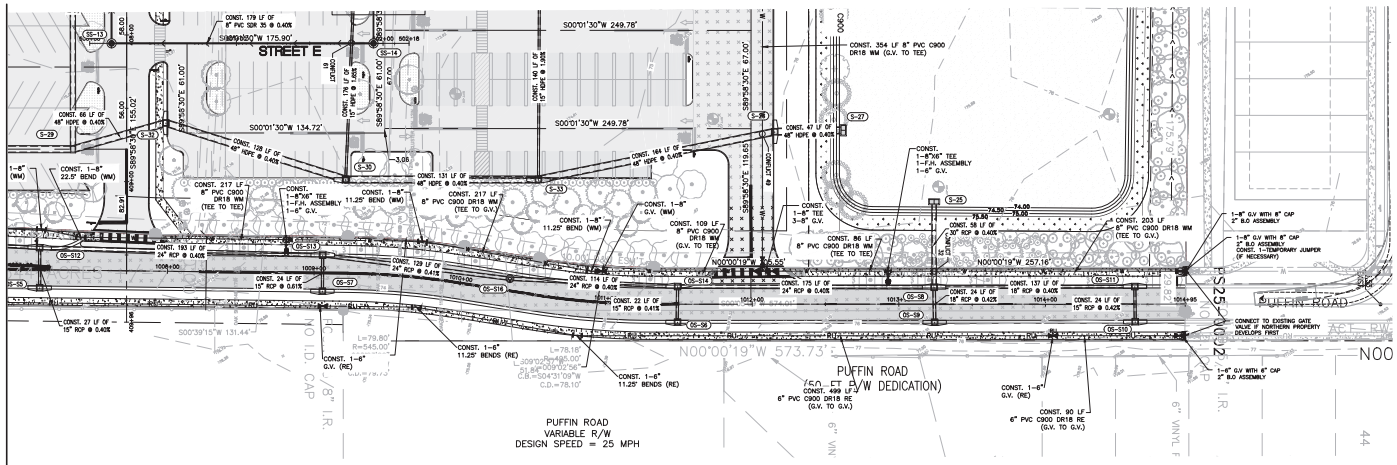


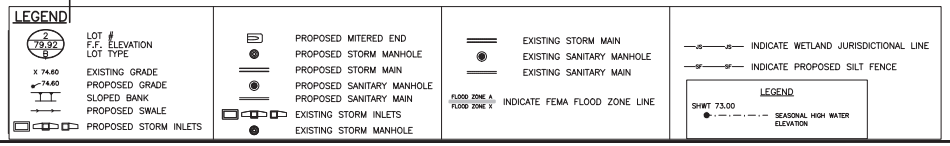
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DRAWN RS	PAGE –	TWP. 26 S							
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							JOB NO 5450-05
CAD# (see stamp)	DATE 12/4/25		DATE	BY	REVISIONS				

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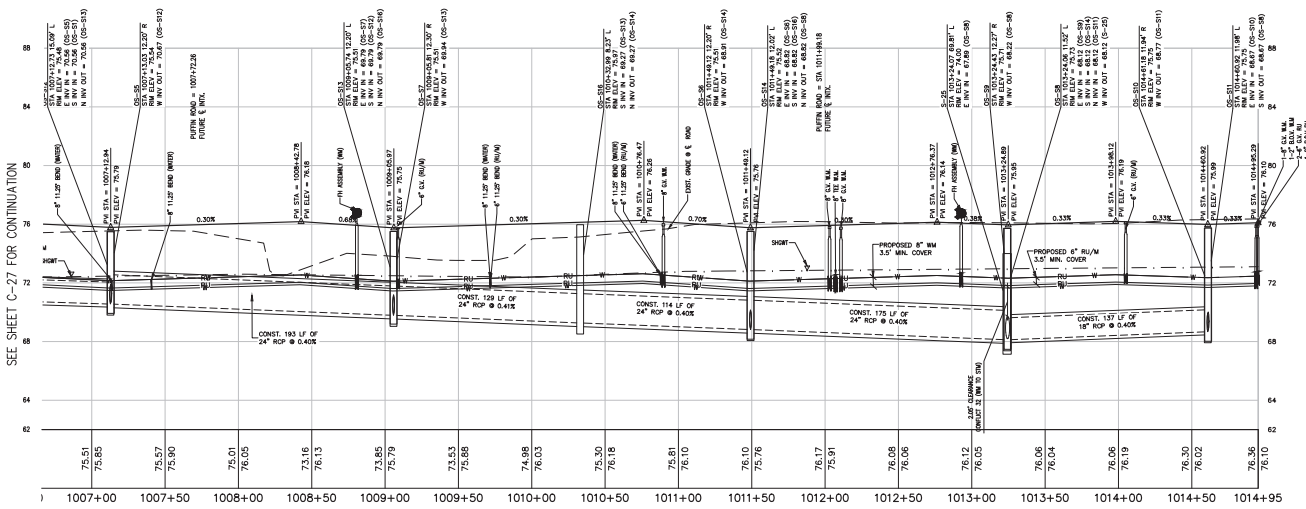


NOTES:
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NOTE
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NOTE: SPEED LIMIT = 25 MPH
DESIGN SPEED = 25 MPH

SCALES:
HORZ: 1" = 40'
VERT: 1" = 4'



PSP25-00004

DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8					
DRAWN RS	PAGE –	TWP. 26 S					
CHECKED RN	SCALE AS SHOWN	RANGE 31 E					
CAD# (see stamp)	DATE 12/4/25		DATE	BY	REVISIONS		

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
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Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

PLAN & PROFILE PUFFIN ROAD
STA. 1007+50 THRU STA. 1014+95

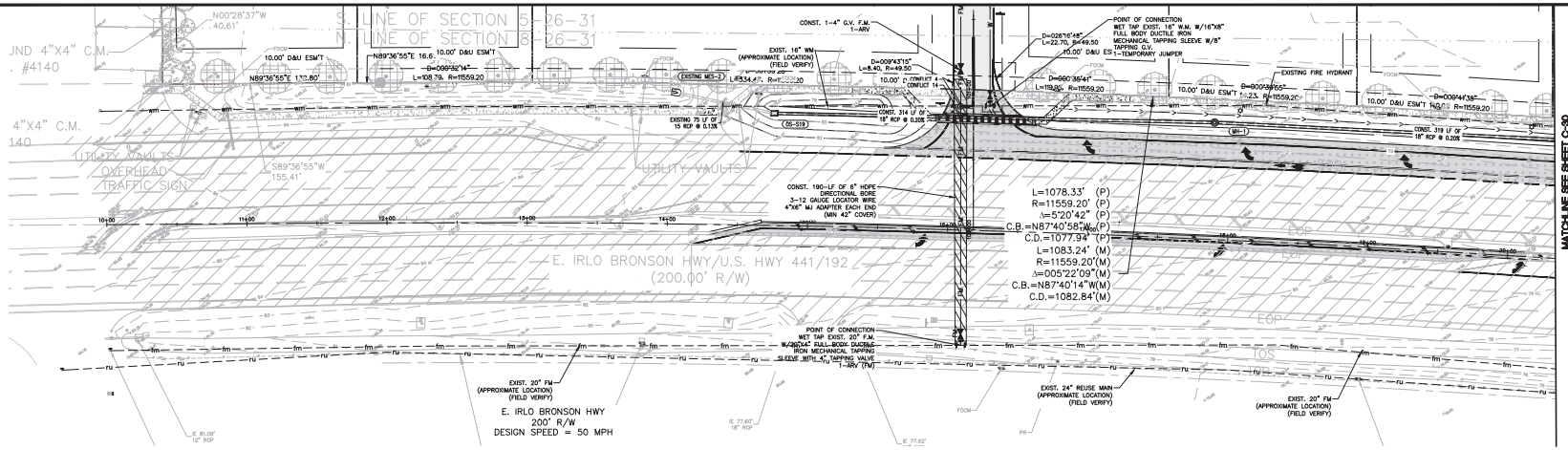
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SHEET Nº C-28 of C-50
JOB Nº 5450-05

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LEGEND

2 / 79.92 / B — LOT #, F.F. ELEVATION, LOT TYPE	PROPOSED MITERED END
x 74.60 — EXISTING GRADE	PROPOSED STORM MANHOLE
74.60 — PROPOSED GRADE	PROPOSED STORM MAIN
SLOPED BANK	PROPOSED SANITARY MANHOLE
PROPOSED SWALE	PROPOSED SANITARY MAIN
PROPOSED STORM INLETS	EXISTING STORM INLETS
	EXISTING STORM MANHOLE
EXISTING STORM MAIN	INDICATE WETLAND JURISDICTIONAL LINE
EXISTING SANITARY MANHOLE	INDICATE PROPOSED SILT FENCE
EXISTING SANITARY MAIN	
FLOOD ZONE A / FLOOD ZONE X — INDICATE FEMA FLOOD ZONE LINE	

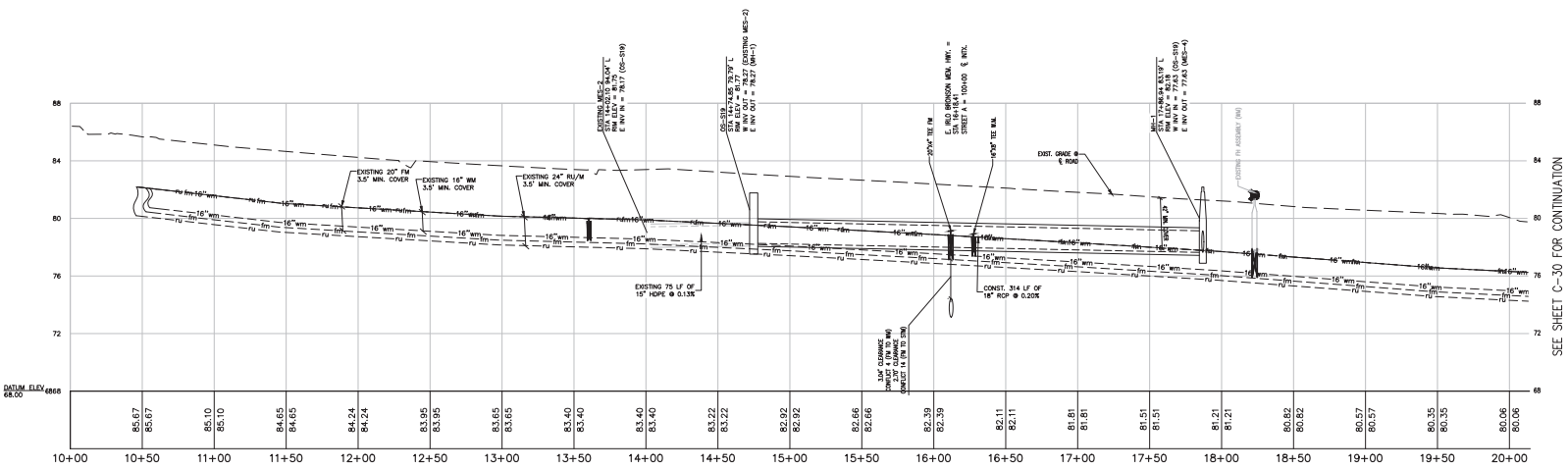
LEGEND
SHWT 73.00 — SEASONAL HIGH WATER ELEVATION

NOTES:
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SCALES:
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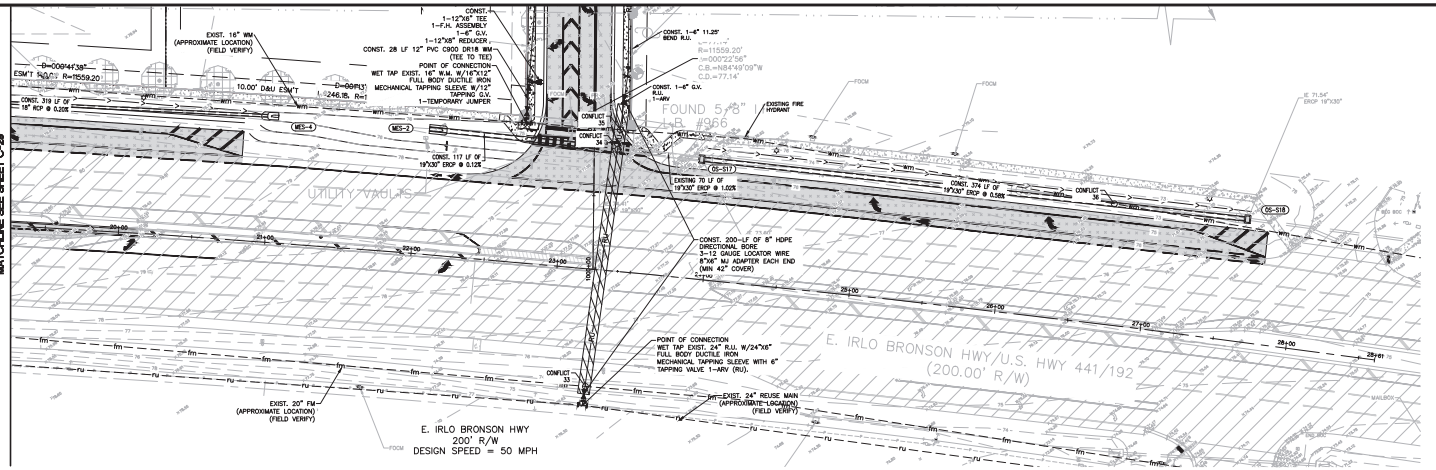


PSP25-00004

DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8	DATE	BY	REVISIONS	8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX. (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	PLAN & PROFILE E. IRLO BRONSON MEM. HWY STA. 10+00 THRU 20+00	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET NO. C-29 of C-50
DRAWN RS	PAGE –	TWP. 26 S							JOB NO. 5450-05
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							
CAD# (see stamp)	DATE 12/4/25								

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LEGEND

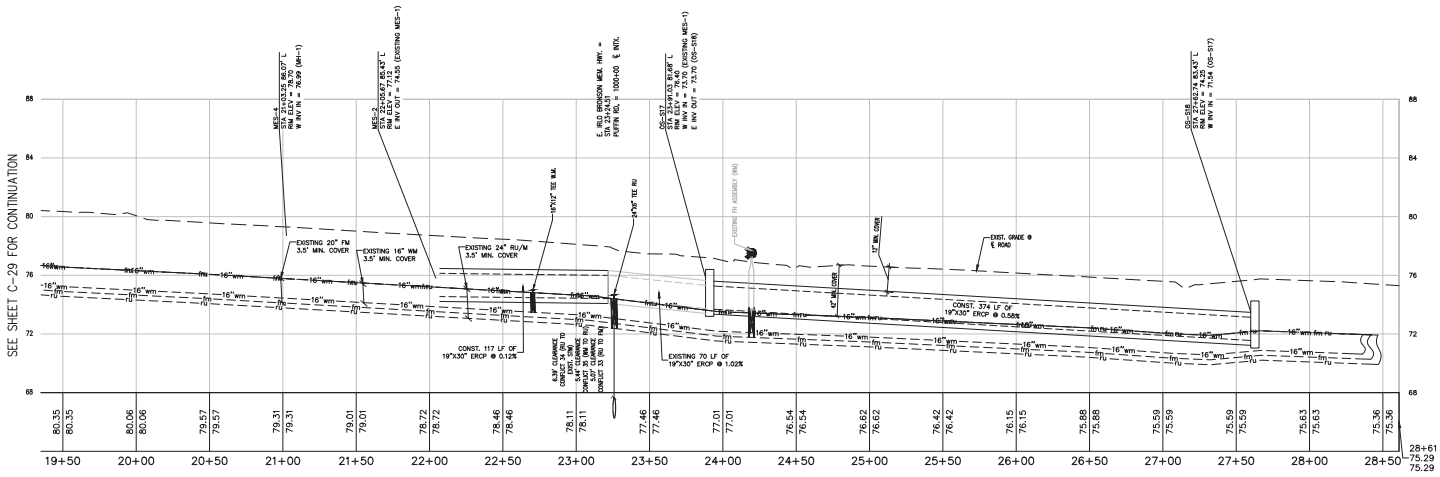
- LOT #
- F.F. ELEVATION
- LOT TYPE
- EXISTING GRADE
- PROPOSED GRADE
- SLOPED BANK
- PROPOSED SWALE
- PROPOSED STORM INLETS
- PROPOSED MITERED END
- PROPOSED STORM MANHOLE
- PROPOSED STORM MAIN
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY MAIN
- EXISTING STORM INLETS
- EXISTING STORM MANHOLE
- EXISTING STORM MAIN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY MAIN
- INDICATE FEMA FLOOD ZONE LINE
- INDICATE WETLAND JURISDICTIONAL LINE
- INDICATE PROPOSED SILT FENCE
- SEASONAL HIGH WATER ELEVATION

NOTES:
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PSP25-00004

DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8				PUFFIN ROAD COMMERCIAL	PLAN & PROFILE E. IRLO BRONSON MEM. HWY STA. 20+00 THRU 28+61
DRAWN RS	PAGE –	TWP. 26 S					
CHECKED RN	SCALE AS SHOWN	RANGE 31 E					
CAD# (see stamp)	DATE 12/4/25	DATE	BY	REVISIONS			

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
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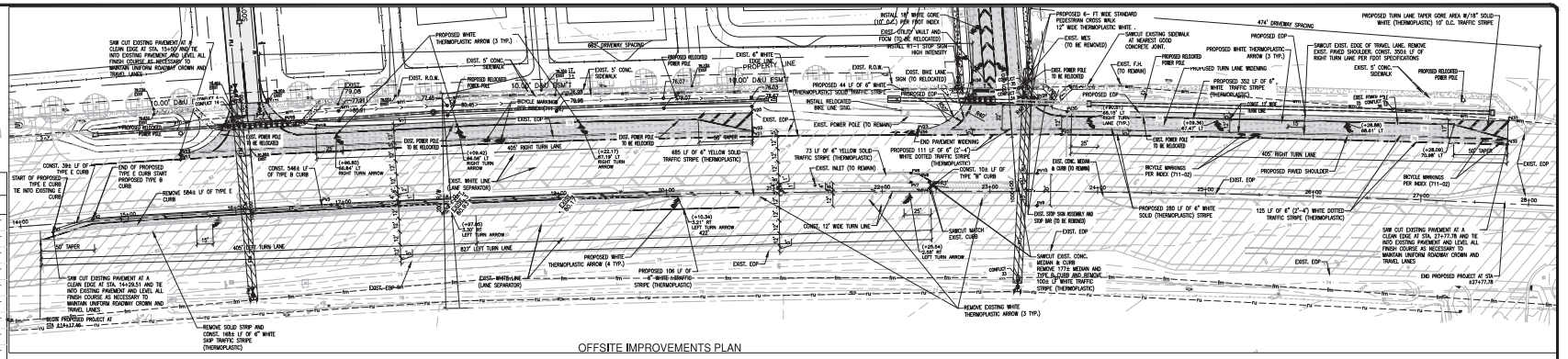
SHEET Nº C-30 of C-50
JOB Nº 5450-05

THE DRAWINGS, AS SUCH, DEPICTED ART, ARE PROPERTY OF HANSON, WALTER & ASSOCIATES, INC. AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN PERMISSION OF HANSON, WALTER & ASSOCIATES, INC. ANY UNAUTHORIZED USE OF THESE DRAWINGS WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW.

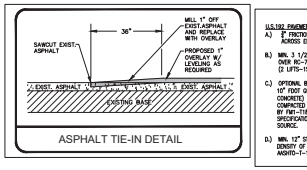
E:\5450-05\ENGINEERING\CAD\PLANS\5-5450-05 PLAN AND PROFILE.dwg * Dec 04, 2025-5:01pm * plotted by RSouser

OFFSITE PAVING LOCATION SYSTEM

Marker #	Northing	Easting	Description
PV-1	N 1422260.8715	E 579374.0754	NEW PAVEMENT
PV-2	N 1422269.4409	E 579411.8169	NEW PAVEMENT
PV-3	N 1422263.6005	E 579633.3590	NEW PAVEMENT
PV-4	N 1422230.4892	E 580187.7544	NEW PAVEMENT
PV-5	N 1422232.8198	E 580190.7862	NEW PAVEMENT
PV-6	N 1422236.3786	E 580188.1438	NEW PAVEMENT
PV-7	N 1422237.7860	E 580171.1059	NEW PAVEMENT
PV-8	N 1422246.1975	E 580171.8007	NEW PAVEMENT
PV-9	N 1422205.7741	E 580285.6831	NEW PAVEMENT
PV-10	N 1422235.5862	E 580288.4573	NEW PAVEMENT
PV-11	N 1422317.5095	E 579497.6600	NEW PAVEMENT
PV-12	N 1422322.6521	E 579497.9503	NEW PAVEMENT
PV-13	N 1422364.6974	E 579548.3760	NEW PAVEMENT
PV-14	N 1422363.6641	E 579582.1321	NEW PAVEMENT
PV-15	N 1422345.3084	E 579597.4067	NEW PAVEMENT
PV-16	N 1422339.9652	E 579606.5328	NEW PAVEMENT
PV-17	N 1422341.9013	E 579538.1648	NEW PAVEMENT
PV-18	N 1422346.8056	E 579541.6187	NEW PAVEMENT
PV-19	N 1422335.5777	E 579625.2351	NEW PAVEMENT
PV-20	N 1422314.6315	E 580029.2338	NEW PAVEMENT
PV-21	N 1422292.6586	E 580028.0946	NEW PAVEMENT
PV-22	N 1422297.7847	E 580028.6671	NEW PAVEMENT
PV-23	N 1422285.7181	E 580181.8549	NEW PAVEMENT
PV-24	N 1422306.8850	E 580226.9326	NEW PAVEMENT
PV-25	N 1422311.2819	E 580229.6808	NEW PAVEMENT
PV-26	N 1422324.2407	E 580234.6690	NEW PAVEMENT
PV-27	N 1422320.0280	E 580284.2219	NEW PAVEMENT
PV-28	N 1422304.8734	E 580294.5222	NEW PAVEMENT
PV-29	N 1422299.1723	E 580301.2762	NEW PAVEMENT
PV-30	N 1422290.5156	E 580321.0392	NEW PAVEMENT
PV-31	N 1422245.9867	E 580727.8703	NEW PAVEMENT
PV-32	N 1422224.4754	E 580725.2818	NEW PAVEMENT
PV-33	N 1422269.6813	E 580313.9844	NEW PAVEMENT
PV-34	N 1422280.7891	E 580180.7882	NEW PAVEMENT



OFFSITE IMPROVEMENTS PLAN



ASPHALT TIE-IN DETAIL

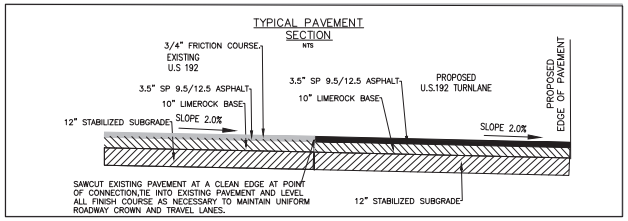
U.S.192 PAVEMENT WIDENING SPECIFICATIONS:

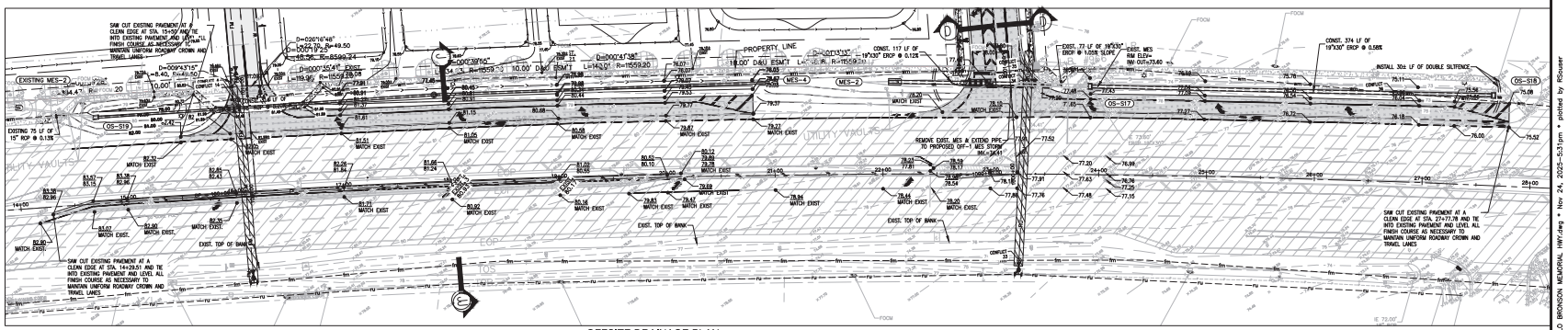
A) 1" FRICTION COURSE (FC-9.5) ON ENTIRE TURN LANE AND ACROSS ENTIRE DRIVEWAY.

B) MIN. 3 1/2" ASPHALT (SP-9.5) OVER RC-70 OR EQUAL PRIME COAT (2 LIFTS-1ST LIFT 1.5" THICK & 2ND LIFT 2" THICK)

C) OPTIONAL BASED GROUP 11 (10" THICK) 10" FDOT GRADE AGGREGATE BASE (AKA CRUSHED CONCRETE) (MIN MAX. DENSITY, LBR=150) COMPACTED TO 100% OF MAX. DENSITY AS DETERMINED BY FM1-T180 AND SHALL BE IN ACCORDANCE WITH FDOT SPECIFICATIONS AND SUPPLIED BY A COUNTY APPROVED SOURCE.

D) MIN. 12" STABILIZED SUB-BASE COMPACTED TO MIN. 98% DENSITY OF MOD. PROCTOR AS DETERMINED BY AASHTO-T-180 OR LBR > 40





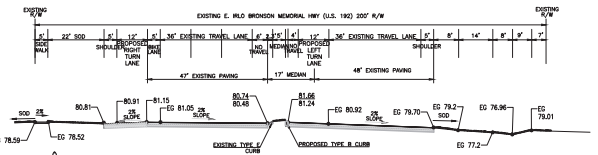
OFFSITE DRAINAGE PLAN

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

NOTES:
1.) FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. IF CONFLICTS OCCUR, CONTACT ENGINEER PRIOR TO CONSTRUCTION.
2.) ALL WORK PERFORMED WITHIN THE FDOT R/W SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF FDOT DESIGN STANDARDS, SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE UTILITY ACCOMMODATION MANUAL.
3.) ALL AREAS OF CONSTRUCTION IN THE PUBLIC SHALL BE OVERLAYED WITH A MINIMUM OF 1" TYPE S-3 ASPHALT. SEE FEATHERING DETAIL SHEET 2R.
4.) THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF A COMPLETE "AS-BUILT" SURVEY FOR THE OFFSITE IMPROVEMENTS AND INCLUDE ALL ABOVE AND UNDERGROUND IMPROVEMENTS, SIGNAGE, AND STRIPING. SAID "AS-BUILT" DRAWINGS SHALL BE SUBMITTED FOR DOCUMENTATION PROVIDED BY THE COUNTY. "AS-BUILT" DRAWINGS SHALL FOLLOW COUNTY SPECIFICATIONS.
5.) THE MAINTENANCE OF TRAFFIC PLAN SHALL COMPLY WITH THE LATEST F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS AND THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
6.) CONSTRUCTION PLANS HAVE BEEN BASED THE NATIONAL GEODETIC VERTICAL DATUM OF 1988.
7.) CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF TRANSPORTATION A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO ANY LANE CLOSURES WITHIN FDOT RIGHT OF WAY.
8.) CONTRACTOR SHALL BE RESPONSIBLE TO FDOT FACILITIES CAUSED BY CONSTRUCTION OF THIS PROJECT.
9.) CONSTRUCTION OF TURNOUTS TO BE SUPERVISED BY A CERTIFIED PERSON.
10.) TESTING RESULTS OF ANY TESTS TAKEN FOR OR DURING CONSTRUCTION OF THE PERMITTED WORK SHALL BE PROVIDED TO THE FDOT UPON REQUEST.
11.) ALL WORK PERFORMED WITHIN THE FDOT RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF FDOT DESIGN STANDARDS, SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE UTILITY ACCOMMODATION MANUAL.
12.) ALL MATERIALS AND WORKMANSHIP WITHIN THE PUBLIC RIGHT-OF-WAY SHALL MEET FDOT STANDARD INDICES AND SPECIFICATIONS UNLESS OTHERWISE NOTED OR DIRECTED BY ENGINEER

NOTES:
13.) EXISTING EDGE OF TRAVELWAY SHALL BE SAW CUT FOR CONSTRUCTION OF TURN LANES. COORDINATE WITH THE COUNTY / FDOT INSPECTOR BEFORE CUTTING THE PAVEMENT.
14.) THE MAINTENANCE OF TRAFFIC PLAN SHALL COMPLY WITH THE LATEST F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS AND THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
15.) ALL PAVEMENT MARKINGS SHALL BE INSTALLED PER THE LATEST FDOT INDEX.
16.) ALL RPM'S SHALL BE CLASS "B" AND INSTALLED PER THE LATEST FDOT INDEX.
17.) THE CONTRACTOR SHALL APPLY THE FINAL PAVEMENT MARKINGS A MINIMUM OF 30 DAYS AFTER THE PLACEMENT OF THE FINAL LIFT OF ASPHALT. TEMPORARY STRIPING ON THE FINAL LIFT OF ASPHALT SHALL BE TAPE MATERIAL OR TEMPORARY PAINT.
AS LONG AS IT IS INSTALLED IN THE PERMANENT LOCATION.
18.) ALL CONCRETE SHALL BE AN APPROVED FDOT MIX DESIGN OF 3,000 PSI.
19.) THE EXISTING PAVED SHOULDER SHALL BE SAW CUT IN ORDER TO CONSTRUCT THE RIGHT TURN LANE.
20.) THE CONTRACTOR SHALL INSTALL A VARIABLE MESSAGE BOARD TO BE INSTALLED AT LEAST ONE (1) WEEK PRIOR TO BEGINNING OF CONSTRUCTION OF OFFSITE IMPROVEMENTS WITHIN COUNTY RIGHT OF WAY.
21.) ALL STRIPING SHALL BE THERMOPLASTIC, AND RPM'S TO BE PLACED PER FDOT INDEX 17346 AND 17352; RESPECTIVELY.
22.) NON-"CONCRETE BASE (ANY ONLY BE USED TO MATCH EXISTING ROADWAY SECTIONS THAT PREVIOUSLY USED SOIL-CEMENT BASE, OR IN SITE CONDITIONS WHERE HIGH WATER TABLE CONDITIONS EXIST AS DETERMINED BY THE GEOTECHNICAL REPORT.
23.) ALL ON AND OFF-SITE WORK WITHIN THE FDOT RIGHT OF WAY SHALL BE PERFORMED BY SPECIFICATION FOR ROADWAY AND BRIDGE CONSTRUCTION WITH CURRENT EDITION, AND ITS INCORPORATED ALLOWABLE SUPPLEMENTAL SPECIFICATIONS AND FDOT CERTIFIED BOARDS, AND MEET ALL APPLICABLE FDOT MATERIALS AND CONSTRUCTION STANDARDS.
24. CONTRACTOR SHALL CONTACT FDOT ITS INFRASTRUCTURE, PRIOR TO CONSTRUCTION TO ENSURE THERE ARE NO CONFLICT WITH FDOT ITS INFRASTRUCTURE. CONTACT DANIEL SIMSON DIRECTLY AT 321-257-7371 FOR APPROVAL/VERIFICATION.



SECTION J-J

PSP25-00004

DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8					
DRAWN RS	PAGE –	TWP. 26 S					
CHECKED RN	SCALE AS SHOWN	RANGE 31 E					
CAD# (see stamp)	DATE 11/13/25		DATE	BY	REVISIONS		

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

OFFSITE IMPROVEMENTS
E IRLO BRONSON
MEMORIAL HWY

This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

SHEET NO. C-31 of C-50

JOB NO 5450-05

I:\5450-05\ENGINEERING\CADD\PLANS\5-5450-05 OFFSITE IMPROVEMENTS E IRLO BRONSON MEMORIAL HWY.dwg • Nov 24, 2025 - 5:31pm • plotted by RSouser

THE DRAWINGS, AS SUCH, PREPARED BY THE DEPOSITOR OF HANSON, WALTER & ASSOCIATES, INC. ARE, AND SHALL REMAIN, THE PROPERTY OF HANSON, WALTER & ASSOCIATES, INC. WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THE VISUAL CONTRACT IS RESERVED TO HANSON, WALTER & ASSOCIATES, INC. AND THE DRAWINGS MAY NOT BE USED ON ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF HANSON, WALTER & ASSOCIATES, INC.

