Florida Keys Overseas Heritage Trail Scoping Report

FM# 452558-2

SR 5/US-1/Overseas Highway
From N. Harris Channel to Johnson Road Florida Keys Overseas Heritage Trail (FKOHT)
(90020000 | MP 13.245-MP 15.253)
Monroe County, Florida

Prepared for
Florida Department of Transportation District 6
Planning and Environmental Management Office
1000 NW 111th Avenue
Miami, Florida 33172

FDOT Project Manager: Md Hossain, P.E.
Contract No. C-AD92, Task Work Order 07

DRAFT REPORT **June 2025**

ENGINEER'S CERTIFICATION

I, hereby certify that I am a registered professional engineer in the State of Florida, practicing with GOAL Associates Inc., a Florida Corporation under Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes, and by the State of Florida, Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluation, findings, opinions, conclusions, or technical advice hereby reported for:

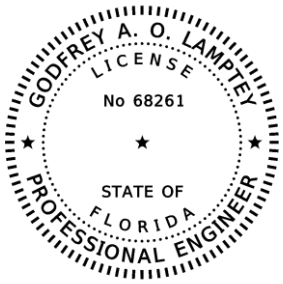
Project:	SR 5/US 1 From N. Harris Channel to Johnson Road Florida Keys Overseas Heritage Trail (FKOHT) Scoping Report FM# 452558-2-52-01| Roadway ID: 90020000 | MP 13.245-MP 15.253
Location:	Monroe County, Florida
Client:	Florida Department of Transportation, District 6 Planning and Environmental Management Office 1000 NW 111th Avenue Miami, Florida 33172
FDOT Project Manager:	Md Hossain, P.E.
Report Prepared by:	GOAL Associates, Inc. 14750 NW 77th Court, Suite 320 Miami Lakes, FL 33016 Contract No. C-AD92, Task Work Order 07 Vendor No. F464649215

I acknowledge that the procedures and references used to develop the results contained in this report are standard for the professional practice of transportation engineering as applied through professional judgment and experience.

Signature: _____

Name: Godfrey Lamptey, P.E., PTOE

License No.: 68261



SUMMARY OF PROJECT SCOPE ELEMENTS

The following list is provided as a basis for the Scope of Services for the Design Phase.

SUMMARY OF PROJECT INFORMATION

- Project Description: SR 5/US 1 From N. Harris Channel to Johnson Rd
  Florida Keys Overseas Heritage Trail (FKOHT)
- County: Monroe
- Project Type: Bike Path/Trail (Work Mix 0106)
- Project Limits: Roadway ID: 90020000 | MP 13.245 to MP 15.253
  Trail ID: 90931002
- Highway Systems: Intrastate (Roadway)
- Functional Classification: Urban Principal Arterial Other (Roadway)
- Context Classification: C2T Rural Town (Roadway).
- Bridge No(s): Park Channel Historic Pedestrian Bridge
- Railroad Crossing: N/A
- Design Speed: 55 mph (Roadway) 18 mph (Trail)
- Posted Speed: 45 mph (Roadway)
- Target Speed: N/A

1 PURPOSE

- Major work mix includes: 3.2 Major Highway Design
- Major work groups include: 3.1 Minor Highway Design
  4.1.1 Miscellaneous Structures
  7.1 Signing, Pavement Marking & Channelization
  7.2 Lighting
  7.3 Signalization
  8.1 Control Surveying
  8.2 Design, Right of Way, Construction Surveying
  9.1 Soil Exploration
  15.0 Landscape Architect
- Known alternative construction contracting methods include: N/A

2 PROJECT DESCRIPTION

2.1 Project General and Roadway (Activities 3, 4, and 5)

- Public Involvement: CAP Level 1 anticipated. The District Public Information Office (PIO) consultant is responsible for coordination of all public involvement activities during the Design Phase. The Designer is expected to attend a Public Information Meeting.
- Other Agency Meetings: Monroe County
- Joint Project Agreements (JPAs): N/A
- Specification Package Preparation: Yes, Specifications Package required.
- Value Engineering: N/A
- Risk Assessment Workshop: N/A
- Plan Type: Roadway Plans required (2.008 Miles)
- Typical Section: 3 Typical Sections
- Pavement Design: 1 Pavement Designs
  - New Construction
- Pavement Type Selection Report(s): N/A
- Cross Slope Correction: N/A
- Access Management Classification: N/A
- Transit Route Features: N/A
- Major Intersections/Interchanges: Crane Blvd & Johnson Road
- Roadway Alternative Analysis: N/A
- Level of Temporary Traffic Control Plans: Level 1
- Temporary Lighting: N/A
- Temporary Signals: N/A
- Temporary Drainage: N/A
- Design Variations/Exceptions: 3
  - Design Variation for Shared Use Path Width
  - Design Variation for Horizontal Clearance
  - Design Variation for Shared Use Path Separation

- Back of Sidewalk Profiles: N/A

2.2 Drainage (Activities 6a and 6b)

The project is located in the South Florida Water Management District (SFWMD) Lower East Coast Planning Area. The existing drainage patterns include direct runoff to offsite wetland areas. The proposed system with address attenuation of a portion of the runoff consistent with prior permitting efforts for the segment of roadway addressed by this project. This will be done through the construction of dry retention swale storage / treatment facilities. This project will result in additional impervious areas and also impacts to existing wetland areas.

2.3 Selective Clearing and Grubbing (Activity 6c)

A field assessment shall be conducted by the designer prior to final determination on the extent of Selective clearing and grubbing activities, per FDM 274.2.

2.4 Utilities Coordination (Activity 7)

The project utility coordination is to be completed by the District Utilities Group and the Project Utility Coordinator consultant. Utility coordination tasks include processing of Utility Work Schedules (UWS), and Utility Clear Letters. Four (4) Utility Agencies/Owners (UAOs) are identified within the 0.25 mile of the project limits. No significant utility impacts are anticipated for this Project. However, the Designer should perform Subsurface Utility Exploration (SUE) tests to verify any utility conflicts within the project limits.

2.5 Environmental Permits, Compliances, and Clearances (Activity 8)

The project will occur within the State Highway System (SHS) right-of-way. The proposed FKOHT runs along the east side of SR 5 / US-1 adjacent to existing wetlands which are anticipated to be impacted due to the proposed construction. The wetlands to be impacted consist of narrow strips of disturbed saltmarsh wetlands located along the base of the existing SR 5 / US-1 roadbed. It is anticipated that modification to the existing Environmental Resources Permit will be required by the South Florida Water Management District

The Design Project Manager must provide the Environment Section with the opportunity to perform an environmental impact review once design plans have been developed. If warranted, an Environmental Certification will be prepared upon the completion of the environmental impact review. A more detailed environmental permitting review will be conducted at the 60% Design Phase.

2.6 Structures (Activities 9 – 18)

The existing Park Channel Historic Bridge is located within the project limits. The proposed trail will tie into the existing FKOHT bridge at approximately Sta 509+90.12 to Sta 518+10.18.

2.7 Signing and Pavement Markings (Activities 19 & 20)

Signing and Pavement Marking Plans are required (2.008 Miles). Signing improvements include the upgrade of all substandard ground-mounted signs to meet current FDOT and MUTCD requirements. All pavement markings within the limits of milling and resurfacing shall be replaced to meet current FDOT Standard Plans for Road Construction.

2.8 Signalization (Activities 21 & 22)

Provide new countdown pedestrian signals and/or install ADA-compliant pedestrian pushbuttons and detector signs at the proposed crosswalk on the east leg of Crane Blvd intersection. The signal timing at the Crane Blvd intersections will need to be updated to accommodate the new crosswalk.

2.9 Lighting (Activities 23 & 24)

Provide intersection lighting for the proposed crosswalk on the east leg of Crane Blvd intersection.

2.10 Landscape Architecture (Activities 25 & 26)

A tree disposition survey is recommended to determine the feasibility of preserving any shade trees. The designer should coordinate with the District Landscape Manager to minimize impacts to the existing landscape to the maximum extent possible.

2.11 Survey (Activity 27) N/A

Survey services to be provided by the District. The Designer will create the Project Control sheets from data extracted from the project survey and sign and seal the Project Control Sheets.

2.12 Photogrammetry (Activity 28) N/A

Aerial photography to be provided by the District.

2.13 Mapping (Activity 29) N/A

Right of Way Mapping services to be provided by the District.

2.14 Terrestrial Mobile LiDAR (Activity 30) N/A

2.15 Architecture (Activity 31) N/A

2.16 Noise Barriers (Activity 32) N/A

2.17 Intelligent Transportation Systems (Activities 33 & 34) N/A

2.18 Geotechnical (Activity 35) N/A

Geotechnical services to be provided by the District. The Designer is responsible for including the Project geotechnical information in the Roadway Plans component set.

2.19 Project Schedule (as of 06/16/2025)

- Production Date 04/22/2027
- Transmit PS&E Package 07/16/2027
- Letting Date 09/29/2027

2.20 Submittal Schedule (as of 06/16/2025)

- Phase I - 60% Plans Submittal 04/10/2026
- Phase I - 90% Plans Submittal 08/06/2026
- Phase I - 100% Plans Submittal 12/21/2026
- Plans Completed 03/08/2027
- PS&E Submittal 06/16/2027

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mph	miles per hour
psi	pounds per square inch

LIST OF ABBREVIATIONS

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ADAAG	ADA Accessibility Guidelines
CAP	Community Awareness Plan
DHW	Design High Water
DTPW	Department of Transportation and Public Works
EB	Eastbound
ETRM	Exfiltration Trench Reference Manual
ESAL	Equivalent Single Axle Load
FAST	Florida Analysis System for Targets
FAC	Florida Administrative Code
FC	Friction Course
FDOT	Florida Department of Transportation
FDM	FDOT Design Manual
FM	Financial Management (Number)
FPDM	Flexible Pavement Design Manual
FPID	Financial Project Identification Number
FWD	Falling-Weight Deflectometer
FY	Fiscal Year
HCL	High Crash List
JPA	Joint Project Agreement
LBR	Limerock Bearing Ratio
LRE	Long Range Estimate
LT	Left
MP	Milepost
MR	Resilient Modulus
MUTCD	Manual on Uniform Traffic Control Devices for Streets and Highways
NB	Northbound
NHS	National Highway System
NMSA	Non-Major State Action
NOAA	National Oceanic and Atmospheric Administration
PCS	Pavement Condition Survey
PECCDR	Pavement Evaluation Coring and Condition Data Report
PIF	Permit Involvement Form
PIO	Public Information Office
PLEMO	Planning and Environmental Management Office
POP	Pavement-Only Project
PROWAG	Public Right of Way Accessibility Guideline
RCI	Roadway Characteristics Inventory
RRR	Resurfacing, Restoration, and Rehabilitation
RT	Right
SB	Southbound
SHS	State Highway System
SIS	Strategic Intermodal System
SLD	Straight Line Diagram
SMO	State Materials Office
SN	Structural Number
T_{24}	Truck Factor (% Trucks)
TTC	Temporary Traffic Control (Plan)
TEM	Traffic Engineering Manual
UAM	Utility Accommodation Manual
UAO	Utility Agency/Owner
UWS	Utility Work Schedule
WB	Westbound

1.0 INTRODUCTION

1.1 Project Description

The Florida Keys Overseas Heritage Trail (FKOHT) is under the auspices of the Florida Department of Environmental Protection, Office of Greenways and Trails (FDEP / OGT). The overall FKOHT will eventually establish an interconnected linear trail for shared use, recreational use, and alternative transportation uses that traverses the archipelago known as the Florida Keys. It will extend from Key West, Mile Marker (MM) 0.00 to Key Largo MM 106.5, linking the entire chain of keys. The trail alignment follows along the SR 5 / US-1 corridor (also known as Overseas Highway), typically within roadway right of way owned and managed by the Florida Department of Transportation (FDOT).

In 2010, the Florida Department of Environmental Protection (FDEP) completed the design of the FKOHT from Lower Sugarloaf to Summerland Key, located along SR 5 / US-1 between MM 16.5 (MP 11.96) and MM 25.5 (MP 20.96), in Monroe County, Florida. This project, developed under FDEP Project No. 6G020 as a Local Agency Program (LAP) initiative, was situated within the FDOT SR 5 / US-1 right-of-way and constructed under FDOT FPID No. 405633-1-52-01. Construction of most project elements occurred between 2011 and 2015, with as-built plans indicating a completion date of June 17, 2015. However, a key segment of the originally planned trail, from MM 16.5 (MP 11.96) and MM 19.85 (MP 15.31) was not constructed due to erosion damage caused by hurricanes, notably Wilma (2005) and Irma (2017), as documented in the as-built plans.

The Florida Department of Transportation has entered into an Interagency Agreement with the FDEP - Office of Greenways and Trails (OGT) to construct a new segment of the FKOHT within the right-of-way of SR 5/US-1/Overseas Highway within Park and Upper Sugarloaf Keys in Monroe County, Florida. The overall FKOHT will eventually establish an interconnected linear trail for shared use, recreational use, and alternative transportation uses that traverses the archipelago known as the Florida Keys. It will extend from Key West MM 0.0 to Key Largo MM 106.5, linking the entire chain of keys. The project limits for this segment of the FKOHT are from SR-5/US-1 MP 13.245 (Just North of North Harris Channel Bridge No. 900109) on Park Key to SR 5 / US-1 MP 15.253 (Johnson Road) located on the eastern end of Upper Sugarloaf Key.

The proposed improvements will close a critical gap in the FKOHT, linking the segment beginning at Johnson Road with the existing trail infrastructure on Cudjoe Key, including connections to Old US-1. This will significantly enhance multimodal connectivity, providing a continuous, safe, and functional route for pedestrians and cyclists.

A timber boardwalk was constructed at the SR 5/US-1 and Crane Boulevard intersection during the prior project. The current project will connect to this boardwalk, enabling a seamless path between Park Key, Upper Sugarloaf Key, and Cudjoe Key. Additionally, Monroe County is

advancing the design of a multi-use trail along Crane Boulevard, from SR 5/US-1 to Hawksbill Lane, under FDOT LAP Project with FPID No. 451637-1-52-01. The proposed FKOHT Shared Use Path segment will provide direct connectivity with this future trail, further supporting a cohesive regional trail network.

1.2 Project Location and Limits

The project is located in Monroe County, within Pine Key and Upper Sugarloaf Keys. The project limits are along SR 5/US 1 / Overseas Highway (Roadway ID 90020000) from MP 13.245 (MM 17.85) to MP 15.253 (MM 19.85). See **Appendix A** for Straight Line Diagram. The **Project Location Map** is shown in **Figure 1-1**.

Figure 1-1 Project Location Map

1.3 Adjacent Projects

Based on the data collection from the FDOT archives, the following programmed or previous projects were identified within or adjacent to the project limits. The as-built plans or design plans for the previous projects are provided in **Appendix B**.

Previous Projects

- FPID 405633-1-52-01 (FY 2011 – Completed in 2015)
  - SR 5/Overseas Heritage Trail, from MM 16.5-Lower Sugarloaf to MM 24.5-Summerland Keys (New Construction)

- FPID 423136-1-52-01 (FY 2011)
  - SR 5/Overseas Hwy, from MM 15.9/E Circle Dr. to MM 19.4/E of Crane Blvd. (Resurfacing)

- FPID 440909-2-58-01 (FY N/A)
  - SR 5/US 1 From Upper Sugarloaf Key to Lower Sugarloaf Key (Bike Path/Trail)

Future Projects

- FPID 440909-3-52-01 (FY unknown)
  - SR 5/US 1 From Upper Sugarloaf Key to Lower Sugarloaf Key (Preliminary Engineering)

- FPID 451637-1-52-01 (FY 2027) – LAP Project under design by Monroe County
  - Crane Boulevard Shared Use Path (FL Keys Heritage Trail) (Bike Path/Trail)

- FPID 452558-2-52-01 (FY 2027)
  - SR 5/US 1/ Overseas Highways from MM 29.5 (MP 25.012) to MM 31.4 (MP 26.548) (Resurfacing)

1.4 Vertical Datum

All elevations are presented in the plans, calculations, and reports reflect the North American Vertical Datum of 1988 (NAVD 88) which is the current standard datum utilized by FDOT on its projects. Vertical datum reflected on past projects and permit documentation referenced in attached technical memorandums are based on the National Geographic Vertical Datum of 1929 (NGVD 29). FDOT previously utilized this datum. Other government agencies such as the United States Army Corps of Engineers (USACOE), Federal Emergency Management Agency (FEMA), and SFWMD, the National Geodetic Vertical Datum of 1929 (NGVD 29) is still in use but in the process of being transitioned to NAVD 88. Therefore, a vertical datum shift was identified for the approximate centroid location of the study area by using the National Geodetic Survey VERTCON tool. The datum shift used to convert NAVD 88 to NGVD 29 for this project is (+)1.638-ft. See **Appendix B** for the datum shift calculation from the National Geodetic Survey (NGS) Vertcon tool. Coordinates of the centroid are shown in the referenced appendices.

2.0 EXISTING CONDITIONS

2.1 Office Reviews

The office reviews included the review of documents provided by the District and data collection from other resources. Documents reviewed included the following:

- Aerial Photography
- Right of Way Maps
- Existing Traffic Volumes
- Straight Line Diagram (SLD)
- Roadway Characteristics Inventory (RCI)
- Identification of Utilities (Sunshine State One-Call of Florida)
- As-Builts and Design Plans from previous and adjacent projects
- Wetlands Evaluation Report
- Existing SFWMD permits
- Existing design survey

2.2 Field Reviews

Field reviews were conducted in February 2025 for this Scoping Report, based on the District 6 Field Review Checklists. Photos documenting these field reviews are included in the relevant sections of this report.

At Existing Park Channel Bridge

At Johnson Road looking South

Figure 2-1 Existing Field Conditions

2.3 Design Controls

2.3.1 Highway Functional Classification

SR 5/ US 1/ Overseas Highway from MP 13.245 to MP 15.253 is classified as an Urban Principal Arterial and is part of the National Highway System (NHS).

2.3.2 Context Classification

The context classification is C2T Rural Town throughout the project limits, based on the FDOT Roadway Characteristic Inventory (RCI) and the FDOT Transportation Data Analytics ArcGIS Online Feature Layers. The FDOT's Planning Office will prepare a Project-level Context Classification (PLCC) to confirm the context class.

2.4 Existing Typical Section

The typical section along SR 5/US 1, from Upper Sugarloaf Key to Lower Sugarloaf Key, consists of a two-way roadway with one 12-ft lane in each direction and a 12-ft two-way left turn center lane at Crane Boulevard and Johnson Road intersections. The southbound outside shoulder is 10-ft shoulder with 3-ft to 10-ft paved while the northbound shoulder is 10-ft shoulder with 5-ft paved. The existing roadway typical section is shown in **Figure 2-2**.

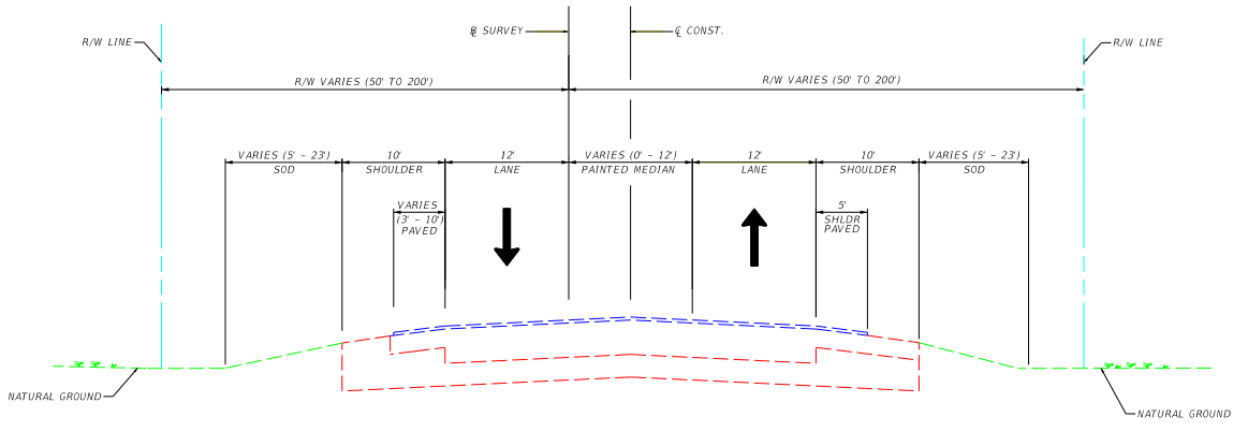


Figure 2-2 Existing SR 5 / US-1 Typical Section

2.5 Existing Pavement

2.5.1 Pavement History

The existing pavement within the project segment was last resurfaced in 2010 by FPID 405612-2-52-01 (FY 2010) which extended from MM 29.5 to MM 31.4. The existing pavement is currently 14 years old and will be 17 years old by 2027. The pavement design from the previous project is listed below.

- Milling and Resurfacing
  - Mill Existing Asphalt Pavement (1.5“ Avg. Depth)
  - Resurface with
    - Type SP Structural Course, Traffic C (1.5")
    - Type SP Overbuild, Traffic C (Varies 0.5" to 6.0")
    - Friction Course FC-9.5 (1”) (Rubber)
- Widening
  - Optional Base Group 9
  - Type SP Structural Course, Traffic C (2")
  - Friction Course FC-9.5 (1”) (Rubber)
- Shoulder Pavement
  - Optional Base Group 4: RAP Base Option (5")
  - Type SP Structural Course (Traffic C (1.5")
  - Friction Course FC-9.5 (1”) (Rubber)

The focus of this project is the construction of the proposed FKOHT Shared Use Path along the south side of SR 5/US-1/Overseas Highway and does not include resurfacing of the existing roadway

3.0 ANALYSIS OF DESIGN ELEMENTS

3.1 Design Criteria

As part of the FKOHT Shared Use Path scoping report, the design criteria for the various design elements from the January 2025 edition of the FDOT Design Manual (FDM) were reviewed to identify the required design controls. Other documents used for reviewing this project include the latest editions of the following manuals or guidelines:

- American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets
- FDOT Utility Accommodation Manual (UAM)
- Americans with Disabilities Act (ADA) Standards for Accessible Design
- ADA Standards for Transportation Facilities
- AASHTO Roadside Design Guide (RSDG)
- FDOT District 6 Design Handbook
- FDOT District 6 Pavement Design Guidelines
- FDOT Drainage Design Guidelines
- FDOT Flexible Pavement Design Manual
- FDOT Standard Specifications for Road and Bridge Construction
- Americans with Disabilities Act Accessibility Guidelines (ADAAG)
- Public Right-of-Way Accessibility Guidelines (PROWAG)
- FDOT Speed Zoning Manual
- Manual of Uniform Traffic Control Devices (MUTCD)
- FDOT Traffic Engineering Manual (TEM)
- AASHTO Guide for Development of Bicycle Facilities
- FDOT Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways (commonly known as the “Florida Green Book”)

Table 3-1 summarizes the design criteria and controls used to develop the typical sections, horizontal and vertical alignments, pavement design and other design features for the US-1 / SR-5 Sugarloaf Trail.

Table 3-1 Design Controls and Criteria

Design Element	Design Criteria	Source
Design Speed	18 mph (for longitudinal grades ≤ 4%)	FDM 2025 Section 224.9
Design Vehicle	Pedestrian / Bicycle	FDM 2025 Section 224.9

Table 3-1 Design Controls and Criteria		
Design Element	**Design Criteria**	**Source**
Trail Typical Section		
Shared Use Path Width	Widths range from a Minimum of 10' to 14' Standard Width = 12' SUN Trail network facilities = 12' minimum	FDM 2025 Section 224.4
Cross Slope	2% Maximum	FDM 2025 Section 224.5
Longitudinal Slope	5% Maximum If grades are greater than 5%, refer to Table 224.6.1	FDM 2025 Section 224.6 FDM 2025 Table 224.6.1
Horizontal Clearance	• 4-ft clear area adjacent to both sides of path. • 2-ft wide graded area with a max. 1:6 slope adjacent to both sides of path. • For restricted conditions (bridge abutments, sign columns, fencing & railing) may be located within 4-ft of the edge of pavement, but no less than 2-ft.	FDM 2025 Section 224.7 FDM 2025 Section 224.15
Vertical Clearance	• 10-ft vertical clearance (VC) from the bottom lowest edge of an overhead (OH) obstruction to any portion of the path under the obstruction. • 8-ft. VC allowed for OH signs and for other OH obstructions under constrained conditions. • 12-ft. VC is desirable for: ○ Accommodation of equestrians or maintenance and emergency vehicles. ○ Underpasses and tunnels ○ SUN Trail • Min. VC for Bridges ○ Pedestrian Bridges over Roadways: 17.5-ft (New Const. / New Bridge) ○ Pedestrian Bridges over Roadways: 17.0-ft (New Const. / Const. Affecting Bridges)	FDM 2025 Section 224.8 FDM 2025 Table 260.6.1
Horizontal Alignment		
Min. Radius Horizontal Curves on Shared Use Paths	• Design Speed 18 mph; cross slope (+) 2%; Min. Radius = 74 feet • Design Speed 18 mph; cross slope (-) 2%; Min. Radius = 86 feet • Note: For paths with two-way traffic use min. radius given for cross slope of (-) 2%	FDM 2025 Table 224.10.1

Table 3-1 Design Controls and Criteria		
Design Element	**Design Criteria**	**Source**
Min. Stopping Sight Distance	• 134-ft. (flat conditions). • adjust based on grades per Table 224.10.2 • Note: Stopping sight distance based on an object height of 0.0 ft and an eye height of 4.5 ft.	FDM 2025 Table 224.10.2
Vertical Geometry		
Maximum Grade	5% Maximum if grades are greater than 5%, refer to Table 224.6.1	FDM 2025 Section 224.6 FDM 2025 Table 224.6.1
Minimum Length of Vertical Curve	Formula Based: When S > L; L = 2S – (900 /A) When S < L; L = AS^2 / 900 L = Min. Length of Vertical Curve (ft.) A = Algebraic Grade Difference (%) S = Stopping Sight Distance (ft.)	FDM 2025 Section 224.11
Separation from Roadway		
Provide a separation between a Shared Use Path and the roadway when they are located adjacent to each other. This demonstrates to both path users and motorists that the Shared Use Path is a separate facility. Minimum separation is as follows:		
On flush shoulder roadways with design speed 50 mph or greater	Edge of the path to be at least 5-ft from the shoulder break.	FDM 2025 Section 224.12
Drop-off Hazards		
• A drop-off greater than 10 inches (or a slope resulting in a drop-off greater than 10 inches) that is closer than 2 feet from the edge of path • A slope steeper than 1:2 that begins closer than the 2-ft from the edge of the path and the total drop-off is greater than 60 inches		FDM 2025 Section 224.15
Provide a Pavement Design Equivalent to Standard Shoulder Pavement		
Structures Course	1.5 inches	FDM 2025 Section 224.17.1 Design Manual FPDM 2025 Table 5.5
Base Group	Base Group 1	
Stabilized Subgrade	12 Inches	

It is the Designer's responsibility to implement the design criteria from the applicable edition of the FDM and FDOT Standard Plans effective for this project at the Letting Date of September 2027.

3.2 Design Speed

The proposed design speed for the FKOHT Shared Use Path is 18 mph since the proposed longitudinal grades along the FKOHT Shared Use Path are less than 4% and meet the FDM Section 224.9 requirements.

3.3 Trail Width

The proposed width of the FKOHT Shared Use Path varies from 8-ft to 12-ft due to constrained conditions and limited right-of-way along the trail corridor. The proposed trail width is predominantly 12-ft. However, it reduces to 10-ft at locations where the wetland encroaches into the proposed FKOHT Shared Use Path and to 8-ft at locations where it connects to the existing boardwalk at the Crane Blvd intersection.

The proposed trail is part of the SUN Trail Network which requires a minimum width of 12-ft per FDM Section 224.4. Since there are sections of the proposed trail with widths less than 12-ft a Design Variation for Trail Width is required.

3.4 Cross Slope

The proposed maximum cross slope for the FKOHT Shared Use Path is 2% to meet FDM Section 224.5 and ADA requirements.

3.5 Separation from Roadway

To demonstrate to both path users and motorists that the path is a separate facility from the roadway, a minimum separation of 5-ft is required from the roadway shoulder break to the edge of the path for flush roadway roadways with design speed greater than 50 mph.

For this project the separation between the roadway shoulder break and the edge of the FKOHT Shared Use Path varies from 5-ft to 22.3-ft to connect to the existing pedestrian bridge at Sta 509+19.12. Beyond this, the separation width varies from 31-ft to 5.3-ft where it connects to the existing boardwalk at Sta 548+13.77. The separation width varies again from 5.5-ft to 8.8 between the end of the boardwalk at Sta 550+93.76 to the connection with the existing trail north of Johnson Road.

The proposed separation between the roadway and the FKOHT Shared Use Path meets the FDM Section 224.12 requirements.

3.6 Horizontal Alignment

The proposed horizonal alignment along the FKOHT Shared Use Path includes primarily tangent segments with horizontal deflections less than 2 degrees Were the deflections exceed 2 degrees, a horizontal curve was provided to facilitate a smooth change in alignment. **Table 3-2** below shows the 5 horizontal curves proposed along the trail alignment.

Table 3-2 Proposed Horizontal Alignment Curve Data

PI STA.	PC STA.	PT STA.	Radius (ft)	Δ	D	Curve Length (ft)
1502+01.80	1501+79.12	1502+24.47	1,000	2°35'55"	05°43'46"	45.36
1518+74.65	1518+60.92	1518+88.25	110	14°14'14"	52°05'13"	27.33
1519+04.73	1518+90.75	1519+18.56	110	14°29'16"	52°05'13"	27.81
1773+82.16	1573+63.65	1574+00.66	1,000	02°07'14"	05°43'46"	37.01
1575+97.29	1575+77.60	1576+16.97	1,000	02°15'20"	05°43'46"	39.36

The minimum radius of curvature for the FKOHT Shared Use Path is 110-ft, which satisfies the FDM Table 224.10.1 requirements for horizontal alignment.

3.7 Vertical Geometry

The proposed vertical alignment for the FKOHT Shared Use Path is generally flat to match the existing ground. The maximum grade is 1.35% which meets the FDM Section 224.6 requirements for longitudinal grades. **Table 3-3** shows the proposed vertical curves along the FKOHT Shared Use Path profile.

Table 3-3 Proposed Vertical Alignment Curve Data

VPI STA.	Back Grade (%)	Ahead Grade (%)	Δ (%)	K-Value	Curve Length (ft)	SSD (ft)
1471+50.00	-1.050	-0.300	0.75	333.4	250	725
1477+50.00	-0.300	0.049	0.35	716.8	250	1,418
1507+00.00	0.046	1.350	1.30	230.0	300	495
1522+50.00	-0.900	-0.076	0.82	364.1	300	696
1543+50.00	-0.076	0.159	0.24	1062.8	250	2,040
1554+50.00	-0.347	0.025	0.37	972.2	250	1,335
1572+00.00	0.025	-0.095	0.12	1670.0	200	3,850

As indicated in the table above, the minimum curve length is 250-ft which meets the minimum vertical curve length per FDM Section 224.11. In addition, the proposed minimum stopping sight distance of 495-ft meets the minimum requirements of 134-ft for the 18-mph design speed per FDM Table 224.10.2.

3.8 Horizontal Clearance

The FDM Section 224.7 requires a 4-ft clear area adjacent to both sides of the path and a 2-ft-wide graded area with a maximum 1:6 slope adjacent to both sides of the path. However, for restricted conditions, bridge abutments, sign columns, fencing and railing may be located within 4 ft of the edge of pavement. For the proposed trail, there are several Florida Keys Electric Cooperative Association (FKEC) power transmission poles located on the south side of the trail within the 4-ft clear area. At some locations, the width of the trail has been reduced to avoid conflicts with the existing FKEC power transmission poles while maintaining at least 2-ft horizontal clearance. A design variation for horizontal clearance less than 4-ft will be required.

3.9 Vertical Clearance

The FDM Section 224.8 requires a 10-foot vertical clearance from the lowest edge of an overhead obstruction to any portion of the path under the obstruction. However, since this trail is part of the SUN Trail Network, a 12-ft vertical clearance is recommended. Under constrained conditions, an 8-foot clearance is allowed for overhead signs and for other overhead obstructions. For the proposed FKOHT Shared Use Path, no overhead structures are anticipated.

3.10 Driveways & Side Streets

There are two side street connections along the proposed FKOHT Shared Use Path at Crane Blvd and Johnson Road. The connection at Crane Blvd intersections includes a wooden boardwalk located on the south side of SR 5/US-1. The proposed trail will also connect to a new shared use path along the east side of Crane Blvd currently under design (FM 451637-1-52-01). A new pedestrian special emphasis crosswalk is proposed on the east leg of the intersection to connect the proposed trail to the new shared use path along Crane Blvd. At the Johnson Road intersection, a new special emphasis crosswalk is proposed across the south leg of the intersection to connect to the existing Shared Use Path on the east side of the intersection.

Figure 3-1 Existing Boardwalk at Crane Blvd Intersection

3.11 Curb Ramps & Detectable Warnings

Curb ramps with detectable warnings are provided at the two proposed special emphasis crosswalks at the Crane Blvd and Johnson Road intersections. The existing sidewalk connection to the Boardwalk at Crane Blvd will be extended to connect to the proposed special emphasis crosswalk on the east leg of the intersection.

3.12 Lighting

Due to the environmentally sensitive and primarily rural nature of the adjacent land uses, no lighting is proposed along the FKOHT Shared Use Path. However, at the Crane Blvd intersection, where a new special emphasis crosswalk is proposed on the east leg, new intersection lighting is required per FDM Section 231.3.2.1.2 and Table 231.2.1 to ensure adequate vertical illumination for the crosswalk to enhance pedestrian and bicycle safety.

3.13 Signing and Pavement Markings

The proposed signing and pavement markings must follow the Manual on Uniform Traffic Control Devices (MUTCD) and the FDOT Traffic Engineering Manual (TEM) criteria per FDM 224.14. Material selection for the asphalt surface of the Path Markings (includes arrows, symbols, and messages) shall be performed thermoplastic material, per FDM 230.3.1.3. Special emphasis crosswalks at the Crane Blvd and Johnson Road intersections are recommended to ensure safe crossings by pedestrians and bicyclists.

3.14 Bridges Structures

There is an existing FKOHT bridge (adjacent to FDOT Bridge No 900112) within the limits of the trail crossing the Park Channel. The existing bridge, also known as the Park Channel Historic Bridge, was originally part of Henry Flagler's Florida East Coast Railway. The existing bridge is approximately 12-ft wide. The proposed trail will tie into the existing FKOHT bridge at approximately Sta 509+90.12 to Sta 518+10.18.

3.15 Drop-Off Hazards

The proposed FKOHT Shared Use Path generally includes a 2-ft clear area on each side with 1:6 side slopes followed by a 1:2 side slope to harmonize with the existing ground while avoiding impacts to the adjacent wetland areas. There are no side slopes steeper than 1:2. At locations where the wetlands limits are located within the FKOHT Shared Use Path, gravity walls with pedestrian railings are provided to minimize impacts to the existing wetlands. Consequently, there are no drop-off hazards along the proposed FKOHT Shared Use.

3.16 Landscape

The proposed FKOHT Shared Use Path will require clearing and grubbing of the existing vegetation along the path to facilitate construction. A tree disposition survey is recommended to determine the feasibility of preserving any shade trees. The designer should coordinate with the District Landscape Manager to minimize impacts to the existing landscape to the maximum extent possible.

4.0 PRELIMINARY DRAINAGE EVALUATION

4.1 Project Considerations

The project is located in the South Florida Water Management District (SFWMD) Lower East Coast Planning Area. The chain of islands known as the Florida Keys runs south and west from the southeastern tip of the state. Because of the unique marine ecosystems, the Florida Keys area is protected by the Florida Keys National Marine Sanctuary, three national parks (Everglades, Biscayne, and Dry Tortugas), and several state parks. Given that the project is located within the Florida Keys the ultimate discharge for stormwater is to either the Atlantic Ocean or the Gulf of Mexico. The existing drainage patterns include direct runoff to offsite wetland areas. The proposed system with address attenuation of a portion of the runoff consistent with prior permitting efforts for the segment of roadway addressed by this project. This will be done through the construction of dry retention swale storage / treatment facilities as described in Sections 4.1.2 and 4.1.3 below.

4.1.1 Mean High-Water Elevations and Base Clearance

A **Conceptual Drainage Analysis Memorandum** was prepared to support the scoping of this project. The Drainage Memorandum includes a **"Base Clearance Analysis"** which evaluates both the current day and future Mean High-Water Elevation (MHW) for this coastal area as well as establishes parameters for minimum base clearance for the proposed pavement construction of the FKOHT Shared Use Path (SUP). The future MHW Elevation was computed from historical Tidal Station Datums for both Key West and Vaca Key. The most conservative value of (+) 1.6-ft NAVD was selected for the design analysis to address future potential conditions consistent with recommendations made in the "Study of Roadway Base Clearance for State Roads in Monroe County" report that was prepared in 2018 for the roadway base clearance and French Drain analysis. Base Clearance for the FKOHT SUP shall be a minimum of 1-ft of clearance from the SUP Base Course to the Future MHW Elevation.

4.1.2 Floodplain Encroachment

The project corridor lies within Federal Emergency Management Administration (FEMA) FIRM Panels 12087C1291K, 12087C1292K, 12087C1293K and 12087C1294, with the project area located within Floodplain Zone VE (EL 12.00-feet NGVD to 13.00-feet NGVD)[EL 10.63-feet NAVD88 to 11.63-feet NAVD88 and AE (EL. 10.00-feet NAGVD to 11.00-feet NGVD)[EL 8.632-feet NAVD88 to 9.632-feet NAVD88). Refer to Figure 4-1 Below for the FEMA FIRM Panels. The project will not affect flood heights or base floodplain limits, result in increased or new adverse environmental impacts, increase flood risks or damage; or significantly change the potential for interruption or termination of emergency service or emergency evacuation routes.

Figure 4-1 FEMA Firm Panels (Vertical Datum in NGVD 29)

4.1.3 Existing Stormwater Basins and Facilities

SR 5 / US-1 /Overseas Highway between the North Harris Channel Bridge (MP 13.245) and Johnson Road (MP 15.253) ranges in Edge of Pavement Elevations (EOP) elevation between approximately 6-ft NAVD and 7-ft NAVD with higher elevations along the bridge approaches to North Harris and Park Channel Bridges. The existing SR 5 / US-1 roadway predominately consists of a two-lane two-way rural arterial roadway with 12-ft lanes and paved shoulders. Based on field observations the roadway is crowned and allows uncontrolled overland stormwater runoff to discharge across to the roadway swales and then directly into adjacent surface waters, coastal wetlands and mangrove areas on either side of the roadway. There are limited drainage structures (Closer to Johnson Road) along this segment of the roadway and no cross drains within the limits of the project area. The swales that do exist are bordered by vegetation throughout the entire project limits.

Similar proposed improvements for this section of FKOHT between MM 16.5 (MP 11.96) and MM 19.85 (MP 15.31) were permitted in the 2009 SFWMD Standard General Permit described in **Section 4.2 Permitting**. This segment of SR 5 / US-1 was covered by Drainage Basins 1.5, 1.6, 1.7 and 1.8 (See Original Drainage Maps Included in the FDOT FPID No. 405633-1-52-01 As-Built Plans shown in **Appendix A** and described below:

Park Key Basins

a. **Basin 1.5:** Extends from then North Harris Channel Bridge at Sta. 465+00 to Sta. 481+00 consisting of the area between the road crown of SR 5 / US-1 to the existing wetland boundary along the south side of the roadway embankment as depicted in the original permit. **The total area of this basin is 1.62 Acres.**

b. **Basin 1.6:** Extends from Sta. 481+00 to Sta. 494+30 consisting of the area between the road crown of SR 5 / US-1 to the existing wetland boundary along the south side of the roadway embankment as depicted in the original permit. **The total area of this basin is 1.18 Acres.**

c. **Basin 1.7:** Extends from Sta. 494+30 to Sta. 509+70.65 ending at the Park Channel Bridge consisting of the area between the road crown of SR 5 / US-1 to the existing wetland boundary along the south side of the roadway embankment as depicted in the original permit. The original design proposed the construction of five (5) Stormwater Management Facilities consisting of dry retention swales (SWMF 3 – 0.04 Acres; SWMF 4 – 0.05 Acres; SWMF 5 – 0.02 Acres; SWMF 6 – 0.04 Acres; and SWMF 7 – 0.04 Acres). **The total area of this basin is 2.28 Acres.**

Upper Sugarloaf Key

d. **Basin 1.8: Extends** from Park Channel Bridge at Sta. 518+17.76 to Sta. 577+75 (Crown of Johnson Road) consisting of the area between the road crown of SR 5 / US-1 to the existing wetland boundary along the south side of the roadway embankment as depicted in the original permit. The original design proposed the construction of four (4) Stormwater Management Facilities consisting of dry retention swales (SWMF 8 – 0.07 Acres; SWMF 9 – 0.07 Acres; SWMF 10 – 0.06 Acres; and SWMF 11 – 0.03 Acres). **The total area of this basin is 6.70 Acres.**

4.1.4 Proposed Stormwater Management Improvements

The proposed improvements will ensure that stormwater attenuation is addressed with post-development runoff volumes not exceeding pre-development runoff. Consistent with the previously permitting project segment Basins 1.5 and 1.6 do not have sufficient area to accommodate storage within the sub-basins. Therefore, these do not contain any storage. Basins 1.7 and 1.8 have sufficient area to accommodate dry retention Stormwater Treat Facilities and have been proposed in Conceptual Design in this manner. Given that all basins currently discharge offsite calculations were prepared to evaluate pre-development and post-development volumes to ensure that the proposed project retains any differences between pre and post volumetric changes.

Proposed dry retention facilities have 1:4 to 1:6 side slopes. There is at least a minimum 5-foot wide bottom and at least 1-foot of separation from seasonal high groundwater table / Future Mean Highway Water (MHW) Table with considerations to future Sea Level Rise. Conservatively a higher elevation of (+) 1.6-ft NAVD was utilized in the analysis which represents future conditions. Stage-Storage calculations for the proposed dry retention are identified in the table below. The Top of Swale reflects the freeboard elevation for the swale which is set at 0.5-ft below the edge of the swale with all storage measured below that elevation. The previously permitted treatment / storage swales within these limits were combined into four larger dry retention swales to address the needs of the project.

Table 4-1 Stage-Storage Calculations

Basin No.	Station Limits	Depth (ft)	Bottom of Swale			Top of Swale at Freeboard			Storage (Acre-ft)
			Length (ft)	Width (ft)	Area (Acres)	Length (ft)	Width (ft)	Area (Acres)	
1.7	500+39.94 To 507+35.93	1.0	696	11.78	0.188	688	20.25	0.316	0.2520
1.8	519+40.00 To 527+56.02	1.0	808	15.55	0.286	816	22.80	0.437	0.3615
	565+97.26 To 567+32.27	0.5	129	5.00	0.015	135	11.00	0.033	0.0120
	569+84.04 To 573+75.65	0.5	386	6.10	0.054	392	12.10	0.108	0.0405

This provides 0.666 acre-ft of storage within the project limits and satisfies the originally permitted discharges. Additional storage can be obtained by stepping the swales in the areas of the corridor approaching the bridges. The stepped swales would consist of a series of ditch blocks to accommodate additional swale storage every 100-ft in sloped areas with the stepped swales providing 0.5 feet of depth at the higher elevation and 1.5 feet of depth at the lower elevations. This adds about 0.024 acre-ft of storage per one hundred feet of swale.

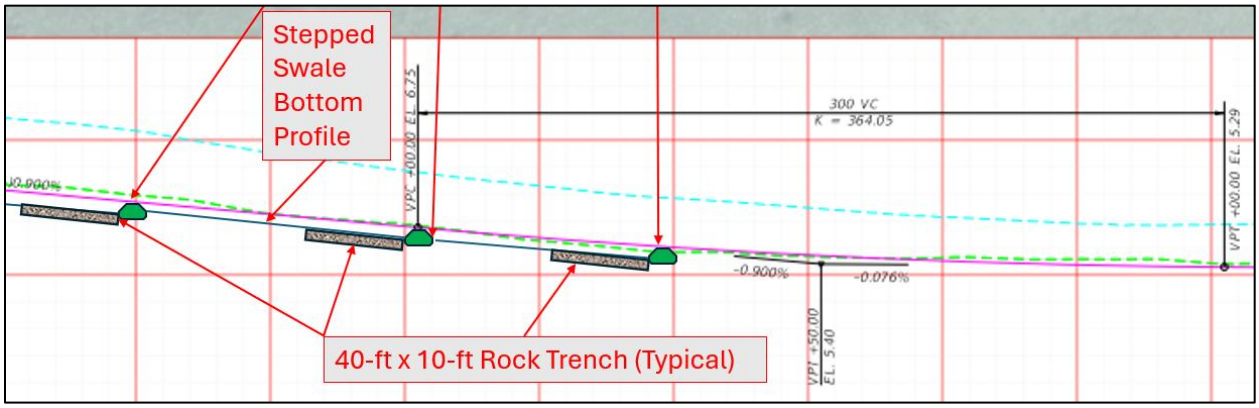


Figure 4-2 Stepped Dry Retention Swales at bridge approaches and departures

Assuming a run of approximately 300-ft of stepped swales and additional 0.072 Acre-ft of storage is attained per approach. This storage can be increased by placing a French Drain system within the bottom of the swales to capture additional storage. Considering both ends of for example, Basin 1.7 a total of 0.144 acre-ft of addition storage can support further reduction of runoff and increase water quality dry retention storage. Providing the proposed dry retention swales addresses the planned stormwater retention permitting under the 2009 project.

The previously permitted project addresses water quality considerations as well. Based on a review of the permits the volume necessary to satisfy South Florida Water Management District (SFWMD) water quality requirements for this project is 0.736 acre-feet. This volume was determined by using the greater of 1.875-inches over the added impervious area or 0.75-inches over the project area which was the basis of the original permit. In addition, compensatory volume was added for impacts to existing storage areas. For this segment of the FKOHT, 0.75-inches over the project area is the more stringent criteria. This 0.736 acre-feet of treatment volume considers the 50% reduction allowed for dry retention facilities as well as the 50% Increase for Outstanding Florida Waters requirements. The proposed dry retention swales described earlier provide 0.666 acres of retention.

The addition of the Stepped Dry Retention Swales and French Drain Rock Trenches will increase retention storage as follows:

- Base Storage Provided in Basins 1.7 and 1.8 = 0.666 Acre-ft
- Stepped Swales in Basin 1.7 = 0.144 Acre-ft
- Stepped Swales in Basin 1.8 = 0.144 Acre-ft

Total = **0.954 Acre-ft > 0.736 Acre-ft**

4.2 Permitting

The Florida Keys Overseas Heritage Trail (FKOHT) is under the auspices of the Florida Department of Environmental Protection, Office of Greenways and Trails (FDEP / OGT). The overall FKOHT will eventually establish an interconnected linear trail for shared use, recreational use, and alternative transportation uses that traverses the archipelago known as the Florida Keys. It will extend from Key West (MM 0.0) to Key Largo (MM 106.5) linking the entire change of keys. The rail alignment follows along the SR 5 / US-1 corridor (Also known as Overseas Highway), typically within roadway right of way owned and managed by the Florida Department of Transportation (FDOT).

A Conceptual Master Plan was generated for the overall FKOHT project. An Environmental Resources Permit (ERP) application for conceptual approval of the entire project was submitted to the South Florida Water Management District (SFWMD) in 2003. SFWMD granted conceptual authorization for the project on January 15, 2004, via ERP 344-00323-P. The permittees were both the Florida Department of Environmental Protection (FDEP) and the Florida Department of Transportation (FDOT) since the trail will largely be constructed within the SR 5 / US-1 right of way owned and controlled by FDOT. The generation of construction plans and construction permitting of individual segments of the FKOHT project occur as funding becomes available. Applications for construction and operation authorization of individual segments are submitted to SFWMD as modifications to the original Permit No. 44-00323-P, unless these segments are exempt from ERP permitting requirements. Since the date the conceptual permit was first issued, several permit modifications have been approved by SFWMD authorizing the construction of various portions of the FKOHT. Certain segments proposed for construction are exempt from ERP permitting, thus these have not required modifications to the conceptual permit.

The proposed subject project is part of the FKOHT consisting of a bi-directional “Shared Use Path” (SUP) for pedestrians and bicyclists running adjacent to the existing northbound SR-5 / US-1 travel lanes. The project involves modification or alteration of existing works, activities, and/or a stormwater management system and construction of an additional segment of the previously permitted FKOHT. This project consists of a modification to the original SFWMD Permit No. 44-000323-P for the overall trail. The proposed segment connects to the existing FKOHT at Johnson

Road (MP 15.253) on Upper Sugarloaf Key and extends south for approximately two (2) miles to just north of the North Harris Channel Bridge on Park Key (MP 13.245). All proposed work is within the existing FDOT right-of-way and adjacent to SR-5 / US-1. This segment of the FKOHT will also provide connectivity to the planned Shared Use Path along Crane Boulevard south of Johnson Road which is currently under design on behalf of Monroe County under a Local Agency Program (LAP) agreement with the Florida Department of Transportation.

4.2.1 Permitting Requirements:

As mentioned earlier it is anticipated that modification to the existing Environmental Resources Permit will be required by the South Florida Water Management District. The following permits were obtained from the following agencies in the early 2000's and will be required for this project.

- Modification of the existing SFWMD Permit No. 44-000323-P issued in 2009.
- USACE Nationwide Permit (NWP) Number 14 under SAJ-2009-02399 issued in 2009. [A new NWP-14 will need to be issued].
- USACE 404 Dredge and Fill will be required given the increase in impacts.
- FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP), DEP Document No. 62-621.300(4)(a) under Identification No, FLR10IN16 issued August 9, 2009. [A new permit will be required]
- A sovereign submerged easement from FDEP may be required.

SFWMD will coordinate with the State agencies listed below providing them an opportunity for applicable State agencies to concur with or object to the proposed project under the federal consistency provisions of the Coastal Zone Management Act.

- Department of Economic Opportunity [dcppermits@deo.myflorida.com]
- Florida Keys National Marine Sanctuary [joanne.delaney@noaa.gov]
- Florida Department of Environmental Protection [charles.jablay@dep.state.fl.us]
- Florida Department of Environmental Protection [ernest.cowan@dep.state.fl.us]
- Department of State - Historical Resources [compliancepermits@dos.state.fl.us]
- Florida Fish and Wildlife Conservation Commission [Jeannette.parker@myfwc.com]
- Florida Fish and Wildlife Conservation Commission [conservationplanningservices@myfwc.com]
- Regional Planning Council [klerch@sfrpc.com]

4.2.2 Resiliency

FDOT has a long-standing commitment to improving the resilience of the state transportation system to support safety, mobility, quality of life, and economic prosperity of Florida, while preserving the quality of our environment and communities. Resiliency includes the ability of the transportation system to adapt to changing conditions and prepare for, withstand, and recover from disruption. This includes identification of risks, particularly related to sea level rise, flooding, and storms; assess potential impacts; and employ strategies to avoid, mitigate, or eliminate impacts.

The proposed project is located in the Florida Keys within Monroe County and the physical limits of the proposed construction work fall within Park and Sugarloaf Key. The project corridor is located within the Federal Emergency Management Agency's (FEMA) Flood Zone VE south of Park Channel with a base flood elevation of between EL 10.63-feet NAVD88 to 11.63-feet NAVD88; and AE with base flood elevation of EL 8.632-feet NAVD88 to 9.632-feet NAVD88 above sea level for corridor elements north of Park Channel on Upper Sugarloaf Key. The base flood elevation, also known as the 1% annual flood or 100-year flood, is the elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. Based on the as-built plans, the existing roadway elevation is approximately 6.38 feet (NGVD) which is lower than the FEMA base elevation of 8 feet.

FDOT has developed a State Highway System Resilience Action Plan (RAP) in collaboration with local governments, metropolitan planning organizations, state to assess the State Highway System vulnerability to flooding, storm surge, and other outside forces and identify areas to prioritize investments. A vulnerability assessment of the state highway system was performed based on the following hazard conditions: Rainfall Flooding, Storm Surge, Sea Level Rise, and Tidal Flooding which identified the following vulnerability tiers.

	HAZARDS AFFECTING A GEOGRAPHIC AREA		
VULNERABILITY	1% CHANCE OF FLOODING (100-YEAR FLOOD ZONE)	2 FEET OF SEA LEVEL RISE	CATEGORY 3 STORM SURGE
High	Geographic areas affected by **all** three hazards		
Medium	Geographic areas affected by **any two** of the three hazards		
Low	Geographic areas affected by **any one** of the three hazards		

Based on the assessment, the project corridor has medium risk vulnerability from these hazard conditions. Some of the strategies that should be considered during the design and construction of the project are as follows:

- Use resilient materials that can withstand inundation, such as non-corrosive materials, that consider the health and resilience of the surrounding environment as well.

- Use high-quality materials and well-constructed pavements, including concrete, reclaimed asphalt pavement, and warm and cold asphalts mixes that extend resurfacing cycles, increase fuel efficiency, and minimize motorist delays.
- Identify, reduce, and mitigate flood impacts and other hazards to construction sites by using construction materials and techniques that consider the underlying soils, conditions, surrounding vegetation, and local hydrology.

The designer should review these strategies and incorporate them into the design and construction of the project as applicable to enhance the resiliency of the existing roadway corridor.

5.0 ENVIRONMENTAL CONDITIONS

5.1 Wetlands

As part of the Scoping Report development, a preliminary wetlands delineation was conducted within the project limits (See **Appendix C**). The proposed FKOHT runs along the east side of SR 5 / US-1 adjacent to existing wetlands as depicted in the jurisdictional wetland lines reflected in the project's Concept Plans. The wetlands to be impacted consist of narrow strips of disturbed saltmarsh wetlands located along the base of the existing SR 5 / US-1 roadbed. The substrate is variably compacted marl and limestone associated with construction of SR 5 / US-1. Vegetation typically consists of roadside wetlands: green buttonwood, sea oxeye, and wetland grasses. Mangroves do occur adjacent to SR 5 / US-1 along the proposed project but are not anticipated to be directly impacted by the proposed work. Environmental impacts include direct impacts to wetlands adjacent to SR 5 / US-1 totaling 29,185 SF (0.67 acres). This represents an increase in wetland impacts of 0.619 acres over what was previously permitted within this area of the proposed trail (See Table below).

Increased impacts are associated with additional area needed to accommodate wider segments of trail to meet current Sun Trail standards and proper separation between the trail and SR 5 / US-1. Reductions in impacts may be possible by applying for variations in horizontal separation criteria of the FKOHT during the final design process. Wetland impacts are linear and limited to narrow strips located adjacent to the toe of slope of the existing road along the two-mile project. The project construction area occurs within the existing SR 5/US-1 corridor roadway fill embankment. Running along the east side of the fill embankment are tidal wetlands which are part of the Sugarloaf Sound coastal area considered an Outstanding Florida Water (OFW) within the Florida Keys. The Conceptual Plans included with the scoping report reflect the limits of wetlands identified via filed review along the corridor.

5.1.1 Wetland Setbacks / Buffers

Consistent with the originally permitted and constructed the FKOHT segments; the proposed trail segment was designed to be as compact as possible, while maintaining safety for trail users and vehicular traffic on SR 5 / US-1. Given that the project was designed in a highly constrained situation alongside SR 5 / US-1. Where possible, wetland setbacks (15' minimum, 25 average) were included, but in many areas the buffer will not be possible. Because the project will have negligible secondary impacts to the adjacent wetlands (it is a benign strip of pavement supporting walkers, joggers and bicycles), wetland buffers will not be required for this project.

5.1.2 Avoidance and Minimization / Elimination and Reduction

The trail width reflected in the Concept Plans was minimized to the maximum extent practical in areas where wetland impacts occur, while preserving user safety. In addition, physical features including gravity wall systems were incorporated into the design to further limit the footprint (compared to typical sloped roadbed), minimization of road shoulders and trail separation from SR 5 / US-1, and includes a 2-ft constructability zone on all features in the design, and minimize wetland impacts consistent with avoidance, minimization and mitigation concepts deployed along the corridor. As indicated above, the total amount of direct impacts within the project limits did increase over what was previously permitted as a result of meeting current standards and proper separation of the FKOHT from the roadway travel lanes for enhanced safety along the corridor.

5.1.3 Mitigation

Mitigation will be required for unavoidable impacts to disturbed wetlands associated with the project. Because the wetlands impacted all occur along the same alignment and are ecologically similar, area of impacts measured and reflected within the exhibits included in **Appendix D** used to determine wetland impacts and required mitigation. Because wetland impacts consist of small, narrow, over a distance of two miles, the proposed mitigation will be the purchase of saltwater credits from the Everglades Mitigation Bank (EMB). Credits will be established using the W.A.T.E.R functional assessment model with SFWMD approval. Because the EMB is not located in the same drainage basin as the project impacts, a Cumulative Impact Evaluation will need to be completed for disturbed salt marsh wetlands. SFWMD has previously accepted Cumulative Impact Evaluations for other projects in the Keys, on a case-by-case basis.

It is anticipated that the Cumulative Impact Evaluation will be deemed appropriate by SFWMD for this specific situation (small wetland impact polygons, linear and scattered distribution of impacts, disturbed wetlands only and negligible secondary impacts from development of the bike trail). However, we understand approval of the Cumulative Impact Evaluation is subject to SFWMD approval only after all application materials have been analyzed and the review process completed.

Impacts on wildlife habitats are assumed to be negligible since the impacts are restricted to thin, narrow strips of wetlands located immediately adjacent to US-1 and spread out over an extended distance of two miles. Impacted habitats are disturbed by wetlands that are associated with the roadbed of SR 5 / US-1. Intact native wildlife habitats will not be impacted by the project. Impacts to archeological resources will be assessed by the Florida Department of Transportation (FDOT) through one of its Districtwide Contracts during the final design phase of the project. That

assessment will be provided when available, and FDOT will address archaeological resources as issues are identified.

The trail is a narrow strip of pavement adjacent to SR 5 / US-1 and impacts to water quality are considered de minimis. Based on prior coordination with SFWMD, treatment of runoff from the narrow trail footprint is typically not required. Consistent with the original permitted trail design, a series of stormwater dry retention areas were planned within drainage basins 1.7 and 1.8 to support the construction of the proposed FKOHT. The proposed project incorporates the original concept and actually increased the amount of storage in available upland areas to increase stormwater retention and water quality. These areas are reflected in the drainage section of this scoping report and further documented in the Conceptual Drainage Technical Memorandum supporting this scoping report.

The proposed FKOHT project is part of the overall FKOHT project that extends the length of US 1 in the Florida Keys. The trail has been located adjacent to US-1 and consists of a narrow strip of asphalt (the trail) located primarily on the scarified US 1 roadbed. However, due to limitations on the width of the US-1 corridor, direct wetland impacts and encroachments into the 15’ / 25’ buffer zone are unavoidable. Where possible, the 15’ / 25’ buffer zone was incorporated. Due to the relatively benign nature of the proposed activity, secondary impacts to adjacent wetlands or surface waters are not expected. In addition, once completed, the FKOHT is managed by FDEP Parks and Recreation Department as part of the overall FKOHT. FDEP professional management actions include vehicle access control, native landscaping, signage and user education, trash removal and other environmental enhancements. Currently this section of SR 5 / US-1 is effectively un-managed with unrestricted access to the public. The inclusion of the Sugarloaf segment into the FKOHT system will ensure professional park management over this remote area and result in an overall improvement in environmental conditions.

We anticipate there will be no adverse impacts to any wildlife species since the project occurs on disturbed lands adjacent to SR 5 / US-1. Consultation with State FWC and Federal USFWS will occur through the application process during final design. The State nexus is via the SFWMD application, and the Federal nexus is through the USACE application process as well as through the Federal Highway Administration and FDOT. Mitigation for unavoidable impacts to wetlands will likely be mitigated using a Cumulative Impact Evaluation with the credits to be purchased from the Everglades Mitigation Bank (EMB). Once district staff have reviewed the initial application and plans, we will coordinate on the amount and type of wetland mitigation credits required.

5.2 Environmental Resource Desktop Analysis

An Environmental Resource Desktop Analysis (ERDA) will be prepared by the District PLEMO Environmental Consultant and included in **Appendix E**.

6.0 RECOMMENDED IMPROVEMENTS

To address the project's purpose, the following design recommendations have been proposed. These recommendations are intended to follow applicable FDM criteria for Shared Use Path as follows.

6.1 Shared Use Path

- Construct a new asphalt paved FKOHT Shared Use Path within the limits of the project per the proposed typical section.
- Connect the proposed FKOHT Shared Use Path to the existing timber boardwalk at the Crane Blvd intersection. The timber boardwalk will provide access to the proposed signalized crosswalk across at Crane Blvd for connectivity with a proposed SUP along the east side of Crane Blvd planned by Monroe County.
- Provide gravity walls with pedestrian handrails along segments of the proposed FKOHT Shared Use Path to minimize impacts to the existing wetlands.
- Provide curb ramps and detectable warnings for the two proposed crosswalks at Crane Blvd and Johnson Street intersections.
- Extend the existing sidewalk connection from the boardwalk to the new crosswalk on the east side of the Crane Blvd intersection.
- Replace the existing guardrails and end anchorages at the Crane Blvd intersection

6.2 Stormwater Management Facilities

- Construct stormwater management facilities consisting of liners dry retention swales as depicted in the Concept Plans to address permitting requirements. Approximate locations include:
  - Along the east side of the proposed FKOHT Shared Use Path (SUP) between approximate Sta. 500+40 and 507+36.
  - Between the SR 5 / US-1 northbound travel lanes and the proposed FKOHT SUP between approximate Sta. 519+40 and 527+56.
  - Along the east side of the proposed FKOHT SUP between approximately Sta. 565+97 and 567+32 and from Sta. 569+84 and Sta. 573+76.
  - Construct a series of stepped swales at the approaches to the bridges using ditch Swale blocks and French Drain Rock Trenches to capture runoff. These systems will extend approximately 300-ft on each approach and departure in the northbound direction between SR 5 / US-1 and the proposed FKOHT SUP.

6.3 Signing and Pavement Markings

- Implement new signs and pavement marking to comply with the applicable editions of the FDOT Standard Plans, the FDOT Traffic Engineering Manual (TEM), and the Manual on Uniform Traffic Control Devices (MUTCD).
- Construct a new signalized special emphasis crosswalk across SR 5 / US-1 at Crane Blvd intersection and provide the necessary pedestrian and bicycle crossing signage (W11-15).
- Upgrade Pavement Marking and Signage for connection of the new FKOHT SUP to the existing trail north of Johnson Road.

6.4 Signalization and Lighting

- Provide new countdown pedestrian signals and/or install ADA-compliant pedestrian pushbuttons and detector signs at the proposed crosswalk on the east leg of Crane Blvd intersection.
- Update the signal timing to accommodate the new crosswalk.
- Provide intersection lighting for the proposed crosswalk on the east leg of Crane Blvd intersection.
- Replace signal pull boxes impacted by the construction of FKOHT Shared Use Path.

6.5 Landscape

- Perform a tree disposition survey to determine the feasibility of preserving any shade trees and provide tree disposition plans.

6.6 Design Exceptions and Variations

The Designer is responsible for reviewing the Design Survey to determine if the existing conditions comply with the design criteria. The design survey did not cover the full extent of the embankment limits and supplemental information from past projects was used to address missing information. The Designer is to include any missing survey information to be able to make all final design evaluations.

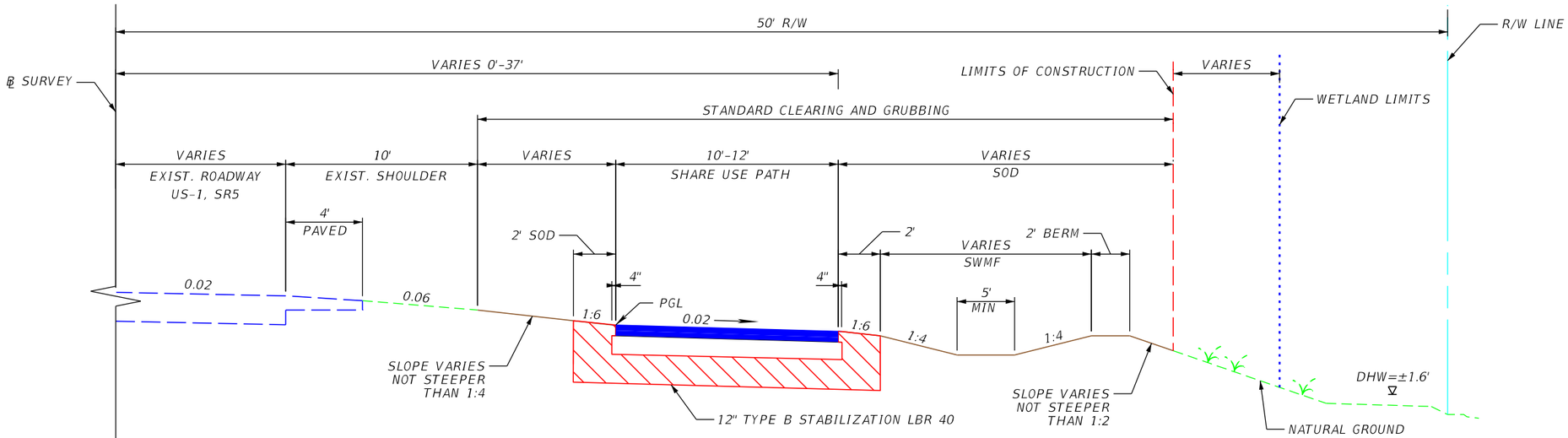
A Design Variation may be required for the following elements:

1. A Design Variation for horizontal separation may be required if a reduction in wetland impacts is required by the permitting agencies.
2. A Design Variation is required for the width of Shared Use Path. This facility is part of the SUN Trail Network which requires a 12-ft Shared Use Path.

3. A Design Variation is required for the horizontal clearance at locations where existing FKEC power transmission poles are located within the 4-ft of the shared use path.

6.7 Recommended Typical Section and Concept Plans

The proposed Concept Plans for the Sugarloaf Key Florida Keys Overseas Heritage Trail (FKOHT), from N. Harris Channel to Johnson Rd, features an 8-ft to 12-ft paved Shared Use Path with 2-ft of sod on both sides of the trail. The proposed Concept Plans which include proposed typical sections, special details, alignment, profiles and cross sections are depicted in **Figure 6-1**.



PATH

OPTIONAL BASE GROUP 1 WITH
TYPE SP-9.5 STRUCTURAL COURSE
(TRAFFIC B) (1.5")

TYPICAL SECTION SHARED USE PATH

STATION LIMITS

STA. 500+39.94 TO STA. 507+35.93
STA. 565+97.26 TO STA. 567+32.27
STA. 569+84.04 TO STA. 573+75.65

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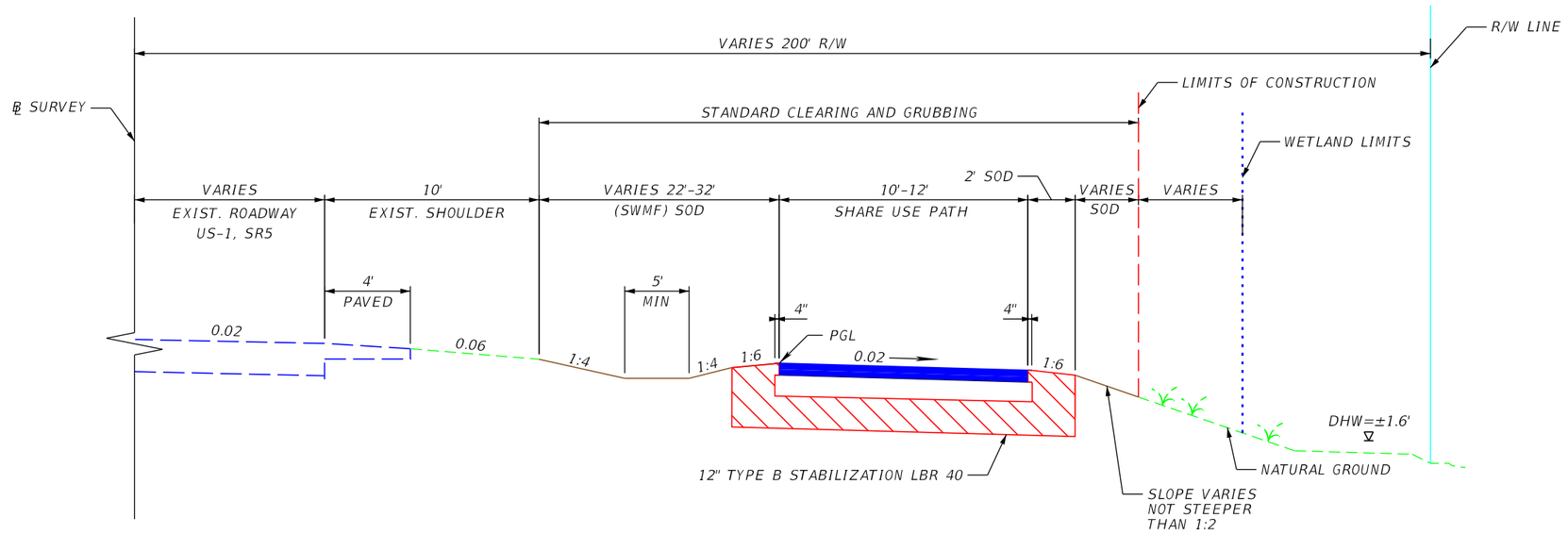
FIGURE 6-1
TYPICAL SECTION

SHEET NO. 32

C:\Users\yrodriguez\Goal Associates Inc\Goal Associates - Projects\2025\GA25005 - D6 - PD&E Sugarloaf Key Trail (GA21009-W07)\06 CADD\44090935201\Roadway\TYPSRD01.dgn : TYPICALSHEETS
yrodriguez 6/17/2025 9:51:28 AM



PATH
OPTIONAL BASE GROUP 1 WITH
TYPE SP-9.5 STRUCTURAL COURSE
(TRAFFIC B) (1.5")

TYPICAL SECTION SHARED USE PATH

STATION LIMITS
STA. 519+40.00 TO STA. 527+56.02

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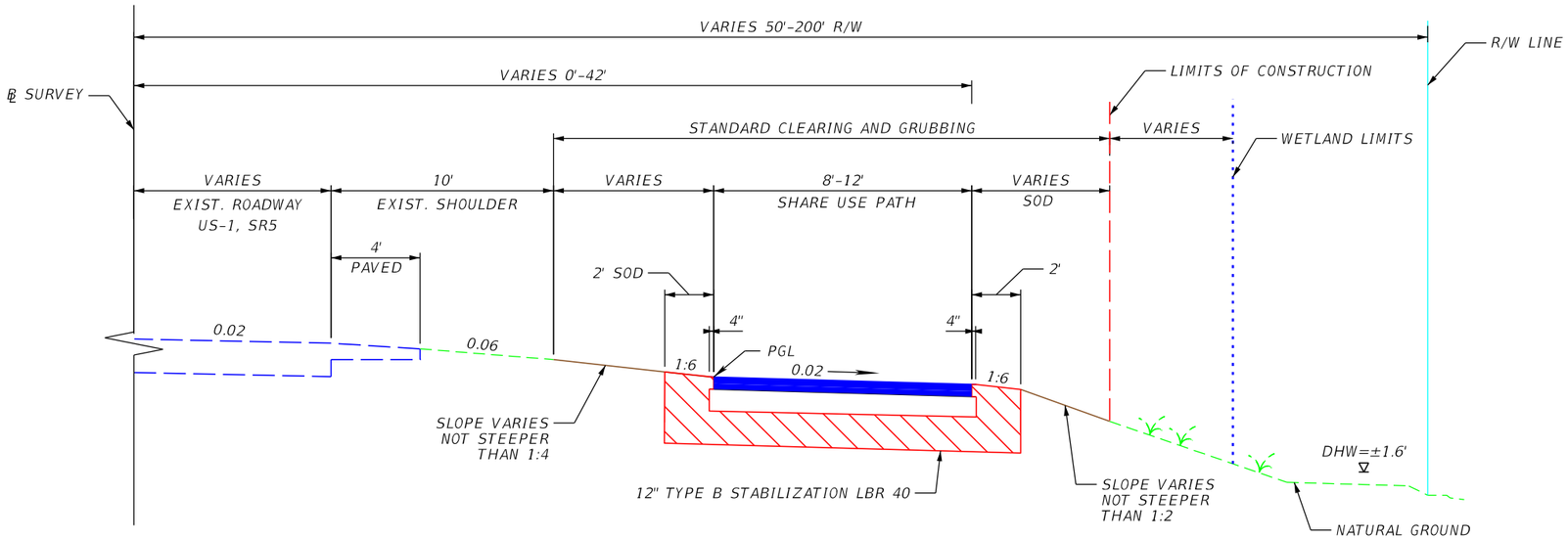

PATH

OPTIONAL BASE GROUP 1 WITH
TYPE SP-9.5 STRUCTURAL COURSE
(TRAFFIC B) (1.5")

TYPICAL SECTION SHARED USE PATH

STATION LIMITS

STA. 466+45.12 TO STA. 500+39.94
STA. 507+35.93 TO STA. 509+90.12
STA. 518+10.18 TO STA. 519+40.00
STA. 527+56.02 TO STA. 548+13.77
STA. 550+93.76 TO STA. 565+97.26
STA. 567+32.27 TO STA. 569+84.04
STA. 573+75.65 TO STA. 577+29.51

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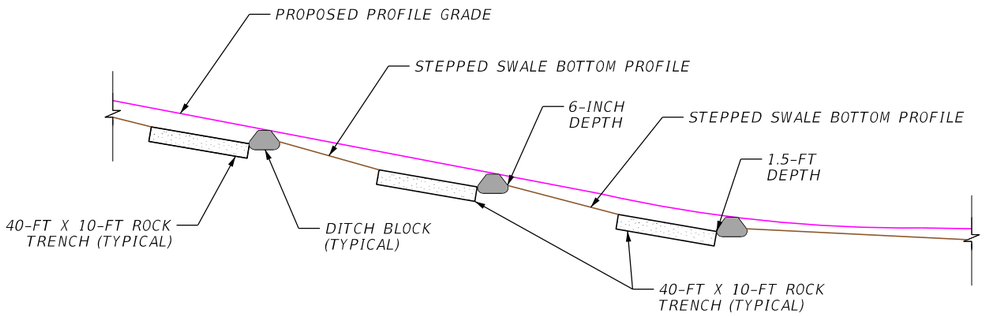
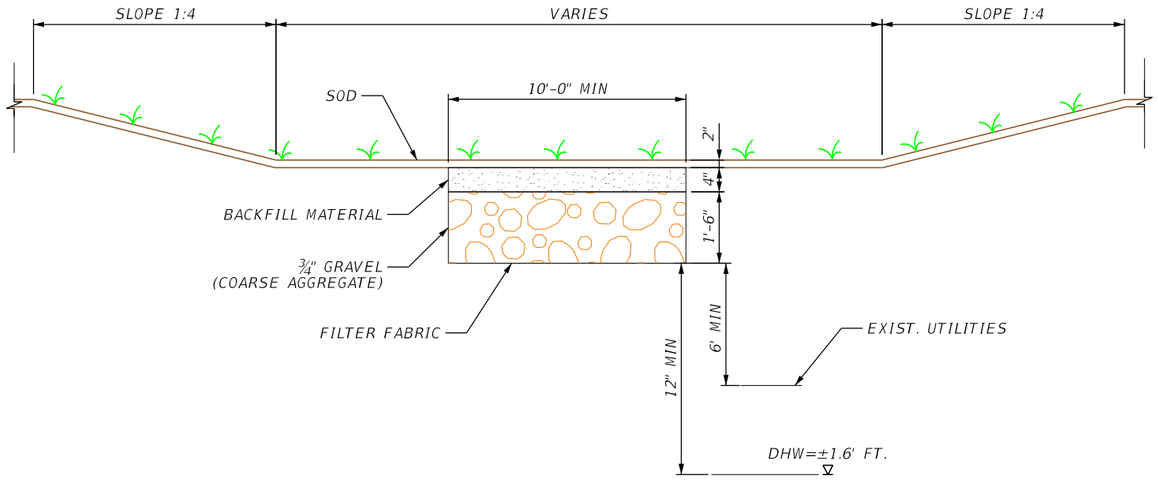
FIGURE 6-1
TYPICAL SECTION

SHEET NO. 34

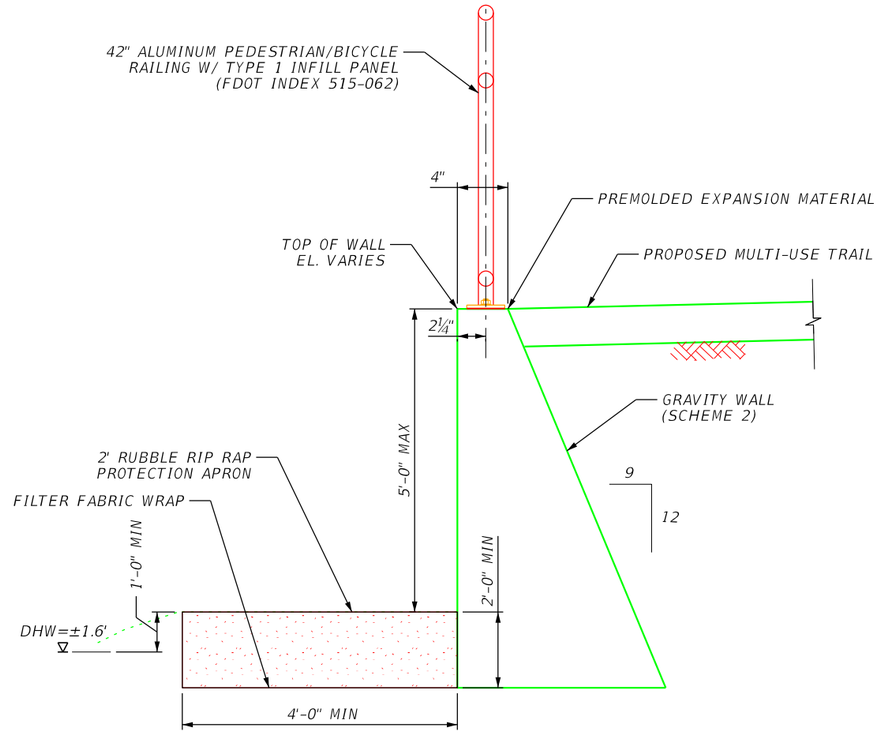


EXAMPLE STEPPED SWALE, DITCH BLOCK AND FRENCH DRAIN (ROCK TRENCH) PLACEMENT



FRENCH DRAIN (ROCK TRENCH) AGGREGATE WITHOUT PIPE/SWALE TRENCH (ST) DETAIL

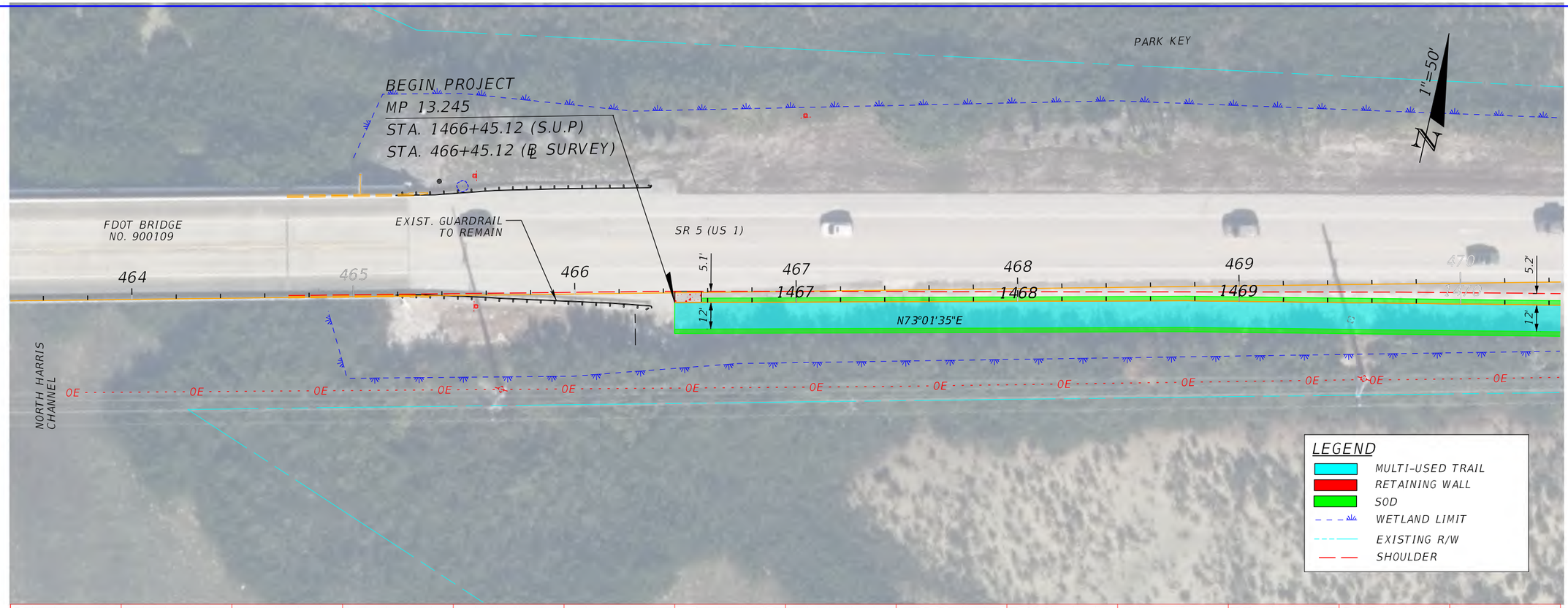
NOTE: TO BE CONSIDERED ALONG STEEPENED APPROACHES TO BRIDGES FOR A DISTANCE OF AT LEAST 300-FT. STEP SWALE GRADING EVERY 100-FT WITH DITCH BLOCKS BETWEEN STEPS TO CONTROL DOWNWARD RUNOFF TOWARDS LOWER SWALE SECTIONS. FRENCH DRAIN TO ASSIST IN RETAINING RUN-OFF IN STEEP AREAS.

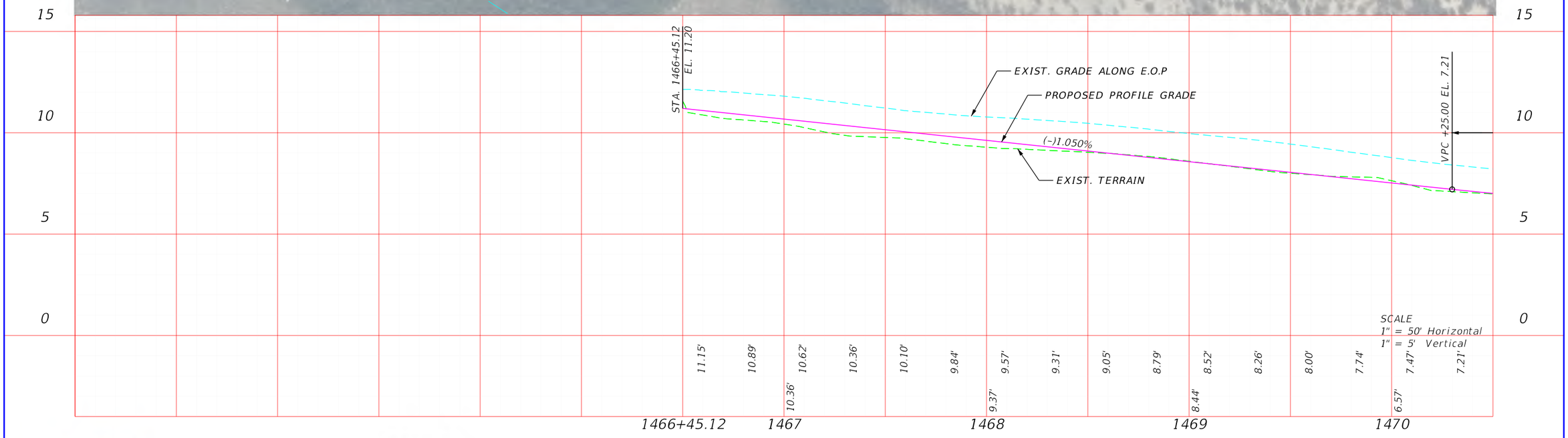


TYPICAL SECTION AT GRAVITY WALL (OPTION C - SCHEME 2)

SEE ROADWAY PLANS TO SEE ACTUAL LOCATIONS.

NOTE: THE USE OF GRAVITY WALL (OPTION C - SCHEME 2) INCLUDES THE USE OF GLASS FIBER REINFORCED PLASTICS (GFRP), WHICH IS A DEVELOPMENTAL SPECIFICATION AND WILL NEED TO BE COORDINATED WITH CENTRAL OFFICE.





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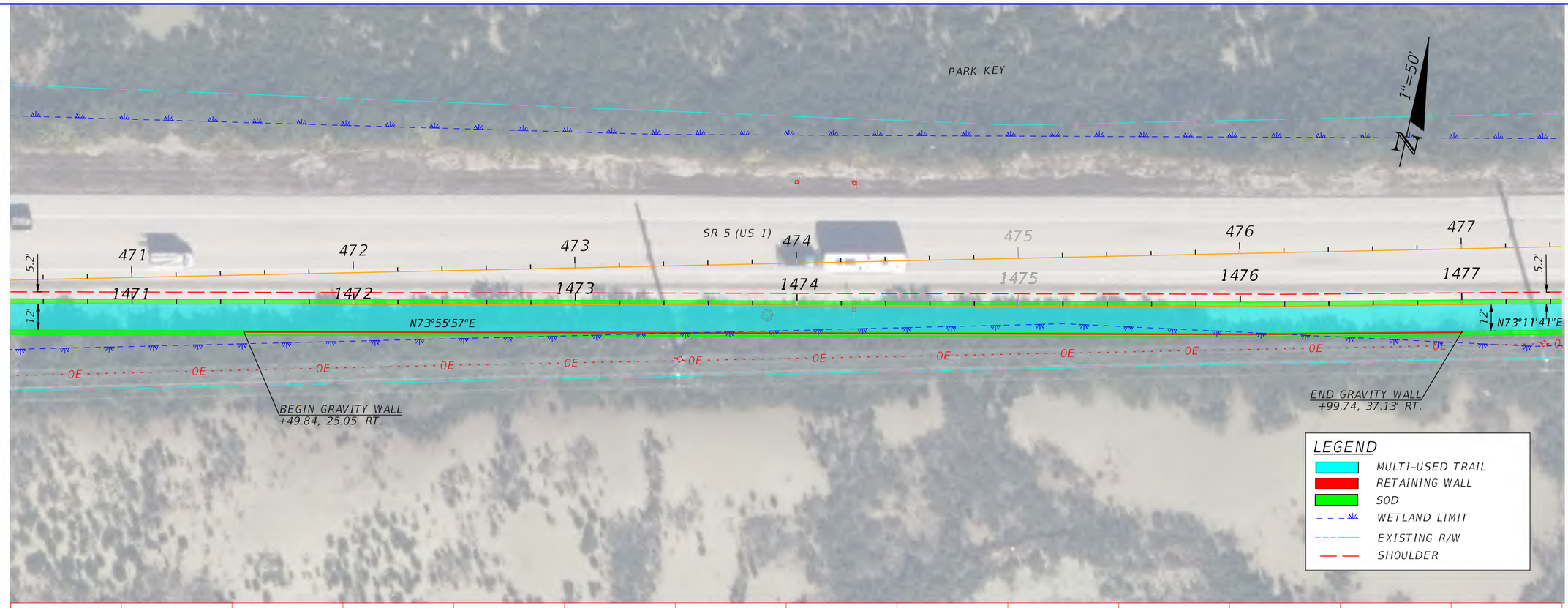

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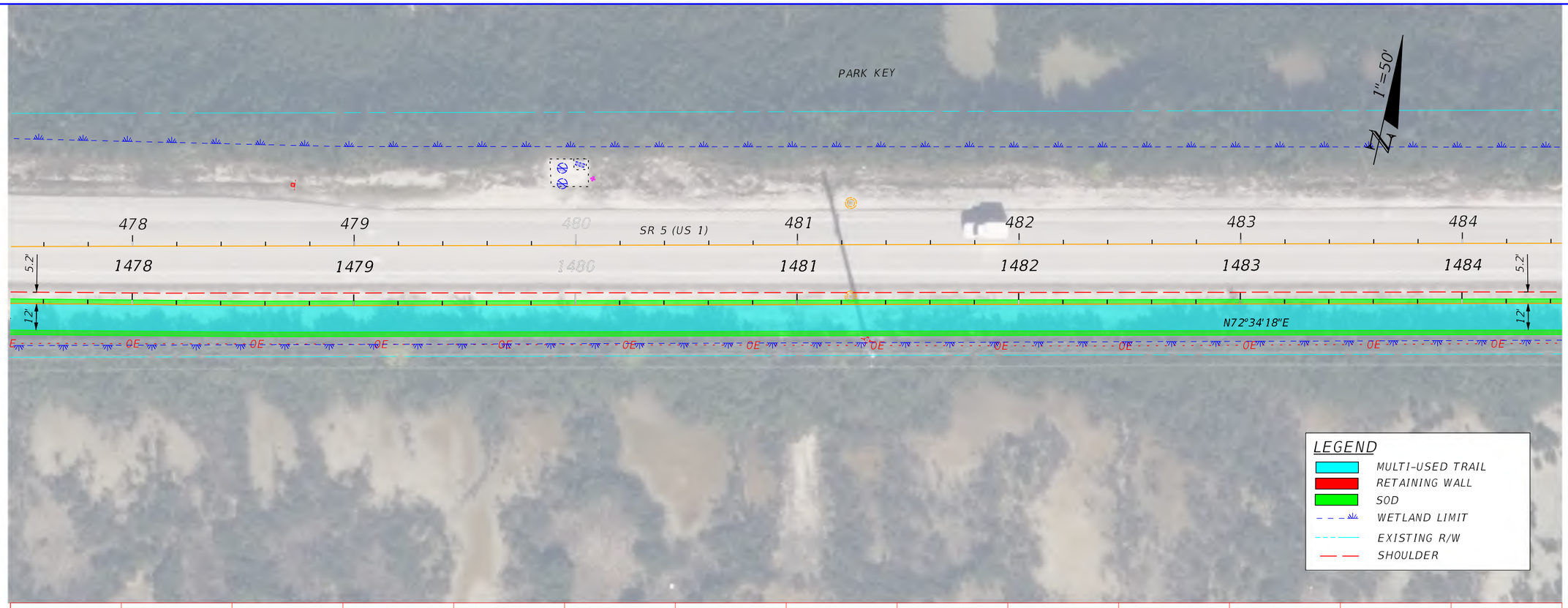

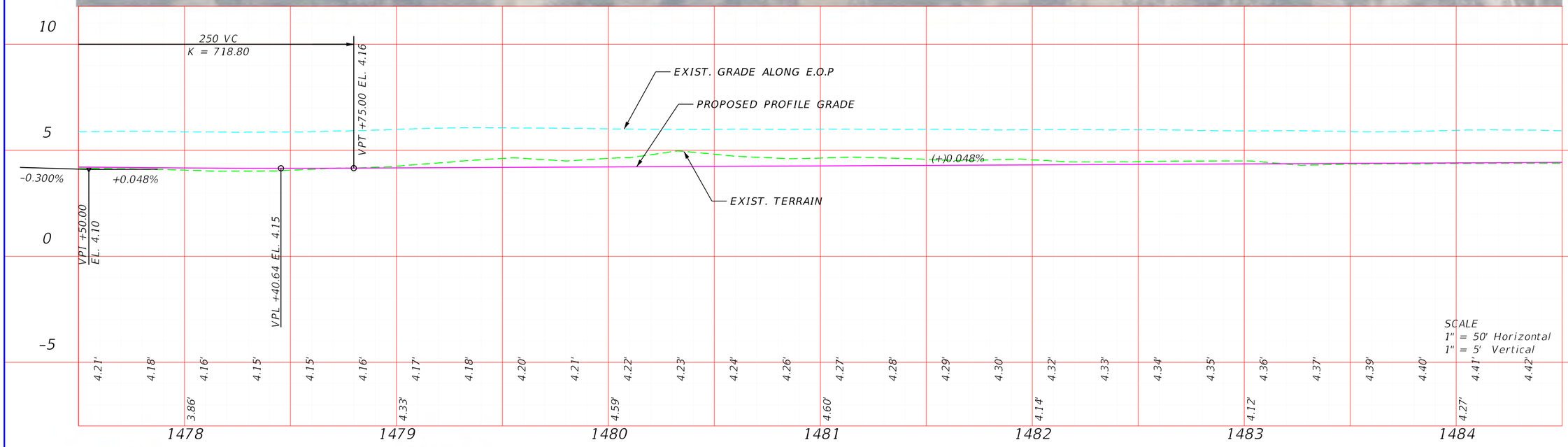

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FIGURE 6-1
PLAN-PROFILE

SHEET NO. 38

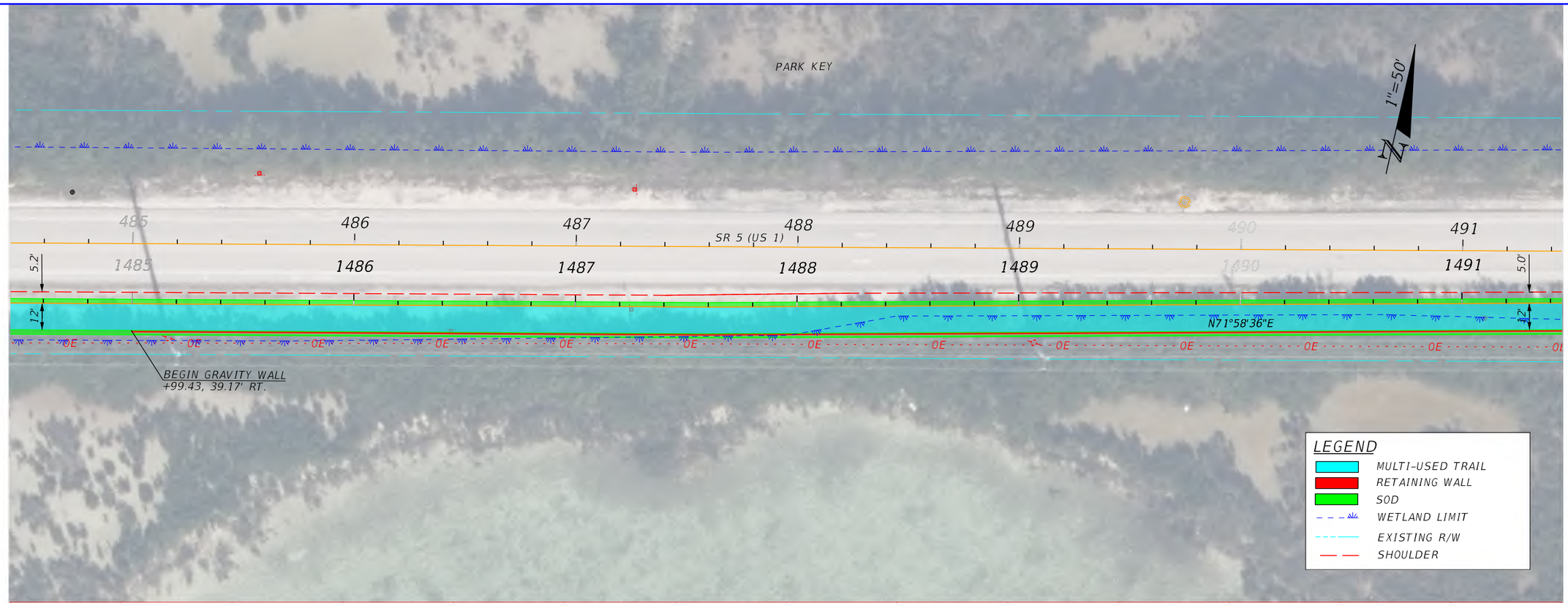

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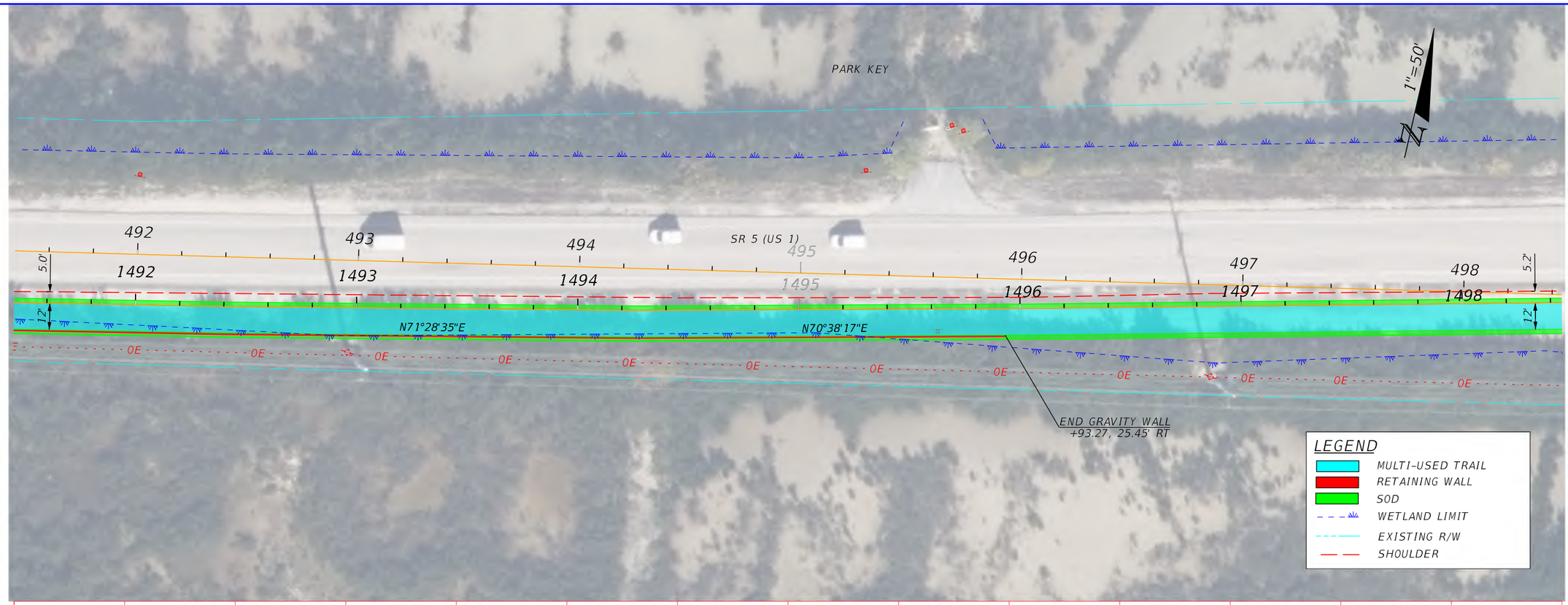
FIGURE 6-1
PLAN-PROFILE

SHEET NO. 39



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		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
		SR 5	MONROE	452558-52-01		

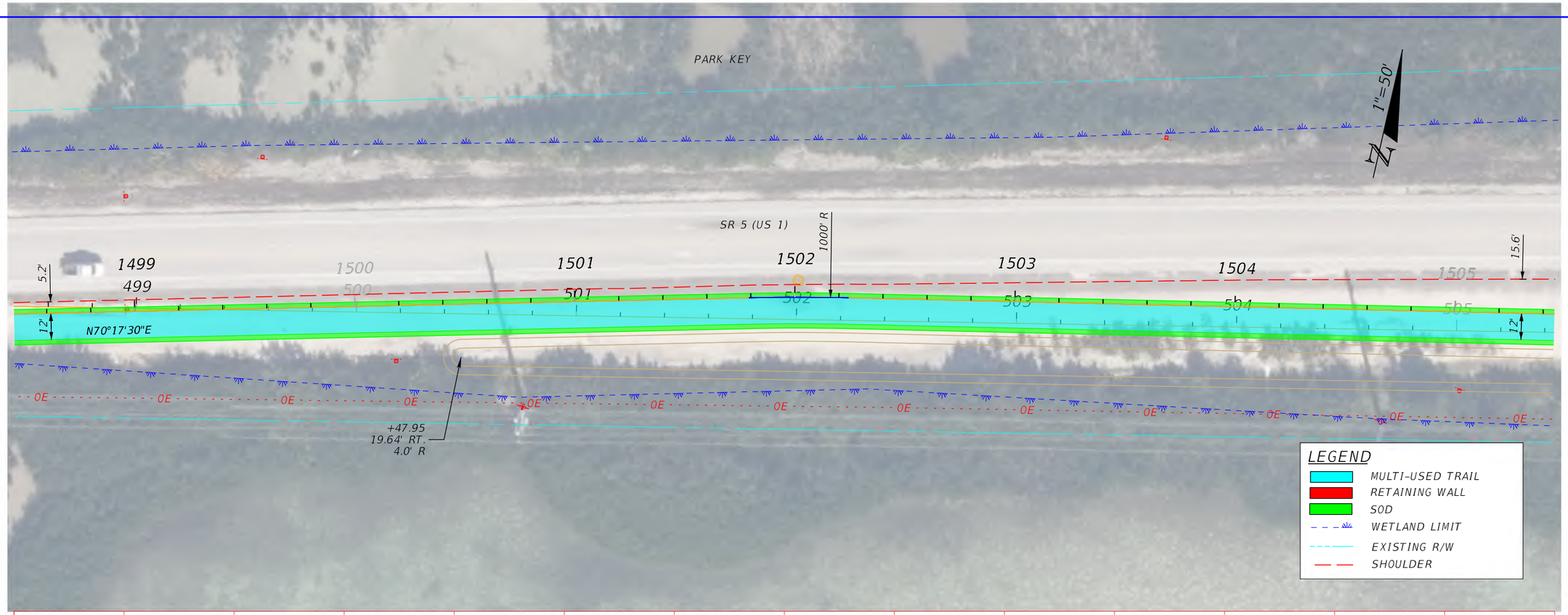

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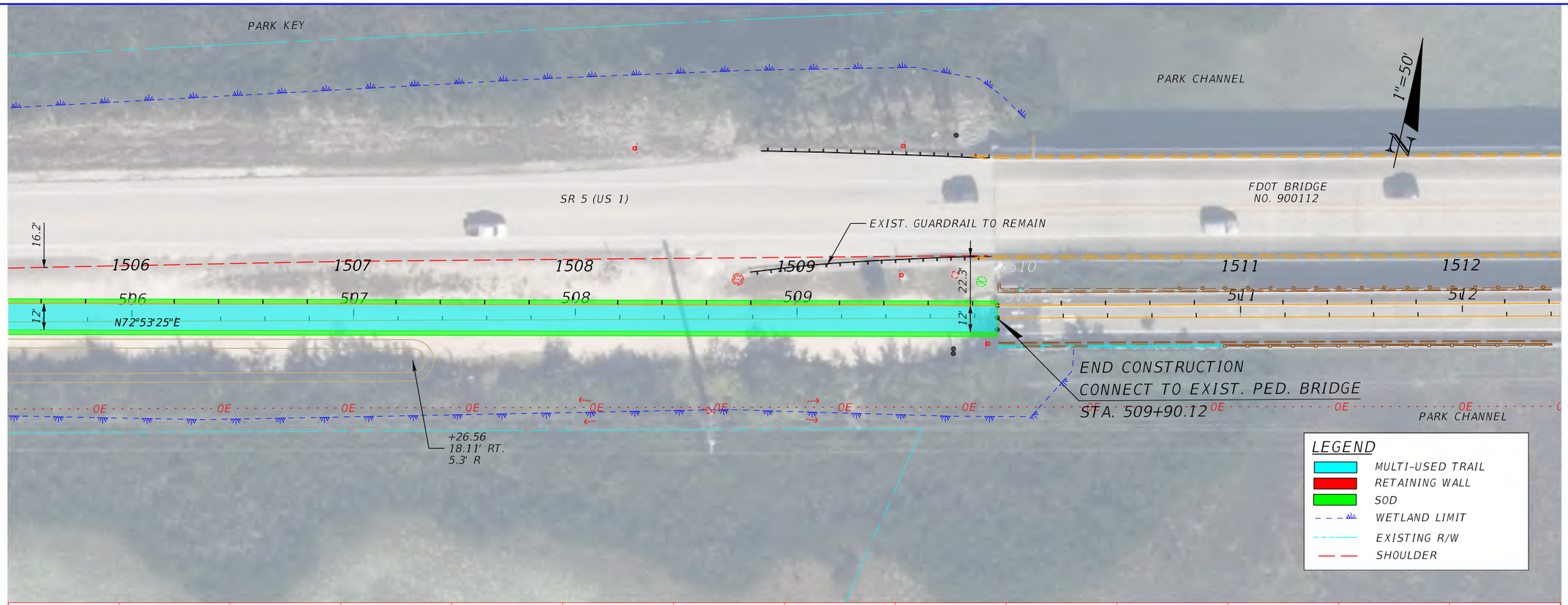
FIGURE 6-1
PLAN-PROFILE

SHEET NO. 41



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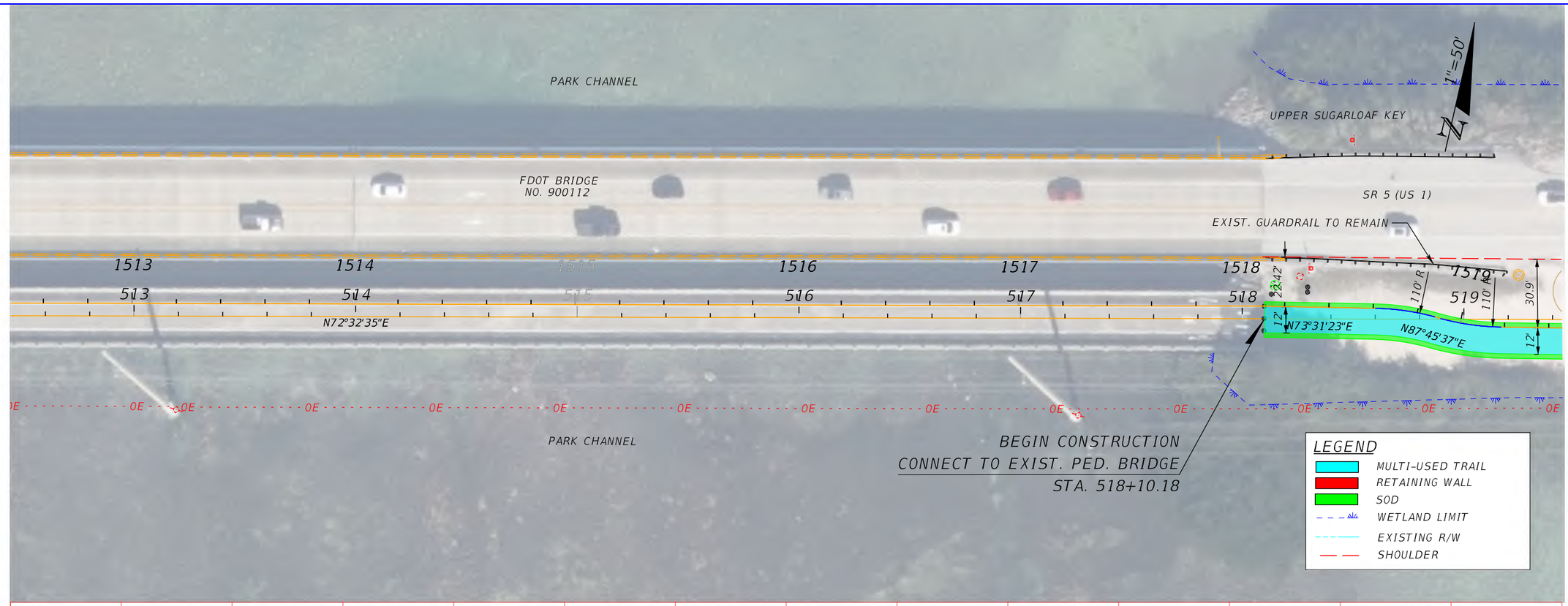

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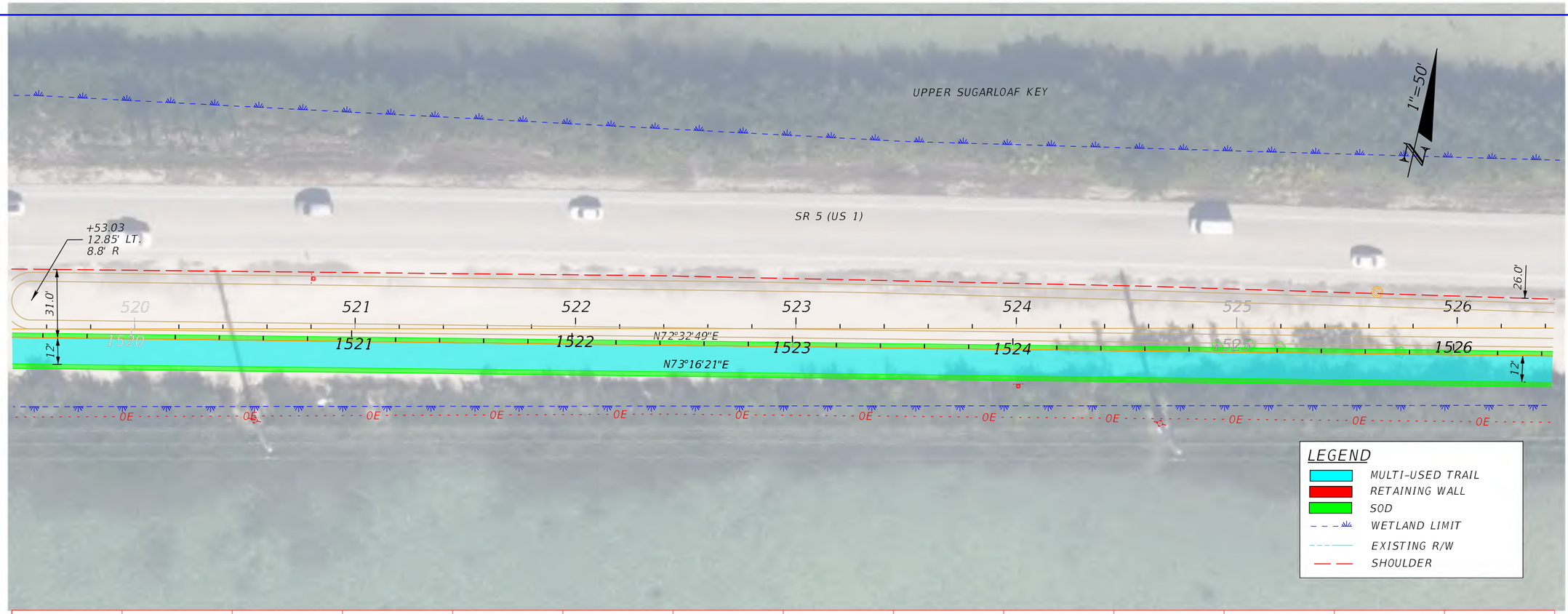
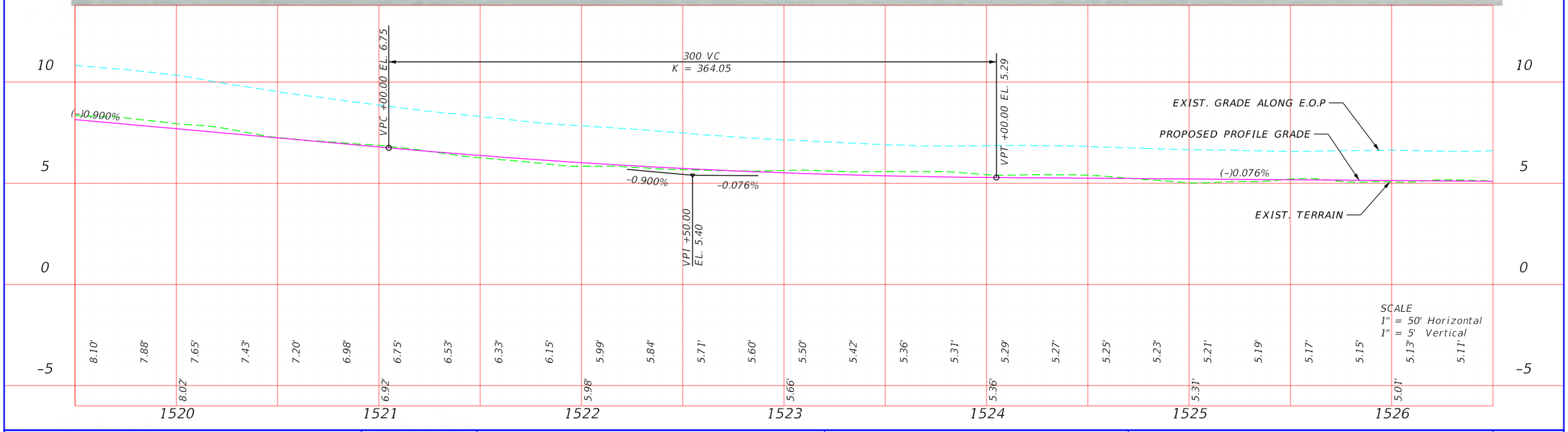
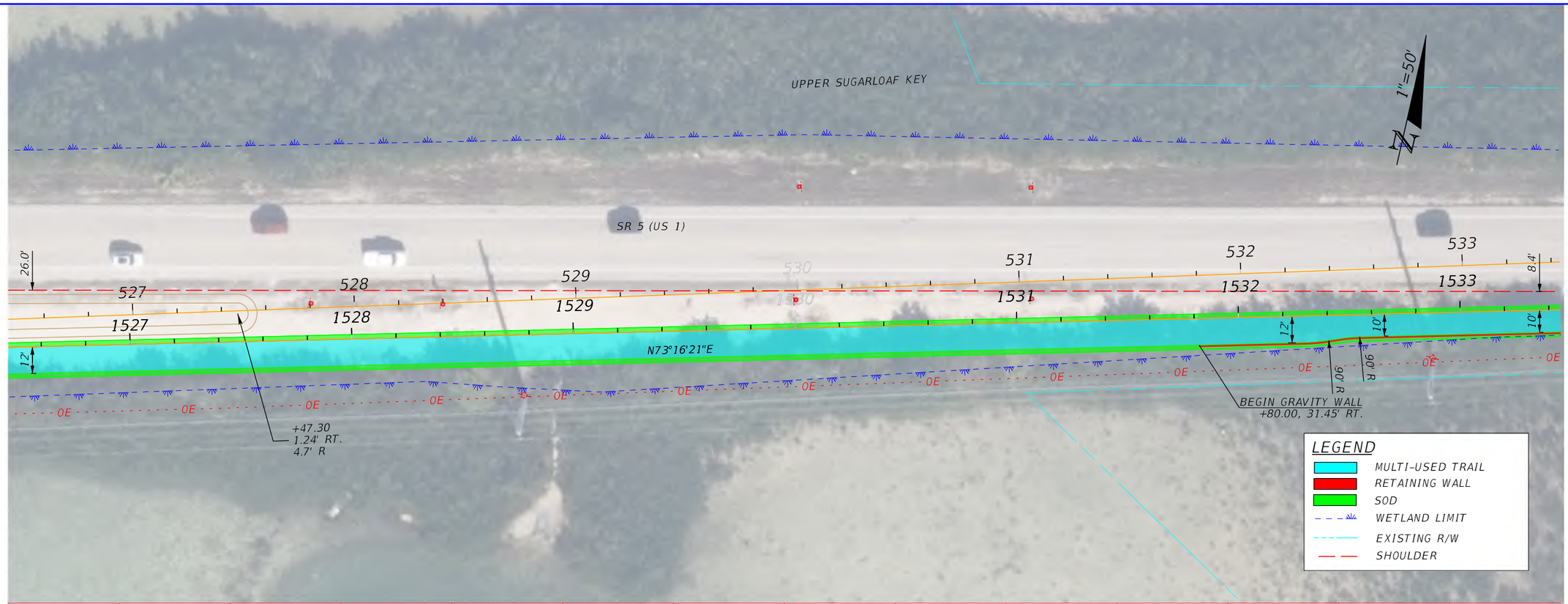
FIGURE 6-1
PLAN-PROFILE

SHEET NO.
43





FDOT DISTRICT 6 PLANNING AND ENVIROMENTAL MANAGEMENT OFFICE 1000 NW 111th AVENUE MIAMI, FLORIDA 33172	5	SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT) SCOPING REPORT ROADWAY ID: 9002000/ MP 13.245- MP 15.253	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. / COUNTY / FINANCIAL PROJECT ID SR 5 / MONROE / 452558-52-01	FIGURE 6-1 PLAN-PROFILE	SHEET NO. 44



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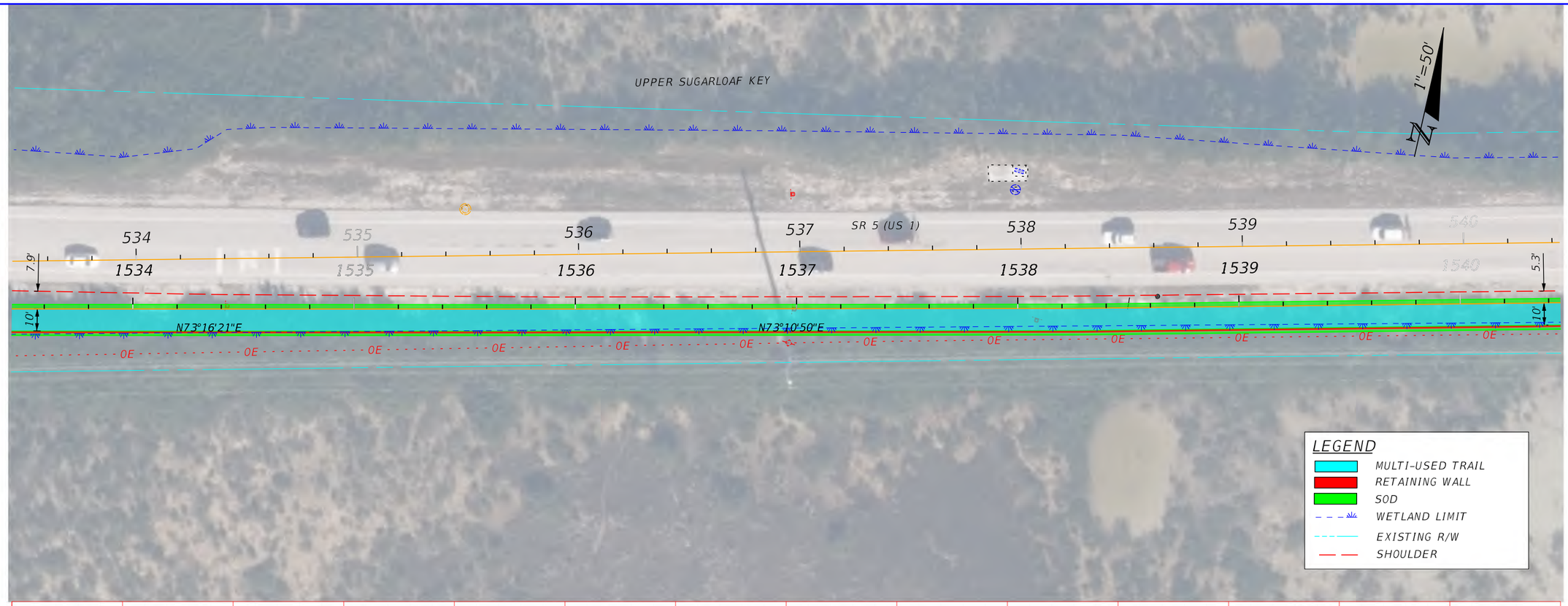

