

PERMIT EXPIRES:01/05/2015

Printed By:DUNKLIN

PERMIT #: LEM1100082  
PROJECT NAME: TERRE BONNE CULVERT CROSSING  
Location: RUE DE LAFITTE north of Lakeshore Dr  
PERMITTEE: LEON COUNTY PUBLIC WORKS

DATE ISSUED: 01/06/2012  
PARCEL TAX ID#: 88-88-88-888-8888

FEE INFORMATION:  
Short Form A Non Res: \$0.00  
Short Form B High: \$0.00  
Short Form B Low: \$760.00  
Standard Form: \$0.00  
Tree: \$114.00  
Landscape: \$0.00  
App/Resubmittal: \$0.00  
General Utility: \$0.00  
Discovery After the Fact: \$0.00

TOTAL FEES: \$874.00  
TOTAL PAYMENTS: \$874.00  
BALANCE: \$0.00

**BOARD OF COUNTY COMMISSIONERS  
LEON COUNTY  
DEPARTMENT OF DEVELOPMENT SUPPORT  
AND ENVIRONMENTAL MANAGEMENT**

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**TERRE BONNE  
CULVERT & PAVEMENT REPLACEMENT**

**ENVIRONMENTAL MANAGEMENT PERMIT  
LEM 11-00082**

**-A Pre-Construction Conference with the County Environmental Inspector is Required-  
(Contact Brian Lawrence @ 606-1356 or 544-0826)**

This environmental management permit authorizes construction of a culvert crossing and associated roadway and drainage improvements within Leon County right-of-way (ROW) in Leon County consistent with the following attachment and exhibit:

Attachment A: Permit Conditions  
Exhibit A: Approved Construction Plans

The permittee should be familiar with the permit conditions and all other attachments and exhibits included in this permit prior to the commencement of development activity. Failure to conform to this permit may cause appropriate enforcement action to be taken that could include a "Stop Work Order" or a "Notice of Violation".

Approved By:

  
\_\_\_\_\_  
John Kraynak, P.E., Director  
Environmental Compliance  
CMS

12-21-2011  
Date

**APPLICANT'S COPY**

**ATTACHMENT "A"**  
**PERMIT CONDITIONS:**

**TERRE BONNE**  
**CULVERT & PAVEMENT REPLACEMENT**

**GENERAL CONDITIONS:**

1. The permittee shall conduct all development activity consistent with the "Environmental Management Act," Article VII, Chapter 10 of the Leon County Land Development Code. **Reference Section 10-4.105.**
2. *Posting of placards.* A placard indicating issuance of a valid permit shall be posted in a conspicuous place on site at all times during the development activity. **Reference Section 10-4.203(c)(1).**
3. *Permit and plans on-site.* A copy of the approved permit and plans (Exhibit "A" and subsequent approved contractor "Shop Drawings") shall be available on site at all times when any development activity is occurring on the site. **Reference Section 10-4.203(c)(2).**
4. *Notice of intent to proceed and Pre-Construction Conference.* A notice of intent to proceed shall be filed with the Director at least three (3) working days prior to initiation of any physical development activity on the site. The notice shall specify the site location and the permit number(s) applicable to the activity and shall specify the date and approximate time at which such physical development activity is to commence. A pre-construction conference will be scheduled and required prior to the commencement of any development activity. **Reference Section 10-4.203(c)(3).**
5. *Environmental Management Officer.* This individual shall be in responsible charge of all on-going work on the site and ensure that all work is proceeding according to the approved plans and permit. The designated environmental management officer must ensure that during such time as the officer is not personally present on the site a designated alternate remains in responsible charge of the project. For this project, the Environmental Management Officer shall be determined at the pre-construction conference. **Reference Section 10-4.203(c)(6).**
6. *Permit Expiration.* This Environmental Management Permit expires 36 months after issuance. **Reference Section 10-4.214(1)(a).**
7. *Extensions.* Permits may be extended, by request of the applicant and approval of the Director, for successive periods of time not to exceed 36 months each, provided the request for extension is made prior to the expiration of the prior approval and provided continuous good faith efforts have been made to complete the development. **Reference Section 10-4.214(1)(b).**
8. *Early expiration for cause.* If no substantial and readily observable site development activity has taken place within 18 months of the issuance of the permit or, once development is started, if no such development activity occurs for any 12 consecutive months, the Director may, after notifying the permittee and providing an opportunity for hearing, determine the permit to be expired and shall so notify the permittee. Such a permit may not thereafter be extended. **Reference Section 10-4.214(1)(c).**
9. *Effect of permit expiration.* Once a permit has expired, no further development activity may proceed on the permitted development site unless and until a new permit is received for the development site and activity. **Reference Section 10-4.214(3).**

10. *Continued responsibility under expired permit.* An expired permit shall not relieve the permittee from the responsibility of continued compliance with this permit and the Code. Where development has commenced and no final inspection completed before expiration of a permit, the permittee may be required to submit, and obtain the Director's approval of a new environmental management permit application or an application for amendment of the expired permit. As an option, the permittee may be required to complete and maintain the landscaping, trees, or stormwater management systems and facilities which were required by the expired permits, as necessary to prevent significant adverse environmental impacts as a result of development activity which has occurred on the site. **Reference Section 10-4.214(3).**
11. *Notice of transfer of permit.* No later than ten (10) days after the sale or legal transfer of property upon which a stormwater management facility has been, or is approved to be, constructed pursuant to a permit issued by the County, a notice of transfer of permit shall be submitted to the Director. The notice shall be made using a form provided by the Director. **Reference Section 10-4.214(5)(a).**
12. *Transfer liability.* Until a proper notice of permit transfer is provided to the Director, the permittee and any other person constructing, operating, or maintaining the permitted facility shall be liable for compliance with the terms of the permit. The permittee transferring the permit shall remain liable for corrective actions required as a result of any violations occurring prior to transfer. For facilities that have received final inspection approval prior to the time of legal transfer, the original permittee shall remain liable for performance of warranty obligations as set forth in **Section 4.208(d)** {f.k.a. 10-363(d)}, absent an express assumption of liability as to such warranty obligations by the subsequent holder of the property. **Reference Section 10-4.214(5)(b).**
13. *Amendments.* Any minor change or deviation from the approved plans shall require an amendment to this permit. Substantial changes, including significant increases in impervious area, changes in intended land use, modification of stormwater management system, new phases of development, or other additions, shall not be treated as amendments, but shall require a new permit application. **Reference Section 10-4.215.**
14. *During development.* All environmental management controls and facilities shall be maintained in a manner which will ensure proper functioning and protection from unnecessary environmental degradation, throughout the development process. **Reference Section 10-4.210(a).**
15. *Post-development.* Upon completion of development activities and construction, the permittee shall ensure that each site is properly stabilized, and that swales and other stormwater management features shown in the permit are in place in a manner consistent with the permit, approved plans and specifications. **Reference Section 10-4.210(b).**
16. *Post-construction inspection.* Prior to requesting a final inspection by the Director, the permittee shall have a qualified professional to personally inspect the site and facilities and certify as provided for in **Section 10-4.208(b).**

