

A map of the state of Florida showing its county boundaries. Major cities are marked with dots and labeled: Pensacola, Ft. Walton Beach, Panama City, Tallahassee, Jacksonville, Gainesville, Orlando, Tampa, and Miami. An arrow points to a location in the central-eastern part of the state, near the border of Alachua and Marion counties, with the word "SITE" written in large, bold, black letters next to it.

PARCEL ID: 17-23-30-0000-00-008

SURVEYOR:
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POTABLE WATER	CITY OF DEBARY
WASTEWATER	CITY OF DEBARY
POWER	DUKE ENERGY



LANDSCAPE PLAN
IRRIGATION PLAN
BOUNDARY/TOPOGRAPHIC SURVEY

CONTAINING 15,600 SQUARE FEET (0.36 ACRES), MORE OR LESS.

I. GENERAL NOTES

- A. THESE GENERAL NOTES APPLY TO ALL WORK IN THIS SET OF DRAWINGS.
- B. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL PERMIT CONDITIONS. CONTRACTOR IS ADVISED THAT THE U.S. ENVIRONMENTAL PROTECTION AGENCY REQUIRES THAT ALL OPERATORS FILE A NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NON-GENERAL PERMIT PRIOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN THE SAME, IF NOT PROVIDED BY THE ENGINEER AND TO PROVIDE ALL REQUIRED MONITORING REPORTS. A COPY SHALL BE SENT TO THE ENGINEER OF RECORD, ARCHITECT OF RECORD AND THE OWNER.
- D. FLORIDA LAW (F.S. 353.851) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF PROPOSED EXCAVATION." THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATION EXCLUDING HOLIDAYS, SATURDAYS OR SUNDAYS.
- E. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF PROPOSED SITES OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS, INCLUDING BUT NOT LIMITED TO, WATER, SANITARY SEWER, POWER, NATURAL GAS, TELEPHONE AND CABLE TV COMPANIES.
- F. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO TAKE THE NECESSARY PRECAUTIONS TO ENSURE PROPER SAFETY AND WORKMANSHIP WHEN WORKING IN THE VICINITY OF EXISTING UTILITY LINES.
- G. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE APPROPRIATE UTILITY COMPANY AND / OR THE APPROPRIATE POWER CORPORATION ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDER-GROUND POWER LINES.
- H. CONTRACTOR SHALL VERIFY PROPER CLEARANCE BELOW EXISTING OVERHEAD POWER LINES PRIOR TO WORKING WITHIN THE VICINITY OF THE POWER LINES.
- I. ALL INSPECTIONS WILL BE MADE BY THE RESPECTIVE GOVERNING AGENCY. THE ENGINEER OF RECORD WILL PROVIDE CONSTRUCTION OBSERVATION SERVICE.
- J. ALL RECOMMENDATIONS AND REQUIREMENTS OF THE INSPECTION PERSONNEL OTHER THAN THE OWNER'S SHALL BE REPORTED TO THE ENGINEER PRIOR TO IMPLEMENTATION. COMPENSATION WILL NOT BE ALLOWED FOR WORK WHICH IS NOT AUTHORIZED BY THE ENGINEER OR OWNER.
- K. ALL WORK SHALL BE OPEN AND SUBJECT TO INSPECTION BY AUTHORIZED PERSONNEL OF THE COUNTY, OWNER, INVOLVED UTILITY COMPANIES, PROJECT ENGINEER, AND REGULATORY AGENCIES.
- L. ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND THE OWNER IN WRITING. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF THE CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND THE OWNER.
- M. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND THE FIELD CONDITIONS PRIOR TO CONSTRUCTION IN THE AREA OF CONFLICT.
- N. NO EXISTING MATERIAL SHALL BE USED IN NEW CONSTRUCTION UNLESS APPROVED DURING THE SHOP DRAWING APPROVAL PROCESS.
- O. WORK SHALL BE PERFORMED IN ACCORDANCE WITH BOTH THE ORANGE COUNTY STANDARDS & THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, AND FOOT ROADWAY TRAFFIC DESIGN STANDARDS, LATEST EDITION. ALL FOOT INDEXES USED ARE REFERENCED HEREIN. CONTRACTOR IS RESPONSIBLE FOR OBTAINING COMPLETE COPIES OF THE LATEST EDITION OF FOOT STANDARD INDEXES AND SPECIFICATIONS.
- P. CONTRACTOR SHALL PROTECT ADJACENT WATER BODIES, WETLANDS AND PROPERTIES FROM DAMAGE BY SEDIMENTATION OR OTHER POTENTIAL CONSTRUCTION RELATED CAUSES.
- Q. CONTRACTOR SHALL BE EXTREMELY CAUTIOUS WHEN WORKING NEAR TREES WHICH ARE TO BE SAVED, WHETHER SHOWN ON THE PLAN OR DESIGNATED IN THE FIELD.
- R. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING PROPER TRAFFIC MAINTENANCE AND CONTROLS IN ACCORDANCE WITH REGULATORY STANDARDS. WHERE A TRAFFIC MAINTENANCE PLAN IS REQUIRED, THE CONTRACTOR SHALL PREPARE AND SUBMIT THE PLAN FOR APPROVAL TO ALL APPLICABLE REGULATORY AGENCIES.
- S. CONTRACTOR SHALL VERIFY THE ACCURACY OF THE BUILDING GEOMETRY SHOWN IN THE FINAL ARCHITECTURAL DRAWINGS PRIOR TO STAKE-OUT, AND SHALL NOTIFY THE OWNER AND ENGINEER IMMEDIATELY OF ANY DIFFERENCES.
- T. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY TESTING TO ASSURE THAT THE PROPER COMPACTION HAS BEEN ACHIEVED ON THE SUBGRADE, BASE MATERIAL, PIPE BASE MATERIAL, AND ALL OTHER PERTINENT AREAS THAT HAVE BEEN COMPLETED. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH TESTING AND RETESTING THE AREAS AND SHALL PROVIDE THE OWNER AND THE ENGINEER COPIES OF ALL TEST RESULTS. ALL REPORTS ARE TO BE SIGNED AND SEALED BY A REGISTERED GEOTECHNICAL ENGINEER IN THE STATE OF FLORIDA.
- U. SSCOF- CHAPTER 556, FLORIDA STATUTES, REQUIRES EXCAVATORS TO NOTIFY SUNSHINE STATE ON E CALL OF FLORIDA (SSCOFF) BEFORE BEGINNING ANY EXCAVATION IN THE STATE OF FLORIDA UNLESS A SPECIFIC EXEMPTION LISTED IN F.S. 556.108 APPLIES. AN EXCAVATOR MUST NOTIFY SSCOFF TWO FULL BUSINESS DAYS BEFORE EXCAVATING. EXCAVATORS MAY CALL 1-800-432-7770 DURING BUSINESS HOURS OR USE THE INTERNET TO PROVIDE NOTIFICATION INFORMATION.
- V. TRENCH SAFETY- CONTRACTOR SHALL COMPLY WITH OSHA TRENCH SAFETY STANDARDS 29 C.F.R., S. 926.650, SUBPART P, AND ALL SUBSEQUENT-ESMT REVISIONS OR UPDATES ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY AND WITH SECTION 553.62, FLORIDA

II. PRE-CONSTRUCTION RESPONSIBILITIES

- A. UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE OWNER, THE ENGINEER AND ITSELF.
- B. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A CONSTRUCTION SCHEDULE DEPICTING EACH PHASE OF THE WORK.
- C. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.
- D. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.
- E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXISTING UTILITIES FOR WHICH IT FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.
- F. IF UPON EXCAVATION, AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR TO BE OF A SIZE OR MATERIAL DIFFERENT FROM THAT SHOWN ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.
- G. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY, PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR THE FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY MANNER TO MINIMIZE IMPACT ON CONSTRUCTION SCHEDULE. ANY DELAY CAUSED BY THE CONTRACTOR BY THE RELOCATION OF UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
- H. SUNSHINE STATE ONE CALL OF FLORIDA, INC.; CALL TWO FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) BEFORE TO FIND OUT WHERE BURIED FACILITIES (ELECTRICAL, GAS, TELEPHONE, CABLE, WATER) ARE LOCATED.

III. PROJECT CLOSEOUT

- A. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER. UPON FINAL CLEAN UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEEP BROOM CLEAN.
- B. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE ENGINEER, THE COUNTY OR THE GOVERNING AGENCY, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY ITS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF ITS SUBCONTRACTORS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. TO THIS END, THE CONTRACTOR SHALL DO ALL NECESSARY HIGHWAY OR DRIVEWAY, WALK AND LANDSCAPING WORK, SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.
- C. WHERE MATERIAL, OR DEBRIS HAS WASHED OR FLOWED INTO OR BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION.
- D. THE CONTRACTOR SHALL MAINTAIN ACCURATE AND COMPLETE RECORDS OF WORK ITEMS COMPLETED.
- E. ALL REQUIRED TESTING RESULTS PROVIDED TO THE ENGINEER.
- F. ALL REQUIRED AS-BUILT INFORMATION PROVIDED TO THE ENGINEER.