OFFSITE PAVING LOCATION SYSTEM			
Marker #	Northing	Easting	Description
OS PV-35	N 1422334.9886	E 580235.9614	PAVEMENT
OS PV-36	N 1422413.6473	E 580236.8469	PAVEMENT
OS PV-37	N 1422463.5207	E 580248.4170	PAVEMENT
OS PV-38	N 1422706.4906	E 580251.1910	PAVEMENT
OS PV-39	N 1422942.8882	E 580262.2710	PAVEMENT
OS PV-40	N 1422977.9587	E 580227.3034	PAVEMENT

OFFSITE PAVING LOCATION SYSTEM			
Marker #	Northing	Easting	Description
OS PV-41	N 1422977.9587	E 580220.0301	PAVEMENT
OS PV-42	N 1423007.9587	E 580220.0301	PAVEMENT
OS PV-43	N 1423007.7992	E 580228.8785	PAVEMENT
OS PV-44	N 1423037.2916	E 580265.7320	PAVEMENT
OS PV-45	N 1423143.2353	E 580267.1773	PAVEMENT
OS PV-46	N 1423221.0458	E 580274.0317	PAVEMENT

OFFSITE PAVING LOCATION SYSTEM			
Marker #	Northing	Easting	Description
OS PV-47	N 1423272.2708	E 580282.4747	PAVEMENT
OS PV-48	N 1423352.2644	E 580288.5264	PAVEMENT
OS PV-49	N 1423371.1053	E 580288.4613	PAVEMENT
OS PV-50	N 1423403.3478	E 580257.3711	PAVEMENT
OS PV-51	N 1423403.7886	E 580228.3368	PAVEMENT
OS PV-52	N 1423433.6338	E 580228.3329	PAVEMENT

OFFSITE PAVING LOCATION SYSTEM			
Marker #	Northing	Easting	Description
OS PV-53	N 1423434.0958	E 580256.9359	PAVEMENT
OS PV-54	N 1423470.4007	E 580287.9247	PAVEMENT
OS PV-55	N 1423714.6194	E 580288.2057	PAVEMENT
OS PV-56	N 1423714.9829	E 580310.1864	PAVEMENT
OS PV-57	N 1423352.3832	E 580310.2252	PAVEMENT
OS PV-58	N 1423269.1956	E 580303.6246	PAVEMENT

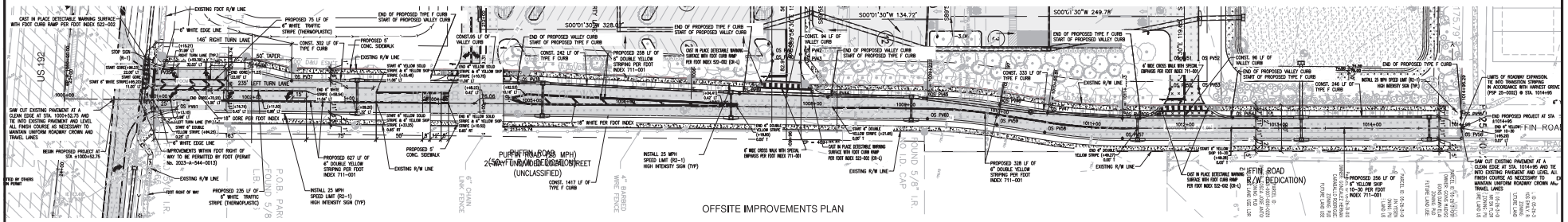
OFFSITE PAVING LOCATION SYSTEM			
Marker #	Northing	Easting	Description
OS PV-59	N 1423218.0006	E 580295.4763	PAVEMENT
OS PV-60	N 1423143.8048	E 580289.1823	PAVEMENT
OS PV-61	N 1422340.9689	E 580280.0276	PAVEMENT

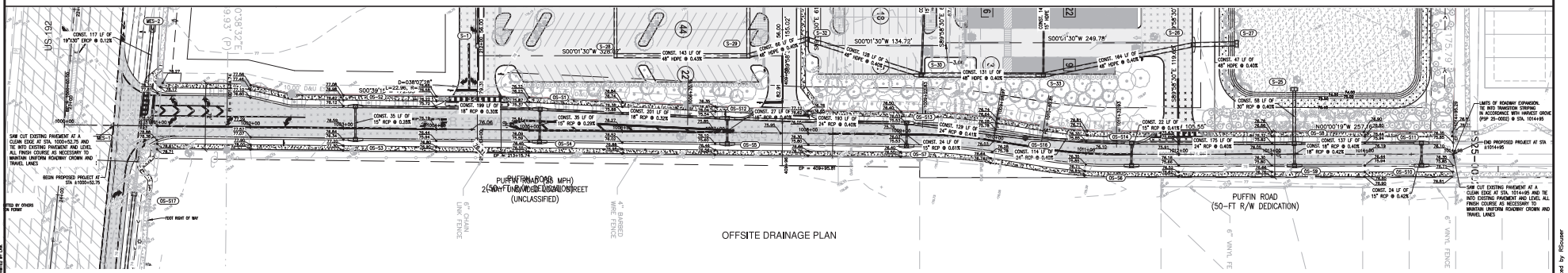
GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

NOTE: SPEED LIMIT = 25 MPH
DESIGN SPEED = 25 MPH

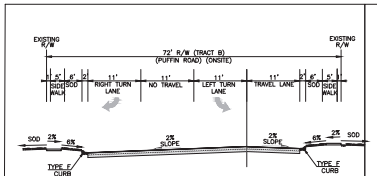




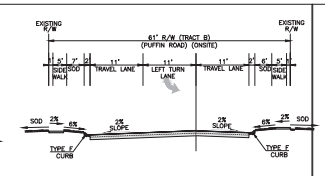
NOTES:
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3.) ALL AREAS OF CONSTRUCTION IN THE PUBLIC SHALL BE OVERLAYED WITH A MINIMUM OF 1" TYPE S-3 ASPHALT. SEE FEATHERING DETAIL SHEET 26.
4.) THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF A COMPLETE "AS-BUILT" SURVEY FOR THE OFFSITE IMPROVEMENTS AND INCLUDE ALL ABOVE AND UNDERGROUND IMPROVEMENTS, SIGNAGE, AND STRIPING. SAID "AS-BUILT" DRAWINGS SHALL BE TIED TO THE CONTROL MONUMENTATION PROVIDED BY THE COUNTY. "AS-BUILT" DRAWINGS SHALL FOLLOW COUNTY SPECIFICATIONS.
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6.) CONSTRUCTION PLANS HAVE BEEN BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1988.
7.) CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF TRANSPORTATION A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO ANY LANE CLOSURES WITHIN FDOT RIGHT OF WAY.
8.) CONTRACTOR SHALL REPAIR ANY DAMAGE TO FDOT FACILITIES CAUSED BY CONSTRUCTION OF THIS PROJECT.
9.) MAINTENANCE OF TRAFFIC TO BE SUPERVISED BY A CERTIFIED PERSON.
10.) TESTS RESULTS OF ANY TESTS TAKEN FOR OR DURING CONSTRUCTION OF THE PERMITTED WORK SHALL BE PROVIDED TO THE FDOT UPON REQUEST.
11.) ALL WORK PERFORMED WITHIN THE FDOT RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF FDOT DESIGN STANDARDS, SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE UTILITY ACCOMMODATION MANUAL.
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18.) ALL CONCRETE SHALL BE AN APPROVED FDOT MIX DESIGN OF 3,000 PSI.
19.) THE EXISTING PAVED SHOULDER SHALL BE SAW CUT IN ORDER TO CONSTRUCT THE RIGHT TURN LANE.
20.) THE CONTRACTOR SHALL INSTALL A VARIABLE MESSAGE BOARD TO BE INSTALLED AT LEAST ONE (1) WEEK PRIOR TO BEGINNING OF CONSTRUCTION OF OFFSITE IMPROVEMENTS WITHIN COUNTY RIGHT OF WAY.
21.) ALL STRIPING SHALL BE THERMOPLASTIC, AND RPM'S TO BE PLACED PER FDOT INDEX 17346 AND 17352; RESPECTIVELY.
22.) SOIL-CEMENT BASE MAY ONLY BE USED TO MATCH EXISTING ROADWAY SECTIONS THAT PREVIOUSLY USED SOIL-CEMENT BASE, OR IN SITE CONDITIONS WHERE HIGH WATER TABLE CONDITIONS AS VERIFIED BY THE GEOTECHNICAL REPORT. LIMEROCK OR ANY OPTIONAL BASE COURSES, AS SPECIFIED IN THE FDOT STANDARDS SPECIFICATION FOR ROADWAY AND BRIDGE CONSTRUCTION, MOST CURRENT EDITION, CAN BE USED AND ARE ALLOWABLE AS LONG AS THEY COME FROM AND FDOT CERTIFIED SOURCE, AND MEET ALL APPLICABLE FDOT MATERIALS AND CONSTRUCTION STANDARDS.
23.) CONTRACTOR SHALL CONTACT FDOT ITS INFRASTRUCTURE, PRIOR TO CONSTRUCTION TO ENSURE THERE ARE NO CONFLICT WITH FDOT ITS INFRASTRUCTURE. CONTACT DANIEL SIMSON DIRECTLY AT 321-257-7271 FOR APPROVAL/VERIFICATION.

NOTES:
A MESSAGE BOARD MUST BE INSTALLED AT LEAST TWO (2) WEEKS PRIOR TO BEGINNING OF CONSTRUCTION OF OFFSITE IMPROVEMENTS WITHIN THE COUNTY RIGHT OF WAY. SITE SPECIFIC MOT SHALL BE REVIEWED AND APPROVED BY THE COUNTY PRIOR TO ANY WORK IN THE ROW. ADVISORY: THE REVIEW TIME IS SIX WEEKS PRIOR TO BEGINNING OF CONSTRUCTION.

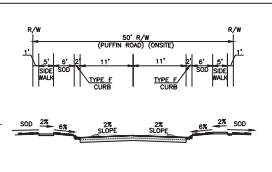
NOTE:
ALL STRIPING WITHIN COUNTY RIGHT-OF-WAY SHALL BE THERMOPLASTIC PAINT AND ALL SIGNS SHALL BE HIGH INTENSITY SIGNS PER FDOT DESIGNS STANDARDS MANUAL 2018 EDITION AND MUTCD, WHICHEVER IS MORE STRINGENT.



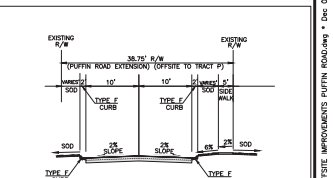
SECTION D-D



SECTION E-E



SECTION F-F



SECTION G-G

PSP25-00004

DESIGN	MW/CM	F.B. NO.	–	SEC.	5 & 8		
DRAWN	RS	PAGE	–	TWP.	26 S		
CHECKED	RN	SCALE	AS SHOWN	RANGE	31 E		
CAD#	(see stamp)	DATE	11/13/25	DATE	BY	REVISIONS	

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

OFFSITE IMPROVEMENTS
PUFFIN ROAD

This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal.

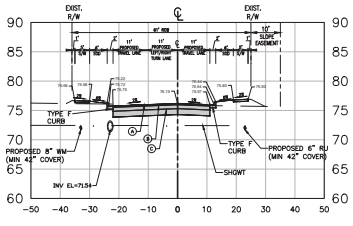
Signature must be verified on any electronic copies.

SHEET NO
C-32 of C-50

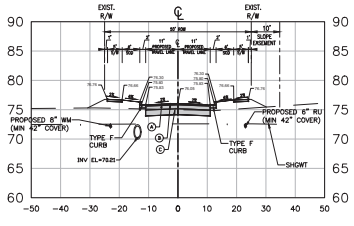
JOB NO 5450-05

THE DRAWINGS, AS SUBSTANTIALLY AS THEY APPEAR ON THIS SHEET, ARE THE PROPERTY OF HANSON, WALTER & ASSOCIATES, INC. AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF HANSON, WALTER & ASSOCIATES, INC. ANY UNAUTHORIZED USE WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO HANSON, WALTER & ASSOCIATES, INC.

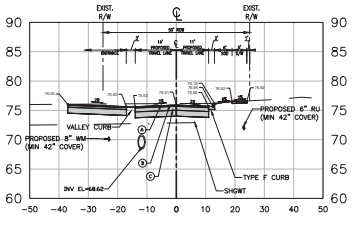
E:\5450-05\ENGINEERING\CADD\PLANS\5-5450-05 OFFSITE IMPROVEMENTS PUFFIN ROAD.dwg * Dec 01, 2025-5:36pm * plotted by RScouser



1004+00



1008+00



1012+00

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

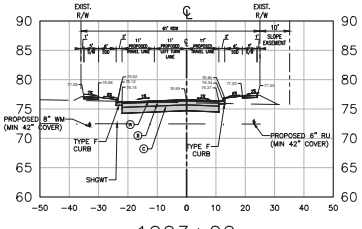
NOTE:
SOIL-CEMENT BASE MAY ONLY BE USED TO MATCH EXISTING ROADWAY SECTIONS THAT PREVIOUSLY USED SOIL-CEMENT BASE, OR IN SITE CONDITIONS WHERE HIGH WATER TABLE CONDITIONS AS VERIFIED BY THE GEOTECHNICAL REPORT. LIMEROCK OR ANY OPTIONAL BASE COURSES, AS SPECIFIED IN THE FDOT STANDARDS SPECIFICATION FOR ROADWAY AND BRIDGE CONSTRUCTION, MOST CURRENT EDITION, CAN BE USED AND ARE ALLOWABLE AS LONG AS THEY COME FROM AND FDOT CERTIFIED SOURCE, AND MEET ALL APPLICABLE FDOT MATERIALS AND CONSTRUCTION STANDARDS.

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

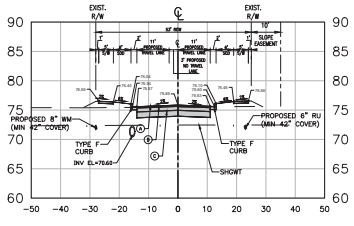


PAVEMENT SPECIFICATIONS FOR PUFFIN ROAD: (SN=3.50)
A.) MINIMUM 2.5" SUPERPAVE 12.5 (SP 12.5) STRUCTURAL ASPHALT
B.) MINIMUM 8" LIMEROCK (98% MAX. DENSITY)
C.) MIN. 12" TYPE B STABILIZED SUB-BASE COMPACTED TO MINIMUM 98% DENSITY OF MOD. PROCTOR AS DETERMINED BY AASHTO-T-180 OR LBR > 40 AND ARTICLE IV OF THE OSCEOLA COUNTY ROAD SPECIFICATIONS.

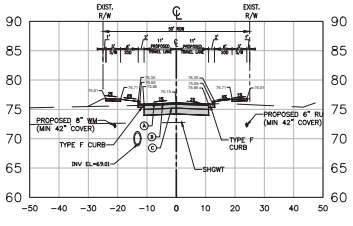
ALTERNATE:
IN LIEU OF BASE AND SUB-GRADE, USE A THICKEN BASE WITH NO SUB-GRADE. BASE SHALL BE MINIMUM 13.5" LIMEROCK (98% MAX. DENSITY)



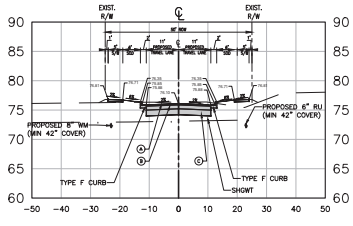
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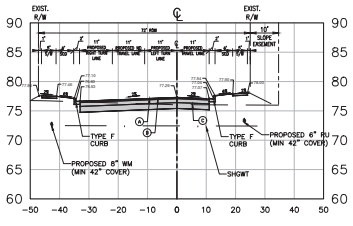
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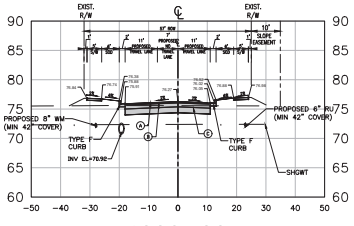
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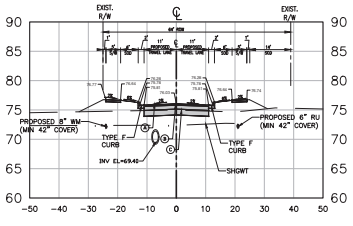
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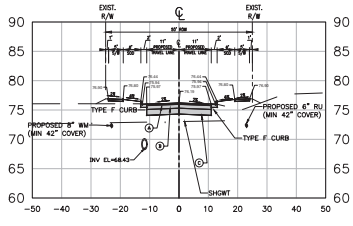
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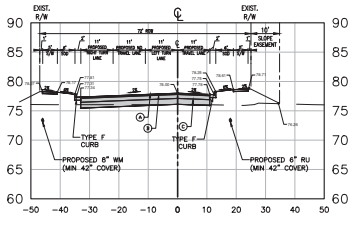
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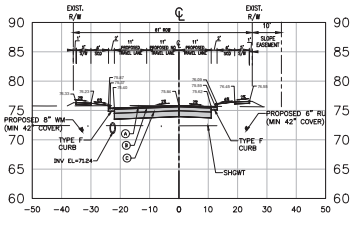
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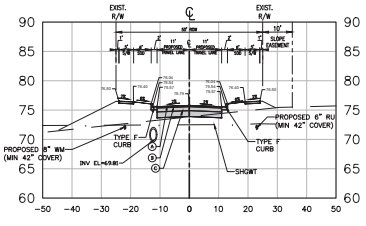
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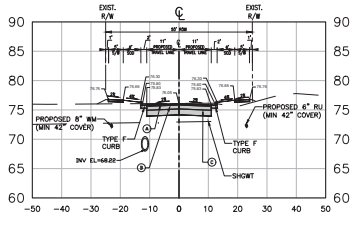
1001+00



1005+00



1009+00



1013+00

PSP25-00004

DESIGN MW/CM	F.B. NO. -	SEC. 5 & 8	DATE	BY	REVISIONS	PUFFIN ROAD COMMERCIAL	PUFFIN CROSS SECTIONS (STA. 1001+00 TO 1014+95)
DRAWN RS	PAGE -	TWP. 26 S					
CHECKED RN	SCALE AS SHOWN	RANGE 31 E					
CAD# (see stamp)	DATE 11/13/25						

8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708
PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

SHEET Nº C-33 of C-50
JOB Nº 5450-05

I:\5450-05\ENGINEERING\CADD\PLANS\S-5450-05 CROSS SECTIONS OFFSITE.dwg • Nov 17, 2025-5:12pm • plotted by RSouser

THESE DOCUMENTS, AS SUCH, SHALL BE THE PROPERTY OF OWNER, WHICH IS PROVIDED TO HWA FOR USE ON THE PROJECT. THEY SHALL NOT BE USED BY HWA ON OTHER PROJECTS, OR EXTENSIONS TO THIS PROJECT, EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO HWA.

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.

NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

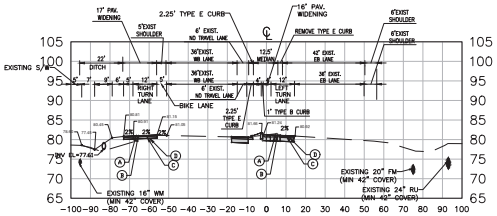
U.S.192 PAVEMENT WIDENING SPECIFICATIONS:

A.) 1" FRICTION COURSE (FC-5) ON ENTIRE TURN LANE AND ACROSS ENTIRE DRIVEWAY.

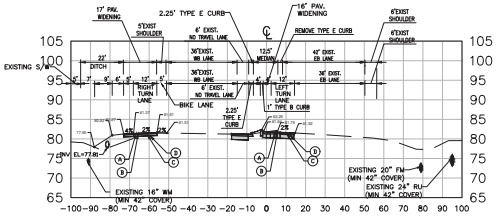
B.) MIN. 3 1/2" ASPHALT (SP-9.5) OVER RC-70 OR EQUAL PRIME COAT (2 LIFTS-1ST LIFT 1.5" THICK & 2ND LIFT 2" THICK)

C.) OPTIONAL BASED GROUP 11 (10" THICK) 10" FDOT GRADE AGGREGATE BASE (AKA CRUSHED CONCRETE) (98% MAX. DENSITY, LBR=150) COMPACTED TO 100% OF MAX. DENSITY AS DETERMINED BY FM1-T180 AND SHALL BE IN ACCORDANCE WITH FDOT SPECIFICATIONS AND SUPPLIED BY A COUNTY APPROVED SOURCE.

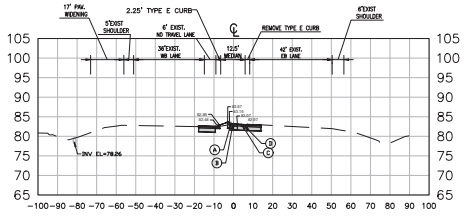
D.) MIN. 12" STABILIZED SUB-BASE COMPACTED TO MIN. 98% DENSITY OF MOD. PROCTOR AS DETERMINED BY AASHTO-T-180 OR LBR > 40



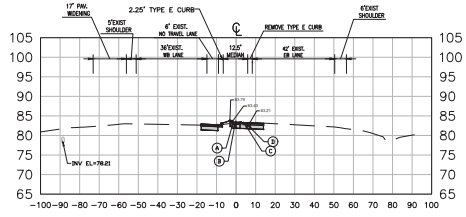
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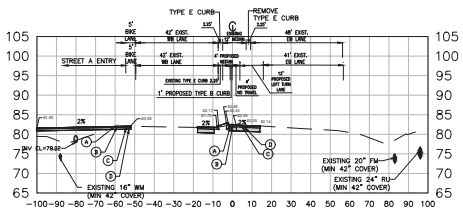
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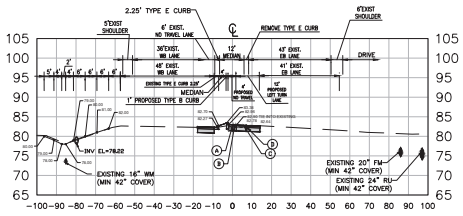
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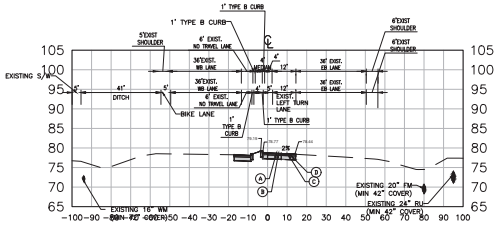
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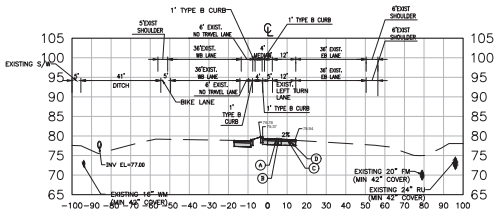
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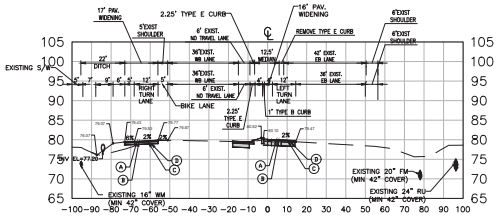
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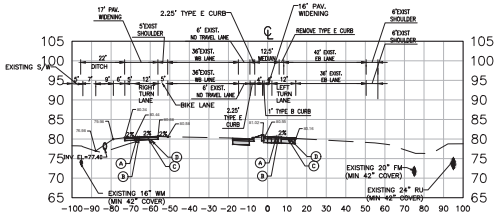
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21+00



20+00



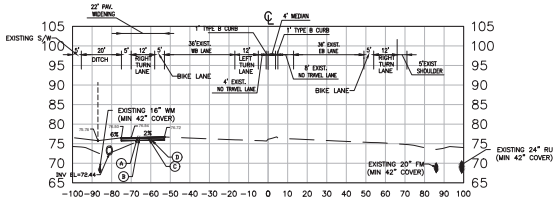
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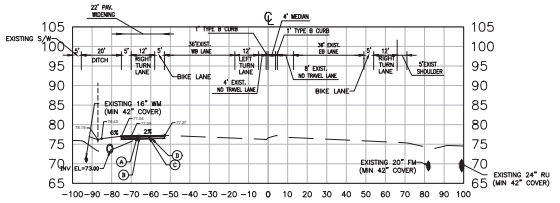
DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	IRLO CROSS SECTIONS (STA.15+00 TO 22+00)	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET NO C-34 of C-50 JOB NO 5450-05
DRAWN RS	PAGE –	TWP. 26 S							
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							
CAD# (see stamp)	DATE 11/13/25		DATE	BY	REVISIONS				

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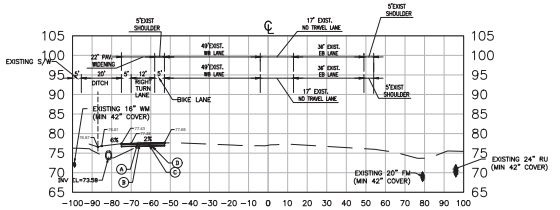
I:\5450-05\ENGINEERING\CADD\PLANS\S-5450-05 CROSS SECTIONS OFFSITE.dwg • Nov 17, 2025–5:12pm • plotted by RSouser



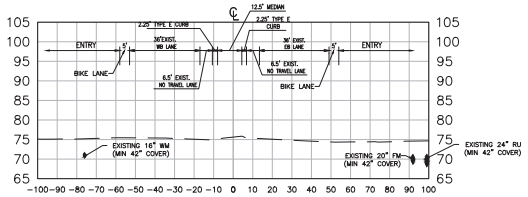
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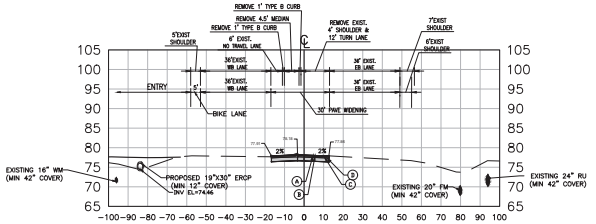
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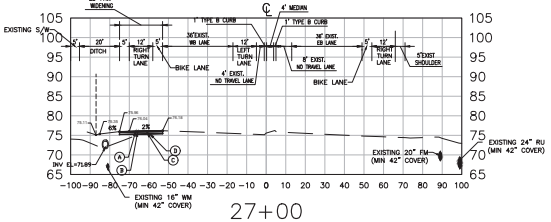
24+00



28+00



23+00



27+00

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30 ft.

NOTE
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U.S.192 PAVEMENT WIDENING SPECIFICATIONS:

A.) 1" FRICTION COURSE (FC-5) ON ENTIRE TURN LANE AND ACROSS ENTIRE DRIVEWAY.

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C.) OPTIONAL BASED GROUP 11 (10" THICK) 10" FDOT GRADE AGGREGATE BASE (AKA CRUSHED CONCRETE) (98% MAX. DENSITY, LBR=150) COMPACTED TO 100% OF MAX. DENSITY AS DETERMINED BY FM1-T180 AND SHALL BE IN ACCORDANCE WITH FDOT SPECIFICATIONS AND SUPPLIED BY A COUNTY APPROVED SOURCE.

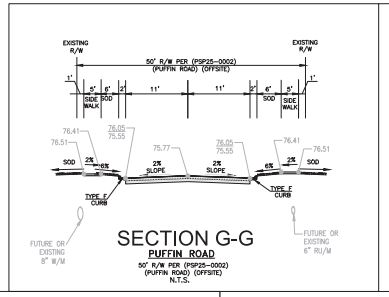
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PSP25-00004

DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	IRLO CROSS SECTIONS (STA.23+00 TO 28+00)	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET NO C-35 of C-50
DRAWN RS	PAGE –	TWP. 26 S							
CHECKED RN	SCALE AS SHOWN	RANGE 31 E							JOB NO 5450-05
CAD# (see stamp)	DATE 11/13/25	DATE	BY	REVISIONS					

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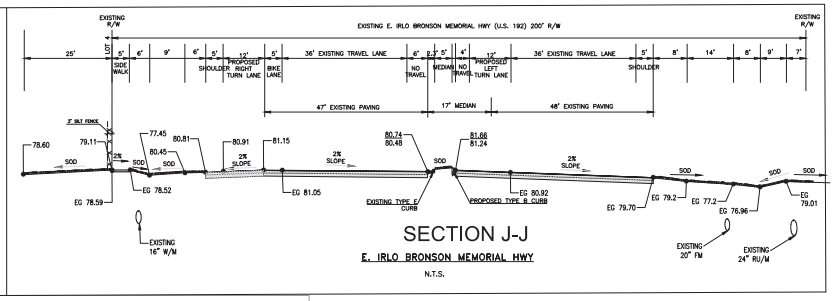


SECTION G-G

PUFFIN ROAD

50' R/W PER (PSP25-0002) (PUFFIN ROAD) (OFFSITE)

N.T.S.



SECTION J-J

E. IRLO BRONSON MEMORIAL HWY

N.T.S.

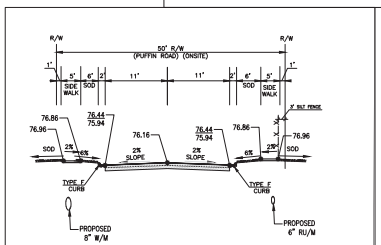
NOTE

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988

Table 5: Recommended Pavement Designs

Traffic Type	Surface Course	Base Course	Stabilized Subgrade
Light Duty – parking stalls	1.5 inches Asphalt Surface Course	6 inches limerock (LBR 100 min)	12 inches (LBR=40)
		7 inches reclaimed concrete aggregate (LBR 150 min)	12 inches (LBR=40)
		8 inches soil-cement (300 psi min)	Stabilization not required*
Medium Duty – parking lot drive lanes and perimeter roads	2.0 inches Asphalt Surface Course	8 inches limerock (LBR 100 min)	12 inches (LBR=40)
		7 inches reclaimed concrete aggregate (LBR 150 min)	12 inches (LBR=40)
		10 inches soil-cement (300 psi min)	Stabilization not required*
Heavy Duty – truck turning movements, loading areas	6.0 inches concrete (4,000 psi, 28-day min)	Base course not required	12 inches (95% Modified Proctor Compaction only) Stabilization not required*

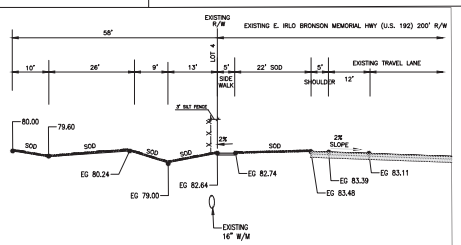
** Free draining subgrade soils (e.g. sands with <12% fines) are recommended to promote drainage of infiltrating water.*



SECTION F-F

PUFFIN ROAD

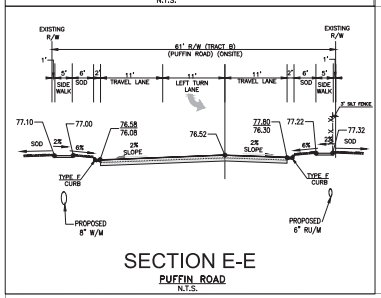
N.T.S.



SECTION N-N

E. IRLO BRONSON MEMORIAL HWY

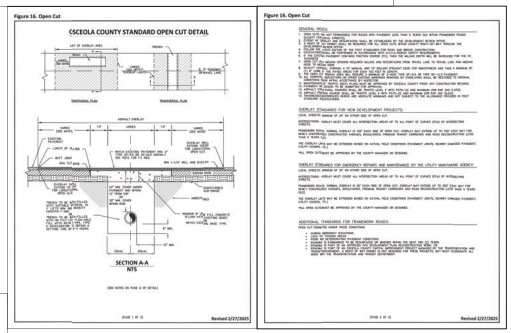
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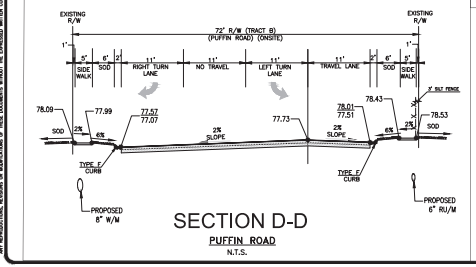


SECTION E-E

PUFFIN ROAD

N.T.S.

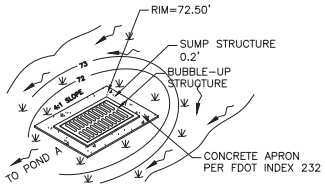




SECTION D-D

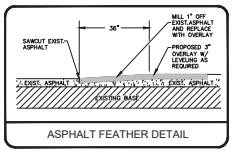
PUFFIN ROAD

N.T.S.

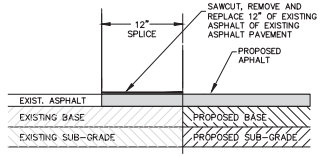


TYPE E BUBBLE-UP STRUCTURE (BU-1) DETAIL

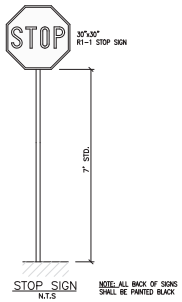
(SPREADER SWALE ADJACENT TO POND A)



ASPHALT FEATHER DETAIL



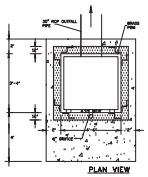
ASPHALT SPLICE DETAIL

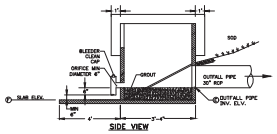


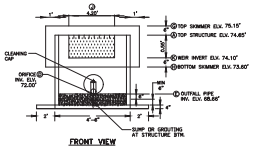
STOP SIGN

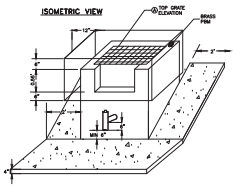
N.T.S

NOTE: ALL BACK OF SIGNS SHALL BE PAINTED BLACK









DS-A CONTROL STRUCTURE

POND A (WET)	
DESIGN STORM	STAGE Ft.
10 YEAR – 24 HOUR	74.35
10 YEAR – 72 HOUR	74.88
100 YEAR – 72 HOUR	75.32

POND A (WET)
TOB 76.10
CWL 72.00
BTM 50.00

POND A1 (DRY)	
DESIGN STORM	STAGE Ft.
10 YEAR – 24 HOUR	75.05
10 YEAR – 72 HOUR	75.06
100 YEAR – 72 HOUR	75.52

POND A2 (DRY)
TOB 75.00
BTM 74.00

POND A2 (DRY)	
DESIGN STORM	STAGE Ft.
10 YEAR – 24 HOUR	75.04
10 YEAR – 72 HOUR	75.06
100 YEAR – 72 HOUR	75.52

CONTRACTOR SHALL ACQUIRE BRASS DISK BENCHMARK FROM THE OSCEOLA COUNTY, BRASS DISK SHALL BE PERMANENTLY SET IN CONCRETE. TOP OF GRATE ELEVATION SHALL BE NON-STANDING DEVICE ELEVATION SHALL BE CERTIFIED BY A FLORIDA REGISTERED PROFESSIONAL SURVEYOR.