## SPECIFIC CONDITIONS:

1. *Permit Scope.* As shown in Exhibit "A" (the permit plan set), this permit authorizes construction of a culvert crossing and associated roadway and drainage improvements within Leon County right-of-way (ROW) in Leon County.
2. *Licensed contractors.* All excavation, grading work, and other site work shall be performed under the supervision of a certified or registered general contractor, building contractor, residential contractor, commercial or residential pool/spa contractor, or underground utility contractor, or by an excavation, grading and site contractor duly licensed by the County Contractors Licensing Board. **Reference Section 10-4.203(c)(5).**
3. *Notification of Easements.* A copy of any required easements, with proof of recording, shall be provided to the Director prior to final inspection. Where transfer of title for any affected parcel is proposed, the owner shall provide clear information to each prospective buyer prior to execution of any contracts, about the existence, impacts, and responsibilities associated with any easements on the property. A copy of the applicable easements shall be provided by the owner to each prospective purchaser prior to closing, and the copy shall be initialed by the parties and attached to such closing documents upon execution. **Reference Section 10-4.203(c)(8).**
4. *Stormwater management facility operating permit.* No stormwater management facility shall be utilized until a stormwater management operating permit is obtained. An operating permit is not required for facilities which have as their primary function the conveyance of stormwater, facilities under construction as part of an approved development plan, and temporary facilities which are part of an erosion and sediment control plan. **Reference Section 10-4.209(a).**
5. *Required disclaimers.* Any contract for the conveyance of title to land for which stormwater management is provided by a system or facility not maintained by the County or the City of Tallahassee shall contain the following statement: "Neither Leon County nor the City of Tallahassee is responsible for the maintenance, upkeep or improvement of any stormwater management facility utilized by the land described herein. Title to this property carries with it the requirement that the current and all subsequent owners or their authorized agent obtain a stormwater management facility operating permit from the County. The owner of this property shall be legally responsible, jointly with other owners using the facility and based on pro rata share, for compliance with all stormwater management facility operating permit maintenance and operation requirements, as well as all other permit conditions, unless such maintenance and operation obligations have been specifically assumed by some other entity pursuant to Director approval and appropriate documentation recorded in the public records of Leon County." **Reference Section 10-4.210(d).**
6. *Landscape and tree maintenance, if applicable.* All landscaping, landscaped areas, landscape development, buffer areas, and trees required as part of this permit shall be maintained and used pursuant to **Sections 10-4.348(b), 10-4.355, 10-4.209(f)(1)(h), 10-4.209(g)(7) and 10-4.211** of the Land Development Code and shall be checked for compliance during the operating permit renewal process.
7. *Stormwater Facility Performance.* The stormwater management system for the development activity permitted herein shall conform to the "Stormwater Management Plan" (Exhibit A).
8. *System Evaluation & Redesign.* At any time, should the County determine that the stormwater management system, stormwater pollution prevention plan, landscape plan, or any maintenance

program is not functioning as designed, the County may request a system evaluation to determine compliance. The Permittee shall have thirty (30) days to evaluate the discrepancy and respond. Should the Permittee verify that a discrepancy exists, then the Permittee shall have sixty (60) days to redesign and implement the appropriate redesign necessary to correct the discrepancy. This process does not apply to any event of noncompliance with the permit and approved plans, in which case the enforcement provisions of the Environmental Management Act shall apply.

9. *Intergovernmental Transfer.* If at any time, the City of Tallahassee (the "City") annexes the permitted development into its corporate boundary, then this permit shall be transferred to the City with all provisions fully enforceable by the City. The City shall assume the role of the County in each provision of this permit.
10. *Termination of Permit.* The requirements, responsibilities and obligations of the Permittee in the General Conditions, Specific Conditions, and Special Conditions shall never expire with this permit. The Permittee may terminate such requirements, responsibilities and obligations either by an appropriate transfer as prescribed in Paragraph 12 of the General Conditions or by closing the development in a manner guaranteeing the preservation of natural areas, conservation easement areas, and/or other protected areas. Such closure shall require the submittal and approval of a short form environmental management permit which states appropriate plans to close the project in manner that will ensure compliance with the Environmental Management Act upon and after termination of responsibility. **Reference Section 10-4.214(1)(c).**
11. *Other Permits.* This permit is issued with the condition that the applicant procure and comply with all other necessary federal, state, and local agency permits, including but not limited to the Florida Department of Environmental Protection (FDEP) permit, Florida Department of Transportation (FDOT) drainage and/or access connection permits, NPDES permit and Leon County driveway connection permit. These permits must be provided prior to the start of construction. **Reference Section 10-4.201(f).**
12. *Construction Sequence.* All stormwater facilities shall be constructed and functioning prior to any clearing (with the exception of clearing for the stormwater ponds), and prior to the start of the building construction, roadway construction or any other development activity as defined in the Environmental Management Act. Phased stormwater facility construction may be allowed with prior written consent by the Director provided that each phase is fully sustainable, meets the applicable stormwater standards and provides no adverse downstream impacts. This condition supersedes any other permit conditions and plans related to this topic. In the event of a conflict between this condition and any other condition in the permit or plans, this condition will overrule.

## SPECIAL CONDITIONS:

As shown in Exhibit "A" (the permit plan set), this permit covers environmental review for construction of a culvert crossing and associated roadway and drainage improvements within Leon County right-of-way (ROW) in Leon County.

