GENERAL CONTRACT CONDITIONS

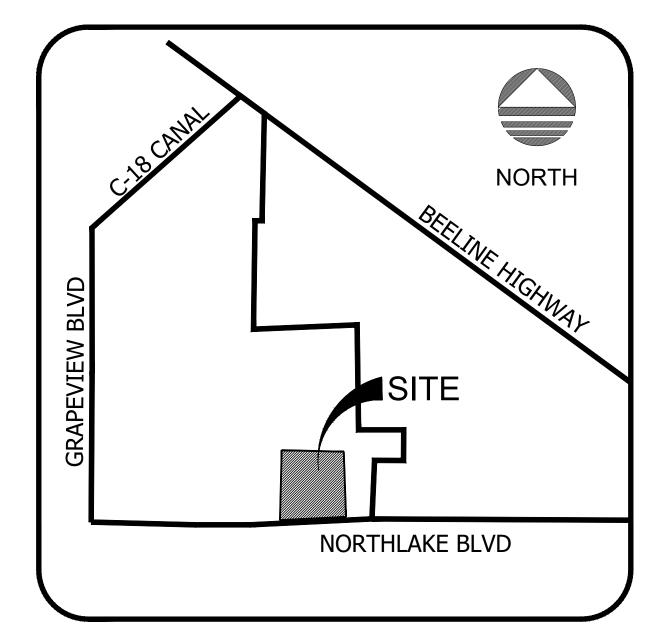
- INCORPORATED AS A PART OF THE GENERAL SPECIFICATIONS AND REQUIREMENTS FOR THIS PROJECT ARE THE RELEVANT CRITERIA INCLUDED IN THE LATEST REVISION OF THE FOLLOWING ITEMS: FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD
- SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. LATEST EDITION.
- FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN PLANS, LATEST EDITION. CITY OF PALM BEACH GARDENS LAND DEVELOPMENT CODE
- SEACOAST UTILITY AUTHORITY MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS. ALL CONDITIONS AND/OR REQUIREMENTS RELATED TO THE CONSTRUCTION ACTIVITIES AS
- SET IN THE SITE DEVELOPMENT PERMITS.

 THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THESE ITEMS. ANY COSTS ASSOCIATED WITH COMPLIANCE IS INCLUDED IN THE UNIT PRICES.
- 2. AT NO ADDITIONAL COST TO THE OWNER, THE CONTRACTOR SHALL PROVIDE ACCESS AND ALLOW FOR COORDINATION SERVICES TO ACCOMMODATE UTILITIES, CONDUIT AND/OR SLEEVE CONSTRUCTION BY OTHERS. ANY UTILITIES, CONDUITS AND/OR SLEEVES INSTALLED BY OTHERS AND DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 3. IF REQUIRED BY OWNER OR GOVERNMENTAL AGENCY HAVING JURISDICTION OVER AFFECTED ROADWAYS, THE CONTRACTOR WILL PROVIDE, AS PART OF HIS BASE BID FOR PAVEMENT SYSTEMS, A MAINTENANCE OF TRAFFIC PLAN. ALSO INCLUDED WILL BE THE LABOR, EQUIPMENT AND MATERIALS REQUIRED TO IMPLEMENT THAT PLAN. ALL WORK MUST BE DONE IN ACCORDANCE WITH AGENCY REQUIREMENTS AND ANY REQUIRED PERMITS OR APPROVALS MUST BE APPLIED FOR AND OBTAINED BY THE CONTRACTOR.
- 4. TESTING OF CONSTRUCTION MATERIALS AND/OR CONSTRUCTED FACILITIES WILL BE REQUIRED AS OUTLINED IN THE GOVERNING SPECIFICATIONS AS NECESSARY TO MEET THE REQUIREMENTS OF THE PERMITTING/APPROVING AGENCIES. ALL TESTING IS TO BE DONE BY A FLORIDA LICENSED TESTING LABORATORY AND THE COST OF THESE TESTS IS INCLUDED IN THE CONTRACTOR'S UNIT PRICES.
- 5. FIELD REVIEWS OF CONSTRUCTED FACILITIES WILL BE REQUIRED DURING THE CONSTRUCTION PROCESS. THE CONTRACTOR IS TO NOTIFY THE ENGINEER A MINIMUM OF 24 HOURS PRIOR TO THE REQUESTED TIME FOR REVIEW OF THE COMPLETED ITEMS. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS NEEDED TO ACCOMMODATE THE FIELD REVIEW. THESE REVIEWS INCLUDE BUT ARE NOT
- PIPE AND STRUCTURE REVIEW
- PRESSURE AND LEAKAGE TESTING OF WATER AND FORCE MAINS
- SUB-GRADE REVIEW
- CURB REVIEWS
 BASE REVIEWS
- LAMPING AND TELESPECTION OF SANITARY SEWER SYSTEM
- PUMP DOWN AND LAMPING OF STORM DRAINAGE SYSTEM SEMI-FINAL AND FINAL REVIEWS
- FACILITIES MUST BE COMPLETED PRIOR TO SCHEDULING FIELD REVIEW. IF A FIELD REVIEW FAILS TO MEET THE AGENCY REQUIREMENTS AND AN ADDITIONAL REVIEW IS REQUIRED, THE CONTRACTOR WILL BE RESPONSIBLE TO PAY ANY FEES ASSOCIATED WITH THE ADDITIONAL REVIEW.
- NO SEPARATE PAYMENT SHALL BE PROVIDED TO THE CONTRACTOR FOR EARTHWORK ASSOCIATED WITH THIS CONTRACT. ALL COSTS ASSOCIATED WITH SITE PREPARATION NECESSARY TO EXECUTE THE WORK SET FORTH IN THE CONTRACT SHALL BE INCLUDED IN THE ITEMS PROVIDED FOR IN THE UNIT PRICE BID SCHEDULE. ANY EXCESS MATERIAL REMAINING UPON COMPLETION OF CONSTRUCTION SHALL BE REMOVED TO AN ACCEPTABLE LOCATION AT THE EXPENSE OF THE CONTRACTOR. AT THE OWNER'S OPTION HE MAY IDENTIFY A LOCATION FOR THIS MATERIAL TO BE STOCK PILED OR INSTRUCT THE CONTRACTOR TO REMOVE THE EXCESS TO A LEGAL DISPOSAL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL GRADING OF THE SITE TO WITHIN 0.2 ± FOOT OF ALL THE PROPOSED FINISHED GRADE ELEVATIONS THROUGHOUT THE PROJECT SITE AS DEPICTED ON THE PLANS PREPARED BY THE ENGINEER. ELEVATIONS OF CONSTRUCTED FACILITIES, IE ROADWAYS, DRAINAGE, ETC. ARE TO BE AS INDICATED ON THE PLANS.
- 7. EXISTING UTILITIES, ROADWAY AND DRAINAGE FACILITIES ARE LOCATED AND IDENTIFIED BASED ON THE AVAILABLE INFORMATION. THE CONTRACTOR IS TO VERIFY THIS INFORMATION WHERE NECESSARY FOR PROPOSED CONSTRUCTION. ALL COSTS ASSOCIATED WITH VERIFICATION, PROTECTION OF EXISTING SYSTEMS OR CONNECTION TO THOSE ITEMS AS CALLED FOR ON THE PLANS IS INCLUDED IN THE UNIT PRICE.
- 8. UNLESS OTHERWISE AGREED TO PRIOR TO CONSTRUCTION THE UNIT QUANTITIES ESTABLISHED BY THE PLANS WILL BE THE CONTRACT BASIS. UNIT PRICES SHALL INCLUDE THE PROVIDING OF ALL COSTS REQUIRED FOR THE COMPLETE CONSTRUCTION OF THE SPECIFIED UNIT OF WORK INCLUDING BUT NOT LIMITED TO: COST OF MATERIALS AND DELIVERY; COST OF INSTALLATION; LABOR, INCLUDING SOCIAL SECURITY, INSURANCE, AND OTHER REQUIRED FRINGE BENEFITS, WORKMAN'S COMPENSATION INSURANCE; BOND PREMIUMS; RENTAL OF EQUIPMENT AND MACHINERY; TAXES; TESTING SURVEYS AND OTHER INCIDENTAL EXPENSES; AND SUPERVISION.
- 9. CONTRACTOR SHALL EMPLOY A REGISTERED SURVEYOR TO LAY OUT LINE, GRADES, STRUCTURES, LOT CORNERS, ETC. AS NECESSARY TO CONSTRUCT THE PROPOSED FACILITIES IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. BENCH MARKS SHALL BE ESTABLISHED BY A REGISTERED SURVEYOR. BENCH MARKS SHALL BE PERMANENT AND EASILY ACCESSIBLE AND MAINTAINED AND REPLACED IF DISTURBED OR DESTROYED. HORIZONTAL CONTROL SHALL SIMILARLY BE ESTABLISHED AND MAINTAINED.
- 10. ANY UNSTABLE SOIL AND/OR SOIL CONTAINING ORGANIC MATERIAL ENCOUNTERED DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO MUCK, SILT, SLUDGE AND MARL, SHALL BE REMOVED AND SHALL BE REPLACED BY MATERIAL ACCEPTABLE TO THE ENGINEER. NO ADDITIONAL PAYMENT SHALL BE PROVIDED FOR REMOVAL, REPLACEMENT, AND DISPOSAL OF SUCH UNSTABLE SOIL AND/OR ORGANIC CONTENT SOIL. THE REMOVAL, REPLACEMENT AND DISPOSAL OF SUCH UNSTABLE SOIL AND/OR ORGANIC CONTENT SOIL SHALL BE CONSIDERED TO BE PART OF THE CONTRACT PRICE AS PROVIDED IN THE UNIT PRICE BID SCHEDULE. IF ANY ROCK, HARDPAN, ETC. IS ENCOUNTERED DURING CONSTRUCTION OF ANY ITEMS, THE REMOVAL AND BACKFILL REQUIRED SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OF THAT ITEM AND NO SEPARATE PAYMENT WILL BE MADE.
- 11. THE CONTRACTOR SHALL VISIT THE SITE AND ACQUAINT HIMSELF WITH ALL EXISTING CONDITIONS. MAKE HIS OWN SUBSURFACE INVESTIGATION TO SATISFY HIMSELF AS TO THE SITE AND SUBSURFACE CONDITIONS, BUT SUCH SUBSURFACE INVESTIGATIONS SHALL BE PERFORMED ONLY UNDER TIME SCHEDULES AND ARRANGEMENTS APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE AND ENGINEER. THE EXISTING GRADES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND NO REPRESENTATION IS MADE AS TO THEIR ACCURACY OR CONSISTENCY. THE CONTRACTOR SHALL VERIFY ALL EXISTING GRADES TO THE EXTENT NECESSARY TO INSURE COMPLETION OF THE JOB TO THE PROPOSED. GRADES INDICATED ON THE DRAWINGS.
- PROPOSED GRADES INDICATED ON THE DRAWINGS.

 12. THE CONTRACTOR SHALL PROVIDE ADEQUATE BARRIERS AND PROTECTION FOR THOSE EXISTING FACILITIES AND VEGETATION (NATURAL AND LANDSCAPING) THAT ARE TO REMAIN IN THE EXISTING CONDITIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY COST ASSOCIATED WITH REPAIR OR REPLACEMENT OF THESE ITEMS IF THEY ARE DAMAGED OR DESTROYED BY THE CONTRACTOR
- (INCLUDING HIS WORKERS, SUBCONTRACTORS, LABORERS, SUPPLIERS, DELIVERY VEHICLES.)

 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ANY DEWATERING PERMITS AND/OR APPROVALS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED FACILITIES/SYSTEMS.
- 14. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF SEVEN (7) COPIES FOR SHOP DRAWINGS, PRODUCT DATA, MATERIAL SPECIFICATION OF OTHER INFORMATION REGARDING CONSTRUCTION MATERIALS AND STRUCTURES AS REQUESTED BY THE OWNER, ENGINEER OR PERMITTING/APPROVAL AGENCY. SHOP DRAWINGS MUST BE NEWLY PREPARED INFORMATION, DRAWN TO ACCURATE SCALE. DO NOT REPRODUCE CONTRACT DOCUMENTS OR COPY STANDARD INFORMATION AS THE BASIS OF SHOP DRAWINGS. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS. ALL COSTS ASSOCIATED WITH THIS ITEM IS INCLUDED IN THE UNIT PRICES.
- 15. BY HIS SUBMITTAL OF ANY SHOP DRAWING OR CATALOG DATA, BEARING HIS APPROVAL STAMP, THE CONTRACTOR THEREBY REPRESENTS THAT HE HAS DETERMINED AND VERIFIED ALL FIELD MEASUREMENTS, FIELD CONSTRUCTION CRITERIA, MATERIALS, DIMENSIONS, CATALOG NUMBERS AND SIMILAR DATA, OR WILL DO SO, AND THAT HE HAS CHECKED AND COORDINATED EACH ITEM WITH OTHER APPLICABLE APPROVED SHOP DRAWINGS AND THE CONTRACT REQUIREMENTS. SHOP DRAWINGS AND CATALOG DATA SUBMITTED WITHOUT THE CONTRACTOR'S STAMP OF APPROVAL WILL BE RETURNED TO THE CONTRACTOR WITHOUT REVIEW. APPROVAL OF SHOP DRAWINGS, SAMPLES, OR CATALOG DATA BY THE ENGINEER SHALL NOT AUTHORIZE ANY DEVIATION FROM THE REQUIREMENT OF THE CONTRACT DOCUMENTS NOR SHALL SUCH APPROVAL RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS THEREIN.

HEALTH PARK AT AVENIR



LOCATION MAP

N.T.S.

SEC. 15 TWP. 42S RNG. 41E

INDEX TO DRAWINGS

1 COVER SHEET
2 DIMENSION AND STRIPING PLAN
3-4 PAVING AND DRAINAGE PLAN
5 WATER AND SANITARY PLAN
6-7 PAVING AND DRAINAGE DETAILS
8-12 WATER AND SANITARY DETAILS

- 16. ANY PROPOSED SUBSTITUTE/EQUAL TO STRUCTURE REINFORCING STEEL AS SHOWN ON THE CONTRACT DOCUMENTS SHALL BE ACCOMPANIED BY CALCULATIONS SUBSTANTIATING EQUIVALENCY. SHOP DRAWINGS WITH SUBSTITUTE REINFORCEMENT NOT ACCOMPANIED BY CALCULATIONS WILL BE RETURNED TO THE CONTRACTOR WITHOUT REVIEW.
- 17. THE CONTRACTOR UNDERSTANDS THAT THEY ARE REQUIRED TO PERFORM ANY AND ALL TESTS, INSPECTIONS, PROCEDURES INCLUDING ALL LABOR, MATERIALS, TIME AND EFFORT IN ORDER TO HAVE ALL WORK DESIGNATED AS FINAL BY ANY AGENCY OR MUNICIPALITY HAVING THE AUTHORITY AND HAVE ALL BONDS OR LETTERS OF CREDIT RELEASED TO OWNER. AND THAT SUCH TESTS, INSPECTIONS AND PROCEDURES ARE INCLUDED IN THE UNIT PRICES.
- 18. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH OWNER'S SURVEYOR FOR PURPOSES OF OBTAINING RECORD INFORMATION AS REQUIRED BY THE ENGINEER AND PALM BEACH COUNTY CONTRACTOR SHALL PROVIDE EQUIPMENT AND MANPOWER AS NECESSARY TO OBTAIN RECORD INFORMATION, INCLUDING BUT NOT LIMITED TO POTHOLING, PIPE/STRUCTURE CLEANING AND/OR PUMP-DOWN
- LANDSCAPING SHALL NOT BE PERMITTED IN DRAINAGE/UTILITY EASEMENTS.
 PLUMBING PLANS FOR THE MEDICAL OFFICE BUILDINGS MUST BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO SEWER TIE-IN AND METER INSTALLATION.

MARTHA H. CARTER, P.E., CFM FLORIDA REGISTRATION #47589 FOR MICHAEL B. SCHORAH AND ASSOCIATES, INC.

DEVELOPMENT PLANS

MICHAEL B. SCHORAH & ASSOCIATES, INC.