TYPE "E" CONTROL STRUCTURE

CONTROL STRUCTURE DATA TABLE

STRUCTURE NUMBER	TOP GRATE ELEVATION (A)	ORIFICE DIA. (INCHES) (B)	DIA. OUTFALL PIPE (N) (C)	ORIFICE INV. ELV. (D)	OUTFALL PIPE INV. ELV. (E)	SLAB ELEV. (G)	TOP SKIMMER ELV. (H)	BOTTOM SKIMMER ELV. (I)	TOP STRUCUTRE ELV. (J)	WEIR WIDTH (K)	WEIR ELEV. (L)
DS-A	74.65'	6"	30"	72.00'	68.66'	67.48'	75.15'	73.60'	74.65'	50.4'	74.10'

PSP25-00004

DESIGN	MW/CM	F.B. NO.	–	SEC.	5 & 8		
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CHECKED	RN	SCALE	AS SHOWN	RANGE	31 E		
CAD#	(see stamp)	DATE	11/13/25	DATE	BY	REVISIONS	

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ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
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ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

TYPICAL OFFSITE SECTIONS, MISC. DETAILS & CONTROL STRUCTURE

This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

SHEET NO C-36 of C-50

JOB NO 5450-05

I:\5450-05\ENGINEERING\CADD\PLANS\5-5450-05 CROSS SECTIONS OFFSITE.dwg • Nov 25, 2025–9:45am • plotted by RSouser

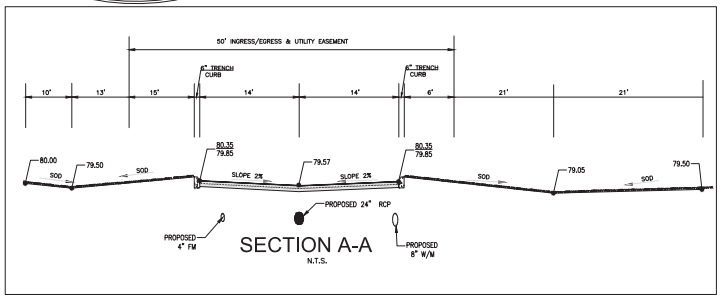
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Table 5: Recommended Pavement Designs

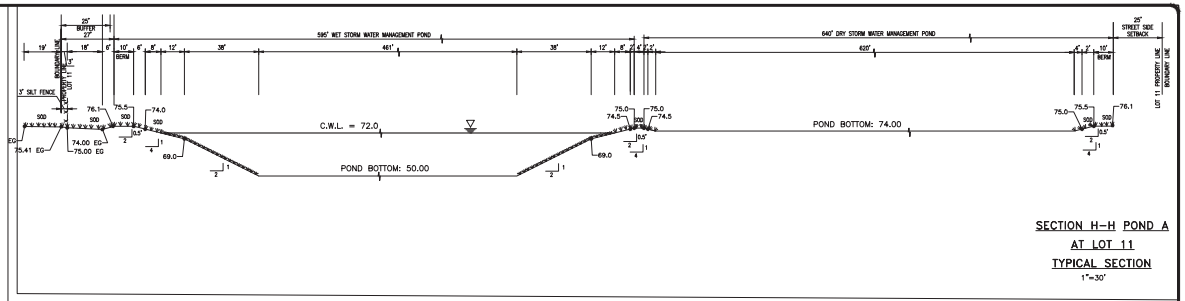
Traffic Type	Surface Course	Base Course	Stabilized Subgrade
Light Duty – parking stalls	1.5 inches Asphalt Surface Course	6 inches limerock (LBR 100 min)	12 inches (LBR=40)
		7 inches reclaimed concrete aggregate (LBR 150 min)	12 inches (LBR=40)
		8 inches soil-cement (300 psi min)	Stabilization not required*
Medium Duty – parking lot drive lanes and perimeter roads	2.0 inches Asphalt Surface Course	8 inches limerock (LBR 100 min)	12 inches (LBR=40)
		7 inches reclaimed concrete aggregate (LBR 150 min)	12 inches (LBR=40)
		10 inches soil-cement (300 psi min)	Stabilization not required*
Heavy Duty – truck turning movements, loading areas	6.0 inches concrete (4,000 psi, 28-day min)	Base course not required	12 inches (95% Modified Proctor Compaction only) Stabilization not required*

** Free draining subgrade soils (e.g. sands with <12% fines) are recommended to promote drainage of infiltrating water.*

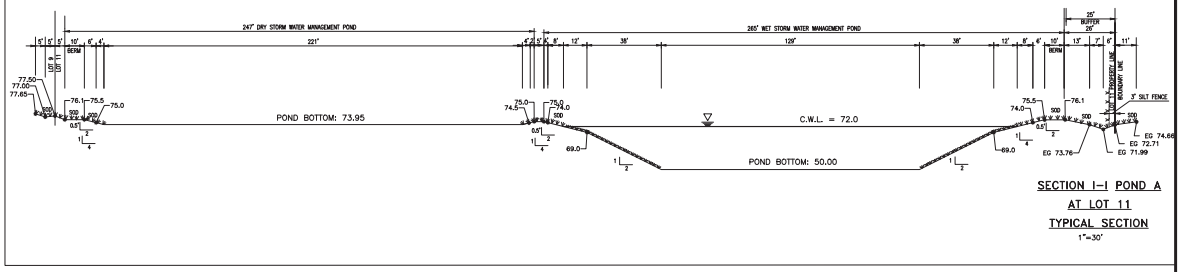
NOTE
ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988



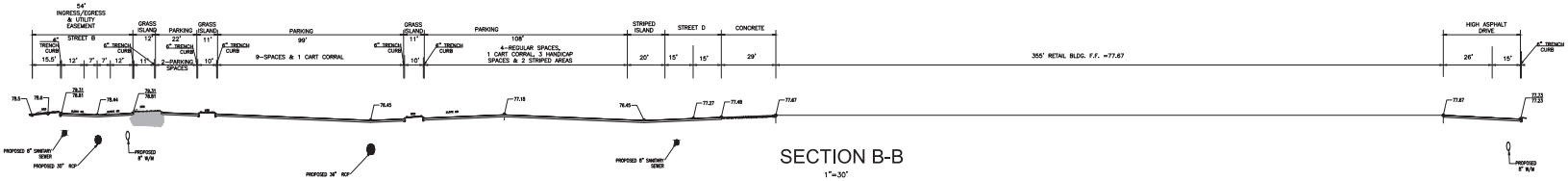
SECTION A-A
N.T.S.



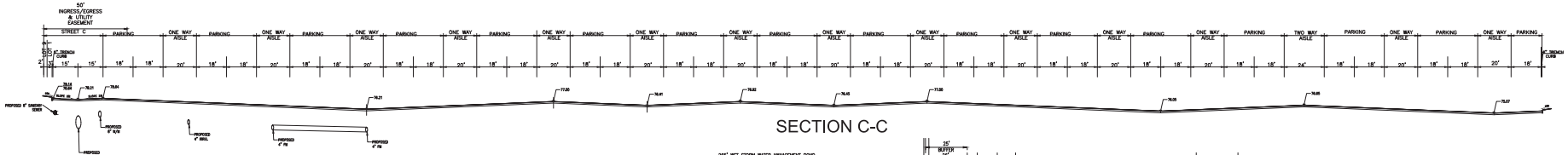
SECTION H–H POND A
AT LOT 11
TYPICAL SECTION
1"=30'



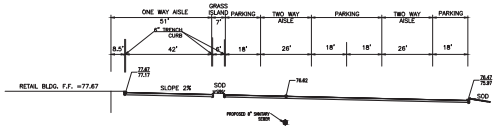
SECTION I–I POND A
AT LOT 11
TYPICAL SECTION
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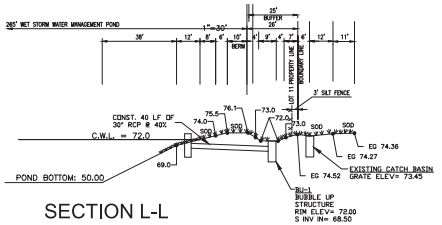
SECTION B-B
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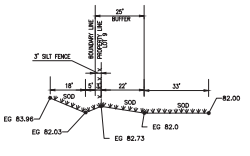
SECTION C-C



SECTION K-K
1"=30'



SECTION L-L
1"=30'



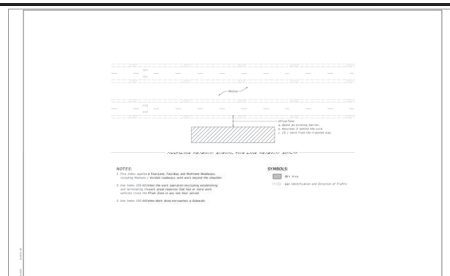
SECTION M-M
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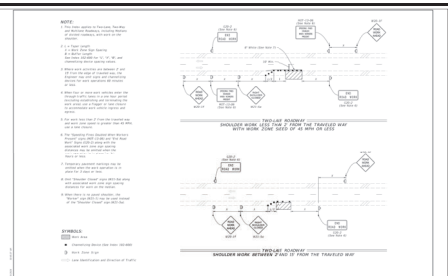
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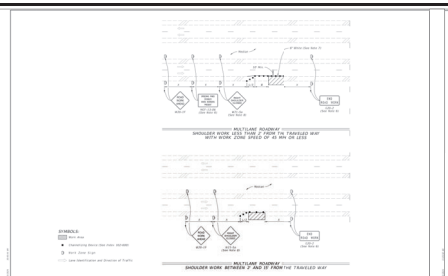
DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8			8 BROADWAY, SUITE 104, KISSIMMEE, FLORIDA 34741-5708 PHONE: (407) 847-9433 ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499 ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270 ENGINEERING, SURVEYING AND PLANNING Hanson, Walter & Associates, Inc.	PUFFIN ROAD COMMERCIAL	TYPICAL ONSITE SECTIONS	This item has been digitally signed and sealed by Robert L. Newberry, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.	SHEET NO C-37 of C-50
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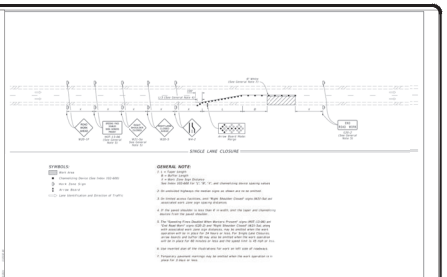
I:\5450-05\ENGINEERING\CADD\PLANS\5-5450-05 CROSS SECTIONS ONSITE.dwg • Nov 17, 2025 - 5:14pm • plotted by RSouser

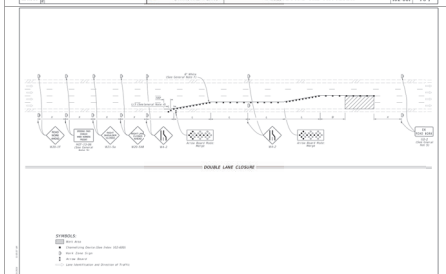
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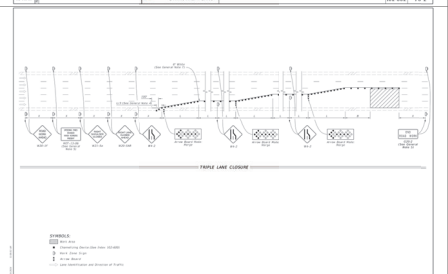


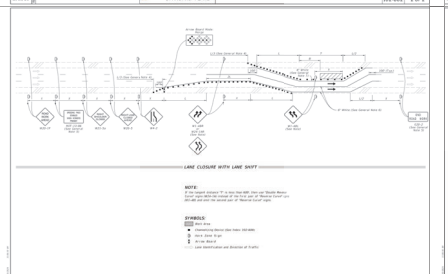


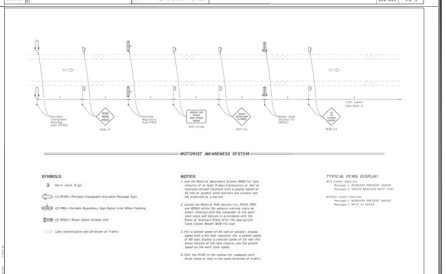


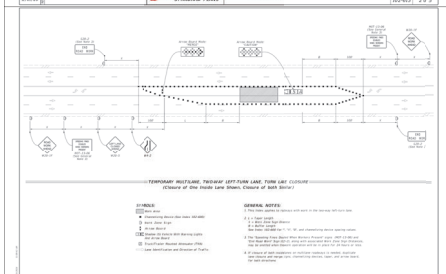


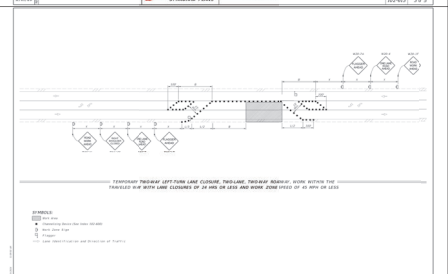


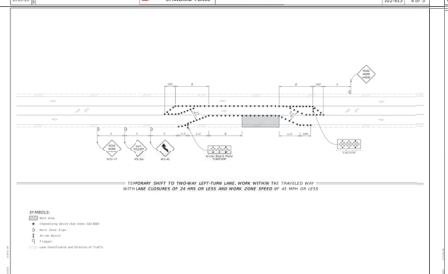


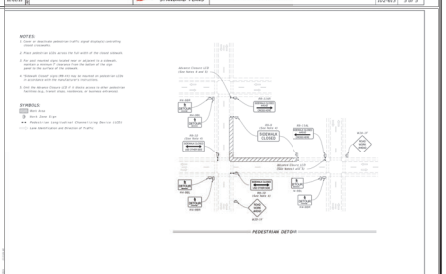


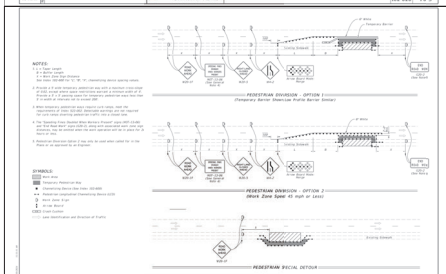


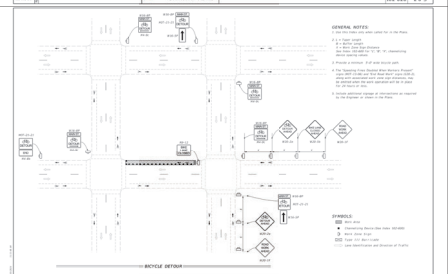


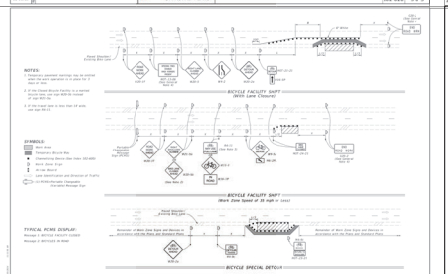


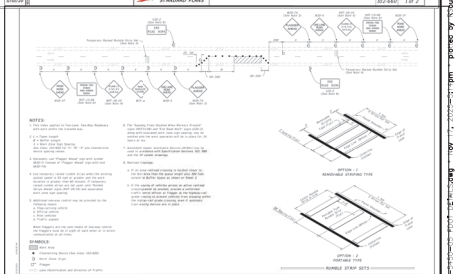












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FDOT DETAILS-1

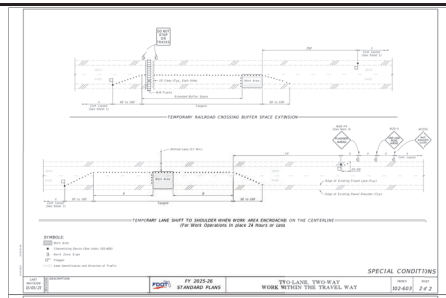
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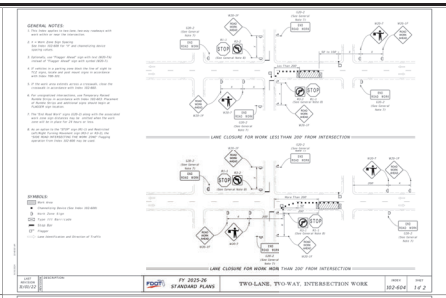
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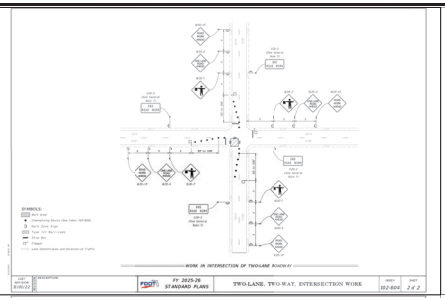
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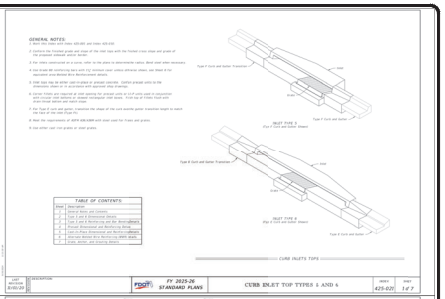
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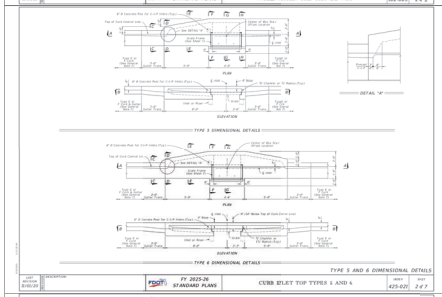
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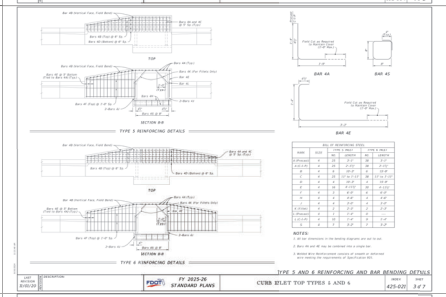


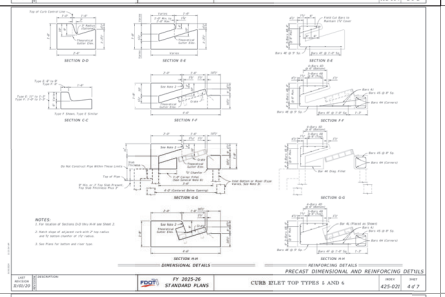


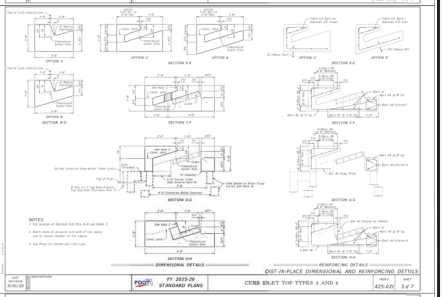


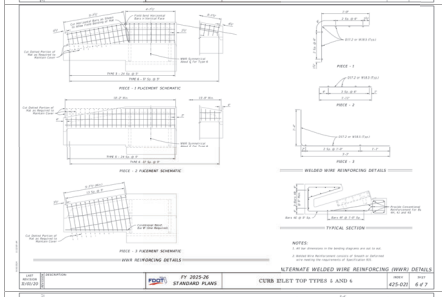


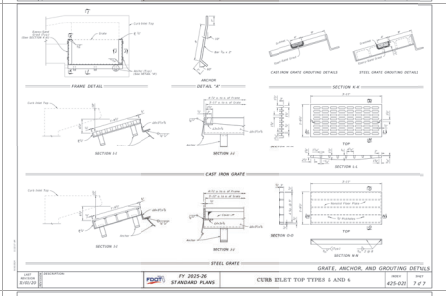


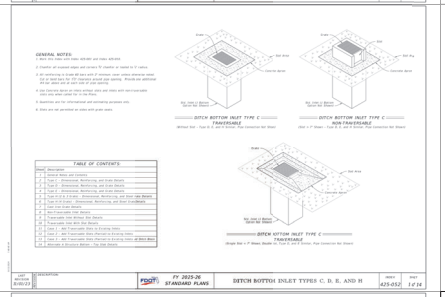


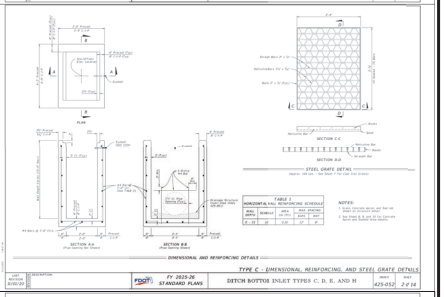


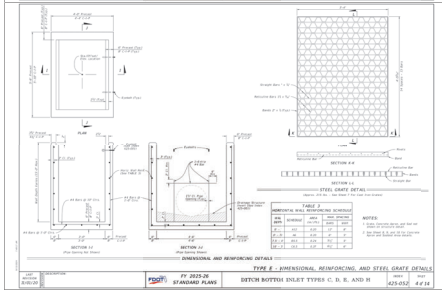


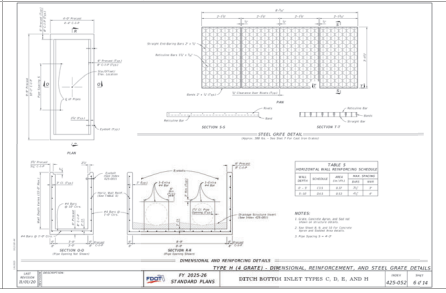


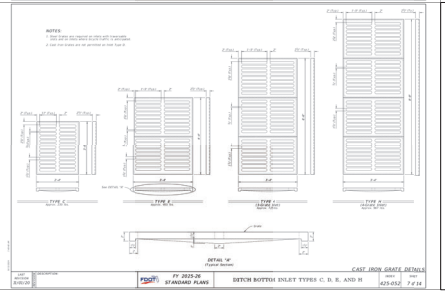


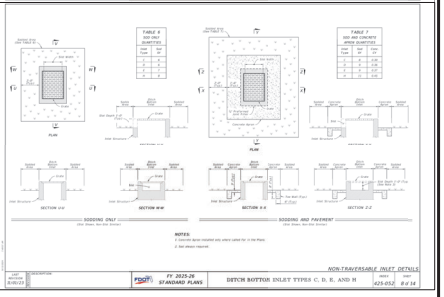












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ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

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FDOT DETAILS-2

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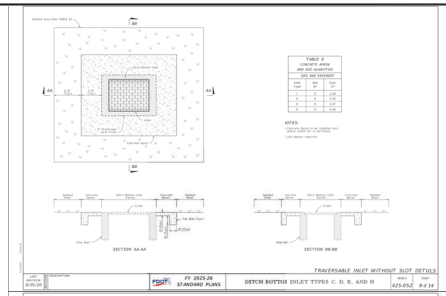
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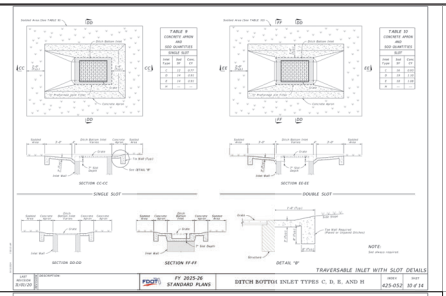
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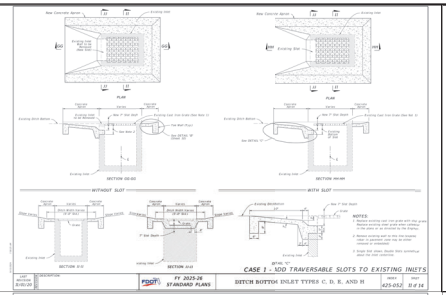
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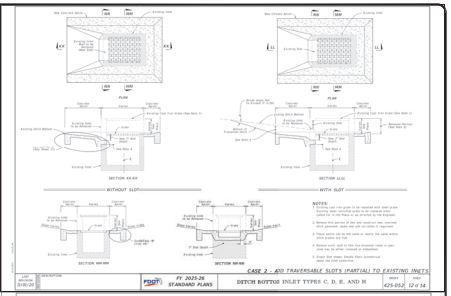
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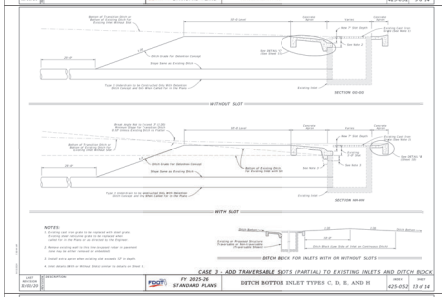
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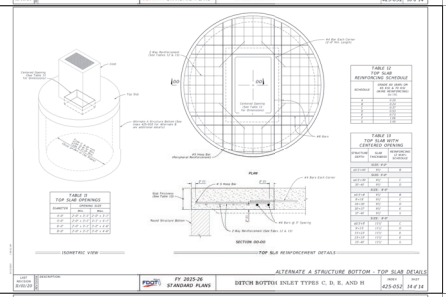


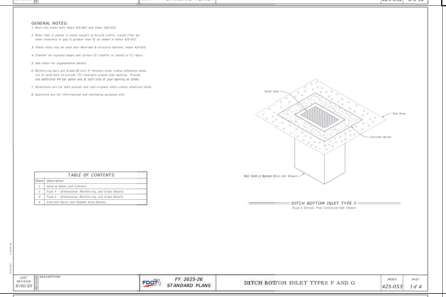


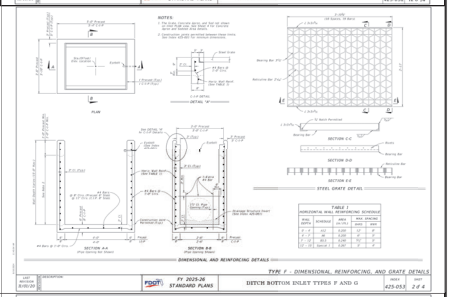


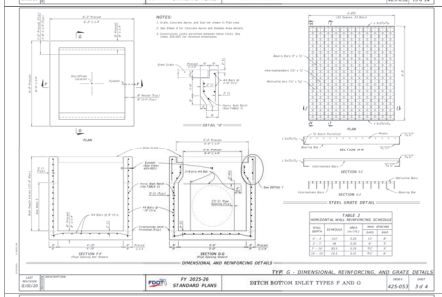


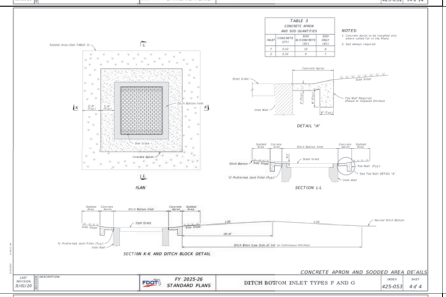


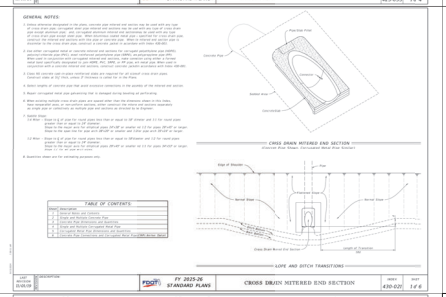


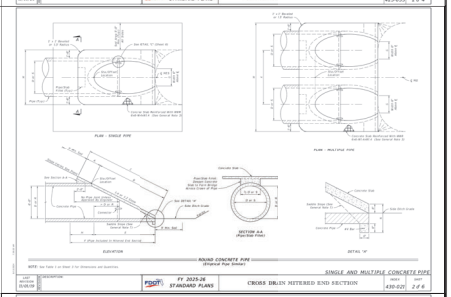


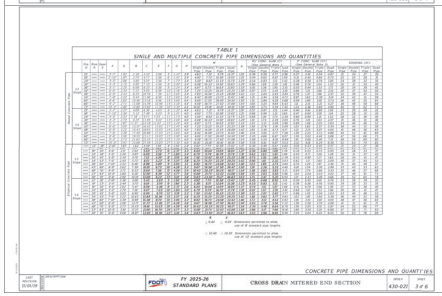


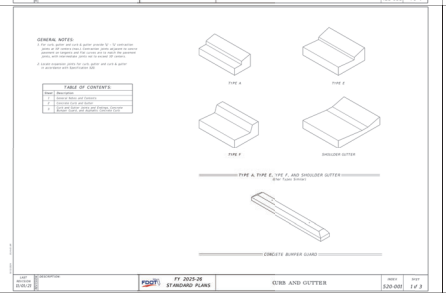


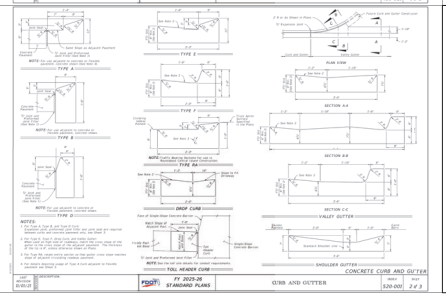


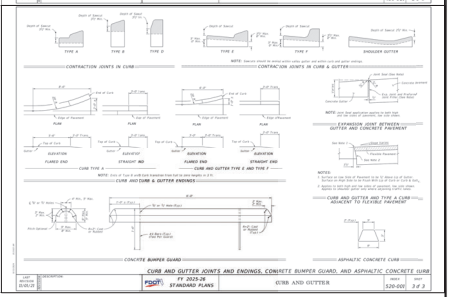












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FDOT DETAILS-3

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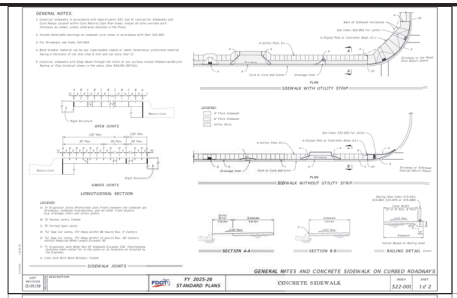
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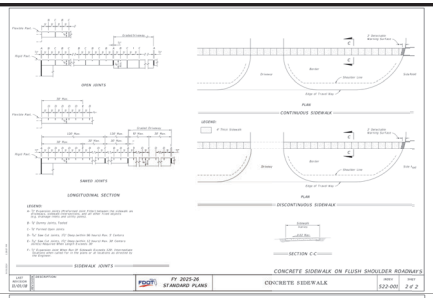
SHEET Nº C-40 of C-50

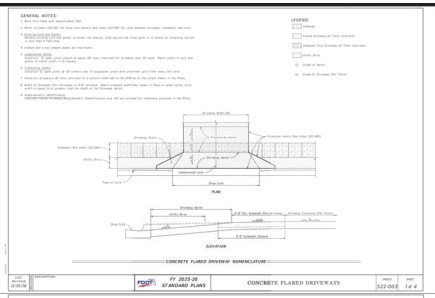
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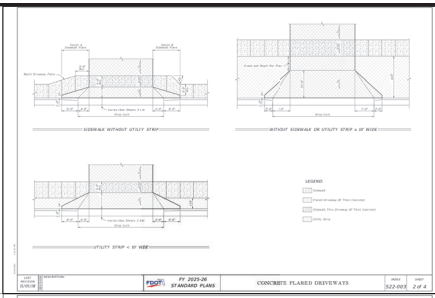
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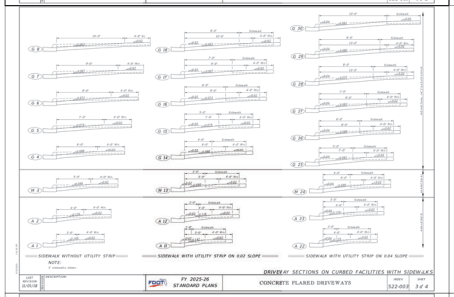
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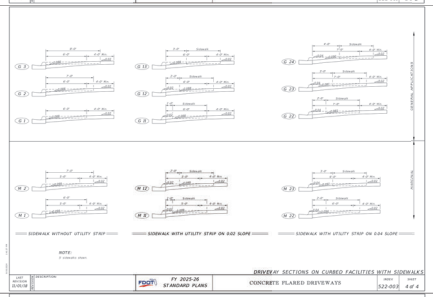


