

CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT

PARKER AVE RECONSTRUCTION
FROM FOREST HILL BLVD TO NOTTINGHAM BLVD

WPB PROJECT # 50146547
FM #444376-1-58-01
(FEDERAL FUNDS)

REFER TO FDOT STANDARD PLANS FY 2022-23
AND FDOT STANDARD SPECS JULY 2022



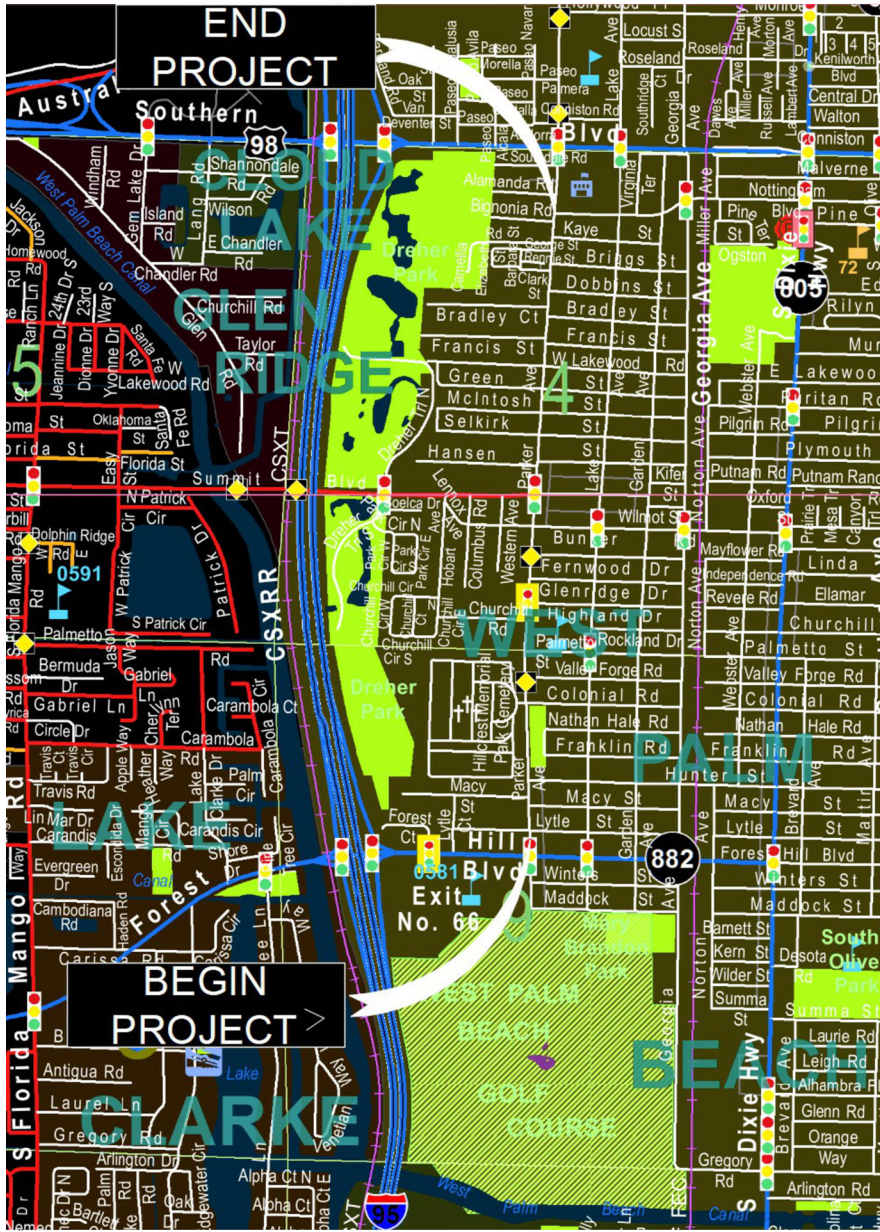
MAYOR:
KEITH A. JAMES

COMMISSIONERS:
DISTRICT #1 CATHLEEN WARD
DISTRICT #2 SHALONDA WARREN
DISTRICT #3 CHRISTY FOX
DISTRICT #4 JOE PEDUZZI
DISTRICT #5 CHRISTINA LAMBERT

CITY ADMINISTRATOR:
FAYE W. JOHNSON

ASSISTANT CITY ADMINISTRATOR:
ARMANDO FANA

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LOCATION MAP
N.T.S.

VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE IN
NORTH AMERICAN VERTICAL
DATUM OF 1988 (NAVD88)
CONVERSION FACTOR:
NAVD88 + 1.532 = NGVD29



REPRODUCTION:
ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS
MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS
MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

REVISIONS			
NO.	DATE	BY	DESCRIPTION



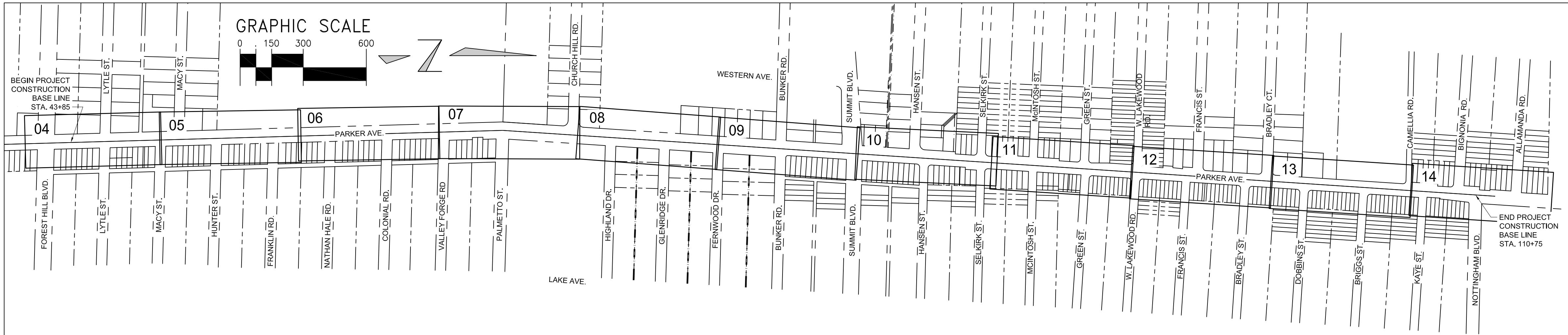
CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT
CITY CENTER * 401 CLEMATIS ST. * FOURTH FLOOR * WPB, FL 33401
PH. (561) 494-1040 * FAX: (561) 494-1116

SEALED:

SCALE:	AS SHOWN
DESIGNED BY:	ATGIII
DRAWN BY:	ATGIII
CHECKED BY:	SB
DATE:	6/13/2023

PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD
COVER SHEET
PROJECT NUMBER 50146547

SHEET
C-01



SHEET KEY MAP

GENERAL NOTES:

- PRIOR TO COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 553.851 FOR THE PROTECTION OF UNDERGROUND GAS PIPELINES.
 - NO CONSTRUCTION SHALL COMMENCE UNTIL ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN SECURED AND THE CONTRACTOR IS ISSUED A "NOTICE TO PROCEED".
 - CONTRACTOR SHALL UTILIZE CONSTRUCTION METHODS AND DEVICES AS INDICATED THE CURRENT FOOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION WHERE NECESSARY IN ORDER TO COMPLY WITH ALL STATE, LOCAL AND NPDES WATER QUALITY STANDARDS.
 - MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH CURRENT FOOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL STANDARDS (MUTCD)-REVISIONS 1 & 2. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED WITHIN THE LIMITS OF THE PROJECT IN ACCORDANCE WITH CURRENT FOOT ROADWAY AND TRAFFIC DESIGN STANDARDS AND SPECIFICATIONS. NOT PLAN SHALL BE SUBMITTED TO THE CITY FOR APPROVAL TWO WEEKS PRIOR TO BEGINNING OF CONSTRUCTION. THE MOT PLAN SUBMITTAL TO THE CITY FOR APPROVAL SHALL INCLUDE A PEDESTRIAN CONVEYANCE PATH PLAN TO EASILY IDENTIFY ANY CONFLICTS.
 - CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD OR UNDERGROUND UTILITIES.
 - CONTRACTOR SHALL NOTIFY SUNSHINE 811 (1-800-432-4770) AND ALL AFFECTED UTILITIES TWO BUSINESS DAYS IN ADVANCE OF ANY CONSTRUCTION SO THAT A COMPANY REPRESENTATIVE MAY BE PRESENT.
- | | | |
|-------------------|--------------------------------------|--------------|
| CONTACT | COMPANY | PHONE |
| Mr. MIYA FISHER | COMCAST CABLE COMMUNICATIONS | 561-454-5846 |
| Mr. GARTH BEDWARD | AT&T TELECOMMUNICATIONS | 561-540-9263 |
| Mr. JORGE SANCHEZ | FLORIDA POWER & LIGHT | 561-616-1612 |
| Mr. IVAN GIBBS | FLORIDA PUBLIC UTILITIES | 561-838-1817 |
| SUPERINTENDENT | PALM BEACH COUNTY TRAFFIC OPERATIONS | 561-233-3900 |
| | SUNSHINE STATE ONE CALL NETWORK | 800-432-4770 |
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING THE EXISTING PAYEMENT MARKINGS BEFORE RECONSTRUCTION WORK IS STARTED AND THIS INFORMATION SHALL BE USED IN CONJUNCTION WITH TEMPORARY STRIPING AND FINISHED STRIPING.
 - CONTRACTOR SHALL NOTIFY PROPERTY OWNERS 30 DAYS IN ADVANCE TO RELOCATE LANDSCAPING IN CONFLICT WITH THE WORK. LANDSCAPING IN CONFLICT, LEFT IN PLACE, SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR (IN RIGHT-OF-WAY ONLY) UNLESS OTHERWISE NOTED.
 - LANDSCAPING IN CONFLICT ON PRIVATE PROPERTY SHALL BE REMOVED AND REPLACED BY CONTRACTOR OR DISPOSED OF AS DIRECTED BY PROPERTY OWNER.
 - CONTRACTOR SHALL MAINTAIN DRIVEWAY ACCESS FOR THE RESIDENTIAL AND COMMERCIAL PROPERTIES AT ALL TIMES DURING CONSTRUCTION. A DETAILED TRAFFIC CONTROL PLAN AND CONSTRUCTION PHASING PLAN SHALL BE SUBMITTED TO THE CITY FOR APPROVAL TWO WEEKS PRIOR TO BEGINNING OF CONSTRUCTION.
 - THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS PRIOR TO ANY REQUIRED OBSERVATIONS AND SHALL SUPPLY ALL EQUIPMENT NECESSARY FOR INSPECTION AND/OR TESTING.
 - CONTRACTOR SHALL PROVIDE UP TO DATE RECORD DRAWINGS WITH THE PAYMENT APPLICATIONS. RECORD DRAWINGS FOR RELOCATED WATER, SEWER AND STORM MAINS ARE REQUIRED.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED TESTS TO BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE ENGINEER.
 - THE CONTRACTOR SHALL GIVE ADEQUATE NOTIFICATION TO ALL AFFECTED UTILITY OWNERS FOR REMOVAL, RELOCATION AND ALTERATION OF THEIR EXISTING FACILITIES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF ALL EXISTING AND NEWLY INSTALLED ABOVE GROUND, UNDERGROUND, AND ON THE SURFACE STRUCTURES AND UTILITIES FROM DAMAGE OR SERVICE DISRUPTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
 - THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE THAT THE PROJECT HAS BEEN ACCEPTED. ALL FAULTY CONSTRUCTION AND/OR MATERIALS FOUND DURING AFORESAID PERIOD SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
 - ALL STRUCTURE RIM ELEVATIONS SHALL BE SET TO FINISHED SURFACE GRADE, UNLESS OTHERWISE SPECIFICALLY NOTED ON THE PLAN.
 - WHERE ENCOUNTERED, UNSUITABLE MATERIAL SHALL BE REMOVED TO A DEPTH AND AREA DETERMINED BY THE ENGINEER AND BACKFILLED WITH CLEAN GRANULAR SAND OR SELECT MATERIAL APPROVED BY THE ENGINEER. BACKFILLING SHALL BE IN LAYERS NOT GREATER THAN 8" THICKNESS AND COMPACTED TO 98 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

GENERAL NOTES:

- THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND/OR LICENSES TO COMMENCE CONSTRUCTION.
- IF ANY TESTS FAIL TO MEET THEIR SPECIFICATIONS, THE CONTRACTOR, AT HIS EXPENSE, SHALL CORRECT ALL DEFICIENT WORK AND SUBMIT TEST RESULTS INDICATING COMPLIANCE WITH THESE SPECIFICATIONS PRIOR TO ANY REQUEST FOR PAYMENT.
- STATIONS AND OFFSETS REFER TO THE BASELINE OF SURVEY AND CENTERLINE OF RIGHT-OF-WAY, UNLESS OTHERWISE NOTED.
- BENCHMARK (B.M.) LOCATIONS ARE LABELED: BENCHMARK
- B.M. DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NGVD-88).
- EXISTING SECTION CORNERS, QUARTER SECTION CORNERS, PROPERTY CORNERS, PALM BEACH COUNTY SURVEY CONTROL MONUMENTS AND ALL OTHER PERMANENT MONUMENTS LOCATED WITHIN PROPOSED CONSTRUCTION ARE TO BE REFERENCED PRIOR TO CONSTRUCTION AND RESET AFTER CONSTRUCTION BY A PROFESSIONAL SURVEYOR & MAPPER WITH A MONUMENT BEARING EITHER THE FLORIDA LICENSE NUMBER OR CERTIFICATE OF AUTHORIZATION NUMBER OF THE PARTY IN RESPONSIBLE CHARGE.
- ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED.
- ANY MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED.
- WHEN UTILITY POLES ARE IN AREAS OF EXCAVATIONS, CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION OF FIVE (5) FEET BETWEEN THE POLE AND ANY EXCAVATION. IF THIS SEPARATION CAN NOT BE MET, CONTRACTOR SHALL COORDINATE WITH THE UTILITY PROVIDER TO HOLD AND PROTECT POLE DURING CONSTRUCTION AT THE CONTRACTORS EXPENSE.
- ALL MAILBOXES CURRENTLY SERVED FROM ROADWAY BEFORE CONSTRUCTION, MUST BE SERVED IN THE SAME MANNER DURING AND AFTER CONSTRUCTION. REMOVE AND REPLACE MAILBOXES AT THE SAME LOCATION AS EXISTING. ANY MAILBOXES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH EQUAL OR BETTER. COST OF THIS ITEM SHALL BE INCLUDED UNDER THE CONTRACT PRICE FOR CLEARING AND GRUBBING. CONTRACTOR MUST PROVIDE PROPER NOTIFICATION OF PROJECT COMMENCEMENT TO POSTAL SERVICE.
- CONTRACTOR SHALL EXERCISE CAUTION WHILE REMOVING AND/OR RELOCATING EXISTING SIGNS IN ORDER TO PREVENT ANY UNNECESSARY DAMAGE TO THE SIGNS. SIGNS WHICH ARE DAMAGED BEYOND USE AS DETERMINED BY THE ENGINEER SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
- EXISTING SPRINKLERS IN THE RIGHT-OF-WAY AND PRIVATE PROPERTY SHALL BE PROTECTED OR REPLACED IN A TIMELY MANNER TO PREVENT LOSS OF EXISTING LNSCAPING.
- ALL CONCRETE SHALL DEVELOP A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI (MINIMUM) OR AS OTHERWISE NOTED.
- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615 AND HAVE A TENSILE STRENGTH OF 60,000 PSI (MINIMUM) OR AS OTHERWISE NOTED.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, AS AMENDED BY THE CITY OF WEST PALM BEACH ENGINEERING SERVICES AND PUBLIC WORKS DEPARTMENTS REQUIREMENTS.
- CONTRACTOR SHALL REMOVE AND REPLACE OBJECTS IN THE RIGHT-OF-WAY WHICH CONFLICT WITH THE PIPELINE INSTALLATION SUCH AS MAILBOXES, TRAFFIC SIGNS, FENCES, OR OTHER REMOVABLE OBJECTS.
- DENSITY TESTING FOR TRENCHES SHALL BE TAKEN IN ONE (1) FOOT LIFTS MEASURED FROM THE TOP OF PIPE AT MAXIMUM SPACING OF THREE HUNDRED (300) FEET AND AT EVERY STRUCTURE. DENSITY TESTS ARE REQUIRED FOR ALL ROADWAY, DRIVEWAY AND SIDEWALK REPLACEMENT AREAS, FREQUENCY TO BE DETERMINED BY THE ENGINEER.
- ALL PIPE TRENCHES SHALL BE DRY WHILE PIPE IS BEING LAID AND TO BE BEDDED PER DETAILS.
- RECORD DRAWING INFORMATION SHALL INCLUDE THOSE ITEMS NOTED ABOVE, INCLUDING ANY ADDITIONAL DATA REQUIRED BY THE APPLICABLE GOVERNMENTAL AGENCIES, ALL RECORD DATA SHALL BE PREPARED BY A SURVEYOR REGISTERED IN THE STATE OF FLORIDA. ALL EXISTING WATERMAINS THAT ARE GROUTED/ABANDONED IN PLACE SHALL BE IDENTIFIED ON THE RECORD DRAWING.
- NEW WATER SERVICES SHALL BE CONNECTED TO EXISTING WATER SERVICES AFTER FDEP APPROVAL. CONTRACTOR SHALL COORDINATE WITH WPB METER DEPT. FOR ANY METER REPLACEMENTS.
- ALL WATER MAIN DUCTILE IRON PIPE AND PIPE FITTINGS SHALL BE PAINTED WITH A 4" WIDE CONTINUOUS BLUE LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE. APPROVED PAINT: INDOURON, AQUANAUT 508Z ALASKAN BLUE (ONE COAT, 3 MILS DRY FILM THICKNESS APPLIED WITH 1/2" NAP MEDIUM ROLLER)
- EXISTING POWER POLES ON THE EAST SIDE MAY ENCRORACH INTO THE NEW SIDEWALK, A 3" CLEAR OPENING SHALL BE MAINTAINED FOR ADA ACCESS. IF THIS CAN NOT BE MAINTAINED, A SLIGHT SIDEWALK ADJUSTMENT MAY BE MADE AS APPROVED BY THE ENGINEER.
- DURING SANITARY CONSTRUCTION AND BYPASS PUMPING, CONTRACTOR SHALL COORDINATE WITH THE PUBLIC UTILITIES DEPT. TO ASSURE CONTINUED SANITARY SEWER SERVICE TO ALL RESIDENCES AND BUSINESSES.
- ALL CONSTRUCTION ADJACENT TO CITY WATER TANKS AT THE SE CORNER OF VALLEY FORGE RD. AND AT THE SE CORNER OF KAYE ST. SHALL COMPLY WITH FOOT SECTION 108 "MONITOR EXISTING STRUCTURES".
- CONSTRUCTION WORK OR OTHER WORK RESULTING IN NOISE, VIBRATIONS OR DUST TENDING TO DISTURB THE PEOPLE OR THE PROPERTY WITHIN THE VICINITY THEREOF SHALL NOT BEGIN UNTIL THE HOUR OF 7:00 A.M. AND SHALL CEASE AT THE HOUR OF 7:00 P.M., MONDAY THROUGH FRIDAY, AND SHALL BE LIMITED TO BETWEEN THE HOURS OF 8:00 A.M. AND 8:00 P.M., SATURDAY AND SUNDAY. SEE WEST PALM BEACH CODE OF ORDINANCES SEC. 34-72 LIMITATIONS.

ENVIRONMENTAL NOTES:

- WHEN ENCOUNTERING OR EXPOSING ANY ABNORMAL CONDITION INDICATING THE PRESENCE OF A HAZARDOUS OR TOXIC WASTE, OR CONTAMINANTS, CEASE OPERATIONS IMMEDIATELY IN THE VICINITY AND NOTIFY THE LAP CITY OF WEST PALM BEACH ENGINEER. THE PRESENCE OF TANKS OR BARRELS; DISCOLORED EARTH, METAL, WOOD, GROUND WATER, ETC.; VISIBLE FUMES; ABNORMAL ODORS; EXCESSIVELY HOT EARTH; SMOKE; OR OTHER CONDITIONS THAT APPEAR ABNORMAL MAY INDICATE HAZARDOUS OR TOXIC WASTES OR CONTAMINANTS AND MUST BE TREATED WITH EXTREME CAUTION.
- MAKE EVERY EFFORT TO MINIMIZE THE SPREAD OF CONTAMINATION INTO UNCONTAMINATED AREAS. IMMEDIATELY PROVIDE FOR THE HEALTH AND SAFETY OF ALL WORKERS AT THE JOB SITE AND MAKE PROVISIONS NECESSARY FOR THE HEALTH AND SAFETY OF THE PUBLIC THAT MAY BE EXPOSED TO ANY POTENTIALLY HAZARDOUS CONDITIONS. PROVISIONS SHALL MEET ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS OR CODES COVERING HAZARDOUS CONDITIONS AND WILL BE IN A MANNER COMMENSURATE WITH THE GRAVITY OF THE CONDITIONS.
- THE LAP CITY OF WEST PALM BEACH ENGINEER AND/OR CONTRACTOR WILL COORDINATE AND MOBILIZE A QUALIFIED CONTAMINATION ASSESSMENT/REMEDIATION (CAR) CONTRACTOR. QUALIFICATIONS OF SUCH CAR CONTRACTOR SHALL INCLUDE, BUT NOT BE LIMITED TO: EXPERIENCE AND PERSONNEL TO PREPARE CONTAMINATION ASSESSMENT PLANS, CONDUCT CONTAMINATION ASSESSMENTS, PREPARE SITE ASSESSMENT REPORTS, REMEDIATION PLANS, IMPLEMENT REMEDIAL ACTION PLANS, RISK BASED CORRECTIVE ACTIONS, STORAGE TANKS SYSTEM REMOVAL, HIGHWAY SPILL RESPONSE AS WELL AS EXPERIENCE WITH INFRASTRUCTURE/CONSTRUCTION ACTIVITIES WITHIN (POTENTIALLY) CONTAMINATED AREAS SPECIFIC TO TRANSPORTATION SYSTEMS.
- ALL THE WORK PERFORMED BY THE CAR CONTRACTOR SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS GOVERNING WORKER SAFETY AND ENVIRONMENTAL REGULATIONS. THIS IS TO INCLUDE OCCUPATIONAL EXPOSURE TO CONTAMINATED SOILS, GROUNDWATER, WASTES AND ATMOSPHERE DURING THE CONSTRUCTION OF ALL FEATURES INCLUDED IN THE CONSTRUCTION PLANS. IN ADDITION, THE CAR CONTRACTOR MUST BE STAFFED WITH FLORIDA LICENSED TECHNICAL PROFESSIONALS (GEOLOGISTS AND ENGINEERS) WHO WILL BE INVOLVED WITH THE PROJECT AND KNOWLEDGEABLE OF THE WORK ACTIVITIES CONDUCTED WITHIN THE IDENTIFIED CONTAMINATED AREAS AND WHO WOULD SIGN AND SEAL PROJECT REPORTS AS REQUIRED FOR SUBMITTAL TO THE APPROPRIATE ENVIRONMENTAL REGULATORY AGENCIES.
- THE LAP CITY WEST PALM BEACH ENGINEER WILL IMMEDIATELY NOTIFY THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DISTRICT IV CONTAMINATION IMPACT COORDINATOR (DCIC) AT (954) 777-4286 AFTER ENCOUNTERING THE UNIDENTIFIED AREAS OF CONTAMINATION. PRELIMINARY INVESTIGATION BY THE CAR CONTRACTOR WILL DETERMINE THE COURSE OF ACTION NECESSARY FOR SITE SECURITY AND THE STEPS NECESSARY UNDER APPLICABLE LAWS, RULES, AND REGULATIONS FOR ADDITIONAL ASSESSMENT AND/OR REMEDIATION WORK TO RESOLVE THE CONTAMINATION ISSUE.
- FOLLOWING COMPLETION OF THE PROJECT, THE CAR CONTRACTOR SHALL BE REQUIRED TO PROVIDE COPIES OF ALL REPORTS SUBMITTED TO REGULATORY AGENCIES, WASTE MATERIAL PROFILES, MANIFESTS AND/OR DISPOSAL RECEIPTS FOR THE HANDLING OF ALL CONTAMINATED MEDIA INCLUDING BUT NOT LIMITED TO GROUND WATER, WASTE WATER, SOILS, SOLID WASTES, SLUDGE, HAZARDOUS WASTES, AIR MONITORING RECORDS AND SAMPLE RESULTS FOR ALL MATERIALS TESTED AND ANALYZED TO THE LAP CITY OF WEST PALM BEACH ENGINEER AND THE FOOT DCIC.

MINIMUM RECORD DATA:

CONTRACTOR SHALL FOLLOW LATEST WEST PALM BEACH REQUIREMENTS. CONTRACTOR TO OBTAIN LATEST REVISION/UPDATE TO CITY REQUIREMENTS, REFER TO PROJECT SPECIFICATIONS AND SHEET C-20 FOR ADDITIONAL REQUIREMENTS.

WATER MAIN

- ALL PIPE MATERIAL
- TOP OF PIPE ELEVATIONS FOR ALL FITTINGS JOINTS
- TOP OF PIPE ELEVATIONS AT 100' SEPARATIONS AND AT LOCATIONS WITH SPECIFIED ELEVATIONS ON THE PLANS
- ELEVATIONS OF WATER MAIN AND CROSSING PIPE SEPARATIONS
- ANY DEVIATION FROM PLANS
- ALL GATE VALVES
- LOCATION OF ALL WATER SERVICE TAPS AND METER/CURBSTOPS
- FIRE HYDRANT FLANGE ELEVATIONS AND GRADE AT FLANGE

SANITARY MAINS

- ALL PIPE MATERIALS
- INVERT ELEVATIONS IN ALL MANHOLES
- CALCULATED SLOPE OF MAINS
- MANHOLE TOP ELEVATIONS
- ALL ELEVATIONS SHOWN ON PLANS
- ALL SERVICE LATERAL WYES AND CLEANOUT LOCATIONS AND ELEVATIONS (CLEANOUT WITH INVERTS)

STORM SEWER

- ALL PIPE MATERIALS
- INVERT ELEVATIONS IN ALL MANHOLES AND INLETS
- MANHOLE TOP ELEVATIONS
- INLET EDGE OF PAVEMENT ELEVATIONS
- ANY DEVIATIONS FROM PLANS
- UTILITY CROSSINGS

ROADWAY

- CROSS SECTIONS AT POINTS OF VERTICAL INTERSECTIONS (GRADE CHANGES)
- ALL ELEVATIONS SHOWN ON THE PLANS
- PROPOSED GRADE LINE ELEVATIONS EVERY 100' OR LESS; CALCULATE SLOPES ON PROFILE VIEWS
- ALL DEVIATIONS FROM PLANS

MINIMUM OBSERVATION POINTS:

- MATERIALS PRIOR TO INSTALLATION.
- PIPE BEFORE BACKFILL
- PIPE RESTRAINTS
- STRUCTURE CONNECTIONS BEFORE BACKFILL
- SUBGRADE BEFORE BASE/ROCK OR CONCRETE PLACEMENT
- BASE/ROCK BEFORE ASPHALT PLACEMENT
- ASPHALT DURING PLACEMENT
- CONCRETE FORMS BEFORE CONCRETE PLACEMENT
- CURB RAMP PRIOR TO CONCRETE PLACEMENT
- WATERMAIN PRESSURE TESTS
- WATERMAIN TIE-INS
- SANITARY MAIN LAMPING AND INFILTRATION OR EXFILTRATION TESTS
- STORM DRAINAGE LAMPING
- SUBSTANTIAL COMPLETION WALK THRU
- FINAL WALK THRU

LEGEND OF SURVEY SYMBOLS

MISCELLANEOUS SYMBOLS

- BOLLARD
- CONCRETE STREET SIGN
- IRRIGATION CONTROL VALVE BOX
- FENCE POST METAL
- FENCE POST WOOD
- MAIL BOX
- PARKING METER (DOUBLE)
- PARKING METER (SINGLE)
- POLE WOOD
- POLE CONCRETE
- SPRINKLER HEAD
- TRAFFIC SIGN (AS LABELED)
- TREE (TYPE & SIZE AS LABELED)
- TOPOGRAPHIC SPOT ELEVATION

SANITARY SEWER SYSTEM SYMBOLS

- AIR RELEASE VALVE (SANITARY)
- AIR RELEASE VALVE MANHOLE (SANITARY)
- CLEAN OUT (SANITARY)
- GREASE TRAP MANHOLE
- SANITARY MANHOLE
- SEWER VALVE (RIM OF SLEEVE)

STORM SEWER SYSTEM SYMBOLS

- CATCH BASIN
- CATCH BASIN INLET
- CLEAN OUT (STORM)
- STORM MANHOLE
- YARD DRAIN

WATER SYSTEM SYMBOLS

- AIR RELEASE VALVE
- AIR RELEASE VALVE MANHOLE
- BACK FLOW PREVENTOR
- DOUBLE DETECTOR CHECK VALVE
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- WATER METER
- WATER VALVE (RIM OF SLEEVE)

DRY UTILITY SYMBOLS

- CONCRETE LIGHT POLE
- CONCRETE POWER POLE
- CABLE T.V. RISER
- UNKNOWN COMM. BOX OR RISER
- HAND HOLE (ELECTRIC)
- HAND HOLE (STREET LIGHTS)
- HAND HOLE (TRAFFIC)
- ELECTRIC METER
- ELECTRIC MANHOLE (FP&L)
- GAS FILLER VALVE
- GAS METER
- GAS MANHOLE
- GAS TESTING LOCATION
- GAS VALVE
- GUY WIRE ANCHOR
- GUY WIRE POLE (WOOD)
- METAL LIGHT POLE
- MONITORING WELL
- PEDESTRIAN CROSSING SIGNAL POLE
- PLASTIC LIGHT POLE
- TELEPHONE VAULT
- TELEPHONE MANHOLE
- TELEPHONE RISER
- TRAFFIC SIGNAL BOX
- TRAFFIC SIGNAL POLE (CONCRETE)
- TRAFFIC SIGNAL POLE (MAST ARM)
- TRAFFIC SIGNAL POLE (WOOD)
- WOOD LIGHT POLE
- WOOD POWER POLE

NOTICE: SURVEY SYMBOLS SHOWN HEREON ARE SCALED TO MATCH SCALE OF THE DRAWING MAP AS PUBLISHED FOR LEGIBILITY AND VIEWING PURPOSES. THEY ARE NOT INTENDED TO REPRESENT THE ACTUAL SIZE OF THE DISPLAYED OBJECT.

LEGEND OF LINETYPES

- RIGHT OF WAY
- POTABLE WATER MAIN
- STORM DRAINAGE
- GRAVITY SANITARY SEWER
- SANITARY FORCE MAIN
- GAS MAIN
- OVERHEAD ELECTRIC
- BURIED ELCTRIC
- BURIED TRAFFIC
- BURIED STREET LIGHTING
- BURIED FIBER OPTIC
- BURIED COMCAST
- BURIED ATT
- UNKNOWN BURIED UTILITY
- HEDGE / VEGETATION

LEGEND OF ABBREVIATIONS

- C/L = CENTERLINE
- CONC. = CONCRETE
- D.E. = DRAINAGE EASEMENT
- E.O.P. = EDGE OF ASPHALT PAVEMENT (UNLESS OTHERWISE NOTED)
- F.D.O.T. = FLORIDA DEPARTMENT OF TRANSPORTATION
- F.P.L. = FLORIDA POWER AND LIGHT COMPANY
- GIS = GEOGRAPHIC INFORMATION SYSTEMS
- L.B. = LICENSED BUSINESS
- MEAS. = MEASURED
- O.R.B. = OFFICIAL RECORD BOOK
- P.B. = PLAT BOOK
- P.G. = PAGE
- P.R.M. = PERMANENT REFERENCE MONUMENT
- R/W = RIGHT-OF-WAY
- TYP. = TYPICAL

REVISIONS			
NO.	DATE	BY	DESCRIPTION



CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT

CITY CENTER * 401 CLEMATIS ST. * FOURTH FLOOR * WPB, FL 33401
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SEALED:

SCALE: AS SHOWN
DESIGNED BY: ATGIII
DRAWN BY: ATGIII
CHECKED BY: SB
DATE: 6/13/2023

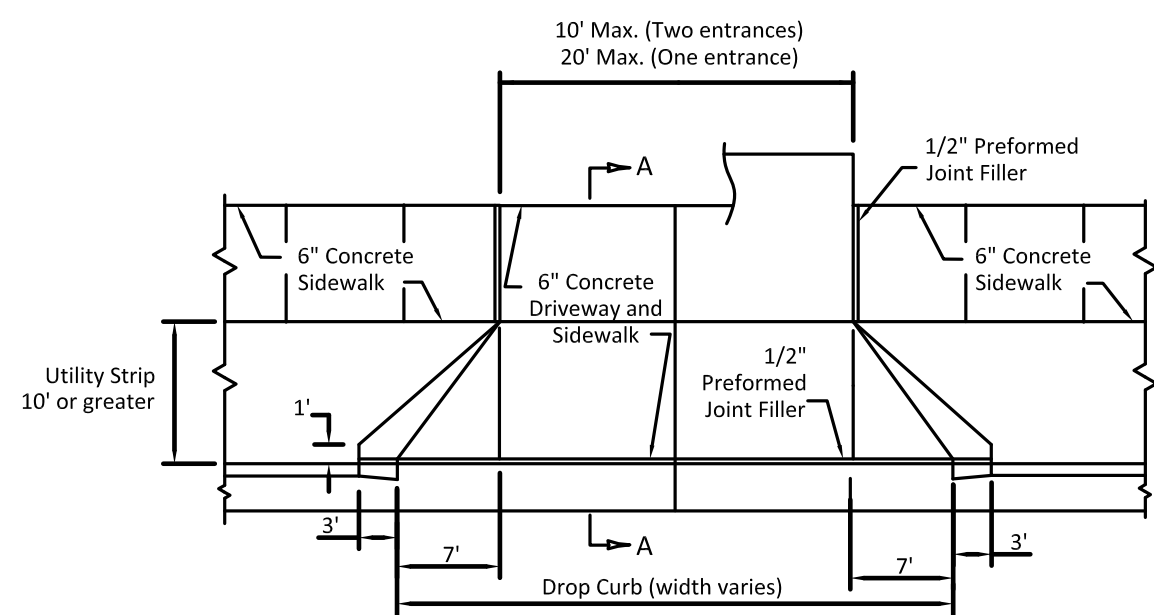
PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD

GENERAL NOTES AND KEY MAP

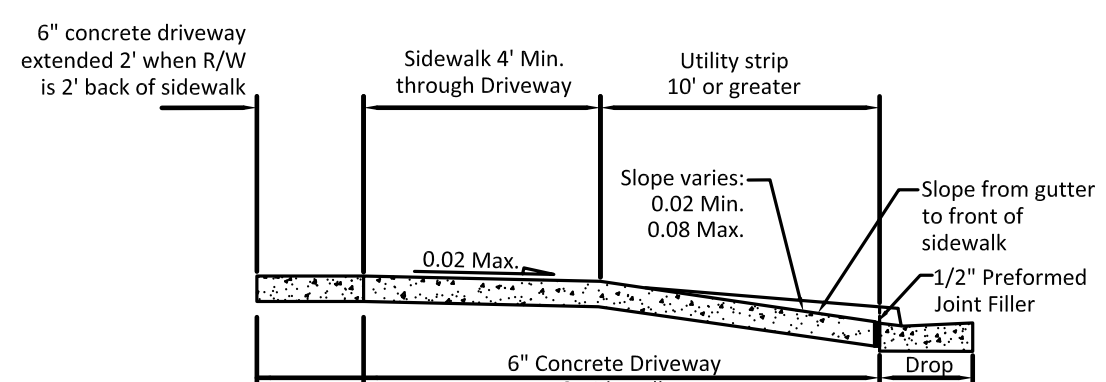
PROJECT NUMBER 50146547

SHEET

C-02



R/W LINE AT OR 2' BACK OF SIDEWALK PLAN (30" MAX.)