ENGINEERS ◆ SURVEYORS ◆ DEVELOPMENT CONSULTAN

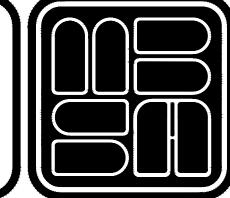
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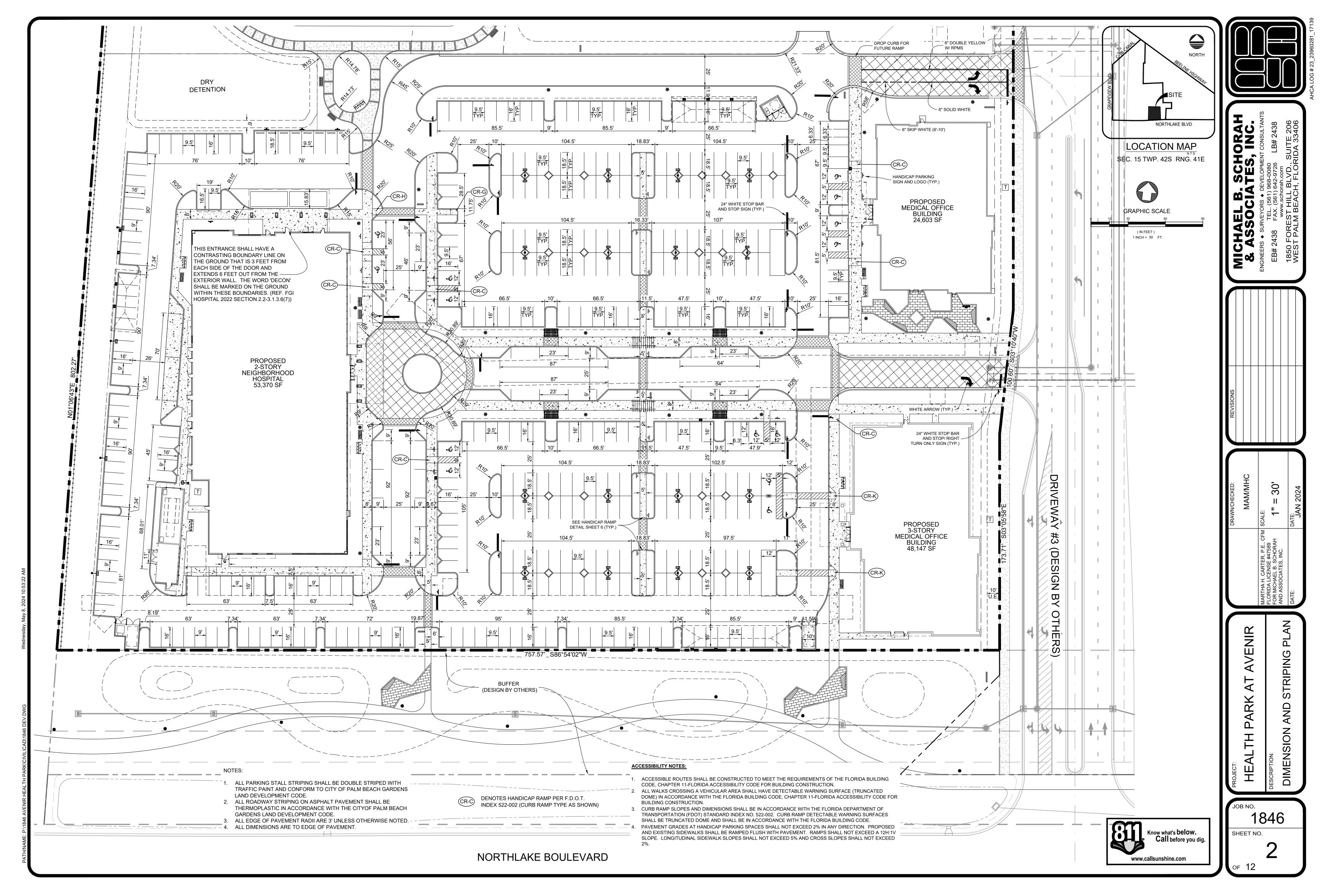
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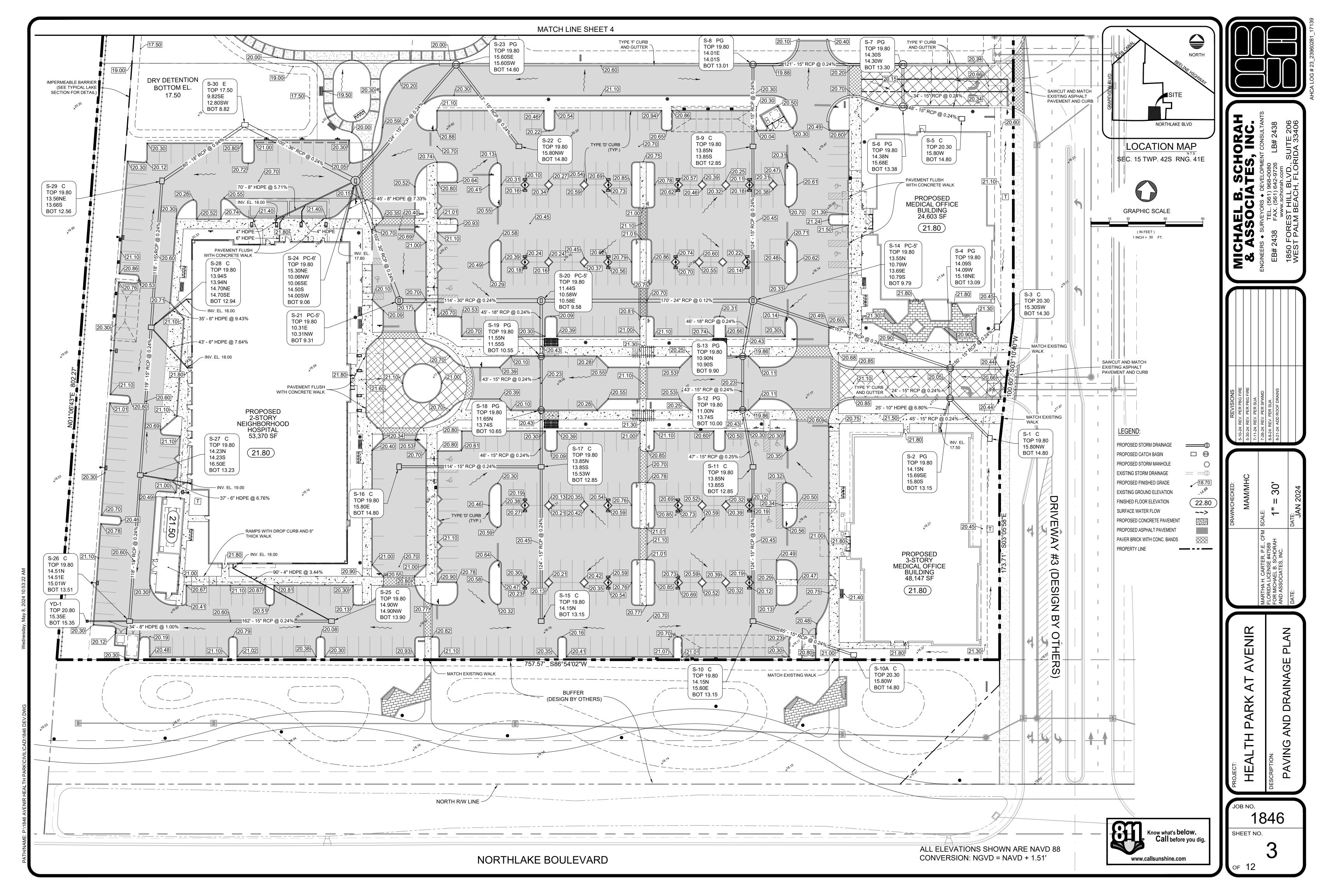


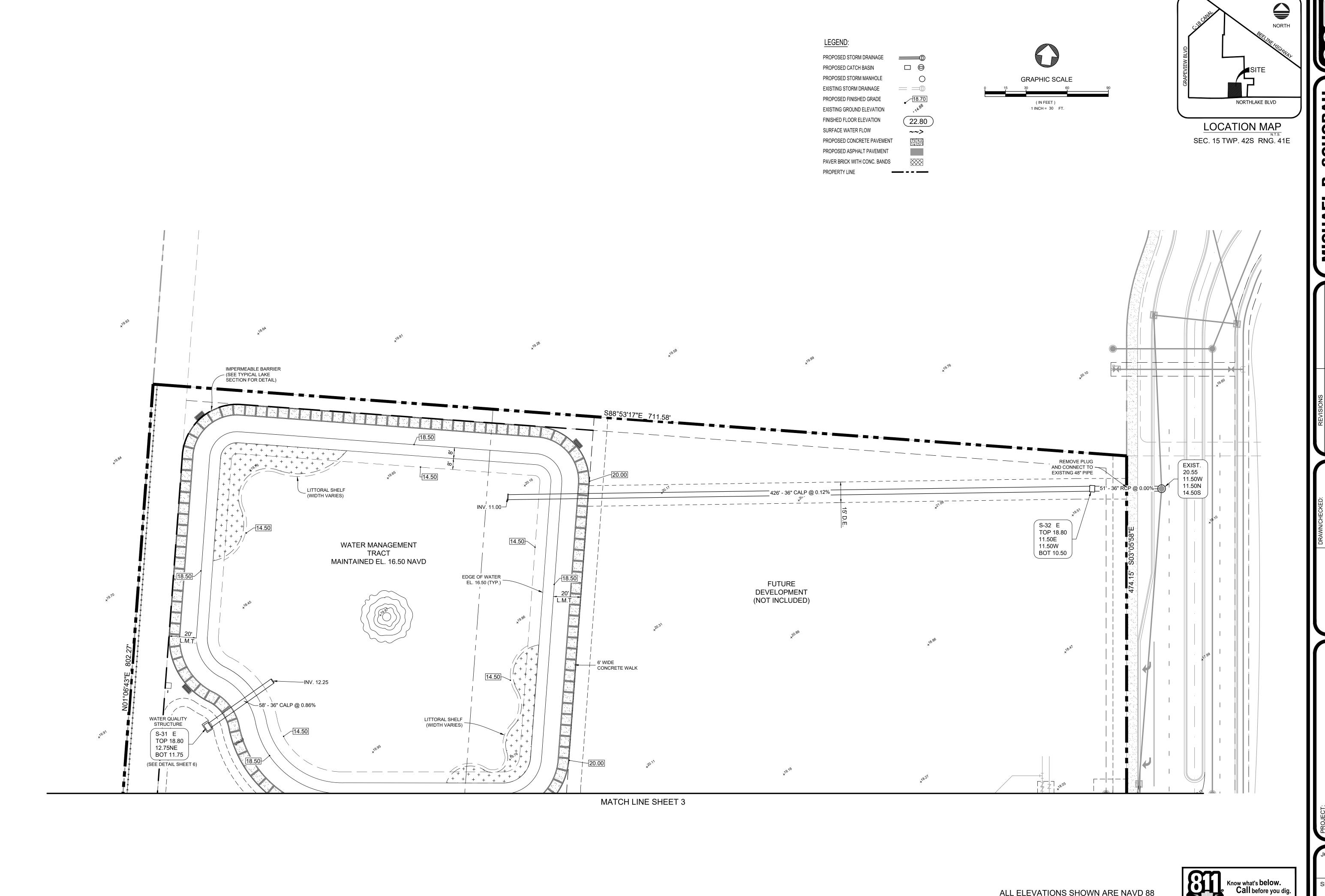
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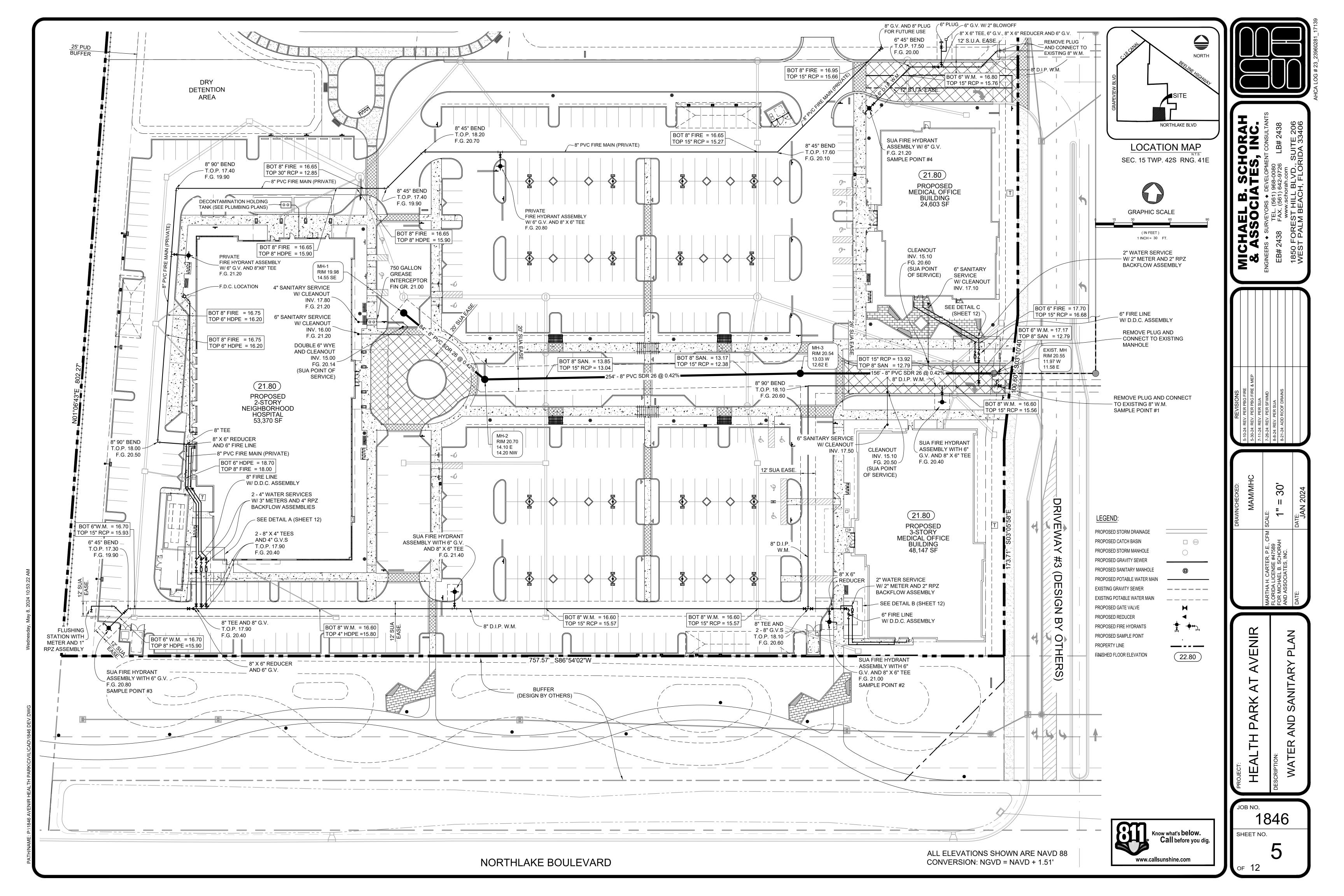
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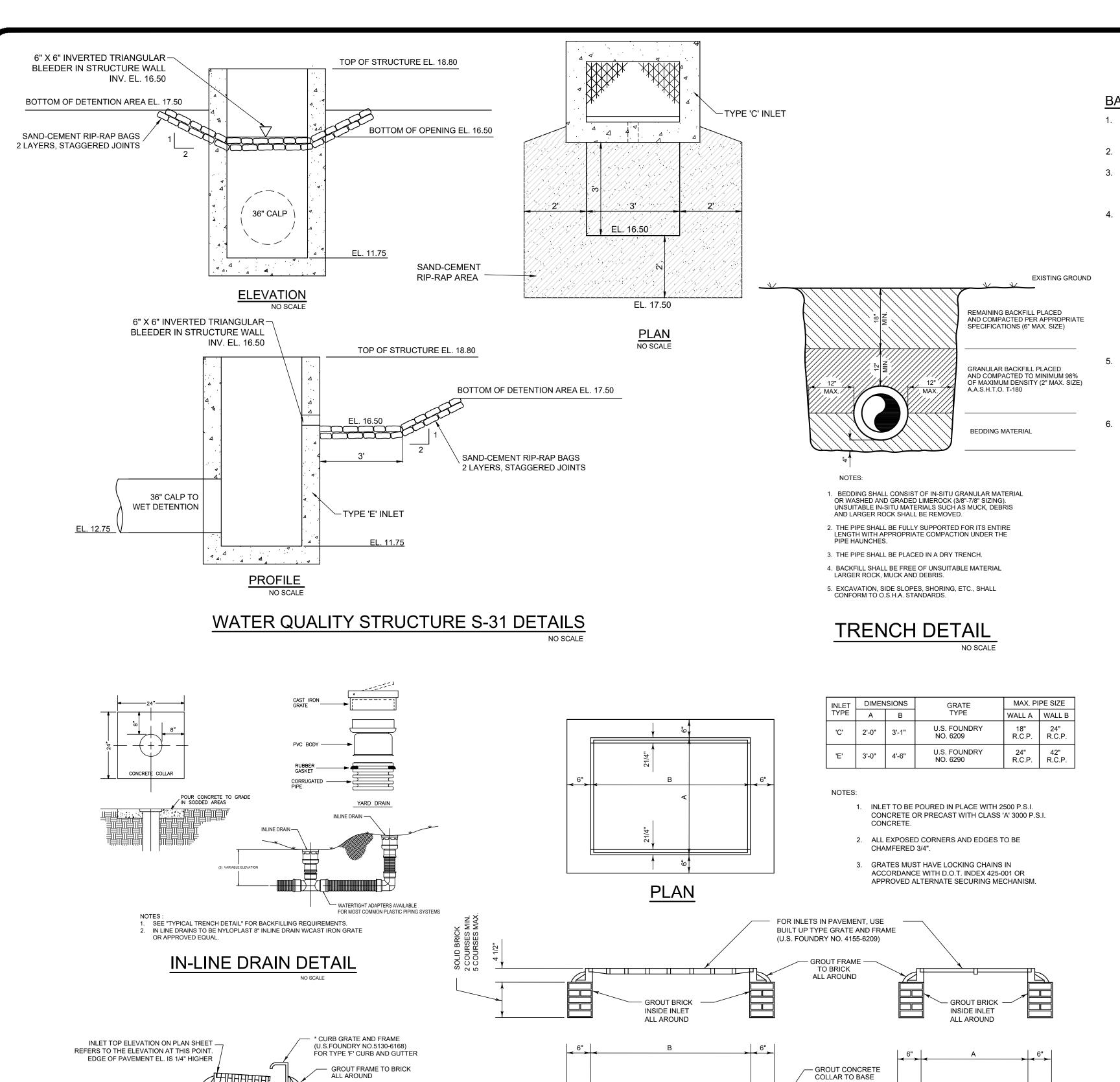
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SHEET NO.

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CONCRETE COLLAR

FOR INLETS IN GRASS, USE

GRATE WITHOUT FRAME

SECTION

TYPE 'C' OR 'E'

INLET DETAILS

FDOT INDEX #425-052

SECTION

INTERIOR STRUCTURE BOTTOM SHALL BE A

MINIMUM OF 1 FOOT BELOW LOWEST INVERT

ACCORDANCE WITH D.O.T. INDEX 425-001 OR

APPROVED ALTERNATE SECURING MECHANISM

ON ALL INLETS, AND JUNCTION BOXES.