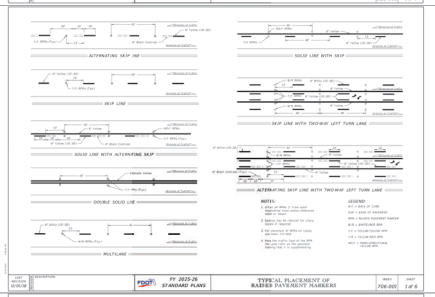


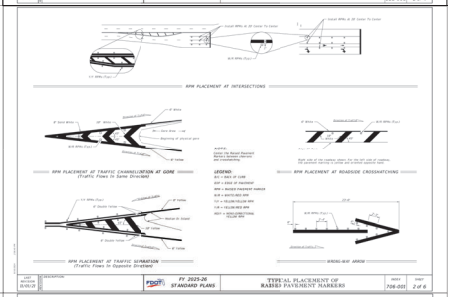


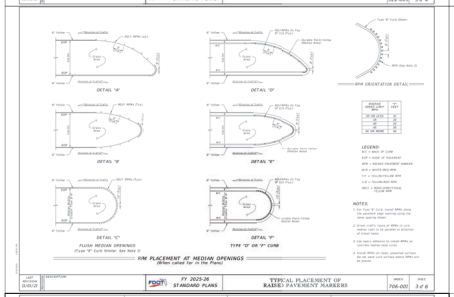


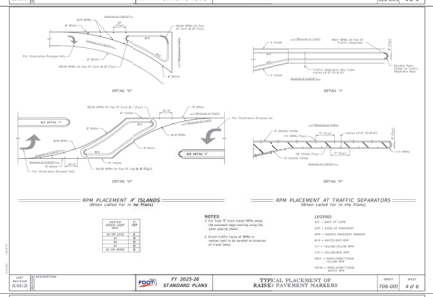


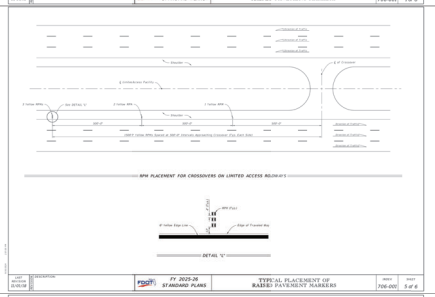


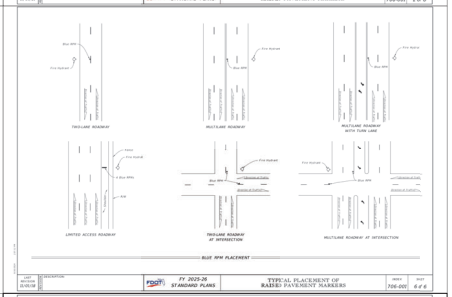


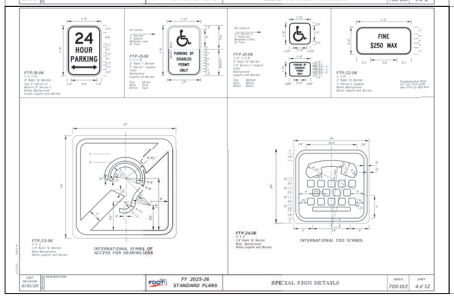


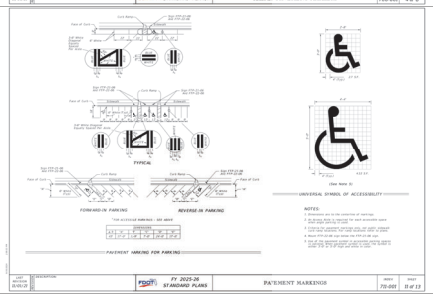


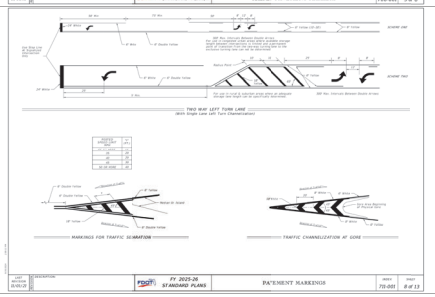


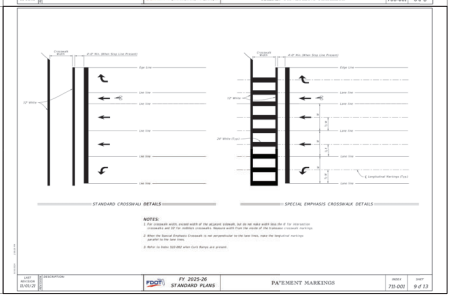












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FDOT DETAILS-4

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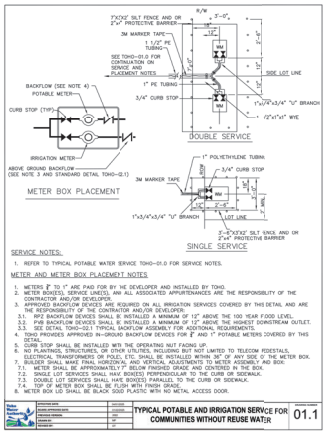
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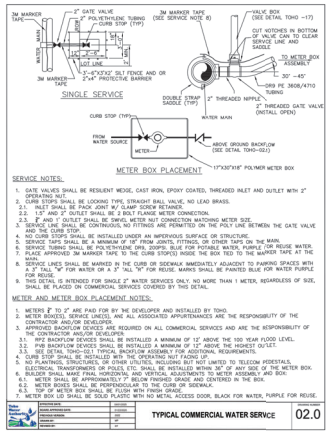
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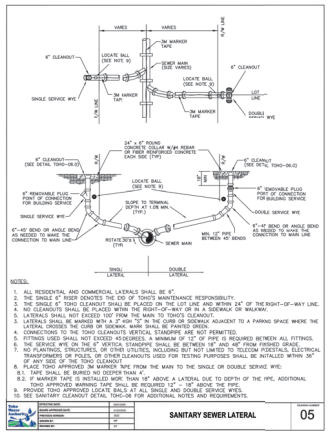
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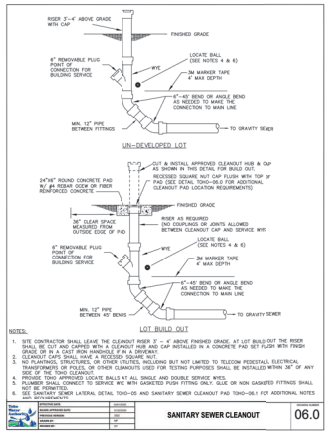
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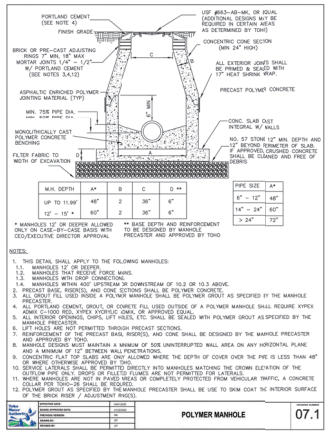
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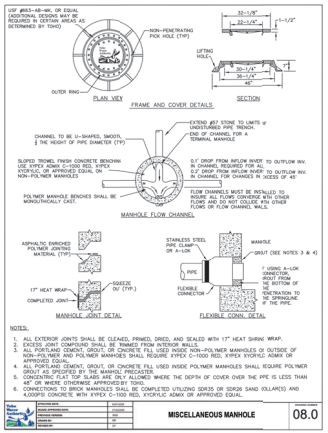


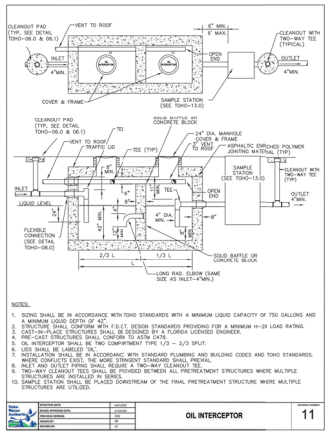


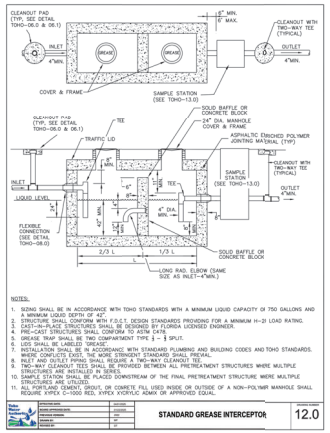


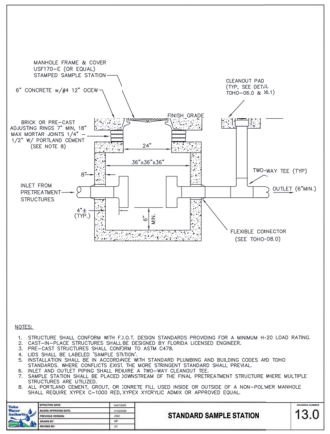


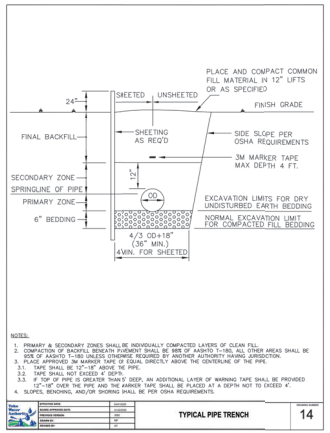












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ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
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TOHO DETAILS-1

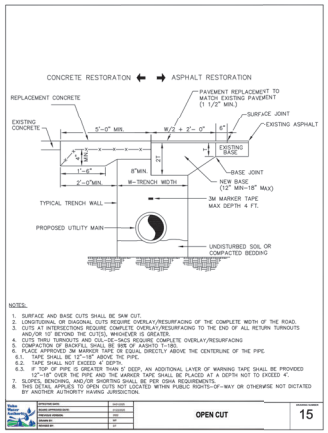
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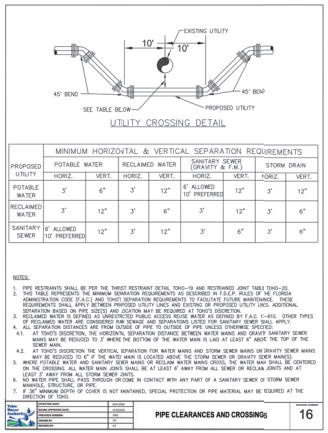
SHEET Nº C-42 of C-50

JOB Nº 5450-05

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OPEN CUT — 15

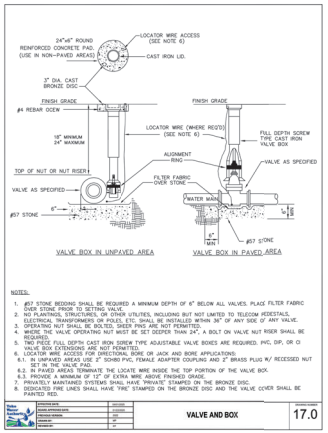


UTILITY CROSSING DETAIL

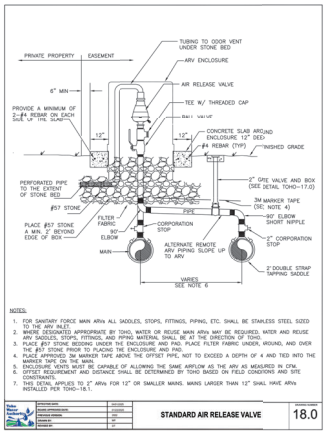
PROPOSED UTILITY	MINIMUM HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS							
	POTABLE WATER		RECLAIMED WATER		SANITARY SEWER (GRAVITY & F.M.)		STORM DRAIN	
	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.
POTABLE WATER	3'	6"	3'	12"	6' ALLOWED 10' PREFERRED	12"	3'	12"
RECLAIMED WATER	3'	12"	3'	6"	3'	12"	3'	6"
SANITARY SEWER	6' ALLOWED 10' PREFERRED	12"	3'	12"	3'	6"	3'	6"

NOTES:
1. PIPE RESTRAINTS SHALL BE PER THE THRUST RESTRAINT DETAIL TOHO-19 AND RESTRAINED JOINT TABLE TOHO-20.
2. THIS TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN F.S.E.P. RULES OF 96 FLORIDA ADMINISTRATION CODE (F.A.C.) AND TOHO'S SEPARATION REQUIREMENTS TO FACILITATE FUTURE MAINTENANCE. THESE REQUIREMENTS ARE FOR NEW UTILITY INSTALLATIONS AND MAY NOT BE APPLICABLE TO EXISTING UTILITY LINES. ADDITIONAL SEPARATION BASED ON PIPE SIZE(S) AND LOCATION MAY BE REQUIRED AT TOHO'S DISCRETION.
3. RECLAIMED WATER IS DEFINED AS UNRESTRICTED PUBLIC ACCESS REUSE WATER AS DEFINED BY F.A.C. 1-410. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED RAW SEWAGE AND SEPARATIONS LISTED FOR SANITARY SEWER SHALL APPLY.
4. ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE SPECIFIED.
4.1. AT POINTS OF CROSSING, THE VERTICAL SEPARATION BETWEEN WATER MAINS AND (RAW) SANITARY SEWER MAINS MAY BE REDUCED TO 3' WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6" ABOVE THE TOP OF THE SEWER MAIN.
4.2. AT TOHO'S DISCRETION THE VERTICAL SEPARATION FOR WATER MAINS AND STORM SEWER MAINS OR GRAVITY SEWER MAINS MAY BE REDUCED TO 6" IF THE WATER MAIN IS LOCATED ABOVE THE STORM SEWER OR GRAVITY SEWER MAIN(S).
5. WHERE POTABLE WATER AND SANITARY SEWER MAINS OR RECLAIM WATER MAINS CROSS, THE WATER MAIN SHALL BE CENTERED ON THE CROSSING. ALL WATER MAIN JOINTS SHALL BE AT LEAST 6' AWAY FROM ALL SEWER OR RECLAIM JOINTS AND AT LEAST 3' AWAY FROM ALL STORM SEWER JOINTS.
6. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITARY SEWER OR STORM SEWER MANHOLE, STRUCTURE, OR PIPE.
7. 6" (6" MINIMUM DEPTH OF COVER IS NOT MAINTAINED, SPECIAL PROTECTION OR PIPE MATERIAL MAY BE REQUIRED AT THE DIRECTION OF TOHO.

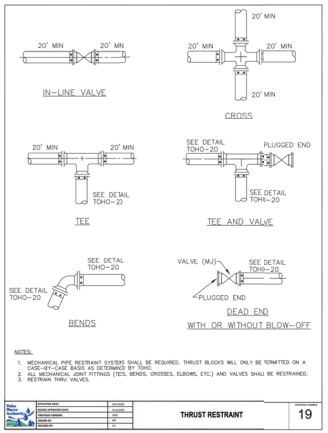
PIPE CLEARANCES AND CROSSINGS — 16



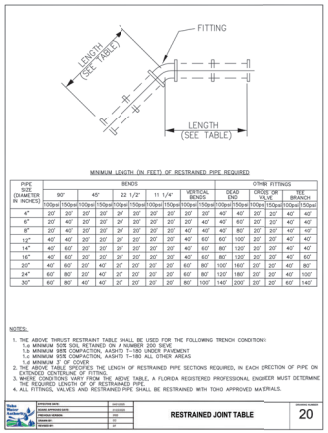
VALVE AND BOX — 17.0



STANDARD AIR RELEASE VALVE — 18.0



THRUST RESTRAINT — 19

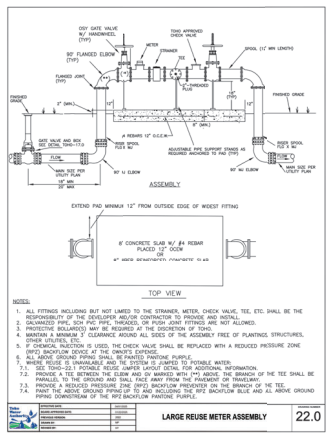


MINIMUM LENGTH (IN FEET) OF RESTRAINED PIPE REQUIRED

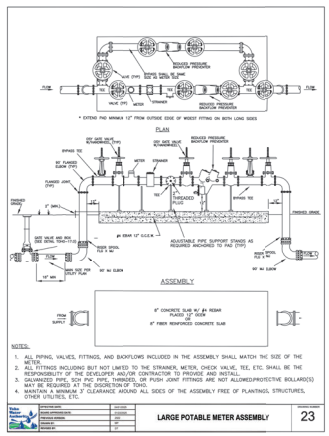
PIPE SIZE (DIAMETER IN INCHES)	BENDS					OTHER FITTINGS		
	90°	45°	22 1/2°	11 1/4°	VERTICAL BENDS	DEAD END	CROSS OR WYE	TEE BRANCH
	100psi 150psi	100psi 150psi	100psi 150psi	100psi 150psi	100psi 150psi	100psi 150psi	100psi 150psi	100psi 150psi
4"	20' 20'	20' 20'	20' 20'	20' 20'	20' 20'	40' 40'	20' 20'	40' 40'
6"	20' 40'	20' 20'	20' 20'	20' 20'	20' 20'	40' 40'	20' 20'	40' 40'
8"	20' 40'	20' 20'	20' 20'	20' 20'	20' 40'	40' 80'	20' 20'	40' 40'
12"	40' 40'	20' 20'	20' 20'	20' 20'	40' 60'	60' 120'	20' 20'	40' 40'
16"	40' 60'	20' 20'	20' 20'	20' 20'	40' 60'	80' 120'	20' 20'	40' 60'
20"	40' 80'	20' 20'	20' 20'	20' 20'	60' 80'	100' 160'	20' 20'	40' 80'
24"	60' 80'	20' 40'	20' 20'	20' 20'	60' 80'	120' 180'	20' 20'	40' 100'
30"	60' 80'	40' 40'	20' 20'	20' 20'	80' 100'	140' 200'	20' 20'	60' 140'

NOTES:
1. THE ABOVE THRUST RESTRAINT TABLE SHALL BE USED FOR THE FOLLOWING TRENCH CONDITION:
1.a MINIMUM 95% COMPACTION, AASHTO T–180 UNDER ROADWAY
1.b MINIMUM 95% COMPACTION, AASHTO T–180 UNDER PAVEMENT
1.c MINIMUM 95% COMPACTION, AASHTO T–180 ALL OTHER AREAS
1.d MINIMUM 3' OF COVER
2. THE ABOVE TABLE SPECIFIES THE LENGTH OF RESTRAINED PIPE SECTIONS REQUIRED, IN EACH DIRECTION OF PIPE ON EACH SIDE OF THE FITTING OR VALVE.
3. WHERE CONDITIONS VARY FROM THE ABOVE TABLE, A FLORIDA REGISTERED PROFESSIONAL ENGINEER MUST DETERMINE THE REQUIRED LENGTH OF OF RESTRAINED PIPE.
4. ALL FITTINGS, VALVES AND RESTRAINED PIPE SHALL BE RESTRAINED WITH TOHO APPROVED MATERIALS.

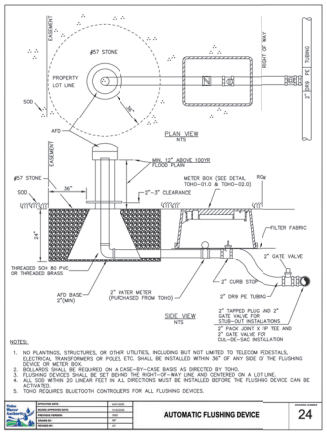
RESTRAINED JOINT TABLE — 20



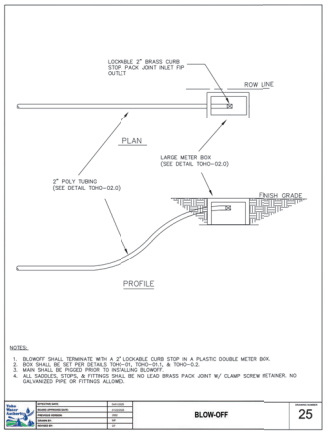
LARGE REUSE METER ASSEMBLY — 22.0



LARGE POTABLE METER ASSEMBLY — 23



AUTOMATIC FLUSHING DEVICE — 24



BLOW–OFF — 25

PSP25-00004

DESIGN	MW/CM	F.B. NO.	–	SEC.	5 & 8		
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PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
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TOHO DETAILS-2

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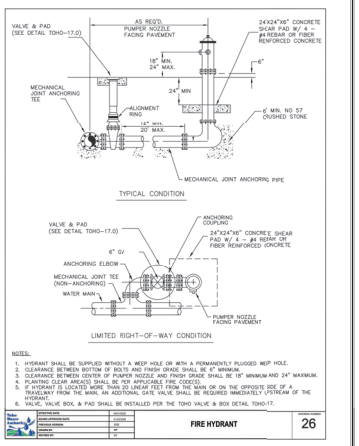
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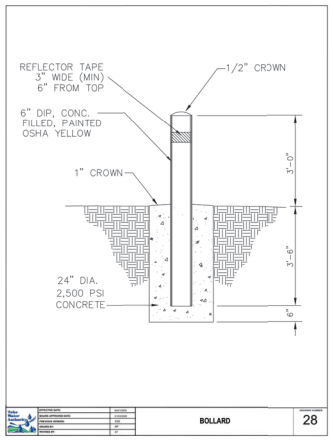
SHEET Nº C-43 of C-50

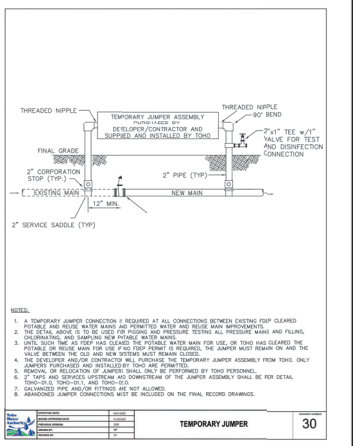
JOB Nº 5450-05

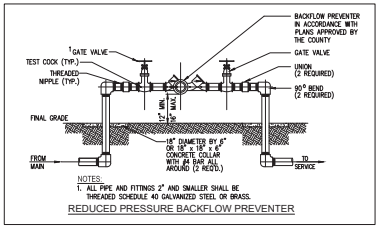
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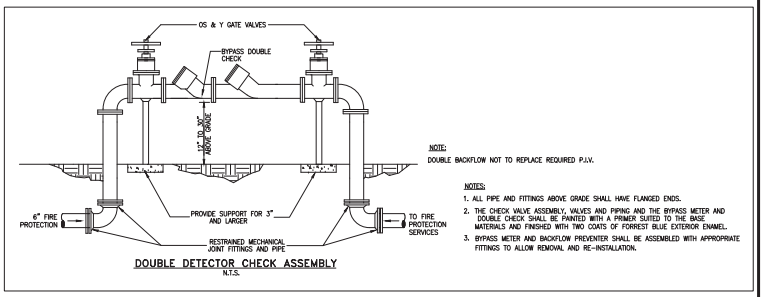
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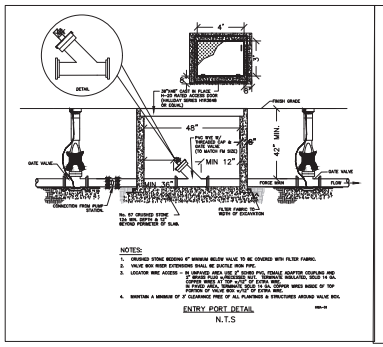


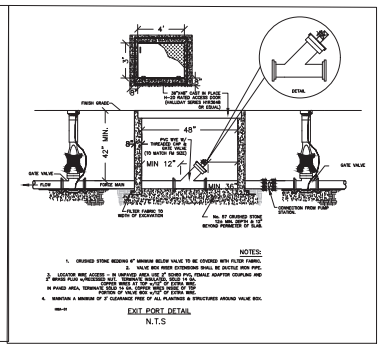


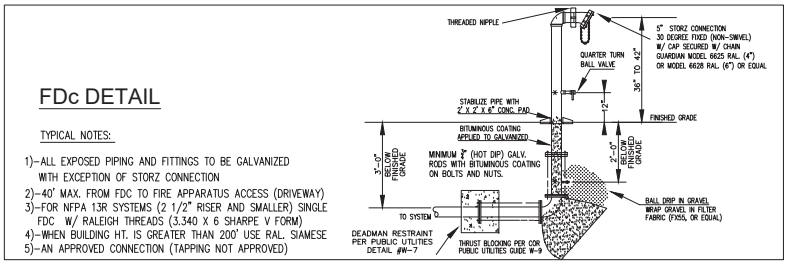












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DESIGN MW/CM	F.B. NO. –	SEC. 5 & 8					
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TOHO DETAILS-3

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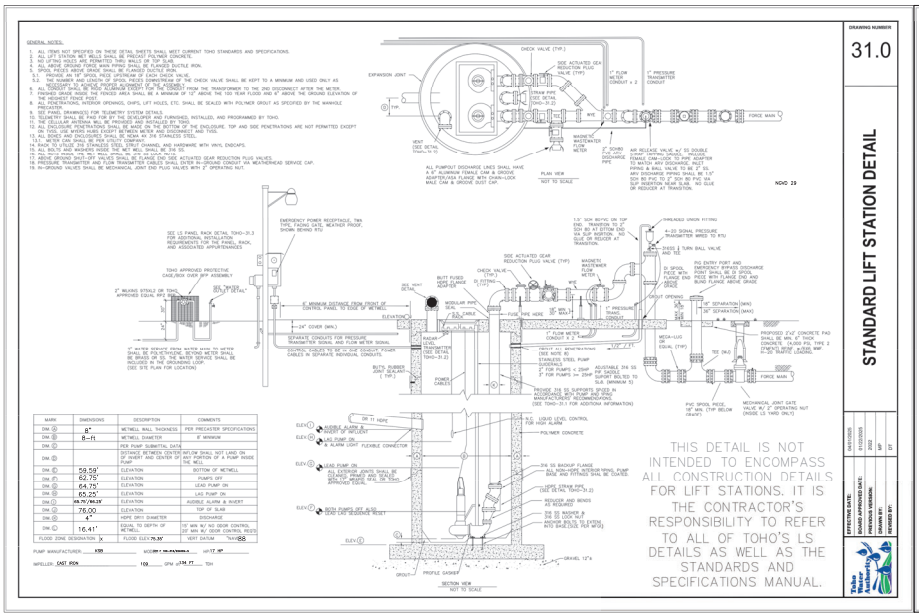
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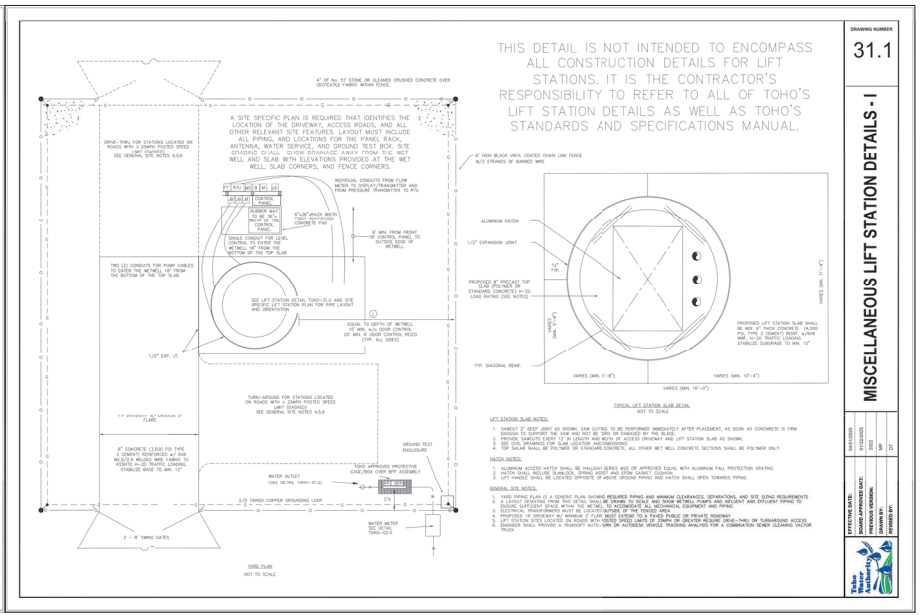
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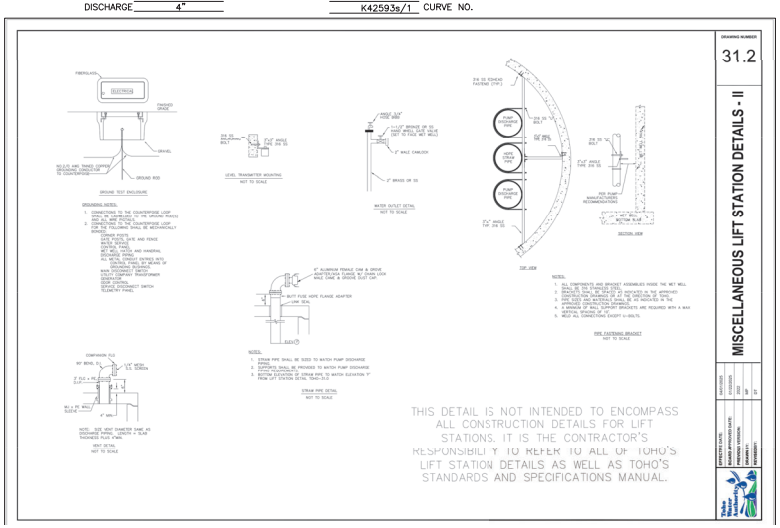
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GENERAL NOTES

MODEL KSB – KRT F 100–316/224XEG–S		17	HP
GPM	109 GPM	134	FT/TDH
VOLTAGE	460	3	PHASE
DISCHARGE	4"	K42593s/1	CURVE NO.



DESIGN CONDITIONS

*CONTRACTOR SHALL COORDINATE WITH ENGINEER SHOULD AN EQUIVALENT PUMP BE SELECTED FOR THIS PROJECT. CONTRACTOR MUST HAVE ENGINEER APPROVAL PRIOR TO ORDERING & INSTALLING ANOTHER PUMP.

PUMPS SHALL BE OF THE SUBMERSIBLE TYPE. EACH PUMP SHALL BE MOUNTED ON A Ø2" RAIL SYSTEM. THE RAIL SYSTEM SHALL BE SELF ENGAGING RESULTING IN A LEAKPROOF COUPLING. THE RAIL SYSTEM SHALL INCLUDE THE BASE ELBOW, DISCHARGE FLANGE ASSEMBLY, 81" 304SS GUIDE RAILS, 304SS UPPER GUIDE BRACKET, 304SS LIFTING BAIL AND CABLE, AND A FOUR–HOOK 316SS CABLE HOLDER. THE RAIL SYSTEM SHALL BE MOUNTED AND PRE–PIPED BY THE PUMP SUPPLIER.

PUMP CONSTRUCTION
THE PUMP VOLUTE, MOTOR AND SEAL HOUSING SHALL BE CONSTRUCTED OF CAST IRON, ASTM A–48. ALL EXTERNAL FASTENERS SHALL BE SERIES 300 STAINLESS STEEL. THE PUMP SHAFT SHALL BE CONSTRUCTED OF SERIES 416 STAINLESS STEEL.

CUTTERS
THE CUTTERS SHALL BE STAINLESS STEEL AISI 440C ALLOYED WITH COBALT, VANADIUM, AND MOLYBDENUM FOR A HARDNESS OF 55 ROCKWELL C MINIMUM.

IMPELLER
THE IMPELLER SHALL BE OF MULTI–VANE TYPE OF ASTM A48 CLASS 40B CAST IRON CONSTRUCTION. THE IMPELLER SHALL BE STATICALLY AND HYDRAULICALLY BALANCED.

MOTOR
THE MOTOR SHALL BE MOUNTED IN A SEALED, SUBMERSIBLE TYPE HOUSING. THE STATOR SHALL BE HEAT SHRINK FITTED INTO THE STATOR HOUSING. THE MOTOR WILL HAVE TWO HEAVY–DUTY BALL BEARINGS: ONE UPPER (RADIAL) AND ONE LOWER (THRUST), TO SUPPORT THE SHAFT. THE MOTOR SHALL BE EQUIPPED WITH A WINDING THERMOSTAT THAT AUTOMATICALLY SHUTS THE MOTOR OFF IN CASE OF MOTOR OVERHEATING.

SEAL CHAMBER
THE PUMP SHALL HAVE TWO MECHANICAL SEALS, MOUNTED IN TANDEM WITH AN OIL CHAMBER BETWEEN THE SEALS. THE PUMP SHALL BE EQUIPPED WITH A SEAL LEAK DETECTION PROBE AND WARNING SYSTEM BY USING A SEAL FAILURE SENSOR INSTALLED IN THE SEAL CHAMBER.

WET WELL
THE PUMP SUPPLIER SHALL PROVIDE THE FIBERGLASS WET WELL. THIS GLASS FIBER–REINFORCED POLYESTER BASIN SHALL BE CONSTRUCTED OF A COMMERCIAL GRADE OF GLASS FIBER AND SHALL BE PROVIDED WITH AN ANTI–FLOTATION RING WITH A MINIMUM DIAMETER OF THREE INCHES LARGER THAN THE BASIN DIAMETER. THE RAIL SYSTEM, INTERNAL PIPING AND DISCHARGE CONNECTIONS SHALL BE PRE–INSTALLED BY THE PUMP SUPPLIER.

HATCH COVER
THE HATCH COVER SHALL BE 2/3 HINGED TO ALLOW FOR MAXIMUM ACCESS TO THE WET WELL. THE HATCH COVER SHALL BE ALUMINUM WITH STAINLESS STEEL FASTENERS, RATED FOR 150 PSF OR GREATER. THE HATCH COVER SHALL INCLUDE A SINGLE OR DUAL DOOR OF DIMENSIONS SPECIFIED BY THE PUMP MANUFACTURER FOR PROPER PUMP CLEARANCE. THE COVER SHALL BE MANUFACTURED BY USF FABRICATION, OR EQUAL.

VALVE BOX
THE VALVE BOX IS FIBERGLASS WITH ALUMINUM LOCKABLE COVER. STANDARD SIZE VALVE BOX IS 32"x30"x25".

VALVES
VALVES SHALL BE SEWAGE SWING CHECK WITH CLEAN–OUT PORTS AND BRASS GATE VALVES.

FLOATS
FLOATS SHALL BE ANCHOR SCIENTIFIC ROTO–FLOATS OR EQUAL.

CONTROLS
THE CONTROL PANEL SHALL BE UL508 LISTED. A NEMA 4X FIBERGLASS ENCLOSURE SHALL BE PROVIDED. THE PANEL SHALL INCLUDE AN ALTERNATING CONTROL SCHEME (DUPLEX AND ABOVE), MAIN CIRCUIT BREAKER, GENERATOR RECEPTACLE, HIGH LEVEL ALARM LIGHT AND HORN, ELAPSED TIME METERS, VOLTAGE OR PHASE MONITOR, SEAL FAILURE AND OVERLOAD SENSORS. THE LIGHTNING ARRESTOR SHALL BE SHIPPED LOOSE FOR FIELD INSTALLATION.

SUPPLIER
PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, CONTROL PANEL, FLOAT SWITCHES, ALUMINUM HATCHES AND ACCESSORIES TO INSURE PROPER OPERATIONS AND WARRANTY. THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, RAIL ASSEMBLIES, AND DISCHARGE PIPING ASSEMBLED READY FOR FIELD INSTALLATION.

WARRANTY
PUMP AND ELECTRICAL CONTROL PANEL MUST BE WARRANTED FOR A MINIMUM OF 3 YEARS. FIBERGLASS WETWELL MUST BE WARRANTED FOR A MMMUM OF 20 YEARS.

PUMP STATION SPECIFICATIONS PER FDEP

CONSTRUCTION MATERIAL SHALL BE APPROPRIATE UNDER CONDITIONS OF EXPOSURE TO HYDROGEN SULFIDE AND OTHER CORROSIVE GASES, GREASES, OILS, AND OTHER CONSTITUENTS FREQUENTLY PRESENT IN WASTEWATER. [RSWF 42.25]

THE PUMP STATION SHALL BE PROTECTED FROM LIGHTING AND TRANSIENT VOLTAGE SURGES; AND SHALL BE EQUIPPED WITH LIGHTING ARRESTORS, SURGE CAPACITORS, OR OTHER SIMILAR PROTECTION DEVICES AND PHASE PROTECTION. [62–604.400(2)(B), F.A.C.]

THE ELECTRICAL SYSTEMS AND COMPONENTS (E.G., MOTORS, LIGHTS, CABLES, CONDUITS, SWITCH BOXES, CONTROL CIRCUITS, ETC.) IN RAW WASTEWATER WET WELLS, OR IN ENCLOSED OR PARTIALLY ENCLOSED SPACES WHERE HAZARDOUS CONCENTRATIONS OF FLAMMABLE GASES OR VAPORS MAY BE PRESENT, SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE REQUIREMENTS FOR CLASS I GROUP D, DIVISION 1 LOCATIONS.

ELECTRICAL EQUIPMENT LOCATED IN WET WELLS SHALL BE SUITABLE FOR USE UNDER CORROSIVE CONDITIONS [RSWF 42.35]

EACH FLEXIBLE CABLE SHALL BE PROVIDED WITH A WATERTIGHT SEAL AND SEPARATE STRAIN RELIEF. [RSWF 42.35]

A FUSED DISCONNECT SWITCH, LOCATED ABOVE GROUND, SHALL BE PROVIDED FOR THE MAIN POWER FEED FOR ALL PUMP STATIONS. [RSWF 42.35]

ELECTRICAL EQUIPMENT EXPOSED TO WEATHER SHALL MEET THE REQUIREMENTS OF WEATHER PROOF EQUIPMENT NEMA 3R OR 4. [RSWF 42.35]

A 110 VOLT POWER RECEPTACLE TO FACILITATE MAINTENANCE SHALL BE PROVIDED INSIDE THE CONTROL PANEL FOR PUMP STATIONS THAT HAVE CONTROL PANELS OUTDOORS. [RSWF 42.35]

GROUND FAULT INTERRUPTION PROTECTION SHALL BE PROVIDED FOR ALL OUTDOOR OUTLETS. [RSWF 42.35]

AN UNOBSTRUCTURED SIGN MADE OF DURABLE WEATHER RESISTANT MATERIAL SHALL BE POSTED AT A LOCATION VISIBLE TO THE PUBLIC WITH A TELEPHONE NUMBER FOR A POINT OF CONTACT IN CASE OF AN EMERGENCY. [62–604.400(2)(D), F.A.C.]

