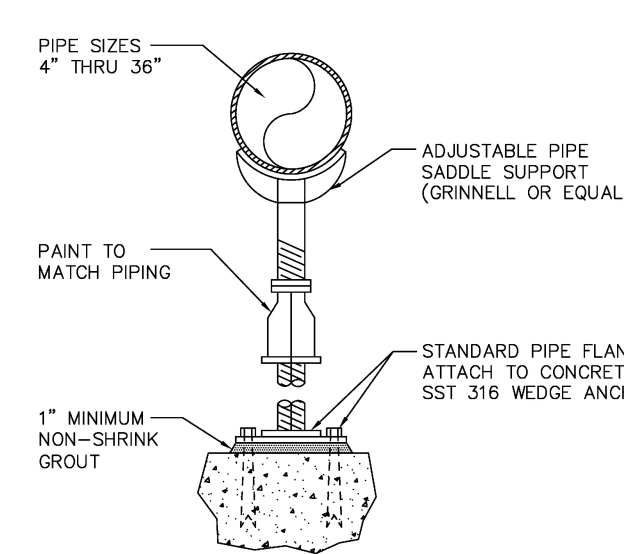




PIPE SUPPORT DETAIL

ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	PIPE SUPPORT DETAIL	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. JUNE 2020			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 204-1	

9. BEDDING TYPES – THE FOLLOWING TYPES OF SUITABLE MATERIALS ARE DESIGNATED AND DEFINED AS FOLLOWING:
- TYPE A: CRUSHED LIMEROCK OR SAND WITH 100 PERCENT PASSING A 1 INCH SIEVE AND A SAND EQUIVALENT VALUE NOT LESS THAN 50.
- TYPE B: CRUSHED LIMEROCK OR SAND WITH 100 PERCENT PASSING A 1/2 INCH SIEVE AND A SAND EQUIVALENT VALUE NOT LESS THAN 50.
- TYPE C: SAND WITH 100 PERCENT PASSING A 3/8 INCH SIEVE, AT LEAST 90 PERCENT PASSING A NUMBER 4 SIEVE, AND A SAND EQUIVALENT VALUE NOT LESS THAN 30.
- TYPE D: CRUSHED LIMEROCK WITH 100 PERCENT PASSING A 1 INCH SIEVE AND NOT MORE THAN 10 PERCENT A NUMBER 4 SIEVE.
- TYPE E: CRUSHED LIMEROCK OR SAND WITH 100 PERCENT PASSING A 3/4 INCH SIEVE AND NOT MORE THAN 10 PERCENT PASSING A NUMBER 4 SIEVE.
- TYPE F: CRUSHED LIMEROCK MEETING THE FOLLOWING GRADATION REQUIREMENTS.

SIEVE SIZE	PERCENTAGE PASSING
2 INCH	100
1-1/2 INCH	90-100
1 INCH	20-55
3/4 INCH	0-15
NO. 200	0-3

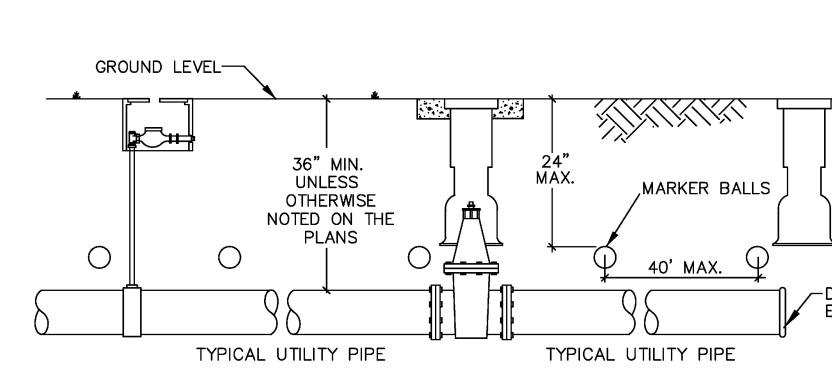
TRENCH BACKFILL / BEDDING NOTES

ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	TRENCH BACKFILL / BEDDING	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. JUNE 2020			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 203-4	