IV. REQUIRED AS-BUILT INFORMATION

- CONTRACTOR SHALL PROVIDE ENGINEER WITH AS-BUILT DRAWING DOCUMENTATION CERTIFIED BY A REGISTERED FLORIDA LAND SURVEYOR DEPICTING THE FOLLOWING INFORMATION AT A MINIMUM:
- A. UTILITY CROSSING SEPARATION INFORMATION FOR THAT PROVIDED ON THE PLANS VERIFYING:
1. SIZE AND MATERIAL OF CROSSING PIPES
 2. TOP ELEVATION OF BOTTOM PIPE
 3. BOTTOM ELEVATION OF TOP PIPE
 4. FINISH SURFACE ELEVATION OVER UTILITY CROSSING
- B. SANITARY SEWER:
1. TOP ELEVATION OF EACH MANHOLE FRAME AND COVER
 2. INVERT OF EACH LINE ENTERING AND LEAVING EACH MANHOLE / STRUCTURE
 3. LENGTH OF EACH RUN OF MAIN BETWEEN MANHOLES (INVERT TO INVERT)
 4. ACTUAL GRADE OF PIPE BETWEEN MANHOLES
 5. LOCATE ALL SERVICE WYES FROM DOWNSTREAM MANHOLE WITH DEPTH AT LOT LINE AND DISTANCE FROM THE MAIN LINE.
 6. LOCATE WITH MEASUREMENTS FROM PERMANENT VISIBLE OBJECTS ALL FITTINGS / ACCESSORIES NOT VISIBLE FROM THE SURFACE (MINIMUM TWO POINT TIES).
- C. STORM DRAINAGE:
1. TOP ELEVATION OF EACH MANHOLE FRAME AND COVER / GRATE AS WELL AS ALL OTHER STRUCTURES (HEADWALLS, CONTROL STRUCTURES, ETC.).
 2. INVERT ELEVATION OF EACH LINE ENTERING AND LEAVING EACH STRUCTURE, INCLUDING UNDERDRAIN PIPES.
 3. INVERTS OF ALL MITERED END SECTIONS.
 4. ACTUAL GRADE OF PIPE BETWEEN THE STRUCTURES. (INVERT TO INVERT)
 5. INVERT ELEVATION AND TWO HORIZONTAL TIES FROM PERMANENT VISIBLE OBJECTS TO ALL STORM STUB-OUTS.
 6. CONTRACTOR SHALL PROVIDE ACCURATE AS-BUILT DIMENSIONS AND ELEVATIONS OF THE STORMWATER MANAGEMENT AREAS IMMEDIATELY AFTER FINISH TO GRADING AND BEFORE GRADING OF THE STUBS. AT A MINIMUM, THE CONTRACTOR SHALL PROVIDE CROSS SECTIONS ON ALL SIDES OF THE WATER MANAGEMENT AREAS AT 100-FOOT INTERVALS. THE CROSS SECTIONS SHALL BE PROVIDED FROM TOP OF BANK TO THE SLOPE BREAK BELOW CONTROL ELEVATION. THE ENGINEER'S APPROVAL IS REQUIRED PRIOR TO GRASSING OF THE BANKS. IF ANY MODIFICATIONS ARE SPECIFIED, ADDITIONAL AS-BUILTS MAY BE REQUIRED.
- D. PRESSURE SYSTEMS (WATER, RECLAIMED, AND FORCE MAINS):
1. ACTUAL LENGTHS BETWEEN BRANCHES AND VALVES ALONG THE MAIN RUN.
 2. LOCATE WITH MEASUREMENTS FROM PERMANENT VISIBLE OBJECTS ALL FITTINGS / ACCESSORIES NOT VISIBLE FROM THE SURFACE (MINIMUM TWO POINT TIES).
 3. AS-BUILT INFORMATION ON THE FORCE MAIN, RECLAIMED AND WATER SYSTEMS SHALL INCLUDE LOCATIONS OF ALL FIRE HYDRANTS, WATER SERVICES AND TOP OF PIPE ELEVATIONS AT ALL FITTINGS AND AT A MINIMUM OF 100 FEET SPACING ALONG THE LENGTH OF MAINS.
 4. ALL AS-BUILT INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO SATISFY THE ENGINEER THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS.
- UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD COMPLETE SETS OF "AS-BUILT" CONSTRUCTION DRAWINGS AS REQUIRED FOR SUBMITTAL AND APPROVAL. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES TO DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS AND SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR.

V. SHOP DRAWINGS AND SUBMITTALS

- A. PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, 7 SETS OF SHOP DRAWINGS AND CATALOGUE LITERATURE SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER OF RECORD FOR SANITARY SEWER, POTABLE WATER AND STORM SEWER FACILITIES.
- B. INDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOGUE LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.

- C. PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW AND APPROVE THE DRAWINGS, AND SHALL NOTE IN WRITING ANY DEVIATIONS FROM THE ENGINEER'S PLANS OR SPECIFICATIONS. SIX (6) SETS OF APPROVED SHOP DRAWINGS SHALL BE RETURNED TO THE CONTRACTOR FOR DISSEMINATION TO OWNER, UTILITY, LOCAL JURISDICTIONAL AGENCIES, ETC.
- D. THE CONTRACTOR SHALL CONFIRM COMPATIBILITY OF PIPE SLOPES AND INVERTS DURING SHOP DRAWING AND MATERIALS ORDERING PHASE OF THE PROJECT AND ADVISE THE ENGINEER OF ANY DISCREPANCIES.

VI. CONSTRUCTION SAFETY

- A. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER. SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.

VII. TRENCH SAFETY ACT

- A. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE STATE OF FLORIDA TRENCH SAFETY ACT.
- B. WHERE EXCAVATIONS TO A DEPTH IN EXCESS OF FIVE FEET (5 FEET) ARE REQUIRED, THE CONTRACTOR SHALL INCLUDE THE FOLLOWING INFORMATION IN THE TRENCH SAFETY PLAN:
1. A REFERENCE TO THE TRENCH SAFETY STANDARDS THAT WILL BE IN EFFECT DURING THE PERIOD OF CONSTRUCTION OF THE PROJECT.
 2. WRITTEN ASSURANCES BY THE CONTRACTOR PERFORMING THE TRENCH EXCAVATION THAT SUCH CONTRACTOR WILL COMPLY WITH THE APPLICABLE TRENCH SAFETY STANDARDS.
 3. A SEPARATE ITEM IDENTIFYING THE COST OF COMPLIANCE WITH THE APPLICABLE TRENCH SAFETY STANDARDS.
- C. WHEN A BID IS NOT SUBMITTED, THE CONTRACTOR SHALL SUBMIT THE INFORMATION LISTED IN ITEM 'B' TO THE ENGINEER PRIOR TO STARTING WORK.

VIII. SURVEY DATA

- A. ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NGVD).
- B. THE CONTRACTOR SHALL PROTECT ALL PERMANENT REFERENCE MONUMENTS AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO SURVEY MARKERS DURING CONSTRUCTION. ANY SURVEY MARKERS DAMAGED DURING CONSTRUCTION WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- C. THE PROPOSED PLAT WAS PROVIDED BY A FLORIDA REGISTERED SURVEYOR.
- D. BENCHMARK LOCATION AND ELEVATION ARE AS REPRESENTED BY SURVEYOR AT THE TIME OF SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.

IX. TEMPORARY FACILITIES

- A. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO ITS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION.
- B. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MUTCD AND FDOT.
- C. ALL OPEN TRENCHES AND ADJACENT ROADWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
- D. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION OF THE COUNTY OR RESPECTIVE GOVERNING AGENCY.

X. INTERRUPTION OF EXISTING UTILITIES

- A. ANY CONSTRUCTION WORK THAT REQUIRES INTERRUPTION OF SERVICE TO ANY CUSTOMER SHALL BE DONE SO WITH A MINIMUM OF SEVENTY-TWO (72) HOUR NOTICE TO, AND WRITTEN APPROVAL BY, THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL JURISDICTIONAL AGENCIES AND OTHER GOVERNING AGENCIES, AND OTHER AFFECTED UTILITIES PRIOR TO SCHEDULING THE SHUT DOWN TO ASSESS THE SCOPE OF WORK. ALL SYSTEM SHUT DOWNS SHALL BE SCHEDULED IN THE EVENING WHEN TRAFFIC DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT TIME WORK BY THE CONTRACTOR AND REQUIRES FULL TIME INSPECTION BY A REPRESENTATIVE OF THE UTILITY. ALL COST FOR OVERTIME WORK BY THE REPRESENTATIVE OF THE UTILITY SHALL BE BORNE BY THE CONTRACTOR. EACH CUSTOMER AFFECTED BY THE SHUT DOWN SHALL BE PROVIDED, MINIMUM, FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR.

XI. EROSION CONTROL PLAN NOTES

FOR EROSION CONTROL NOTES PLEASE REFERENCE SHEET 3

XII. EARTHWORK

- A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXISTING SITE CONDITIONS OF SOIL DURING THE BID PREPARATION TO DETERMINE IF ANY OFF-SITE MATERIALS WILL NEED TO BE IMPORTED TO ACHIEVE THE GRADES SPECIFIED ON THE PLANS.
- B. PRIOR TO BID PREPARATION, THE CONTRACTOR MUST BECOME FAMILIAR WITH THE OVERALL SITE, THE LIMIT AND DEPTH OF EXPECTED ORGANIC MATERIALS, ADEQUACY OF EXISTING MATERIALS AS FILL, Dewatering REQUIREMENTS, CLEAN FILL REQUIRED FROM OFF SITE AND MATERIALS TO BE DISPOSED OF OFF SITE. ANY DELAY, INCONVENIENCE OR EXPENSE CAUSED TO THE CONTRACTOR DUE TO INADEQUATE INVESTIGATION OF EXISTING CONDITIONS SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION IS TO BE ENCOUNTERED DURING OR PROTRUDING THROUGH THE SURFACE OF THE GROUND. THIS DEBRIS SHALL BE REQUIRED DRYING PRIOR TO USE AS BACKFILL AND THE CONTRACTOR MAY HAVE TO IMPORT MATERIALS, AT NO EXTRA COST, FROM OFF SITE TO MEET THE REQUIREMENTS FOR COMPACTION AND PROPER FILL.
- C. CLEAR AREAS INDICATED SHALL BE COMPLETELY CLEAR OF ALL TIMBER, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH AND ALL OTHER DEBRIS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DEBRIS FROM THE SITE. THE CONTRACTOR SHALL BE DISPOSED OF IN A LEGAL MANNER. BURNING OF THIS MATERIAL IS NOT PERMITTED UNLESS THE CONTRACTOR OBTAINS SPECIFIC PERMITS ALLOWING SUCH ACTIVITY.
- D. ALL EXCESS FILL FROM THE SITE SHALL BE STOCKPILED BY THE CONTRACTOR, IN A LOCATION DETERMINED BY THE OWNER OR THE OWNER'S REPRESENTATIVE AND THE ENGINEER.
- E. ALL ORGANIC AND OTHER UNSUITABLE MATERIAL IN BUILDING OR PAVEMENT AREAS SHALL BE REMOVED AND REPLACED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT RECOMMENDATIONS AND SOUND CONSTRUCTION PRACTICES.