MEASURES FOR DETECTING SHAFT SEAL FAILURE OR POTENTIAL SEAL FAILURE SHALL BE PROVIDED. [RSWF 44.1]

ELECTRICAL SUPPLY, CONTROL, AND ALARM CIRCUITS SHALL PROVIDE STRAIN RELIEF; TO ALLOW DISCONNECTION FROM OUTSIDE THE WET WELL; AND TO PROTECT TERMINALS AND CONNECTORS FROM CORROSION BY LOCATION OUTSIDE THE WET WELL OR THROUGH USE OF WATERTIGHT SEALS. [RSWF 44.31]

THE MOTOR CONTROL CENTER SHALL BE LOCATED OUTSIDE THE WET WELL, READILY ACCESSIBLE, AND PROTECTED BY A CONDUIT SEAL OR OTHER APPROPRIATE MEASURES MEETING THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, TO PREVENT THE ATMOSPHERE OF THE WET WELL FROM GAINING ACCESS TO THE CONTROL CENTER. IF A SEAL IS SPECIFIED, THE MOTOR CAN BE REMOVED AND ELECTRICALLY DISCONNECTED WITHOUT DISTURBING THE SEAL. CONTROL EQUIPMENT EXPOSED TO WEATHER SHALL MEET THE REQUIREMENTS OF WEATHERPROOF EQUIPMENT NEMA 3R OR 4. [RSWF 44.32]

PUMP MOTOR POWER CORDS SHALL BE FLEXIBLE AND SERVICEABLE UNDER CONDITIONS OF EXTRA HARD USAGE AND TO MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE STANDARDS FOR FLEXIBLE CORDS IN WASTEWATER PUMP STATIONS.

GROUND FAULT INTERRUPTION PROTECTION SHALL BE USED TO DE–ENERGIZE THE CIRCUIT IN THE EVENT OF ANY FAILURE IN THE ELECTRICAL INTEGRITY OF THE CABLE.

POWER CORD TERMINAL FITTINGS SHALL BE CORROSION–RESISTANT AND CONSTRUCTED IN A MANNER TO PREVENT THE ENTRY OF MOISTURE INTO THE CABLE, PROVIDED WITH STRAIN RELIEF APPURTENANCES, AND DESIGNED TO FACILITATE FIELD CONNECTING. [RSWF 44.33]

EMERGENCY STANDBY SYSTEMS SHALL HAVE SUFFICIENT CAPACITY TO START UP AND MAINTAIN THE TOTAL RATED RUNNING CAPACITY OF THE STATION, INCLUDING LIGHTING, VENTILATION, AND OTHER AUXILIARY EQUIPMENT NECESSARY FOR SAFETY AND PROPER OPERATION.

SPECIAL SEQUENCING CONTROLS SHALL BE PROVIDED TO START PUMP MOTORS UNLESS THE GENERATING EQUIPMENT HAS CAPACITY TO START ALL PUMPS SIMULTANEOUSLY WITH AUXILIARY EQUIPMENT OPERATING.

PUMP STATION RELIABILITY DESIGN FEATURES SHALL BE COMPATIBLE WITH THE AVAILABLE TEMPORARY SERVICE POWER GENERATING AND PUMPING EQUIPMENT OF THE AUTHORITY RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE COLLECTION/TRANSMISSION SYSTEM. [62–604.400(2)(A)3.,F.A.C. AND RSWF 46.431]

EMERGENCY EQUIPMENT SHALL BE PROTECTED FROM OPERATION CONDITIONS THAT WOULD RESULT IN DAMAGE TO THE EQUIPMENT AND FROM DAMAGE AT THE RESTORATION OF REGULAR ELECTRICAL POWER. [RSWF 46.411, 46.417, AND 46.432]

*RSWF = RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES (1997) AS ADOPTED BY RULE 62–604.300(5)(C), F.A.C.

PSP25-00004

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PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

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LIFT STATION

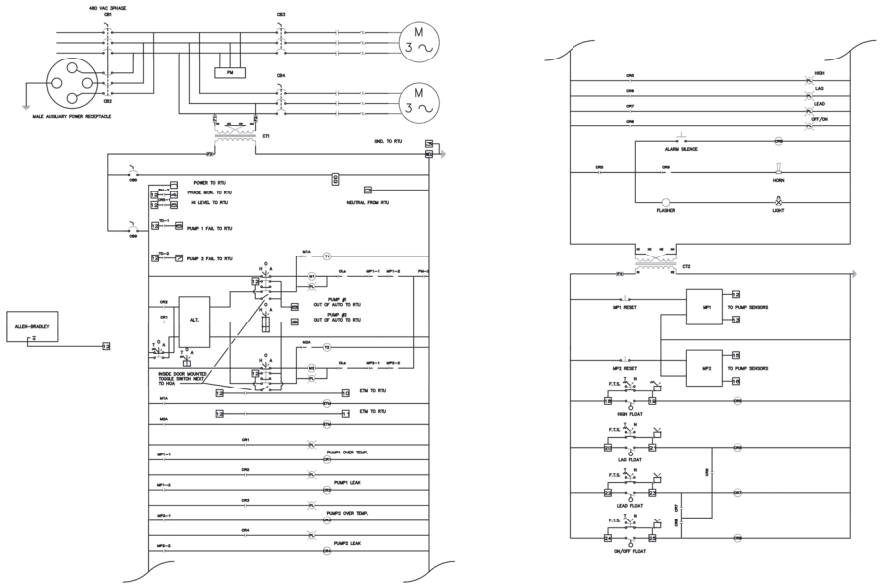
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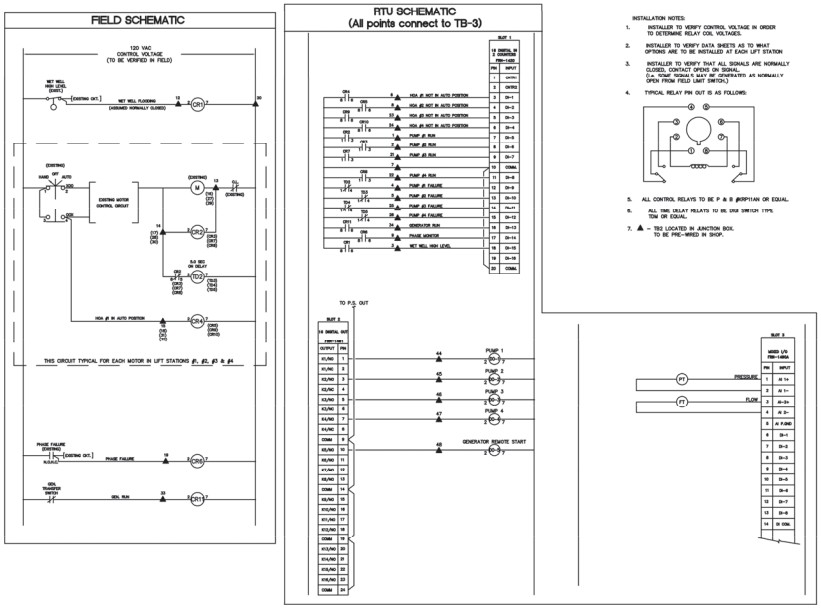
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JOB Nº 5450-05

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TYPICAL LIFT STATION CONTROL PANEL SCHEMATIC TOHO-31.2 2022



TYPICAL LIFT STATION RTU SCHEMATIC TOHO-31.3 2022

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LIFT STATION DETAILS

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GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN CONFORMANCE WITH THE CITY OF ST. CLOUD SPECIFICATIONS AND ANY OTHER AGENCIES' SPECIFICATIONS AND REQUIREMENTS. THEY SHALL OBTAIN A COPY OF THE SOIL REPORT REFERENCED HEREIN AND VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS. THEY SHALL CLEAR AND GRUB ALL RIGHT-OF-WAYS, TRACTS AND APPROPRIATE EASEMENTS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, AND ALL OTHER DELETERIOUS MATERIAL.
2. THE EXACT LOCATIONS OF EXISTING UTILITIES ARE UNKNOWN. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BIDDING BY NOTIFYING THE UTILITY COMPANY TO LOCATE THEIR UTILITIES OR BY FIELD VERIFICATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY DAMAGED UTILITY RESULTING FROM THE CONTRACTOR'S CONSTRUCTION AT THE CONTRACTOR'S OWN EXPENSE.
3. THE REQUIREMENTS OF THE CITY OF ST. CLOUD STANDARD SPECIFICATIONS AND STANDARD DETAILS SHALL GOVERN ALL WORK. WHERE A CONFLICT EXISTS IN THE REQUIREMENTS OF A REFERENCED MATERIAL OR INSTALLATION STANDARD, THE REQUIREMENTS OF CITY OF ST. CLOUD SHALL PREVAIL. WHERE THE REQUIREMENTS OF A STATE OR LOCAL AGENCY HAVING JURISDICTION ARE MORE STRINGENT, THOSE REQUIREMENTS SHALL PREVAIL.
4. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE, AT ALL TIMES, ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING STAMPED APPROVED PLANS, SPECIFICATIONS, AND ANY SPECIAL PROVISIONS, AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
5. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER OF RECORD.
6. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS AND BONDS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
8. ALL COPIES OF REQUIRED TEST RESULTS ARE TO BE SENT TO THE CITY OF ST. CLOUD DIRECTLY FROM THE TESTING AGENCY.
9. ALL PAVING AND DRAINAGE TO BE CONSTRUCTED PER APPROVED PLANS PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY.
10. ALL SIGNAGE TO BE PERMITTED BY SEPARATE INSTRUMENT.
11. THE CONTRACTOR MUST COMPLY WITH ALL TRENCH SAFETY STANDARDS.
12. THE SITE IS TO BE CLEARED AND GRUBBED.
13. ALL UNPAVED AREAS WITHIN THE CONSTRUCTION AREA AND RIGHT OF WAY SHALL BE SODDED WITH BAHIA GRASS AND/OR LANDSCAPED AS NOTED.
14. REFER TO PLANS FOR ALL EASEMENT REQUIREMENTS. EASEMENTS SHALL BE IN PLACE PRIOR TO THE CERTIFICATE OF COMPLETION BEING ISSUED.
15. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY DAMAGED RESULTING FROM THE CONTRACTOR'S CONSTRUCTION AT THE CONTRACTOR'S OWN EXPENSE.
16. SECTION 6 OF CITY OF ST. CLOUD LAND DEVELOPMENT CODE WILL BE UTILIZED IN CONJUNCTION WITH THESE DETAILS IN THE EVENT THAT THERE ARE CONFLICTING TERMS IN THE STANDARD DETAILS

AS-BUILT NOTES

THE CONTRACTOR SHALL SUBMIT A CERTIFIED SET OF AS-BUILT DRAWINGS TO THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING INFORMATION ON THE APPROVED PLANS CONCURRENTLY WITH CONSTRUCTION PROGRESS. RECORD DRAWINGS SUBMITTED TO THE ENGINEER AS PART OF THE PROJECT ACCEPTANCE SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

A). DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION.

B). DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UNDERGROUND AND ABOVE GROUND STORM DRAINAGE, WATER AND WASTEWATER PIPING AND RELATED APPURTENANCES. ALL CHANGES TO PIPING LOCATION INCLUDING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES AND APPURTENANCES SHALL BE CLEARLY SHOWN AND REFERENCED TO PERMANENT SURFACE IMPROVEMENTS. DRAWINGS SHALL ALSO SHOW ACTUAL INSTALLED PIPE MATERIAL, CLASS, ETC.

C). DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL INCLUDING CHANGES MADE BY FIELD ORDER OR BY CHANGE ORDER. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON THE ORIGINAL CONTRACT DRAWINGS, BUT CONSTRUCTED IN THE FIELD. ALL EQUIPMENT AND PIPING RELOCATION SHALL BE CLEARLY SHOWN.

D). LOCATION OF ALL INLETS, MANHOLES, HYDRANTS, VALVES AND VALVE BOXES SHALL BE SHOWN. ALL VALVES SHALL BE REFERENCED FROM AT LEAST TWO AND PREFERABLY THREE PERMANENT POINTS.

E). DIMENSIONS BETWEEN ALL INLETS AND MANHOLES SHALL BE FIELD VERIFIED AND SHOWN. THE INVERTS AND GRADE ELEVATIONS OF ALL INLETS AND MANHOLES SHALL BE SHOWN.

F). EACH SHEET OF THE PLANS SHALL BE SIGNED, SEALED AND DATED BY A REGISTERED SURVEYOR WITH A NOTE READING "THESE AS-BUILTS DRAWINGS ACCURATELY DEPICT THE ACTUAL IMPROVEMENTS AS CONSTRUCTED".

PAVING, GRADING & DRAINAGE NOTES

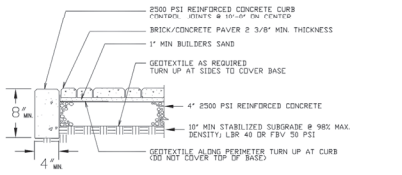
1. ALL ROADWAY AND PAVING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, OSCEOLA COUNTY AND CITY OF ST. CLOUD STANDARDS.
2. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED ON THE PLANS AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED.
3. ALL PAVED AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVING SECTIONS AS INDICATED.
4. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTORS SHALL SAW-CUT THE EXISTING PAVEMENT FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATIONS WITH THE PROPOSED PAVEMENT.
5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STORM DRAINAGE STRUCTURES TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL, PRIOR TO ORDERING MATERIALS.
6. THE CITY OF ST. CLOUD MAY BE RESPONSIBLE FOR THE MAINTENANCE OF THE STORMWATER SYSTEM IN ACCORDANCE WITH THE GUIDELINES SET FORTH BY THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT PERMIT DOCUMENTS ARE ON FILE UNDER SFWMD PERMIT
7. ANY UNSUITABLE MATERIAL FOUND WITHIN LIMITS OF ROADWAY OR PAVEMENT SHALL BE REMOVED AND MAY BE USED FOR SHOULDER OR BERM CURB PLACEMENT.
8. ALL RUBBLE, CONCRETE SLABS, PAVEMENT, FOOTING MUCK, ORGANIC FINE SAND WITH ROOTS AND OTHER UNDESIRABLE MATERIALS SHALL BE REMOVED FROM THE SITE. THE UNDESIRABLE MATERIALS RESULTING FROM THE CLEARING OPERATION SHALL BE DISPOSED OF IN A PROPER MANNER BEYOND THE LIMITS OF THE CLEARED SITE.
9. ALL AREAS TO BE FILLED SHALL BE DONE WITH CLEAN, SUITABLE MATERIAL COMPRISED OF NON-PLASTIC SAND WITH LESS THAN ABOUT 12% FINES CONTENT, AND NOT CONTAINING ANY SIGNIFICANT AMOUNT OF ORGANIC SUBSTANCES (LESS THAN 3% BY WEIGHT) OR OTHER DELETERIOUS MATERIALS. FILL SHALL BE COMPACTED TO 98% DENSITY AS DETERMINED BY AASHTO T-180 AND 95% FOR AREAS BELOW ROAD SUBGRADE AS DETERMINED BY ASTM D-1557. FILL SHALL BE COMPACTED IN 12" MAX. LIFTS TO 98% OR HOR-MAX. DENSITY.
10. UNLESS OTHERWISE NOTED.
THE CONTRACTOR SHALL SOD ALL RETENTION AREAS AND ALL SIDE SLOPES AND OTHER DISTURBED AREAS ADJACENT TO DRAINAGE CONVEYANCE AREAS.

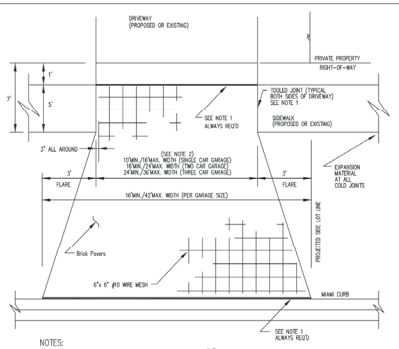
EROSION CONTROL
WATER QUALITY MANAGEMENT

1. THE CONTRACTOR MUST SELECT, IMPLEMENT, AND OPERATE ALL EROSION AND SEDIMENT CONTROL MEASURES REQUIRED TO RETAIN SEDIMENT ON-SITE AND TO PREVENT VIOLATIONS OF WATER QUALITY STANDARD AS SPECIFIED IN CHAPTERS 17-301, 17-302, 17-4, F.A.C. THE CONTRACTOR IS ENCOURAGED TO USE APPROPRIATE BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROLS AS DESCRIBED IN THE FLORIDA LAND DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT (DER, 1988).
2. THE CONTRACTOR SHALL CONTROL TURBID RUNOFF FROM THE PROJECT BY ROUGH EXCAVATING THE PROPOSED RETENTION AREAS IMMEDIATELY FOLLOWING CLEARING AND GRUBBING OPERATIONS. ALL DEWATERING DISCHARGE SHALL BE DIRECTED TO THESE AREA(S) FOR SETTLING PRIOR TO DISCHARGE OFF-SITE.
3. THE CONTRACTOR SHALL INSTALL WATER QUALITY CONTROL DEVICES ALONG THE SITE PERIMETER, AS DESIGNATED ON THESE PLANS. THE CONTRACTOR SHALL RECEIVE THE ENGINEER'S APPROVAL OF THE INSTALLATION PRIOR TO ANY OTHER SITE CONSTRUCTION.
4. ALL EROSION CONTROL/WATER QUALITY DEVICES SHALL BE IN ACCORDANCE WITH INDICES 102 AND 103 OF THE LATEST EDITION OF THE FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS" SILT FENCES, HAY BALES, AND/OR TURBIDITY BARRIERS SHALL BE INSTALLED AT ALL OFF-SITE DISCHARGE POINTS. ALL EROSION CONTROL/WATER QUALITY DEVICES SHALL BE LEFT IN PLACE UNTIL THE DISTURBED AREAS ARE COMPLETELY STABILIZED AND/OR VEGETATED.
5. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SOIL MOISTURE TO PREVENT WIND GENERATED SOIL EROSION. ALL SURFACES DISTURBED FOR 30 OR MORE DAYS SHALL BE VEGETATED WITH A TEMPORARY OR PERMANENT COVER.

PAVER DRIVEWAY DETAIL

NTS





NOTES:
1. EXPANSION MATERIAL SHALL BE RECESSED 1/4" BELOW FINISHED CONCRETE W/ TOOLED JOINT RADIUS (#40 PRESSURE TREATED 1"x6" BOARD OR APROVED ALTERNATE MATERIAL)
2. MIN. AND MAX. WIDTHS ARE FOR GARAGE SETBACKS OF 50' OR LESS. FOR SETBACKS GREATER THAN 50', USE 10' MIN. / 20' MAX.
3. WIRE MESH SHALL HAVE 3" CLEARANCE FROM FORM BOARDS AND EDGE OF PAVEMENT.
4. FLARE IN RIGHT OF WAY SHALL NOT EXTEND BEYOND PROJECTED SIDE LOT LINE.
5. DRIVEWAY FINISHED GRADE SHALL BE 2" ABOVE GRADE OF LOT PRIOR TO SODDING. DRIVEWAY FINISHED GRADE SHALL BE 1" ABOVE GRADE OF LOT WHEN SEEDING/MULCHING.
6. SUBGRADE IS REQUIRED TO BE FIRM AND UNYIELDING MATERIAL WITH NO MUCK, PEAT, OR ANY ORGANIC MATERIAL.
7. CITY OF ST. CLOUD WILL NOT MAINTAIN, REPAIR, OR REPLACE ANY BRICK OR CONCRETE PAVERS LOCATED WITHIN THE CITY RIGHT OF WAY. IF THE PAVERS ARE REMOVED BY THE CITY OF ST. CLOUD PERSONNEL, THE PROPERTY OWNER IS RESPONSIBLE FOR REPLACING THE PAVERS. A RIGHT OF WAY PERMIT MUST BE APPLIED FOR AND APPROVED PRIOR TO WORKING WITHIN THE RIGHT OF WAY.
8. CHANGES TO THIS STANDARD DETAIL MUST BE APPROVED PRIOR TO CONSTRUCTION.

CONSTRUCTION EROSION CONTROL

An erosion control plan and a detailed description of the measure to be taken during construction to control erosion within the limits of the project, and to prevent the deposition of sediment in off-site systems or receiving water bodies, shall be submitted with final engineering construction plans of the development. Included with this submittal shall be calculations supporting the effectiveness of the proposed plans.

A. Erosion Control Plan
The erosion control plan, details and calculations shall document the measures necessary to limit the transport of sediment outside the limits of the project(s) to the volume and amount of that existing prior to the commencement of construction. This pre-construction condition shall be satisfied for the total anticipated construction period. Provision must be made to preserve the integrity and capacity of check weir, sediment basins, slope drains and grading patterns, required to meet this provision throughout the project construction life.

1. Temporary Fence
The erosion Control Plan shall include provisions for a temporary 6' foot fence suitable for mitigating wind erosion and for providing visual relief during construction. Fences shal withstand normal wind loads. The developer may in lieu of temporary fencing:

i. Erect the required buffer yard screens as required in the landscaping plans if it meets the intent of the erosion control plan.
ii. Disturb less than ten (10) acres and provide adequate means to control materials from leaving the construction site. Logical phasing of the disturbed areas will need to be shown on the erosion control plan if the site is larger than 10 acres.

B. Stockpiling Material
No excavated materials shall be stockpiled in such a manner as to direct runoff directly off the project site or into any adjacent water body or stormwater collection facility.

C. Exposed Area Limitation
The surface area of open, raw, erodible soil, exposed by clearing and grubbing operations, or excavation and filling operations, shall not exceed ten acres. This requirement may be waived for large projects with an approved dust control plan, which demonstrate that opening of additional areas will not significantly affect off-site deposit of sediments. This waiver will be by written authorization from the City Engineer. Any violations of the dust control plan will result in the immediate voiding of this waiver and could result in the construction activities being suspended until the site is brought back into compliance.

D. Inlet Protection
Inlets and catch basins shall be protected from sediment-laden storm runoff until the completion of all construction operations that may contribute to the inlet.

E. Temporary Seeding and Mulching
Areas opened by construction operations, that are not anticipated to be dressed and receive final grassing treatment within thirty days, shall be seeded with a quick-growing grass species which will provide an early cover during the season in which it is planted, and will not later compete with permanent grassing. The rate of seeding shall be 30 pounds per acre. Slopes steeper than 4:1 shall receive mulching of approximately 2 inches loose measure of mulch material cut into the soil of the seeded area to a depth of four inches.

F. Temporary Grassing
As required by the City of St. Cloud, the seed or seeded and mulched area shall be rolled and watered to assure optimum growing conditions, for the establishment of a good grass cover.

G. Temporary Regrassing
If, after fourteen days, the temporary grassed areas have not attained a minimum of 75% good grass cover, the area will be reworked and additional seed applied sufficiently to establish the desired vegetative cover. 75% of good stand of grass must be established within 30 days of the initial treatment or area shall be sodded.

H. Maintenance
All features of the project designed and constructed to prevent erosion and sediment, shall be maintained during the project construction life, so as to function as they were originally designed and constructed. The contractor is responsible for keeping any temporary grass in a mowed condition.

Permanent Erosion Control
The erosion control facilities of the project shall be designed to minimize the impact of off-site facilities. All stormwater discharge from the project limits shall be routed through detention basins to trap suspended sediments, and discharge facilities from these basins shall be provided with a skimming device to trap floatable debris.
A copy of the site's FDEP NPDES permit shall be provided to the Public Works Department prior to a Notice to Proceed being issued.

A. Permanent Seeding
All areas which have been disturbed by construction shall, at a minimum, be fertilized and seeded in accordance with City of St. Cloud Road Construction Specification.

B. Permanent Seeding and Mulching
In addition to the minimum requirements above, slopes from 6:1 to 3:1, inclusive, will be mulched with a uniform thickness of approximately two inches, loose measure, of mulch material incorporated into the soil by mixing to a depth of four inches.

C. Permanent Sodding
All retention/detention basins shall be solid sodded. All exposed areas, including public rights-of-way, with slopes steeper than 4:1 shall be solid sodded.

D. Strip Sodding
Strip sod, 1 foot wide or greater, shall be placed adjacent to all curbs, walkways and pavement. In areas with a sidewalk, the entire area between the sidewalk and the back of curb, and/or pavement, shall be sodded.

E. Regrassing
All grassed areas will be maintained to assure a good stand and sufficient ground cover to minimize erosion. If, after 60 days, an adequate ground cover has not been established, the area with be regressed.

F. Additional Fertilizer
Grassed areas, not accepted within 90 days of their completion, shall be re-fertilized at an application rate of 250 lb. per acre.

G. Maintenance
Prior to the project being accepted by the City, the contractor is responsible for mowing the grass to remain in compliance with the City Code.

PUBLIC WORKS DEPARTMENT 1300 9th STREET ST. CLOUD, FL 34769 (407) 957-7344

ALL SURVEY DATA SHOWING PHYSICAL FEATURES WERE OBTAINED BY THE ENGINEER INCIDENTAL TO DESIGN AND NO LAND SURVEYING CERTIFICATION SHOULD BE IMPLIED

NOTES: ALL REFERENCES TO "EQUAL" OR "APPROVED EQUAL" PROVIDE AN OPPORTUNITY TO SUBSTITUTE MATERIALS. ALL PROPOSED SUBSTITUTIONS SHALL BE REVIEWED AND APPROVED BY THE CITY OF ST. CLOUD CITY MANAGER OR DESIGNEE BY SUBMITTING MANUFACTURER'S SPECIFICATIONS AND PRODUCT DATA SHEETS PRIOR TO CONSTRUCTION.

THIS DOCUMENT WILL BE CONSIDERED A COPY ONLY, UNLESS EMBOSSED BY A REGISTERED ENGINEERS SEAL

REVISIONS

DR:	CK:	DR:	CK:	DR:	CK:	DR:	CK:	DR:	CK:
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FILENAME: 01-GENERAL-NOTES
XREF'S:

DRAWING NUMBER: 2024-01-GN
SHEET 1 OF 3

St. Cloud FLORIDA

GENERAL NOTES

APPROVED BY
KEVIN FELBLINGER, P.E.
FL REG. No. 68532
DPWD/CITY ENGINEER
DATE

PSP25-00004

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PUFFIN ROAD COMMERCIAL

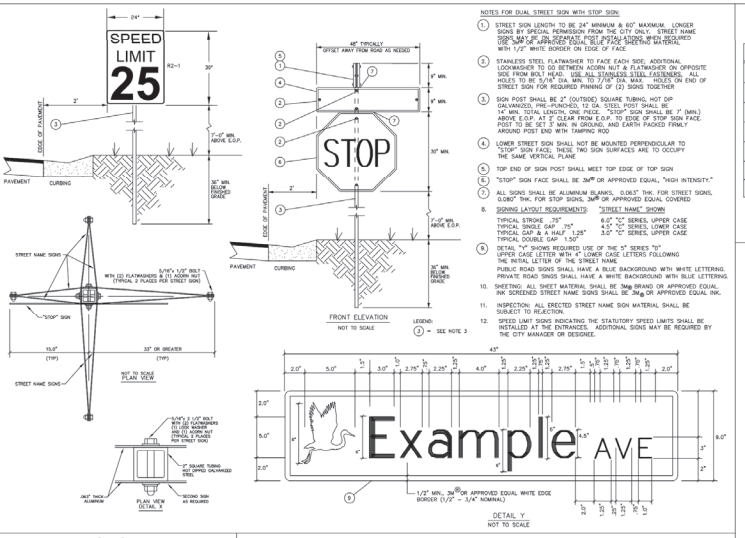
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SHEET Nº C-47 of C-50
JOB Nº 5450-05

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NOTES FOR DUAL STREET SIGN WITH STOP SIGN:

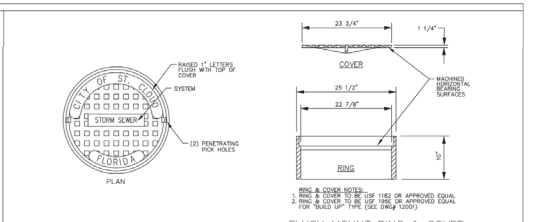
1. STREET SIGN LENGTH TO BE 24" MINIMUM & 60" MAXIMUM. LONGER SIGNS BY SPECIAL PERMISSION FROM THE CITY ONLY. STREET NAME SIGNS MAY BE ON SEPARATE POST INSTALLATIONS WHEN REQUIRED BY THE CITY MANAGER OR DESIGNEE. USE REFLECTIVE SHEETING MATERIAL WITH 1/2" WHITE BORDER ON EDGE OF FACE.
2. STAINLESS STEEL FLATWASHER TO FACE EACH SIDE, ADDITIONAL LOCKWASHER TO GO BETWEEN ACORN NUT & FLATWASHER ON OPPOSITE SIDE FROM BOLT HEAD. USE ALL STAINLESS STEEL FASTENERS. ALL HOLES TO BE 5/16" DIA. MIN. TO 7/16" DIA. MAX. HOLES ON END OF STREET SIGN FOR REQUIRED PINNING OF (2) SIGNS TOGETHER
3. SIGN POST SHALL BE 2" (OUTSIDE) SQUARE TUBING, HOT DIP GALVANIZED, PRE-PUNCHED, 12 GA. STEEL POST SHALL BE 14' MIN. TOTAL LENGTH, ONE PIECE. "STOP" SIGN SHALL BE 7' (MIN.) ABOVE E.O.P. AT 2' CLEAR FROM E.O.P. TO EDGE OF STOP SIGN FACE. POST TO BE SET 3' MIN. IN GROUND, AND EARTH PACKED FIRMLY AROUND POST END WITH TAMPING ROD
4. LOWER STREET SIGN SHALL NOT BE MOUNTED PERPENDICULAR TO "STOP" SIGN FACE; THESE TWO SIGN SURFACES ARE TO OCCUPY THE SAME VERTICAL PLANE
5. TOP END OF SIGN POST SHALL MEET TOP EDGE OF TOP SIGN
6. "STOP" SIGN FACE SHALL BE 3M OR APPROVED EQUAL, "HIGH INTENSITY."
7. ALL SIGNS SHALL BE ALUMINUM BLANKS, 0.063" THK. FOR STREET SIGNS, 0.080" THK. FOR STOP SIGNS. 3M OR APPROVED EQUAL COVERED
8. SIGNING LAYOUT REQUIREMENTS: "STREET NAME" SHOWN

TYPICAL STROKE .75"	6.0" "L" SERIES, UPPER CASE
TYPICAL SINGLE GAP .75"	4.5" "C" SERIES, LOWER CASE
TYPICAL GAP @ A HALF 1.25"	3.0" "C" SERIES, UPPER CASE
TYPICAL DOUBLE GAP 1.50"	

9. DETAIL "Y" SHOWS REQUIRED USE OF THE 5" SERIES "D" UPPER CASE LETTER WITH 4" LOWER CASE LETTERS FOLLOWING THE INITIAL LETTER OF THE STREET NAME.
   PUBLIC ROAD SIGNS SHALL HAVE A BLUE BACKGROUND WITH WHITE LETTERING. PRIVATE ROAD SINGS SHALL HAVE A WHITE BACKGROUND WITH BLUE LETTERING.
10. SHEETING: ALL SHEET MATERIAL SHALL BE 3M BRAND OR APPROVED EQUAL. INK SCREENED STREET NAME SIGNS SHALL BE 3M OR APPROVED EQUAL INK.
11. INSPECTION: ALL ERECTED STREET NAME SIGN MATERIAL SHALL BE SUBJECT TO INJECTION.
12. SPEED LIMIT SIGNS INDICATING THE STATUTORY SPEED LIMITS SHALL BE INSTALLED AT THE ENTRANCES. ADDITIONAL SIGNS MAY BE REQUIRED BY THE CITY MANAGER OR DESIGNEE.