1. As used herein, the term "permittee" shall refer to the Leon County Public Works Department. The permittee shall ensure that all contractors and other agents authorized by the permittee to conduct the permitted development activities abide by the terms and conditions of this permit.
2. The permittee or permittee's authorized agent shall contact the County Environmental Inspector to arrange a pre-construction conference. The County Environmental Inspector for this project will be Mr. Brian Lawrence who may be contacted at (850) 606-1356 (cell phone 544-0826).
3. **Project staging activity in areas outside of the county right-of way and defined project area may require a separate environmental management permit from Leon County Development Support and Environmental Management (LCDSEM). LCDSEM should be contacted regarding any proposed staging activity outside of the project area prior to construction commencement.**
4. **As noted in the permit plans, traffic controls shall be coordinated with and approved by Leon County Public Works.**
5. Additional silt fences or other sediment/erosion control devices and measures may be required during project construction, as specified by the County Environmental Inspector.
6. During the pre-construction conference, and prior to commencement of construction, copies of permits from other agencies as required (example FDOT, NFWMD, etc.) shall be submitted to the environmental inspector.
7. Sediment control measures shall be sufficient to prevent the tracking or direct flow of mud and sediments onto the public streets or drainage ditches. Any sediments or mud spilled, dropped, washed, or tracked from any vehicles onto the public streets or into the public drainage system shall be recovered and cleaned-up immediately.
8. Notwithstanding the general and specific conditions contained in this permit, this project will require submittal of as-built plans (record drawings) and a compliance report from the engineer of record. These should be submitted to the Director at least 20 days prior to the permittee/applicant's request for final inspection. All landscaping/stabilization shall be completed prior to final inspection.

# CONSTRUCTION DOCUMENTS

## FOR

### Terre Bonne

## Culvert Crossing and Pavement Replacement Project

RECEIVED  
Leon County  
DEC 16 2011  
Development Support  
& Environmental  
Management

PREPARED FOR



LEON COUNTY  
PUBLIC WORKS

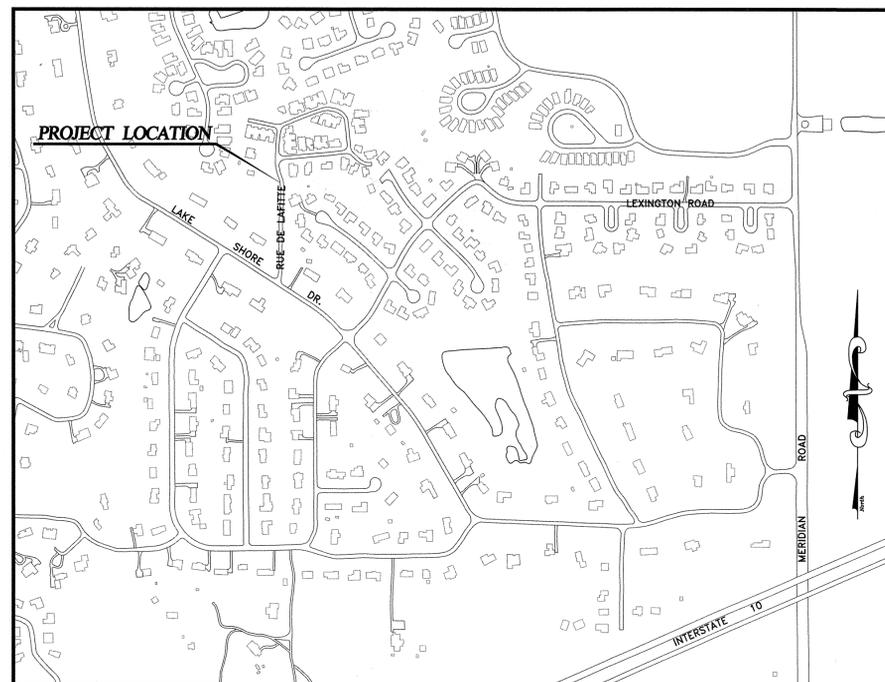
2280 Miccosukee Road  
Tallahassee, FL 32308  
Ph: 850-606-1500 Fax: 850-606-1501

### GENERAL NOTES

1. ELEVATIONS WITHIN THE ROADWAY RIGHT-OF-WAY SHOWN ON THESE PLANS ARE BASED ON A FIELD SURVEY BY THURMAN RODDENBERRY AND ASSOCIATES, INC. DATED MAY 23, 2011. ALL OTHER ELEVATIONS BASED OFF LIDAR.
2. SURVEY DATUM-NAVD 1988.
3. ALL ROADWAY AND DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2010, DIVISIONS II AND III.
4. ALL FDOT INDEX NUMBERS REFER TO THE 2010 EDITION OF THE FDOT DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM.
5. AT THE PRECONSTRUCTION MEETING THE CONTRACTOR SHALL DESIGNATE A REPRESENTATIVE WHO IS CERTIFIED IN EROSION AND SEDIMENTATION CONTROL AND SHALL BE CAPABLE OF BEING REACHED 24 HOURS A DAY, 7 DAYS A WEEK.
6. THE CONTRACTOR WILL DESIGNATE A STORMWATER MANAGEMENT CONTROL OFFICER PRIOR TO THE PRECONSTRUCTION MEETING, AND WILL INFORM THE ENVIRONMENTAL INSPECTOR AND LEON COUNTY PUBLIC WORKS.
7. EXISTING UTILITIES HAVE BEEN LOCATED USING THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND PROVIDE FOR PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY SUNSHINE ONE CALL (1-800-432-4770), 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. HORIZONTAL AND VERTICAL CONTROL SHALL BE PROVIDED FOR THE CONTRACTOR BY THE SURVEYOR OF RECORD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CONTROLS THROUGHOUT THE DURATION OF CONSTRUCTION.
9. ALL DISTURBED AREAS WITH 4:1 SIDE SLOPES OR GREATER SHALL BE SODDED. ALL OTHER AREAS SHALL BE SEEDED AND MULCHED.
10. THE CONTRACTOR SHALL SUBMIT A POST-CONSTRUCTION CERTIFICATION AND REPRODUCIBLE RECORD DRAWINGS TO THE ENGINEER PRIOR TO INSPECTION AND ACCEPTANCE. THE RECORD DRAWINGS SHALL BE PREPARED AND CERTIFIED BY A PROFESSIONAL LAND SURVEYOR.
11. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND/OR OTHER FEDERAL PERMIT REQUIREMENTS.
12. THE CONTRACTOR SHALL NOT SUBSTITUTE ANY ARTICLE, DEVICE, PRODUCT, MATERIAL OR FIXTURE, OR ANY FORM OR TYPE OF CONSTRUCTION, FOR THAT WHICH IS INDICATED IN THE APPROVED PLANS WITHOUT THE EXPRESSED WRITTEN APPROVAL OF THE COUNTY ENGINEER OR THE COUNTY ENGINEER'S DESIGNATED FIELD REPRESENTATIVE.
13. AT LEAST FOURTEEN CALENDAR DAYS PRIOR TO THE PRECONSTRUCTION CONFERENCE THE CONTRACTOR SHALL SUBMIT A TENTATIVE BASE CONSTRUCTION SCHEDULE, TRAFFIC CONTROL PLAN, AND STAGING AREA PLAN TO THE ENGINEER AND LEON COUNTY PUBLIC WORKS FOR APPROVAL. NO WORK WILL BEGIN PRIOR TO APPROVAL OF THE CONSTRUCTION SCHEDULE, TRAFFIC PLAN, AND STAGING AREA PLAN. IF THE STAGING AREA PLAN REQUIRES OFF-SITE STAGING THE CONTRACTOR WILL BE REQUIRED TO OBTAIN ANY ADDITIONAL PERMITS THAT MAY BE NEEDED.
14. CONTRACTOR WILL BE RESPONSIBLE FOR PROPERLY DISPOSING OF ANY EXCAVATED MATERIAL IN ACCORDANCE WITH COUNTY STANDARDS.
15. A DISPOSAL SITE SHALL BE SUBMITTED BY THE CONTRACTOR AT OR PRIOR TO THE PRECONSTRUCTION MEETING, TO BE APPROVED BY THE ENVIRONMENTAL INSPECTOR. NO WORK WILL BEGIN PRIOR TO APPROVAL OF THE DISPOSAL SITE BY THE COUNTY ENGINEER, OR THE COUNTY ENGINEER'S DESIGNATED FIELD REPRESENTATIVE, AND THE ENVIRONMENTAL INSPECTOR.
16. LEON COUNTY PUBLIC WORKS OR THEIR DESIGNEE SHALL BE RESPONSIBLE FOR SUBMITTING NOTICE OF CONSTRUCTION COMMENCEMENT AT THE PRE CONSTRUCTION MEETING, MONITORING DURING CONSTRUCTION, AND SUBMITTING AS-BUILT CERTIFICATIONS FOR THE PROJECT ONCE COMPLETED.

