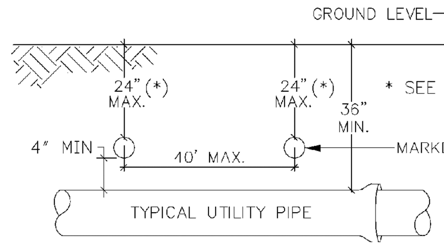
FILE PATH: V:\010014 - Chick-fil-A\010014-01-208 (ENG) - 05557 Atlantic Powerline FSU Pompano\Engineering\Engineering Plans\Sheets\13-010014-01-208-UTD.dwg 8/24/2023
THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.



GENERAL NOTES:

1. ALL UTILITY PIPE SHALL BE INSTALLED WITH 4"ϕ MARKING BALLS PLACED EVERY 40' AND AT EVERY FITTING, FOR IDENTIFICATION AND WARNING PURPOSES, BURIED ABOVE THE PIPE AT A MAXIMUM DEPTH OF 24 INCHES OR AS APPROVED BY THE OWNER. IT SHALL BE COLOR CODED AND WORDED AS FOLLOWS:

   POTABLE WATER.
   A. COLOR: BLUE PER 62-555.320(21)(b)(3) F.A.C.
   B. LETTERING: WATER
   C. FREQUENCY OF MARKER BALLS SHALL BE 145.7 Khz.
   D. THE MARKER BALLS CAN BE BURIED IN ANY ORIENTATION.

   THE MARKER BALLS SHALL BE DETECTABLE BY STANDARD METAL DETECTION EQUIPMENT AND SHALL BE MANUFACTURED BY TEMPO OR 3M LOCATOR SYSTEM OR EQUIVALENT (FREQUENCY 145.7 Khz)

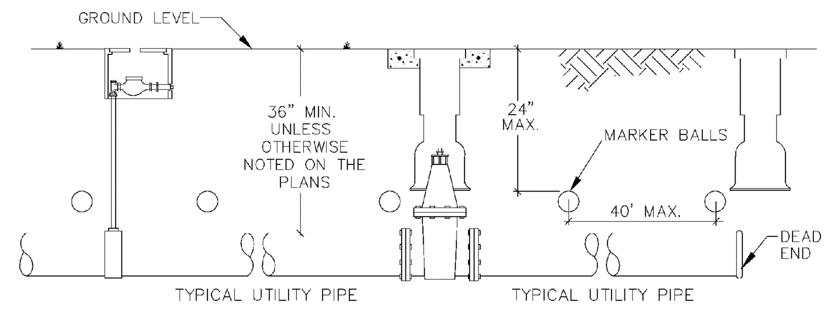
2. FOR LARGE DIAMETER PIPE INSTALLED AT DEPTHS BELOW 4'-0" MARKER BALLS SHALL BE PLACED AT A MAXIMUM DEPTH OF 4'-0" BELOW GRADE *.

WATER PIPE IDENTIFICATION

ENGINEERING STANDARDS 2022

REVISIONS				
BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	WATER PIPE IDENTIFICATION	
S.S.	01/12			DATE: JAN. 2022
S.S.	06/16	SCALE: N.T.S.		DWG. NO. 119-1

1 PS-1.2 WATER PIPE IDENTIFICATION
NOT TO SCALE



GENERAL NOTES:

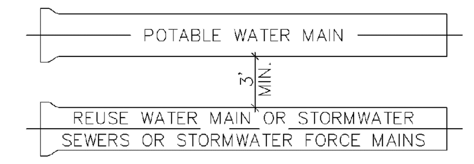
1. ALL NONMETALLIC PIPE SHALL BE INSTALLED WITH 12 THIN SOLID COPPER TRACING WIRE.
2. THE MARKER BALLS MUST BE INSTALLED DIRECTLY ABOVE THE PIPE.
3. MARKER BALLS SHALL BE INSTALLED AT 40' O.C.
4. BALL COLOR CODING:
   POTABLE WATER SYSTEM: BLUE PER 62-555.320(21)(b)(3) F.A.C.