1. OUTLINE OF TRENCH EXCAVATION IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL TRENCH WIDTH AND SHAPE WILL VARY WITH SOIL CONDITIONS. TRENCH EXCAVATION SHALL BE IN ACCORDANCE WITH THE "FLORIDA TRENCH SAFETY ACT" AND OSHA TRENCH SAFETY STANDARDS.
2. TYPICAL TRENCH BACKFILL/BEDDING FOR WATER MAIN AND FORCE MAIN INSTALLATIONS SHALL BE CLASS "A" AS SHOWN IN DETAIL.
3. TYPICAL TRENCH BACKFILL/BEDDING FOR GRAVITY SEWER INSTALLATION SHALL BE CLASS "B" AS SHOWN IN DETAIL.
4. TRENCH BACKFILL/BEDDING CLASS "C" AND CLASS "D" SHALL BE USED FOR PIPE INSTALLATIONS WHERE UNSUITABLE TRENCH MATERIALS ARE ENCOUNTERED.
5. TRENCH ZONE BACKFILL SHALL BE MATERIAL TYPE 1 OR TYPES A THRU H, OR ANY MIXTURE THEREOF, WHERE SURFACE RESTORATION TYPE "1" IS APPLICABLE. TRENCH ZONE BACKFILL SHALL BE PLACED IN 12" LIFTS, COMPACTED TO 90% OF THE MATERIAL'S MAXIMUM DENSITY AS DETERMINED BY ASTM D-697 (AASHTO T-99). WHERE SURFACE RESTORATION TYPES "2", "3" AND "4" ARE APPLICABLE, TRENCH BACKFILL SHALL BE PLACED IN 8" LIFTS COMPACTED TO 98% OF THE MATERIAL'S DENSITY AS DETERMINED BY ASTM D-698 (AASHTO T-99).
6. BEDDING MATERIAL FOR TYPICAL WATER MAIN AND FORCE MAIN INSTALLATION SHALL BE TYPE C. BEDDING SHALL BE COMPACTED TO 95% OF THE MATERIAL'S MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 (AASHTO T-180).
7. BEDDING MATERIAL FOR TYPICAL GRAVITY SEWER INSTALLATION AND ANY INSTALLATION WHERE UNSUITABLE TRENCH BOTTOM CONDITIONS ARE FOUND SHALL BE TYPE E. BEDDING SHALL BE PLACED IN LIFTS NOT TO EXCEED 6" AND COMPACTED TO 95% OF THE MATERIAL'S MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 (AASHTO T-180).
8. UNSUITABLE MATERIAL SHALL BE REMOVED TO UNDISTURBED ROCK OR SAND OR TO DEPTH AS SPECIFIED BY ENGINEER. BACKFILL MATERIAL SHALL BE TYPE C. BACKFILL SHALL BE PLACED IN 8" LIFTS COMPACTED TO 95% OF THE MATERIAL'S MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 (AASHTO T-180).