XIII. SIGNING AND PAVEMENT MARKING NOTES

- A. ALL PAVEMENT MARKINGS WITHIN FDOT, OR COUNTY RIGHT-OF-WAY SHALL BE THERMOPLASTIC.
- B. ALL STOP BARS SHALL BE THERMOPLASTIC. ALL OTHER STRIPING SHALL BE PAINTED UNLESS OTHERWISE SPECIFIED.
- C. ALL PAINT USED FOR PAVEMENT MARKINGS SHALL CONFORM TO SECTION 971-13 OF THE FOOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION (SSRBC). ALL PAINTED MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH SECTION 710 OF THE FOOT SSRBC AND THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PAINT MAY ONLY BE USED FOR PRIVATE DEVELOPMENT IMPROVEMENTS OR AS TEMPORARY MARKINGS.
- D. THERMOPLASTIC TRAFFIC MARKINGS SHALL CONFORM TO SECTION 711-2 OF THE FOOT SSRBC. ONLY ALKYD BASED MATERIALS SHALL BE USED. THERMOPLASTIC TRAFFIC MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH SECTION 711 OF THE FOOT SSRBC AND THE MUTCD.
- E. ALL REFLECTIVE PAVEMENT MARKINGS SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 706 OF THE FOOT SSRBC.
- F. ALL TRAFFIC SIGNS SHALL BE CONSTRUCTED OF HIGHLY REFLECTIVE MATERIAL AND BE "STANDARD" SIZE AS ESTABLISHED IN THE MUTCD.
- G. STOP BARS TO BE A MINIMUM OF 4 FEET CLEAR BEHIND CROSSWALKS.
- H. HANDICAP PARKING SPACES SHALL BE DESIGNATED BY APPROPRIATE PAVEMENT MARKINGS AND SIGNS.

XIV. PAVING, GRADING AND DRAINAGE NOTES

- A. CONTRACTOR ACCEPTS SITE AS IS, ANY REPAIRS TO EXISTING SITE ELEMENTS INCLUDING PAVEMENT, SIDEWALKS, CURBING, DRAINAGE, SANITARY SEWER, WATER, SIGNAGE AND STRIPING SHALL BE INCLUDED IN THE BID PRICE.
- B. ALL CURB RADI AND DIMENSIONS ARE TO EDGE OF PAVEMENT.
- C. PRIOR TO BACKFILLING THE DRAINAGE SYSTEM, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND LOCAL JURISDICTIONAL AGENCIES FOR INSPECTION.
- D. ALL EXISTING AND PROPOSED UTILITIES SHALL BE ADJUSTED TO NEW FINISH GRADES AND PROPERLY SET TO PAVEMENT CROSS SLOPE AS REQUIRED.
- E. ALL UTILITIES SHALL BE COMPLETED OR SLEEVED PROVIDED BEFORE ANY PAVEMENT CONSTRUCTION BEGINS.
- F. GRADING FROM PROPOSED TO EXISTING CONDITIONS SHALL NOT BE STEEPER THAN 3H:1V NOR FLATTER THAN 20H:1V. ALL SWALES AND SLOPES SHALL BE SODDED AFTER GRADING (SEE NOTE IV.C.6).
- G. IF THE PLANS INDICATE A STABILIZED SUBGRADE IS TO BE USED, IT SHALL HAVE A MINIMUM LBR VALUE OF 40 OR A FBV OF 75 AND SHALL BE IN ACCORDANCE WITH THE F.D.O.T. SPECIFICATIONS, SECTION 160. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT THE ENGINEER FOR APPROVAL. THE MATERIAL TO BE USED FOR THE SUBGRADE, AND THEIR PROPORTIONS AND LABORATORY LBR, BEFORE DELIVERY TO THE SITE. QUALITY CONTROL LBRs MAY BE REQUIRED BY THE ENGINEER TO PROVE THE IN-PLACE CONDITION.
- H. MATERIAL HAVING A PLASTICITY INDEX AT MORE THAN 10 OR A LIQUID LIMIT GREATER THAN 40 SHALL NOT BE USED. ALL MATERIAL USED FOR STABILIZING THE ROADBED SHALL PASS A 3/12 INCH SIEVE.
- I. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR SUBGRADE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO PLACING BASE COURSE MATERIAL.
- J. IF THE PLANS INDICATE A LIMEROCK BASE, THE CONSTRUCTION AND THE MATERIAL FOR THE LIMEROCK BASE SHALL CONFORM TO THE REQUIREMENTS OF THE F.D.O.T. SPECIFICATIONS, SECTION 200. THE LIMEROCK BASE SHALL BE COMPACTED TO A 98% MAXIMUM DENSITY AT OPTIMUM MOISTURE. AASHTO T-180, METHOD "D". THE GEOTECHNICAL ENGINEER SHALL SPECIFY THE LOCATION AND NUMBER OF DENSITY TESTS REQUIRED. THE TESTS RESULTS SHALL BE ACCEPTED BY THE ENGINEER PRIOR TO THE APPLICATION OF THE PRIME AND TACK COATS.
- K. IF THE PLANS INDICATE A SOIL CEMENT BASE, THE CONSTRUCTION AND THE MATERIAL FOR THE SOIL CEMENT BASE SHALL CONFORM TO THE REQUIREMENTS OF THE F.D.O.T. SPECIFICATIONS, SECTION 270. THE SOIL CEMENT BASE SHALL BE COMPACTED TO A 98% MAXIMUM DENSITY AT OPTIMUM MOISTURE. AASHTO T-180, METHOD "D". THE GEOTECHNICAL ENGINEER SHALL SPECIFY THE LOCATION AND NUMBER OF DENSITY TESTS REQUIRED. THE TESTS RESULTS SHALL BE ACCEPTED BY THE ENGINEER PRIOR TO THE APPLICATION OF THE PRIME AND TACK COATS.
- L. THE BASE SHALL BE TRANSPORTED TO THE POINT WHERE IT IS TO BE USED, OVER BASE PREVIOUSLY PLACED IF PRACTICABLE, AND DUMPED ON THE END OF THE SPREAD, HAULING OVER THE SUBGRADE AND DUMPING ON THE SUBGRADE WILL BE PERMITTED ONLY WHEN, IN THE ENGINEERS OPINION, THESE OPERATIONS WILL NOT BE DETRIMENTAL TO THE SUBGRADE.
- M. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR BASE COURSE SHALL BE PROVIDED TO THE ENGINEER & THE ORANGE COUNTY'S ENGINEER.
- N. THE PRIME COAT BITUMINOUS MATERIAL SHALL BE APPLIED BY MEANS OF PRESSURE DISTRIBUTOR. THE AMOUNT OF BITUMINOUS MATERIAL APPLIED SHALL BE AT A RATE NOT LESS THAN 0.15 GALS / SY FOR LIMEROCK BASES AND NOT LESS THAN 0.25 GALS / SY FOR SOIL CEMENT BASES. THE RATE OF APPLICATION SHALL COAT THE SURFACE THOROUGHLY AND UNIFORMLY WITHOUT HAVING ANY EXCESS TO FORM RIDGES OR FLOW OFF THE BASE. THE PRIME SHALL BE ALLOWED TO STAND WITHOUT COVER MATERIAL, FOR A PERIOD OF 48 HOURS UNLESS OTHERWISE ORDERED BY THE ENGINEER.
- O. NO BITUMINOUS MATERIAL SHALL BE APPLIED WHEN THE TEMPERATURE OF THE AIR IS LESS THAN 40 DEGREES FAHRENHEIT IN THE SHADE AND FALLING, OR WHEN IN THE OPINION OF THE ENGINEER, THE WEATHER CONDITIONS OR THE CONDITION OF THE EXISTING SURFACE IS UNSUITABLE.
- P. THE SURFACE TO BE PRIMED SHALL BE CLEAN AND DRY. FOR LIMEROCK BASES, THE GLAZED FINISH SHALL BE REMOVED BEFORE THE APPLICATION OF PRIME COAT. THE TEMPERATURE OF THE PRIME MATERIAL SHALL BE BETWEEN 100 DEGREES FAHRENHEIT AND 150 DEGREES FAHRENHEIT.
- Q. ALL EXPOSED ENDS OF CURBS SHALL TRANSITION TO FINISHED GRADE.
- R. ALL CONCRETE CURBS, SIDEWALKS, INLET TOPS, ETC., SHALL BE 3000 PSI CONCRETE, UNLESS OTHERWISE SPECIFIED.
- S. CONTRACTOR SHALL PROVIDE A SMOOTH DRIVE SURFACE. INTERSECTIONS SHALL BE CONSTRUCTED TO PROVIDE A SMOOTH DRIVING SURFACE WHILE MAINTAINING POSITIVE DRAINAGE. SHOULDER AREAS OF POOR DRAINAGE BE OBSERVED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF CURBS OR PAVEMENT COURSES, SO THAT RECOMMENDATIONS FOR CORRECTION CAN BE MADE.
- T. PAVEMENT GRADES AT HANDICAP PARKING SPACES SHALL NOT EXCEED 2% IN ANY DIRECTION.
- U. PROPOSED AND EXISTING SIDEWALKS SHALL BE RAMPED FLUSH WITH PAVEMENT. RAMPS SHALL NOT EXCEED A 12 HORIZONTAL TO 1 VERTICAL SLOPE.
- V. SIDEWALK PAVEMENT SHALL BE TEXTURED IN CONFORMANCE WITH FDOT STANDARDS EXCEPT WHERE LOCAL CODES DICTATE OTHERWISE OR IF INDICATED OTHERWISE ON THE PLANS. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND THE MUNICIPAL AUTHORITY FOR FORM BOARD AND PRE POUR INSPECTIONS PRIOR TO ANY SIDEWALK AND / OR CONCRETE RAMP

