



March 25, 2024

Office of the County Engineer
Marion County Board of County Commissioners
412 SE 25th Ave., Ocala, FL 34471

RE: Permit Extension Request – Happy Dave’s Convenience Store & Car Wash
PROJECT #2020090035 APPLICATION #26188

To Whom It May Concern,

We are requesting an extension to the above referenced permit, in order to finish the remaining site items, especially dumpster pads. The site is very near completion, but will not be complete prior to the current expiration date.

We expect to complete construction in May of this year and start the close out process. However, we would like to request the full one-year extension, since we can only extend the permit once and want to be prepared in case of any unforeseen circumstances.

Please feel free to contact me with questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'BZ', with a horizontal line extending to the right.

Bob Ziegenfuss, PE, LEED AP

**1201 E. Robinson St.
Orlando, Florida 32801**

Phone: (407) 271-8910

MAJOR SITE PLAN #26188

HAPPY DAVE'S CONVENIENCE STORE & CARWASH

S. US HIGHWAY 441 & SE 100TH COURT
SUMMERFIELD, FLORIDA 34491

JURISDICTION: MARION COUNTY, FLORIDA

PARCEL IDENTIFICATION: 4716-006-003

ZONING: B2 COMMERCIAL

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

LEGAL DESCRIPTION:

LOTS 1 THROUGH 5, BLOCK 6 OF ORANGE BLOSSOM HILLS UNIT NO. 16 REPLAT, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK K, PAGE 51, OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 26188
APPROVAL DATE: 2/21/2022
EXPIRATION DATE: 2/21/2024

All construction shall conform to the construction standards contained in the Marion County Land Development Code, latest revision. Areas of the right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

DRAINAGE CONSTRUCTION SPECIFICATIONS NOTE:
NO CHANGE TO THE WORK AS SHOWN ON THE APPROVED PLANS SHALL BE MADE WITHOUT NOTIFICATION TO AND APPROVAL BY THE OFFICE OF THE COUNTY ENGINEER.

OWNER CERTIFICATION

I HEREBY CERTIFY THAT I, MY SUCCESSORS, AND ASSIGNS SHALL PERPETUALLY MAINTAIN THE IMPROVEMENTS SHOWN ON THIS PLAN.

DAVID H. ARRINGTON
PRINT NAME SIGNATURE DATE

ARRINGTON SELF STORAGE SUMMERFIELD LLC
DBA HAPPY DAVE'S

ENGINEER'S CERTIFICATION

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

Robert Ziegenfuss
PRINT NAME SIGNATURE DATE

STATE OF FLORIDA
Professional Engineer
MAR - 7 2022

WAIVER APPROVED:

6.11.5.C(1) - DRIVEWAY SPACING - GRANTED THE DRIVEWAY ACCESS WAIVER SUBJECT TO THE APPLICANT PROVIDING EITHER THE LETTER OF INTENT OR THE ACTUAL PERMIT ITSELF FROM DOT (DRC 8/9/21)

6.13.3D(4) - REDUCE NUMBER OF TREES (APPROVED 8/9/21)

6.8.8(B) - LANDSCAPE PLANTINGS IN LANDSCAPE BUFFER ALONG FRONTAGE INSTEAD OF AT BUILDING FOUNDATION (APPROVED 8/30/21)

6.8.6 - REPLACE CANOPY TREES FOR STREET SIDE BUFFER WITH ORNAMENTAL TREES DUE TO OVERHEAD WIRES, WILL INSTALL ONE (1) UNDERSTOREY TREE TO REPLACE EACH REQUIRED SHADE TREE (APPROVED 10/18/21)

SITE DATA

PROPERTY LOCATION: S. US HIGHWAY 441 & SE 100TH COURT SUMMERFIELD FLORIDA 34491

PROPERTY ZONING: B2 COMMERCIAL

EXISTING USE: VACANT

FUTURE LAND USE: COMMERCIAL

PROPOSED USE: CONVENIENCE STORE/GAS STATION/CAR WASH

TOTAL SITE AREA: 125,581 SF (2.88 ACRES)

BUILDING SETBACKS:	REQUIRED	PROVIDED
FRONT (US HIGHWAY 441)	65 FT.	128 FT & 65 FT.
SIDE (SE 100TH COURT)	65 FT.	65 FT.
SIDE (SOUTH EAST)	65 FT.	131 FT.
REAR (SOUTH WEST)	25 FT.	36 FT.

LANDSCAPE BUFFER:	REQUIRED	PROVIDED
FRONT (US HIGHWAY 441)	15 FT.	15 FT.
SIDE (SE 100TH COURT)	15 FT.	15 FT.
SIDE (SOUTH EAST)		22 FT.
REAR (SOUTH WEST)	30 FT.	15 FT.

TOTAL BUILDING AREA	CONVENIENCE STORE	CAR WASH	TOTAL
	8,087 SF	3,200 SF	11,287 SF

PROPOSED SITE AREA CALCULATIONS:

TOTAL BUILDING AREA	11,287 SF
PAVING AND SIDEWALK	69,694 SF
IMPERVIOUS AREA	80,981 SF (64.49%)
PERVIOUS AREA	44,600 SF (35.51%)
SITE AREA	125,581 SF (100%)

EXISTING IMPERVIOUS AREA 0
EXISTING PERVIOUS AREA 125,581 SF 2.88 AC (100%)

PARKING REQUIRED

RESTAURANT:
ONE (1) SPACE PER 75 SF OF GROSS FLOOR AREA = (1,475 / 75) = 20 SPACES

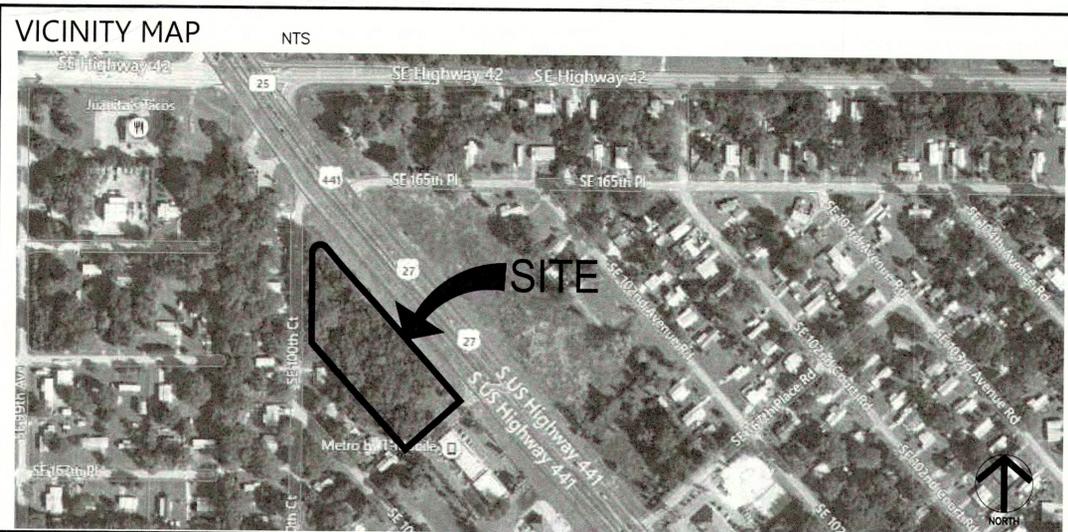
CONVENIENCE STORE:
ONE (1) SPACE PER 300 SF OF GROSS FLOOR AREA = (8,087 - 1,450) / 300 = 23 SPACES

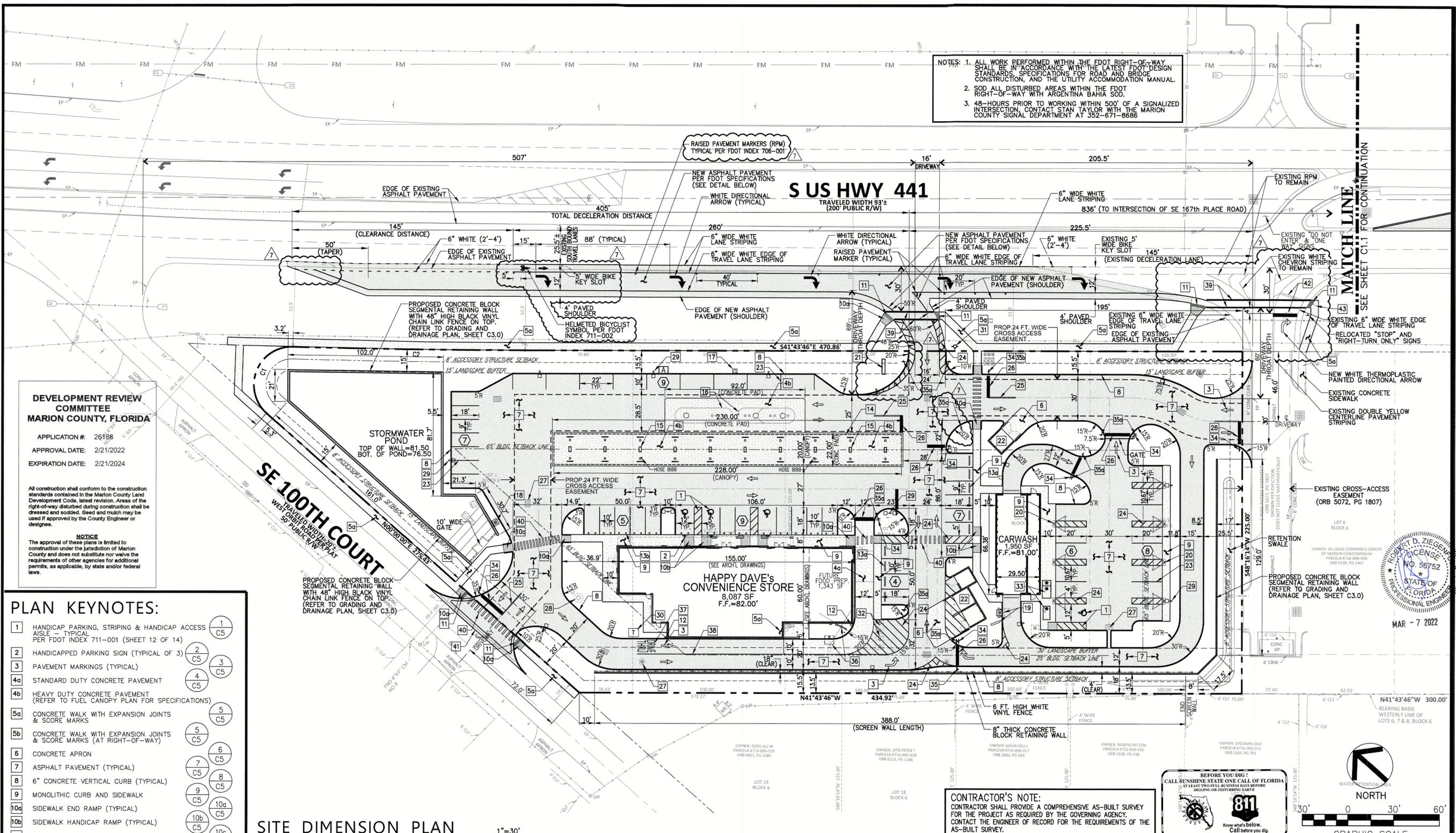
CAR WASH:
FIVE (5) SPACE PER BAY
1 (5) = 5 SPACES

TOTAL PARKING REQUIRED = 48 SPACES

PARKING PROVIDED

REGULAR	56 SPACES
HANDICAPPED	3 SPACES
TOTAL	59 SPACES





NOTES: 1. ALL WORK PERFORMED WITHIN THE FDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE LATEST FDOT DESIGN STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE UTILITY ACCOMMODATION MANUAL.
 2. SOD ALL DISTURBED AREAS WITHIN THE FDOT RIGHT-OF-WAY WITH ARGENTINA BAHIA SOD.
 3. 48-HOURS PRIOR TO WORKING WITHIN 500' OF A SIGNALIZED INTERSECTION, CONTACT STAN TAYLOR WITH THE MARION COUNTY SIGNAL DEPARTMENT AT 352-671-8686

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA
 APPLICATION #: 26188
 APPROVAL DATE: 2/21/2022
 EXPIRATION DATE: 2/21/2024

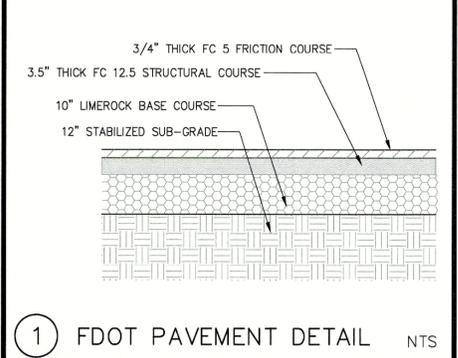
All construction shall conform to the construction standards contained in the Marion County Land Development Code, latest revision. Areas of the right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designer.
NOTICE
 The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

PLAN KEYNOTES:

- 1 HANDICAP PARKING, STRIPING & HANDICAP ACCESS AISLE - TYPICAL PER FDOT INDEX 711-001 (SHEET 12 OF 14)
- 2 HANDICAPPED PARKING SIGN (TYPICAL OF 3)
- 3 PAVEMENT MARKINGS (TYPICAL)
- 4 STANDARD DUTY CONCRETE PAVEMENT
- 4b HEAVY DUTY CONCRETE PAVEMENT (REFER TO FUEL CANOPY PLAN FOR SPECIFICATIONS)
- 5a CONCRETE WALK WITH EXPANSION JOINTS & SCORE MARKS
- 5b CONCRETE WALK WITH EXPANSION JOINTS & SCORE MARKS (AT RIGHT-OF-WAY)
- 6 CONCRETE APRON
- 7 ASPHALT PAVEMENT (TYPICAL)
- 8 6" CONCRETE VERTICAL CURB (TYPICAL)
- 9 MONOLITHIC CURB AND SIDEWALK
- 10a SIDEWALK END RAMP (TYPICAL)
- 10b SIDEWALK HANDICAP RAMP (TYPICAL)
- 10c SIDEWALK CORNER RAMP
- 11 DETECTABLE WARNING (TYPICAL)
- 12 BOLLARD (TYPICAL)
- 13a CONCRETE WHEEL STOP
- 13b 48" HIGH 6" STEEL PIPE BOLLARD WITH PLASTIC COVER (SEE DETAIL ON SHEET C1.1)
- 14 20 FT. x 228 FT. FUEL CANOPY (REFER TO FUEL CANOPY PLANS BY OTHERS)
- 15 GAS FUEL PUMPS - TYPICAL (REFER TO FUEL CANOPY PLANS (BY OTHERS))
- 16 UNDERGROUND STORAGE FUEL TANKS REFER TO FUEL PLANS BY (OTHERS)
- 17 EMERGENCY STOP (WITH BOLLARDS) REFER TO FUEL PLANS (BY OTHERS)
- 18 VENT STACK PAD REFER TO FUEL PLANS (BY OTHERS)
- 19 CARWASH PAY STATION (AND CANOPY) (REFER TO ARCHITECTURAL PLANS)
- 20 VACUUM STATION - TYPICAL (REFER TO ARCHITECTURAL PLANS)
- 21 MAIN ID (MONUMENT) SIGN (UNDER SEPARATE PERMIT)
- 22 DUMPSTER ENCLOSURE (REFER TO ARCHITECTURAL PLANS FOR DETAILS)
- 23 6" WIDE WHITE PARKING LANE STRIPING (TYPICAL)
- 24 6" WIDE WHITE (PAINT) DIAGONAL (CHEVRON) STRIPING SPACED AT 4 FT. ON-CENTER
- 25 6" WIDE DOUBLE YELLOW PAINTED CENTERLINE STRIPING (20 FT. LONG)
- 26 24" WIDE WHITE PAINTED STOP BAR
- 27 DRAINAGE STRUCTURE (TYPICAL) (REFER TO GRADING & DRAINAGE PLAN, SHEET C3.0)
- 28 PROPOSED LIFT STATION (REFER TO SITE UTILITY PLAN, SHEET C2.0)
- 29 SITE LIGHTING FIXTURE (TYPICAL) (REFER TO PHOTOMETRIC PLAN BY WLS)
- 30 PROPOSED TRANSFORMER PAD (REFER TO SITE UTILITY PLAN, SHEET C3.0)
- 31 PROPOSED FIRE HYDRANT (REFER TO SITE UTILITY PLAN, SHEET C3.0)
- 32 PROPOSED GREASE TRAP INTERCEPTOR (REFER TO SITE UTILITY PLAN, SHEET C2.0)
- 33 PROPOSED UNDERGROUND RECLAIM WATER TANK (REFER TO SITE UTILITY PLAN, SHEET C2.0)
- 34 30" "STOP" SIGN (R1-1) - TYPICAL
- 35 "DO NOT ENTER" SIGN (R5-1) - TYPICAL
- 35a "NO RIGHT TURN" SIGN (R3-1)
- 35b "NO LEFT TURN" SIGN (R3-2)
- 36 MENU BOARD AND ORDER STATION (BY OTHERS)
- 37 "DRIVE-THRU" GRAPHICS PAVEMENT MARKING
- 38 6" WIDE WHITE PAVEMENT LANE MARKING
- 39 12" WIDE THERMOPLASTIC SOLID PEDESTRIAN CROSSWALK LINE PER FDOT INDEX 711-001-1 (SHEET 2 OF 14)
 NOTE: EXISTING WHITE CHEVRON STRIPING WITHIN PEDESTRIAN CROSSWALK LINES SHALL BE REMOVED OR PAINTED OVER WITH BLACK PAINT.
- 40 12" WIDE x 5 FT. LONG SPACED AT 3 FT. ON-CENTER PAINTED CROSSWALK STRIPING
- 41 3 FT. WIDE CONCRETE VALLEY GUTTER
- 42 EXISTING STOP BAR AND PAVEMENT ARROW TO BE REMOVED OR PAINTED OVER WITH BLACK PAINT
- 43 EXISTING "STOP" AND "ONE-WAY" SIGNS TO BE RELOCATED

SITE DIMENSION PLAN 1"=30'

CONTRACTOR'S NOTE:
 CONTRACTOR SHALL PROVIDE A COMPREHENSIVE AS-BUILT SURVEY FOR THE PROJECT AS REQUIRED BY THE GOVERNING AGENCY. CONTACT THE ENGINEER OF RECORD FOR THE REQUIREMENTS OF THE AS-BUILT SURVEY.



FDOT NOTES:

- THE PERMITTEE IS HEREBY NOTIFIED THAT IF THE PERMITTED CONNECTION POSES A CURRENT OR POTENTIAL SAFETY OR OPERATIONAL PROBLEM THAT ENDANGERS THE HEALTH, SAFETY OR WELFARE OF THE PUBLIC, THE OWNER/PERMITTEE WILL BE RESPONSIBLE FOR ANY AND ALL COSTS ASSOCIATED WITH THE REQUIRED MODIFICATION PER FAC GUIDELINES.
- ALL AFFECTED SIDEWALKS, RAMPS AND CROSSWALKS WILL BE BUILT AND INSPECTED TO MEET CURRENT ADA REQUIREMENTS.

Z DEVELOPMENT
 S e r v i c e s
 CA 29354
 708 E. COLONIAL DR., STE 100 PH: (407) 271-8910
 ORLANDO, FL 32803 FAX: (407) 442-0604

REVISION	DATE	REVISION
△ COUNTY COMMENTS	06-18-21	
△ FDOT COMMENTS	08-02-21	
△ COUNTY COMMENTS	08-31-21	
△ FDOT COMMENTS	10-07-21	
△ FDOT COMMENTS	12-02-21	

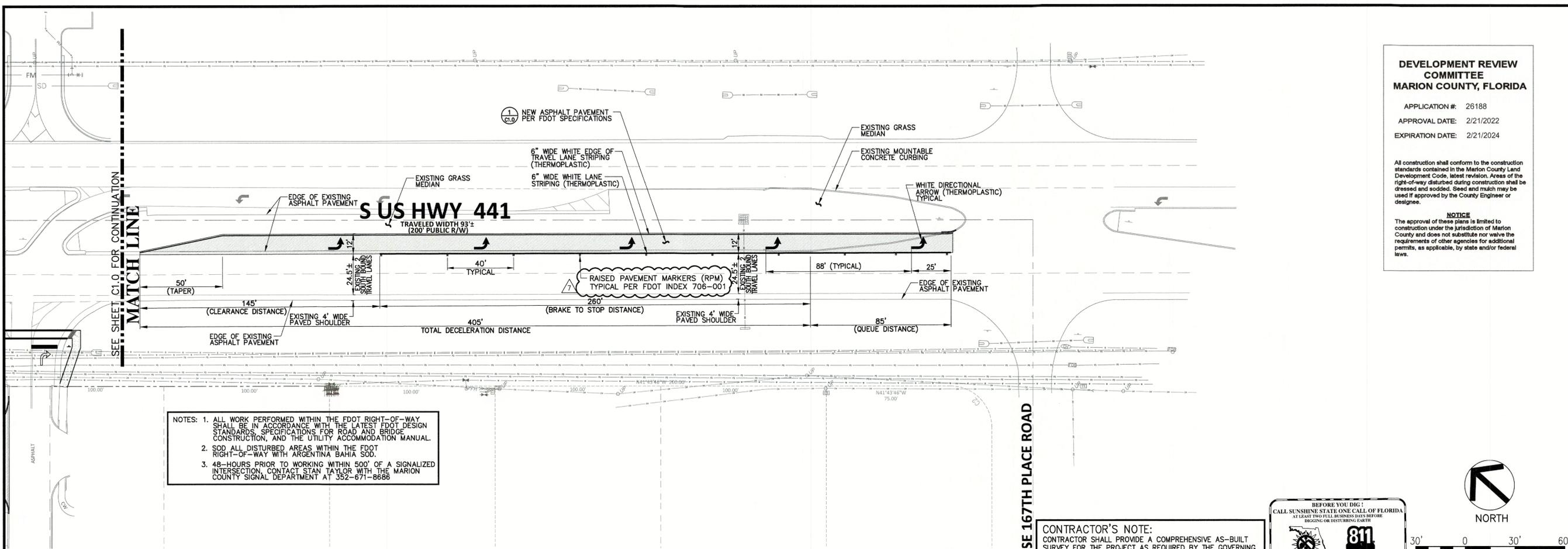
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 Date: 2022.01.26 14:58:29 -0500

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

DATE: 01-29-21
 DRAWN: JR
 CHECKED: RZ

C1.0
 SITE DIMENSION PLAN
 PROJECT NO.: 2020.181

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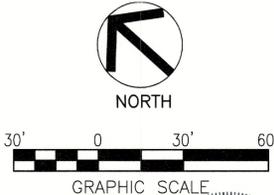
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 2. SOD ALL DISTURBED AREAS WITHIN THE FDOT RIGHT-OF-WAY WITH ARGENTINA BAHIA SOD.
 3. 48-HOURS PRIOR TO WORKING WITHIN 500' OF A SIGNALIZED INTERSECTION, CONTACT STAN TAYLOR WITH THE MARION COUNTY SIGNAL DEPARTMENT AT 352-671-8666

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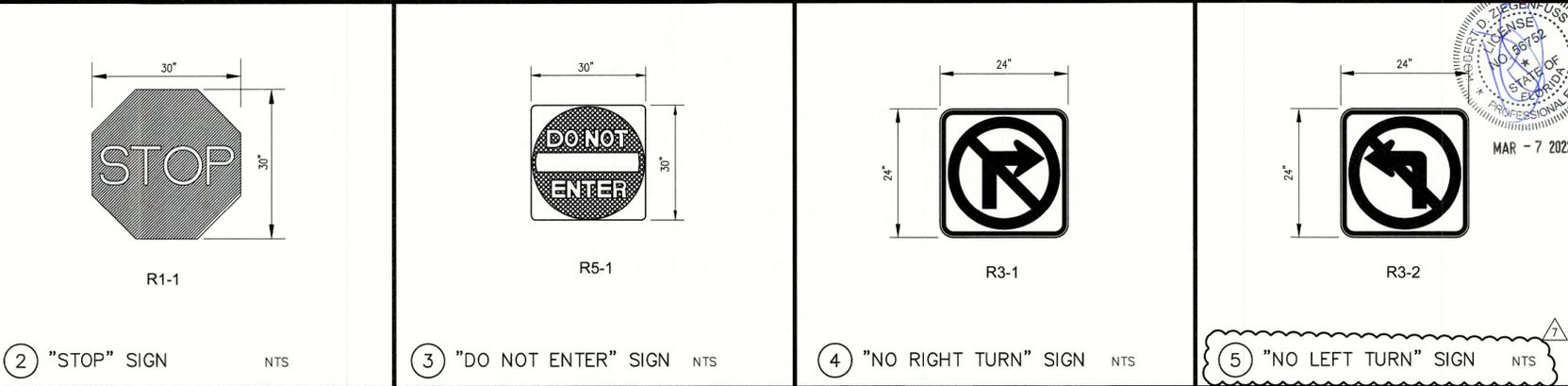
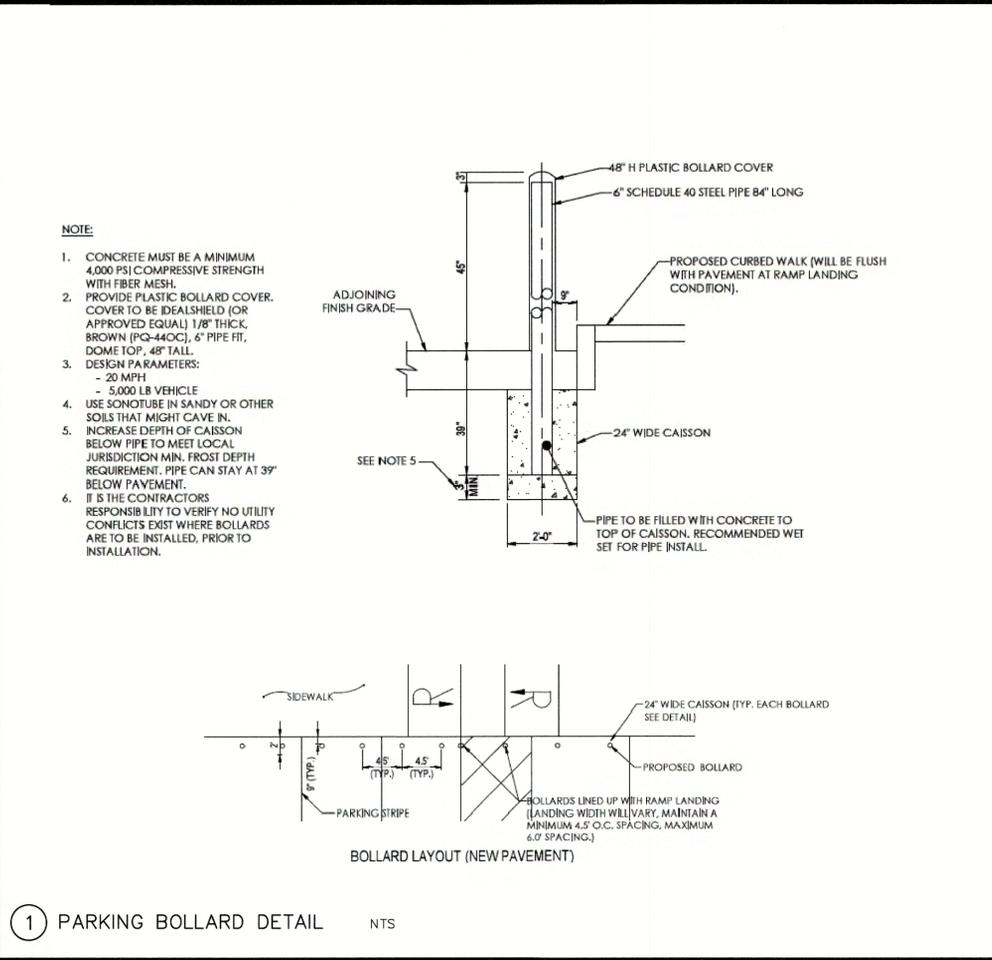
NOTICE
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CONTRACTOR'S NOTE:
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SITE DIMENSION PLAN

1"=30'



1 PARKING BOLLARD DETAIL NTS

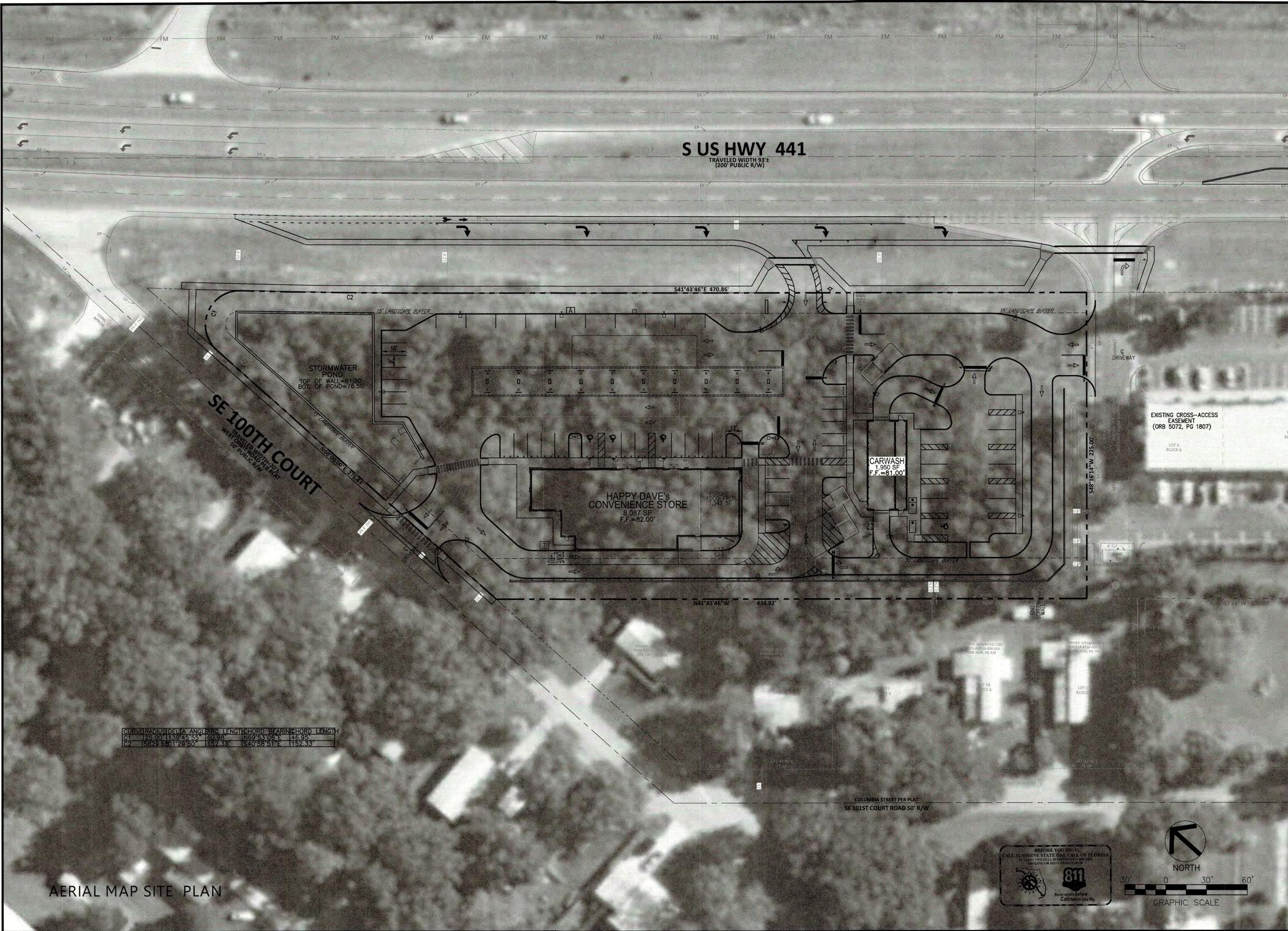
MZ DEVELOPMENT SERVICES
 CA 29354
 708 E. COLONIAL DR., STE 100
 ORLANDO, FL 32803
 PH: (407) 271-8910
 FAX: (407) 442-0604

REVISION	DATE	REVISION	DATE
1	10-07-21		
2	12-02-21		

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 Date: 2022.01.26 14:09:48 -05'00'
 ROBERT ZIEGENFUSS, P.E., LEED AP
 FL REG. # 58752