### SHEET INDEX

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COVER SHEET	1
EXISTING CONDITIONS	2
PHASE 1 PLAN	3
PHASE 2 PLAN	4
GRADING AND LANDSCAPE PLAN AND GEOWEB DETAILS	5
CONSTRUCTION DETAILS	6



LOCATION MAP  
N.T.S.

PREPARED BY:

# ATKINS

2639 N. Monroe St. Building C - Tallahassee, Florida 32303 - 850.575.1800  
FBPR Certificate of Authorization No. 24

DECEMBER 2011

SURVEYOR OF RECORD:  
THURMAN RODDENBERRY & ASSOCIATES, INC  
125 SHELDON STREET  
SOPCHOPPY, FLORIDA 32358  
PHONE: 850-962-2538

ENGINEER OF RECORD:  
ATKINS  
NORMAN F. ROBERTSON  
P.E. NO. 69785

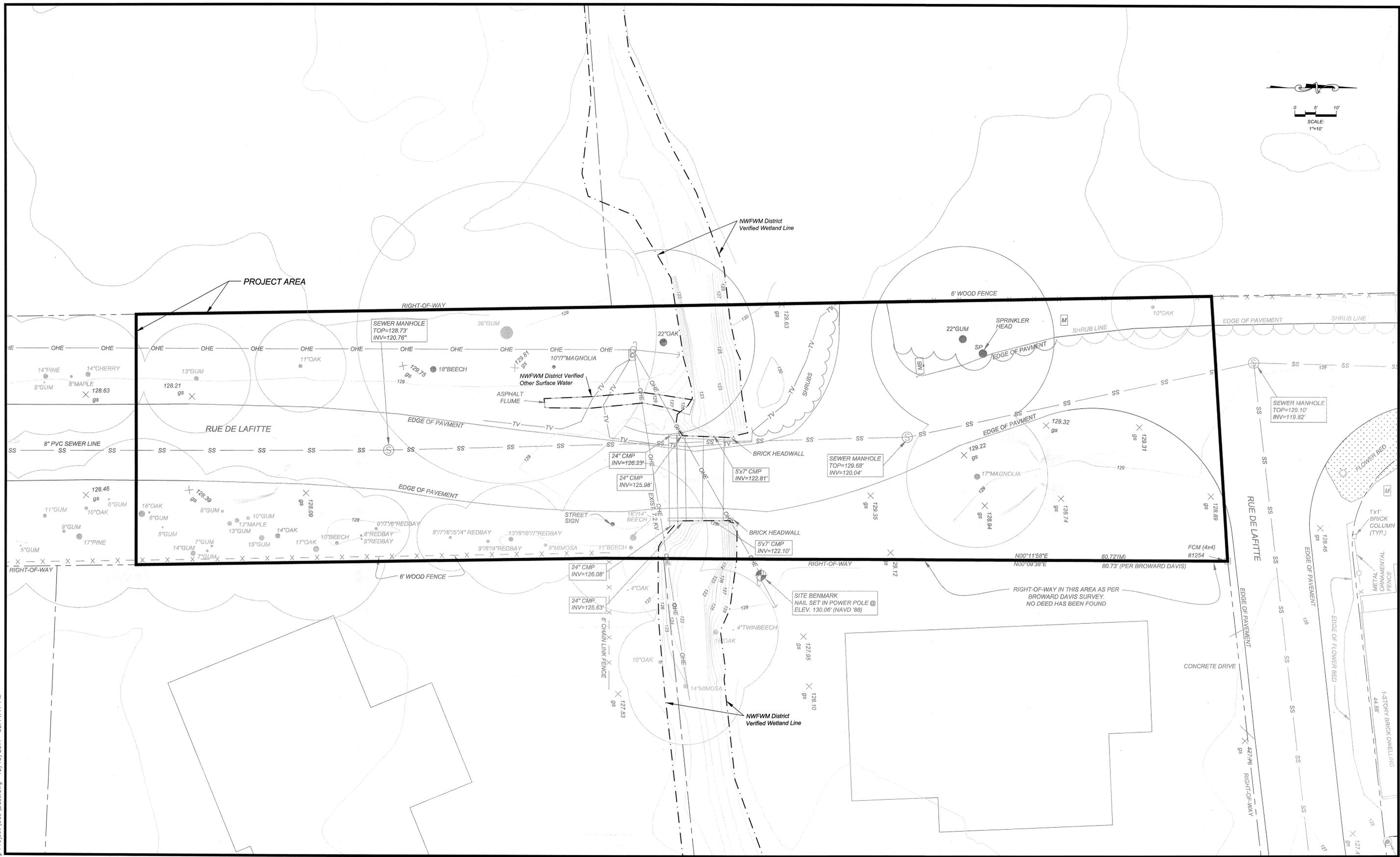
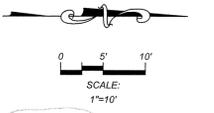
EXHIBIT A