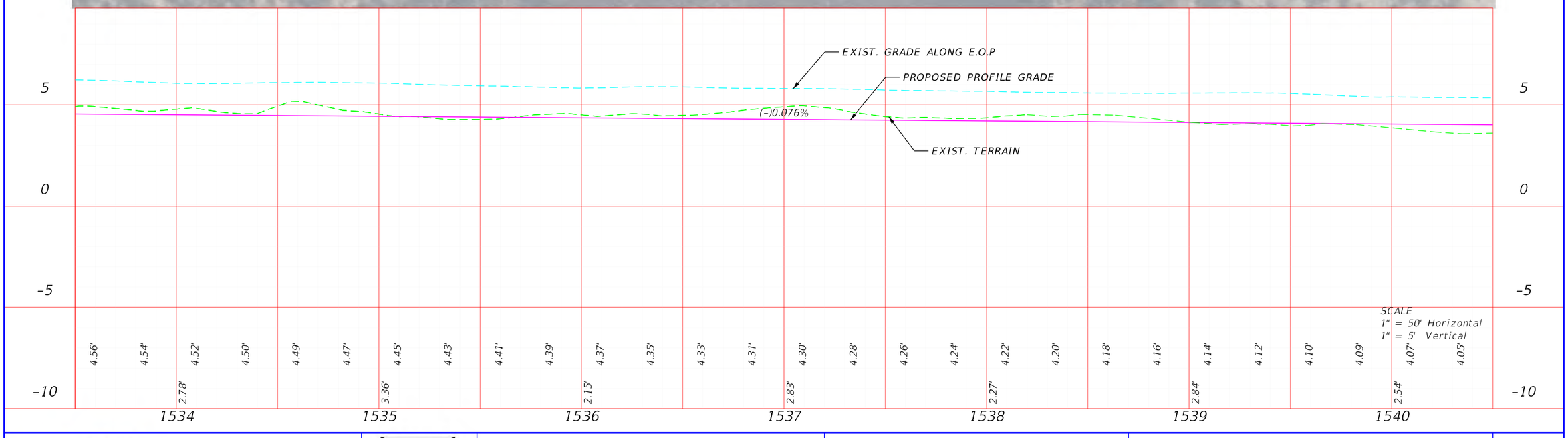

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FIGURE 6-1
PLAN-PROFILE

SHEET NO.
46

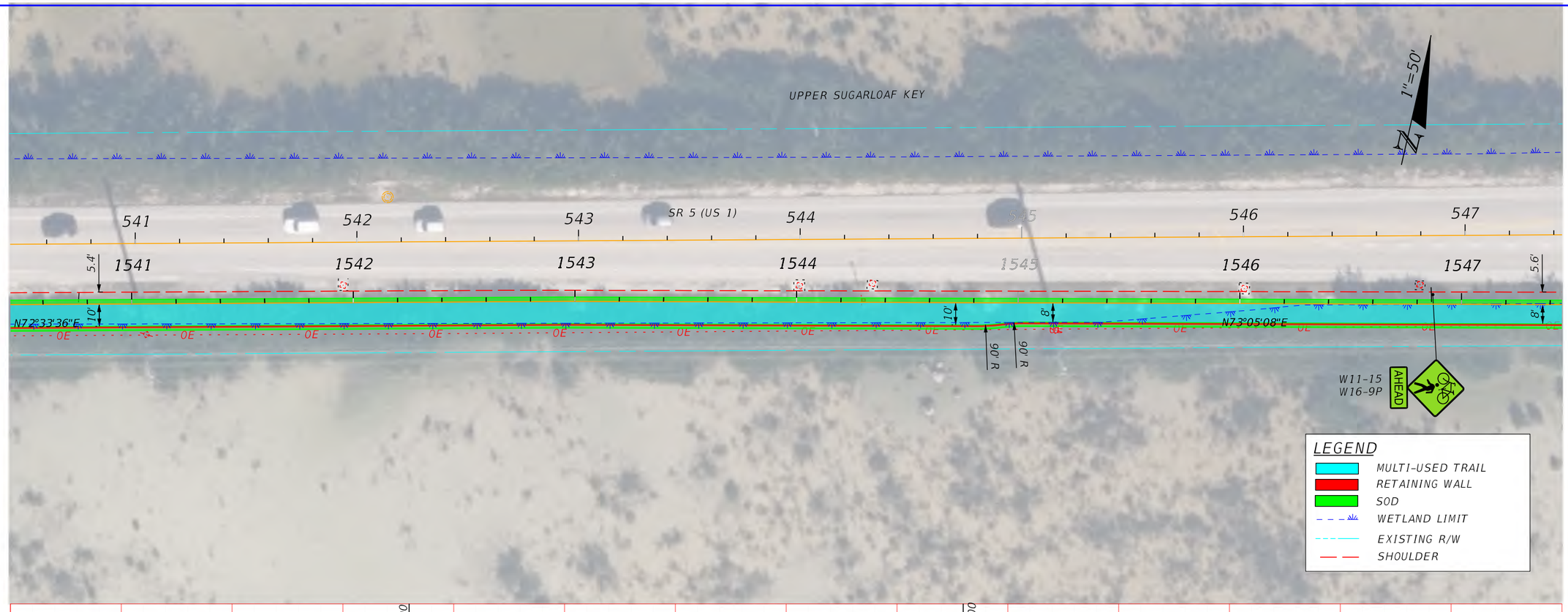

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FIGURE 6-1
PLAN-PROFILE

SHEET NO. 47

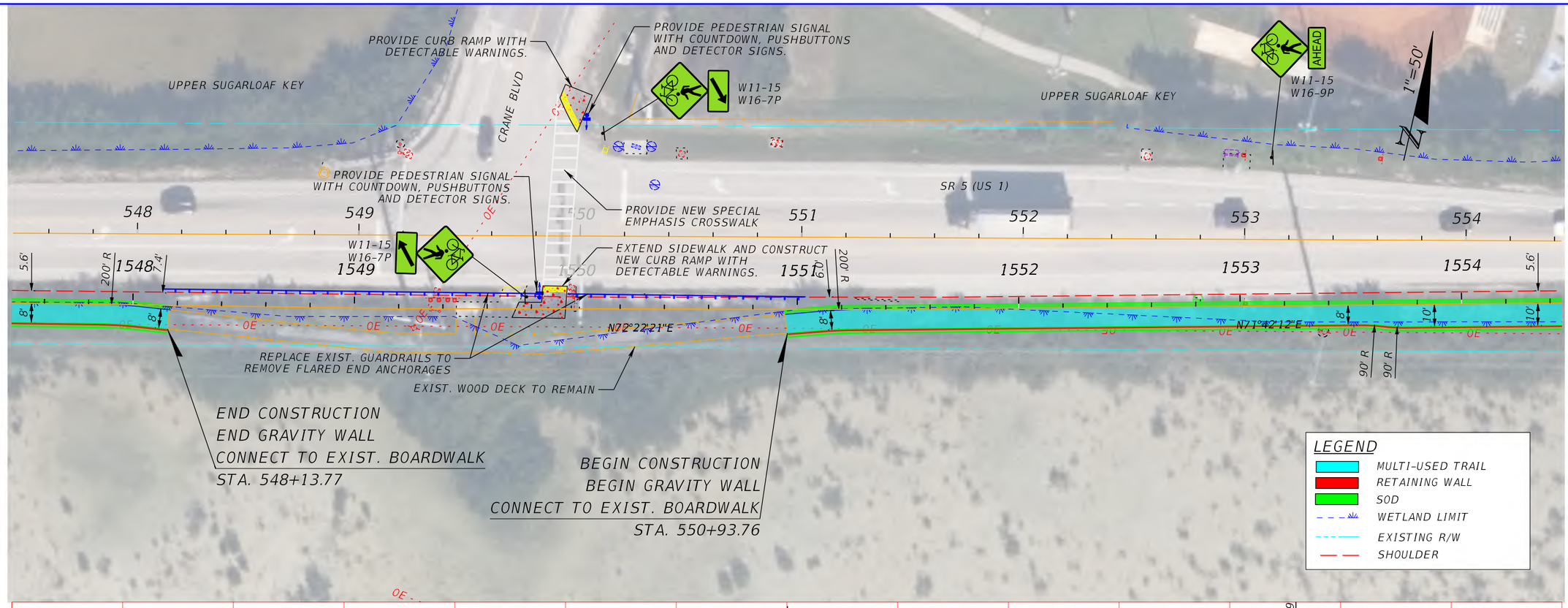

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FIGURE 6-1
PLAN-PROFILE

SHEET NO. 48

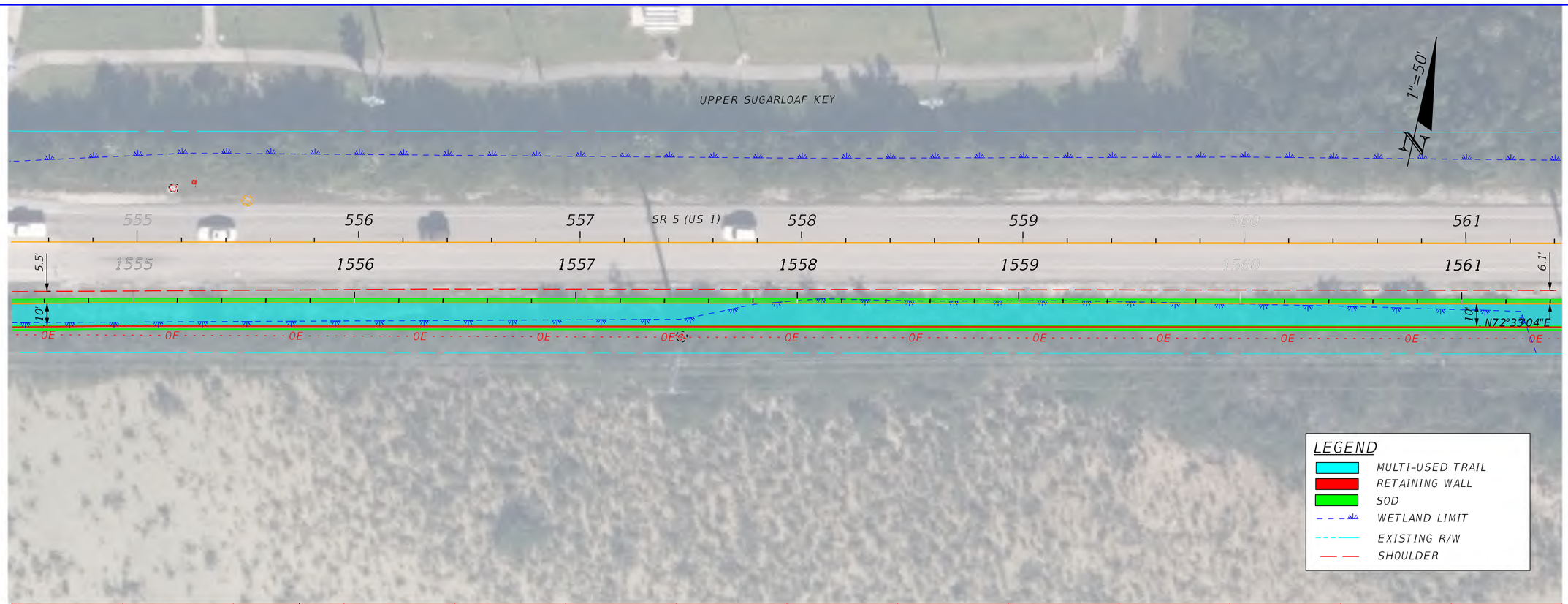

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FIGURE 6-1
PLAN-PROFILE

SHEET NO. 49

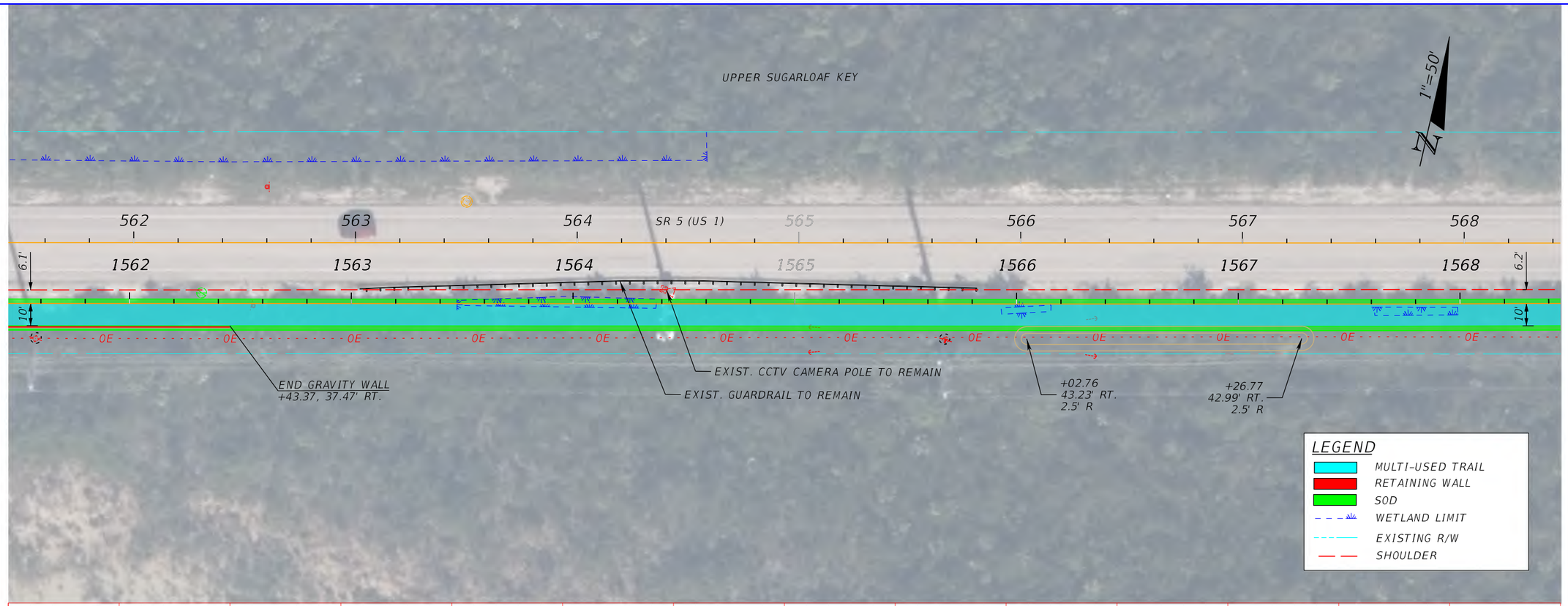

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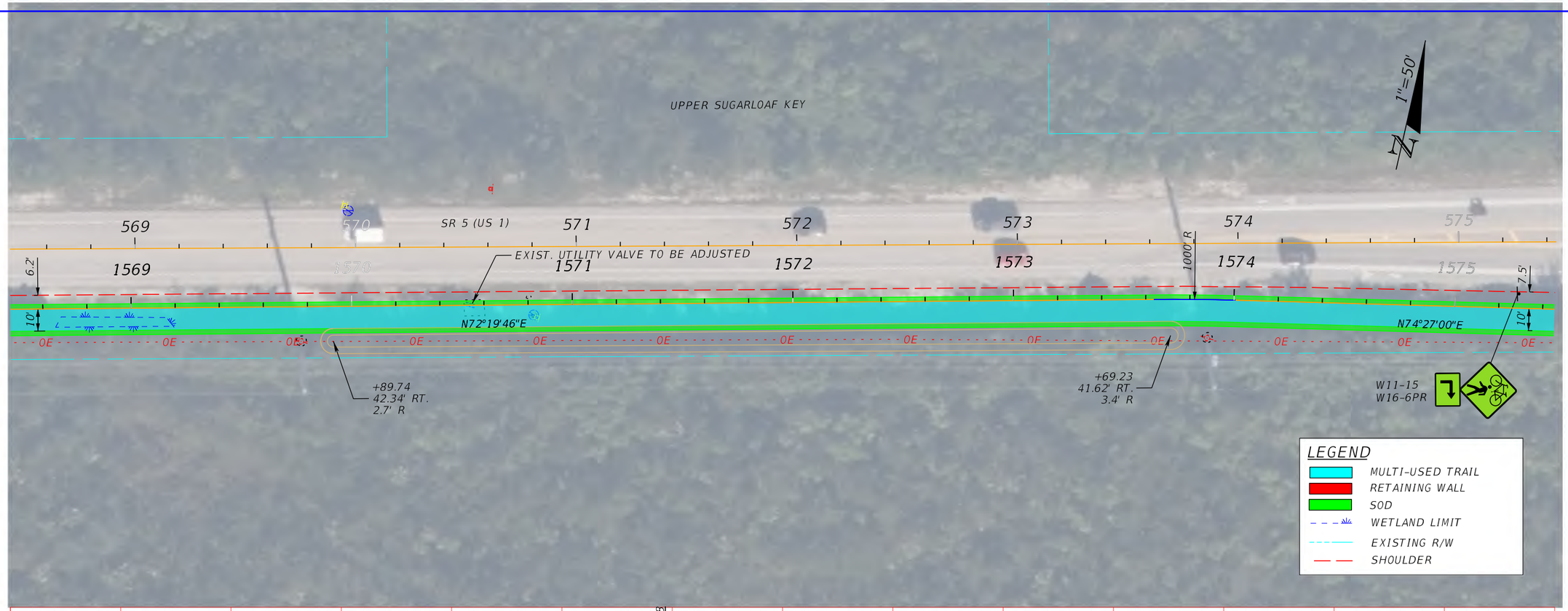
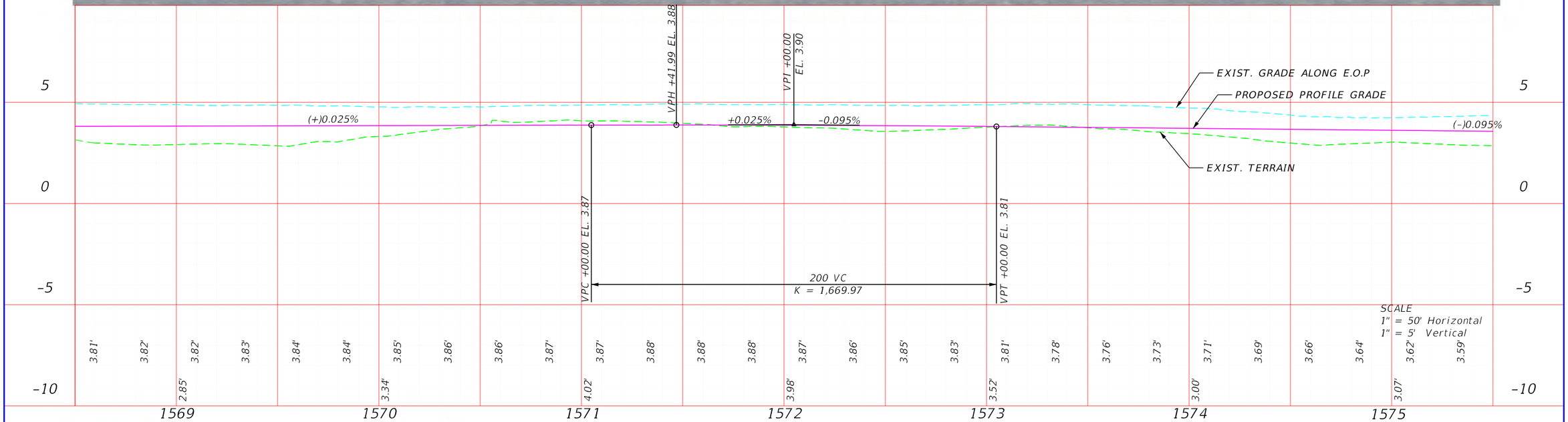
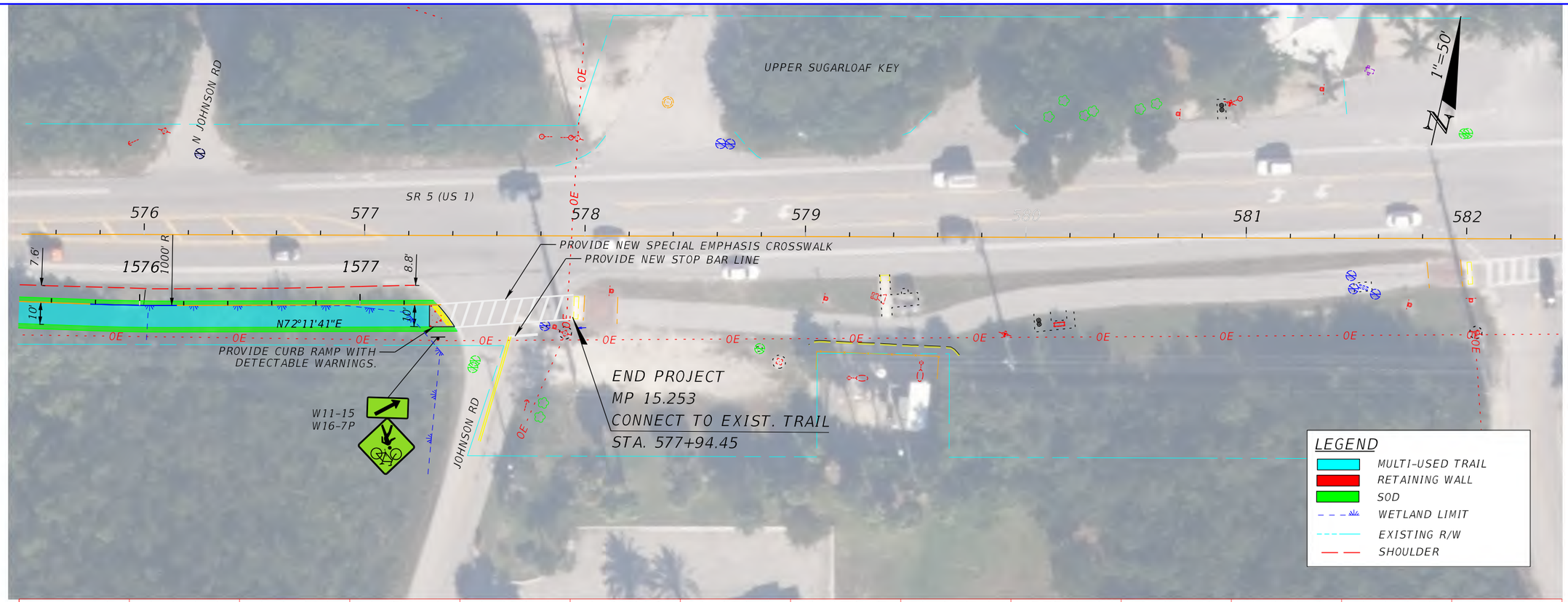
FIGURE 6-1
PLAN-PROFILE

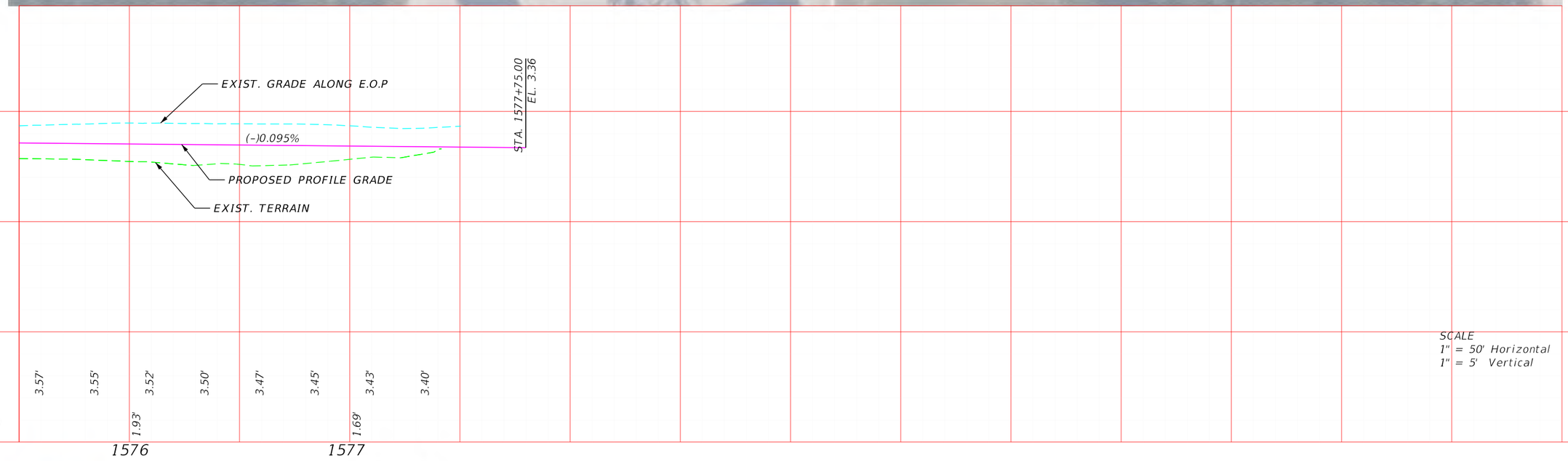
SHEET NO. 50





FDOT DISTRICT 6 PLANNING AND ENVIROMENTAL MANAGEMENT OFFICE 1000 NW 111th AVENUE MIAMI, FLORIDA 33172	5	SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT) SCOPING REPORT ROADWAY ID: 9002000/ MP 13.245- MP 15.253	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. / COUNTY / FINANCIAL PROJECT ID SR 5 / MONROE / 452558-52-01	FIGURE 6-1 PLAN-PROFILE	SHEET NO. 51





FDOT DISTRICT 6
PLANNING AND ENVIROMENTAL
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1000 NW 111th AVENUE
MIAMI, FLORIDA 33172

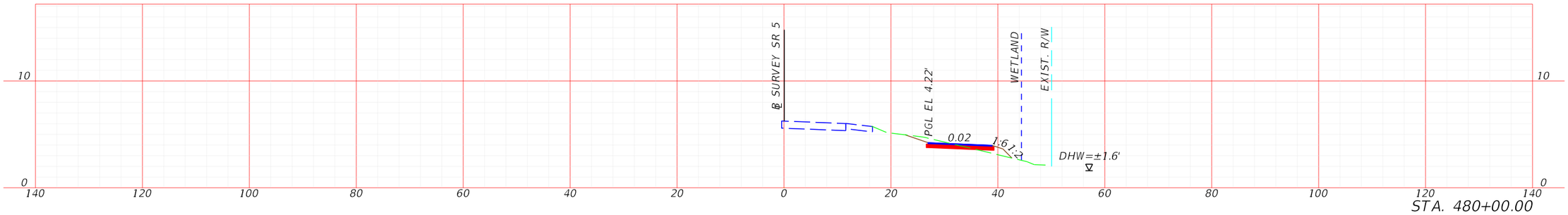
SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD
FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT)
SCOPING REPORT
ROADWAY ID: 9002000/ MP 13.245- MP 15.253

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

FIGURE 6-1
PLAN-PROFILE

SHEET NO. 52



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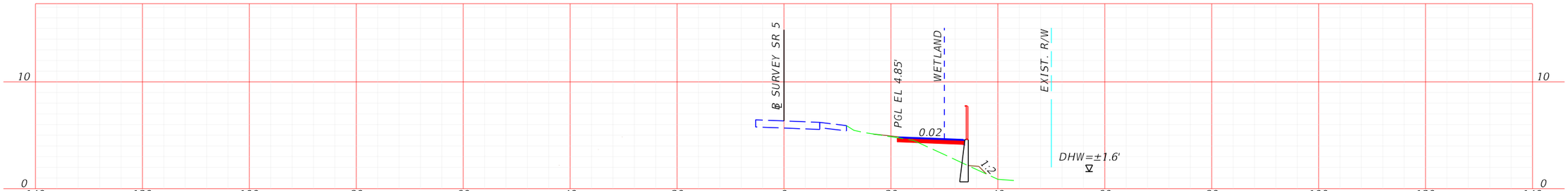

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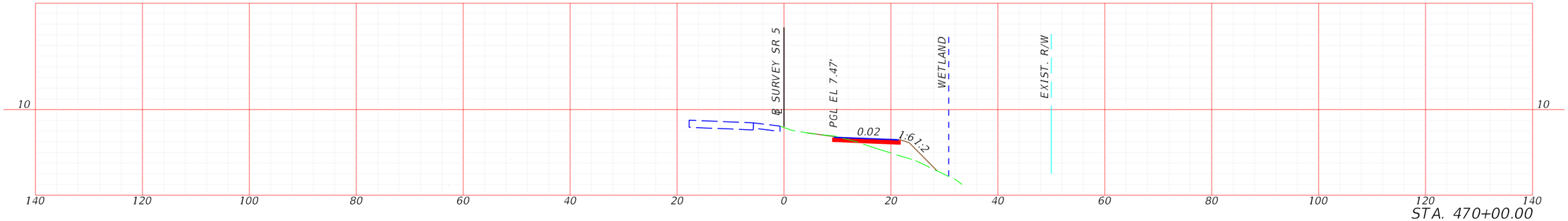

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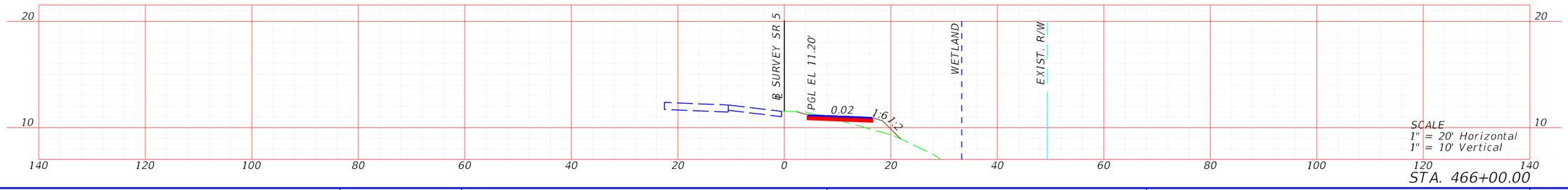

STA. 466+00.00

SCALE
1" = 20' Horizontal
1" = 10' Vertical

FDOT DISTRICT 6
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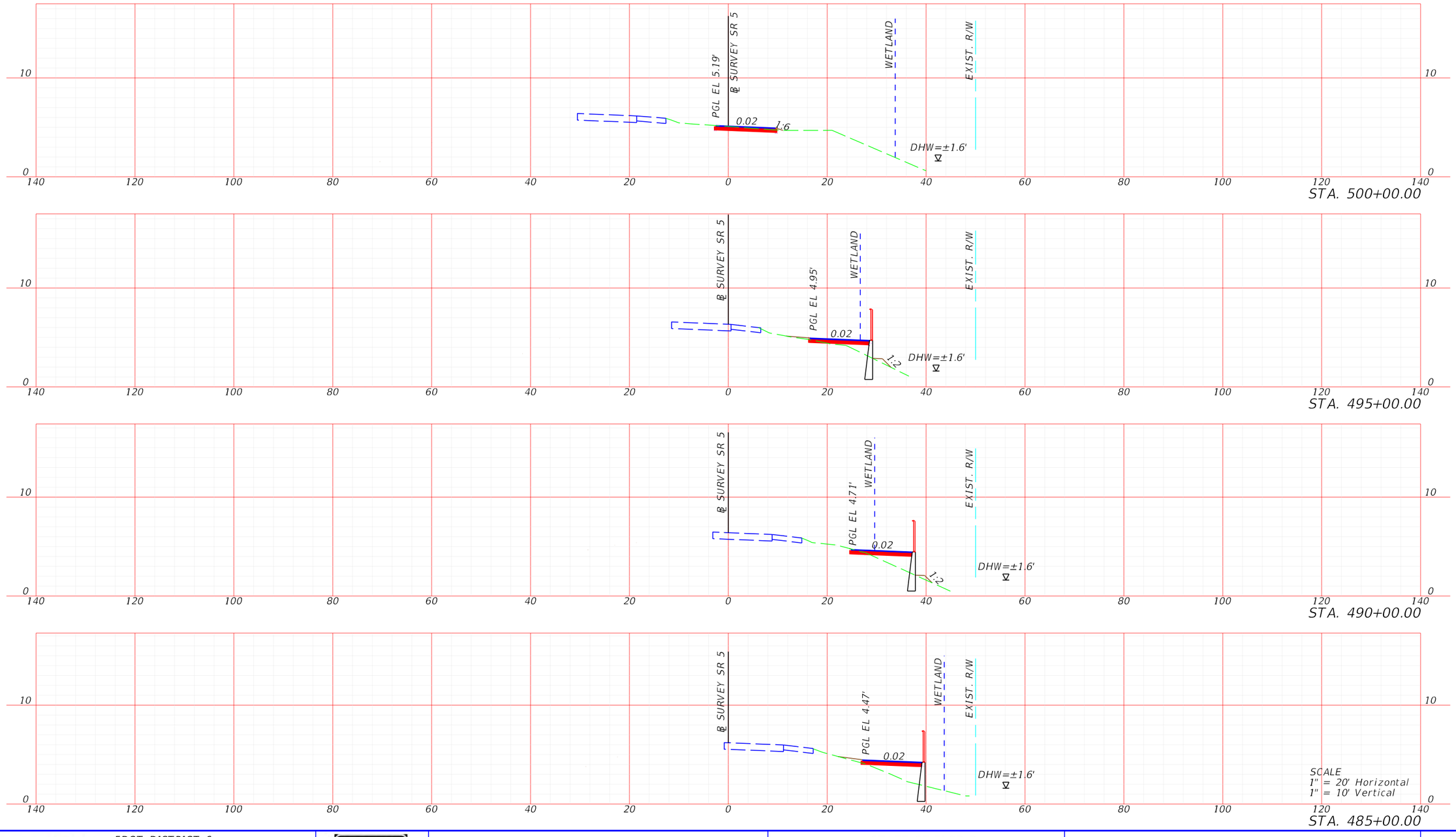
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

FIGURE 6-1
CROSS SECTIONS

SHEET NO.
53



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SCOPING REPORT
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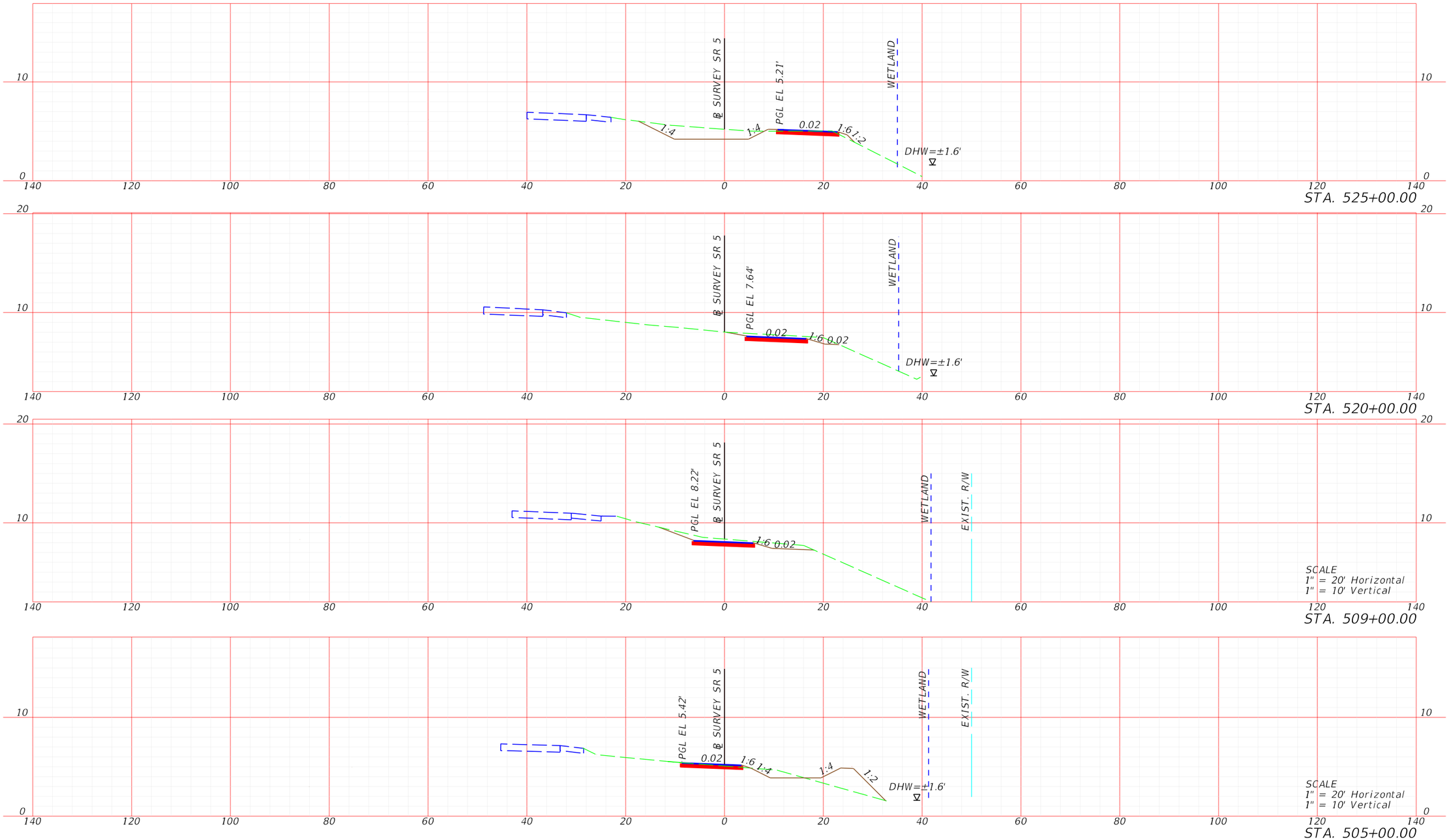
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

FIGURE 6-1
CROSS SECTIONS

SHEET NO.
54



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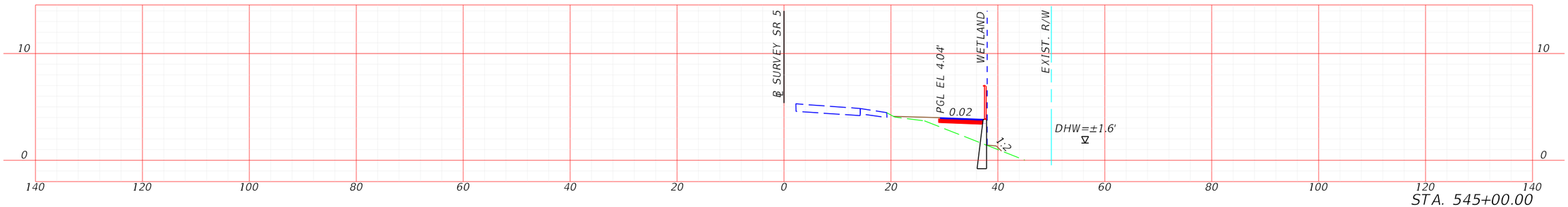
SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD
FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT)
SCOPING REPORT
ROADWAY ID: 9002000/ MP 13.245- MP 15.253

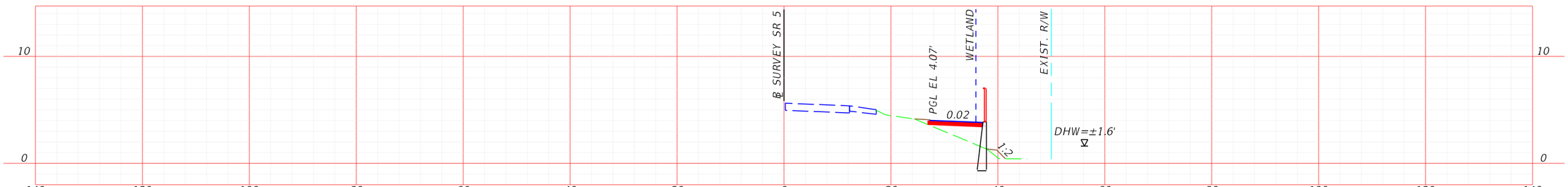
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

FIGURE 6-1
CROSS SECTIONS



STA. 545+00.00



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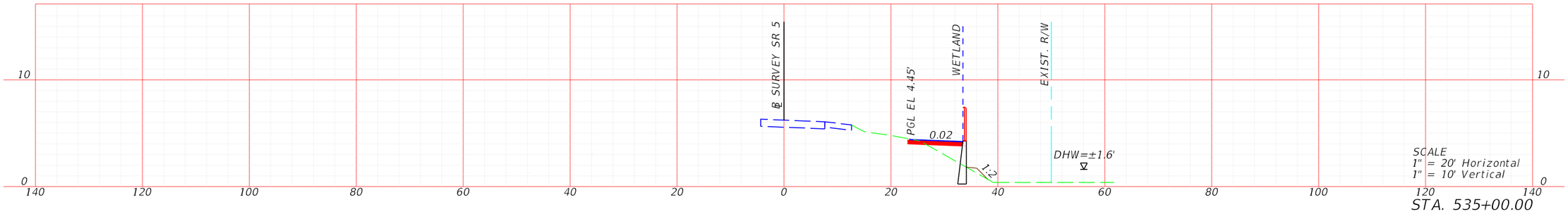
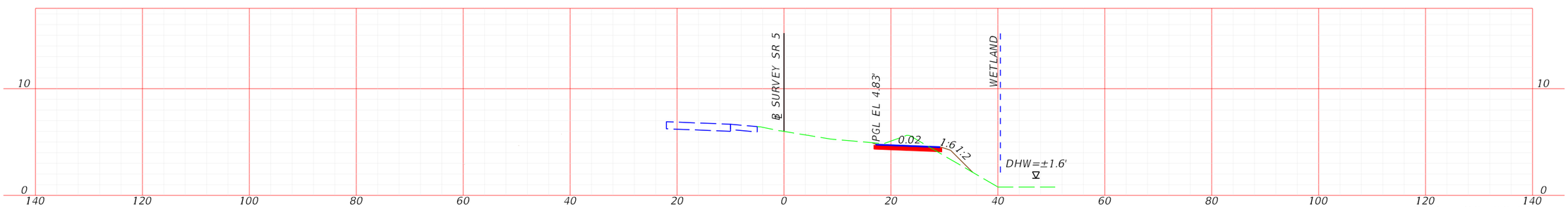


STA. 535+00.00

SCALE
1" = 20' Horizontal
1" = 10' Vertical



STA. 530+00.00

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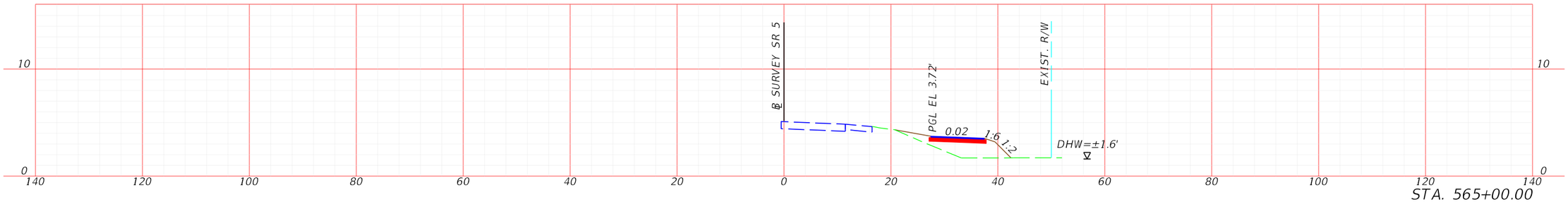
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

FIGURE 6-1
CROSS SECTIONS



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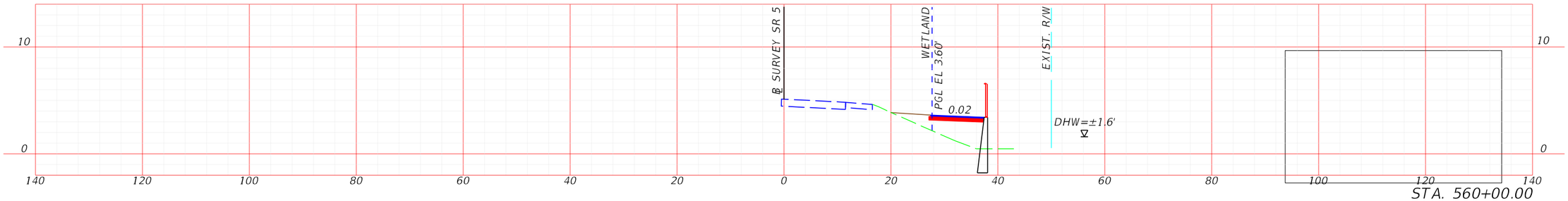

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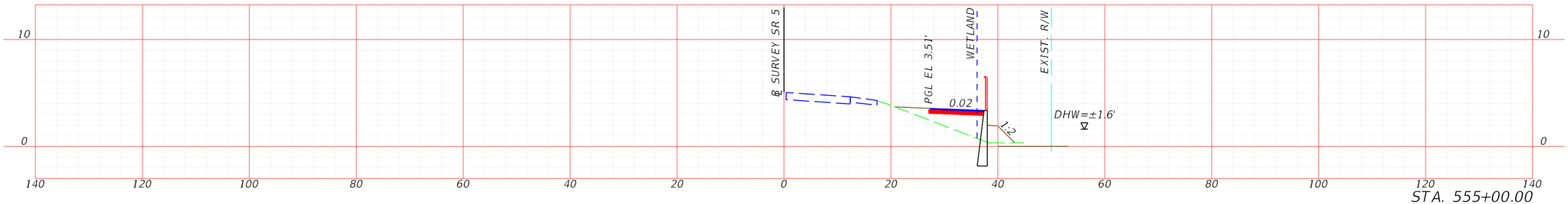

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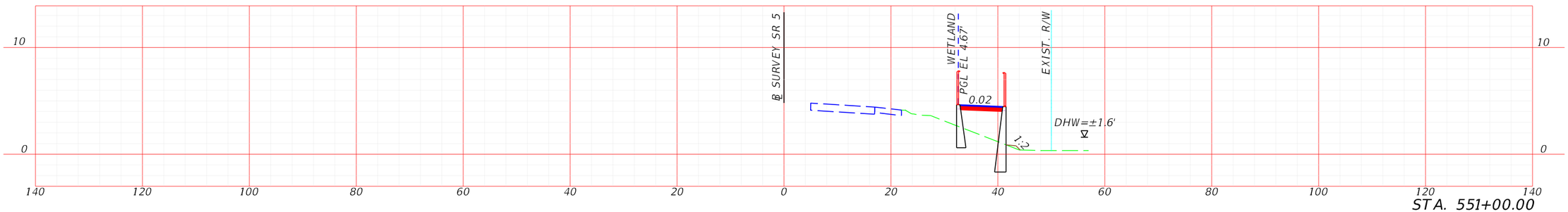

STA. 551+00.00

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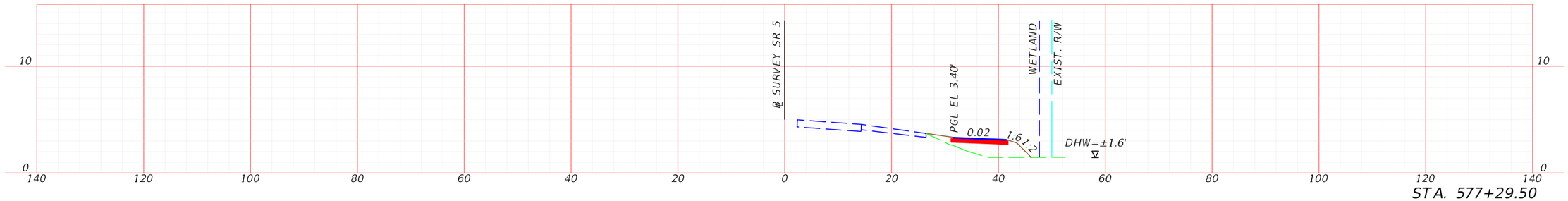
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

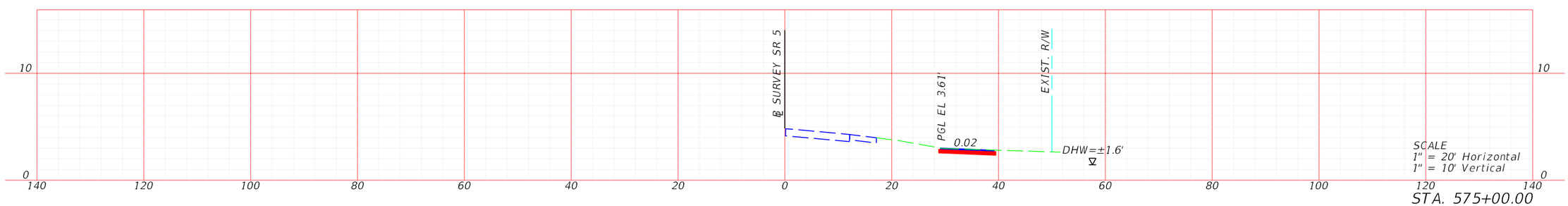
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

FIGURE 6-1
CROSS SECTIONS

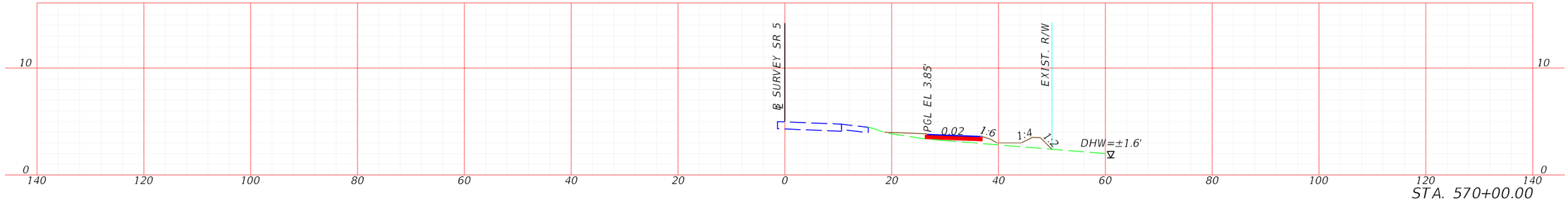
SHEET NO.
57



STA. 577+29.50



STA. 575+00.00



STA. 570+00.00

FDOT DISTRICT 6
PLANNING AND ENVIROMENTAL
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1000 NW 111th AVENUE
MIAMI, FLORIDA 33172

SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD
FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT)
SCOPING REPORT
ROADWAY ID: 9002000/ MP 13.245- MP 15.253

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

FIGURE 6-1
CROSS SECTIONS

7.0 PRELIMINARY COST ESTIMATE

A preliminary construction cost estimate was developed for the proposed FKOHT Shared Use Path construction listed in this Scoping Report using the FDOT Long Range Estimates (LRE) Program. The costs listed do not represent the estimated construction cost for FY 2029 or the project Work Program Budget. **Table 7-1** summarizes the cost of implementing the proposed construction to be included in the scope of work for this Sugarloaf Key Florida Keys Overseas Heritage Trail Project. The detailed Long-Range Cost Estimate is included in **Appendix F**.

Table 7-1 Preliminary Construction Cost Estimate

Cost Component	Cost Estimate
Earthwork Component	$809,499.74
Roadway Component	$7,205,043.62
Drainage Component	$136,204.00
Signing Component	$11,986.73
Signalizations Component	$82,824.02
Lighting Component	$180,564.04
Sub-Total	**$8,426,122.15**
Maintenance of Traffic (10%)	$842,612.22
Mobilization (10%)	$926,873.44
Initial Contingency	$101,956.08
Total	**$10,297,563.89**

List of Appendices

A. Straight Line Diagram

B. As Built Plans

C. Datum Shift Calculation

D. Preliminary Wetlands Delineation

E. Wetland Mitigation

F. Environmental Resource Desktop Analysis

G. Long Range Estimates

A. Straight Line Diagram

	5 YR INV	SLD REV
DATE	04/23/2020	06/08/2020
BY	CTS Engineering	CTS Engineering

BMP	EMP	INV	SLD REV

FLORIDA DEPARTMENT OF TRANSPORTATION

STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

SECTION STATUS	INT. or US ROUTE NO.	STATE ROAD NO.	COUNTY	DISTRICT	ROADWAY ID	SHEET NO:
02	US 1	SR 5	MONROE	06	90020000	7 OF 14

12.0 — 13.0

INSIDE URBAN, OUTSIDE CITY
* KEY WEST
*|<=OVERSEAS HWY
*|<SR 5
*|<US 1

KEY WEST

BAT TOWER RD A 12.364 | SUGARLOAF LODGE A 12.434 | MM 17 12.459 | DRIVEWAY A 12.550 | FIRE SATION A 12.608 | HARRIS CAP CHANNEL

S POINT DR A 12.120 | CR-939 / SUGARLOAF B A 12.434 | MM 17 12.458 | MOSHER DRIVE A 12.608

939 COUNTY

ROADWAY FEATURES

12.000 — 54.0' - 24.0' | 2 - 12.0' RDWY | 10.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 4.0' LWN SHLD2 - LT | 12.0' GRVL SHLD2 - RT

12.033 — 68.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 10.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 4.0' LWN SHLD2 - LT | 12.0' GRVL SHLD2 - RT

12.055 — 73.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 10.0' PVD SHLD1 - LT | 9.0' PVD SHLD1 - RT | 4.0' LWN SHLD2 - LT | 12.0' LWN SHLD2 - RT

12.083 — 68.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 5.0' PVD SHLD1 - LT | 9.0' PVD SHLD1 - RT | 4.0' LWN SHLD2 - LT | 12.0' LWN SHLD2 - RT

12.131 — 70.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 5.0' PVD SHLD1 - LT | 4.0' LWN SHLD2 - LT | 12.0' LWN SHLD2 - RT

12.186 — 76.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 5.0' PVD SHLD1 - LT | 11.0' PVD SHLD1 - RT | 10.0' LWN SHLD2 - LT | 12.0' LWN SHLD2 - RT

12.244 — 63.0' - 25.0' | 2 - 12.5' RDWY | 5.0' PVD SHLD1 - LT | 11.0' PVD SHLD1 - RT | 10.0' LWN SHLD2 - LT | 12.0' LWN SHLD2 - RT

12.250 — 64.0' - 25.0' | 2 - 12.5' RDWY | 4.0" PVD SHLD1 - LT | 11.0' PVD SHLD1 - RT | 2 - 12.0' LWN SHLD2

12.280 — 76.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 4.0' PVD SHLD1 - LT | 11.0' PVD SHLD1 - RT | 2 - 12.0' LWN SHLD2

12.287 — 68.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 4.0' PVD SHLD1 - LT | 8.0' WARN SHLD1 - RT | 12.0' LWN SHLD2 - LT | 7.0' LWN SHLD2 - RT

12.366 — 64.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 2 - 4.0' PVD SHLD1 | 12.0' LWN SHLD2 - LT | 7.0' LWN SHLD2 - RT

12.368 — 65.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 7.0' LWN SHLD2 - RT

12.436 — 61.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 9.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 4.0' LWN SHLD2 - LT | 7.0' LWN SHLD2 - RT

12.456 — 73.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 9.0' PVD SHLD1 - LT | 11.0' PVD SHLD1 - RT | 4.0' LWN SHLD2 - LT | 12.0' LWN SHLD2 - RT

12.478 — 80.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 8.0' PVD SHLD1 - LT | 11.0' PVD SHLD1 - RT | 2 - 12.0' LWN SHLD2

12.491 — 73.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 8.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 2 - 12.0' LWN SHLD2

12.537 — 70.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 2 - 12.0' LWN SHLD2

12.621 — 66.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 8.0' LWN SHLD2 - LT | 12.0' LWN SHLD2 - RT

12.628 — 53.0' - 24.0' | 2 - 12.0' RDWY | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 8.0' LWN SHLD2 - LT | 12.0' LWN SHLD2 - RT

12.720 — 53.0' - 24.0' | 2 - 12.0' RDWY | 10.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 3.0' LWN SHLD2 - LT | 12.0' LWN SHLD2 - RT

12.911 — 49.0' - 24.0' | 2 - 12.0' RDWY | 9.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - RT

12.912 — 42.0' - 24.0' | 2 - 12.0' RDWY | 2 - 9.0" PVD SHLD1

12.977 — 53.0' - 24.0' | 2 - 12.0' RDWY | 10.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 3.0' LWN SHLD2 - LT | 12.0' GRVL SHLD2 - RT

LANE WIDTHS ARE AVERAGED

ROADWAY COMPOSITION

12.000 — 28/FC-2 — 12.033 — 28/FC-2 / 28/FC-2 — 12.244 — 28/FC-2 — 12.280 — 28/FC-2 / 28/FC-2 — 12.628 — 28/FC-2 — 12.920 — 08/FC-0 — 12.941 — 28/FC-2

HORIZONTAL ALIGNMENT

CURVE DATA NOT FIELD VERIFIED

B=N56°19'04"E

PC=12.746
PI=12.823
PT=12.900
Δ=16°14'00.00"
D=2°0'

B=N72°32'45"E

STRUCTURE DESCRIPTION

12.933 — #0108 — 100.3' BR — 12.952

DISTRICT USE

SIS

FUN CLASS

12.000 — URBAN PRIN ART OTHER

TRAFFIC

12.0 — AADT=18,600 D=54.70
K=9 T=8.70 12-31-19

NHS

12.000 — NHS/STRAHNET ROUTE

13.0 — 14.0

INSIDE URBAN, OUTSIDE CITY
* KEY WEST
*|<=OVERSEAS HWY
*|<SR 5
*|<US 1

KEY WEST

NORTH HARRIS CHANNEL

Begin Project

MM 18 — 13.395 — 13.394 — MM 18

ROADWAY FEATURES

13.000 — 53.0' - 24.0' | 2 - 12.0' RDWY | 10.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 3.0' LWN SHLD2 - LT | 12.0' GRVL SHLD2 - RT

13.119 — 46.0' - 24.0' | 2 - 12.0' RDWY | 10.0' PVD SHLD1 - LT | 9.0' PVD SHLD1 - RT | 3.0' LWN SHLD2 - LT

13.120 — 42.0' - 24.0' | 2 - 12.0' RDWY | 2 - 9.0" PVD SHLD1

13.245 — 47.0' - 24.0' | 2 - 12.0' RDWY | 10.0' PVD SHLD1 - LT | 9.0' PVD SHLD1 - RT | 4.0' LWN SHLD2 - LT

13.246 — 54.0' - 24.0' | 2 - 12.0' RDWY | 10.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 4.0' LWN SHLD2 - LT | 12.0' GRVL SHLD2 - RT

13.486 — 56.0' - 24.0' | 2 - 12.0' RDWY | 2 - 4.0' PVD SHLD1 | 12.0' LWN SHLD2 - LT | 12.0' GRVL SHLD2 - RT

LANE WIDTHS ARE AVERAGED

ROADWAY COMPOSITION

13.000 — 28/FC-2 — 13.127 — 08/FC-0 — 13.210 — 28/FC-2

HORIZONTAL ALIGNMENT

STRUCTURE DESCRIPTION

13.140 — #0109 — 427.7' BR — 13.221

DISTRICT USE

SIS

FUN CLASS

13.000 — URBAN PRIN ART OTHER

TRAFFIC

13.0 — AADT=18,600 D=54.70
K=9 T=8.70 12-31-19

NHS

13.000 — NHS/STRAHNET ROUTE

	5 YR INV	SLD REV	BMP	EMP	INV	SLD REV
DATE	04/23/2020	06/08/2020				
BY	CTS Engineering	CTS Engineering				

FLORIDA DEPARTMENT OF TRANSPORTATION

STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

SECTION STATUS	INT. or US ROUTE NO.	STATE ROAD NO.	COUNTY	DISTRICT	ROADWAY ID	SHEET NO:
02	US 1	SR 5	MONROE	06	90020000	8 OF 14

KEY WEST

14.0 — 15.0

ROADWAY FEATURES

14.000: INSIDE URBAN, OUTSIDE CITY
* KEY WEST
*|<=OVERSEAS HWY
*|<SR 5
*|<US 1

CHANNEL — PARK

MM 19 (14.410) — MM 19 (14.409)

CRANE BLVD (7) 14.818

14.048: 49.0' - 24.0' | 2 - 12.0' RDWY | 4.0' PVD SHLD1 - LT | 9.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT

14.247: 57.0' - 24.0' | 2 - 12.0' RDWY | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 12.0' GRVL SHLD2 - RT

14.680: 64.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 8.0' LWN SHLD2 - LT | 9.0' LWN SHLD2 - RT

14.824: 62.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 3.0' LWN SHLD2 - RT

14.899: 72.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 7.0' PVD SHLD1 - LT | 5.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 10.0' LWN SHLD2 - RT

LANE WIDTHS ARE AVERAGED

14.000: 56.0' - 24.0' | 2 - 12.0' RDWY | 4.0' PVD SHLD1 | 12.0' LWN SHLD2 - LT | 12.0' GRVL SHLD2 - RT

14.050: 42.0' - 24.0' | 2 - 12.0' RDWY | 9.0' PVD SHLD1

14.246: 49.0' - 24.0' | 2 - 12.0' RDWY | 9.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 12.0' GRVL SHLD2 - RT

14.412: 57.0' - 24.0' | 2 - 12.0' RDWY | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 | 2 - 12.0' LWN SHLD2

14.522: 54.0' - 24.0' | 2 - 12.0' RDWY | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 9.0' LWN SHLD2 - RT

14.645: 50.0' - 24.0' | 2 - 12.0' RDWY | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 8.0' LWN SHLD2 - LT | 9.0' LWN SHLD2 - RT

14.796: 58.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 5.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 8.0' LWN SHLD2 - LT | 3.0' LWN SHLD2 - RT

14.868: 64.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 7.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 3.0' LWN SHLD2 - RT

14.917: 55.0' - 24.0' | 2 - 12.0' RDWY | 4.0' PVD SHLD1 - LT | 5.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 10.0' LWN SHLD2 - RT

ROADWAY COMPOSITION

14.000: 28/FC-2 — 14.069: 08/FC-0 — 14.224: 28/FC-2 — 14.680: 28/FC-2 / 28/FC-2 — 14.917: 28/FC-2

HORIZONTAL ALIGNMENT

CURVE DATA NOT FIELD VERIFIED

PI=14.060 | Δ=0°00'40.00" | B=N72°33'25"E

PI=14.208 | Δ=0°00'40.00" | B=N72°32'46"E

STRUCTURE DESCRIPTION

14.068 — #0112 — 813.1' BR — 14.222

DISTRICT USE

SIS

FUN CLASS

14.000: URBAN PRIN ART OTHER

TRAFFIC

14.000: AADT=18,600 D=54.70
K=9 T=8.70 12-31-19

NHS

14.000: NHS/STRAHNET ROUTE

KEY WEST

15.0 — 16.0

ROADWAY FEATURES

15.000: INSIDE URBAN, OUTSIDE CITY
* KEY WEST
*|<=OVERSEAS HWY
*|<SR 5
*|<US 1

N JOHNSON RD (A1A) 15.323 — End Project — JOHNSON RD (A1A) 15.353

MM 20 (15.482) — MM 20 (15.481)

CR-939/STATE RD 939 (A1A) 15.441 — 939 COUNTY

15.619: OUTSIDE CITY & URBAN
*|<=OVERSEAS HWY
*|<SR 5
*|<US 1

CHANNEL — BOW

15.902: INSIDE URBAN, OUTSIDE CITY
* BIG PINE KEY
*|<=OVERSEAS HWY
*|<SR 5
*|<US 1

BIG PINE KEY

15.080: 47.0' - 24.0' | 2 - 12.0' RDWY | 4.0' PVD SHLD1 - LT | 5.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 2.0' LWN SHLD2 - RT

15.286: 72.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 7.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 2 - 12.0' LWN SHLD2

15.362: 72.0' - 24.0' | 2 - 12.0' RDWY | 12.0 PAVED TURN LANE (TWLTL/TURN) MED | 7.0' PVD SHLD1 - LT | 5.0' PVD SHLD1 - RT | 2 - 12.0' LWN SHLD2

15.452: 75.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 7.0' PVD SHLD1 - LT | 10.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 8.0' LWN SHLD2 - RT

15.565: 68.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 11.0' PVD SHLD1 - LT | 7.0' PVD SHLD1 - RT | 12.0' GRVL SHLD2 - RT

15.620: 36.0' - 24.0' | 2 - 12.0' RDWY | 2 - 6.0' PVD SHLD1

15.602: 41.0' - 24.0' | 2 - 12.0' RDWY | 11.0' PVD SHLD1 - LT | 6.0' PVD SHLD1 - RT

15.928: 53.0' - 24.0' | 2 - 12.0' RDWY | 11.0' PVD SHLD1 - LT | 6.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - RT

LANE WIDTHS ARE AVERAGED

15.000: 55.0' - 24.0' | 2 - 12.0' RDWY | 4.0' PVD SHLD1 - LT | 5.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 10.0' LWN SHLD2 - RT

15.130: 56.0' - 24.0' | 2 - 12.0' RDWY | 2 - 4.0' PVD SHLD1 | 2 - 12.0' LWN SHLD2

15.283: 59.0' - 24.0' | 2 - 12.0' RDWY | 7.0' PVD SHLD1 - LT | 4.0' PVD SHLD1 - RT | 2 - 12.0' LWN SHLD2

15.290: 73.0' - 24.0' | 2 - 12.0' RDWY | 13.0 PVD MED | 7.0' PVD SHLD1 - LT | 5.0' PVD SHLD1 - RT | 2 - 12.0' LWN SHLD2

15.369: 73.0' - 24.0' | 2 - 12.0' RDWY | 12.0 PAVED TURN LANE (TWLTL/TURN) MED | 7.0' PVD SHLD1 - LT | 10.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - LT | 8.0' LWN SHLD2 - RT

15.459: 76.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 2 - 7.0' PVD SHLD1 | 2 - 12.0' LWN SHLD2

15.524: 68.0' - 24.0' | 2 - 12.0' RDWY | 14.0 PVD MED | 11.0' PVD SHLD1 - LT | 7.0' PVD SHLD1 - RT | 12.0' LWN SHLD2 - RT

15.567: 54.0' - 24.0' | 2 - 12.0' RDWY | 11.0' PVD SHLD1 - LT | 7.0' PVD SHLD1 - RT | 12.0' GRVL SHLD2 - RT

ROADWAY COMPOSITION

15.000: 28/FC-2 — 15.286: 28/FC-2 / 28/FC-2 — 15.567: 28/FC-2 — 15.619: 08/FC-0 — 15.902: 28/FC-2

HORIZONTAL ALIGNMENT

CURVE DATA NOT FIELD VERIFIED

PI=15,624 | Δ=0°00'28.00" | B=N72°33'14"E

Δ=0°00'43.00" | PI=15,870 | B=N72°32'31"E

STRUCTURE DESCRIPTION

15.619 — #0115 — 1478.4' BR — 15.899

DISTRICT USE

SIS

FUN CLASS

15.000: URBAN PRIN ART OTHER

15.619: RURAL PRIN ART OTHER

15.902: URBAN PRIN ART OTHER

TRAFFIC

15.000: AADT=18,600 D=54.70
K=9 T=8.70 12-31-19

15.580: AADT=18,400 D=54.70
K=9 T=10.70 12-31-19

NHS

15.000: NHS/STRAHNET ROUTE

B. As Built Plans

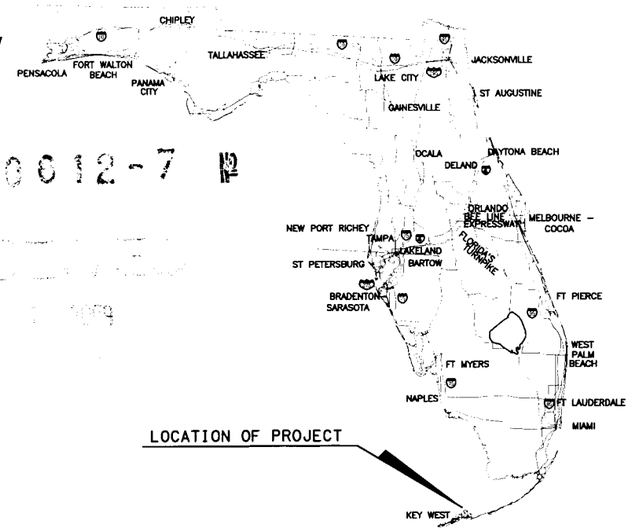
COMPONENTS OF CONTRACT PLAN SET:
TRAIL PLANS
MITIGATION PLANS

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

FLORIDA KEYS OVERSEAS HERITAGE TRAIL 90012-7
LOWER SUGARLOAF TO SUMMERLAND KEY
MM 16.5 TO MM 25.5

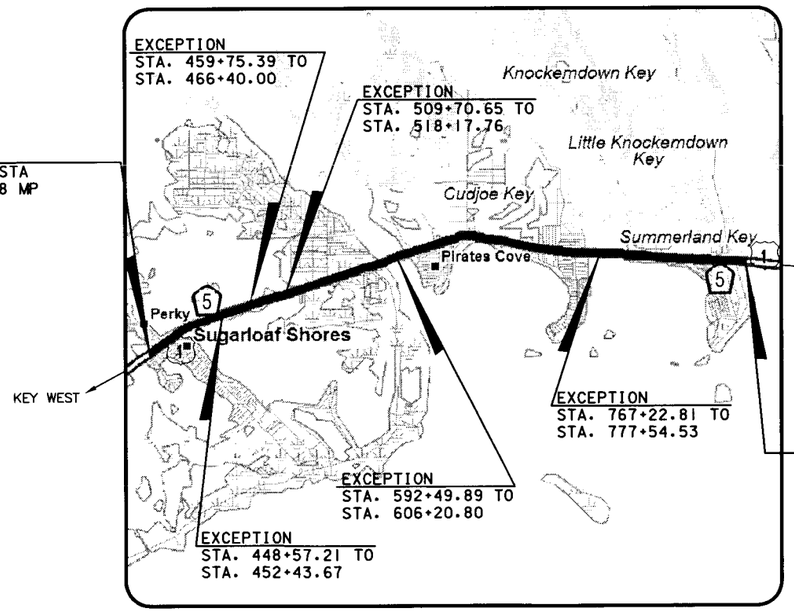
TRAIL PLANS

DEP PROJECT NO. 6G020
FDOT FINANCIAL PROJECT ID 405633-1
MONROE COUNTY (90020000)
STATE ROAD NO. 5



INDEX OF TRAIL PLANS

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN STANDARD, DATED JANUARY 2008, AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2007, AS AMENDED BY CONTRACT DOCUMENTS.



PLANS PREPARED BY:

WilsonMiller, Inc. – FL Lic.# LC-C000170
WilsonMiller, Inc. – Certificate of Authorization #43

WilsonMiller

Planners • Engineers • Ecologists • Surveyors • Landscape Architects • Transportation Consultants

WilsonMiller, Inc.

1441 Mockey Commerce Drive, Suite 101 • Tallahassee, Florida 32312 • Phone 850-878-5001 • Fax 850-878-5941 • Web-Site www.wilsonmiller.com

TRAIL PLANS
ENGINEER OF RECORD:

CHRIS E. BROCKMEIER, P.E. — P.E. NO.: 56859

6/11/09
DATE

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

Patricia S. Smith, AICP
FDEP/Office of Greenways and Trails

Danny Iglesias, P.E.
Florida Dept. of Transportation, District 6

Townsley Schwab, R.L.A.
Monroe County Planning Department

LENGTH OF PROJECT

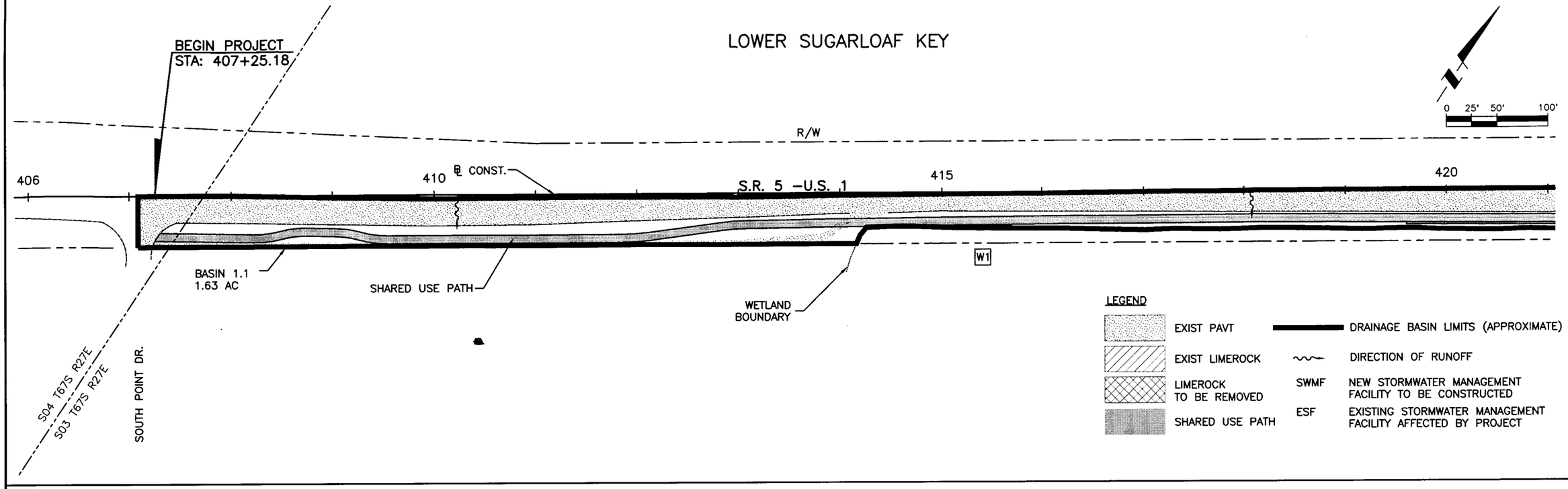
	LINEAR FT.	MILES
TRAIL	41894	7.935
BRIDGES	0	0
NET LENGTH OF PROJ.	41894	7.935
EXCEPTIONS	4301	0.815
GROSS LENGTH OF PROJ.	46195	8.749

KEY SHEET REVISIONS

DATE	BY	DESCRIPTION

FISCAL YEAR	SHEET NO.
10	1

LOWER SUGARLOAF KEY



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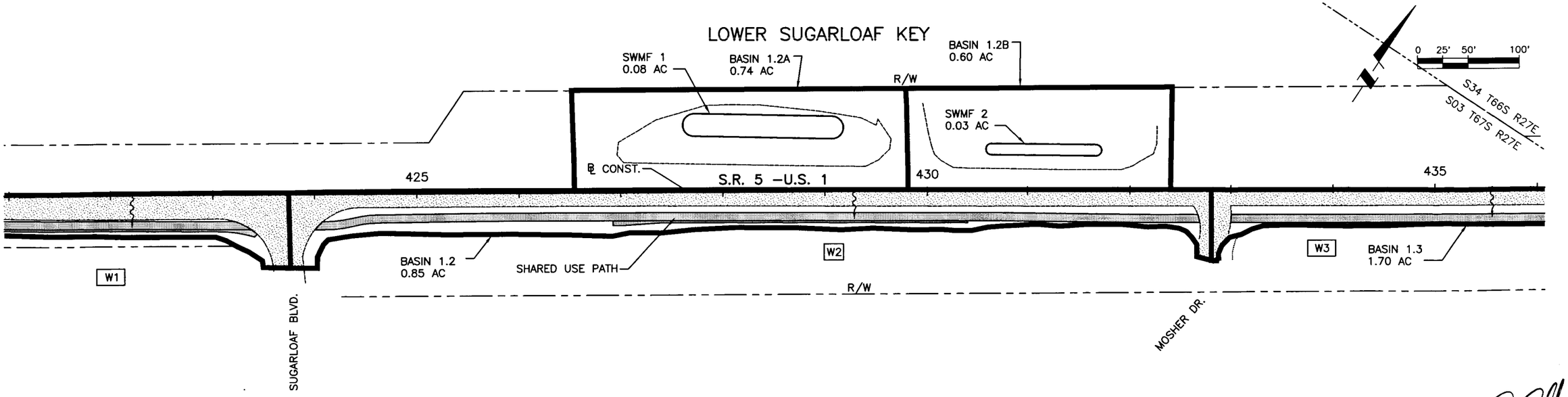

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV. NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC. TWP. RGE.

TITLE:
DRAINAGE MAP
STATION 406+00 TO 436+00

CROSS REFERENCE FILE NO.

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002

SHEET NUMBER: 2

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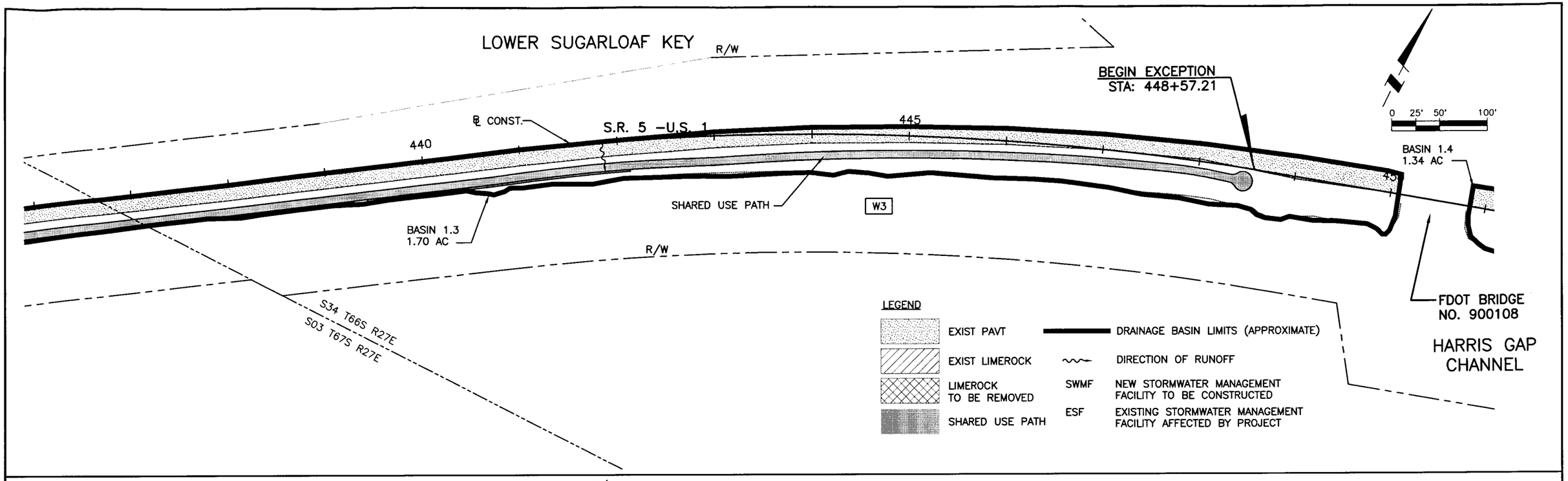

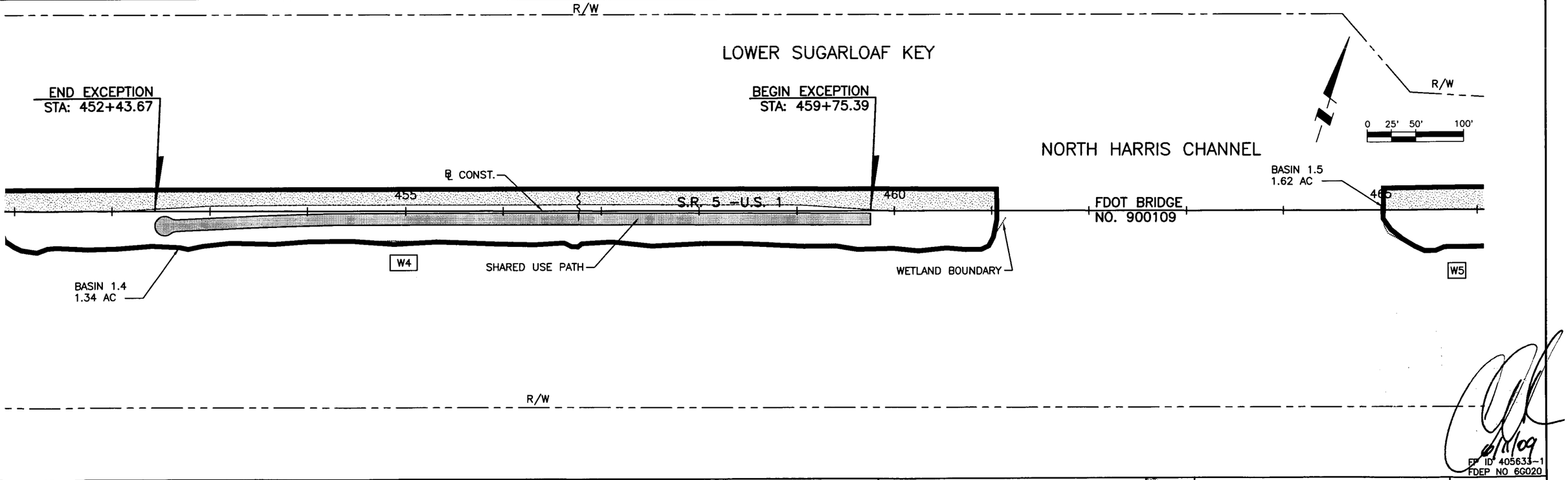

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO. | REVISION | DATE | DRAWN BY / DMP. NO. | CHECKED BY / DMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SIZE: TWP: RGE:
CROSS REFERENCE FILE NO.:

TITLE: DRAINAGE MAP
STATION 436+00 TO 466+00

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 3

6/11/09

FP ID 405633-1
FDEP NO 6G020

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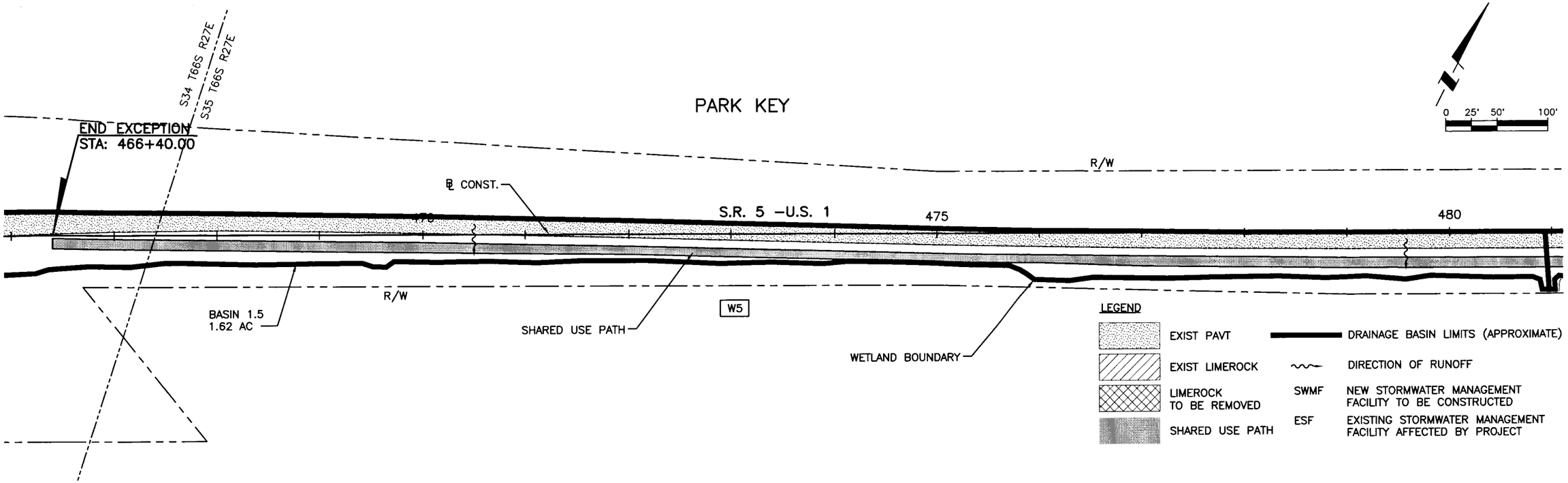

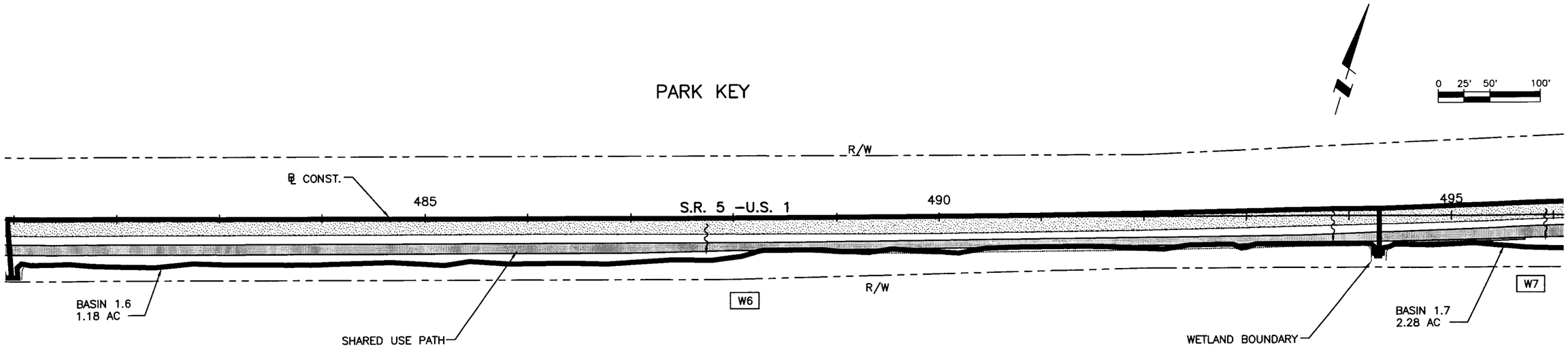

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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1441 Wesley Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone: 850-878-5001 - Fax 850-878-5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:

TITLE: DRAINAGE MAP
STATION 466+00 TO 496+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 4

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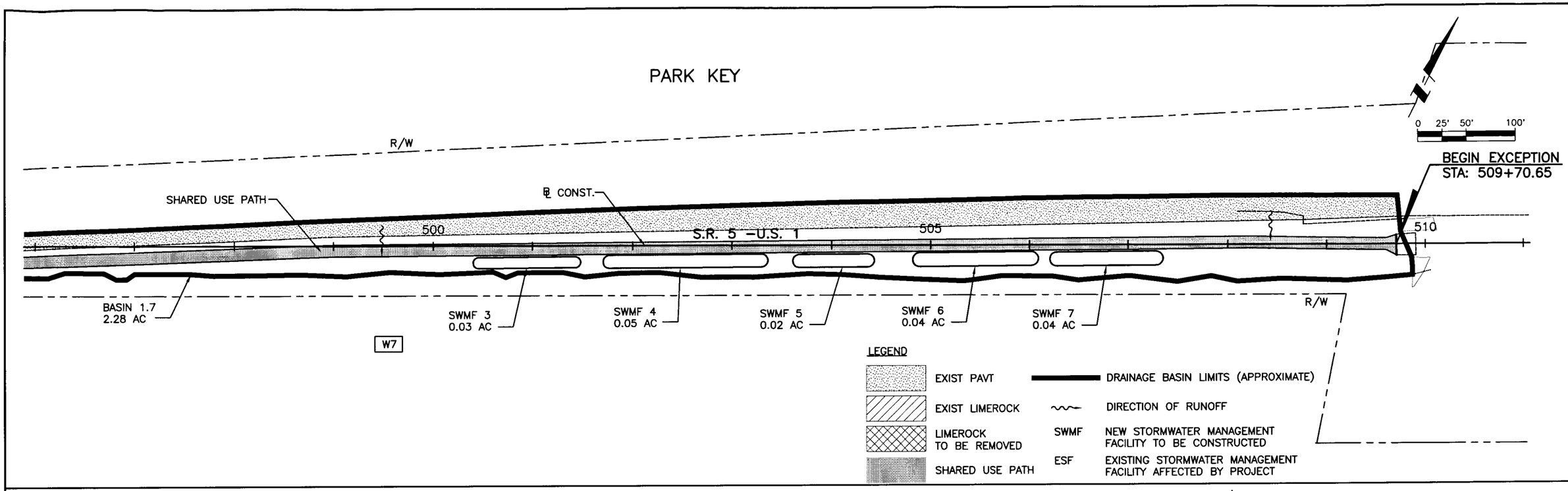
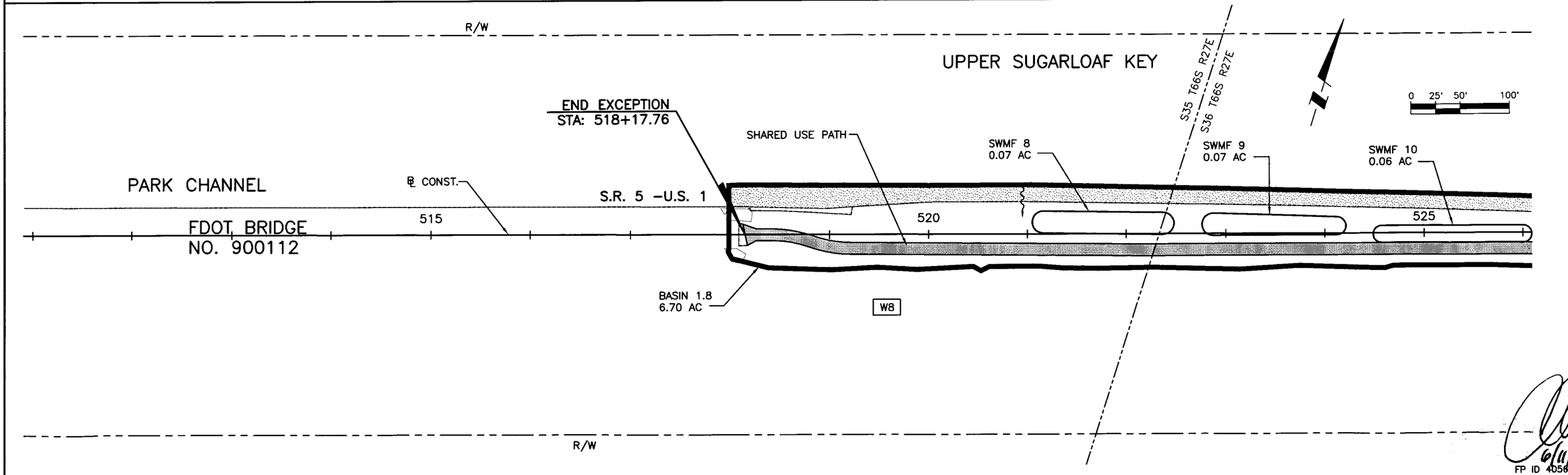


UPPER SUGARLOAF KEY



6/4/09

FP ID 405833-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:

TITLE:
DRAINAGE MAP
STATION 496+00 TO 526+00

PROJECT NUMBER: 04880-002-000
SHEET NUMBER: 5
SHEET NUMBER #: 8-04880-002

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

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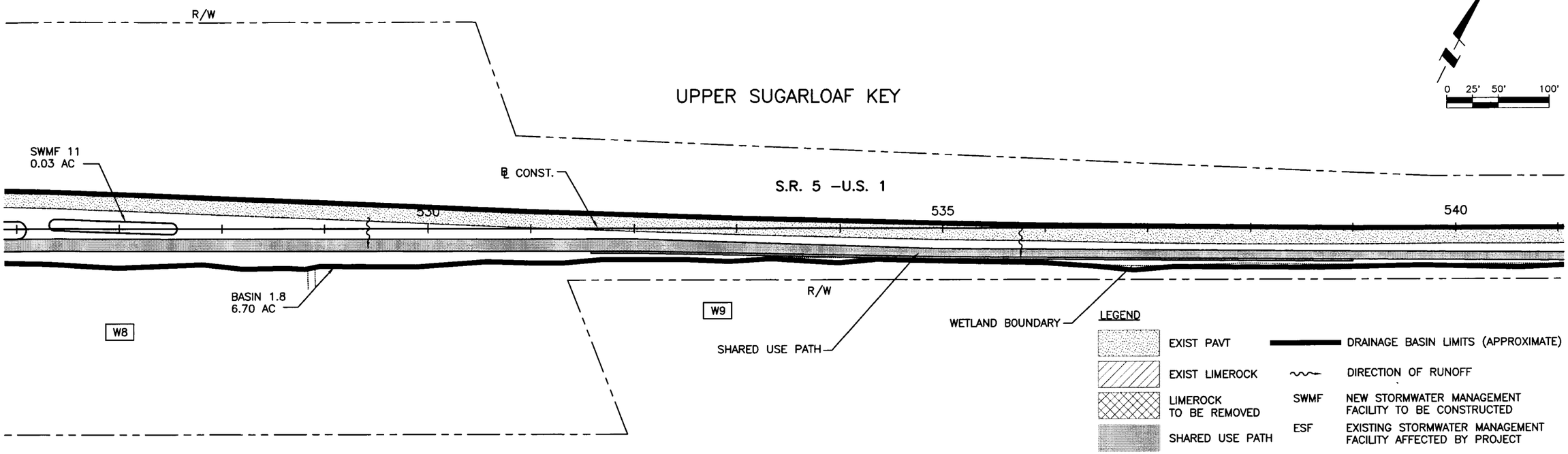

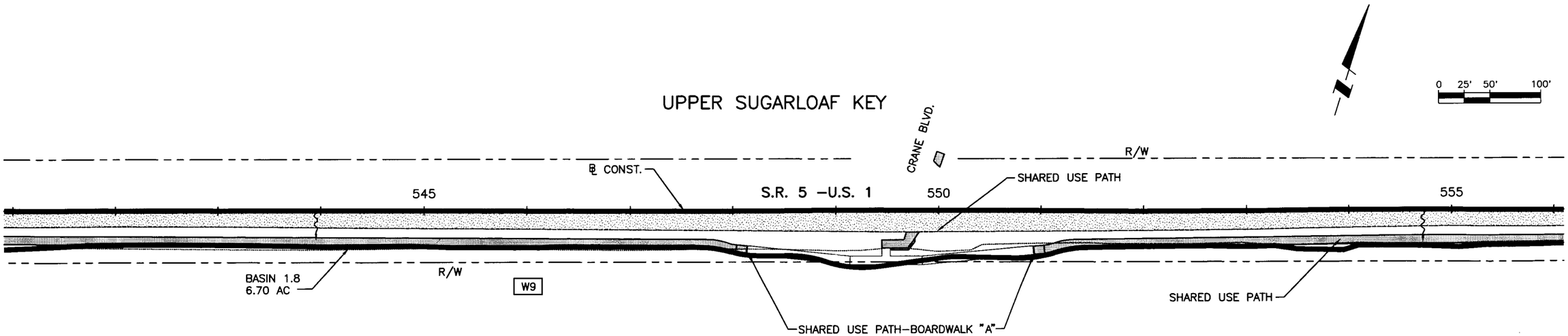

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:

TITLE: DRAINAGE MAP
STATION 526+00 TO 556+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 6

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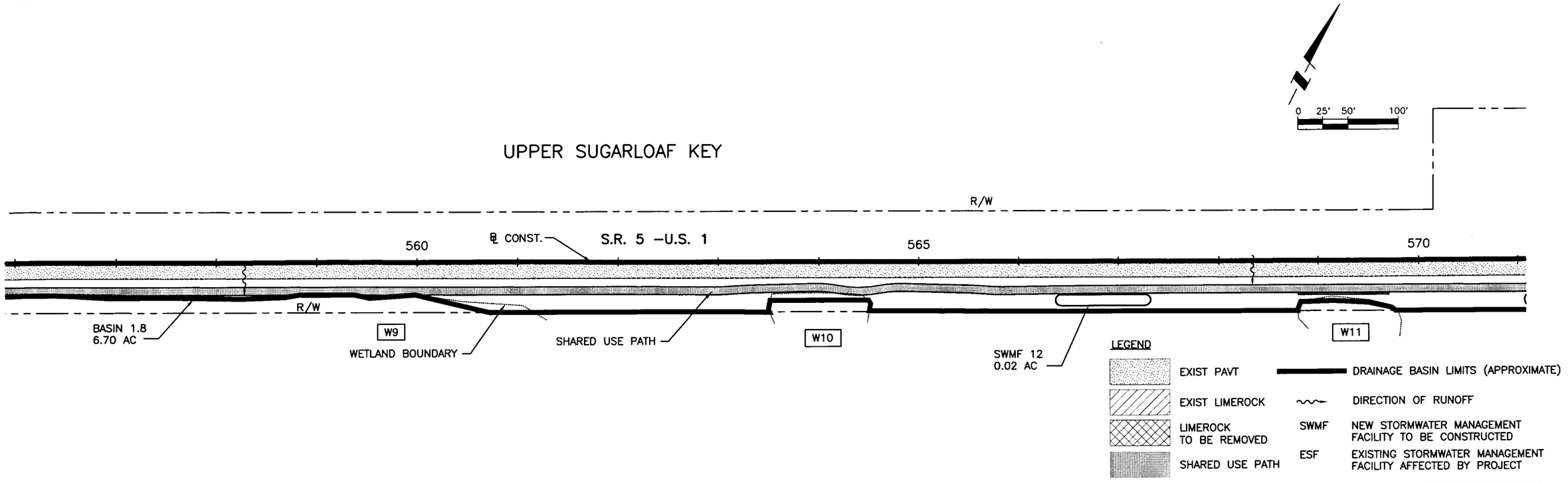

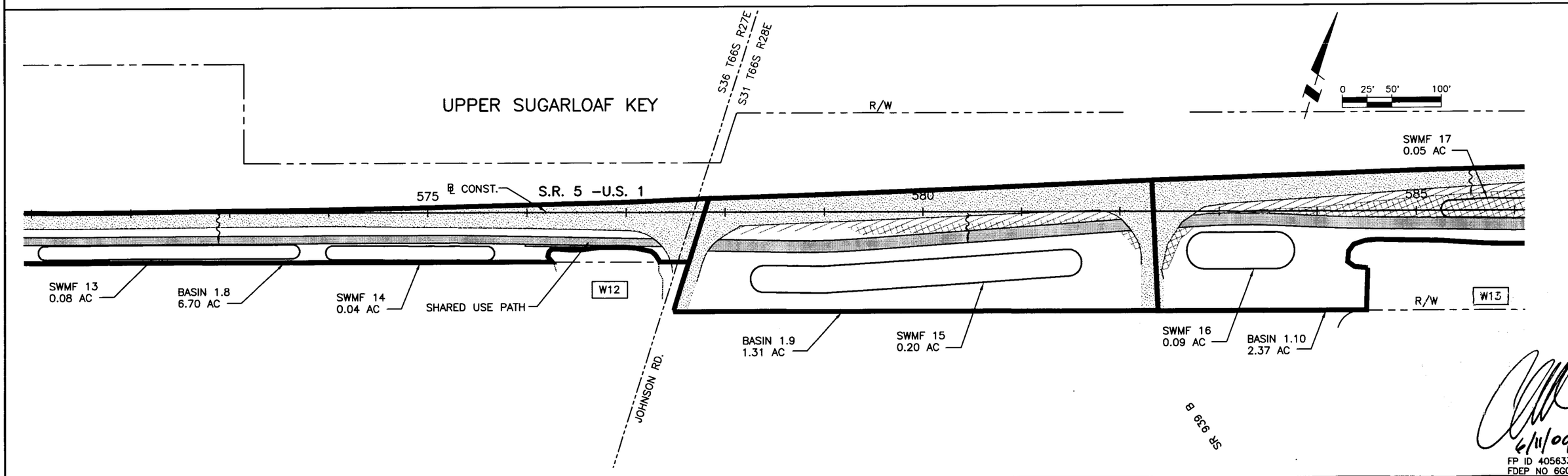

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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1441 Wacky Commerce Drive, Suite 101 · Tallahassee, Florida 32312 · Phone: 850-878-5001 · Fax: 850-878-5941 · Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:

TITLE: DRAINAGE MAP
STATION 556+00 TO 586+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 7

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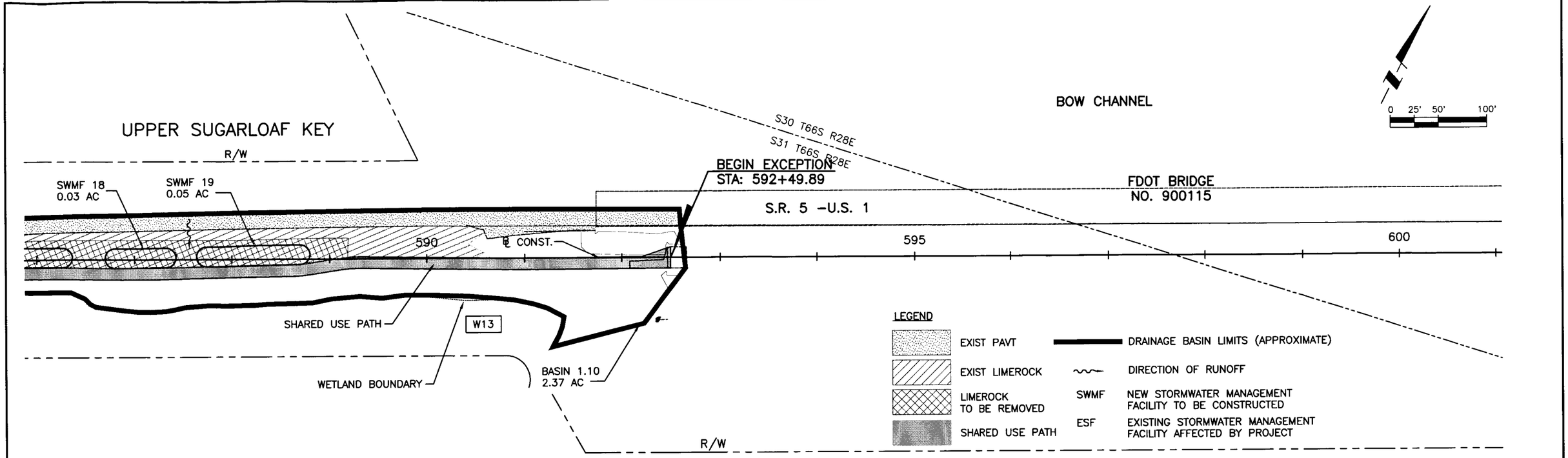

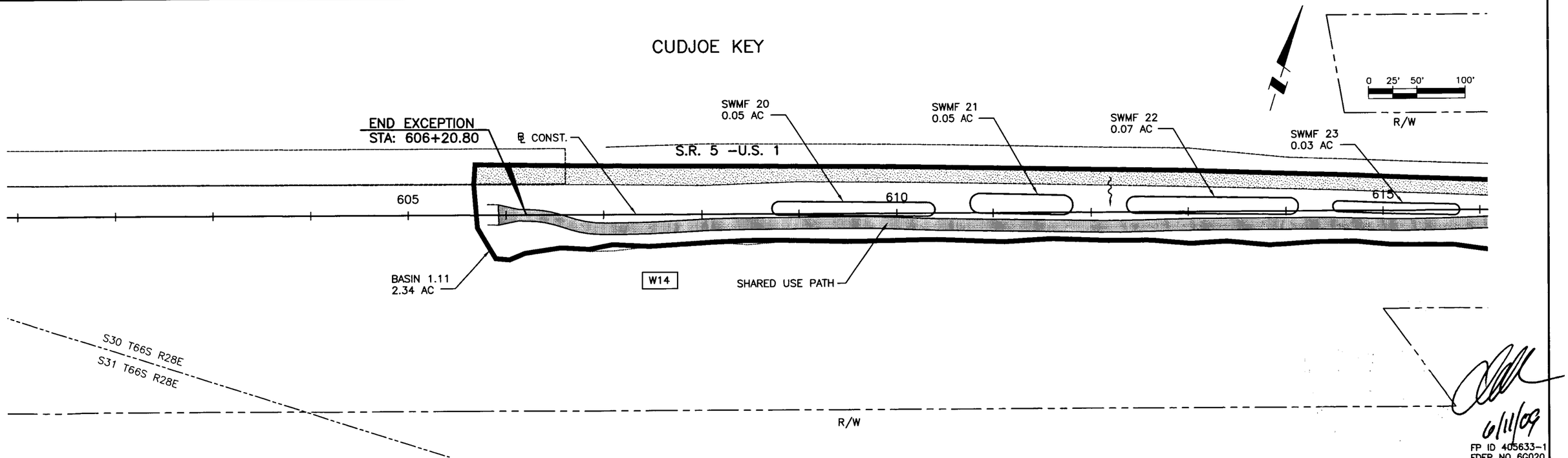

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

Wilson Miller
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Wilson Miller, Inc.
1441 Maclay Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone 850-878-5001 - Fax 850-878-5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:

TITLE: DRAINAGE MAP
STATION 586+00 TO 616+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 8

May 29, 2009 - 14:43:14 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880-002--02-DrainageBasins.dwg

LEGEND

EXIST PAVT

EXIST LIMEROCK

LIMEROCK TO BE REMOVED

SHARED USE PATH

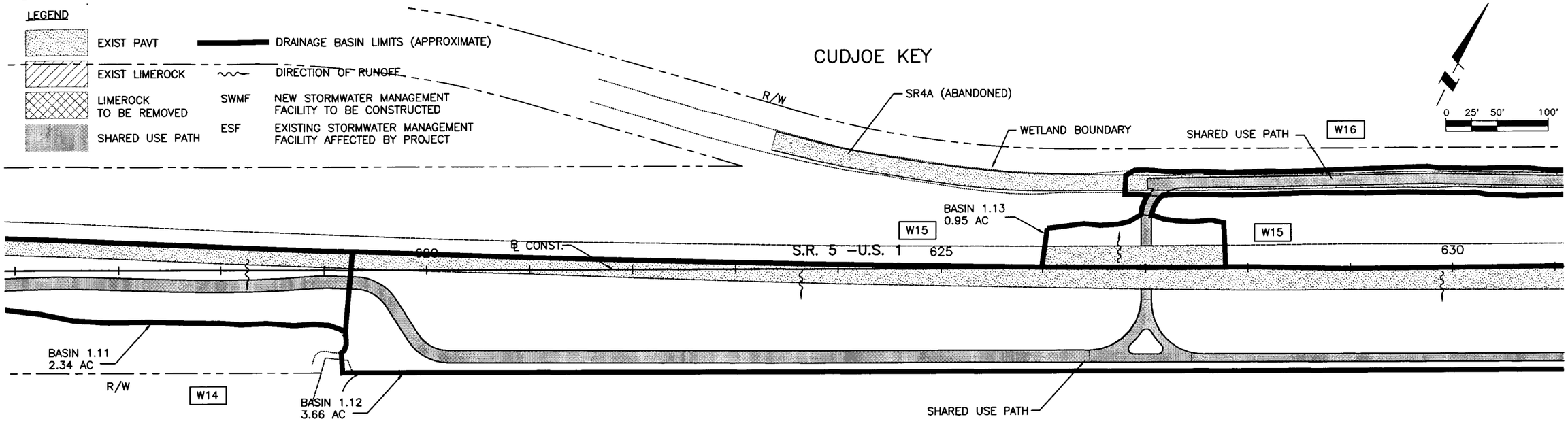
DRAINAGE BASIN LIMITS (APPROXIMATE)

DIRECTION OF RUNOFF

SWMF NEW STORMWATER MANAGEMENT FACILITY TO BE CONSTRUCTED

ESF EXISTING STORMWATER MANAGEMENT FACILITY AFFECTED BY PROJECT

CUDJOE KEY



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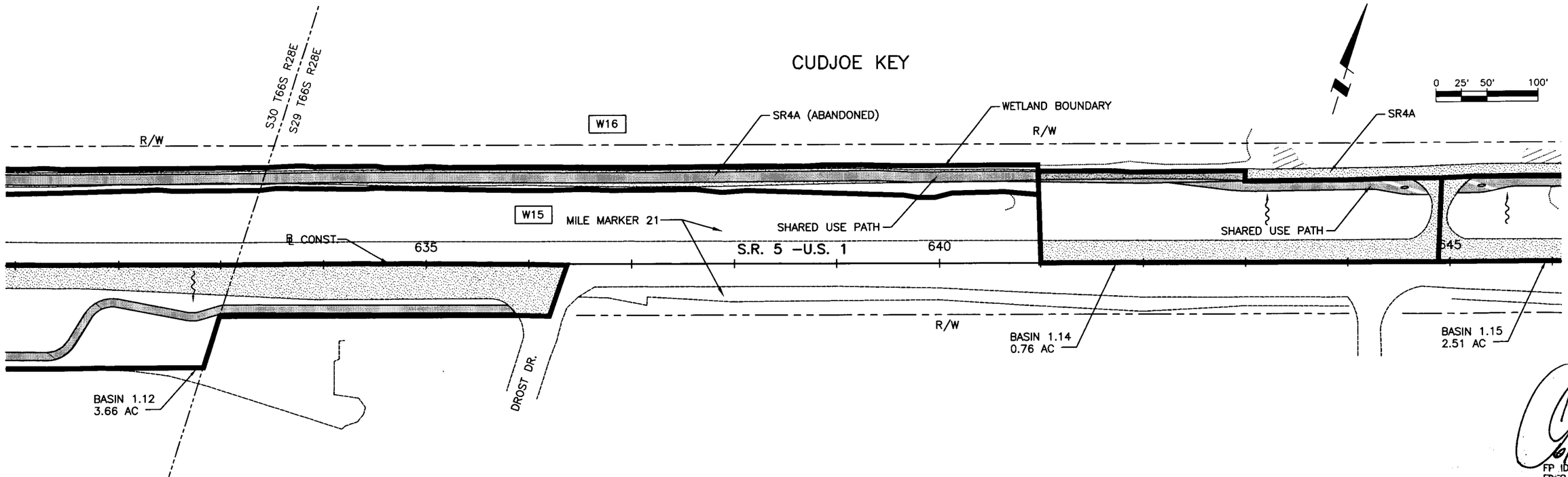

6/11/09

FP ID 405633-1
FDEP NO 6G020

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1158	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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WilsonMiller, Inc.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:

TITLE: DRAINAGE MAP
STATION 616+00 TO 646+00

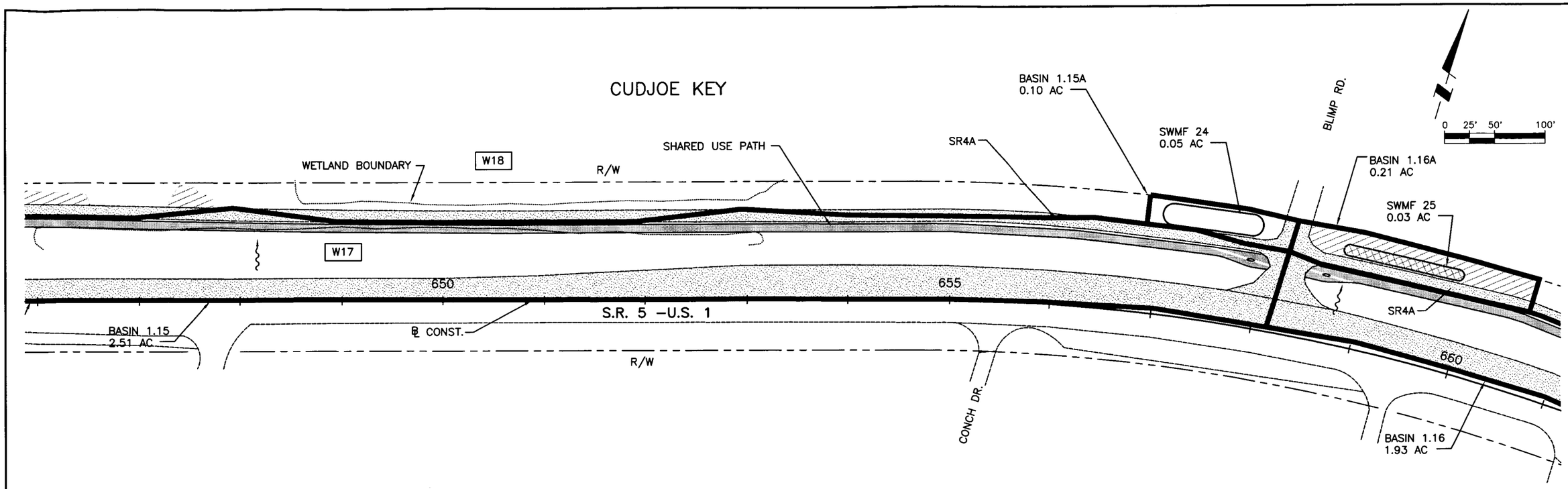
PROJECT NUMBER: 04880-002-000

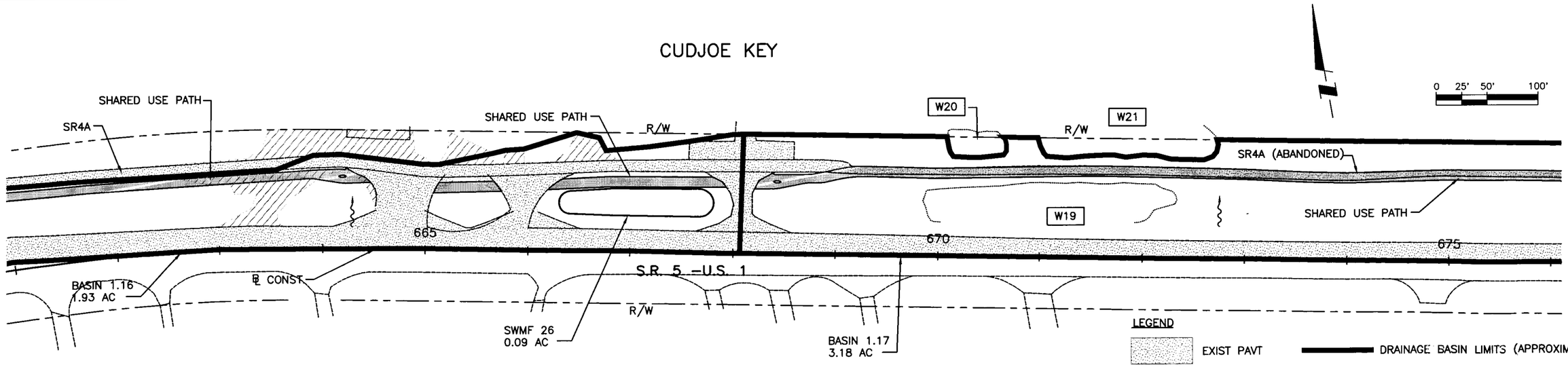
INDEX NUMBER: B-04880-002

SHEET NUMBER: 9

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

Mar 06, 2009 – 10:27:32 JGERTH X:\ENG\04880\002-Segment1\REV01\04880-002--002-DrainageBasins.dwg





6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / DAP. NO.	DESIGNED BY / DAP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC. TWP. RGE.

TITLE: DRAINAGE MAP
STATION 646+00 TO 676+00

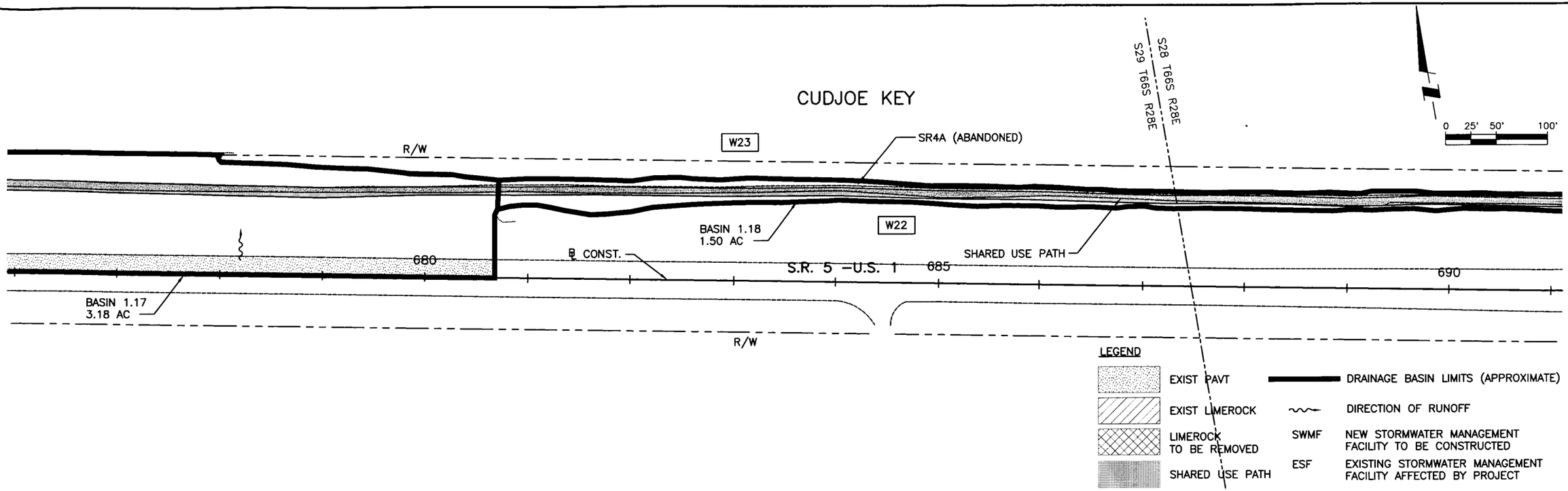
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 10

May 29, 2009 - 14:42:6 J:\GERTH\X:\ENG\04880\002-Segment1\REV02\04880-002--002-DrainageBasins.dwg

CUDJOE KEY



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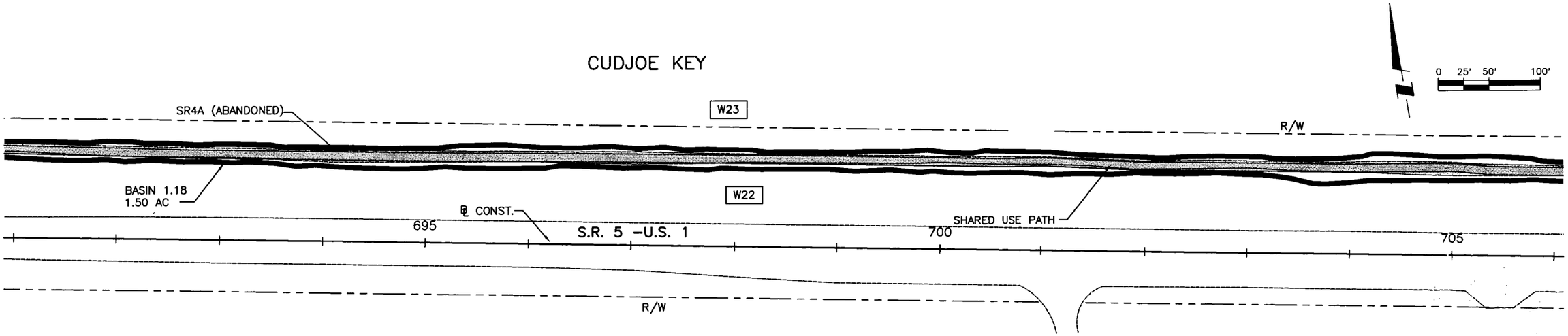

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
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DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
DRAINAGE MAP
STATION 676+00 TO 706+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 11

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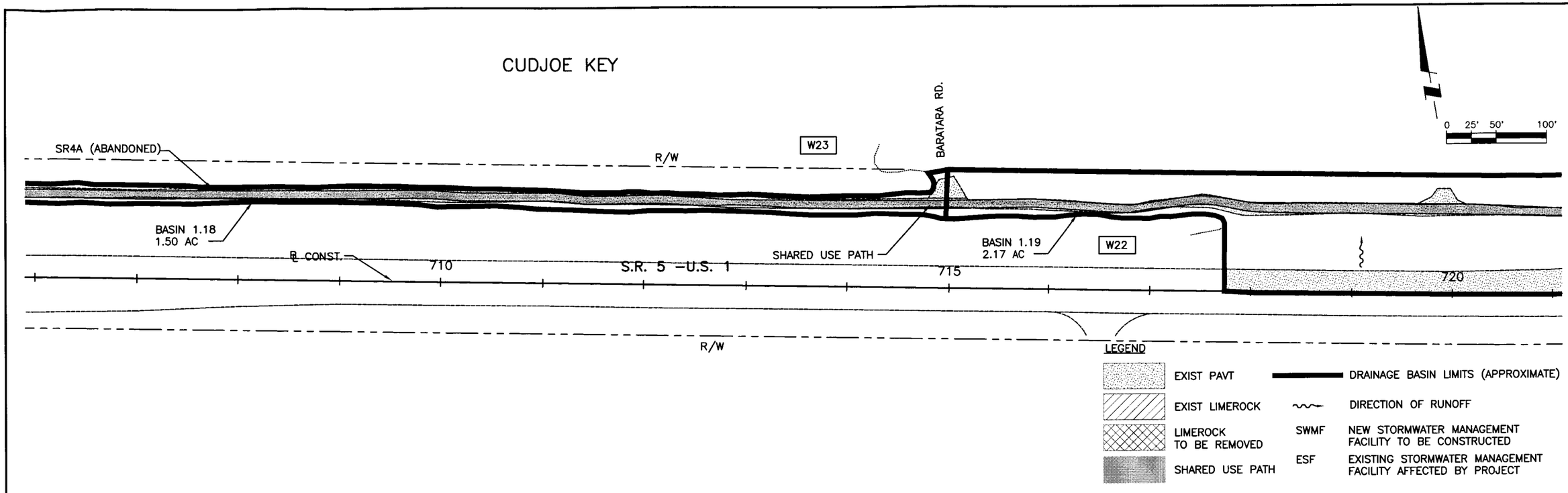

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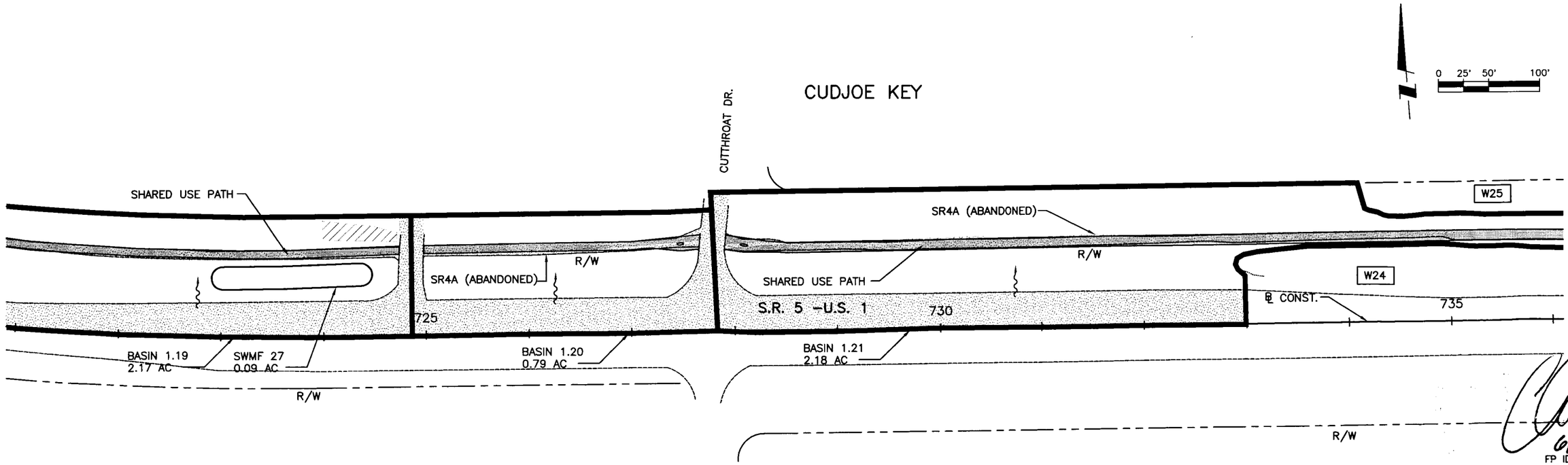

6/4/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC. TWP. RGE.

