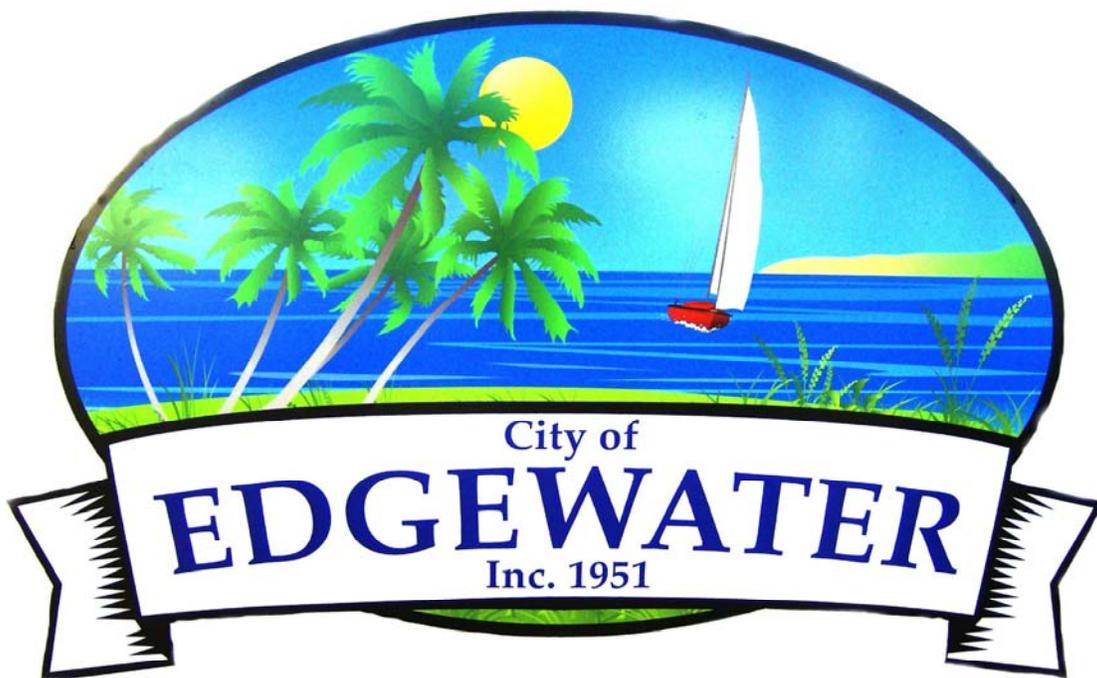
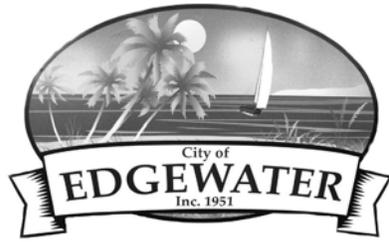


The City of Edgewater



STANDARD CONSTRUCTION DETAILS



CITY OF EDGEWATER

STANDARD CONSTRUCTION DETAILS

CITY OF EDGEWATER
DEPARTMENT OF ENVIRONMENTAL SERVICES
409 MANGO TREE DRIVE
EDGEWATER, FLORIDA 32132
TELEPHONE (386) 424-2476
FAX (386) 424-2480



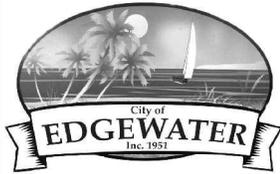
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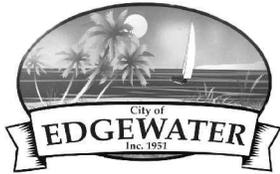
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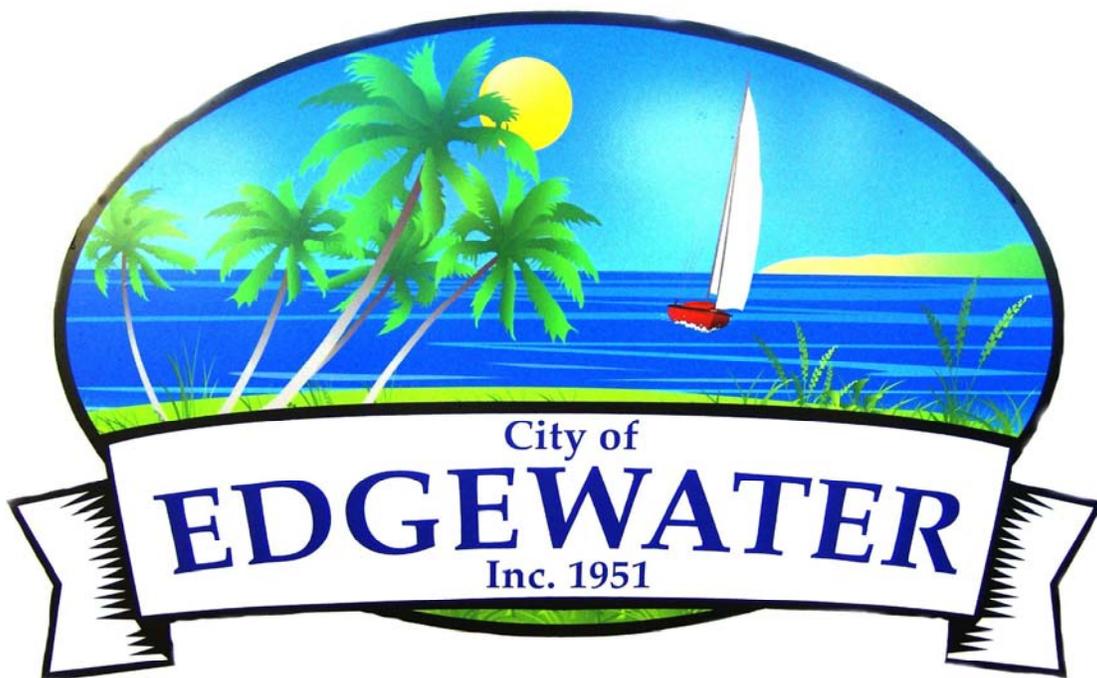


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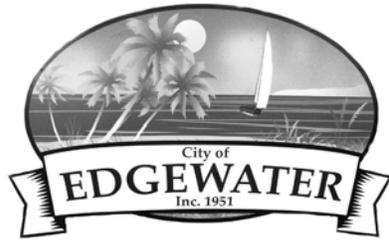
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The City of Edgewater



STANDARD CONSTRUCTION DETAILS



CITY OF EDGEWATER

STANDARD CONSTRUCTION DETAILS

CITY OF EDGEWATER
DEPARTMENT OF ENVIRONMENTAL SERVICES
409 MANGO TREE DRIVE
EDGEWATER, FLORIDA 32132
TELEPHONE (386) 424-2476
FAX (386) 424-2480

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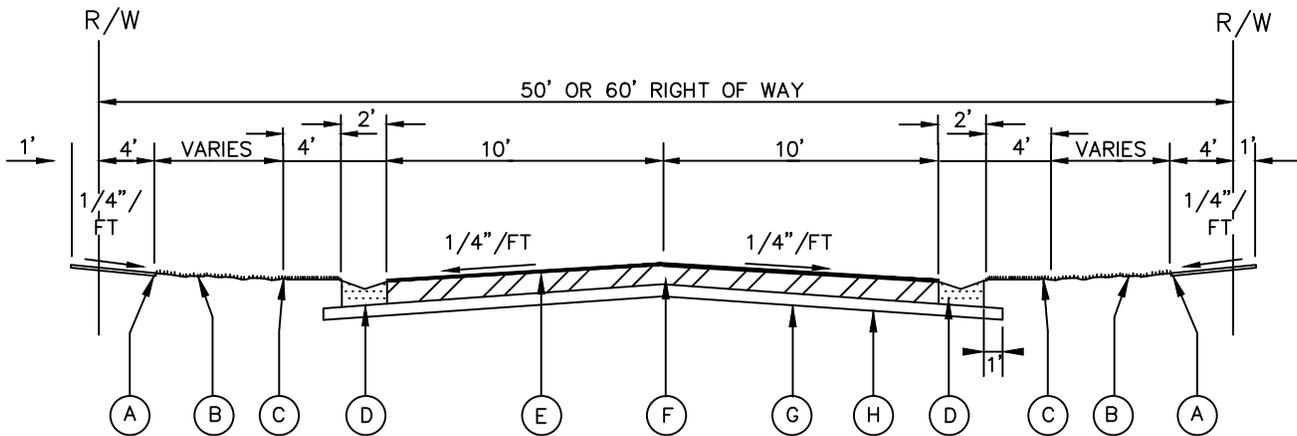
STANDARD CONSTRUCTION DETAIL
INDEX
ROADWAY DETAILS

FILE NAME:

RODINDEX.DWG

DETAIL REF:

INDEX



- (A) 4'-0" WIDE CONCRETE SIDEWALK
4" THICK, 3000 P.S.I.
6" THICK AT DRIVEWAY
3" MINIMUM ABOVE TOP OF CURB
- (B) SOD or SEED AND MULCH PER F.D.O.T. STANDARD SPECIFICATION SECTION 570 OR 575, AS APPLICABLE.
- (C) 4' WIDE AREA WITH MAXIMUM SLOPE OF 1" PER 4 FT.
- (D) CONCRETE MIAMI CURB, 3000 P.S.I. (SEE DETAIL R-9)
- (E) ASPHALT PAVEMENT:
1-1/4" ASPHALT BITUMINOUS CONCRETE TYPE S-III; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY PER FM 1-T238 (METHOD B), NUCLEAR DENSITY TEST, "BACK SCATTER METHOD".
- (F) BASE:
6" SOIL CEMENT BASE FOR RESIDENTIAL MINIMUM BEARING STRENGTH OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST;
CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
ALTERNATE:
6" LIMEROCK BASE (LBR 100) OR RECYCLED CONCRETE BASE (LBR 130) FOR RESIDENTIAL COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
- (G) SUB-BASE:
6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.
- (H) SUBGRADE:
12" SUBGRADE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.

NOTES:

1. ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND THE DEVELOPER'S LICENSED SOILS ENGINEER PRIOR TO PLACEMENT.
2. A CITY APPROVED REPRESENTATIVE OF A CERTIFIED SOIL LABORATORY SHALL BE PRESENT DURING ALL CONSTRUCTION PHASES UTILIZING A SOIL CEMENT BASE. THE REPRESENTATIVE SHALL BE CERTIFIED BY F.D.O.T. IN THE INSTALLATION OF SOIL CEMENT.



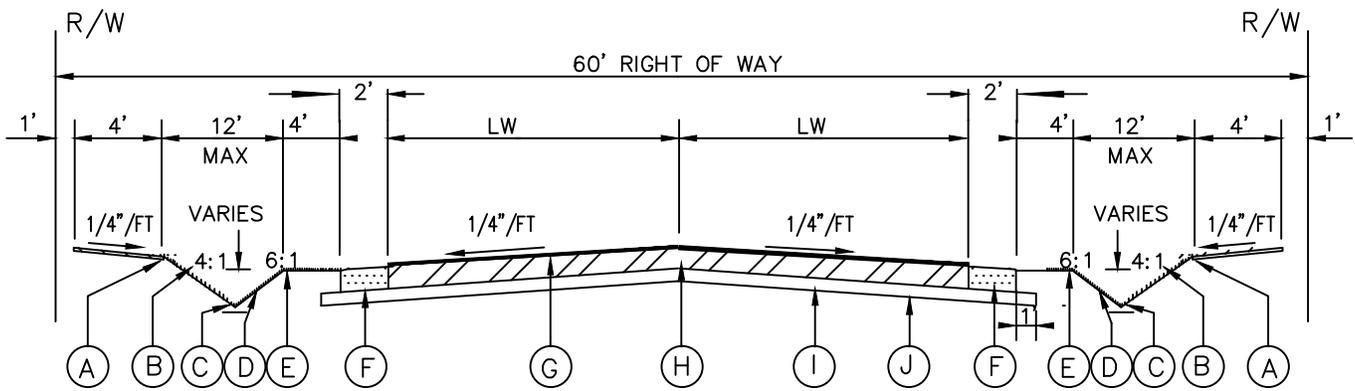
STANDARD CONSTRUCTION DETAIL
50' or 60' R/W ROAD SECTION

FILE NAME:

EW_R1.DWG

DETAIL REF:

R-1



(A) 4" THICK, 3000 P.S.I.
6" THICK AT DRIVEWAY
3" MINIMUM ABOVE EDGE OF CURB

(B) MAXIMUM SLOPE ALLOWED

(C) MAXIMUM DEPTH 12"

(D) SOD or SEED AND MULCH PER F.D.O.T. STANDARD SPECIFICATION SECTION 570 OR 575, AS APPLICABLE.

(E) 4' WIDE AREA WITH MAXIMUM SLOPE OF 1" PER 4 FT.

(F) 6" THICK CONCRETE ENVIRONMENTAL CURB, 3000 P.S.I. (SEE DETAIL R-9)

(G) ASPHALT PAVEMENT:
1-1/4" ASPHALT BITUMINOUS CONCRETE TYPE S-III; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY PER FM 1-T238 (METHOD B), NUCLEAR DENSITY TEST, "BACK SCATTER METHOD".

(H) BASE:
6" SOIL CEMENT BASE FOR RESIDENTIAL MINIMUM BEARING STRENGTH OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS AND COMPACTED TO 98% DENSITY PER AASHTO T-99 STANDARD PROCTOR TEST; CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

ALTERNATE:
6" LIMEROCK BASE (LBR 100) OR RECYCLED CONCRETE BASE (LBR 130) FOR RESIDENTIAL COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.

(I) SUB-BASE:
6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.

(J) SUBGRADE:
12" SUBGRADE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.

NOTES:

1. FOR REQUIRED PAVEMENT WIDTH, LW, REFER TO ROADWAY GEOMETRY DETAIL.
2. ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND THE DEVELOPER'S LICENSED SOILS ENGINEER PRIOR TO PLACEMENT.
3. A CITY APPROVED REPRESENTATIVE OF A CERTIFIED SOIL LABORATORY SHALL BE PRESENT DURING ALL CONSTRUCTION PHASES UTILIZING A SOIL CEMENT BASE. THE REPRESENTATIVE SHALL BE CERTIFIED BY F.D.O.T. IN THE INSTALLATION OF SOIL CEMENT.



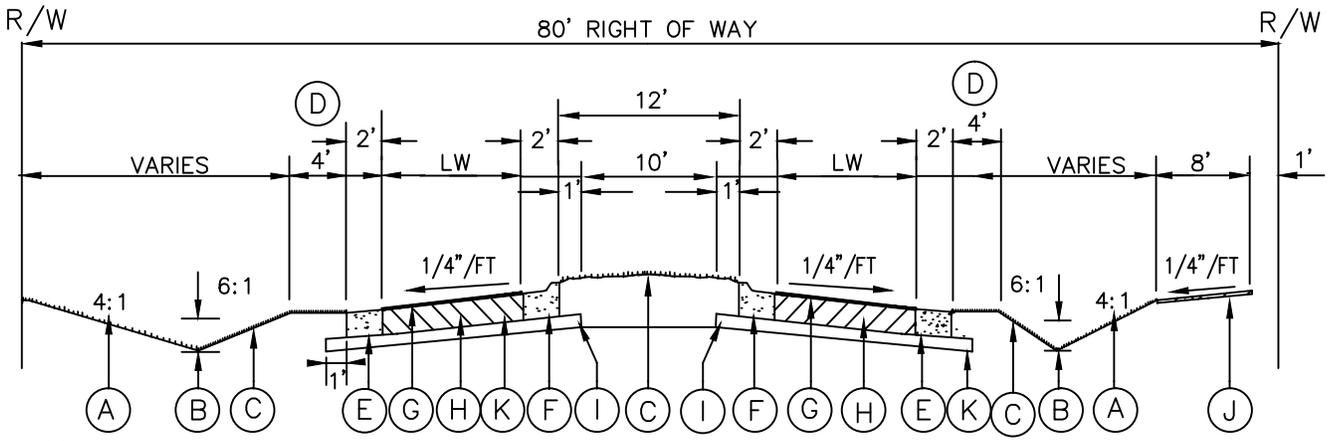
STANDARD CONSTRUCTION DETAIL
60' R/W WITH DITCH ROAD SECTION

FILE NAME:

EW_R2.DWG

DETAIL REF:

R-2



- (A) MAXIMUM SLOPE ALLOWED
- (B) MAXIMUM DEPTH 18"
- (C) SOD or SEED AND MULCH PER F.D.O.T. STANDARD SPECIFICATION SECTION 570 OR 575 AS APPLICABLE.
- (D) 4' WIDE AREA WITH MAXIMUM SLOPE OF 1" PER 4 FT.
- (E) 6" THICK CONCRETE ENVIRONMENTAL CURB, 3000 P.S.I. (SEE DETAIL R-9)
- (F) F.D.O.T. TYPE F CONCRETE CURB, 3000 P.S.I., SLOPED TO DRAIN WATER FROM GUTTER TO ROAD
- (G) ASPHALT PAVEMENT:
1-1/4" ASPHALT BITUMINOUS CONCRETE TYPE S-III; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY PER FM 1-T238 (METHOD B), NUCLEAR DENSITY TEST, "BACK SCATTER METHOD".
- (H) BASE:
6" SOIL CEMENT BASE FOR RESIDENTIAL MINIMUM BEARING STRENGTH OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS AND COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST; CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
ALTERNATE:
6" LIMEROCK BASE (LBR 100) OR RECYCLED CONCRETE BASE (LBR 130) FOR RESIDENTIAL COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
- (I) SUB-BASE:
6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.
- (J) 8'-0" WIDE CONCRETE SIDEWALK (ON ONE OR BOTH SIDES AS REQ'D BY PLANNING AND ZONING DEPT).
4" THICK, 3000 P.S.I. 6" THICK AT DRIVEWAY
- (K) SUBGRADE:
12" SUBGRADE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.

SEE NOTES ON SHEET R-3B



STANDARD CONSTRUCTION DETAIL
80' R/W WITH MEDIAN
AND DITCH ROAD SECTION

FILE NAME:
EW_R3A.DWG
DETAIL REF:
R-3A

80' R/W WITH MEDIAN
AND DITCH ROAD SECTION
(CONTD.)

NOTES:

1. FOR REQUIRED PAVEMENT WIDTH, LW, REFER TO ROADWAY GEOMETRY DETAIL.
2. ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND THE DEVELOPER'S LICENSED SOILS ENGINEER PRIOR TO PLACEMENT.
3. A CITY APPROVED REPRESENTATIVE OF A CERTIFIED SOIL LABORATORY SHALL BE PRESENT DURING ALL CONSTRUCTION PHASES UTILIZING A SOIL CEMENT BASE. THE REPRESENTATIVE SHALL BE CERTIFIED BY F.D.O.T. IN THE INSTALLATION OF SOIL CEMENT.



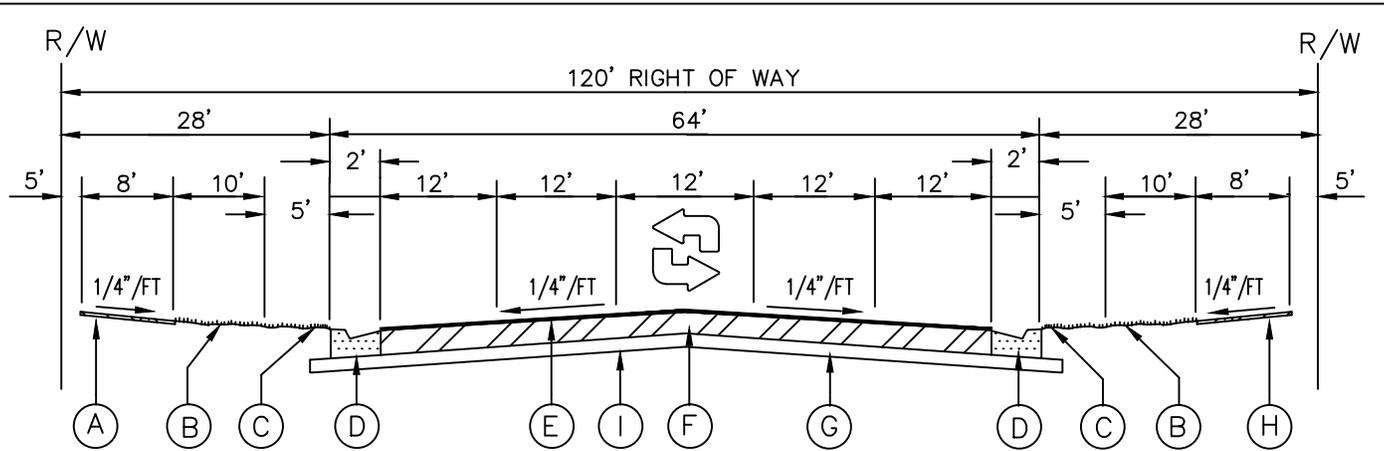
STANDARD CONSTRUCTION DETAIL
80' R/W WITH MEDIAN
AND DITCH ROAD SECTION

FILE NAME:

EW_R3B.DWG

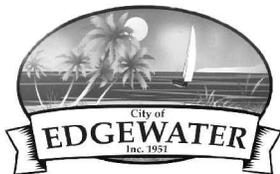
DETAIL REF:

R-3B



- (A) 8'-0" WIDE CONCRETE BIKEPATH
4" THICK, 3000 P.S.I.
6" THICK AT DRIVEWAY
3" MINIMUM ABOVE TOP OF CURB
- (B) SOD or SEED AND MULCH PER F.D.O.T. STANDARD SPECIFICATION SECTION 570 OR 575, AS APPLICABLE. MAINTAIN POSITIVE DRAINAGE FROM EDGE OF WALK TO TOP OF CURB.
- (C) 4' WIDE AREA WITH MAXIMUM SLOPE OF 1" PER 4 FT.
- (D) F.D.O.T. TYPE F CONCRETE CURB, 3000 P.S.I.
- (E) ASPHALT PAVEMENT:
1-1/2" ASPHALT BITUMINOUS CONCRETE TYPE S-III; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY PER FM 1-T238 (METHOD B), NUCLEAR DENSITY TEST, "BACK SCATTER METHOD".
- (F) BASE:
8" SOIL CEMENT BASE FOR COMMERCIAL MINIMUM BEARING STRENGTH OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS AND COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST;
CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
ALTERNATE:
6" LIMEROCK BASE (LBR 100) OR RECYCLED CONCRETE BASE (LBR 130) FOR RESIDENTIAL COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
- (G) SUB-BASE:
6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.
- (H) 8'-0" WIDE CONCRETE SIDEWALK
4" THICK, 3000 P.S.I.
6" THICK AT DRIVEWAY
- (I) SUBGRADE:
12" SUBGRADE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.

SEE NOTES ON SHEET R-4B



STANDARD CONSTRUCTION DETAIL
120' R/W WITH 5 LANE ROAD SECTION
(COLLECTOR ROADS)

FILE NAME:

EW_R4A.DWG

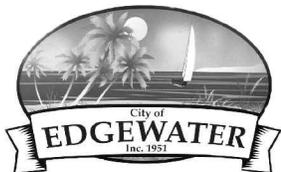
DETAIL REF:

R-4A

100' R/W WITH 5 LANE
ROAD SECTION
(CONTD.)

NOTES:

1. ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND THE DEVELOPER'S LICENSED SOILS ENGINEER PRIOR TO PLACEMENT.
2. A CITY APPROVED REPRESENTATIVE OF A CERTIFIED SOIL LABORATORY SHALL BE PRESENT DURING ALL CONSTRUCTION PHASES UTILIZING A SOIL CEMENT BASE. THE REPRESENTATIVE SHALL BE CERTIFIED BY F.D.O.T. IN THE INSTALLATION OF SOIL CEMENT.



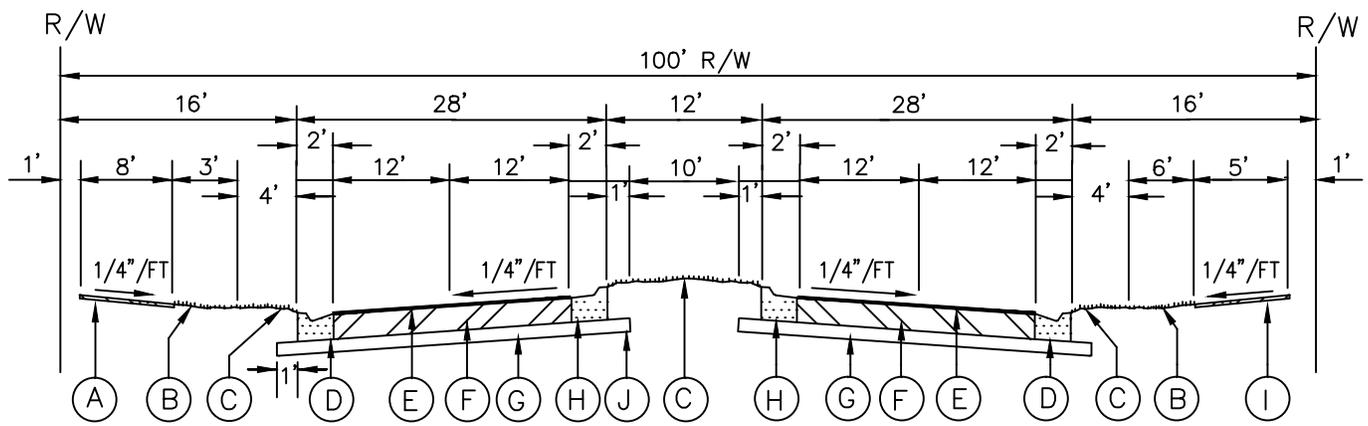
STANDARD CONSTRUCTION DETAIL
100' R/W WITH 5 LANE ROAD SECTION

FILE NAME:

EW_R4B.DWG

DETAIL REF:

R-4B



- (A) 8'-0" WIDE CONCRETE BIKEPATH
4" THICK, 3000 P.S.I.
6" THICK AT DRIVEWAY
3" MINIMUM ABOVE TOP OF CURB
- (B) SOD or SEED AND MULCH PER F.D.O.T. STANDARD SPECIFICATION SECTION 570 OR 575, AS APPLICABLE. MAINTAIN POSITIVE DRAINAGE FROM EDGE OF WALK TO TOP OF CURB.
- (C) 4' WIDE AREA WITH MAXIMUM SLOPE OF 1" PER 4 FT.
- (D) F.D.O.T. TYPE F CONCRETE CURB, 3000 P.S.I.
- (E) ASPHALT PAVEMENT:
1-1/2" ASPHALT BITUMINOUS CONCRETE TYPE S-III; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY PER FM 1-T238 (METHOD B), NUCLEAR DENSITY TEST, "BACK SCATTER METHOD".
- (F) BASE:
8" SOIL CEMENT BASE FOR COMMERCIAL MINIMUM BEARING STRENGTH OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS AND COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST, CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
ALTERNATE:
6" LIMEROCK BASE (LBR 100) OR RECYCLED CONCRETE BASE (LBR 130) FOR RESIDENTIAL COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
- (G) SUB-BASE:
6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.
- (H) F.D.O.T. TYPE F CONCRETE CURB, 3000 P.S.I., SLOPED TO DRAIN WATER FROM GUTTER TO ROAD
- (I) 5'-0" WIDE CONCRETE SIDEWALK
4" THICK, 3000 P.S.I.
6" THICK AT DRIVEWAY
- (J) SUBGRADE:
12" SUBGRADE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.

NOTES:

1. ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND THE DEVELOPER'S LICENSED SOILS ENGINEER PRIOR TO PLACEMENT.
2. A CITY APPROVED REPRESENTATIVE OF A CERTIFIED SOIL LABORATORY SHALL BE PRESENT DURING ALL CONSTRUCTION PHASES UTILIZING A SOIL CEMENT BASE. THE REPRESENTATIVE SHALL BE CERTIFIED BY F.D.O.T. IN THE INSTALLATION OF SOIL CEMENT.



STANDARD CONSTRUCTION DETAIL
100' R/W WITH 4 LANE AND MEDIAN ROAD SECTION

FILE NAME:

EW_R5.DWG

DETAIL REF:

R-5

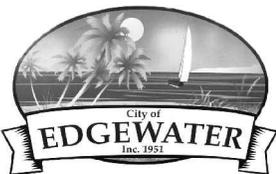
ROAD CLASSIFICATION	DESIGN SPEED (MPH)	LANE WIDTH (LW)	RIGHT OF WAY WIDTH	MIN. HORIZ. RADIUS C.L.	MIN. VERT. CURVE	MIN. LONG. GRADE (%)	MIN. INT. SPACE	
LOCAL / COLLECTOR UP TO 400 VPD	15	10	50	50'	75'	0.3	150'	
	20	10	50	95'	125'	0.3	200'	
	25	11	50	180'	165'	0.3	250'	
	UP TO 1000 VPD	20	11	50	95'	125'	0.3	200'
		25	11	60	180'	165'	0.3	250'
		30	12	80	300'	200'	0.3	330'
UP TO 5000 VPD	35	12	80	375'	225'	0.5	660'	
	40	12	80	450'	275'	0.5	660'	
	ARTERIAL UP TO 7500 VPD	35	5 LANES (3)		375'	225'	0.5	660'
40		450'			275'	0.5	660'	
40		450'			275'	0.5	660'	

NOTES:

- ALL ROADWAY DESIGN SHALL MEET THE MINIMUM REQUIREMENTS OF THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION, AND MAINTENANCE FOR STREETS AND HIGHWAYS (LATEST EDITION), AS PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION.
- PAVEMENT WIDTHS FOR INDUSTRIAL AND COMMERCIAL ROADS SHALL BE INCREASED BY A MINIMUM OF ONE (1) FOOT.
- AS A RULE, ALL INTERSECTIONS SHALL BE DESIGNED AT 90 DEGREE ANGLES. DEVIATION FROM THIS SHALL BE CONSIDERED STRICTLY ON A CASE BY CASE BASIS. IN THE EVENT THAT ANY DEVIATION IS PERMITTED, THEN IN NO CASE SHALL INTERSECTION ANGLES BE LESS THAN 75 DEGREES FOR INTERSECTIONS WITH ARTERIAL ROADWAYS EXCEPT ON LOCAL AND COLLECTOR ROADWAYS WHICH SHALL NOT BE LESS THAN 60 DEGREES. INTERSECTIONS WITH COUNTY AND STATE ROADS SHALL BE 90 DEGREES.
- ALL INTERSECTIONS AND ACCESS POINTS SHALL HAVE ADEQUATE LINE OF SIGHT BASED ON AN EYE LEVEL OF 3.5' ABOVE THE GROUND AND AN OBJECT 3.0' ABOVE THE LOWEST ROADWAY. FOR PURPOSES OF THIS STANDARD, THE EYE LEVEL SHALL BE MEASURED 8' IN BACK OF THE STOP BAR AT ENTRANCES. THE FOLLOWING SIGHT DISTANCES SHALL BE PROVIDED:
- TRAFFIC ANALYSIS IS REQUIRED FOR ANY NEW DEVELOPMENT PROJECT THAT MAY PRODUCE 500 OR MORE NEW AVERAGE DAILY TRIPS.

<u>LEGEND:</u>	
C.L.	CENTER-LINE
INT.	INTERSECTION
LONG.	LONGITUDINAL

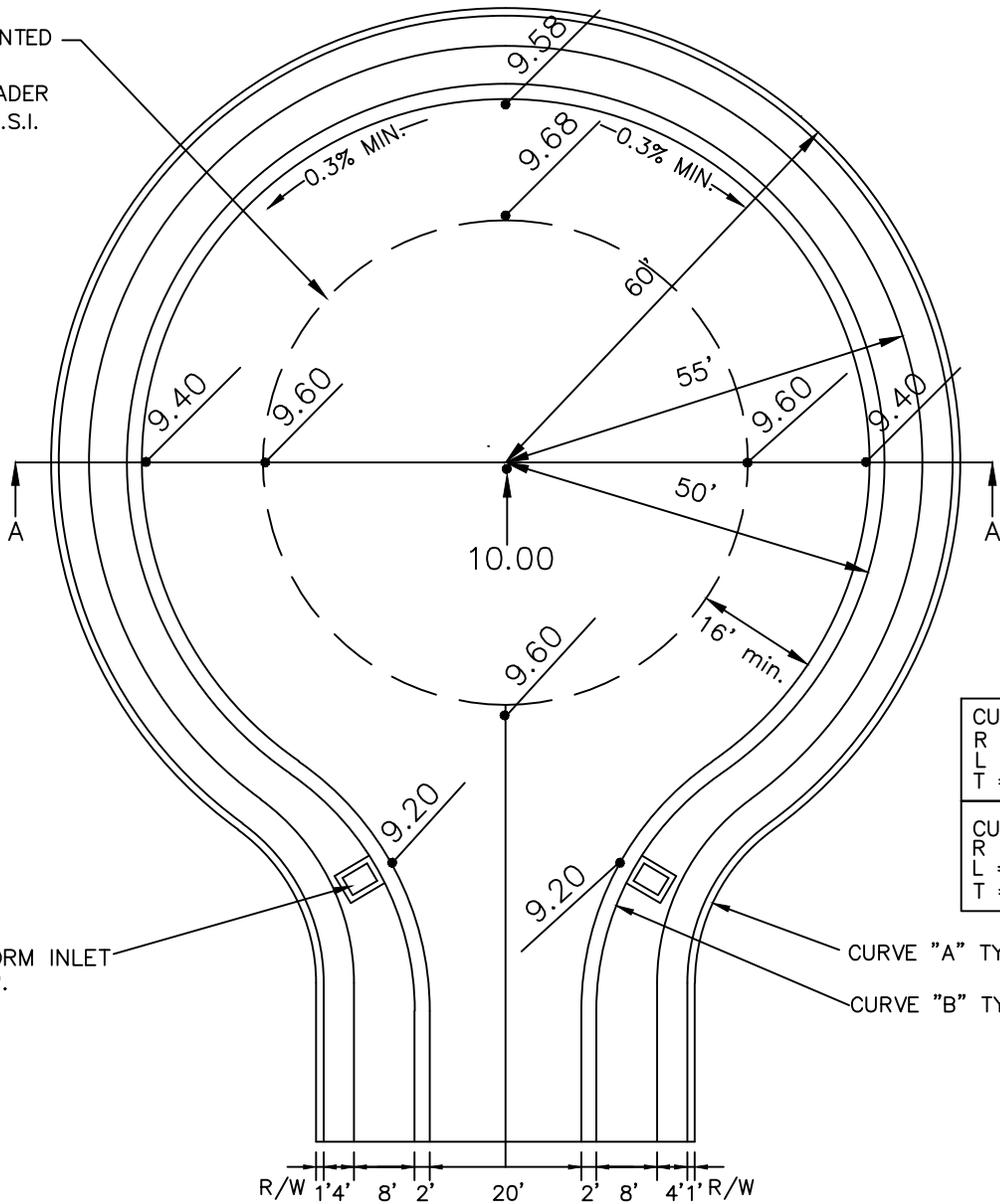
DESIGN SPEED (MPH)	20	25	30	35	40	45	50	55
SIGHT DISTANCE (FT) (MINIMUM)	200	250	300	350	400	450	500	550



STANDARD CONSTRUCTION DETAIL
ROADWAY GEOMETRY

FILE NAME:
EW_R6.DWG
DETAIL REF:
R-6

OPTIONAL PLANTED ISLAND WITH CONCRETE HEADER CURB, 3000 P.S.I.

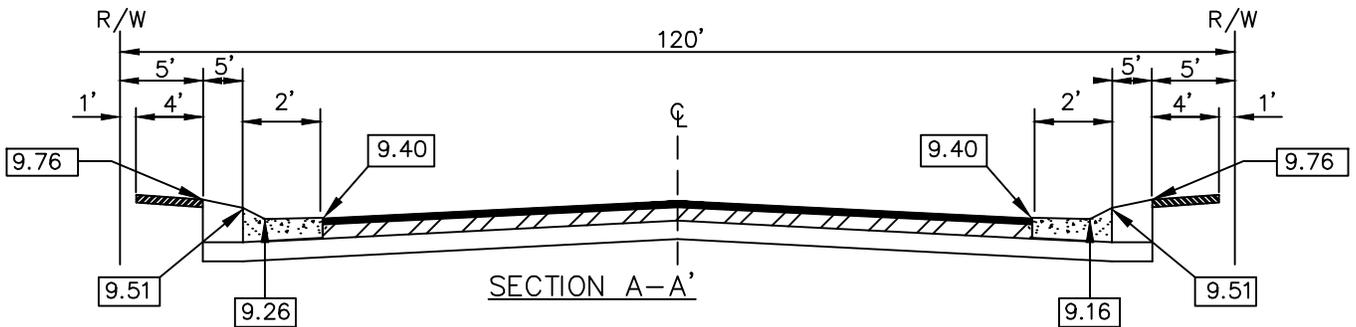


CURVE "A"	
R =	25.00'
L =	23.55'
T =	12.73'
CURVE "B"	
R =	38.00'
L =	36.73'
T =	19.94'

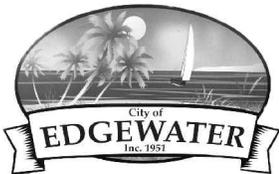
STORM INLET TYP.

CURVE "A" TYP.
CURVE "B" TYP.

R/W 1'4" 8' 2" 20' 2" 8' 4'1" R/W



SECTION A-A'



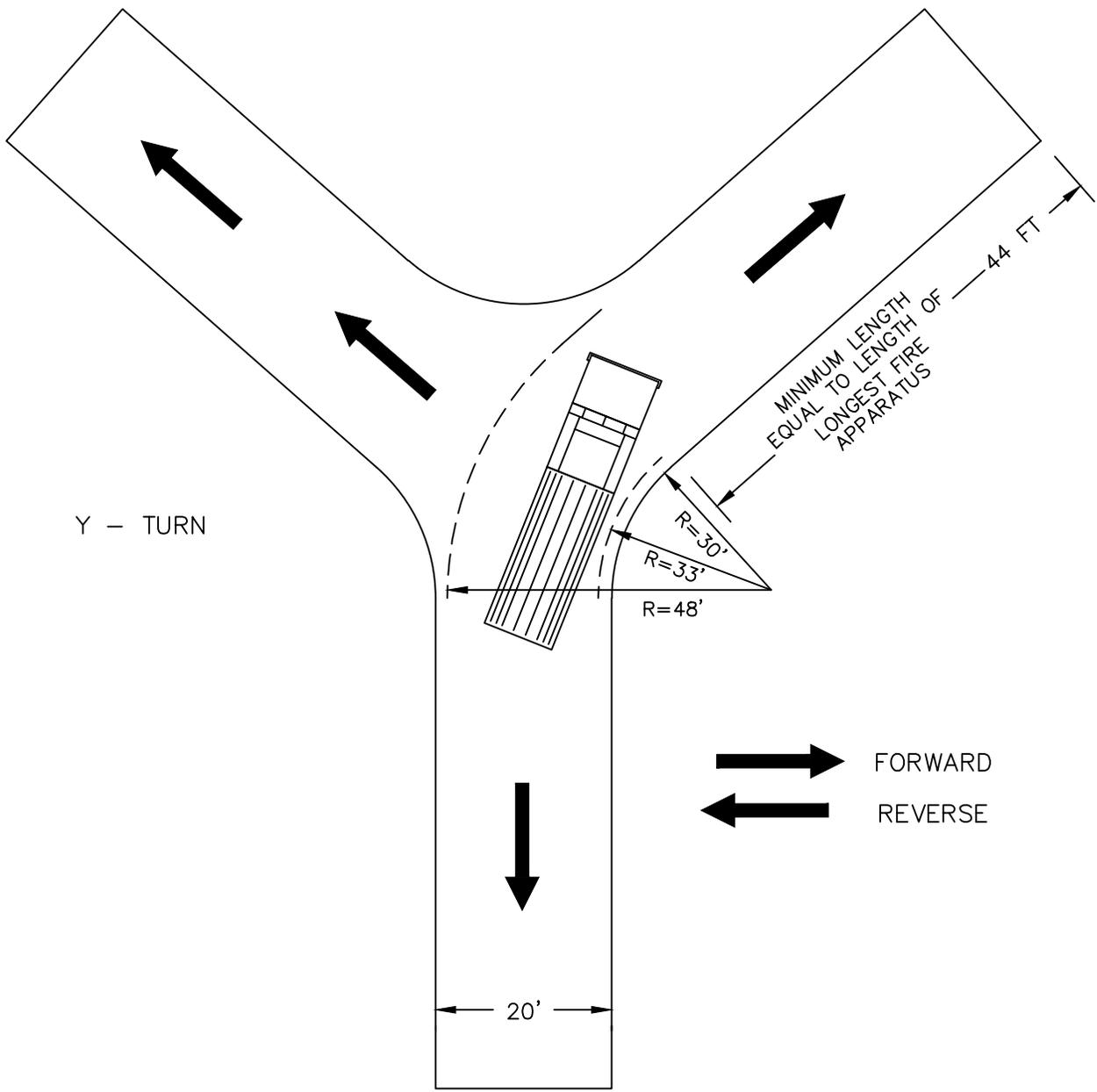
STANDARD CONSTRUCTION DETAIL
STANDARD CUL-DE-SAC DETAIL
WITH DUAL STORM INLET
"PREFERRED"

FILE NAME:

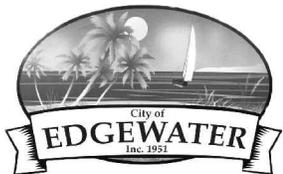
EW_R8A.DWG

DETAIL REF:

R-8



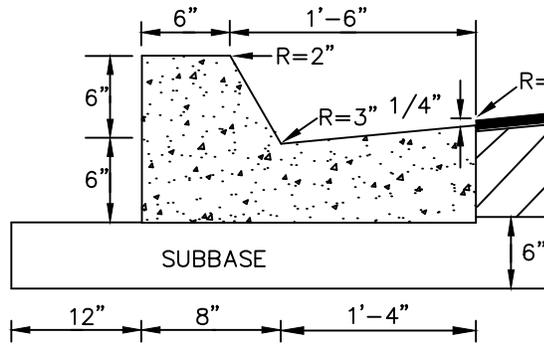
* ONLY ALLOWABLE GIVEN SPECIAL AUTHORIZATION FOR UNUSUAL CIRCUMSTANCES



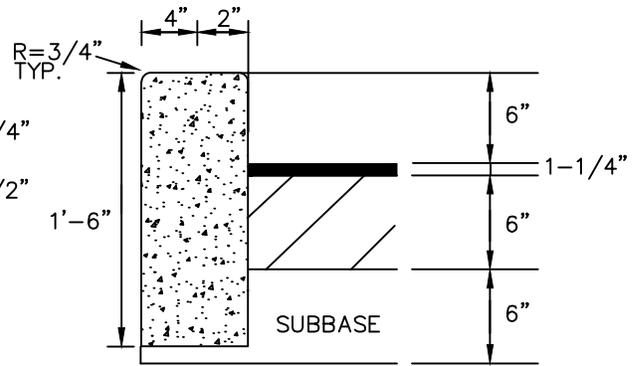
STANDARD CONSTRUCTION DETAIL
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FILE NAME:
EW_R8A.DWG

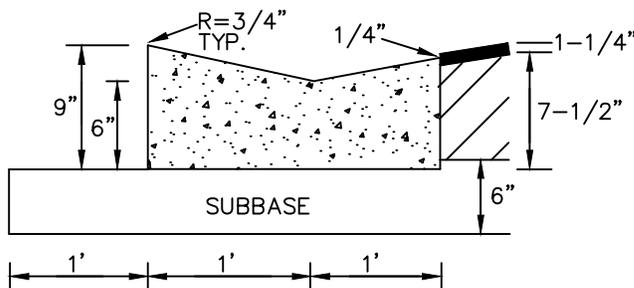
DETAIL REF:
R-8A



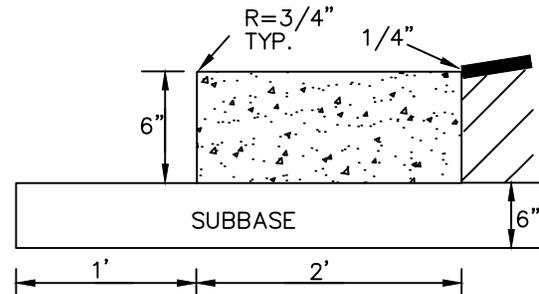
F.D.O.T. TYPE "F" CURB



HEADER CURB



MIAMI CURB



ENVIRONMENTAL CURB

NOTES:

1. ALL CURBS TO BE CONSTRUCTED OF 28 DAY, 3000 P.S.I. CONCRETE
2. 1/2" PRE-MOLDED EXPANSION JOINT REQUIRED EVERY 500', CONSTRUCTION JOINT REQUIRED EVERY 10' MAXIMUM (4' MINIMUM).
3. 1/2" PRE-MOLDED EXPANSION JOINT REQUIRED AT EACH SIDE OF ALL STORM INLET STRUCTURES AND AT ALL RADIUS POINTS.
4. 6" SUBBASE TO BE COMPACTED AND TESTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST AND SHALL BE STABILIZED TO A MINIMUM L.B.R. 40.
5. EXPANSION JOINT MATERIAL MUST COVER THE ENTIRE CROSS SECTION OF CURB.
6. IN NO INSTANCE SHALL EXTRUDED CURBS (DEFINED AS HEADER-TYPE CURBS INSTALLED DIRECTLY ON TOP OF PAVEMENT) BE PERMITTED.
7. ALL ASPHALT AND/OR PAVER DRIVEWAY APRONS LOCATED IN PUBLIC RIGHTS-OF-WAY, SHALL INCLUDE CURBING.



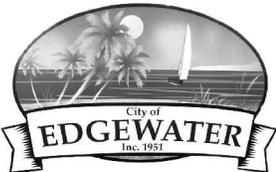
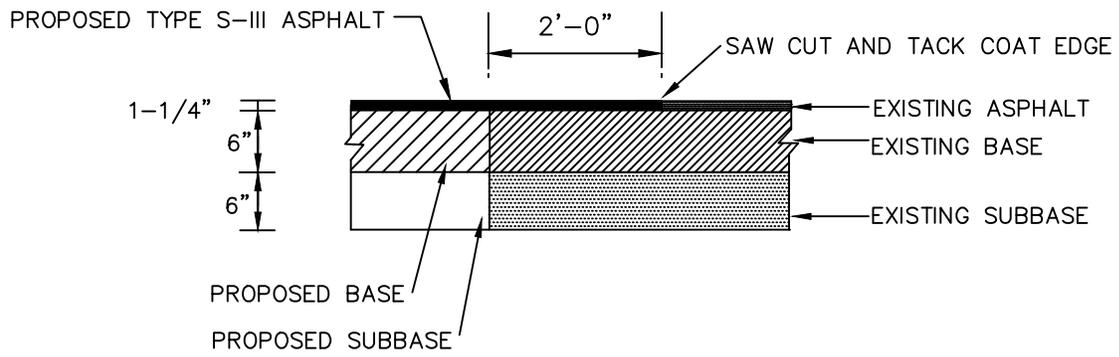
STANDARD CONSTRUCTION DETAIL
STANDARD CURB CONSTRUCTION

FILE NAME:

EW_R9.DWG

DETAIL REF:

R-9



STANDARD CONSTRUCTION DETAIL
PAVEMENT BUTT JOINT

FILE NAME:

EW_R11.DWG

DETAIL REF:

R-11

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES

ALL MATERIALS AND INSTALLATION METHODS USED FOR LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS FOR SUBDIVISIONS AND SITE PLANS SHALL BE IN CONFORMANCE WITH THE CITY, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

1. ALL RIGHT-OF-WAY OTHER THAN ROADWAY AREAS SHALL BE SODDED. ALL SLOPES STEEPER THAN 6:1 SHALL REQUIRE SODDING. THE CITY RESERVES THE RIGHT TO REQUIRE SODDING IN SPECIAL AREAS WHERE EROSION IS A CONCERN.
2. THE FOLLOWING WILL BE THE STANDARD PROTECTION FOR DITCHES UNLESS DRAINAGE CALCULATIONS INDICATE OTHERWISE:

<u>SWALE</u>	<u>PROFILE GRADES</u>	<u>PROTECTION REQUIRED</u>
	0.2%- 1.0%	GRASSING AND MULCHING
	1.0%-4.0%	SODDING
	4.0% AND GREATER	DITCH PAVING

3. THE PAVEMENT, BASE, AND SUBBASE THICKNESS PRESENTED ON DETAILS REPRESENTS THE MINIMUM REQUIREMENTS FOR LOCAL PUBLIC STREETS AND PRIVATE PARKING LOTS. THE CITY RESERVES THE RIGHT AT IT'S DISCRETION TO INCREASE THESE REQUIREMENTS FOR COLLECTOR AND ARTERIAL ROADWAYS AND PRIVATE PARKING LOTS SUBJECTED TO HEAVY VEHICULAR COMMERCIAL TRAFFIC.
4. THE DEVELOPER SHALL PROVIDE AT THEIR OWN EXPENSE A CERTIFIED SOILS ENGINEERING LABORATORY TO PERFORM ALL FIELD AND LABORATORY TESTING REQUIRED TO VERIFY THAT THE CONSTRUCTION IS IN COMPLIANCE WITH THE CITY'S MINIMUM STANDARDS. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO ENSURE THAT COPIES OF ALL TEST REPORTS ARE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR PRIOR TO THE PROJECT FINAL INSPECTION IN ORDER TO ALLOW PROJECT ACCEPTANCE BY THE CITY.
5. THE LIMITS OF STABILIZED SUBBASE SHALL EXTEND TO A DEPTH OF SIX INCHES (6") BELOW THE BOTTOM OF THE BASE AND OUTWARD TO TWELVE INCHES (12") BEYOND THE CURB.
6. THE STABILIZING MATERIAL, IF REQUIRED, SHOULD BE A HIGH BEARING VALUE SOIL, SAND-CLAY, LIMEROCK, RECYCLED CONCRETE, SHELL, OR OTHER MATERIAL AS APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND A LICENSED SOILS ENGINEER.
7. THE SUBBASE SHALL BE STABILIZED NOT LESS THAN FORTY (40) POUNDS LIMEROCK BEARING RATIO (LBR) TO A 6" MINIMUM DEPTH. A COMPACTION OF NO LESS THAN NINETY-EIGHT (98 %) PERCENT DENSITY BASED ON AASHTO T-180 SHALL BE REQUIRED.
8. FOR ROADWAYS, TESTS FOR SUBBASE BEARING CAPACITY AND COMPACTION SHALL BE DONE AT A MINIMUM OF EVERY 300 FEET AND SHALL BE STAGGERED TO THE LEFT, RIGHT, AND AT CENTER LINE OF THE ROADWAY. FOR SITE PLANS, TEST SHALL BE PERFORMED FOR EVERY 600 SQUARE YARDS OF STABILIZED AREA, OR PORTIONS THEREOF.
9. BASES FOR ALL STREETS SHALL HAVE A MINIMUM SIX INCH (6") DEPTH. SOIL CEMENT BASES SHALL HAVE A STRENGTH OF 350 POUNDS PER SQUARE INCH AT 7 DAYS COMPACTED TO 98% DENSITY PER AASHTO T-99 STANDARD PROCTOR TEST IN CONFORMANCE WITH SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION). RECYCLED CONCRETE OR LIMEROCK BASES SHALL BE COMPACTED TO 98% MAXIMUM DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
9. ROADWAY DEFINITIONS
 - a. ARTERIALS: PROVIDE REGIONAL MOBILITY VIA BOTH UNINTERRUPTED FLOW AND INTERRUPTED FLOW SEGMENTS. ARTERIALS PROVIDE MOBILITY AROUND AND THROUGH URBAN AND COMMUNITY CORES, AND ACCOMMODATE RELATIVELY LONG TRIP LENGTHS AS OPPOSED TO PROVIDING ACCESS TO ADJACENT PROPERTIES. ARTERIAL ROADS ARE U.S. #1 AND S.R. #442.
 - b. COLLECTORS: PROVIDE FOR MOVEMENT BETWEEN LOCAL STREETS AND THE ARTERIAL NETWORK. COLLECTORS SERVE RESIDENTIAL, COMMERCIAL AND INDUSTRIAL AREAS.
 - c. LOCAL ROADS: PROVIDE DIRECT ACCESS TO ABUTTING PROPERTIES. LOCAL ROADS ACCOMMODATE TRAFFIC ORIGINATING IN OR TRAVELING TO PROPERTIES WITHIN A NEIGHBORHOOD, COMMERCIAL OR INDUSTRIAL DEVELOPMENT. LOCAL ROADS ARE NOT CONSIDERED PART OF THE MAJOR THOROUGHFARE SYSTEM.



STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN
AND CONSTRUCTION NOTES

FILE NAME:

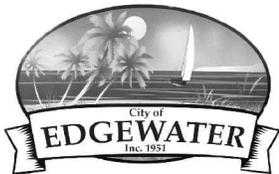
EW_R12.DWG

DETAIL REF:

R-12

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES
(CONTD.)

10. SOIL CEMENT AND RECYCLED CONCRETE MIX DESIGNS SHALL BE SUBMITTED BY A LICENSED SOILS ENGINEER TO THE CITY'S DESIGNATED SITE INSPECTOR PRIOR TO THE START OF SUBBASE PREPARATION. ALL MIX DESIGNS SHALL BE SUBJECT TO THE APPROVAL OF THE CITY.
11. CEMENT DELIVERY TICKETS SHALL BE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR AT THE TIME OF PLACEMENT. IF THE INSPECTOR IS NOT ON SITE THROUGHOUT THE ENTIRE INSTALLATION, ACCUMULATED DELIVERY TICKETS CAN BE PROVIDED TO THE INSPECTOR BY THE CONTRACTOR ON THE FOLLOWING DAY.
12. TESTING OF THE IN-PLACE BASE SHALL BE DONE AT INTERVALS EQUIVALENT TO SUBGRADE TESTING AND SHALL CONSIST OF, AS A MINIMUM, A MOISTURE CONTENT AND COMPACTION TEST.
13. PORTLAND CEMENT CONCRETE, LIMEROCK, RECYCLED CONCRETE, OR FULL DEPTH ASPHALT PAVEMENT MAY BE USED IN PLACE OF SOIL CEMENT BASE. ALL BASE AND ROADWAY DESIGNS SHALL BE SUBJECT TO THE APPROVAL OF THE CITY.
14. SOIL CEMENT BASE MATERIAL CONSTRUCTION SHALL BE CONTINUOUSLY SUPERVISED BY A SOILS TESTING LABORATORY AT THE DEVELOPER'S EXPENSE. THE TESTING LABORATORY SHALL PROVIDE AN ON-SITE TECHNICIAN CERTIFIED IN THE INSTALLATION OF SOIL CEMENT WITH THE CERTIFICATION RECOGNIZED BY F.D.O.T.
15. SOIL CEMENT PAVEMENT BASES WITH THE CURE COAT APPLIED SHALL BE ALLOWED TO CURE A MINIMUM OF SEVEN (7) DAYS UNDER NO TRAFFIC PRIOR TO PLACING ANY ASPHALT SURFACE. (TEST REPORTS ARE REQUIRED TO BE DELIVERED TO THE CITY'S DESIGNATED SITE INSPECTOR PRIOR TO TRAFFIC USAGE.)
16. RECYCLED CONCRETE CAN BE USED AS AN ALTERNATIVE BASE MATERIAL PROVIDED THE MATERIAL IS A MINIMUM OF 60% CARBONATE OF CALCIUM AND MAGNESIUM. THE MATERIAL SHALL BE LIMITED TO MAXIMUM OF 3% OF WATER SENSITIVE CLAY MATERIAL, LIQUID LIMIT SHALL NOT EXCEED 35 AND BE NON-PLASTIC, AND THE PLASTICITY INDEX SHALL NOT EXCEED 10. THE MATERIAL SHALL NOT CONTAIN ORGANIC MATERIAL, CHERTY OR OTHER EXTREMELY HARD PIECES, LUMPS, BALLS OR POCKETS OF SAND SIZE MATERIAL OF A QUANTITY AS TO BE DETRIMENTAL TO THE PROPER BONDING, FINISHING, OR STRENGTH OF THE RECYCLED CONCRETE BASE. FOR BASE APPLICATIONS, AT LEAST 97 % (BY WEIGHT) OF THE MATERIAL SHALL PASS A 1" SIEVE AND FOR SUBBASE APPLICATIONS, AT LEAST 97 % (BY WEIGHT) OF THE MATERIAL SHALL PASS A 1-1/2" SIEVE. FOR BOTH APPLICATIONS, THE MATERIAL SHALL BE GRADED UNIFORMLY DOWN TO DUST AND THE MINIMUM LBR VALUES ARE TO BE NOT LESS THAN 130. COARSE AGGREGATE USED IN THE RECYCLED CONCRETE SHALL HAVE A MAXIMUM LOSS OF 45 % PER LOS ANGELES ABRASION TEST. ALL MATERIALS SHALL BE WELL GRADED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN SECTION 204, F.D.O.T., STANDARD SPEC. FOR ROAD AND BRIDGE CONSTRUCTION., (LATEST EDITION).
17. RECYCLED CONCRETE OR LIMEROCK FOR BASE OR SUBBASE APPLICATIONS SHALL BE ALLOWED ON CITY ROADWAYS ONLY WHERE THE LOWEST ELEVATION OF THE ROADWAY SUBBASE IS A MINIMUM OF 6" ABOVE THE SEASONAL HIGH GROUNDWATER TABLE AS CERTIFIED BY A FLORIDA LICENSED PROFESSIONAL SOILS ENGINEER AND SUBSEQUENTLY APPROVED FOR BY THE CITY. IN AREAS NOT MEETING THESE STANDARDS A SOIL CEMENT BASE WILL BE REQUIRED. ALL CRUSHING OF RECYCLED CONCRETE SHALL BE DONE PRIOR TO THE MATERIAL BEING PLACED IN THE ROADWAY. TESTING SHALL HAVE THE SAME REQUIREMENTS AND BE PERFORMED AT THE SAME LOCATION AND INTERVALS AS REQUIRED FOR LIMEROCK.



STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN
AND CONSTRUCTION NOTES

FILE NAME:

EW_R13.DWG

DETAIL REF:

R-13

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES
(CONTD.)

18. DESIGN MIXES AND PRODUCT GRADATION INFORMATION FOR ALL MATERIALS TO BE INSTALLED AS PART OF THE LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS SHALL BE SUBMITTED TO THE CITY'S DESIGNATED SITE INSPECTOR FOR ACCEPTANCE BY THE CITY. THE INFORMATION SHALL BE SUBMITTED NO LESS THAN THREE (3) WORKING DAYS PRIOR TO ANY CONSTRUCTION. SUBMITTALS SHALL INCLUDE, BUT NOT BE LIMITED TO, INFORMATION TO EVALUATE THE MATERIALS PROPOSED FOR INSTALLATION AS SUBBASE, BASE, AND PAVEMENT FOR ALL ROADWAY AND PARKING AREA SURFACES AS WELL AS SIMILAR INFORMATION FOR ALL OTHER CONCRETE SIDEWALKS, CURBING, AND COMPARABLE STRUCTURES AND APPLICATIONS.
19. PRIOR TO PLACEMENT FLORIDA STATE CERTIFIED BATCH PLANTS MUST CERTIFY TO THE CITY'S RESIDENT PROJECT INSPECTOR THAT THE ASPHALT DELIVERED TO THE SITE IS IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
20. EXTRACTION AND GRADATION TESTS ON ASPHALT MIXES SHALL BE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR FOR EVERY 2500 SQUARE YARDS OF ASPHALT, OR PART THEREOF, TO ENSURE THAT DESIGN MIXES MEET THE CITY STANDARD SPECIFICATIONS.
21. FIELD TESTING OF THE ASPHALT PAVEMENT SHALL BE DONE AT INTERVALS EQUIVALENT TO SUBGRADE TESTING AND SHALL CONSIST OF, AS A MINIMUM, A COMPACTION TEST. ASPHALT PAVEMENT SHALL BE COMPACTED TO 98% DENSITY PER FM 1-T238 (METHOD B), NUCLEAR DENSITY TEST, "BACKSCATTER METHOD".
22. IN ADDITION TO THE FIELD DENSITY TESTS NOTED, THE CITY RESERVES THE RIGHT TO REQUIRE CORE SAMPLES OF PAVEMENT SECTIONS EXTRACTED AND TESTED BY A CERTIFIED SOILS ENGINEERING LABORATORY AT THE DEVELOPER'S EXPENSE. THE CITY'S DESIGNATED SITE INSPECTOR SHALL DESIGNATE THE LOCATIONS OF THE TEST CORE LOCATIONS.
23. THE ROADWAY CROWN SHALL HAVE A STANDARD ONE QUARTER INCH (1/4") PER FOOT SLOPE.
24. ALL ROADWAYS WITH CURB AND GUTTER SECTIONS SHALL HAVE AS A STANDARD A MINIMUM LONGITUDINAL SLOPE OF 0.30%. THE ROADWAY CENTERLINE SHALL BE CLEARLY MARKED ON THE DESIGN PLANS. AT A MINIMUM, DESIGN ROADWAY CENTERLINE ELEVATIONS SHALL BE NOTED AT ALL GRADE CHANGES AND AT 100' INTERVALS ALONG THE ROADWAY PROFILE ON BOTH THE DESIGN PLANS AND AS-BUILT DRAWINGS.
25. THE FINISHED PAVEMENT EDGE SHALL BE WITHIN ONE QUARTER INCH (1/4") ABOVE THE ADJACENT CONCRETE CURB FOR CURBS COLLECTING AND CONVEYING STORMWATER.
26. CONCRETE CURBS SHALL BE PROVIDED ON BOTH SIDES OF ALL STREETS AND ALL CONCRETE CURBS SHALL BE CONSTRUCTED WITH 3000 P.S.I. CONCRETE AT 28 DAYS.



STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN
AND CONSTRUCTION NOTES

FILE NAME:

EW_R14.DWG

DETAIL REF:

R-14

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES

(CONTD.)

27. CONCRETE CURBING, SIDEWALKS, PAVEMENT AND SIMILAR CONCRETE AREAS SHALL BE SAW CUT WITHIN 4 TO 18 HOURS OF PLACEMENT. SAW CUTS SHALL BE 1/4" IN WIDTH TO A DEPTH OF 1/4 OF THE TOTAL DEPTH OF CONCRETE OR 1-1/2", WHICHEVER IS LESS. SAW CUTS SHALL BE LOCATED AT INTERVALS OF TEN FEET (10') WITH EXPANSION JOINTS AT STREET INTERSECTIONS, RADIUS POINTS, STRUCTURES, AND ALONG CURVES AT SIXTY FEET (60') INTERVALS. ALL EXPANSION JOINT MATERIAL IS REQUIRED TO BE INSTALLED THROUGH THE ENTIRE DEPTH OF THE CONCRETE CURB. FOR LINEAL SECTIONS OF CURBS, EXPANSION JOINTS SHALL BE LOCATED AT A MAXIMUM SPACING OF FIVE-HUNDRED FEET (500') AND SHALL BE 1/2" IN WIDTH.
28. AN "X" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF WATER DISTRIBUTION SYSTEM VALVE.
29. A "V" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF ALL SEWER SERVICES.
30. A "I" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF ALL RECLAIMED WATER SERVICES.
31. A "A" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF ALL POTABLE WATER SERVICES.
32. BLUE REFLECTORS SHALL BE PLACED IN THE MIDDLE OF THE DRIVING LANE ON THE SIDE OF THE ROADWAY AND IN FRONT OF WHERE FIRE HYDRANTS ARE LOCATED.
33. THREE (3) CONCRETE CYLINDERS SHALL BE TAKEN AND TESTED (1 IN 14 DAYS AND 1 IN 28 DAYS) FOR EVERY SEVENTY-FIVE (75) CUBIC YARDS OF CONCRETE OR LESS PLACED. TEST RESULTS SHALL THEN BE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR AS THEY BECOME AVAILABLE.
34. A CONCRETE SLUMP TEST SHALL BE REQUIRED WITHIN THE FIRST 30 CUBIC YARDS OF CONCRETE. THEREAFTER, SLUMP TESTS SHALL BE REQUIRED FOR EVERY THIRTY (30) CUBIC YARDS OF CONCRETE, OR FRACTION THEREOF, WITH COPIES OF THE RESULTS PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR. THE SLUMP TEST SHALL MEET THE REQUIRED MIX DESIGN ON EACH LOAD DELIVERED.
35. THE DEVELOPER SHALL PROVIDE ALL REQUIRED PAVEMENT MARKINGS ON ALL ROADWAYS PER CITY, COUNTY, AND STATE REQUIREMENTS. CENTERLINE STRIPES SHALL BE PROVIDED ON EXTENSIONS OF CITY COLLECTOR OR ARTERIAL ROADS, COUNTY ROADS, STATE HIGHWAYS, AND ALONG LOCAL STREETS IN THE VICINITY OF THEIR INTERSECTION WITH THE ABOVE MENTIONED ROADWAYS.
36. A FDOT APPROVED STOP SIGN AND A 24"-WIDE WHITE THERMOPLASTIC STOP BAR ARE REQUIRED AT ALL ROADWAY INTERSECTIONS.
37. ALL TRAFFIC CONTROL DEVICES PLACED AT INTERSECTIONS, PRIVATE STREETS, PUBLIC STREETS, COUNTY ROADS, AND STATE HIGHWAYS WITHIN THE CITY LIMITS SHALL BE INSTALLED ACCORDING TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. THE MAINTENANCE-OF-TRAFFIC (MOT) INSTALLATION AND SUBSEQUENT OPERATION SHALL BE OVERSEEN BY A CONTRACTOR CERTIFIED BY THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION, OR EQUIVALENT CERTIFICATION RECOGNIZED BY FDOT.



STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN
AND CONSTRUCTION NOTES

FILE NAME:

EW_R15.DWG

DETAIL REF:

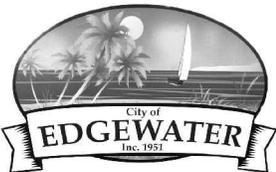
R-15

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES
(CONTD.)

38. THE DEVELOPER IS RESPONSIBLE FOR PAYING FEES FOR TRAFFIC CONTROL DEVICES TO THE CITY FOR INSTALLATION. STREET SIGNS AND STOP SIGNS SHALL BE PLACED AT ALL INTERSECTIONS, INCLUDING BUT NOT LIMITED TO PRIVATE STREETS, PUBLIC STREETS, COUNTY ROADS, AND STATE HIGHWAYS WITHIN THE CITY LIMITS.
39. THE DEVELOPER IS RESPONSIBLE FOR PAYING FEES FOR ALL STREET LIGHTS PRIOR TO ACCEPTANCE OF THE PROJECT BY THE CITY.
40. FOUR FOOT (4') WIDE SIDEWALKS SHALL BE PROVIDED ON BOTH SIDES OF ALL RESIDENTIAL STREETS. (SEE DETAIL, INDEXES M-2 AND M-3)
41. BIKE PATHS SHALL BE CONSTRUCTED AT A MINIMUM OF SIX-FOOT WIDTH, PREFERABLY EIGHT-FOOT WIDTH AS DIRECTED BY THE CITY IN ACCORDANCE WITH THE BICYCLE AND PEDESTRIAN TRAIL MASTER PLAN.
42. STANDARD TURNING RADII FOR INTERSECTIONS:

RESIDENTIAL STREETS WITH STATE & COUNTY ROADWAYS OR MAJOR THOROUGHFARES WITHIN THE CITY	35-50 FT.
ENTRANCES TO COMMERCIAL SITES OFF OF CITY STREETS	35 FT.
INTERSECTIONS INTERIOR IN SUBDIVISIONS	35 FT.

SHOULD VOLUSIA COUNTY OR THE FLORIDA DEPARTMENT OF TRANSPORTATION (F.D.O.T.) DETERMINE THAT LARGER RADII ARE WARRANTED WITHIN THEIR RIGHT-OF-WAY, THE LARGER RADII SHALL PREVAIL.
43. CONSTRUCTION METHODS AND DESIGN FOR CONCRETE PAVEMENT SHALL CONFORM TO FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
44. ALL CONTRACTORS THAT ARE PERFORMING THE CONSTRUCTION OF LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS (INCLUDING WATER MAINS, SANITARY SEWER MAINS, RECLAIMED WATER MAINS, STORM WATER PIPES AND INLETS, ROADWAYS, AND PARKING FACILITIES) SHALL BE CERTIFIED WITH THE STATE OF FLORIDA BOARD OF PROFESSIONAL REGULATIONS (BPR) FOR THE TYPE OF WORK THAT THEY PERFORM.
45. ALL CONTRACTORS THAT ARE PERFORMING THE CONSTRUCTION WORK OF LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS SHALL BE LICENSED BY THE STATE OF FLORIDA AND REGISTERED WITH THE CITY. THE LICENSE AND REGISTRATION SHALL PERTAIN DIRECTLY TO THE TYPE OF WORK BEING PERFORMED.
46. EXCEPT AS PROVIDED IN THE LAND DEVELOPMENT CODE, ALL ELECTRIC, TELEPHONE, TELEVISION LINES AND SIMILAR UTILITIES ARE REQUIRED TO BE INSTALLED UNDERGROUND AT THE EXPENSE OF THE OWNER, DEVELOPER, AND BUILDER.



STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN
AND CONSTRUCTION NOTES

FILE NAME:

EW_R16.DWG

DETAIL REF:

R-16

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES
(CONTD.)

47. UTILITY DEPTH:
- A. HIGH VOLTAGE UTILITIES SUCH AS POWER (FEEDER, SERVICE, AND DROPS) SHALL BE BURIED A MINIMUM OF 30 INCHES IN DEPTH.
 - B. LOW VOLTAGE UTILITIES SUCH AS PHONE AND CABLE TV SHALL BE BURIED A MINIMUM OF 24 INCHES IN DEPTH FOR FEEDER AND SERVICES. SERVICE DROPS SHALL BE BURIED A MINIMUM OF 18 INCHES IN DEPTH.
 - C. IN NO INSTANCE SHALL THE DEPTH OF COVER BE LESS THAN 30" FROM FINISHED GRADE TO THE TOP OF PIPE FOR POTABLE WATER MAINS, SANITARY SEWER MAINS, AND RECLAIMED WATER MAINS. HOWEVER, IN THE EVENT THAT THIS CONDITION CANNOT BE MET DUE TO UNANTICIPATED CONFLICTS DURING THE CONSTRUCTION PROCESS, DUCTILE IRON PRESSURE CLASS 350 OR CONCRETE ENCASEMENT MAY BE USED AS APPROVED BY THE CITY PUBLIC UTILITIES DEPARTMENT.
48. LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF UNDERGROUND AND OVERHEAD PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.



STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN
AND CONSTRUCTION NOTES

FILE NAME:

EW_R17.DWG

DETAIL REF:

R-17

TECHNICAL SPECIFICATIONS
FOR SITE PLANS AND SUBDIVISIONS TESTING

A. MATERIALS

THE INSPECTION AND TESTING OF MATERIALS AND FINISHED ARTICLES TO BE INCORPORATED IN THE WORK SHALL BE MADE BY BUREAUS, LABORATORIES, OR AGENCIES APPROVED BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL SUBMIT SUCH SAMPLES, OR SUCH SPECIAL OR TEST PIECES OF MATERIALS AS THE ENGINEER OF RECORD MAY REQUIRE. THE CONTRACTOR SHALL NOT INCORPORATE ANY MATERIAL OR FINISHED ARTICLE INTO THE WORK UNTIL THE RESULTS OF THE INSPECTIONS OR TESTS ARE KNOWN AND THE CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER OF RECORD THAT THE MATERIAL OR FINISHED ARTICLE IS ACCEPTED. ALL MATERIALS MUST BE OF THE SPECIFIED QUALITY AND BE EQUAL TO THE APPROVED SAMPLE IF A SAMPLE HAS BEEN SUBMITTED. CERTIFIED COPIES OF ALL TESTS MADE SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AS WELL AS TO THE CITY'S DESIGNATED SITE INSPECTOR. THE CITY'S DESIGNATED SITE INSPECTOR MUST RECEIVE COPIES OF ALL TESTING REPORTS AND CERTIFICATES PRIOR TO THE ENGINEER OF RECORD REQUESTING A FINAL PROJECT INSPECTION FROM THE CITY.

B. LABORATORY CONTROL AND CERTIFICATES

1. SPECIFICATIONS . SAMPLING, TESTING, AND LABORATORY METHODS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE AASHTO OR ASTM. WHERE AASHTO OR ASTM SPECIFICATIONS ARE USED, THE REFERENCE SHALL BE CONSTRUED TO BE THE MOST RECENT STANDARD SPECIFICATIONS OR TENTATIVE SPECIFICATIONS OF THE AASHTO OR ASTM IN FORCE ON THE DATE OF THE TEST.
2. TEST & CERTIFICATES. THE CONTRACTOR SHALL ENGAGE AN APPROVED TESTING LABORATORY TO PROVIDE THE FOLLOWING TESTS AND CERTIFICATIONS SIGNED BY A REGISTERED ENGINEER OF THE STATE OF FLORIDA. ALL TECHNICIANS PERFORMING THE TESTS SHALL BE STATE CERTIFIED FOR THE TESTING PERFORMED. ADDITIONAL TESTS THAT MAY BE REQUIRED BY EITHER THE ENGINEER OF RECORD OR THE CITY SHALL ALSO BE PROVIDED BY THE CONTRACTOR, AND THE FOLLOWING SHALL NOT BE TAKEN AS A COMPLETE AND EXHAUSTIVE LIST OF THE CONTRACTOR'S TESTING RESPONSIBILITIES.
 - A. SOIL ANALYSIS FOR STRUCTURAL FILL MATERIAL PRIOR TO INSTALLATION.
 - B. PROCTOR DENSITIES, MOISTURE CONTENT, COMPACTED FIELD DENSITIES, AND ATTERBERG LIMITS.
 - C. SOIL CEMENT MIX DESIGNS AND COMPRESSIVE STRENGTH TESTS (FOR SOIL CEMENT ROAD BASE ONLY).
 - D. SUPERVISION OF ALL SOIL CEMENT BASE CONSTRUCTION.
 - E. ANALYSIS OF RECYCLED CONCRETE BASE MATERIAL PRIOR TO INSTALLATION.
 - F. ASPHALT MIX DESIGN, BITUMEN CONTENT, SIEVE ANALYSIS, HUBBARD FIELD STABILITY TESTS, NUCLEAR DENSITY TESTS (BACKSCATTER METHOD), AND ANALYSIS OF CORE SAMPLES.
 - G. CONCRETE MIX DESIGNS FOR ALL APPLICATIONS INCLUDING PAVEMENT, CAST-IN-PLACE STRUCTURES, CURBING, GUTTERS, SIDEWALKS, BIKE PATHS, APRONS AND DRIVEWAYS.
 - H. COMPRESSIVE TEST CYLINDERS AND SLUMP TESTS FOR ALL APPLICATIONS OF CONCRETE, INCLUDING PAVEMENT, CAST-IN-PLACE STRUCTURES, CURBING, GUTTERS, SIDEWALKS, BIKE PATHS, APRONS, AND DRIVEWAYS.
 - I. CHLORINE RESIDUAL AND BACTERIOLOGICAL TESTING OF WATER MAINS.
 - J. PRESSURIZED LEAK TESTING OF WATER MAINS, FORCE MAINS, AND RECLAIMED WATER MAINS.



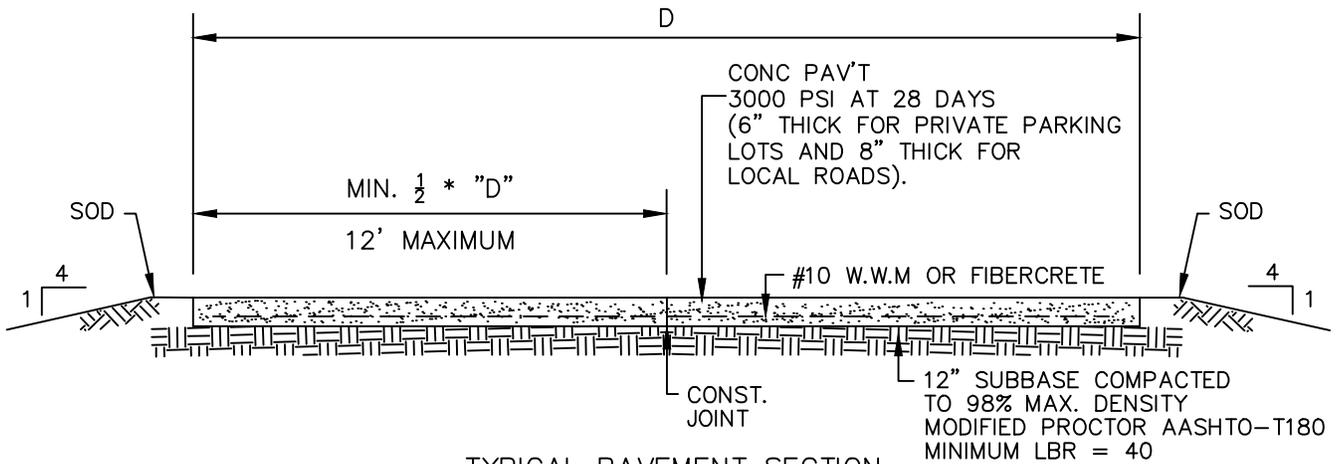
STANDARD CONSTRUCTION DETAIL
TECHNICAL SPECIFICATIONS
FOR SITE PLANS AND SUBDIVISIONS
TESTING

FILE NAME:

EW_R18.DWG

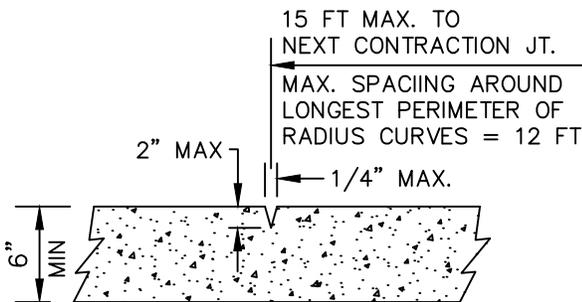
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R-18

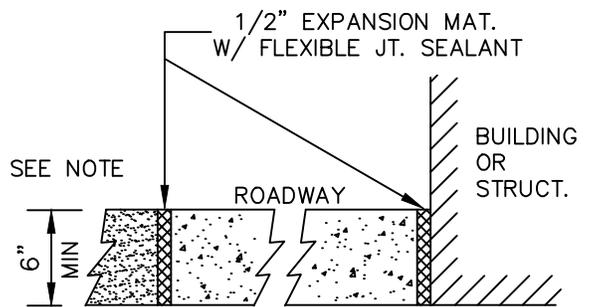


TYPICAL PAVEMENT SECTION

NOTE: FOR ROADWAYS, THE CROSSLOPE SHALL BE 1/4" PER FOOT. FOR PRIVATE PARKING AREAS THE MINIMUM ALLOWABLE PAVEMENT SLOPE SHALL BE NO LESS THAN 0.50% MEASURED FROM THE RECEIVING INLET, GUTTER, OR FLUME TO ANY PAVEMENT.



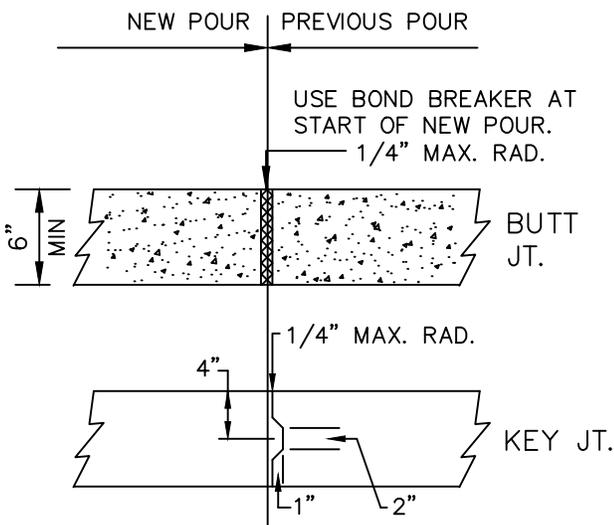
CONTRACTION JOINT



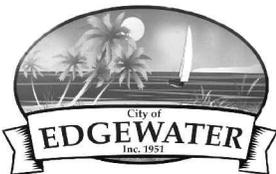
NOTES:

EXPANSION JOINT

1. CONTRACTION JTS. MAY BE HAND FORMED, SAWED OR CONSTRUCTED W/ A 1/4" PREMOLDED FILLER JT. JOINTS MUST BE SAWED BETWEEN 4 AND 18 HOURS AFTER CONCRETE HAS BEEN PLACED.
2. EXPANSION JOINTS TO BE PLACED BETWEEN ROADWAY AND CURB. ALSO AT ANY PERMANENT STRUCTURE ABUTTING OR WITHIN THE PAVED AREA INCLUDING SIDEWALKS.
3. USE OF WOOD IS NOT AN ACCEPTABLE ALTERNATIVE TO FLEXIBLE JOINT SEALANTS.
4. FINAL DETERMINATION OF CONSTRUCTION JOINT SELECTION AND APPLICATION SHALL BE MADE BY THE ENGINEER OF RECORD BASED ON PROJECT REQUIREMENTS AND LOCATION.
5. CONSTRUCTION JOINTS WITHIN THE SLAB AREA SHOULD NOT CONTAIN PREMOLDED EXPANSION JOINT FILLER.
6. CONCRETE PAVEMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH A.C.I. PUBLICATION ACI 330R-87.



CONSTRUCTION JOINT



STANDARD CONSTRUCTION DETAIL
CONCRETE PAVEMENT DETAILS

FILE NAME:

EW_R19.DWG

DETAIL REF:

R-19

SUBDIVISION TECHNICAL SPECIFICATIONS:
SODDING, SEEDING AND MULCHING

A. SCOPE OF WORK THE WORK IN THIS SECTION CONSISTS OF FURNISHING AND COMPLETELY INSTALLING SOD, OR SEED AND MULCH OVER THE LIMITS CALLED FOR ON THE CONSTRUCTION DRAWINGS. AT A MINIMUM, ALL WORK SHALL MEET THE MINIMUM SPECIFICATIONS OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, AS OUTLINED IN SECTIONS 570 (GRASSING BY SEEDING) AND 575 (SODDING). IN ADDITION, ALL WORK SHALL MEET THE MINIMUM REQUIREMENTS OF THE CITY.

B. MATERIALS GRASS SEED SHALL BE A MIXTURE OF:

PENSACOLA BAHIA	50%
(USE 50 % SCARIFIED SEED)	
HULLED BERMUDA	25%
BROWN TOP MILLET	25%

IN THE FALL AND WINTER MONTHS, AND WITH THE APPROVAL OF THE CITY, ANNUAL RYE GRASS SHALL BE SUBSTITUTED IN EQUAL AMOUNTS FOR THE BROWN TOP MILLET. SEED SHALL BE PRE-MIXED BY A SEED COMPANY TO THE PERCENTAGES DESCRIBED ABOVE, WITH CERTIFICATION FROM THE SUPPLIER PROVIDED TO THE CITY'S DESIGNATED PROJECT LANDSCAPE INSPECTOR PRIOR TO USE.

MULCH USED SHALL BE STRAW OR HAY CONSISTING OF OATS, RYE, OR WHEAT STRAW, OR OF PANGOLA, PEANUT, COASTAL BERMUDA, OR BAHIA GRASS HAY. MULCH SHALL BE FREE FROM UNDESIRABLE WEED AND OTHER UNDESIRABLE GRASS.

C. METHODS. GRASSING SHALL BE DONE IMMEDIATELY UPON COMPLETION OF THE FINE GRADING OPERATION. HOWEVER, NO SEEDING SHALL BE DONE WHEN THE GROUND IS FROZEN OR UNDULY WET. THE RATE OF SPREAD FOR THE SEED MATERIAL SHALL BE ONE HUNDRED AND THIRTY (130) POUNDS PER ACRE.

APPROXIMATELY ONE INCH (1"), LOOSE THICKNESS, OF MULCH MATERIAL SHALL BE APPLIED UNIFORMLY OVER THE SEEDED AREAS (APPROXIMATELY ONE AND ONE-HALF (1-1/2) BALES PER 1000 SQUARE FEET). THE MULCH MATERIAL SHALL BE CUT INTO THE SOIL WITH A DISC HARROW OR OTHERWISE ANCHORED DOWN. UNDER PROPER CIRCUMSTANCES, CONTRACTOR MAY REQUEST OPTION TO INSTALL HYDRO-SEEDING SUBJECT TO THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT AND THE CITY



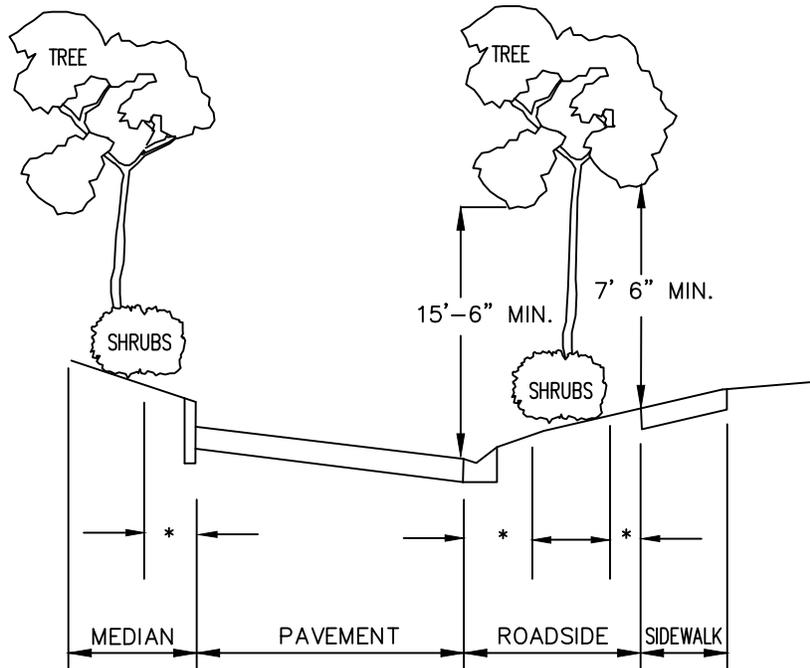
STANDARD CONSTRUCTION DETAIL
SUBDIVISION
TECHNICAL SPECIFICATIONS:
SODDING, SEEDING AND MULCHING

FILE NAME:

EW_R20.DWG

DETAIL REF:

R-20



ROADWAY CLEAR ZONES (*)					
	DESIGN SPEED (MPH)				
TYPE FACILITY	25 & BELOW	30	35	40	45+
DISTANCE FROM EDGE OF PAVEMENT	6'	6' LOCAL 10' COLLECTOR 14' ARTERIAL	6' LOCAL 10' COLLECTOR 14' ARTERIAL	10' COLLECTOR 14' ARTERIAL	F.D.O.T. STANDARD
DISTANCE FROM SIDEWALK	1.5	1.5	1.5	1.5	F.D.O.T. STANDARD

* SEE NOTES ON SHEET R-21B *



STANDARD CONSTRUCTION DETAIL
ROADWAY AND MISCELLANEOUS LANDSCAPING
DESIGN AND CONSTRUCTION NOTES

FILE NAME:
EW_R21A.DWG
DETAIL REF:
R-21A

ROADWAY AND MISCELLANEOUS LANDSCAPING
DESIGN AND CONSTRUCTION NOTES (CONTD.)

NOTES:

1. THE CLEAR ZONE MAY BE REDUCED ON A CASE BY CASE BASIS IF THE MINIMUM OFFSET CANNOT BE REASONABLY OBTAINED OR IF A NON-MOUNTABLE CURBE TYPE IS INSTALLED.
2. TREES IN EXCESS OF 12" CALIPER AT MATURITY AND MULTI-TRUNKED PALMS SHALL BE SET BACK TO TWICE THE MINIMUM CLEAR ZONE (2 X *).
3. WHERE PAVEMENT WIDENING IN ACCORDANCE WITH FDOT STANDARDS IS NOT PROVIDED IN HORIZONTAL CURVES, ADDITIONAL CLEAR ZONE SHALL BE PROVIDED EQUAL TO THE REQUIRED PAVEMENT WIDENING.
4. CLEAR ZONES ON CURBED ROADS SHALL BE MEASURED FROM THE FACE OF CURB OR FROM THE EDGE OF THE THROUGH LANE ON RURAL ROADS. CURBED STREETS ARE FOR HIGH BACK CURBS ONLY.
5. SHRUBS ADJACENT TO SIDEWALKS AND WITHIN INTERSECTION SIGHT TRIANGLES CANNOT EXCEED 24" ABOVE THE LOWEST ADJACENT ROADWAY GRADE. ALL OTHER SHRUBS MUST BE LESS THAN OR EQUAL TO 30 INCHES IN HEIGHT.
6. INSTALLATION OF LANDSCAPING IN PUBLIC RIGHTS-OF-WAY REQUIRES EXECUTION OF A "USE AGREEMENT" BETWEEN THE DEVELOPER AND THE CITY. FOR INSTANCES WHERE THE STREETS AND PRIVATE AND PUBLIC UTILITY EASEMENTS ARE PROVIDED, THE DEVELOPER MAY BE REQUIRED TO OBTAIN A RELEASE FROM THE FRANCHISE UTILITIES IN ORDER TO INSTALL THE LANDSCAPING IMPROVEMENTS.
7. LANDSCAPING PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF UNDERGROUND AND OVERHEAD PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.
8. SHRUBS, UNDERSTORY, TREES AND PALMS SHALL BE ALLOWED IN THE RIGHT-OF-WAY WITH EXISTING AND PROPOSED UTILITIES. SHADE TREES, ESPECIALLY THOSE WITH AGGRESSIVE ROOT SYSTEMS, WILL REQUIRE SPECIFIC CITY APPROVAL.
9. SHADE TREES MUST NOT BE PLANTED UNDER OR DIRECTLY ADJACENT TO OVERHEAD UTILITIES THAT WOULD REQUIRE EXCESSIVE PRUNING TO AVOID THE UTILITY LINES.
10. TREES WITH AGRESSIVE ROOT SYSTEMS SHALL REQUIRE SOME FORM OF ROOT GUIDING SYSTEM TO PREVENT THE UPHEAVAL OF ADJACENT ROADWAY PAVEMENT AND/OR SIDEWALKS.



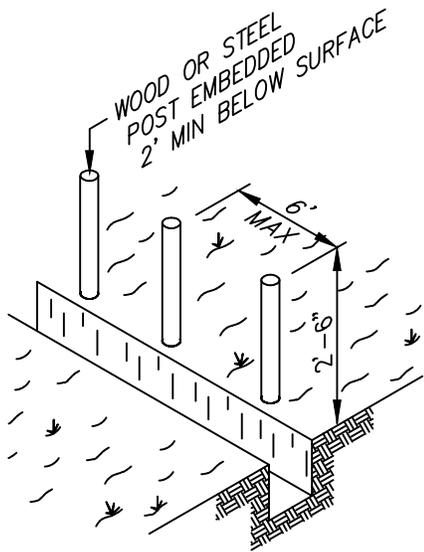
STANDARD CONSTRUCTION DETAIL
ROADWAY AND MISCELLANEOUS LANDSCAPING
DESIGN AND CONSTRUCTION NOTES

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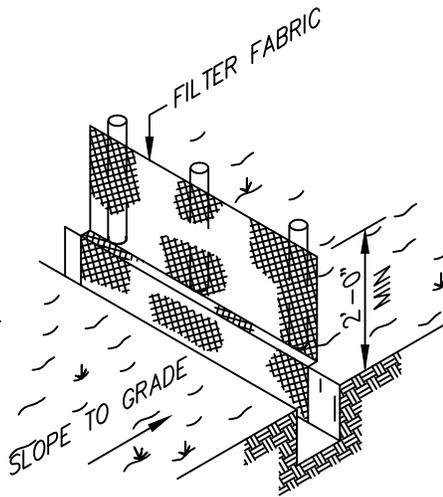
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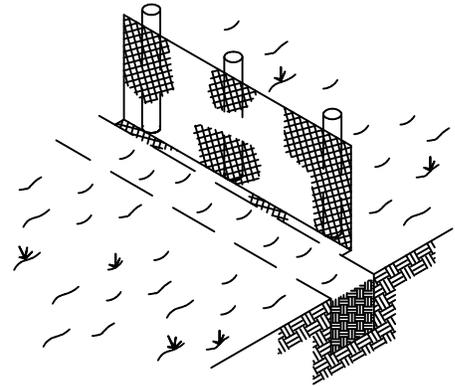
R-21B



SET POST AND
EXCAVATE A TRENCH



ATTACH FILTER FABRIC TO POST
ALLOWING 1 FT EXTENSION INTO
THE TRENCH AS SHOWN



BACKFILL AND COMPACT
EXCAVATED SOIL

SILT FENCE DETAIL

F.D.O.T. INDEX NO. 102

NOTES:

1. MATERIALS, CONSTRUCTION METHODS AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DESIGN STANDARDS CURRENT EDITION.
2. CONTRACTOR SHALL PROVIDE SILT FENCES AND HAY BALES AT ALL STORMWATER DISCHARGE POINTS FOR EROSION CONTROL AND SEDIMENT CONTROL DURING CONST.
3. CONTRACTOR SHALL ROUGH GRADE STORM-WATER SWALES AND RETENTION AREAS PRIOR TO CONSTRUCTION OF SITE IMPROVEMENTS.
4. CONTRACTOR SHALL MEET ALL PERMIT CONDITIONS AS ESTABLISHED BY THE CITY AND ALL OTHER APPLICABLE AGENCIES, INCLUDING BUT NOT LIMITED TO COUNTY, FDOT, AND THE SJRWMD.



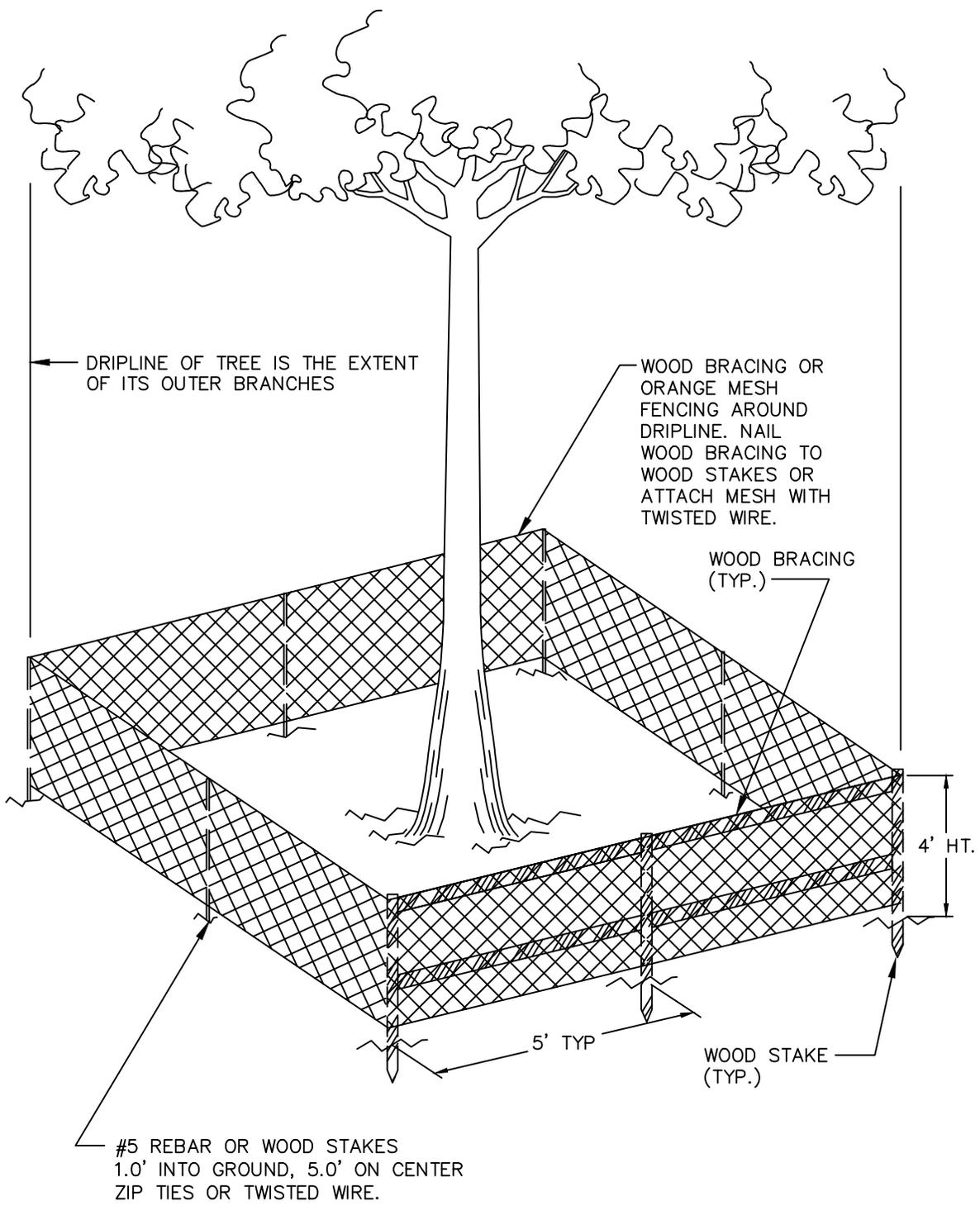
STANDARD CONSTRUCTION DETAIL
SILT FENCE TURBIDITY BARRIER

FILE NAME:

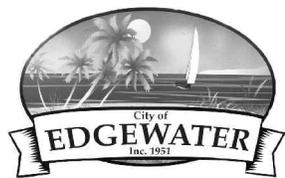
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DETAIL REF:

R-22



NOTE: BARBED WIRE FENCING IS NOT PERMISSIBLE



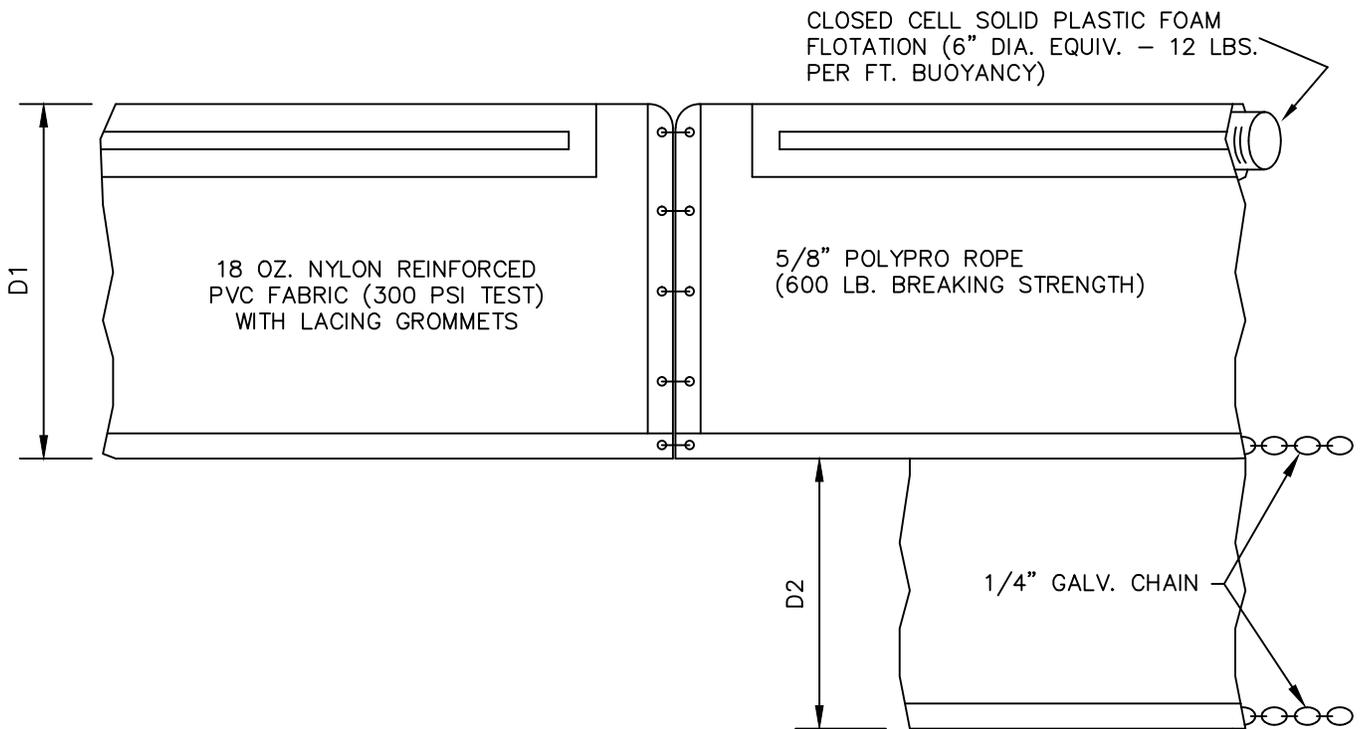
STANDARD CONSTRUCTION DETAIL
TREE PROTECTION BARRICADE

FILE NAME:

EW_R23.DWG

DETAIL REF:

R-23



FLOATING TURBIDITY BARRIER

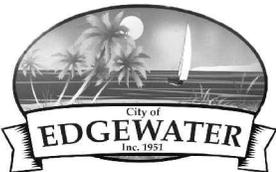
F.D.O.T. INDEX NO. 103

D1 – 5 FT. STD. SINGLE PANEL FOR DEPTHS 5 FT. OR LESS

D2 – 5 FT. STD. ADDITIONAL PANEL FOR DEPTHS GREATER THAN 5 FT.

CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FT.

TWO PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FT.



STANDARD CONSTRUCTION DETAIL
FLOATING TURBIDITY BARRIER

FILE NAME:

EW_R24.DWG

DETAIL REF:

R-24

CONTRACTOR REQUIREMENTS FOR SITE CLEARING,
GRADING, AND EROSION CONTROL DESIGN AND
CONSTRUCTION NOTES

THE FOLLOWING MEASURES REPRESENT MINIMUM STANDARDS TO BE ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION OF A PROJECT. THE CITY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO BE EMPLOYED WHEN WARRANTED BY EXTREME CONDITIONS AND/OR THE FAILURE OF THE CONTRACTOR TO EMPLOY THE APPROPRIATE EROSION CONTROL BEST MANAGEMENT PRACTICES. FAILURE TO COMPLY WITH THESE PROVISIONS SHALL RESULT IN THE ISSUANCE OF A "STOP WORK ORDER".

1. NO DISTURBANCE OF PROPOSED CONSERVATION EASEMENTS, NATURAL BUFFERS, OR WATER BODIES IS PERMITTED. THE CONTRACTOR SHALL LOCATE THESE AREAS ON SITE AND BARRICADE THEM TO AVOID ANY UNAUTHORIZED CLEARING. BARRICADES AND OTHER PROTECTIVE FENCING ARE TO BE LOCATED AT THE DRIP LINE OF EXISTING NATIVE TREES OR AT THE EDGE OF THE NATIVE UNDER-STORY HABITAT, WHICHEVER IS NEAREST TO THE CONSTRUCTION ACTIVITY.
2. SPECIMEN AND HISTORIC TREES, CONSERVATION EASEMENTS, NATURAL VEGETATION BUFFERS, AND SIMILAR AREAS MUST BE PROTECTED BY BARRICADES OR FENCING PRIOR TO CLEARING. BARRICADES ARE TO BE SET AT THE DRIP LINE OF THE TREES AND MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. BARBED WIRE IS NOT PERMITTED AS A PROTECTIVE BARRIER.
3. WHERE A CHANGE OF GRADE OCCURS AT THE DRIP LINE OF A SPECIMEN TREE, SILT FENCES WILL BE REQUIRED DURING CONSTRUCTION AND RETAINING WALLS MUST BE INSTALLED PRIOR TO FINAL ACCEPTANCE BY THE CITY.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL PROTECTIVE VEGETATION BARRICADES AND EROSION CONTROL STRUCTURES AND MEASURES IN PLACE PRIOR TO THE COMMENCEMENT OF ANY EARTHWORK, INCLUDING PRELIMINARY GRUBBING. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, TEMPORARY CONSTRUCTION FENCES, HAY BALES, SILT FENCES, AND FLOATING TURBIDITY BARRIERS. FURTHER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF THE ENTIRE PROJECT. MAINTENANCE SHALL INCLUDE PERIODIC INSPECTION AND REMOVAL OF DEBRIS ABUTTING EROSION CONTROL DEVICES.
5. PRIOR TO THE INSTALLATION OF ANY FILL MATERIALS ON SUBJECT SITE, SILT FENCES SHALL BE INSTALLED (1) ALONG SUBJECT SITE BOUNDARY AND PROPERTY LINES, (2) AT THE EDGE OF CONSERVATION EASEMENTS AND WETLANDS, (3) ADJACENT TO NATURAL LANDSCAPE BUFFERS, (4) AROUND THE PERIMETER OF EXISTING STORM WATER TREATMENT FACILITIES, AND (5) AT ANY ADDITIONAL AREAS THAT THE CITY DEEMS NECESSARY TO BE PROTECTED FROM POTENTIAL EROSION IMPACTS DURING CONSTRUCTION. THESE CONDITIONS SHALL APPLY IN ALL INSTANCES WHERE FILL MATERIAL IS BEING INSTALLED WITHIN 25 FEET OF ANY OF THE AFOREMENTIONED LOCATIONS. WHILE THESE ITEMS REPRESENT THE MINIMUM REQUIREMENTS, THE CITY RESERVES THE RIGHT TO IMPOSE ADDITIONAL PROTECTIVE MEASURES, AS DETERMINED DURING ACTUAL SITE VISITS CONDUCTED AS PART OF THE STANDARD REVIEW OF THE SITE-SPECIFIC CLEARING PERMIT APPLICATION AND THROUGHOUT PROJECT CONSTRUCTION.
6. WHERE FILL MATERIAL IS INTENDED TO BE INSTALLED ADJACENT TO EXISTING VEGETATION WHICH IS INTENDED TO REMAIN NATURAL, THE CONTRACTOR MAY INSTALL SILT FENCING AS A TREE PROTECTION MEASURE, IN LIEU OF INSTALLING EITHER WOOD BRACING OR ORANGE MESH FENCING. THIS PRACTICE IS ENCOURAGED BY THE CITY. IF THE SILT FENCE FAILS TO PROVIDE ADEQUATE PROTECTION FROM IMPACT DUE TO CONSTRUCTION, THEN ADDITIONAL CONSTRUCTION FENCING OR WOOD BRACING SHALL BE REQUIRED.
7. AT A MINIMUM, THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. SUFFICIENT GRASS COVERAGE IS TO BE ESTABLISHED WITHIN THIRTY DAYS. - DISTURBED AREAS IN CITY RIGHT-OF-WAYS OR CITY PROPERTY SHALL BE SODDED.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGH SCHEDULING, TO MINIMIZE THE DISTURBANCE OF SITE AREAS THAT HAVE BEEN BROUGHT TO THEIR PROPOSED FINAL GRADE. WITHIN TWENTY DAYS OF BRINGING A SUBJECT AREA TO ITS FINAL GRADE, THE CONTRACTOR SHALL INSTALL SEED AND MULCH OR SOD, AS REQUIRED.



STANDARD CONSTRUCTION DETAIL
CONTRACTOR REQUIREMENTS FOR
SITE CLEARING, GRADING, AND EROSION CONTROL
DESIGN AND CONSTRUCTION NOTES

FILE NAME:

EW_R25.DWG

DETAIL REF:

R-25

CONTRACTOR REQUIREMENTS FOR SITE CLEARING,
GRADING, AND EROSION CONTROL DESIGN AND
CONSTRUCTION NOTES (CONTD.)

9. FOR INDIVIDUAL CONSTRUCTION PROJECTS INVOLVING MULTIPLE PHASES, UPON COMPLETION OF EACH PHASE OF THE PROJECT, SEEDING AND MULCHING AND OR/ SODDING IS TO BE PERFORMED PRIOR TO COMMENCING THE NEXT PHASE OF CONSTRUCTION.
10. ONCE AN AREA IS SEEDED OR SODDED, IT MUST BE MAINTAINED BY THE CONTRACTOR TO ALLOW THE GRASS TO BECOME ESTABLISHED.
11. ANY BURNING OF CLEARED MATERIALS MUST BE INSPECTED AND PERMITTED ON A DAILY BASIS. CONTACT THE CITY FIRE MARSHALL AT 424-2412 PRIOR TO EACH DAY OF DESIRED BURNING.
12. ABSOLUTELY NO BURYING OF CLEARED MATERIALS IS PERMITTED.
13. THE REMOVAL OF ALL VEGETATION AND TOPSOIL ON THE FUTURE ROADWAY, PARKING AND BUILDING LOT AREAS IS REQUIRED TO BE COMPLETED PRIOR TO THE PLACEMENT OF FILL ON THOSE AREAS. THE TOPSOIL MAY BE TEMPORARILY STOCKPILED AND USED AS TOPSOIL OVER OVER PROPOSED GREEN AREAS SUCH AS PLANT BEDS, SODDED AREAS, AND WHERE TREES ARE TO BE INSTALLED OR RELOCATED.
14. A SIGNED, DATED, AND SEALED LETTER FROM A SOILS ENGINEER OR THE ENGINEER OF RECORD CERTIFYING THAT THE AREAS TO BE FILLED HAVE BEEN STRIPPED OF ORGANIC MATERIALS, MUST BE SUBMITTED TO THE CITY PRIOR TO FILLING.
15. FILL MATERIAL IS TO BE PLACED IN ONE FOOT LIFTS AND COMPACTED TO THE APPROPRIATE DENSITY (98% FOR PAVED AREAS AND 95% FOR BUILDING PADS AND ALL OTHER AREAS AS PER AASHTO T-180).
16. DURING SUBDIVISION DEVELOPMENT WHEN FUTURE BUILDING LOTS ARE FILLED AS PART OF THE OVERALL SUBDIVISION IMPROVEMENTS, COMPACTION TEST REPORTS MUST BE PERFORMED ON THE BUILDING LOTS AT 300 FOOT INTERVALS. THESE TESTS ARE TO BE PERFORMED IN ONE-FOOT VERTICAL INCREMENTS. THE RESULTS OF THESE TESTS ARE TO BE SUBMITTED TO THE CITY UPON COMPLETION OF THE TESTS.
17. IF ANY MUCK MATERIAL IS DISCOVERED, IT SHALL BE REQUIRED TO BE REMOVED AND REPLACED WITH A SUITABLE MATERIAL THAT IS PROPERLY BACKFILLED, COMPACTED AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
18. STOCKPILING IS NOT GENERALLY PERMITTED BY THE CITY. WHEN ALLOWED, STOCKPILES SHALL NOT EXCEED SIX FEET IN HEIGHT MEASURED FROM THE ORIGINAL GRADE. AT A MINIMUM, STOCK PILES THAT WILL REMAIN IN PLACE IN EXCESS OF TWENTY DAYS SHOULD BE SEEDED AND MULCHED IMMEDIATELY UPON PLACEMENT OF THE FINAL LIFT.
19. SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION AND THE IMPACT TO NEIGHBORING COMMUNITIES. ADEQUATE WATERING METHODS SHOULD BE EMPLOYED TO ALLOW DAILY COVERAGE OF THE ENTIRE LIMITS OF ALL AREAS THAT DO NOT HAVE AN ESTABLISHED VEGETATIVE COVER. METHODS TO BE EMPLOYED INCLUDE, BUT ARE NOT LIMITED TO, WATER TRUCKS, PERMANENT IRRIGATION SYSTEMS, TEMPORARY SPRINKLER SYSTEMS OPERATED BY PUMPING UNITS CONNECTED TO WET RETENTION PONDS, WATER CANNONS, TEMPORARY IRRIGATION SYSTEMS MOUNTED ATOP STOCKPILE AREAS, AND OTHER METHODS AS DEEMED NECESSARY BY THE CITY.
20. ALL FILL MATERIALS LOCATED BENEATH STRUCTURES AND PAVEMENT SHALL CONSIST OF CLEAN GRANULAR SAND FREE FROM ORGANICS AND SIMILAR MATERIAL THAT COULD DECOMPOSE.
21. ALL FILL TO BE PLACED IN LANDSCAPED AREAS SHALL HAVE A Ph RANGE BETWEEN 5.5 AND 7.5, BE ORGANIC IN NATURE, FREE OF ROCKS AND DEBRIS, OR MATCH NATIVE EXISTING SOILS.



STANDARD CONSTRUCTION DETAIL
CONTRACTOR REQUIREMENTS FOR
SITE CLEARING, GRADING, AND EROSION CONTROL
DESIGN AND CONSTRUCTION NOTES

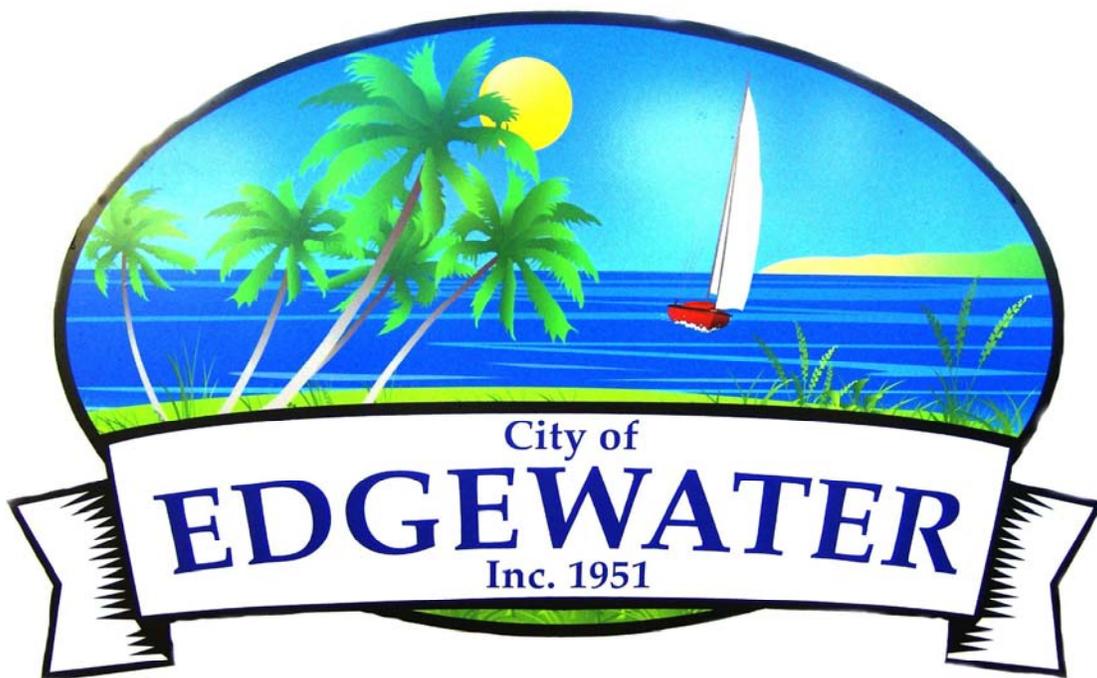
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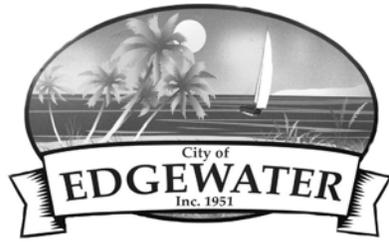
DETAIL REF:

R-26

The City of Edgewater



STANDARD CONSTRUCTION DETAILS



CITY OF EDGEWATER

STANDARD CONSTRUCTION DETAILS

CITY OF EDGEWATER
DEPARTMENT OF ENVIRONMENTAL SERVICES
409 MANGO TREE DRIVE
EDGEWATER, FLORIDA 32132
TELEPHONE (386) 424-2476
FAX (386) 424-2480

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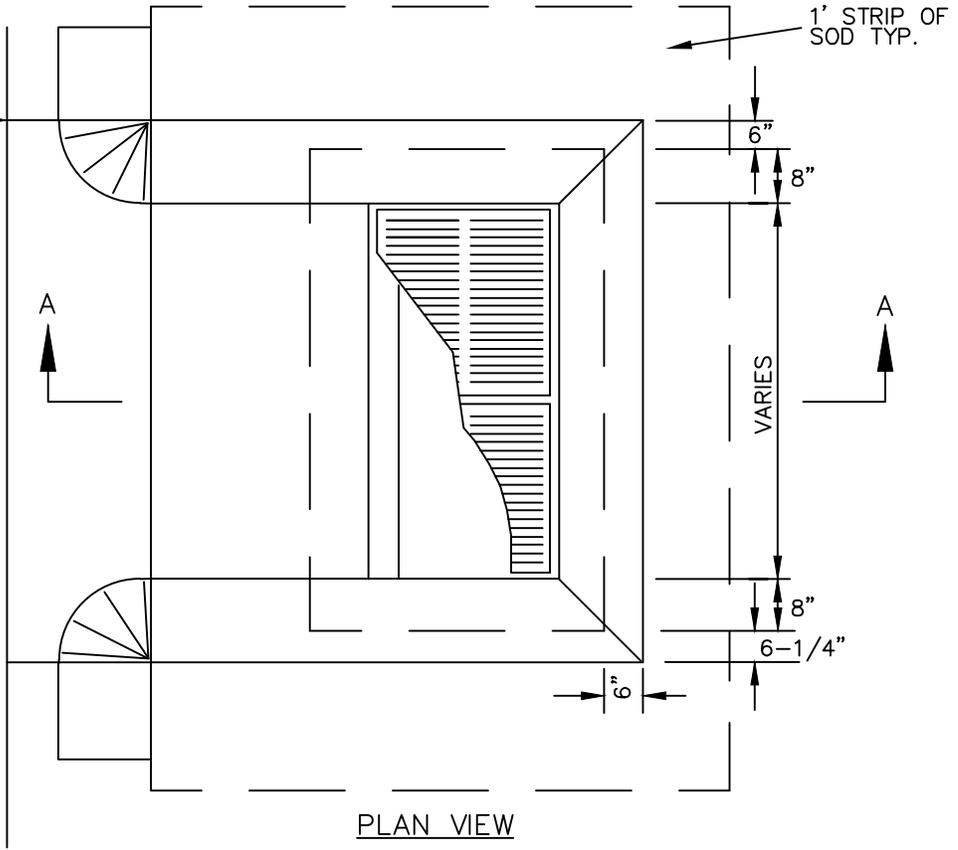
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STORM DRAINAGE DETAILS

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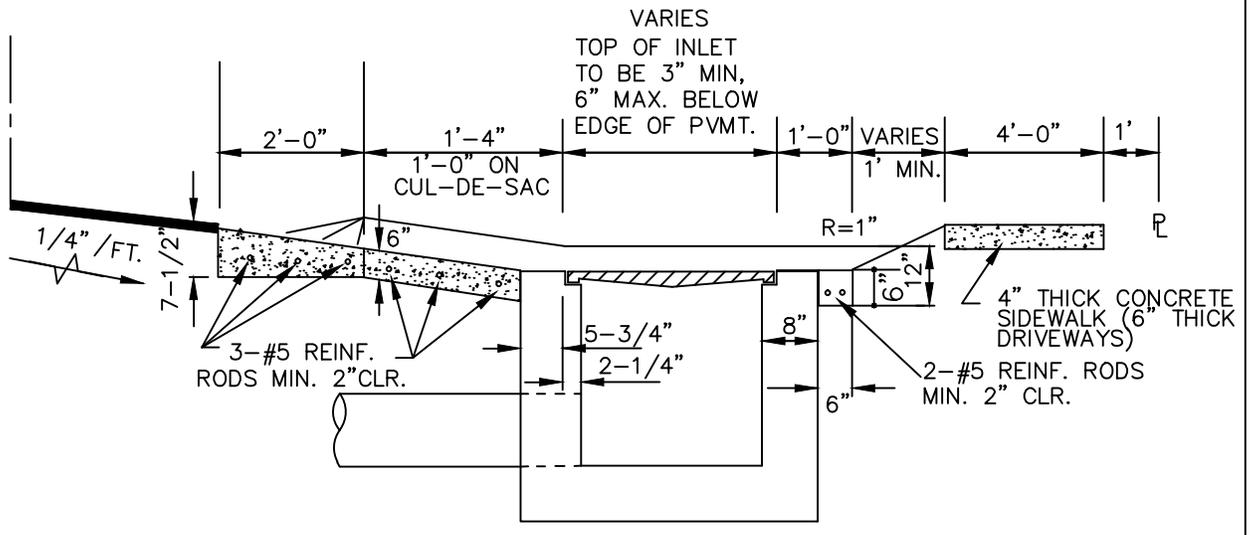
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INDEX

1/2" EXPANSION
JOINT TYP.

1' STRIP OF
SOD TYP.



PLAN VIEW

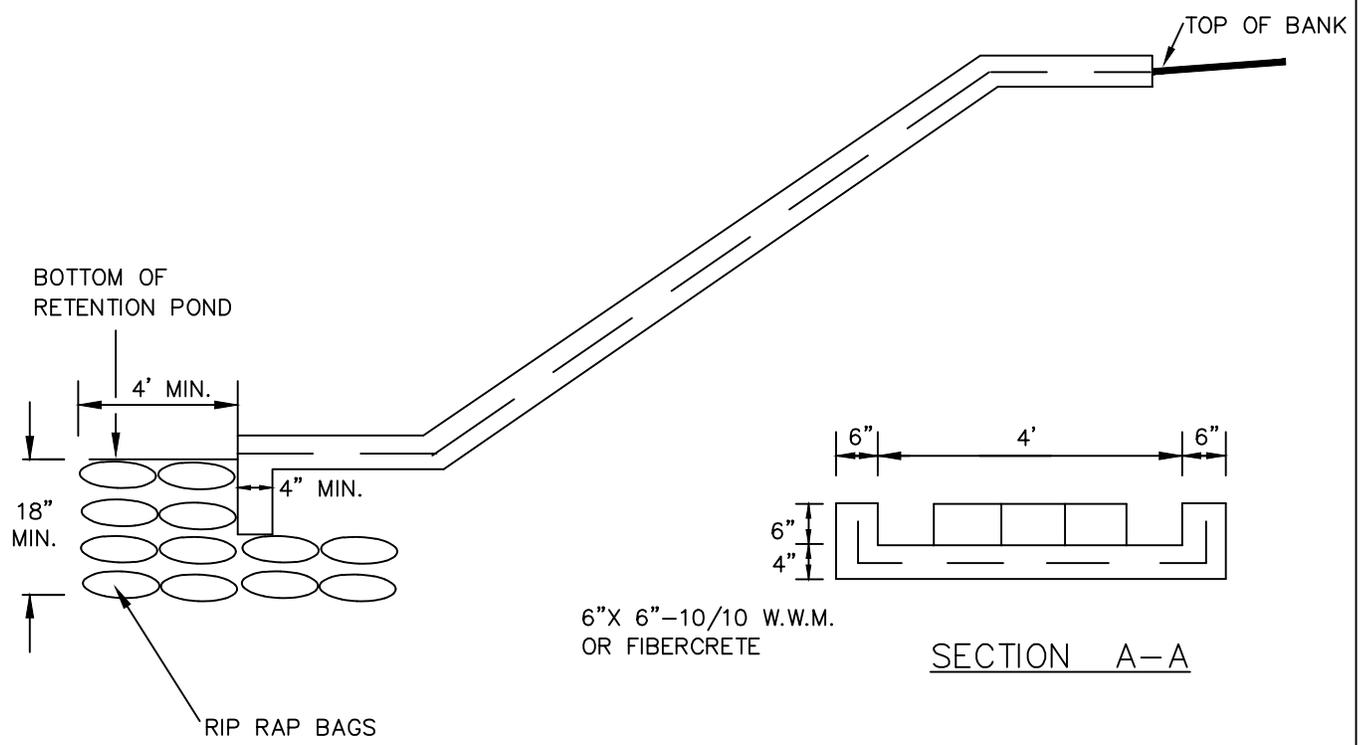
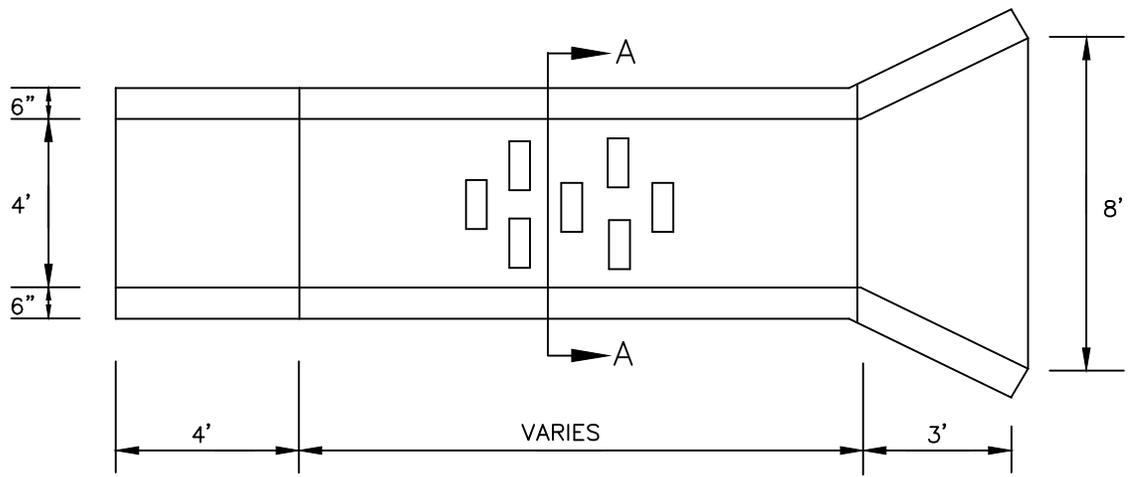


SECTION A-A



STANDARD CONSTRUCTION DETAIL
STORM INLET APRON

FILE NAME:	EW_ST1.DWG
DETAIL REF:	ST-1



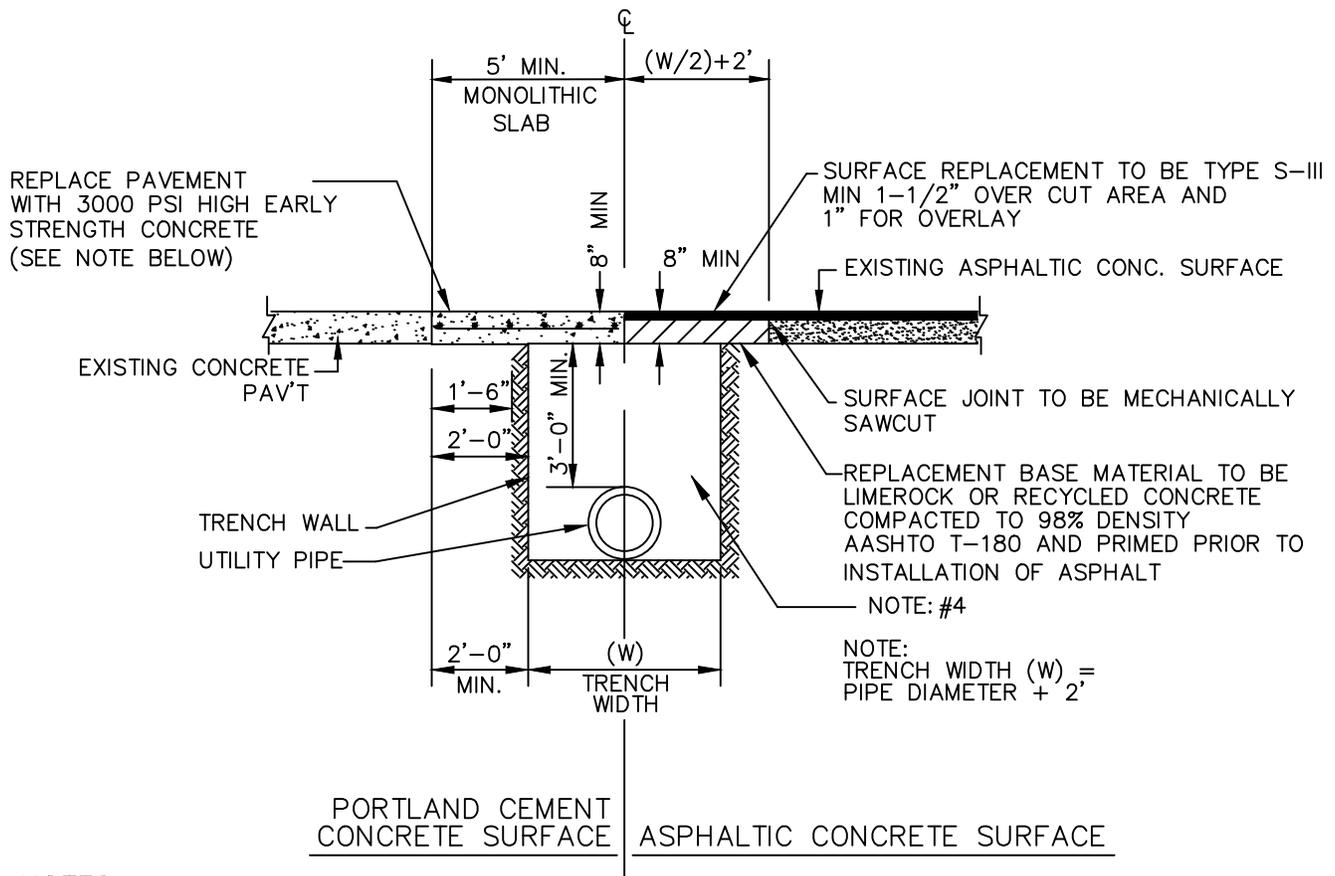
NOTES:

1. CONCRETE SPILLWAY TO BE 28 DAY, 3000 P.S.I., 4" THICK.
2. PLACE SOD AT LEAST 5' AROUND ALL STRUCTURE EDGES ABOVE STANDING WATER.
3. PLACE RIP RAP BAGS UNDER BOTTOM OF END OF SPILLWAY 4' AND 18" MINIMUM DEPTH.



STANDARD CONSTRUCTION DETAIL
CONCRETE SPILLWAY

FILE NAME:	EW_ST2.DWG
DETAIL REF:	ST-2



NOTES:

1. PAVING REPLACEMENT SHALL INCLUDE RAISING ALL MANHOLE FRAMES AND LIDS AND VALVE BOXES AND LIDS (AND SIMILAR APPURTENANCES) TO FINAL ELEVATION PRIOR TO RESURFACING
2. SUBBASE TO BE COMPACTED TO 98% MAXIMUM DENSITY AASHTO T-180
3. IN AREAS WHERE CONCRETE PAVEMENT IS TO BE UTILIZED, 3000 PSI - 28 DAY STRENGTH CONCRETE PAVEMENT MAY BE PERMITTED PROVIDED THAT THE SUBJECT AREA WILL REMAIN FREE OF VEHICULAR TRAFFIC FOR A MINIMUM OF 3 DAYS.
4. 350 PSI. FLOWABLE FILL SHALL BE USED UPON DIRECTION BY CITY ENGINEER.



STANDARD CONSTRUCTION DETAIL
PAVEMENT TRENCH RESTORATION

FILE NAME:

EW_ST3.DWG

DETAIL REF:

ST-3

STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES

ALL MATERIALS AND INSTALLATION METHODS USED FOR LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS FOR SUBDIVISIONS AND SITE PLANS SHALL BE IN CONFORMANCE WITH THE CITY, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

1. ALL STORM SEWERS AND CULVERTS LOCATED IN ROADWAY RIGHTS-OF-WAY AND ROADWAY EASEMENTS SHALL BE A MINIMUM OF CLASS III REINFORCED CONCRETE PIPE. PRIVATE SITES AND AREAS OUTSIDE OF ROADWAY EASEMENTS AND R.O.W., PIPE MAY BE MADE OF ALTERNATE MATERIALS INCLUDING:
 - A. SMOOTH INNER WALL HIGH DENSITY POLYETHYLENE (HDPE) IN ACCORDANCE WITH AASHTO M-294, AASHTO MP7, ASTM D3350 AND ASTM D2412 FOR SIZES UP TO 42" IN DIAMETER OR
 - B. PVC IN ACCORDANCE WITH THE PROVISION NOTED IN THE "SEWER DETAILS" OF THESE SPECIFICATIONS.

2. ALL STORM SEWER PIPE JOINTS LOCATED IN ROADWAY RIGHTS-OF-WAY AND ROADWAY EASEMENTS SHALL BE ENTIRELY WRAPPED WITH FILTER FABRIC WITH A MINIMUM WIDTH OF 24" AND A MINIMUM OF 24" OVERLAP SECURED WITH PLASTIC OR STAINLESS BANDS. GASKETS ARE NOT PERMITTED AS AN EQUIVALENT SUBSTITUTE FOR MEETING THIS REQUIREMENT. THIS PRACTICE IS REQUIRED ON PRIVATE SITES. ADDITIONALLY, ALL JOINTS SHALL BE RUBBER GASKETED FOR BOTH ROUND AND ELLIPTICAL PIPE.

3. DEPTH OF COVER MEASURED TO THE TOP OF PIPE (NOT INCLUDING THE BELL JOINT) SHALL BE A MINIMUM OF 1 FOOT. DEVIATION FROM THIS REQUIREMENT MAY BE ALLOWED BY INCREASING THE PIPE'S STRUCTURAL CAPACITY. THIS DEVIATION MUST BE SPECIFIED ON THE PLANS APPROVED FOR CONSTRUCTION AND SUBSEQUENTLY REFLECTED ON THE SHOP DRAWINGS AND AS-BUILT PLANS.

4. ALL STORM DRAINAGE PIPES LOCATED IN ROADWAY RIGHTS-OF-WAY AND ROADWAY EASEMENTS SHALL BE A MINIMUM OF TWELVE INCH (12") DIAMETER OR EQUIVALENT AND BE DESIGNED FOR A MINIMUM OF A TWENTY-FIVE (25) YEAR STORM OF TWENTY-FOUR (24) HOUR DURATION. STORM DRAINAGE PIPES SMALLER THAN 12" ARE PERMITTED ON PRIVATE SITE PLANS PROVIDING THAT MAINTENANCE SHALL BE PERFORMED BY THE OWNER.

5. STORM INLETS, MANHOLES, AND CATCH BASINS SHALL BE EITHER POURED IN PLACE OR PRECAST REINFORCED CONCRETE. STRUCTURES SHALL BE REQUIRED AT EACH CHANGE OF PIPE SIZE OR CHANGE IN PIPE DIRECTION. ALL STRUCTURES SHALL BE IN COMPLIANCE WITH ASTM C-478 AND SHALL HAVE 8" THICK WALLS. 6" THICK WALLS MAY BE PERMITTED PROVIDING THAT THE PLANS SPECIFY INCREASED REINFORCEMENT IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 201 IN ADDITION, THIS REQUIREMENT MUST BE REFLECTED ON BOTH THE SHOP DRAWING AND AS-BUILT PLANS. NOTE: INLET APRONS MAY REQUIRE EXPANSION JOINTS AROUND THE STRUCTURE AS DICTATED BY THE CITY.

6. STORM INLETS SHALL BE SPACED IN SUCH A MANNER AS TO ACCEPT ONE HUNDRED (100) PERCENT OF THE DESIGN STORM RUNOFF WITHOUT IMPEDING THE FLOW OF TRAFFIC. FOR ROADWAY SECTIONS WITH DESIGN SPEEDS OF 45 MPH AND LESS AND WITHOUT FULL WIDTH SHOULDERS, SPREAD RESULTING FROM A RAINFALL INTENSITY OF FOUR INCHES (4 ") PER HOUR SHALL NOT EXCEED ONE-HALF OF THE TRAVEL LANE ADJACENT TO THE GUTTER. FOR SITE PLANS, INLET SPACING SHALL BE DESIGNED TO ACCEPT ONE HUNDRED (100) PERCENT OF THE RUNOFF FROM A RAINFALL INTENSITY OF FOUR INCHES (4 ") PER HOUR WITHOUT RESULTING IN PONDING OF WATER AROUND THE INLET.

7. LAKE DEPTHS SHALL BE EIGHT FEET (8') MINIMUM TO TWELVE FEET (12') MAXIMUM, MEASURED FROM HIGH WATER MARK.



STANDARD CONSTRUCTION DETAIL
STORM DRAINAGE DESIGN
AND CONSTRUCTION NOTES

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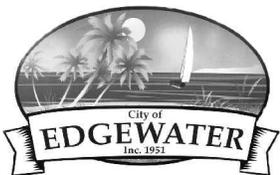
EW_ST4.DWG

DETAIL REF:

ST-4

STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES
(CONTD.)

