SITE / CONSTRUCTION PLAN AND STORMWATER MANAGEMENT PLAN

FOR

ROUNTREE - MOORE KIA
SERVICE DEPARTMENT ADDITION

CONSULTANTS

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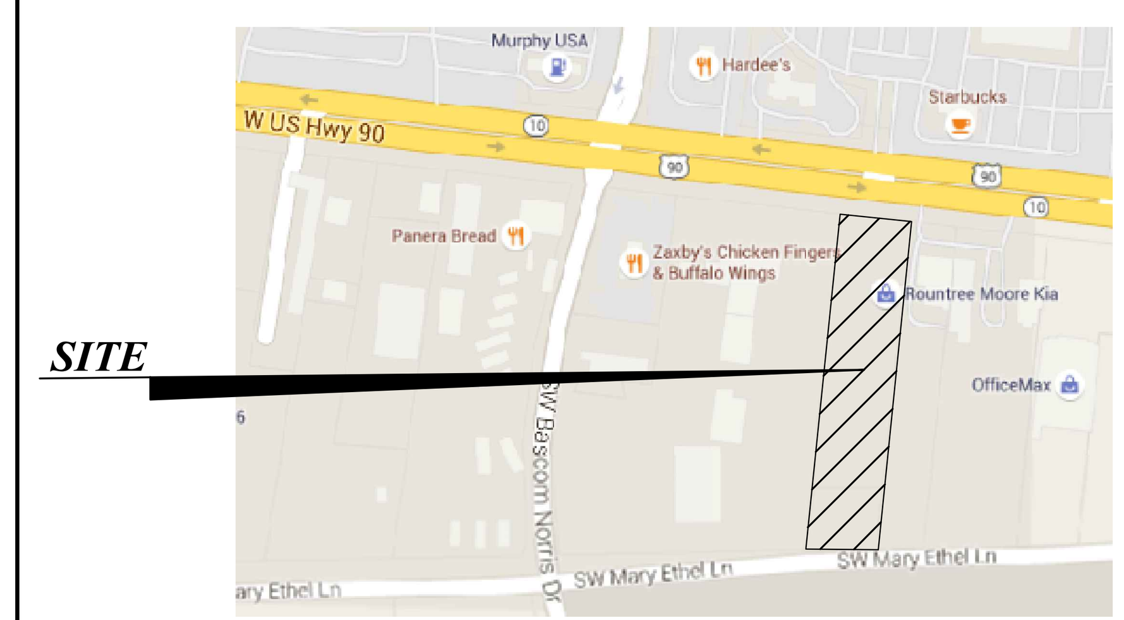
UTILITY SUPPLIERS

CITY OF LAKE CITY UTILITIES
692 SW ST. MARGARETS STREET
LAKE CITY, FL 32025
(386) 752-2031

COLUMBIA PIN: 36-33-16-02609-000

ADDRESS: 2528 W. US HWY 90
LAKE CITY, FL 32055

LOCATION MAP



DEVELOPER/OWNER:

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TAMPA, FLORIDA 33612

SHEET INDEX

PREPARED BY:

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"THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE CURRENT VERSION OF THE "MANUAL UNIFORM MINIMUM STANDARDS FOR HIGHWAYS, STATE OF FLORIDA" AND ARE IN COMPLIANCE WITH THE STANDARDS THEREIN EXCEPT AS NOTED ON THE PLANS. ANY DEVIATIONS NOTED ON THE PLANS SUBSTANTIALLY COMPLY WITH THE INTENT OF THE STANDARDS."

PROJECT NUMBER: 22001

DATE: AUGUST 2022

AGENCY APPROVALS

AGENCY	PERMIT TYPE	DATE SUBM.	DATE APP.	PERMIT NO.	EXP. DATE

REVISIONS

Designed By: H.P.B. | Drawn By: H.P.B.

DATE	REV. BY	REV. NO.	REVISION

ENGINEER : HUNTER P. BROWN, P.E.

PROFESSIONAL ENGINEER FLORIDA REGISTRATION NO. 74664

TECHNICAL SPECIFICATIONS

ALL SITE AND UTILITY WORK PERFORMED ON THIS PROJECT SHALL BE GOVERNED BY APPLICABLE PROVISIONS OF ***CITY OF LAKE CITY***. THE PROJECT SHALL BE CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CONSTRUCTION DRAWINGS & SPECIFICATIONS DESCRIBED HEREIN. AND WITH THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION, AND MAINTENANCE OF STREETS AND HIGHWAYS, STATE OF FLORIDA. IN THE EVENT THAT ANY ITEM IS NOT ADDRESSED IN THESE PLANS OR THE SPECIFICATIONS, THEN THE APPLICABLE PROVISIONS OF THE "FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION AND SUPPLEMENTS THERETO SHALL APPLY, EXCEPT AS OTHERWISE ***SPECIFICALLY APPROVED BY THE OWNER AND / OR THE ENGINEER OF RECORD.***

THE FOLLOWING ARE INCORPORATED HEREIN BY REFERENCE:

1. ***CITY OF LAKE CITY, FLORIDA***
2. FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS" ***2011***
3. FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ***2022***
4. FLORIDA DEPARTMENT OF TRANSPORTATION "ROADWAY AND TRAFFIC DESIGN STANDARDS" ***2017-18***
5. FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)" ***2009***

GENERAL CONSTRUCTION NOTES

1. ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88),
2. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK, PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL CHECK THE PLANS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.
4. THE CONTRACTOR IS CAUTIONED THAT THE LOCATION OF EXISTING UTILITIES, WHETHER OR NOT SHOWN, ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ACTUAL FIELD LOCATIONS FROM THE RESPECTIVE UTILITY COMPANY 48 HOURS BEFORE BEGINNING WORK.

SUNSHINE STATE ONE CALL -------- 1-800-432-4770

5. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION.
7. EARTHWORK CONSTRUCTION:
   A. ALL EARTHWORK CONSTRUCTION SHALL BE PAID FOR BY LUMP SUM.
   B. ALL FILL SUITABLE FOR CONSTRUCTION EITHER REQUIRED OR IN EXCESS TO THE PROJECT SHALL BE REMOVED BY THE CONTRACTOR.
8. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE OWNER'S ENGINEER, SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS WHICH ARE FOR THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. ALL SHOP DRAWINGS ARE TO BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER'S ENGINEER.
9. AT LEAST FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND APPROPRIATE AGENCIES AND SUPPLY THEM WITH ALL REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE AND OTHER INFORMATION AS REQUIRED. ANY WORK PERFORMED PRIOR TO NOTIFYING THE ENGINEER, OR WITHOUT AGENCY INSPECTOR PRESENT MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
10. BACKFILL MATERIAL SHALL BE SOLIDLY TAMPED AROUND PIPES IN 6" LAYERS UP TO A LEVEL OF AT LEAST ONE FOOT ABOVE THE TOP OF THE PIPE. IN AREAS TO BE PAVED, BACKFILL SHALL BE COMPACTED TO 100% MAXIMUM DENSITY AS DETERMINED BY A.A.S.H.T.O. T-99.
11. SITE WORK CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 3,000 P.S.I. IN 28 DAYS, UNLESS OTHERWISE NOTED.
12. ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION IS TO BE ALLOWED.
13. ALL DISTURBED AREAS ARE TO BE SODDED TO FDOT STANDARDS UNLESS OTHERWISE NOTED.

    ALL SODDED AREAS SHALL BE MAINTAINED UNTIL A SATISFACTORY STAND OF GRASS, ACCEPTABLE TO THE REGULATORY AGENCY AND ENGINEER OF RECORD. ANY WASHOUTS, REGRADING, RESEEDING AND GRASSING WORK, AND OTHER EROSION WORK REQUIRED, WILL BE PERFORMED BY THE CONTRACTOR, UNTIL THE SYSTEM IS ACCEPTED FOR MAINTENANCE BY THE REGULATORY AGENCY AND ENGINEER OF RECORD.
14. ALL SODDING SHALL INCLUDE WATERING AND FERTILIZATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE AREAS UNTIL THE PROJECT IS COMPLETED AND ACCEPTED BY REGULATORY AGENCIES, THE ENGINEER OF RECORD, AND THE OWNER.
15. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLANS AND PERMITS AT THE CONSTRUCTION SITE.
16. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY AT ALL TIMES TO CONTROL FUGITIVE DUST FROM THE CONSTRUCTION SITE. THE CONTRACTOR IS ADVISED THAT THE USE OF A WATER TRUCK OR TRAILER MAY BE REQUIRED FOR THE PURPOSE OF KEEPING THE SOIL MOIST TO CONTROL FUGITIVE DUST.
17. IF DURING CONSTRUCTION ACTIVITIES ANY EVIDENCE OF HISTORIC RESOURCES, INCLUDING BUT NOT LIMITED TO ABORIGINAL OR HISTORIC POTTERY, PREHISTORIC STONE TOOLS, BONE OR SHELL TOOLS, HISTORIC TRASH PITS, OR HISTORIC BUILDING FOUNDATIONS, ARE DISCOVERED, WORK SHALL COME TO AN IMMEDIATE STOP AND THE FLORIDA DEPARTMENT OF HISTORICAL RESOURCES (STATE HISTORIC PRESERVATION OFFICER) AND THE LOCAL GOVERNING CITY AND/OR COUNTY DEPARTMENT SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE RESOURCES FOUND ON SITE.
18. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED BY THE CONTRACTOR. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS PERSONNEL. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY O.S.H.A. IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.
19. ALL REQUIRED TEST REPORTS SHALL BE SUPPLIED BY CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE OWNER OR ENGINEER OF RECORD. THE TESTING COMPANY SHALL SUPPLY THE ENGINEER WITH A COPY OF ALL COMPACTION TESTS AND ASPHALT TESTING RESULTS. THE TESTING COMPANY SHALL CERTIFY TO THE ENGINEER OF RECORD, IN WRITING THAT ALL TESTING REQUIREMENTS REQUIRED BY THE LOCAL REGULATORY AGENCY AND THE FLORIDA DEPARTMENT OF TRANSPORTATION (F.D.O.T.), FOR THE IMPROVEMENTS AS REQUIRED BY THE ENGINEERING CONSTRUCTION DRAWINGS, HAVE BEEN SATISFIED.
20. IF DURING CONSTRUCTION ACTIVITIES ANY EVIDENCE OF THE PRESENCE OF STATE OR FEDERALLY PROTECTED PLANT AND/OR ANIMAL SPECIES IS DISCOVERED, APPLICABLE AGENCIES SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE PLANT AND/OR ANIMAL SPECIES FOUND ON THE SITE. ALL WORK IN THE AFFECTED AREA SHALL COME TO AN IMMEDIATE STOP UNTIL ALL PERTINENT PERMITS HAVE BEEN OBTAINED, AGENCY WRITTEN AUTHORIZATION TO COMMENCE ACTIVITIES HAS BEEN GIVEN, OR UNLESS COMPLIANCE WITH STATE AND FEDERAL GUIDELINES CAN BE DEMONSTRATED.