TITLE:
DRAINAGE MAP
STATION 706+00 TO 736+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 12

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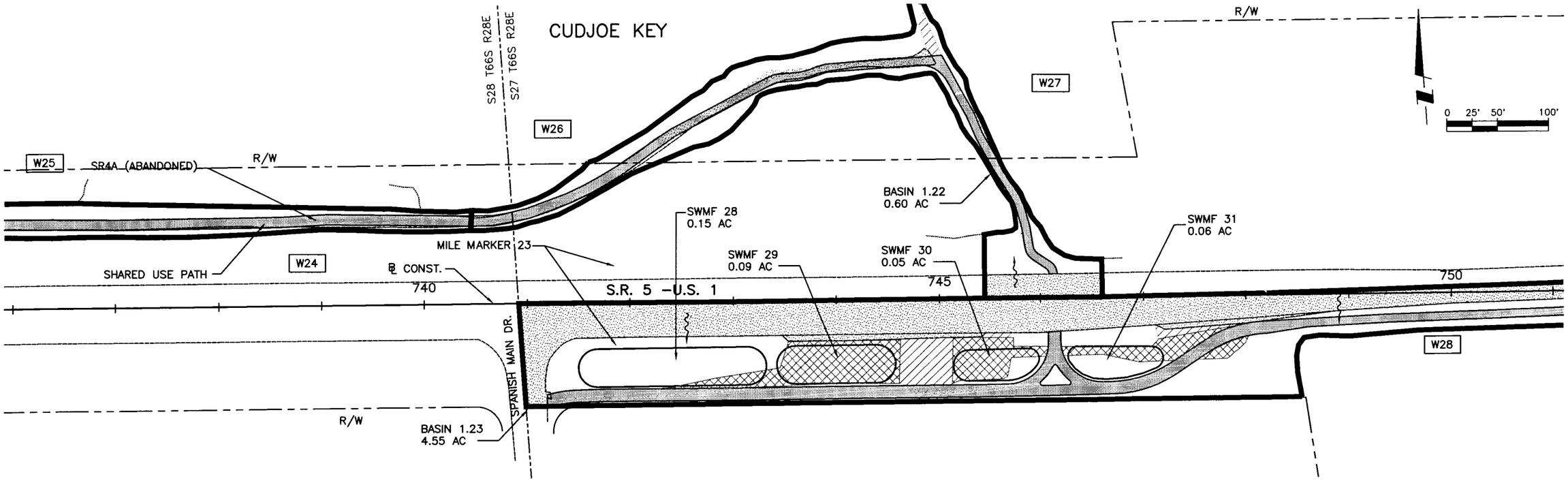

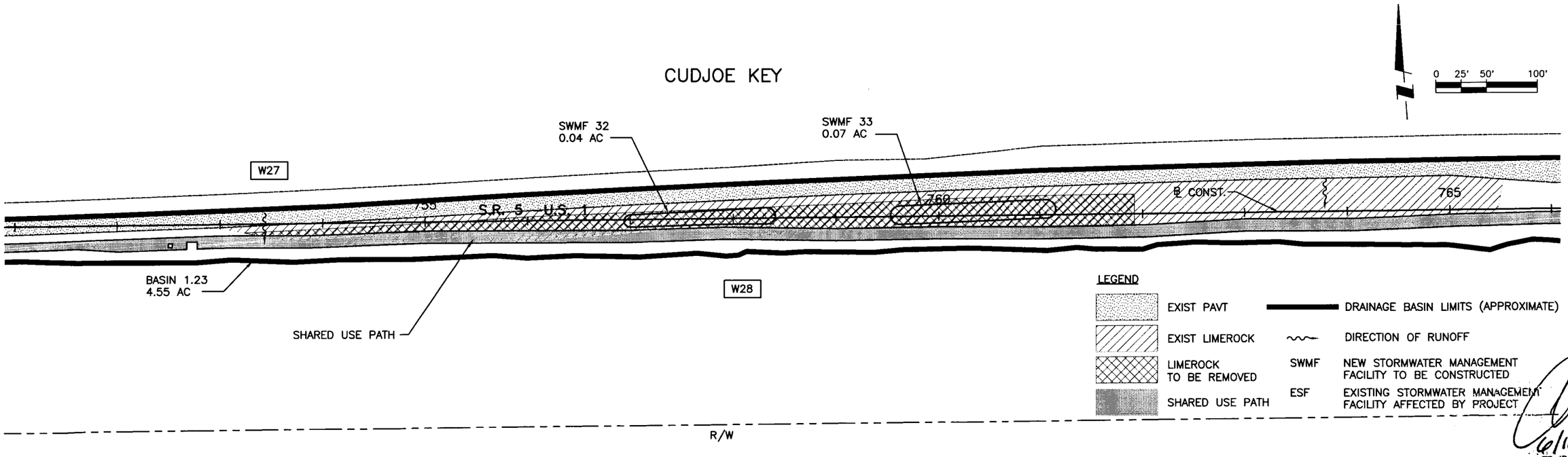

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
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DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:

TITLE:
DRAINAGE MAP
STATION 736+00 TO 766+00

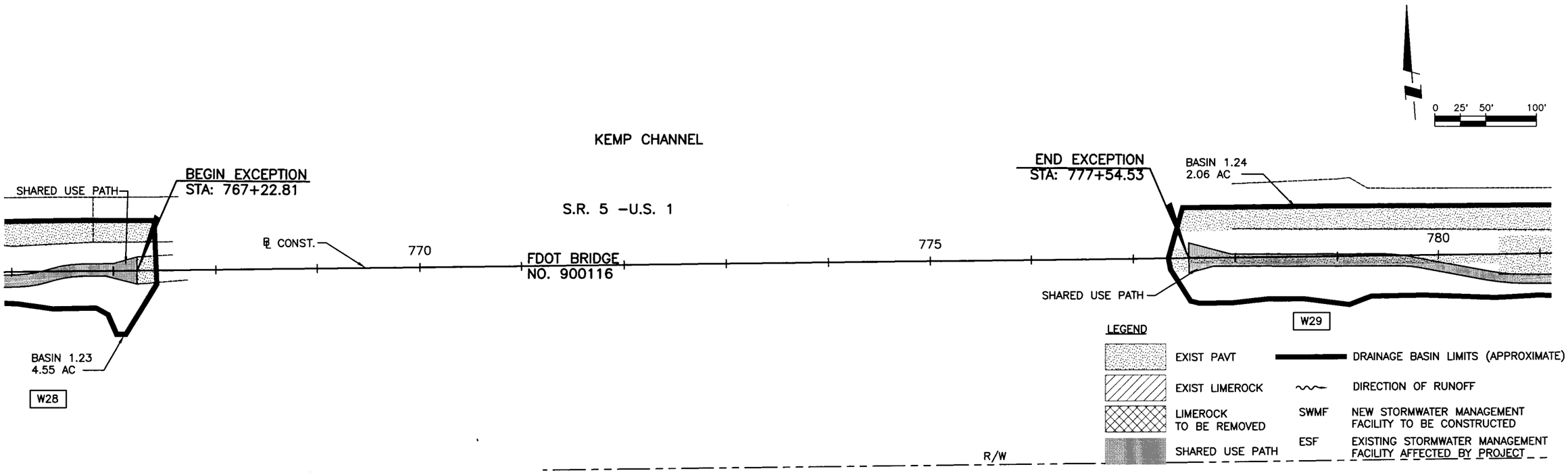
PROJECT NUMBER: 04880-002-000

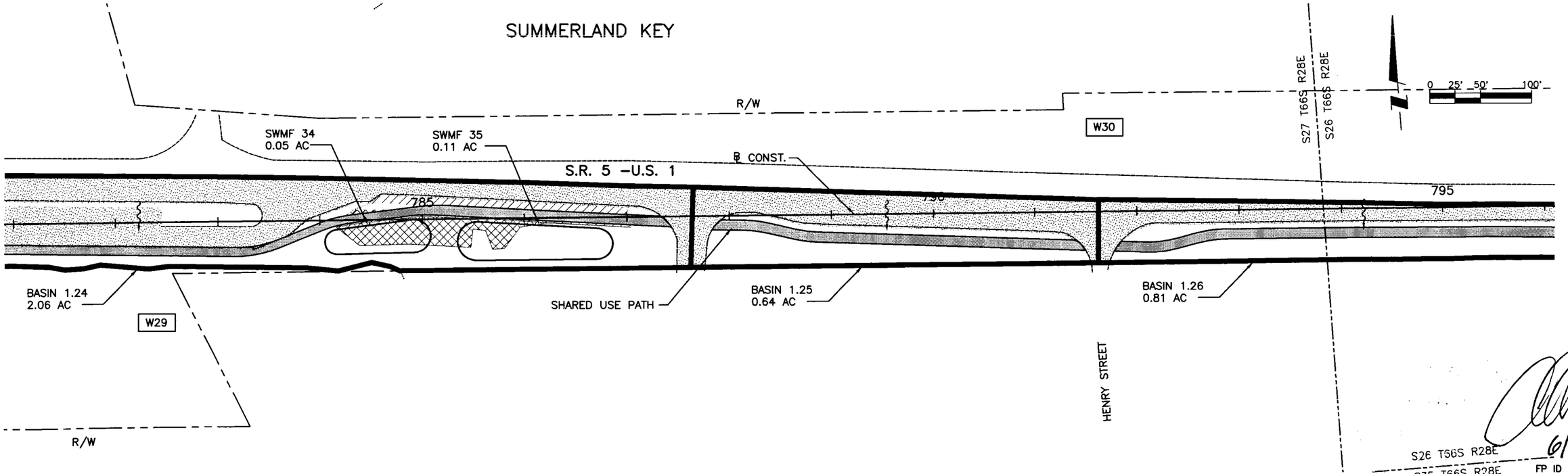
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

A/E/I NUMBER: B-04880--002

SHEET NUMBER: 13

May 29, 2009 – 14:42:37 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880-002--002-DrainageBasins.dwg





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DRAWN BY:	JGG/2031	01/09
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OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:

TITLE: DRAINAGE MAP
STATION 766+00 TO 796+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

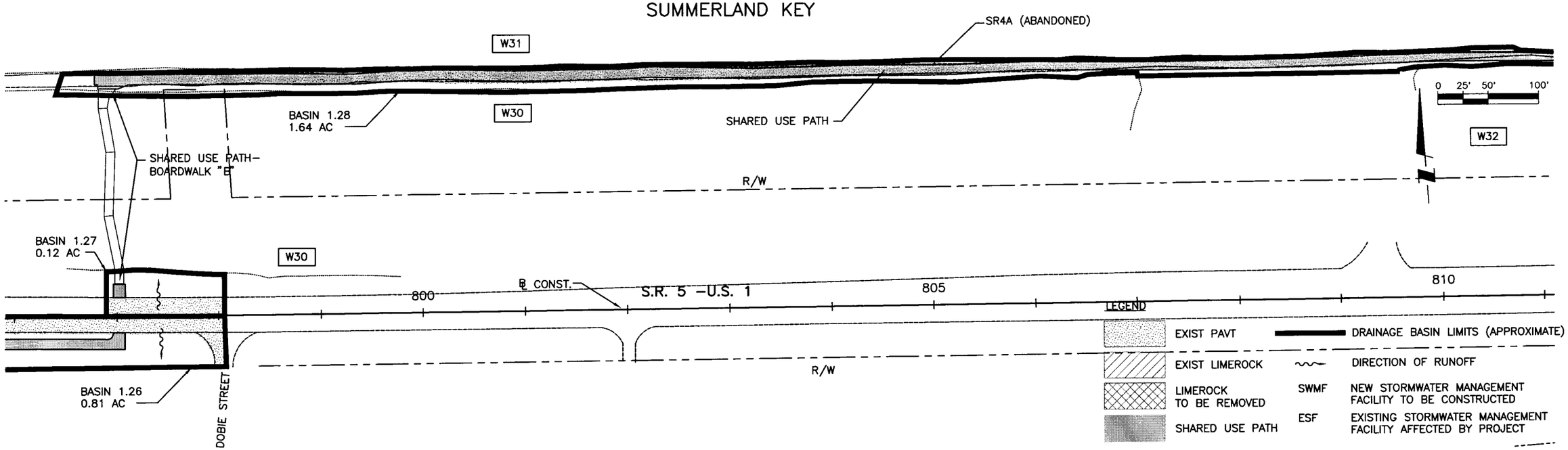
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 14

FP ID 405633-1
FDEP NO 6G020

Jun 09, 2009 - 09:17: JGERTH|X:\ENG\04880\002-Segment1\REV02\04880-002--002-DrainageBasins.dwg

SUMMERLAND KEY



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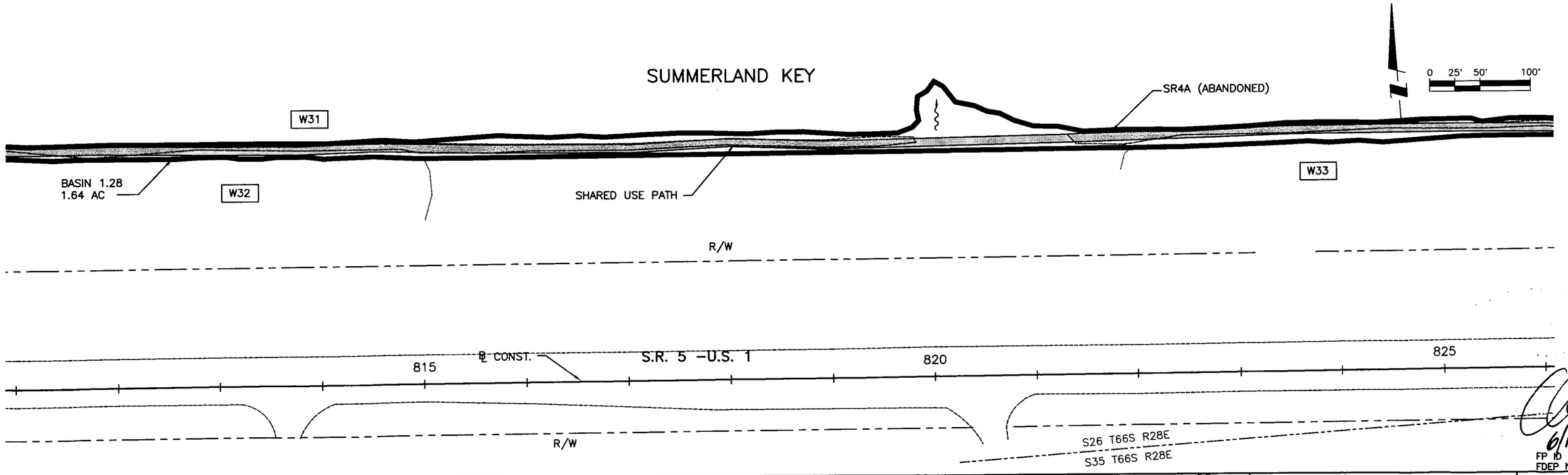

6/11/09

FP ID 405633-1
FDEP NO 6G020

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WM APPROVED BY:		

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PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC. TWP. RGE.
CROSS REFERENCE FILE NO.

TITLE: DRAINAGE MAP
STATION 796+00 TO 826+00

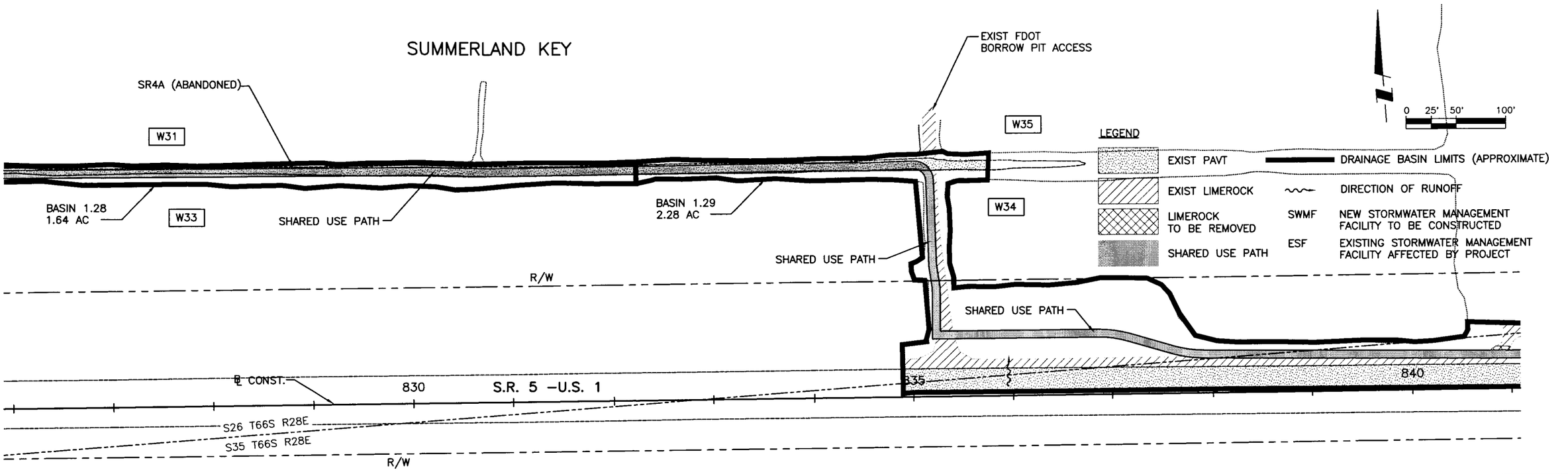
PROJECT NUMBER: 04880-002-000

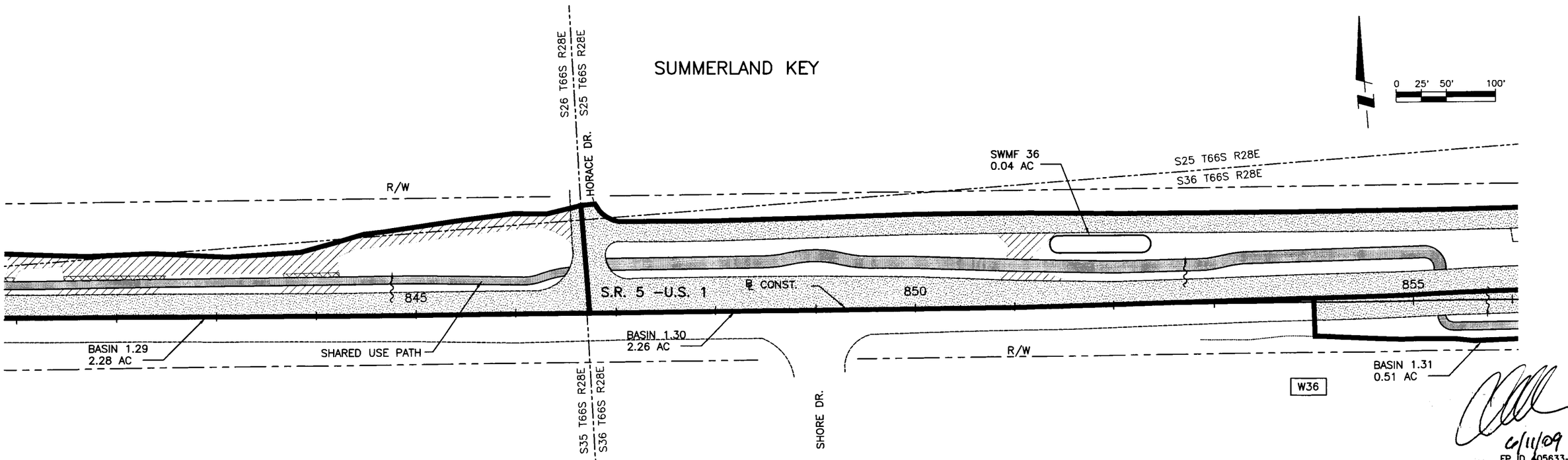
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002

SHEET NUMBER: 15

May 29, 2009 - 14:42:19 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880-002--002-DrainageBasins.dwg





6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
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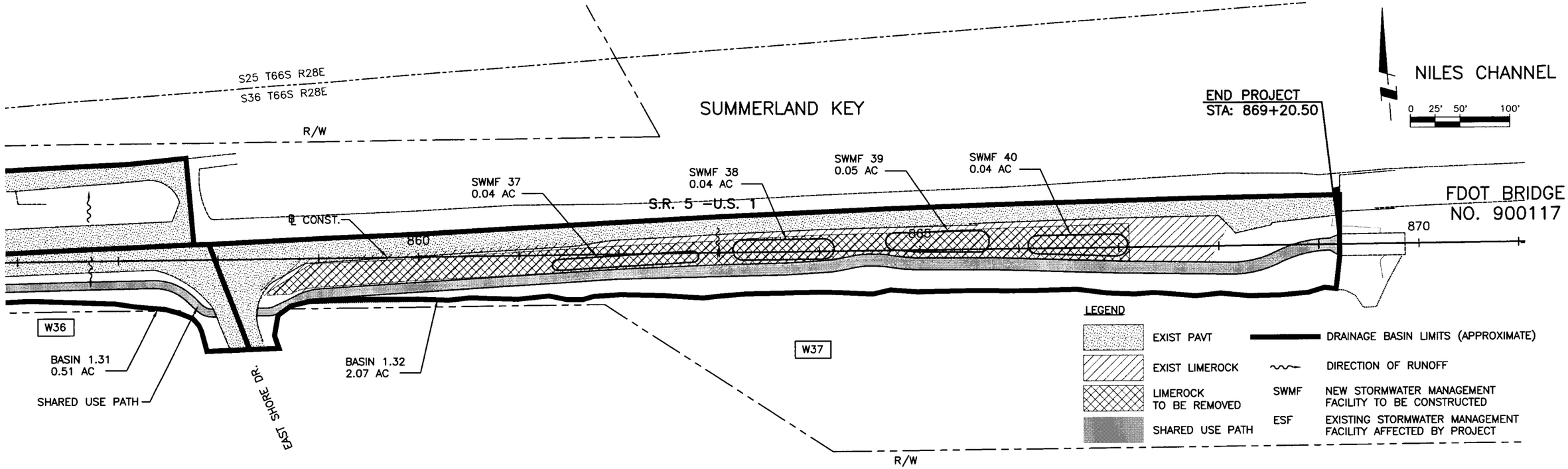
PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
DRAINAGE MAP
STATION 826+00 TO 856+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04680-002
SHEET NUMBER: 16

May 29, 2009 - 14:42:07 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880-002--002-DrainageBasins.dwg



6/11/09

FP ID 405633-1
FDEP NO 6G020

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CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: N/A
SEC: TWP: RGE:

TITLE:
DRAINAGE MAP
STATION 856+00 TO 869+20.50

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 17

May 29, 2009 - 14:41:6 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880-002--002-DrainageBasins.dwg

Item No.	Item Description	Unit	Quantity	Unit Cost (2008 $)	Cost
0101 1	MOBILIZATION	LS	1	$260,000.00	$260,000.00
0102 1	MAINTENANCE OF TRAFFIC	LS	1	$130,000.00	$130,000.00
0104 11	FLOATING TURBIDITY BARRIER	LF	350	$9.32	$3,262.00
0104 13 1	STAKED SILT FENCE, TYPE III	LF	19915	$1.68	$33,457.20
0110 1 1	CLEARING & GRUBBING	AC	13.72	$30,746.90	$421,847.47
0110 4	REMOVAL OF EXISTING CONCRETE PAVEMENT	SY	15	$12.05	$180.75
0120 1	REGULAR EXCAVATION	CY	5358	$12.34	$66,117.72
0120 6	EMBANKMENT	CY	4008	$19.96	$79,999.68
0160 4	STABILIZATION TYPE B	SY	48492	$2.56	$124,139.52
0162 1 11	PREPARED SOIL LAYER, FINISH SOIL 6"	SY	23988	$1.14	$27,346.32
0285 701	OPTIONAL BASE, BASE GROUP 01	SY	35844	$6.91	$247,682.04
0327 70 1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	10430	$3.82	$39,842.60
0334 1 11	SUPERPAVE ASPH. CONC. TRAFFIC A	TN	2545	$181.27	$461,332.15
0400 1 11	CONCRETE CLASS I, RETAINING WALLS	CY	802	$516.49	$414,224.98
0425 5	MANHOLE, ADJUST	EA	7	$452.64	$3,168.48
0430174201	PIPE CULV, OPT MATL, OTHER, 0-24"SD	LF	16	$80.36	$1,285.74
0430982625	MITERED END SECT, OPT - OTHER, 18" CD	EA	2	$2,231.19	$4,462.39
0515 2302	PED., BICYCLE RAILING, ALUM. ONLY,54"	LF	4465	$58.63	$261,782.95
0519 78	BOLLARDS	EA	79	$549.90	$43,442.10
0520 2 4	CONCRETE CURB, TYPE D	LF	200	$36.00	$7,200.00
0520 70	CONCRETE TRAFFIC SEPARATOR, SP- VAR WIDT	SY	236	$61.04	$14,405.44
0527 1	DETECTABLE WARNING ON WALKING SURFACE	EA	41	$546.75	$22,416.75
0536 1 1	GUARDRAIL - ROADWAY	LF	1843.5	$50.84	$93,723.54
0536 73	GUARDRAIL REMOVAL	LF	661	$11.84	$7,826.24
0536 85 22	GUARDRAIL END ANCHORAGE ASSEMBLY- FLARED	EA	11	$2,501.78	$27,519.58
0536 85 25	GUARDRAIL END ANCHORAGE ASSEM- TYPE II	EA	6	$1,656.67	$9,940.02
0570 1 1	PERFORMANCE TURF	SY	6579	$0.95	$6,250.05
0570 1 2	PERFORMANCE TURF, SOD	SY	23988	$2.50	$59,970.00
0700 20 11	SIGN SINGLE POST- LESS THAN 12	EA	74	$309.80	$22,925.20
0700 20 40	SIGN EXISTING- RELOCATE, SINGLE POST	EA	28	$238.26	$6,671.28
0705 11 1	DELINEATOR- TUBULAR, FLEXIBLE	EA	4	$102.04	$408.16
0710 11123	PAINTED PAVT MARK, STD, WHITE, SOLID 12"	LF	3034	$0.94	$2,851.96
0710 11125	PAINTED PAVT MARK, STD, WHITE, SOLID 24"	LF	84	$1.91	$160.44
0710 11160	PAINTED PAVT MARK, STD, WHITE, MESSAGE	EA	8	$46.45	$371.60
0710 11221	PAINTED PAVT MARK, STD, YELLOW, SOLID 6"	NM	0.4	$1,203.95	$481.58
0710 11223	PAINTED PAVT MARK, STD, YELLOW, SOLID 12"	LF	360	$1.31	$471.60
0999 50	TREE RELOCATION	EA	2	$500.00	$1,000.00
0999 60	TREKS BOARDWALK W/ 8" DIA PILES & NO HANDRAILS	SF	2328	$40.00	$93,120.00
0999 70	PRESSURE TREATED BOARDWALK W/ 4x6 PILES & HANDRAILS	SF	1807	$45.00	$81,315.00
0999 80	RELOCATE GATE	EA	1	$300.00	$300.00
	TOTAL OPINION OF COST 2008 DOLLARS				$2,908,167.52

6/11/09

FP ID 405633-1
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WilsonMiller, Inc.
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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: N/A
VERTICAL SCALE: N/A
SIZE: TWP: RGE:

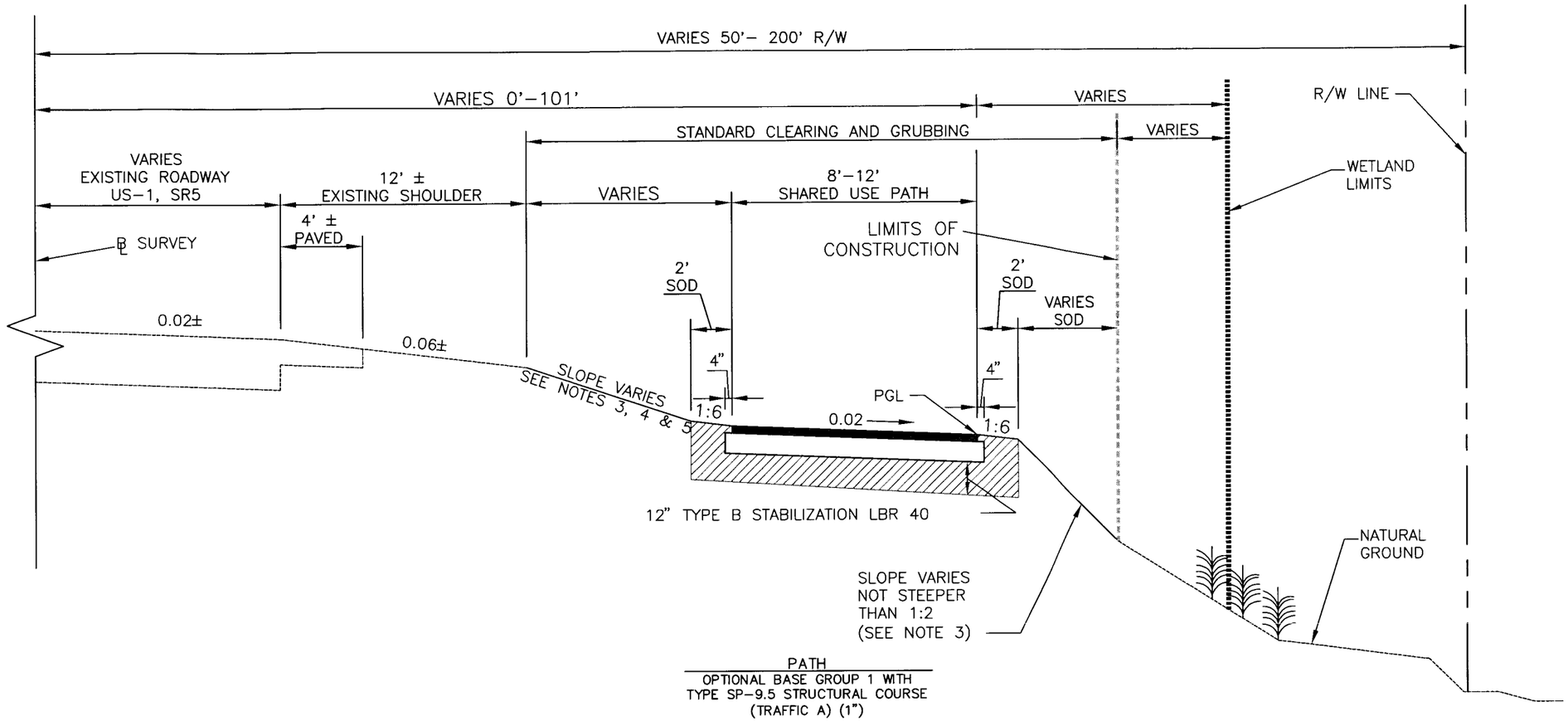
TITLE: SUMMARY OF PAY ITEMS

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 18

Jan 30, 2009 - 09:25:2 RRABION X:\ENG\04880\002-Segment1\Rev00\04880-002-SUMMARY_OF_PAY_ITEMS.dwg



TYPICAL SECTION SHARED USE PATH

NOTES:

1. THE DESIGN SPEED FOR SHARED USE PATHS IS 20 MPH.
2. THE DESIGN SPEED FOR SR5 IS 55 MPH. THE CLEAR ZONE EXTENDS TO 18' FROM THE EDGE OF THE TRAVEL LANE.
3. 1:6 DESIRED, 1:4 MAXIMUM WITHIN SR5 CLEAR ZONE.
4. TO MATCH GRADE AT EXISTING SHOULDER.
5. CONTRACTOR SHALL USE PERFORMANCE TURF WITHIN STANDARD CLEARING AND GRUBBING LIMITS WHERE SOD IS NOT SPECIFIED.

STATION LIMITS

STA 407+25.18 TO STA 414+20.00
STA 424+00.00 TO STA 427+02.51
STA 442+10.12 TO STA 448+57.21
STA 452+43.67 TO STA 459+75.39
STA 466+40.00 TO STA 474+00.00
STA 475+85.00 TO STA 488+00.00
STA 495+70.00 TO STA 500+40.22
STA 501+48.00 TO STA 501+70.00
STA 503+36.00 TO STA 503+60.92
STA 504+43.14 TO STA 504+82.08
STA 506+09.07 TO STA 506+20.75
STA 507+35.39 TO STA 509+70.65
STA 518+17.76 TO STA 521+04.83
STA 522+48.04 TO STA 522+76.08
STA 524+21.33 TO STA 524+48.72
STA 526+09.38 TO STA 526+31.62
STA 527+56.22 TO STA 531+60.00
STA 560+40.00 TO STA 563+48.00
STA 564+51.00 TO STA 566+36.79
STA 567+32.04 TO STA 568+80.00
STA 569+70.00 TO STA 571+07.00
STA 573+70.91 TO STA 573+96.81
STA 575+67.41 TO STA 576+00.00
STA 577+19.00 TO STA 578+25.47
STA 581+60.97 TO STA 582+67.09
STA 583+76.68 TO STA 585+25.04
STA 586+36.33 TO STA 586+69.77
STA 587+42.66 TO STA 587+63.84
STA 588+79.58 TO STA 592+49.89
STA 606+20.80 TO STA 608+72.00
STA 610+39.07 TO STA 610+76.29
STA 611+81.11 TO STA 612+36.14
STA 614+12.67 TO STA 614+48.03
STA 615+79.09 TO STA 635+88.00
STA 741+18.53 TO STA 741+49.46
STA 743+31.53 TO STA 743+41.71
STA 744+56.98 TO STA 745+13.00
STA 745+97.56 TO STA 746+25.55
STA 747+18.26 TO STA 756+94.00
STA 758+40.40 TO STA 759+53.02
STA 761+15.61 TO STA 767+22.81
STA 777+54.53 TO STA 780+00.00
STA 783+60.00 TO STA 784+00.00
STA 785+08.70 TO STA 785+34.08
STA 786+85.96 TO STA 797+07.51
STA 855+24.24 TO STA 861+32.56
STA 862+79.71 TO STA 863+13.26
STA 864+14.58 TO STA 864+66.09
STA 865+70.00 TO STA 866+09.38
STA 867+08.87 TO STA 869+20.50

6/11/09

FP ID 405633–1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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1441 Wakley Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone 850-878-5001 - Fax 850-878-5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC. TWP. RGE.

TITLE: TYPICAL SECTION

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880–002–000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B–04880–002
SHEET NUMBER: 19

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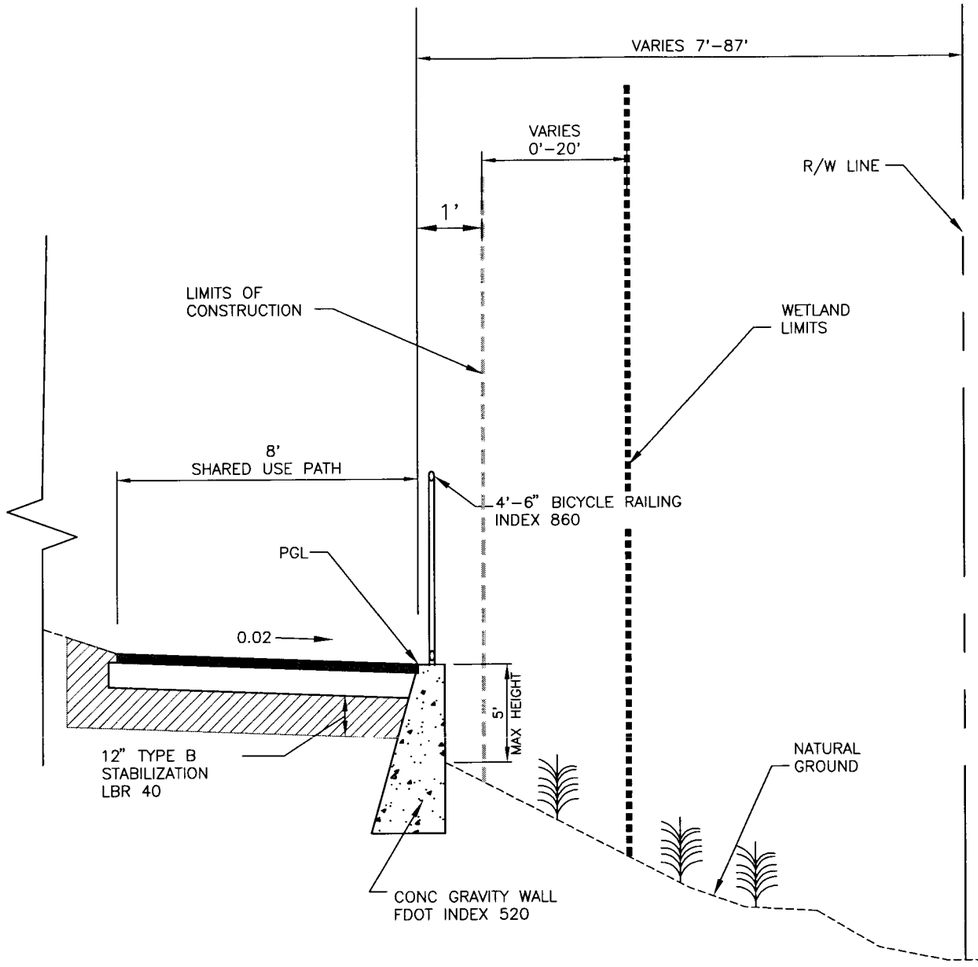
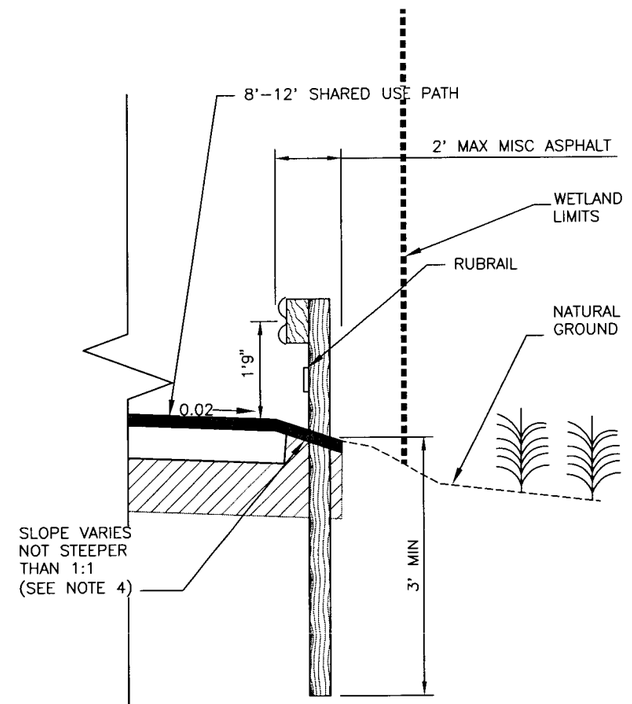


GRAVITY WALL DETAIL

STATION LIMITS

STA 414+20.00 TO STA 419+60.00
STA 430+40.00 TO STA 432+48.00
STA 433+15.00 TO STA 439+40.00
STA 474+00.00 TO STA 475+85.00
STA 488+00.00 TO STA 494+60.00
STA 539+00.00 TO STA 548+12.90
STA 550+93.74 TO STA 561+04.66
STA 563+48.00 TO STA 564+51.00
STA 576+00.00 TO STA 577+19.00
STA 780+00.00 TO STA 783+60.00



PATH

OPTIONAL BASE GROUP 1 WITH
TYPE SP-9.5 STRUCTURAL COURSE
(TRAFFIC A) (1")

NOTES:

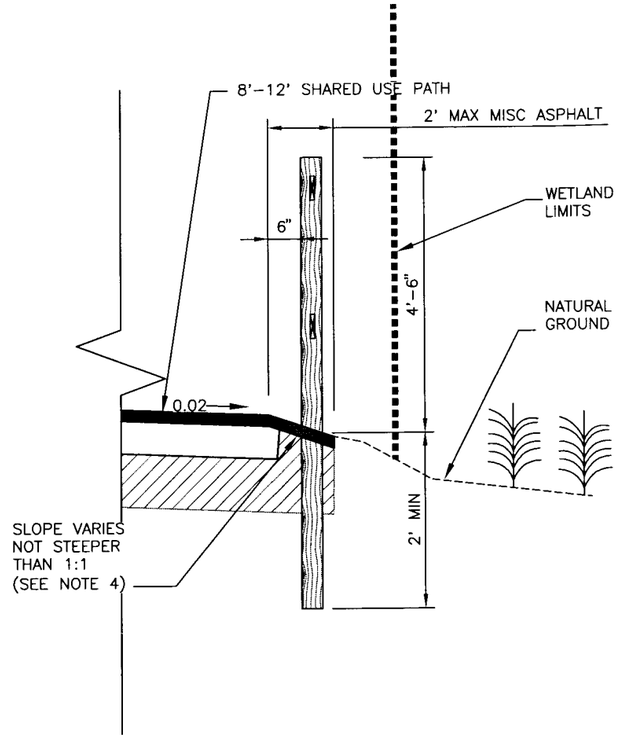
1. THE DESIGN SPEED FOR SHARED USE PATHS IS 20 MPH
2. CLEAR ZONE EXTENDS TO 18' FROM THE EDGE OF THE TRAVEL LANE.
3. 1:6 DESIRED, 1:4 MAXIMUM WITHIN SR5 CLEAR ZONE.
4. SIDE SLOPE WILL VARY WHERE GUARDRAIL IS UTILIZED. MINIMUM DISTANCE FROM EDGE OF SHARED USE PATH TO POINT WHERE SIDE SLOPE MEETS EXISTING GRADE IS 2 FEET. MAXIMUM SLOPE 1:1. LIMITS OF CONSTRUCTION SHALL NOT ENCROACH INTO WETLANDS.

GUARDRAIL DETAIL

FDOT INDEX 400

STATION LIMITS

STA 419+60.00 TO STA 423+41.17
STA 427+02.51 TO STA 430+40.00
STA 549+53.20 TO STA 549+77.40



WOODEN POST & RAIL FENCE

STATION LIMITS

STA 439+40.00 TO STA 442+10.12
STA 494+60.00 TO STA 495+70.00
STA 531+60.00 TO STA 539+00.00
STA 568+80.00 TO STA 569+70.00
STA 576+00.00 TO STA 577+19.00

6/16/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC. TWP. RGE.

TITLE: TYPICAL SECTION

CROSS REFERENCE FILE NO.

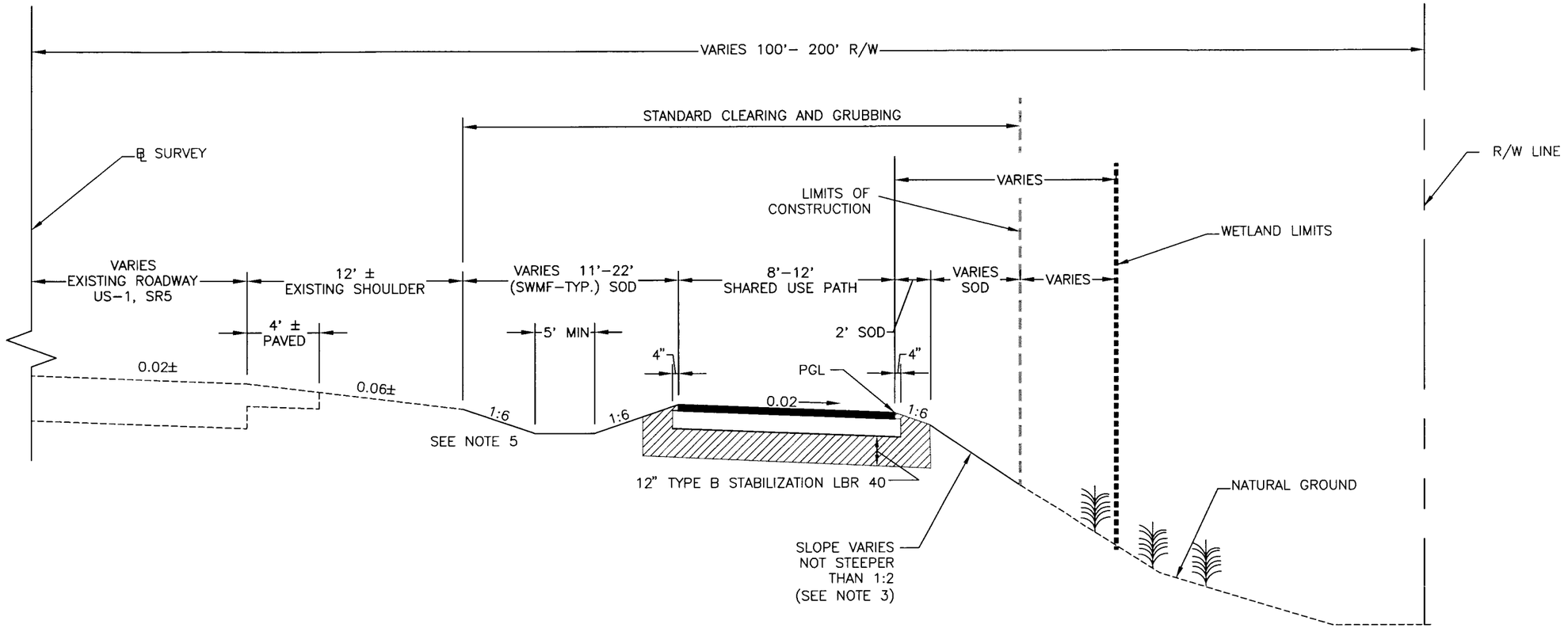
PROJECT NUMBER: 04880-002-000

INDEX NUMBER: 9-04880-002

SHEET NUMBER: 20

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

May 29, 2009 -- 15:23:36 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880-002-020-TYPICALSECTION.dwg



PATH

OPTIONAL BASE GROUP 1 WITH
TYPE SP–9.5 STRUCTURAL COURSE
(TRAFFIC A) (1")

NOTES:

1. THE DESIGN SPEED FOR SHARED USE PATHS IS 20 MPH.
2. CLEAR ZONE EXTENDS TO 18' FROM THE EDGE OF TRAVEL LANE.
3. 1:6 DESIRED, 1:4 MAXIMUM WITHIN SR5 CLEAR ZONE.
4. HIGH SIDE OF TRAIL TO BE AT LEAST 1' BELOW EDGE OF US–1 TRAVEL LANE ELEVATION.
5. TO MATCH GRADE AT EXISTING SHOULDER.

TYPICAL SECTION SHARED USE PATH

STATION LIMITS

STA 521+04.83 TO STA 522+48.04
STA 522+76.08 TO STA 524+21.33
STA 524+48.72 TO STA 526+09.38
STA 526+31.62 TO STA 527+56.22
STA 585+25.04 TO STA 586+36.33
STA 586+69.77 TO STA 587+42.66
STA 587+63.84 TO STA 588+79.58
STA 608+72.00 TO STA 610+39.07
STA 610+76.29 TO STA 611+81.11
STA 612+36.14 TO STA 614+12.67
STA 614+48.03 TO STA 615+79.09
STA 741+49.46 TO STA 743+31.53
STA 743+41.71 TO STA 744+56.98
STA 745+13.00 TO STA 745+97.56
STA 746+25.55 TO STA 747+18.26
STA 756+94.00 TO STA 758+40.40
STA 759+53.02 TO STA 761+15.61
STA 861+32.56 TO STA 862+79.71
STA 863+24.33 TO STA 864+26.00
STA 864+66.09 TO STA 865+70.00
STA 866+09.38 TO STA 867+08.87

4/11/09

FP ID 405633–1
FDEP NO 6G020

△REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE:

TITLE: TYPICAL SECTION

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880–002–000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B–04880–002
SHEET NUMBER: 21

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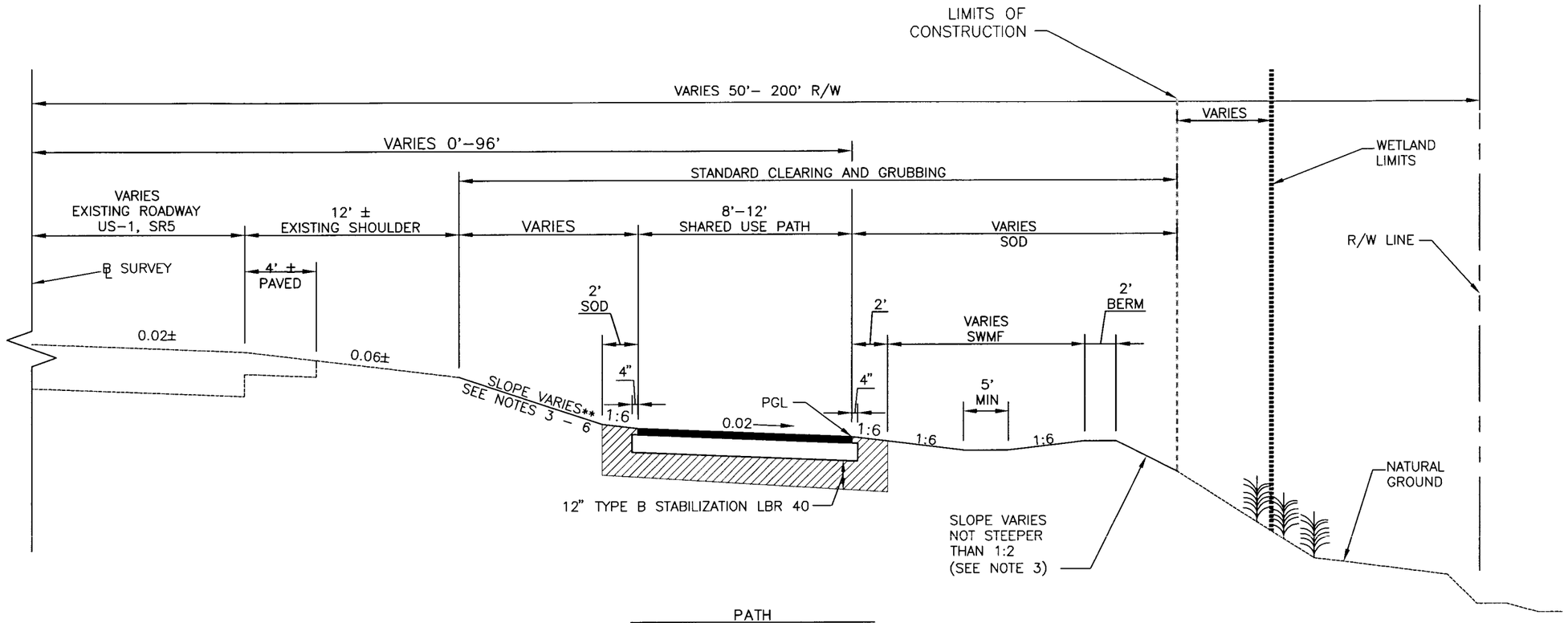

PATH
OPTIONAL BASE GROUP 1 WITH
TYPE SP–9.5 STRUCTURAL COURSE
(TRAFFIC A) (1")

NOTES:

1. THE DESIGN SPEED FOR SHARED USE PATHS IS 20 MPH.
2. CLEAR ZONE EXTENDS 18' FROM THE EDGE OF THE TRAVEL LANE.
3. 1:6 DESIRED, 1:4 MAXIMUM WITHIN SR5 CLEAR ZONE.
4. HIGH SIDE OF TRAIL TO BE AT LEAST 1' BELOW EDGE OF US–1 TRAVEL LANE ELEVATION.
5. TO MATCH GRADE AT EXISTING SHOULDER.
6. CONTRACTOR SHALL USE PERFORMANCE TURF WITHIN STANDARD CLEARING AND GRUBBING WHERE SOD IS NOT SPECIFIED.

TYPICAL SECTION SHARED USE PATH

STATION LIMITS

STA 498+46.94 TO STA 500+12.17
STA 500+40.22 TO STA 501+48.00
STA 501+70.00 TO STA 503+36.00
STA 503+60.92 TO STA 504+43.14
STA 504+82.08 TO STA 506+09.07
STA 506+20.75 TO STA 507+35.39
STA 566+36.79 TO STA 567+32.04
STA 571+07.00 TO STA 573+70.91
STA 573+96.81 TO STA 575+67.41
STA 578+25.47 TO STA 581+60.97
STA 582+67.09 TO STA 583+76.68
STA 784+00.00 TO STA 785+08.70
STA 785+34.08 TO STA 786+85.96

6/11/09

FP ID 405633–1
FDEP NO 6G020

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880–002–000

TITLE: TYPICAL SECTION

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B–04880–002
SHEET NUMBER: 22

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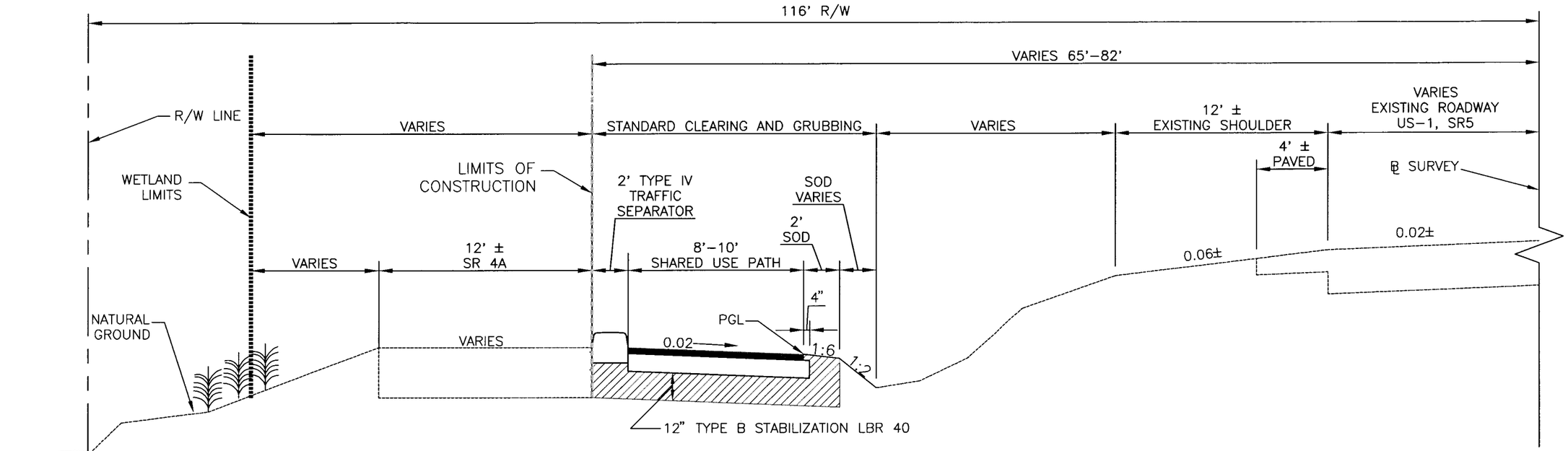

PATH
OPTIONAL BASE GROUP 1 WITH
TYPE SP-9.5 STRUCTURAL COURSE
(TRAFFIC A) (1")

NOTES:

1. THE DESIGN SPEED FOR SHARED USE PATHS IS 20 MPH.

TYPICAL SECTION SHARED USE PATH

STATION LIMITS
STA 642+86.00 TO STA 644+60.00
STA 645+82.00 TO STA 657+97.00
STA 658+56.00 TO STA 664+20.00
STA 668+40.00 TO STA 668+80.00

6/11/09

FP ID 405633-1
FDEP NO 6G020

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS
PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE: TYPICAL SECTION

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 23

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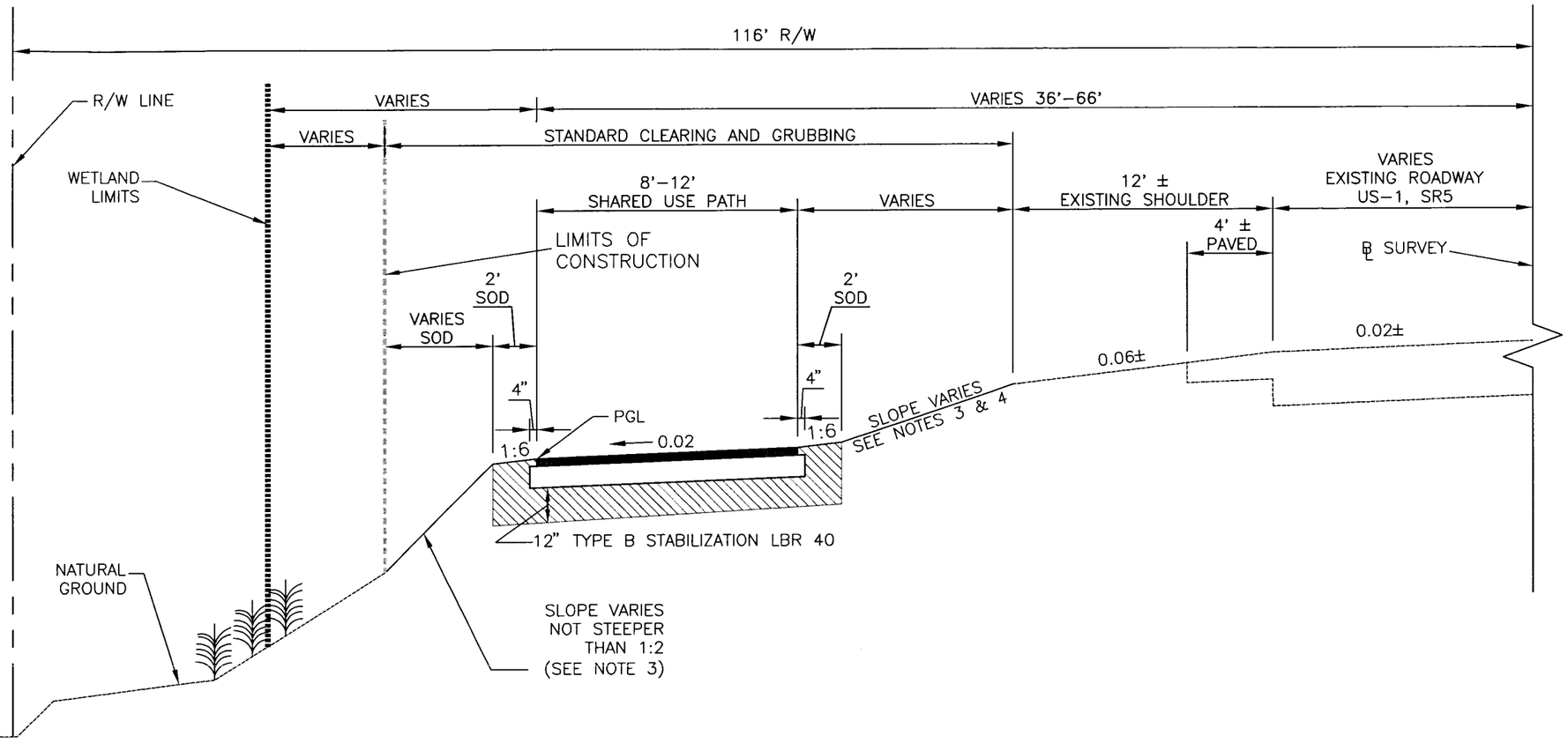

PATH
OPTIONAL BASE GROUP 1 WITH
TYPE SP-9.5 STRUCTURAL COURSE
(TRAFFIC A) (1")

NOTES:

1. THE DESIGN SPEED FOR SHARED USE PATHS IS 20 MPH.
2. CLEAR ZONE EXTENDS TO 18' FROM THE EDGE OF THE TRAVEL LANE.
3. 1:6 DESIRED, 1:4 MAXIMUM WITHIN SR5 CLEAR ZONE.
4. TO MATCH GRADE AT EXISTING SHOULDER
5. CONTRACTOR SHALL USE PERFORMANCE TURF WITHIN STANDARD CLEARING AND GRUBBING WHERE SOD IS NOT SPECIFIED.

TYPICAL SECTION SHARED USE PATH

STATION LIMITS
STA 835+27.18 TO STA 855+24.24

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE: CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE: TYPICAL SECTION

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 24

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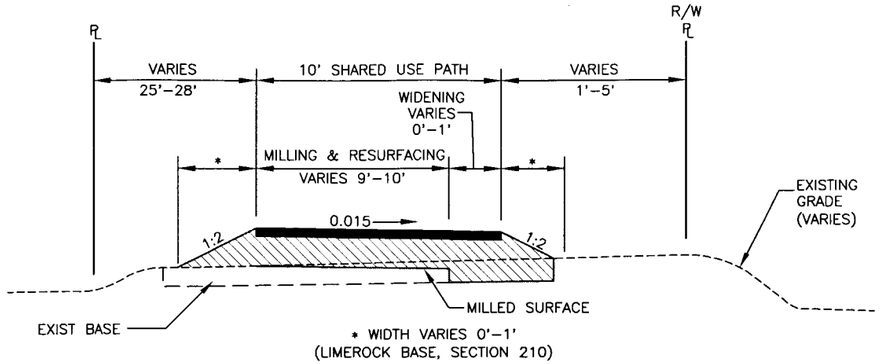
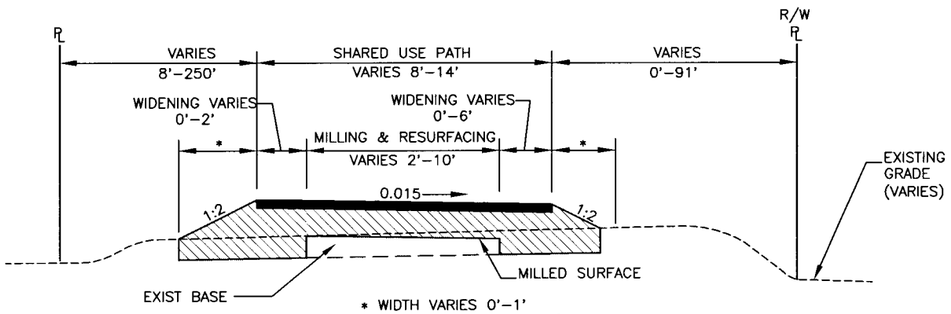


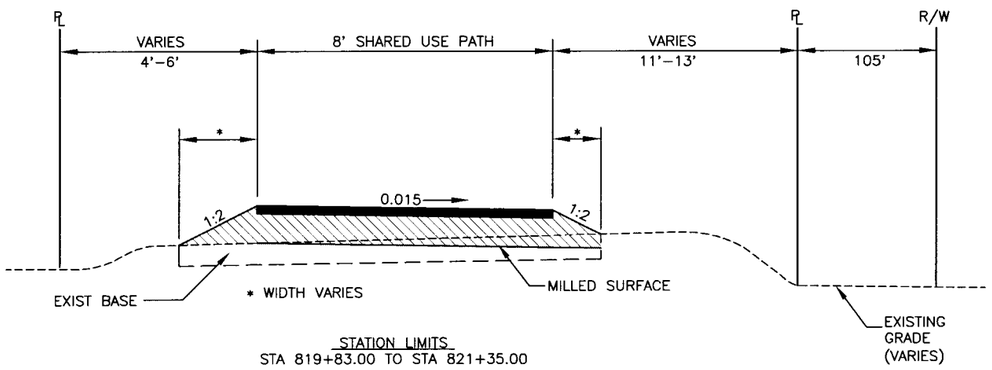
* WIDTH VARIES 0'–1'
(LIMEROCK BASE, SECTION 210)

STATION LIMITS
STA 627+02.00 TO STA 642+99.00

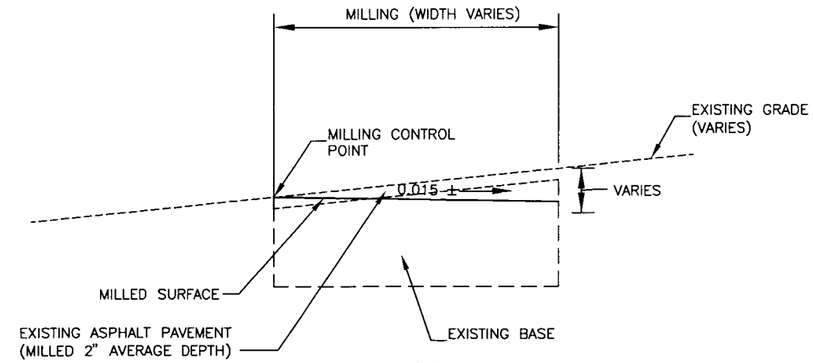


* WIDTH VARIES 0'–1'
(LIMEROCK BASE, SECTION 210)

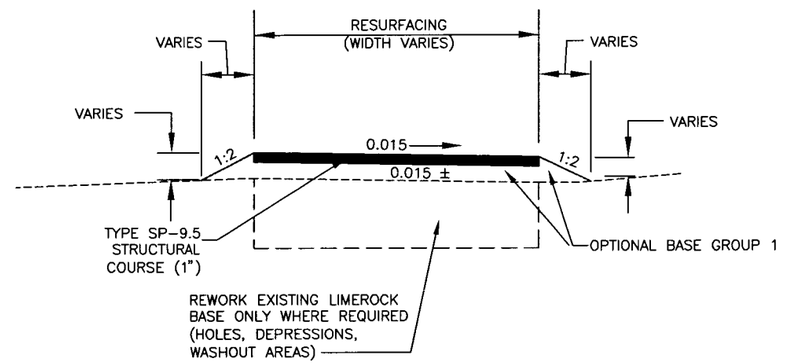
STATION LIMITS
STA 669+00.00 TO STA 721+08.00
STA 724+98.00 TO STA 727+37.00
STA 728+38.50 TO STA 744+95.50
STA 796+80.00 TO STA 819+83.00
STA 821+35.00 TO STA 835+06.00



STATION LIMITS
STA 819+83.00 TO STA 821+35.00



MILLING DETAIL
NTS



RESURFACING DETAIL
NTS

MILLING
MILL EXISTING ASPHALT PAVEMENT (2" AVG. DEPTH)

RESURFACING
OPTIONAL BASE GROUP 4 WITH
TYPE SP–9.5 STRUCTURAL COURSE
(TRAFFIC A) (1")

WIDENING
OPTIONAL BASE GROUP 4 WITH
TYPE SP–9.5 STRUCTURAL COURSE
(TRAFFIC A) (1")

NOTE: SEE MILLING AND RESURFACING DETAILS FOR MORE INFORMATION.

6/11/09

FP ID 405633–1
FDEP NO 6G020

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

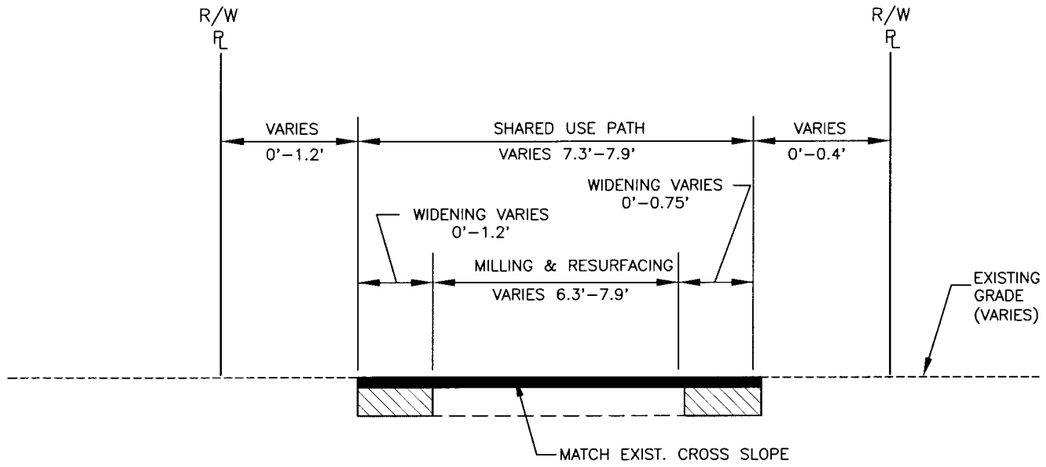
DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880–002–000

TITLE: TYPICAL SECTIONS; SHARED USE PATH ON ABANDONED SR4A

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B–04880–002
SHEET NUMBER: 25

Jun 10, 2009 – 16:55:15 JGERTH X:\ENG\04880\002–Segment1\REV02\04880–002–0XX–TYPICALSECTION–SR4A.dwg



STATION LIMITS
STA 721+08.00 TO STA 723+70.00

MILLING
MILL EXISTING ASPHALT PAVEMENT
(1" AVG DEPTH)

RESURFACING
TYPE SP–9.5 STRUCTURAL COURSE
(TRAFFIC A) (1")

WIDENING
OPTIONAL BASE GROUP 1 WITH
TYPE SP–9.5 STRUCTURAL COURSE
(TRAFFIC A) (1")

6/11/09

FP ID 405633–1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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FL Lic.# LC–C000170 · Certificate of Authorization #43
WilsonMiller, Inc.
1441 Wesley Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone: 850–878–5001 - Fax 850–878–5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE:

TITLE: TYPICAL SECTIONS; SHARED USE PATH ON ABANDONED SR4A

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880–002–000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B–04880–002
SHEET NUMBER: 26

Jun 10, 2009 – 16:55:21 JGERTH X:\ENG\04880\002–Segment1\REV02\04880–002–0XX–TYPICALSECTION–SR4A.dwg

UTILITY DESCRIPTION	STATION	OFFSET	COMMENTS	UTILITY COMPANY	SURVEYED ELEVATION	PROPOSED ELEVATION
Utility Pole	419+82	31' R	Coordinate push brace relocation with owner	AT&T	--	--
Telephone Vault/ MH	424+60	26' R	Adjustment required - ADA MH cover required	BST	5.86	5.91
Telephone Vault/ MH	430+24	25' R	Adjustment required - ADA MH cover required	BST	6.13	5.96
Water Valve	432+64	25' R	Adjustment required	FKAA	--	5.44
Telephone Vault/ MH	435+90	25' R	Adjustment required - ADA MH cover required	BST	5.49	4.54
Telephone Vault/ MH	442+29	32' R	Adjustment required	BST	5.67	5.90
Telephone Vault/ MH	448+73	27' R	No adjustment required	BST	--	--
Telephone Vault/ MH	452+26	25' R	No adjustment required	BST	--	--
Telephone Vault/ MH	473+86	24' R	Adjustment required - ADA MH cover required	BST	6.46	6.23
Telephone Vault/ MH	481+24	24' R	Adjustment required - ADA MH cover required	BST	6.51	5.99
Conc Pad	570+54	28' R	No adjustment required	FKAA	--	--
Water Valve	570+80	31' R	Adjustment required	FKAA	--	--
Water Main (24")	572+00 to 578+40	varies (see plans)	No adjustment required	FKAA	--	--
Water Valve	578+40	33' R	Adjustment required	FKAA	--	--
Water Main (24")	581+54	varies (see plans)	No adjustment required - ADA MH cover required	FKAA	--	--
Water Main (24")	585+25 to 586+37	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	586+70 to 587+42	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	587+62 to 588+80	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	609+77 to 610+40	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	610+80 to 611+80	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	612+40 to 614+10	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	614+50 to 615+80	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	616+00 to 619+60	varies (see plans)	No adjustment required	FKAA	--	--
Water Valve	619+00	14' R	Adjustment required	FKAA	--	--
Conc Pad	619+15	12' R	Adjustment required	FKAA	7.17	7.76
Water Main (24")	627+00	36' R	No adjustment required	FKAA	--	--
Water Main (8")	643+20 to 658+07	varies (see plans)	No adjustment required	FKAA	--	--
Water Valve	645+90	82' L	Adjustment required	FKAA	3.32	3.49
Water Main (8")	666+25 to 667+80	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (8")	727+58	58' L	No adjustment required	FKAA	--	--
Water Valve	741+25	90' R	Adjustment required	FKAA	--	--
Water Main (6")	741+20 to 747+00	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	746+07	34' R	No adjustment required	FKAA	--	--
Water Main (24")	747+80 to 751+00	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	751+80 to 755+46	varies (see plans)	No adjustment required	FKAA	--	--
Concrete Pad	752+50	21' R	Match trail profile to vault	FKAA	--	--
Water Vault	752+73	22' R	Match trail profile to vault	FKAA	--	--
Water Main (24")	756+95 to 758+43	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	759+55 to 761+15	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	784+22 to 788+60	7' L	No adjustment required	FKAA	--	--
Water Main (4")	791+44 to 792+40	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	793+60 to 797+89	varies (see plans)	No adjustment required	FKAA	--	--
Valve box	793+70	31' R	No adjustment required - ADA MH cover required	FKAA	--	--
Transmission vault	794+00	27' R	No adjustment required - ADA MH cover required	FKAA	--	--

UTILITY DESCRIPTION	STATION	OFFSET	COMMENTS	UTILITY COMPANY	SURVEYED ELEVATION	PROPOSED ELEVATION
Utility pole	848+60	48' L	Relocate pole	AT&T	--	--
Water Main (8")	848+96 to 851+00	54' L	No adjustment required	FKAA	--	--
Water Main (4")	851+30 to 852+40	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (4")	853+09 to 855+40	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	854+90 to 857+30	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	862+20 to 862+80	varies (see plans)	No adjustment required	FKAA	--	--
Water Main (24")	863+10 to 868+00	varies (see plans)	No adjustment required	FKAA	--	--
Electrical MH	867+33	15' R	Adjustment required - ADA MH cover required	KES	13.30	12.87

6/11/09

FP ID 405633-1
FDEP NO 6G020

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DRAWN BY:	JGG/2031	01/09
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CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE:
VERTICAL SCALE:
SEC: TWP: RGE:

TITLE: UTILITY ADJUSTMENTS

CROSS REFERENCE FILE NO:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 27

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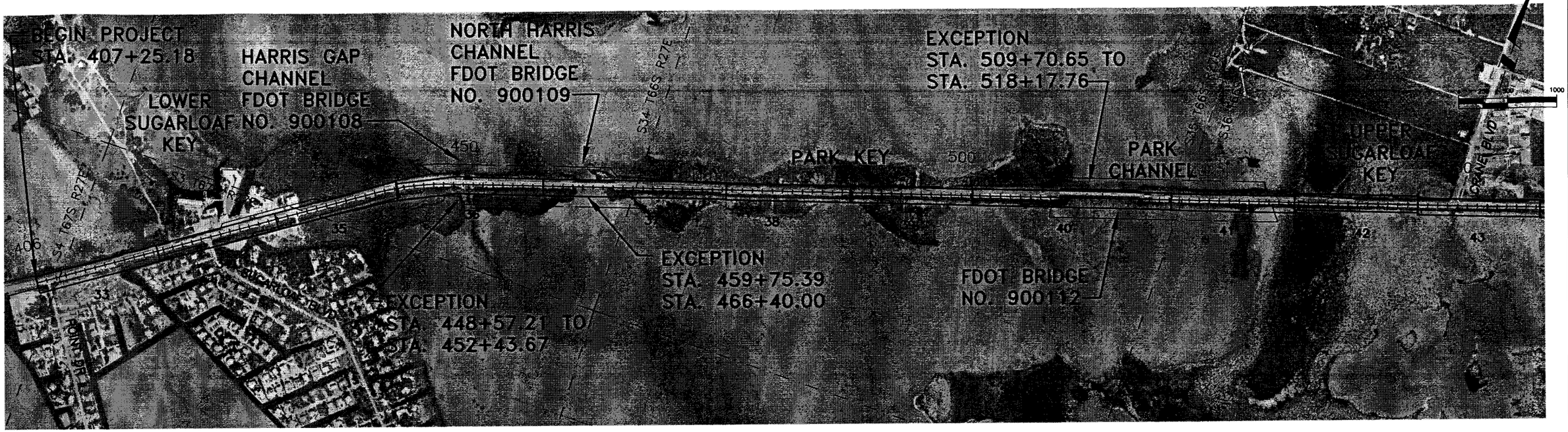

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OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC. TWP. RGE.

TITLE: PROJECT LAYOUT

CROSS REFERENCE FILE NO.:

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002

SHEET NUMBER: 28

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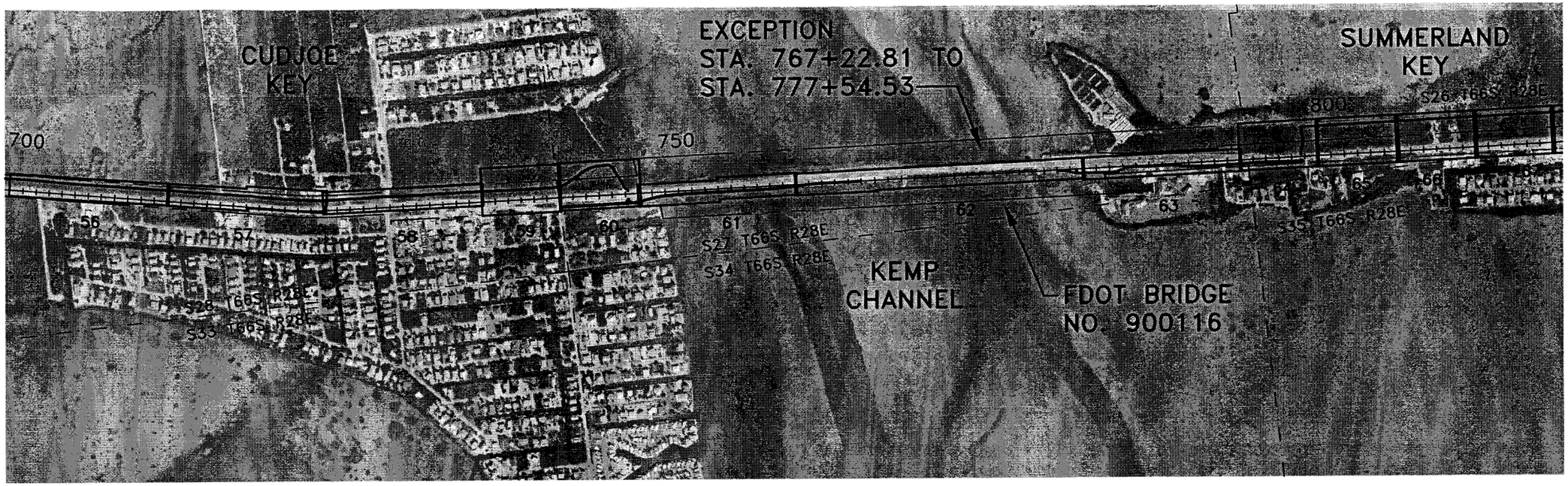

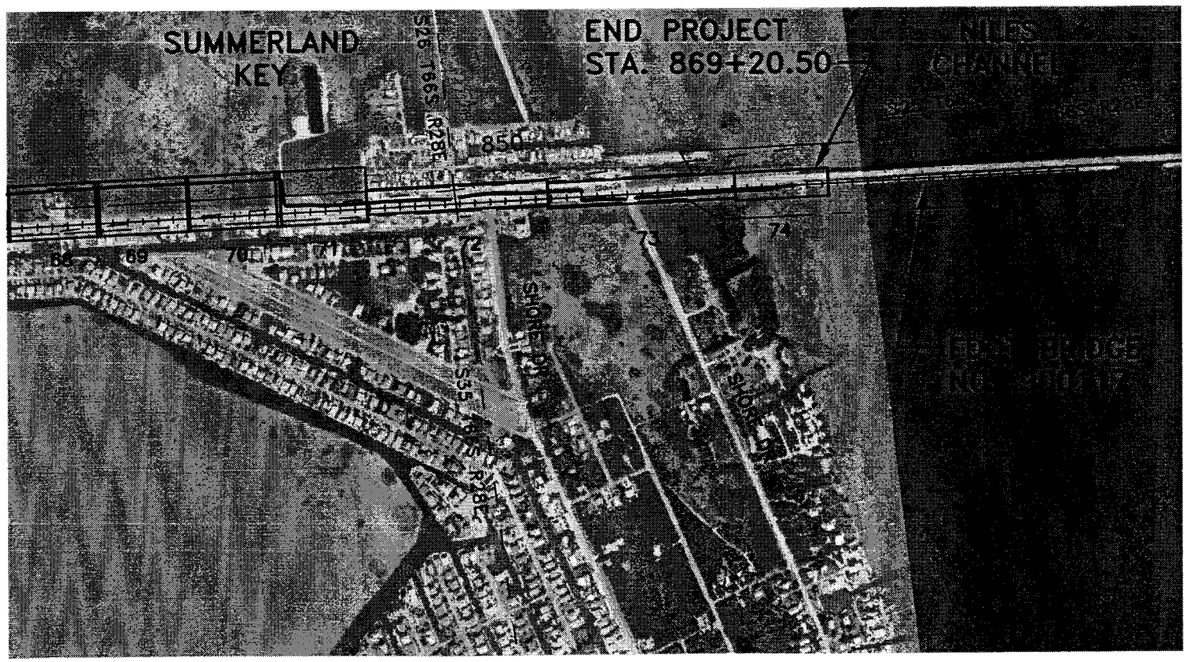

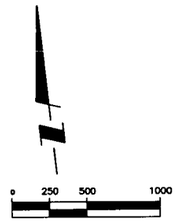

6/11/09

FP ID 405633-1
FDEP NO 6G020

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LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC. TWP. RGE:

TITLE: PROJECT LAYOUT

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 29

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STANDARD SYMBOLS FOR PLAN SHEETS

- Section
- Line Right Of Way (R/W)
- Lane Lines (6" White)
- Guardrail
- Edge of Pavement
- Limerock
- (VL) Vegetation Line
- Wetland Boundary (WETLAND BNDRY)
- (TOB) Top of Bank
- (TOS) Toe of Slope
- Fence
- (Riprap) Existing Riprap
- Lot Line
- Baseline of Construction
- Denotes Mill and Resurface
- Denotes Limerock To Be Removed
- Proposed Shared Use Path (FKOHT)
- Limits of Construction for Project
- Proposed Stormwater Management Facility
- Proposed Fence
- Proposed Silt Fence (Installed Along or Adjacent to Limits of Construction for Project)
- Proposed Turbidity Curtain
- Proposed Boardwalk (FKOHT)

NOTE:

1. ON PLAN SHEETS, PROPOSED SILT FENCE IS INDICATED USING THE LINETYPE/SYMBOLOGY INDICATED ABOVE ONLY IN CERTAIN LOCATIONS. OTHERWISE, LOCATIONS WHERE SILT FENCE IS NECESSARY ARE INDICATED BY LEADER TEXT SPECIFYING THE BEGINNING AND ENDING OF SILT FENCE SEGMENTS. THE SILT FENCE WILL BE INSTALLED ALONG THE PROJECT LIMITS OF CONSTRUCTION (LOC) FOR THESE SEGMENTS.

- SHW Elev. X.X — Seasonal High Water Elevation in Feet NGVD
- MHT Elev. X.X — Mean High Tide Elevation in Feet NGVD
- SWMF1 — Proposed Stormwater Management Facility Identification Code
- W1 — Wetland Identification Code
- HH — Hand Hole
- Electric Panel
- E — Electric Manhole
- Concrete Utility Pole
- Concrete Utility Pole/wide base
- Anchor
- T — Telephone Riser
- T — Telephone Manhole
- Utility Pole
- Anchor Pole
- Sign
- Mile Marker
- XX" — Palm Tree (with DBH in inches)
- XX" — Tree (with DBH in inches)
- XX.X — Proposed Elevation
- XX.XX — Proposed Pavement Elevation
- MB — Mailbox
- Water Gate Valve
- Water Meter
- Water Fire Hydrant
- Traffic Light Pole
- Light Pole
- TC — Traffic Control Box
- P — Wood Piling
- OM4-1 — END OF ROAD OR OBJECT MARKER MARKER SIGN WITH MUTCD IDENTIFIER
- OM2-2V — TYPE II OBJECT MARKER SIGN WITH MUTCD IDENTIFIER
- Pavement Markings
- D# / ## — DETAIL BUBBLE, TOP NUMBER INDICATES DETAIL NUMBER, BOTTOM NUMBER INDICATES THE SHEET NUMBER FOR THE DETAIL DRAWINGS
- LOC — LIMITS OF CONSTRUCTION

WETLAND STRUCTURAL BUFFER PLANTINGS

Green Buttonwood (Conocarpus erectus)
3 Gal. Stock (1042 total)
Spacing: 10' (Approx.) Linear

MITIGATION PLANTINGS FOR VEGETATION (MANGROVE) TRIMMING

Green Buttonwood (Conocarpus erectus)
7 Gal. Stock (25 total)

6/11/09

FP ID 405633-1
FDEP NO 6G020

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS
PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: N/A
VERTICAL SCALE: N/A
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-003-000

TITLE: STANDARD SYMBOLS

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 58859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 30

Jun 01, 2009 - 09:34:49 JGERTH X:\ENG\04880\002-Segment1\REV02\04880-002-025-Symbols.dwg

GENERAL NOTES:

1. THE BENCHMARK DATUM USED FOR THIS PROJECT IS NGVD 1929.

2. EXISTING DRAINAGE STRUCTURES AND STORMWATER MANAGEMENT FACILITIES WITHIN THE CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.

3. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHOULD NOTIFY THE DISTRICT LOCATION SURVEYOR AND THE PROJECT ENGINEER, WITHOUT DELAY, BY TELEPHONE.

4. VARIOUS ABBREVIATIONS MAY BE USED IN THE PROJECT PLAN SET THAT ARE NOT IDENTIFIED ON THE STANDARD SYMBOLS SHEET. SOME OF THESE INCLUDE: FKOHT = FLORIDA KEYS OVERSEAS HERITAGE TRAIL; DEP/OGT = FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF GREENWAYS AND TRAILS; FDOT = FLORIDA DEPARTMENT OF TRANSPORTATION; SFWMD = SOUTH FLORIDA WATER MANAGEMENT DISTRICT; USACE = U.S. ARMY CORPS OF ENGINEERS; FWS = U.S. FISH AND WILDLIFE SERVICE; FWC = FISH AND WILDLIFE CONSERVATION COMMISSION.

5. CERTAIN TREES ARE DESIGNATED TO BE SAVED AND PROTECTED BY THE CONTRACTOR. IT IS ASSUMED THESE TREES ARE HEALTHY AND EXPECTED TO BE RETAINED AS PART OF THE PROJECT LANDSCAPING. THEREFORE, IF ANY SUCH TREE(S) ARE DAMAGED BY CONSTRUCTION OPERATIONS OR BY OTHER MEANS (EXCLUDING LIGHTING, WINDSTORM AND OTHER ACTS OF GOD) AND PERISHES WITHIN THE CONSTRUCTION PERIOD, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE AND DISPOSE OF THOSE TREES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REPLACING SAID TREE(S) AND ENSURING ITS SURVIVAL FOR AT LEAST ONE YEAR FOLLOWING INSTALLATION. NO ADDITIONAL COMPENSATION SHALL BE MADE BY DEP/OGT FOR THE LABOR, MATERIAL, OR MACHINERY REQUIRED TO REMOVE OR REPLACE SAID TREE(S).

6. WHERE EXCAVATIONS ARE IN CLOSE PROXIMITY OF TREES. CONTRACTOR SHALL USE EXTREME CARE TO NOT DAMAGE THE ROOT SYSTEM. NO EQUIPMENT, SUPPLIES, OR VEHICLES SHALL BE STORED OR PARKED WITHIN THE DRIP LINE OF TREES TO REMAIN AND BE PRESERVED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ALL OF HIS EMPLOYEES AND SUBCONTRACTORS OF THIS REQUIREMENT AND TO ENFORCE SAME.

7. ALL PROPOSED NON-PAVED GROUND ELEVATIONS ASSOCIATED WITH CONSTRUCTION OF THE FKOHT AND PROJECT STORMWATER MANAGEMENT FACILITIES ARE FINISHED SOD ELEVATIONS UNLESS OTHERWISE INDICATED IN THESE PLANS. FINISH EARTHWORK GRADING SHALL BE 0.2 FEET BELOW ELEVATIONS SHOWN FOR SUCH AREAS TO ALLOW FOR SOD THICKNESS.

8. NOTIFY "SUNSHINE STATE ONE CALL (1-800-432-4770)", COMCAST CABLE, FLORIDA KEYS AQUEDUCT AUTHORITY, KEYS ENERGY SERVICES, BELL SOUTH AND ANY OTHER UTILITIES (GAS COMPANIES, ETC.) PRIOR TO CONSTRUCTION OPERATION AND PRIOR TO ANY CONNECTION TO EXISTING UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT EXISTING UTILITIES FROM DAMAGE

9. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN AN APPROVED MANNER. ANY WELLS DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE MONROE COUNTY HEALTH DEPARTMENT, WITHIN 24 HOURS AFTER DISCOVERY IS MADE.

10. THE CONTRACTOR SHALL HAVE A COPY OF THE COMPLETE SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD) ENVIRONMENTAL RESOURCE PERMIT (ERP) FOR THE PROJECT AND A COPY OF THE COMPLETE US ARMY CORPS OF ENGINEERS (USACE) DEPARTMENT OF THE ARMY (DA) PERMIT FOR THIS PROJECT PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL ADHERE TO THE CONDITIONS OF THESE PERMITS AND SHALL RETAIN A COPY OF EACH PERMIT AT THE PROJECT LOCATION AS APPROVED BY THE PROJECT ENGINEER.

11. CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT CONCRETE PLANTS IN MONROE COUNTY DO NOT REMAIN IN CONTINUOUS FDOT CERTIFICATION. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE AVAILABILITY OF ALL CLASSES OF CONCRETE DESIGN MIXES REQUIRED FOR THE PROJECT AND DELIVERY TIMES PRIOR TO BIDDING. ANY COSTS ASSOCIATED WITH PLANT CERTIFICATION SHALL BE INCLUDED IN THE APPROPRIATE CONCRETE BID ITEMS.

12. EFFORTS HAVE BEEN MADE BY THE ENGINEER TO OBTAIN ALL VALUABLE INFORMATION CONCERNING THE LOCATION OF EXISTING UTILITY FACILITIES WITHIN THE LIMITS OF THIS PROJECT. NO GUARANTEE IS MADE, HOWEVER, AS TO THE LOCATION OF EXISTING BELOW GROUND OR ABOVE GROUND UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS WITHIN THE PROJECT, WHETHER SHOWN OR NOT ON THE PROJECT PLANS, AND SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO SAID UTILITIES RESULTING FROM CONTRACTOR'S WORK.

13. UNLESS OTHERWISE INDICATED ON THE PROJECT PLANS, ALL EXISTING LANDSCAPING SHALL REMAIN. ALL EXISTING LANDSCAPING TO BE REMOVED OR RELOCATED SHALL BE FLAGGED IN THE FIELD AND REVIEWED BY THE DEP/OGT PROJECT MANAGER OR MANAGER'S DESIGNEE PRIOR TO DISTURBANCE.

14. ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE FDOT DESIGN STANDARDS AND FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (I.E. FDOT STANDARD SPECIFICATIONS AND DRAWINGS) UNLESS OTHERWISE NOTED ON THE PROJECT PLANS OR OTHERWISE APPROVED BY THE PROJECT ENGINEER. MANAGEMENT, INCLUDING INSPECTIONS, SHALL ALSO CONFORM TO THESE STANDARDS AND SPECIFICATIONS.

15. ALL PROJECT ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS AND ALL REQUIREMENTS OF PERMITS OBTAINED FOR THE PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING COMPLIANCE WITH SUCH REGULATIONS, REQUIREMENTS, AND PERMIT CONDITIONS.

16. AN ON-SITE PRE-CONSTRUCTION MEETING IS REQUIRED. CONTRACTOR SHALL CONTACT THE DEP/OGT PROJECT MANAGER, THE DEP/OGT TRAIL MANAGER, FDOT OFFICIALS, THE PROJECT ENGINEER, AND ALL POTENTIALLY AFFECTED UTILITIES TO ARRANGE FOR THE PRE-CONSTRUCTION MEETING. THIS MEETING MUST BE CONDUCTED AT LEAST ONE WEEK PRIOR TO CONSTRUCTION MOBILIZATION. PROJECT CONSTRUCTION ACTIVITIES SHALL NOT BEGIN UNTIL AFTER THIS MEETING.

17. NO STAGING OF MATERIALS OR EQUIPMENT SHALL OCCUR IN ANY NATURAL VEGETATION COMMUNITIES INCLUDING WETLANDS. CONTRACTOR SHALL USE EXISTING STAGING AREAS THAT HAVE BEEN PREVIOUSLY APPROVED BY SFWMD FOR PROJECT STAGING PURPOSES. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF PROPOSED STAGING AREAS WITH THE FDOT DISTRICT 6 ENVIRONMENTAL PERMITS COORDINATOR, MONROE COUNTY, THE DEP/OGT PROJECT MANAGER, AND THE DEP/OGT TRAIL MANAGER. THE CONTRACTOR MUST PROVIDE A LOCATION MAP INDICATING PROPOSED STAGING AREAS AT THE TIME OF THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE FDOT DISTRICT 6 ENVIRONMENTAL PERMITS COORDINATOR AND THE DEP/OGT PROJECT MANAGER (OR MANGER'S DESIGNEE) AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE START OF ANY PRE-APPROVED STAGING ACTIVITIES. FOR UNFORESEEN STAGING NEEDS IDENTIFIED AFTER THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL COORDINATE REVIEW OF SAID STAGING AREAS WITH THE FDOT DISTRICT 6 ENVIRONMENTAL PERMITS COORDINATOR, MONROE COUNTY, AND THE DEP/OGT PROJECT MANAGER (OR MANAGER'S DESIGNEE) AT LEAST TEN (10) DAYS PRIOR TO INITIATING OPERATIONS WITHIN THE NEWLY PROPOSED STAGING AREAS. ANY NEEDED STAGING AREAS THAT HAVE NOT BEEN PREVIOUSLY AUTHORIZED BY SFWMD MUST FIRST BE APPROVED BY SFWMD PRIOR TO USING SUCH AREAS.

18. GENERAL VEGETATION CLEARING AND TRIMMING:

AS USED HEREIN, THE TERM MANGROVE TREES OR MANGROVES REFERS TO RED MANGROVE (RHIZOPHORA MANGLE), BLACK MANGROVE, (AVICENNIA GERMINANS), AND WHITE MANGROVE (LANGUNCULARIA RACEMOSA), WHILE THE TERM BUTTONWOOD TREES OR BUTTONWOODS REFERS TO GREEN BUTTONWOOD (CONOCARPUS ERECTUS). PROJECT CONSTRUCTION ACTIVITIES IN UPLAND AREAS ADJACENT TO WETLANDS MAY REQUIRE REMOVAL OR TRIMMING OF A LIMITED NUMBER OF MANGROVE TREES. PROJECT CONSTRUCTION ACTIVITIES IN WETLAND AREAS SLATED FOR IMPACTS AND IN WETLANDS WITHIN WETLAND MITIGATION AREAS WILL REQUIRE REMOVAL AND TRIMMING OF MANGROVE TREES IN MANY CASES, IN ADDITION TO REMOVAL AND/OR TRIMMING OF BUTTONWOOD TREES.

ALL TRIMMING OF MANGROVES, INCLUDING TRIMMING OF PROP ROOTS, MUST BE CONDUCTED BY OR PERFORMED UNDER THE DIRECT SUPERVISION OF PROFESSIONAL MANGROVE TRIMMER AS THAT TERM IS DEFINED IN SECTION 403.9329(1), FLORIDA STATUTES. NO HERBICIDE SHALL BE USED ON MANGROVES.

PROJECT CONSTRUCTION ACTIVITIES WITHIN THE PROJECT LIMITS OF CONSTRUCTION (L.O.C.) MAY REQUIRE TRIMMING OF MANGROVES AND BUTTONWOODS OUTSIDE OF BUT ADJACENT TO THE L.O.C. THESE TREES MUST BE PROTECTED WHERE FEASIBLE. THE CONTRACTOR SHALL TEMPORARILY TIE BACK MANGROVE BRANCHES WHEREVER POSSIBLE TO REMOVE THEM FROM CONSTRUCTION ZONES RATHER THAN TRIMMING THE BRANCHES. UPON COMPLETION OF WORK IN THE CONSTRUCTION AREA, MATERIALS USED TO TIE BACK SUCH BRANCHES SHALL BE REMOVED.

THE CLEARING OR REMOVAL OF EXISTING NATIVE VEGETATION LOCATED OUTSIDE THE L.O.C. FOR THE PROJECT (INCLUDING L.O.C. ASSOCIATED WITH WETLAND MITIGATION CONSTRUCTION ACTIVITIES) IS PROHIBITED, UNLESS OTHERWISE INDICATED IN THE PLANS. IF NATIVE VEGETATION, INCLUDING LANDSCAPING MATERIALS, LOCATED OUTSIDE OF SAID AREAS IS IMPACTED WITHOUT AUTHORIZATION OR TREES SPECIFIED TO BE PROTECTED IN THE PROJECT PLANS ARE IMPACTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY REPLACEMENTS. REPLACEMENT VEGETATION MUST BE APPROVED BY THE DEP/OGT PROJECT MANAGER. THE CONTRACTOR SHALL WARRANT THE ESTABLISHMENT AND SURVIVAL OF THE REPLACEMENT MATERIAL FOR A PERIOD OF AT LEAST ONE YEAR FOLLOWING ITS INSTALLATION.

ADDITIONAL SPECIFICATIONS AND REQUIREMENTS FOR VEGETATION REMOVAL AND TRIMMING APPLY TO: (A) CONSTRUCTION OF PROJECT BOARDWALKS, PORTIONS OF THE TRAIL BUILT ON ABANDONED STATE ROAD 4A (SR4A), AND SR4A CONNECTOR SEGMENTS; (B) CONSTRUCTION AND RELATED WORK CONDUCTED AS PART OF THE WETLAND MITIGATION PROGRAM. REFER TO SEPARATE NOTES CONCERNING THESE ITEMS.

19. PROTECTION OF LISTED SPECIES:

VARIOUS ANIMALS DESIGNATED BY STATE AND FEDERAL AGENCIES AS ENDANGERED, THREATENED, OR SPECIES OF SPECIAL CONCERN (E.G. "LISTED SPECIES") MAY BE PRESENT IN THE GENERAL PROJECT AREA. SUCH SPECIES INCLUDE, BUT ARE NOT LIMITED TO: SILVER RICE RAT (Orzomys argentatus), LOWER KEYS MARSH RABBIT (Sylvilagus palustris hefneri), WHITE-CROWNED PIGEON (Columba leucocephala), SNOWY EGRET (Egretta thula); LITTLE BLUE HERON (Egretta carulea), TRICOLORED HERON (Egretta tricolor), WHITE IBIS (Eudocimus albus), OSPREY (Pandion haliaetus); BROWN PELICAN (Pelicanus occidentalis); ROSEATE SPOONBILL (Platalea ajaja), KEY RINGNECK SNAKE (Diadophis puctatus acricus), EASTERN INDIGO SNAKE (Drymarchon corais couperi); RED RAT SNAKE (Elapha guttata), FLORIDA BROWN SNAKE (Stokeria dekyi victa), AND FLORIDA RIBBON SNAKE (Thamnophis sauritus sackeni). THE CONTRACTOR SHOULD BE AWARE THAT STATE AND FEDERAL REGULATIONS PROHIBIT HARMING OR HARASSING ANY LISTED SPECIES.

IT IS OFTEN DIFFICULT FOR UNTRAINED PERSONNEL TO CORRECTLY IDENTIFY LISTED SPECIES. BECAUSE OF THIS, THE CONTRACTOR SHALL NOT HARM OR HARASS ANY ANIMAL SPECIES ENCOUNTERED DURING PROJECT CONSTRUCTION OR LANDSCAPING ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL PROJECT PERSONNEL, INCLUDING SUB-CONTRACTORS, ARE AWARE OF AND ABIDE BY THESE REQUIREMENTS. THIS RESPONSIBILITY EXTENDS TO ENSURING PROJECT PERSONNEL ARE AWARE OF AND ABIDE BY THE REQUIREMENT FOR INSPECTING VEGETATION CLEARING/TRIMMING AREAS FOR THE PRESENCE OF BIRD NESTS AND THE PROHIBITION AGAINST DAMAGING SUCH NESTS WITHOUT PRIOR APPROVAL (SEE GENERAL VEGETATION CLEARING AND TRIMMING NOTES).

20. THE CONTRACTOR IS ADVISED THAT WETLAND AND OTHER SURFACE WATERS (NATURAL WATER BODIES AND SIMILAR OPEN OR PARTIALLY OPEN-WATER AREAS; WATERS OF THE UNITED STATES) ARE ADJACENT TO THE PROJECT. CONSTRUCTION OF THE TRAIL, CONSTRUCTION OF TRAIL BOARDWALKS, AND CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROJECT'S WETLAND MITIGATION PROGRAM WILL REQUIRE IMPACTS TO WETLANDS IN CERTAIN LOCATIONS IDENTIFIED IN THE PLANS (IMPACTS SUCH AS CLEARING, FILLING, GRADING, ETC.). THE CONTRACTOR SHALL NOT IMPACT ANY WETLANDS OR PROTECTED OTHER SURFACE WATERS, WITH THE EXCEPTION OF IMPACTS CALLED FOR IN THE PROJECT PLANS. WETLANDS CANNOT BE USED AS STAGING OR STOCKPILE AREAS. PRIOR TO OR AT THE TIME OF THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL MEET WITH THE DEP/OGT PROJECT MANAGER AND PROJECT ENGINEER TO FIELD-REVIEW THE LIMITS AND EXTENT OF WETLANDS ADJACENT TO PROJECT CONSTRUCTION AND MITIGATION ACTIVITIES.

ANY MATERIAL INADVERTENTLY PLACED IN WETLANDS OR OTHER SURFACE WATERS SHALL BE REMOVED BY HAND. ANY ACCIDENTAL DAMAGE CAUSED TO PROTECTED/PRESERVED WETLANDS AS A RESULT OF THE CONTRACTOR'S ACTIVITIES SHALL IMMEDIATELY BE REPORTED TO THE DEP/OGT PROJECT MANAGER, THE PROJECT ENGINEER, AND THE FDOT DISTRICT 6 ENVIRONMENTAL PERMITS COORDINATOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPROPRIATE REMEDIATION OF ANY SUCH DAMAGE IN ACCORDANCE WITH DIRECTIVES AND SPECIFICATIONS PROVIDED BY THE DEP/OGT PROJECT MANAGER OR THE MANAGER'S DESIGNEE.

EXCEPT IN THOSE LOCATIONS WHERE THE PROJECT LIMITS OF CONSTRUCTION EXTEND INTO WETLANDS (I.E. AREAS WHERE CONSTRUCTION IMPACTS WETLANDS), SILT FENCE SHALL NOT BE PLACED WITHIN THE LIMITS OF ANY WETLANDS OR OTHER SURFACE WATERS. IF HAY BALES ARE USED FOR EROSION CONTROL, PLACEMENT OF THESE BALES WITHIN WETLANDS SHOULD BE AVOIDED EXCEPT IN WETLAND IMPACT ZONES OR IN SITUATIONS WHERE LOCATION OF STAKED BALES IN WETLANDS IS ABSOLUTELY NECESSARY TO ADEQUATELY CONTROL EROSION AND TURBIDITY. POST AND RAIL WOODEN FENCES CALLED FOR IN THESE PLANS SHALL NOT ENCROACH INTO ANY WETLANDS.

21. FDOT SHORELINE REPAIR & STABILIZATION ZONE:

THE CONTRACTOR IS ADVISED THAT ONE SEGMENT WHERE THE SHARED USE PATH WILL BE CONSTRUCTED COINCIDES WITH AN AREA WHERE FDOT WILL BE CONDUCTING SHORELINE REPAIR AND STABILIZATION ACTIVITIES. THIS SEGMENT OF THE PATH (TRAIL) BEGINS AT STATION 534+09 AND ENDS AT STATION 550+33. THIS SEGMENT OR ZONE IS IDENTIFIED ON THE PLANS AS "FDOT SHORELINE STABILIZATION ZONE, FM421240-1". WORK PLANNED BY FDOT IN THIS ZONE (SEGMENT) INVOLVES REPAIRING/STABILIZING THE EMBANKMENT (SIDE SLOPE) ALONG THE SOUTH SIDE OF US1/SR5. THIS ZONE WAS DAMAGED AND ERODED BY HURRICANE EVENTS.

PLANS FOR FDOT'S WORK IN THE "FDOT SHORELINE STABILIZATION AREA" ARE CONTAINED IN FDOT CONTRACT PLANS ENTITLED "FINANCIAL PROJECT ID 42098-1-52-01, MM 5.310 TO MM 90.924 HURRICANE WASHOUT REPAIRS", PREPARED BY DMJM HARRIS/AECOM, DATED 3/29/07. CONSTRUCTION ACTIVITIES CALLED FOR IN THESE PLANS WERE AUTHORIZED BY SOUTH FLORIDA WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE PERMIT #44-00390-P, ISSUED 3/20/08, AND BY DEPARTMENT OF THE ARMY PERMIT #SAJ-2007-3622, ISSUED BY THE US ARMY CORPS OF ENGINEERS ON 4/2/08. CONSTRUCTION ACTIVITIES HAVE BEEN ASSIGNED FDOT FM #421240-1.

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV. NO.	REVISION		DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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DESIGNED BY:	CEA/1159	01/09
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CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG. 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE:

TITLE: GENERAL NOTES

CROSS REFERENCE FILE NO:

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002

SHEET NUMBER: 31

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THE CONTRACTOR IS ADVISED THAT THE CROSS-SECTIONS CONTAINED HEREIN THAT FALL WITHIN THE LIMITS OF THE FDOT SHORELINE STABILIZATION ZONE ILLUSTRATE TOPOGRAPHY PRESENT PRIOR TO COMPLETION OF FDOT'S STABILIZATION ACTIVITIES AND ALSO SHOW "EXISTING CONDITIONS" ASSUMED TO BE PRESENT FOLLOWING COMPLETION OF FDOT'S REPAIRS (I.E. ACTUAL GRADES PRESENT AT THE TIME THE AREA WAS SURVEYED AND FUTURE "EXISTING CONDITIONS" THAT SHOULD BE PRESENT WHEN CONSTRUCTION OF THE SUBJECT PROJECT BEGINS). THE DEPICTION OF ANTICIPATED FUTURE "EXISTING CONDITIONS" (FUTURE EXISTING GRADE) WAS BASED ON THE FDOT CONTRACT PLANS CITED ABOVE AND ADDITIONAL GUIDANCE PROVIDED BY THE ENGINEER OF RECORD FOR SAID PLANS.

THE LIMITS OF WETLANDS ILLUSTRATED IN PLAN VIEW DRAWINGS AND CROSS-SECTIONS COVERING THE FDOT SHORELINE STABILIZATION ZONE DEPICT WETLAND LIMITS ASSUMED TO BE PRESENT FOLLOWING COMPLETION OF FDOT'S REPAIRS (NOTE: THE SFWMD AND USACE PERMITS FOR THE FDOT PROJECT AUTHORIZED WETLAND IMPACTS). THE SAME IS TRUE FOR THE VEGETATION LINE SHOW HEREIN FOR THE SHORELINE STABILIZATION ZONE. THE ASSUMED LIMITS OF WETLANDS AND THE VEGETATION LINE (TREE LINE) IN THIS ZONE WERE ALSO DERIVED FROM THE CITED SHORELINE STABILIZATION PLANS BASED ON THE CLEARING AND FILLING NECESSARY TO COMPLETE THE SHORELINE STABILIZATION ACTIVITIES.

THE CONTRACTOR SHALL NOT BEGIN TRAIL CONSTRUCTION ACTIVITIES IN THE FDOT SHORELINE STABILIZATION ZONE UNTIL AFTER FDOT SHORELINE REPAIR ACTIVITIES ARE COMPLETED. ONCE THIS WORK IS FINISHED, THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING THIS AREA PRIOR TO BEGINNING CONSTRUCTION TO ENSURE GRADES AND CONDITIONS PRESENT CLOSELY APPROXIMATE THE "FUTURE" EXISTING CONDITIONS ILLUSTRATED HEREIN. IF SIGNIFICANT DISCREPANCIES ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE DEP/OGT PROJECT MANAGER AND THE PROJECT ENGINEER IMMEDIATELY AND SHALL NOT PROCEED WITH CONSTRUCTION OF THE TRAIL IN THIS ZONE UNTIL RECEIVING AUTHORIZATION FROM THE DEP/OGT PROJECT MANAGER OR THE MANAGER'S DESIGNEE.

22. CONSTRUCTION OF TRAIL ALONG ABANDONED SEGMENTS OF STATE ROAD 4A (SR4A) AND CONSTRUCTION OF SR4A CONNECTOR SEGMENTS – GENERAL NOTES:

THIS PROJECT INVOLVES CONSTRUCTION OF THE FKOHT (SHARED USE PATH; TRAIL) ALONG CERTAIN SEGMENTS OF SR4A NO LONGER USED BY VEHICLES. THESE SEGMENTS ARE REFERRED TO AS "ABANDONED SR4A" OR "OLD SR4A" AND GENERALLY FOLLOW AN EAST/WEST ALIGNMENT. THE EXTENT OF TRAIL CONSTRUCTION ON ABANDONED SR4A OCCURS AT THE FOLLOWING LOCATIONS (USING SR5/US1 BASELINE STATIONING AS REFERENCE):

- CUDJOE KEY – STA. 627+01 TO STA. 642+99
- CUDJOE KEY – STA. 669+00 TO STA. 723+20
- CUDJOE KEY – STA. 724+98 TO STA. 727+37
- CUDJOE KEY – STA. 728+39 TO STA. 744+96
- SUMMERLAND KEY – STA. 796+80 TO STA. 835+06

IN ADDITION TO THE ABOVE SEGMENTS, THIS PROJECT INVOLVES CONSTRUCTION OF TRAIL SEGMENTS EXTENDING FROM THE NORTH SIDE OF SR5/US1 TO CERTAIN TRAIL SEGMENTS TO BE BUILT ON ABANDONED SR4A. THESE TRAIL SEGMENTS GENERALLY FOLLOW A NORTH/SOUTH ALIGNMENT AND ARE HEREIN REFERRED TO AS "SR4A CONNECTOR SEGMENTS". THESE OCCUR AT THE FOLLOWING LOCATIONS:

- CUDJOE KEY – STA. 626+95 TO STA. 627+30 (PAVED TRAIL WITH DRAINAGE CULVERT)
- CUDJOE KEY – STA. 744+95 TO STA. 746+18 (PAVED TRAIL)
- SUMMERLAND KEY – STA. 796+88 TO STA. 797+02 (PAVED TRAIL & BOARDWALK)
- SUMMERLAND KEY – STA. 835+06 TO STA. 835+28 (PAVED TRAIL + ADDITIONAL ROADWAY PAVEMENT)

PRIOR TO BID SUBMITTAL, ALL POTENTIAL CONTRACTORS FOR THIS PROJECT SHALL FIRST INSPECT THE AREAS WHERE TRAIL CONSTRUCTION WILL BE ON ABANDONED SR4A AND WHERE THE SR4A CONNECTOR SEGMENTS ARE PROPOSED. THE CONTRACTOR IS ADVISED THAT THE LIMITS OF VEGETATION (I.E. LIMITS OF RELATIVELY DENSE TREES AND SHRUBS) ALONG ABANDONED SR4A AND ADJACENT TO SR4A CONNECTOR SEGMENTS SHOWN ON THESE PLANS ARE VERY APPROXIMATE IN SEVERAL PLACES AS ARE THE LIMITS OF EXISTING PAVED AREAS (EDGE OF PAVEMENT) ON ABANDONED SR4A. THE CONTRACTOR MUST HAVE A COMPLETE UNDERSTANDING OF EXISTING SITE CONDITIONS, THE LEVEL OF WORK REQUIRED, AND TRAIL CONSTRUCTION LOGISTICS, INCLUDING CONSTRUCTION ACCESS.

PRIOR TO INITIATION OF TRAIL CONSTRUCTION ON ABANDONED SR4A AND PRIOR TO CONSTRUCTION OF SR4A CONNECTOR SEGMENTS, THE CONTRACTOR SHALL FIRST ESTABLISH MARKERS ALONG THE CENTERLINE OF THE TRAIL AND ALONG THE LIMITS OF CONSTRUCTION ASSOCIATED WITH THE TRAIL. UPON COMPLETION, THE CONTRACTOR SHALL NOTIFY THE DEP/OGT PROJECT MANAGER AND THE MANAGER WILL INSPECT THE MARKED AREAS. THE DEP/OGT PROJECT MANAGER MAY REQUIRE ADJUSTMENTS AND THESE SHALL BE MADE BY THE CONTRACTOR AS DIRECTED BY THE DEP/OGT PROJECT MANAGER OR MANAGER'S DESIGNEE. TRAIL CONSTRUCTION WILL NOT PROCEED UNTIL CONTRACTOR HAS OBTAINED FINAL AUTHORIZATION FROM THE DEP/OGT PROJECT MANAGER OR MANAGER'S DESIGNEE.

PROJECT WETLAND MITIGATION ACTIVITIES INCLUDE EXCAVATING/GRADING CERTAIN PORTIONS OF ABANDONED SR4A TO REMOVE THE EXISTING ROAD BASE/EMBANKMENT. WITH THE EXCEPTION OF INITIAL TRIMMING/REMOVAL OF VEGETATION, THE CONTRACTOR SHALL NOT BEGIN CONSTRUCTION OF THE FOLLOWING SEGMENTS OF THE TRAIL ON OLD SR4A AND OTHER SPECIFIED TRAIL SEGMENTS UNTIL EXCAVATION AND FINAL GRADING OF ADJACENT MITIGATION AREAS IS COMPLETED:

- SUMMERLAND KEY – STA. 796+80 TO 835+06, TRAIL ON ABANDONED SR4A

REMOVAL OR TRIMMING OF NATIVE VEGETATION LOCATED OUTSIDE THE LIMITS OF CONSTRUCTION (L.O.C.) FOR THE TRAIL ON OLD SR4A AND FOR THE SR4A CONNECTOR SEGMENTS IS PROHIBITED EXCEPT AS DESCRIBED BELOW, UNLESS OTHERWISE INDICATED IN THE PLANS. REMOVAL OF NATIVE VEGETATION SITUATED WITHIN THE LIMITS OF CONSTRUCTION SHALL BE LIMITED TO REMOVAL NECESSARY TO: CONDUCT MILLING AND RESURFACING ACTIVITIES; INSTALL NEW SUBGRADE MATERIAL; APPLY NEW ASPHALT PAVEMENT. BRANCHES, LIMBS, AND PROP ROOTS OF TREES AND SHRUBS THAT EXTEND INTO THE LIMITS OF CONSTRUCTION FROM PLANTS LOCATED OUTSIDE THESE LIMITS SHALL BE TRIMMED AT THE L.O.C. THIS TRIMMING OF LIMBS AND BRANCHES PROTRUDING INTO THE L.O.C. SHALL EXTEND VERTICALLY TO A MAXIMUM DISTANCE OF 10 FEET ABOVE THE FINISHED TRAIL SURFACE, IN ORDER TO PROVIDE FOR THE SAFE AND UNOBSTRUCTED PASSAGE OF TRAIL USERS, TRAIL MAINTENANCE VEHICLES, AND TRAIL CONSTRUCTION EQUIPMENT ALONG THE TRAIL. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE DEP/OGT PROJECT MANAGER OR MANAGER'S DESIGNEE PRIOR TO TRIMMING BRANCHES/LIMBS THAT ARE HIGHER THAN 7 FEET ABOVE THE FINISHED TRAIL SURFACE. ALL TRIMMING OF VEGETATION SHALL BE PERFORMED BY OR UNDER THE DIRECT SUPERVISION OF A CERTIFIED ARBORIST.

THESE SPECIFICATIONS FOR VEGETATION REMOVAL AND TRIMMING DESCRIBED ABOVE APPLY TO SEGMENTS OF THE TRAIL ON ABANDONED SR4A AND TO THE SR4A CONNECTOR SEGMENTS, EXCEPT FOR THE SR4A CONNECTOR SEGMENT AT STA. 796+88 TO STA. 797+02. REFER TO NOTES CONCERNING BOARDWALK CONSTRUCTION FOR THIS LATTER SR4A CONNECTOR SEGMENT.

ALL VEGETATION DEBRIS GENERATED DURING TRAIL CONSTRUCTION SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF IN A DULY LICENSED FACILITY. DISPOSAL OF VEGETATION DEBRIS IN ADJACENT WETLANDS AND UPLANDS IS STRICTLY PROHIBITED.

23. SIGNING & PAVEMENT MARKING NOTES:

ALL PAVEMENT MARKINGS SHOULD BE CURRENT WITH FDOT INDEX DESIGN STANDARDS.

ALL SIGNING AND PAVEMENT MARKINGS INSTALLED AS PART OF THESE PLANS SHALL CONFORM TO THE CURRENT EDITION OF THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS, FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS. ALL SIGN PANELS SHALL BE FABRICATED TO COMPLY WITH THE MOST RECENT EDITION OF THE FEDERAL HIGHWAY AND ADMINISTRATION STANDARD HIGHWAY SIGNS.

MATCH EXISTING PAVEMENT MARKINGS AT THE BEGINNING AND THE END OF THE PROJECT AND AT ALL SIDE STREETS WITHOUT JOGS AND OFFSETS.

SIGN ASSEMBLY LOCATIONS SHOWN ON PLANS WHICH ARE IN CONFLICT WITH LIGHTING, UTILITIES, DRIVEWAYS, WHEELCHAIR RAMPS, ETC., MAY BE ADJUSTED SLIGHTLY AS DIRECTED BY THE ENGINEER. EXTREME LOCATION CHANGES MUST BE APPROVED BY THE DISTRICT TRAFFIC OPERATION DEPARTMENT.

INCORRECTLY PLACED (THERMOPLASTIC OR) PAINT MARKINGS OVER FRICTION COURSE WILL BE REMOVED BY MILLING AND REPLACING THE FRICTION COURSE A MINIMUM WIDTH OF 0.5 METERS (18 IN) AT THE CONTRACTOR'S EXPENSE. THE ENGINEER MAY APPROVE AN ALTERNATIVE METHOD IF IT CAN BE DEMONSTRATED TO COMPLETELY REMOVE THE MARKINGS WITHOUT DAMAGING THE ASPHALT.

THE CONTRACTOR SHALL RELOCATE ALL EXISTING POST-MOUNTED STREET NAME AND STOP SIGNS TO A VISIBLE AREA UNDISTURBED BY THE CONSTRUCTION SO AS TO MINIMIZE DAMAGE TO THE SIGNS DURING CONSTRUCTION. THE STREET NAME SHALL BE REATTACHED TO THE TOP OF THE NEW STOP SIGNS ON MINOR SIDE STREETS AT THE END OF CONSTRUCTION. THE NEW STOP SIGN POST SHALL HAVE ADEQUATE LENGTH TO ACCOMMODATE THE EXISTING STREET NAMES AT THE TOP. COST OF RELOCATION AND REATTACHMENT OF STREET NAME SIGN SHALL BE PAID FOR UNDER PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

EXTRUDED ALUMINUM SIGN SUPPORT CLAMPS ARE NOT ACCEPTABLE. ALL RELOCATED SIGNS MUST COMPLY WITH THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND ROADWAY DESIGN AND TRAFFIC STANDARDS AS IF THEY WERE NEW SIGNS. IF EXISTING CLAMPS, BRACKETS, POLES, ETC. NEED TO BE REPLACED THE COST SHALL BE INCLUDED IN THE RELOCATION PAY ITEMS.

THE CONTRACTOR SHALL SUBMIT A LIST OF THE EXISTING SIGNS TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION CONFERENCE. ANY LOST OR DAMAGED DURING CONSTRUCTION SIGNS SHALL BE REPLACED AT NO ADDITIONAL COST. COST OF MAINTAINING OF EXISTING SIGNS TO BE INCLUDED IN ITEM 102-1, MAINTENANCE OF TRAFFIC.

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FDEP NO 6G020

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CONTRACT ADMIN. BY:		
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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC. TWP. RGE.

T.T.L.E.: GENERAL NOTES

CROSS REFERENCE FILE NO.