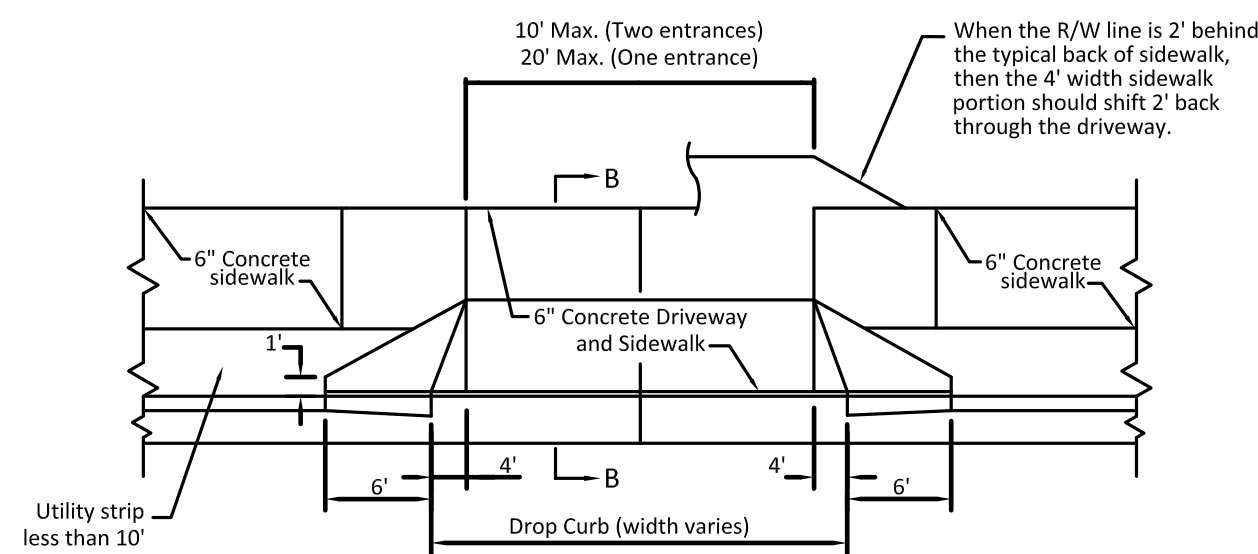
SECTION AA

Notes:

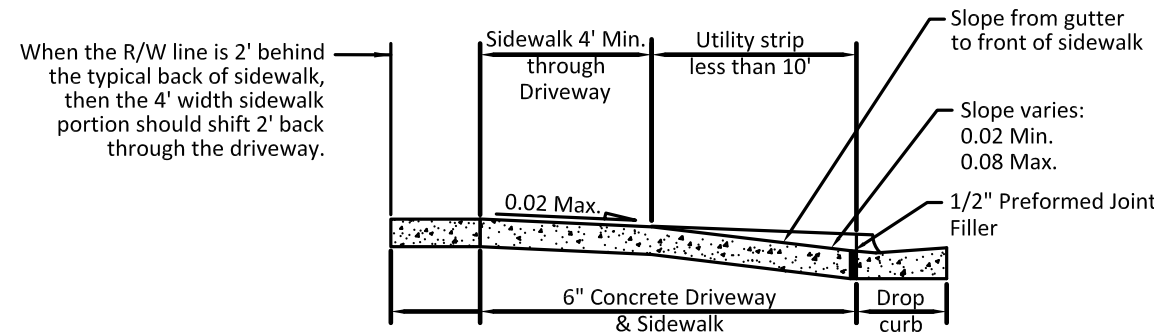
- Slopes can be adjusted within the ranges shown to improve ties to adjacent property and are to be transitioned so as to avoid distortion in sidewalk continuity and meet A.D.A. requirements
- Concrete shall be 3,000 psi. @ 28 days
- Light broom finish

WHEN DISTANCE BETWEEN CURB & SIDEWALK IS 10' OR GREATER, COMPLY WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) "CONCRETE FLARED DRIVEWAYS" STANDARD PLANS, INDEX 522-003

GENERAL CONSTRUCTION - CONCRETE DRIVEWAY APRONS



R/W LINE AT OR 2' BACK OF SIDEWALK PLAN (30" MAX.)



SECTION BB

Notes:

- Slopes can be adjusted within the ranges shown to improve ties to adjacent property and are to be transitioned so as to avoid distortion in sidewalk continuity and meet A.D.A. requirements
- Concrete shall be 3,000 psi. @ 28 days
- Light broom finish

WHEN DISTANCE BETWEEN CURB AND SIDEWALK IS LESS THAN 10', COMPLY WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) "CONCRETE FLARED DRIVEWAYS" STANDARDS PLANS, INDEX 522-003

GENERAL CONSTRUCTION - CONCRETE DRIVEWAY APRONS, Continued

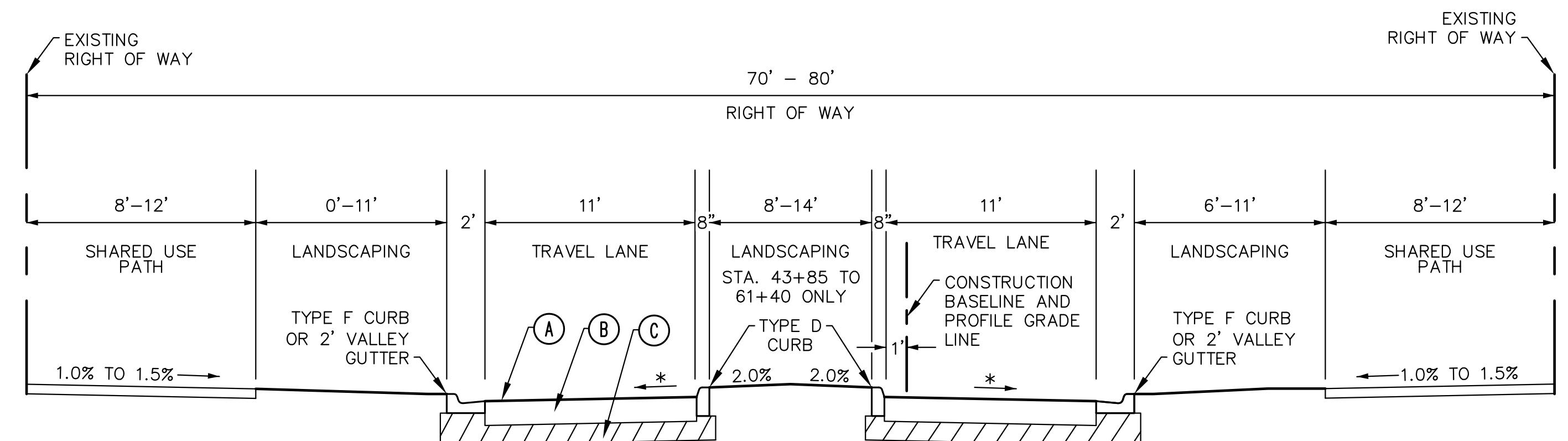
TYPICAL SECTION NOTES:

- ALL CONSTRUCTION SHALL BE PER CITY AND STATE STANDARDS. REFERENCE CITY STANDARD DETAILS AND ORDINANCES AND FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND ALL RELEVANT FDOT STANDARD PLAN INDEXES.
- ALL PAVED AREAS WITHIN THE PROJECT LIMITS THAT ARE COVERED BY THE "TYPICAL SECTION" SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PAVEMENT DESIGN SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER IN THE FIELD.
- ALL EXISTING CURBS, SIDEWALKS AND DRIVEWAYS WITHIN LIMITS OF TYPICAL SECTIONS SHALL BE REMOVED AND REPLACED UNLESS OTHERWISE NOTED.
- SEE THE PLAN OR CROSS-SECTIONS FOR DIMENSIONS OR SLOPES THAT VARY.
- CURB PADS ARE TO BE CONSTRUCTED 4" THICK OF LIMEROCK 30" WIDE; 6" OF THE BASE SHALL BE BEYOND THE BACK OF THE CURB. THE CURB PAD SHALL BE INCLUDED IN THE UNIT PRICE OF THE CURB.
- CURB SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION.
- TACK COAT SHALL BE APPLIED AT A RATE OF 0.05 GAL./S.Y.
- CONCRETE SIDEWALKS WILL BE 6" THICK.

PAVEMENT DESIGN:

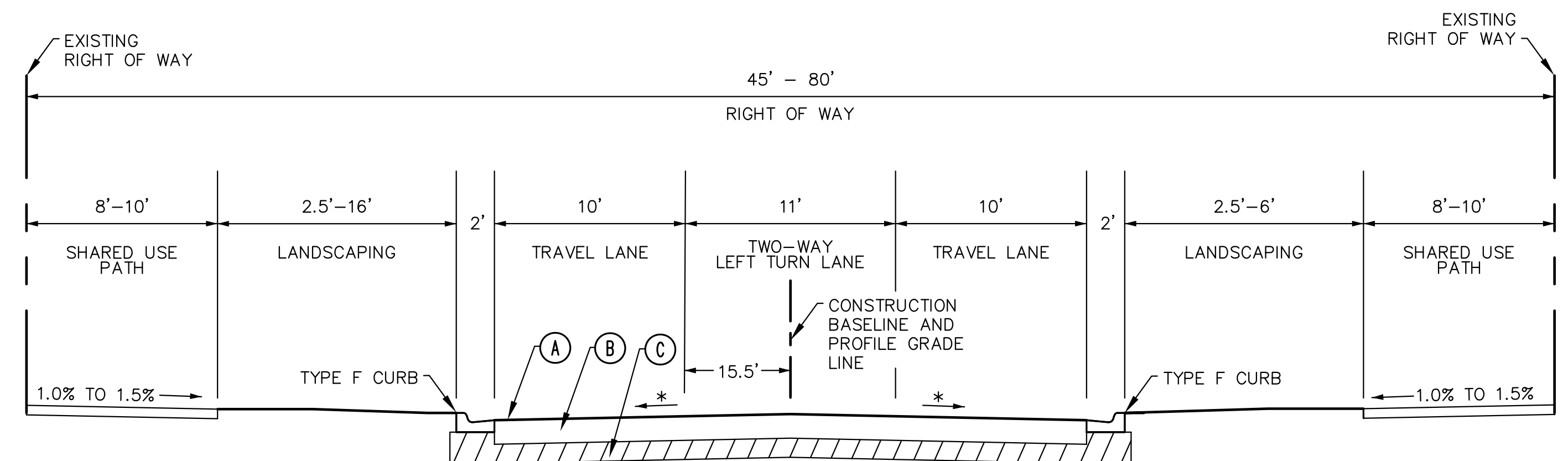
- 1" ACSC TYPE SP 9.5 (TOP LIFT)
1 1/2" ACSC TYPE SP 12.5 (BOTTOM LIFT)
- 8" LIMEROCK BASE COMPACTED TO MINIMUM 98% OF AASHTO - T180, LBR-100 OR OPTIONAL BASE GROUP 6 PER CURRENT FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION.
- 12" STABILIZED SUBGRADE, LBR-40, COMPACTED TO MINIMUM 98% OF AASHTO - T180.

**PROPOSED ROADWAY TYPICAL SECTION
DESIGN SPEED 25MPH (25MPH POSTED)**



* PROPOSED ROADWAY CROSS SLOPES VARY.
2.0% TYPICAL.
1.0% MINIMUM.
4.0% MAXIMUM.

**PROPOSED ROADWAY TYPICAL SECTION
STA. 49+00 TO 63+40**



* PROPOSED ROADWAY CROSS SLOPES VARY.
2.0% TYPICAL.
1.0% MINIMUM.
4.0% MAXIMUM.

**PROPOSED ROADWAY TYPICAL SECTION
STA. 83+50 TO 109+60**

**PROPOSED ROADWAY TYPICAL SECTION
STA. 43+85 TO 49+00 (VARIES)
STA. 63+40 TO 83+50 (VARIES)
STA. 109+60 TO 110+75 (VARIES)**

REVISIONS			
NO.	DATE	BY	DESCRIPTION



**CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT**

CITY CENTER * 401 CLEMATIS ST. * FOURTH FLOOR * WPB, FL 33401
PH. (561) 494-1040 * FAX: (561) 494-1116

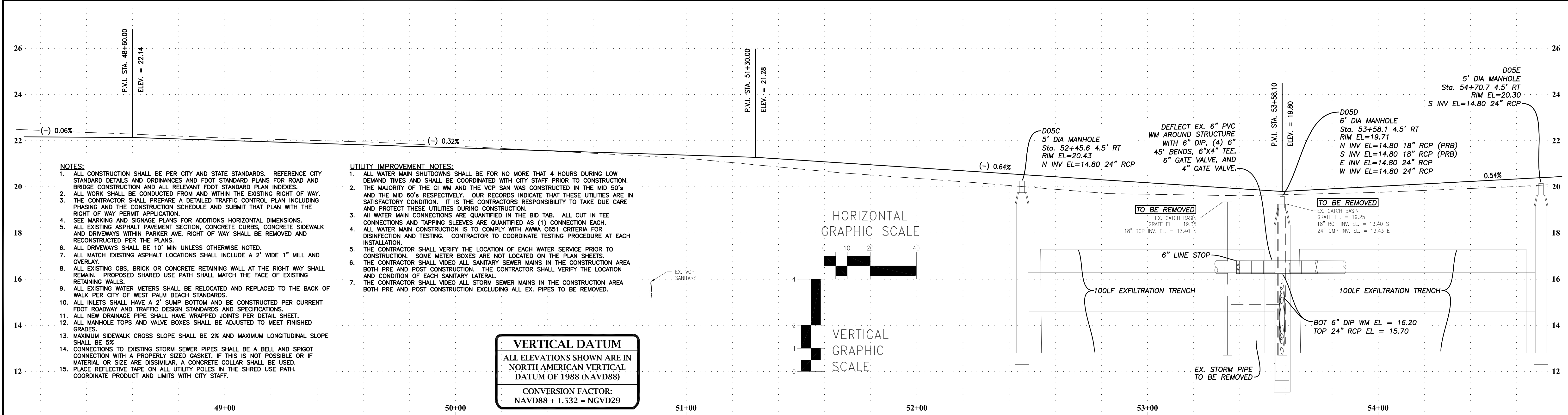
SEALED:	SCALE: AS SHOWN
	DESIGNED BY: ATGIII
	DRAWN BY: ATGIII
	CHECKED BY: SB
	DATE: 6/13/2023

**PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD**

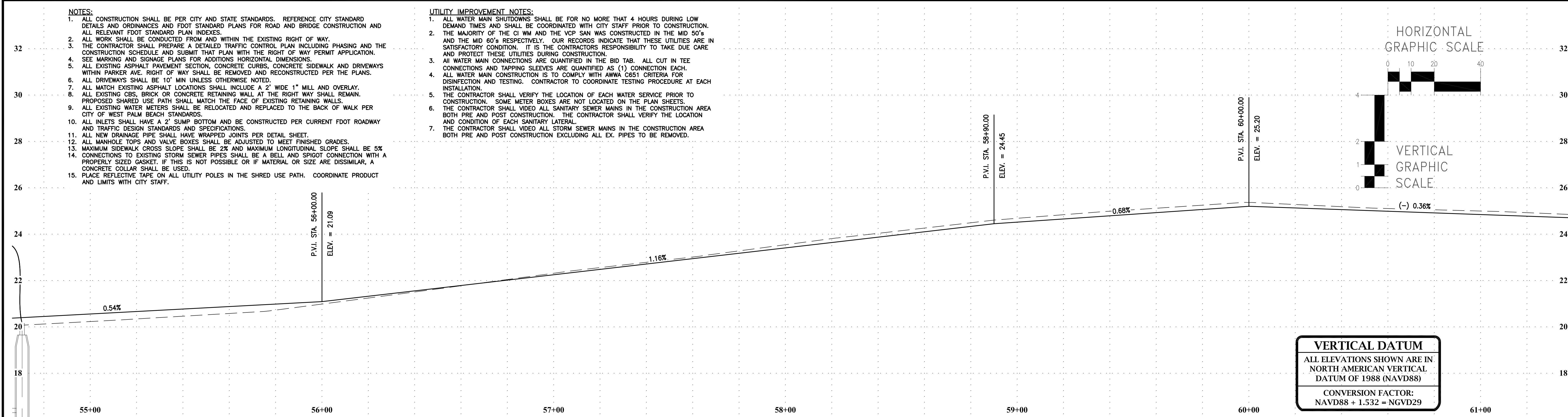
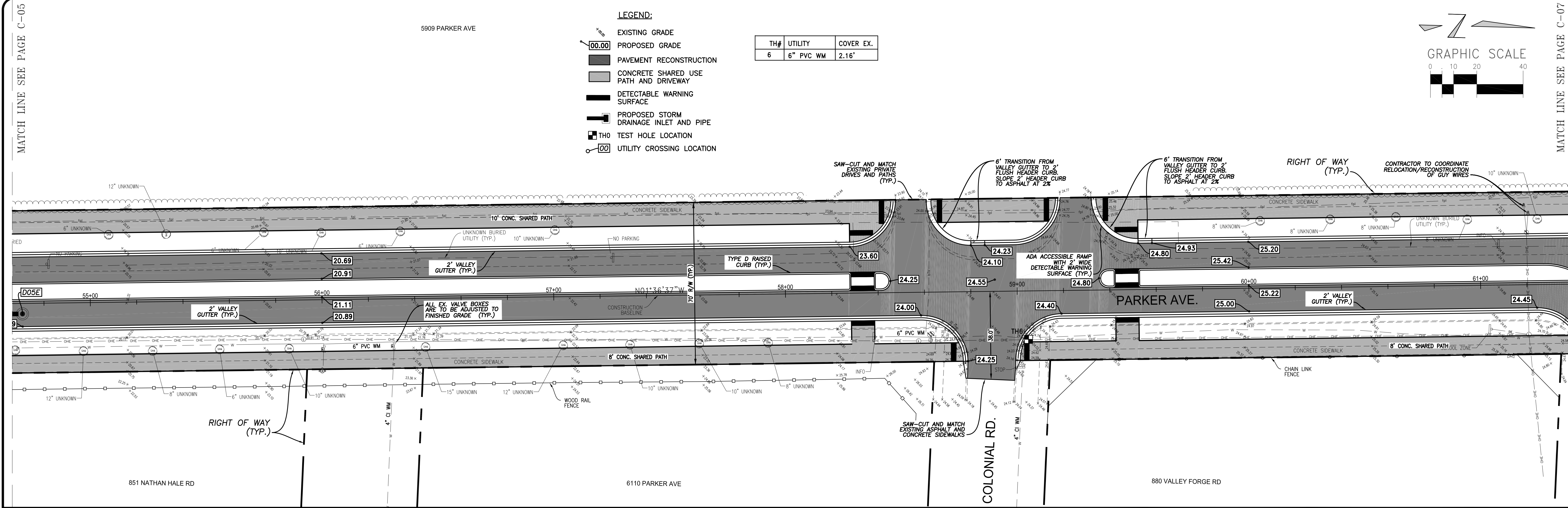
TYPICAL SECTIONS

PROJECT NUMBER 50146547

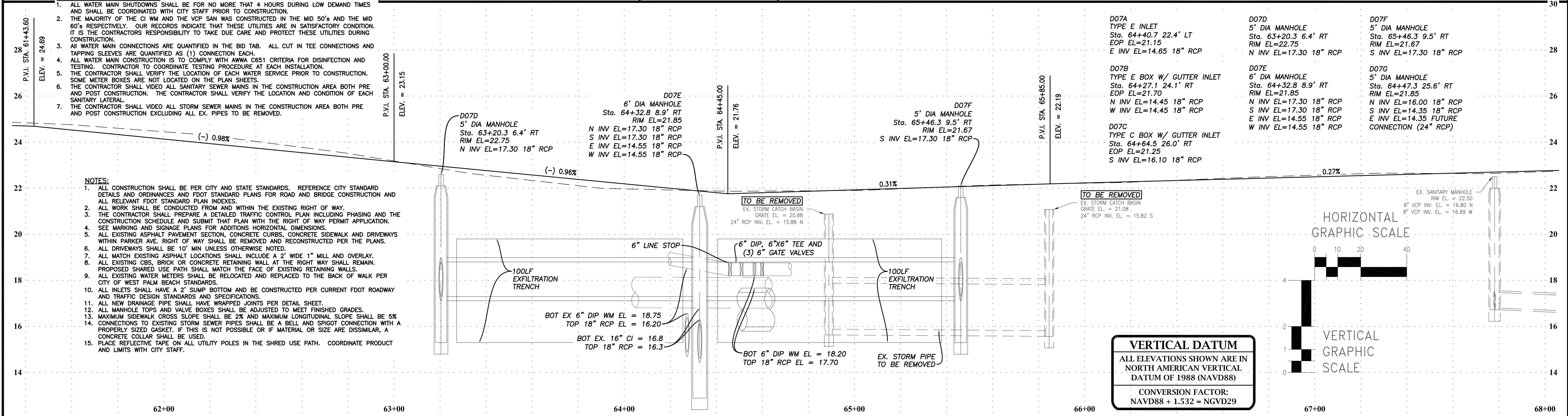
SHEET
C-03



SHEET
C-05

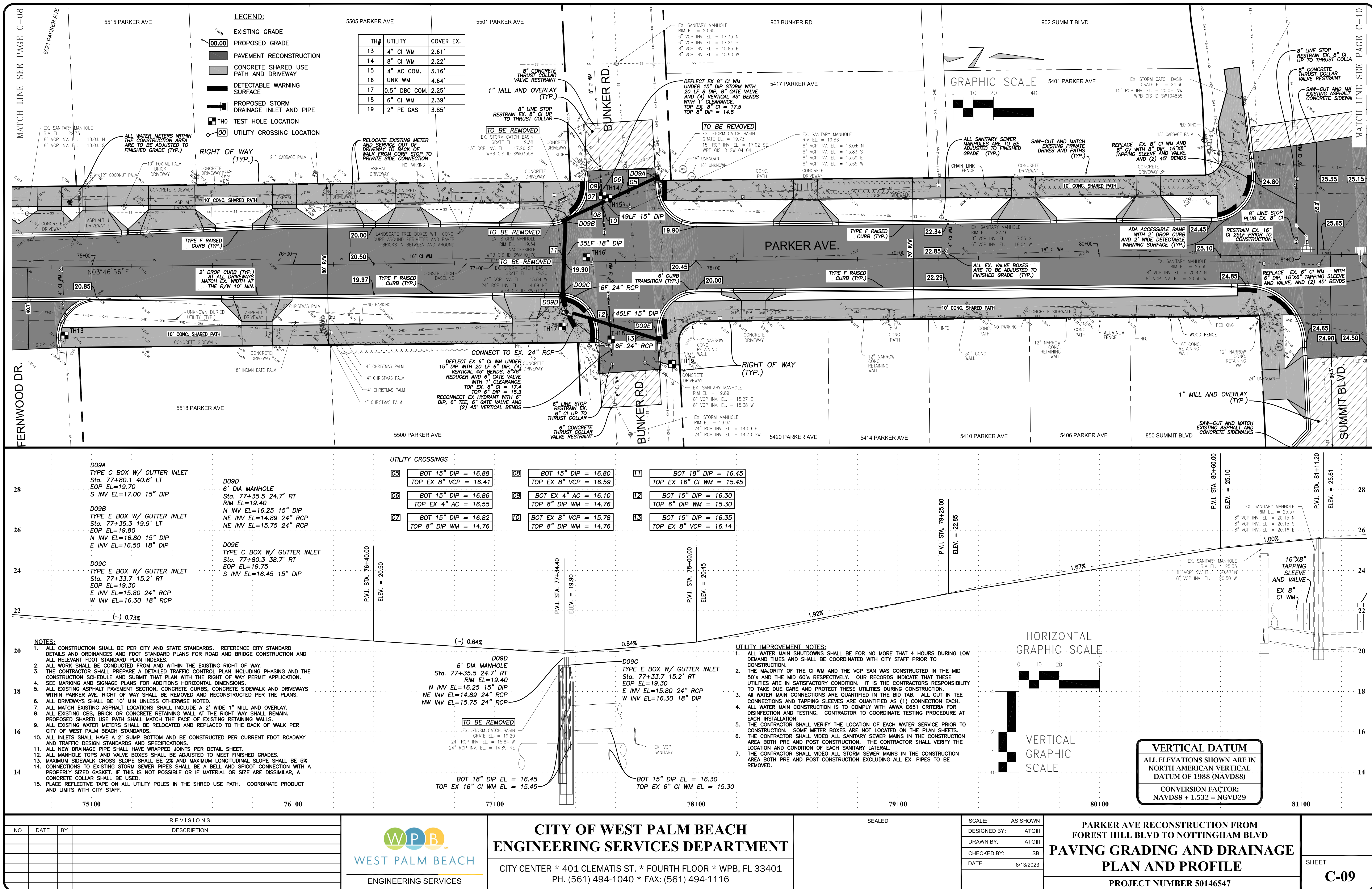


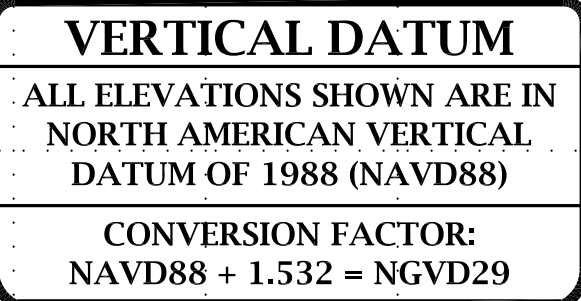
REVISIONS				 WEST PALM BEACH ENGINEERING SERVICES	CITY OF WEST PALM BEACH ENGINEERING SERVICES DEPARTMENT CITY CENTER * 401 CLEMATIS ST. * FOURTH FLOOR * WPB, FL 33401 PH. (561) 494-1040 * FAX: (561) 494-1116	SEALED:	SCALE: AS SHOWN		PARKER AVE RECONSTRUCTION FROM FOREST HILL BLVD TO NOTTINGHAM BLVD PAVING GRADING AND DRAINAGE PLAN AND PROFILE PROJECT NUMBER 50146547	SHEET C-06
NO.	DATE	BY	DESCRIPTION				DESIGNED BY:	ATGIII		
							DRAWN BY:	ATGIII		
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							DATE:	6/13/2023		



SHEET

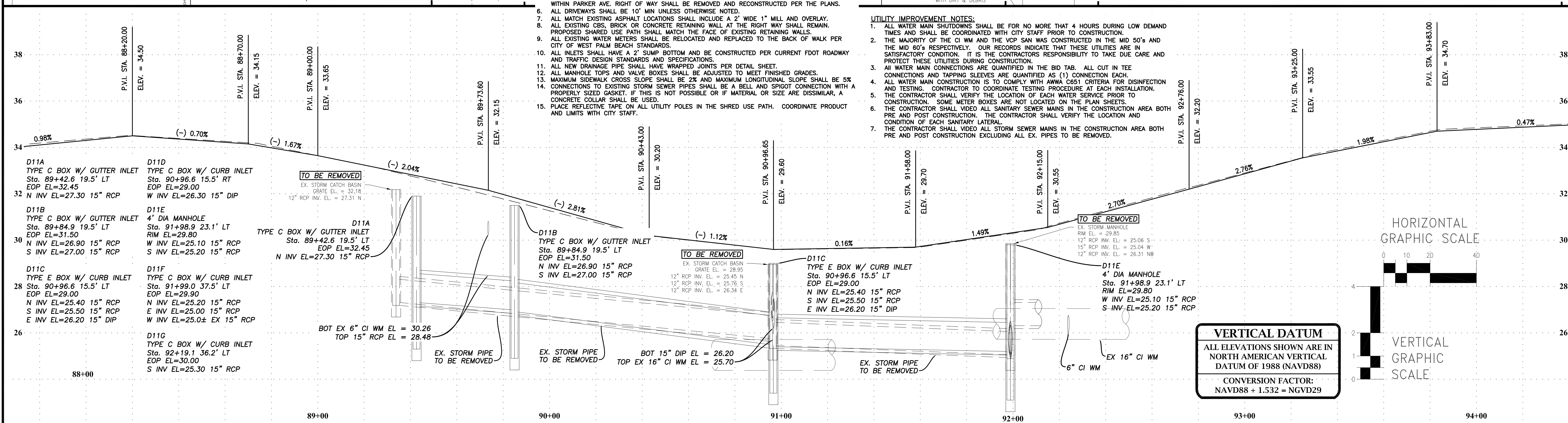
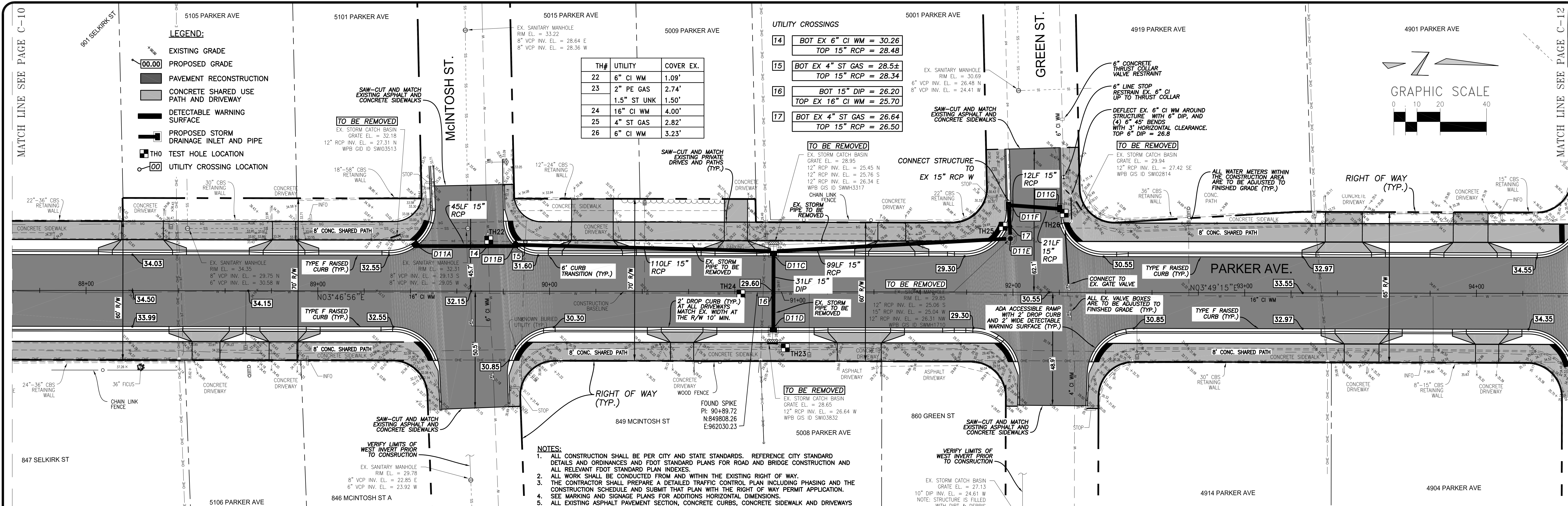
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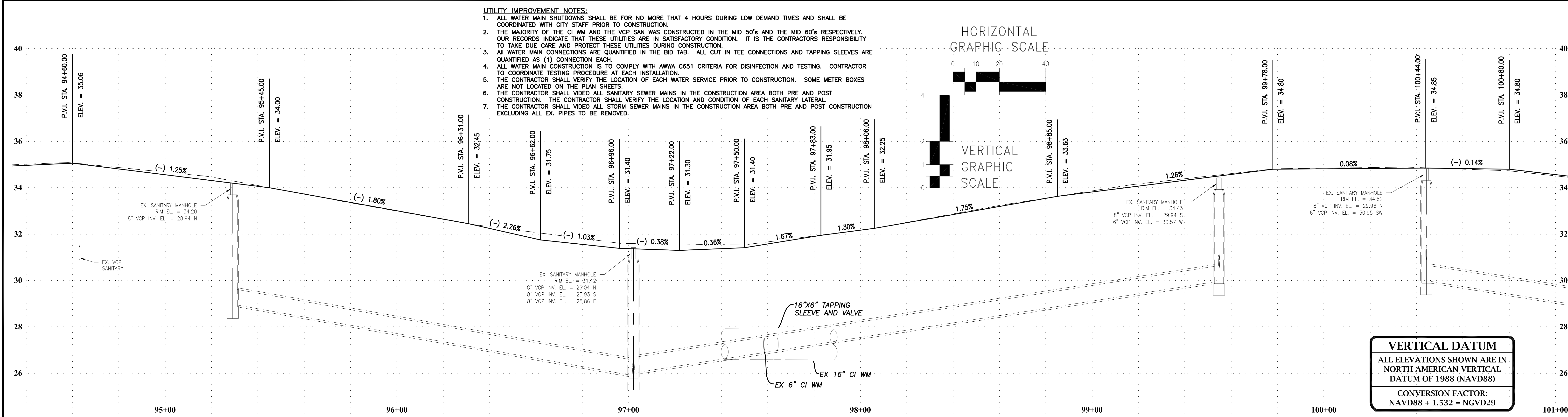
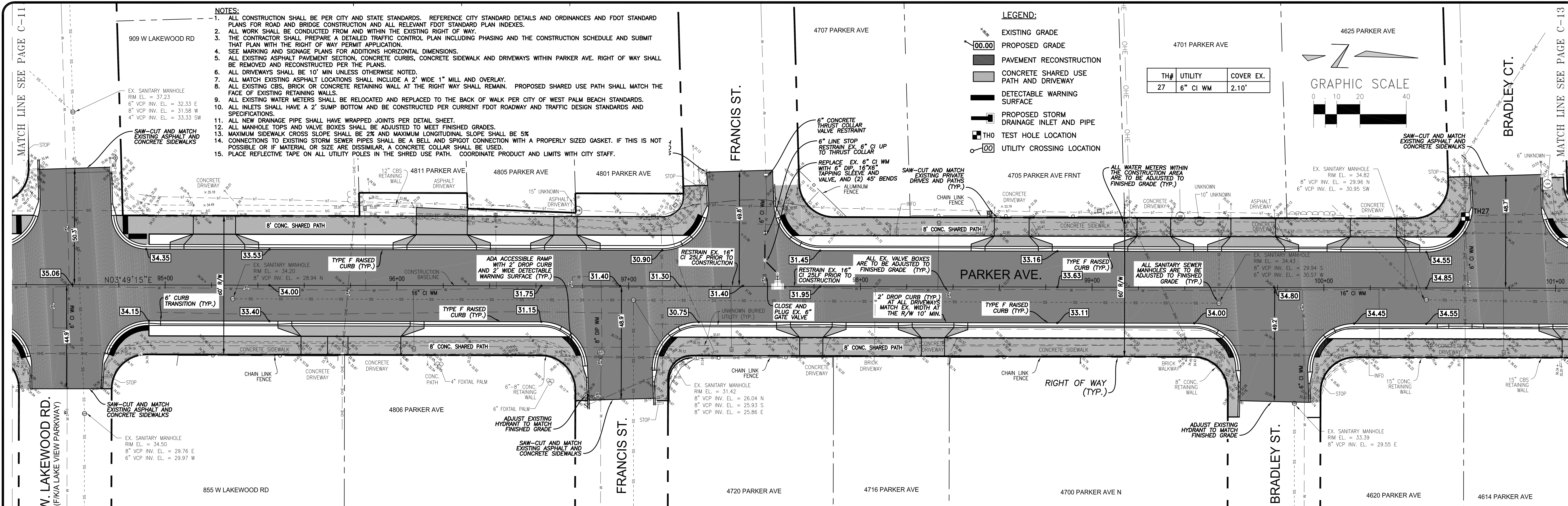




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C-10



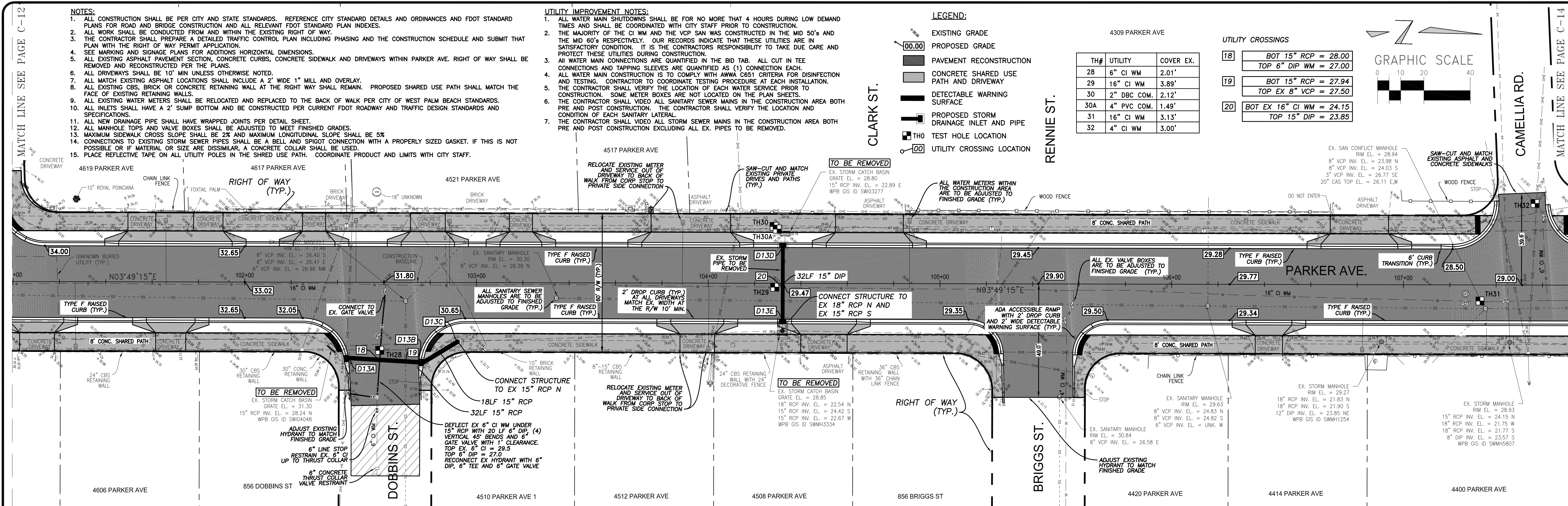


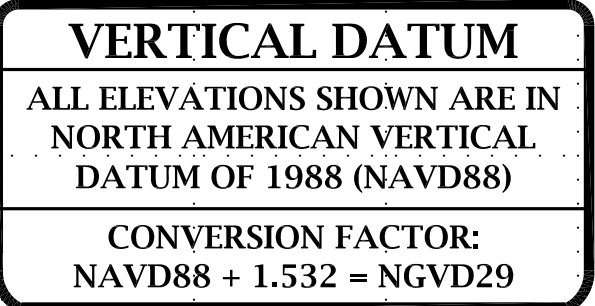
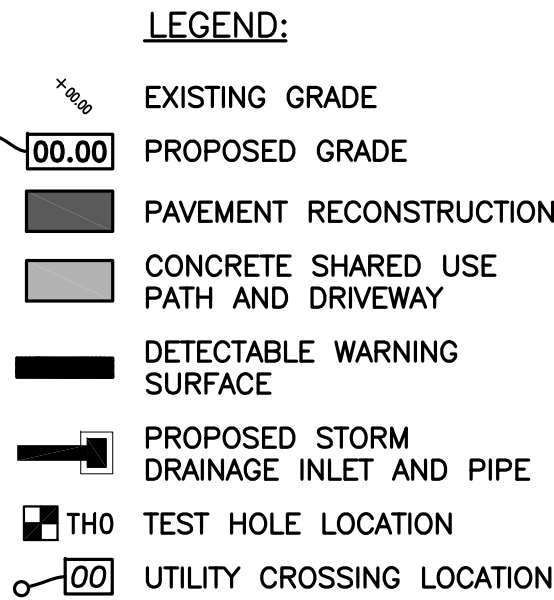
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NO.	DATE	DESCRIPTION					

