

DEVELOPER:

The  
**Estate**  
Companies

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MIAMI, FL 33015

PH: (305) 392-1016  
E: ken@gsaladesign.com

MEP ENGINEER:

--

STRUCTURAL ENGINEER:

--

NEW DEVELOPMENT  
FOR:

**SOLESTE  
LA PIAZZA**  
HOLLYWOOD

1845 HOLLYWOOD BOULEVARD  
HOLLYWOOD, FL 33020

REVISIONS:

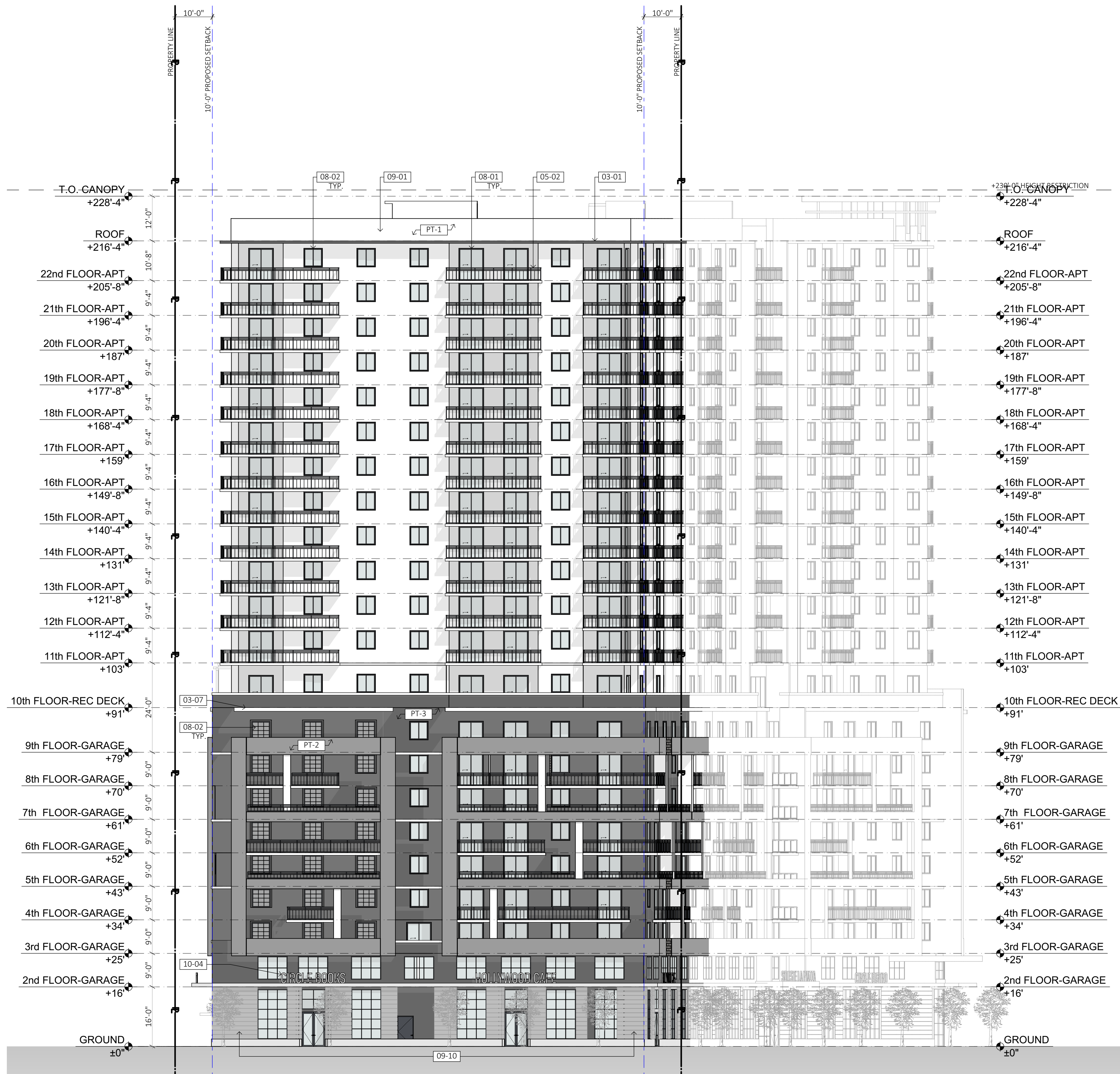
**FORMGROUP**  
architecture · planning

**FORM GROUP, INC.**  
6740 SW 64 CT, MIAMI, FL 33143  
TEL: 305.443.4244 FX: 305.443.3338  
ARCHITECT OF RECORD:  
OMAR MORALES, AIA  
AA-0014851

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PROJECT NO. 22-0301 TITLE: SOUTH  
ELEVATION  
DATE: MARCH 1, 2022

SCALE: AS SHOWN DRAWING NO.:  
**A-202**



**C SOUTH ELEVATION**  
SCALE: 1/16" = 1'-0"

#### PAINT SCHEDULE

DESIGN ID	DESCRIPTION
PT-1	"BENJAMIN MOORE" CHANTILLY LACE 2121-70
PT-2	"BENJAMIN MOORE" PEWTER 2121-30
PT-3	"BENJAMIN MOORE" CITY SHADOW CSP-60
PT-4	PRODEMA WOOD SIDING.

#### NOTES

- GROUND FLOOR WINDOW SILLS SHALL BE PLACED AT MAXIMUM HEIGHT OF TWENTY-FOUR (24) INCHES ABOVE GRADE TYP.
- PROPOSED BALCONY RAILING BASIS OF DESIGN IS AN ALUMINUM PICKET RAILING WITH HORIZONTAL TOP SECTION COMPLIANT WITH THE HIGH-VELOCITY HURRICANE ZONE OF THE FLORIDA BUILDING CODE. ALUMINUM FRAMING ELEMENTS SHALL HAVE A SILVER POWDER COAT FINISH.
- NO MIRROR-TYPE GLASS IS PROPOSED & COMPLY WITH SECTION 24-58(S)(1).iii.

#### MATERIAL LEGEND

\* NOT ALL NOTES APPLICABLE TO THIS SHEET.

#### DIVISION 03 CONCRETE

03-01	CONCRETE SLAB. SEE STRUCT DWGS.
03-05	CONCRETE COLUMN. SEE STRUCT. DWGS.
03-06	CONCRETE BEAM/HEADER. SEE STRUCT DWGS.
03-07	CONCRETE EYEBROW/CANOPY. SEE STRUCT. DWGS.

#### DIVISION 05 METALS

05-02	METAL RAILING. 42" MIN. HEIGHT.
05-03	METAL/GLASS RAILING. 48" MIN. HEIGHT.
05-05	METAL TRELLIS FRAMING. SEE STRUCT. DWGS.
05-10	METAL PRIVACY SCREEN.
05-11	EXHAUST VENT. SEE SHEET A-500 FOR DETAIL.

#### DIVISION 08 DOORS & WINDOWS.

08-01	DOOR AS SCHEDULED.
08-02	WINDOW AS SCHEDULED.
08-03	STOREFRONT DOOR AS SCHEDULED.
08-04	STOREFRONT AS SCHEDULED.
08-05	METAL GRILLES AS SCHEDULED.

#### DIVISION 09 FINISHES.

09-01	SMOOTH STUCCO FINISH (PAINTED).
09-09	2" DIA. WEEP HOLE WALL DRAINS W/ 2% SLOPE.
09-10	3/4" STUCCO REVEAL PATTERN.
09-11	THICKENED STUCCO PANELS.

#### DIVISION 10 SPECIALTIES.

10-02	METAL LOUVER BY SPECIALTY ENG.
10-03	PUBLIC ART PIECE BY OTHER.
10-04	SIGNAGE BY OTHER.



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STRUCTURAL ENGINEER:

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NEW DEVELOPMENT  
FOR:

**SOLESTE  
LA PIAZZA**  
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PROJECT NO.

22-0301

DATE

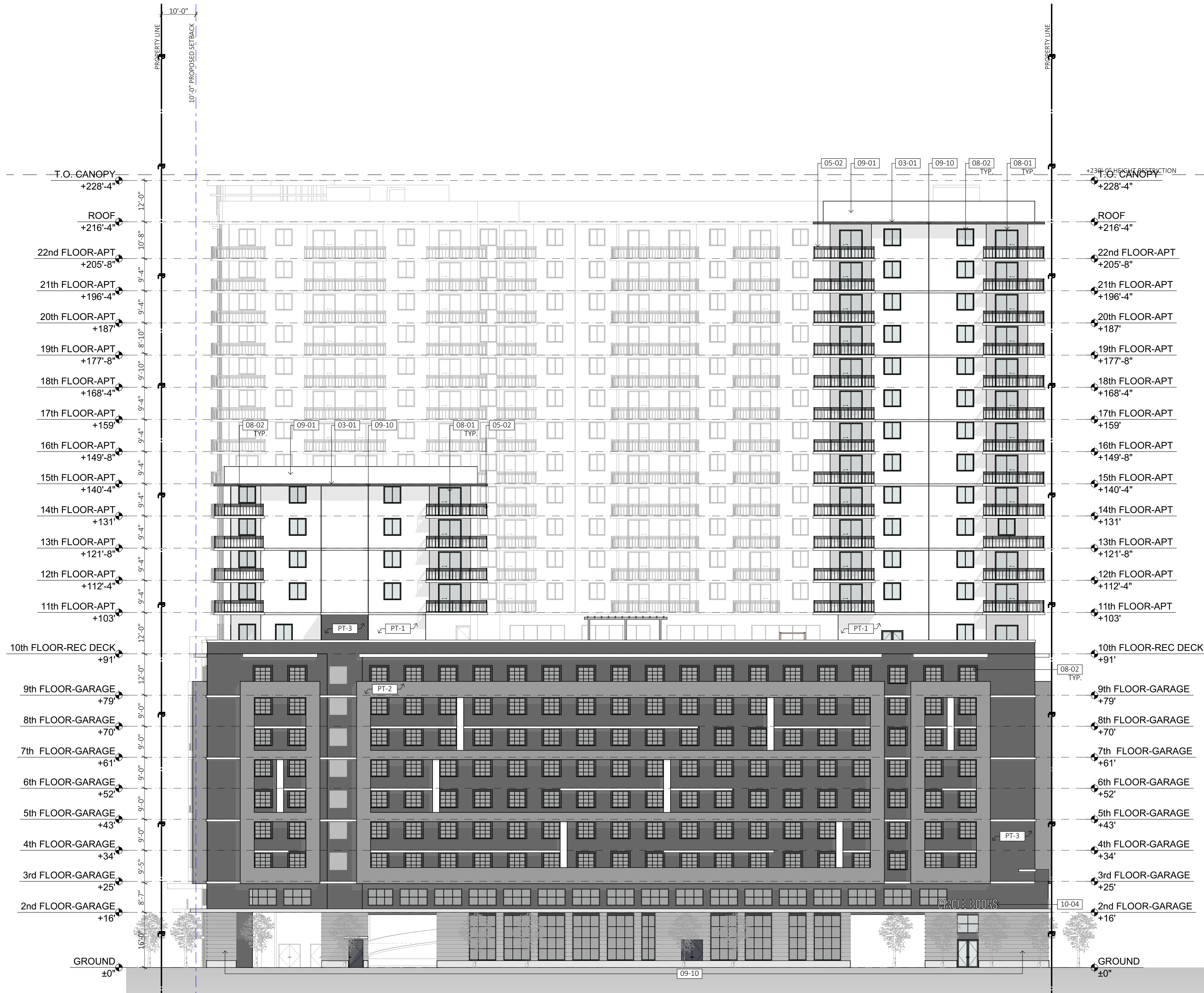
MARCH 1, 2022

SCALE:

AS SHOWN

DRAWING NO.:

A-203



**D WEST ELEVATION**  
SCALE: 1/16" = 1'-0"

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PROJECT NO.

22-0301

DATE

MARCH 1, 2022

SCALE:

AS SHOWN

DRAWING NO.:

A-300



**A BUILDING SECTION**  
SCALE: 1/16" = 1'-0"

DEVELOPER:

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PROJECT NO.

22-0301

TITLE:

BUILDING  
SECTION

DATE:

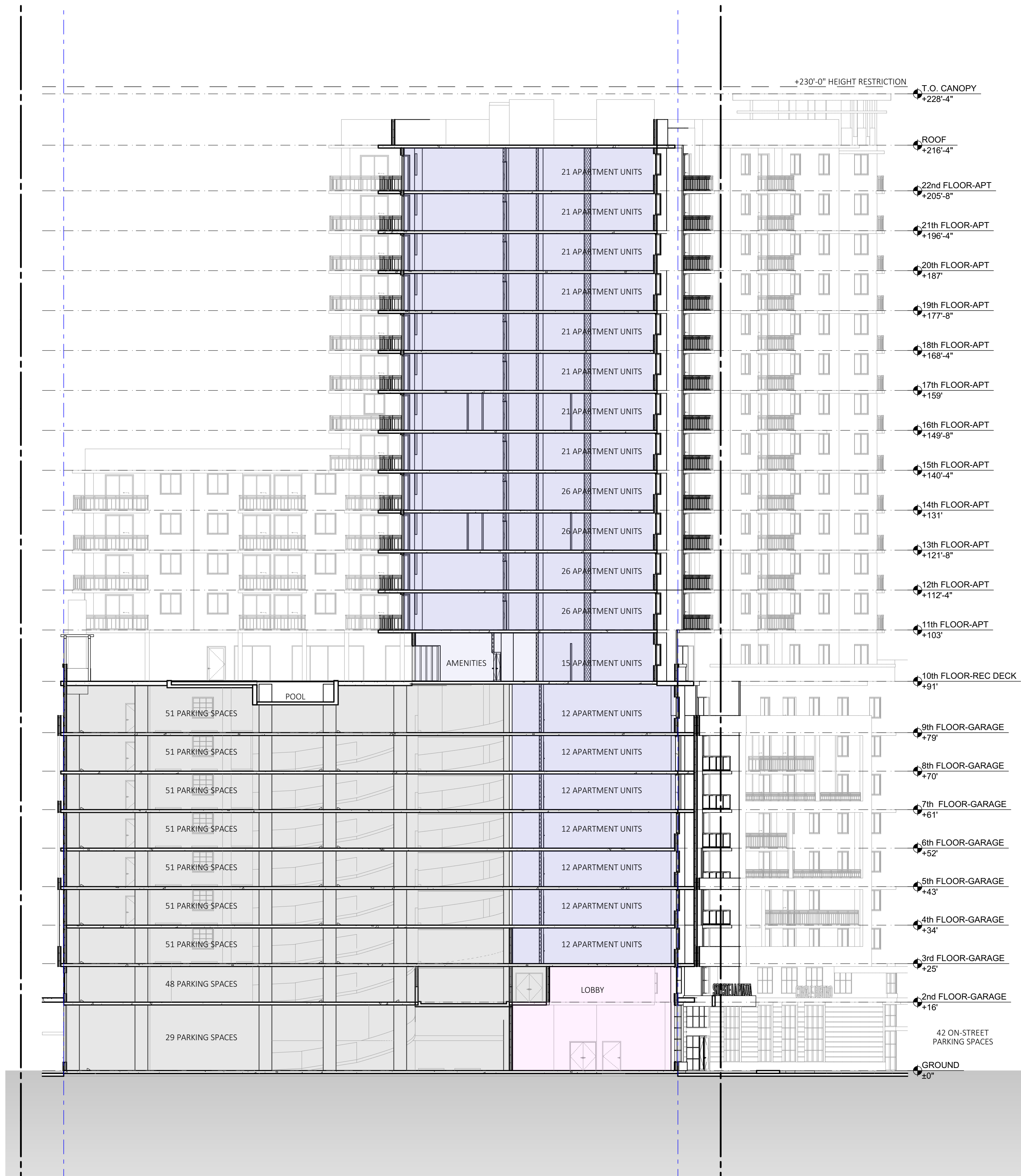
MARCH 1, 2022

SCALE:

AS SHOWN

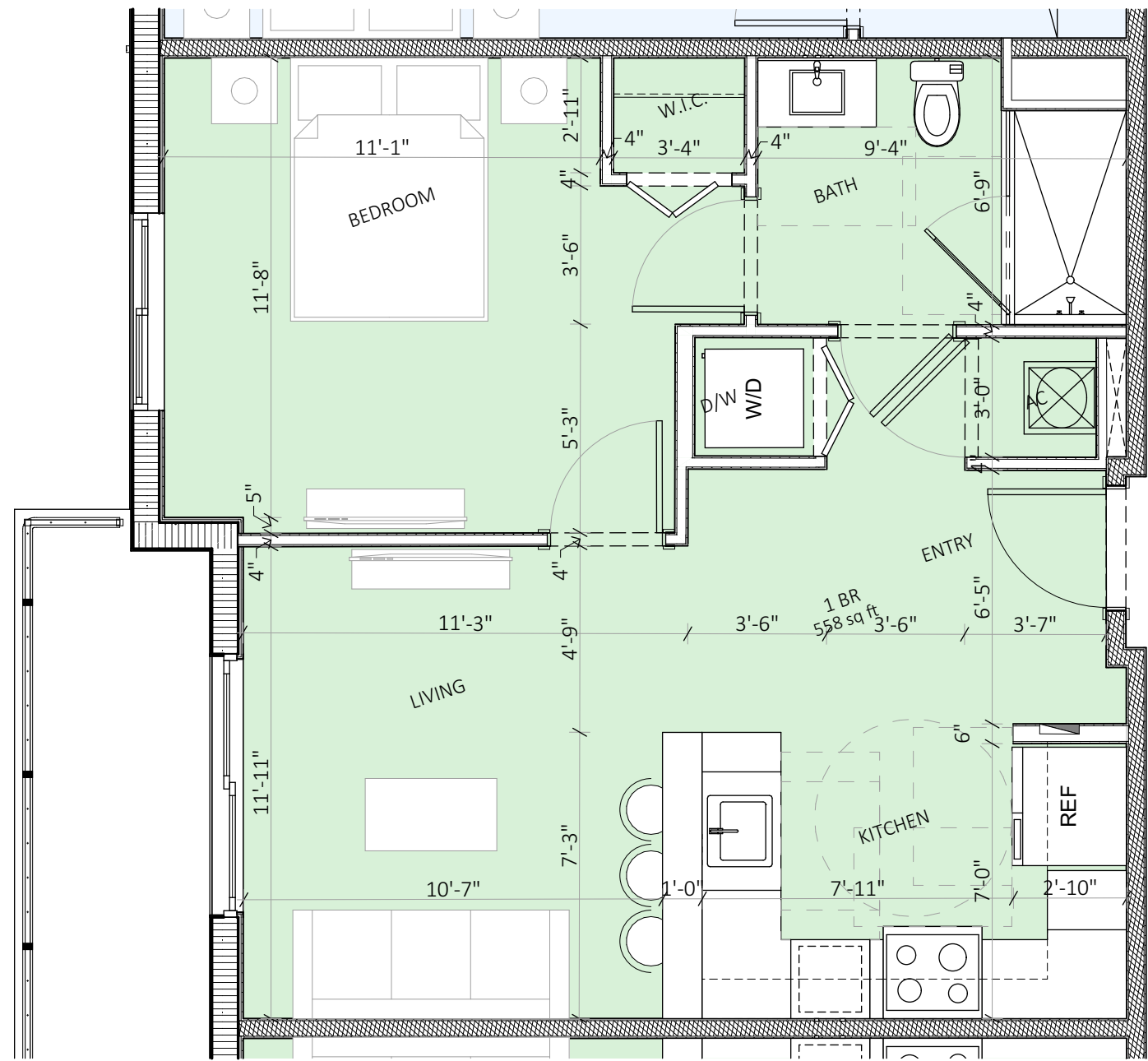
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A-301

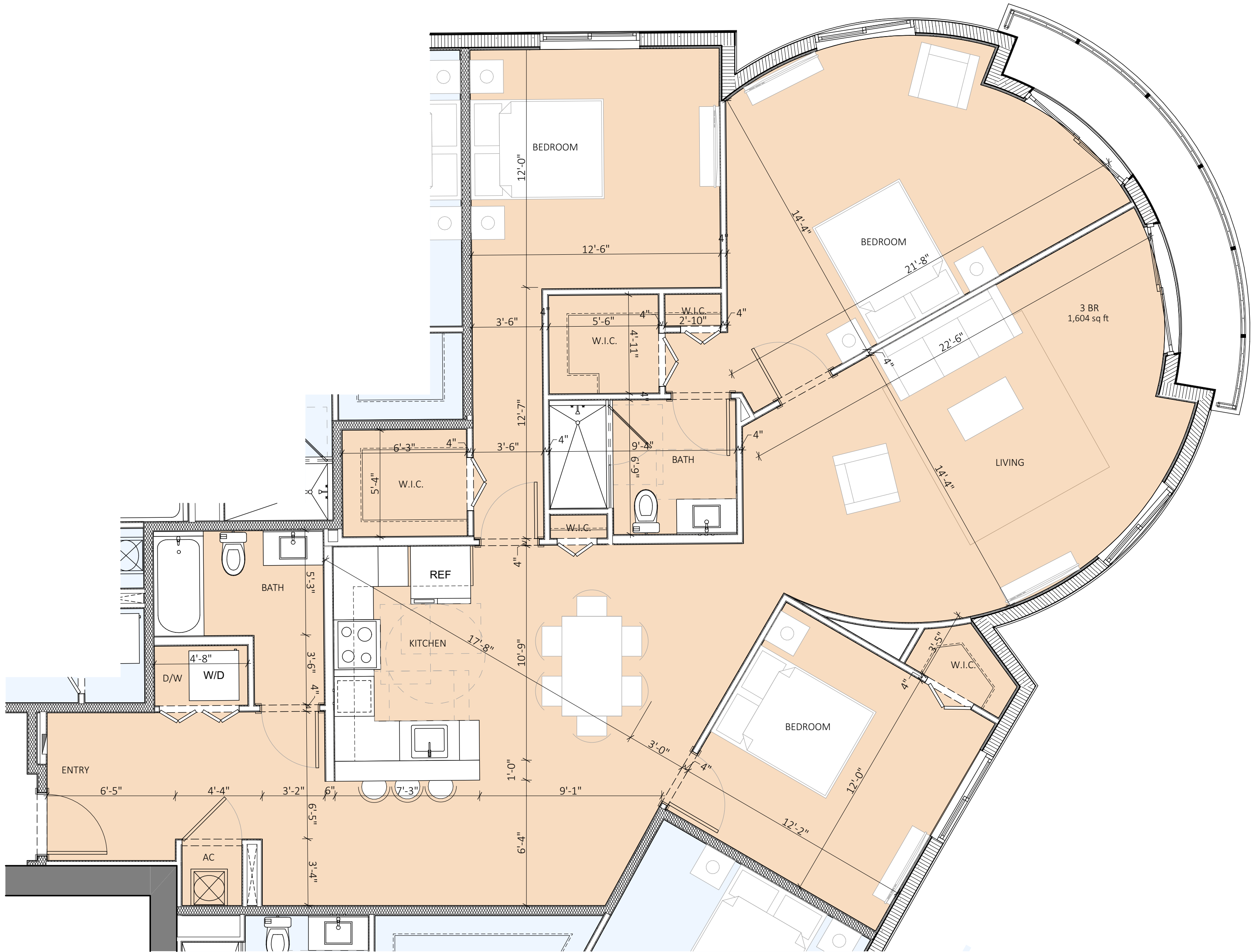


**B BUILDING SECTION**  
SCALE: 1/16" = 1'-0"

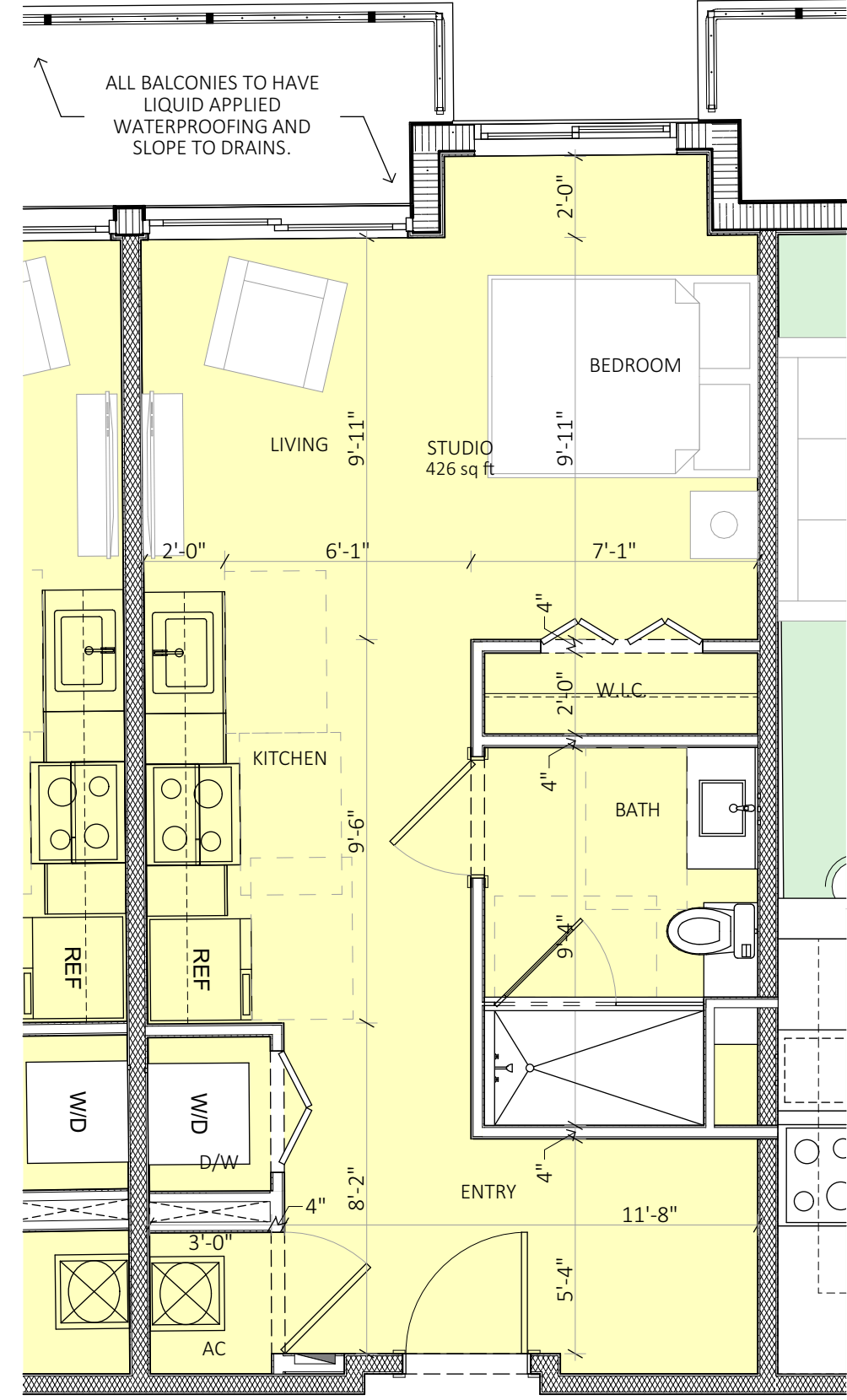




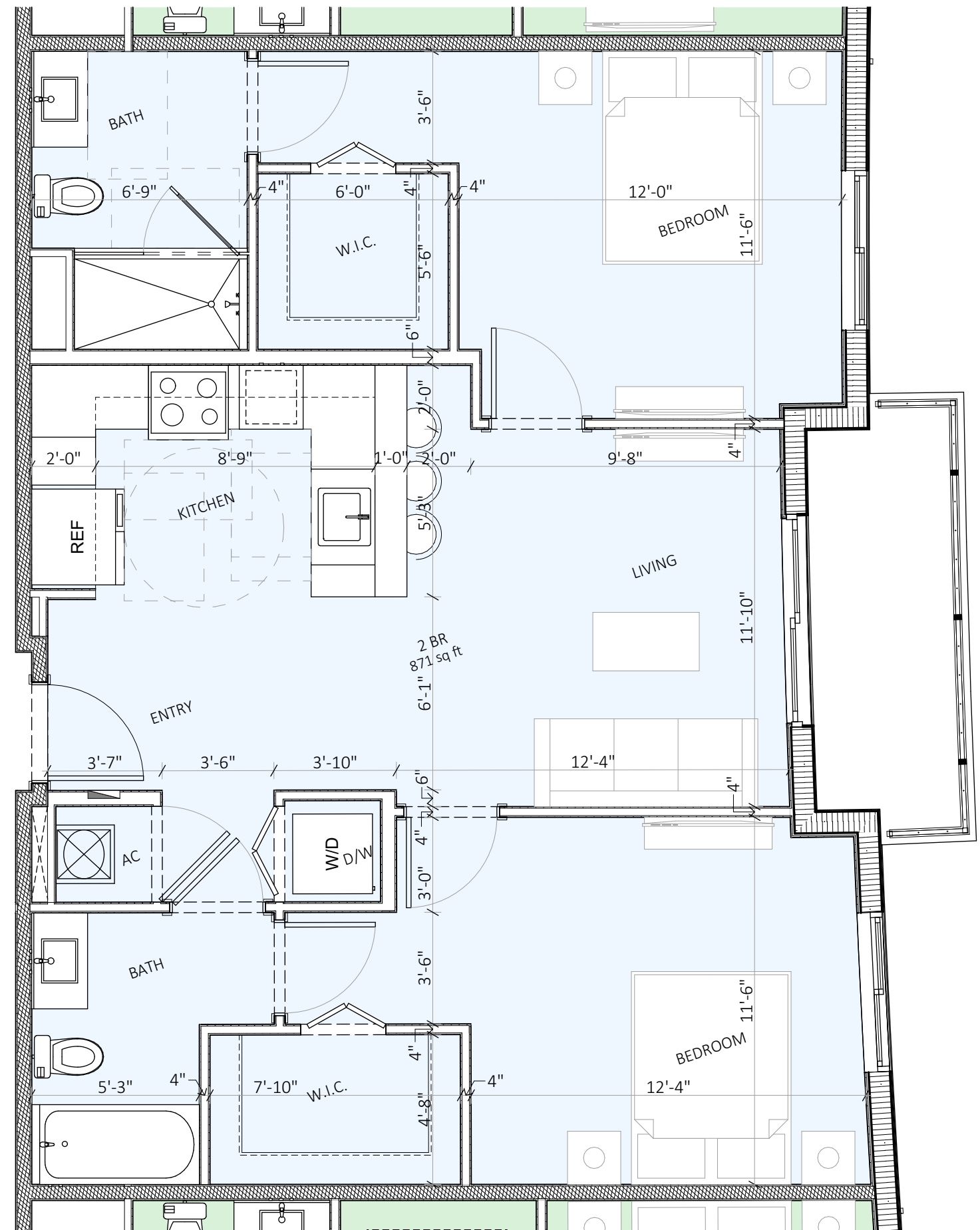
**A** TYP. 1 - BEDROOM UNIT  
SCALE: 1/4" = 1'-0"



**C** TYP. 3 - BEDROOM UNIT  
SCALE: 1/4" = 1'-0"



**ST** TYP. STUDIO UNIT  
SCALE: 1/4" = 1'-0"



**B** TYP. 2 - BEDROOM UNIT  
SCALE: 1/4" = 1'-0"

Soleste  
La Piazza

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PROJECT NO. 22-0301 UNIT TYPES

DATE MARCH 1, 2022

SCALE: AS SHOWN DRAWING NO.: A-400



SOLESTE LA PIAZZA

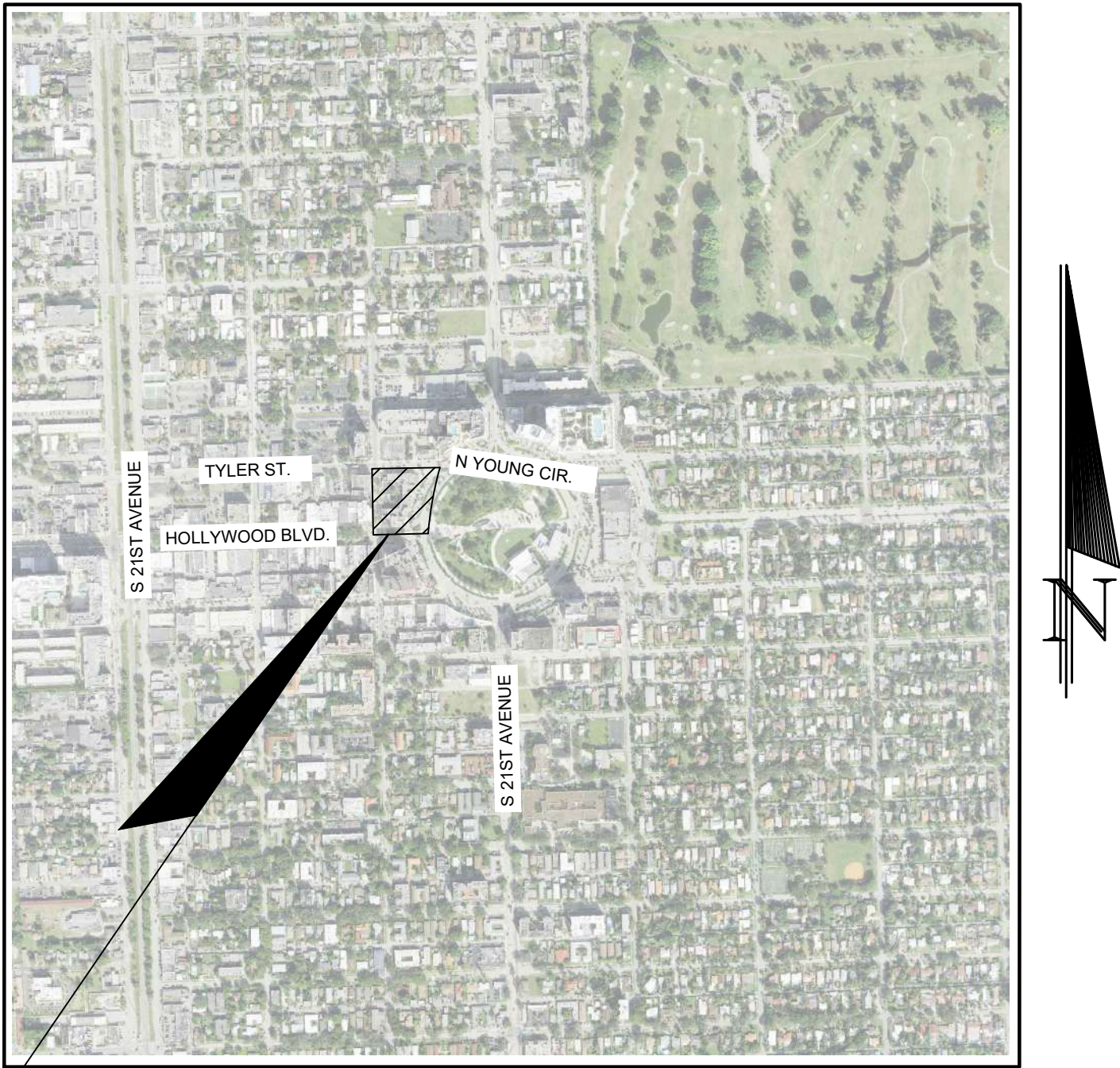
CITY OF HOLLYWOOD

BROWARD COUNTY, FLORIDA

LEGAL DESCRIPTION:

LOTS 1 THROUGH 14, BLOCK 41, HOLLYWOOD, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN MAP BOOK 1, PAGE 21, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA, TOGETHER WITH THE VACATED 13 FOOT ALLEY DESCRIBED IN OFFICIAL RECORDS BOOK 22466, PAGE 38, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.

SAID LANDS SITUATE IN THE CITY OF HOLLYWOOD, BROWARD COUNTY, FLORIDA AND CONTAIN 44,124 SQUARE FEET (1.013 ACRES) MORE OR LESS.



PROJECT LOCATION

LOCATION MAP

SECTION 15, TOWNSHIP 51 SOUTH, RANGE 42 EAST

SHEET INDEX		
SHEET NO.	DESCRIPTION	REV
C-1	COVER SHEET	
C-2	GENERAL NOTES & SPECIFICATIONS	
C-3	DEMOLITION PLAN	
C-4	EROSION CONTROL PLAN	
C-5	PAVING, GRADING, & DRAINAGE PLAN	
C-6	WATER AND SEWER PLAN	
C-7	PAVEMENT MARKING AND SIGNAGE PLAN	
C-8 TO C-9	PAVING, GRADING, & DRAINAGE DETAILS	
C-10	PAVEMENT MARKING AND SIGNAGE DETAILS	
C-11 TO C-17	WATER AND SEWER DETAILS	

ELEVATION TABLE	
DESCRIPTION	ELEVATION
BROWARD COUNTY FUTURE CONDITIONS 100 YEAR FLOOD ELEVATION	11.00 N.A.V.D.
FEMA BASE FLOOD ELEVATION	N/A ZONE X
HIGHEST ADJACENT ROAD CROWN	7.89 N.A.V.D.
18" ABOVE HIGHEST ROAD CROWN ADJACENT TO PROPERTY	9.39 N.A.V.D.
PROPOSED FINISHED FLOOR ELEVATION	11.00 N.A.V.D.

ENGINEERING PLANS

PREPARED FOR:  
THE ESTATE COMPANIES



CRAVEN • THOMPSON AND ASSOCIATES, INC.  
ENGINEERS • PLANNERS • SURVEYORS

3563 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309  
FAX: (954) 739-6409 TEL.: (954) 739-6400

FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS No. 271  
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS No. C000114

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REV. #	DESCRIPTION	DATE

Chad Everett Edwards  
Florida P.E. No. 59306  
March 17, 2023

SHEET C-1  
MARCH 2023

CTA PROJECT NUMBER: 22-0064-001-01

VERTICAL INFORMATION HEREON IS RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (NAVD88).