8. FOR CONNECTIONS BETWEEN INLETS WITH PIPING 15" IN DIAMETER AND LARGER, THE MAXIMUM DISTANCES BETWEEN INLETS AND / OR CLEAN-OUT JUNCTION BOXES SHALL BE 300 FEET. CULVERTS SHALL BE SLOPED TO MAINTAIN A MINIMUM SELF-CLEANING VELOCITY OF 3 FEET PER SECOND USING A MANNING'S 'n' OF 0.012. SPACING FOR CLEAN-OUTS AND INLETS FOR SMALLER PIPING SHALL BE REDUCED AND EVALUATED ON A CASE BY CASE BASIS.
9. THE MAXIMUM PERMISSIBLE SLOPE OF ANY NEW SITE GRADING IS 3:1 (HORIZONTAL:VERTICAL). THIS LIMIT SHALL BE APPLIED TO ALL AREAS EXCEPT STORMWATER CONVEYANCE AND TREATMENT SYSTEMS WHICH HAVE A MAXIMUM SLOPE OF 4:1 (EXCEPT BELOW THE WATER TABLE WHERE SHARPER SLOPES ARE PERMISSIBLE.)
10. ALL SWALES AND DITCHES SHALL HAVE A MAXIMUM PERMITTED SIDE SLOPE NOT GREATER THAN 4 TO 1 AT A MINIMUM. THE MAXIMUM PERMITTED BACKSLOPE, SHALL BE 3:1, PROVIDED THAT A 2' WIDE BERM IS INSTALLED. DESIGN CENTERLINE AND TOP-OF-BANK ELEVATIONS SHALL BE NOTED AT INTERVALS OF 100'.
11. SWALES THAT ARE NORMALLY DRY AND INTENDED FOR CONVEYANCE OF STORMWATER RUNOFF AND ARE NOT INTENDED FOR RETENTION SHALL HAVE A MINIMUM DRAINAGE MAINTENANCE EASEMENT WIDTH MEASURING 15 FEET. SWALED AREAS INTENDED FOR RETENTION SHALL PROVIDE APPROPRIATE EASEMENT AREAS FOR ACCESS AND MAINTENANCE MEASURED UPLAND FROM THE TOP OF BANK. AT A MINIMUM, THE SAID EASEMENT SHALL MEASURE 10' FEET IN WIDTH FROM THE TOP OF THE SWALE.
12. PIPED STORMWATER SYSTEMS SHALL HAVE A MINIMUM DRAINAGE MAINTENANCE EASEMENT WIDTH OF 20 FEET, AND MAY BE INCREASED DEPENDING UPON THE SIZE AND DEPTH OF PIPE.
13. NORMAL ROADSIDE SWALES ARE PERMITTED TO BE CONSTRUCTED TO A MAXIMUM DEPTH OF 18" BELOW THE OUTSIDE EDGE OF PAVEMENT OR CONCRETE CURB.
14. CONCRETE EROSION CONTROL MUST BE PROVIDED WHERE SWALES OR CULVERTS INTERCEPT DRAINAGE DITCHES.
15. WHEN A LAKE IS INCORPORATED WITHIN A SUBDIVISION AND IS ABUTTED BY LOTS, SUCH ABUTTING LOT LINES SHALL BE EXTENDED INTO THE LAKE PROPORTIONATELY ENCOMPASSING ALL OF THE LAKE AREA.
16. LAKE INFLOW AND OUTLET STRUCTURES SHALL GENERALLY BE CONSTRUCTED WITH REINFORCED CONCRETE AND SHALL BE SUBJECT TO THE APPROVAL OF THE CITY. SKIMMERS FOR WET PONDS SHALL BE CONSTRUCTED SUCH THAT THE BOTTOM EXTENDS 6" BELOW THE NORMAL WATER LEVEL AND 6" ABOVE THE OVERFLOW. FOR DRY PONDS, THE SKIMMER BOTTOM SHALL BE SET 6" BELOW THE LOWEST OVERFLOW ELEVATION AND 6" ABOVE THE HIGHEST POINT OF OVERFLOW. ALL SKIMMERS SHALL BE CONSTRUCTED OF MINIMUM 1/4" THICK ALUMINUM OR FIBERGLASS ADEQUATELY SUPPORTED TO PREVENT DEFLECTION.



STANDARD CONSTRUCTION DETAIL
STORM DRAINAGE DESIGN
AND CONSTRUCTION NOTES

FILE NAME:

EW_ST5.DWG

DETAIL REF:

ST-5

STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES
(CONTD.)

17. EROSION AND SEDIMENT CONTROL PLANS AS APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SHALL BE EMPLOYED AT ALL TIMES. AT A MINIMUM, BEST MANAGEMENT PRACTICES (BMP's) SHALL BE UTILIZED.
18. THE CITY MAY REQUEST THAT THE DEVELOPER SUBMIT A REPORT BY A QUALIFIED HYDROLOGIST ON THE IMPACT THE LAKE WILL HAVE ON NEIGHBORING WATER TABLE ELEVATIONS BOTH DURING CONSTRUCTION AND AFTER LAKE COMPLETION. THE CITY MAY REQUIRE GROUNDWATER MONITORING DURING THE LAKE EXCAVATION.
19. ADEQUATE MAINTENANCE EASEMENTS OR RIGHTS-OF-WAY AS APPROVED BY THE CITY SHALL BE PROVIDED AROUND THE ENTIRE PERIMETER OF ALL LAKES AND ASSOCIATED OUTFALLS DISCHARGING INTO AND OUT OF LAKES. APPLICABLE CROSS SECTIONS SHALL BE INCLUDED ON ALL FINAL DEVELOPMENT PLANS.
20. DEVELOPMENT PLANS FOR ALL STORMWATER MANAGEMENT SYSTEMS SHALL CONTAIN POP-OFF DATA (OVERFLOW), BOTTOM ELEVATION, NORMAL WATER LEVELS, MEAN ANNUAL SEASONAL HIGH WATER TABLE ELEVATION, TREATMENT VOLUME AND CORRESPONDING ELEVATION, 100 YEAR HIGH WATER LEVELS, AND THE DESIGN TAILWATER ELEVATION (IF APPLICABLE).
21. IN GENERAL, ALL RETENTION / DETENTION SITES MUST BE CONSTRUCTED ON ALL PROJECTS PRIOR TO ANY ROAD, PARKING LOT, OR BUILDING CONSTRUCTION COMMENCING OR AS CURRENT PERMIT CONDITIONS DICTATE. SEWER AND WATER MAINS MAY BE INSTALLED PRIOR TO RETENTION/DETENTION SITE CONSTRUCTION IF DEWATERING IS NOT REQUIRED.
22. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ANY AND ALL DEWATERING PERMITS THAT MAY BE REQUIRED.
23. WHEN CULVERTS ARE INSTALLED TO MAINTAIN THE FLOW OF EXISTING DRAINAGE WAYS WHERE NEWLY PROPOSED ROADS WOULD OTHERWISE SEVER THE DRAINAGE WAY, THEN CULVERTS CROSSING RIGHTS-OF-WAY SHALL EXTEND FROM RIGHT-OF-WAY LINE TO RIGHT-OF-WAY LINE UNDER THE ROADWAY. CULVERTS SHALL BE DESIGNED TO ACCOMODATE THE FLOW FROM THE 100 YEAR - 24 HOUR STORM EVENT WITHOUT FLOODING ADJACENT PROPERTY OR SURCHARGING THE SAID ROADWAY.
24. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW AND MAINTAIN A COPY OF THE SJRWMD PERMIT AND/ OR NPDES CONSTRUCTION PERMIT AT THE CONSTRUCTION SITE, AND ABIDE BY ALL CONDITIONS OF THE PERMIT.
25. LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.



STANDARD CONSTRUCTION DETAIL
STORM DRAINAGE DESIGN
AND CONSTRUCTION NOTES

FILE NAME:

EW_ST6.DWG

DETAIL REF:

ST-6

CANAL AND WATERWAY DESIGN AND CONSTRUCTION NOTES

1. CANALS AND WATERWAYS SHALL BE AVOIDED EXCEPT WHEN APPROVED AND DEEMED BY THE CITY TO BE UNAVOIDABLE OR NECESSARY, WHEREIN LITERAL ENFORCEMENT OF THIS CHAPTER WOULD DEPRIVE THE DEVELOPER OF THE REASONABLE USE OF HIS LAND.
2. IN THE EVENT OF SUCH APPROVAL, THE CANALS OR WATERWAYS SHALL HAVE A MINIMUM OF TWENTY FEET (20') ADDITIONAL WIDTH ON EACH BANK MEASURED FROM THE TOP OF BANK AND LOCATED ALONG THE ENTIRE LENGTH OF THE CANAL FOR MAINTENANCE.
3. SUCH CANALS SHALL BE A MAXIMUM OF FORTY FEET (40') IN WIDTH PLUS REQUIRED MAINTENANCE AREAS.
4. CANALS SHALL HAVE A MINIMUM BOTTOM WIDTH OF THREE FEET (3') AND MAXIMUM PERMISSIBLE SIDE SLOPES OF 4:1 (HORIZONTAL: VERTICAL). SHARPER SLOPES MAY BE CONSIDERED BELOW THE NORMAL WATER LEVEL PROVIDING THAT ADDITIONAL BANK STABILIZATION MEASURES ARE INSTALLED BASED UPON THE RECOMMENDATIONS OF A CERTIFIED GEOTECHNICAL ENGINEER. CANAL BANKS SHALL BE SODDED.
5. WATERWAYS AFFECTED BY TIDAL ACTION SHALL HAVE A MINIMUM DEPTH OF NINE FEET (9') BELOW SEA LEVEL REFERENCING THE NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D.). THESE WATERWAYS SHALL BE SEPARATED FROM FRESH WATER BY SALINITY DAMS WITH SPILLWAY ELEVATIONS AS APPROVED BY THE CITY.
6. TWENTY FEET (20') WIDE DRAINAGE/MAINTENANCE EASEMENTS SHALL BE REQUIRED IN ORDER TO PROVIDE FOR THE NORMAL MAINTENANCE OF THESE WATER BODIES. THESE EASEMENTS SHALL BE ESTABLISHED BY THE CITY BASED ON EXISTING AND FUTURE CONDITIONS AS WELL AS THE TYPES OF MAINTENANCE EQUIPMENT AVAILABLE.



STANDARD CONSTRUCTION DETAIL
CANAL AND WATERWAY DESIGN AND
CONSTRUCTION NOTES

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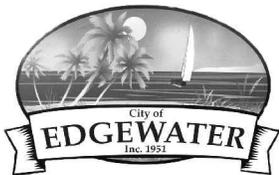
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DETAIL REF:

ST-7

BRIDGE DESIGN AND CONSTRUCTION NOTES

1. BRIDGES SHALL BE CONSTRUCTED WITH HEADER CURB ON BOTH SIDES RUNNING ITS COMPLETE LENGTH.
2. STANDARD 4'-WIDE SIDEWALKS SHALL BE PROVIDED ON BOTH SIDES AS FAR AWAY AS POSSIBLE FROM THE ROADWAY, BUT AT NO TIME CLOSER THAN TWO (2) FEET FROM THE EDGE OF THE FUTURE ROADWAY.
3. APPROACH GUARDRAILS OR FENCES SHALL BE PROVIDED WHERE REQUIRED FOR SAFETY BY THE CITY.
4. BRIDGE GEOMETRY, BRIDGE DESIGN, AND LOADING SHALL CONFORM TO THE DESIGN CRITERIA OF THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
5. PRIOR TO ACTUAL DESIGN OF THE BRIDGE, THE APPLICANT SHALL SUBMIT DESIGN LOAD CRITERIA TO THE CITY FOR APPROVAL.



STANDARD CONSTRUCTION DETAIL
BRIDGE DESIGN AND CONSTRUCTION NOTES

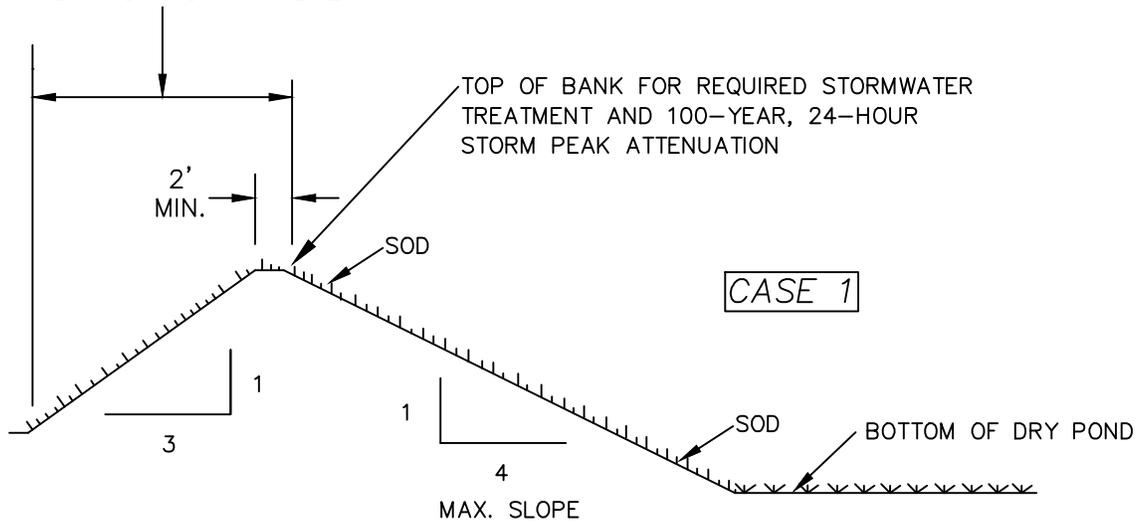
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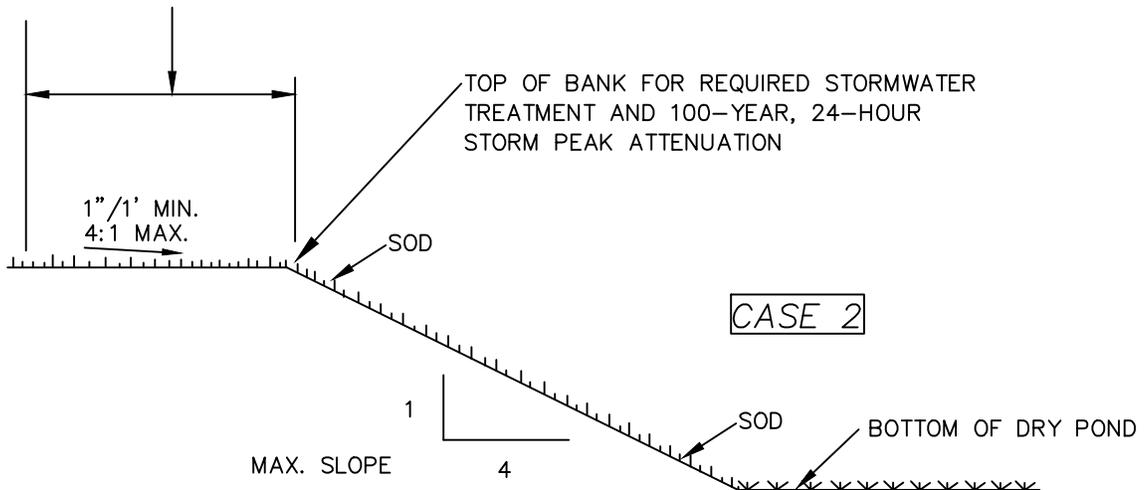
DETAIL REF:

ST-8

15' FROM ADJACENT PROPERTY LINE,
15' FROM EASEMENT LINE AND
5' FROM RIGHT-OF-WAY LINE



15' FROM ADJACENT PROPERTY LINE
15' FROM EASEMENT LINE AND
5' FROM RIGHT-OF-WAY LINE



NOTES:

1. SOD IS TO BE PLACED TO BOTTOM OF DRY POND.
2. BOTTOM OF DRY POND TO BE SEEDED AND MULCHED (EXCEPT WHERE "A"-TYPE SOILS ARE PRESENT WHICH REQUIRES SODDING OF ENTIRE BOTTOM OF POND).
3. CASE 1 BERM SHALL REQUIRE THE INSTALLATION OF LIMITING SOILS OR OTHER MATERIALS TO REDUCE LATERAL TRANSMISSIVITY.



STANDARD CONSTRUCTION DETAIL
DRY RETENTION POND
PLACEMENT BY R/W AND EASEMENT LINES

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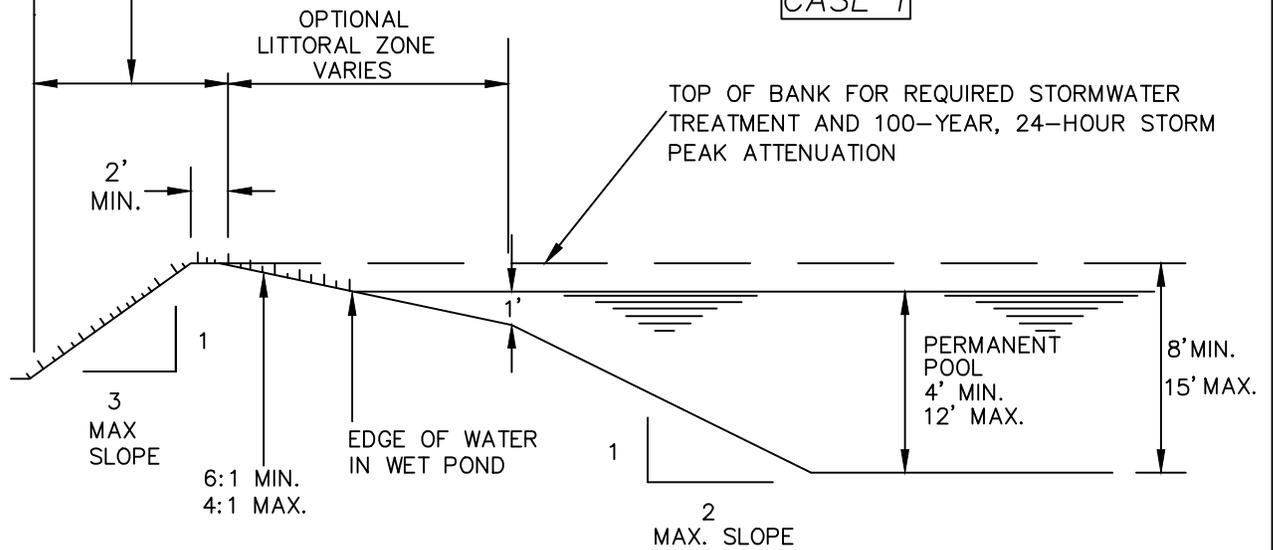
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ST-9

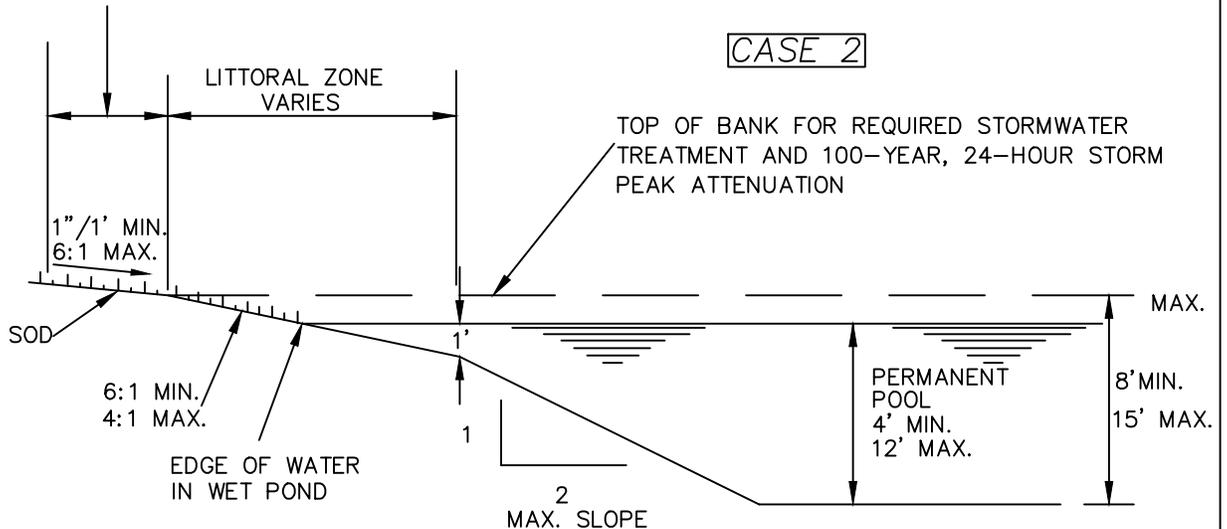
15' FROM ADJACENT PROPERTY LINE,
15' FROM EASEMENT LINE AND
5' FROM RIGHT-OF-WAY LINE

CASE 1



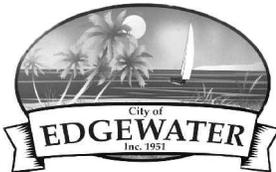
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15' FROM EASEMENT LINE AND
5' FROM RIGHT-OF-WAY LINE

CASE 2



NOTES:

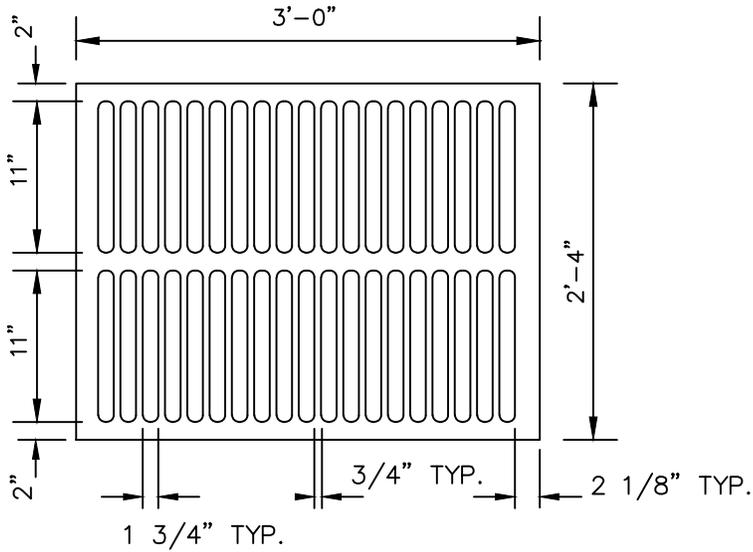
1. SOD IS TO BE PLACED TO EDGE OF WATER.
2. A PLANTED LITTORAL ZONE IS NOT PERMISSIBLE FOR SLOPES EXCEEDING 6:1.
3. AS AN OPTION TO A LITTORAL ZONE, THE DESIGNER CAN EITHER:
 - A) PROVIDE AN ADDITIONAL 50% OF THE PERMANENT POOL VOLUME, AS REQUIRED, OR
 - B) PROVIDE PRETREATMENT OF THE STORMWATER PRIOR TO ENTERING THE WET DETENTION POND.
4. **CASE 1** BERM SHALL REQUIRE THE INSTALLATION OF LIMITING SOILS OR OTHER MATERIALS TO REDUCE LATERAL TRANSMISSIVITY.



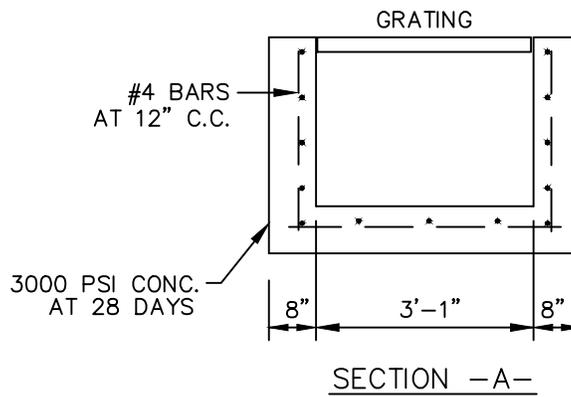
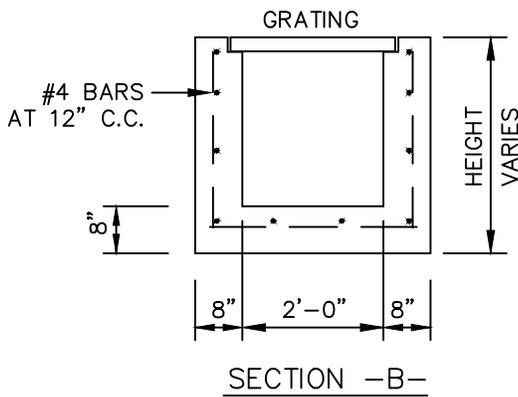
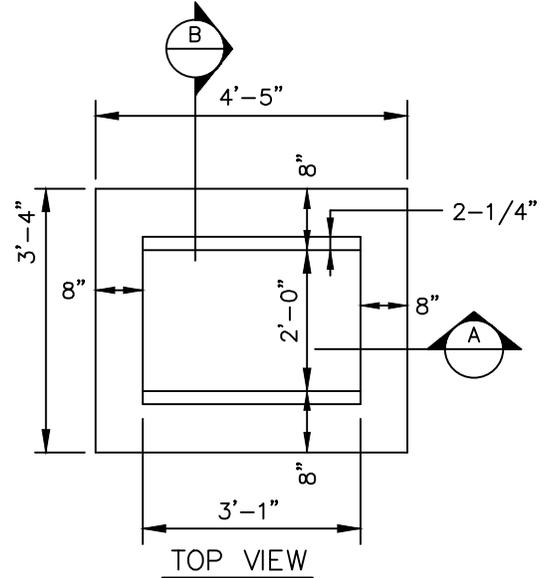
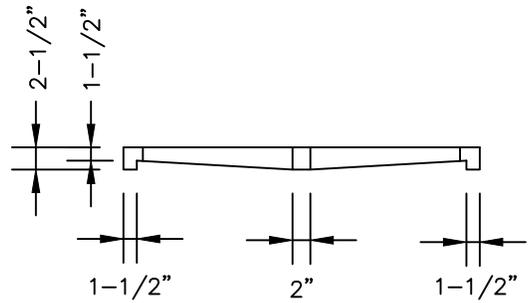
STANDARD CONSTRUCTION DETAIL
WET RETENTION POND
PLACEMENT BY R/W AND EASEMENT LINES

FILE NAME:
EW_ST10.DWG

DETAIL REF:
ST-10



CAST IRON GRATE
INDEX SHT. 232



NOTE:

* 6" THICK WALLS MAY BE PERMITTED, PROVIDING THAT THE INCREASED REINFORCEMENT IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 201 IS INSTALLED. THIS MUST BE REFLECTED ON THE DESIGN PLANS, SHOP DRAWINGS, AND AS-BUILTS.

F.D.O.T. TYPE C INLET
INDEX SHT. 232

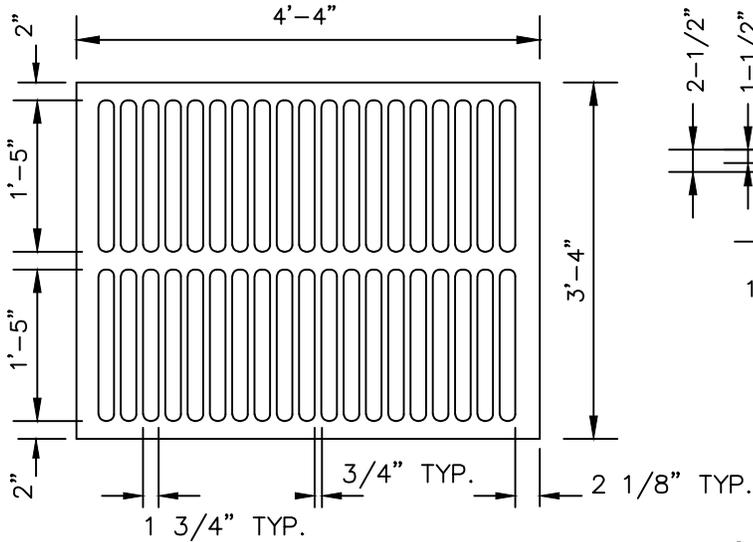


STANDARD CONSTRUCTION DETAIL
TYPE "C" STORM INLET

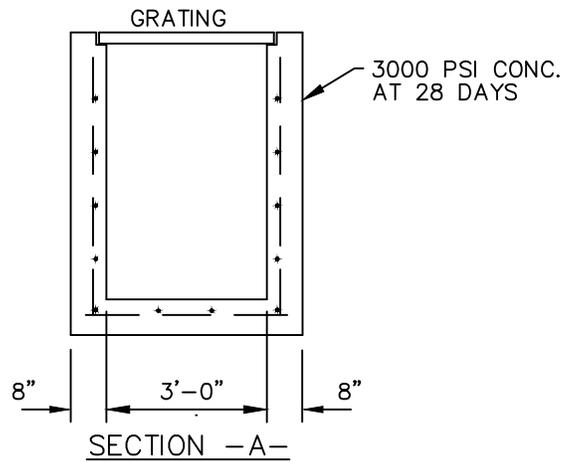
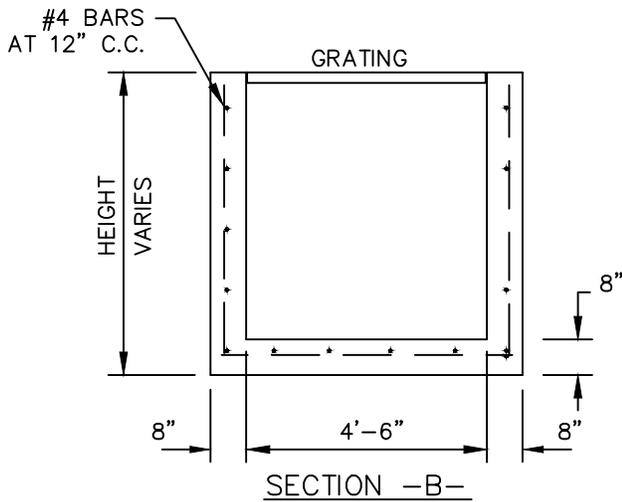
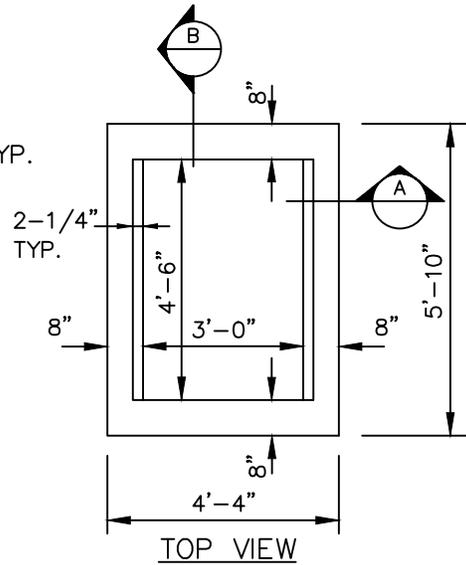
FILE NAME:
EW_ST11.DWG

DETAIL REF:

ST-11



CAST IRON GRATE
INDEX SHT. 232



NOTE:

* 6" THICK WALLS MAY BE PERMITTED, PROVIDING THAT THE INCREASED REINFORCEMENT IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 201 IS INSTALLED. THIS MUST BE REFLECTED ON THE DESIGN PLANS, SHOP DRAWINGS, AND AS-BUILTS.

F.D.O.T. TYPE E INLET
INDEX SHT. 232



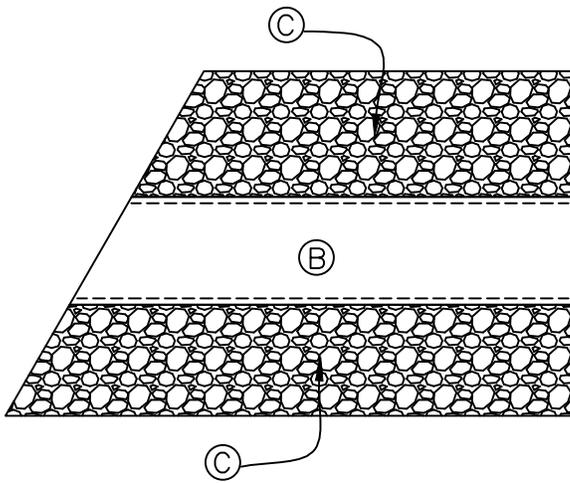
STANDARD CONSTRUCTION DETAIL
TYPE "E" STORM INLET

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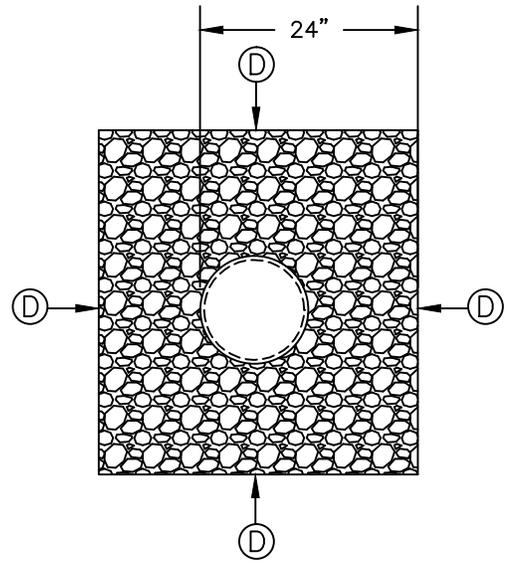
EW_ST12.DWG

DETAIL REF:

ST-12

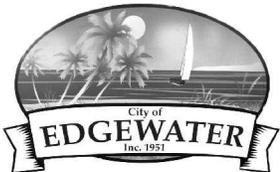


ELEVATION
N.T.S.



SECTION
N.T.S.

- Ⓑ 12" PERFORATED C.P.P.
- Ⓒ 3/4" WASHED ROCK, #57 AGGREGATE.
- Ⓓ FILTER CLOTH ON ALL SIDES & OVERLAPPING 24" AT TOP.

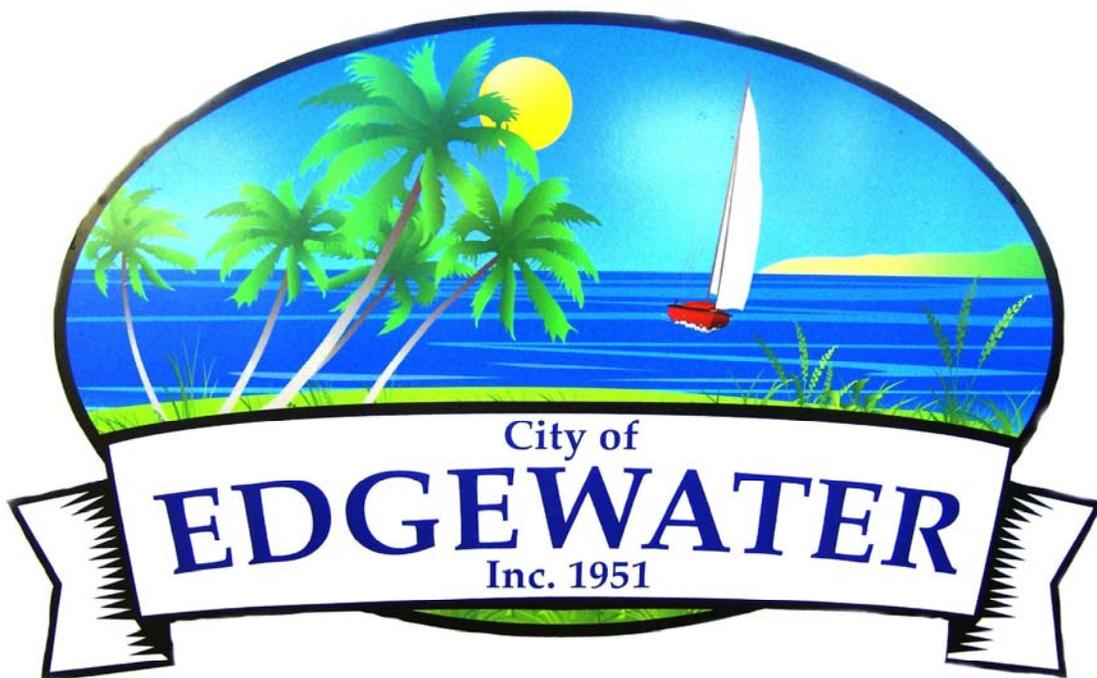


STANDARD CONSTRUCTION DETAIL
EXFILTRATION TRENCH

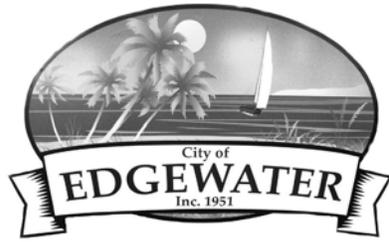
FILE NAME:
EW_ST13.DWG

DETAIL REF:
ST-13

The City of Edgewater



STANDARD CONSTRUCTION DETAILS



CITY OF EDGEWATER

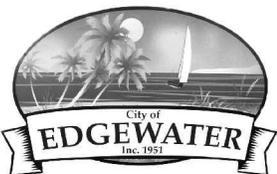
STANDARD CONSTRUCTION DETAILS

CITY OF EDGEWATER
DEPARTMENT OF ENVIRONMENTAL SERVICES
409 MANGO TREE DRIVE
EDGEWATER, FLORIDA 32132
TELEPHONE (386) 424-2476
FAX (386) 424-2480

INDEX

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S-30	SANITARY SEWER DOUBLE MANHOLE COVER
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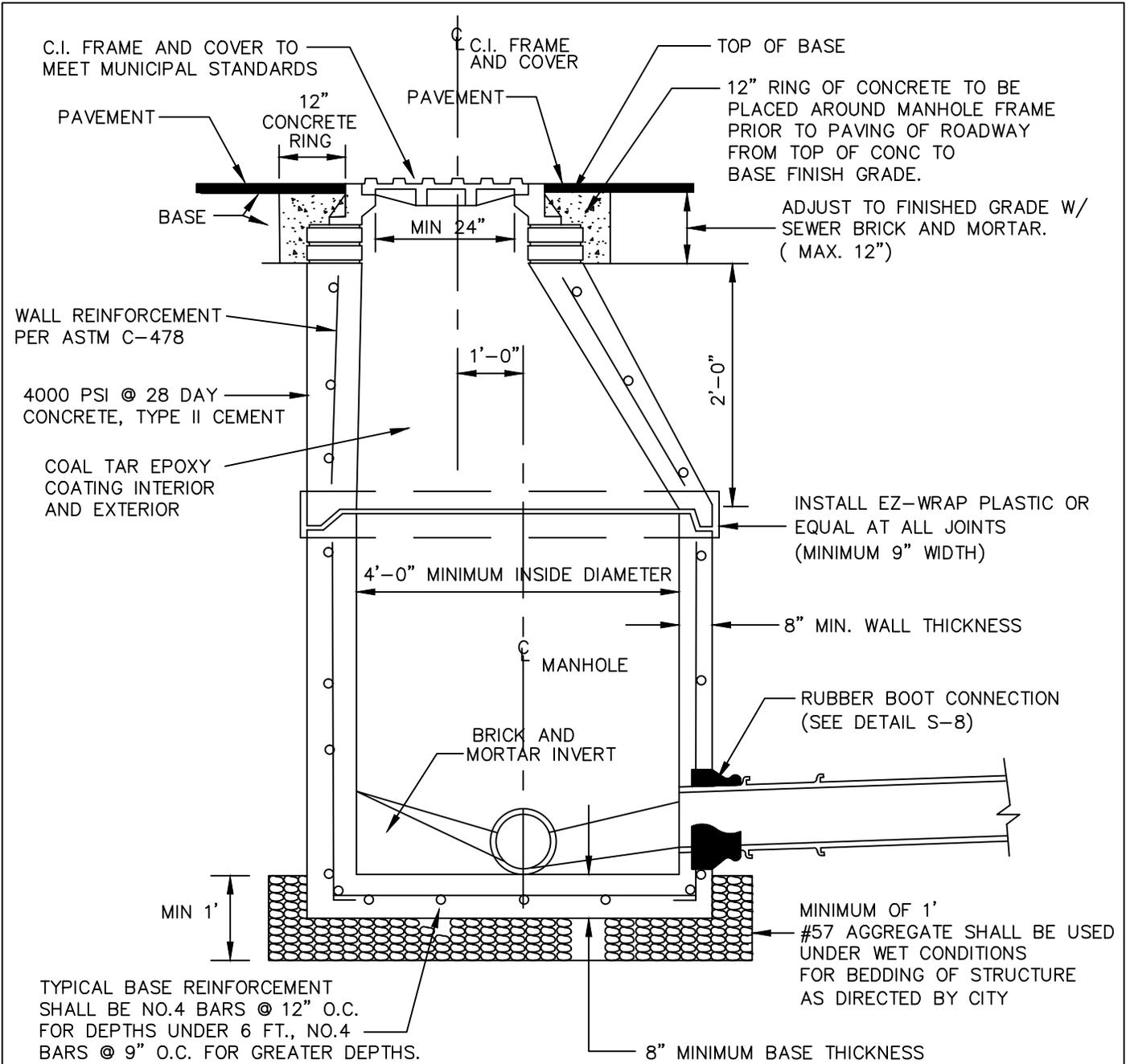
STANDARD CONSTRUCTION DETAIL
INDEX
SEWER DETAILS

FILE NAME:

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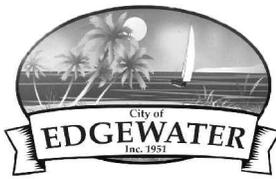
DETAIL REF:

INDEX



NOTES:

1. ON TRANSITIONS BETWEEN LARGER DIAMETER AND SMALLER SEWER COLLECTORS, OUTVERTS OF SEWERS SHALL BE MATCHED.
2. NON-PENETRATING PICK-HOLES IN ALL CONCRETE SECTIONS.
3. USE FARBERTITE BITUMASTIC SEALER BETWEEN SECTIONS OF MANHOLES.
4. 0.1' - DROP ACROSS MANHOLE TYP.
5. ALL MANHOLE TROUGHS AND BENCHES ARE TO BE EPOXY PAINTED BEFORE FINAL INSPECTION.



STANDARD CONSTRUCTION DETAIL
STANDARD MANHOLE DETAIL

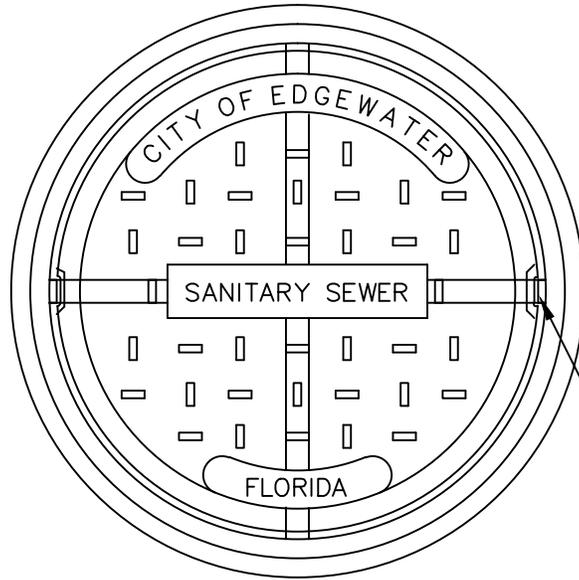
FILE NAME:

EW_S1.DWG

DETAIL REF:

S-1

USF No. 117-BL-ORS
 FRAME WT = 85 LBS.
 COVER WT = 125 LBS.



2 NON-PENETRATING
 PICKHOLES

NOTES:

1. CEMENT USED IN PRECAST CONCRETE MIX SHALL BE TYPE II, ACID RESISTANT AND SULFIDE RESISTANT CONCRETE.
2. MORTAR TO CONTAIN "HYDRATITE", OR APPROVED EQUAL, TO PREVENT SHRINKAGE.
3. SUB-GRADE BENEATH MANHOLES SHALL BE UNDISTURBED GRANULAR UNSATURATED SOIL. No. 57 AGGREGATE STONE SHALL BE USED IN WET CONDITIONS AND/OR WHERE UNSUITABLE MATERIAL IS ENCOUNTERED.
4. ALL SEWER LINES SHALL BE VIDEOTAPED WITH "PAN AND TILT" CAMERA AND COPIES OF VIDEOS SUPPLIED TO THE ENVIRONMENTAL SERVICES DEPT. THE CITY MAY REQUIRE ADDITIONAL VIDEO TAPING, VIDEO TAPING OF LATERALS, AND/OR INFILTRATION/EXFILTRATION TESTS IF DEFECTS ARE APPARENT OR WORKMANSHIP IS QUESTIONABLE.
5. UNLESS DETAILED PLANS SHOW OTHERWISE, ALL MANHOLE RING AND COVER CASTINGS IN PAVED AREAS ARE TO BE ADJUSTED TO FINAL GRADE, SEALED AND SECURED IN PLACE WITH A CONCRETE COLLAR AFTER THE ROAD BASE IS PLACED AND JUST PRIOR TO PLACEMENT OF ASHPALT WEARING SURFACE.
6. CONTRACTOR SHALL PROVIDE THICKER MANHOLE WALLS AND BASES AS REQUIRED TO PREVENT FLOTATION BASED ON HISTORIC HIGH GROUND WATER TABLE ELEVATIONS AS DETERMINED USING ACCEPTED ENGINEERING PRACTICES AND/OR APPROVED BY ENVIRONMENTAL SERVICES DEPT.
7. CONCRETE COLLAR AROUND MANHOLE FRAME IS REQUIRED IN PAVED AREAS ONLY.
8. SHOP DRAWINGS FOR ALL STRUCTURES SHALL BE SUBMITTED TO AND APPROVED BY THE DESIGN ENGINEER PRIOR TO INSTALLATION WITH TWO COPIES FORWARDED BY THE DESIGN ENGINEER TO THE CITY.
9. TWO (2) COATS OF BITUMASTIC COATING INSIDE: 16 MIL
10. ONE (1) COAT OF BITUMASTIC COATING OUTSIDE: 8 MIL
11. FRAME AND COVER TO BE USF #117-BL-ORS .
12. NO BUG HOLES OR HONEYCOMB WILL BE ACCEPTED.
13. ENDS OF SECTION SHALL FIT FLUSH TOGETHER
14. SEDIMENTATION BOWLS REQUIRED FOR ALL NEW MANHOLES AND REHABILITATION STRUCTURES. RAINGUARD OR APPROVED EQUAL.



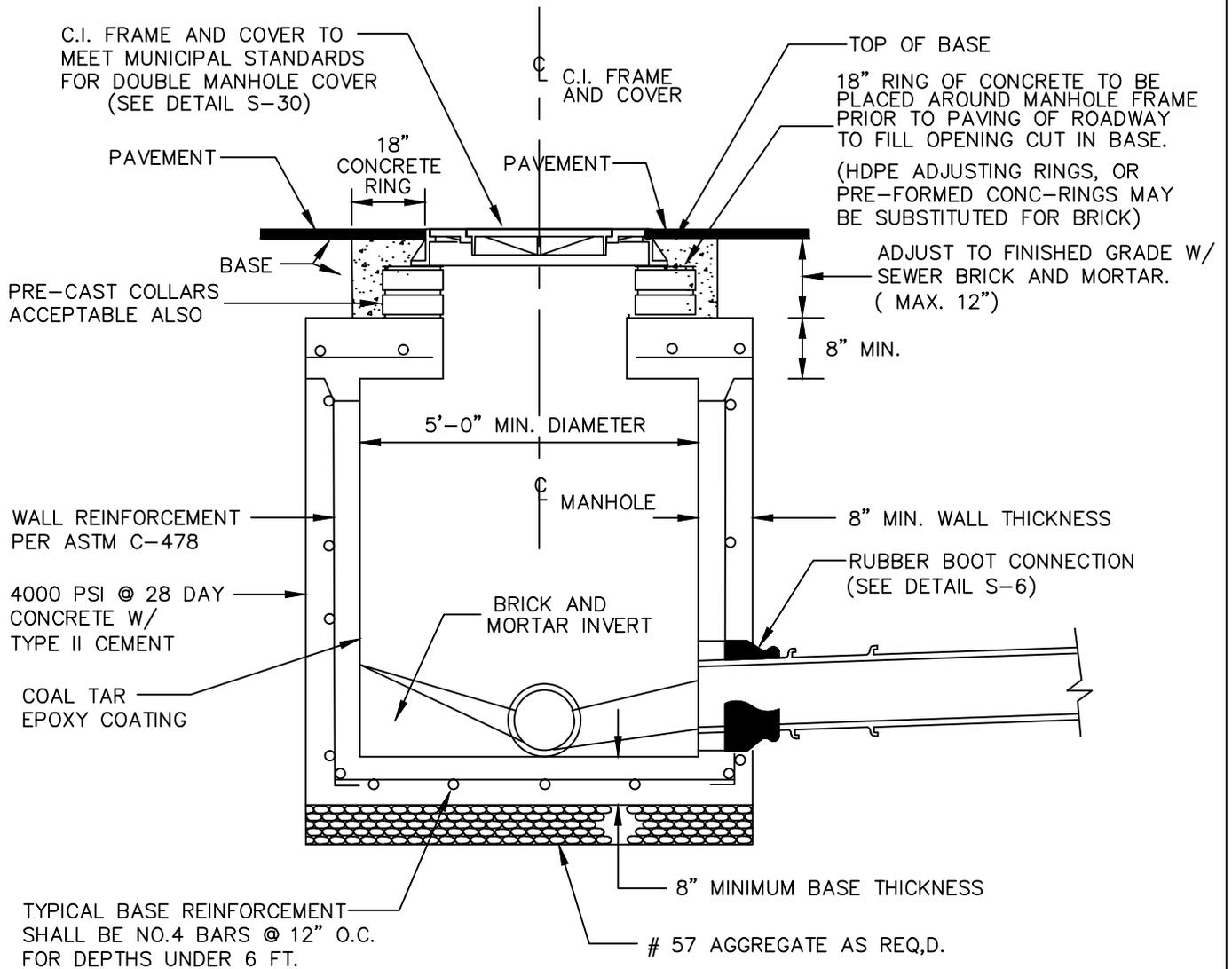
STANDARD CONSTRUCTION DETAIL
 SANITARY SEWER COVER & GENERAL NOTES

FILE NAME:

EW_S2.DWG

DETAIL REF:

S-2



SECTION - SHALLOW MANHOLE

USE FOR MANHOLES OF 5'-0" OR LESS IN DEPTH

NOTES:

1. INSTALL EZ-WRAP PLASTIC OR EQUAL AT ALL JOINTS (MINIMUM 9" WIDTH).
2. NON-PENETRATING PICK-HOLES IN ALL CONCRETE SECTIONS.
3. USE FARBERTITE BITUMASTIC SEALER BETWEEN SECTIONS OF MANHOLE.



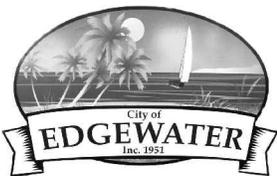
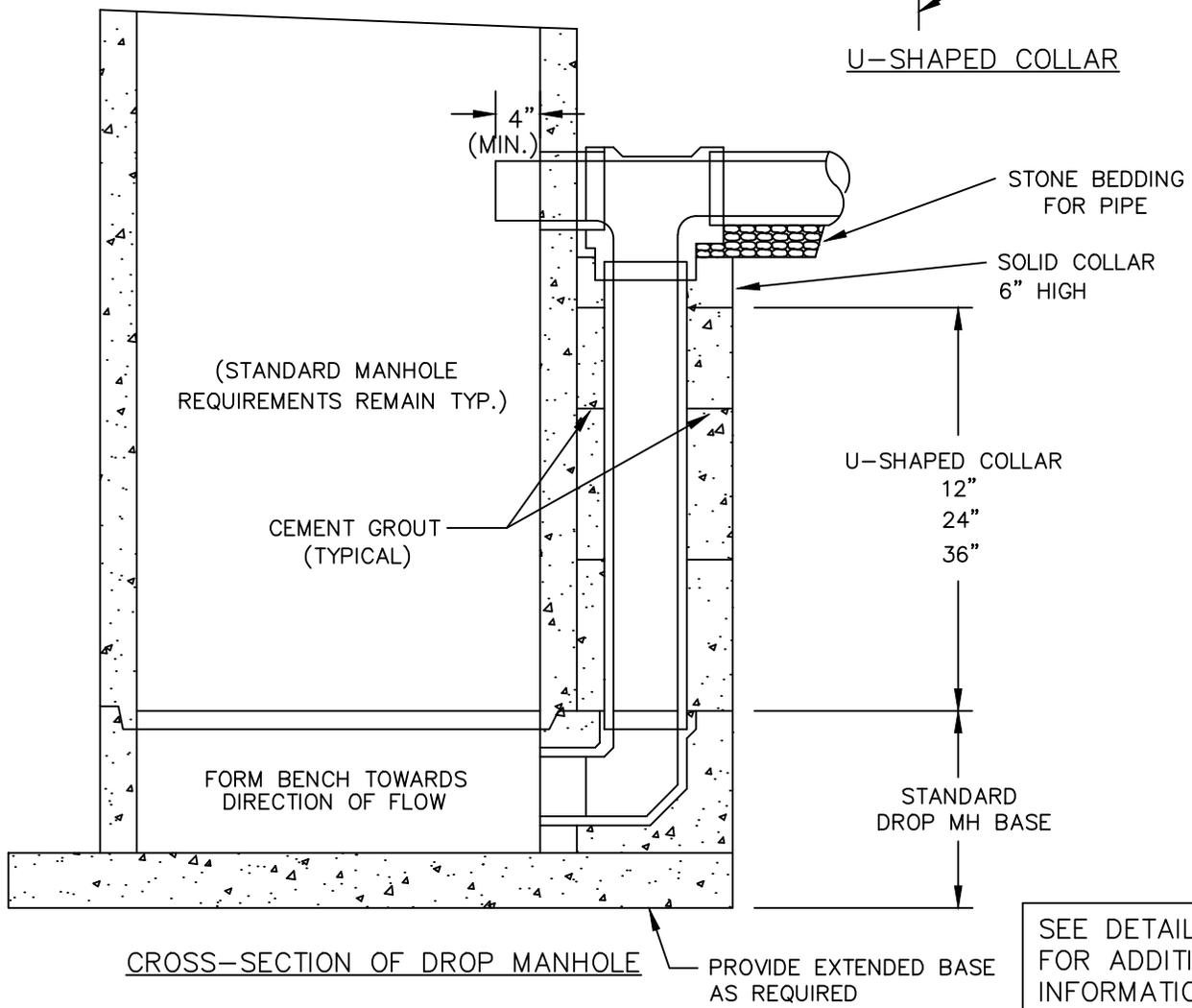
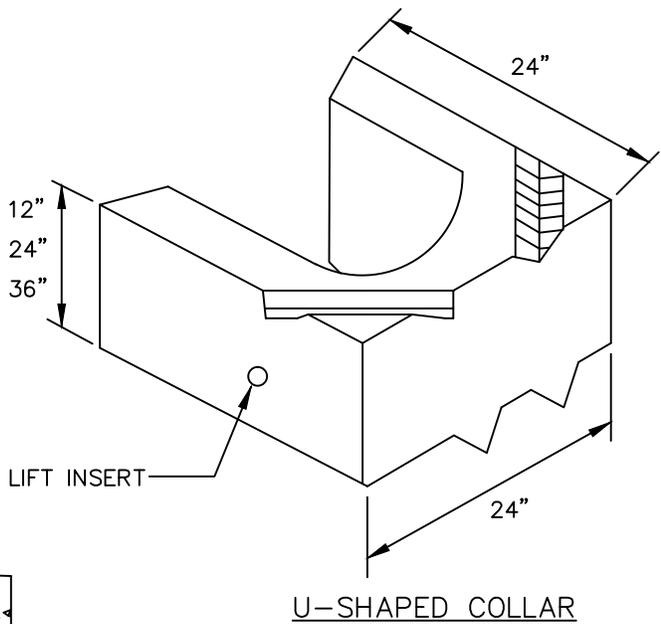
STANDARD CONSTRUCTION DETAIL
SHALLOW MANHOLE

FILE NAME:

EW_S3.DWG

DETAIL REF:

S-3



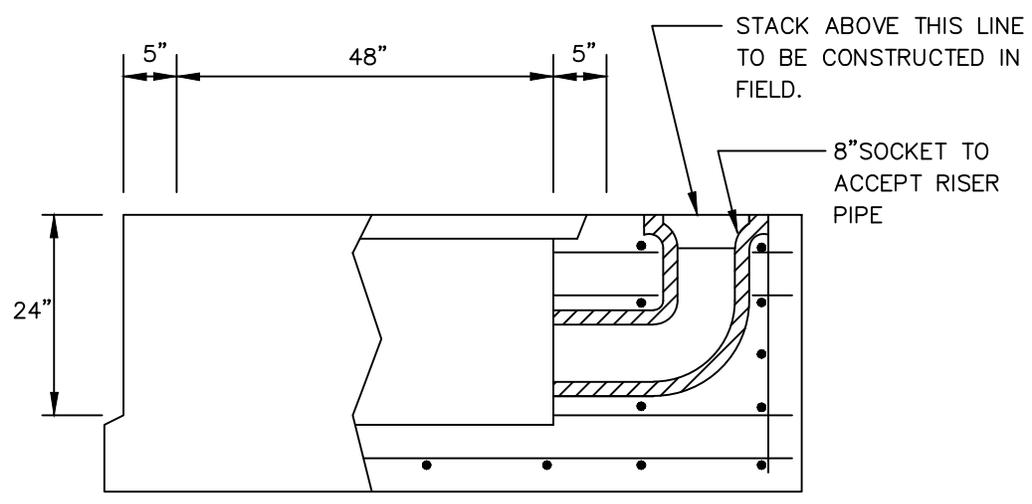
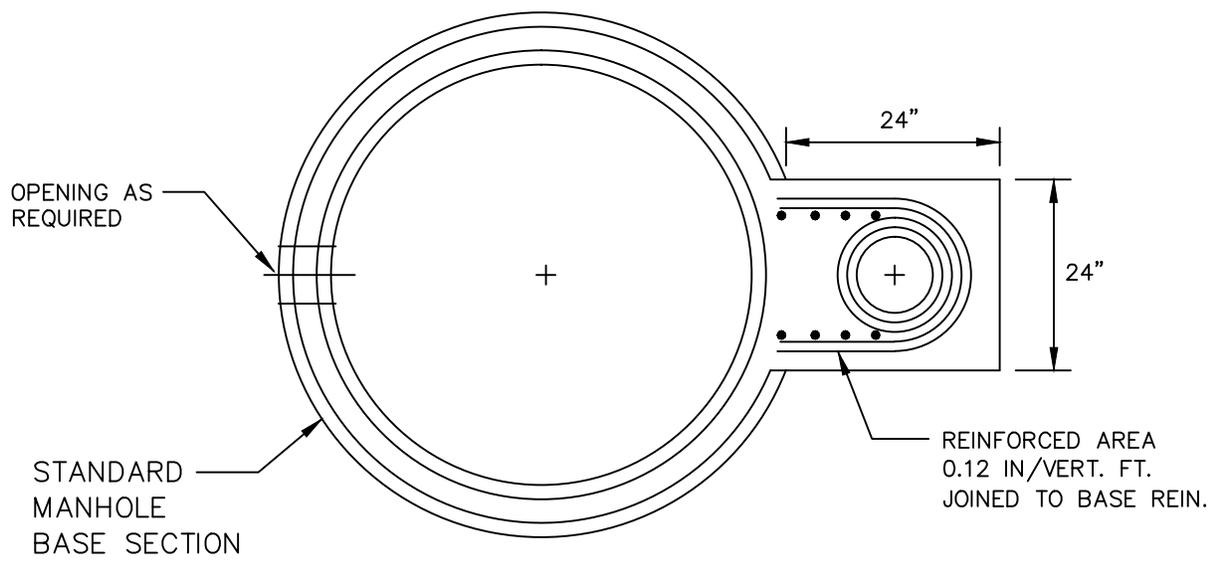
STANDARD CONSTRUCTION DETAIL
 OUTSIDE DROP MANHOLE
 (STANDARD NEW CONSTRUCTION)

FILE NAME:

EW_S4.DWG

DETAIL REF:

S-4



MANHOLE BASE WITH PRECAST DROP

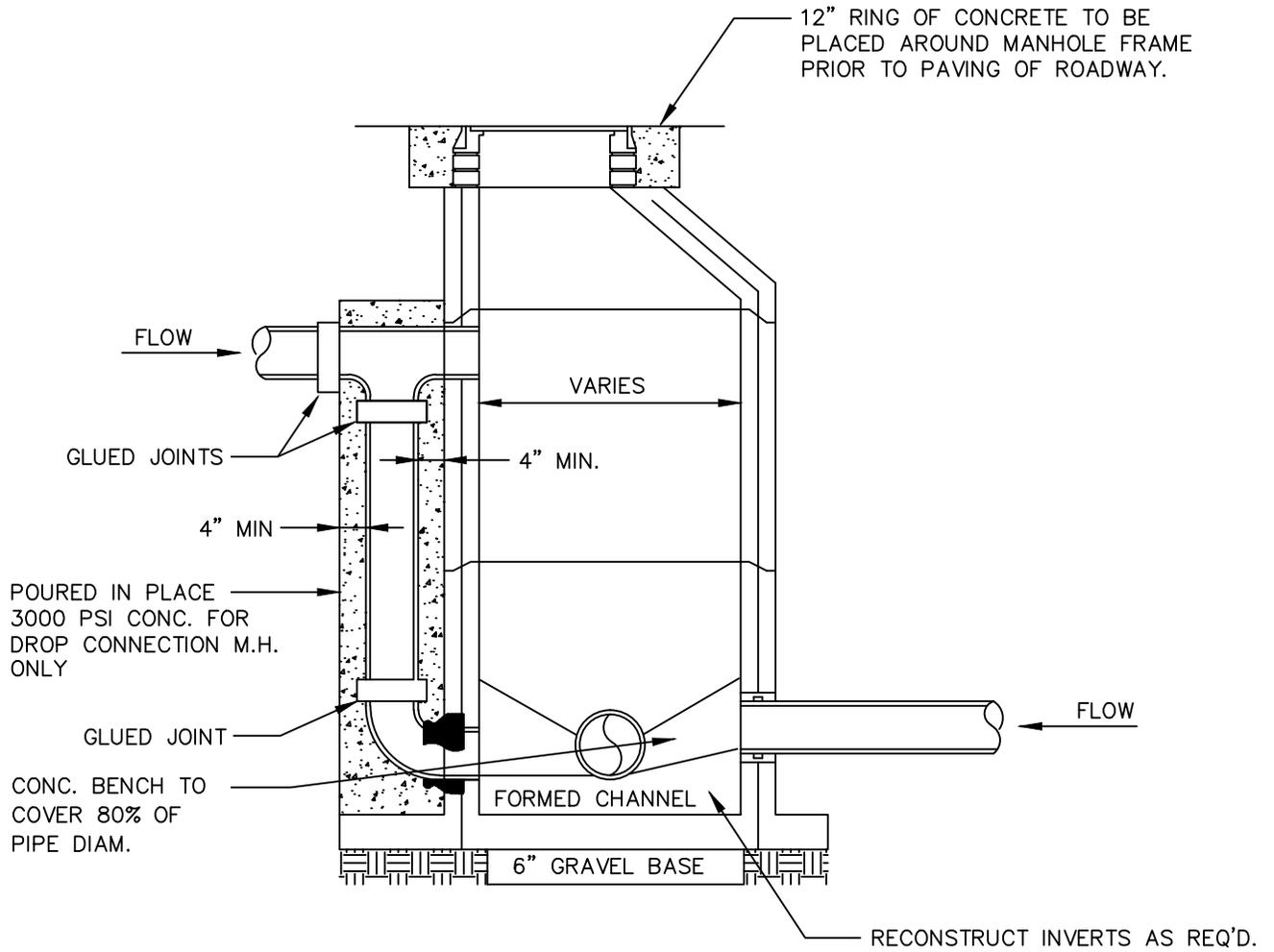
MANHOLE DESIGN
 MANHOLE DESIGN SPECIFICATIONS
 CONFORM TO "PRECAST REINFORCED
 CONCRETE MANHOLE SECTIONS.



STANDARD CONSTRUCTION DETAIL
 OUTSIDE DROP MANHOLE (STANDARD)

FILE NAME:
 EW_S5.DWG

DETAIL REF:
 S-5



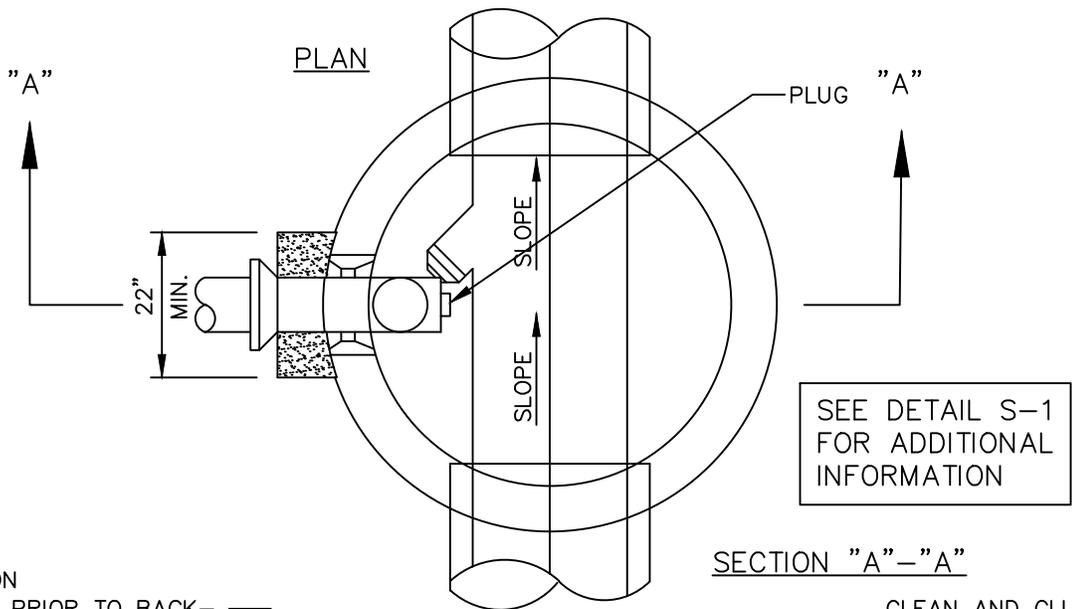
FOR SPECIAL CONDITIONS ONLY
 (I.E. RETROFIT CONSTRUCTION)

SEE DETAIL S-1
 FOR ADDITIONAL
 INFORMATION



STANDARD CONSTRUCTION DETAIL
 OUTSIDE DROP MANHOLE DETAIL

FILE NAME:
EW_S6.DWG
DETAIL REF:
S-6



SEE DETAIL S-1 FOR ADDITIONAL INFORMATION

INSPECTION REQUIRED PRIOR TO BACK-FILLING

CORE NOT TO BE AT MANHOLE JOINT

WRAP PIPE WITH VISQUEEN

P.V.C. GRAVITY SEWER

LAY PIPE TO UNDISTURBED SOIL

FILL EXCAVATED SPACE OUTSIDE MANHOLE AND PIPE WITH 3000 PSI CONCRETE FOR A WIDTH OF 6" EACH SIDE OF PIPE BUT NOT LESS THAN A TOTAL MIN. WIDTH OF 22".

ELBOW EMBEDDED IN CONC. @ 45° W/SEWER FLOW

CONC. BENCH TO COVER 80% OF MAINLINE PIPE DIAMETER

SECTION "A"-"A"

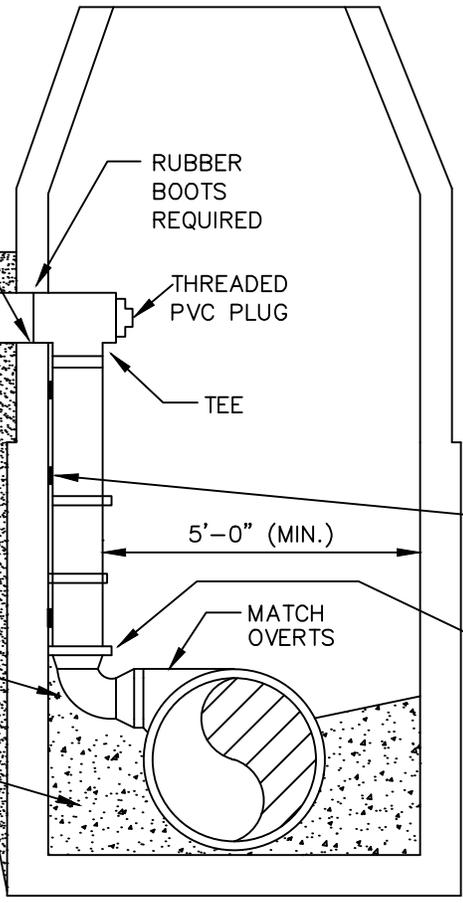
CLEAN AND GLUE ALL JOINTS

DROP CONNECTION PIPE & FITTINGS TO BE SAME MATERIAL AS LATERAL

CLAMPS TO BE 1 1/2" x 12" STAINLESS STEEL, ANCHORED TO M.H. WALL WITH 2 1/2" x 1/2" STAINLESS STEEL BOLTS. (2' ON CENTER)

PLASTIC SPACERS MIDWAY BETWEEN CLAMPS

PIPE TO BE PLACED AS CLOSE AS POSSIBLE TO M.H. WALL AND TO BE SECURED TO THE WALL WITH STAINLESS STEEL CLAMPS



NOTES:

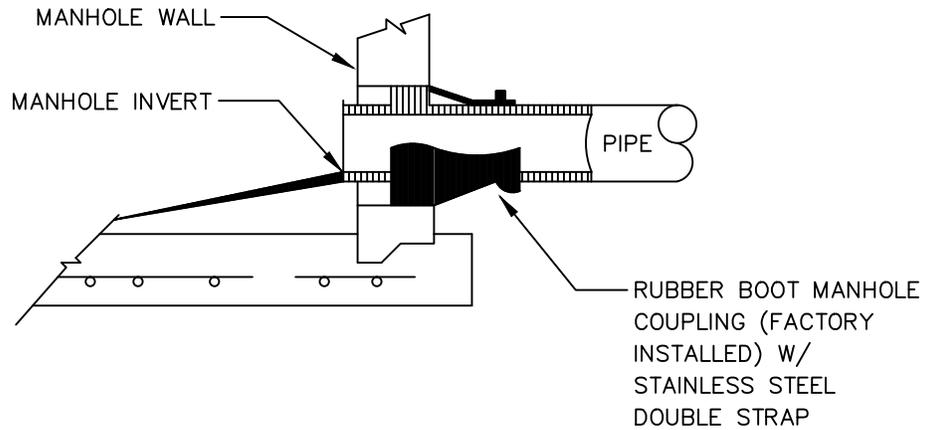
1. ALL INSIDE PIPING TO BE P.V.C.
2. USE FARBERTITE BITUMASTIC SEALER BETWEEN MANHOLE SECTIONS.