WEST PALM BEACH
ENGINEERING SERVICES

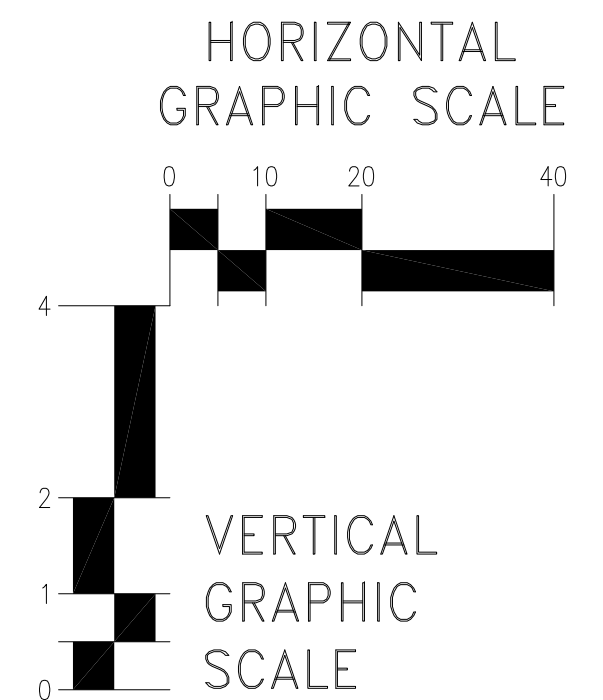
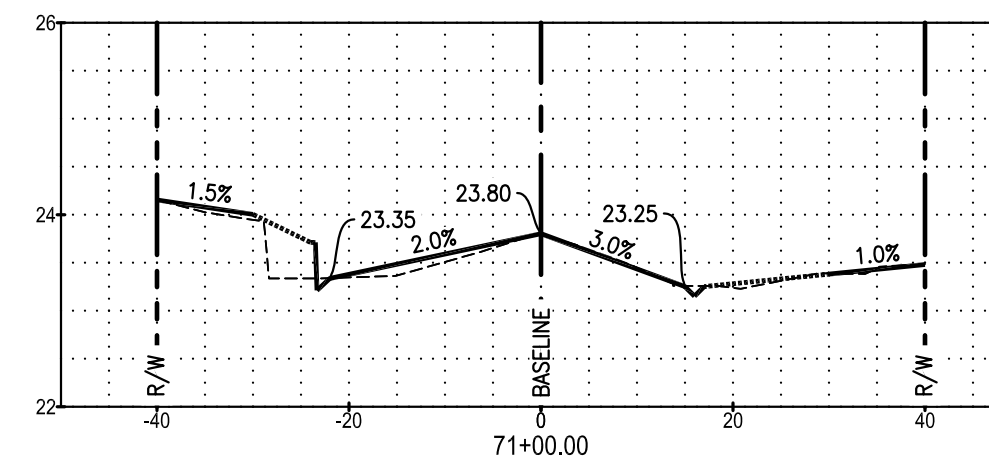
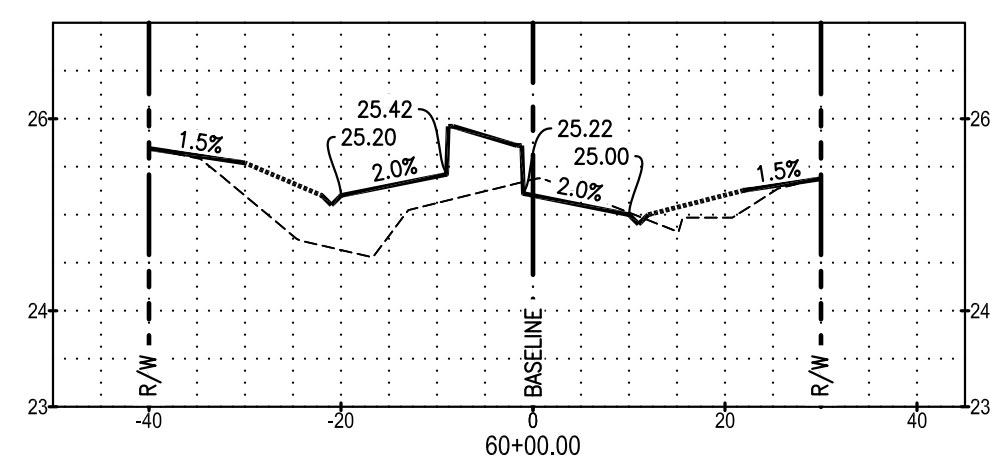
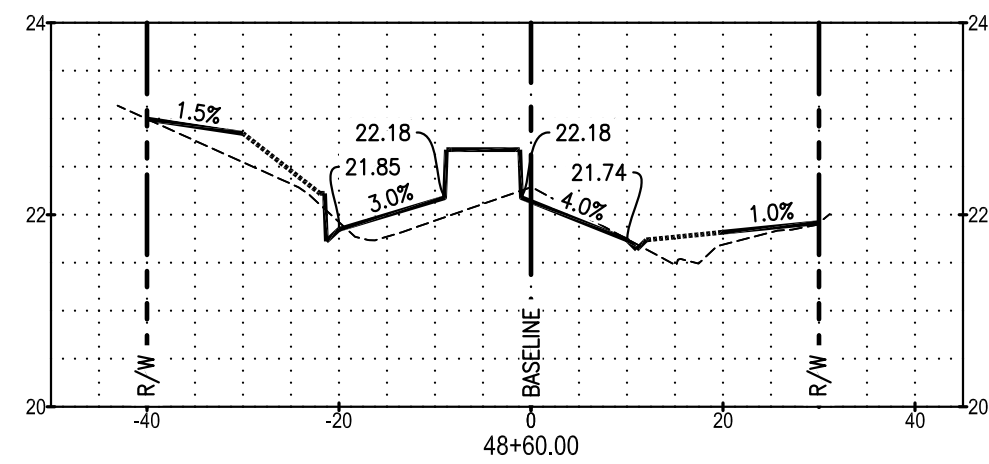
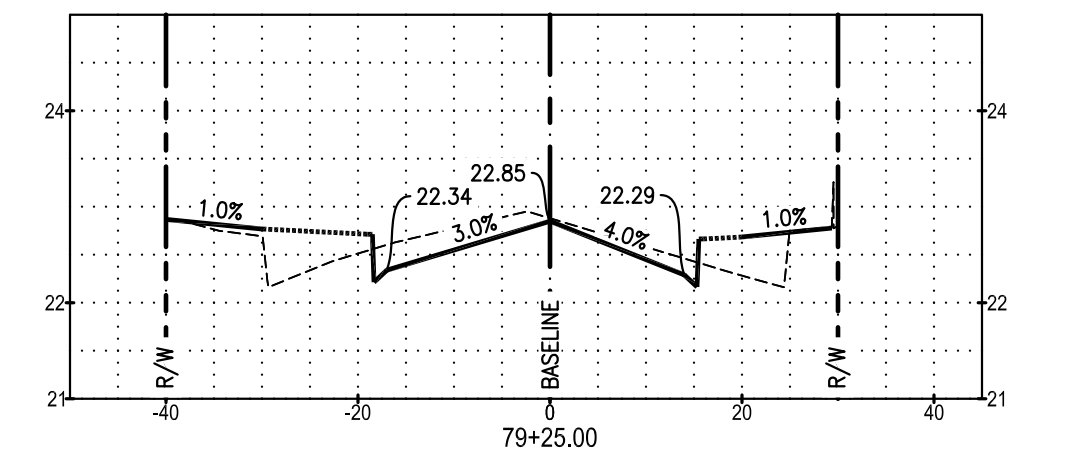
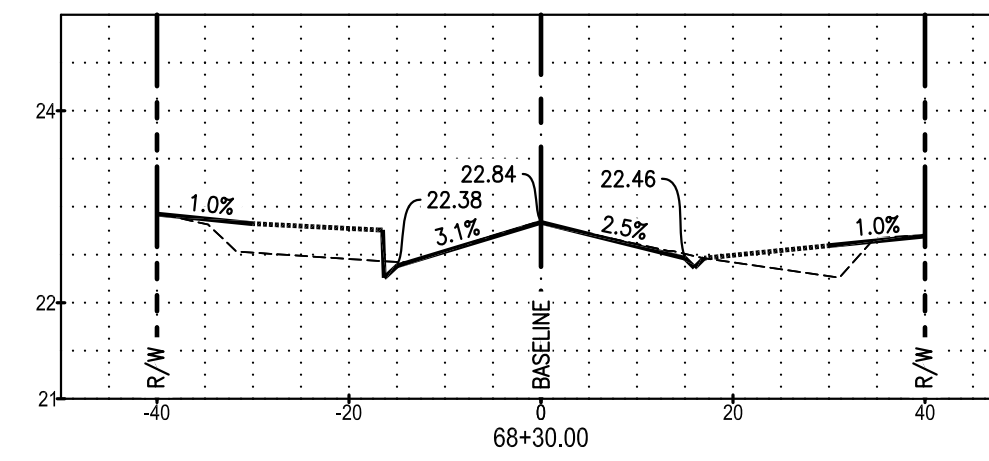
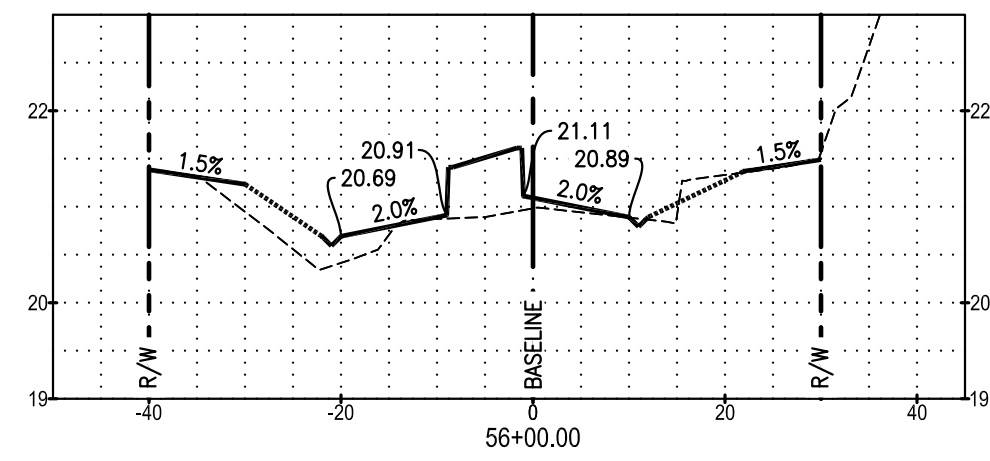
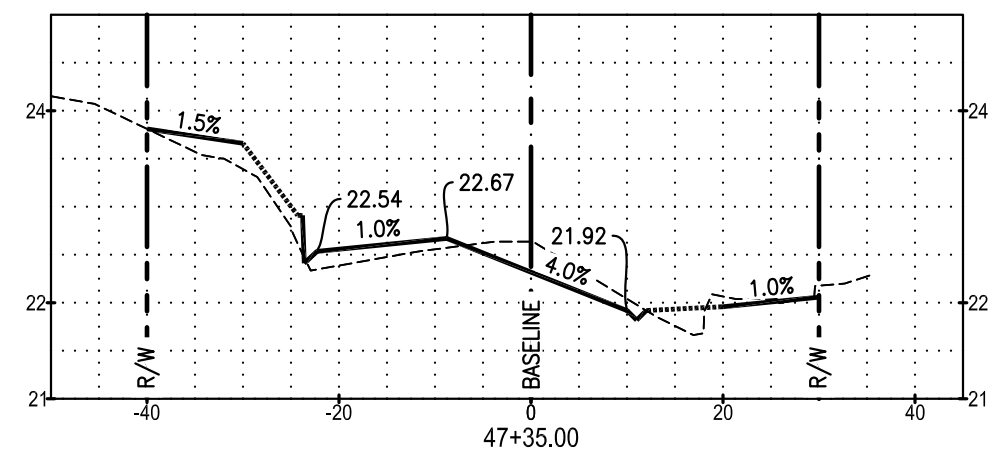
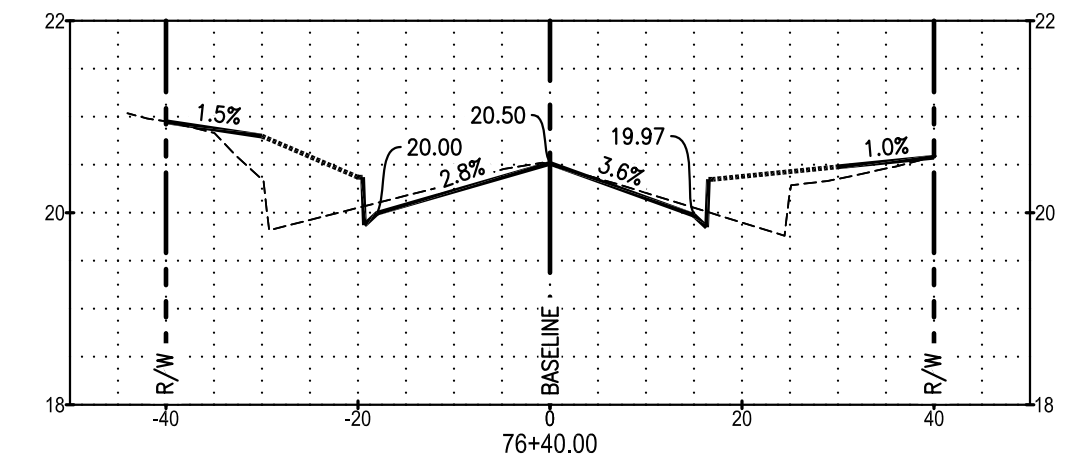
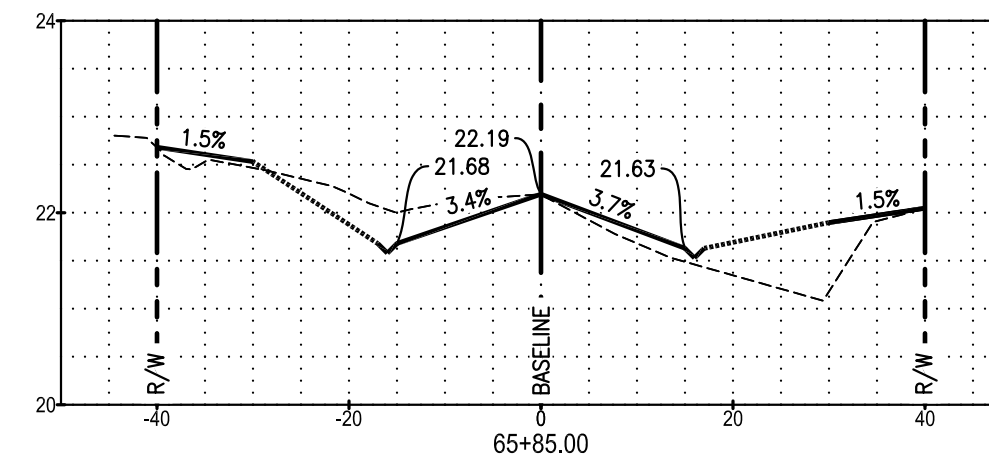
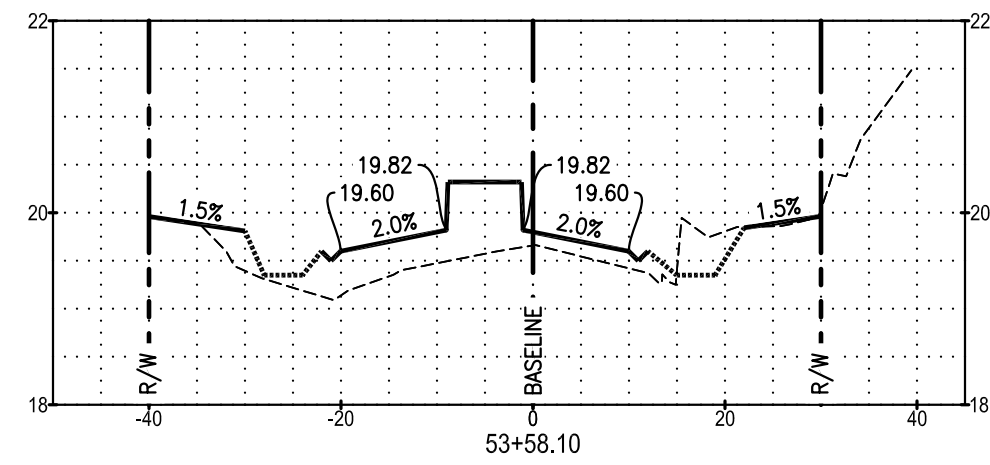
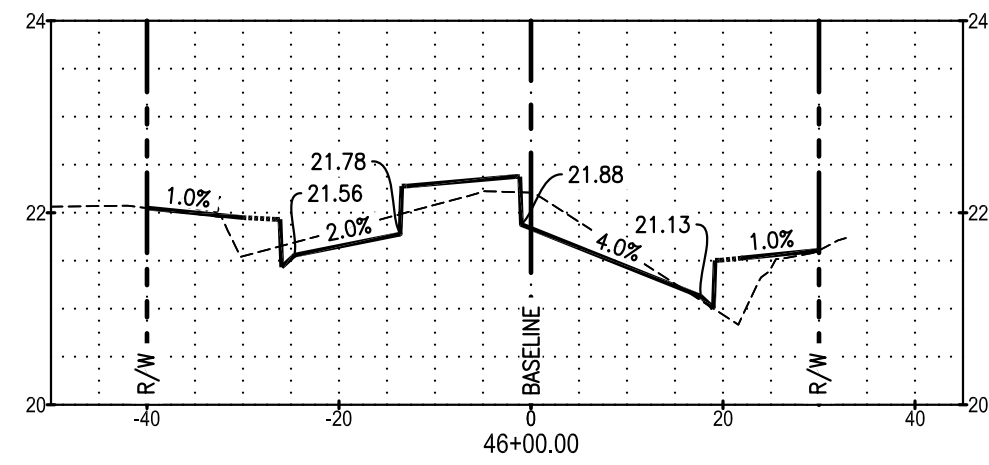
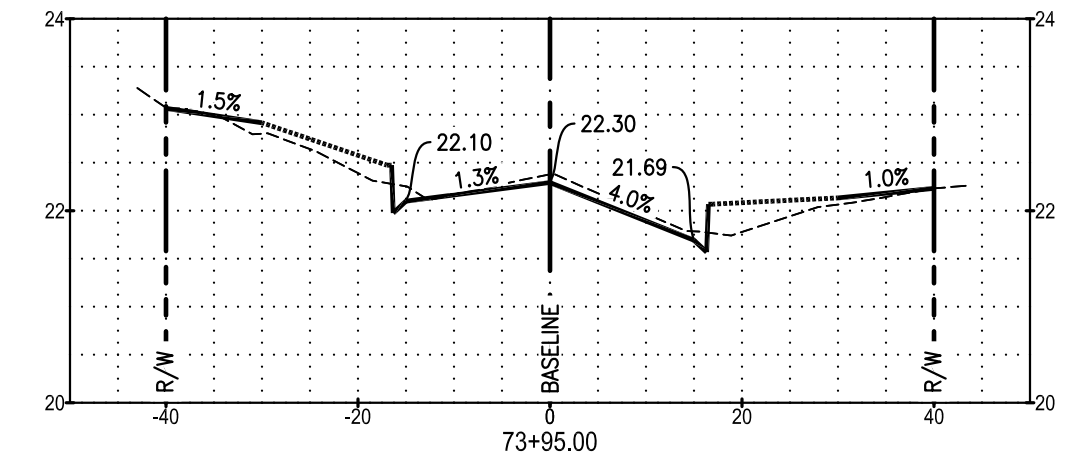
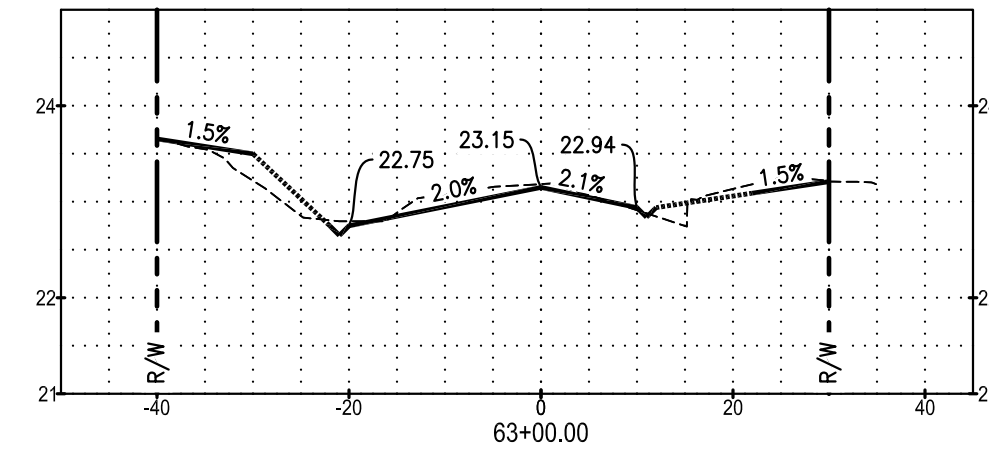
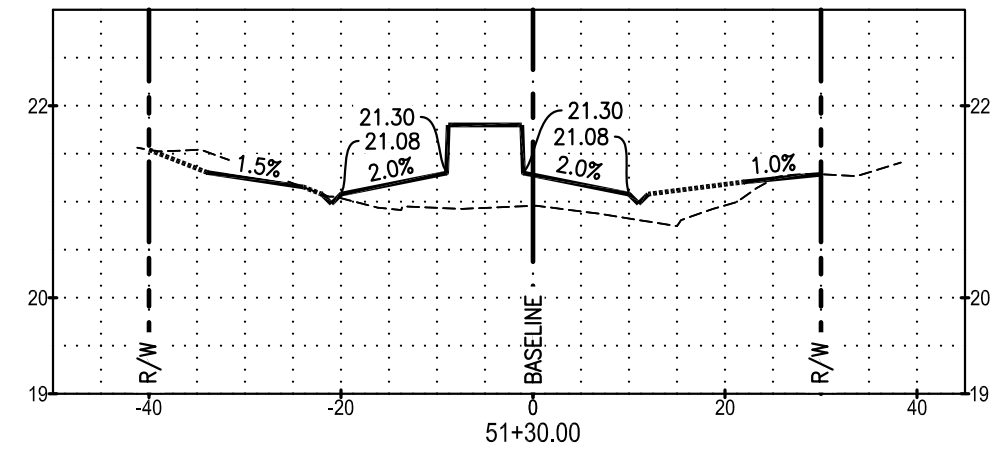
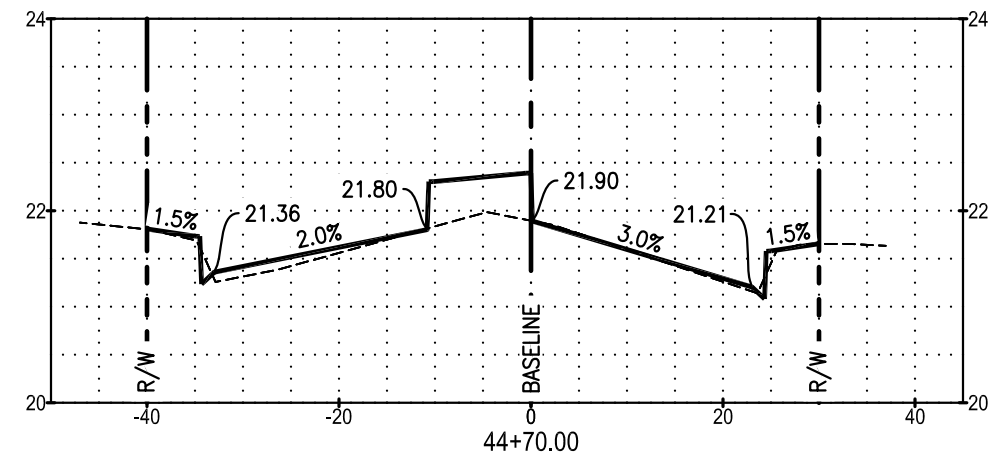
CITY CENTER * 401 CLEMATIS ST. * FOURTH FLOOR * WPB, FL 33401
PH. (561) 494-1040 * FAX: (561) 494-1116

VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE IN
NORTH AMERICAN VERTICAL
DATUM OF 1988 (NAVD88)
CONVERSION FACTOR:
NAVD88 + 1.532 = NGVD29





SHEET
C-14



VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE IN
NORTH AMERICAN VERTICAL
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CONVERSION FACTOR:
NAVD29 + 1.532 = NGVD29

REVISIONS			
NO.	DATE	BY	DESCRIPTION

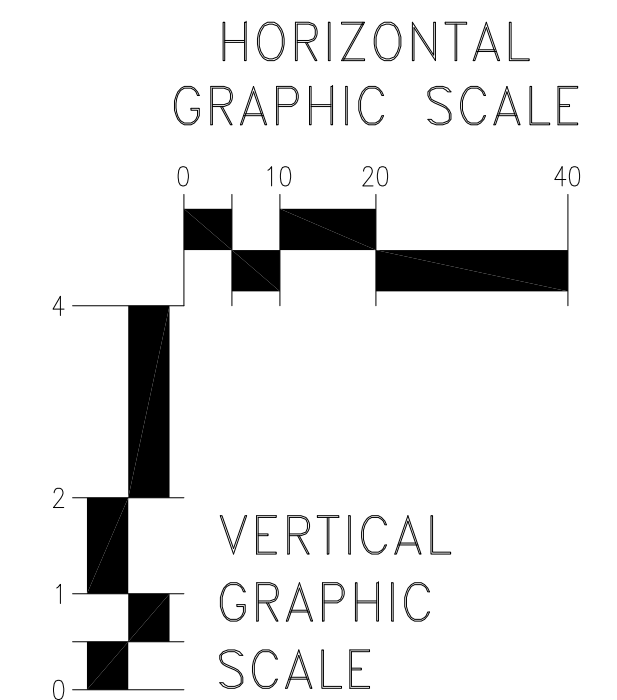
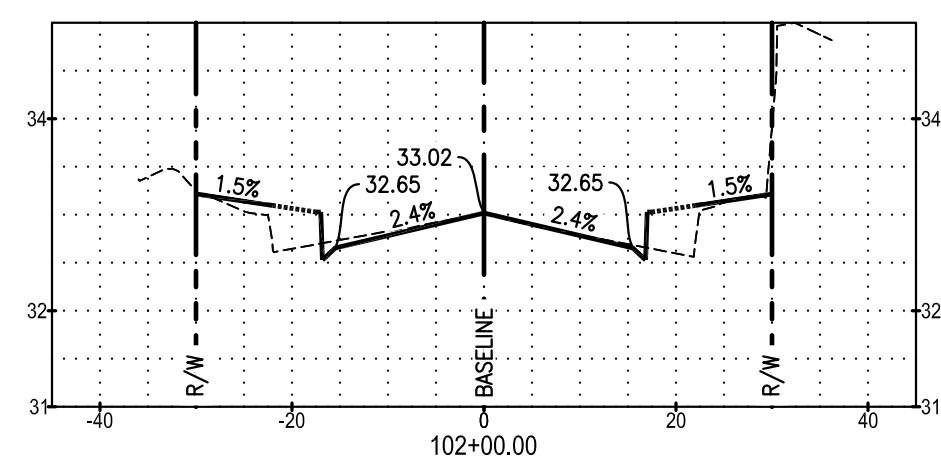
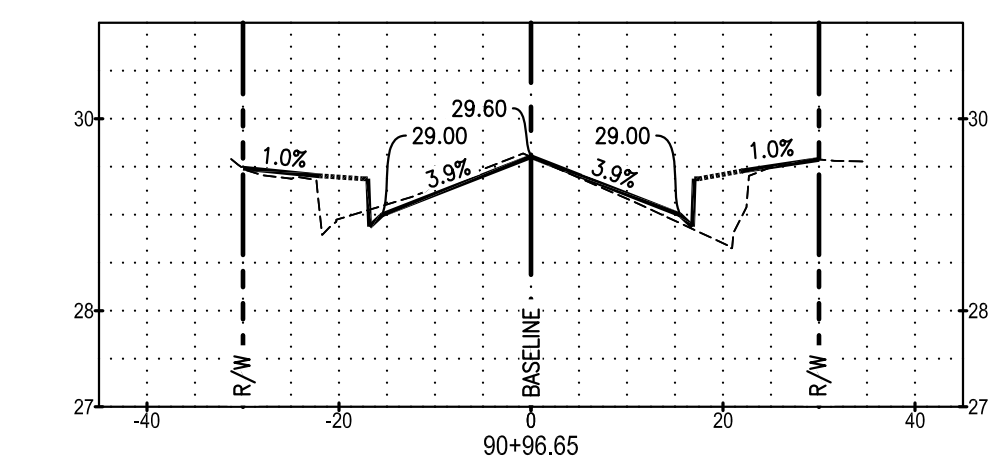
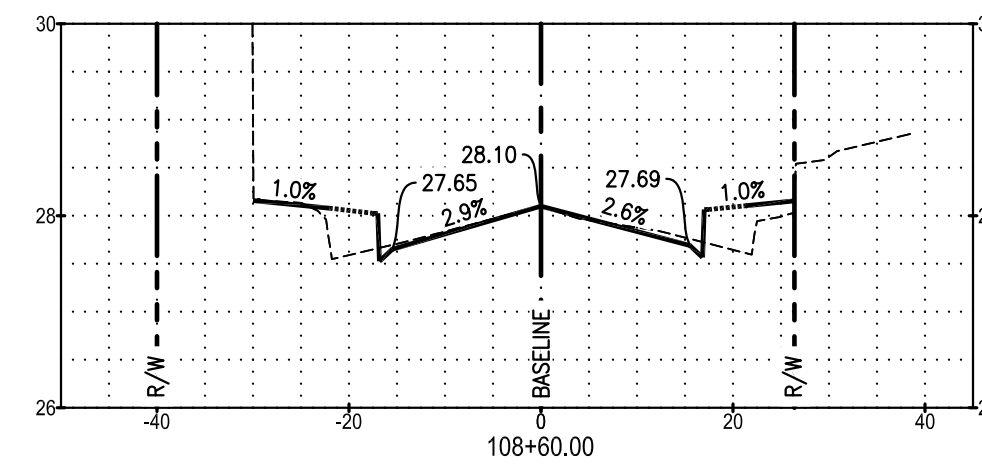
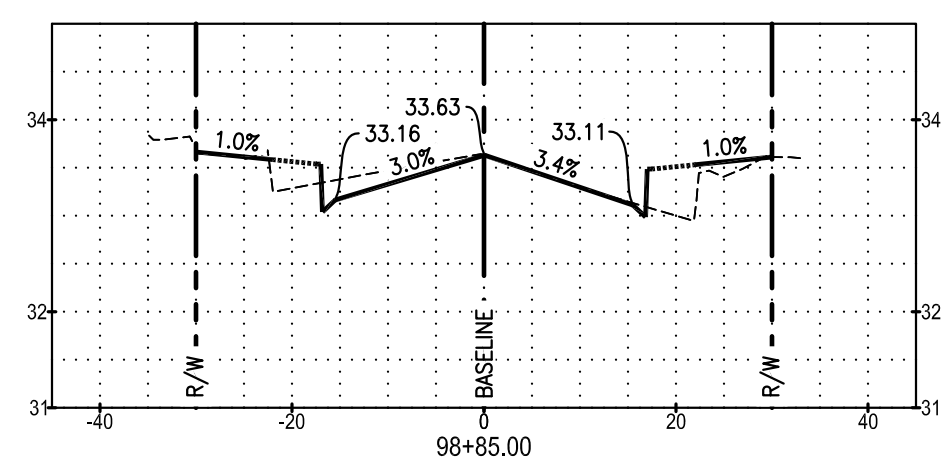
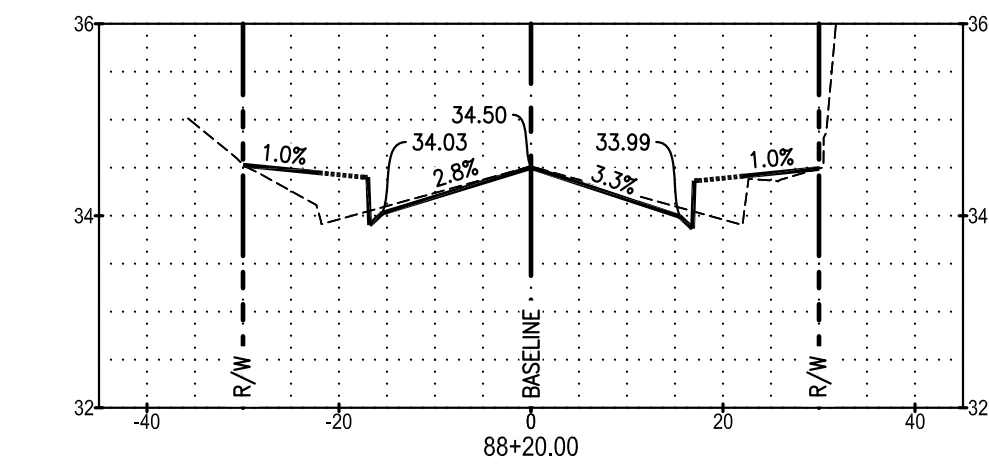
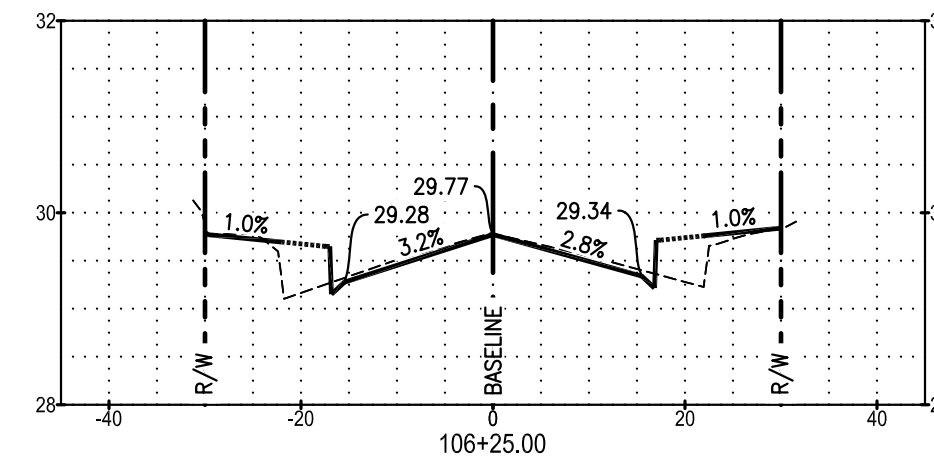
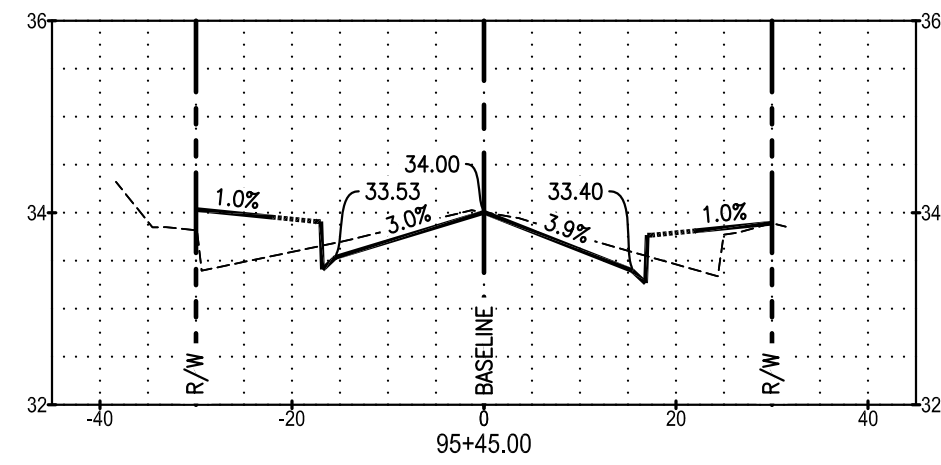
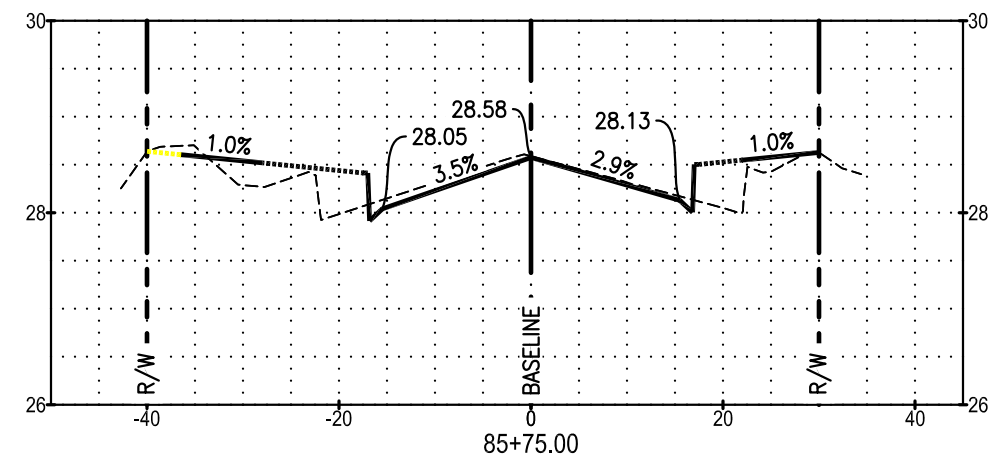
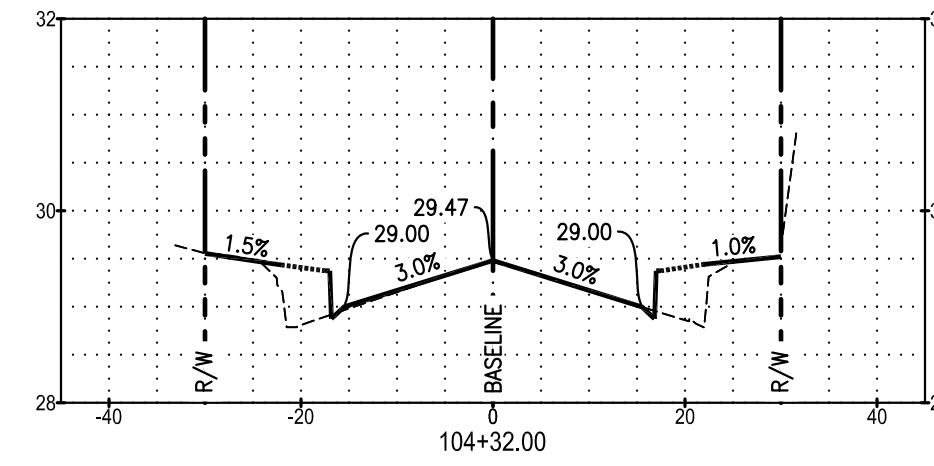
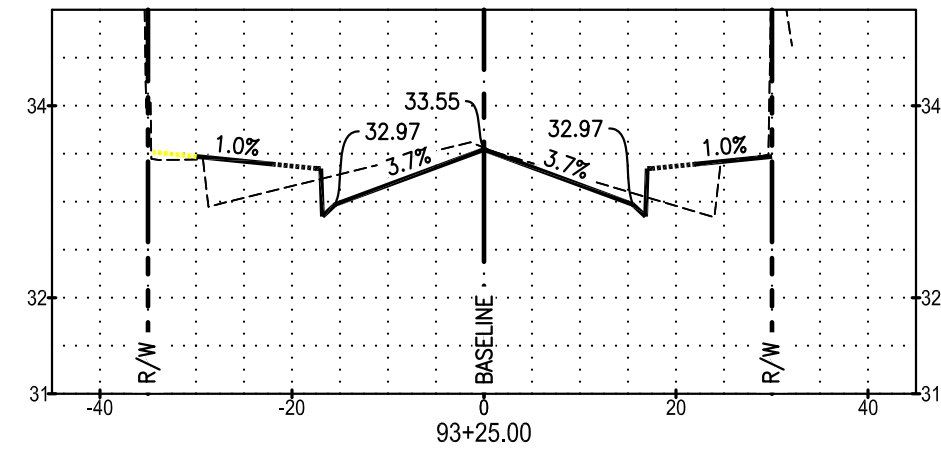
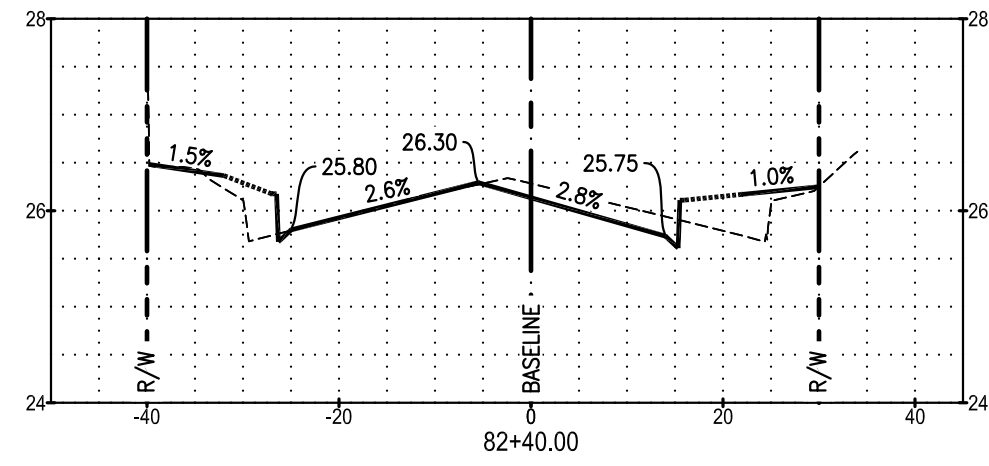


**CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT**
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SEALED:	SCALE: AS SHOWN
	DESIGNED BY: ATGIII
	DRAWN BY: ATGIII
	CHECKED BY: SB
	DATE: 6/13/2023

**PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD
CROSS SECTIONS**
PROJECT NUMBER 50146547

SHEET
C-15



VERTICAL DATUM
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DATUM OF 1988 (NAVD88)
CONVERSION FACTOR:
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PH. (561) 494-1040 * FAX: (561) 494-1116

SEALED:

SCALE:	AS SHOWN
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**PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD
CROSS SECTIONS**

PROJECT NUMBER 50146547

SHEET
C-16

GENERAL NOTES

1.