APPLICANT'S COPY

APPROVED *[Signature]*  
PERMIT # LEM11-00082  
DATE 12-21-2011  
 Special Use Permit  
 Permit Relief to Enh. S:  
SEE ATTACHMENT A  
OMS

100021516  
TERRE BONNE





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2639 N. Monroe St. Building C - Tallahassee, Florida 32303 - 850.575.1800  
FBPR Certificate of Authorization No. 24

CLIENT

LEON  
FLORIDA'S CAPITAL COUNTY

PROJECT

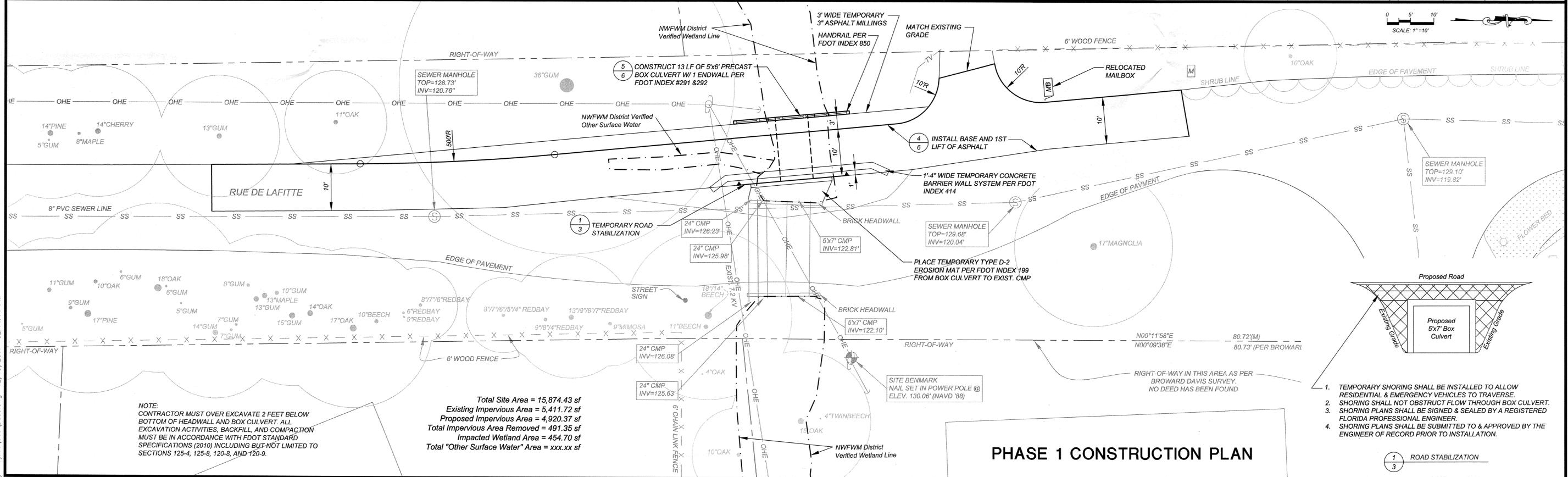
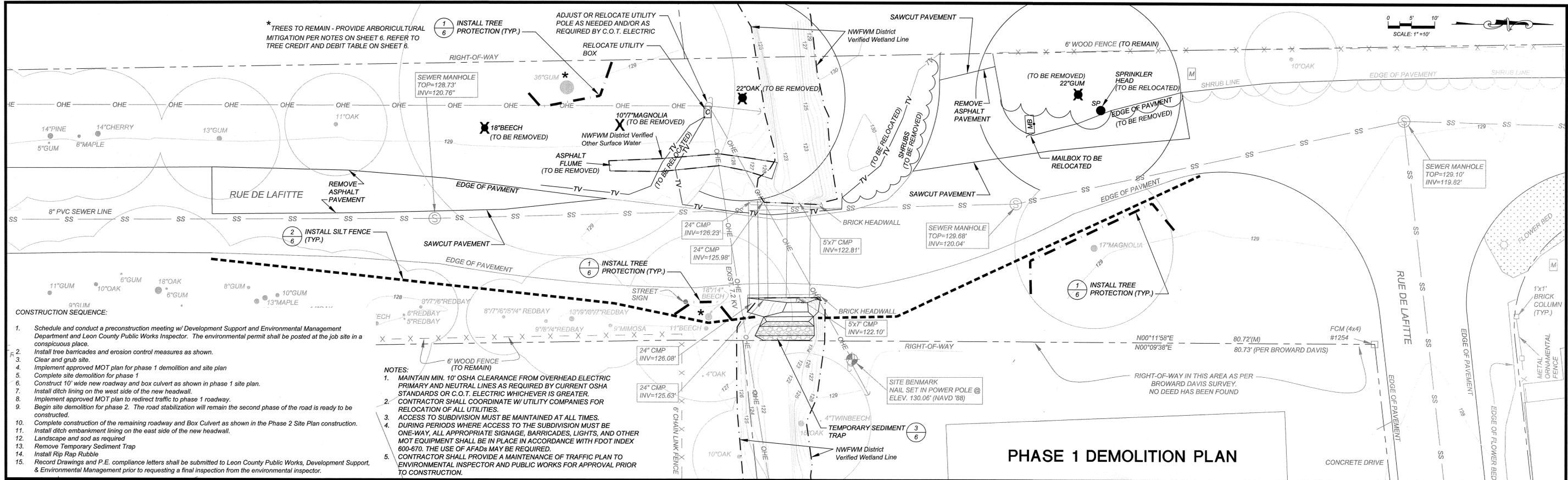
TERRE BONNE