PAVING, GRADING & DRAINAGE NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED. DE-WATERING SHALL BE USED AS REQUIRED.
2. THE CONTRACTOR(S) PERFORMING TRENCH EXCAVATION ON THIS CONTRACT, IN EXCESS OF FIVE (5) FEET IN DEPTH, SHALL COMPLY WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S (OSHA) TRENCH EXCAVATION SAFETY STANDARDS, 29 CODE OF FEDERAL REGULATIONS (C.F.R.), SECTION 1926.650, SUBPART P, INCLUDING ALL SUBSEQUENT REVISIONS OR UPDATES TO THESE STANDARDS AS ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY (DLES).
3. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. THE CONTRACTOR IS TO COORDINATE WITH OWNER'S ENGINEER PRIOR TO ANY ELEVATION CHANGES.
4. THE CONTRACTOR IS TO PROVIDE A 1/2"" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER, AT ABUTMENT OF CONCRETE AND ANY STRUCTURE.
5. ALL PAVEMENT MARKINGS SHALL BE MADE WITH THERMOPLASTIC, EXCEPT PARKING STALL DELINEATIONS, WHICH MAY BE TRAFFIC RATED PAINT. PARKING STALL DELINEATION SHALL BE 6" MIN. WIDTH.
6. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS III (A.S.T.M. C-76) UNLESS OTHERWISE NOTED ON PLANS.
7. P.V.C. STORM PIPE, 12" AND SMALLER SHALL CONFORM TO A.W.W.A. C-900, CLASS 150 STANDARDS UNLESS OTHERWISE NOTED.
8. PIPE LENGTHS SHOWN ARE APPROXIMATE AND TO THE CENTER OF DRAINAGE STRUCTURES. PIPE LENGTHS SHOWN, WHERE MITERED END SECTION OF PIPE, SHALL BE INCLUDED IN THE UNIT COST OF THE MITERED END.
9. ALL DIMENSIONS SHOWN WHERE CURB IS APPLICABLE ARE TO THE EDGE OF PAVEMENT.
10. ALL DRAINAGE STRUCTURE GRATES AND COVERS WITHIN TRAFFIC AREAS SHALL BE TRAFFIC RATED FOR H-20 LOADINGS.
11. WHEN CONSTRUCTION IS COMPLETED, THE RETENTION/DETENTION AREAS WILL BE RESHAPED, CLEANED OF SILT, MUD AND DEBRIS AND SODDED AND / OR SEED / MULCH IN ACCORDANCE TO THE PLANS.
12. SOD SHALL BE STAKED AS NECESSARY TO PREVENT DISPLACEMENT.
13. THE CONTRACTOR SHALL PROVIDE CERTIFIED RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR. THE RECORD DRAWINGS SHALL SHOW FINAL GRADES, INVERTS AND LOCATIONS OF ALL STORMWATER FACILITIES INCLUDING THE STORMWATER POND, DRAINAGE STRUCTURES, BERMS & SWALES. THE CONTRACTOR SHALL PROVIDE TEN COPIES OF THE CERTIFIED RECORD DRAWINGS TO THE ENGINEER FOR THE PURPOSE OF CERTIFYING THE STORMWATER MANAGEMENT SYSTEM.
14. ALL DRAINAGE PIPE SHALL BE CUT FLUSH WITH THE INTERIOR WALLS OF EACH DRAINAGE STRUCTURE AND GROUTED TO A SMOOTH FINISH.

PAVING, GRADING & DRAINAGE TESTING & INSPECTION REQUIREMENTS

1. THE STORM DRAINAGE PIPING AND FILTRATION SYSTEM SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. THE CONTRACTOR IS TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE AN INSPECTION.
2. THE CONTRACTOR SHALL MAINTAIN THE STORM DRAINAGE SYSTEMS UNTIL FINAL ACCEPTANCE OF THE PROJECT.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE APPLICABLE TESTING WITH THE TESTING COMPANY. UPON COMPLETION OF THE WORK, THE TESTING COMPANY MUST SUBMIT CERTIFICATIONS TO THE OWNER'S ENGINEER STATING THAT TESTING REQUIREMENTS HAVE BEEN MET.

CLEARING AND GRUBBING NOTES

1. CLEARING AND GRUBBING FOR PURPOSES OF THE PROJECT DESCRIBED HEREIN SHALL BE IN ACCORDANCE WITH SECTION 110 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." ***2022***
2. ALL VEGETATION, STRUCTURES, MATERIALS DEBRIS AND FILL UNSUITABLE FOR CONSTRUCTION AND OF NO SALVAGE VALUE TO THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR.
3. EXISTING PAVEMENT SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR AT THEIR EXPENSE. THE CONTRACTOR MAY (AT HIS OPTION) USE EXISTING LIMEROCK BASE MATERIAL AS A STABILIZING ADDITIVE TO THE SUBBASE. AT NO TIME WILL EXISTING BASE MATERIAL BE INCORPORATED WITHIN THE NEW BASE.
4. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN ON THE CONSTRUCTION PLANS SHALL BE PROTECTED IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY'S TREE ORDINANCE AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREES SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER.
5. ALL DELETERIOUS SUBSTANCE MATERIAL, (I.E. MUCK, PEAT, BURIED DEBRIS), IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS, OR AS DIRECTED BY THE OWNER'S ENGINEER OR OWNER'S SOIL TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE REMOVED FROM THE SITE OR AS OTHERWISE DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS.
6. THE CONTRACTOR SHALL CLEAR AND GRUB, ONLY THOSE PORTIONS OF THE SITE, AS NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SODDED FOLLOWING CONSTRUCTION.
7. THE TOP 4" TO 6" OF GROUND REMOVED DURING CLEARING AND GRUBBING SHALL BE STOCKPILED AT A SITE DESIGNATED BY THE OWNER UNLESS OTHERWISE DIRECTED BY THE OWNER.
8. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
9. THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS FOR REMOVING ANY EXISTING STRUCTURES.
10. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAKING A VISUAL INSPECTION OF THE SITE AND WILL BE RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL UNDERGROUND AND ABOVE GROUND STRUCTURES THAT WILL NOT BE INCORPORATED WITH THE NEW FACILITIES. SHOULD ANY DISCREPANCIES EXIST WITH THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING THE OWNER AND REQUESTING A CLARIFICATION OF THE PLANS PRIOR TO DEMOLITION.
11. NO ON-SITE BURNING SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE LOCAL FIRE MARSHALL.

EROSION CONTROL NOTES

1. DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
2. ALL EROSION AND SILTATION CONTROL METHODS SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
3. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS, WATERWAYS AND EXISTING WETLANDS. IN ADDITION, THE CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON THE GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.

DEWATERING PLAN / NOTES

THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING GUIDELINES WHEN CONSTRUCTION ACTIVITIES REQUIRE DEWATERING:

1. DEWATERING ACTIVITIES SHALL BE CONTAINED WITHIN THE PROJECT AREA AND SHALL BE IN CONFORMANCE WITH THE LATEST NPDES CRITERIA..
2. THE PROPOSED DRAINAGE RETENTION AREAS CAN BE USED AS TEMPORARY SETTLING AREAS FOR DEWATERING ACTIVITIES. THE PROPOSED DRAINAGE RETENTION AREA(S) SHALL BE CONSTRUCTED TO A SUFFICIENT SIZE AND DEPTH TO RECEIVE WATER FROM DEWATERING ACTIVITIES. IF AT ANY TIME STAGING OF WATER WITHIN THE RETENTION AREA APPROACHES 6-INCHES OF THE PROPOSED POND TOP-OF-BANK, DEWATERING ACTIVITIES SHALL STOP UNTIL THE RETENTION VOLUME HAS RECOVERED.
3. SHEET PILE WALLS, SLURRY WALLS, OR OTHER MEANS OF LIMITING THE EXTENT OF THE WATER TABLE DRAWDOWN, BEYOND THE PROJECT AREA, SHALL BE IMPLEMENTED.
4. WATER DISCHARGE FROM SETTLING AREAS SHALL BE CLEAN AND FREE OF ANY SILT. SILT BARRIERS (I.E. SILT FENCE, HAY BALES, ROCK BAGS OR ANY COMBINATION NECESSARY TO REMOVE SEDIMENTS PRIOR TO DISCHARGE) SHALL BE INSTALLED AND MAINTAINED UNTIL ALL DEWATERING ACTIVITIES ARE COMPLETE.
5. AT NO TIME SHALL DISCHARGE FROM THE DEWATERING ACTIVITIES BE DIRECTED IN A MANNER THAT WOULD IMPACT AN EXISTING WETLAND, LAKE OR RIVER.
6. DEWATERING ACTIVITIES SHALL BE LIMITED TO TIME PERIODS THAT CONSTRUCTION ACTIVITIES REQUIRED DEWATERING. ALL IMPLEMENTED DEWATERING INFRASTRUCTURE, EQUIPMENT, ETC. SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.