I. APPLICABLE CODES

- A. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO CITY STANDARDS AND SPECIFICATIONS, AND ALL OTHER LOCAL, STATE AND NATIONAL CODES WHERE APPLICABLE. ALL CONSTRUCTION WITHIN FOOT R/W SHALL BE CONSTRUCTED PER FOOT MINIMUM STANDARDS. ALL CONSTRUCTION WITHIN BROWARD COUNTY R/W SHALL BE CONSTRUCTED PER BROWARD COUNTY MINIMUM STANDARDS.
- B. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER AND IN STRICT COMPLIANCE WITH ALL THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AND ALL STATE AND LOCAL SAFETY AND HEALTH REGULATIONS.
- C. ALL ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D.), UNLESS OTHERWISE NOTED.
- D. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO CITY, BROWARD COUNTY AND/OR FOOT SPECIFICATIONS (WHICHEVER APPLIES).
- E. CITY, BROWARD COUNTY AND/OR FOOT SPECIFICATIONS SHALL DICTATE WHEN IN CONFLICT WITH ANY OF THE FOLLOWING SPECIFICATIONS.
- F. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE STATE OF FLORIDA TRENCH SAFETY ACT.

II. PRECONSTRUCTION RESPONSIBILITIES

- A. UPON THE RECEIPT OF THE "NOTICE TO PROCEED", THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, UTILITY OWNERS, THE OWNER AND THE ENGINEER OF RECORD.
- B. THE CONTRACTOR SHALL OBTAIN A SUNSHINE STATE ONE CALL OF FLORIDA CERTIFICATION NUMBER AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION, CALL 1-800-432-4770.
- C. ALL UTILITY EASEMENTS TO BE SECURED PRIOR TO CONSTRUCTION (IF REQUIRED).
- D. LOCATION OF EXISTING FACILITIES AS SHOWN ON CONSTRUCTION DRAWINGS ARE DRAWN FROM AVAILABLE RECORDS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE FACILITIES SHOWN OR FOR ANY FACILITY NOT SHOWN. THE CONTRACTOR SHALL VERIFY, IF POSSIBLE, THE ELEVATIONS AND LOCATIONS OF EXISTING FACILITIES PRIOR TO CONSTRUCTION. IF AN EXISTING FACILITY IS FOUND TO CONFLICT WITH THE PROPOSED CONSTRUCTION UPON EXCAVATION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD SO THAT APPROPRIATE MEASURES CAN BE TAKEN TO RESOLVE THE PROBLEM.
- E. A SEPARATE CALCULATED SITE PLAN WILL BE REQUIRED PRIOR TO CONSTRUCTION TO VERIFY PROPOSED BUILDING, CURB, AND SITE WORK LOCATIONS.
- F. AT LEAST TWO (2) DAYS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A COP "NOTICE OF INTENT (N.O.I.) TO USE GENERAL PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES THAT DISTURB AN ACRE OR MORE OF LAND" FORM (DEP FORM 62-621.300(4)(B)) TO FDEP NOTICES CENTER. THE CONTRACTOR WILL BE RESPONSIBLE FOR: (1) IMPLEMENTATION OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE DEVELOPED PRIOR TO THE N.O.I. SUBMITTAL, AND (2) RETENTION OF RECORDS REQUIRED BY THE PERMIT, INCLUDING RETENTION OF A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL SITE STABILIZATION. A "NOTICE OF TERMINATION (N.O.T.) OF GENERIC PERMIT COVERAGE" FORM (DEP FORM 62-621.300(6)) MUST BE SUBMITTED TO FDEP TO DISCONTINUE PERMIT COVERAGE, SUBSEQUENT TO COMPLETION OF CONSTRUCTION. FOR ADDITIONAL INFORMATION SEE FDEP WEBSITE: <http://www.dep.state.fl.us/water/stormwater/fpdes>. CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE A SWPPP AND SUBMIT TO THE ENGINEER FOR APPROVAL AND COMPLY WITH ALL PROVISIONS OF CHAPTER 62-621.
- G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED DEWATERING PERMITS AND TREE REMOVAL / RELOCATION PERMITS.

III. INSPECTIONS

- A. THE CONTRACTOR SHALL NOTIFY THE CITY'S ENGINEERING DEPARTMENT, BROWARD COUNTY, THE ENGINEER OF RECORD, FOOT, AND ANY OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION AT LEAST 24 HOURS PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO THE INSPECTION OF THE FOLLOWING ITEMS, WHERE APPLICABLE:
- CLEARING AND FILLING
  - STORM DRAINAGE SYSTEM
  - SANITARY SEWER SYSTEM
  - WATER DISTRIBUTION SYSTEM
  - SUBGRADE
  - LIMEROCK BASE
  - ASPHALTIC CONCRETE / PAVEMENT BRICK COURSE
  - SIDEWALK
  - FINAL

IV. SHOP DRAWINGS

- A. PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD FOR THE FOLLOWING: SANITARY MANHOLES, STORM DRAIN MANHOLES, CATCH BASINS, FIRE HYDRANTS, PIPING, VALVES AND ALL REQUIRED ACCESSORIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER AGENCY APPROVALS IF REQUIRED.

V. TEMPORARY FACILITIES

- A. TEMPORARY FACILITIES:
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES, TELEPHONE SERVICE AND ELECTRICITY.
- B. TRAFFIC REGULATION:
- MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH MUT.C.D.
  - ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
  - NO TRENCHES OR HOLES NEAR WALKWAYS IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION OF THE CITY.
  - IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR FOR ANY NECESSARY CONSTRUCTION, PAVEMENT MARKING AND SIGNAGE OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN ALTERNATE SAFE WALK ROUTE.

VI. WATER DISTRIBUTION SYSTEM

- A. BROWARD COUNTY HEALTH DEPT. & CITY STANDARDS AND SPECIFICATIONS SHALL GOVERN & SUPERCEDE ALL OTHER REQUIREMENTS FOR WATERMAIN CONSTRUCTION.
- B. SEPARATION OF WATER AND SEWER MAINS
- SANITARY SEWERS, STORM SEWERS, AND FORCE MAINS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS, STORM SEWERS, AND FORCE MAINS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE.

- WHERE SANITARY SEWERS, STORM SEWERS, OR FORCE MAINS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN THE JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
- ALL CROSSING SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).

- WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP, AND THE CROSSING SHALL BE ARRANGED TO MEET THE REQUIREMENTS ABOVE.
- A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.
- IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.

- WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED WITH ANS/AWWA C600-05 OR LATEST REVISION. THE PRESSURE TEST SHALL NOT VARY MORE THAN 5 PSI DURING THE TEST.
- THE PRESSURE TEST SHALL BE WITNESSED BY A REPRESENTATIVE OF THE CITY OR BROWARD COUNTY AND THE ENGINEER OF RECORD.

- CONTRACTOR SHALL MAINTAIN WATER SERVICE TO ALL EXISTING FACILITIES DURING CONSTRUCTION.

C. MATERIALS:

- ALL PIPE LARGER THAN 12" DIAMETER MUST BE DUCTILE IRON, (MIN. CLASS 50), 8" AND 10" DIP (MIN. CLASS 50) 4" AND 6" DIP (MIN. CLASS 52). ALL DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANS/AWWA C151/A21.1-02 AND CEMENT MORTAR LINED AND SEAL COATED PER ANS/AWWA C104/A21.4-03. SEE CITY AND BROWARD COUNTY STANDARDS & SPECIFICATIONS FOR FURTHER D.I.P. REQUIREMENTS.
- FITTINGS SHALL BE COMPACT DUCTILE IRON MECHANICAL JOINT TYPE AND SHALL BE CLASS 350 THROUGH 24" CONFORMING TO ANS/AWWA C-153/A21.53-02 SPECIFICATIONS. FITTINGS MUST BE CEMENT LINED AND SEAL COATED PER ANS/AWWA C104/A21.4-03.
- VALVES SHALL BE GATE VALVES, IRON BODY, FULLY RESILIENT SEAT BRONZE MOUNTED NON-RISING STEM, RATED AT 150 PSI AND CONFORMING TO ANS/AWWA C509-01 OR LATEST REVISION, AND SHALL HAVE MECHANICAL JOINTS.
  - GATE VALVES 4" AND LARGER SHALL BE MUELLER H615 OR EQUAL AND EQUAL TO THE MINIMUM TEST PRESSURE (POUNDS PER SQUARE INCH).
  - VALVES SHALL BE AMERICAN AFR2500 LINE OR CLOW F-6100, CONFORMING TO ANS/AWWA C500-02. SEE BROWARD COUNTY, AND CITY CONSTRUCTION STANDARDS & SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

- TAPPING VALVES SHALL BE MUELLER H615 OR APPROVED EQUAL.

- GATE VALVES 3" OR LESS SHALL BE NIBCO T-133 OR T-138 WITH WALLEABLE HAND WHEELS. NO SUBSTITUTIONS ALLOWED.

- TAPPING SLEEVES SHALL BE MUELLER H615, CLOW F-2505 OR APPROVED EQUAL. SEE BROWARD COUNTY, AND CITY CONSTRUCTION STANDARDS & SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

- VALVE BOXES SHALL BE US FOUNDRY SERIES 7500 OR APPROVED EQUAL.

- RETAINER GLANDS SHALL CONFORM TO ANS/AWWA C111/A21.11-00 OR LATEST REVISION. ALL GLANDS SHALL BE MANUFACTURED FROM DUCTILE IRON AS LISTED BY UNDERWRITERS LABORATORIES FOR 250 PSI MINIMUM WATER PRESSURE RATING. CLOW CORPORATION MODEL F-1058, STANDARD FIRE PROTECTION EQUIPMENT COMPANY OR APPROVED EQUAL.

- DRESSER COUPLINGS SHALL BE REGULAR BLACK COUPLINGS WITH PLAIN GASKETS FOR GALVANIZED STEEL PIPE. THEY SHALL BE DRESSER STYLE 90. NO SUBSTITUTIONS ALLOWED.

- FIRE HYDRANTS SHALL BE MUELLER CENTURION TRAFFIC TYPE A-421 WITH 1 1/4" VALVE OPENING OR APPROVED EQUAL. MAIN VALVE OPENING TO BE DETERMINED BY THE WATER DEPARTMENT. ALL HYDRANTS TO BE 18" FROM THE CURB OR EDGE. ALL HYDRANTS TO BE INSTALLED WITH CONTROL VALVE. RETAINER GLANDS ARE PREFERRED FOR RESTRAINING. FIRE HYDRANT SHALL COMPLY WITH ANS/AWWA C509-02. SEE BROWARD COUNTY AND CITY CONSTRUCTION STANDARDS & SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

D. SERVICE CONNECTION:

- SERVICE SADDLES SHALL BE STAINLESS STEEL STRAPS. SADDLES SHALL BE DOUBLE STRAP TYPE. ALL SERVICE SADDLES SHALL CONFORM TO ANS/AWWA C111/A21.11-00 AND ASTM A-588.
- SERVICE LINES SHALL BE POLYETHYLENE (PE) 250 PSI RATED, SDR-9 PIPE JOINTS SHALL BE OF THE COMPRESSION TYPE TOTALLY CONFINED GRIP SEAL AND COUPLING NUT.
- CORPORATION STOPS SHALL BE MANUFACTURED OF BRASS ALLOY IN ACCORDANCE WITH ASTM B-62 WITH THREADED ENDS, AS MANUFACTURED BY MUELLER B-2500B OR APPROVED EQUAL.
- CURB STOPS SHALL BE MUELLER H10203 OR APPROVED EQUAL.
- METER STOPS SHALL BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER.
- AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER.
- MANHOLE LEAKAGE TEST SHALL NOT EXCEED FOUR GALLONS PER DAY PER UNIT. NO VISIBLE LEAKAGE ALLOWED.

E. INSTALLATION:

- ALL PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE UNI-BEAT PLASTIC PIPE ASSOCIATIONS "GUIDE FOR INSTALLATION OF PVC PRESSURE PIPE FOR MUNICIPAL WATER DISTRIBUTION SYSTEM". SEE BROWARD COUNTY AND CITY CONSTRUCTION STANDARDS & SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ALL DIP SHALL BE INSTALLED IN ACCORDANCE WITH ANS/AWWA C600-05 OR LATEST REVISION.
- ALL WATER MAINS SHALL BE LAID WITH A MINIMUM 36" COVER FOR PVC AND 30" FOR DIP.
- NO CONNECTIONS TO EXISTING LINES SHALL BE MADE UNTIL PRESSURE TESTS & BACTERIOLOGICAL TESTS HAVE BEEN PERFORMED AND THE SYSTEM IS ACCEPTABLE TO THE CITY OR BROWARD COUNTY BEACH AND PUBLIC HEALTH UNIT.

- PIPE DEFLECTION SHALL NOT EXCEED 75% OF THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER.
- A CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED. BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS IN COMPLIANCE WITH ALL THE REQUIREMENTS OF THE PLANS. STONES FOUND IN THE TRENCH SHALL BE REMOVED FOR A DEPTH OF AT LEAST 6" BELOW THE BOTTOM OF THE PIPE.
- ALL VALVES SHALL BE INSTALLED WITH ADJUSTABLE CAST IRON VALVE BOXES WITH THE WORD "WATER" CAST IN THE COVER. U.S.F. OR APPROVED EQUAL.
- ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320, FAC.

F. TESTING:

- FOR TESTING REQUIREMENTS SEE CITY AND BROWARD COUNTY CONSTRUCTION STANDARDS & SPECIFICATIONS.
- BEFORE ANY PHYSICAL CONNECTIONS TO THE EXISTING WATER MAINS ARE MADE, THE COMPLETE WATER SYSTEM SHALL BE PRESSURE TESTED AND DISCONNECTED. HYDROSTATIC TESTING OF NEW MAINS SHALL BE PERFORMED AT A MINIMUM STARTING PRESSURE OF 150 PSI FOR TWO HOURS IN ACCORDANCE WITH ANS/AWWA C600-05 OR LATEST REVISION. THE PRESSURE TEST SHALL NOT VARY MORE THAN 5 PSI DURING THE TEST.
- THE PRESSURE TEST SHALL BE WITNESSED BY A REPRESENTATIVE OF THE CITY OR BROWARD COUNTY AND THE ENGINEER OF RECORD.
- BEFORE ACCEPTANCE FOR OPERATION, THE WATER SYSTEM SHALL BE DISINSECTED IN ACCORDANCE WITH THE ANS/AWWA C651-02, 150 PSI MINIMUM STARTING TEST PRESSURE. METER RECONNECTIONS MAY BE MADE TO NEW LINES AFTER TWO CONSECUTIVE DAYS OF BACTERIOLOGICAL SAMPLES HAVE PASSED, AND COPIES OF RESULTS HAVE BEEN RECEIVED BY THE ENGINEER, CITY, AND HRS.

- SAMPLING POINTS SHALL BE PROVIDED AT THE LOCATIONS SHOWN ON THE PLANS. IF NOT SPECIFIED, SAMPLING POINTS SHALL BE PROVIDED AT INTERVALS OF 1500' MAXIMUM FOR LINES GREATER THAN 1500' IN LENGTH.
- THE ALLOWABLE LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE FORMULA:
$$L = \frac{SDP^2}{148000}$$
IN WHICH L EQUALS THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR, S EQUALS LENGTH OF PIPE (LINEAR FEET), D EQUALS NOMINAL DIAMETER OF PIPE (INCHES) AND P EQUALS THE MINIMUM TEST PRESSURE (POUNDS PER SQUARE INCH).

- CITY AND BROWARD COUNTY EDP CONSTRUCTION STANDARDS & SPECIFICATIONS SHALL GOVERN & SUPERCEDE ALL OTHER REQUIREMENTS FOR SANITARY SEWER CONSTRUCTION.
- GENERAL:
  - DISTANCE AND LENGTHS SHOWN ON PLANS ARE REFERENCED TO THE CENTER OF STRUCTURES.
- MATERIALS:
  - ALL SEWER PIPE AND FITTINGS SHALL BE PVC PIPE CONFORMING TO ASTM D 3034, SDR-35 WITH PUSH-ON RUBBER GASKET JOINTS, UNLESS OTHERWISE NOTED, OR DUCTILE IRON PIPE SHALL BE (MIN. CLASS 52), AS INDICATED ON THE DRAWINGS.
  - MANHOLES SHALL BE PRECAST PER ASTM C 478 WITH 4,000 PSI CONCRETE AND GRADE 60 STEEL. MONOLITHICALLY POURED BASES ONLY.
  - MANHOLES ARE TO BE SEALED WITH ANTI-HYDRO CEMENT OR APPROVED EQUAL - NO MOULDING PLASTER.

- INSTALLATION:
  - PVC SEWER PIPE SHALL BE LAID IN ACCORDANCE WITH ASTM D 2131 AND THE UNI-BEAT PLASTIC PIPE ASSOCIATIONS "RECOMMENDED PRACTICE FOR THE INSTALLATION OF PVC SEWER PIPE."
  - DUCTILE IRON PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ANS/AWWA C600-05 OR LATEST REVISION.
  - PVC MANHOLE ADAPTOR SHALL BE GROUTED IN PLACE AT EACH PIPE CONNECTION INTO A MANHOLE WALL.
  - MANHOLES SHALL BE SET PLUMB TO LINE AND GRADE ON FIRM SUBGRADE PROVIDING UNIFORM BEARING UNDER THE BASE.

- ALL OPENINGS AND JOINTS SHALL BE SEALED WATER-TIGHT.
- THE ENTIRE INSIDE AND OUTSIDE OF THE MANHOLES SHALL BE PAINTED WITH TWO COATS OF DIFFERENT COLORS (8 MILS EACH) OF KOPPERS 300-M BITUMASTIC PAINT OR ENGINEER'S APPROVED EQUAL.

- TESTING:
  - AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE ENGINEER MAY REQUIRE A VISUAL INFILTRATION AND/OR EXFILTRATION TEST TO BE PERFORMED ON THE ENTIRE SYSTEM OR ANY PART THEREOF.
  - AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER.
  - MANHOLE LEAKAGE TEST SHALL NOT EXCEED FOUR GALLONS PER DAY PER UNIT. NO VISIBLE LEAKAGE ALLOWED.

- SEWER PIPE LEAKAGE ALLOWABLE SHALL NOT EXCEED 15 GALLONS PER DAY PER INCH DIAMETER PER MILE IN A TWO HOUR TEST PERIOD FOR ANY SECTION TESTED. NO VISIBLE LEAKAGE SHALL BE ALLOWED.

- ALL SEWER PIPE SHALL BE VIDEO RECORDED AND GIVEN TO CITY FOR REVIEW AND APPROVAL AT THE CONTRACTORS EXPENSE.
- SEE BROWARD COUNTY AND CITY CONSTRUCTION STANDARDS & SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.

VII. GRAVITY SEWER COLLECTION SYSTEM:

- CITY AND BROWARD COUNTY EDP CONSTRUCTION STANDARDS & SPECIFICATIONS SHALL GOVERN & SUPERCEDE ALL OTHER REQUIREMENTS FOR SANITARY SEWER CONSTRUCTION.
- GENERAL:
  - DISTANCE AND LENGTHS SHOWN ON PLANS ARE REFERENCED TO THE CENTER OF STRUCTURES.
- MATERIALS:
  - ALL SEWER PIPE AND FITTINGS SHALL BE PVC PIPE CONFORMING TO ASTM D 3034, SDR-35 WITH PUSH-ON RUBBER GASKET JOINTS, UNLESS OTHERWISE NOTED, OR DUCTILE IRON PIPE SHALL BE (MIN. CLASS 52), AS INDICATED ON THE DRAWINGS.
  - MANHOLES SHALL BE PRECAST PER ASTM C 478 WITH 4,000 PSI CONCRETE AND GRADE 60 STEEL. MONOLITHICALLY POURED BASES ONLY.
  - MANHOLES ARE TO BE SEALED WITH ANTI-HYDRO CEMENT OR APPROVED EQUAL - NO MOULDING PLASTER.

- INSTALLATION:
  - PVC SEWER PIPE SHALL BE LAID IN ACCORDANCE WITH ASTM D 2131 AND THE UNI-BEAT PLASTIC PIPE ASSOCIATIONS "RECOMMENDED PRACTICE FOR THE INSTALLATION OF PVC SEWER PIPE."
  - DUCTILE IRON PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ANS/AWWA C600-05 OR LATEST REVISION.
  - PVC MANHOLE ADAPTOR SHALL BE GROUTED IN PLACE AT EACH PIPE CONNECTION INTO A MANHOLE WALL.
  - MANHOLES SHALL BE SET PLUMB TO LINE AND GRADE ON FIRM SUBGRADE PROVIDING UNIFORM BEARING UNDER THE BASE.

- ALL OPENINGS AND JOINTS SHALL BE SEALED WATER-TIGHT.
- THE ENTIRE INSIDE AND OUTSIDE OF THE MANHOLES SHALL BE PAINTED WITH TWO COATS OF DIFFERENT COLORS (8 MILS EACH) OF KOPPERS 300-M BITUMASTIC PAINT OR ENGINEER'S APPROVED EQUAL.

- TESTING:
  - AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE ENGINEER MAY REQUIRE A VISUAL INFILTRATION AND/OR EXFILTRATION TEST TO BE PERFORMED ON THE ENTIRE SYSTEM OR ANY PART THEREOF.
  - AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER.
  - MANHOLE LEAKAGE TEST SHALL NOT EXCEED FOUR GALLONS PER DAY PER UNIT. NO VISIBLE LEAKAGE ALLOWED.

- SEWER PIPE LEAKAGE ALLOWABLE SHALL NOT EXCEED 15 GALLONS PER DAY PER INCH DIAMETER PER MILE IN A TWO HOUR TEST PERIOD FOR ANY SECTION TESTED. NO VISIBLE LEAKAGE SHALL BE ALLOWED.

- ALL SEWER PIPE SHALL BE VIDEO RECORDED AND GIVEN TO CITY FOR REVIEW AND APPROVAL AT THE CONTRACTORS EXPENSE.
- SEE BROWARD COUNTY AND CITY CONSTRUCTION STANDARDS & SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.

VIII. STORM DRAINAGE:

- A. GENERAL:
  - DISTANCES AND LENGTHS SHOWN ON PLANS ARE REFERENCED TO THE CENTER OF STRUCTURES.
- B. MATERIALS:
  - REINFORCED CONCRETE PIPE (R.C.P.) SHALL MEET THE REQUIREMENTS OF ASTM C-76, LATEST REVISION. RUBBER GASKETS OR OTHER MANUFACTURER SUPPLIED JOINT SEALER SHALL BE USED, FOR ADDITIONAL REQUIREMENTS SEE BROWARD COUNTY'S AND THE CITY'S STANDARDS AND SPECIFICATIONS.
  - ALL DRAINAGE CATCH BASINS AND STRUCTURES SHALL BE PRECAST CONCRETE AS MANUFACTURED BY U.S. PRECAST CORPORATION, UNLESS OTHERWISE NOTED ON THE PLANS. THE MINIMUM WALL AND SLAB THICKNESS SHALL BE 8 INCHES AND THE MINIMUM REINFORCING SHALL BE AS INDICATED ON THE STRUCTURE DETAIL. CONCRETE SHALL BE MINIMUM OF 4000PSI AT 28 DAYS.

C. INSTALLATION

- PIPE SHALL BE PLACED ON A MINIMUM OF 8" STABLE GRANULAR MATERIAL FREE OF ROCK FORMATION AND OTHER FOREIGN FORMATIONS, AND CONSTRUCTED TO A UNIFORM GRADE AND LINE.
- BACKFILL MATERIAL SHALL BE WELL GRADED GRANULAR MATERIAL, WELL TAMPED IN LAYERS NOT TO EXCEED 6 INCHES TO A HEIGHT OF 12 INCHES ABOVE PIPE AS SHOWN ON THE PLANS.
- PROVIDE A MINIMUM PROTECTIVE COVER OF 18 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE CITY'S ENGINEERING DEPARTMENT AT LEAST 7 DAYS PRIOR TO THE START OF THE CONSTRUCTION AND INSPECTION.

IX. PAVING

- A. GENERAL:

- BROWARD COUNTY AND THE CITY'S CONSTRUCTION STANDARDS & SPECIFICATIONS SHALL GOVERN.
- ALL MUCK AND YIELDING MATERIAL WITHIN THE LIMIT OF CONSTRUCTION SHALL BE REMOVED AND REPLACED WITH CLEAN FILL MATERIAL, WHICH SHALL BE COMPACTED AND SHAPED TO CONFORM TO THE REQUIRED SECTION. COMPACTED AREAS, AS SHOWN ON THE PLANS AND OR AS DETERMINED BY THE ENGINEER, SHALL BE COMPACTED TO NOT LESS THAN SPECIFIED DENSITY AT OPTIMUM MOISTURE, AS DETERMINED BY AASHTO T-180, LATEST REVISION. AREAS TO BE STABILIZED, AS DETERMINED BY THE ENGINEER, SHALL HAVE A MINIMUM LBR-40.
- ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF LIMEROCK BASE.
- ALL EXISTING PAVEMENT, CUT OR DAMAGED BY CONSTRUCTION, SHALL BE PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.
- WHERE ANY PROPOSED PAVEMENT IS TO BE CONNECTED TO EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE SAW CUT.

B. MATERIALS:

- BASE COURSE SHALL BE CRUSHED LIMEROCK WITH A MINIMUM OF 70% CARBONATES OF CALCIUM AND MAGNESIUM.
- ASPHALT SURFACES SHALL BE TYPE S-III ASPHALTIC CONCRETE, UNLESS OTHERWISE SPECIFIED ON THE PLANS, AND SHALL BE A MINIMUM OF 1-1/2" THICK.
- MINIMUM SIDEWALK CONSTRUCTION SHALL BE 4 INCH THICK CONCRETE, MINIMUM 3000psi COMPRESSIVE STRENGTH AT 28 DAYS. CONSTRUCTION JOINTS 5 FOOT O.C. WITHIN 48 HOURS OF PLACING, EXPANSION JOINTS SHALL BE 20 FOOT O.C. SEE BROWARD COUNTY'S AND THE CITY'S SECTION ON CONSTRUCTION STANDARDS & SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- CURBS AND GUTTERS: CONCRETE 3000psi COMPRESSIVE STRENGTH AT 28 DAYS, SAWCUT CONSTRUCTION JOINTS 10 FOOT O.C. WITHIN 48 HOURS OF PLACING.
- REINFORCED CONCRETE SLABS SHALL BE CONSTRUCTED OF CLASS I CONCRETE WITH A MINIMUM STRENGTH OF 3,000 PSI AND SHALL BE REINFORCED WITH A 6" x 6" NO. 6 GAUGE WIRE MESH.

C. INSTALLATION:

- SUBGRADE FOR PAVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 98% OF THE MAXIMUM DENSITY (AASHTO T-99-C)), AND SHALL HAVE A MINIMUM LBR 40.
- BASE COURSE MATERIAL FOR PAVED AREAS SHALL BE A MINIMUM THICKNESS OF 8" AND SHALL BE CONSTRUCTED IN TWO FOUR-INCH LIFTS.
- BASE COURSE MATERIAL FOR CURBS AND GUTTERS SHALL BE A MINIMUM THICKNESS OF 8" AND SHALL BE CONSTRUCTED IN TWO FOUR-INCH LIFTS.
- BASE COURSE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180 AND SHALL HAVE A MINIMUM LBR OF 100.
- INSTALLATION OF THE WEARING SURFACE SHALL CONFORM WITH THE REQUIREMENTS OF THE D.O.T. STANDARD SPECIFICATIONS FOR TYPE S-III ASPHALTIC CONCRETE.

D. TESTING

- THE FINISHED SURFACE OF THE BASE COURSE AND THAT OF THE WEARING SURFACE SHALL NOT VARY MORE THAN 1/4" FROM THE TEMPLATE. ANY IRREGULARITIES EXCEEDING THIS LIMIT SHALL BE CORRECTED.
- DENSITY TESTS SHALL BE TAKEN BY AN INDEPENDENT TESTING LABORATORY CERTIFIED BY THE STATE OF FLORIDA, WHERE DIRECTED BY THE ENGINEER.
- ALL TESTING COSTS (PAVING) SHALL BE PAID FOR BY THE CONTRACTOR.
- DENSITY TESTS ON THE STABILIZED SUBGRADE SHALL BE SUPPLIED TO THE ENGINEER OF RECORD AND APPROVED BEFORE ANY LIMEROCK BASE IS CONSTRUCTED.
- DENSITY TESTS AND AS-BUILTS ON THE FINISHED LIMEROCK BASE SHALL BE SUPPLIED TO THE ENGINEER OF RECORD, AND APPROVED BEFORE ANY ASPHALT PAVEMENT IS CONSTRUCTED.

X. DEWATERING

- WHERE DEWATERING IS REQUIRED, THE CONTRACTOR IS RESPONSIBLE FOR DEWATERING IN SUCH A MANNER AS TO COMPARE THE DEPTH OF THE UTILITIES, STATE AND FEDERAL DEWATERING REGULATIONS. CONTRACTOR MAY CONTACT THE BROWARD COUNTY DEPARTMENT OF PLANNING AND ENVIRONMENTAL PROTECTION AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR FURTHER INFORMATION.

XI. PAVEMENT MARKING AND SIGNAGE

- ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," LATEST EDITION, AND BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS (CURRENT EDITION). STANDARDS & SPECIFICATIONS FOR PAVEMENT MARKING REQUIREMENTS.

CITY REFERS TO: CITY OF HOLLYWOOD

XII. PROJECT CLOSEOUT

- A. CLEANING UP:
- DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER, AND UPON FINAL CLEAN-UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIALS, EXCEPT PAVEMENT BRICK, AND CONCRETE AREAS SHALL BE SWEEPED BROOM CLEAN.
  - THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, OR EMPLOYEES, TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. TO THAT END, THE CONTRACTOR SHALL DO, AS REQUIRED, ALL NECESSARY HIGHWAY DRIVEWAY, WALK AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.
  - WHERE MATERIAL OR DEBRIS HAS WASHED OR FLOWED INTO OR HAS BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING THE PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION.

- B. ALL PROPERTY MONUMENTS OR PERMANENT REFERENCES, REMOVED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED BY A STATE OF FLORIDA REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- C. ALL UNPAVED SURFACES DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED BEFORE THE CONSTRUCTION.

XIII. ENGINEER'S AS BUILT REQUIREMENTS

- DURING THE DAILY PROGRESS OF THE JOB, THE CONTRACTOR SHALL RECORD ON THEIR SET CONSTRUCTION DRAWINGS THE EXACT LOCATION, LENGTH, MATERIAL AND ELEVATION OF ANY FACILITY NOT BUILT EXACTLY ACCORDING TO PLANS.

- AS BUILTS OF WATER LINES SHALL INCLUDE THE FOLLOWING:
  - TOP OF PIPE ELEVATIONS EVERY 100 LINEAR FEET
  - LOCATIONS AND ELEVATIONS OF ALL FITTINGS INCLUDING BENDS, TEES, GATE VALVES, DOUBLE DETECTOR CHECK VALVES, FIRE HYDRANTS, ETC.
  - ALL THE INVS TO EXISTING LINES SHALL BE AS BUILT
  - THE TERMINATION OF ALL WATER SERVICES SHALL BE SHOWN

- AS BUILTS OF ALL THE GRAVITY SANITARY SEWER LINES SHALL INCLUDE THE FOLLOWING INFORMATION:
  - RIMS, INVERTS, AND LENGTH OF PIPING BETWEEN STRUCTURES, AS WELL AS PIPE SLOPES.
  - LOCATION OF ALL SUB ENDS OF ALL SEWER LATERALS
  - INVERT ELEVATIONS AND LOCATION OF ALL CLEAN OUTS
  - LIFT STATION AS BUILTS SHALL CONSIST OF THE TOP OF MET WELL ELEVATION, INVERT ELEVATIONS OF THE INCOMING LINE, BOTTOM OF THE MET WELL AND AS BUILTS OF THE COMPOUND AREA

- FORCE MAIN AS BUILTS SHALL BE PREPARED THE SAME AS THE WATER MAIN AS BUILTS DESCRIBED ABOVE.

- AS BUILTS OF ALL DRAINAGE LINES SHALL INCLUDE THE FOLLOWING INFORMATION:
  - RIMS, INVERTS, AND LENGTH OF PIPING BETWEEN STRUCTURES, AND MERG ELEVATIONS WHERE APPLICABLE
  - THE SIZE OF THE PIPING SHALL BE VERIFIED BY THE SURVEY FIELD CREW AT THE TIME OF AS BUILT
  - DRAINAGE WELL STRUCTURE AS BUILTS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP OF CASING ELEVATION, TOP AND BOTTOM ELEVATIONS OF THE RATTLE WALLS, RIM ELEVATIONS, AND INVERTS OF PIPING

- ALL ROCK AS BUILTS FOR PARKING LOT AREAS SHALL CONSIST OF THE FOLLOWING INFORMATION:
  - ROCK ELEVATIONS AT ALL HIGH AND LOW POINTS, AND AT ENOUGH INTERMEDIATE POINTS TO CONFIRM SLOPE CONSISTENCY
  - ROCK AS BUILTS SHALL BE TAKEN AT ALL LOCATIONS WHERE THERE IS A FINISHED GRADE ELEVATION SHOWN ON THE DESIGN PLANS
  - ALL CATCH BASIN AND MANHOLE RIM ELEVATIONS SHALL BE SHOWN
  - ELEVATIONS AROUND ISLANDS SHALL ALSO BE SHOWN

- WHERE CONCRETE OR PAVEMENT BRICK IS TO BE USED AS A FINISHED PRODUCT FOR THE ROADWAY OR PARKING LOT, ROCK AS BUILTS WILL BE REQUIRED AS INDICATED ABOVE, AS WELL AS AS BUILTS ON THE FINISHED CONCRETE OR PAVEMENT AT LOCATIONS WHERE THERE IS A FINISHED GRADE ELEVATION SHOWN ON THE DESIGN PLANS
- AS BUILTS SHALL BE TAKEN ON ALL PAVED AND UNPAVED SWALES, PRIOR TO THE START OF LATERAL CURB OR SOD, AT ENOUGH INTERMEDIATE POINTS TO CONFIRM SLOPE CONSISTENCY AND CONFORMANCE TO THE PLANS

- LAKE AND CANAL BANK AS BUILTS SHALL INCLUDE A KEY SHEET OF THE LAKE FOR THE LOCATIONS OF CROSS SECTIONS. LAKE AND CANAL BANK CROSS SECTIONS SHALL BE PLOTTED AT A MINIMUM OF EVERY 100 LINEAR FEET UNLESS OTHERWISE SPECIFIED. AS BUILTS SHALL CONSIST OF THE LOCATION AND ELEVATION OF THE TOP OF BANK EDGE OF WATER AND THE DEEP CUT LINE, WITH THE DISTANCE BETWEEN EACH SHOWN ON THE DRAWING.

- RETENTION AREA AS BUILT ELEVATIONS SHALL BE TAKEN AT THE BOTTOM OF THE RETENTION AREA AND AT THE TOP OF BANK, (I.E. AS BUILT OF CONTOURS SHALL BE SHOWN, WHERE APPLICABLE).

- UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PREPARE RECORD DRAWINGS, ON FULL SIZE REPRODUCIBLE MATERIAL, ONE SET OF REPRODUCIBLE RECORD DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD, ALONG WITH EIGHT SETS OF BLUE OR BLACK LINE DRAWINGS. THESE DRAWINGS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. ADDITIONALLY, AN ELECTRONIC COPY OF THESE RECORD DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER IN AUTOCAD, "DWG" OR "DXF" FORMAT

- IN ADDITION TO THE ABOVE THE CONTRACTOR SHALL ALSO CONFORM TO COUNTY AND/OR CITY AS-BUILT REQUIREMENTS.

- RECORD DRAWINGS SHALL INCLUDE COLOR PHOTOGRAPHS OF ALL CONNECTIONS AND EXISTING WWS INFRASTRUCTURE AS WELL AS ALL CRITICAL UTILITY CROSSINGS AND WHERE SPECIFICALLY REQUIRED ON THE DESIGN DRAWINGS, THE PICTURES WILL BE TAKEN WITH A GPS CAMERA THAT AUTOMATICALLY GEOTAGS THE PICTURE. A MAXIMUM OF SIX PHOTOGRAPHS PER SHEET IS ACCEPTABLE. EACH PHOTOGRAPH SHALL HAVE A MINIMUM SIZE OF 8"X10". PHOTOGRAPHS SHALL HAVE A DENSITY OF 3.0 MEGAPIXEL OR GREATER. PLOT RESOLUTION IS TO BE MINIMUM 300 DOTS PER INCH. PHOTOGRAPHS SHALL NORMALLY BE TAKEN FROM A POINT BETWEEN FOUR FEET (4') AND SIX FEET (6') ABOVE THE SUBJECT INFRASTRUCTURE AND SHALL SHOW GOOD DETAIL IN BOTH SHADOW AND SUNLIT AREAS. INCLUDE A MEASURING DEVICE IN THE PHOTO FOR SCALE AND WHERE APPLICABLE, AS TO COMPARE THE DEPTH OF THE UTILITIES. A SYMBOL, (I.E. AN ARROW) IS TO BE USED IN THE PLAN VIEWS INDICATING THE LOCATION AND DIRECTION OF VIEW FOR EACH PHOTOGRAPH SUBMITTED. THE SYMBOL MUST INCLUDE THE PHOTOGRAPH NUMBER, A CAPTION UNDER EACH PHOTOGRAPH SHALL INCLUDE THE FOLLOWING INFORMATION:
  - PHOTOGRAPH NUMBER
  - PHOTOGRAPH DESCRIPTION
  - DATE OF PHOTOGRAPH
  - LOCATION AND DIRECTION OF VIEW (FOR EXAMPLE 201 NW 34 STREET LOOKING NORTH)
  - STATE PLANE COORDINATES

- ALL PHOTOGRAPHS INCLUDED IN THE RECORD DRAWINGS WILL ALSO BE PROVIDED TO WWS IN PDF FORMAT OR DVD MEDIA. THE CD OR DVD WILL BE LABELED WITH THE WWS PROJECT NAME AND NUMBER. INDIVIDUAL PHOTO FILES WILL BE NAMED USING THE SAME PHOTOGRAPH NUMBER CONTAINED IN THE RECORD DRAWINGS.

