BOARD OF COUNTY COMMISSIONERS ESCAMBIA COUNTY, FLORIDA

PUBLIC WORKS DEPARTMENT ENGINEERING / INFRASTRUCTURE DIVISION

INDEX OF PLANS

SHEET NO. SHEET DESCRIPTION

KEY SHEET

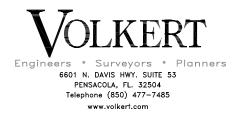
GENERAL NOTES

PROPOSED CONSTRUCTION

CONSTRUCTION DETAILS



PLANS PREPARED BY:



THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE LATEST ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS.

ANY REFERENCE TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, DIVISION 1, GENERAL REQUIREMENTS AND COVENANTS, SHALL BE EXCLUDED AND NOT APPLICAPABLE TO ANY SPECIFICATION REFERED HEREIN OR OTHERWISE LISTED IN THESE PLANS OR RELATED DOCUMENTS OR THE ESCAMBIA COUNTY TECHNICAL

PLANS PROPOSED FOR

QUAIL RUN S/D L SHAPED CONCRETE HEADWALL REPLACEMENT PROJECT

VOLKERT PROJECT #739600.WV

100% SUBMITTAL

APRIL 2017

COMMISSIONERS

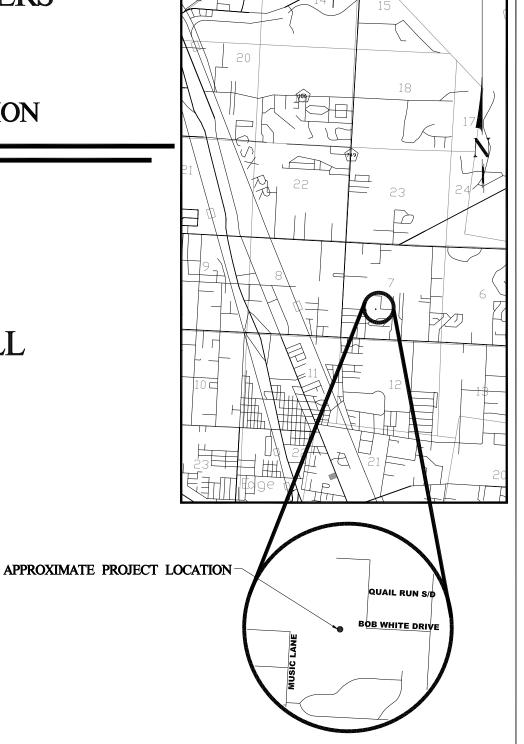
DISTRICT ONE JEFF BERGOSH, VICE CHAIRMAN

DISTRICT TWO DOUG UNDERHILL, CHAIRMAN

DISTRICT THREE **LUMON MAY**

GROVER C. ROBINSON IV DISTRICT FOUR

DISTRICT FIVE STEVEN BARRY



VICINITY MAP

PROJECT MANAGER:	
NICK CHAUVIN	
SECTION / TOWNSHIP / RANGE:	DISTRICT:
7 / 1S / 30 WV	5
PROJECT ENGINEER:	REG FLA ENG NO:
MIKE WARNKE	64091
SIGNATURE:	DATE:

GENERAL NOTES:

- THE CONTRACTORS SHALL NOTIFY THE COUNTY DESIGN ENGINEER OR DESIGNEE 48 HOURS PRIOR TO CONSTRUCTION.
- ALL CONDITIONS AND STIPULATIONS OF THE CONSTRUCTION PERMITS AND THE APPROVALS ISSUED BY THE ESCAMBIA COUNTY ENGINEER SHALL BE COMPLIED WITH
- 3. ALL ROADS DAMAGED BY CONSTRUCTION OPERATIONS ARE TO BE PATCHED OR RECONSTRUCTED AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE.
- THE CONTRACTOR SHALL TAKE STEPS NECESSARY TO PREVENT EROSION AND ANY OFF SITE SEDIMENT TRANSPORT RESULTING FROM INCREASED RUNOFF DURING CONSTRUCTION BY PROVIDING SILT FENCE AND/OR STAKED HAY BALES AS REQUIRED BY FDOT INDEX 102, THE FLORIDA STORMWATER, EROSION, AND SEDIMENT CONTROL INSPECTOR'S MANUAL, 2000 EDITION, OR AS INDICATED ON THE PLANS. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ASSOCIATED DISTURBED AREAS ARE STABILIZED AS TO REDUCE SEDIMENT RUNOFF, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR DESIGNEE
- ANY NECESSARY PERMITS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, ESCAMBIA COUNTY OR ITS DESIGNEE WILL ASSIST CONTRACTOR WITH REQUIRED
- 6. THE CONTRACTOR IS CAUTIONED TO VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE PROJECT PRIOR TO BIDDING AND/OR CONSTRUCTION.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PRESERVE OR RELOCATE ALL BENCHMARKS (VERTICAL CONTROL) AS NEEDED DURING CONSTRUCTION. ALL PUBLIC OR PRIVATE CORNER MONUMENTATION IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR DESIGNEE IMMEDIATELY, ANY ESCAMBIA COUNTY HARN/GPS NETWORK MONUMENTS OR BUREAU OF SURVEY AND MAPPING GPS NETWORK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A HARNIGPS NETWORK MONUMENTS OR BUREAU OF SURVEY AND MAPPING GPS NETWORK MONUMENTS ARE DISTURBED OR DESTROYED THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF THE MONUMENTS AND HAVE THE MONUMENTS POSITION DETERMINED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER USING GUIDELINES AS ESTABLISHED BY NATIONAL GEODETIC SURVEY FOR BLUE BOOKING AND APPROVAL.
- EXISTING DRAINAGE FEATURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
- 9. THE CONTRACTOR SHALL MATCH EXISTING CONDITIONS AT THE BEGINNING AND END OF CONSTRUCTION AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE.
- 10. ALL ROADWAY CONSTRUCTION SHALL COMPLY WITH THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS, LATEST EDITION
- 11. ALL MATERIALS, TESTING AND CONSTRUCTION METHODS SHALL CONFORM TO THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS, LATEST EDITION
- 12. ANY REFERENCE TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, DIVISION 1, GENERAL REQUIREMENTS AND COVENANTS. SHALL BE EXCLUDED AND NOT APPLICABLE TO ANY SPECIFICATION REFERRED HEREIN OR OTHERWISE LISTED IN THESE PLANS OR RELATED DOCUMENTS. OR THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS.
- 13. EXISTING STREET AND ROAD NAME SIGNS ON THE PROJECT SHALL BE KEPT VISIBLE AT ALL TIMES FOR THE FACILITATION OF ACCESS BY EMERGENCY VEHICLES.
 ALL OTHER EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION OPERATIONS SHALL BE TAKEN DOWN AND STOCKPILED WITHIN THE RW LIMITS BY THE CONTRACTOR AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE, ANY EXISTING SIGNS THAT ARE TO BE RELOCATED AND ARE DAMAGED BEYOND USE BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE
- 14. CONTRACTOR SHALL COMPLY WITH ALL F.D.E.P. AND ARMY CORP. OF ENGINEERS REQUIREMENTS.
- 15 ONLY ACCESS TO THE ROAD R/W AS SHOWN IS GUARANTEED BY THE COUNTY PRIVATE R/W REQUIRED BY THE CONTRACTOR TO FACILITATE CONSTRUCTION SHALL BE ACQUIRED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION OR ASSISTANCE FROM THE COUNTY
- 16. IN THE EVENT THAT SURVEY MONUMENTATION OR REFERENCE POINTS ARE MISSING OR HAVE BEEN DESTROYED, PLEASE CONTACT