GRATES MUST HAVE LOCKING CHAINS IN

NOTE:

CONTINUOUS

REINFORCING PER F.D.O.T. INDEX 425-052

PRE-CAST CONCRETE

PRE-CAST CONCRETE

TOP SLAB

GROUT BRICK

INSIDE INLET

ALL AROUND

OPENING

* USE CURB GRATE AND FRAME (U.S. FOUNDARY

5115-6220) WITH 24" X 28"

4'-0" DIA

UNLESS OTHERWISE SHOWN

TYPE 'PG' INLET DETAIL

FDOT INDEX #425-010

OPENING FOR TYPE 'D' CURB

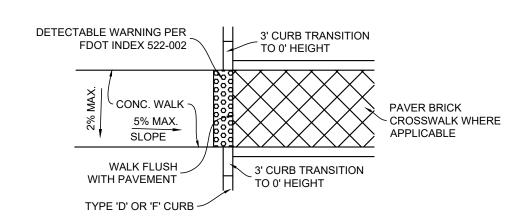
BACKFILLING EXCAVATION NOTES

- 1. ALL STRUCTURES, PIPE LINES AND JOINTS AND OTHER CONSTRUCTION SHALL BE SUBJECT TO FIELD OBSERVATION BY THE ENGINEER (OR HIS REPRESENTATIVE) PRIOR TO BACKFILLING.
- 2. BACKFILLING SHALL BE DONE WITH APPROVED MATERIAL, FREE FROM LARGE CLODS, ROCKS, ORGANIC MATERIALS OR OTHER EXTRANEOUS MATERIAL
- 3. BACKFILLING OF STRUCTURE (MANHOLES, ETC) EXCAVATIONS AND REQUIRED FILL UNDER STRUCTURE SLABS SHALL BE DONE IN HORIZONTAL LIFTS NOT EXCEEDING SIX (6) INCHES IN DEPTH, AND SHALL BE COMPACTED TO A DENSITY OF NOT LESS THAN 98% OF THE MAXIMUM DENSITY AS DETERMINED BY A.A.S.H.T.O. T-180.
- 4. BACKFILL MATERIAL FOR PIPE EXCAVATION SHALL BE SELECTED, DEPOSITED AND COMPACTED SO AS TO ELIMINATE THE POSSIBILITY OF HORIZONTAL OR LATERAL DISPLACEMENT OF THE PIPE. BACKFILL MATERIAL SHALL BE SOLIDLY TAMPED AROUND THE PIPES IN SIX (6) INCH LIFTS UP TO A LEVEL AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE PIPE. BACKFILLING SHALL BE CARRIED OUT SIMULTANEOUSLY ON BOTH SIDES OF THE PIPE. THE REMAINDER OF THE BACKFILL SHALL BE PLACED IN SIX (6) INCH LIFTS (COMPACTED THICKNESS), MOISTENED AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 98% OF THE MAXIMUM DENSITY AS DETERMINED BY A.A.S.H.T.O. T-180. WATER SETTLING MAY BE UTILIZED AT THE OPTION OF THE CONTRACTOR, PROVIDED THE REQUIRED DENSITY IS ACHIEVED. IN AREAS WHERE PAVING IS TO BE PLACED OVER THE BACKFILLED TRENCH, COMPACTION SHALL BE CARRIED OUT TO ACHIEVE A DENSITY OF AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY A.A.S.H.T.O. T-180 FOR A MINIMUM OF THE TOP THREE (3) FEET OF THE BACKFILLED TRENCH (THE REMAINING DEPTH AS NOTED ABOVE) AND EXTENDING TO THE TRENCH WIDTH + TWO (2) FEET - SEE DETAIL.
- DENSITY TESTS FOR DETERMINATION OF THE SPECIFIED COMPACTION SHALL BE MADE BY AN APPROVED ENGINEERING TESTING LABORATORY. TESTS SHALL BE TAKEN IN ALL COMPACTED LIFTS (1 FOOT MINIMUM) AND SPACED ONE (1) FOR EVERY 400 FEET OF TRENCH (MAXIMUM) WITH AT LEAST ONE (1) TEST IN EACH PIPE RUN (STRUCTURE TO STRUCTURE). WHERE TRENCH CROSSES AREAS TO BE PAVED, A MINIMUM OF ONE (1) OF
- THE REQUIRED DENSITY TESTS MUST BE TAKEN IN THAT AREA. 6. EXCAVATION, SIDE SLOPES, SHORING, ETC., SHALL CONFORM TO O.S.H.A. STANDARDS.

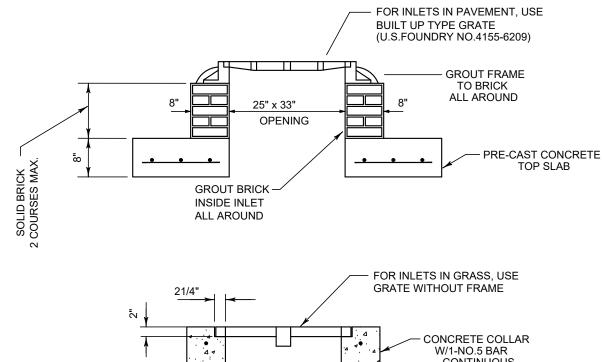
FILL MATERIAL SPECIFICATIONS:

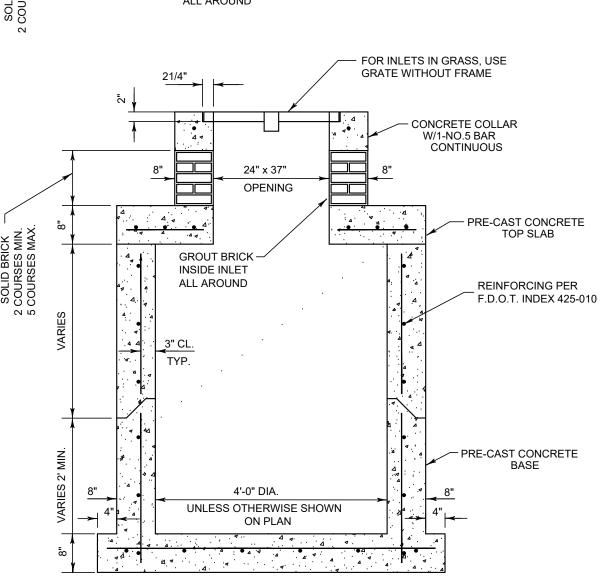
SITE-GRADING FILL SHALL CONSIST OF CLEAN, GRANULAR MATERIALS THAT ARE FREE OF DEBRIS, CINDERS, COMBUSTIBLES, ROOTS, SODS, WOOD, CELLULOSE, ORGANIC MATERIALS, AND MATERIALS SUBJECT TO TERMITE ATTACK. THE ORGANIC CONTENT OF THE FILL SHALL BE LESS THAN 2% (BY WEIGHT). FILL SHALL HAVE LESS THAN 10 PERCENT PASSING THE U.S. STANDARD NO. 200 SIEVE (DRY WEIGHT BASIS) AND HAVE NO PARTICLE SIZE LARGER THAN 3 INCHES UNLESS IT CAN BE DEMONSTRATED THAT SUCH PARTICLES CAN BE BROKEN DOWN TO THE MAXIMUM SPECIFIED SIZE UNDER THE TRAFFIC OF THE EARTHWORK SPREADING AND COMPACTION EQUIPMENT.

FILL FOR LANDSCAPE BERMS, COMMON AREAS, OR OTHER AREAS THAT DO NOT REQUIRE STRUCTURAL FILL SHALL MEET THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 162.



HANDICAP RAMP DETAIL

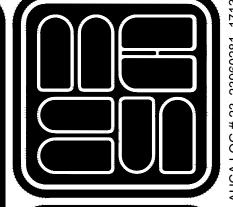




TYPE 'PC' INLET DETAIL FDOT INDEX #425-010

SPECIFICATIONS - PAVING AND DRAINAGE

- CLEARING AND GRUBBING WITHIN THE LIMITS OF CONSTRUCTION, ALL VEGETATION AND ROOT MATERIAL SHALL BE REMOVED.
- GUMBO WHERE GUMBO OR OTHER PLASTIC CLAYS ARE ENCOUNTERED, THEY SHALL BE REMOVED WITHIN THE CONSTRUCTION AREA ONE FOOT BELOW THE SUBGRADE EXTENDING HORIZONTALLY TO THE OUTSIDE EDGE OF THE SHOULDER AREA.
- HARDPAN IF HARDPAN IS ENCOUNTERED IN THE ROADSIDE SWALE, IT WILL BE REMOVED TO A WIDTH OF TWO FEET AT THE SWALE INVERT AND REPLACED WITH GRANULAR MATERIAL
- MUCK AND PEAT IF MUCK AND/OR PEAT ARE ENCOUNTERED IN THE ROAD RIGHTS OF WAY, THEY WILL BE REMOVED COMPLETELY FROM THE AREA OF CONSTRUCTION TO A WIDTH OF TEN FEET BEYOND THE EDGE OF PAVEMENT AND SHALL BE BACKFILLED WITH GRANULAR MATERIAL
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE EXACT LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES, WHETHER SHOWN OR NOT, PRIOR TO CONSTRUCTION. NOTIFY ALL UTILITIES INVOLVED PRIOR TO CONSTRUCTION.
- PIPE BACKFILL REQUIREMENTS FOR PIPE BACKFILL CROSSING ROADS OR PARKING AREAS SHALL BE DEFINED IN THE FLORIDA D.O.T. SPECIFICATIONS, SECTION 125-8. PIPELINE BACKFILL SHALL BE PLACED IN TWELVE INCH LIFTS AND COMPACTED TO 98% OF THE STANDARD PROCTOR (A.A.S.H.T.O.) T-180 SPECIFICATIONS.
- SEQUENCE OF CONSTRUCTION SEQUENCE OF CONSTRUCTION SHALL BE SUCH THAT ALL UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO ROADWAY CONSTRUCTION.
- INLETS ALL INLETS SHALL BE THE TYPE DESIGNATED ON THE PLANS, AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FLORIDA D.O.T. SPECIFICATIONS, SECTION 425.9.
- CORRUGATED ALUMINUM PIPE (C.AL.P.) THE PIPE SHALL CONFORM WITH THE REQUIREMENTS OF THE A.A.S.H.T.O. M-196, AND WITH THE FLORIDA D.O.T. SPECIFICATIONS, SECTION 945-1. ALUMINUM PIPE TO BE HELICAL (SPIRAL FLOW).
- REINFORCED CONCRETE PIPE THE PIPE SHALL CONFORM WITH THE REQUIREMENTS OF CLASS III OF A.S.T.M. C-76 AND WITH THE FLORIDA D.O.T. SPECIFICATIONS, SECTION 941. CLASS II PP MAY BE SUBSTITUTED FOR RCP. CLASS II PP SHALL CONFORM WITH THE REQUIREMENTS OF FLORIDA D.O.T. SPECIFICATIONS SECTION 948-7.2.
- 11. SUBGRADE ALL MUCK, STUMP ROOTS OR OTHER DELETERIOUS MATTER ENCOUNTERED IN THE PREPARATIONS OF THE SUBGRADE SHALL BE REMOVED COMPLETELY FROM THE CENTERLINE OF THE ROADWAY TO A WIDTH OF TEN FEET (10') BEYOND THE PROPOSED EDGE OF PAVEMENT. SUBGRADE SHALL BE COMPACTED TO 98% MAXIMUM DRY DENSITY A.A.S.H.T.O. T-180 LATEST REVISION SPECIFICATIONS. WHERE STABILIZATION IS REQUIRED IT SHALL MEET THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 160. DENSITY TESTS OF COMPACTED SUBGRADE SHALL BE TAKEN AT A MINIMUM OF 1 TEST FOR EVERY 400 FT OF LANE WITH TESTS ON ADJACENT LANES AT STAGGERED LOCATIONS.
- 13. BASEROCK BASEROCK MATERIAL SHALL CONFORM WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, SECTION 911. BASE SHALL BE COMPACTED TO A DENSITY NOT LESS THAN 98% OF MAXIMUM DRY DENSITY AS DETERMINED BY A.A.S.H.T.O. T-180, LATEST REVISION. CONTRACTOR SHALL NOTIFY ENGINEER IF BASEROCK SUBSTITUTE, OTHER THAN THE ABOVE-NOTED, IS PROPOSED CONTRACTOR SHALL SUBMIT TEST REPORTS SHOWING GRADATION, CARBONATE CONTENT, PLASTICITY INDEX AND LIMEROCK BEARING RATIO OF PROPOSED SUBSTITUTE. TEST REPORTS SUBMITTED FOR SUBSTITUTE REVIEW SHALL NOT BE MORE THAN TWO (2) WEEKS OLD. ENGINEER MAY REQUIRE ADDITIONAL LAYER THICKNESS OF SUBSTITUTE. CONTRACTOR SHALL PROVIDE ADDITIONAL LAYER THICKNESS AT NO EXTRA COST TO OWNER.
- 14. PRIME COAT BITUMINOUS PRIME COAT SHALL CONFORM WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 300, AND SHALL BE APPLIED AT THE RATE OF 0.15 GALLONS PER SQUARE YARD, UNLESS A LOWER RATE IS DIRECTED
- 15. TACK COAT BITUMINOUS TACK COAT SHALL CONFORM WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 300, AND SHALL BE APPLIED AT THE RATE OF 0.08 GALLONS PER SQUARE YARD, UNLESS A VARIATION IN RATE IS APPROVED BY THE ENGINEER.
- 16. SURFACE COURSE TYPE 'SP' ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, SECTIONS 334 AND 337, THE MINIMUM COMPACTED THICKNESS TO BE AS NOTED ON PLANS.
- CONCRETE ALL CONCRETE SHALL DEVELOP 2500 P.S.I. (MINIMUM) 28 DAY COMPRESSIVE STRENGTH OR GREATER WHERE NOTED ON PLANS. CLASS I CONCRETE SHALL CONFORM WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 347, CLASS I CONCRETE USED AS PAVING OR CURB SHALL DEVELOP 3000 P.S.I. (MINIMUM) 28 DAYS COMPRESSIVE STRENGTH. CONCRETE CURBING SHALL CONFORM WITH THE FLORIDA D.O.T. SPECIFICATIONS, SECTION 520
- REGULATIONS ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT PALM BEACH GARDENS LAND DEVELOPMENT CODE AND THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION , AND ALL ADDENDA TO THE ABOVE REGULATIONS AND THEIR LATEST REVISIONS THERETO SHALL GOVERN.
- 19. ELEVATIONS ALL ELEVATIONS REFER TO N.A.V.D., 1988.
- AS-BUILTS THE CONTRACTOR SHALL COMPLETE "AS-BUILT" INFORMATION RELATIVE TO LOCATION OF THE INLETS AND MANHOLES AS WELL AS INVERTS AND RIM **ELEVATIONS.**
- 21. GUARANTY ALL MATERIAL AND EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE THEREOF, AGAINST DEFECTIVE MATERIALS, DESIGN AND WORKMANSHIP. UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY PART OF THE GUARANTEED EQUIPMENT OR MATERIALS, DURING THE GUARANTY PERIOD, THE AFFECTED PART, PARTS, OR MATERIALS SHALL BE REPLACED PROMPTLY WITH NEW PARTS OR MATERIALS BY THE CONTRACTOR, AT NO EXPENSE TO THE OWNER. IN THE EVENT THE CONTRACTOR FAILS TO MAKE THE NECESSARY REPLACEMENT OR REPAIRS WITHIN SEVEN DAYS AFTER NOTIFICATION BY THE OWNER, THE OWNER MAY ACCOMPLISH THE WORK AT THE EXPENSE OF THE CONTRACTOR.
- WHERE CONNECTIONS TO AN EXISTING DRAINAGE SYSTEM ARE PROPOSED, SAID EXISTING DRAINAGE STRUCTURES AND LINES SHALL BE CLEANED OF ALL SILT AND OTHER DEBRIS PRIOR TO SAID CONNECTIONS BEING MADE, AND WHERE THE EXISTING DRAINAGE SYSTEM INCLUDES DITCHES, SAID DITCHES SHALL BE CLEARED AND REWORKED, AS NECESSARY, TO RESTORE THEM TO AN APPROVED DESIGN
- 23. PAVEMENT MARKINGS AND GEOMETRICS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS, AND CITY OF PALM BEACH GARDENS STANDARDS.
- 24. WHERE A MODIFIED OR STANDARD PROCTOR IS REQUIRED ON MATERIAL THAT REQUIRES COMPACTION TO A SPECIFIED LIMIT, A PROCTOR MUST BE DONE FOR EACH TYPE OR CLASSIFICATION OF MATERIAL TO BE UTILIZED.
- 25. ALL DRAINAGE SYSTEMS SHALL BE PUMPED DOWN TO BELOW ONE-THIRD OF THE DIAMETER OF THE PIPE (FROM THE INVERT) AND LAMPED AS A REQUIREMENT OF THE FINAL DRAINAGE INSPECTION