- C. INSTALLATION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THAT ALL RAMP TEXTURED SURFACES AND SIDEWALK LONGITUDINAL AND CROSS SLOPES ARE IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL ADA STANDARDS.
- D. ALL OFF-SITE DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION OR BETTER.
- E. ALL LANDSCAPE ISLANDS SHALL CONTAIN SUITABLE LANDSCAPE MATERIAL FOR LANDSCAPE INSTALLATION.
- F. ELEVATIONS OF GRASSSED AREAS ARE GIVEN AT FINISHED SO / SEED GRADE.
- G. ELEVATIONS GIVEN ADJACENT TO CURB OR FRONT OF SIDEWALK ARE CONSIDERED EDGE OF PAVEMENT GRADES.
- H. SUBGRADE SHALL BE FREE OF MUCK, STUMPS, ROOTS, INDESTRUCTIBLE, INDECOMPOSABLE, VEGETATIVE MATTER, GARBAGE, TRASH OR ANY MATERIAL THAT WILL NOT PROVIDE A SUITABLE STABLE, CLEAN SUBGRADE.
- I. ALL SUBGRADE, BASE COURSE, PRIME COAT, TACK COAT AND ASPHALT MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS (LATEST EDITION).
- J. BEFORE CONSTRUCTION OF ASPHALT SURFACE, A JOB MIX FORMULA SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF DEBRIS AND SILT WHERE THE INS TO EXISTING DRAINAGE STRUCTURES OR SWALES ARE TO BE PERFORMED.
- K. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN CENTERLINES OF DRAINAGE STRUCTURES AND FROM INVERTS OF ENDWALLS AND / OR MITERED END SECTIONS.
- L. JOINTS FOR REINFORCED CONCRETE STORM DRAINS AND CULVERTS SHALL BE FOR ROUND PIPE. RUBBER GASKETS MEETING THE REQUIREMENTS OF SECTION 722.041-1.5 AND 942.1, FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, SHALL BE USED.
- N. REINFORCED CONCRETE PIPE SHALL BE PER ASTM C-76 CLASS III, UNLESS OTHERWISE SPECIFIED. INSTALLATION OF REINFORCED CONCRETE PIPE SHALL BE IN ACCORDANCE WITH FDOT SSRBC (LATEST EDITION).
- O. ALL STORM STRUCTURES SHALL BE CONSTRUCTED AND INSTALLED PER FOOT SSRBC. GRATES SHALL BE CAST IRON. GRATES IN PAVEMENT SHALL BE FRAME AND GRATE CONSTRUCTION UNLESS OTHERWISE SPECIFIED OR APPROVED.
- P. ALL TYPE "P" STRUCTURE BOTTOMS SHALL BE ROUND UNLESS OTHERWISE SPECIFIED AND SHALL HAVE A 4-FOOT MINIMUM DIAMETER.
- Q. REINFORCED CONCRETE PIPE SHALL MEET THE REQUIREMENTS OF F.D.O.T. STANDARD SPECIFICATIONS SECTION 941. CONCRETE PIPE SHALL BE CLASS III OR AS SHOWN ON THE PLANS. PIPE GASKETS SHALL MEET F.D.O.T. STANDARD SPECIFICATIONS SECTION 942.
- R. ALL PIPE JOINTS SHALL BE WRAPPED PER FDOT STANDARD INDEX NUMBER 28.
- S. ALL PIPE SHALL BE CAREFULLY LAID, TRUE TO THE LINES AND GRADES GIVEN, WITH HUB UPGRADE AND TONGUE END FULLY ENTERED INTO THE HUB OF THE PREVIOUS PIPE. WHEN THE JOINTS ARE TO BE MADE WITH AN APPLICABLE REINFORCEMENT IS USED, THE PIPE SHALL BE INSTALLED IN A POSITION SUCH THAT THE MANUFACTURER'S MARKS DESIGNATING TOP AND BOTTOM OF THE PIPE SHALL NOT BE MORE THAN FIVE DEGREES FROM THE VERTICAL PLANE THROUGH THE LONGITUDINAL AXIS OF THE PIPE. ANY PIPE THAT IS NOT TRUE IN ALIGNMENT OR WHICH SHOWS ANY SETTLEMENT AFTER LAYING SHALL BE TAKEN UP AND RELAID WITHOUT ADDITIONAL COMPENSATION.
- T. PVC PIPE SHALL CONFORM TO ASTM D3034 SDR 35 WITH ELASTOMERIC JOINTS. NON-PERFORATED, PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE UN-BELL PLASTIC PIPE ASSOCIATIONS' RECOMMENDED PRACTICE FOR INSTALLATION OF PVC SEWER PIPE".
- U. SDR 35 PVC DRAINAGE PIPE SHALL BE CONNECTED TO THE CATCH BASIN WALLS WITH A COATED PVC ADAPTER, CEMENT COLLAR, RUBBER BOOT, OR AS APPROVED BY THE ENGINEER.
- V. POLYETHYLENE PIPE SHALL BE HDPE CONFORMING TO AASHTO M282 AND AASHTO M284 (WHERE APPLICABLE) EQUAL TO ADS WITH PIPE AND FITTINGS BY THE SAME MANUFACTURER. YARD INLETS SHALL BE ADS NYLOPLAST WITH 12-INCH DIAMETER CAST IRON GRATES (UNLESS OTHERWISE SPECIFIED).
- W. ROOF DRAIN CONNECTIONS SHALL TERMINATE 5 FEET OUTSIDE THE BUILDING ENVELOPE.
- X. ALL CONNECTIONS WITH FDOT, CITY OR COUNTY RIGHTS-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE JURISDICTION.
- Y. ALL STORM STRUCTURES ARE TO BE PLACED ON A 12 INCH DEEP OF CRUSHED STONE OR EQUAL A APPROVED BY THE COUNTY ENGINEER AND FULLY ENVELOPED WITH FILTER FABRIC.

XV. WATER AND SEWER DISTRIBUTION & COLLECTION SYSTEM NOTES

- A. ALL WATER DISTRIBUTION SYSTEM, SANITARY SEWER AND RECLAIMED WATER MATERIALS (INCLUDING SERVICES) AND INSTALLATION SHALL CONFORM TO THE SPECIFICATIONS OF THE APPROPRIATE UTILITY COMPANY AS PROVIDED IN THEIR STANDARD SPECIFICATIONS MANUAL.
- B. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST RECENT MATERIAL AND INSTALLATION SPECIFICATIONS FROM THE APPLICABLE MUNICIPALITY. ALL WATER AND SEWER MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE MOST UPDATE SPECIFICATIONS FROM THE MUNICIPALITY UNLESS OTHERWISE SPECIFIED BY THE MUNICIPALITY. CONTRACTOR SHALL BID THE PROJECT AS SUCH. WHENEVER LOCAL SPECIFICATIONS DIFFER FROM THESE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- C. WATER, SEWER AND REUSE PIPES SHALL HAVE A MINIMUM OF 3 FEET OF COVER UNLESS OTHERWISE SPECIFIED.
- D. WATER SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF AWWA C900-92. MATERIAL SHALL BE AS DESCRIBED IN ASTM D-2373 AND HAVE A STANDARD DIMENSION RATIO (SDR) OF 9.0 AND SHALL CONFORM TO ANSI / AWWA STANDARD C-901.
- E. CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY FOR CONNECTION OF WATER SYSTEM AND FOR CONNECTION OF SANITARY SEWER AND RECLAIMED SYSTEM.
- F. JOINTS FOR THE POLYETHYLENE TUBING SHALL BE OF THE COMPRESSION TYPE, UTILIZING A TOTALLY CONFINED GRIP SEAL AND COUPLING NUT. STAINLESS STEEL TUBE STIFFENER INSERTS SHALL ALSO BE USED FOR P.E. TUBING SERVICES.
- G. CONTRACTOR SHALL PROVIDE DISINFECTION, HYDROSTATIC PRESSURE AND LEAKAGE TESTING IN ACCORDANCE WITH AWWA C600, C605 AND C651 AS APPLICABLE AND BACTERIOLOGICAL TEST REPORTS, ALL IN ACCORDANCE WITH GOVERNING SPECIFICATIONS, FDEP PERMIT CONDITIONS AND AWWA STANDARDS.
- H. CONTRACTOR SHALL NOT ACTIVATE WATER SERVICE UNTIL THE FDEP HAS CLEARED THE SYSTEM FOR USE AND THE CLEARANCE LETTER HAS BEEN RECEIVED BY THE OWNER.
- I. SITE CONTRACTOR SHALL COORDINATE AND VERIFY ALL UTILITY SERVICES WITH FINAL ARCHITECTURAL DRAWINGS AND BUILDING CONSTRUCTION.
- J. WATER MAIN TAPS SHALL BE WITNESSED BY THE GOVERNING MUNICIPALITY. WATER METER VALVES SHALL BE INSTALLED BY THE GOVERNING MUNICIPALITY. WATER METERS SHALL BE INSTALLED BY THE GOVERNING MUNICIPALITY UNLESS OTHERWISE SPECIFIED; BACKFLOW PREVENTERS SHALL BE INSTALLED BY THE CONTRACTOR.
- K. EXISTING WATER MAINS SHALL BE PROTECTED FROM CONTAMINATION DURING FILLING, FLUSHING AND TESTING OF NEW LINES IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF AWWA C900-92. SEE NOTE IV.C.6 FOR FURTHER DETAIL.
- L. ALL FITTINGS 3 INCHES AND OVER SHALL BE PROPERLY ANCHORED WIRESTRAPPED JOINT FITTINGS, CONFORMING WITH THE DETAILS OF THE PLANS.
- M. ALL PIPE SHALL BE LAID TO LINE AND GRADE WITH VALVES AND HYDRANT STEMS PLUMB. ALL PIPE MAINS SHALL BE INSTALLED.
- N. THE WATER SYSTEM SHALL BE TESTED FOR A PERIOD OF NOT LESS THAN 2 HOURS AT 150 PSI IN ACCORDANCE WITH ANSI / AWWA STANDARD C600-99 AND PER AWWA MANUAL M23 WITH AN ALLOWABLE LEAKAGE AS DETERMINED BY THE FOLLOWING FORMULA FOR PVC MAINS:

$$L=SD^5/P.0.133200 \text{ WHERE}$$
$$L = \text{ALLOWABLE LEAKAGE IN GALLONS PER HOUR}$$
$$S = \text{PIPE LENGTH IN FEET}$$
$$D = \text{NOMINAL DIAMETER OF PIPE IN INCHES}$$
$$P = \text{AVERAGE TEST PRESSURE IN PSI}$$

- O. SITE UTILITY WORK SHALL TERMINATE 5 FEET OUTSIDE THE BUILDING ENVELOPE UNLESS OTHERWISE SPECIFIED.
- P. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN CENTERLINES OF MANHOLE STRUCTURES.
- Q. UNLESS OTHERWISE NOTED OR APPROVED, ALL GRAVITY MAINS AND SERVICES SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE (PVC) NON-PRESSURE PIPE CONFORMING TO ASTM D-3034 AND SDR 35 WITH INTEGRAL BELL AND SPIGOT JOINTS FOR PUSH-ON RUBBER GASKET JOINTS CONFORMING TO ASTM D-1989.
- R. ALL GRAVITY MAINS ARE 8 INCHES PVC PIPE AT 0.40% MINIMUM SLOPE AND ALL LATERALS ARE 6 INCHES PVC AT 1/8 INCHES PER FOOT MINIMUM SLOPE, UNLESS OTHERWISE SHOWN ON THE PLANS.
- S. MINIMUM COVER ON SANITARY SEWER MAIN SHALL BE 60 INCHES TO INVERT; MINIMUM COVER ON LATERALS SHALL BE 18 INCHES AT HIGH END OR AS SHOWN ON PLANS.
- T. ALL MANHOLES SHALL HAVE THE WORDS "SANITARY SEWER" CAST IN THE LIDS. CASTINGS SHALL BE CLEAN AND COATED WITH A COAL TAR PITCH VARNISH WHICH IS TOUGH WHEN COLD BUT NOT TACKY OR BRITTLE. PICK TYPE LIFTING HOLES WILL BE CAST INTO LIDS, BUT SHALL NOT GO CLEAR THROUGH THE LID.
- U. CONTRACTOR SHALL INSTALL ONE LENGTH OF DR14 PVC FOR ALL SANITARY SEWER MAINS OR LATERALS HAVING LESS THAN 18 INCHES SEPARATION FROM WATER MAIN. (SEE STANDARD SEWER SEPARATION STATEMENT AND DETAILS ON INSTALLATION).
- V. THERE SHALL BE NO DETECTABLE LEAKS OR INFLTRATION OR EXFILTRATION OF WATER WITHIN THE SANITARY SEWER SYSTEM AT THE TIME OF INSPECTION, ANY EVIDENCE OF LEAKAGE MUST BE CORRECTED PRIOR TO ACCEPTANCE.
- W. ALL VISIBLE LEAKS, REGARDLESS OF RESULTS OF INFILTRATION OR EXFILTRATION TESTS, SHALL BE REPAIRED. ALL REPAIRS SHOWN NECESSARY BY THE TESTS ARE TO BE MADE, BROKEN OR CRACKED PIPE REPLACED, ALL DEPOSITS REMOVED, THE SEWER LEFT TRUE TO LINE AND GRADE AND ENTIRELY CLEAN, FREE FROM LUMPS OF CEMENT, PROTRUDING GASKETS, BULKHEADS, ETC., AND READY FOR USE BEFORE FINAL ACCEPTANCE IS MADE.
- X. REPAIR OF ANY DEFECTS FOUND IN THE SYSTEM ARE TO BE COMPLETED AT THE EXPENSE OF THE CONTRACTOR.
- Y. THE BEDDING OF THE PIPE SHALL BE F.D.O.T. CLASS "D" OR BETTER, REQUIRING THE BOTTOM OF THE TRENCH TO BE SHAPED TO FIT THE BOTTOM OF THE PIPE FOR A DISTANCE EQUAL TO ONE-HALF OF THE OUTSIDE DIAMETER OF THE PIPE. BELL HOLES SHALL BE DEEP ENOUGH TO INSURE PROPER BEARING OF THE PIPE BARREL ON THE BEDDING.
- Z. CONTRACTOR SHALL IDENTIFY AND PAINT ALL FIRE HYDRANTS IN ACCORDANCE WITH THE UTILITY PROVIDING SERVICE AND NFPA SPECIFICATIONS.
- AA. FIRE LINES TO BE TESTED AT 200 PSI.
- AB. FLOW AND COLOR WILL BE BASED ON ACTUAL FLOW TEST CONDUCTED BY THE FIRE INSPECTOR. THIS ACTIVITY SHALL BE COORDINATED BY THE CONTRACTOR. THE OWNER AND ENGINEER SHALL BE GIVEN PRIOR NOTICE OF TESTING AND PROVIDED COPIES OF ALL TEST REPORTS.
- AC. FIRE LINE MATERIAL TO BE C900 CLASS 200 PIPING.
- AD. FIRE HYDRANTS WILL BE FURNISHED WITH A BREAKABLE FEATURE THAT WILL BREAK CLEANLY UPON IMPACT, THIS SHALL CONSIST OF A TWO PART BREAKABLE SAFETY FLANGE WITH A BREAKABLE STEM COUPLING. THE UPPER AND LOWER BARRELS SHALL BE FLUTED AND RIBBED ABOVE AND BELOW THE SAFETY FLANGE OR HAVE AN EXTRA STRENGTH LOWER BARREL.
- AE. ALL FIRE HYDRANTS SHALL MEET THE LOCAL JURISDICTIONAL AGENCIES AND APPROVED MANUFACTURERS LIST AS STATED IN THE DEVELOPMENT CODE.
- AF. BLUE REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED OPPOSITE FIRE HYDRANTS IN THE CENTER OF THE NEAREST TRAVELED LANE TO MARK THEIR LOCATIONS.
- AG. ALL FIRE HYDRANTS SHALL COMPLY WITH ANSI / AWWA STANDARD C502-94.

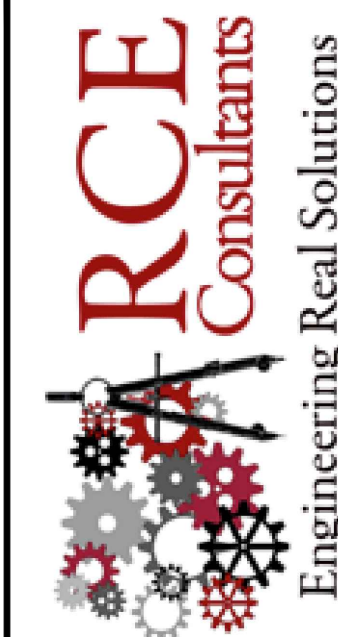
XVI. UTILITY SEPARATION NOTES

- A. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT WILL BE LAID TO PROVIDE: (IFAC 62-555.314(1)(8/2); EXCEPTIONS ALLOWED UNDER FAC 62-555.314(9))
1. A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
 2. A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER (OR A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER).
 3. A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND
 4. A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
- B. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT
1. THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE; AND
 2. THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE THE OTHER PIPELINE; AND
 3. AT THE UTILITY CROSSINGS DESCRIBED IN PART A, ABOVE:
 1. ONE FULL LENGTH OF WATER MAIN PIPE WILL BE INTERFERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE OR THE PIPES WILL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND
 2. AT LEAST SIX FEET FROM ALL JO

PROPOSED PROJECT AREA:		
BUILDING	8,000 Sq. Ft.	0.18 Acres
PAVEMENT/CURB	27,820 Sq. Ft.	0.64 Acres
SIDEWALKS/CONC.	3,358 Sq. Ft.	0.08 Acres
RETENTION	12,613 Sq. Ft.	0.29 Acres
GREEN AREA	44,864 Sq. Ft.	1.03 Acres
TOTAL AREA:	96,655 Sq. Ft.	2.22 Acres

