

HANCOCK ROAD GUARDRAIL IMPROVEMENTS

TOWN OF SOUTHWEST RANCHES P.O. NO. 20-0030 BROWARD COUNTY, FLORIDA



TOWN COUNCIL

- MAYOR - DOUG MCKAY
- COUNCIL MEMBER - GARY JABLONSKI
- COUNCIL MEMBER - DELSA WINSLOW AMUNDSON
- COUNCIL MEMBER - BOB HARTMAN
- COUNCIL MEMBER - DENISE "DEE" SCHROEDER
- TOWN ADMINISTRATOR - ANDREW BERNS

UTILITY CONTACTS:

- COMCAST CABLE - LEONARD MAXWELL-NEWBOLD (954) 447-8405
- FLORIDA POWER & LIGHT - JOEL BRAY Joel.Bray@fpl.com
- CITY OF SUNRISE - GLADYS (KATHY) CRISCI (954) 746-3277
- AT & T / DISTRIBUTION - DINO FARRUGGIO (561) 997-0240
- MASTEC INC. - RICKIE QUINN rickie.quinn@mastec.com
- CROWN CASTLE - NICK BELINSKY (724) 416-2449



PROJECT LOCATION

LOCATION MAP

SECTIONS 27 & 34, TOWNSHIP 50 SOUTH, RANGE 40 EAST

PREPARED FOR:

TOWN OF SOUTHWEST RANCHES

SHEET INDEX

SHEET NO.	DESCRIPTION	REV
G-01	COVER SHEET	
G-02	GENERAL NOTES & SPECIFICATIONS	
C-01	GUARDRAIL INSTALLATION STA. 3+00 - 12+55.26	
C-02	GUARDRAIL INSTALLATION STA. 12+55.26 - 22+55.26	
C-03	GUARDRAIL INSTALLATION STA. 22+55.26 - 32+55.26	
C-04	GUARDRAIL INSTALLATION STA. 32+55.26 - 42+55.26	
C-05	GUARDRAIL INSTALLATION STA. 42+55.26 - 52+55.26	
C-06	GUARDRAIL INSTALLATION STA. 52+55.26 - 62+55.26	
C-07	GUARDRAIL INSTALLATION STA. 62+55.26 - 71+77.28	
CS-01 THRU CS-03	CANAL CROSS SECTIONS	
DET-1	CANAL RESTORATION DETAILS & NOTES	
DET-2	GUARDRAIL DETAILS	
ECP-1	EROSION & SEDIMENT CONTROL GUIDE PLAN	
ECP-2	EROSION & SEDIMENT CONTROL GUIDE PLAN	

REV. # DESCRIPTION DATE



CRAVEN • THOMPSON AND ASSOCIATES, INC.
ENGINEERS • PLANNERS • SURVEYORS
3563 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
FAX: (954) 739-6409 TEL.: (954) 739-6400

FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS No. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS No. C000114

MATERIAL SHOWN HEREON IS THE PROPERTY OF CRAVEN THOMPSON & ASSOCIATES, INC. AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT WRITTEN PERMISSION OF CRAVEN THOMPSON & ASSOCIATES, INC. CRAVEN THOMPSON & ASSOCIATES, INC. COPYRIGHT ©2020

Always call 811 two full business days before you dig to have underground utilities located and marked.

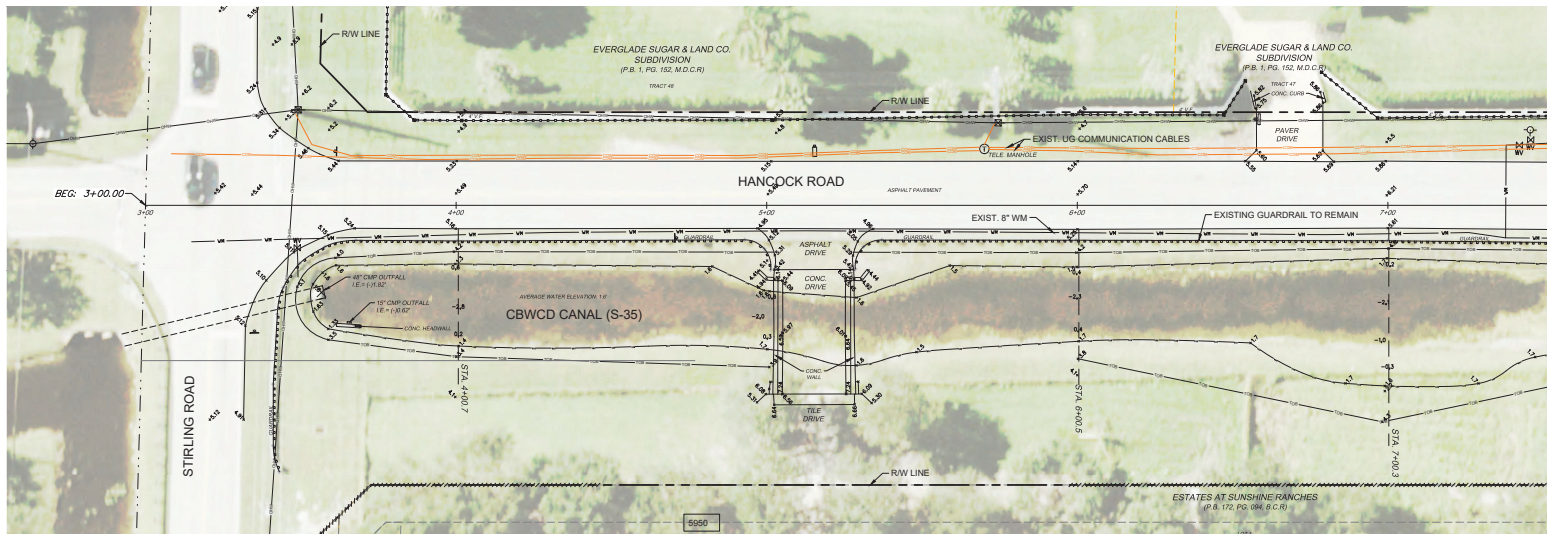


VERTICAL INFORMATION HEREON IS RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). NAVD88 ELEV. +1.56' = NGVD 29 ELEVATION