All work shall be accomplished according to applicable state, county, municipal, and local codes.
2.

Work in connection with utility owned by the City of West Palm Beach (City) shall be in conformance with the City's latest technical specifications, standard construction details, and approved materials list (AML).
3.

Contractor will be responsible to contact all utility companies for location of their existing facilities. It will then be the contractor's responsibility to locate these facilities for the exact locations. Contact sunshine "811" not less than 2 full business days and no more than 5 business days prior to digging. The contractor shall be responsible to contact / locate other utilities not subscribing to "SUNSHINE" ONE CALL "811."
4.

Contractor must abide by "UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT," CHAPTER 556, FLORIDA STATUTES (F.S.). Other laws may also affect excavations such as, "TRENCH SAFETY ACT," PART III, CHAPTER 553, F.S.; "THE GAS SAFETY LAW OF 1967," PART 1, CHAPTER 368, F.S.; THE FEDERAL PIPELINE SAFETY ACT; and OSHA STANDARD 1926.651.
5.

Locations of existing utilities shown on the plans are approximate only. It is the responsibility of the contractor to determine the exact locations of these utilities prior to construction. In addition, the contractor shall be responsible to verify other utilities (not shown on the plans) within the area of construction. Should there be any utility conflicts, the contractor shall inform the engineer immediately and notify the respective owners to resolve utility conflicts and utility adjustments, as required.
6.

The contractor shall exercise caution when working in or around existing city-owned utilities. The contractor shall notify the City at least 2 business days in advance of any excavation within ten (10) feet of city-owned utility so that a City representative may be present.
7.

Contractor will assume liability for any damages sustained or cost incurred because of the contractor's operations in the vicinity of existing utilities or structures. The contractor shall notify the City Engineer and the appropriate utility companies when their existing facilities conflict with the construction.
8.

Limited subsurface exploratory investigation of City utilities was performed.
9.

Existing City-owned utilities within the limits of construction are to remain, unless otherwise noted.
10.

Contractor shall submit application for work within R.O.W. along with the plans for maintenance of traffic at the pre-construction meeting. City of W.P.B. approval is required prior to implementation. Barricades and lighting for traffic control shall confirm to current edition of F.D.O.T. MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES.
11.

Contractor shall submit all required shop drawings for City approval prior to ordering of materials and/or installation. The latest edition of City approved materials list (AML) is included in the contract documents.
12.

Contractor proposing substitution of specified materials after award of bid shall be directed to engineer-of-record and accompanied with manufacturer's drawings, specification and pertinent data to establish equivalency of the proposed substitution. At the City's option, a signed and sealed certification by a florida licensed engineer may be required. There is no guarantee that approval of substitute materials proposed will be granted.
13.

Existing gas mains within the project limits shall be relocated by others in conjunction with improvement work.
14.

When dewatering is required, dewatering pumps shall be powered by electric driven motors only. The contractor shall make arrangements with Florida Power & Light (FPL) to provide the temporary electric service points for the dewatering operation.
15.

Dewatering shall be included in the cost of utility pay items.
16.

Sanitary sewer pay items shall include sewage flow by-pass pumping, environmental protection, and proper handling of sewage discharge.
17.

Contractor is responsible for the protection and/or removal, storage and reinstallation of existing items to be adjusted but not replaced. The contractor shall notify the engineer-of-record prior to commencing construction if said items are damaged, missing, or in a deteriorated condition.
18.

All existing City utility markers within the limits of construction shall be removed, stored, and reinstalled by the contractor. Location to be determined by the City. Contractor shall exercise caution during the removal of existing City utility markers to prevent any unnecessary damage. Utility markers damaged beyond use, as determined by the City representative, shall be replaced by contractor at contractor's expense.
19.

Contractor shall be responsible to protect and support existing utilities and maintain continuous service of all utilities, specifically water and sewer. For scheduled tie-ins/service connections, the contractor shall coordinate with private property owners or their representative at least 7 calendar days prior to any service interruptions. Scheduled tie-ins/service connections shall be scheduled for after hours or night time during low demands (between 10:00 p.m. and 6:00 a.m.) as required by the City.
20.

Trench restoration and backfill shall be in conformance with City requirements. Associated cost shall be included in the utility pay items.
21.

Unless otherwise specified in the plans or specification, the following requirements shall apply:

A.

Compaction of backfill shall be according to ASTM D1557 and shall be 98% within right of way or under structures; 95% all other backfill. all failed density tests must be immediately reported to the City.

B.

unless otherwise specified, furnish concrete with TYPE II Portland Cement. Ultimate compressive strength at 28 days to be 3000 PSI for walks, curbs, gutters, driveways and similar construction; 4000 PSI for all other work. Unless otherwise specified, maximum slump shall be 5". Cylinder test and payment therefore shall be as indicated in the specifications.

C.

Cast-in-place concrete shall conform to pertinent standards of the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM).
22.

Reinforcing steel shall conform to ASTM A615, Grade 60. Welded wire mesh shall conform to ASTM A185. Bends and placement shall conform to pertinent standards of ACI and ASTM.
23.

All exposed edges of concrete shall have a minimum $\frac{3}{4}$ " chamfer.
24.

All storm, sanitary, water or force main pipe shall be laid in a clean, dry trench, de-watering as required shall be at the contractor's expense. Contractor shall make all installation pursuant to The Florida Trench Act. Discharge water shall not be directed through the pipe being laid.
25.

Refer to the City of West Palm Beach Code of Ordinances, Chapter 90-UTILITIES, ARTICLE IV - SEWERS AND SEWAGE DISPOSAL, FOR GREASE, OIL AND SAND SEPARATOR REQUIREMENTS.

STANDARD WATER & SEWER SEPARATION STATEMENT
(F.A.C. 62-555.314, EFFECTIVE 08/28/03)

PER F.A.C. 62-555.314, AUGUST 28, 2003:
FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.

1.

HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

a.)

NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

b.)

NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

c.)

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

d.)

NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

e.)

THE CITY OF WEST PALM BEACH'S MINIMUM HORIZONTAL SEPARATION REQUIREMENT FOR ITEMS (a) AND (b) IS 5 FEET, PREFERABLY 10 FEET. DISTANCES LESS THAN 5 FEET MAY BE APPROVED ON A CASE BY CASE BASIS AND MUST MEET MINIMUM REQUIREMENTS OF F.A.C. 62-555.314, AS STATED HEREIN. EXCEPTIONS LISTED IN PARAGRAPH 5 REQUIRE CITY APPROVAL PRIOR TO INSTALLATION.
2.

VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.

a.)

NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

b.)

NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE- TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

c.)

AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (a) AND (b) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER 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.
3.

SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES:

a.)

NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.

b.)

EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE. WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THIS REQUIREMENT (I.E., WHERE THERE IS A CONFLICT IN THE ROUTING OF A WATER MAIN AND A STORM SEWER AND WHERE ALTERNATIVE ROUTING OF THE WATER MAIN OR THE STORM SEWER IS NOT TECHNICALLY FEASIBLE OR IS NOT ECONOMICALLY SENSIBLE), THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THIS REQUIREMENT (I.E., THE DEPARTMENT SHALL ALLOW CONSTRUCTION OF CONFLICT MANHOLES), BUT SUPPLIERS OF WATER OR PERSONS PROPOSING TO CONSTRUCT CONFLICT MANHOLES MUST FIRST OBTAIN A SPECIFIC PERMIT FROM THE DEPARTMENT IN ACCORDANCE WITH PART V OF THIS CHAPTER AND MUST PROVIDE IN THE PRELIMINARY DESIGN REPORT OR DRAWINGS, SPECIFICATIONS AND DESIGN DATA ACCOMPANYING THEIR PERMIT APPLICATION THE FOLLOWING INFORMATION:

i.

TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH CONFLICT MANHOLE.

ii.

A STATEMENT IDENTIFYING THE PARTY RESPONSIBLE FOR MAINTAINING EACH CONFLICT MANHOLE.

iii.

ASSURANCE OF COMPLIANCE WITH THE DESIGN AND CONSTRUCTION REQUIREMENTS SUBPARAGRAPHS (a) THROUGH (d) BELOW.

a.

EACH WATER MAIN PASSING THROUGH A CONFLICT MANHOLE SHALL HAVE A FLEXIBLE, WATERTIGHT JOINT ON EACH SIDE OF THE MANHOLE TO ACCOMMODATE DIFFERENTIAL SETTLING BETWEEN THE MAIN AND THE MANHOLE.

b.

WITHIN EACH CONFLICT MANHOLE, THE WATER MAIN PASSING THROUGH THE MANHOLE SHALL BE INSTALLED IN A WATERTIGHT CASING PIPE HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE.

c.

EACH CONFLICT MANHOLE SHALL HAVE A MINIMUM OF ONE ACCESS OPENING AND SHALL BE SIZED TO ALLOW FOR EASY CLEANING OF THE MANHOLE.

d.

GRATINGS SHALL BE INSTALLED AT ALL STORM SEWER INLETS UPSTREAM OF EACH CONFLICT MANHOLE TO PREVENT LARGE OBJECTS FROM ENTERING THE MANHOLE.

SEPARATION STATEMENT continued...

4.

SEPARATION BETWEEN FIRE HYDRANT DRAINS & SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

a.)

NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AT LEAST THREE FEET, AND PREFERABLE TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLE TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.
5.

EXCEPTIONS:
WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THE REQUIREMENTS IN PARAGRAPH 1 OR 2 ABOVE, THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THESE REQUIREMENTS IF SUPPLIERS OF WATER OR CONSTRUCTION PERMIT APPLICANTS PROVIDE TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH EXCEPTION AND PROVIDE ALTERNATIVE CONSTRUCTION FEATURES THAT AFFORD A SIMILAR LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION. ACCEPTABLE ALTERNATIVE CONSTRUCTION FEATURES INCLUDE THE FOLLOWING:

a.)

WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE:

i.

USE OF PRESSURE-RATED PIPE CONFORMING TO THE AMERICAN WATER WORKS ASSOCIATION STANDARDS INCORPORATED INTO RULE 62-555.330, F.A.C., FOR THE OTHER PIPELINE IF IT IS A GRAVITY OR VACUUM-TYPE PIPELINE:

ii.

USE OF WELDED, FUSED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE: OR

iii.

USE OF WATERTIGHT CASING PIPE OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE.

b.)

WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THREE FEET HORIZONTALLY FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND IS BEING LAID LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE:

i.

USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (i.e., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE OTHER WATER MAIN; AND

ii.

USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (i.e., HAVING AN IMPACTSTRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

SPECIFIC AUTHORITY 403.861(90 FS. LAW IMPLEMENTED 403.861(12) FS. HISTORY - NEW, 1-1-93, FORMERLY 17-555.314, AMENDED 8-28-03.

REVISIONS				<div><div><div><div>WPB</div></div><div>WEST PALM BEACH</div></div><div>ENGINEERING SERVICES</div></div>	CITY OF WEST PALM BEACH ENGINEERING SERVICES DEPARTMENT	CITY CENTER * 401 CLEMATIS ST. * FOURTH FLOOR * WPB, FL 33401 PH. (561) 494-1040 * FAX: (561) 494-1116	SEALED:	SCALE:	PARKER AVE RECONSTRUCTION FROM FOREST HILL BLVD TO NOTTINGHAM BLVD		SHEET C-17
NO.	DATE	BY	DESCRIPTION					AS SHOWN			
								DESIGNED BY:			
								DRAWN BY:			
								CHECKED BY:			
								DATE:			
								6/13/2023	PROJECT NUMBER 50146547		

IDENTIFICATION AND COLOR OF PIPE & FITTINGS:

A. POTABLE WATER MAINS

1. All water main pipe and fittings shall be color coded or marked using blue as a predominant color to differentiate drinking water from reclaimed or other water. Underground plastic pipe shall be solid-wall blue pipe, shall have a co-extruded blue external skin, or shall be white or black pipe with blue stripes incorporated into or applied to, the external pipe wall.
2. Underground metal or concrete pipe shall have blue stripes applied to the pipe wall. Pipe striped during manufacturing of the pipe shall have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 180-degree intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape or paint is used to stripe pipe during installation of the pipe, the tape or paint shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along both sides. For pipes with an internal diameter of 24 inches or greater, tape or paint shall be applied in continuous lines along each side of the pipe as well as along the top of the pipe.
3. Blue warning tape with "WATER" printed on the tape shall be placed in the trench during backfill of the water pipe, a vertical distance of 18" above the crown of the pipe.
4. Aboveground pipe at drinking water treatment plants and pump stations shall be color coded and labeled in accordance with subsection 62-555.320(10), f.a.c.
5. Install metallic tracing wire or locating tape on the top of all pvc pipe for future locating purposes.

B. WASTEWATER FORCE MAINS

1. All wastewater force main pipe and fittings shall be color coded or marked using green as a predominant color. Underground plastic pipe shall have a co-extruded green external skin or shall be white or black pipe with green stripes incorporated into, or applied to, the external pipe wall.
2. Underground metal or concrete pipe shall have green stripes applied to the pipe wall. Pipe striped during manufacturing of the pipe shall have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 180-degree intervals around the pipe and that will remain intact during and after installation of the pipe. If tape or paint is used to stripe pipe during installation of the pipe, the tape or paint shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along both sides. for pipes with an internal diameter of 24 inches or greater, tape or paint shall be applied in continuous lines along each side of the pipe as well as along the top of the pipe.
3. All aboveground wastewater force mains shall be painted solid green.
4. Green warning tape with "WASTEWATER" printed on the tape shall be placed in the trench during backfill of the wastewater pipe, a vertical distance of 18" above the crown of the pipe.
5. Install metallic tracing wire or locating tape on the top of all pvc pipe for future locating purposes.

C. WASTEWATER GRAVITY SEWERS

1. All pvc gravity sewer line, fittings, and laterals within the public right of way shall be green in color.
2. No color coding or identification markings are required on vitrified clay pipe. Metal or hdpe gravity sewer lines shall have an integral green stripe or painted stripe to identify the pipe. The integral stripe or paint shall be permanently affixed to each side of the pipe, 180" apart and be applied in a continuous line that runs parallel to the axis of the pipe.

D. RECLAIMED WATER MAINS

1. All reclaimed water valves and outlets shall be appropriately tagged or labeled (bearing the words in english and spanish: "DO NOT DRINK" together with the equivalent standard international symbol) to warn the public and employees that the water is not intended for drinking. All piping, pipelines, valves and outlets shall be color coded, or otherwise marked, to differentiate reclaimed water from domestic or other water. Underground piping which is not manufactured of metal or concrete, shall be color coded for reclaimed water distribution systems using pantone purple 522C using a light stable colorant. Underground metal and concrete pipe shall be color coded or marked using purple as a predominant color. If tape or paint is used to mark the pipe, the tape or paint shall be permanently affixed to the top and each side of the pipe (three locations parallel to the axis of the pipe) and be applied in a continuous line that runs parallel to the axis of the pipe. For pipes less than 24 inches in diameter, a single tape or painted stripe may be used along the top of the pipe. Visible, above-ground portions of the reclaimed water distribution system shall be clearly color coded and marked. It is recommended that meter boxes, distribution pipes and sprinkler mains located on private properties, including residential properties, be color coded using pantone purple 522C.
2. Purple warning tape with "RECLAIM" printed on the tape shall be placed in the trench during backfill of the wastewater pipe, a vertical distance of 18" above the crown of the pipe.
3. Install metallic tracing wire or locating tape on the top of all PVC pipe for future locating purposes.

E. STORMWATER & DRAINAGE SEWERS

1. No color coding or identification markings are required on the pipe.
2. Green warning tape with "STORMWATER" printed on the tape shall be placed in the trench during backfill of the stormwater pipe, a vertical distance of 18" above the crown of the pipe.
3. Install metallic tracing wire or locating tape on the top of all PVC pipe for future locating purposes.

PROJECT CLOSE-OUT REQUIREMENTS

1. Final lamping and T.V. inspection of sanitary gravity systems main and laterals and stormwater systems to be made by contractor upon completion of systems. Mandrel shall be pulled through pipe prior to T.V. inspection. A copy on DVD of the T.V. inspection with voice-over shall be submitted prior to final acceptance.
2. All As Built measurements & elevations to be made by a Florida Registered and Licensed Land Surveyor.
3. Contractor shall provide all As Builtts with FP&L power supply shown, from source to meter.
4. WARRANTY - All materials & equipment to be furnished and/or installed by the contractor shall be warranted for a minimum period of one year from the date of final acceptance thereof against defective materials, design and workmanship. Upon receipt of notice from the City of failure of any part of the warranted equipment or materials during warranty period, the affected part, parts or materials shall be promptly replaced by the contractor with new parts or materials at no expense to the City. In the event the contractor fails to make the necessary replacement or repairs immediately after notification, the City may accomplish the work at the expense of the contractor.
5. Contractor shall prepare and provide all As-Built Record Drawings (partial & final) as required for release and acceptance of new system by the PBC Health Department and as specified per contract documents. As-Built drawings, signed and sealed by either a Certified Registered Land Surveyor or Licensed Professional Engineer.
6. Final acceptance of City water and sewer installation shall be predicated upon receipt of As-Built drawings, signed and sealed by either a Florida Certified Registered Land Surveyor or Florida Licensed Professional Engineer. Record drawing requirements are specified in the contract documents.

REVISIONS			
NO.	DATE	BY	DESCRIPTION



WEST PALM BEACH
ENGINEERING SERVICES

CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT

CITY CENTER * 401 CLEMATIS ST. * FOURTH FLOOR * WPB, FL 33401
PH. (561) 494-1040 * FAX: (561) 494-1116

SEALED:

SCALE:	AS SHOWN
DESIGNED BY:	ATGIII
DRAWN BY:	ATGIII
CHECKED BY:	SB
DATE:	6/13/2023

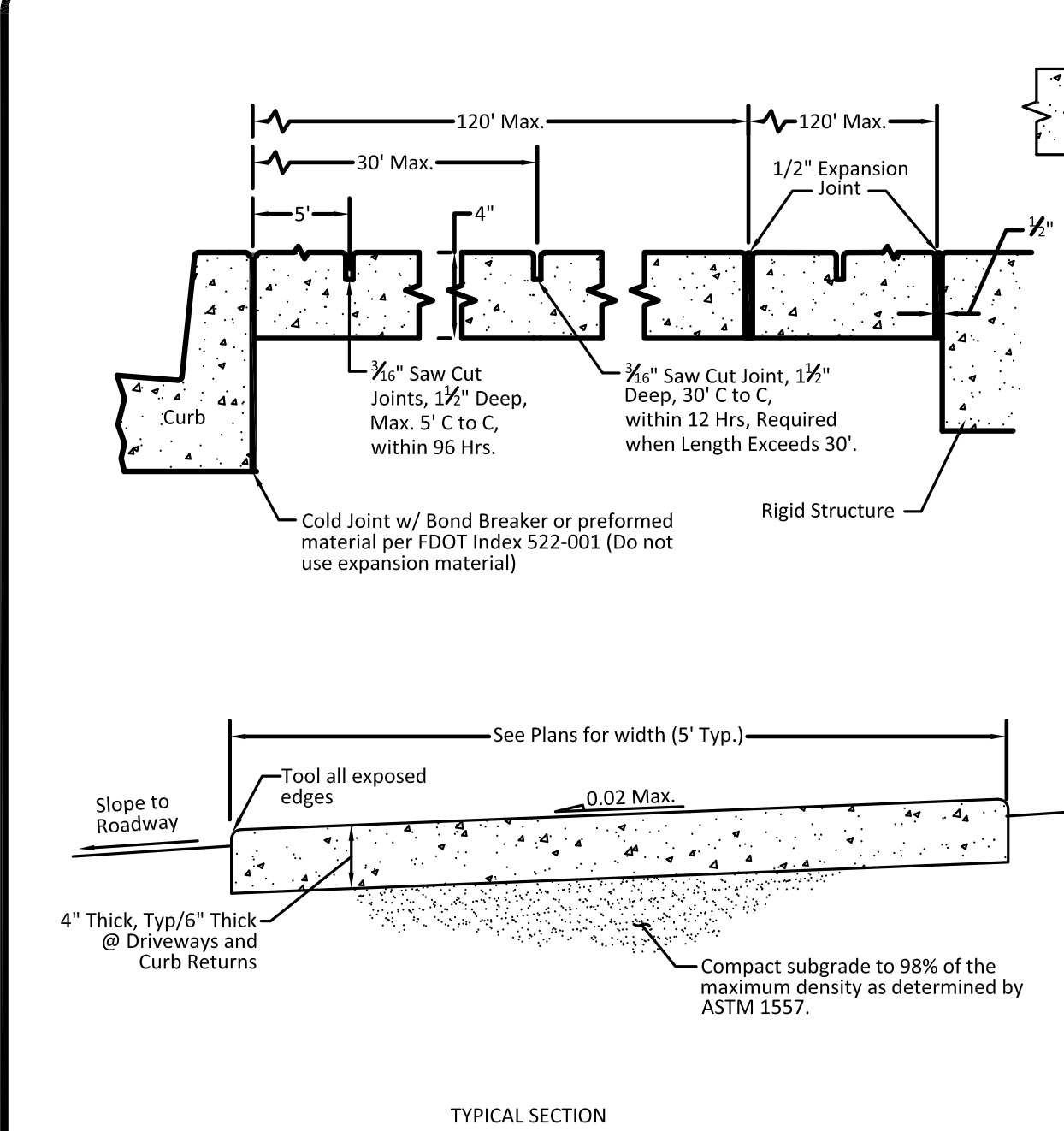
PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD

GENERAL NOTES

PROJECT NUMBER 50146547

SHEET

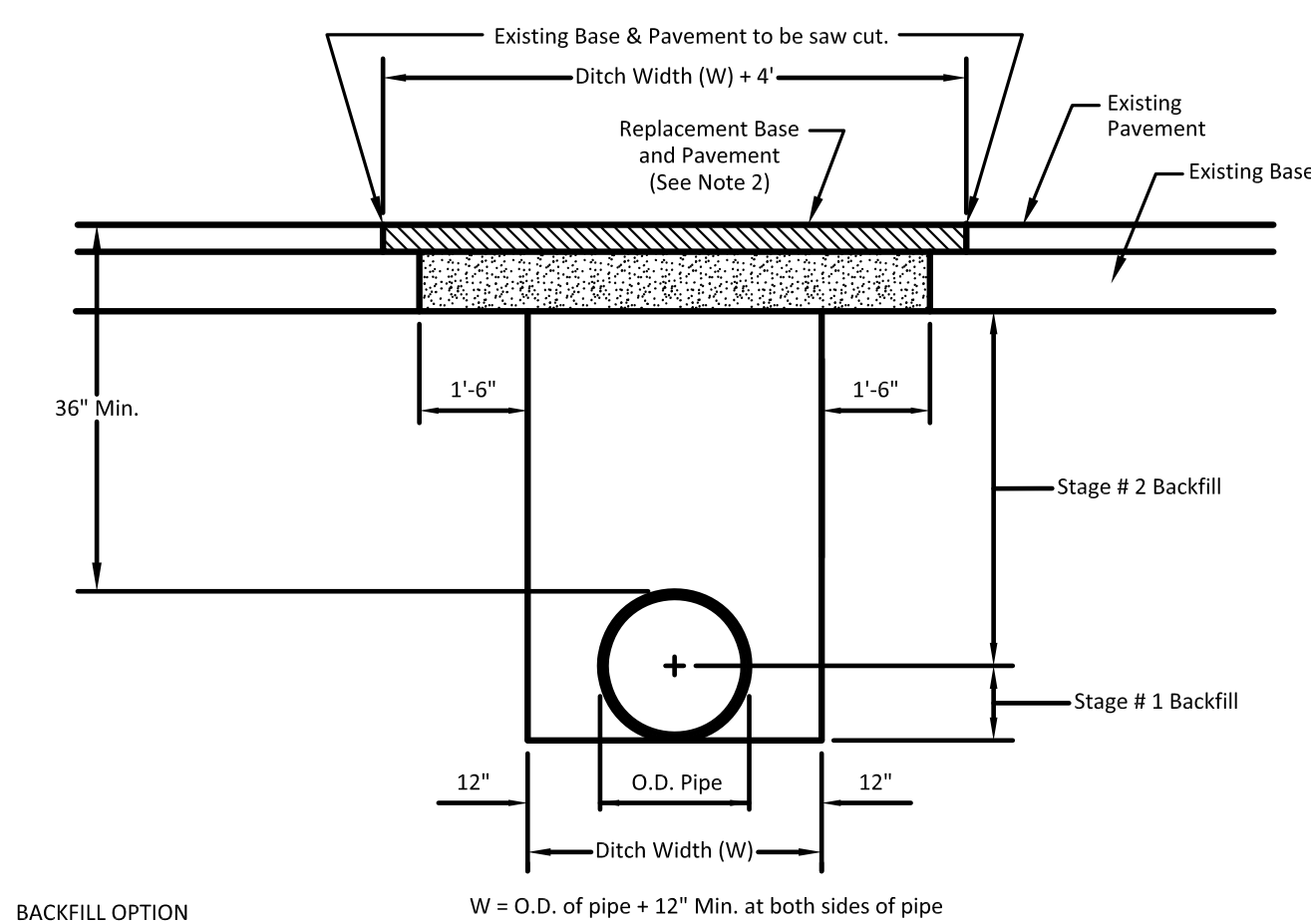
C-18



GENERAL CONSTRUCTION - CONCRETE SIDEWALK

Notes:

- Provide cold joints between sidewalk and curb/curb and gutter.
- Expansion joints shall be provided at 120 ft. maximum spacing.
- Ultimate compressive strength of concrete shall be 3,000 p.s.i. @ 28 days for sidewalks.
- Minimum thickness of sidewalk shall be 4 inches. Concrete driveways shall be 6 inches thick minimum and shall be reinforced with fiber mesh.
- For sidewalks or driveways within R.O.W., compact subgrade to 98% of maximum density as determined by ASTM 1557.
- Must provide approved maintenance of traffic (MOT) for sidewalk closure.
- Broom finish surface. No paint or other finishes allowed.
- No patch repairs allowed. Full flag of sidewalk must be removed.
- For all other, use FDOT Standard Plans Index 522-001 and Section 522 Standard Specifications.
- Concrete in Right-of-Way to be provided from a concrete mix plant for more than 3 flags of sidewalk.
- If sidewalk section exceeds 6 ft. wide, joint spacing to be determined by Engineer of Record or his / her designee.
- All batch tickets to be provided to City Inspector.
- Bond breaker material can be any impermeable coated or sheet membrane or preformed material having a thickness of not less than 6 mils and not more than 1/2".



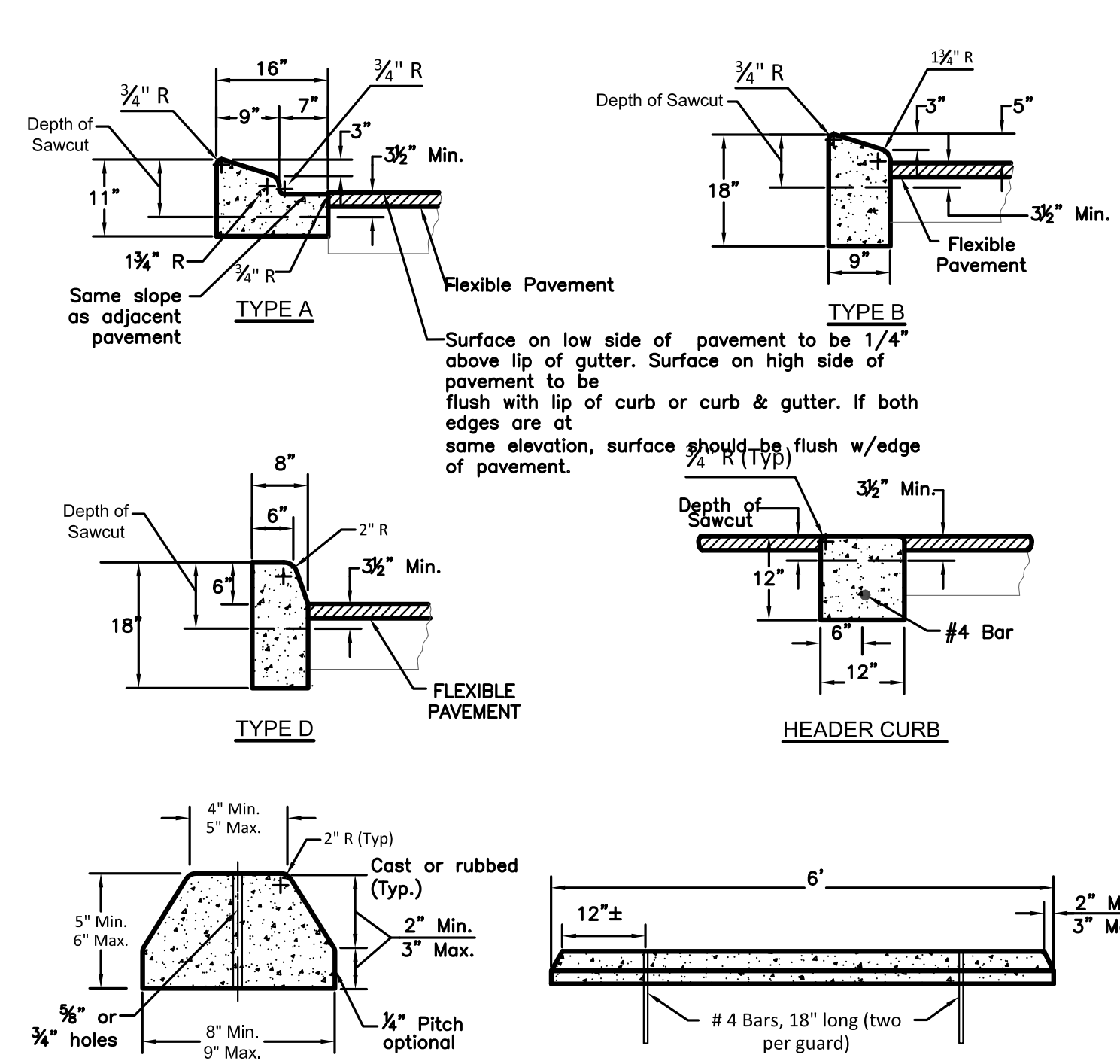
BACKFILL OPTION

- COMPACTED AND STABILIZED FILL
 - Place backfill material in accordance with FDOT Specification 125.
 - In Stage #1, construct compacted fill beneath the haunches of the pipe, using mechanical tamps suitable for this purpose. This compaction applies to the material placed beneath the haunches of the pipe and above any bedding.
 - In Stage #2, construct compacted fill along the sides of the pipe and up to the bottom of the base, with the upper 12" receiving Type B Stabilization. In lieu of Type B Stabilization, the Contractor may construct using FDOT Optional Base Group 3.
- FLOWABLE FILL
 - If compaction can not be achieved through normal mechanical methods then flowable fill may be used.
 - Flowable fill is to be placed in accordance with Section 121 of the FDOT Specifications, as approved by the Engineer.
 - Do not allow the utility being installed to float. If a method is provided to prevent flotation from occurring, Stages #1 and #2 can be combined, if approved by the Engineer.
 - In Stage #1, place flowable fill midway up on both sides of the utility. Allow to harden before placing Stage #2.
 - In Stage #2, place flowable fill to the bottom of the existing base course.

Notes:

- Final restoration, the road shall be milled/resurfaced at min of 1" for full lane width of the travel lane(s) encroached by the trench area, including a transition area of 50 ft. on each side of the trench.
- All pavement sections to be constructed per Standard Detail GC-4. Option to be designated by City Traffic Engineer or his/her designee.
- Re-striping must be thermoplastic and match existing striping or as directed by the City Traffic Engineer or his/her designee.
- For roads not under City of West Palm Beach jurisdiction, the appropriate road authority standards shall take precedence over the City standards. Refer to Florida Department of Transportation (FDOT), Palm Beach County or Town of Palm Beach standards, as appropriate.

