

COMPONENTS OF CONTRACT PLANS SET
PERMIT PLANS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 439206-1-52-01

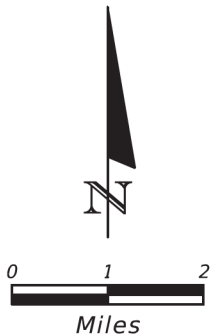
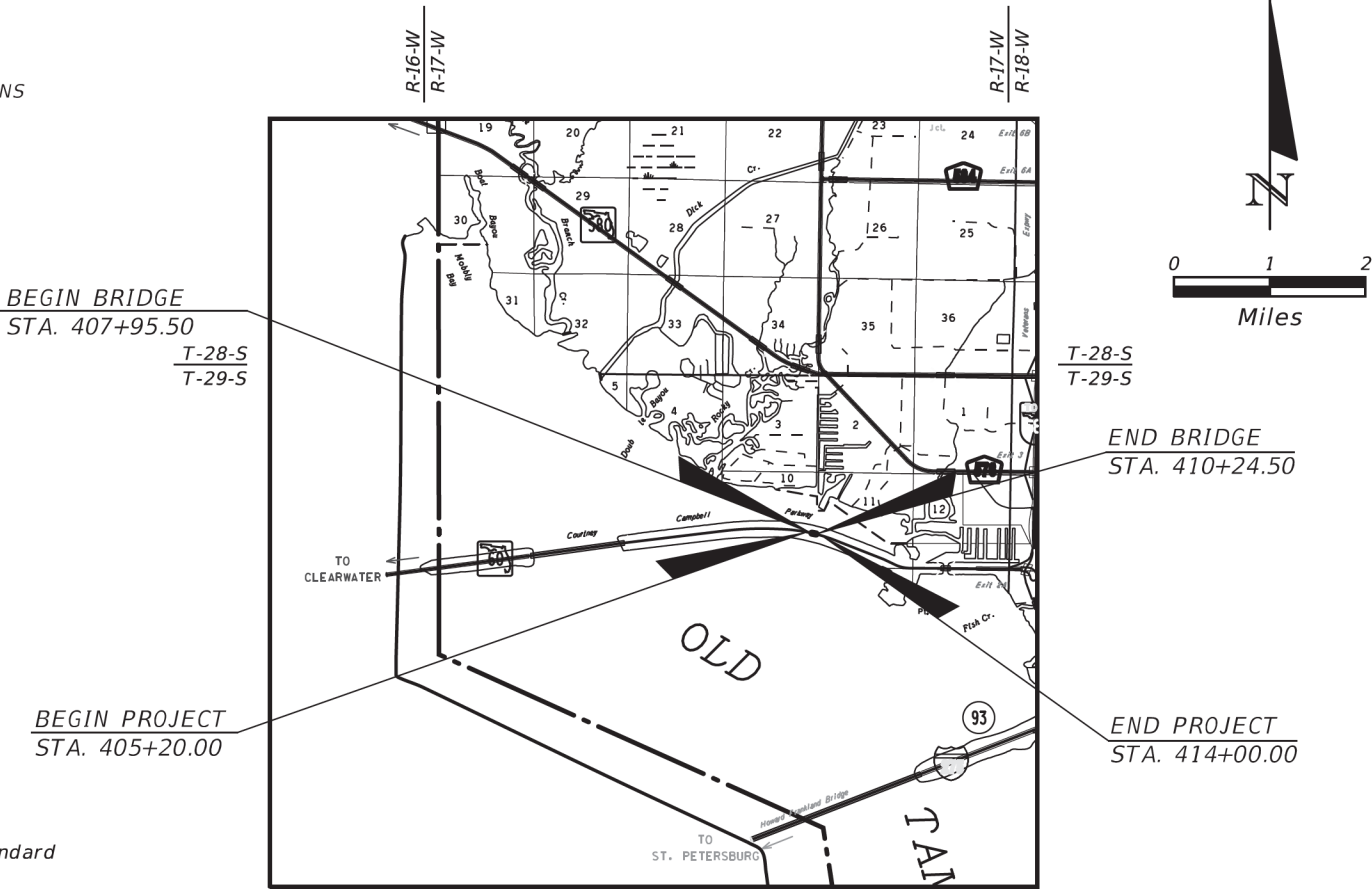
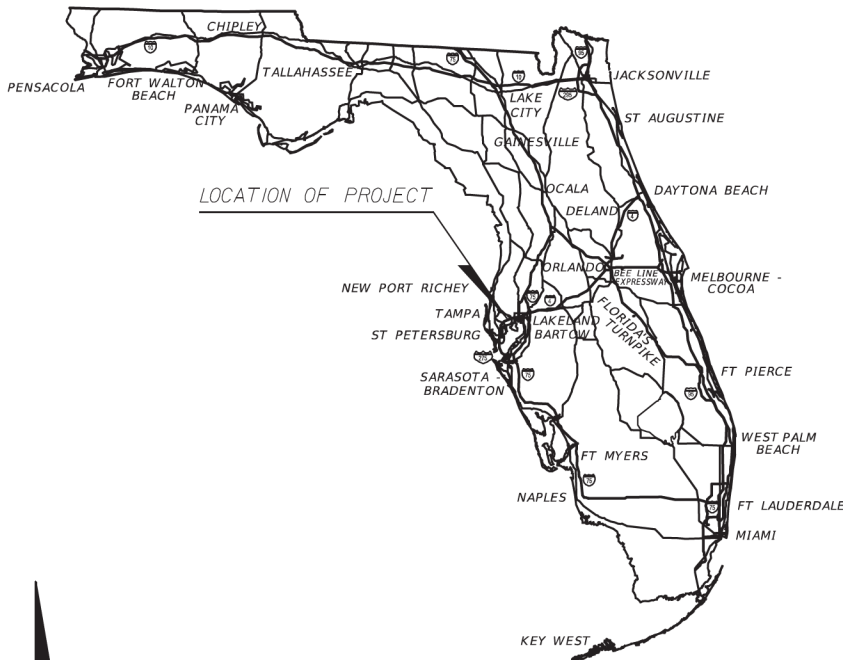
HILLSBOROUGH COUNTY (10140)

STATE ROAD NO. 60
(COURTNEY CAMPBELL CAUSEWAY)
OLD TAMPA BAY WATER QUALITY IMPROVEMENTS

A DETAILED INDEX APPEARS ON THE
KEY SHEET OF EACH COMPONENT

INDEX OF PERMIT PLANS

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PERMIT PLANS PREPARED BY:

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TAMPA, FL 33607
(813) 282-7275
CONSULTANT VENDOR NO. F-590-896-138-001
FBPE NO. : 24

NOTES:

THE SCALE OF THESE PLANS
MAY HAVE CHANGED DUE TO
REPRODUCTION.