TRAFFIC CONTROL NOTES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SET UP AND MAINTAIN TRAFFIC CONTROL FOR THE DURATION OF THE WORK WITHIN ANY PRIVATE, COUNTY OR STATE RIGHT OF WAY IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS INDEX SERIES NO. 600. THE CONTRACTOR'S PROPOSED PLAN FOR IMPLEMENTATION FOR TRAFFIC CONTROL MUST BE APPROVED IN ADVANCE OF CONSTRUCTION BY THE TRAFFIC OPERATIONS MANAGER. THE COST OF THE TRAFFIC CONTROL PLAN SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL ITEMS INCLUDED IN THE CONTRACT.
2. AREAS REQUIRING MAINTENANCE OF TRAFFIC INCLUDE THE FOLLOWING: W. US HWY 90 & SW MARY ETHEL LANE.
3. TRAFFIC CONTROL PHASING:
   A. PLACE ADVANCED WARNING SIGNS PER APPLICABLE FDOT STANDARD PLANS 102-600 SERIES.
   B. LANE CLOSURES SHALL NOT BE PERMITTED DURING THE HOURS OF 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM. LANE CLOSURES WITHIN ANY SCHOOL ZONE OR WITHIN 500 FEET OF ANY SCHOOL ZONE SHALL NOT BE PERMITTED FROM ONE (1) HOUR BEFORE TO ONE (1) HOUR AFTER THE STARTING AND ENDING TIMES FOR SCHOOL. ALL LANE CLOSURES SHALL BE PROPERLY SIGNED, CONED, OR BARRICADED IN ACCORDANCE WITH FDOT STANDARDS. VARIABLE MESSAGE SIGNS SHALL BE USED TO ADVISE MOTORISTS OF THE LANE CLOSURES. THE CONTRACTOR SHALL NOTIFY ALL EMERGENCY, LAW ENFORCEMENT, AND RESCUE AGENCIES OPERATING IN THE VICINITY OF THE PROJECT TWENTY-FOUR (24) HOURS IN ADVANCE OF THE PROPOSED LANE CLOSURES OR RESTRICTIONS. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE COUNTY'S PROJECT MANAGER, OPEN ANY TEMPORARY LANE CLOSURE CAUSING EXTENDED TRAFFIC CONGESTION, UNTIL TRAFFIC HAS RETURNED TO AN ACCEPTABLE FLOW AS JUDGED BY THE COUNTY'S PROJECT MANAGER.
   C. THE CONTRACTOR SHALL PROVIDE TWO (2) UNIFORMED, OFF-DUTY, LAW ENFORCEMENT OFFICERS FOR TRAFFIC CONTROL: DURING NIGHT OPERATIONS, AND WITHIN 600 FEET OF A SIGNALIZED INTERSECTION AND AS DIRECTED BY THE COUNTY PROJECT MANAGER.
   D. GENERAL MAINTENANCE OF TRAFFIC PROVISIONS
      - THE CONTRACTOR SHALL EXERCISE CAUTION WHILE RELOCATING EXISTING SIGNS OR INSTALLING NEW SIGNS TO PREVENT UNNECESSARY DAMAGE TO THE SIGNS. IF THE SIGNS ARE DAMAGED BEYOND USE, AS DETERMINED BY THE COUNTY'S PROJECT MANAGER, SIGNS WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
      - THE CONTRACTOR SHALL MAINTAIN AT LEAST TWO (2) LANES OF TRAFFIC THROUGHOUT THE DURATION OF THE PROJECT.
      - THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND STREETS AT ALL TIMES. EXCEPT WHEN WRITTEN PERMISSION IS GIVEN BY THE COUNTY, NO ROAD OR STREET INTERSECTING THE PROJECT SHALL BE BLOCKED OR UNDULY RESTRICTED.
      - NO STREET CLOSING SHALL BE MADE WITHOUT THE COUNTY'S WRITTEN APPROVAL. THE CONTRACTOR SHALL NOTIFY THE FIRE DEPARTMENT, POLICE DEPARTMENT, FLORIDA HIGHWAY PATROL, COUNTY TRAFFIC OPERATIONS DIVISION AND COUNTY EMERGENCY MANAGEMENT DIVISION BEFORE AND AFTER THE CLOSING OF ANY
      - TEMPORARY MARKINGS SHALL BE INSTALLED IMMEDIATELY WHEN REQUIRED. STREET OR PORTION THEREOF.
      - TEMPORARY REFLECTORIZED PAVEMENT MARKERS (RPM) SHALL BE INSTALLED WITH ALL TEMPORARY LANE LINES.
      - MAINTENANCE OF TRAFFIC SHALL INCLUDE ALL TEMPORARY PAVEMENT MARKINGS REQUIRED PRIOR TO INSTALLATION OF PERMANENT PAVEMENT MARKINGS.

GENERAL UTILITY NOTES

1. NO CONNECTION TO THE EXISTING UTILITY LINES SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE LOCAL GOVERNING UTILITY DEPARTMENT.
2. ALL AREAS DISTURBED BY THIS CONSTRUCTION SHALL BE SODDED WITH BAHIA AND / OR MATCH EXISTING GRASS TYPE.

   ALL UTILITY LINES SHALL HAVE AN "EARLY WARNING" PROTECTION TAPE INSTALLED CONTINUOUSLY ALONG THE PIPE ALIGNMENT. IN THE CASE OF GRAVITY SEWERS, THE TAPE SHALL BE SECURED TO EACH MANHOLE. THE PROTECTION TAPE SHALL BE INSTALLED DURING BACK FILLING 12" BELOW FINAL GRADE DIRECTLY OVER THE PIPE. THE TAPE SHALL HAVE A METALLIC DETECTABLE STRIP SANDWICHED BETWEEN 2 LAYERS OF POLYETHYLENE, 2" WIDE STRIPPING WITH A THICKNESS OF 5.5 MILS.
   - (BLUE TAPE) FOR WATER LINES, THE TAPE SHALL BE CONTINUOUSLY MARKED "CAUTION WATER LINE BELOW". ,
   - (GREEN TAPE) FOR FORCE MAINS, THE TAPE SHALL BE CONTINUOUSLY MARKED "CAUTION, SEWAGE FORCE MAIN BELOW".
   - (GREEN TAPE) FOR SANITARY SEWER LINES, THE TAPE SHALL BE CONTINUOUSLY MARKED "CAUTION, SEWER MAIN BELOW".
   - (PURPLE TAPE) FOR RECLAIMED WATER LINES, THE TAPE SHALL BE CONTINUOUSLY MARKED "CAUTION RECLAIMED WATER LINE BELOW"
3. THE CONTRACTOR IS CAUTIONED THAT THE LOCATION OF EXISTING UTILITIES, WHEN SHOWN, ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ACTUAL FIELD LOCATIONS FROM THE RESPECTIVE UTILITY COMPANY 48 HOURS BEFORE BEGINNING ANY WORK. SUNSHINE STATE CALL - 1-800-432-4770
4. ALL UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DOCUMENTS REFERENCED HEREIN. ANY METHODS, PROCEDURE, STANDARDS, EQUIPMENT, OR MATERIALS WHICH ARE NOT COVERED OR SPECIFIED BY THE APPLICABLE PROVISIONS OF THE GOVERNING MUNICIPALITY WATER/SEWER STANDARDS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND F.D.O.T. UTILITIES SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY.
5. ALL UTILITIES WILL BE INSTALLED UNDERGROUND.

WATER/SEWER CLEARANCE REQUIREMENTS:

VERTICAL CLEARANCE AT CROSSINGS:

SANITARY SEWERS, STORM SEWERS AND STRUCTURES, RECLAIMED WATER MAINS, OR FORCE MAINS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS AND WATER JOINTS WILL BE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS. WHERE THE MINIMUM 12 INCH SEPARATION CANNOT BE MAINTAINED, ONE OF THE FOLLOWING METHODS OF PROTECTION SHALL BE UTILIZED:

I. THE PROPOSED PIPE SHALL BE CONSTRUCTED OF PRESSURE RATED PVC PIPE, (MEETING THE AWWA C-900 OR C-905 SPECIFICATION) AND SHALL BE PRESSURE TESTED AT 150 PSI TO ASSURE TIGHTNESS PRIOR TO BACKFILLING.

II. EITHER THE WATER MAIN OR THE OTHER PIPE SHALL BE ENCASED IN A WATERTIGHT CARRIER PIPE. THE CARRIER PIPE SHALL BE OF MATERIALS APPROVED BY THE F.D.E.P. FOR USE IN WATER MAIN CONSTRUCTION.

III. USE WELDED, FUSED OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN OR OTHER PIPELINE.

IV. 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)

V. UNDERGROUND WATER MAINS SHALL BE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

VI. UNDERGROUND WATER MAINS SHALL BE A HORIZONTAL DISTANCE OF AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) 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 SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

VII. UNDERGROUND WATER MAINS SHALL BE A HORIZONTAL DISTANCE OF AT LEAST TEN (10) 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.

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

I. 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 (6) INCHES, AND PREFERABLY TWELVE (12) INCHES, ABOVE OR AT LEAST TWELVE (12) INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

II. 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 TWELVE (12) INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

III. 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 (6) 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.

HORIZONTAL SEPARATION BETWEEN PARALLEL LINES:

SANITARY SEWERS, STORM SEWERS AND STRUCTURES, RECLAIMED WATER MAINS, OR FORCE MAINS SHALL BE INSTALLED AT LEAST 6 FEET FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A 6 FT. SEPARATION. THE FOLLOWING METHODS OF PROTECTION SHALL BE UTILIZED:

I. THE PROPOSED PIPE SHALL BE CONSTRUCTED OF PRESSURE RATED PVC PIPE ,(MEETING THE AWWA C-900 OR C-905 SPECIFICATION) AND SHALL BE PRESSURE TESTED AT 150 PSI TO ASSURE TIGHTNESS PRIOR TO BACK FILLING.

II. EITHER THE WATER MAIN OR THE OTHER PIPE SHALL BE ENCASED IN A WATERTIGHT CARRIER PIPE. THE CARRIER PIPE SHALL BE OF MATERIALS APPROVED BY THE F.D.E.P. FOR USE IN WATER MAIN CONSTRUCTION.