FOR SPECIAL CONDITIONS ONLY

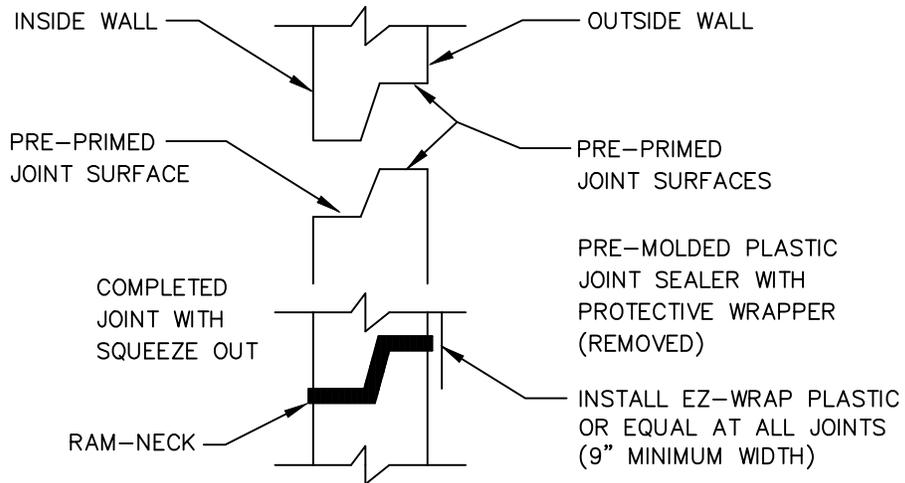


STANDARD CONSTRUCTION DETAIL
INSIDE DROP MANHOLE DETAIL FOR
RETROFIT AND SPECIAL CONDITIONS ONLY

FILE NAME:	EW_S7.DWG
DETAIL REF:	S-7



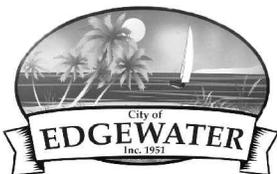
MANHOLE PIPE CONNECTION DETAIL
FOR NEW CONNECTIONS IN EXISTING MANHOLES



PRECAST JOINT CONNECTION

NOTES:

1. ALL NEW CONNECTIONS TO EXISTING SANITARY SEWER MANHOLES SHALL UTILIZE A CORING METHOD AND THE IN-FIELD INSTALLATION OF A RUBBER BOOT INTO THE MANHOLE.



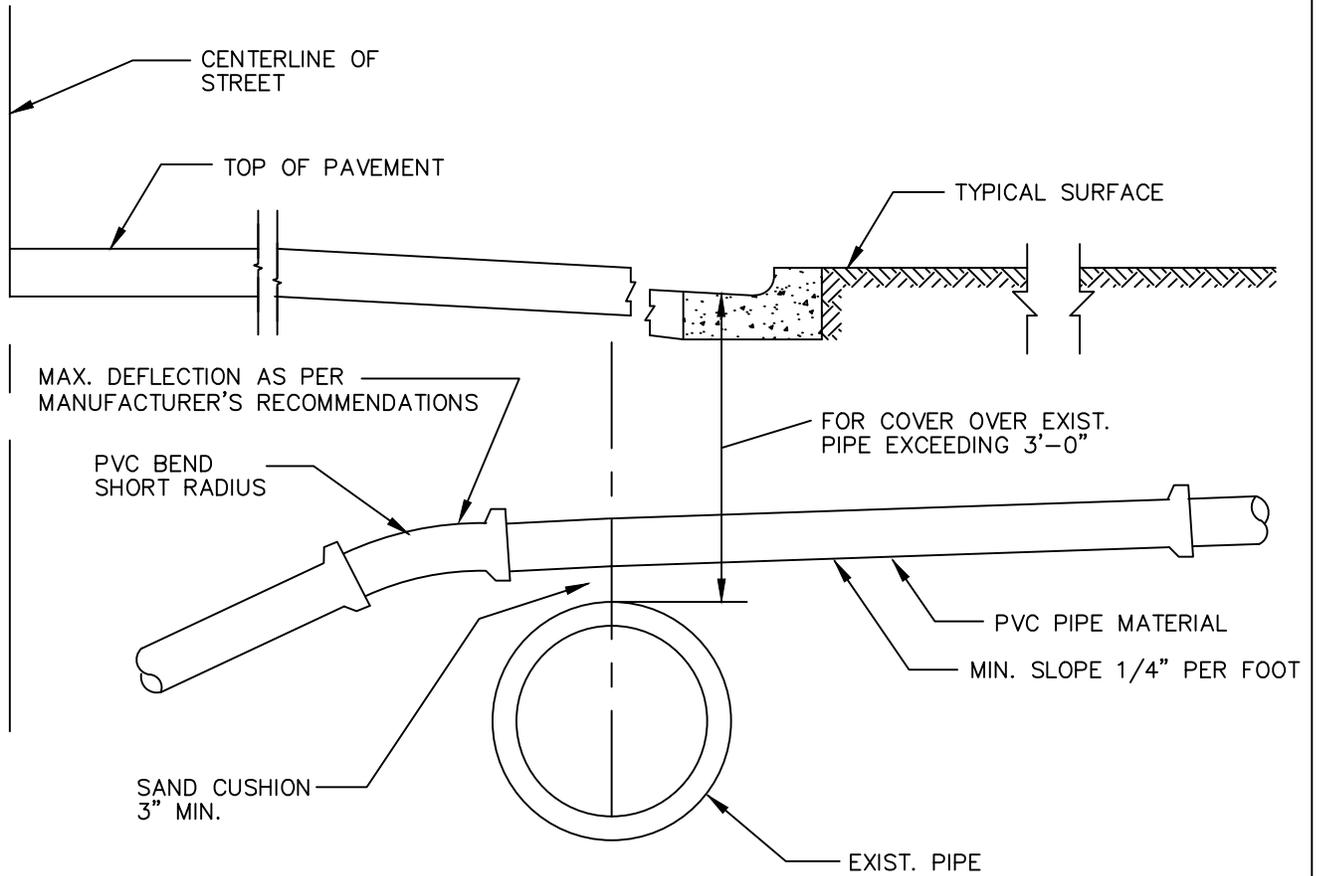
STANDARD CONSTRUCTION DETAIL
RUBBER BOOT AND PRECAST JOINT
CONNECTION DETAIL

FILE NAME:

EW_S8.DWG

DETAIL REF:

S-8



ALTERNATE GRADIENT FOR HOUSE SERVICE
SEWERS AT CONFLICTS WITH EXISTING STORM
SEWERS & OTHER EXISTING CONDUITS

APPROVED PIPE MATERIALS—PVC (SDR 26)



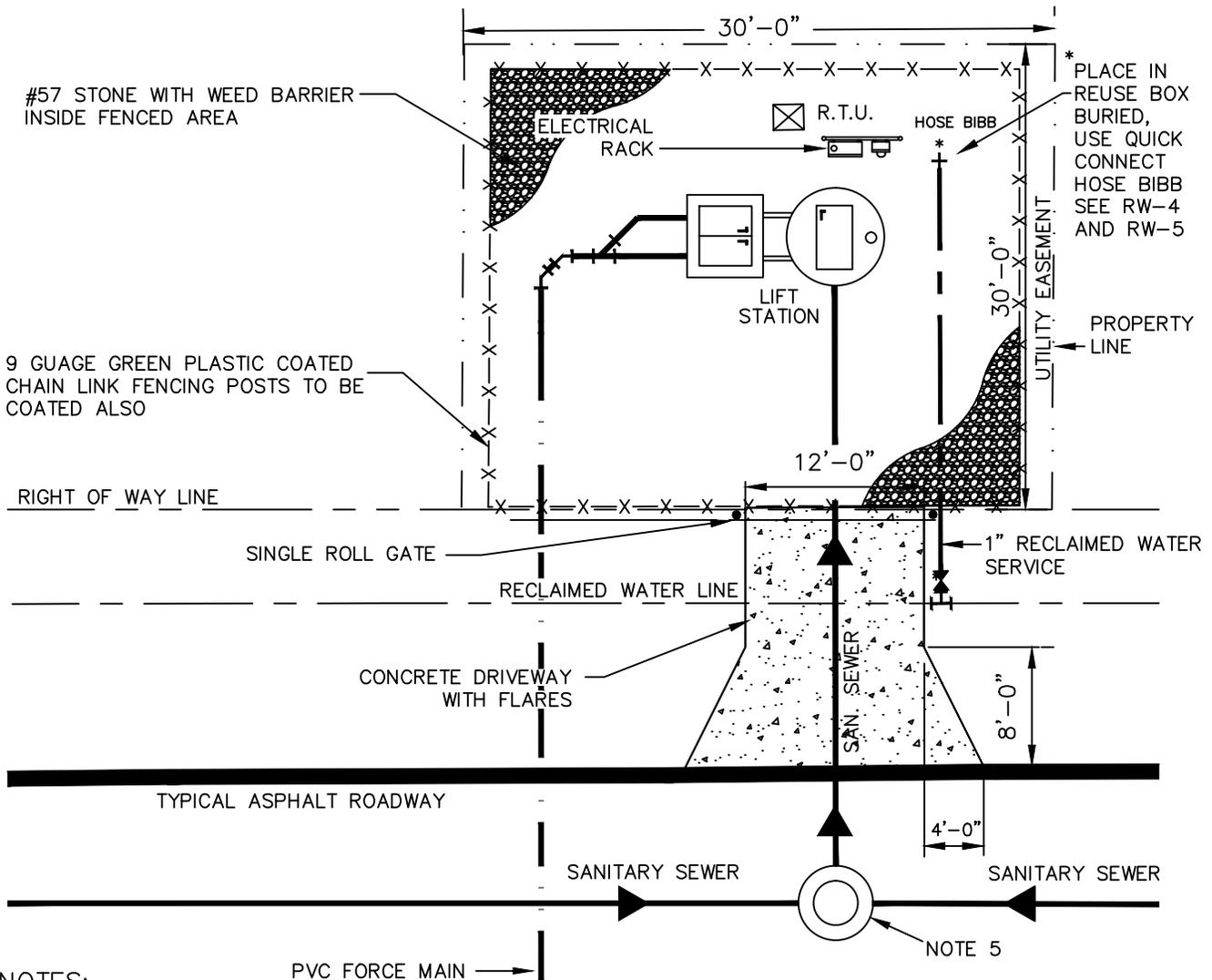
STANDARD CONSTRUCTION DETAIL
SEWER LINE UTILITY CROSSING DETAIL

FILE NAME:

EW_S9.DWG

DETAIL REF:

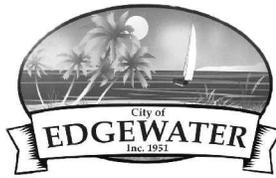
S-9



NOTES:

1. DRIVEWAY TO BE 6" THICK 3000 PSI CONCRETE AT 28 DAYS WITH 6x6 10/10 W.W. MESH. BASE TO BE COMPACTED AND TESTED TO 98% DENSITY WITH MINIMUM L.B.R. 40 BASED ON A.A.S.H.T.O. T-180 MODIFIED PROCTOR TEST.
2. IF RECLAIMED WATER IS UNAVAILABLE FOR LIFT STATION WATER SERVICE, CONTRACTOR SHALL USE POTABLE WATER.
3. REFER TO APPROPRIATE STANDARD CONSTRUCTION DETAIL FOR EMERGENCY PUMP CONNECTION/PLUG VALVE DETAIL AND LIFT STATION WATER SERVICE DETAIL
4. FENCE MAY BE RELOCATED INTERNALLY WITHIN SITE TO CREATE A 25' X 25' SITE IF LANDSCAPING MATERIALS ARE INSTALLED AROUND THE PERIMETER.
5. MANHOLE TO BE LINED, "E.G.R.V." OR APPROVED EQUAL.
6. LANDSCAPING SHALL CONSIST OF #57 WHITE ROCK. BUSHES, ACCEPTABLE TO THE CITY, SHALL BE PLACED AS A VISUAL BUFFER TO ANY RESIDENTIAL AREAS ADJACENT TO THE LIFT STATION.
7. INSIDE FENCE AREA, STOP DRIVEWAY AT FENCE LINE AND ADD FOUR INCHES OF #57 STONE ON INSIDE OF FENCE AREA WITH WEED BARRIER UNDERNEATH. OUTSIDE OF FENCE AREA TO BE SODDED.
8. FENCING SHALL BE 6' HIGH WITH SINGLE ROLL GATE. NOT SWING GATE.
9. ALL LIFT STATIONS WITH PUMPS 20HP, OR LARGER, SHALL BE EQUIPPED WITH AN EMERGENCY POWER GENERATOR REVISE SITE PLAN ACCORDINGLY.

* IF RECLAIMED SVC. IS UNAVAILABLE, USE DETAIL #S-16 FOR WATER SERVICE



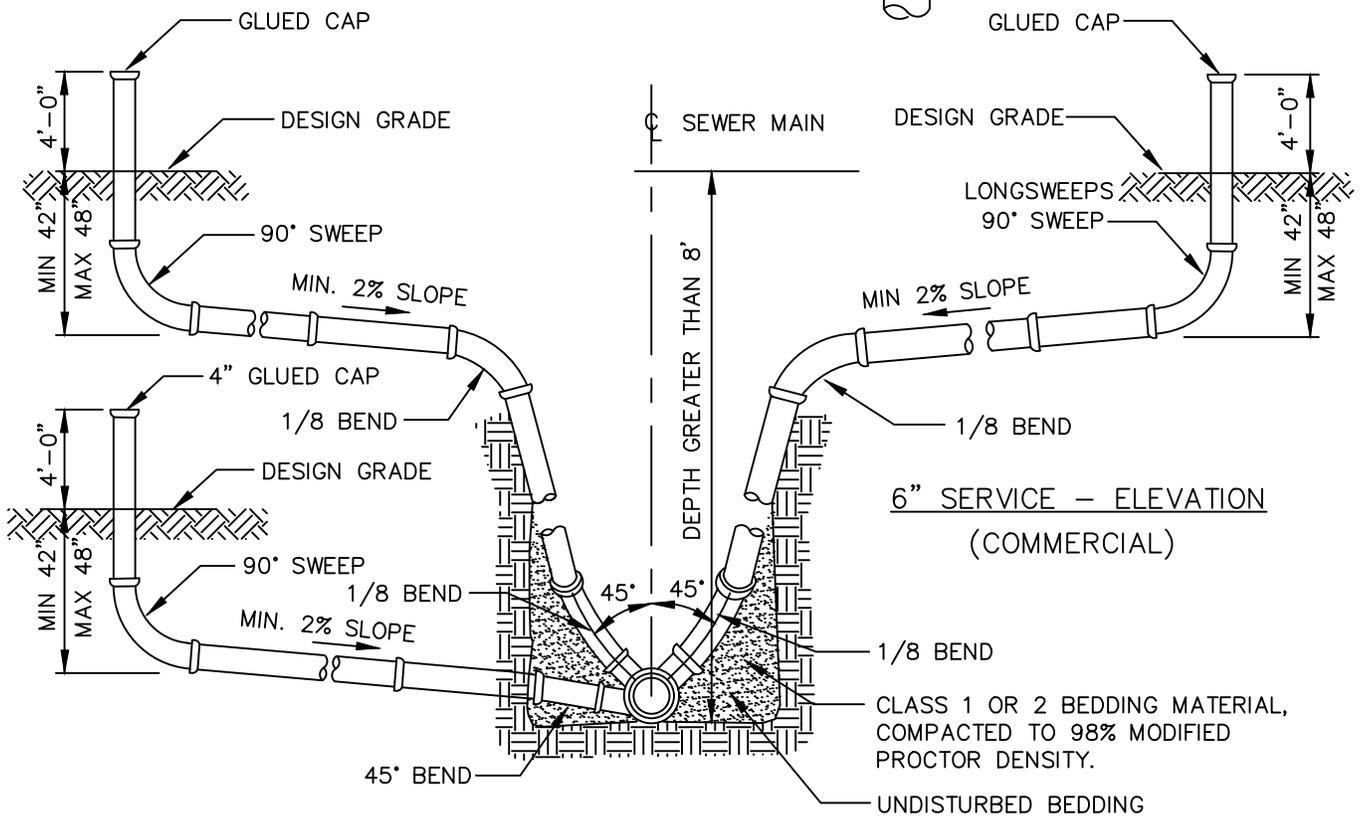
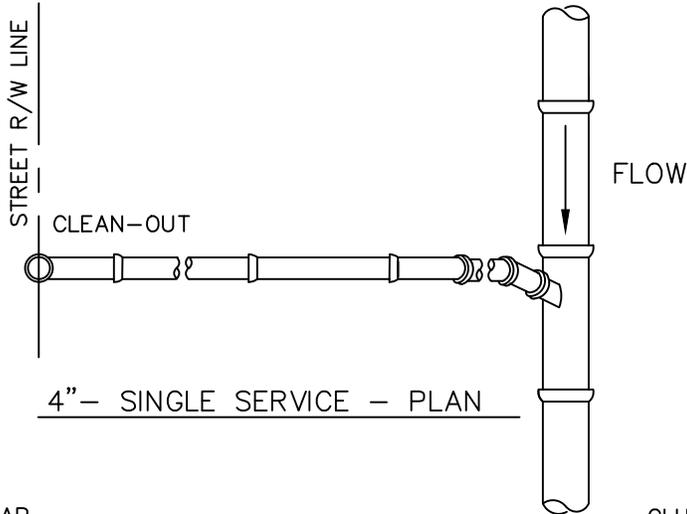
STANDARD CONSTRUCTION DETAIL
TYPICAL LIFT STATION SITE PLAN

FILE NAME:

EW_S15.DWG

DETAIL REF:

S-15



4" - 6" SINGLE SERVICE - ELEVATION

NOTES:

1. USE OF STYRENE MATERIAL WILL NOT BE PERMITTED.
2. ALL JOINTS TO BE RUBBER GASKET (NO GLUED FITTINGS) TYPICAL.
3. USE ALL HARCO SDR-26 FITTINGS OR CITY APPROVED EQUAL.

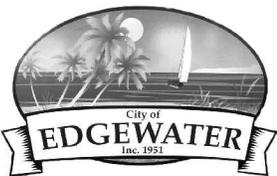
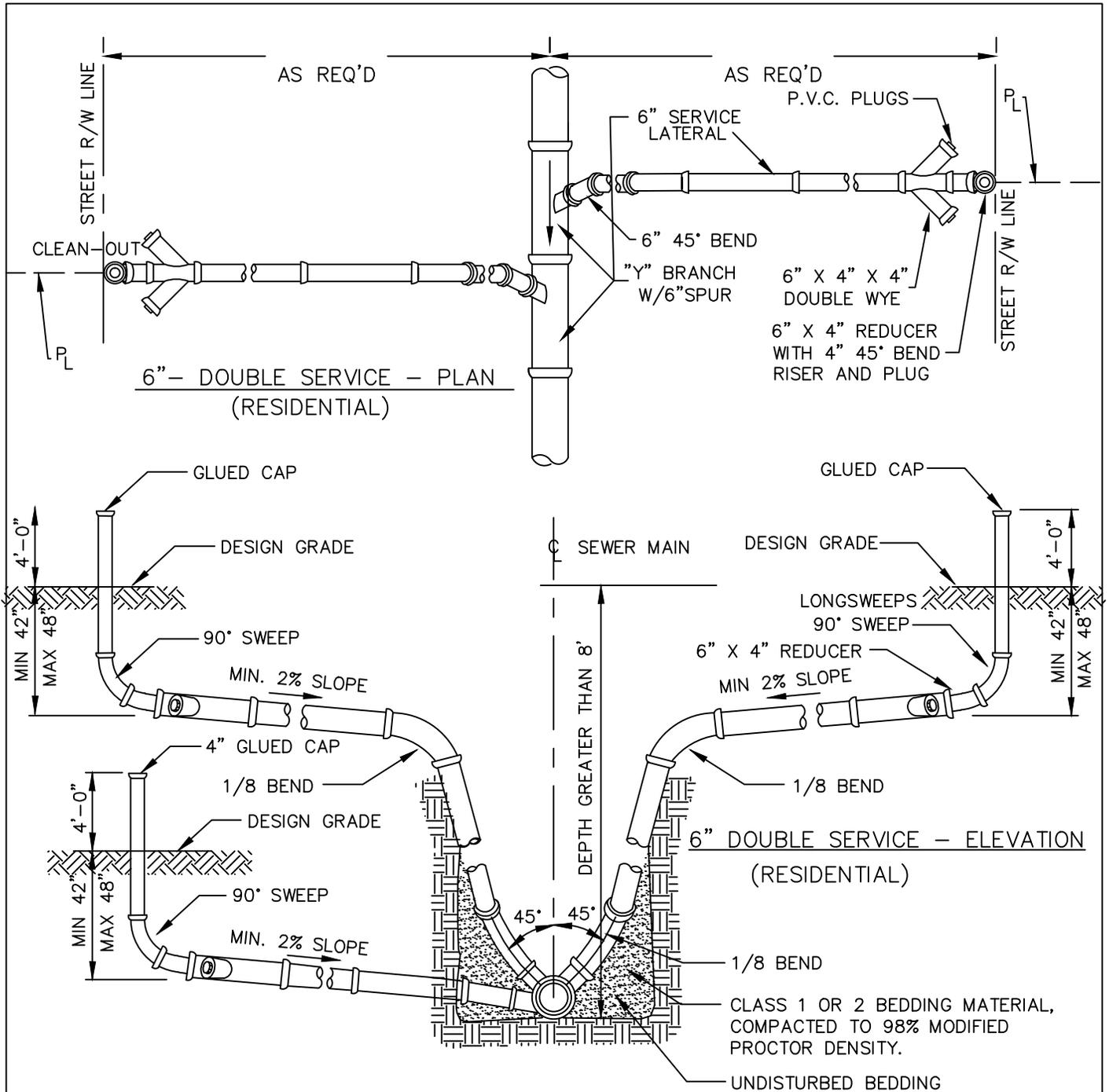
4" - RESIDENTIAL
6" - COMMERCIAL



STANDARD CONSTRUCTION DETAIL
 SEWER LATERAL DETAIL
 (SINGLE 4" RESIDENTIAL)
 (SINGLE 6" COMMERCIAL)

FILE NAME:
EW_S10.DWG

DETAIL REF:
S-10



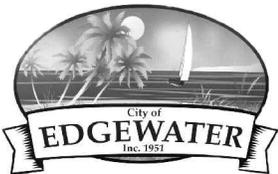
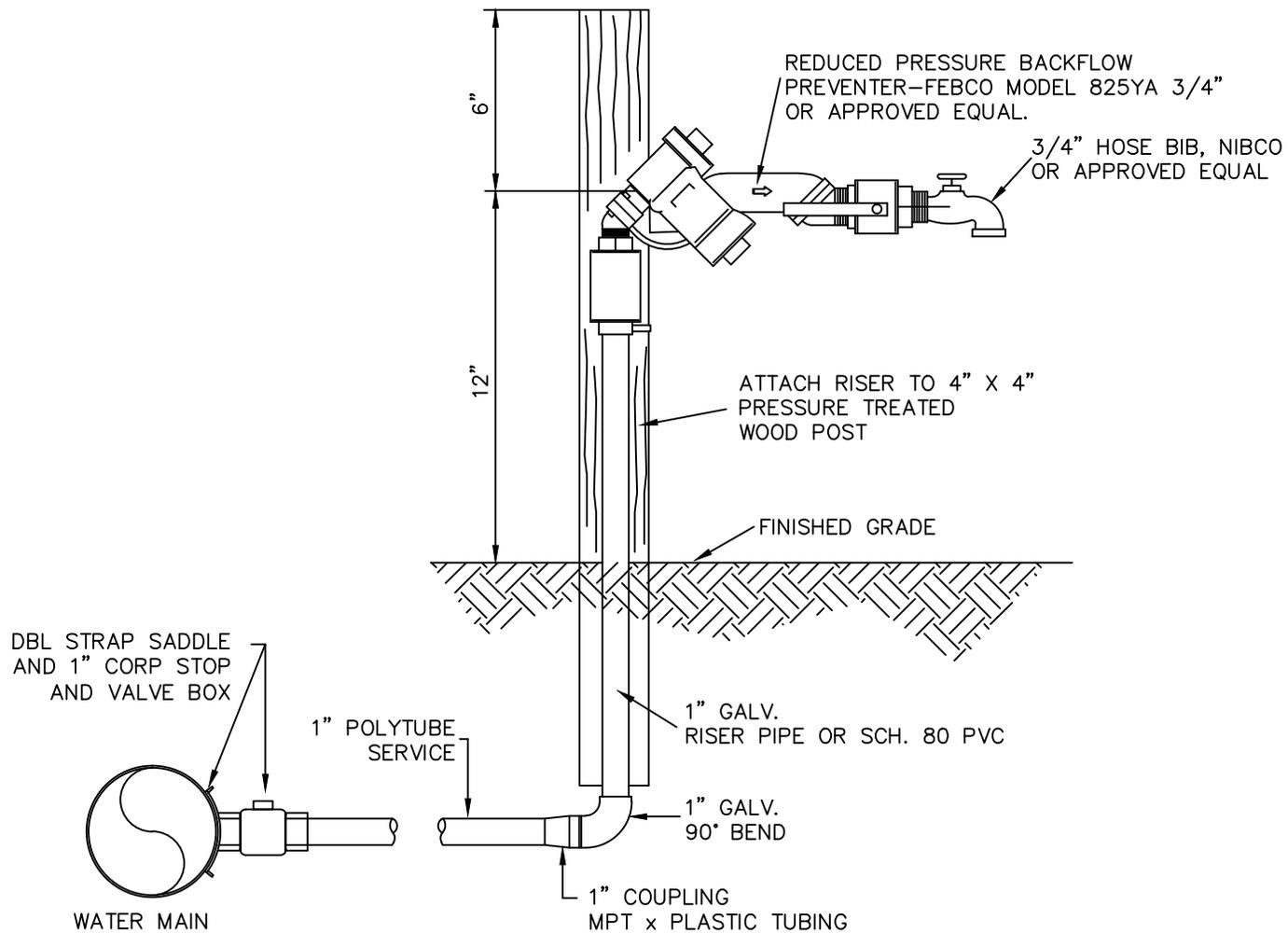
STANDARD CONSTRUCTION DETAIL
SEWER LATERAL DETAIL
(DOUBLE 6" RESIDENTIAL)

FILE NAME:

EW_S11.DWG

DETAIL REF:

S-11



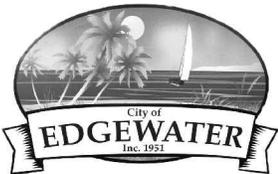
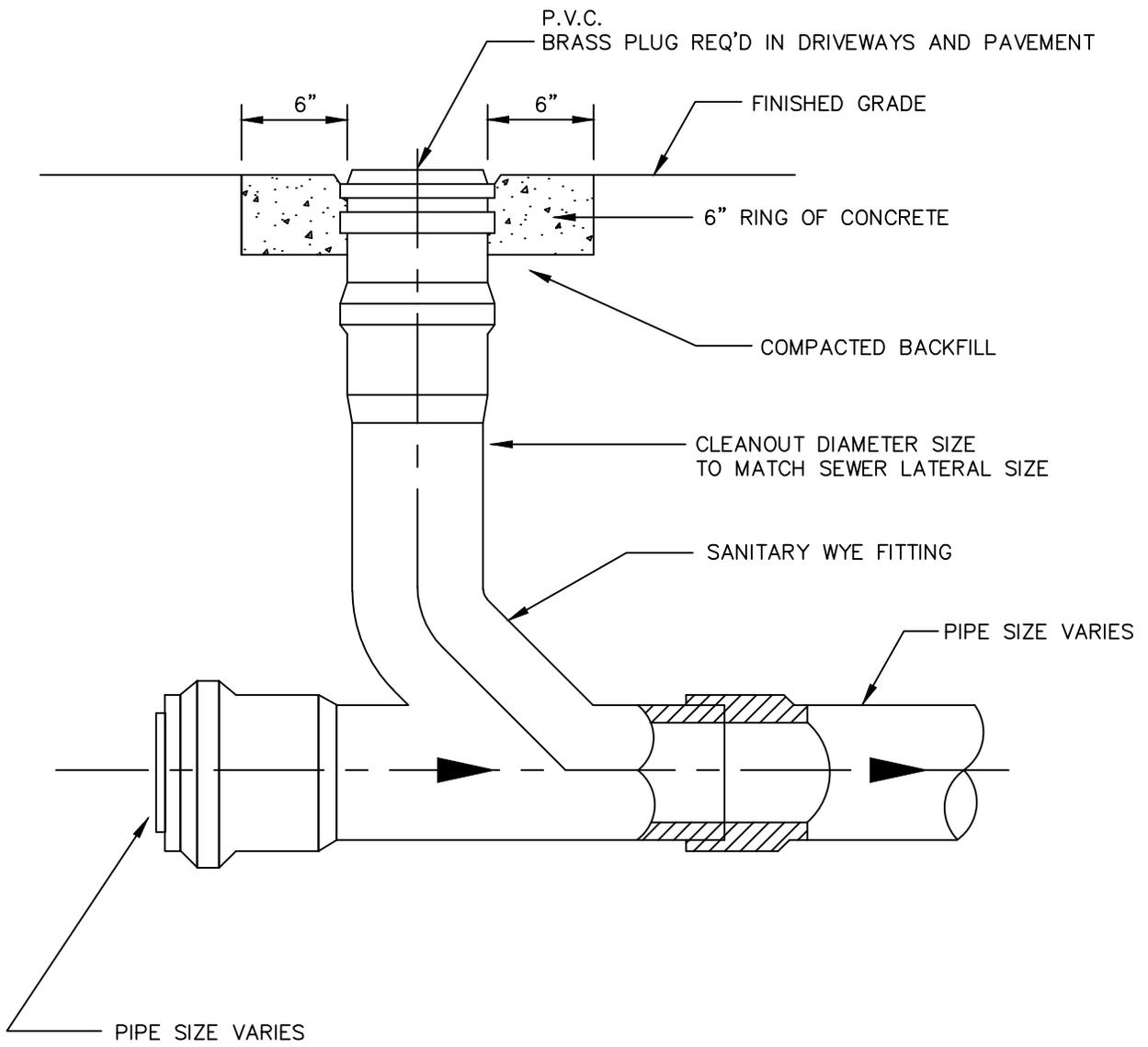
STANDARD CONSTRUCTION DETAIL
LIFT STATION POTABLE WATER SERVICE
(WHERE RECLAIMED WATER NOT AVAILABLE)

FILE NAME:

EW_S16.DWG

DETAIL REF:

S-16



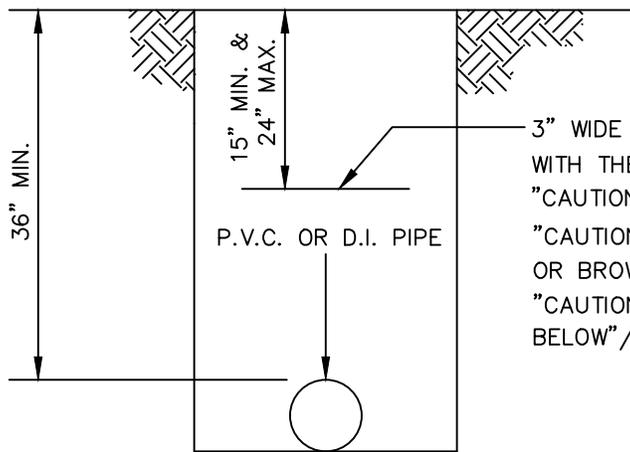
STANDARD CONSTRUCTION DETAIL
CLEANOUT DETAIL

FILE NAME:

EW_S12.DWG

DETAIL REF:

S-12



3" WIDE CONTINUOUS POLYETHYLENE TAPE
 WITH THE FOLLOWING LABELS AND COLORS:
 "CAUTION BURIED WATER LINE BELOW"/BLUE
 "CAUTION BURIED FORCEMAIN BELOW"/GREEN
 OR BROWN
 "CAUTION BURIED RECLAIMED WATER LINE
 BELOW"/PURPLE

"TERRA TAPE D" or SIMILAR



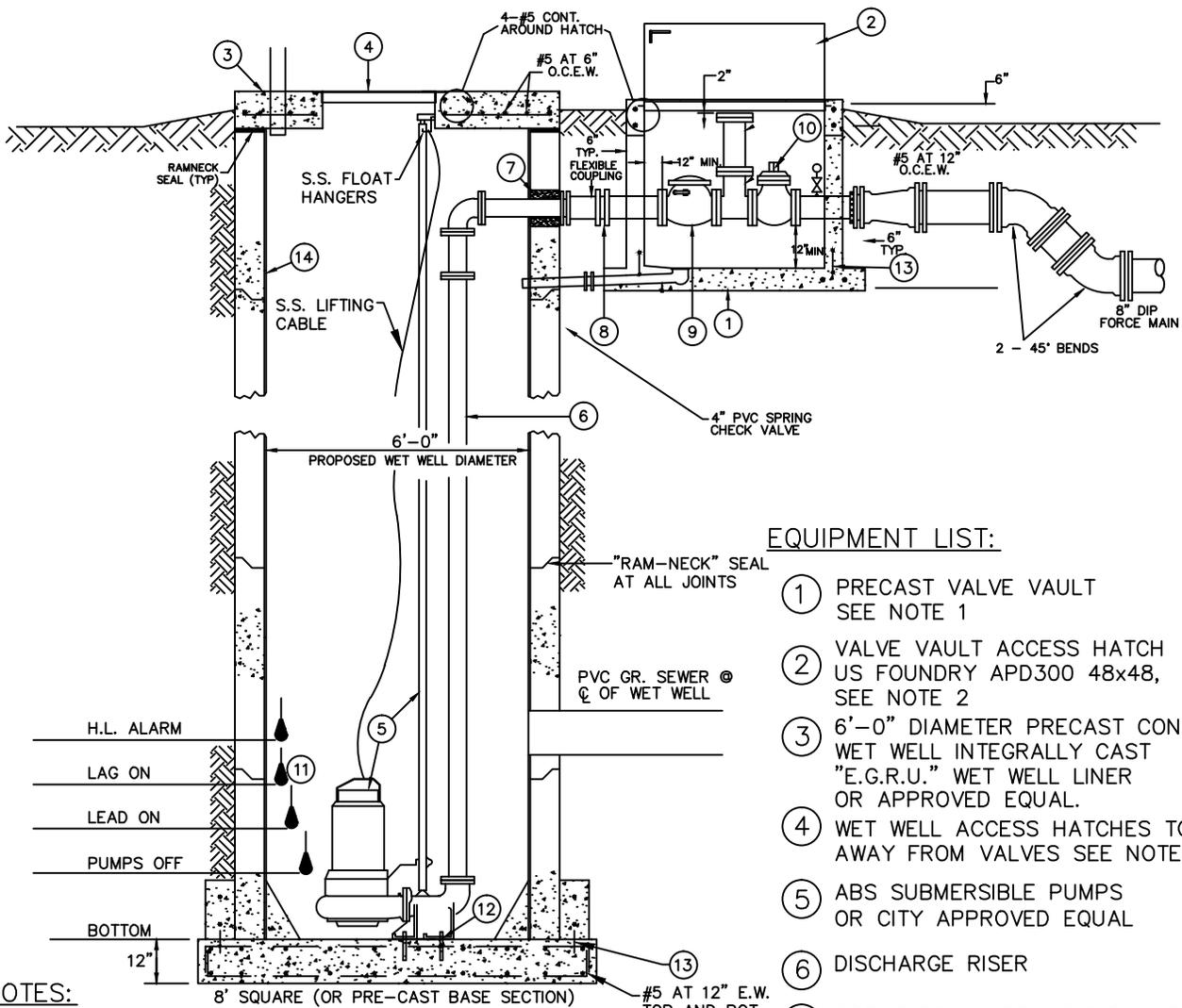
STANDARD CONSTRUCTION DETAIL
 LOCATOR TAPE INSTALLATION FOR
 SEWER, WATER AND RECLAIMED WATER PIPELINES

FILE NAME:

EW_S13.DWG

DETAIL REF:

S-13

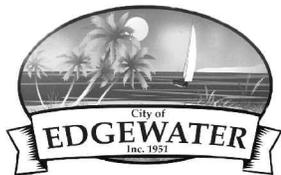


EQUIPMENT LIST:

- ① PRECAST VALVE VAULT
SEE NOTE 1
- ② VALVE VAULT ACCESS HATCH
US FOUNDRY APD300 48x48,
SEE NOTE 2
- ③ 6'-0" DIAMETER PRECAST CONCRETE
WET WELL INTEGRALLY CAST
"E.G.R.U." WET WELL LINER
OR APPROVED EQUAL.
- ④ WET WELL ACCESS HATCHES TO OPEN
AWAY FROM VALVES SEE NOTE 2.
- ⑤ ABS SUBMERSIBLE PUMPS
OR CITY APPROVED EQUAL
- ⑥ DISCHARGE RISER
- ⑦ GROUT SEAL AROUND DISCHARGE
LINES WITH NON-SHRINK GROUT
- ⑧ FLEXIBLE COUPLING APPROVED BY
THE CITY ENGINEER
- ⑨ FL. x FL. CHECK VALVE
- ⑩ FL. x FL. PLUG VALVE W/
VALVE WRENCH
- ⑪ 4 FLOATS FOR PUMP CONTROL
COORDINATE ELEV. WITH CITY
- ⑫ ANCHOR PUMP TO WET WELL FLOOR
- ⑬ 6" PVC WATER STOP
- ⑭ "E.G.R.U." LINER JOINTS TO BE FIELD
WELDED

NOTES:

- 1. INTERIOR OF VALVE VAULT AND ALL PIPING AND FITTINGS SHALL BE DELIVERED WITH A FACTORY APPLIED EPOXY FINISH.
- 2. COORDINATE WET WELL ACCESS HATCH LOCATION WITH PUMP MOUNTING LOCATIONS. PROVIDE HASP TYPE LOCKING MECHANISM ON ALL ACCESS HATCHES. ALL HATCHES TO BE 300 P.S.F. LOAD RATED.
- 3. SEE SPECIFICATIONS FOR APPROVED VALVE TYPES AND MANUFACTURERS.
- 4. SOD ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES OUTSIDE OF FENCED AREA.
- 5. PUMPS TO BE FURNISHED WITH HIGH PRESSURE DISCHARGE COUPLING, STAINLESS STEEL SLIDERAIL SYSTEM, SEAL FAILURE AND THERMAL OVERLOAD INDICATORS.
- 6. ALL PIPES, INVERTS AND HATCHES TO BE THE SIZE AND KIND SPECIFIED ON THE SET OF APPROVED CONSTRUCTION PLANS.
- 7. ALL HARDWARE INSIDE WETWELL TO BE ("316") STAINLESS STEEL.
- 8. ALL PRESSURE PIPING TO BE RESTRAINED W/MEGALUG FITTINGS OR EQUAL.



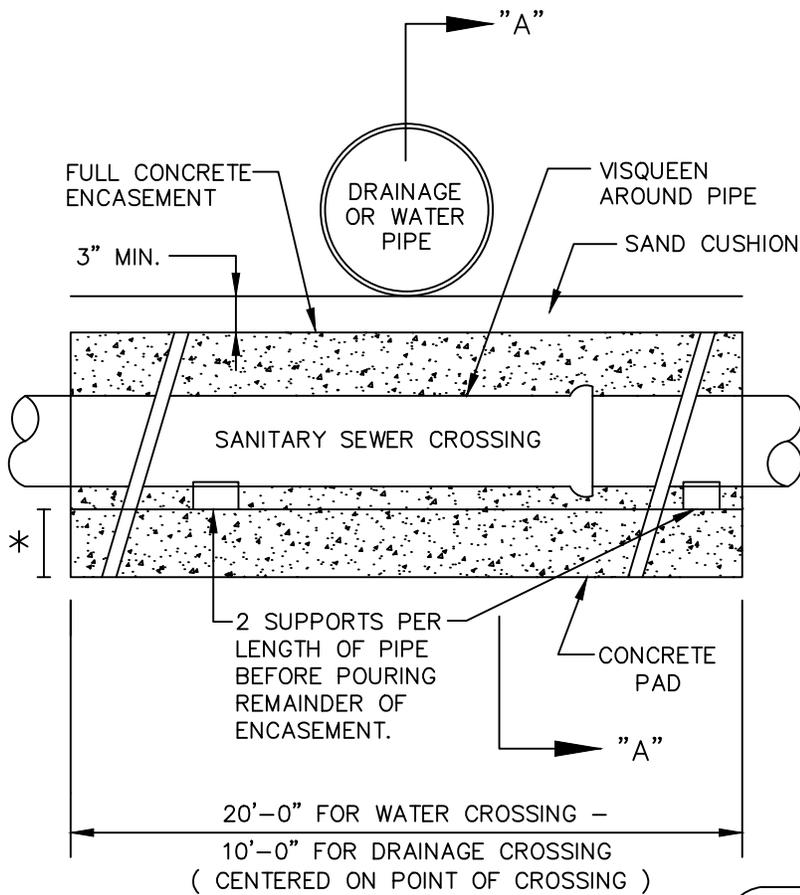
STANDARD CONSTRUCTION DETAIL
LIFT STATION WET WELL
SECTION
(SUBMERSIBLE)

FILE NAME:

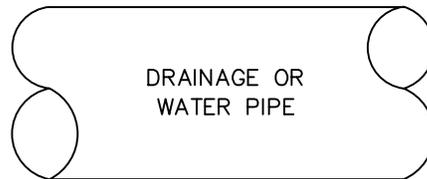
EW_S17.DWG

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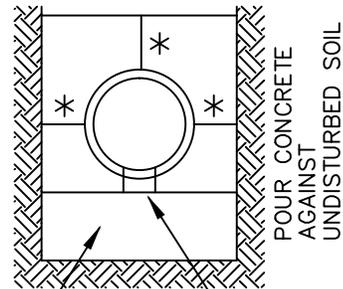
S-17



ELEVATION



* ENCASEMENT THICKNESS TO BE 1/2 PIPE DIAM. OR 6 IN., WHICHEVER IS GREATER TYP.



CONCRETE PAD

2 SUPPORTS PER LENGTH OF PIPE BEFORE POURING REMAINDER OF ENCASEMENT.

SECTION "A"-"A"

NOTES:

1. ALL CONCRETE SHALL BE 3000 PSI MINIMUM 28 DAYS STRENGTH.
2. WATER MAIN SHALL BE LOCATED ABOVE OR BELOW ENCASEMENT AS SHOWN ON PLANS OR DETERMINED IN THE FIELD, USE ENCASEMENT WHERE VERTICAL CLEARANCE WATER MAIN AND SEWER MAIN IS LESS THAN 6 INCHES.
3. NO DUCTILE IRON SEWER PIPE IS PERMITTED.
4. ENCASEMENT OR A.C. PIPE IS NOT ALLOWED REPLACE AFFECTED SECTIONS WITH PVC



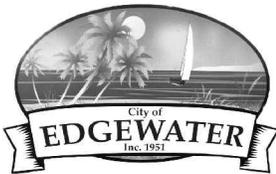
STANDARD CONSTRUCTION DETAIL
SEWER CONDUIT CROSSING

FILE NAME:

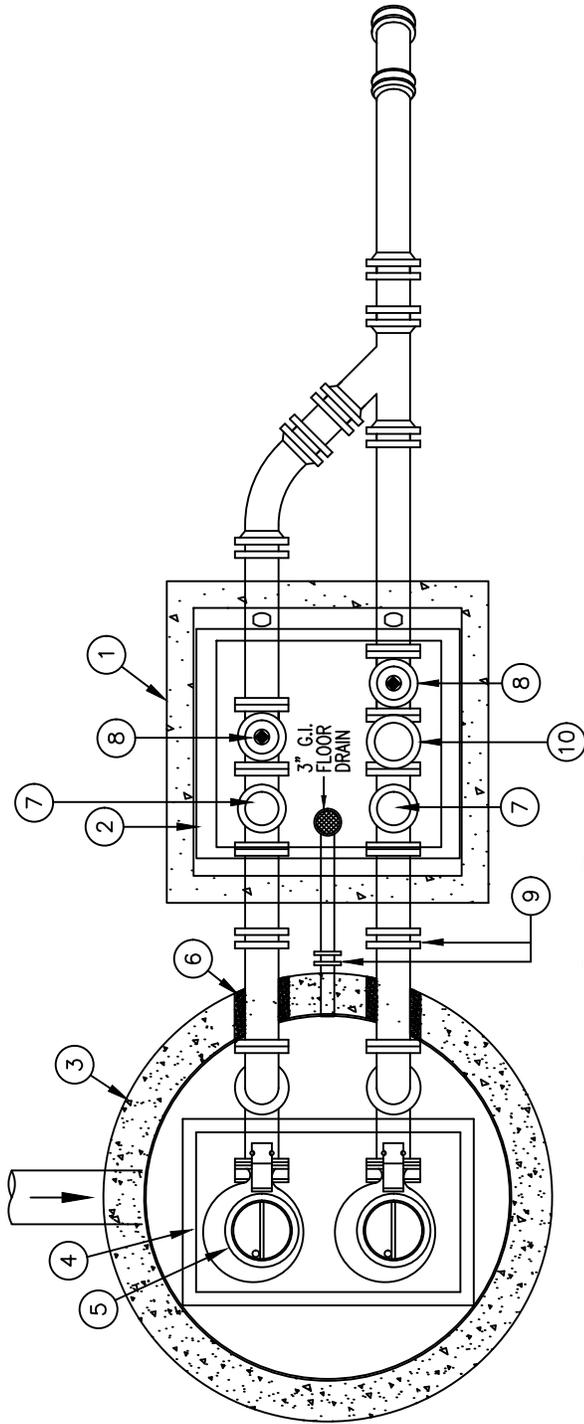
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DETAIL REF:

S-14



STANDARD CONSTRUCTION DETAIL
LIFT STATION
PLAN VIEW
(SUBMERSIBLE)



PLAN VIEW
N.T.S.

EQUIPMENT LIST

- 1 PRECAST VALVE VAULT SEE NOTE 1
- 2 VALVE VAULT ACCESS HATCH U.S. FOUNDRY APD300 48x48, SEE NOTE 2
- 3 6'-0" DIAMETER PRECAST CONCRETE WET WELL INTEGRALLY CAST "E.G.R.U" WET WELL LINER
- 4 WET WELL ACCESS HATCHES, SEE NOTE 2
- 5 FLGYT OR ABS SUBMERSIBLE PUMPS.
- 6 GROUT SEAL AROUND DISCHARGE LINES WITH NON-SHRINK GROUT
- 7 FL. x FL. CHECK VALVE
- 8 FL. x FL. 1/4 TURN PLUG VALVE W/ VALVE WRENCH
- 9 M.J. X M.J. SLEEVE W/ MEGALUG RESTRAINT
- 10 EMERGENCY PUMP CONNECTION

NOTES:

1. SANDBLAST AND PAINT INTERIOR OF VALVE VAULT PRE-COAT EPOXY FROM MANUFACTURER OR 2 COATS - 15 MILS TOTAL OF APPROVED COATING.
2. COORDINATE WET WELL ACCESS HATCH LOCATION WITH PUMP MOUNTING LOCATIONS. PROVIDE HASP TYPE LOCKING MECHANISM ON ALL ACCESS HATCHES.
3. ALL HATCHES TO BE 300 P.S.F. LOAD RATED.
4. SEE SPECIFICATIONS FOR APPROVED VALVE TYPES AND MANUFACTURERS.
5. PUMPS TO BE FURNISHED WITH HIGH PRESSURE DISCHARGE COUPLING, STAINLESS STEEL SLIDERAIL SYSTEM, SEAL FAILURE AND THERMAL OVERLOAD INDICATORS.
6. ALL PIPES, INVERTS AND HATCHES TO BE THE SIZE AND KIND SPECIFIED ON THE SET OF APPROVED CONSTRUCTION PLANS.
7. ALL HARDWARE INSIDE WETWELL TO BE 316 STAINLESS STEEL.
8. ALL PRESSURE PIPING TO BE RESTRAINED W/MEGALUG FITTINGS OR EQUAL.
9. PRESSURE GUAGE TO BE INSTALLED ON DISCHARGE SIDE OF PLUG VALVE, OPPOSITE SIDE OF BYPASS. USE DIAPHRAGM STYLE GUAGE ASSEMBLY.

FILE NAME:

EW_S18.DWG

DETAIL REF:

S-18

LIFT STATION WET WELL DESIGN AND CONSTRUCTION NOTES
FOR SUBMERSIBLE PUMP STATIONS

1. SEE CITY STANDARD DETAIL FOR EMERGENCY PUMP CONNECTION REQUIREMENTS
2. SEE CITY STANDARD DETAIL FOR 1" HOSE BIBB AND REQUIREMENTS.
3. SEE CITY STANDARD DETAIL FOR ALL ELECTRICAL REQUIREMENTS.
4. MINIMUM WET WELL DIAMETER IS 6 FT. THE MINIMUM REQUIRED DEPTH OF WET WELL BELOW THE LOWEST INVERT, SHOULD BE SET TO ALLOW THE MINIMUM RUN AND CYCLE TIMES OF THE PUMPS.
5. ALL PIPING AND FITTINGS IN WET WELL TO BE EPOXY LINED AND ASSEMBLED WITH 316 STAINLESS STEEL BOLTS AND NUTS ONLY.
6. STATION TOP TO BE AT 1" ABOVE FINISHED GRADE AND TAPERED TO FINISHED GRADE AND ITS ELEVATION WILL BE NO LOWER THAN THE 100-YEAR BASE FLOOD ELEVATION.
7. ALL DISCHARGE FITTINGS ON THE EXIT SIDE OF THE VALVE VAULT WILL BE PVC RESTRAINED JOINT.
8. ALL SEWER LINES ENTERING AND EXITING MANHOLES SHALL BE SEALED UTILIZING RUBBER BOOTS OR OTHER CITY APPROVED INFILTRATION LIMITING METHOD
9. WET WELL SECTIONS SHALL BE JOINED USING RAMNECK JOINT MATERIAL AND SHALL BE FREE FROM SEEPAGE PRIOR TO ACCEPTANCE. PROVIDE EZ-WRAP BUTYL ADHESIVE TAPE PER MANUFACTURERS RECOMMENDATIONS AT EACH WET WELL SECTION EXTERIOR JOINT CIRCUMFERENCE. USE EASY STICK NO.4 PRIMER PER MANUFACTURERS RECOMMENDATIONS PRIOR TO INSTALLATION OF EZ-WRAP TAPE.
10. NO SPLICES OR JUNCTION BOXES ARE ALLOWED FOR BALL FLOAT CORD INSTALLATION.
11. ALL LIFT STATIONS SHALL BE FIBERGLASS LINED OR LINED WITH ANOTHER MATERIAL AS APPROVED BY THE CITY (ASTM d 3753)
12. WET WELL CONSTRUCTION SHALL BE REINFORCED CONCRETE IN ACCORDANCE WITH ASTM C-76 4000PSI AT 28 DAYS. ALTERNATE CONSTRUCTION SHALL BE PRECAST MONOLITHIC WITH BASE SLAB IN ACCORDANCE WITH ASTM C-478.
13. ELECTRICAL PERMIT TO BE OBTAINED FROM THE CITY PRIOR TO BEGINNING WORK ON ANY ELECTRICAL WIRING, EQUIPMENT, ETC. ALL ELECTRICAL WIRING TO COMPLY WITH THE CURRENT NATIONAL ELECTRIC CODE.
14. THREE COPIES OF THE LIFT STATION OPERATING MANUAL TO BE PROVIDED TO THE ENVIRONMENTAL SERVICES DEPARTMENT PRIOR TO FINAL ACCEPTANCE OF THE LIFT STATION.
15. EMERGENCY HIGH LEVEL WETWELL FLASHING RED LIGHT REQUIRED WITH AUDIBLE ALARM (SEE S-20 NOTES)
16. LINKABLE FUSED ELECTRICAL DISCONNECT REQUIRED.
17. ALL PUMP STATION WIRING SHALL BE STANDARD COPPER.
18. THREE PHASE POWER AND MOTORS REQUIRED.
19. DISCONNECT FOR FUTURE TELIMITRY TO BE PROVIDED, SEE CITY FOR REQUIREMENTS.
20. FLOAT HANGER WILL BE INSTALLED AVOIDING ALL CONFLICTS WITH ANY INVERTS.
21. 2 IN. CONDUIT SHALL BE INSTALLED FOR FLOAT WIRES. EACH PUMP CORD SHALL HAVE A SEPARATE 2" CONDUIT.
22. ALL PUMPS WILL BE SPACED AND SET PER PUMP MANUFACTURERS SPECIFICATIONS.
23. ALL PUMP GUIDE RAILS WILL BE STAINLESS STEEL OR APPROVED EQUAL.
24. ALL WET WELL FLOORS WILL BE SLOPED TO AVOID ANY SETTLEMENT OF SOLIDS.
25. ALL VALVE VAULT FLOORS WILL BE SLOPED AND PITCHED TOWARD THE FLOOR DRAIN.
26. A MINIMUM OF 95% DENSITY WILL BE REQUIRED FOR ALL STRUCTURES. (WET WELL VALVE VAULT, ETC.)
27. AFTER DENSITY IS ACHIEVED, A 1 FT. BED OF #57 STONE WILL BE PLACED BETWEEN EARTH AND STRUCTURE.
28. CONTRACTOR MUST PROVIDE A POST CONSTRUCTION VIDEO OF ALL MANHOLES AND GRAVITY SEWER LINES.
29. A DIAPHRAGM STYLE PRESSURE GAUGE WILL BE INSTALLED ON THE DISCHARGE SIDE OF THE PLUG VALVE. INSTALLATION WILL BE A STAINLESS STEEL SADDLE TAP METHOD, AND EQUIPPED WITH A BRASS BALL VALVE BETWEEN THE GAUGE AND THE PIPE.
30. ALL PUMP STATIONS WITH PUMPS 20 HP, OR GREATER, SHALL HAVE AN EMERGENCY POWER GENERATOR. PROVIDE SIGNED AND SEALED DRAWINGS OF GENERATOR AND ENCLOSURE AND REQUIRES 277/480 VOLTAGE.



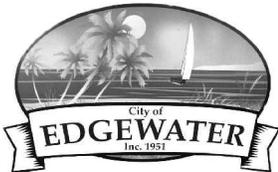
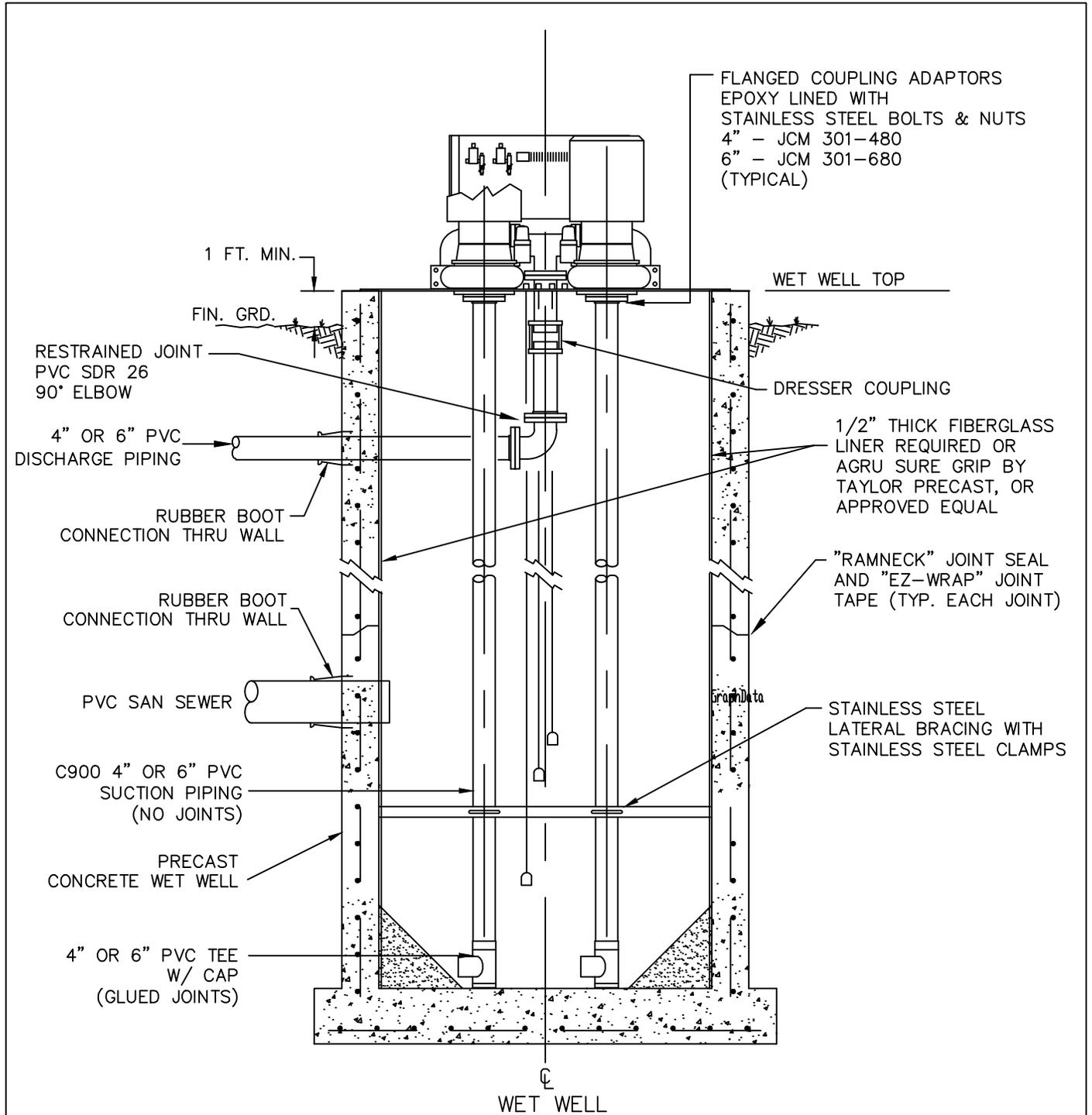
STANDARD CONSTRUCTION DETAIL
LIFT STATION WET WELL DESIGN AND
CONSTRUCTION NOTES
(SUBMERSIBLE PUMP STATIONS)

FILE NAME:

EW_S19.DWG

DETAIL REF:

S-19



STANDARD CONSTRUCTION DETAIL
LIFT STATION WET WELL SECTION
(NON-SUBMERSIBLE)

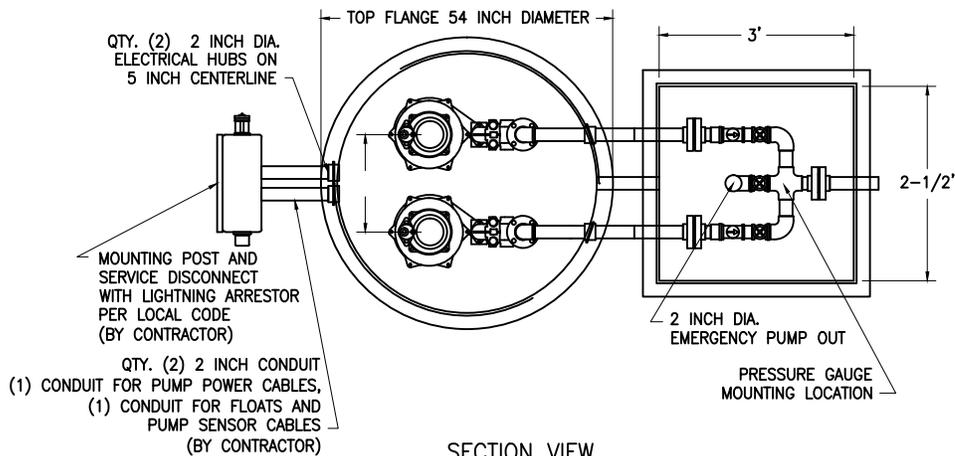
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EW_S20.DWG

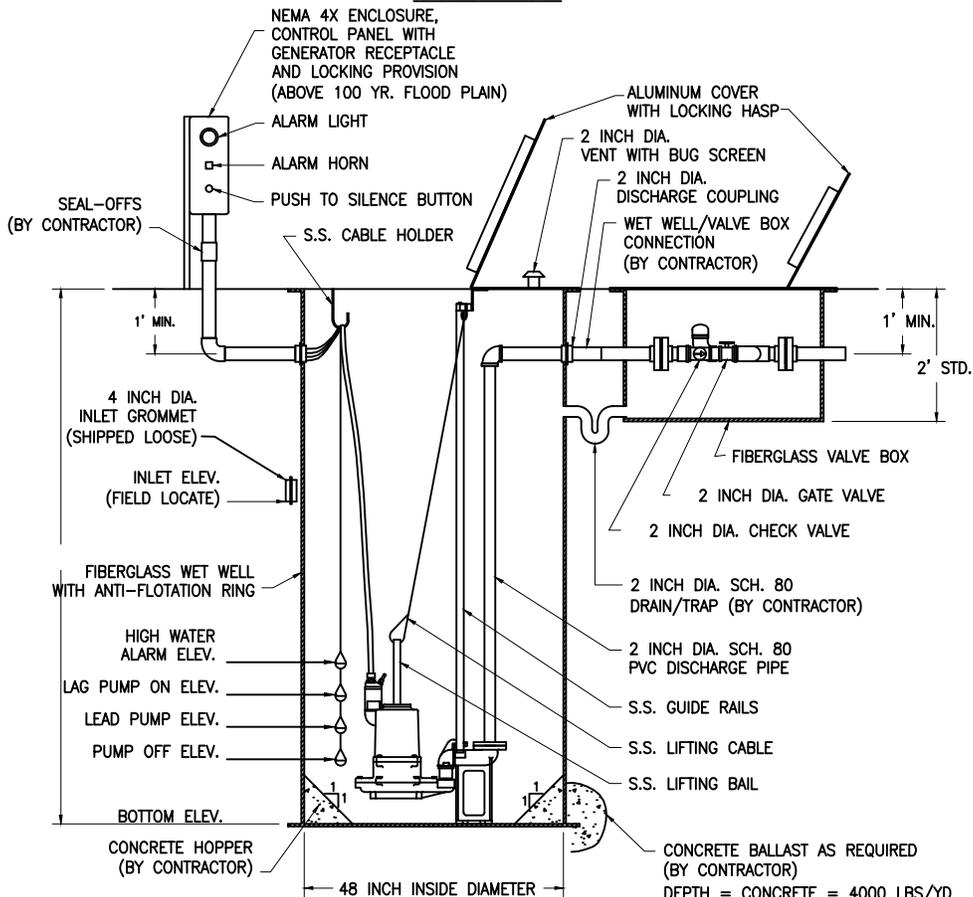
DETAIL REF:

S-20

PLAN VIEW



SECTION VIEW



NOTES:

1. USE ONLY WITH SPECIFIC APPROVAL FROM UTILITY DEPT.
2. PRESSURE AND FLOW CONDITIONS TO BE DETERMINED BY DESIGN ENGINEER.

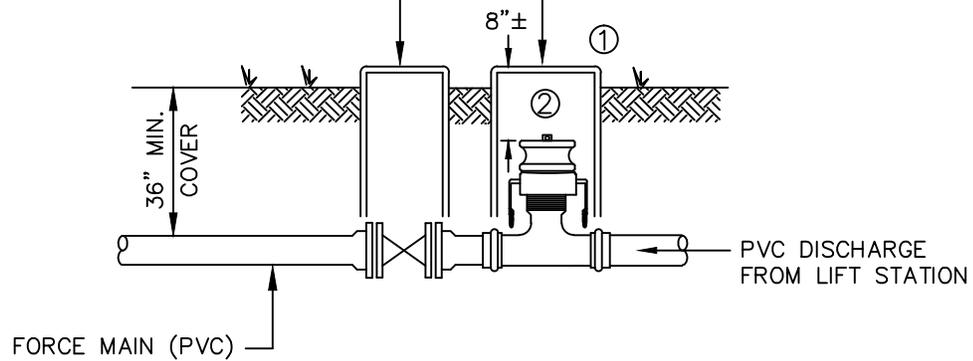


STANDARD CONSTRUCTION DETAIL
UNITARY SEWAGE PUMP STATION

FILE NAME:	EW_S22C.DWG
DETAIL REF:	S-22C

EMERGENCY PUMP CONNECTION AND BOX
 4" OR 6" BRANCH AND 4" RISER, FEMALE
 CAM-LOCK FITTING AND DUST PLUG

6" OR 4" RESILIENT SEAT
 GATE VALVE AND BOX



NOTES:

1. PUMP CONNECTION BOX IS CDR #WB001527-12. SOLID 15" X 27" COVER WITH "SEWER" IMPRINTED ON LID.
2. CAM-LOK PIPE FITTING IS 4" MIPX MALE CAMLOCK WITH FEMALE DUST PLUG.



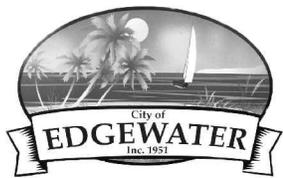
STANDARD CONSTRUCTION DETAIL
 LIFT STATION
 EMERGENCY PUMP CONNECTION

FILE NAME:
 EW_S20A.DWG

DETAIL REF:
 S-20A

LIFT STATION WET WELL DESIGN AND CONSTRUCTION NOTES
FOR WET WELL MOUNTED STATIONS

1. SMITH AND LOVELESS DUPLEX WET WELL MOUNTED OR RECESSED WET WELL-MOUNTED FACTORY STATION REQUIRED.
2. SEE CITY STANDARD DETAIL FOR EMERGENCY PUMP CONNECTION REQUIREMENTS.
3. SEE CITY STANDARD DETAIL FOR 1" HOSE BIBB AND REQUIREMENTS.
4. SEE CITY STANDARD ELECTRICAL DETAIL FOR ELECTRICAL REQUIREMENTS.
5. MINIMUM WET WELL DIAMETER IS 6 FOOT. THE MINIMUM REQUIRED DEPTH OF WET WELL BELOW THE LOWEST INVERT SHOULD BE SET TO ALLOW THE MINIMUM RUN AND CYCLE TIMES OF THE PUMPS.
6. STATION TOP TO BE MINIMUM OF 1 FOOT ABOVE EXISTING GRADE AND ITS ELEVATION SHALL BE NO LOWER THAN THE 100-YEAR BASE FLOOD ELEVATION.
7. ALL PIPING IN WET WELLS TO BE EPOXY LINED AND ASSEMBLED 316 STAINLESS STEEL BOLTS (ANT) NUTS ONLY.
8. ALL PUMP SUCTION LINE FITTINGS TO BE FLANGED JOINT, EXCEPT BASE TEES SHALL BE GLUED PVC WITH GLUED PVC BOTTOM CAPS.
9. SUCTION LINES IN WET WELL SHALL BE SUPPORTED AT THE BASE WITH GLUED PVC SUCTION TEES WITH RUNS FACING VERTICALLY WITH SUITABLE 316 STAINLESS STEEL CHANNEL AND ACCESSORIES SUPPORTING THE SUCTION LINES MOUNTED HORIZONTALLY ACROSS THE WET WELL DIAMETER AND ATTACHED TO THE WET WELL SIDES.
10. ALL DISCHARGE FITTINGS TO BE PVC RESTRAINED JOINT.
11. ALL SEWER LINES ENTERING AND EXITING MANHOLES SHALL BE SEALED UTILIZING RUBBER BOOTS OR OTHER CITY APPROVED INFILTRATION LIMITING METHODS.
12. WET WELL SECTIONS SHALL BE JOINED USING "RAMNECK" JOINT MATERIAL AND SHALL BE FREE FROM SEEPAGE PRIOR TO ACCEPTANCE. PROVIDE EZWRAP BUTYL ADHESIVE TAPE PER MANUFACTURERS RECOMMENDATIONS AT EACH WET WELL SECTION EXTERIOR JOINT CIRCUMFERENCE. USE "EZSTICK" NO. 4 PRIMER PER MANUFACTURERS RECOMMENDATIONS PRIOR TO INSTALLATION OF EZ-WRAP TAPE.
13. NO SPLICES OR JUNCTION BOXES ARE ALLOWED FOR BALL FLOAT OR PUMP CORD INSTALLATION.
14. ALL LIFT STATIONS SHALL BE FIBERGLASS LINED OR LINED WITH ANOTHER MATERIAL AS APPROVED BY THE CITY. (ASTM D3753)
15. WET WELL CONSTRUCTION SHALL BE REINFORCED CONCRETE IN ACCORDANCE WITH ASTM C-76, 4000 PSI AT 28 DAYS. ALTERNATE CONSTRUCTION SHALL BE PRECAST MONOLITHIC WITH BASE SLAB IN ACCORDANCE WITH ASTM C-478.
16. ELECTRICAL PERMIT TO BE OBTAINED FROM THE CITY PRIOR TO BEGINNING WORK ON ANY ELECTRICAL WIRING, EQUIPMENT, ETC. ALL ELECTRICAL WIRING TO COMPLY WITH THE CURRENT NATIONAL ELECTRICAL CODE.
17. THREE COPIES OF THE LIFT STATION OPERATING MANUAL TO BE PROVIDED TO THE ENVIRONMENTAL SERVICES DEPARTMENT PRIOR TO FINAL ACCEPTANCE OF THE LIFT STATION.
18. EMERGENCY ELECTRICAL RECEPTACLE REQUIRED TO BE INSTALLED UNDER FIBERGLASS HOOD.
19. EMERGENCY HIGH LEVEL WET WELL FLASHING ALARM LIGHT REQUIRED, WITH AUDIBLE ALARM.
20. LINKABLE FUSED ELECTRICAL DISCONNECT REQUIRED.
21. THE PUMP STATION WIRING SHALL BE STANDARD COPPER. LIFT STATIONS WITH PUMPS 20HP OR GREATER WILL REQUIRE 277/480 VOLTAGE AND ONSITE GENERATOR AS SPECIFIED IN S-31
22. THREE PHASE POWER AND MOTORS REQUIRED.
23. DISCONNECT FOR FUTURE TELEMETRY TO BE PROVIDED. SEE CITY FOR REQUIREMENTS.
24. DEVELOPER /CONTRACTOR TO PAY ALL INITIAL ELECTRICAL CONNECTION CHARGES, ETC. ON THE DAY OF FINAL ACCEPTANCE BY THE CITY, ALL FUTURE MONTHLY ELECTRICAL BILLS TO BE TAKEN OVER BY THE CITY OF EDGEWATER. PLEASE CONTACT THE ENVIRONMENTAL SERVICES DEPARTMENT AT 424-2460 TO TRANSFER POWER BILL TO THE CITY.
25. 2-INCH PVC CONDUIT FOR FLOAT WIRES SHALL BE INSTALLED FOR ALL LIFT STATIONS.
26. THE FLOAT HANGER WILL BE INSTALLED AVOIDING ALL CONFLICTS WITH ANY INVERTS.
27. A MINIMUM OF 95% DENSITY WILL BE REQUIRED FOR ALL LIFT STATION STRUCTURES. (WET WELL, VALVE VAULT, ETC.)
28. CONTRACTOR MUST PROVIDE A POST CONSTRUCTION VIDEO OF ALL MANHOLES AND GRAVITY SEWER LINES.