VERTICAL DATUM NAVD88

BENCHMARK LOCATION AT
BEN T. DAVIS BEACH
LATITUDE: 27.96961111
LONGITUDE: 82.575805555

GOVERNING STANDARDS AND SPECIFICATIONS:
Florida Department of Transportation, 2016 Design Standards and
revised Index Drawings as appended herein, and January 2016 Standard
Specifications for Road and Bridge Construction, as amended by
Contract Documents.

For Design Standards click on the "Design Standards" link at the
following web site:
<http://www.dot.state.fl.us/rddesign/>

For the Standard Specifications for Road and Bridge Construction
click on the "Standard Specifications" link at the following web site:
<http://www.dot.state.fl.us/programmanagement/>

LENGTH OF PROJECT		
	LINEAR FEET	MILES
ROADWAY	651	0.123
BRIDGES	229	0.043
NET LENGTH OF PROJECT	880	0.167
EXCEPTIONS	0.00	0.00
GROSS LENGTH OF PROJECT	880	0.167

FDOT PROJECT MANAGER: DANIEL M. LAURICELLO, P.E.

PERMIT PLANS
ENGINEER OF RECORD: SHAYNE PAYNTER, P.E.

P.E. NO.: 58136

FISCAL YEAR	SHEET NO.
16	1



Plan Sheets 2-4 in the original document contain information exempt from public inspection per Chapter 119.071, Florida Statutes.

Please call the District directly for instructions on how to obtain this information.

I. SITE DESCRIPTION

(1) NATURE OF CONSTRUCTION ACTIVITY:

THE PROPOSED IMPROVEMENTS TO SR 60 ARE TO BE PERFORMED FROM MP 3.769 TO MP 3.916 IN HILLSBOROUGH COUNTY. THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) PROPOSES TO CONSTRUCT A 229' BRIDGE WEST OF BEN T. DAVIS BEACH TO PROVIDE AN ENVIRONMENTAL UPLIFT THAT WOULD SIGNIFICANTLY REDUCE THE STORMWATER WATER QUALITY TREATMENT REQUIREMENTS FOR PROJECTS WHICH ARE LOCATED IN THE TAMPA BAY WATER SHED.

(2) SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:

- A. THE CONTRACTOR SHALL BE REQUIRED TO PREPARE A SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN ALONG WITH A DETAILED CONSTRUCTION SCHEDULE TO INDICATE DATES OF MAJOR GRADING ACTIVITIES AND DETERMINE SEQUENCES OF TEMPORARY AND PERMANENT SOIL DISTURBING ACTIVITIES ON ALL PORTIONS OF THE PROJECT.
- B. THE CONTRACTOR WILL BE REQUIRED TO MODIFY THE PLAN OR MATERIALS TO ADAPT TO SEASONAL VARIATIONS, CONSTRUCTION ACTIVITY VARIATIONS, OR AS DIRECTED BY THE ENGINEER.
- C. APPLICABLE EROSION AND SEDIMENT CONTROL DEVICES AND IMPLEMENTATION PROCEDURES ARE SUPPLIED IN THE FDOT STANDARD INDEXES AND THE STATE OF FLORIDA EROSION AND SEDIMENTCONTROL DESIGNER AND REVIEW MANUAL (E&SC MANUAL) LATEST EDITION.
- D. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IF ANY MODIFICATIONS OR ADDITIONAL CONTROLS ARE REQUIRED AND TO OBTAIN DEPLOYMENT SCHEDULES FOR THE IMPLEMENTATION OF ALL ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES FROM THE CONTRACTOR.

(3) GENERAL NOTES:

- A. ALL EROSION AND SEDIMENT CONTROL DEVICES FOR EACH PHASE OF WORK ARE TO BE INSTALLED PRIOR TO BEGINNING WORK ON THAT PHASE.
- B. INSTALL EROSION AND SEDIMENT CONTROL DEVICES WHERE LISTED IN THE CONTRACTOR'S APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR PERIMETER CONTROLS BEFORE THE LAND IS DISTURBED.
- C. PROVIDE SEDIMENT BARRIERS WHERE LISTED IN THE CONTRACTOR'S APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR DITCH/SWALE CHECK DAMS DURING CONSTRUCTION.
- D. PROVIDE INLET PROTECTION SYSTEMS AT INLET OPENINGS.
- E. COVER OR STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE.
- F. DO NOT DISTURB AN AREA UNTIL IT IS NECESSARY FOR CONSTRUCTION TO PROCEED.
- G. TIME CONSTRUCTION ACTIVITIES TO LIMIT IMPACT FROM SEASONAL CLIMATE CHANGES OR WEATHER EVENTS.
- H. DO NOT REMOVE PERIMETER CONTROLS UNTIL ALL UPSTREAM AREAS ARE FULLY STABILIZED AND PERMANENT VEGETATION IS ESTABLISHED.
- I. THE CONTRACTOR WILL PROVIDE POLLUTION CONTROL BY IMPLEMENTING DUST CONTROL DURING ALL PHASES OF CONSTRUCTION. THIS WILL BE ACCOMPLISHED BY USING STREET OR VACUUM SWEEPERS.

(4) PROJECT AREAS:

THE ESTIMATED TOTAL PROJECT AREA IS 4.2 ACRES. THE ESTIMATED AREA TO BE DISTURBED DURING CONSTRUCTION ACTIVITIES IS 4.2 ACRES.

(5) RUNOFF COEFFICIENTS BEFORE Cw (B), DURING Cw (D) AND AFTER Cw (A) CONSTRUCTION:

RUNOFF COEFFICIENT FOR:
GRASSED SHOULDERS ADJACENT TO ROADWAY: C=0.35
IMPERVIOUS ROADWAYS AND PAVED SHOULDER: C=0.95
DISTURBED AREAS, EXPOSED SOIL, ETC., DURING CONSTRUCTION: C=0.40

WEIGHTED RUNOFF COEFFICIENT:
BEFORE: Cw (B) = 0.55 DURING: Cw (D) = 0.59
AFTER: Cw (A) = 0.98

THE RUNOFF COEFFICIENT DURING CONSTRUCTION, Cw (D), IS CALCULATED ASSUMING THAT THE MAXIMUM ALLOWABLE AREA OF SOIL IS DISTURBED DURING CONSTRUCTION AND THE REMAINING AMOUNT IS THE EXISTING IMPERVIOUS AND GRASSED SHOULDER AREAS.

