



CONSTRUCTION PLANS FOR DUETTE PRESERVE WATERSHED

(MANATEE COUNTY WORK ASSIGNMENT # W1400283) OCTOBER 2014

IMPROVEMENTS

SECTION 4, 5, 8, 9, 16, 17, 18, 19, 20, & 21, TOWNSHIP 34 SOUTH, RANGE 22 EAST

PROJECT CONTACTS

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VICINITY MAP



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CA00000696

THE PURPOSE OF THIS PROJECT IS ECOLOGICAL RESTORATION. THE CONTRACTORS WORKING ON

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GENERAL NOTES

SITE PLAN

TYPICAL SECTIONS

OVERALL SITE AERIAI

Sheet Number

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- 2. THE INFORMATION PROVIDED IN THESE PLANS IS TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED PRIOR TO BIDDING TO CONDUCT INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT MAY BE ENCOUNTERED AND UPON WHICH THEIR BIDS WILL BE BASED.
- 3. THE CONTRACTOR SHALL OBTAIN AND/OR VERIFY EXISTENCE OF ALL REQUIRED PERMITS PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS NOT FURNISHED BY THE OWNER.
- 4. PRIOR TO THE START OF CONSTRUCTION ACTIVITY IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY "SUNSHINE STATE ONE CALL (1-800-432-4770)", MANATEE COUNTY PUBLIC WORKS DEPARTMENT, FLORIDA POWER & LIGHT, VERIZON AND ANY OTHER UTILITIES (ELECTRIC, PHONE, GAS, CABLE, ETC.) IT IS THE CONTRACTORS RESPONSIBILITY TO TO PROTECT EXISTING UTILITIES FROM DAMAGE.
- 5. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH NRCS STANDARDS AND SPECIFICATIONS.
- 6. IF HUMAN REMAINS OR ARCHEOLOGICAL ARTIFACTS ARE DISCOVERED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR MUST STOP WORK IMMEDIATELY AND PROMPTLY NOTIFY THE PROJECT MANAGER.
- 7. THE CONTRACTOR SHALL NOT ENTER UPON, OR ALTER THE WETLAND PRESERVE AREAS THAT MAY BE ONSITE OR DIRECTLY ADJACENT TO THE PROJECT AREA EXCEPT AS NOTED IN THESE DRAWINGS. ALL WORK PERFORMED IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL PERMITS FOR THE SITE, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINE RESULTING FROM VIOLATION OF PERMIT CONDITIONS.
- 8. IT IS THE CONTRACTORS RESPONSIBILITY TO CALCULATE AND VERIFY ALL CUT AND FILL QUANTITIES OF EARTHWORK FOR THE PROJECT. A BULKING FACTOR SHOULD BE TAKEN INTO ACCOUNT WHEN FIGURING VOLUMES OF FILL PLACEMENT.
- 9. IMMEDIATELY BEFORE REQUESTING FINAL INSPECTIONS, THE CONTRACTOR SHALL CHECK ALL LINES AND DRESS TO THE PROPER GRADES/CONTOURS. ALL AREAS ARE TO BE STABILIZED AND MAINTAINED UNTIL SPECIFIED. THE CONTRACTOR SHALL MAKE ALLOWANCES WHEN ROUGH GRADING FOR THE FINISHED GRADES IN THESE AREAS.
- 10. POST GRADING SOIL CONDITIONS SHALL BE APPROPRIATE FOR PLANTING WITH LIMITED COMPACTION AS DETERMINED BY THE PROJECT ECOLOGIST.
- 11. ANY DISTURBED AREA WILL BE SEEDED/MULCHED, HYDROSEEDED, OR SODDED OR PLANTED WITH MATERIALS AS SPECIFIED IN THE PLANS.
- 12. ALL PLANT MATERIAL TO BE INSTALLED SHALL BE HEALTHY, IN GOOD CONDITION, FREE FROM DISEASE AND APPROVED BY A QUALIFIED ECOLOGIST PRIOR TO INSTALLATION.
- 13. DURING CONSTRUCTION OF SPOIL REMOVAL SITES, WORK WILL BE DONE FORM UPLANDS TO THE EXTENT POSSIBLE. IN AREAS WHERE EQUIPMENT IS USED TO PERFORM SPOIL REMOVAL IS REQUIRED TO CROSS WETLANDS/WATERS OF THE UNITED STATES THE PROJECT ECOLOGIST WILL MONITOR THE OPERATION AND ENSURE MINIMAL DAMAGE TO SOIL AND VEGETATION OCCURS. NO EXCAVATED MATERIAL WILL BE PLACED IN WETLANDS AND ANY ALTERATIONS TO GRADE FROM SPOIL REMOVAL WILL BE REPAIRED.
- 14. NO DEWATERING IS PROPOSED. IF DEWATERING IS TO OCCUR PRIOR APPROVAL FROM SWFWMD WILL BE OBTAINED BY CONTRACTOR.