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

DATE: 01-29-21
 DRAWN: JR
 CHECKED: RZ
C1.1
 SITE DIMENSION PLAN
 PROJECT NO.: 2020.181



AERIAL MAP SITE PLAN



Z DEVELOPMENT
CA 29354
708 E. COLONIAL DR., STE 100
ORLANDO, FL 32803
PH: (407) 271-8910
FAX: (407) 442-0604

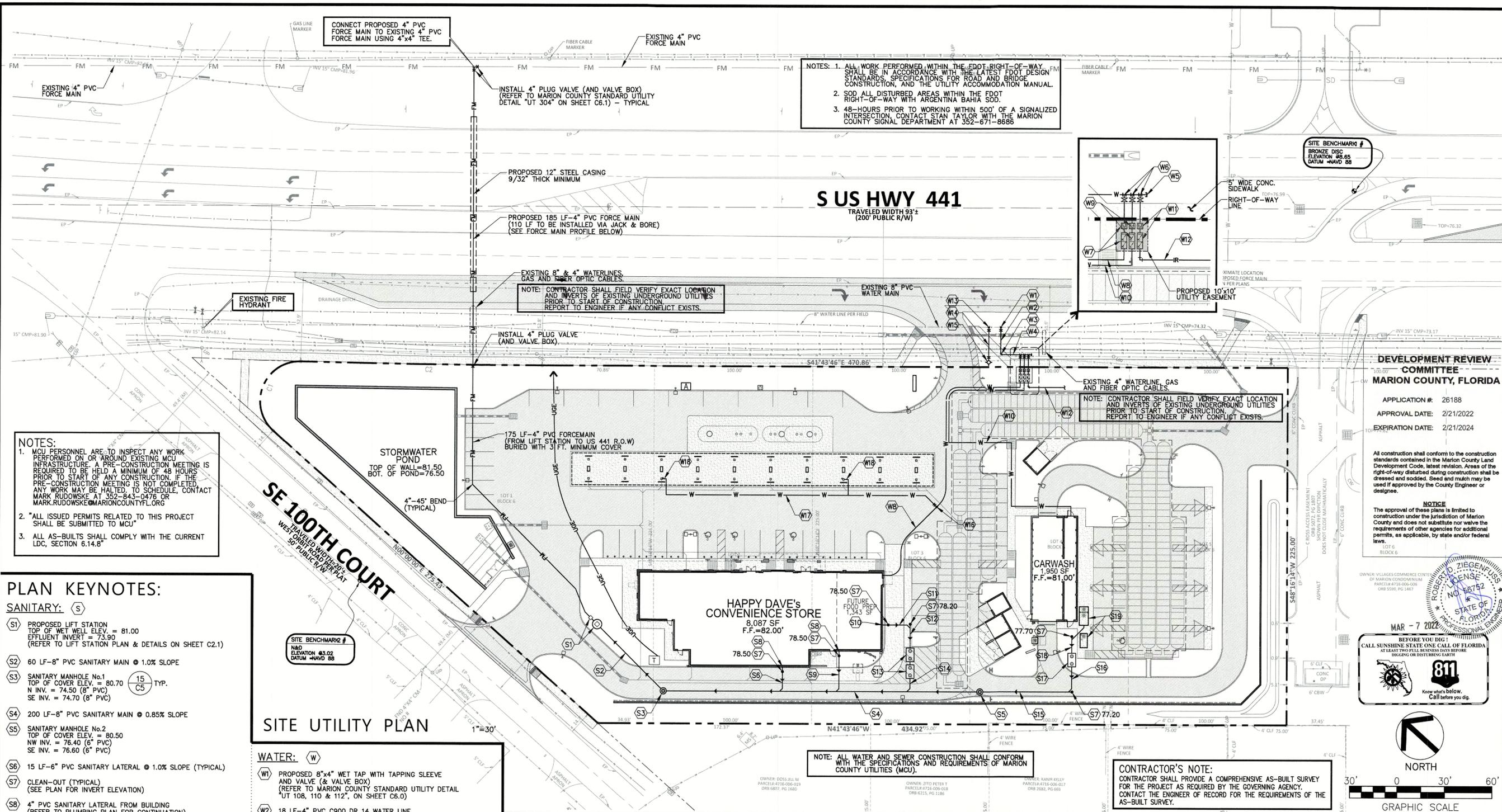
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ROBERT ZIEGENFUSS, P.E., LEED AP
FL. REG. # 56752

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
S: US HIGHWAY 441 & SE 100TH COURT
SUMMERFIELD, FLORIDA 34491
MARION COUNTY
MAJOR SITE PLAN #26188

DATE: 01-29-21
DRAWN: JR
CHECKED: RZ
C1 RECEIVED
AERIAL MAP SITE PLAN
PROJECT NO: 2020.181

Marion County
Office of County Engineer

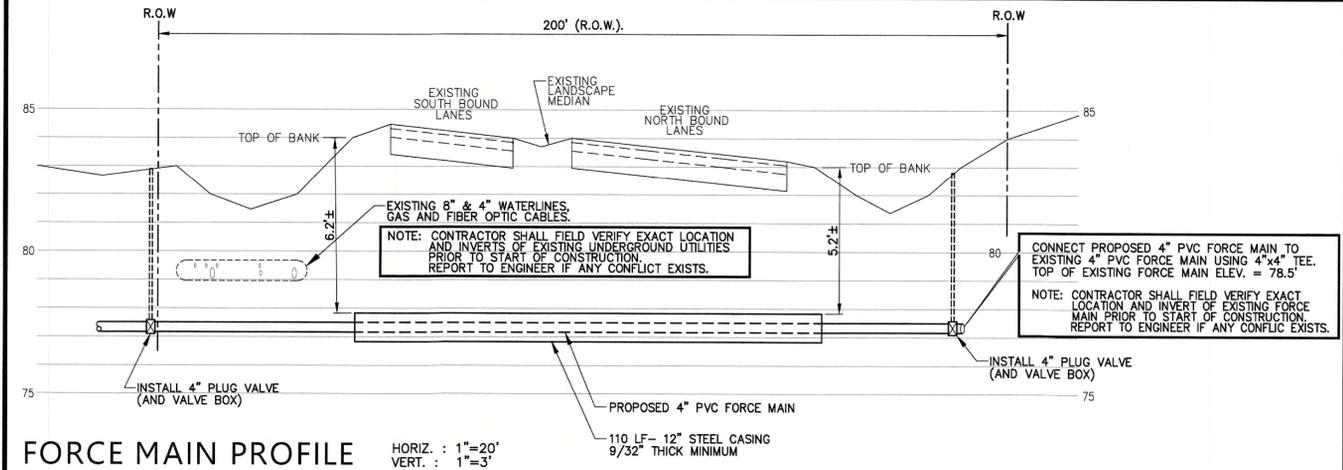


NOTES:

1. MCI PERSONNEL ARE TO INSPECT ANY WORK PERFORMED ON OR AROUND EXISTING MCI INFRASTRUCTURE. A PRE-CONSTRUCTION MEETING IS REQUIRED TO BE HELD A MINIMUM OF 48 HOURS PRIOR TO START OF ANY CONSTRUCTION. IF THE PRE-CONSTRUCTION MEETING IS NOT COMPLETED, ANY WORK MAY BE HALTED, TO SCHEDULE, CONTACT MARK RUDOWSKI AT 352-843-0476 OR MARK.RUDOWSKI@MARIONCOUNTYFL.GOV
2. *ALL ISSUED PERMITS RELATED TO THIS PROJECT SHALL BE SUBMITTED TO MCI*
3. ALL AS-BUILTS SHALL COMPLY WITH THE CURRENT LDC, SECTION 6.14.8*

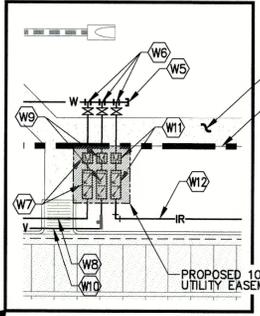
- PLAN KEYNOTES:**
- SANITARY: (S)**
- (S1) PROPOSED LIFT STATION TOP OF WET WELL ELEV. = 81.00 EFFLUENT INVERT = 73.90 (REFER TO LIFT STATION PLAN & DETAILS ON SHEET C2.1)
 - (S2) 60 LF-8" PVC SANITARY MAIN @ 1.0% SLOPE
 - (S3) SANITARY MANHOLE No.1 TOP OF COVER ELEV. = 80.70 N INV. = 74.50 (8" PVC) SE INV. = 74.70 (8" PVC)
 - (S4) 200 LF-8" PVC SANITARY MAIN @ 0.85% SLOPE
 - (S5) SANITARY MANHOLE No.2 TOP OF COVER ELEV. = 80.50 NW INV. = 76.40 (6" PVC) SE INV. = 76.60 (6" PVC)
 - (S6) 15 LF-6" PVC SANITARY LATERAL @ 1.0% SLOPE (TYPICAL)
 - (S7) CLEAN-OUT (TYPICAL) (SEE PLAN FOR INVERT ELEVATION)
 - (S8) 4" PVC SANITARY LATERAL FROM BUILDING (REFER TO PLUMBING PLAN FOR CONTINUATION)
 - (S9) 25 LF-6" PVC SANITARY LATERAL @ 1.0% SLOPE MINIMUM
 - (S10) 4" PVC GREASE LATERAL FROM BUILDING (REFER TO PLUMBING PLAN FOR CONTINUATION)
 - (S11) 15 LF-4" PVC GREASE LATERAL @ 2.0% SLOPE
 - (S12) 10 LF-4" PVC GREASE LATERAL @ 2.0% SLOPE
 - (S13) TWO (2) - 1,250 GALLONS GREASE TRAPS (REFER TO PLUMBING PLAN FOR DETAILS).
GREASE TRAP No.1 TOP OF COVER ELEV.=80.80 INV. IN = 78.00 INV. OUT = 77.80
GREASE TRAP No.2 TOP OF COVER ELEV.=80.70 INV. IN = 77.70 INV. OUT = 77.50
 - (S14) 4" PVC SANITARY LATERAL @ 2.0% SLOPE MINIMUM
 - (S15) 60 LF-6" PVC SANITARY LATERAL @ 1.0% SLOPE
 - (S16) 15 LF-6" PVC SANITARY LATERAL @ 1.0% SLOPE
 - (S17) ONE (1) - 750 GALLONS OIL/WATER SEPARATOR (REFER TO PLUMBING PLAN FOR DETAILS).
TOP OF COVER ELEV.=80.70 INV. IN = 77.60 INV. OUT = 77.35
 - (S18) 10 LF-6" PVC SANITARY LATERAL @ 1.0% SLOPE
 - (S19) TWO (2) - 1,500 GALLONS RECLAIM WATER TANK (REFER TO PLUMBING PLAN FOR DETAILS).
TOP OF COVER ELEV.= 80.90

- WATER: (W)**
- (W1) PROPOSED 8"x4" WET TAP WITH TAPPING SLEEVE AND VALVE (& VALVE BOX) (REFER TO MARION COUNTY STANDARD UTILITY DETAIL UT 108, 110 & 112*, ON SHEET C6.0)
 - (W2) 18 LF-4" PVC C900 DR 14 WATER LINE (TO BE INSTALLED WITH 3 FT. MINIMUM COVER)
 - (W3) 4"-90° BEND (WITH RESTRAINED JOINT)
 - (W4) 20 LF-8" PVC C900 DR 14 WATER LINE (TO BE INSTALLED WITH 3 FT. MINIMUM COVER)
 - (W5) 4" CAP (WITH RESTRAINED JOINT)
 - (W6) 8"x2" WET TAP WITH TAPPING SLEEVE AND VALVE (& VALVE BOX)
 - (W7) 2" DOMESTIC WATER METER AND 2" REDUCED PRESSURE ZONE BACKFLOW PREVENTER ASSEMBLY (FOR C-STORE BUILDING) (REFER TO MARION COUNTY STANDARD UTILITY DETAIL "UT 209" ON SHEET C6.0) - TYPICAL
 - (W8) 210 LF-2 1/2" POLYETHYLENE TUBING (PE) DOMESTIC WATER SERVICE TO C-STORE BUILDING (TO BE INSTALLED WITH 3 FT. MINIMUM COVER)
 - (W9) 2" DOMESTIC WATER METER AND 2" REDUCED PRESSURE ZONE BACKFLOW PREVENTER ASSEMBLY (FOR CARWASH BUILDING)
 - (W10) 165 LF-2" POLYETHYLENE TUBING (PE) DOMESTIC WATER SERVICE TO CARWASH BUILDING (TO BE INSTALLED WITH 3 FT. MINIMUM COVER)
 - (W11) 1 1/2" IRRIGATION WATER METER AND 1 1/2" REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTER ASSEMBLY
- IRRIGATION:**
- (W12) 1 1/2" PVC IRRIGATION LINE (REFER TO IRRIGATION PLAN FOR CONTINUATION)
 - (W13) PROPOSED 8"x6" WET TAP WITH TAPPING SLEEVE AND VALVE (& VALVE BOX)
 - (W14) 22 LF-6" PVC C900 DR 14 WATER LINE (TO BE INSTALLED WITH 3 FT. MINIMUM COVER)
 - (W15) PROPOSED FIRE HYDRANT ASSEMBLY (PUBLIC) (REFER TO MARION COUNTY STANDARD UTILITY DETAIL "UT 210" ON SHEET C6.0)
 - (W16) 2 1/2" x 3/4" TEE
3/4" GATE VALVE (AND VALVE BOX)
 - (W17) 185 LF - 3/4" PVC WATER SERVICE TO FUEL CANOPY
 - (W18) 3/4" HOSE BIB - TYPICAL (REFER TO PLUMBING PLAN FOR DETAILS)
- OTHER:**
- (W19) 175 LF-4" PVC FORCE MAIN (FROM LIFT STATION TO US 441 R.O.W) BURIED WITH 3 FT. MINIMUM COVER



NOTES:

1. ALL WORK PERFORMED WITHIN THE FDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE LATEST FDOT DESIGN STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE UTILITY ACCOMMODATION MANUAL.
2. SOD ALL DISTURBED AREAS WITHIN THE FDOT RIGHT-OF-WAY WITH ARGENTINA BAHIA SOD.
3. 48-HOURS PRIOR TO WORKING WITHIN 500' OF A SIGNALIZED INTERSECTION, CONTACT STAN TAYLOR WITH THE MARION COUNTY SIGNAL DEPARTMENT AT 352-671-8686

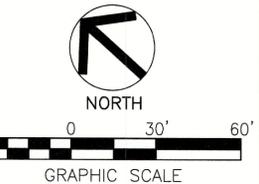


DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 26188
APPROVAL DATE: 2/21/2022
EXPIRATION DATE: 2/21/2024

All construction shall conform to the construction standards contained in the Marion County Land Development Code, latest revision. Areas of the right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.



CONTRACTOR'S NOTE:
CONTRACTOR SHALL PROVIDE A COMPREHENSIVE AS-BUILT SURVEY FOR THE PROJECT AS REQUIRED BY THE GOVERNING AGENCY. CONTACT THE ENGINEER OF RECORD FOR THE REQUIREMENTS OF THE AS-BUILT SURVEY.

NOTE: ALL WATER AND SEWER CONSTRUCTION SHALL CONFORM WITH THE SPECIFICATIONS AND REQUIREMENTS OF MARION COUNTY UTILITIES (MCI).

NOTE: NEW FIRE HYDRANT SHALL BE INSTALLED, TESTED AND PAINTED PER NFPA 291, BY A THIRD PARTY CONTRACTOR AND WITNESSED BY A MARION COUNTY FIRE INSPECTOR.

NOTE: CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND INVERTS OF EXISTING UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION. REPORT TO ENGINEER IF ANY CONFLICT EXISTS.

NOTE: CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND INVERTS OF EXISTING FORCE MAIN PRIOR TO START OF CONSTRUCTION. REPORT TO ENGINEER IF ANY CONFLICT EXISTS.

Z DEVELOPMENT SERVICES
CA 29354
708 E. COLONIAL DR., STE 100 PH: (407) 271-8910
ORLANDO, FL 32803 FAX: (407) 442-0604

DATE	REVISION
08-18-21	DATE
08-31-21	REVISION
10-07-21	DATE
10-11-21	REVISION

REVISION

- △ COUNTY COMMENTS
- △ COUNTY COMMENTS
- △ FDOT COMMENTS
- △ COUNTY COMMENTS

Digitally signed by Robert Ziegenfuss
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ROBERT ZIEGENFUSS, P.E., LEED AP
FL REG. # 56752

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
S. US HIGHWAY 441 & SE 100TH COURT
SUMMERFIELD, FLORIDA 34491
MARION COUNTY
MAJOR SITE PLAN #26188

DATE: 01-29-21
DRAWN: JR
CHECKED: RZ

C2.0
SITE UTILITY PLAN
PROJECT NO.: 2020.181

RECEIVED
MAR 14 2022
Marion County
Office of County Engineer

NOTE: COMPLETE SYSTEM TO BE SUPPLIED BY:

RILEY & COMPANY, INC.
SANFORD, FL 32773
(407)265-9963

NO SUBSTITUTIONS - NO ALTERNATES
LIFT STATION WILL BE PRIVATELY OWNED AND MAINTAINED.

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

After the H-20 load rated wetwell has been installed, the ASTM Certification Number and Serial Tracking Number must be visible inside wetwell.

PUMPS: (3 YR. WARRANTY)

Submersible grinder pumps shall be HOMA Model RCGRP79/3(T). The pumps shall be installed in the H-20 GP FRP wetwell utilizing a slide rail system. The grinder unit shall be capable of macerating materials normally found in domestic and commercial sewage into a fine slurry which will pass through the pump and the HDPE discharge piping.

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

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

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

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

DUPLEX CONTROL PANEL: (3 YR. WARRANTY)

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

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

The enclosure shall have external mounting feet to allow for wall mounting. The following components shall be mounted through the enclosure:

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

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

The following components shall be mounted to back panel:

- 1- ea. RILEY & COMPANY GUARD PRO III MONITORING SYSTEM
- 2- ea. Motor Contactors
- 1- ea. Phase Monitor (3 Ph) w/2 N/O & 1 N/C Contacts
- 1- ea. Control Transformer (480 Volt Only) (Min. 500VA)
- 1- ea. Lightning Arrestor
- 1- ea. Silence Relay Module
- 1- ea. Duplex Alternator w/ Pump Selector Switch
- 1- ea. Model RCBS5AH Battery Back-Up w/ Smart Charger For The High Level Alarm System
- 20- ea. Terminals For Field Connections
- 6- ea. Terminals For Motor Connections (Single Phase Only)
- 7- ea. Grounding Lugs
- 1- ea. Seal Failure Relay

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

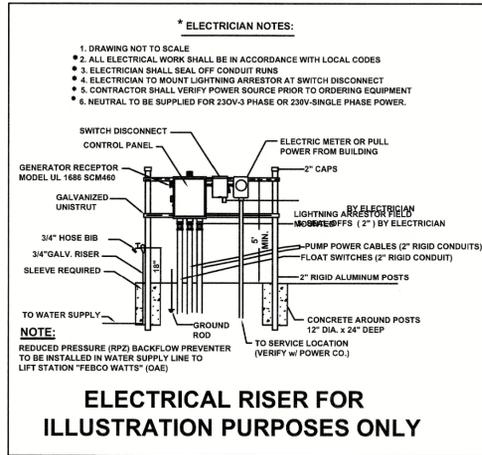
The following components shall be mounted through the inner door:

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

RILEY & Company, Inc. (H-20 GP) ©
w/ BATTERY BACK-UP FOR AUDIO - VISUAL ALARMS,
AND RILEY & COMPANY GUARD PRO III MONITORING SYSTEM

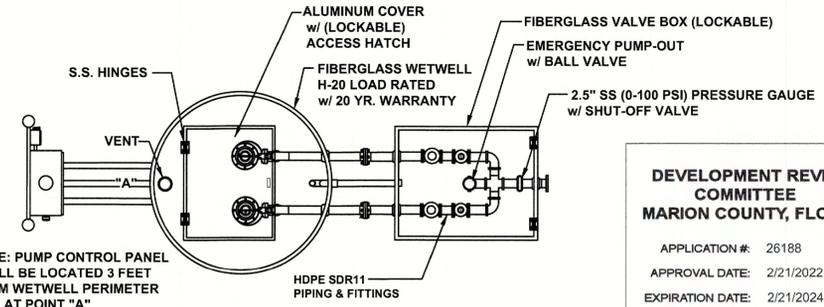
RILEY & COMPANY, INC. / GUARD PRO III MONITORING SYSTEM:
 The GUARD PRO III offers a remote control and maintenance solution which allows you to create a decentralized system or monitor and control devices. With the GUARD PRO III upto eight (8) different lift station inputs can be monitored and upto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

PUMP DATA		ELEVATIONS	
PRIMARY PUMP CAPACITY	80 GPM	TOP OF WETWELL	81.00
PRIMARY TDH	130 TDH	INLET INVERT	73.90
PUMP MANUFACTURER	HOMA	HIGH LEVEL ALARM (HLA)	73.50
PUMP MODEL #	RCGRP79/3(T)	2nd PUMP ON (LAG)	73.00
R.P.M.	3450	1st PUMP ON (LEAD)	72.50
HORSEPOWER	8.90	PUMPS OFF (OFF)	69.00
IMPELLER DIAMETER	163 mm	BOTTOM OF WETWELL	66.00
ELECTRICAL/ VOLTS / PHASE	230V/3	WETWELL DIAMETER	48"
FULL LOAD AMPS/ PER PUMP	22.0		
PUMP DISCHARGE SIZE	2"		



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

02-05-2021



DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 26188
 APPROVAL DATE: 2/21/2022
 EXPIRATION DATE: 2/21/2024

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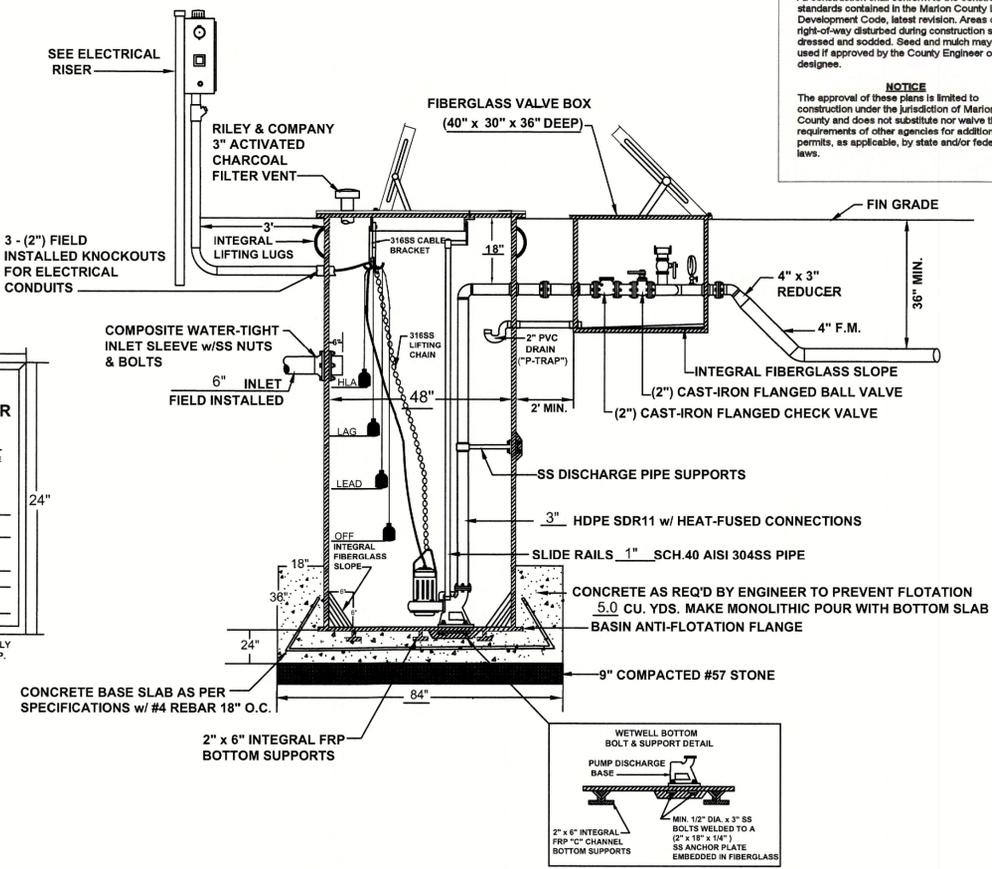
PRIVATE SANITARY SEWER PUMP STATION

IN CASE OF EMERGENCY CONTACT THE FOLLOWING NUMBERS:

FACILITY OWNED BY: _____
 NAME: _____
 PHONE NUMBER: _____

FACILITY MAINTAINED BY: _____
 NAME: _____
 PHONE NUMBER: _____
 STATION NUMBER: _____

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



ELECTRICAL INFORMATION IS SHOWN FOR REFERENCE ONLY AND IS NOT INCLUDED AS PART OF THE ENGINEERING DESIGN OR CERTIFICATION BY PROFESSIONAL ENGINEER. ANY ELECTRICAL DESIGN NEEDED FOR THE LIFT STATION SHALL BE CONFIRMED AND CERTIFIED BY A PROFESSIONAL ELECTRICAL ENGINEER.

THIS IS A COPYRIGHTED DRAWING. ANY CHANGES OR MODIFICATIONS WITHOUT WRITTEN APPROVAL FROM RILEY & COMPANY, INC. IS STRICTLY PROHIBITED. ©

REVISIONS	BY

RILEY & Company, Inc.
 5491 Benchmark Lane
 Sanford, FL 32773
PH. 407-265-9963

HAPPY DAVES

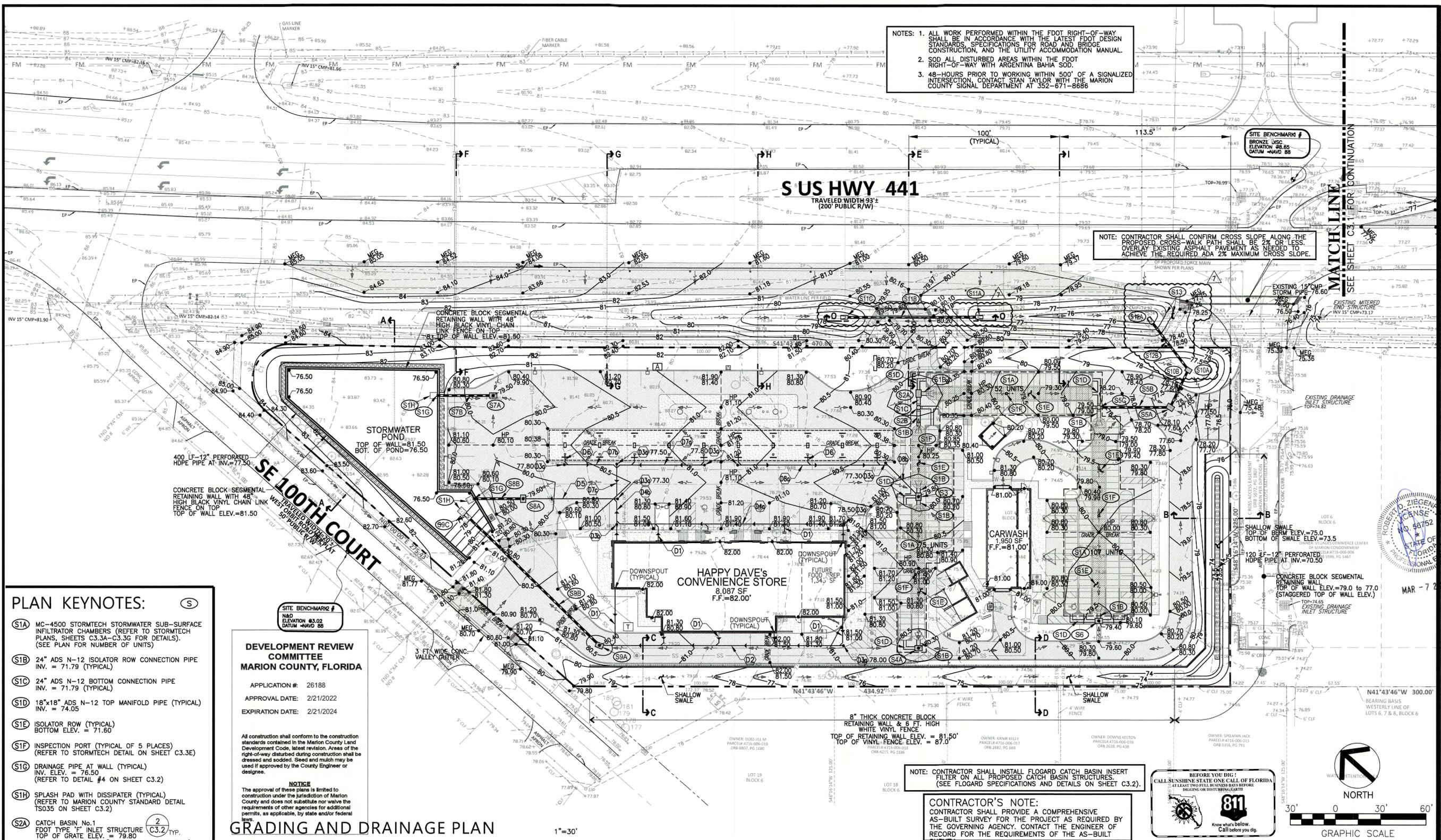
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Z DEVELOPMENT
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 CA 29354
 708 E. COLONIAL DR., STE 100
 ORLANDO, FL 32803
 PH: (407) 271-8910
 FAX: (407) 442-0604

REVISION	DATE	REVISION	DATE

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

DATE: 01-29-21
 DRAWN: JR
 CHECKED: RZ
RECEIVED
 LIFT STATION PLAN AND DETAILS
 PROJECT NO.: 2020.181



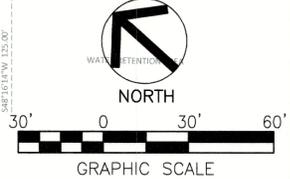
NOTES: 1. ALL WORK PERFORMED WITHIN THE FDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE LATEST FDOT DESIGN STANDARDS, SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE UTILITY ACCOMMODATION MANUAL.
 2. SOD ALL DISTURBED AREAS WITHIN THE FDOT RIGHT-OF-WAY WITH ARGENTINA BAHIA SOD.
 3. 48-HOURS PRIOR TO WORKING WITHIN 500' OF A SIGNALIZED INTERSECTION, CONTACT STAN TAYLOR WITH THE MARION COUNTY SIGNAL DEPARTMENT AT 352-671-8666

NOTE: CONTRACTOR SHALL CONFIRM CROSS SLOPE ALONG THE PROPOSED CROSS-WALK PATH SHALL BE 2% OR LESS. OVERLAY EXISTING ASPHALT PAVEMENT AS NEEDED TO ACHIEVE THE REQUIRED ADA 2% MAXIMUM CROSS SLOPE.

NOTE: CONTRACTOR SHALL INSTALL FLOGARD CATCH BASIN INSERT FILTER ON ALL PROPOSED CATCH BASIN STRUCTURES. (SEE FLOGARD SPECIFICATIONS AND DETAILS ON SHEET C3.2).

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BEFORE YOU DIG!
 CALL SUNSHINE STATE ONE CALL OF FLORIDA AT LEAST TWO FULL BUSINESS DAYS BEFORE DIGGING OR DRIVING BARRIERS.
 Know what's below. Call before you dig.