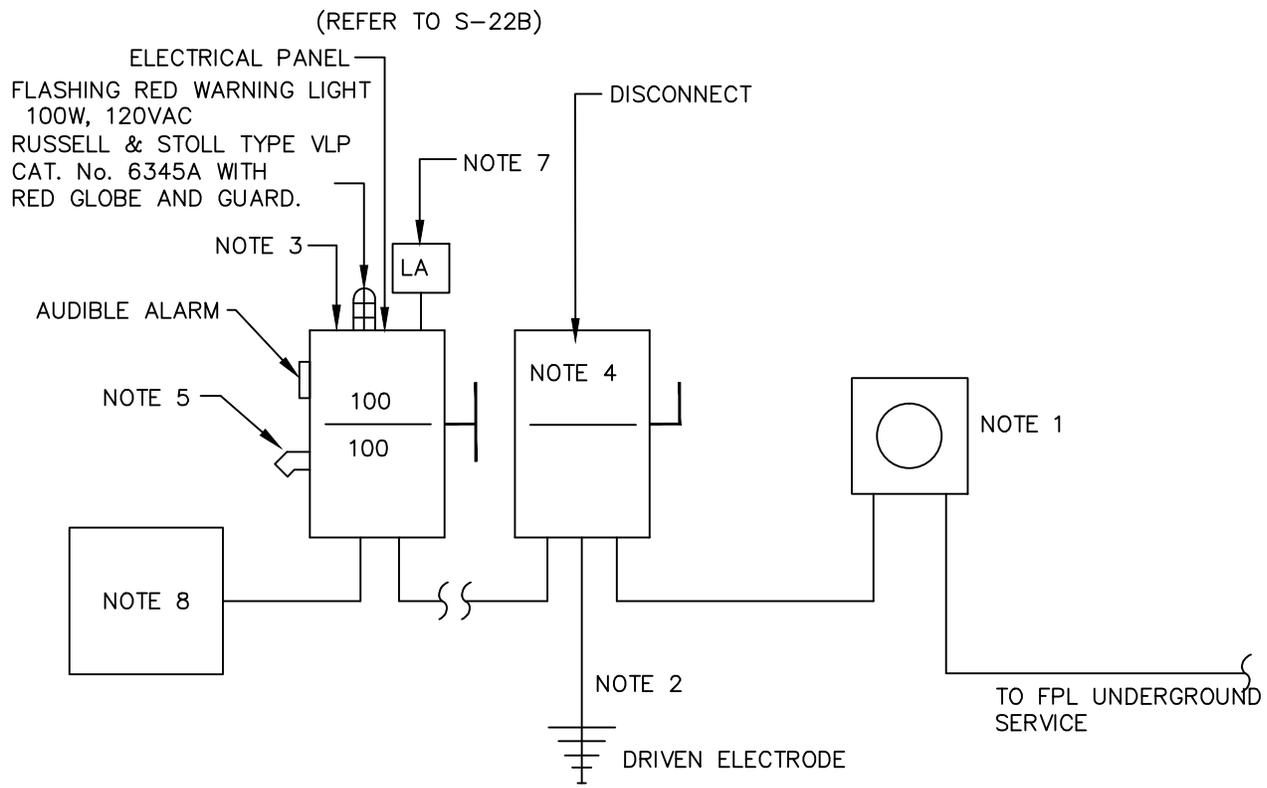
STANDARD CONSTRUCTION DETAIL
LIFT STATION WET WELL DESIGN AND
CONSTRUCTION NOTES
(NON-SUBMERSIBLE)

FILE NAME:

EW_S21.DWG

DETAIL REF:

S-21



NOTES:

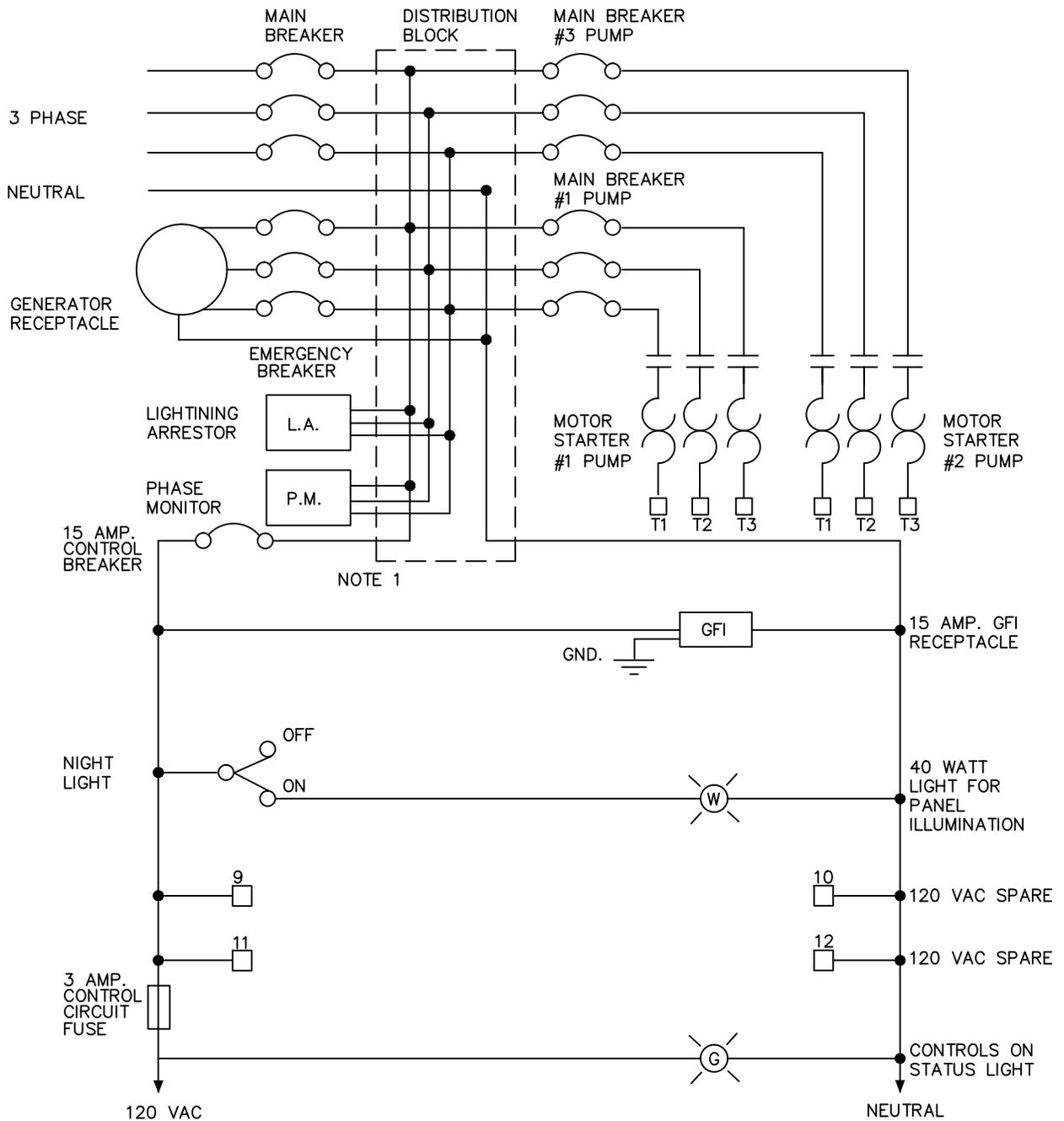
1. F.P.L. METER WITH BYPASS
2. SERVICE GROUND TO INCLUDE 3 - 10' ELECTRODES ON 10' CENTERS BOND TO SLAB REBAR. USE #4 BARE COPPER MIN.
3. ELECTRICAL PANEL IN WEATHERPROOF ENCLOSURE NEMA 3R304 STAINLESS STEEL.
4. 3 POLE S-N FUSED 240 VOLT (AMPS MAY CHANGE WITH VARIOUS APPLICATIONS) WEATHERPROOF DISCONNECT.
5. GENERATOR RECEPTACLE, HUBBEL 4100B9W 4 PIN 100 AMP APPLIANCE INLET WITH WEATHERPROOF CAP
6. PACKAGE PUMP STATION CONTROL PANEL
7. LIGHTNING ARRESTOR - SQUARE D No. SDSA 3650 TO BE INSTALLED IN PANEL.
8. P.C. PANEL BY OTHERS. PROVIDE WIRING TO SUBMERSIBLE PUMPS, LEVEL CONTROL DEVICES, & ALARM INDICATOR AS REQUIRED.



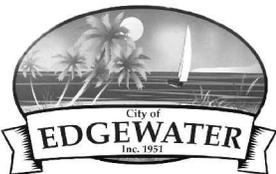
STANDARD CONSTRUCTION DETAIL
 PACKAGED LIFT STATION
 ELECTRICAL NOTES

FILE NAME:
 EW_S22.DWG

DETAIL REF:
 S-22D



NOTE 1 - FOR 277/480 VOLT PANELS STEP DOWN TRANSFORMER FOR 120 VOLT CONTROL VOLTAGE WILL BE REQUIRED.



STANDARD CONSTRUCTION DETAIL
 PACKAGED LIFT STATION
 ELECTRICAL PANEL SCHEMATIC

FILE NAME:
 EW_S22A.DWG

DETAIL REF:
 S-22A

SANITARY SEWER DESIGN AND CONSTRUCTION NOTES

1. THE CITY'S ENVIRONMENTAL SERVICES DEPT. (424-2460) SHALL BE GIVEN A MINIMUM OF 48 HOURS ADVANCE NOTICE (NOT INCLUDING HOLIDAYS OR WEEKENDS) PRIOR TO BEGINNING ANY SANITARY SEWER CONSTRUCTION.
2. ALL GRAVITY SANITARY SEWER MAIN LINES SHALL BE 8" DIAMETER MINIMUM. COMMERCIAL SERVICE LATERALS WITH MULTIPLE CONNECTIONS SHALL BE GREEN 6" DIA. OR LARGER. ALL SINGLE FAMILY RESIDENTIAL SERVICE LATERALS SHALL BE 4" - SINGLE SERVICES.
3. ALL GRAVITY SANITARY SEWER LINES SHALL BE GREEN PVC SDR 26, ASTM D-3034. IN PLACES WHERE A MINIMUM COVER OF 4.0' CANNOT BE MAINTAINED, AWWA C-900 OR C-905 GREEN PVC DR-25, CLASS 100 OR CONCRETE ENCASEMENT SHALL BE USED. WATER LINES, RECLAIMED LINES, AND STORM DRAINAGE CROSSINGS SHALL ALSO FOLLOW THE CONCRETE ENCASEMENT REQUIREMENT PER THESE STANDARDS AND AS PER REGULATORY REQUIREMENTS.
4. MINIMUM GRAVITY SANITARY SEWER SLOPES ARE AS FOLLOWS:
8" PIPE 0.40 %
10" PIPE 0.30 %
12" PIPE 0.22 %
5. GRAVITY SANITARY SEWER LINES SHALL BE INSTALLED WHENEVER POSSIBLE UNDER PAVED AREAS WITHIN PUBLIC RIGHTS-OF-WAY. UTILITY EASEMENTS SHALL BE PROVIDED WHENEVER PUBLICLY-OWNED SEWER LINES ARE CONSTRUCTED OUTSIDE OF A PUBLIC RIGHT-OF-WAY.
6. GRAVITY SANITARY SEWER LINE CONSTRUCTION SHALL BE ACCOMPLISHED BY THE USE OF A LASER INSTRUMENT UNLESS ANOTHER METHOD IS PREVIOUSLY APPROVED BY THE CITY.
7. THE CONTRACTOR SHALL AT ALL TIMES, DURING PIPE LAYING OPERATIONS, DEWATER THE GROUND SUFFICIENTLY TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6" BELOW THE PIPE BEING LAID WITHIN THE AREA OF THE TRENCH.
8. ALL PIPES SHALL BE LAID ON A FIRM FOUNDATION. SOFT OR SPONGY BEDDING FOR PIPES IS NOT ACCEPTABLE. ANY UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH A DRY, COMPACTED, GRANULAR MATERIAL SATISFACTORY TO THE CITY.
9. ON ALL EXCAVATION AND BACKFILLING THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING AND BRACING IN ORDER TO PROVIDE FOR THE SAFETY OF WORKMEN, AS WELL AS REPRESENTATIVES OF THE CITY, THE DESIGN ENGINEER, AND THE DEVELOPER.
10. ALL TRENCHES SHALL BE BACKFILLED WITH ACCEPTABLE MATERIAL AND COMPACTED TO THE SPECIFIED MINIMUM COMPACTION (95% IN UNPAVED AREAS AND 98% IN PAVED AREAS) OF THE OPTIMUM DENSITY OF THAT MATERIAL BASED ON THE AASHTO T-180 MODIFIED PROCTOR TEST.
11. THE CONTRACTOR SHALL EMPLOY AN INDEPENDENT TESTING LABORATORY AT HIS OWN EXPENSE TO INSURE THAT COMPACTION OF ALL FILL MATERIAL IS COMPLETED PROPERLY. TESTS SHALL BE DONE ONE FOOT ABOVE THE PIPE AND THEN AT ONE FOOT VERTICAL INTERVALS UNTIL FINAL GRADE IS REACHED. TESTING SHALL BE COMPLETED AND TEST DOCUMENTS SUBMITTED TO THE CITY AT A MINIMUM FREQUENCY OF ONE SET OF TESTS BETWEEN EACH MANHOLE AND ONE ADDITIONAL SET OF TESTS AT EVERY MANHOLE. IDENTIFICATION OF TEST LOCATIONS SHALL BE CLEARLY INDICATED ON TEST REPORTS. TEST RESULTS SHALL BE FORWARDED PROMPTLY TO THE CITY'S DESIGNATED SITE INSPECTOR.
12. THE CONTRACTOR SHALL INSTALL A METALLIZED FOIL LOCATOR TAPE, OR SIMILAR DEVICE AS MAY BE APPROVED BY THE CITY FOR THE FULL LENGTH OF ALL PVC SEWAGE FORCE MAINS. THIS PIPE LOCATOR AID SHALL BE INSTALLED BETWEEN 15" AND 24" BELOW FINISHED GRADE OR AS DIRECTED BY THE MANUFACTURER. TAPE SHALL BE COLOR CODED GREEN FOR SANITARY SEWER AND FORCE MAIN. INSTALL 12 GAUGE TRACING WIRE IN TRENCH.



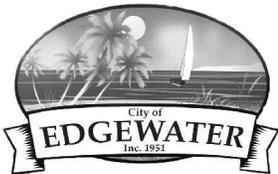
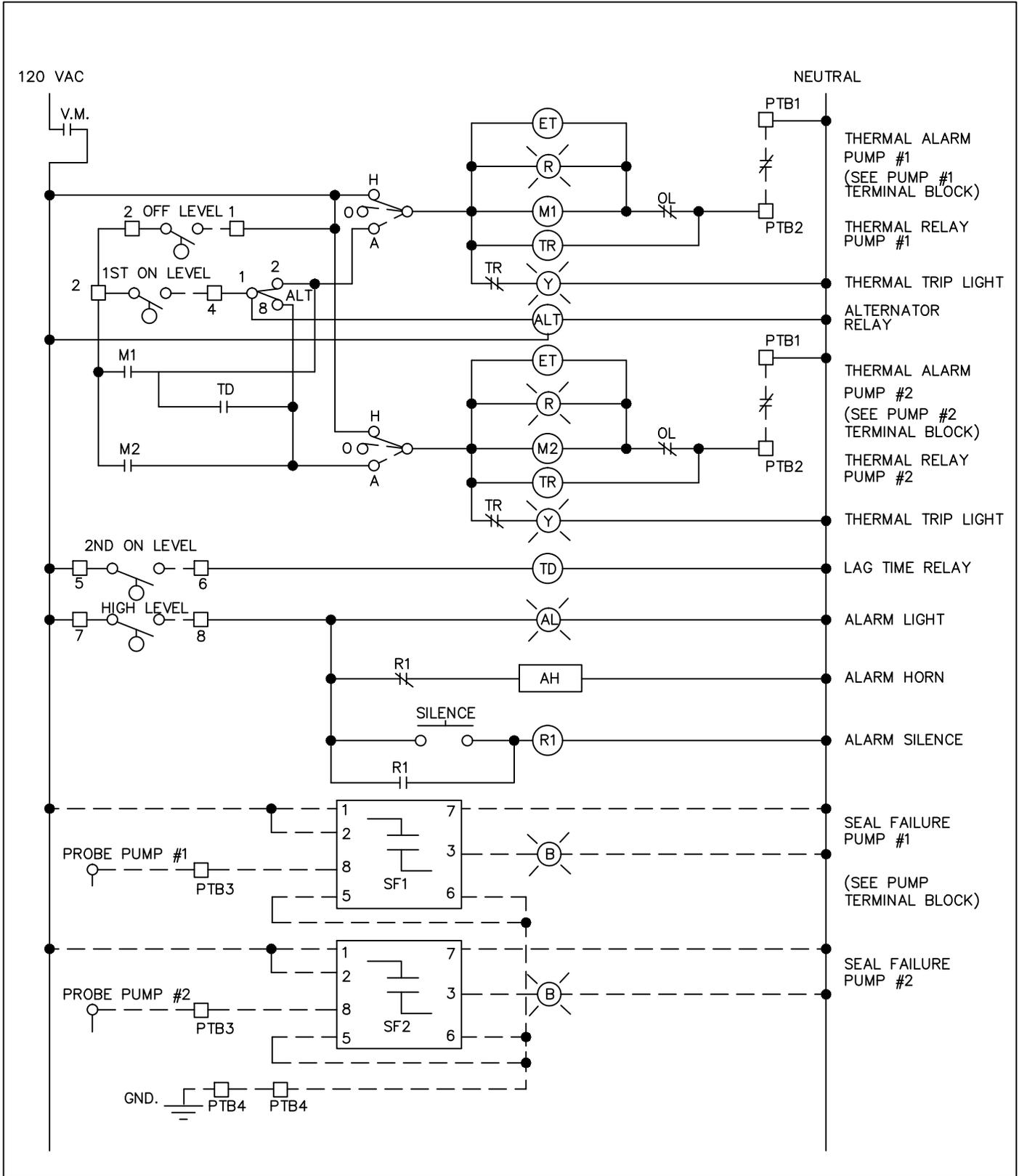
STANDARD CONSTRUCTION DETAIL SANITARY SEWER DESIGN AND CONSTRUCTION NOTES

FILE NAME:

EW_S23.DWG

DETAIL REF:

S-23



STANDARD CONSTRUCTION DETAIL
 PACKAGED LIFT STATION
 ELECTRICAL PANEL SCHEMATIC

FILE NAME:
 EW_S22B.DWG

DETAIL REF:
 S-22B

SANITARY SEWER DESIGN AND CONSTRUCTION NOTES:
(CONTD.)

13. ALL TESTING REQUIRED BY THE CITY SHALL BE PAID FOR BY THE CONTRACTOR / DEVELOPER.
14. ALL LOCAL COLLECTION SANITARY SEWER MANHOLES SHALL BE PRECAST WITH A MINIMUM INSIDE DIAMETER OF 4 FEET.
15. STANDARD MANHOLES SHALL BE LOCATED AT INTERVALS NOT EXCEEDING 400 FEET.
16. ALL SEWER FITTINGS TO BE "HARCO" OR CITY APPROVED EQUAL.
17. MANHOLE RIMS SHALL MATCH FLUSH WITH THE FINISH GRADE ELEVATION IN PAVED AREAS AND A MINIMUM OF 0.2 FEET AND MAXIMUM OF 0.5 FEET ABOVE GRADE GENERALLY IN UNPAVED AREAS.
18. THE CONTRACTOR SHALL CONSTRUCT SANITARY SEWER MANHOLES IN SUCH A WAY THAT SEWER LINES DO NOT INTERSECT SEALED JOINTS BETWEEN SECTIONS OF THE MANHOLE.
19. RUBBER BOOTS AND STAINLESS STEEL BANDS SHALL BE UTILIZED IN THE CONNECTION OF THE SEWER MAIN TO THE MANHOLES (SEE STANDARD MANHOLE AND BOOT DETAIL).
20. INDIVIDUAL SANITARY SERVICE CONNECTORS ON NEW CONSTRUCTION SHALL NOT BE CONNECTED DIRECTLY INTO MANHOLES, AND MUST CONNECT TO SEWER MAIN LINES BY USE OF WYE CONNECTIONS, UNLESS OTHERWISE BE APPROVED BY THE CITY.
21. FOR SINGLE FAMILY HOMES, SINGLE OR DOUBLE FOUR INCH SEWER SERVICES LATERALS SHALL BE CONSTRUCTED SINGLES AT EACH LOT OR UNIT AND LOCATED ON THE DOWNSTREAM SIDE OF THE LOT CENTER LINE. DOUBLES LOCATED ON THE LOT LINES THESE SERVICES SHALL BE EXTENDED 4 FEET ABOVE GROUND AT THE PROPERTY LINE WITH A PVC RISER AND PLUG BEING EASILY VISIBLE FROM THE ROAD. RUBBER SEAL FITTINGS SHALL BE USED ON ALL LINES. NO GLUED JOINTS ARE PERMITTED ON LATERALS, INCLUDING DOUBLES.
22. FOR MULTI-FAMILY AND COMMERCIAL SITES, SIX INCH MINIMUM SEWER SERVICES AND CLEANOUTS SHALL BE PROVIDED AS APPROVED BY THE CITY.
23. SANITARY SEWER LIFT STATIONS AND FORCE MAINS, SIZE, MATERIAL, AND DESIGNS SHALL BE APPROVED BY THE CITY. LIFT STATIONS SHALL BE CONSTRUCTED WITH A MINIMUM WET WELL INTERIOR DIAMETER OF 6 FEET. FORCE MAINS SHALL BE A MINIMUM 6 INCH DIAMETER.
24. IT SHALL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO PREPARE AND SUBMIT FLOTATION CALCULATIONS TO SIZE THE BASE OF THE WET WELL, AND ANY MANHOLES AS DEEMED NECESSARY BY THE CITY.
25. SANITARY SEWER DROP MANHOLES SHALL ONLY BE USED UNDER SPECIAL CONDITIONS AS APPROVED BY THE CITY. DROPS LESS THAN 2.0' SHALL NOT BE ALLOWED.
26. ALL SANITARY SEWER MANHOLE COVERS SHALL HAVE THE WORDS "EDGEWATER, FLORIDA SANITARY SEWER" CAST INTO THEM.
27. ALL SANITARY SEWER FORCE MAINS, SHALL BE PVC AWWA C-900, OR C-905 (COLOR "GREEN") (PRESSURE FITTINGS, PRESSURE CLASS 150 OR 250 EPOXY LINED DIP. THE FORCE MAIN MINIMUM DEPTH OF COVER SHALL BE 36".
28. ALL SANITARY SEWER FORCE MAINS SHALL USE A THRUST RESTRAINT JOINT METHOD IN COMPLIANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION GUIDELINES MODIFIED TO ACCOMMODATE PVC PIPE BY FOLLOWING THE RECOMMENDED INCREASE IN RESTRAINT LENGTH CORRESPONDING TO THE INSTALLATION OF POLYETHYLENE WRAP. IN NO INSTANCE SHALL THRUST BLOCKS BE PERMITTED.



STANDARD CONSTRUCTION DETAIL
SANITARY SEWER DESIGN AND
CONSTRUCTION NOTES

FILE NAME:

EW_S24.DWG

DETAIL REF:

S-24

SANITARY SEWER DESIGN AND CONSTRUCTION NOTES
(CONTD.)

29. SANITARY SEWER MANHOLES WHICH HAVE SEWER FORCE MAINS DISCHARGING DIRECTLY INTO THEM SHALL BE FIBERGLASS OR POLY-ETHYLENE LINED. RETRO-FITTING OF MANHOLES WITH LINERS SHALL BE REQUIRED WHEN NEW CONNECTIONS SUCH AS THIS ARE MADE. FIBERGLASS SHALL BE A MINIMUM 1/2" THICKNESS UNLESS APPROVED OTHERWISE BY THE CITY. OTHER TYPES OF LINING METHODS AND MATERIALS MAY BE CONSIDERED ON A CASE BY CASE BASIS. UNDER SPECIAL CIRCUMSTANCES WHERE HYDROGEN SULFIDE IS A MAJOR CONCERN MANHOLES UPSTREAM AND/OR DOWNSTREAM OF THE FORCE MAIN TIE-IN OR WET WELL MAY ALSO BE REQUIRED TO HAVE LININGS INSTALLED.
30. THE CITY RESERVES THE RIGHT TO REQUIRE THE DEVELOPER TO PERFORM VACUUM TESTING OF ALL SANITARY MANHOLES, AIR TEST SEWER MAINS, AND REQUIRES THAT ALL SANITARY SEWER MAIN LINES BE TELEVIEWED PRIOR TO FINAL ACCEPTANCE. LATERALS SHALL BE TELEVIEWED UPON DEMAND BY THE CITY PRIOR TO FINAL ACCEPTANCE WHEN IT IS SUSPECTED THAT A PROBLEM EXISTS.
31. ALL SEWER MAINS, PRIOR TO ACCEPTANCE BY THE CITY AND PRIOR TO ANY FINAL PAVING OPERATIONS, SHALL BE CLEANED FLUSHED AND TELEVIEWED USING A "PAN AND TILT" CAMERA BY A CITY APPROVED CONTRACTOR. THE VIDEO SHALL BE NON-STOP WITH AUDIO DESCRIBING WHAT IS BEING REVIEWED. WRITTEN VIDEO LOGS DESCRIBING THE CONDITION OF THE LINES SHALL ACCOMPANY THE TAPE SUBMISSION TO THE CITY PRIOR TO COMMENCING ANY INSTALLATION OF ASPHALT OR CONCRETE PAVEMENT. RE-TAPING MAY BE REQUIRED BY THE CITY IF ADDITIONAL CLEARING OR CORRECTIVE ACTIONS ARE NECESSARY.
32. ALL MANHOLES WITH FORCE MAIN CONNECTIONS SHALL BE OUTFITTED WITH EGRU LINERS OR OTHER TYPES OF LINERS APPROVED BY THE CITY. IN ADDITION, THE CITY MAY REQUIRE LINES TO BE INSTALLED IN AREAS WHERE THE ENVIRONMENTAL SERVICES DEPARTMENT BELIEVES THE NEED IS JUSTIFIED.
33. ALL SEWER LINES WHICH ARE CONSTRUCTED OUTSIDE OF PUBLIC RIGHTS-OF-WAY WITHIN SIDE YARDS, BACKYARDS, AND OTHER POORLY ACCESSIBLE AREAS SHALL BE CONSTRUCTED OF C-900 PVC. ABSOLUTELY NO USE OF PLASTIC STYRENE FITTINGS SHALL BE ALLOWED.
34. SEWER LATERAL LOCATIONS SHALL BE MARKED ALONG THE OUTSIDE OF THE CURB WITH A SAW CUT "V", OR BY A METAL TAB SET INTO THE PAVEMENT.
35. CONTEC A-2000 PVC PIPE SHALL NOT BE ALLOWED FOR USE.
36. EZ-WRAP PLASTIC, AS MANUFACTURED BY PRESS SEAL GASKET CORPORATION, SHALL BE USED ON THE OUTSIDE OF ALL MANHOLE AND WETWELL JOINTS. APPLY ONE LAYER OF 9" WRAP CENTERED ON EACH JOINT. A CITY INSPECTOR SHALL PERSONALLY INSPECT ALL JOINT SEALS PRIOR TO BACKFILLING OPERATIONS.
37. ALL PROPOSED SEWER FORCE MAINS SHALL BE FLUSHED, PRESSURE TESTED AND CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE WITH CITY PERSONNEL AT THE ENVIRONMENTAL SERVICES DEPARTMENT (AS APPROPRIATE) AT LEAST 24 HOURS PRIOR TO BEGINNING A FULL-DIAMETER FLUSH OF THE MAINS PRIOR TO THE COMMENCEMENT OF PRESSURE TESTING (SUBJECT TO AVAILABILITY).
38. THE CITY MAY REQUIRE THE CONTRACTOR TO PIG FORCE MAINS IN EXCESS OF 6" IN DIAMETER AND PRIMARY TRANSMISSION MAINS LOCATED ON COLLECTOR AND ARTERIAL ROADWAYS. LAUNCHING AND EXTRACTION POINTS SHALL BE DETERMINED BY THE CONTRACTOR.



STANDARD CONSTRUCTION DETAIL
SANITARY SEWER DESIGN AND
CONSTRUCTION NOTES

FILE NAME:

EW_S25.DWG

DETAIL REF:

S-25

SANITARY SEWER DESIGN AND CONSTRUCTION NOTES
(CONTD.)

39. ANY TIE INTO AN EXISTING MANHOLE WILL BE COORDINATED WITH THE CITY, AND ALL CONFINED SPACE HAZARDS AND PROCEDURES WILL BE FOLLOWED.
40. ANY TIE INTO AN EXISTING SYSTEM WILL BE SWEEPED IN THE DIRECTION OF FLOW.
41. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL OSHA, DOT, OR ANY OTHER RULES & REGULATIONS THAT MAY APPLY.
42. AS A GENERAL RULE, THE NUMBER OF JOINTS SHALL BE LIMITED WHENEVER POSSIBLE. IN SPECIAL CASES WHERE A POINT REPAIR TO AN 8" TO 12" PVC SEWER MAIN IS REQUIRED, THE PROPER RIGID WRAP AROUND SLEEVE SUCH AS A JCM-210 OVERSIZED DUCTILE IRON COUPLING OR AN APPROVED EQUAL MAY BE ALLOWED BY SPECIAL APPROVAL BY THE CITY.
43. ALL IN-LINE SANITARY SEWER FORCE MAIN VALVES SHALL BE RESILIENT SEAT (AWWA C-509) VALVES FEATURING A LINED DUCTILE IRON BODY.
44. ALL TAPPING OF MAINS AND CORING OF MANHOLES SHALL BE COORDINATED WITH THE CITY BY AN APPROVED CONTRACTOR AND BILLED IN ACCORDANCE WITH THE ADOPTED FEE RESOLUTION. SCHEDULING OF THESE CONNECTIONS SHALL REQUIRE A MINIMUM 48 HOUR NOTIFICATION (MEASURED ON NORMAL WORK DAYS) DIRECTED TO THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE THE WORK DIRECTLY WITH THE ENVIRONMENTAL SERVICE DEPARTMENT. SUBSEQUENTLY, THE CONNECTION SHALL BE SCHEDULED TO COMMENCE ON THE APPROPRIATE DAY AND TIME ESTABLISHED BY CITY.
45. WITH RESPECT TO TIE-IN CONNECTIONS AND CORING OPERATIONS, THE CITY RESERVES THE RIGHT TO REQUIRE CONNECTIONS TO BE PERFORMED DURING PERIODS OF LOW FLOW (MIDNIGHT TO 6:00 A.M.) IN ORDER TO MINIMIZE SERVICE DISRUPTION TO EXISTING CUSTOMERS.
46. ALL WORK PERFORMED UPON SANITARY SEWER FACILITIES OWNED OR PROPOSED TO BE OWNED BY THE CITY SHALL BE CONSTRUCTED BY A LICENSED UNDERGROUND UTILITY CONTRACTOR, OR LICENSED GENERAL CONTRACTOR, WHO IS LICENSED IN THE STATE OF FLORIDA AND REGISTERED WITH THE CITY.
47. UPON CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE SYSTEM, IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THAT THE SYSTEM IS PROPERLY CERTIFIED AND ACCEPTED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AS-BUILTS ARE PROVIDED TO THE CITY PRIOR TO ANY USE OF THE SYSTEM.
48. FOR CONSTRUCTION PURPOSES, THE PLANS SHALL DIMENSION THE LOCATION, OF ALL FORCE MAINS MEASURED FROM THE BACK OF CURB (OR EDGE OF PAVEMENT, IF NO CURBING EXISTS.)
49. ALL HDPE PIPE INSTALLED FOR SEWAGE FORCE MAINS SHALL BE SDR 11 UNLESS SPECIFICALLY NOTED OTHERWISE. THE HDPE PIPE SHALL BE SIZED TO MATCH THE EXTERNAL DIAMETER OF THE PVC OR DIP TO WHICH IT IS ATTACHED.
50. LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.
51. ALL UTILITY INSTALLATIONS ARE SUBJECT TO REVIEW AND APPEAL BY THE CITY OF EDGEWATER. ALL STRUCTURES AND EQUIPMENT SUPPLIED AND/ OR INSTALLED SHALL MEET QUALITY AND PERFORMANCE STANDARDS PRIOR TO ACCEPTANCE. SUBSTANDARD INSTALLATIONS MAY BE REJECTED, REMEMBER MEASURES ARE SUBJECT TO CITY APPROVAL.



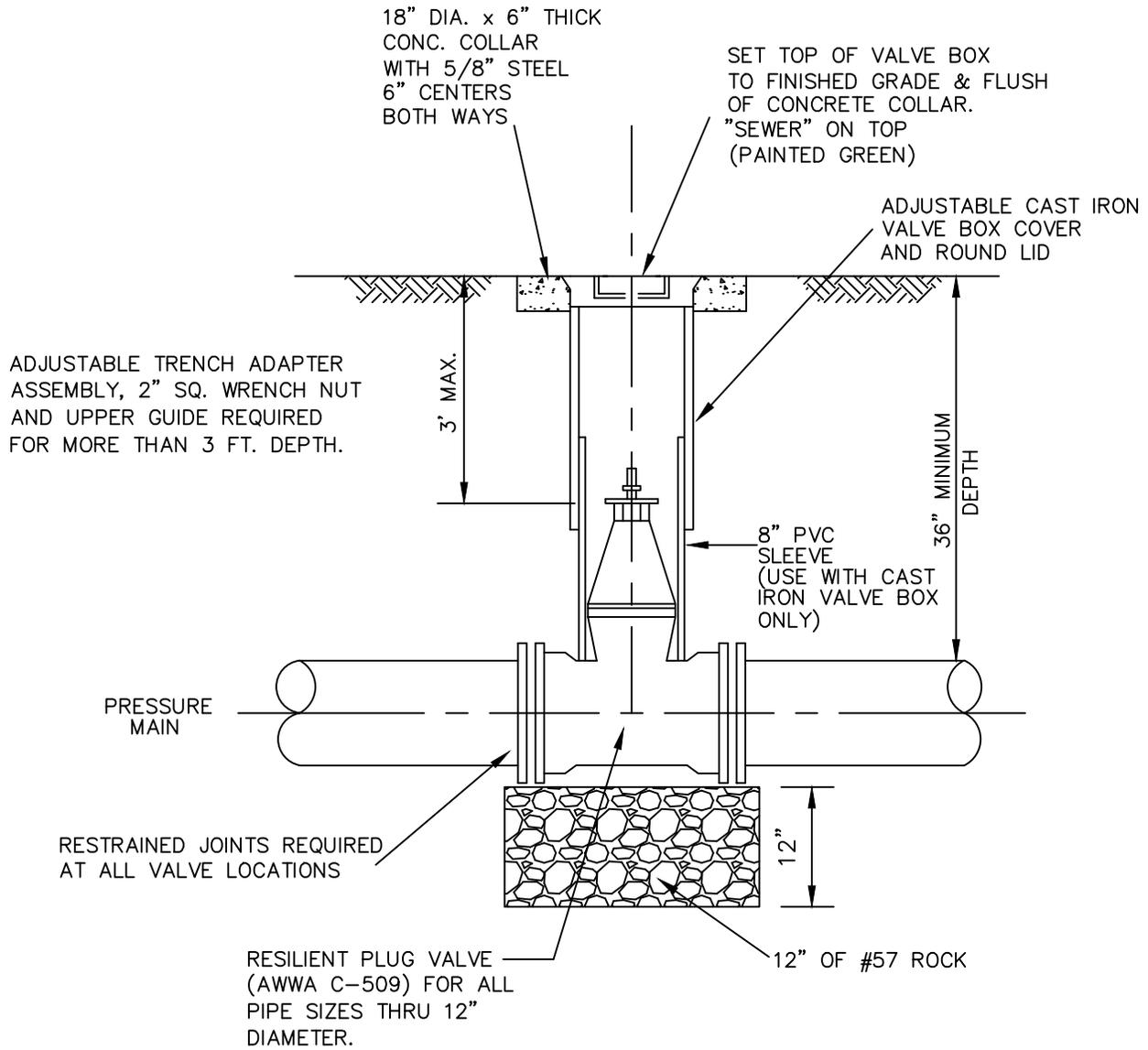
STANDARD CONSTRUCTION DETAIL
SANITARY SEWER DESIGN AND
CONSTRUCTION NOTES

FILE NAME:

EW_S26.DWG

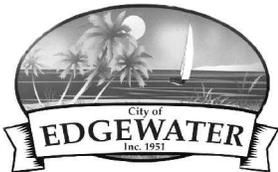
DETAIL REF:

S-26



NOTE:

1. ROD OR BOLT TO TEE WHERE APPLICABLE.



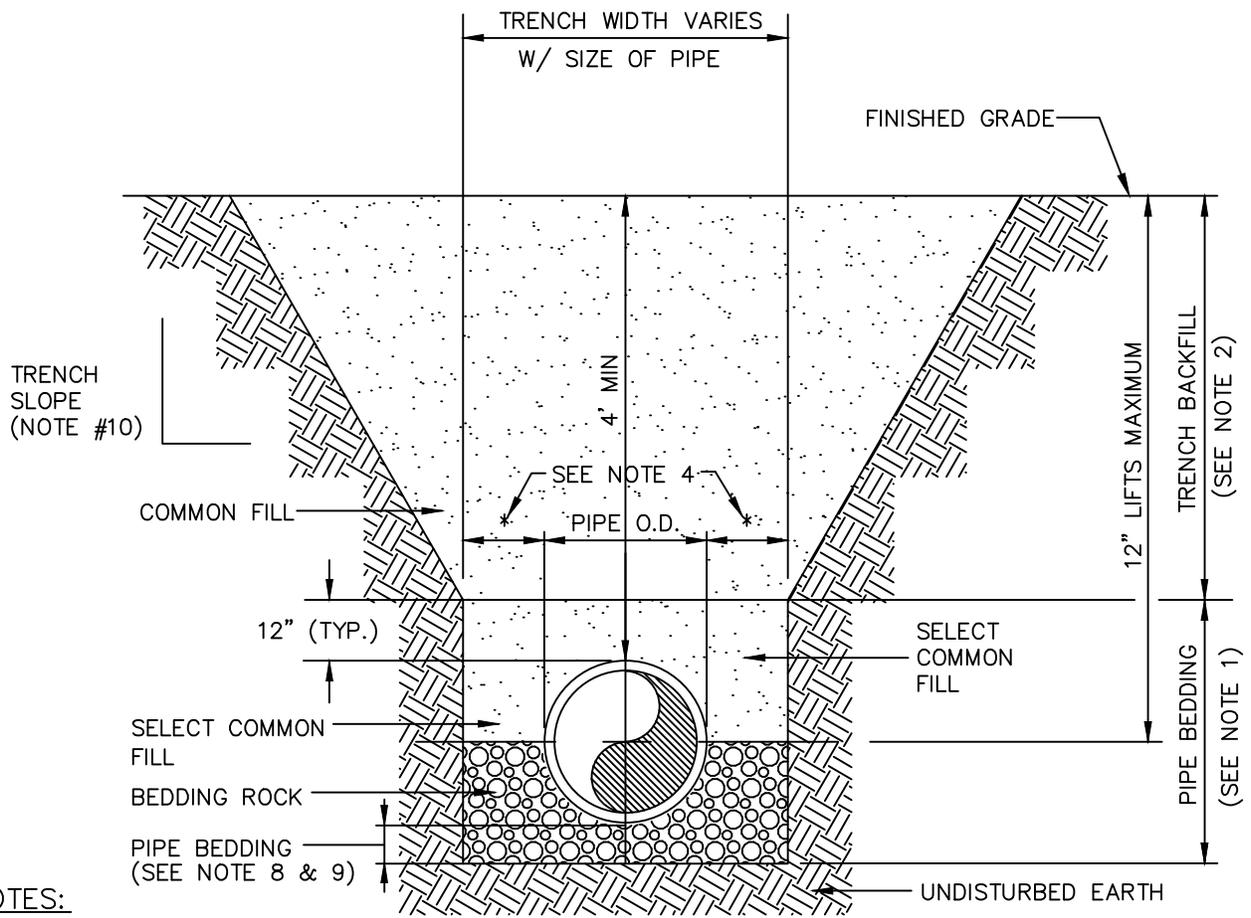
STANDARD CONSTRUCTION DETAIL
SANITARY SEWER FORCE MAIN VALVE & VALVE BOX

FILE NAME:

EW_S27.DWG

DETAIL REF:

S-27



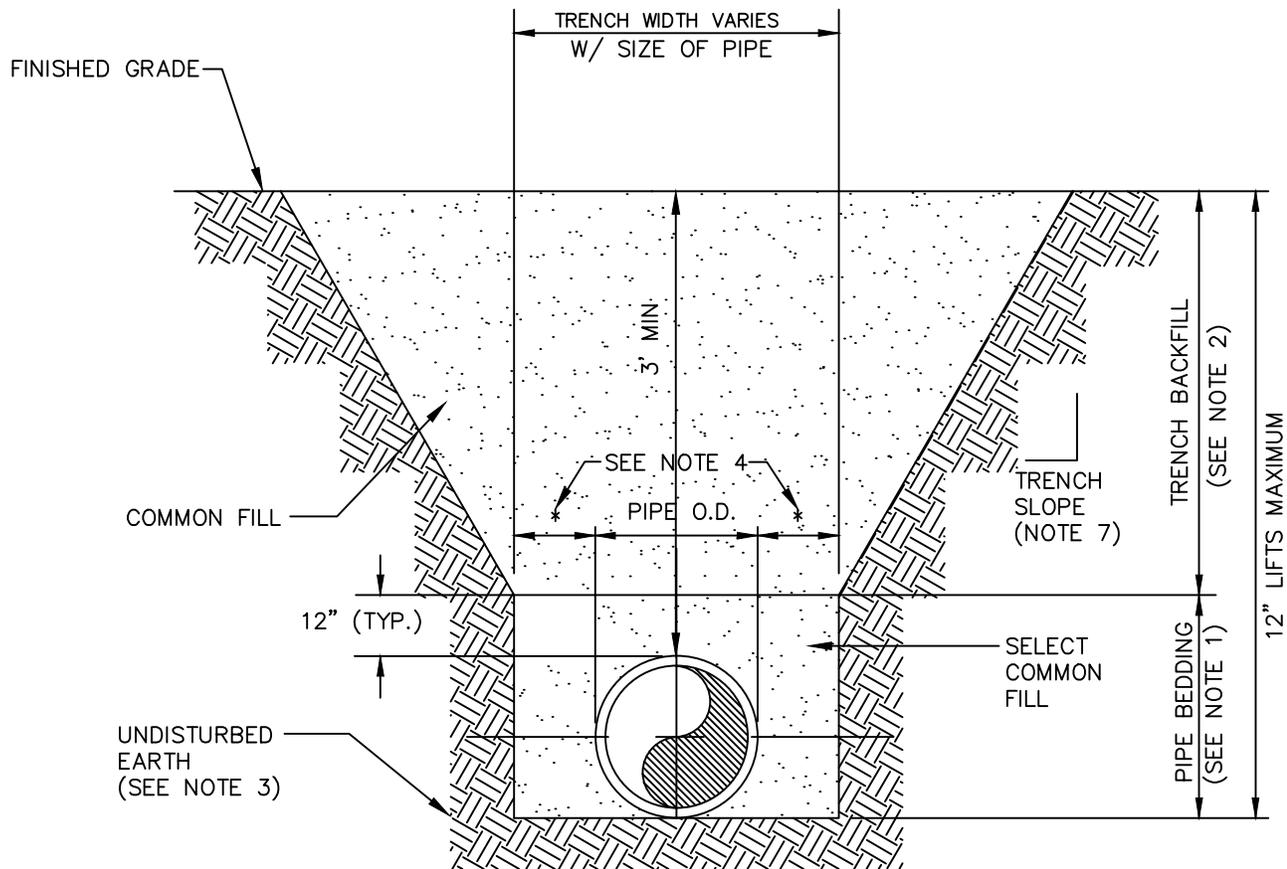
NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180. (98% DENSITY REQUIRED UNDER PAVEMENT, DRIVEWAYS AND STRUCTURES.)
3. USE TYPE "A" BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF FLOW.
7. REFER TO SECTION 32.5 OF THE MANUAL FOR SHEETING AND BRACING IN EXCAVATIONS.
8. GRAVITY SEWERS SHALL UTILIZE TYPE "A" BEDDING, WHERE UNSUITABLE MATERIAL EXISTS. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15", AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
9. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. CITY SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.
10. REFER TO OSHA REQMTS. FOR SLOPING, SHEETING AND BRACING IN EXCAVATIONS.



STANDARD CONSTRUCTION DETAIL
 TYPE "A" BEDDING AND TRENCH DETAIL
 (SPECIAL GRAVITY SEWER INSTALLATIONS)

FILE NAME:
EW_S28.DWG
DETAIL REF:
S-28



NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180, (98% DENSITY REQUIRED UNDER DRIVEWAYS, PAVEMENT AND STRUCTURES).
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE "A" BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF FLOW.
7. REFER TO OSHA REQUIREMENTS FOR SLOPING, SHEETING AND BRACING IN EXCAVATIONS.
8. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.



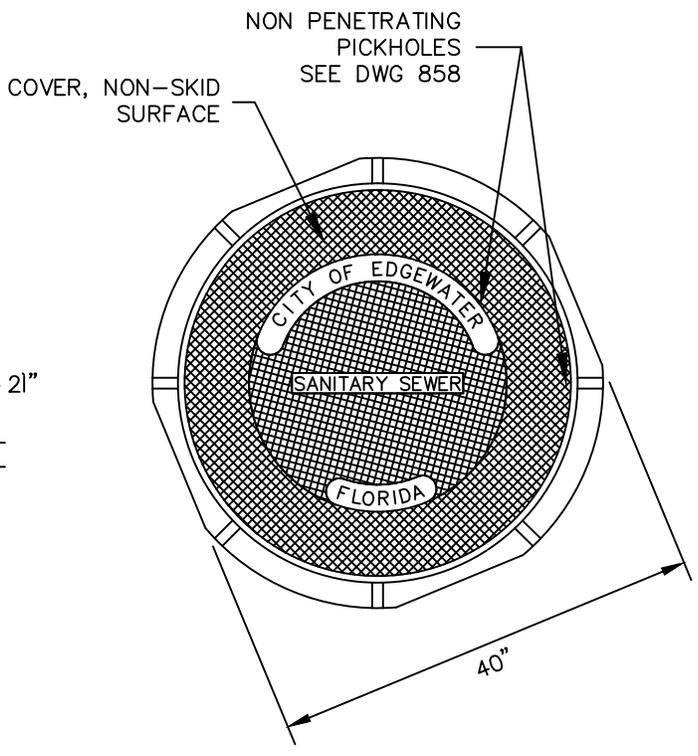
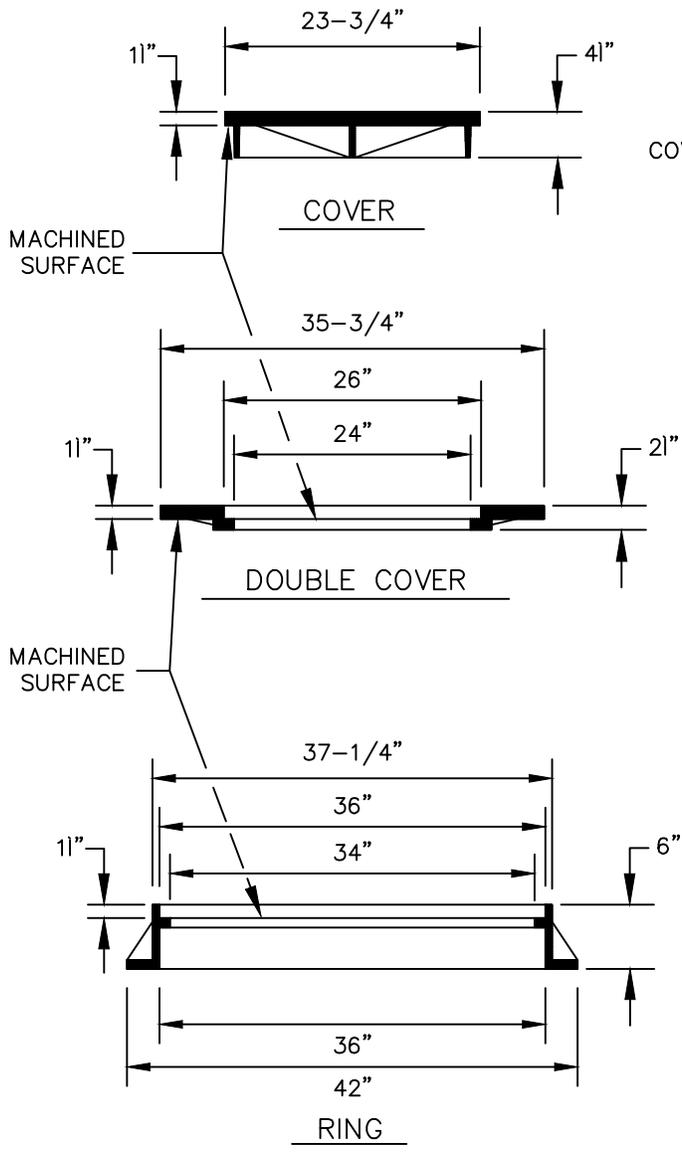
STANDARD CONSTRUCTION DETAIL
 TYPE "B" BEDDING AND TRENCH DETAIL
 (TYPICAL FOR WATER, SEWER, FORCE MAIN, STORM
 DRAIN AND RECLAIMED WATER MAIN INSTALLATIONS)

FILE NAME:

EW_S29.DWG

DETAIL REF:

S-29



NOTES:

1. U.S. FOUNDRY 666 RING & CR-ORS & XB-ORS COVERS
2. COVER WT.: 212 LBS. APP. (185 LBS. ACTUAL)
3. DOUBLE COVER WT.: 215 LBS. APP.
4. RING WT.: 225 LBS. APP.
5. MATERIAL: ASTM-A48 CLASS 30B GRAY IRON



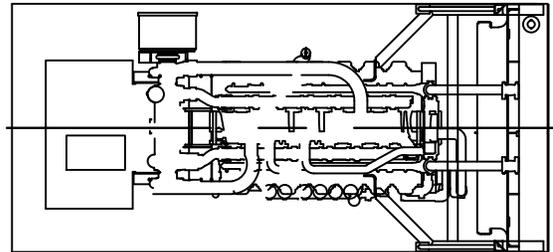
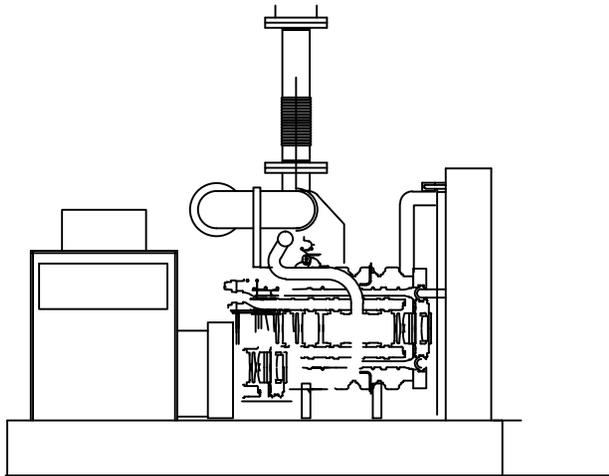
STANDARD CONSTRUCTION DETAIL
SANITARY SEWER DOUBLE MANHOLE COVER

FILE NAME:

EW_S30.DWG

DETAIL REF:

S-30



NOTES:

1. ANY LIFT STATION RATED AT 20 HORSEPOWER PUMPS OR GREATER WILL BE SUPPORTED BY AN ON-SITE PERMANENT MOUNTED GENERATOR.
2. GENERATOR SHALL BE MANUFACTURED BY OLYMPIAN OR OTHER CITY APPROVED EQUAL.
3. AN AUTOMATIC TRANSFER SWITCH WILL BE INSTALLED BETWEEN THE GENERATOR AND THE ELECTRIC PANEL.
4. THE GENERATOR SHALL BE RATED AT THE MAXIMUM STATION AMPERAGE PLUS 25 PERCENT.
5. THE GENERATOR SHALL BE MOUNTED ON A 28 DAY, 3,000 p.s.i., SIX INCH (6") THICK, SLAB WITH A MINIMUM TWO FOOT (2') SKIRT ON ALL FOUR SIDES.
6. THE GENERATOR SHALL HAVE ON SITE FUEL STORAGE SUFFICIENT TO RUN THE GENERATOR FOR A MINIMUM OF 24 HOURS.
7. THE GENERATOR SHALL BE ENCLOSED BY A NEMA RATED WATERPROOF ENCLOSURE AND BE SOUND ATTENUATED.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR A MANUFACTURER'S START UP WITH THE CITY IN ATTENDANCE.



STANDARD CONSTRUCTION DETAIL
PUMP STATION BACKUP GENERATOR

FILE NAME:

EW_S31.DWG

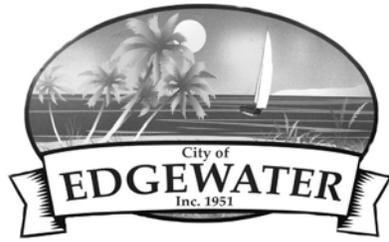
DETAIL REF:

S-31

The City of Edgewater



STANDARD CONSTRUCTION DETAILS



CITY OF EDGEWATER

STANDARD CONSTRUCTION DETAILS

CITY OF EDGEWATER
DEPARTMENT OF ENVIRONMENTAL SERVICES
409 MANGO TREE DRIVE
EDGEWATER, FLORIDA 32132
TELEPHONE (386) 424-2476
FAX (386) 424-2480

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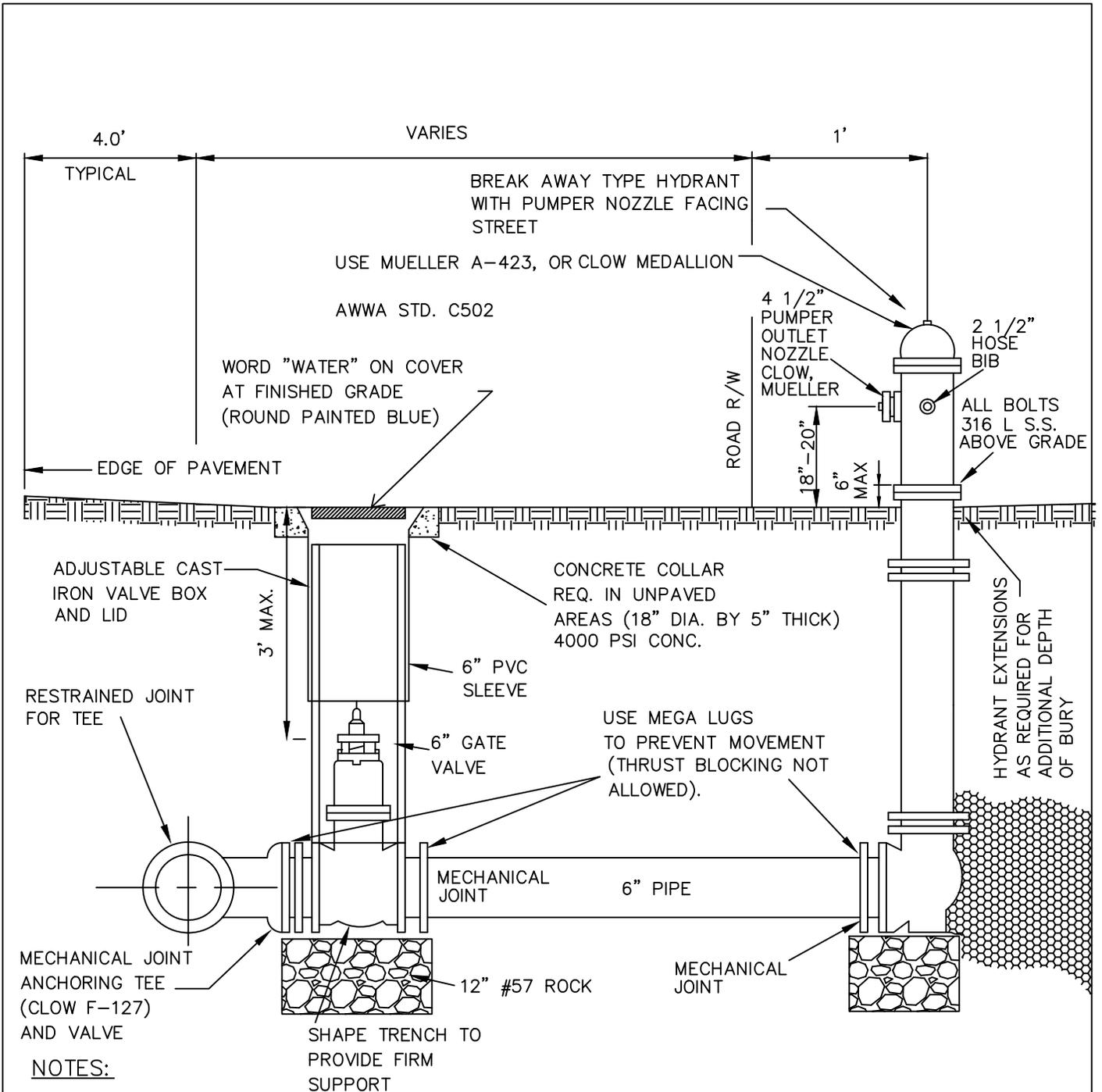
STANDARD CONSTRUCTION DETAIL
INDEX
WATER DETAILS

FILE NAME:

WTRINDX.DWG

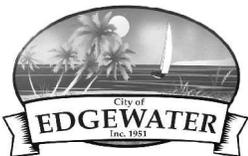
DETAIL REF:

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NOTES:

1. HYDRANTS TO BE PAINTED RED.
2. HOSE BIBS TO BE AMERICAN STANDARD THREADS. (FIRE THREAD)
3. RESTRAINED JOINTS REQUIRED. THRUST BLOCKS ARE NOT PERMITTED.
4. ADJUSTABLE TRENCH ADAPTOR ASSY. REQUIRED FOR ALL VALVES GREATER THAN 3' DEEP.
5. INSTALL AT SIDE LOT LINES OR AT CORNERS OF ROADWAY INTERSECTIONS, (TYPICAL)
6. BLUE REFLECTORS TO BE PLACED IN MIDDLE OF TRAVEL LANE ON SIDE OF ROAD THE HYDRANT IS ON.



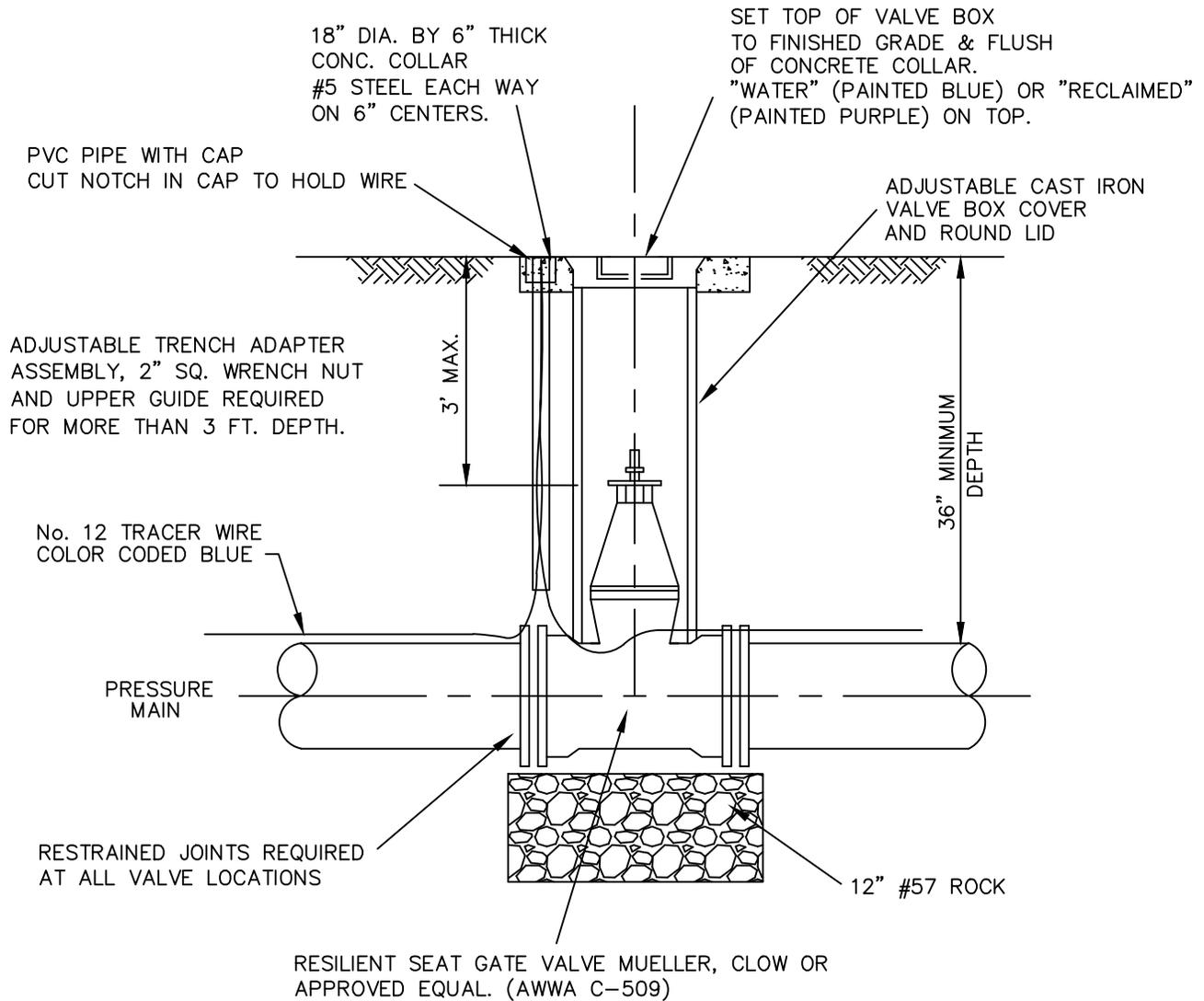
STANDARD CONSTRUCTION DETAIL
FIRE HYDRANT ASSEMBLY

FILE NAME:

EW_W1.DWG

DETAIL REF:

W-1



NOTE:

1. ROD OR BOLT TEE WHERE APPLICABLE.
2. VALVE BOX EXTENSIONS SHALL BE ONE CONTINUOUS PIECE OF PIPE.



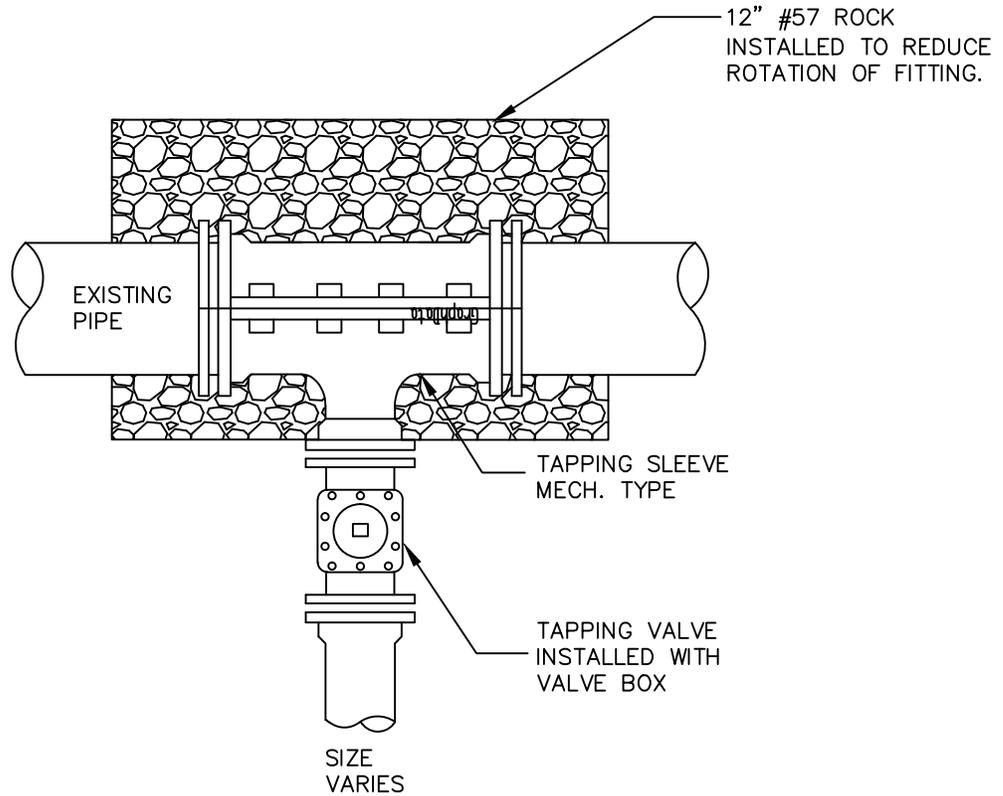
STANDARD CONSTRUCTION DETAIL
 POTABLE WATER AND/OR RECLAIMED WATER
 VALVE AND VALVE BOX
 (2" - 16" VALVE SIZES)

FILE NAME:

EW_W2.DWG

DETAIL REF:

W-2



NOTES:

1. TAPPING SLEEVES SHALL BE ALL STAINLESS STEEL i.e. ROMAC INDUSTRIES, INC. MODEL SST.
2. INSTALL REQUIRED RESTRAINED JOINTS. IN NO INSTANCE SHALL THRUST BLOCK BE PERMITTED.
3. ALL TAPPING OF MAINS SHALL BE SUPERVISED BY THE CITY 48 HRS ADVANCE NOTICE PROVIDED.
4. TAPPING ASSEMBLY TO BE TESTED AT 150 p.s.i. FOR 10 MINUTES PRIOR TO PERFORMING TAP.