THE SITE CONSTRUCTION STAKEOUT SHALL BE PERFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR, AUTOCAD FILES WILL BE FURNISHED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN AUTOCAD FILES AND SITE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.

- 1. THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATIONS AND CONSERVATION PRACTICE STANDARD (LATEST EDITION) AND MANATEE COUNTY STANDARDS AND SPECIFICATIONS AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK, AND, UNLESS OTHERWISE NOTED, ALL WORK SHALL CONFORM AS APPLICABLE TO THESE STANDARDS AND SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, AND ALL OTHER DELETERIOUS MATERIAL.
- 3. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
- 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. A LIST OF THE UTILITY COMPANIES, IF ANY, WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.
- 6. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
- 7. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.
- 8. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS. ALL SURVEY COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR WHOSE
- 11. THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF ANY WELLS DISCOVERED ON SITE. WELLS THAT HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR UPON NOTIFICATION BY THE OWNER/ENGINEER, IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.
- 12. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.

DEMOLITION NOTES

- ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.
- REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
- ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED THAT MAY BE IMPACTED BY PROJECT ACTIVITIES MUST BE IDENTIFIED AND COORDINATED WITH THE OWNER AND ENGINEER. THE CONTRACTOR SHALL OBTAIN ANY NECESSARY TREE REMOVAL PERMITS FOR TREES THAT ARE TO BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING IF REQUIRED TO PREVENT IMPACTS TO PRESERVED TREES FROM CONSTRUCTION ACTIVITIES SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES.

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR

CALL 2 WORKING DAYS BEFORE YOU DIG

ADDRESSING THIS ISSUE.

IT'S THE LAW! **DIAL 811**

Call before you dig SUNSHINE STATE ONE CALL OF FLORIDA, INC.

GRADING AND DRAINAGE NOTES

- 1. ALL CONSTRUCTION, MATERIALS, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR NRCS SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
- 2. ALL UNPAVED AREAS DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SODDED/SEEDED AS NOTED IN THE PLANS.
- 3. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
- 4. ALL DISTURBED AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED/SODDED UNLESS INDICATED OTHERWISE ON THE PLAN.
- 5. ALL AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SECTIONS AS INDICATED ON THE DRAWINGS.
- 6. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
- 7. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
- 8. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. TOPSOIL AND ORGANIC MATTER MAY BE PLACED WITHIN DITCHES TO BE FILLED AS DIRECTED BY THE OWNER.
- 9. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO NRCS STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
- 10. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS (NRCS CODE 342). ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 11. ALL CUT OR FILL SLOPES SHALL BE 3 (HORIZONTAL) :1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- 13. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES THE WATER QUALITY STANDARDS IN CHAPTER 17-302, FLORIDA ADMINISTRATIVE CODE.
- 14. SOD, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
- 15. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE ENVIRONMENTAL RESOURCE PERMIT AND EXEMPTION APPROVAL COMPLETE WITH ALL CONDITIONS ATTACHMENTS, AND EXHIBITS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE EXEMPTION APPROVAL MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY WATER MANAGEMENT DISTRICT REPRESENTATIVES.
- 16. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS.

STORMWATER PIPE NOTES

- 1. THE CONTRACTOR SHALL CONSTRUCT ALL STORMWATER PIPES AS SHOWN ON THESE PLANS (NRCS CODE 587). THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS, JURISDICTIONAL AGENCY REQUIREMENTS, AND APPLICABLE SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
- 2. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR UTILITY LOCATION AND COORDINATION IN ACCORDANCE WITH THE NOTES CONTAINED IN THE GENERAL CONSTRUCTION SECTION OF THIS SHEET.
- 3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.
- 4. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACK FILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 5. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.
- 6. PIPE TRENCHES SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

TEST RESULTS SHALL BE PROVIDED TO OWNER AND ENGINEER AS REQUIRED.