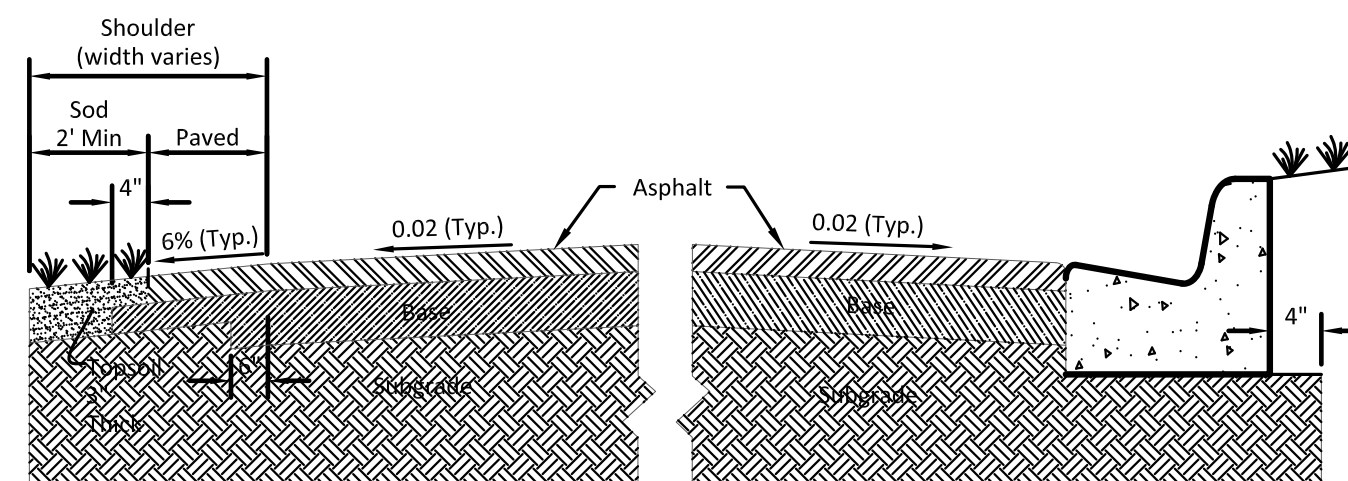
GENERAL CONSTRUCTION - TRENCH-BACKFILL-PAVEMENT RESTORATION



CONCRETE BUMPER GUARD

- Ultimate strength of concrete for curbs and bumpers shall be 2,500 psi. @ 28 days
- 1/8" - 1/4" Contraction joints in curbs shall be 3 1/2" min. depth (as measured) from top of adjacent pavement) and at 10-foot centers. No section shall be less than 4 feet.
- When pavement is concrete, provide a 1/2" expansion joint with pre-formed joint filler and joint seal between curb and concrete pavement (1 1/2" taper on curb face not required at concrete pavement).
- Ends of Type "B" and "D" Curb shall transition from full height to zero in 3 feet.

GENERAL CONSTRUCTION - CONCRETE CURB & GUTTER



LOCAL AND COLLECTOR (SN_R 3.5 MIN.)

FINISH COURSE: 1"-1 1/2" Type SP 9.5
 STRUCTURAL COURSE: 1 1/2"-2 1/2" Type SP-12.5 Asphaltic Concrete
 BASE COURSE: Optional Base Group 5 per FDOT Standard Specification Section 285
 SUBGRADE: 12" Compacted or Stabilized Subgrade (LBR-40)

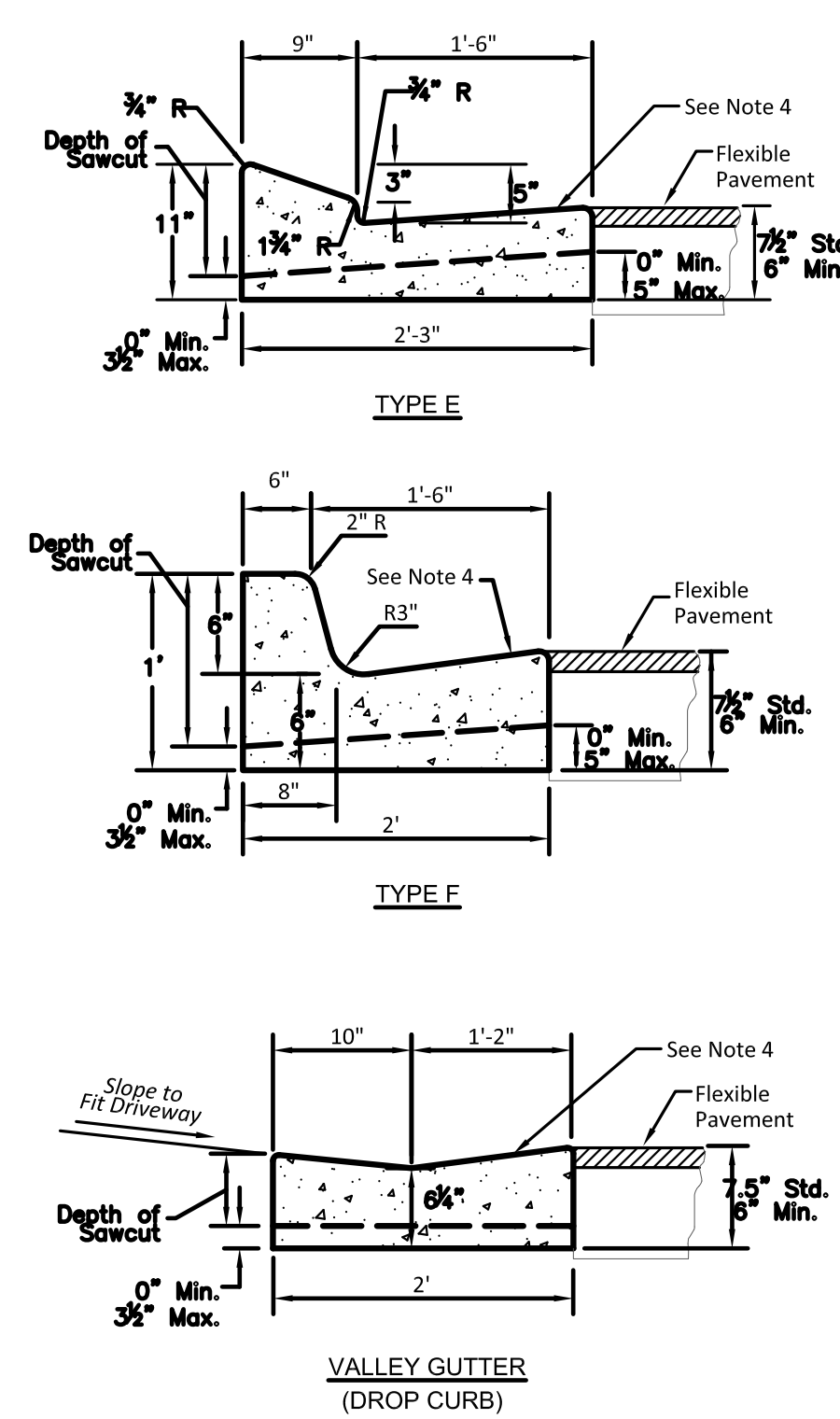
COMMERCIAL/INDUSTRIAL - SN_R 4.0 (AS DIRECTED BY CITY)

FINISH COURSE: 1"-1 1/2" Type SP 9.5
 STRUCTURAL COURSE: 1 1/2"-2 1/2" Type SP-12.5 Asphaltic Concrete
 BASE COURSE: Optional Base Group 9 per FDOT Standard Specification Section 285
 SUBGRADE: 12" Compacted or Stabilized Subgrade (LBR-40)

Notes:

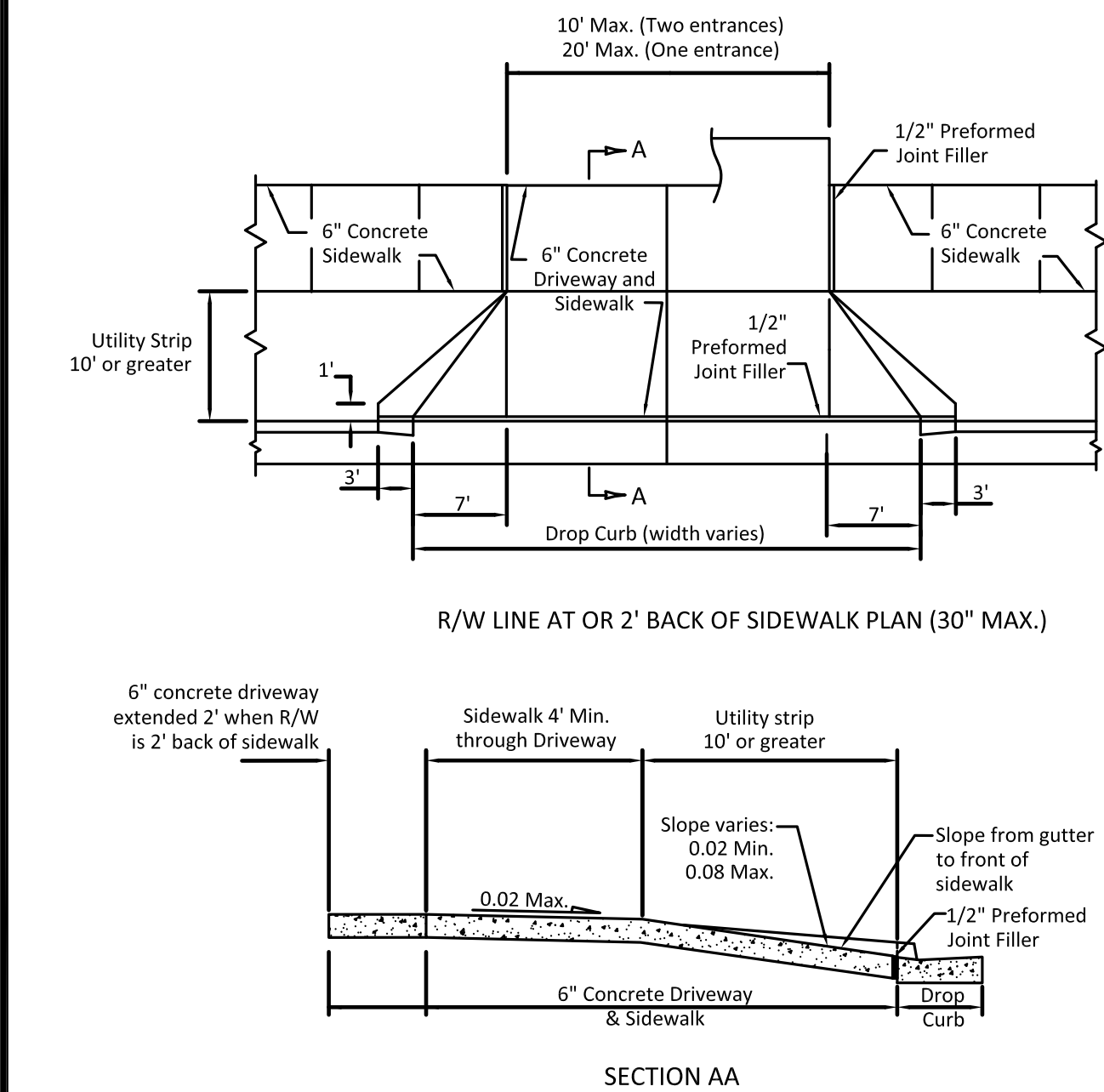
- Minimum Structural course thickness shall be 1 1/2".
- Shoulder design: Same as travel lane surface course.
 Surface course: Optional base Group 4 per FDOT Standard Specification Section 285
- Required Structural Number (SN_R) per FDOT Flexible Pavement Design Manual.
- Substitutions may be approved by City of West Palm Beach, provided minimum SN_R is demonstrated.

GENERAL CONSTRUCTION - FLEXIBLE PAVEMENT SECTION

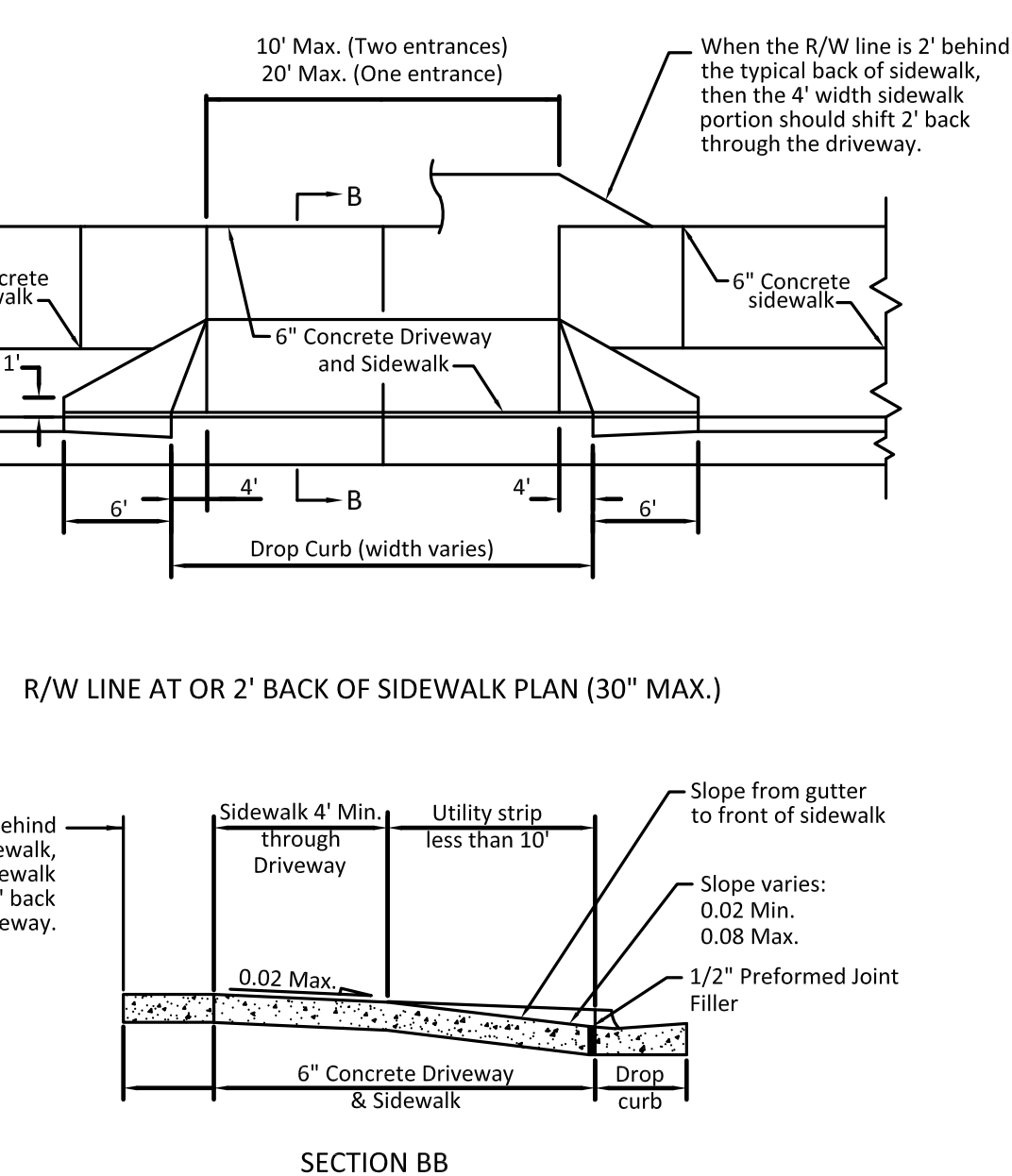


- Ultimate strength of concrete for curbs shall be 2,500 psi. @ 28 days
- 1/8" - 1/4" contraction joints in curb and gutter shall be cut as shown and at 10 ft. maximum spacing. No section shall be less than 4 ft.
- When pavement is concrete, provide a 1/2" expansion joint with pre-formed joint filler & joint seal between curb and concrete pavement. (1 1/2" taper on curb face not required at concrete pavement).
- When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement. The thickness of the lip shall be 6", unless otherwise shown on plans.

GENERAL CONSTRUCTION - CONCRETE CURB & GUTTER Continued



R/W LINE AT OR 2' BACK OF SIDEWALK PLAN (30" MAX.)



R/W LINE AT OR 2' BACK OF SIDEWALK PLAN (30" MAX.)

SECTION BB

Notes:

- Slopes can be adjusted within the ranges shown to improve ties to adjacent property and are to be transitioned so as to avoid distortion in sidewalk continuity and meet A.D.A. requirements
- Concrete shall be 3,000 psi. @ 28 days
- Light broom finish

WHEN DISTANCE BETWEEN CURB & SIDEWALK IS 10' OR GREATER, COMPLY WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) "CONCRETE FLARED DRIVEWAYS" STANDARD PLANS, INDEX 522-003

GENERAL CONSTRUCTION - CONCRETE DRIVEWAY APRONS

Notes:

- Slopes can be adjusted within the ranges shown to improve ties to adjacent property and are to be transitioned so as to avoid distortion in sidewalk continuity and meet A.D.A. requirements
- Concrete shall be 3,000 psi. @ 28 days
- Light broom finish

WHEN DISTANCE BETWEEN CURB & SIDEWALK IS LESS THAN 10', COMPLY WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) "CONCRETE FLARED DRIVEWAYS" STANDARDS PLANS, INDEX 522-003

GENERAL CONSTRUCTION - CONCRETE DRIVEWAY APRONS, Continued

REVISIONS			
NO.	DATE	BY	DESCRIPTION



CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT

CITY CENTER * 401 CLEMATIS ST. * FOURTH FLOOR * WPB, FL 33401
 PH. (561) 494-1040 * FAX: (561) 494-1116

SEALED:	SCALE: AS SHOWN
DESIGNED BY: ATGIII	DRAWN BY: ATGIII
CHECKED BY: SB	DATE: 6/13/2023

**PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD**
GENERAL CONSTRUCTION
DETAILS

PROJECT NUMBER 50146547

SHEET
C-19

RECORD DRAWING SUBMITTAL GUIDE (GC-9)

THE FOLLOWING SHALL BE USED AS A GUIDE FOR SUBMITTAL OF RECORD DRAWINGS TO THE CITY OF WEST PALM BEACH (CITY)

1. TWO (2) SETS OF PRINTS (SIGNED & SEALED BY A FLORIDA LICENSED SURVEYOR) AND THE CORRESPONDING PROJECT INFORMATION SHEET (PROVIDED BY THE CITY) SHALL BE SUBMITTED TO THE CITY FOR REVIEW 48 HOURS PRIOR TO REQUESTING INSPECTIONS SUCH AS FINAL INSPECTION, PRESSURE TESTS, SANITARY SEWER LAMPING OR ANY OTHER ELEMENT OF THE SYSTEM WHICH IS DETERMINED BY THE CITY TO REQUIRE CLARIFICATION.
2. THE DRAWINGS WILL BE REVIEWED BY THE CITY FOR DEFICIENCIES. DEFICIENCIES WILL BE INDICATED ON ONE (1) SET OF PRINTS WHICH WILL BE RETURNED TO THE ENGINEER OF RECORD OR CONTRACTOR FOR NECESSARY CORRECTIVE ACTION.
3. UPON CORRECTION, TWO (2) SETS OF PRINTS (SIGNED & SEALED BY A FLORIDA LICENSED SURVEYOR) SHALL BE SUBMITTED.
4. FINAL AS-BUILT SUBMITTAL PACKAGE INCLUDES THE FOLLOWING:
 - a. TWO (2) SETS OF PRINTS (SIGNED & SEALED BY A FLORIDA LICENSED SURVEYOR)
 - b. LETTER FROM THE ENGINEER OF RECORD CERTIFYING THAT THE PROJECT WAS BUILT PER THE APPROVED PLANS AND SPECIFICATIONS.
 - c. ONE PROJECT INFORMATION SHEET (TO BE PROVIDED BY THE CITY AND COMPLETED BY THE ENGINEER, CONTRACTOR, OR SURVEYOR)
 - d. DIGITAL DELIVERABLE THAT INCLUDES (UNLESS OTHERWISE APPROVED BY THE CITY):
 - i. THE FINAL RECORD DRAWING IN .PDF (24"x 36") FORMAT.
 - ii. AN AUTOCAD VERSION 2009 OR LATER WITH EACH UTILITY/FEATURE TYPE SEPARATED INTO INDIVIDUAL LAYERS.
 - iii. PROJECT INFORMATION SHEET IN .XLS FORMAT (PROVIDED BY THE CITY OF WEST PALM BEACH AND TO BE COMPLETED BY THE ENGINEER, CONTRACTOR OR SURVEYOR).
 - iv. ESRI ArcGIS VERSION 10.3.1 GEODATABASE OR SHAPEFILE FORMATS (FOR SUBMITTING GEODATABASES AND SHAPEFILES, AN EMPTY SCHEMA WILL BE PROVIDED TO THE SURVEYOR TO BE UTILIZED FOR THE ATTRIBUTES OF THE FEATURES AND UTILITIES FROM RECORD DRAWING DATA).
 - v. SURVEY FILE FOR ALL FEATURES COLLECTED IN ASCII (TEXT FILE) FORMAT AND INCLUDE AT A MINIMUM: ASSET ID, NORTHING, EASTING, ELEVATION, AND COMMENT.

RECORD DRAWING SUBMITTAL GUIDE (GC-10)

REQUIRED INFORMATION ON RECORD DRAWINGS

1. DRAWINGS ON 24"x36" BOND PAPER THAT WILL REPRODUCE LEGIBLY.
2. AS USED IN THE DESIGN AND SHOWN ON THE RECORD DRAWING; Feature and drawing projection shall be referenced to North American Datum 1983 (NAD83), Florida State Plane Coordinate System, East Zone, using US Survey Feet and per the Palm Beach County datum. Elevations shall be in the NGVD 29 vertical datum.
3. TIE INTO SECTION CORNERS IN THE FLORIDA STATE PLANE COORDINATE SYSTEM TO INSURE PROPER ORIENTATION. SECTION CORNER TIE SHEETS CAN BE OBTAINED FROM THE PALM BEACH COUNTY SURVEYOR'S WEB PAGE.
4. UNLESS OTHERWISE SPECIFIED SPATIAL LOCATIONS OF COLLECTED FEATURES SHALL BE OBTAINED BY FIELD SURVEY AND VERTICAL DATA THAT MEETS SURVEY GRADE ACCURACY.
5. LABEL DRAWINGS "RECORD DRAWINGS" WITH DATE, COMPLETE TITLE BLOCK WITH CURRENT FILE NAME.
6. DRAWINGS SHALL BE SIGNED/SEALED BY A FLORIDA LICENSED PROFESSIONAL LAND SURVEYOR.
7. CORRECT STREET/ROAD NAMES AND LOT AND BLOCK NUMBERS.
8. SHOW ASBUILT CONSTRUCTED FACILITIES HEAVIED UP, BOLD OR BOXED OUT TO STAND OUT FROM THE REST OF EACH DRAWING
9. ALL REFERENCED TO "PROPOSED" AND "PLAN" ARE TO BE REMOVED FROM THE RECORD DRAWINGS.
10. ALL LINES, STRUCTURES, AND OTHER ITMES THAT ARE RELOCATED WILL BE REMOVED AND SHOWN IN THE PROPER LOCATION (HAND WRITTEN NOTES AND "X"ING OUT WILL NOT BE ALLOWED)
11. CLEARLY MARK EXISTING INFRASTRUCTIRE WHICH IS TO REMAIN, WHICH HAS BEEN ABANDONED, AND HOW IT WAS ABANDONED.
12. AS-BUILT LIMITS OF FLOWABLE FILL INCLUDING LENGTH, WIDTH AND DEPTH SHALL BE INCLUDED.
13. RECORD DRAWINGS SHALL NOT BE GREATER THAN 1" EQUALS 30' UNLESS OTHERWISE APPROVED BY THE CITY.
14. SUPPLY ALL SURVEYS OF THE PROJECT AND OR PROPERTY.

RECORD DRAWING SUBMITTAL GUIDE (GC-11)

REQUIRED INFORMATION ON RECORD DRAWINGS

PRESSURE PIPE

1. AS-BUILT DISTANCE INCLUDING STATION/OFFSET OF MAINS AT A MINIMUM OF 100' INTERVALS FROM THE CENTERLINE OF ROAD, EASEMENT, RIGHT-OF-WAY LINE, BUILDINGS, SEWER MAINS OR AS DETERMINED BY THE CITY.
2. AS-BUILT TOP OF PIPE AND FINISHED GRADE ELEVATIONS AT 100' INTERVALS AS WELL AS ANY MAJOR CHANGES IN DIRECTION AND/OR ELEVATION INCLUDING VERTICAL AND HORIZONTAL DEFLECTIONS. SHOW LOCATION OF EMS MARKERS.
3. AS-BUILT LOCATIONS INCLUDING STATION/OFFSET AND ELEVATIONS OF EACH VALVE, FITTING, AIR RELEASE VALVE, TAP, ETC. AND RADIAL DIMENSIONS (TIES) FROM A NEARBY PERMANENT OBJECT WHERE POSSIBLE.
4. TYPE OF MATERIALS INSTALLED - PIPE AND APPURTENANCES. INDICATE ALL LOCATIONS OF CHANGE OF MATERIAL INCLUDING JOINT TYPE (M.J., SLIP, RESTRAINED).
5. RESTRAINT JOINT PIPE LENGTH
6. VALVE TYPE (BUTTERFLY, GATE, PLUG)

WATER MAIN

1. AS-BUILT LOCATIONS INCLUDING STATION/OFFSET OF ALL VALVES, TEES, BENDS, REDUCERS, CAPS, PLUGS, FIRE HYDRANTS, BACKFLOW PREVENTERS, WATER SERVICES, TAPS, AND AIR RELEASE VALVES.
2. TOP OF PIPE AND FINISHED GRADE ELEVATIONS SHOULD BE SHOWN ON ALL VALVES, TEES, BENDS, REDUCERS, CAPS, PLUGS, FIRE HYDRANTS, BACKFLOW PREVENTERS, TAPS, AND AIR RELEASE VALVES.
3. AS-BUILT LOCATIONS INCLUDING STATION/OFFSET OF WATER SERVICE TAPS AND METER BOXES. INDICATE SIZE OF WATER SERVICE LINE AND METER BOX.
4. NUMBERED SAMPLE POINT LOCATIONS FOR HEALTH DEPARTMENT APPROVAL. THIS INFORMATION CAN BE REMOVED FROM THE FINAL AS-BUILT.

SANITARY SEWER

1. AS-BUILT LOCATIONS INCLUDING STATION/OFFSET OF MANHOLES.
2. RIM ELEVATION, ELEVATION AND DIRECTION OF EACH INVERT, AND ELEVATION OF THE BOTTOM OF THE MANHOLE.
3. LENGTH OF RUN BETWEEN SANITARY STRUCTURES, TYPE OF AND SIZE OF PIPE MATERIAL WITH PIPE SLOPE CALCULATED.
4. AS-BUILT LOCATIONS OF CHANGE OF MATERIAL.

RECORD DRAWING SUBMITTAL GUIDE (GC-12)

REQUIRED INFORMATION ON RECORD DRAWINGS

SANITARY SEWER...cont. from CG-12

5. AS-BUILT LOCATIONS OF EACH SEWER SERVICE LATERAL INCLUDING THE CONNECTION TO THE MAIN AND PROVIDE THE STATION/OFFSET FOR EACH CLEANOUT & INDICATE CLEANOUT DIAMETER
6. UPDATE LIFT STATION DETAILS/ELEVATIONS INCLUDING START UP DATA
7. LIFT STATION AND UTILITY EASEMENTS, INCLUDING LOCATION OF FP&L SERVICE TO CONTROL PANEL

STORM WATER

1. AS-BUILT LOCATIONS INCLUDING STATION/OFFSET OF MANHOLES, CATCH BASINS, AND OUTFALLS INCLUDING HEADWALLS.
2. AS-BUILT ELEVATIONS OF RIM, INVERT ELEVATIONS AND DIRECTION, WEIR ELEVATIONS, BOTTOM OF MANHOLE AND CATCH BASIN ELEVATION.
3. LENGTH OF RUN (CENTER OF STRUCTURE TO CENTER OF STRUCTURE) BETWEEN STORM STRUCTURES, TYPE OF AND SIZE OF PIPE MATERIAL WITH PIPE SLOPE CALCULATED.
4. LOCATION OF SERVICE CONNECTIONS INCLUDING STATION/OFFSET (WITHOUT MANHOLES) TOGETHER WITH THE INVERT ELEVATION, PIPE DIAMETER AND MATERIAL.
5. DRY RETENTION/DETENTION AND WET RETENTION/DETENTION AREAS AND ACREAGES.
6. EXFILTRATION TRENCH LIMITS, WIDTH AND DEPTH.
7. TOP OF BERM ELEVATIONS.

CASING

1. AS-BUILT LOCATION OF ALL JACK AND BORE CASINGS INDICATING DISTANCE FROM CENTERLINE OF PAVING TO EACH END OF CASING. THE AS-BUILT STATION/OFFSET) AND AS-BUILT DISTANCE FROM EACH END OF CASING TO LIMITS OF MECHANICAL JOINT PIPE.

STREET LIGHTS

1. AS-BUILT LOCATIONS INCLUDING STATION/OFFSET OF STREET LIGHT POLES AND PULL BOXES
2. AS-BUILT LOCATIONS INCLUDING STATION/OFFSET OF SERVICE CONNECTIONS (FP&L OWNED, CITY METERED)
3. LENGTH OF CONDUIT RUNS BETWEEN BOXES AND POLES, SIZE AND TYPE OF MATERIAL USED. CONDUIT RUNS SHALL BE SHOWN AS LAID IN THE GROUND, NOT AS A WIRING SCHEMATIC.

RECORD DRAWING SUBMITTAL GUIDE (GC-13)

REQUIRED INFORMATION ON RECORD DRAWINGS

IRRIGATION

1. AS-BUILT LOCATIONS INCLUDING STATION/OFFSET OF BACKFLOW PREVENTERS, CONTROL STAND LOCATION, AND CONTROL VALVES
2. SCHEMATIC INSTALLED LOCATION OF MAIN LINE INCLUDING PIPING SIZE, MATERIAL, LENGTHS AND DEPTH
3. AS-BUILT IRRIGATION PLANS TO BE CERTIFIED THAT THE PLAN WAS BUILT TO ACCORDANCE WITH THE APPROVED PLAN BY THE IRRIGATION DESIGNER.

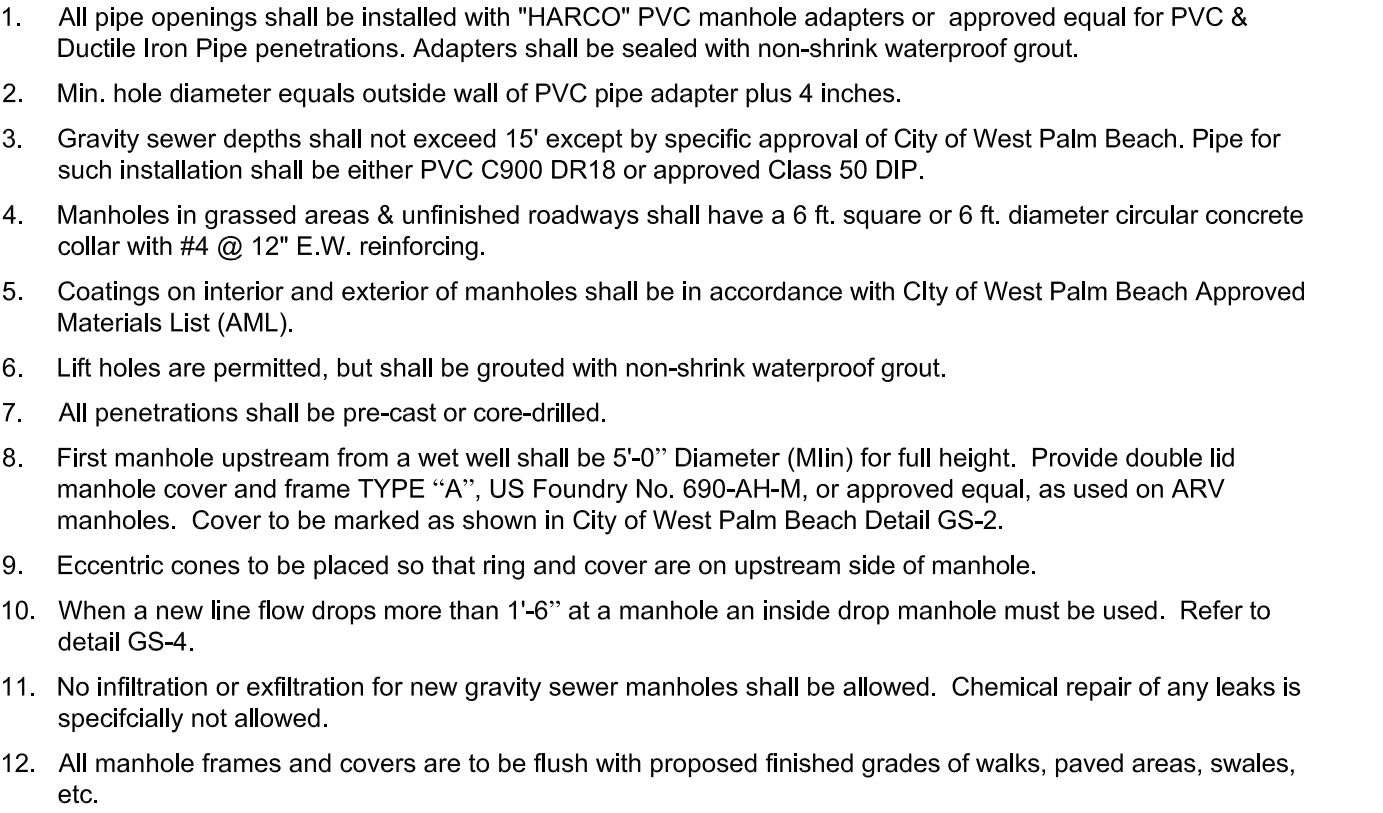
LANDSCAPING

1. SCHEMATIC INSTALLED LOCATION OF TREE LOCATION INCLUDING INSTALLED TREE TYPE, CALIPER AND HEIGHT
2. SCHEMATIC INSTALLED LOCATION OF TREE GRATE, SIZE AND MODEL
3. LENGTH, WIDTH AND DEPTH OF STRUCTURAL SOIL USED
4. SCHEMATIC INSTALLED LOCATION OF TOP OF AND TOE OF SLOPE ON BERM ELEVATION FOR LANDSCAPING
5. AS-BUILT LANDSCAPE PLANS TO BE CERTIFIED BY THE LANDSCAPE ARCHITECT OF RECORD THAT THE PROJECT WAS BUILT IN ACCORDANCE WITH THE APPROVED PLANS.