ESCAMBIA COUNTY 3363 WEST PARK PLACE PENSACOLA, FL. 32505 PH(850)595-3427

- 17. VEGETATION ON R/W AND EASEMENTS SHALL BE RESTORED TO ORIGINAL CONDITION UNLESS OTHERWISE NOTED ON THE PLAN SHEETS, COST OF SAID RESTORATION SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS
- 18. GRADED AGGREGATE BASE SHALL BE REQUIRED WHERE THE SEASONAL HIGH GROUND WATER ENCROACHES WITHIN TWO (2) FEET OF THE BOTTOM OF BASE.
- 19. ALL COMPACTED FILL SHALL BE PLACED IN 4" LIFTS FOR HAND POWERED TAMPERS AND 8" LIFTS FOR HEAVY EQUIPMENT OPERATED TAMPERS
- 21. THE CONTRACTOR SHALL, AT A MINIMUM, MATCH EXISTING SIGNING AND PAVEMENT MARKINGS, ALL SIGNING AND PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE LATEST FOOT DESIGN STANDARDS. THE CONTRACTOR SHALL CONTACT THE COUNTY TRAFFIC DEPARTMENT PRIOR TO INSTALLATION OF ANY SIGNING AND PAVEMENT MARKINGS.
- 22. WHERE UNSUITABLE MATERIAL, AS DEFINED BY THE COUNTY SPECIFICATIONS SECTION 02300, 1.3(I), IS ENCOUNTERED IN THE AREAS PROPOSED FOR PAVING, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY ENGINEER OR DESIGNEE PRIOR TO ANY EXCAVATION.
- 23. PIPE LENGTHS SHOWN IN THE PLANS DO NOT INCLUDE THE LENGTH OF PIPE THAT MUST BE INSTALLED WITH THE MITERED END SECTION. THEREFORE, ALL PIPES
- 24. ALL CONTRACTORS, COUNTY REPRESENTATIVES, AND UTILITY COMPANIES ARE RESPONSIBLE FOR THEIR RESPECTIVE SURVEYING AND LAYOUT. ANY SURVEYING MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE REPLACED UPON COMPLETION OF THE WORK BY A REGISTERED LAND SURVEYOR IN THE STATE OF FLORIDA.
- 25. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXISTING SITE CONDITIONS, INCLUDING SOIL CONDITIONS PRIOR TO BIDDING ON THE PROJECT. A COPY OF THE GEOTECHNICAL REPORT IS INCLUDED IN THE CONTRACT DOCUMENTS FOR THE CONTRACTORS REFERENCE.
- 27 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED TESTING TO ENSURE THAT PROPER COMPACTION HAS BEEN ACHIEVED ON THE SUBGRADE BASE ND ALL OTHER PERTINENT AREAS THAT HAVE BEEN COMPLETED. THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING AND RETESTING AS REQUIRED AND SHALL PROVIDE THE COUNTY WITH COPIES OF CERTIFIED TESTING REPORTS.
- 28. THE LOCATION OF ALL EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY. IT IS THE CONTRACTORS RESPONSIBILITY PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE ANY ECOURED TO IT IS THE CONTROLLY THE VARIOUS UTILITIES AND TO MAKE ANY FECULER DOWN THE VARIOUS OF THESE UTILITIES WITH THE OWNER OF SAID UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING UNDERGROUND UTILITIES, WHETHER SHOWN ON THE PLAN OR LOCATION BY THE UTILITY. ANY UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL TO BROUGHT TO THE ATTENTION OF THE ENGINEER. ANY FEES ASSOCIATED WITH UTILITY RELOCATIONS SHALL BE BORNE IN ACCORDANCE WITH RESPECTIVE UTILITY COMPANY STANDARDS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF ANY UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED
- 29. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE COUNTY, ENGINEER OF RECORD, UTILITY COMPANIES AND CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION
- 30. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A UTILITY PERMIT FROM THE COUNTY ROAD DEPARTMENT PRIOR TO COMMENCING ANY WORK WITHIN THE RW.
- 31. THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION PLANS AND ALL PERMITS ON THE JOB SITE AT ALL TIMES,
- 32. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT NO CONSTRUCTION ACTIVITIES TAKE PLACE OUTSIDE OF THE EXISTING RW OR EASEMENTS SHOWN ON THE PLANS. ANY ON-SITE OR OFFSITE AREAS THAT ARE DISTURBED SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER AS DIRECTED BY THE ENGINEER.
- 33. THE CONTRACTOR SHALL BE RESPONSIBLE TO SAFETY BARRICADE ALL EXCAVATIONS AND OTHER HAZARDS
- 34. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICTS BETWEEN THE CONTRACT DOCUMENTS AND EXISTING CONDITIONS. THE DRAWINGS REPRESENT KNOWN STRUCTURES AND UTILITIES LOCATED WITHIN THE PROJECT AREA, THE CONTRACTOR IS CAUTIONED THAT OTHER STRUCTURES AND UTILITIES, ABOVE OR BELOW GROUND, MAY BE ENCOUNTERED DURING THE COURSE OF CONSTRUCTION.
- 35. ALL MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE COUNTY'S LATEST CONSTRUCTION SPECIFICATIONS. ALL MATERIALS STORAGE AREAS SHALL BE CLEARLY IDENTIFIED AND SECURED BY THE CONTRACTOR
- 36. ALL NEW CONCRETE FOR THE PROJECT SHALL ACHIEVE A 28 DAY STRENGTH OF 3000 PSI (MIN.), UNLESS OTHERWISE NOTED.
- 37. ALL TREES IN THE PROJECT AREA ARE TO REMAIN UNDAMAGED UNLESS OTHERWISE NOTED FOR REMOVAL
- 38. THE CONTRACTOR IS TO REPLACE TO EXISTING CONDITION OR BETTER ANY FENCES, SPRINKLER SYSTEMS, TREES, SHRUBS, FLOWER BEDS, OR OTHER EXISTING MPROVEMENTS IMPACTED DURING CONSTRUCTION, WHETHER DEPICTED ON THE PLANS OR NOT
- 39. ALL EXISTING MAILBOXES INTERFERING WITH NEW CONSTRUCTION SHALL BE RELOCATED OR REPLACED BY THE CONTRACTOR IN ACCORDANCE WITH POSTAL REQUIREMENTS AND IN ACCORDANCE WITH ESCAMBIA COUNTY TECHNICAL SPECIFICATION, FDOT DESIGN STANDARDS AND UNITED POSTAL REQUIREMENTS. ALL EXISTING BRICK MAILBOXES WITHIN LIMITS OF CONSTRUCTION OR COUNTY RIGHT OF WAY SHALL BE REMOVED AND PLACED ON THE PROPERTY LINE OF THE OWNER. CONTRACTOR SHALL REPLACE EXISTING BRICK MAILBOX WITH APPROVED PLASTIC BREAK AWAY MAILBOX.