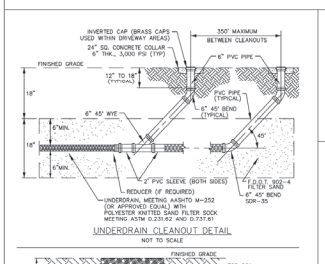
OFF STREET PARKING STALL REQUIREMENT TABLE

PARKING ANGLE	WIDTH OF STALL	DEPTH OF STALL	MINIMUM WIDTH OF TRAVELWAY	LENGTH OF CURB PER CAR
COMMERCIAL 0°	10'-0"	23'-0"	24'-0"	23'-0"
COMMERCIAL 45°	10'-0"	19'-10"	16'-0"	12'-9"
COMMERCIAL 60°	10'-0"	21'-0"	18'-0"	10'-5"
COMMERCIAL 90°	10'-0"	20'-0"	24'-0"	10'-0"
RESIDENTIAL	8'-0"	20'-0"	10'-0"	
ADA ACCESSIBLE PARKING	12'-0"	20'-0"	AS COMMERCIAL ABOVE	

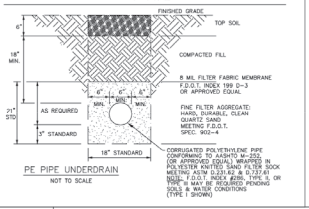


RING & COVER NOTES:
1. RING & COVER TO BE USF 1182 OR APPROVED EQUAL
2. RING & COVER TO BE USF 1906 OR APPROVED EQUAL FOR "SOLID UP" TYPE (SEE DWG# 12001)

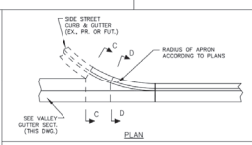
FLUSH MOUNT RING & COVER

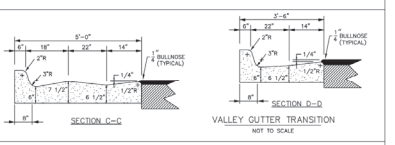


UNDERDRAIN CLEANOUT DETAIL
NOT TO SCALE

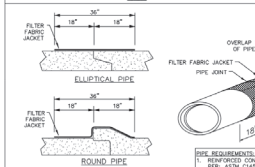


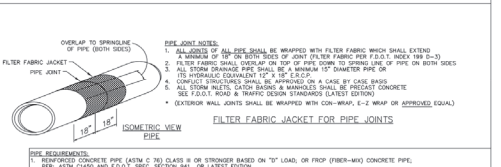
PE PIPE UNDERDRAIN
NOT TO SCALE





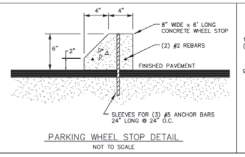
NOT TO SCALE



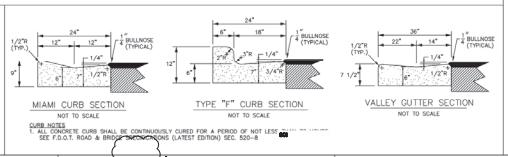


PIPE JOINT NOTES:
1. ALL JOINTS OF ALL PIPE SHALL BE WRAPPED WITH FILTER FABRIC WHICH SHALL EXTEND A MINIMUM OF 18" ON BOTH SIDES OF JOINT (FILTER FABRIC PER F.D.O.T. INDEX 199 D-3)
2. FILTER FABRIC SHALL OVERLAP ON TOP OF PIPE DOWN TO SPRING LINE OF PIPE ON BOTH SIDES
3. ALL STORM DRAINAGE PIPE SHALL BE A MINIMUM 15" DIAMETER PIPE OR ITS HYDRAULIC EQUIVALENT 12" X 18" E.R.C.P.
4. CONFLICT STRUCTURES SHALL BE APPROVED ON A CASE BY CASE BASIS
5. ALL STORM INLETS, CATCH BASINS & MANHOLES SHALL BE PRECAST CONCRETE SEE F.D.O.T. ROAD & TRAFFIC DESIGN STANDARDS (LATEST EDITION)
* (EXTERIOR WALL JOINTS SHALL BE WRAPPED WITH CON-WRAP, E-Z WRAP OR APPROVED EQUAL)

PIPE REQUIREMENTS:
1. REINFORCED CONCRETE PIPE (ASTM C 76) CLASS III OR STRONGER BASED ON "D" LOAD, OR FROP (FIBER-MIX) CONCRETE PIPE; PER: ASTM D1450 AND F.D.O.T. SPEC. SECTION 941, OR LATEST EDITION.
2. PRE-STRESSED CONCRETE PIPE (AWWA C301) SHALL BE APPROVED ON A CASE BY CASE BASIS
3. ALTERNATIVE PIPE MATERIALS MAY BE USED FOR PRIVATELY MAINTAINED STORMWATER SYSTEMS.



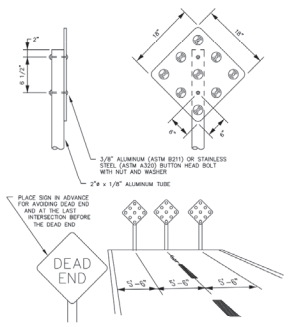
PARKING WHEEL STOP DETAIL
NOT TO SCALE

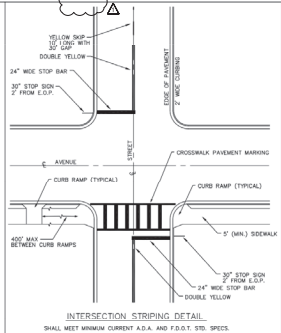


NOT TO SCALE

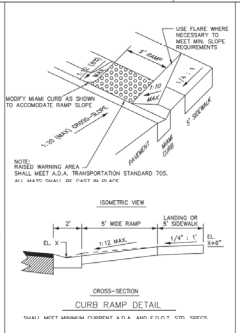
CURB NOTES
1. ALL CONCRETE CURB SHALL BE CONTINUOUSLY CURED FOR A PERIOD OF NOT LESS THAN 72 HOURS. SEE F.D.O.T. ROAD & BRIDGE SPECIFICATIONS (LATEST EDITION) SEC. 520-8

GENERAL NOTES:
1. ALL PAVEMENT MARKINGS AND TRAFFIC CONTROLS SHALL COMPLY WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (M.U.T.C.D.), LATEST EDITION AS PUBLISHED BY FEDERAL HIGHWAY ADMINISTRATION.
2. HANDICAP RAMPS SHALL COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT" OF 1992
3. ALL PAVING AND DRAINAGE STRUCTURES (INCLUDING CURBING) SHALL COMPLY WITH F.D.O.T. "STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION.
4. RECORDINGS FROM CLOSED CIRCUIT TELEVISION INSPECTIONS CONDUCTED BY A CONTRACT TV INSPECTOR EMPLOYED BY THE DEVELOPER SHALL BE PROVIDED TO THE CITY ON A DVD AND INCLUDE A WRITTEN REPORT CORRESPONDING TO THE DVD RESULTS. A POST CLOSED CIRCUIT TELEVISION INSPECTION SHALL BE REQUIRED BY THE DEVELOPER PRIOR TO THE EXPIRATION OF THE MAINTENANCE BOND.

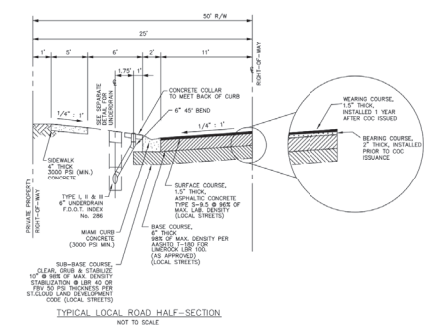




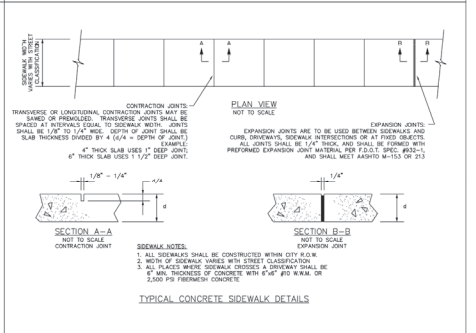
INTERSECTION STRIPING DETAIL
SHALL MEET MINIMUM CURRENT A.D.A. AND F.D.O.T. STD. SPECS.



SHALL MEET MINIMUM CURRENT A.D.A. AND F.D.O.T. STD. SPECS.



TYPICAL LOCAL ROAD HALF-SECTION
NOT TO SCALE



SIDEWALK NOTES:
1. ALL SIDEWALKS SHALL BE CONSTRUCTED WITHIN CITY R.O.W.
2. WIDTH OF SIDEWALK VARIES WITH STREET CLASSIFICATION
3. ALL PLACES WHERE SIDEWALK CROSSES A DRIVEWAY SHALL BE 6" MIN. THICKNESS OF CONCRETE WITH 6"x6" #10 W.W.M. OR 2,500 PSI FIBERMESH CONCRETE

TYPICAL CONCRETE SIDEWALK DETAILS

PUBLIC WORKS DEPARTMENT
1300 SIXTH STREET
ST. CLOUD, FLORIDA 34769
(407) 957-7344

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SCALE: NONE | APPROVED BY: | DATE:
FILENAME: 02-PAVING&STORMWATER
XREF'S:

DRAWING NUMBER: 2022-02-GN
SHEET 2 OF 3

PAVING AND STORMWATER NOTES

APPROVED BY
KEVIN FELBLINGER, P.E.
FL REG. No. 68532
DPW/DCITY ENGINEER
DATE

PSP25-00004

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CAD#	(see stamp)	DATE	11/13/25

SEC. 5 & 8
TWP. 26 S
RANGE 31 E

DATE | BY | REVISIONS

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PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
Hanson, Walter & Associates, Inc.

PUFFIN ROAD COMMERCIAL

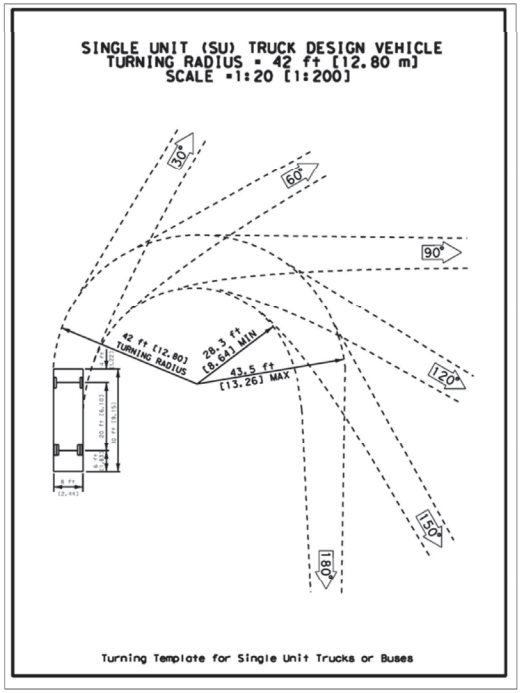
PAVING AND STORMWATER NOTES

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

SHEET Nº C-48 of C-50
JOB Nº 5450-05

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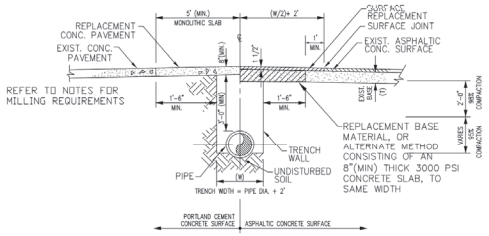


PARAMETERS:

1.	INSIDE CRAMP ANGLE	40 DEGREE
2.	AXLE TRACK	82.92 INCHES
3.	WHEEL OFFSET	5.3 INCHES
4.	TREAD WIDTH	17.5 INCHES
5.	CHASSIS OVERHANGE	78 INCHES
6.	ADDITIONAL BUMPER DEPTH	19 INCHES
7.	FRONT OVERHANG	136.1 INCHES
8.	WHEEL BASE	267.5 INCHES

CALCULATED TURN RADII:

1.	INSIDE TURN	25FT 5 INCHES
2.	CURB TO CURB	41 FEET 5 INCHES
3.	WALL TO WALL	48 FEET 3 INCHES



STANDARD ROADWAY OPEN CUT DETAIL

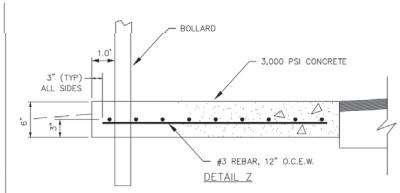
NTS

BEDDING AND TRENCHING NOTES:

1. TRENCH TO BE BACKFILLED WITH SUITABLE MATERIAL IN ONE (1) FOOT LIFTS AND COMPACTED TO 98% DENSITY (AASHTO-T-180).
2. FLOW-ABLE FILL CAN BE UTILIZED AS AN ALTERNATIVE. FLOW-ABLE FILL WILL BE 80 PSI WITH ASTM C-494, TYPE C ACCELERATOR TO OBTAIN A SETTING TIME OF 3-4 HOURS
3. FOLLOW THE LATEST EDITION OF FDOT STANDARDS FOR ROAD AND BRIDGE AND DESIGN STANDARDS
4. ALL EXCAVATIONS SHALL BE PERFORMED IN ACCORDANCE WITH O.S.H.A. TRENCH SAFETY REQUIREMENTS.
5. IF THE EXISTING PAVEMENT CONTAINS FC, THE MILLING DEPTH WILL BE INCREASED FOR THE FC THICKNESS.
6. OPEN CUTS IN ROADS NEWER THAN 5 YEARS, WILL REQUIRE THE CITY ENGINEERS APPROVAL. ALTERNATE REPAIR METHODS MAY APPLY.
7. MATCH EXISTING PAVEMENT MINIMUM OF 3" TYPE S ASPHALT.
8. MILL AND OVERLAY CONDITIONS SHALL BE PREPARED AS SPECIFIED WITHIN

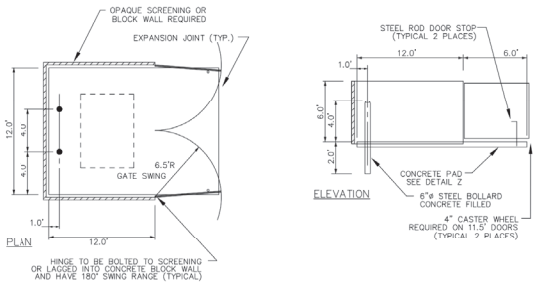
25 TO 45 MPH ----- 20FT EACH SIDE
45 TO 55 MPH ----- 50FT EACH SIDE
55 & > ---------- 100ft EACH SIDE

9. ALL STRIPPING, REFLECTORS OR OTHER MARKINGS OBLITERATED BY OVERLAYING SHALL BE RESTORED IN ACCORDANCE WITH F.D.O.T. STANDARDS PRIOR TO INITIAL ACCEPTANCE BY THE CITY OF ST. CLOUD



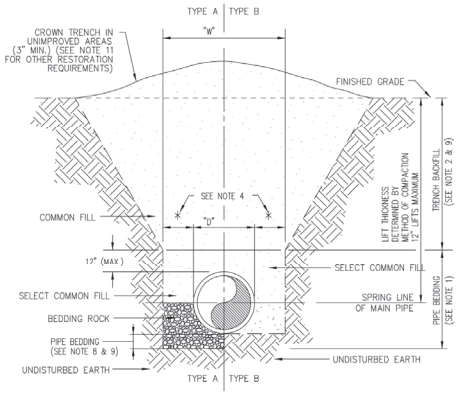
SINGLE DUMPSTER PAD DETAIL

NTS



DUMPSTER PAD NOTES:

1. FOR MULTIPLE DUMPSTERS ON A SINGLE PAD, SCREENING SHALL BE REQUIRED AROUND THE PERIMETER OF THE PAD.
2. DUMPSTER PADS WITH MULTIPLE DUMPSTER WILL BE APPROVED ON A CASE BY CASE BASIS.
2. DUMPSTER ENCLOSURES SHALL HAVE A MINIMUM INSIDE DIMENSION OF 12'X12' MEASURED FROM INTERIOR WALL TO INTERIOR WALL.



BEDDING AND TRENCHING DETAIL

NTS

BEDDING & TRENCHING NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180. COMPACTION SHALL BE 98% WITHIN 2' OF FINISHED ELEVATION UNDER ALL ROADWAYS, AND TO 2 LF BEHIND CONCRETE CURBS OR THE EDGE OF PAVEMENT.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180. COMPACTION SHALL BE 98% WITHIN 2' OF FINISHED ELEVATION UNDER ALL ROADWAYS, AND TO 2 LF BEHIND CONCRETE CURBS OR THE EDGE OF PAVEMENT.
3. USE 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. ALL NECESSARY MEASURES SHALL BE TAKEN TO KEEP THE TRENCH AS DRY AS POSSIBLE DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. REFER TO LAND DEVELOPMENT CODE FOR SHEETING AND BRACING IN EXCAVATIONS. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING, IF REQUIRED BY THE CITY.
8. GRAVITY SEWERS SHALL UTILIZE A 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.
9. THE CITY ENGINEER MAY APPROVE ALTERNATE METHODS OF TRENCH BACKFILL COMPACTION ON A CASE BY CASE SITUATION.
10. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. THE CITY SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.
11. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN THE CITY OF ST. CLOUD RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

PUBLIC WORKS DEPARTMENT 1300 9th ST. ST. CLOUD, FL 34769 (407) 957-7544

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XREF'S:

DRAWING NUMBER: 2024-03-GN
SHEET 3 OF 3

St. Cloud FLORIDA

SOLID WASTE AND STREETS NOTES

APPROVED BY
KEVIN FELBLINGER, P.E.
FL REG. No. 68532
DPW/CITY ENGINEER
DATE

PSP25-00004

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PHONE: (407) 847-9433
ENGINEERING FAX: (321) 442-1045 SURVEY FAX: (407) 847-2499
ENG. CERT. OF AUTHOR. No. 3265/SUR. CERT. OF AUTHOR. No. 3270
ENGINEERING, SURVEYING AND PLANNING
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PUFFIN ROAD COMMERCIAL

SOLID WASTE AND STREETS NOTES

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SHEET Nº C-49 of C-50

JOB Nº 5450-05

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GENERAL CONSTRUCTION NOTES:

1. 1. ALL ELEVATIONS REFER TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29) OR NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS SHOWN ON THE COVER SHEET.
2. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL NOTIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL CHECK THE PLANS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.
4. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES. IN ORDER TO PERMIT MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION, CALL "SUNSHINE" AT 1-800-432-4770. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES NOT ONLY THOSE INCLUDED IN THE "SUNSHINE" PROGRAM.
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 PREFORMED BY THE CONTRACTOR.
6. ALL UNDERGROUND UTILITIES MUST BE IN PLACE AND TESTED OR INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION.
8. ALL SPECIFICATIONS AND DOCUMENTS REFERRED TO SHALL BE OF LATEST REVISIONS AND/OR LATEST EDITION.
9. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE GOVERNING MUNICIPALITY COUNTY, THE UTILITY PROVIDED, THE CITY, FDOT AND WATER MANAGEMENT DISTRICT AS APPLICABLE BY JURISDICTION.
10. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE OWNER'S ENGINEER, SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS, WHICH ARE FOR THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. ALL SHOP DRAWINGS ARE TO BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER'S ENGINEER.
11. AT LEAST FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND APPROPRIATE AGENCIES AND SUPPLY THEM WITH ALL REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE AND OTHER INFORMATION AS REQUIRED. ANY WORK PERFORMED PRIOR TO NOTIFYING THE ENGINEER, OR WITHOUT AGENCY INSPECTORS PRESENT, MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
12. WORK PREFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY, WITH OTHER CONTRACTORS AND UTILITY COMPANIES.
13. BACKFILL MATERIAL SHALL BE SOLIDLY TAMPED AROUND PIPES IN 6" LAYERS UP TO A LEVEL OF AT LEAST ONE FOOT ABOVE THE TOP OF THE PIPE. IN AREAS TO BE PAVED, BACKFILL SHALL BE COMPACTED TO 100% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
14. SITE WORK CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 3,000 P.S.I. IN 28 DAYS, UNLESS OTHERWISE NOTED.
15. REINFORCING SHALL BE BILLET STEEL BARS CONFORMING TO ASTM A615 GRADE OR BETTER.
16. ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION IS TO BE ALLOWED.
17. ALL DISTURBED AREAS WHICH ARE NOT TO BE SODDED, ARE TO BE SEEDED AND MULCHED TO DOT STANDARDS AND MAINTAINED UNTIL A SATISFACTORY STAND OF GRASS ACCEPTABLE TO THE REGULATORY AGENCY AND ENGINEER OF RECORD, HAVE BEEN OBTAINED. ANY WASHOUT, REGRADING, RESEEDING AND GRASSING WORK, AND OTHER EROSION WORK REQUIRED WILL BE PERFORMED BY THE CONTRACTOR, UNTIL THE SYSTEM IS ACCEPTED FOR MAINTENANCE BY THE REGULATORY AGENCY AND ENGINEER OF RECORD.
18. CHAPTER 77-153 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING. MAPS SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS AND DO NOT SHOW SERVICE LINES. THE ONLY SAFE AND PROPER WAY TO LOCATE EITHER MAINS OR SERVICE LINES IS BY AN ON-SITE INSPECTION BY THE RESPECTIVE GAS PERSONNEL. THEREFORE, EXCAVATORS ARE INSTRUCTED TO NOTIFY THE RESPECTIVE GAS COMPANY TWO (2) WORKING DAYS BEFORE BEGINNING CONSTRUCTION AREA.
19. THE CONTRACTOR SHALL LOCATE AND FLAG ALL PROPERTY CORNERS PRIOR TO FINAL ENGINEERING INSPECTION AND CERTIFICATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE PROPERTY CORNERS, WHICH HAVE BEEN LOST DURING CONSTRUCTION, RE-ESTABLISHED BY A PROFESSIONAL LAND SURVEYOR.
20. THE CONTRACTOR IS TO REVIEW THE SOIL REPORTS AND BORINGS PRIOR TO BIDDING THE PROJECT AND COMMENCING CONSTRUCTION.
21. THE IRRIGATION SYSTEM SHALL HAVE COLOR CODED PIPING AND LABELING ON THE PIPE TO INSURE DIFFERENTIATION FROM POTABLE WATER PIPING.
22. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLANS AND PERMITS AT THE CONSTRUCTION SITE.
23. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS FOR CONSTRUCTION SITE SAFETY.
24. ALL SODDING, SEEDING AND MULCHING SHALL INCLUDE WATERING AND FERTILIZATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE AREAS UNTIL THE PROJECT IS COMPLETED AND ACCEPTED BY THE OWNER.
25. THE PERMITTEE SHALL BE SEPARATELY RESPONSIBLE FOR APPROPRIATE CONSTRUCTION, DISINFECTION AND TESTING BEYOND THE METER TO ASSURE POTABILITY AT THE POINT OF USE.
26. POTABLE WATER PIPES WILL BE DISINFECTED IN ACCORDANCE WITH AWWA SPECIFICATIONS C651.
27. POTABLE WATER PIPES WILL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH SPECIFICATION NUMBERS C600 AND C605/M23 FOR DUCTILE IRON AND PVC PIPES, RESPECTIVELY.
28. ALL BUFFER WALL ELEVATIONS MUST COMPLY TO LAND DEVELOPMENT CODE 10.9.8.A.P. BUFFER WALL SHALL BE A MINIMUM OF 6' IN HEIGHT AS MEASURED FROM THE BASE FLOOR ELEVATION OF THE MOST ADJACENT BUILDING, ROAD OR PROPERTY, WHICHEVER IS GREATER.
29. ALL SIGNAGE IS FOR INFORMATIONAL PURPOSES ONLY. ALL SIGNAGE REQUIRES A SEPARATE BUILDING PERMIT SUBMITTAL WITH COUNTY STAMPED APPROVED EP SITE AND DRAINAGE SHEET.
30. CONTRACTOR SHALL COORDINATE ALL UTILITY AND DRAINAGE CONNECTIONS TO AND FROM BUILDINGS WITH THE ARCHITECT AND MECHANICAL ENGINEER.
31. TRASH COMPACTOR, IF SHOWN, AND THE ACCOMPANYING DETAILS ARE SHOWN FOR REFERENCE ONLY. STRUCTURAL DESIGN SHALL BE BY OTHERS.

CLEARING AND EROSION CONTROL NOTES:

1. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN ON THE CONSTRUCTION PLANS SHALL BE PROTECTED IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY'S TREE ORDINANCE AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREES SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER.
2. THE CONTRACTOR IS TO PREPARE THE SITE PRIOR TO BEGINNING ACTUAL CONSTRUCTION IN ACCORDANCE WITH THE SOILS TESTING REPORT. COPIES OF THE SOILS REPORT ARE AVAILABLE THROUGH THE OWNER OR THE SOILS TESTING COMPANY. QUESTIONS REGARDING THE PREPARATION REQUIREMENTS DESCRIBED IN THE SOILS REPORT ARE TO BE DIRECTED TO THE SOILS TESTING COMPANY.
3. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.
4. THE TOP 6" TO 8" OF GROUND REMOVED DURING CLEARING AND GRUBBING SHALL BE STOCKPILED AT A SITE DESIGNATED BY THE OWNER TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER.
5. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS. ONLY "GRADING BY HAND" IS PERMITTED WITHIN THE CANOPY LINE OF TREES THAT ARE TO REMAIN.
6. THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS FOR REMOVING ANY EXISTING STRUCTURES.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE.
8. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAS BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND IS GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE COUNTY AND THE ENGINEER TO MAKE THE NECESSARY ARRANGEMENTS FOR THE FIELD LOCATIONS OF FACILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES, AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
9. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAKING A VISUAL INSPECTION OF THE SITE AND WILL BE RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL UNDERGROUND AND ABOVE GROUND STRUCTURES THAT WILL NOT BE INCORPORATED WITH THE NEW FACILITIES. SHOULD ANY DISCREPANCIES EXIST WITH THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING THE OWNER AND REQUESTING A CLARIFICATION OF THE PLANS PRIOR TO DEMOLITION.
10. DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOIL STRIPS, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
11. ALL EROSION AND SILTATION CONTROL METHODS SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETED.
12. WHEN CONSTRUCTION IS COMPLETED, THE RETENTION/DETENTION AREAS WILL BE RESHAPED, CLEANED OF SILT, MUD AND DEBRIS AND RE-SODDED IN ACCORDANCE TO THE PLANS.
13. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAINS) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS, WATERWAYS AND EXISTING WETLANDS. IN ADDITION, THE CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON THE GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR THE COUNTY/STATE, EXCESSIVE QUANTITIES OF EARTH ARE TRANSFERRED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO CLEAN AND RESTORE THE AREA TO THE SATISFACTION OF THE ENGINEER AND/OR THE JURISDICTIONAL AGENCY.
14. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION OR OTHER ACCEPTABLE METHODS.
15. THERE IS TO BE NO DISCHARGE (I.E. PUMPING, SHEET FLOW, SWALE, DITCH, ETC.) INTO EXISTING LAKE SYSTEM, WETLAND, OR RIVER WITHOUT THE PRIOR APPROVAL OF SETTLING POND(S). THE CONTRACTOR DESIRES TO DISCHARGE INTO THE EXISTING LAKE SYSTEM OR RIVER, A SETTLING POND PLAN MUST BE SUBMITTED AND APPROVED BY THE ENGINEER OF RECORD, COUNTY AND THE MANAGEMENT DISTRICT PRIOR TO CONSTRUCTION.
16. THE SURFACE AREA OF OPEN, RAW, ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS, SHALL NOT EXCEED TEN (10) ACRES WITHOUT WRITTEN AUTHORIZATION FROM THE COUNTY/CITY ENGINEER.

PAVING, GRADING AND DRAINAGE NOTES:

1. ALL DELETERIOUS SUBSTANCE MATERIAL (e.g. MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS OR AS DIRECTED BY THE OWNER'S ENGINEER OR OWNER'S SOIL TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED. DEWATERING SHALL BE USED AS REQUIRED.
3. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. THE CONTRACTOR IS TO COORDINATE WITH OWNER'S ENGINEER PRIOR TO ANY ELEVATION CHANGES.
4. PRIOR TO CONSTRUCTING CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE OWNER'S ENGINEER FOR APPROVAL.
5. THE CONTRACTOR IS TO PROVIDE A 1/2" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER, AT ABUTMENT OF CONCRETE AND ANY STRUCTURE.
6. ALL PAVEMENT MARKINGS SHALL BE MADE WITH PERMANENT THERMOPLASTIC AND SHALL CONFORM TO FDOT INDEX 711-001. PARKING STALL STRIPING TO BE 4" WIDE PAINTED WHITE STRIPES.
7. THE CONTRACTOR IS TO INSTALL EXTRA BASE MATERIAL WHEN THE DISTANCE BETWEEN THE PAVEMENT ELEVATION AND THE TOP OF THE PIPE OR BELL IS LESS THAN TWELVE (12) INCHES. SEE "EXTRA BASE FOR CROSS CULVERTS UNDER FLEXIBLE PAVEMENT DETAIL".
8. STANDARD INDEXES REFER TO THE LATEST EDITION OF FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS".
9. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS III (ASTM C-76) OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL DRAINAGE PIPE JOINTS SHALL BE WRAPPED IN FILTER FABRIC WRAP FOR FDOT INDEX 430-001.
10. PVC STORM PIPE (12" AND SMALLER) SHALL CONFORM TO AWWA C900, CLASS 150 STANDARDS UNLESS OTHERWISE NOTED.
11. PIPE LENGTHS SHOWN ARE APPROXIMATE AND TO THE CENTER OF DRAINAGE STRUCTURES. PIPE LENGTH FOR MITERED END AND FLARED END SECTIONS ARE TO END OF PIPE.
12. ALL DRAINAGE STRUCTURE GRATES AND COVERS WITHIN TRAFFIC AREAS SHALL BE TRAFFIC RATED FOR H-20 LOADINGS.
13. THE CONTRACTOR IS TO SOD THE RETENTION/DETENTION POND AS INDICATED ON PLANS WITHIN ONE-WEEK FOLLOWING CONSTRUCTION OF THE POND.
14. MATERIALS AND CONSTRUCTION METHODS FOR STREETS AND STORM DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE COUNTY ROADWAY SPECIFICATIONS, LATEST EDITION AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST REVISION THEREOF AND SUPPLEMENTAL SPECIFICATIONS THERETO.
15. UNDERCUTTING AND/OR OVER EXCAVATING THE RETENTION/DETENTION AREAS WILL NOT BE ALLOWED.
16. THE CONTRACTOR SHALL PROVIDE CERTIFIED RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR. THE RECORD DRAWINGS SHALL SHOW FINAL GRADES, INVERTS AND LOCATIONS OF ALL STORMWATER FACILITIES INCLUDING THE STORMWATER POND, DRAINAGE STRUCTURES, BERMS & SWALES. THE CONTRACTOR SHALL PROVIDE TEN COPIES OF THE CERTIFIED RECORD DRAWINGS TO THE ENGINEER FOR THE PURPOSE OF CERTIFYING THE STORMWATER MANAGEMENT SYSTEM.

PAVING, GRADING & DRAINAGE TESTING AND INSPECTION REQUIREMENTS:

1. THE STORM DRAINAGE PIPING AND FILTRATION SYSTEM SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. THE CONTRACTOR IS TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE AN INSPECTION.
2. THE CONTRACTOR SHALL MAINTAIN THE STORM DRAINAGE SYSTEMS UNTIL FINAL ACCEPTANCE OF THE PROJECT.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL OF THE APPLICABLE TESTING WITH THE SOILS ENGINEER.
4. THE SOILS ENGINEER IS TO SUPPLY THE ENGINEER WITH A PHOTOCOPY OF ALL COMPACTION TESTS AND ASPHALT RESULTS. THE SOILS ENGINEER IS TO CERTIFY TO THE ENGINEER OF RECORD, IN WRITING, THAT ALL TESTING REQUIREMENTS REQUIRED BY THE COUNTY, THE UTILITY PROVIDER, THE WATER MANAGEMENT DISTRICT AND ANY OTHER AGENCY REQUIRING SUCH TESTS FOR THE IMPROVEMENTS.

2025 – TOHOPEKALIGA WATER AUTHORITY STANDARD CONSTRUCTION NOTES

GENERAL:

1. WHERE CONFLICTS ARISE BETWEEN THE TOHO ACCEPTED PLANS, TOHO STANDARDS & SPECIFICATIONS MANUAL, TOHO STANDARD DETAILS, BEST PRACTICES, OR OTHER APPLICABLE GOVERNMENT OR INDUSTRY STANDARDS, THE DEVELOPER OR THEIR ASSIGNED REPRESENTATIVE SHALL REQUEST IN WRITING A FIELD CLARIFICATION FROM TOHO PRIOR TO PROCEED.
2. REFERENCE TOHO'S STANDARDS, SPECIFICATIONS AND DETAILS, LATEST EDITION FOR ISSUES NOT SPECIFICALLY ADDRESSED BELOW OR ON THE TOHO ACCEPTED PLANS.
3. UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH TOHO ACCEPTED PLANS AND SHOP DRAWINGS. ANY DEVIATION FROM THE TOHO ACCEPTED PLANS MUST BE COORDINATED THROUGH THE DEVELOPER'S ENGINEER AND APPROVED BY TOHO.
4. A PRECONSTRUCTION MEETING WITH THE TOHO'S STAFF IS REQUIRED PRIOR TO INITIATING CONSTRUCTION.
5. ALL REQUIRED PERMITS INCLUDING BUT NOT LIMITED TO FDEP WATER AND WASTEWATER PERMITS, RIGHT-OF- WAY UTILIZATION PERMIT(S), DEWATERING, ENVIRONMENTAL AND TEMPORARY CONSTRUCTION EASEMENT(S) SHALL BE OBTAINED PRIOR TO INITIATING CONSTRUCTION

PERMITS, PLANS, SHOP DRAWINGS:

1. FDEP WATER AND WASTEWATER PERMITS OR LETTERS OF DETERMINATION SHALL BE OBTAINED FOR THE POTABLE WATER DISTRIBUTION AND SANITARY SEWER COLLECTION SYSTEM PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. SHOP DRAWINGS FOR ALL WATER, REUSE, AND SANITARY SEWER MATERIALS AND STRUCTURES SHALL BE SUBMITTED TO TOHO PRIOR TO INITIATING CONSTRUCTION.
3. INSTALLATION OF MATERIALS AND/OR STRUCTURES PRIOR TO TOHO SHOP DRAWING APPROVAL IS DONE AT THE CONTRACTOR'S OWN RISK. ANY MATERIAL OR STRUCTURE FOUND TO BE OUT OF TOHO COMPLIANCE BY TOHO STANDARDS SHALL BE REMOVED AT THE EXPENSE OF THE CONTRACTOR.
4. A COMPLETE SET OF TOHO ACCEPTED PLANS SHALL BE ALWAYS PRESENT ON THE SITE. PLANS ARE VALID FOR 12 MONTHS FROM THE DATE OF PLAN ACCEPTANCE BY TOHO. IF CONSTRUCTION DOES NOT BEGIN WITHIN THIS 12-MONTH PERIOD, THE DEVELOPER MUST CONTACT TOHO FOR A PROJECT STATUS REVIEW AND POSSIBLE APPROVAL FOR EXTENSION.
5. ONE HARD COPY AND ONE ELECTRONIC COPY OF PROJECT RECORD DRAWINGS SHALL BE SUBMITTED TO TOHO BEFORE THE PRE-FINAL INSPECTION. RECORD DRAWINGS SHALL CONFORM TO SECTIONS 11.6 OF TOHO'S STANDARDS, SPECIFICATIONS AND DETAILS, LATEST EDITION.

POTABLE WATER AND REUSE WATER – TESTING:

1. POTABLE WATER LINES SHALL BE INSTALLED, CLEANED, FLUSHED, DISINFECTED AND BACTERIOLOGICALLY TESTED AND CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND FDEP RULES AND REGULATIONS.
a. DISINFECTION AND BACTERIOLOGICAL SAMPLING SHALL BE DONE BY AN ACCREDITED CONTRACTOR AND/OR LAB AND WITNESSED BY TOHO.
2. ALL POTABLE WATER AND REUSE WATER DISTRIBUTION SYSTEMS SHALL BE FLUSHED CLEAN OF ALL DELETERIOUS MATERIAL PRIOR TO ANY TESTING. MAINS 4" AND LARGER SHALL BE PIGGED AND MAINS AND SERVICES SMALLER THAN 4" SHALL BE FLUSHED. ALL PIGGING AND FLUSHING SHALL BE THROUGH A METERED SOURCE OF POTABLE WATER PREVIOUSLY CLEARED FOR USE BY FDEP AND TOHO.
3. POTABLE WATER AND REUSE WATER LINES SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA–C600 (DUCTILE IRON PIPE) AND AWWA–C605/M23 (PVC PIPE) SPECIFICATIONS AT 150 PSI AND WITNESSED BY TOHO PERSONNEL. NO LEAKAGE SHALL BE ALLOWED.
4. ALL TAPPING SADDLES AND SLEEVES SHALL BE PRESSURE TESTED AT 150 PSI AND WITNESSED BY TOHO PERSONNEL PRIOR TO INITIATING THE TAP. THE TAPPING VALVE OR CORPORATION STOP SHALL BE TESTED WITH THE SADDLE OR SLEEVE.