(6) DESCRIPTION OF SOIL OR QUALITY OF DISCHARGE:

THE SOIL WITHIN THE PROJECT IS MAINLY ST. AUGUSTINE FINE SAND.

SOIL TYPE	HYDROLOGIC GROUP	DEPTH TO SHWE
44 - ST. AUGUSTINE FINE SAND	D	1.5' - 3.0'

REFERENCE: USDA SOIL SURVEY OF HILLSBOROUGH COUNTY, FLORIDA

(7) ESTIMATED DRAINAGE FLOW DIRECTION AND AVERAGE SLOPE OF DRAINAGE AREA FOR EACH OUTFALL:

- A. SITE MAP: INCLUDED WITH THESE SHEETS.
- B. DRAINAGE MAPS OR MAPS WITH APPROPRIATE CONTOURS: INCLUDED WITH THESE SHEETS.

(8) RECEIVING WATERS:

OLD TAMPA BAY WATER QUALITY IMPROVEMENT PROJECT
THIS FACILITY DOES DISCHARGE TO WATERS LISTED ON THE EPA APPROVED 303(D) LIST (FOR LIST, GO TO: [HTTP://FRWEBGATE.ACCESS.GPO.GOV/CGI-BIN/GETDOC.CGI?DBNAME=2000 REGISTER&DOCID=00-10518-FILED.PDF](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2000_register&docid=00-10518-filed.pdf)) FOR IMPAIRMENT DUE TO TOTAL SUSPENDED SOLIDS.

(9) OUTFALL LOCATIONS:

- A. BEGIN BRIDGE: MP 3.820, 27°58'22.39" N, 82°35'10.84" W
- B. END BRIDGE: MP 3.870, 27°58'22.02" N, 82°35'08.46" W

(10) WETLAND AND/OR SURFACE WATER IMPACTS ARE LIMITED TO THE AREAS DESCRIBED IN THE APPROVED PERMITS FOR THE PROJECT.

(11) DESCRIPTION OF STORMWATER MANAGEMENT: (EXISTING/PROPOSED)

- A. EXISTING DRAINAGE FLOWS ARE TYPICALLY OVER LAND INTO OLD TAMPA BAY. THE PROPOSED ROADWAY IMPROVEMENTS SHALL NOT MODIFY OR AFFECT THE EXISTING OFFSITE FLOW PATTERNS.
- B. OFFSITE RUNOFF SHOULD BE DIVERTED AWAY OR THROUGH THE CONSTRUCTION AREA, IF POSSIBLE. THIS ADDITIONAL FLOW, IF NOT DIVERTED, CAN ADD VOLUME AND SIZE TO STRUCTURAL PRACTICES, REQUIRING MORE FREQUENT MAINTENANCE AND LIMITING EFFECTIVENESS OF EROSION AND SEDIMENT CONTROLS.
- C. STORMWATER RUNOFF SHALL BE CONVEYED TO EITHER TEMPORARY SEDIMENT BASINS, CONTAINMENT SYSTEMS AND/OR TO PERMANENT STORMWATER MANAGEMENT FACILITIES (TREATMENT AND ATTENUATION PONDS). THE PROPOSED SEDIMENT BASINS, CONTAINMENT SYSTEMS AND/OR STORMWATER MANAGEMENT FACILITIES SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF CONSTRUCTION AND USED DURING CONSTRUCTION OF THE ROADWAY.
- D. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO PREVENT UNAUTHORIZED MATERIALS FROM ENTERING WETLANDS, WATERWAYS, OTHER SURFACE WATERS OR WATERS OF THE U.S.

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					60	HILLSBOROUGH	439206-1-52-01		

II. CONTROLS: SEDIMENT AND EROSION CONTROLS

(1) WATER QUALITY MONITORING:

- A. WATER QUALITY MONITORING SHALL BE CONDUCTED IN ACCORDANCE WITH THE SPECIAL CONDITIONS OF ANY ENVIRONMENTAL PERMIT OR BY THE CONTRACTOR UPON THE OBSERVATION THAT WATER QUALITY STANDARDS MAY BE VIOLATED BY THE CONTRACTOR'S ACTIVITIES. MONITORING LOCATIONS MAY BE SPECIFIED IN THE ENVIRONMENTAL PERMIT OR MAY BE DESIGNATED BY THE CONTRACTOR AND APPROVED BY THE PROJECT ADMINISTRATOR.
- B. THE CONTRACTOR WILL BE RESPONSIBLE FOR MONITORING ANY ACTIVITIES FOR VIOLATION OF WATER QUALITY STANDARDS AS THEY RELATE TO TURBIDITY (REFER TO 62-302 F.A.C. AND PERMIT INCLUDING EXHIBITS).
- C. IF WATER QUALITY STANDARDS ARE VIOLATED, CONSTRUCTION SHALL BE STOPPED IMMEDIATELY, THE ENVIROMENTAL PERMIT CONDITIONS FOLLOWED AND EROSION AND SEDIMENT CONTROL DEVICES REEVALUATED AND APPROVED BY THE ENGINEER PRIOR TO ANY CONTINUATION OF ACTIVITY. MONITORING ACTIVITIES AND TURBIDITY READINGS SHALL BE RECORDED ON THE CONSTRUCTION INSPECTION REPORT AND CONTINUED UNTIL TURBIDITY READINGS FALL BELOW AN ACCEPTABLE LEVEL (LESS THAN 29 NTU'S ABOVE BACKGROUND OR LESS THAN 0 NTU'S ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OFW'S).
- D. WATER QUALITY MONITORING MAY BE CONDUCTED DURING ANY PHASE OF CONSTRUCTION AS DIRECTED BY THE PROJECT ENGINEER.