UTILITY PIPE AND MARKER BALLS LOCATION

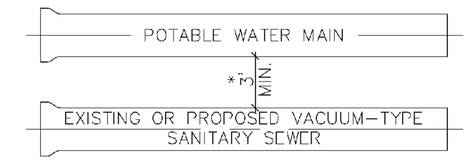
ENGINEERING STANDARDS 2022

REVISIONS				
BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	UTILITY PIPE AND MARKER BALLS LOCATION	
S.S.	01/12			DATE: JAN. 2022
S.S.	06/16	SCALE: N.T.S.		DWG. NO. 120-1

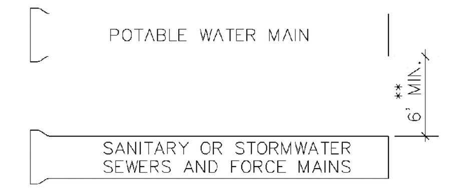
2 PS-1.2 UTILITY PIPE AND MARKER BALLS LOCATION
NOT TO SCALE



A MINIMUM HORIZONTAL SEPARATION 3' (OUTSIDE TO OUTSIDE), SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND STORMWATER SEWERS, STORMWATER FORCE MAINS AND REGULATED REUSE WATER MAINS.



A MINIMUM HORIZONTAL SEPARATION 3' (OUTSIDE TO OUTSIDE), SHALL BE MAINTAINED BETWEEN EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER. * SEE NOTE D(1)(B).



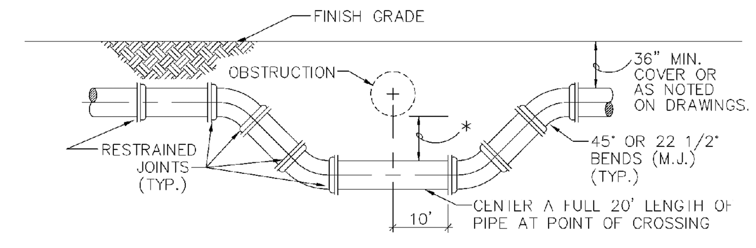
A MINIMUM HORIZONTAL SEPARATION OF 6' (OUTSIDE TO OUTSIDE), SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND EXISTING OR PROPOSED GRAVITY-OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN OR NOT REGULATED REUSE WATER MAIN. ** SEE NOTE D(1)(C).

MINIMUM HORIZONTAL SEPARATION REQUIREMENTS FOR POTABLE WATER, REUSE, STORMWATER AND SEWER LINES

ENGINEERING STANDARDS 2022

REVISIONS				
BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	MIN. HORIZONTAL SEPARATION FOR POTABLE WATER	
S.S.	01/12			DATE: JAN. 2022
		SCALE: N.T.S.		DWG. NO. 121-1

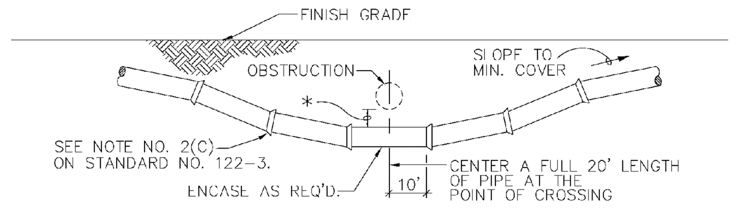
3 PS-1.2 MIN. HORIZONTAL SEPARATION FOR POTABLE WATER
NOT TO SCALE



SPECIAL UTILITY CROSSING – FITTING TYPE

* 12" MINIMUM CLEARANCE REQUIRED FOR PRESSURE TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN OR REUSE WATER MAIN CROSSINGS. IF MINIMUM CLEARANCE CANNOT BE OBTAINED. REFER TO "PROTECTION OF POTABLE WATER SUPPLY" FOR WATER MAIN CROSSINGS. SEE NOTE 2(B), ON STANDARD NO. 122-3

6" MINIMUM CLEARANCE REQUIRED FOR WATER AND STORMWATER, SEWER MAIN CROSSINGS. SEE NOTE 2(A), ON STANDARD NO. 122-3.