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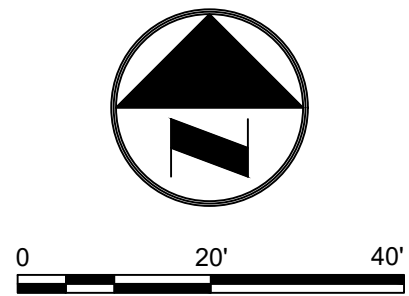
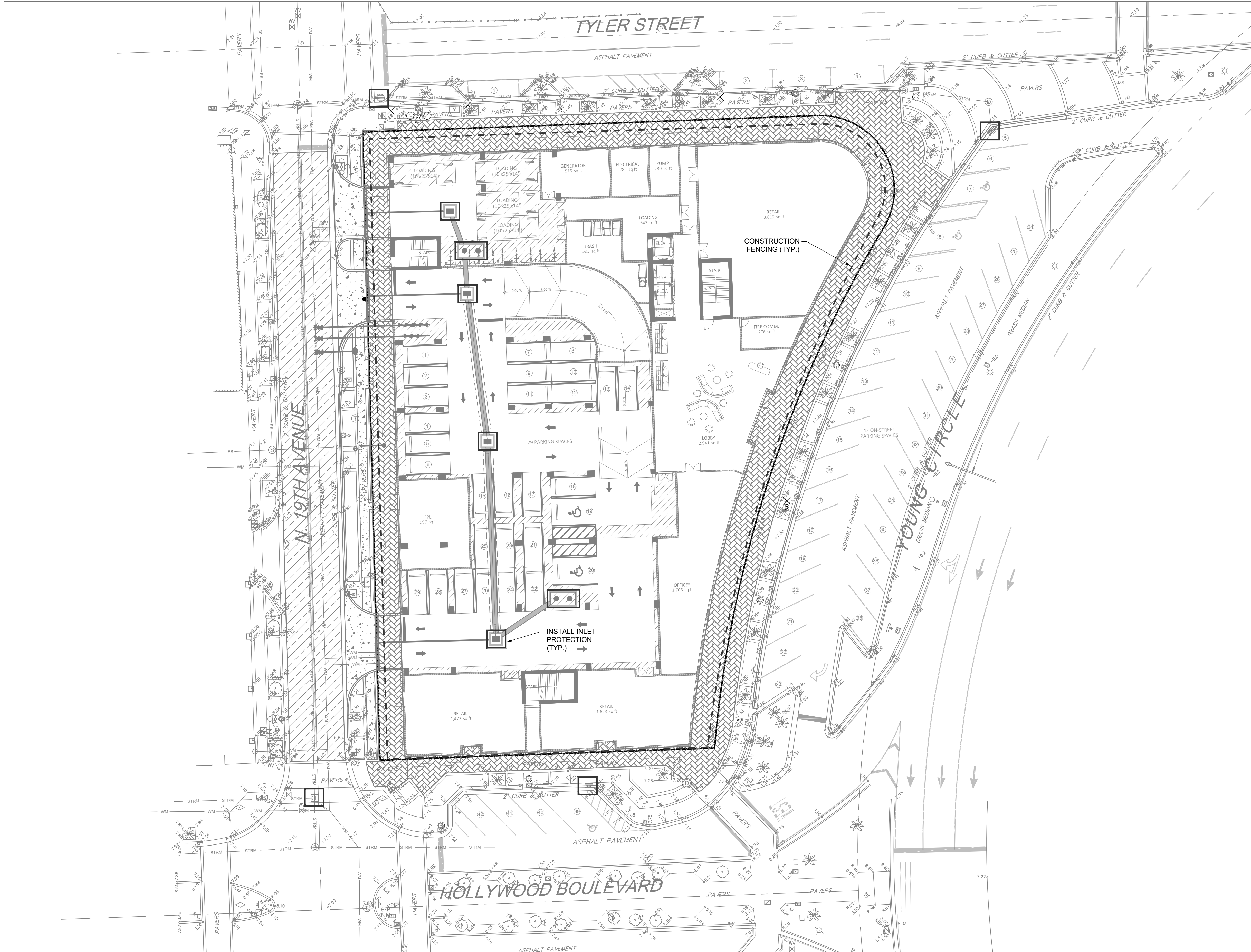
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PROPOSED EROSION CONTROL LEGEND

- PROPOSED INLET PROTECTION
- TEMPORARY 6 FT. CHAIN LINK FENCE WITH WIND SCREEN ALONG WITH SILT FENCE.
- TEMPORARY CONSTRUCTION ENTRANCE AND WASH DOWN AREA

NOTES:

- CONTRACTOR SHALL ASSUME ANY AND ALL RESPONSIBILITIES FOR ANY WATER CONTROL VIOLATIONS RESULTING FROM FAILURE TO ELIMINATE AND/OR CONTROL TURBID RUNOFF FROM LEAVING THE SITE AS ISSUED BY ANY AGENCY HAVING JURISDICTION.
- CONTRACTOR SHALL PROVIDE TEMPORARY DEWATERING AREA(S) PRIOR TO ANY EXCAVATION FOR PIPE INSTALLATION. DEWATERING AREA(S) SHALL BE PROTECTED WITH SILT SCREENS. ALL DEWATERING OPERATIONS SHALL DISCHARGE INTO TEMPORARY DEWATERING AREA(S) AND NO DIRECT DISCHARGE INTO THE EXISTING OR NEW DITCHES, STORM DRAINS, AND/OR PUBLIC RIGHT OF WAY WILL BE ALLOWED.
- CONTRACTOR SHALL MAINTAIN A POLLUTION PREVENTION CONTROL LOG AND CONDUCT WEEKLY INSPECTIONS AND WITHIN 24 HOURS OF A 0.25" STORM EVENT.
- CONTRACTOR TO EMPLOY BEST MANAGEMENT PRACTICES THROUGHOUT CONSTRUCTION IN ORDER TO ENSURE POLLUTION PREVENTION. CONTRACTOR TO COMPLY WITH ALL LOCAL, STATE, AND OTHER LOCAL GOVERNMENTAL ENVIRONMENTAL REGULATIONS THROUGHOUT CONSTRUCTION.
- DURING CONSTRUCTION, ALL CATCH BASINS TO BE EQUIPPED WITH FILTER FABRIC AND HAY BALES OVER GRATES.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITHIN A REASONABLE PERIOD OF TIME TO ASSURE MINIMUM EROSION OF SOILS.
- NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED AT CONTRACTORS EXPENSE.
- ALL EXISTING STORM DRAINAGE PIPING AND STRUCTURES SHOWN ON THIS PLAN TO BE CLEANED AND TV.

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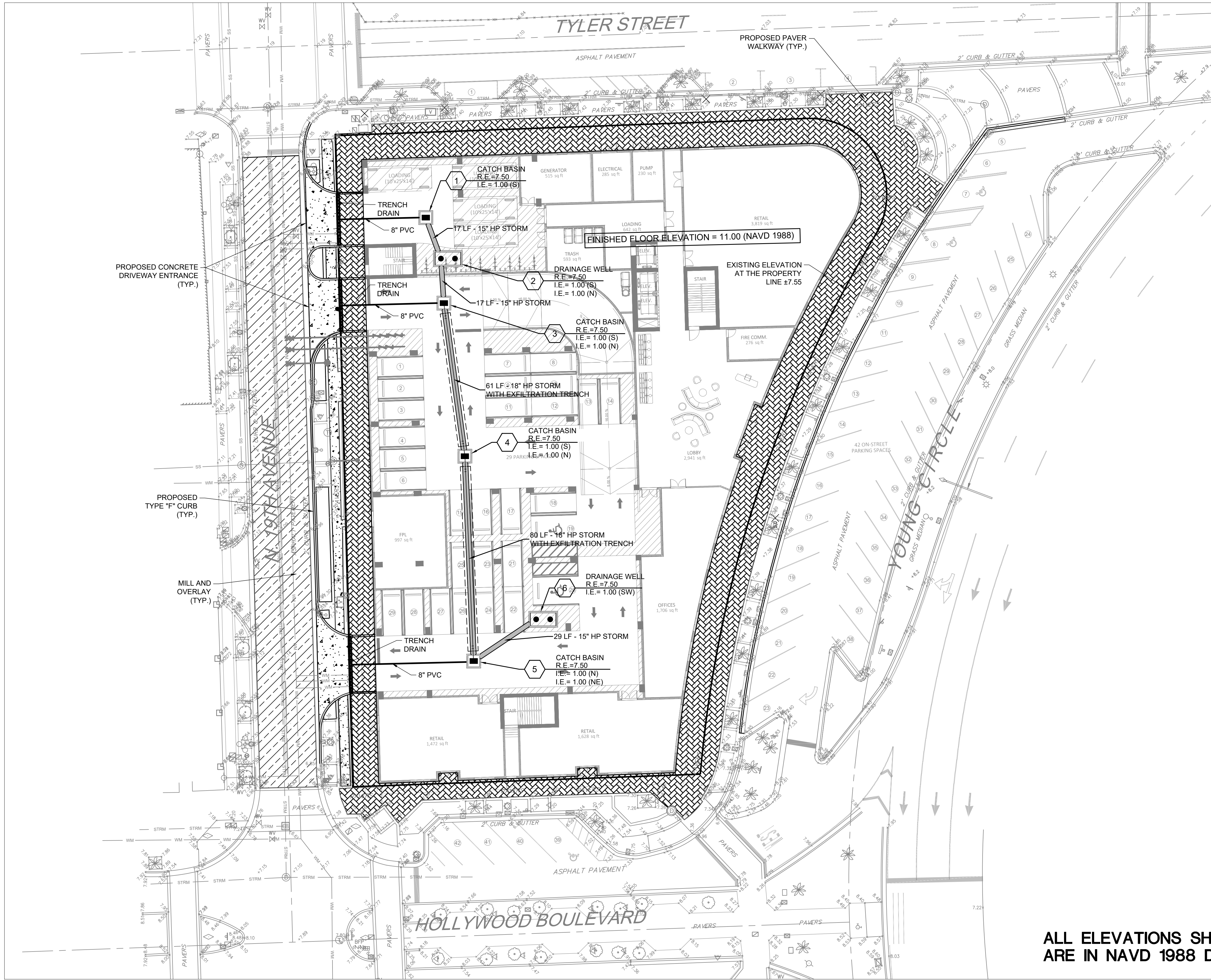
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Chad E. Edwards Florida P.E. No. 59306		
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C-4		
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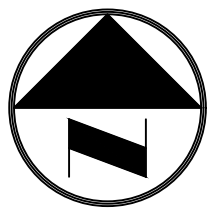
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0 20' 40'

NOTES:

- ALL EXISTING DRAINAGE STRUCTURES AND PIPES SHALL BE CLEANED AND REPAIRED AS NECESSARY, PRIOR TO CONNECTING THEM WITH PROPOSED DRAINAGE FACILITIES.
- THE CONTRACTOR IS RESPONSIBLE FOR PREPARING AND IMPLEMENTING A STORMWATER POLLUTION PREVENTION PLAN (SWPPP), INCLUDING BUT NOT LIMITED TO TURBIDITY BARRIERS, SILT FENCE, INLET PROTECTION, WATER MONITORING, ETC.
- RAINWATER LEADER CLEANOUTS ARE SHOWN UP TO A POINT THAT IS 5' FROM THE EXTERIOR BUILDING WALL. FOR CONTINUATION UPSTREAM OF THIS POINT REFER TO THE ARCHITECTURAL PLANS.

ABBREVIATIONS

B.C.R. BROWARD COUNTY RECORDS  
BH. BUILD HEIGHT  
(C) CALCULATED FROM PLAT  
CATV. CABLE TELEVISION  
C.B. CATCH BASIN  
C&G. CURB AND GUTTER  
CONC. CONCRETE  
C.L.F. CHAIN LINK FENCE  
C.M.P. CORRUGATED METAL PIPE  
D.C.R. DADE COUNTY RECORDS  
ELEV. ELEVATION  
IRR. IRRIGATION  
I.E. INVERT ELEVATION  
LB. LICENSED BUSINESS  
MH. MANHOLE  
OH.W. OVERHEAD WIRES  
O.R.B. OFFICIAL RECORDS BOOK  
P.B. PLAT BOOK  
PG. PAGE  
P.R.M. 4"x4" CONCRETE MONUMENT  
W.LB271 DISC  
R.C.P. REINFORCED CONCRETE PIPE  
R.E. RIM ELEVATION  
R/W. RIGHT-OF-WAY  
(TYP.) TYPICAL

EXISTING LEGEND

- |                     |                           |
|---------------------|---------------------------|
| ANCHOR              | METAL LIGHT POLE          |
| BLOW-OFF VALVE      | MONITORING WELL           |
| CATCH BASIN         | PIPE                      |
| CONCRETE LIGHT POLE | PARKING LIGHT 2 SQUARE    |
| CONCRETE POST       | SANITARY MANHOLE          |
| CONCRETE POWER POLE | SIGN                      |
| CURB INLET          | SPOT-FLOOD LIGHT          |
| ELECTRICAL OUTLET   | SANITARY SEWER CLEAN OUT  |
| ELECTRICAL PANEL    | STORM MANHOLE             |
| ELECTRICAL PULL BOX | TELEPHONE MANHOLE         |
| ELECTRICAL MANHOLE  | TELEPHONE PEDESTAL        |
| GAS MARKER          | TELEPHONE PULL BOX        |
| HEADWALL            | OVER HEAD WIRES           |
| TRAFFIC POLE        | TOP OF BANK               |
| TRAFFIC PULL BOX    | TOE OF SLOPE              |
| TRANSFORMER PAD     | WATER MAIN                |
| WATER BLOW-OFF      | GUARDRAIL                 |
| WATER VALVE         | NON-VEHICULAR ACCESS LINE |
| WOOD POWER POLE     |                           |

PROPOSED DRAINAGE LEGEND

- |  |  |
|--|--|
|  | INDICATES MANHOLE  |
|  | INDICATES CATCH BASIN  |
|  | INDICATES YARD DRAIN   |
|  | INDICATES CLEANOUT   |
|  | INDICATES STORM DRAIN STRUCTURE TYPE                                   |
|  | INDICATES STORM DRAIN RIM OR GRATE ELEVATION                           |
|  | INDICATES STORM DRAIN INVERT ELEVATION                                 |
|  | INDICATES STORM DRAIN STRUCTURE NUMBER                                 |
|  | INDICATES POLLUTION RETARDANT BAFFLE                                   |
|  | INDICATES PAVEMENT SPOT ELEVATION                                      |
|  | INDICATES CONCRETE SPOT ELEVATION                                      |
|  | FLOW ARROW   |
|  | INDICATES FINISH FLOOR ELEVATION                                       |
|  | INDICATES LINEAR FOOTAGE OF PIPE                                       |
|  | PROPOSED STORM SEWER   |
|  | PROPOSED EXFILTRATION TRENCH   |
|  | INDICATES NEW ASPHALT PAVEMENT( REFER TO PAVEMENT INSTALLATION DETAIL) |
|  | MILL AND OVERLAY ASPHALT   |
|  | INDICATES CONCRETE (REFER TO DETAIL)                                   |
|  | SIDEWALK PAVERS  |

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PREPARED FOR:  
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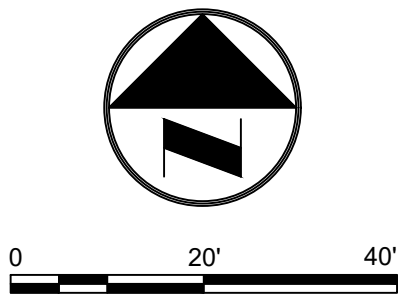
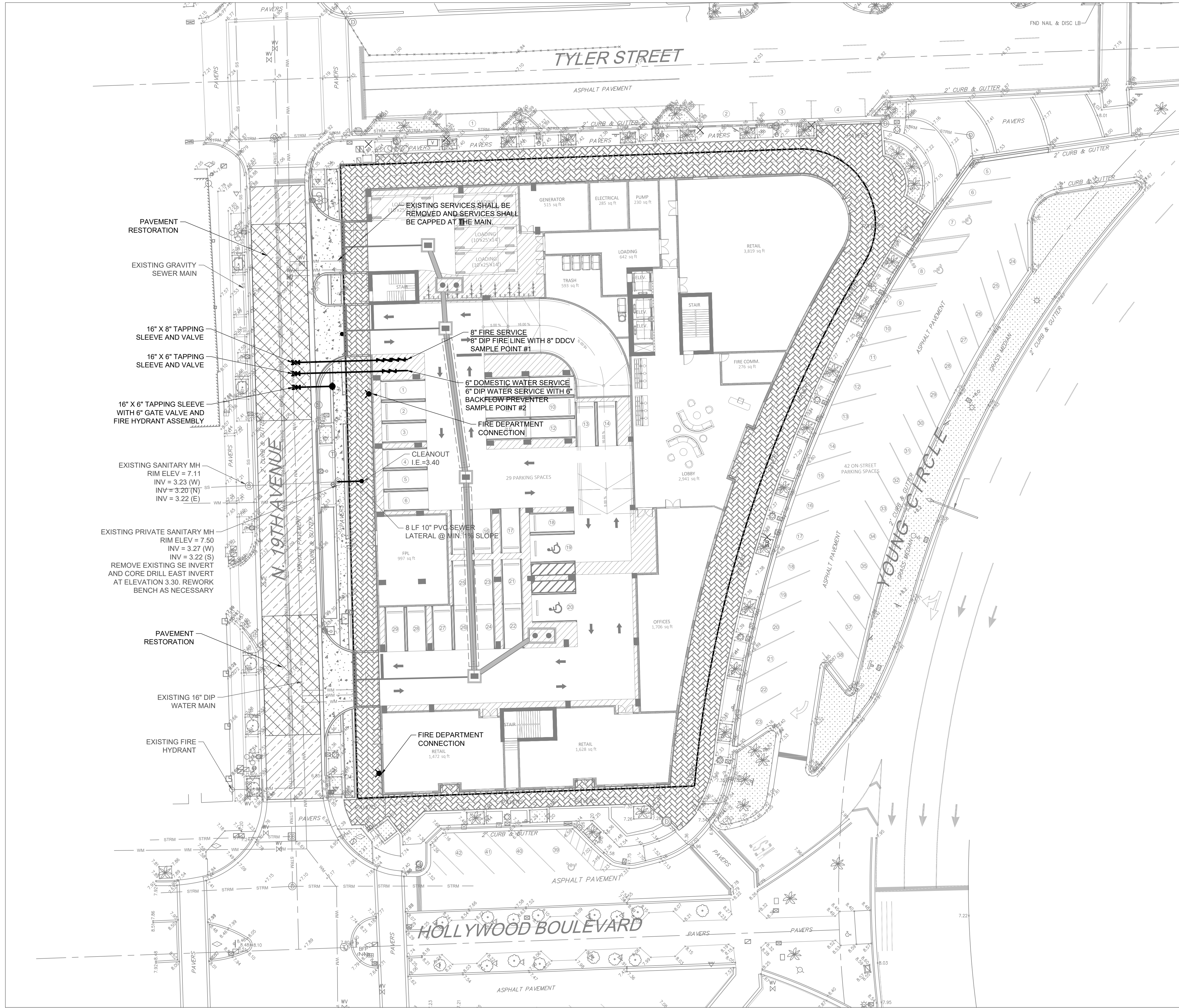
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PROPOSED WATER AND SEWER LEGEND:

- FIRE HYDRANT ASSEMBLY
- GATE VALVE
- WATER METER
- SAMPLING POINT
- REDUCER
- BACKFLOW PREVENTER
- SIAMESE FIRE CONNECTION
- PLUG
- PAVEMENT RESTORATION
- SOD/LANDSCAPE RESTORATION
- CONFLICT CALLOUT
- 1 SANITARY STRUCTURE NUMBER
- R.E. = RIM ELEVATION
- I.E. = INVERT ELEVATION
- SANITARY SEWER MANHOLE
- CLEANOUT
- SANITARY SEWER PIPE FLOW DIRECTION
- SANITARY (SINGLE) SERVICE
- SANITARY (DOUBLE) SERVICE

NOTES:

- CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- ALL WATER MAIN PIPES 4" AND LARGER SHALL BE CLASS 52 MECHANICAL JOINT AND CEMENT MORTAR LINED. ALL D.I.P. SHALL BE POLY WRAPPED IN ACCORDANCE WITH C105/A21.5-05.
- ALL WATER MAIN PIPE, INCLUDING FITTINGS, SHALL BE COLOR CODED OR MARKED BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM RECLAIMED OR OTHER WATER. ALL FITTINGS AND PIPING FLANGED BOLTS, NUTS, AND WASHERS SHALL BE MADE OF A-316 STAINLESS STEEL.
- ALL PROPOSED BACKFLOW DEVICES SHALL BE LEAD FREE.
- THE BACKFLOW PREVENTERS/DDCV ARE LOCATED AT OR BEHIND THE FACADE LINE OR THE BUILDING ON THE APPROVED PLANS AND MUST BE LOCATED AT OR BEHIND THE FRONT OF THE BUILDING ON THE APPROVED PERMITS PLANS, AND CANNOT BE LOCATED IN FRONT OF THE BUILDING.
- ANY EXISTING UNUTILIZED WATER AND/OR SEWER CONNECTION MUST BE CUT AND CAPPED/PLUGGED AT THE MAIN.
- ALL PROPOSED FIRE LINES, I.E., MAINS, FIRE SERVICES, "SIAMESE" CONNECTION LINES ETC. TO BE DESIGNED, PERMITTED, & INSTALLED BY A STATE LICENSED FIRE LINE CONTRACTOR HOLDING A CLASS I, II, OR V LICENSE PER F.S. 633.102.
- ALL FIRE LINES TO BE INSPECTED BY CERTIFIED FIRE LINE INSPECTORS.
- STATE LICENSED FIRE LINE CONTRACTOR, UPON COMPLETION OF REQUIRED TESTING, SHALL ISSUE A "LICENSED UNDERGROUND TEST CERTIFICATE" PRIOR TO ACCEPTANCE FOR PLACING FIRE LINE INTO SERVICE.

DUCTILE IRON PIPE FITTINGS PROTECTION

- ENCASEMENT SHALL BE FURNISHED, MARKED AND INSTALLED IN ACCORDANCE WITH C105/A21.5-05 POLYETHYLENE ENCASEMENT OF DUCTILE-IRON PIPE SYSTEMS LATEST REVISION, FOR ALL CASTINGS, FITTINGS, VALVES, AND COUPLINGS FOR THE ENTIRE PORTION OF DIRECT-BURIED DUCTILE IRON APPURTENANCE. THE POLYETHYLENE ENCASEMENT SHALL PREVENT CONTACT BETWEEN THE PIPE, GROUND WATER, AND THE SURROUNDING BACKFILL AND BEDDING MATERIAL.
- TUBE WITH APPROVED POLYETHYLENE ADHESIVE TAPE.
- MATERIAL: LINEAR LOW DENSITY POLYETHYLENE (P.E.) FILM OF 0.008-INCH (0.20-MM) MINIMUM THICKNESS, OR HIGH-DENSITY, CROSS LAMINATED P.E. FILM OF 0.004-INCH (0.10-MM) MINIMUM THICKNESS.

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HOLLYWOOD, FLORIDA

PREPARED FOR:  
THE ESTATES COMPANIES

WATER AND SEWER PLAN

Chad E. Edwards  
Florida P.E. No. 59306

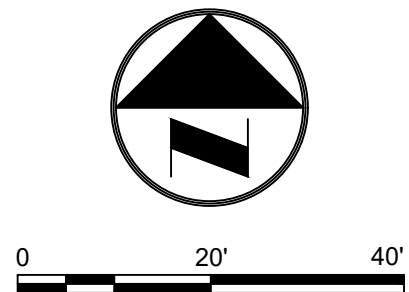
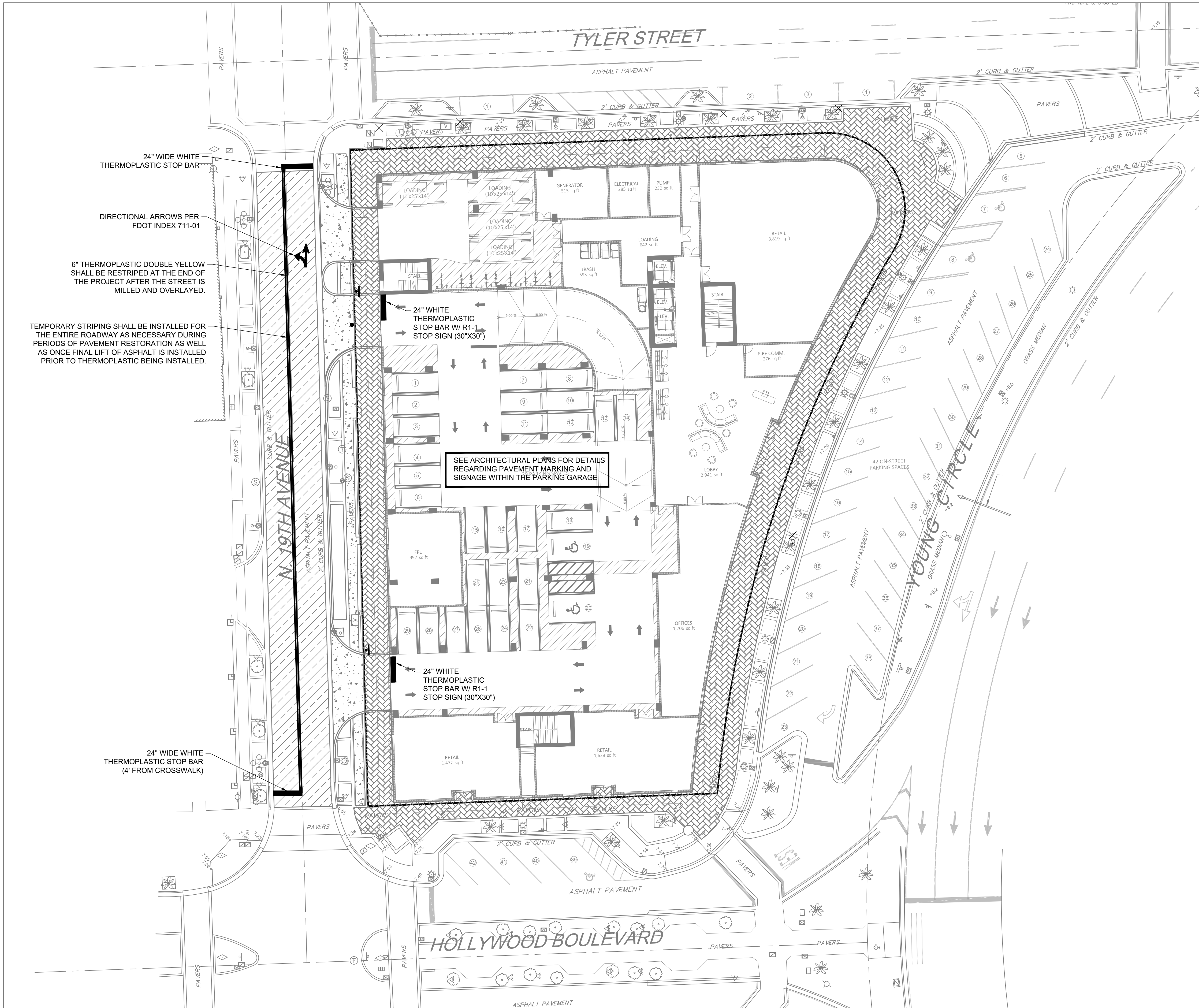
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NOTES:


- ALL SIGNS TO BE REMOVED AND REPLACED AT THE END OF THE PROJECT TO CURRENT BCTED STANDARDS. CONTRACTOR TO MAINTAIN ALL SIGNS DURING CONSTRUCTION, UNLESS OTHERWISE NOTED.
- ALL EXISTING PAVEMENT MARKINGS AND SIGNING DISTURBED DUE TO PROPOSED CONSTRUCTION ACTIVITIES SHALL BE REPLACED TO CURRENT BCTED STANDARDS. SEE PAVEMENT MARKING AND SIGN DETAILS AND STOP SIGN AND STREET IDENTIFICATION AND ASSEMBLY DETAILS ON SHEET C-7A.
- ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", LATEST EDITION, AND BROWARD COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS (LATEST EDITION.)
- ALL PAVEMENT MARKINGS SHALL BE ALKYD BASED THERMOPLASTIC AND FULLY RETROREFLECTORIZED UNLESS NOTED OTHERWISE.
- ALL PAVEMENT MARKING REFLECTIVITY SHALL BE 250 MILLICANDELLAS FOR WHITE AND 175 MILLICANDELLAS FOR YELLOW.
- FDOT APPROVED SEALER SHALL BE USED WHEN APPLYING MARKINGS ON CONCRETE.
- ALL STOP SIGNS SHALL BE 30"x30" DIAMOND GRADE TYPE XI REFLECTIVE MATERIAL.
- RAISED PAVEMENT MARKERS (RPM'S) SHALL BE CLASS "B" OR EQUAL, APPLIED WITH EPOXY OR BITUMINOUS ADHESIVE.
- EXISTING MARKINGS SHALL BE REMOVED BY WATER BLASTING OR SANDBLASTING ONLY.
- ALL STOP BARS TO BE 4" BEHIND CROSSWALK OR SIDEWALK.
- ALL EXISTING SIGNAL LOOPS AND OTHER APPURTENANCES DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AND COORDINATED WITH B.C.H.C.E.D.

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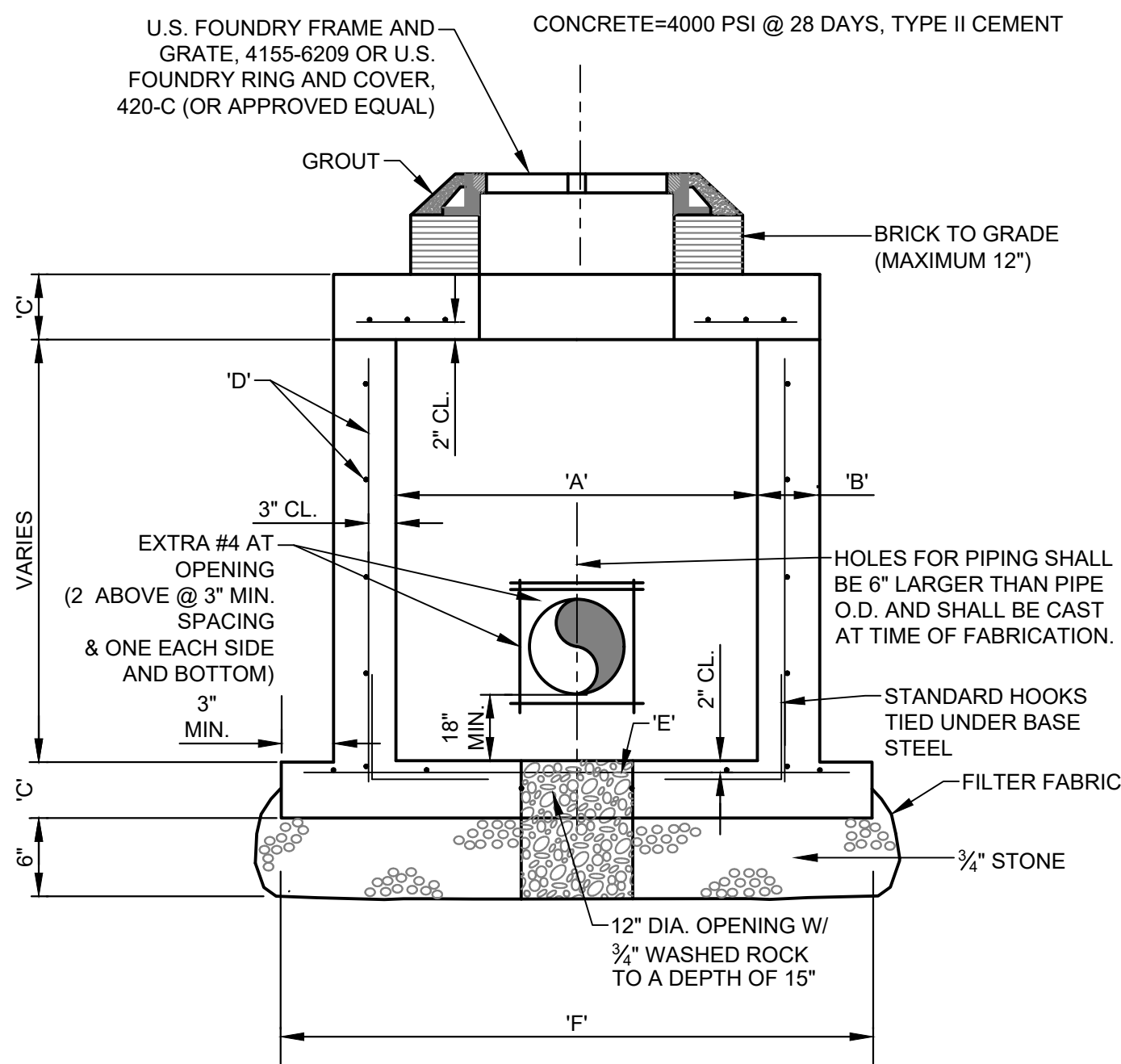
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PAVEMENT MARKING & SIGNAGE PLAN

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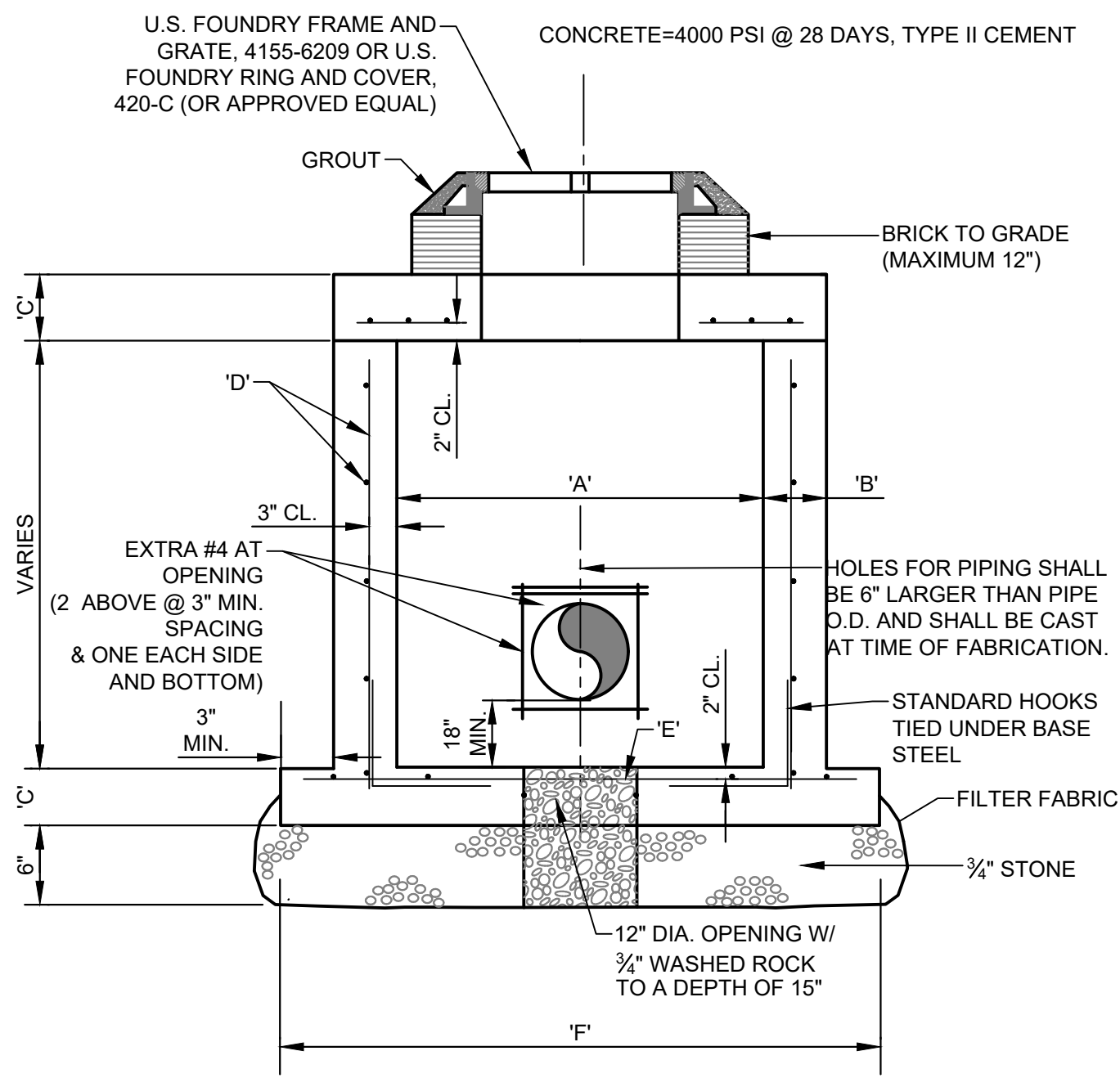


TYPE	"A"	"B"	"C"	"D"	"E"	"F"
P	3'-6" Ø	6"	8"	4 @ 12" C.C.E.W.	4 @ 12" C.C.E.W.	5'-0" Ø
C-4	4'-0" Ø	8"	8"	4 @ 12" C.C.E.W.	4 @ 12" C.C.E.W.	6'-4" Ø
C-5	5'-0" Ø	8"	8"	5 @ 12" C.C.E.W.	5 @ 12" C.C.E.W.	7'-4" Ø
C-6	6'-0" Ø	8"	10"	5 @ 12" C.C.E.W.	5 @ 6" C.C.E.W.	8'-4" Ø
C-7	7'-0" Ø	8"	10"	5 @ 12" C.C.E.W.	5 @ 6" C.C.E.W.	9'-4" Ø
C-8	8'-0" Ø	10"	10"	5 @ 12" C.C.E.W.	5 @ 6" C.C.E.W.	10'-8" Ø
C-10	10'-0" Ø	10"	10"	5 @ 12" C.C.E.W.	5 @ 6" C.C.E.W.	12'-8" Ø

REINFORCEMENT SHALL BE ASTM A615/A615M GRADE 60 STEEL

### PRECAST CIRCULAR DRAINAGE STRUCTURES

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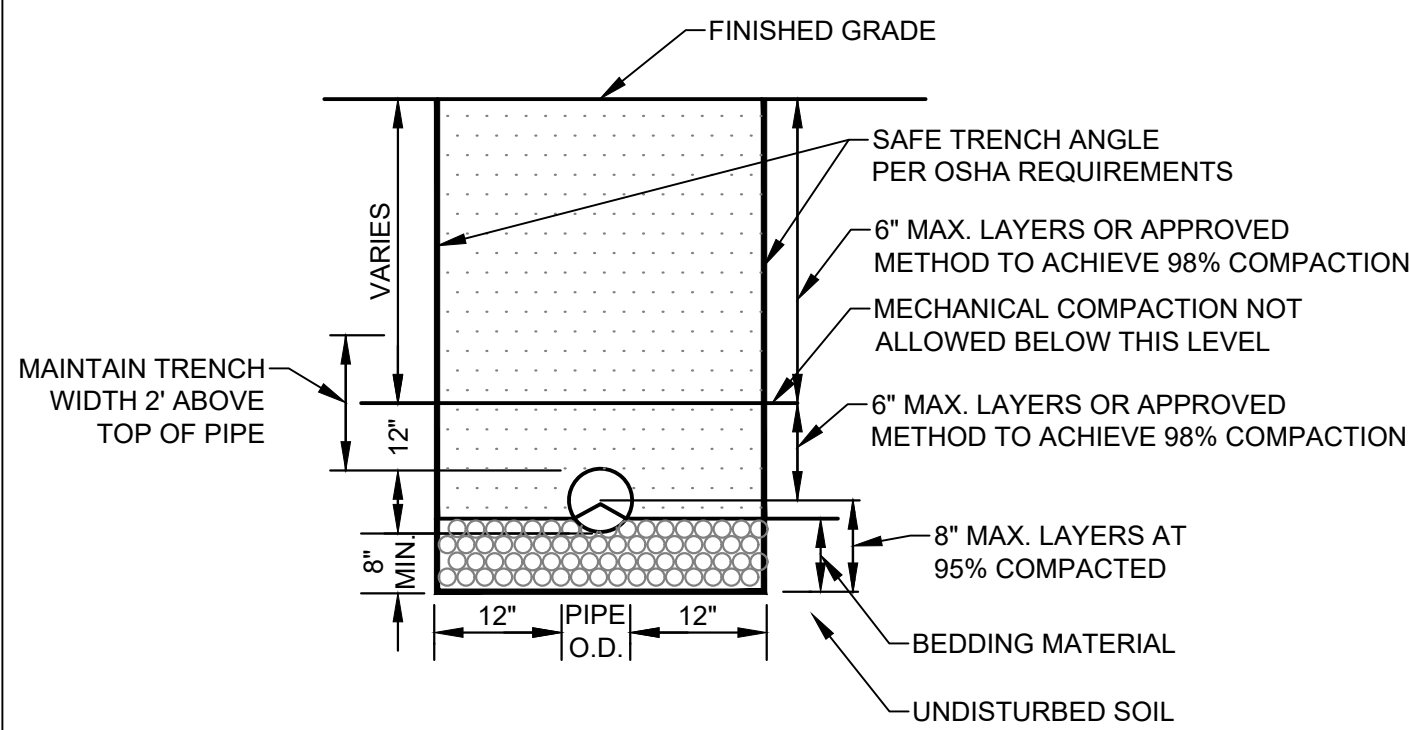


TYPE	"A"	"B"	"C"	"D"	"E"	"F"
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C-4	4'-0"	8"	8"	4 @ 12" C.C.E.W.	4 @ 12" C.C.E.W.	6'-4"
C-5	5'-0"	8"	8"	5 @ 12" C.C.E.W.	5 @ 12" C.C.E.W.	7'-4"
C-6	6'-0"	8"	10"	5 @ 12" C.C.E.W.	5 @ 6" C.C.E.W.	8'-4"
C-7	7'-0"	10"	10"	5 @ 12" C.C.V.E.F.	5 @ 6" C.C.E.W.	9'-4"
C-8	8'-0"	10"	10"	5 @ 6" C.C.E.W.	5 @ 6" C.C.E.W.	10'-4"
C-10	10'-0"	10"	10"	5 @ 6" C.C.H.E.F.	5 @ 6" C.C.E.W.	12'-4"

REINFORCEMENT SHALL BE ASTM A615/A615M GRADE 60 STEEL

### PRECAST SQUARE DRAINAGE STRUCTURES

SCALE: N.T.S.