TASK

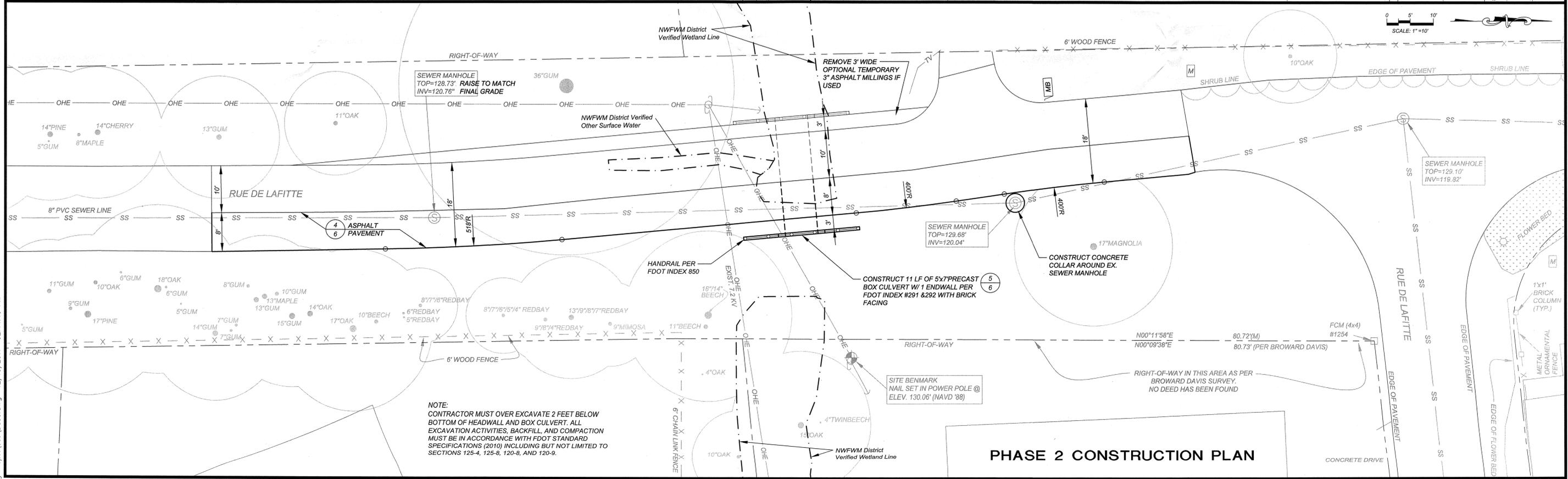
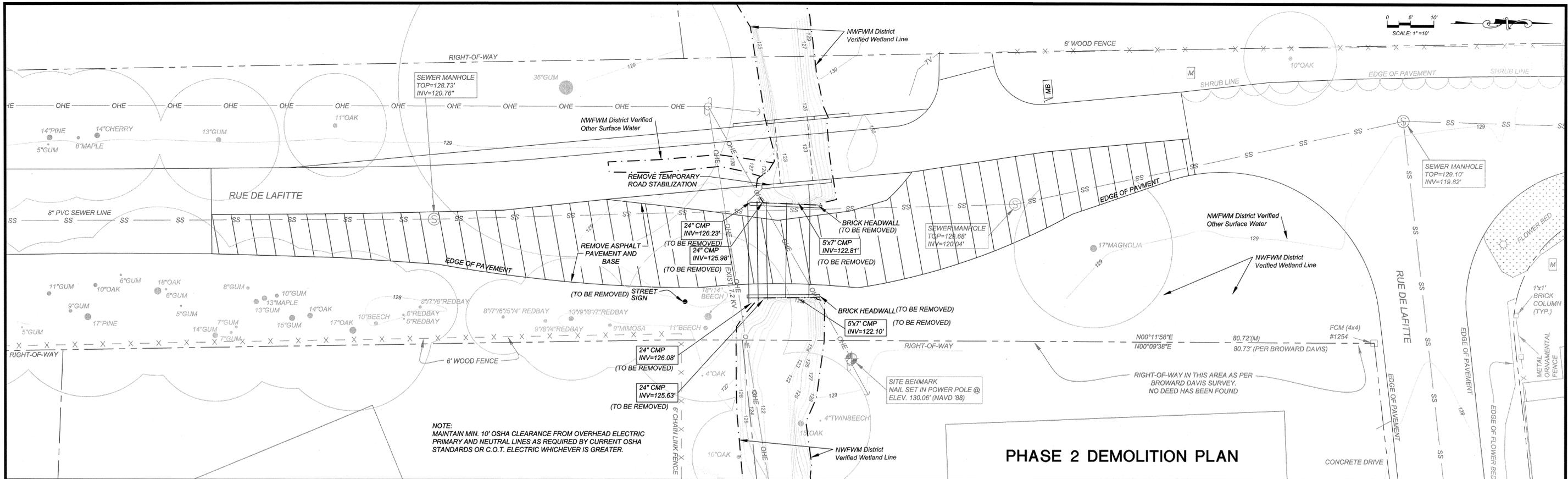
EXISTING CONDITIONS  
AT CULVERT CROSSING

ORIGINAL	OCTOBER 2011
REVISIONS:	
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JOB NO.	1000121516
DRAWN	MR/WD
DESIGNED	NR
CHECKED	
QC	WKJ
SHEET	2



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2639 N. Monroe St. Building C - Tallahassee, Florida 32303 - 850.575.1800  
FBPR Certificate of Authorization No. 24

CLIENT



PROJECT

TERRE BONNE

TASK

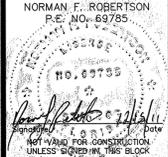
PHASE 2 PLAN

ORIGINAL OCTOBER 2011

REVISIONS:

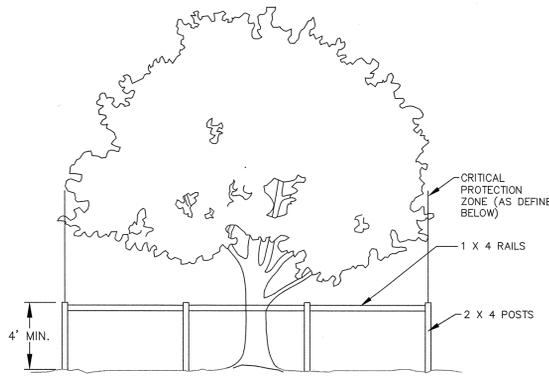
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JOB NO.	1000121516
DRAWN	MR/WD
DESIGNED	NR
CHECKED	
QC	WKJ
SHEET	4

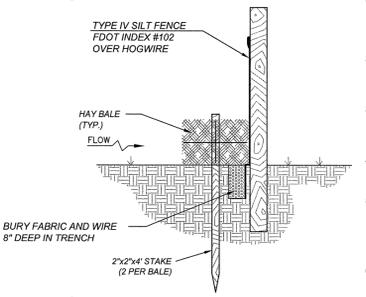




**NOTES:**

1. THE TREE PROTECTION BARRICADE IS TO PREVENT DISTURBANCE OF THE CRITICAL PROTECTION ZONE (CPZ). THE C.P.Z. IS THAT AREA SURROUNDING A TREE WITH A CIRCLE DESCRIBED BY A RADIUS OF ONE FOOT FOR EACH INCH OF THE TREE'S DIAMETER AT BREAST HEIGHT. ANY ACTIVITY THAT ENDOACHES WITHIN THE C.P.Z. OF ANY TREE WILL REQUIRE DEBITS OR AN ARBORICULTURAL MITIGATION PLAN.