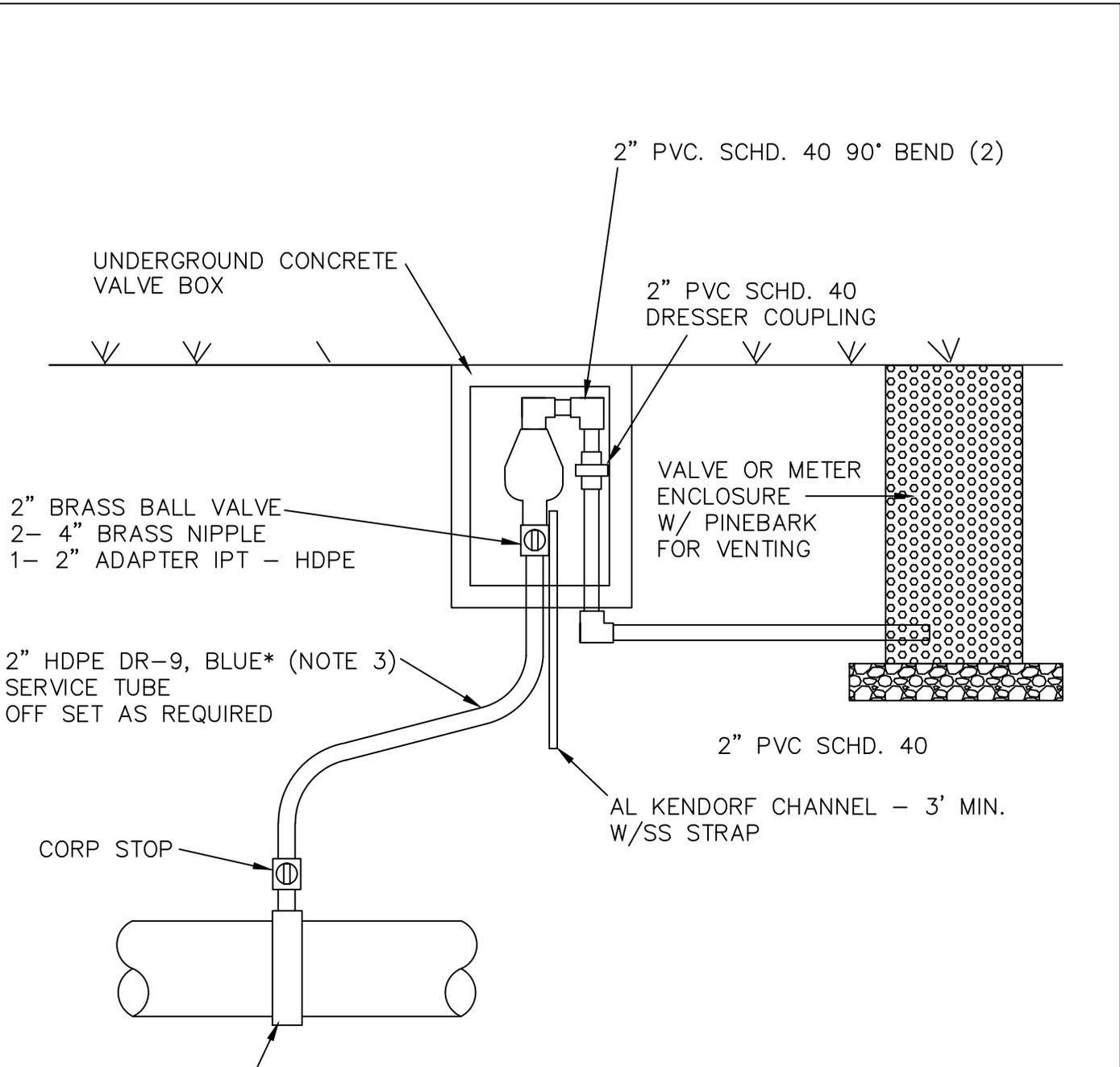
STANDARD CONSTRUCTION DETAIL
TAPPING VALVE AND SLEEVE

FILE NAME:

EW_W3.DWG

DETAIL REF:

W-3



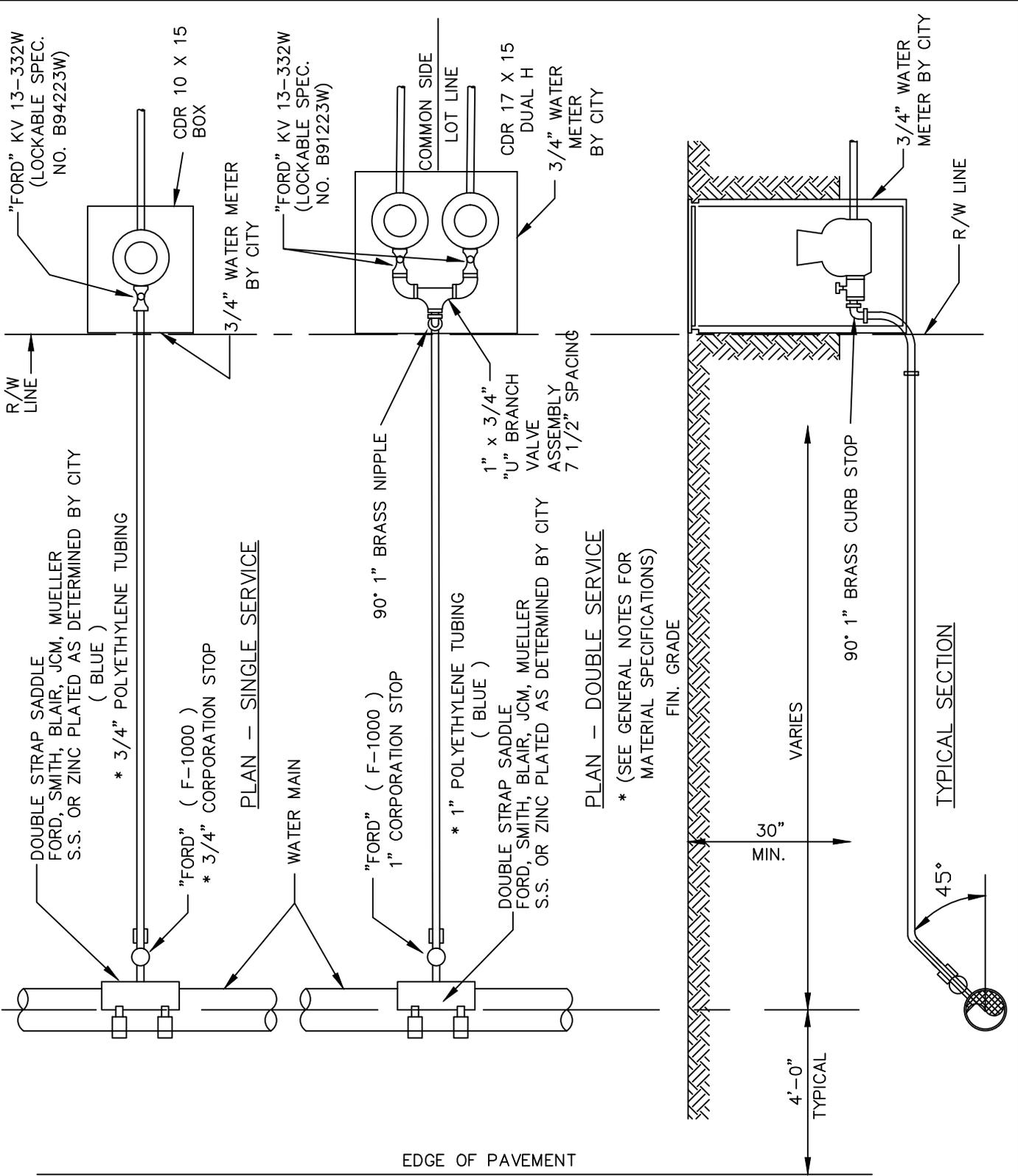
NOTES:

- 1 - SERVICE SADDLES TO BE AS USED FOR WATER SERVICES
- 2 - USE FOR SEWER OR RECLAIMED WATER ALSO
- 3 - GREEN FOR SEWER AND PURPLE FOR RECLAIMED.



STANDARD CONSTRUCTION DETAIL
AIR / VACUUM RELEASE VALVE PIT

FILE NAME:	EW_W4.DWG
DETAIL REF:	W-4

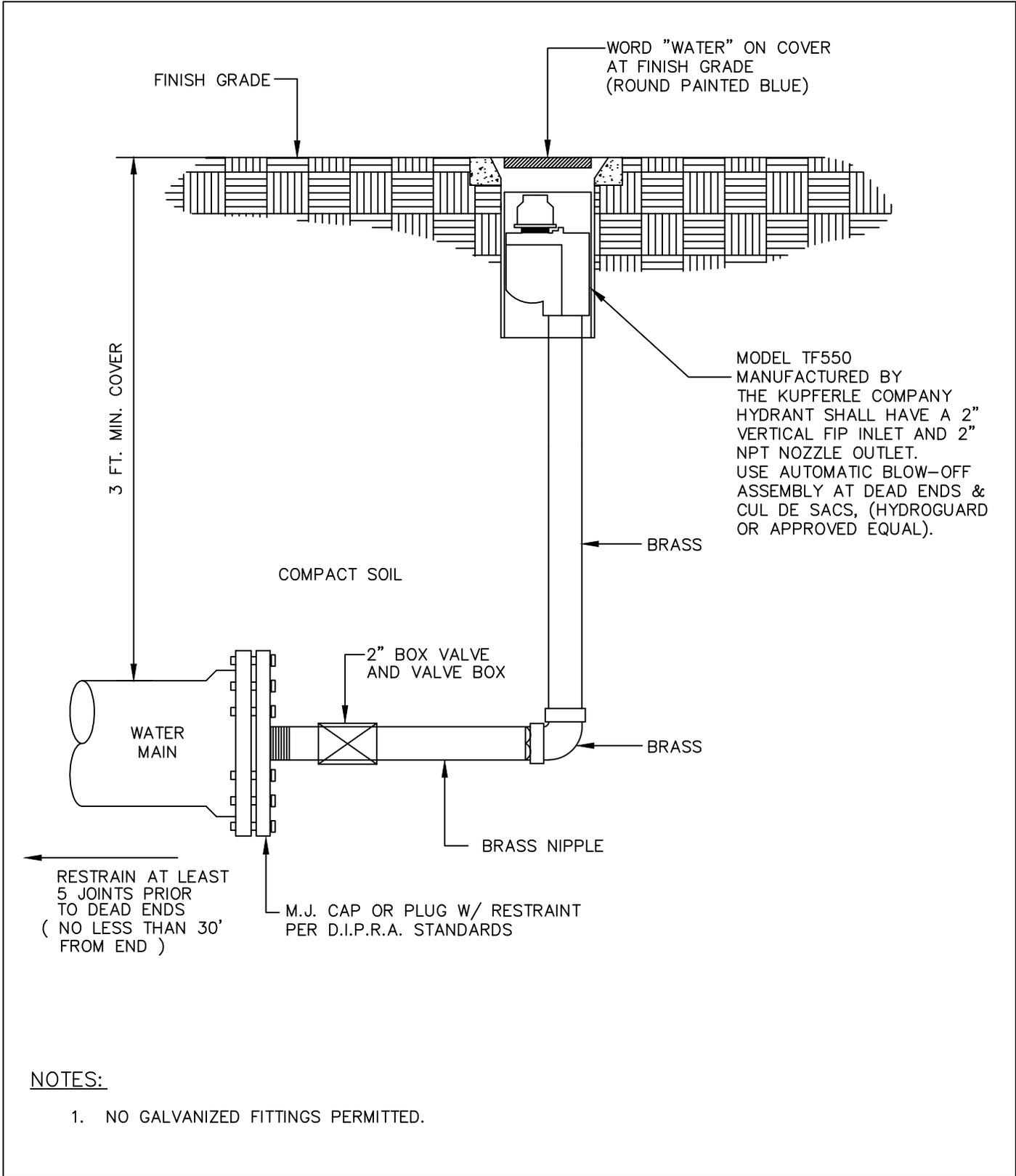


PLAN - DOUBLE SERVICE
* (SEE GENERAL NOTES FOR MATERIAL SPECIFICATIONS)



STANDARD CONSTRUCTION DETAIL
WATER LATERAL SERVICE
(3/4" - 2" SIZES)

FILE NAME:	EW_W5.DWG
DETAIL REF:	W-5



STANDARD CONSTRUCTION DETAIL
 POTABLE WATER
 BLOW-OFF ASSEMBLY

FILE NAME:	EW_W6.DWG
DETAIL REF:	W-6

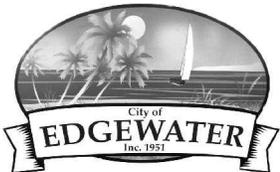
SPLIT RING
RETAINER GLAND

DIP RESTRAINED JOINT
SLEEVE

C-900 PVC
MAIN

H.D.P.E. MAIN
SDR 11

RESTRAIN PER DIPRA STANDARDS
FOR POLYETHYLENE ENCASED PIPE
AND 150 PSI DESIGN PRESSURE



STANDARD CONSTRUCTION DETAIL
P.V.C. TO H.D.P.E.
RESTRAINED JOINT DETAIL

FILE NAME:

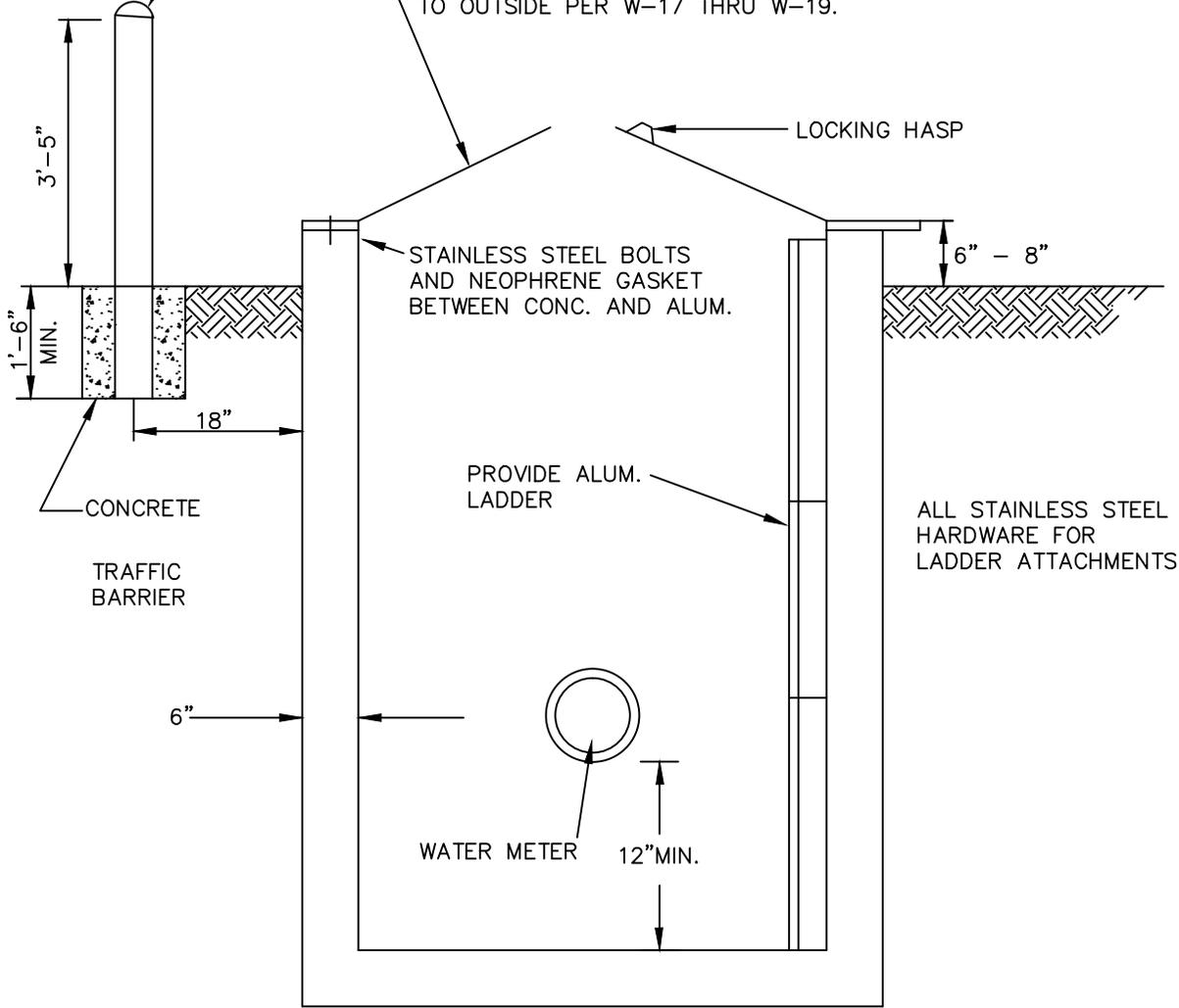
EW_W7.DWG

DETAIL REF:

W-7

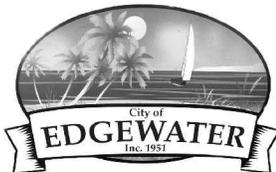
(2) 4" DIAM. STEEL PIPES, CONC. FILLED PAINTED YELLOW

(2) 1/4" + "ENGINEERED" HINGED ALUM. PLATE COVERS ANCHORED TO STRUCTURE SHALL BE USFAPD ALUMINUM HATCH OR EQUAL WITH 300 LB./FT. PEDESTRIAN LOADING WITH DRAIN TO OUTSIDE PER W-17 THRU W-19.



NOTES:

1. BOX SHOULD BE SIZED TO MATCH PROPOSED METER SIZE REQUIREMENTS.
2. VERIFY ACTUAL METER BOX DIMENSIONS WITH CITY PRIOR TO ORDERING AND/OR INSTALLATION.



STANDARD CONSTRUCTION DETAIL
 WATER METER BOX
 (METER 3" AND LARGER SIZES)

FILE NAME:

EW_W8.DWG

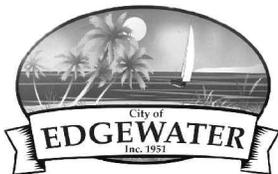
DETAIL REF:

W-8

METER		MINIMUM (INCHES) METER BOX SIZES			BROOKS EQUIVALENT
TYPE	SIZE	A	B	C	
TURBINE	3"	60	48	60	SERIES 666 W/6" FLOOR
	4"	60	48	60	"
	6"	60	60	60	"
	8"	60	60	60	"
COMPOUND	3"	60	48	66	"
	4"	60	48	66	"
	6"	60	60	72	"
	8"	60	60	72	"
F.M.	3"	72	48	60	"
	4"	72	48	60	"
	6"	78	66	60	M-88 SERIES W/6" FLOOR
	8"	84	72	66	& 12" COVER

NOTE:

1. VERIFY ACTUAL METER BOX SIZE WITH CITY PRIOR TO ORDERING.
2. METERS TO BE RADIO-REED, BY INVENSYS.



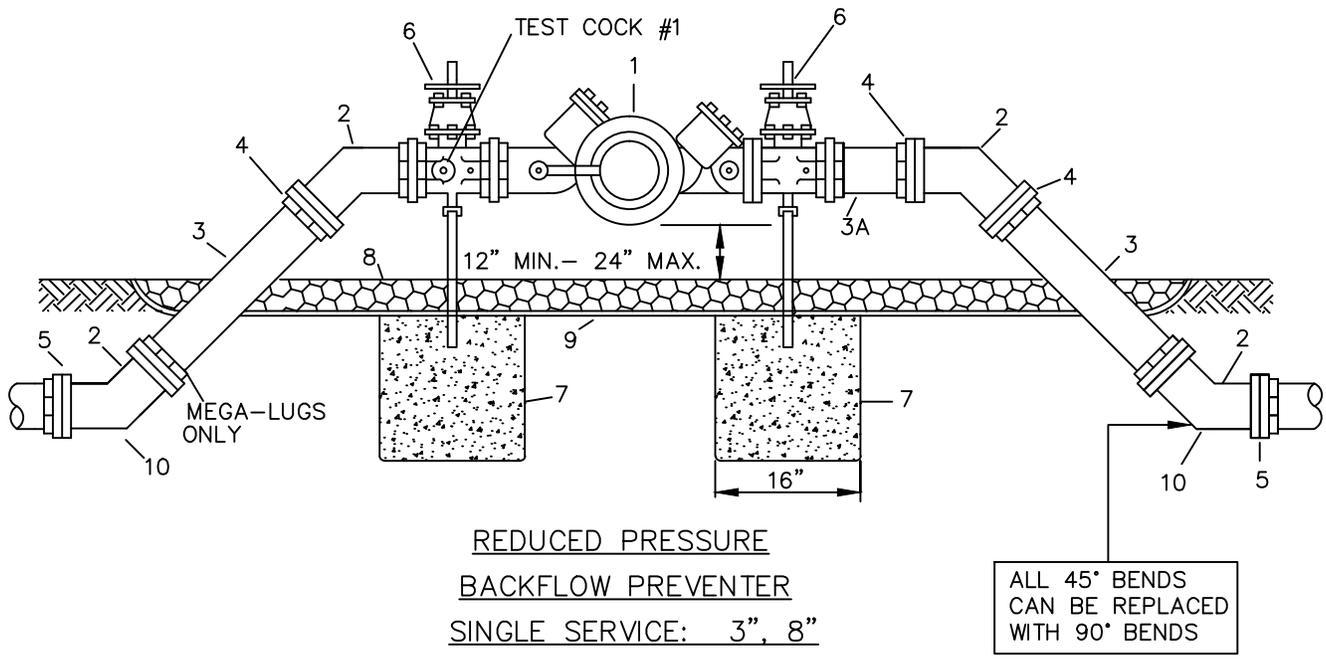
STANDARD CONSTRUCTION DETAIL
3" - 8" WATER METER BOX

FILE NAME:

EW_W9.DWG

DETAIL REF:

W-9



M A T E R I A L S		
ITEM	QUANT.	DESCRIPTION
1	1	3", 8" VALVE, REDUCED PRESSURE PRINCIPLE
2	4	3", 8" BEND - 45°
3	2	3", 8" ADAPTER, C.I. F - PE
3A	1	3", 8" ADAPTER, C.I. F - PE (OPT.)
4	3	3", 8" ADAPTER FLANGE D.I.P.
5	2	3", 8" ADAPTER FLANGE P.V.C. (DR - 18)
6	2	3", 8" VALVE, GATE, C.I., F-F
7	1 or 2	2" IRON PIPE/CONCRETE FOUNDATION
8	*	PEA GRAVEL
9	*	PLASTIC LINER
10	2	MJ 45° OR 90° MEGALUG OR RESTRAINED JOINT

NOTES:

1. FIELD ADJUST AND CUT ITEM 3 TO THE PROPER LENGTH.
2. DO NOT INTERCHANGE ITEMS 4 AND 5.
3. ALL COMMERCIAL PROPERTIES ARE REQUIRED BY ORDINANCE TO HAVE A BACKFLOW DEVICE INSTALLED AND ANNUALLY TESTED WITH PASSING RESULTS FORWARDED TO THE CITY ENVIRONMENTAL SERVICES DEPARTMENT.



**STANDARD CONSTRUCTION DETAIL
BACKFLOW PREVENTER
(REDUCED PRESSURE) 3" - 8"**

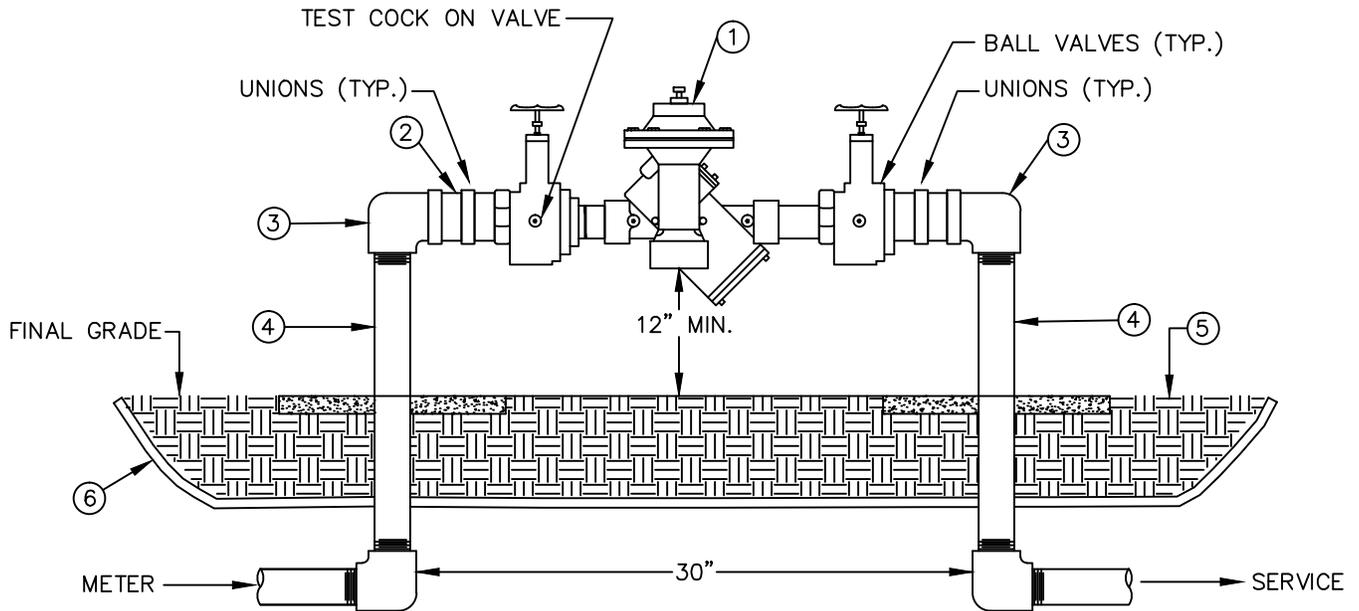
FILE NAME:

EW_W10.DWG

DETAIL REF:

W-10

DOUBLE CHECK OR REDUCED PRESSURE
 BACKFLOW PREVENTER
 SINGLE SERVICE: 3/4", 1", 1-1/2", 2"



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1.	1	2" BACKFLOW PREVENTER ASSEMBLY
2.	2	2" X NOM. NIPPLES - BRASS
3.	2	2" X 90° ELBOWS - GALV. / HARD COPPER
4.	2	2" X VARIES RISER - GALV. / HARD COPPER
5.	*	PEA GRAVEL
6.	*	PLASTIC LINER

NOTES:

1. INSTALLATION SHOWN ABOVE IS FOR A 2" SERVICE. CHANGE PIPING MATERIALS ACCORDINGLY FOR SERVICE SIZE.
2. CONTACT ADMINISTRATION OFFICE AT 424-2460 FOR LIST OF APPROVED DEVICES.



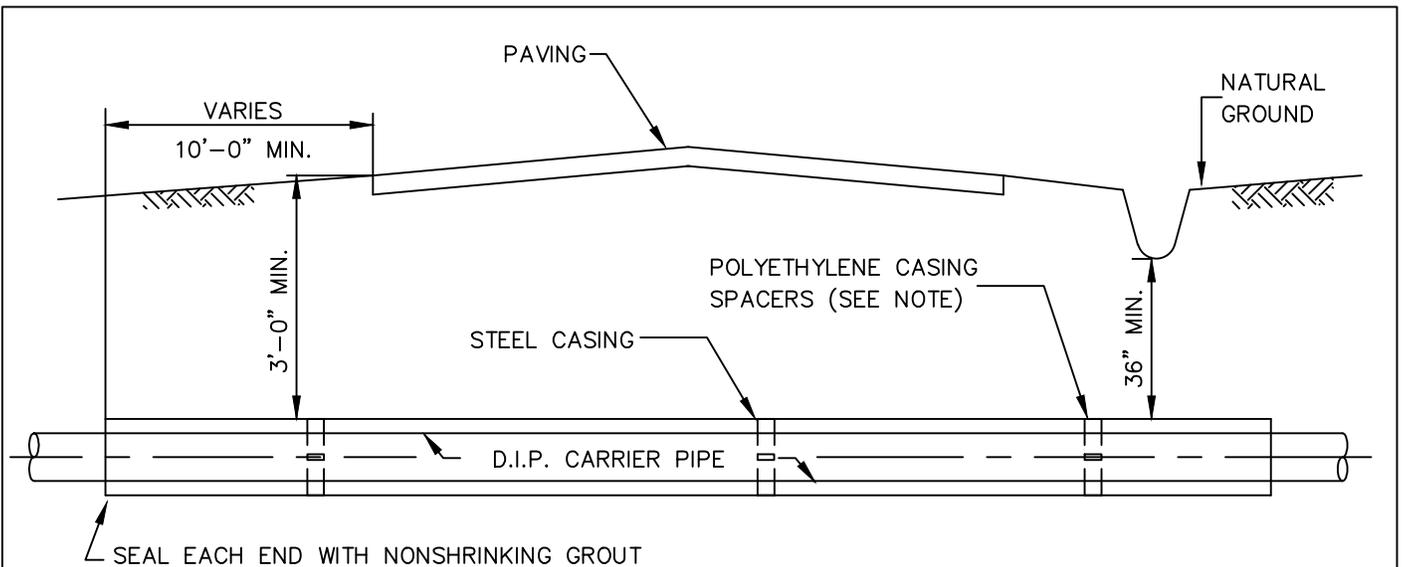
STANDARD CONSTRUCTION DETAIL
 2" BACKFLOW PREVENTER

FILE NAME:

EW_W11.DWG

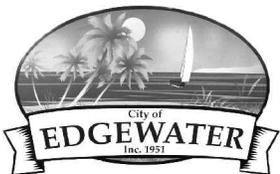
DETAIL REF:

W-11



NOTES:

1. MINIMUM COVER FOR TOP OF CASING ON ALL CITY STREETS SHALL BE 3.0'
2. CASING FOR F.E.C. CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH F.E.C. REQUIREMENTS.
3. FOR MINIMUM COVER ON ALL STATE AND COUNTY ROADS WITHIN THE CITY LIMITS PLEASE REFER TO THEIR RESPECTIVE AUTHORITIES.
4. THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE A MINIMUM OF 4 INCHES GREATER THAN THE OUTSIDE DIAMETER OF THE CARRIER PIPE BELL OR COUPLING.
5. USE POLYETHYLENE CASING SPACERS FOR ALL CARRIER PIPES PER MANUFACTURES RECOMMENDATIONS.
6. ROTATION OF CARRIER PIPE INSIDE THE CASING PIPE WILL NOT BE PERMITTED. MECHANICAL OR FLANGED JOINT PIPE SHALL BE USED TO HELP PREVENT SUCH ROTATION.
7. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF CASING AND CARRIER PIPE INSTALLATION FOR APPROVAL PRIOR TO FABRICATION OF PIPING, CASING, AND APPURTENANCES. CERTIFICATION OF CASING PIPE IS REQUIRED.
8. GROUTING OF SPACE BETWEEN CASING AND CARRIER PIPE REQUIRED UNLESS NEGATIVE FLOTATION EXISTS.
9. WELDING OF CASING PIPE TO BE DONE BY CERTIFIED WELDER. ALL ENDS OF CASING PIPE SHALL BE CHAMFERED PRIOR TO ANY WELDING.
10. SEALING END OF CASING PIPE WITH CONCRETE IS ALSO PERMISSIBLE.
11. CARRIER PIPE SHALL BE RESTRAINED JOINT THROUGH ENTIRE LENGTH OF CASING PIPE.
12. FOR GRAVITY CARRIER PIPE SYSTEM, ENTIRE ANNULAR SPACE BETWEEN CARRIER PIPE AND CASING PIPE SHALL BE GROUTED.



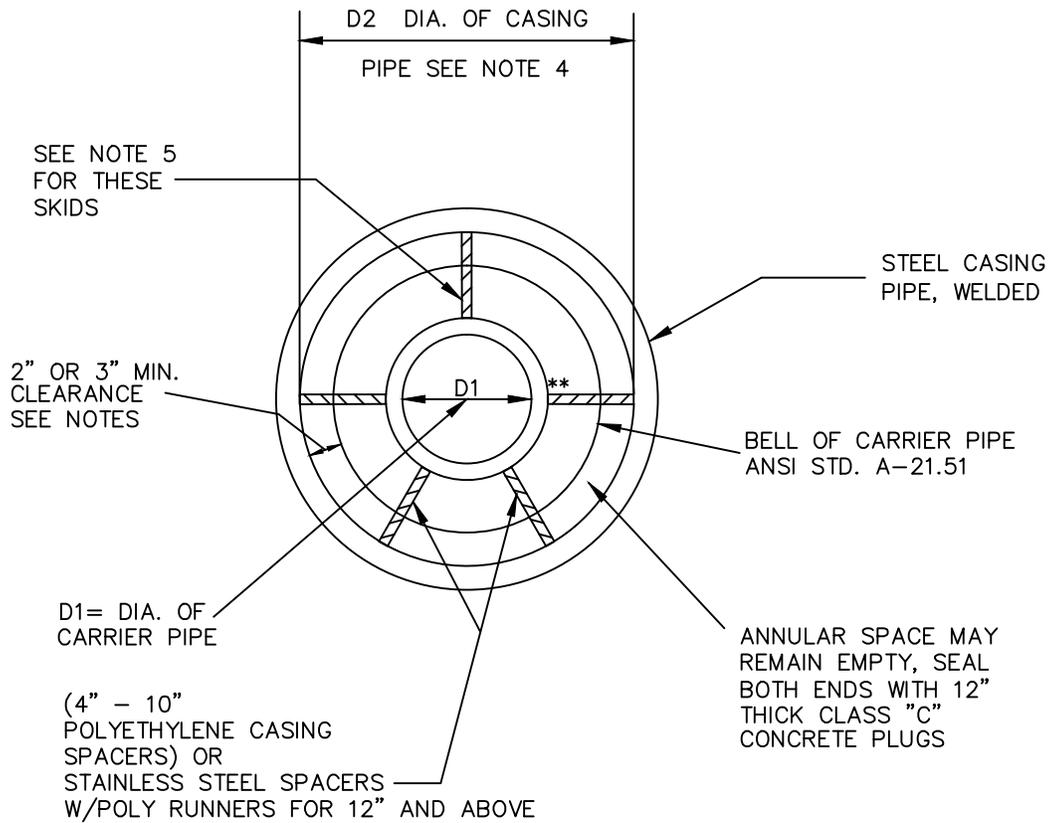
STANDARD CONSTRUCTION DETAIL
CONDUIT CROSSING R.R. OR ROADWAY

FILE NAME:

EW_W12.DWG

DETAIL REF:

W-12



CARRIER PIPE AND CASING PIPE SIZES (MIN.)

CARRIER PIPE NOM. DIA. (D1)	4	6	8	10	12	14	16	18	20	24	30	36	42	48
CASING PIPE NOM. DIA. (D2)	14	16	18	22	24	30	30	30	36	36	48	54	60	66
WALL THICKNESS—INCHES (NOTES 4&5)	PER AUTHORITY HAVING JURISDICTION													

NOTES:

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF CASING INSTALLATION TO ENGINEER FOR REVIEW PRIOR TO INSTALLATION
2. SEAL BOTH ENDS OF CASING W/ 12" BRICK AND NON-SHRINK GROUT (MINIMUM)
3. ROTATION OF CARRIER PIPE INSIDE THE CASING WILL NOT BE PERMITTED
4. WITHIN EDGEWATER R/W USE CURRENT FDOT STANDARDS
5. SPECIALLY DESIGNED SPACERS MAY BE USED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.



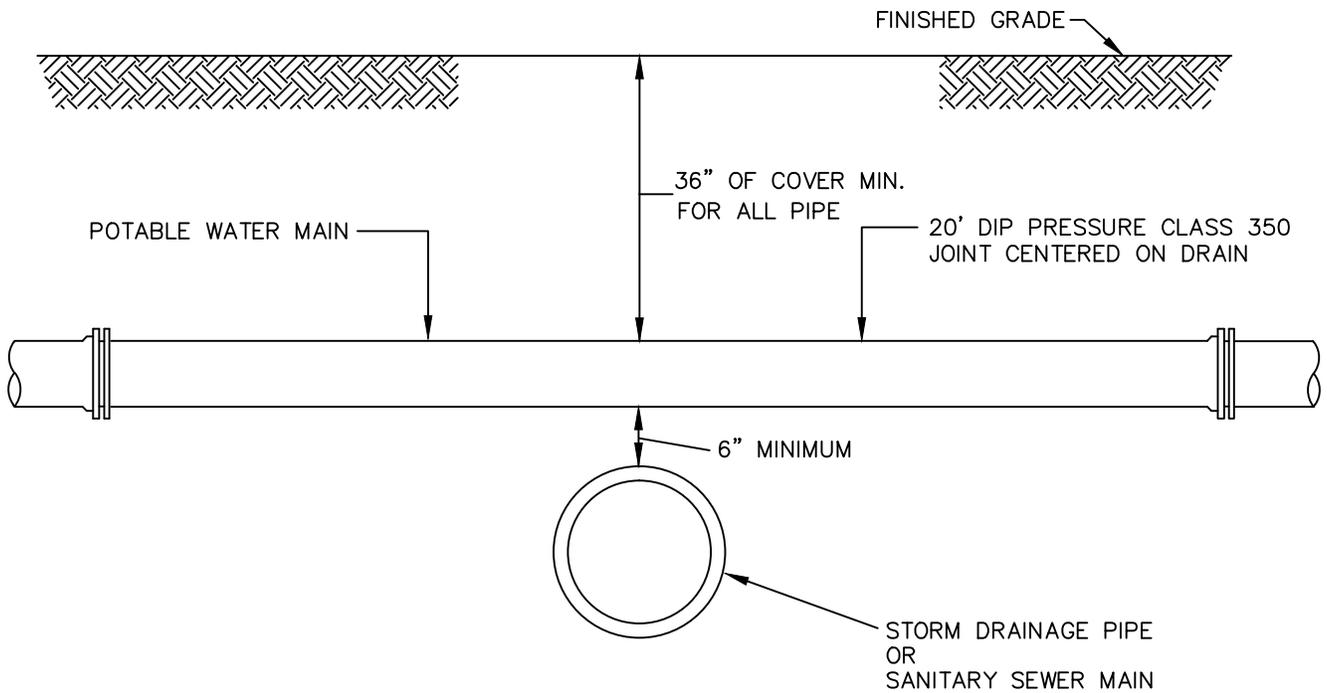
STANDARD CONSTRUCTION DETAIL
CONDUIT CROSSING R.R. OR ROADWAY

FILE NAME:

EW_W13.DWG

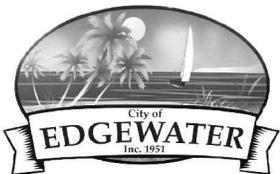
DETAIL REF:

W-13



NOTE:

1. CONCRETE ENCASEMENT OF A SANITARY SEWER MAIN IS AN ALTERNATIVE METHOD OF ADDRESSING A CONFLICT WHEN 18" VERTICAL SEPARATION DISTANCE CANNOT BE MAINTAINED. IN SUCH INSTANCES, THE MINIMUM PIPE VERTICAL SEPARATION SHALL BE 6".



STANDARD CONSTRUCTION DETAIL
STORM DRAINAGE PIPE
OR SANITARY SEWER MAIN CONFLICT

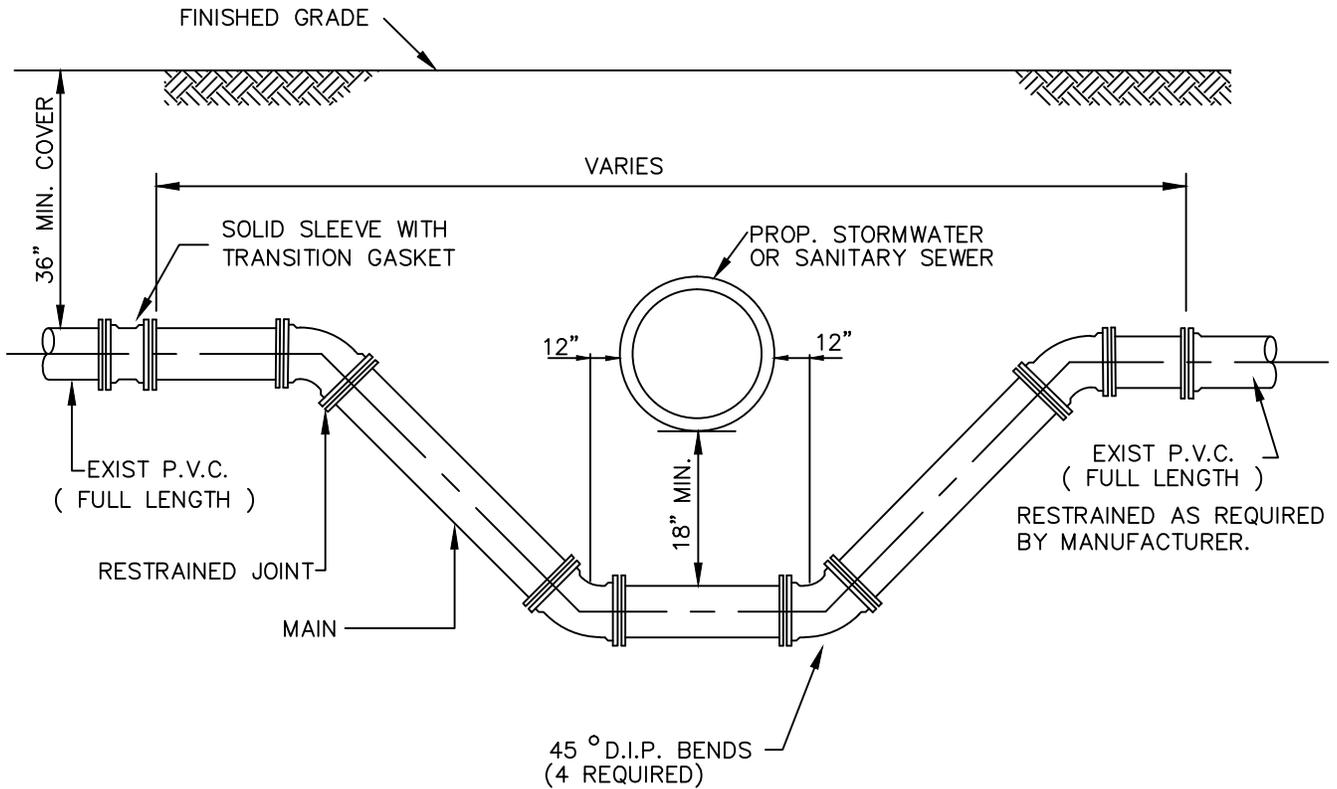
FILE NAME:

EW_W14.DWG

DETAIL REF:

W-14

CONCRETE ENCASEMENT OF SANITARY SEWER IS AN ALTERNATIVE METHOD OF ADDRESSING A CONFLICT WHEN UNABLE TO MAINTAIN 18" VERTICAL SEPARATION DISTANCE. IN SUCH INSTANCES, THE MINIMUM PIPE VERTICAL SEPARATION SHALL BE 6".



NOTES:

1. LOWERING OF EXISTING WATER MAIN & FORCE MAIN BY DEFLECTION METHOD ACCEPTABLE IF EXISTING FIELD CONDITIONS PERMIT.
2. LENGTH OF SECTION BASED ON MINIMUM LENGTH AS DETERMINED BY DIPRA RESTRAINED JOINT MANUAL.
3. INSTALL RESTRAINED JOINTS, AS REQUIRED, FROM DEFLECTION POINT IN BOTH DIRECTIONS.



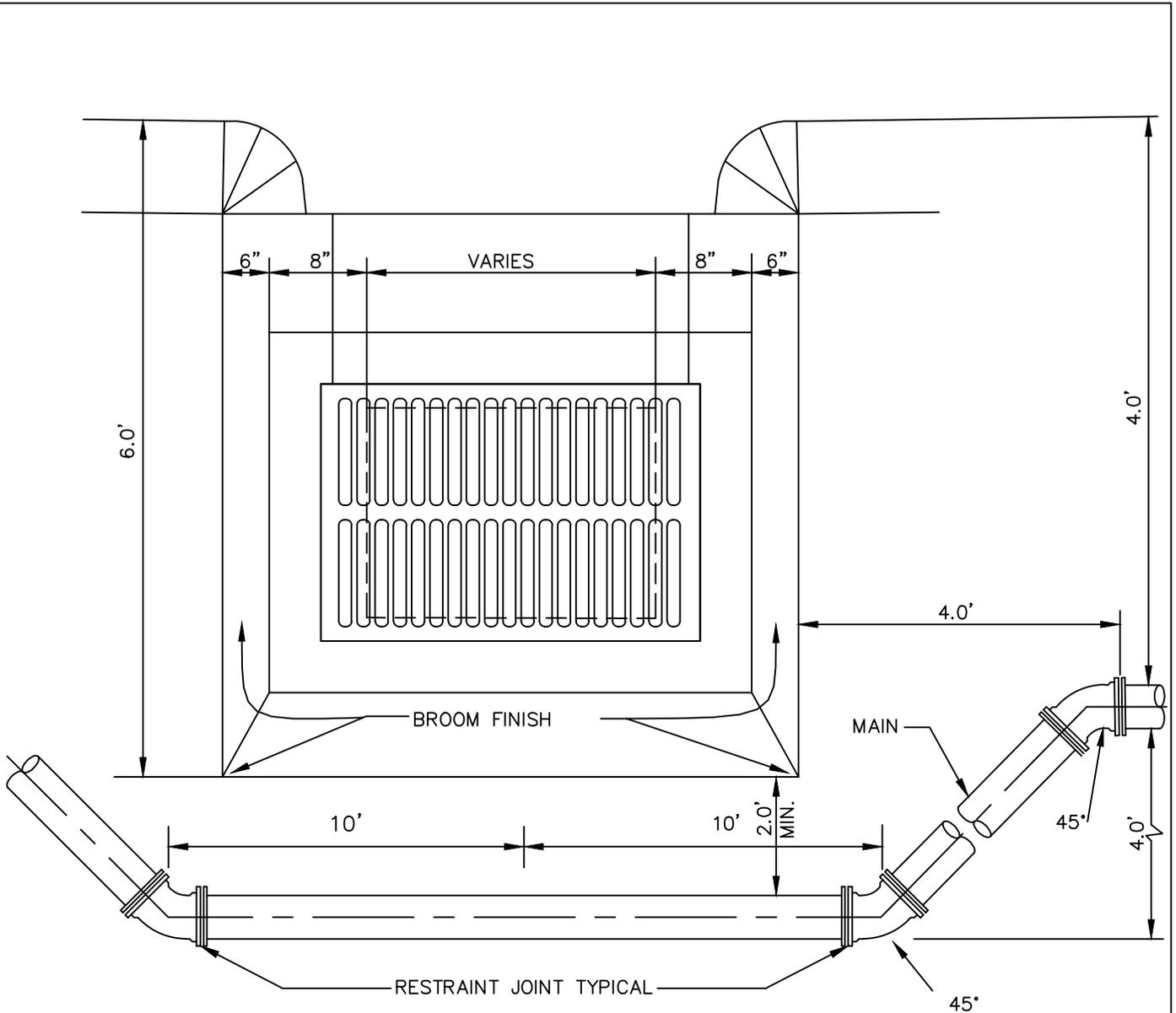
STANDARD CONSTRUCTION DETAIL
 STORM DRAINAGE PIPE
 OR SANITARY SEWER MAIN
 CONFLICT

FILE NAME:

EW_W15.DWG

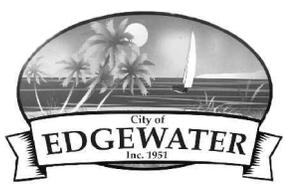
DETAIL REF:

W-15



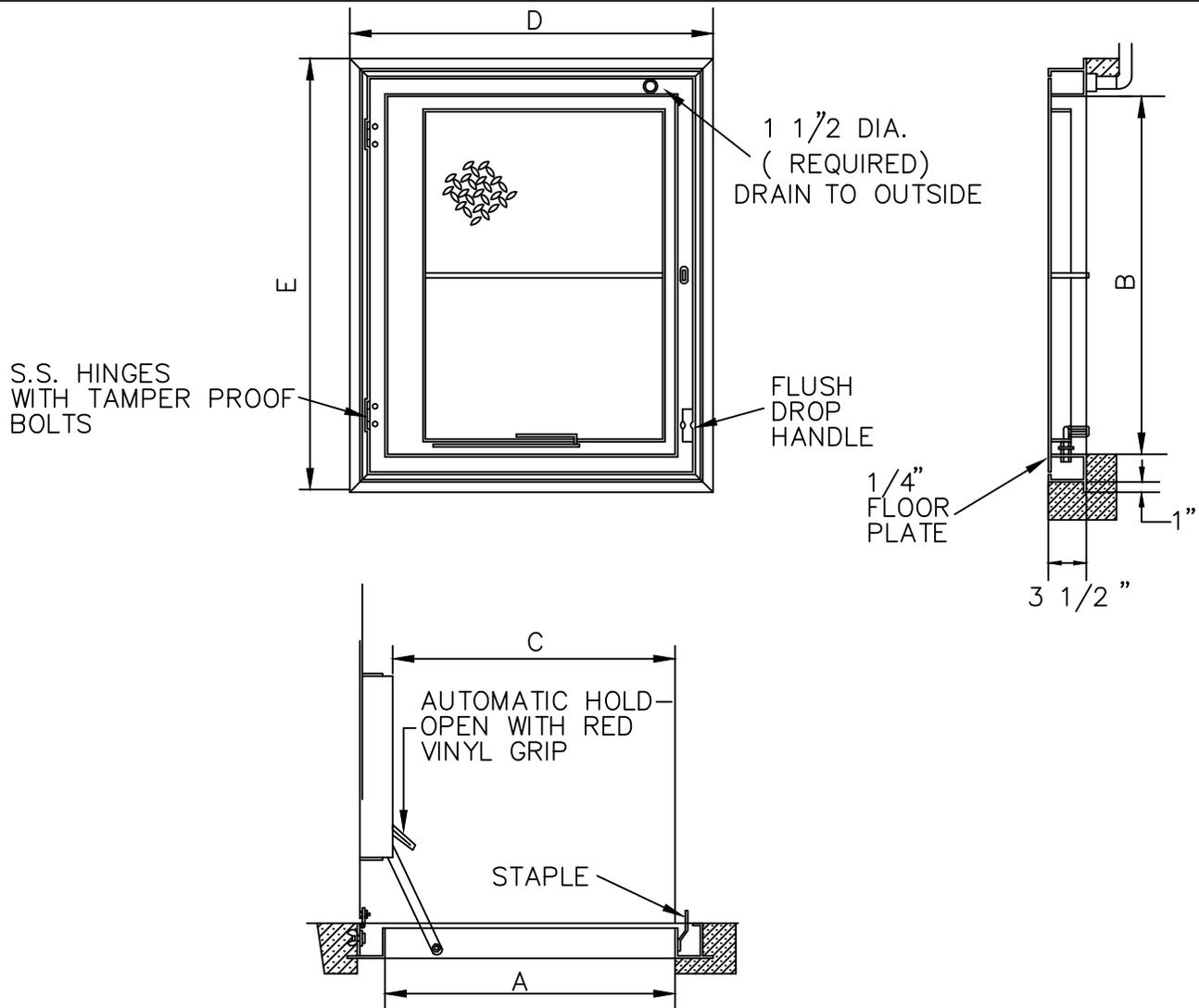
NOTES:

1. MAIN MAY PASS OVER STORM LINE IF 36" OF COVER IS PROVIDED OVER WATER MAIN OR RECLAIMED WATER LINE AND ADEQUATE CLEARANCE IS PROVIDED FROM THE STORM SEWER PIPE.
2. PIPE SHALL BE DEFLECTED AROUND DRAINAGE INLET IN ACCORDANCE WITH THE RESTRAINED JOINT GUIDELINES OF THE DIPRA AND ADAPTED TO PVC PIPE AS NECESSARY.



STANDARD CONSTRUCTION DETAIL
 MAIN INSTALLATION BETWEEN
 DRAINAGE INLET AND SIDEWALK

FILE NAME:
EW_W16.DWG
DETAIL REF:
W-16



300 P.S.F. LOADING

TYPE	MAT'L THK	SIZE		ACTUAL OPEN.		OVERALL SIZE		WEIGHT LBS.
		A	B	A	C	D	E	
TPS	1/4	24	24	24	24	32	32	60
TPS	1/4	24	30	24	30	32	38	70
TPS	1/4	24	36	23	36	32	44	75
TPS	1/4	30	30	29	30	38	38	80
TPS	1/4	30	36	29	36	38	44	90
TPS	1/4	30	48	29	48	38	56	105
TPS	1/4	36	36	34	36	44	44	100
TPS	1/4	36	48	34	48	44	56	120
TPS	1/4	42	42	40	42	50	50	125

NOTES:

- HATCH MATERIAL SHALL BE ALUMINUM WITH STAINLESS STEEL BOLTS, NUTS AND HINGES, LOAD RATING OF 300 LBS PER SQ. FOOT WITH A SELF DRAINING HATCH.
- THE ACCESS DOOR SHALL BE TYPE TPS AS MANUFACTURED BY U.S. FOUNDRY AND MANUFACTURING CORP., MIAMI, FLORIDA.



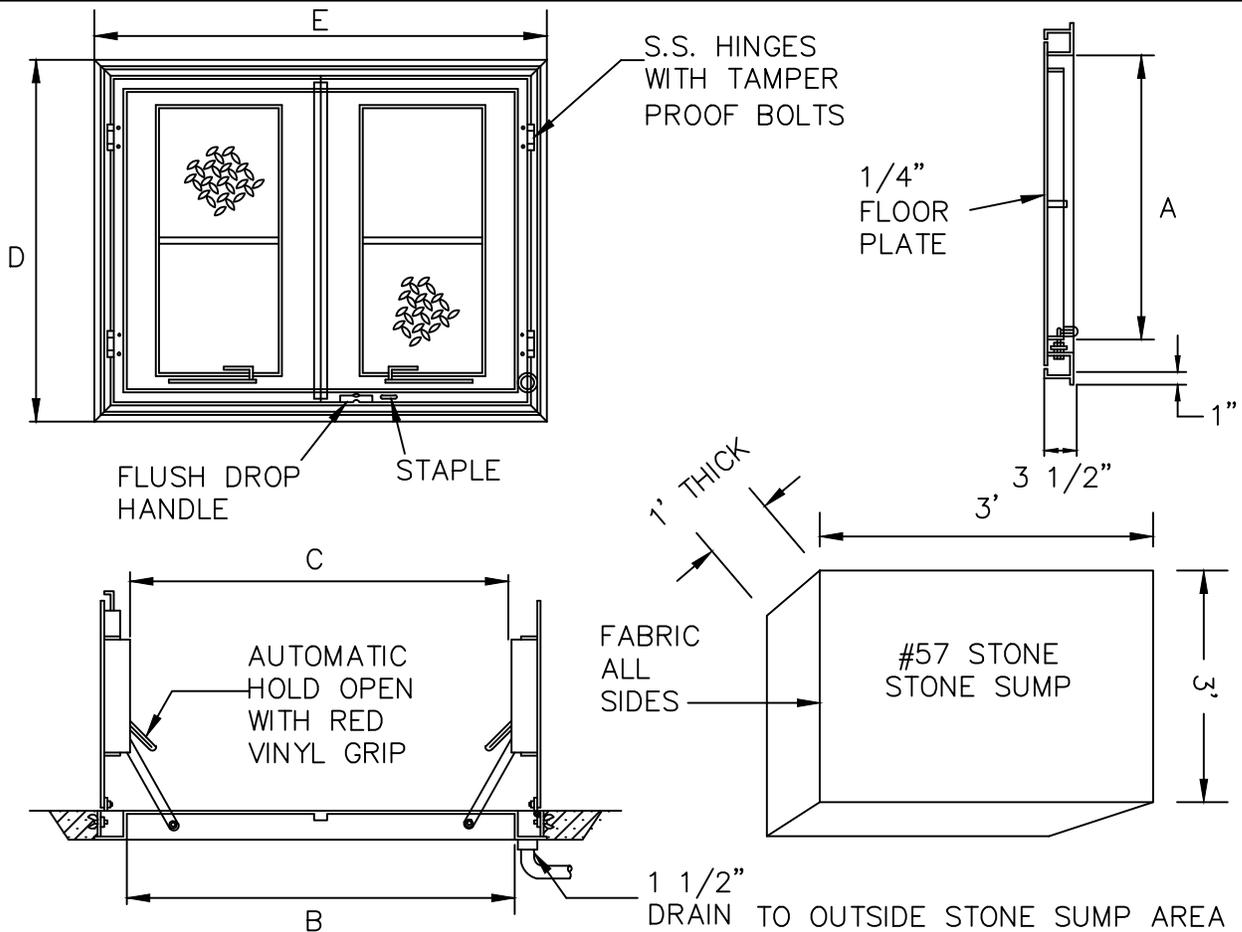
STANDARD CONSTRUCTION DETAIL
TROUGH FRAME PEDESTRIAN LOADING
SINGLE DOOR

FILE NAME:

EW_W17.DWG

DETAIL REF:

W-17



300 P.S.F. LOADING								
TYPE	MAT'L THK	SIZE		ACTUAL OPENING		OVERALL SIZE		WEIGHT LBS.
		A	B	A	C	D	E	
TPD	1/4	30	48	30	47	38	56	110
TPD	1/4	30	54	30	53	38	62	120
TPD	1/4	36	48	36	46	44	44	125
TPD	1/4	36	60	36	57	44	68	145
TPD	1/4	42	48	42	45	50	56	140
TPD	1/4	48	48	48	44	56	56	155
TPD	1/4	48	54	48	50	56	62	165
TPD	1/4	48	72	48	66	56	80	210
TPD	1/4	60	60	60	56	68	68	220

NOTES:

- HATCH MATERIAL SHALL BE ALUMINUM WITH STAINLESS STEEL BOLTS, NUTS AND HINGES, LOAD RATING OF 300 LBS. PER SQ. FOOT WITH A SELF DRAINING HATCH.
- THE ACCESS DOOR SHALL BE TYPE TPS AS MANUFACTURED BY U.S. FOUNDRY AND MANUFACTURING CORP., MIAMI, FLORIDA.



STANDARD CONSTRUCTION DETAIL
TROUGH FRAME PEDESTRIAN LOADING
DOUBLE DOOR

FILE NAME:

EW_W18.DWG

DETAIL REF:

W-18

U.S. FOUNDRY MODEL NO.	BILCO MODEL NO	SINGLE LEAF	DOUBLE LEAF	ALUMINUM	TROUGH
TPS 24X24 W/OP	J-1AL	*		*	*
TPS 30X30 W/OP	J-2AL	*		*	*
TPS 30X36 W/OP	J-3AL	*		*	*
TPS 36X36 W/OP	J-4AL	*		*	*
TPS 42X42 W/OP	J-5AL			*	*
TPD 48X48 W/OP	JD-2AL		*	*	*
TPD 48X72 W/OP	JD-3AL		*	*	*
TPD 60X60 W/OP	JD-4AL		*	*	*



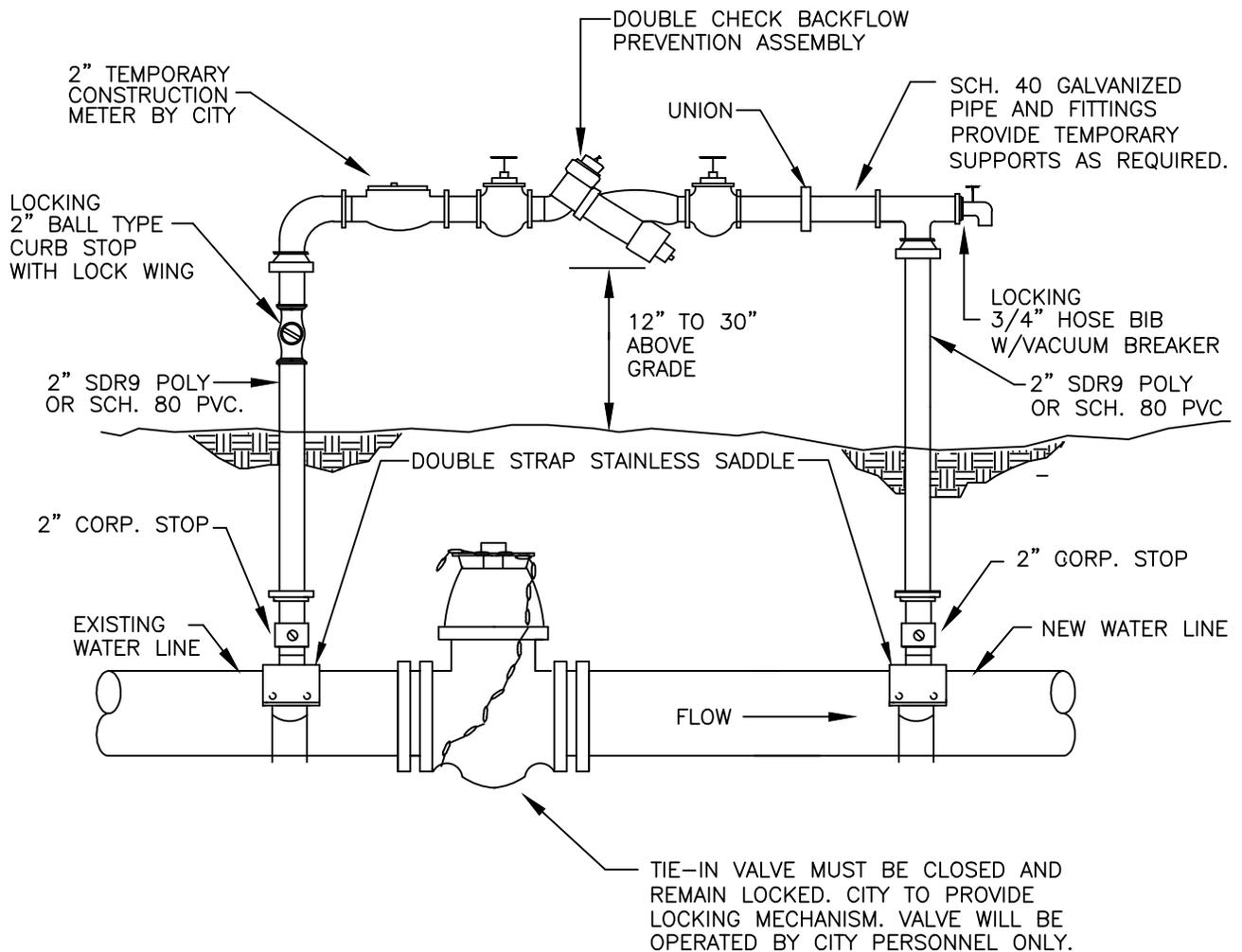
STANDARD CONSTRUCTION DETAIL
ACCESS DOOR
CROSS REFERENCE CHART

FILE NAME:

EW_W19.DWG

DETAIL REF:

W-19



NOTES:

1. PROVIDE SUPPORT AND/OR PROTECTIVE MEASURES TO PREVENT ABOVE GROUND PIPE BEING BROKEN.



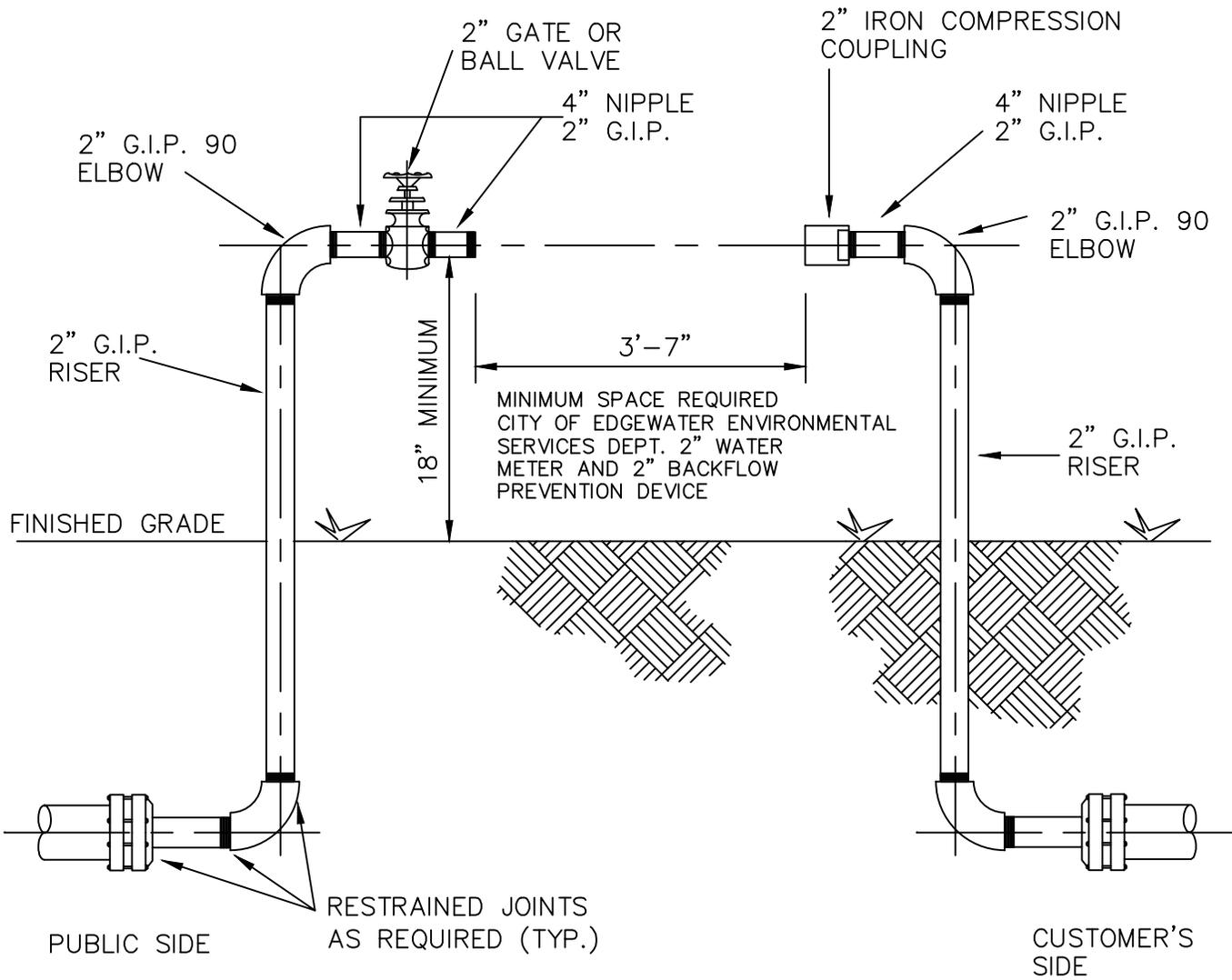
STANDARD CONSTRUCTION DETAIL
TEMPORARY JUMPER CONNECTION

FILE NAME:

EW_W20.DWG

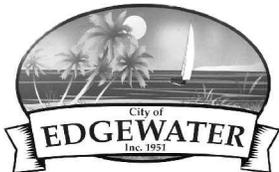
DETAIL REF:

W-20



NOTE:

1. PROVIDE SUPPORT OR PROTECTIVE POSTS.



STANDARD CONSTRUCTION DETAIL
 CONTRACTORS' INSTALLATION REQUIREMENTS
 FOR A 2" TEMPORARY METER

FILE NAME:

EW_W21.DWG

DETAIL REF:

W-21

POTABLE WATER DESIGN AND
CONSTRUCTION NOTES

1. THE CITY'S PUBLIC UTILITIES DEPARTMENT (424-2460) SHALL BE GIVEN A MINIMUM OF 48 HOURS ADVANCE NOTICE (NOT INCLUDING HOLIDAYS OR WEEKENDS) PRIOR TO BEGINNING ANY POTABLE WATER SYSTEM CONSTRUCTION.
2. DEWATERING SHALL BE PROVIDED TO KEEP GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW WATER MAIN BEING LAID
3. ALL WATER MAINS SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
4. TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE CITY WITH A MINIMUM COMPACTION OF 98% IN PAVED AREAS AND 95% IN UNPAVED AREAS IN ACCORDANCE WITH AASHTO T-180.
5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS BE PROVIDED AT POINTS 1 FOOT ABOVE THE PIPE AND AT 1 FOOT VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET.
6. 3" METALLIZED PIPE LOCATION TAPE SHALL BE LOCATED BETWEEN 15" AND 24" BELOW FINISHED GRADE OR AS SPECIFIED BY MANUFACTURER FOR ALL PVC LINES. MARKER TAPE SHALL BE USED ON ALL DUCTILE IRON PIPE, AND 12 GAUGE TRACING WIRE AS WELL.
7. ALL SINGLE RESIDENTIAL WATER SERVICES SHALL BE 3/4", DOUBLE RESIDENTIAL SERVICES SHALL BE 1", AND COMMERCIAL SERVICES 1-1/2" OR 2". POLYETHYLENE TUBING SHALL BE USED, IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
POLYETHYLENE TUBING SHALL BE CTS 3408 HIGH DENSITY TUBING, BLUE IN COLOR, AND RATED FOR A MINIMUM OF 200 P.S.I. WITH SDR OF 9 (CTS). THE TUBING SHALL HAVE A VIRGIN HIGH DENSITY POLYETHYLENE CENTER FOR WHICH THE MANUFACTURER SHALL FURNISH A CERTIFICATE OF PURITY. THE TUBING SHALL HAVE UV PROTECTION AND SHALL NOT BE AFFECTED BY DIRECT SUNLIGHT. THE TUBING SHALL COMPLY WITH OR EXCEED THE APPLICABLE STANDARDS OF A.S.T.M. D1248, D3350, D2239, D2737, N.S.F. 14 AND A.W.W.A. C901 AND SHALL COME WITH A LIFETIME WARRANTY.
ACCEPTABLE MANUFACTURERS: ENDOT ENDO PURE OR APPROVED EQUAL
8. ALL WATER SERVICE ENDINGS SHALL BE MARKED WITH A 2" X 4" LUMBER (PRESSURE TREATED) EXTENDING 4 FEET ABOVE GRADE, WITH WATER SERVICES SECURED 12" MAXIMUM ABOVE THE GROUND AND ANY "U" BRANCHES FOR DOUBLE SERVICES SHALL BE AT GROUND LEVEL. ALL SERVICES SHALL BE LOCKED.
9. WATER VALVES SHALL BE PLACED AT ALL STREET INTERSECTIONS AND AT MAXIMUM SPACINGS OF 750 FEET.
10. AT ALL WATER MAIN TEES AND CROSSES, VALVES SHALL BE INSTALLED ON ALL LEGS EXCEPT ONE.
11. APPROVED WATER VALVE TYPES ARE THE FOLLOWING:
 - A. RESILIENT SEAT GATE VALVES 24" DIAMETER AND SMALLER (AWWA C-509)
 - B. BUTTERFLY VALVES GREATER THAN 24" (AWWA C-504)
 - C. TAPPING VALVES WITH MECHANICAL TAPPING SLEEVE.
12. ALL WATER VALVES SHALL BE ADJUSTED TO FINISHED GRADE WITH CONCRETE COLLARS AND THE CAPS PAINTED BLUE TO MAKE THEM PLAINLY VISIBLE.
13. UPON FINAL ACCEPTANCE OF NEW WATER SYSTEMS, WATER VALVES SHALL BE COMPLETELY OPENED BY PUBLIC UTILITIES PERSONNEL. AT NO TIME SHALL CONTRACTOR OPERATE ANY EXISTING VALVES.
14. TYPICALLY, A MINIMUM OF ONE FIRE HYDRANT SHALL BE LOCATED AT EVERY INTERSECTION. OTHER FIRE HYDRANTS SHALL BE LOCATED SO AS TO PRODUCE A MAXIMUM 375 FEET HOSE LAY ALONG THE STREET FOR ALL RESIDENTIAL BUILDINGS.