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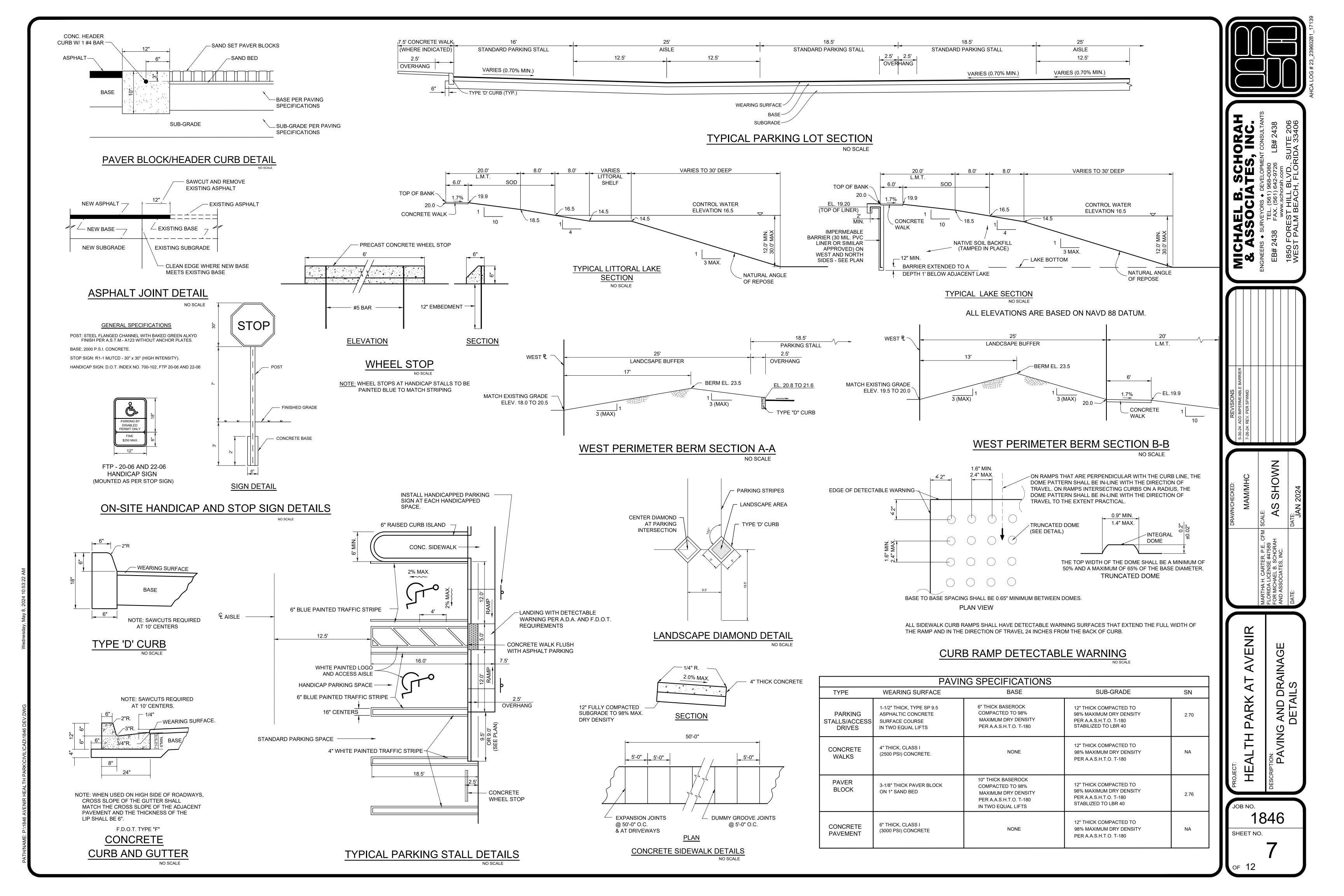
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- STORM SEWER, GRAVITY WASTEWATER, FORCE MAINS AND RECLAIMED WATER MAINS CROSSING UNDER POTABLE WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF TWELVE (12) INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE CROWN OF THE LOWER PIPE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED BETWEEN GRAVITY SEWER OR STORM SEWER, THE CROSSING SHALL BE ARRANGED SO THAT THE STORM/GRAVITY SEWER PIPE JOINTS AND POTABLE WATER MAIN JOINTS ARE FOUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN SIX (6) FEFT BETWEEN ANY TWO JOINTS, BOTH PIPES SHALL BE D.I.P., AND THE MINIMUM VERTICAL SEPARATION SHALL BE SIX (6) INCHES. WHERE THERE IS NO ALTERNATIVE TO STORM/WASTEWATER/FORCE MAIN/RECLAIMED WATER MAINS CROSSING OVER A POTABLE WATER MAIN, THE CRITERIA FOR MINIMUM TWELVE (12) INCH VERTICAL SEPARATION BETWEEN LINES AND JOINT ARRANGEMENT, AS STATED ABOVE, SHALL BE REQUIRED, AND BOTH PIPES SHALL BE D.I.P. IRRESPECTIVE OF SEPARATION, IN ALL OF THE ABOVE CASES D.I.P. IS NOT REQUIRED FOR STORM SEWER PIPE.
- 2. FORCE MAINS CROSSING RECLAIMED WATER MAINS OR STORM SEWER SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF TWELVE (12) INCHES BETWEEN THE OUTSIDE OF THE FORCE MAIN AND THE OUTSIDE OF THE RECLAIMED WATER MAIN OR STORM SEWER AND THE RECLAIMED WATER MAIN SHALL CROSS OVER THE FORCE MAIN.
- AT THE UTILITY CROSSING DESCRIBED IN ITEMS 1 AND 2 ABOVE, ONE FULL LENGTH OF DUCTILE IRON WATER MAIN PIPE SHALL BE CENTERED SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE JOINTS. WHERE THIS IS NOT POSSIBLE, JOINTS SHALL BE AT LEAST THREE (3) FEET FROM STORM SEWERS AND SIX (6) FEET FROM GRAVITY SEWER MAINS. FORCE MAINS AND RECLAIMED WATER MAINS.
- 4. SEWER SERVICE LATERALS SHALL CROSS UNDER WATER MAINS WITH A MINIMUM VERTICAL SEPARATION OF TWELVE (12) INCHES, IF (12") VERTICAL SEPARATION CANNOT BE MAINTAINED, THEN THE WATER MAIN SHALL BE D.I.P. AND THE SEWER SERVICE LATERAL SHALL BE C-900 SDR 18 OR BETTER AND THE MINIMUM SEPARATION SHALL BE SIX (6) INCHES. WHEN IT IS NOT POSSIBLE FOR THE WATER MAIN TO CROSS OVER THE SEWER SERVICE LATERAL A MINIMUM VERTICAL SEPARATION OF AT LEAST TWELVE (12) INCHES MUST BE MAINTAINED, THE WATER MAIN SHALL BE D.I.P. AND THE SEWER LATERAL
- MAINTAIN MINIMUM TEN (10) FEET HORIZONTAL DISTANCE BETWEEN POTABLE WATER MAIN OR FORCE MAIN, RECLAIMED WATER MAIN, STORM SEWER OR GRAVITY SEWER MAIN OR ON SITE SEWAGE DISPOSAL SYSTEMS. ADDITIONAL SEPARATION MAY BE REQUIRED AS OUTLINED IN SECTION II OF SUA STANDARDS.

Water, Reclaimed Water, and Sewer and Separation Statement

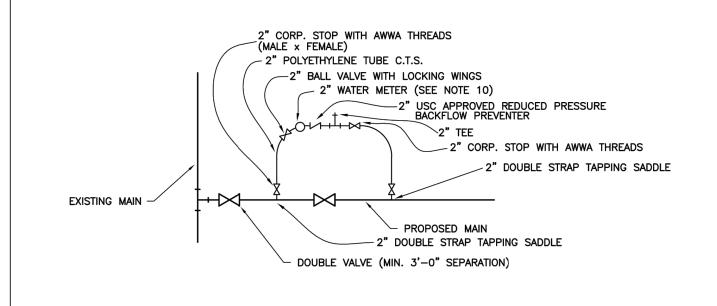
SEACOAST UTILITY AUTHORITY

CONSTRUCTION STANDARDS AND DETAILS

<u>TEE</u>

NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

- THIS METHOD SHALL BE COMPLIED WITH WHEN CONNECTING TO AN EXISTING WATER MAIN, (ONE THAT HAS ALREADY BEEN BACTERIOLOGICALLY CLEARED OR IS IN USE) WHETHER BY TEE AND VALVE OR BY CONTINUATION OF A PLUGGED STUB OUT WITH AN EXISTING GATE VALVE.
- 2. THESE REQUIREMENTS ARE BASED ON PALM BEACH COUNTY HEALTH DEPARTMENT REQUIREMENTS.
- 3. WHEN A TAPPING TEE AND VALVE IS INSTALLED, A PRESSURE/LEAKAGE TEST SHALL BE PERFORMED ON THE ASSEMBLY IN
- THE PRESENCE OF AN AUTHORIZED SUA REPRESENTATIVE PRIOR TO PERFORMING THE ACTUAL TAP. 4. DOUBLE VALVING PERMITS PHYSICAL CONNECTION TO AN EXISTING WATER MAIN WHEN USED IN CONJUNCTION WITH A
- 5. A 2" BYPASS LINE (MAXIMUM) SHALL BE INSTALLED AS SHOWN BELOW PRIOR TO CANNON FLUSHING.
- 6. THE 2" TEE SHALL BE USED FOR FEEDING CHLORINE SOLUTION AND FOR ATMOSPHERIC VENT DURING PRESSURE/LEAKAGE
- 7. UNDER NO CIRCUMSTANCES SHALL VALVES BE OPERATED WITHOUT AN AUTHORIZED SUA REPRESENTATIVE PRESENT.
- 8. ALL WATER MAINS SHALL BE FILLED WITH WATER UTILIZING JUMPER METER AND THEN BE THOROUGHLY CANNON FLUSHED IN ACCORDANCE WITH SEACOAST SPECIFICATIONS PRIOR TO PRESSURE/LEAKAGE TESTING. THE PROCEDURE SHALL BE DONE
- 9. FOLLOWING INITIAL CANNON FLUSHING, ALL WATER FOR PRESSURE/LEAKAGE TESTING AND BACTERIOLOGICAL CLEARANCES MUST BE DRAWN FROM THE BYPASS LINE WITH METER AND REDUCED PRESSURE BACKFLOW PREVENTER IN PLACE. THE 2" INCH WATER METER SHALL BE PROVIDED BY SUA UPON APPLICATION BY EITHER THE CONTRACTOR OR DEVELOPER. ALL WATER LISED FOR THE CONSTRUCTION OF THE WATER AND SEWER MAINS SHALL BE PAID FOR BY THE ABOVE PARTIES PRIOR TO ANY SERVICE BEING PROVIDED. METER, BALL VALVE, REDUCED PRESSURE BACKFLOW PREVENTER AND TEE SHALL INSTALLED AT LEAST 18" ABOVE EXISTING GRADE, SUPPORTED, AND PROTECTED FROM DAMAGE. ANY DAMAGE SHALL BE APPLICANT'S RESPONSIBILITY AND SHALL BE CHARGED ACCORDINGLY.
- 10. EXCEPT DURING CANNON FLUSHING VALVES SHALL NOT BE OPENED UNTIL AFTER AN APPROVED PRESSURE/ LEAKAGE TEST, BACTERIOLOGICAL CLEARANCE, CERTIFICATION BY THE ENGINEER OF RECORD, RELEASE FROM THE PALM BEACH COUNTY HEALTH DEPARTMENT AND APPROVAL BY SUA.
- 11. DISINFECTION AND BACTERIOLOGICAL CLEARANCES SHALL COMPLY WITH CURRENT AWWA PROCEDURES, PALM BEACH COUNTY HEALTH DEPARTMENT, AND FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.



Tapping and Main Clearing Procedure

SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED MAY 24, 2023 DRAWING No.

(PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS) FOR PLACEMENT OF BACKFILL OVER PIPE SEE SPECIFICATION PIPE O.D. + 24" PROPOSED PIPELINE HAND PLACED SELECT MATERIAL IN 6" LIFTS LOWER QUADRANT TO BE SHAPED TO RECEIVE PIPE BELL AND BARREL EXCAVATION SIDE SLOPE SHORING, ETC. SHALL CONFORM TO O.S.H.A. STANDARDS, COMPACT TRENCH BACKFILL TO 98% OF MAXIMUM DENSITY IN ACCORDANCE WITH AASHTO T-180. DENSITY TESTS SHALL BE TAKEN AT 12" LIFTS EVERY 100' IN PUBLIC RIGHT-OF-WAY AND 200' IN EASEMENTS

CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE REQUIREMENTS OF THE FLORIDA TRENCH

Standard Trenching Procedure

SEACOAST UTILITY AUTHORITY

CONSTRUCTION STANDARDS AND DETAILS Revision C-20

DATE APPROVED: MAY 24, 2023 DRAWING No.

LENGTH OF PIPE RESTRAINT REQUIREMENTS AT ALL PIPE JOINTS

| PIPE SIZE | 90° BEND | 45° BEND | 22½° BEND | 11¼° BEND | REDUCER | VALVE | DEAD END | TEE |
|-----------|----------|----------|-----------|-----------|---------|-------|----------|------|
| 4" | 54' | 54' | 36' | 36' | 54' | 72' | 72' | 72' |
| 6" | 54' | 54' | 36' | 36' | 54' | 72' | 72' | 72' |
| 8" | 54' | 54' | 36' | 36' | 54' | 72' | 72' | 72' |
| 10" | 54' | 54' | 36' | 36' | 54' | 108' | 108' | 108' |
| 12" | 72' | 72' | 54' | 54' | 72' | 108' | 108' | 108' |
| 14" | 72' | 72' | 54' | 54' | 72' | 108' | 108' | 108' |
| 16" | 72' | 72' | 54' | 54' | 72' | 154' | 154' | 154' |
| 18" | 72' | 72' | 54' | 54' | 72' | 154' | 154' | 154' |
| 20" | 90' | 90' | 54' | 54' | 90' | 154' | 154' | 154' |
| 24" | 90' | 90' | 54' | 54' | 90' | 172' | 172' | 172' |
| 30" | 90' | 90' | 54' | 54' | 90' | 180' | 180' | 180' |
| 36" | 90' | 90' | 54' | 54' | 90' | 270' | 270' | 270' |
| 42" | 108' | 108' | 54' | 54' | 108' | 270' | 270' | 270' |
| 48" | 108' | 108' | 54' | 54' | 108' | 270' | 270' | 270' |
| 54" | 108' | 108' | 54' | 54' | 108' | 270' | 270' | 270' |

1. ALL BURIED PRESSURE MAINS SHALL INCLUDE A RESTRAINED JOINT SYSTEM. THE CONTRACTOR SHALL USE A DUCTILE IRON RESTRAINING SYSTEM AS MANUFACTURED BY EBAA IRON, INC. (MEGALUG) OR APPROVED EQUAL FOR ALL MECHANICAL JOINT FITTINGS AND LOCKING GASKETS FOR PUSH-ON JOINT PIPE.

MINIMUM LENGTH OF PUSH ON JOINT PIPE WITH SPECIAL RESTRAINING GASKETS

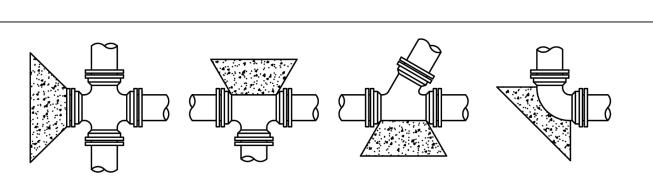
- 2. RESTRAINING LENGTHS SHOWN ARE THE MINIMUM LENGTH REQUIRED BASED ON A TEST PRESSURE OF 150 P.S.I.G.
- 3. THRUST BLOCKS, IN ADDITION TO THE ABOVE OUTLINED RESTRAINTS, SHALL ALSO BE REQUIRED AT ALL TIE-INS TO EXISTING LINES, ALL TAPPING TEES ON EXISTING LINES, ALL NEW HYDRANTS, ALL ABOVE-GROUND ASSEMBLIES 3" AND LARGER AND MAINS GREATER THAN 12" IN DIAMETER.
- 4. FOR ALL C900 PVC PIPE. ADD A SAFETY FACTOR OF 1.1 TO THE ABOVE LENGTHS

NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

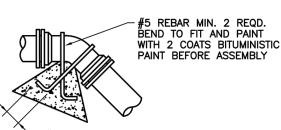
Pipe Restraint Table

SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS AND DETAILS

MAY 24, 2023



CROSS WITH PLUG



<u>WYE</u>

ALL THRUST BLOCKS SHALL BE FORMED. LAID FORMS SHALL BE INSPECTED BY SUA PRIOR TO THE POURING OF CONCRETE AND SHALL ALSO BE INSPECTED BY SUA PRIOR TO COVERING. TYPICAL LOCATIONS WHICH REQUIRE CONCRETE THRUST BLOCKS, FOR PRESSURE MAINS FOUR INCHES (4") AND GREATER CONCRETE SHALL HAVE 2500 P.S.I. MINIMUM STRENGTH AT TWENTY EIGHT (28) DAYS AND BEAR AGAINST UNDISTURBED STABLE SOILS, AREA OF CONTACT SHALL BE GOVERNED BY PIPE SIZE, MAXIMUM PRESSURE IN PIPE, AND BEARING CAPACITY OF SOIL. PROTECT FITTINGS, BOLTS, ETC. BY COVERING WITH VISQUINE OR OTHER ACCEPTABLE MATERIAL. CONCRETE SHALL BE A MINIMUM OF TWELVE INCHES (12") THICK. THRUST BLOCKS SHALL NOT BE AN ALTERNATIVE TO RESTRAINING GUARDS OR RESTRAINING GASKETS. THRUST BLOCKS MAY BE USED WHERE A SECOND FORM OF RESTRAINT IS REQUIRED AND WHEN TYING INTO EXISTING WHERE NO OTHER ALTERNATIVE EXISTS.

(PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

| PIPE | THRUST BLOCK SOIL BEARING AREA REQUIRED | PIPE | THRUST BLOCK SOIL BEARING AREA REQUIRED | REMARKS |
|------|---|------|---|--|
| 4" | 2.0 SQ. FT. | 18" | 30.0 SQ. FT. | |
| 6" | 4.0 SQ. FT. | 20" | 37.0 SQ. FT. | |
| 8" | 6.6 SQ. FT. | 24" | 53.0 SQ. FT. | VALUES ARE FOR 90° BEND, BASED ON 2000 P.S.F. |
| 10" | 10.0 SQ. FT. | 27" | 80.0 SQ. FT. | SAFE BEARING LOAD AND PIPE PRESSURE OF 150 P.S.I. PLUS 33% SAFETY FACTOR FOR OTHER SOILS |
| 12" | 14.0 SQ. FT. | 30" | 98.0 SQ. FT. | AND PRESSURES. |
| 14" | 18.0 SQ. FT. | 36" | 127.0 SQ. FT. | |
| 16" | 24.0 S0 FT | | |] |

THE ENGINEER OF RECORD SHALL CALCULATE THE SIZE OF THE DEADMAN REQUIRED AS WELL AS ANY INSTALLATION WHICH IS

Thrust Blocks

SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS AND DETAILS

MAY 24, 2023

MAY 24, 2023

UNDISTURBED

DRAWING No.

4 x 4 WIRE MESH-"WATER" TO BE CAST IN COVER WHEN USED ON WATER MAIN, "SEWER" WHEN USED ON FORCE MAIN OR "RECLAIMED" WHEN USED ON RECLAIMED WATER MAIN -TOP OF PAVEMENT FINISH GRADE VALÝE BOX (SCREW TYPE)[.] SUA APPROVED VALVE-

NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS) CONCRETE COLLAR MAY NOT BE REQUIRED IN PAVED AREAS IF PAVEMENT SURFACE IS FINISHED PRIOR TO FINAL INSPECTION AND VALVE BOX LID IS AT FINISHED GRADE.

. WHEN VALVE IS DEEPER THAN 48" AN EXTENSION WILL BE REQUIRED TO BRING OPERATING NUT TO 24" OF FINISHED

3. TWO OF THE FOLLOWING FORMS OF RESTRAINT SHALL BE USED WHEN PIPE IS GREATER THAN 12". A.) APPROVED MECHANICAL JOINT RESTRAINT (i.e. MEGALUG) B.) TIE RODS AND NUTS EQUAL IN DIA. TO TEE BOLTS AND NUTS, COATED WITH KOP-COAT 300-M OR APPROVED EQUAL.