(2) STABILIZATION PRACTICES:

- A. STABILIZATION MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO MAINTAINING, ESTABLISHING AND USING VEGETATION, APPLYING MULCHES, SODDING, SEEDING, BMP'S AND THE USE OF ROLLED EROSION CONTROLLED PRODUCTS. WHEN CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, SIDE SLOPES SHALL BE STABILIZED WITH PERFORMANCE SODDING OR SEEDING OR ANY OTHER APPROVED METHOD OF STABILIZATION INCLUDED IN THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEW MANUAL (E&SC MANUAL), LATEST EDITION.
- B. STABILIZATION SHALL TAKE PLACE AS SOON AS PRACTICAL IN PORTIONS OF THE PROJECT WHERE CONSTRUCTION ACTIVITIES HAVE CEASED, BUT NO LATER THAN 7 DAYS AFTER ANY CONSTRUCTION ACTIVITY CEASES EITHER TEMPORARILY OR PERMANENTLY.
- C. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED ACCORDING TO THE CONTRACT DOCUMENTS, AND THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN.
- D. ANY TEMPORARY MATERIAL USED FOR POLLUTION OR EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT AND FINAL STABILIZATION OF THE PROJECT HAS BEEN ACHIEVED.
- E. SEDIMENT BARRIERS SHOULD BE USED ALONG THE LENGTH OF THE PROJECT WHERE THE GROUND SLOPES AWAY FROM THE RIGHT OF WAY OR WHERE THERE IS POTENTIAL FOR SEDIMENT TO BE DIRECTED OFFSITE. PARTICULAR CARE SHOULD BE USED WHEN THERE ARE WETLANDS OR WATERS OF THE U.S. ARE INVOLVED. SEDIMENT BARRIERS SHOULD BE USED AROUND THE PERIMETER OF STOCKPILE AREAS.
- F. SPACING OF SEDIMENT BARRIERS USED AS DITCH OR SWALE CHECKS/DAMS SHOULD BE BASED UPON THE HEIGHT OF THE BARRIER AND THE SLOPE OF THE DITCH OR SWALE.
- G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MODIFYING SOIL TRACKING PREVENTION SYSTEMS OR PROCEDURES AS NEEDED.

(3) STRUCTURAL PRACTICES FOR EROSION AND SEDIMENT CONTROL:

- A. ROLLED EROSION CONTROL PRODUCTS (ARTIFICIAL COVERINGS) PURPOSE: TO PROTECT DISTURBED SLOPE SURFACES AGAINST EROSION DUE TO RAINFALL OR FLOWING WATER.
- 1) USED FOR PAUSES IN CONSTRUCTION DUE TO INCLEMENT WEATHER OR OTHER CIRCUMSTANCES. COULD INCLUDE NATURAL OR SYNTHETIC FIBER MATS, PLASTIC SHEETING OR NETS.

- 2) USED FOR EROSION CONTROL THAT FACILITATES PLANT GROWTH WHILE PERMANENT GRASS IS ESTABLISHED. COULD INCLUDE BIODEGRADABLE EROSION CONTROL BLANKETS INSTALLED ON A SEEDED AREA, ON FILL SLOPES OR IN DITCHES.
- 3) USED TO STABILIZE DRAINAGE CHANNELS. CONSULT E&SC MANUAL TO DETERMINE CORRECT PRODUCT TYPE FOR CHANNEL STABILIZATION.
- B. RUNOFF CONTROL STRUCTURE (TEMPORARY SLOPE DRAIN) PURPOSE: TO PROTECT HILLSIDE SURFACES AGAINST EROSION DUE TO CONCENTRATED FLOW OF RUNOFF WATER.
- 1) USED ON FILL SLOPES AND CUT SLOPES TO REDUCE SEDIMENT TRANSPORT AND COULD INCLUDE TEMPORARY SLOPE DRAINS, GRASS-LINED CHANNELS, ROCK-LINED CHANNELS AND CHECK DAMS.
- 2) RUNOFF CONTROL STRUCTURES TYPICALLY DISCHARGE TO A SEDIMENT BASIN.
- C. SEDIMENT BASIN (CONTAINMENT SYSTEM) PURPOSE: A CONTAINMENT SYSTEM IS DESIGNED TO DETAIN AN ADEQUATE VOLUME OF RUNOFF, REDUCE THE VELOCITY OF FLOW THROUGH THE SYSTEM, ALLOW FOR SETTLEMENT OF SUSPENDED SOLIDS AND REGULATE THE DISCHARGE RATE FROM THE SEDIMENT BASIN.
- 1) SEDIMENT BASINS MUST BE PLACED IN STRATEGIC LOCATIONS WITHIN THE ACTIVE AREAS OF CONSTRUCTION. CONTRIBUTING AREA AND SIZE OF TARGET SOIL PARTICLE WILL DICTATE WHETHER THE SEDIMENT BASIN WILL BE TYPE 1, TYPE 2 OR TYPE 3 SYSTEM.
- 2) THE USE OF SMALLER PRE-SEDIMENTATION BASINS USED IN CONJUNCTION WITH LARGER PERMANENT RETENTION/DETENTION PONDS ARE EFFECTIVE IN CAPTURING LARGER VOLUMES OF SEDIMENTS. THIS TECHNIQUE REQUIRES PERIODICALLY SCHEDULED REMOVAL OF THE ACCUMULATED SEDIMENTS.
- D. SEDIMENT BARRIERS (TEMPORARY CONSTRUCTION SITE BMP'S) PURPOSE: SEDIMENT BARRIERS EITHER OBSTRUCT FLOW OR PREVENT THE PASSAGE OF WATER WHILE CONSTRUCTION ACTIVITIES OCCUR. SMALLER SEDIMENT BARRIERS MAY FUNCTION AS A SMALL SEDIMENT CONTAINMENT SYSTEM OR AS A METHOD TO REDUCE FLOW VELOCITY.
- 1) THESE CONSTRUCTION BMP'S CAN INCLUDE SYNTHETIC BALES, STAKED SILT FENCE, TURBIDITY BARRIER, STORM SEWER INLET BARRIERS, ROCK BARRIERS, GEOSYNTHETIC BARRIERS, ETC.
- 2) APPROPRIATE LOCATIONS INCLUDE SITE PERIMETER, BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION, BELOW THE TOE OF EXPOSED AND ERODIBLE SLOPES, ALONG THE TOE OF STREAM AND CHANNEL BANKS, AROUND DRAINS AND INLETS LOCATED IN LOWPOINTS OR THE DOWNSTREAM EDGE OF AREAS UNDERGOING VERTICAL OR BOX CULVERT CONSTRUCTION ACTIVITIES.
- 3) INAPPROPRIATE LOCATIONS FOR THESE SAME MEASURES INCLUDE PARALLEL TO A HILLSIDE CONTOUR, IN CHANNELS WITH CONCENTRATED FLOW (UNLESS PROPERLY REINFORCED), UPSTREAM OR DOWNSTREAM OF CULVERTS WITH CONCENTRATED FLOW, IN FRONT OF OR AROUND INLETS ON A GRADE WITH CONCENTRATED FLOW OR IN FLOWING STREAMS.
- E. FLOATING TURBIDITY BARRIER PURPOSE: USED IN PERMANENT BODIES OF WATER TO RETAIN SEDIMENT AND FLOATING DEBRIS FROM A CONSTRUCTION AREA SO THAT REMOVAL OR CONTAINMENT OF THE MATERIAL IS POSSIBLE. THEY ARE ALSO USED TO CONTROL MIGRATION OF SUSPENDED SEDIMENTS.
- 1) TYPE I, LIGHT DUTY, IS USED WHERE THERE IS LITTLE OR NO CURRENT, NO WIND AND NO WAVE ACTION.
- 2) TYPE II, MODERATE DUTY, IS USED WITH SOME CURRENT (<3.5 FT. PER SECOND) AND SOME EXPOSURE TO WIND.
- 3) TYPE III, HEAVY DUTY, IS USED WITH GREATER CURRENT (3.5-5.0 FT. PER SECOND), MODERATE WIND AND WAVE ACTION
- 4) BARRIER MUST BE ATTACHED AT BOTH ENDS AND WEIGHTED ON THE BOTTOM.
- 5) MULTIPLE LINES OF BARRIER MAY BE USED IN SOME CIRCUMSTANCES FOR ADDITIONAL PROTECTION.
- 6) STANDARD PANELS FOR WATER DEPTHS ARE 5.0'. ADDITIONAL PANELS CAN BE USED FOR WATER DEPTHS GREATER THAN 5.0'.