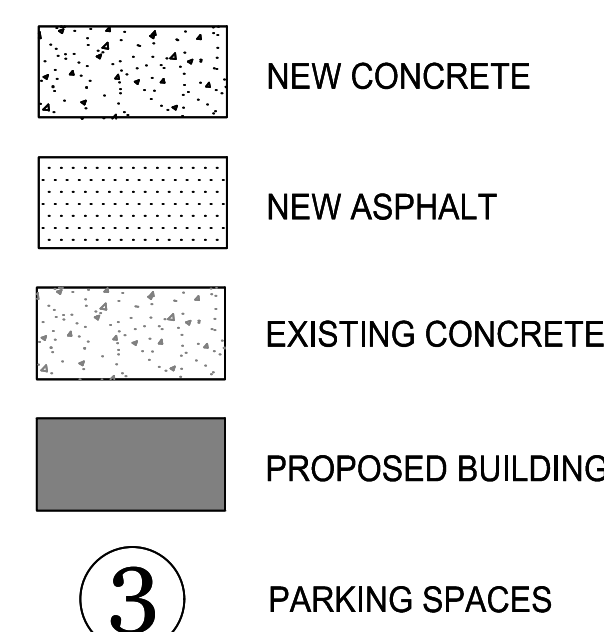
1 SPACE PER 150 SF
8,000SF X 150 SPACE/SF = 53 SPACES

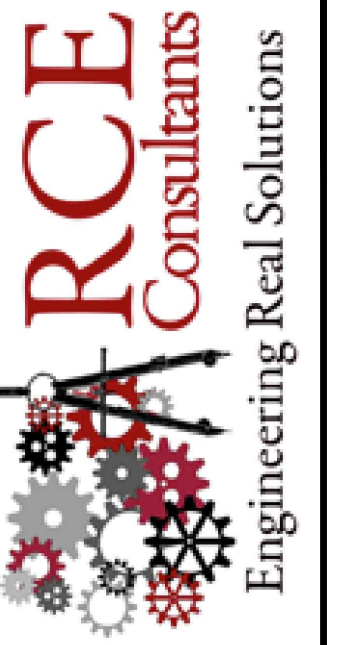
PARKING PROVIDED: 53 SPACES TOTAL
49 STANDARD SPACES & 4 HANDICAPPED SPACES

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Laurence Poliner
#56974
RCE CONSULTANTS, LLC
Certificate of Authorization 2930

PROJECT #: 46.2020	
DRAWN: LMP CHECKED: LMP	
DATE: OCT 2020	SHEET: C-3
SCALE: 1"=10'	
SITE PLAN	





**5050 CONWAY MEDICAL CENTER
GRADING PLAN
BELLE ISLE, FLORIDA 32812**

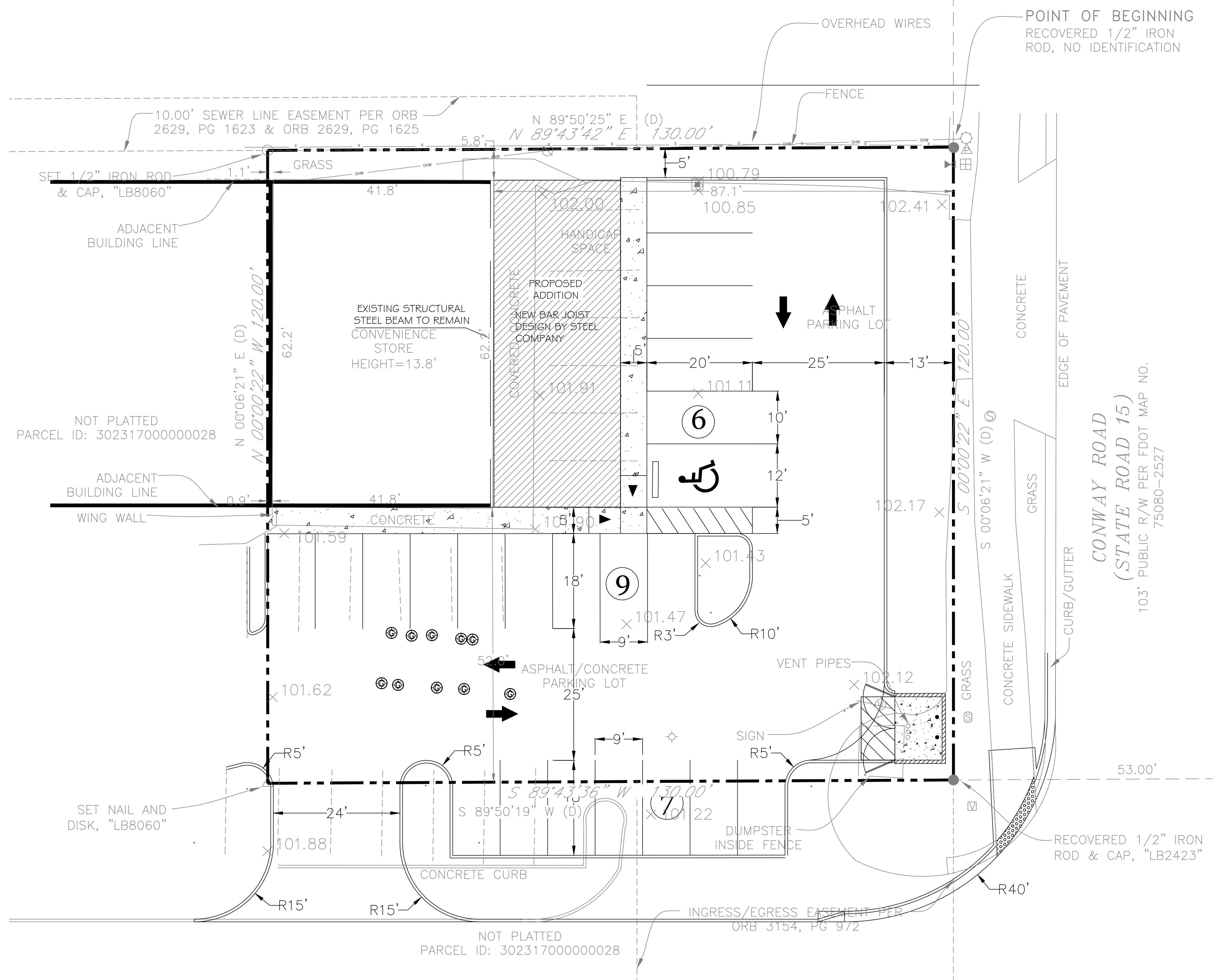
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Engineer of Record

Laurence Poliner
#56974
RCE CONSULTANTS, LLC
Certificate of Authorization 29307

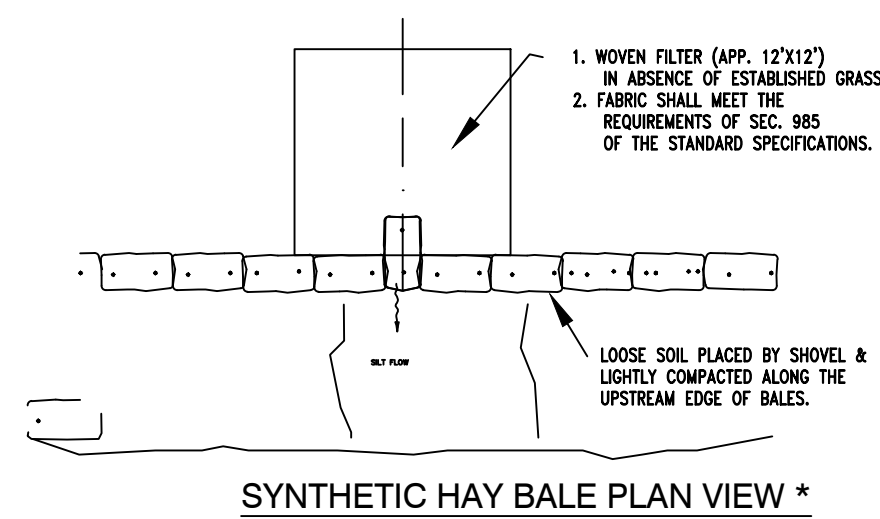
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LAWN:LMP CHECKED: LMP	
DATE: 1/2020	SHEET: C-4
GRADING PLAN	



EROSION CONTROL NOTES

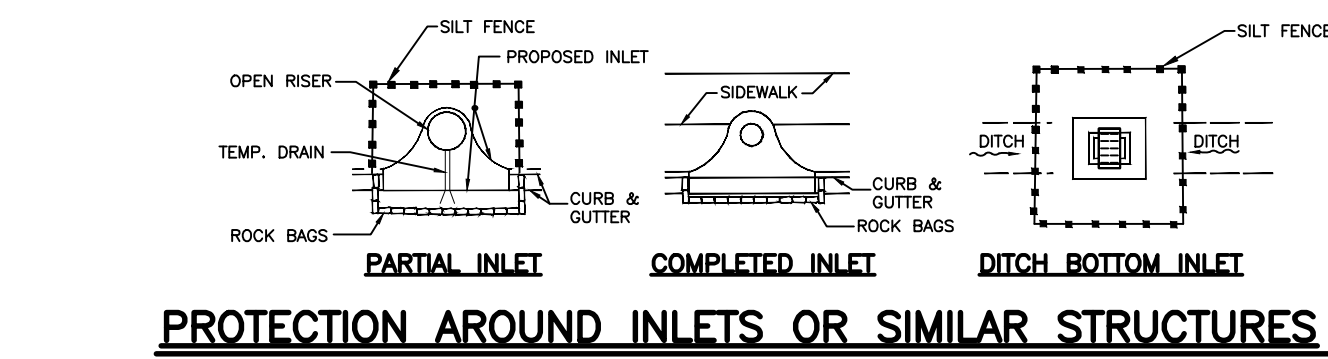
DURING ALL PHASES OF CONSTRUCTION THE SITE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL EXERCISE MEASURES TO PREVENT THE EROSION OF SOILS DUE TO THE ACTION OF THE WATER AND WIND. THE CONTRACTS SHALL USE THE FOLLOWING MEASURES TO ACCOMPLISH THIS OBJECTIVE:

- A. SURFACE PROTECTION
1. CLEARING SHALL BE LIMITED SO AS TO EXPOSE THE SMALLEST POSSIBLE AREA OF LAND FOR THE SHORTEST POSSIBLE TIME.
 2. EXPOSED AREAS SHALL BE IMMEDIATELY GRADED AND PROTECTED WITH TEMPORARY OR PERMANENT COVER, SUCH AS SOD, SEED AND MULCH, CROWWETCH, LESPEDEZA OR CREEPER. NEWLY GRADED CHANNELS OR STEEP SLOPES WILL REQUIRE THE USE OF FIBROUS MATTING, NETTING OF SEEDED AND MULCHED AREAS, OR THE STAKING OR SHINGLING OF SOD WHILE VEGETATION IS BECOMING ESTABLISHED.
- B. RUN-OFF CONTROL
1. LONG AND/OR STEEP SLOPES WILL REQUIRE CONTOUR BENCHING AND FURROWING, OR BERMS TO REDUCE RUN-OFF VELOCITIES.
- C. SEDIMENT TRAPPING
1. THE TRAPPING OF ERODED PARTICLES WILL BE ACCOMPLISHED BY THE DIVERSION OF RUN-OFF TO SEDIMENT BASINS, EXCAVATION TRAPS, BERMS, STAKED SYNTHETIC HAY BALES, OR FLOATING SILT CURTAINS.
 2. THE PROPOSED RETENTION AND/OR DETENTION POND(S) ALONG WITH ANY ENVIRONMENTAL BERM(S) REAR YARD SWALE(S) SHALL BE CONSTRUCTED FIRST. THE POND(S) AND OUTFALL STRUCTURE(S) MUST BE COMPLETE AND OPERATIONAL PRIOR TO THE PLACEMENT OF ANY IMPERVIOUS SURFACE.
 3. TRAPPING DEVICES SHALL BE PERIODICALLY INSPECTED DURING DRY PERIODS AND AFTER EACH RAINFALL EVENT BY THE SITE CONTRACTOR. TRAPPING DEVICES SHALL BE REPLACED IF DETERMINED TO BE INCAPABLE OF PERFORMING INTENDED FUNCTION OF SEDIMENT TRAPPING.
 4. TRAPPING DEVICES SHALL REMAIN IN PLACE UNTIL A VEGETATIVE COVER HAS ESTABLISHED SUFFICIENTLY TO STABILIZE THE SOILS AND PREVENT EROSION.
- D. SOIL MOISTURE
1. THE CONTRACTOR SHALL HAVE AVAILABLE ON THE CONSTRUCTION SITE A WATER SOURCE CAPABLE OF APPLYING WATER TO DRY EXPOSED SOIL IN ORDER TO PREVENT WIND EROSION. THE APPLICATION RATE AND MANNER SHALL BE SUCH THAT SOIL MOISTURE IS ATTAINED AND NO SURFACE RUN-OFF IS CREATED.
- E. RESPONSIBILITY
1. THE CONTRACTOR SHALL BE HELD RESPONSIBLE UNTIL THE CERTIFICATE OF COMPLETION IS ISSUED. AFTER THAT, THE OWNER WILL BE RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER COLLECTION AND RETENTION SYSTEM.

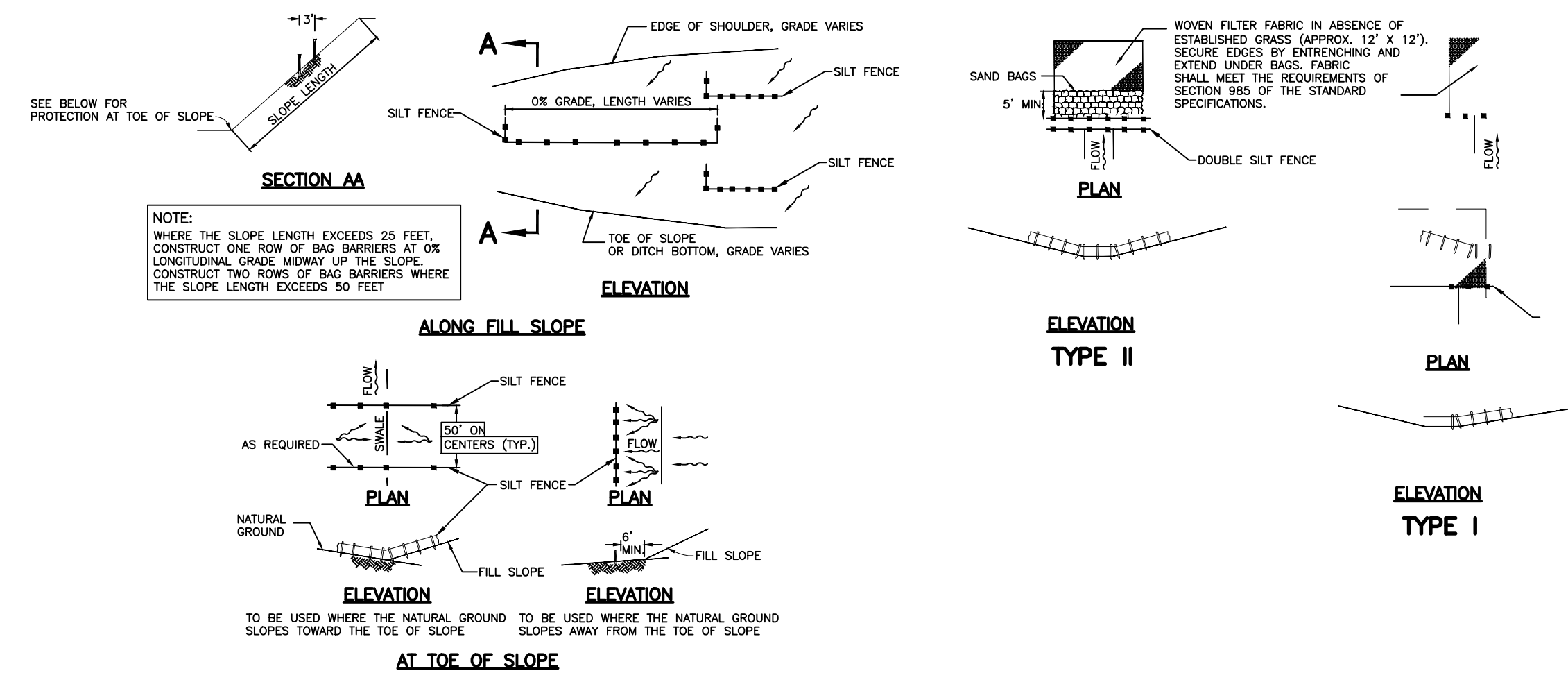


GENERAL NOTES:

1. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP.
2. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
3. THE STRUCTURE SHALL BE INSPECTED AFTER EACH STORM EVENT BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT AND REPAIRS MADE AS NECESSARY.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.
5. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE BASIN HAS BEEN PROPERLY STABILIZED.



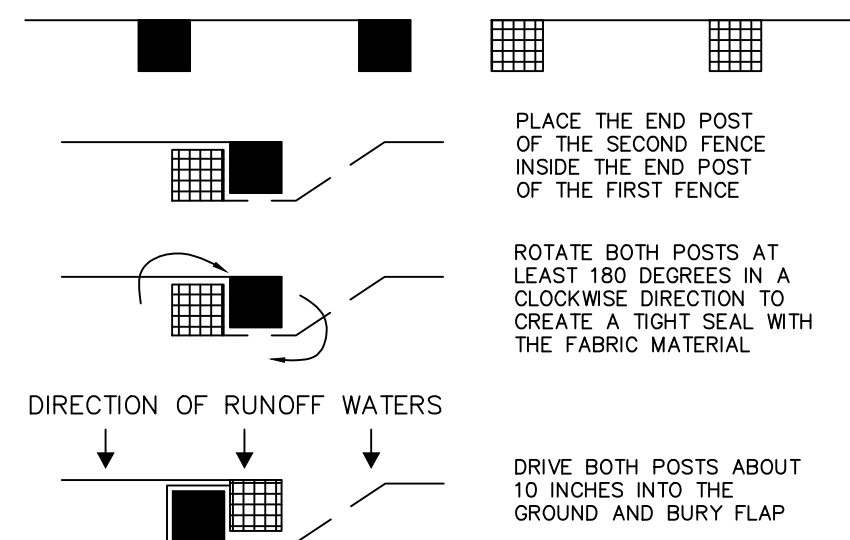
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