TRENCH BACKFILL / BEDDING NOTES

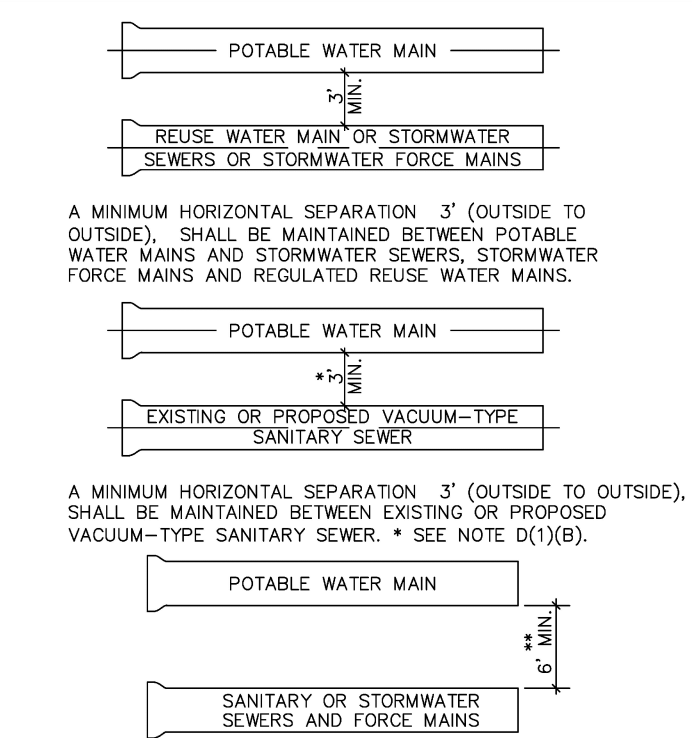
ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	TRENCH BACKFILL / BEDDING	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. JUNE 2020			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 203-3	



- GENERAL NOTES:
- ALL NONMETALLIC PIPE SHALL BE INSTALLED WITH 12 THIN SOLID COPPER TRACING WIRE.
 - THE MARKER BALLS MUST BE INSTALLED DIRECTLY ABOVE THE PIPE.
 - MARKER BALLS SHALL BE INSTALLED AT 40' O.C.
 - BALL COLOR CODING:
SANITARY SEWER SYSTEM: GREEN

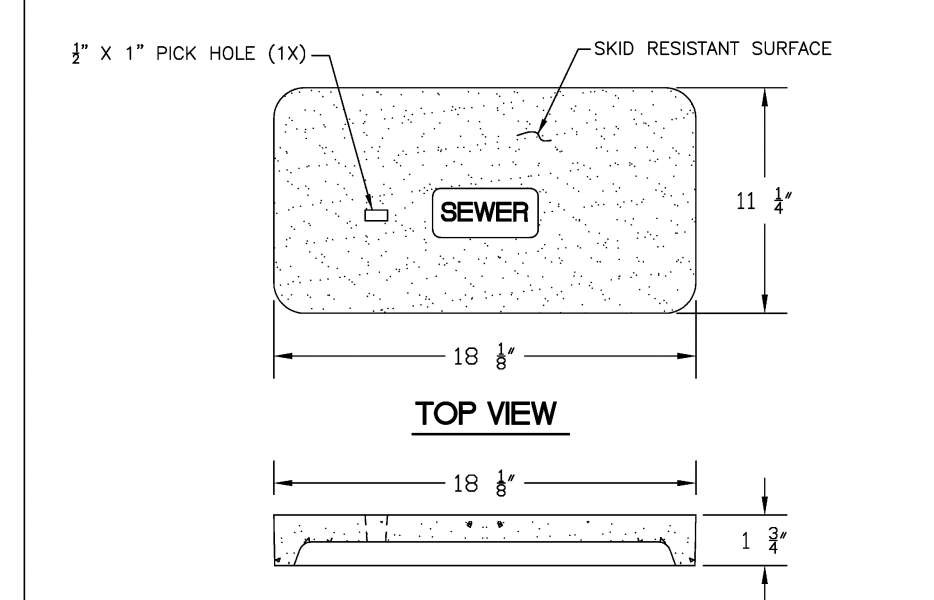
UTILITY PIPE AND MARKER BALLS LOCATION

ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	UTILITY PIPE AND MARKER BALLS LOCATION	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. 01/30/12			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 208-1	