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- F. STAKED TURBIDITY BARRIER PURPOSE: THIS ITEM IS COMMONLY USED IN AREAS WHERE CONTINUOUS CONSTRUCTION ACTIVITIES CHANGE THE NATURAL CONTOURS AND DRAINAGE RUNOFF PATTERNS.
- 1) COMMONLY USED IN LAKES AND STREAMS AS A SEDIMENT CONTAINMENT SYSTEM. SHOULD NOT BE USED WHERE WATER CURRENTS MOVE THE CURTAIN AND DISLODGE COLLECTED SEDIMENTS.
- 2) MAXIMUM DEPTH OF PANEL IS 3'-8".
- 3) POST MUST BE A MINIMUM LENGTH OF 5.0' AND A MINIMUM OF 10" OF FABRIC MUST BE EMBEDDED IN THE GROUND.
- G. INLET PROTECTION SYSTEM PURPOSE: ANY OF A NUMBER OF SEDIMENT BARRIERS THAT EITHER PREVENT SEDIMENT FROM ENTERING AN INLET OR TRAP THE SEDIMENTS ONCE THEY ENTER THE INLET.
- 1) TYPICAL APPLICATIONS INCLUDE ROCK BARRIERS, FRAME AND FILTER BARRIERS, CURB INLET "SUMP" BARRIER, CURB INLET DIVERSION BERM, CURB AND GUTTER SEDIMENT CONTAINMENT SYSTEM OR CURB INLET INSET.
- 2) SHOULD BE INSTALLED ONLY WHEN CONSTRUCTION ACTIVITIES ARE ON-GOING AND ONLY WHERE SUMP CONDITIONS EXIST.
- 3) SHOULD NOT BE USED WHEN CONSTRUCTION IS COMPLETE AND SHOULD NOT BE USED IN AREAS WHERE FLOODING COULD ENCROACH INTO THE TRAVEL LANES.
- H. SOIL TRACKING PREVENTION DEVICE PURPOSE: TEMPORARY STRUCTURES TO ASSIST WITH THE REMOVAL OF SOIL MATERIAL CAPTURED ON VEHICLE TIRES BEFORE THE VEHICLES ENTER THE ROADWAY.
- 1) USE ONE DEVICE PER MILE WITH A MINIMUM OF TWO PER PROJECT.
- 2) USE ADDITIONAL DEVICES FOR CONSRUCTION AREAS THAT ARE NOT ADJACENT TO THE ROAD RIGHT OF WAY AND NO ACCESS IS PROVIDED THROUGH A SOIL TRACKING PREVENTION DEVICE.
- 3) RRR PROJECTS SHOULD BE HANDLED ON A CASE BY CASE BASIS.
- (4) CHEMICAL TREATMENTS FOR EROSION AND SEDIMENT CONTROL:
- A. CHEMICAL TREATMENT - POLYACRYLAMIDES (PAM AND PAM BLENDS) PURPOSE: REDUCE SOIL EROSION THROUGH SOIL BINDING, USED AS A WATER TREATMENT ADDITIVE TO REMOVE SUSPENDED SOLIDS FROM RUNOFF, PROVIDES APPROPRIATE MEDIUM FOR GROWTH OF VEGETATION FOR STABILIZATION AND INCREASES INFILTRATION BY INCREASING SIZE OF SOIL PARTICLE.
- 1) AS AN ADDITIONAL EROSION CONTROL MEASURE, CHEMICAL ADHESIVE STABILIZER (POLYACRYLAMIDE) CAN BE USED WHERE SOIL RUNOFF WILL DRAIN TO WETLANDS OR SURFACE WATERS. SUCH USAGE SHALL BE LIMITED TO AREAS WHERE VEHICLE TRAFFIC AND OTHER DISTURBANCES WILL NOT OCCUR FOR MORE THAN 7 DAYS. POLYACRYLAMIDE CAN BE APPLIED TO EXPOSED SOILS PRIOR TO PLACEMENT OF ARTIFICIAL COVERINGS AND ROLLED EROSION CONTROL PRODUCTS. POLYACRYLAMIDE SHALL BE USED TO STABILIZE SOIL STOCKPILES WHEN THE STOCKPILE WILL REMAIN UNDISTURBED FOR MORE THAN 7 DAYS. POLYACRYLAMIDE SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS.
- 2) CAN BE USED ON DISTURBED SOILS. CAN BE USED IN CONJUNCTION WITH OTHER BMP'S TO ENHANCE PERFORMANCE. CAN BE APPLIED IN DISSOLVED FORM WITH WATER, CAN BE USED AS A DRY POWDER, CAN BE USED IN GRANULAR FORM OR MAY BE USED IN THE FORM OF FLOC LOGS.
- 3) HIGHER CONCENTRATIONS OF PAM'S DO NOT INCREASE THE EFFECTIVENESS OF THE PRODUCT.
- 4) ACTIVELY WORKED AREAS WILL REQUIRE REAPPLICATION TO REMAIN EFFECTIVE.
- 5) PAM SHOULD NOT BE USED WHERE THERE IS A POTENTIAL FOR EQUIPMENT CLOGGING OR TOXICITY IS A CONCERN.