III. USE WELDED, FUSED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN OR OTHER PIPELINE.

IV. 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)

C. SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MAINS:

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

A. WATER MAIN 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 THE WATER MAIN SHALL BE CONSTRUCTED WITH A CONFLICT MANHOLE AS FOLLOWS:

I. 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.

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

III. EACH CONFLICT MANHOLE SHALL HAVE AN ACCESS OPENING, AND SHALL BE SIZED, TO ALLOW FOR EASY CLEANING OF THE MANHOLE.

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

NOTE: WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATIONS AS STIPULATED ABOVE, THE F.D.E.P. MAY ALLOW DEVIATION ON A CASE-BY-CASE BASIS IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. APPROVAL FOR THE DEVIATION MUST BE OBTAINED FROM THE PROJECT ENGINEER AND THE F.D.E.P. PRIOR TO CONSTRUCTION.

WATER SYSTEM NOTES

1. ALL WATER MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER BASED ON FINAL GRADING.
2. ALL WATER SYSTEM WORK SHALL CONFORM WITH LOCAL REGULATORY STANDARDS AND SPECIFICATIONS.
3. ALL DUCTILE IRON PIPE SHALL BE CLASS 50 IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND PIPE SHALL RECEIVE EXTERIOR BITUMINOUS COATING AND SHALL BE CEMENT MORTAR LINED, STANDARD THICKNESS, IN ACCORDANCE WITH ANSI/AWWA C104/A21.4.
4. ALL FITTINGS LARGER THAN 3" SHALL BE DUCTILE IRON IN ACCORDANCE WITH A.W.W.A. C-110 WITH A PRESSURE RATING OF 350 P.S.I. JOINTS SHALL BE MECHANICAL JOINTS IN ACCORDANCE WITH AWWA C-111. FITTINGS SHALL BE CEMENT MORTAR LINED AND COATED IN ACCORDANCE WITH AWWA C-104.
5. ALL PVC POTABLE WATER MAINS 4" THROUGH 12" SHALL BE AWWA C-900 (CLASS 150), DR 18 PVC, AND 14" THROUGH 24" AWWA C-905 (CLASS 165), DR-25 PVC; WITH AWWA APPROVED DUCTILE IRON MECHANICAL JOINT FITTINGS. THE PIPE SHALL BE SOLID BLUE WITH WHITE OR BLACK LETTERING.
6. ALL PVC FIRE MAINS 4" THROUGH 12" SHALL BE AWWA C-900 (CLASS 200), DR 14 PVC WITH AWWA APPROVED DUCTILE IRON MECHANICAL JOINT FITTINGS. THE PIPE SHALL BE SOLID BLUE WITH WHITE OR BLACK LETTERING.
7. ALL PVC PIPE AND FITTINGS 3" AND SMALLER SHALL BE SCHEDULE 40 P.V.C .WITH SOLVENT WELDED SLEEVE TYPE JOINTS.
8. ALL GATE VALVES 3" OR LARGER SHALL BE RESILIENT SEAT OR RESILIENT WEDGE MEETING THE REQUIREMENTS OF AWWA C509
9. ALL FIRE HYDRANTS SHALL MEET THE REQUIREMENTS OF AWWA C502 AND SHALL BE APPROVED BY THE LOCAL UTILITY AND FIRE MARSHAL.
10. THE CONTRACTOR IS TO INSTALL TEMPORARY BLOW-OFFS AT THE END OF WATER SERVICE LATERALS TO ASSURE ADEQUATE FLUSHING AND DISINFECTION.
11. MATERIALS AND CONSTRUCTION METHODS FOR WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY CODES, PLANS, AND SPECIFICATIONS FOR CONSTRUCTION, LATEST REVISION THEREOF, AND SUPPLEMENTAL SPECIFICATIONS THERETO. APPROVAL AND CONSTRUCTION OF ALL POTABLE WATER SERVICE MAIN EXTENSIONS AND CONNECTIONS MUST BE COORDINATED THROUGH THE LOCAL REGULATORY AGENCY.

WATER SYSTEM TESTING AND INSPECTION REQUIREMENTS

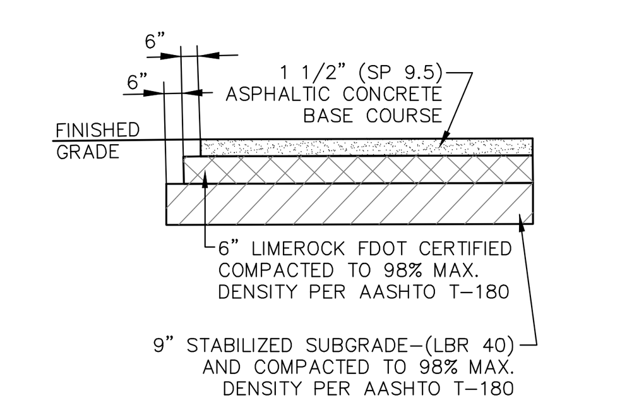
1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL REMAIN UNCOVERED UNTIL PROPERLY PRESSURE TESTED AND ACCEPTED BY THE OWNER'S ENGINEER. PRESSURE TESTS TO BE IN ACCORDANCE WITH WATER DEPARTMENT SPECIFICATIONS. CONTRACTOR TO NOTIFY OWNER'S ENGINEER AND WATER DEPARTMENT INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING TESTS.
2. CONTRACTOR TO PERFORM CHLORINATION. BACTERIOLOGICAL SAMPLING SHALL BE BY THE LOCAL PUBLIC HEALTH UNIT AND/OR LOCAL UTILITY. CONTRACTOR SHALL OBTAIN CLEARANCE OF DOMESTIC WATER SYSTEM. COPIES OF ALL BACTERIOLOGICAL TESTS TO BE SUBMITTED TO OWNER'S ENGINEER.
3. A HYDROSTATIC TEST CONSISTING OF PRESSURE TEST AND LEAKAGE TEST SHALL BE CONDUCTED ON ALL NEWLY-INSTALLED WATER DISTRIBUTION SYSTEM PRESSURE PIPES AND APPURTENANCES. THESE TESTS SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF A.W.W.A. C600 FOR DUCTILE IRON PIPES AND C605 FOR PVC PIPES.
4. ALL SAMPLING IS TO BE PERFORMED BY THE CONTRACTOR AND SUBMITTED TO A DHS CERTIFIED LAB FOR TESTING.
5. ALL NEWLY-INSTALLED WATER DISTRIBUTION SYSTEMS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651 - DISINFECTING WATER MAINS.

SANITARY SEWER NOTES

1. ALL SANITARY SEWER MAINS & LATERAL SHALL HAVE A MINIMUM OF 36" OF COVER BASED ON FINAL GRADING.
2. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING NEW WORK TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING CONNECTION POINT AND NOTIFY OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
3. ALL PVC GRAVITY SEWER MAINS AND SERVICE LATERALS SHALL CONFORM TO ASTM-D-3034, SDR35; FOR DEPTHS OF 0-12 FEET, SDR26 FOR DEPTHS OF 12-18 FEET AND DUCTILE IRON FOR DEPTHS BELOW 18 FEET. (SEE NOTE 7 BELOW) WITH PVC SLIP JOINT FITTING IN ACCORDANCE WITH ASTM SPECIFICATIONS SECTION D2321 AND SHALL BE SOLID GREEN PIPE WITH WHITE LETTERS. PIPES INSTALLED AT DEPTHS OF LESS THAN 4' SHALL BE AWWA C-900 (CLASS 100), DR-25 PVC OR C-905 (CLASS 165), PVC DR-25.
4. ALL DUCTILE IRON PIPE SHALL BE CLASS 50 IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND PIPE SHALL RECEIVE EXTERIOR BITUMINOUS COATING AND SHALL BE CEMENT MORTAR LINED, STANDARD THICKNESS, IN ACCORDANCE WITH ANSI/AWWA C104/A21.4.
5. ALL FITTINGS LARGER THAN 3" SHALL BE DUCTILE IRON IN ACCORDANCE WITH AWWA C-110 WITH A PRESSURE RATING OF 350 P.S.I. JOINTS SHALL BE MECHANICAL JOINTS IN ACCORDANCE WITH AWWA C-111. FITTINGS SHALL BE CEMENT MORTAR LINED AND COATED IN ACCORDANCE WITH AWWA C-104.
6. ALL PVC FORCE MAINS 4" THROUGH 12" SHALL BE AWWA C-900 (CLASS 100), DR-25 PVC AND 14" THROUGH 24" SHALL BE AWWA C-905 (CLASS 125), DR-25; WITH AWWA APPROVED DUCTILE IRON MECHANICAL JOINT FITTINGS. THE PIPE SHALL BE SOLID GREEN WITH WHITE OR BLACK LETTERING.
7. ALL PVC PIPE AND FITTINGS 3" AND SMALLER SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELDED SLEEVE JOINTS.
8. ALL GATE VALVES 3" OR LARGER SHALL BE RESILIENT SEAT OR RESILIENT WEDGE MEETING THE REQUIREMENTS OF AWWA C509
9. ALL SANITARY SEWER COVERS SHALL BE TRAFFIC RATED FOR H-20 LOADING.
10. PIPE LENGTHS SHOWN ARE APPROXIMATE AND SHOWN TO THE EDGE OF THE MANHOLES.
11. MATERIALS AND CONSTRUCTION METHODS FOR SEWER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY CODES, PLANS, AND SPECIFICATIONS FOR CONSTRUCTION, LATEST REVISION THEREOF, AND SUPPLEMENTAL SPECIFICATIONS THERETO. APPROVAL AND CONSTRUCTION OF ALL SANITARY SEWER SERVICE MAIN EXTENSIONS AND CONNECTIONS MUST BE COORDINATED THROUGH THE LOCAL REGULATORY AGENCY.

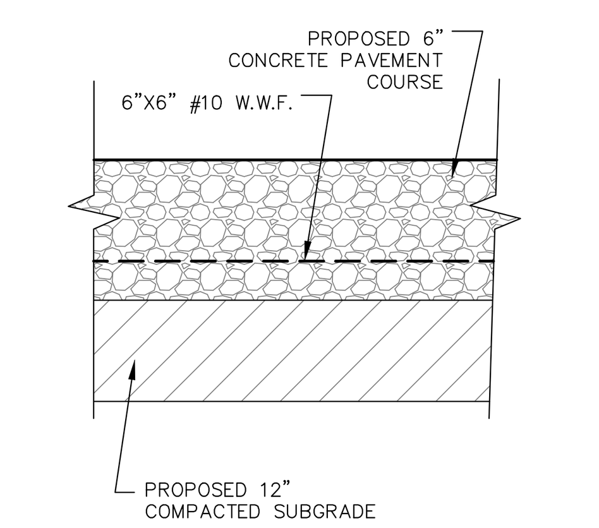
SANITARY SEWER TESTING & INSPECTION REQUIREMENTS

1. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.
2. CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON ALL GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATION AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
3. ALL FORCE MAINS SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE TEST IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.