PRIVATE CONSTRUCTION IMPACTS TO RIGHT OF WAY

1. PRIVATE UTILITY OR REVOCABLE EASEMENTS IN THE CITY RIGHT-OF-WAYS OR ON THE CITY PROPERTY MUST BE SHOWN ON THE AS-BUILT PLAN. ANY IMPROVEMENTS WITHIN THE EASEMENT NEED TO BE SHOWN AND CALLED OUT AS PRIVATE. THE RECORDING INFORMATION SHOULD BE ON THE AS-BUILT.
2. PRIVATELY OWNED LIGHTING, IRRIGATION AND LANDSCAPING IN THE CITY RIGHT-OF-WAY NEEDS TO BE CALLED OUT AS PRIVATE AND IDENTIFIED.
3. AS-BUILT LOCATIONS OF ALL UNDERGROUND FOOTERS IN THE RIGHT-OF-WAY

REVISIONS					CITY OF WEST PALM BEACH ENGINEERING SERVICES DEPARTMENT	SEALED:	SCALE: AS SHOWN	PARKER AVE RECONSTRUCTION FROM FOREST HILL BLVD TO NOTTINGHAM BLVD RECORD DRAWING SUBMITTAL GUIDE	SHEET C-20
NO.	DATE	BY	DESCRIPTION				DESIGNED BY: ATGIII		
					DRAWN BY: ATGIII				
					CHECKED BY: SB				
					DATE: 6/13/2023				
					CITY CENTER * 401 CLEMATIS ST. * FOURTH FLOOR * WPB, FL 33401 PH. (561) 494-1040 * FAX: (561) 494-1116	PROJECT NUMBER 50146547			



PATENT DOVETAIL GASKET

9.32"

3/16"

7/32"

DOVETAIL GROOVE W/GASKET

22 3/4"Ø

3 5/8"

MACHINED SURFACE

DOVETAIL GROOVE & GASKET
(SEE DETAIL ABOVE)

2"

24 3/4"Ø

23"Ø

20 5/8"Ø

MACHINED SURFACE

11/16"

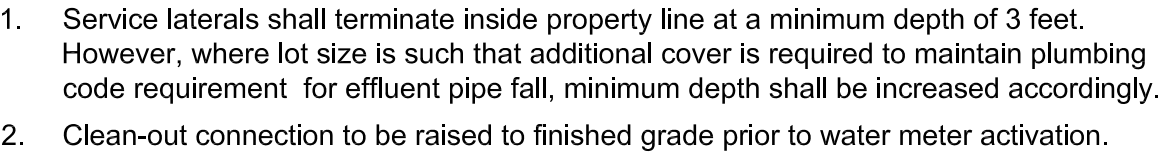
24 1/2"Ø

36"Ø

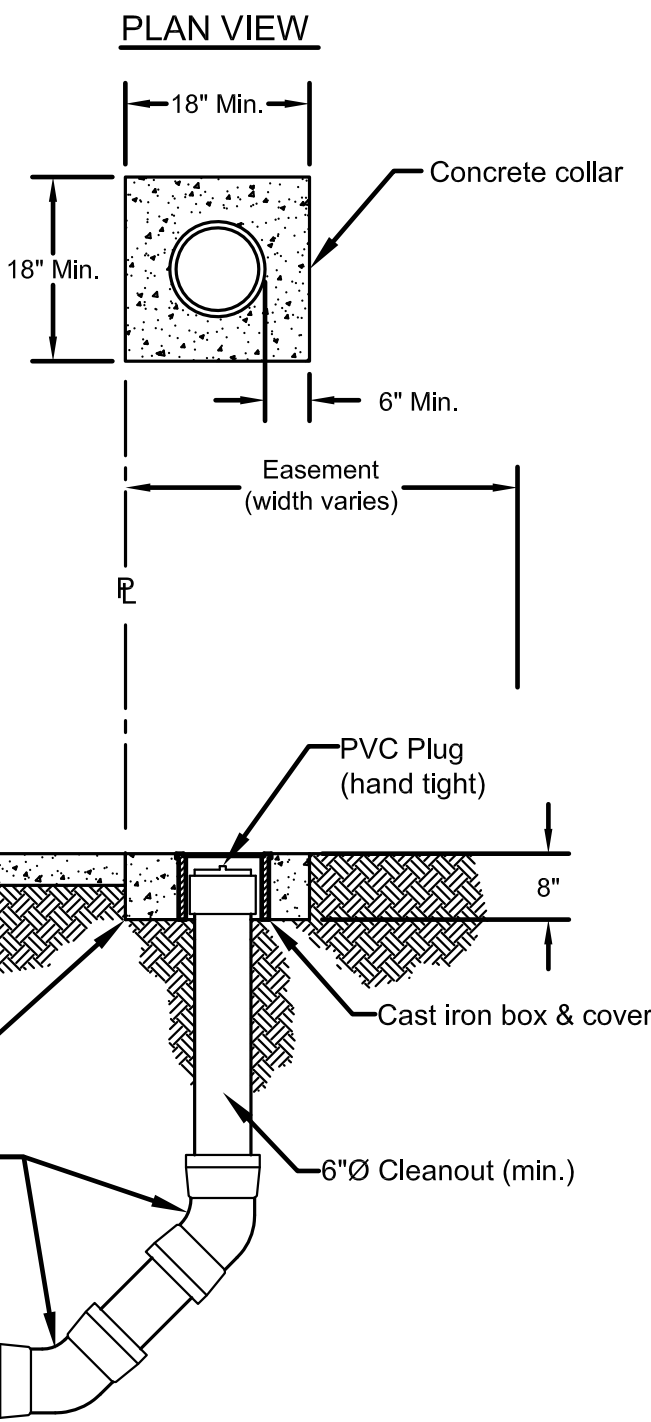
RING (24) & COVER (G)
(U.S. FOUNDRY NO. 420)

COVER

RING



HOUSE LATERAL CONNECTIONS DETAIL



CROSS SECTION

1. When service line depth exceeds 7 ft. of cover, wye may be installed on vertical section with 3 ft. min. cover.
2. Clean-out connection to be raised to finished grade prior to water meter activation.
3. Number of bends shall be minimized to the extent possible

CLEAN-OUT DETAIL

[illegible]

**CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT**

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PH. (561) 494-1040 * FAX: (561) 494-1116

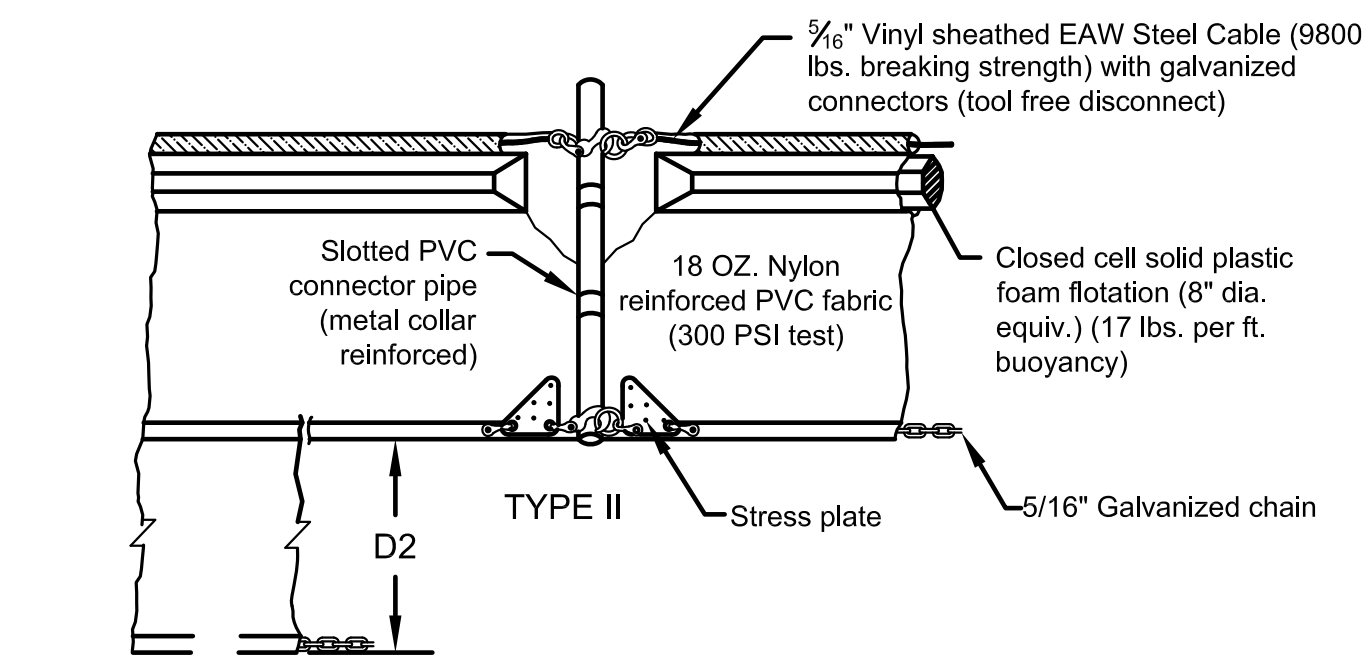
SEALED:

SCALE:	AS SHOWN
DESIGNED BY:	ATGIII
DRAWN BY:	ATGIII
CHECKED BY:	SB
DATE:	6/13/2023

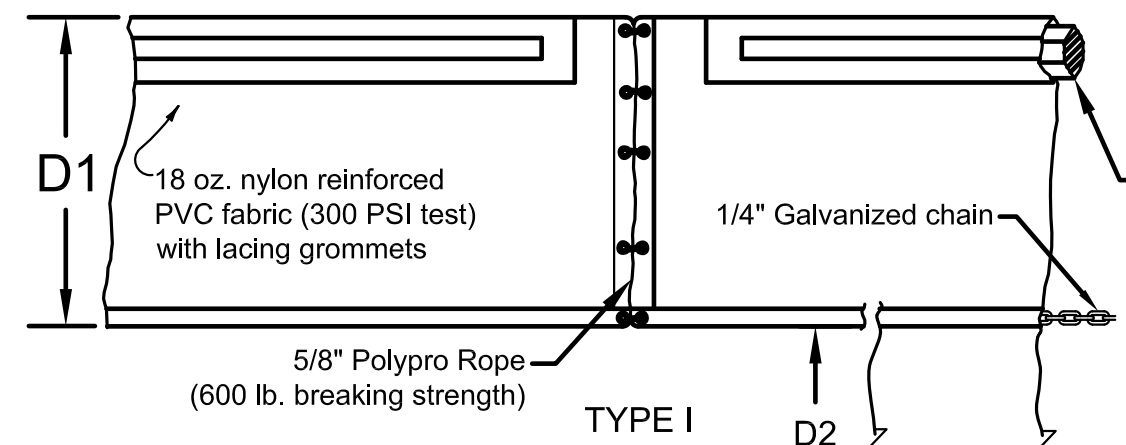
PARKER AVE RECONSTRUCTION FROM FOREST HILL BLVD TO NOTTINGHAM BLVD GRAVITY SEWER DETAILS

PROJECT NUMBER 50146547

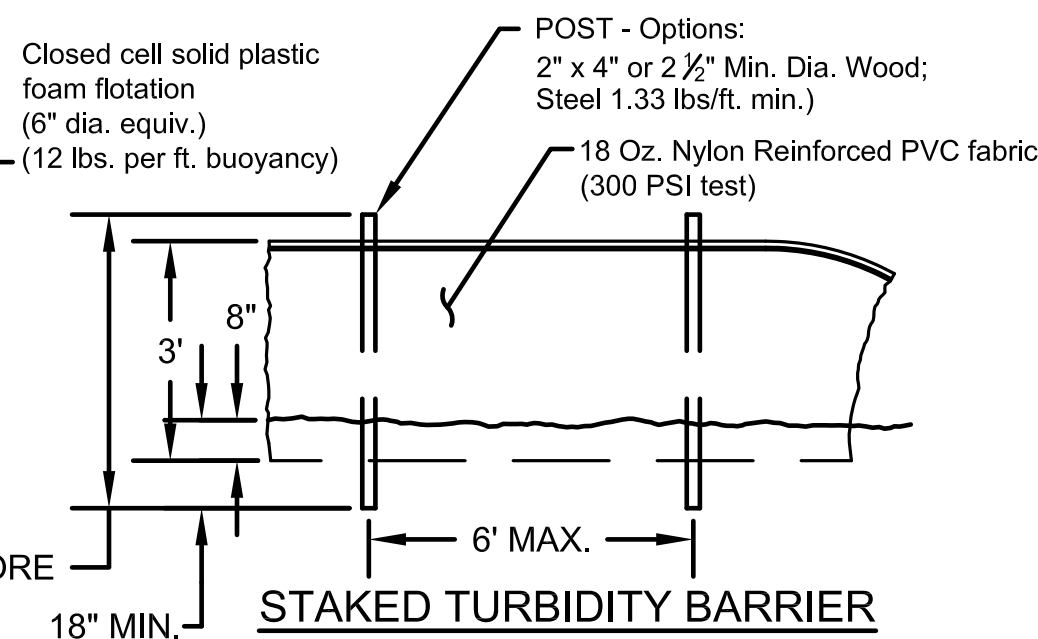
SHEET
C-21



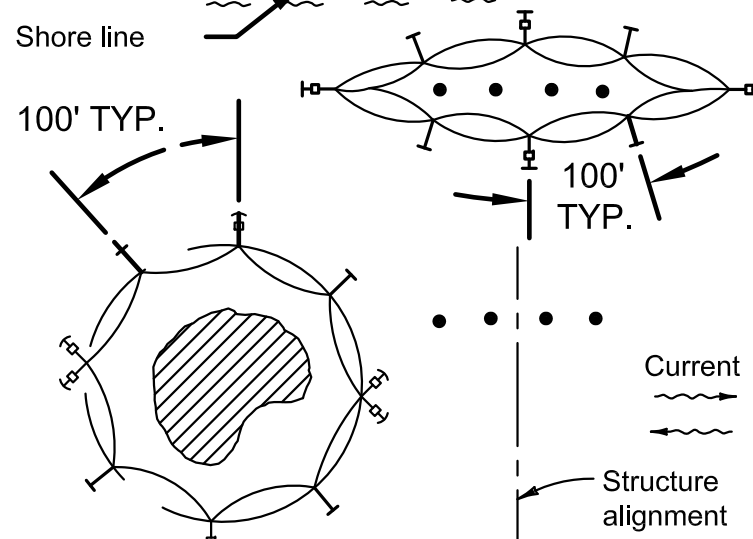
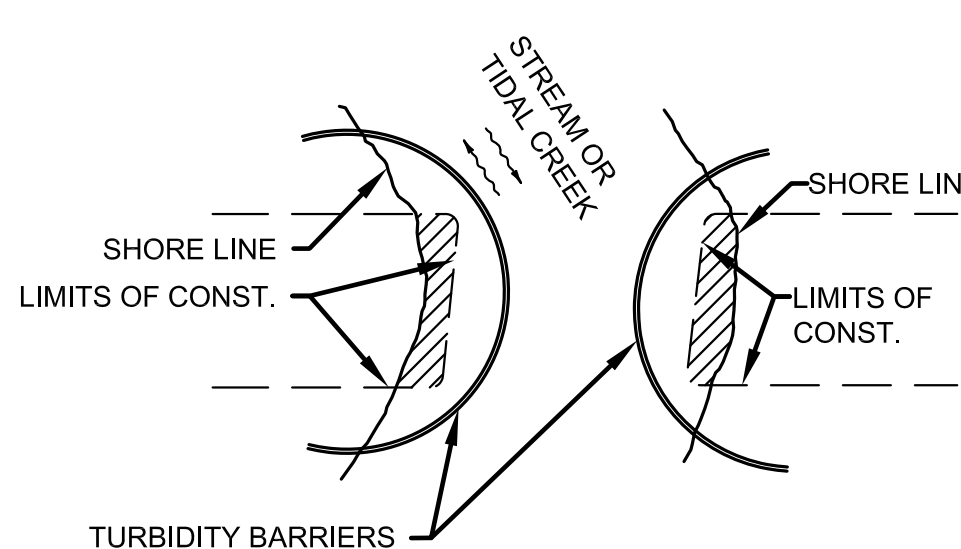
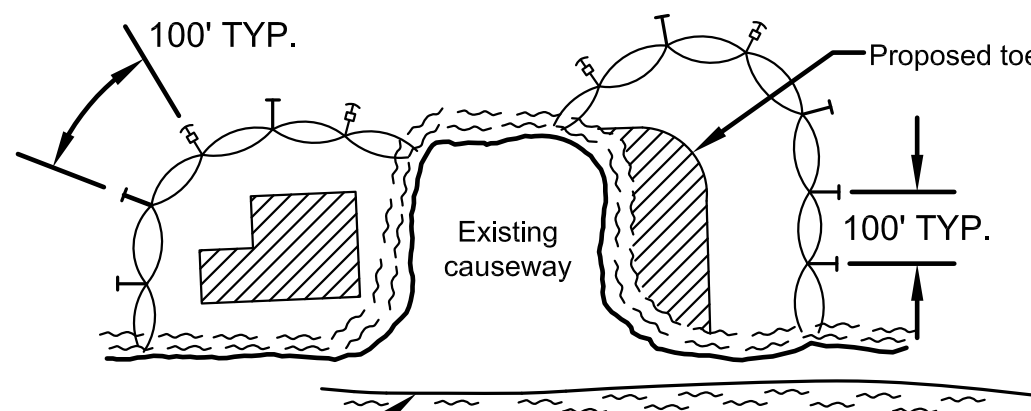
1. D1=5' STD. (Single panel for depths 5' or less. D2=5' STD. (additional panel for depths > 5').
2. Curtain to reach bottom up to depths of 10 feet. Two panels to be used for depths greater than 10 feet unless special depth curtains specifically called for in the plans or as determined by the engineer.
3. **NOTICE:**
Components of Types I and II may be similar or identical to proprietary designs. Any infringement on the proprietary rights of the designer shall be the sole responsibility of the user. Substitutions for Types I and II shall be as approved by the engineer.



FLOATING TURBIDITY BARRIERS



STAKED TURBIDITY BARRIER



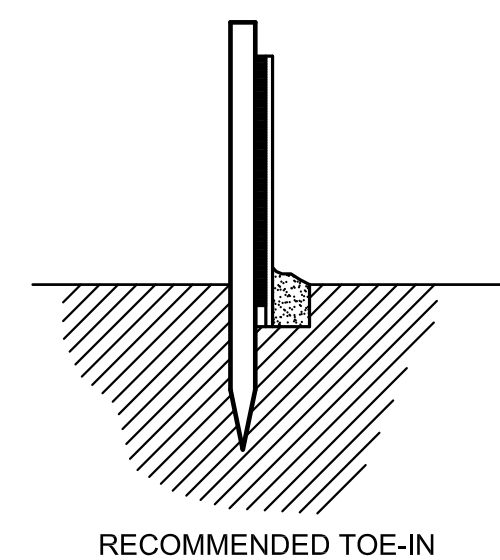
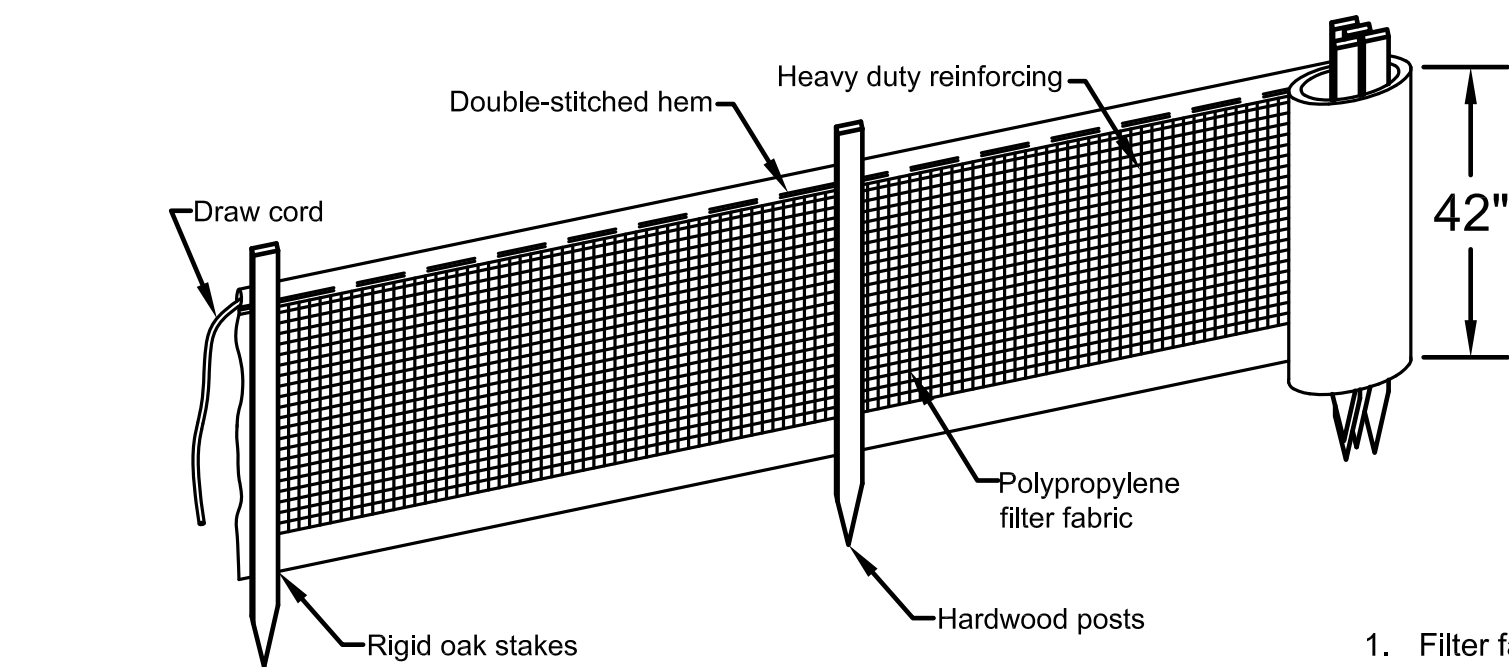
TURBIDITY BARRIER APPLICATIONS

LEGEND

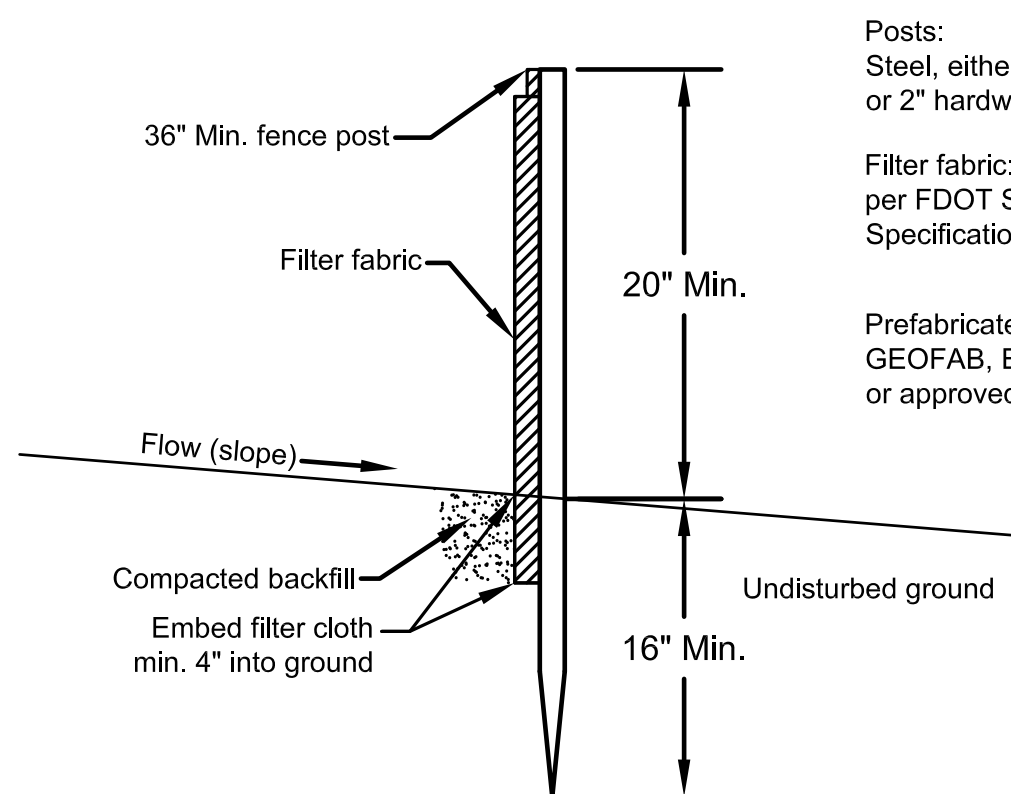
- PILE LOCATIONS
- ▨ DREDGE OR FILL AREA
- MOORING BUOY W/ANCHOR
- ANCHOR
- BARRIER MOVEMENT DUE TO CURRENT ACTION

NOTES:

- Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combination of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the contractors option unless otherwise specified in the plans for floating turbidity barrier and/or staked turbidity barrier. posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the engineer.
- Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
- Number and spacing of anchors dependent on current velocities.
- Deployment of barrier around pile locations may vary to accommodate construction operations.
- Navigation may require segmenting barrier during construction operations.
- For additional information refer to the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual.

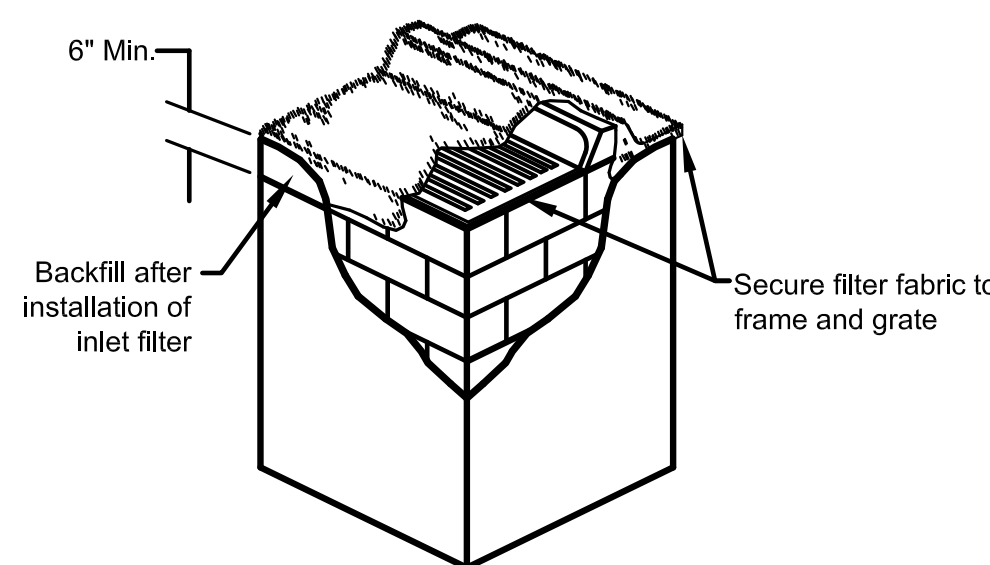
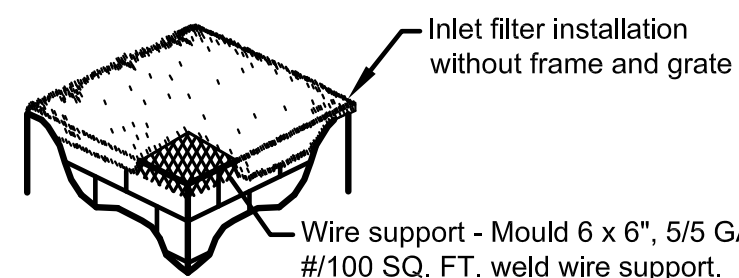


RECOMMENDED TOE-IN



- Posts:
Steel, either "T" or "U" Type
or 2" hardwood
- Filter fabric:
per FDOT Standard
Specification 985.
- Prefabricated unit:
GEOFAB, ENVIROFENCE,
or approved equal

- Filter fabric fence to be fastened securely to fence posts with wire ties or staples.
- Filter cloth to be fastened securely to posts with ties spaced every 24 inches at top and mid-section.
- When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
- Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence or depth of accumulated sediment reaches 6 inches.
- Silt fence shall be installed per manufacturer's specifications prior to the start of construction and shall not be removed until construction is complete.
- The contractor shall inspect and repair the silt fence after each rain event and remove sediment when necessary.
- Removed sediment shall be deposited in an area that will not contribute to offsite sediment and can be permanently stabilized.
- The silt fence shall be placed on slope contour to maximize its ponding efficiency.
- If ditch level is deeper than 30", then a floating silt screen shall be used.
- Refer to the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual for additional information.

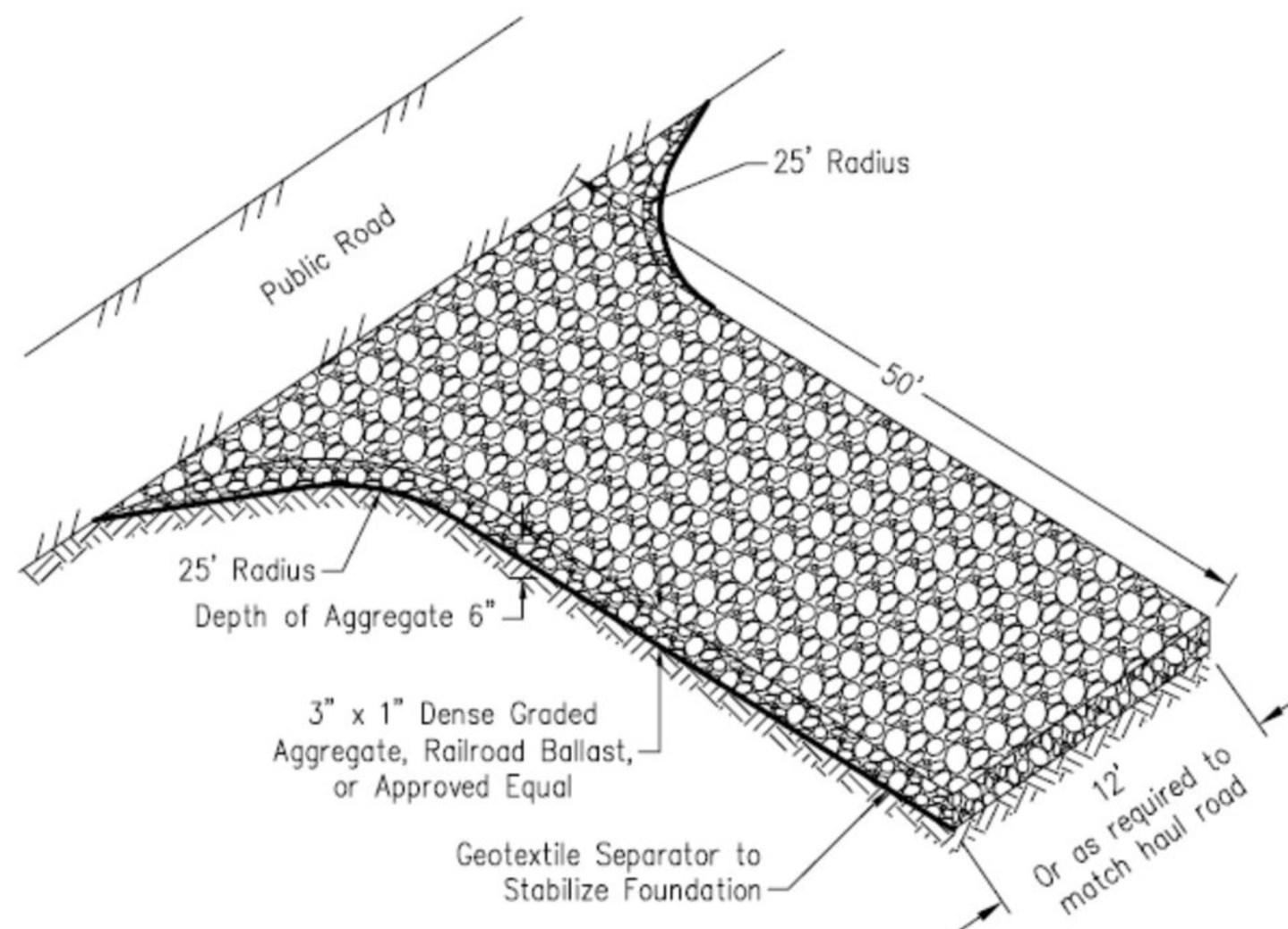


NOTES:

- Contractor is to clean inlet filter after every storm.
- Contractor to remove fabric just prior to paving
- A sediment trap will be excavated behind the curb at the inlet. Basin shall be at least 12 to 14 inches in depth, approximately 36 inches in width and approximately 7 to 10 feet in length parallel to the curb.
- Storm water will reach the sediment trap via curb cuts adjacent to side of the inlet structure. These openings shall be at least 12 inches in length. Storm water may also reach the basin via overland flow land area behind the curb. The curb cuts shall be repaired when the sediment trap is removed.

INLET FILTER DETAIL

POLLUTION CONTROL - TURBIDITY BARRIER SILT FENCE



POLLUTION CONTROL - STABILIZED CONSTRUCTION ENTRANCE

POLLUTION CONTROL - FLOATING TURBIDITY BARRIER

REVISIONS			
NO.	DATE	BY	DESCRIPTION



CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT

CITY CENTER * 401 CLEMATIS ST. * FOURTH FLOOR * WPB, FL 33401
PH. (561) 494-1040 * FAX: (561) 494-1116

SEALED:

SCALE: AS SHOWN
DESIGNED BY: ATGIII
DRAWN BY: ATGIII
CHECKED BY: SB
DATE: 6/13/2023

**PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD**
**POLLUTION CONTROL
DETAILS**
PROJECT NUMBER 50146547

SHEET
C-22

MIN. LENGTH OF PIPE (FEET) TO BE RESTRAINED																							
SOURCE: THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE, DIPRA 6TH EDITION, 2006																							
FITTING TYPE		PIPE SIZE (Ø)																					
		4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	60"								
HORIZ. 90° BEND		18	25	33	39	46	52	58	63	69	80	94	107	119	147								
HORIZ. 45° BEND		8	11	14	16	19	22	24	26	29	33	39	45	50	61								
HORIZ. 22.5° BEND		4	5	7	8	9	11	12	13	14	16	19	22	24	30								
HORIZ. 11.25° BEND		2	3	4	4	5	6	6	7	7	8	10	11	12	15								
90° VERT. OFFSET BEND	UPPER BEND	31	44	58	69	81	92	103	114	124	145	173	200	224	281								
	LOWER BEND	18	25	33	39	46	52	58	63	69	80	94	107	119	147								
45° VERT. OFFSET BEND	UPPER BEND	13	19	24	29	34	38	43	47	52	60	72	83	93	117								
	LOWER BEND	8	11	14	16	19	22	24	24	29	33	39	45	50	61								
22.5° VERT. OFFSET BEND	UPPER BEND	7	9	12	14	16	19	21	23	25	29	35	40	45	56								
	LOWER BEND	4	5	7	8	9	11	12	13	14	16	19	22	24	30								
11.25° VERT. OFFSET BEND	UPPER BEND	4	5	6	7	8	10	11	12	13	15	18	20	23	28								
	LOWER BEND	2	3	4	4	5	6	6	7	7	8	10	11	12	15								
TEE (BRANCH RESTRAINT) (MIN. PIPE LENGTH ALONG TEE RUN = 5)	4" x Ø	28	-	-	-	-	-	-	-	-	-	-	-	-	-								
	6" x Ø	26	40	-	-	-	-	-	-	-	-	-	-	-	-								
	8" x Ø	24	39	54	-	-	-	-	-	-	-	-	-	-	-								
	10" x Ø	22	38	53	65	-	-	-	-	-	-	-	-	-	-								
	12" x Ø	20	36	52	64	77	-	-	-	-	-	-	-	-	-								
	14" x Ø	18	35	50	63	76	88	-	-	-	-	-	-	-	-								
	16" x Ø	16	33	49	62	75	87	99	-	-	-	-	-	-	-								
	18" x Ø	13	32	48	61	75	87	99	110	-	-	-	-	-	-								
	20" x Ø	11	30	47	60	74	84	98	109	120	-	-	-	-	-								
	24" x Ø	6	26	44	58	72	85	97	108	119	141	-	-	-	-								
	30" x Ø	1	21	40	55	69	82	95	106	118	140	169	-	-	-								
	36" x Ø	1	15	35	51	66	80	92	104	116	138	168	196	-	-								
	42" x Ø	1	8	30	47	63	77	90	102	114	137	167	195	219	-								
	60" x Ø	1	1	14	34	52	68	82	95	108	132	163	192	217	272								
REDUCER (LARGER PIPE RESTRAINT)	6" x Ø	23	-	-	-	-	-	-	-	-	-	-	-	-	-								
	8" x Ø	41	24	-	-	-	-	-	-	-	-	-	-	-	-								
	10" x Ø	56	42	23	-	-	-	-	-	-	-	-	-	-	-								
	12" x Ø	70	59	43	24	-	-	-	-	-	-	-	-	-	-								
	14" x Ø	83	73	60	44	24	-	-	-	-	-	-	-	-	-								
	16" x Ø	95	87	75	61	44	24	-	-	-	-	-	-	-	-								
	18" x Ø	107	100	89	77	62	44	24	-	-	-	-	-	-	-								
	20" x Ø	118	112	103	92	78	62	44	23	-	-	-	-	-	-								
	24" x Ø	140	135	127	118	107	94	79	63	44	-	-	-	-	-								
	30" x Ø	170	165	160	153	144	134	122	109	95	61	-	-	-	-								
	36" x Ø	197	194	189	183	176	168	159	148	137	109	61	-	-	-								
	42" x Ø	221	219	215	210	204	198	190	181	171	149	108	58	-	-								
	60" x Ø	280	278	275	272	269	264	259	253	247	232	206	173	135	-								
PLUG / IN-LINE VALVE		31	44	58	69	81	92	103	114	124	145	173	200	224	281								

- NOTES:
- THE DATA IN THE ABOVE TABLE ARE BASED UPON THE FOLLOWING INSTALLATION CONDITIONS:
- SOIL TYPE: SAND

DEPTH OF BURY: 3 FEET

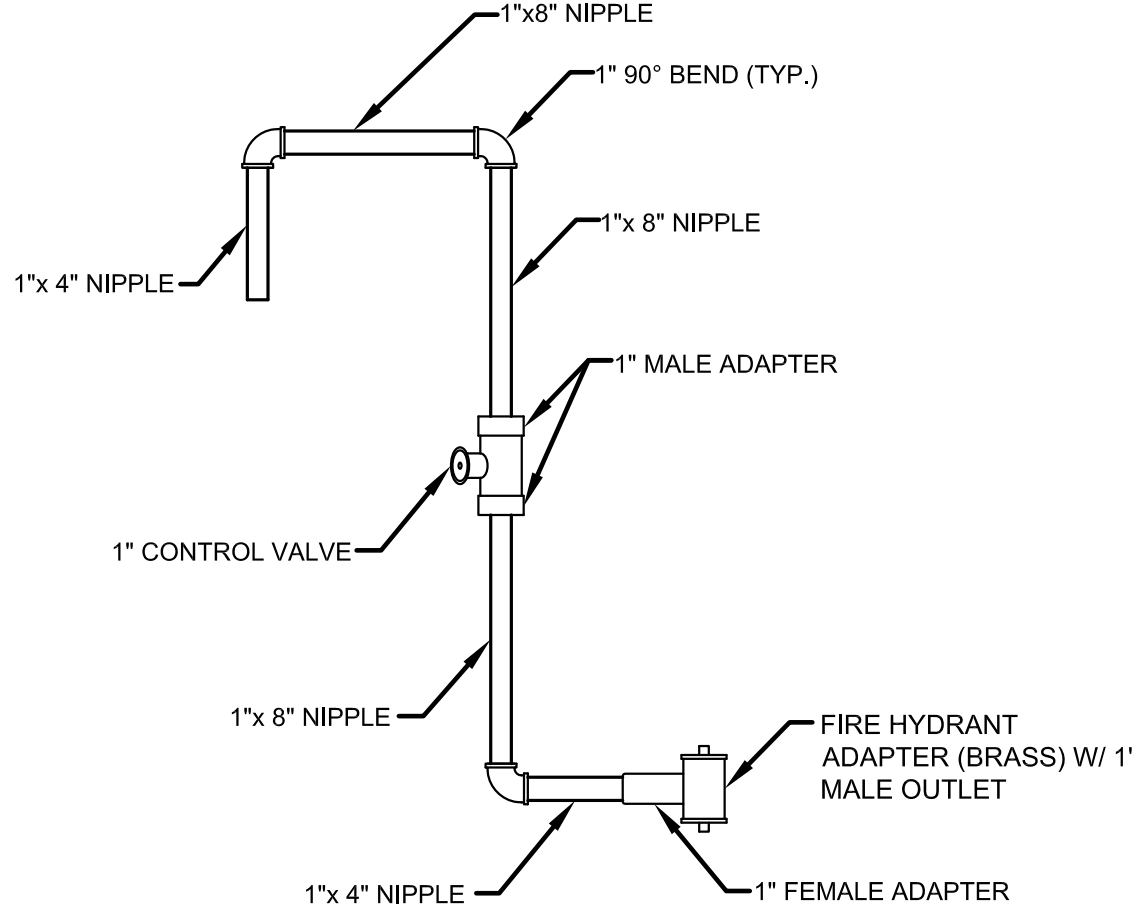
TRENCH TYPE: 2

TEST PRESSURE: 150 PSI

SAFETY FACTOR: 1.5

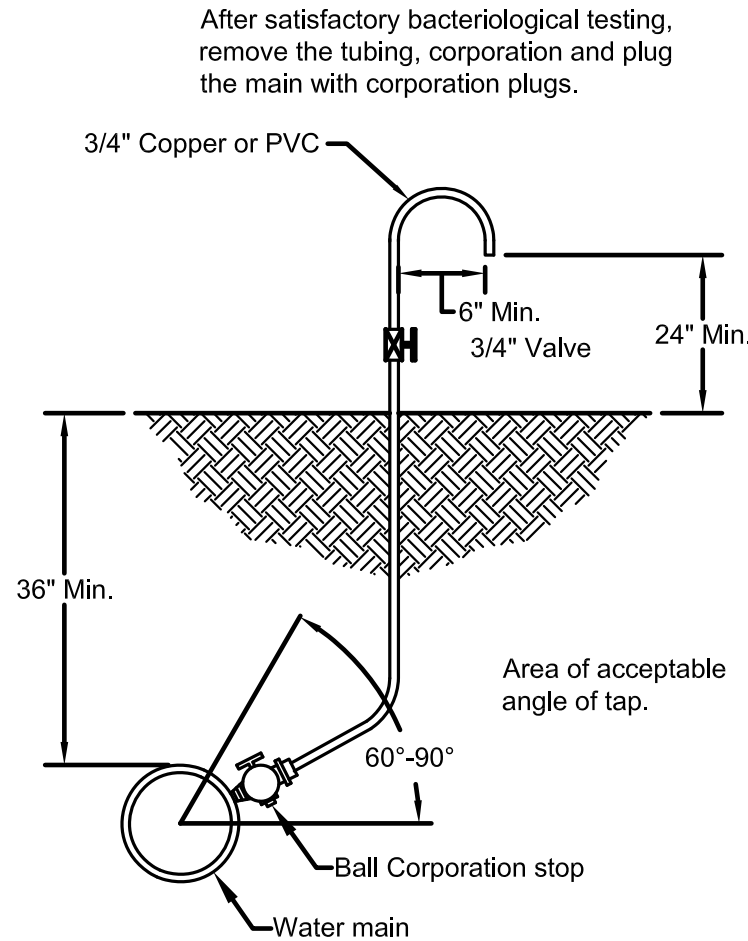
MINIMUM PIPE LENGTH ALONG TEE RUN: 5 FEET
- THE RESTRAINED PIPE LENGTHS APPLY TO DUCTILE IRON PIPE ONLY.
 - RESTRAINED PIPE LENGTHS APPLY TO PIPE ON BOTH SIDES OF VALVES AND FITTINGS.
 - MULTIPLY PIPE LENGTH BY 1.4 FOR POLYETHYLENE ENCASED PIPE.
 - ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.
 - DESIGN ENGINEER IS RESPONSIBLE TO PROPERLY SIZE THE RESTRAINT PIPE LENGTHS FOR THE PROJECT.
 - MINIMUM NUMBER OF JOINTS TO BE RESTRAINED SHALL BE MINIMUM LENGTH AS LISTED ABOVE PLUS ONE FULL LENGTH.