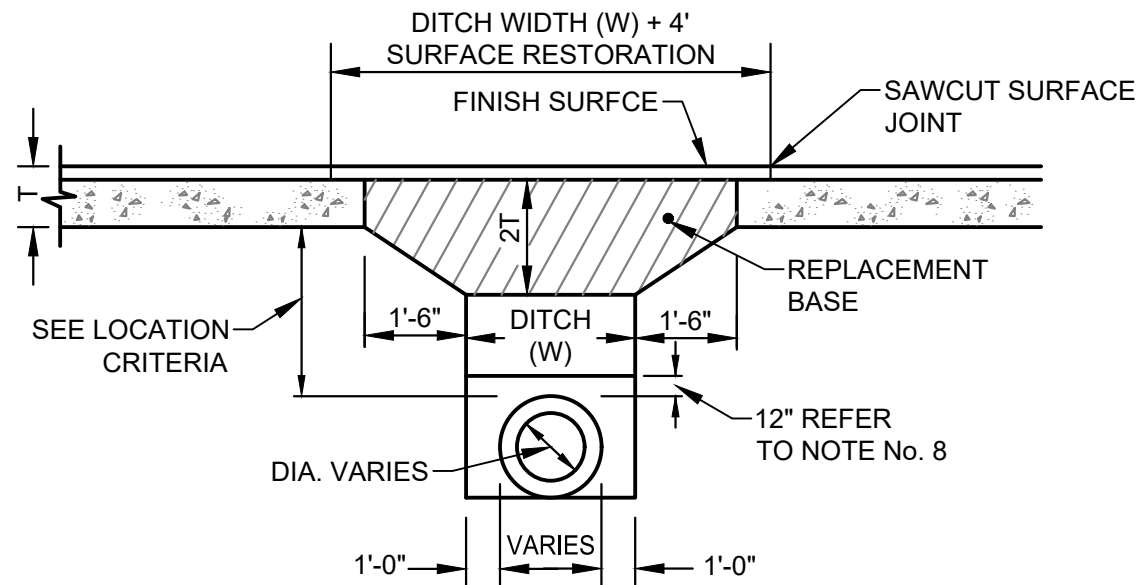
#### NOTES:

- WHERE SOIL CONDITIONS CANNOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE APPROVED MEANS OF CONSTRUCTION.
- UNLESS OTHERWISE NOTED, BEDDING MATERIAL SHALL CONSIST OF WASHED AND GRADED ROCK (3/8"-1/2").
- SHEETING WILL BE REQUIRED AS DETERMINED IN THE FIELD.
- REFER TO SPECIFICATIONS FOR EXCAVATION IN MUCK OR OTHER UNSUITABLE MATERIAL.
- COMPACTION PERCENTAGES SHOWN REFER TO AASHTO T-180.

### TRENCH DETAIL

SCALE: N.T.S.

(UNPAVED AREAS)



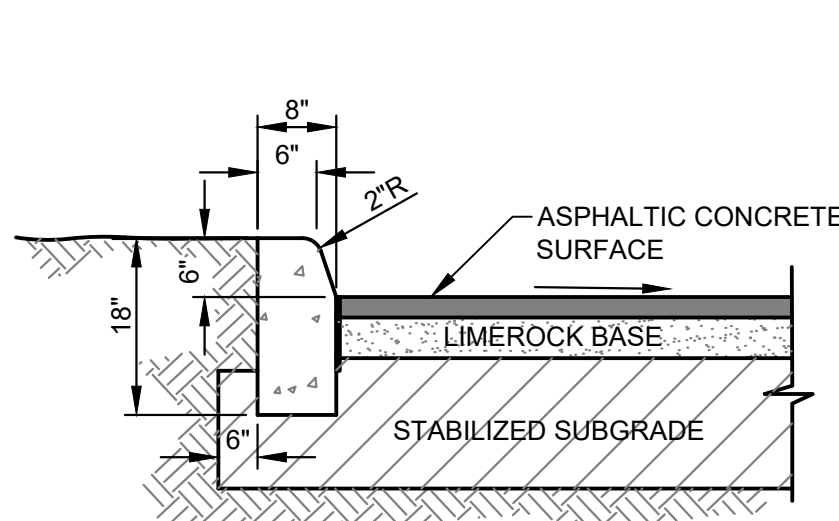
#### GENERAL NOTES:

- REPLACE BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE. MINIMUM 18", MINIMUM LBR 100.
- BASE MATERIAL SHALL BE PLACED IN 6" MAXIMUM (LOOSE MEASUREMENT) LAYERS AND EACH LAYER THOROUGHLY ROLLED AND TAMPED TO 98% OF MAXIMUM DENSITY, PER A.A.S.H.T.O. T-180.
- ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
- ALL EDGES AND SURFACES SHALL BE TACK COATED.
- SURFACE MATERIAL SHALL BE CONSISTENT WITH THE EXISTING SURFACE.
- BASE MATERIAL SHALL BE CONSISTENT WITH THE EXISTING BASE.
- IF THE DITCH IS FILLED TEMPORARILY IT SHALL BE COVERED WITH A 2" ASPHALTIC CONCRETE/PATCH TO KEEP THE FILL MATERIAL FROM RAVELING UNTIL REPLACED WITH PERMANENT PATCH.
- MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL.
- COMPACTION PERCENTAGES SHOWN REFER TO A.A.S.H.T.O. T-180.

### TRENCH DETAIL

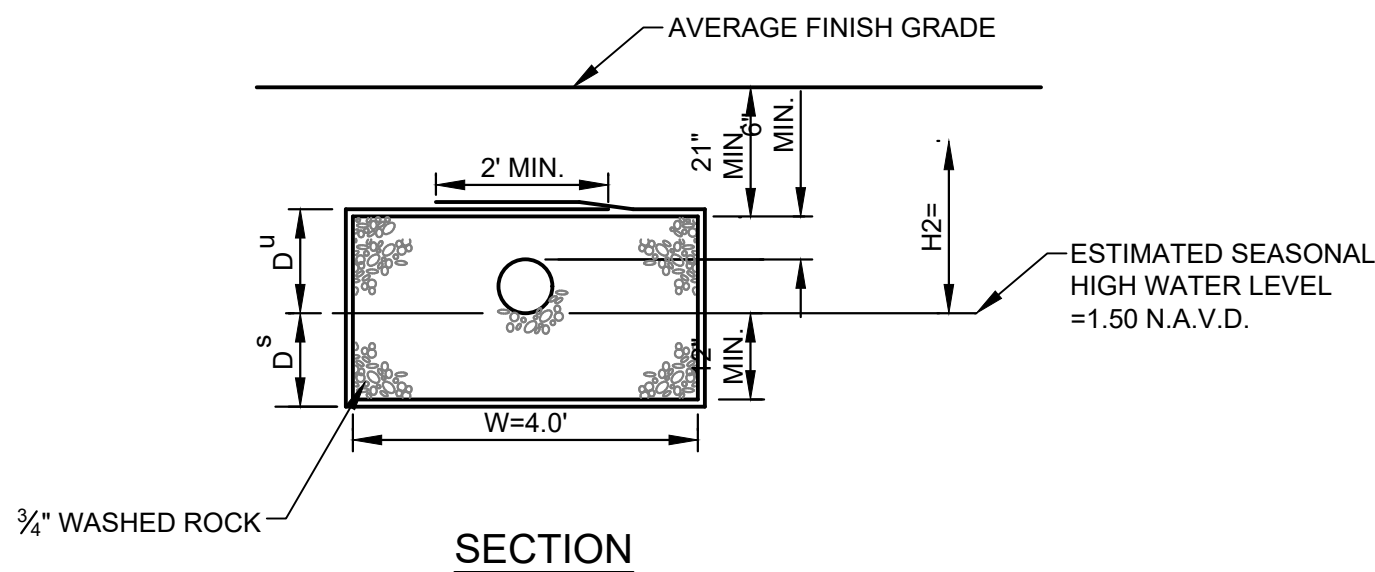
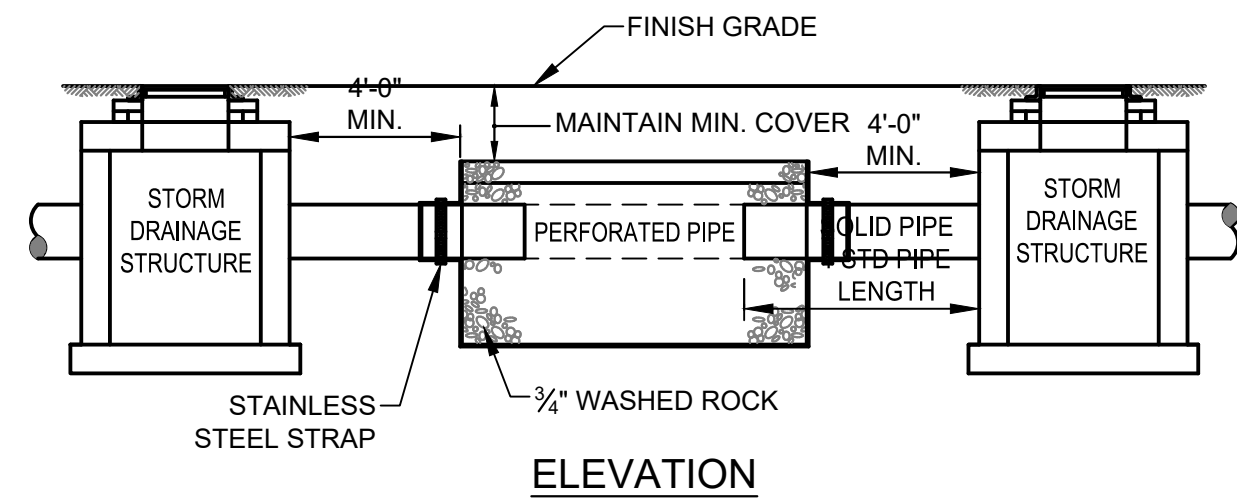
SCALE: N.T.S.

(PAVED AREAS)



### FDOT TYPE "D" CONCRETE CURB

SCALE: N.T.S.

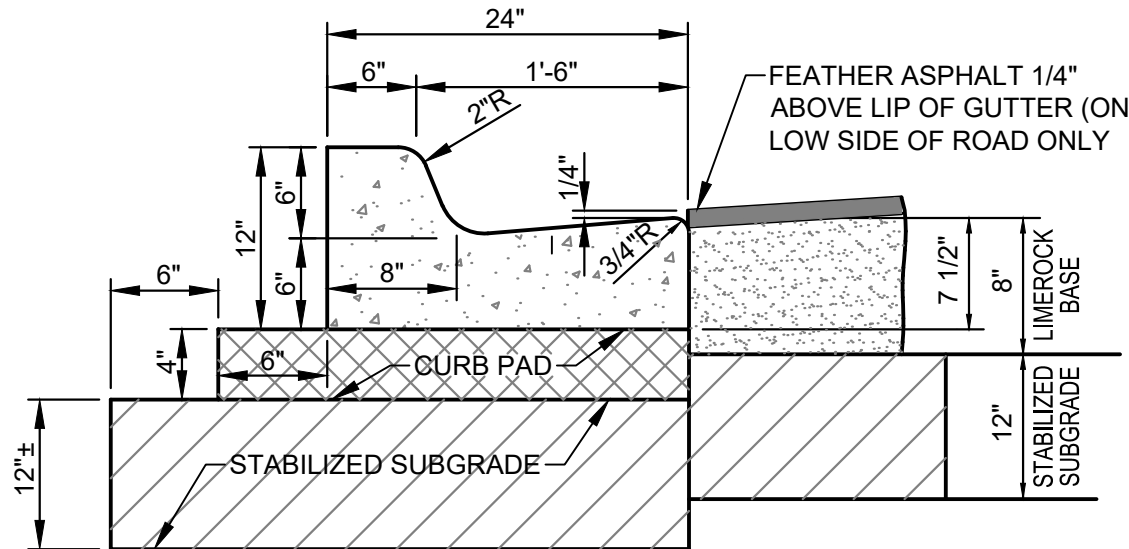


#### NOTES:

- PIPES SHALL CONNECT TO ADDITIONAL CATCH BASINS AS REQUIRED.
- BALLAST ROCK SHALL BE FROM FRESH WATER WASHED FREE OF DELETERIOUS MATTER.
- TRENCH TO BE LINED WITH AMOCO PROPEX 4545 OR APPROVED EQUIVALENT TYPE FILTER FABRIC. OVERLAP TRENCH LINING MATERIAL A MINIMUM OF 2' AT TOP OF TRENCH. CLOSE ENDS AND STRAP AROUND PIPE.
- BIO-BARRIER SHALL BE INSTALLED ADJACENT TO EXFILTRATION TRENCH WHEN EXISTING OR PROPOSED TREES ARE LOCATED WITHIN 10.0' OF CENTERLINE OF PIPE. INSTALLATION OF BIO-BARRIER SHALL BE IN ACCORDANCE WITH BIO-BARRIER DETAIL (SEE LANDSCAPE DRAWING DETAILS).

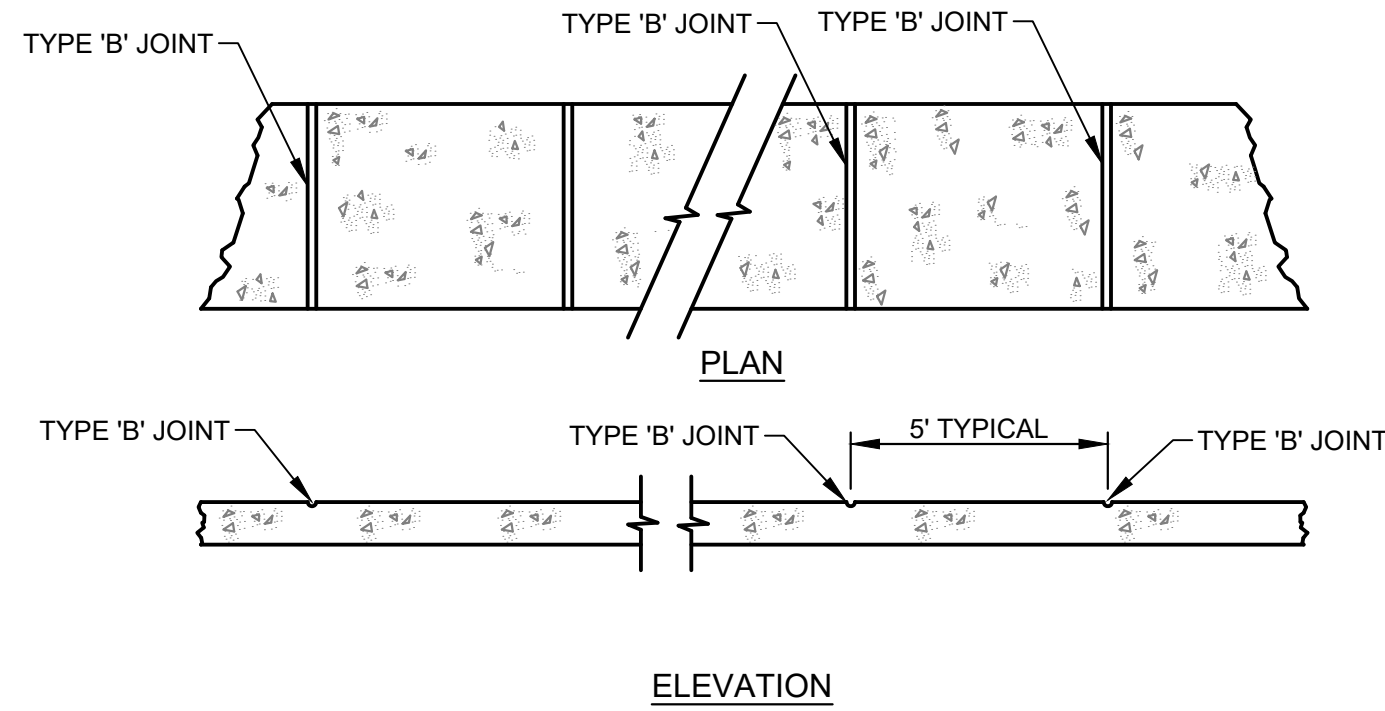
### EXFILTRATION TRENCH DETAIL

SCALE: N.T.S.



### TYPE "F" CURB & GUTTER

SCALE: N.T.S.



#### NOTES:

- SIDEWALK SHALL BE 4" THICK EXCEPT IN DRIVEWAYS AND AREAS SUBJECT TO VEHICULAR TRAFFIC WHERE THE THICKNESS SHALL BE 6".
- SUBGRADE BELOW SIDEWALK SHALL BE COMPACTED TO 98% OF MAX. DENSITY PER A.A.S.H.T.O. T-180.
- CONCRETE STRENGTH SHALL BE MIN. 3000 PSI @ 28 DAYS.

TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
"B"	5 FEET CENTER TO CENTER ON SIDEWALKS.

### SIDEWALK DETAILS

SCALE: N.T.S.

CHAD E. EDWARDS, STATE OF FLORIDA  
PROFESSIONAL ENGINEER, LICENSE NO. 59306  
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CHAD E. EDWARDS ON THE DATE INDICATED HERE.  
PRINTED COPIES OF THIS DOCUMENT ARE NOT  
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SCALE:	1"=20'
DESIGN BY:	LZG
DRAWN BY:	LZG
CHECKED BY:	CEE
APPROVED BY:	CEE
BY:	DATE:

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**CT**

SOLESTE LA PIAZZA  
HOLLYWOOD, FLORIDA

PREPARED FOR:  
THE ESTATES COMPANIES

**PAVING, GRADING, & DRAINAGE DETAILS**

Chad E. Edwards  
Florida P.E. No. 59306

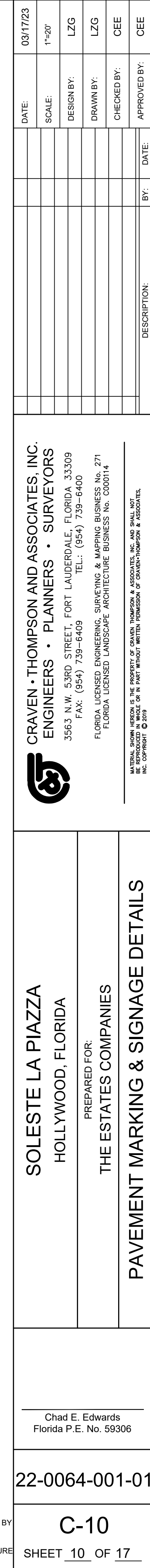
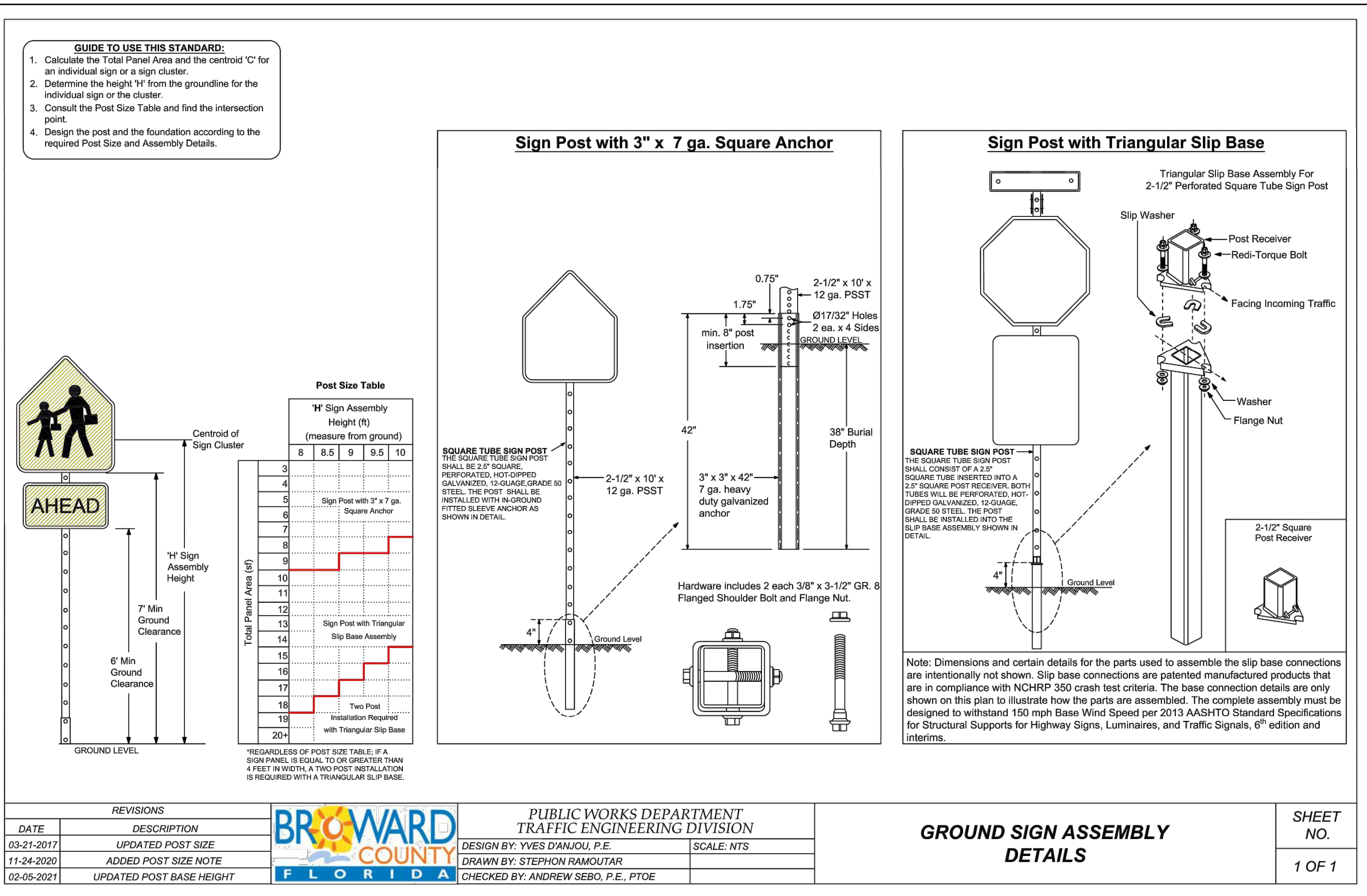
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C-8  
SHEET 8 OF 17












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GENERAL NOTES:

- THE INFORMATION PROVIDED IN THESE DRAWINGS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH WILL BE ENCOUNTERED DURING THE COURSE OF THE WORK. THE CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH BIDS WILL BE BASED.
- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO APPLICABLE STANDARDS AND SPECIFICATIONS OF THE CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC UTILITIES, ENGINEERING AND CONSTRUCTION SERVICES DIVISION (ECS), AND ALL OTHER LOCAL, STATE AND NATIONAL CODES, WHERE APPLICABLE.
- LOCATIONS, ELEVATIONS, SIZES, MATERIALS, ALIGNMENTS, AND DIMENSIONS OF EXISTING FACILITIES, UTILITIES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS; AND DO NOT PURPORT TO BE ABSOLUTELY CORRECT. ALSO, THERE MAY HAVE BEEN OTHER IMPROVEMENTS, UTILITIES, ETC., WITHIN THE PROJECT AREA WHICH WERE CONSTRUCTED AFTER THE PREPARATION OF THESE PLANS AND/OR THE ORIGINAL SITE SURVEY. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND OTHER FEATURES AFFECTING HIS/HER WORK PRIOR TO CONSTRUCTION, AND NOTIFY THE ENGINEER IMMEDIATELY WHEN CONFLICT BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ANY FACILITIES SHOWN OR NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL WORK AS NEEDED TO AVOID CONFLICT WITH EXISTING UTILITIES (NO ADDITIONAL COST SHALL BE PAID FOR THIS WORK). EXISTING UTILITIES SHALL BE MAINTAINED IN SERVICE DURING CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE RESPECTIVE UTILITY OWNER.
- THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES TO ARRANGE FOR THE RELOCATION AND TEMPORARY SUPPORT OF UTILITY FEATURES, ETC. AS NECESSARY TO COMPLETE THE WORK.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ANY AND ALL EXISTING UTILITIES ON THIS PROJECT, AND TO ENSURE THAT EXISTING UTILITIES ARE MAINTAINED IN SERVICE DURING CONSTRUCTION UNLESS APPROVED OTHERWISE BY THE UTILITY OWNER.
- CONTRACTOR SHALL ADJUST ALL EXISTING UTILITY CASTINGS INCLUDING VALVE BOXES, MANHOLES, HAND-HOLES, PULL-BOXES, STORMWATER INLETS, AND SIMILAR STRUCTURES IN CONSTRUCTION AREA TO BE OVERLAID WITH ASPHALT PAVEMENT.
- THE CONTRACTOR IS REQUIRED TO OBTAIN ALL APPLICABLE CONSTRUCTION AND ENVIRONMENTAL PERMITS PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY ECS AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND INSTALLATION OF THE PROPOSED IMPROVEMENTS, SHOP DRAWINGS SHALL BE SUBMITTED TO ECS IN ACCORDANCE WITH THE CONTRACT DOCUMENT'S REQUIREMENTS, FOR APPROVAL. IN ADDITION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY OTHER AGENCY SHOP DRAWING APPROVAL, IF REQUIRED.
- THE CONTRACTOR SHALL NOTIFY ECS IMMEDIATELY FOR ANY CONFLICT ARISING DURING CONSTRUCTION OF ANY IMPROVEMENTS SHOWN ON THESE DRAWINGS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- ELEVATIONS SHOWN ARE IN FEET AND ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  GENERAL NOTES	REVISED: 06/08/2014  DRAWING NO. G-00
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GENERAL NOTES (CONTINUED):

- CITY OF HOLLYWOOD SHALL NOT PROVIDE STAGING / STORAGE AREA. CONTRACTOR SHALL SECURE STAGING / STORAGE AREA AS NECESSARY FOR CONSTRUCTION WORK.
- CONTRACTOR SHALL HAUL AWAY EXCESSIVE STOCKPILE OF SOIL FOR DISPOSAL EVERY DAY. NO STOCKPILE SOIL IS ALLOWED TO BE LEFT ON THE CONSTRUCTION SITE OVER NIGHT.
- CONTRACTOR SHALL CLEAN / SWEEP THE ROAD AT LEAST ONCE DAY OR AS REQUIRED BY THE ENGINEER.
- CONTRACTOR SHALL PROTECT CATCH BASINS WITHIN / ADJACENT TO THE CONSTRUCTION SITE AS REQUIRED BY NPDES REGULATIONS.
- THE CITY OF HOLLYWOOD HAS A NOISE ORDINANCE (CHAPTER 100) WHICH PROHIBITS EXCAVATION AND CONSTRUCTION BEFORE 8:00 A.M. AND AFTER 6:00 P.M., MONDAY THROUGH SATURDAY AND ALL DAY SUNDAY.
- SUITABLE EXCAVATED MATERIAL SHALL BE USED IN FILL AREAS. NO SEPARATE PAY ITEM FOR THIS WORK, INCLUDE COST IN OTHER ITEMS.
- ALL ROAD CROSSINGS ARE OPEN CUT AS PER THE REQUIREMENTS OF THE ECSD UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- THE CONTRACTOR SHALL REPLACE ALL PAVING, STABILIZING EARTH, DRIVEWAYS, PARKING LOTS, SIDEWALKS, ETC. TO SATISFY THE INSTALLATION OF THE PROPOSED IMPROVEMENTS WITH THE SAME TYPE OF MATERIAL THAT WAS REMOVED DURING CONSTRUCTION OR AS DIRECTED BY ECS FIELD ENGINEER.
- THE CONTRACTOR SHALL NOT ENCR OACH INTO PRIVATE PROPERTY WITH PERSONNEL, MATERIAL OR EQUIPMENT. IN CASE WORK ON PRIVATE PROPERTY IS NEEDED, A CITY OF HOLLYWOOD "RIGHT OF ENTRY" FORM MUST BE SIGNED BY PROPERTY OWNER AND THE DIRECTOR OF PUBLIC UTILITIES. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ACCESS AT ALL TIMES TO PRIVATE HOMES/BUSINESSES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE, REMOVAL OR MODIFICATION, CAUSED TO ANY IRRIGATION SYSTEM (PRIVATE OR PUBLIC) ACCIDENTALLY OR PURPOSELY. THE CONTRACTOR SHALL REPLACE ANY DAMAGED, REMOVED OR MODIFIED IRRIGATION PIPES, SPRINKLER HEADS OR OTHER PERTINENT APPURTENANCES TO MATCH OR EXCEED EXISTING CONDITIONS AT NO ADDITIONAL COST TO THE CITY.
- MAIL BOXES, FENCES OR OTHER PRIVATE PROPERTY DAMAGED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE REPLACED TO MATCH OR EXCEED EXISTING CONDITION.
- CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH FDOT STANDARDS AND CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC UTILITIES STANDARDS.
- NO TREES ARE TO BE REMOVED OR RELOCATED WITHOUT PRIOR APPROVAL FROM THE ECSD FIELD ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE NECESSARY TREE REMOVAL OR RELOCATION PERMITS FROM THE CITY OF HOLLYWOOD BUILDING DEPARTMENT FOR TREES LOCATED IN THE PUBLIC RIGHT OF WAY.
- IT IS THE INTENT OF THESE PLANS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THESE PLANS AND APPLICABLE REGULATORY STANDARDS / REQUIREMENTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF ECS.


	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  GENERAL NOTES (CONTINUED)	REVISED: 11/06/2017  DRAWING NO. G-00.1
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GENERAL NOTES (CONTINUED):

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF AND MAKING THE REPAIRS TO EXISTING PAVEMENT, SIDEWALKS, PIPES, CONDUITS, CURBS, CABLES, ETC., WHETHER OR NOT SHOWN ON THE PLANS DAMAGED AS A RESULT OF THE CONTRACTORS OPERATIONS AND/OR THOSE OF HIS SUBCONTRACTORS, AND SHALL RESTORE THEM PROMPTLY AT NO ADDITIONAL EXPENSE TO THE OWNER. CONTRACTOR SHALL REPORT ANY DAMAGE TO SIDEWALK, DRIVEWAY, ETC., PRIOR TO BEGINNING WORK IN ANY AREA.
- WHERE NEW PAVEMENT MEETS EXISTING, CONNECTION SHALL BE MADE IN A NEAT STRAIGHT LINE AND FLUSH WITH EXISTING PAVEMENT TO MATCH EXISTING CONDITIONS.
- UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR LEAVE EXCAVATED TRENCHES, OR PARTS OF, EXPOSED OR OPENED AT THE END OF THE WORKING DAY, WEEKENDS, HOLIDAYS OR OTHER TIMES, WHEN THE CONTRACTOR IS NOT WORKING, UNLESS OTHERWISE DIRECTED. ALL TRENCHES SHALL BE COVERED, FIRMLY SECURED AND MARKED ACCORDINGLY FOR PEDESTRIAN / VEHICULAR TRAFFIC.
- ALL EXCAVATED MATERIAL REMOVED FROM THIS PROJECT SHALL BE DISPOSED OF OFF THE PROPERTY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- ALL DUCTILE IRON PRODUCTS SHALL BE DOMESTIC MADE HEAVY DUTY CLASSIFICATION SUITABLE FOR HIGHWAY TRAFFIC LOADS, OR 20,000 LB.
- ALL GRASSED AREAS AFFECTED BY CONSTRUCTION SHALL BE RE-SODDED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION, INSTALLATION AND MAINTENANCE OF ALL TRAFFIC CONTROL AND SAFETY DEVICES, IN ACCORDANCE WITH SPECIFICATIONS OF THE LATEST REVISION OF FDOT DESIGN STANDARDS. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR THE RESETTling OF ALL TRAFFIC CONTROL AND INFORMATION SIGNAGE REMOVED DURING THE CONSTRUCTION PERIOD.
- EXCAVATED OR OTHER MATERIAL STORED ADJACENT TO OR PARTIALLY UPON A ROADWAY PAVEMENT SHALL BE ADEQUATELY MARKED FOR TRAFFIC SAFETY AT ALL TIMES.
- TEMPORARY PATCH MATERIAL MUST BE ON THE JOB SITE WHENEVER PAVEMENT IS CUT, OR THE CITY'S INSPECTOR WILL SHUT THE JOB DOWN.
- CONTRACTOR MUST PROVIDE FLASHER ARROW SIGNAL FOR ANY LANE THAT IS CLOSED OR DIVERTED.
- CONTRACTOR SHALL NOTIFY LAW ENFORCEMENT AND FIRE PROTECTION SERVICES TWENTY-FOUR (24) HOURS IN ADVANCE OF TRAFFIC DETOUR IN ACCORDANCE WITH SECTION 336.07 OF FLORIDA STATUTES.
- CONTRACTOR TO RESTORE PAVEMENT TO ORIGINAL CONDITION AS REQUIRED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DEWATERING PER SPECIFICATION SECTION 02140 DEWATERING.