PLAN KEYNOTES:

- (S1A) MC-4500 STORMTECH STORMWATER SUB-SURFACE INFILTRATOR CHAMBERS (REFER TO STORMTECH PLANS, SHEETS C3.3A-C3.3G FOR DETAILS). (SEE PLAN FOR NUMBER OF UNITS)
- (S1B) 24" ADS N-12 ISOLATOR ROW CONNECTION PIPE INV. = 71.79 (TYPICAL)
- (S1C) 24" ADS N-12 BOTTOM CONNECTION PIPE INV. = 71.79 (TYPICAL)
- (S1D) 18"x18" ADS N-12 TOP MANIFOLD PIPE (TYPICAL) INV. = 74.05
- (S1E) ISOLATOR ROW (TYPICAL) BOTTOM ELEV. = 71.60
- (S1F) INSPECTION PORT (TYPICAL OF 5 PLACES) (REFER TO STORMTECH DETAIL ON SHEET C3.3E)
- (S1G) DRAINAGE PIPE AT WALL (TYPICAL) INV. ELEV. = 76.50 (REFER TO DETAIL #4 ON SHEET C3.2)
- (S1H) SPLASH PAD WITH DISSIPATOR (TYPICAL) (REFER TO MARION COUNTY STANDARD DETAIL TS035 ON SHEET C3.2)
- (S2A) CATCH BASIN No.1 FOOT TYPE 'F' INLET STRUCTURE (C3.2) TYP. TOP OF GRATE ELEV. = 79.80 SE INV. = 71.79 (24" ADS TO ISOLATOR ROW) NE INV. = 74.09 (18" ADS MANIFOLD) SW INV. = 71.79 (24" ADS) SUMP ELEV. = 70.00
- (S2B) STORM MANHOLE No.1 30" DIAMETER NYLOPLAST MANHOLE TOP OF COVER ELEV. = 79.95 NE INV. = 71.79 (24" ADS) SE INV. = 71.79 (24" ADS TO ISOLATOR ROW) SW INV. = 74.05 (18" ADS MANIFOLD) SUMP ELEV. = 69.79
- (S3) CATCH BASIN No.2 FOOT TYPE 'F' INLET STRUCTURE TOP OF GRATE ELEV. = 79.80 NE INV. = 71.79 (24" ADS TO ISOLATOR ROW) SE INV. = 71.79 (24" ADS TO ISOLATOR ROW) SW INV. = 74.05 (18" ADS MANIFOLD) NW INV. = 74.05 (18" ADS MANIFOLD) N INV. = 76.70 (8" PVC) SUMP ELEV. = 70.00
- (S4A) CATCH BASIN No.3 FOOT TYPE 'F' INLET STRUCTURE TOP OF GRATE ELEV. = 80.30 NE INV. = 71.79 (24" ADS TO ISOLATOR ROW) SE INV. = 74.05 (18" ADS MANIFOLD) NW INV. = 74.05 (18" ADS MANIFOLD) SUMP ELEV. = 74.00

DEVELOPMENT REVIEW COMMITTEE
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GRADING AND DRAINAGE PLAN

- (SSA) CATCH BASIN No.4 FOOT TYPE 'F' INLET STRUCTURE TOP OF GRATE ELEV. = 77.20 NW INV. = 73.30 (18" HDPE) E INV. = 73.30 (18" HDPE) SUMP ELEV. = 71.60
- (SSB) 45 LF-18" HDPE @ 0.66% SLOPE
- (SSC) STORM MANHOLE No.2 30" DIAMETER NYLOPLAST MANHOLE TOP OF COVER ELEV. = 78.55 SE INV. = 73.00 (18" HDPE) NE INV. = 74.05 (18" ADS MANIFOLD) NW INV. = 74.05 (18" ADS MANIFOLD) SW INV. = 71.79 (24" ADS TO ISOLATOR ROW) SUMP ELEV. = 67.79
- (S6) CATCH BASIN No.5 FOOT TYPE 'C' INLET STRUCTURE TOP OF GRATE ELEV. = 79.40 NE INV. = 71.79 (24" ADS TO ISOLATOR ROW) SE INV. = 74.05 (18" ADS MANIFOLD) NW INV. = 74.05 (18" ADS MANIFOLD) SUMP ELEV. = 70.00

- (S7A) CATCH BASIN No.6 FOOT TYPE 'F' INLET STRUCTURE TOP OF GRATE ELEV. = 77.20 NW INV. = 76.80 (18" HDPE) SUMP ELEV. = 75.30
- (S7B) 35 LF-18" HDPE @ 0.85% SLOPE
- (S7A) CATCH BASIN No.7 FOOT TYPE 'F' INLET STRUCTURE TOP OF GRATE ELEV. = 79.60 NW INV. = 76.70 (18" HDPE) SE INV. = 77.00 (10" PVC) SUMP ELEV. = 75.20
- (S7B) 32 LF-18" HDPE @ 0.62% SLOPE
- (S7A) CATCH BASIN No.8 FOOT TYPE 'F' INLET STRUCTURE TOP OF GRATE ELEV. = 80.40 N INV. = 77.00 (18" HDPE) SE INV. = 71.79 (24" ADS TO ISOLATOR ROW) SW INV. = 74.05 (18" ADS MANIFOLD) SUMP ELEV. = 75.50
- (S7B) 125 LF-18" HDPE @ 0.40% SLOPE

- (S9C) MITERED END SECTION No.1 INV. = 76.50 (REFER TO DETAIL #3 ON SHEET C3.2)-TYPICAL
- (S10A) CATCH BASIN No.9 FOOT TYPE 'C' INLET STRUCTURE TOP OF GRATE ELEV. = 77.20 SW INV. = 73.50 N INV. = 73.50
- (S10B) 27 LF-18" HDPE @ 0.74% SLOPE
- (S11A) MITERED END SECTION No.2 INV. = 75.60
- (S11B) 91 LF-18" RCP @ 0.43% SLOPE
- (S11C) MITERED END SECTION No.3 INV. = 76.00
- (S12A) MITERED END SECTION No.4 INV. = 75.00
- (S12B) 44 LF-18" RCP @ 3.41% SLOPE

- DOWNSPOUT DRAINAGE:**
- (D1) 4" PVC DOWNSPOUT FROM BUILDING-TYPICAL (REFER TO ARCHITECTURAL PLANS FOR DETAILS)
 - (D2) 160 LF-8" PVC DOWNSPOUT DRAIN @ 0.43% SLOPE
 - (D3) CLEAN-OUT (SEE PLAN FOR INVERT ELEVATION)
 - (D3C) DROP CLEAN-OUT INV. IN = 78.50 INV. OUT = 77.50
 - (D4) 150 LF-8" PVC DOWNSPOUT DRAIN @ 0.47% SLOPE
 - (D4B) 20 LF-8" PVC DOWNSPOUT DRAIN @ 1.0% SLOPE
 - (D5) 60 LF-10" PVC DOWNSPOUT DRAIN @ 0.50% SLOPE
 - (D6) 4" PVC DOWNSPOUT DRAIN FROM FUEL CANOPY (REFER TO FUEL CANOPY PLANS FOR DETAILS)
 - (D7) 60 LF-8" PVC DOWNSPOUT DRAIN @ 0.50% SLOPE
 - (D7B) 30 LF-6" PVC DOWNSPOUT DRAIN @ 1.0% SLOPE
 - (D7C) 20 LF-8" PVC DOWNSPOUT DRAIN @ 1.0% SLOPE
 - (D8) 100 LF-8" PVC DOWNSPOUT DRAIN @ 0.50% SLOPE

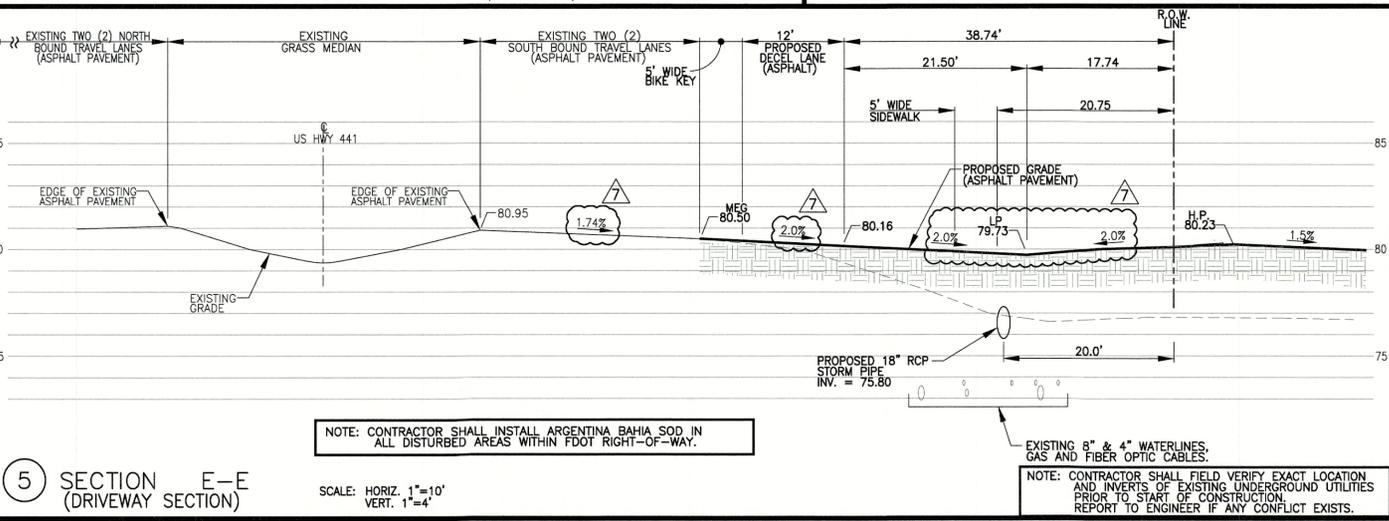
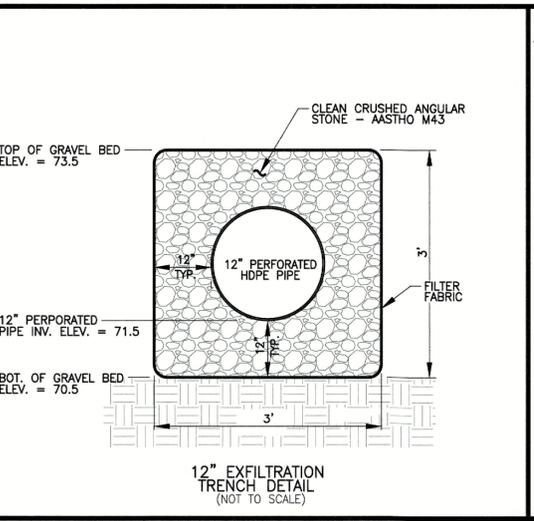
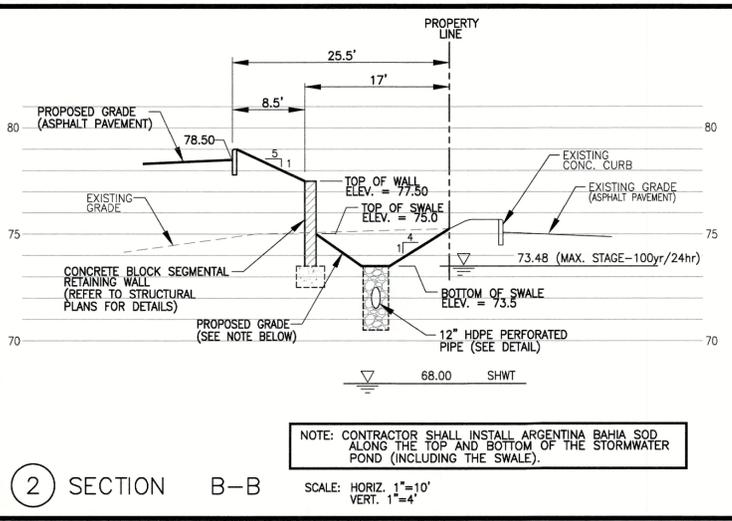
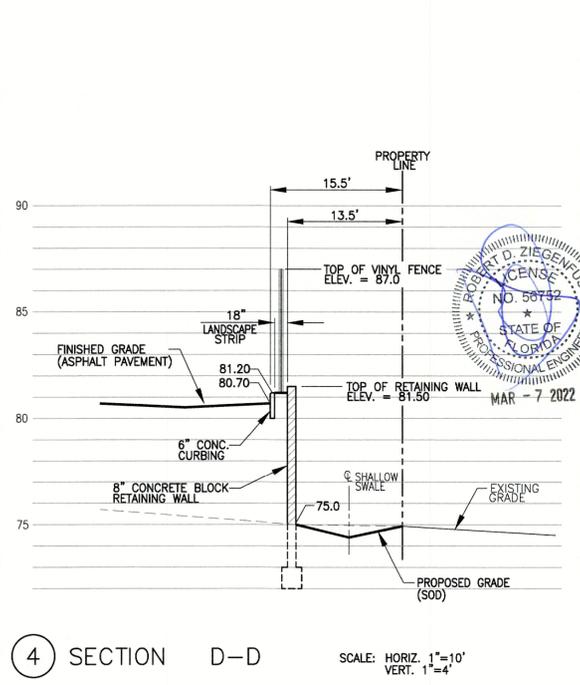
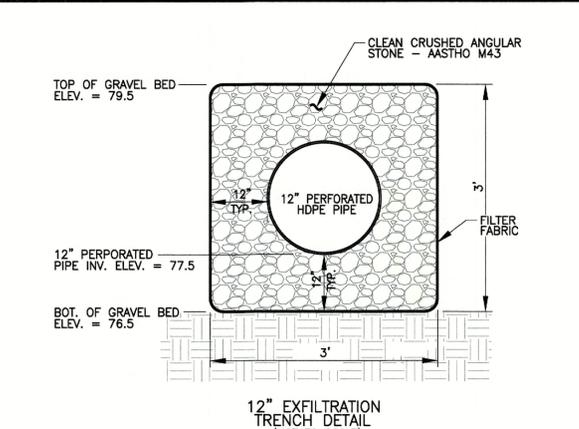
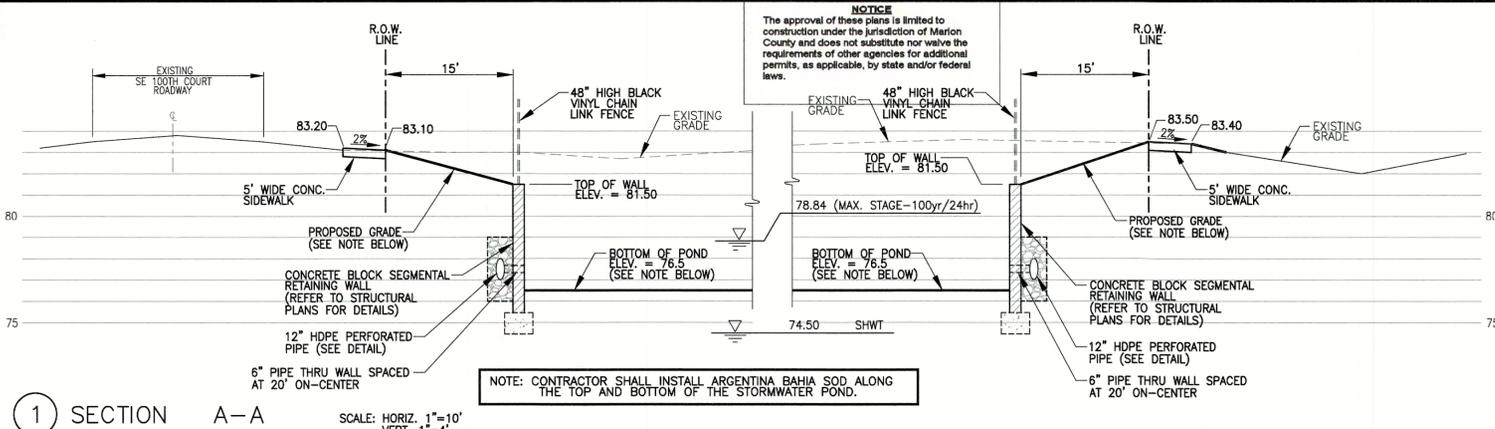
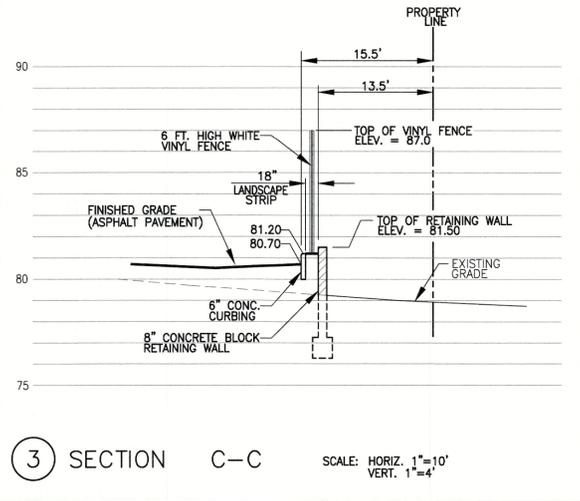
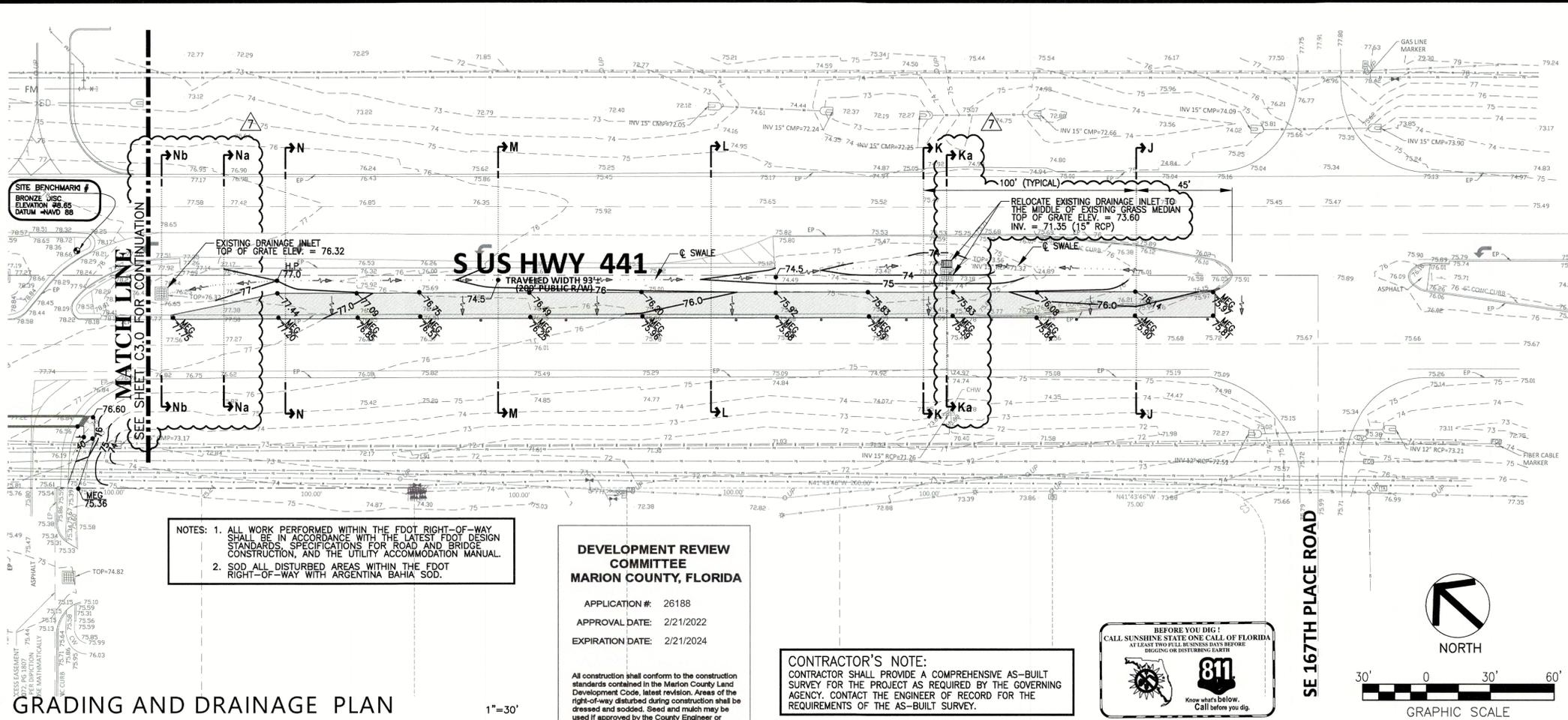
Z DEVELOPMENT
 s e r v i c e s
 CA 29354
 708 E. COLONIAL DR., STE 100 PH: (407) 271-8910
 ORLANDO, FL 32808 FAX: (407) 442-0604

DATE	REVISION
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08-02-21	FOOT COMMENTS
08-31-21	FOOT COMMENTS
10-07-21	FOOT COMMENTS
12-02-21	FOOT COMMENTS

Digitally signed by Robert Ziegenfuss
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 Service: oye=A01410C000016C4657E1D3
 0005313, cn=Robert Ziegenfuss
 Date: 2022.01.26 14:12:05 -05'00'
 ROBERT ZIEGENFUSS, P.E., LEED AP
 FL REC. # 56162

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
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Digitally signed by Robert Ziegenfuss
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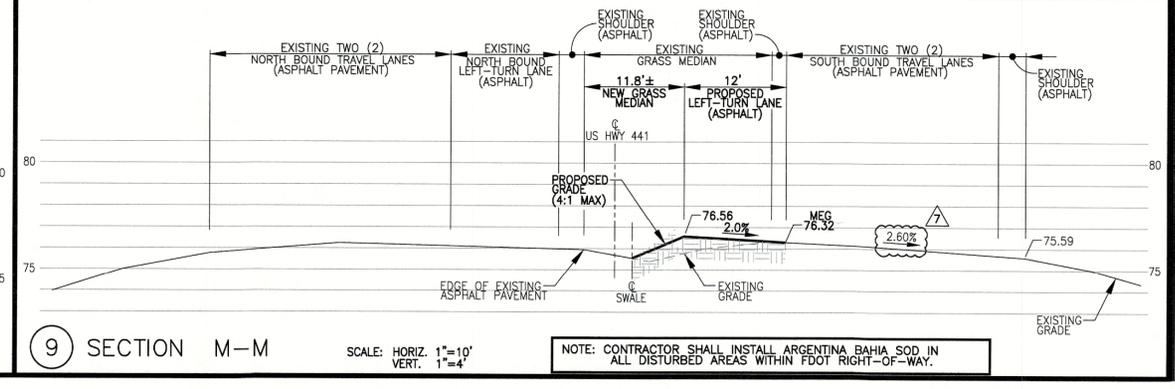
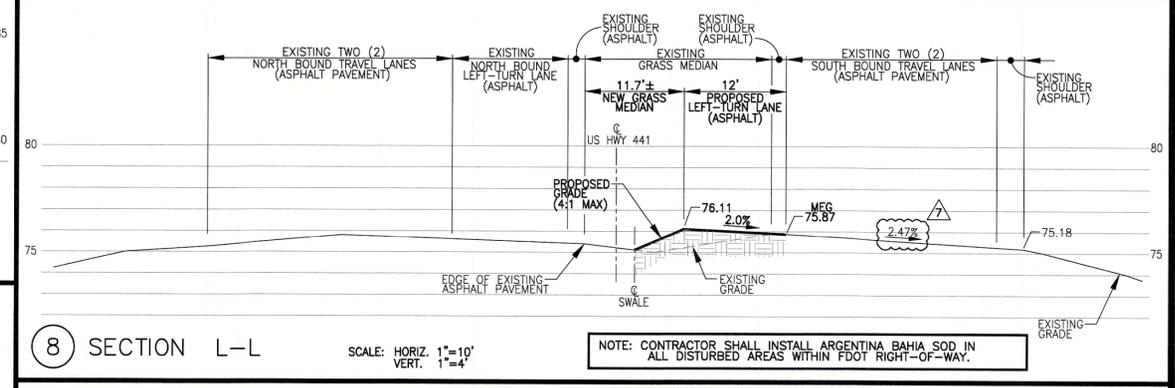
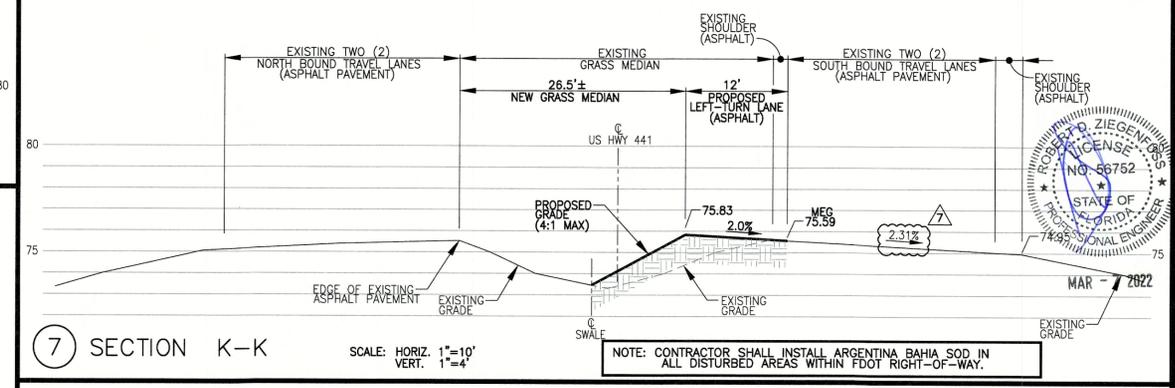
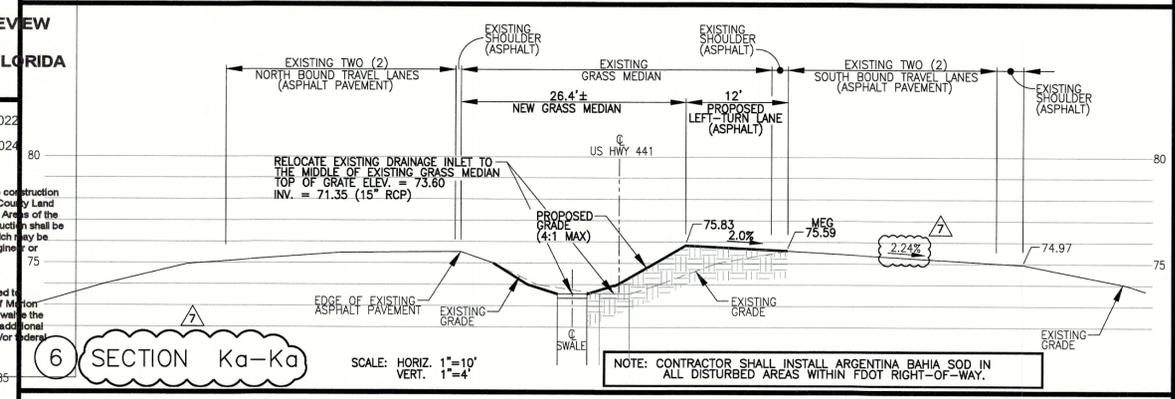
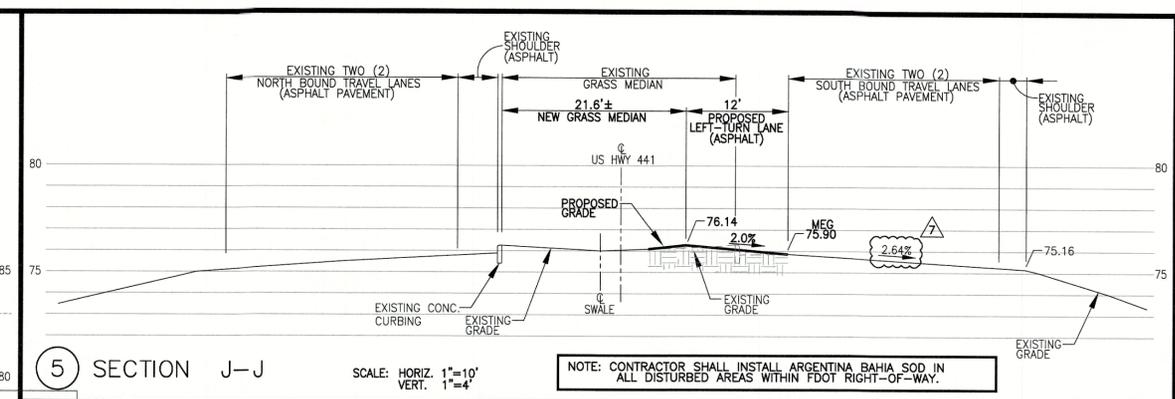
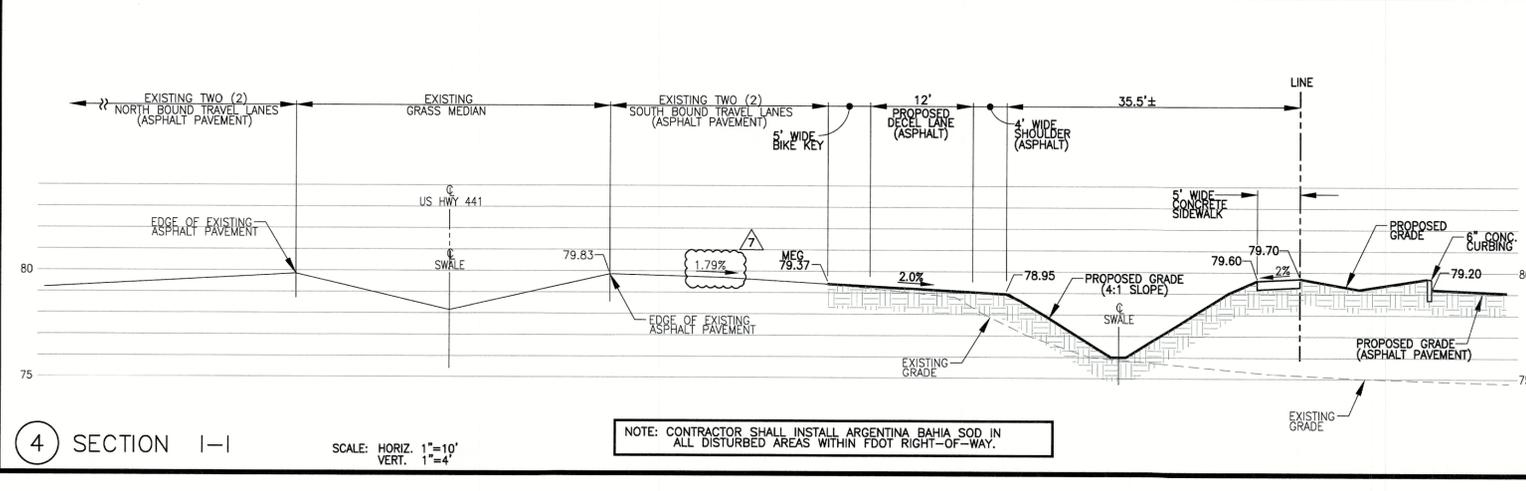
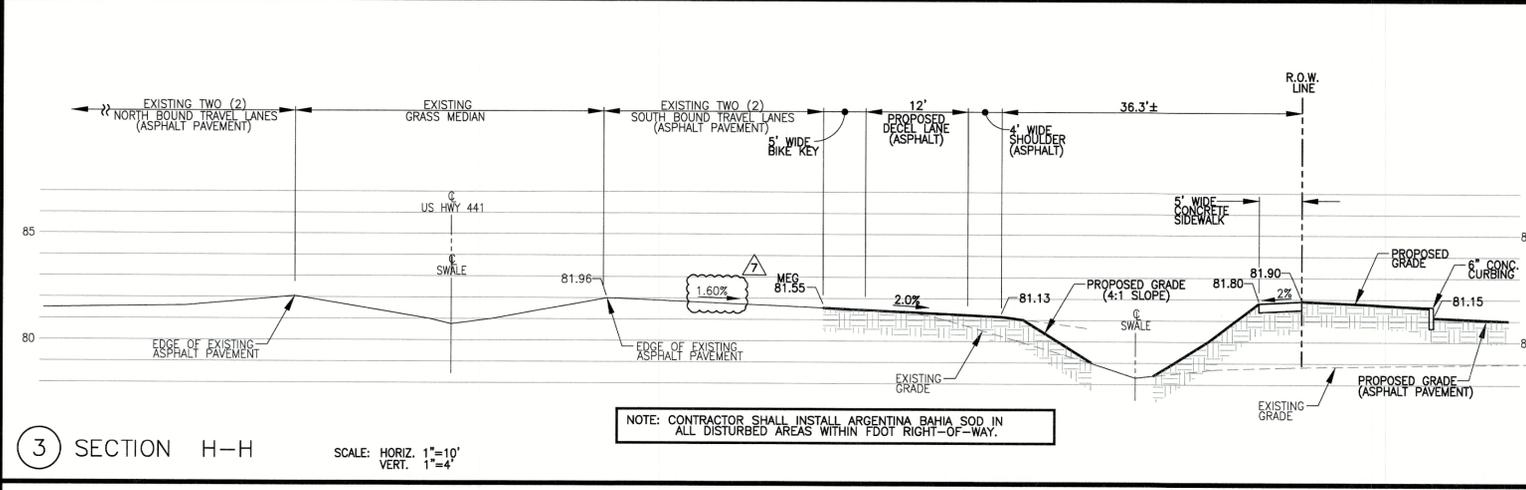
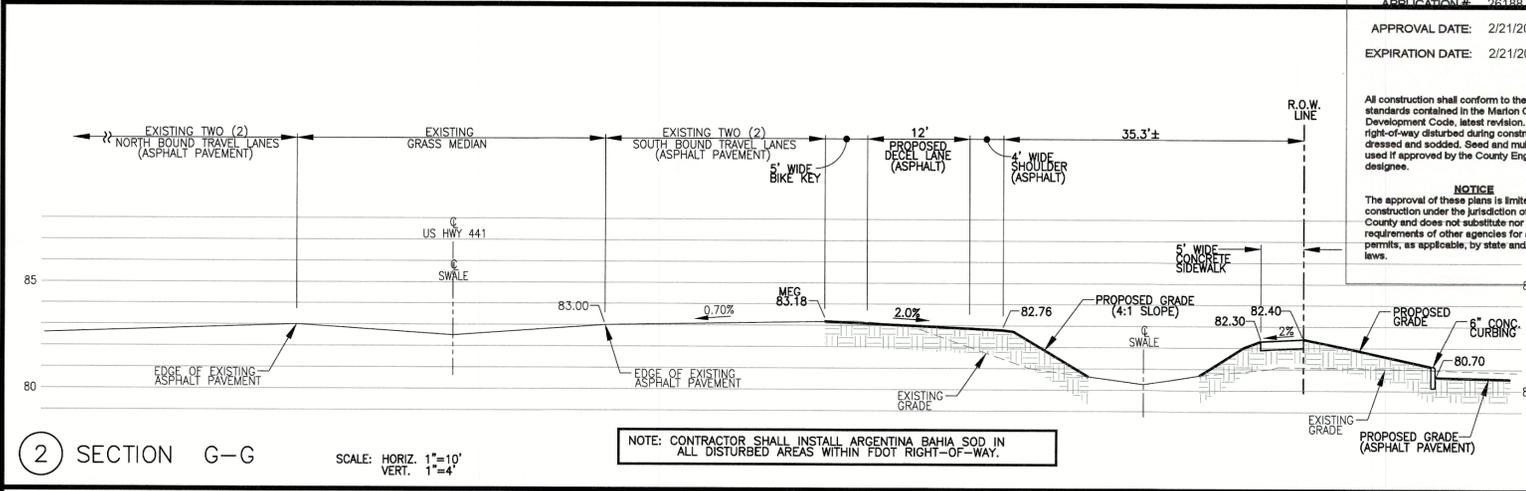
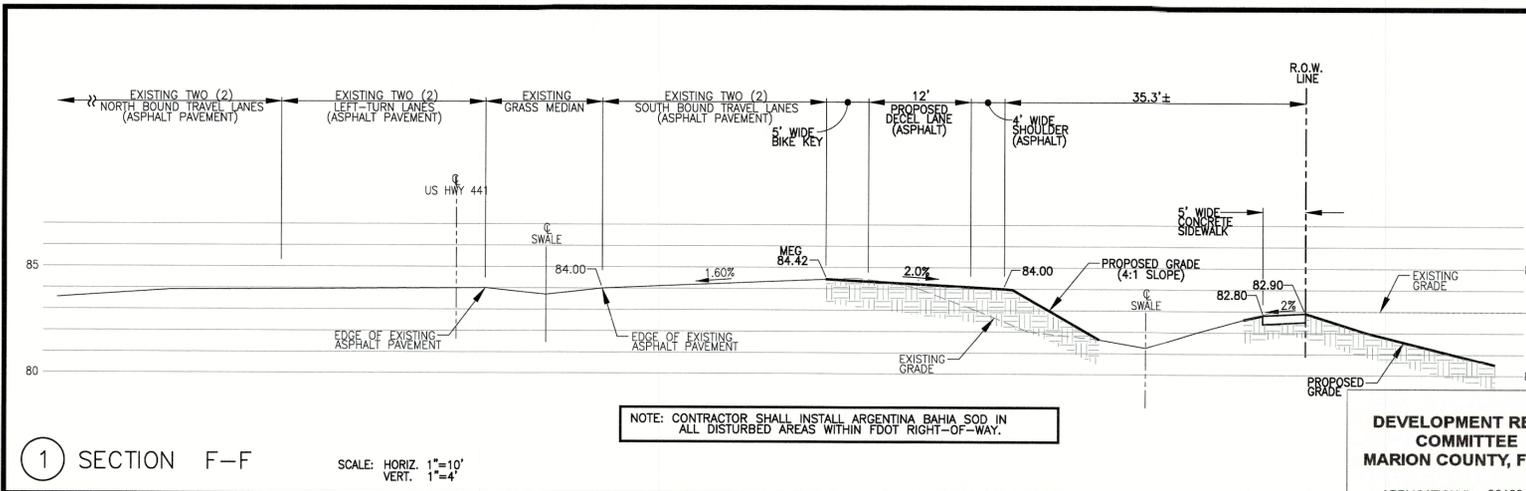
ROBERT ZIEGENFUSS, P.E., LEED AP
 FL REG. # 96792