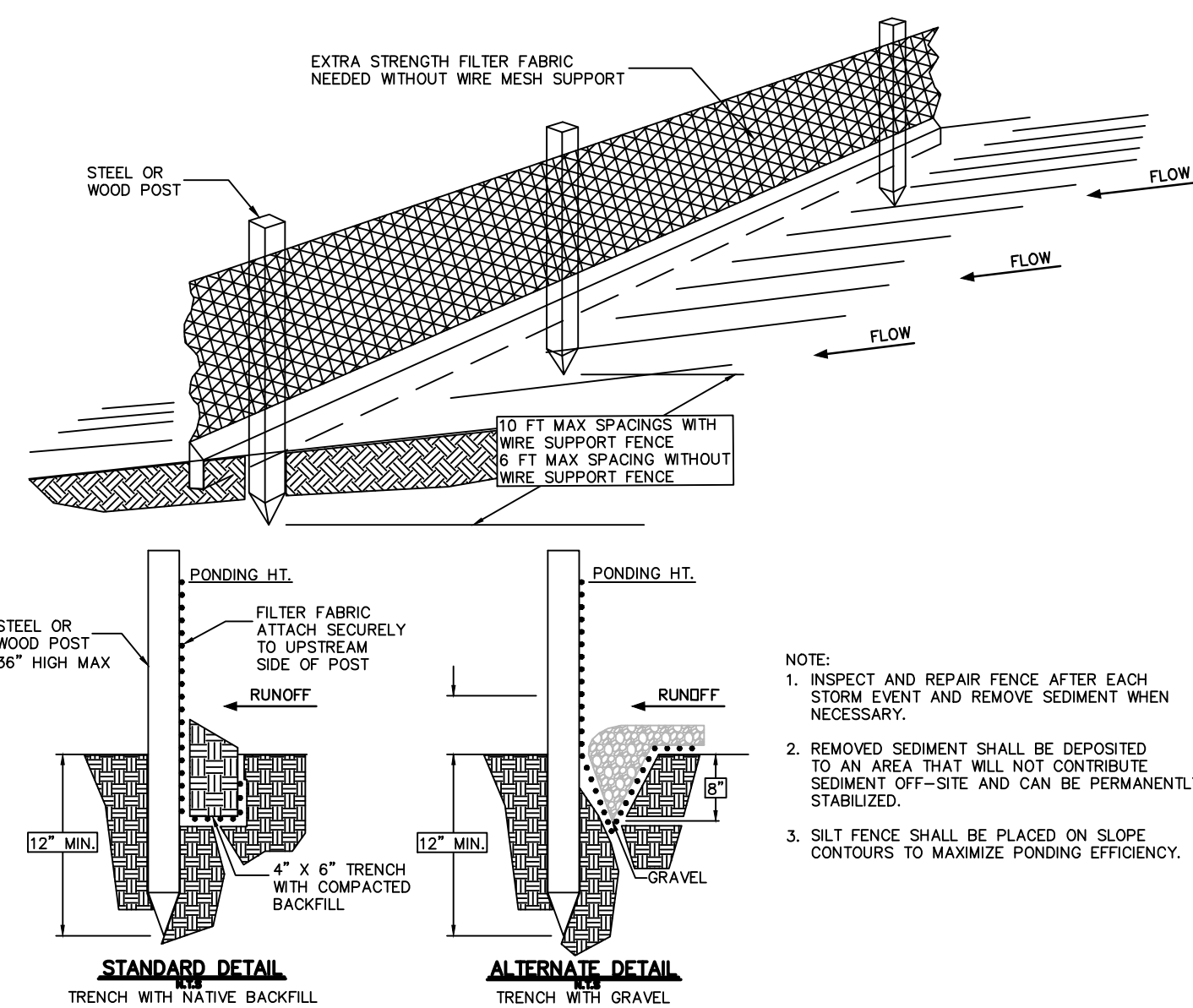
BARRIERS FOR FILL SLOPES

BARRIERS FOR UNPAVED DITCHES

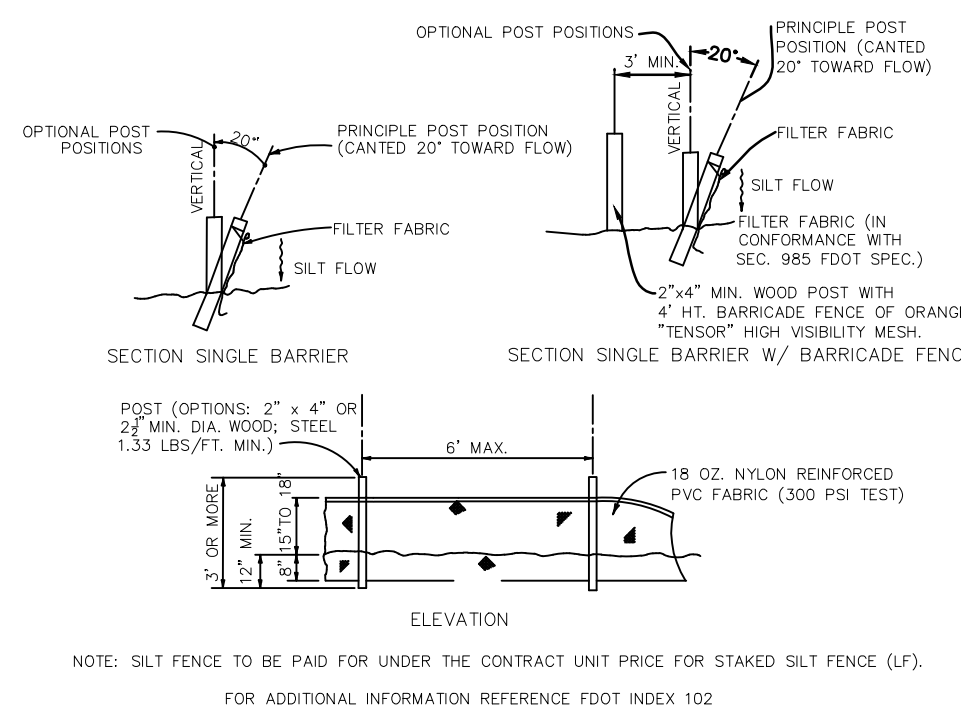
BARRIERS LAYOUT DETAIL



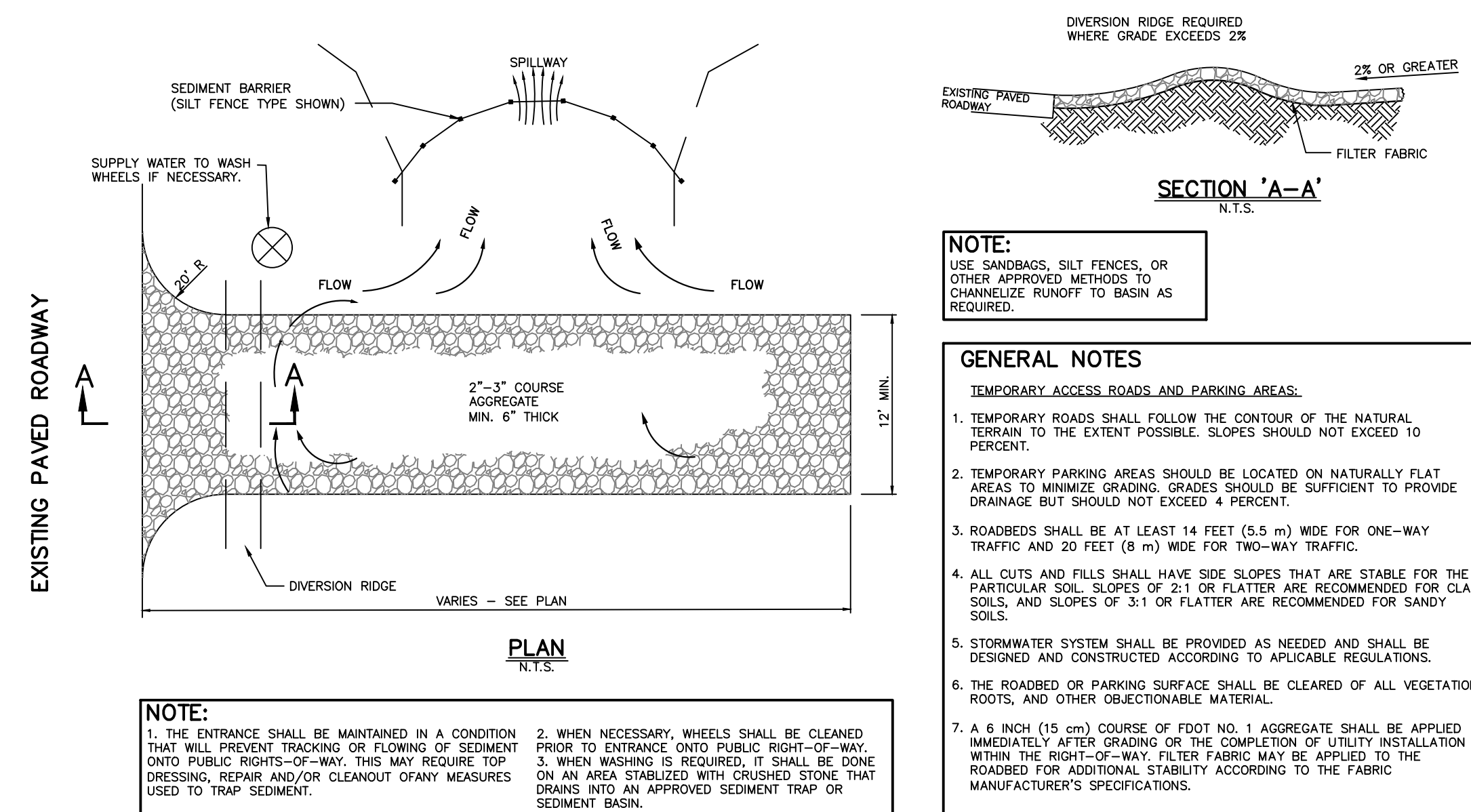
SILT FENCE ATTACHMENT DETAIL
N.T.S



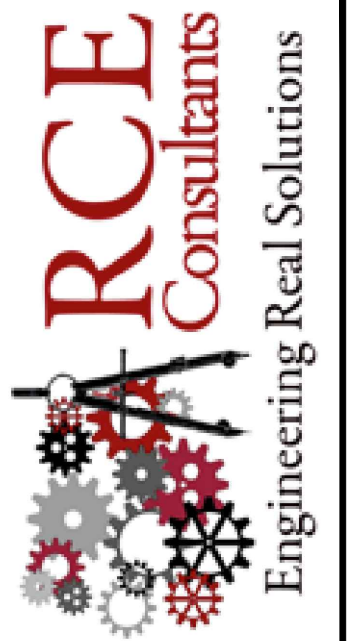
SILT FENCE INSTALLATION



STAKED TURBIDITY BARRIER



TEMPORARY GRAVEL CONSTRUCTION EXIT



**5050 CONWAY MEDICAL CENTER
EROSION CONTROL DETAILS
BELLE ISLE, FLORIDA 32812**

[illegible]

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#56974
RCE CONSULTANTS, LLC
Certificate of Authorization 29307

PROJECT #:
46.2020

DRAWN:LMP CHECKED: LMP

DATE: OCT 2020
SHEET: C 6

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EROSION CONTROL DETAILS