TYPICAL ASPHALT PAVEMENT STRUCTURE

N.T.S.

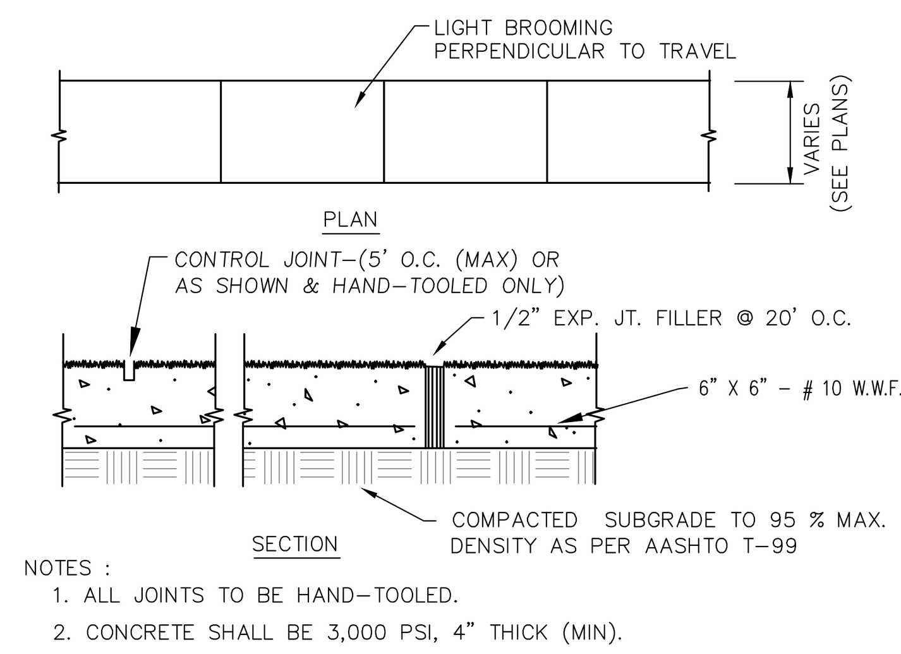


PAVEMENT COURSE
6" CONCRETE (4000 PSI)

SUBGRADE
12" COMPACTED SUBGRADE TO 98% MAX DENSITY PER AASHTO T-180

CONCRETE PAVEMENT DETAIL

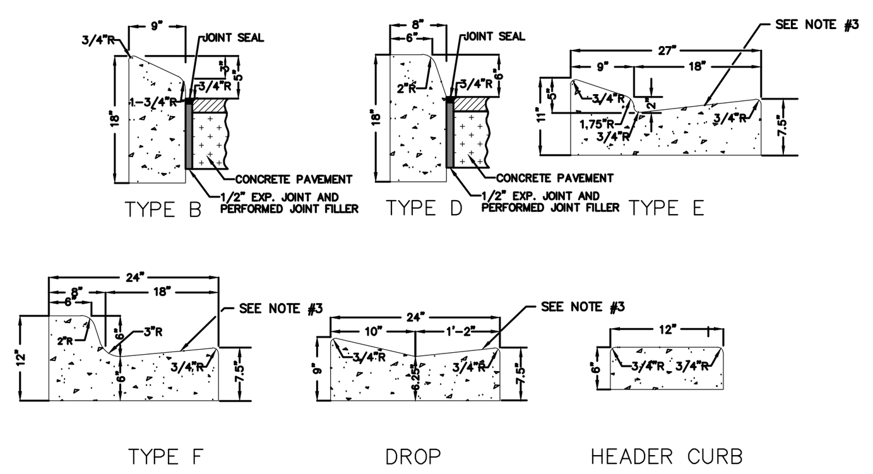
N.T.S.



NOTES :
1. ALL JOINTS TO BE HAND-TOOLED.
2. CONCRETE SHALL BE 3,000 PSI, 4" THICK (MIN).
3. A MAXIMUM CROSS SLOPE OF 2%.
4. CONTROL JOINTS 5' O.C. MAX. (OR AS SHOWN) AND HAND-TOOLED.
5. EXPANSION JOINTS 20' O.C. MAX. (1/2" WIDE EXPANSION JOINT MATERIAL W/ 1/4" REVEAL AND SEALANT.

CONCRETE SIDEWALK DETAIL

N.T.S.

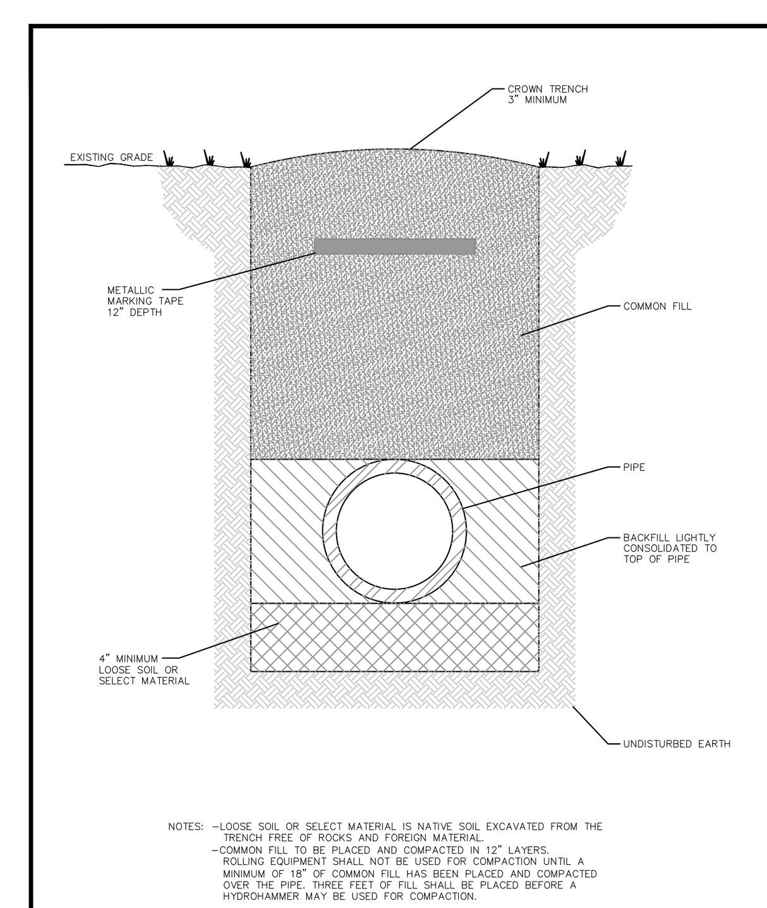


CURB TYPES

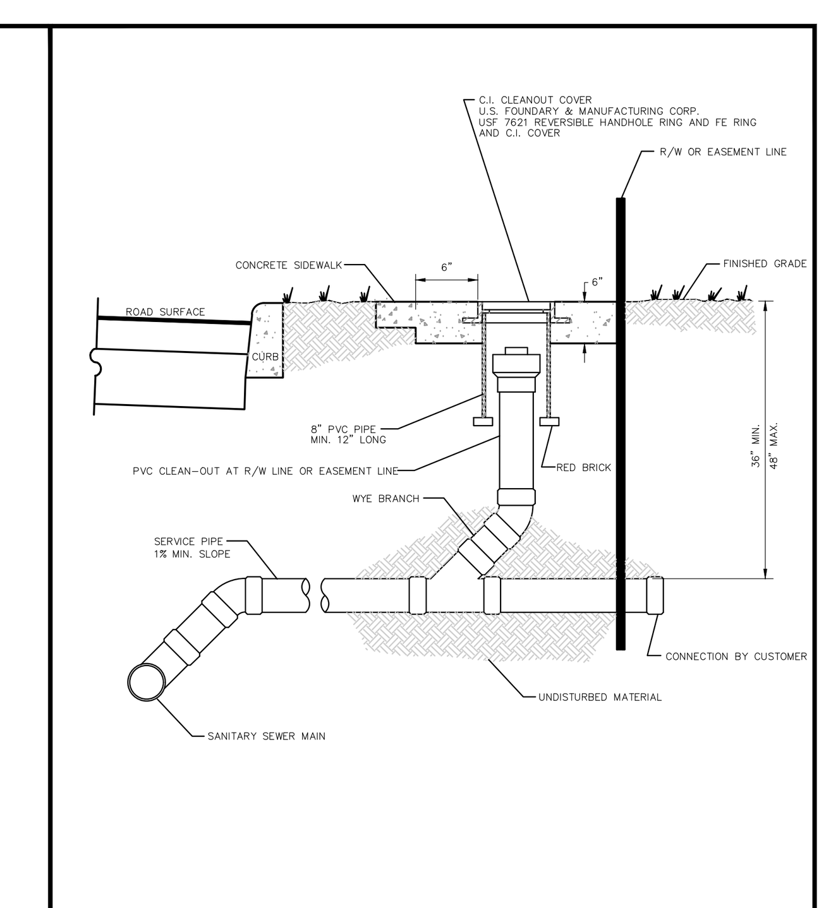
NOTES:
1. SEE F.D.O.T. INDEX NO. 300 FOR ADDITIONAL DETAILS.
2. THE PAVEMENT SURFACE ON LOW PAVEMENT EDGE IS TO BE 1/4" ABOVE THE LIP OF THE GUTTER. THE PAVEMENT SURFACE ON THE HIGH PAVEMENT EDGE IS TO BE FLUSH WITH THE GUTTER.
3. GUTTER SLOPES - WHEN USED ON THE HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP SHALL BE 6" UNLESS OTHERWISE SHOWN ON THE PLANS.
4. FOR CURB, GUTTER, AND CURB & GUTTER PROVIDE ⅛" - ¼" CONTRACTION JOINTS AT 10' CENTERS (MAX.). CONTRACTION JOINTS ADJACENT TO CONCRETE PAVEMENT ON TANGENTS AND FLAT CURVES ARE TO MATCH THE PAVEMENT JOINTS, WITH INTERMEDIATE JOINTS NOT TO EXCEED 10' CENTERS. CURB, GUTTER AND CURB & GUTTER EXPANSION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH SECTION 520 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
5. A 1/2" EXPANSION JOINT IS REQUIRED BETWEEN CONCRETE PAVEMENT AND CURBS AND/OR GUTTERS.
6. ENDS OF TYPE "D" CURBS SHALL TRANSITION FROM FULL TO ZERO HEIGHTS IN 3'.
7. THE CONCRETE USED FOR CURBS AND/OR GUTTERS IS TO BE A MINIMUM 3,000 PSI.