2. THE AREA WITHIN BARRICADE IS NOT TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT.

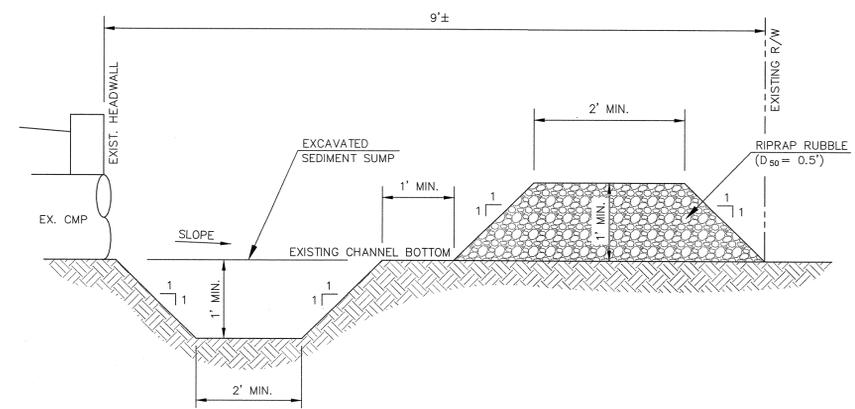


**MAINTENANCE NOTES:**

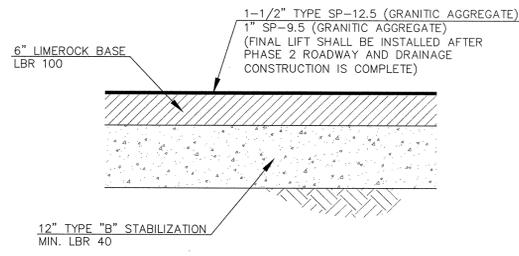
- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.
- NO TRENCHING SHALL OCCUR WITHIN THE CRITICAL PROTECTION ZONE OF ANY PROTECTED OR DESIRABLE TREE.

**GENERAL NOTES:**

- THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES. HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.
- THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED AS DESCRIBED IN ITEM NO. 8 BELOW.
- POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES. WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.
- A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER. TRENCHING SHALL NOT BE ALLOWED WITHIN THE CPZ OF TREES TO REMAIN.
- WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE TRENCH USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG. THE WIRE, OR HOE RINGS, THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM NO. 6 APPLYING.
- WHEN ATTACHING TWO SILT FENCES TOGETHER, PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. ROTATE BOTH POSTS AT LEAST 180 DEGREES ON A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FILTER FABRIC. DRIVE BOTH POSTS INTO THE GROUND AND BURY THE FLAP.
- THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
- WHEN USED TO CONTROL SEDIMENTS FROM A STEEP SLOPE, SILT FENCES SHOULD BE PLACED AWAY FROM THE TOE OF THE SLOPE FOR INCREASED HOLDING CAPACITY.
- SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.



**NOTE:** CONTRACTOR SHALL MONITOR THE SEDIMENT SUMP AND SHALL REMOVE ACCUMULATED SEDIMENT, WHEN SUMP CAPACITY IS REDUCED BY 1/2 ITS INITIAL CAPACITY.