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002

SHEET NUMBER: 32

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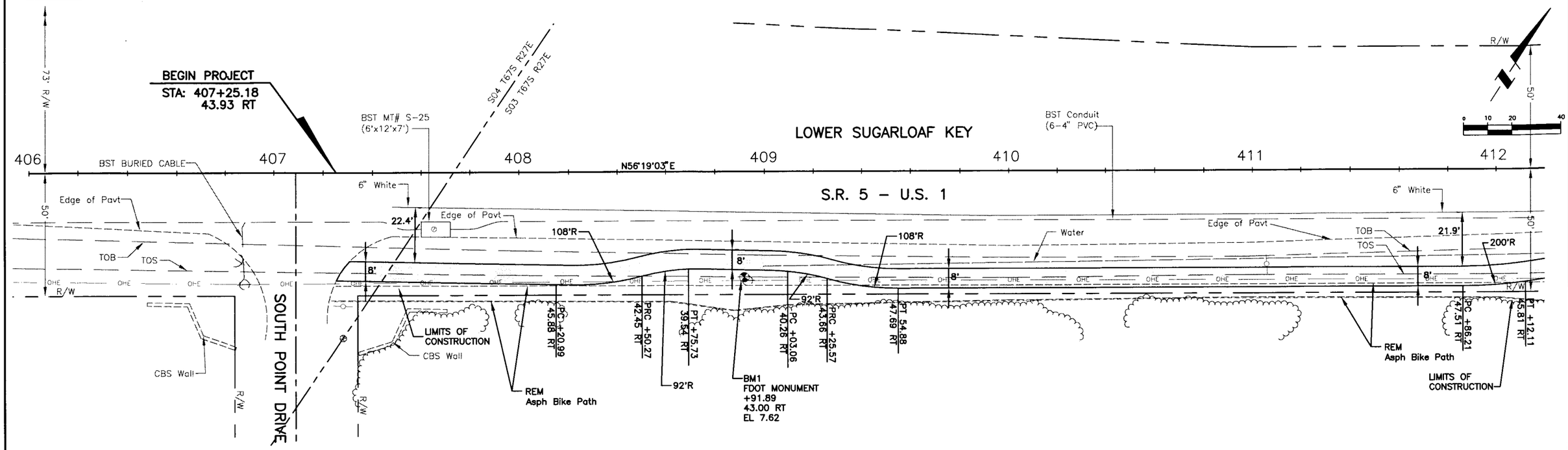

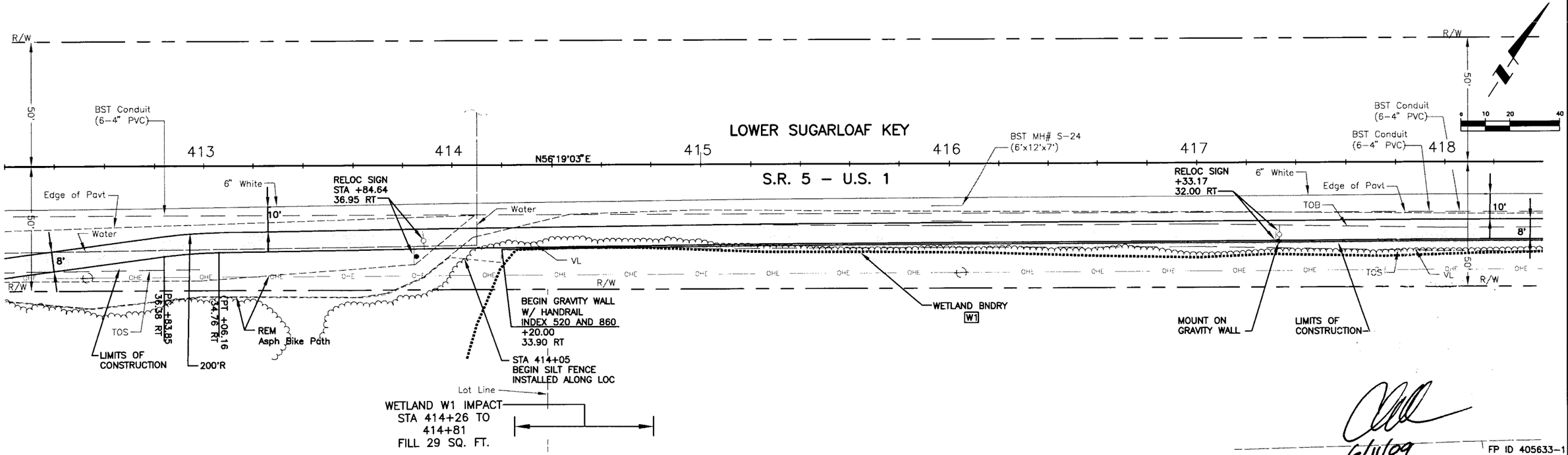

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS
PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 3 TWP: 67S RGE: 27E

TITLE:
PLAN
STATION 406+00 TO 418+40

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04880-002
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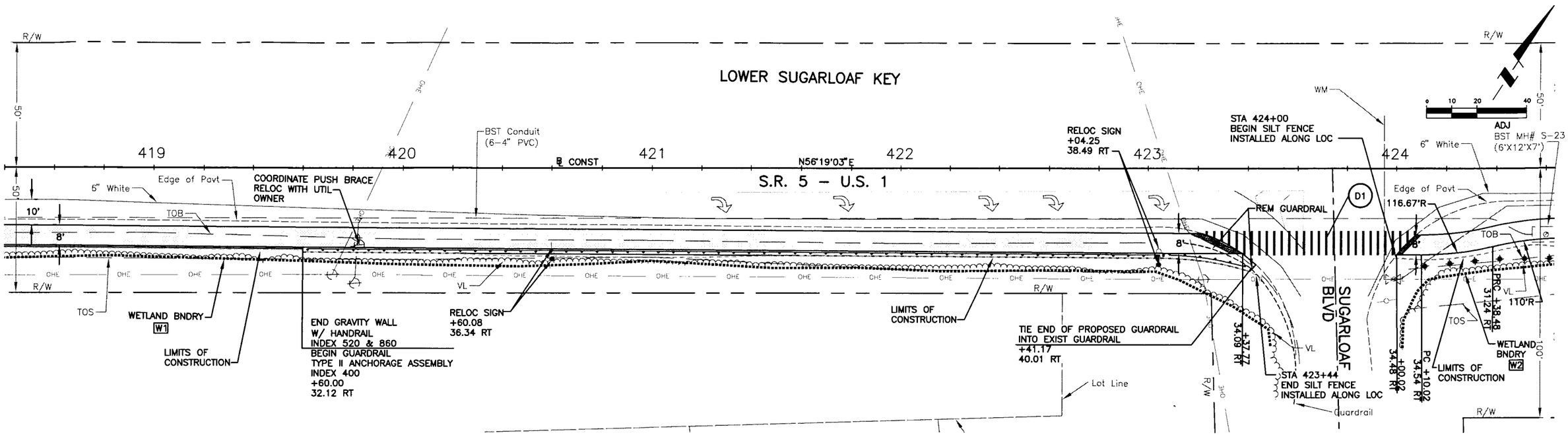

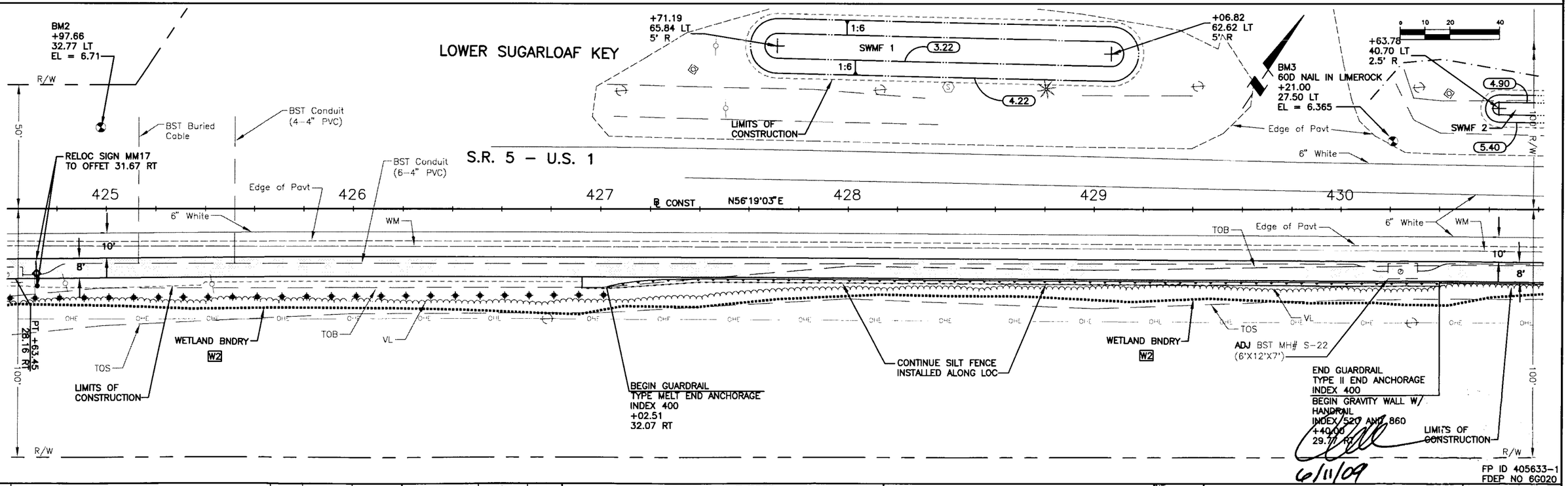

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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1441 Wacky Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone: 850-878-5001 - Fax: 850-878-5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 3 TWP: 67S RGE: 27E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
PLAN
STATION 418+40 to 430+80

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

FPID NUMBER: 8-04860-002
SHEET NUMBER: 34

6/11/09

FP ID 405633-1
FDEP NO 6G020

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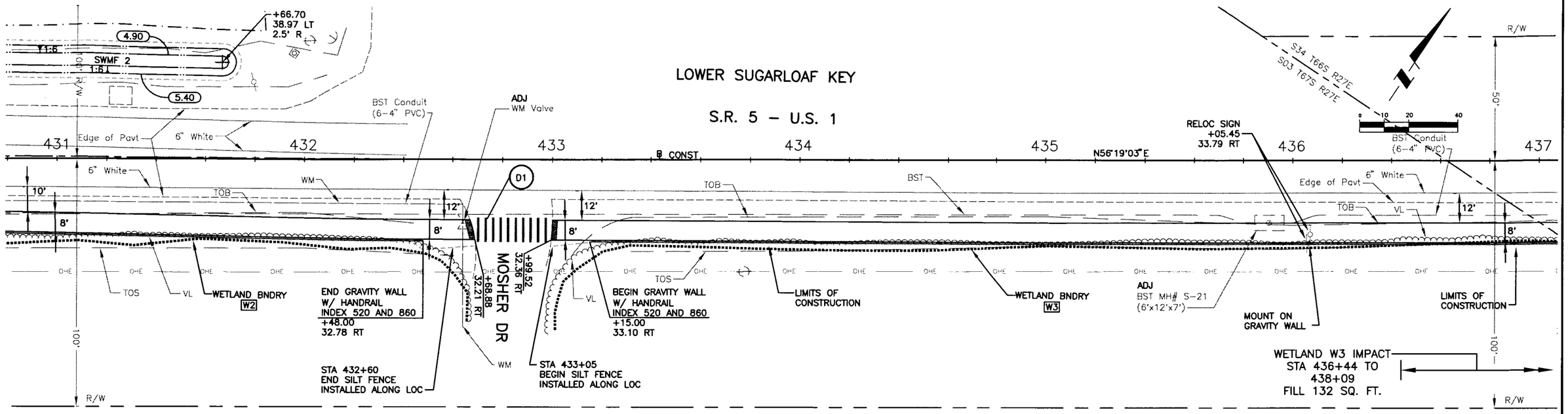

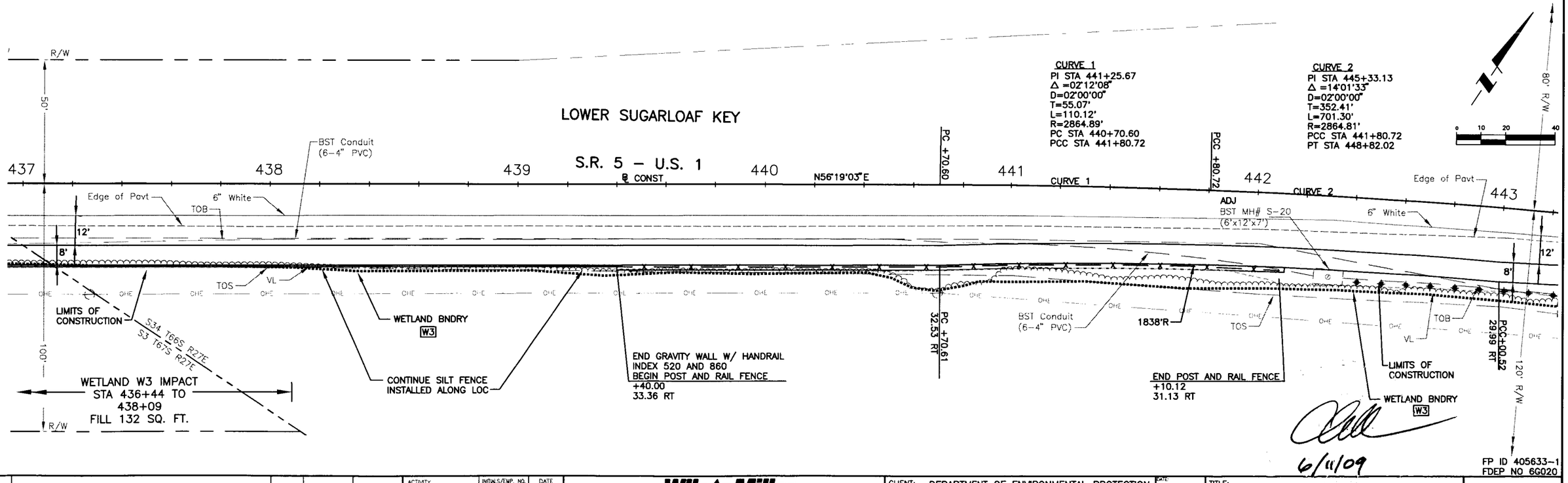

6/11/09

FP ID 405633-1
FDEP NO 6G020

					ACTIVITY	INITIALS/EMP. NO.	DATE
					DESIGNED BY:	CEA/1159	01/09
					DRAWN BY:	JGG/2031	01/09
					CHECKED BY:	CEB/1562	01/09
					CONTRACT ADMIN. BY:		
△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN

SEC:	TWP:	RGE:
3 34	67S 66S	27E

TITLE:
PLAN
STATION 430+80 TO 443+20

CROSS REFERENCE FILE NO.:

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002

SHEET NUMBER: 35

Jun 09, 2009 - 11:49:4 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-027-PLAN.dwg

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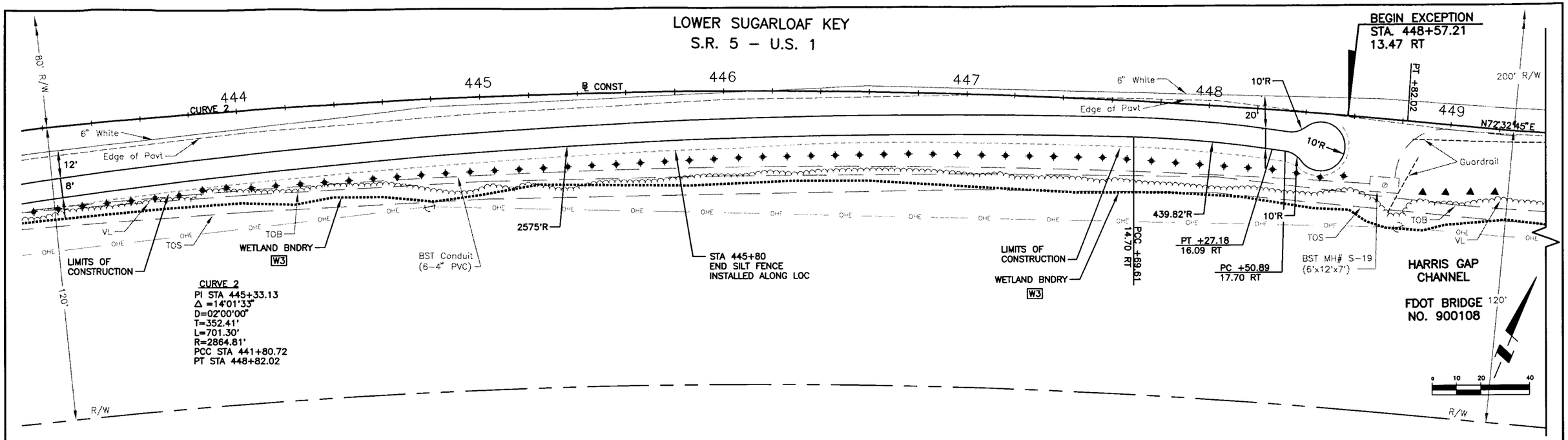
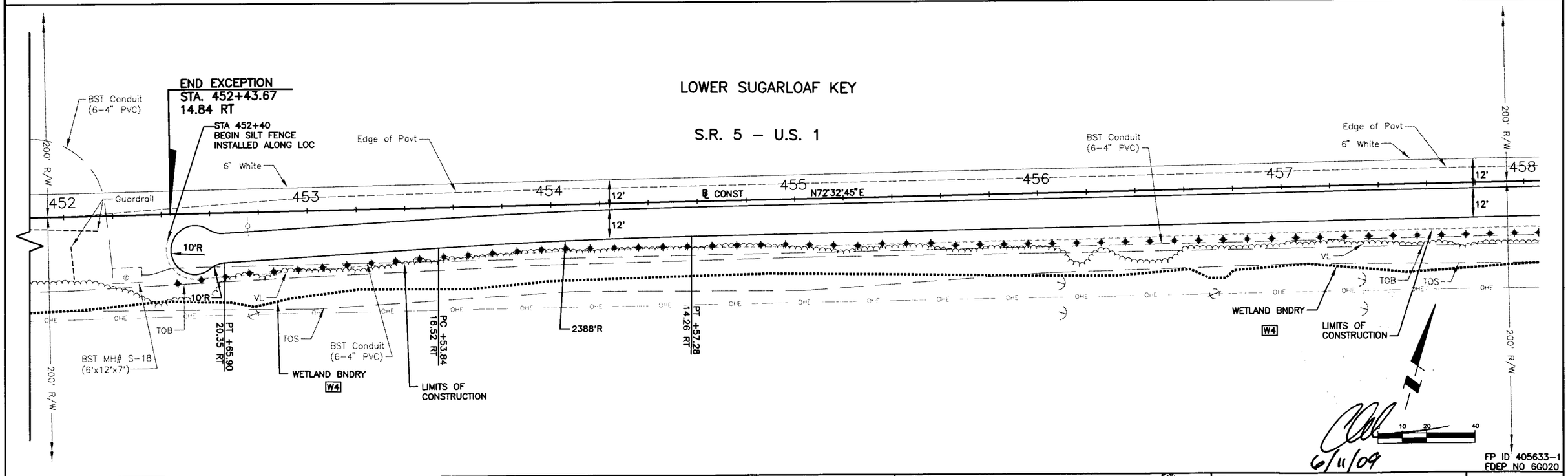
S.R. 5 – U.S. 1



CURVE 2
PI STA 445+33.13
Δ =14°01'33"
D=02°00'00"
T=352.41'
L=701.30'
R=2864.81'
PCC STA 441+80.72
PT STA 448+82.02



LOWER SUGARLOAF KEY
S.R. 5 – U.S. 1

6/11/09

FP ID 405633–1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△RCV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 34 TWP: 66S RGE: 27E

TITLE: PLAN
STATION 443+20 to 458+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 36

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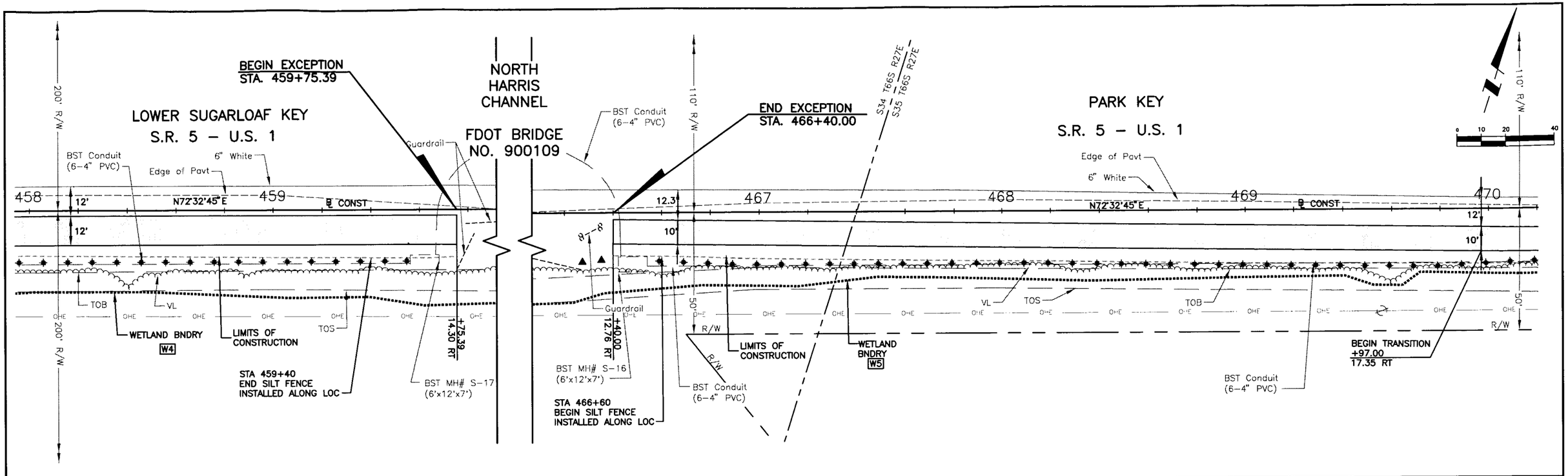

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 34 35 TWP: 66S RGE: 27E

TITLE:
PLAN
STATION 458+00 TO 476+40

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 37

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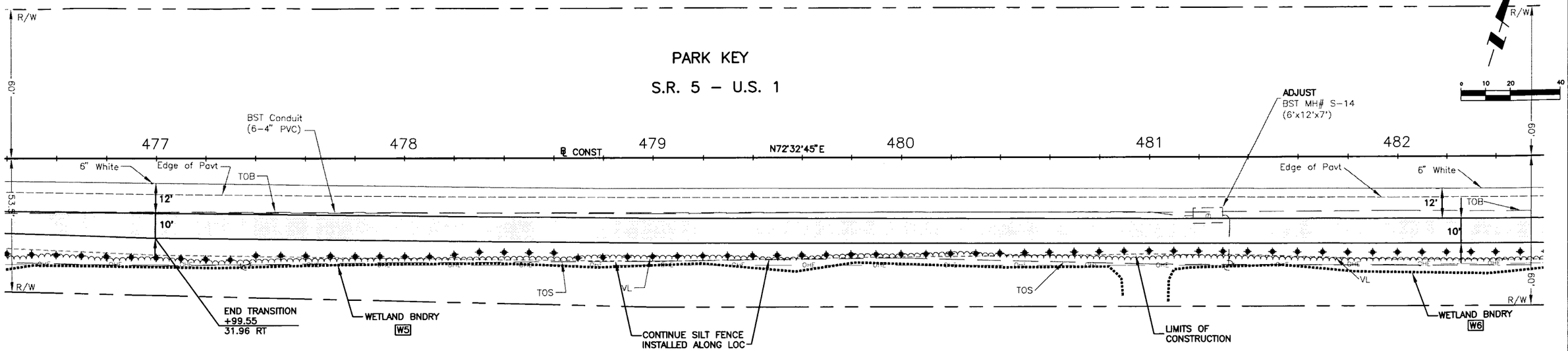

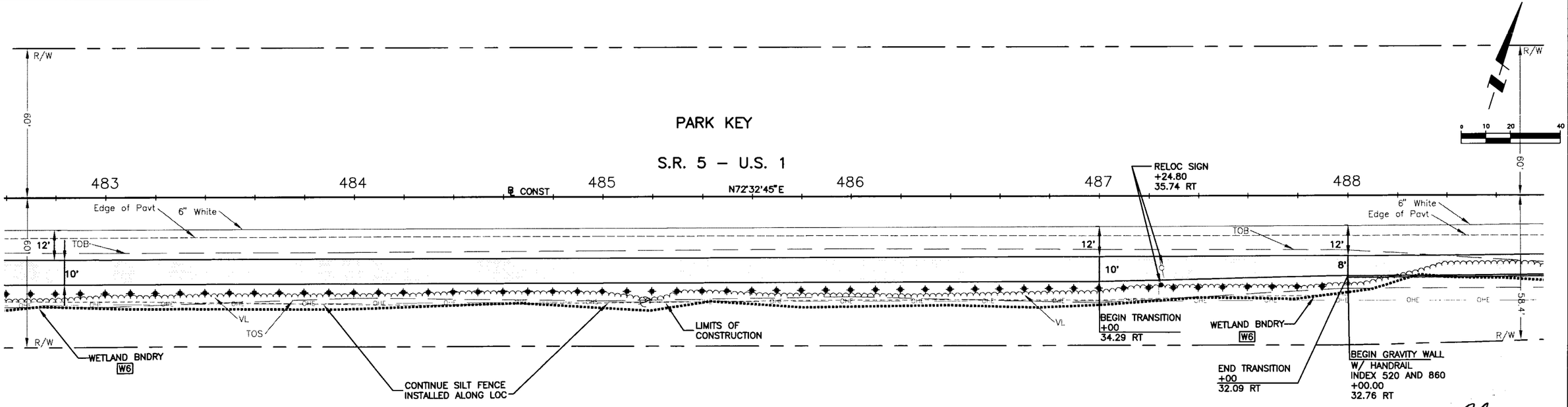

WETLAND W6 IMPACT
STA 488+24 TO
488+50
FILL 13 SQ. FT.

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1:40
VERTICAL SCALE: AS SHOWN
SEC: 35 TWP: 66S RGE: 27E
CROSS REFERENCE FILE NO:
PROJECT NUMBER: 04880-002-000

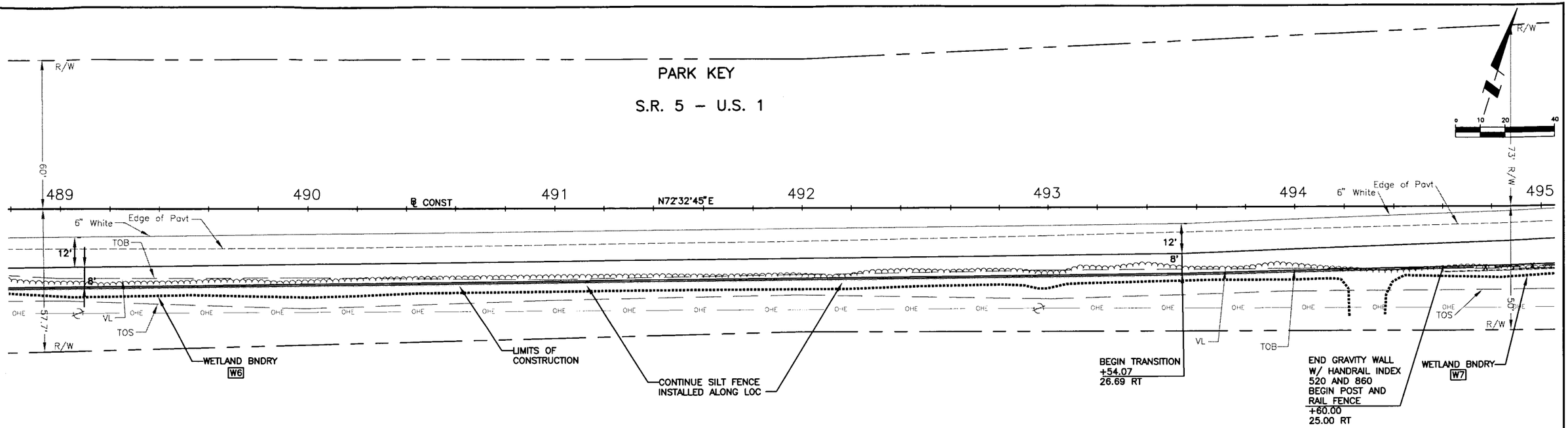
TITLE:
PLAN
STATION 476+40 TO 488+80

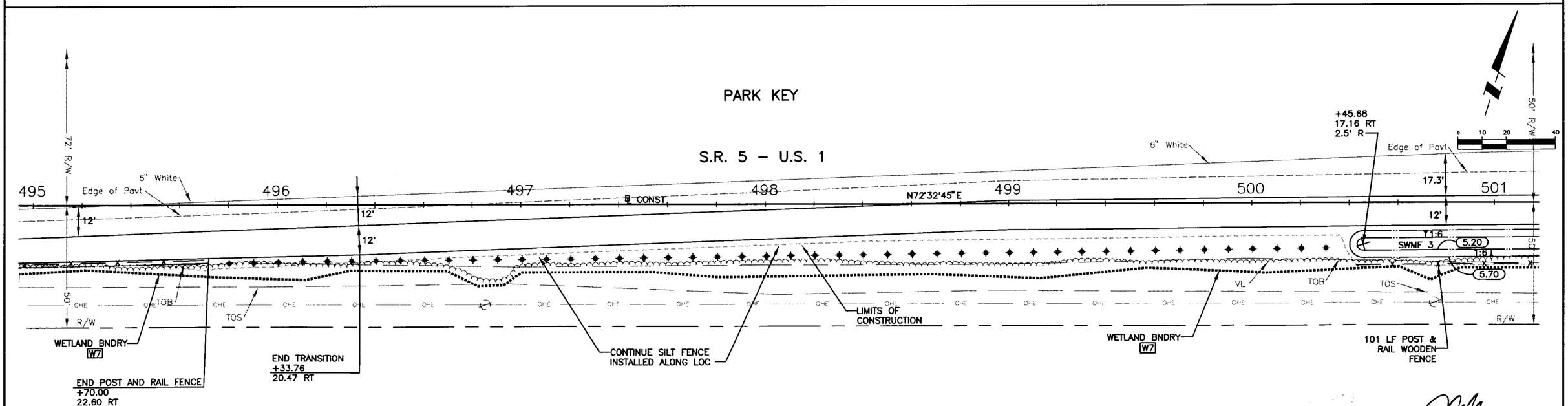
CHRIS E. BRIOCKMEIER, P.E.
FL Lic.# 58459

JOB # NUMBER: 9-04880-002

SHEET NUMBER: 38

Jun 09, 2009 – 11:52:1 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-030-PLAN.dwg





6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / DAP. NO.	CHECKED BY / DAP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

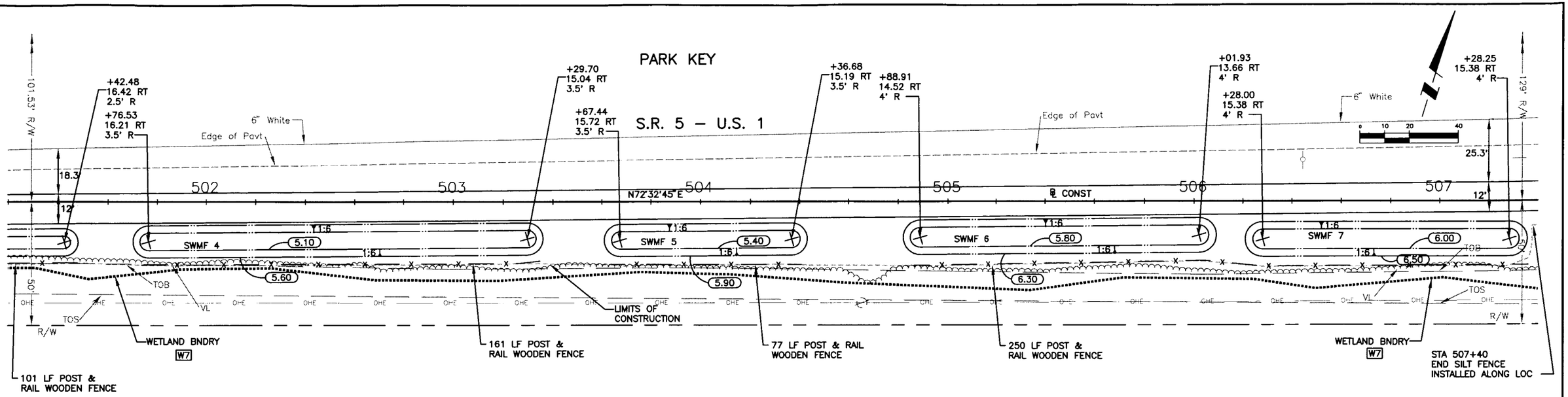
DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 35 TWP: 66S RGE: 27E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

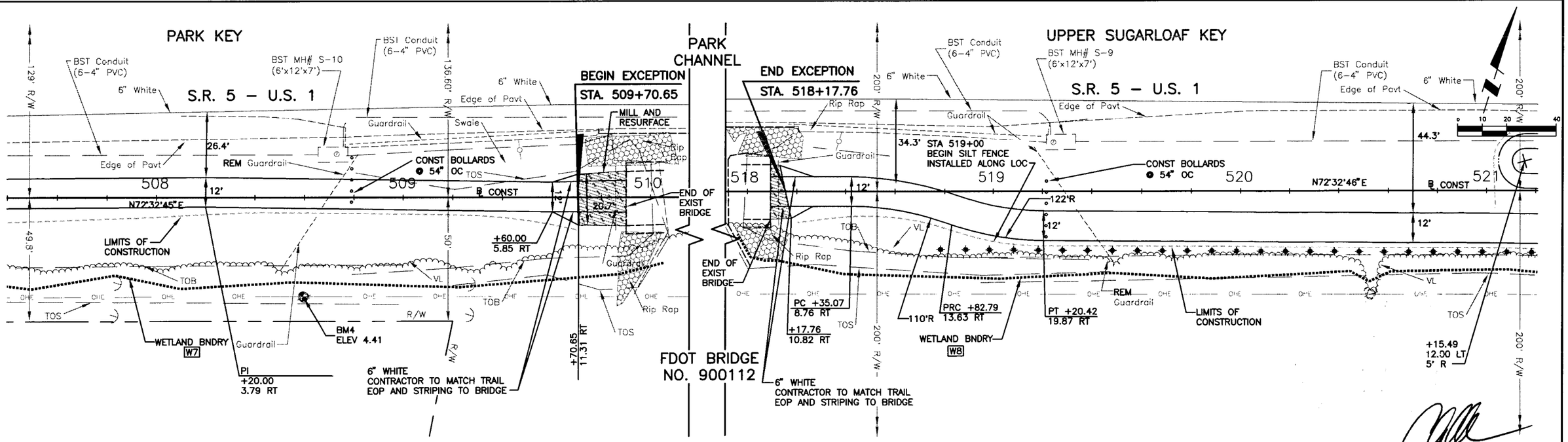
TITLE:
PLAN
STATION 488+80 TO 501+20

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 39

Jun 09, 2009 - 11:52:5 JGERTH(X:\ENG\04880\002-Segment1\REV02\6G020-031-PLAN.dwg





6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 35 TWP: 66S RGE: 27E

TITLE:
PLAN
STATION 501+20 TO 521+20

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 40

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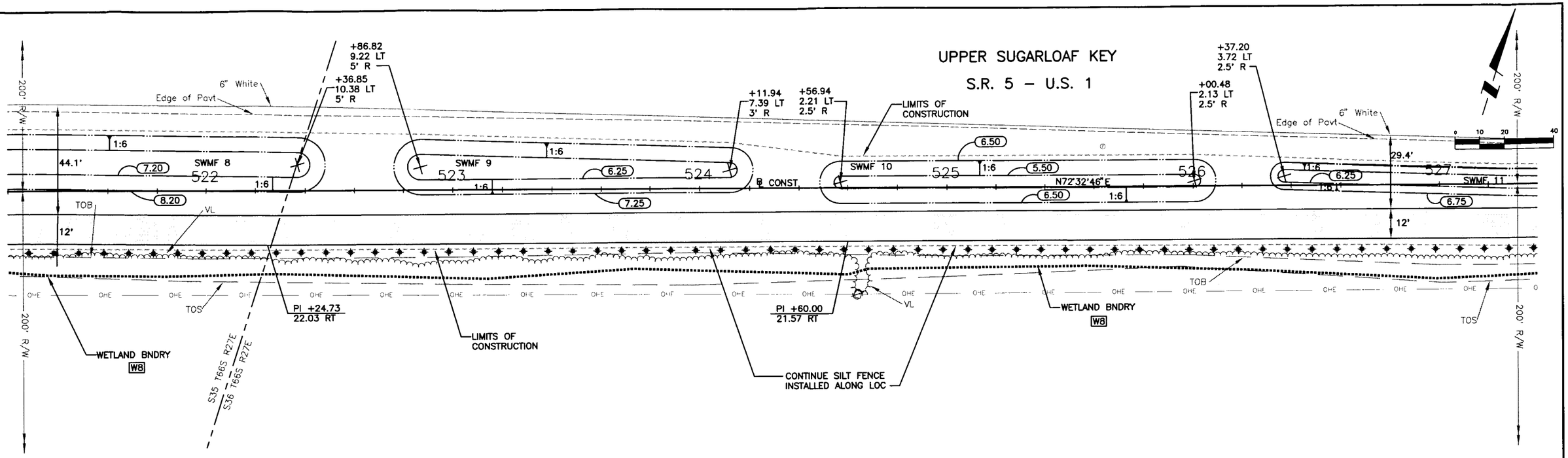

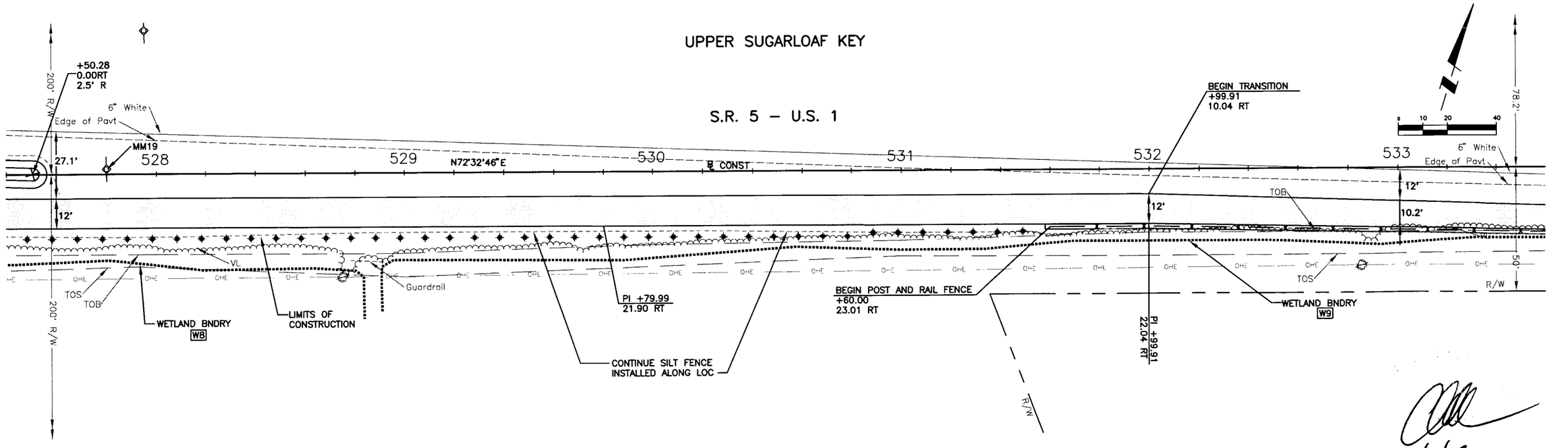

6/11/09

FP ID 405633-1
FDOT P NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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WilsonMiller, Inc.
1441 Wesley Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone 850-878-5201 - Fax 850-878-5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 36 TWP: 66S RGE: 27E

TITLE:
PLAN
STATION 521+20 TO 533+60

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 4.1

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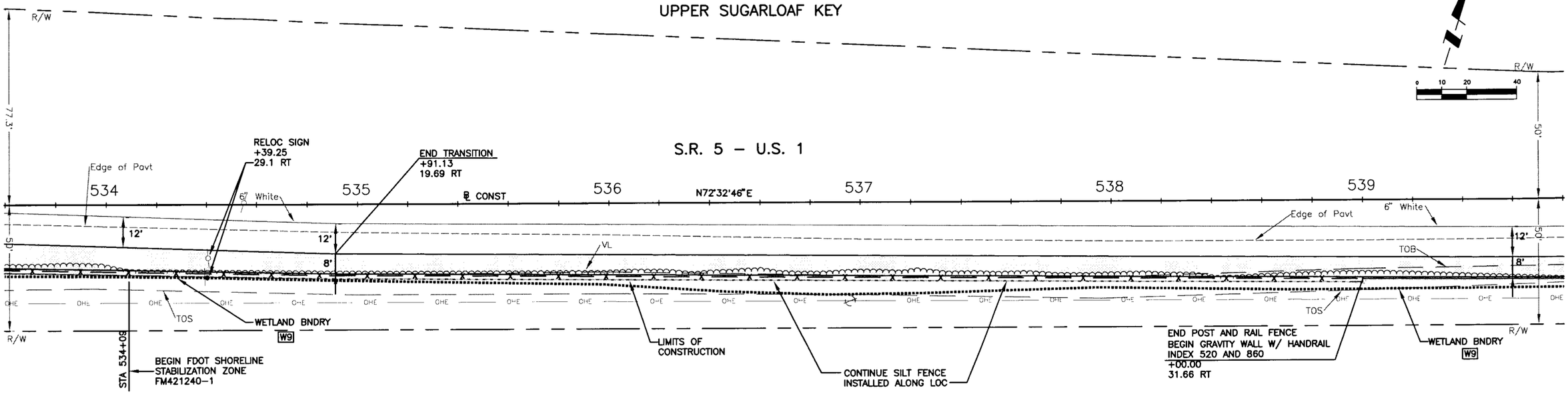

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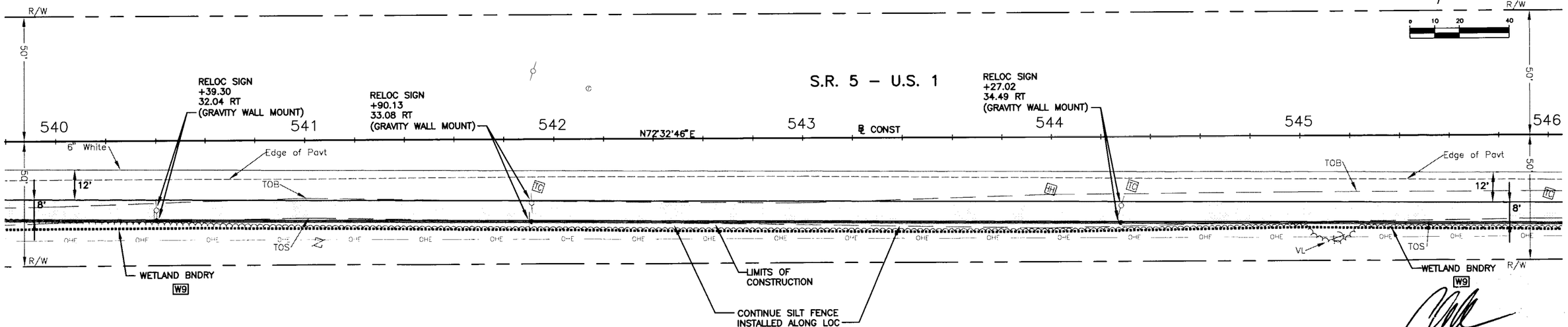

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC. 36 TWP. 66S RGE. 27E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
PLAN
STATION 533+60 TO 546+00

CHRIS C. BRUCKMEIER, P.E.
FL Lic.# 56859

ROAD NUMBER: B-04880-002
SHEET NUMBER: 42

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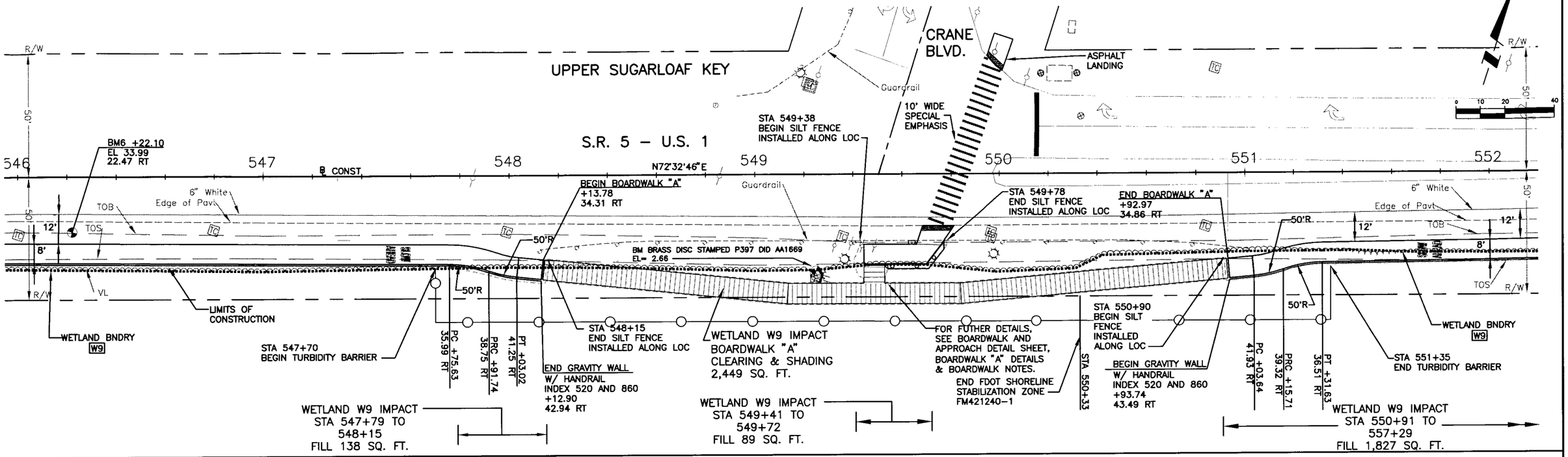

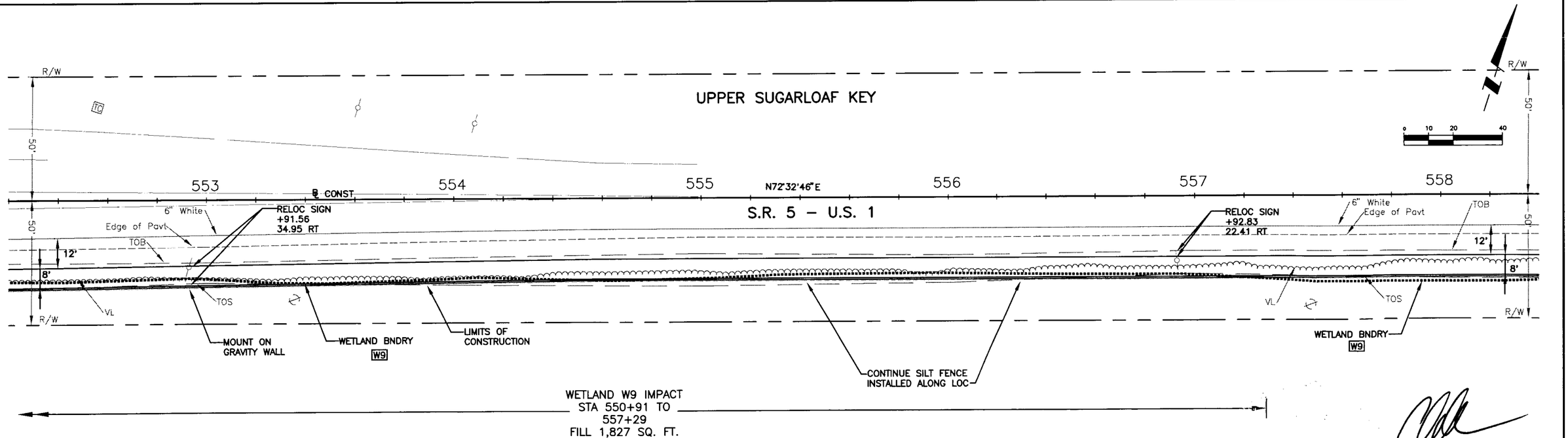

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

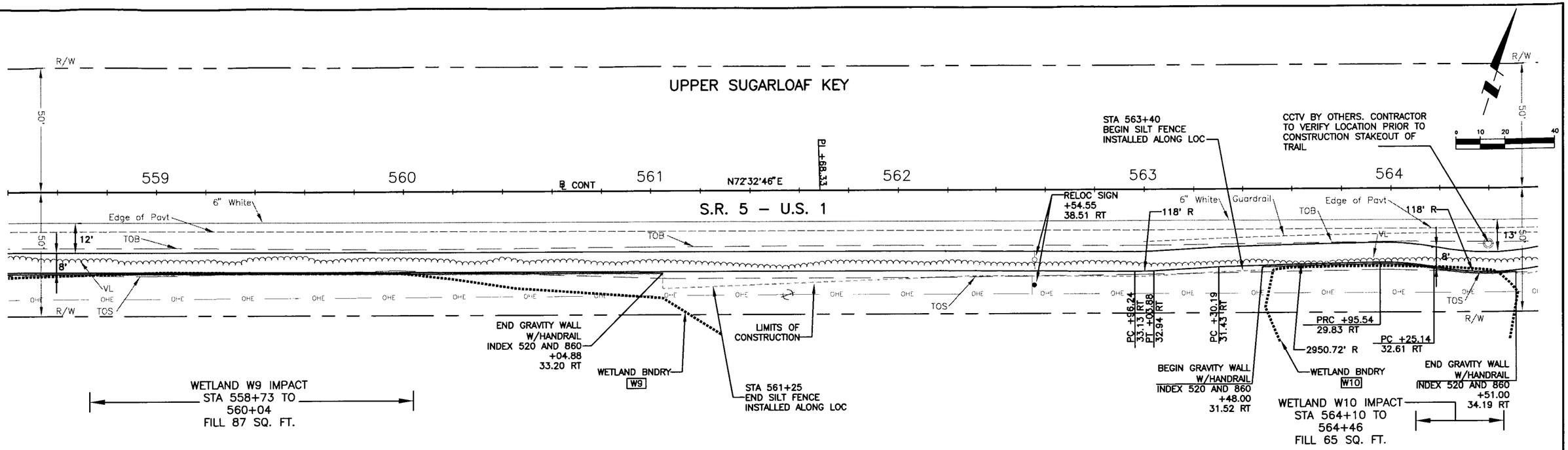
DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 36 TWP: 66S RGE: 27E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

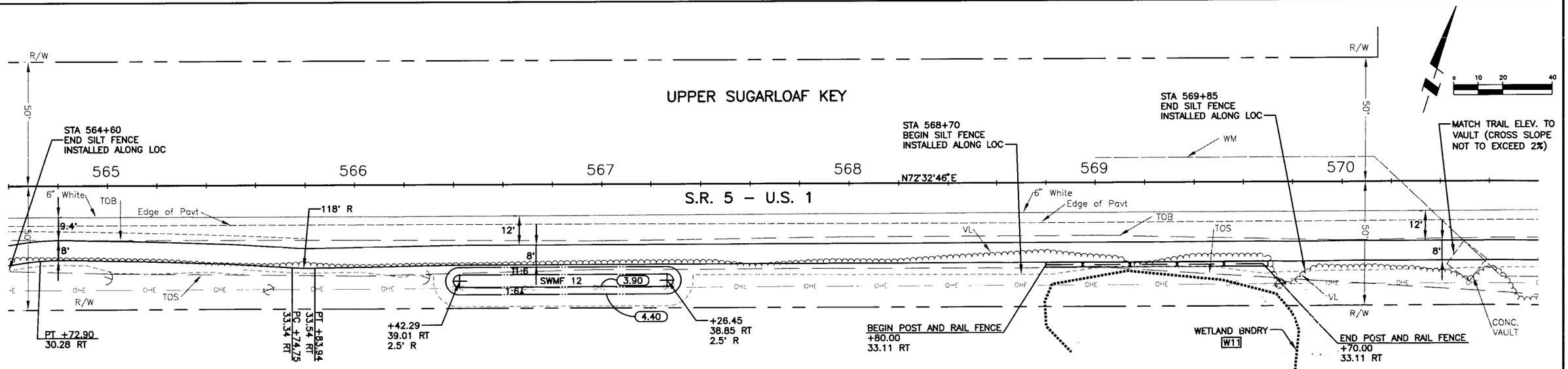
TITLE: PLAN
STATION 546+00 TO 558+40

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 43

Jun 09, 2009 - 13:56:56 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-035-PLAN.dwg





6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

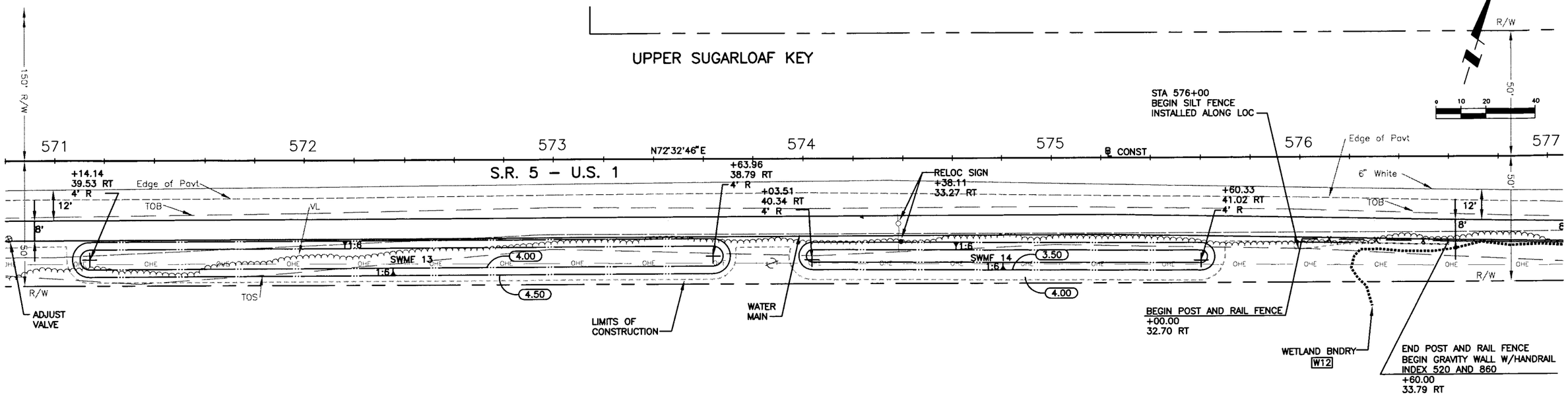
DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 36 TWP: 66S RGE: 27E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
PLAN
STATION 558+40 TO 570+80

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 44

Jun 09, 2009 – 13:59:19 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-036-PLAN.dwg



ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 30 31 TWP: 66S 66S RGE: 27E 28E

TITLE:
PLAN
STATION 570+80 TO 583+20

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 45

6/11/09

FP ID 405633-1
FDEP NO 6G020

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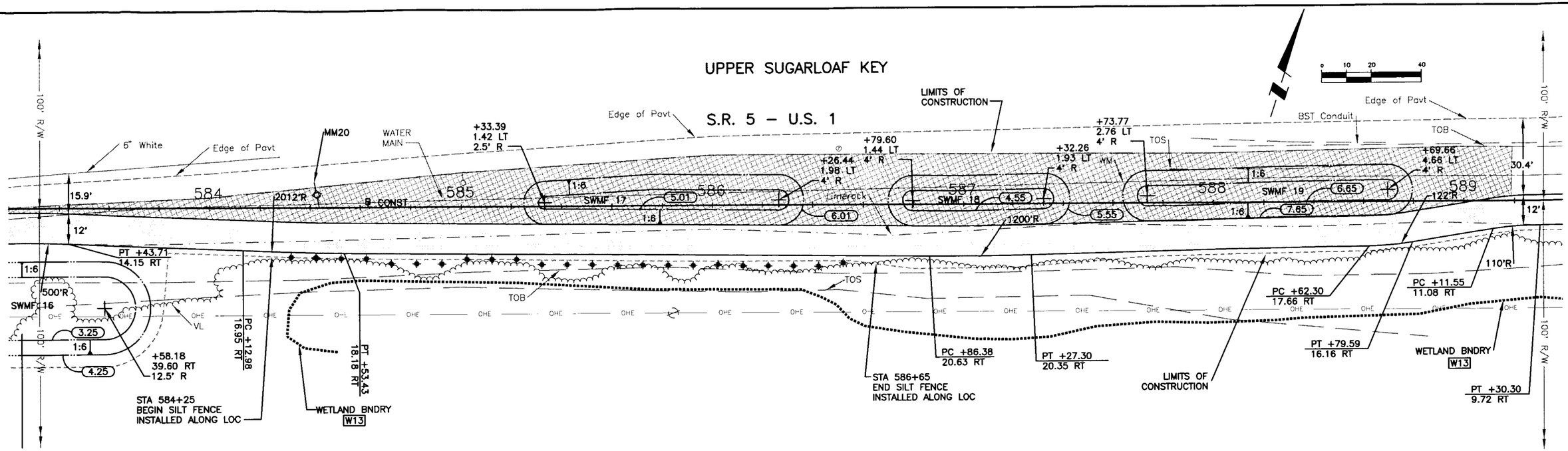

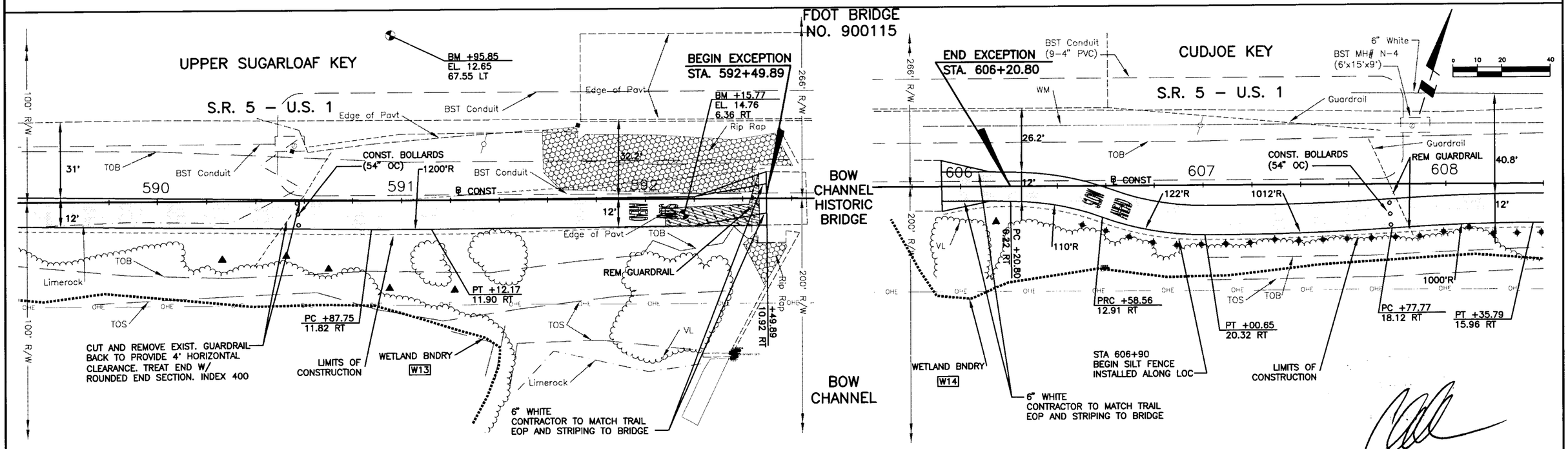

6/11/09

FP ID 405633–1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 30 31 TWP: 66S RGE: 28E

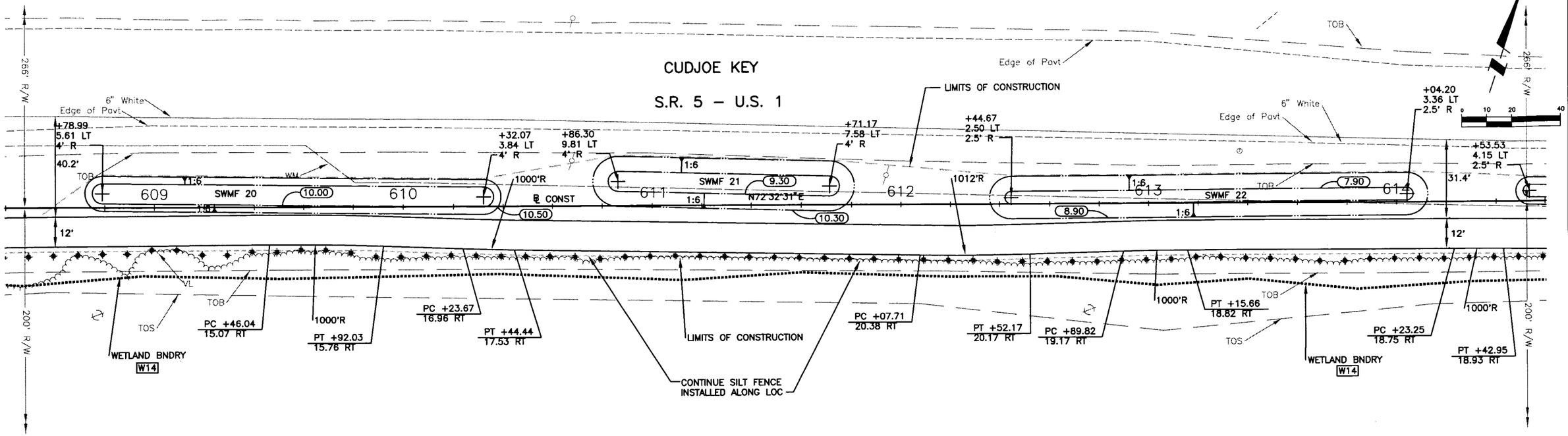
TITLE:
PLAN
STATION 583+20 TO 608+40

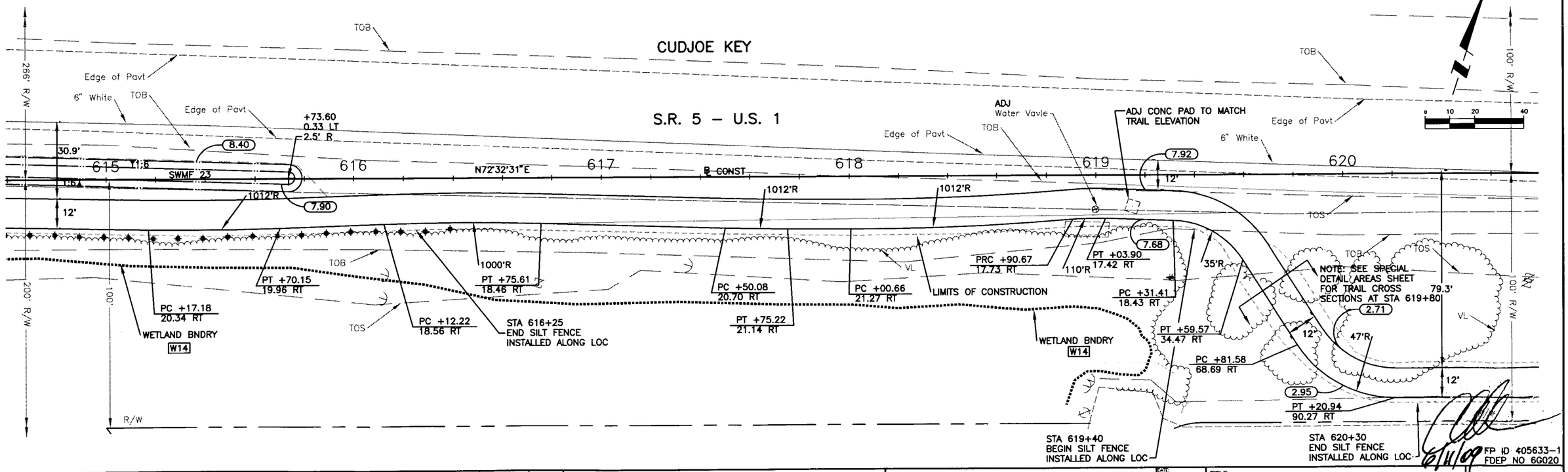
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 46

Jun 09, 2009 – 11:45:24 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-038-PLAN.dwg





ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 30 TWP: 66S RGE: 28E

TITLE:
PLAN
STATION 608+40 TO 620+80

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 54859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 47

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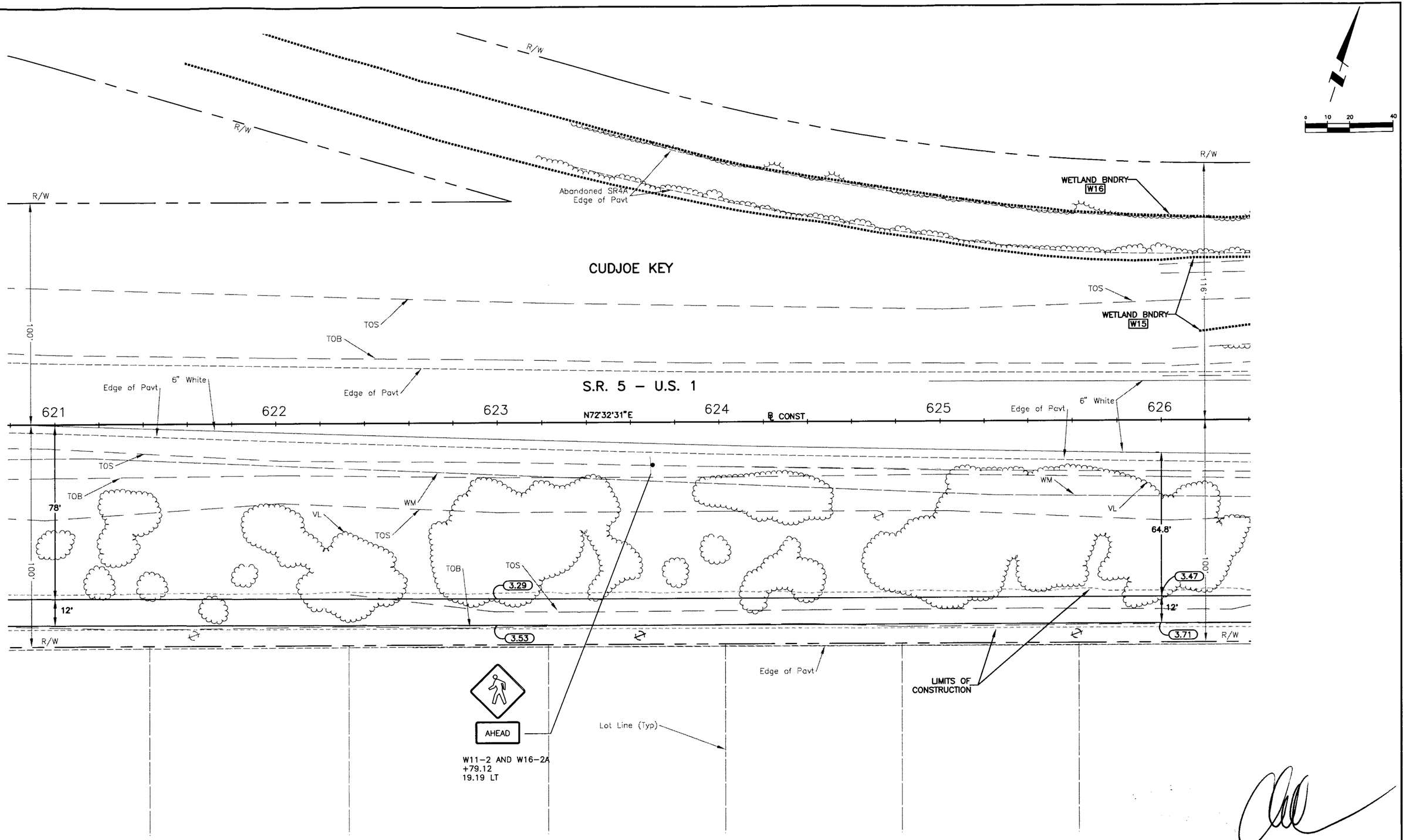

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 30 TWP: 66S RGE: 28E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
PLAN
STATION 620+80 TO 626+40

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 48

6/11/09

FP ID 405633-1
FDEP NO 6G020

Jun 09, 2009 – 14:10:33 JGERTH X:\ENG\04880\002-Segment1\REV02\6G020-040-PLAN.dwg

WETLAND W15 IMPACT
STA 626+91 TO
STA 627+21
FILL 523 SQ FT

* SAFETY ENHANCED CROSSWALK INCLUDING: SOLAR POWERED CONTROL UNIT (LGS-SOLAR SYSTEM) W/ 80W SOLAR PANEL, PROGRAMMABLE INTERFACE AND BATTERY OPERATED, 12" AMBER DC POWERED BEACONS (1 EA. ROADSIDE) AND ADA COMPLIANT 2" PUSH BUTTON ASSEMBLY W/ LED PLACARDS (LGS-PBA-PAIR) (1 EA. ROADSIDE). CONTACT LIGHT GUARD SYSTEMS INC. AT (707) 542-4547 FOR PRODUCTS

NOTE: SEE SPECIAL AREA DETAILS SHEET FOR STA 627+00 PROFILE AND CROSS SECTIONS

CUDJOE KEY

0 10 20 40

AHEAD
W11-2 AND W16-2A
+09.76
28.52 LT

BEGIN FENCE
+01.69
89.15 LT

CONST. BOLLARDS
(54" O.C.)

+01.69
87.15 LT

+01.69
77.15 LT

26 LF OF 14"X23" ERCP

WETLAND BNDRY
W16

Edge of Pavt
Abandoned SR4A

1126 LF POST & RAIL
WOODEN FENCE

WETLAND BNDRY
W16

R/W

MES FDOT INDEX 272
INV. EL 1.00

R/W

10'

PT +35.16
77.59 LT

30'R

MES FDOT INDEX 272
INV. EL 1.00

PI +13.34
78.62 LT

PI +77.99
81.13 LT

WETLAND BNDRY
W15

BST MH# N-7
(6'x12'x7')

VL

PI +98.32
78.25 LT

WETLAND BNDRY
W15

+95.56
47.60 LT

REM JERSEY BARRIER

TOS

BST Conduit
(2-4" PVC)

BST Conduit
(3-4" PVC)

TOS

NO MOTOR VEHICLES

PC +05.56
47.60 LT

VL

WETLAND BNDRY
W15

BST Conduit
(8-4" PVC)

+90.44
28.73 LT

10'

W11-2 AND W16-7P
W/ WARNING BEACON
+09.99
32.16 LT

+95.57
21.72 LT

+05.55
21.74 LT

6" White

Edge of Pavt

TOB

TOB

Edge of Pavt

12" SOLID WT.

627

10' SAFETY ENHANCED CROSSWALK

628

S.R. 5 – U.S. 1

℄ CONST

N72°32'31"E

629

630

631

632

MATCH EXIST
PAVEMENT ELEV

NO MOTOR VEHICLES
R5-3
+12.14
31.74 RT

+95.72
20.19 RT

5.6±

5.6±

10'

Edge of Pavt

6" White

TOS

TOB

TOS

TOB

Edge of Pavt

6" White

4.61

TOB

PT +95.73
29.28 RT

+05.72
20.36 RT

PC +05.74
33.45 RT

12'

8'

24'R

4.45

PC +45.73
79.36 RT

4.75

4.75

50'R

PT +55.66
83.66 RT

50'R

8'

PC +73.38
51.72 RT

PT +98.28
40.84 RT

3.58

10'

5.00

5'R
TYP

3.58

TOS

LIMITS OF
CONSTRUCTION

VL

32'R

3.34

PT +57.73
76.86 RT

12'

8'

8'

3.50

R/W

SOD
ISLAND

REM TREE

PC +30.51
91.94 RT

STA 631+35
BEGIN SILT FENCE
INSTALLED ALONG LOC

Lot Line (Typ)

W11-2 AND W16-7P
W/ WARNING BEACON
+79.48
28.64 LT

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 30 TWP: 66S RGE: 28E

TITLE:
PLAN
STATION 626+40 TO 632+60

CROSS REFERENCE FILE NO.:

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002

SHEET NUMBER: 49

Jun 09, 2009 - 14:15:24 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-041-PLAN.dwg

CUDJOE KEY

S30 T66S R28E
S29 T66S R28E

0 10 20 40

BEGIN PAVEMENT
ELEV. 2.50 FT
+20.01
89.87 LT

END FENCE
+27.62
91.71 LT

R/W

2.50

WETLAND BNDRY
W16

Abandoned SR4A
Edge of Pavt

BM +98.37
87.11 LT

10%

PI +00.54
78.58 LT

PI +02.19
79.93 LT

WETLAND BNDRY
W15

PI +64.80
82.11 LT

PI +98.29
79.15 LT

VL

PI +28.05
82.31 LT

BST
CONDUIT

MM21

116'

TOS

TOB

BST Conduit
(3-4" PVC)

Edge of Pavt

S.R. 5 – U.S. 1

633 634 635 ℄ CONST. 636 N72°32'31"E 637 638

6" White

32'R

WM

9'

8'

24'R

R/W

PT +06.23
46.84 RT

PC +99.00
47.86 RT

PT +81.61
53.11 RT

PC +66.33
53.90 RT

100'

STA 635+65
END SILT FENCE
INSTALLED ALONG LOC

9.89'

D1

+88.00
49.48 RT

LIMITS OF
CONSTRUCTION

DROST DR

50' R/W

Lot lines (Typ)

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 30 TWP: 66S RGE: 28E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
PLAN
STATION 632+60 TO 638+80

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 50

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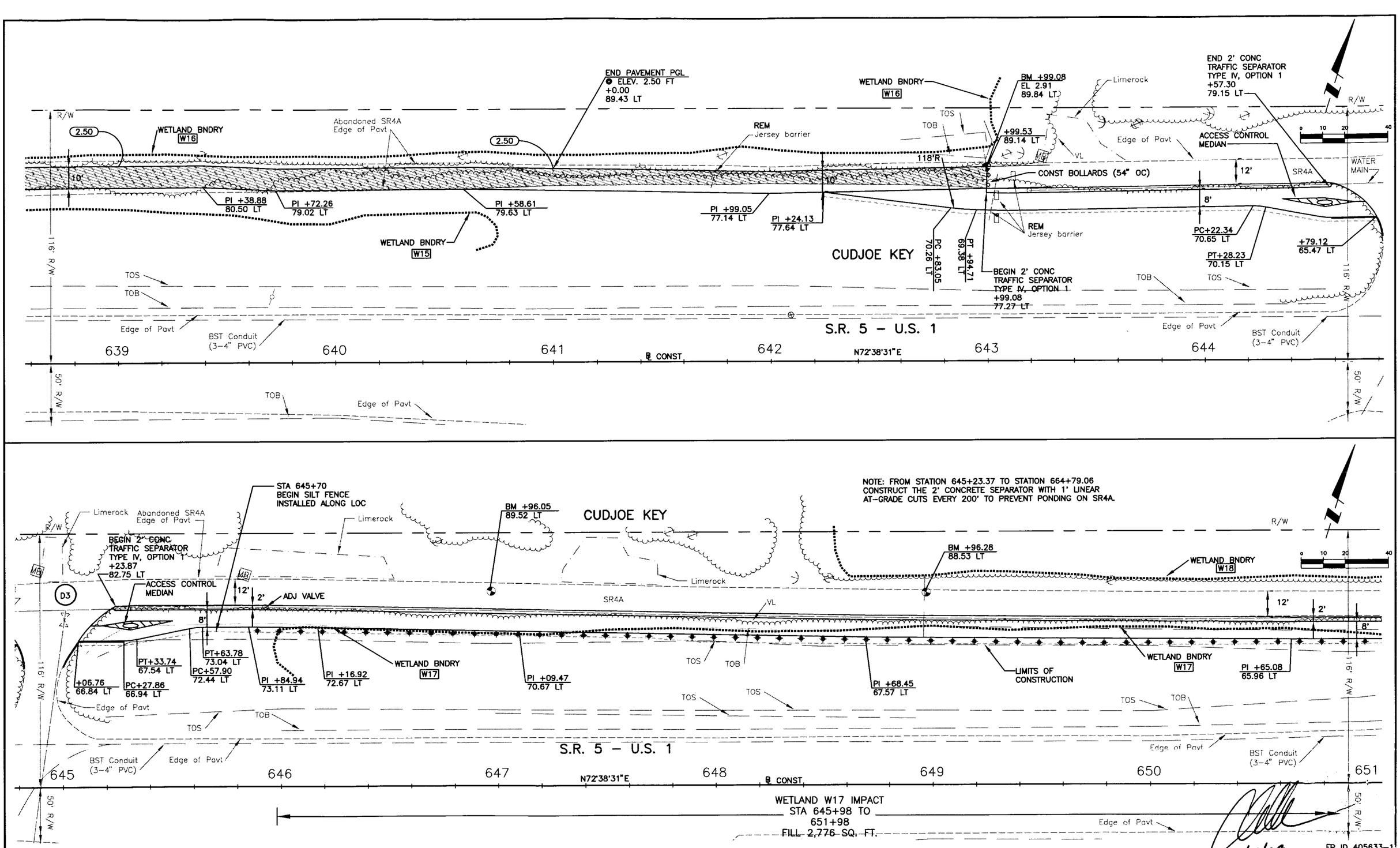

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JCG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 29 TWP: 66S RGE: 28E

TITLE: PLAN
STATION 638+80 TO 651+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 58859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 51

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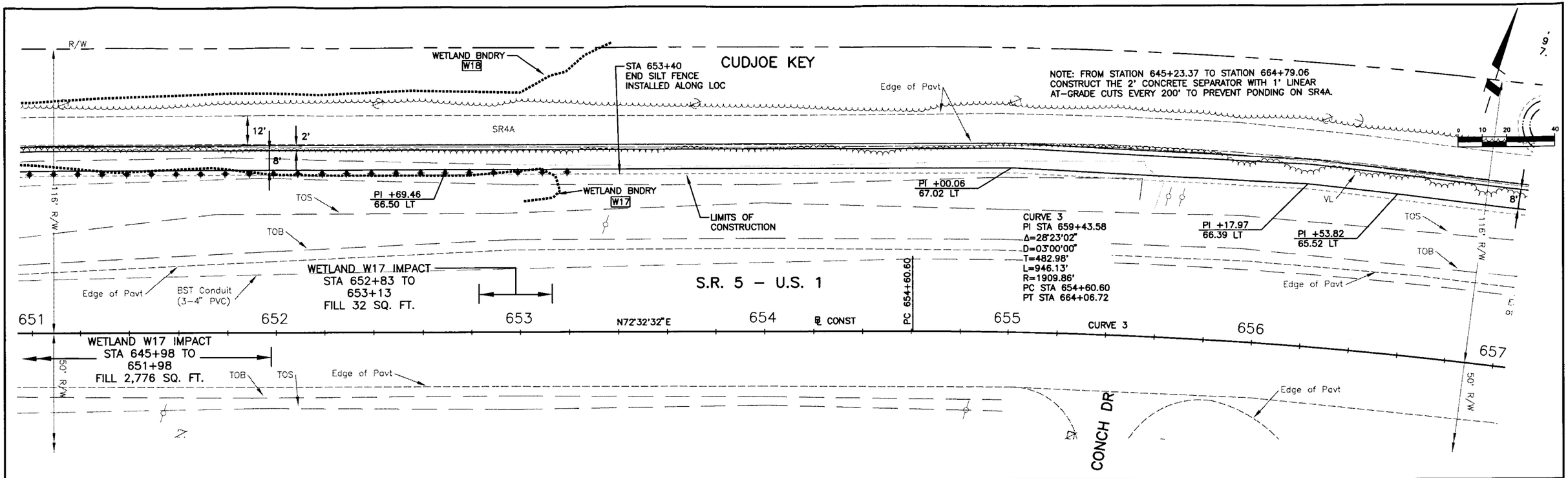

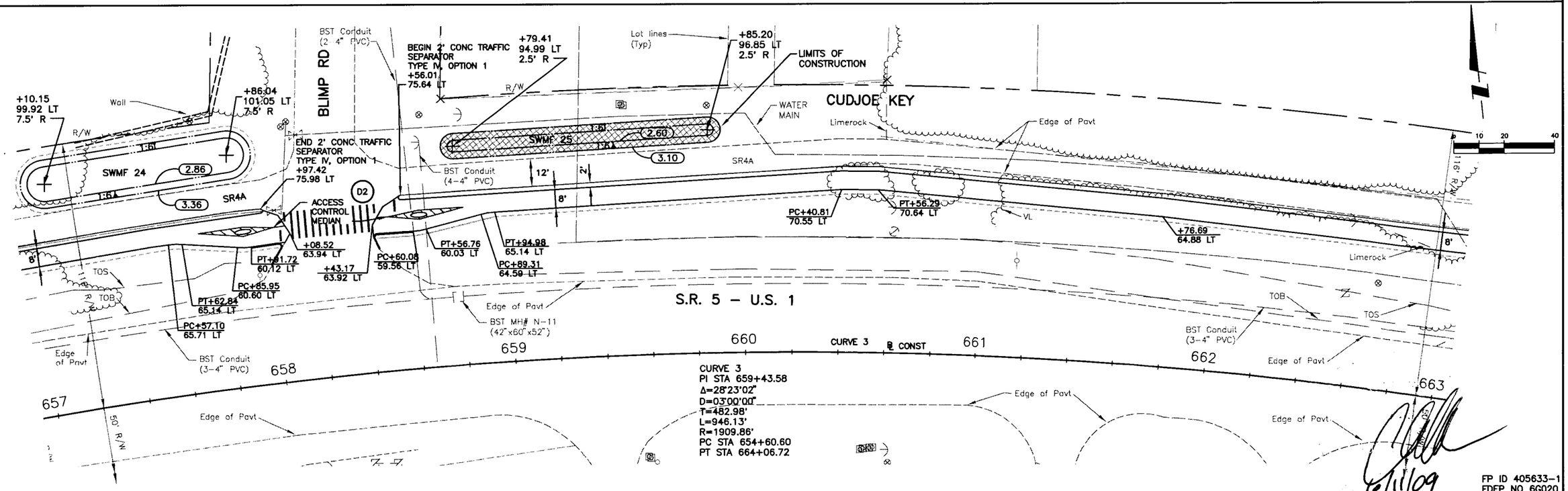

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 29 TWP: 66S RGE: 28E

TITLE: PLAN
STATION 651+40 TO 663+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

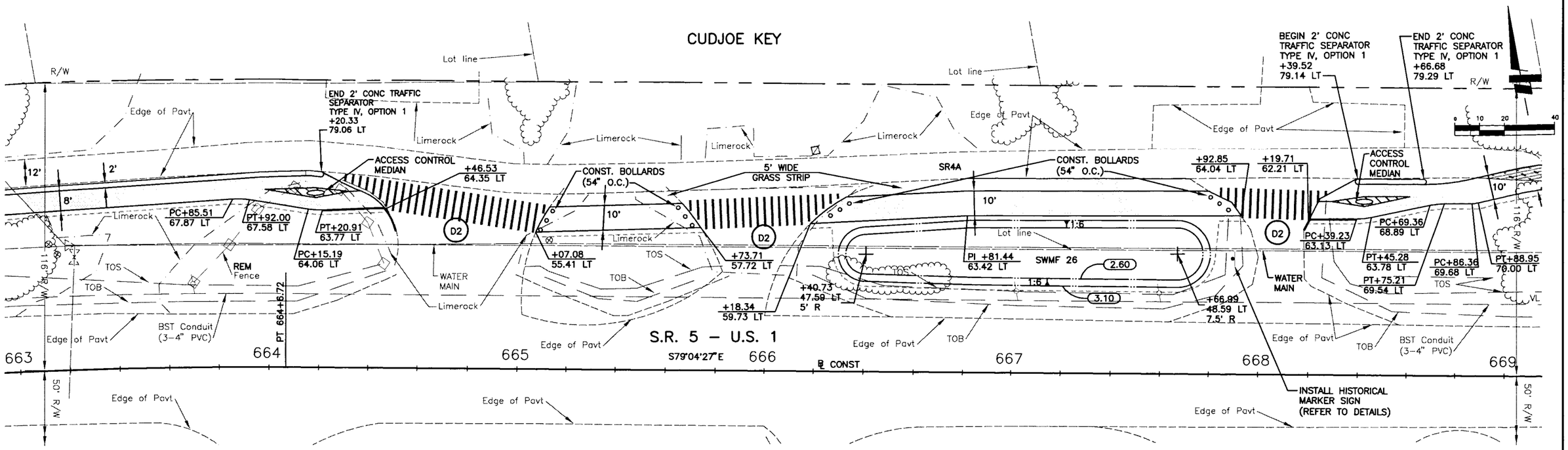
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

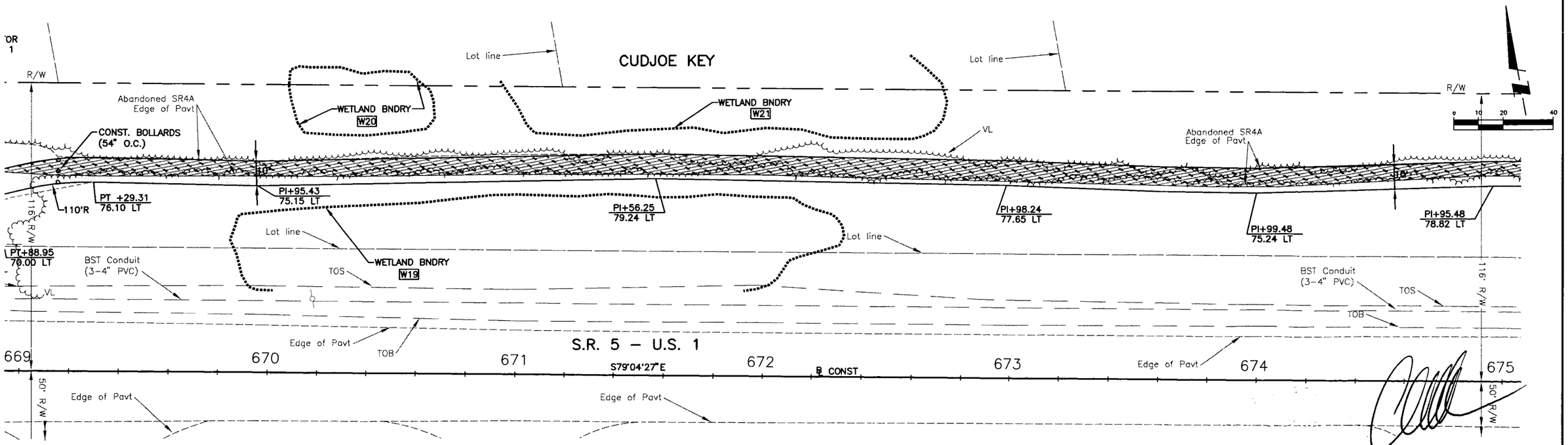
INDEX NUMBER: B-04880-002
SHEET NUMBER: 52

FP ID 405633-1
FDEP NO 6G020

6/11/09

Jun 09, 2009 - 14:21:49 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-044-PLAN.dwg





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						DESIGNED BY:	CEA/1159	01/09
						DRAWN BY:	JGG/2031	01/09
						CHECKED BY:	CEB/1562	01/09
						CONTRACT ADMIN. BY:		
△REV NO.	REVISION		DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:		

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CLIENT:	DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS
PROJECT:	FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE:	AUG 2008
HORIZONTAL SCALE:	AS SHOWN
VERTICAL SCALE:	AS SHOWN
SEC: TWP: RGE:	29 66S 28E
CROSS REFERENCE FILE NO.:	
PROJECT NUMBER:	04880-002-000

TITLE:
PLAN
STATION 663+00 TO 675+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 58859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 53

6/11/09

FP ID 405633-1
FDEP NO 6G020

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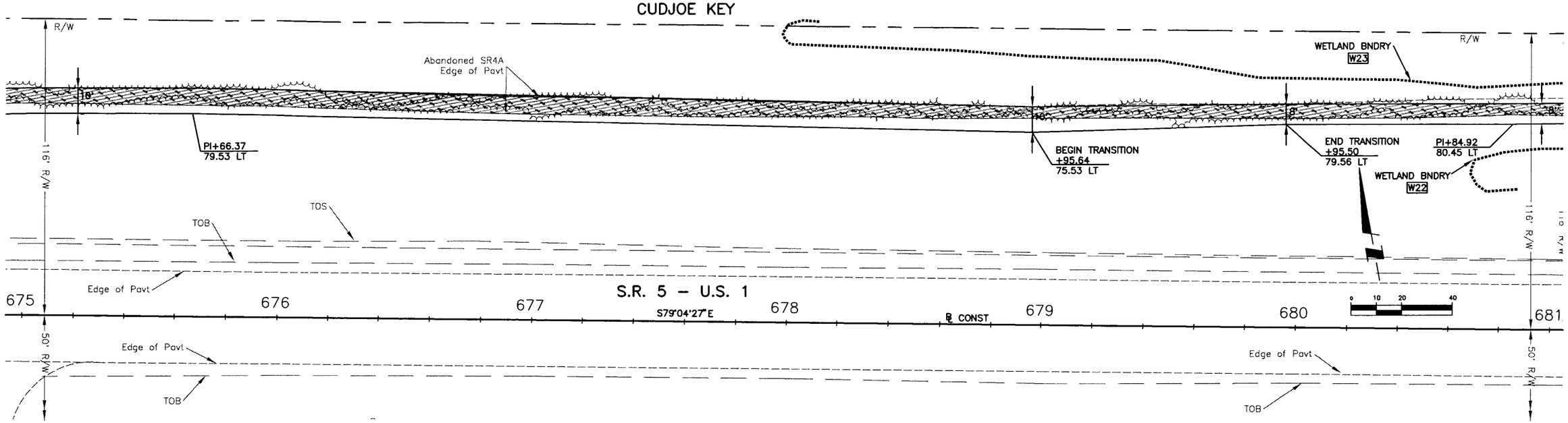
CUDJOE KEY



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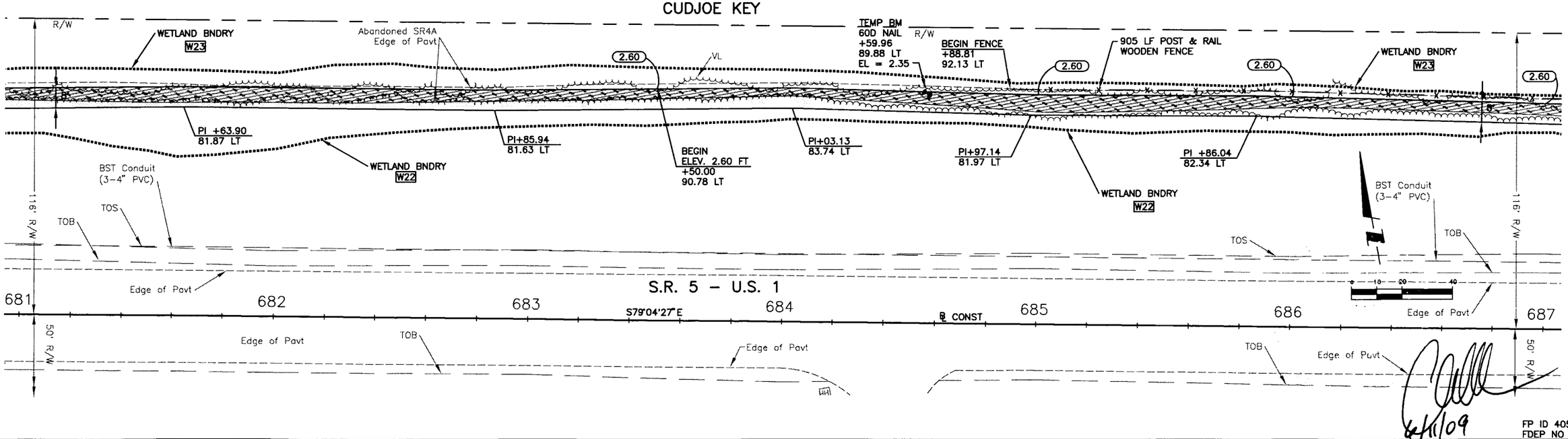

6/11/09

FP ID 405633-1
FDEP NO 6G020

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
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DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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1441 Wesley Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone: 850-878-5011 - Fax 850-878-5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: TWP: RGE: 29 66S 28E
CROSS REFERENCE FILE NO.:

TITLE: PLAN
STATION 675+00 TO 687+00

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 54

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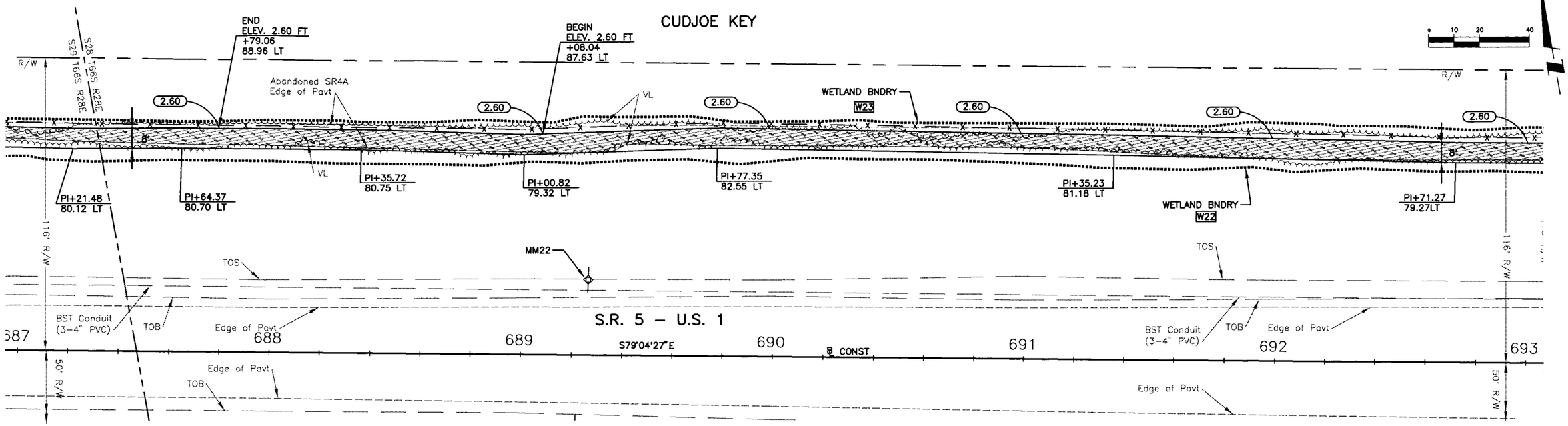

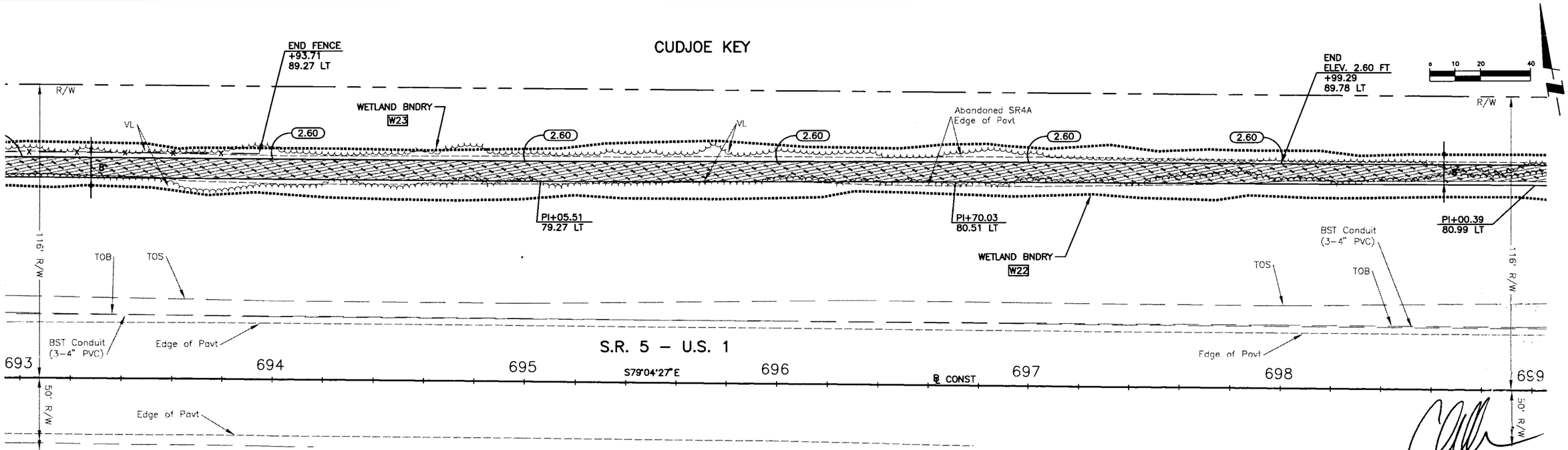

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					DESIGNED BY:	CEA/1159	01/09
					DRAWN BY:	JGG/2031	01/09
					CHECKED BY:	CEB/1562	01/09
					CONTRACT ADMIN. BY:		
△REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:		

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WilsonMiller, Inc.
1441 Wesley Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone: 850-878-5001 - Fax 850-878-5941 - Web: www.wilsonmiller.com

CLIENT:	DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS
PROJECT:	FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 28 TWP: 66S RGE: 28E

TITLE:
PLAN
STATION 687+00TO 699+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 55

FP ID 405633-1
FDEP NO 6G020

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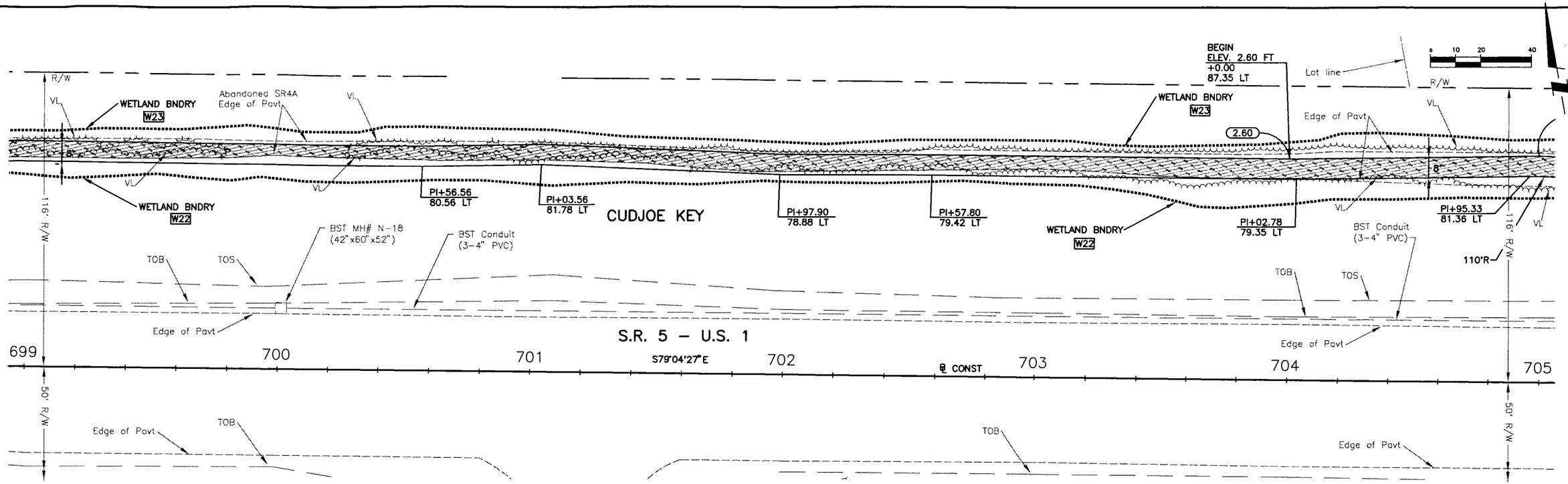

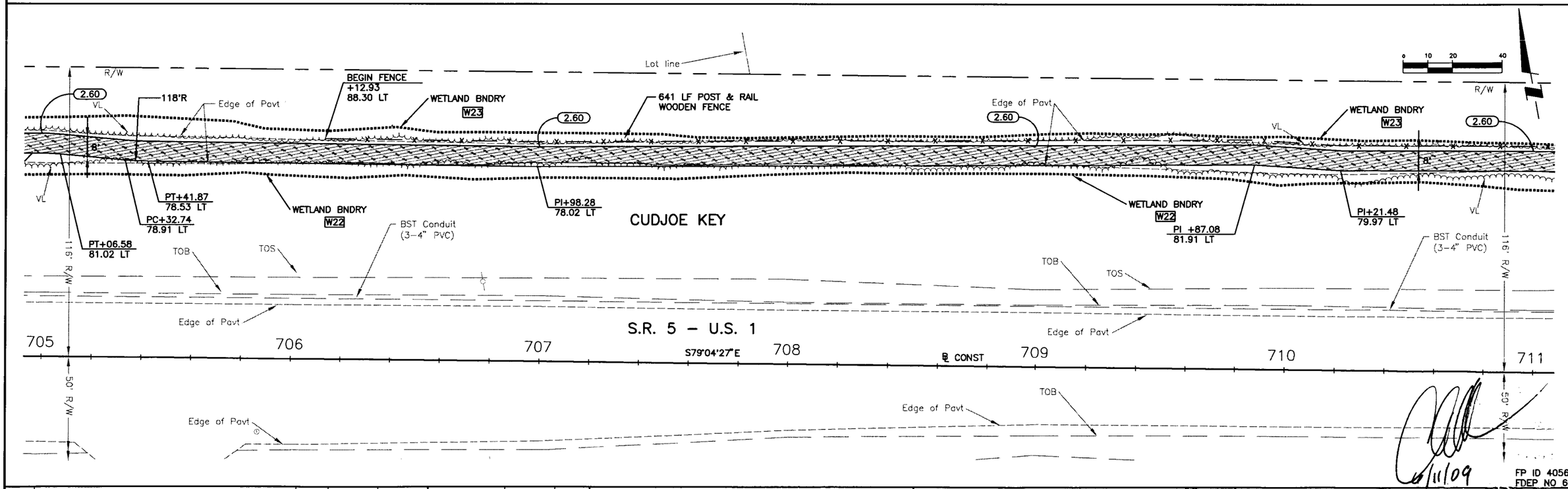

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					DESIGNED BY:	CEA/1159	01/09
					DRAWN BY:	JGG/2031	01/09
					CHECKED BY:	CEB/1562	01/09
					CONTRACT ADMIN. BY:		
△REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:		

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FL Lic.# LC-C000170 · Certificate of Authorization #43
WilsonMiller, Inc.
1441 Mackay Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone: 850-878-5011 - Fax: 850-878-5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 28 TWP: 66S RGE: 28E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
PLAN
STATION 699+00 TO 711+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56959

INDEX NUMBER: B-04880-002
SHEET NUMBER: 56

FP ID 405633-1
FDEP NO 6G020

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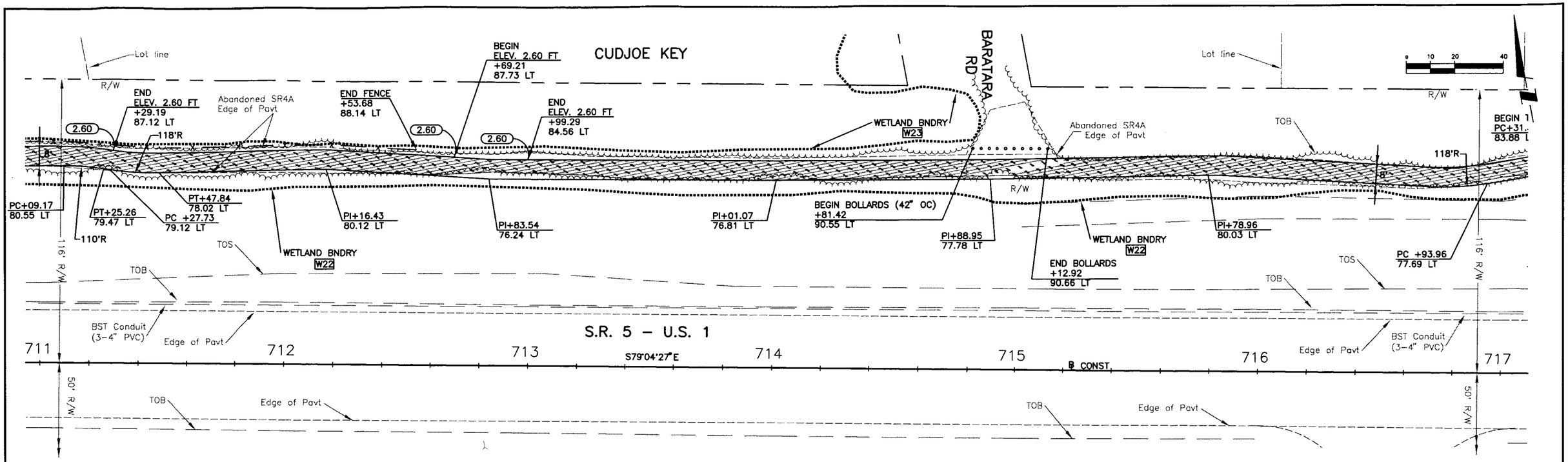

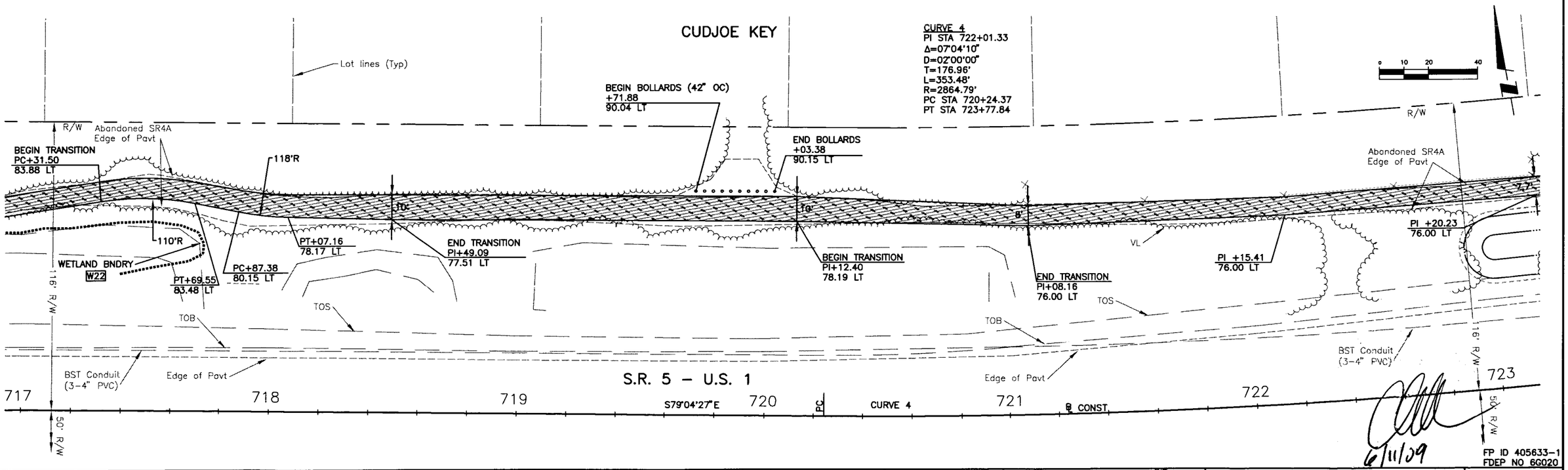

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					DESIGNED BY:	CEA/1159	01/09
					DRAWN BY:	JGG/2031	01/09
					CHECKED BY:	CEB/1562	01/09
					CONTRACT ADMIN. BY:		
△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:		

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1441 Maclay Commerce Drive, Suite 101 · Tallahassee, Florida 32312 · Phone 850-878-5001 · Fax 850-878-5941 · Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC. TWP. RGE.: 28 66S 28E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
PLAN
STATION 711+00 TO 723+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 57

FP ID 405633-1
FDEP NO 6G020

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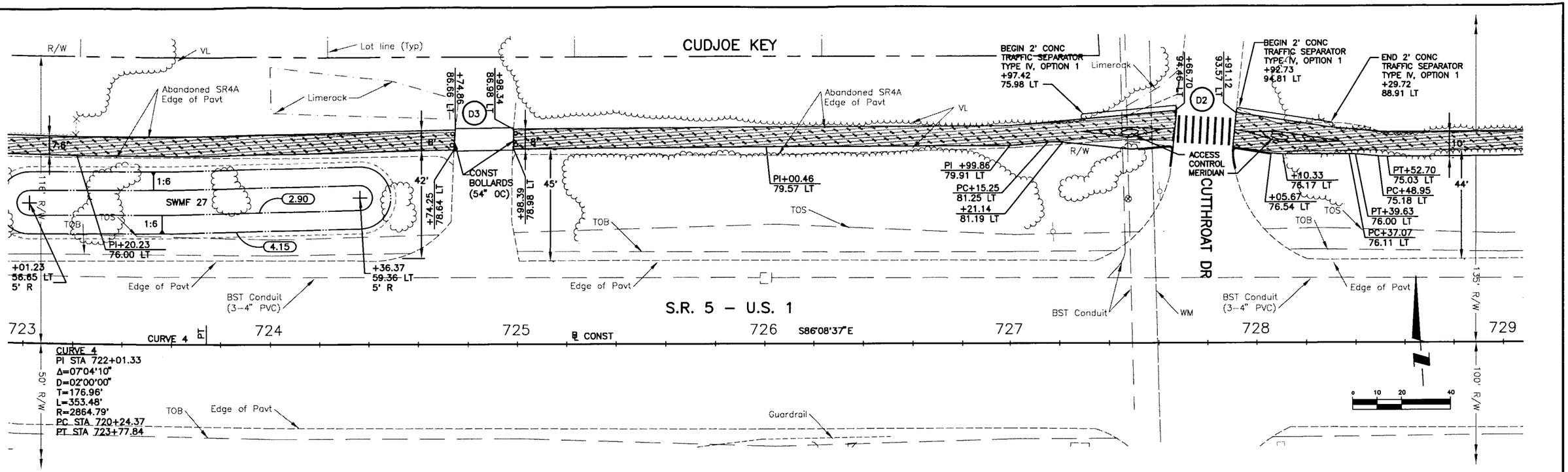

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 28 TWP: 66S RGE: 28E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
PLAN
STATION 723+00 TO 735+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 58

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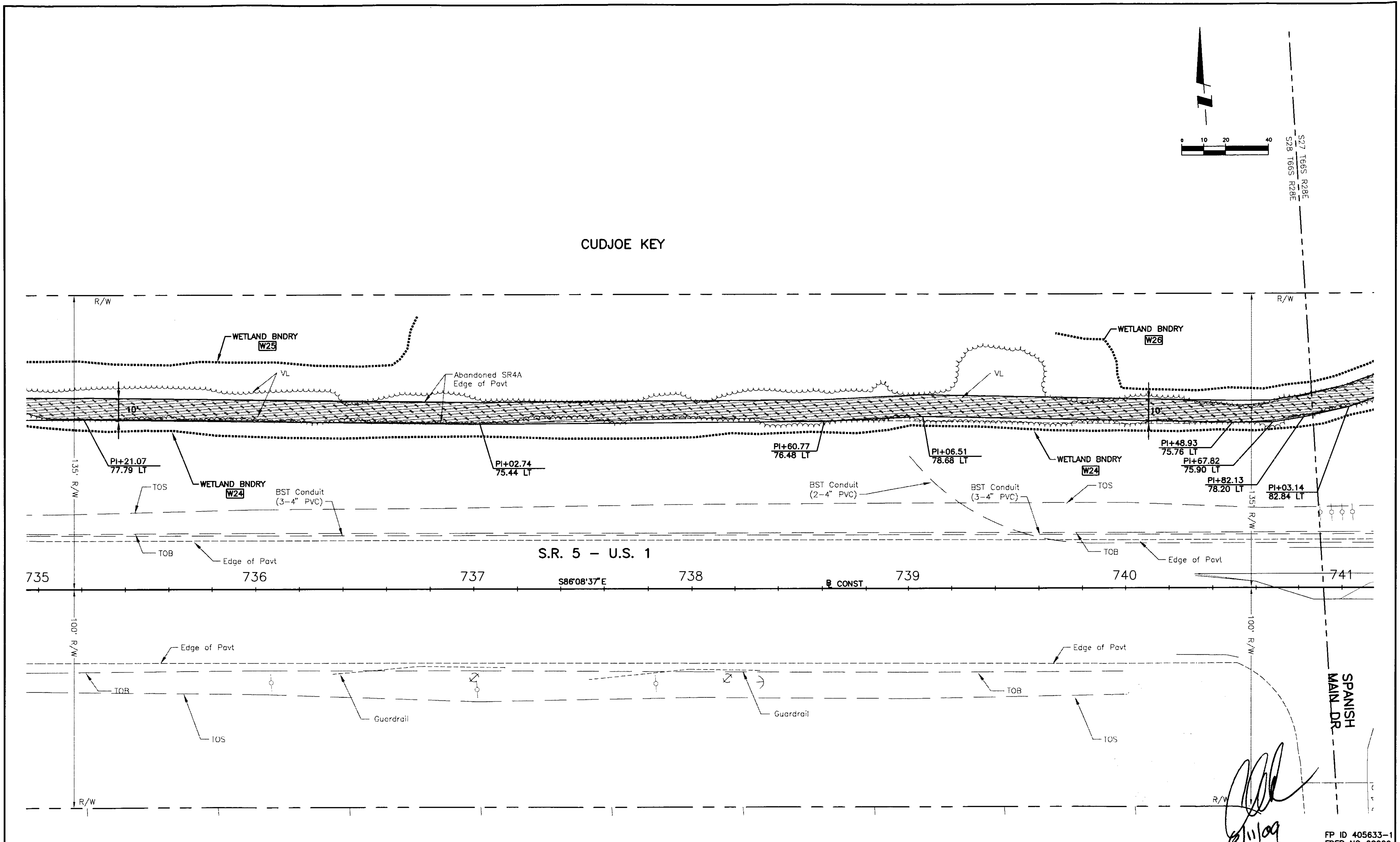

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC. 27/28 TWP. 66S RGE. 28E

TITLE: PLAN
STATION 735+00 TO 741+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04880-002
SHEET NUMBER: 59

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FP ID 405633-1
FDEP NO 6G020

6/11/09

						ACTIVITY	INITIALS/EMP. NO.	DATE
						DESIGNED BY:	CEA/1159	01/09
						DRAWN BY:	JGG/2031	01/09
						CHECKED BY:	CEB/1562	01/09
						CONTRACT ADMIN. BY:		
△REV NO.	REVISION		DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:		

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WilsonMiller, Inc.
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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS
PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 27 TWP: 66S RGE: 28E

TITLE:
PLAN
STATION 741+00 TO 747+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04880-002
SHEET NUMBER: 60

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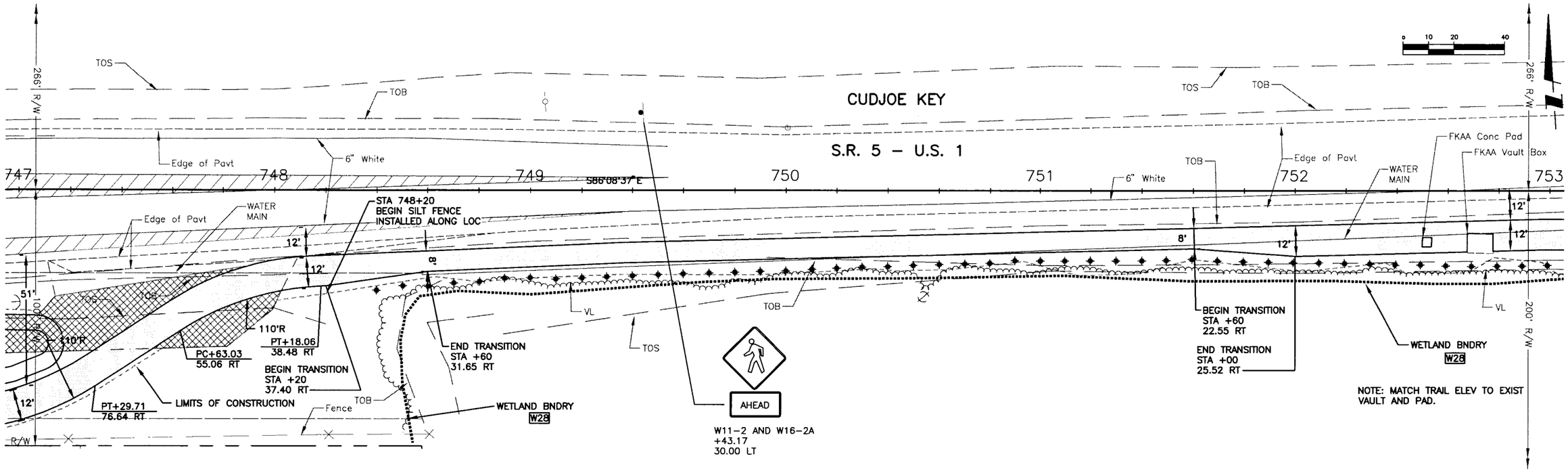

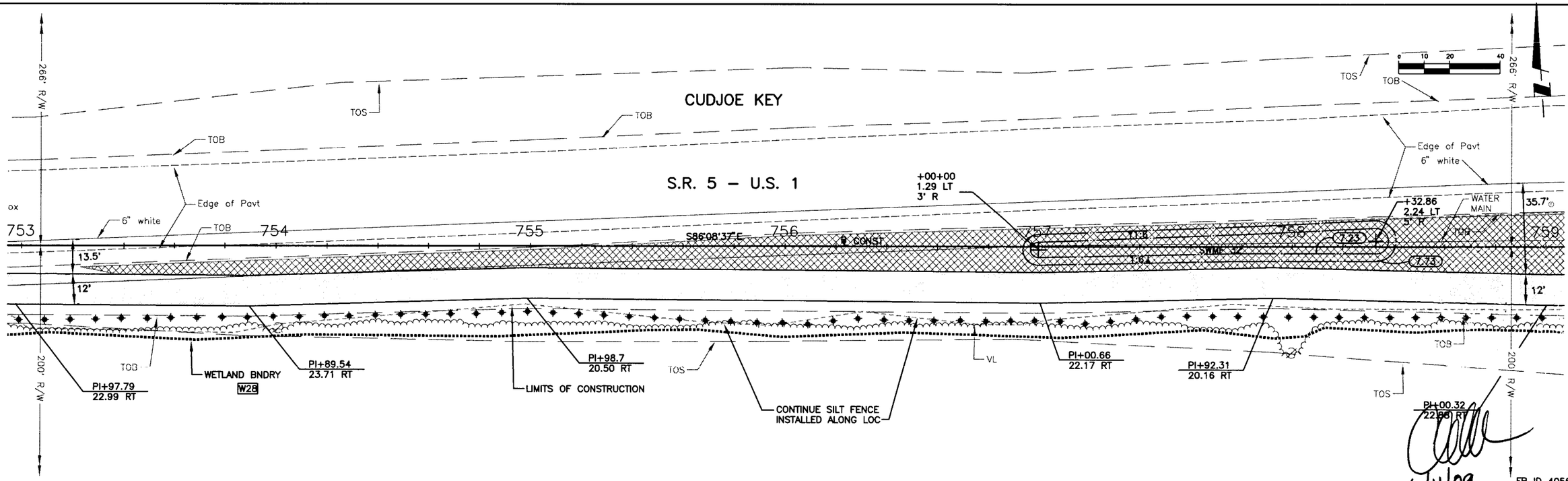

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 27 TWP: 66S RGE: 28E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE: PLAN
STATION 747+00 TO 759+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 61

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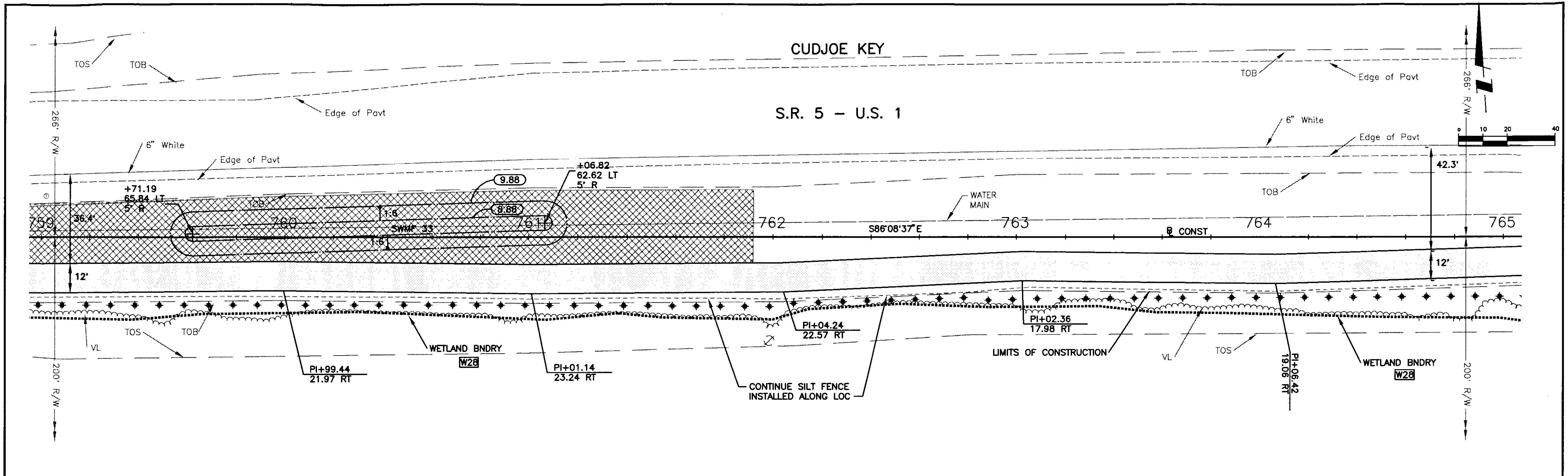

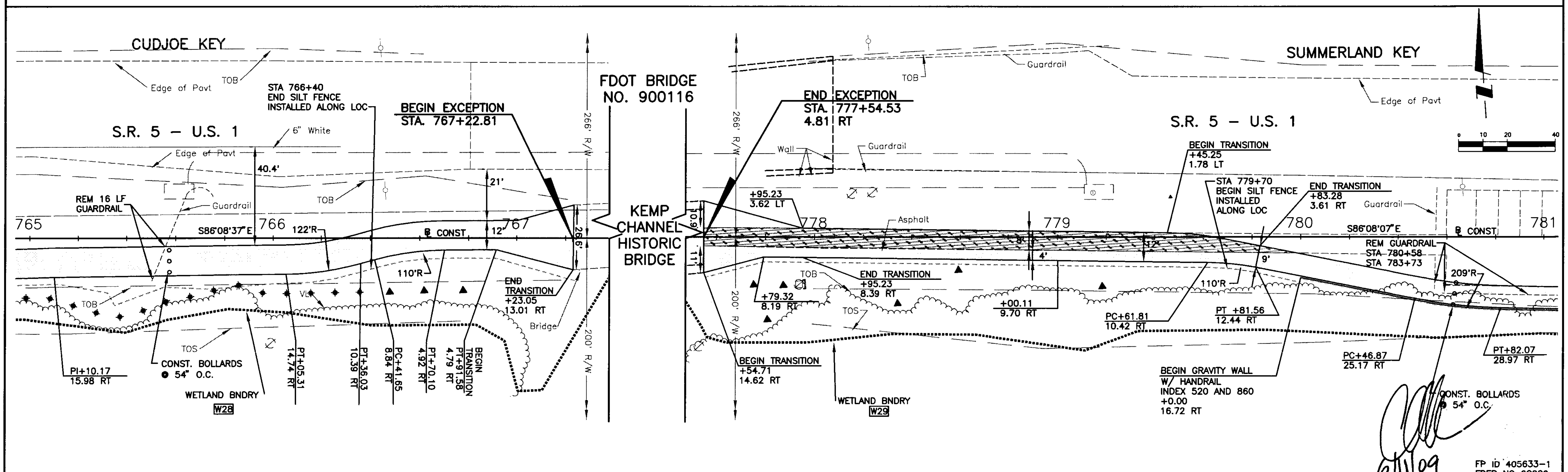

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS
PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

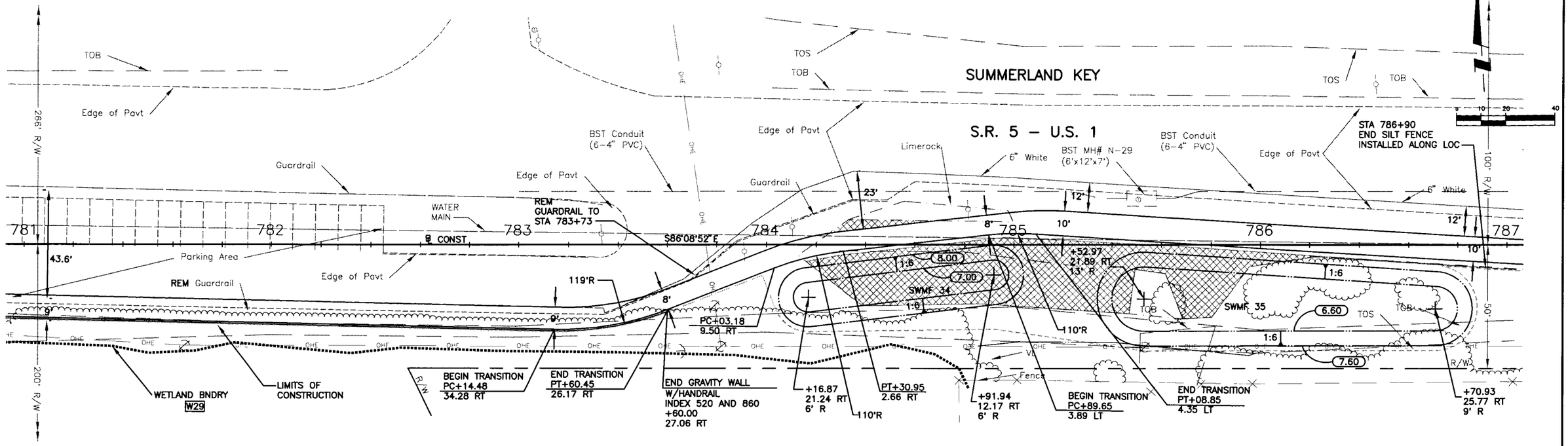
DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 27 TWP: 66S RGE: 28E

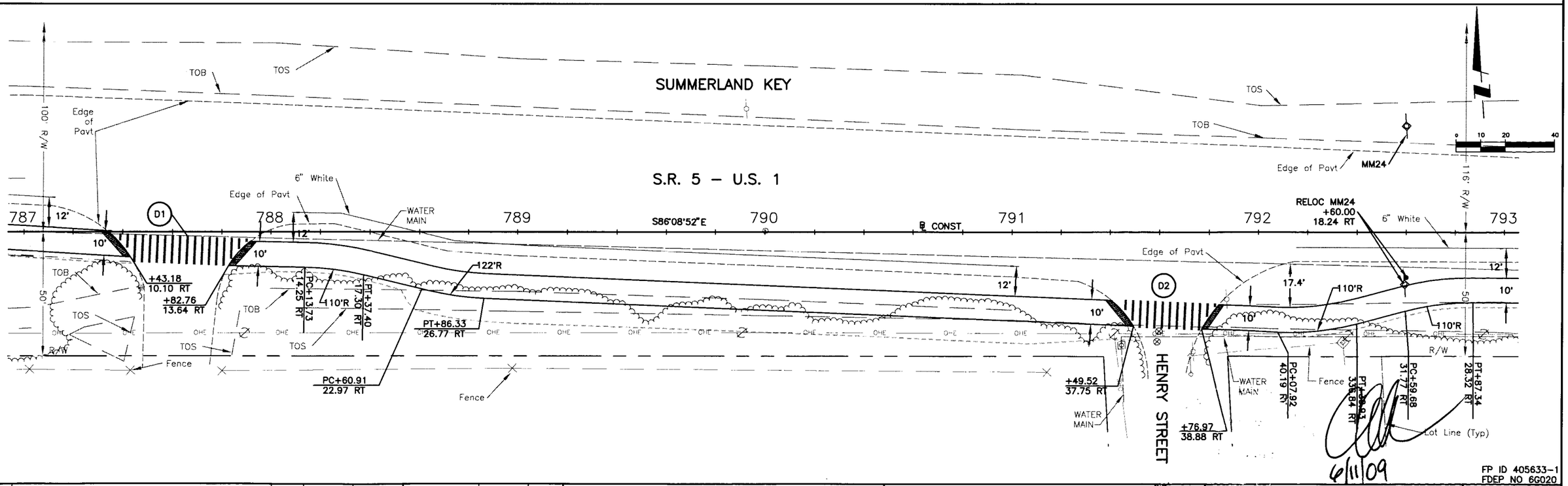
TITLE: PLAN
STATION 759+00 TO 781+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: 8-04880-002
SHEET NUMBER: 62

Jun 09, 2009 – 15:07:21 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-054-PLAN.dwg





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					DRAWN BY:	JGG/2031	01/09
					CHECKED BY:	CEB/1562	01/09
					CONTRACT ADMIN. BY:		
△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 27 TWP: 66S RGE: 28E
DRGS REFERENCE FILE NO.:

TITLE: PLAN
STATION 781+00 TO 793+00

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 63

FP ID 405633-1
FDEP NO 6G020

6/11/09

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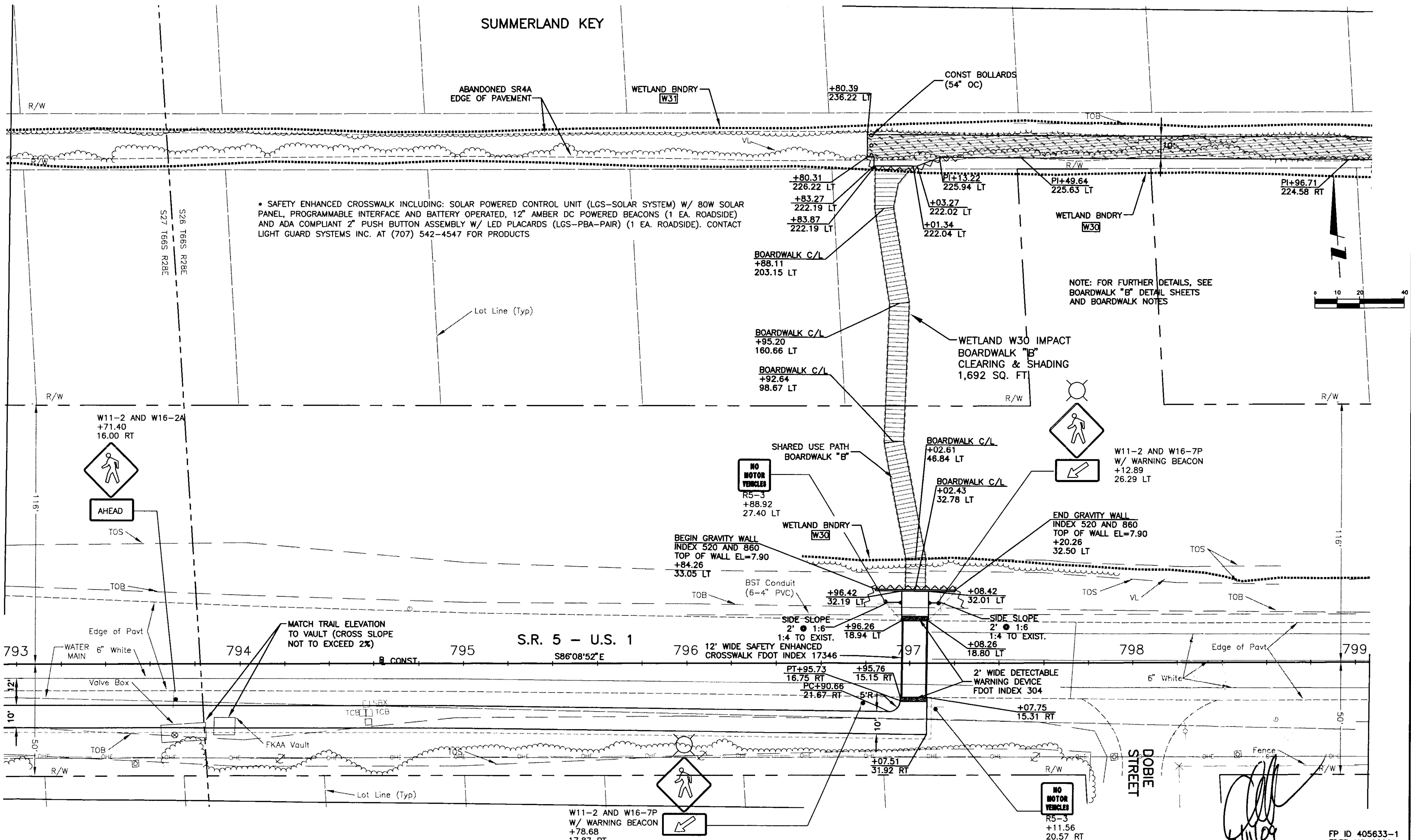
SUMMERLAND KEY
ABANDONED SR4A EDGE OF PAVEMENT
WETLAND BNDRY W31
+80.39 236.22 LT
CONST BOLLARDS (54" OC)
TOB
VL
R/W
+80.31 226.22 LT
+83.27 222.19 LT
+83.87 222.19 LT
PI+13.22 225.94 LT
PI+49.64 225.63 LT
PI+96.71 224.58 RT
+03.27 222.02 LT
+01.34 222.04 LT
WETLAND BNDRY W30
S26 T66S R28E
S27 T66S R28E
* SAFETY ENHANCED CROSSWALK INCLUDING: SOLAR POWERED CONTROL UNIT (LGS-SOLAR SYSTEM) W/ 80W SOLAR PANEL, PROGRAMMABLE INTERFACE AND BATTERY OPERATED, 12" AMBER DC POWERED BEACONS (1 EA. ROADSIDE) AND ADA COMPLIANT 2" PUSH BUTTON ASSEMBLY W/ LED PLACARDS (LGS-PBA-PAIR) (1 EA. ROADSIDE). CONTACT LIGHT GUARD SYSTEMS INC. AT (707) 542-4547 FOR PRODUCTS
BOARDWALK C/L +88.11 203.15 LT
NOTE: FOR FURTHER DETAILS, SEE BOARDWALK "B" DETAIL SHEETS AND BOARDWALK NOTES
0 10 20 40
Lot Line (Typ)
BOARDWALK C/L +95.20 160.66 LT
WETLAND W30 IMPACT BOARDWALK "B" CLEARING & SHADING 1,692 SQ. FT.
BOARDWALK C/L +92.64 98.67 LT
R/W
W11-2 AND W16-2A +71.40 16.00 RT
AHEAD
SHARED USE PATH BOARDWALK "B"
BOARDWALK C/L +02.61 46.84 LT
W11-2 AND W16-7P W/ WARNING BEACON +12.89 26.29 LT
NO MOTOR VEHICLES
R5-3 +88.92 27.40 LT
BOARDWALK C/L +02.43 32.78 LT
116'
WETLAND BNDRY W30
END GRAVITY WALL INDEX 520 AND 860 TOP OF WALL EL=7.90 +20.26 32.50 LT
BEGIN GRAVITY WALL INDEX 520 AND 860 TOP OF WALL EL=7.90 +84.26 33.05 LT
TOS
TOB
BST Conduit (6-4" PVC)
+96.42 32.19 LT
+08.42 32.01 LT
SIDE SLOPE 2' @ 1:6 1:4 TO EXIST.
+96.26 18.94 LT
+08.26 18.80 LT
Edge of Pavt
MATCH TRAIL ELEVATION TO VAULT (CROSS SLOPE NOT TO EXCEED 2%)
S.R. 5 – U.S. 1
S86°08'52"E
793
794
795
796
797
798
799
WATER MAIN
6" White
℄ CONST.
12' WIDE SAFETY ENHANCED CROSSWALK FDOT INDEX 17346
PT+95.73 16.75 RT
+95.76 15.15 RT
PC+90.66 21.67 RT
5'R
2' WIDE DETECTABLE WARNING DEVICE FDOT INDEX 304
+07.75 15.31 RT
Valve Box
12'
10'
TCB
FKAA Vault
50'
OHE
+07.51 31.92 RT
DOBIE STREET
Fence
Lot Line (Typ)
W11-2 AND W16-7P W/ WARNING BEACON +78.68 17.87 RT
R5-3 +11.56 20.57 RT
FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	ACTIVITY	INITIALS/EMP. NO.	DATE
					DESIGNED BY:	CEA/1159	01/09
					DRAWN BY:	JGG/2031	01/09
					CHECKED BY:	CEB/1562	01/09
					CONTRACT ADMIN. BY:		
					WM APPROVED BY:		

WilsonMiller

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WilsonMiller, Inc.
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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC 32 TWP 66S RGE 28E

TITLE: PLAN STATION 793+00 TO 799+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 64

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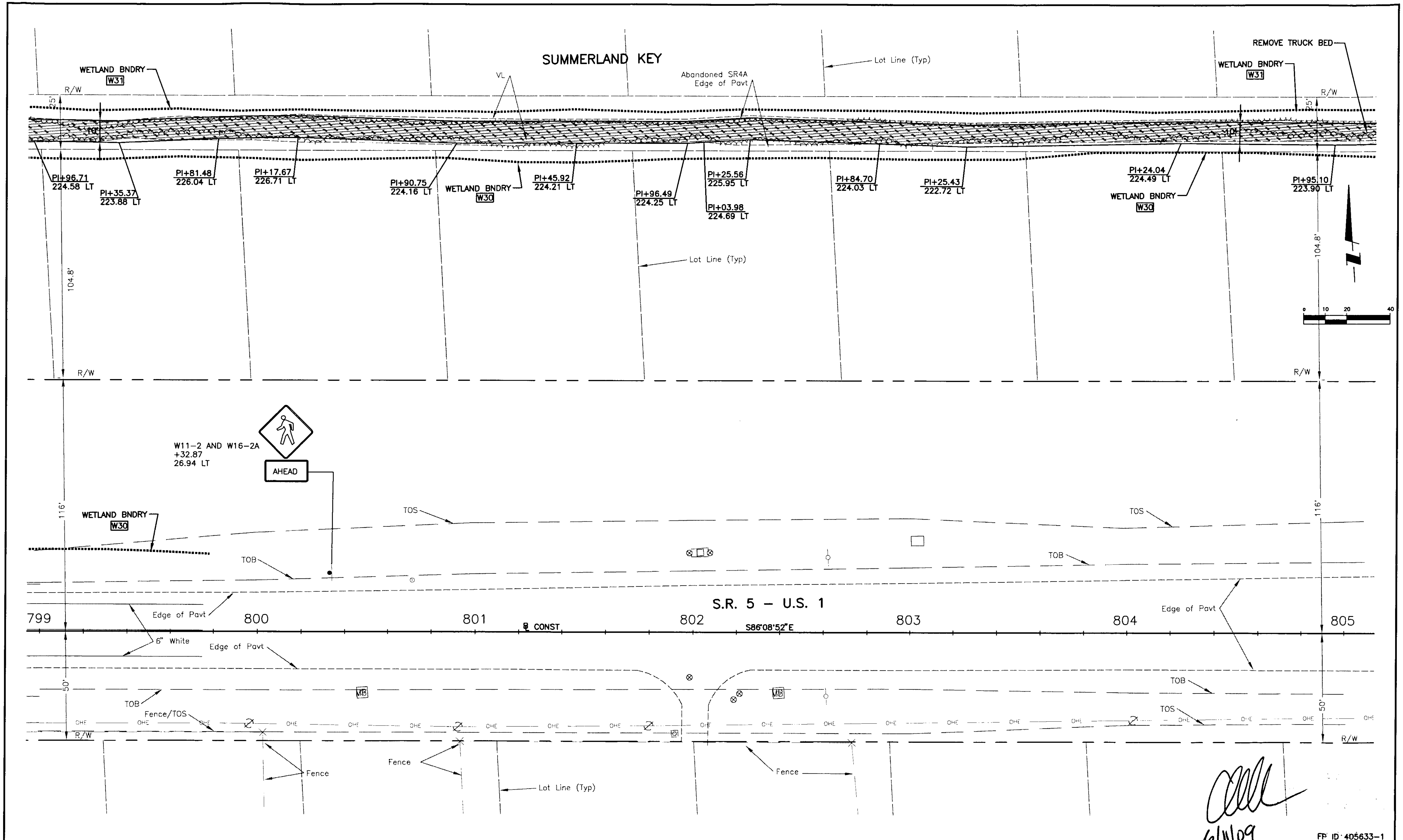

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
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CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

WilsonMiller

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS
PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

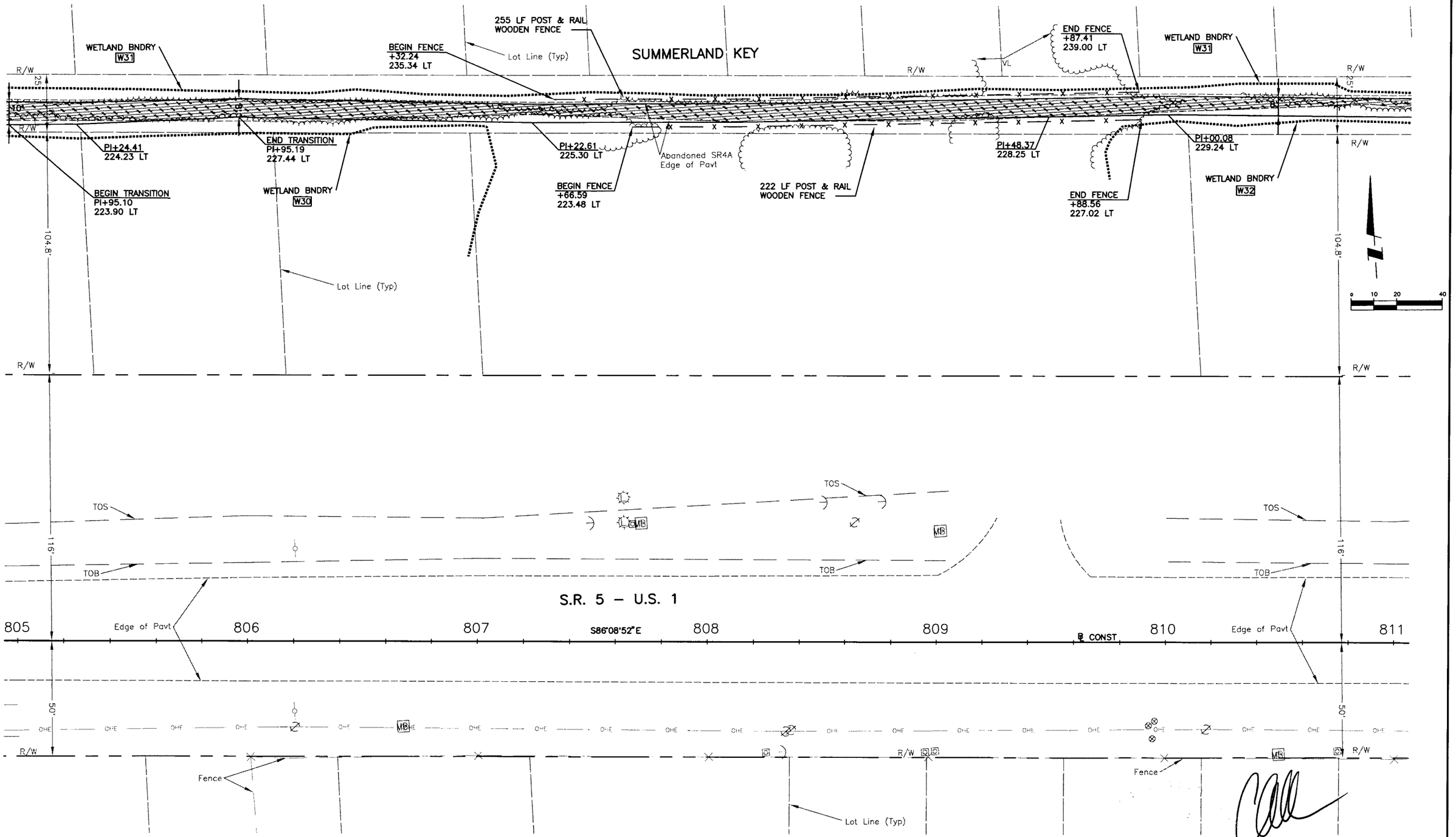
DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 26 TWP: 66S RGE: 28E

TITLE: PLAN STATION 799+00 TO 805+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04880-002
SHEET NUMBER: 65

Jun 09, 2009 – 15:50:11 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-057-PLAN.dwg



ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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1441 Wakulla Commerce Drive, Suite 101 · Tallahassee, Florida 32312 · Phone: 850-878-5001 · Fax: 850-878-5941 · Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2009
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 26 TWP: 66S RGE: 28E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

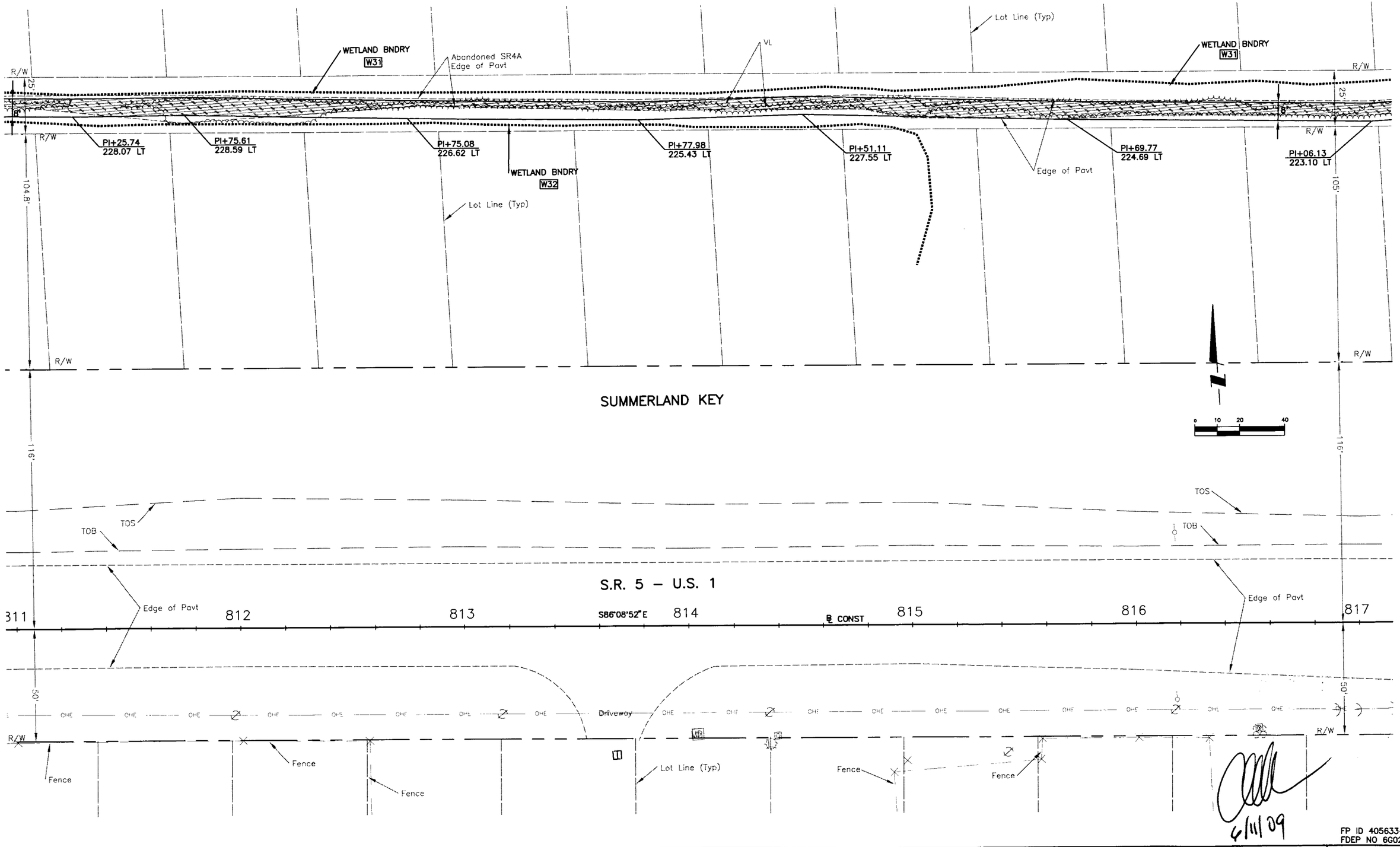
TITLE:
PLAN
STATION 805+00 TO 811+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04880-002
SHEET NUMBER: 66

FP ID 405633-1
FDEP NO 6G020

6/11/09

Jun 09, 2009 – 15:50:46 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-058-PLAN.dwg



6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

Wilson Miller
FL Lic.# LC-C000170 · Certificate of Authorization #43
WilsonMiller, Inc.
1441 Wesley Commerce Drive, Suite 101 - Tallahassee, Florida 32317 - Phone: 850-878-5001 - Fax 850-878-5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 26 TWP: 66S RGE: 28E

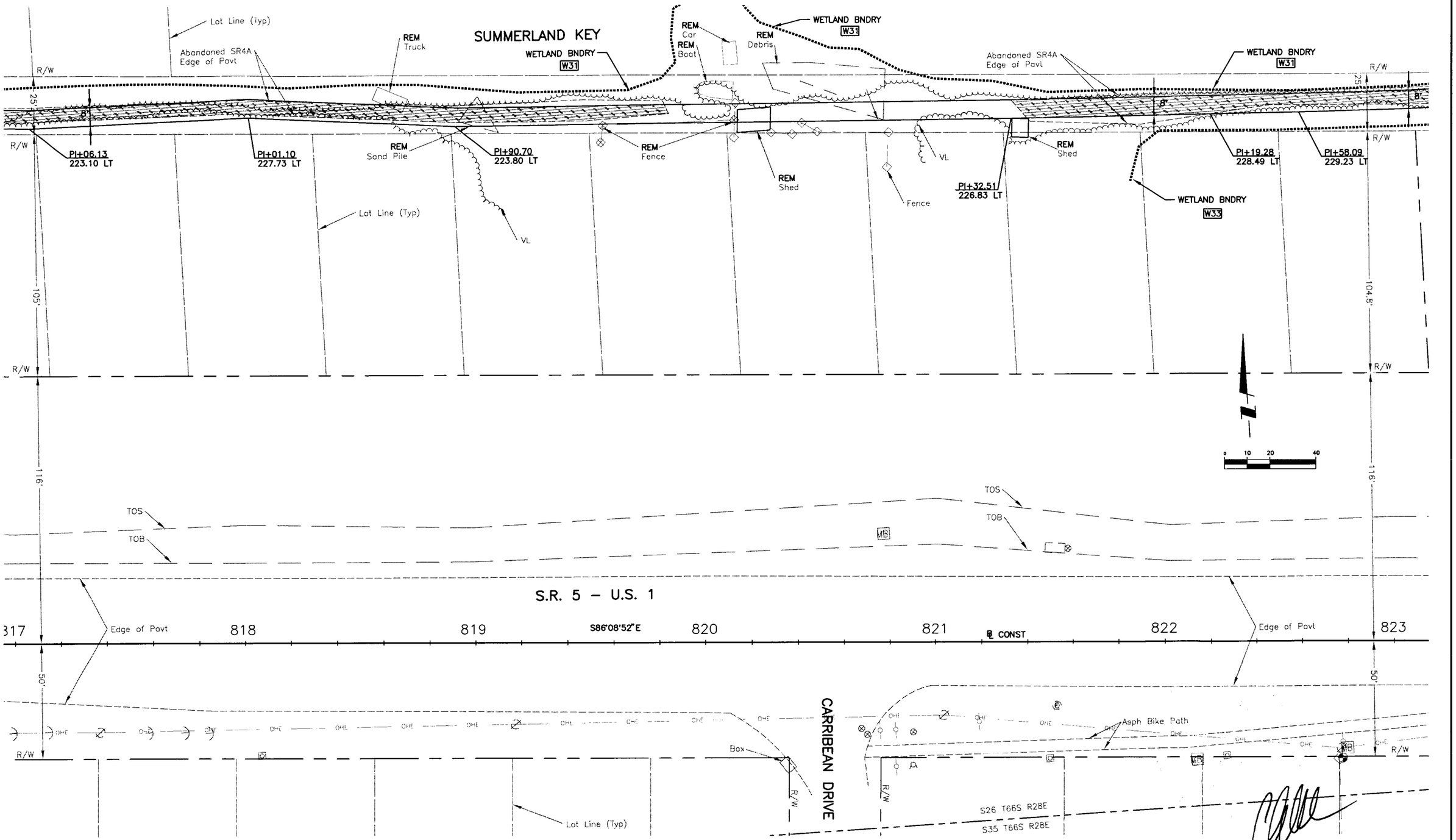
TITLE:
PLAN
STATION 811+00 TO 817+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKWEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 67

Jun 09, 2009 – 15:51:23 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-059-PLAN.dwg



ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 26 35 TWP: 66S RGE: 28E

TITLE:
PLAN
STATION 817+00 TO 823+00

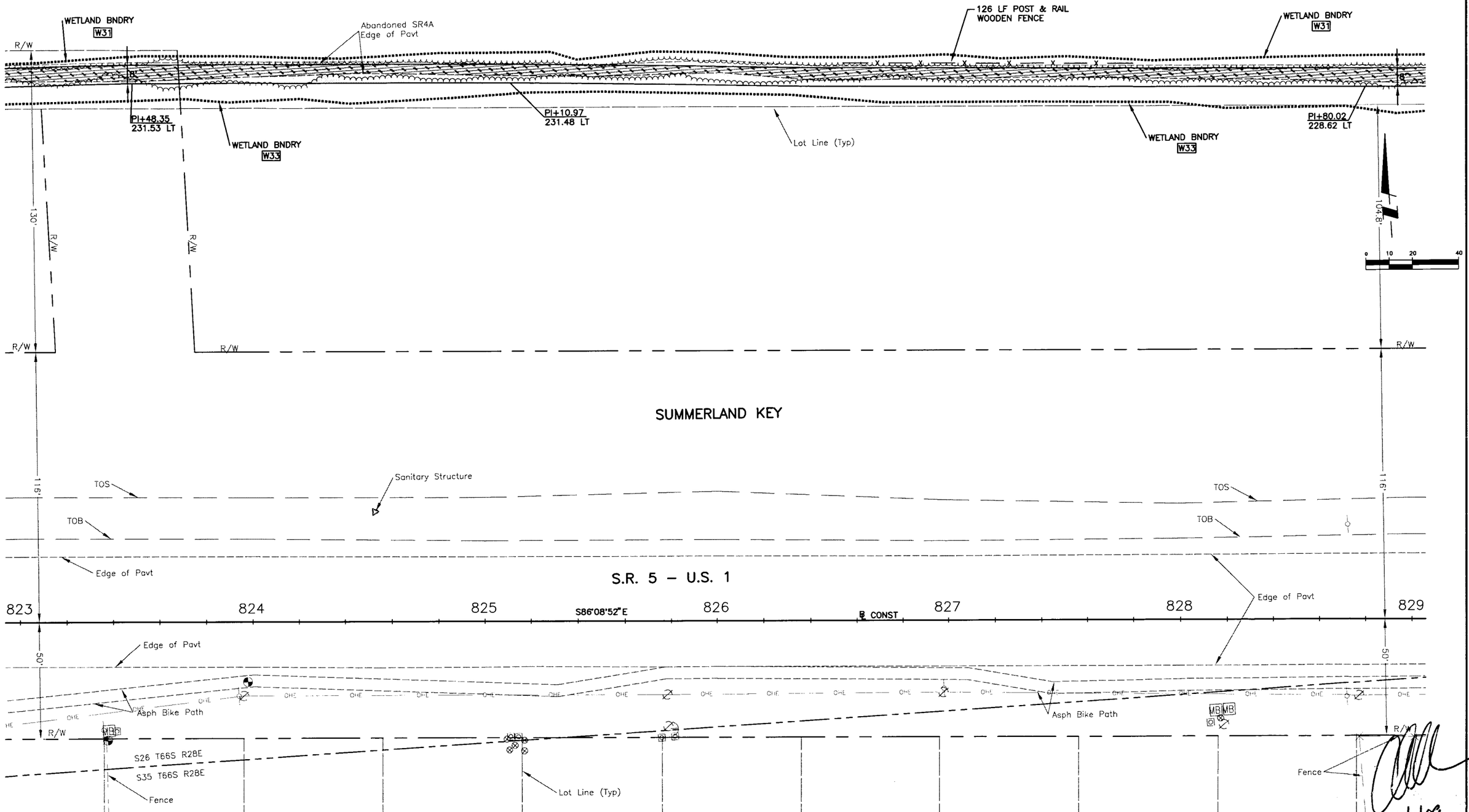
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04880-002
SHEET NUMBER: 68

6/11/09

FP ID 405633-1
FDEP NO 6G020

Jun 09, 2009 - 15:52:05 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-060-PLAN.dwg



6/11/09

FP ID 405633-1
FDEP NO 6G020

					ACTIVITY	INITIALS/EMP. NO.	DATE
					DESIGNED BY:	CEA/1159	01/09
					DRAWN BY:	JGG/2031	01/09
					CHECKED BY:	CEB/1562	01/09
					CONTRACT ADMIN. BY:		
△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

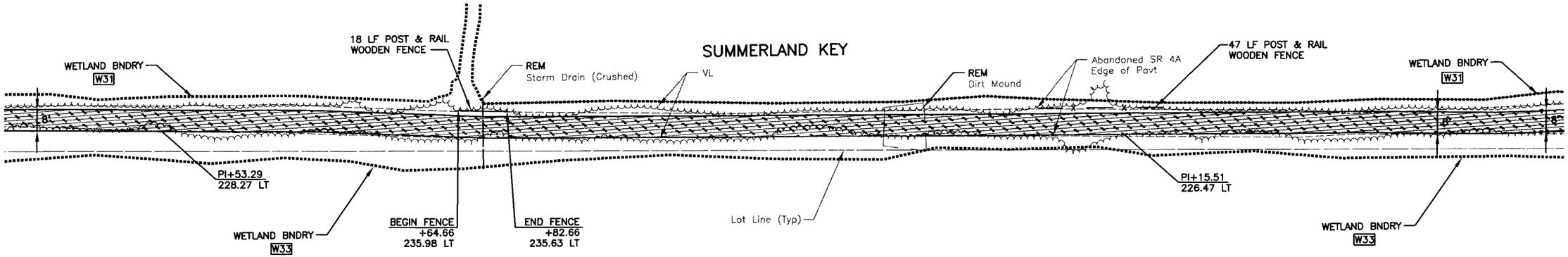
PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

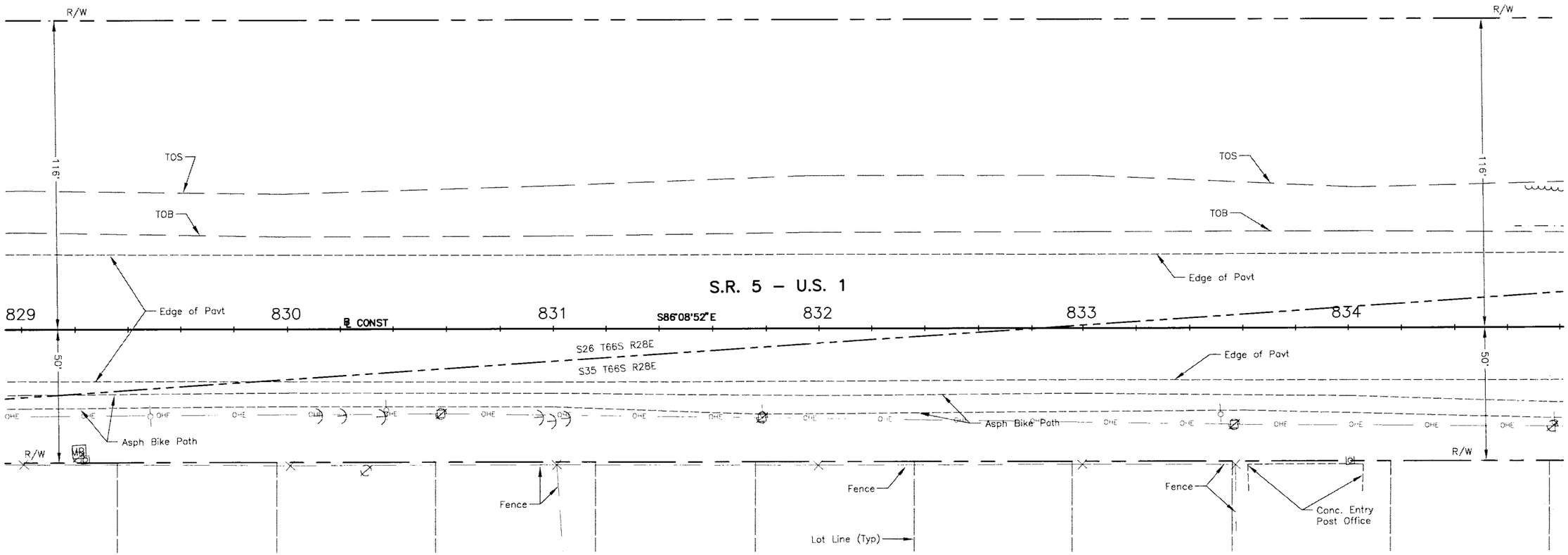
DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 35 TWP: 66S RGE: 28E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
PLAN
STATION 823+00 TO 829+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56459
INDEX NUMBER: B-04880-002
SHEET NUMBER: 69

Jun 09, 2009 - 16:37:43 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-061-PLAN.dwg





6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

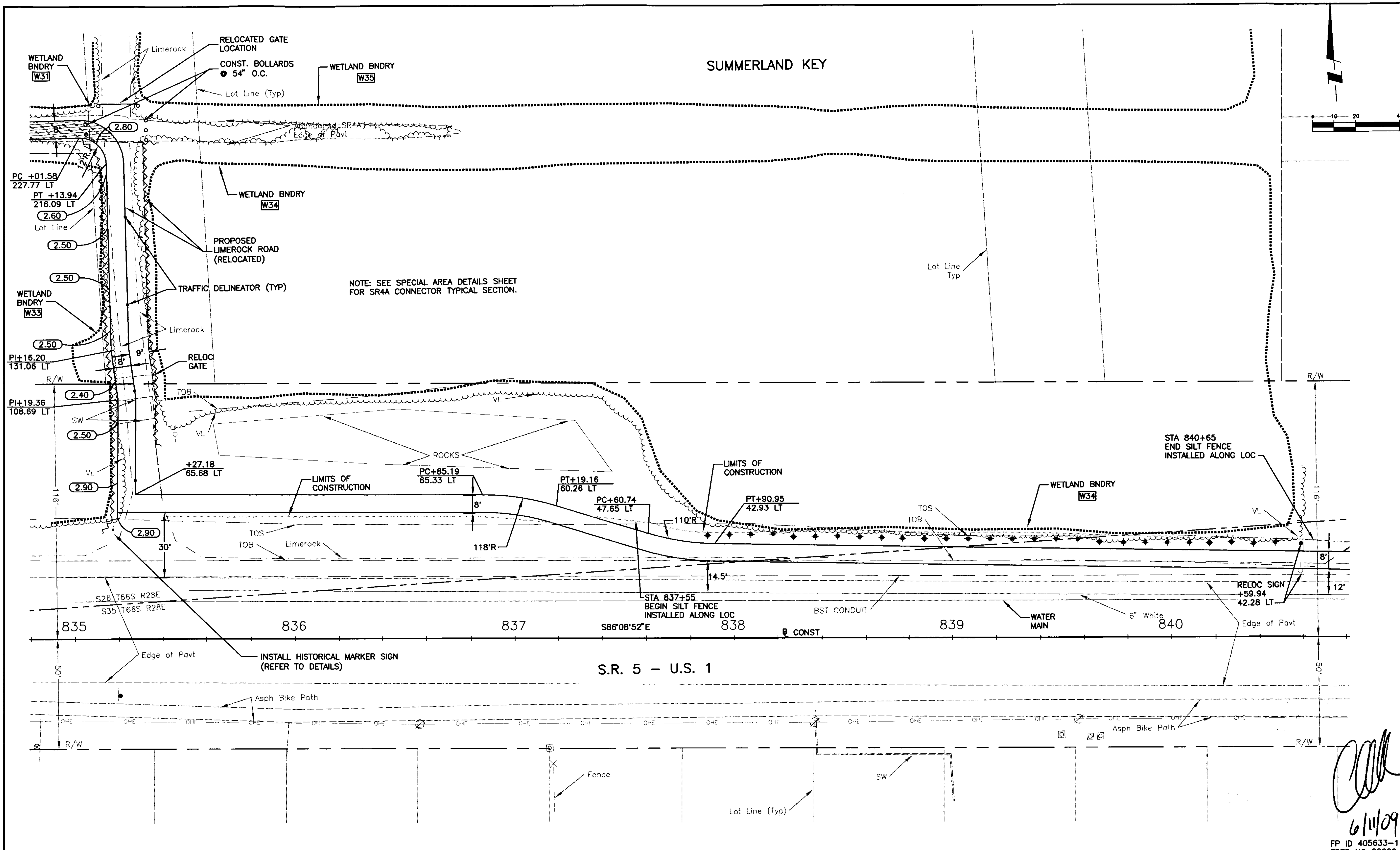
DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 28 TWP: 66S RGE: 28E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE:
PLAN
STATION 829+00 TO 834+80

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 70

Jun 09, 2009 - 16:39:11 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-062-PLAN.dwg


SUMMERLAND KEY
WETLAND BNDRY W31
RELOCATED GATE LOCATION
CONST. BOLLARDS
54" O.C.
Limerock
WETLAND BNDRY W35
Lot Line (Typ)
Abandoned SR4A
Edge of Pavt
2.80
PC +01.58
227.77 LT
PT +13.94
216.09 LT
2.60
Lot Line
2.50
WETLAND BNDRY W34
PROPOSED LIMEROCK ROAD (RELOCATED)
TRAFFIC DELINEATOR (TYP)
NOTE: SEE SPECIAL AREA DETAILS SHEET FOR SR4A CONNECTOR TYPICAL SECTION.
WETLAND BNDRY W33
Limerock
PI+16.20
131.06 LT
RELOC GATE
R/W
2.40
PI+19.36
108.69 LT
SW
TOB
VL
ROCKS
+27.18
65.68 LT
2.90
LIMITS OF CONSTRUCTION
PC+85.19
65.33 LT
8'
PT+19.16
60.26 LT
PC+60.74
47.65 LT
PT+90.95
42.93 LT
110'R
118'R
LIMITS OF CONSTRUCTION
Lot Line Typ
STA 840+65
END SILT FENCE
INSTALLED ALONG LOC
WETLAND BNDRY W34
TOS
TOB
Limerock
30'
14.5'
116'
S26 T66S R28E
S35 T66S R28E
STA 837+55
BEGIN SILT FENCE
INSTALLED ALONG LOC
BST CONDUIT
WATER MAIN
6" White
RELOC SIGN
+59.94
42.28 LT
12'
835
836
837
S86°08'52"E
838
CONST
839
840
Edge of Pavt
INSTALL HISTORICAL MARKER SIGN (REFER TO DETAILS)
S.R. 5 – U.S. 1
50'
Asph Bike Path
OHE
Fence
SW
Lot Line (Typ)
0 10 20 40
6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC 35 TWP 66S RGE 28E

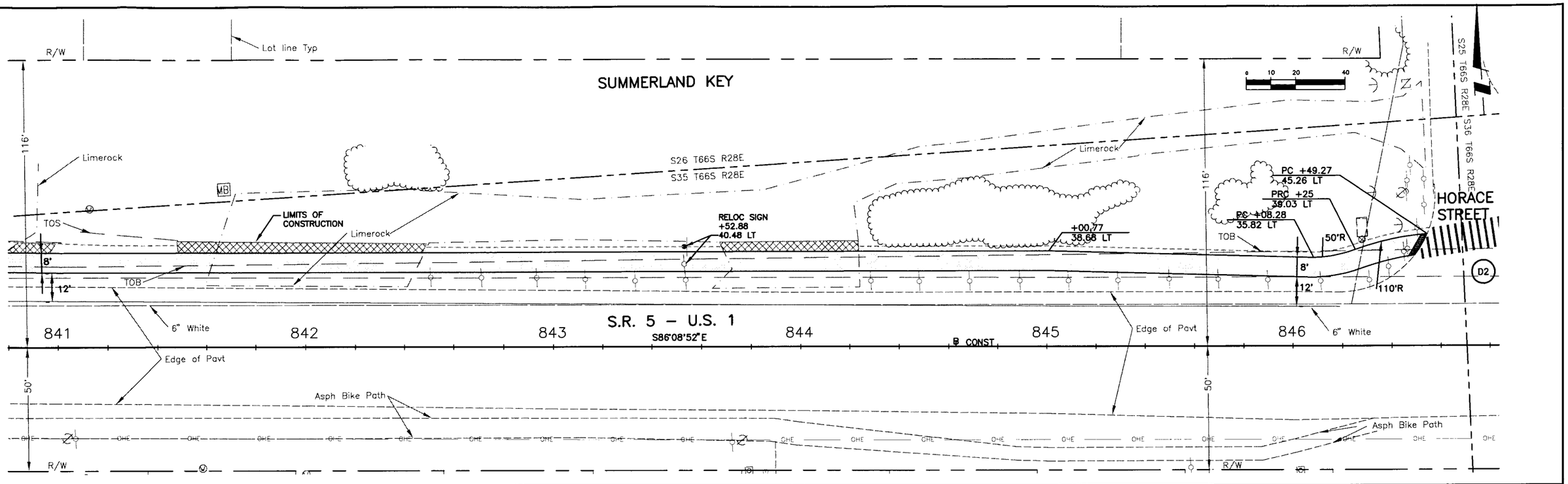
TITLE:
PLAN
STATION 834+80 TO 840+80

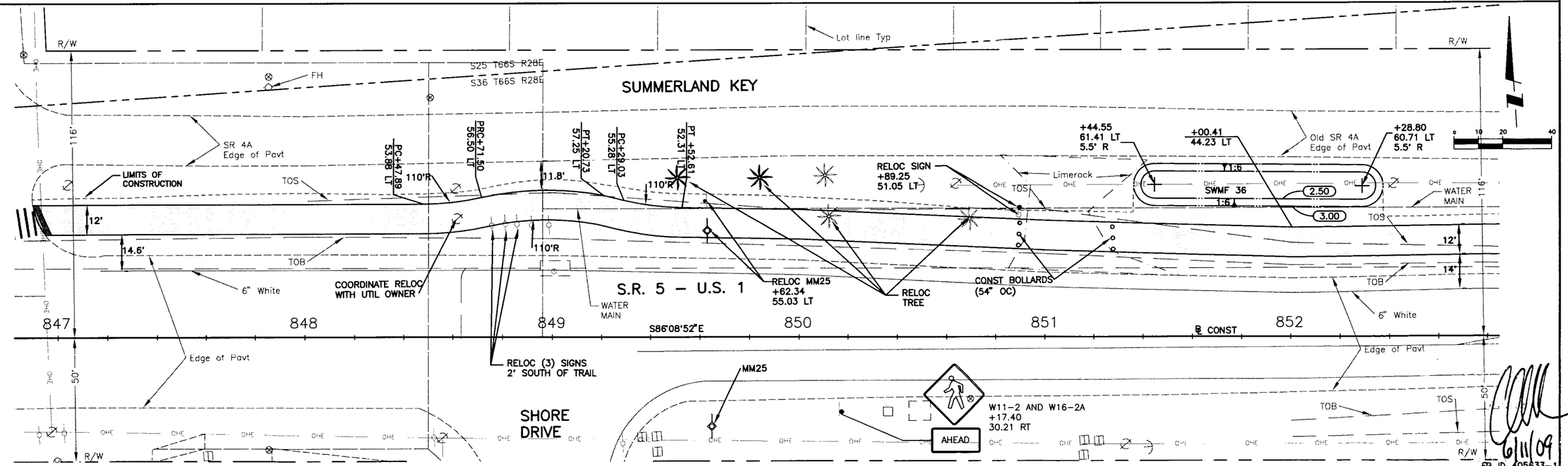
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04880-002
SHEET NUMBER: 71

Jun 09, 2009 – 16:48:37 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-063-PLAN.dwg

SCANNED 06/16/2009 09:09 BC





ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGC/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 33,34 TWP: 66S RGE: 28E
CROSS REFERENCE FILE NO.:

TITLE:
PLAN
STATION 840+80 TO 852+80

PROJECT NUMBER: 04880-002-000

CHRIS L. BROCKMEIER, P.E.
FL Lic.# 56859

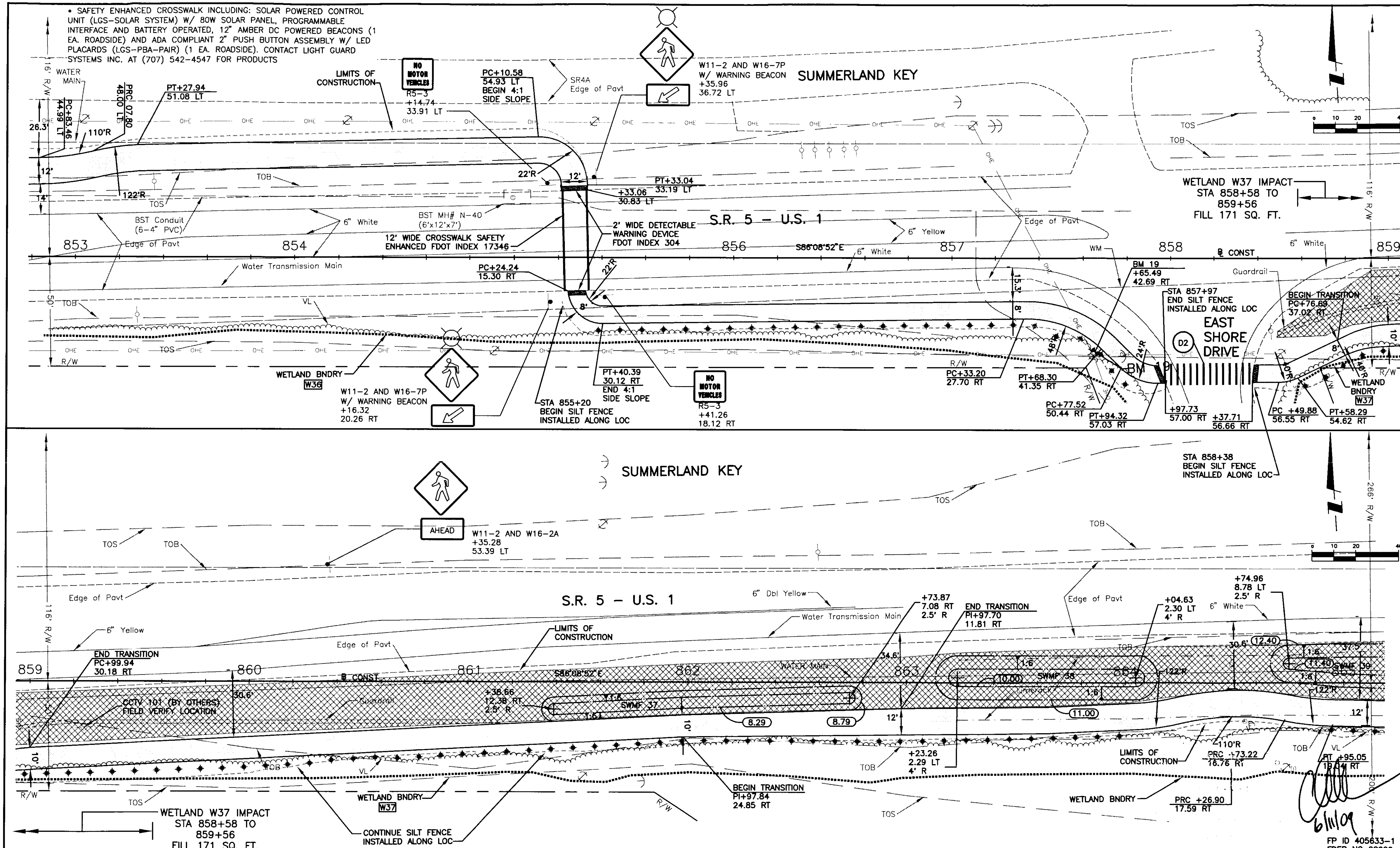
INDEX NUMBER: B-04880-002

SHEET NUMBER: 72

6/11/09

FP ID 405633-1
FDEP NO 6GC20

Jun 09, 2009 - 16:49:57 JGERTH X:\ENG\04880\002-Segment1\REV02\6G020-064-PLAN.dwg


* SAFETY ENHANCED CROSSWALK INCLUDING: SOLAR POWERED CONTROL UNIT (LGS-SOLAR SYSTEM) W/ 80W SOLAR PANEL, PROGRAMMABLE INTERFACE AND BATTERY OPERATED, 12" AMBER DC POWERED BEACONS (1 EA. ROADSIDE) AND ADA COMPLIANT 2" PUSH BUTTON ASSEMBLY W/ LED PLACARDS (LGS-PBA-PAIR) (1 EA. ROADSIDE). CONTACT LIGHT GUARD SYSTEMS INC. AT (707) 542-4547 FOR PRODUCTS
SUMMERLAND KEY
W11-2 AND W16-7P W/ WARNING BEACON +35.96 36.72 LT
LIMITS OF CONSTRUCTION
NO MOTOR VEHICLES
R5-3 +14.74 33.91 LT
PC+10.58 54.93 LT BEGIN 4:1 SIDE SLOPE
SR4A Edge of Pavt
WATER MAIN
PT+27.94 51.08 LT
PRC 07.80 48.00 LT
PC+83.46 44.99 LT
110'R
122'R
22'R
PT+33.04 33.19 LT
+33.06 30.83 LT
TOB
TOS
BST Conduit (6-4" PVC)
6" White
BST MH# N-40 (6'x12'x7')
12' WIDE CROSSWALK SAFETY ENHANCED FDOT INDEX 17346
2' WIDE DETECTABLE WARNING DEVICE FDOT INDEX 304
S.R. 5 – U.S. 1
6" Yellow
Edge of Pavt
S86°08'52"E
853
854
856
857
858
859
℄ CONST
Water Transmission Main
PC+24.24 15.30 RT
WETLAND W37 IMPACT STA 858+58 TO 859+56 FILL 171 SQ. FT.
BM 19 +65.49 42.69 RT
STA 857+97 END SILT FENCE INSTALLED ALONG LOC
Guardrail
BEGIN TRANSITION PC+76.69 37.02 RT
EAST SHORE DRIVE
D2
WETLAND BNDRY W37
PC +49.88 56.55 RT
PT+58.29 54.62 RT
+97.73 57.00 RT
+37.71 56.66 RT
PT+94.32 57.03 RT
PC+77.52 50.44 RT
PT+68.30 41.35 RT
PC+33.20 27.70 RT
R/W
WETLAND BNDRY W36
W11-2 AND W16-7P W/ WARNING BEACON +16.32 20.26 RT
STA 855+20 BEGIN SILT FENCE INSTALLED ALONG LOC
PT+40.39 30.12 RT END 4:1 SIDE SLOPE
R5-3 +41.26 18.12 RT
VL
OHE
116' R/W
50'
26.3'
12'
14'
SUMMERLAND KEY
STA 858+38 BEGIN SILT FENCE INSTALLED ALONG LOC
AHEAD
W11-2 AND W16-2A +35.28 53.39 LT
266' R/W
S.R. 5 – U.S. 1
6" Dbl Yellow
+73.87 7.08 RT 2.5' R
END TRANSITION PI+97.70 11.81 RT
Edge of Pavt
+04.63 2.30 LT 4' R
+74.96 8.78 LT 2.5' R
6" White
6" Yellow
LIMITS OF CONSTRUCTION
Water Transmission Main
END TRANSITION PC+99.94 30.18 RT
859
860
861
862
863
864
865
CCTV 101 (BY OTHERS) FIELD VERIFY LOCATION
+38.66 12.38 RT 2.5' R
SWMF 37
SWMF 38
SWMF 39
8.29
8.79
10.00
11.00
11.40
12.40
122'R
110'R
PRC +73.22 16.76 RT
PT +95.05 19.04 RT
LIMITS OF CONSTRUCTION
+23.26 2.29 LT 4' R
BEGIN TRANSITION PI+97.84 24.85 RT
WETLAND BNDRY W37
WETLAND BNDRY
PRC +26.90 17.59 RT
CONTINUE SILT FENCE INSTALLED ALONG LOC
WETLAND W37 IMPACT STA 858+58 TO 859+56 FILL 171 SQ. FT.
FP ID 405633-1
FDEP NO 6G020
6/11/09

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JCG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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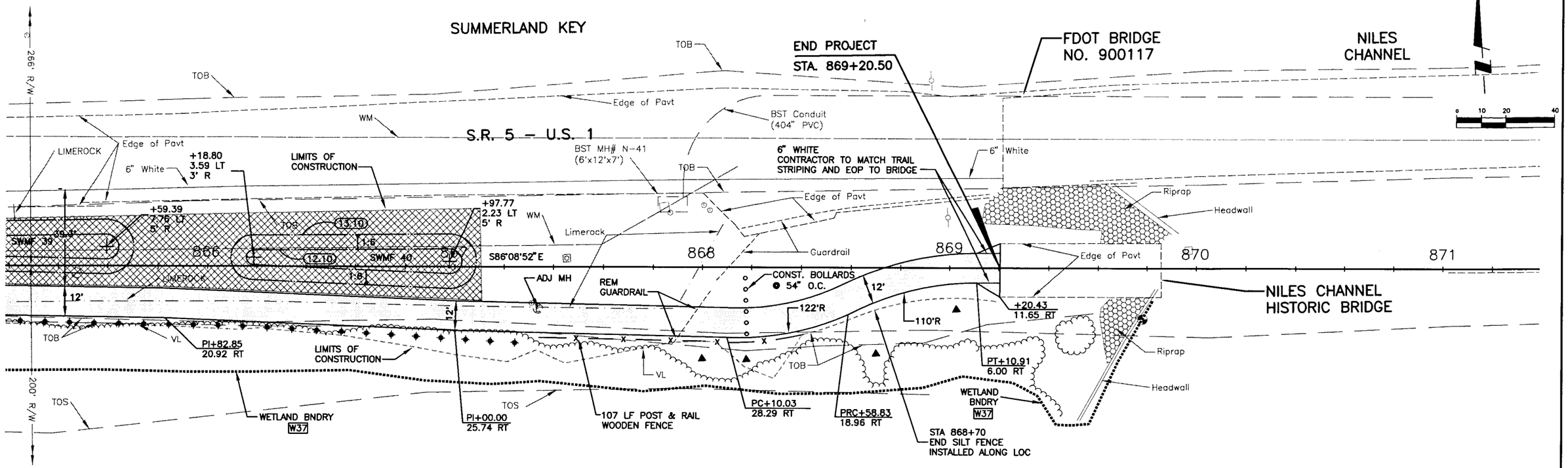
CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS
PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC. 36 TWP. 66S RGE. 28E

TITLE: PLAN STATION 852+80 TO 865+20

CHRIS E. BROCKMEIER, P.E. FL Lic.# 56859
INDEX NUMBER: B-04880-002
PROJECT NUMBER: 04880-002-000
SHEET NUMBER: 73

Jun 09, 2009 – 17:02:28 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-065-PLAN.dwg



					ACTIVITY	INITIALS/EMP. NO.	DATE
					DESIGNED BY:	CEA/1159	01/09
					DRAWN BY:	JGG/2031	01/09
					CHECKED BY:	CEB/1562	01/09
					CONTRACT ADMIN. BY:		
△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: 36 TWP: 66S RGE: 28E

TITLE:
PLAN
STATION 865+20 TO 869+20

CROSS REFERENCE FILE NO.:

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

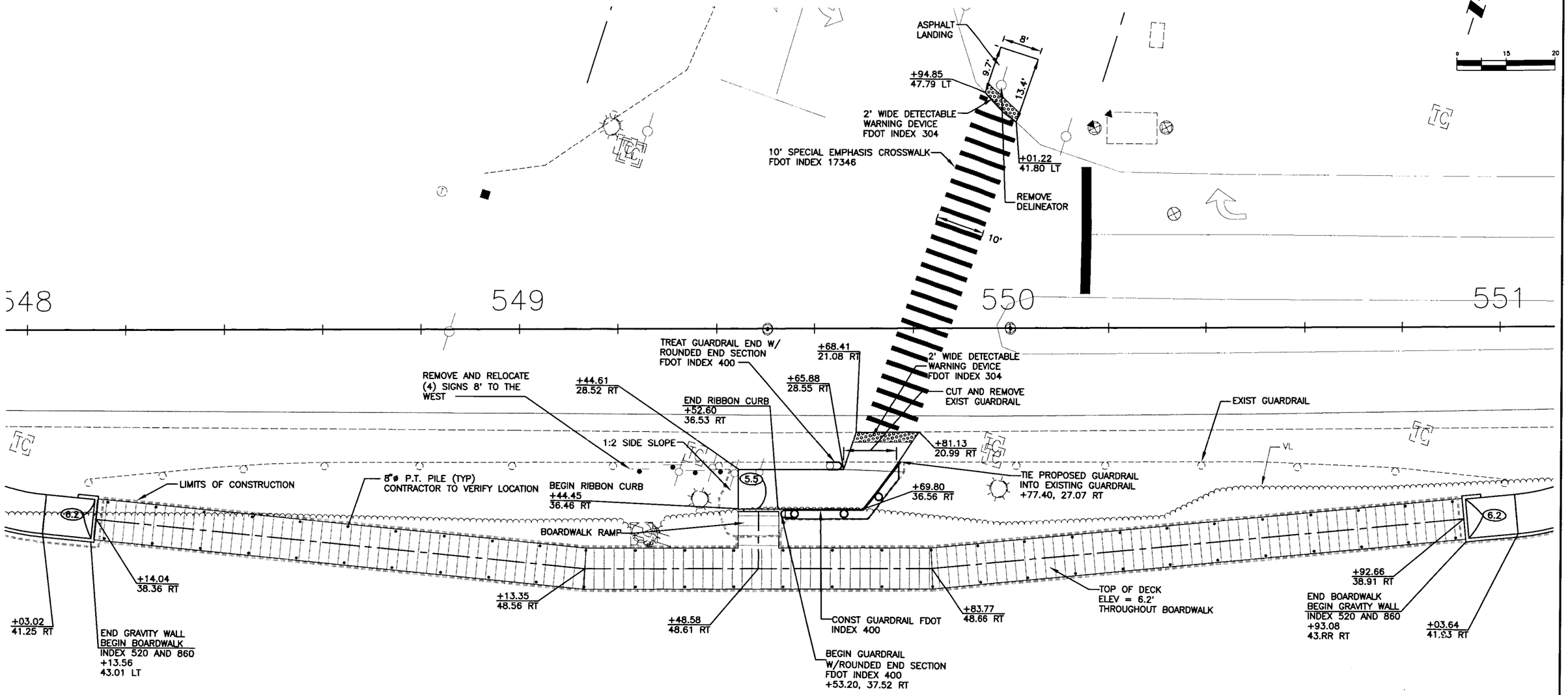
INDEX NUMBER: B-04880-002

SHEET NUMBER: 74

6/11/09

FP ID 405633-1
FDEP NO 6G020

Jun 09, 2009 - 17:09:57 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-066-PLAN.dwg



6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC TWP RGE: 31 66S 29E

TITLE: BOARDWALK "A" AND APPROACH
STATION 548+00 TO 551+00

CROSS REFERENCE FILE NO.:

PROJECT NUMBER: 04880-002-000

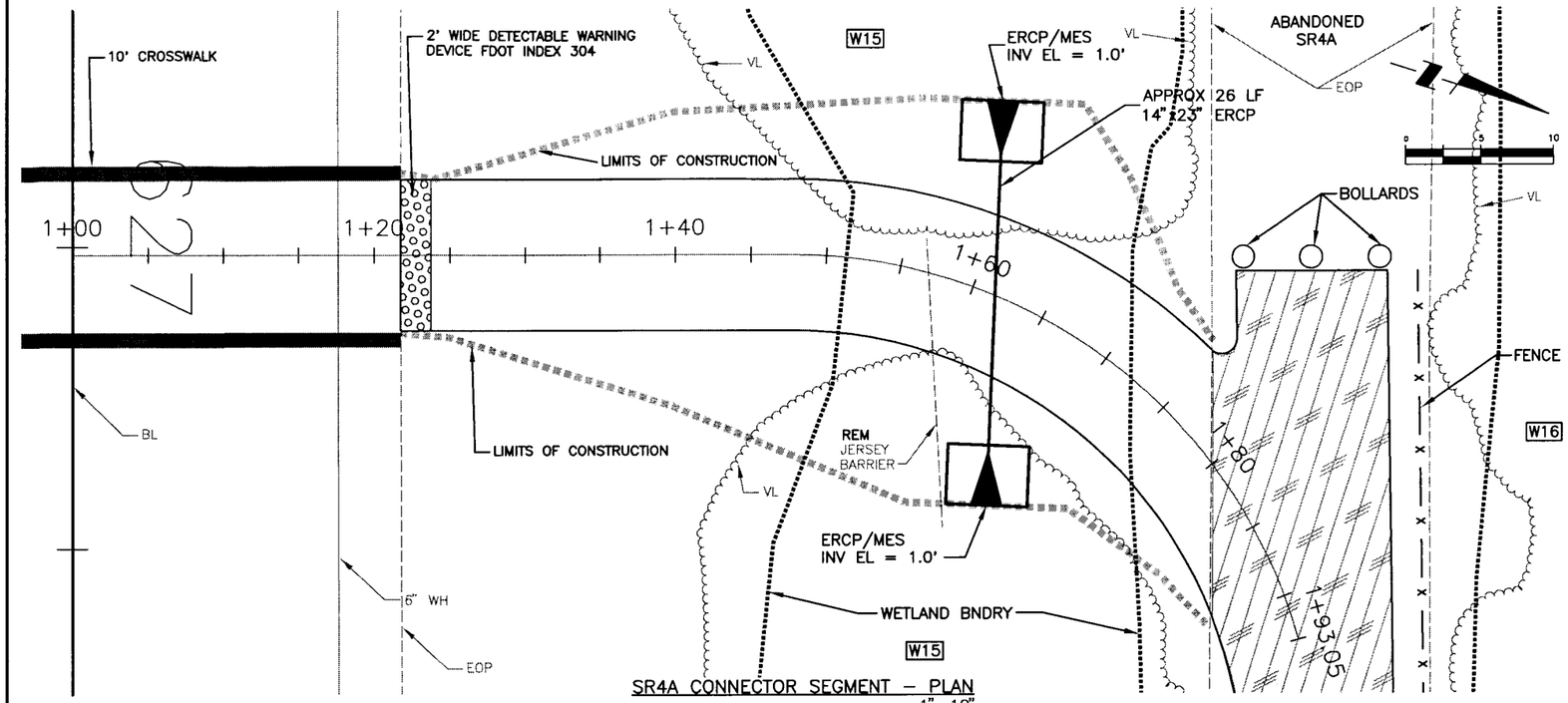
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002

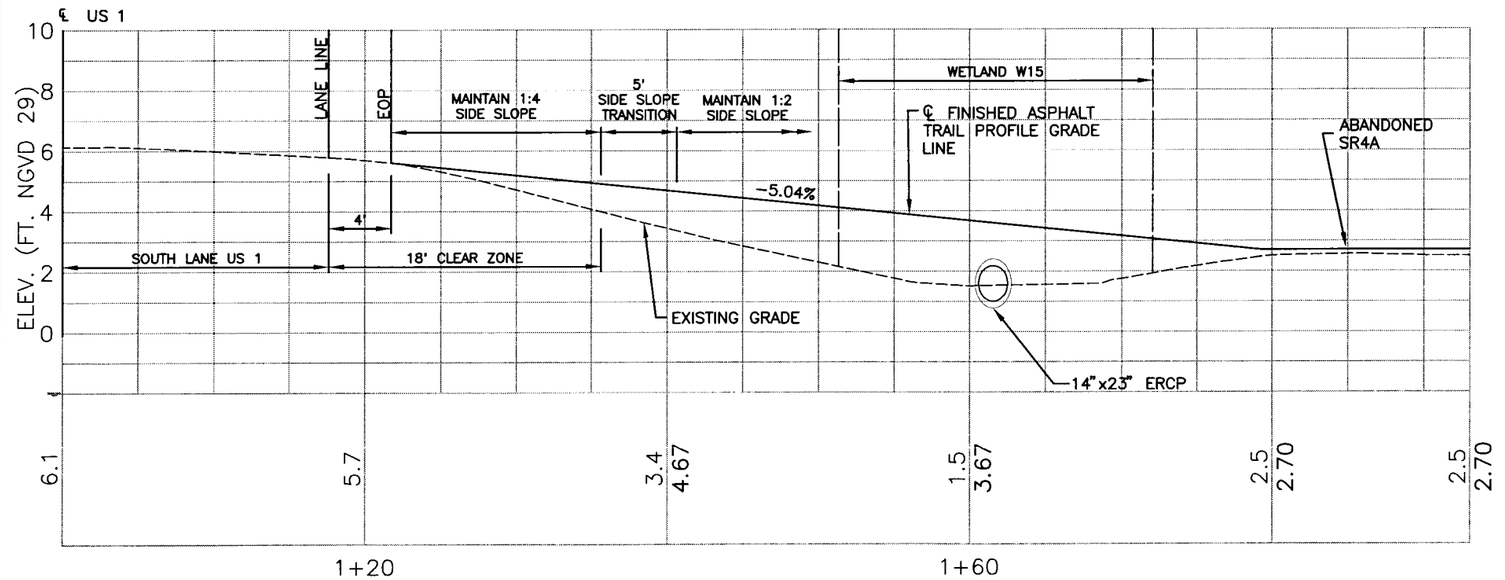
SHEET NUMBER: 75

Jun 10, 2009 - 08:17:28 JGERTH|X:\ENG\04880\002-Segment1\REV02\6G020-100-BoardwalkPLAN.dwg

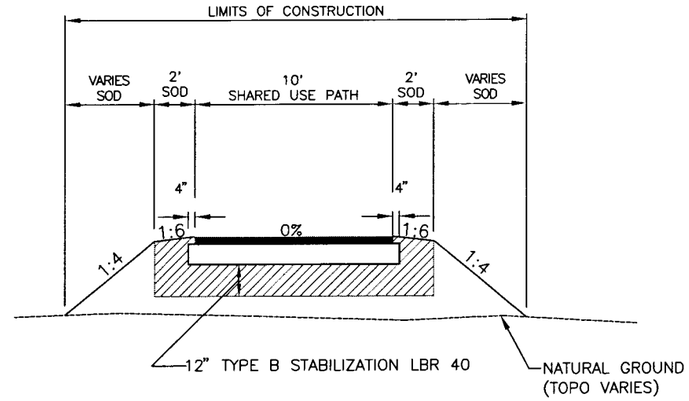
STAMPED FOR TRACKING 04:09 PM



SR4A CONNECTOR SEGMENT – PLAN
1"=10"

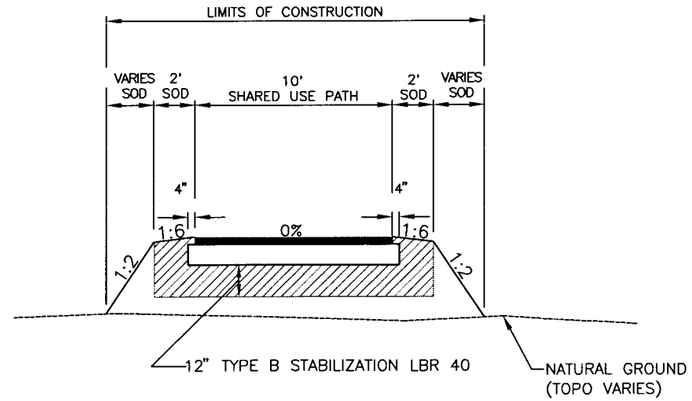


SR4A CONNECTOR SEGMENT – CENTERLINE PROFILE
HORIZ: 1"=10"
VERT: 1"=5'



SECTION OF SHARED USE PATH
WITHIN THE CLEAR ZONE
NTS

STATION LIMITS
STA 627+00
OFFSET 22' LT TO 36' LT
OFFSET 21' RT TO 34' RT



SECTION OF SHARED USE PATH
OUTSIDE THE CLEAR ZONE
NTS

STATION LIMITS
STA 627+00
OFFSET 36' LT TO 77' LT
OFFSET 34' RT TO 60' RT

6/11/09

FP ID 405633-1
FDEP NO 6G020

	ACTIVITY	INITIALS/EMP. NO.	DATE
	DESIGNED BY:	CEA/1159	01/09
	DRAWN BY:	JGG/2031	01/09
	CHECKED BY:	CEB/1562	01/09
	CONTRACT ADMIN. BY:		
△REV NO. REVISION DATE DRAWN BY / EMP. NO. CHECKED BY / EMP. NO.	WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

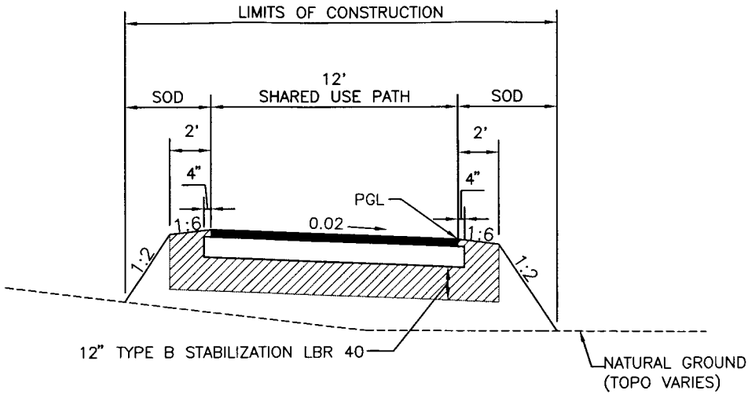
DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC TWP RGE: 31 66S 29E
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE: SR4A CONNECTOR SEGMENT AT STA 627+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

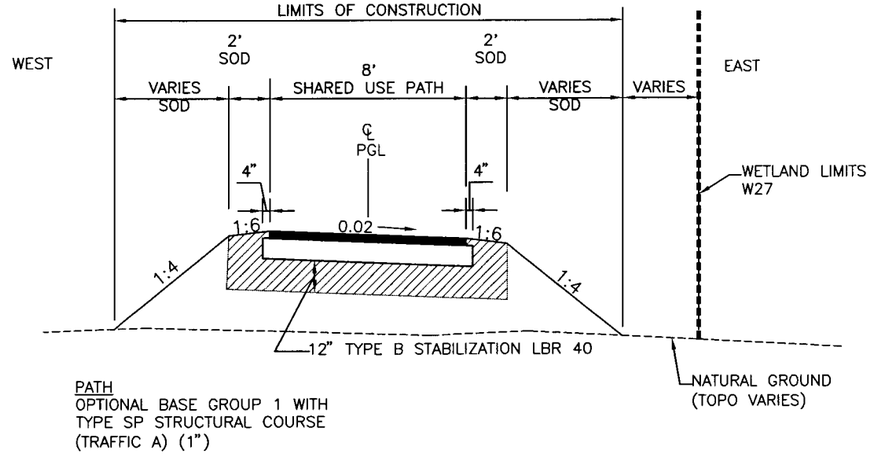
INDEX NUMBER: B-04880-002
SHEET NUMBER: 76

JUN 10, 2009 - 08:32:05 JGERTH X:\ENG\04880\002-SEGMENT1\REV02\6G020-100-BOARDWALKPLAN.DWG



SECTION OF SHARED USE PATH
(PERPENDICULAR TO PATH)
NTS

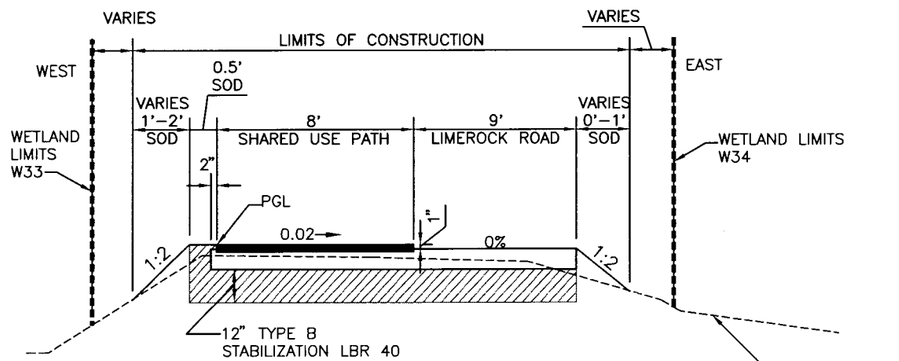
STATION LIMITS
STA 619+60 TO 619+80
STA 631+40 TO 631+70



PATH
OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE
(TRAFFIC A) (1")

SECTION OF SHARED USE PATH
WITHIN THE CLEAR ZONE
NTS

STATION LIMITS
STA 746+00
OFFSET 23' LT TO 36' LT
OFFSET 33' RT TO 41' RT



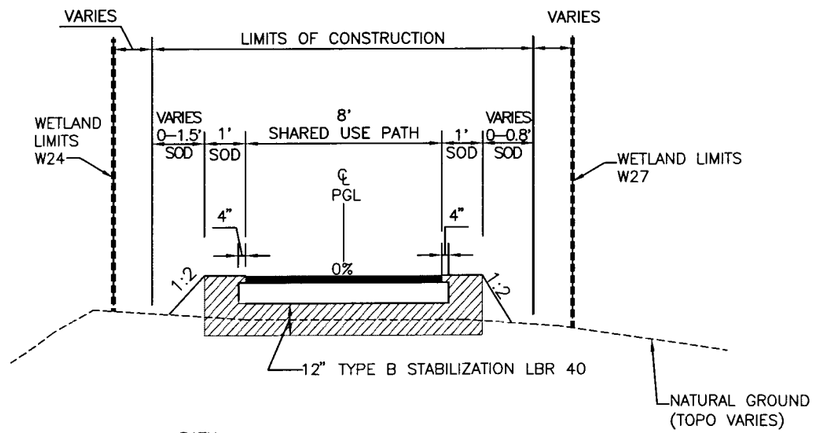
PATH
OPTIONAL BASE GROUP 1 WITH
TYPE SP–9.5 STRUCTURAL
COURSE (TRAFFIC A) (1.5")

LIMEROCK ROAD
OPTIONAL BASE GROUP 4

NOTE:
EXISTING LIMEROCK ROAD
SHIFTED TO EAST WHEN
CONSTRUCTED

TYPICAL SECTION: SR4A CONNECTOR
SEGMENT WITH LIMEROCK ROAD
NTS

STATION LIMITS
STA 835+25
OFFSET 66' LT TO 227' LT



PATH
OPTIONAL BASE GROUP 1 WITH
TYPE SP STRUCTURAL COURSE
(TRAFFIC A) (1")

SECTION OF SHARED USE PATH
OUTSIDE THE CLEAR ZONE
NTS

STATION LIMITS
STA 746+00
OFFSET 37' LT TO 220' LT

6/11/09

FP ID 405633-1
FDEP NO 6G020

					ACTIVITY	INITIALS/EMP. NO.	DATE
					DESIGNED BY:	CEA/1159	01/09
					DRAWN BY:	JCG/2031	01/09
					CHECKED BY:	CEB/1562	01/09
					CONTRACT ADMIN. BY:		
△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:		

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LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: TWP: RGE:

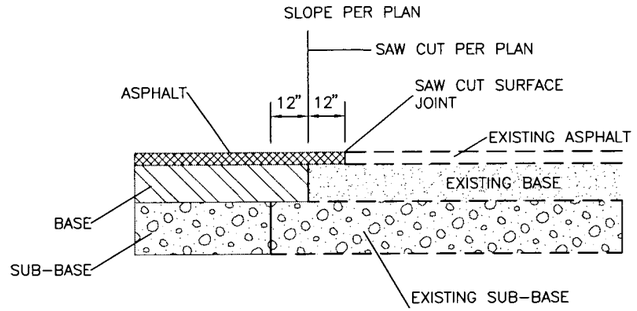
TITLE: DETAILS

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 58859

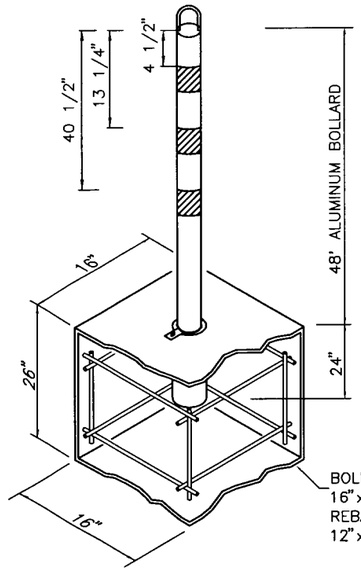
INDEX NUMBER: B-04880-002
SHEET NUMBER: 77

Jun 03, 2009 – 16:56:17 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880-002-0xx-SpecialSections.dwg



PAVEMENT SAW CUT DETAIL

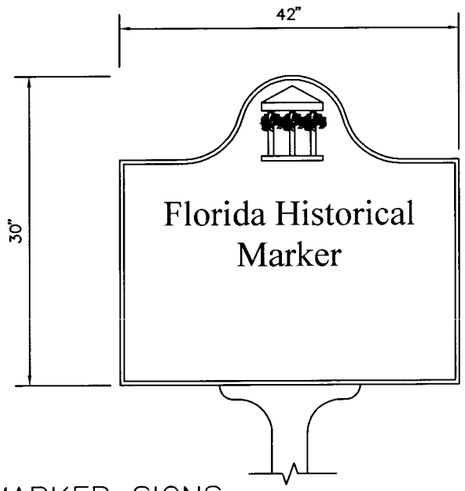
N.T.S.



NOTES
1. BOLLARD POST TO BE INSTALLED WITH REFLECTIVE "END MARKER" STRIPING LABEL.
2. SINGLE POST SHALL BE ASTM #304 STAINLESS STEEL 3½" PIPE, 48" ABOVE GRADE HEIGHT.
3. VENDOR SHAL PROVIDE TWO (2) REFLECTIVE ARROW LABELS AND THREE (3) CLEARANCE WARNING LABELS TO BE INSTALLED AT TIME OF INSTALLATION.

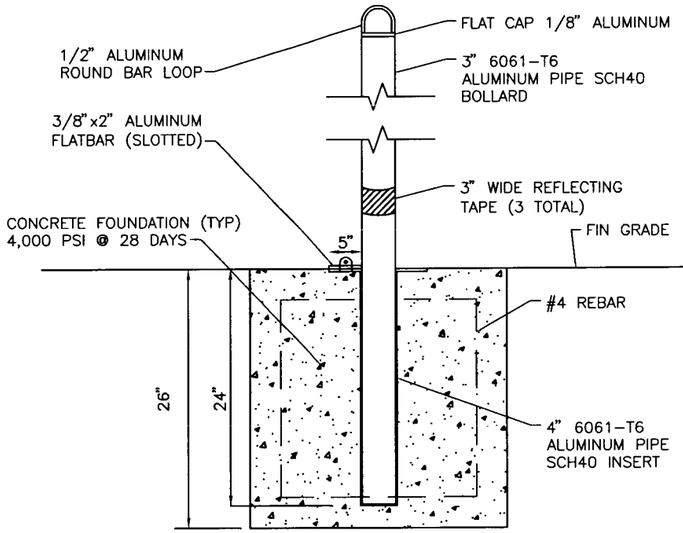
NOTES
1. BOLLARD POST TO BE INSTALLED WITH REFLECTIVE "END MARKER" STRIPING LABEL.
2. SINGLED POST SHALL BE 6061-T6 ALUMINUM PIPE SCH40 3" PIPE, 48" ABOVE GRADE HEIGHT.
3. VENDOR SHALL PROVIDE TWO (2) REFLECTIVE ARROW LABELS AND THREE (3) CLEARANCE WARNING LABELS TO BE INSTALLED AT TIME OF INSTALLATION.
4. BOLLARD SHALL BE PRODUCED BY HOT ARC (305-743-6758) OR APPROVED EQUAL.

PICTORIAL VIEW

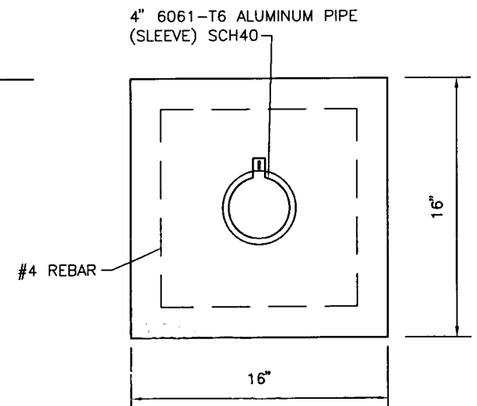


HISTORICAL MARKER SIGNS

1. PLANS CALL FOR THE INSTALLATION OF TWO HISTORICAL MARKER SIGNS – ONE AT STA. 687+85 ON THE NORTH SIDE OF US1 AND ONE AT STA. 835+18 ON THE NORTH SIDE OF US1. THE PURPOSE OF THESE SIGNS WILL BE TO MAKE TRAIL USERS AWARE THAT PORTIONS OF THE TRAIL ARE BUILT ON TOP OF THE OLD STATE ROAD 4A (SR4A) ROADWAY AND TO DISCUSS THE HISTORICAL SIGNIFICANCE OF OLD SR4A. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING TEXT FOR THESE SIGNS, OBTAINING DHR APPROVAL FOR THE SIGNS, PAYING FABRICATION AND SHIPPING COSTS FOR THE SIGNS, AND INSTALLING THE SIGNS.
2. THE SAME PROJECT HISTORIAN USED BY THE CONTRACTOR FOR CONDUCTING THE HISTORICAL DOCUMENTATION OF OLD SR4A (REFER TO MITIGATION PLANS) SHALL BE USED TO PREPARE SIGN TEXT AND TO PREPARE AND SECURE APPROVAL OF THE NECESSARY "FLORIDA HISTORICAL MARKER APPLICATION".
3. BOTH HISTORICAL MARKER SIGNS (MARKERS) WILL BE ONE-SIDE STANDARD FLORIDA HISTORICAL MARKERS (MAX. 19 LINES OF TEXT, MAX. 1,235 CHARACTERS). THE TEXT WILL BE THE SAME FOR BOTH MARKERS OTHER THAN THAT PORTION DESCRIBING THE PROXIMITY OF THE FKOHT ON OLD SR4A IN RELATION TO THE MARKER'S LOCATION. THE PROJECT HISTORIAN SHALL FIRST PREPARE DRAFT MARKER TEXT FOR APPROVAL BY THE DEP-OGT PROJECT MANAGER. FOLLOWING TEXT APPROVAL, THE PROJECT HISTORIAN SHALL PREPARE AND SUBMIT A "FLORIDA HISTORICAL MARKER APPLICATION" FOR THE MARKERS TO THE STATE HISTORICAL MARKER COORDINATOR AT THE FLORIDA DEPARTMENT OF STATE, DIVISION OF HISTORICAL RESOURCES, BUREAU OF HISTORIC PRESERVATION (DHR) FOR REVIEW AND APPROVAL. THE PROJECT HISTORIAN SHALL ENSURE THAT THIS APPLICATION IS PREPARED IN ACCORDANCE WITH APPLICABLE DHR REQUIREMENTS AND WILL BE RESPONSIBLE FOR MAKING ANY REVISIONS TO MARKER TEXT MANDATED BY DHR AND THE AFFILIATED STATE HISTORICAL MARKER COUNCIL.
4. FOLLOWING FINAL DHR APPROVAL OF THE MARKER APPLICATION AND MARKER TEXT, CONTRACTOR WILL TRANSMIT THE REQUIRED MARKER FABRICATION & SHIPPING FEE TO THE STATE HISTORICAL MARKER COORDINATOR AT DHR. CONTRACTOR SHALL INSTALL THE MARKERS ONCE THEY HAVE BEEN FABRICATED AND SHIPPED TO CONTRACTOR.



ELEVATION



PLAN W/ BOLLARD REMOVED

REMOVABLE BOLLARD DETAIL

NTS

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
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TITLE: DETAILS

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 78

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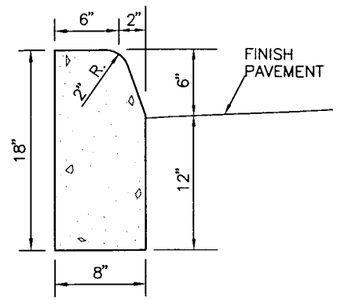


NOTES:

1) CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 P.S.I. IN 28 DAYS UNLESS OTHERWISE NOTED

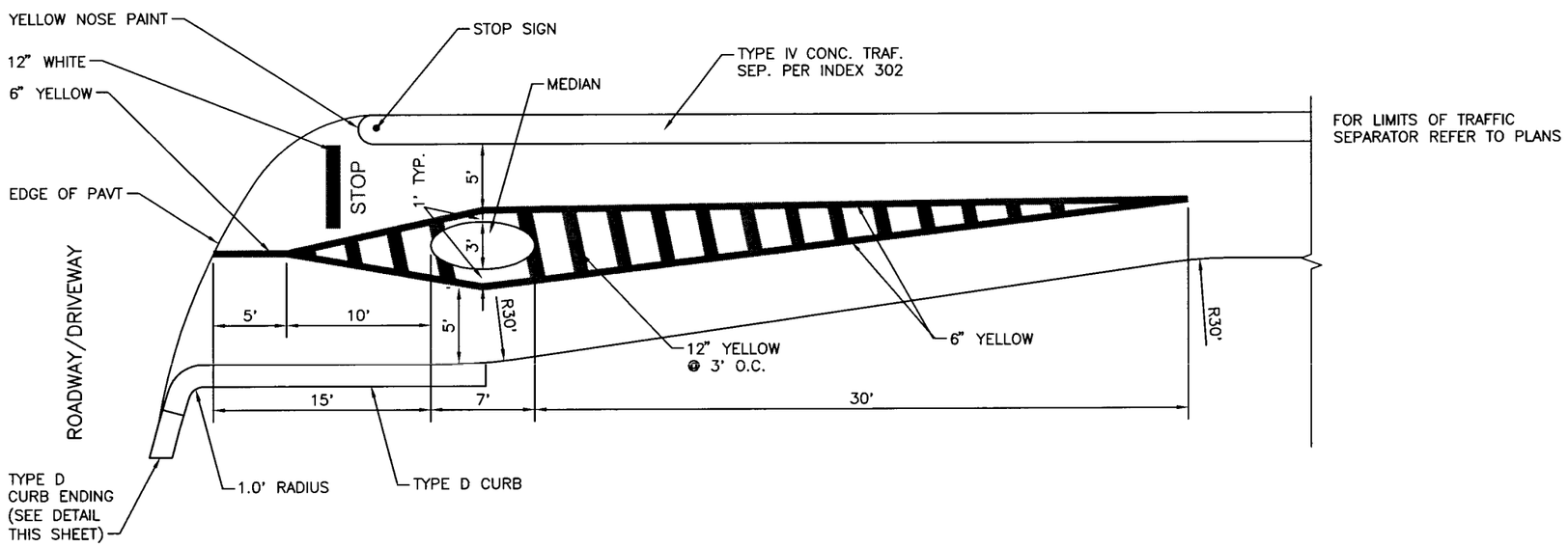
2) AN EXPANSION JOINT WILL BE PLACED AT THE END OF ALL RETURNS AT INTERVALS NOT TO EXCEED 50' WITH CONTRACTION JOINTS AT 10' INTERVALS BETWEEN.

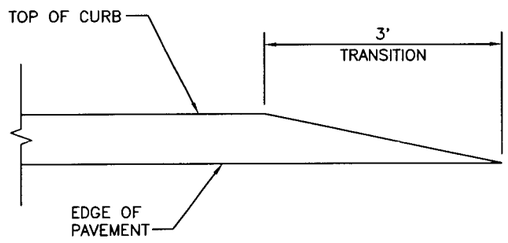
3) EXPANSION JOINTS SHALL BE CONSTRUCTED WITH 1/2" BITUMINOUS IMPREGNATED EXPANSION JOINT MATERIAL.

TYPE "D" CURB

NTS

(FDOT. REF. INDEX #300)





CURB ENDING DETAIL

NTS

ACCESS CONTROL MEDIAN

SCALE: 1"=10'

NOTES:

1) PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PER FDOT SPECIFICATION 711.

2) THE MEDIAN SHALL BE LANDSCAPED WITH SEA OX-EYE DAISY (borrichia arborescens) USING 1-GALLON STOCK, INSTALLED 18" O.C.

6/4/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION		DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
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DRAWN BY:	JGG/2031	01/09
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LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
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TITLE: DETAILS

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 79

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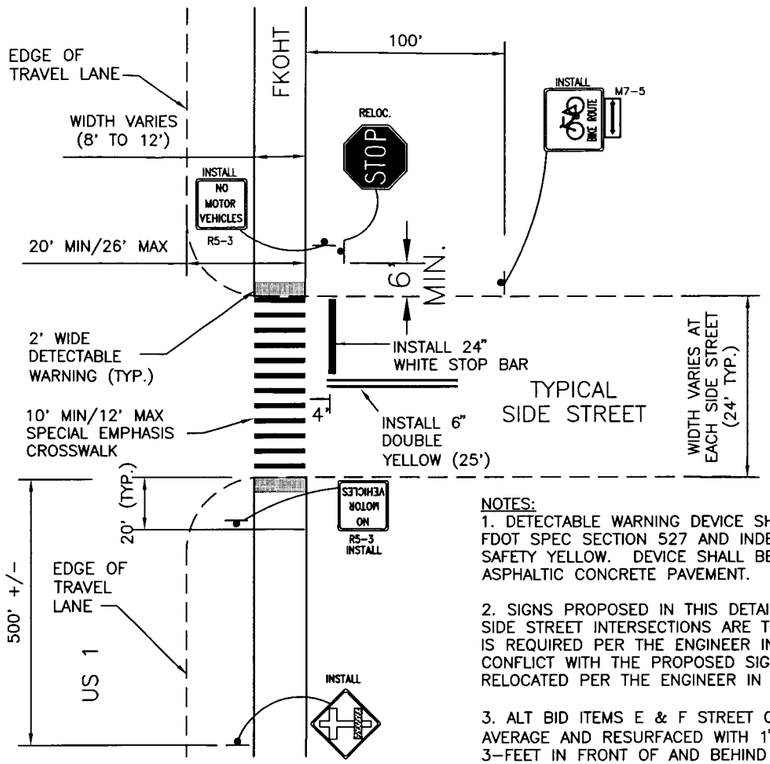


NOTES:
1. DETECTABLE WARNING DEVICE SHALL BE IN ACCORDANCE WITH FDOT SPEC SECTION 527 AND INDEX 304. COLOR SHALL BE SAFETY YELLOW. DEVICE SHALL BE SUITABLE FOR INSTALLATION ON ASPHALTIC CONCRETE PAVEMENT.

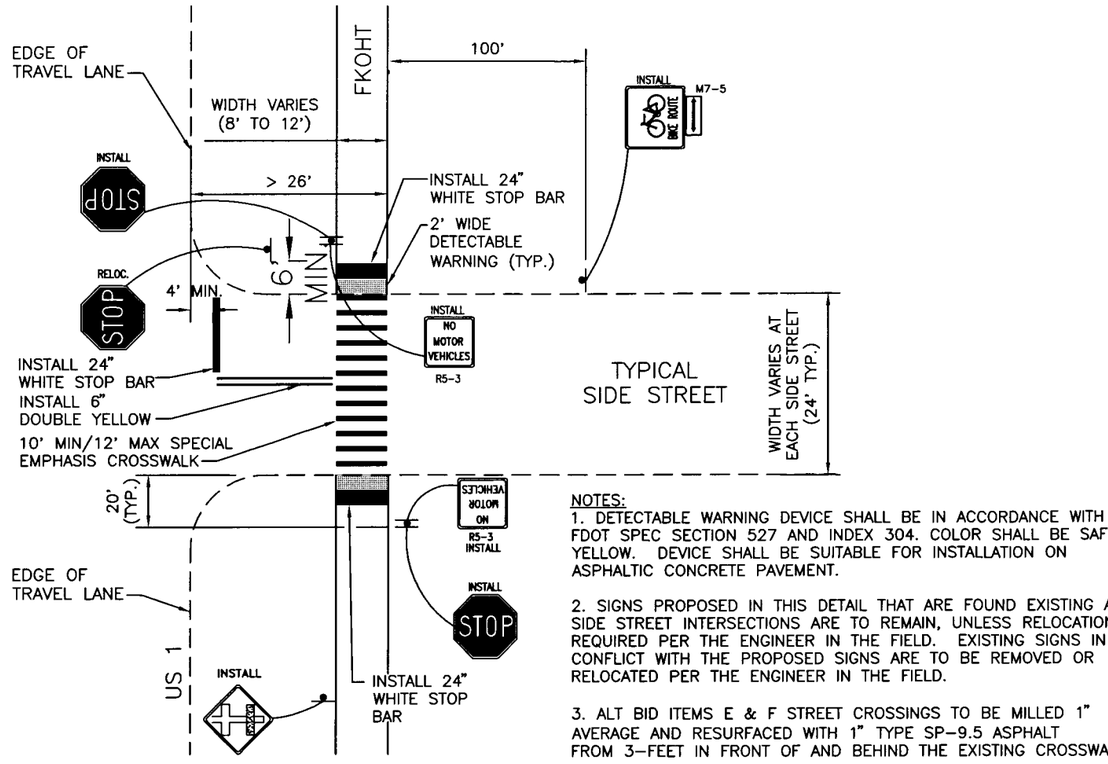
2. SIGNS PROPOSED IN THIS DETAIL THAT ARE FOUND EXISTING AT SIDE STREET INTERSECTIONS ARE TO REMAIN, UNLESS RELOCATION IS REQUIRED PER THE ENGINEER IN THE FIELD. EXISTING SIGNS IN CONFLICT WITH THE PROPOSED SIGNS ARE TO BE REMOVED OR RELOCATED PER THE ENGINEER IN THE FIELD.

3. ALT BID ITEMS E & F STREET CROSSINGS TO BE MILLED 1" AVERAGE AND RESURFACED WITH 1" TYPE SP-9.5 ASPHALT FROM 3-FEET IN FRONT OF AND BEHIND THE EXISTING CROSSWALK.

4. SIGNS TO BE INSTALLED IN ACCORDANCE WITH FOT INDEX 17302

D1 ALL PLAN

TYPICAL TRAIL CROSSING OF SIDE STREET TRAIL HAS RIGHT OF WAY



NOTES:
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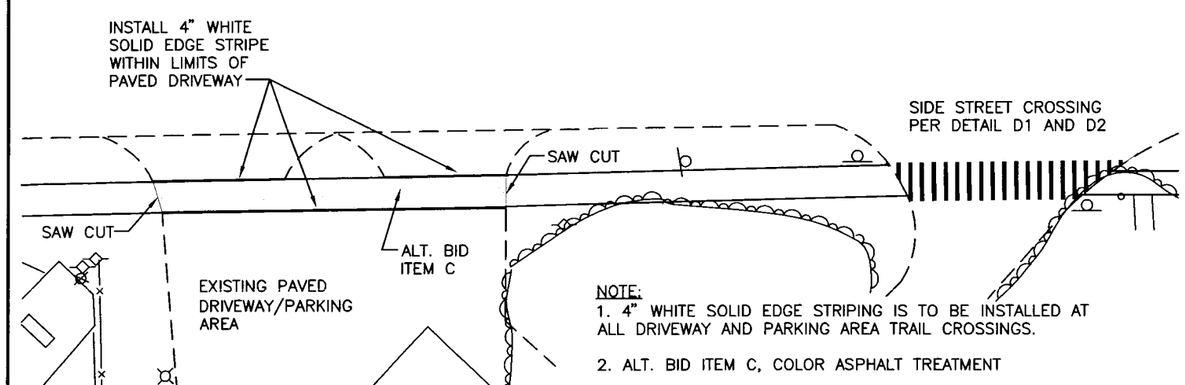
2. SIGNS PROPOSED IN THIS DETAIL THAT ARE FOUND EXISTING AT SIDE STREET INTERSECTIONS ARE TO REMAIN, UNLESS RELOCATION IS REQUIRED PER THE ENGINEER IN THE FIELD. EXISTING SIGNS IN CONFLICT WITH THE PROPOSED SIGNS ARE TO BE REMOVED OR RELOCATED PER THE ENGINEER IN THE FIELD.

3. ALT BID ITEMS E & F STREET CROSSINGS TO BE MILLED 1" AVERAGE AND RESURFACED WITH 1" TYPE SP-9.5 ASPHALT FROM 3-FEET IN FRONT OF AND BEHIND THE EXISTING CROSSWALK.

4. SIGNES TO BE INSTALLED IN ACCORDANCE WITH FDOT INDEX 17302

D2 ALL PLAN

TYPICAL TRAIL CROSSING OF SIDE STREET SIDE STREET HAS RIGHT OF WAY

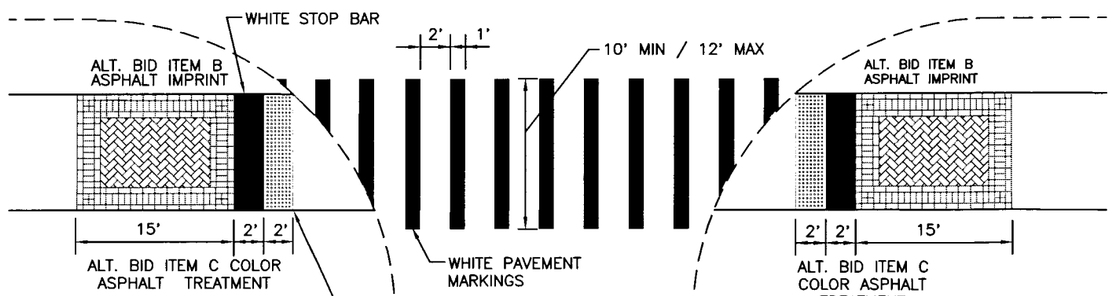


NOTE:
1. 4" WHITE SOLID EDGE STRIPING IS TO BE INSTALLED AT ALL DRIVEWAY AND PARKING AREA TRAIL CROSSINGS.

2. ALT. BID ITEM C, COLOR ASPHALT TREATMENT

D3 ALL PLAN

TYPICAL TRAIL CROSSING OF DRIVEWAYS AND PARKING AREAS PAVEMENT MARKING INSTALLATION DETAIL



NOTE:
1. SPECIAL EMPHASIS CROSSWALK IS TO BE INSTALLED AT ALL TRAIL CROSSINGS OF SIDE STREETS AND US 1/ OVERSEAS HIGHWAY.

2. DETECTABLE WARNING DEVICE SHALL BE IN ACCORDANCE WITH FDOT SPEC SECTION 527 AND INDEX 304. COLOR SHALL BE SAFETY YELLOW. DEVICE SHALL BE SUITABLE FOR INSTALLATION ON ASPHALTIC CONCRETE PAVEMENT.

D4 ALL PLAN

ALTERNATE TRAIL CROSSWALK DETAIL

6/11/09

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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DATE: AUG 2008 | HORIZONTAL SCALE: NA | VERTICAL SCALE: NA | SEC: TWP: RGE:

TITLE: DETAILS

CROSS REFERENCE FILE NO.:

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E. FL Lic.# 56859

INDEX NUMBER: B-04880-002

SHEET NUMBER: 80

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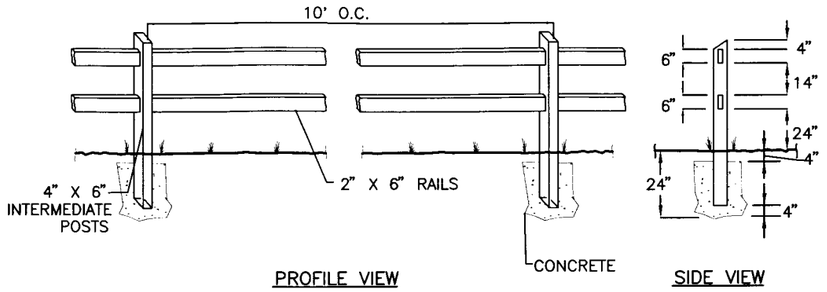
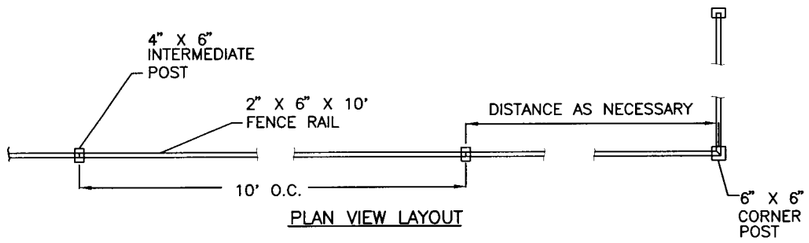
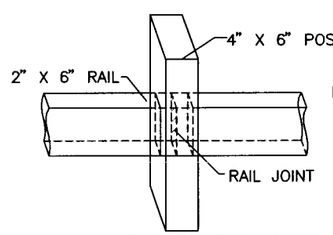


PROFILE VIEW

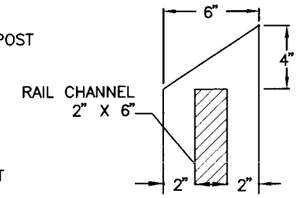
SIDE VIEW



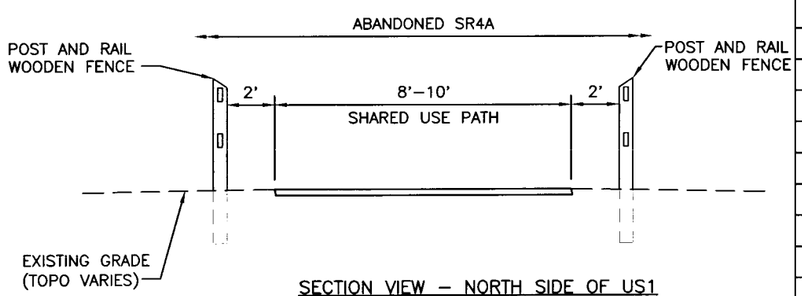
PLAN VIEW LAYOUT



RAIL JOINT DETAIL



TOP OF POST
RAIL CHANNEL ORIENTATION

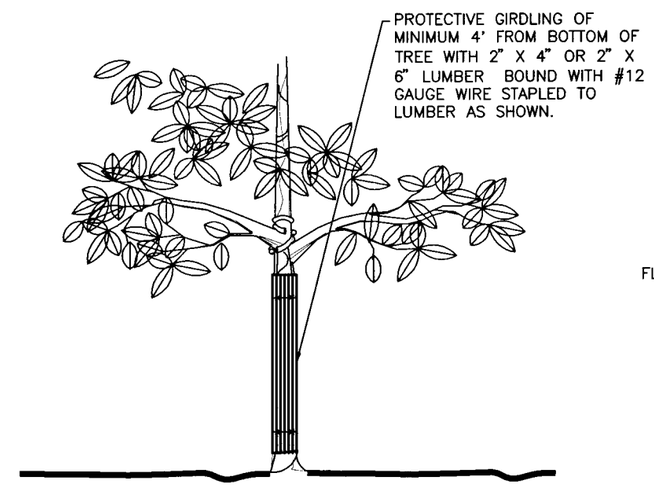


SECTION VIEW – NORTH SIDE OF US1
ALONG ABANDONDED SR4A
NTS

LOCATION OF FENCE INSTALLATION	
BEGIN STATION	END STATION
SOUTH SIDE OF US1 W/ SWMF	
500+45	501+46
501+73	503+34
503+64	504+41
504+85	507+35
SOUTH SIDE OF US1	
867+33	868+40
NORTH SIDE OF US1	
NORTH SIDE OF TRAIL	
627+01	638+27
684+91	693+96
706+13	712+54
807+32	809+87
826+53	827+79
830+65	830+83
832+83	833+30
SOUTH SIDE OF TRAIL	
807+66	809+88

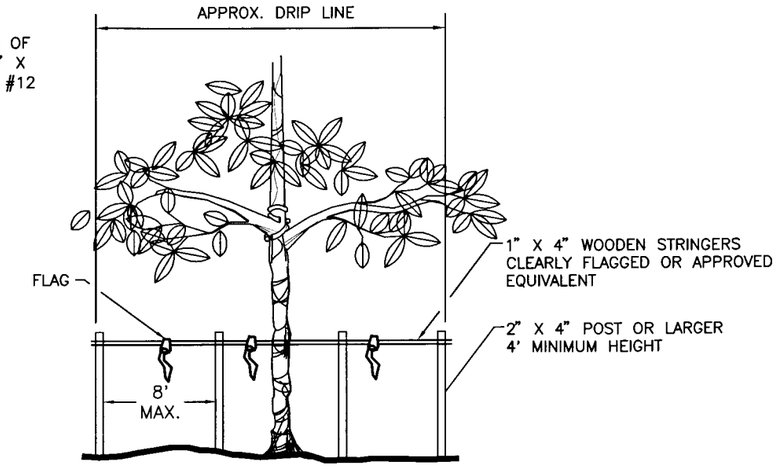
54" HIGH POST & RAIL WOODEN FENCE

NTS



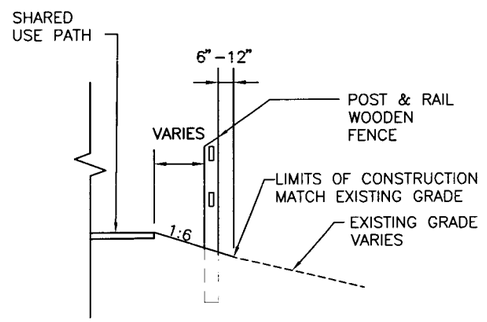
TREE TRUNK PROTECTION DETAIL

NOT TO SCALE

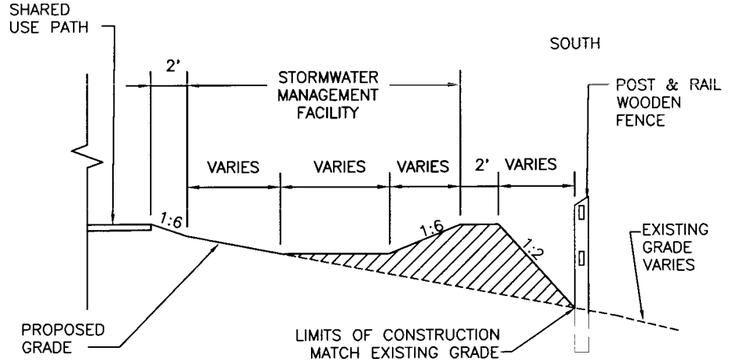


TREE PROTECTION BARRICADE DETAIL

NOT TO SCALE



SECTION VIEW – SOUTH SIDE OF US 1



SECTION VIEW – SOUTH SIDE OF US 1 WITH SWMF

NOTES:

1. FOR AREAS ON SOUTH SIDE OF US1 WITHOUT SWMFs, INSTALL FENCE ALONG THE LIMITS OF CONSTRUCTION AT LOCATIONS INDICATED IN THE TABLE AND SHOWN ON THE PLANS. INSTALL AS CLOSE AS POSSIBLE TO LIMITS OF CONSTRUCTION. HOWEVER, IN NO CASE SHALL THE FENCE, INCLUDING CONCRETE FOOTER, BE ALLOWED TO EXTEND PAST THE LIMITS OF CONSTRUCTION.
2. WHERE FENCE IS ON SOUTH SIDE OF US 1 ADJACENT TO SWMFs, INSTALL FENCE ALONG AND IMMEDIATELY ADJACENT TO THE SOUTHERN SIDE OF THE LIMITS OF CONSTRUCTION AT THE LOCATIONS INDICATED IN THE TABLE AND AS SHOWN ON THE PLANS.
3. WHERE FENCE IS ALONG PORTIONS OF TRAIL CONSTRUCTION ON ABANDONED SR4A, INSTALL FENCE AT LOCATIONS INDICATED IN THE TABLE AND AS SHOWN IN THE PLANS. INSTALL FENCE POSTS SUCH THAT POST FACE CLOSEST TO SHARED USE PATH (TRAIL) IS 2' FROM EDGE OF PROPOSED TRAIL PAVEMENT. FENCE, INCLUDING CONCRETE FOOTER, SHALL NOT ENROACH INTO WETLANDS ADJACENT TO THE TRAIL.
4. FOR LOCATIONS OF POST AND RAIL FENCE LOCATED IMMEDIATELY ADJACENT TO PATH, SEE POST AND RAIL FENCE TYPICAL SECTION.

6/11/09

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FDEP NO 6G020

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
SUGAR LOAF TO SUMMERLAND

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE:

TITLE: FENCE DETAILS

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CLYDE F. AIKEN, P.E.
FL Lic.# 58536

INDEX NUMBER: B-04880-002
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GENERAL BOARDWALK CONSTRUCTION NOTES AND SPECIFICATIONS

1. TREATED WOODS: (OTHER THAN TIMBER PILES)
ALL WOOD SHALL BE PRESERVATIVE TREATED (P.T.) WITH 2.50 LB/CF CHROMATED COPPER ARSENATE (CCA) FOR GROUND AND SALT WATER CONTACT MATERIALS AND 0.60 LB/CF OF ALKALINE COPPER QUATERNARY (ACQ), COPPER AZOLE (CA), OR APPROVED EQUAL FOR ABOVE GROUND, AND ABOVE SALT WATER MATERIALS.

2. LUMBER AND TIMBER GRADES AND STANDARDS:

BEAMS, JOISTS AND PILES SHALL BE:
A. BOARDWAK "A": SOUTHERN PINE NO. 2 OR BETTER U.N.O. ON PLANS.
B. BOARDWALK "B": DENSE STRUCTURAL SELECT (DSS) OR BETTER U.N.O. ON PLANS.
BOARDS SHALL CONFORM TO THE SOUTHERN PINE INSPECTION BUREAU "STANDARD GRADING RULES", CURRENT EDITION WITH THE FOLLOWING EXCEPTIONS:

1) DECKING SHALL BE:

A. BOARDWALK "A": "TREX" WOOD-POLYMER COMPOSITE AS MANUFACTURED BY TREX COMPANY, LLC. (OR APPROVED EQUAL)
B. BOARDWALK "B": SOUTHERN PINE NO. 2 OR BETTER.

2) PILES SHALL BE:

A. BOARDWALK "A": 8" DIAMETER P.T.
B. BOARDWALK "B": 12" DIAMETER DSS

ALL LUMBER AND TIMBER SHALL BE DRESSED, PROVIDE NOMINAL SIZES AS INDICATED ON DESIGN PLANS.

MOISTURE CONTENT: SHALL NOT EXCEED 19% UPON SITE DELIVERY.

LUMBER REQUIREMENTS

NOMINAL SIZE	BENDING STRESS Fb (PSI)	MODULUS OF ELASTICITY E(PSI)
2" x 6"	2700	1.9×10^6
4" x 6"	2700	1.9×10^6
2" x 10"	1050	1.6×10^6
2" x 12"	2050	1.9×10^6
12" x 12"	1750	1.6×10^6
8" DIA PILE*	2400	1.5×10^6
12" DIA PILE**	2400	1.5×10^6

*MINIMUM TIP DIAMETER = 7 INCHES (EMBEDDED END), MINIMUM BUTT DIAMETER = 8 INCHES
**MINIMUM TIP DIAMETER = 11 INCHES (EMBEDDED END), MINIMUM BUTT DIAMETER = 12 INCHES

3. ANCHOR PILES:
QUALITY AND SIZE: SHALL CONFORM TO ASTM D-25-99 (2005)
PRESERVATIVE TREATMENT: CCA, TYPE C, 2.5 LB/CF.
SPECIES: SOUTHERN YELLOW PINE #2.
SETTING: PILES SHALL BE INSTALLED PER DETAILS.

CONSTRUCTION TOLERANCES:

ALIGNMENT AND GRADE:
PILES SHALL BE SET TO ACHIEVE CONTINUOUS, STRAIGHT CENTERLINE ALIGNMENT AS INDICATED ON DESIGN PLANS, OR AS DIRECTED BY THE PROJECT ENGINEER. INDIVIDUAL PILES WITHIN THE ALIGNMENT SHALL BE PLUMB ABOUT THEIR CENTERLINE WHEN CHECKED WITH A PLUMB BOB. CENTERS OF PILES IN CONTINUOUS STRAIGHT RUNS SHALL BE WITHIN 1-1/2" OF EITHER SIDE OF THE CENTERLINE ALIGNMENT WHEN CHECKED WITH A TAUT STRING LINE. PILES SHALL BE SPACED AT INTERVALS AND SET TO GRADE AS REQUIRED TO CONFORM WITH BOARDWALK TYPICAL DETAILS. PILINGS SHALL BE FINISH TRIMMED TO MAINTAIN DESIGN ELEVATIONS. FINISH DECK SHALL BE WITHIN 1/4" OF GRADES INDICATED ON THE DESIGN PROFILE, SECTION OR PLAN. PILE TOPS SHALL BE NEATLY TRIMMED TO PROVIDE A UNIFORM TONGUE DIMENSION AS SPECIFIED BY DESIGN PLANS BETWEEN BEAMS. INLAYS SHALL PROVIDE FULL CONTACT OF BEAM FACE AND DIRECT, LEVEL BEARING OF BEAM BOTTOMS. GAPS UNDER BEAMS WILL NOT BE ACCEPTED. SHIMS SHALL NOT BE USED.

PILE CUTOFFS SHALL BE TREATED WITH 2% COPPER NAPHTHENATE SOLUTION (OR APPROVED EQUAL) FOLLOWED BY SEALING THE END OF THE PILE WITH A COLD-TAR ROOFING CEMENT.

4. MOUNTING HARDWARE, FASTENERS AND HANGERS:
ALL HARDWARE AND FASTENERS SHALL BE GRADE 316 STAINLESS STEEL (S.S.).

FABRICATED HANGERS AND CONNECTORS: ALL FABRICATED HANGERS AND CONNECTORS SHALL BE GRADE 316 STAINLESS STEEL.

NAILS: SHALL BE ANNULAR, RING THREAD TYPE, GRADE 316 STAINLESS STEEL.

SCREWS: WHERE SPECIFIED FOR DECKING INSTALLATION SHALL BE R4, MULTI-PURPOSE. R4 SCREWS FOR DECKING INSTALLATION SHALL BE GRADE 305, PH HARDENED WITH TORX DRIVE, SELF COUNTERSINKING HEADS AND TYPE 17 SELF TAPPING POINTS. SCREW SIZE FOR RAILING INSTALLATION SHALL BE 10 GAUGE, 3.5" LENGTH. SCREW SIZE FOR DECKING INSTALLATION SHALL BE 10 GAUGE, 3" LENGTH.

BOLTS AND BOLTING: BOLT HEADS AND NUT SHALL BE DRAWN DOWN SECURELY TO THE FACE OF THE MEMBER BEING SECURED. ALL MACHINE BOLTS SHALL INCLUDE ONE WASHER AT HEAD AND THREADED ENDS. CARRIAGE BOLTS, WHEN SPECIFIED, SHALL UTILIZE A SINGLE WASHER AT THE THREADED ENDS. GENERALLY, NO BOLT END SHALL PROTRUDE FROM THE WOOD CONNECTION GREATER THAN THREE TIMES ITS DIAMETER.

EXECUTION: WHERE NAILING IS SPECIFIED FOR WOOD CONNETIONS, PRE-DRILLING IS REQUIRED TO MINIMIZE SPLITTING. THIS SPECIFICALLY APPLIES TO HANDRAIL AND DECKING INSTALLATION. WHERE SCREWS ARE SPECIFIED FOR WOOD CONNECTIONS, PRE-DRILLING IS REQUIRED. DRILL SIZE SHALL BE GAUGED TO ALLOW FULL THREAD PENETRATION. PRE-DRILL ONLY THE MEMBER TO BE SECURED.

HOLES FOR BOLTS AND LAGS: HOLES FOR MACHINE BOLTS SHALL BE BORED WITH A BIT OF THE SAME DIAMETER AS THE BOLT. HOLES FOR LAGS SHALL BE BORED WITH A BIT NOT LARGER THAN THE BODY OF THE SCREW AT THE BASE OF THE THREAD.

5. EROSION CONTROL: THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING, INSTALLING, MAINTAINING AND REMOVING EROSION / TURBIDITY CONTROL DEVICES AS MAY BE REQUIRED DURING CONSTRUCTION TO ENSURE APPLICABLE STATE SURFACE WATER QUALITY STANDARDS ARE NOT VOILATED.

6. CONCRETE: CAST-IN-PLACE CONCRETE: 3000 PSI @ 28 DAYS UNLESS OTHERWISE NOTED ON DESIGN PLANS.

7. REINFORCEMENT: REINFORCING STEEL: ASTM A615, GRADE 60 WELDED WIRE FABRIC: ASTM A185 UNLESS OTHERWISE NOTED ON DESIGN PLANS, MINIMUM COVER FOR REINFORCING SHALL BE AS FOLLOWS: FOOTINGS: 3" COLUMNS AND PEDESTALS: 2" SLABS ON GRADE: 2" FROM TOP ALL REINFORCEMENT SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES IN CONFORMANCE WITH CRSI MANUAL OF STANDARD PRACTICE AND ACI 315 DURING PLACING OF CONCRETE. UNLESS OTHERWISE NOTED, SPLICES IN REINFORCING, WHERE PERMITTED, SHALL BE AS FOLLOWS: WELDED WIRE FABRIC: WIRE SPACING PLUS 6" REINFORCING BARS: 48 BAR DIAMETERS ALL HOOKS IN REINFORCING BARS SHALL BE PER ACI STANDARDS, UNLESS OTHERWISE NOTED. DOWELS WHERE INDICATED SHALL BE PLACED AND SECURED PRIOR TO CONCRETE PLACEMENT.

8. ADA HANDRAIL SYSTEM:

BOARDWALK "A": NOT APPLICABLE

BOARDWALK "A" RAMP AND BOARDWALK "B":
HANDRAILS SHALL BE AS MANUFACTURED BY AVCON, INC. 1451 ROUTE 37, WEST TOMS RIVER, NEW JERSEY 08755 (OR APPROVED EQUAL)
CONTACT: LARRY STANLEY (732) 286-9496
RAILING COMPONENTS SHALL BE EXTRUDED FROM ACRYLONITRILE STYRENE ACRYLATE (ASA) WHICH IS A HIGH PERFORMANCE THERMOPLASTIC. STRUCTURAL MOUNTING HARDWARE SHALL BE AS MANUFACTURED BY AVCON UTILIZING STAINLESS STEEL FASTENERS OR AS OTHERWISE SPECIFIED ON PLANS. HANDRAILS SHALL BE CONTINUOUS, AND INSTALLED ON BOTH SIDES OF THE BOARDWALK SYSTEM.
COLOR: SELECTION BY OWNER / ARCHITECT, SUBMIT MATERIAL COLOR SAMPLES FOR REVIEW AND APPROVAL THROUGH THE PROJECT ENGINEER.

9. CONSTRUCTION OF BOARDWALKS - ENVIRONMENTAL NOTES:

THIS PROJECT INCLUDES CONSTRUCTION OF TWO BOARDWALKS DESIGNATED AS BOARDWALK "A" AND BOARDWALK "B". PRIOR TO STARTING BOARDWALK CONSTRUCTION, THE CONTRACTOR SHALL CLEARLY MARK THE CENTERLINE OF THE BOARDWALK AND THE LIMITS OF THE PRIMARY BOARDWALK CLEARING ZONE. UPON COMPLETION, THE CONTRACTOR SHALL NOTIFY THE DEP/OGT PROJECT MANAGER AND THE MANAGER WILL INSPECT THE MARKED AREAS. THE DEP/OGT PROJECT MANAGER MAY REQUIRE ADJUSTMENTS AND THESE SHALL BE MADE BY THE CONTRACTOR AS DIRECTED BY THE DEP/OGT PROJECT MANAGER OR MANAGER'S DESIGNEE. BOARDWALK CONSTRUCTION WILL NOT PROCEED UNTIL CONTRACTOR HAS OBTAINED FINAL AUTHORIZATION FROM THE DEP/OGT PROJECT MANAGER OR MANAGER'S DESIGNEE.

VEGETATION CLEARING/TRIMMING WITHIN THE PRIMARY CLEARING ZONE:

THE LIMITS OF THE BOARDWALK PRIMARY CLEARING ZONE ARE INDICATED IN THE BOARDWALK DETAILS. THE CONTRACTOR SHALL LIMIT TRIMMING/CUTTING OF NATIVE TREES AND SHRUBS LOCATED WITHIN THIS ZONE TO THE MINIMUM NECESSARY TO CONSTRUCT THE BOARDWALK. FROM THE GROUND SURFACE TO A DISTANCE EQUAL TO THE TOP OF THE BOARDWALK SIDE RAIL POSTS, NATIVE TREES AND SHRUBS WILL BE TRIMMED ONLY TO A HEIGHT NECESSARY TO PROVIDE CLEARANCE FOR THE BOARDWALK DECKING, JOISTS, VERTICAL SUPPORTS, AND SIDE RAILS. TRIMMING/REMOVAL OF RED MANGROVE PROP ROOTS LOCATED WITHIN THE PRIMARY CLEARING ZONE IS PROHIBITED UNLESS ABSOLUTELY NECESSARY TO INSTALL BOARDWALK STRUCTURES. THE CONTRACTOR SHALL TEMPORARILY TIE BACK MANGROVE AND BUTTONWOOD BRANCHES WHERE POSSIBLE TO REMOVE THEM FROM PRIMARY BOARDWALK CLEARING ZONE RATHER THAN TRIMMING THE BRANCHES. UPON COMPLETION OF BOARDWALK CONSTRUCTION, MATERIALS USED TO TIE BACK BRANCHES SHALL BE REMOVED. IN THE ZONE EXTENDING FROM THE TOP OF THE SIDE RAIL POSTS TO A DISTANCE NOT TO EXCEED 10 FEET ABOVE THE TOP OF THE BOARDWALK DECKING, THE CONTRACTOR SHALL TRIM OVERHANGING TREE LIMBS AND BRANCHES ONLY AS NECESSARY TO PROVIDE FOR THE SAFE, UNOBSTRUCTED PASSAGE OF TRAIL USERS AND MAINTENANCE VEHICLES ACROSS THE BOARDWALK. ALL TRIMMING OF VEGETATION MUST BE CONDUCTED BY OR UNDER THE DIRECT SUPERVISION OF A CERTIFIED ARBORIST.

VEGETATION TRIMMING WITHIN THE SELECTIVE CLEARING ZONE:

THE LIMITS OF THE BOARDWALK SELECTIVE CLEARING ZONE ARE INDICATED IN THE BOARDWALK DETAILS. TRIMMING OF LIMBS AND BRANCHES OF NATIVE TREES AND SHRUBS SHALL BE LIMITED TO THE MINIMUM NECESSARY TO INSTALL BOARDWALK JOISTS, SIDE RAIL CAPS, AND OUTER TOP RAILS. SELECTIVE TRIMMING IS ALSO ALLOWED IN THIS ZONE IF NECESSARY TO CONSTRUCT BOARDWALK SIDE RAIL POSTS OR TO ELIMINATE INTERFERENCE OF LIMBS AND BRANCHES WITH THESE POSTS. TRIMMING OF RED MANGROVE PROP ROOTS WITHIN THIS ZONE IS STRICTLY PROHIBITED. ALL TRIMMING OF VEGETATION MUST BE CONDUCTED BY OR UNDER THE DIRECT SUPERVISION OF A CERTIFIED ARBORIST.

OTHER:

ALL VEGETATION DEBRIS GENERATED DURING BOARDWALK CONSTRUCTION SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF IN A DULY LICENSED FACILITY.

WITH THE EXCEPTION OF HAND-HELD POWER TOOLS AND EQUIPMENT, USE OF MECHANIZED EQUIPMENT DIRECTLY WITHIN WETLANDS AND OTHER SURFACE WATERS FOR BOARDWALK CONSTRUCTION PURPOSES IS PROHIBITED.

THE BOARDWALKS MUST BE CONSTRUCTED USING A "TOP-DOWN" APPROACH.