	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  GENERAL NOTES (CONTINUED)	REVISED: 11/06/2017  DRAWING NO. G-00.2
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GENERAL NOTES (CONTINUED):

- THE CONTRACTOR SHALL GIVE AT LEAST 48 HOURS NOTICE TO UTILITY COMPANIES TO PROVIDE FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION. CONTACT UTILITIES NOTIFICATION CENTER AT 811 OR 1-800-432-4770 (SUNSHINE ONE-CALL OF FLORIDA).
- 
- WHEN PVC PIPE IS USED, A METALLIZED MARKER TAPE SHALL BE INSTALLED CONTINUOUSLY 18" ABOVE THE PIPE. THE MARKER TAPE SHOULD BE IMPRINTED WITH A WARNING THAT THERE IS BURIED PIPE BELOW. THE TAPE SHALL BE MAGNA TEC, AS MANUFACTURED BY THOR ENTERPRISES INC. OR APPROVED EQUAL.
- ALL CONNECTIONS TO EXISTING MAINS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. WATER CONNECTIONS SHALL BE METERED, AND THE COST OF WATER AND TEMPORARY METER SHALL BE BORNE BY THE CONTRACTOR.
- A COMPLETE AS-BUILT SURVEY SHALL BE ACCURATELY RECORDED OF THE UTILITY SYSTEM DURING CONSTRUCTION. AS-BUILT SURVEY SHALL BE SUBMITTED TO ECSD SIGNED AND SEALED BY A FLORIDA REGISTERED SURVEYOR PRIOR TO FINAL INSPECTION AND ACCEPTANCE OF PROJECT. THE COST OF SIGNED AND SEALED AS-BUILTS SHALL BE COVERED IN OVERALL BID. THE AS-BUILT SURVEY SHALL INCLUDE:
  - PLAN VIEW SHOWING THE HORIZONTAL LOCATIONS OF EACH MANHOLE, INLET, VALVE, FITTING, BEND AND HORIZONTAL PIPE DEFLECTIONS WITH COORDINATES AND IN REFERENCE TO A SURVEY BASELINE OR RIGHT-OF-WAY CENTERLINE.
  - THE PLAN VIEW SHALL ALSO SHOW SPOT ELEVATIONS OF THE TOP OF THE MAIN (WATER MAIN AND FORCE MAIN) OR PIPE INVERTS (GRAVITY MAINS) AT INTERVALS NOT TO EXCEED 100 FEET AS MEASURED ALONG MAIN. THE PLAN VIEW SHALL ALSO INCLUDE SPOT ELEVATIONS AT EACH MANHOLE, INLET, VALVE, FITTING, BEND AND VERTICAL PIPE DEFLECTION.
  - THE PLAN VIEW SHALL ALSO SHOW THE HORIZONTAL SEPARATION FROM UNDERGROUND UTILITIES IMMEDIATELY ADJACENT OR PARALLEL TO THE NEW MAIN.
  - PROFILE VIEW WITH SPOT ELEVATIONS OF THE TOP OF THE MAIN (WATER MAIN AND FORCE MAIN) OR PIPE INVERT (GRAVITY MAIN) AND OF THE FINISHED GRADE OR MANHOLE RIM DIRECTLY ABOVE THE MAIN AT INTERVALS NOT TO EXCEED 100 FEET AS MEASURED ALONG THE MAIN. THE PROFILE VIEW SHALL ALSO INCLUDE SPOT ELEVATIONS AT EACH MANHOLE, INLET, VALVE, FITTING, BEND AND VERTICAL PIPE DEFLECTION.
  - THE PROFILE VIEW SHALL SHOW ALL UNDERGROUND UTILITIES CROSSING THE NEW MAIN AND THE VERTICAL SEPARATION PROVIDED BETWEEN THAT UNDERGROUND UTILITY AND THE NEW MAIN.
  - ALL CADD FILES MUST BE CREATED FOLLOWING THE CITY OF HOLLYWOOD "SURVEY / AS-BUILT CADD DRAWING STANDARDS"

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FAX: (954) 739-6409 TEL: (954) 739-6400

FLORIDA LICENSED ENGINEERS, SURVEYORS & MAPPING BUSINESS NO. 271  
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C00014

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SOLESTE LA PIAZZA  
HOLLYWOOD, FLORIDA

PREPARED FOR:  
THE ESTATES COMPANIES

WATER AND SEWER DETAILS

Chad E. Edwards  
Florida P.E. No. 59306

22-0064-001-01

C-11  
SHEET 11 OF 17

CHAD E. EDWARDS, STATE OF FLORIDA  
PROFESSIONAL ENGINEER LICENSE NO. 59306  
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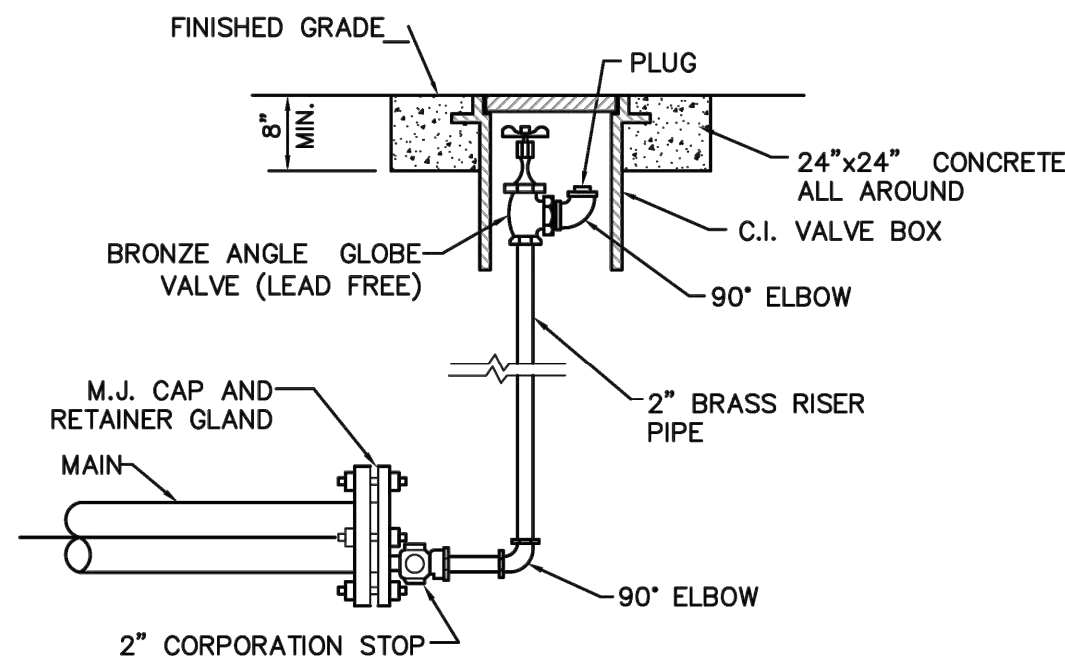
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#### RESILIENT SEATED GATE VALVE SPECIFICATIONS:

4" THROUGH 12" SIZE  
(WATER AND FORCE MAIN)

- GATE VALVES SHALL BE RESILIENT SEATED, MANUFACTURED TO MEET OR EXCEED THE REQUIREMENTS OF AWWA C509 (LATEST REVISION) AND IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
  - VALVES SHALL HAVE AN UNOBSTRUCTED WATERWAY EQUAL TO OR GREATER THAN THE FULL NOMINAL DIAMETER OF THE VALVE.
  - THE VALVES ARE TO BE NON-RISING STEM WITH THE STEM MADE OF CAST, FORGED OR ROLLED BRONZE SHOWN IN AWWA C509, TWO STEM SEALS SHALL BE PROVIDED AND SHALL BE OF THE O-RING TYPE, ONE ABOVE AND ONE BELOW THE THRUST COLLAR WITH LUBRICANT BETWEEN O-RING.
  - THE STEM NUT, ALSO MADE OF BRONZE, MAY BE INDEPENDENT OF THE GATE OR CAST INTEGRALLY WITH THE GATE. IF THE STEM NUT IS CAST INTEGRALLY, THE THREADS SHALL BE STRAIGHT AND TRUE WITH THE AXIS OF THE STEM TO AVOID BINDING DURING THE OPENING OR CLOSING CYCLE.
  - THE SEALING MECHANISM SHALL CONSIST OF A CAST IRON GATE HAVING A VULCANIZED SYNTHETIC RUBBER COATING OR A RUBBER SEAT MECHANICALLY RETAINED ON THE GATE, THE RESILIENT SEALING MECHANISM SHALL PROVIDE ZERO LEAKAGE AT THE WATER WORKING PRESSURE WHEN INSTALLED WITH THE LINE FLOW IN EITHER DIRECTION.
  - A 2-INCH SQUARE WRENCH NUT SHALL BE PROVIDED FOR OPERATING THE VALVE.
  - ALL VALVES ARE TO BE SUPPLIED COMPLETE AND READY FOR INSTALLATION INCLUDING, BUT NOT LIMITED TO ALL NUTS, BOLTS RINGS AND RUBBERS.
  - ALL VALVES ARE TO BE TESTED IN STRICT ACCORDANCE WITH AWWA C509 LATEST REVISION).

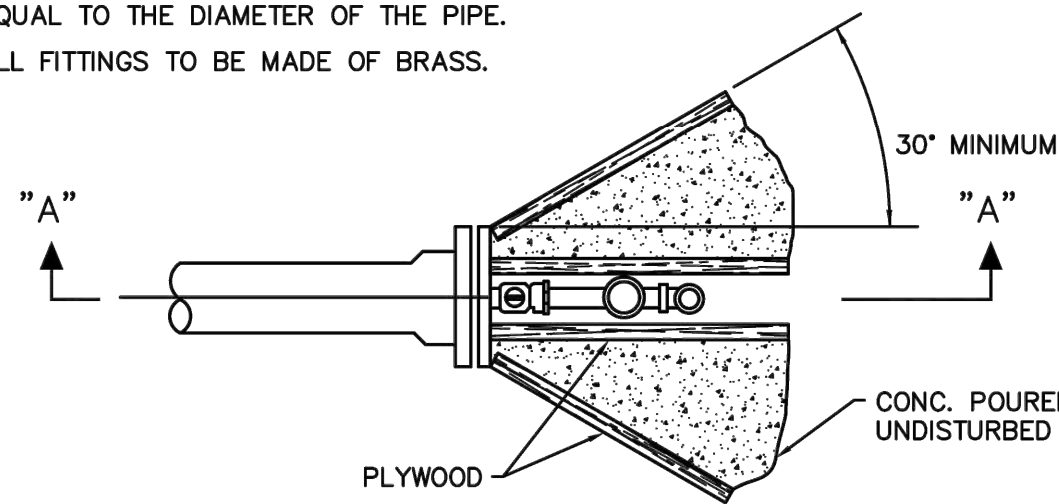
	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	APPROVED: XXX	RESILIENT SEATED GATE VALVE SPECIFICATIONS	DRAWING NO. G-07.1




SECTION "A-A"

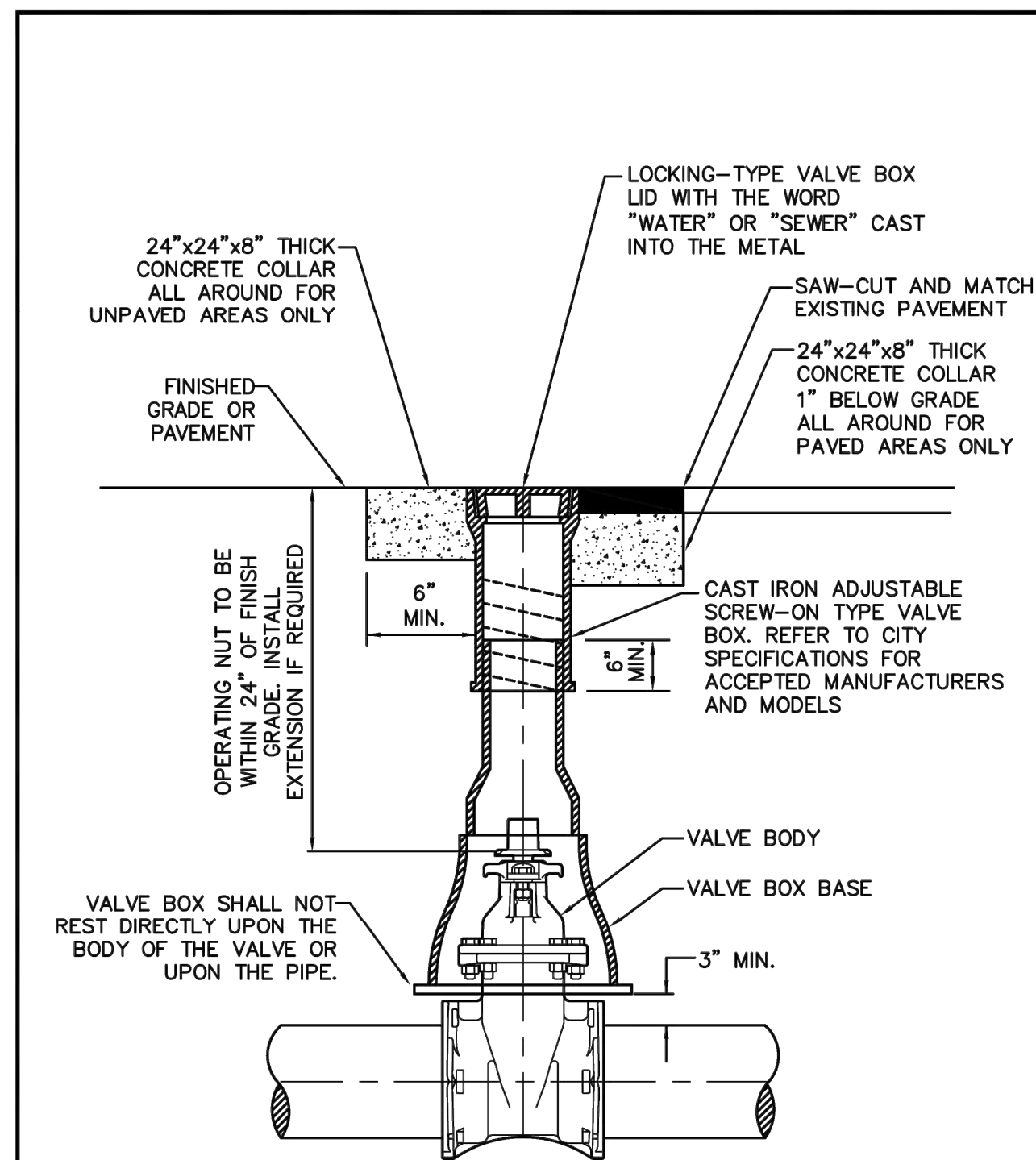
#### NOTES:

- PIPE JOINT COMPOUND SHALL BE APPLIED TO MALE THREADS ONLY.
- 2" TAP IN BOTTOM OF CAP ON MAIN.
- PLYWOOD AND CONCRETE TO HAVE A HEIGHT EQUAL TO THE DIAMETER OF THE PIPE.
- ALL FITTINGS TO BE MADE OF BRASS.

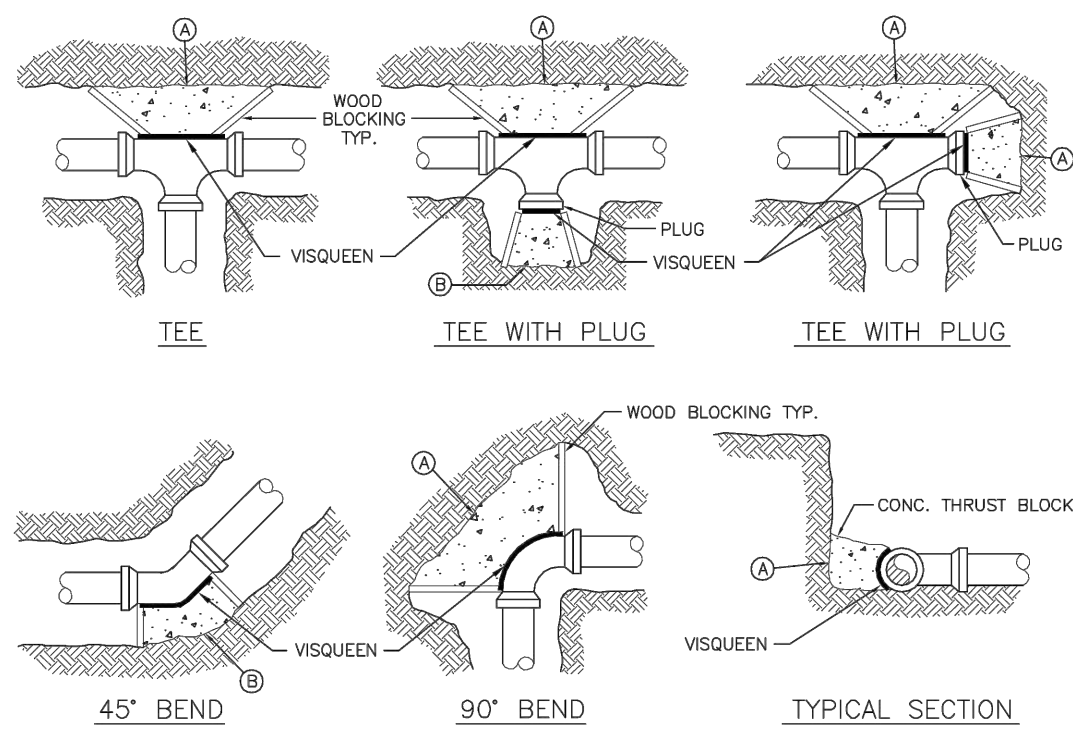


PLAN VIEW

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	APPROVED: XXX	TERMINAL BLOW-OFF DETAIL	DRAWING NO. G-09



	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	APPROVED: XXX	TYPICAL VALVE BOX SETTING	DRAWING NO. G-05

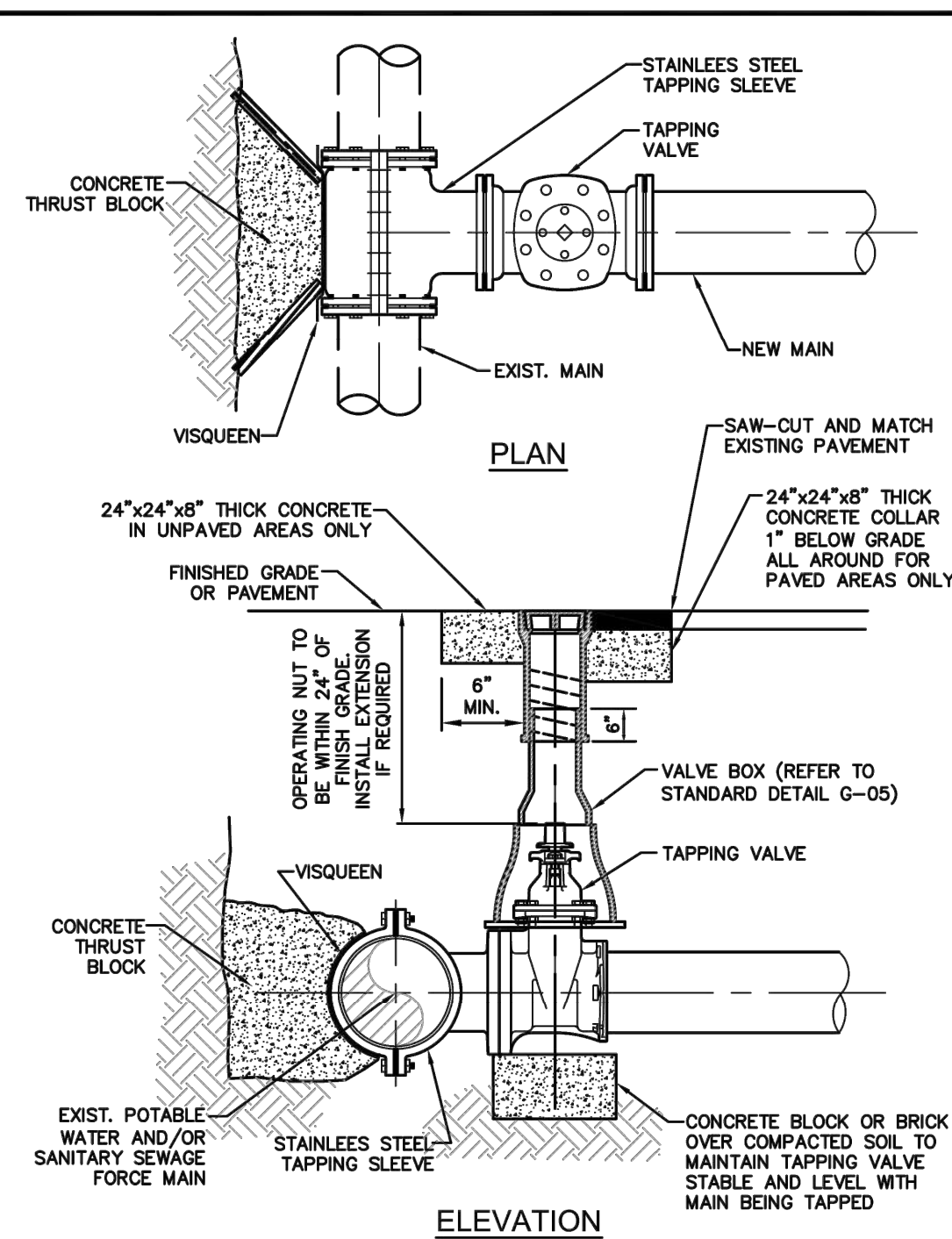


MARK	PIPE SIZE			
	4" OR 6"	8"	10"	12"
A				
B				

#### NOTES:

- THRUST BLOCKS ARE TO BE USED IN COMBINATION WITH, AND NOT IN LIEU OF, MECHANICAL JOINT RESTRAINTS AS REQUIRED BY THE CITY. REFER TO THRUST RESTRAINT DESIGN TABLE IN STANDARD DETAIL G-10.
- THE AREAS IN THE TABLE ARE BASED ON \_\_\_\_\_ POUNDS PER SQUARE FOOT SOIL BEARING AGAINST THE UNDISTURBED TRENCH WALL AND ARE TO REPRESENT THE MINIMUM VERTICAL PROJECTED AREA AT THE THRUST BLOCK IN A PLANE PERPENDICULAR TO THE LINE BISECTING THE INCLUDING ANGLE OF THE FITTING.
- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EVACUATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL.
- ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
- DO NOT COVER COUPLING OR JOINTS WITH CONCRETE.
- CONCRETE TO BE 2500 P.S.I. MINIMUM 28 DAY STRENGTH.
- TABLE TO BE COMPLETED BY DESIGN ENGINEER.

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	APPROVED: XXX	THRUST BLOCK DESIGN	DRAWING NO. G-10




#### NOTES:

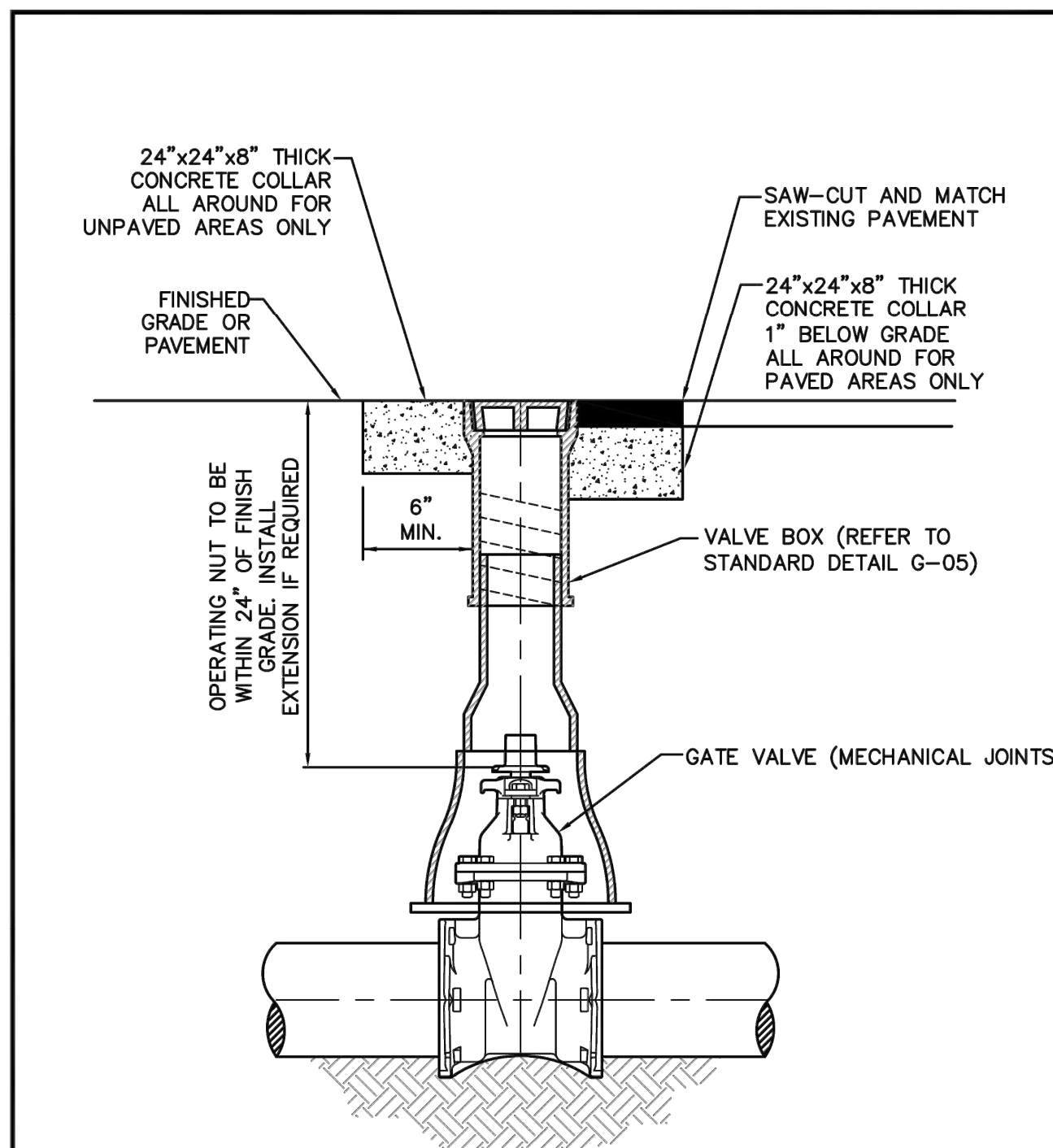
- NOTIFY THE CITY OF HOLLYWOOD 48 HOURS IN ADVANCE OF PROPOSED TAP.
- TAPPING MUST BE DONE IN THE PRESENCE OF AN AUTHORIZED CITY REPRESENTATIVE.
- TEMPORARY THRUST BLOCKS TO BE INSTALLED AND REMAIN IN PLACE DURING TAPPING OPERATIONS.
- FOR SEWAGE FORCE MAINS, REFER TO DETAIL OF PRIVATE FORCE MAIN TIE-IN AT PROPERTY LINE.
- FOR WATER MAINS, A GATE VALVE OF SAME DIAMETER SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF THE TAPPING VALVE.


	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	APPROVED: XXX	TYPICAL TAPPING SLEEVE AND VALVE SETTING	DRAWING NO. G-06

#### THRUST RESTRAINT NOTES:

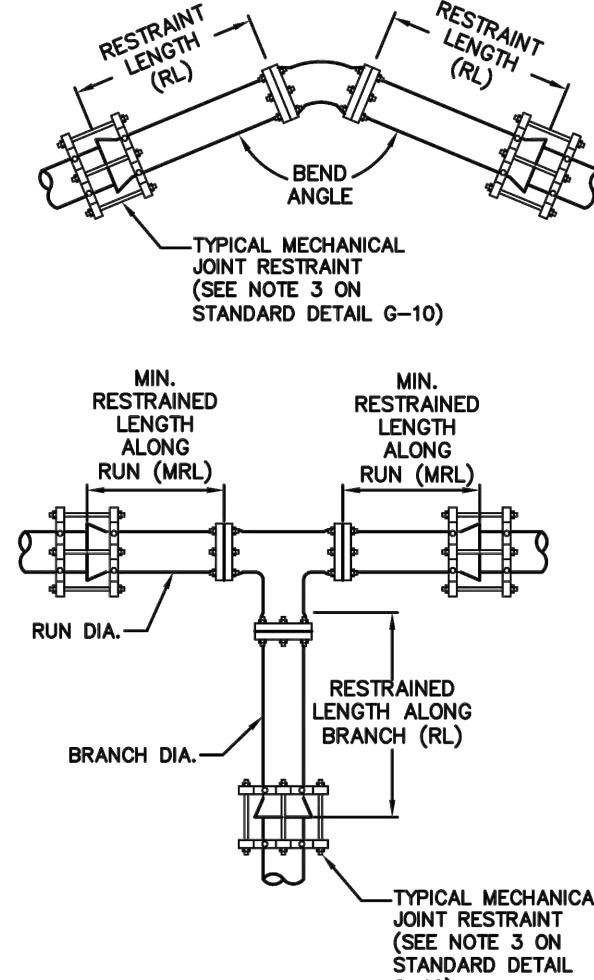
- ALL JOINTS BETWEEN BENDS AT HORIZONTAL & VERTICAL OFFSETS SHALL BE RESTRAINED.
- MECHANICAL THRUST RESTRAINTS FOR D.I.P. FITTINGS ON D.I.P. OR P.V.C. PIPE SHALL BE MEGALUG AS MANUFACTURED BY EBAA IRON, INC., OR APPROVED EQUAL.
- DUCTILE IRON FITTINGS UP TO 20-INCHES IN DIAMETER SHALL BE RESTRAINED BY MECHANICAL MEANS, I.E., MEGALUGS OR APPROVED EQUAL.
- DUCTILE IRON FITTINGS 24-INCH IN DIAMETER AND ABOVE SHALL BE RESTRAINED BY MECHANICAL MEANS, I.E., MEGALUGS OR APPROVED EQUAL, WITH THE ADDITION OF THRUST BLOCKS AND CONCRETE ANCHORS AT THE DISCRETION OF THE ENGINEER OF RECORD.
- ANY THRUST BLOCKS AND ANCHORS ARE TO BE DESIGNED BY THE ENGINEER OF RECORD, SIGNED AND SEALED CALCULATIONS SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO INSTALLATION.
- THRUST BLOCKS CONSISTING OF POURED-IN-PLACE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AFTER 28 DAYS.

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	APPROVED: XXX	JOINT RESTRAINT DESIGN FOR PVC AND DIP THRUST RESTRAINT NOTES	DRAWING NO. G-11




	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	APPROVED: XXX	TYPICAL GATE VALVE AND VALVE BOX SETTING	DRAWING NO. G-07

HORIZONTAL BENDS			
PIPE DIA. (INCHES)	BEND (ANGLE)	RESTRAINED LENGTH (RL) (FT)	PVC *DIP
24	11 1/2	-	-
	22 1/2	-	-
	45	-	-
16	11 1/2	-	-
	22 1/2	-	-
	45	-	-
12	11 1/2	-	-
	22 1/2	-	-
	45	-	-
8	11 1/2	-	-
	22 1/2	-	-
	45	-	-
6	11 1/2	-	-
	22 1/2	-	-
	45	-	-
4	11 1/2	-	-
	22 1/2	-	-
	45	-	-



TEES AND TAPPING SLEEVES			
RUN DIA. (INCHES)	BRANCH DIA. (INCHES)	MINIMUM RESTRAINED LENGTH ALONG RUN (FT.)	MINIMUM RESTRAINED LENGTH ALONG BRANCH (FT.)
24"	24"	-	-
	16"	-	-
	12"	-	-
	8"	-	-
	6"	-	-
16"	16"	-	-
	12"	-	-
	8"	-	-
	6"	-	-
	4"	-	-

\*ALL JOINT RESTRAINT CALCULATIONS ASSUME THE PIPE WILL BE WRAPPED IN POLYETHYLENE ENCASEMENT

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	APPROVED: XXX	JOINT RESTRAINT DESIGN FOR PVC AND DIP HORIZONTAL BENDS AND TEES	DRAWING NO. G-11.1

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HOLLYWOOD, FLORIDA

PREPARED FOR:  
THE ESTATES COMPANIES

WATER AND SEWER DETAILS

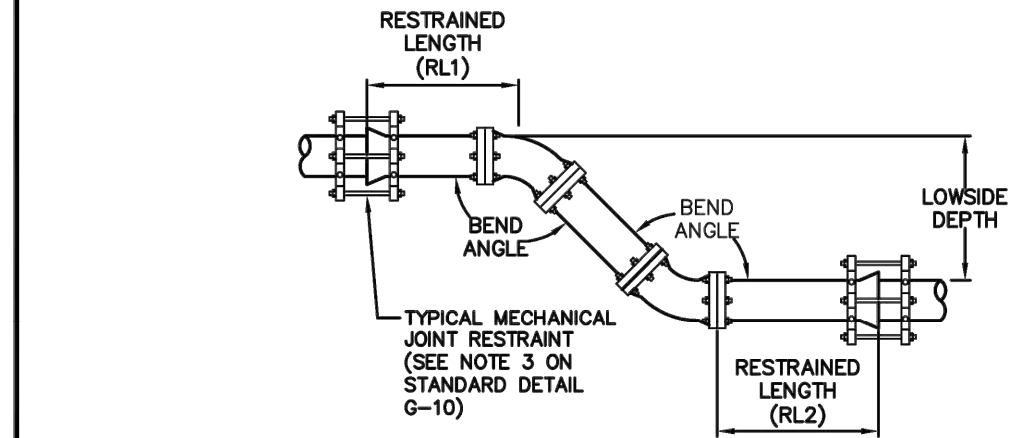
Chad E. Edwards  
Florida P.E. No. 59306

22-0064-001-01

C-12

SHEET 12 OF 17

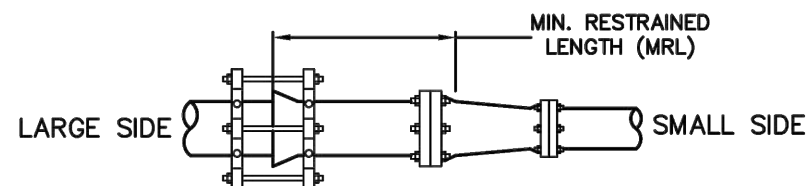




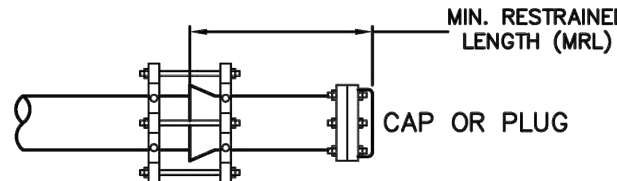
VERTICAL OFFSETS						
PIPE DIA. (INCHES)	BEND (ANGLE)	LOWSIDE DEPTH (FT)	PVC		*DIP	
			RESTRAINED LENGTHS RL1 (FT.)	RL2 (FT.)	RL1 (FT.)	RL2 (FT.)
24	45	4	-	-	-	-
		5	-	-	-	-
		6	-	-	-	-
		7	-	-	-	-
16	45	4	-	-	-	-
		5	-	-	-	-
		6	-	-	-	-
		7	-	-	-	-
12	45	4	-	-	-	-
		5	-	-	-	-
		6	-	-	-	-
		7	-	-	-	-
8	45	4	-	-	-	-
		5	-	-	-	-
		6	-	-	-	-
		7	-	-	-	-
6	45	4	-	-	-	-
		5	-	-	-	-
		6	-	-	-	-
		7	-	-	-	-
4	45	4	-	-	-	-
		5	-	-	-	-
		6	-	-	-	-
		7	-	-	-	-

\*ALL DIP JOINT-RESTRAINT CALCULATIONS ASSUME THE PIPE WILL BE WRAPPED IN POLYETHYLENE ENCASEMENT

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
	DRAWN: EAM	JOINT RESTRAINT DESIGN FOR PVC AND DIP VERTICAL OFFSETS	DRAWING NO. G-11.2
	APPROVED: XXX		



REDUCERS					
LARGE SIDE	SMALL SIDE	MINIMUM LENGTH TO RESTRAIN ON LARGE SIDE (FT)		LARGE SIDE	SMALL SIDE
		PVC	*DIP		
24"	16"	-	-	12"	8"
	12"	-	-		6"
	8"	-	-		4"
	6"	-	-		2"
16"	12"	-	-	8"	4"
	8"	-	-		2"
	6"	-	-		2"
	4"	-	-		2"