POTABLE WATER AND REUSE WATER– MATERIALS:

1. PVC PIPE (4) INCHES THROUGH THIRTY–SIX (36) INCHES SHALL BE AWWA C–900/905, LATEST EDITION.
2. DIP PIPE FOUR (4) THROUGH FIFTY–FOUR (54) SHALL BE ANSI/AWWA A21.51/C151 WITH A MINIMUM WORKING PRESSURE CLASS 150 PIPE.
a. ANY FITTINGS REQUIRED SHALL BE MECHANICAL JOINT DUCTILE IRON CONFORMING TO ANSI/AWWA A21.10/C110, 250 PSI MINIMUM PRESSURE RATING, OR DUCTILE IRON COMPACT FITTINGS IN ACCORDANCE WITH ANSI/AWWA A21.53/C153.
b. JOINTS FOR DUCTILE IRON PIPE SHALL BE PUSH–ON OR MECHANICAL JOINTS CONFORMING TO ANSI/AWWA A21.11/C111. ABOVE GROUND JOINTS SHALL BE FLANGED WITH STAINLESS STEEL BOLTS, NUTS AND WASHERS. FLANGED JOINTS SHALL CONFORM TO ANSI STANDARD B 16.1–125 LB.
c. WHERE DUCTILE IRON PIPE AND FITTINGS ARE TO BE BELOW GROUND OR INSTALLED IN A CASING PIPE THE EXTERIOR COATING SHALL BE A MINIMUM 1.0 MIL THICK IN ACCORDANCE WITH ANSI/AWWA A21.51/C151.
d. WHERE DUCTILE IRON PIPE AND FITTINGS ARE TO BE INSTALLED ABOVE GROUND, PIPE, FITTINGS, AND VALVES SHALL BE THOROUGHLY CLEANED AND GIVEN ONE EXTERIOR FIELD COAT (MINIMUM 1.5 MILS DRY THICKNESS) OF RUST INHIBITOR PRIMER, AND TWO FINISH COATS (MINIMUM 1.5 MILS DRY THICKNESS EACH).
e. ALL DUCTILE IRON PIPE AND FITTINGS SHALL HAVE AN INTERIOR PROTECTIVE LINING OF CEMENT–MORTAR WITH A SEAL COAT OF ASPHALTIC MATERIAL IN ACCORDANCE WITH ANSI/AWWA A21.4/C104.
f. PIPE SHALL BE POLYETHYLENE ENCASED (8 MIL) WHERE SHOWN ON THE TOHO ACCEPTED PLANS AND IN ACCORDANCE WITH ANSI/AWWA A21.5/C105.
3. POLYETHYLENE PIPE FOUR (4) THROUGH TWELVE (12) SHALL BE AWWA STANDARD C906, PE3408 LATEST EDITION. THE POLYETHYLENE PIPE SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 160 PSI AND SHALL HAVE A STANDARD DIMENSION RATIO (SDR) OF 11. PIPE SHALL BE THE SAME ID AS DUCTILE IRON PIPE.
a. POLYETHYLENE PIPE SHALL HAVE FUSION BONDED JOINTS.
b. FITTINGS USED WITH POLYETHYLENE PIPE SHALL BE FABRICATED FUSION FITTINGS IN ACCORDANCE WITH AWWA STANDARD C906.
3. POLYETHYLENE PIPE THREE–QUARTER (¾) THROUGH TWO (2) SHALL BE AWWA STANDARD C901, PE3608, BLUE FOR POTABLE WATER AND PURPLE FOR REUSE WATER. THE POLYETHYLENE PIPE SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 160 PSI AND SHALL HAVE A STANDARD DIMENSION RATIO (SDR) OF 9 (PC200). 4" AND LARGER SERVICE PIPE SHALL BE C–900 PVC OR DIP.
4. 3" SERVICE LINES SHALL NOT BE PERMITTED.
5. VALVES SHALL BE RESILIENT WEDGE GATE VALVES.
6. VALVES SHALL BE LOCATED AT NOT MORE THAN 500–FOOT INTERVALS IN COMMERCIAL, INDUSTRIAL AND HIGH– DENSITY RESIDENTIAL AREAS AND AT NOT MORE THAN 1000–FOOT INTERVALS IN ALL OTHER AREAS. APPROPRIATE VALVING SHALL ALSO BE PROVIDED ON ALL SIDES OF TEES AND CROSSES AND ON BOTH SIDES OF A DIRECTIONAL MORE OR LESS AND BEND.
7. ALL METERS 2" AND SMALLER SHALL BE INSTALLED BY TOHO AFTER ALL PAYMENT OF APPLICABLE FEES AND CHARGES. ALL METERS 2" AND LESS IN SIZE SHALL BE INSTALLED UNDERGROUND IN AN APPROVED METER BOX.
8. METERS LARGER THAN 2" SHALL BE INSTALLED ABOVE GROUND AND ARE THE RESPONSIBILITY OF THE DEVELOPER. IN GENERAL, METERS 3" AND LARGER SHALL BE LOCATED IN A METER EASEMENT LOCATED ADJACENT TO THE PUBLIC RIGHT OF WAY AND OUTSIDE OF PAVED AREAS OR AS SHOWN ON THE TOHO ACCEPTED PLANS.

GRAVITY SEWER – TESTING:

1. PRIOR TO ANY TESTING, PASSING SOIL DENSITY TESTS AND SLOPE SURVEYS SHALL BE SUBMITTED TO TOHO.
2. ALL SANITARY MANHOLES SHALL BE INSPECTED BY TOHO PERSONNEL PRIOR TO INSTALLING IN GROUND AND PRIOR TO BACKFILLING ONCE INSTALLED.
3. SANITARY SEWERS SHALL BE VIDEO INSPECTED AND WITNESSED BY TOHO PERSONNEL IN ACCORDANCE WITH THE TOHO'S STANDARDS, SPECIFICATIONS AND DETAILS, LATEST EDITION.
4. SANITARY SEWERS SHALL BE LOW PRESSURE AIR TESTED WITH NO ALLOWABLE LOSS AND WITNESSED BY TOHO PERSONNEL.
5. GRAVITY SANITARY SEWER MAINS SHALL REQUIRE A MANDREL TEST WHICH SHALL BE WITNESSED BY THE TOHO INSPECTOR IN ACCORDANCE WITH THE TOHO'S STANDARDS, SPECIFICATIONS AND DETAILS, LATEST EDITION.

GRAVITY SEWER – MATERIALS:

1. PVC PIPE EIGHT (8) THROUGH TWELVE (12) SHALL BE ASTM D3034, SDR 35. THE JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477/ APPLICABLE UNI–BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI B–6.
2. PVC PIPE FIFTEEN (14) THROUGH THIRTY–SEVEN (27) SHALL BE ASTM F679, SDR 35. THE JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477/ APPLICABLE UNI–BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI B–7.
3. ALL PVC PIPE SHALL BEAR THE NSF–DR SEAL. THE MINIMUM STANDARD LENGTH OF PIPE SHALL BE THIRTEEN (13) FEET. PVC PIPE WITH LESS THAN 15 FT OF COVER SHALL BE SDR 35. WHERE PERMITTED BY TOHO, PVC PIPE WIT

PLANT SCHEDULE
INTERIOR AND VUA PLANTINGS

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPECIFICATION	SPACING
LARGE TREES							
	AR	15	ACER RUBRUM	FLORIDA RED MAPLE	65 GAL. / 3" CAL.	8-10' HT. X 4-5' SP.	AS SHOWN
	IC	3	ILEX CASSINE	DAHOON HOLLY	65 GAL. / 3" CAL.	8-10' HT. X 4-5' SP.	AS SHOWN
	MG2	31	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	65 GAL. / 3" CAL.	12-14' HT. X 5-6' SP.	AS SHOWN
	PED	19	PINUS ELLIOTTII VAR. DENSA	DENSA SLASH PINE	65 GAL. / 3" CAL.	12-14' HT. X 5-6' SP.	AS SHOWN
	QVH	24	QUERCUS VIRGINIANA `HIGH RISE`	HIGH RISE LIVE OAK	65 GAL. / 3" CAL.	12-14' HT. X 5-6' SP.	AS SHOWN
MEDIUM TREES							
	CE	35	CONOCARPUS ERECTUS	BUTTONWOOD	30 GAL. / 2" CAL.	6-8' HT. X 4-5' SP.	AS SHOWN
	IL	33	ILEX X ATTENUATA 'SAVANNAH'	SAVANNAH HOLLY	45 GAL. / 2.5" CAL.	12-15' HT. X 6-8' W.	AS SHOWN
	UA	27	ULMUS ALATA	WINGED ELM	30 GAL. / 2" CAL.	6-6' HT. X 3.5-5' SP.	AS SHOWN

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	SPECIFICATION	SPACING
SHRUBS							
	HP	80	HAMELIA PATENS 'FIREFLY'	FIREFLY DWARF FIREBUSH	3 GAL.	14-16" HT. X 14-16" SP.	AS SHOWN
	IVN	70	ILEX VOMITORIA `NANA`	DWARF YAUPON	3 GAL.	18-21" HT. X 12-15" SP.	AS SHOWN
	MFS	116	MYRCIANTHES FRAGRANS	SIMPSON'S STOPPER	3 GAL.	12-14" HT. X 8-10" SP.	AS SHOWN
GROUND COVERS							
	COR	4,388	COREOPSIS LANCEOLATA	LANCELEAF TICKSEED	1 GAL.	4-6" HT. X 6-8" SP.	30" O/C

PLANT SCHEDULE
STREET TREES

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPECIFICATION	SPACING
LARGE TREES							
	AR	43	ACER RUBRUM	FLORIDA RED MAPLE	65 GAL. / 3" CAL.	8-10' HT. X 4-5' SP.	AS SHOWN

GENERAL LANDSCAPE PLAN NOTES:

1. NEVER PRUNE OR SHEAR ANY TREES, SHRUBS OR GROUNDCOVERS.
2. USE BAHIA SOD, PASPALUM NOTATUM 'ARGENTINE. CONTRACTOR TO VERIFY SOD QUANTITIES.
3. CONTRACTOR TO COORDINATE WITH LANDSCAPE ARCHITECT (321) 338-4781. ALL PLANTINGS MUST BE LAID OUT IN FIELD AND APPROVED PRIOR TO PLANTING.
4. IF THERE IS A DISCREPANCY BETWEEN PLANTS ON THE PLAN(S) AND PLANTS IN THE PLANT SCHEDULE, THE PLANT SCHEDULE WILL PREVAIL.
5. CONTRACTOR IS TO CHECK AND VERIFY ALL LEVELS, DATUMS AND DIMENSIONS ON SITE AND SHALL REPORT ANY DISCREPANCIES OR OMISSIONS TO THIS OFFICE PRIOR TO START OF WORK & DURING THE CONSTRUCTION PHASE.
6. THIS DRAWING IS TO BE READ AND UNDERSTOOD IN CONJUNCTION WITH STRUCTURAL, MECHANICAL, ELECTRICAL, CIVIL, ARCHITECTURAL AND / OR ANY OTHER CONSULTANT/S DOCUMENTATION AS MAY BE APPLICABLE TO THE PROJECT PRIOR TO START OF WORK & IT'S DURATION.
7. THE DRAWINGS CONTAINED HEREIN ARE THE PROPERTY OF NFC LANDSCAPE ARCHITECTURE. THEY MAY NOT BE COPIED OR REPRODUCED, IN WHOLE OR IN PART, ELECTRONICALLY OR BY ANY OTHER MEANS, WITHOUT WRITTEN PERMISSION. ALL DRAWING SETS MUST BE RETURNED UPON REQUEST.
8. MAINTENANCE FOR PERENNIALS: WHEN THE BLOOMS ARE SPENT, LEAVE THE DEAD BLOOMS ON THE PLANTS UNTIL THE SEEDS ARE RIPE (THE SEEDS ARE RIPE WHEN THEY FALL OUT OF THE SEED CAPSULE EASILY WHEN TOUCHED) AND THEN ENSURE THAT THE MULCH IS PULLED BACK FROM THE BASE OF THE PLANT SO THAT THE SEEDS WILL COME INTO CONTACT WITH SOIL WHEN THEY FALL. THIS PROCESS CAN BE AIDED WITH HAND SPREADING OF THE SEEDS. THIS WILL AID THE RE-SEEDING PROCESS FOR THE NEXT SEASON'S NEW PLANT GERMINATION.
9. ALL GROUNDCOVER BEDS NEED TO BE WEEDED FOR ONE YEAR OR UNTIL PLANTS FORM A SOLID GROUND COVERING.

PLANTING SCHEDULE LEGEND:

CAL.	CALIPER
GAL.	GALLON
O.C.	ON CENTER
HT.	HEIGHT
SP.	SPREAD

NOTE:
(1) PLANT SPACING IS BASED ON THE WIDTH OF PLANTS AT MATURE HEIGHT AND AGE.

(2) QUANTITY OF SOD AND MULCH SHOWN IS FOR ESTIMATION PURPOSES ONLY. ALL FINAL SOD EXTENTS TO BE FIELD VERIFIED AND CONFIRMED WITH CLIENT AND LANDSCAPE ARCHITECT.

PSP25-00004

Know what's below. Call before you dig. Dial 811 or Call 800-282-7411

CLIENT:

FERBER COMPANY
100 SECOND AVENUE S.
SUITE 201-N
ST. PETERSBURG, FL 33701

PROJECT:

PUFFIN ROAD
COMMERCIAL
LOT #1
PRELIMINARY SITE PLAN

LOCATION:

CITY OF
ST. CLOUD, FL

CONSULTANT:

NFC Landscape Architects
2228 Jessica Lane
Kissimmee, FL 34744
(321) 388-4781

SEAL:

REVISIONS	DATE

DESIGNED BY:	RJK
DRAWN BY:	RJK
CHECKED BY:	KAV
DATE:	11/19/2025

PROJECT NUMBER: 5450

SHEET TITLE:

PLANT
SCHEDULE

SHEET NUMBER:

LP001

LANDSCAPE CALCULATIONS & REQUIREMENTS FOR THE CITY OF ST. CLOUD

ZONING & USE

SITE PARCEL ID(s): 05-26-31-0105-0001-0010
LOT 1

FUTURE LAND USE: COMMERCIAL

TOTAL SITE AREA = 17.40 ACRES

MUNICIPALITY = CITY OF SAINT CLOUD

ZONING = HB

STREET TREES

INTERNAL ROADWAY TREES (PER ARTICLE 8, SEC. 4.8.5)

STREET B 910 LF/ 55 LF	= 17 LARGE TREES REQUIRED = 17 LARGE TREES PROVIDED
STREET C 480 LF/ 55 LF	= 9 LARGE TREES REQUIRED = 9 LARGE TREES PROVIDED
STREET D 906 LF/ 55 LF	= 17 LARGE TREES REQUIRED = 17 LARGE TREES PROVIDED

GENERAL PLANTING REQUIREMENTS

MINIMUM CANOPY REQUIREMENTS (PER ARTICLE 8, SEC. 4.8.10)

REQUIRED:
60 CAL. INCHES OF NEW TREES REQUIRED PER ACRES FOR COMMERCIAL DEVELOPMENT
17.40 X 60 = 1,044 CAL. INCHES OF NEW TREES REQUIRED

PROVIDED = 611.5 CAL. INCHES OF NEW TREES PROVIDED (INCLUSIVE OF STREET TREE, VUA, AND TREE MITIGATION REQUIREMENTS)

REQUIREMENT NOT MET
PER ST. CLOUD, FL RESOLUTION NO. 2017-161R, IN LIEU OF REQUIRED TREE PLANTING, A PAYMENT OF $215 PER CALIPER MAY BE PAID INTO THE CITY TREE BANK FUND.

1,044 - 611 = 432.5 DEFICIT CAL. INCHES
432.5 X $215 = $92,987.50 PAYMENT INTO ST. CLOUD TREE BANK FUND

VEHICLE USE AREA (VUA) REQUIREMENTS

MINIMUM CANOPY REQUIREMENTS (PER ARTICLE 8, SEC. 4.8.6)

REQUIRED:
VUA AREAS SHALL PROVIDE FOR 12.5% LANDSCAPE AREA
TOTAL VUA AREA = 277,531 SF
277,531 SF X 12.5% = 34,692 SF OF VUA LANDSCAPE AREA REQUIRED

PROVIDED = 37,200 SF OF VUA LANDSCAPE AREA PROVIDED

REQUIRED:
1 TREE PER EVERY 170 SQUARE FEET OF REQUIRED VUA LANDSCAPE AREA
34,692 SF / 170 = 204 TREES REQUIRED

PROVIDED: = 230 TREES PROVIDED

REQUIRED:
CONTINUOUS LANDSCAPE BUFFER BETWEEN VUA AREA AND RIGHTS-OF-WAY WITHIN 50'

PROVIDED:
CONTINUOUS LANDSCAPE BUFFER BETWEEN VUA AREA AND RIGHTS-OF-WAY WITHIN 50'

PSP25-00004

CLIENT:

FERBER COMPANY
100 SECOND AVENUE S.
SUITE 201-N
ST. PETERSBURG, FL 33701

PROJECT:

PUFFIN ROAD
COMMERCIAL
LOT #1
PRELIMINARY SITE PLAN

LOCATION:

CITY OF
ST. CLOUD, FL

CONSULTANT:

NFC Landscape Architects
2228 Jessica Lane
Kissimmee, FL 34744
(321) 388-4781

SEAL:

REVISIONS	DATE

DESIGNED BY:	RJK
DRAWN BY:	RJK
CHECKED BY:	KAV
DATE:	11/19/2025

PROJECT NUMBER: 5450

SHEET TITLE:

LANDSCAPE
REQUIREMENTS

SHEET NUMBER:

LP002

LANDSCAPE INSTALLATION NOTES:

1. **SITE CONDITIONS** CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH EXISTING SITE CONDITIONS PRIOR TO BIDDING AND INITIATING PLANTING. ALL EXISTING SITE FURNISHINGS, PAVING, LANDSCAPE, TREES AND OTHER ELEMENTS TO REMAIN SHALL BE PROTECTED FROM ANY DAMAGE. ALL INSTALLATION OF PLANT MATERIAL SHALL COMPLY WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THIS WORK. CONTRACTOR TO REPAIR ALL DAMAGE DONE TO PROPERTY DURING DEMOLITION, RELOCATION AND/OR INSTALLATION ACTIVITIES AS THEIR SOLE EXPENSE.

2. **FIELD CONDITIONS** THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND LOCATION OF PROPOSED IMPROVEMENTS PRIOR TO INITIATING ANY CONSTRUCTION. REPORT ANY DISCREPANCIES OR CONFLICTS BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE LANDSCAPE ARCHITECT IMMEDIATELY. SEE CIVIL ENGINEERING DRAWINGS FOR GENERAL GRADING OF THE SITE, INCLUDING FINISH GRADES FOR PARKING LOTS, ROADWAYS, SIDEWALKS AND PLANTING AREAS. ALL GRADES, DIMENSIONS AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON-SITE BEFORE CONSTRUCTION AND/OR FABRICATION BEGINS. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND THE FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. MAINTAIN A MINIMUM OF 5 FEET HORIZONTAL SEPARATION BETWEEN ALL TREE AND SHRUB ROOT BALLS FROM ALL TWA MAINTAINED UTILITIES.

3. **UNIT PRICING** THE CONTRACTOR SHALL PROVIDE UNIT PRICES AND INCLUDE THE TOTAL COST OF THE WORK TO INSTALL THE PROJECT INCLUDING BUT NOT LIMITED TO EQUIPMENT, MATERIAL, PRODUCTS, GUARANTEES, LABOR, INSTALLATION, PLANTING SOIL MIX, MULCH, AND SO FORTH TO PROVIDE A COMPLETE JOB AS OUTLINED ON THE DRAWINGS. THE OWNER SHALL HAVE THE OPTION TO ADD OR DEDUCT FROM THE LUMP SUM BID CONTRACT AMOUNT, BASED ON THE QUOTED UNIT PRICES FOR ANY OF THE ITEMS LISTED IN THE "PLANT LIST". IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES AND REPORT ANY DISCREPANCIES AT THE TIME OF BIDDING. PROVIDE PRODUCT SUBMITTALS TO LANDSCAPE ARCHITECT. IF THERE IS A DISCREPANCY BETWEEN PLANTS ON PLAN(S) AND PLANTS IN THE PLANT SCHEDULE, THE PLANT SCHEDULE SHOULD PREVAIL.

4. **COORDINATION WITH OTHER TRADES** THE WORK SHALL BE COORDINATED WITH OTHER TRADES, INCLUDING IRRIGATION AND ELECTRICAL TO PREVENT CONFLICTS: CARE SHALL BE TAKEN TO AVOID BURIED AND OVERHEAD UTILITIES. CONTRACTOR RESPONSIBLE FOR KNOWING ALL UTILITY LOCATIONS.

5. **UTILITY LOCATIONS** THE CONTRACTOR SHALL REVIEW ARCHITECTURE/ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH SURFACE AND SUBSURFACE UTILITIES. LOCATION OF ALL UTILITIES AND BASE INFORMATION IS APPROXIMATE. CONTRACTOR SHALL NOTIFY ALL NECESSARY UTILITY COMPANIES 48 HOURS MINIMUM PRIOR TO DIGGING FOR VERIFICATION OF ALL UNDERGROUND UTILITIES, IRRIGATION AND ALL OTHER OBSTRUCTIONS AND COORDINATE WITH OWNER'S REPRESENTATIVE PRIOR TO INITIATING INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ANY DAMAGE COMMITTED TO EXISTING ELEMENTS OR UTILITIES ABOVE OR BELOW GROUND TO ITS ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

CONTRACTOR SHALL FIELD ADJUST LOCATION OF PLANT MATERIAL AS NECESSARY TO AVOID DAMAGE TO EXISTING UNDERGROUND UTILITIES AND/OR EXISTING ABOVE GROUND ELEMENTS. ALL CHANGES REQUIRED SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.

MAINTAIN A MINIMUM OF 5 FEET HORIZONTAL SEPARATION BETWEEN ALL TREE AND SHRUB ROOTS AND ALL TWA MAINTAINED UTILITIES.

6. **ROUGH GRADING** THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ROUGH GRADING THE SITE TO WITHIN +/- 0.10 FT. OF GRADES SHOWN ON GRADING PLANS. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FINISH GRADES IN ALL LANDSCAPE AREAS. CONTRACTOR TO APPROVE ALL GRADED AREAS PRIOR TO PLANTING.

7. **DRAINAGE PERCOLATION TESTING** CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE TO DRAINAGE AS INDICATED ON THE GRADING DRAWINGS. CONTRACTOR SHALL INSURE VERTICAL DRAINAGE AND PERCOLATION OF ALL PLANTING AREAS PRIOR TO INSTALLATION. PERFORM PERCOLATION TESTS IN SEPARATE AREAS OF THE PROJECT SITE. WATER MUST BE ABLE TO PENETRATE AND MOVE THROUGH SOIL: ONE INCH PER HOUR IS CONSIDERED OPTIMAL. IF WATER REMAINS FOR MORE THAN 24 HOURS, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT. PERCOLATION TEST RESULTS SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT. VERTICAL DRILLING THROUGH ANY COMPACTED FILL TO NATIVE SOIL SHALL BE ACCOMPLISHED TO AID DRAINAGE IF NECESSARY. IF INADEQUATE VERTICAL DRAINAGE IS ENCOUNTERED, THE CONTRACTOR SHALL SUBMIT RECOMMENDATIONS FOR PROVIDING ADEQUATE DRAINAGE TO THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.

8. **SOIL TESTING** THE CONTRACTOR SHALL BEAR ALL COSTS OF SOIL TESTING AND REQUIRED SOIL AMENDMENTS ASSOCIATED WITH THE WORK. PRIOR TO COMMENCEMENT OF LANDSCAPE INSTALLATION, THE CONTRACTOR SHALL PROVIDE COMPLETE SOIL TESTS FOR AT LEAST THREE SEPARATE AREAS UNDISTURBED BY PREVIOUS WORK AND TWO AREAS DISTURBED AND/OR REFILLED. CONTACT LANDSCAPE ARCHITECT FOR SOIL TESTING LOCATIONS. CONTRACTOR SHALL ALERT LANDSCAPE ARCHITECT IF ANY UNUSUAL SOILS ARE DISCOVERED ON SITE. IF PH ADJUSTERS ARE NEEDED THE PREFERRED SUBSTANCES FOR ALTERATION ARE: LIME-COMMERCIAL GRADE GROUND OR HYDRATED LIMESTONE CONTAINING NOT LESS THAN 50% OF TOTAL OXIDES; ALUMINUM SULFATE - COMMERCIAL GRADE.

IMPORTED TOPSOIL: THE MANUFACTURERS ANALYSIS AND/OR PRODUCT LITERATURE SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.

EXISTING TOPSOIL: FOLLOW TESTING PROCEDURES OUTLINES ABOVE TO ENSURE pH REQUIREMENTS, ORGANIC CONTENT AND PRESENCE OF OBJECTIONABLE MATERIAL ARE ALL NOTED.

9. **SOIL PREPARATION** ALL SOILS TO BE TILLED TO A DEPTH OF 12 INCHES MINIMUM. REMOVE STONES MEASURING OVER 1 ½ INCHES IN ANY DIMENSION. REMOVE STICKS, RUBBISH, LIMEROCK AND OTHER EXTRANEOUS MATTER. THE CONTRACTOR SHALL PROVIDE AN APPROVED PLANTING SOIL MIXTURE FOR ALL PLANT MATERIAL. SEE LANDSCAPE INSTALLATION DETAILS FOR SOIL MIXTURE RECIPE.

TOPSOIL SHALL BE NATURAL, FRIABLE, FERTILE, FINE LOAMY SOIL POSSESSING CHARACTERISTICS OF REPRESENTATIVE TOPSOIL IN THE VICINITY THAT PRODUCES HEAVY GROWTH. TOPSOIL SHALL HAVE A pH RANGE OF 5.5 TO 7.4, FREE FROM SUBSOIL, OBJECTIONABLE WEEDS, LITTER, STIFF CLAY, STONES LARGER THAN ONE INCH DIAMETER, STUMPS, ROOTS, TRASH, TOXIC SUBSTANCES OR ANY OTHER DELETERIOUS MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH OR HINDER PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN A MINIMUM OF THREE PERCENT ORGANIC MATERIAL.

10. **ROADWAY AREA EXCAVATION** FOR ALL LANDSCAPE AND TREE PLANTING AREAS ADJACENT TO ROADWAYS, PLANTING AREAS SHALL BE EXCAVATED OF ALL ROADWAY BASE MATERIAL (MINIMUM DEPTH OF 24 INCHES) AND BACK FILLED WITH APPROVED PLANTING SOIL MIX. SUPER LOAM PLANTING MIX (80% TOPSOIL PLANTING MIX, 20% COMPOST).

11. **NO PLANT SUBSITUTIONS ALLOWED** NO PLANT SUBSTITUTIONS WILL BE ACCEPTED WITHOUT WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT PROOF OF NON-AVAILABILITY AND A PROPOSAL FOR EQUIVALENT MATERIAL.

12. **PLANTING**

A. THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE PLANS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.

B. PRIOR TO PLANTING INSTALLATION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF ALL THE SPECIFIED PLANT MATERIALS AND MAKE ARRANGEMENTS WITH THE LANDSCAPE ARCHITECT TO REVIEW PLANT MATERIAL.

C. THE CONTRACTOR IS RESPONSIBLE FOR ERADICATING WEEDS AND GRASS WITHIN THE LIMITS OF THE PLANTING AREAS PRIOR TO BEGINNING LANDSCAPE INSTALLATION. PERENNIAL WEEDS AND GRASSES TO BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO, NUT GRASS, PUNCTURE VINE, MORNING GLORY, TORPEDO GRASS, BERMUDA GRASS, BAHIA GRASS, CRAB GRASS AND OTHER NOXIOUS AND/OR INVASIVE WEEDS. THE SITE IS TO BE MAINTAINED WEED FREE THROUGHOUT PLANTING OPERATIONS. TO PREPARE THE PLANTING AREAS, SPRAY HERBICIDE WITH MANUFACTURER'S RECOMMENDATIONS, WAIT TWO WEEKS, SPRAY A SECOND TIME, WAIT TWO WEEKS, SPRAY A THIRD TIME.

D. UPON ARRIVAL, PLANTS SHALL BE PROTECTED AT THE SITE BY BEING THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. ALL TREES SHALL BE INSTALLED WITHIN 72 HOURS OF DELIVERY.

E. LABEL AT LEAST ONE PLANT OF EACH SPECIES WITH A SECURELY ATTACHED WATERPROOF TAG BEARING THE BOTANICAL NAME.

F. ALL PLANTS THAT DO NOT CONFORM TO SPECIFICATIONS WILL BE REJECTED. ANY PLANTS IN SHOCK (WITH DEAD OR DYING LEAVES), HAVE ROOTS THAT ARE SEVERELY BOUND IN THE CONTAINER OR THAT ARE DEAD WILL BE REJECTED. CONTAINER GROWN PLANTS SHOULD HAVE SUFFICIENT ROOTS TO HOLD THE CONTAINER SOIL TOGETHER AFTER REMOVAL FROM THE CONTAINER.

G. IRRIGATION MUST BE INSTALLED BEFORE PLANTS ARE PLANTED. PLANT PLANTS FLUSH WITH FINISHED GRADE SOIL. BACK FILL WITH SOIL IN 12 INCH LAYERS. WATER IN AND COMPACT EACH LAYER TO ELIMINATE AIR VOIDS. IMMEDIATELY APPLY AT LEAST 2 INCHES OF WATER. AFTER PLANTING, REMOVE EXCESS SOIL AND RAKE PLANT BEDS TO A SMOOTH EVEN SURFACE. AT THE PLANTING BED EDGES, TAPER SOIL GRADE DOWN TO A LEVEL BELOW THE TOP OF THE ADJACENT STRUCTURE OR LAWN TO ALLOW FOR A 3 INCH LAYER OF MULCH.

H. ALL SOD PLANTED WITH NO GAPS BETWEEN SOD PIECES, ROLLED AND SEEMS SHALL BE SANDED AFTER INSTALLATION. PEG ALL SOD ON SLOPES GREATER THAN 3:1

I. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY AND PLUMB CONDITION OF ALL TREES AND SHRUBS AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF TREES OR SHRUBS SHALL BE DONE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

LANDSCAPE INSTALLATION NOTES CONT'D:

J. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION PROTECTION AND SLOPE STABILIZATION BY OWNER-APPROVED METHODS.

K. ALL PLANTS AND PLANTING AREAS SHALL BE TOP DRESSED WITH 3 INCHES OF PINE STRAW MULCH. ALL TREES SHALL HAVE A 3 INCH THICK, 36 INCH RADIUS (FROM THE TRUNK) MULCH RING PLACED AROUND THE BASE OF THE TRUNK. PERENNIALS AND GROUNDCOVER 1 1/2 INCHES MULCH.

L. IRRIGATION TO BE INSTALLED BEFORE PLANTING INSTALLATION BEGINS. CONTRACTOR SHALL COORDINATE ALL PLANTING WORK WITH IRRIGATION WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL. CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS, REGARDLESS OF THE STATUS OF EXISTING OR PROPOSED IRRIGATION.

M. CONTRACTOR SHALL RE-GRADE ALL AREAS DISTURBED BY PLANT REMOVAL, RELOCATION AND/OR INSTALLATION WORK.

N. ALL TREE AND SHRUB ROOTBALLS SHALL BE A MINIMUM OF 5 FEET HORIZONTAL SEPARATION FROM ANY UTILITY.

O. ALL TREES, SHRUBS, AND GROUNDCOVER SHALL BE PLANTED FLUSH WITH FINISHED GRADE.

13. **TREES**

A. IRRIGATION MUST BE INSTALLED BEFORE TREES ARE PLANTED.

B. PLANT TREES WITH THE ROOTBALL FLUSH WITH THE FINISHED GRADE SOIL. DO NOT PLACE SOIL OR MULCH ON TOP OF THE ROOTBALL. BEFORE PLANTING, EXPOSE THE ROOT FLARE OF EACH TREE. RESTORE GRADE AT BASE OF TRUNK TO ACTUAL ROOT FLARE ELEVATION. DO NOT MOUND MULCH OR SOIL AGAINST ROOT FLARE OF TRUNK; REMOVE WIRE BASKET AND BURLAP ON ALL SIDES OF ROOTBALL TO EXPOSE ROOTS TO SOIL.

C. ALL TREES WITHIN SOD AREAS AND GROUNDCOVER AREAS TO RECEIVE A 4 FOOT RADIUS (FROM THE TRUNK) AREA OF PINE STRAW MULCH. DO NOT MOUND MULCH AGAINST ROOT FLARE OR TRUNKS OF TREES OR SHRUBS.

D. TREES WITH GIRDLING ROOTS, BROKEN ROOTBALLS, WOUNDS, BARK INJURIES ON THE MAJOR TRUNKS, TIP DIE BACK OR IN SHOCK (WITH DEAD OR DYING LEAVES) WILL BE REJECTED.

E. IF TREES ARE DELIVERED IN METAL BASKETS, REMOVE THE TOP 2/3 OF THE METAL BASKETS AND BURLAP JUST PRIOR TO PLANTING. IF TREES ARE BURIED IN THE FULL METAL BASKETS, A FINE OF $2,000 PER TREE WILL BE IMPOSED BY THE OWNER.