EXCESS SOIL EXCAVATED DURING BORING/AUGERING OF HOLES FOR BOARDWALK ANCHOR POSTS (PILINGS) AND NOT USED FOR BACKFILL OF POST HOLES SHALL BE REMOVED FROM THE SURROUNDING WETLANDS AND OTHER SURFACE WATERS.

WITH THE EXCEPTION OF THE BOARDWALKS THEMSELVES, ANY MATERIAL INADVERTENTLY PLACED IN WETLANDS OR OTHER SURFACE WATERS SHALL BE REMOVED BY HAND. ANY ACCIDENTAL DAMAGE CAUSED TO WETLANDS AND OTHER SURFACE WATERS AS A RESULT OF THE CONTRACTOR'S ACTIVITIES SHALL IMMEDIATELY BE REPORTED TO THE DEP/OGT PROJECT MANAGER OR MANAGER'S DESIGNEE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPROPRIATE REMEDIATION OF ANY SUCH DAMAGE IN ACCORDANCE WITH DIRECTIVES AND SPECIFICATIONS PROVIDED BY THE DEP/OGT PROJECT MANAGER OR MANAGER'S DESIGNEE.

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WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE:

TITLE: BOARDWALK NOTES

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 58859

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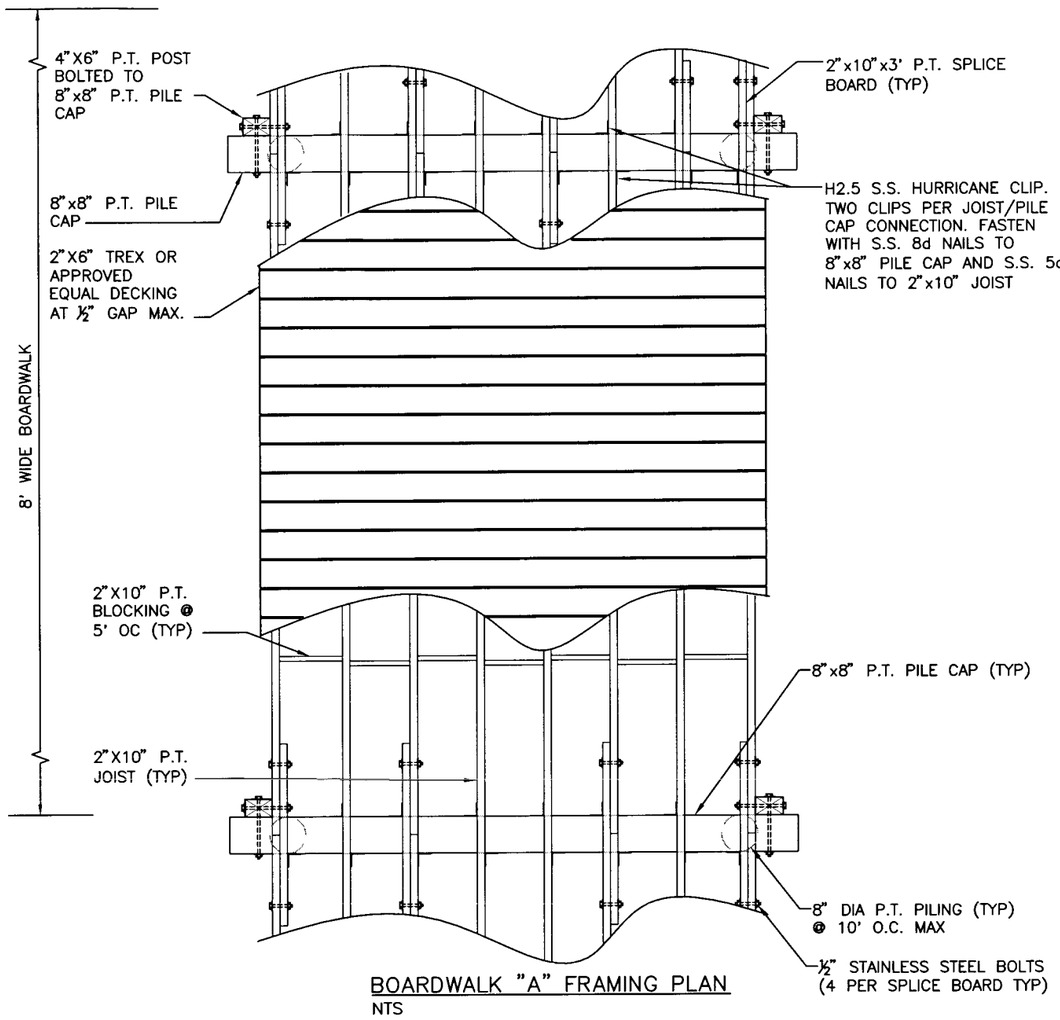
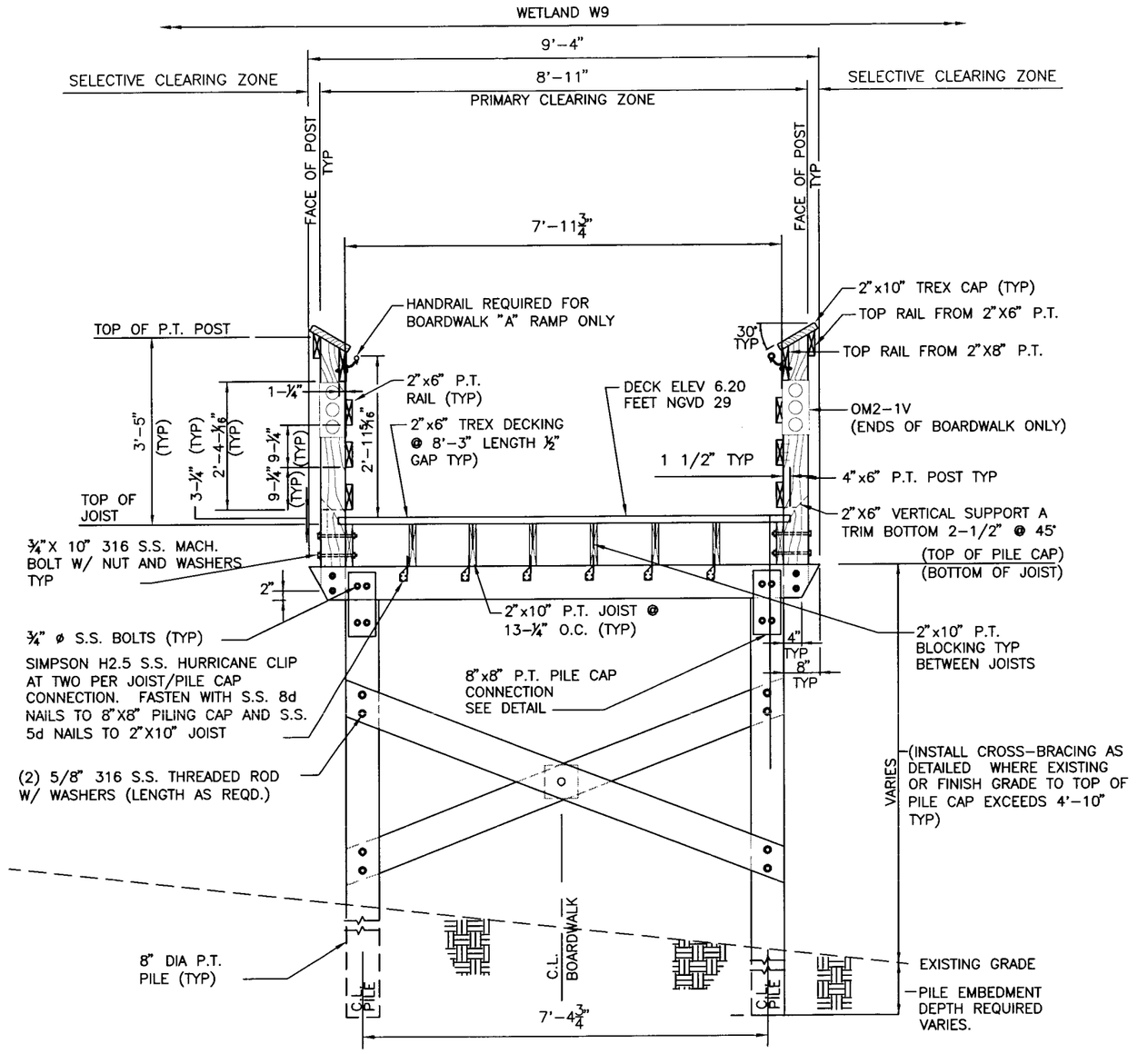


BOARDWALK "A" FRAMING PLAN
NTS



BOARDWALK "A" SECTION (TYP)
NTS

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TITLE: BOARDWALK A DETAILS

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CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

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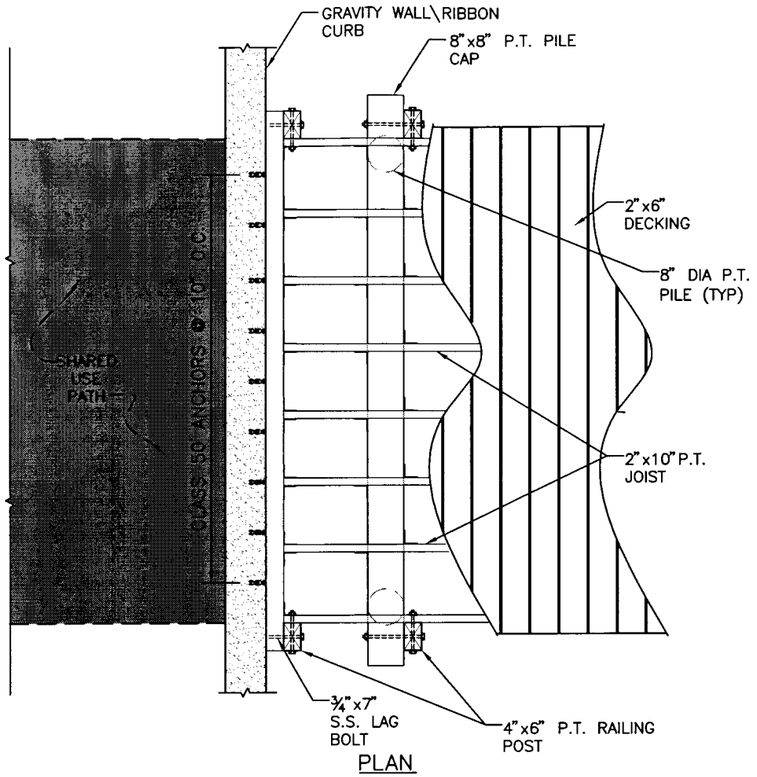
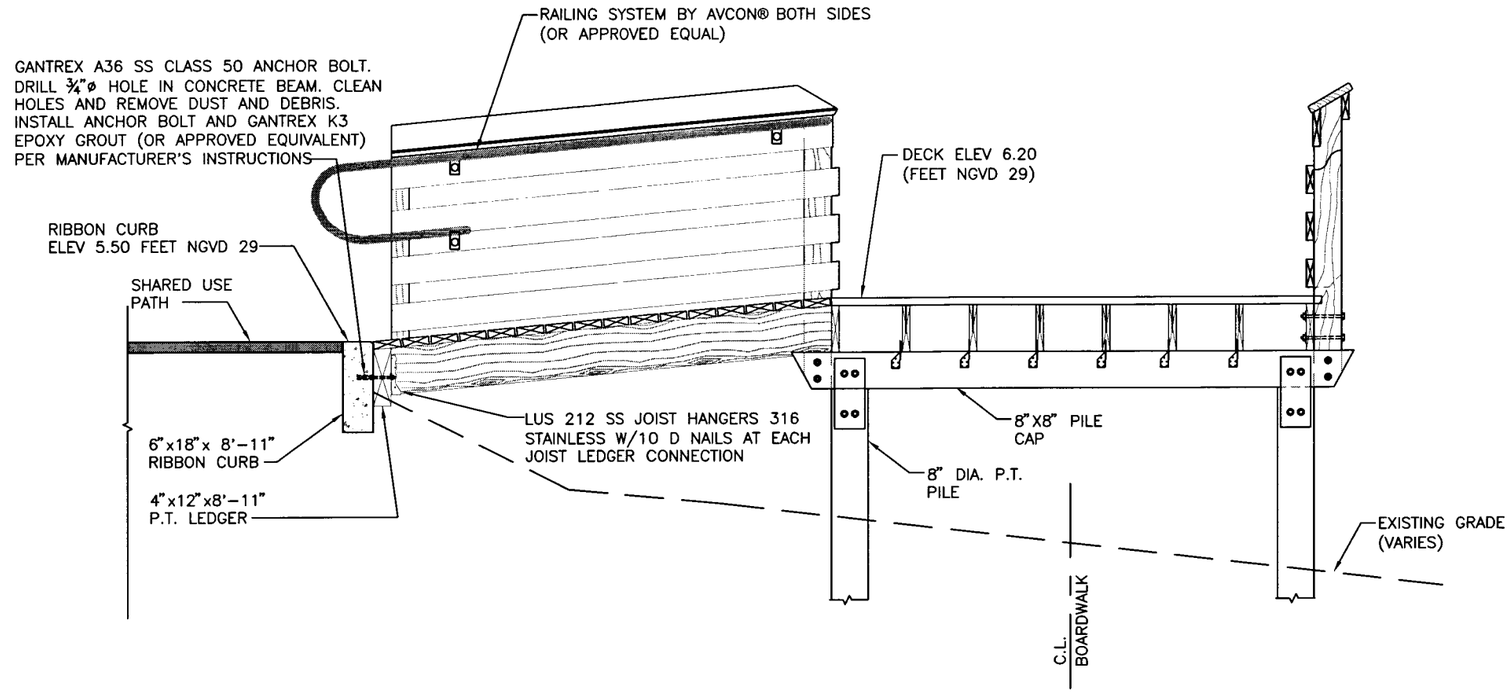
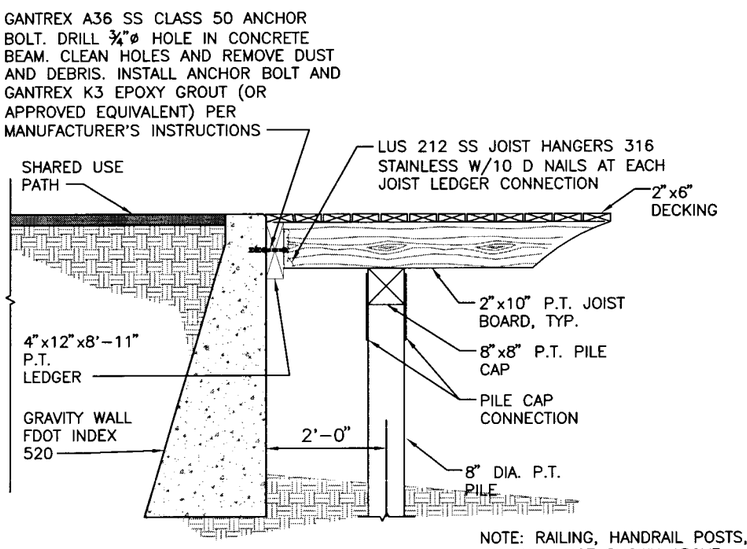


PLAN



SECTION

BOARDWALK "A" RAMP TO RIBBON CURB CONNECTION
NTS



SECTION

NOTE: RAILING, HANDRAIL POSTS, AND HANDRAIL NOT SHOWN ABOVE. DETAIL INTENT IS TO ILLUSTRATE CONNECTION

BOARDWALK "A" TO GRAVITY WALL CONNECTION
NTS

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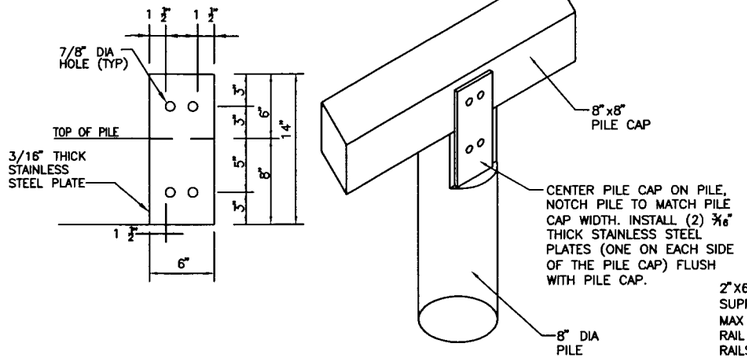

PILE CAP CONNECTION
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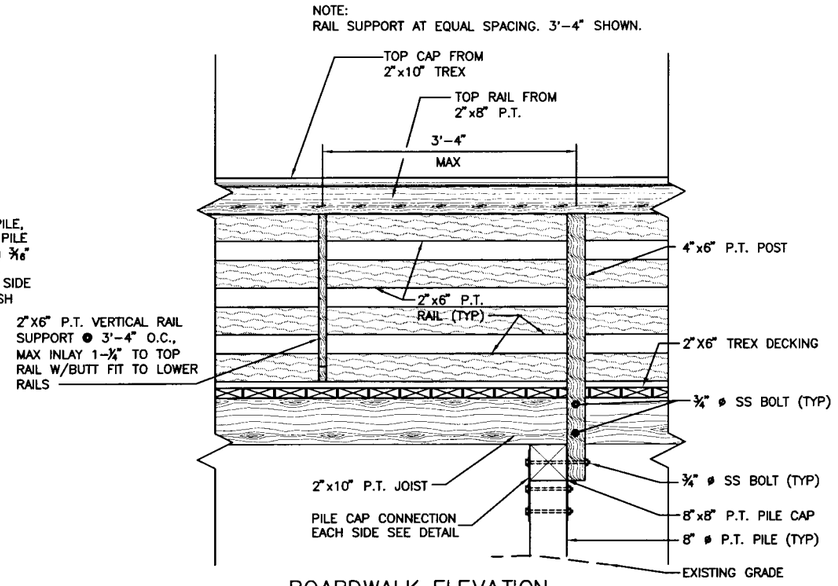

BOARDWALK ELEVATION
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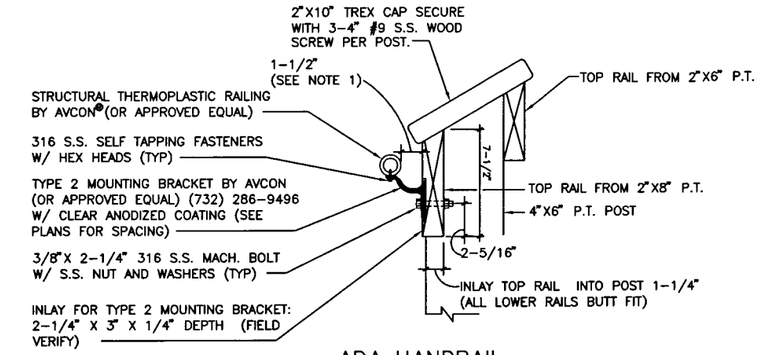
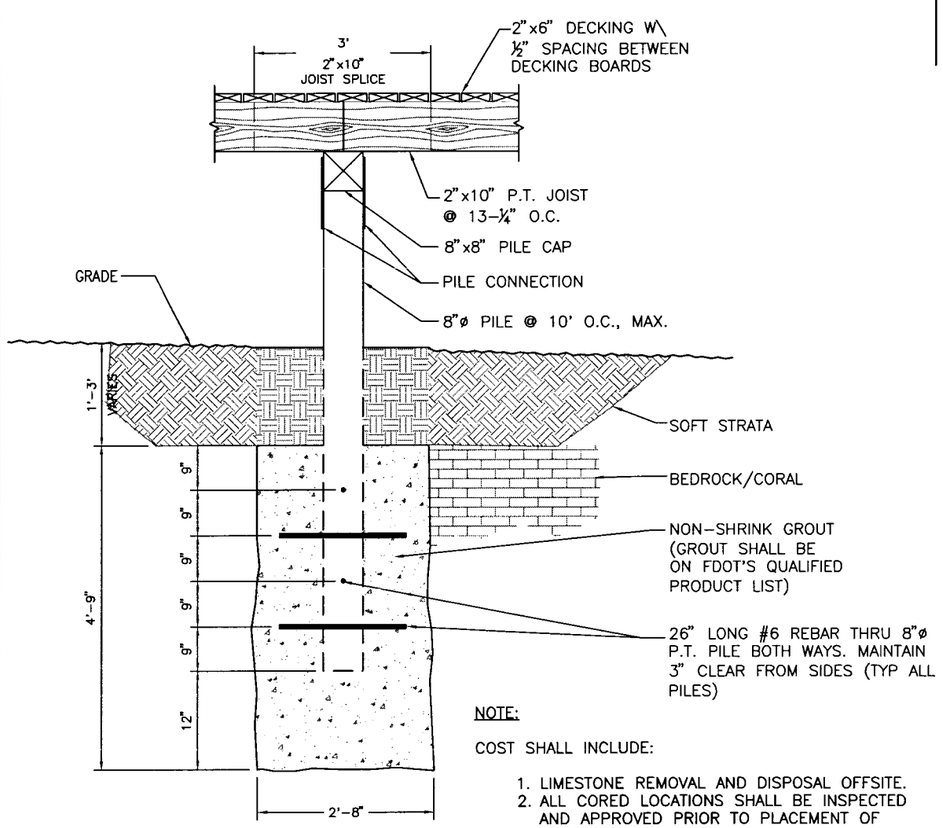


ADA HANDRAIL
NTS

NOTES:

1. PER ADA REQUIREMENTS: HANDRAIL SHALL BE ANCHORED TO PROVIDE CLEAR SPACE OF 1-1/2" FROM BACK OF HANDRAIL TO FACE OF 2"X8" SUBSTRATE. INLAY TYPE 2 BRACKET AS REQD. TO ACHIEVE 1-1/2" SPECIFIED CLEARANCE. INLAYS SHALL BE CONSTRUCTED UTILIZING ROUTER TEMPLATES TO INSURE STRUCTURAL AND VISUAL QUALITY.
2. ADA HANDRAIL HEIGHT: REFER TO BOARDWALK SECTION FOR HEIGHT RELATIVE TO FINISH DECK ELEVATION.
3. ON BOARDWALK RAMP, ADA RAILS SHALL BE CONTINUOUS, AND INSTALLED ON BOTH SIDES OF THE BOARDWALK RAMP SYSTEM.



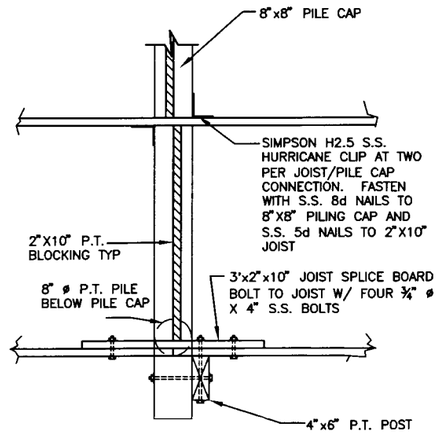
PILE ANCHOR DETAIL
NTS

NOTE:

COST SHALL INCLUDE:

1. LIMESTONE REMOVAL AND DISPOSAL OFFSITE.
2. ALL CORED LOCATIONS SHALL BE INSPECTED AND APPROVED PRIOR TO PLACEMENT OF CONCRETE.

INSTALL CROSS BRACING WHERE EXISTING GRADE TO TOP OF PILE CAP EXCEED 4'10".



JOIST DETAIL
NTS

6/11/09

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SHEET NUMBER: 85

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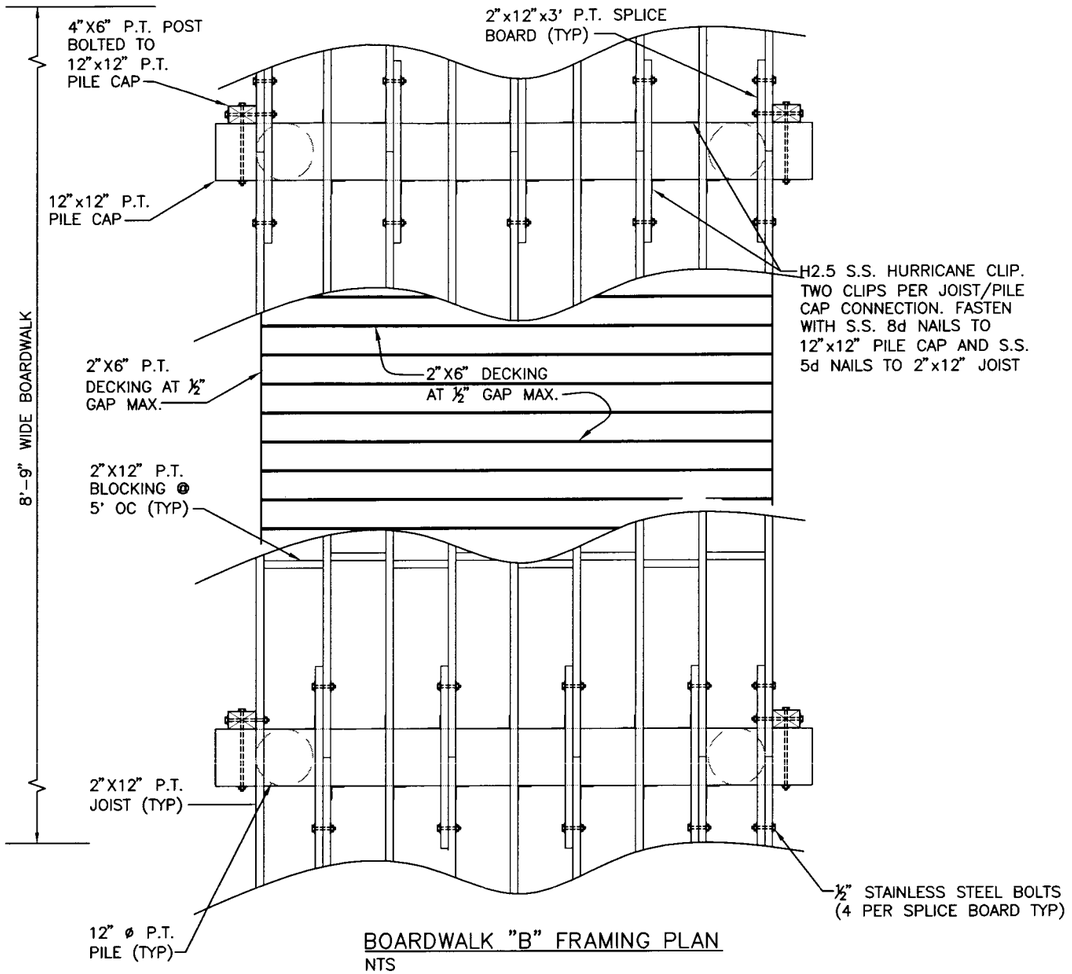
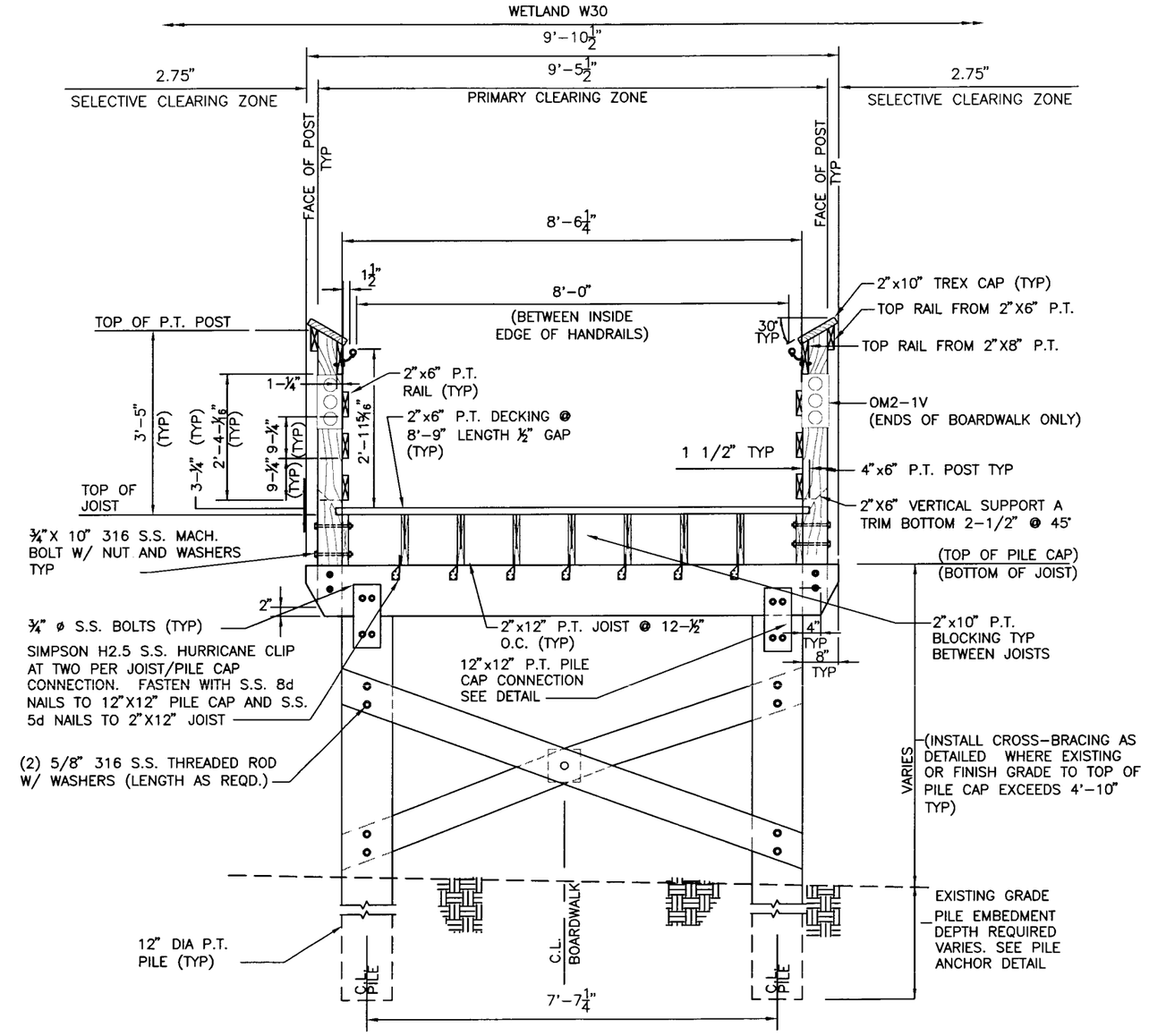


BOARDWALK "B" FRAMING PLAN
NTS



BOARDWALK "B" SECTION (TYP)
NTS

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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FL Lic.# LC-C000170 · Certificate of Authorization #43
WilsonMiller, Inc.
1441 Wesley Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone 850-878-5001 - Fax 850-878-5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:

TITLE: BOARDWALK B DETAILS

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
PROJECT NUMBER: 04880-002-000
SHEET NUMBER: 86

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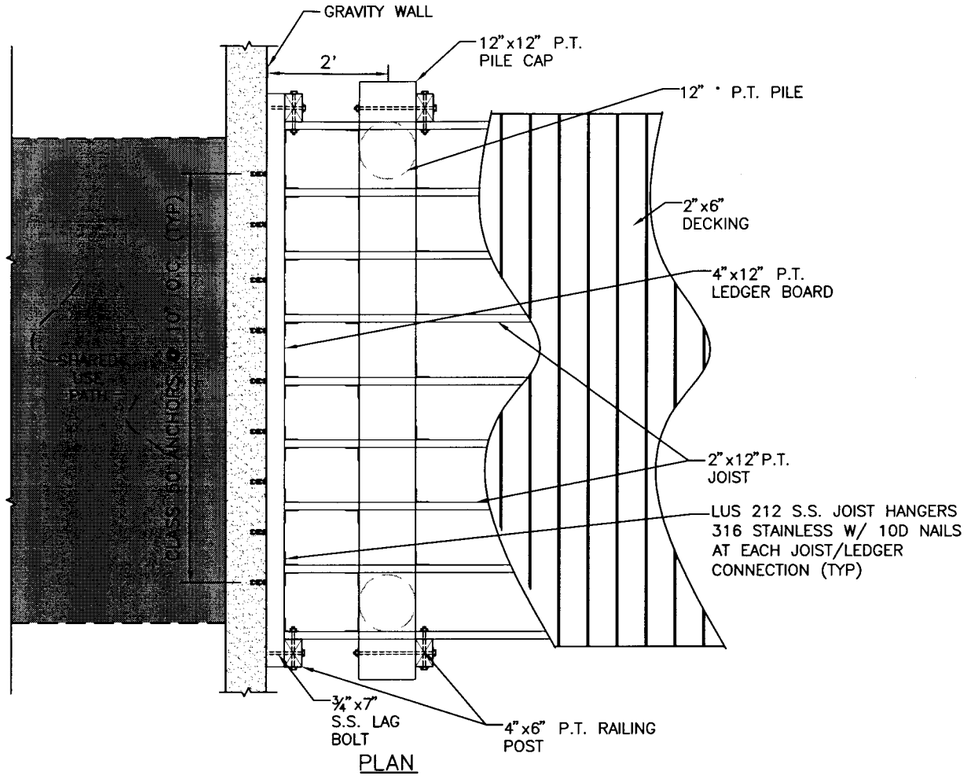
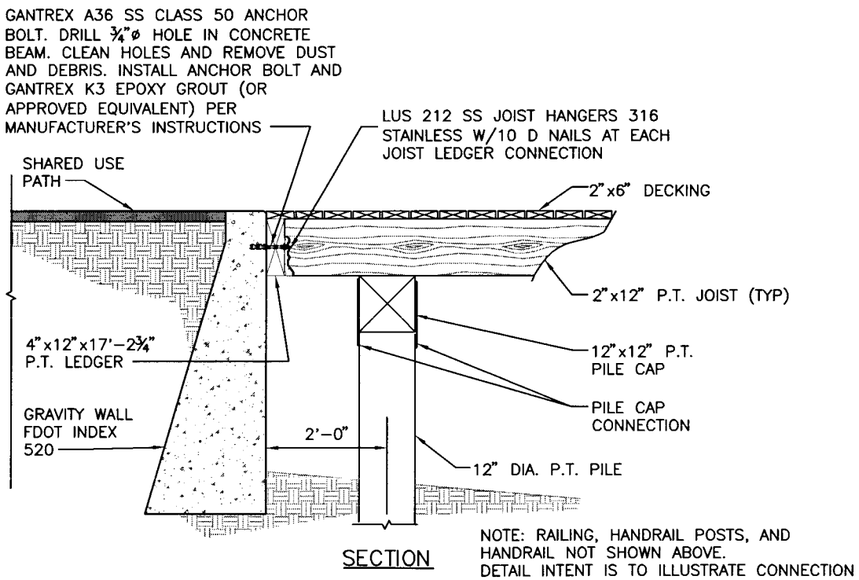


PLAN



SECTION

NOTE: RAILING, HANDRAIL POSTS, AND HANDRAIL NOT SHOWN ABOVE. DETAIL INTENT IS TO ILLUSTRATE CONNECTION

BOARDWALK "B" TO GRAVITY WALL CONNECTION SECTION

NTS

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / DMP. NO.	CHECKED BY / DMP. NO.

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CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC TWP RGE:

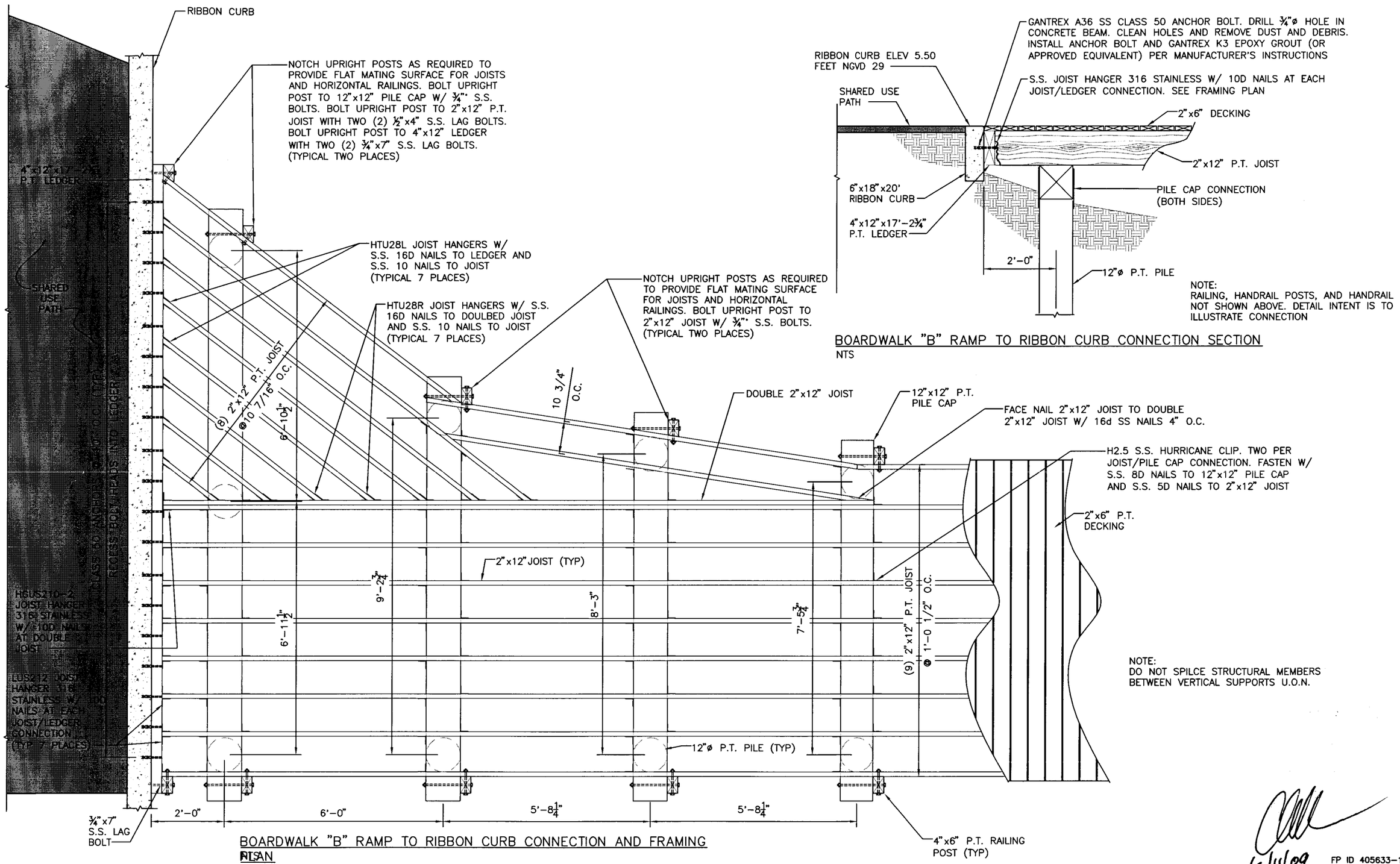
TITLE: BOARDWALK B DETAILS

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 87

Apr 21, 2009 - 10:44:10 JGERTH|X:\ENG\04880\002-Segment1\REV01\04880-002-Boardwalk-Details.dwg



BOARDWALK "B" RAMP TO RIBBON CURB CONNECTION AND FRAMING PLAN

BOARDWALK "B" RAMP TO RIBBON CURB CONNECTION SECTION
NTS

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
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DRAWN BY:	JGG/2031	01/09
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CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC. TWP. RGE.
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE: BOARDWALK B DETAILS

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04880-002
SHEET NUMBER: 88

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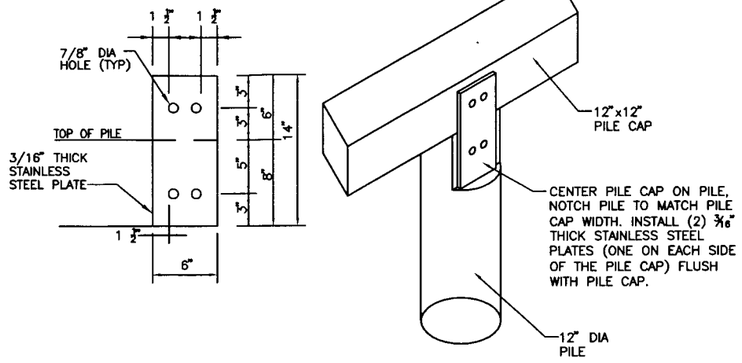
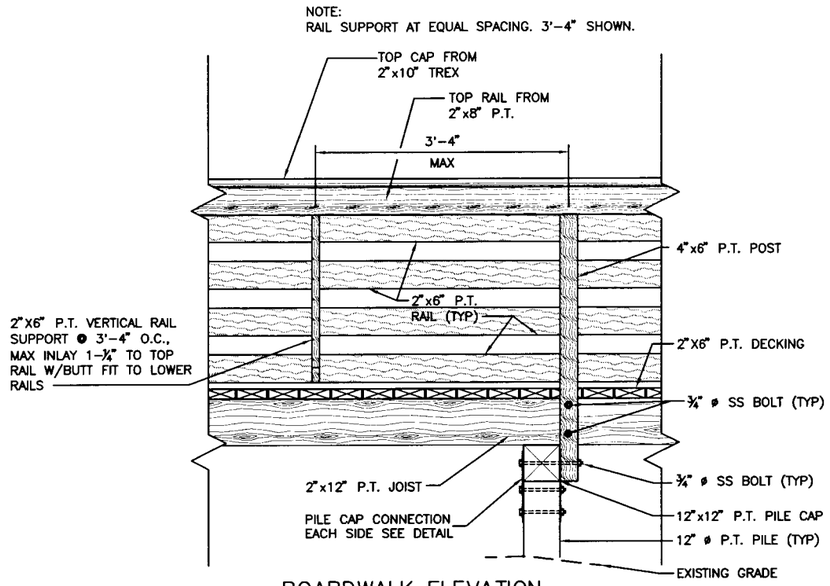
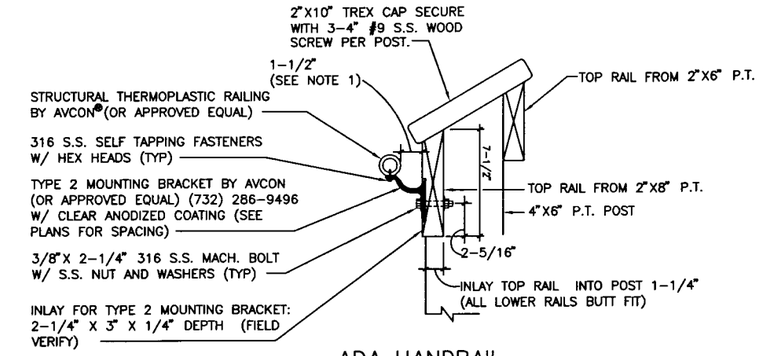


PILE CAP CONNECTION
NTS



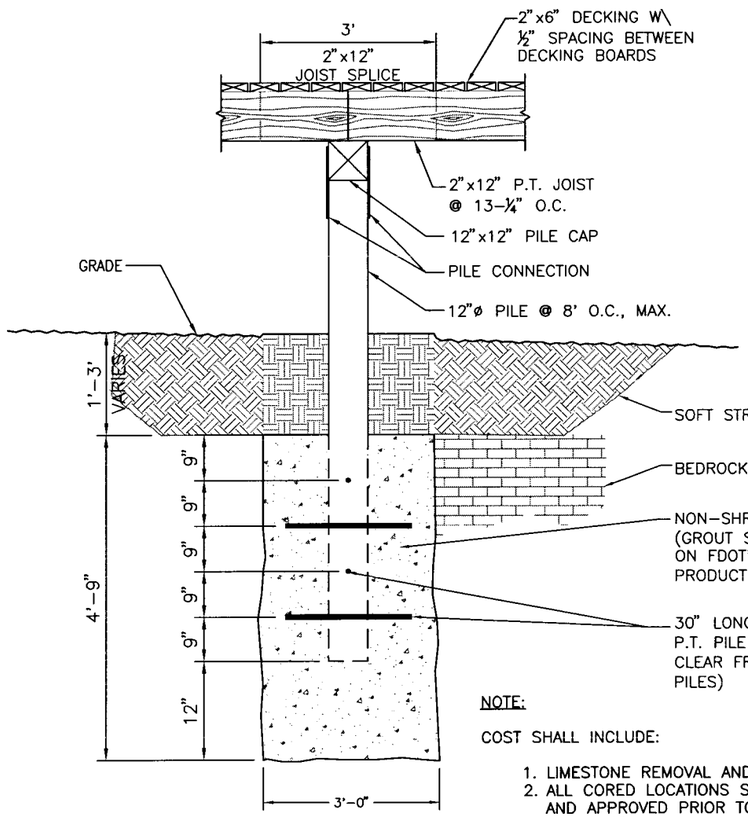
BOARDWALK ELEVATION
NTS



ADA HANDRAIL
NTS

NOTES:

1. PER ADA REQUIREMENTS: HANDRAIL SHALL BE ANCHORED TO PROVIDE CLEAR SPACE OF 1-1/2" FROM BACK OF HANDRAIL TO FACE OF 2"X8" SUBSTRATE. INLAY TYPE 2 BRACKET AS REQD. TO ACHIEVE 1-1/2" SPECIFIED CLEARANCE. INLAYS SHALL BE CONSTRUCTED UTILIZING ROUTER TEMPLATES TO INSURE STRUCTURAL AND VISUAL QUALITY.
2. ADA HANDRAIL HEIGHT: REFER TO BOARDWALK SECTION FOR HEIGHT RELATIVE TO FINISH DECK ELEVATION.
3. ON BOARDWALK, ADA RAILS SHALL BE CONTINUOUS, AND INSTALLED ON BOTH SIDES OF THE BOARDWALK SYSTEM.



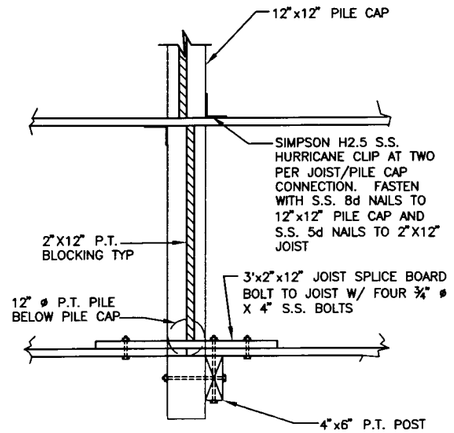
PILE ANCHOR DETAIL
NTS

NOTE:

COST SHALL INCLUDE:

1. LIMESTONE REMOVAL AND DISPOSAL OFFSITE.
2. ALL CORED LOCATIONS SHALL BE INSPECTED AND APPROVED PRIOR TO PLACEMENT OF CONCRETE.

INSTALL CROSS BRACING WHERE EXISTING GRADE TO TOP OF PILE CAP EXCEED 4'10".



JOIST DETAIL
NTS

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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WilsonMiller, Inc.
1441 Maclay Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone 850-878-5001 - Fax 850-878-5941 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE:	AUG 2008
HORIZONTAL SCALE:	NTS
VERTICAL SCALE:	NTS
SEC: TWP: RGE:	CROSS REFERENCE FILE NO.:

TITLE: BOARDWALK B DETAILS

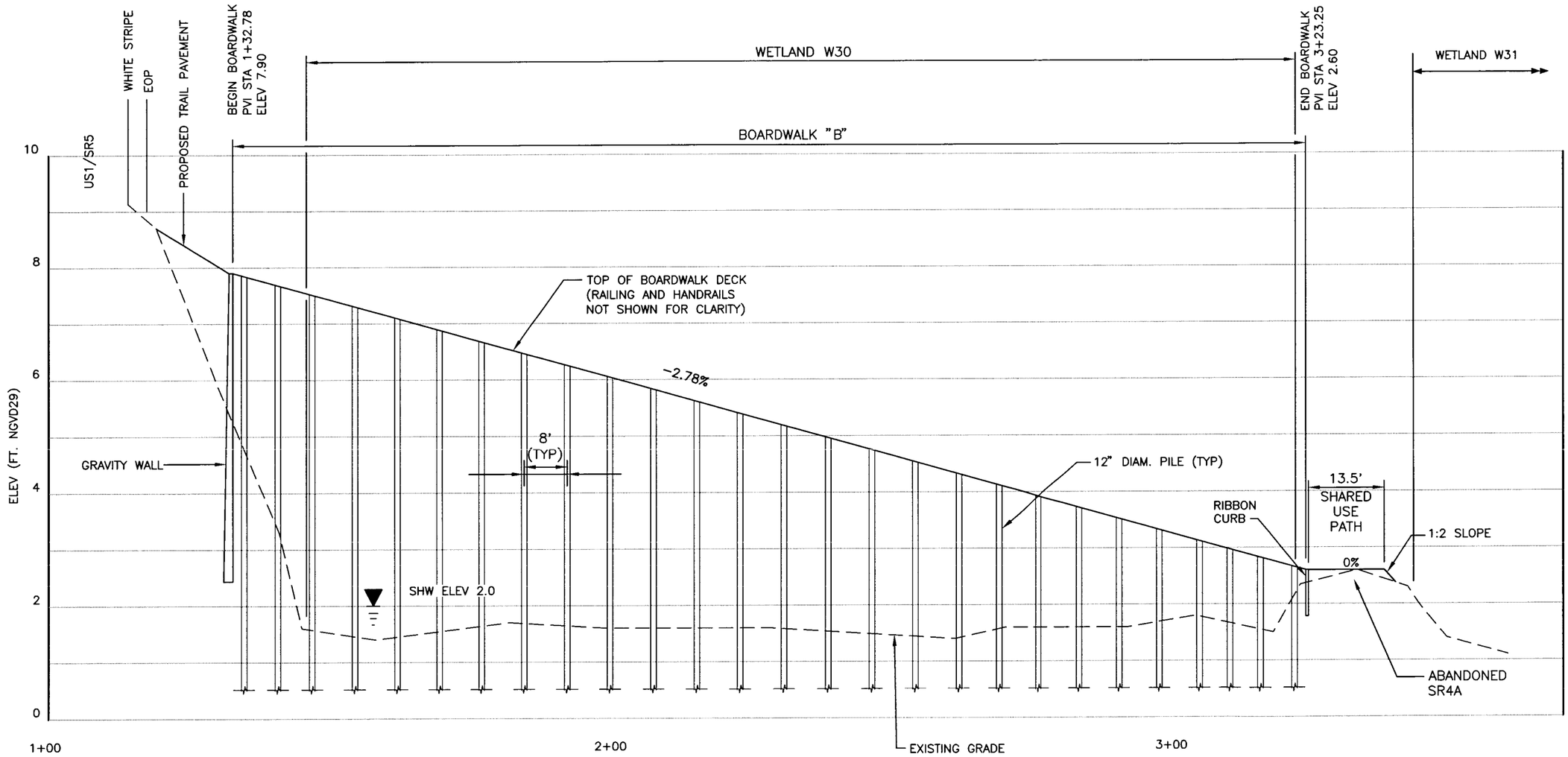
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 58859

INDEX NUMBER: B-04880-002

SHEET NUMBER: 89

Apr 21, 2009 - 10:44:22 JGERTH|X:\ENG\04880\002-Segment1\REV01\04880-002-Boardwalk-Details.dwg



BOARDWALK "B" CENTERLINE PROFILE
HORIZ: 1"=20'
VERT: 1"=2'

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGC/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: NTS
VERTICAL SCALE: NTS
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:

TITLE: BOARDWALK "B" PROFILE

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
PROJECT NUMBER: 04880-002-000
SHEET NUMBER: 90

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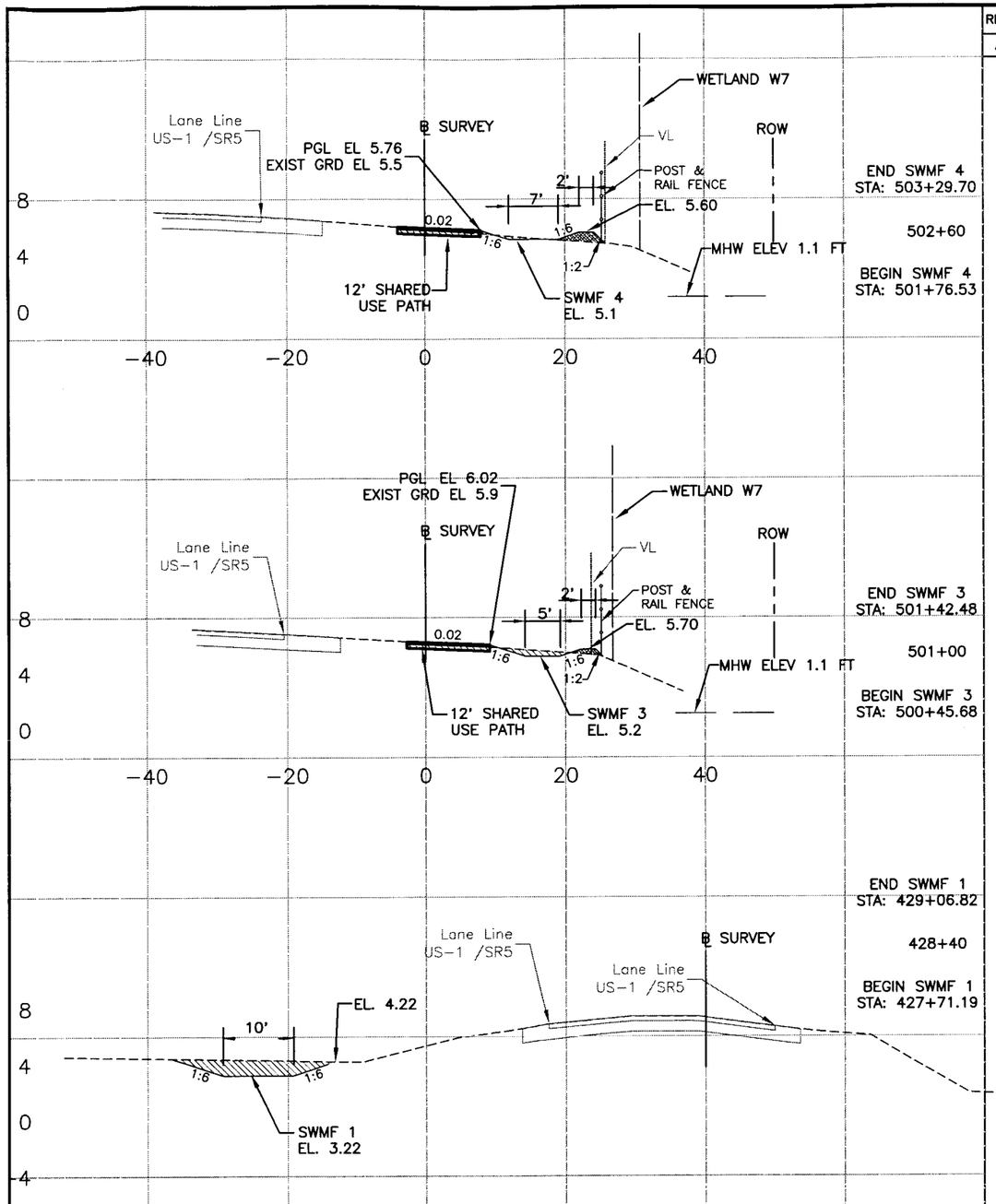


END SWMF 4
STA: 503+29.70

502+60

BEGIN SWMF 4
STA: 501+76.53

END SWMF 3
STA: 501+42.48

501+00

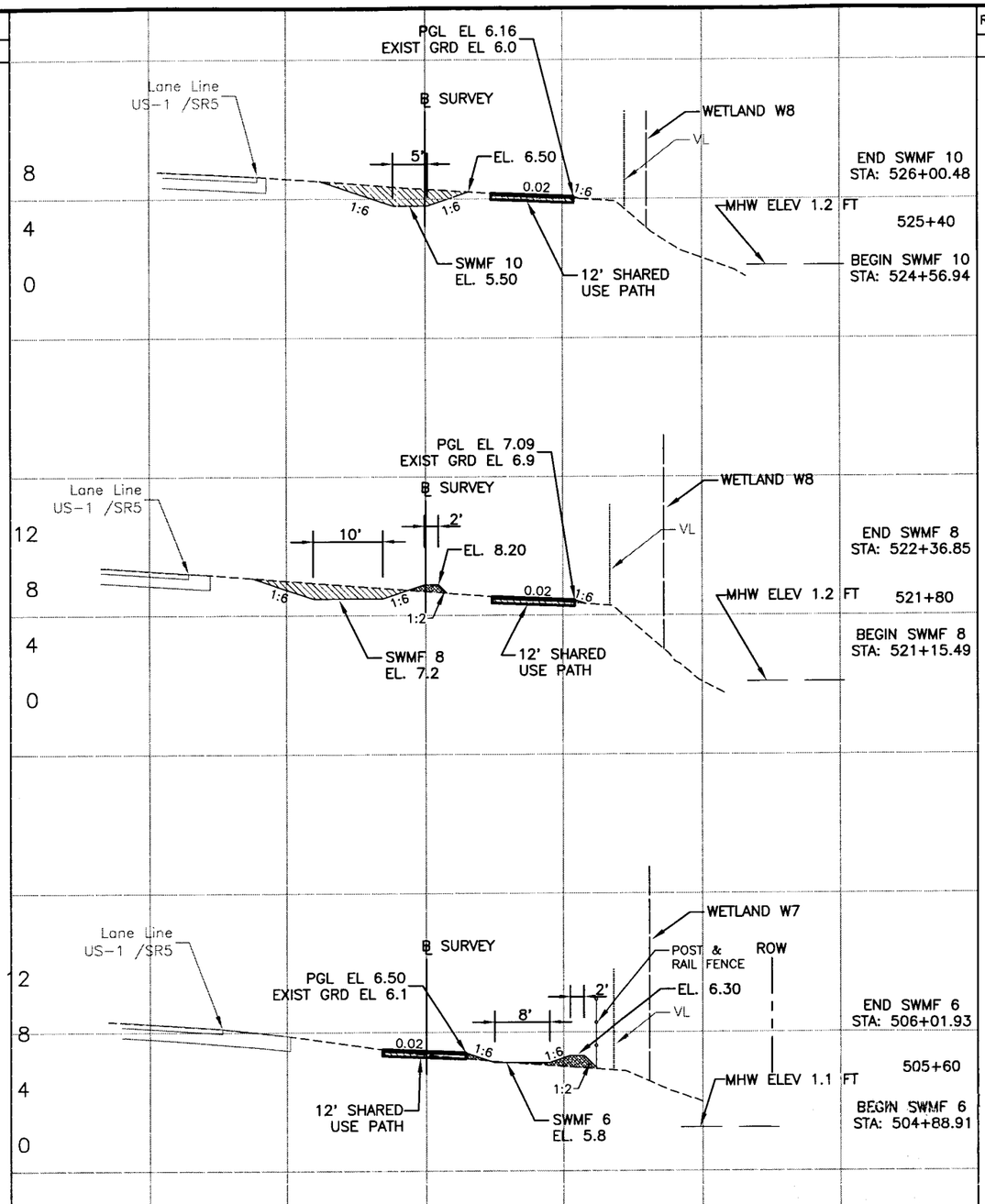
BEGIN SWMF 3
STA: 500+45.68

END SWMF 1
STA: 429+06.82

428+40

BEGIN SWMF 1
STA: 427+71.19

NOTE:
EFFORTS HAVE BEEN MADE BY THE ENGINEER TO OBTAIN ALL VALUABLE INFORMATION CONCERNING THE LOCATION OF EXISTING UTILITY FACILITIES WITHIN THE LIMITS OF THIS PROJECT. NO GUARANTEE IS MADE, HOWEVER, AS TO THE LOCATION OF EXISTING BELOW GROUND OR ABOVE GROUND UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS WITHIN THE PROJECT, WHETHER SHOWN OR NOT ON THE PROJECT PLANS, AND SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO SAID UTILITIES RESULTING FROM CONTRACTOR'S WORK.



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STA: 526+00.48

525+40

BEGIN SWMF 10
STA: 524+56.94

END SWMF 8
STA: 522+36.85

521+80

BEGIN SWMF 8
STA: 521+15.49

END SWMF 6
STA: 506+01.93

505+60

BEGIN SWMF 6
STA: 504+88.91

NOTE:
REFER TO CROSS SECTION SHEETS FOR CROSS SECTIONS COVERING SWMF'S (PONDS) 2, 5, 7, 9, 11, 12, 15, 17, 19, 20, 22, 23, 25, 26, 28, 31, 32, 33, 34, 36 & 38.

NOTE:
EARTHWORK VOLUMES IN POND CROSS SECTIONS ARE ONLY FOR THE PONDS SHOWN. FOR ALL OTHER PONDS & THE ENTIRE TRAIL EARTHWORK VOLUMES SEE THE CROSS SECTION SHEETS.

	RDWY.EXC.		FILL	
	A	V	A	V
	1		3	
	3		1	
				18
	17			
	16		2	
	0		5	

-80 -60 -40 -20 0 20 -40 -20 0 20 40

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	W/M APPROVED BY:

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC. TWP. RGE.
CROSS REFERENCE FILE NO.
PROJECT NUMBER: 04880-002-000

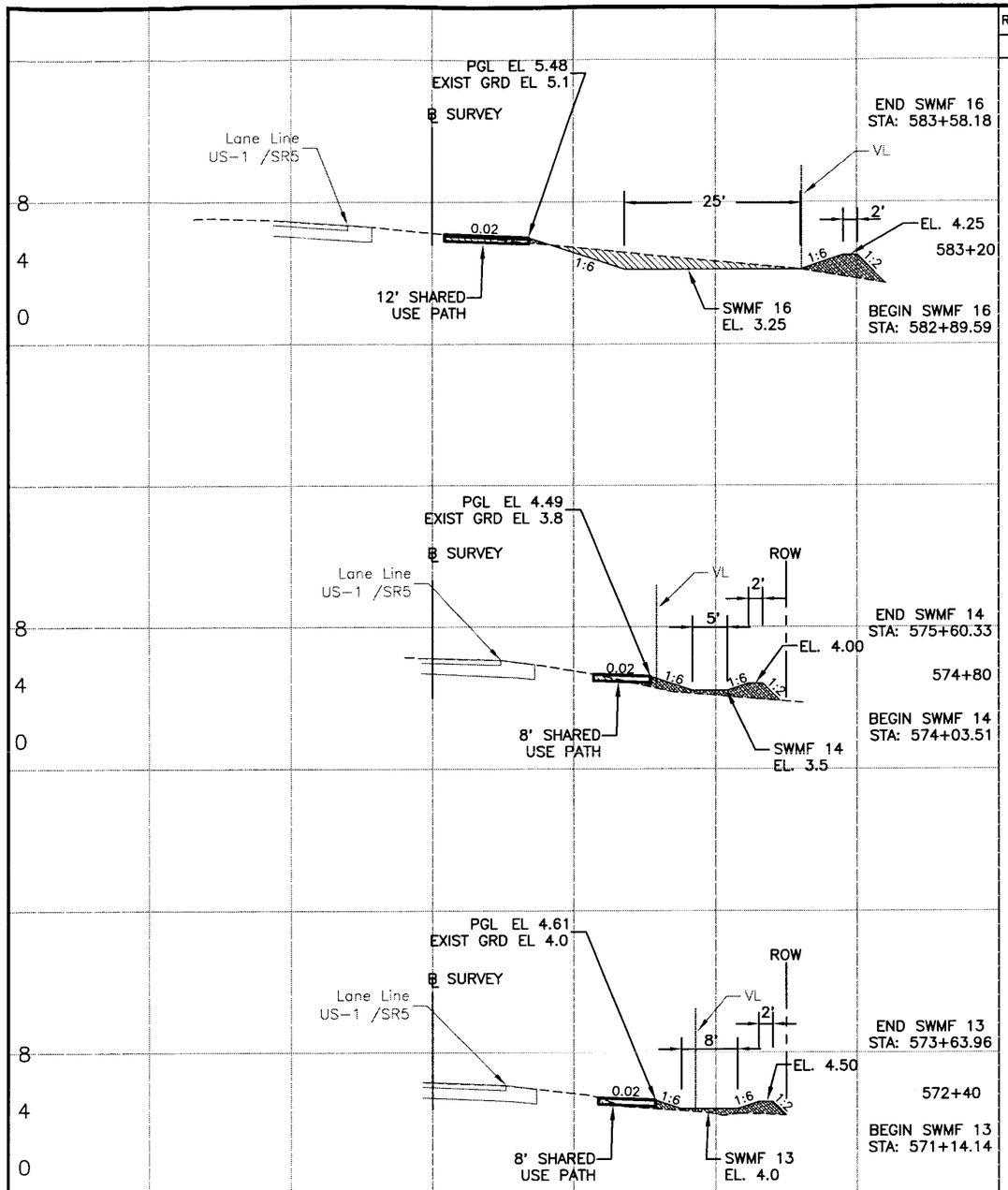
TITLE:
POND CROSS SECTIONS
SWMF 1, 3, 4, 6, 8, & 10

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 91

FP ID 405633-1
FDEP NO 6G020

Jun 05, 2009 - 13:57:09 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X06-ponds.dwg



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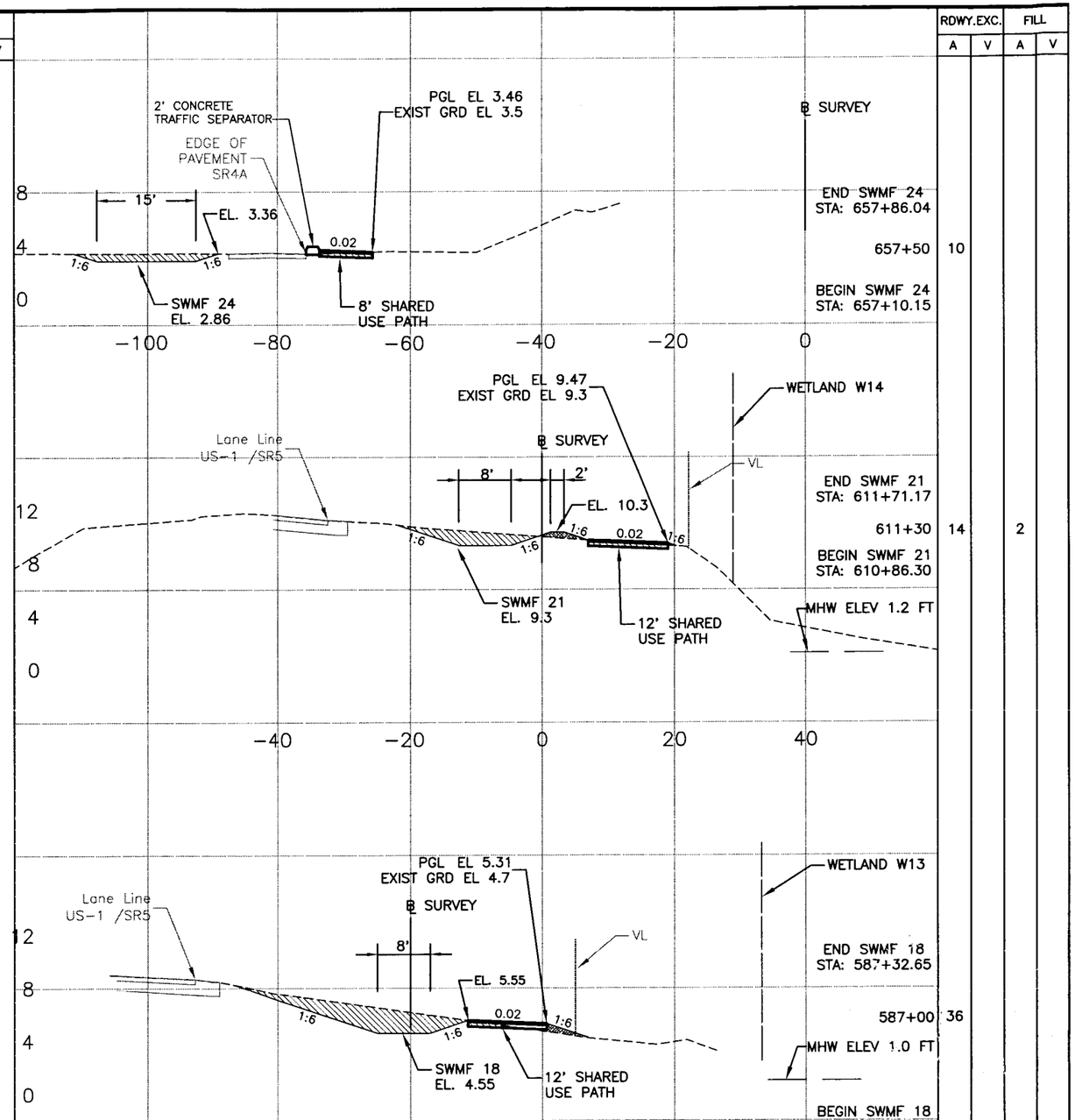
21		11	
		11	
		9	



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
10			
14		2	
36			

6/14/09

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1582	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

TITLE:
POND CROSS SECTIONS
SWMF 13, 14, 16, 18, 21, & 24

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000
SHEET NUMBER: 92

FP ID 405633-1
FDEP NO 6G020

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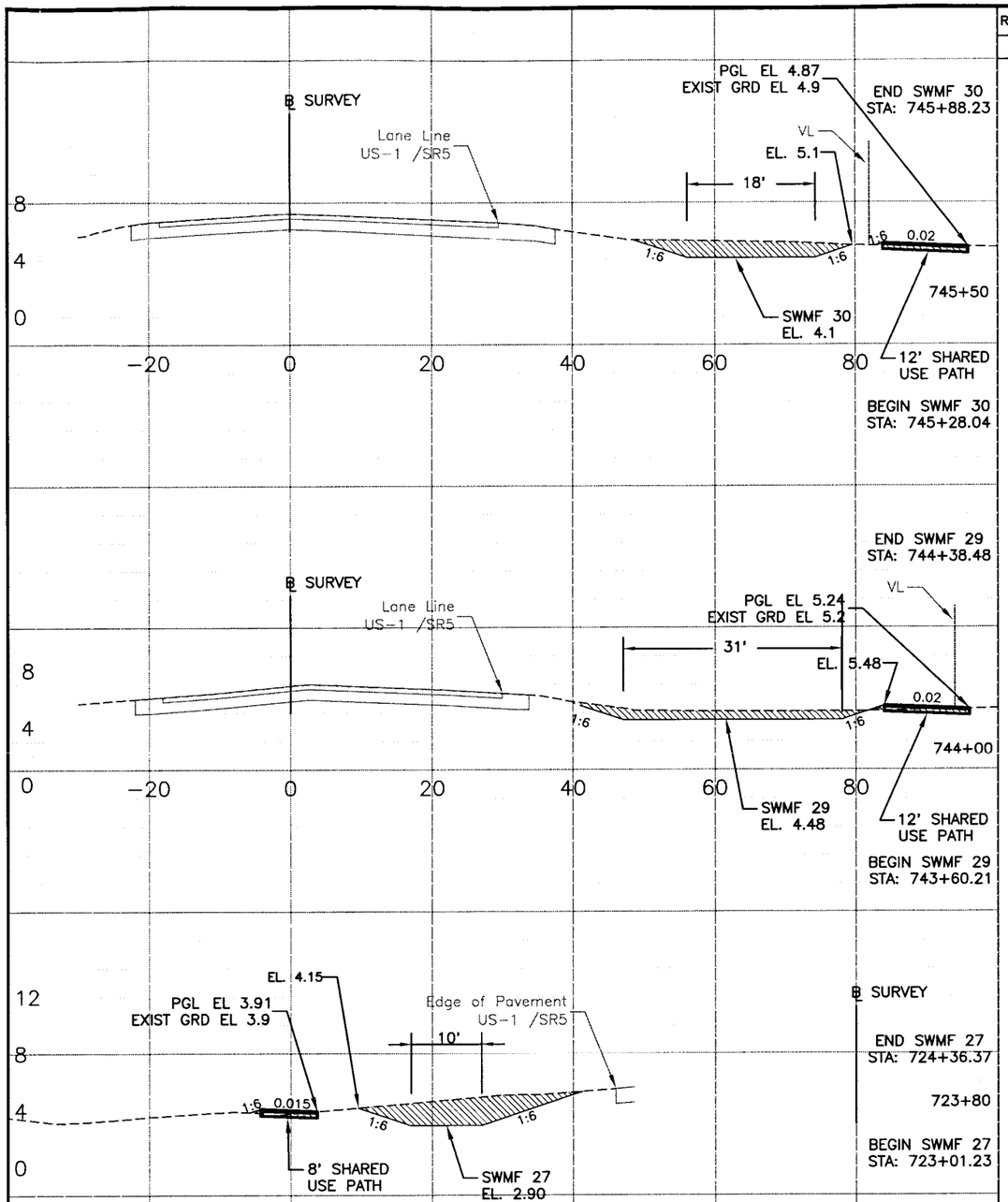
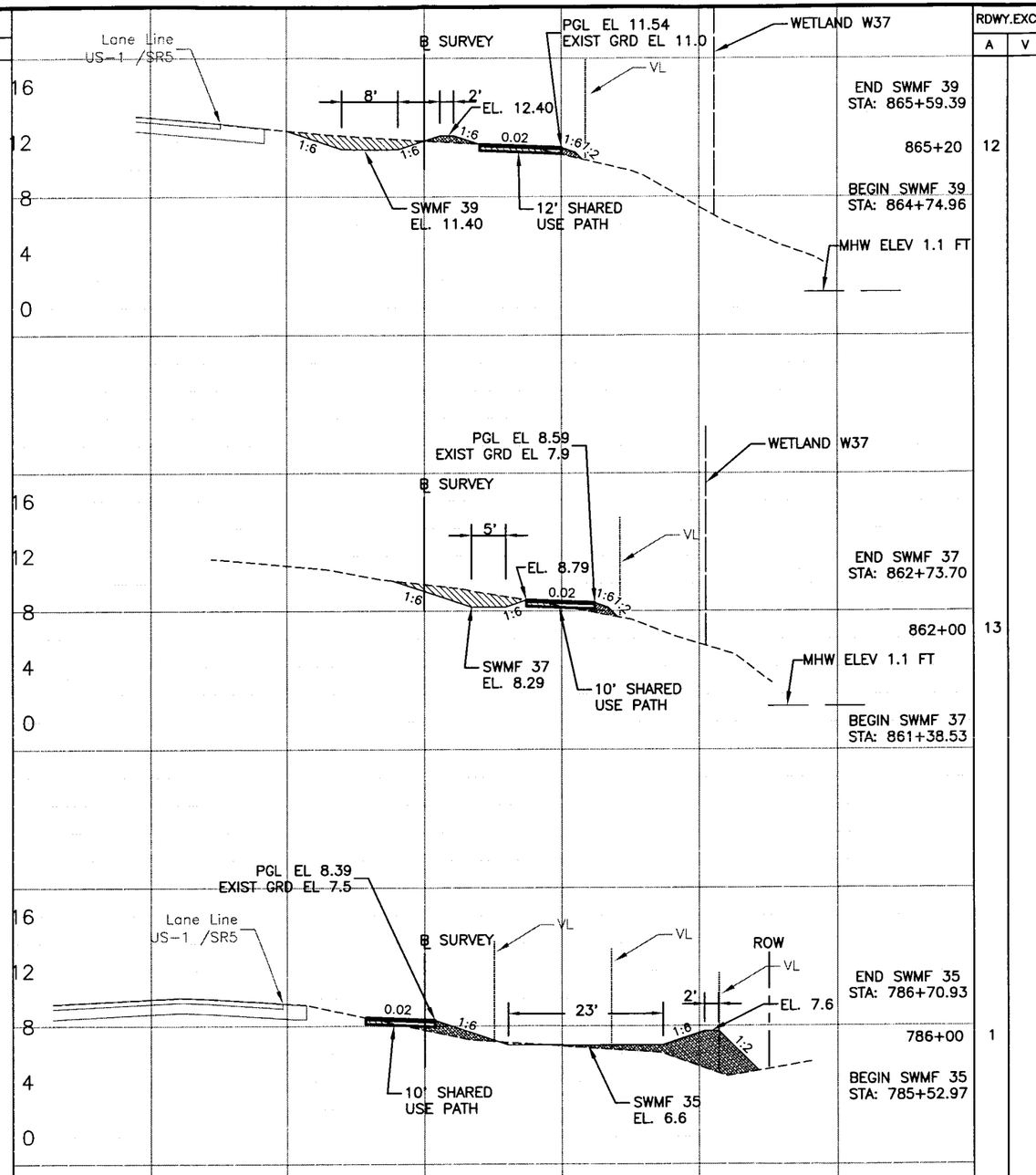


RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
28			
24			
38			



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
12		2	
13			
1		36	

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

TITLE: POND CROSS SECTIONS
SWMF 27, 29, 30, 35, 37, & 39

CROSS REFERENCE FILE NO.:

PROJECT NUMBER: 04880-002-000

INDEX NUMBER: B-04880-002

SHEET NUMBER: 93

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

FP ID 405633-1
FDEP NO 6G020

Jun 05, 2009 - 14:31:31 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X06--ponds.dwg

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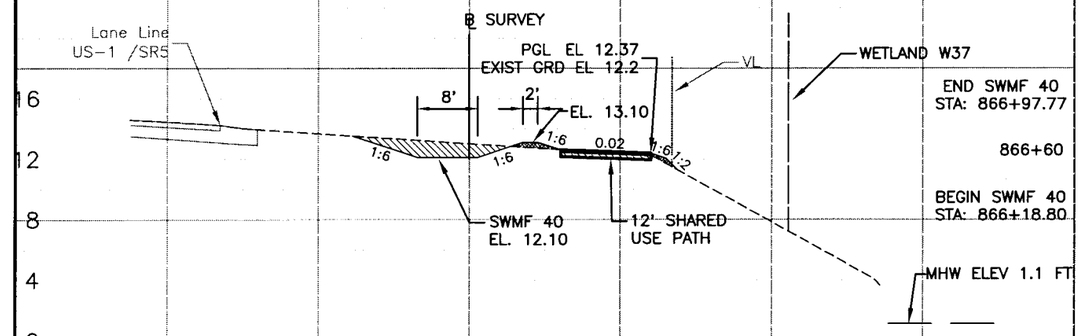
A	V	A	V
866+60	15	2	



FP ID 405633-1
FDEP NO 6G020

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DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

TITLE: POND CROSS SECTIONS
40

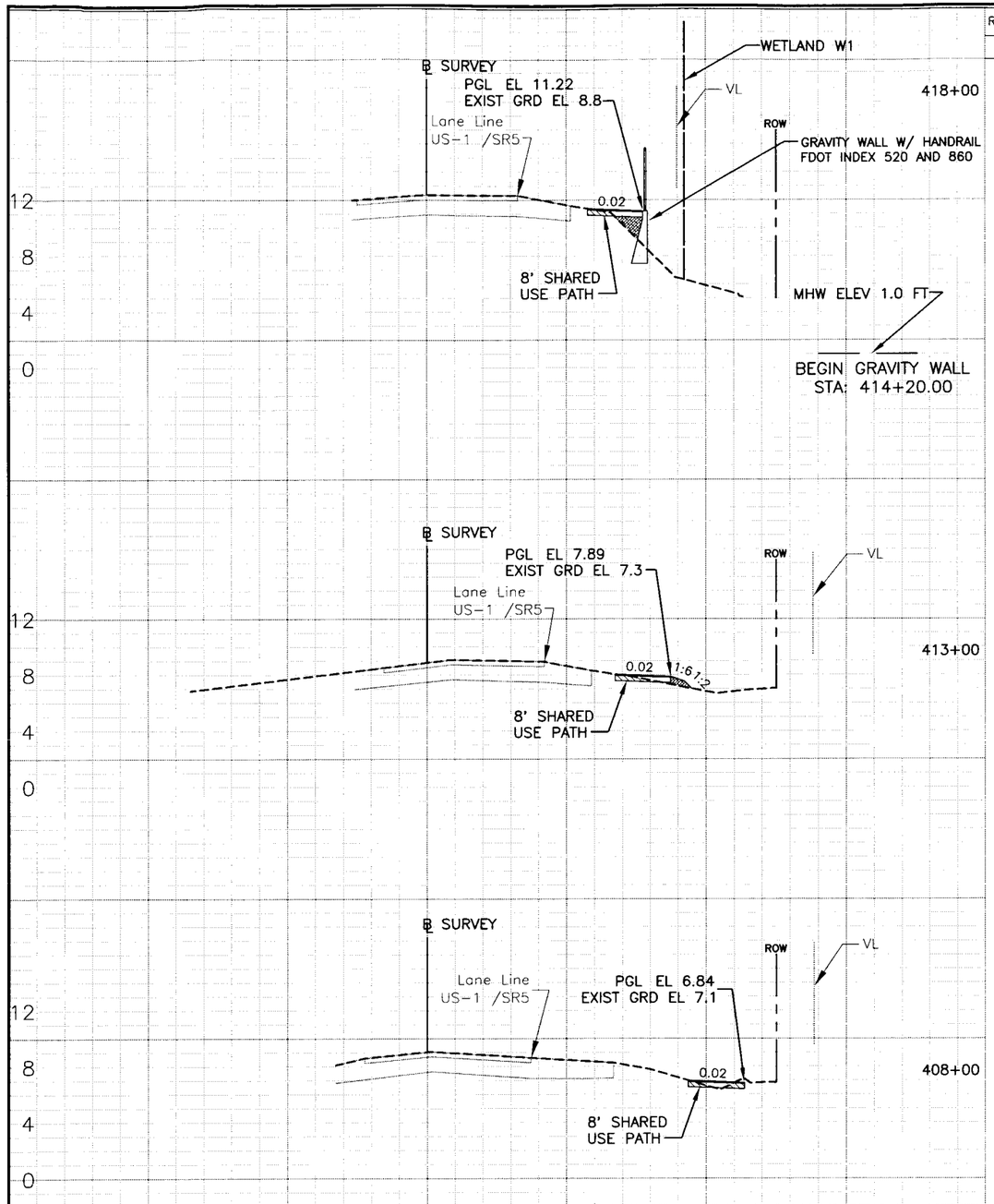
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 94

6/11/09

Jun 05, 2009 - 14:31:38 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X06-ponds.dwg



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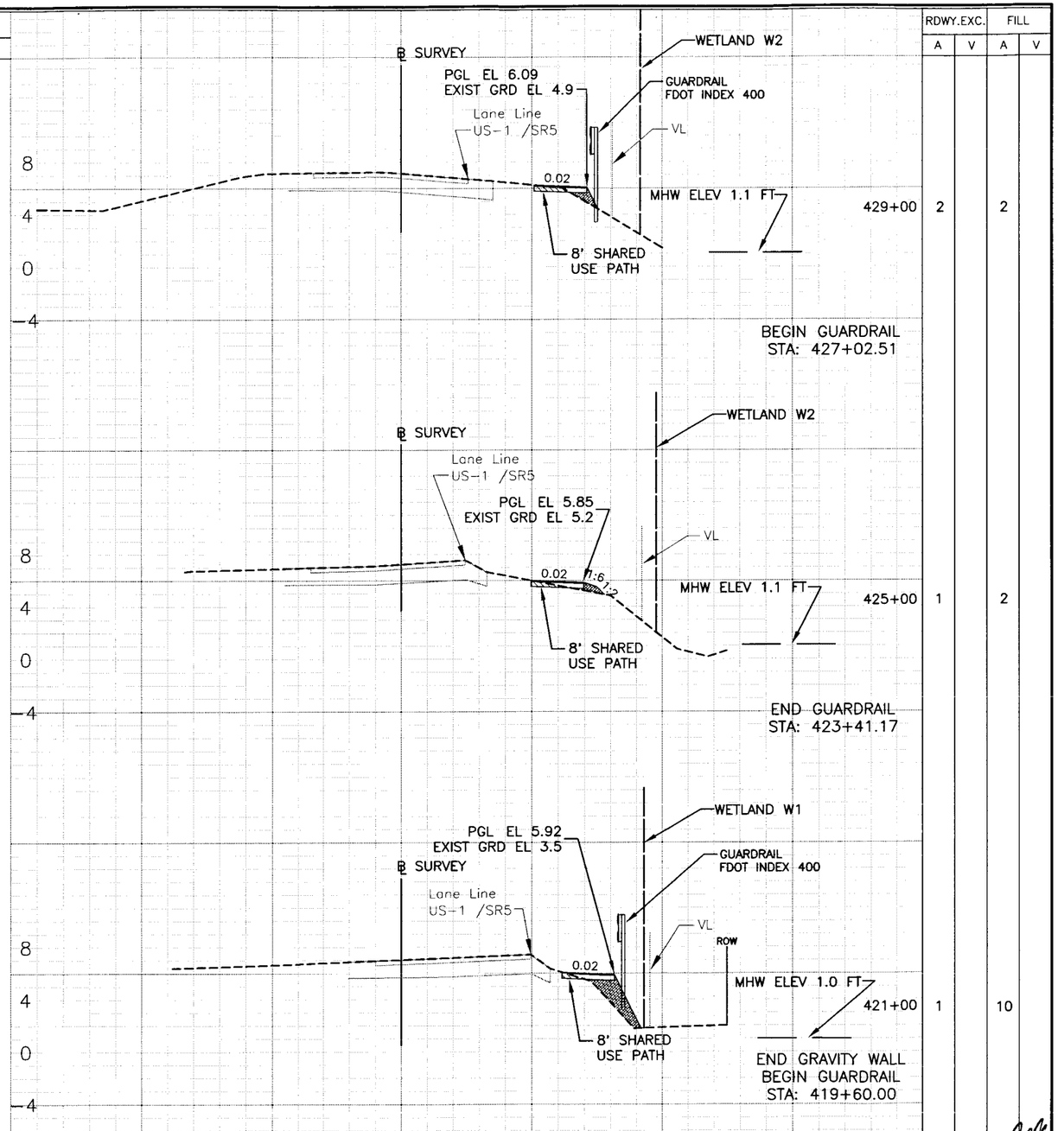
	A	V	A	V
418+00	1		3	
413+00	2		1	
408+00	2			



	RDWY.EXC.		FILL	
	A	V	A	V
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425+00	1		2	
421+00	1		10	

NOTE:
EFFORTS HAVE BEEN MADE BY THE ENGINEER TO OBTAIN ALL VALUABLE INFORMATION CONCERNING THE LOCATION OF EXISTING UTILITY FACILITIES WITHIN THE LIMITS OF THIS PROJECT. NO GUARANTEE IS MADE, HOWEVER, AS TO THE LOCATION OF EXISTING BELOW GROUND OR ABOVE GROUND UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS WITHIN THE PROJECT, WHETHER SHOWN OR NOT ON THE PROJECT PLANS, AND SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO SAID UTILITIES RESULTING FROM CONTRACTOR'S WORK.

-40 -20 0 20 40 60 -40 -20 0 20 40 60

FP ID 405633-1
FDEP NO 6G020

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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FL Lic.# LC-C000170 · Certificate of Authorization #43
WilsonMiller, Inc.
1441 Blocker Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone 850-878-5991 - Fax 850-878-5911 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'
SEC: TWP: RGE:

TITLE:
CROSS SECTION
STATION 408+00 TO 429+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 95

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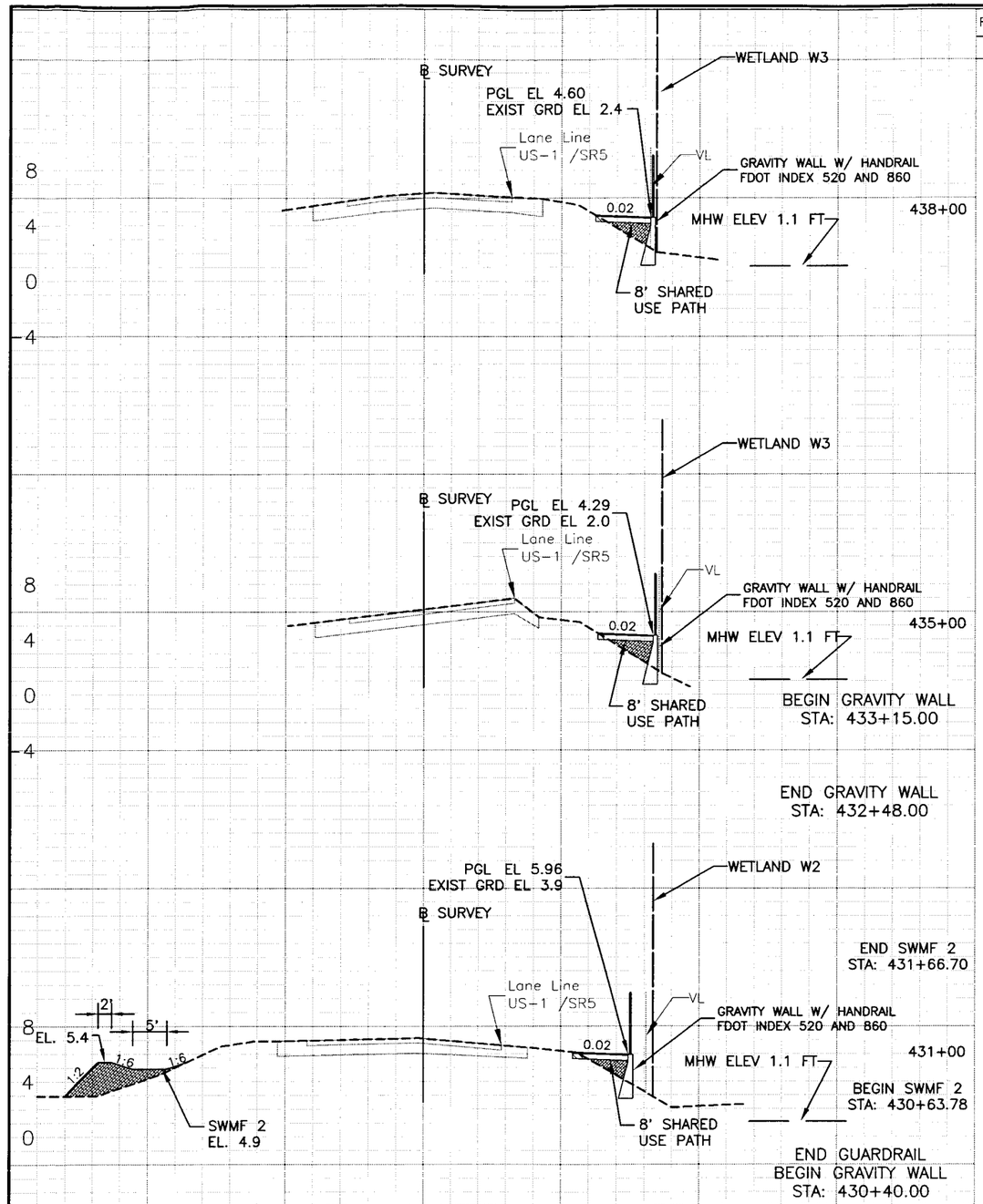

	RDWY.EXC.		FILL	
	A	V	A	V
438+00	0		5	
435+00	0		5	
431+00	1		23	
446+00	1		5	
444+00	1		3	
441+00	0		6	

−40 −20 0 20 40 60 (−40 −20 0 20 40 60)

FP ID 405633-1
FDEP NO 6G020

△REV NO	REVISION	DATE	DRAWN BY / EMP. NO	CHECKED BY / EMP. NO

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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WilsonMiller, Inc.
1441 Brickell Commerce Drive, Suite 101 · Tallahassee, Florida 32312 · Phone 850-878-3881 · Fax 850-878-3911 · Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'
SEC: TWP: RGE:

TITLE:
CROSS SECTION
STATION 431+00 TO 446+00

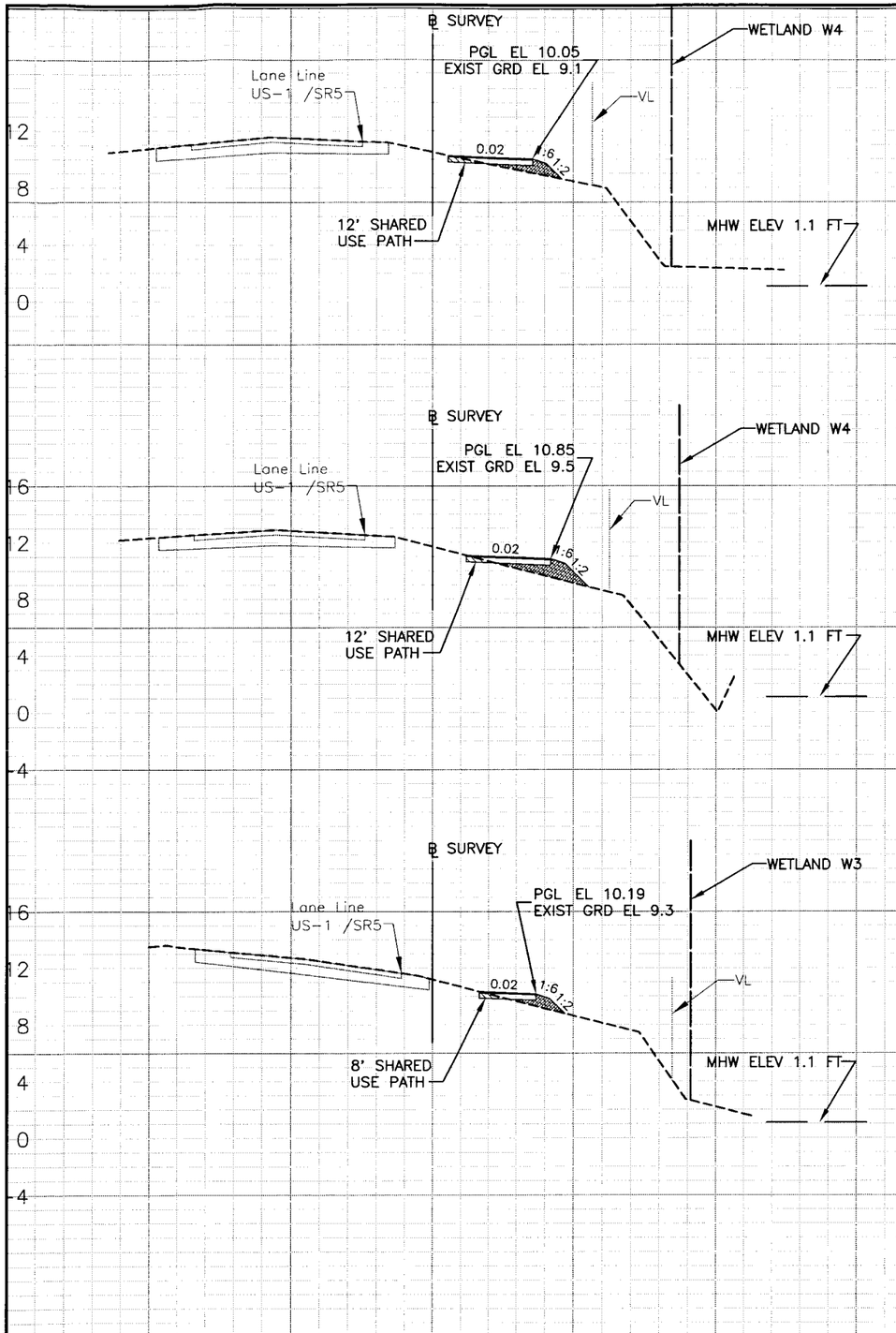
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 96

6/11/09

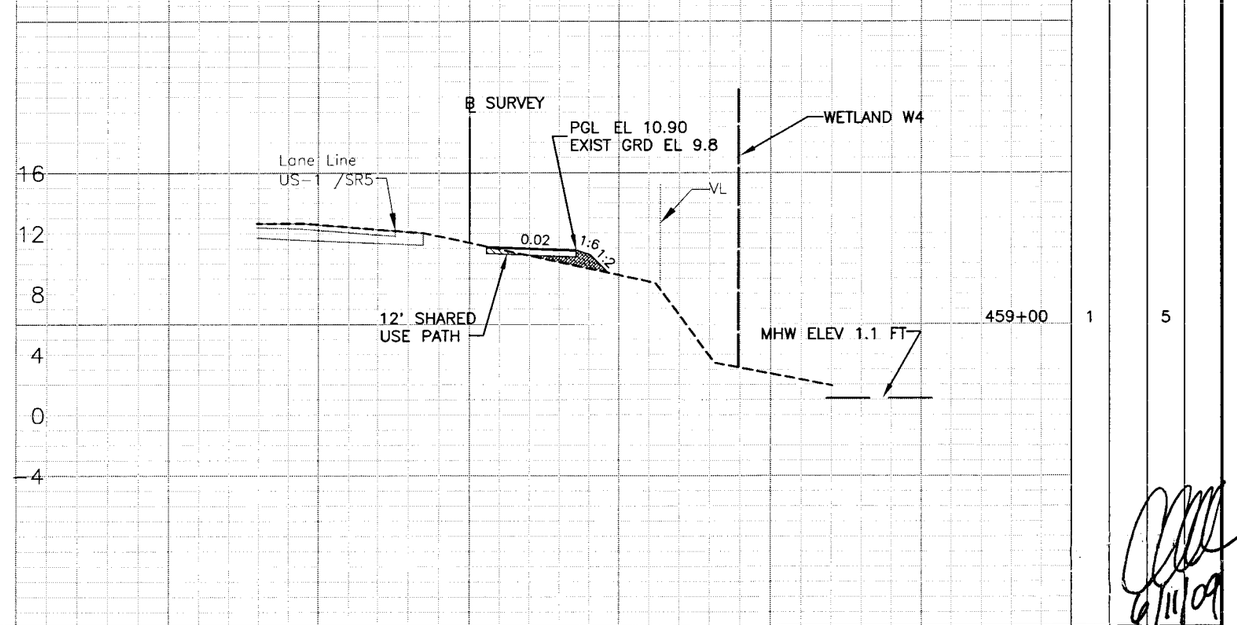
Jun 05, 2009 - 14:33:37 JGERTH X:\ENG\04880\002-Segment1\REV02\04880002-X01.dwg



	RDWY.EXC.		FILL	
	A	V	A	V
456+00	1		5	
453+00	1		8	
448+00	1		3	

END EXCEPTION
466+40.00

BEGIN EXCEPTION
459+75.39



	RDWY.EXC.		FILL	
	A	V	A	V
459+00	1		5	

FP ID 405833-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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FL Lic.# LC-C000170 • Certificate of Authorization #43
WilsonMiller, Inc.
1441 Wesley Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone 850-878-5881 - Fax 850-878-5911 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'
SEC: TWP: RGE:

TITLE:
CROSS SECTION
STATION 448+00 TO 459+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000
INDEX NUMBER: B-04880-002
SHEET NUMBER: 97

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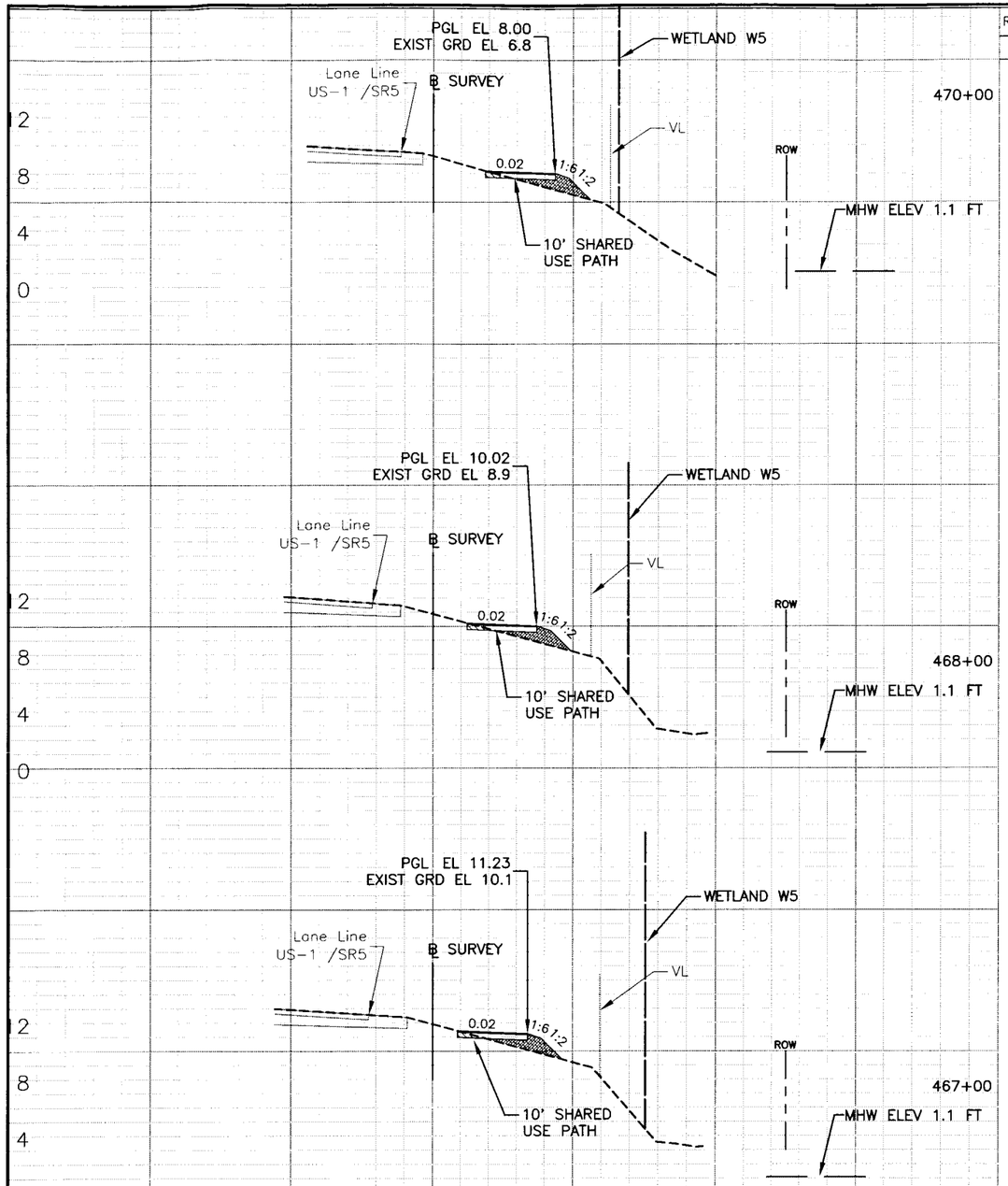
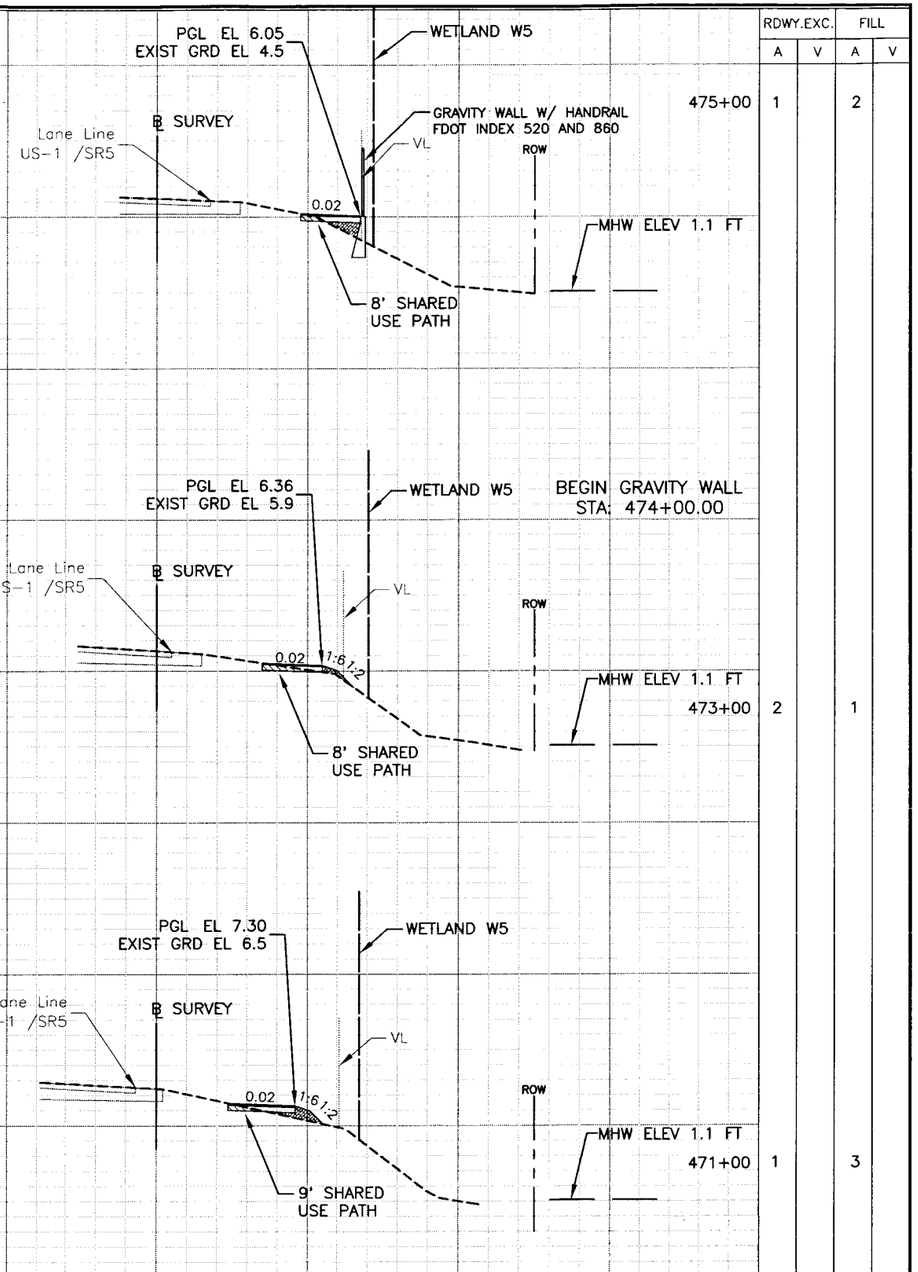


RDWY.EXC.		FILL	
A	V	A	V
1		6	
1		6	
1		6	



RDWY.EXC.		FILL	
A	V	A	V
1		2	
2		1	
1		3	

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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1441 Hickory Commerce Drive, Suite 101 - Tallahassee, Florida 32312 - Phone 850-878-5811 - Fax 850-878-5911 - Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

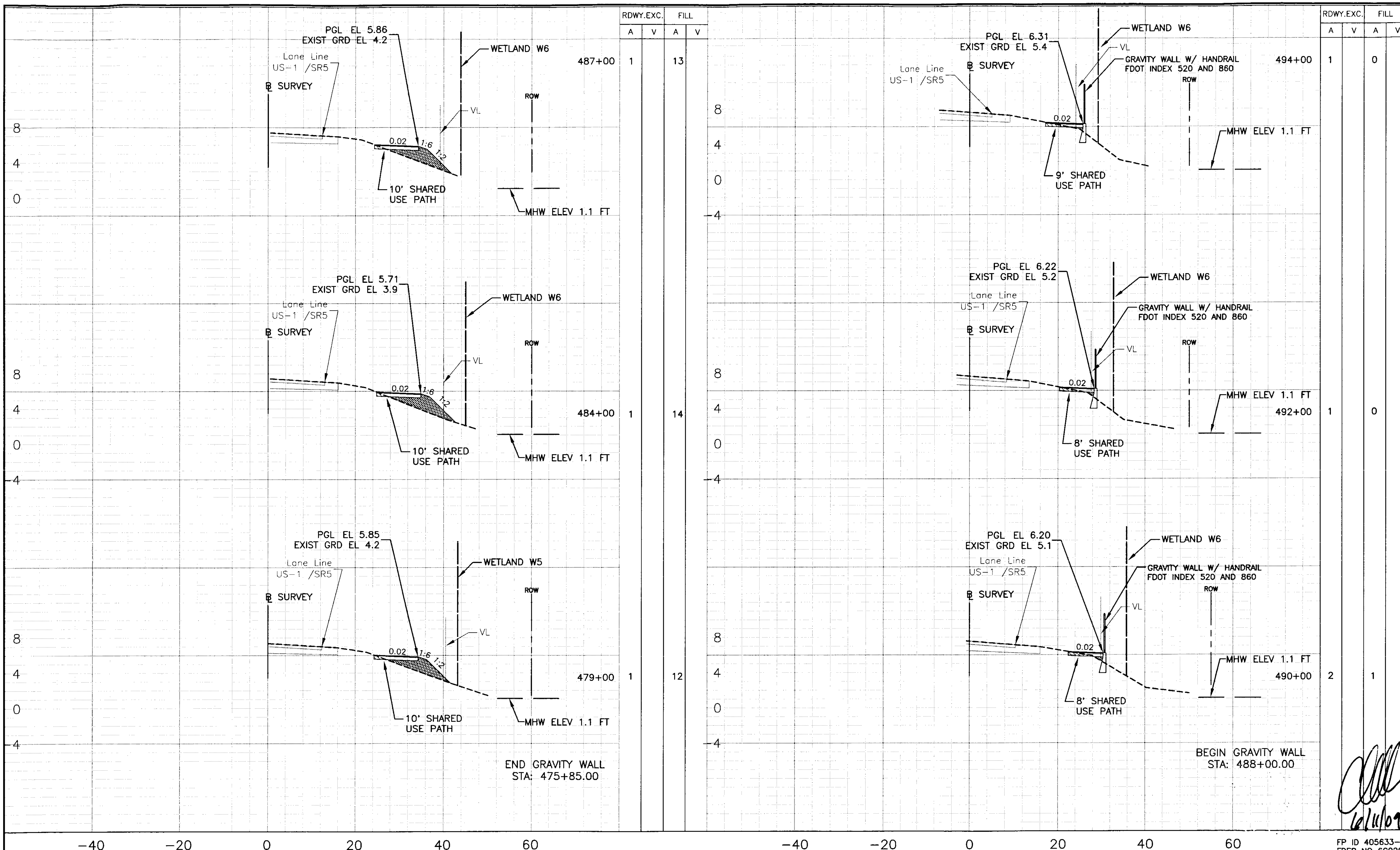
TITLE:
CROSS SECTION
STATION 467+00 TO 475+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 98

Jun 05, 2009 - 14:36:13 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X02.dwg



FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV. NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'

TITLE: CROSS SECTION
STATION 479+00 TO 494+00

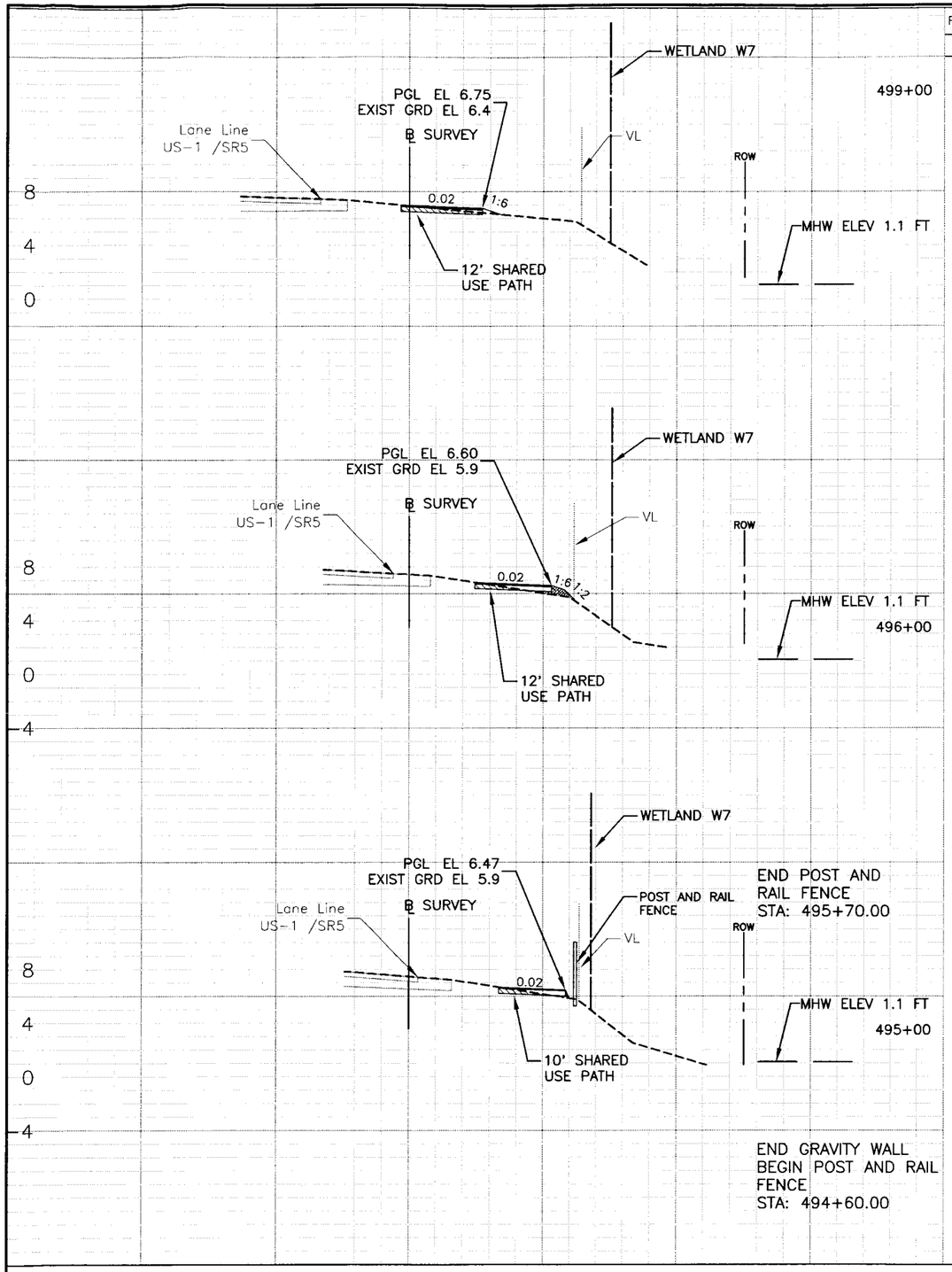
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

BLOCK NUMBER: B-04880-002

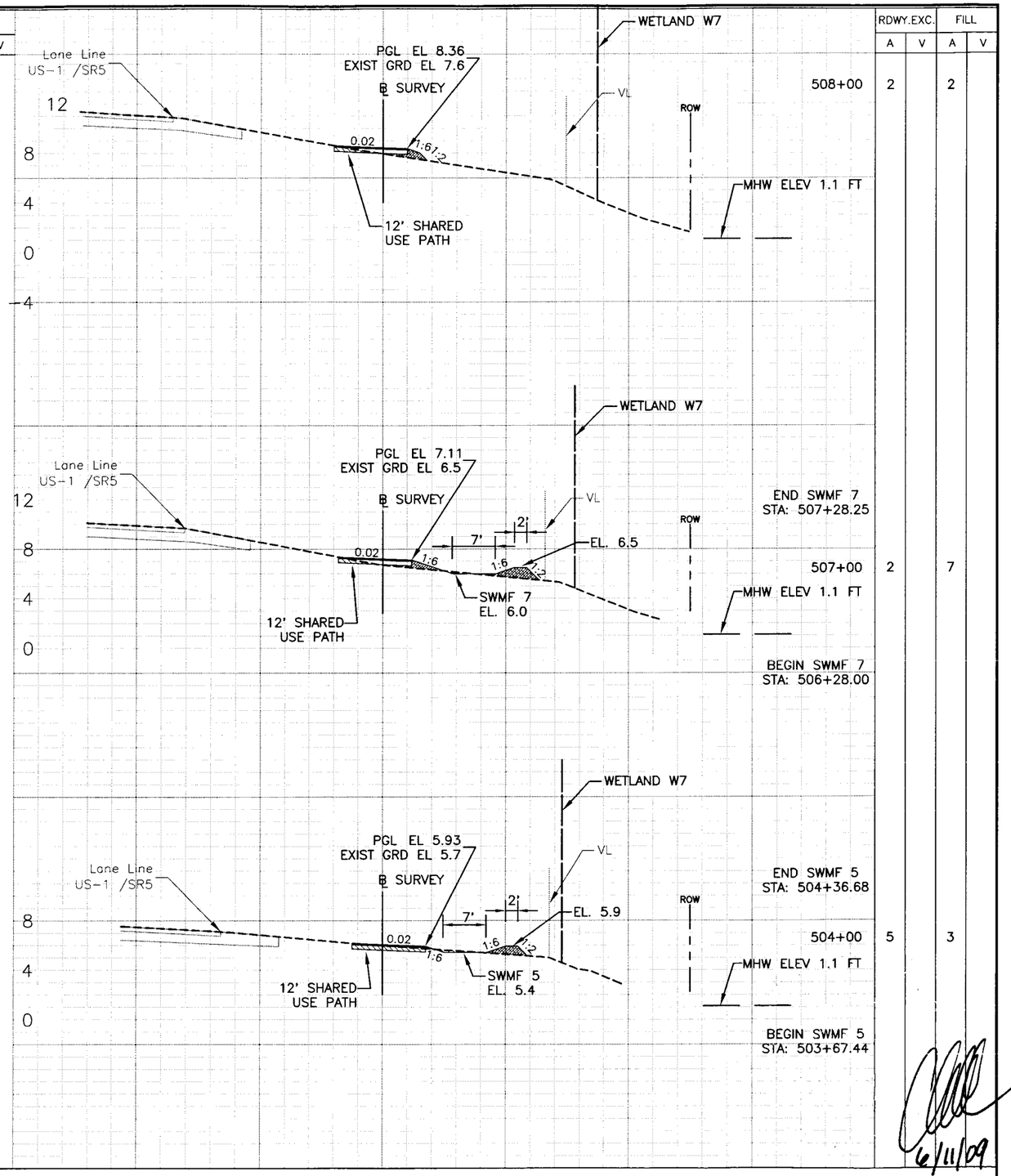
PROJECT NUMBER: 04880-002-000

SHEET NUMBER: 99

Jun 05, 2009 - 14:36:1 JCERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X02.dwg



	RDWY.EXC.		FILL	
	A	V	A	V
499+00	4		0	
496+00	2		2	
495+00	2		0	



	RDWY.EXC.		FILL	
	A	V	A	V
508+00	2		2	
507+00	2		7	
504+00	5		3	

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

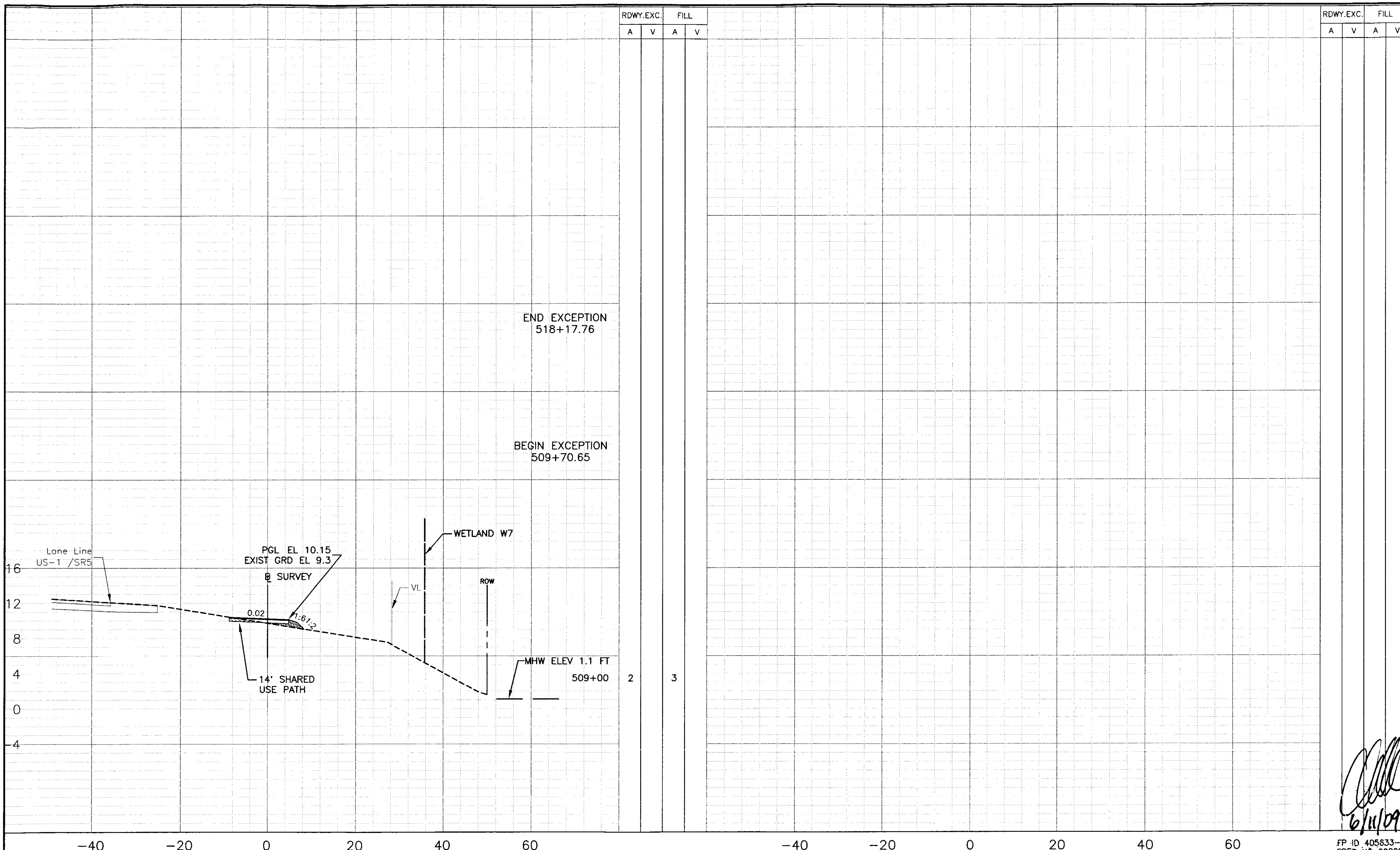
TITLE:
CROSS SECTION
STATION 495+00 TO 508+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 100

Jun 05, 2009 - 14:36:06 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X02.dwg



FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

TITLE:

CROSS SECTION
STATION 509+00

CROSS REFERENCE FILE NO.:

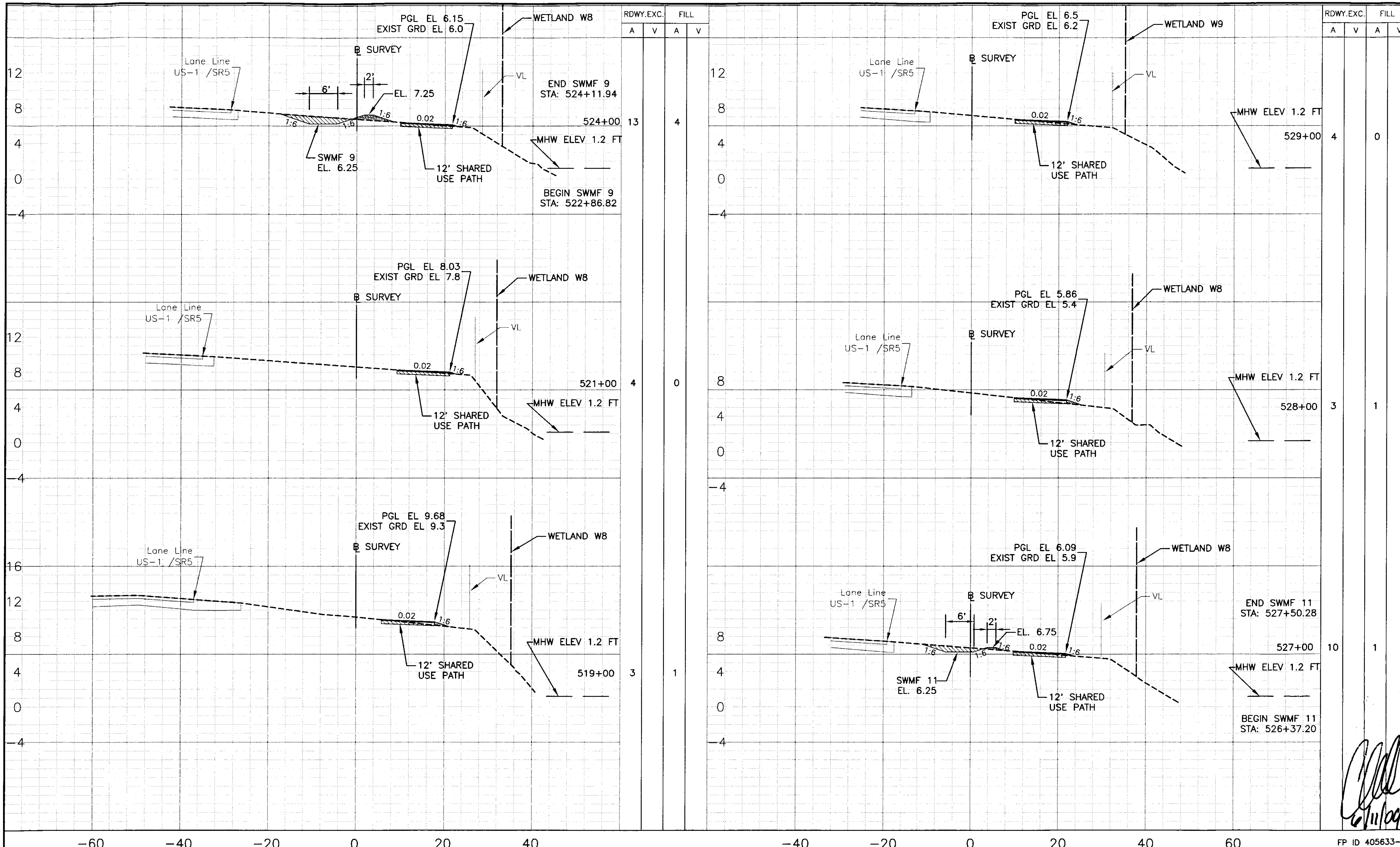
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56659

INDEX NUMBER: B-04880-002

SHEET NUMBER: 101

Jun 05, 2009 - 14:36:02 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X02.dwg



FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008

HORIZONTAL SCALE: 1"=20'

VERTICAL SCALE: 1"=10'

TITLE: CROSS SECTION STATION 519+00 TO 529+00

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

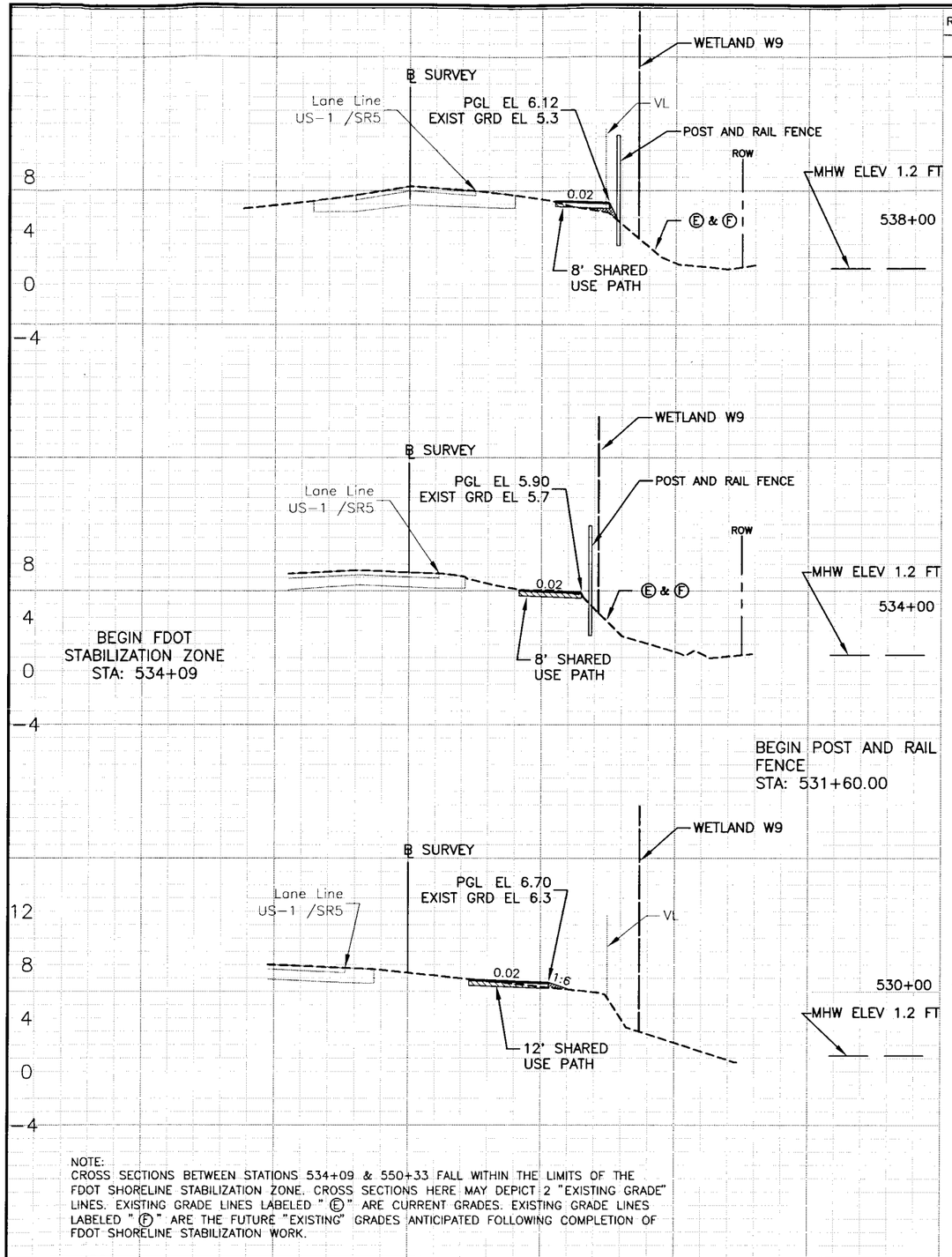
INDEX NUMBER: B-04880-002

SHEET NUMBER: 102

Jun 05, 2009 - 14:36:4 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X03.dwg

6/11/09

SCANNED 06/16/2009 09:09 BC



	RDWY.EXC.		FILL	
	A	V	A	V
538+00	1		1	
534+00	4		0	
530+00	3		1	
544+00	1		2	
542+00	1		2	
540+00	1		2	

REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO	CHECKED BY / EMP. NO

ACTIVITY	INITIALS/EMP. NO	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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WilsonMiller, Inc.
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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

TITLE:
CROSS SECTION
STATION 530+00 TO 544+00

CROSS REFERENCE FILE NO.