GENERAL NOTES CONT.:

- 40. DAMAGE TO ANY EXISTING ROADS DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR PRIOR TO FINAL "AS-BUILT" SIGN-OFF FROM THE COUNTY AT NO ADDITIONAL COST TO THE COUNTY.
- 41. SHOP DRAWINGS OF ALL MATERIALS BEING USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ORDER, SHIPMENT, OR INSTALLATION
- 42. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS DURING CONSTRUCTION WHICH SHOW "AS-BUILT" CONDITIONS OR ALL WORK. RECORD DRAWINGS
- 43. THE CONTRACTOR SHALL SCHEDULE WITH THE COUNTY A FINAL INSPECTION UPON COMPLETION OF ALL WORK AND ANY INTERMEDIATE INSPECTIONS AT 850-595-3472. AS-BUILT CERTIFICATION IS REQUIRED PRIOR TO REQUEST FOR FINAL INSPECTION.
- 44. ALL ASPECTS OF STORMWATER/DRAINAGE AND/OR TRANSPORTATION COMPONENTS SHALL BE COMPLETED PRIOR TO REQUESTING A FINAL INSPECTION.
- 45. NO DEVIATIONS OR REVISION FROM THE PLANS BY THE CONTRACTOR SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM BOTH THE ENGINEER OR RECORD AND ESCAMBIA COUNTY. ANY DEVIATION MAY RESULT IN DELAYS IN THE COUNTY'S ACCEPTANCE OF IMPROVEMENTS
- IF ARCHAELOGICAL MATERIAL/PREHISTORIC ARTIFACTS SLICH AS POTTERY OR CERAMICS. STONE TOOLS OR METAL IMPLEMENTS, OR ANY OTHER PHYSICAL REMANS THAT COULD BE ASSOCIATED WITH NATIVE AMERICAN CULTURES, OR EARLY COLONIAL OR AMERICAN SETTLEMENT ARE ENCOUNTERED AT ANY TIME, THE PROJECT SHOULD CEASE ALL ACTIVITIES INVOLVING SUBSURFACE DISTURBANCE IN THE IMMEDIATE VICINITY OF SUCH DISCOVERIES. THE APPLICANT/RECIPIENT, OR OTHER DESIGNEE, SHOULD CONTACT THE FLORIDA DEPARTMENT OF STATE, DIVISION OF HISTORICAL RESOURCES. THE STATE HISTORIC PRESERVATION OFFICER (SHPO) AND THE DSH/FEMA REGION IV ENVIRONMENTAL OFFICER AND FDEM STATE ENVIRONMENTAL LIAISON OFFICER FOR FURTHER GUIDANCE, PROJECT ACTIVITIES SHOULD NOT RESUME WITHOUT VERBAL ANDIOR WRITTEN AUTHORIZATION FROM THE THE DIVISION OF HISTORICAL RESOURCES.
- IN THE EVENT THAT UNMARKED HUMAN REMAINS ARE ENCOUNTERED DURING PERMITTING ACTIVITIES, ALL WORK MUST STOP IMMEDIATELY AND THE PROPER AUTHORITIES NOTIFIED IN ACCORDANCE WITH SECTION 872.05. FLORIDA STATUTE.

UTILITY NOTES:

- THE LOCATION SHOWN FOR EXISTING UNDERGROUND UTILITIES IS APPROXIMATE, THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR AGREES TO BE COMPLETELY RESPONSIBLE FOR ALL DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES.
- 2. UTILITY OWNERS SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION SO THAT THE UTILITY OWNER CAN SPOT VERIFY AND/OR EXPOSE THEIR UTILITIES.
 KNOWN UTILITIES OWNERS INCLUDE:

SEWERWATER - EMERALD COAST UTILITY AUTHORITY ELECTRIC - GULF POWER MR. BRANDON KNIGHT MR. CHAD SWAILS P.O. BOX 15311 PENSACOLA, FL. 32514 PH: (850) 698-4609 MILTON, FL. 32570 PH: (850) 549-1031

NATURAL GAS - ENERGY SERVICES OF PENSACOLA CABLE - COX CABLE MR. CLINT SHEVAT MR. TROY YOUNG 2421 EXECUTIVE PLAZA

PENSACOLA, FL. 32514 PH: (850) 791-5285 PENSACOLA, FL. 32504 PH: (850) 232-5044 TELEPHONE - AT&T ELORIDA SUNSHINE STATE ONE-CALL MR. BARRY POWELL 605 WEST GARDEN STREET PENSACOLA, FL. 32501 PH; (850) 436-1483 7200 LAKE ELLENOR DRIVE, SUITE 200 ORLANDO, FL. 32809 PH: (800) 432-4770