DEAD ENDS		
PIPE DIA. (INCHES)	MIN. RESTRAINED LENGTH (FT)	
	PVC	*DIP
24"	-	-
16"	-	-
12"	-	-
8"	-	-
6"	-	-
4"	-	-

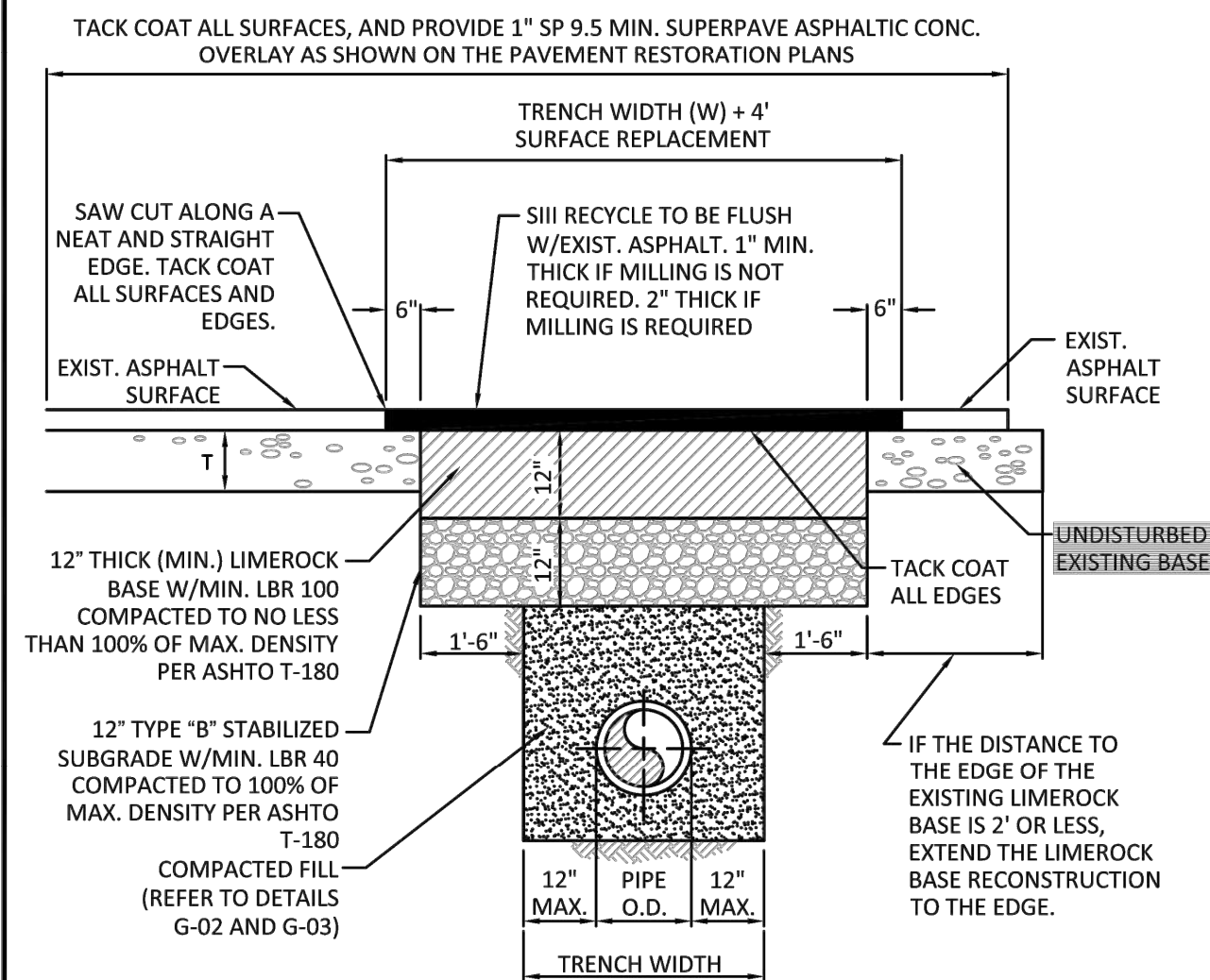
\*ALL DIP JOINT-RESTRAINT CALCULATIONS ASSUME THE PIPE WILL BE WRAPPED IN POLYETHYLENE ENCASEMENT

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
	DRAWN: EAM	JOINT RESTRAINT DESIGN FOR PVC AND DIP REDUCERS AND DEAD ENDS	DRAWING NO. G-11.3
	APPROVED: XXX		

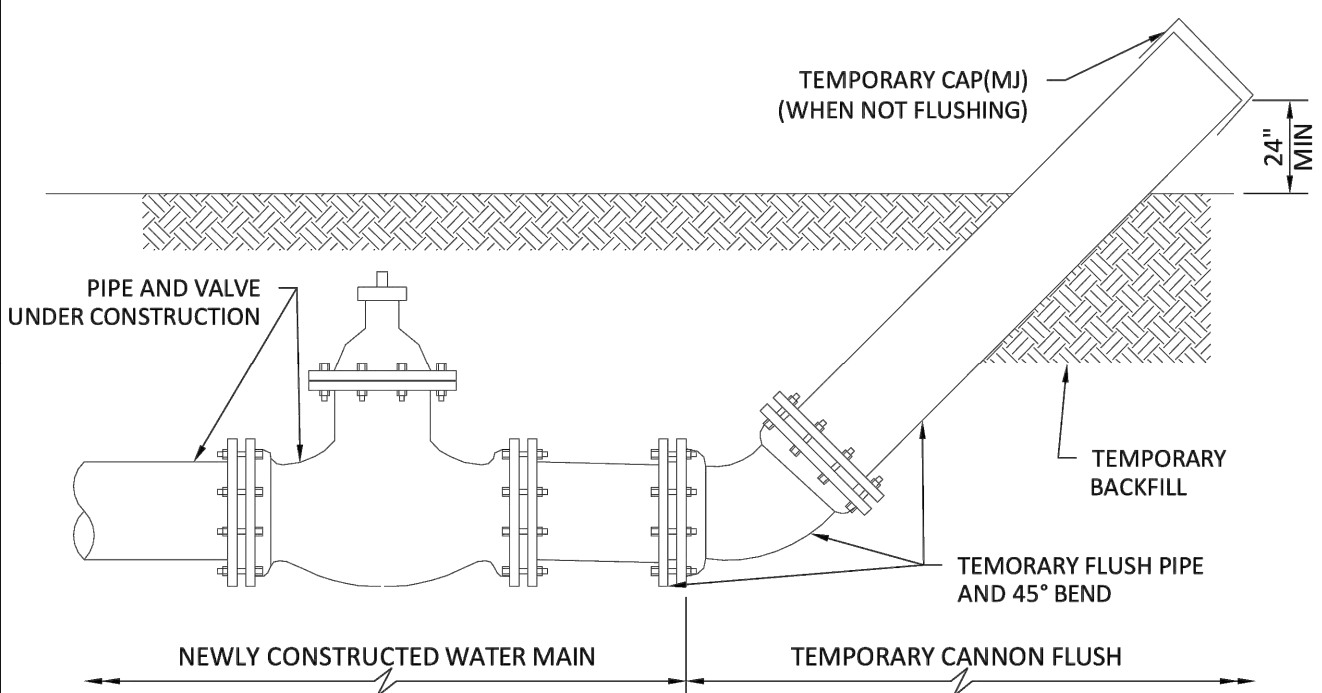
#### FLEXIBLE PAVEMENT RESTORATION NOTES:

- THE ABOVE DETAILS APPLY ONLY TO ASPHALT PAVEMENT RESTORATION OVER UTILITY TRENCHES CUT WITHIN CITY OF HOLLYWOOD RIGHTS-OF-WAY. FOR PAVEMENT RESTORATION WITHIN BROWARD COUNTY OR FOOT RIGHTS-OF-WAY REFER TO THE CORRESPONDING DETAILS FOR THOSE AGENCIES.
- LIMEROCK BASE MATERIAL SHALL HAVE A MINIMUM L.B.R. OF 100 AND A MINIMUM CARBONATE CONTENT OF 70%. REPLACED BASE MATERIAL OVER TRENCH SHALL BE A MINIMUM OF 12" THICK".
- LIMEROCK BASE MATERIAL SHALL BE PLACED IN 12" MAXIMUM (LOOSE MEASUREMENT) THICKNESS LAYERS WITH EACH LAYER THOROUGHLY ROLLED OR TAMPED AND COMPACTED TO 100% OF MAXIMUM DENSITY, PER AASHTO T-180, PRIOR TO THE PLACEMENT OF THE SUCCEEDING LAYERS.
- STABILIZED SUBGRADE MATERIAL SHALL BE GRANULAR AND SHALL HAVE A MINIMUM L.B.R. OF 40.
- BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE PIPE LAYING CONDITION TYPICAL SECTIONS IN DETAILS G-02 AND G-03, AND THE SPECIFICATIONS, BUT TESTING WILL BEGIN 12" ABOVE THE INSTALLED FACILITY.
- ALL EDGES AND JOINTS OF EXISTING ASPHALT PAVEMENT SHALL BE SAW CUT TO STRAIGHT LINES, PARALLEL TO OR PERPENDICULAR TO THE ROADWAY, PRIOR TO THE RESURFACING.
- RESURFACING MATERIAL SHALL BE FOOT SUPERPAVE, AND SHALL BE APPLIED A MINIMUM OF TWO INCH IN THICKNESS.
- MILL AND BUTT JOINT TO EXISTING PAVEMENT.
- IF THE TRENCH IS FILLED TEMPORARILY, IT SHALL BE COVERED WITH A 2" ASPHALTIC CONCRETE PATCH TO KEEP THE FILL MATERIAL FROM RAVELING UNTIL REPLACED WITH A PERMANENT PATCH.
- REFER TO SPECIFICATIONS FOR DETAILED PROCEDURES.
- WHERE THE UTILITY TRENCH CROSSES EXISTING ASPHALT DRIVEWAYS, THE LIMEROCK BASE THICKNESS MAY BE A MINIMUM OF 6 INCHES THICK, REGARDLESS OF THE EXTENT OF IMPACT, THE ENTIRE DRIVEWAY SURFACE BETWEEN THE EDGE OF THE ROADWAY PAVEMENT AND PROPERTY LINE OR FRONT OF SIDEWALK SHALL BE OVERLAID USING 2-INCH THICK MINIMUM ASPHALTIC CONCRETE SURFACE COURSE WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE CITY/ENGINEER.

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
	DRAWN: EAM	FLEXIBLE PAVEMENT RESTORATION NOTES	DRAWING NO. G-12
	APPROVED: XXX		



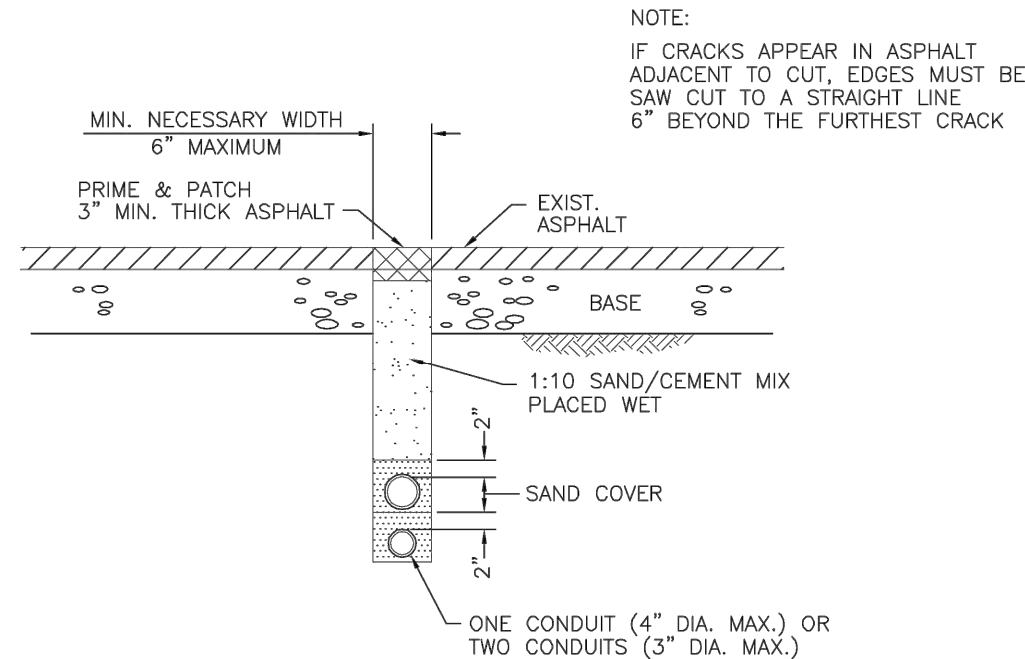
	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
	DRAWN: EAM	FLEXIBLE PAVEMENT RESTORATION FOR TRENCHES CUT PERPENDICULAR AND PARALLEL TO THE ROADWAY	DRAWING NO. G-12.1
	APPROVED: XXX		



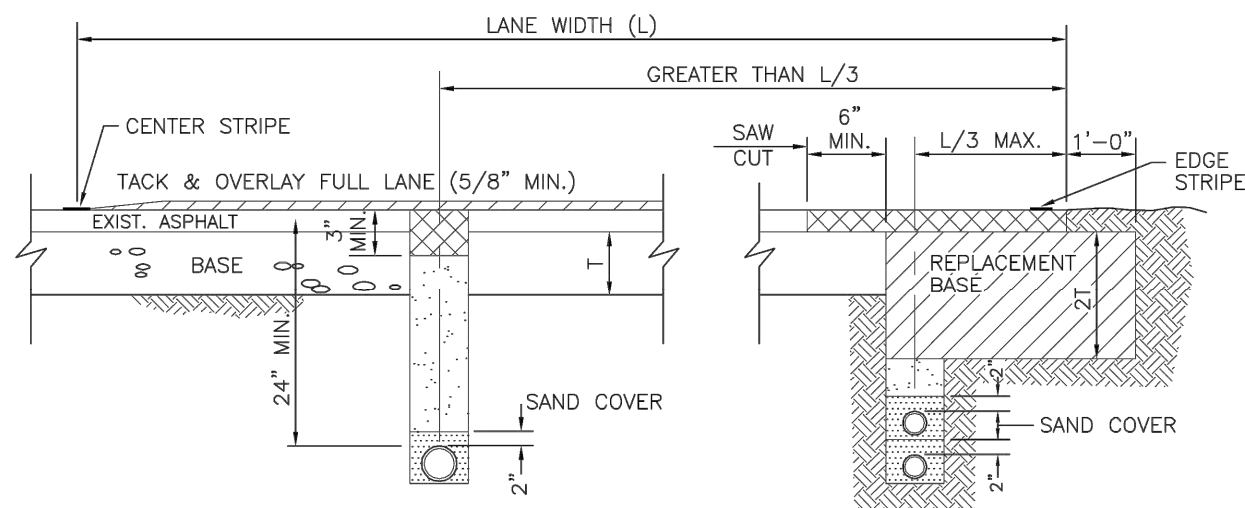
#### GENERAL NOTES:

- FLUSHING LOCATIONS ARE TO BE PROPOSED BY CONTRACTOR AND APPROVED BY CITY.
- UPON COMPLETION OF THE PIPE INSTALLATION FOR ANY SECTION, THE MAIN SHALL BE CANNON FLUSHED TO REMOVE DIRT AND ANY OTHER FOREIGN MATTER.
- INSTALL A TEMPORARY 45° BEND AND ASSOCIATED TEMPORARY PIPING AS SHOWN TO DIRECT THE FLUSHING WATER AWAY FROM THE IMMEDIATE WORK AREA AND EXERCISE DUE CARE SO AS TO ENSURE THAT THE WATER USED IN FLUSHING DOES NOT CAUSE A NUISANCE OR INFLECT PROPERTY DAMAGE.
- BENDS AND PIPING SHALL BE THE SAME SIZE OR LARGER AS THE LINE BEING FLUSHED.
- PRIOR TO THE ACTUAL LINE FLUSHING OPERATION THE CONTRACTOR SHALL PROPERLY NOTIFY CITY INSPECTOR OF SUCH INTENDED WATER USE.
- NO EXISTING VALVE SHALL BE OPERATED, EXCEPT BY AUTHORIZED CITY PERSONNEL.
- FLUSHING SHALL NOT BE ACCOMPLISHED WITHOUT THE ACTUAL PRESENCE OF THE CITY INSPECTOR.
- AFTER THE LINE UNDER CONSTRUCTION HAS BEEN SUCCESSFULLY FLUSHED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY PIPING ARRANGEMENT AND PROCEED WITH THE REMAINING CONSTRUCTION AS SPECIFIED.
- ALL PIPING SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH CITY STANDARDS.
- IF REQUIRED BY CITY, WATER MAINS SHALL BE CLEANED BY PIGGING.
- CONTRACTOR WILL INSTALL A PRESSURE GAUGE AT OR NEAR THE FILL AND FLUSH LOCATION AND MAINTAIN A MINIMUM PRESSURE OF 40 PSI AT ALL TIMES. THE FILL VALVE WILL BE OPENED AND CLOSED SLOWLY TO AVOID RAPID PRESSURE CHANGES IN THE WATER SYSTEM.
- CONTRACTOR IS CAUTIONED THAT GOVERNING AGENCIES OR UTILITIES MAY HAVE REGULATIONS LIMITING OR PROHIBITING DISCHARGE INTO SEWERS, SURFACE WATERS, CANALS, DITCHES AND OTHER CONVEYANCES/RETENTION AREA. ALL COMPLIANCE WITH GOVERNING AGENCIES REQUIREMENTS (INCLUDING PERMITTING, IF REQUIRED) IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CANNON FLUSHING TO PROCEED AFTER HEALTH DEPARTMENT CLEARANCE IS RECEIVED.

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
	DRAWN: EAM	CANNON FLUSHING	DRAWING NO. G-13
	APPROVED: XXX		



DETAIL "A"  
MINIMUM UTILITY CROSSING OF ROADWAY



DETAIL "B"  
MINIMUM PARALLEL UTILITY INSTALLATION

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
	DRAWN: EAM	FLEXIBLE PAVEMENT RESTORATION FOR CONDUIT	DRAWING NO. G-12.2
	APPROVED: XXX		

DATE:	03/17/23
SCALE:	1"=20'
DESIGN BY:	LZG
DRAWN BY:	LZG
CHECKED BY:	CEE
APPROVED BY:	CEE

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**SOLESTE LA PIAZZA**  
HOLLYWOOD, FLORIDA  
PREPARED FOR:  
**THE ESTATES COMPANIES**  
**WATER AND SEWER DETAILS**

Chad E. Edwards  
Florida P.E. No. 59306

22-0064-001-01

C-13  
SHEET 13 OF 17

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#### SEWER NOTES:

- THE MINIMUM DEPTH OF COVER OVER D.I.P. SANITARY SEWER GRAVITY OR FORCE MAINS IS 30". THE MINIMUM DEPTH OF COVER OVER PVC SANITARY SEWER OR FORCE MAINS IS 30".
- ALL CONNECTIONS TO EXISTING MAINS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- LEAKAGE TESTS AND ALIGNMENT (LAMPING) TESTS SHALL BE PERFORMED ON ALL NEW SEWER LINES UP TO THE CONNECTION POINT WITH THE EXISTING SEWER SYSTEM. THESE TESTS SHALL BE REQUESTED AND PAID FOR BY THE CONTRACTOR.
- LAMPING TESTS SHALL BE PERFORMED ON GRAVITY SEWERS FROM MANHOLE TO MANHOLE UP TO AND INCLUDING THE POINT OF CONNECTION TO THE EXISTING SEWER SYSTEM.
- LEAKAGE TESTS SHALL BE PERFORMED ON ALL SEGMENTS OF A GRAVITY SEWER SYSTEM, INCLUDING SERVICE LATERALS AND MANHOLES, FOR A CONTINUOUS PERIOD OF NO LESS THAN 2 HOURS. AT THE END OF THE TEST, THE TOTAL MEASURED LEAKAGE SHALL NOT EXCEED 100 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM, WITH ZERO ALLOWABLE LEAKAGE FOR LATERALS AND MANHOLES. AN EXFILTRATION OR INFILTRATION TEST SHALL BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET ON THE SECTION BEING TESTED.
- FORCE MAINS SHALL BE PRESSURE-TESTED IN ACCORDANCE WITH RULE 62.555.330 (FAC). THE PRESSURE TEST SHALL CONSIST OF HOLDING A TEST PRESSURE OF 150 PSI ON THE PIPELINE FOR A CONTINUOUS PERIOD OF 2 HOURS THE MAXIMUM ALLOWABLE LEAKAGE SHALL BE DETERMINED BY THE FOLLOWING FORMULA:

$$L = \frac{S \times D \times \sqrt{P}}{148,000}$$

WHERE:

L = ALLOWABLE LEAKAGE FOR SYSTEM IN GALLONS PER HOUR

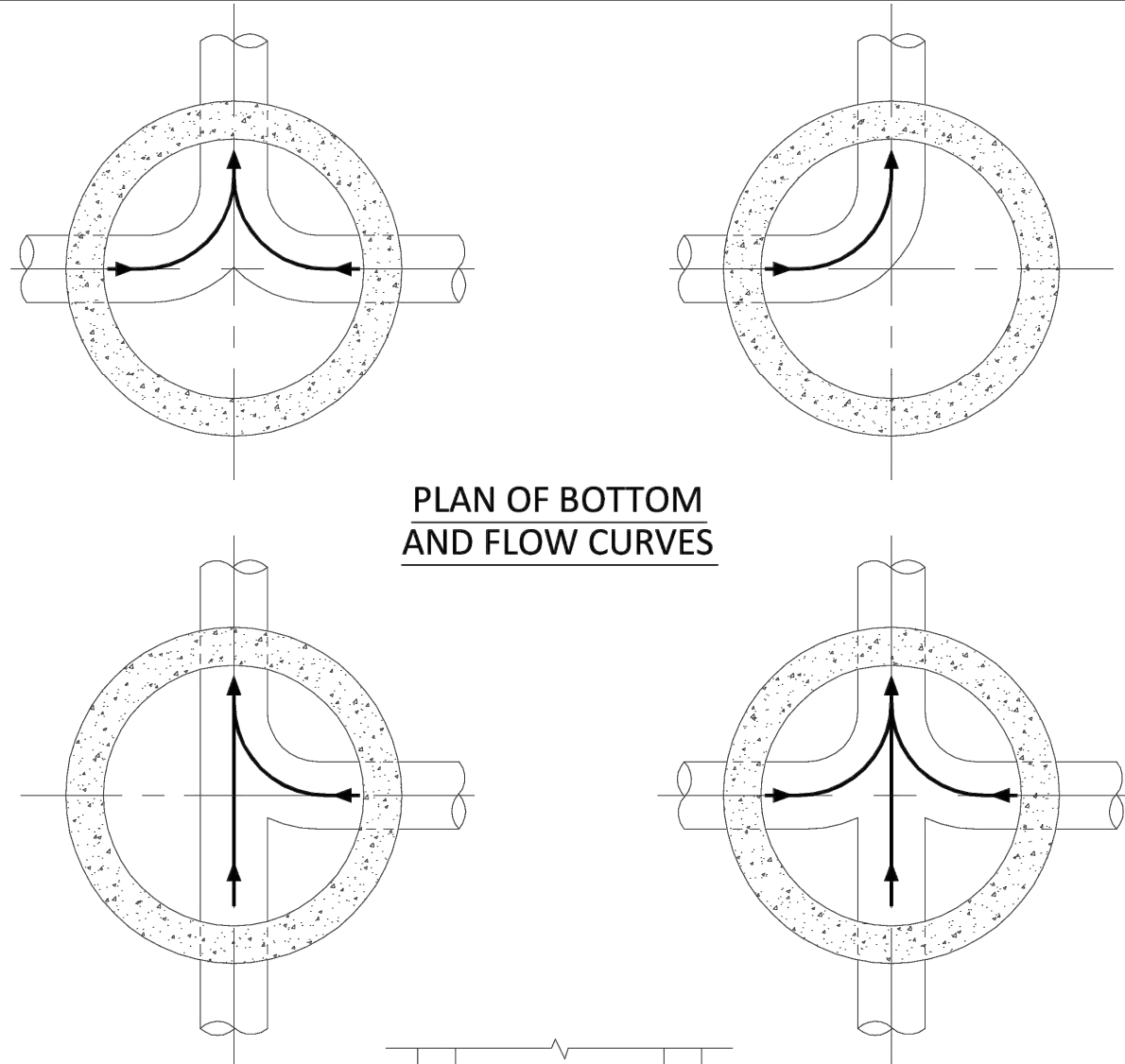
D = PIPE DIAMETER IN INCHES

S = LENGTH OF LINES IN LINEAL FEET

P = AVERAGE TEST PRESSURE IN PSI

- CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING CONFLICTS WITH FORCE MAINS PLACED AT MINIMUM COVER. IN CASE OF CONFLICT, FORCE MAIN SHALL BE LOWERED TO PASS UNDER CONFLICTS WITH 12" MINIMUM SEPARATION FROM WATER MAINS AND 6" MINIMUM SEPARATION FROM OTHER UTILITIES. NO ADDITIONAL PAYMENT SHALL BE DUE TO CONTRACTOR FOR LOWERING THE MAIN OR THE ADDITIONAL FITTINGS USED THEREON.
- WHENEVER IT IS NECESSARY, IN THE INTEREST OF SAFETY, TO BRACE THE SIDES OF A TRENCH, THE CONTRACTOR SHALL FURNISH, PUT IN PLACE AND MAINTAIN SUCH SHEETING OR BRACING AS MAY BE NECESSARY TO SUPPORT THE SIDES OF THE EXCAVATION TO ENSURE PERSONNEL SAFETY, AND TO PREVENT MOVEMENT WHICH CAN IN ANY WAY DAMAGE THE WORK OR ENDANGER ADJACENT STRUCTURES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SEQUENCE, METHODS AND MEANS OF CONSTRUCTION, AND FOR THE IMPLEMENTATION OF ALL OSHA AND OTHER SAFETY REQUIREMENTS.

	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  <b>SANITARY SEWER MAIN CONSTRUCTION NOTES</b>	REVISED: 06/08/2014  DRAWING NO. <b>S-01</b>
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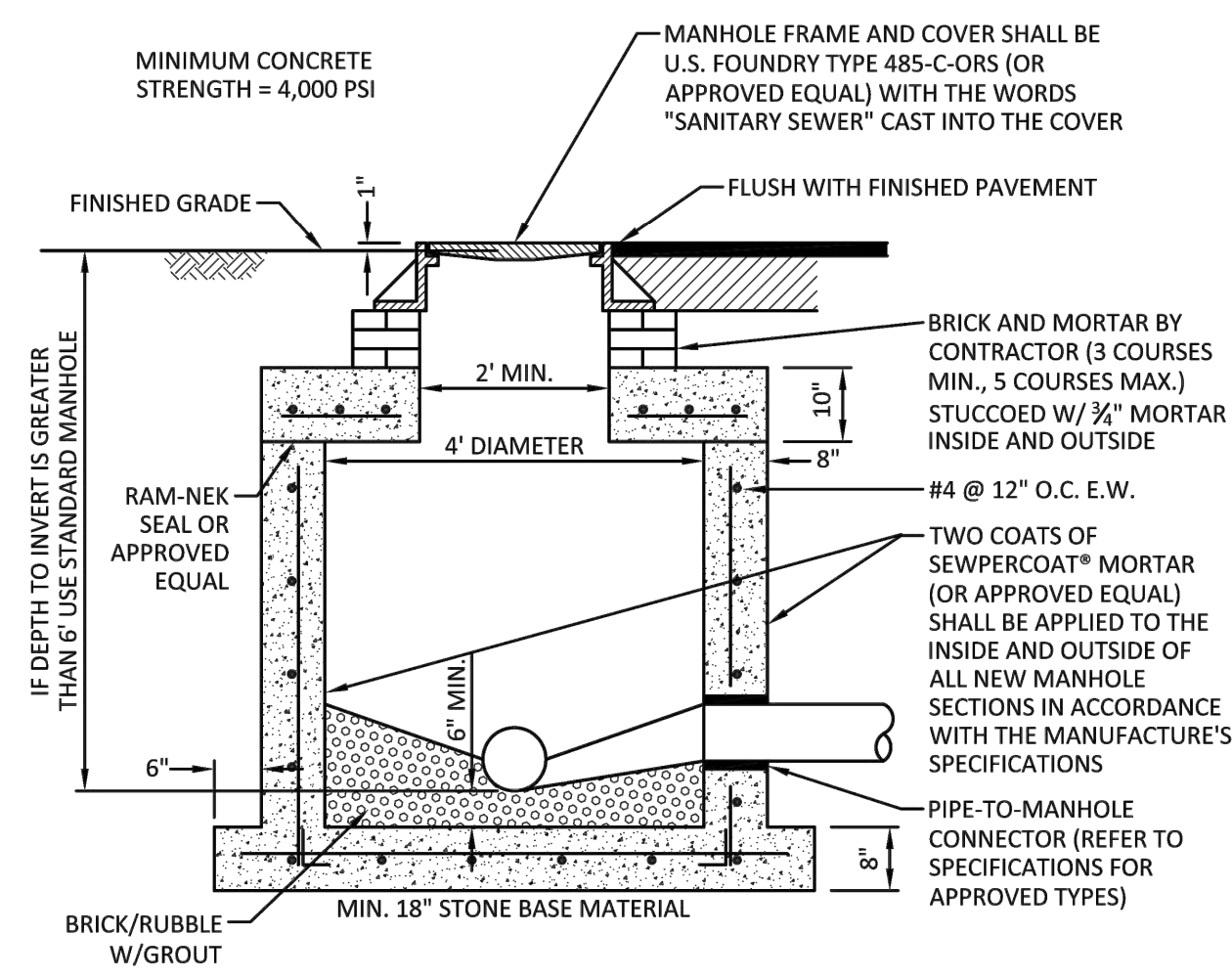
PLAN OF BOTTOM  
AND FLOW CURVES

TYPICAL SECTION

#### NOTES:

- INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
- SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING SMOOTH FLOWS.
- CHANNELS FOR FUTURE CONNECTIONS (STUBS) SHALL BE CONSTRUCTED FILLED WITH SAND & COVERED WITH 1" OF MORTAR.
- WHEN FLOW LINE DEFLECTS MORE THAN 45°, A DROP OF 0.10' IS REQUIRED.

	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  <b>MANHOLE FLOW PATTERNS</b>	REVISED: 06/08/2014  DRAWING NO. <b>S-02</b>
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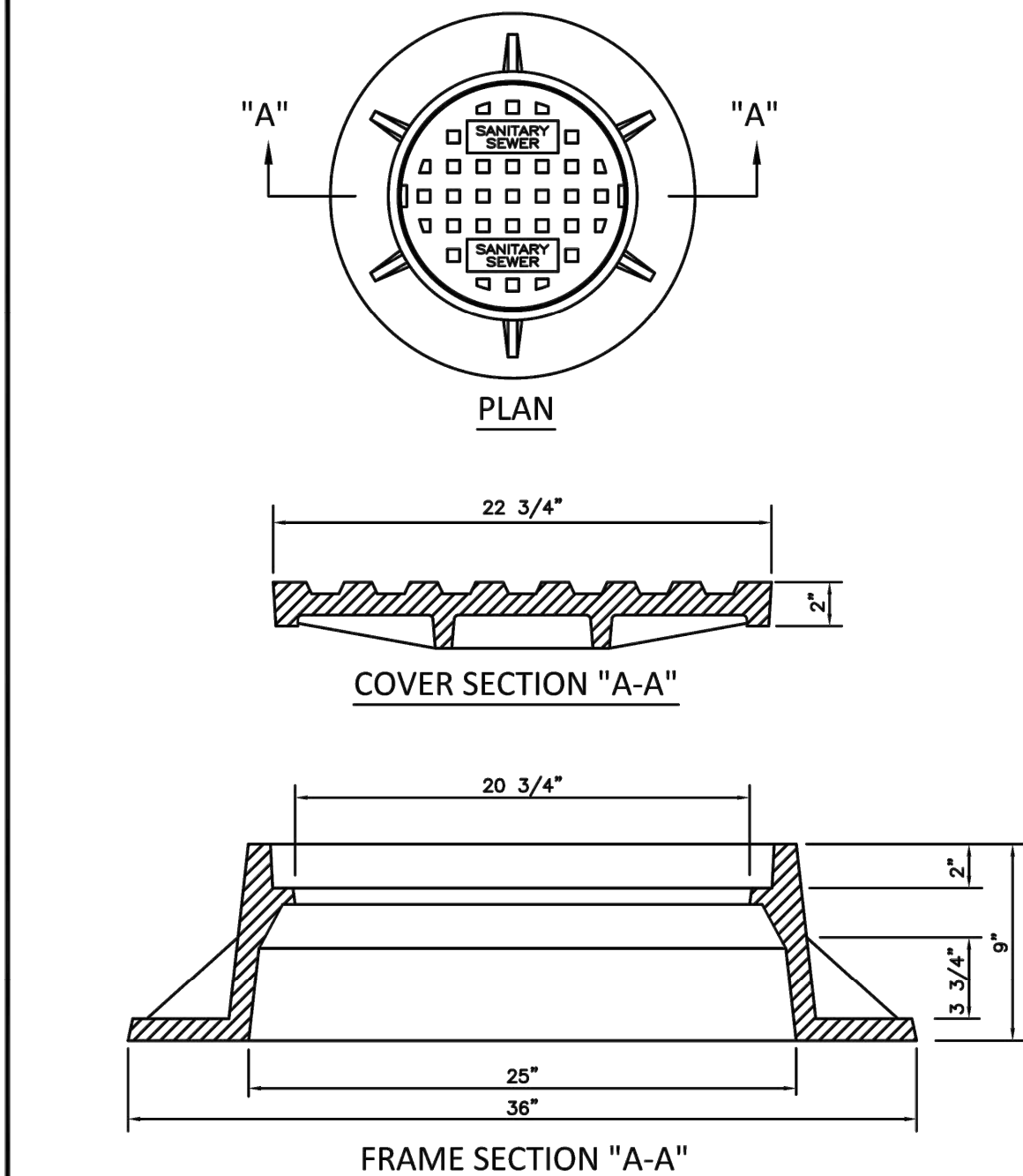


SECTION

#### NOTES:

- SHOP DRAWINGS SHOWING ALL DIMENSIONS, INCLUDING CONCRETE REINFORCEMENT AND BUOYANCY, SHALL BE SUBMITTED TO THE CITY PRIOR TO INSTALLATION.
- THE BOTTOM SLAB SHALL BE CAST MONOLITHICALLY WITH THE LOWER WALL SECTION TO A MINIMUM OF 3' ABOVE SLAB BASE.
- NO CONSTRUCTION JOINTS ARE ALLOWED BELOW ELEVATION +2.00 NAVD. ABOVE ELEVATION +2.00 NAVD CONSTRUCTION JOINTS ARE ALLOWED, IF ADEQUATE JOINTS WITH KEY-WAYS AND WATER STOPS ARE PROVIDED. SUBMIT SHOP DRAWINGS OF JOINT DETAILS TO THE ENGINEER FOR APPROVAL.

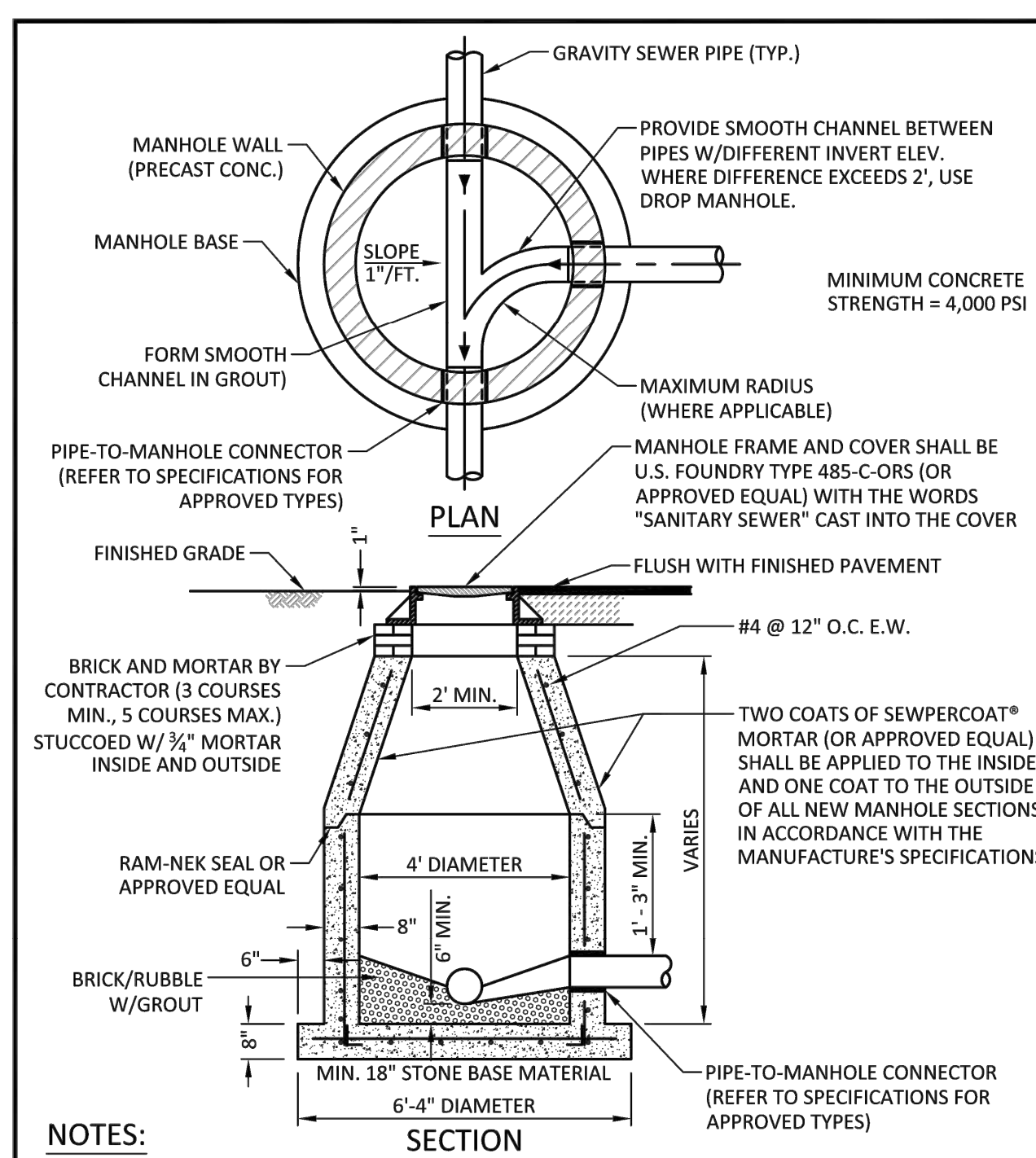
	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  <b>SHALLOW MANHOLE</b>	REVISED: 07/18/2018  DRAWING NO. <b>S-05</b>
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#### NOTES:

- LETTERS ON COVER TO BE 3/8" HIGH, 1/4" TO 5/16" THICK AND FLUSH WITH TOP OF COVER.
- ALL BEARING SURFACES TO BE MACHINED.
- MINIMUM WEIGHTS: COVER - 160 LBS., TOTAL - 400 LBS.
- MANHOLE FRAME AND COVER SHALL BE U.S. FOUNDRY 485-C-ORS WITH THE WORDS "SANITARY SEWER" CAST INTO THE COVER.