- B. CHEMICAL TREATMENT - ALUM PURPOSE: REMOVE SUSPENDED SOLIDS AND POLLUTANTS BY ENMESHMENT AND ABSORPTION INTO ALUM. COLLECT FLOCS OF SUSPENDED SEDIMENTS IN RUNOFF AND STORE THEM IN SEDIMENT BASINS OR STORMWATER MANAGEMENT FACILITIES.
- 1) ALUM IS INJECTED INTO THE FLOW STREAM CONTAINING TURBID WATER. INJECTION IS CONTROLLED BY VARIABLE SPEED CHEMICAL PUMP TO FEED ALUM AT MULTIPLE TREATMENT POINTS. ALUM TREATMENT IS EFFECTIVE IN TREATMENT OF RUNOFF THAT CONTAINS LIMEROCK FROM UNPAVED SURFACES.
- 2) ALUM TREATMENT REQUIRES CLOSE MONITORING OF DOSAGE. COMBINATION WITH OTHER COMPOUNDS MAY VIOLATE TOXICITY REQUIREMENTS AND THE USE OF ALUM MAY LOWER PH LEVELS.
- NOTE: THIS PAY ITEM IS CONSIDERED A CONTRACTOR'S OPTION FOR SEDIMENT CONTROL ISSUES THAT ARE PROJECT/SITE SPECIFIC. NOT TO BE USED IN THE DESIGN PROCESS WITHOUT CONTACTING LARRY RITCHIE IN THE STATE CONSTRUCTION OFFICE.

(5) DEWATERING OPERATIONS (OPTIONAL - BASED ON PROJECT APPLICABILITY):

- DESCRIPTION: DEWATERING OPERATIONS ARE PRACTICES THAT MANAGE THE DISCHARGE OF TURBID WATER WHEN WATERS OTHER THAN STORMWATER AND ACCUMULATED SURFACE WATERS MUST BE REMOVED FROM A LOCATION SO THAT CONSTRUCTION WORK MAY BE ACCOMPLISHED. THESE WATERS CAN INCLUDE GROUNDWATER, WATER FROM COFFERDAMS, WATER DIVERSIONS AND WATERS USED DURING CONSTRUCTION THAT MUST BE REMOVED FROM A WORK AREA.
- A. ENVIRONMENTAL AGENCIES ARE ESPECIALLY CONCERNED WITH THE PROTECTION OF WETLANDS FROM DRAWDOWN EFFECTS, PROTECTING RECEIVING BODIES FROM SEDIMENTATION AND POSSIBLE CAPACITY LIMITATIONS.
- B. THREE PRIMARY METHODS OF DEWATERING COMMONLY USED IN FLORIDA ARE RIM-DITCHING, SOCK/PIPE/HORIZONTAL WELLS AND WELL-POINT SYSTEMS.
- C. METHODS FOR CONTAINING SEDIMENTATION CAN INCLUDE A COMBINATION OF BMP'S AND SEDIMENT TRAPS, SEDIMENT BASINS, GRAVITY BAG FILTERS, WEIR TANKS, DEWATERING TANKS, SAND MEDIA/PRESSURIZED BAGS AND CHEMICAL TREATMENTS.

(6) COASTAL OPERATIONS:

- DESCRIPTION: CONSTRUCTION SITES IN COASTAL AREAS PRESENT UNIQUE CHALLENGES DUE TO HIGHER WIND SPEEDS, SALINE LADEN AIR MOISTURE AND WAVE ACTION THAT REQUIRE USING APPROPRIATE EROSION CONTROL TECHNIQUES THAT CAN WITHSTAND THESE ELEMENTS.
- A. PARTICULAR CONCERNS DURING THE DEVELOPMENT OF EROSION CONTROL PLANS IN COASTAL OPERATIONS CAN INCLUDE THE RESISTANCE OF EROSION CONTROL MATERIALS TO SALT WATER, HIGH WATER TABLES, SOIL COMPACTION AND SITE DEVELOPMENT DUE TO THE TYPICAL SANDY SOILS LOCATED IN THESE AREAS AND SOIL STABILIZING VEGETATION MUST BE SALT TOLERANT.
- B. HIGH ENERGY ENVIRONMENT SHOULD BE CONSIDERED WHEN SELECTING EROSION CONTROL DEVICES. FREQUENT MAINTENANCE IS NORMALLY REQUIRED FOR EROSION CONTROL DEVICES AND TIDAL FLUCTUATIONS MUST BE CONSIDERED WHEN SELECTING THE METHODS OF EROSION CONTROL.
- C. TEMPORARY CONTROL TECHNOLOGIES FOR THE COASTAL ENVIRONMENT COULD INCLUDE THE USE OF COMPOST/WOOD MULCHING, HYDRAULIC MULCHING, SOIL BINDERS AND TEMPORARY HYDROSEEDING.
- D. PERMANENT CONTROLS COULD INCLUDE THE USE OF POLYMER-ENHANCED ARMORING, PRESERVING EXISTING VEGETATION WHEN POSSIBLE, ESTABLISHING PERMANENT SALT-TOLERANT VEGETATION, CONSTRUCTION SITE BARRIERS (SHEET PILES/CONCRETE WALLS/EARTHERN BERMS), NATURAL /SYNTHETIC GEOTEXTILES, MATS, OR GEOGRIDS.

III. OTHER CONTROLS

(1) WASTE DISPOSAL:

- A. THE CONTRACTOR WILL PROVIDE LITTER CONTROL AND COLLECTION WITHIN THE PROJECT BOUNDARIES DURING CONSTRUCTION ACTIVITIES.
- B. ALL FERTILIZER AND CHEMICAL CONTAINERS SHALL BE DISPOSED OF BY THE CONTRACTOR ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.

REVISIONS				ATKINS NORTH AMERICA, INC. 4030 WEST BOY SCOUT BLVD., STE. 700 TAMPA, FLORIDA 33607 (813) 282-7275 FBPE CERTIFICATE OF AUTHORIZATION NO. 24 SHAYNE PAYNTER, P.E. # 58136	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			STORMWATER POLLUTION PREVENTION PLAN (03)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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- C. NO SOLID MATERIALS, INCLUDING BUILDING AND CONSTRUCTION MATERIALS, SHALL BE DISCHARGED TO WETLANDS OR BURIED ON SITE.
- D. ALL SANITARY WASTE WILL BE COLLECTED FROM PORTABLE UNITS BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE REGULATIONS.