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

DATE: 01-29-21
 DRAWN: JR
 CHECKED: RZ

C3.1 RECEIVED
 GRADING PLAN AND SECTIONS
 PROJECT NO.: 2020.181

MAR 14 2022
 Marion County

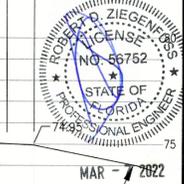


DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION # 26188
APPROVAL DATE: 2/21/2022
EXPIRATION DATE: 2/21/2024

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DATE	REVISION	COMMENTS
10-07-21		
12-02-21		

Digitally signed by Robert Ziegenfuss
DN: cn=us, o=Z Development Services, ou=01410C0000016C4657E1D3
6005313, c=Robert Ziegenfuss
Date: 2022.01.26 14:13:49 -0500
MAR 14 2022
ROBERT ZIEGENFUSS, P.E., LEED AP
FL REG. # 56762

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
S. US HIGHWAY 441 & SE 100TH COURT
SUMMERFIELD, FLORIDA 34491
MARION COUNTY
MAJOR SITE PLAN #26188

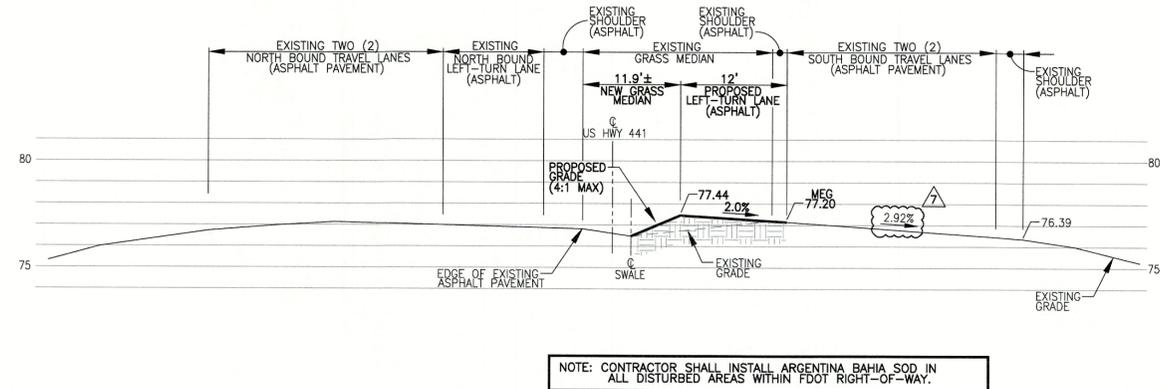
DATE: 01-29-21
DRAWN: JR
CHECKED: RZ
C3.1A
RECEIVED
MAR 14 2022
Marion County
Office of County Engineer
PROJECT NO.: 2020.181

**DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA**

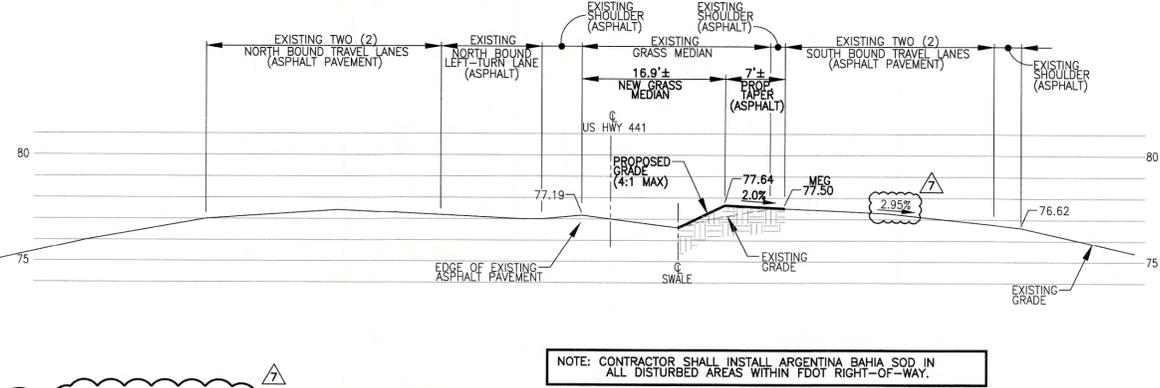
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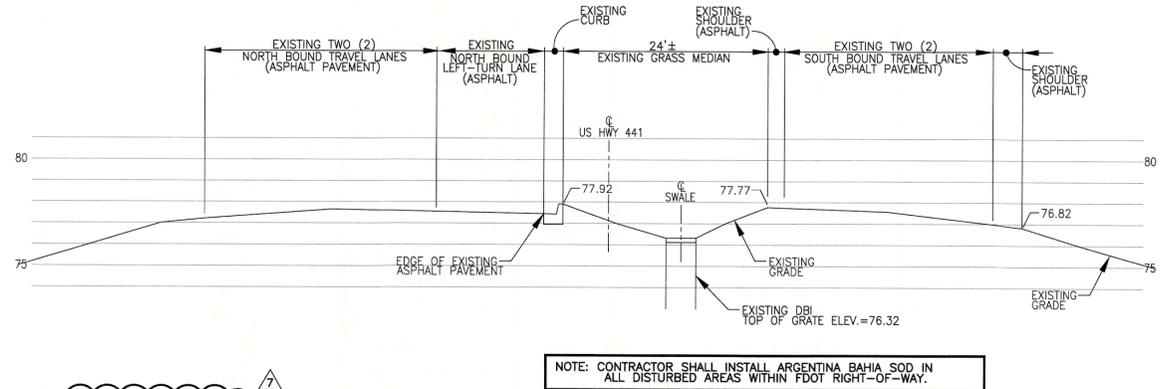
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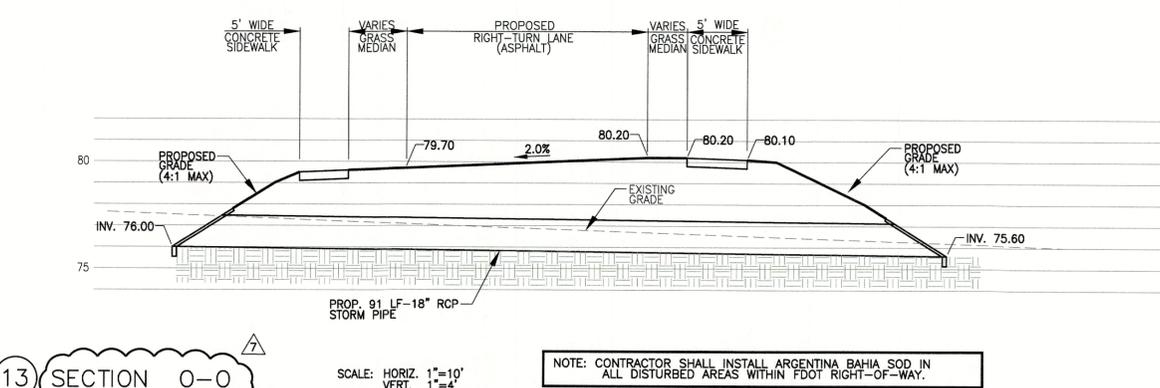
10 SECTION N-N SCALE: HORIZ. 1"=10'
VERT. 1"=4'



11 SECTION Na-Na SCALE: HORIZ. 1"=10'
VERT. 1"=4'



12 SECTION Nb-Nb SCALE: HORIZ. 1"=10'
VERT. 1"=4'



13 SECTION O-O SCALE: HORIZ. 1"=10'
VERT. 1"=4'



Z DEVELOPMENT
S e r v i c e s
CA 29354
708 E. COLONIAL DR., STE 100 PH: (407) 271-8910
ORLANDO, FL 32803 FAX: (407) 442-0604

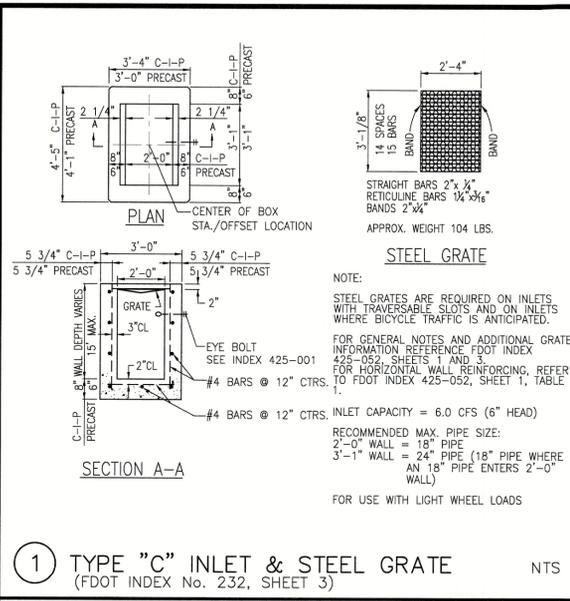
REVISION	DATE	REVISION
△ FDOT COMMENTS	10-07-21	
△ FDOT COMMENTS	12-02-21	

Digitally signed by Robert Ziegenfuss
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Date: 2022.01.26 14:25 -05'00'
ROBERT ZIEGENFUSS, P.E., LEED AP
FL REG. # 56752

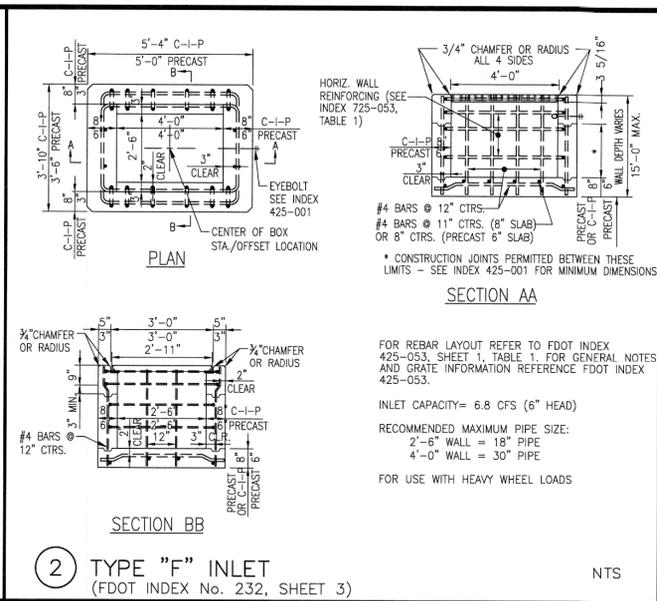
HAPPY DAVE'S CONVENIENCE STORE & CARWASH
S. US HIGHWAY 441 & SE 100TH COURT
SUMMERFIELD, FLORIDA 34491
MARION COUNTY
MAJOR SITE PLAN #26188

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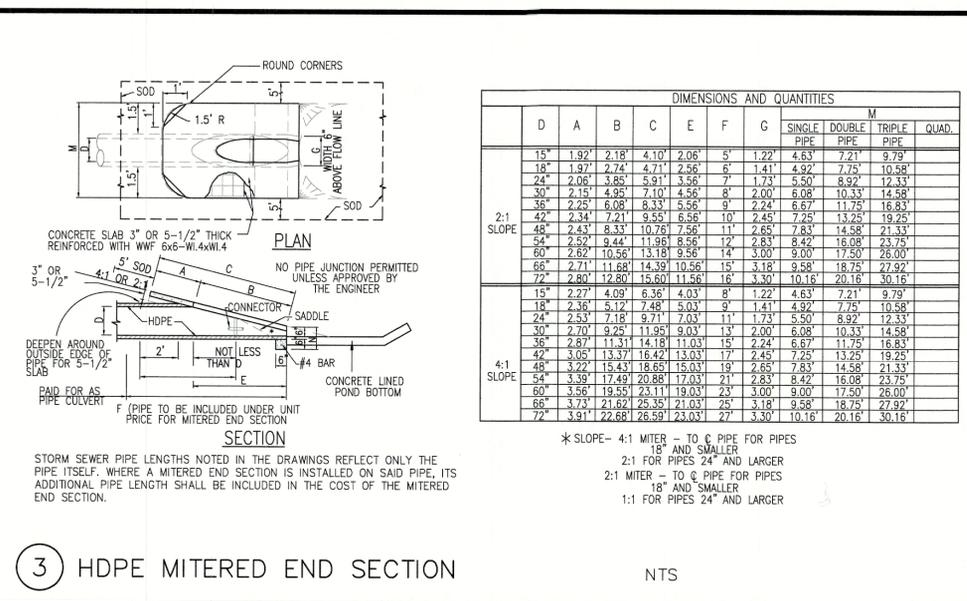
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GRADING SECTION #8
PROJECT NO.: 2020.181



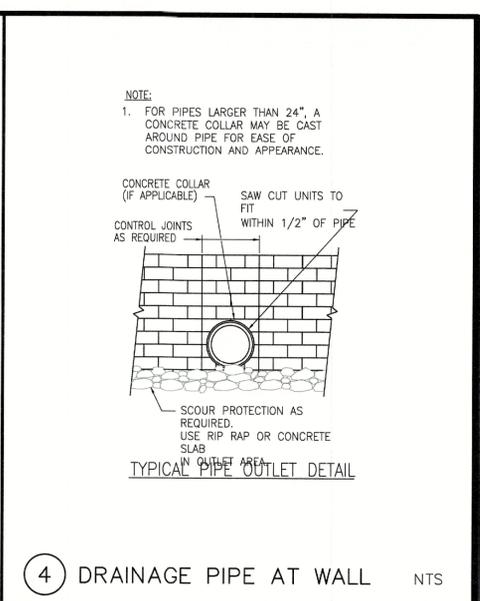
1 TYPE "C" INLET & STEEL GRATE (FDOT INDEX No. 232, SHEET 3) NTS



2 TYPE "F" INLET (FDOT INDEX No. 232, SHEET 3) NTS



3 HDPE MITERED END SECTION NTS



4 DRAINAGE PIPE AT WALL NTS

Oldcastle Infrastructure

FLOGARD® Catch Basin Insert Filter

Catch basin insert designed to capture sediment, gross solids, trash and petroleum hydrocarbons from low ("first flush") flows, even during the most extreme weather conditions

Example Types, Sizes and Capacities: Additional sizes, including regional and custom options are available.

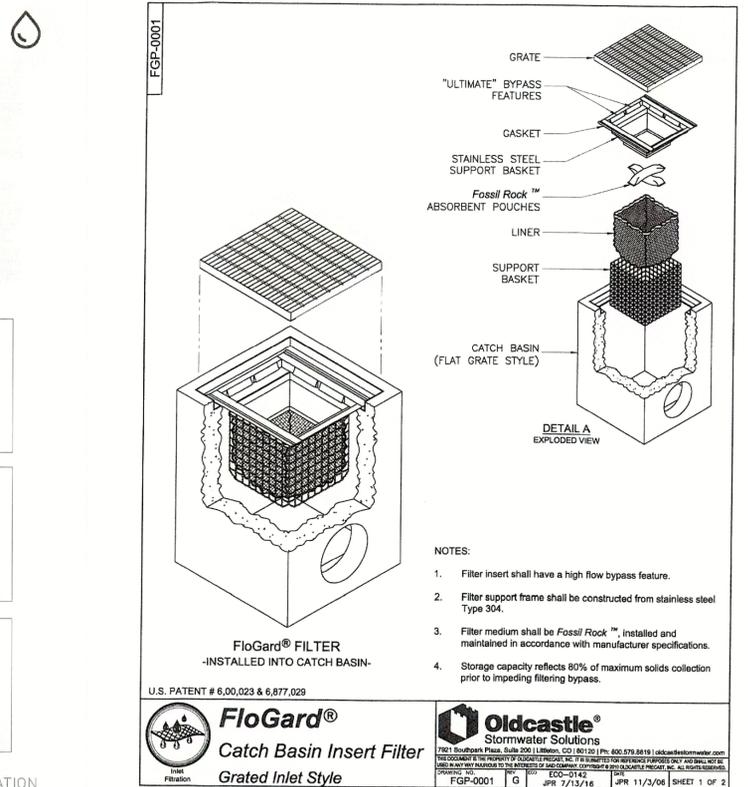
MODEL NO.	INLET ID	GRATE OD	INLET CAPACITY (cu. ft./sec.)	STANDARD DEPTH (inches)	SHALLOW DEPTH (inches)	STANDARD DEPTH CAPACITY (cu. ft./sec.)	SHALLOW DEPTH CAPACITY (cu. ft./sec.)
FGP-12F	12 X 12	12 X 14	2.8	0.3	0.4	15	25
FGP-18F	18 X 18	18 X 19	4.7	0.8	0.7	25	45
FGP-18F	18 X 18	18 X 20	4.7	0.8	0.7	25	45
FGP-1824F	18 X 22	18 X 24	5.0	1.5	1.2	45	75
FGP-1836F	18 X 36	18 X 40	6.9	2.3	1.8	75	125
FGP-2024F	18 X 22	20 X 24	5.9	1.2	1.0	45	75
FGP-21F	22 X 22	22 X 24	6.1	2.2	1.5	75	125
FGP-24F	24 X 24	24 X 27	6.1	2.2	1.5	75	125
FGP-2430F	24 X 30	26 X 30	7.0	2.8	1.8	125	175
FGP-2436F	24 X 30	24 X 40	8.0	3.4	2.0	150	225
FGP-2448F	24 X 48	28 X 48	9.3	4.4	2.4	175	275
FGP-28F	28 X 28	32 X 32	6.3	2.2	1.5	75	125
FGP-30F	30 X 30	30 X 34	6.1	3.8	2.0	125	175
FGP-36F	36 X 36	36 X 40	9.1	4.8	2.4	175	275
FGP-3648F	36 X 48	40 X 48	11.5	6.8	3.2	225	375
FGP-48F	48 X 48	48 X 54	13.2	9.5	3.9	275	475
FGP-SD24F	24 X 24	28 X 28	6.1	2.2	1.5	75	125

FloGard® FILTER
-INSTALLED INTO CATCH BASIN-

U.S. PATENT # 6,00,023 & 6,877,029

Oldcastle Stormwater Solutions

5 FLOGARD CATCH BASIN INSERT FILTER NTS



5 FLOGARD CATCH BASIN INSERT FILTER NTS

FloGard® Catch Basin Insert Filter

U.S. PATENT # 6,00,023 & 6,877,029

Oldcastle Stormwater Solutions

5 FLOGARD CATCH BASIN INSERT FILTER NTS

Marion County Florida

MCBCC EFFECTIVE 10/12/2013

REVISION # NA

TYPICAL SPLASH PAD WITH DISSIPATER

7.3.1 TS 035

DEVELOPMENT REVIEW COMMITTEE MARION COUNTY, FLORIDA

APPLICATION #: 26188
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5 FLOGARD CATCH BASIN INSERT FILTER NTS

Z DEVELOPMENT

708 E. COLONIAL DR., STE 100 ORLANDO, FL 32803

PH: (407) 271-8910
 FAX: (407) 442-0604

CA 29354

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

RECEIVED

DATE: 01-29-21
 DRAWN: JR
 CHECKED: RZ

PROJECT NO.: 2020.181

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER:	RYAN RAFFERTY 904-673-6572 RYAN.RAFFERTY@ADS-PIPE.COM
ADS SALES REP:	JEFFREY GRIFFIN 407-868-7048 JEFFREY.GRIFFIN@ADS-PIPE.COM
PROJECT NO:	S218677



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by StormTech
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DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

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HAPPY DAVE'S CONVENIENCE STORE AND CAR WASH

SUMMERFIELD, FL

MC-4500 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-4500.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-4500 CHAMBER SYSTEM

- STORMTECH MC-4500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOTTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
- INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
- STONE SHALL BE BROUGHT UP EVENLY AROUND CHAMBERS SO AS NOT TO DISTORT THE CHAMBER SHAPE. STONE DEPTHS SHOULD NEVER DIFFER BY MORE THAN 12" (300 mm) BETWEEN ADJACENT CHAMBER ROWS.
- STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIAL BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- THE USE OF EQUIPMENT OVER MC-4500 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER Tired LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



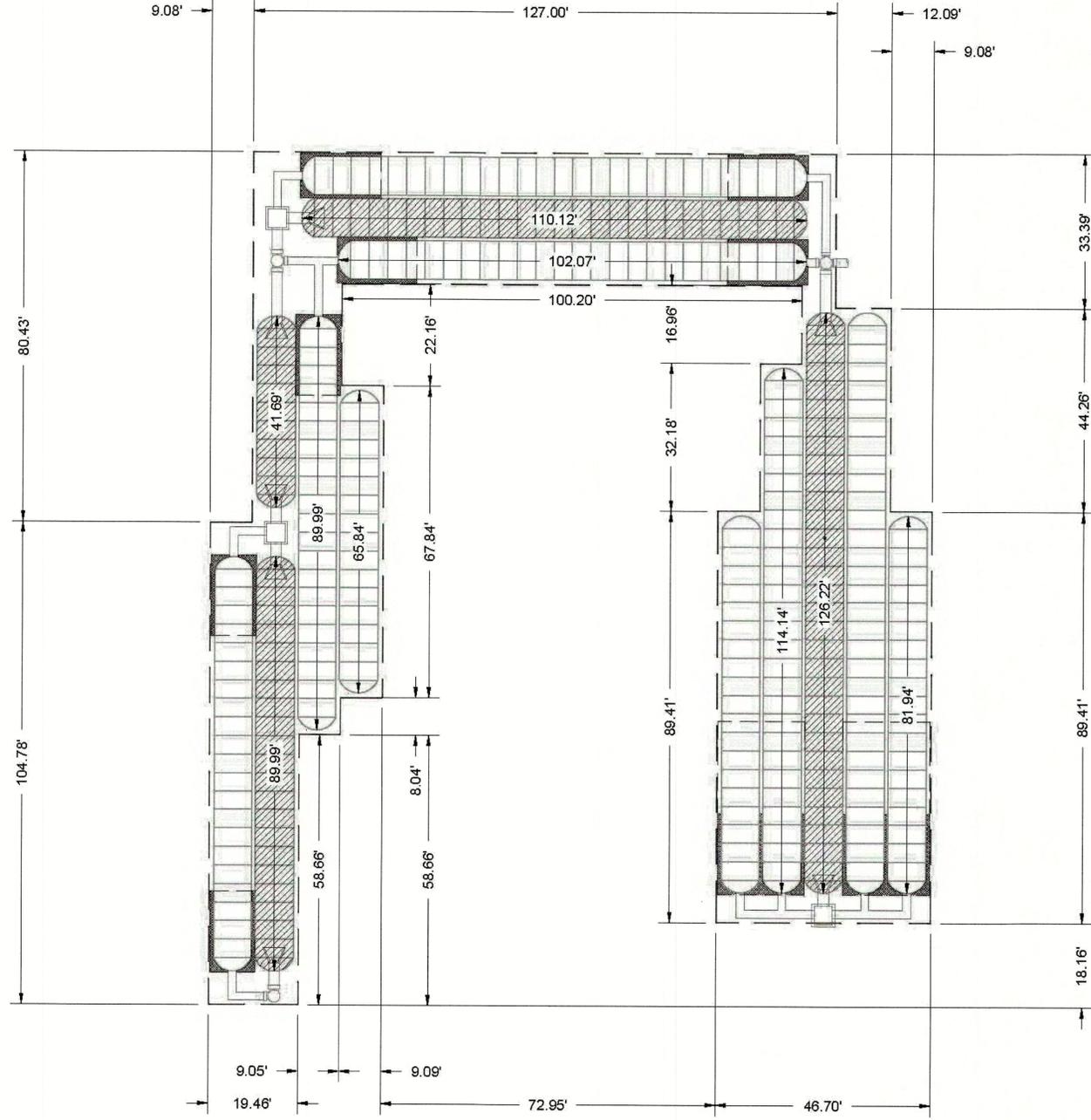
CA 29354
708 E. COLONIAL DR., STE 100
ORLANDO, FL 32803
PH: (407) 271-8910
FAX: (407) 442-0604

REVISION	DATE	REVISION	DATE

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
S. US HIGHWAY 441 & SE 100TH COURT
SUMMERFIELD, FLORIDA 34491
MARION COUNTY
MAJOR SITE PLAN #26188

DATE: 01-29-21
DRAWN: JR
CHECKED: RZ

C3.3A
STORMTECH CHAMBER
SPECS, PLANS & DETAILS
PROJECT NO.: 2020.181



DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 26188
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HAPPY DAVE'S CONVENIENCE STORE AND CAR WASH	
SUMMERFIELD, FL	
DATE:	01/24/21
DRAWN:	AVM
PROJECT #:	S218677
CHECKED:	JPR

DATE	DRWN	CHKD	DESCRIPTION
06/12/21	AVM	JEK	REVISED PER UPDATED PLAN
02-10-21	DHC	N/A	CHANGED NAME
01/25/21	AVM	RWD	REVISED TO ADD ELEVATIONS

Stormtech
 DESIGN • RESTORATION • WATER QUALITY

820 CROMWELL AVENUE | ROCKY HILL, CT | 06067
 860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM

ADS
 ADVANCED DRAINAGE SYSTEMS, INC.

4640 TRUEMAN BLVD
 HILLIARD, OH 43026

0 30' 60'

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

3 SHEET OF 7

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

DATE: 01-29-21
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 CHECKED: RZ

C3.3
 STORMTECH CHAMBERLAIN
 SPECS, PLANS & DETAILS
 PROJECT NO.: 2020-1781

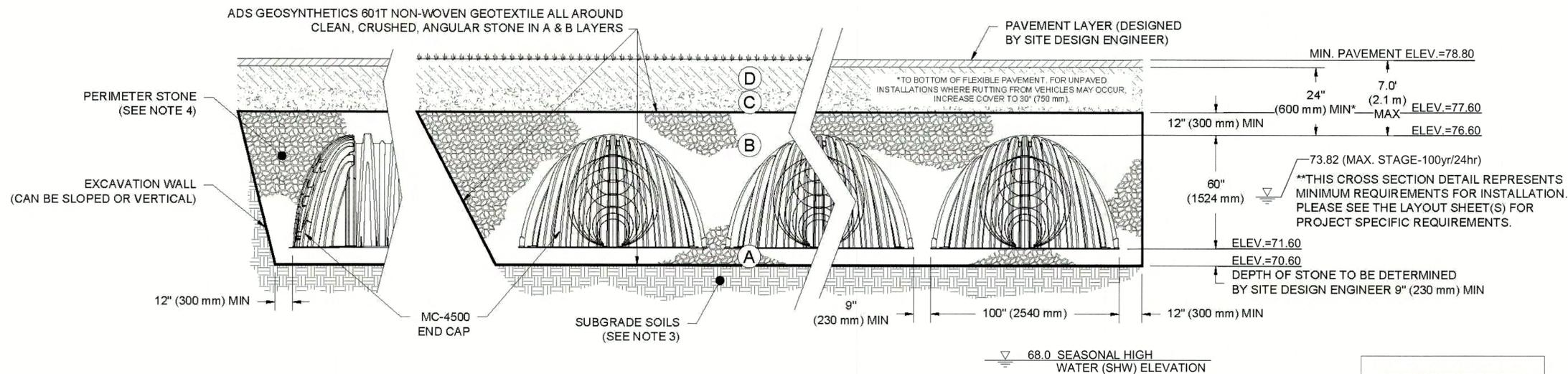
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 ORLANDO, FL 32803
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REVISION	DATE	REVISION	DATE

ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 ¹ 3, 4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 ¹ 3, 4	PLATE COMPACTION OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
 - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
 - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
- MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

DEVELOPMENT REVIEW COMMITTEE MARION COUNTY, FLORIDA

APPLICATION #: 26188
APPROVAL DATE: 2/21/2022
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HAPPY DAVE'S CONVENIENCE STORE AND CAR WASH	
SUMMERFIELD, FL	DATE: 01/24/21
DRAWN: AVM	CHECKED: JPR
PROJECT #: S218677	DATE: 06-18-21

StormTech
Leveraging Innovation - Water - Quality

560 CROMWELL AVENUE | ROCKY HILL, CT 06067
860-929-8188 | 888-892-2684 | WWW.STORMTECH.COM

4640 TRUEMAN BLVD
HILLIARD, OH 43026

ADS
ADVANCED DRAINAGE SYSTEMS, INC.