STANDARD CONSTRUCTION DETAIL
POTABLE WATER DESIGN AND
CONSTRUCTION NOTES

FILE NAME:

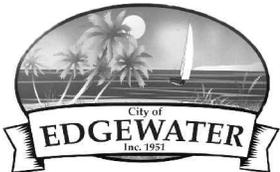
EW_W22.DWG

DETAIL REF:

W-22

POTABLE WATER DESIGN AND
CONSTRUCTION NOTES (CONTD.)

15. ALL FIRE HYDRANTS SHALL BE CONSTRUCTED TO MAKE THEM EASILY ACCESSIBLE TO FIRE PERSONNEL IN CASE OF A FIRE. THE PRIMARY HYDRANT PORT SHOULD ALWAYS FACE THE STREET.
16. AS STANDARD PRACTICE, WATER MAINS SHALL BE INSTALLED 4 FEET OFF THE BACK OF CURB OR AS APPROVED BY THE CITY.
17. ALL WATER MAINS SHALL BE NSF-APPROVED FOR POTABLE WATER USE, AND SHALL HAVE A MINIMUM COVER OF 36 INCHES.
18. ALL PROPOSED WATER MAINS SHALL BE FLUSHED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
19. WATER MAINS SHALL BE C-900 PVC OR C-905 CL 150 (COLOR "BLUE") OR D.I.P. PRESSURE CLASS 350 STANDARD CEMENT LINED UNLESS OTHERWISE APPROVED BY THE CITY.
20. UPON CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE SYSTEM, IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THAT THE SYSTEM IS PROPERLY CERTIFIED AND ACCEPTED BY THE DEPARTMENT OF HEALTH AND AS-BUILTS ARE PROVIDED TO THE CITY PRIOR TO ANY USE OF THIS SYSTEM .
21. WATER DISTRIBUTION SYSTEM SHALL BE DESIGNED TO COMPLY WITH THE CITY'S FIRE (WATER) FLOW CODE.
22. IN AREAS WHERE RECLAIMED WATER IS NOT AVAILABLE THE CONTRACTOR SHALL BE REQUIRED TO (UPON SATISFACTORY COMPLETION OF THE PRESSURE TEST) TRANSFER THE WATER FROM THE POTABLE WATER LINES TO THE RECLAIMED WATER LINES FOR UTILIZATION IN THEIR PRESSURE TEST.
23. IN AREAS WHERE RECLAIMED WATER IS AVAILABLE, RECLAIMED WATER WILL BE UTILIZED IN THE PRESSURE TESTING OF NEW RECLAIMED WATER LINES.
24. ALL POTABLE WATER MAINS SHALL USE A THRUST RESTRAINT JOINT METHOD IN COMPLIANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) GUIDELINES. IN THE EVENT THAT PVC FITTINGS ARE SPECIFIED, THE RESTRAINT SHALL BE MODIFIED IN ACCORDANCE WITH THE RECOMMENDED ADDITIONAL RESTRAINT LENGTH REQUIRED FOR PIPE WRAPPED WITH POLYETHYLENE.
25. MEGALUGS, BOLTLESS RESTRAINED JOINTS, GRIPPER GASKETS, OR STAR GRIPS SHALL BE USED ON ALL RESTRAINED JOINT INSTALLATIONS. MINIMUM DEPTH OF BURY ON PIPES NOT MEETING REQUIRED COVER REQUIREMENTS SHALL FOLLOW THE MOST RECENT DIPRA THRUST RESTRAINT DESIGN GUIDELINES.
26. GRIPPER RING GASKETS BY ROMAC AND OR STAR AU-GRIP MAY BE USED AS APPROPRIATE FOR RESTRAINING PRESSURE PIPE TO FITTINGS, VALVES, ETC.
27. WATER SYSTEMS SHALL BE PRESSURE TESTED AT 150 PSI STATIC PRESSURE FOR A PERIOD OF 4 HOURS PER AWWA STANDARDS.
28. ALL WATER SERVICES SHALL BE MARKED WITH AN "/\" SAW CUT INTO THE CURB AND METAL TABS SET INTO THE PAVEMENT.
29. ALL WATER VALVES SHALL BE MARKED WITH AN "X" SAW CUT INTO THE CURB AND METAL TABS SET INTO THE PAVEMENT. BLOW-OFFS SHALL BE MARKED SIMILARLY, AS WELL.
30. WATER SERVICES SHALL BE NORMALLY DOUBLE 1" SERVICES LOCATED AT SIDE LOT LINES. IN INSTANCES WHERE SERVICES NEED TO BE OFFSET, 3/4" SINGLE SERVICES SHALL BE SPECIFIED. THESE SERVICES MAY BE OFFSET A MAXIMUM OF 2.0' FROM SIDE LOT LINES.
31. ALL TAPPING OF MAINS SHALL BE SUPERVISED BY THE CITY SCHEDULING OF THESE CONNECTIONS SHALL REQUIRE A MINIMUM 48 HOUR NOTIFICATION (MEASURED ON NORMAL WORK DAYS) DIRECTED TO THE CITY'S DESIGNATED SITE INSPECTOR. THE CONNECTION SHALL BE SCHEDULED TO COMMENCE BETWEEN 8:00 A.M. AND NOON ON THE APPROPRIATE DAY.



STANDARD CONSTRUCTION DETAIL
POTABLE WATER DESIGN AND
CONSTRUCTION NOTES

FILE NAME:

EW_W23.DWG

DETAIL REF:

W-23

POTABLE WATER DESIGN AND
CONSTRUCTION NOTES (CONTD.)

32. ALL PROPOSED POTABLE WATER MAINS SHALL BE FLUSHED, DISINFECTED, PRESSURE TESTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE WHEN APPROPRIATE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIROMENTAL PROTECTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE WITH CITY PERSONNEL AT THE WATER TREATMENT PLANT AT LEAST 48 HOURS PRIOR TO BEGINNING FLUSH OF THE MAINS PRIOR TO THE COMMENCEMENT OF PRESSURE TESTING.
33. THE CONTRACTOR SHALL BE REQUIRED TO PIG ALL POTABLE MAINS IN EXCESS OF 8" IN DIAMETER AND PRIMARY DISTRIBUTION MAINS LOCATED ON COLLECTOR AND ARTERIAL ROADWAYS. LAUNCHING AND EXTRACTION POINTS SHALL BE DETERMINED BY THE CONTRACTOR.
34. WITH RESPECT TO TIE-IN CONNECTIONS , THE CITY RESERVES THE RIGHT TO REQUIRE CONNECTIONS TO BE PERFORMED DURING PERIODS OF LOW FLOW (MIDNIGHT TO 6:00 A.M.) IN ORDER TO MINIMIZE SERVICE DISRUPTION TO EXISTING CUSTOMERS.
35. ALL WORK PERFORMED UPON POTABLE WATER FACILITIES OWNED OR PROPOSED TO BE OWNED BY THE CITY SHALL BE CONSTRUCTED BY AN UNDERGROUND UTILITY CONTRACTOR OR GENERAL CONTRACTOR LICENSED IN THE STATE OF FLORIDA AND REGISTERED WITH THE CITY.
36. FOR CONSTRUCTION PURPOSES, THE PLANS SHALL DIMENSION THE PROPOSED LOCATIONS OF ALL WATER MAINS MEASURED FROM THE BACK OF CURB (OR EDGE OF PAVEMENT, IF NO CURB IS USED).
37. POTABLE WATER SYSTEM EXTENSIONS MAY NOT BE USED PRIOR TO FINAL TESTING, CLEARANCE AND ACCEPTANCE BY THE CITY OF EDGEWATER. THIS INCLUDES CONSTRUCTION WATER REQUIRED FOR SEWER LINE CLEANING OR RELATED USES.
38. ALL H.D.P.E. PIPE UTILIZED FOR WATER, FORCE MAIN AND/OR RECLAIMED WATER MAIN EXTENSIONS SHALL BE S.D.R. 11 UNLESS SPECIFICALLY NOTED OTHERWISE. THE HDPE PIPE SHALL BE SIZED TO MATCH THE EXTERNAL DIAMETER OF THE PVC OR DIP PIPE TO WHICH IT IS ATTACHED.
39. LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.
40. ALL VALVES 2" AND LARGER SHALL BE STANDARD 2" BOX VALVES (CORP STOPS ARE NOT ACCEPTABLE).
41. WHERE POTABLE WATER AND SANITARY SEWER MAINS CROSS WITH LESS THAN EIGHTEEN (18) INCHES OF VERTICAL CLEARANCE OR WHERE THE SEWER MAIN IS ABOVE THE WATER MAIN, THE SEWER MAIN SHALL BE ENCASED WITH CONCRETE OR ENCLOSED IN A WATER TIGHT CARRIER PIPE, OR UPGRADED TO DUCTILE IRON PIPE OR PRESSURE RATED PVC PIPE (MEETING THE AWWA C-900 OR C905 SPECIFICATION) FOR A MINIMUM LENGTH OF (20) FEET, CENTERED ON THE POINT OF CROSSING. A MINIMUM HORIZONTAL SEPARATION OF (10) TEN FEET (EDGE TO EDGE) BETWEEN POTABLE WATER MAINS AND SEWER MAINS SHALL BE MAINTAINED WHEN AT ALL POSSIBLE. WHEN THE 10-FOOT HORIZONTAL SEPARATION CANNOT BE MAINTAINED THE WATER MAIN SHALL BE INSTALLED IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF AT LEAST 18" ABOVE THE SEWAGE MAIN. ALTERNATIVELY, THE SEWER MAIN SHALL BE ENCASED WITH CONCRETE OR ENCLOSED IN A WATER TIGHT CARRIER PIPE, OR UPGRADED TO DUCTILE IRON PIPE OR PRESSURE RATED PVC PIPE (MEETING THE AWWA C-900 OR C-905 SPECIFICATION) AND PRESSURE TESTED.



STANDARD CONSTRUCTION DETAIL
POTABLE WATER DESIGN AND
CONSTRUCTION NOTES

FILE NAME:

EW_W24.DWG

DETAIL REF:

W-24

TECHNICAL SPECIFICATIONS FOR MECHANICAL JOINT
DUCTILE IRON PIPE FITTINGS

ALL MECHANICAL JOINT DUCTILE IRON PIPE FITTINGS SHALL BE IN ACCORDANCE WITH ACCEPTABLE STANDARDS AND COMPLY WITH THE FOLLOWING SPECIFICATIONS:

MATERIAL:

A.S.T.M. A536 MINIMUM GRADE 70-50-5 IN ACCORDANCE WITH A.W.W.A. C153 (A.N.S.I. A21.53)

PRESSURE:

CLASS 350 IN ACCORDANCE WITH A.W.W.A. C153 (A.N.S.I. A21.53) 350 PSI WATER WORKING PRESSURE.

TESTING:

IN ACCORDANCE WITH A.W.W.A. C153 (ANSI A21.53). THREE TIMES WATER WORKING PRESSURE (350 PSI). BODY CAPABLE OF WITHSTANDING HYDROSTATIC TEST OF 1050 PSI.

FLOW:

I.D. EQUAL TO I.D. OF CLASS 50/51 DUCTILE IRON PIPE, THUS ALLOWING THE FULL FLOW FEATURE.

LAYING LENGTH:

SHORT BODY (COMPACT)

CEMENT LINING:

IN ACCORDANCE WITH A.W.W.A. C104 (A.N.S.I. A21.4)

MECHANICAL JOINTS:

IN ACCORDANCE WITH A.N.S.I./A.W.W.A. C111/A21.11

GASKETS:

SBR IN ACCORDANCE WITH A.W.W.A. C111 A.N.S.I. A21.11

TEE HEAD BOLTS:

COR-TEN IN ACCORDANCE WITH A.W.W.A. C111 (A.N.S.I. A21.11)

ACCEPTABLE MANUFACTURERS:

TYLER, CLOW, GRIFFIN, U.S. PIPE, UNION FOUNDRY, AMERICAN CAST IRON OR APPROVED EQUAL



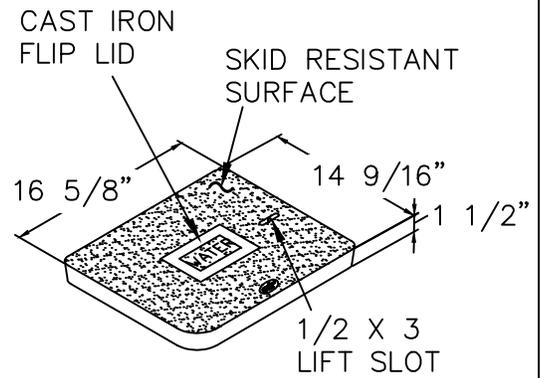
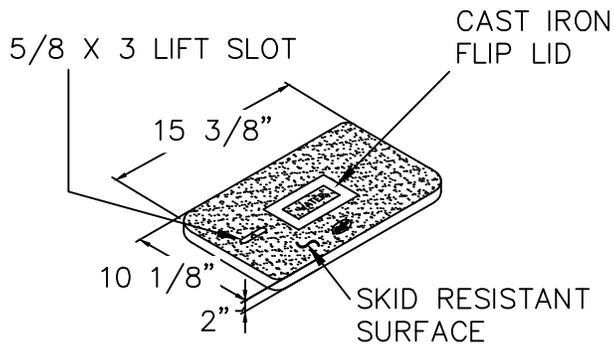
STANDARD CONSTRUCTION DETAIL
TECHNICAL SPECIFICATIONS FOR
MECHANICAL JOINT
DUCTILE IRON PIPE FITTINGS

FILE NAME:

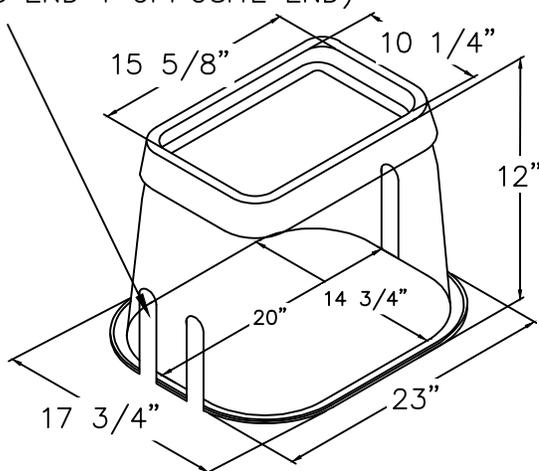
EW_W25.DWG

DETAIL REF:

W-25

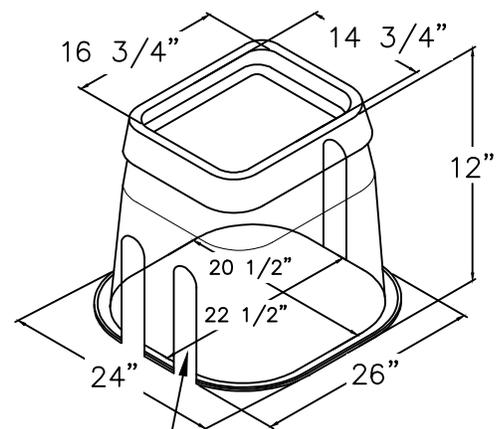


2 1/2" MOUSEHOLE
(3x-2 THIS END 1 OPPOSITE END)

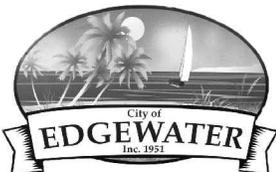


SINGLE SERVICE USE
WA00-1015-12TR-0080

2 1/2" MOUSEHOLE
(3x-2 THIS END 1 OPPOSITE END)



DOUBLE SERVICE USE
WA00-1517-12TR2-0047



STANDARD CONSTRUCTION DETAIL
VALVE BOX
SINGLE AND DOUBLE SERVICE

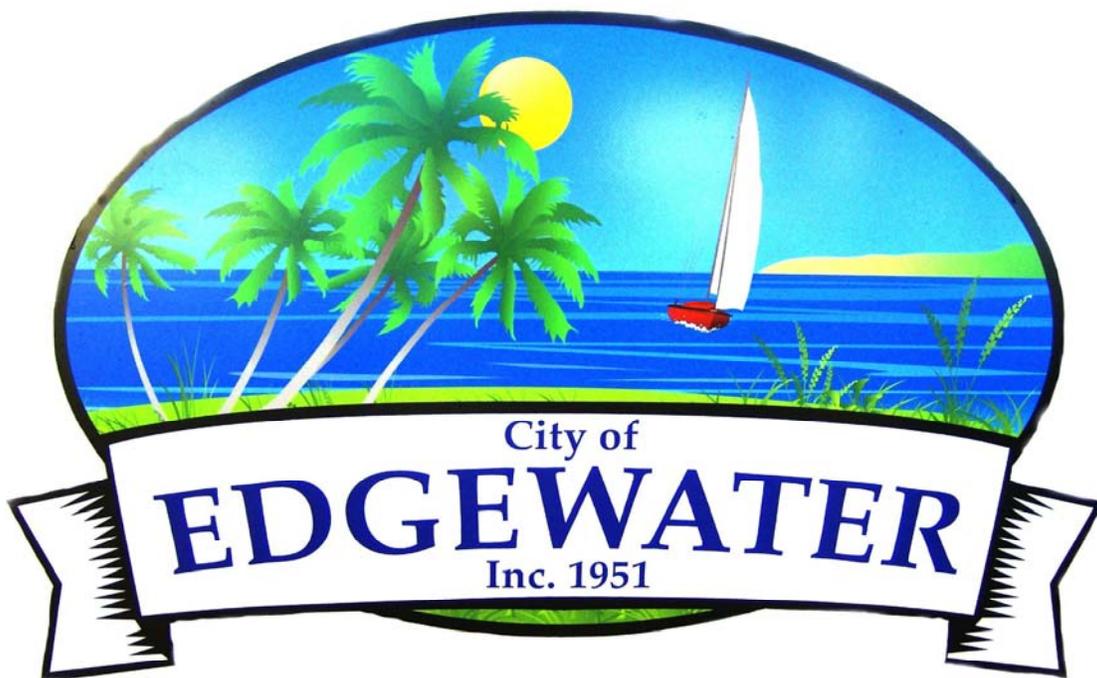
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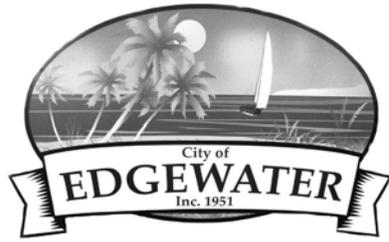
DETAIL REF:

W-26

The City of Edgewater



STANDARD CONSTRUCTION DETAILS



CITY OF EDGEWATER

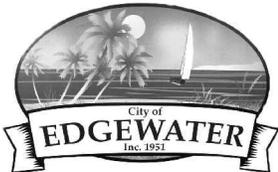
STANDARD CONSTRUCTION DETAILS

CITY OF EDGEWATER
DEPARTMENT OF ENVIRONMENTAL SERVICES
409 MANGO TREE DRIVE
EDGEWATER, FLORIDA 32132
TELEPHONE (386) 424-2476
FAX (386) 424-2480

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RECLAIMED WATER DETAILS

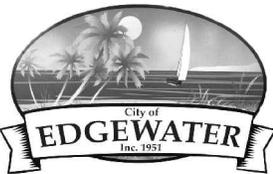
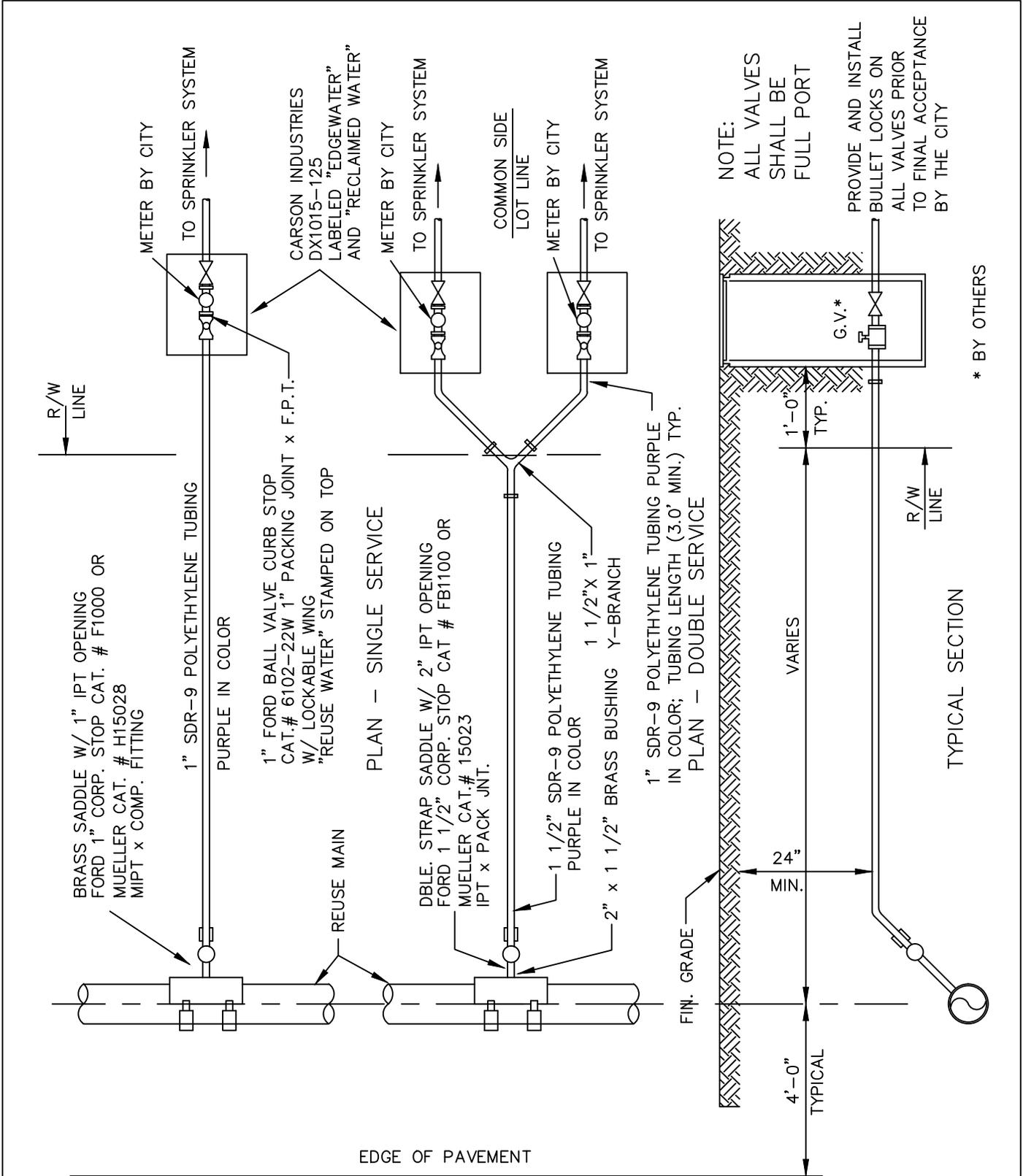
RW-1	RECLAIMED WATER SERVICE: IRRIGATION (SPRINKLER) CONNECTION
RW-2	RECLAIMED WATER SERVICE: SINGLE SERVICE METER BOX
RW-3	RECLAIMED WATER SERVICE: SPRINKLER/"HOSE BIBB" ASSEMBLY
RW-4	RECLAIMED WATER MAIN VALVE BOX
RW-5	RECLAIMED WATER DESIGN AND CONSTRUCTION NOTES
RW-6	RECLAIMED WATER DESIGN AND CONSTRUCTION NOTES
RW-7	RECLAIMED WATER DESIGN AND CONSTRUCTION NOTES



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FILE NAME:
RWINDEX.DWG

DETAIL REF:
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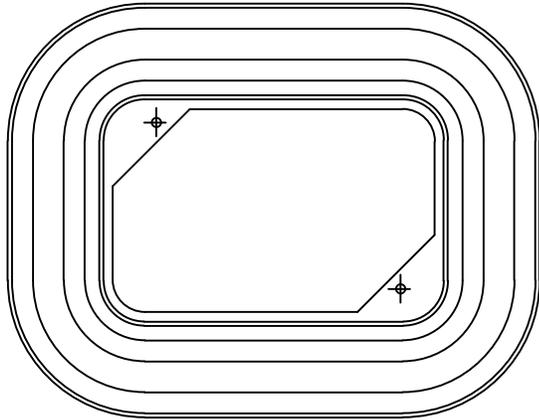
STANDARD CONSTRUCTION DETAIL
RECLAIMED WATER SERVICE:
IRRIGATION (SPRINKLER) CONNECTION

FILE NAME:

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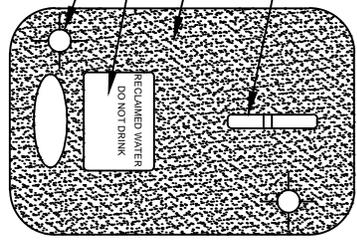
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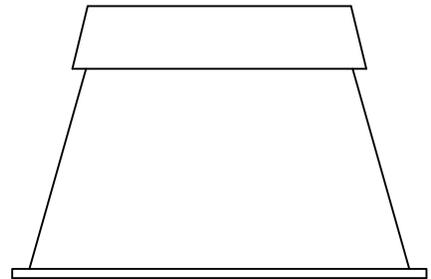


BOX PLAN VIEW

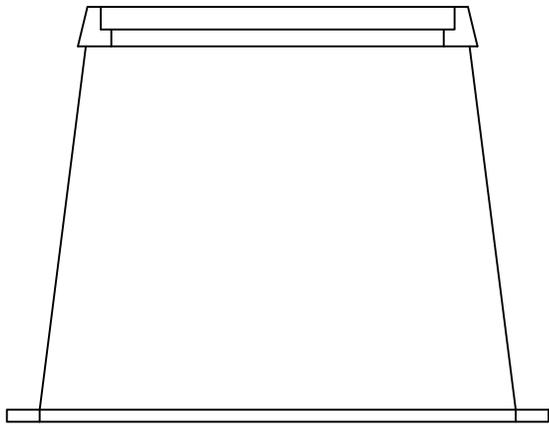
CAST IRON FLIP LID
 COVER BOLTDOWN OPTION
 SKID RESISTANT SURFACE
 5/8" X 4" LIFTING SLOT



COVER



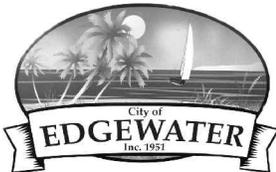
END VIEW



BOX AND COVER SECTION

NOTES:

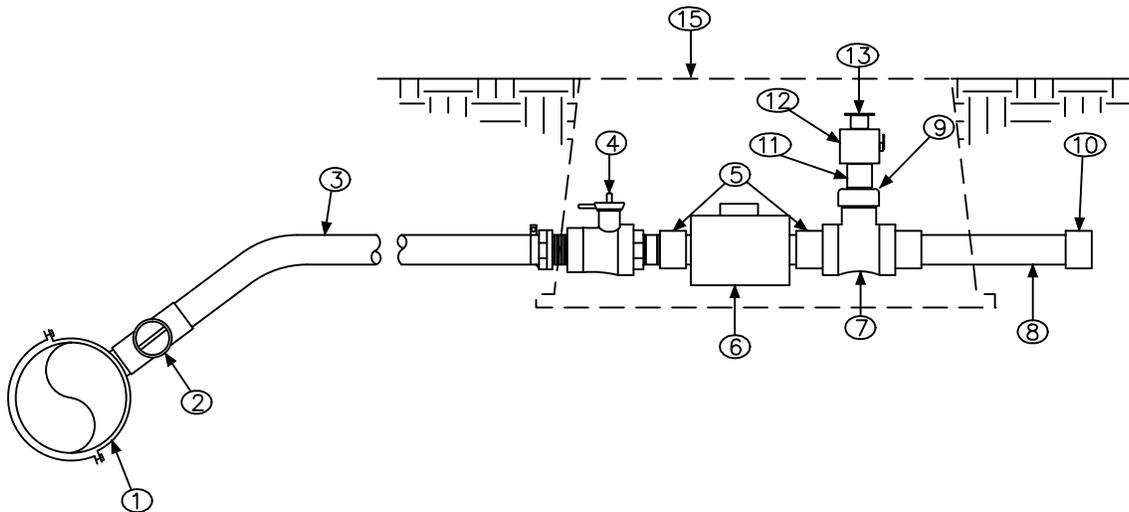
1. ALL BOXES AND COVERS TO BE PURPLE.



STANDARD CONSTRUCTION DETAIL
 RECLAIMED WATER SERVICE:
 SINGLE SERVICE
 METER BOX

FILE NAME:
 EW_RW2.DWG

DETAIL REF:
 RW-2



- | | |
|--|---|
| <p>(1) BRASS SADDLES 1" CC
 (2) 1" CORP STOP CC FORD
 (3) 1" PURPLE H.D.P.E. PIPE
 (4) 1" P.J. x 3/4" BALL VALVE x 3/4" METER COUPLING. FORD #B43-342W.
 (5) 3/4" METER COUPLING x 3/4" M.I.P. 1 7/16" LAY LENGTH. FORD #C38-23-1.437
 (6) METER (BY CITY)
 (7) 1 - 1" PVC THREADED TEE SCH. 80
 (8) 1- 1" X 8' PVC SCH. 80 THREADED BOTH ENDS</p> | <p>(9) 1 - 1" X 3/4" PVC SCH. 40 BUSHING
 (10) 1 - 1" PVC SCH. 40 THREADED CAP
 (11) 1 - 3/4" CLOSE NIPPLE
 (12) 1 - 3/4" BRASS BALL VALVE WITH BRASS HANDLE
 (13) 1 - 3/4" QUICK DISCONNECT HOSE FITTING
 (14) 1 - WILKINS D.C. #950 XLT
 (15) 1 - PURPLE POLY PLASTIC BOX</p> |
|--|---|

NOTES:

1. ALL VALVES TO BE "FULL PORT". THIS UNIT IS TO BE PREASSEMBLED AND HYDROSTATICALLY TESTED TO 100 PSI. ALL MALE THREADS ARE TO BE COVERED AS REQUIRED WITH 3/4" DOMESTIC TEFLON TAPE AND A THREAD SEALING COMPOUND TO BE REMOVED PRIOR TO SHIPMENT.
2. ALL EXPOSED MALE THREADS TO BE PROTECTED BY PLASTIC CAPS PRIOR TO SHIPMENT.
3. ALL POLYETHYLENE TUBING SHALL BE PURPLE.
4. TYPICALLY THIS DEVICE TO BE INSTALLED BY CITY FORCES.



STANDARD CONSTRUCTION DETAIL
 RECLAIMED WATER SERVICE:
 SPRINKLER/ " HOSE BIBB " ASSEMBLY

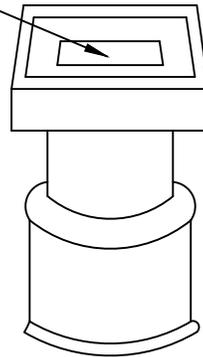
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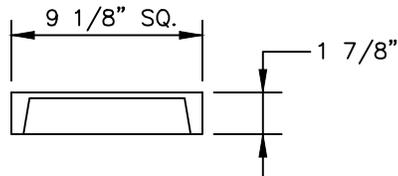
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RW-3

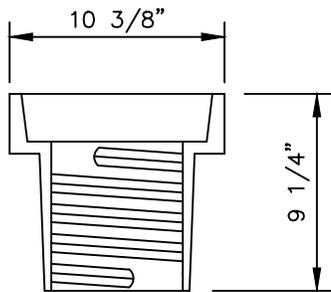
COVER MARKED
"RECLAIMED WATER"
AND PAINTED PURPLE



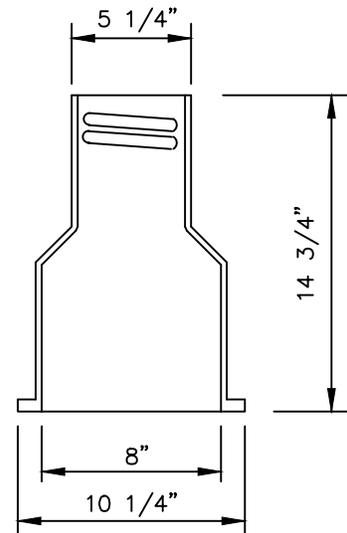
20" x 20" x 4"
CONC. COLLAR
W/ 1 x 4 CONT.
(REQ'D IN UNPAVED
AREAS ONLY)



COVER



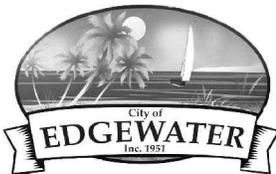
TOP
SECTION



BOTTOM
SECTION

NOTE:

1. RECLAIMED MAIN VALVE BOX AND COVER SHALL BE ADJUSTABLE SCREW TYPE.



STANDARD CONSTRUCTION DETAIL
RECLAIMED WATER MAIN
VALVE BOX

FILE NAME:

EW_RW4.DWG

DETAIL REF:

RW-4

RECLAIMED WATER DESIGN AND CONSTRUCTION NOTES

1. THE CITY'S PUBLIC UTILITIES DEPARTMENT (424-2460) SHALL BE GIVEN A MINIMUM OF 48 HOURS ADVANCE NOTICE (NOT INCLUDING HOLIDAYS OR WEEKENDS) PRIOR TO BEGINNING ANY RECLAIMED WATER SYSTEM CONSTRUCTION.
2. DEWATERING SHALL BE PROVIDED TO KEEP GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW RECLAIMED WATER MAIN BEING LAID.
3. ALL RECLAIMED WATER MAINS SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
4. TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE CITY WITH A MINIMUM COMPACTION OF 95% IN UNPAVED AREAS AND 98% IN PAVED AREAS IN ACCORDANCE WITH AASHTO T-180.
5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS BE PROVIDED AT POINTS 1 FOOT ABOVE THE PIPE AND AT 1 FOOT VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET
6. 3" METALLIZED PIPE LOCATION TAPE SHALL BE LOCATED BETWEEN 15" AND 24" BELOW FINISHED GRADE OR AS SPECIFIED BY MANUFACTURER FOR ALL PVC LINES. IN ADDITION TO 12 GAUGE TRACING WIRE MARKER TAPE SHALL BE PROVIDED ON ALL DIP PIPE ALSO.
7. ALL SINGLE RESIDENTIAL WATER SERVICES SHALL BE 1" AND DOUBLE RESIDENTIAL SERVICES SHALL BE 1 1/2". SERVICES SHALL BE CTS 3408 HIGH DENSITY POLYETHYLENE TUBING RATED FOR A MINIMUM OF 200 PSI WITH SDR 9 (CTS). THE TUBING SHALL HAVE A VIRGIN HIGH DENSITY POLYETHYLENE CENTER FOR WHICH THE MANUFACTURER SHALL FURNISH A CERTIFICATE OF PURITY. THE TUBING SHALL BE LAVENDER IN COLOR AND SHALL HAVE THE WORDS "RECLAIMED WATER" PERMANENTLY PRINTED ON THE OUTSIDE. THE TUBING SHALL HAVE U.V. PROTECTION AND SHALL NOT BE AFFECTED BY DIRECT SUNLIGHT. THE TUBING SHALL COMPLY WITH OR EXCEED THE APPLICABLE STANDARDS OF A.S.D.M. D1248, D3350, D2239, D2737, N.S.F.-14 AND A.W.W.A. C901 AND SHALL COME WITH A LIFETIME WARRANTY. APPROVED SIZES: 3/4", 1", 1-1/2" AND 2" DIAMETERS. ACCEPTABLE MANUFACTURERS: ENDOT ENDOCORE RWT OR APPROVED EQUAL
8. ALL WATER SERVICE ENDINGS SHALL BE SECURED BY WIRE TO 2"X 4" PRESSURE TREATED STAKES, APPROXIMATELY 2' ABOVE GRADE, WITH "U" BRANCHES AT THE GROUND LEVEL, OR MAY BE PLACED IN RECLAIMED WATER METER BOXES AS SUPPLIED BY THE CITY AT THE TIME OF FINAL SUBDIVISION INSPECTION.
9. RECLAIMED WATER VALVES SHALL BE PLACED AT ALL STREET INTERSECTIONS AND AT MAXIMUM SPACINGS OF 1000 FEET.
10. AT ALL RECLAIMED WATER MAIN TEES AND CROSSES, VALVES SHALL BE INSTALLED ON ALL LEGS EXCEPT ONE.
11. APPROVED WATER VALVE TYPES ARE THE FOLLOWING:
 - A. STANDARD GATE VALVES LESS THAN 24" DIAMETER (AWWA C-500) OR RESILIENT SEAT GATE VALVES (AWWA C-509)
 - B. BUTTERFLY VALVES GREATER THAN 24" (AWWA C 504)
 - C. TAPPING VALVES WITH MECHANICAL OR STAINLESS STEEL TAPPING SLEEVE.
12. ALL RECLAIMED WATER VALVES SHALL BE ADJUSTED TO FINISH GRADE AND THE CAPS SHALL BE PAINTED LAVENDER OR PURPLE TO MAKE THEM PLAINLY DISTINGUISHABLE.
13. AS STANDARD PRACTICE RECLAIMED WATER MAINS SHALL BE INSTALLED 4 FEET OFF THE BACK OF THE CURB ON THE OPPOSITE SIDE OF THE POTABLE WATER LINES OR AS APPROVED BY THE CITY.
14. ALL RECLAIMED WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES. IN SPECIAL CASES WHERE IT IS IMPOSSIBLE OR INAPPROPRIATE TO PROVIDE ADEQUATE COVER, DUCTILE IRON PRESSURE CLASS 350 OR CONCRETE ENCASEMENT MAY BE USED AS APPROVED BY THE CITY.
15. ALL MAINS INSTALLED REQUIRE 12 GAUGE TRACING WIRE FOR LOCATING.



STANDARD CONSTRUCTION DETAIL
RECLAIMED WATER DESIGN AND CONSTRUCTION NOTES

FILE NAME:

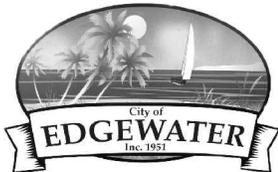
EW_RW5.DWG

DETAIL REF:

RW-5

RECLAIMED WATER DESIGN AND CONSTRUCTION NOTES (CONTD.)

15. ALL PROPOSED RECLAIMED WATER MAINS SHALL BE FLUSHED, DISINFECTED PRESSURE TESTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE WHEN APPROPRIATE IN ACCORDANCE WITH LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE WITH CITY PERSONNEL AT THE WASTEWATER PLANT 48 HOURS PRIOR TO BEGINNING A FULL-DIAMETER FLUSH OF THE MAINS PRIOR TO THE COMMENCEMENT OF PRESSURE TESTING.
16. THE CONTRACTOR SHALL BE REQUIRED TO PIG ALL RECLAIMED MAINS IN EXCESS OF 8" IN DIAMETER AND PRIMARY DISTRIBUTION MAINS LOCATED ON COLLECTOR AND ARTERIAL ROADWAYS. LAUNCHING AND EXTRACTION POINTS SHALL BE DETERMINED BY THE CONTRACTOR.
17. RECLAIMED WATER MAINS SHALL BE PVC AWWA CLASS C-900 OR C-905, CL 150 (COLOR PANTONE PURPLE) OR DIP PRESSURE CLASS 350, STANDARD CEMENT LINED UNLESS APPROVED OTHERWISE BY THE CITY.
18. ALL RECLAIMED WATER MAINS SHALL USE A THRUST RESTRAINED JOINT METHOD IN COMPLIANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) GUIDELINES. IN THE EVENT THAT PVC FITTINGS ARE SPECIFIED, THE RESTRAINED JOINT SHALL BE MODIFIED IN ACCORDANCE WITH THE RECOMMENDED ADDITIONAL RESTRAINED LENGTH REQUIRED FOR PIPE WRAPPED WITH POLYETHYLENE. IN NO INSTANCE SHALL THRUST BLOCKS BE PERMITTED.
19. MEGALUGS, BOLTLESS RESTRAINED JOINTS, OR GRIPPER GASKETS SHALL BE USED ON ALL RESTRAINED JOINT INSTALLATIONS. MINIMUM DEPTH OF BURY ON PIPES NOT MEETING REQUIRED COVER REQUIREMENTS SHALL FOLLOW THE MOST RECENT DIPRA THRUST RESTRAINT DESIGN GUIDELINES.
20. GRIPPER RING GASKETS BY ROMAC MAY BE USED AS APPROPRIATE FOR RESTRAINING PRESSURE PIPE TO FITTINGS, VALVES, ETC.
21. UPON CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE SYSTEM, IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO INSURE THAT THE SYSTEM IS PROPERLY CERTIFIED AND ACCEPTED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION OR CITY OF EDGEWATER PUBLIC UTILITIES AND "AS-BUILTS" ARE PROVIDED TO THE CITY, PRIOR TO ANY USE OF THIS SYSTEM.
22. ALL RECLAIMED WATER MAINS AND SERVICE LINES SHALL BE READILY DISTINGUISHABLE BY THEIR PURPLE COLOR OR TAPE MARKINGS. DUCTILE IRON PIPE SHALL BE WRAPPED WITH PURPLE POLYETHYLENE.
23. ALL RECLAIMED WATER SERVICES SHALL BE MARKED ALONG THE OUTSIDE EDGE OF CURB WITH AN "⊥" OR BY METAL TABS SET INTO PAVEMENT. VALVES AND BLOW-OFFS FOR RECLAIM WATER MAINS SHALL BE MARKED BY AN "X" SET INTO THE PAVEMENT.
24. ALL DIP PIPE SHALL HAVE 2" YELLOW STRIPES PAINTED AT 2 O'CLOCK, 6 O'CLOCK, AND 10 O'CLOCK FOR THE FULL LENGTH OF PIPE. YELLOW TRAFFIC STRIPING PAINT SHALL BE USED WITH RECLAIMED WATER CLEARLY STENCILED WITH PAINT AT TWO LOCATIONS PER STRIPE OR SIX PER PIPE.
25. RECLAIM WATER SERVICES SHALL BE NORMALLY DOUBLE 1 1/2" SERVICES LOCATED AT SIDE LOT LINES ALTERNATING WITH POTABLE WATER SERVICE LOCATIONS. IN INSTANCES WHERE RECLAIM WATER SERVICES NEED TO BE OFFSET, 1" SINGLE SERVICES SHALL BE SPECIFIED THESE SERVICES MAY BE OFFSET FROM THE LOT LINE A MAXIMUM DISTANCE OF 2.0'.
26. MAXIMUM OBTAINABLE SEPARATION OF PUBLIC RECLAIMED WATER MAINS, STORMWATER MAINS, AND SANITARY SEWER MAINS SHALL BE MAINTAINED. A MINIMUM HORIZONTAL SEPARATION OF FIVE (5) FEET (CENTER TO CENTER) OR THREE (3) FEET (OUTSIDE TO OUTSIDE) SHALL BE MAINTAINED BETWEEN RECLAIMED WATER MAINS AND SEWAGE MAINS. WHERE RECLAIMED WATER AND SANITARY SEWAGE MAINS CROSS WITH LESS THAN EIGHTEEN (18) INCHES VERTICAL CLEARANCE, THE SANITARY SEWAGE MAIN SHALL BE TWENTY (20) FEET OF EITHER CONCRETE ENCASED PVC PIPE OR ENCASED IN A WATERTIGHT CARRIER PIPE, CENTERED ON THE POINT OF CROSSING



STANDARD CONSTRUCTION DETAIL
RECLAIMED WATER DESIGN AND CONSTRUCTION NOTES

FILE NAME:

EW_RW6.DWG

DETAIL REF:

RW-6

RECLAIMED WATER DESIGN AND CONSTRUCTION NOTES (CONTD.)

27. MAXIMUM OBTAINABLE SEPARATION OF PUBLIC ACCESS RECLAIMED WATER MAINS AND POTABLE WATER MAINS SHALL BE MAINTAINED. A MINIMUM HORIZONTAL SEPARATION OF FIVE (5) FEET (CENTER TO CENTER) OR THREE (3) FEET (OUTSIDE TO OUTSIDE) SHALL BE MAINTAINED BETWEEN RECLAIMED WATER MAINS AND POTABLE WATER MAINS. WHERE RECLAIMED WATER AND POTABLE WATER MAINS CROSS WITH LESS THAN EIGHTEEN (18) INCHES VERTICAL CLEARANCE, THE RECLAIMED WATER MAIN SHALL BE TWENTY (20) FEET OF EITHER DUCTILE IRON PIPE OR ENCASED IN A WATERTIGHT CARRIER PIPE, CENTER ON THE POINT OF CROSSING.
28. ALL RECLAIMED WATER HOSE BIBBS, HAND-OPERATED CONNECTIONS AND OUTLETS SHALL BE CONTAINED IN UNDERGROUND SERVICE VAULTS AND SHALL BE APPROPRIATELY TAGGED OR LABELED TO WARN THE PUBLIC AND EMPLOYEES THAT THE WATER IS NOT INTENDED FOR DRINKING. ALL PIPING, VALVES, AND OUTLETS SHALL BE COLOR-CODED, OR OTHERWISE MARKED, TO DIFFERENTIATE RECLAIMED WATER FROM POTABLE OR OTHER WATER.
29. VAULTS FOR HOSE BIBBS AND OUTLETS SHALL BE LOCKED OR REQUIRE A SPECIAL TOOL FOR OPERATION OF HOSE BIBBS AND OUTLETS.
30. THE REUSE MAIN SHALL NOT BE PLACED IN SERVICE UNTIL A SATISFACTORY 150 PSI PRESSURE TEST AND A PASSING BACTERIOLOGICAL TEST IS PERFORMED AND RESULTS ARE FORWARDED TO THE CITY.
31. A 75 FOOT SETBACK DISTANCE SHALL BE PROVIDED FROM PUBLIC ACCESS REUSE WETTED AREAS TO ANY PUBLIC AND ANY PRIVATE POTABLE WATER SUPPLY WELLS.
32. LOW TRAJECTORY NOZZLES ARE REQUIRED WITHIN 100 FEET OF PUBLIC EATING, DRINKING OR BATHING FACILITIES.
33. ALL TAPPING OF MAINS SHALL BE SUPERVISED BY THE CITY SCHEDULING OF THESE CONNECTIONS SHALL REQUIRE A MINIMUM 48 HOUR NOTIFICATION (MEASURED ON NORMAL WORK DAYS) DIRECTED TO THE CITY'S DESIGNATED SITE INSPECTOR. SUBSEQUENTLY, THE CONNECTION SHALL BE SCHEDULED TO COMMENCE BETWEEN 7:00 A.M. AND NOON ON THE APPROPRIATE DAY.
34. WITH RESPECT TO TIE-IN CONNECTIONS, THE CITY RESERVES THE RIGHT TO REQUIRE CONNECTIONS TO BE PERFORMED DURING PERIODS OF LOW FLOW IN ORDER TO MINIMIZE MINIMIZE SERVICE DISRUPTION TO EXISTING CUSTOMERS.
35. ALL WORK PERFORMED UPON RECLAIMED WATER FACILITIES OWNED OR PROPOSED TO BE OWNED BY THE CITY SHALL BE CONSTRUCTED BY AN UNDERGROUND UTILITY OR GENERAL CONTRACTOR LICENSED IN THE STATE OF FLORIDA AND REGISTERED WITH THE CITY.
36. FOR CONSTRUCTION PURPOSES, THE PLANS SHALL DIMENSION THE PROPOSED LOCATIONS OF ALL RECLAIMED WATER MAINS MEASURED FROM THE BACK OF CURB (OR EDGE OF PAVEMENT IF NO CURB EXISTS).
37. ALL H.D.P.E. PIPE RECLAIMED WATER MAINS SHALL BE S.D.R.11 UNLESS SPECIFICALLY NOTED OTHERWISE. THE HDPE PIPE SHALL BE SIZED TO MATCH THE EXTERNAL DIAMETER OF THE PVC OR DIP PIPE TO WHICH IT IS ATTACHED.
38. LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.



STANDARD CONSTRUCTION DETAIL
RECLAIMED WATER DESIGN AND CONSTRUCTION NOTES

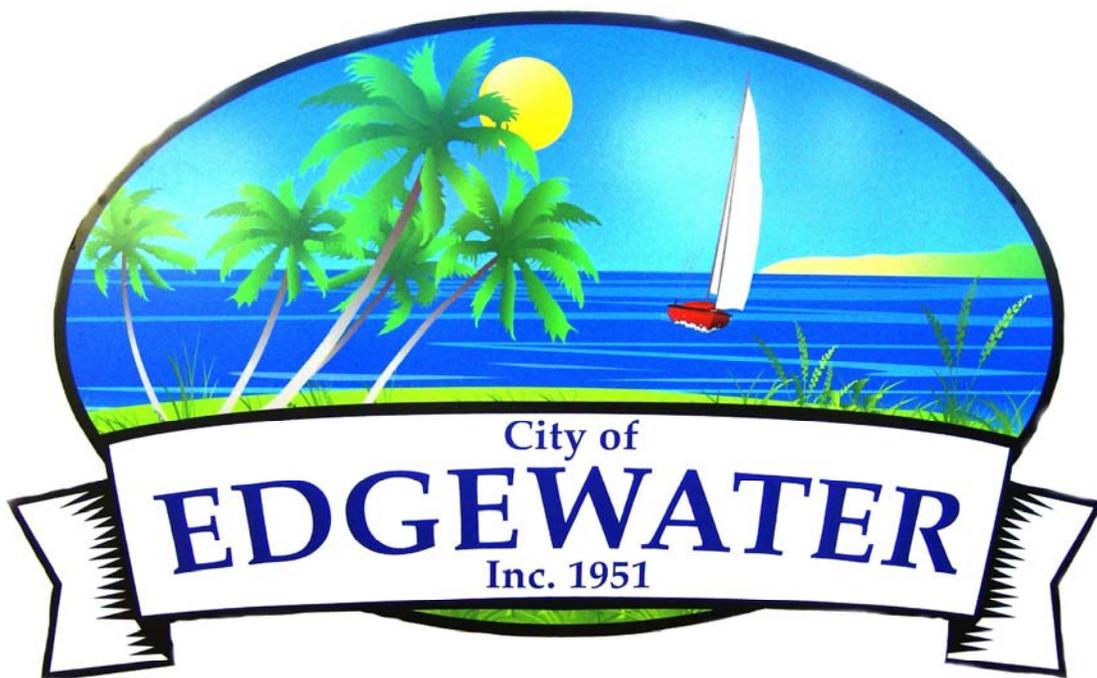
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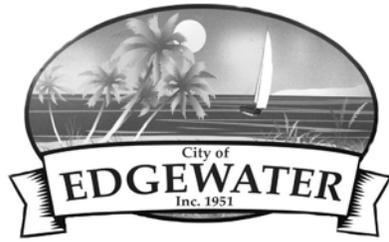
DETAIL REF:

RW-7

The City of Edgewater



STANDARD CONSTRUCTION DETAILS



CITY OF EDGEWATER

STANDARD CONSTRUCTION DETAILS

CITY OF EDGEWATER
DEPARTMENT OF ENVIRONMENTAL SERVICES
409 MANGO TREE DRIVE
EDGEWATER, FLORIDA 32132
TELEPHONE (386) 424-2476
FAX (386) 424-2480

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STANDARD CONSTRUCTION DETAIL
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MISCELLANEOUS DETAILS

FILE NAME:

MISCINDX.DWG

DETAIL REF:

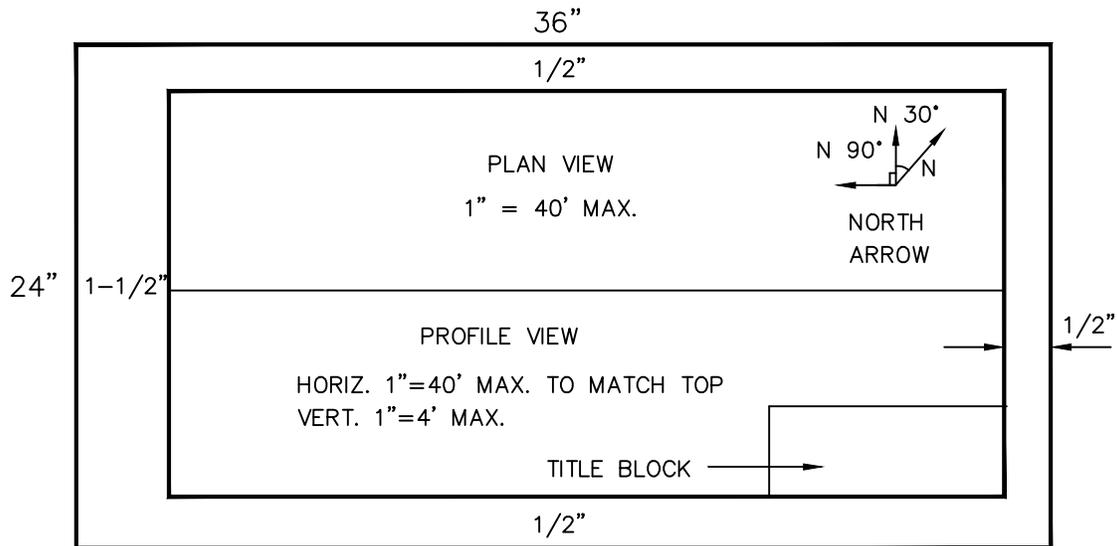
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PLAN SHEET REQUIREMENTS:

1. PLANS SUBMITTED TO THE PLANNING DEPARTMENT FOR REVIEW INCLUDING SITE PLANS, SUBDIVISIONS, PLANNED UNIT DEVELOPMENTS, AND OTHER DEVELOPMENTS, SHALL CONSIST OF AT LEAST THE FOLLOWING ITEMS:
 - a. INDEX PAGE WITH AREA MAP SHOWING PROJECT LIMITS
 - b. PLAN AND PROFILE SHEETS, AS APPROPRIATE
 - c. PLAN SHEETS, AS APPROPRIATE
 - d. PROFILE SHEETS, AS APPROPRIATE
 - e. DETAIL SHEETS, AS APPROPRIATE
 - f. OTHER INFORMATION, AS REQUIRED BY LAND DEVELOPMENT CODE

2. THEY SHALL BE DRAWN ON STANDARD 24" X 36" SHEETS. THE PLAN AND PROFILE MAY BE EITHER SINGLE OR DOUBLE AS THE INDIVIDUAL PROJECT DICTATES. EACH SHEET SHALL CONTAIN AN APPROPRIATE TITLE BLOCK SHOWING THE FOLLOWING INFORMATION:
 - a. THE NAME OF THE PROJECT
 - b. THE NAME, ADDRESS, AND PHONE NUMBER OF THE COMPANY PREPARING THE DRAWINGS
 - c. THE NAME, ADDRESS, AND PHONE NUMBER OF THE ENGINEER, SURVEYOR, OR LANDSCAPE ARCHITECT AS APPROPRIATE.
 - d. THE SHEET NUMBER
 - e. THE DRAWING NUMBER
 - f. THE DATE
 - g. ANY REVISIONS AND DATE
 - h. OTHER INFORMATION AS APPROPRIATE

3. THE STANDARD SHEET SHALL BE LAID OUT AS SHOWN BELOW, WITH EACH SHEET CONTAINING A NORTH ARROW AND SCALE.



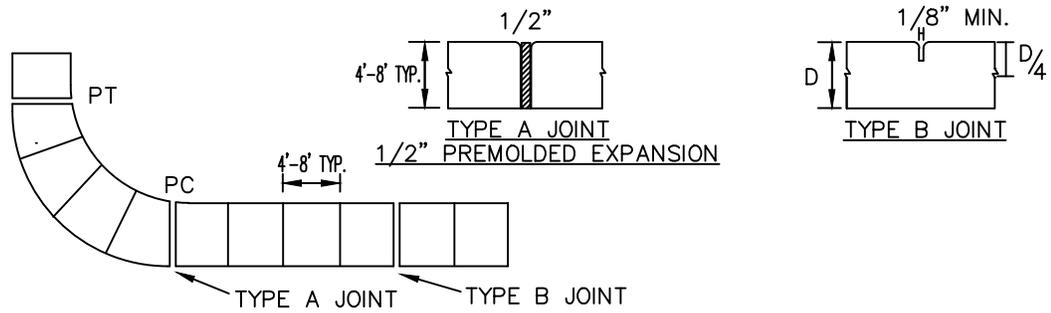
STANDARD CONSTRUCTION DETAIL
PLAN SHEET REQUIREMENTS

FILE NAME:

EW_M1.DWG

DETAIL REF:

M-1



SIDEWALK CONSTRUCTION REQUIREMENTS

1. SIDEWALKS, BIKEPATHS, RAMPS, AND DRIVEWAY APRONS SHALL BE CONSTRUCTED OF PLAIN PORTLAND CEMENT CONCRETE WITH A MAXIMUM SLUMP OF 3 INCHES, A MINIMUM DEVELOPED COMPRESSIVE STRENGTH OF 2500 P.S.I. IN 28 DAYS, AND A MINIMUM UNIFORM THICKNESS OF 4 INCHES WHERE INTENDED SOLELY FOR PEDESTRIAN TRAFFIC, AND 6 INCHES THICK WHERE MOTOR VEHICLES ARE LIKELY TO CROSS.
2. SIDEWALKS AND BIKEPATHS SHALL BE PLACED PARALLEL TO, AND ONE FOOT WITHIN THE RIGHT-OF-WAY LINE EXCEPT THAT THE CITY MAY APPROVE DEVIATIONS TO SAVE SPECIMEN TREES PROVIDED THAT THE SIDEWALK REMAINS WITHIN THE RIGHT-OF-WAY OR AN APPROVED SIDEWALK EASEMENT ABUTTING THE RIGHT OF WAY. SIDEWALKS AND BIKE PATHS SHOULD BE LOCATED AT LEAST 4 FEET FROM THE EDGE OF THE STREET PAVEMENT UNLESS OTHERWISE APPROVED BY THE CITY.
3. THE TOP OF THE CONCRETE SHALL BE AT AN ELEVATION NO LOWER THAN THE CROWN OF THE ADJACENT ROADWAY, AND NO HIGHER THAN 6 INCHES ABOVE THE CROWN UNLESS APPROVED BY THE CITY TO MAKE A MORE NATURAL TRANSITION WITH THE ADJACENT LAND.
4. ISOLATION JOINTS (TYPE A JOINTS) SHALL BE INSTALLED SO END PRODUCT IS FLUSH WITH EXISTING AND NEW CONCRETE AS TO PREVENT TRIP HAZARDS , TO SEPARATE PEDESTRIAN SECTIONS FROM SECTIONS WHICH WILL ENCOUNTER VEHICLE TRAFFIC, TO SEPARATE FRESH PLACEMENT FROM CONCRETE WHICH HAS SET FOR MORE THAN 60 MINUTES, AND NO FARTHER APART THAN 100 FEET IN SIDEWALKS AND BIKEPATHS. JOINT MATERIAL SHALL BE AS SPECIFIED IN F.D.O.T. STANDARDS AND SPECIFICATIONS AND SHALL BE RUBBER, PLASTIC OR OTHER APPROVED NON-BIODEGRADABLE ELASTOMERIC MATERIAL. WOOD AND DECCA-DRAIN STYLE POOL DRAINS ARE STRICTLY PROHIBITED.
5. CONTROL JOINTS (TYPE B JOINTS) SHALL BE TOOLED INTO THE FRESH CONCRETE TO A DEPTH EQUAL TO 1/4 THE SLAB THICKNESS AND SPACED APART A DISTANCE EQUAL TO THE WIDTH OF THE SLAB OR 5 FEET WHICHEVER IS GREATEST.
6. THE SLAB SURFACE SHALL BE BROOM FINISHED TO BE SLIP RESISTANT, AND SHALL MATCH AS CLOSELY AS POSSIBLE THE FINISH OF EXISTING ADJACENT SLABS AND ALL EDGES SHALL BE TOOLED TO ELIMINATE SHARP CORNERS.
7. THE BEARING SUBSURFACE SHALL HAVE ALL ORGANIC, LOOSE, AND DELETERIOUS MATTER REMOVED, AND THE REMAINING CLEAN SOIL SHALL BE SMOOTH, SOUND, AND SOLID. ANY FILL MATERIAL SHALL BE COMPACTED WITH A VIBRATORY OR IMPACT COMPACTION MACHINE IN MAXIMUM 12 INCH LIFTS OR COMPACTED WITH A HAND TAMPER IN MAXIMUM 4 INCH LIFTS THE CITY SHALL REQUIRE A COMPACTION TEST FOR EACH LIFT IF THE TOTAL FILLED SECTION IS MORE THAN 12 INCHES DEEP OR IF THE SUBSURFACE HAS BEEN DISTURBED MORE THAN 12 INCHES DEEP. WHERE SUCH TEST IS REQUIRED, THE RESULTS SHALL SHOW A MINIMUM PROCTOR FIELD DENSITY OF 95 PERCENT.
8. ALL CONCRETE WORK IN THE RIGHT-OF-WAY SHALL BE INSPECTED BY THE CITY AFTER THE SUBSOIL IS PREPARED AND THE FORMS ARE SET, BUT BEFORE THE CONCRETE PLACEMENT BEGINS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE FINISHED SLAB FROM ALL DAMAGE AND VANDALISM UNTIL THE CITY ACCEPTS OR APPROVES THE SLAB, AFTER WHICH TIME THE OWNER OF THE ABUTTING LAND SHALL BE RESPONSIBLE FOR THE SLAB IN ACCORDANCE WITH THE CITY CODE. ANY SLAB SECTION DAMAGED OR VANDALIZED PRIOR TO ACCEPTANCE OR APPROVAL SHALL BE CUT OUT BETWEEN JOINTS AND REPLACED. REPAIRS ARE NOT ACCEPTABLE.
10. SIDEWALKS LOCATED WITHIN THE RIGHT-OF-WAY SHALL NOT BE TINTED, STAINED, COLORED, OR COATED.
11. ALL FORMS SHALL BE REMOVED PRIOR TO ACCEPTANCE OR APPROVAL AND THE DISTURBED GROUND SHALL BE BACKFILLED, REGRADED, AND SODDED SO THAT THE WEAR SURFACE OF THE CONCRETE IS REASONABLY FLUSH WITH THE ADJACENT GRADE.



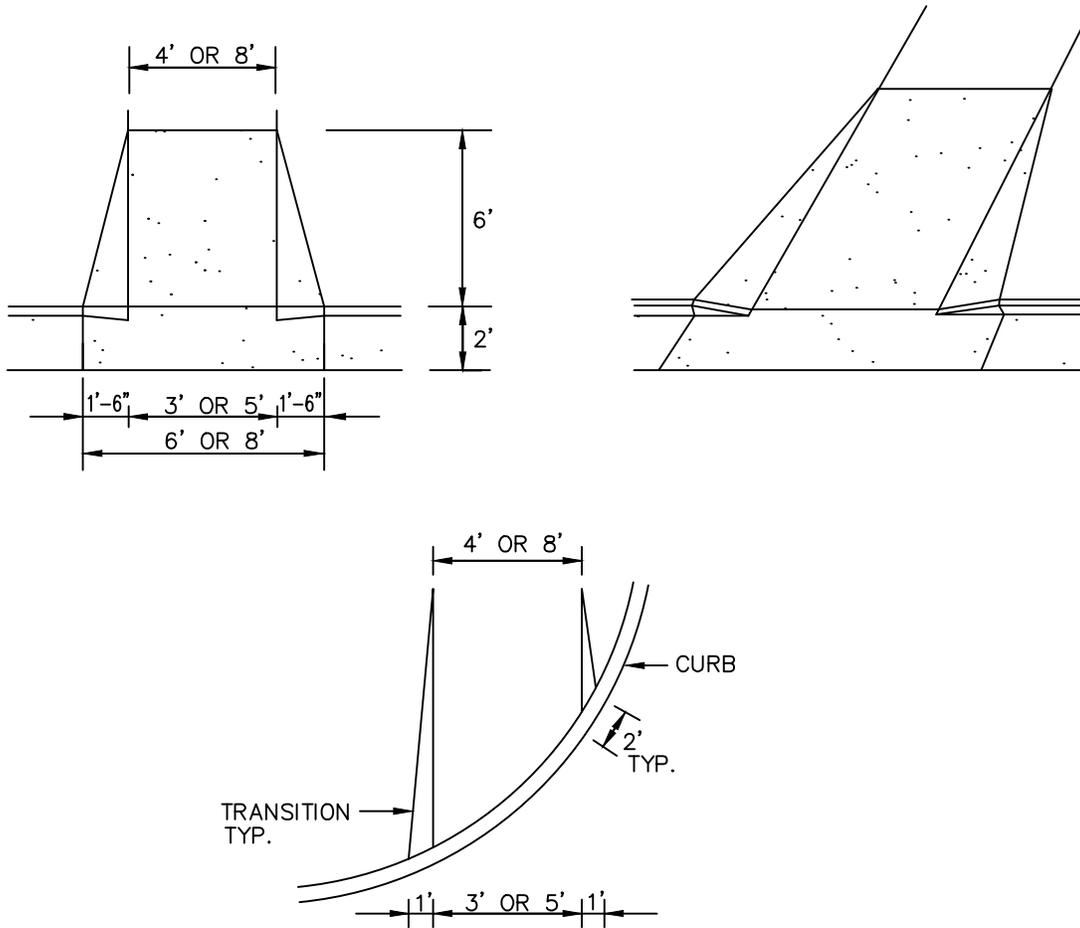
STANDARD CONSTRUCTION DETAIL SIDEWALK CONSTRUCTION REQUIREMENTS

FILE NAME:

EW_M2.DWG

DETAIL REF:

M-2



NOTES:

1. RAMP LOCATIONS ARE TO BE COORDINATED WITH AND IN CONFORMANCE WITH CROSSWALK MARKING DETAILS SHOWN IN THE PLANS.
2. CURBED RAMPS SHALL HAVE FLARED SIDES WITH A MAXIMUM SLOPE OF 12:1.
3. RAMPS SHALL HAVE A TACTLIKE SURFACE, TEXTURED TO A DEPTH NOT EXCEEDING 1/8".
4. RAMPS ARE TO BE CONSTRUCTED AT ALL LOCATIONS SHOWN IN THE PLANS EVEN WHEN A SIDEWALK IS NOT CONSTRUCTED CONCURRENTLY.
5. NO CURB TRANSITION IS NEEDED FOR MIAMI CURBS.
6. ALL RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX NO. 304 AND HANDICAPPED ACCESSIBILITY REQUIREMENTS IN ACCORDANCE WITH THE AMERICAN DISABILITIES ACT.