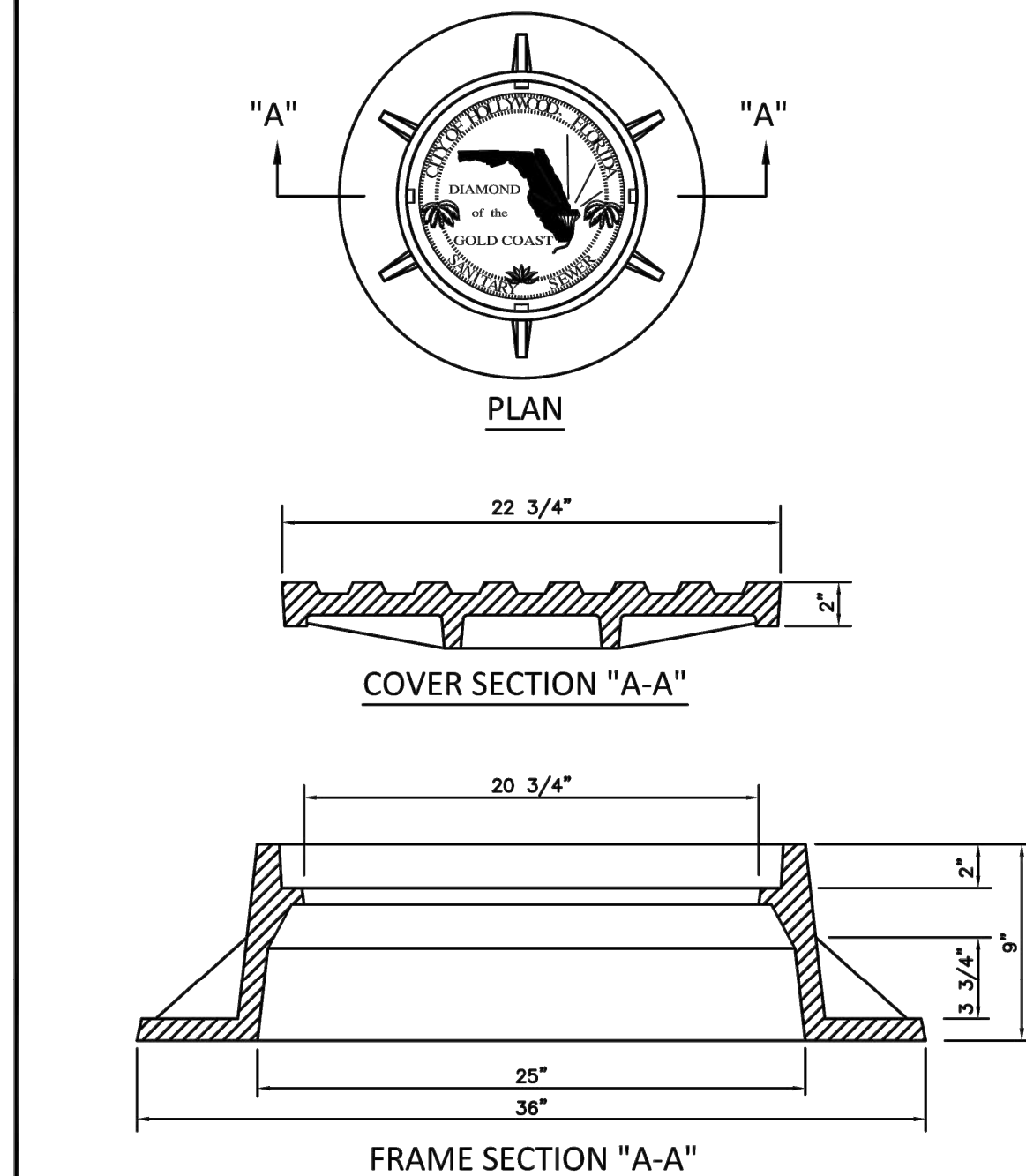
	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  <b>MANHOLE FRAME AND COVER</b>	REVISED: 06/08/2014  DRAWING NO. <b>S-06</b>
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#### NOTES:


- SHOP DRAWINGS SHOWING ALL DIMENSIONS, INCLUDING CONCRETE REINFORCEMENT AND BUOYANCY, SHALL BE SUBMITTED TO THE CITY PRIOR TO INSTALLATION.
- THE BOTTOM SLAB SHALL BE CAST MONOLITHICALLY WITH THE LOWER WALL SECTION TO A MINIMUM OF 3' ABOVE SLAB BASE.
- NO CONSTRUCTION JOINTS ARE ALLOWED BELOW ELEVATION +2.00 NAVD. ABOVE ELEVATION +2.00 NAVD CONSTRUCTION JOINTS ARE ALLOWED, IF ADEQUATE JOINTS WITH KEY-WAYS AND WATER STOPS ARE PROVIDED. SUBMIT SHOP DRAWINGS OF JOINT DETAILS TO THE ENGINEER FOR APPROVAL.

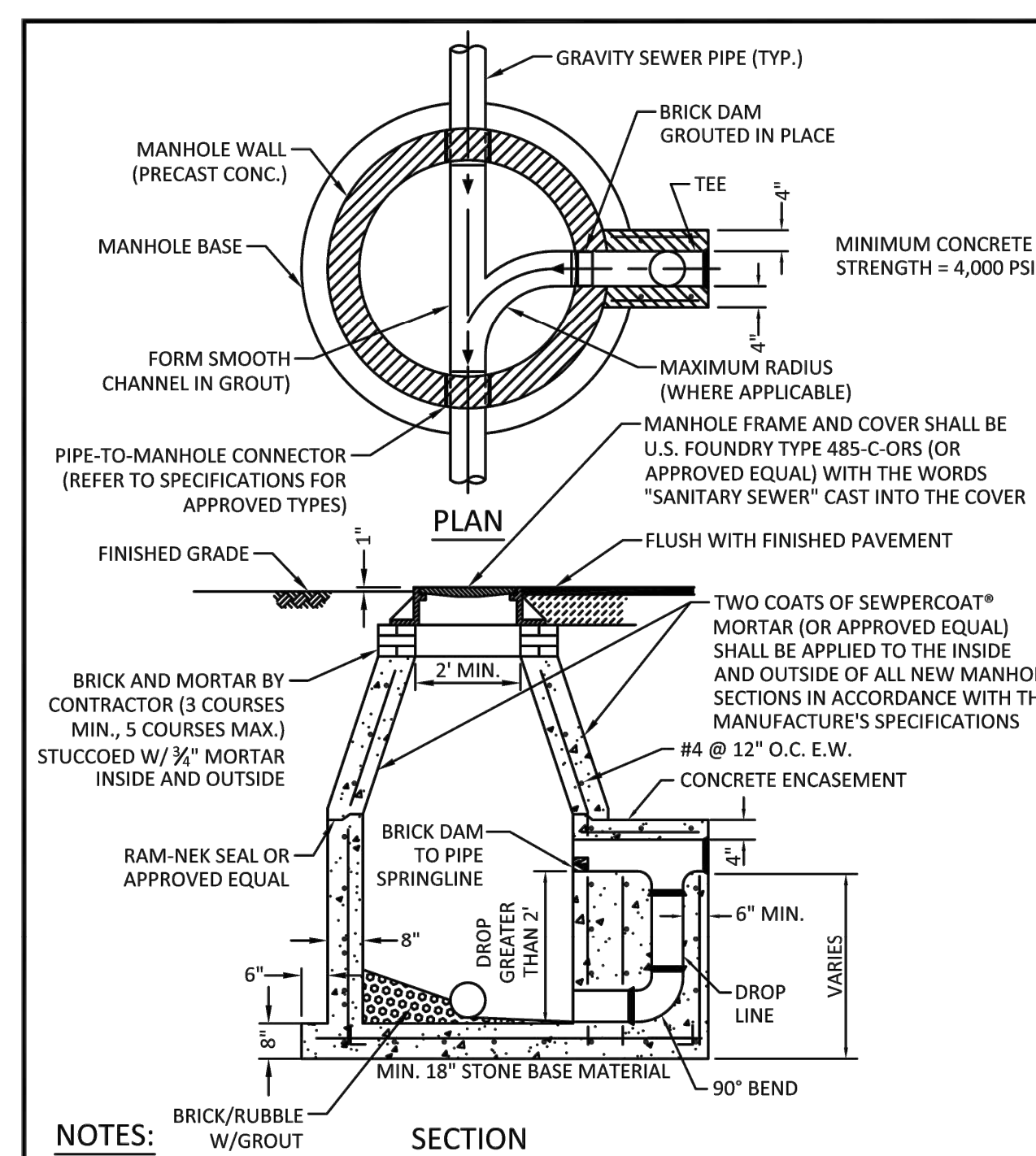
	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  <b>STANDARD PRECAST MANHOLE</b>	REVISED: 07/18/2018  DRAWING NO. <b>S-03</b>
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#### NOTES:

- LETTERS ON COVER TO BE 3/8" HIGH, 1/4" TO 5/16" THICK AND FLUSH WITH TOP OF COVER.
- ALL BEARING SURFACES TO BE MACHINED.
- MINIMUM WEIGHTS: COVER - 160 LBS., TOTAL - 400 LBS.
- MANHOLE FRAME AND COVER SHALL BE U.S. FOUNDRY 485-C-ORS TYPE EL WITH THE WORDS "SANITARY SEWER" CAST INTO THE COVER.

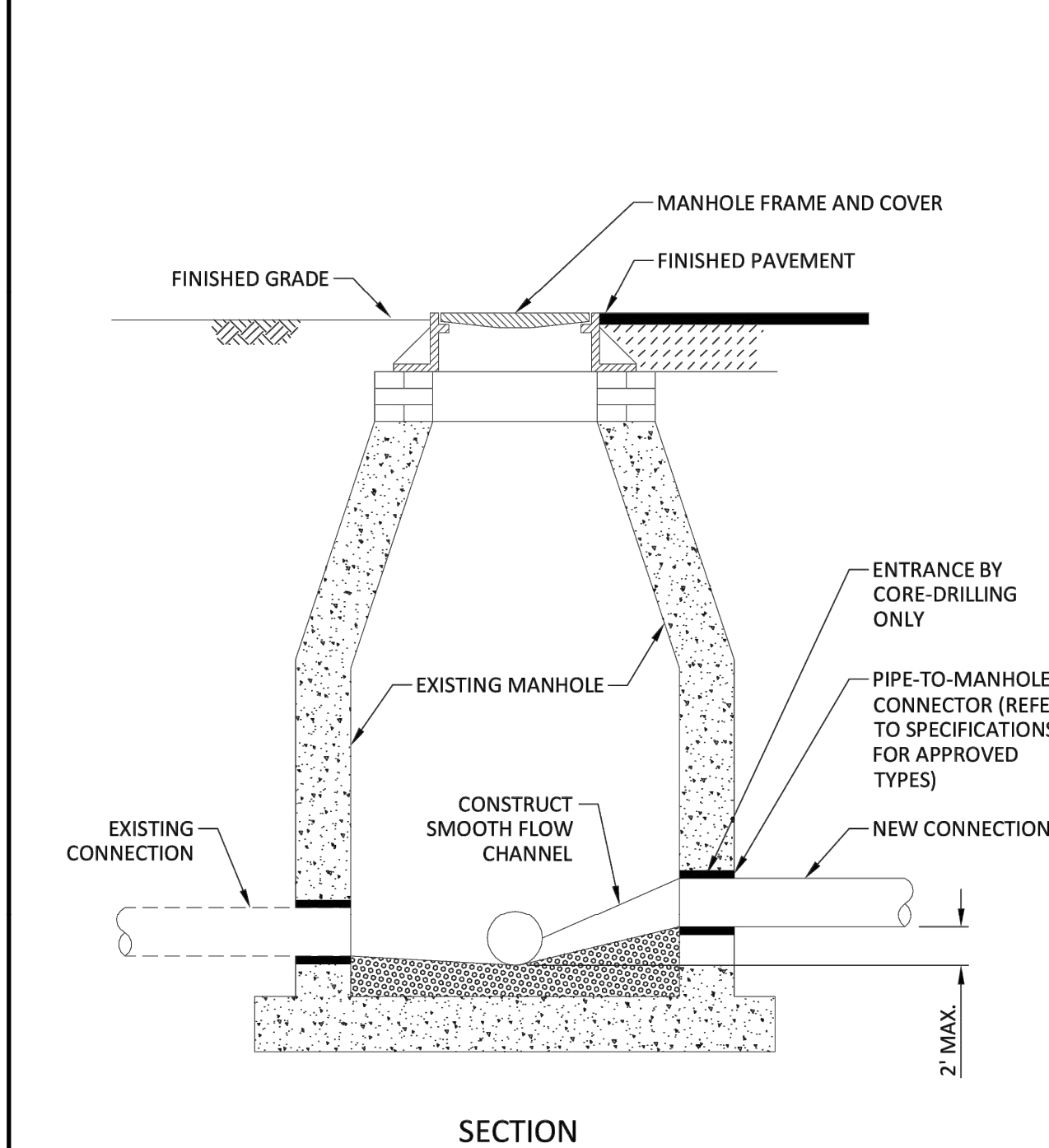
	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  <b>MANHOLE FRAME AND COVER CITY OF HOLLYWOOD</b>	REVISED: 06/08/2014  DRAWING NO. <b>S-06.1</b>
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#### NOTES:

- SHOP DRAWINGS SHOWING ALL DIMENSIONS, INCLUDING CONCRETE REINFORCEMENT AND BUOYANCY, SHALL BE SUBMITTED TO THE CITY PRIOR TO INSTALLATION.
- THE BOTTOM SLAB SHALL BE CAST MONOLITHICALLY WITH THE LOWER WALL SECTION TO A MINIMUM OF 3' ABOVE SLAB BASE.
- NO CONSTRUCTION JOINTS ARE ALLOWED BELOW ELEVATION +2.00 NAVD. ABOVE ELEVATION +2.00 NAVD CONSTRUCTION JOINTS ARE ALLOWED, IF ADEQUATE JOINTS WITH KEY-WAYS AND WATER STOPS ARE PROVIDED. SUBMIT SHOP DRAWINGS OF JOINT DETAILS TO THE ENGINEER FOR APPROVAL.

	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  <b>DROP MANHOLE</b>	REVISED: 07/18/2018  DRAWING NO. <b>S-04</b>
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SECTION

	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL  <b>NEW CONNECTION TO EXISTING MANHOLE</b>	REVISED: 06/08/2014  DRAWING NO. <b>S-07</b>
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SOLESTE LA PIAZZA  
HOLLYWOOD, FLORIDA

PREPARED FOR:  
THE ESTATES COMPANIES

WATER AND SEWER DETAILS

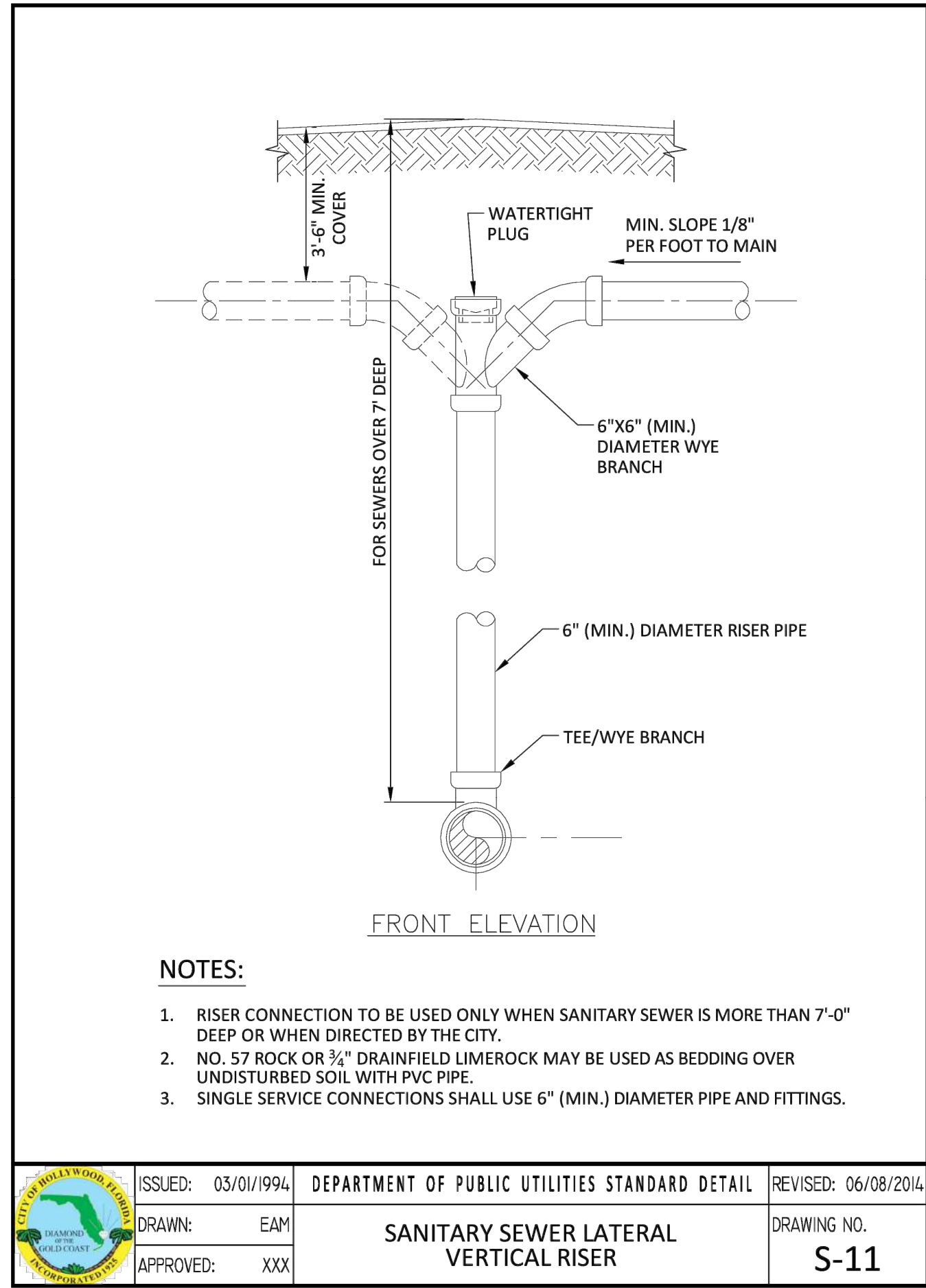
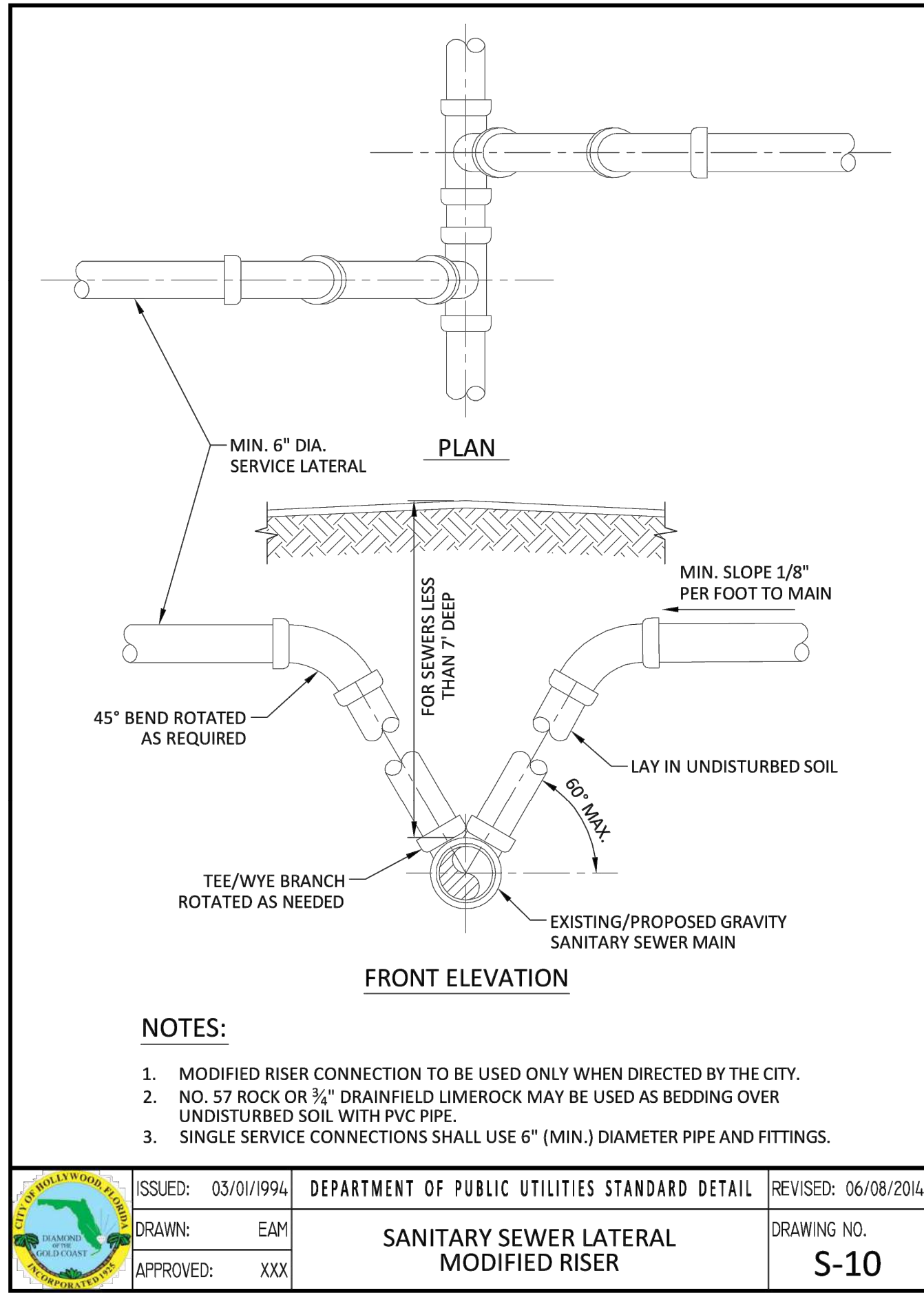
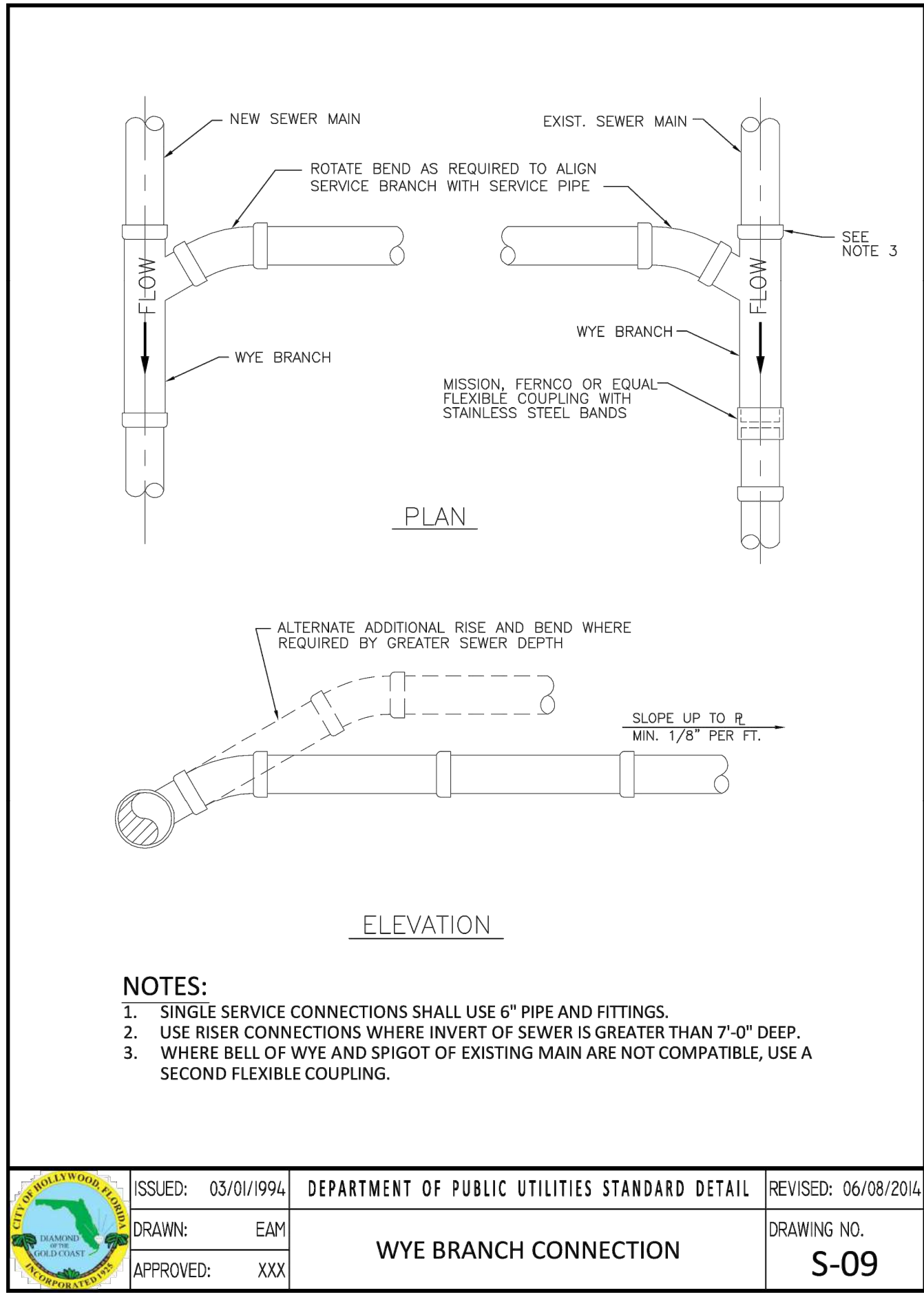
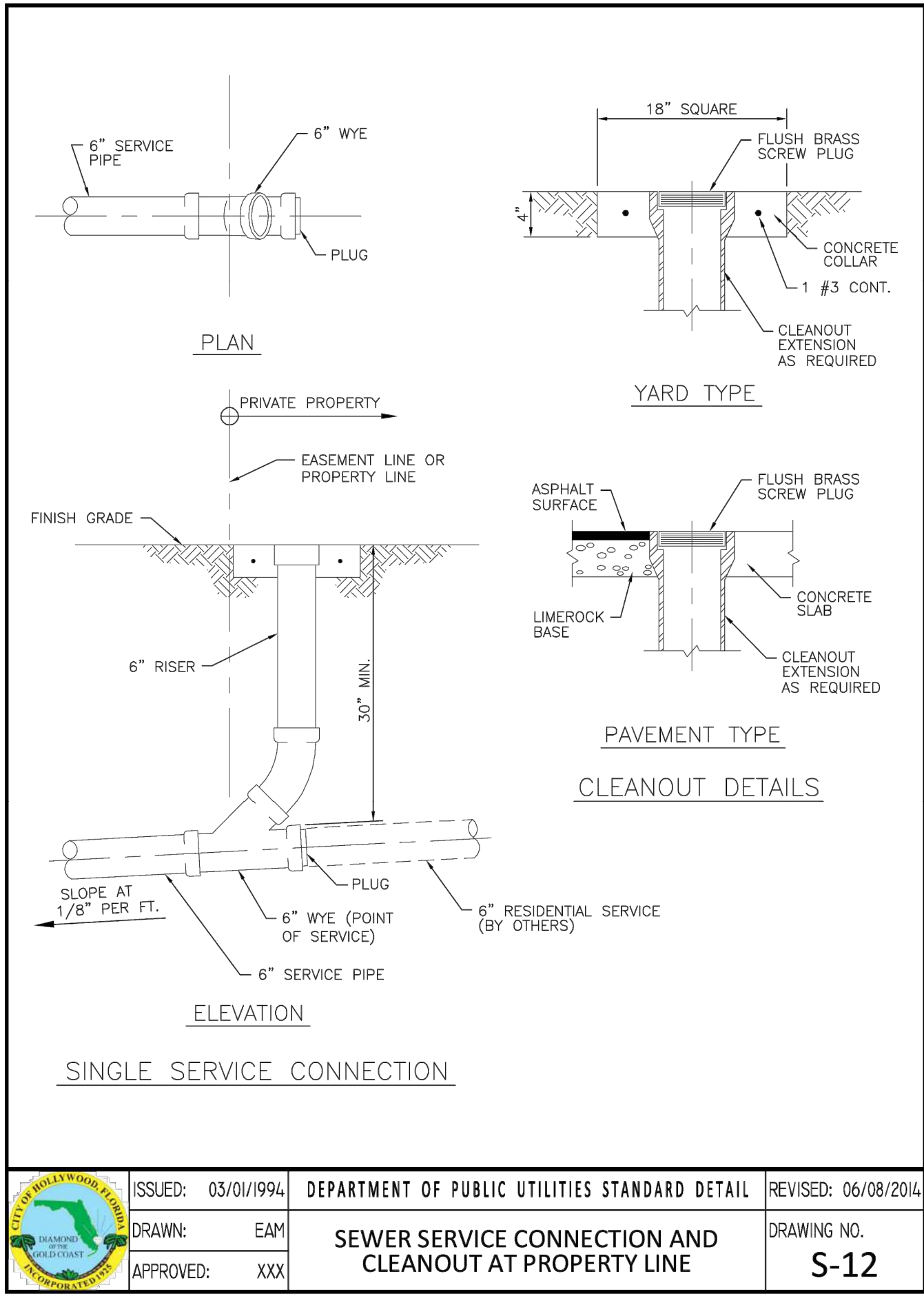
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SOLESTE LA PIAZZA  
HOLLYWOOD, FLORIDA

PREPARED FOR:  
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WATER AND SEWER DETAILS

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WATER SYSTEM NOTES:

- NEW OR RELOCATED UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE.
- NEW OR RELOCATED UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE. [FAC 62-555.314(2); EXCEPTIONS ALLOWED UNDER FAC 62-555.314(5)].
- AT ALL UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE WILL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. OR THE PIPES WILL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. [FAC 62-555.314(2); EXCEPTIONS ALLOWED UNDER FAC 62-555.314(5)].
- NEW UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT TO BE DUCTILE IRON PIPE (D.I.P.) WHEN CROSSING BELOW SANITARY SEWER MAINS.
- POLYETHYLENE ENCASUREMENT MATERIAL SHALL BE USED TO ENCASE ALL BURIED DUCTILE IRON PIPE, FITTINGS, VALVES, RODS, AND APPURTENANCES IN ACCORDANCE WITH AWWA C105, METHOD A. THE POLYETHYLENE TUBING SHALL BE CUT TWO FEET LONGER THAN THE PIPE SECTION AND SHALL OVERLAP THE ENDS OF THE PIPE BY ONE FOOT. THE POLYETHYLENE TUBING SHALL BE GATHERED AND LAPPED TO PROVIDE A SNUG FIT AND SHALL BE SECURED AT QUARTER POINTS WITH POLYETHYLENE TAPE. EACH END OF THE POLYETHYLENE TUBING SHALL BE SECURED WITH A WRAP OF POLYETHYLENE TAPE.
- THE POLYETHYLENE TUBING SHALL PREVENT CONTACT BETWEEN THE PIPE AND BEDDING MATERIAL, BUT IS NOT INTENDED TO BE A COMPLETELY AIRTIGHT AND WATERTIGHT ENCLOSURE. DAMAGED POLYETHYLENE TUBING SHALL BE REPAIRED IN A WORKMANLIKE MANNER USING POLYETHYLENE TAPE, OR THE DAMAGED SECTION SHALL BE REPLACED. POLY WRAP WILL NOT BE PAID FOR AS A SEPARATE BID ITEM. IT SHALL BE CONSIDERED TO BE A PART OF THE PRICE BID FOR WATER MAINS.
- FIRE HYDRANT BARRELS SHALL BE ENCASED IN POLY WRAP UP TO THE GROUND SURFACE AND THE WEEP HOLES SHALL NOT BE COVERED BY THE POLY WRAP.
- GATE VALVES FOR USE WITH PIPE LESS THAN THREE INCHES (3") IN DIAMETER SHALL BE RATED FOR TWO HUNDRED (200) PSI WORKING PRESSURE, NON-SHOCK, BLOCK PATTERN, SCREWED BONNET, NON-RISING STEM, BRASS BODY, AND SOLID WEDGE. THEY SHALL BE STANDARD THREADED FOR PVC PIPE AND HAVE A MALLEABLE IRON HANDWHEEL. GATE VALVES 3" THROUGH 16" IN DIAMETER SHALL BE RESILIENT SEAT AND BIDIRECTIONAL FLOW ONLY. VALVES FOR SPECIAL APPLICATIONS WILL REQUIRE CITY UTILITY APPROVAL.
- VALVE BOXES AND COVERS FOR ALL SIZE VALVES SHALL BE OF CAST IRON CONSTRUCTION AND ADJUSTABLE SCREW-ON TYPE. THE LID SHALL HAVE CAST IN THE METAL THE WORD "WATER" FOR THE WATER LINES. ALL VALVE BOXES SHALL BE SIX INCH (6") NOMINAL DIAMETER AND SHALL BE SUITABLE FOR DEPTHS OF THE PARTICULAR VALVE. THE STEM OF THE BURIED VALVE SHALL BE WITHIN TWENTY-FOUR INCHES (24") OF THE FINISHED GRADE UNLESS OTHERWISE APPROVED BY THE CITY.
- ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320 F.A.C.