CURB AND GUTTER DETAILS

N.T.S.



PIPE LAYING CONDITIONS
STANDARD UNPAVED AREAS



SANITARY SEWER - SINGLE WYE CONNECTION
AND TYPICAL CLEAN-OUT

HUNTER P. BROWN, PE

·CIVIL ENGINEERING·
19409 POWERLINE ROAD DADE CITY, FLORIDA 33523
352-585-2950

ROUNTREE — MOORE KIA
SERVICE DEPARTMENT ADDITION
2528 W. US HWY 90
LAKE CITY, FL 32055

HUNTER P. BROWN, P.E.
PE NO. 74664

DATE	REV. NO.	REVISION

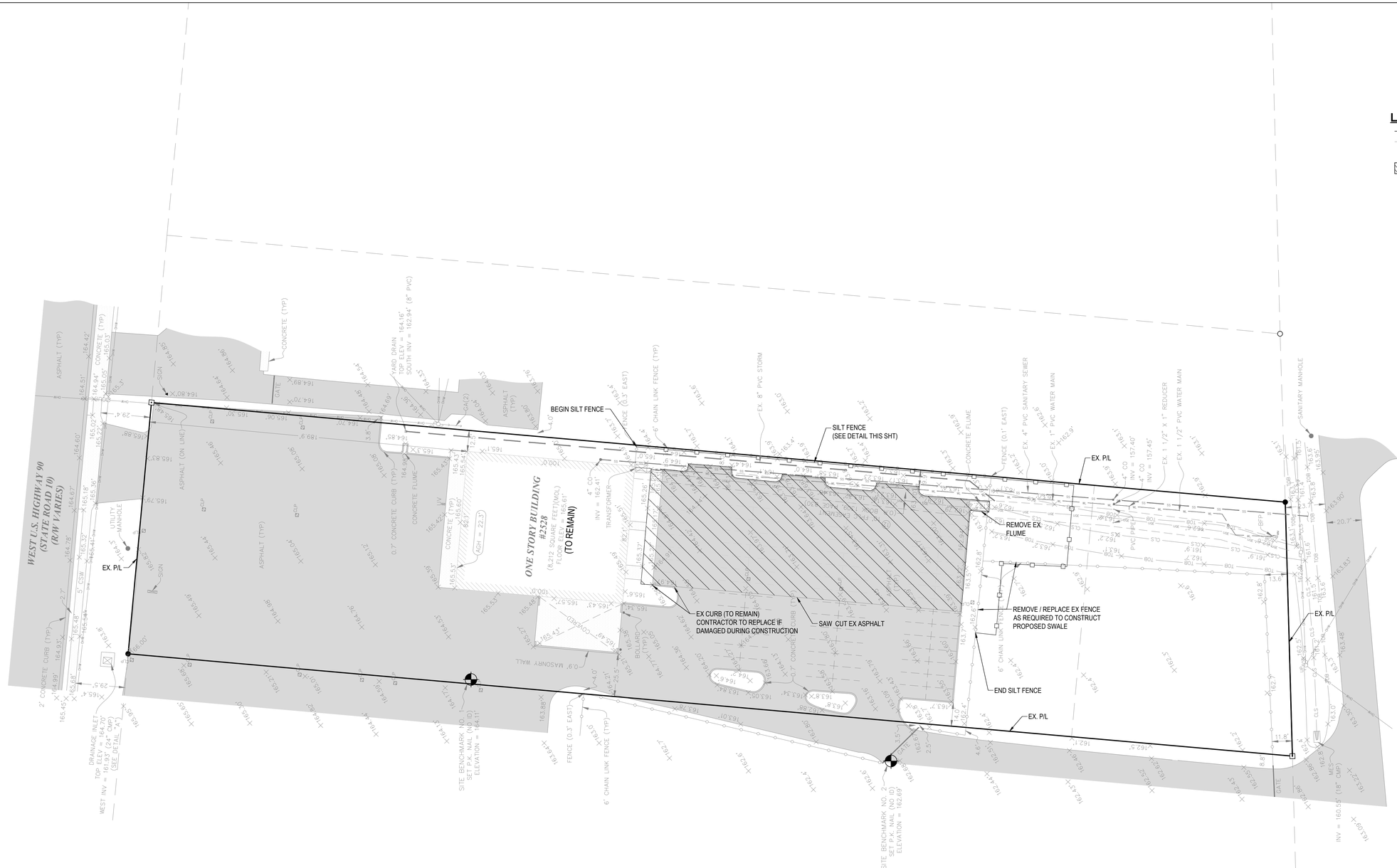
ISSUE DATE
8/16/2022

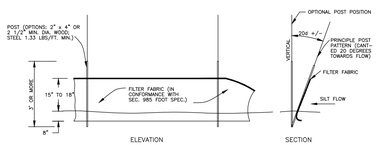
SHEET NAME
GENERAL NOTES & DETAILS

SHEET NUMBER
C1.0

DRAWN BY: HPB

JOB No.: 22001





TYPE III SILT FENCE

SILT SCREEN BARRIER DETAILS

N.T.S.

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- CIVIL ENGINEERING -
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ROUNTREE – MOORE KIA

SERVICE DEPARTMENT ADDITION
2528 W. US HWY 90
LAKE CITY, FL 32055

HUNTER P. BROWN, P.E.
P.E. NO.: 74564

DATE	REV. NO.	REVISION

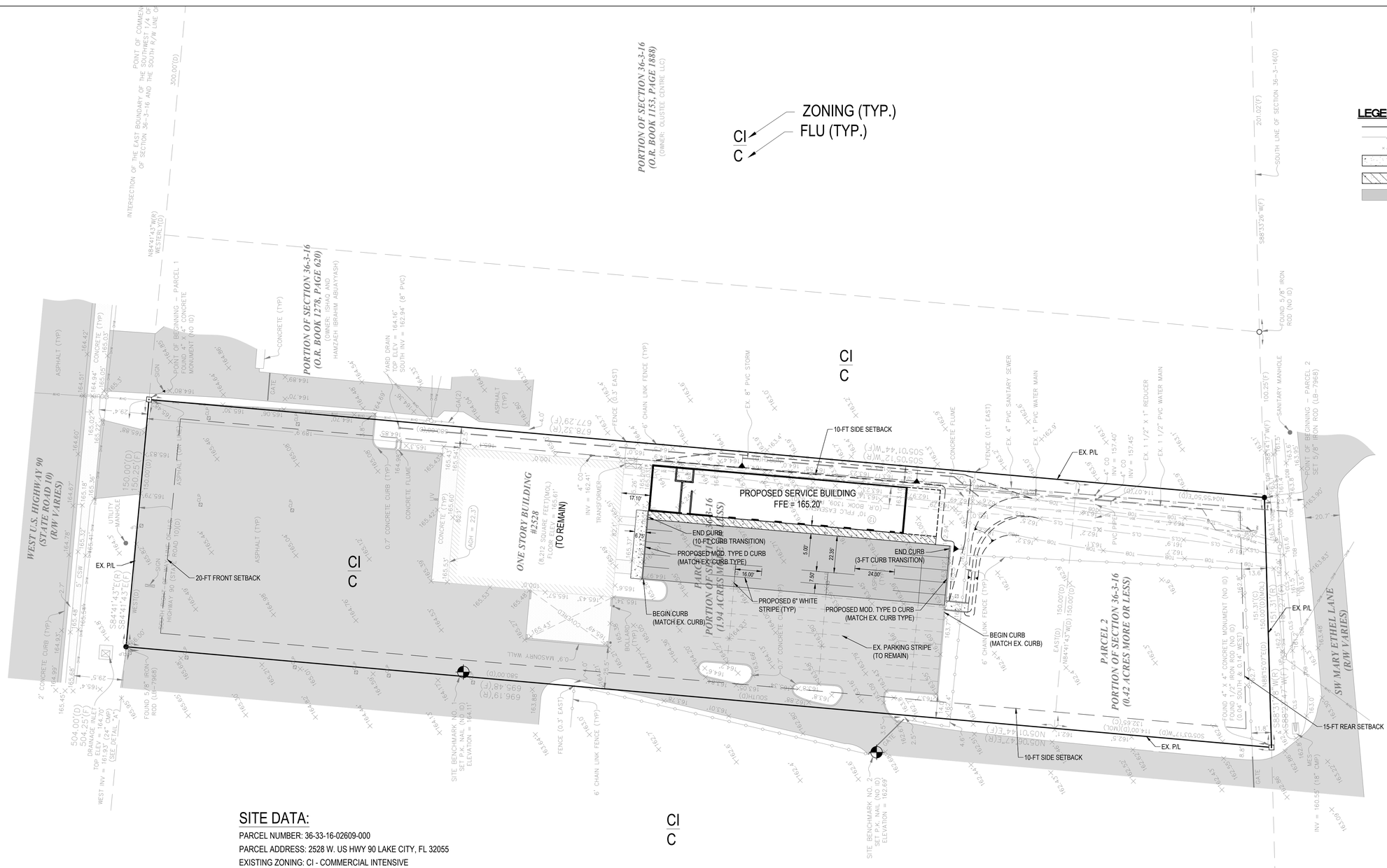
ISSUE DATE
8/16/2022

SHEET NAME
DEMO PLAN

SHEET NUMBER
C2.0

DRAWN BY: HPB

JOB No.: 22001



SITE DATA:

PARCEL NUMBER: 36-33-16-02609-000
PARCEL ADDRESS: 2528 W. US HWY 90 LAKE CITY, FL 32055
EXISTING ZONING: CI - COMMERCIAL INTENSIVE
FUTURE LAND USE: C - COMMERCIAL
EXISTING USE: CAR DEALERSHIP
SITE AREA: 2.381 AC

BUILDING SETBACKS: - FRONT: 20'
- SIDE: 10'
- REAR: 15'

UTILITIES/SERVICES:

VERTICAL DATUM: ELEVATIONS SHOWN HEREON ARE BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

FLOOD ZONE: SUBJECT PROPERTY APPEARS TO LIE IN FLOOD ZONE "X" ACCORDING TO F.I.R.M. COMMUNITY PANEL 12023C0291D, DATED 11/02/2018

LEGAL DESCRIPTION

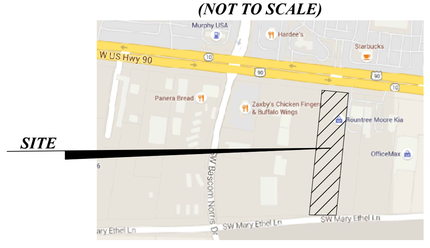
THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF COLUMBIA, STATE OF FLORIDA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1
TOWNSHIP 3 SOUTH, RANGE 16 EAST, SECTION 36: TWO (2) ACRES OF LAND DESCRIBED AS FOLLOWS: COMMENCE AT THE INTERSECTION OF THE EAST BOUNDARY OF THE SW 1/4 OF THE SW 1/4 OF SAID SECTION 36 WITH THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 90 AND RUN WESTERLY ALONG THE SOUTH LINE OF SAID HIGHWAY RIGHT-OF-WAY A DISTANCE OF 300 FEET FOR A POINT OF BEGINNING; RUN THENCE WEST ALONG THE SOUTH LINE OF U.S. HIGHWAY NO. 90 RIGHT-OF-WAY A DISTANCE OF 150 FEET; THENCE SOUTH A DISTANCE OF 580 FEET; THENCE EAST A DISTANCE OF 150 FEET; THENCE NORTH A DISTANCE OF 580 FEET TO SAID POINT OF BEGINNING.

AND

PARCEL 2
TOWNSHIP 3 SOUTH, RANGE 16 EAST, SECTION 36: COMMENCE AT THE SOUTHWEST CORNER OF SAID SECTION 36, AND RUN N88°15'07"E ALONG THE SOUTH LINE OF SAID SECTION 36 A DISTANCE OF 1,030.21 FEET FOR THE POINT OF BEGINNING; THENCE RUN N04°55'50"E, 114.07 FEET; THENCE RUN N84°41'43"W A DISTANCE OF 150 FEET; THENCE RUN S05°03'17"W A DISTANCE OF 114 FEET, MORE OR LESS, TO THE SOUTH LINE OF SAID SECTION 36; THENCE RUN N88°15'07"E ALONG THE SOUTH LINE OF SAID SECTION 36 A DISTANCE OF 150 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

VICINITY MAP (NOT TO SCALE)



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ROUNDTREE – MOORE KIA
SERVICE DEPARTMENT ADDITION
2528 W. US HWY 90
LAKE CITY, FL 32055

HUNTER P. BROWN, P.E.
PE NO. 74664

DATE	REV. NO	REVISION

ISSUE DATE
8/16/2022

SHEET NAME
SITE PLAN

SHEET NUMBER
C3.0

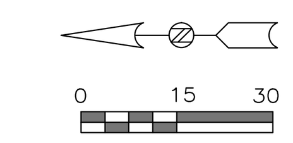
DRAWN BY: HPB

JOB No.: 22001

IMPERVIOUS AREA CALCULATIONS

EXISTING IMPERVIOUS AREA TO BE REMOVED = 13,330 S.F.
PROPOSED IMPERVIOUS AREA TO BE INSTALLED = 11,786 S.F.

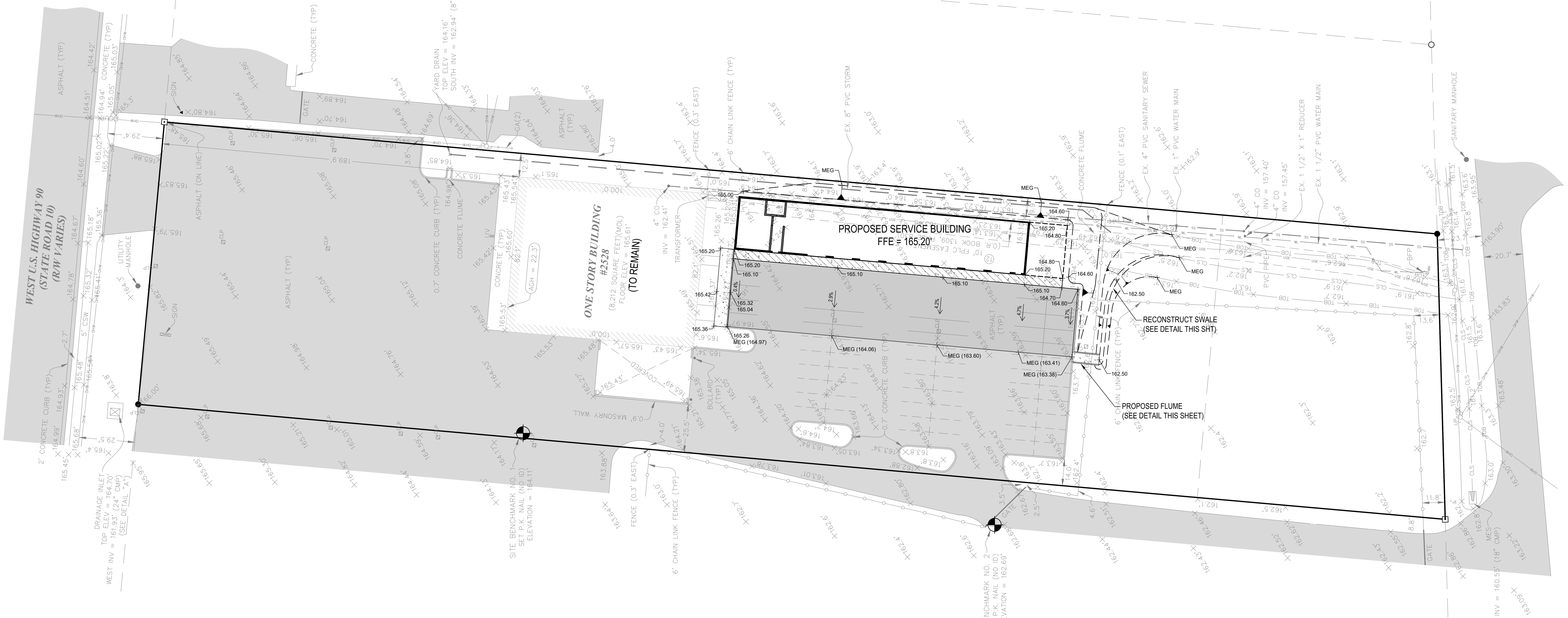
NET DECREASE IN IMPERVIOUS AREA = 1,544 S.F.

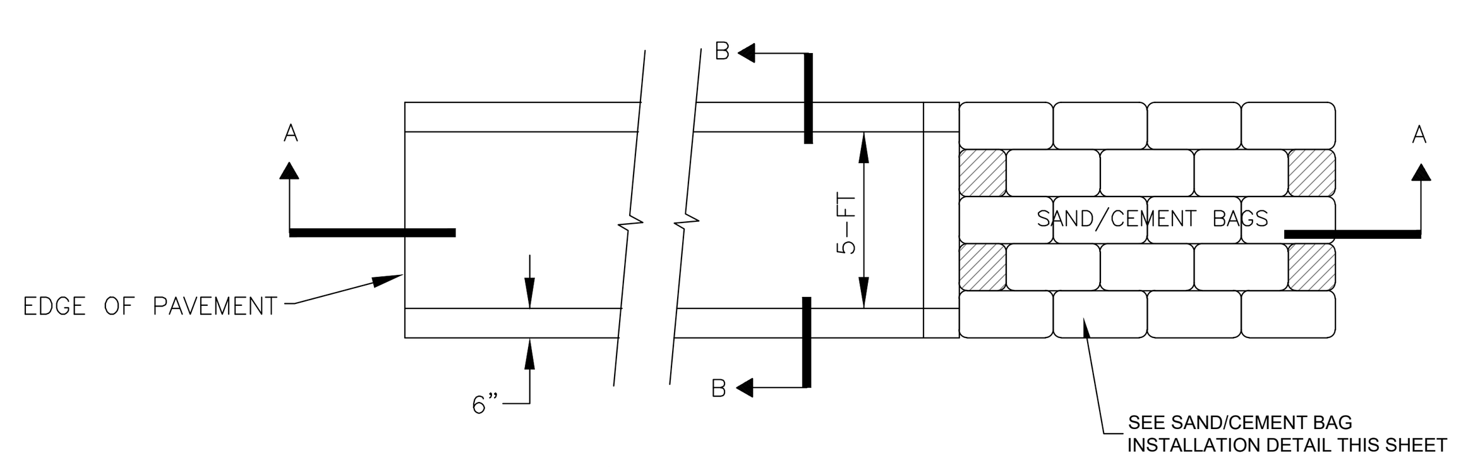


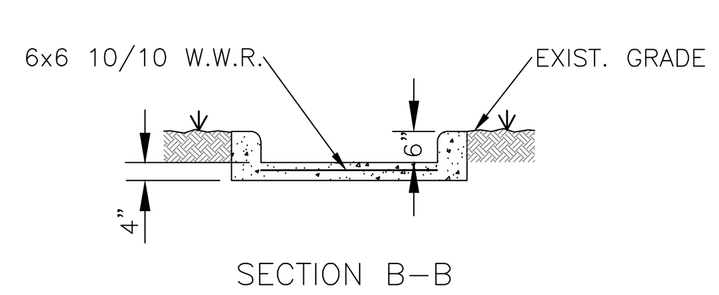
LEGEND

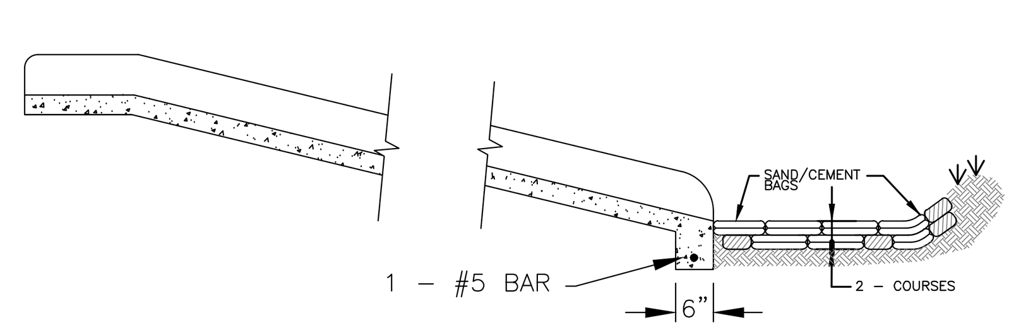
(line)	BOUNDARY/RIGHT-OF-WAY
—84—	EXISTING CONTOURS
× 00.0	EXISTING GRADE
(stippled box)	PROPOSED 4" CONCRETE SIDEWALK (SEE DETAIL SHT. C1.0)
(hatched box)	PROPOSED 6" CONCRETE PAVEMENT (SEE DETAIL SHT. C1.0)
(grey box)	PROPOSED ASPHALT PAVEMENT (SEE DETAIL SHT. C1.0)

NOTE: ALL DISTURBED AREAS ARE TO BE SODDED.