F. AFTER EXCAVATION OF TREE PLANTING PIT, PLACE TREE IN PIT AND BACK FILL WITH SOIL IN 12 INCH LAYERS. WATER IN AND COMPACT EACH LAYER TO ELIMINATE AIR VOIDS. IMMEDIATELY APPLY AT LEAST 8 INCHES OF WATER. AFTER PLANTING, REMOVE EXCESS SOIL AND RAKE PLANT BEDS TO A SMOOTH EVEN SURFACE. RAKE SMOOTH AND THEN CREATE A 4 INCH HEIGHT SOIL SAUCER APPROXIMATELY 3 FEET RADIAL TO THE TRUNK.

15. **INSPECTIONS**

A. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT A MINIMUM OF 7 DAYS IN ADVANCE OF THE PLANT MATERIAL DELIVERY TO THE SITE. THE LANDSCAPE ARCHITECT SHALL INSPECT THE PLANT MATERIAL **BEFORE** THE PLANTS AND TREES HAVE BEEN UNLOADED.

B. THE LANDSCAPE ARCHITECT SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND/OR MATERIALS WHICH, IN HER OPINION, DO NOT MEET WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.

C. TREE CALIPER SIZES NOTED ARE MINIMUM. ALL CONTAINER SIZES NOTED ARE MINIMUM; INCREASE SIZE, IF NECESSARY, TO PROVIDE PLANT HEIGHT AND SPREAD PER SPECIFICATIONS.

D. ALL INSTALLATION OF PLANT MATERIAL SHALL COMPLY WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THIS WORK.

E. PRIOR TO PLANTING INSTALLATION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF ALL THE SPECIFIED PLANT MATERIALS. SUBMIT DATED PHOTOGRAPHS OF TREE MATERIAL, PLANT MATERIAL AND SPECIMENS TO THE LANDSCAPE ARCHITECT FOR REVIEW. IF PLANT MATERIAL DOES NOT COMPLY WITH THE REQUIREMENTS AS SPECIFIED HEREIN, THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT SUCH PLANTS AND REQUIRE THE CONTRACTOR TO REPLACE REJECTED MATERIALS OR WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL RE-INSPECTED AND FOUND TO BE ACCEPTABLE.

16. **PRE-INSTALLATION PLANT LAYOUT INSPECTION** CONTRACTOR SHALL LAYOUT ALL PLANT MATERIAL PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE LANDSCAPE ARCHITECT. THE LOCATION OF ALL PLANT MATERIAL IS SUBJECT TO FIELD CHANGE. CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT A MINIMUM OF 5 WORKING DAYS TO SCHEDULE INPSECTION OF PLANT MATERIAL LAYOUT PRIOR TO PLANTING.

THE LOCATION OF PLANTS, AS SHOWN IN THESE PLANS, ARE APPROXIMATE. THE FINAL LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN FIELD CONDITIONS, TO COMPLY WITH SAFETY CRITERIA, TO AVOID CREATING UNSAFE CONDITIONS, OR AS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. ALL ADJUSTMENTS SHALL BE VERIFIED AND APPROVED BY THE LANDSCAPE ARCHITECT.

17. **TREE SAVE AREAS** ALL TREE SAVE AREAS SHALL BE COVERED WITH 3" OF PINE STRAW MULCH. IN AREAS WITH EXISTING PLANTS, CONTRACTOR SHALL EXERCISE CAUTION IN PLACING OF MULCH TO PROTECT PLANTS. DO NOT STORE OR USE MATERIALS OR EQUIPMENT WITHIN THE DRIPLINE OF ANY TREE TO BE RETAINED UNLESS THE ACTIVITY IS BEING DONE TO PROTECT TREES. CLEARING OF VEGETATION WITHIN THE DRIPLINE OF TREES DESIGNATED FOR PRESERVATION SHALL ONLY BE BY HAND OR LIGHT RUBBER WHEELED EQUIPMENT THAT WILL NOT DAMAGE TREE ROOTS. SEE TREE PROTECTION BARRICADE PLAN. A $1,000 PENALTY WILL BE APPLIED IF THESE GUIDELINES ARE NOT FOLLOWED.

18. **EXISTING VEGETATION TO REMAIN** ALL EXISTING VEGETATION TO REMAIN SHALL BE PROTECTED. ANY PLANT/TREE DAMAGE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. SEE TREE PROTECTION PLANS FOR DETAILS.

19. **STAKING** CONTRACTOR SHALL INSURE THAT ALL TREES ARE MAINTAINED STRAIGHT AND PLUMB. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS AND TREES FROM FALLING OR BEING BLOWN OVER, TO RE-STRAIGHTEN AND REPLANT ALL PLANTS WHICH LEAN OR FALL AND TO REPLACE ALL PLANTS WHICH ARE DAMAGED DUE TO LACK OF GUYING OR STAKING. PLANTS BLOWN OVER BY HIGH WINDS UNDER 39 MPH SHALL NOT BE CAUSE FOR ADDITIONAL EXPENSE TO THE OWNER, BUT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DAMAGED PLANTS SHALL BE BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. PLANTS BLOWN OVER BY HIGH WINDS DUE TO A TROPICAL STORM (39-73 MPH) OR A HURRICANE (74 MPH AND HIGHER) PER THE NATIONAL WEATHER SERVICE, THE CONTRACTOR SHALL NOT BE RESPONSIBLE AND THE OWNER SHALL PAY THE CONTRACTOR TO RE-GUY THE PLANTS.

20. **WATERING** IRRIGATION TO BE IN PLACE BEFORE LANDSCAPE INSTALLATION COMMENCES. ALL PLANTS SHALL BE THOROUGHLY WATERED AT TIME OF PLANTING AND KEPT ADEQUATELY WATERED UNTIL TIME OF FINAL INSPECTION ACCEPTANCE. BEGIN WATER ESTABLISHMENT PERIOD IMMEDIATELY. PROVIDE SUFFICIENT QUANTITY OF WATER TO SATURATE THE SOIL 18 INCHES DEEP AND THROUGHOUT THE PLANTING BACKFILL AREA DURING THE CONTRACT MAINTENANCE PERIOD. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED UNTIL PLANT MATERIALS ARE WELL ESTABLISHED, TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL, AND SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL LANDSCAPE AREAS WHERE THE EXISTING OR PROPOSED IRRIGATION IS FOR WHATEVER REASON NOT OPERATING OR NOT OPERATING CORRECTLY.

21. **CLEAN SITE** CONTRACTOR SHALL CLEAN THE WORK AREAS AT THE END OF EACH WORKING DAY. RUBBISH AND DEBRIS SHALL BE COLLECTED AND DESPOSED OF DAILY. ALL MATERIALS, PRODUCTS, AND EQUIPMENT SHALL BE STORED IN AN ORGANIZED FASHION AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

LANDSCAPE INSTALLATION NOTES CONT'D:

22. **VEHICLE PARKING AND HOLDING AREA** CONTRACTOR AND EMPLOYEE VEHICLE PARKING AND LANDSCAPE HOLDING AREAS SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.

23. **CONSTRUCTION ACCESS, SCHEDULING AND COORDINATION** CONSTRUCTION ACCESS SHALL BE INDICATED BY THE OWNER'S REPRESENTATIVE. COORDINATION OF HEAVY EQUIPMENT AND MATERIALS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF WORK WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL COORDINATE ACCESS AND STAGING AREAS WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL TAKE WHATEVER MEANS THAT MAY BE NECESSARY TO FULLY UNDERSTAND ALL THE ACCESS ROUTES AND CONSTRUCTION SCHEDULES IN ORDER TO PROVIDE A COMPLETE AND FINISHED PROJECT ON SCHEDULE. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION. PROVIDE ADDITIONAL MEASURES AS NECESSARY TO MINIMIZE ADVERSE IMPACTS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES.

24. **SAFETY** THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND PROFESSIONAL AND LOCAL PRACTICES.

LANDSCAPE MAINTENANCE NOTES:

1. **MAINTENANCE PRIOR TO INITIAL ACCEPTANCE**

A. BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL THE DATE OF FINAL COMPLETION WHEN THE 365 DAY PLANT WARRANTY PERIOD BEGINS.

B. PLANT MAINTENANCE SHALL INCLUDE WATERING, WEEDING, CULTIVATING, MULCHING, TIGHTENING AND REPAIRING OF GUYS, REPLACEMENT OF SOIL OR DEAD PLANTS, RESETTING PLANTS, RESETTING PLANTS TO PROPER GRADES OR UPRIGHT POSITION, RESTORATION OF THE PLANTING SAUCER, AND ALL OTHER CARE NEEDED FOR PROPER GROWTH AND HEALTH OF THE PLANT MATERIAL.

2. INITIAL ACCEPTANCE / MAINTENANCE WARRANTY CONTRACT COMMENCEMENT

A. UPON COMPLETION OF ALL LANDSCAPING, AN INSPECTION FOR SUBSTANTIAL COMPLETION OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT FOR SCHEDULING OF THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE. A PUNCH LIST WILL BE COMPLETED, IF APPLICABLE. WHEN THE PUNCH LIST HAS BEEN COMPLETED, A FINAL INSPECTION SHALL BE SCHEDULED. THE CONTRACTOR WILL NOTIFY THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT AT LEAST SEVEN (7) DAYS PRIOR TO THE FINAL ACCEPTANCE INSPECTION DATE.

B. **WARRANTY** CONTRACTOR TO SUBMIT A WRITTEN WARRANTY WILL COMMENCE ON THE DATE OF FINAL ACCEPTANCE THAT ALL PLANTS WILL REMAIN IN A "HEALTHY, VIGOROUS CONDITION" AND MEET SPECIFICATIONS FROM THE DATE OF INITIAL ACCEPTANCE AND UNTIL FINAL ACCEPTANCE (AFTER 365 DAYS). A WRITTEN NOTICE WILL BE GIVEN BY THE LANDSCAPE ARCHITECT TO THE CONTRACTOR STATING THE DATE WHEN THE 365 DAY MAINTENANCE AND GUARANTEE PERIOD BEGIN.

C. IF PLANTS ARE DIRECTED TO BE REPLACED, REPLACEMENT SHALL TAKE PLACE WITHIN 14 DAYS OF RECEIPT OF WRITTEN REPORT.

D. IF THE INSTALLATION CONTRACTOR WILL NOT BE PERFORMING THE MAINTENANCE DURING THE MAINTENANCE PERIOD, THE INSTALLATION CONTRACTOR WILL BE REQUIRED TO PERFORM MONTHLY INSPECTIONS AND DIRECT THE PROPER MAINTENANCE TECHNIQUES AND DIRECT ANY DEAD PLANT MATERIAL BE REPLACED. IF THERE IS A DISCREPANCY AT THE END OF THE MAINTENANCE PERIOD, THE INSTALLATION CONTRACTOR WILL BE RESPONSIBLE FOR ALL PROPER MAINTENANCE AND REPLACEMENT OF DEAD PLANT MATERIAL AT NO COST TO THE OWNER.

3. FINAL INSPECTION AND ACCEPTANCE/ END OF MAINTENANCE CONTRACT

A. WHEN 365 DAY MAINTENANCE WORK IS COMPLETE (PLANT MATERIAL GUARANTEE PERIOD), THE CONTRACTOR SHALL SUBMIT WRITTEN NOTIFICATION TO THE LANDSCAPE ARCHITECT. THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT WILL CONDUCT A FINAL ACCEPTANCE INSPECTION.WITHIN 14 DAYS OF WRITTEN NOTIFICATION.

B. PLANTS SHALL BE ACCEPTABLE IF THEY ARE IN A HEALTHY AND VIGOROUS CONDITION AND ARE IN COMPLIANCE WITH THE SPECIFICATIONS FOR EACH PLANT AS DETERMINED BY THE LANDSCAPE ARCHITECT. REPLACE REJECTED WORK/PLANTS WITHIN 14 DAYS OF NOTIFICATION. CONTINUE LANDSCAPE MAINTENANCE UNTIL WORK IS RE-INSPECTED AND FOUND ACCEPTABLE. PLANT REPLACEMENTS SHALL BE GUARANTEED FOR AN ADDITIONAL 30 DAYS. UPON SATISFACTORY COMPLETION, THE LANDSCAPE ARCHITECT WILL PROVIDE A WRITTEN FINAL ACCEPTANCE OF THE PLANT MATERIAL.

PSP25-00004

CLIENT:

FERBER COMPANY
100 SECOND AVENUE S.
SUITE 201-N
ST. PETERSBURG, FL 33701

PROJECT:

PUFFIN ROAD
COMMERCIAL
LOT #1
PRELIMINARY SITE PLAN

LOCATION:

CITY OF
ST. CLOUD, FL

CONSULTANT:

NFC Landscape Architects
2228 Jessica Lane
Kissimmee, FL 34744
(321) 388-4781

SEAL:

REVISIONS	DATE

DESIGNED BY:	RJK
DRAWN BY:	RJK
CHECKED BY:	KAV
DATE:	11/19/2025

PROJECT NUMBER: 5450

SHEET TITLE:

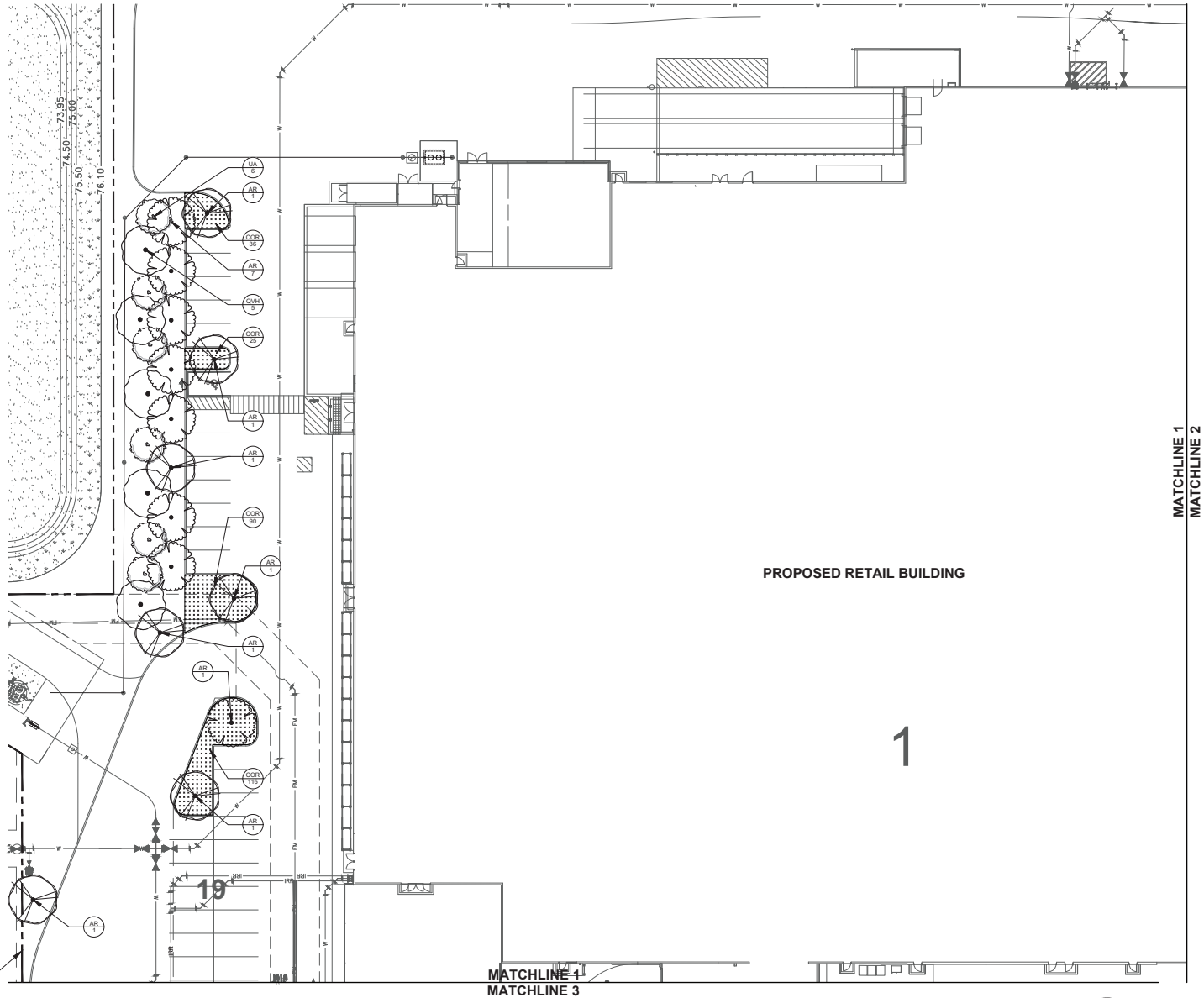
LANDSCAPE
NOTES

SHEET NUMBER:

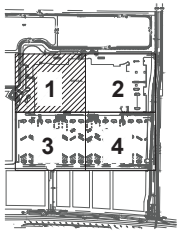
LP003

PARKING LOT ISLAND SOIL PREPARATION NOTES:

1. **SOIL PREPARATION ALL SOILS TO BE TILLED TO A DEPTH OF 12 INCHES MINIMUM. REMOVE STONES MEASURING OVER 1 1/2 INCHES IN ANY DIMENSION. REMOVE STICKS, RUBBISH, LIMEROCK AND OTHER EXTRANEOUS MATTER. THE CONTRACTOR SHALL PROVIDE AN APPROVED PLANTING SOIL MIXTURE FOR ALL PLANT MATERIAL SEE LANDSCAPE INSTALLATION DETAILS FOR SOIL MIXTURE RECIPE. TOPSOIL SHALL BE NATURAL, FRIABLE, FERTILE, FINE LOAMY SOIL POSSESSING CHARACTERISTICS OF REPRESENTATIVE TOPSOIL IN THE VICINITY THAT PRODUCES HEAVY GROWTH. TOPSOIL SHALL HAVE A ph RANGE OF 5.5 TO 7.4, FREE FROM SUBSOIL, OBJECTIONABLE WEEDS, LITTER, STIFF CLAY, STONES LARGER THAN ONE INCH DIAMETER, STUMPS, ROOTS, TRASH, TOXIC SUBSTANCES OR ANY OTHER DELETERIOUS MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH OR HINDER PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN A MINIMUM OF THREE PERCENT ORGANIC MATERIAL.**
2. **ROADWAY AREA EXCAVATION FOR ALL LANDSCAPE AND TREE PLANTING AREAS ADJACENT TO ROADWAYS. PLANTING AREAS SHALL BE EXCAVATED OF ALL ROADWAY BASE MATERIAL (MINIMUM DEPTH OF 24 INCHES) AND BACK FILLED WITH APPROVED PLANTING SOIL MIX. SUPER LOAM PLANTING MIX (80% TOPSOIL PLANTING MIX, 20% COMPOST).**



SHEET KEY
SCALE: 1"=400'-0"



Know what's below. Call before you dig. Dial 811 Or Call 800-282-7411

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NORTH

CLIENT:

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SUITE 201-N
ST. PETERSBURG, FL 33701

PROJECT:

PUFFIN ROAD COMMERCIAL LOT #1
PRELIMINARY SITE PLAN

LOCATION:

CITY OF ST. CLOUD, FL

CONSULTANT:

NFC Landscape Architects
2228 Jessica Lane
Kissimmee, FL 34744
(321) 388-4781

SEAL:

REVISIONS	DATE

DESIGNED BY:	RJK
DRAWN BY:	RJK
CHECKED BY:	KAV
DATE:	11/19/2025

PROJECT NUMBER: 5450

SHEET TITLE:

LANDSCAPE PLAN

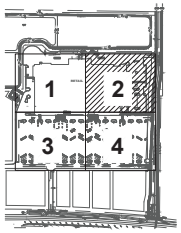
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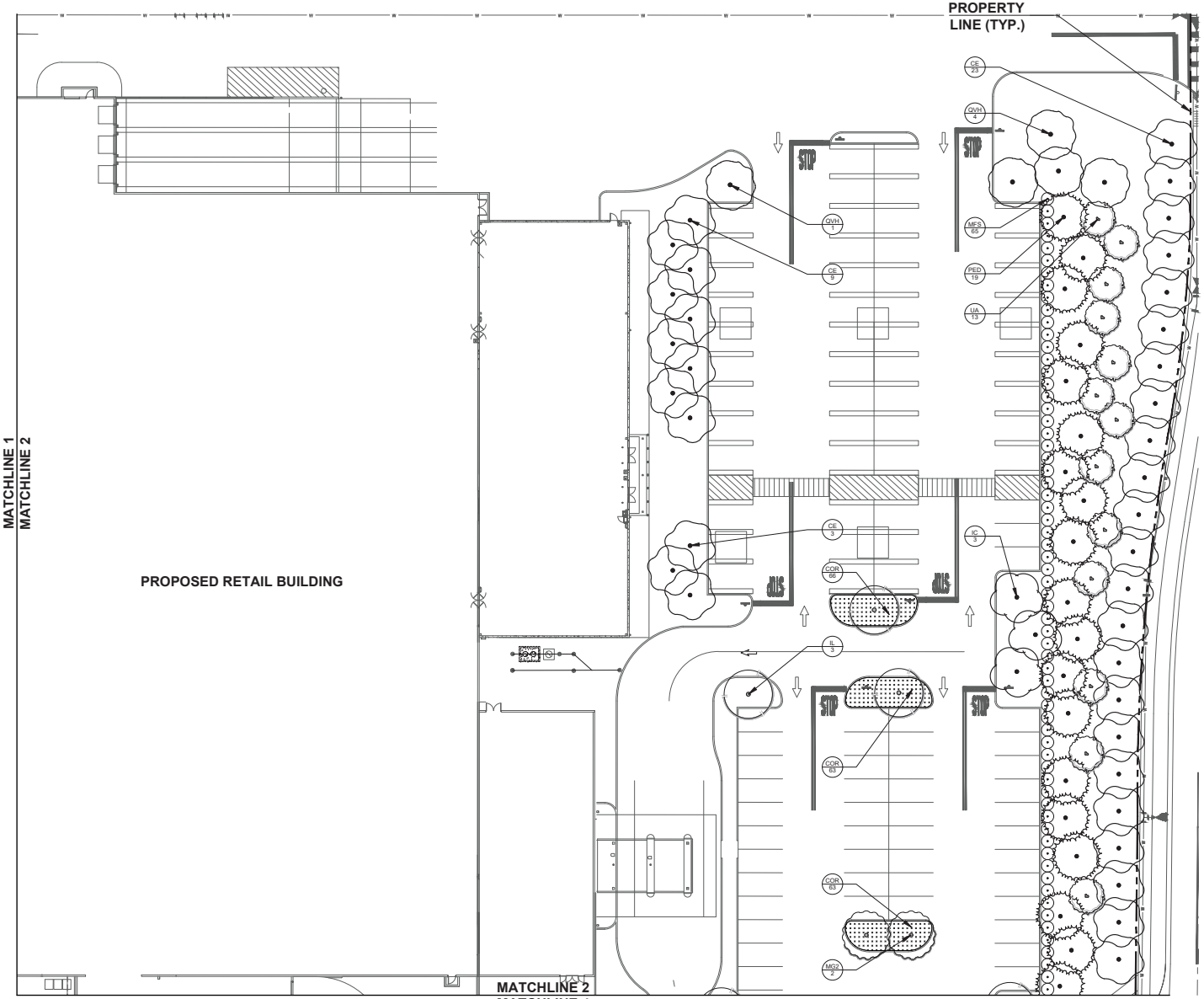
LP101

PARKING LOT ISLAND SOIL PREPARATION NOTES:

1. **SOIL PREPARATION ALL SOILS TO BE TILLED TO A DEPTH OF 12 INCHES MINIMUM. REMOVE STONES MEASURING OVER 1 1/2 INCHES IN ANY DIMENSION. REMOVE STICKS, RUBBISH, LIMEROCK AND OTHER EXTRANEOUS MATTER. THE CONTRACTOR SHALL PROVIDE AN APPROVED PLANTING SOIL MIXTURE FOR ALL PLANT MATERIAL SEE LANDSCAPE INSTALLATION DETAILS FOR SOIL MIXTURE RECIPE. TOPSOIL SHALL BE NATURAL, FRIABLE, FERTILE, FINE LOAMY SOIL POSSESSING CHARACTERISTICS OF REPRESENTATIVE TOPSOIL IN THE VICINITY THAT PRODUCES HEAVY GROWTH. TOPSOIL SHALL HAVE A ph RANGE OF 5.5 TO 7.4, FREE FROM SUBSOIL, OBJECTIONABLE WEEDS, LITTER, STIFF CLAY, STONES LARGER THAN ONE INCH DIAMETER, STUMPS, ROOTS, TRASH, TOXIC SUBSTANCES OR ANY OTHER DELETERIOUS MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH OR HINDER PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN A MINIMUM OF THREE PERCENT ORGANIC MATERIAL.**
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SHEET KEY
SCALE: 1"=400'-0"





811 Know what's below. Call before you dig. Dial 811 Or Call 800-282-7411

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NORTH

CLIENT:

FERBER COMPANY
100 SECOND AVENUE S.
SUITE 201-N
ST. PETERSBURG, FL 33701

PROJECT:

PUFFIN ROAD COMMERCIAL LOT #1
PRELIMINARY SITE PLAN

LOCATION:

CITY OF ST. CLOUD, FL

CONSULTANT:

NFC Landscape Architects
2228 Jessica Lane
Kissimmee, FL 34744
(321) 388-4781

SEAL:

REVISIONS	DATE

DESIGNED BY:	RJK
DRAWN BY:	RJK
CHECKED BY:	KAV
DATE:	11/19/2025

PROJECT NUMBER: 5450

SHEET TITLE:

LANDSCAPE PLAN

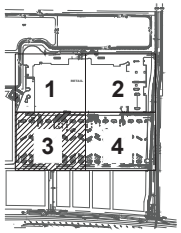
SHEET NUMBER:

LP102

PARKING LOT ISLAND SOIL PREPARATION NOTES:

1. **SOIL PREPARATION ALL SOILS TO BE TILLED TO A DEPTH OF 12 INCHES MINIMUM. REMOVE STONES MEASURING OVER 1 1/2 INCHES IN ANY DIMENSION. REMOVE STICKS, RUBBISH, LIMEROCK AND OTHER EXTRANEOUS MATTER. THE CONTRACTOR SHALL PROVIDE AN APPROVED PLANTING SOIL MIXTURE FOR ALL PLANT MATERIAL SEE LANDSCAPE INSTALLATION DETAILS FOR SOIL MIXTURE RECIPE. TOPSOIL SHALL BE NATURAL, FRIABLE, FERTILE, FINE LOAMY SOIL POSSESSING CHARACTERISTICS OF REPRESENTATIVE TOPSOIL IN THE VICINITY THAT PRODUCES HEAVY GROWTH. TOPSOIL SHALL HAVE A ph RANGE OF 5.5 TO 7.4, FREE FROM SUBSOIL, OBJECTIONABLE WEEDS, LITTER, STIFF CLAY, STONES LARGER THAN ONE INCH DIAMETER, STUMPS, ROOTS, TRASH, TOXIC SUBSTANCES OR ANY OTHER DELETERIOUS MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH OR HINDER PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN A MINIMUM OF THREE PERCENT ORGANIC MATERIAL.**
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SHEET KEY
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MATCHLINE 1
MATCHLINE 3

MATCHLINE 3
MATCHLINE 4

PROPERTY LINE (TYP.)

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LANDSCAPE PLAN

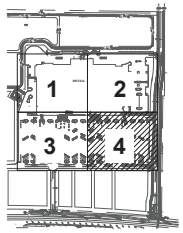
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LP103

PARKING LOT ISLAND SOIL PREPARATION NOTES:

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MATCHLINE 2
MATCHLINE 4

MATCHLINE 3
MATCHLINE 4

PROPERTY LINE (TYP.)

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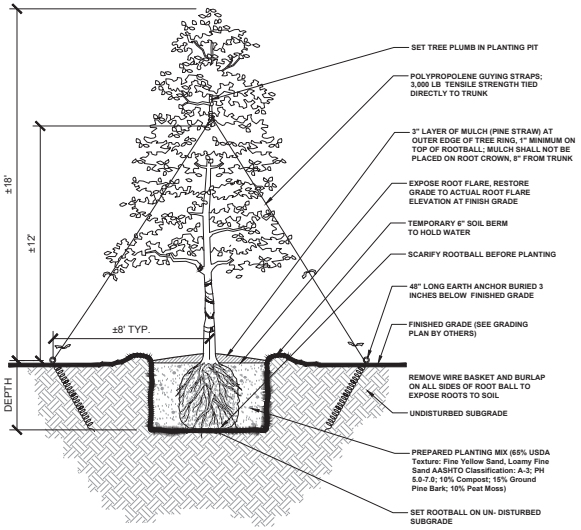
DESIGNED BY:	RJK
DRAWN BY:	RJK
CHECKED BY:	KAV
DATE:	11/19/2025
PROJECT NUMBER:	5450

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

LP104

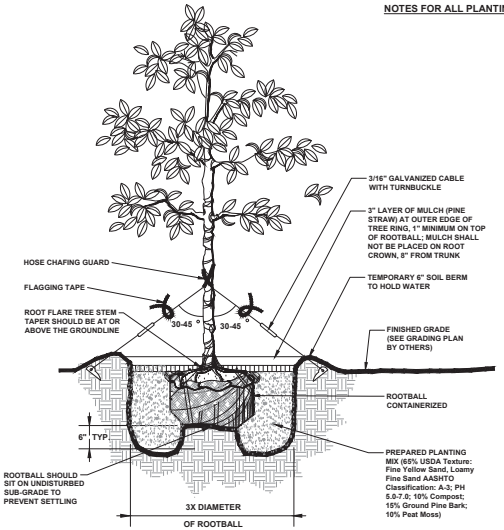


LARGE TREE PLANTING & GUYING DETAIL

N.T.S.

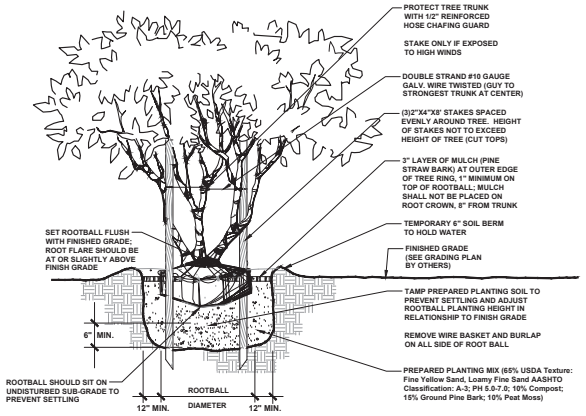
NOTES FOR ALL PLANTINGS:

1. DO NOT MOUND OR INSTALL MULCH AGAINST THE TRUNK OR STEM OF TREES AND SHRUBS OR THE CROWN OF PERENNIALS AND GROUNDCOVERS. THERE SHOULD BE FREE AND OPEN AIR CIRCULATION AROUND THE TRUNK OF THE PLANT AND THE GROUND IN THE IMMEDIATE AREA AT THE BASE OF THE TRUNK.
2. CONTRACTOR TO REMOVE ALL WIRE BASKETS AND BURLAP FROM B&B PLANTS LEAVING ONLY THE FABRIC AND WIRE ON THE VERY BOTTOM OF BALL IF IMPOSSIBLE TO REMOVE.



SMALL TREE PLANTING & GUYING DETAIL

N.T.S.



MULTI-TRUNK TREE PLANTNG DETAIL

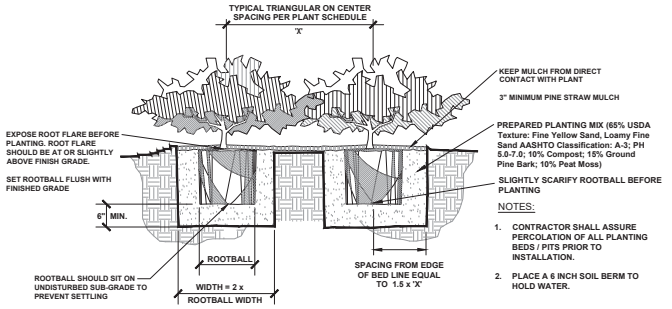
N.T.S.



STAKING DIAGRAM
PLAN VIEW

NOTES:

1. ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION. SEE LANDSCAPE NOTES ON SEPARATE SHEET.
2. WATERING REQUIREMENTS ARE DIFFERRENT FOR EACH TREE SPECIES AND SOIL CONDITION. CONSULT AN ARBORIST AS TO THE APPROPRIATE WATER REGIMEN.
3. DISCARD SUBGRADE REMOVED FROM PLANTING PIT AND REPLACE WITH PREPARED SOIL MIX, PER SPECIFICATIONS. PLACE NEW SOIL MIX AROUND ROOTBALL IN SIX-INCH LAYERS, FIRMLY TAMPING AND WATERING EACH LAYER UNTIL THE PLANTING PIT IS FILLED TO FINISHED GRADE LEVEL.
4. TREES UNDER 3 INCH CALIPER DO NOT REQUIRE TO BE GUYED; HOWEVER CONTRACTOR IS RESPONSIBLE TO ENSURE TREES DO NOT BLOW OVER DURING MAINTENANCE PERIOD.

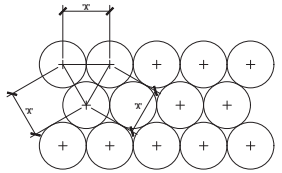


NOTES:

1. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING BEDS / PITS PRIOR TO INSTALLATION.
2. PLACE A 6 INCH SOIL BERM TO HOLD WATER.

GROUNDCOVER & SHRUB PLANTING DETAIL

N.T.S.



ALL SHRUBS & GROUNDCOVER MASSES TO USE TRIANGULAR SPACING EXCEPT WHERE NOTED. REFER TO PLANT SCHEDULE FOR INDIVIDUAL PLANT SPACING 'X'

TYPICAL PLANT SPACING DETAIL

N.T.S.

PSP25-00004

CLIENT:

FERBER COMPANY
100 SECOND AVENUE S.
SUITE 201-N
ST. PETERSBURG, FL 33701

PROJECT:

PUFFIN ROAD
COMMERCIAL
LOT #1
PRELIMINARY SITE PLAN

LOCATION:

CITY OF
ST. CLOUD, FL

CONSULTANT:

NFC Landscape Architects
2228 Jessica Lane
Kissimmee, FL 34744
(321) 388-4781

SEAL:

REVISIONS	DATE

DESIGNED BY:	RJK
DRAWN BY:	RJK
CHECKED BY:	KAV
DATE:	11/19/2025

PROJECT NUMBER: 5450

SHEET TITLE:

LANDSCAPE
INSTALLATION
DETAILS

SHEET NUMBER:

LP201