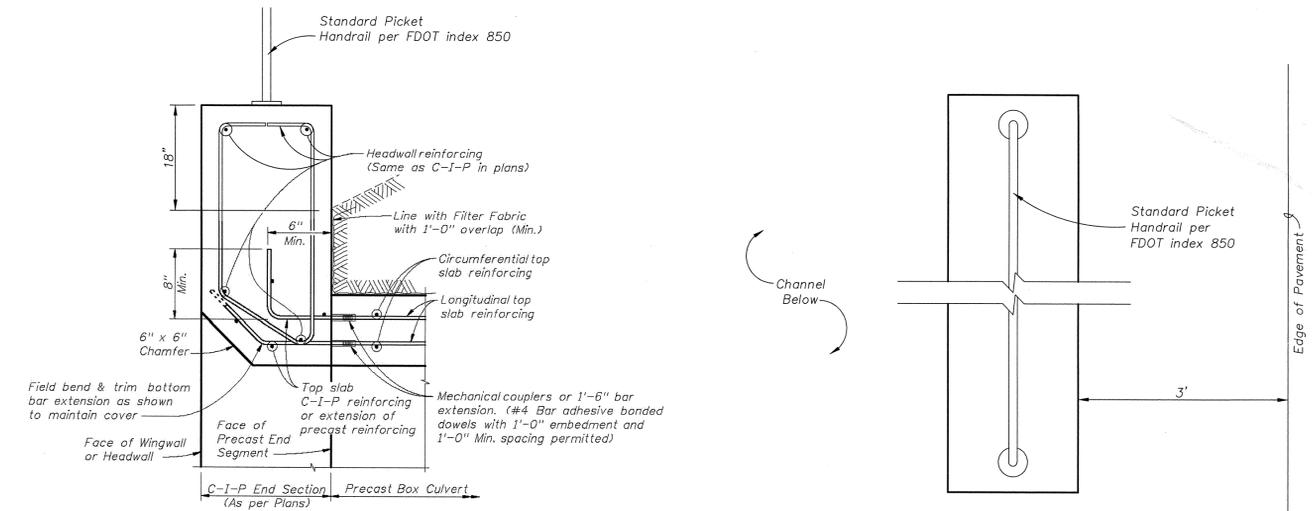


1 TREE PROTECTION BARRICADE  
6 NTS

2 STAKED TYPE IV SILT FENCE WITH HAY BALES  
6 NTS

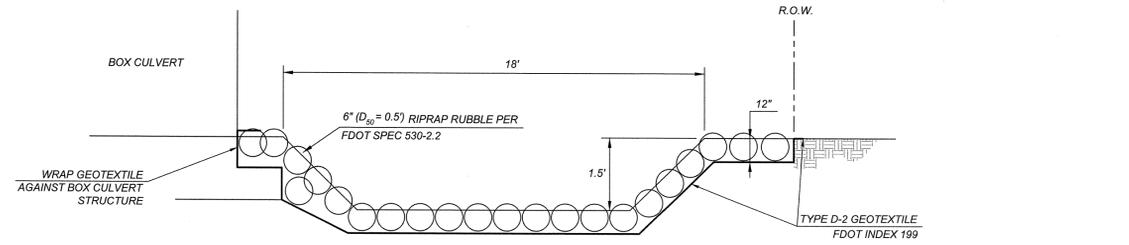
3 TEMPORARY SEDIMENT TRAP  
6 NTS

4 ASPHALT PAVEMENT  
6 NTS



**MODIFIED SECTION C-C**  
**C-I-P HEADWALL DETAILS AND CONNECTION TO PRECAST BOX PER FDOT INDEX 291 SHEET NO. 3**

5 ENDWALL DETAIL  
6 NTS



6 RIPRAP RUBBLE  
6 NTS

**TREE CREDIT AND DEBIT TABLE:**

PERMIT TREES TO BE REMOVED	TREE DEBITS	PERMIT TREES TO BE MITIGATED	TREE CREDITS	PERMIT TREES TO BE PRESERVED	TREE CREDITS
18" BEECH	6	36" GUM	0	13" MAPLE	6
22" OAK	8	18"/14" BEECH	0	14" OAK	6
22" GUM	8			17" OAK	6
10" MAGNOLIA	4			18" OAK	6
7" MAGNOLIA	4			17" MAGNOLIA	6
<b>TOTAL:</b>	<b>30</b>		<b>0</b>	<b>NET CREDITS NEEDED:</b>	<b>30</b>

THE CONTRACTOR WILL FOLLOW THE ARBORICULTURAL MITIGATION PLAN DESCRIBED BELOW FOR ALL PERMIT TREES IN THE RIGHT OF WAY, AND ALL POTENTIALLY IMPACTED TREES. IF THE TREES ARE DAMAGED, THEN THE DEBITS WILL BE ADDED TO THE 16 DEBITS INCURRED BY THE PROPOSED TREE REMOVALS, AND SHALL BE REPLACED BY LEON COUNTY PUBLIC WORKS BY PLANTING EQUIVALENT CREDITS AND/OR PAYING INTO THE TREE BANK FUND.

**ARBORICULTURAL MITIGATION PLAN:**

**SITE MONITORING**  
All tree protection procedures and activities shall be monitored and approved throughout the construction period by a Certified Arborist.

**SOIL TESTING**  
The Critical Protection Zone (CPZ) of the designated trees shall be soil tested for existing nutrient content to determine the necessity of fertilizer application and recommended percentages and rates. The soil samples shall be taken within the CPZ; multiple samples shall be taken if locations of obvious change in soil texture and color exist within the CPZ. Samples shall be submitted to IFAS Extension Soil Testing Laboratory or approved soil testing service for analysis and recommendations.

Percolation tests shall be performed within the CPZ of each designated tree to determine the necessity of soil aeration. Multiple samples shall be taken if locations of obvious change in soil texture and color exist within the CPZ.

The Certified Arborist shall be responsible for all soil testing. Submittals of samples shall be made to the Owner's Agent and the Landscape Architect for review.

**WATERING**  
All protected trees shall be watered as necessary to deliver a minimum rate equivalent to one inch of rainfall per week. Application rate shall be dependent upon soil type and weather conditions. A tensiometer shall be required for verification of application rates. Care shall be taken to prevent water from soaking the base of trees and root collars. Irrigation shall commence as far in advance as possible to development activity and shall continue through the completion of the project. All watering shall be under the direction and supervision of the Certified Arborist.

**ROOT PRUNING**  
Root pruning shall occur prior to site grading, earthwork, excavation or any other activity which may damage the roots of a tree proposed for mitigation in all areas of demolition or new construction requiring removal of existing roots: i.e. excavation, construction of footings, retaining walls, curbs paving and base. Roots shall be cut with a mechanical trenching device to a minimum depth of 18" followed immediately by a clean-cut hand pruning of all roots of greater than 3/4" diameter. Root pruning shall occur in advance of site clearing or excavation or construction. All exposed pruned or cut roots shall be covered immediately with topsoil, mulch or other organic medium. When it is not possible to back fill within an hour (in sun) or two hours (in shade) the exposed roots shall be covered with burlap and the burlap kept moist until back filling occurs.

**PRUNING**  
Pruning shall be performed by a Certified Arborist in accordance with the ANSI A300 standards as directed on site by the Landscape Architect or determined by the Certified Arborist. Pruning and crown thinning shall be done to all dead and diseased limbs that harbor decay and all heavy concentrations of moss and vines shall be removed that compete with crown foliage. All branch removal for the clearance or raising of larger limbs for traffic or structures shall be done by the Certified Arborist. All limbs larger than six inch diameter that are proposed to be cut shall first be approved by the Certified Arborist and work performed by the Certified Arborist.

Removal of competing understory trees, shrubs and vines shall be done by the Certified Arborist. Any propagules of exotic invasive plants shall be removed from the site and destroyed in a manner that prevents the spread of invasive infestation.

**SOIL AERATION**  
Soil aeration shall be performed by the Certified Arborist upon his recommendation based on results of percolation tests within the CPZ. If required, use a 1 1/2 - 1 3/4 inch diameter soil auger to drill holes to a depth of 12 inches every 24 inches apart, starting three feet from the trunk collar outward to five feet past the drip line of the tree. The entire area within the CPZ of the tree should be aerated.

**MULCHING**  
Mulching shall be used throughout the project within the CPZ of the protected trees to the greatest extent possible. A 2-3 inch layer of mulch, preferably wood chips, shall be placed over the entire CPZ of the protected tree. Where heavy construction traffic will be located within a portion of the CPZ, a layer of 4-6 inches of wood chips, covered with 3/4 inch plywood placed over the mulch shall be placed down to lessen soil compaction and damage to the tree roots.

**FERTILIZING**  
Fertilizing and pH adjustment should be in response to the soil test. Fertilize with a complete fertilizer, containing at least 5% nitrogen in organic form, including minor elements. Apply in the spring at a rate recommended by soil testing service. Fertilizer proposed for soil injection and/or liquid fertilization should be in a ratio of elements as determined by soil tests and the Certified Arborist as well as application method. Water soil immediately after initial application of fertilizer at a rate equivalent to one inch of rainfall.

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**ATKINS**  
2639 N. Monroe St. Building C - Tallahassee, Florida 32303 - 850.575.1800  
FBPR Certificate of Authorization No. 24

CLIENT  
**LEON**  
FLORIDA'S CAPITAL COUNTY

PROJECT  
**TERRE BONNE**

TASK  
**CONSTRUCTION DETAILS**

ORIGINAL	OCTOBER 2011
REVISIONS:	
1	
2	
3	
4	
5	

NORMAN F. ROBERTSON  
P.E. 049,559,785  
LICENSE  
510,697,00  
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

JOB NO. 1000121516  
DRAWN MR/WD  
DESIGNED NR  
CHECKED  
QC WKJ  
SHEET 6