4 SHEET
OF 7

Z DEVELOPMENT
e r v i c e s

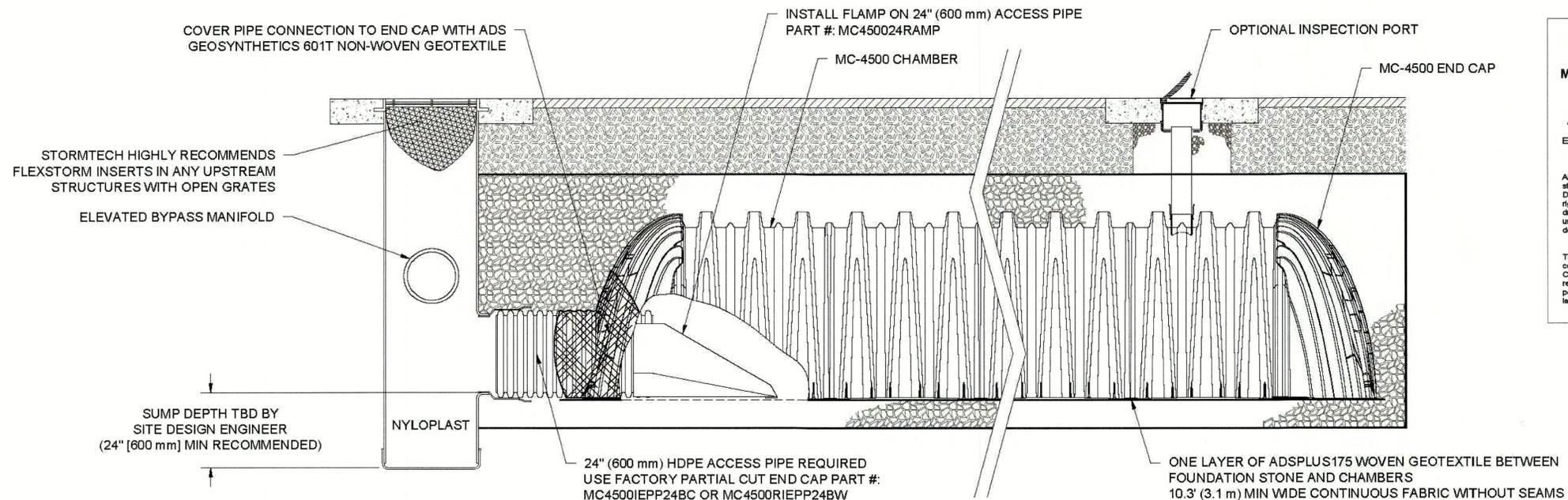
CA 29354
708 E. COLONIAL DR., STE 100
ORLANDO, FL 32803

REVISION	DATE	REVISION	DATE
Δ COUNTY COMMENTS	06-18-21		

HAPPY DAVE'S CONVENIENCE
STORE & CARWASH
S. US HIGHWAY 441 & SE 100TH COURT
SUMMERFIELD, FLORIDA 34491
MARION COUNTY
MAJOR SITE PLAN #26188

DATE: 01-29-21
DRAWN: JR
CHECKED: RZ

C3.3
STORMTECH CHAMBER
SPECS, PLANS & DETAILS
PROJECT NO.: 2020.181



MC-4500 ISOLATOR ROW PLUS DETAIL
NTS

DEVELOPMENT REVIEW COMMITTEE MARION COUNTY, FLORIDA

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HAPPY DAVE'S CONVENIENCE STORE AND CAR WASH		SUMMERFIELD, FL	
DATE:	01/24/21	DRAWN:	AVM
PROJECT #:	SZ18677	CHECKED:	JPR

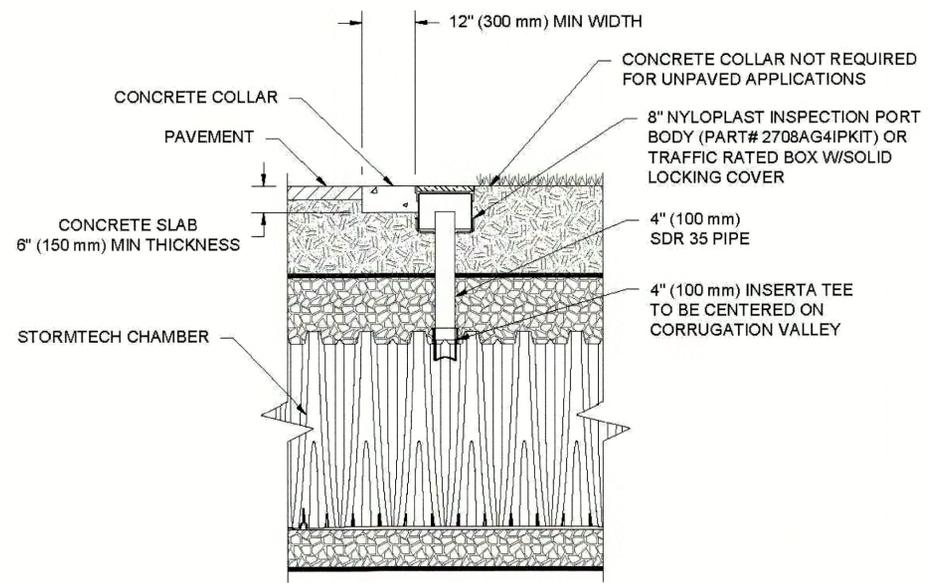
DATE	DRWN	CHKD	DESCRIPTION
06/19/21	AVM	JEK	REVISED PER UPDATED PLAN
02-10-21	DHC	N/A	CHANGED NAME
01/25/21	AVM	RND	REVISED TO ADD ELEVATIONS

StormTech
 50 CROWMELL AVENUE | ROCKY HILL | CT | 06867
 860-929-8188 | 1888-892-2894 | WWW.STORMTECH.COM

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5 SHEET OF 7



NOTE:
 INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)
NTS

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
 - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - B. ALL ISOLATOR PLUS ROWS
 - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
 - B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

Z DEVELOPMENT
 s e r v i c e s
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HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

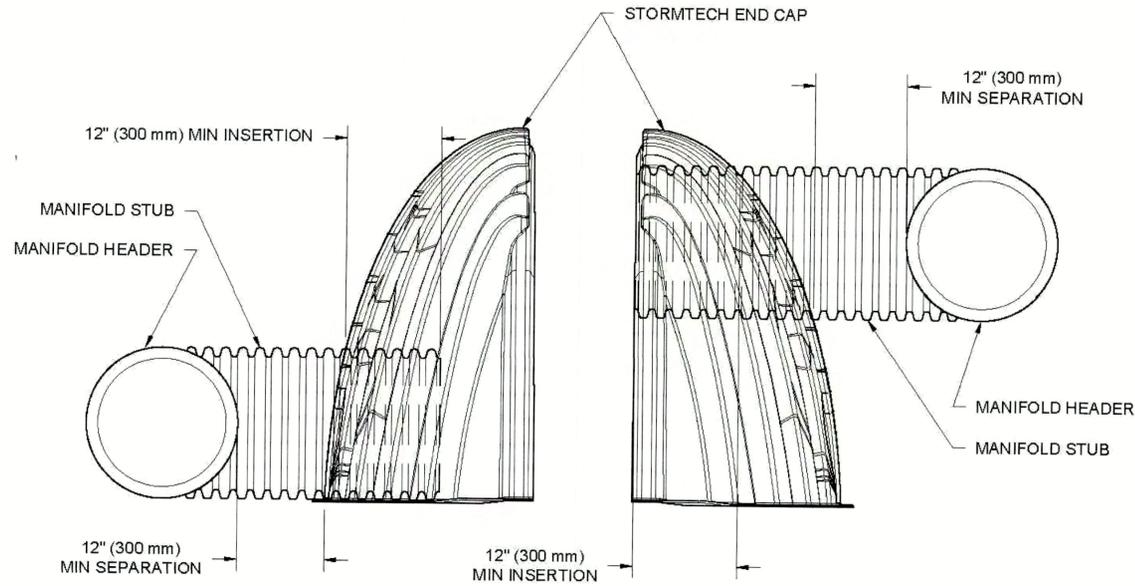
DATE: 01-29-21
 DRAWN: JR
 CHECKED: RZ

C3.3
 STORMTECH CHAMBER
 SPECS, PLANS & DETAILS
 PROJECT NO.: 2020.181

MAY 13 2022
 Marion County
 Office of County Engineer

MC-SERIES END CAP INSERTION DETAIL

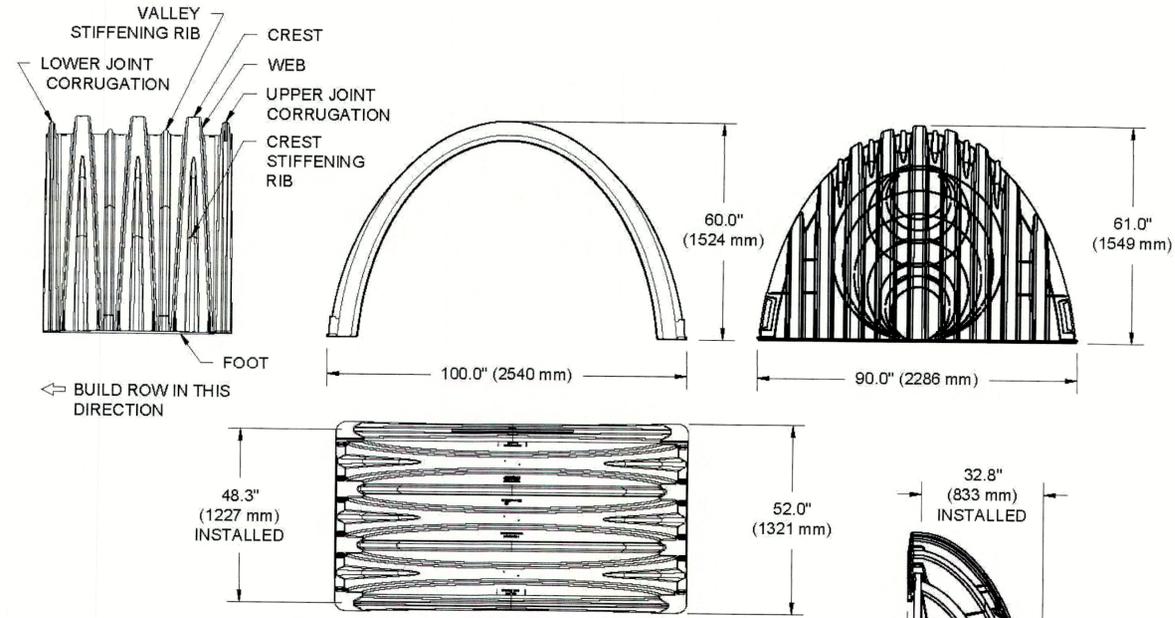
NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

MC-4500 TECHNICAL SPECIFICATION

NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	100.0" X 60.0" X 48.3"	(2540 mm X 1524 mm X 1227 mm)
CHAMBER STORAGE	106.5 CUBIC FEET	(3.01 m ³)
MINIMUM INSTALLED STORAGE*	162.6 CUBIC FEET	(4.60 m ³)
WEIGHT (NOMINAL)	125.0 lbs.	(56.7 kg)

NOMINAL END CAP SPECIFICATIONS

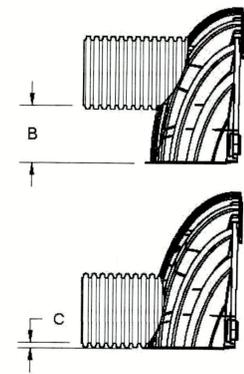
SIZE (W X H X INSTALLED LENGTH)	90.0" X 61.0" X 32.8"	(2286 mm X 1549 mm X 833 mm)
END CAP STORAGE	39.5 CUBIC FEET	(1.12 m ³)
MINIMUM INSTALLED STORAGE*	115.3 CUBIC FEET	(3.26 m ³)
WEIGHT (NOMINAL)	90 lbs.	(40.8 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
 PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
 END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC4500IEPP06T	6" (150 mm)	42.54" (1081 mm)	---
MC4500IEPP06B	---	---	0.86" (22 mm)
MC4500IEPP08T	8" (200 mm)	40.50" (1029 mm)	---
MC4500IEPP08B	---	---	1.01" (26 mm)
MC4500IEPP10T	10" (250 mm)	38.37" (975 mm)	---
MC4500IEPP10B	---	---	1.33" (34 mm)
MC4500IEPP12T	12" (300 mm)	35.69" (907 mm)	---
MC4500IEPP12B	---	---	1.55" (39 mm)
MC4500IEPP15T	15" (375 mm)	32.72" (831 mm)	---
MC4500IEPP15B	---	---	1.70" (43 mm)
MC4500IEPP18T	---	29.36" (746 mm)	---
MC4500IEPP18TW	18" (450 mm)	---	---
MC4500IEPP18B	---	---	1.97" (50 mm)
MC4500IEPP18BW	---	---	---
MC4500IEPP24T	---	23.05" (585 mm)	---
MC4500IEPP24TW	24" (600 mm)	---	---
MC4500IEPP24B	---	---	2.26" (57 mm)
MC4500IEPP24BW	---	---	---
MC4500IEPP30BW	30" (750 mm)	---	2.95" (75 mm)
MC4500IEPP36BW	36" (900 mm)	---	3.25" (83 mm)
MC4500IEPP42BW	42" (1050 mm)	---	3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PREFABRICATED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-4500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

DEVELOPMENT REVIEW COMMITTEE MARION COUNTY, FLORIDA

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HAPPY DAVE'S CONVENIENCE STORE AND CAR WASH	
DATE:	01/24/21
PROJECT #:	S218677
DRAWN:	AVM
CHECKED:	JPR
DATE:	01/24/21
PROJECT #:	S218677
DRAWN:	AVM
CHECKED:	JPR

DATE	REVISION	DATE	REVISION
08-07-20	Δ SURV COMMENTS		

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6 SHEET OF 7

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DATE	REVISION	DATE	REVISION

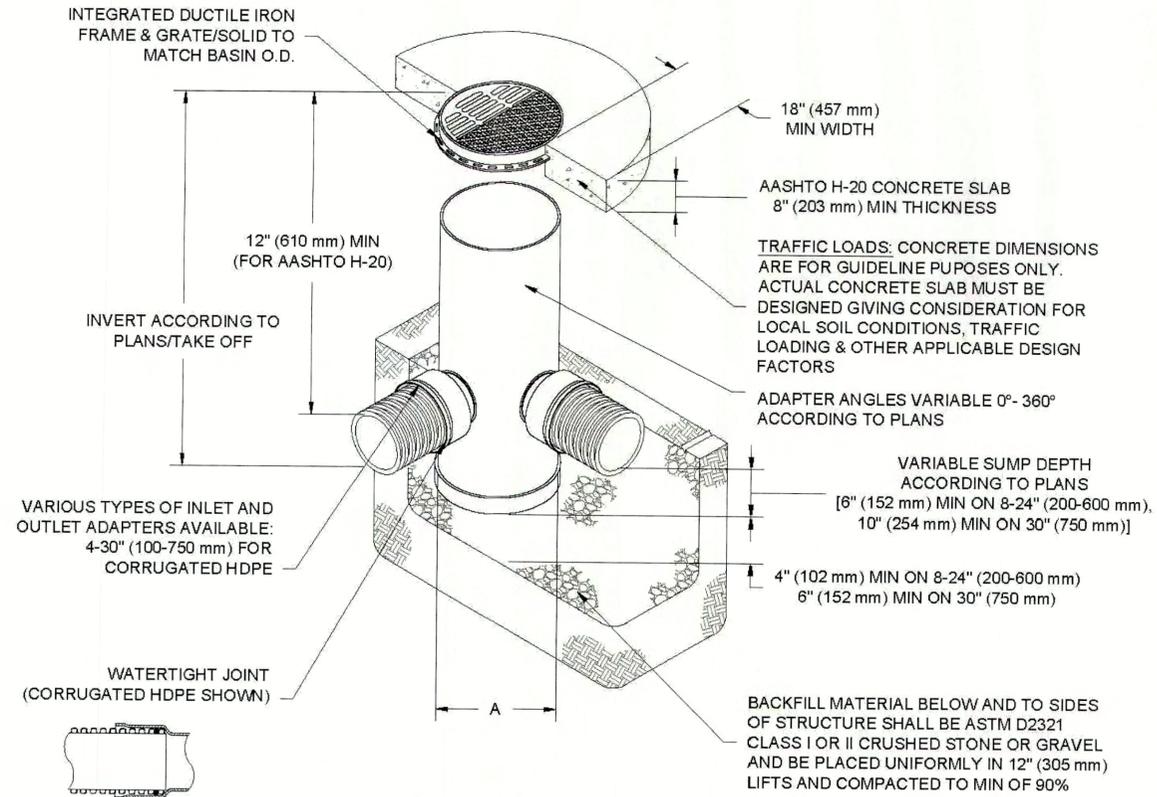
HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

C3.3
 STORMTECH CHAMBER SPECS, PLANS & DETAILS
 PROJECT NO.: 2020.181

DATE: 01-29-21
 DRAWN: JR
 CHECKED: RZ

C3.3
 STORMTECH CHAMBER SPECS, PLANS & DETAILS
 PROJECT NO.: 2020.181

NYLOPLAST DRAIN BASIN
NTS



NOTES

- 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION: WWW.NYLOPLAST-US.COM
- TO ORDER CALL: 800-821-6710

A	PART #	GRATE/SOLID COVER OPTIONS		
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

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SUMMERFIELD, FL

DATE: 01/24/21 DRAWN: AVM
PROJECT #: S218677 CHECKED: JPR

DATE	DRWN	CHKD	DESCRIPTION
06/12/21	AVM	JEB	REVISED PER UPDATED PLAN
02/11/21	DHC	N/A	CHANGED NAME
01/25/21	AVM	RWD	REVISED TO ADD ELEVATIONS

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BLUFORD, GA 30518
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7 SHEET
OF 7

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

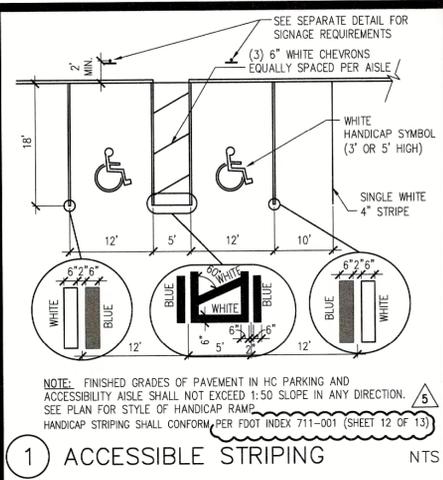
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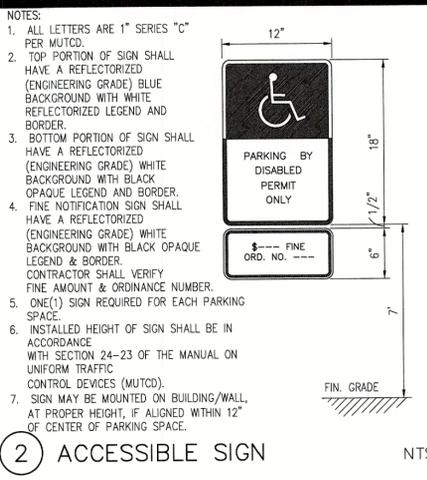
HAPPY DAVE'S CONVENIENCE STORE & CARWASH
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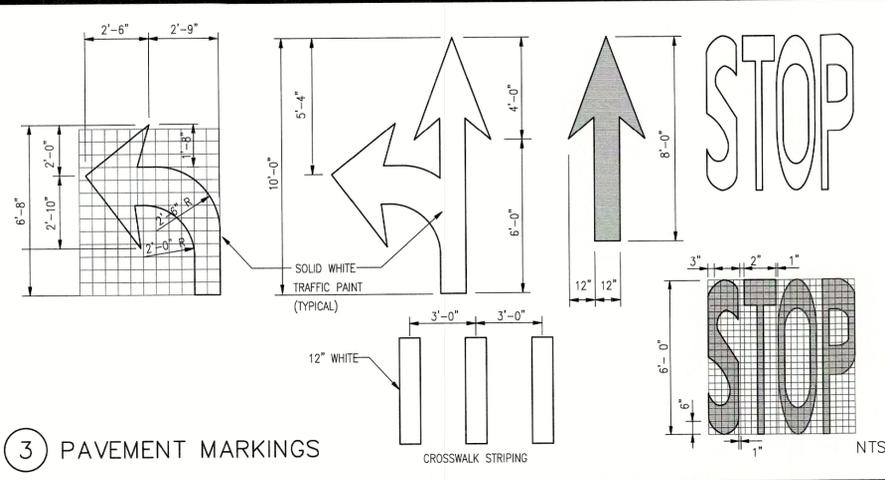
C3.3 GIVED
STORMTECH CHAMBER
SPECS, PLANS & DETAILS
PROJECT NO.: 2020.181



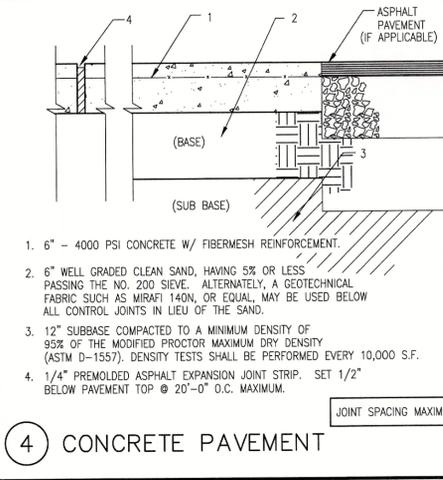
1 ACCESSIBLE STRIPING NTS



2 ACCESSIBLE SIGN NTS



3 PAVEMENT MARKINGS NTS

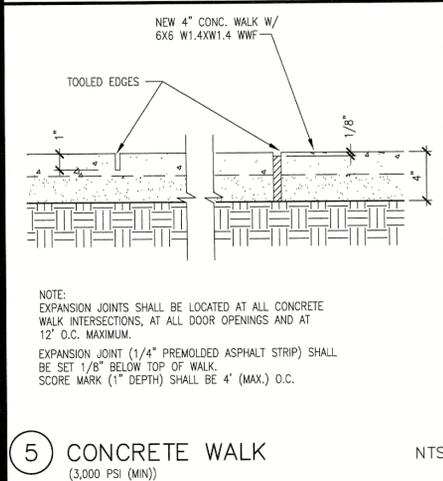


4 CONCRETE PAVEMENT NTS

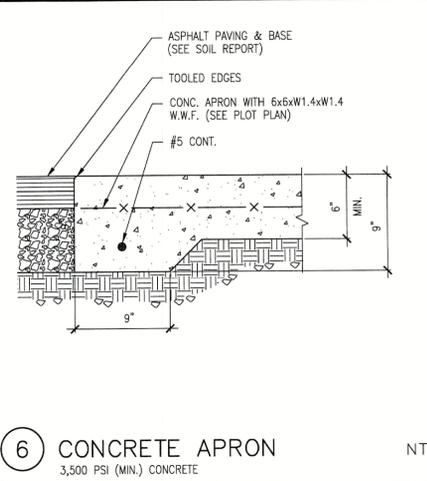
PORTLAND CEMENT CONC. PAVEMENT

1. GENERAL
RIGID PAVEMENT CONSISTS OF CONSTRUCTING A SPECIFIED PORTLAND CEMENT CONCRETE PAVING ON A PREPARED SUBGRADE. THE UTILITIES AND OTHER ITEMS IN AND BENEATH THE STREET MUST BE PROPERLY COORDINATED WITH THE CONSTRUCTION OF RIGID PAVEMENT TO AVOID CONFLICTS. THE WORK TO BE DONE SHALL INCLUDE THE FURNISHING OF ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT AND INCIDENTAL NECESSARY FOR THE PROPOSED RIGID PAVEMENT CONSTRUCTION IN ACCORDANCE WITH THE APPROVED DRAWINGS AND SPECIFICATION.

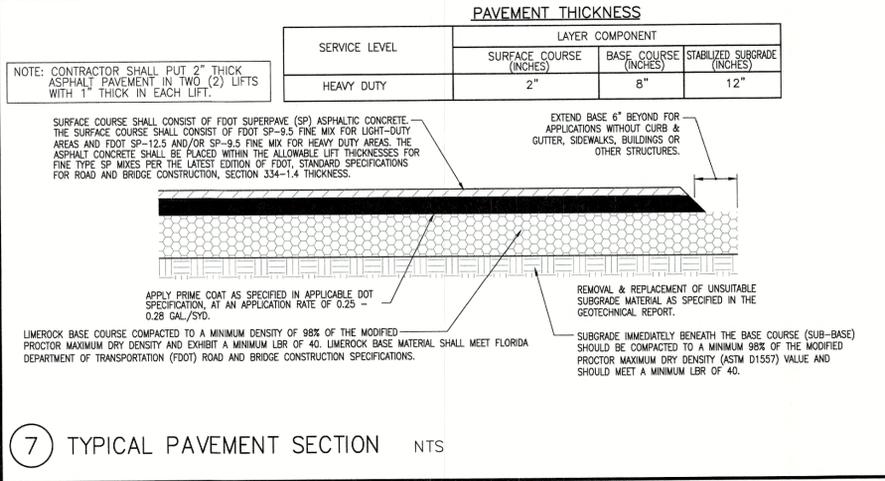
2. CONCRETE STRENGTH REQUIRED:
ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 (PCI) PSI AT 28 DAYS. CONFORMANCE TO STRENGTH REQUIREMENTS SHALL BE DETERMINED BY ACI STANDARD 318, LATEST EDITION, SECTIONS 4.8.2.3 AND 4.8.3.



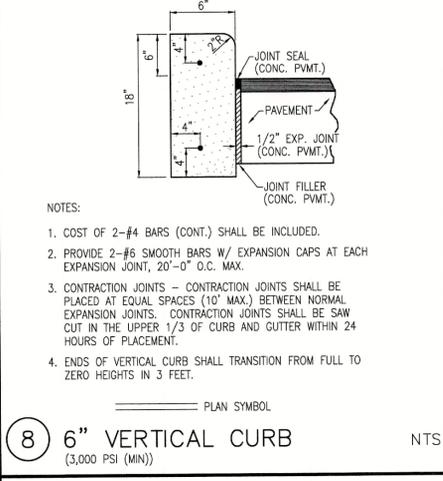
5 CONCRETE WALK NTS



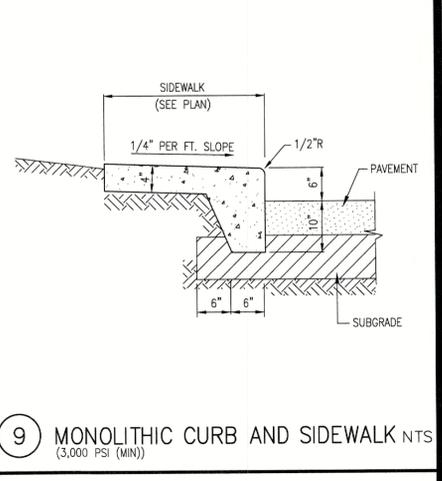
6 CONCRETE APRON NTS



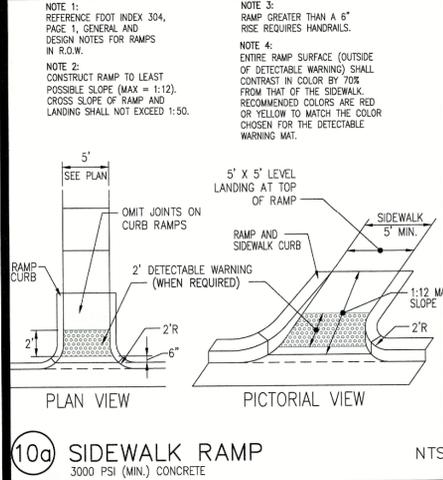
7 TYPICAL PAVEMENT SECTION NTS



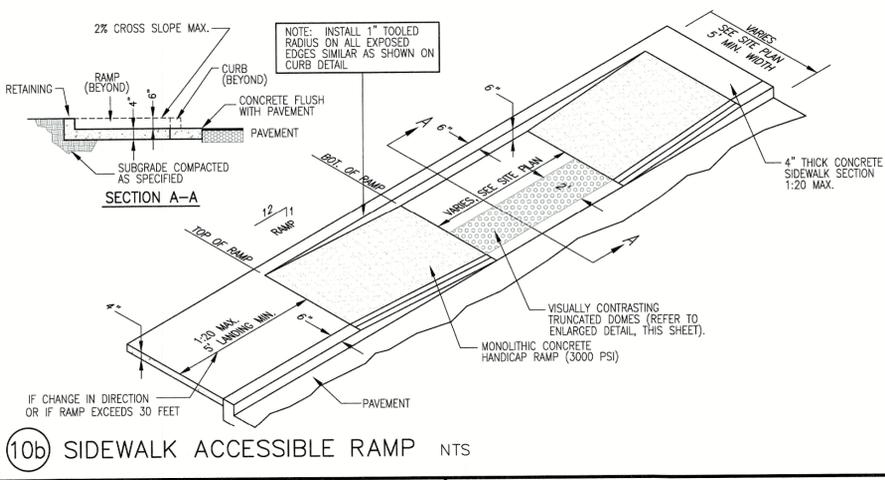
8 6" VERTICAL CURB NTS



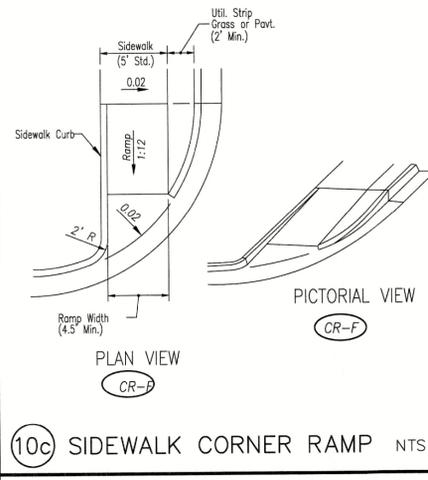
9 MONOLITHIC CURB AND SIDEWALK NTS



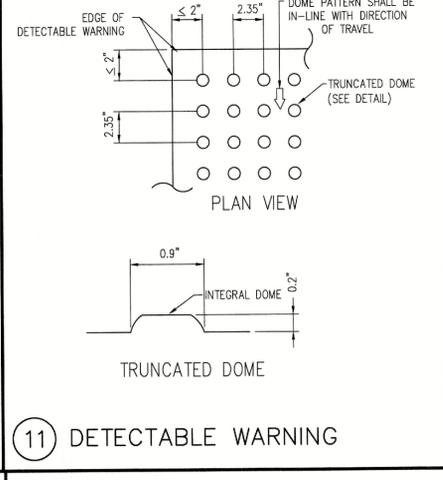
10a SIDEWALK RAMP NTS



10b SIDEWALK ACCESSIBLE RAMP NTS

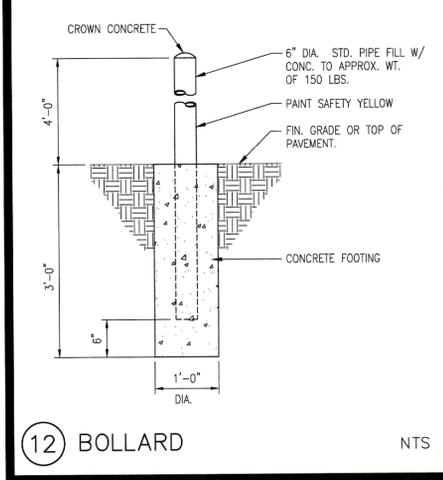


10c SIDEWALK CORNER RAMP NTS

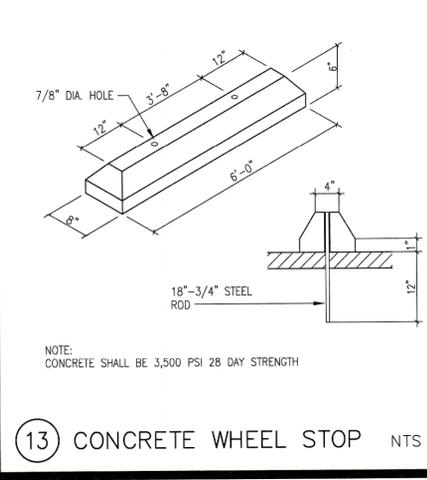


11 DETECTABLE WARNING NTS

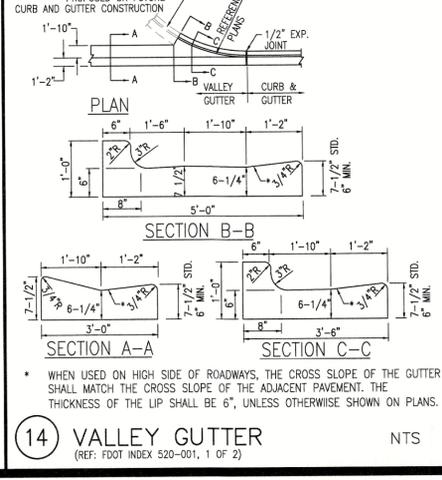
NOTE:
1. CURB RAMP RUNNING SLOPES SHALL NOT BE STEEPER THAN 1:12 AND CROSS SLOPE SHALL BE 0.02 OR FLATTER.
2. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED BY TEXTURING OR APPLYING A TRUNCATED DOME MATERIAL IN CONFORMANCE WITH THE U.S. DEPARTMENT OF JUSTICE A.D.A. STANDARDS FOR ACCESSIBLE DESIGN, A.D.A. ACCESSIBILITY GUIDELINES, SECTION 4.29.2. TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS.
3. WHERE A CURB RAMP IS CONSTRUCTED WITHIN AN EXISTING CURB, CURB AND GUTTER AND/OR SIDEWALK, THE EXISTING CURB OR CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE CURB TRANSITIONS OR TO THE EXTENT THAT NO REMAINING SECTION OF CURB OR CURB AND GUTTER IS LESS THAN 5' LONG. THE EXISTING SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE WALK AROUND OR TO THE EXTENT THAT NO REMAINING SECTION OF SIDEWALK IS LESS THAN 5'.
4. WHERE ADJACENT WALKING SURFACES ARE COLORED OR ARE CONSTRUCTED WITH MATERIALS OTHER THAN STANDARD CLASS I PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH SECTION 522 OF THE SPECIFICATIONS, THE PLAN MUST PROVIDE FOR DETECTABLE WARNING SURFACE COLORS OR MATERIALS THAT PROVIDE THE NECESSARY CONTRAST, EITHER DARK-ON-LIGHT OR LIGHT-ON-DARK. (SAFETY YELLOW OR BRICK RED)
5. RECOMMENDED MANUFACTURER: ENGINEERED PLASTICS, INC. (ARMOR TILE) OLYMPIC TOWERS, 300 PEARL STREET, SUITE 200, BUFFALO, NY 14202. PHONE: (800) 682-2525



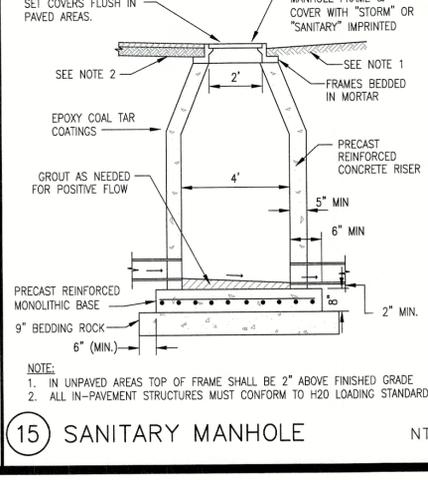
12 BOLLARD NTS



13 CONCRETE WHEEL STOP NTS



14 VALLEY GUTTER NTS



15 SANITARY MANHOLE NTS

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 26188
APPROVAL DATE: 2/21/2022
EXPIRATION DATE: 2/21/2024

All construction shall conform to the construction standards contained in the Marion County Land Development Code, latest revision. Areas of the right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

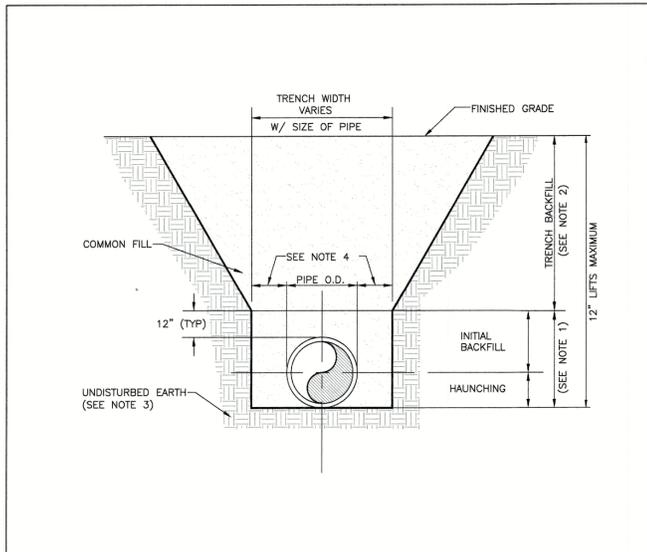
NOTE:
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Z DEVELOPMENT
Services & Solutions
CA 29354
708 E. COLONIAL DR., STE 100
ORLANDO, FL 32803
PH: (407) 271-8910
FAX: (407) 442-0604

DATE: 01-29-21
DRAWN: JR
CHECKED: RB
DATE: 01-29-21
PROJECT NO.: 2020.181

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
S. US HIGHWAY 441 & SE 100TH COURT
SUMMERFIELD, FLORIDA 34491
MARION COUNTY
MAJOR SITE PLAN #26188

Digitally signed by Robert Ziegenfuss
DN: cn=US-pa-Z Development Services, ou=A01410C0000016C4657E1D300069313, cn=Robert Ziegenfuss
Date: 2022.01.26 14:16:50 -0500
ROBERT ZIEGENFUSS, P.E., LEED AP
FL REC. # 56752



- NOTES:**
- INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
 - TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
 - PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY MCJ.
 - 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX. (12" MIN.) FOR PIPE DIAMETER 24" AND LARGER.
 - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
 - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
 - FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN MARION COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

Marion County Florida UTILITIES

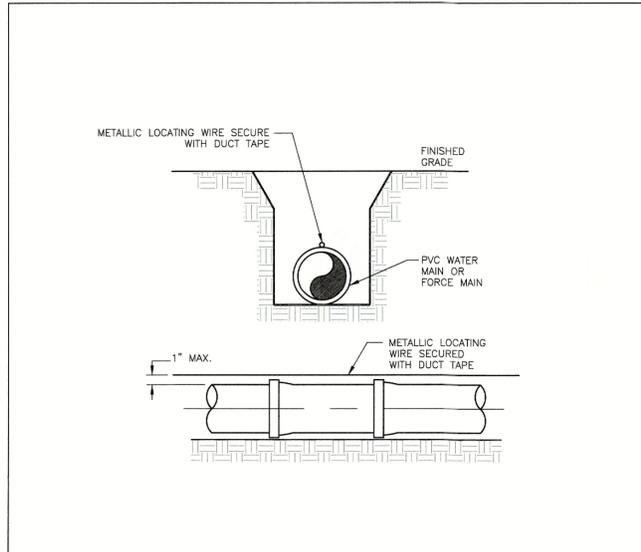
MCBCC EFFECTIVE 04/27/2018

REVISION # 1

TYPE "B" BEDDING AND TRENCHING

7.3.2

UT 103



- NOTES:**
- PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE.
 - LOCATING WIRE SHALL TERMINATE AT EACH VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
 - USE DUCT TAPE AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE.
 - ALL WIRE CONNECTIONS IN VALVE BOXES SHALL BE SPLICED TOGETHER AND TAPED.
 - FOR HORIZONTAL DIRECTIONAL DRILLING, UTILIZE 2 LOCATING WIRES WITH ALUMINUM TENSILE STRENGTH OF 1800 PSI.