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

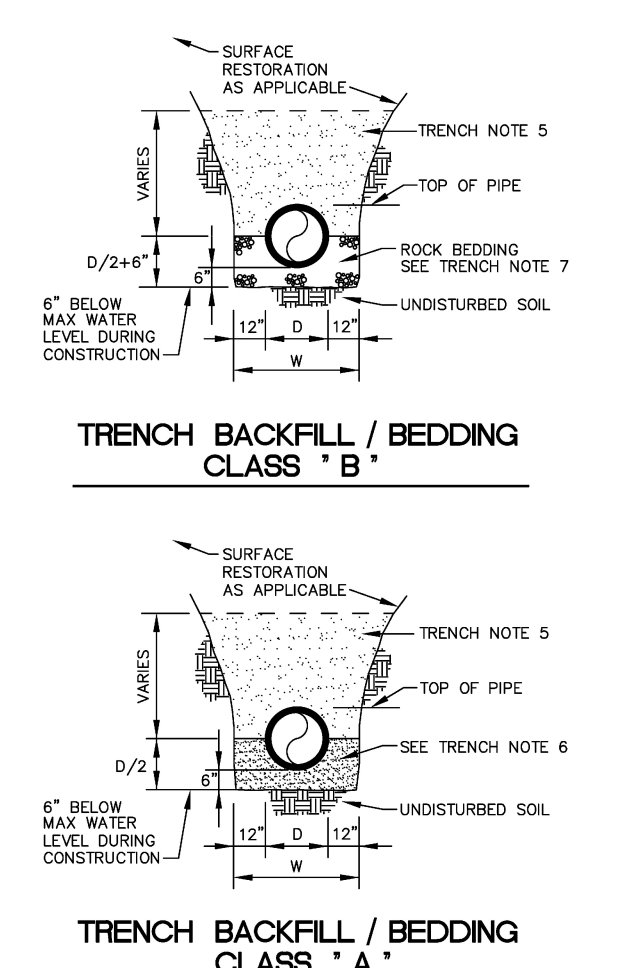
ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	MIN HORIZONTAL SEPARATION FOR SANITARY SEWER	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. 01/30/12			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 209-1	



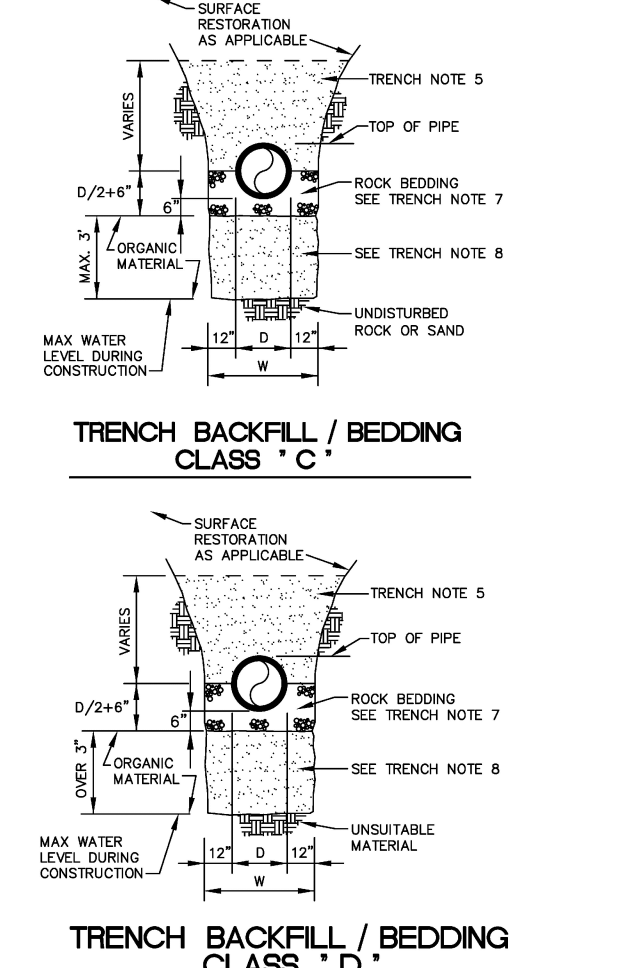
- NOTE
- MATERIAL: FIBERGLASS REINFORCED POLYMER CONCRETE & FIBERGLASS REINFORCED POLYMER
 - COLOR: GREEN
 - LOAD RATING: AS (ASTM C857)
 - LOGO: SEWER