Typical Underground Valve Installation

SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS AND DETAILS

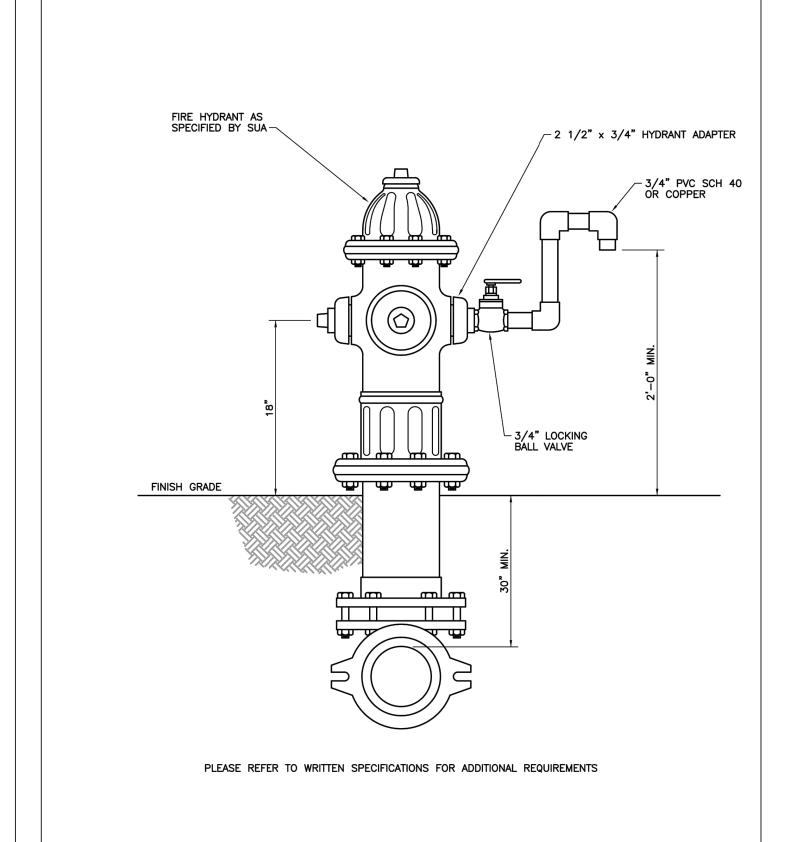
INSTALLATION PROTOCOL

- 1. ALL PIPE IS TO BE LAID IN A CLEAN DRY TRENCH.
- 2. ALL MUCK AND UNSUITABLE MATERIALS ENCOUNTERED IN TRENCH BOTTOM SHALL BE REMOVED AND REPLACED WITH COMPACTED GRANULAR MATERIAL TO 98% OF MAXIMUM DENSITY PER AASHTO T-180. PROCTOR AND DENSITY TEST RESULTS
- L BACKFILL SHALL BE PLACED IN 12 INCH LIFTS AND COMPACTED BY MECHANICAL MEANS TO 98% OF MAXIMUM DENSITY PER AASHTO T-180 OR AS OTHERWISE REQUIRED BY THE PERMITTING AGENCY.
- UTILITIES CROSSING ROAD RIGHT-OF-WAY SHALL BE INSTALLED PRIOR TO ROAD CONSTRUCTION AND BACKFILLED AND COMPACTED WITHIN RIGHT-OF-WAY LIMITS IN STRICT ACCORDANCE WITH THE DIRECTIONS OF THE EOR AND REQUIREMENTS OF ALL AGENCIES OF JURISDICTION.
- 5. EMBEDMENT MATERIALS BELOW PIPE SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION SYSTEM (U.S.C.S.) SOIL CLASSIFICATION CLASS I OR II AS NOTED IN ASTM D2321.
- 6. ALL LINES UNDER CONSTRUCTION SHALL BE PLUGGED WITH A WING PLUG, AND ALL PRESSURE PIPES ARE TO BE PLUGGED WITH A MECHANICAL PLUG OR CAP AT THE END OF THE WORKING DAY TO PREVENT GROUND WATER AND POTENTIAL CONTAMINANTS FROM ENTERING COMPLETED LINES AND LINES UNDER CONSTRUCTION.
- ABOVE GROUND PIPING, INCLUDING BUT NOT LIMITED TO, AERIAL CROSSINGS, LIFT STATION PIPING, FIRE LINES. METER/BACKFLOW PREVENTION DEVICE ASSEMBLIES, ETC. SHALL BE FLANGED AND BE COATED IN ACCORDANCE WITH SECTION 2 OF SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS. HE FINISHED COAT OF PAINT SHALL BE GREEN IN COLOR FOR SANITARY SEWER, LAVENDER FOR RECLAIMED APPURTENANCES AND BLUE FOR POTABLE WATER APPURTENANCES.
- 8. ALL FLANGED PIPE SHALL BE CAULKED BETWEEN EACH FLANGE AND THREADS WITH SIKA 1 A URETHANE CAULK AFTER BLASTING AND PRIOR TO PRIMING.
- 9. ALL TIE RODS, BOLTS, NUTS, ETC. INSTALLED UNDERGROUND MUST BE COR TEN OR APPROVED EQUAL AND SHALL BE PAINTED WITH KOPPERS 300-M OR AN AUTHORITY APPROVED EQUAL. BRASS AND STAINLESS STEEL HARDWARE IS EXEMPT
- 10. COATINGS AND LININGS DAMAGED DUE MISHANDLING OR OTHERWISE, MUST BE REPLACED. COATING AND LININGS DAMAGED DUE TO FIELD CUTTING SHALL BE REPAIRED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, CEMENT MORTAR AND POLYETHYLENE PIPE LININGS, PROTECTO 401, GALVANIZED COATINGS, PVC FENCE COATINGS AND OTHER TYPE COATINGS. APPROVAL MUST BE OBTAINED FROM AUTHORITY PRIOR TO PERFORMING COATING AND LINING REPAIRS. INSPECTIONS OF ALL REPAIRS ARE REQUIRED.
- 11. ALL STAINLESS STEEL NUTS, BOLTS AND HARDWARE REFERENCED IN THESE STANDARDS, SHALL BE SS 316 GRADE AND SHALL BE SO STAMPED BY THE MANUFACTURER TO VERIFY ALLOY. THE USE OF ANY OTHER STAINLESS STEEL ALLOY WILL REQUIRE SPECIFIC APPROVAL BY AUTHORITY. IN GENERAL, STAINLESS STEEL NUTS, BOLTS AND HARDWARE ARE REQUIRED IN AND AROUND LIFT STATIONS AND FOR FACILITIES INSTALLED OVER OR UNDER BRACKISH OR MARINE WATERS. THIS REQUIREMENT APPLIES TO FLANGE BOLTS AND NUTS ON FLANGED PIPING, MOUNTING BRACKETS, ALL THREAD ROD, ANCHOR BOLTS, WASHERS, CLAMPS AND OTHER MISCELLANEOUS HARDWARE. ANTI-GALLING COMPOUND ANTI-SEIZE LUBRICANT SHALL ANTI-SEIZE LUBRICANT SHALL BE GRAPHITE 50 ANTI-SEIZE BY LOCTITE CORPORATION, 1000 ANTI-SEIZE PASTE BY DOW
- CORNING OR 3M LUBE AND ANTI-SEIZE BY 3M. 12. ALL RUBBER AND SYNTHETIC ELASTOMERIC COMPONENTS OF PRODUCTS THAT COME IN CONTACT WITH POTABLE WATER SHALL BE MANUFACTURED WITH CHLORAMINE RESISTANT ELASTOMERS AND SHALL BEAR NSF APPROVAL.
- 13. ALL MAIN, INCLUDING FITTINGS, SHALL BE EASILY IDENTIFIABLE AS TO THEIR CONTENTS AND SHALL BE COLOR CODED OR MARKED USING THE UNIVERSAL COLOR CODE OF BLUE FOR WATER, GREEN FOR SEWER AND LAVENDER FOR RECLAIMED. 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 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPES WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE SHALL

BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE.

Pipe Installation Protocol DATE APPROVED: SEACOAST UTILITY AUTHORITY MAY 24, 2023 CONSTRUCTION STANDARDS AND DETAILS

Revision D-2



Sample Point - Fire Hydrant

SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS AND DETAILS

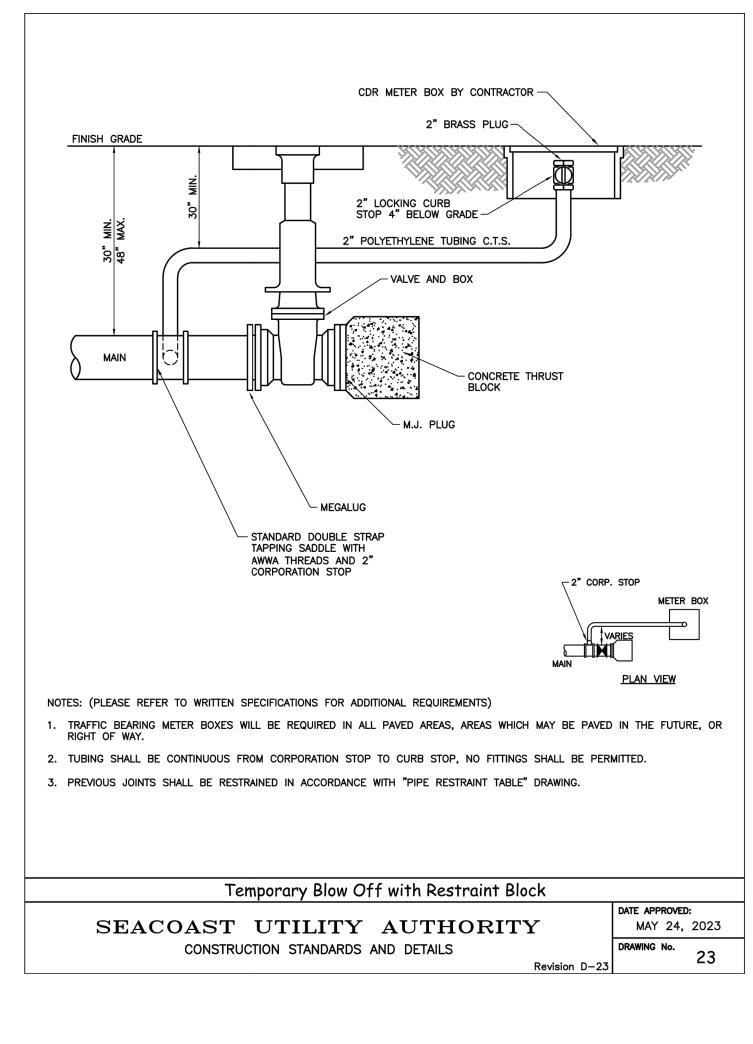
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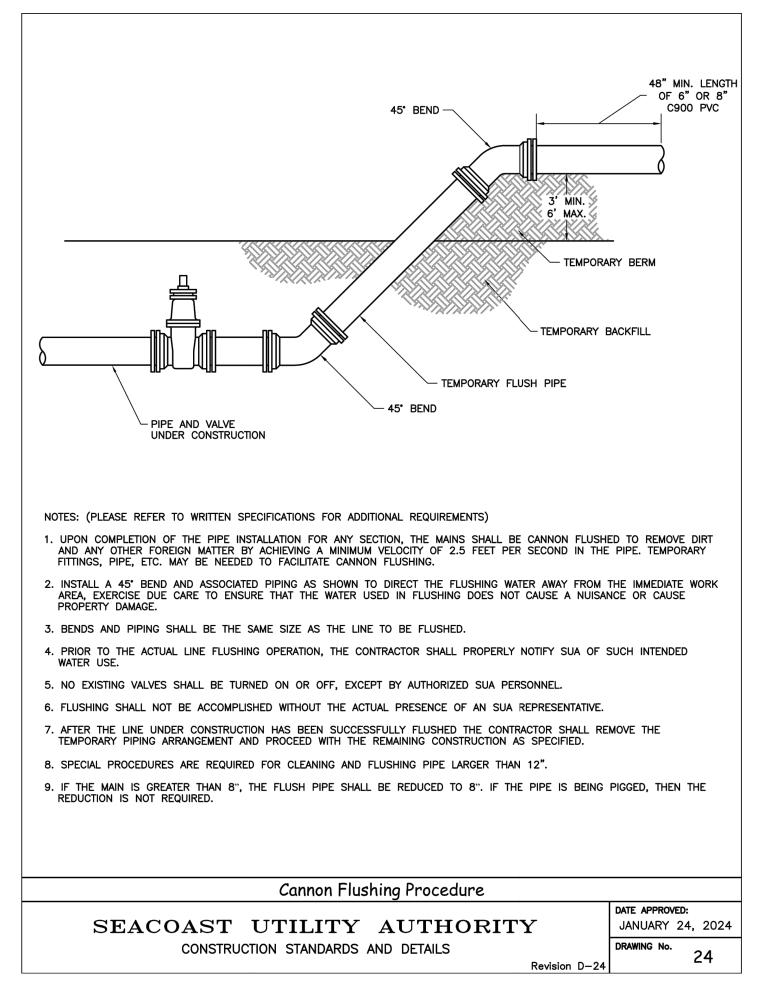
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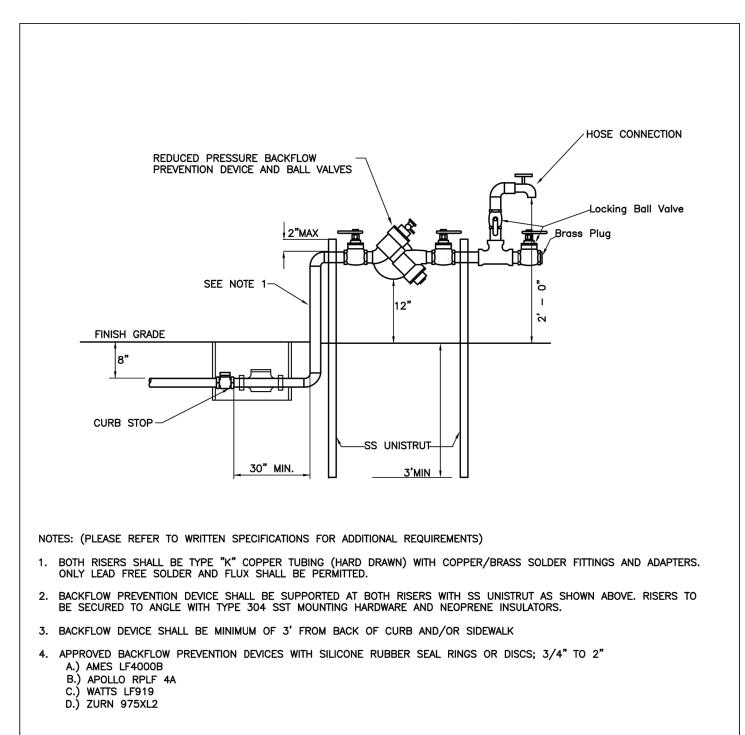
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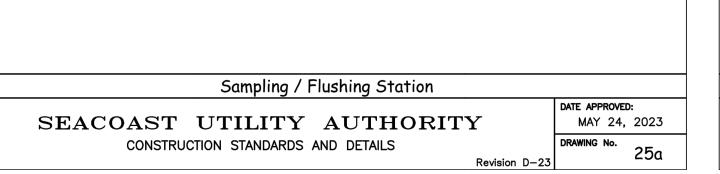
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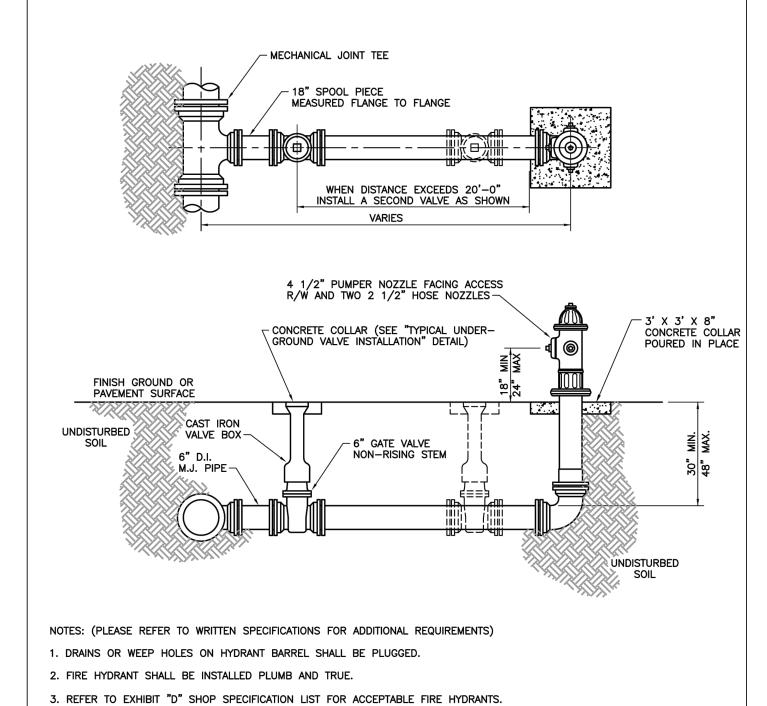








TEST PORT (3/4" TAP WITH



B) TIE RODS AND NUTS EQUAL IN DIA. TO TEE BOLTS AND NUTS, COATED WITH KOP-COAT 300-M OR APPROVED EQUAL.