PRESSURE PIPE - DESIGN TABLE FOR THRUST RESTRAINT

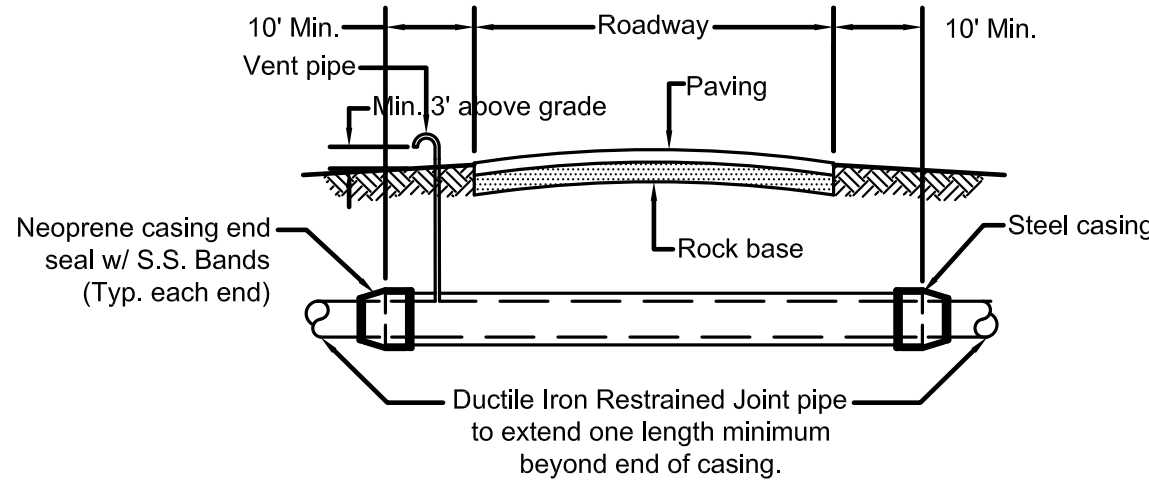


- NOTES:
- USE HYDRANT WRENCH ONLY
 - ALL PIPES AND FITTINGS SCHEDULE 40 PVC (PIPE COLOR: WHITE)

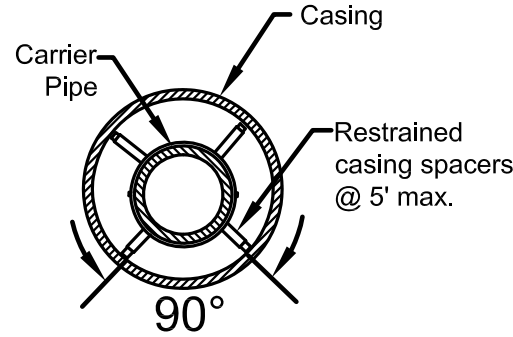
PRESSURE PIPE - FIRE HYDRANT SAMPLING POINT



PRESSURE PIPE - SAMPLING POINT

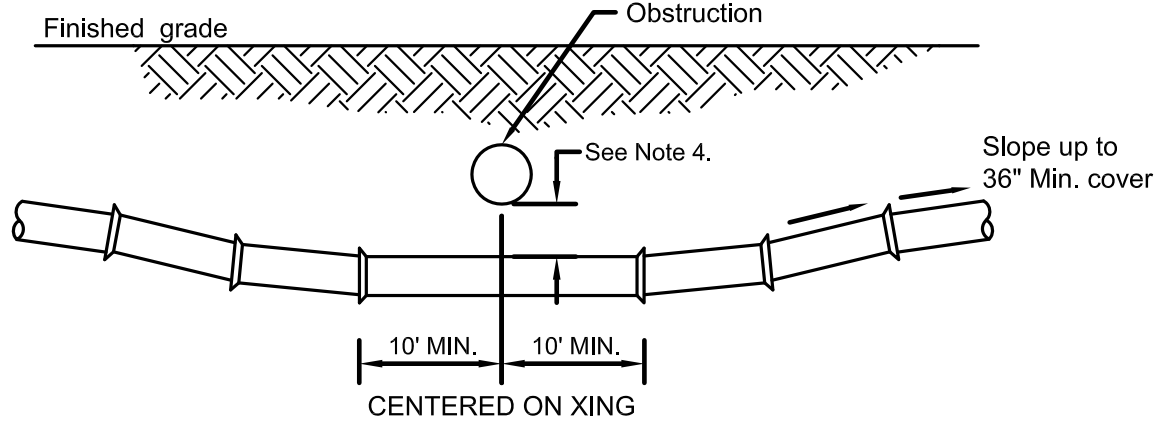
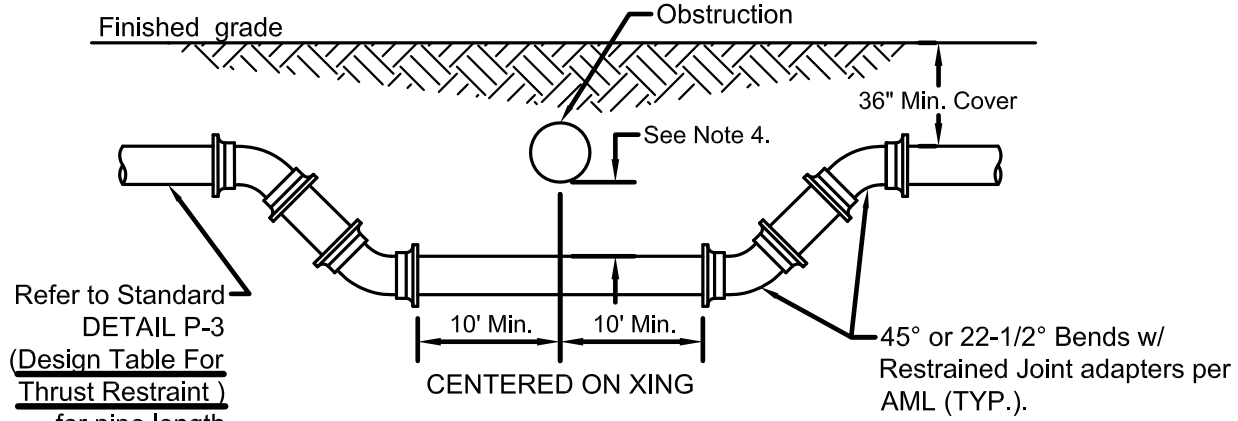
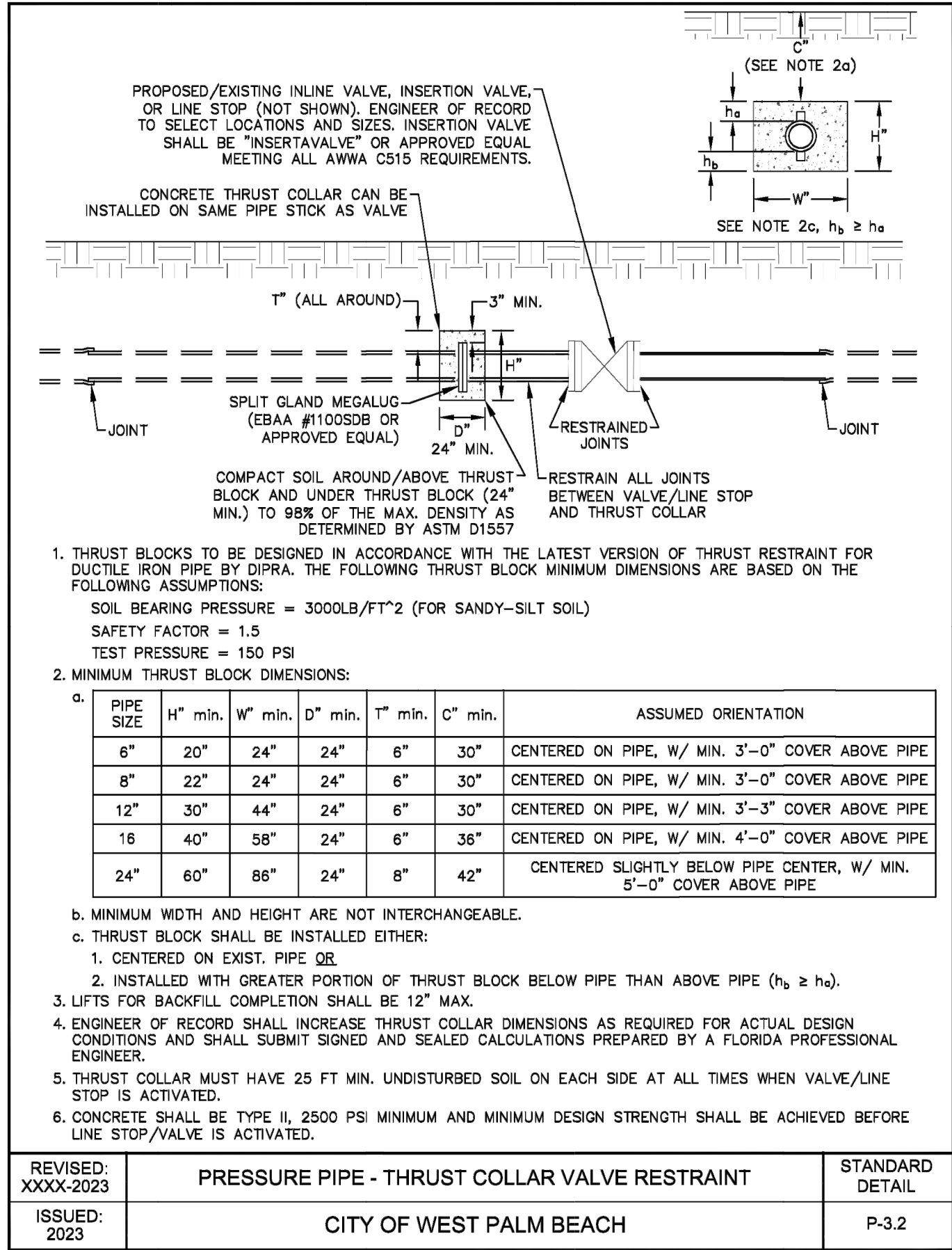


CARRIER PIPE SIZE	STEEL CASING	MIN. WALL THICKNESS	VENT PIPE SIZE
4"	12"	.188	2"
6"	14"	.250	2"
8"	16"	.250	2"
10"	18"	.250	2"
12"	20"	.250	3"
14"	24"	.250	3"
16"	24"	.250	3"
18"	30"	.250	4"
20"	30"	.250	4"
24"	36"	.250	4"
30"	42"	.312	4"
36"	48"	.375	4"
42"	60"	.500	4"
48"	72"	.500	4"



- Pipe casing shall be in accordance with current ASTM Specification A139 and be protected by a black bitumastic coating for protection against corrosion.
- Wall thickness shall be as noted in table above unless superceded by more stringent F.D.O.T. Standards, or Railroad Standards applying to those installations.
- Ends shall be sealed with approved pressure resistant fittings, no grout.


PIPE CASING SPECIFICATIONS DETAIL



- The deflection type crossing shall be used wherever possible. Only under specific orders by the engineer shall the fitting type crossing be allowed.
- Construct deflection crossing using 75% of manufacturer's maximum joint deflection.
- All mechanical joints shall be restrained per City standards.
- Unless shown otherwise, 12" min. clearance will be required for water and sewer main crossings. 6" min. clearance will be required for other type of utilities crossings. (as measured (O.D. TO O.D.))

UTILITY CONFLICT CROSSING

REVISIONS			
NO.	DATE	BY	DESCRIPTION



ENGINEERING SERVICES

CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT

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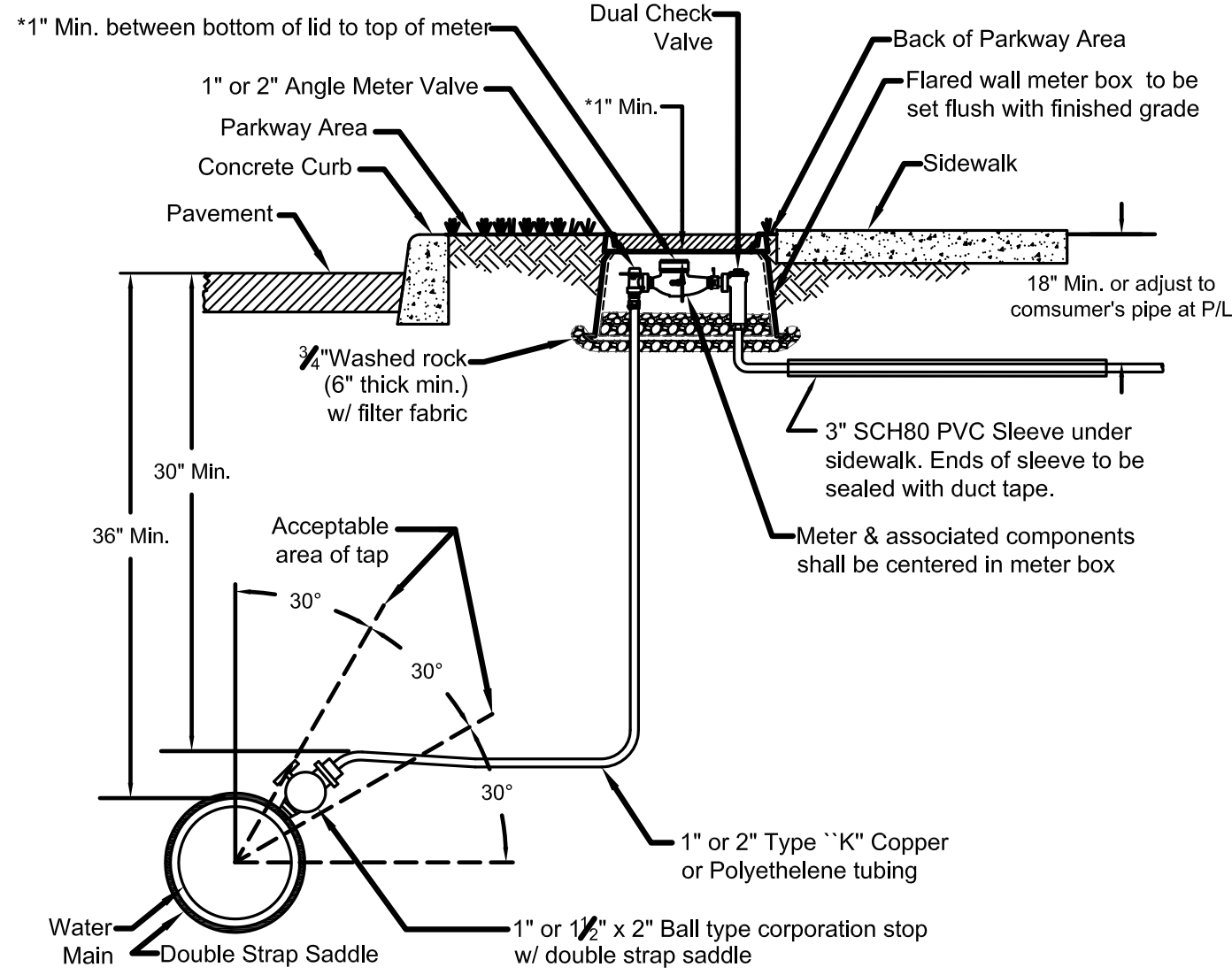
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DRAWN BY: ATGIII
CHECKED BY: SB
DATE: 6/13/2023

**PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD**

PRESSURE PIPE DETAILS

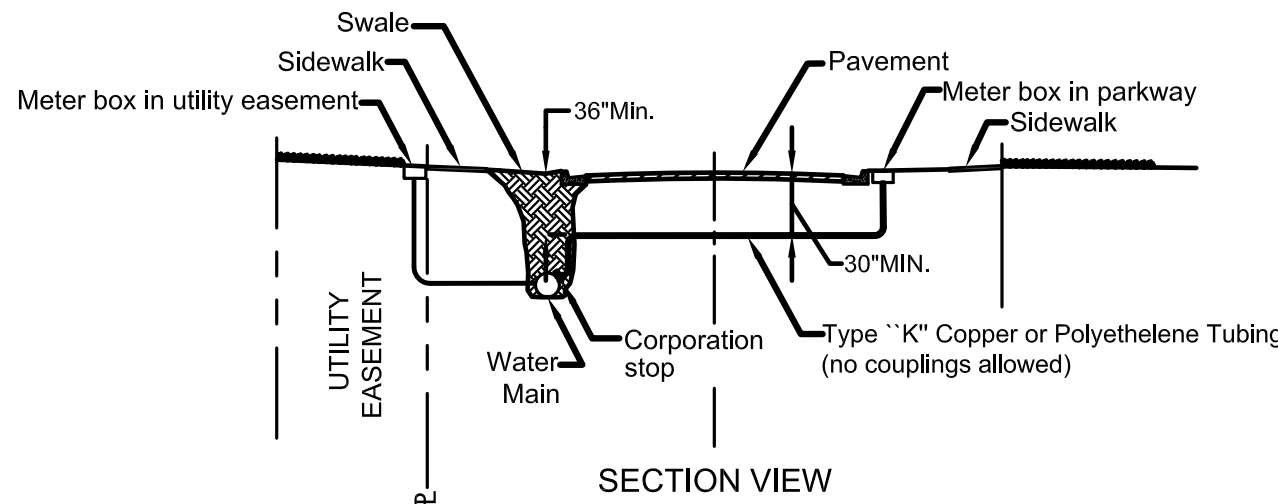
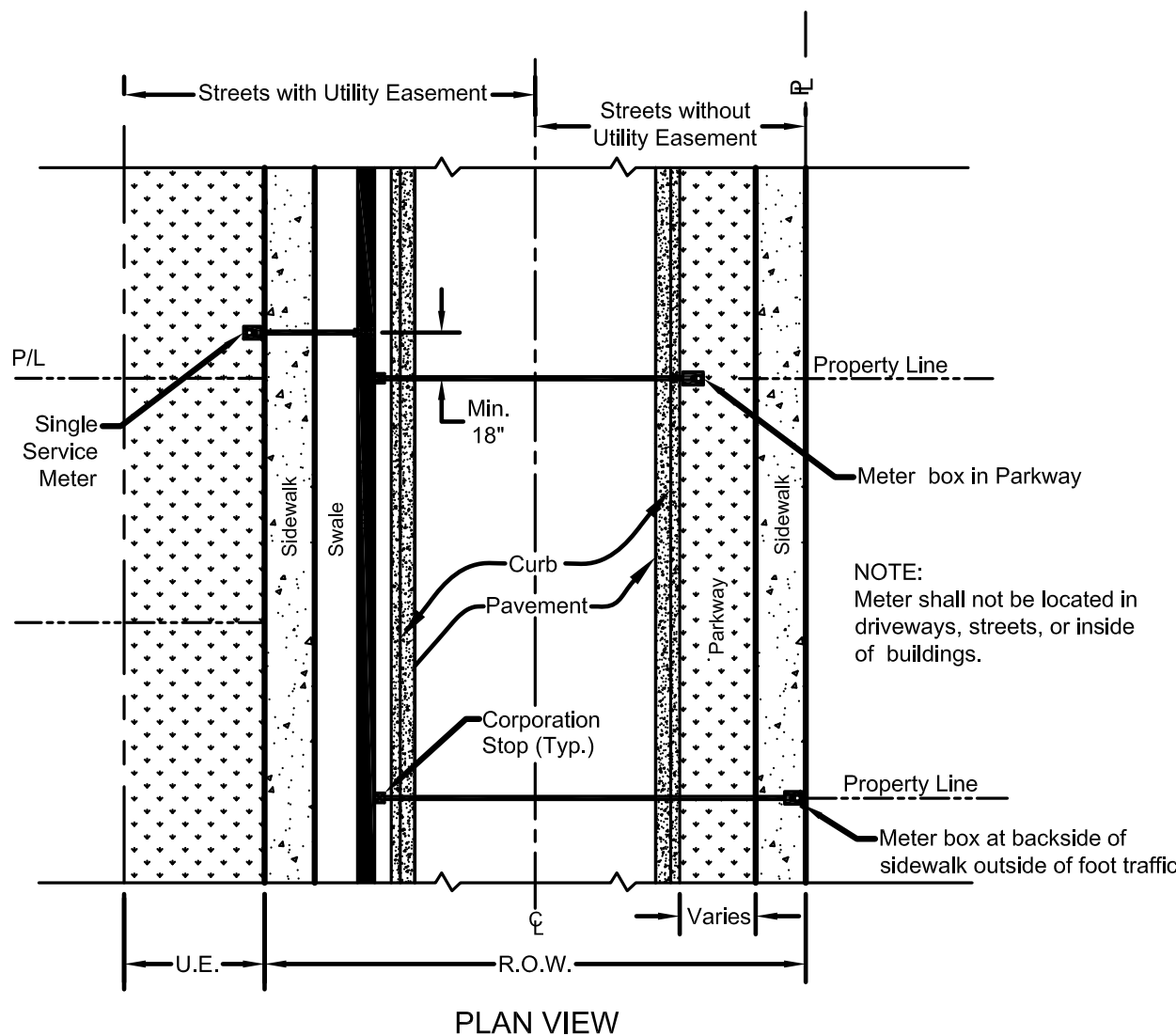
PROJECT NUMBER 50146547

SHEET
C-24

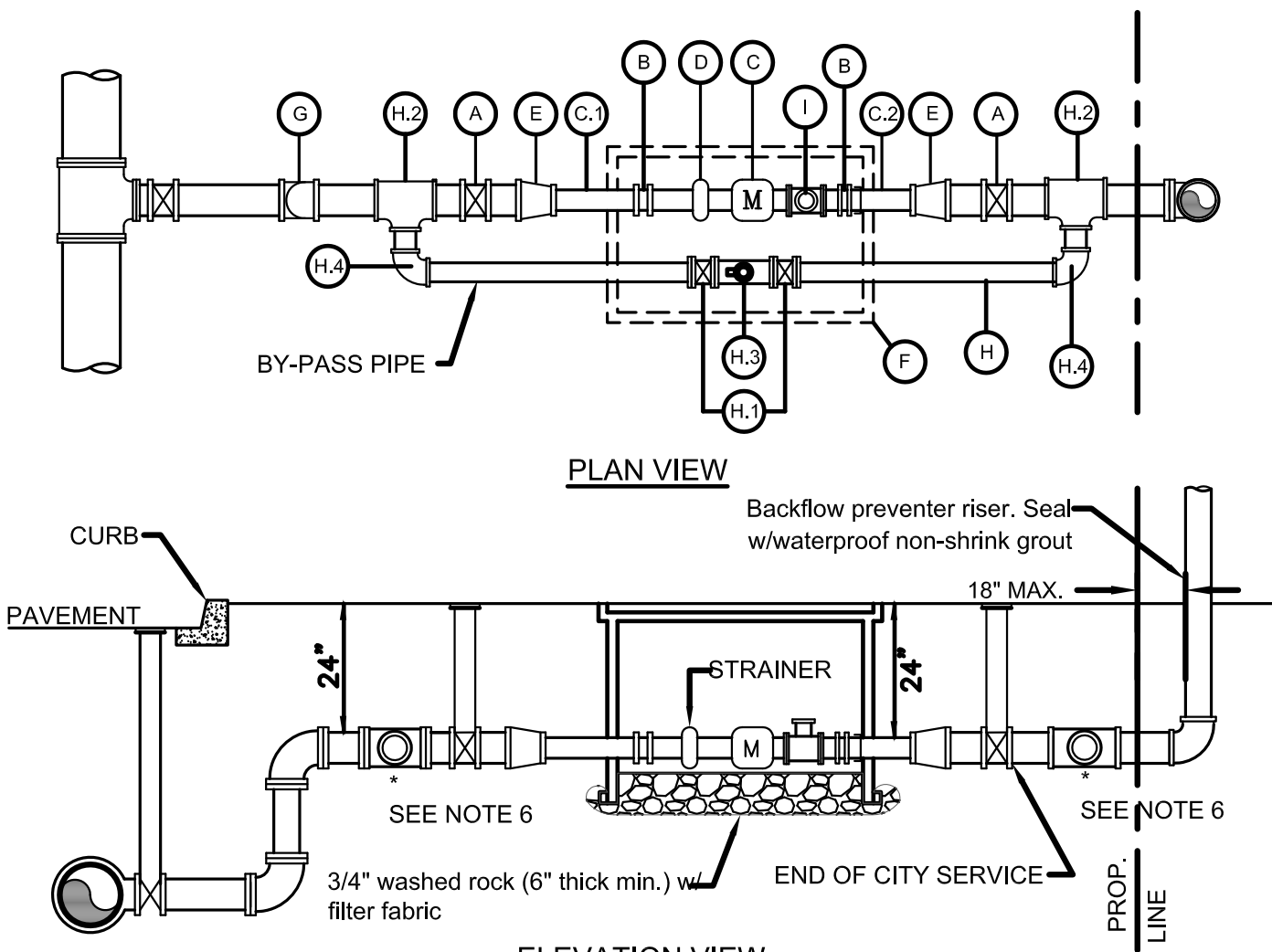


- 1" service line for up to 1" meters. 2" service line for 1 1/2" or 2" meters.
- Preferred location of meters to be set in grass parkway on the backside of the sidewalk, or at the back of utility easements. See domestic service location detail WS-2.
- Traffic rated meter box and lid to be supplied by contractor. Size to be compatible with service size. (see City's AML).
- Min. 18 inches separation along main between service taps or fittings.
- Refer to Standard Detail WS-11 for water services serving irrigation systems.
- residential dual check valves are required as a minimum for all new residential potable water meters 1" and smaller.
- All brass or copper in contact with potable water shall be "lead free".
8. 1" and 2" single water service shall not be tapped to serve fire sprinklers.
9. Meter box shall be installed 5 ft min. from objects such as poles and trees.

1" & 2" WATER SERVICE INSTALLATION



DOMESTIC SERVICE LOCATION



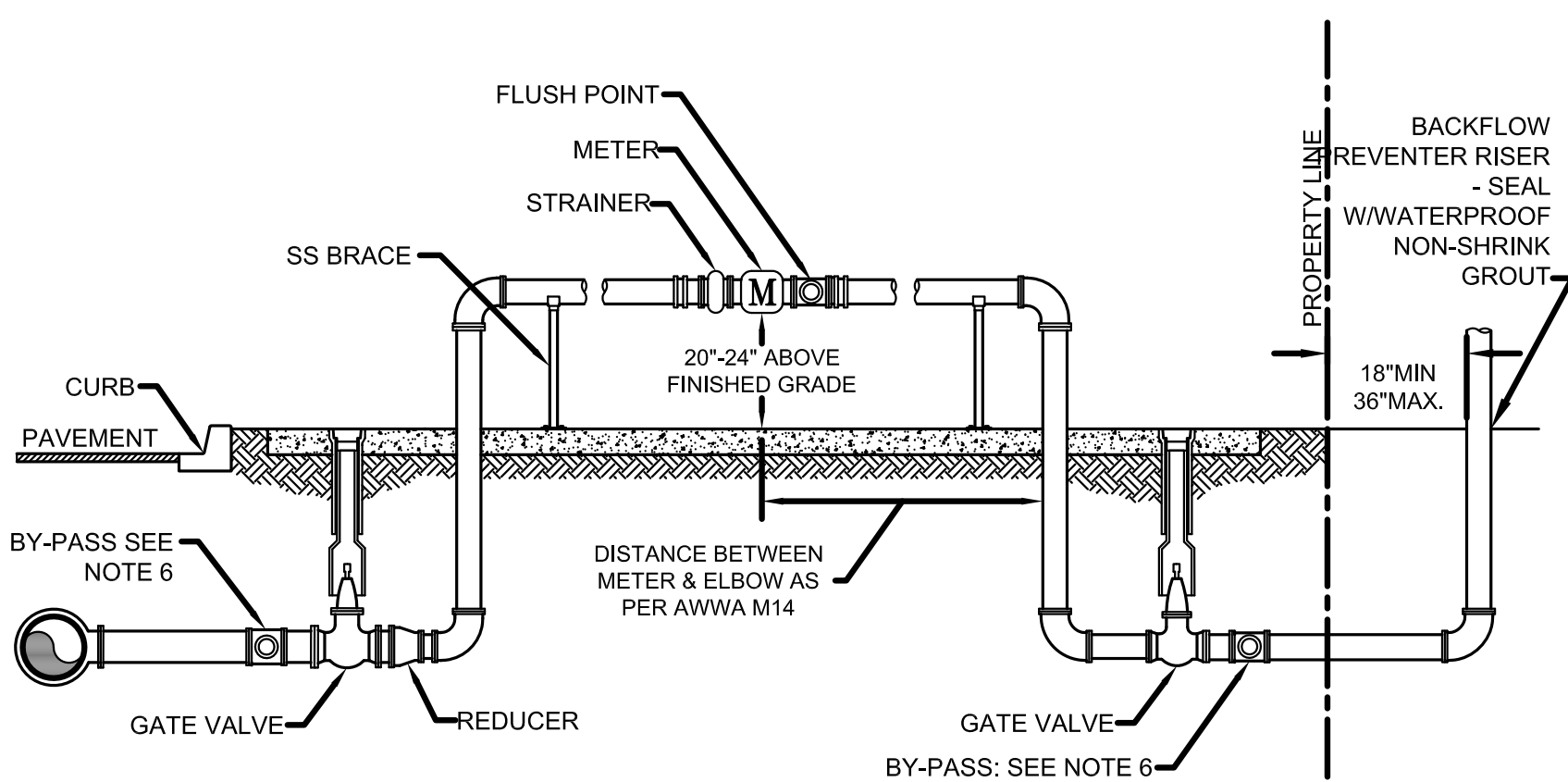
- For letter denotations, see water service standard ws-4.1, 3" and larger domestic meter legend.
- The following is an itemization of materials specifically detailed for a 3" meter, for a 4" or 6" meter, eliminate item "E" and change the remaining items to correspond with the meter size.
- All mechanical joint fittings to use Megalug Series 1100 restrained joint adapters.
- Location of meter may be rotated to fit available parkway/easement width.
- All pipe shall be Class 52, cement lined ductile iron pipe.
- Bypass piping not shown for clarity.
- Engineer of Record must supply flow calculation to establish acceptable water volume and pressure from the water main to the house or business. Such calculations shall be signed and sealed by a Florida licensed engineer.
- Below ground 3" and larger domestic meter is for project specific, if required, only with City of West Palm Beach Public Utilities Department approval.
- 3" water service shall not feed fire sprinklers or hydrants.

WATER SERVICES - 3" & LARGER DOMESTIC METER

LISTING OF COMPONENTS:

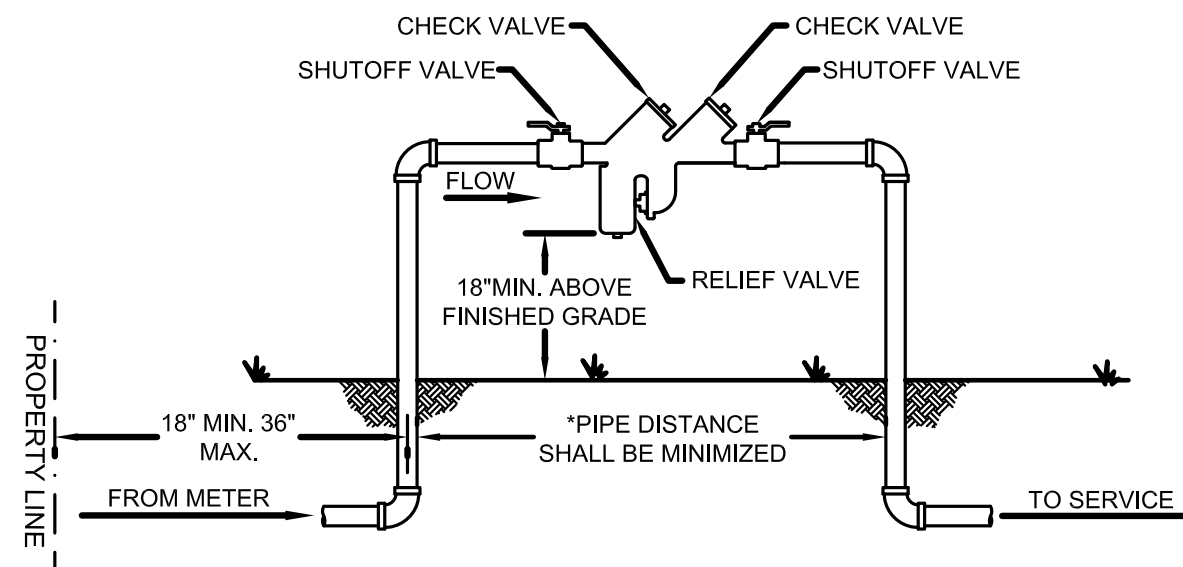
- A. TWO 4" RESILIENT WEDGE (RW) VALVES, WITH LOCKING VALVE BOXES & LIDS EACH SIDE OF THE METER. VALVES TO BE INSTALLED IN LINE WITH OR AS CLOSE AS POSSIBLE TO THE METER.
- B. TWO SERIES 2100 3" MEGALUG, LOCKING STYLE FLANGE ADAPTERS, ONE ON EACH SIDE OF THE METER, STRAINER AND TEST TEE.
- C. ONE 3" FLANGED METER TO BE PAID FOR BY CONTRACTOR AND SUPPLIED BY THE CITY OF WEST PALM BEACH. CALL FOR LENGTH OF METER.
- C.1 A LENGTH OF STRAIGHT PIPE EQUAL TO 5 TIMES THE DIAMETER SHALL BE INSTALLED BEFORE THE METER & AFTER THE STRAINER.
- C.2 A LENGTH OF STRAIGHT PIPE EQUAL TO 3 TIMES THE DIAMETER SHALL BE INSTALLED AFTER THE METER.
- D. ONE STRAINER, SAME SIZE AS METER, FLANGED, BRONZE CASE WITH STRAINER TO BE SUPPLIED BY THE CONTRACTOR. CALL FOR DIMENSIONS.
- E. 4" x 3" MECHANICAL JOINT REDUCERS BEFORE AND AFTER THE METER. THESE MAY NOT BE USED IN LIEU OF THE STRAIGHT PIPE (SEE C.1 & C.2).
- F. 4' x 6' VAULT WITH A LOCK DOWN HEAVY DUTY ALUMINUM TRAFFIC LID WITH SPRING LOADED HINGES. VAULT & LID ARE TO BE POSITIONED SO METER DIAL IS CENTERED UNDER METER READER'S LID.
- G. SERVICE IS TO BE OFFSET TO THE PROPER HEIGHT USING ONE GROUPING OF THE FOLLOWING:
- G.1 ONE 4" MECHANICAL JOINT OFFSET
- G.2 TWO 4" MECHANICAL JOINT 90° BENDS W/ STRAIGHT PIPE AS REQUIRED.
- G.3 TWO 4" MECHANICAL JOINT 45° BENDS W/ STRAIGHT PIPE AS REQUIRED.
- H. INSTALL BYPASS PIPING AROUND METER TO ALLOW METER TO BE TESTED, REPAIRED OR REPLACED. BYPASS PIPING SHALL BE THE SAME SIZE AS THE METER SIZE.
- H.1 TWO F.J. RESILIENT WEDGE VALVES W/ WHEEL HANDLES & MEGALUG FLANGE ADAPTERS SERIES 2100.
- H.2 TWO MECHANICAL JOINT TEES
- H.3 ONE FLANGED TEE, ONE FLANGE PLATE TAPPED FOR 2" N.P.T., ONE 2" BRASS NIPPLE, ONE LOCKING STYLE 2" CURB STOP W/ 2" BRASS PLUG
- H.4 TWO MECHANICAL JOINT 90° ELBOWS.
- I. FLUSH POINT TO TEST METERS AND TO FLUSH SYSTEM.
- I.1 3" FLANGED TEE TAPPED FOR 2", ATTACHED TO METER.
- I.2 2" X 3" BRASS NIPPLE
- I.3 2" LOCKING STYLE CURB STOP
- I.4 2" BRASS PLUG

WATER SERVICES - 3" & LARGER DOMESTIC METER LEGEND



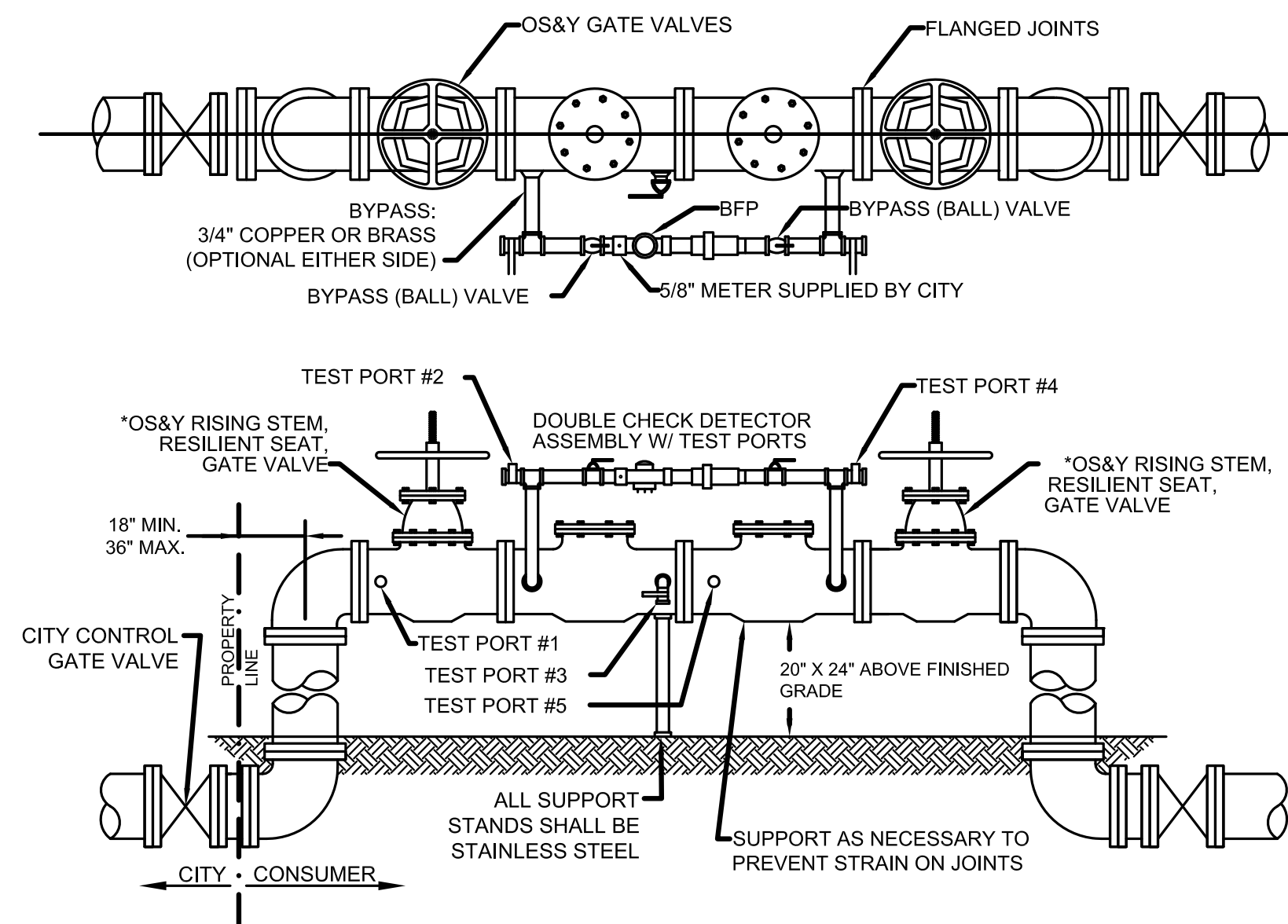
- All pipe shall be Class 52, cement lined ductile iron pipe. Flanged ends shall be required for above ground assembly.
- Engineer of Record must supply flow calculation to establish acceptable water volume and pressure from the water main to the house or business. Such calculations shall be signed and sealed by a Florida licensed engineer.
- Reducer needs to be underground.
- Engineer shall detail meter service assembly on plans.
- Install by-pass piping around meter to allow meter to be tested, repaired. By-pass piping shall be the same size as the meter size.
- By-pass piping not shown for clarity.
- All above ground assemblies shall be painted.
- See water service standard WS-4 for below ground meter option.