TRAFFIC DEPARTMENT - ESCAMBIA COUNTY PUBLIC WORKS PENSACOLA, FL. 32505 PH:(850) 595-3404

- 3. AT&T FLORIDA WILL COMPLETE ALL WORK DURING THE HOURS OF 7:30 AM 4:30 PM, MONDAY THRU FRIDAY. NO NIGHT OR WEEKEND WORK.
- 4. ALL CABLE DAMAGE MUST BE REPORTED TO THE ATT FLORIDA REPAIR SERVICE DEPARTMENT AT 611 FROM A LAND LINE OR 877-737-2478 IF USING A CELL
- 5 CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES AND UNDERGROUND LITHITIES
- UTILITIES TO REMAIN AND BE PROTECTED DURING CONSTRUCTION, NECESSARY REPAIRS SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS AND
- ADEQUATE PROVISIONS SHALL BE MADE FOR THE FLOW OF SEWERS, DRAINS, WATER COURSES AND OTHER UTILITIES ENCOUNTERED DURING
- THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND OTHER IMPROVEMENTS SHOWN AND NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIRS OF UTILITIES AND OTHER IMPROVEMENTS(SHOWN AND UN-SHOWN) DAMAGED DURING CONSTRUCTION AND SHALL MAINTAIN SUFFICIENT PROTECTION FOR ALL UTILITIES OF REMAIN, THE CONTRACTOR SHALL SUPPORT ALL EXISTING UTILITIES AS REQUIRED FOR THE INSTALLATION OF THE PROPOSED IMPROVEMENTS. ALL COSTS ASSOCIATED WITH PROTECTING, SUPPORTING, REPAIRING, AND OTHER ACTIVITIES RESULTING FROM CONTRACTOR DAMAGE TO THE UTILITIES OR PROTECTION OF THE UTILITIES SHALL BE THE CONTRACTORS RESPONSIBILITY AT NO ADDITIONAL COST TO

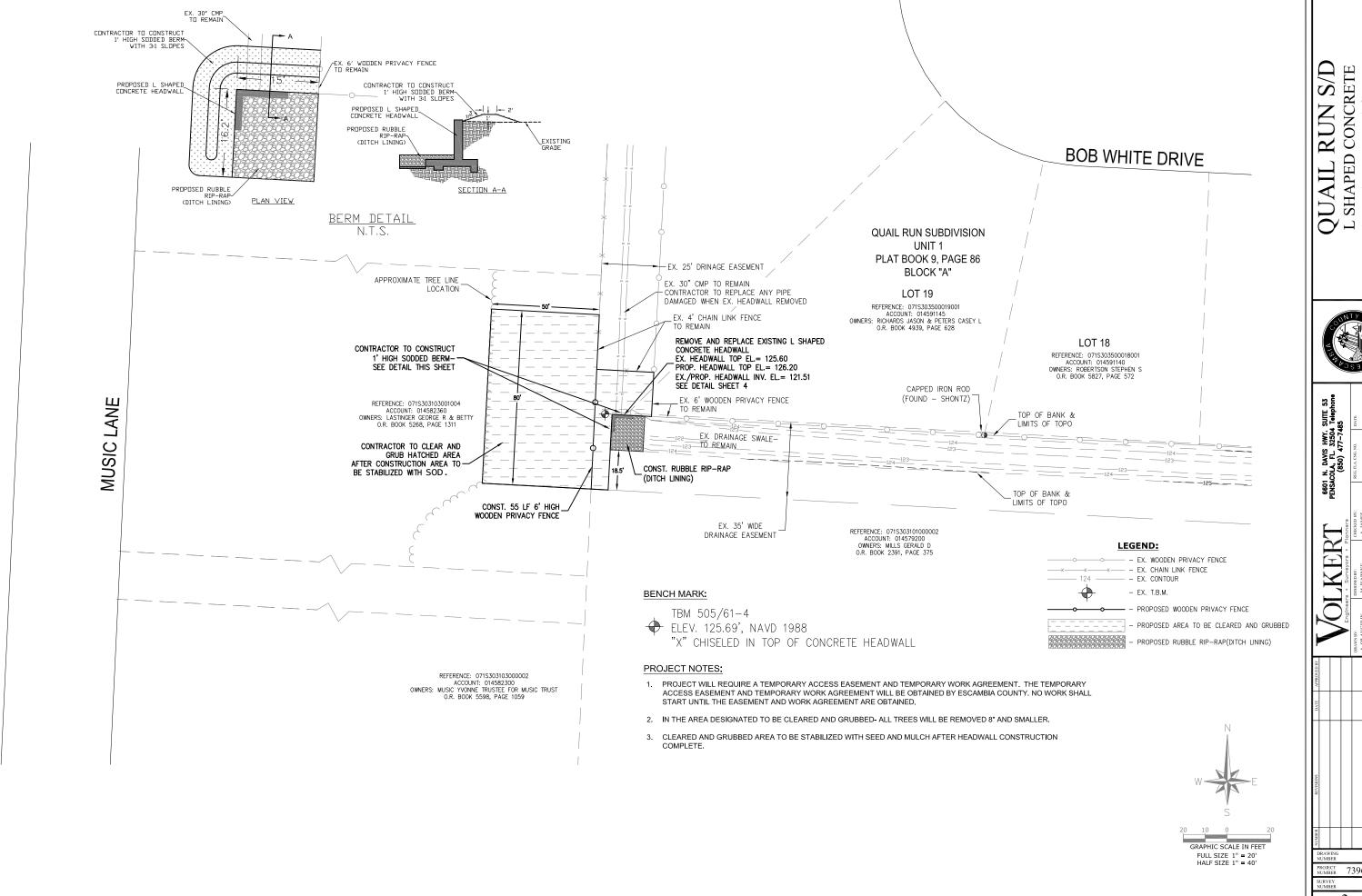
CONCRETE REPLACEMENT AL NOTES S/D HAPED CC WALL REI GENERAL I AIL L SHAPE [ADWAL] QU