Typical Fire Hydrant Installation

CONSTRUCTION STANDARDS AND DETAILS

4. TWO OF THE FOLLOWING FORMS OF RESTRAINT SHALL BE USED WHEN PIPE IS GREATER THAN 12".

A) APPROVED MECHANICAL JOINT RESTRAINT (i.e. MEGALUG)

SEACOAST UTILITY AUTHORITY

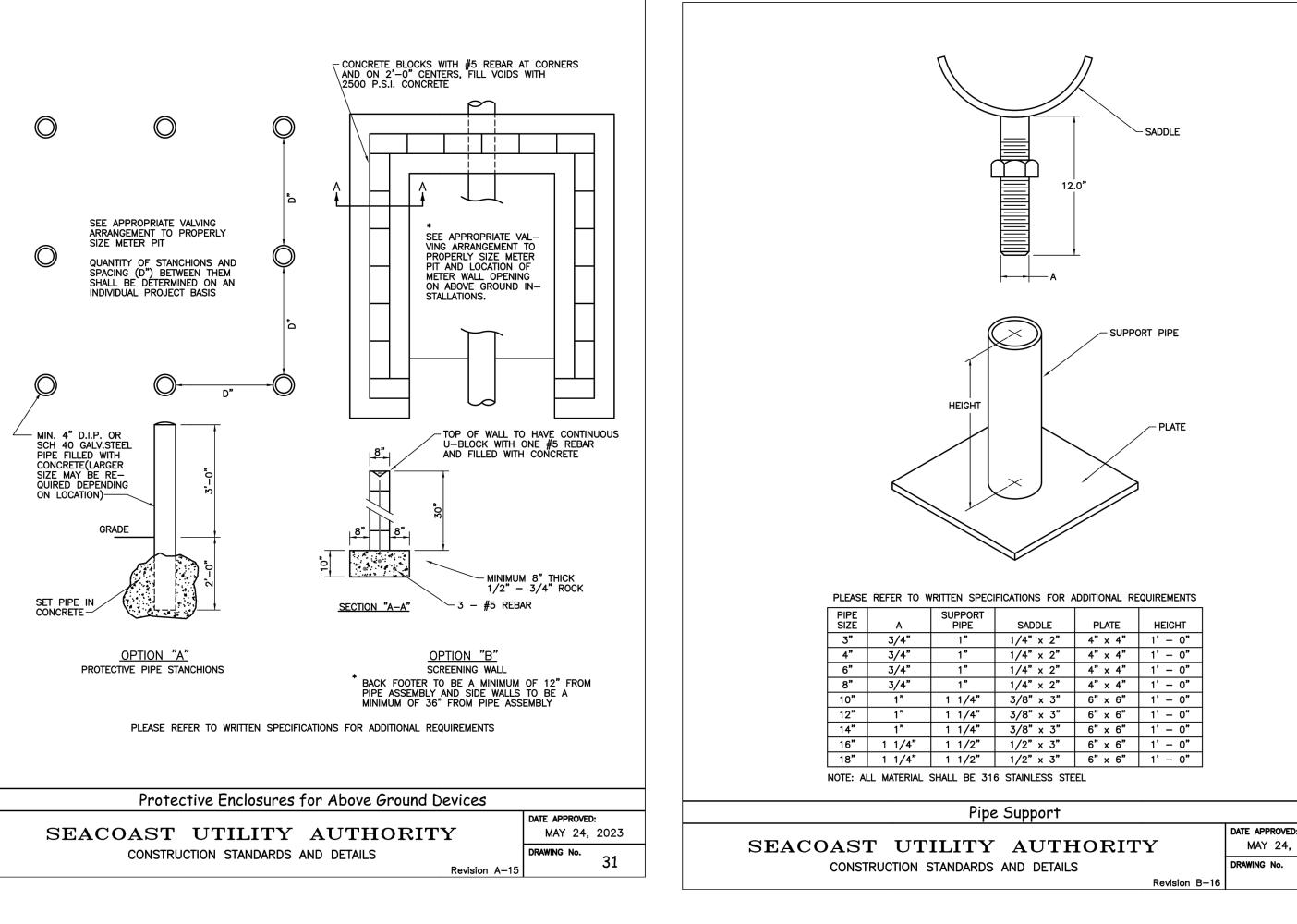
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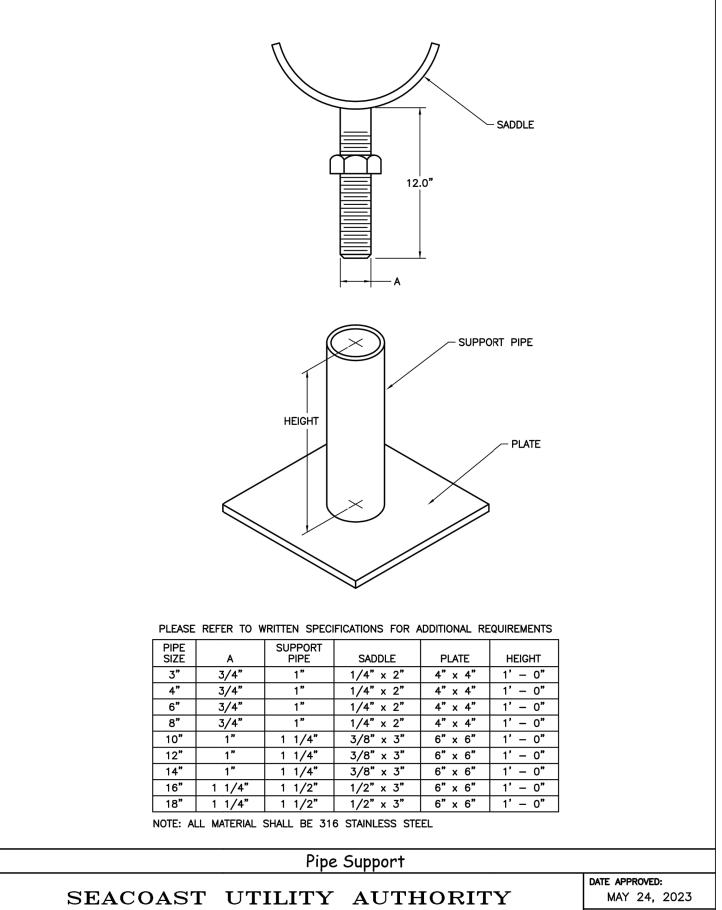
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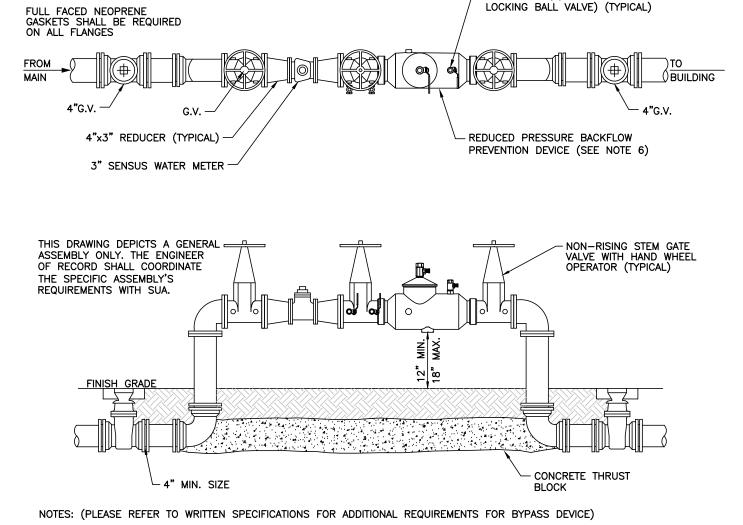
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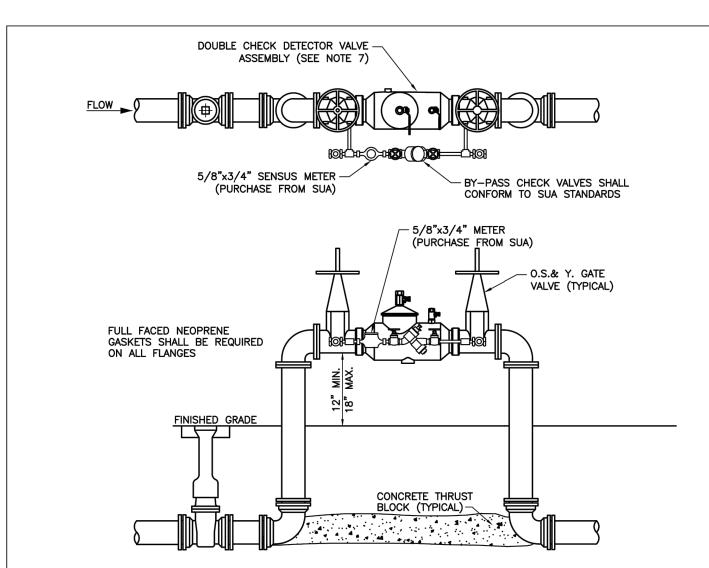






- MECHANICAL JOINT FITTINGS SHALL BE REQUIRED UNDERGROUND AND FLANGED FITTINGS FOR ABOVE GROUND USE, NO UNIFLANGES PERMITTED.
- 2. PAINT THE ABOVE GROUND ASSEMBLY IN ACCORDANCE WITH SUA CONSTRUCTION STANDARD SECTION II, ITEM 7, AFTER MANUFACTURERS RECOMMENDED SURFACE PREP IS COMPLETED. DO NOT PAINT OVER NAME/SERIAL PLATE, STAINLESS STEEL
- 3. WHEN PROTECTIVE PIPE STANCHIONS OR A SCREEN WALL IS REQUIRED, SEE "PROTECTIVE ENCLOSURES FOR ABOVE GROUND DEVICES" DETAIL.
- 4. 3" METER REQUIRES 4" BACKFLOW ASSEMBLY AND PIPING.
- 5. ALL TEST PORTS SHALL BE PLUGGED WITH BRASS PLUGS.
- 6. APPROVED REDUCED PRESSURE BACKFLOW PREVENTER WITH CHLORAMINE RESISTANT ELASTOMERS; 4" TO 8" A.) APOLLO RPLF 4A B.) ZURN 375AST

3" METER AND BACKFLOW ASSEMBLY



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

- 1. MECHANICAL JOINT FITTINGS SHALL BE REQUIRED UNDERGROUND AND FLANGED FITTINGS FOR ABOVE GROUND USE, NO
- PAINT THE ABOVE GROUND ASSEMBLY, INCLUDING ENTIRE LENGTH OF TIE RODS, IN ACCORDANCE WITH SUA CONSTRUCTION STANDARD SECTION II, ITEM 7, AFTER MANUFACTURERS RECOMMENDED SURFACE PREP IS COMPLETED. DO NOT PAINT OVER NAME/SERIAL PLATE, STAINLESS STEEL BODY OR BRASS FITTINGS.
- 3. WHEN PROTECTIVE PIPE STANCHIONS OR A SCREEN WALL IS REQUIRED, SEE "PROTECTIVE ENCLOSURES FOR ABOVE GROUND
- 4. SPECIAL FIRE PROTECTION SYSTEMS USING INTERNAL PUMPS, TANKS, ETC. SHALL BE REQUIRED TO USE APOLLO RPDALF4A
- OR ZURN 375ASTDA. 5. ALL TEST PORTS SHALL BE PLUGGED WITH BRASS PLUGS.
- 6. TWO OF THE FOLLOWING FORMS OF RESTRAINT SHALL BE USED WHEN PIPE IS GREATER THAN 12". A.) APPROVED MECHANICAL JOINT RESTRAINT (i.e. MEGALUG)
- B.) TIE RODS AND NUTS EQUAL IN DIA. TO TEE BOLTS AND NUTS, COATED WITH KOP-COAT 300-M OR APPROVED EQUAL.
- 7. APPROVED DOUBLE CHECK DETECTOR VALVE ASSEMBLIES WITH CHLORAMINE RESISTANT ELASTOMERS; 4" TO 8" A.) AMES DERINGER 30G B.) APOLLO DCDALF 4A C.) ZURN 350ASTDA

| Above Ground Fireline | | | | | | | |
|-----------------------|---------|-----------|--|--|--|--|--|
| COAST | UTILITY | AUTHORITY | | | | | |

DATE APPROVED: MAY 24, 2023 OASI UIILIII AUIHURIII CONSTRUCTION STANDARDS AND DETAILS 34 Revision E-23

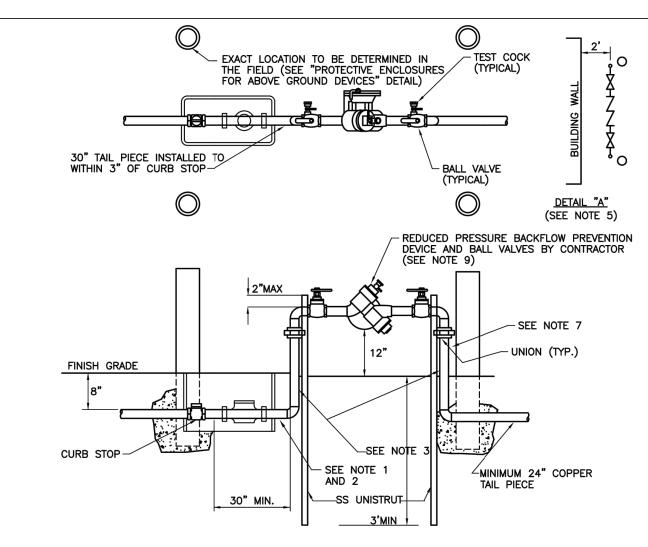
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- MECHANICAL JOINT FITTINGS SHALL BE REQUIRED UNDERGROUND AND FLANGED FITTINGS FOR ABOVE GROUND USE, NO
- PAINT THE ABOVE GROUND ASSEMBLY, INCLUDING ENTIRE LENGTH OF TIE RODS, IN ACCORDANCE WITH SUA CONSTRUCTION STANDARD SECTION II, ITEM 7, AFTER MANUFACTURERS RECOMMENDED SURFACE PREP IS COMPLETED. DO NOT PAINT OVER NAME/SERIAL PLATE, STAINLESS STEEL BODY OR BRASS FITTINGS.
- . WHEN PROTECTIVE PIPE STANCHIONS OR SCREEN WALL IS REQUIRED, SEE "PROTECTIVE ENCLOSURES FOR ABOVE GROUND
- 4. TYPE "K" COPPER TUBING (SOFT DRAWN) OR POLYETHYLENE TUBING SDR 9 COPPER TUBING SIZE. (UNDERGROUND USE ONLY) IF DISTANCE BETWEEN METER AND RISER IS LESS THAN 6 FEET ONLY COPPER TUBING SHALL BE PERMITTED.
- 5. TWO OF THE FOLLOWING FORMS OF RESTRAINT SHALL BE USED WHEN PIPE IS GREATER THAN 12". A.) APPROVED MECHANICAL JOINT RESTRAINT (i.e. MEGALUG)
- B.) TIE RODS AND NUTS EQUAL IN DIA. TO TEE BOLTS AND NUTS, COATED WITH KOP-COAT 300-M OR APPROVED
- APPROVED DOUBLE CHECK DETECTOR VALVE ASSEMBLIES WITH CHLORAMINE RESISTANT ELASTOMERS; 4" to 8" A.) AMES DERINGER 30G B.) APOLLO DCDALF 4A C.) ZURN 350ASTDA

Fireline with 1" to 2" Domestic Supply

SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: MAY 24, 2023 RAWING No.



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

- 1. TYPE "K" COPPER TUBING (SOFT DRAWN) OR POLYETHYLENE TUBING SDR 9 COPPER TUBE SIZE.
- 2. IF THIS DISTANCE IS LESS THAN 6 FEET ONLY COPPER TUBING SHALL BE PERMITTED.
- 3. BOTH RISERS SHALL BE TYPE "K" COPPER TUBING (HARD DRAWN) WITH COPPER/BRASS SOLDER FITTINGS AND ADAPTERS. ONLY LEAD FREE PIPE, FITTINGS, VALVES, SOLDER AND FLUX SHALL BE PERMITTED.
- 4. 1 1/2" AND 2" METER STOPS SHALL BE EQUIPPED WITH LOCKING CAPS AND METER FLANGES.
- 5. WHEN THE DEVICE IS INSTALLED PARALLEL TO A BUILDING WALL THERE SHALL BE A MINIMUM OF 2' BETWEEN THE EDGE OF THE DEVICE AND THE BUILDING WALL.
- 6. BACKFLOW PREVENTION DEVICE SHALL BE EQUIPPED WITH BALL VALVES.
- . BACKFLOW PREVENTION DEVICE SHALL BE SUPPORTED AT BOTH RISERS WITH A MINIMUM OF $2\,-\,1\,$ 5/8" STAINLESS STEEL UNISTRUTS. RISERS TO BE SECURED TO UNISTRUT WITH 304 STAINLESS STEEL MOUNTING HARDWARE AND 1/4" NEOPRENE
- 8. BACKFLOW DEVICES SHALL BE A MINIMUM OF 3' FROM BACK OF CURB.

D.) ZURN 975XL2

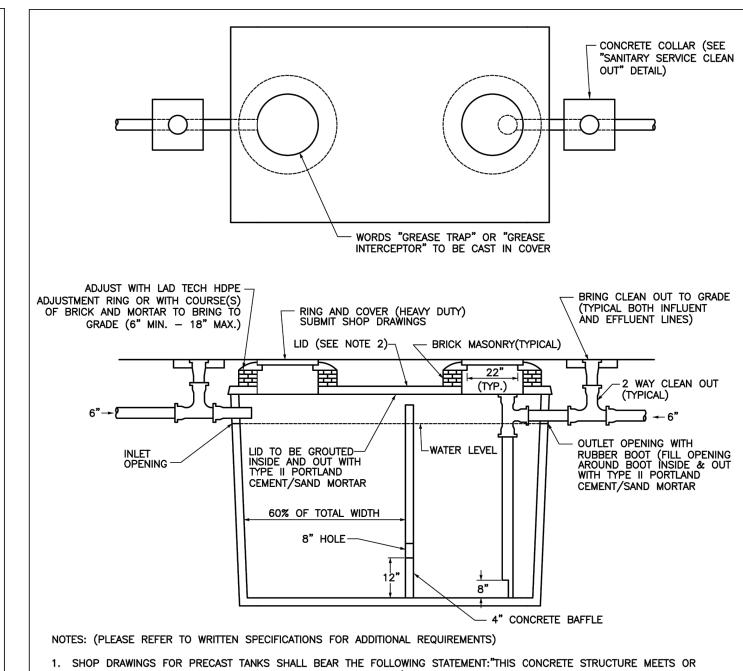
9. APPROVED BACKFLOW PREVENTION DEVICES WITH SILICONE RUBBER SEAL RINGS OR DISCS; 3/4" TO 2" A.) AMES LF4000B B.) APOLLO RPLF 4A C.) WATTS LF919

Water Meter and Backflow Device 3/4" to 2"

SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS AND DETAILS

MAY 24, 2023

DATE APPROVED:

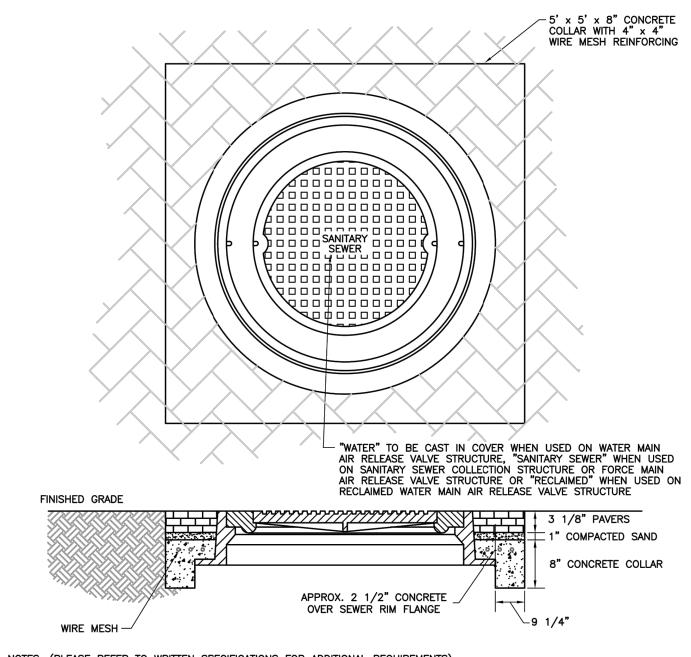


- EXCEEDS ALL THE REQUIREMENTS FOR GREASE INTERCEPTORS/SEPTIC TANKS AS IN THE FLORIDA ADMINISTRATIVE CODE, CHAPTER 10D-6 AND 64E-6, AND SUA "SPECIFICATIONS AND STANDARDS". THE SHOP DRAWINGS (3 COPIES MINIMUM) SHALL THEN BE SIGNED AND SEALED BY THE ENGINEER OF RECORD AND FORWARDED TO SUA FOR APPROVAL.
- A) 4" REGULAR LID B) 8" TRAFFIC BEARING LID
- 3. ALL PIPING SHALL BE SOLVENT WELD PIPE.
- 4. ALL TANKS IN TRAFFIC AREA SHALL BE H2O WHEEL LOAD BEARING.
- 5. INSPECTION OF TANK REQUIRED BY SUA PRIOR TO PLACEMENT.
- 6. INSPECTION OF TANK REQUIRED BY SUA AFTER TANK IS PIPED.
- 7. TANKS IN SERIES SHALL HAVE BAFFLE IN LAST TANK ONLY.