STANDARD UTILITY CROSSING – DEFLECTION TYPE

NOTES:
1. THE DEFLECTION TYPE CROSSING SHALL BE USED WHEREVER POSSIBLE. ONLY UNDER SPECIFIC ORDERS BY THE ENGINEER SHALL THE FITTING TYPE CROSSING BE ALLOWED.
2. CONSTRUCT STANDARD CROSSING USING NO MORE THAN 75% OF MANUFACTURERS' MAXIMUM JOINT DEFLECTION.
3. FOR POTABLE WATER MAINS, REFER TO "PROTECTION OF POTABLE WATER SUPPLY".

UTILITY CROSSINGS

ENGINEERING STANDARDS 2022

REVISIONS				
BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	UTILITY CROSSINGS	
S.S.	01/12			DATE: JAN. 2022
		SCALE: N.T.S.		DWG. NO. 122-1

4 PS-1.2 UTILITY CROSSINGS
NOT TO SCALE

PROTECTION OF POTABLE WATER SUPPLY NOTES

A. GENERAL
IN ADDITION TO THESE REQUIREMENTS, ALL POTABLE WATER MAINS CONSTRUCTED IN THE VICINITY OF STORM SEWERS, SANITARY SEWERS OR FORCE MAINS SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF FLORIDA ADMINISTRATIVE CODE CHAPTER 62-555, GREAT LAKES-UPPER MISSISSIPPI RIVER BOARD OF STATE SANITARY ENGINEERS (GLUMRB) "RECOMMENDED STANDARDS FOR WATER WORKS", AND GLUMRB "RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES".

B. DEFINITIONS
FOR THE PURPOSES OF THIS SPECIFICATION, THE WORDS "OTHER PIPE" OR "OTHER PIPES" SHALL MEAN SANITARY SEWER MAIN, SEWAGE FORCE MAIN, STORMWATER MAIN OR ANY COMBINATION THEREOF.

C. CROSS CONNECTIONS PROHIBITED
THERE SHALL BE NO PHYSICAL CONNECTIONS BETWEEN A PUBLIC OR PRIVATE POTABLE WATER SUPPLY SYSTEM AND ANY OTHER PIPE OR APPURTENANCE THERETO WHICH WOULD PERMIT THE PASSAGE OF ANY WASTEWATER, POLLUTED WATER, OR ANY OTHER WATER INTO THE POTABLE SUPPLY. NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SANITARY SEWER MANHOLE OR STORMWATER MANHOLE.

D. RELATION OF OTHER PIPES TO POTABLE WATER MAINS

1. HORIZONTAL SEPARATION
   A. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM WATER, STORM WATER FORCE MAIN, OR PIPELINE CONVEYING REUSE WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610,F.A.C.
   B. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
   C. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING REUSE WATER NOT REGULATED UNDER CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY TYPE SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

ENGINEERING STANDARDS 2022

REVISIONS				
BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	POTABLE WATER SUPPLY NOTES	
S.S.	01/12			DATE: JAN. 2022
		SCALE: N.T.S.		DWG. NO. 122-2

   D. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM".

2. VERTICAL SEPARATION
   A. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY-OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
   B. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR PIPELINE CONVEYING REUSE WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES, ABOVE OR BELOW THE OUTSIDE THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
   C. AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCE MAINS, OR PIPELINES CONVEYING REUSE WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING REUSE WATER NOT REGULATED UNDER PART III OR CHAPTER 62-610, F.A.C.