PRODUCT RATING - NON TRAFFIC					
LOAD DESIGNATION	DESCRIPTION	LIVE LOAD/ WHEEL (2)	LIVE + IMPACT LB/WHEEL	SIDE PSF (3)	TESTING LOAD/ LB/ SAFETY FACTOR
AASHTO H10	LIGHT TRUCK TRAFFIC	8,000	10,400	N/A	22,568 (4) 2.82

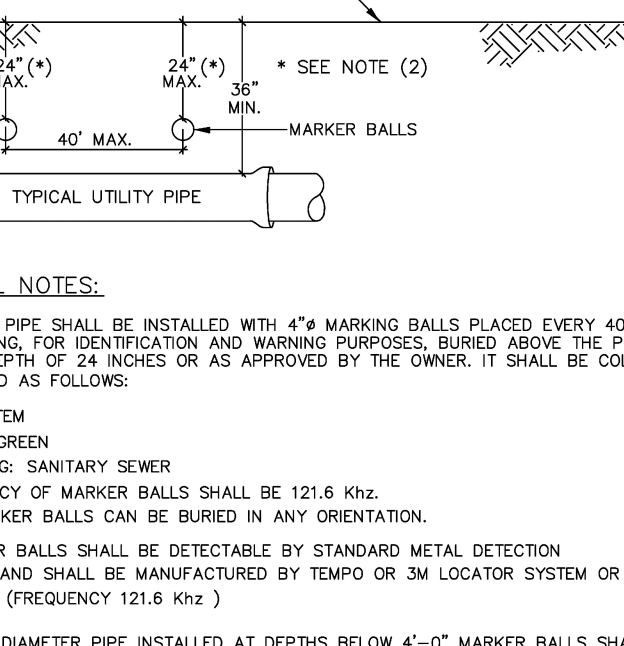
ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	SEWER BOX AND COVER	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. 01/30/12			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 210-1	



ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	TRENCH BACKFILL / BEDDING	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. JUNE 2020			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 203-1	

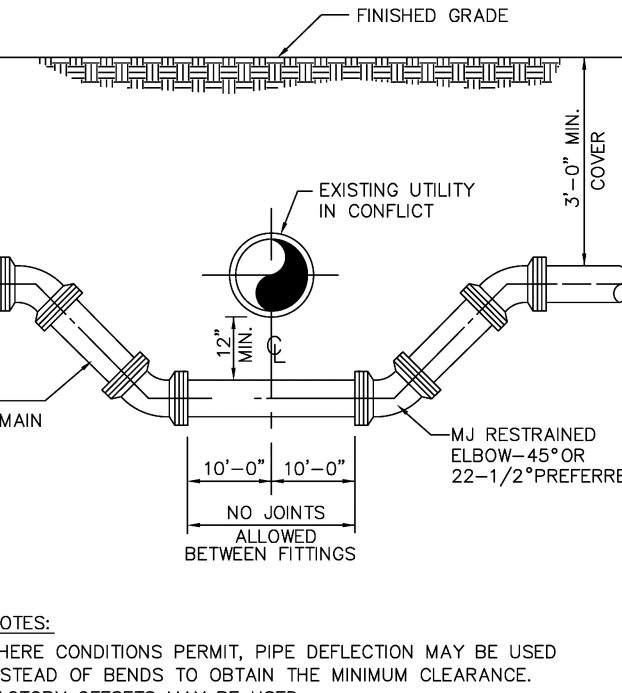


ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	TRENCH BACKFILL / BEDDING	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. JUNE 2020			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 203-2	