(2) OFFSITE VEHICLE TRACKING - WILL BE CONTROLLED BY THE FOLLOWING METHODS:

A. LOADED HAUL TRUCKS ARE TO BE COVERED BY A TARPAULIN AT ALL TIMES.

B. EXCESS DIRT ON ROAD WILL BE REMOVED DAILY.

(3) STATE AND FEDERAL REGULATIONS:

PERMITS WILL BE REQUIRED FROM THE FOLLOWING AGENCIES: SWFWMD, USACOE, NPDES, HCPEPC

(4) NON-STORMWATER (INCLUDING SPILL REPORTING):
THE CONTRACTOR WILL PROVIDE THE DEPARTMENT WITH AN EROSION AND SEDIMENT CONTROL PLAN THAT WILL INCLUDE SPILL CONTAINMENT, REPORTING, AND RESPONSES. THE PLAN SHALL SPECIFY WHAT MANAGEMENT PRACTICES AND CONTAINMENT METHODS WILL BE USED TO PREVENT POTENTIAL POLLUTANTS (FUEL, LUBRICANTS, HERBICIDES, ETC.) FROM SPILLING ONTO THE SOIL OR INTO THE SURFACE WATERS. IF A SPILL DOES OCCUR, OR IF CONTAMINATED SOIL OR GROUNDWATER IS ENCOUNTERED, CONTACT THE DISTRICT CONTAMINATION IMPACT COORDINATOR AT (813) 975-6923.

IV. MAINTENANCE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIRS OF ALL EROSION AND SEDIMENT CONTROL DEVICES AND REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES WHEN NOTICE OF TERMINATION IS MAILED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND PROPER DISPOSAL OF SEDIMENT BUILDUP THROUGH THE LIFE OF THE INSTALLED EROSION AND SEDIMENT CONTROL DEVICES.

(1) ALL CONTROL MEASURES WILL BE MAINTAINED DAILY BY THE CONTRACTOR AND ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF NOTICE.

(2) SODDING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

(3) SYNTHETIC BALES SHALL BE MAINTAINED TO ENSURE THEIR USEFULNESS AND NOT BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.

(4) SOIL TRACKING PREVENTION DEVICES SHALL BE MAINTAINED TO PREVENT CLOGGING OF ROCK BEDDING WHICH MAY IMPEDE THE USEFULNESS OF THE STRUCTURE.

V. INSPECTION

(1) THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAUGES ON THE PROJECT SITE AND RECORD WEEKLY RAINFALL IN ACCORDANCE WITH THE NPDES PERMIT.

(2) ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED DAILY BY CONTRACTOR'S PERSONNEL WHO ARE F.D.E.P. CERTIFIED STORMWATER MANAGEMENT INSPECTORS.

(3) THE CONTRACTOR SHALL COMPLETE ALL SWPPP INSPECTION REPORT FORMS REQUIRED FOR THE NPDES PERMIT.

VI. TRACKING AND REPORTING

(1) THE CONTRACTOR SHALL SUBMIT A WEEKLY REPORT TO THE DEPARTMENT DOCUMENTING THE DAILY INSPECTIONS AND MAINTENANCE OR REPAIRS TO THE EROSION AND SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL MAINTAIN ALL REQUIRED REPORTS AND COMPLETE ALL SWPPP INSPECTION FORMS.

(2) PREPARATION OF ALL THE CONTRACTOR'S REPORTS OF INSPECTION, MAINTENANCE AND REPAIRS REQUIRED FOR THE CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION, SHALL BE INCLUDED IN THE INDIVIDUAL COSTS OF THE EROSION AND SEDIMENT CONTROL DEVICES OR LUMP SUM COST OF THE PROJECT.

(3) THE CONTRACTOR SHALL USE THE SWPPP CONSTRUCTION INSPECTION REPORT FORM #650-040-03, FOR DAILY INSPECTIONS.

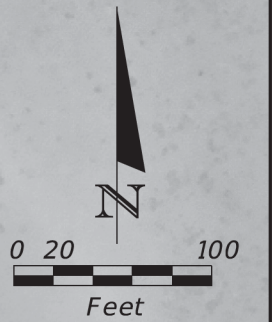
REVISIONS				ATKINS NORTH AMERICA, INC. 4030 WEST BOY SCOUT BLVD., STE. 700 TAMPA, FLORIDA 33607 (813) 282-7275 FBPE CERTIFICATE OF AUTHORIZATION NO. 24 SHAYNE PAYNTER, P.E. # 58136	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			STORMWATER POLLUTION PREVENTION PLAN (04)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					60	HILLSBOROUGH	439206-1-52-01		8

NOTE: TURBIDITY MONITORING WILL
PRECEDE INSTALLATION OF THE
SHEET PILE WALL, AFTER WHICH IT
WILL NO LONGER BE REQUIRED.

— EXISTING R/W

— BACKGROUND MONITORING POINT
500 FEET UP CURRENT OF WORK
(OUTGOING TIDE) (N.T.S.)

— COMPLIANCE MONITORING POINT
200 FEET DOWN CURRENT OF WORK
(INCOMING TIDE) (N.T.S.)



PERMITTED DRAWINGS SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)



SR 60
(COURTNEY CAMPBELL CAUSEWAY)

Q CONST. SR 60 —

405

47

415

COMPLIANCE MONITORING POINT
200 FEET DOWN CURRENT OF
WORK (OUTGOING TIDE) (N.T.S.)

— BACKGROUND MONITORING POINT
500 FEET UP CURRENT OF WORK
(INCOMING TIDE) (N.T.S.)

LIMITS OF CONSTRUCTION

LEGEND



200 FOOT MIXING ZONE



SEDIMENT BARRIER



FLOATING TURBIDITY BARRIER



TEMP. SHEET PILE WALL

				ATKINS NORTH AMERICA, INC. 4030 WEST BOY SCOUT BLVD., STE. 700 TAMPA, FLORIDA 33607 (813) 282-7275			<i>STATE OF FLORIDA</i> <i>DEPARTMENT OF TRANSPORTATION</i>			<i>EROSION CONTROL</i>	SHEET NO.
REVISIONS				FBPE CERTIFICATE OF AUTHORIZATION NO. 24 SHAYNE PAYNTER, P.E. # 58136			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		9
DATE	DESCRIPTION	DATE	DESCRIPTION				60	HILLSBOROUGH	439206-1-52-01		