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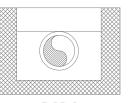


QUAIL RUN S/D L SHAPED CONCRETE HEADWALL REPLACEMENT PROPOSED CONSTRUCTION



739600.WV

PIPE BEDDED ON 4 (100 mm) MINIMUM OF LOOSE SOIL. EMBEDMENT LIGHTLY CONSOLIDATED TO TOP OF PIPE. E = 400 psi (2,760 kPa). K = 0.102



TYPF 2

FLAT-BOTTOM* TRENCH, EMBEDMENT LIGHTLY CONSOLIDATED TO CENTERLINE OF PIPE. E = 200 psi (1,380 kPa). K = 0.110

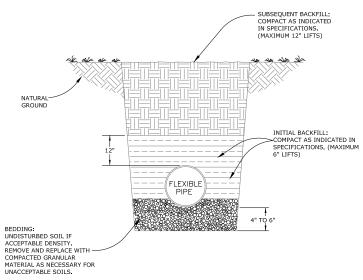
THE PIPE'S DIMENSION RATIO, INTERNAL OPERATIING PRESSURE, AND EXTERNAL LOAD, AND SHALL BE SPECIFIED BY THE PURCHASER.(SEE SEC. 5.3)

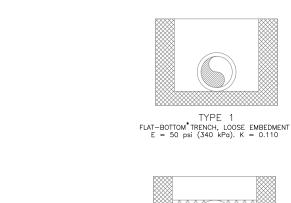
TYPE 5

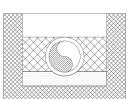
PIPE ENBEDDED IN COMPACTED GRANULAR
MATERIAL TO CENTERLINE OF PIPE. COMPACTED
GRANULAR OR SELECT MATERIAL TO TOP OF PIPE.
(APPROXIMATELY 90% STANDARD PROCTOR.
AASHTO T-99 OR ASTM D 698)
E = 2,000 psi (13,800 kPa). K = 0.083

* "FLAT-BOTTOM" IS DEFINED AS UNDISTURBED EARTH.

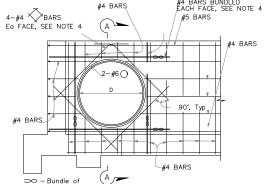
** "LOOSE SOIL" OR "SELECT MATERIAL" IS DEFINED AS NATIVE SOIL EXCAVATED FROM THE TRENCH, FREE OF ROCKS
FOREIGN MATERIAL, AND FROZEN EARTH. A SOFT "LOOSE SOIL" BEDDING WILL CONTOUR TO THE PIPE BOTTOM. CAUTION
MUST BE EXERCISED TO ENSURE PROPER PLACEMENT OF EMBEDMENT MATERIAL UNDER THE HAUNCHES OF THE PIPE.