Marion County Florida UTILITIES

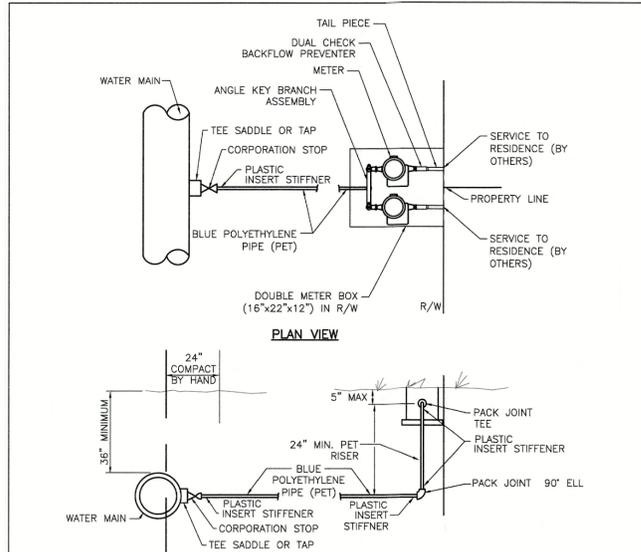
MCBCC EFFECTIVE 04/27/2018

REVISION # 1

PIPE LOCATING WIRE

7.3.2

UT 104



- NOTES:**
- SINGLE SERVICES SHALL HAVE A MINIMUM SIZE OF 1". DOUBLE SERVICES SHALL HAVE A MINIMUM SIZE OF 1 1/2".
 - CURB STOP SHALL BE INSTALLED ON STREET SIDE OF THE SIDEWALK BETWEEN SIDEWALK AND CURB.
 - CONTRACTOR TO LOCATE CURB STOP BY PLACING A METER BOX FLUSH WITH FINISH GRADE.
 - PVC CASING TO BE USED UNDER PAVEMENT, EXTENDING A MINIMUM OF 5' ON EITHER SIDE OF THE PAVEMENT WHERE POSSIBLE.
 - CORP STOPS SHALL BE HORIZONTAL, TO WATER MAINS.
 - LOCATE WIRE SHALL BE INSTALLED ON SERVICE LATERAL LINE.
 - PIPE AND FITTING SIZES TO BE DETERMINED BY SERVICE TYPE.
 - COMPACTION SHALL BE MADE UNDER AND AROUND THE CONNECTION TO THE SATISFACTION OF THE ENGINEER.
 - POTABLE WATER SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING A "W" IN THE CURB DIRECTLY OVER THE SERVICE LATERAL.
 - RECLAIMED WATER SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING A "RW" IN THE CURB DIRECTLY OVER THE SERVICE LATERAL.

Marion County Florida UTILITIES

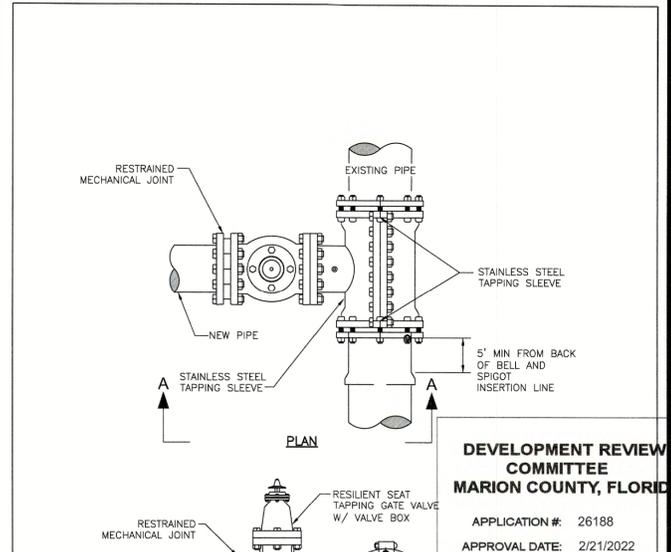
MCBCC EFFECTIVE 04/27/2018

REVISION # 1

WATER AND RECLAIMED WATER SERVICE (TYPICAL)

7.3.2

UT 107



- NOTICE**
- The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.
- DEVELOPMENT REVIEW COMMITTEE MARION COUNTY, FLORIDA**
- APPLICATION #: 26188
- APPROVAL DATE: 2/21/2022
- EXPIRATION DATE: 2/21/2024

Marion County Florida UTILITIES

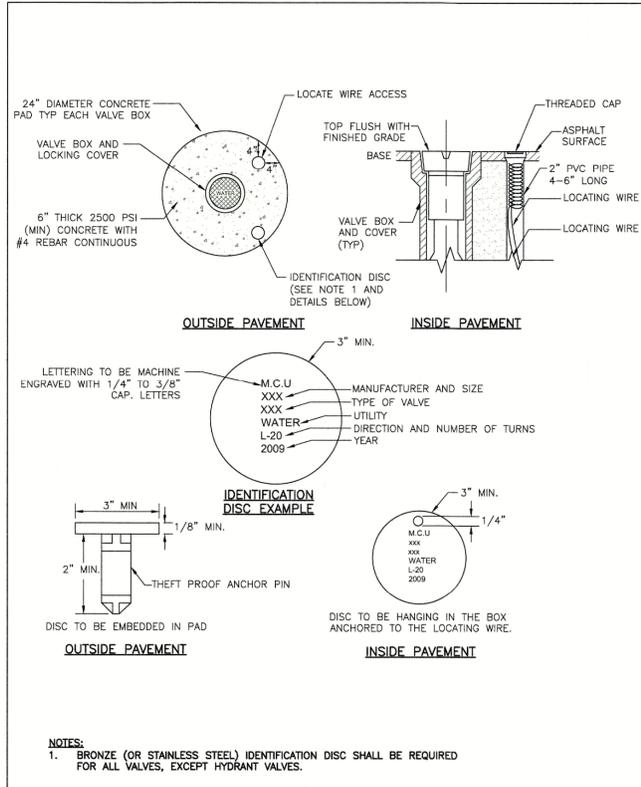
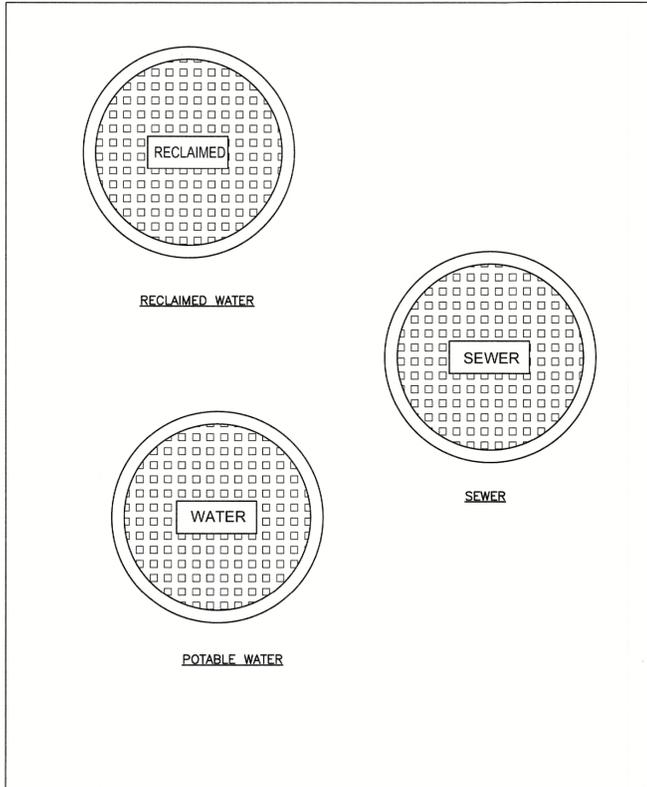
MCBCC EFFECTIVE 10/12/2013

REVISION # NA

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

7.3.2

UT 108



- NOTES:**
- BRONZE (OR STAINLESS STEEL) IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES, EXCEPT HYDRANT VALVES.

Marion County Florida UTILITIES

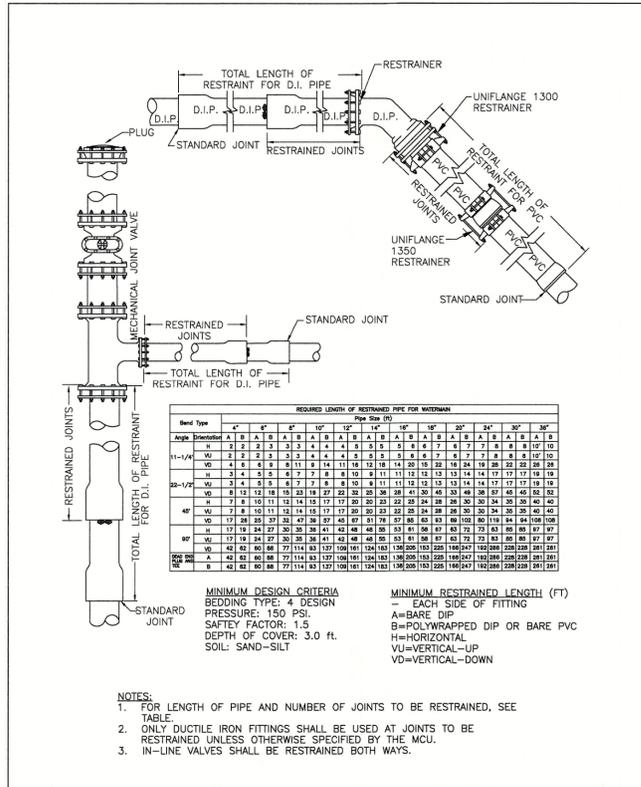
MCBCC EFFECTIVE 10/12/2013

REVISION # NA

TYPICAL VALVE BOX COVER

7.3.2

UT 110



- NOTES:**
- FOR LENGTH OF PIPE AND NUMBER OF JOINTS TO BE RESTRAINED, SEE TABLE.
 - ONLY DUCTILE IRON FITTINGS SHALL BE USED AT JOINTS TO BE RESTRAINED UNLESS OTHERWISE SPECIFIED BY THE MCJ.
 - IN-LINE VALVES SHALL BE RESTRAINED BOTH WAYS.

Marion County Florida UTILITIES

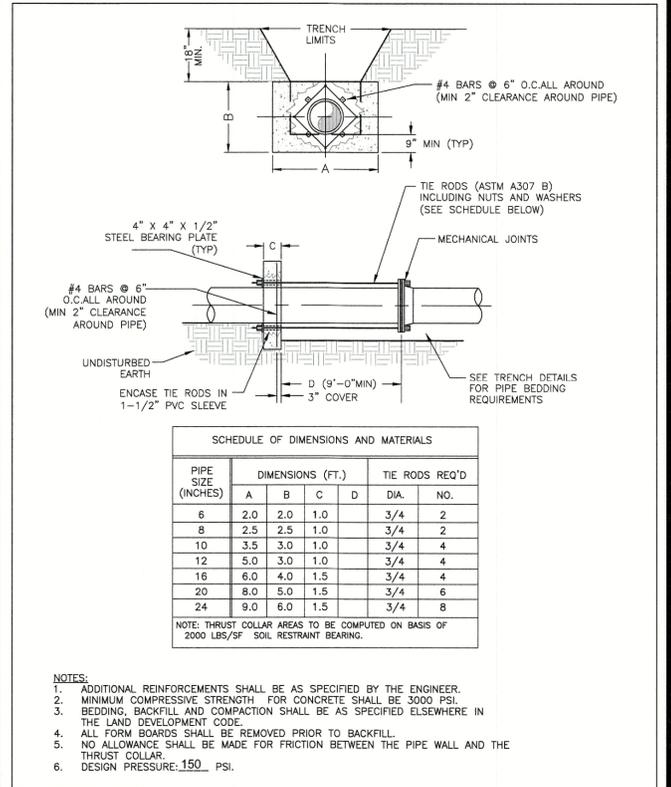
MCBCC EFFECTIVE 04/27/2018

REVISION # 1

RESTRAINED PIPE TABLE WATER AND RECLAIMED MAINS

7.3.2

UT 200



- NOTES:**
- ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
 - MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
 - BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE LAND DEVELOPMENT CODE.
 - ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
 - NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
 - DESIGN PRESSURE: 150 PSI.

Marion County Florida UTILITIES

MCBCC EFFECTIVE 10/12/2013

REVISION # NA

THRUST COLLAR WATER MAINS

7.3.2

UT 201

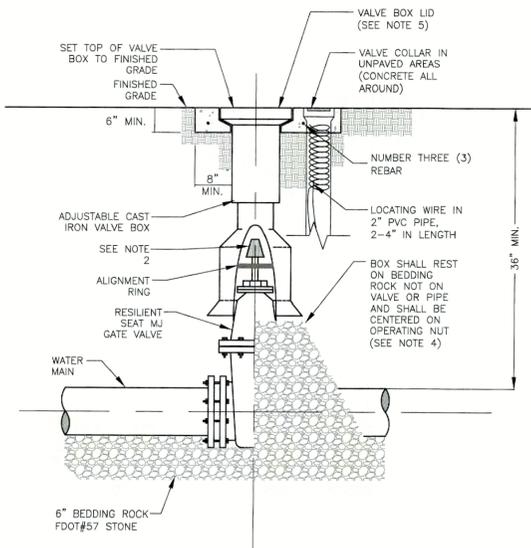
Z DEVELOPMENT e r v i c e s
CA 29354

708 E. COLONIAL DR., STE 100 PH: (407) 271-8910
ORLANDO, FL 32803 FAX: (407) 442-0604

DATE: _____ REVISION: _____ DATE: _____ REVISION: _____

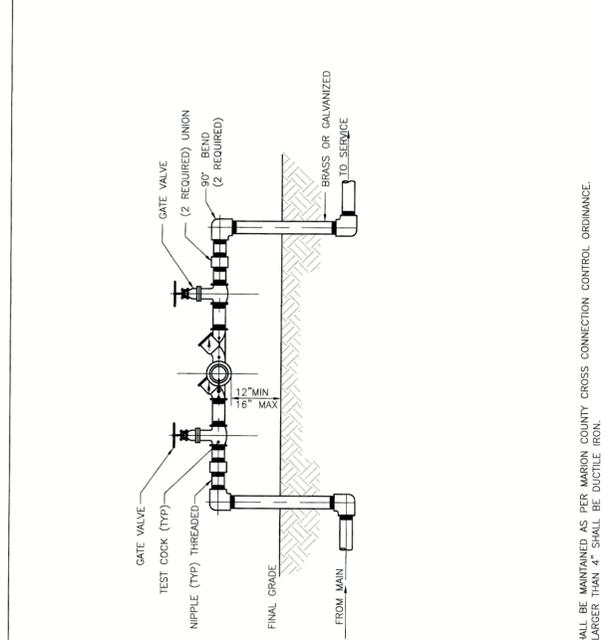
HAPPY DAVE'S CONVENIENCE STORE & CARWASH
S. US HIGHWAY 441 & SE 100TH COURT
SUMMERFIELD, FLORIDA 34491
MARION COUNTY
MAJOR SITE PLAN #26188

DATE: 01-29-21
DRAWN: JR
CHECKED: RZ
APPROVED: **C6.0**
MAR 14 2022
Marion County Office of County Engineer
COUNTY STAFFORD UTILITY DETAILS
PROJECT NO.: 2020.181



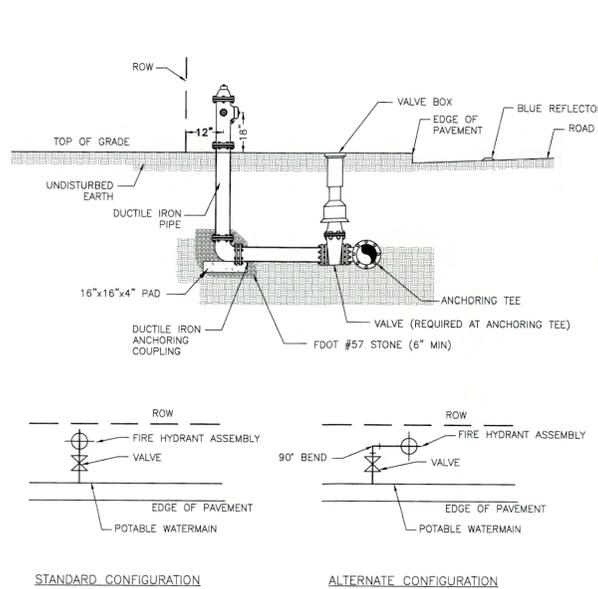
- NOTES:
- PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
 - THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO COME UP TO 4 FOOT DEPTH BELOW FINISHED GRADE.
 - GATE VALVES SHALL BE USED WITH ALL WATER MAINS THROUGH TWELVE (12) INCHES, BUTTERFLY VALVES SHALL BE USED FOR ALL LARGER SIZES, UNLESS STATED OTHERWISE.
 - WHEN VALVE BOX IS TO BE INSTALLED IN ROADWAY OR OTHER TRAFFIC AREAS SET VALVE BOX ON FIVE (5) SOLID COMMON BRICKS.
 - VALVE BOX LID TO BE LETTERED WITH THE WORD "WATER" OR "RECLAIMED".
 - INSTALL BRASS ID TAG IN CONCRETE.

	MCBCC EFFECTIVE 04/27/2018	GATE VALVE WATER AND RECLAIMED MAINS	7.3.2
	REVISION # 1		UT 204



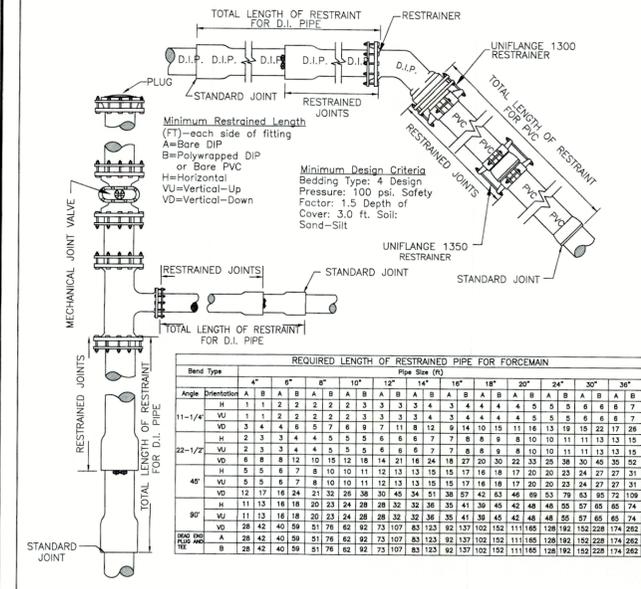
- NOTES:
- R/P SHALL BE MAINTAINED AS PER MARION COUNTY CROSS CONNECTION CONTROL ORDINANCE.
 - PIPES LARGER THAN 4" SHALL BE DUCTILE IRON.

	MCBCC EFFECTIVE 10/12/2013	REDUCED PRESSURE BACKFLOW PREVENTER	7.3.2
	REVISION # NA		UT 209

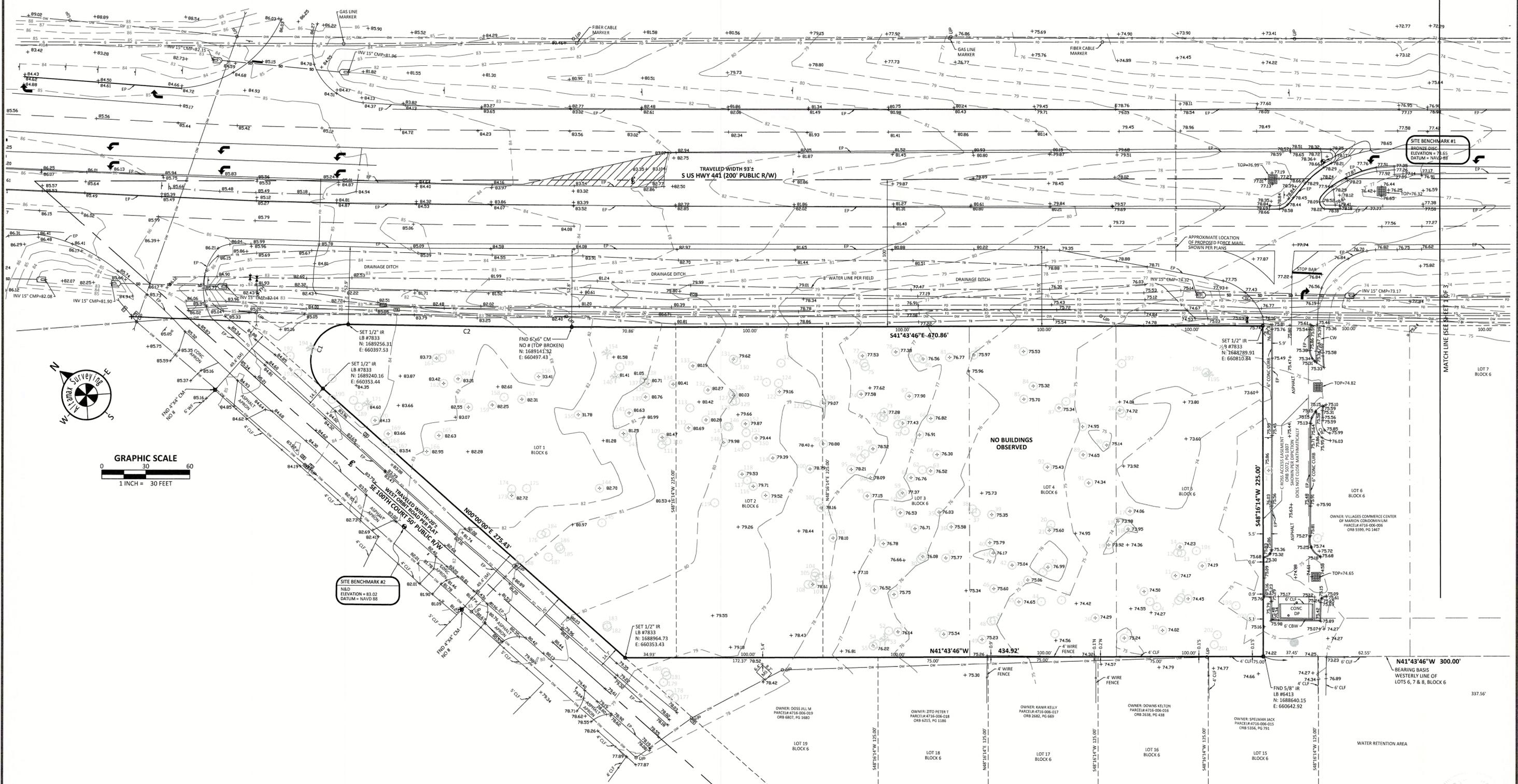


- NOTES:
- BONNET COLORS SHALL BE IN ACCORDANCE WITH SEC. 6.18.2-G.
 - HYDRANT SHALL BE 1" INSIDE OF RIGHT-OF-WAY, WHEN POSSIBLE.
 - BLUE REFLECTOR SHALL BE PLACED IN THE MIDDLE OF THE ADJACENT TRAVEL LANE.
 - RADIUS OF CLEAR SPACE AROUND THE FIRE HYDRANT SHALL BE IN ACCORDANCE WITH NFPA STANDARDS (NFPA 1 SEC. 18.5.7, AS AMENDED).

	MCBCC EFFECTIVE 04/27/2018	FIRE HYDRANT ASSEMBLY	7.3.2
	REVISION # 1		UT 210



ALTA/NSPS LAND TITLE SURVEY



CURVE	RADIUS	DELTA ANGLE	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	25.00'	139°45'55"	60.98'	N69°53'06"E	46.93'
C2	5829.65'	01°29'50"	152.33'	S40°58'51"E	152.33'

ADDRESS:
UNASSIGNED
S US HWY 441
SUMMERFIELD, FL 34491

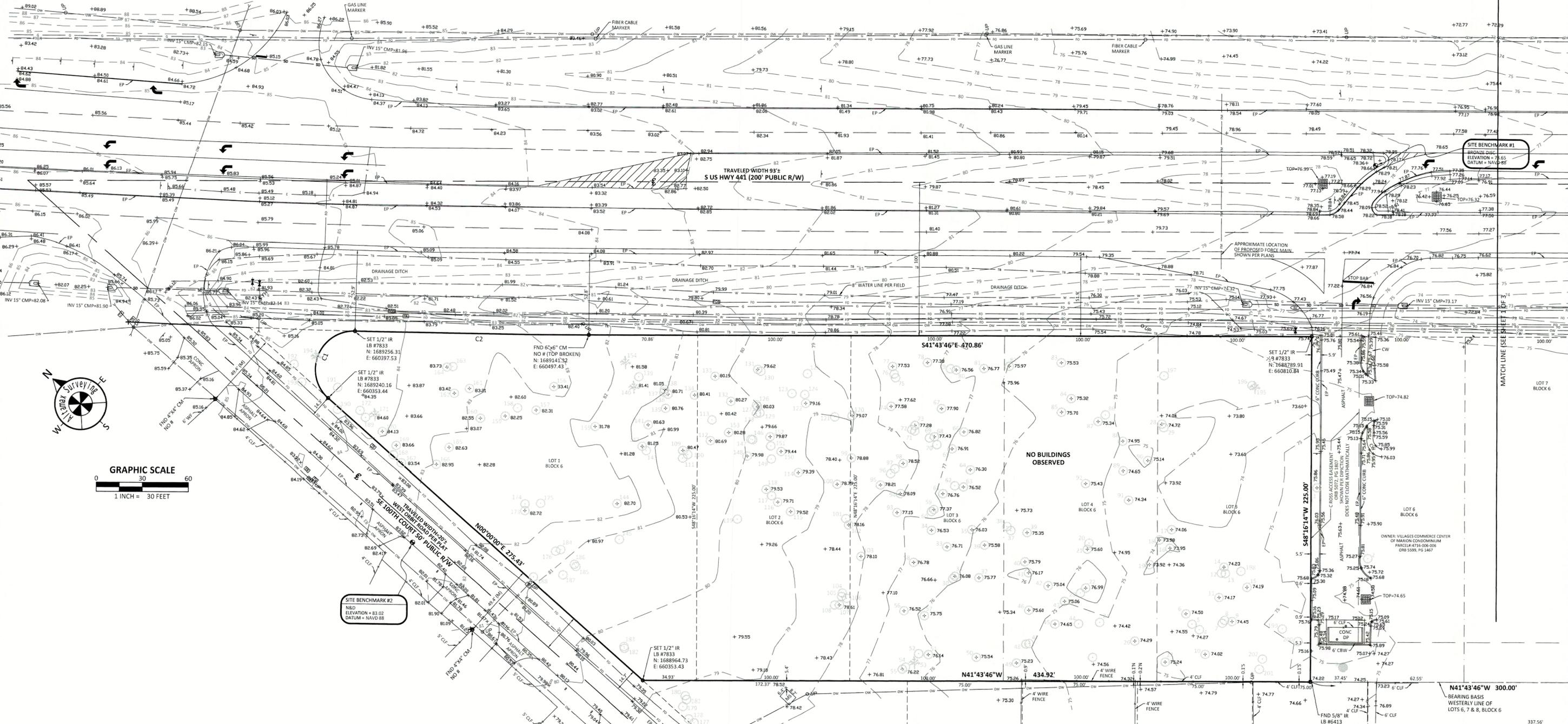
Job Information
 JOB NO. 903836
 CF NO. MRN-K-51-LOTS1-5-BLK6
 FIELD DATE: 09/21/2020
 SCALE: 1" = 30'
 DRAWN BY: PJT; GLT

Altamax Surveying
 910 Belle Avenue, Suite 1100
 Casselberry, FL 32708
 Phone: 407-677-0200
 Licensed Business No. 7833
 www.altamaxsurveying.com

SHEET 2 OF 3

RECEIVED
 Marion County
 Office of County Engineer

ALTA/NSPS LAND TITLE SURVEY



DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 26188
 APPROVAL DATE: 2/21/2022
 EXPIRATION DATE: 2/21/2024