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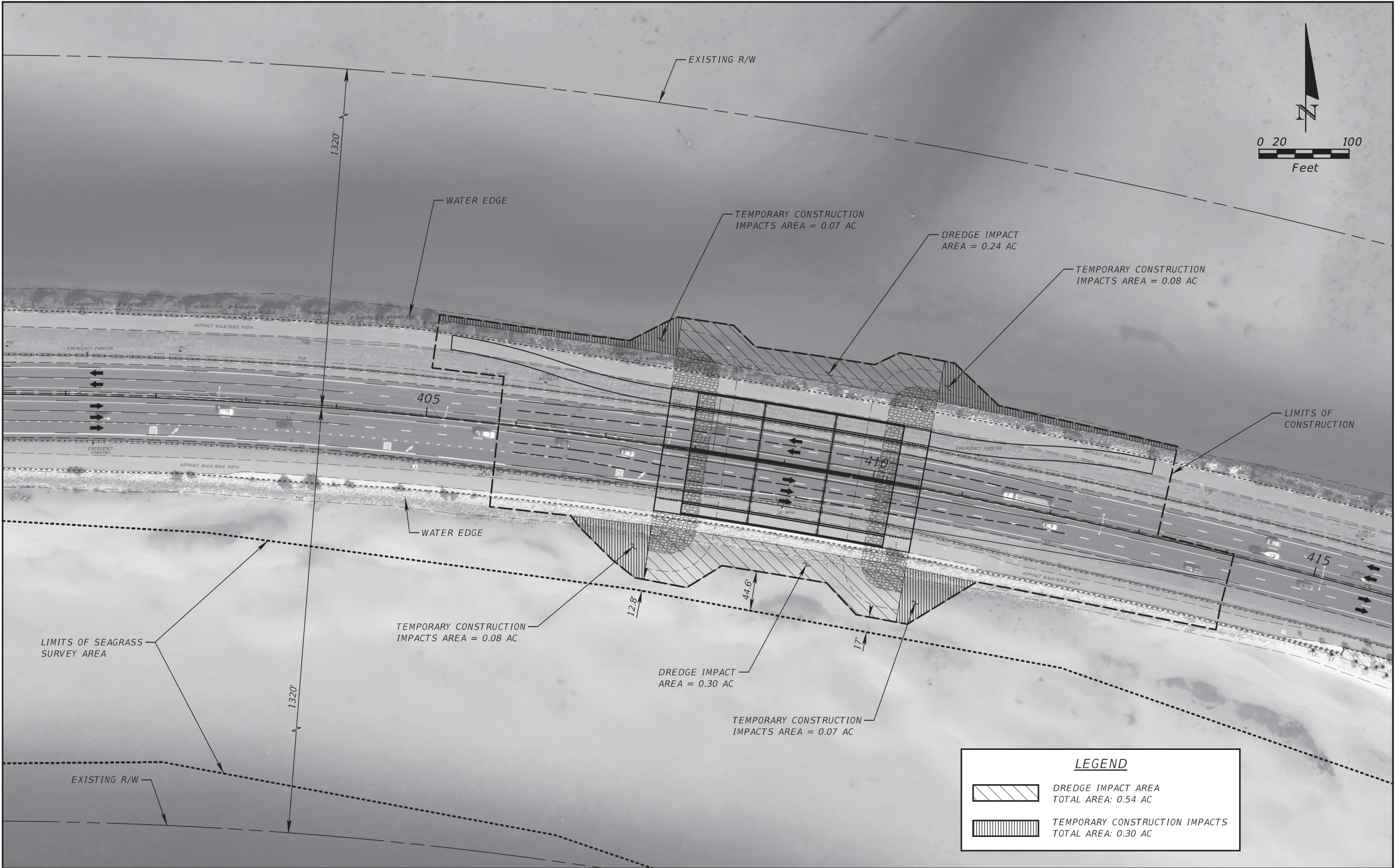
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PERMITTED DRAWINGS SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)
For construction permits, the Permittee shall notify the District
in writing when construction begins.



LEGEND

	DREDGE IMPACT AREA TOTAL AREA: 0.54 AC
	TEMPORARY CONSTRUCTION IMPACTS TOTAL AREA: 0.30 AC

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					60	HILLSBOROUGH	439206-1-52-01		

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Plan Sheets 11 and 12 in the original document contain information exempt from public inspection per Chapter 119.071, Florida Statutes.

Please call the District directly for instructions on how to obtain this information.

PERMITTED DRAWINGS SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)
For construction permits, the Permittee shall notify the District
in writing when construction begins.



STRATUM A			STRATUM B			STRATUM C			STRATUM C			STRATUM C		
POINT NAME	LONGITUDE	LATITUDE	POINT NAME	LONGITUDE	LATITUDE	POINT NAME	LONGITUDE	LATITUDE	POINT NAME	LONGITUDE	LATITUDE	POINT NAME	LONGITUDE	LATITUDE
A 01	-82.603327	27.980631	B 01	-82.595513	27.979020	C 01	-82.583223	27.976003	C 14	-82.580415	27.972877	C 27	-82.577004	27.975930
A 02	-82.607030	27.977918	B 02	-82.595862	27.979185	C 02	-82.584659	27.974772	C 15	-82.580156	27.973197	C 28	-82.577464	27.976077
A 03	-82.605981	27.976604	B 03	-82.596612	27.977445	C 03	-82.585064	27.974424	C 16	-82.579623	27.973092	C 29	-82.578346	27.974267
A 04	-82.604218	27.975357	B 04	-82.596124	27.975696	C 04	-82.584924	27.973768	C 17	-82.578736	27.973054	C 30	-82.578979	27.974313
A 05	-82.602614	27.974813	B 05	-82.594758	27.975311	C 05	-82.584513	27.973382	C 18	-82.575736	27.973331	C 31	-82.579092	27.974697
A 06	-82.598165	27.975355	B 06	-82.592597	27.975402	C 06	-82.578500	27.971680	C 19	-82.574829	27.973110	C 32	-82.578960	27.974957
A 07	-82.597191	27.976972	B 07	-82.587823	27.975371	C 07	-82.576270	27.970751	C 20	-82.573749	27.972156	C 33	-82.579240	27.975090
A 08	-82.596823	27.978322	B 08	-82.585998	27.974305	C 08	-82.576318	27.971000	C 21	-82.574076	27.970910	C 34	-82.579652	27.974560
A 09	-82.597447	27.978960	B 09	-82.584343	27.974088	C 09	-82.577038	27.971498	C 22	-82.573916	27.970435	C 35	-82.580203	27.974475
A 10	-82.599951	27.978080	B 10	-82.585349	27.976202	C 10	-82.577294	27.971930	C 23	-82.573827	27.970297	C 36	-82.581096	27.975287
A 11	-82.601461	27.978761	B 11	-82.585619	27.976668	C 11	-82.578754	27.972256	C 24	-82.571125	27.971504	C 37	-82.581120	27.975649
A 12	-82.602059	27.978802	B 12	-82.584830	27.977344	C 12	-82.579391	27.972559	C 25	-82.571965	27.974430	C 38	-82.580793	27.976253
A 13	-82.602753	27.980167	B 13	-82.584873	27.978656	C 13	-82.580054	27.972735	C 26	-82.576189	27.975788	C 39	-82.581003	27.976389
A 14	-82.599097	27.978306	B 14	-82.593107	27.979052							C 40	-82.581428	27.975790



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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					60	HILLSBOROUGH	439206-1-52-01		

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