	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	WATER SYSTEM NOTES		DRAWING NO. W-01
APPROVED: XXX			


WATER SYSTEM NOTES (CONTINUED):

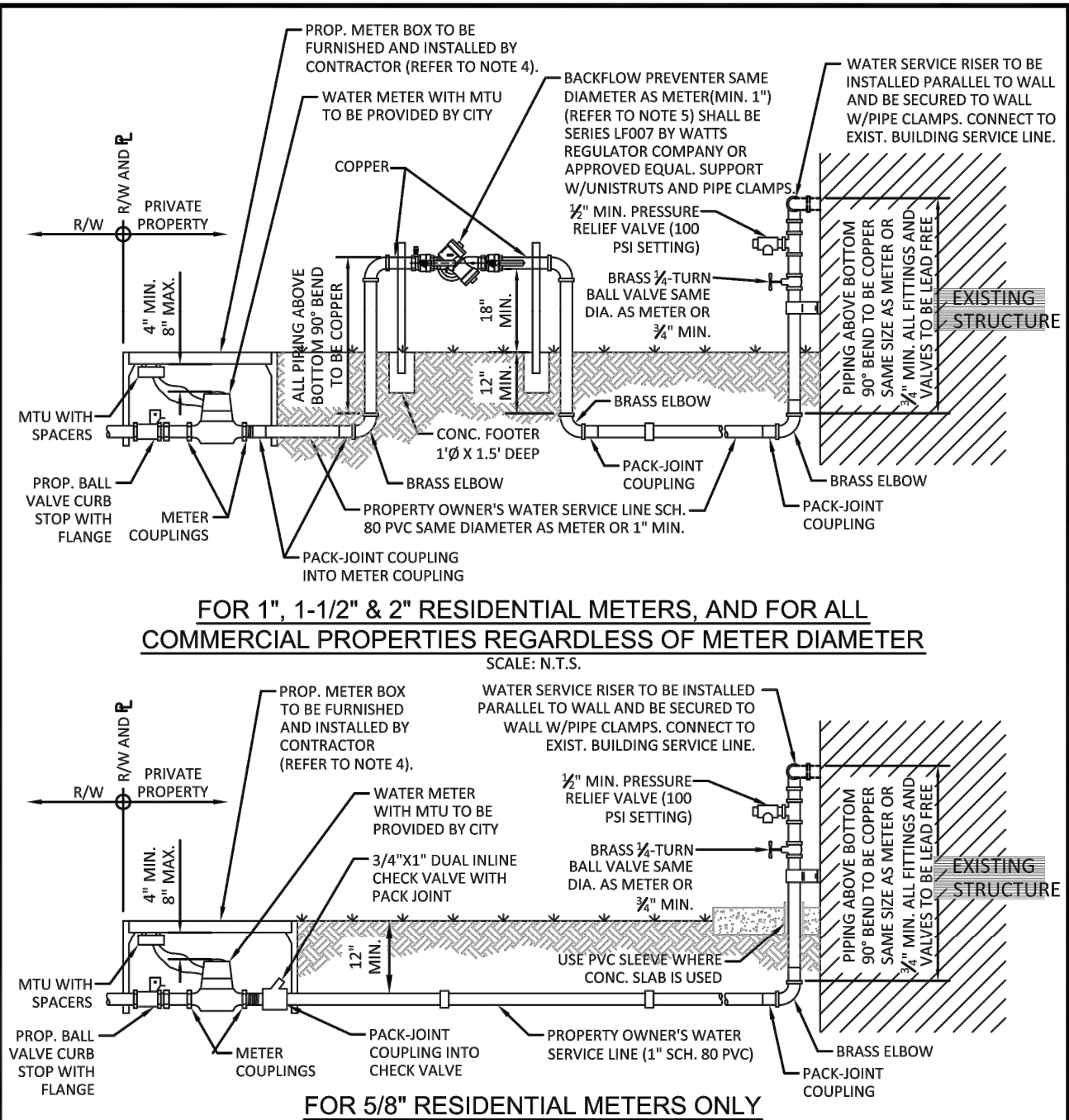
- ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320 F.A.C.
- ALL PVC PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C900 LATEST REVISION AND CLASS DR 18. ALL DIP WATER MAINS SHALL BE DUCTILE IRON PRESSURE CLASS 350, WITH WALL THICKNESS COMPLYING WITH CLASS 52. ALL DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C151/A21.51-02 AND BE CEMENT LINED AND SEAL COATED PER ANSI/AWWA C104/A21.4-03.
- FITTINGS SHALL BE DUCTILE IRON, MEETING ANSI/AWWA C153/A21.53-00 SPECIFICATIONS, WITH 350 PSI MINIMUM WORKING PRESSURE. FITTINGS MUST BE CEMENT LINED AND SEAL COATED PER ANSI/AWWA C104/A21.4-03. ALL DUCTILE IRON PIPE AND FITTINGS MUST BE MANUFACTURED IN THE UNITED STATES OF AMERICA.
- ALL DUCTILE IRON PIPE TO BE MECHANICAL JOINTS, WRAPPED IN POLY. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY DESIGN.
- PAVEMENT RESTORATION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY.
- ALL TRENCHING, PIPE LAYING, BACKFILL, PRESSURE TESTING, AND DISINFECTING MUST COMPLY WITH THE CITY OF HOLLYWOOD SPECIFICATIONS.
- THE MINIMUM DEPTH OF COVER OVER WATER MAINS IS 30" (DIP) OR 36" (PVC).
- MINIMUM HORIZONTAL SEPARATION BETWEEN STORM STRUCTURES AND WATER MAINS SHALL BE 3'.
- MAXIMUM DEFLECTION PER EACH JOINT SHALL BE 50% OF MANUFACTURES RECOMMENDATION (MAXIMUM) WHERE DEFLECTION IS REQUIRED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING CONFLICTS WITH WATER MAINS PLACED AT MINIMUM COVER. IN CASE OF CONFLICT, WATER MAIN SHALL BE LOWERED TO PASS UNDER CONFLICTS WITH 18" MINIMUM VERTICAL SEPARATION. NO ADDITIONAL PAYMENT SHALL BE DUE TO CONTRACTOR FOR LOWERING THE MAIN OR THE ADDITIONAL FITTINGS USED THEREON.
- PIPE JOINT RESTRAINT SHALL BE PROVIDED BY THE USE OF DUCTILE IRON FOLLOWER GLANDS MANUFACTURED TO ASTM A 536-80. TWIST-OFF NUTS SHALL BE USED TO ENSURE PROPER ACTUATING OF THE RESTRAINING DEVICES. THE MECHANICAL JOINT RESTRAINING DEVICES SHALL HAVE A WORKING PRESSURE OF 250 PSI MINIMUM, WITH A MINIMUM SAFETY FACTOR OF 2:1, AND SHALL BE EBAA IRON INC., MEGALUG OR APPROVED EQUAL. JOINT RESTRAINTS SHALL BE PROVIDED AT A MINIMUM OF THREE JOINTS (60 FEET) FROM ANY FITTING.
- WHENEVER IT IS NECESSARY, IN THE INTEREST OF SAFETY, TO BRACE THE SIDES OF A TRENCH, THE CONTRACTOR SHALL FURNISH, PUT IN PLACE AND MAINTAIN SUCH SHEETING OR BRACING AS MAY BE NECESSARY TO SUPPORT THE SIDES OF THE EXCAVATION TO ENSURE PERSONNEL SAFETY, AND TO PREVENT MOVEMENT WHICH CAN IN ANY WAY DAMAGE THE WORK OR ENDANGER ADJACENT STRUCTURES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SEQUENCE, METHODS AND MEANS OF CONSTRUCTION, AND FOR THE IMPLEMENTATION OF ALL OSHA AND OTHER SAFETY REQUIREMENTS.

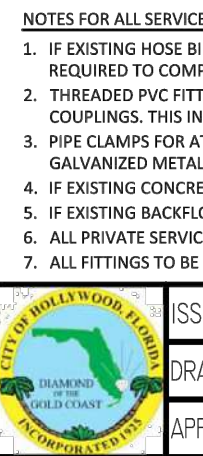
	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	WATER SYSTEM NOTES		DRAWING NO. W-02
APPROVED: XXX			

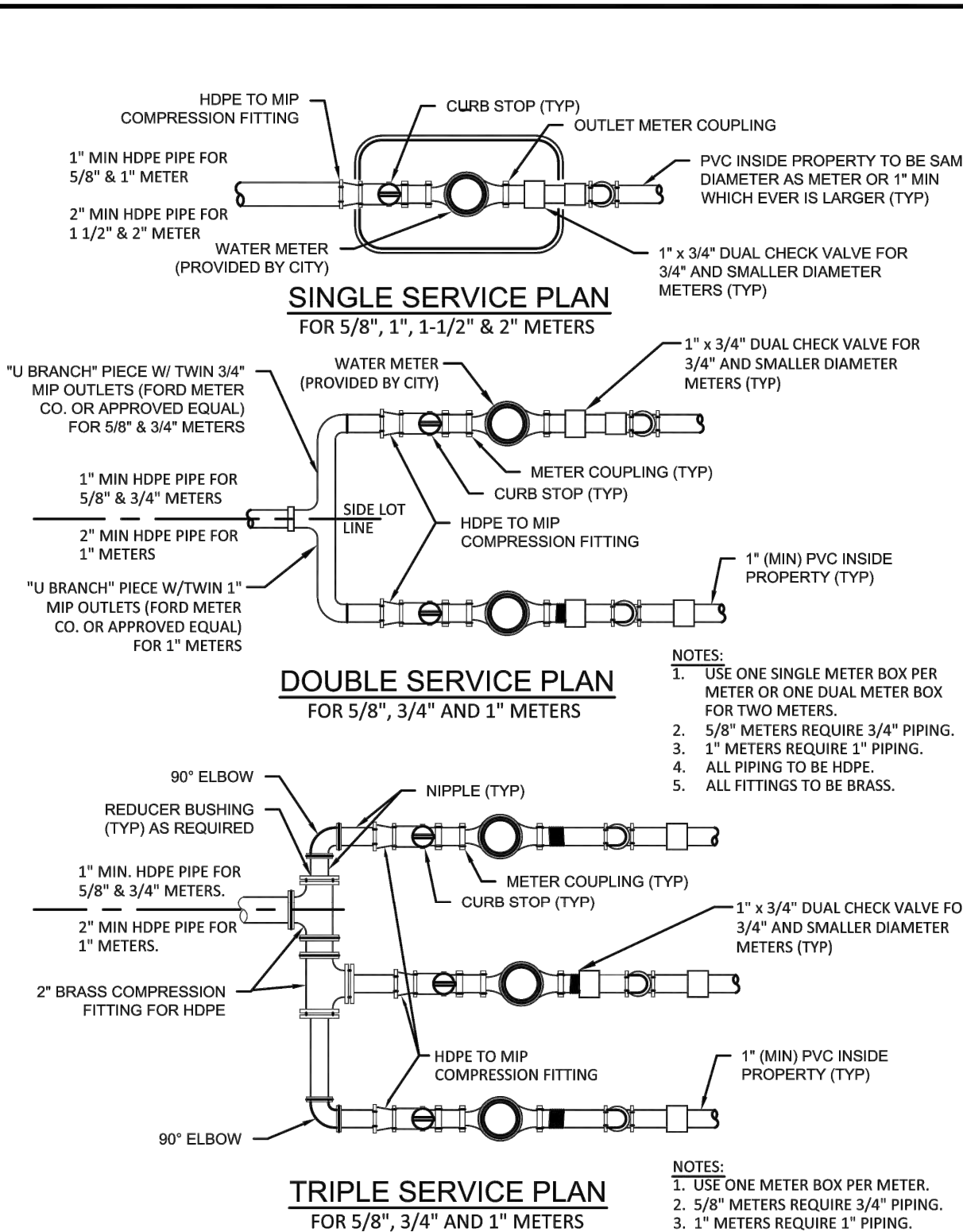
WATER METER SERVICE NOTES:


- SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED NOT LESS THAN 18" ON CENTER.
- P.E. TUBING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AWWA STANDARD C901, "POLYETHYLENE (PE) PRESSURE PIPE AND TUBING, 1/2 IN. (13mm) THROUGH 3 IN. (76 mm), FOR WATER SERVICE".
- MINIMUM SERVICE PIPE DIAMETER SHALL BE 1" FOR SINGLE OR DUAL 3/8" OR SINGLE 1" DIAMETER METERS.
- MINIMUM SERVICE PIPE DIAMETER SHALL BE 2" FOR SINGLE OR DUAL 1-1/2" OR SINGLE 2" DIAMETER METERS.
- FOR METER DIAMETERS LARGER THAN 2", THE MINIMUM SERVICE PIPE DIAMETER SHALL BE THE SAME AS THE METER DIAMETER.
- APPROVED COPPER TUBING MAY BE USED AT THE CITY'S DISCRETION.
- FOR NEW METER INSTALLATIONS, ALL SADDLES, VALVES, PIPING, FITTINGS, CURB STOPS, METER VALVES, METER COUPLINGS, METER VAULTS AND COVERS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE EXISTING WATER METER TO BE RELOCATED AND INSTALLED BY THE CONTRACTOR.
- FOR METER RELOCATIONS, ALL SADDLES, VALVES, PIPING, FITTINGS, CURB STOPS, METER VALVES, METER COUPLINGS, METER VAULTS AND COVERS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE EXISTING WATER METER TO BE RELOCATED AND INSTALLED BY CONTRACTOR.
  - CUT AND PLUG THE EXISTING SERVICE LINE AT THE MAIN AND AT THE METER, AND REMOVE THE EXISTING BALL VALVE CURB STOP.
  - FURNISH AND INSTALL SERVICE SADDLE, CORPORATION STOP OR SERVICE VALVE AND VALVE BOX, PIPING AND FITTINGS UP TO AND INCLUDING THE BALL VALVE CURB STOP.
- THE ELEVATION AT THE TOP OF THE METER BOX SHALL MATCH THE ELEVATION OF THE BACK OF SIDEWALK, WHENEVER PRACTICAL.
- AS PART OF THE SERVICE INSTALLATION, THE CONTRACTOR SHALL RESTORE THE RIGHT-OF-WAY TO MATCH EXISTING CONDITIONS, INCLUDING ROADWAY PAVEMENT, PAVEMENT MARKINGS AND RPMs, CONCRETE CURBS, SIDEWALKS, RAMPS (INCLUDING DETECTABLE WARNING SURFACE), SODDING, AND ALL OTHER IMPROVEMENTS REMOVED OR DAMAGED DURING THE SERVICE INSTALLATION.
- FOR UNPAVED AREAS, THE MINIMUM GROUND COVER ACCEPTED BY THE CITY IS SODDING.

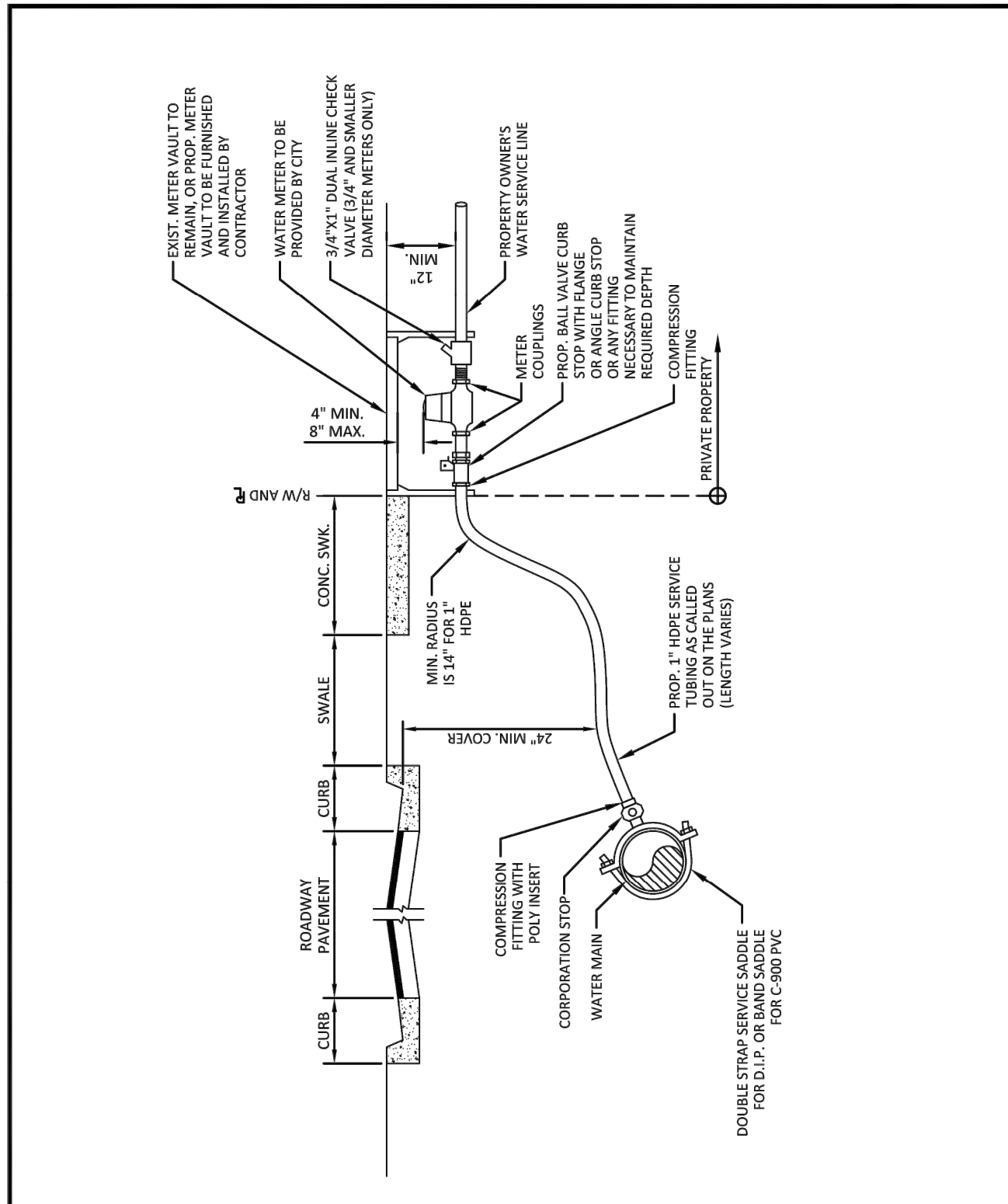
	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	WATER METER SERVICE NOTES FOR 5/8" THROUGH 2" METERS		DRAWING NO. W-07
APPROVED: XXX			




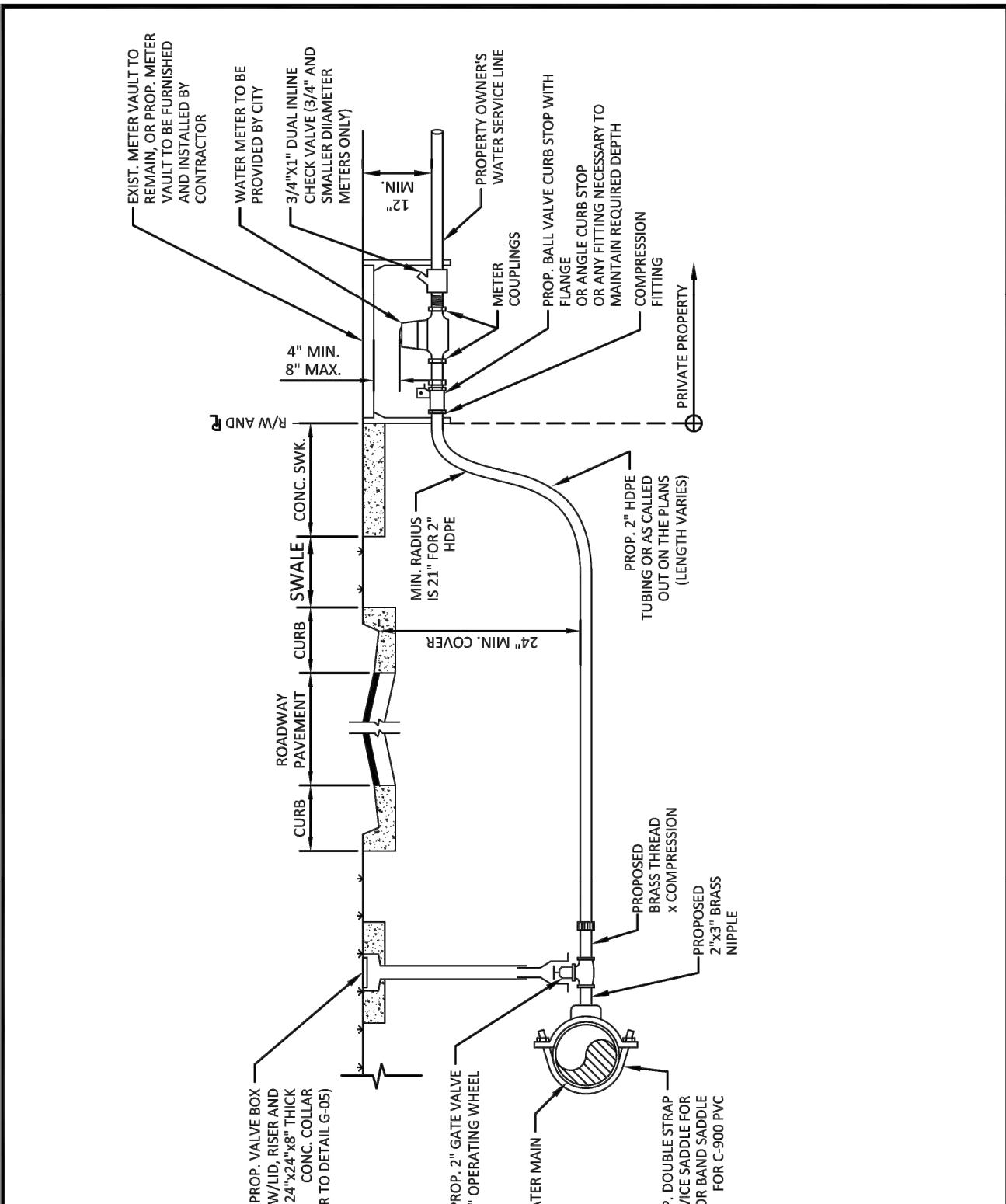
	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 02/14/2018
DRAWN: EAM	TYPICAL WATER SERVICE FROM METER TO STRUCTURE FOR 5/8" THROUGH 2" METERS		DRAWING NO. W-10
APPROVED: XXX			




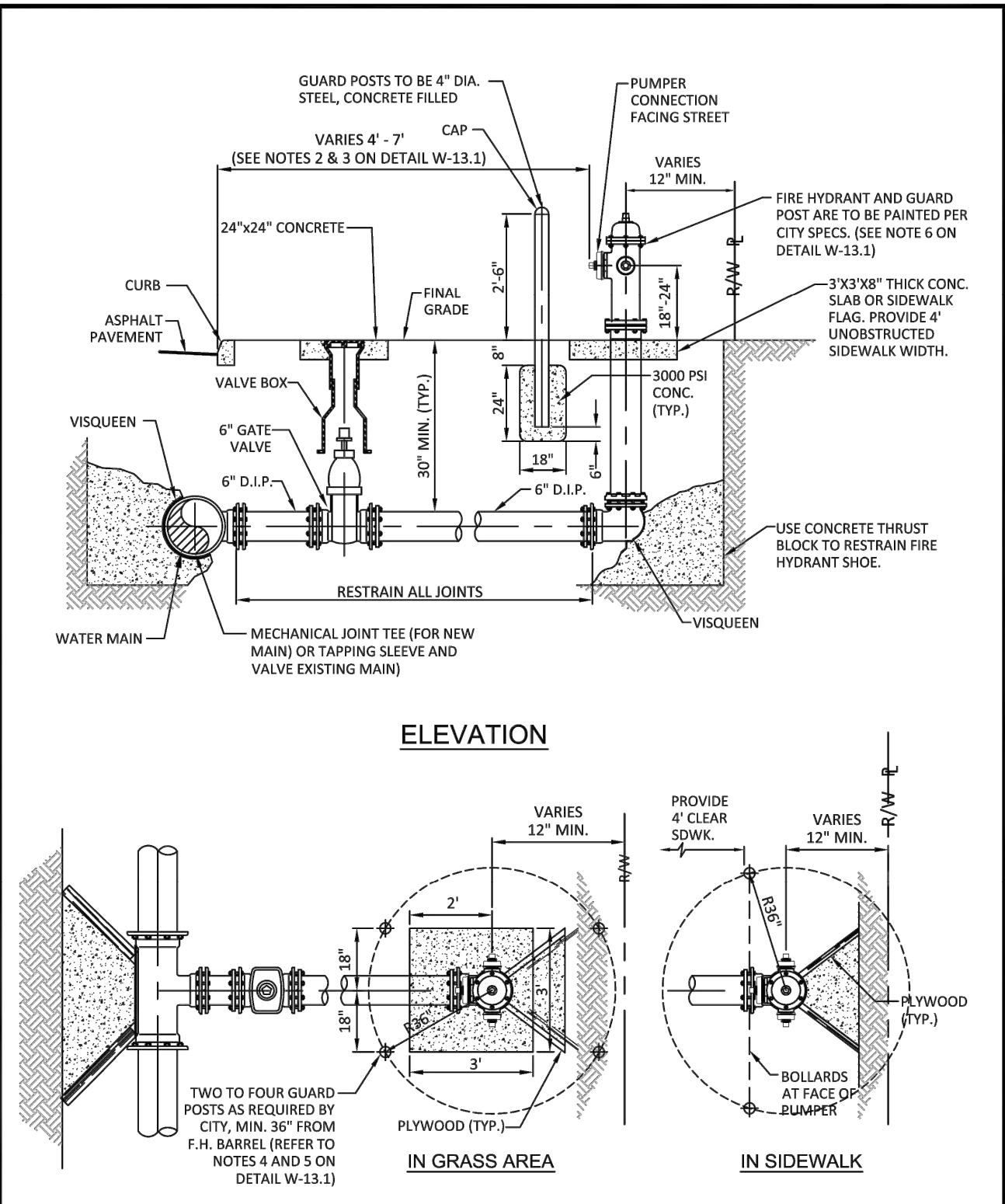
	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	TYPICAL 5/8", 1", 1-1/2" AND 2" METER INSTALLATION		DRAWING NO. W-06
APPROVED: XXX			




	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	TYPICAL 1" HDPE WATER SERVICE FOR SINGLE/DUAL 5/8" TO 1" METERS		DRAWING NO. W-08
APPROVED: XXX			



	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	TYPICAL 2-INCH HDPE WATER SERVICE FOR SINGLE/DUAL 5/8" TO 1" METERS, AND ANY SINGLE 1-1/2" TO 2" METERS		DRAWING NO. W-09
APPROVED: XXX			



	ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 03/05/2019
DRAWN: EAM	TYPICAL FIRE HYDRANT INSTALLATION		DRAWING NO. W-13
APPROVED: XXX			

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SOLESTE LA PIAZZA  
HOLLYWOOD, FLORIDA  
PREPARED FOR:  
THE ESTATES COMPANIES  
WATER AND SEWER DETAILS

Chad E. Edwards  
Florida P.E. No. 59306

22-0064-001-01

C-16  
SHEET 16 OF 17



- NOTES:
1. IN ALL CASES, PROVIDE 4' UNOBSTRUCTED SIDEWALK CLEAR OF THE FIRE HYDRANT AND BOLLARDS.
  2. FIRE HYDRANTS SHALL BE LOCATED BETWEEN 4' AND 7' FROM THE FACE OF CURB.
  3. FIRE HYDRANTS SHALL NOT BE LOCATED WITHIN A RADIUS OR WITHIN FDOT CLEAR DRIVING ZONE.
  4. GUARD POSTS SHALL BE INSTALLED AS REQUIRED FOR SAFETY OR AS APPROVED BY THE DEPT. OF PUBLIC UTILITIES. IN SIDEWALK, LOCATE GUARD POSTS AT THE FACE OF THE PUMPER AND 2'-6" LEFT/RIGHT OF  $\phi$  OF THE FIRE HYDRANT. EXTRA POSTS MAY BE REQUIRED IN INDUSTRIAL AND CONGESTED TRAFFIC AREAS. (4 POSTS MAX.)
  5. FIRE HYDRANT CONCRETE SLAB AND CONCRETE GUARD POST FOOTINGS SHALL BE DIFFERENT POURS.
  6. THE FIRE HYDRANT BONNET, OPERATING NUT, HOLD-DOWN NUT, PUMPER CAP AND HOSE CAPS SHALL BE PAINTED GREEN, AND THE HYDRANT UPPER BARREL SHALL BE PAINTED SILVER IN ACCORDANCE WITH CITY SPECIFICATIONS.

	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
TYPICAL FIRE HYDRANT NOTES		DRAWING NO.	W-13.1


#### WATER MAIN TESTING AND DISINFECTION NOTES:

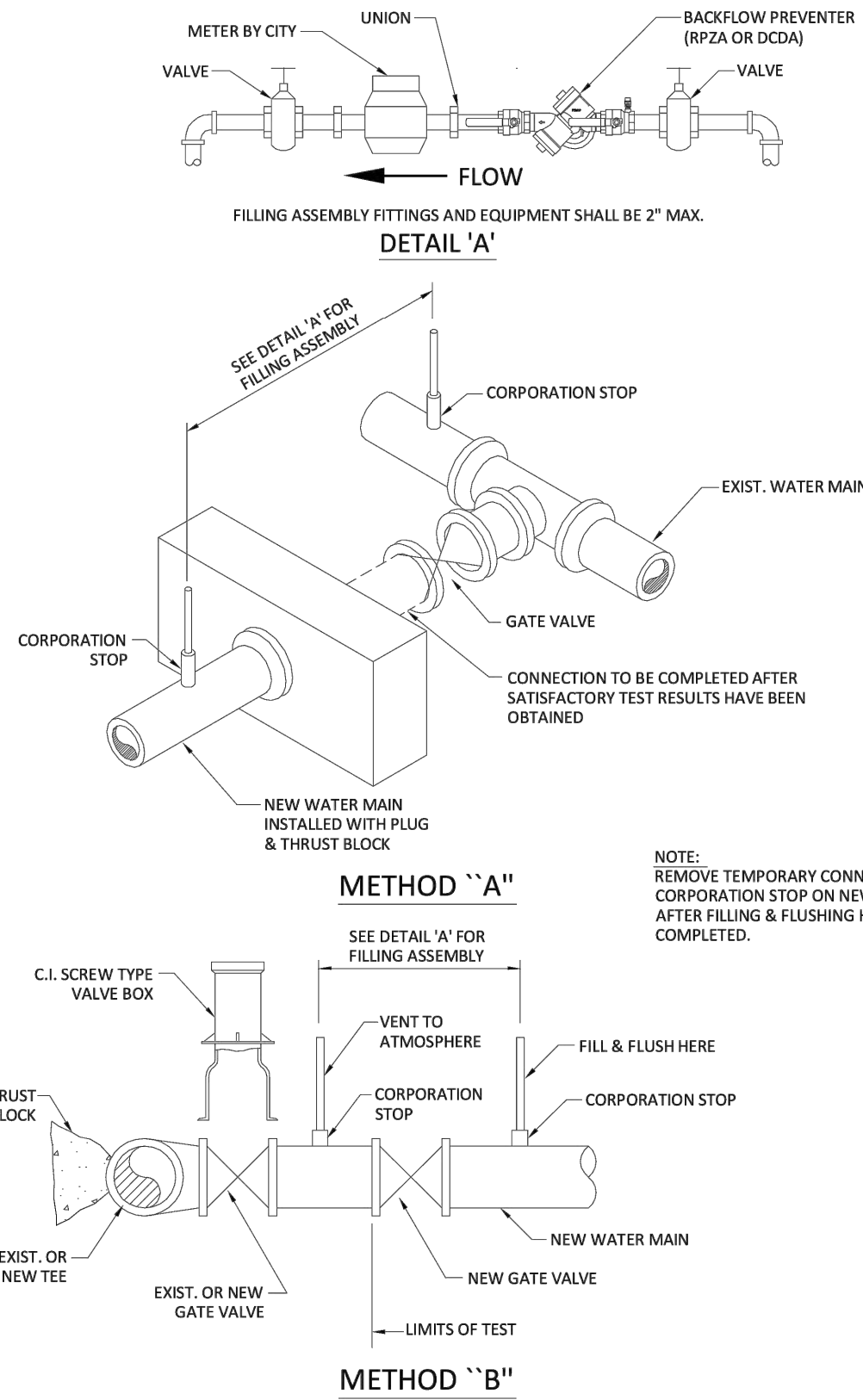
1. NO CONNECTIONS TO THE EXISTING LINES SHALL BE MADE UNTIL THE PRESSURE AND BACTERIOLOGICAL TESTS HAVE BEEN PERFORMED ON THE PROPOSED WATER MAINS AND THE SYSTEM HAS BEEN APPROVED BY THE CITY OF HOLLYWOOD AND THE BROWARD COUNTY HEALTH DEPARTMENT.
2. THE PRESSURE TEST SHALL BE PERFORMED FOR 2 HOURS AT A CONSTANT PRESSURE OF 150 PSI AND IN ACCORDANCE WITH RULE 62-555.330 (FAC) C600 AWWA LATEST REVISION, EXCEPT AS OTHERWISE SPECIFIED HEREIN AND IN SPECIFICATION SECTION 15995, "PIPELINE TESTING AND DISINFECTION". PRESSURE TEST SHALL BE WITNESSED BY THE CITY OF HOLLYWOOD. THE ALLOWABLE LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE FORMULA:

$$L = \frac{S \times D \times \sqrt{P}}{148,000}$$

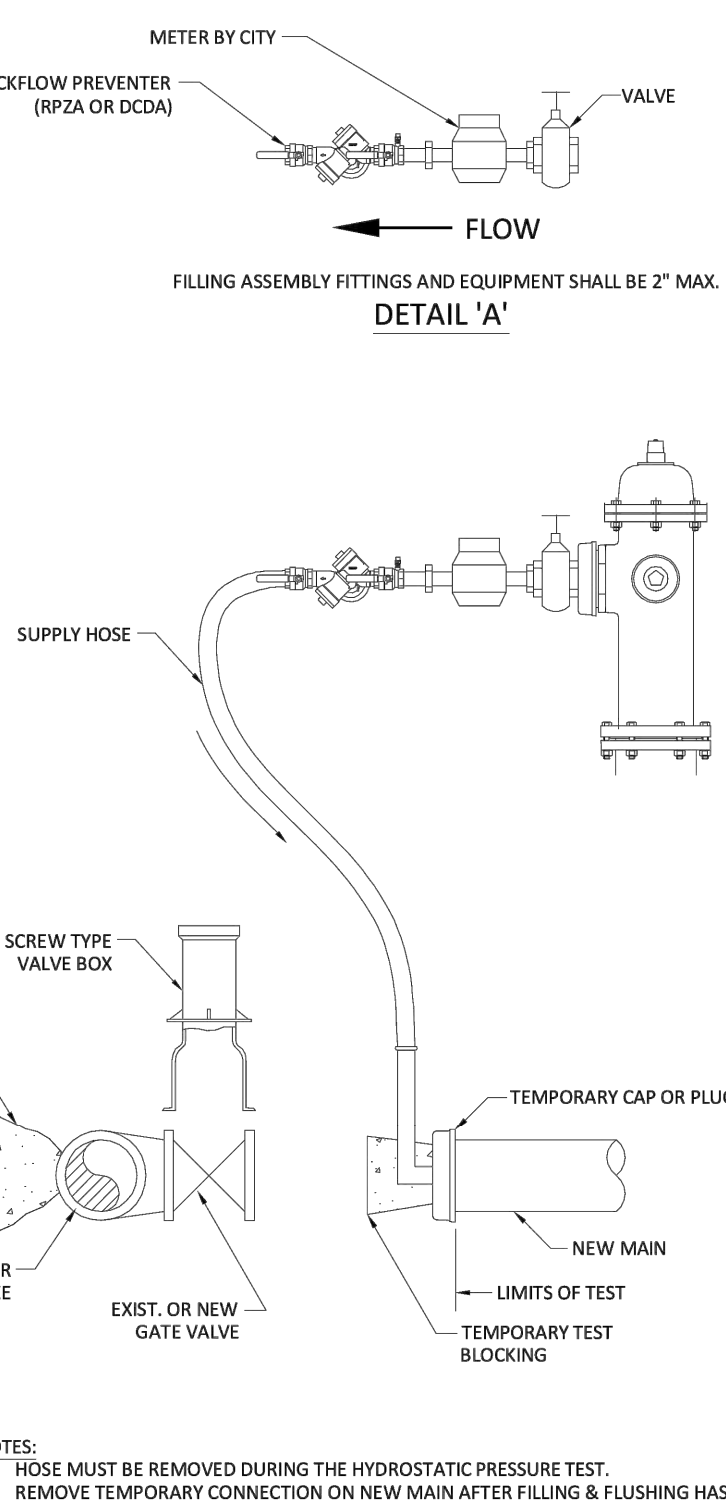
L = THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR.  
S = THE LENGTH OF PIPE BEING TESTED.  
D = THE NOMINAL DIAMETER OF THE PIPE BEING TESTED.  
P = THE AVERAGE TEST PRESSURE IN POUNDS PER SQUARE INCH.


3. THE COMPLETE LENGTH OF THE PROPOSED WATER MAIN SHALL BE TESTED, IN LENGTHS NOT TO EXCEED 2,000 FEET PER TEST.
4. PROPOSED WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI/AWWA STANDARD C651 AND BACTERIOLOGICAL TESTED FOR TWO CONSECUTIVE DAYS IN ACCORDANCE WITH SPECIFICATION SECTION 15995, "PIPELINE TESTING AND DISINFECTION".
5. BACTERIOLOGICAL TESTS SHALL BE REQUESTED AND PAID FOR BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL DIRECTLY HIRE A TESTING LABORATORY CERTIFIED BY THE FLORIDA DEPARTMENT OF HEALTH IN ORDER TO COLLECT AND TEST WATER SAMPLES FROM THE WATER DISTRIBUTION SYSTEM TO BE PLACED INTO SERVICE. SAMPLE COLLECTION AND BACTERIOLOGICAL ANALYSES SHALL BE PERFORMED IN ACCORDANCE WITH RULES 62-555.315(6), 62-555.340 AND 62-555.330 (FAC), AS WELL AS ALL REQUIREMENTS OF THE BROWARD COUNTY HEALTH DEPARTMENT PERMIT.
7. THE WATER DISTRIBUTION SYSTEM SHALL NOT BE CONSIDERED COMPLETE AND READY FOR FINAL INSPECTION UNTIL SUCCESSFUL TEST RESULTS ARE OBTAINED FOR ALL TESTS DESCRIBED ABOVE.

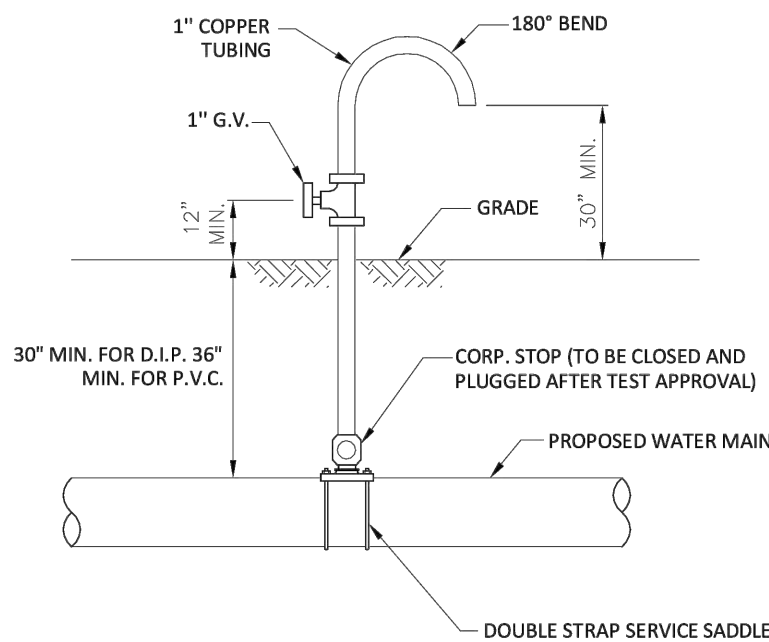
	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
WATER MAIN TESTING AND DISINFECTION NOTES		DRAWING NO.	W-14




	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
FILLING AND FLUSHING DETAILS		DRAWING NO.	W-15



	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
CROSS CONNECTION FILLING AND FLUSHING DETAILS		DRAWING NO.	W-15.1



	ISSUED: 03/01/1994 DRAWN: EAM APPROVED: XXX	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
SAMPLING POINT DETAIL		DRAWING NO.	W-16

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SOLESTE LA PIAZZA  
HOLLYWOOD, FLORIDA  
PREPARED FOR:  
THE ESTATES COMPANIES  
WATER AND SEWER DETAILS

Chad E. Edwards  
Florida P.E. No. 59306

22-0064-001-01

C-17  
SHEET 17 OF 17

CHAD E. EDWARDS, STATE OF FLORIDA  
PROFESSIONAL ENGINEER, LICENSE NO. 59306  
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY  
CHAD E. EDWARDS ON THE DATE INDICATED HERE.  
PRINTED COPIES OF THIS DOCUMENT ARE NOT  
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MUST BE VERIFIED ON ANY ELECTRONIC COPIES