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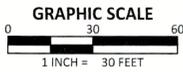
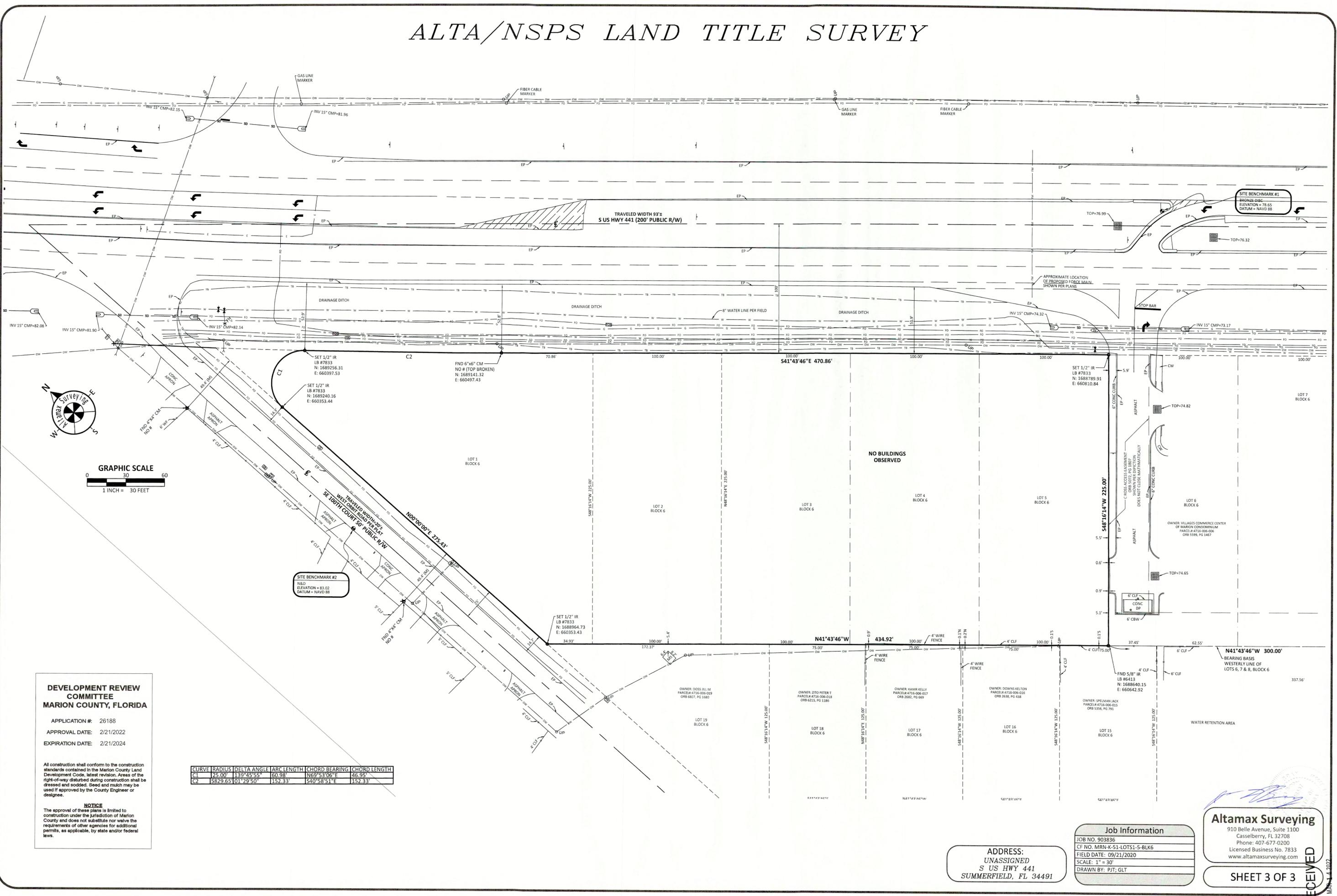
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SHEET 2 OF 3

RECEIVED
 MAR 14 2022
 Marion County

ALTA/NSPS LAND TITLE SURVEY



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MARION COUNTY, FLORIDA

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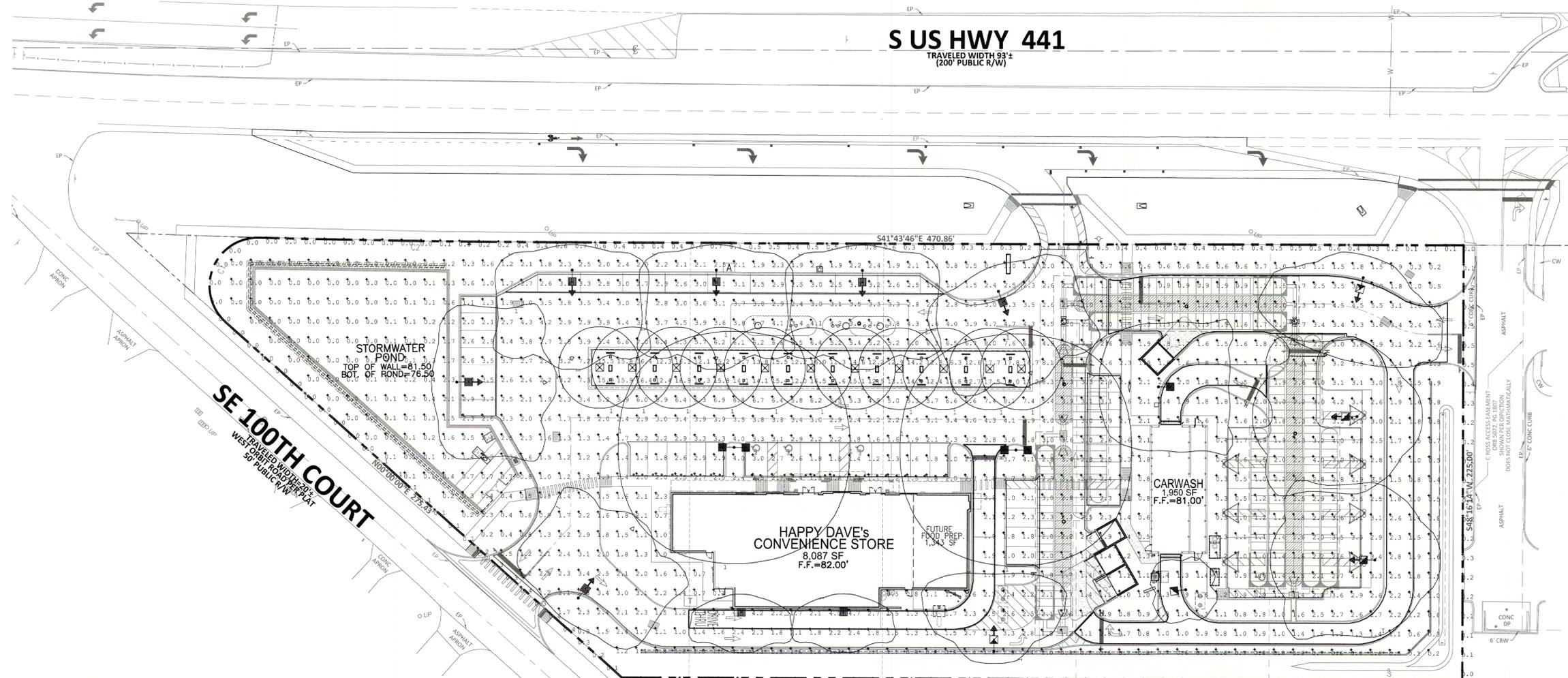
SHEET 3 OF 3

RECEIVED

Marion County
 Office of Public Finance

REVISIONS

REV #	DATE	BY:
1	3/23/21	J.P.
2	6/21/21	J.P.



**DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA**

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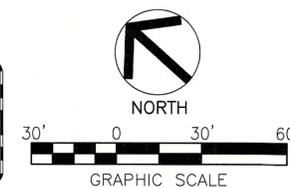
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Label	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb
CARWASH DRIVE	Fc	1.81	5.5	0.7	2.59	7.86	10	10
DRIVE THRU	Fc	2.28	2.8	1.8	1.27	3.56		
DRIVES	Fc	3.29	8.3	0.8	4.11	10.38		
FRONT PARKING	Fc	2.40	3.7	1.1	2.18	3.36		
FUEL CANOPY	Fc	14.62	18.0	11.3	1.29	1.59		
SIDE PARKING	Fc	2.47	3.1	1.8	1.37	1.72		
VACUUM AREA	Fc	2.17	4.1	0.5	4.34	8.20		
PROPERTY LINE	Fc	0.26	0.8	0.0	N.A.	N.A.	10	N.A.

Symbol	Qty	Label	Lum. Lumens	LLF	Description	Lum. Watts
•	2	A	16897	0.980	WLS-A-A-55H-K-40K-SLW 25' MOUNTING HEIGHT	130
•	1	B	16897	0.980	WLS-A-A-55H-K-40K-SLW 25' MOUNTING HEIGHT	130
•	6	C	13032	0.980	WLS-A-A-4ME-K-40K-BLSMF-SLW 25' MOUNTING HEIGHT	130
•	2	D	16959	0.980	WLS-A-A-4ME-K-40K-SLW 25' MOUNTING HEIGHT	130
•	1	E	13389	0.980	WLS-A-A-3ME-K-40K-BLSMF-SLW 25' MOUNTING HEIGHT	130
•	2	F	4282	0.980	WLS-WP-B-WM-3ME-4L-40K-SLW 14' MOUNTING HEIGHT	31.5
•	11	G	7600	0.980	WLS-CB-B-DM-P-A-40K 13'-6" MOUNTING HEIGHT	60
•	1	H	10518	0.980	WLS-A-A-5ME-B-40K-SLW 25' MOUNTING HEIGHT	86.63
•	1	I	9019	0.980	WLS-A-A-3ME-B-40K-BLSMF-SLW 25' MOUNTING HEIGHT	86

BASED ON THE INFORMATION PROVIDED, ALL DIMENSIONS AND LUMINAIRE LOCATIONS SHOWN REPRESENT RECOMMENDED POSITIONS. THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING OR FUTURE FIELD CONDITIONS.

THIS LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS UTILIZING CURRENT INDUSTRY STANDARD LAMP RATINGS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS AND OTHER VARIABLE FIELD CONDITIONS.



WLS LIGHTING
 a WLS company

**ARRINGTON C-STORE
 SUMMERFIELD, FL**

1919 WINDSOR PLACE
 FORT WORTH, TX 76110
 WWW.WLSLIGHTING.COM

WLS-13605 DATE - 1/22/21 SCALE: 1"=30' 800-633-8711 BY: J.P. SHEET 1 OF 1

**HAPPY DAVE'S CONVENIENCE
 STORE & CARWASH**
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

DATE: 01-29-21
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 Marion County
 Office of County Engineer

PROJECT NO: 2020.181

Digitally signed by Robert Ziegenfuss
 DN: cn=US, o=Z Development Services, ou=ARRINGTON C-STORE SUMMERFIELD, FL, email=robert.ziegenfuss@zdevelopment.com, c=US
 Date: 2022.01.26 14:17:26 -0500

Professional Engineer Seal: ROBERT ZIEGENFUSS, P.E., LEED AP, License No. 103872, State of Florida, Exp. 12/31/2024

Z DEVELOPMENT
 s e r v i c e s
 CA 29354
 708 E. COLONIAL DR., STE 100 PH: (407) 271-8910
 ORLANDO, FL 32803 FAX: (407) 442-0604

CB SERIES LED CANOPY

ORDERING INFORMATION SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE.
Refer to example below.

PRODUCT	VERSION	MOUNTING	OPTIC	LUMEN PACKAGE/ INPUT POWER DESIGNATOR	VOLTAGE	COLOR OPTIONS	CCT	OPTIONS
WLS-CB	B	DM Direct Mount HC Hook & Cord PD Pendant	D 0.94" (24mm) Dia lens F Flat Lens	A 60W 13L 91W B 96W C 119W E 145W F 166W	UL Universal 120-277V UH Universal 347-480V - Available with 0.5:1 step-down transformer only - Available with 0.5:1 step-down transformer only - Available with 1:1 Lumen package and A, B, C Input power designators only - Available with 1:1 Lumen package and A, B, C Input power designators only	BK Black BZ Bronze SV Silver WH White	30K 3000K 40K 4000K 57K 5700K	DM 1:10 Dimming - Control by others - CANNOT exceed wattage of specified lumen package Input Power Designator HZ Class II Hazardous Location Certification - Available with DM and PD mounts only - PD mount with 3A & 4B voltages not available - Cords when ordered with luminaire with step-down transformer (1:1 Lumen package, A, B, C Input power designator) - Not available with K or PML options K IES E Certification L Luminaire includes NEC certification - Available with the DM mount only - Not available with the PD or PML options PML Programmable Multi-Level - Available with UL voltage only

ORDER:

WLS-CB B DM HC PD A 60W B BK 30K DM

Example: WLS-CB-B-DM-HC-PD-A-60W-B-BK-30K-DM

DEVELOPMENT REVIEW COMMITTEE

MARION COUNTY, FLORIDA

APPLICATION #: 26188
APPROVAL DATE: 2/21/2022
EXPIRATION DATE: 2/21/2024

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NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

FOOTNOTES:

1. L, lumen package and A, B, C input power designators utilize a magnetic step-down transformer. For input for 347 and 480V, refer to the Electrical Data table.
2. For Car Wash Applications please contact your sales professional.

System Watts (240V)	System Watts (277V)	System Watts (347/480V)	Total Current (A)					
120V	208V	240V	277V	347V	480V			
A	60	68	0.51	0.29	0.25	0.22	0.20	0.14
13L	91	102	0.79	0.45	0.39	0.34	0.30	0.21
B	96	96	0.82	0.47	0.40	0.35	0.28	0.20
C	119	119	0.96	0.55	0.46	0.40	0.35	0.25
E	145	145	1.22	0.70	0.61	0.53	0.42	0.30
F	166	166	0.85	0.72	0.61	0.56	0.21	0.24

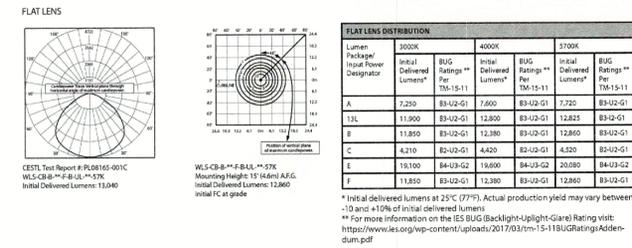
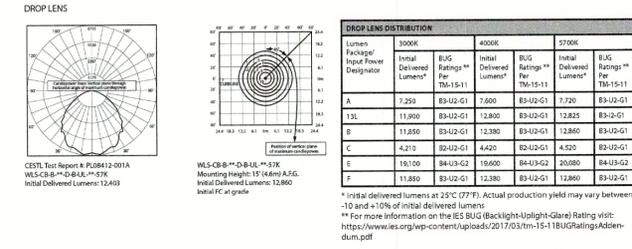
*Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%.

1919 Windsor Place
Fort Worth, TX 76110
800.633.8711
www.wslighting.com

Project Name: _____
Date: _____
Location: _____
Notes: _____

29 REV. 01/21
Specifications subject to change without notice.

CB SERIES LED CANOPY



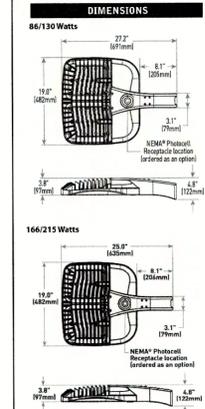
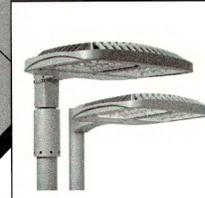
1919 Windsor Place
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WLS LIGHTING SYSTEMS

A SERIES LED AREA



SPECIFICATIONS

CONSTRUCTION & MATERIALS

- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weatheright LED driver compartment and high performance heat sink
- Convenient interlocking mounting method on direct arm mount. Mounting adaptor is rugged die cast aluminum and mounts to 3/4" (76-152mm) square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Mounting for the adjustable arm mount adaptor is rugged die cast aluminum and mounts to 2" (51mm) IP 2373" (60mm) O.D. stem
- Adjustable arm mount can be adjusted 180° in 2.5° increments
- Transportation mount is constructed of 316 stainless steel and mounts to surface with (4) 3/8" fasteners by others
- Trussion mount is constructed of A306 and A307 steel and is adjustable from 0° to 180° in 2.5° increments. Trussion mount secures to surface with (1) 3/4" bolt or (2) 1/2" or 3/8" bolts
- Includes 18' (340mm) 18/3 or 16/3 cord exiting the luminaire. When ordered with R option, 18' (340mm) 18/7 or 16/7 cord is provided.

ELECTRICAL SYSTEM

- Input Voltage: 120-277V or 347-480V, 50/60Hz, Class I drivers
- Power Factor > 0.9 at full load
- Total Harmonic Distortion < 30% at full load
- Integral 100V surge suppression protection standard
- When code dictates using a slow blow fuse or type C/D breaker should be used to address inrush current
- 100% Source Current: 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without R option
- Conforms to factory for CE certified products
- Certified to ANSI C136.3-2001, 3G bridge and overpass vibration standards
- 100V surge suppression protection tested in accordance with IEEE ANSI C84.1.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within AFRA
- DLC and DLC Premium qualified versions available. Some exceptions apply.
- RoHS compliant. Contact factory for additional details
- Dark Sky Friendly, IMA Approved when ordered with 30K CCT. Please refer to <http://darksky.org/faq/ifa-products/> for most current

WARRANTY

- The A Series offers a limited 10 year warranty on the luminaire and the Colorfast DataGuard™ finish

Wattage	Weight
86/130	26.5 lbs. (12kg)
166/215	28.5 lbs. (13kg)

Powered by **CREE**

1919 Windsor Place
Fort Worth, TX 76110
800.633.8711
www.wslighting.com

Project Name: _____
Date: _____
Location: _____
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A SERIES LED AREA

ORDERING INFORMATION SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE.
Refer to example below.

PRODUCT	VERSION	MOUNTING	OPTIC	WATTAGE	COLOR TEMPERATURE	VOLTAGE	COLOR OPTIONS	OPTIONS
A	A	DM Direct Mount AA Adjustable Arm Mount	Asymmetric 2ME Type II Medium 3ME Type III Medium 4ME Type IV Medium Symmetric SME Type V Medium SSH Type V Short	Z 51 Watts B 86 Watts K 130 Watts T 166 Watts U 212 Watts	30K 3000K 40K 4000K 57K 5700K	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White CC Custom Color	BLS Backlight Shielding F Flat Lens ML With Lens PCR NEMA Photocell Receptacle OP Field Adjustable Output RL Rotate Optic Left RS Rotate Optic Right NO No Options

ORDER:

WLS-A A DM AA NM

Example: WLS-A-A-DM-AA-NM

FOOTNOTES:

1. Available with Backlight Shield when ordered with field installed accessory (see table above)
2. Contact your sales professional for details

System Watts (240V)	Total Current (A)					
120V	208V	240V	277V	347V	480V	
Z	0.96	0.26	0.22	0.19	N/A	N/A
B	0.79	0.44	0.37	0.32	0.29	0.21
K	1.09	0.65	0.55	0.46	0.38	0.28
T	1.41	0.81	0.72	0.62	0.54	0.35
U	1.72	0.96	0.84	0.72	0.60	0.43

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A SERIES LED AREA

Type II Medium Distribution w/LS Distribution

System Watts	3000K (30-CB)		4000K (30-CB)		5000K (30-CB)		5700K (30-CB)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
Z	6,481	B2-U0-G1	6,896	B2-U0-G1	5,750	B1-U0-G1	7,031	B2-U0-G1
B	10,738	B2-U0-G2	11,424	B2-U0-G2	9,300	B1-U0-G2	11,648	B2-U0-G2
K	16,022	B3-U0-G3	16,959	B3-U0-G3	14,000	B3-U0-G3	17,291	B3-U0-G3
T	20,688	B3-U0-G3	21,992	B3-U0-G3	18,000	B3-U0-G3	22,330	B3-U0-G3
U	27,800	B3-U0-G3	29,101	B3-U0-G3	22,300	B3-U0-G3	26,100	B3-U0-G3

Type III Medium Distribution w/LS Distribution

System Watts	3000K (30-CB)		4000K (30-CB)		5000K (30-CB)		5700K (30-CB)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
Z	4,080	B1-U0-G1	5,299	B1-U0-G1	4,420	B1-U0-G1	5,402	B1-U0-G1
B	8,251	B2-U0-G2	8,779	B2-U0-G2	7,200	B1-U0-G2	8,900	B2-U0-G2
K	12,312	B2-U0-G2	13,032	B2-U0-G2	10,750	B2-U0-G2	13,286	B2-U0-G2
T	15,897	B2-U0-G2	16,830	B3-U0-G3	14,250	B2-U0-G2	17,159	B3-U0-G3
U	21,400	B3-U0-G3	22,300	B3-U0-G3	17,100	B3-U0-G3	22,300	B3-U0-G3

Type IV Medium Distribution w/LS Distribution

System Watts	3000K (30-CB)		4000K (30-CB)		5000K (30-CB)		5700K (30-CB)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
Z	6,481	B1-U0-G1	6,896	B2-U0-G2	5,750	B2-U0-G2	7,031	B1-U0-G1
B	10,738	B1-U0-G3	11,424	B3-U0-G3	9,300	B2-U0-G2	11,648	B3-U0-G3
K	16,022	B3-U0-G3	16,959	B3-U0-G3	14,000	B3-U0-G3	17,291	B3-U0-G3
T	20,688	B3-U0-G3	21,992	B3-U0-G3	18,000	B3-U0-G3	22,330	B3-U0-G3
U	27,800	B3-U0-G3	29,101	B3-U0-G3	22,300	B3-U0-G3	26,100	B3-U0-G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
** For more information on the IES BUG (Backlight - Uplight - Glare) rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

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A SERIES LED AREA

Type II Medium Distribution w/LS Distribution

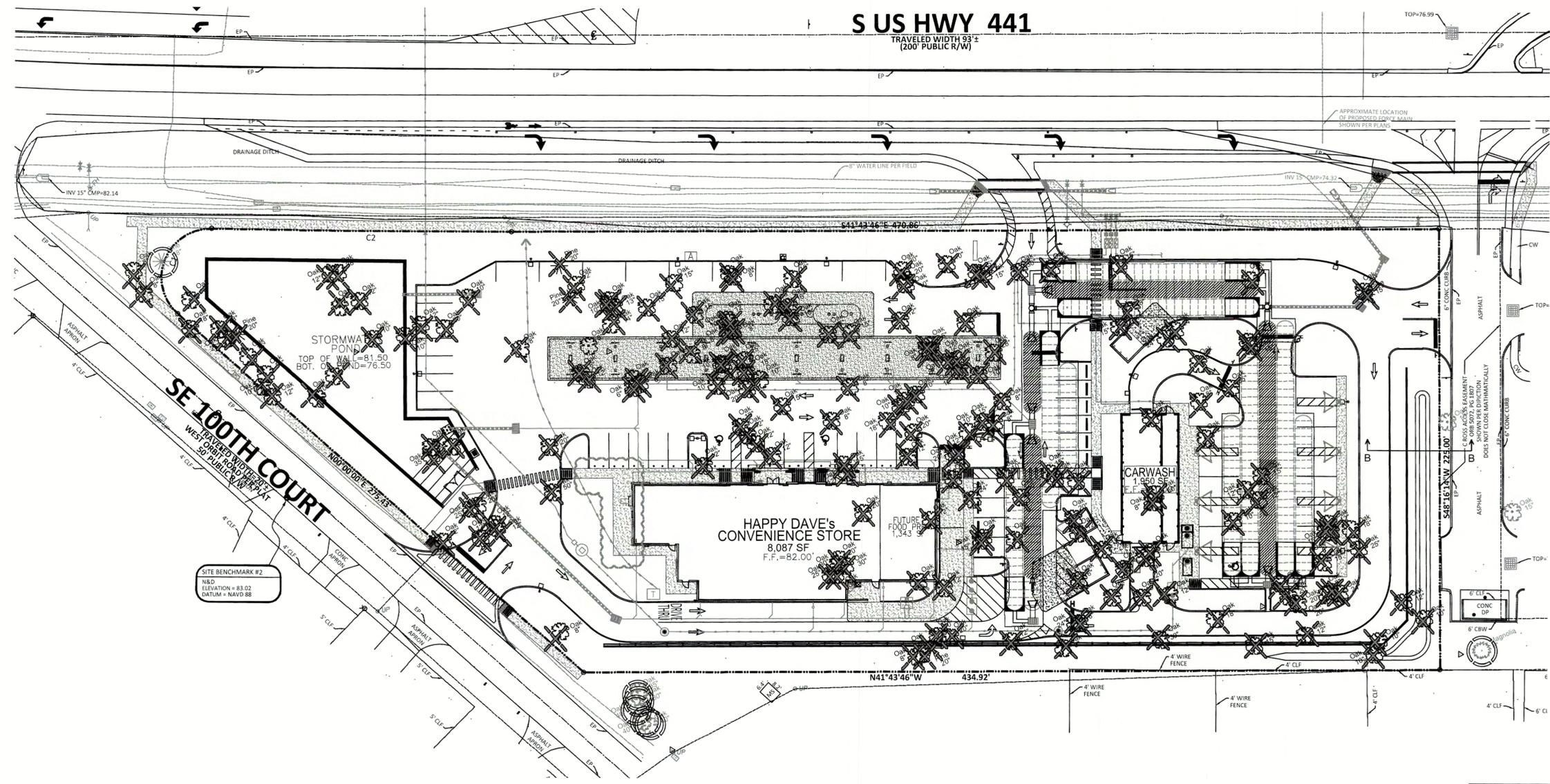
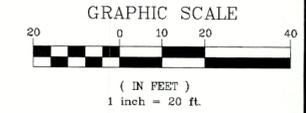
System Watts	3000K (30-CB)		4000K (30-CB)		5000K (30-CB)		5700K (30-CB)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
Z	5,177	B1-U0-G1	5,448	B1-U0-G1	4,460	B1-U0-G1	5,531	B1-U0-G1
B	8,477	B1-U0-G2	9,019	B1-U0-G2	7,400	B1-U0-G2	9,196	B1-U0-G2
K	12,448	B2-U0-G2	13,389	B2-U0-G2	11,050	B2-U0-G2	13,610	B2-U0-G2
T	16,333	B2-U0-G2	17,291	B2-U0-G2	14,050	B2-U0-G2	17,629	B2-U0-G2
U	21,900	B3-U0-G3	23,000	B3-U0-G3	17,600	B3-U0-G3	23,000	B3-U0-G3

Type III Medium Distribution w/LS Distribution

System Watts	3000K (30-CB)		4000K (30-CB)		5000K (30-CB)		5700K (30-CB)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
Z	4,080	B2-U0-G2	6,896	B2-U0-G2	5,750	B1-U0-G1	7,031	B2-U0-G2
B	10,738	B2-U0-G2	11,424	B2-U0-G2	9,300	B2-U0-G2	11,648	B2-U0-G2
K	16,022	B3-U0-G3	16,959	B3-U0-G3	14,000	B3-U0-G3	17,291	B3-U0-G3
T	20,688	B3-U0-G3	21,992	B3-U0-G3	18,000	B3-U0-G3	22,330	B3-U0-G3
U	27,800	B4-U0-G3	29,101	B4-U0-G3	22,300	B3-U0-G3	26,100	B4-U0-G4

Type IV Medium Distribution w/LS Distribution

System Watts	3000K (30-CB)		4000K (30-CB)		5000K (30-CB)		5700K (30-CB)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
Z	4,080	B1-U0-G1	5,299	B1-U0-G1	4,420	B1-U0-G1	5,402	B1-U0-G1
B	8,251	B1-U0-G2	8,779	B1-U0-G2	7,200	B1-U0-G2	8,900	B1-U0-G2
K	12,312	B2-U0-G2	13,032	B2-U0-G2	10,750	B2-U0-G2	13,286	B2-U0-G2
T	15,897	B2-U0-G3	16,830	B2-U0-G3	14,250	B2-U0-G3	17,159	B2-U0-G3
U	21,400	B3-U0-G3	22,300	B3-U0-G3	17,100	B3-U0-G		



DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 26188
 APPROVAL DATE: 2/21/2022
 EXPIRATION DATE: 2/21/2024

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Digitally signed by Jason P. Bridgewater
 Date: 2022.01.28 12:30:52 -05'00'

Jason P. Bridgewater
 Registered Landscape Architect
 FL Registration - LA 6667308

- EXISTING TREE TO REMAIN (TYP.)
- EXISTING TREE TO REMOVE (TYP.)

Existing Trees to Remove 10" - 19"			
Count	SIZE		TYPE
1	10"	10	Oak
1	14"	14	Oak
1	16"	16	Oak
1	13"	13	Oak
1	12"	12	Oak
28	10"	280	Oak
42	12"	504	Oak
8	18"	144	Oak
23	15"	345	Oak
1	15"	15	Pine
		1353	

Existing Trees to Remove 20" - 29"			
Count	SIZE		TYPE
3	25"	75	Oak
1	26"	26	Oak
3	28"	84	Oak
3	20"	60	Oak
17	20"	340	Oak
7	24"	168	Oak
1	20"	20	Pine
3	20"	60	Pine
		833	

Existing Trees to Remove 30" plus			
Count	SIZE		TYPE
1	50"	50	Oak
4	30"	120	Oak
1	60"	60	Oak
2	40"	80	Oak
2	35"	70	Oak
1	30"	30	Oak
		410	

TREE MITIGATION CALCULATIONS:
 100" PER ACRE X 2.88 ACRES = 288" CALIPER TREE MITIGATION REQUIRED
 MITIGATION PROVIDED = MG, QV, TD, TD2, AND UA TOTALLING 288" CALIPER. SEE LANDSCAPE PLAN SHEET L-2 AND LANDSCAPE DETAILS SHEET L-3.

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

PROHIBITED WITHIN THIS AREA:
 1. PARKING OR USE OF VEHICLES, EQUIPMENT, OR MACHINERY
 2. STORAGE OR DUMPING OF ANY MATERIALS OR LIQUID.
 3. CONSTRUCTION, EXCAVATION, OR TRENCHING

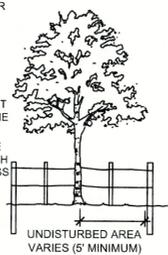
EXISTING VEGETATION REMAINING AFTER GRUBBING FOR BUILDING PADS, STRUCTURES, RIGHT OF WAY, PARKING AREAS OR SIGNIFICANT GRADE CHANGES SHALL BE PROTECTED DURING THE CONSTRUCTION PROCESS.

FOR EACH TREE TO BE PRESERVED, ESTABLISH AN UNDISTURBED AREA MEASURED FROM THE CENTER OF EACH TREE. THE MINIMUM UNDISTURBED AREA IS A RADIUS OF 0.75' FOR EACH INCH OF DBH (DIAMETER AT BREAST HEIGHT, 54" HT ABOVE THE SOIL LINE). TREES OF 6" DBH OR LESS SHALL HAVE A MINIMUM UNDISTURBED RADIUS OF 5 FEET. ALSO SEE LANDSCAPE NOTES.

BARRIERS TO REMAIN IN PLACE UNTIL ALL PAVING AND CONSTRUCTION IS COMPLETED.

UPRIGHTS - THE EQUIVALENT OF 4 X 4 LUMBER AT 3' MINIMUM HEIGHT ON 5' MAX. CENTERS
 HORIZONTALS - THE EQUIVALENT OF TWO COURSES OF 1/2" DIA. ROPE WITH YELLOW TAPE FLAGGING.

TYPICAL TREE PROTECTION DETAIL
 N.T.S.