PROJECT NUMBER: 04880-002-000

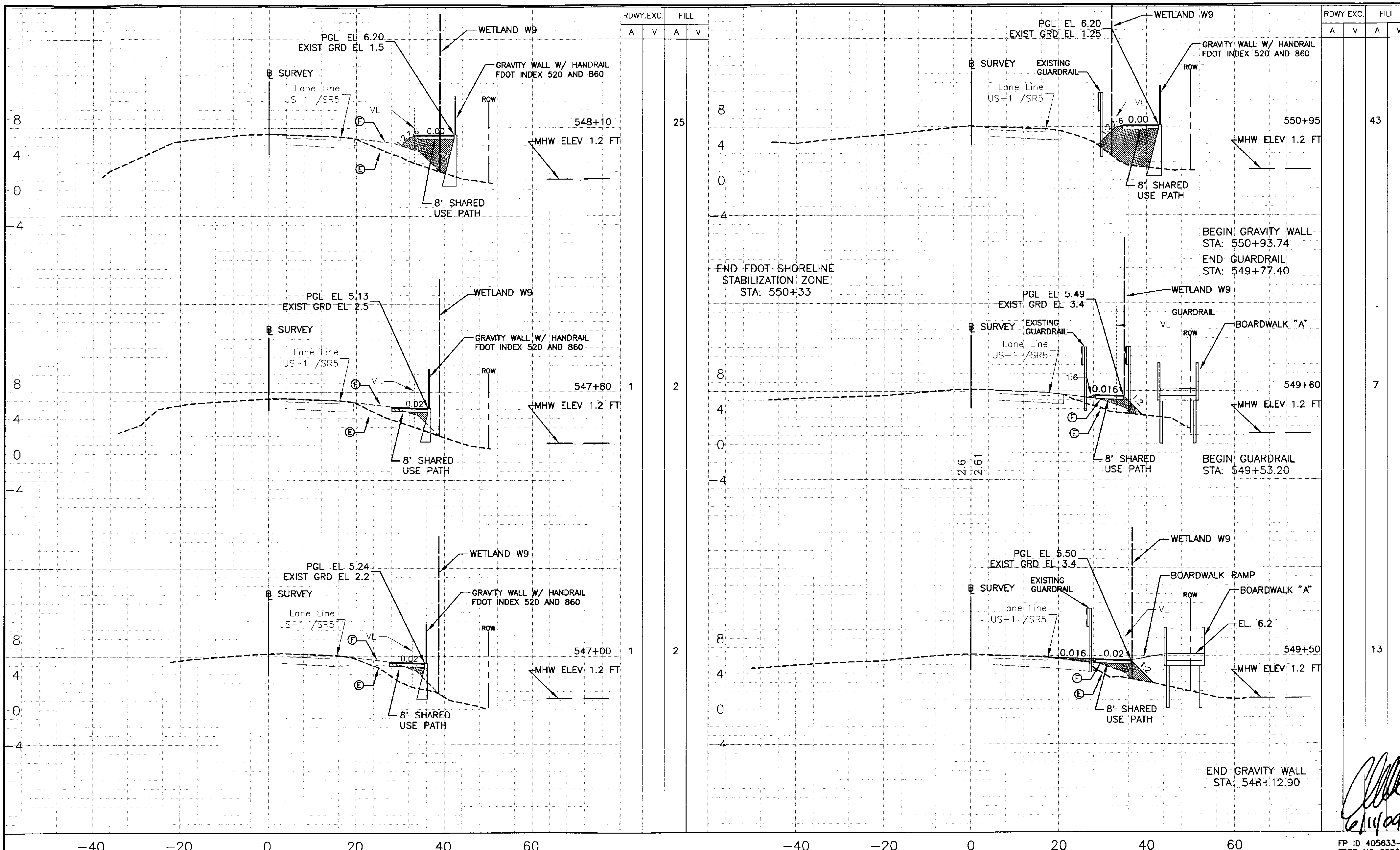
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002

SHEET NUMBER: 103

FP ID 405633-1
FDEP NO 6G020

Jun 05, 2009 - 14:46:03 JGERTHIX:\ENG\04880\002-Segment1\REV02\04880002-X03.dwg



FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

TITLE:
CROSS SECTION
STATION 547+00 TO 550+95

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic # 56859
INDEX NUMBER: B-04880-002
SHEET NUMBER: 104

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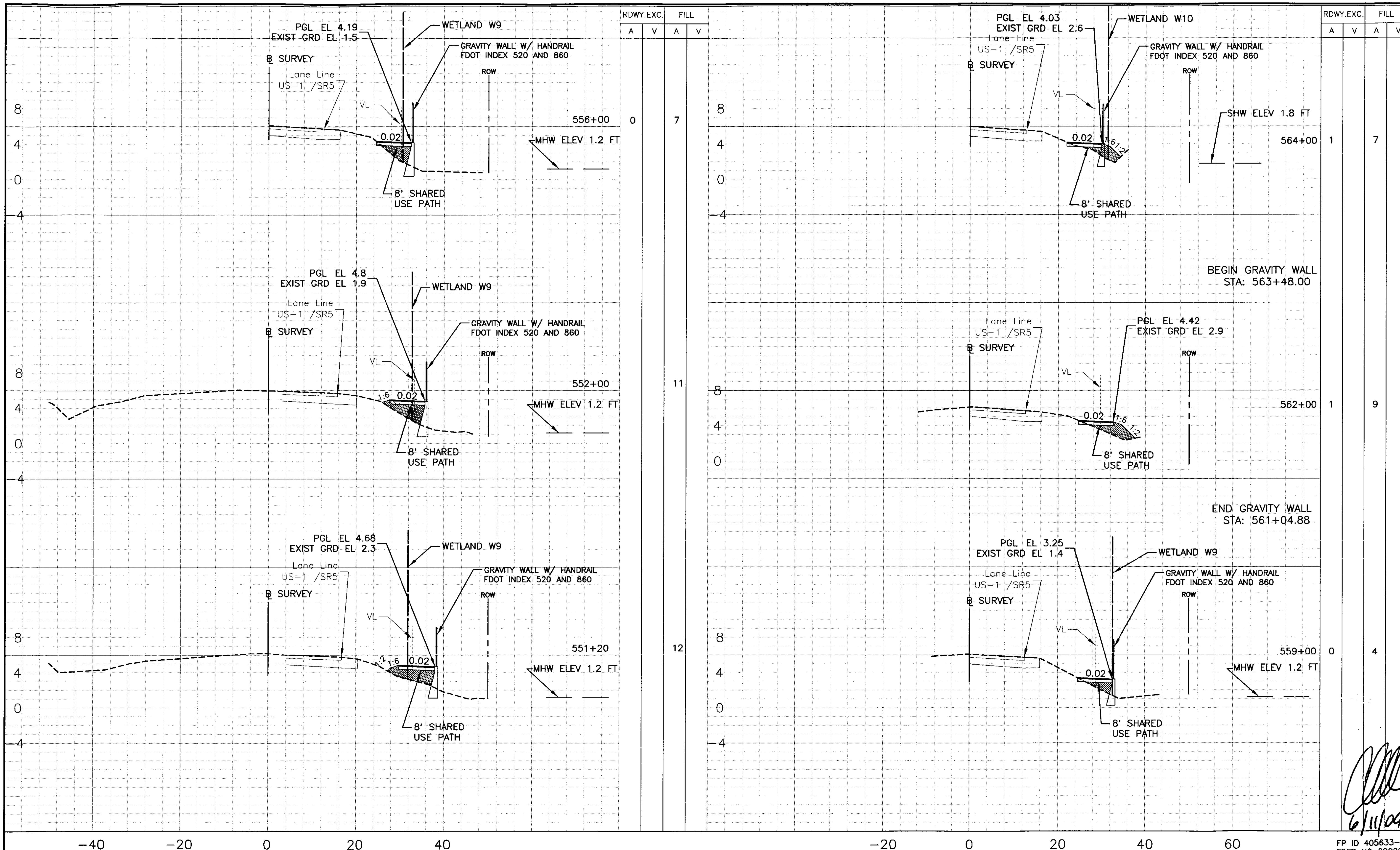

Station	RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
556+00	0		7	
552+00			11	
551+20			12	
564+00	1		7	
562+00	1		9	
559+00	0		4	

6/11/09

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO. | REVISION | DATE | DRAWN BY / EMP NO | CHECKED BY / EMP NO

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC TWP RGE

TITLE: CROSS SECTION
STATION 551+20 TO 564+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04880-002
SHEET NUMBER: 105

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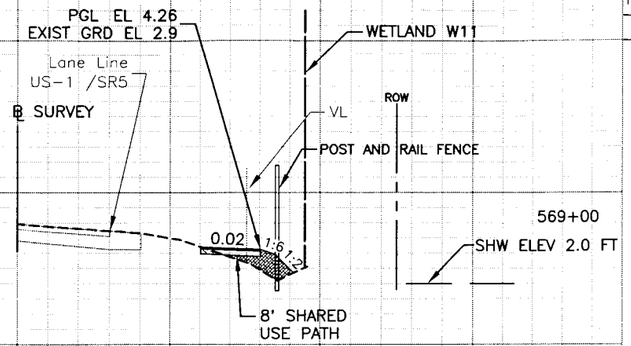
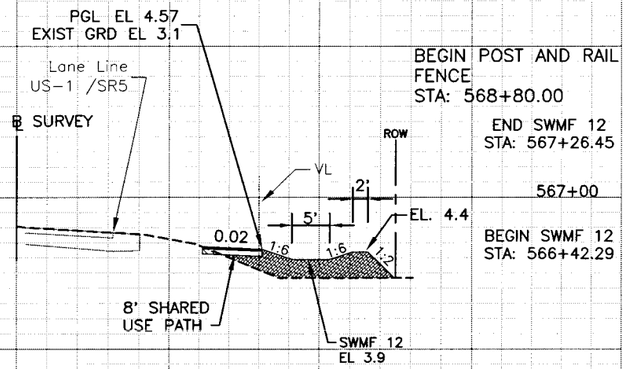
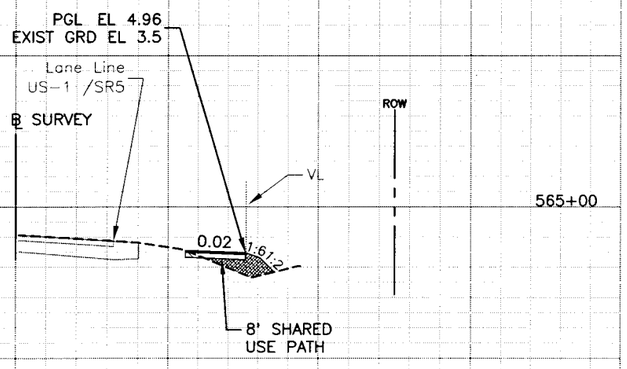


569+00	1	7

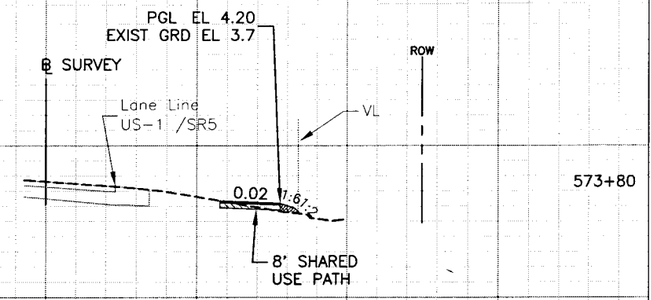


567+00	1	25

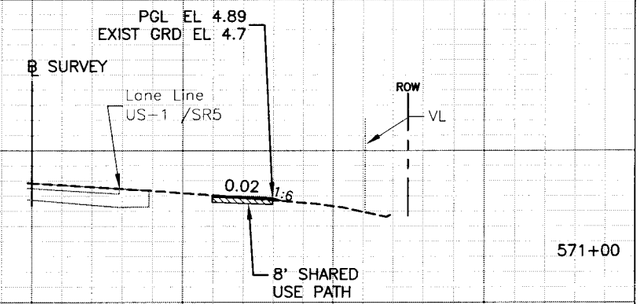


565+00	1	7

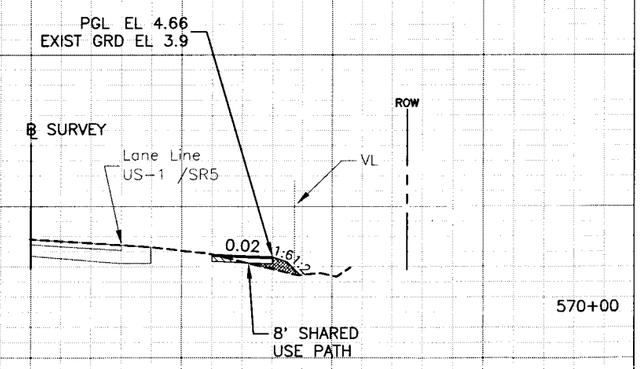
END GRAVITY WALL
STA: 564+51.00



573+80	2	1



571+00	3	0



570+00	1	3

END POST AND RAIL
FENCE
STA: 569+70.00

0 20 40 0 20 40 60

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

WilsonMiller
FL Lic.# LC-C000170 · Certificate of Authorization #43
WilsonMiller, Inc.
1441 Hickory Commerce Blvd, Suite 101 · Tallahassee, Florida 32312 · Phone 850-878-5881 · Fax 850-878-5941 · Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC. TWP. RGE.

TITLE:
CROSS SECTION
STATION 565+00 TO 573+80

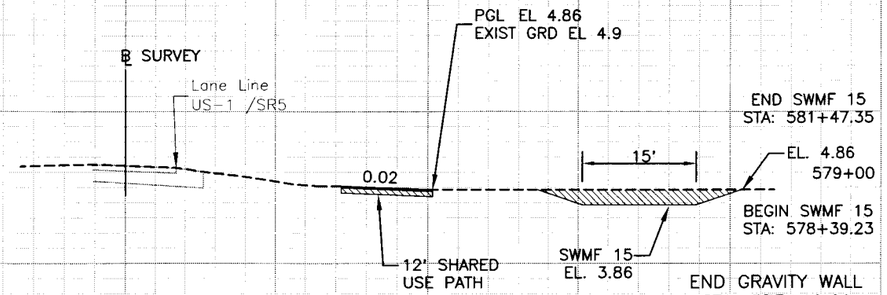
CROSS REFERENCE FILE NO.
PROJECT NUMBER: 04880-002-000

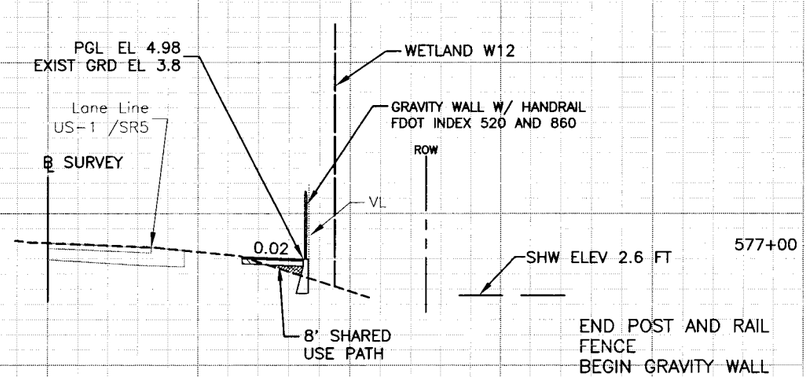
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

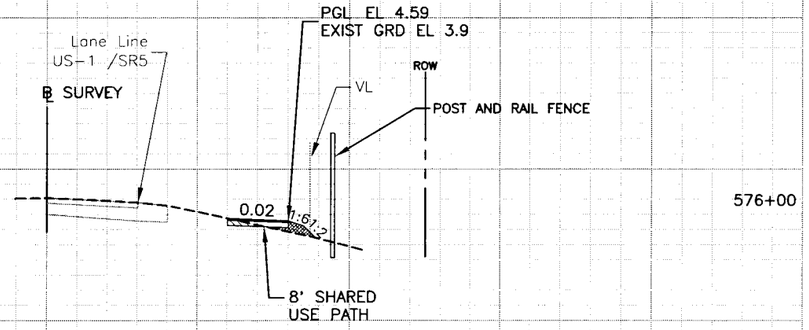
INDEX NUMBER: B-04880-002
SHEET NUMBER: 106

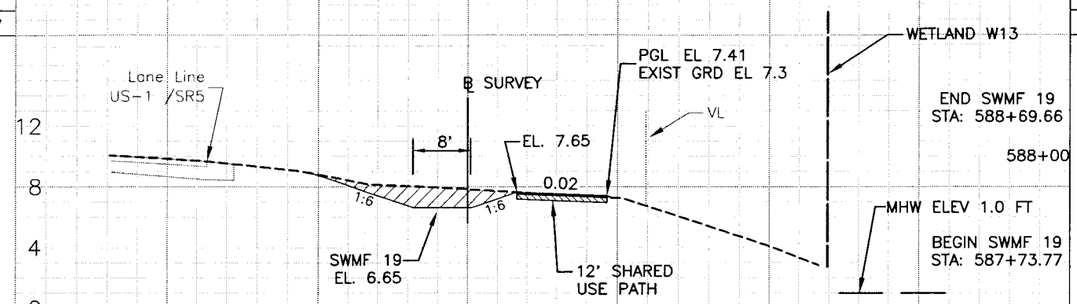
FP ID 405633-1
FDEP NO 6G020

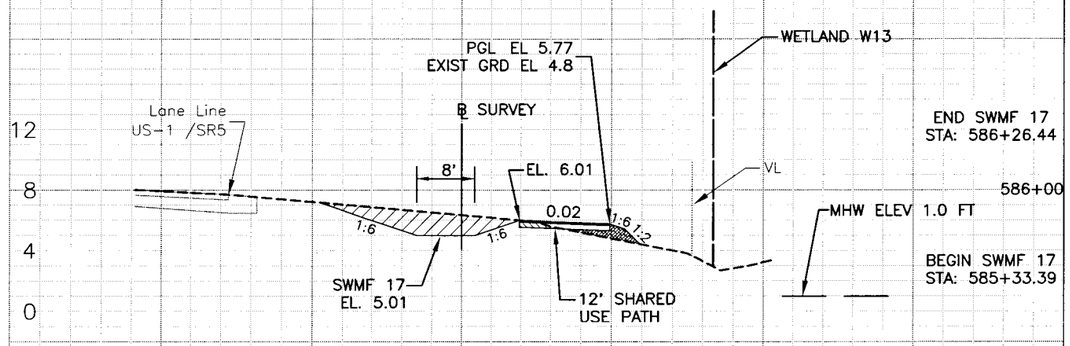
Jun 05, 2009 - 15:08:28 JGERTH X:\ENG\04880\002-Segment1\REV02\04880002-X03.dwg

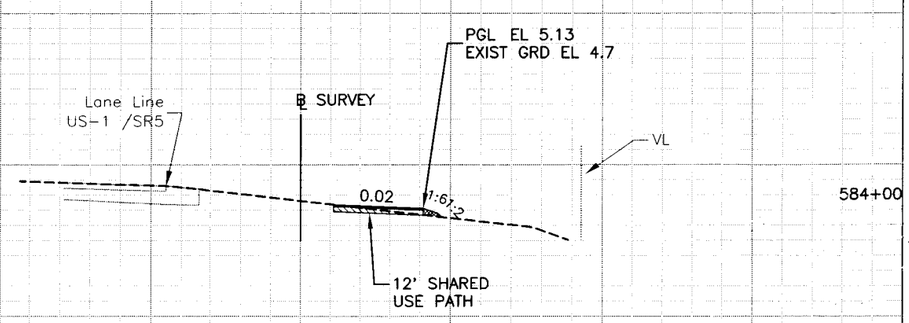












	RDWY.EXC.		FILL	
	A	V	A	V
588+00	26		0	
586+00	27		4	
584+00	3		1	
577+00	1		1	
576+00	1		2	

-20 0 20 40 -40 -20 0 20 40 60

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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WilsonMiller, Inc.
1441 Hickory Commerce Drive, Suite 101 · Tallahassee, Florida 32303 · Phone 850-878-3991 · Fax 850-878-3941 · Web www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC. TWP. RGE:

TITLE:
CROSS SECTION
STATION 576+00 TO 588+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

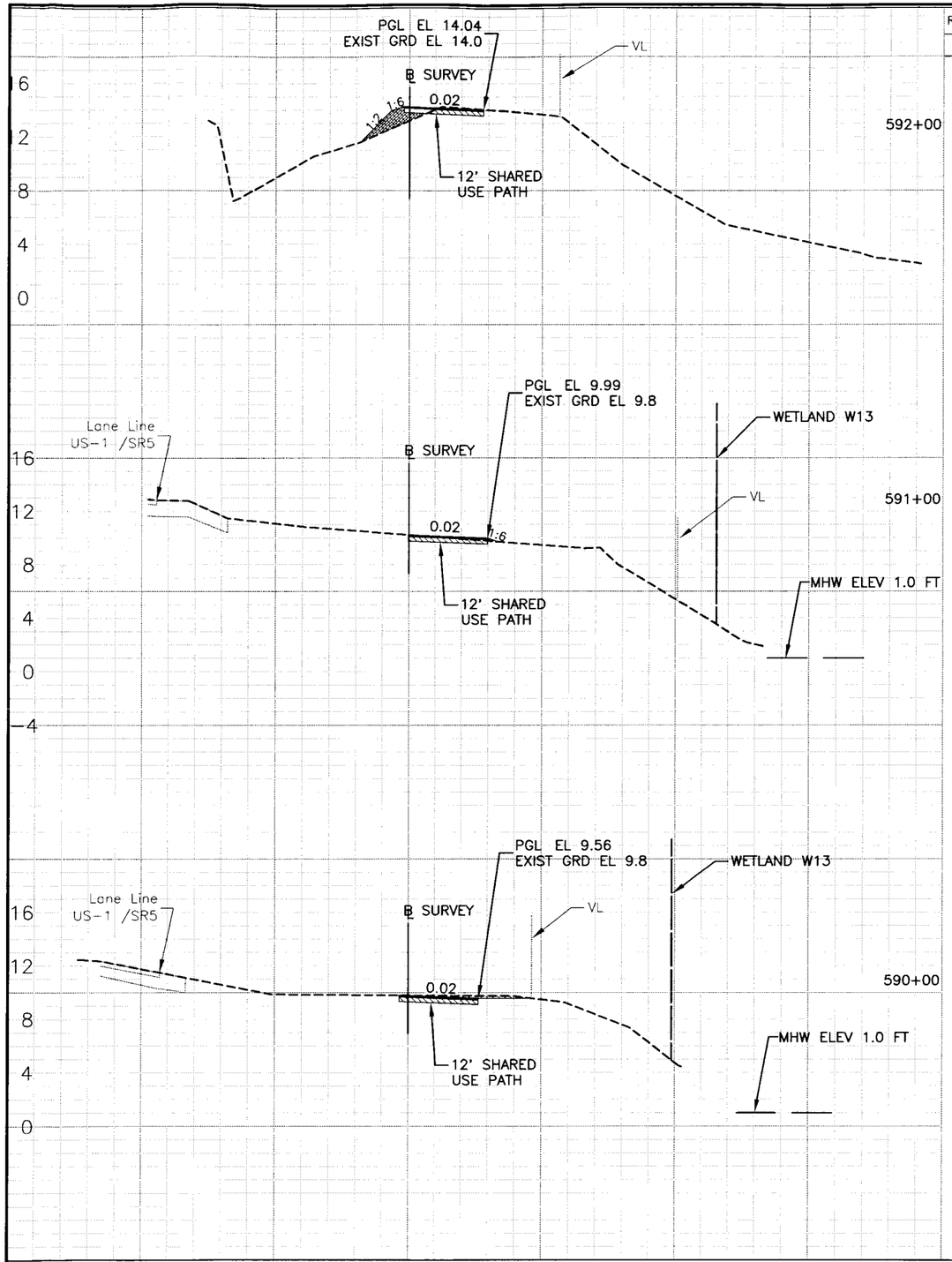
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 107

FP ID 405633-1
FDEP NO 6G020

6/11/09

Jun 05, 2009 - 15:09:55 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X03.dwg



	RDWY.EXC.		FILL	
	A	V	A	V
592+00	4		7	
591+00	4		0	
590+00	8			

END EXCEPTION
STA: 606+20.80

BEGIN EXCEPTION
STA: 592+49.89

	RDWY.EXC.		FILL	
	A	V	A	V

6/11/09

FP ID 405633-1
FDEP NO 6G020

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC. TWP. RGE.

TITLE:
CROSS SECTION
STATION 590+00 TO 592+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 108

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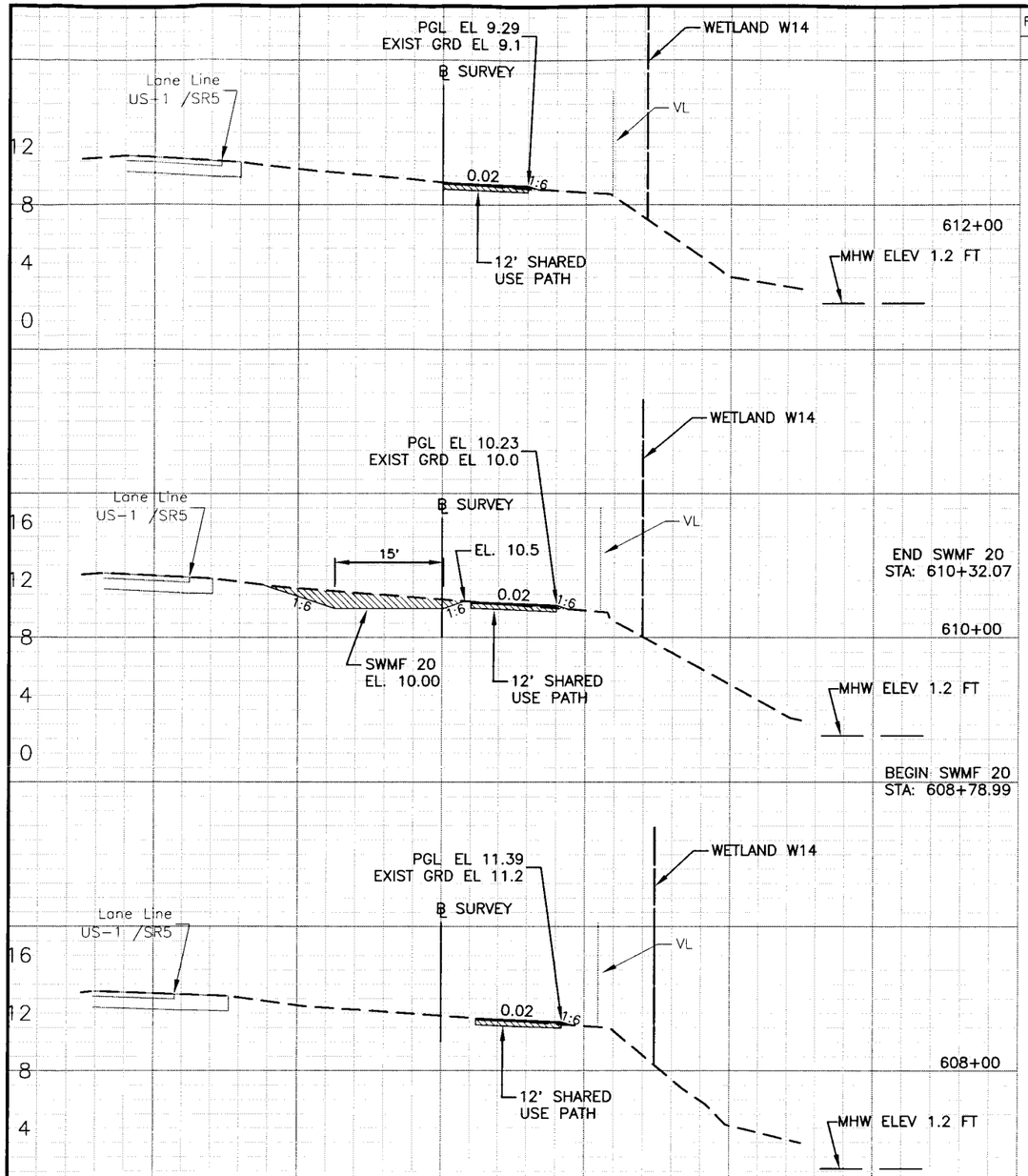
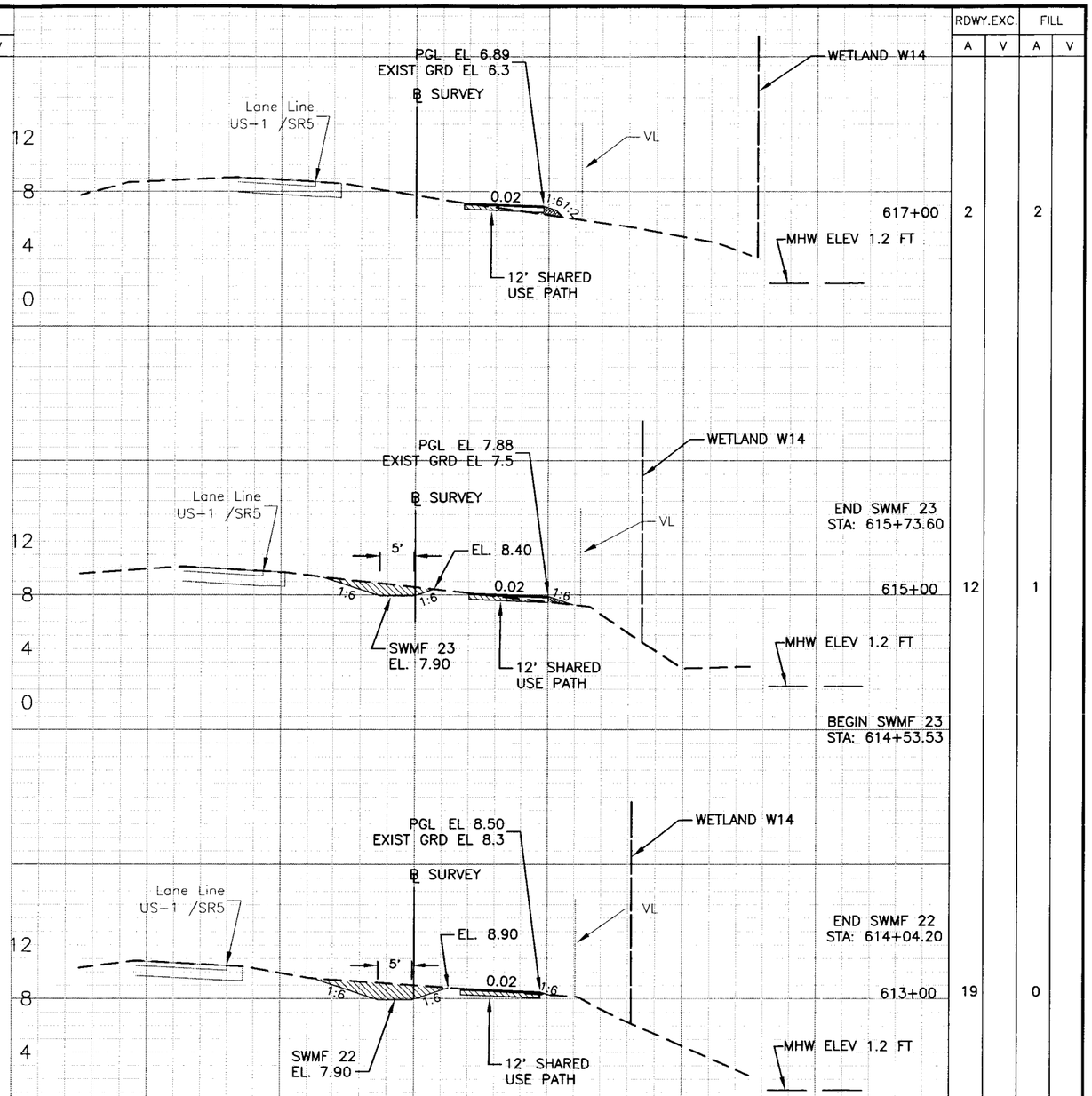


RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
4		0	
25		0	
4		0	



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
2		2	
12		1	
19		0	

6/11/09

−40 −20 0 20 40 60 −40 −20 0 20 40 60

FP ID: 405633-1
FDEP NO 6G020

REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

TITLE:
CROSS SECTION
STATION 608+00 TO 617+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B--04880-002
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000
SHEET NUMBER: 109

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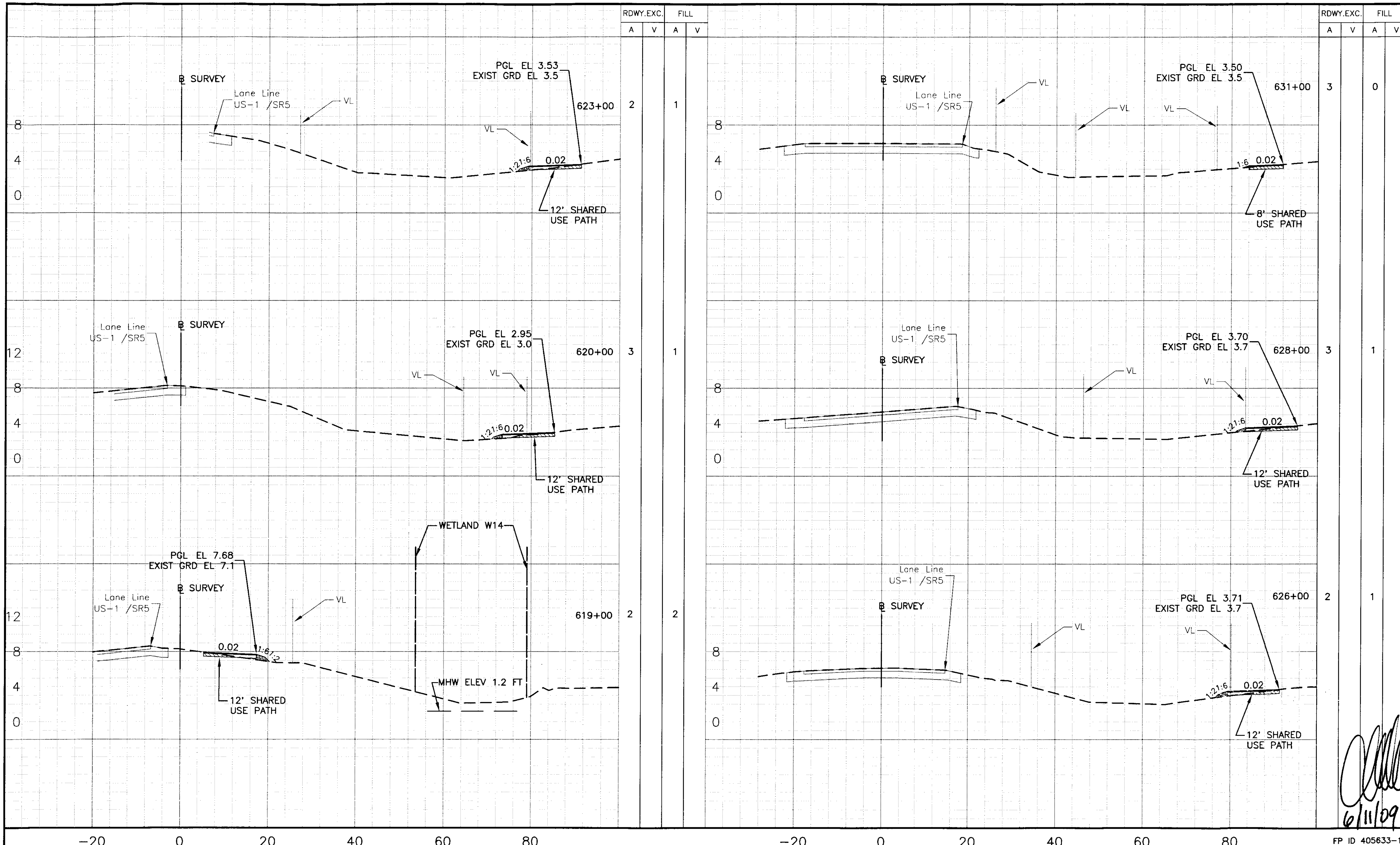

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

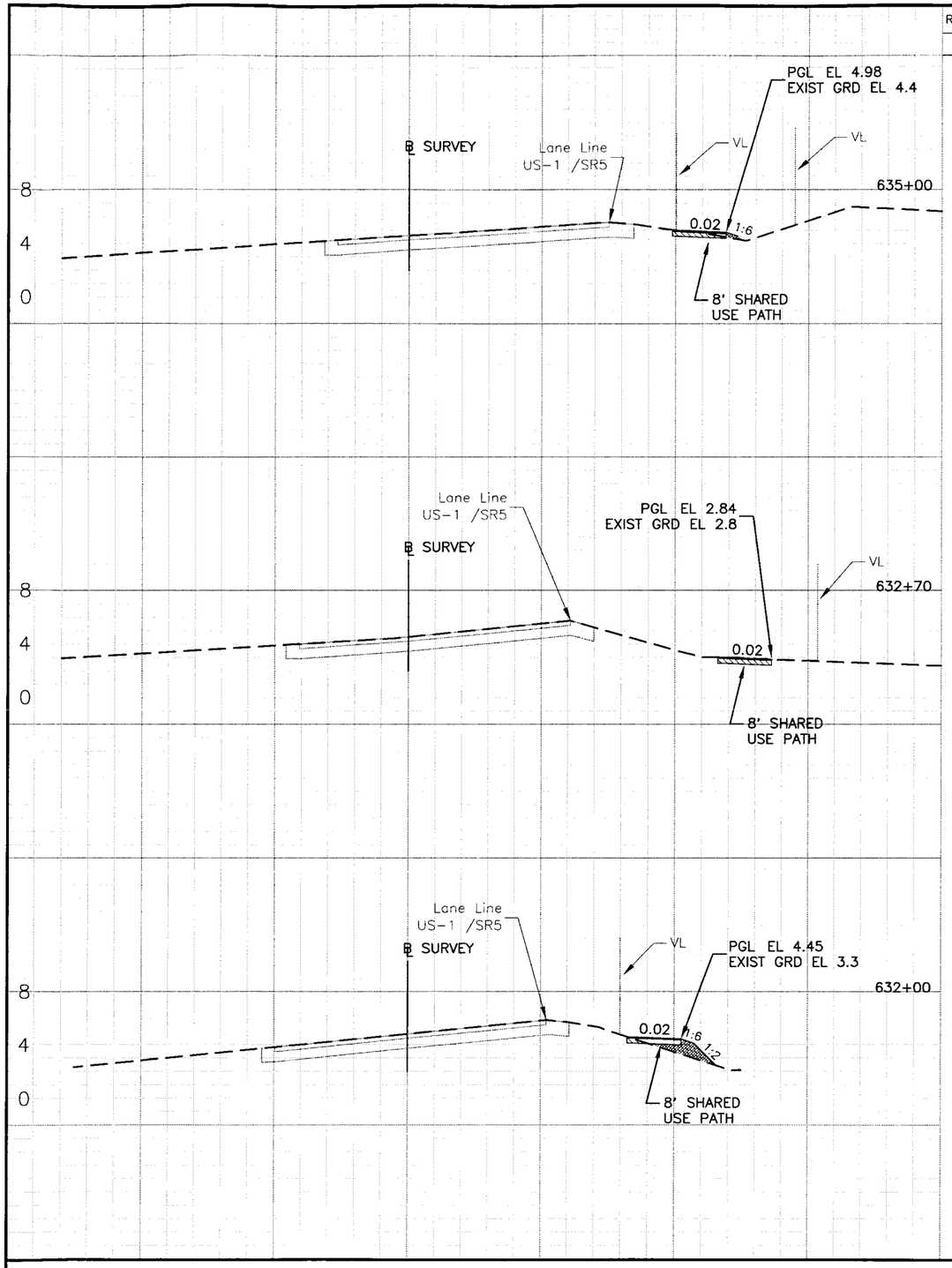
DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'

TITLE: CROSS SECTION STATION 619+00 TO 631+00

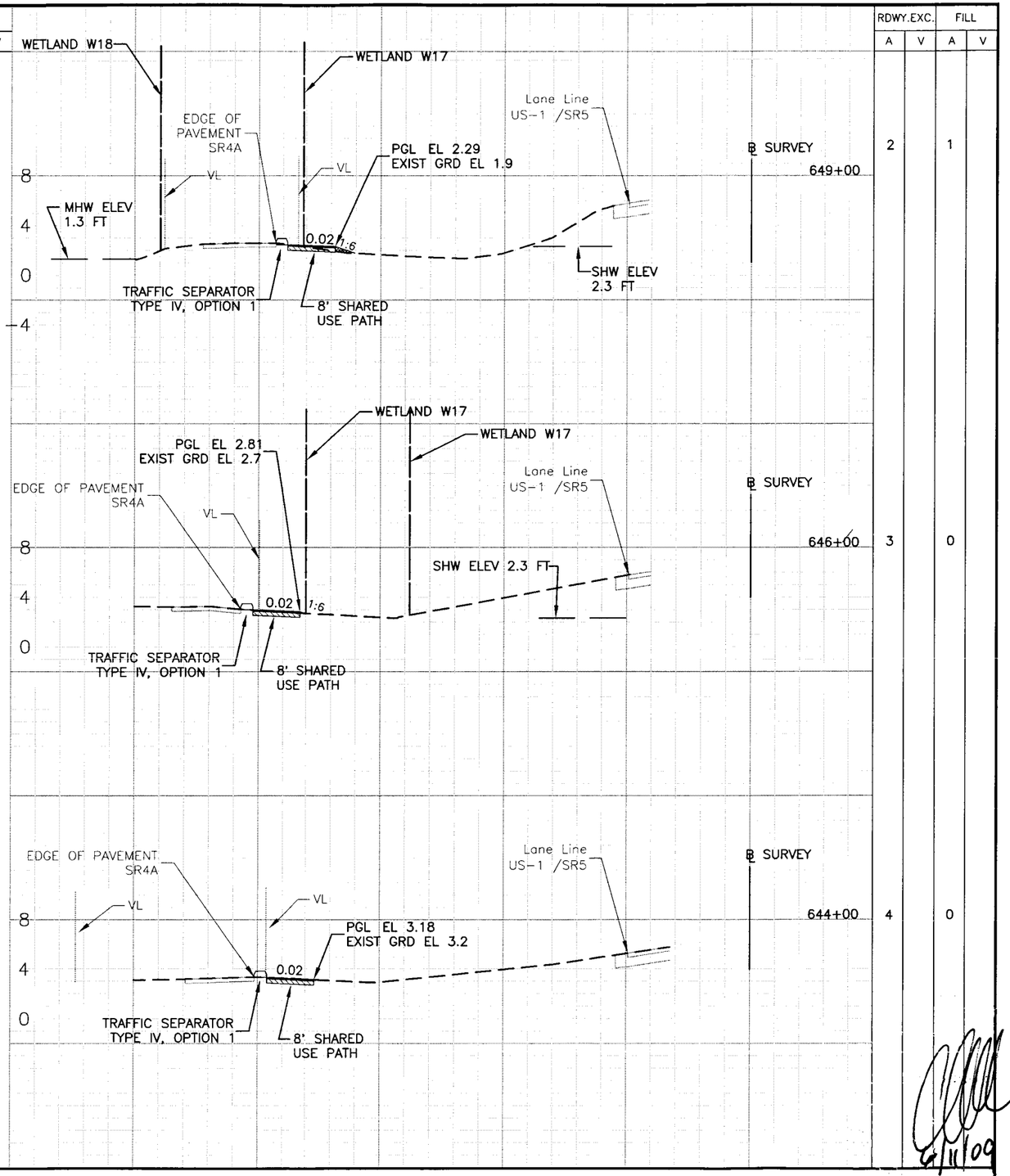
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
PROJECT NUMBER: 04880-002-000
SHEET NUMBER: 110

Jun 05, 2009 - 15:11:59 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X04.dwg



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
2		1	
4		0	
1		6	



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
2		1	
3		0	
4		0	

-40 -20 0 20 40 60 -100 -80 -60 -40 -20 0

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC. TWP. RGE.

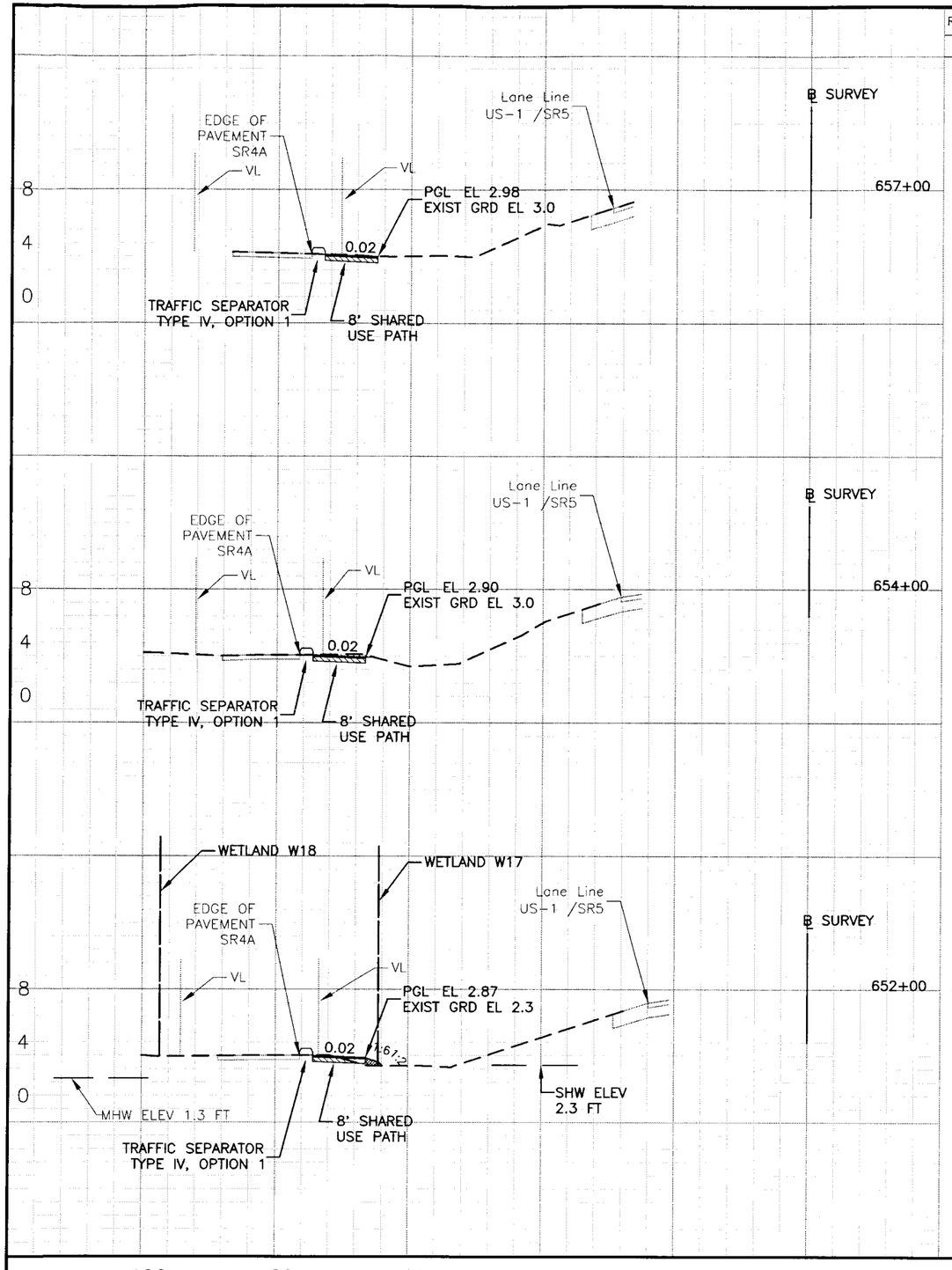
TITLE:
CROSS SECTION
STATION 632+00 TO 649+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

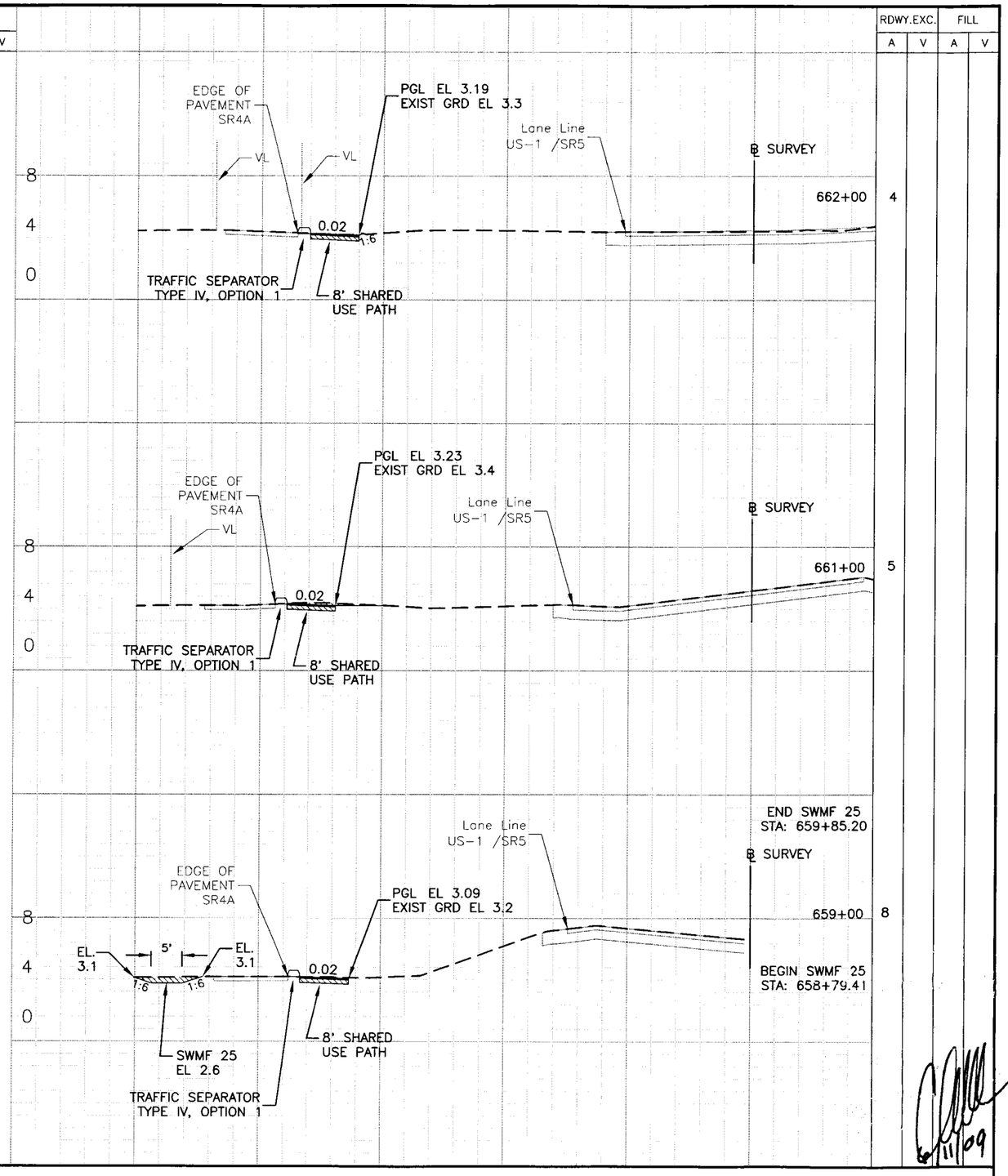
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 111

Jun 05, 2009 - 15:12:34 JGERTH X:\ENG\04880\002-Segment1\REV02\04880002-X04.dwg



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
4			
5			
2	1		



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
4			
5			
8			

−100 −80 −60 −40 −20 0 −100 −80 −60 −40 −20 0

FP ID 405633-1
FDEP NO 6G020

REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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1441 Hickory Commerce Drive, Suite 101 · Kissimmee, Florida 34747 · Phone 839-870-5101 · Fax 839-870-5941 · Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

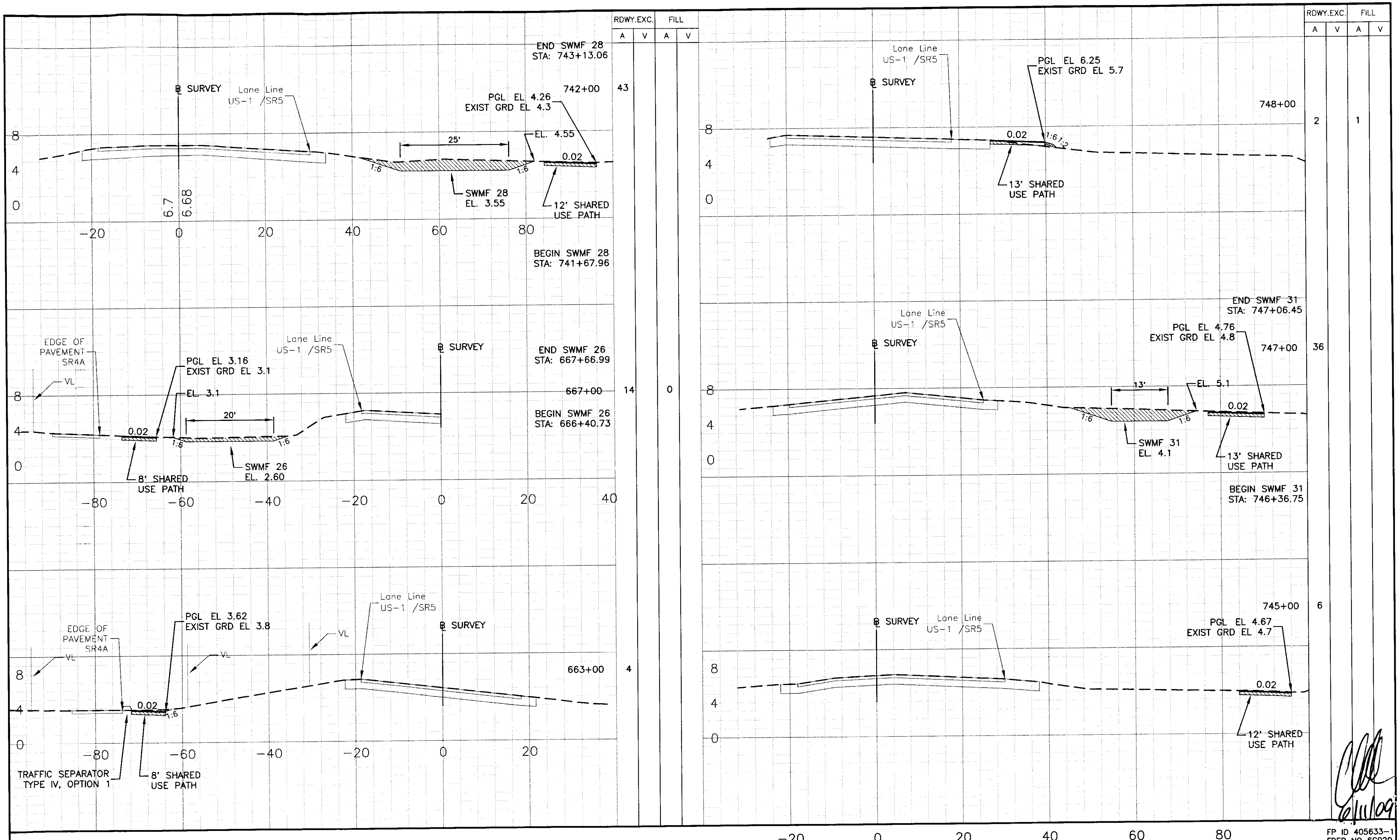
TITLE:
CROSS SECTION
STATION 652+00 TO 662+00

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 112

6/11/09

Jun 05, 2009 - 15:13:1 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X04.dwg



FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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WilsonMiller, Inc.

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS
PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'

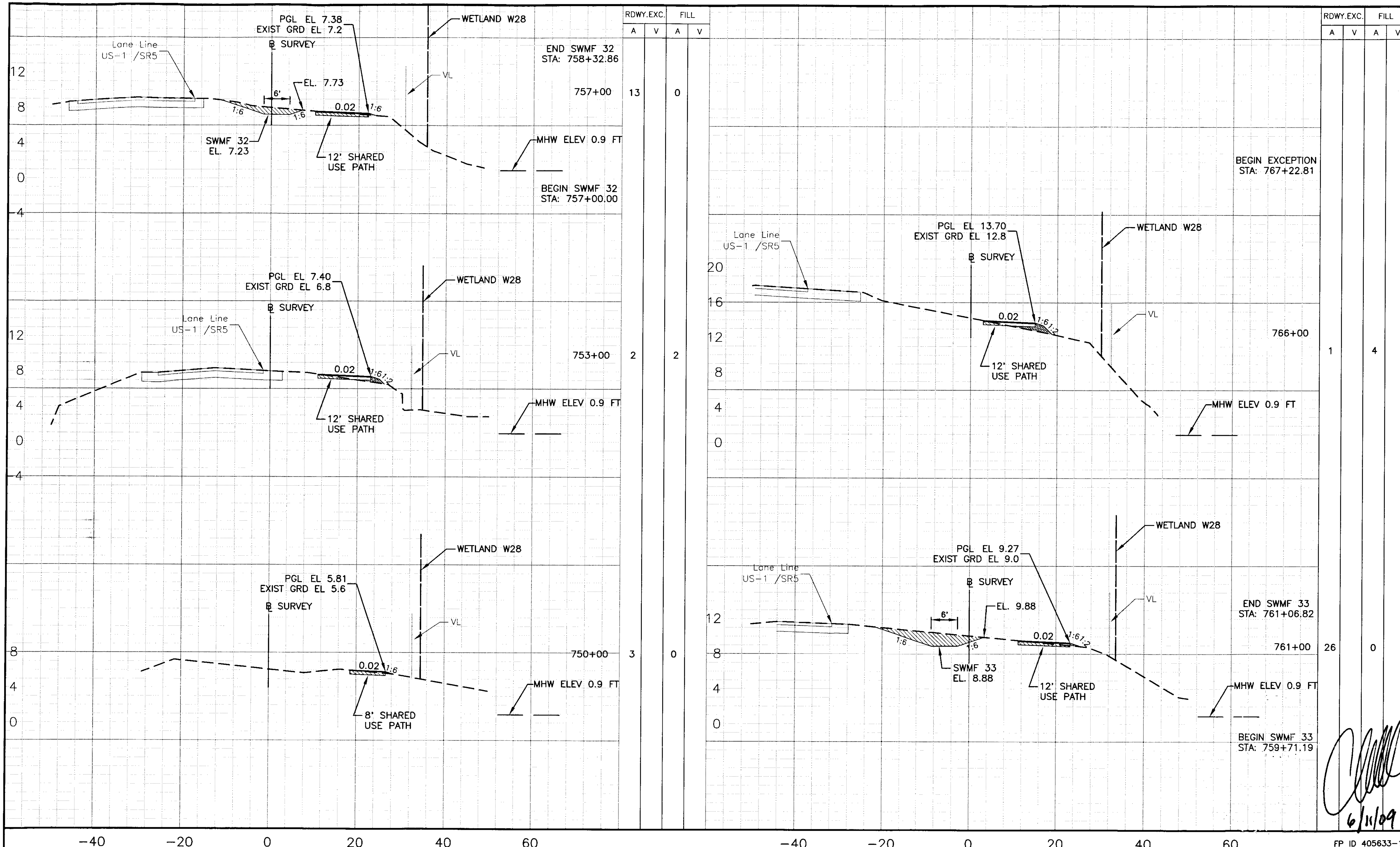
TITLE: CROSS SECTION STATION 663+00 TO 748+00

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E. FL Lic.# 56858
INDEX: B-04880-002
SHEET NUMBER: 113

Jun 05, 2009 - 15:13:42 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X04.dwg

SCANNED 06/16/2009 09:09 BC



FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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1441 Maclay Commerce Drive, Suite 100 · Tallahassee, Florida 32312 · Phone 850-878-5001 · Fax 850-878-5011 · Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

TITLE: CROSS SECTION STATION 750+00 TO 766+00

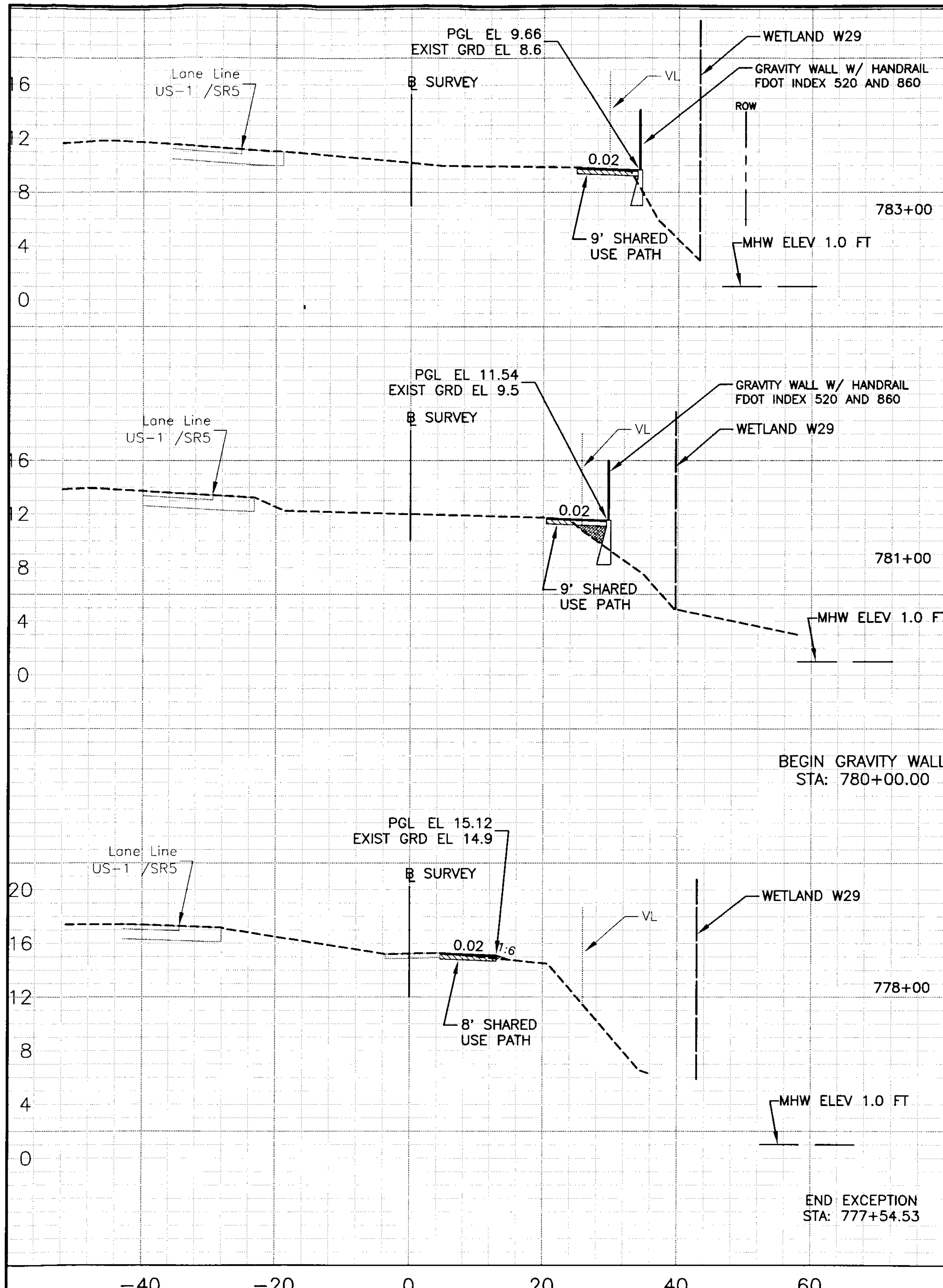
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

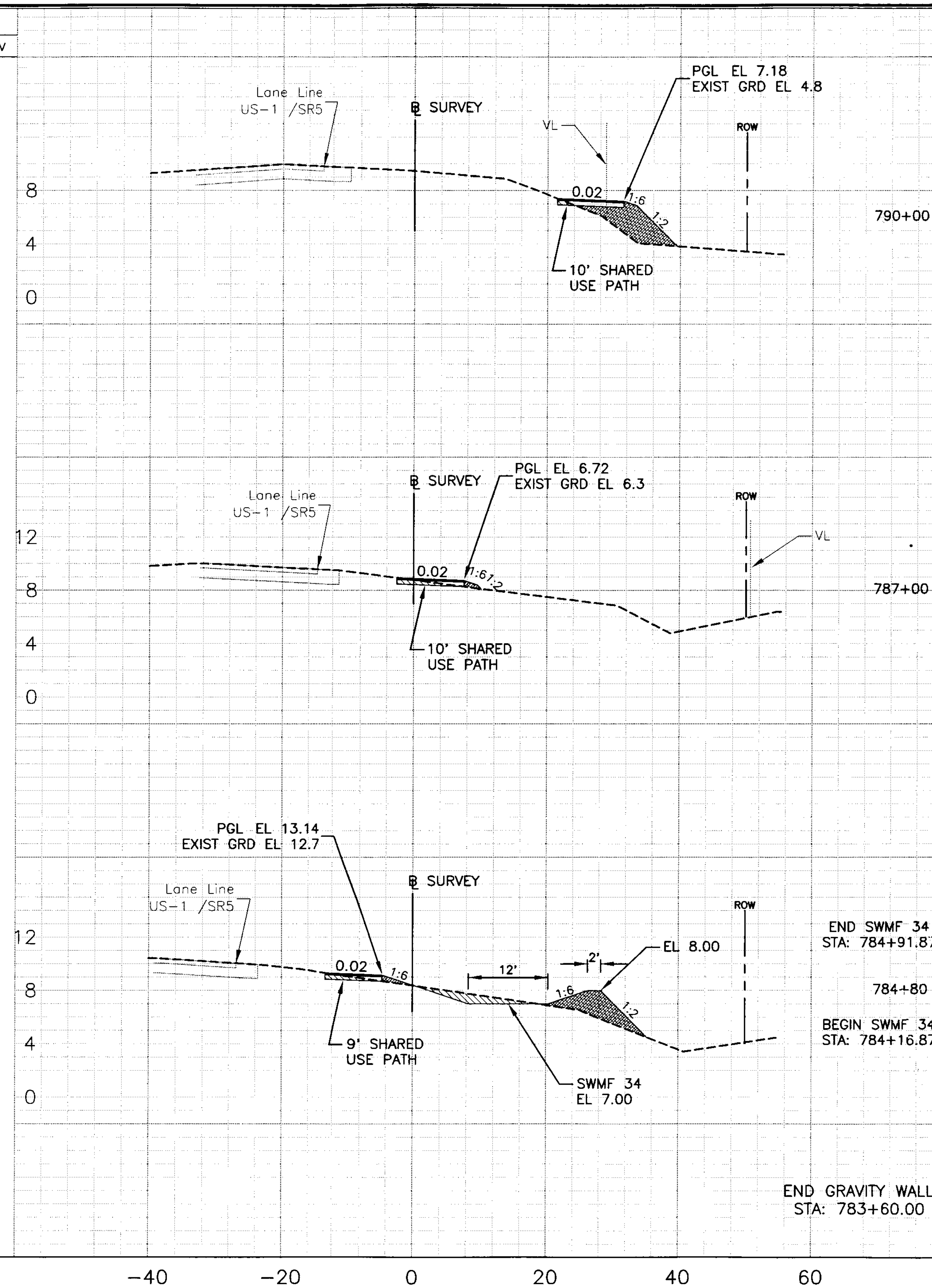
INDEX NUMBER: B-04880-002
SHEET NUMBER: 114

Jun 05, 2009 - 15:13:52 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X04.dwg

SCANNED 06/16/2009 09:15 BC



Station	RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
783+00	3		0	
781+00	2		3	
778+00	3		0	



Station	RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
790+00	1		19	
787+00	2		1	
784+80	9		18	

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

REV NO. | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

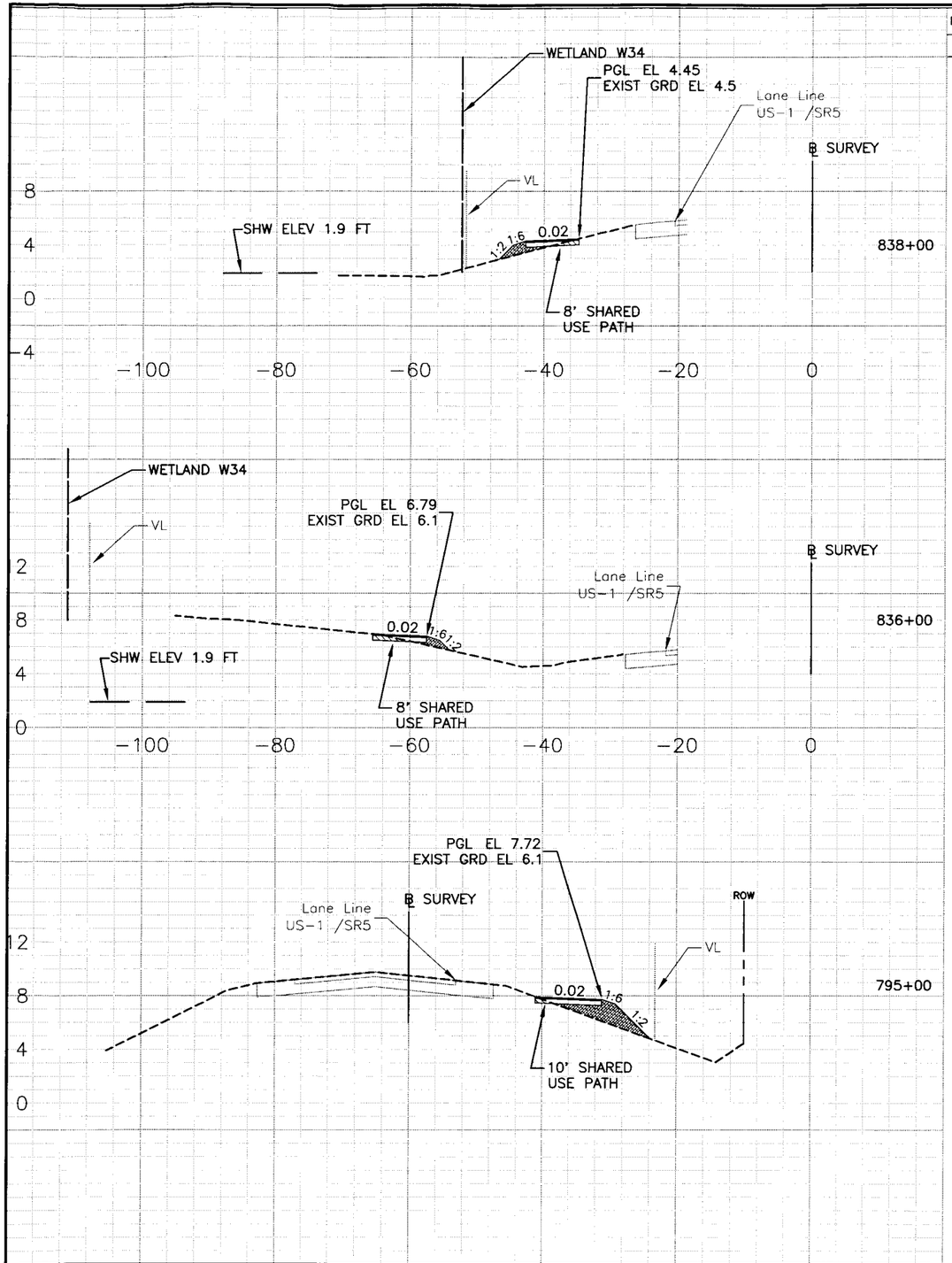
TITLE: CROSS SECTION
STATION 778+00 TO 790+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

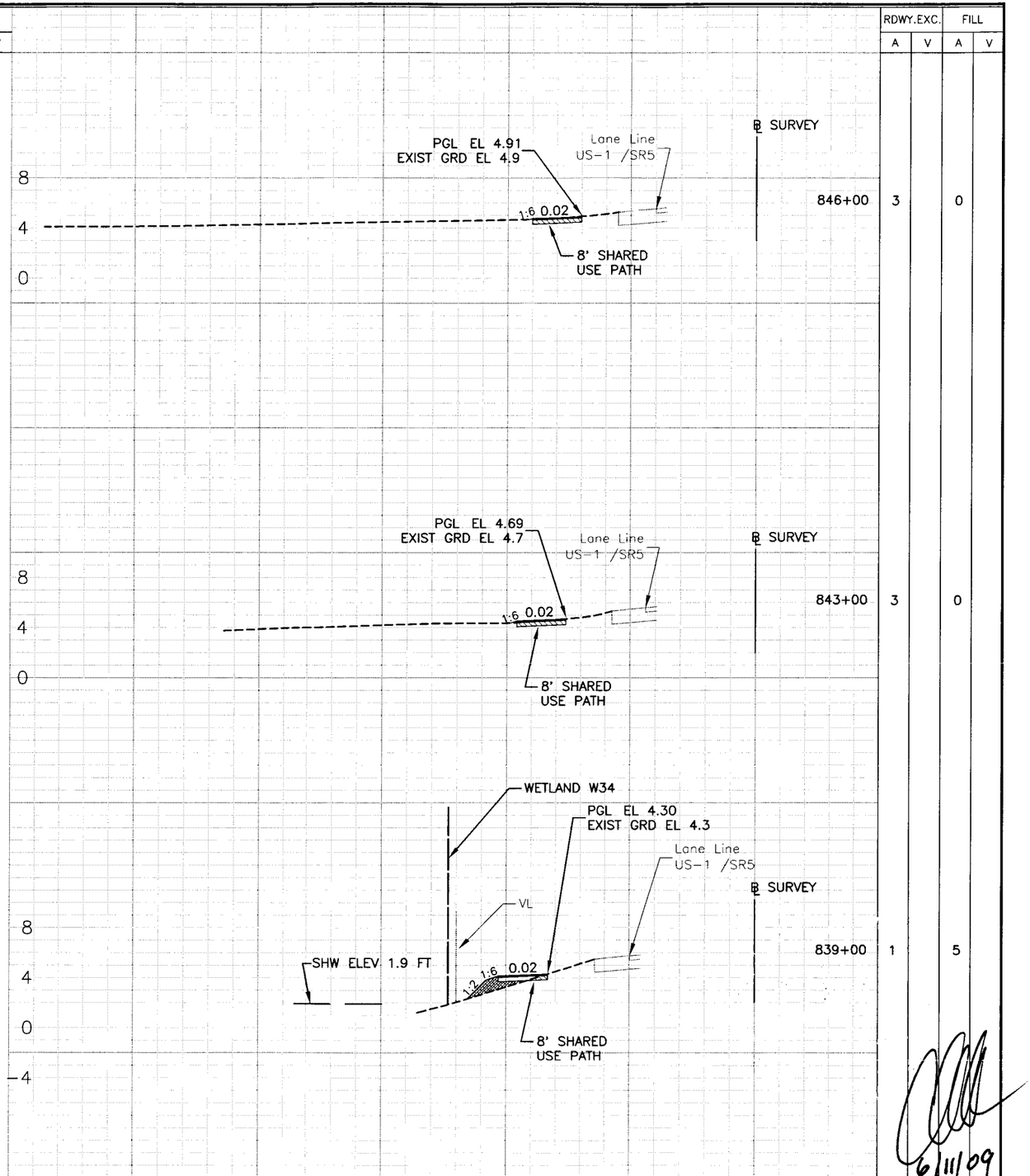
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
INDEX NUMBER: B-04880-002
SHEET NUMBER: 115

Jun 05, 2009 - 15:14:59 JGERTH|X:\ENG\04880\002-Segment1\REV02\04880002-X05.dwg

SCANNED 06/16/2009 09:15 BC



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
1		3	



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
3		0	

RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
2		2	

RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
3		0	

RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
1		12	

RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V
1		5	

6/11/09

FP ID 405633-1
FDEP NO 6G020

REV NO	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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WilsonMiller, Inc.
1441 Hickory Commerce Drive, Suite 101 · Tallahassee, Florida 32312 · Phone 850-878-3991 · Fax 850-878-3941 · Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC. TWP. RGE.

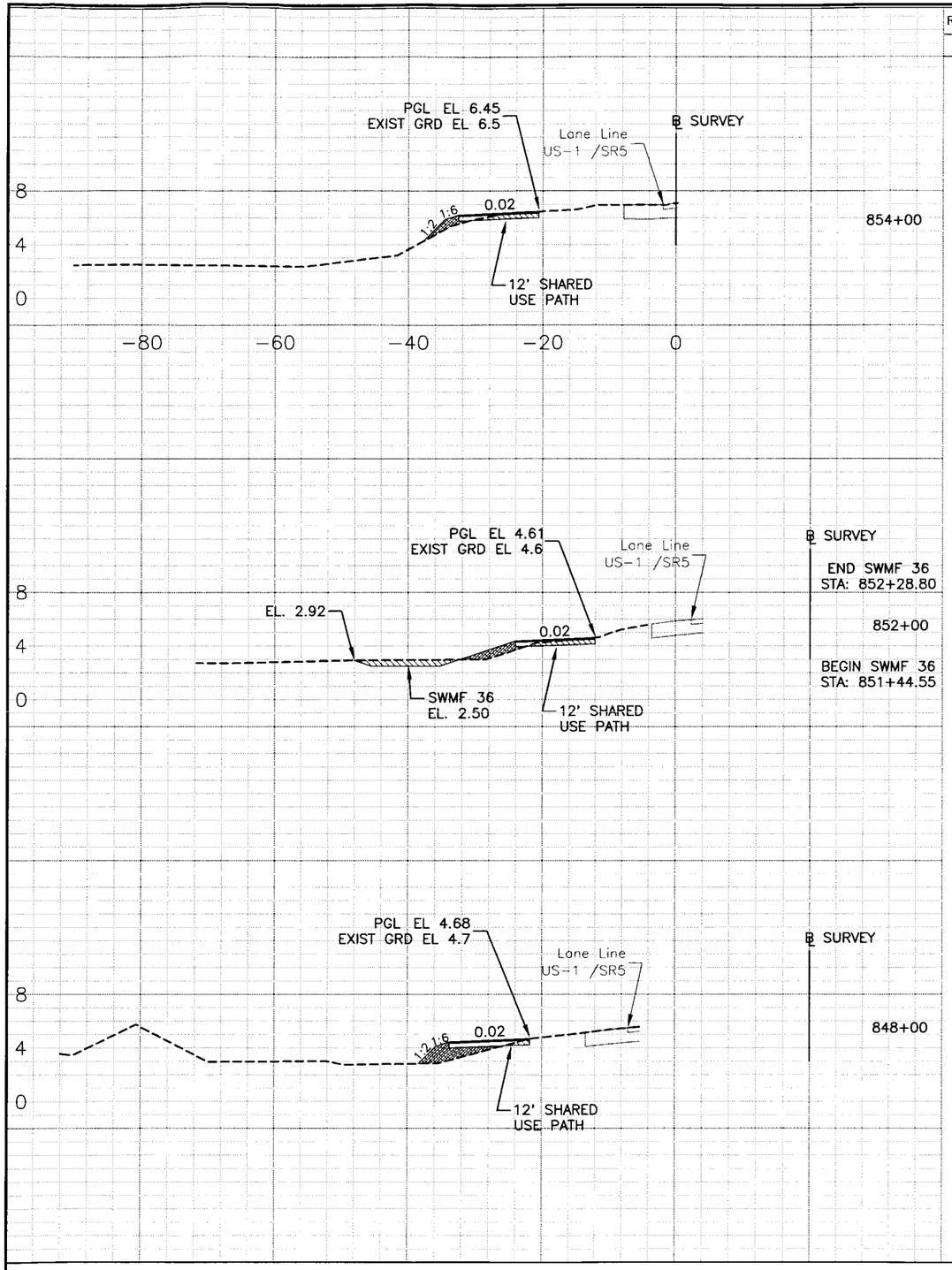
TITLE:
CROSS SECTION
STATION 795+00 TO 846+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

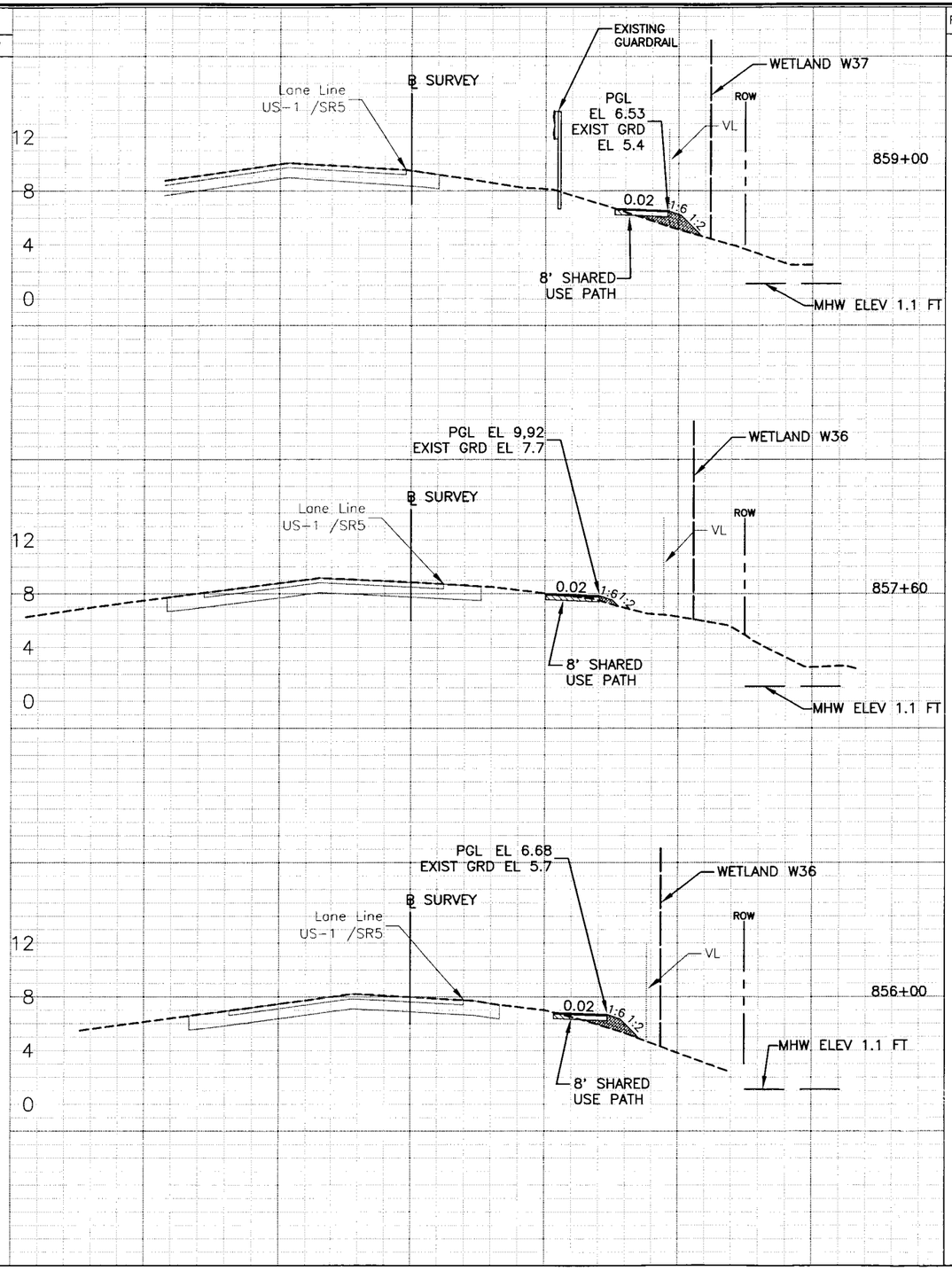
CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 116

Jun 05, 2009 - 15:18:34 JGERTH X:\ENG\04880\002-Segment1\REV02\04880002-X05.dwg



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V	
				℄ SURVEY END SWMF 36 STA: 852+28.80
3		3		854+00
9		4		852+00 BEGIN SWMF 36 STA: 851+44.55
1		8		848+00



RDWY.EXC. A	RDWY.EXC. V	FILL A	FILL V	
1		6		859+00
2		1		857+60
1		4		856+00

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

△REV. NO | REVISION | DATE | DRAWN BY / EMP. NO. | CHECKED BY / EMP. NO.

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1441 Hickory Commerce Drive, Suite 101 · Tallahassee, Florida 32312 · Phone 850-878-5991 · Fax 850-878-5941 · Web: www.wilsonmiller.com

CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

TITLE:
CROSS SECTION
STATION 848+00 TO 859+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 117

6/11/09

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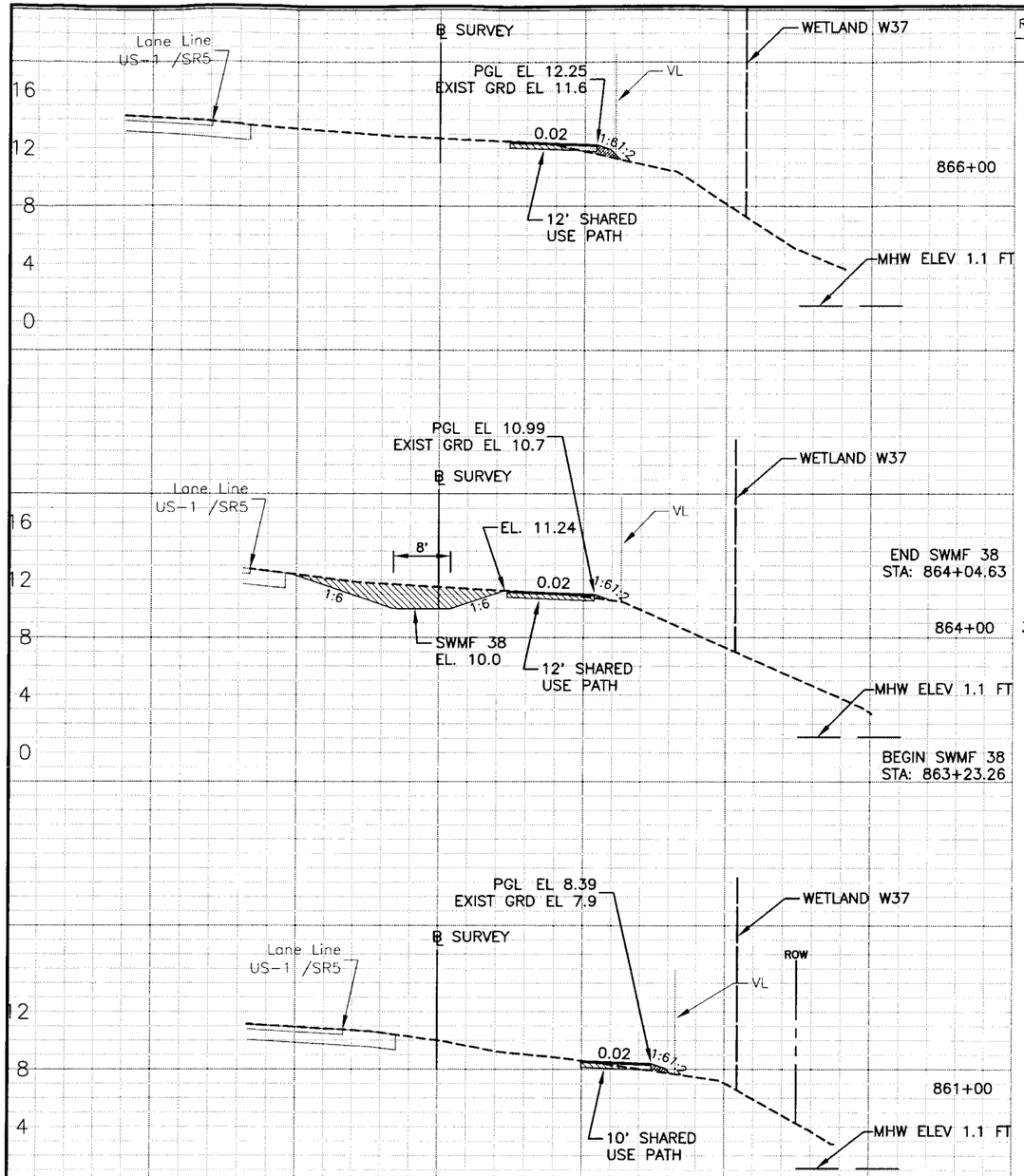

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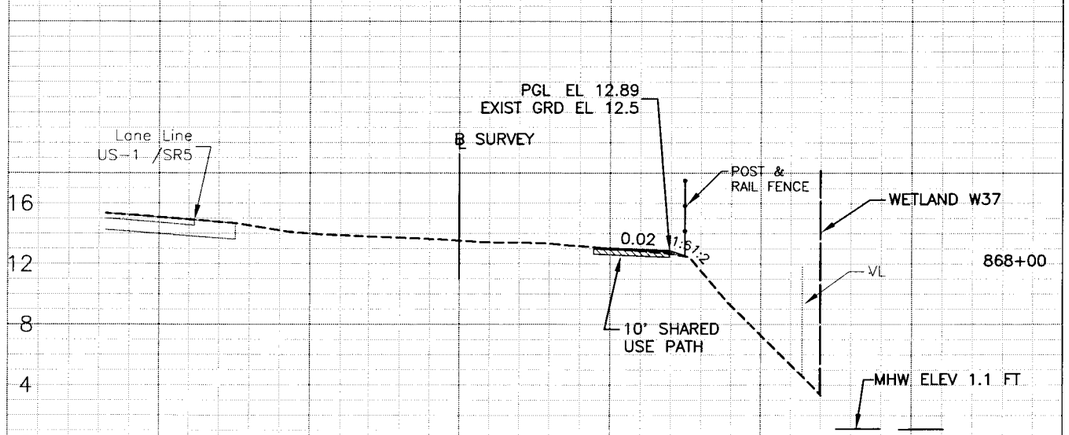
	A	V	A	V
866+00	3		2	
864+00	34		0	
861+00	2		1	



	RDWY.EXC.		FILL	
	A	V	A	V
868+00	4		0	

6/11/09

-40 -20 0 20 40 60 -40 -20 0 20 40 60

FP ID 405633-1
FDEP NO 6G020

ACTIVITY	INITIALS/EMP. NO.	DATE
DESIGNED BY:	CEA/1159	01/09
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CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=10'
SEC: TWP: RGE:

TITLE: CROSS SECTION
STATION 861+00 TO 868+00

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 36859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 118

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THE FOLLOWING NARRATIVE OF THE STORMWATER POLLUTION PREVENTION PLAN CONTAINS REFERENCES TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE FDOT DESIGN STANDARDS, AND OTHER SHEETS OF THESE CONSTRUCTION PLANS. THE FIRST SHEET OF THE CONSTRUCTION PLANS (THE KEY SHEET) CONTAINS AN INDEX TO THE OTHER SHEETS. THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN INCLUDES SEVERAL ITEMS: THIS NARRATIVE DESCRIPTION, THE DOCUMENTS REFERENCED IN THIS NARRATIVE, THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN REQUIRED BY SPECIFICATION SECTION 104, AND REPORTS OF INSPECTIONS MADE DURING CONSTRUCTION.

1.0 SITE DESCRIPTION:

1.A. NATURE OF CONSTRUCTION ACTIVITY:

THIS PROJECT PRIMARILY INVOLVES THE CONSTRUCTION OF 8.29 MILES OF SHARED USE PATH. THE PATH WILL BECOME PART OF THE FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT) THAT WILL ULTIMATELY CONNECT KEY WEST TO KEY LARGO. THE PATH IS INTENDED FOR NON-VEHICULAR USE. THE PATH WIDTH WILL TYPICALLY VARY FROM 8 TO 12 FEET WIDE. CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES AT SPECIFIED LOCATIONS, UTILITY ADJUSTMENTS, AND ANCILLARY STRUCTURES, SUCH AS GRAVITY WALL AND HANDRAIL, ARE ALSO PART OF THIS PROJECT. IN ADDITION, THE PROJECT INCLUDES WETLAND MITIGATION ACTIVITIES AT VARIOUS LOCATIONS (MITIGATION WORK INVOLVES CLEARING AND GRADING, PLANTINGS, ETC.).

1.B. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING SEDIMENT AND IS APPROVED BY THE PROJECT ENGINEER. IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING SEDIMENT AND IS APPROVED BY THE PROJECT ENGINEER.

FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

1. CLEARING, GRUBBING AND EARTHWORK FOR STORMWATER MANAGEMENT FACILITY CONSTRUCTION.

2. STABILIZE STORMWATER MANAGEMENT FACILITIES WITH PERFORMANCE TURF SOD.

3. CONSTRUCTION ACTIVITES NECESSARY FOR GRAVITY WALL CONSTRUCTION INCLUDING BUT NOT LIMITED TO: CLEARING, GRUBBING, EARTHWORK, FORMWORK, AND POURING OF CONCRETE.

4. CONSTRUCTION ACTIVITES NECESSARY FOR PATH CONSTRUCTION, INCLUDING BUT NOT LIMITED TO: CLEARING, GRUBBING, EARTHWORK, SUBGRADE STABILIZATION, BASE WORK, AND ASPHALT PAVING.

5. CONSTRUCTION ACTIVITIES NECESSARY FOR WETLAND MITIGATION PROGRAM, INCLUDING BUT NOT LIMITED TO: CLEARING, GRUBBING, EARTHWORK, SCARIFICATION, INSTALLATION OF DRAINAGE STRUCTURES.

1.C. AREA ESTIMATES:

FOR THE FKOHT & STORMWATER MANAGEMENT FACILITIES:
TOTAL DRAINAGE AREA: 62.14 ACRES.
TOTAL AREA TO BE DISTURBED: 15.81 ACRES.

FOR THE WETLAND MITIGATION AREAS:
TOTAL AREA TO BE DISTURBED: 0.74 ACRES.

1.D. RUNOFF DATA:

RUNOFF COEFFICIENTS:
BEFORE: .58
DURING: VARIES FROM .58 TO .68
AFTER: .65

SOILS DATA: IN ITS SOIL SURVEY OF MONROE COUNTY, KEYS AREA, FLORIDA, THE USDA NRCS CLASSIFIES THE SOILS PREDOMINENTLY PRESENT WITHIN THE PROJECT AREA AS ONE OF THE FOLLOWING (NUMBERS INDICATED ARE SOIL MAP SYMBOLS): ISLAMORDA MUCK, TIDAL (#5); UDORTHENTS-URBAN LAND COMPLEX (#7); ROCK OUTCROP-CUDJOE COMPLEX, TIDAL (#8); KEYVACA VERY GRAVELLY LOAM, EXTREMELY STONY (#13); CUDJOE MARL, TIDAL (#15); SADDLEBUNCH MARL, OCCASSIONALLY FLOODED (#19). VERIFICATION OF THE SITE SPECIFIC SOILS AND THEIR PROPERTIES IS THE RESPONSIBILITY OF THE CONTRACTOR. BRIEF SOIL DESCRIPTIONS ARE AS FOLLOWS:

ISLAMORDA MUCK IS VERY POORLY DRAINED WITH A SEASONAL HIGH WATER TABLE AT OR NEAR THE SURFACE. CERTAIN AREAS MAY BE FLOODED BY TIDES. PERMEABILITY IS RAPID. HYDROLOGIC SOIL GROUP IS "D".

UDORTHENTS ARE MODERATELY WELL DRAINED WITH A SEASONAL HIGH WATER TABLE AT A DEPTH OF 2 TO 4 FEET. PERMEABILITY IS VARIABLE. HYDROLOGIC SOIL GROUP IS "B/D".

THE CUDJOE SOIL IN THE ROCK OUTCROP-CUDJOE COMPLEX IS POORLY DRAINED. THE SEASONAL HIGH WATER TABLE IS WITHIN A DEPTH OF 0 TO 6 INCHES DURING WET PERIODS. CERTAIN AREAS MAY BE FLOODED BY TIDES. PERMEABILITY IS MODERATE OR MODERATELY RAPID. HYDROLOGIC SOIL GROUP IS "D". ABOUT 60% OF THE MAPPED AREAS ARE COMPRISED OF EXPOSED BEDROCK.

KEYVACA SOILS ARE WELL DRAINED WITH A SEASONAL HIGH WATER TABLE AT A DEPTH OF 6 INCHES DURING WET PERIODS. PERMEABILITY IS MODERATELY RAPID. HYDROLOGIC SOIL GROUP IS "D".

CUDJOE MARL SOIL IS WELL DRAINED WITH A SEASONAL HIGH WATER TABLE AT A DEPTH OF 6 INCHES DURING WET PERIODS. CERTAIN AREAS MAY BE FLOODED BY TIDES. PERMEABILITY IS MODERATE OR MODERATELY RAPID. HYDROLOGIC SOIL GROUP IS "D".

SADDLEBUNCH MARL SOIL IS SOMEWHAT POORLY DRAINED. THE SEASONAL HIGH WATER TABLE IS AT A DEPTH OF 6-12 INCHES DURING WET PERIODS, ALTHOUGH INDIVIDUAL AREAS CAN BE SUBJECT TO FLOODING BY STORM TIDES. PERMEABILITY IS MODERATE OR MODERATELY RAPID. HYDROLOGIC SOIL GROUP IS "D".

STORMWATER DRAINAGE INFOMATION:

40 STORMWATER MANAGEMENT FACILITES (SWMFs)/ DRY RETENTION AREAS WILL BE CONSTRUCTED TO COLLECT, TREAT, AND ATTENUATE RUNOFF FROM CERTAIN SEGMENTS OF THE PROJECT. GENERAL INFOMATION FOR THESE IS PROVIDED IN THE TABLE BELOW:

SWMF I.D.	LIMITS		
1	427+71	to	429+07
2	430+64	to	431+67
3	500+45	to	501+43
4	501+76	to	503+30
5	503+67	to	504+37
6	504+89	to	506+02
7	506+28	to	507+29
8	521+15	to	522+37
9	522+87	to	524+12
10	524+57	to	526+01
11	526+37	to	527+51
12	566+42	to	567+27
13	571+14	to	573+64
14	574+04	to	575+60
15	578+39	to	581+48
16	582+85	to	583+58
17	585+33	to	586+26
18	586+80	to	587+32
19	587+74	to	588+70
20	608+79	to	610+32
21	610+86	to	611+71
22	612+44	to	614+04
23	614+53	to	615+74
24	657+10	to	657+86
25	658+79	to	659+85
26	666+41	to	667+67
27	723+01	to	724+37
28	741+68	to	743+13
29	743+60	to	744+39
30	745+28	to	745+88
31	746+37	to	747+06
32	757+00	to	758+33
33	759+62	to	761+07
34	784+17	to	784+92
35	785+53	to	786+71
36	851+44	to	852+29
37	861+38	to	862+74
38	863+23	to	864+05
39	864+75	to	865+59
40	866+18	to	867+98

THE SWMFs TO BE BUILT HAVE NO OUTFALL STRUCTURES OR SIMILAR CONTROL STRUCTURES. ANY STORMWATER DISCHARGE FROM THE SWMFs ULTIMATELY FLOWS TO EITHER THE GULF OF MEXICO OR THE ATLANTIC OCEAN VIA SHEET FLOW OR GROUND WATER FLOW.

I.E. SITE MAP:

THE CONSTRUCTION PLANS & MITIGATION PLANS ARE BEING USED AS THE SITE MAPS. THE LOCATION OF THE REQUIRED INFORMATION IS DESCRIBED BELOW. THE SHEET NUMBERS FOR THE PLAN SHEETS REFERENCED ARE IDENTIFIED ON THE KEY SHEET OF THE CONSTRUCTION PLANS OR ON THE KEY SHEET OF THE MITIGATION PLANS, AS APPLICABLE.

* DRAINAGE PATTERNS: THE DRAINAGE BASIN DIVIDES AND FLOW DIRECTIONS ARE SHOWN ON THE DRAINAGE MAPS IN CONSTRUCTION PLANS.

* APPROXIMATE SLOPES: THE SLOPES OF THE SITE CAN BE SEEN IN THE CROSS SECTION SHEETS AND THE PLAN SHEETS IN CONSTRUCTION PLANS.

* AREAS NOT TO BE DISTURBED: WETLANDS IDENTIFIED IN THE PLANS EXCEPT FOR THOSE WETLAND IMPACT AREAS SPECIFICALLY IDENTIFIED, PRIVATE PROPERTIES OUTSIDE THE LIMITS OF US-1 RIGHT-OF-WAY, AND AREAS BEYOND THE LIMITS OF CONSTRUCTION SHALL NOT BE DISTURBED. CONSTRUCTION LIMITS SHALL BE AS IDENTIFIED IN THE CROSS SECTIONS, PLAN VIEWS AND OTHER PERTINENT CONSTRUCTION PLAN AND MITIGATION PLAN SHEETS. THE CONTRACTOR SHALL OBTAIN APPROVALS FROM THE DEP/OGT PROJECT MANAGER AND ENGINEER FOR AREAS TO BE UTILIZED FOR DEWATERING, STAGING, STOCKPILING, CONSTRUCTION FIELD OFFICE, ETC.

* LOCATIONS OF TEMPORARY CONTROLS: THE KNOWN LOCATIONS WHERE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ARE REQUIRED ARE ADDRESSED IN ITEM 2.A.2. TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS ARE PROVIDED IN THE "SUMMARY OF PAY ITEMS" SHEETS.

* LOCATIONS OF PERMANENT CONTROLS: THE STORMWATER MANAGEMENT FACILITIES (SWMFs) ARE THE PRIMARY PERMANENT STORMWATER MANAGEMENT CONTROLS. THESE ARE SHOWN ON THE DRAINAGE PLANS (DRAINAGE BASIN MAPS) AND THE PLAN SHEETS OF CONSTRUCTION PLANS.

* SURFACE WATERS: THE PROJECT AREA IS GENERALLY BORDERED BY THE ATLANTIC OCEAN AND THE GULF OF MEXICO. PROJECT CONSTRUCTION AND WETLAND MITIGATION AREAS ARE SITUATED IMMEDIATELY ADJACENT TO VARIOUS BAYS, INLETS, CANALS, CHANNELS, AND OTHER OPEN TO PARTIALLY OPEN WATER AREAS THAT ARE OFTEN PART OF OR HAVE A DIRECT HYDROLOGIC CONNECTION TO GULF OF MEXICO OR THE ATLANTIC OCEAN. SUCH AREAS CLASSIFY AS OUTSTANDING FLORIDA WATERS.

* WETLANDS: THIS PROJECT BORDERS SEVERAL WETLANDS THAT ARE SHOWN ON THE PLAN SHEETS. MOST WETLANDS ARE TIDALLY INFLUENCED AND GENERALLY BORDER OR ARE CONTAINED WITHIN SURFACE WATERS THAT ARE PART OF OR CONNECTED TO EITHER THE GULF OF MEXICO (FLORIDA BAY) OR THE ATLANTIC OCEAN. A FEW WETLANDS ARE ISOLATED AND NOT TIDALLY INFLUENCED. ALL AREAS DESIGNATED AS "WETLANDS" AND ALL OPEN WATER AREAS ADJACENT TO THE PROJECT MUST BE CONSIDERED AS BEING OUTSTANDING FLORIDA WATERS.

I.A. RECEIVING WATERS:

STORMWATER RUNOFF FROM THE IMMEDIATE PROJECT AREA TYPICALLY FLOWS EITHER: (1) INTO THE PROJECT STORMWATER MANAGEMENT FACILITIES; (2) INTO EXISTING STORMWATER MANAGEMENT FACILITIES ALONG US1/SR5 WITHIN THE RIGHT-OF-WAY; (3) INTO DEVELOPED AND UNDEVELOPED UPLANDS BORDERING THE PROJECT, OR; (4) DIRECTLY INTO WETLANDS AND SURFACE WATERS LYING ADJACENT TO THE PROJECT. IT SHOULD BE ASSUMED THAT DRAINAGE ULTIMATELY DISCHARGES TO THE GULF OF MEXICO OR TO THE ATLANTIC OCEAN WHETHER BY DIRECT OVERLAND FLOW OR THROUGH GROUNDWATER FLOW.

2.0 CONTROLS:

2.A. EROSION AND SEDIMENT CONTROLS:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STABILIZATION AND STRUCTURAL PRACTICES. THE CONTRACTOR MAY CHOSE TO ACCEPT THE FOLLOWING GUIDELINES OR MODIFY THEM IN THE SECTION 104 EROSION CONTROL PLAN, SUBJECT TO APPROVAL OF THE ENGINEER. AS WORK PROGRESSES, THE CONTRACTOR SHALL MODIFY THE PLAN TO ADAPT TO SEASONAL VARIATION, CHANGES IN CONSTRUCTION ACTIVITIES, AND THE NEED FOR BETTER PRACTICES.

THIS PROJECT IS ADJACENT TO WATERS DESIGNATED AS OUTSTANDING FLORIDA WATERS (CHAPTER 62-302, FLORIDA ADMINISTRATIVE CODE). THEREFORE, NO DEGRADATION OF WATER QUALITY AND/OR INCREASED TURBIDITY OF THE WATER WILL BE PERMITTED, EXCEPT FOR TEMPORARY WATER QUALITY IMPACTS WITHIN THE LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT APPLICABLE WATER QUALITY STANDARDS ARE MAINTAINED BY PREVENTING THE DISCHARGE OF FOREIGN MATERIALS AND THE DISCHARGE OF SEDIMENTS INTO THE ADJACENT WATERS AND WETLANDS. THE CONTRACTOR SHALL UTILIZE THE BEST AVAILABLE MEANS OF EROSION AND TURBIDITY CONTROL MEASURES TO ISOLATE WORK AREAS AT ALL TIMES. THESE MEASURES SHALL BE MAINTAINED FUNCTIONAL FOR THE DURATION OF THE PROJECT.

PRIOR TO CONSTRUCTION AND DURING ALL OPERATIONS THAT MAY DEGRADE WATER QUALITY IN WATERS OF THE STATE / WATERS OF THE UNITED STATES (INCLUDING WETLANDS), THE CONTRACTOR SHALL ENSURE THAT TURBIDITY CONTROLS ARE PRACTICED AS NECESSARY TO PREVENT VIOLATIONS OF APPLICABLE SURFACE WATER QUALITY STANDARDS AS SET FORTH IN CHAPTER 62-302, FLORIDA ADMINISTRATIVE CODE. TURBIDITY CONTROL DEVICES (E.G. TURBIDITY BARRIERS, SEDIMENT AND EROSION CONTROL DEVICES/BARRIERS) SHALL REMAIN IN PLACE AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND SOILS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED, UNLESS OTHERWISE INDICATED IN THESE PLANS. TURBIDITY CONTROL DEVICES SHALL FURTHER REMAIN IN PLACE UNTIL TURBIDITY - AS MEASURED IN NEPHELOMETRIC TURBIDITY UNITS (NTU's) - WITHIN CONTROLLED AREAS RETURN TO NATURAL BACKGROUND LEVELS. THEREAFTER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND PROPER DISPOSAL OF TURBIDITY CONTROL DEVICES AND BARRIERS. THE CONTRACTOR IS ADVISED THAT TURBIDITY LEVELS IN ANY RECEIVING WATER THAT IS AN OUTSTANDING FLORIDA WATER (OFW) CANNOT EXCEED ZERO (0) NTUs ABOVE NATURAL (AMBIENT) BACKGROUND TURBIDITY LEVELS. IF THE RECEIVING WATER IS NOT AN OFW, TURBIDITY CONCENTRATIONS CANNOT EXCEED 30 NTUs ABOVE BACKGROUND.

FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

2.A.1 STABILIZATION PRACTICES:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE STABILIZATION PRACTICES PROPOSED TO CONTROL EROSION. THE CONTRACTOR SHALL INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL, IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. THE INITATION OF STABLIZATION MEASURES SHALL BEGIN NO LATER THAT SEVEN (7) DAYS FOLLOWING THE TEMPORARY OR PERMANENT CESATION OF CONSTRUCTION ACTIVITES IN A PARTICULAR AREA. THE STABILIZATION PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER. HOWEVER, ONLY STRUCTURAL PRACTICES SET FORTH IN ITEM 2.A.2 ARE APPLICABLE TO WORK IN THE WETLAND MITIGATION AREAS.

TEMPORARY:
* ARTIFICIAL COVERINGS IN ACCORDANCE WITH SPECIFICATION SECTION 104.

* SEED AND MULCH, AND SOD IN ACCORDANCE WITH SPECIFICATION SECTION 104.

PERMANENT:
* ASPHALT OR CONCRETE SURFACE.

* SOD IN ACCORDANCE WITH SPECIFICATION SECTION 570.

6/4/09

FP ID 405633-1
FDEP NO 6G020

REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.

ACTIVITY	INITIALS/EMP. NO.	DATE
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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: N/A
VERTICAL SCALE: N/A
SEC. 66S TWP. RGE. 29E

TITLE: STORMWATER POLLUTION PREVENTION PLAN

CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
SHEET NUMBER: 119

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2.A.2 STRUCTURAL PRACTICES:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STRUCTURAL PRACTICES TO CONTROL OR TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SEDIMENT CONTROLS SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE SEDIMENT, EROSION, AND TURBITY CONTROL MEASURES AND PRACTICES EMPLOYED ARE ADEQUATE TO PREVENT VIOLATION OF APPLICABLE STATE WATER QUALITY STANDARDS AND TO MINIMIZE THE DISCHARGE OF SEDIMENTS OR POLLUTANTS TO THE GREATEST DEGREE PRACTICABLE. THE STRUCTURAL PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

TEMPORARY:

* INSTALL SILT FENCE IN ACCORDANCE WITH DESIGN STANDARD 102 AND SPECIFICATION SECTION 104. TYPE III SILT FENCE IS ANTICIPATED TO BE USED AT MOST LOCATIONS. TYPE IV SILT FENCE SHOULD BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. AT A MINIMUM, SILT FENCE MUST BE INSTALLED AT THE STATION LIMITS (SEGMENTS) LISTED IN THE FIVE TABLES THAT FOLLOW. SILT FENCE SHALL BE INSTALLED ALONG THE LIMITS OF CONSTRUCTION AND SHALL NOT ENCROACH INTO WETLANDS OR OTHER NATURAL AREAS BEYOND THE LIMITS OF CONSTRUCTION. ADDITIONAL SILT FENCE MAY BE REQUIRED BASED ON THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, SITE CONDITIONS, AND LOCATIONS OF STOCKPILE, STAGING, AND DEWATERING AREAS.

SILT FENCE ALONG SOUTHERN-MOST
LIMITS OF CONSTRUCTION
SOUTH SIDE OF US1

STATION		STATION
414+05	to	423+44
424+00	to	432+60
433+05	to	445+80
452+40	to	459+40
466+60	to	507+40
519+00	to	548+15
550+90	to	561+25
563+40	to	564+60
568+70	to	569+85
584+25	to	586+65
606+90	to	616+25
748+20	to	766+40
779+70	to	786+90
855+20	to	857+97
858+38	to	868+70

SILT FENCE ALONG NORTHERN-MOST
LIMITS OF CONSTRUCTION
NORTH SIDE OF US1

STATION		STATION
796+80*	to	797+20*
837+55	to	840+65

*REFER TO PLANS FOR SPECIFIC LOCATION

SILT FENCE ALONG SOUTHERN-MOST
LIMITS OF CONSTRUCTION
NORTH SIDE OF US1, SOUTH SIDE OF SR4A

STATION		STATION
645+70	to	653+40

SILT FENCE ALONG EAST & WEST
LIMITS OF CONSTRUCTION (LOC)
NORTH SIDE OF US1
FOR SR4A CONNECTOR TRAIL SEGMENTS*

STATION	LINEAR FEET ON WEST LOC	LINEAR FEET ON EAST LOC
627+00	60 L.F.	55 L.F.
746+15	250 L.F.	265 L.F.
835+20	175 L.F.	150 L.F.

* REFER TO PLANS FOR SPECIFIC LOCATION

SILT FENCE ALONG ENTIRE
LIMITS OF CONSTRUCTION SURROUNDING
SUMMERLAND WEST MITIGATION AREA*

STATION		STATION	TOTAL LINEAR FEET
785+30*	to	796+80*	2,454 L.F.

* REFER TO MITIGATION PLANS FOR LOCATION

* BALED HAY OR STRAW IN ACCORDANCE WITH DESIGN STANDARD 102 AND SPECIFICATION SECTION 104. USE OF BALED HAY BARRIERS MAY BE REQUIRED IN CERTAIN AREAS SUCH AS, BUT NOT LIMITED TO: WHERE PROJECT CONSTRUCTION OCCURS ON RELATIVELY STEEP SLOPES IN CLOSE PROXIMITY TO WETLANDS OR OTHER SURFACE WATERS; WITHIN EXISTING DRAINAGE SWALES AND DITCHES; AREAS REQUIRING PROTECTION OF EXISTING STORMWATER AND DRAINAGE STRUCTURES.

* SANDBAGS TO CONTROL EROSION AND TRAP SILT.

* INLET PROTECTION IN ACCORDANCE WITH DESIGN STANDARD 102.

* TYPE I TURBIDITY BARRIERS (TURBIDITY CURTAINS) IN ACCORDANCE WITH DESIGN STANDARDS 103 AND SPECIFICATION SECTION 104.

* INSTALL FLOATING TURBIDITY BARRIERS (TURBIDITY CURTAINS) IN ACCORDANCE WITH DESIGN STANDARD 102 AND SPECIFICATION SECTION 104. TYPE I FLOATING TURBIDITY BARRIER IS ANTICIPATED TO BE USED AT MOST LOCATIONS. AT A MINIMUM, FLOATING TURBIDITY BARRIER MUST BE INSTALLED AT THE STATION LIMITS (SEGMENTS) LISTED IN THE TABLE THAT FOLLOWS. REFER TO PLANS FOR SPECIFIC LOCATION FOR THE BARRIER. FLOATING TURBIDITY BARRIERS MAY BE REQUIRED AT OTHER LOCATIONS BASED ON THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, SITE CONDITIONS, AND LOCATIONS OF STOCKPILE, STAGING, AND DEWATERING AREAS.

FLOATING TURBIDITY BARRIER
IN WATERS ADJACENT TO SOUTHERN-MOST
LIMITS OF CONSTRUCTION
SOUTH SIDE OF US1

STATION		STATION
547+80	to	551+30

PERMANENT:

* STORMWATER MANAGEMENT FACILITIES

* SOD

2.B STORMWATER MANAGEMENT:

DRY STORMWATER MANAGEMENT FACILITIES (I.E. DRY DETENTION AREAS / "PONDS") WILL BE CONSTRUCTED TO COLLECT, TREAT, AND ATTENUATE STORMWATER RUNOFF IN CERTAIN AREAS OF THE PROJECT. OTHER STORMWATER MANAGEMENT FACILITIES (DRAINAGE SWALES) WILL BE CONSTRUCTED IN CERTAIN AREAS TO COLLECT STORMWATER RUNOFF AND ROUTE THIS INTO THE DRY DETENTION AREAS. THESE STORMWATER MANAGEMENT FACILITIES (SWMFs) HAVE BEEN PERMITTED BY THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AND THE FDOT, AND COMPLY WITH APPLICABLE DESIGN STANDARDS.

RUNOFF FROM CERTAIN SEGMENTS OF THE NEW SHARED USE PATH (FKOHT) WILL NOT DRAIN INTO SWMFs. THOSE SWMFs TO BE CONSTRUCTED PROVIDE COMPENSATING WATER QUALITY TREATMENT AND ATTENUATION FOR SUCH SEGMENTS.

2.C OTHER CONTROLS:

2.C.1 WASTE DISPOSAL:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS TO PREVENT THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, TO WATERS OF THE UNITED STATES. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

* PROVIDING LITTER CONTROL AND COLLECTION WITHIN THE PROJECT DURING CONSTRUCTION ACTIVITIES.

* DISPOSING OF ALL FERTILIZER OR OTHER CHEMICAL CONTAINERS ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.