- 7. UNDERGROUND LINES SHALL BE SURVEYED BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR PRIOR TO BACK FILLING.
- 8. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. A COPY OF THE

EROSION CONTROL NOTES

- 1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THE BEST MANAGEMENT PRACTICES (BMP) PLAN AND DETAILS INCLUDED IN THESE CONSTRUCTION PLANS.
- 2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE BMP PLAN AND BECOME FAMILIAR WITH ITS
- 3. THE CONTRACTOR SHALL IMPLEMENT THE BMP'S AS SHOWN. ADDITIONAL BMP'S SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- 4. BMP'S AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE JURISDICTIONAL AGENCY OR OWNER.
- 5. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
- 6. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING OTHER NECESSARY FACILITIES.
- 7. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
- 8. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- 10. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- 11. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
- 12. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACK FILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.
- 13. STABILIZATION PRACTICES SHOULD BE INITIATED AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS WHERE CONSTRUCTION HAS TEMPORARILY CEASED.
- 14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRED IN THESE AREAS.
- 15. IF THE ACTION OF VEHICLES TRAVELING OVER GRAVEL CONSTRUCTION ENTRANCES IF ANY, IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
- 16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED AS SOON AS POSSIBLE.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE EXISTING/PROPOSED DRAINAGE FEATURES AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
- 18. ON-SITE & OFF SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE EROSION CONTROL PLAN AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT
- 19. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
- 20. DUE TO GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION.

MAINTENANCE

ALL MEASURES IDENTIFIED IN THE BMP PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- 1. ALL PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
- 2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEEDED AS NEEDED.
- 3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
- 4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
- 5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
- 6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS.
- 7. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN 2 CALENDAR DAYS FOLLOWING THE INSPECTION.

CS587-1

NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATIONS

STRUCTURE FOR WATER CONTROL

(No.) Code 587

SCOPE

This item shall include all work necessary for the installation of the water control structure. Construction operations shall be carried out in such a manner that erosion, air, water and noise pollution will be minimized and held within legal limits as established by state or local regulations.

SITE PREPARATION

All brush, trees, stumps, fence rows, and other objectionable material shall be removed and disposed of in such a way that it will not interfere with constructing, shaping, or proper functioning of the water control structure.

Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable fill material compacted to provide adequate support. Backfill of selected material shall be placed in layers not to exceed 9 inches and properly compacted.

All earth removed and not needed in construction shall be spread or disposed of in such a way that it will not interfere with the functioning of the water control structure. All portions of the structure shall be finished and smoothed in such a manner that the applied vegetative cover can be properly maintained.

Topsoil shall be stockpiled and spread where needed to provide a seedbed for areas to be vegetated. Mechanical excavation for placement of pipes shall be to the approximate grade with final shaping to finished grade done with hand tools. Pipes shall have a straight grade in the direction of flow and shall be placed on firm, smoothly graded foundations.

EARTHFILL

Material. The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", or other objectionable materials. Borrow areas should be free from invasive/exotic species and noxious weeds.

Placement. Areas on which fill is to be placed shall be scarified prior to placement of fill. The placing and spreading of the fill material shall be started at the lowest point of the foundation and shall be brought up in approximately horizontal layers not exceeding 9 inches in thickness (before compaction). The layers shall be of approximately the same elevation and shall extend over the entire area of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The embankment shall be constructed to the elevation shown on the plans, including additional height for settlement.

Compaction. The construction equipment shall be operated over the area of each layer in a manner that will result in the specified compaction of the fill material. A minimum of two complete passes of the construction equipment over each layer must be obtained after the layer has been spread to the layer thickness. Special compaction equipment shall be used when the required compaction cannot be obtained by the routing of equipment.

The moisture content of the fill material shall be such that the specified compaction can be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out. The moisture content of the fill shall be maintained within the limits to:

material under the action of the hauling or compaction equipment,

(1) prevent the bulking or dilatence of the

- (2) prevent adherence of the fill material to the equipment, and
- (3) ensure the crushing and blending of the soil clods and aggregation into a homogeneous mass.