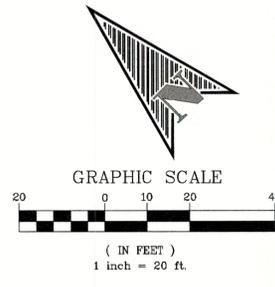
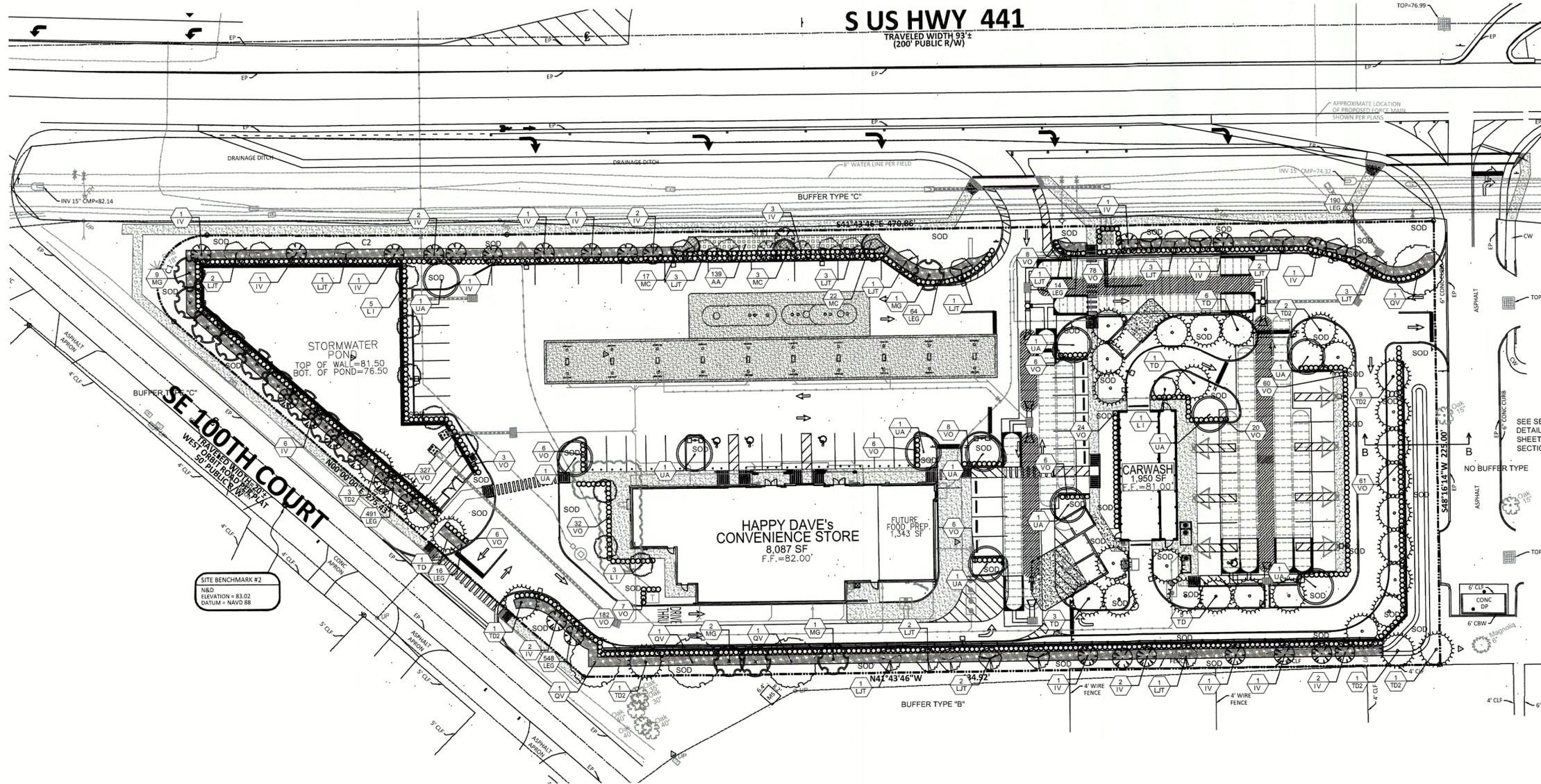
48 HOURS BEFORE YOU DIG
 CALL SUNSHINE
 1-800-432-4770 or 811
IT'S THE LAW IN FLORIDA
 FLORIDA LAW REQUIRES EXCAVATORS TO NOTIFY OWNERS OF UNDERGROUND FACILITIES NO LESS THAN TWO (2) DAYS PRIOR TO EXCAVATION

CADDSCAPES, INC.
 Florida Landscape Architecture Firm
 432 Nowell Loop
 Deland, FL 32724
 Office: 407 310-5567
 jasonbridgewater@gmail.com

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

DATE: 01-29-21
 DRAWN: JB
 CHECKED: JB
 RECEIVED
 TRENCH
 REMOVAL
 PLAN
 MAR 14 2022
 PROJECT NO.: 2020.181

Last saved: 1/26/2022 by Jason Pridmore; 1/26/2022 by Jason



DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

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Z DEVELOPMENT
 s e r v i c e s
 CA 29354
 708 E. COLONIAL DR., STE 100
 ORLANDO, FL 32803
 PH: (407) 271-8910
 FAX: (407) 442-0604

DATE	REVISION
06/18/21	COUNTY COMMENTS
08/02/21	FOOT COMMENTS
08/30/21	COUNTY COMMENTS
10/13/21	COUNTY COMMENTS
11/30/21	REVISED BASE
01/28/22	REVISED BASE

DATE: 01/28/2022

Digitally signed by Jason P. Bridgewater
 Date: 2022.01.28 12:30:34 -05'00'

Jason P. Bridgewater
 Registered Landscape Architect
 FL Registration - LA 6667308

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
 S. US HIGHWAY 441 & SE 100TH COURT
 SUMMERFIELD, FLORIDA 34491
 MARION COUNTY
 MAJOR SITE PLAN #26188

DATE: 01-29-21
 DRAWN: JB
 CHECKED: JB

LANDSCAPE PLAN
 1/14/2022

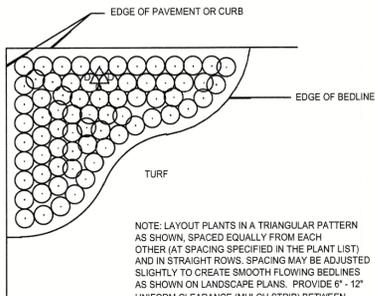
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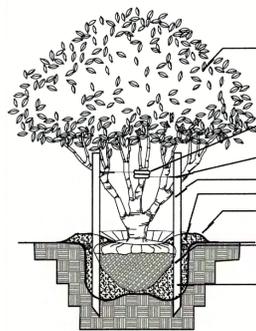
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SHRUB/GROUNDCOVER SPACING DETAIL

NOT TO SCALE

NOT TO SCALE



MULTI-TRUNK TREE PLANTING DETAIL

NOT TO SCALE

LANDSCAPE PLANTING NOTES:

1. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL FREE OF PESTS AND DISEASES.
2. ALL PLANTS SHALL BE FLORIDA FANCY, AS GRADED IN FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS.
3. ALL PLANTS ARE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT AND OWNER BEFORE, DURING, AND AFTER INSTALLATION.
4. ALL SINGLE-TRUNKED TREES SHALL BE STRAIGHT TRUNKED WITH ONE CENTRAL LEADER AND HAVE A FULL, DENSE CROWN.
5. ALL TREES SHALL BE STAKED AND GUYED AS SHOWN IN PLANTING DETAILS.
6. ALL MULCH PLANTING AREAS SHALL BE A MINIMUM OF 2" IN DEPTH.
7. ALL PLANTING AREAS SHALL HAVE A MINIMUM OF 3" TOPSOIL.
8. ALL TREES SHALL BE FREE OF OPEN WOUNDS AND WOUND SCARS IN THE CLEAR TRUNK AREA.
9. ANY SYNTHETIC BURLAP AND/OR WIRE BASKETS MUST BE TOTALLY REMOVED PRIOR TO INSTALLATION OF PLANT MATERIAL. IF NATURAL BURLAP IS USED, IT MAY BE TURNED DOWN 1/3 OF THE ROOTBALL. CALIPER TO BE MEASURED (6) SIX INCHES ABOVE ROOTBALL.

LANDSCAPE CONTRACTOR NOTES:

1. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, IN FULL, ALL LANDSCAPE PLANTING AREAS, UNTIL THE JOB IS ACCEPTED IN FULL BY THE OWNER. "IN FULL" MEANS WATERING, PEST CONTROL, MULCHING, MOWING, FERTILIZING AND RESETTING TREES THAT ARE OUT OF PLUMB.
2. THE LANDSCAPE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL INSTALLED PLANT MATERIAL FOR A PERIOD OF ONE CALENDAR YEAR BEGINNING ON THE DATE OF 100% COMPLETION. ANY AND ALL REQUIRED PLANT REPLACEMENTS SHALL BE MADE PROMPTLY AND AT NO ADDITIONAL COST TO THE OWNER.
3. THE LANDSCAPE CONTRACTOR SHALL STAKE THE LOCATIONS OF ALL PLANT MATERIAL AND PLANTING BED LINES FOR REVIEW BY THE LANDSCAPE ARCHITECT AND OWNER.
4. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL WRITTEN PLANT QUANTITIES PRIOR TO INITIATION OF THE WORK. IN THE EVENT THAT THE PLANS CONTRADICT THE PLANT LIST, THE PLANS SHALL RULE.
5. THE LANDSCAPE CONTRACTOR SHALL BE FAMILIAR WITH AND ACCEPT THE EXISTING SITE CONDITIONS PRIOR TO INITIATION OF THE WORK. ANY VARIATION FROM THE SPECIFIED WORK SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
6. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES, DRAINAGE STRUCTURES, CURBS, SIDEWALKS, AND ANY OTHER OBJECTS WHICH MIGHT BE DAMAGED DURING THE WORK.
7. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ANY AND ALL NECESSARY REPAIRS TO DAMAGE CAUSED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER OR LANDSCAPE ARCHITECT.
8. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, AND FOLLOWING ALL APPLICABLE LOCAL CODES PERTAINING TO THE PROJECT DURING THE COURSE OF HIS WORK.

Sec. 6.8.13 - Landscape maintenance.

- A. All landscape areas shall be maintained in accordance with the Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries, UF/IFAS and FDEP.
- B. Trees or palms shall not be severely pruned or shaped. The natural growth habit of a tree or palm shall be considered during the design phase to avoid maintenance conflicts.
- C. Trees or palms which are guyed or braced shall have such guying or bracing removed once sufficient root growth has enabled the tree or palm to support itself. Damaging trees with guying devices shall be considered a violation of this Code. Damaged trees shall be replaced at the expense of the owner.
- D. The alteration of any required and approved landscape area without obtaining prior written approval from the County is prohibited. The expansion of drought tolerant landscaping, excluding the replacement of planted areas with turfgrass, or replacing dying or diseased plants with similar plant material is excluded.
- E. Buffers and screening plantings shall provide healthy appearance year round and be maintained at the required minimum heights.

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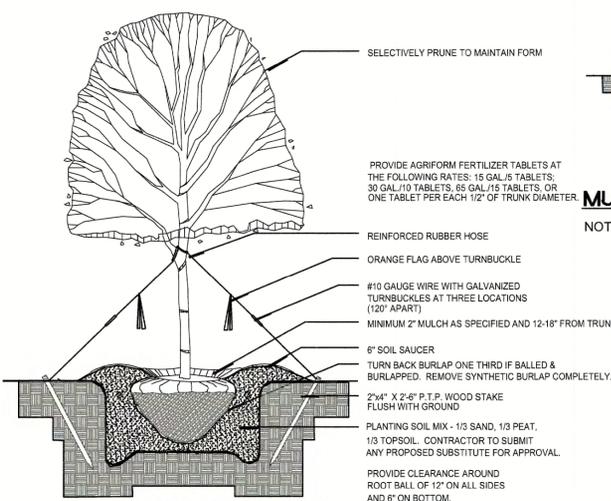
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FOOT COMMENTS	08/02/21		
COUNTY COMMENTS	08/30/21		
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REVISED BASE	01/28/22		

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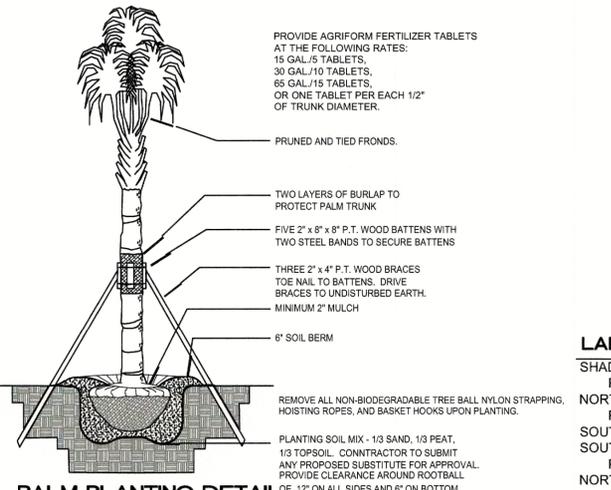
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Date: 2022.01.28 12:30:20 -05'00'

Jason P. Bridgewater
Registered Landscape Architect
FL Registration - LA 6667308



TREE PLANTING DETAIL

NOT TO SCALE



PALM PLANTING DETAIL

NOT TO SCALE

PLANT LIST						
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	DESCRIPTION	NATIVE	REMARKS
TREES						
IV	31	ILEX VOMITORIA	YAUPON HOLLY	MINIMUM 3.5" CALIPER MULT-TRUNK	YES	SPACE AS SHOWN GUY
LI	9	LAGERSTROEMIA INDICA	CRAPE MYRTLE	6" HT MIN. 42" SPREAD	NO	SPACE AS SHOWN GUY
LJT	26	LIGUSTRUM JAPONICUM	LIGUSTRUM TREE	6" HT MIN. 42" SPREAD	NO	SPACE AS SHOWN GUY
MG	13	MAGNOLIA GRANDIFLORA BRACKEN'S BROWN BEAUTY	BRACKEN'S BROWN BEAUTY MAGNOLIA	MINIMUM 4.5" CALIPER	YES	SPACE AS SHOWN GUY
QV	4	QUERCUS VIRGINIANA	LIVE OAK	MINIMUM 4.5" CALIPER	YES	SPACE AS SHOWN GUY
TD	16	TAXODIUM DISTICHUM	BALD CYPRESS	MINIMUM 4.5" CALIPER	YES	SPACE AS SHOWN GUY
TD2	16	TAXODIUM DISTICHUM	BALD CYPRESS	MINIMUM 5" CALIPER	YES	SPACE AS SHOWN GUY
UA	11	ULMUS ALATA	WINGED ELM	MINIMUM 4.5" CALIPER	YES	SPACE AS SHOWN GUY
SHRUBS						
VO	846	VIBURNUM ODORATISSIMUM VAR. AWABUKI	AWABUKI VIBURNUM	18" MIN. HT, 18" SPR, 3 GAL CAN FULL	NO	24" O.C.
GROUNDCOVERS						
AA	139	AGAPANTHUS AFRICANUS	LILY OF THE NILE	15" HT. x 15" SPRD. / FULL / 3 G	NO	24" O.C.
LEG	1,323	LIRIOPE MUSCARI "EVERGREEN GIANT"	EVERGREEN GIANT LIRIOPE	3-4 PPP, 1 GAL CAN FULL	NO	24" O.C.
MC	42	MUHLENBERGIA CAPILLARIS	MUHLY GRASS	3 GAL CAN FULL	YES	24" O.C.
SOD						
	SEE PLANS	PASPALUM NOTATUM "BAHIA"	ARGENTINE BAHIA SOD	SOLID, FREE OF PESTS AND DISEASES		FIELD VERIFY QTY.
MULCH						
AT PLANTINGS	SEE PLANS	MINI PINE BARK NUGGETS	MINI PINE BARK NUGGETS	FREE OF DIRT AND DEBRIS		FIELD VERIFY QTY.

LANDSCAPE COUNTY CALCULATIONS:

SHADE TREE REQUIREMENT: 125,580 SQ.FT. / 3,000 = 41.86 shade trees required
PROVIDED: 42 shade trees

NORTHEAST BUFFER type "c" along 441 684 linear feet/100=6.84 X 2 shade/3 ornamental trees & 50% shrubs and groundcovers (3,308 sf)=13.68 shade/20.52 ornamental trees required
PROVIDED: 2 shade trees and 33 ornamental trees due to existing overhead powerlines & 5,086 sf shrubs and groundcovers.

SOUTHWEST BUFFER NONE REQUIRED

SOUTHWEST BUFFER type "B" 434 linear feet / 100 = 4.34 X 2 shade trees/3 ornamental trees = 8.68 shade/13.02 ornamental trees required
PROVIDED = 9 shade / 13 ornamental trees

NORTHWEST BUFFER type "C" 275 linear feet / 100 = 2.75 X 2 shade trees/3 ornamental & 50% shrubs and groundcovers (2,063 sf)= 5.5 shade trees/ 8.25 ornamental trees required
PROVIDED = 6 shade trees / 9 ornamental trees & 2,067 sf shrubs and groundcovers

OPEN SPACE CALCULATION: +/- 125,580 SQ.FT. X 20% = +/-25,116 SQ.FT. MINIMUM REQUIRED
PROVIDED = +/- 36,288 SQ.FT. LANDSCAPE AREA (28.8%) PROVIDED

NOTE: UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL REQUEST AN INSPECTION BY THE DESIGN PROFESSIONAL. A LANDSCAPE AND IRRIGATION AS-BUILT CERTIFICATION SHALL BE SIGNED AND SEALED BY THE DESIGN PROFESSIONAL AND SUBMITTED TO THE COUNTY LANDSCAPE ARCHITECT PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

NOTE: UPON COMPLETION OF THE IRRIGATION SYSTEM INSTALLATION AND THE ACCEPTANCE OF THE AS-BUILT DIAGRAM AND OPERATIONAL INFORMATION, A FINAL INSPECTION AND LANDSCAPE/IRRIGATION RELEASE SHALL BE SIGNED AND SEALED BY THE IRRIGATION DESIGN PROFESSIONAL AND SUBMITTED TO THE COUNTY'S LANDSCAPE ARCHITECT.

PROVIDE AGRIFORM (20-10-5) FERTILIZER TABLETS AT THE FOLLOWING RATES: 3 GAL/2 TABLETS; 1 GAL/1 TABLET.

PROVIDE 6" MINIMUM CLEARANCE AROUND ROOT BALL (SIDES AND BOTTOM).

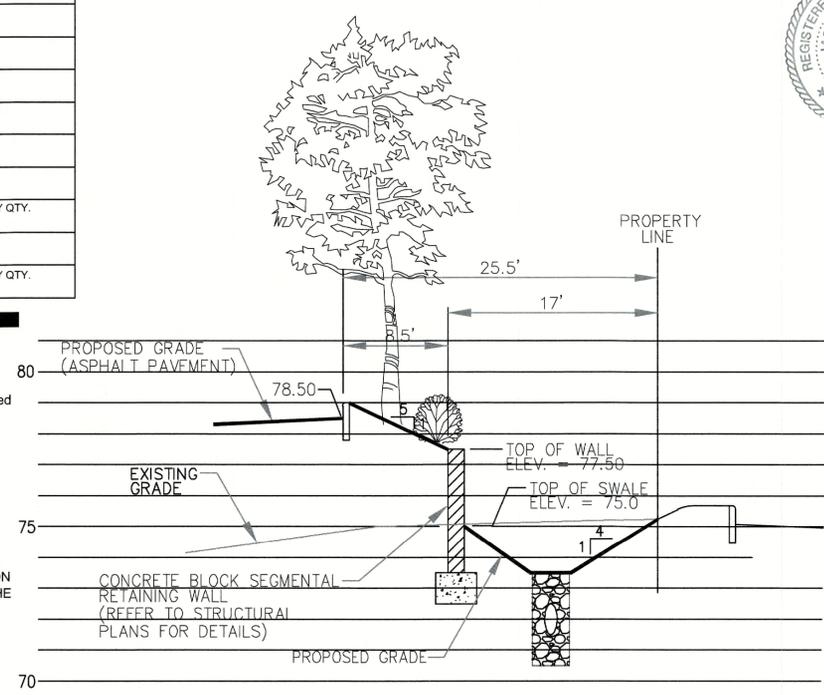
2" MULCH MINIMUM - DO NOT COVER MAIN STEM

SET TOP OF ROOTBALL 1" ABOVE FINISH GRADE

12" MINIMUM DEPTH OF PLANTING SOIL MIX IN SHRUB/GROUNDCOVER PLANTING BEDS.

PLANTING SOIL MIX - 1/3 SAND, 1/3 PEAT, 1/3 TOPSOIL. CONTRACTOR TO SUBMIT ANY PROPOSED SUBSTITUTE FOR APPROVAL.

SHRUB AND GROUNDCOVER PLANTING DETAIL



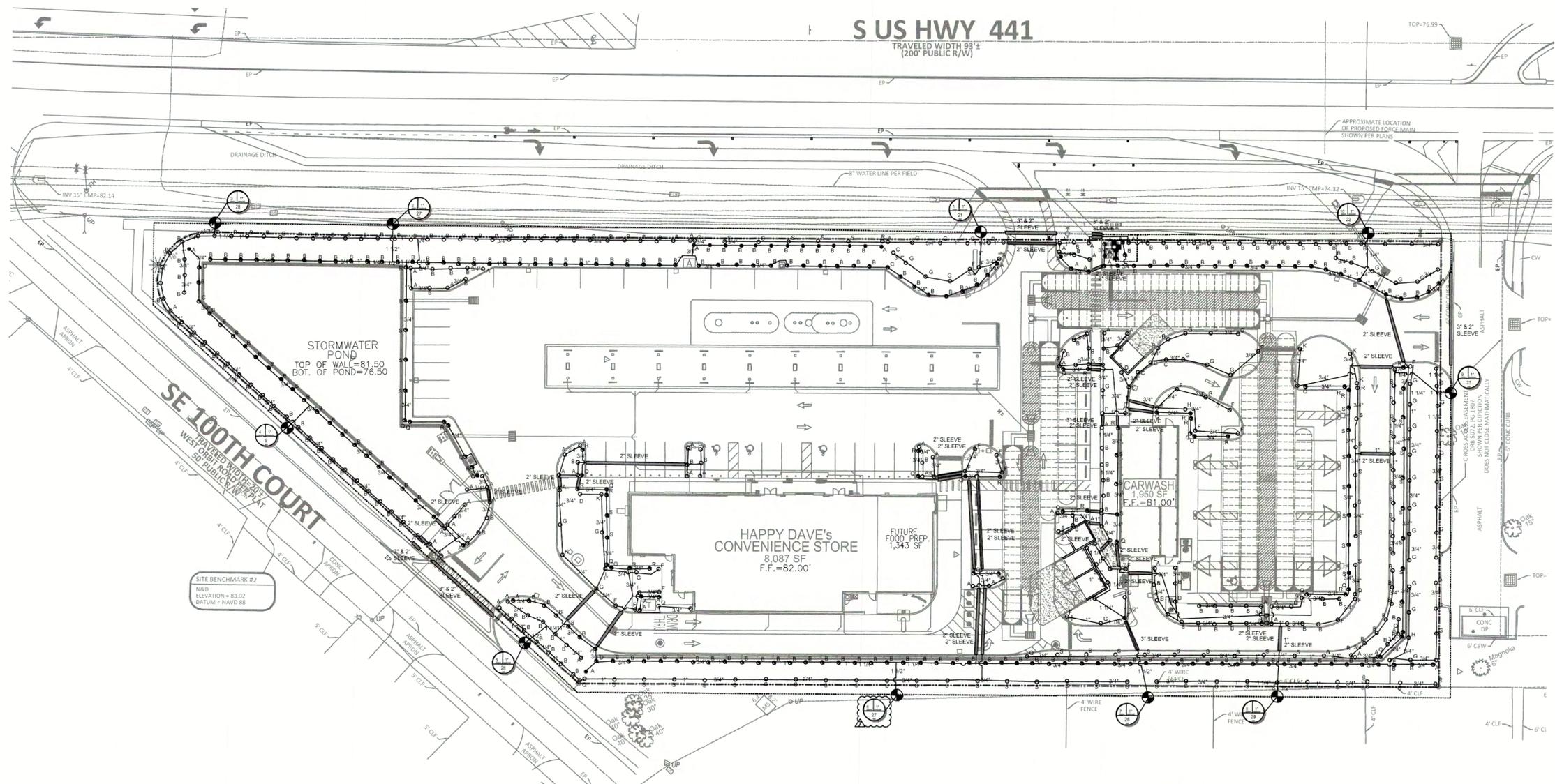
SECTION B-B

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

CADSCAPES, INC.
Florida Landscape Architecture Firm
432 Nowell Loop
Deland, FL 32724
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jasonbridgewater@gmail.com

HAPPY DAVE'S CONVENIENCE STORE & CARWASH
S. US HIGHWAY 441 & SE 100TH COURT
SUMMERFIELD, FLORIDA 34491
MARION COUNTY
MAJOR SITE PLAN #26188

DATE: 01-29-21
DRAWN: JB
CHECKED: JB
L & W
LANDSCAPE
DETAIL
PROJECT NO.: 2020.181



**DEVELOPMENT REVIEW COMMITTEE
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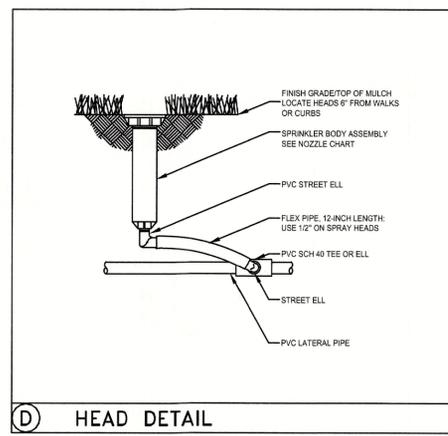
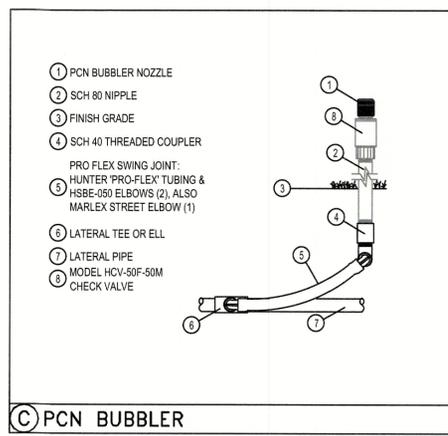
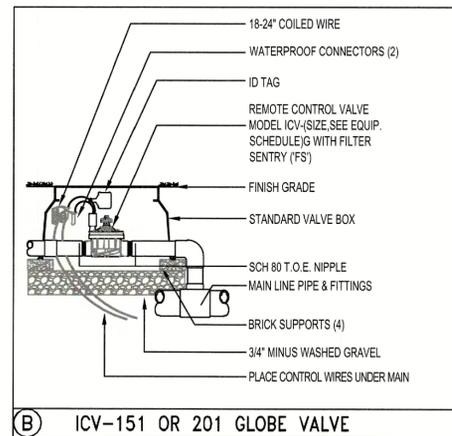
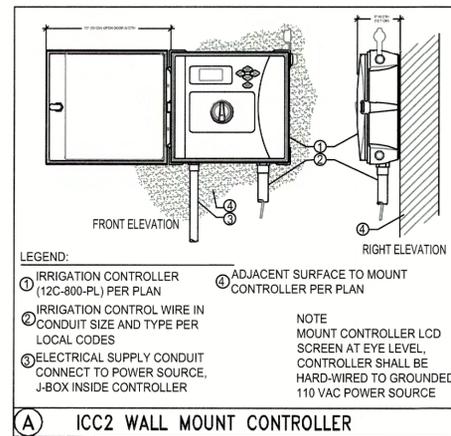
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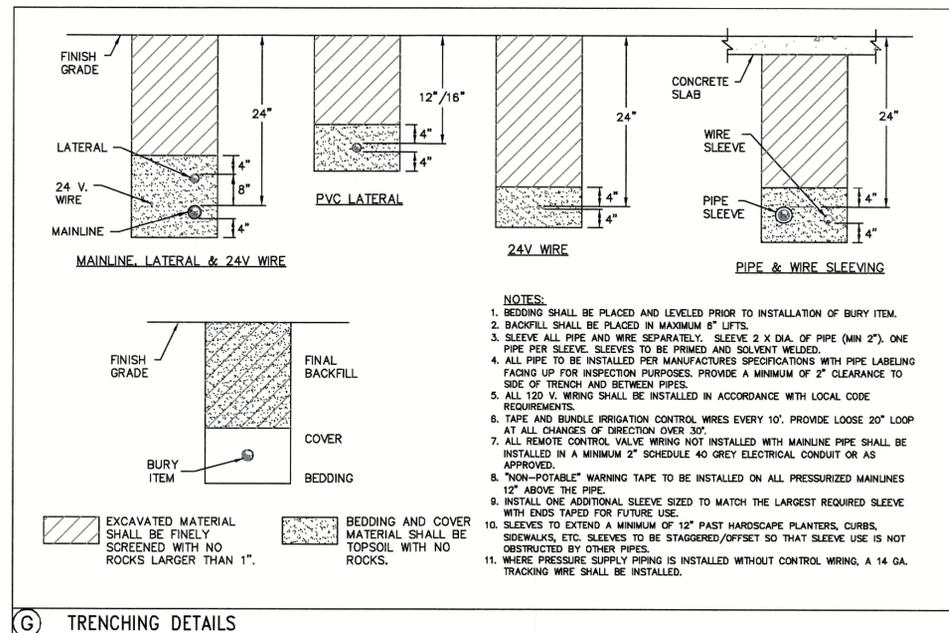
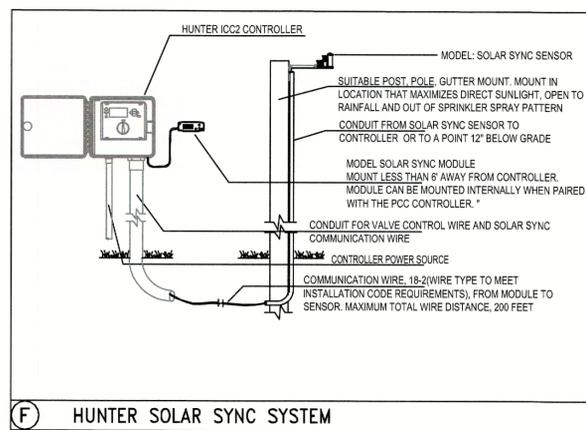
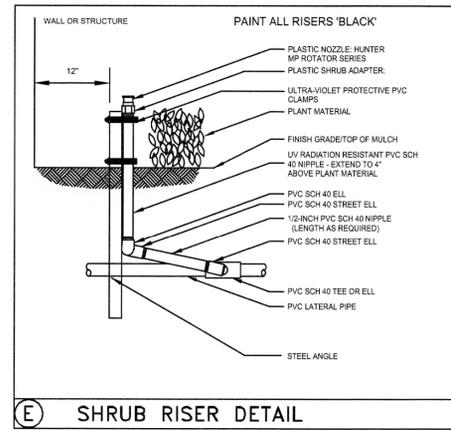
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IRRIGATION DETAILS



IRRIGATION NOTES

- REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES AND SHRUBS.
- ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
- ALL POP-UP ROTORS AND SPRAY HEADS SHALL BE INSTALLED USING AN 18" P.V.C. FLEX PIPE CONNECTION. DO NOT USE FUNNY PIPE.
- ADJUST ALL NOZZLES TO REDUCE WATER WASTE ON HARD SURFACES AND BUILDING WALLS.
- THROTTLE ALL VALVES ON SHRUB LINES AS REQUIRED TO PREVENT FOGGING.
- ALL RISERS SHALL BE PAINTED BLACK.
- ALL RISERS SHALL BE STAKED WITH A STEEL ANGLE AND SECURED WITH ULTRA-VIOLET LIGHT PROTECTED P.V.C. CLAMPS.
- ALL CONTROL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING SNAP-TITE CONNECTORS AND SEALANT.
- THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING ON A REPRODUCIBLE PAPER (SEPIA OR MYLAR) SHOWING ALL INSTALLED IRRIGATION. A MYLAR OR SEPIA OF THE ORIGINAL PLAN MAY BE OBTAINED FROM THE LANDSCAPE ARCHITECT FOR A FEE. THE DRAWING SHALL LOCATE ALL MAINLINE AND VALVES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES.
- ALL VALVES, GATE VALVES AND QUICK COUPLERS SHALL BE INSTALLED IN VALVE BOXES.
- ANY PIPING SHOWN OUTSIDE THE PROPERTY LINE OR RUNNING OUTSIDE A LANDSCAPE AREA IS SHOWN THERE FOR CLARITY ONLY. ALL LINES SHALL BE INSTALLED ON THE PROPERTY AND INSIDE THE LANDSCAPE AREAS.
- ALL RISERS SHALL BE INSTALLED 12" FROM ANY WALL AND A MINIMUM OF 36" FROM ANY SIDEWALK, PATIO OR ROAD.
- THE EXACT HEIGHT OF ANY 12" POP-UP THAT IS SHOWN IN A SHRUB BED SHALL BE DETERMINED BY THE LANDSCAPE ARCHITECT IN THE FIELD.
- THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY HIS WORK.
- ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.
- CONTRACTOR TO USE MIN. OF 12 GAUGE WIRE FOR ALL COMMON WIRES AND 14 GAUGE WIRE FOR ALL CONTROL WIRES. CONTRACTOR ALSO TO PROVIDE 3 SPARE CONTROL WIRES FOR ANY FUTURE USE.
- CONCRETE THRUST BLOCKS ARE TO BE UTILIZED AT ALL MAINLINE DIRECTION CHANGES.
- ALL IRRIGATION SHOWN ON PLANS IS SCHEMATIC AND DOES NOT REFLECT ALL FITTINGS AND APPURTENANCES WHICH SHALL BE INCLUDED TO PROVIDE A FULLY FUNCTIONAL IRRIGATION SYSTEM CAPABLE OF PROVIDING 100 PERCENT COVERAGE WITH A 50 PERCENT OVERLAP.
- TOTAL IRRIGATED SQUARE FEET OF +/-36,760 SQ.FT. SHOWN ON IRRIGATION PLAN SHEET L-4.
- IRRIGATION SYSTEM TO BE INSTALLED BY A LICENSED PROFESSIONAL.



SPRAY NOZZLE CHART

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

EQUIPMENT LIST

SYMBOL	DESCRIPTION	QUANTITY
●	0.50 GPM BUBBLER (2 PER TREE)	0
○	6" POP-UP SPRAY - HUNTER INDUSTRIES MPR40 WMP2000 NOZZLES	379
●	12" POP-UP SPRAY - HUNTER INDUSTRIES MPR40 WMP2000 NOZZLES	15
●	SPRAY ON RISER - HUNTER INDUSTRIES INST-00-CV-MP2000	237
▲	HUNTER INDUSTRIES - 4" POP-UP PGP ROTORS - PART RADIUS	0
▲	HUNTER INDUSTRIES - 4" POP-UP PGP ROTORS - FULL RADIUS	0
▲	HUNTER INDUSTRIES - I-40 ROTORS - PART 60" RADIUS	0
●	HUNTER 'ICV' SERIES ELECTRIC VALVE WITH ACCU-SET PRESSURE REGULATOR	10
●	HUNTER 'ICV' SERIES ELECTRIC VALVE WITH ACCU-SET PRESSURE REGULATOR	1
○	HUNTER ICC2 12 STATION CONTROLLER, 120VOLT INSTALL WITH A SOLAR SYNC (WITH EVAPOTRANSPIRATION SENSOR AND RAIN SENSOR AND BY-PASS BOX.) GROUND WITH AN 8' COPPER CLAD ROD.	1
■	1" POTABLE IRRIGATION METER TO PROVIDE 30 GPM AT 40 PSI	1
■	1" DOUBLE CHECK VALVE BACKFLOW PREVENTOR	1
—	LATERAL LINE SIZE PER PLAN	SEE PLAN
—	1-1/2" MAINLINE CLASS 200 P.V.C. SIZE PER PLAN	SEE PLAN
—	SLEEVING - SCH. 40 P.V.C. MIN. DEPTH OF 24" (ALL 3" SLEEVES TO HAVE ACCOMPANYING 2" SLEEVE FOR WIRES)	SEE PLAN

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