WATER SERVICES - 3" & 4" DOMESTIC ABOVE GROUND METER



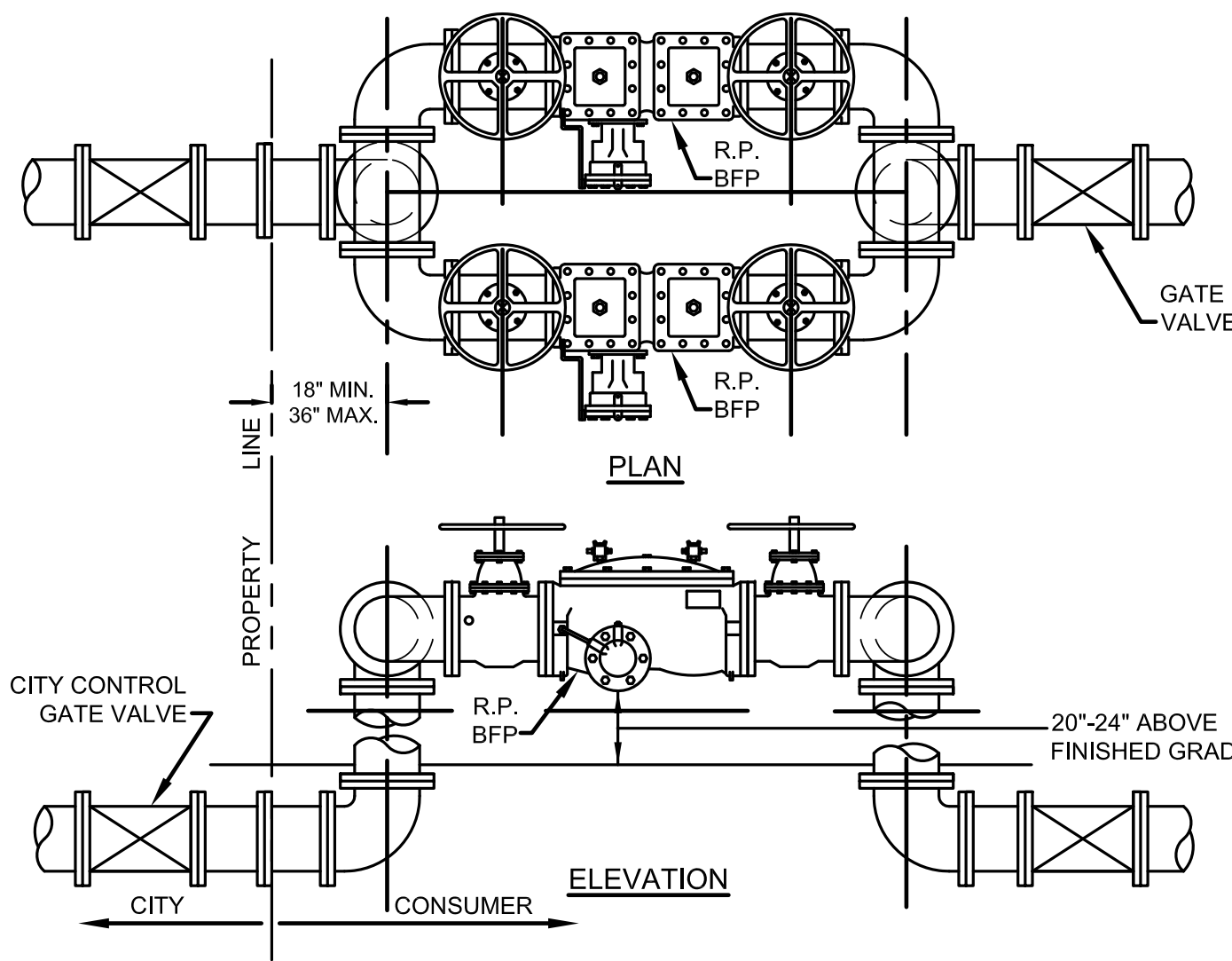
- All backflow prevention assemblies and orientation must be approved by the Foundation for Cross Connection Control and Hydraulic Research, University of California.
- Assemblies shall have test cocks and have enough clearance for test kits.
- Piping from meter to backflow assembly shall be type "K" or "L" copper, brass or stainless steel.
- Assemblies are to be installed directly after the meter on private property, outside of utility easement and right of way.
- Refer to City of West Palm Beach Backflow Cross Connection Control Ordinances for further information.
- Installation of 3/4" to 2" assemblies require ball valves with test ports.
- All brass or copper in contact with potable water shall be "LEAD FREE".
- Backflow assembly shall not be located on sidewalks, roads, or inside buildings and shall not be installed below ground, in vault or in boxes.

DUAL SMALL REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY 3/4" THROUGH 2"



- Installation of 3/4" to 2" assemblies require ball valves with test ports. 3" and larger require resilient wedge (R.W.) valves.
- All piping prior to & after backflow prevention assemblies shall be either cement lined ductile iron pipe, copper or brass for the smaller assemblies. This includes all assemblies.
- All piping after the assembly shall meet the latest edition of plumbing, fire line & mechanical codes of the municipality.
- Electronic switches may be required on the O.S.&Y. valves. Check with local fire marshal and/or municipal building department.
- All back flow prevention devices must be approved by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California.
- Device shall be installed directly after the property line outside of utility easements. Installation must be pre-approved by Public Utilities Customer Service representative.
- Refer to City of West Palm Beach Cross Connection Ordinance for further information.
- Engineer of Record must supply flow calculation to establish acceptable water volume and pressure from the water main to the house or business. Such calculations shall be signed and sealed by a Florida licensed engineer.
- All brass or copper in contact with potable water shall be "LEAD FREE".

FIRE LINE - DOUBLE DETECTOR ASSEMBLY and METER INSTALLATION



- Installation of 3/4" to 2" assemblies require ball valves with test ports. 3" and larger require resilient wedge (R.W.) valves.
- All piping before & after backflow prevention assemblies shall be either cement lined ductile iron pipe, copper or brass for the smaller assemblies. This includes all assemblies, irrigation & fire line devices. All piping after the assembly shall meet the local plumbing/mechanical codes (latest edition) of the municipality.
- All backflow prevention devices must be approved by the Foundation for Cross Connection Control and Hydraulic Research, University of Southern California.
- Refer to City of West Palm Beach Cross Connection Ordinance for further information.
- Assembly shall be installed directly after the meter on private property outside of utility easements.
- Installation must be pre-approved by City of West Palm Beach Customer Service representative.
- Engineer of Record must supply flow calculation to establish acceptable water volume and pressure from the water main to the house or business. Such calculations shall be signed and sealed by a Florida licensed engineer.
- Only one RP backflow preventor required, second backflow preventor shown for redundancy.
- All brass or copper in contact with potable water shall be "LEAD FREE".

3" & LARGER REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY

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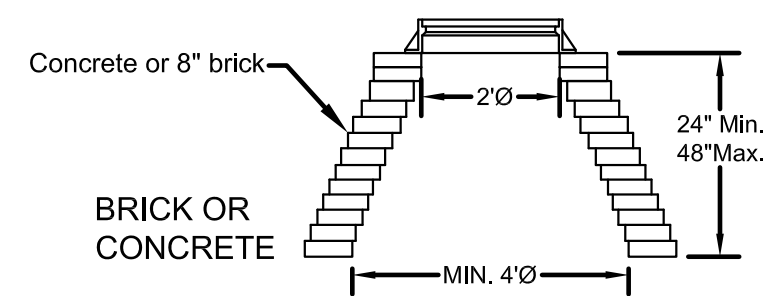
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DESIGNED BY: ATGIII
DRAWN BY: ATGIII
CHECKED BY: SB
DATE: 6/13/2023

**PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD**

WATER SERVICE DETAILS

PROJECT NUMBER 50146547

SHEET
C-25



-

MANHOLE COVER AND FRAME

1. This inlet is primarily intended for locations with light to moderate flows where right of way does not permit the use of F.D.O.T. curb inlet TYPES 1 through 6. The typical application is on curb returns to city streets. The inlet grate shall be suitable for pedestrian and bicycle traffic.
2. This inlet to be located in vertical faced curbs such as TYPE "D" or "F" Curb. Inlet to be located outside pedestrian crosswalk where practical.
3. Frame shall be adjusted with two (min.) to five (max.) courses of brick.
4. Inlet and grate detail shown is NEENAH R-3067-R Grate as shown in DETAIL ST-4. Grates shall comply with AASHTO H-20 loading. Inlet and grate shall be Class 30 castings in accordance with ASTM A-48.
5. Storm drainage structures/components shall comply with F.D.O.T. Design Standards Index#214, Latest Edition.

STORMWATER SYSTEM - CURB INLET TOP

STORMWATER SYSTEM
CURB INLET TOP, FRAME & GRATE

STORMWATER SYSTEM - SITE CATCH BASINS and DITCH BOTTOM INLETS

DISCHARGE PIPE DIAMETER	WEIR DIAMETER (1)	WEIR DIAMETER (2)	GAUGE
15"	21"	21"	16
18"	24"	24"	16
24"	30"	36"	16
30"	36"	42"	14
36"	42"	48"	14
42"	48"	54"	14
48"	54"	60"	14
54"	60"	66"	14

WEIR DETAIL

- ## NOTES

FRONT VIEW

- NOTES:

POLLUTION RETARDANT BAFFLE DETAIL



WEST PALM BEACH
ENGINEERING SERVICES

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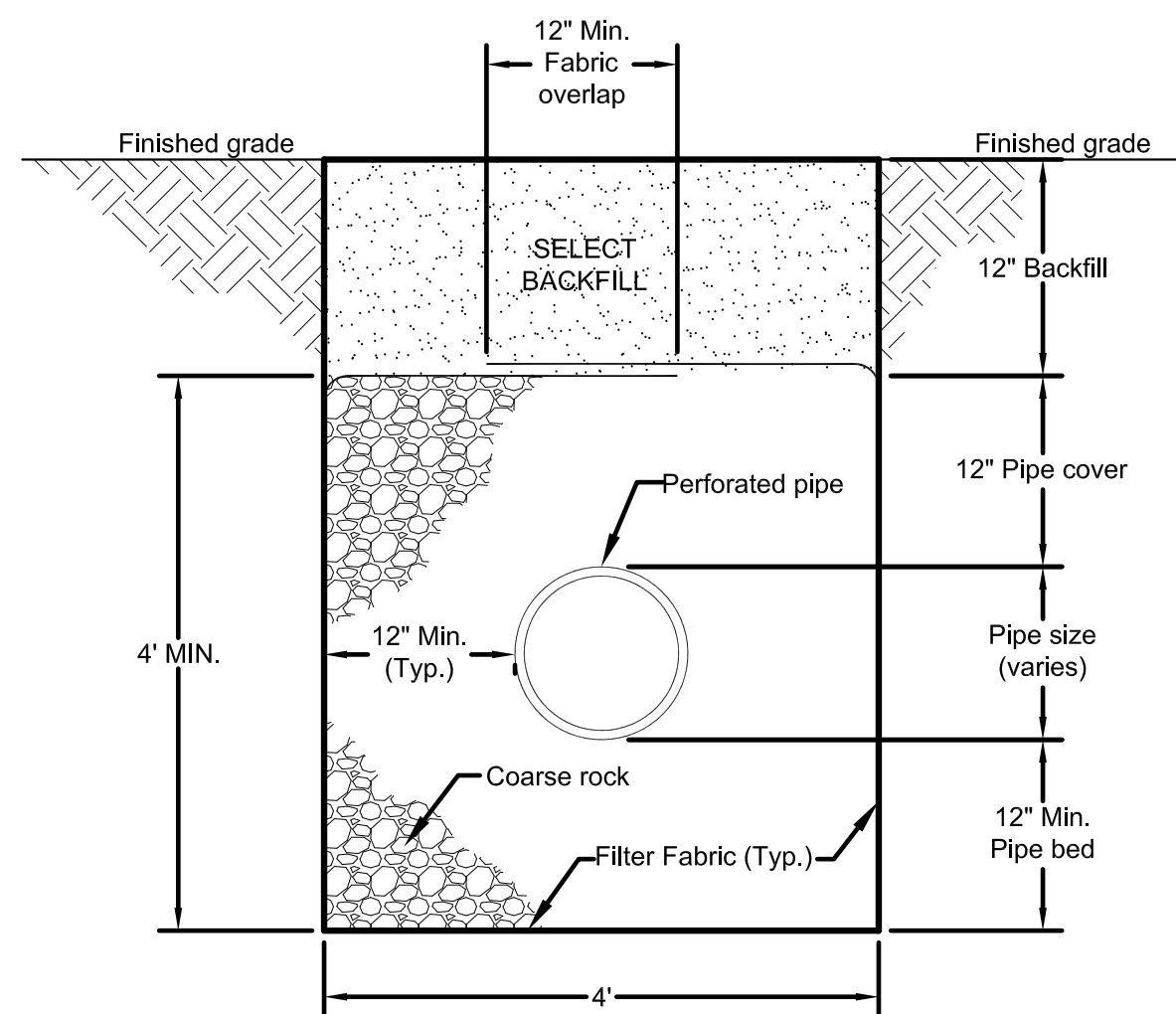
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STORM WATER DETAILS

PROJECT NUMBER 50146547

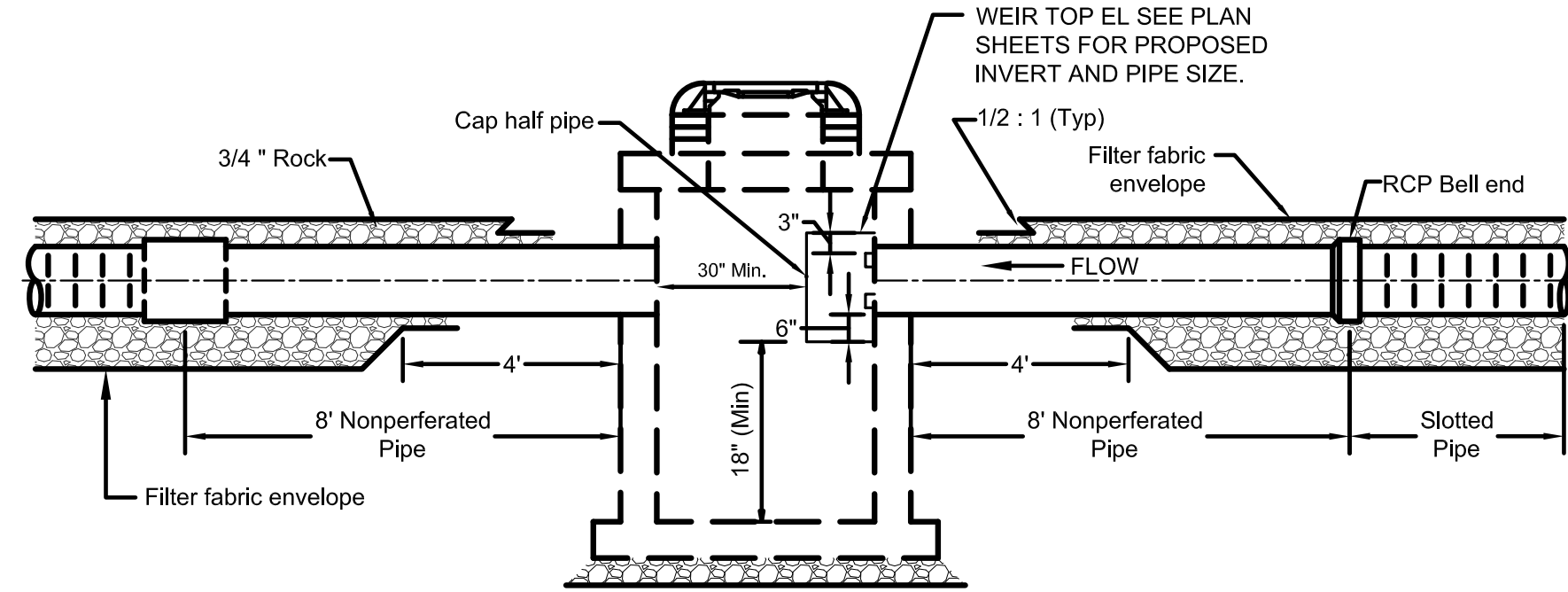
SHEET

C-26



Filter fabric shall be subsurface drainage type meeting the requirements of FDOT Standard Specifications Section 985. All filter fabric joints shall lap a minimum of one (1) foot.

STORMWATER SYSTEM - EXFILTRATION TRENCH



TYPICAL EXFILTRATION TRENCH
LONGITUDINAL SECTION

GENERAL NOTES
STORMWATER DRAINAGE SYSTEM

1. All storm drainage systems and components shall comply with the design standards and specifications of the FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), Latest Edition.
2. Storm drainage structures shall be manufactured using either Type I or Type II cement with a concrete mix designed to attain a minimum compressive strength of 4,000 PSI in 28 days.
3. Concrete shall be Class I; except ASTM C478 (4,000 PSI) concrete may be substituted for precast items manufactured in plants meeting the requirements of Section 449 of the FDOT Specifications.
4. All reinforcing is Grade 60 bars with 2" min. cover unless otherwise noted in the FDOT Design Standards. Refer to FDOT Index 201 for equivalent area of welded wire fabric.
5. Contractor/engineer shall obtain approval from City prior to rotating structure to facilitate connections between structure walls and storm sewer pipes.
6. Structures with depths over 14 feet are to be designed for anti-floatation by the Design Engineer and calculations shall be provided to the City for review.
7. Frames, grates and covers shall be of traffic bearing design and shall be Cast Grey Iron conforming to ASTM Standard A48. Frame and grates shall be as per City Standard Details ST-2 and ST-4 or as approved by the City.
8. Provide environmental notice plates on inlet hoods or structure tops as appropriate. Refer to City Standard Detail ST-4.
9. Reinforced concrete drainage pipe (RCP) shall conform to the requirements of ASTM C76, Class III with bell and spigot end joints and pipe gaskets per ASTM C443. Pipe shall be laid with bell pointing in the upstream direction.
10. Maximum structure openings for pipe shall be the pipe outside diameter plus 6-inches. Mortar used to seal the pipe into the opening will be such a mix that shrinkage will not cause leakage into or out of the structure.

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NO.	DATE	BY	DESCRIPTION

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WEST PALM BEACH

ENGINEERING SERVICES

CITY OF WEST PALM BEACH
ENGINEERING SERVICES DEPARTMENT

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PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD

STORM WATER DETAILS

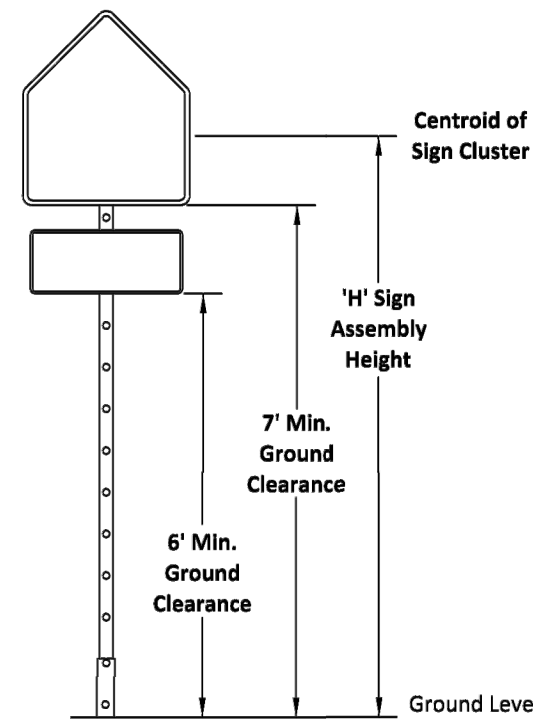
PROJECT NUMBER 50146547

SHEET

C-27

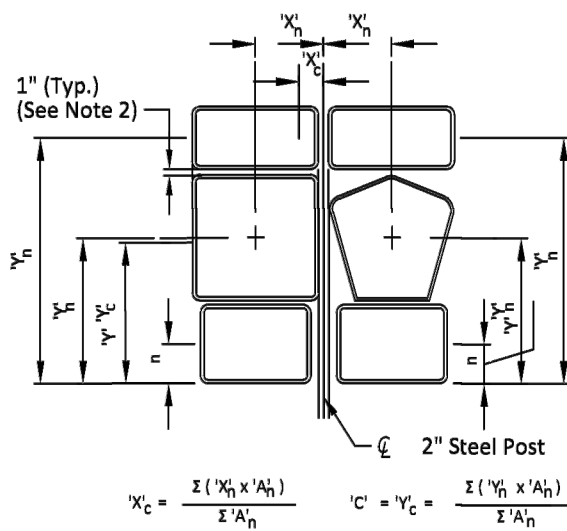
GUIDE TO USE THIS STANDARD:

1. Calculate the Total Panel Area and the centroid 'C' for an individual sign or a sign cluster.
2. Determine the height 'H' from the groundline for the individual sign or the sign cluster.
3. Consult the Post Size Table and find the intersection point.
4. Design the post and the foundation according to the required Post Size and Assembly Details.



TOTAL PANEL AREA (SF)	Post Size Table				
	'H' (ft)				
3	8	8.5	9	9.5	10
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20+					

SIGN CLUSTER

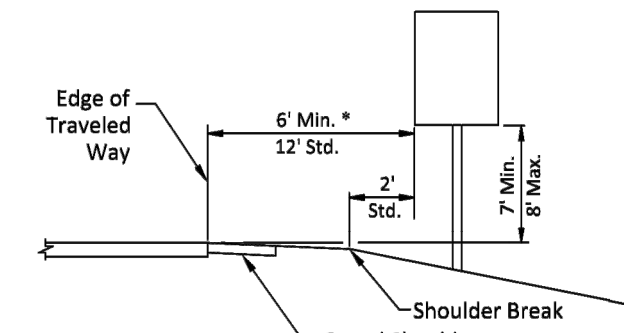
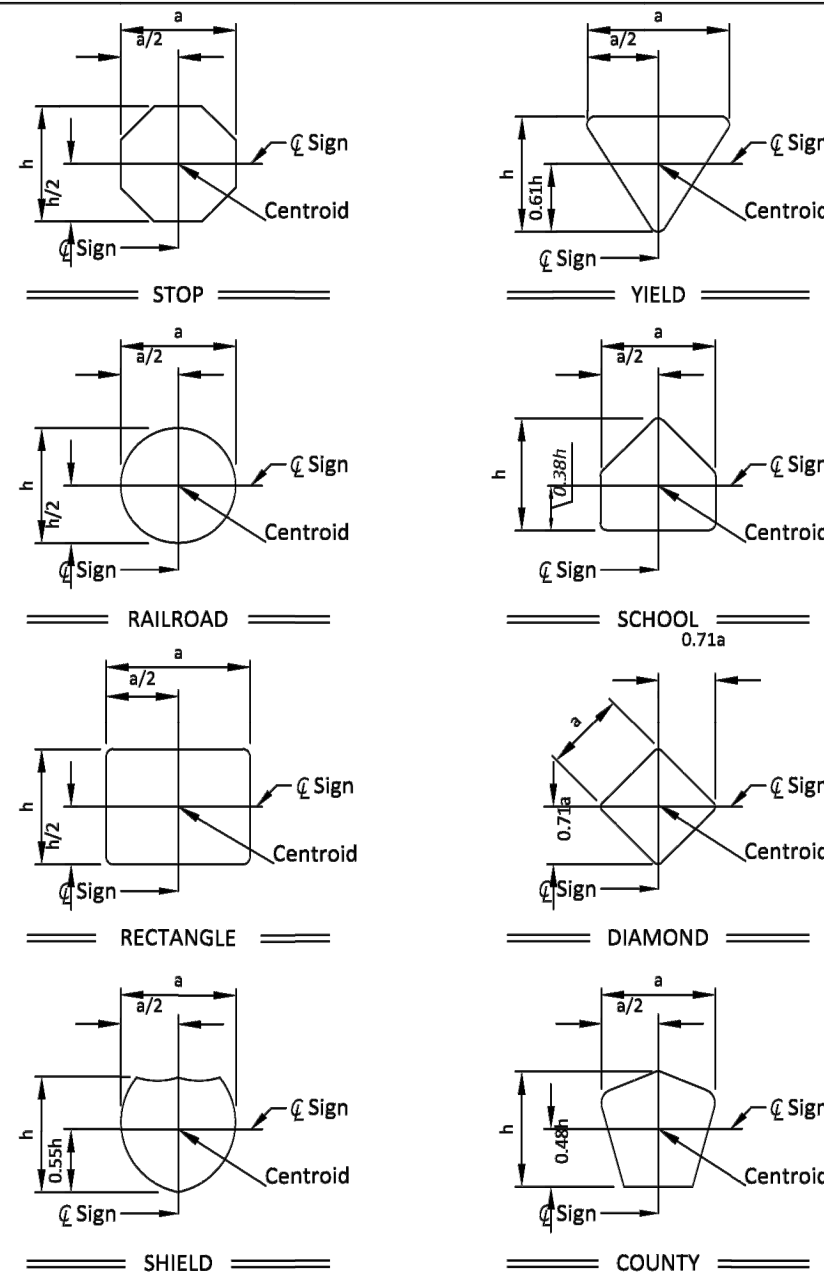


- A'_n = Area of individual sign
 h = Individual sign height
 a = Individual sign width
 X'_c = Centroid horizontal location of sign or cluster from \bar{C} Steel Post
 Y'_c = Centroid height of sign or cluster from bottom of sign cluster
 X_n = Individual sign centroid horizontal location from \bar{C} Steel Post
 Y_n = Individual sign centroid height from bottom of sign cluster

Notes:

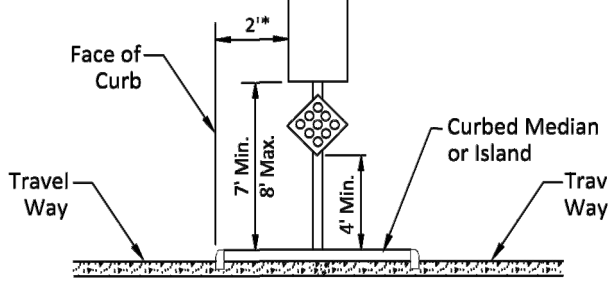
1. For sign clusters that exceed an area of 20 SF, see note on Standard Detail S-3. If two post installation exceeds 150 mph 2013 AASHTO standard, see FDOT Standard Plans Index 700-010.
2. Vertical sign spacing (1" shown on Sign Cluster detail) also applies to rotated signs.
3. If $X'_c > 6"$, it is a cantilever sign and shall be designed per FDOT Standard Plans Index 700-010, 700-011.

CALCULATION OF SIGN CLUSTER CENTROID 'C'



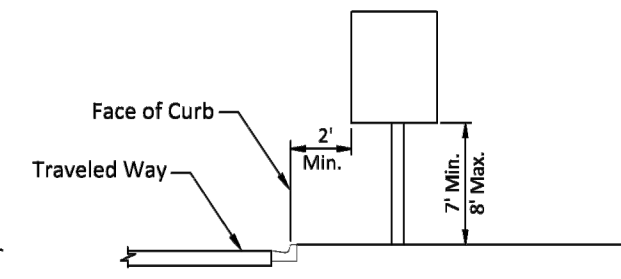
* Stop and Yield setback may be reduced to 3' minimum from the Edge of Travel Way if required for visibility in business or residential sections with no curb and speeds of 30 MPH or less.

CASE I
Use on All Uncurbed Roadways

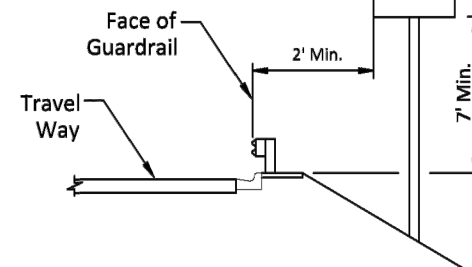


* For Separators < 6', Center The Sign Within The Separator. Center Sign Column On Island

CASE III
Use on Island or Curbed Median



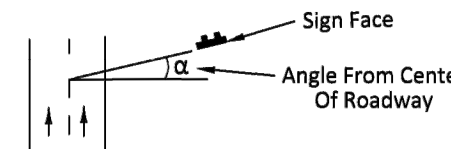
CASE II
Use on All Curbed Roadways



CASE IV
Use on All Roadways With Signs Behind Guardrail

General Notes:

1. Single-Post Signs shown, Multi-Post Signs similar location. The typical sections serve as a guide for locating the traffic signs required under various roadside conditions. All sign installation shall follow M.U.T.C.D. as a minimum standard.
2. For size and details of sign construction and footing, refer to City Standard Detail S-1 and the Plans.
3. Verify the length of sign supports in the field prior to fabrication.
4. Install ground signs at an angle of 1 to 4 degrees away from the traffic flow (see illustration). Install shoulder mounted signs rotated counterclockwise and median mounted signs rotated clockwise. Install signs on a curve as noted above from the perpendicular to the motorist line of sight.



5. The mounting heights are measured from the bottom of the sign panel to a horizontal line extended from the Edge of Travelled Way or from the ground surface at the back of curb.
6. Do not install sign supports in the bottom of ditches.
7. Install sign supports so they do not reduce the accessible width of Sidewalks or Shared Use Paths to less than 4' min. clear width.
8. Call for locates and soft digs prior to post installation.

LATEST
REVISION
2019

SIGNING - GROUND SIGN ASSEMBLY DETAILS

STANDARD
DETAIL

CITY OF WEST PALM BEACH - ENGINEERING SERVICES

S-1

LATEST
REVISION
2019

SIGNING - GROUND SIGN ASSEMBLY DETAILS, CONT.

STANDARD
DETAIL

CITY OF WEST PALM BEACH - ENGINEERING SERVICES

S-2

LATEST
REVISION
2019

SIGNING - GROUND SIGN ASSEMBLY DETAILS, CONT.

STANDARD
DETAIL

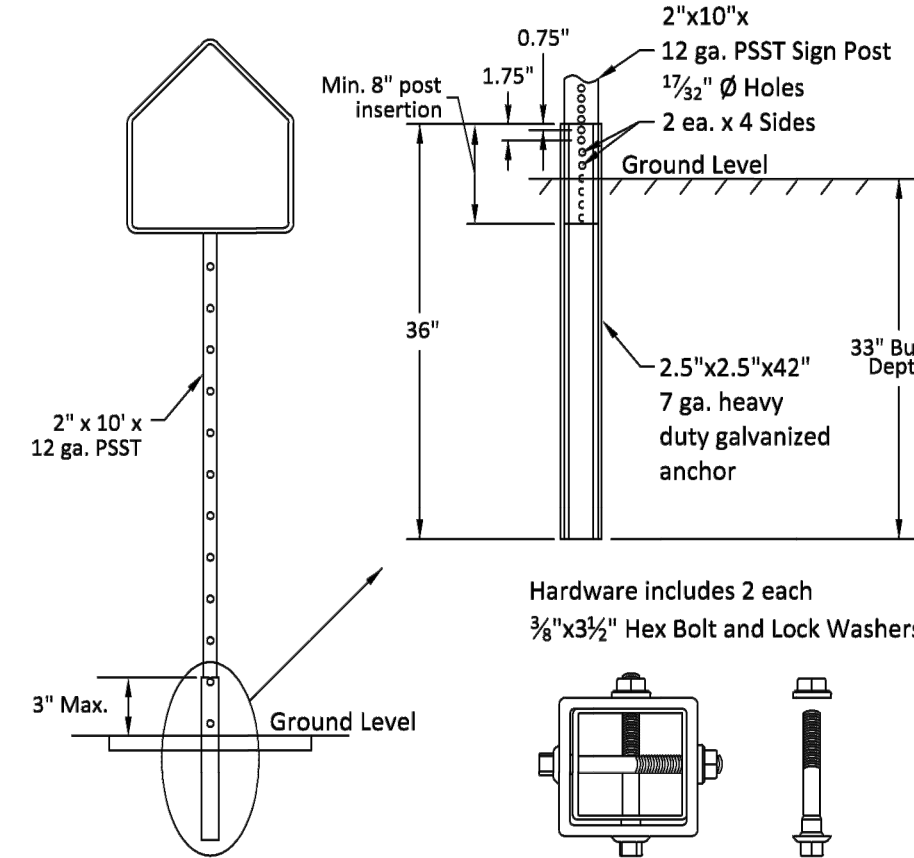
CITY OF WEST PALM BEACH - ENGINEERING SERVICES

S-4

SIGN POST WITH 2.5"x7 GA. SQUARE ANCHOR

PERFORATED SQUARE TUBE (PSST) SIGN POST

The square tube sign post shall be 2" square, perforated, hot-dipped galvanized, 12-gauge, graded 50 steel. The post shall be installed with in-ground fitted sleeve anchor as shown in detail.



Note: The base connection details are only shown on this plan to illustrate how the parts are assembled. The complete assembly must be designed to withstand 150 mph Base Wind Speed per 2013 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th edition and Interims.

LATEST
REVISION
2019

SIGNING - GROUND SIGN ASSEMBLY DETAILS, CONT.

STANDARD
DETAIL

CITY OF WEST PALM BEACH - ENGINEERING SERVICES

S-3

REVISIONS			
NO.	DATE	BY	DESCRIPTION



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ENGINEERING SERVICES DEPARTMENT

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PARKER AVE RECONSTRUCTION FROM
FOREST HILL BLVD TO NOTTINGHAM BLVD

SIGNING DETAILS

PROJECT NUMBER 50146547

SHEET

C-28