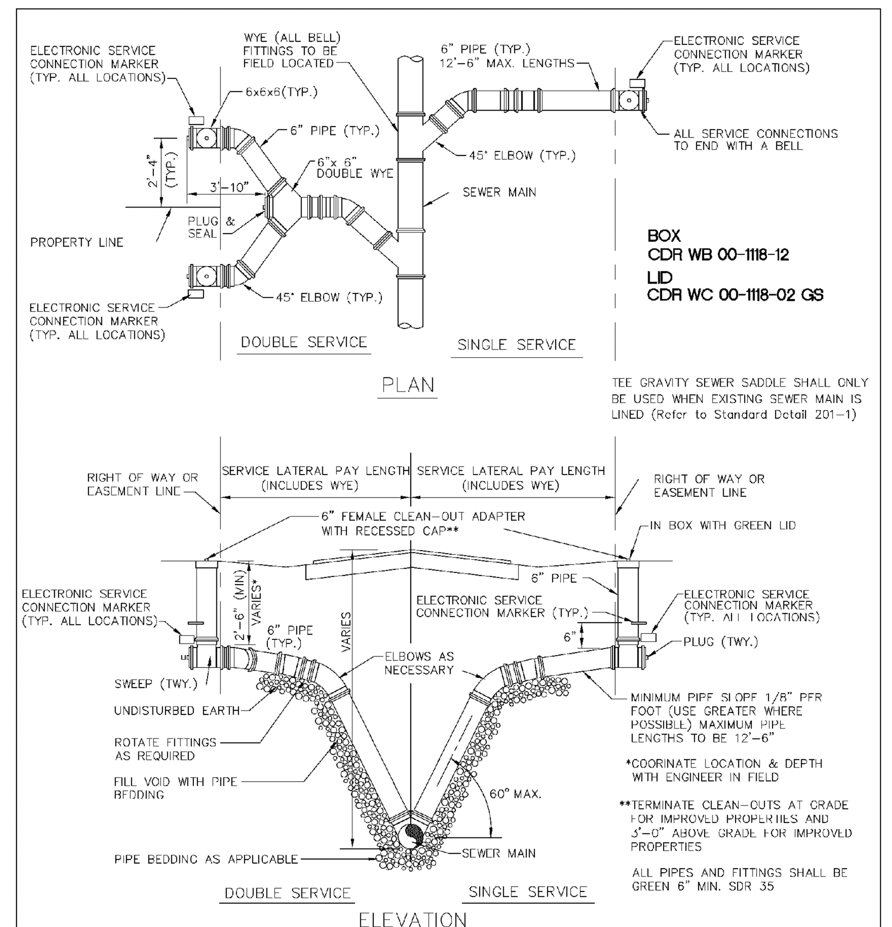
   WHERE THE HORIZONTAL CAN BEING LOCATED LESS THAT THE REQUIRED MINIMUM DISTANCES FROM JOINTS IN THE OTHER PIPELINE OR THE HORIZONTAL IS LESS THAT THREE FEET FROM ANOTHER PIPELINE OR THE UNDER GROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND IS LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY FOR RECOMMENDED SOLUTIONS TO MEET THE FLORIDA OF DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS PER CHAPTER 62-555, F.A.C.

PROTECTION OF POTABLE WATER SUPPLY NOTES

ENGINEERING STANDARDS 2022

REVISIONS				
BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	POTABLE WATER SUPPLY NOTES	
S.S.	01/12			DATE: JAN. 2022
		SCALE: N.T.S.		DWG. NO. 122-3

5 PS-1.2 POTABLE WATER SUPPLY NOTES
NOT TO SCALE



BOX
CDR WB 00-1118-12
LID
CDR WC 00-1118-02 GS

TEE GRAVITY SEWER SADDLE SHALL ONLY BE USED WHEN EXISTING SEWER MAIN IS LINED (Refer to Standard Detail 201-1)

MINIMUM PIPE SLOPE 1/8" PER FOOT (USE GREATER WHERE POSSIBLE) MAXIMUM PIPE LENGTHS TO BE 12'-6"