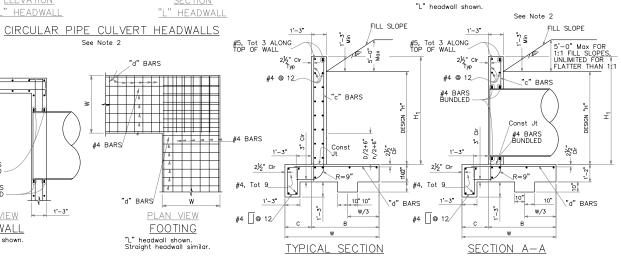


PIPE BEDDED ON SAND, GRAVEL OR CRUSHED STONE TO DEPTH OF 1/8 PIPE DIAMETER, 4" (100 mm) MINIMUM. EMBEDMENT COMPACTED TO TOP OF PIPE. (APPROXIMATELY 80% STANDED PROCTOR. AASHTO T-99 OR ASTM D 698)



REINFORCEMENT MODIFICATION

two bars



- Length of wall from pipe to end of wall is 1.5H Min, unless a greater length is shown on project plans.
- Adjacent to each side of the opening, place additional reinforcement equivalent to half the interupted main reinforcement. Extend bars one development length past the intersection with the adjacent diagonal bar, or where bars intersect mid thickness of adjacent wall, bottom slab or at top of wall, bend ends as required into same plane.
- 3. Quantities are approximate and for design purposes only. No deduction is made for pipe or arch occupancy.

NOTE: Reinforcing Steel: Grade 60 Carbon Steel per FDOT Spec. Section 931 Concrete: Class IV, f'c=5,500 psi

Earth Density: 120 pcf Equivalent Fluid Pressure:

REINFORCED CONCRETE HEADWALL

"c" BARS
"d" BARS

* Conc CY/LF

* Reinf LB/LF

**CASE I

**CASE II

**CASE III

2" X 4" OR 3"Ø TREATED TIMBER POST @ 6 FT. O.C. (TYP.)

WIRE FENCE

SECTION

"d" BARS

PLAN VIEW

FOOTING

"L" headwall shown. Straight headwall similar.

VARIED SURCHARGE

CIRCULAR PIPE SIZE

FIBERTEX (OR APPROVED FOLIAL)

1/2" CHAMFER

COMPACTED SOILS

1.5H Min

ELEVATION

"L" HEADWALL

"c" BARS/

#4 BARS BUNDLED

PLAN VIEW

STEM WALL

L" headwall shown.

DETAIL OF DESIGN LOADING CASES

LEVEL & VARIED SURCHARGE

SILT FENCE DETAIL

Quantities do not include added diagonals and do not consider pipe occupancy.

**Quantities include 1 - 07 **extension above the design "H" limit.

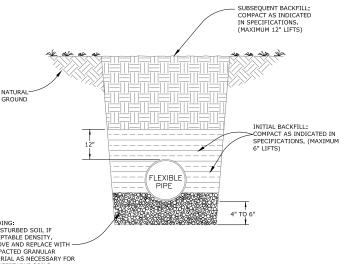
**g'o = net bearing stress (ksf), B' = effective footing width (ft) Str - strength limit Extr - extreme event



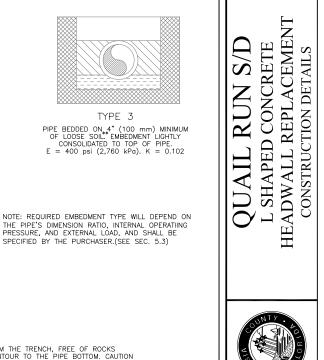


E = 1,000 psi (6,900 kPa). K = 0.096





FLEXIBLE PIPE BEDDING
N.T.S.





53 6601 N. DAVIS HWY. SUITE PENSACOLA, FL. 32504 Telep (850) 477-7485 64091 KERT 739600.WV