Concrete Grease Interceptor

SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS AND DETAILS

MAY 24, 2023



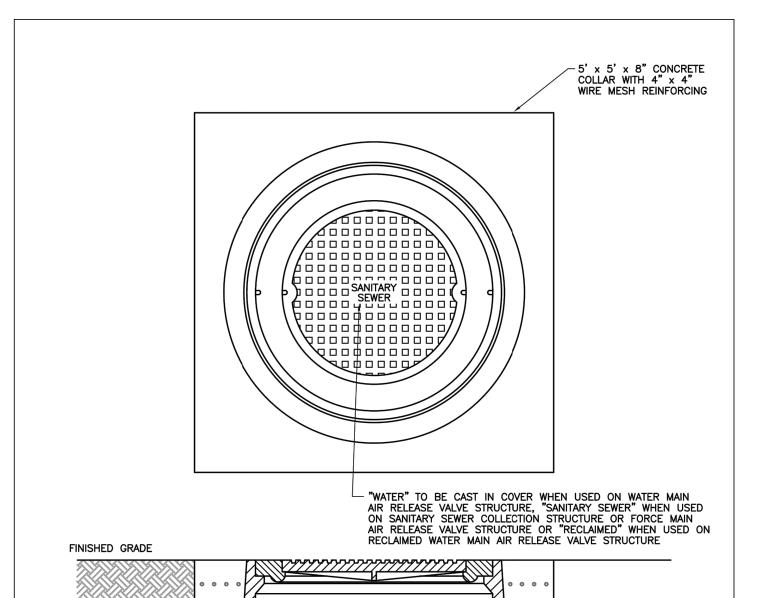
NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

- ANY AREA DEEMED TO HAVE QUESTIONABLE DRAINAGE, A WATER TIGHT MANHOLE INSERT SUCH AS "SEWER GUARD" OR APPROVED EQUAL WILL BE REQUIRED.
- APPROVED MANHOLES (DOUBLE COVER TYPE): A.) U.S. FOUNDRY MODEL No. 230-AB-M B.) VULCAN FOUNDRY MODEL No. VM-101

Manhole Frame and Cover (30" Opening) in Pavers

SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS AND DETAILS

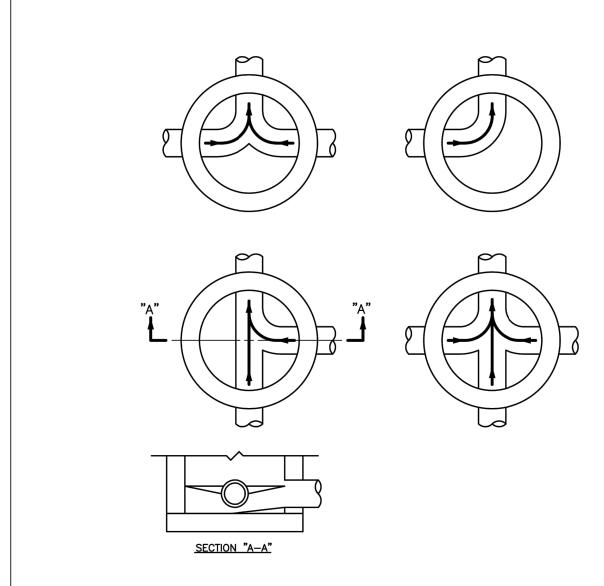
MAY 24, 2023 RAWING No. 49



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

- IN GREEN AREAS OR ANY AREA DEEMED TO HAVE QUESTIONABLE DRAINAGE, A WATER TIGHT MANHOLE INSERT SUCH AS "SEWER GUARD" OR APPROVED EQUAL WILL BE REQUIRED.
- 2. APPROVED MANHOLES (DOUBLE COVER TYPE):
- A.) U.S. FOUNDRY MODEL No. 230-AB-M B.) VULCAN FOUNDRY MODEL No. VM-101
- 3. CONCRETE COLLAR IS REQUIRED ONLY WHEN MANHOLE IS OUT OF PAVEMENT.

Manhole Frame and Cover (30" Opening) DATE APPROVED: SEACOAST UTILITY AUTHORITY MAY 24, 2023 CONSTRUCTION STANDARDS AND DETAILS

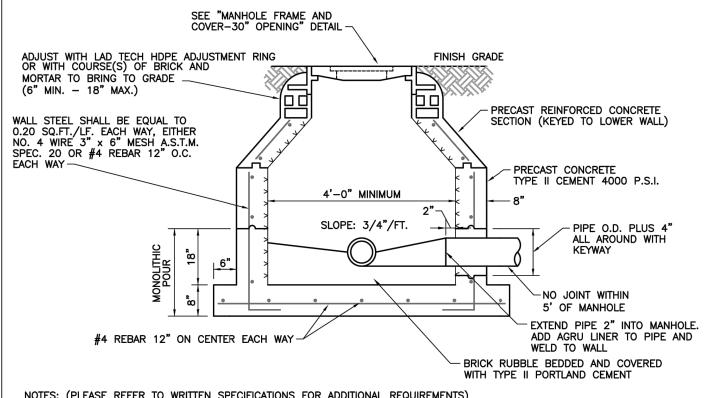


NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

- INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
- 2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOWS.
- 3. CHANNELS FOR FUTURE CONSTRUCTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND, AND COVERED WITH 1" OF MORTAR.
- 4. SLOPE MANHOLE ITSELF WITH A 1:2 SLOPE FROM MANHOLE WALL TO CHANNEL.
- 5. INVERT SHALL BE A MINIMUM OF 1/2 THE DIAMETER OF THE LARGEST PIPE OR 4" DEEP, WHICHEVER IS GREATER.

SEACOAST UTILITY AUTHORITY

DRAWING No. Revision B-2



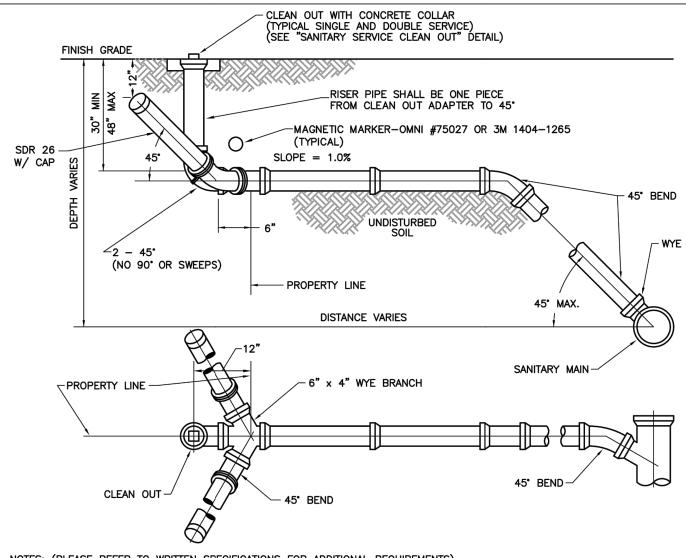
NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

- 1. MANHOLES SHALL CONFORM TO A.S.T.M. C478.(MIN.)
- 2. WALL REINFORCEMENTS A.S.T.M. DESIGNATION A185-64.(LATEST REVISION)(MIN.)
- TWO CAGES OF WIRE MESH ARE USED, ONE SHALL BE POSITIONED 3" FROM THE INSIDE SURFACE AND ONE 3" FROM THE OUTSIDE SURFACE. IF A SINGLE CAGE OR REBAR IS USED, IT SHALL BE CENTERED WITHIN WALL THICKNESS. NO EXPOSED STEEL SHALL BE PERMITTED.
- 4. LIFT HOLES THROUGH PRECAST STRUCTURE ARE PERMITTED.
- 5. A MINIMUM OF SEVEN DAYS CURE TIME IS REQUIRED PRIOR TO DELIVERY.
- 6. ALL PIPE HOLES SHALL BE PRECAST OR CORE DRILLED. OVERSIZED HOLES WILL BE REJECTED.
- 7. ANY VISIBLE REINFORCING WIRE, STEEL OR HONEYCOMBS SHALL BE CAUSE FOR REJECTION.
- 8. SEE TECHNICAL SPECIFICATIONS FOR BEDDING REQUIREMENTS.
- 9. "RAM-NEK" OR APPROVED EQUAL AT ALL RISER JOINTS (1/2" THICK WITH WIDTH AT LEAST 1/2 THE WALL THICKNESS) WITH GROUT ON INSIDE AND OUTSIDE.
- 10. ALL OPENINGS SHALL BE SEALED USING ONLY TYPE II PORTLAND CEMENT/SAND MORTAR AND POTABLE WATER FOR MUD WORK ON JOINTS, LIFTING HOLES, INVERTS, ETC. WHEN AN ACCELERATOR IS NECESSARY, "ANTI HYDRO" IS THE ONLY
- 11. BRICK MASONRY CONSTRUCTION TO BE STUCCOED WITH 3/4" TYPE II CEMENT INSIDE AND OUTSIDE, AND INSIDE TO BE
- COATED WITH TWO COATS OF KOPPERS 300 OR APPROVED EQUAL.
- 12. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM, AND COATED WITH TWO COATS OF KOPPERS 300 OR APPROVED EQUAL
- 13. INTERIOR OF ALL SANITARY MANHOLES SHALL HAVE AGRU SURE GRIP CONCRETE PROTECTIVE LINER INSTALLED AT THE TIME OF MANUFACTURING. SEE "AGRU SURE GRIP LINER DETAILS" DRAWING FOR ADDITIONAL AGRU SURE GRIP REQUIREMENTS.

Standard Precast Manhole

SEACOAST UTILITY AUTHORITY CONSTRUCTION STANDARDS AND DETAILS

JANUARY 24, 2024 DRAWING No.



NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

- THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2" x 2" TREATED WOOD STAKE AND AN E.M.S.
- 2. EACH SERVICE CONNECTION SHALL BE PLUGGED WATERTIGHT WITH AN APPROVED CAP OR PLUG.
- 3. CUT OFF BELL END WHEN USING FERNCO COUPLING FOR VCP (FOR EXISTING SERVICES ONLY) 4. FOR PVC INSTALLATIONS, CONNECT TO EXISTING "BELL END" AND CONNECT OPPOSITE END WITH PVC TO PVC KNOCK ON
- 5. SOLIDLY TAMP BACKFILL AT LEAST ONE FOOT ABOVE TOP OF PIPE. SERVICES UNDER PAVED AREAS SHALL BE BACKFILLED TO THE SAME SPECIFICATIONS AS SHOWN ON "PAVEMENT REPLACEMENT" DETAIL.
- 6. CONTRACTOR SHALL MARK ON A CLEAN SET OF PLANS THE FINAL STATIONING OR DISTANCE AND DIRECTION FROM MANHOLE
- TO EACH SERVICE LATERAL AND GIVE TO ENGINEER FOR RECORD DRAWING PURPOSES.
- 7. ANY DEVIATION FROM THESE METHODS MUST BE APPROVED BY SUA. 8. THE USE OF UNNECESSARY FITTINGS ON THE CUSTOMERS LINE TO REDUCE EXCAVATION EFFORTS WILL BE CAUSE FOR
- . THE USE OF 90° SWEEPS ON THE CUSTOMERS LINE IN LIEU OF 45° BENDS WILL REQUIRE AN ADDITIONAL CLEAN OUT AS SHOWN ON "SANITARY SERVICE CLEAN OUT DETAIL". THE CLEAN OUT SHALL BE ON THE HOUSE SIDE OF THE TOP SWEEP

Sewer Service Connection (Wye Branch) DATE APPROVED: SEACOAST UTILITY AUTHORITY JANUARY 24, 2024 CONSTRUCTION STANDARDS AND DETAILS Revision C-

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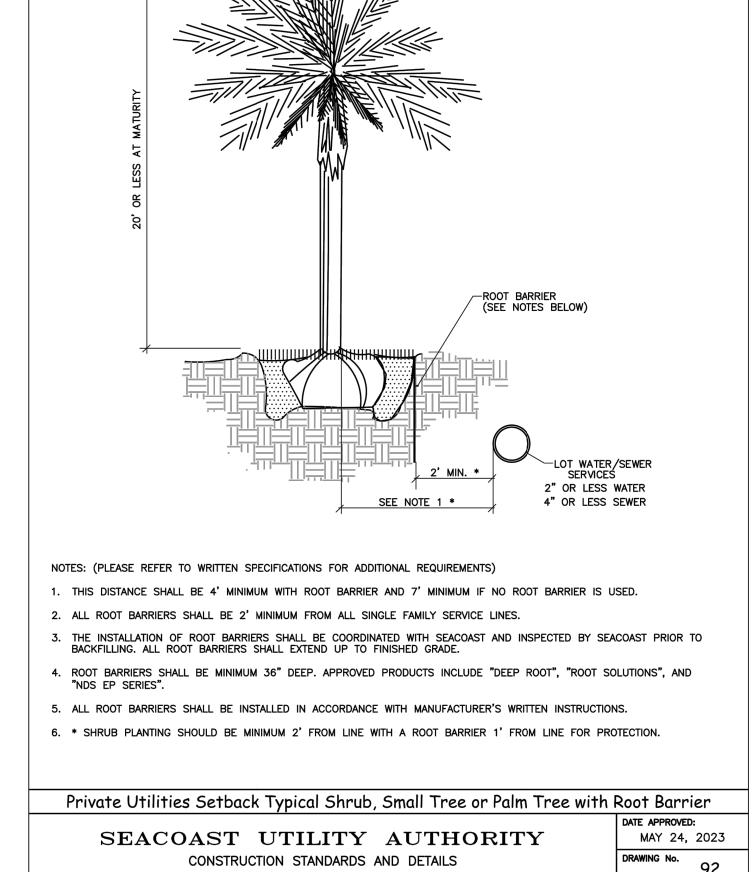
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Revision A-

50

Flow Patterns for Invert Channels DATE APPROVED: MAY 24, 2023 CONSTRUCTION STANDARDS AND DETAILS





8" x 24" x 24" CONCRETE COLLAR—

SEE NOTE 1 —

SECTION "A-A" CLEAN OUT IN VEHICULAR OR PEDESTRIAN TRAFFIC AREA

ROCK BASE

DATE APPROVED:

MAY 24, 2023

- 8" x 24" x 24"

CONCRETE COLLAR

WITH 4" x 4" WIRE

MESH REINFORCEMENT

1. U.S. FOUNDRY NO. 7621 REVERSIBLE HANDHOLE RING AND COVER OR APPROVED EQUAL SHALL BE USED, COVER TO BE

Sanitary Service Clean Out

PAVEMENT

PVC WITH 2" x 7" SQUARE

SECTION "A-A"