*COORINATE LOCATION & DEPTH WITH ENGINEER IN FIELD

**TERMINATE CLEAN-OUTS AT GRADE FOR IMPROVED PROPERTIES AND 3'-0" ABOVE GRADE FOR IMPROVED PROPERTIES

ALL PIPES AND FITTINGS SHALL BE GREEN 6" MIN. SDR 35

SERVICE LATERALS WITH RISERS

ENGINEERING STANDARDS 2022

REVISIONS				
BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	SERVICE LATERALS	
T.W.	11-2007			
S.S.	01/27/12			DATE: JUNE 2022
S.S.	07/10/12	SCALE: N.T.S.		DWG. NO. 200-1
S.S.	02/05/16			

6 PS-1.2 SEWER SERVICE LATERALS
NOT TO SCALE

INLET: GASKETED BELL - SDR-35 PVC

Base Casting is ASTM A-48 Class 30 Cast Iron
(Various Contours available to fit 8.275" - 30.00" O.D. Mains)

PVC Adapter is an ASTM D3034, SDR-35 Gasketed Bell

Castings and Adapter cemented permanently in place with two-part urethane adhesive

Base of Saddle dip-coated in Waterbased Bituminous Coating

Strap is 24 ga. X 2.5" wide Type 304 Stainless Steel

Strap Pins are .75" dia. Type 303 Stainless Steel

T-Bolts are .375" - 16 Type 304 Stainless Steel

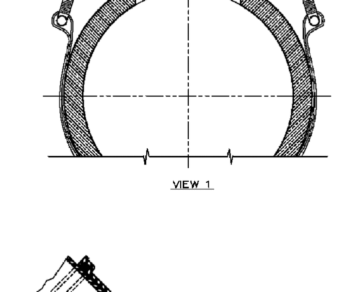
Nuts and Washers are Type 18-8 Stainless Steel

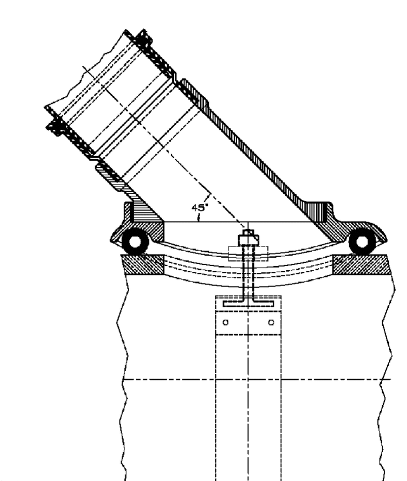
O-Ring is ASTM C-361-77 Tubular Polyisoprene

4" inlet requires a 4" x 6.50" oval tap in the Sewer Main

6" inlet requires a 6" x 9.25" oval tap in the Sewer Main
(Sewer Main must be at least 8" dia.)

Note: This Dwg. supercedes Dwg. No. R-3157-D1





WYE GRAVITY SEWER SADDLE
TO BE USED WHEN A SEWER MAIN HAS BEEN LINED WITH A CURED IN PLACE MATERIAL.

ENGINEERING STANDARDS 2022

REVISIONS				
BY	DATE	ENGINEERING DIVISION CITY OF POMPANO BEACH	WYE GRAVITY SEWER SADDLE	
				DATE: MAY 2022
		SCALE: N.T.S.		DWG. NO. 201-2

7 PS-1.2 WYE GRAVITY SEWER SADDLE
NOT TO SCALE

Chick-fil-A
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Bowman

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Seal

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ANDRES MIZRAHI, P.E.
FLORIDA REG. NO. 92421

CHICK-FIL-A
ATLANTIC & POWERLINE
2100 W ATLANTIC BLVD
POMPANO BEACH, FL 33069

FSR#05557

BUILDING TYPE / SIZE: P14 LS BN

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT #	010014-01-208
PRINTED FOR	PERMIT
DATE	8/24/2023
DRAWN BY	STC

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SHEET
UTILITY DETAILS

SHEET NUMBER
PS-1.2

PERMIT

DRC
PZ23-12000037
10/04/2023