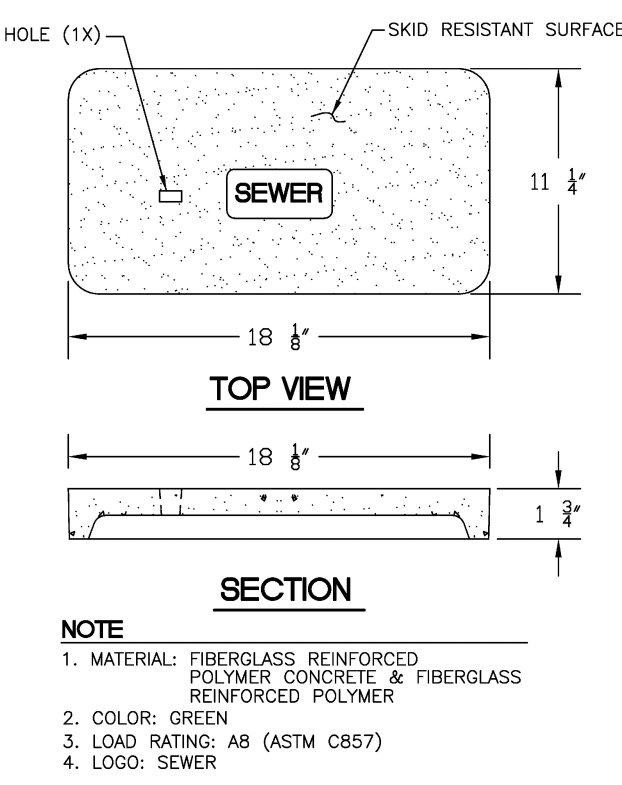
SEWER PIPE IDENTIFICATION

ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	SEWER PIPE IDENTIFICATION	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. 01/30/12			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 207-1	



TYPICAL CONFLICT DETAIL

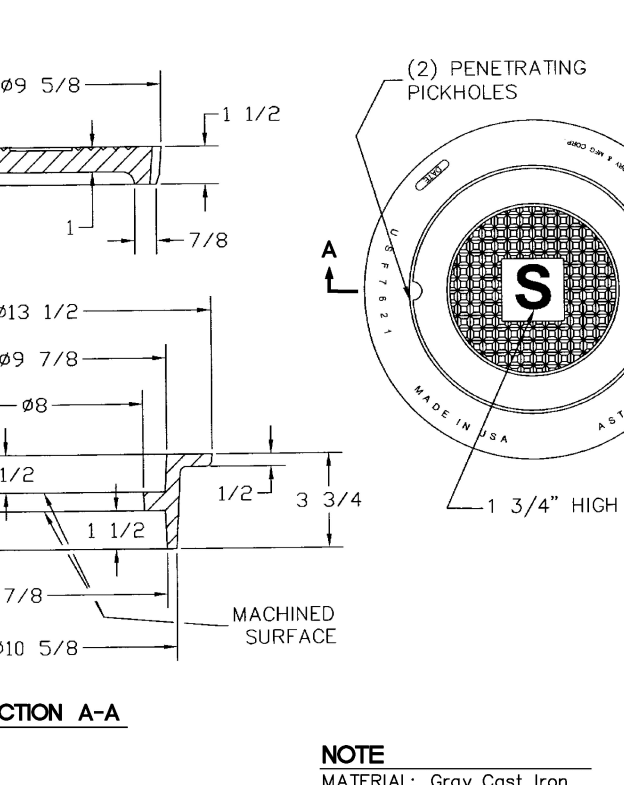
ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	TYPICAL CONFLICT (SEWER)	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. JUNE 2020			
S.S. 06/13/12			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 206-1	



- NOTE
- MATERIAL: FIBERGLASS REINFORCED POLYMER CONCRETE & FIBERGLASS REINFORCED POLYMER
 - COLOR: GREEN
 - LOAD RATING: AS (ASTM C857)
 - LOGO: SEWER