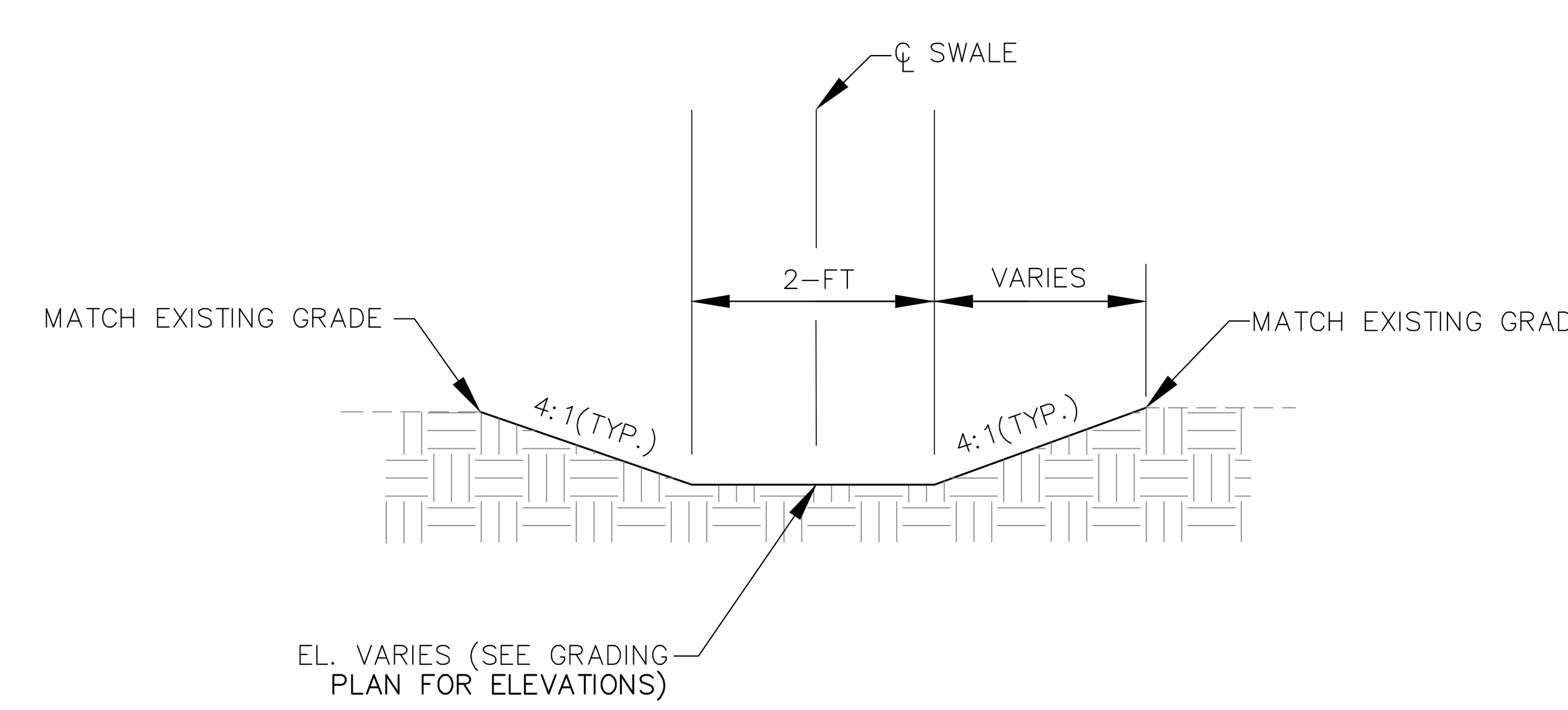






DRAINAGE FLUME DETAIL

NOT TO SCALE



TYPICAL SWALE SECTION

NOT TO SCALE

HUNTER P. BROWN, PE
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ROUNTREE – MOORE KIA

SERVICE DEPARTMENT ADDITION
2528 W. US HWY 90
LAKE CITY, FL 32055

HUNTER P. BROWN, P.E.
PE NO. 74664

DATE	REV. NO.	REVISION

ISSUE DATE
8/16/2022

SHEET NAME
GRADING & DRAINAGE PLAN

SHEET NUMBER
C4.0

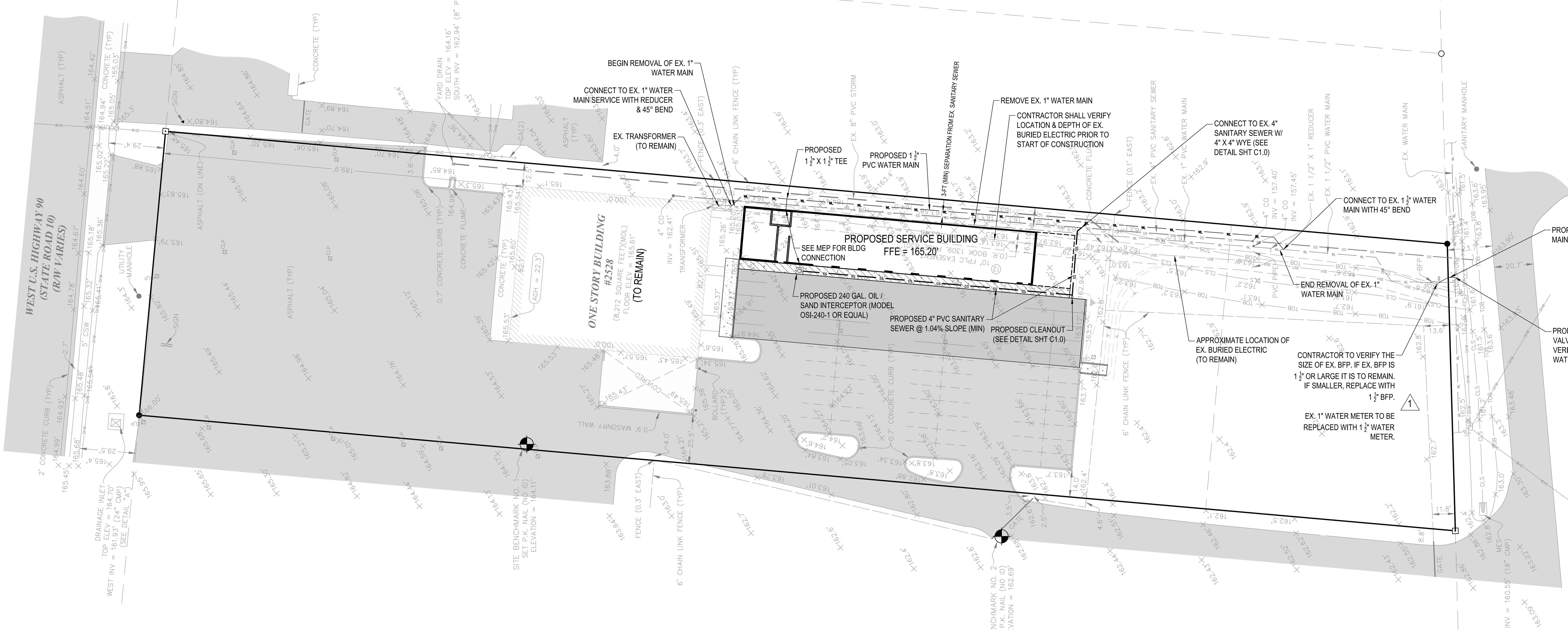
DRAWN BY: HPB

JOB No.: 22001

NOTE: PROPOSED WATER MAIN SHALL BE INSTALLED AND ALL REQUIRED TESTING BE COMPLETED PRIOR TO PERMANENT CONNECTION TO EXISTING WATER MAIN AND EXISTING BUILDING. EXISTING WATER MAIN SHALL ONLY BE REMOVED ONCE PROPOSED WATER MAIN IS CONNECTED AND ACTIVE TO AVOID SHUT DOWN DELAYS TO EXISTING BUILDING.

LEGEND

- BOUNDARY/RIGHT-OF-WAY
- EXISTING CONTOURS
- EXISTING GRADE
- EXISTING WATER MAIN
- EXISTING SANITARY SEWER
- PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER



HUNTER P. BROWN, PE
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352-895-2990

ROUNTREE — MOORE KIA
SERVICE DEPARTMENT ADDITION
2528 W. US HWY 90
LAKE CITY, FL 32055

HUNTER P. BROWN, P.E.
PE. NO. 74664

DATE	REV. NO.	REVISION
09-08-2022	1	REVISED WATER METER & TAP PER CITY COMMENTS

ISSUE DATE
8/16/2022

SHEET NAME
UTILITY PLAN

SHEET NUMBER
C5.0

DRAWN BY: HPB

JOB No.: 22001