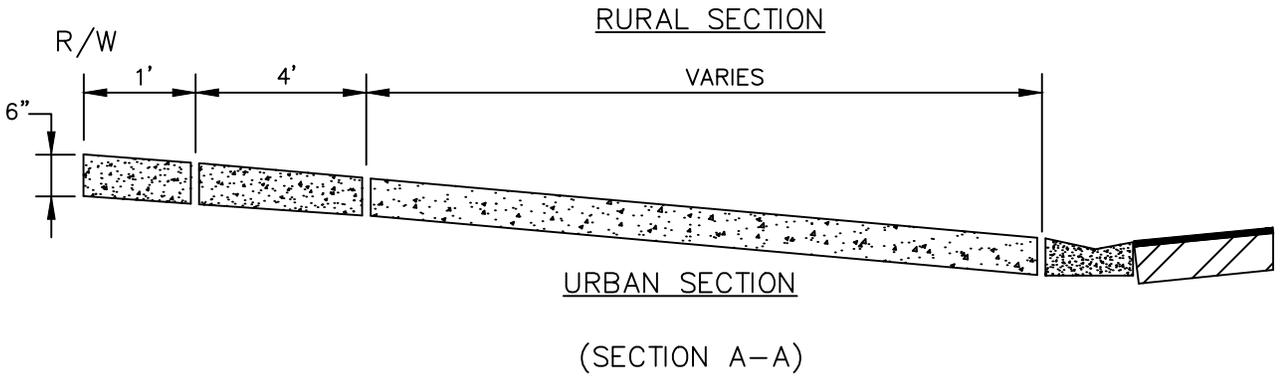
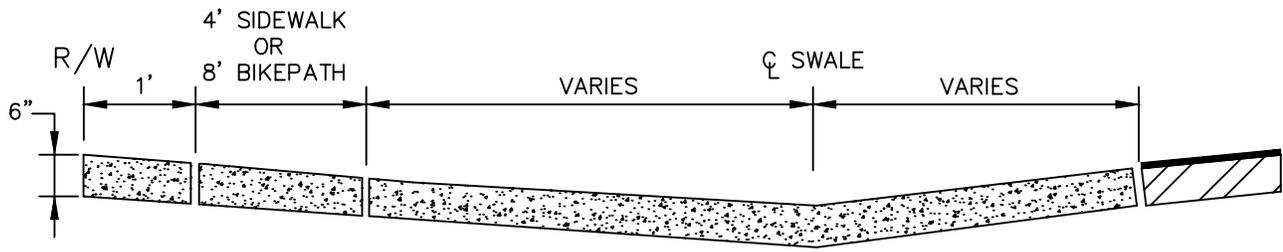
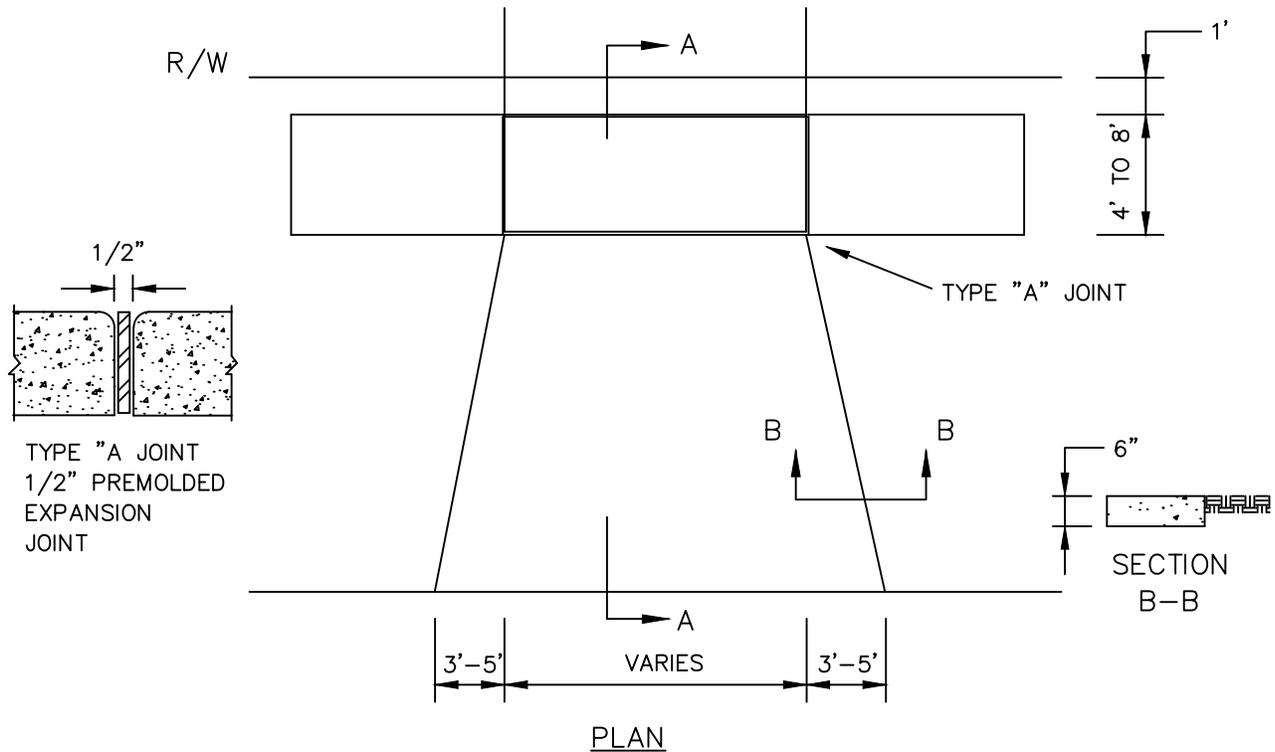
STANDARD CONSTRUCTION DETAIL
SIDEWALK AND BIKEPATH RAMP

FILE NAME:

EW_M3.DWG

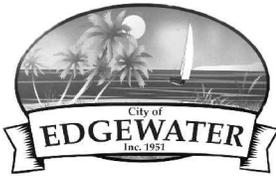
DETAIL REF:

M-3



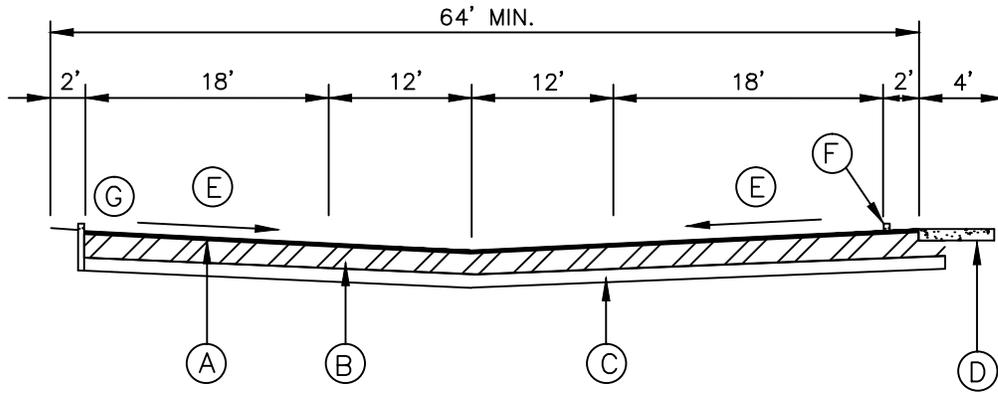
NOTES:

1. DRIVEWAY APRON BASE TO BE COMPACTED AND TESTED TO 98% DENSITY WITH MINIMUM L.B.R. 40 BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
2. CONCRETE DRIVEWAY APRON TO BE 28 DAY, 3000 P.S.I.
3. DRIVEWAY WIDTHS OF 14' OR MORE SHALL HAVE A CONTROL JOINT LENGTH-WISE.



STANDARD CONSTRUCTION DETAIL
DRIVEWAY APRON

FILE NAME:	EW_M4.DWG
DETAIL REF:	M-4



(A) ASPHALT PAVEMENT:
 1-1/4" ASPHALT BITUMINOUS CONCRETE TYPE S-III; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY PER FM 1-T238 (METHOD B), NUCLEAR DENSITY TEST, "BACK SCATTER METHOD".

(B) BASE:
 6" SOIL CEMENT BASE MINIMUM BEARING STRUCTURE OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS AND COMPACTED TO 98% DENSITY PER AASHTO T-99 STANDARD PROCTOR TEST; CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

ALTERNATE:

6" LIMEROCK BASE (LBR 100) OR RECYCLED CONCRETE BASE (LBR 130) COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.

(C) SUB-BASE:
 6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.

(D) 4'-0" WIDE, 4" THICK, CONCRETE SIDEWALK, 3000 P.S.I.

(E) THE MINIMUM ALLOWABLE PARKING LOT PAVEMENT SLOPE FOR ASPHALT SHALL BE NO LESS THAN 0.75% MEASURED FROM THE RECEIVING INLET OR FLUME TO ANY PAVEMENT. (NOTE THAT THE MINIMUM SLOPE MAY BE REDUCED TO 0.50% FOR CONCRETE PAVEMENT.)

(F) CONCRETE WHEEL STOP.

(G) 6" HEADER CURB WITH 1'-6" OF SODDED OVERHANG

NOTES:

1. ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND THE DEVELOPER'S LICENSED SOILS ENGINEER PRIOR TO PLACEMENT.
2. A REPRESENTATIVE OF A CERTIFIED SOIL LABORATORY SHALL BE PRESENT DURING ALL CONSTRUCTION PHASES UTILIZING A SOIL CEMENT BASE. THE REPRESENTATIVE SHALL BE CERTIFIED BY F.D.O.T. IN THE INSTALLATION OF SOIL CEMENT.



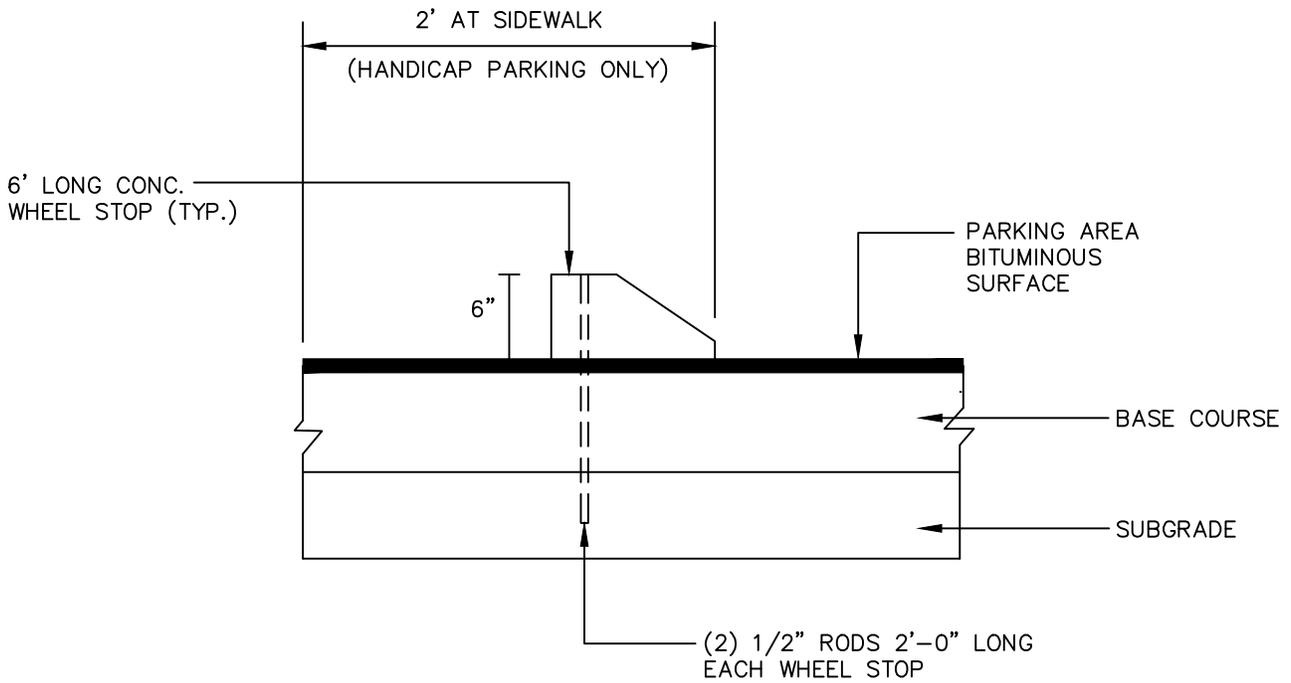
STANDARD CONSTRUCTION DETAIL
 PRIVATE PARKING LOT

FILE NAME:

EW_M5.DWG

DETAIL REF:

M-5



NOTE:

1. CENTER WHEEL STOP IN EACH STALL



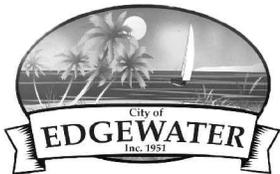
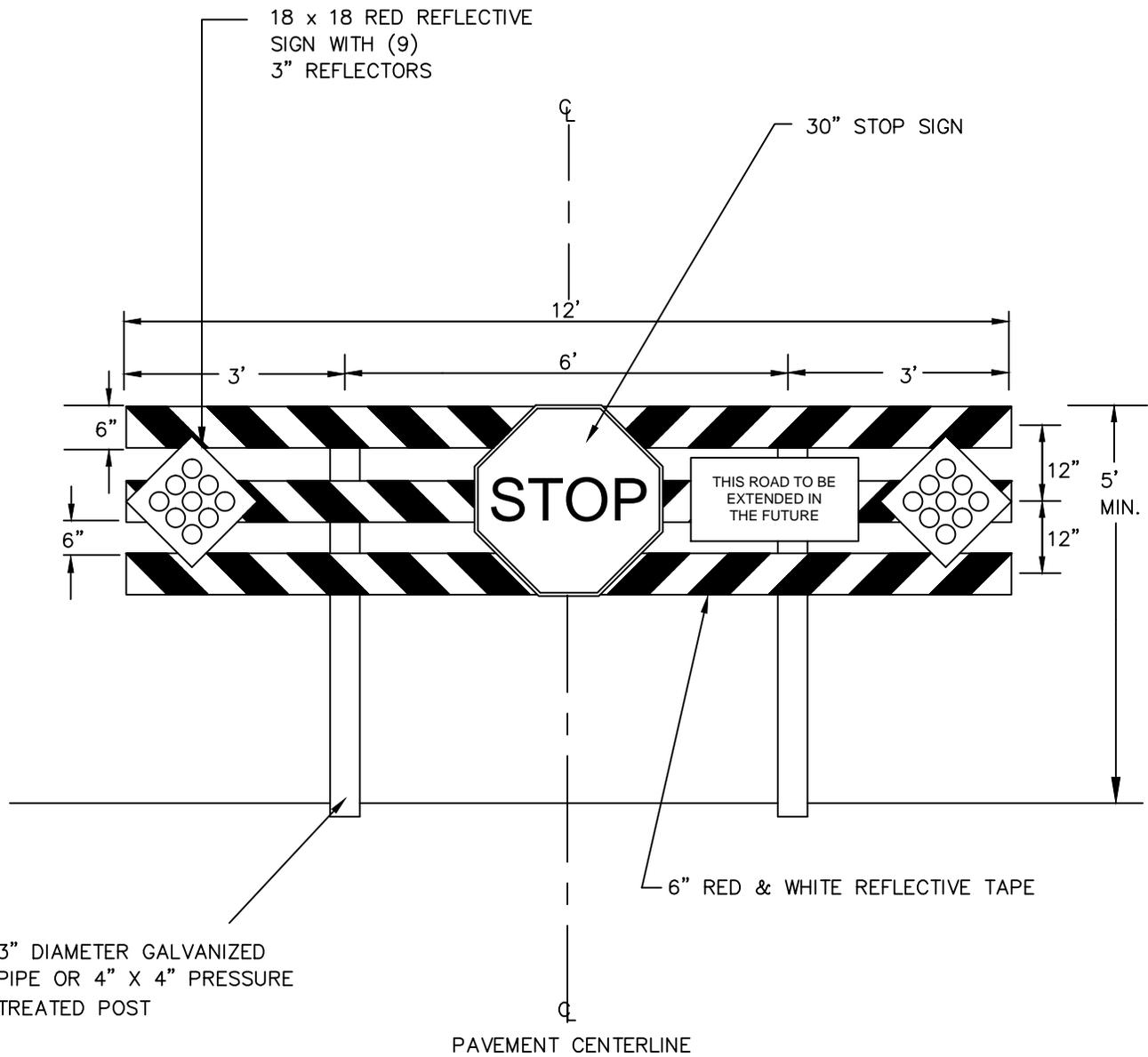
STANDARD CONSTRUCTION DETAIL
CONCRETE WHEELSTOP

FILE NAME:

EW_M6.DWG

DETAIL REF:

M-6



STANDARD CONSTRUCTION DETAIL
ROAD BARRICADE

FILE NAME:

EW_M7.DWG

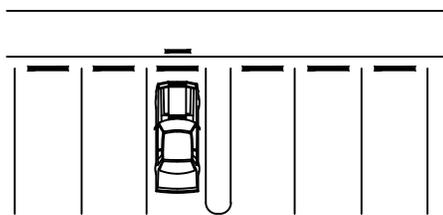
DETAIL REF:

M-7

HANDICAP ACCESSIBLE PARKING SPACES SHALL BE PROVIDED IN ACCORDANCE WITH CURRENT FLORIDA STATUTES, INCLUDING THE FOLLOWING DETAILS:

1. ANY COMMERCIAL REAL ESTATE PROPERTY OWNER OFFERING PARKING FOR THE GENERAL PUBLIC SHALL PROVIDE SPECIALLY DESIGNED AND MARKED MOTOR VEHICLE PARKING SPACES FOR THE EXCLUSIVE USE OF PHYSICALLY DISABLED PERSONS WHO HAVE BEEN ISSUED PARKING PERMITS PURSUANT TO STATE LAW.
2. DIAGONAL OR PERPENDICULAR PARKING SPACES SHALL BE A MINIMUM OF 12 FEET WIDE (SEE FIGURE 1).
3. PARALLEL PARKING SPACES SHALL BE LOCATED EITHER AT THE BEGINNING OR END OF A BLOCK OR ADJACENT TO ALLEY ENTRANCES (SEE FIGURE 2). CURBS ADJACENT TO SUCH SPACES SHALL BE OF A HEIGHT WHICH WILL NOT INTERFERE WITH THE OPENING AND CLOSING OF MOTOR VEHICLE DOORS.
4. EACH SUCH PARKING SPACE SHALL BE CONSPICUOUSLY OUTLINED IN BLUE PAINT AND SHALL BE POSTED AND MAINTAINED WITH A PERMANENT, ABOVE-GRADE SIGN BEARING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND THE CAPTION PARKING BY DISABLED PERMIT ONLY, AND AN ADDITIONAL SIGN STATING THE PENALTY FOR ILLEGAL USE OF THE SPACE (SEE FIGURE 2). SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE. ALL HANDICAP ACCESSIBLE PARKING MUST BE SIGNED AND MARKED IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION.
5. ALL SPACES SHALL HAVE A SIXTY INCH (60") WIDE ADJACENT ACCESS AISLE (SEE FIGURE 2). PARKING ACCESS AISLES SHALL BE PART OF THE ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE. TWO ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE CLEAR WIDTH OF AN ACCESSIBLE CIRCULATION ROUTE.
6. ALL SPACES SHALL HAVE AN ACCESSIBLE CURB-RAMP OR CURB-CUT TO ALLOW ACCESS TO THE BUILDING SERVED. IT SHALL BE LOCATED SO THAT USERS WILL NOT BE COMPELLED TO WHEEL BEHIND PARKED VEHICLES.
7. THE MINIMUM NUMBER OF SUCH PARKING SPACES SHALL COMPLY WITH THE FOLLOWING TABLE:

TOTAL PARKING IN LOT	REQUIRED NUMBER OF ACCESSIBLE SPACES
UP TO 25.....	1
26 TO 50.....	2
51 TO 75.....	3
76 TO 100.....	4
101 TO 150.....	5
151 TO 200.....	6
201 TO 300.....	7
301 TO 400.....	8
401 TO 500.....	9
501 TO 1000.....	2% OF TOTAL
OVER 1000.....	20 PLUS 1 FOR EACH 100 OVER 1000



(A) PERPENDICULAR

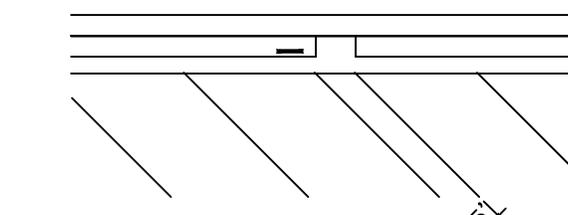


FIG. 1 (B) DIAGONAL



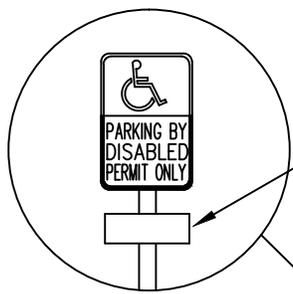
STANDARD CONSTRUCTION DETAIL
HANDICAP ACCESSIBLE PARKING SPACES

FILE NAME:

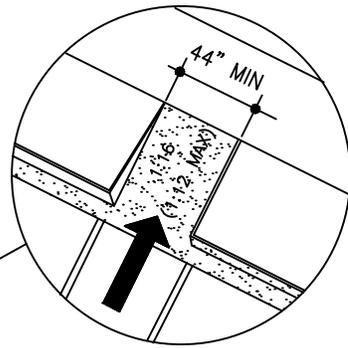
EW_M8.DWG

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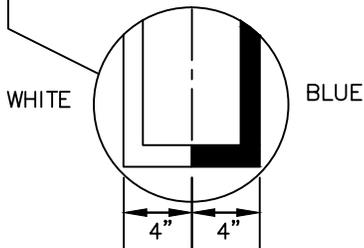
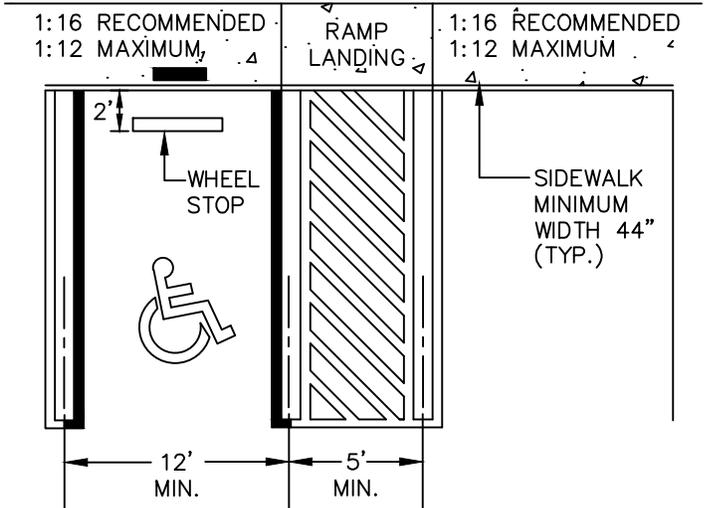
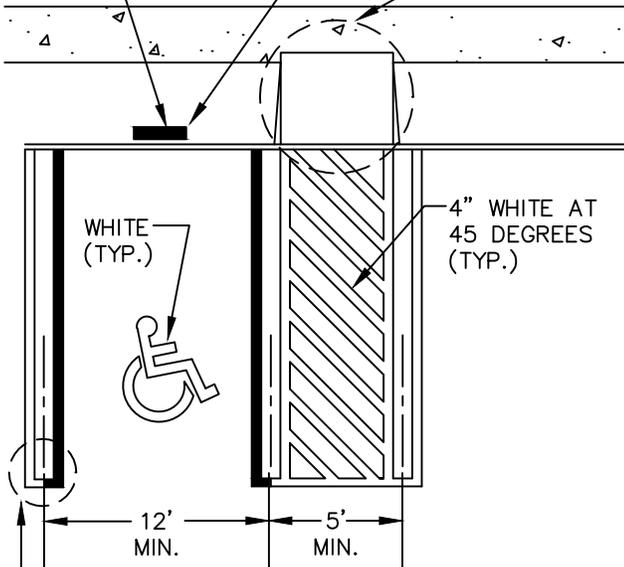
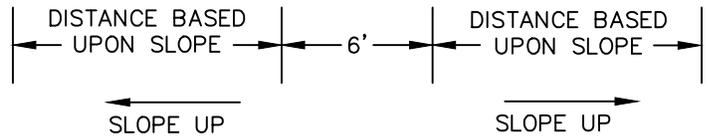
M-8



\$100 FINE
-OR-
\$100 PENALTY FOR ILLEGAL USE



HANDICAP ACCESSIBLE PARKING SIGN LOCATION (TYP.)



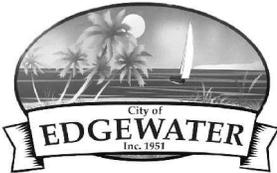
ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 (2%) IN ALL DIRECTIONS

SIDEWALK RAMP DETAIL

SIDEWALK ABUTTING PARKING LOT DETAIL

NOTE:

1. WHEN HEADER CURB IS USED IN LIEU OF WHEEL STOPS, SIDEWALK ABUTTING CURB MUST BE WIDENED BY 18" SO THAT THE TOTAL SIDEWALK WIDTH IS 62", ALLOWING FOR 44" MINIMUM CLEAR ACCESSIBLE ROUTE.
2. FOR COMPLETE DETAIL OF HANDICAPPED SIGN, REFER TO DETAIL M-10.



STANDARD CONSTRUCTION DETAIL
HANDICAP ACCESSIBLE PARKING SPACES

FILE NAME:

EW_M9.DWG

DETAIL REF:

M-9

1'-0"X1'-6"X.080 ALUMINUM HANDICAPPED
 PARKING SIGN. SIGN TO READ "PARKING
 BY DISABLED PERMIT ONLY". BOLT TO
 STEEL TUBE WITH 2 1/8" CADMIUM
 PLATED BOLTS, NUTS AND WASHERS

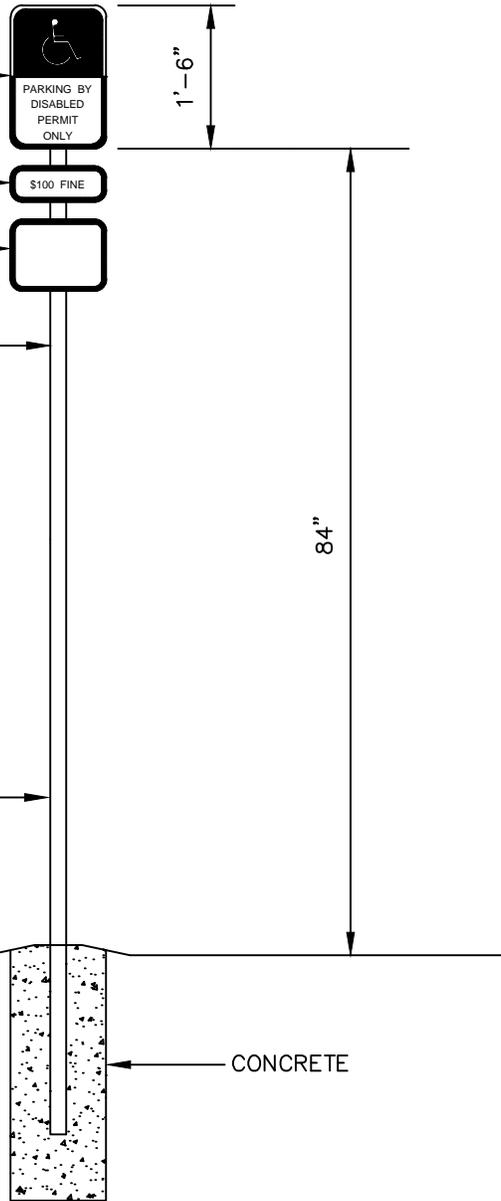
\$100 FINE SIGN

VAN-ACCESSIBLE SIGN

2"X2"X.188 STEEL TUBE EXTENDED INTO
 CONCRETE FILLED PIPE 2'-0". PROVIDE
 WELDED WATERTIGHT CAP. PAINT P&L
 #6118 BLACK COFFEE

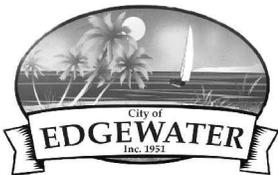
PAINT PIPE BASE YELLOW

PAVEMENT/SIDEWALK



NOTE:

1. HANDICAPPED PARKING SIGN SHALL CONFORM WITH CURRENT STATE AND LOCAL AND FEDERAL CODES AND REGULATIONS.
2. ALL SIGNS SHALL BE DESIGNED TO WITHSTAND 100 M.P.H. WINDLOAD.



STANDARD CONSTRUCTION DETAIL
 HANDICAP SIGN

FILE NAME:
 EW_M10.DWG

DETAIL REF:
 M-10

REQUIREMENTS FOR AS-BUILT DRAWINGS

IN ORDER TO ENSURE THAT NEW SUBDIVISIONS AND SITE PLANS ARE CONSTRUCTED SUBSTANTIALLY IN ACCORDANCE WITH CITY REGULATIONS AND THE APPROVED DRAWINGS, THE FOLLOWING INFORMATION IS REQUIRED ON ALL SUBDIVISION AS-BUILT DRAWINGS.

1. PAVEMENT AND CURB WIDTHS SHALL BE VERIFIED AND DIMENSIONED FOR EACH STREET AT EACH BLOCK. (FOR SUBDIVISIONS) AND AS APPROPRIATE TO CONFIRM PAVING LIMITS (ON SITE PLANS).
2. ALL RADII AT INTERSECTIONS SHALL BE VERIFIED AND DIMENSIONED. THIS INFORMATION IS TO BE CLEARLY INDICATED ON THE AS-BUILT.
3. ROADWAY ELEVATIONS SHALL BE RECORDED AT ALL GRADE CHANGES, 100' INTERVALS ALONG ROADWAY, AND OTHER INTERVALS AS NEEDED ALONG ALL STREETS. STREET CENTERLINE AND CURB INVERT ELEVATIONS SHALL BE RECORDED AS NOTED. THE AS-BUILT CENTERLINE PROFILE OF ALL STREETS SHALL ALSO BE SHOWN ON THE PLAN AND PROFILE SO IT MAY BE COMPARED TO THE DESIGN PROFILE GRADE LINES. IN THE EVENT THAT THE AS-BUILT CENTERLINE LONGITUDINAL GRADE DOES NOT MEET THE CITY MINIMUM STANDARDS, ADDITIONAL LONGITUDINAL GRADES OF THE ADJACENT CURBING AND SIMILAR ROADWAY CROSS-SECTION SURVEYS TO VERIFY THE CORRECT CROSS SLOPE, SHALL BE REQUIRED TO VERIFY THAT THE SYSTEM WILL FUNCTION AS ORIGINALLY DESIGNED.
4. STORM DRAINAGE STRUCTURES SHALL BE LOCATED AND / OR DIMENSIONED FROM CENTERLINES OR LOT LINES AS APPROPRIATE.
5. STORM DRAINAGE PIPE INVERT AND INLET ELEVATIONS SHALL BE RECORDED AND CLEARLY DENOTED AS AS-BUILT INFORMATION. DESIGN ELEVATIONS SHALL BE CROSSED OUT AND AS-BUILT INFORMATION WRITTEN NEXT TO IT.
6. STORM DRAINAGE PIPE MATERIAL, LENGTH, AND SIZE SHALL BE MEASURED AND / OR VERIFIED. THIS INFORMATION IS TO BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION .
7. ALL APPLICABLE TOPOGRAPHIC INFORMATION PERTINENT TO THE ON-SITE DRAINAGE SYSTEM, SUCH AS DITCHES, SWALES, LAKES, CANALS, ETC. THAT ARE DEEMED NECESSARY BY THE CITY TO VERIFY THE FUNCTIONAL PERFORMANCE OF THE STORMWATER SYSTEM, SHALL BE NOTED. NORMALLY, RECORDING ELEVATIONS EVERY 100 FEET AT THE TOP OF BANK AND TOE OF SLOPE WILL BE REQUIRED. MEASUREMENTS SHALL BE TAKEN AND RECORDED IN ORDER TO ACCURATELY TIE DOWN THESE FEATURES TO THE ROADWAY CENTERLINES AND TO PLAT LINES. WHENEVER POSSIBLE, CONTOUR LINES SHALL BE UTILIZED TO GRAPHICALLY DESCRIBE THESE TOPOGRAPHIC FEATURES .
8. RETENTION AREAS SHALL HAVE THEIR TOP-OF BANK AND BOTTOM ELEVATIONS RECORDED. ACTUAL MEASUREMENTS SHALL BE TAKEN AND DIMENSIONS RECORDED OF THE SIZE OF ALL RETENTION AREAS. MEASUREMENTS SHALL BE DONE FROM TOP-OF-BANK TO TOP-OF-BANK WITH SIDE SLOPES INDICATED. SEPARATE CALCULATIONS SHALL BE SUBMITTED TO INDICATE REQUIRED AND PROVIDED RETENTION VOLUMES.
9. ACTUAL MATERIALS USED AND ELEVATIONS AND DIMENSIONS OF OVERFLOW WEIR STRUCTURES AND SKIMMERS SHALL BE NOTED ON THE AS-BUILT.
10. STORM DRAINAGE SWALE CENTERLINES SHALL BE LOCATED AND ELEVATIONS OF FLOW LINE AND TOP OF BANK SHALL BE RECORDED EVERY 100 FEET. SIDE SLOPES SHALL ALSO BE INDICATED.
11. SANITARY SEWER MANHOLES SHALL BE VERIFIED AND DIMENSIONED FROM STREET CENTERLINES OR LOT LINES AS APPROPRIATE. ALL RIM AND INVERT ELEVATIONS SHALL BE VERIFIED AND RECORDED. THIS INFORMATION SHALL BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION. DESIGN ELEVATIONS SHALL BE CROSSED OUT AND AS-BUILT INFORMATION WRITTEN NEXT TO IT.
12. FOR SUBDIVISIONS, PROPOSED DESIGN FINISHED FLOOR ELEVATIONS SHALL APPEAR ON ALL SUBDIVISION LOTS ON THE APPROPRIATE PLAN AND PROFILE SHEET AS WELL AS ON THE MASTER DRAINAGE PLAN.



STANDARD CONSTRUCTION DETAIL
REQUIREMENTS FOR AS-BUILT
DRAWINGS

FILE NAME:

EW_M11.DWG

DETAIL REF:

M-11

REQUIREMENTS FOR AS-BUILT DRAWINGS
(CONTD.)

13. SANITARY SEWER LINE LENGTHS, SIZES, MATERIAL, ETC., SHALL BE VERIFIED AND RECORDED. THIS INFORMATION IS TO BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION.
14. SEWER LATERALS SHALL BE VERIFIED AND RECORDED AT THEIR CLEAN-OUT LOCATIONS. STATIONING AND OFFSET DISTANCES SHALL BE MEASURED FROM DOWNSTREAM MANHOLES TOWARDS UPSTREAM MANHOLES.
15. LIFT STATIONS AND FORCE MAINS SHALL BE VERIFIED AND DIMENSIONED FROM STREET CENTERLINES OR LOT LINES AS APPROPRIATE. FORCE MAIN DEPTH AND LOCATION INCLUDING VALVES WILL BE PROVIDED AND TIED TO PERMANENT ABOVE GRADE FEATURES. DIMENSIONAL AND ELEVATION INFORMATION INDICATED ON THE APPROVED PLAN SHALL BE VERIFIED AND RECORDED. THIS INFORMATION SHALL BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION. BURIED ELECTRICAL SERVICE LINE SHALL BE CLEARLY DIMENSIONED, LOCATED, AND LABELED.
16. CURB CUTS OR METAL TABS, USED TO MARK SEWER LATERALS, WATER SERVICES AND WATER VALVES, SHALL BE VERIFIED FOR PRESENCE AND ACCURACY OF LOCATION.
17. POTABLE AND RECLAIMED WATER MAIN LINES SHALL BE DIMENSIONED OFF THE BACK OF CURB, OR EDGE OF PAVEMENT IF NO CURB IS PRESENT. WATER MAIN LINE MATERIAL SIZE, LENGTH AND DEPTH PLACED SHALL ALSO BE NOTED. LOCATIONS OF VALVES SHALL BE TIED TO PERMANENT ABOVE GRADE FEATURES. THIS INFORMATION SHALL BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION.
18. POTABLE AND RECLAIMED WATER VALVES, TEES, BENDS, ALL SERVICES, AND FIRE HYDRANTS SHALL BE LOCATED BY TYING THEM TO SANITARY SEWER MANHOLES. SIMILARLY, FORCE MAIN VALVES, TEES, AND BENDS SHALL BE LOCATED IN THE SAME MANNER. STATIONING AND OFFSET DISTANCES SHALL BE MEASURED FROM DOWNSTREAM MANHOLES TO UPSTREAM MANHOLES.
19. FOR PERPENDICULAR CROSSINGS OF STORMWATER, SANITARY SEWER, POTABLE WATER, OR RECLAIMED WATER, THE AS-BUILT PLANS SHALL CLEARLY INDICATE WHICH UTILITIES ARE LOCATED OVER OR UNDER OTHER UTILITIES, AS NECESSARY.
20. ANY SPECIAL FEATURES SUCH AS, CONCRETE FLUMES, LAKE BANKS, WALLS, FENCING, ETC., WHICH WERE A PART OF THE APPROVED CONSTRUCTION DRAWINGS SHOULD ALSO BE LOCATED AND DIMENSIONED.
21. IF AN APPROVED SUBDIVISION PLAT OR SITE PLAN SHOWS A CONSERVATION EASEMENT, THE PROJECT SURVEYOR SHOULD PROVIDE THE EXACT LOCATION OF THE SPECIMEN TREE(S) FROM THE RIGHT-OF-WAY OR PROPERTY LINES AND PROPOSED EASEMENT BOUNDARIES ON THE AS-BUILT DRAWING. THE AS-BUILT LOCATION OF THESE TREES WILL HELP VERIFY THE SUFFICIENCY OF THE CONSERVATION EASEMENT PRIOR TO PLAT RECORDING OR CERTIFICATE OF OCCUPANCY.
22. WHEN STORMWATER, POTABLE WATER, RECLAIMED WATER, OR SANITARY SEWER IMPROVEMENTS ARE ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWING SHALL ACCURATELY DEPICT THE LOCATION OF THE EASEMENT ITSELF AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO ENSURE THAT FUTURE SUBSURFACE EXCAVATION TO PERFORM REMEDIAL REPAIR CAN BE ACCOMPLISHED WITHOUT DISTURBANCE BEYOND THE EASEMENT.

NOTE:

1. REFERENCES TO WATER SHALL MEAN BOTH POTABLE AND RECLAIMED WATER.



STANDARD CONSTRUCTION DETAIL
REQUIREMENTS FOR AS-BUILT
DRAWINGS

FILE NAME:

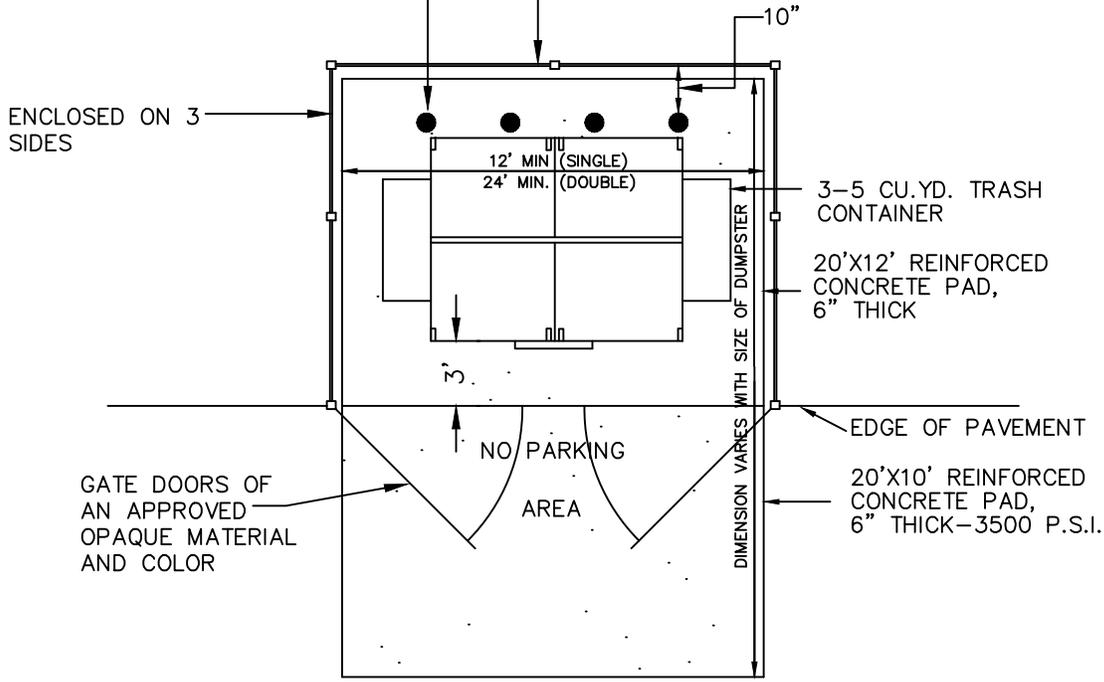
EW_M12.DWG

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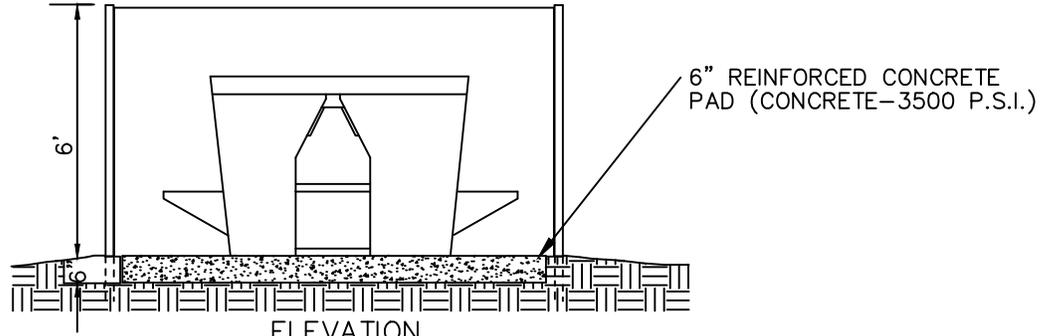
M-12

(4) 4" DIAMETER STEEL PIPES, 4' O.C. CONCRETE FILLED, PAINTED YELLOW. PIPES SHALL HAVE A MINIMUM BURIAL OF 1'-6" AND ABOVE GROUND HEIGHT OF 3'-6".

DECORATIVE WALL OR 6' HIGH STOCKADE FENCE CONSISTING OF ONE OR MORE COLORS AND FINISHES TO BE COMPLEMENTARY TO BUILDING DESIGN.



PLAN



ELEVATION

NOTES:

1. MAXIMUM ANGLE OF CONTAINER PAD TO DIRECTION OF AISLE TO BE 30°
2. AREA TO BE FREE OF OVERHEAD LINES AND WIRES.
3. DUMPSTER PAD TO BE 12' MIN. (SINGLE) 24' MIN (DOUBLE) FOR DUMPSTER RECYCLING.
4. APPLICANT TO PROVIDE A SIDE ELEVATION TO DEMONSTRATE COLOR, MATERIAL, AND DESIGN CONSISTENCY WITH THE PRINCIPAL BUILDING.



STANDARD CONSTRUCTION DETAIL
DUMPSTER PAD

FILE NAME:	EW_M13.DWG
DETAIL REF:	M-13

STREET AND WALKWAY LIGHTS

WALKWAY LIGHTS: (HEIGHT: 10 TO 20 FEET)

1. WALKWAY LIGHTING SHALL BE PROVIDED IN ALL PUBLIC PARKING AND WALKWAY AREAS. LIGHT STYLES AND SPACING SHALL BE DETERMINED BY THE COMMUNITY DEVELOPMENT DEPT. AT THE SAME TIME OF SITE PLAN REVIEW.
2. UNLESS SPECIFIED OTHERWISE, THE WALKWAY LIGHTS SHALL BE ANY OF THE THREE (3) STYLES DETAILED HEREIN OR THE FOLLOWING: STERNBERG GEORGETOWN (0650 / 4408-DFP), WILLIAMSBURG (9405-TF / 3610-T) OR COLONIAL (4620TF-LF). ALL CITY MAINTAINED WALKWAY LIGHTS ARE TO BE FLORIDA POWER AND LIGHT (FPL) SUPPLIED LIGHTS, UTILIZING 150 WATT HPS.
4. SPACING SHALL BE A MAXIMUM OF 100 FEET ON CENTER.

STREET LIGHTS: (HEIGHT: 20+ FEET)

1. ALL CITY MAINTAINED STREET LIGHTS ARE TO BE FPL SUPPLIED STREET LIGHTS.
2. PRIVATELY MAINTAINED STREET LIGHTS SHALL BE:
GARDCO LIGHTING EH / 26" / 1 / 3 / 150 HPS / 240 / BRA / PC
(NOTE: POLE SHALL BE CONCRETE AVAILABLE THROUGH F.P.L. AND SPACED AT INTERVALS OF 300 TO 400 FEET.)



STANDARD CONSTRUCTION DETAIL
STREET AND WALKWAY LIGHTS

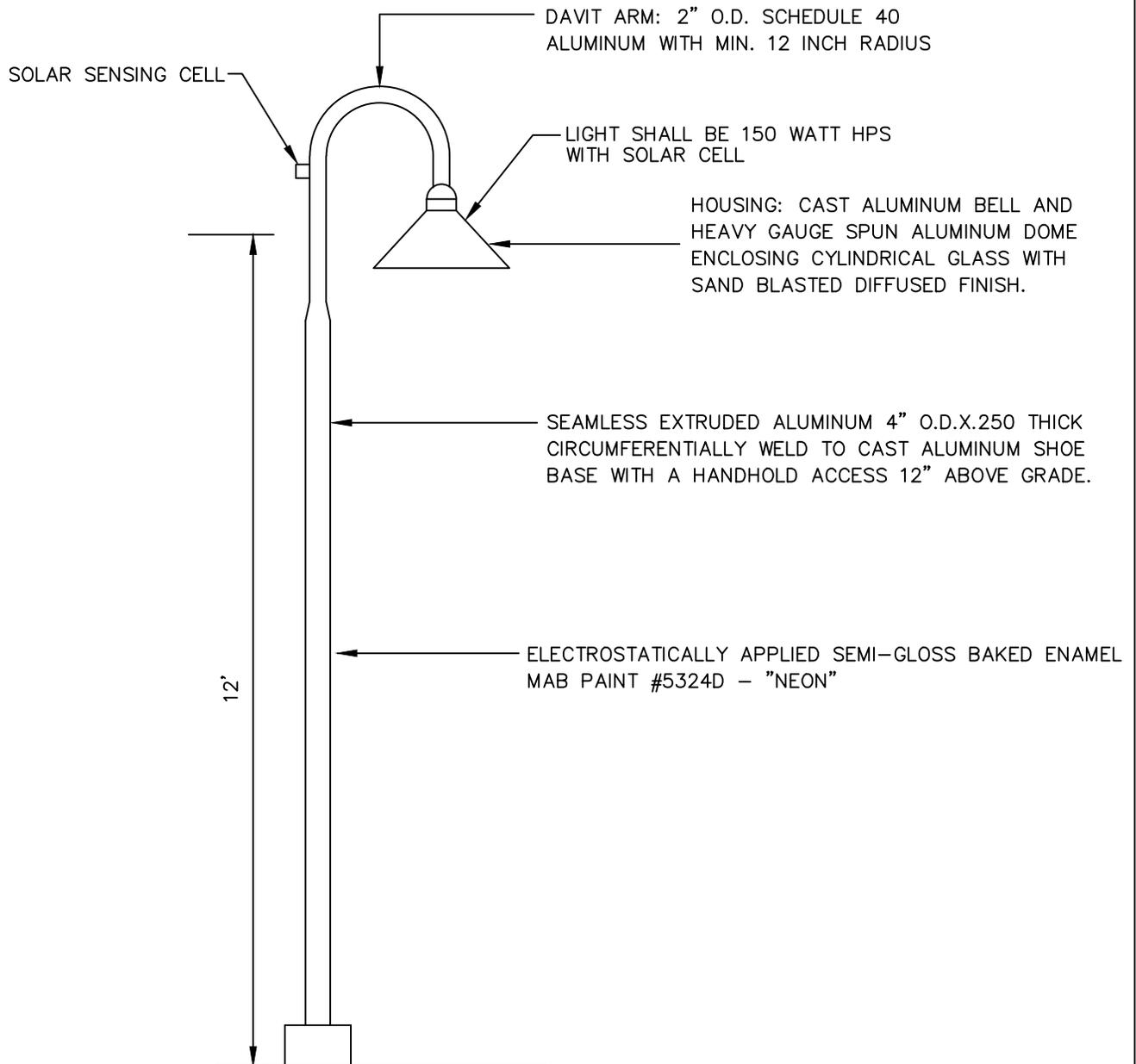
FILE NAME:

EW_M14.DWG

DETAIL REF:

M-14

THE FLORIDIAN



NOTE:

1. ALL WALKLIGHTS SHALL BE FITTED WITH SOLAR CELLS AND LOCATED ON 100' CENTERS. THE PLANNING DIVISION SHALL BE CONTACTED AT (386) 424-2412 TO FIELD VERIFY THE PROPOSED LOCATIONS FOR WALKLIGHTS. MAINTENANCE AND OPERATION OF WALKLIGHTS SHALL BE GRANTED TO THE CITY FOLLOWING INSTALLATION AND OPERATION, TO THE CITY'S FULL SATISFACTION.
2. ALL LIGHT POLES SHALL BE DESIGNED TO WITHSTAND 120 M.P.H. WINDLOADS



STANDARD CONSTRUCTION DETAIL
STREET AND WALKWAY LIGHTS
"THE FLORIDIAN"

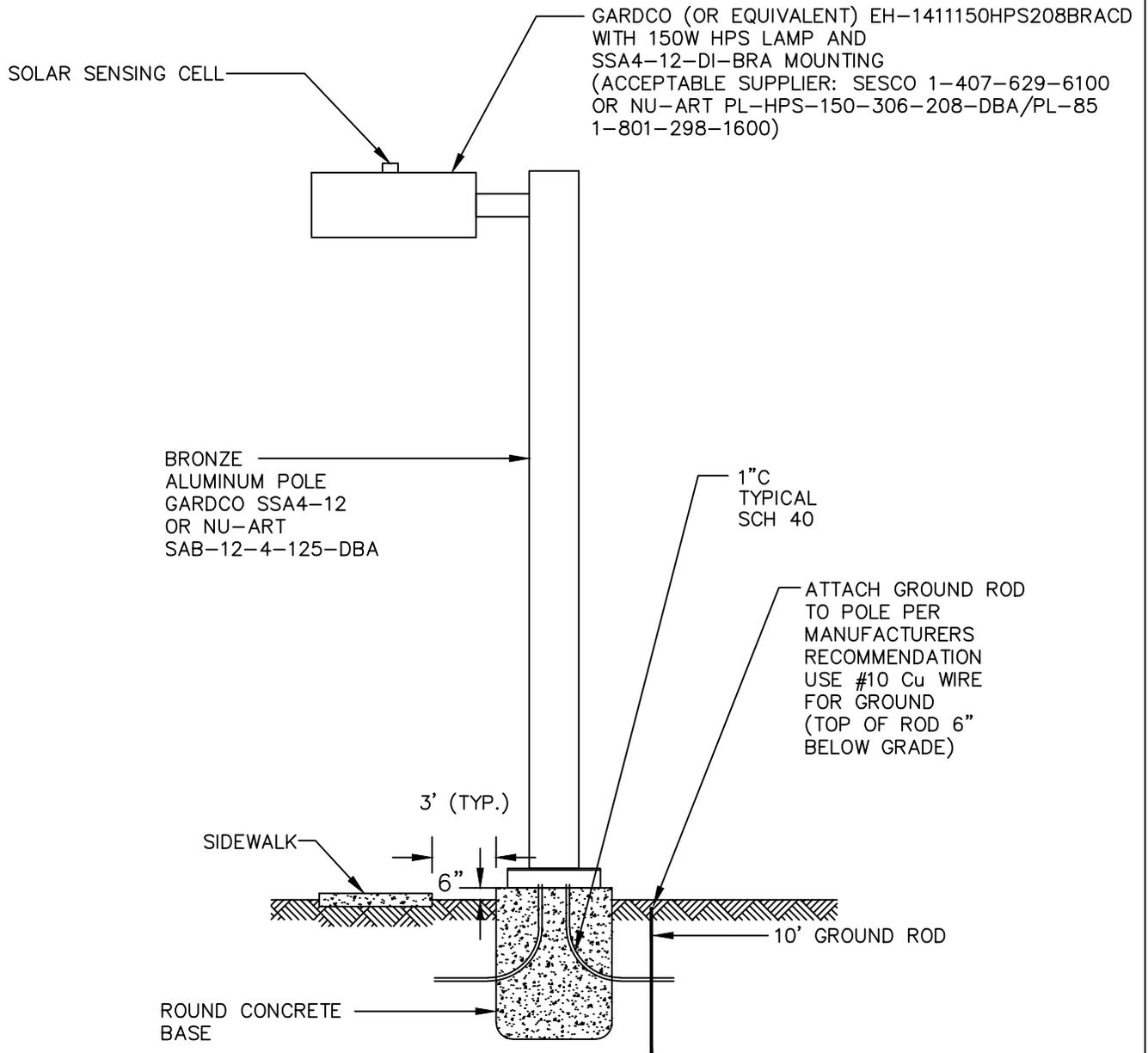
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EW_M15.DWG

DETAIL REF:

M-15

GARDCO LIGHTING



NOTE:

1. ALL WALKLIGHTS SHALL BE FITTED WITH SOLAR CELLS AND LOCATED ON 100' CENTERS. THE PLANNING DIVISION SHALL BE CONTACTED AT (386) 424-2412 TO FIELD VERIFY THE PROPOSED LOCATIONS FOR WALKLIGHTS. MAINTENANCE AND OPERATION OF WALKLIGHTS SHALL BE GRANTED TO THE CITY FOLLOWING INSTALLATION AND OPERATION, TO THE CITY'S FULL SATISFACTION.
2. ALL LIGHT POLES SHALL BE DESIGNED TO WITHSTAND 120 M.P.H. WINDLOADS.



STANDARD CONSTRUCTION DETAIL
STREET AND WALKWAY LIGHTS
"GARDCO LIGHTING"

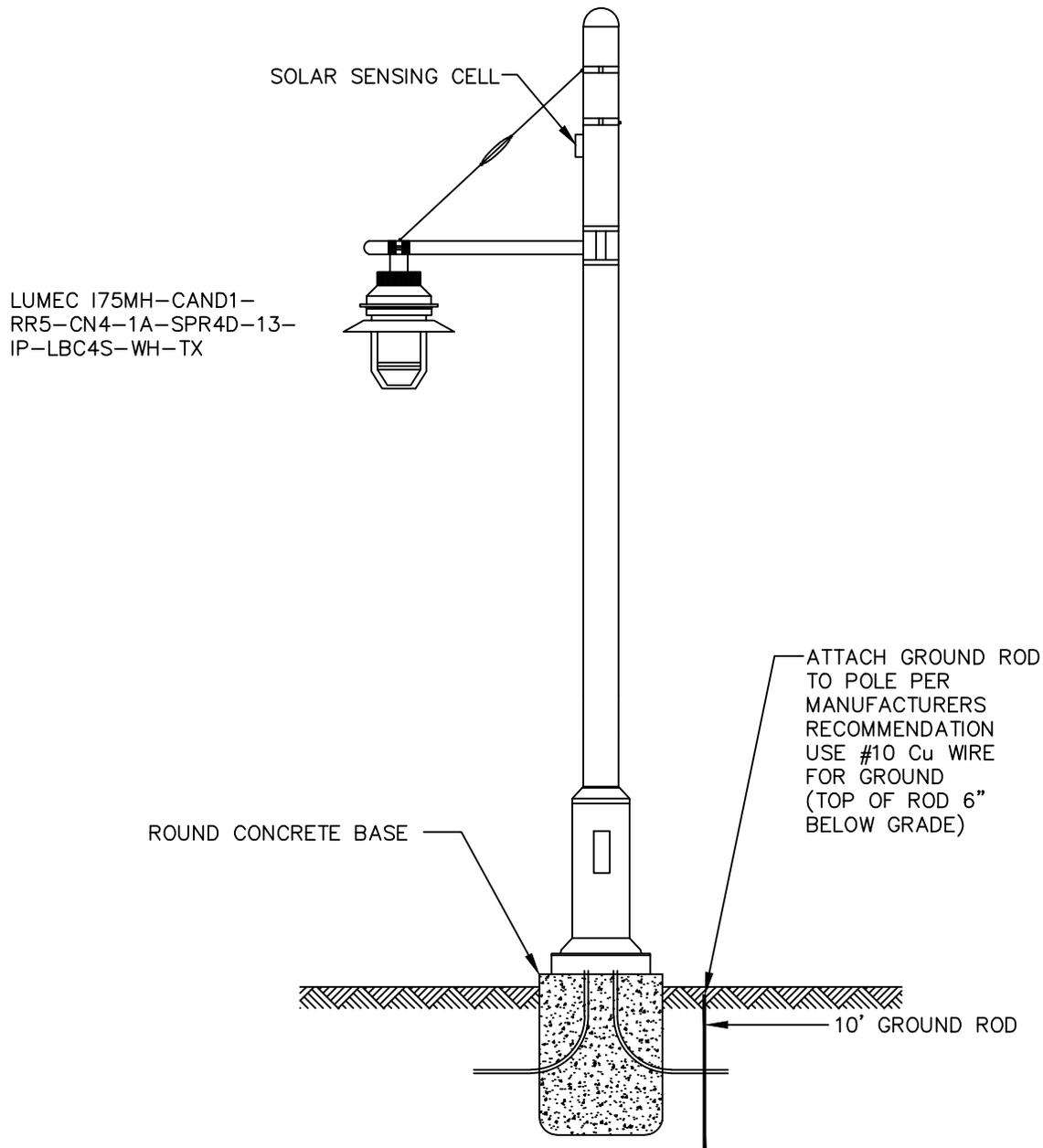
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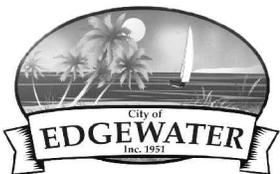
M-16

LUMEC LIGHTING



NOTE:

1. ALL WALKLIGHTS SHALL BE FITTED WITH SOLAR CELLS AND LOCATED ON 100' CENTERS. THE PLANNING DIVISION SHALL BE CONTACTED AT (386) 424-2412 TO FIELD VERIFY THE PROPOSED LOCATIONS FOR WALKLIGHTS. MAINTENANCE AND OPERATION OF WALKLIGHTS SHALL BE GRANTED TO THE CITY FOLLOWING INSTALLATION AND OPERATION, TO THE CITY'S FULL SATISFACTION.
2. ALL LIGHT POLES SHALL BE DESIGNED TO WITHSTAND 120 M.P.H. WINDLOADS.



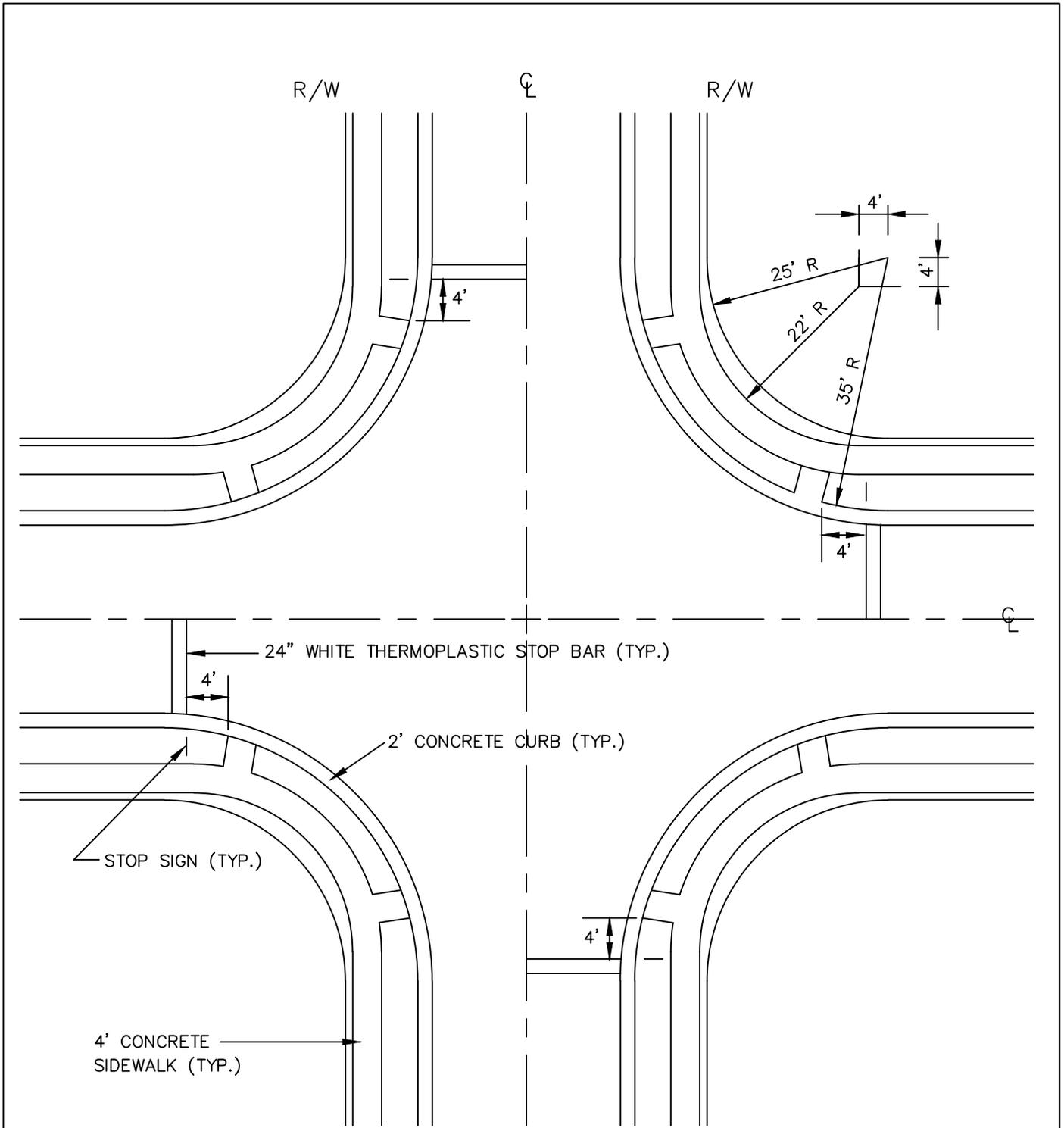
STANDARD CONSTRUCTION DETAIL
STREET AND WALKWAY LIGHTS
"LUMEC LIGHTING"

FILE NAME:

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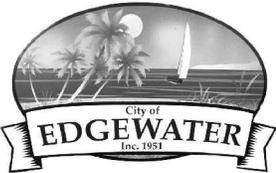
DETAIL REF:

M-17



NOTE:

1. REFER TO DETAIL SHEET M-2 FOR SIDEWALK CONSTRUCTION SPECIFICATIONS.
2. REFER TO DETAIL SHEET M-3 FOR SIDEWALK & BIKEPATH RAMP SPECIFICATIONS.



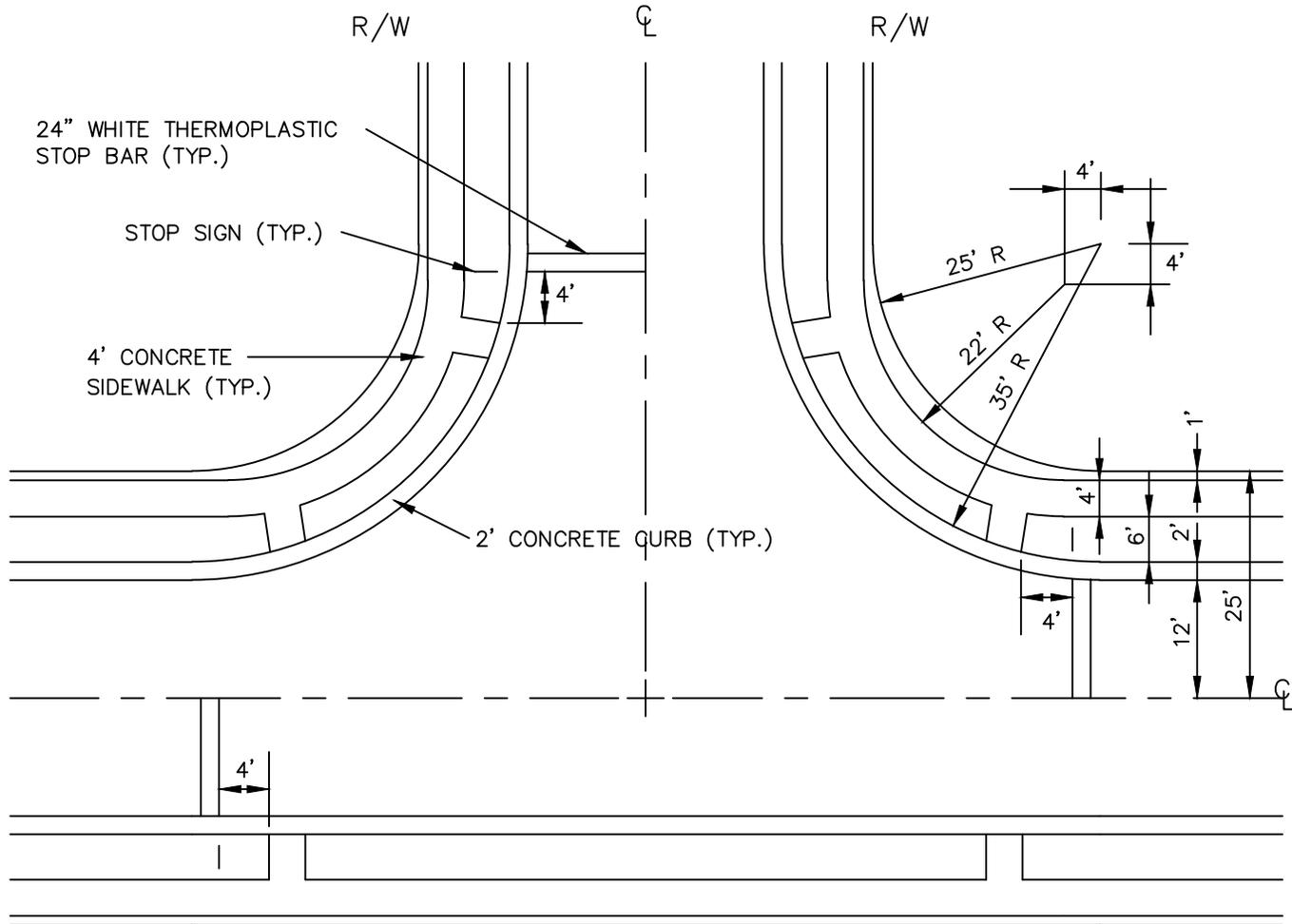
STANDARD CONSTRUCTION DETAIL
SIDEWALK CONSTRUCTION AT INTERSECTIONS

FILE NAME:

EW_M18.DWG

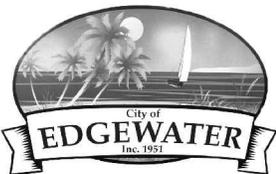
DETAIL REF:

M-18



NOTE:

1. REFER TO DETAIL SHEET M-2 FOR SIDEWALK CONSTRUCTION SPECIFICATIONS.
2. REFER TO DETAIL SHEET M-3 FOR SIDEWALK & BIKEPATH RAMP SPECIFICATIONS.



STANDARD CONSTRUCTION DETAIL
SIDEWALK CONSTRUCTION AT INTERSECTIONS

FILE NAME:

EW_M19.DWG

DETAIL REF:

M-19