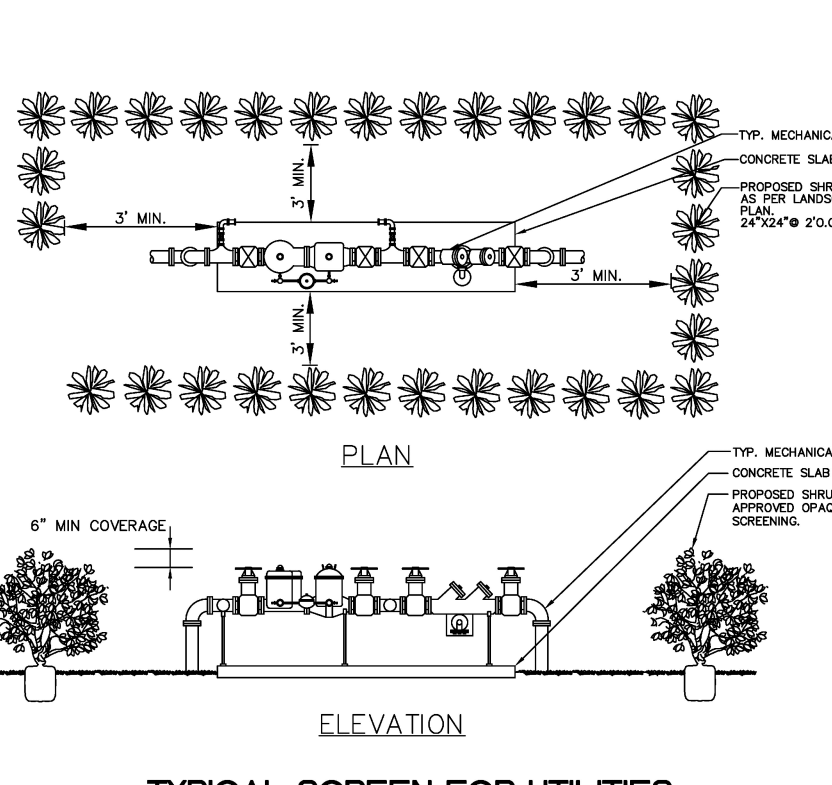
PRODUCT RATING - TRAFFIC					
LOAD DESIGNATION	DESCRIPTION	LIVE LOAD/ WHEEL (2)	LIVE + IMPACT LB/WHEEL	SIDE PSF (3)	TESTING LOAD/ LB/ SAFETY FACTOR
AASHTO H10	MEDIUM TRUCK TRAFFIC	12,000	15,600	N/A	27,000 (5) 2.25

ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	SEWER BOX AND COVER	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. 12/06/18			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 210-2	



SEWER BOX AND COVER - HEAVY TRAFFIC

ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	SEWER BOX AND COVER HEAVY TRAFFIC	
BY DATE	CITY OF POMPAÑO BEACH		
S.S. 12/06/18			
	SCALE: N.T.S.	DATE: JUNE 2022 DWG. NO. 210-3	



- NOTES:
- PLEASE NOTE THAT AS PER CITY ORDINANCE(S) 50.02(A) (4) AND 100.35(E), STREET TREES SHALL NOT BE PLACED ON TOP OF OR 5' OF EITHER SIDE OF ANY CITY OWNED UTILITY INFRASTRUCTURE. ALSO, PLEASE NOTE THAT NO TREES SHRUBBERY OR OBSTRUCTION SHALL BE PLACED WITHIN A 3' RADIUS OF A CITY OWNED LATERAL CLEANOUT OR WATER & OR REUSE METER.

ENGINEERING STANDARDS 2025			
REVISIONS	ENGINEERING DIVISION	TYPICAL SCREEN FOR UTILITIES	
BY DATE	CITY OF POMPAÑO BEACH		
TOW APRIL 2010			
	SCALE: N.T.S.	DATE: MAY 2022 DWG. NO. 315-1	