CLEAN OUT IN GREEN AREA

NOTES: (PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

2. CLEAN OUT REQUIRED ON ALL SERVICES AT PROPERTY LINE OR EASEMENT LINE WHERE APPLICABLE.

SEACOAST UTILITY AUTHORITY

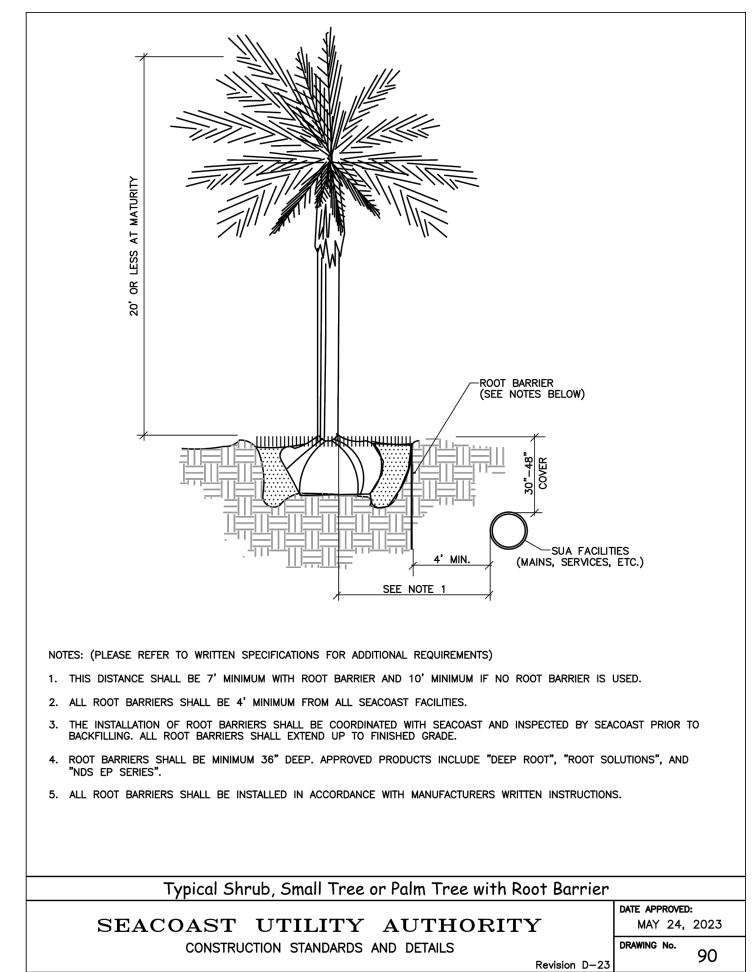
CONSTRUCTION STANDARDS AND DETAILS

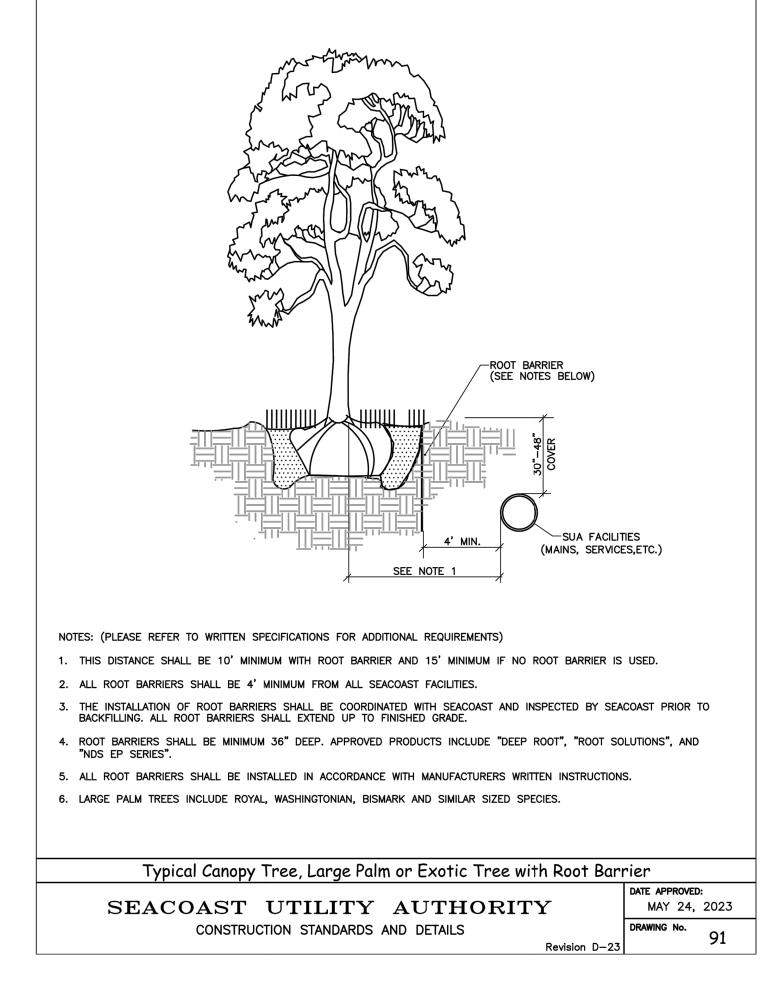
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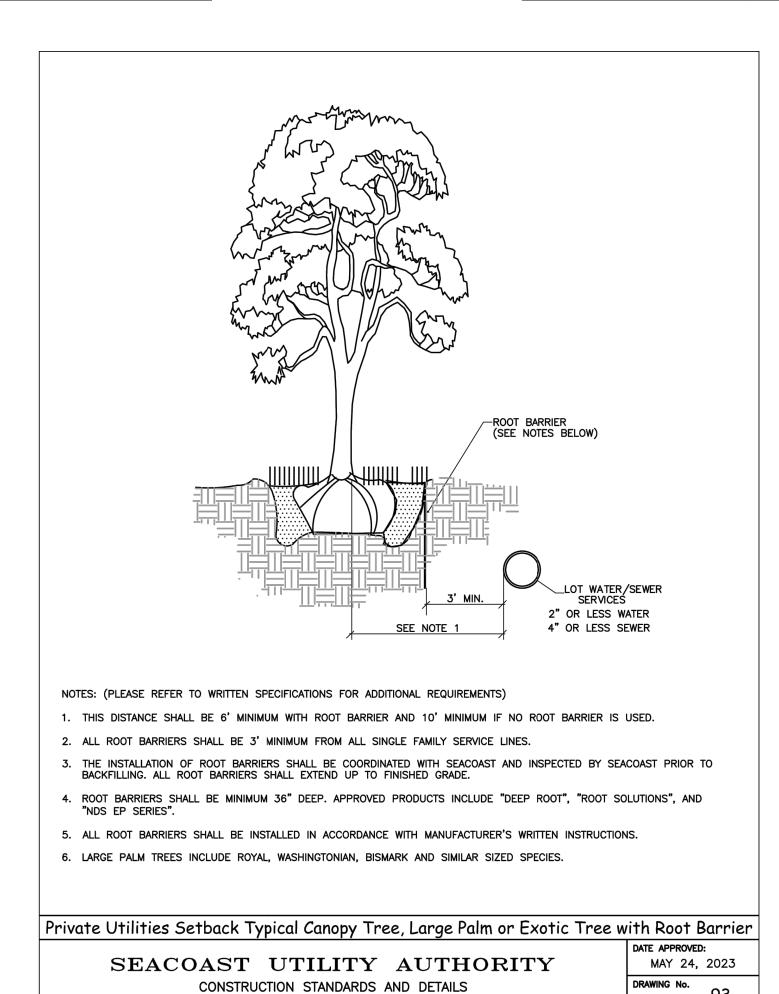
FINISH GRADE

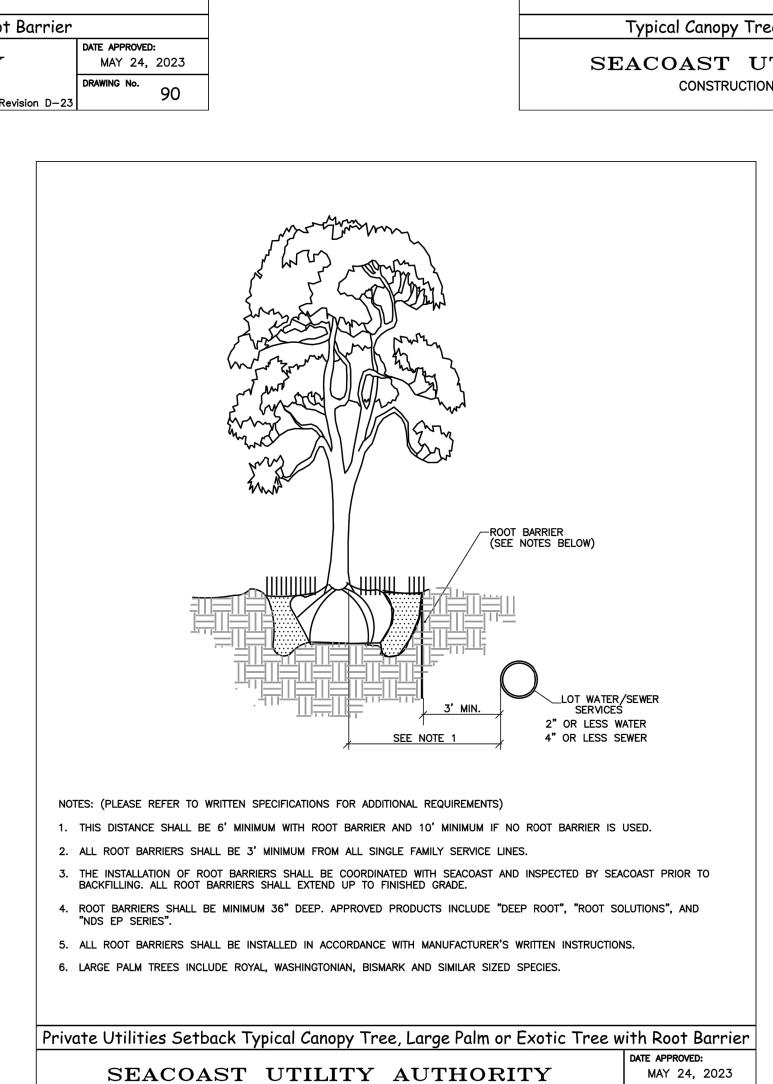
CAST WITH "S" IN THE CENTER.

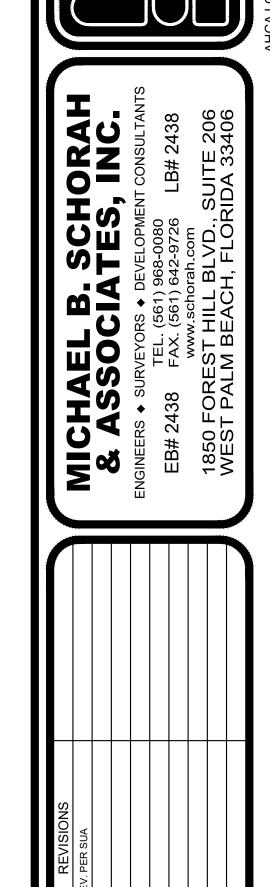
3. STANDARD WYE SHALL BE USED AT CLEAN OUT.







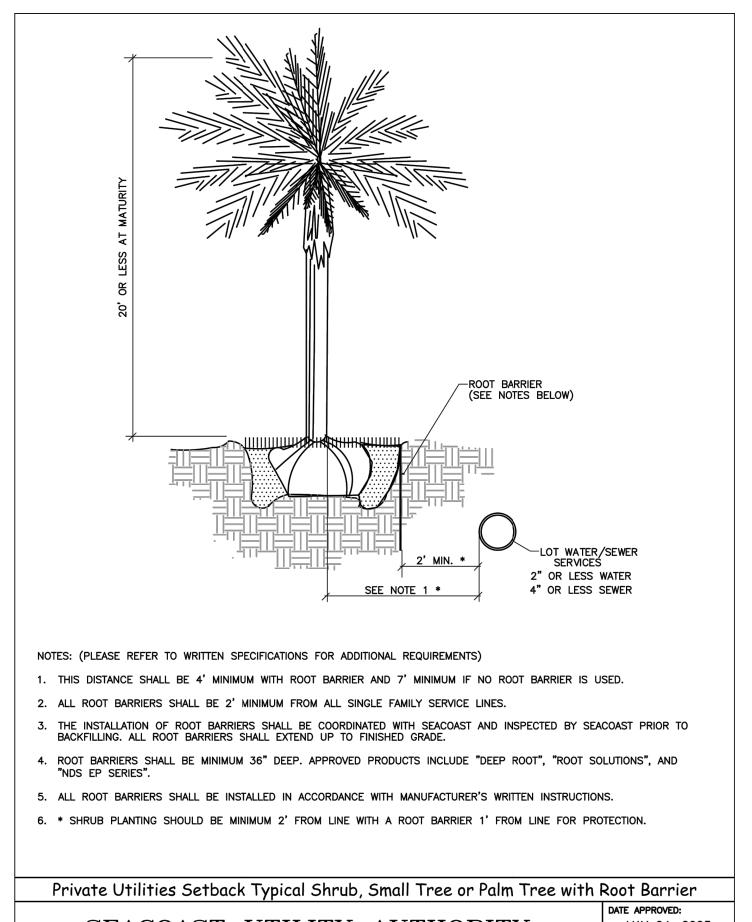


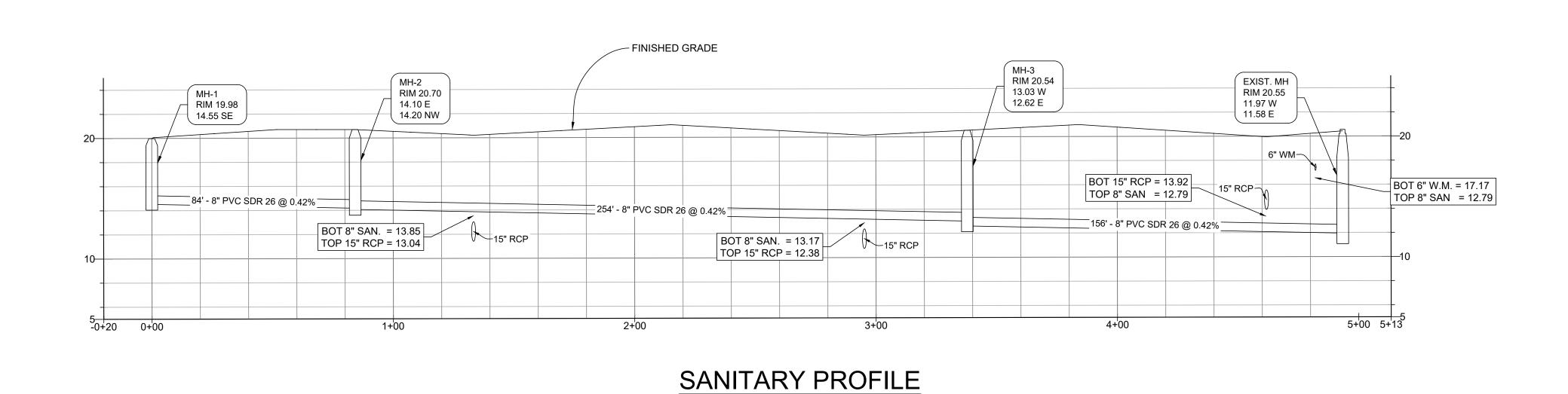




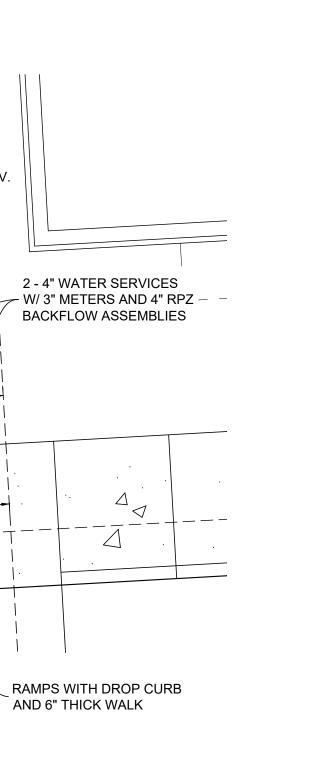
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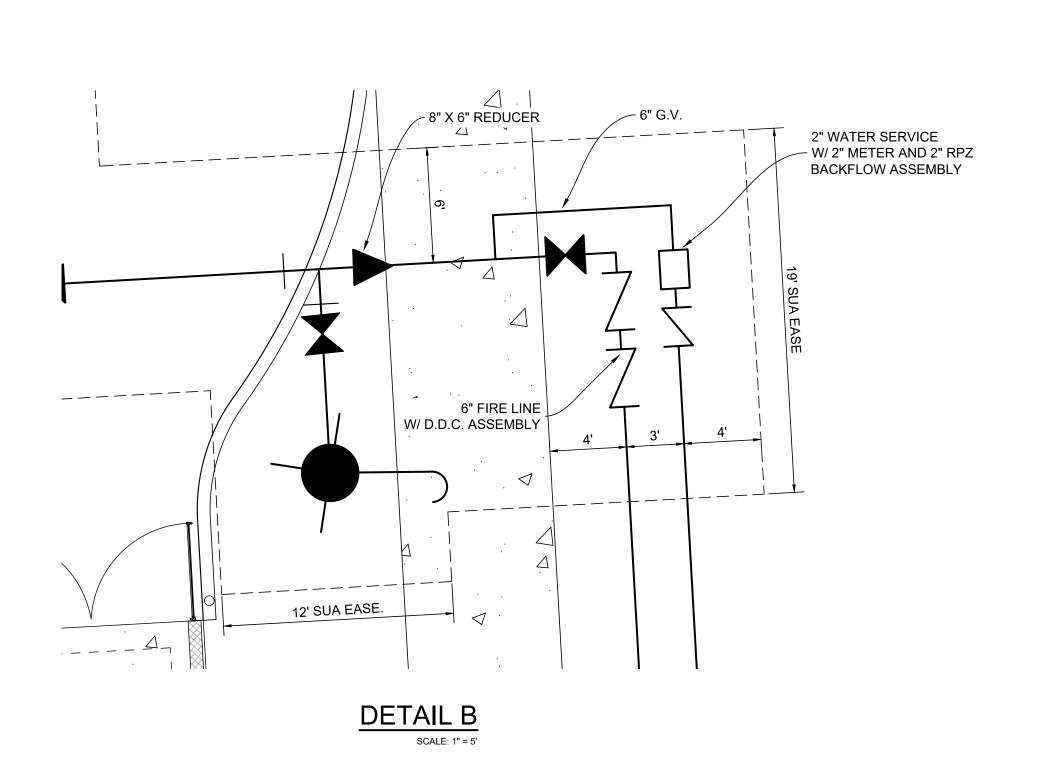
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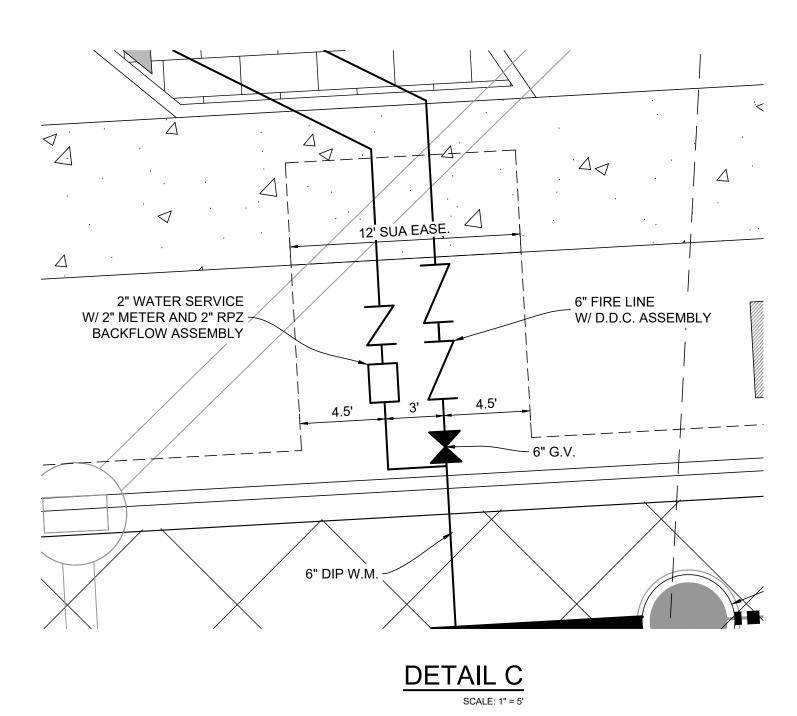




SCALE: 1"=30' H / 1"=6' V

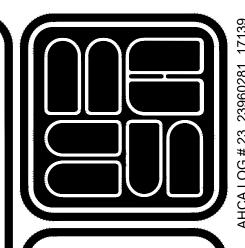






METER ASSEMBLY DETAILS

ALL ELEVATIONS SHOWN ARE NAVD 88 CONVERSION: NGVD = NAVD + 1.51'



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2438 FAX. (561) 642-9726 LB# 2438

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| REVISIONS | 7-11-24: REV. PER SUA | 7-26-24: REV. PER SFWMD | 8-8-24: REV. PER SUA | | | |
|-----------|-----------------------|-------------------------|----------------------|--|--|--|

| MARTHA H. CARTER, P.E., CFM FLORIDA LICENSE #47589 FOR MICHAEL B. SCHORAH AND ASSOCIATES, INC. | MAM/MHC | SCALE: AS SHOWN | DATE: |
|---|---------|---|-------|
| | | MARTHA H. CARTER, P.E., CFM SCALE: FLORIDA LICENSE #47589 FOR MICHAEL B. SCHORAH AND ASSOCIATES, INC. | DATE: |
| - ** | | | |

HEALTH PARK AT AVENIR
SRIPTION:
WATER AND SANITARY
DETAILS

ЈОВ NO. 1846 SHEET NO.

12

PATH/NAME: P:\1846 AVENIR HEALTH PARK\C

8" FIRE LINE L W/ D.D.C. ASSEMBLY

8" DIP W.M. 4" DIP W.M.

DETAIL A