* DISPOSING OF SOLID MATERIALS AND DEBRIS, INCLUDING BUT NOT LIMITED TO CONSTRUCTION MATERIALS, VEGETATION DEBRIS, EXCAVATED SOIL NOT USED ELSEWHERE ON THE PROJECT AS FILL, REMOVED LIMEROCK, ASPHALT, OR CONCRETE, OFF THE PROJECT SITE BUT NOT IN SURFACE WATERS, WETLANDS, OR UNLICENSED FACILITIES.

* THE CONTRACTOR IS ADVISED THAT DISPOSAL OF CONSTRUCTION MATERIALS, WASTE MATERIALS, POLLUTANTS, AND DEBRIS WITHIN OR ADJACENT TO THE PROJECT SITE IS STRICTLY PROHIBITED. ALL SUCH ITEMS SHALL BE DISPOSED OF IN A DULY LICENSED DISPOSAL FACILITY. THE CONTRACTOR SHALL DESIGNATE THE CONTRACTOR'S PROPOSED DISPOSAL FACILITY(S) THAT WILL BE UTILIZED FOR THIS PROJECT AT THE TIME OF THE PRE-CONSTRUCTION MEETING AND SHALL ADDRESS THIS IN THE SECTION 104 EROSION CONTROL PLAN.

2.C.2 OFF-SITE VEHICLE TRACKING & DUST CONTROL:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND GENERATING DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

* COVERING LOADED HAUL TRUCKS WITH TARPAULINS.

* REMOVING EXCESS DIRT FROM ROADS DAILY.

* STABILIZING CONSTRUCTION ENTRANCES ACCORDING TO DESIGN STANDARD 106.

* USING ROADWAY SWEEPERS DURING DUST GENERATING ACTIVITIES SUCH AS EXCAVATION AND MILLING OPERATIONS.

2.C.3 STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANK REGULATIONS:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED PROCEDURES TO COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, AND SANITARY SEWER OR SEPTIC SYSTEMS.

2.C.4 FERTILIZERS AND PESTICIDES:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROCEDURES FOR APPLYING FERTILIZERS AND PESTICIDES. THE PROPOSED PROCEDURES SHALL COMPLY WITH APPLICABLE SUBSECTIONS OF EITHER SECTION 570 OR 575 OF THE SPECIFICATIONS.

2.C.5 TOXIC SUBSTANCES:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A LIST OF TOXIC SUBSTANCES THAT ARE LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES.

2.D.4 APPROVED STATE AND LOCAL PLANS AND PERMITS:

* SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD)
ENVIRONMENTAL RESOURCE PERMIT #44-00323-P, STANDARD GENERAL PERMIT MODIFICATION ISSUED ???.

* DEPARTMENT OF THE ARMY PERMIT #????, ISSUED BY THE US ARMY CORPS OF ENGINEERS ON ????.

3.0 MAINTENANCE:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. THE MAINTENANCE PLAN SHALL, AT A MINIMUM, COMPLY WITH THE FOLLOWING:

* SILT FENCE: MAINTAIN PER SECTION 104. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-QUARTER OF THE HEIGHT OF THE BARRIER. THE CONTRACTOR SHOULD ANTICIPATE REPLACING SILT FENCE ON 6-MONTH INTERVALS.

* BALED HAY OR STRAW: REMOVE SEDIMENT WHEN IT REACHES 1/2 HEIGHT OF BALES OR WHEN WATER PONDS IN UNACCEPTABLE AMOUNTS OR AREAS. THE CONTRACTOR SHOULD ANTICIPATE REPLACING STRAW BALES ON 3-MONTH INTERVALS.

* STORMWATER MANAGEMENT FACILITIES: THE DRY RETENTION STORMWATER MANAGEMENT FACILITIES (SWMFs) TO BE CONSTRUCTED WILL SERVE AS TEMPORARY SEDIMENT BASINS UNTIL THE AREAS THAT DRAIN TO THEM ARE STABILIZED. UNTIL STABILIZATION IS ACHIEVED, REMOVE SEDIMENTS FROM THE SWMFs WHEN THEY BECOME APPROXIMATELY HALF FULL OF SEDIMENTS.

* AREAS OF SEED AND MULCH OR SOD: BARE AREAS OF THE SITE THAT WERE PREVIOUSLY SEEDED SHALL BE RE-SEEDED AND MULCHED AS REQUIRED TO ESTABLISH AND MAINTAIN APPROPRIATE GROUND COVER. MULCH AND/OR SOD THAT HAS BEEN WASHED OUT SHALL BE REPLACED IMMEDIATELY.

4.0 INSPECTIONS:

QUALIFIED PERSONNEL SHALL INSPECT THE FOLLOWING ITEMS AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 0.25 INCHES OR GREATER. TO COMPLY, THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAGES AND RECORD THE DAILY RAINFALL. WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY TWO WEEKS UNTIL THE NOTICE OF TERMINATION IS FILED. THE CONTRACTOR SHALL ALSO INSPECT THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN.

* POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES.

* POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM SEWER SYSTEMS.

* DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.

* AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.

* STRUCTURAL CONTROLS

* STORMWATER MANAGEMENT SYSTEMS AND FACILITIES

* LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

THE CONTRACTOR SHALL INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTIONS THAT INDICATE ITEMS ARE NOT IN GOOD WORKING ORDER.

IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, AND PREVENT DISCHARGING POLLUTANTS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES, AS APPROVED BY THE ENGINEER.

5.0 NON-STORMWATER DISCHARGES:

IN THE SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES). THE CONTRACTOR SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION ARISING FROM THESE NON-STORMWATER DISCHARGES. IF THE CONTRACTOR ENCOUNTERS CONTAMINATED SOIL OR GROUNDWATER, CONTACT THE DEP/OGT PROJECT MANAGER AND THE PROJECT ENGINEER IMMEDIATELY.

6/4/09

FP ID 405633-1
FDEP NO 6G020

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DRAWN BY:	JGG/2031	01/09
CHECKED BY:	CEB/1562	01/09
CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: N/A
VERTICAL SCALE: N/A
SEC: 66S TWP: 29E RGE:
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000

TITLE: STORMWATER POLLUTION PREVENTION PLAN

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859
BOOK NUMBER: B-04880-002
SHEET NUMBER: 120

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6.0 TURBIDITY MONITORING PROGRAM:

THE CONTRACTOR WILL BE RESPONSIBLE FOR MONITORING TURBIDITY IN CERTAIN AREAS WHERE PROJECT CONSTRUCTION ACTIVITIES ARE OCCURRING. WATER TURBIDITY LEVELS SHALL BE MONITORED (SAMPLED) AND RECORDED AT LEAST TWICE EACH DAY (MORNING AND AFTERNOON, AT LEAST 4 HOURS BETWEEN SAMPLING EVENTS) DURING EXCAVATION AND FILLING OR UPON THE OCCURRENCE OF OTHER CIRCUMSTANCES THAT MIGHT CREATE WATER QUALITY VIOLATIONS IN RECEIVING WATERS (EX. CLEARING AND GRUBBING, GRADING, GRAVITY WALL CONSTRUCTION, ETC.). SAMPLES SHALL BE TAKEN 1 FOOT BELOW THE WATER SURFACE AT DESIGNATED MONITORING STATIONS.

MONITORING WILL CONSIST OF COLLECTING "COMPLIANCE SAMPLES" AND "BACKGROUND SAMPLES". COMPLIANCE SAMPLES WILL BE TAKEN WITHIN 100 FEET DOWNSTREAM OF THE PARTICULAR WORK SITE AND WITHIN THE DENSEST PORTION OF ANY VISIBLE TURBIDITY PLUME. THESE SAMPLES SERVE TO MEASURE TURBIDITY GENERATED BY PROJECT ACTIVITIES. BACKGROUND SAMPLES WILL BE TAKEN WITHIN THE SAME RECEIVING WATER BODY AS THE COMPLIANCE SAMPLES BUT AT LOCATIONS CLEARLY OUTSIDE THE INFLUENCE OF PROJECT CONSTRUCTION ACTIVITIES. THESE SAMPLES SERVE AS THE NATURAL BACKGROUND (AMBIENT) TURBIDITY LEVELS AGAINST WHICH TURBIDITY LEVELS FROM COMPLIANCE SAMPLES WILL BE COMPARED.

AT A MINIMUM, THE MONITORING STATIONS SHALL BE LOCATED AS INDICATED IN THE FOLLOWING TABLE:

COMPLIANCE SAMPLES PROJECT SEGMENTS TO BE MONITORED FOR PROJECT IMPACTS TO TURBIDITY LEVELS IN RECEIVING WATERS	BACKGROUND SAMPLES APPROXIMATE LOCATIONS TO BE MONITORED FOR AMBIENT TURBIDITY LEVELS IN RECEIVING WATERS
STA 488+00 to 494+00	STA 476+00 to 478+00 (IF NO TURBIDITY IS GENERATED HERE)
STA 541+00 to 560+00	STA 538+00 to 539+50 (IF NO TURBIDITY IS GENERATED HERE)

ALL SAMPLES WILL BE COLLECTED FROM TIDAL AREAS OF STANDING WATER SITUATED ON THE ATLANTIC SIDE (SOUTH SIDE) OF THE FKOHT. TURBIDITY LEVELS MEASURED WILL BE EXPRESSED IN NEPHELOMETRIC TURBIDITY UNITS (NTU's). CONTRACTOR IS ADVISED THAT THE DEP/OGT PROJECT MANAGER OR MANAGER'S DESIGNEE MAY REQUIRE TURBIDITY MONITORING AT LOCATIONS IN ADDITION TO THOSE IDENTIFIED ABOVE DURING THE COURSE OF PROJECT CONSTRUCTION DEPENDING UPON SITE CONDITIONS.

THE CONTRACTOR SHALL GENERATE AND MAINTAIN A TURBIDITY MONITORING REPORT CONTAINING THE FOLLOWING DATA:

* SOUTH FLORIDA WATER MANAGEMENT DISTRICT PERMIT NUMBER & PERMIT ISSUANCE DATE.
* DATES OF SAMPLING AND ANALYSIS PLUS TIME OF DAY SAMPLING WAS CONDUCTED.
* TURBIDITY SAMPLING RESULTS (ORGANIZED TO COMPARE EACH COMPLIANCE SAMPLE TO ITS APPROPRIATE BACKGROUND SAMPLE).
* APPROXIMATE DEPTH OF WATER COLUMN AT EACH SAMPLING LOCATION.
* GENERAL WEATHER CONDITIONS AT TIME OF SAMPLING.
* TIDAL STAGE AND GENERAL DIRECTION OF FLOW AT TIME OF SAMPLING.
* APPROXIMATE WIND DIRECTION AND VELOCITY AT TIME OF SAMPLING.
* DESCRIPTION OF DATA COLLECTION METHODS.
* A MAP INDICATING THE SAMPLING LOCATIONS.
* A STATEMENT BY THE INDIVIDUAL RESPONSIBLE FOR IMPLEMENTATION OF THE MONITORING (SAMPLING) PROGRAM ATTESTING TO THE AUTHENTICITY, PRECISION, LIMITS OF DETECTION, AND ACCURACY OF THE ACQUIRED DATA.

THE CONTRACTOR SHALL KEEP THE MONITORING REPORT CURRENT ON A DAILY BASIS THROUGHOUT THE DURATION OF THE TURBIDITY MONITORING PROGRAM. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE REPORT AT THE PROJECT SITE AND SHALL SUBMIT A COPY OF THE REPORT TO THE DEP/OGT PROJECT MANAGER AND TO THE PROJECT ENGINEER ON A WEEKLY BASIS. MONITORING AT A PARTICULAR PAIR OF MONITORING STATIONS (COMPLIANCE SAMPLE STATION AND ITS BACKGROUND SAMPLE STATION) WILL BE INITIATED ONCE PROJECT CONSTRUCTION ACTIVITIES HAVE COMMENCED IN THE PARTICULAR PROJECT SEGMENT FOR WHICH COMPLIANCE SAMPLES ARE COLLECTED. MONITORING WILL CONTINUE UNTIL THE DEP/OGT PROJECT MANAGER OR MANGER'S DESIGNEE NOTIFIES THE CONTRACTOR THAT MONITORING CAN CEASE. THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE DEP/OGT PROJECT MANAGER AND THE PROJECT ENGINEER IF SAMPLING INDICATES THE PROJECT IS CREATING TURBIDITY LEVELS THAT VIOLATE STATE WATER QUALITY STANDARDS AND SHALL TAKE APPROPRIATE MEASURES TO HELP ALLEVIATE THE PROBLEM.

AT THE TIME OF THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL COORDINATE AND REVIEW THE TURBIDITY MONITORING PROGRAM WITH THE DEP/OGT PROJECT MANAGER, THE DEP/OGT TRAIL MANAGER, AND THE PROJECT ENGINEER. THIS WILL INCLUDE SELECTION OF THE STATIONS (LOCATIONS) WHERE BACKGROUND SAMPLES WILL BE COLLECTED AND INSPECTION OF AREAS WHERE COMPLIANCE SAMPLES WILL BE COLLECTED.

12/11/09

FP ID 405633-1
FDEP NO 6G020

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CONTRACT ADMIN. BY:		
WM APPROVED BY:		

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CLIENT: DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF GREENWAYS AND TRAILS

PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: N/A
VERTICAL SCALE: N/A
SEC: TWP: RGE: 66S 29E

TITLE: STORMWATER POLLUTION PREVENTION PLAN

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

INDEX NUMBER: B-04880-002
CROSS REFERENCE FILE NO.:
PROJECT NUMBER: 04880-002-000
SHEET NUMBER: 121

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WORK ZONE TRAFFIC CONTROL PLAN NOTES:

1) TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH THE PROJECT PLANS. MINIMUM CRITERIA ARE ESTABLISHED IN THE CURRENT EDITIONS OF THE FLORIDA DOT DESIGN STANDARDS (600 SERIES), THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (SECTION 102), AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

2) PLACEMENT OF TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH FDOT DESIGN STANDARDS, INDEX 601 & 602. IN ACCORDANCE WITH INDEX 602, THE CONTRACTORS' ACTIVITIES SHALL BE CONFINED TO AN AREA 2' (MINIMUM) OUTSIDE THE ROADWAY TRAVEL LANES. AT NO TIME SHALL THE CONTRACTORS' ACTIVITIES OCCUR WITHIN THE US 1 ROADWAY TRAVEL LANES WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.

3) WITH EXCEPTION OF THE CROSSWALKS, LANE CLOSURES ARE NOT ANTICIPATED, BUT NOTIFICATION OF LANE CLOSURES SHALL BE ACCOMPLISHED AT LEAST 14 WORKING DAYS PRIOR TO CLOSURE BY SUBMITTING THE REQUIRED FORMS, SKETCHES, CALCULATIONS, AND OTHER DATA THROUGH THE DISTRICT ENGINEER TO THE DISTRICT TRAFFIC OPERATIONS OFFICE FOR APPROVAL.

4) LANE CLOSURES SHALL OCCUR ONLY DURING NON-PEAK HOURS. NON-PEAK HOURS ARE: FROM 9:00 A.M. TO 4:00 P.M. AND FROM 6:00 P.M. TO 7:00 P.M., MONDAY THROUGH FRIDAY (FOR 4 LANE ROADWAY). NON-PEAK HOURS ARE FORM 8:00 P.M. TO 6:00 A.M. SUNDAY THROUGH THURSDAY (FOR 2 LANE ROADWAY).

5) AT THE DISCRETION OF THE ENGINEER, IF A LANE CLOSURE CAUSES EXTENDED CONGESTION, THE CONTRACTOR SHALL BE DIRECTED TO REOPEN THE CLOSED LANE(S) UNTIL SUCH TIME AS TRAFFIC FLOW HAS RETURNED TO AN ACCEPTABLE LEVEL.

6) NO LANES SHALL BE CLOSED ON A FRIDAY PRECEDING A SATURDAY HOLIDAY OR THE MONDAY FOLLOWING A SUNDAY HOLIDAY. NO LANES SHALL BE CLOSED DURING KEYS SPECIAL EVENTS AS DETERMINED BY THE ENGINEER. KNOWN SPECIAL EVENTS ARE LOBSTER SPORT DIVE, FANTASY FEST, SUPER BOAT RACES KEY WEST, ANNUAL MOTORCYCLE POKER RUN KEY WEST. THE ENGINEER MAY ADJUST CLOSURE TIMES IF CONDITIONS WARRANT.

7) ALL LANES ON US 1 MUST BE OPEN FOR TRAFFIC DURING AN EVACUATION NOTICE OF A HURRICANE OR OTHER CATASTROPHIC EVENTS AND SHALL REMAIN OPEN FOR THE DURATION OF THE EVACUATION OR EVENT AS DIRECTED BY THE PROJECT ENGINEER.

8) THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING AND CONDUCTING MEETINGS WITH ADJACENT PROPERTY OWNERS, BUSINESSES, AND SCHOOLS TO COORDINATE CONSTRUCTION ACTIVITIES TO MAINTAIN ACCESS TO PROPERTIES, DRIVEWAYS, AND SIDE STREETS AT ALL TIMES.

9) THE CONTRACTOR SHALL MAINTAIN THE EXISTING DRIVEWAY CONNECTIONS TO REMAIN AND ACCESS TO ALL BUSINESSES THROUGHOUT PROJECT CONSTRUCTION. THE COST IS TO BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC (LUMP SUM).

10) THE EXISTING POSTED REGULATORY SPEED OF THE ROAD SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

11) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF STORM WATER FROM THE ROADWAY AREA WITHIN THE CONSTRUCTION ZONE.

12) THE CONTRACTOR SHALL PROVIDE MOT-5-04 (TRUCKS ENTERING HIGHWAY) SIGNS IN ADVANCE OF ACTIVE WORK AREAS.

WORK ZONE LIMITS:

13) THE CONTRACTOR WILL NOT BE ALLOWED TO OPEN UP TRENCHES THAT CANNOT BE BACK FILLED DURING THE SAME WORKING PERIOD WITHOUT THE APPROVAL OF THE ENGINEER. THE LENGTH OF AN OPEN TRENCH SHALL NOT EXCEED 500 FT.

PEDESTRIAN, BICYCLES, AND WHEELCHAIRS:

14) AT THE END OF EACH WORK DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE, ANY DROPOFF ADJACENT TO THE PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAVEL PATHS SHALL BE BACKFILLED FLUSH WITH SAID PATHS OR PROTECTED WITH BARRICADES, TEMPORARY CONCRETE BARRIER WALL, OR APPROVED HANDRAIL.

6/4/09

FP ID 405833-1
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PROJECT: FLORIDA KEYS OVERSEAS HERITAGE TRAIL
LOWER SUGARLOAF TO SUMMERLAND KEY

DATE: AUG 2008
HORIZONTAL SCALE: N/A
VERTICAL SCALE: N/A
SEC: TWP: RGE:

TITLE: TRAFFIC CONTROL PLAN

CROSS REFERENCE FILE NO.:

PROJECT NUMBER: 04880-002-000

CHRIS E. BROCKMEIER, P.E.
FL Lic.# 56859

FPID NUMBER: B-04880-002

SHEET NUMBER: 122

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C. Datum Shift Calculation

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F 305.599.8749 W FR-ALEMAN.COM

April 7, 2025

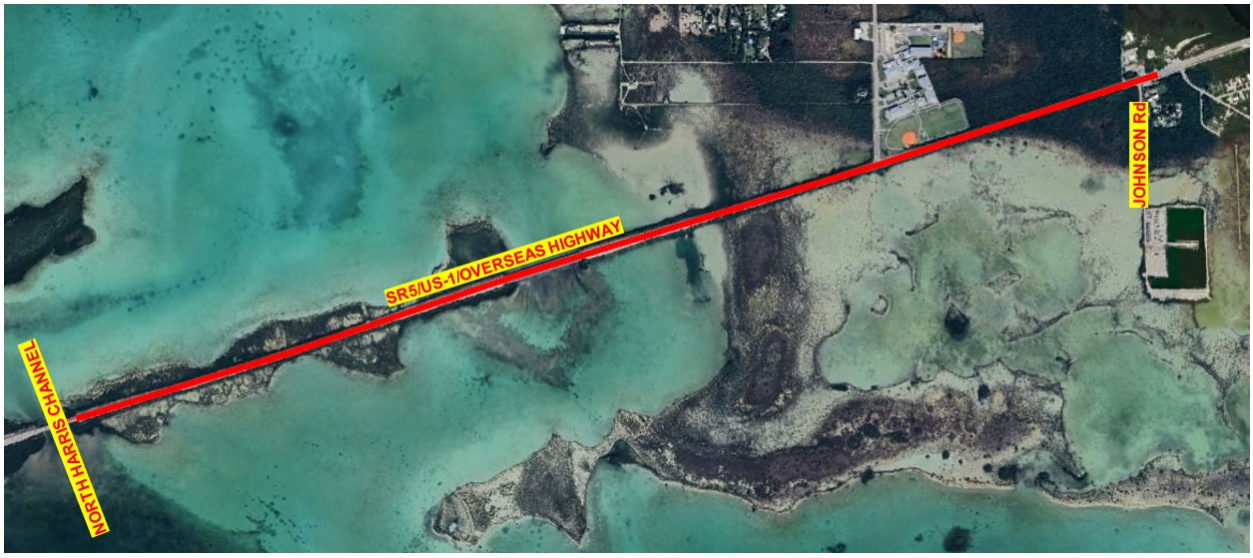
SURVEYOR'S REPORT

Horizontal and Vertical Control (Primary & Secondary)

FM No. 452558-1

Prepared By:	F.R. Aleman & Associates, Inc., Licensed Business 6785
Financial Item No.:	452558-1
State Road No.:	5
Project Limits:	SR5/US-1/Overseas Highway from North Harris Channel to Johnson Rd
County:	Monroe
Units:	US Survey foot
Field Book.:	6430939
FRA Project. No:	3367 WO-7

LOCATION OF PROJECT:
Project is in Monroe County, FL



1. TYPE OF SURVEY:

This Design Network Control Survey that includes Horizontal and Vertical Control and Topographic Survey, is in accordance with Chapter 5J-17, Florida Administrative Code, pursuant to Chapter 472.027, Florida Statutes, and in accordance with the FDOT Surveying and Mapping Handbook (Dated February 28, 2025).

2. PURPOSE:

- The purpose of this survey is to recover horizontal Primary Project Control (PPC) and Vertical Project Control (VPC) within the project limits.

  Recovered eleven (11) existing project control points from said existing network. FRA will use six (6) points as Primary Project Control (PPC) and five (5) as Vertical Project Control (VPC). The Primary Project Control will be set at approximately 2,000 feet intervals and the Vertical Project Control will be set in between two (2) PPC points so that there is approximately 1,000 feet in between each PPC points and VPC points.

- Prepare full 3D Topo/DTM, Topographic features collected include, but was not limited to sidewalks, curb and gutter, fences, utility appurtenances, drainage grates, manhole covers, signs and vertical clearance of overhead signs.

3. Horizontal Datum:

The project horizontal datum is the State Plane Coordinate System, Florida East Zone (901) North American Datum 1983, adjustment of 2011 (NAD 83/11 EPOCH:2010.0000) and is referenced to the FDOT FPRN (Florida Permanent Reference Network) in accordance with Section 1.1 (Horizontal Project Control) of the FDOT Surveying and Mapping Handbook.

4. Vertical Datum:

The project vertical datum is the North American Vertical Datum (NAVD) of 1988, in accordance with Section 1.2 (Vertical Project Control) of the FDOT Surveying and Mapping Handbook.

5. Project Control

Horizontal Control
This project was controlled (horizontally) using the following base stations from the Florida Permanent reference Network (FPRN):

- FLMK – Marathon Key
- FLPK – Plantation Key
- FLFL – Flamingo Landing
- FLKW – Key West

Ephemeris stated as precise. We downloaded data for the precise ephemeris from the NGS website for the statis GNSS time intervals. https://geodesy.noaa.gov/UFCORS/.

Published base stations reports for these points can be found in the Network Design Plan (NDP) submitted for this project.

Vertical Control
This project was controlled (vertically) using the following published National Geodetic System (NGS) benchmarks.

- Designation: A272R PID: AA0681
- Designation: C272 PID: AA0140
- Designation: 872 4332 G TIDAL PID: AA0724

These level runs will be done utilizing a Digital Level Leica LS-10 Geodetic with Leica bar code rods.
Published reports for these points can be found in the Network Design Plan (NDP) submitted for this project.

6. Methodology

The objective of this Design Network Control was to establish six (6) Primary Control Points along the corridor-based in:

- Project Control Points along SR 5 FM No. 43646715201-PLANS-01-ROADWAY-PC done by ATKINS NORTH AMERICA, Inc, in 2019.

- Project Control Points along SR 5 FM No. 43083735201-PLANS-01-ROADWAY-PC done by MASER CONSULTING, P.A., in 2017.

provided by FDOT District for subsequent Topographic Surveying, within the same Project Limits.

Primary Horizontal Control recovered:

- 235, stamped 90-95-GPS18
- PNC182, stamped 90-07-18.2
- PNC186, stamped 90-07-18.6
- PNC190, stamped 90-07-19.0
- PNC194, stamped 90-07-19.4
- PN1988, stamped GPS BM SR5 87-16-PN19.88

To establish the horizontal position and elevation of Primary Control Points using static GNSS observation, Real-Time GNSS and a closed bench level circuit. As well as establishing Secondary Control Points for Terrestrial Mobile Lidar targets and Aerial Targets.

7. Determination of Horizontal Location of Primary & Secondary Control Points.

- Horizontal coordinates for Primary Control Points were determined using static GNSS (SGNSS) observation referenced to the Florida Permanent Reference Network (FPRN), in accordance with the GNSS guidelines contained in Appendix B of the FDOT Surveying and Mapping Handbook, as well as the NDP.

SGNSS were used for the location of Primary Project Control (PPC) points.
This procedure was based on the Florida Permanent Reference Network (FPRN) stations FLFL, FLKW, FLMK and FLPK. The GNSS Static was divided in six (6) sessions, each session included a minimum of 3 receiver:

(A) Receiver No. 1 GPS GNSS18 Leica 2 (Serial #3620349)
(B) Receiver No. 2 GPS GNSS18 Leica 3 (Serial #3624285)
(C) Receiver No. 3 GPS GNSS18 Leica 4 (Serial #3626348)

These receivers were collecting signals from GNSS, GLONASS, Bei Dou and Galileo (4) satellites data at three (3) Project Control points simultaneously, at intervals of 60 minutes, at 1 second epochs. Then we moved to another three (3) Project Control points at the same interval of 60 minutes, at 1 second epochs, and continue collecting through all the sessions as shown in the table below. This ensures that each control point was collected at least three (3) times, with a minimum of two (2) hours in between each observation.

STATIC SESSION SQUEDULE

SR 5							
		DAY 1				DAY 2	
Primary Control Stations	Distance (FT)	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6
		8:00-9:00	9:30-10:30	12:30-13:30	14:00-15:00	8:00-9:00	9:30-10:30
FLFL		A	A	C	B	C	A
FLKW		C	C	A	C	A	B
FLMK		A	A	C	B	C	A
FLPK		C	C	A	C	A	B
235		AI		BII			CIII
PNC182		BI		CII		AIII	
PNC186		CI			AII	BIII	
PNC190			AI		BII	CIII	
PNC194			BI		CII		AIII
PN1988			CI	AII			BIII

GPS UNIT #	SERIAL #	BRAND
A	3620349	LEICA 2
B	3624285	LEICA 3
C	3626348	LEICA 4

Sound judgement was used in utilizing SGNSS considering site features that may cause multi-path or obstructions to the satellite constellation. Vectors were processed using data downloaded daily from the FPRN website, and least squares adjustment using Leica's Infinity Version 3.4.0.33552 software were used to produce final positional values. Horizontal accuracies had met those required for Primary Project Control in Appendix C of the Surveying and Mapping Handbook dated February 28, 2025 (Horizontal Accuracy of 1 cm or approximately 0.033 feet).

The vector data was exported from GPS GNSS and imported into the Leica Geosystem Infinity processing system. See the position results below.

PRIMARY CONTROL POINTS			
POINT	NORTHING	EASTING	ELEV.
235	115630.006	471954.647	10.47
PNC182	116211.231	473696.125	4.96
PNC186	116956.639	475904.349	9.86
PNC190	117536.910	477810.571	5.81
PNC194	118142.789	479818.871	3.78
PN1988	118969.584	482619.059	4.01

- Horizontal coordinates for Secondary Control Points were determined using Real-Time GNSS (RT) receivers using a minimum of 2 observations of 3 minutes each, taking a minimum 180 Epochs (@ 1 second), with two hours between phases, utilizing a different PPC (Primary Project Control) approved FPRN/ rover observations on each phase.
The results met or exceeded the accuracy requirements 6 (0.06' at the 95% confidence level) as outlined in Section 39.6.2. TML Survey Specifications of said FDOT Surveying and Mapping Handbook.

SECONDARY CONTROL POINTS			
POINT	NORTHING	EASTING	ELEV.
MLT1	115598.667	471796.811	12.83
MLT2	115631.090	471785.907	12.84
MLT3	115773.048	472253.431	8.84
MLT4	115743.374	472264.701	9.03
MLT5	115884.543	472754.153	6.10
MLT6	115911.615	472735.618	5.99
MLT7	116047.614	473195.419	5.72
MLT8	116021.121	473209.111	5.91
MLT9	116174.364	473698.521	5.74
MLT10	116201.666	473688.560	5.70
MLT11	116319.252	474155.471	6.05
MLT12	116345.648	474145.327	5.79
MLT13	116471.820	474615.995	6.20
MLT14	116497.823	474605.375	6.41
MLT15	116668.216	475081.341	6.03
MLT16	116641.335	475091.916	6.19
MLT17	116807.502	475563.966	6.49
MLT18	116833.895	475552.949	6.34
MLT19	116987.513	476016.235	11.37
MLT20	116957.710	476029.319	11.36
MLT21	117107.368	476503.399	13.80
MLT22	117135.698	476485.971	13.79
MLT23	117284.444	476965.010	11.07
MLT24	117254.470	476975.679	10.92
MLT25	117397.421	477444.979	6.82
MLT26	117423.753	477432.640	6.82
MLT27	117556.559	477912.152	6.39
MLT28	117529.884	477923.676	6.47
MLT29	117659.107	478395.650	5.94
MLT30	117686.089	478385.530	6.10
MLT31	117830.004	478865.837	5.46
MLT32	117803.008	478876.551	5.47
MLT33	117949.348	479346.127	4.91
MLT34	117978.637	479330.883	4.84
MLT35	118130.092	479795.755	4.13
MLT36	118092.834	479815.403	4.42
MLT37	118250.628	480305.036	4.36
MLT38	118285.469	480290.290	4.10
MLT39	118418.417	480736.599	4.61
MLT40	118392.489	480751.957	4.60
MLT41	118545.643	481239.086	4.66
MLT42	118571.533	481224.025	4.59
MLT43	118715.568	481681.251	4.70
MLT44	118690.208	481697.217	4.83
MLT45	118871.384	482169.095	4.63
MLT46	118845.686	482185.197	4.77
MLT47	119028.278	482623.612	4.98
MLT48	118988.900	482647.967	4.48
MLT49	119145.233	483077.070	4.80
MLT50	119181.156	483047.455	5.13

8. Determination of Vertical Location (Elevation) of Primary & Secondary Vertical Control Points.

The vertical position (elevation) of each Primary & Secondary Control Points were established by performing 2 closed bench level circuits between the following National Geodetic Survey Benchmark.

Primary Control Points
Level Circuit (vertical misclosure prior to adjustment = 0.02') allowable misclosure E = 0.04'
From A272R (AA0681) to 8724332 G Tidal (AA0724)

Secondary Control Points
Level Circuit (vertical misclosure prior to adjustment = 0.01') allowable misclosure E = 0.09'
From A272R (AA0681) to 8724332 G Tidal (AA0724)

The vertical accuracy achieved with the Vertical Accuracy Requirements outlined in the Appendix C (Accuracy Requirements) of the FDOT Surveying and Mapping Handbook (9mm × √ (Kilometers) for Primary Vertical Controls and 12mm × √ (Kilometers) for Secondary Vertical Controls.).

9. Summary of Methodology

The resulting Project Network Control data (horizontal and vertical) was entered into a PNC Batch Import Excel file. See Attachment "B".

10. Sources

- Project Control Points along SR 5 FM No. 43646715201-PLANS-01-ROADWAY-PC done by ATKINS NORTH AMERICA, Inc, in 2019.
- Project Control Points along SR 5 FM No. 43083735201-PLANS-01-ROADWAY-PC done by MASER CONSULTING, P.A., in 2017.

11. GENERAL NOTES:

- All measurements are in U.S. Survey Feet
- This survey is not valid without the authorized digital signature and seal of a Florida Licensed Surveyor and Mapper.
- Additions or deletions to this Survey Report by other than the signing party or parties is prohibited without written consent of the signing party or parties.

12. LEGEND AND ABBREVIATIONS
See Attachment "A"

FILES LIST
Electronic files delivered:

- Level runs PDF files
- Survey Report FM 452558-1.pdf
- 452558-1_Batch_Import.xlsx
- DAT files
- Survey Review Checklist.pdf
- 452558-1 Network Design Plan.pdf
- Pictures Folder
- Comparison of Primary Control Points
- Points History Report
- File KMZ
- File ASC II
- Field Book Copies

- Resources from FDOT

13. ATTACHMENTS

• A – Legend & Abbreviation
• B – 452558-1_ SR5 PNC Batch_Import.xlsx
• C – Level Run Adjustment PDF

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

ON THE DATE ADJACENT TO THE SEAL.

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A – Legend & Abbreviation

ATTACHMENT "A"

Legend and Abbreviations

- Antenna
- Aerial Target
- Baseline
- Beacon
- Bench
- Bollard
- Bouy
- Cable Television Service Box
- Cattle Guard
- Centerline
- Transmission Tower
- Cleanout
- Camp Stove
- Core or Test Hole
- Subdivision Boundary Arrows
- Dolphin or Fender
- Drill Hole
- Delineator Post
- Dumpster or Bin
- Sanitary Dump Station
- Deep Rod Mark
- Electric Outlet
- EOI End of Information (Electronic)
- Faucet
- Tank Fill Cap
- Fire Hydrant
- Flood Light
- Flag Pole
- Gauge
- Guy Wire
- Guy Pole
- High Mast Light
- Handicap Marking
- Empty Test Hole
- Incinerator
- Portable Toilet
- Light Pole
- Meter (Unknown)
- Marsh or Wetlands
- Mailbox
- ELEC Electric Meter
- GAS Gas Meter
- Manhole (Unknown)
- COMM Communication Manhole
- SD Storm Manhole
- ELEC Electric Manhole
- GAS Gas Manhole
- SAN Sanitary Manhole
- TEL Telephone Manhole
- WATER Water Manhole
- Concrete R/W Monument
- Iron Pipe
- Poured Monument
- Iron Rod & Cap
- Nail
- Rod Monument Open
- Rod Monument Solid
- Concrete Monument Open
- Concrete Monument Solid
- Stamped Disk
- Stamped Plate
- Other Marker
- Hub & Tack
- Post, Stake or Staub
- Monitoring Well
- WATER Water Meter
- Piling
- Parking Meter
- Playground Equipment
- Pump or Well
- Fuel Pump
- Sanitary Sewer Pump Station
- Power Pole
- Power Pole with Transformer
- Pedestrian Signal Head
- Quality Level Delineator
- A Quality Level A Utility Locate
- B Quality Level B Utility Locate
- C Quality Level C Utility Locate
- D Quality Level D Utility Locate
- Quarter Section Corner East/West
- Quarter Section Corner North/South
- Section Corner
- Regulator (Unknown)
- Roadway Terminators
- Railroad Mile Post

Legend and Abbreviations

- Railroad Signal
- Railroad Warning Sign
- Satellite Dish
- Shared Pole
- Shared Pole with Transformer
- Shrub
- Coniferous Shrub
- Deciduous Shrub
- Ornamental Plant
- Tree
- Coniferous Tree
- Citrus Tree
- Cypress Tree
- Deciduous Tree
- Oak Tree
- Palm Tree
- Palm Cluster
- Pine Tree
- Signal Head
- Signal Control
- Signal Pedestal
- Silo
- Signal Mast Arm
- Multiple Support Sign
- Standpipe
- Sprinkler Head
- Spring or Water Source
- Service Cabinet
- Span Wire Pole
- Single Support Sign
- Straight Arrow
- Straight & Turn Arrow
- Stump
- Storage Tank
- Railroad Signal with Gate
- Turn Arrow
- Telephone Booth
- Telephone Pole
- Tide Gauge
- TH Test Hole (Quality Level A Only)
- Telephone Pedestal
- Transformer
- Underdrain Box
- Valve Box (Unknown)
- Valve Box Gas
- Valve Box Non-Potable Water
- Valve Box Sanitary Sewer
- Valve Box Water
- Valve Cover (Unknown)
- Valve Cover Effluent
- Valve Cover Gas
- Valve Cover Non-Potable Water
- Valve Cover Raw Water
- Valve Cover Sanitary Sewer
- Valve Cover Water
- Valve (Unknown)
- BACK FLOW Backflow Preventer
- GAS Valve Gas
- NPW Valve Non-Potable Water
- SAN Valve Sanitary Sewer
- WATER Valve Water
- Vent (Unknown)
- GAS Vent Gas
- SAN Vent Sanitary Sewer
- Well
- Windmill
- Wire Pull Box
- Cross Section Point

Legend and Abbreviations

Legend and Abbreviations

AC. = Acre

ALUM. = Aluminum

℄ = Baseline

B.M. = Benchmark

(C) = Calculated Measurement

C.B. = Chord Bearing

C.D. = Chord Distance

℄ = Centerline

COM. = Commercial

CONC. = Concrete

C.M. = Concrete Monument

COR. = Corner

C.R. = County Road

D = Degree

(D) = Deed Measurement

D.B. = Deed Book

D.E. = Drainage Easement

Δ = Delta/Central Angle

EXIST. = Existing

ESMT. = Easement

E.D.E. = Existing Drainage Easement

(F) = Field Measurement

FND. = Found

F.D.O.T. = Florida Department of Transportation

F.P. = Financial Project

I.D. = Identification

I.P. = Iron Pipe

I.R. = Iron Rod

I.R.&C. = Iron Road and Cap

L = Length of Curve

L.B. = Licensed Business

LT. = Left

L/A = Limited Access

L.O.C. = Limits of Construction

MAINT. = Maintenance

NL. = Nail

N&D = Nail and Disk

N.T.S. = Not To Scale

N.V.A.L. = Non Vehicular Access Line

O.R. = Official Record

O.R.B. = Official Record Book

(P) = Plat Measurement

P.B. = Plat Book

P.C. = Point of Curvature

P.C.C. = Point of Compound Curvature

P.C.P. = Permanent Control Point

P.I. = Point of Intersection

P.K. = Parker Kalon

℄ = Property Line

P.L.S. = Professional Land Surveyor

P.O.C. = Point on Curve

P.O.T. = Point on Tangent

P.R.C. = Point of Reverse Curvature

P.T. = Point of Tangency

P.R.M. = Permanent Reference Monument

P.S.M. = Professional Surveyor and Mapper

R = Radius of Curve

RES. = Residence

RGE. = Range

R.P.B. = Road Plat Book

RT. = Right

R/W = Right of Way

SEC. = Section

S.F. = Square Feet

S.R. = State Road

S.R.D. = State Road Department

STA. = Station

T = Tangent

T.B. = Tangent Bearing

T.I.I.T.F. = Trustees of the Internal Improvement Trust Fund

TWP. = Township

U.E. = Utility Easement

B – 452558-1_ SR5 PNC Batch_Import.xlsx

PRIMARY PROJECT CONTROL- HORIZONTAL POSITIONS ACCURACIES COMPLYING WITH TABLE C2 APPENDIX C OF SURVEYING AND MAPPING HANBOOK DATED JULY 3, 2024																
PROJ_ID	NAME	DESCRIPTION	STAMPING	CATEGORY	COUNTY	DISTRICT	LAT_DMS	LONG_DMS	LAT_DECDG	LONG_DECDG	VERT_NAVD88_FT	Y_COORD_FT	X_COORD_FT	SCALE_FACTOR	DATE_ FOUND	STATION	OFFSET
452558-1	23S	FOUND BRASS DISK IN CONCRETE MONUMENT	90-95-GPS18	PRIMARY	MONROE	D6	24 39 01.855943 N	81 33 16.788150 W	24.65051554	-81.55466338	10.47	115630.006	471954.647	0.99998010	3-12-2025	466+37.11	11.11
452558-1	PNC182	FOUND BRASS DISK IN CONCRETE MONUMENT	90-07-18.2	PRIMARY	MONROE	D6	24 39 07.683048 N	81 32 57.937070 W	24.65213418	-81.54942696	4.96	116211.231	473696.125	0.99997936	3-12-2025	484+72.74	-21.04
452558-1	PNC186	FOUND BRASS DISK IN CONCRETE MONUMENT	90-07-18.6	PRIMARY	MONROE	D6	24 39 15.154246 N	81 32 34.033230 W	24.65420951	-81.54278701	9.86	116956.639	475904.349	0.99997845	3-12-2025	508+02.87	-69.83
452558-1	PNC190	FOUND BRASS DISK IN CONCRETE MONUMENT	90-07-19.0	PRIMARY	MONROE	D6	24 39 20.976810 N	81 32 13.395207 W	24.65582689	-81.53705422	5.81	117536.910	477810.571	0.99997766	3-12-2025	527+95.37	-51.67
452558-1	PNC194	FOUND BRASS DISK IN CONCRETE MONUMENT	90-07-19.4	PRIMARY	MONROE	D6	24 39 27.056191 N	81 31 51.651189 W	24.65751561	-81.53101422	3.78	118142.789	479818.871	0.99997685	3-12-2025	548+92.93	-27.32
452558-1	PN1988	FOUND BRASS DISK IN CONCRETE MONUMENT	GPS BM SR5 87-16-PN19.88	PRIMARY	MONROE	D6	24 39 35.353090 N	81 31 21.331607 W	24.65982030	-81.52259211	4.01	118969.584	482619.059	0.99997572	3-12-2025	578+12.18	23.80

VERTICAL PROJECT CONTROL- HORIZONTAL POSITIONS ACCURACIES COMPLYING WITH TABLE C4 APPENDIX C OF SURVEYING AND MAPPING HANBOOK DATED JULY 3, 2024																
PROJ_ID	NAME	DESCRIPTION	STAMPING	CATEGORY	COUNTY	DISTRICT	LAT_DMS	LONG_DMS	LAT_DECDG	LONG_DECDG	VERT_NAVD88_FT	Y_COORD_FT	X_COORD_FT	SCALE_FACTOR	DATE_FOUND	STATION	OFFSET
452558-1	180R	FOUND FDOT ALUMINUM DISK	SR5 BM GPS 90 19 180R	VERTICAL	MONROE	D6	24 39 04.225296 N	81 33 08.551262 W	24.65117369	-81.55237535	5.36	115866	472716	0.99997978	3-12-2025	474+33.76	14.07
452558-1	184R	FOUND FDOT ALUMINUM DISK	SR5 BM GPS 90-19-184R	VERTICAL	MONROE	D6	24 39 10.373310 N	81 32 47.433672 W	24.65288148	-81.54650935	5.12	116479	474666	0.99997896	3-12-2025	494+78.11	14.53
452558-1	PNC188	FOUND BRASS DISK IN CONCRETE MONUMENT	90-07-18.8	VERTICAL	MONROE	D6	24 39 18.117861 N	81 32 22.298029 W	24.65503274	-81.53952723	10.39	117252	476988	0.99997800	3-12-2025	519+25.20	-26.10
452558-1	192R	FOUND FDOT ALUMINUM DISK	SR5 BM GPS90-19-192R	VERTICAL	MONROE	D6	24 39 23.496523 N	81 32 02.145025 W	24.65652681	-81.53392917	5.06	117787	478849	0.99997724	3-12-2025	538+61.46	21.12
452558-1	PNR196	FOUND BRASS DISK IN CONCRETE MONUMENT	GPS BM SR5 87-16-PN19.6	VERTICAL	MONROE	D6	24 39 30.929210 N	81 31 36.714823 W	24.65859145	-81.52686523	4.15	118528	481198	0.99997629	3-12-2025	563+24.49	18.50

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F.R. ALEMAN & ASSOCIATES, Inc. LB 6785

C – Level Run Adjustment PDF

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- when it has to be right

Level Report

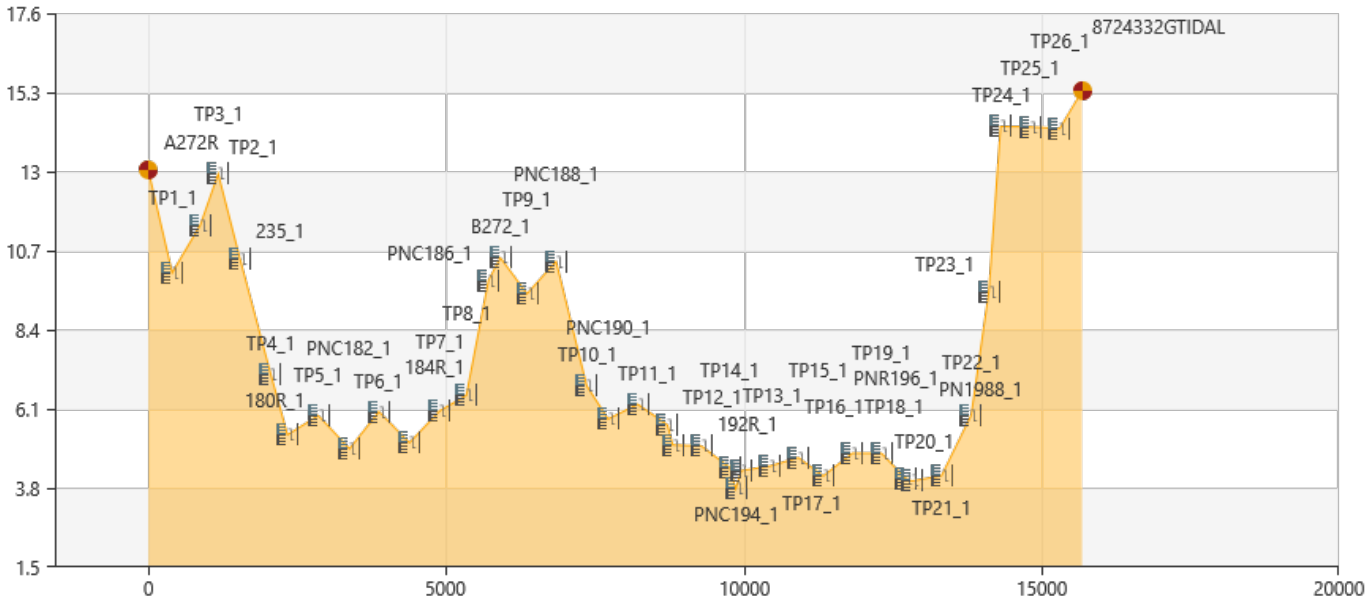
Report created: 04/04/2025 10:57:21

Project Details

General		Customer Details		Master Coordinate System	
Project Name:	SR5LEVELRUN	Customer Name:	-	Coordinate System Name:	None
Owner:	-	Contact Person:	-	Transformation Type:	-
Lead Surveyor:	-	Number:	-	Residual Distribution:	-
Date Created:	04/02/2025 10:31:37	Email:	-	Ellipsoid:	-
Last Accessed:	04/04/2025 10:55:33	Skype:	-	Projection Type:	-
Application Software:	Infinity 4.2.1	Website:	-	Geoid Model:	-
				CSCS Model:	-

Path:	G:\INHOUSE SURVEY PROJECTS\452558-2 SR 5US 1 FROM N. HARRIS CHANNEL\SR5LEVELRUN\SR5LEVELRUN.iprj
Size:	2.6 MB
Comments:	-

Level Line Id: LINE00001_1



General

Date/Time	3/26/2025 10:52:20 AM	Instrument Type:	LS15 707350
Staff One Id:	-	Method:	sBF
Staff Two Id:	-	Stations:	39
Start Point:	A272R	Observations:	78
End Point:	8724332GTIDAL		

Results

Height Difference:	2.31 ftUS	Height Error / Point:	0.00 ftUS
Length:	15,685.93 ftUS	Total Distance Balance:	8.41 ftUS
Misclosure:	-0.02 ftUS	Total Station Difference:	-

Processing Parameters

Adjustment Method:	By Distance
Staff Corrections:	Not Applied

Points

Point Id	Date/Time	Height [ftUS]	ΔHeight [ftUS]	SD [ftUS]
A272R	3/26/2025 10:52:20 AM	13.03	-	-
TP1_1	3/26/2025 11:07:38 AM	10.06	-2.97	0.00
TP2_1	3/26/2025 11:21:10 AM	11.45	1.39	0.00

TP3_1	3/26/2025 11:31:46 AM	12.94	1.48	0.00
235_1	3/26/2025 11:44:13 AM	10.46	-2.48	0.00
TP4_1	3/26/2025 11:54:04 AM	7.11	-3.35	0.00
180R_1	3/26/2025 2:04:21 PM	5.35	-1.76	0.00
TP5_1	3/26/2025 2:18:58 PM	5.91	0.56	0.00
PNC182_1	3/26/2025 2:47:42 PM	4.95	-0.97	0.00
TP6_1	3/26/2025 3:01:25 PM	6.02	1.08	0.00
184R_1	3/26/2025 3:11:43 PM	5.12	-0.91	0.00
TP7_1	3/26/2025 3:23:05 PM	6.04	0.93	0.00
TP8_1	3/26/2025 3:35:05 PM	6.50	0.46	0.00
PNC186_1	3/26/2025 3:47:00 PM	9.85	3.35	0.00
B272_1	3/27/2025 7:46:51 AM	10.50	0.65	0.00
TP9_1	3/27/2025 8:00:39 AM	9.45	-1.05	0.00
PNC188_1	3/27/2025 8:25:04 AM	10.39	0.94	0.00
TP10_1	3/27/2025 8:34:51 AM	6.77	-3.62	0.00
PNC190_1	3/27/2025 8:43:04 AM	5.81	-0.96	0.00
TP11_1	3/27/2025 8:51:27 AM	6.24	0.43	0.00
TP12_1	3/27/2025 8:59:16 AM	5.64	-0.60	0.00
192R_1	3/27/2025 9:08:44 AM	5.06	-0.58	0.00
TP13_1	3/27/2025 9:17:09 AM	5.03	-0.03	0.00
TP14_1	3/27/2025 9:24:26 AM	4.39	-0.63	0.00
PNC194_1	3/27/2025 9:44:02 AM	3.78	-0.61	0.00
TP15_1	3/27/2025 9:51:17 AM	4.31	0.53	0.00
TP16_1	3/27/2025 9:58:57 AM	4.44	0.13	0.00
TP17_1	3/27/2025 10:08:42 AM	4.69	0.25	0.00
PNR196_1	3/27/2025 10:17:02 AM	4.15	-0.53	0.00
TP18_1	3/27/2025 10:26:33 AM	4.82	0.66	0.00
TP19_1	3/27/2025 10:39:05 AM	4.82	0.00	0.00
TP20_1	3/27/2025 10:47:12 AM	4.09	-0.72	0.01
PN1988_1	3/27/2025 10:55:42 AM	4.01	-0.08	0.01
TP21_1	3/27/2025 11:05:29 AM	4.16	0.15	0.01
TP22_1	3/27/2025 11:14:44 AM	5.92	1.75	0.01
TP23_1	3/27/2025 11:24:24 AM	9.52	3.60	0.01
TP24_1	3/27/2025 11:33:20 AM	14.31	4.80	0.01
TP25_1	3/27/2025 11:45:52 AM	14.30	-0.01	0.01
TP26_1	3/27/2025 11:56:33 AM	14.25	-0.05	0.01
8724332GTIDAL	4/3/2025 5:02:07 PM	15.34	1.09	-

Line Tolerances

Allowable Misclosure E = a + b √ L:	0.04 ftUS
a:	0.01 ftUS
b:	0.02 ftUS/√mi
L (Level Line Length):	2.97 mi
Height Error / Point:	0.00 ftUS
Total Distance Balance:	30.00 ftUS

Observation Tolerances

Double Observation Check:	0.00 ftUS
Station Difference:	0.00 ftUS
Max. Sight Distance:	280.00 ftUS
Min. Ground Clearance:	1.60 ftUS

Point Height Tolerances

Height Spread:	0.07 ftUS
Max. Difference From Fixed Height:	0.03 ftUS

Booking Sheet

Point Id	Type	BS [ftUS]	IS [ftUS]	FS [ftUS]	Rise [ftUS]	Fall [ftUS]	Hz Dist. [ftUS]	ΔHeight [ftUS]	ΔHeight Corr. [ftUS]	Height [ftUS]	Remark
A272R		-	-	-	-	-	-	0.00	0.00	13.03	
A272R	BS1	3.00	-	-	-	-	201.54	-	-	-	
TP1_1	FS1	-	-	5.97	-	2.97	197.65	-	-	-	
TP1_1		-	-	-	-	-	-	-2.97	0.00	10.06	
TP1_1	BS1	4.84	-	-	-	-	243.79	-	-	-	
TP2_1	FS1	-	-	3.45	1.39	-	229.57	-	-	-	
TP2_1		-	-	-	-	-	-	1.39	0.00	11.45	
TP2_1	BS1	6.05	-	-	-	-	149.74	-	-	-	
TP3_1	FS1	-	-	4.57	1.48	-	149.44	-	-	-	
TP3_1		-	-	-	-	-	-	1.48	0.00	12.94	
TP3_1	BS1	4.86	-	-	-	-	165.82	-	-	-	
235_1	FS1	-	-	7.34	-	2.48	202.39	-	-	-	
235_1		-	-	-	-	-	-	-2.48	0.00	10.46	
235_1	BS1	4.06	-	-	-	-	268.13	-	-	-	
TP4_1	FS1	-	-	7.41	-	3.35	246.89	-	-	-	
TP4_1		-	-	-	-	-	-	-3.35	0.00	7.11	
TP4_1	BS1	4.03	-	-	-	-	141.59	-	-	-	
180R_1	FS1	-	-	5.79	-	1.76	140.16	-	-	-	
180R_1		-	-	-	-	-	-	-1.76	0.00	5.35	
180R_1	BS1	5.30	-	-	-	-	260.84	-	-	-	
TP5_1	FS1	-	-	4.74	0.56	-	256.31	-	-	-	
TP5_1		-	-	-	-	-	-	0.56	0.00	5.91	
TP5_1	BS1	4.77	-	-	-	-	268.27	-	-	-	
PNC182_1	FS1	-	-	5.73	-	0.97	255.47	-	-	-	

PNC182_1	BS1	5.77	-	-	-	-	253.63	-0.97	0.00	4.95	0
TP6_1	FS1	-	-	4.69	1.08	-	241.72	-	-	-	0
TP6_1		-	-	-	-	-	-	1.08	0.00	6.02	
TP6_1	BS1	4.96	-	-	-	-	256.27	-	-	-	0
184R_1	FS1	-	-	5.87	-	0.91	256.27	-	-	-	0
184R_1		-	-	-	-	-	-	-0.91	0.00	5.12	
184R_1	BS1	6.16	-	-	-	-	262.15	-	-	-	0
TP7_1	FS1	-	-	5.23	0.92	-	245.34	-	-	-	0
TP7_1		-	-	-	-	-	-	0.92	0.00	6.04	
TP7_1	BS1	4.84	-	-	-	-	253.91	-	-	-	0
TP8_1	FS1	-	-	4.38	0.46	-	194.43	-	-	-	0
TP8_1		-	-	-	-	-	-	0.46	0.00	6.50	
TP8_1	BS1	6.43	-	-	-	-	179.31	-	-	-	0
PNC186_1	FS1	-	-	3.08	3.35	-	193.43	-	-	-	0
PNC186_1		-	-	-	-	-	-	3.35	0.00	9.85	
PNC186_1	BS1	5.74	-	-	-	-	100.70	-	-	-	0
B272_1	FS1	-	-	5.09	0.65	-	98.40	-	-	-	0
B272_1		-	-	-	-	-	-	0.65	0.00	10.50	
B272_1	BS1	3.83	-	-	-	-	199.82	-	-	-	
TP9_1	FS1	-	-	4.87	-	1.05	247.42	-	-	-	
TP9_1		-	-	-	-	-	-	-1.05	0.00	9.45	
TP9_1	BS1	5.01	-	-	-	-	227.01	-	-	-	
PNC188_1	FS1	-	-	4.07	0.94	-	262.16	-	-	-	
PNC188_1		-	-	-	-	-	-	0.94	0.00	10.39	
PNC188_1	BS1	2.60	-	-	-	-	236.09	-	-	-	
TP10_1	FS1	-	-	6.21	-	3.62	278.15	-	-	-	
TP10_1		-	-	-	-	-	-	-3.62	0.00	6.77	
TP10_1	BS1	4.58	-	-	-	-	193.90	-	-	-	
PNC190_1	FS1	-	-	5.55	-	0.97	164.77	-	-	-	
PNC190_1		-	-	-	-	-	-	-0.97	0.00	5.81	
PNC190_1	BS1	5.57	-	-	-	-	249.37	-	-	-	
TP11_1	FS1	-	-	5.14	0.43	-	250.11	-	-	-	
TP11_1		-	-	-	-	-	-	0.43	0.00	6.24	
TP11_1	BS1	4.62	-	-	-	-	248.82	-	-	-	
TP12_1	FS1	-	-	5.22	-	0.60	248.92	-	-	-	
TP12_1		-	-	-	-	-	-	-0.60	0.00	5.64	
TP12_1	BS1	4.73	-	-	-	-	45.21	-	-	-	
192R_1	FS1	-	-	5.31	-	0.58	43.44	-	-	-	
192R_1		-	-	-	-	-	-	-0.58	0.00	5.06	
192R_1	BS1	5.23	-	-	-	-	240.27	-	-	-	
TP13_1	FS1	-	-	5.27	-	0.03	242.11	-	-	-	
TP13_1		-	-	-	-	-	-	-0.03	0.00	5.03	
TP13_1	BS1	4.65	-	-	-	-	239.51	-	-	-	
TP14_1	FS1	-	-	5.29	-	0.64	238.86	-	-	-	
TP14_1		-	-	-	-	-	-	-0.64	0.00	4.39	
TP14_1	BS1	4.92	-	-	-	-	45.74	-	-	-	
PNC194_1	FS1	-	-	5.53	-	0.61	52.89	-	-	-	
PNC194_1		-	-	-	-	-	-	-0.61	0.00	3.78	
PNC194_1	BS1	5.63	-	-	-	-	46.87	-	-	-	
TP15_1	FS1	-	-	5.10	0.53	-	45.31	-	-	-	
TP15_1		-	-	-	-	-	-	0.53	0.00	4.31	
TP15_1	BS1	4.89	-	-	-	-	239.61	-	-	-	
TP16_1	FS1	-	-	4.75	0.13	-	240.77	-	-	-	
TP16_1		-	-	-	-	-	-	0.13	0.00	4.44	
TP16_1	BS1	5.07	-	-	-	-	239.70	-	-	-	
TP17_1	FS1	-	-	4.82	0.24	-	239.38	-	-	-	
TP17_1		-	-	-	-	-	-	0.24	0.00	4.69	
TP17_1	BS1	5.10	-	-	-	-	209.28	-	-	-	
PNR196_1	FS1	-	-	5.64	-	0.53	209.64	-	-	-	
PNR196_1		-	-	-	-	-	-	-0.53	0.00	4.15	
PNR196_1	BS1	5.56	-	-	-	-	244.75	-	-	-	
TP18_1	FS1	-	-	4.89	0.66	-	244.86	-	-	-	
TP18_1		-	-	-	-	-	-	0.66	0.00	4.82	
TP18_1	BS1	4.80	-	-	-	-	244.25	-	-	-	
TP19_1	FS1	-	-	4.80	-	0.00	243.79	-	-	-	
TP19_1		-	-	-	-	-	-	0.00	0.00	4.82	
TP19_1	BS1	4.32	-	-	-	-	200.61	-	-	-	
TP20_1	FS1	-	-	5.04	-	0.72	197.67	-	-	-	
TP20_1		-	-	-	-	-	-	-0.72	0.00	4.09	
TP20_1	BS1	5.16	-	-	-	-	55.86	-	-	-	
PN1988_1	FS1	-	-	5.25	-	0.08	55.86	-	-	-	
PN1988_1		-	-	-	-	-	-	-0.08	0.00	4.01	
PN1988_1	BS1	4.94	-	-	-	-	250.73	-	-	-	

TP21_1	FS1	-	-	4.78	0.15	-	248.20	-	-	-	
TP21_1		-	-	-	-	-	-	0.15	0.00	4.16	
TP21_1	BS1	5.11	-	-	-	-	249.14	-	-	-	
TP22_1	FS1	-	-	3.36	1.75	-	248.71	-	-	-	
TP22_1		-	-	-	-	-	-	1.75	0.00	5.92	
TP22_1	BS1	7.01	-	-	-	-	147.94	-	-	-	
TP23_1	FS1	-	-	3.41	3.60	-	148.20	-	-	-	
TP23_1		-	-	-	-	-	-	3.60	0.00	9.52	
TP23_1	BS1	8.12	-	-	-	-	99.53	-	-	-	
TP24_1	FS1	-	-	3.33	4.80	-	99.25	-	-	-	
TP24_1		-	-	-	-	-	-	4.80	0.00	14.31	
TP24_1	BS1	4.89	-	-	-	-	248.05	-	-	-	
TP25_1	FS1	-	-	4.91	-	0.01	248.31	-	-	-	
TP25_1		-	-	-	-	-	-	-0.01	0.00	14.30	
TP25_1	BS1	4.76	-	-	-	-	247.21	-	-	-	
TP26_1	FS1	-	-	4.81	-	0.05	249.14	-	-	-	
TP26_1		-	-	-	-	-	-	-0.05	0.00	14.25	
TP26_1	BS1	4.92	-	-	-	-	192.21	-	-	-	
8724332GTIDAL	FS1	-	-	3.84	1.09	-	183.38	-	-	-	
8724332GTIDAL		-	-	-	-	-	-	1.09	0.00	15.34	

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- when it has to be right

Level Report

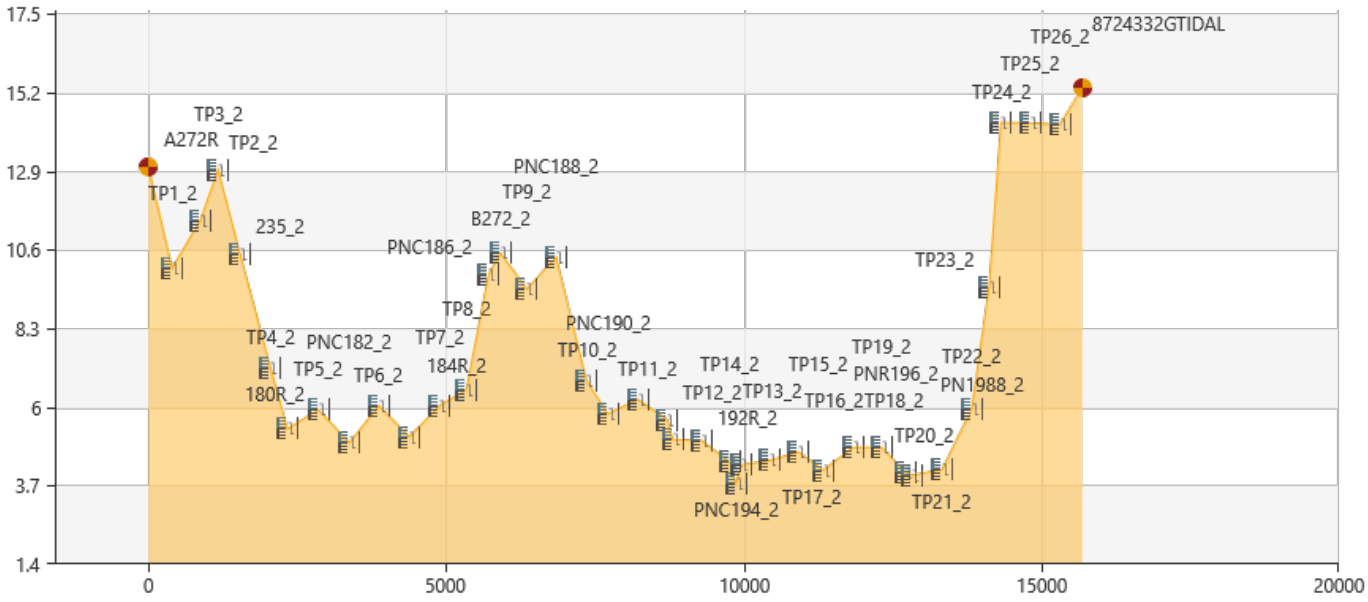
Report created: 04/04/2025 11:01:06

Project Details

General		Customer Details		Master Coordinate System	
Project Name:	SR5LEVELRUN	Customer Name:	-	Coordinate System Name:	None
Owner:	-	Contact Person:	-	Transformation Type:	-
Lead Surveyor:	-	Number:	-	Residual Distribution:	-
Date Created:	04/02/2025 10:31:37	Email:	-	Ellipsoid:	-
Last Accessed:	04/04/2025 10:55:33	Skype:	-	Projection Type:	-
Application Software:	Infinity 4.2.1	Website:	-	Geoid Model:	-
				CSCS Model:	-

Path:	G:\INHOUSE SURVEY PROJECTS\452558-2 SR 5US 1 FROM N. HARRIS CHANNEL\SR5LEVELRUN\SR5LEVELRUN.iprj
Size:	2.6 MB
Comments:	-

Level Line Id: LINE00001_2



General

Date/Time	3/26/2025 10:52:20 AM	Instrument Type:	LS15 707350
Staff One Id:	-	Method:	sBF
Staff Two Id:	-	Stations:	39
Start Point:	A272R	Observations:	78
End Point:	8724332GTIDAL		

Results

Height Difference:	2.31 ftUS	Height Error / Point:	0.00 ftUS
Length:	15,690.87 ftUS	Total Distance Balance:	-0.02 ftUS
Misclosure:	-0.03 ftUS	Total Station Difference:	-

Processing Parameters

Adjustment Method:	By Distance
Staff Corrections:	Not Applied

Points

Point Id	Date/Time	Height [ftUS]	ΔHeight [ftUS]	SD [ftUS]
A272R	3/26/2025 10:52:20 AM	13.03	-	-
TP1_2	3/26/2025 11:12:44 AM	10.06	-2.97	0.00
TP2_2	3/26/2025 11:25:16 AM	11.46	1.40	0.00

TP3_2	3/26/2025 11:36:35 AM	12.94	1.49	0.00
235_2	3/26/2025 11:48:09 AM	10.47	-2.48	0.00
TP4_2	3/26/2025 11:57:50 AM	7.12	-3.35	0.00
180R_2	3/26/2025 2:09:43 PM	5.36	-1.76	0.00
TP5_2	3/26/2025 2:24:50 PM	5.92	0.56	0.00
PNC182_2	3/26/2025 2:55:13 PM	4.96	-0.96	0.00
TP6_2	3/26/2025 3:04:54 PM	6.03	1.08	0.00
184R_2	3/26/2025 3:14:50 PM	5.12	-0.91	0.00
TP7_2	3/26/2025 3:27:51 PM	6.05	0.92	0.00
TP8_2	3/26/2025 3:39:57 PM	6.50	0.46	0.00
PNC186_2	3/26/2025 3:53:23 PM	9.86	3.35	0.00
B272_2	3/27/2025 7:51:51 AM	10.50	0.65	0.00
TP9_2	3/27/2025 8:05:51 AM	9.45	-1.05	0.00
PNC188_2	3/27/2025 8:28:43 AM	10.38	0.93	0.00
TP10_2	3/27/2025 8:38:18 AM	6.76	-3.62	0.01
PNC190_2	3/27/2025 8:46:01 AM	5.80	-0.96	0.01
TP11_2	3/27/2025 8:54:29 AM	6.23	0.43	0.01
TP12_2	3/27/2025 9:02:47 AM	5.63	-0.59	0.01
192R_2	3/27/2025 9:11:41 AM	5.05	-0.58	0.01
TP13_2	3/27/2025 9:20:12 AM	5.02	-0.03	0.01
TP14_2	3/27/2025 9:27:58 AM	4.39	-0.63	0.01
PNC194_2	3/27/2025 9:47:02 AM	3.77	-0.61	0.01
TP15_2	3/27/2025 9:54:12 AM	4.30	0.53	0.01
TP16_2	3/27/2025 10:02:42 AM	4.44	0.13	0.01
TP17_2	3/27/2025 10:11:56 AM	4.68	0.25	0.01
PNR196_2	3/27/2025 10:20:46 AM	4.15	-0.53	0.01
TP18_2	3/27/2025 10:30:47 AM	4.81	0.66	0.01
TP19_2	3/27/2025 10:42:40 AM	4.82	0.00	0.01
TP20_2	3/27/2025 10:50:22 AM	4.09	-0.73	0.01
PN1988_2	3/27/2025 10:59:56 AM	4.01	-0.08	0.01
TP21_2	3/27/2025 11:08:16 AM	4.16	0.15	0.01
TP22_2	3/27/2025 11:17:48 AM	5.91	1.75	0.01
TP23_2	3/27/2025 11:27:53 AM	9.52	3.60	0.01
TP24_2	3/27/2025 11:36:39 AM	14.32	4.80	0.01
TP25_2	3/27/2025 11:49:06 AM	14.30	-0.01	0.01
TP26_2	3/27/2025 12:03:19 PM	14.25	-0.05	0.01
8724332GTIDAL	4/3/2025 5:02:07 PM	15.34	1.09	-

Line Tolerances

Allowable Misclosure E = a + b √ L:	0.04 ftUS
a:	0.01 ftUS
b:	0.02 ftUS/√mi
L (Level Line Length):	2.97 mi
Height Error / Point:	0.00 ftUS
Total Distance Balance:	30.00 ftUS

Observation Tolerances

Double Observation Check:	0.00 ftUS
Station Difference:	0.00 ftUS
Max. Sight Distance:	281.00 ftUS
Min. Ground Clearance:	1.60 ftUS

Point Height Tolerances

Height Spread:	0.07 ftUS
Max. Difference From Fixed Height:	0.03 ftUS

Booking Sheet

Point Id	Type	BS [ftUS]	IS [ftUS]	FS [ftUS]	Rise [ftUS]	Fall [ftUS]	Hz Dist. [ftUS]	ΔHeight [ftUS]	ΔHeight Corr. [ftUS]	Height [ftUS]	Remark
A272R		-	-	-	-	-	-	0.00	0.00	13.03	
A272R	BS1	3.04	-	-	-	-	203.58	-	-	-	
TP1_2	FS1	-	-	6.01	-	2.97	195.59	-	-	-	
TP1_2		-	-	-	-	-	-	-2.97	0.00	10.06	
TP1_2	BS1	4.92	-	-	-	-	238.11	-	-	-	
TP2_2	FS1	-	-	3.53	1.39	-	235.26	-	-	-	
TP2_2		-	-	-	-	-	-	1.39	0.00	11.46	
TP2_2	BS1	6.13	-	-	-	-	144.82	-	-	-	
TP3_2	FS1	-	-	4.65	1.49	-	154.30	-	-	-	
TP3_2		-	-	-	-	-	-	1.49	0.00	12.94	
TP3_2	BS1	4.80	-	-	-	-	171.94	-	-	-	
235_2	FS1	-	-	7.28	-	2.48	196.37	-	-	-	
235_2		-	-	-	-	-	-	-2.48	0.00	10.47	
235_2	BS1	4.04	-	-	-	-	267.16	-	-	-	
TP4_2	FS1	-	-	7.39	-	3.35	248.40	-	-	-	
TP4_2		-	-	-	-	-	-	-3.35	0.00	7.12	
TP4_2	BS1	3.92	-	-	-	-	139.04	-	-	-	
180R_2	FS1	-	-	5.69	-	1.76	142.67	-	-	-	
180R_2		-	-	-	-	-	-	-1.76	0.00	5.36	
180R_2	BS1	5.31	-	-	-	-	254.06	-	-	-	
TP5_2	FS1	-	-	4.75	0.56	-	263.10	-	-	-	
TP5_2		-	-	-	-	-	-	0.56	0.00	5.92	
TP5_2	BS1	4.74	-	-	-	-	280.56	-	-	-	
PNC182_2	FS1	-	-	5.70	-	0.96	243.38	-	-	-	

PNC182_2	BS1	5.84	-	-	-	-	240.60	-0.96	0.00	4.96	0
TP6_2	FS1	-	-	4.77	1.08	-	254.44	-	-	-	0
TP6_2		-	-	-	-	-	-	1.08	0.00	6.03	
TP6_2	BS1	4.82	-	-	-	-	265.62	-	-	-	0
184R_2	FS1	-	-	5.73	-	0.91	246.65	-	-	-	0
184R_2		-	-	-	-	-	-	-0.91	0.00	5.12	
184R_2	BS1	6.01	-	-	-	-	274.83	-	-	-	0
TP7_2	FS1	-	-	5.08	0.92	-	232.54	-	-	-	0
TP7_2		-	-	-	-	-	-	0.92	0.00	6.05	
TP7_2	BS1	4.72	-	-	-	-	200.22	-	-	-	0
TP8_2	FS1	-	-	4.26	0.46	-	247.92	-	-	-	0
TP8_2		-	-	-	-	-	-	0.46	0.00	6.50	
TP8_2	BS1	6.03	-	-	-	-	144.85	-	-	-	0
PNC186_2	FS1	-	-	2.68	3.35	-	227.30	-	-	-	0
PNC186_2		-	-	-	-	-	-	3.35	0.00	9.86	
PNC186_2	BS1	5.66	-	-	-	-	99.57	-	-	-	0
B272_2	FS1	-	-	5.02	0.65	-	99.68	-	-	-	0
B272_2		-	-	-	-	-	-	0.65	0.00	10.50	
B272_2	BS1	3.98	-	-	-	-	238.04	-	-	-	
TP9_2	FS1	-	-	5.03	-	1.05	208.71	-	-	-	
TP9_2		-	-	-	-	-	-	-1.05	0.00	9.45	
TP9_2	BS1	5.00	-	-	-	-	261.67	-	-	-	
PNC188_2	FS1	-	-	4.07	0.93	-	227.22	-	-	-	
PNC188_2		-	-	-	-	-	-	0.93	0.00	10.38	
PNC188_2	BS1	2.47	-	-	-	-	256.78	-	-	-	
TP10_2	FS1	-	-	6.09	-	3.62	257.72	-	-	-	
TP10_2		-	-	-	-	-	-	-3.62	0.00	6.76	
TP10_2	BS1	4.72	-	-	-	-	181.87	-	-	-	
PNC190_2	FS1	-	-	5.68	-	0.96	176.57	-	-	-	
PNC190_2		-	-	-	-	-	-	-0.96	0.00	5.80	
PNC190_2	BS1	5.53	-	-	-	-	254.60	-	-	-	
TP11_2	FS1	-	-	5.11	0.42	-	244.90	-	-	-	
TP11_2		-	-	-	-	-	-	0.42	0.00	6.23	
TP11_2	BS1	4.55	-	-	-	-	237.55	-	-	-	
TP12_2	FS1	-	-	5.14	-	0.59	260.21	-	-	-	
TP12_2		-	-	-	-	-	-	-0.59	0.00	5.63	
TP12_2	BS1	4.82	-	-	-	-	49.84	-	-	-	
192R_2	FS1	-	-	5.41	-	0.58	40.56	-	-	-	
192R_2		-	-	-	-	-	-	-0.58	0.00	5.05	
192R_2	BS1	5.16	-	-	-	-	237.88	-	-	-	
TP13_2	FS1	-	-	5.19	-	0.03	244.44	-	-	-	
TP13_2		-	-	-	-	-	-	-0.03	0.00	5.02	
TP13_2	BS1	4.63	-	-	-	-	237.38	-	-	-	
TP14_2	FS1	-	-	5.26	-	0.63	240.98	-	-	-	
TP14_2		-	-	-	-	-	-	-0.63	0.00	4.39	
TP14_2	BS1	5.05	-	-	-	-	51.26	-	-	-	
PNC194_2	FS1	-	-	5.66	-	0.61	50.24	-	-	-	
PNC194_2		-	-	-	-	-	-	-0.61	0.00	3.77	
PNC194_2	BS1	5.54	-	-	-	-	46.60	-	-	-	
TP15_2	FS1	-	-	5.01	0.53	-	47.92	-	-	-	
TP15_2		-	-	-	-	-	-	0.53	0.00	4.30	
TP15_2	BS1	4.80	-	-	-	-	241.35	-	-	-	
TP16_2	FS1	-	-	4.67	0.13	-	239.01	-	-	-	
TP16_2		-	-	-	-	-	-	0.13	0.00	4.44	
TP16_2	BS1	5.14	-	-	-	-	241.33	-	-	-	
TP17_2	FS1	-	-	4.89	0.25	-	237.81	-	-	-	
TP17_2		-	-	-	-	-	-	0.25	0.00	4.68	
TP17_2	BS1	5.07	-	-	-	-	211.74	-	-	-	
PNR196_2	FS1	-	-	5.60	-	0.54	207.17	-	-	-	
PNR196_2		-	-	-	-	-	-	-0.54	0.00	4.15	
PNR196_2	BS1	5.50	-	-	-	-	246.41	-	-	-	
TP18_2	FS1	-	-	4.83	0.66	-	242.96	-	-	-	
TP18_2		-	-	-	-	-	-	0.66	0.00	4.81	
TP18_2	BS1	4.82	-	-	-	-	242.64	-	-	-	
TP19_2	FS1	-	-	4.82	0.00	-	245.50	-	-	-	
TP19_2		-	-	-	-	-	-	0.00	0.00	4.82	
TP19_2	BS1	4.32	-	-	-	-	199.74	-	-	-	
TP20_2	FS1	-	-	5.05	-	0.73	198.54	-	-	-	
TP20_2		-	-	-	-	-	-	-0.73	0.00	4.09	
TP20_2	BS1	5.24	-	-	-	-	55.76	-	-	-	
PN1988_2	FS1	-	-	5.32	-	0.08	56.12	-	-	-	
PN1988_2		-	-	-	-	-	-	-0.08	0.00	4.01	
PN1988_2	BS1	4.99	-	-	-	-	249.92	-	-	-	

TP21_2	FS1	-	-	4.84	0.15	-	248.96	-	-	-	
TP21_2		-	-	-	-	-	-	0.15	0.00	4.16	
TP21_2	BS1	5.30	-	-	-	-	249.55	-	-	-	
TP22_2	FS1	-	-	3.55	1.75	-	248.08	-	-	-	
TP22_2		-	-	-	-	-	-	1.75	0.00	5.91	
TP22_2	BS1	6.92	-	-	-	-	145.65	-	-	-	
TP23_2	FS1	-	-	3.32	3.60	-	150.30	-	-	-	
TP23_2		-	-	-	-	-	-	3.60	0.00	9.52	
TP23_2	BS1	8.12	-	-	-	-	99.05	-	-	-	
TP24_2	FS1	-	-	3.32	4.80	-	99.74	-	-	-	
TP24_2		-	-	-	-	-	-	4.80	0.00	14.32	
TP24_2	BS1	4.80	-	-	-	-	247.83	-	-	-	
TP25_2	FS1	-	-	4.82	-	0.02	248.35	-	-	-	
TP25_2		-	-	-	-	-	-	-0.02	0.00	14.30	
TP25_2	BS1	4.72	-	-	-	-	247.72	-	-	-	
TP26_2	FS1	-	-	4.77	-	0.05	248.58	-	-	-	
TP26_2		-	-	-	-	-	-	-0.05	0.00	14.25	
TP26_2	BS1	4.89	-	-	-	-	188.29	-	-	-	
8724332GTIDAL	FS1	-	-	3.80	1.09	-	187.24	-	-	-	
8724332GTIDAL		-	-	-	-	-	-	1.09	0.00	15.34	

D. Preliminary Wetlands Delineation

Florida Department of Transportation

RON DESANTIS
GOVERNOR

1000 N.W. 111 Avenue
Miami, Florida 33172

JARED W. PERDUE, P.E.
SECRETARY

TECHNICAL MEMORANDUM

Date: April 7, 2025

Prepared For: Florida Department of Transportation District 6 (FDOT)

CC: Greg Griffith, Wantman Group, Inc. (WGI)

Prepared By: Kate S. Davis, Davis Environmental Solutions, LLC

Project: Overseas Highway MM 15.82 to 19.85,
Sugarloaf Key, Monroe County, Florida

Subject: Wetland Delineation

Introduction

Davis Environmental Solutions (DES) performed a wetland delineation along the north and south sides of a 4-mile segment of the Overseas Highway between Mile Markers (MM) 15.82 and 19.85 on Sugarloaf Key, Monroe County, Florida (**Figure 1**). The wetland delineation will be used to determine potential wetland impacts associated with the multi-use trail segment of the Florida Keys Overseas Heritage Trail proposed on Sugarloaf Key.

Figure 1. Project Location Map

Methodology

The wetland delineation was conducted between the dates of March 25 and 28, 2025. The purpose of the field review was to delineate the landward extent of wetlands within the roadway right of way. Wetlands along the corridor were identified by applying State and Federal wetland delineation methodologies (Chapter 62-340 F.A.C. Delineation of the Landward Extent of Wetlands and Surface Waters and the 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual). Although there are some differences between the state and federal delineations methodologies, they rely on the same three basic criteria: the presence of hydrophytic vegetation, hydric soils, and hydrologic indicators as the basis to determine the landward extent of wetlands. In addition to these criteria, the state definition also designates wetlands as any area that meets the definition in Chapter 62-340.200(19), F.A.C., which states "*areas that are inundated or saturated by surface water or groundwater at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils*". The wetland limits were identified based on current field conditions in conjunction with a desktop review of previous wetland delineations of the corridor. GPS points with submeter accuracy were collected approximately every 50-100 feet along the corridor to mark the wetland limits where they occurred. The GPS points were exported to ArcGIS to depict the limits on an aerial image (**Attachment A**).

Wetlands and Plant Community Vegetation

The field review revealed several distinct plant communities along the corridor, including both uplands and wetlands. The upland community included both degraded and high quality Tropical Hardwood Hammock (FLUCCS 426). This forest type is an upland community characteristic of southern Florida. In the Florida Keys, this community consists primarily of salt-tolerant tropical hardwood species including Jamaican dogwood (*Piscidia piscipula*), Spanish stoppers (*Eugenia foetida*), white stopper (*Eugenia axillaris*), wild lime (*Zanthoxylum fagara*), wild dilly (*Manilkara zapota*), thatch palm (*Thrinax radiata*), limber caper (*Cynophalla flexuosa*) and blolly (*Guapira discolor*). Green buttonwood (*Conocarpus erectus*) is often present along the wetland/upland ecotone.

Areas exhibiting characteristics consistent with those of a wetland as defined by the state and federal guidelines were also observed. The wetland community types observed along the corridor consisted mainly of estuarine and marine wetlands characterized as Mangrove Swamp (FLUCCS 612) with isolated areas of freshwater emergent wetlands characterized as Freshwater Marsh (FLUCCS 641). The mangrove swamp community are wetlands dominated by mangrove species that occur along the low-energy shorelines adjacent to US 1. Mangrove swamps often form extensive stands which include a mix of all three species. Differences in salt tolerance often result in zonation, or the uneven distribution of the species. Red mangrove often fringes along water ways and generally occurs in areas that are subject to tidal flushing (intertidal zone). Black mangroves are the most salt tolerant of the species and while they occur within the intertidal zone they are dominant within the high tidal and supra tidal zone. White mangroves are early site colonizers and often occur above the high tide zone. Although not a mangrove, green buttonwood (*Conocarpus erectus*) is often an associate species, which occurs within the upland/wetland transitional zone. Two subcategories of mangrove community types were identified along the corridor that included mangrove fringe and scrub mangroves. These fringe mangrove forests are tidally influenced with direct and sporadic access to open ocean with semi-enclosures from land. Red and black mangroves (*Rhizophora mangle* and *Avicennia germinans*) are the dominant canopy species. Other species found within this transition zone include sea oxeye daisy (*Borrichia frutescens*), silver buttonwood (*Conocarpus erectus* var. *sericeus*), sea grape (*Coccoloba uvifera*), and saltmarsh fleabane (*Pluchea odorata*). Along the corridor, the landward edges of the mangrove fringes are typically disturbed and are mixed with green buttonwood (*Conocarpus erectus*) and Brazilian pepper (*Schinus terebinthifolia*). The scrub mangrove community consists of areas with increased salinity with stunted vegetation and saplings dominated by woody wetland trees and shrubs including stunted red mangrove, black mangrove, white mangrove (*Laguncularia racemosa*), and bay cedar (*Suriana maritima*). Unlike other mangrove community types, the substrate is

not made up of peats but on shallow calcareous muds over limestone. In the eastern end of the corridor, there are isolated pockets of freshwater wetlands that likely form as a result of runoff that have settled in roadside ditches or low lying areas between the toe of the roadway slope and adjacent upland hammock habitats. These small pockets of freshwater wetlands are dominated by sawgrass (*Cladium jamaiceses*). A map depicting the landward extent of wetlands along the project corridor is included in **Attachment A**. Photographs documenting site conditions are included in **Attachment B.**

List of Attachments:

Attachment A: Wetland Delineation Map
Attachment B: Representative Site Photographs

US 1/Overseas Highway
MM 15.82 to 19.85
Sugarloaf Key, Monroe County

SHEETS OVERVIEW

N

0 500 1,000 2,000 Feet

FDOT

US 1/Overseas Highway
MM 15.82 to 19.85
Sugarloaf Key, Monroe County

WETLAND DELINEATION MAP

N

0 200 400 Feet

FDOT

US 1/Overseas Highway
MM 15.82 to 19.85
Sugarloaf Key, Monroe County

WETLAND DELINEATION MAP

N

0 200 400 Feet

FDOT

US 1/Overseas Highway
MM 15.82 to 19.85
Sugarloaf Key, Monroe County

WETLAND DELINEATION MAP

N

0 200 400 Feet

FDOT

US 1/Overseas Highway
MM 15.82 to 19.85
Sugarloaf Key, Monroe County

WETLAND DELINEATION MAP

N

0 200 400 Feet

FDOT

US 1/Overseas Highway
MM 15.82 to 19.85
Sugarloaf Key, Monroe County

WETLAND DELINEATION MAP

N

0 200 400 Feet

FDOT

US 1/Overseas Highway
MM 15.82 to 19.85
Sugarloaf Key, Monroe County

WETLAND DELINEATION MAP

N

0 200 400 Feet

FDOT

US 1/Overseas Highway
MM 15.82 to 19.85
Sugarloaf Key, Monroe County

WETLAND DELINEATION MAP

N

0 200 400 Feet

FDOT

US 1/Overseas Highway
MM 15.82 to 19.85
Sugarloaf Key, Monroe County

WETLAND DELINEATION MAP

N

0 200 400 Feet

REPRESENTATIVE PHOTOGRAPHS

General view of the site conditions of the western end of the corridor, just west of Lower Sugarloaf Key. Typical roadway conditions within the right-of-way consist of sloped edge before transitioning to wetlands.

General view of the Overseas Highway along the project corridor where wetlands occur on the north and south sides, adjacent to the roadway.

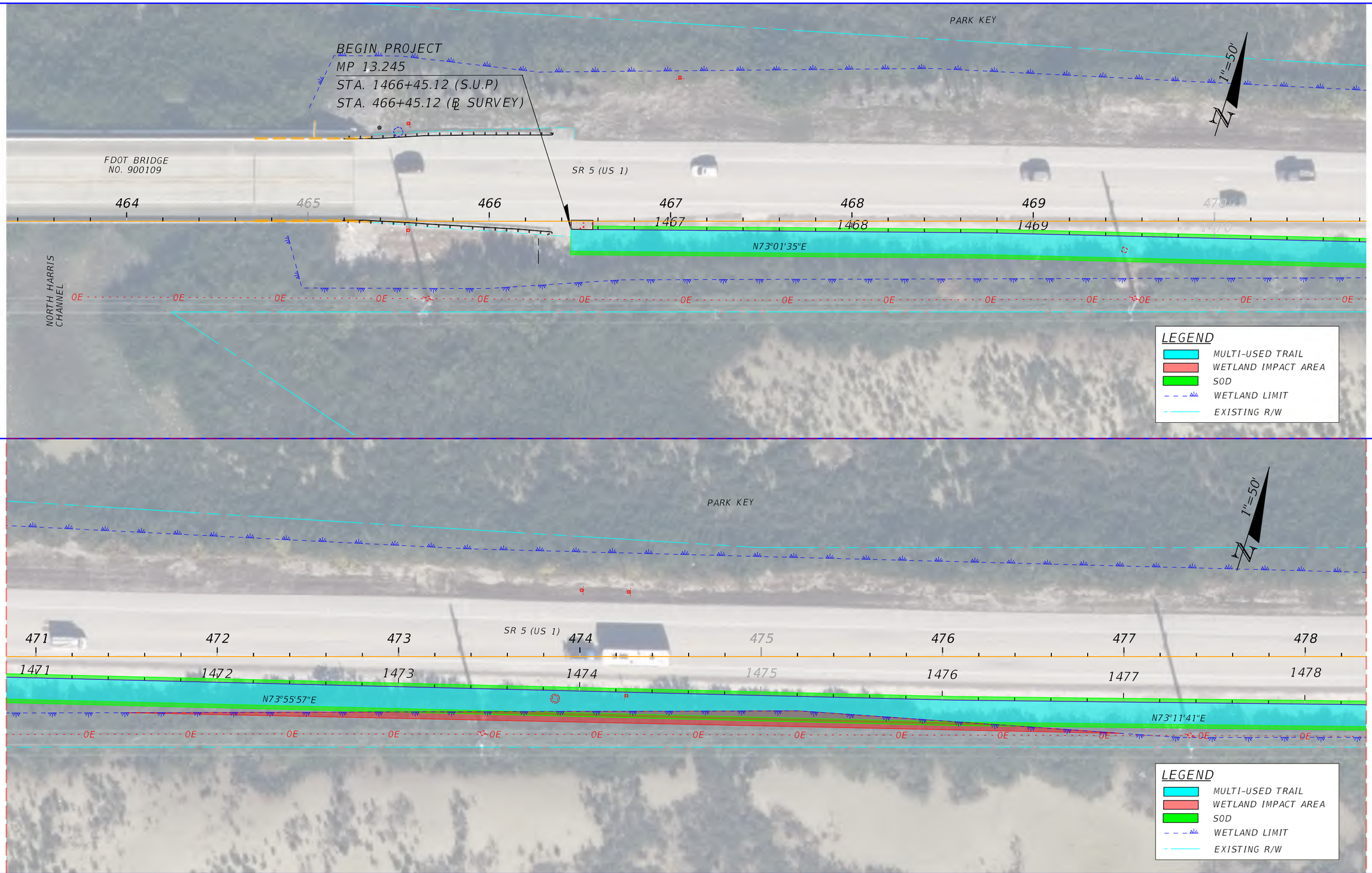
Representative photograph of the conditions along the corridor near Harris Gap Channel. This area supports a mangrove fringe with transitional vegetation along the upland/wetland ecotone.

Representative photograph of the conditions of the wetlands characterized as 612-Mangrove Swamp, it supports mixed mangrove species with green buttonwood (*Conocarpus erectus*) and sea grape (*Coccoloba uvifera*) within this transition zone.

Representative photograph of scrub mangrove wetlands with stunted vegetation and saplings dominated by woody wetland trees and shrubs including stunted red, black, and white mangroves.

Representative photograph of isolated freshwater wetland supporting sawgrass that occur adjacent to hardwood hammock. These freshwater wetlands appear to be driven by rain water runoff in low elevation areas (ditches) at the toe of the roadway slope.

E. Wetland Mitigation



FDOT DISTRICT 6
PLANNING AND ENVIROMENTAL
MANAGEMENT OFFICE
1000 NW 111th AVENUE
MIAMI, FLORIDA 33172

5

SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD
FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT)
SCOPING REPORT
ROADWAY ID: 9002000/ MP 13.245- MP 15.253

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

CONCEPT PLAN PRELIMINARY WETLAND IMPACT AREAS

SHEET NO. 01

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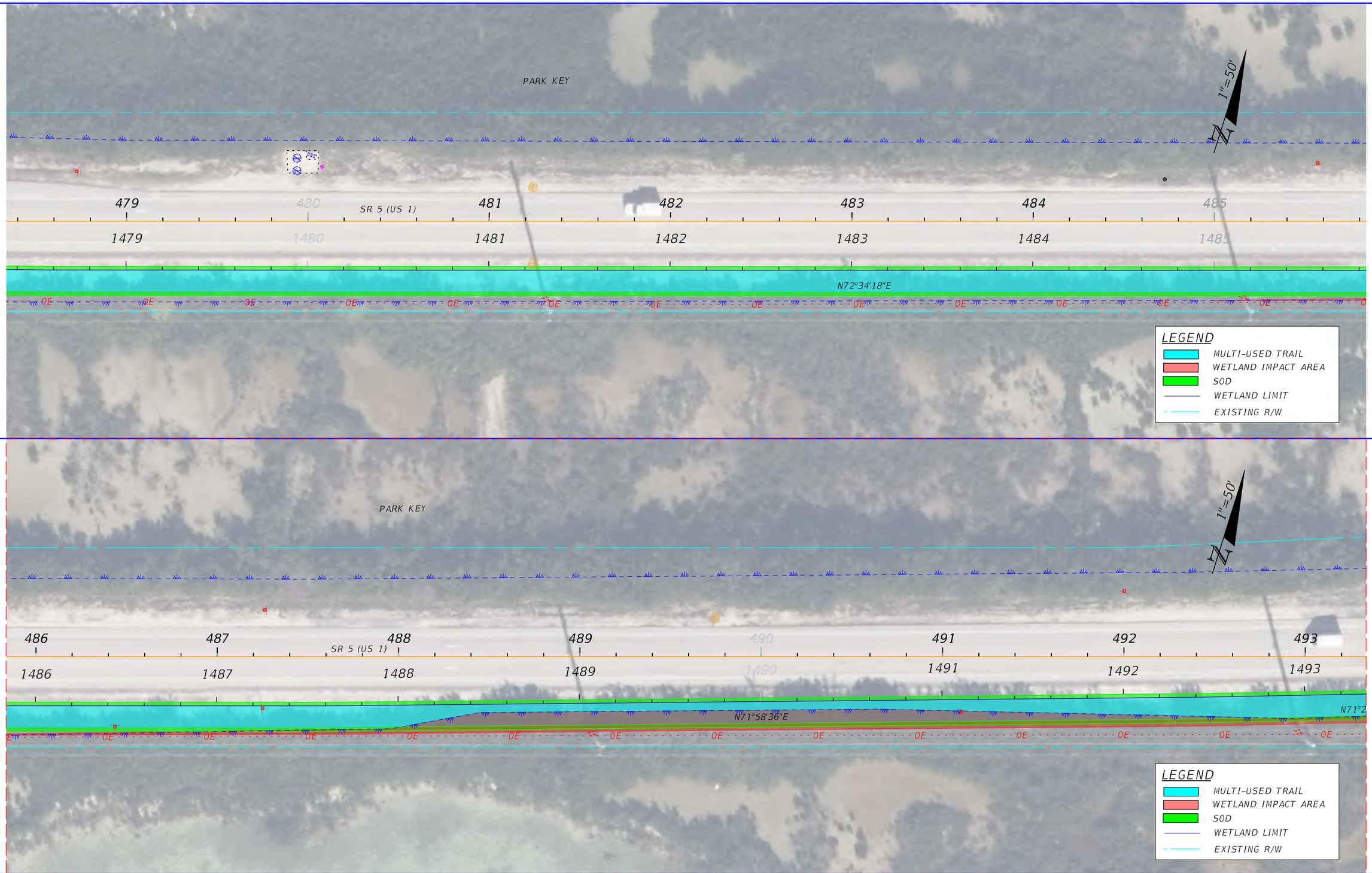

FDOT DISTRICT 6
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MIAMI, FLORIDA 33172

SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD
FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT)
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

CONCEPT PLAN PRELIMINARY WETLAND IMPACT AREAS

SHEET NO. 02

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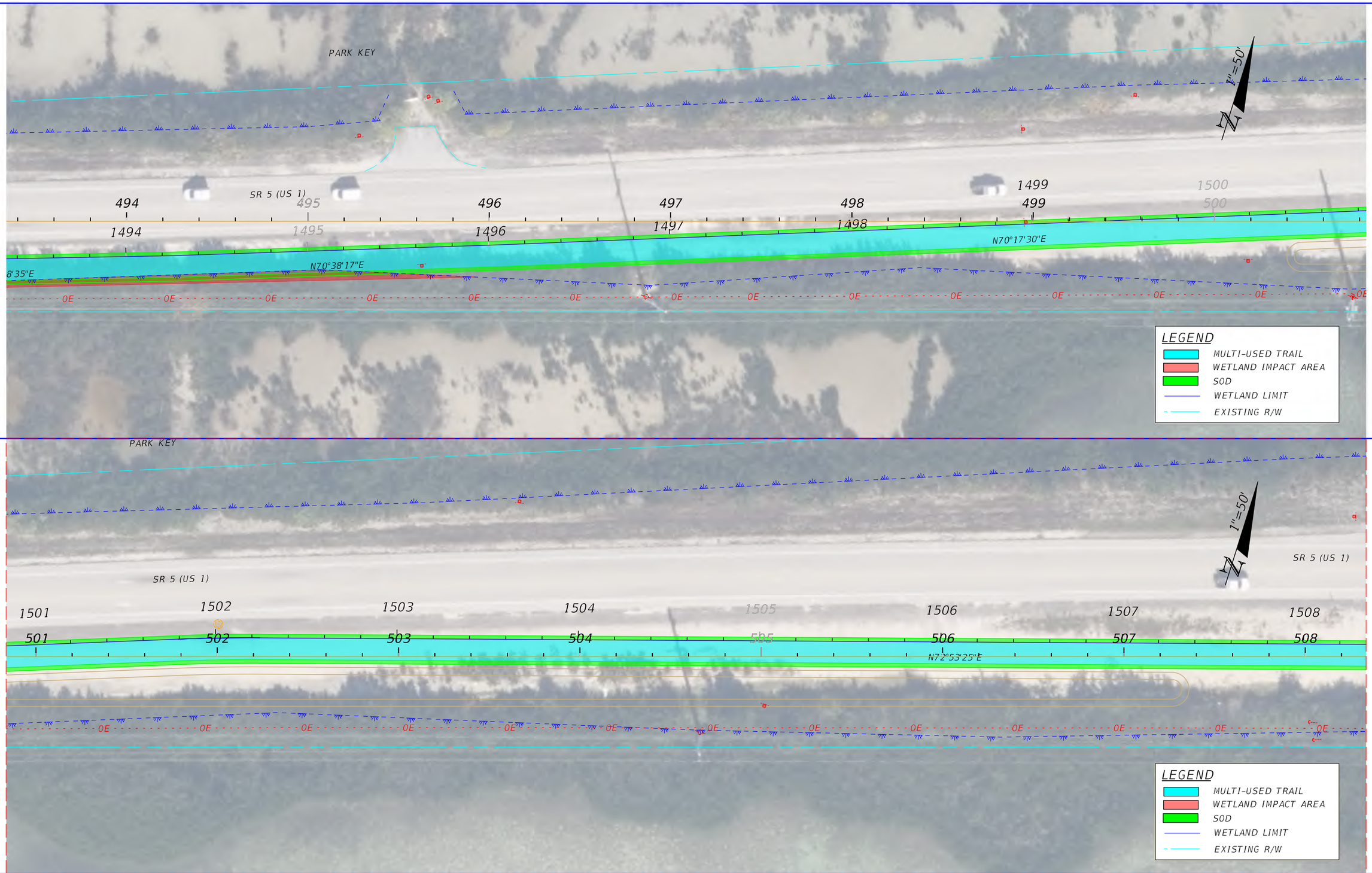

FDOT DISTRICT 6
PLANNING AND ENVIROMENTAL
MANAGEMENT OFFICE
1000 NW 111th AVENUE
MIAMI, FLORIDA 33172

SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD
FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT)
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

CONCEPT PLAN PRELIMINARY WETLAND IMPACT AREAS

SHEET NO. 03

PARK CHANNEL

PARK CHANNEL

FDOT BRIDGE
NO. 900112

FDOT BRIDGE
NO. 900112

1"=50'

1509 1510 1511 1512 1513 1514 1515

509 510 511 512 513 514 515

N72°32'35"E

END CONSTRUCTION
CONNECT TO EXIST. PED. BRIDGE
STA. 509+90.12

OE

PARK CHANNEL

PARK CHANNEL

LEGEND
- MULTI-USED TRAIL
- WETLAND IMPACT AREA
- SOD
- WETLAND LIMIT
- EXISTING R/W

UPPER SUGARLOAF KEY

SR 5 (US 1)

1"=50'

SR 5 (US 1)

1516 1517 1518 1519 1520 1521 1522 1523

516 517 518 519 520 521 522 523

N73°31'23"E

N87°45'37"E

N72°32'49"E

N73°16'21"E

OE

BEGIN CONSTRUCTION
CONNECT TO EXIST. PED. BRIDGE
STA. 518+10.18

LEGEND
- MULTI-USED TRAIL
- WETLAND IMPACT AREA
- SOD
- WETLAND LIMIT
- EXISTING R/W

FDOT DISTRICT 6
PLANNING AND ENVIROMENTAL
MANAGEMENT OFFICE
1000 NW 111th AVENUE
MIAMI, FLORIDA 33172

5

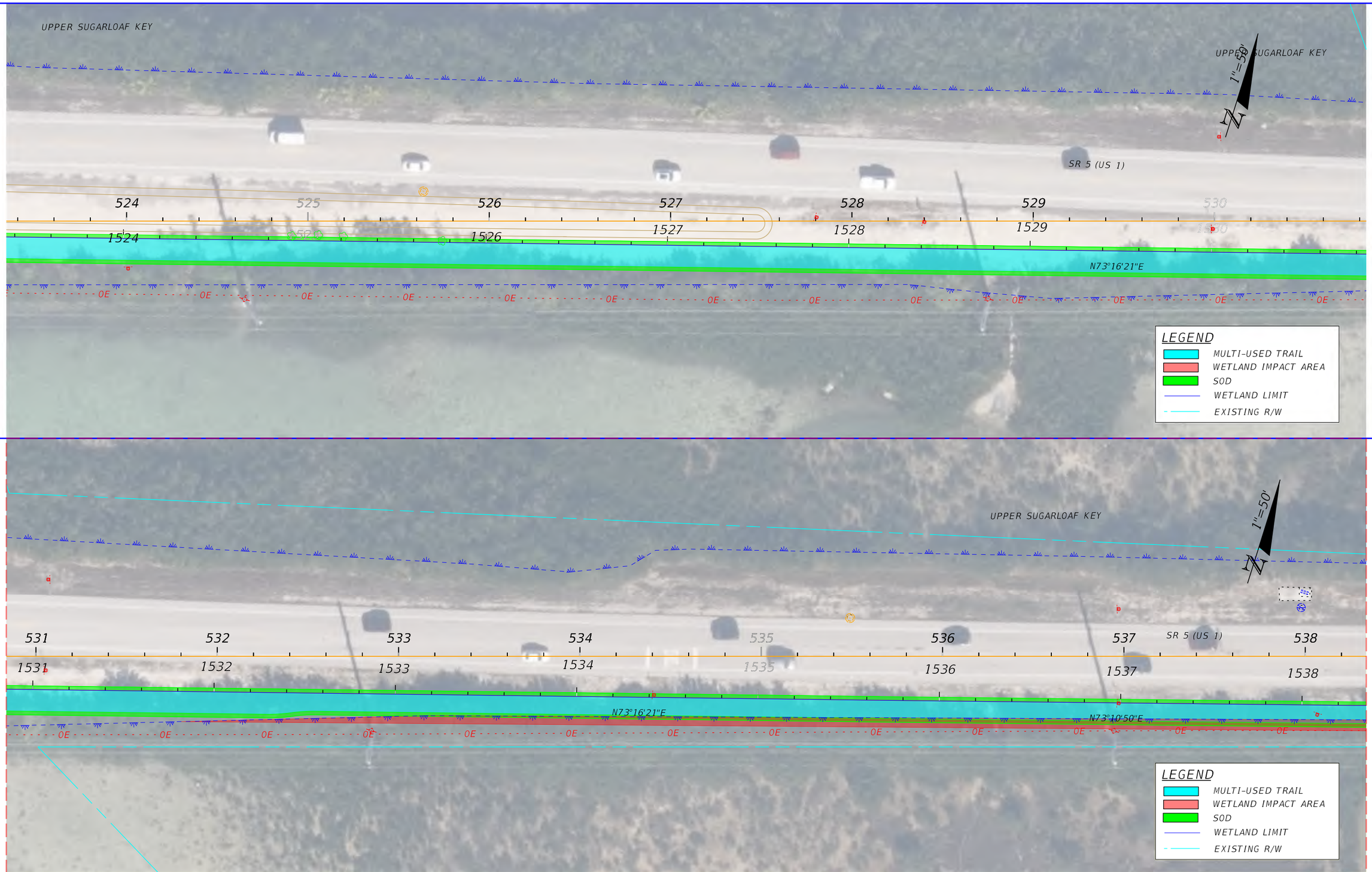
SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD
FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT)
SCOPING REPORT
ROADWAY ID: 9002000/ MP 13.245- MP 15.253

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

CONCEPT PLAN PRELIMINARY WETLAND IMPACT AREAS

SHEET NO. 04



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

CONCEPT PLAN PRELIMINARY WETLAND IMPACT AREAS

SHEET NO. 05

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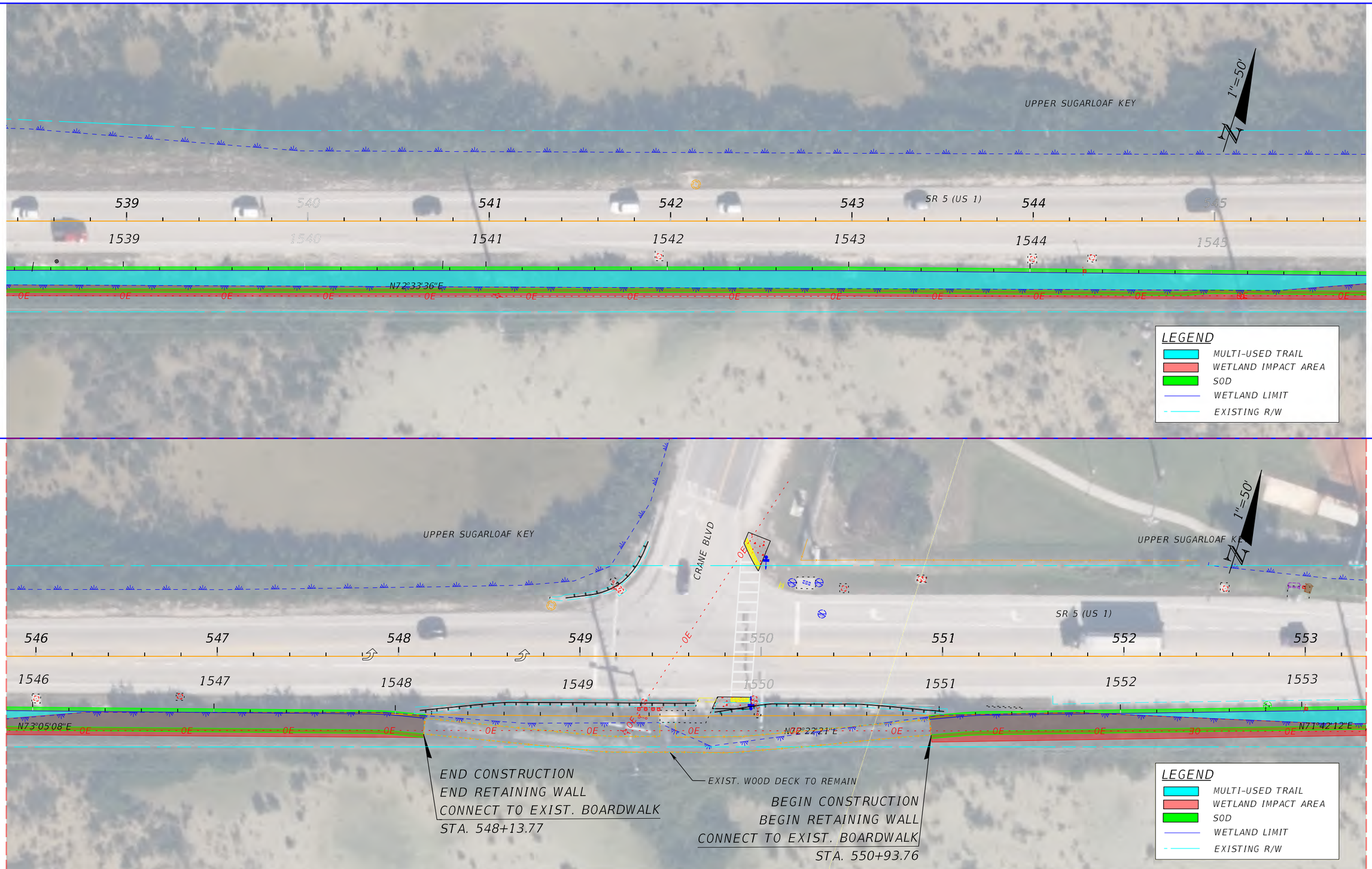

FDOT DISTRICT 6
PLANNING AND ENVIROMENTAL
MANAGEMENT OFFICE
1000 NW 111th AVENUE
MIAMI, FLORIDA 33172

SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD
FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT)
SCOPING REPORT
ROADWAY ID: 9002000/ MP 13.245- MP 15.253

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

CONCEPT PLAN PRELIMINARY
WETLAND IMPACT AREAS

SHEET NO. 06

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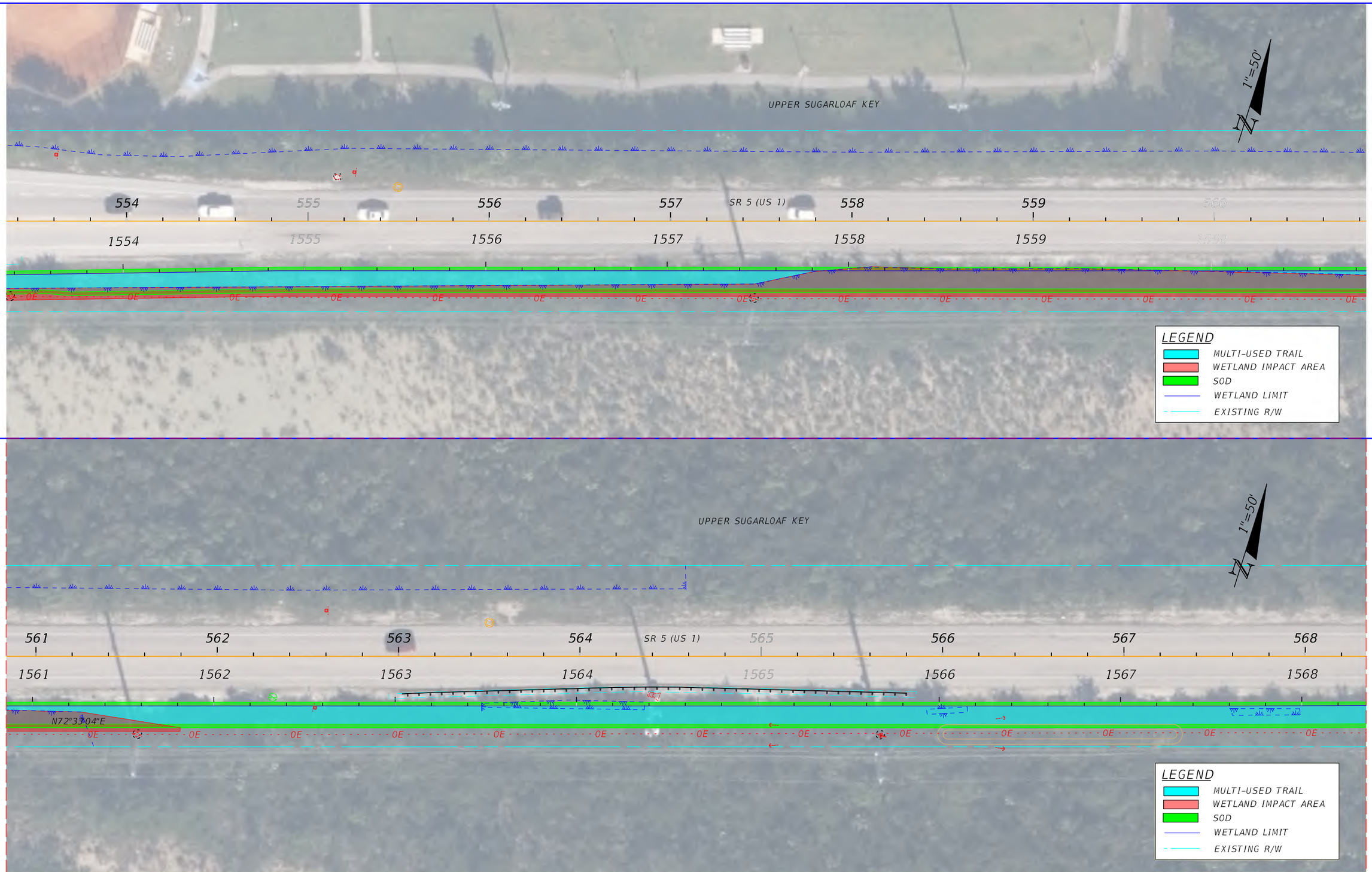

FDOT DISTRICT 6
PLANNING AND ENVIROMENTAL
MANAGEMENT OFFICE
1000 NW 111th AVENUE
MIAMI, FLORIDA 33172

SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD
FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT)
SCOPING REPORT
ROADWAY ID: 9002000/ MP 13.245- MP 15.253

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

CONCEPT PLAN PRELIMINARY WETLAND IMPACT AREAS

SHEET NO. 07

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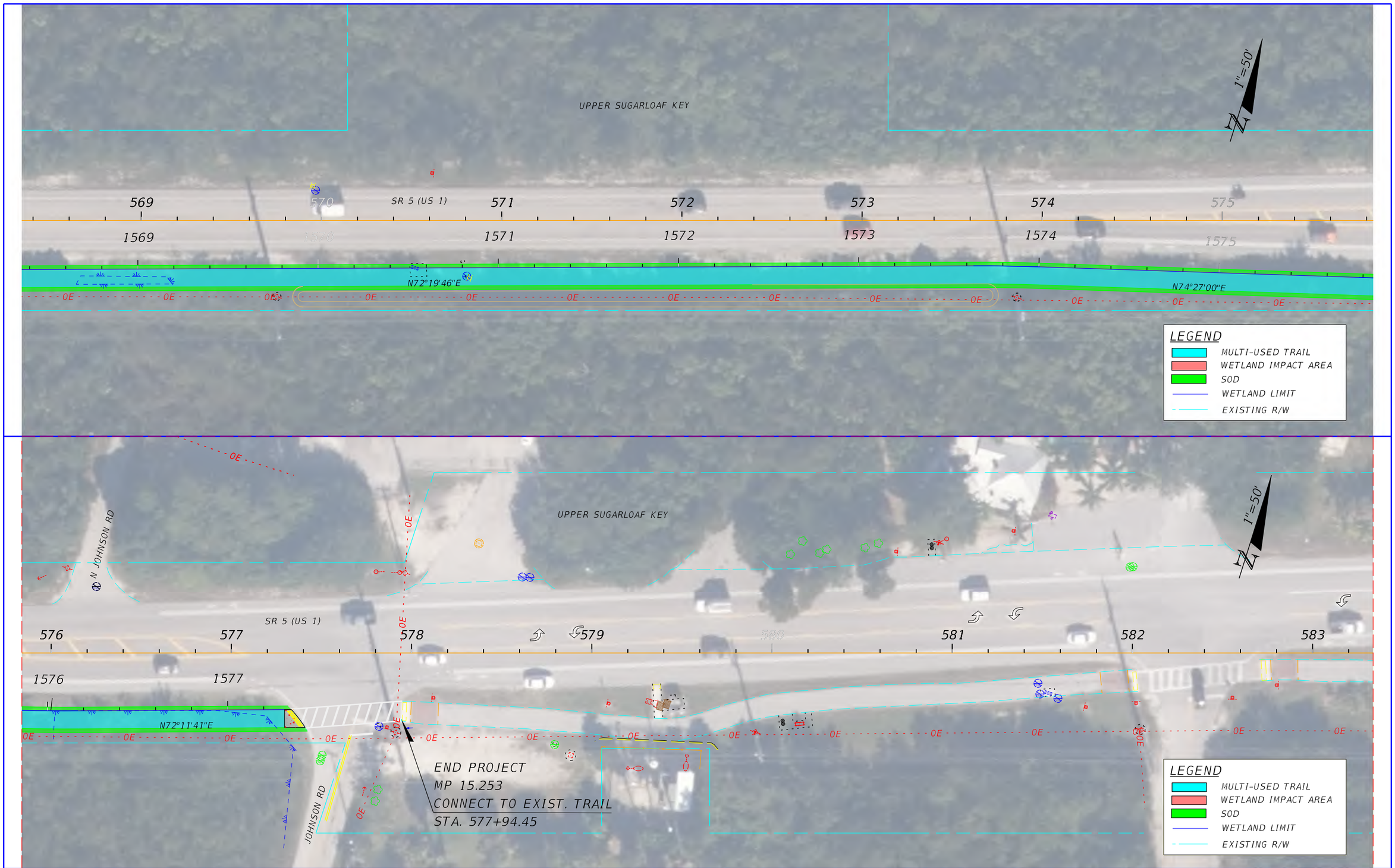

FDOT DISTRICT 6
PLANNING AND ENVIROMENTAL
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1000 NW 111th AVENUE
MIAMI, FLORIDA 33172

SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD
FLORIDA KEYS OVERSEAS HERITAGE TRAIL (FKOHT)
SCOPING REPORT
ROADWAY ID: 9002000/ MP 13.245- MP 15.253

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 5	MONROE	452558-52-01

CONCEPT PLAN PRELIMINARY WETLAND IMPACT AREAS

SHEET NO. 08

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F. Environmental Resource Desktop Analysis

G. Long Range Estimates

Date: 6/16/2025 8:50:01 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 452558-2-52-01 **Letting Date:** 09/2027

Description: SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD (FL KEYS HERITAGE TRL)

District: 06 **County:** 90 MONROE **Market Area:** 14 **Units:** English
Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 2.010 MI

Project Manager: DE LA CRUZ, JOAQUIN

Version 1-P Project Grand Total **$10,297,563.89**
Description: SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD (FL KEYS HERITAGE TRL)

Sequence: 1 MIS - Miscellaneous Construction **Net Length:** 2.008 MI / 10,602 LF

Description: Florida Keys Overseas Heritage Trail (FKOHT) Shared Use Path

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EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.40	AC	$55,841.07	$189,859.64
120-1	REGULAR EXCAVATION	6,000.00	CY	$50.00	$300,000.00
120-6	EMBANKMENT	9,995.00	CY	$31.98	$319,640.10
	Earthwork Component Total				$809,499.74

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
107-1	LITTER REMOVAL	14.50	AC	$12.46	$180.67
107-2	MOWING	5.00	AC	$43.35	$216.75
160-4	TYPE B STABILIZATION	18,800.00	SY	$22.83	$429,204.00
285-701	OPTIONAL BASE,BASE GROUP 01	18,800.00	SY	$33.23	$624,724.00
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	1,200.00	TN	$229.42	$275,304.00
339-1	MISCELLANEOUS ASPHALT PAVEMENT	25.00	TN	$645.13	$16,128.25
400-0-11	CONC CLASS NS, GRAVITY WALL	4,500.00	CY	$900.00	$4,050,000.00
515-2-211	PED/BICYCLE RAILING,STL, 42" TYPE 1	8,860.00	LF	$148.03	$1,311,545.80
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	100.00	SY	$163.55	$16,355.00
527-2	DETECTABLE WARNINGS	80.00	SF	$53.73	$4,298.40
530-3-3	RIPRAP- RUBBLE, BANK AND SHORE	2,200.00	TN	$183.50	$403,700.00
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	200.00	LF	$30.94	$6,188.00
570-1-2	PERFORMANCE TURF, SOD	9,680.00	SY	$6.43	$62,242.40

711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12"	280.00 LF	$4.09	$1,145.20
711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24"	300.00 LF	$8.91	$2,673.00
711-11-160	THERMOPLASTIC, STD, WHITE, MESSAGE	5.00 EA	$227.63	$1,138.15

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Roadway Component Total $7,205,043.62

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	200.00	LF	$225.50	$45,100.00
443-70-4	FRENCH DRAIN, 24"	200.00	LF	$455.52	$91,104.00

Drainage Component Total $136,204.00

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-111	SINGLE COL GRND SIGN AS, F&I GM, <12 SF	6.00	EA	$963.01	$5,778.06

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-500	SINGLE COL GRND SIGN AS, RELOCATE	13.00	EA	$477.59	$6,208.67

Signing Component Total $11,986.73

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	Miscellaneous
Multiplier	1
Description	

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,000.00	LF	$56.31	$56,310.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	$2,473.06	$14,838.36
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	2.00	EA	$3,792.87	$7,585.74

653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	2.00	AS	$2,044.96	$4,089.92

Signalizations Component Total $82,824.02

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MAX

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	500.00	LF	$43.63	$21,815.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	150.00	LF	$56.31	$8,446.50
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	$2,473.06	$14,838.36
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,000.00	LF	$8.69	$26,070.00
715-61-342	LIGHT POLE CMPLT,STD,F&I, 40'MH,12'ARM L	4.00	EA	$14,981.10	$59,924.40
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	4.00	EA	$2,690.42	$10,761.68
	Subcomponent Total				$141,855.94

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
639-1-122	ELECTRICAL POWER SRV,F&I, UG,PUR CONT	1.00	AS	$12,033.45	$12,033.45
639-2-1	ELECTRICAL SERVICE WIRE, F&I	200.00	LF	$13.94	$2,788.00
639-3-11	ELEC SERV DISCON, F&I, POLE MNT	1.00	EA	$3,225.91	$3,225.91
715-7-12	LOAD CENTER, F&I, PRIMARY VOLTAGE	1.00	EA	$20,660.74	$20,660.74

Lighting Component Total $180,564.04

Sequence 1 Total $8,426,122.15

Date: 6/16/2025 8:50:02 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 452558-2-52-01 **Letting Date:** 09/2027

Description: SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD (FL KEYS HERITAGE TRL)

District: 06 **County:** 90 MONROE **Market Area:** 14 **Units:** English
Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 2.010 MI

Project Manager: DE LA CRUZ, JOAQUIN

Version 1-P Project Grand Total **$10,297,563.89**
Description: SR 5/US 1 FROM N. HARRIS CHANNEL TO JOHNSON RD (FL KEYS HERITAGE TRL)

Project Sequences Subtotal			**$8,426,122.15**
102-1	Maintenance of Traffic	10.00 %	$842,612.22
101-1	Mobilization	10.00 %	$926,873.44
Project Sequences Total			**$10,195,607.81**
Project Unknowns		0.00 %	$0.00
Design/Build		0.00 %	$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$101,956.08	$101,956.08
Project Non-Bid Subtotal					**$101,956.08**
Version 1-P Project Grand Total					**$10,297,563.89**