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Cutoff trench. Where required, the cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be as shown on the plans. The side slopes of the trench shall be 1 horizontal to 1 vertical (1:1) or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Structure backfill. Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24 inches or greater over the structure or pipe. The pipe shall be firmly and uniformly bedded throughout its entire length.

MATERIALS

Pipe. All pipes shall be circular in cross section and shall meet the requirements as shown on the engineering plans.

Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with the use of rubber or plastic insulating materials of at least 24 mils in thickness.

All connections with pipes must be completely watertight. The pipe barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

Helical corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

requirements of NRCS Construction Specification 32. Structure Concrete. Rock riprap. Rock riprap shall meet the

Concrete. Concrete shall meet the

requirements of NRCS Construction Specification 61, Rock Riprap. Geotextile. Geotextile shall be placed under all riprap and shall meet the requirements of NRCS

Any special protection materials shall be installed per manufacturer's instructions.

Construction Specification 95, Geotextile.

POLLUTION CONTROL

Construction operations shall be carried out so that erosion and sediment control are addressed, and air and water pollution are minimized. This may include such items as silt fence, hay bale barrier, temporary vegetation, mulching, etc.

VEGETATION

Vegetation will be established as specified in the vegetative plan.

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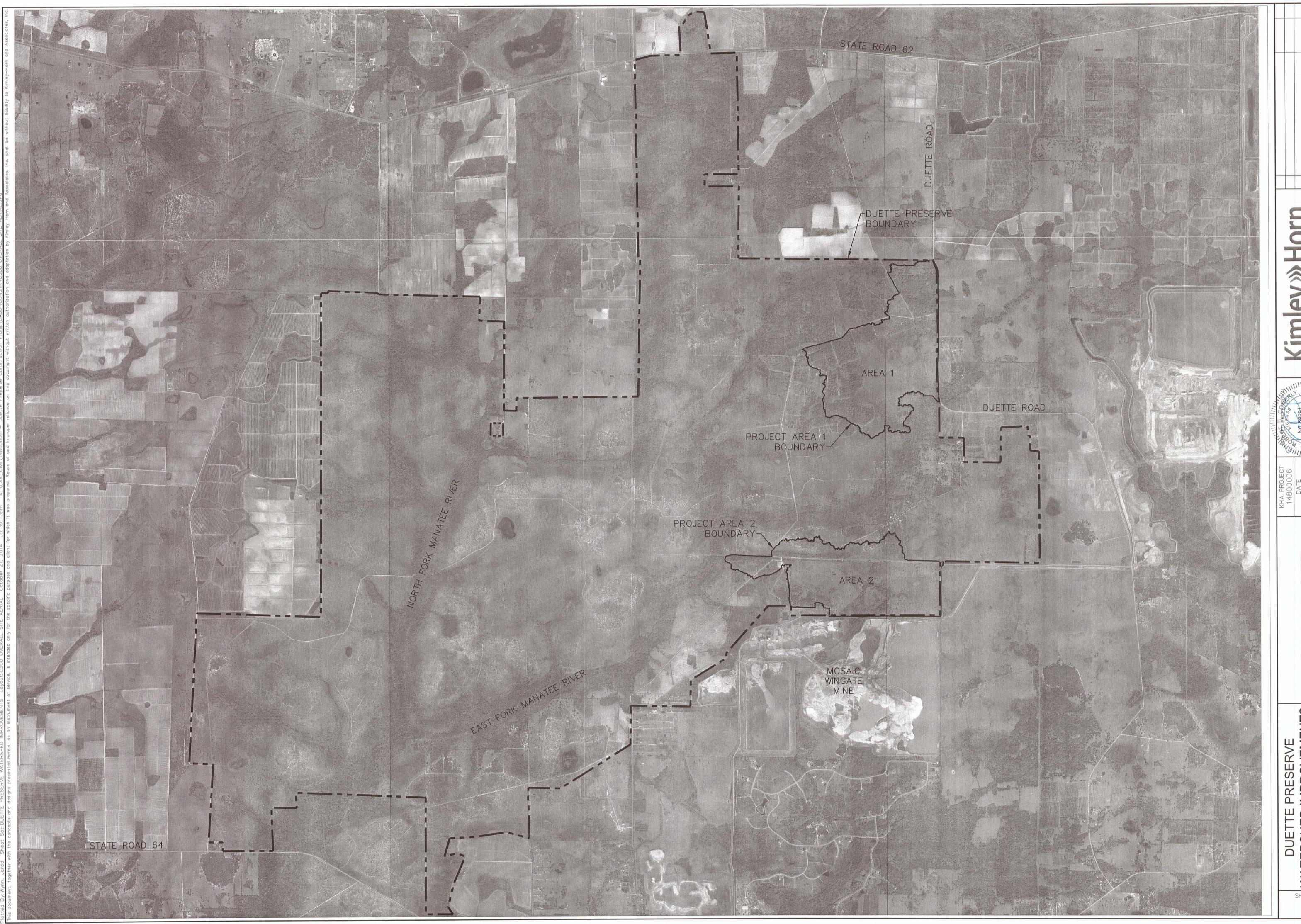
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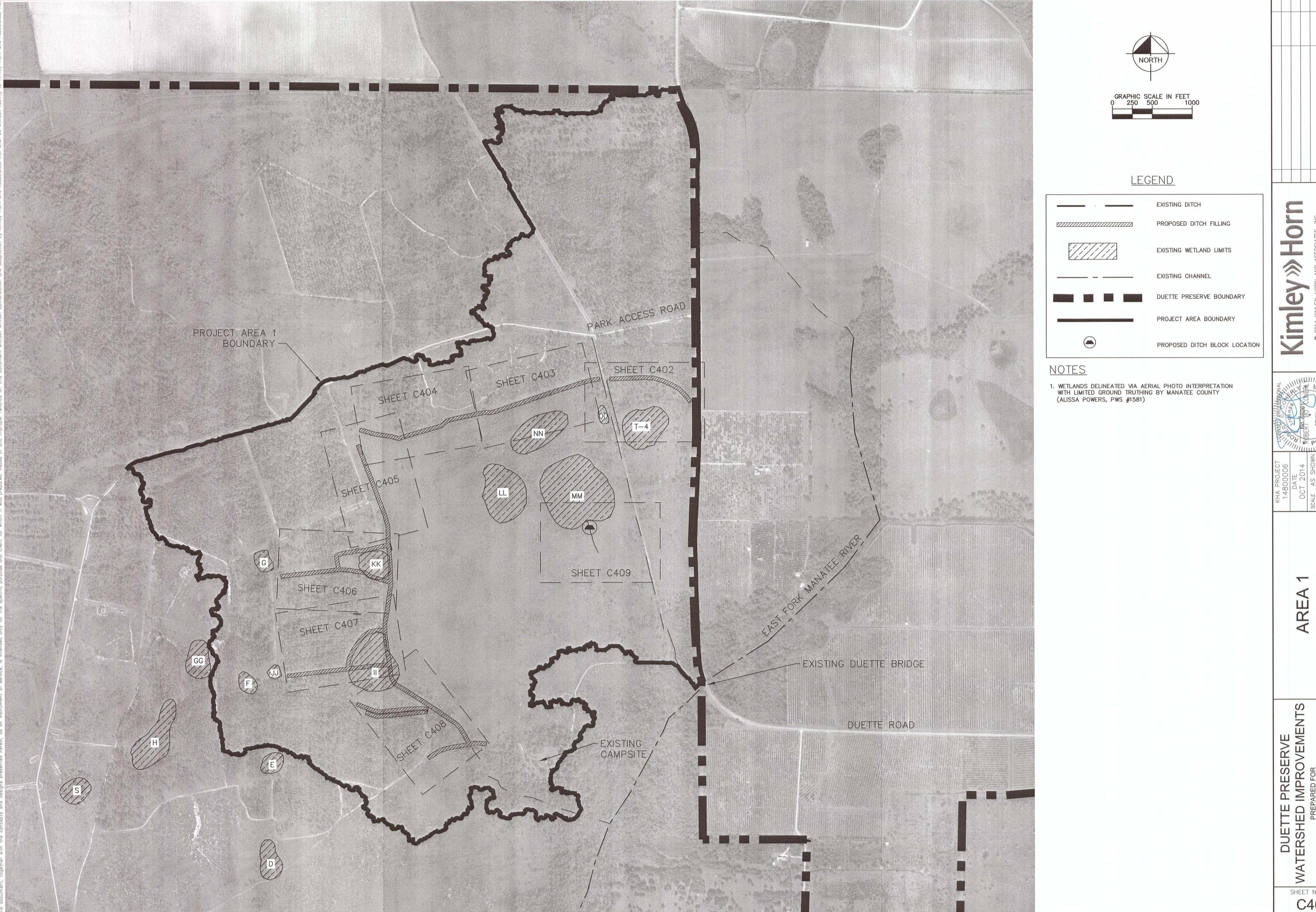
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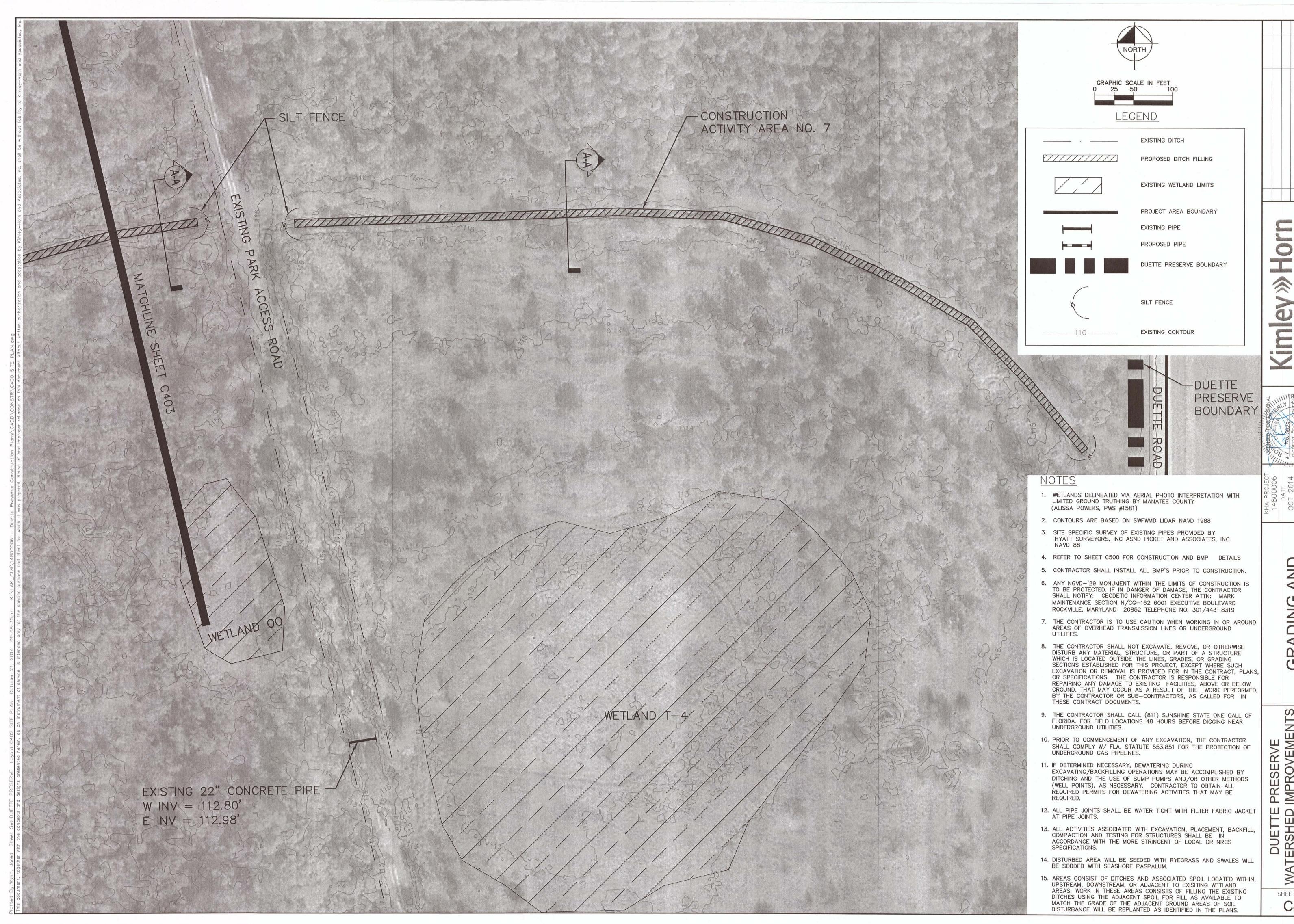
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