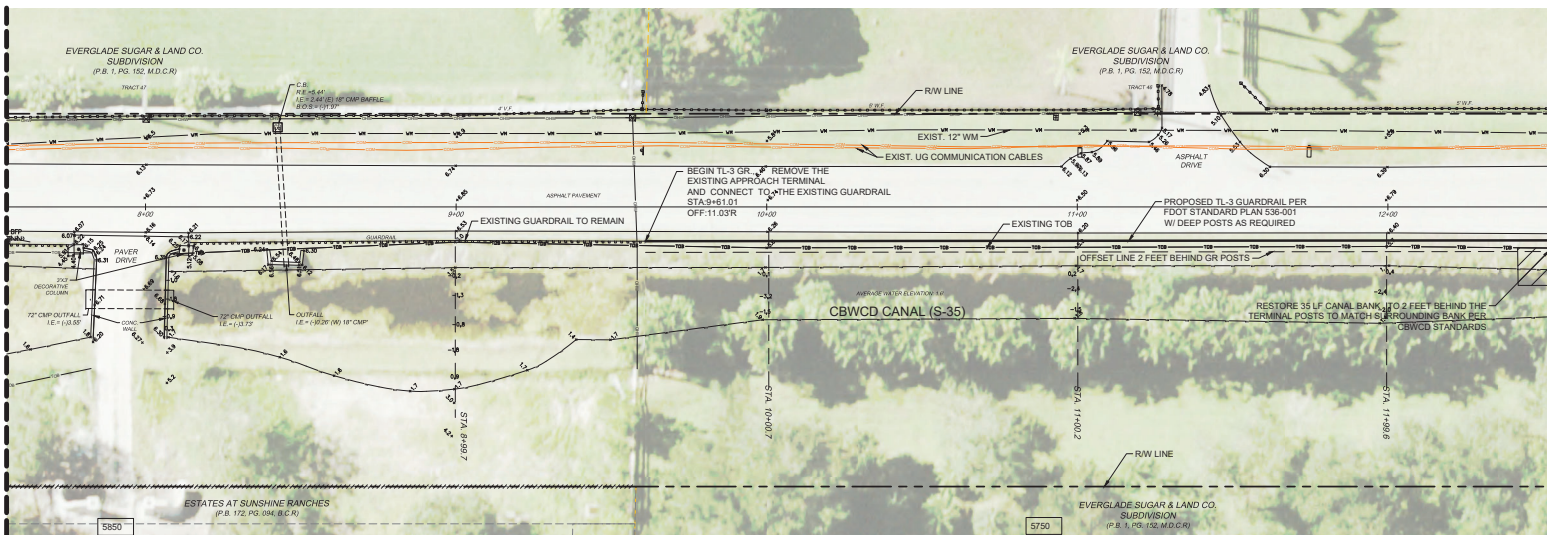
Philip P. Joseph
Florida P.E. No. 50825
February 18, 2021

CBWCD PERMIT SUBMITTAL
DATE: JANUARY 18, 2021
CTA PROJECT NUMBER: 20-013-001-01

R:\Engineering\2020\20-0013-0013-01-01-GrainRd.dwg [C-01] Feb 17, 2021 4:58pm P:\JSEPH

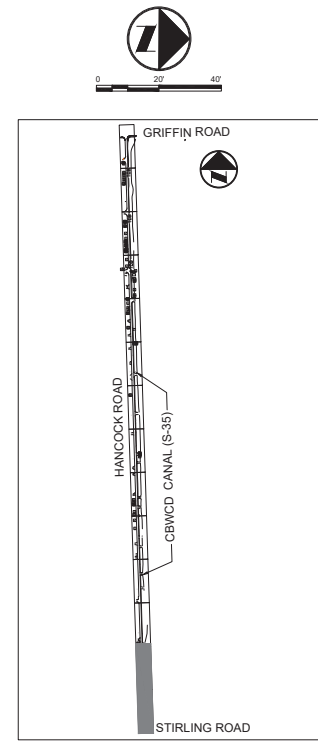


SEE BOTTOM LEFT THIS SHEET FOR CONTINUATION



SEE TOP RIGHT THIS SHEET FOR CONTINUATION

SEE SHEET C-02 FOR CONTINUATION



LEGEND

- EXISTING GUARDRAIL
- EXISTING TOP OF BANK
- EXISTING WATER MAIN
- EXISTING OVERHEAD WIRE
- EXISTING UNDERGROUND COMMUNICATION CABLE
- EXISTING GRADE
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING BACKFLOW PREVENTER
- EXISTING ROADSIDE SIGN
- PROPERTY ADDRESS
- PROPOSED GUARDRAIL
- PROPOSED APPROACH TERMINAL PARALLEL
- PROPOSED CANAL BANK RESTORATION

DESCRIPTION:	BY:	DATE:

DATE:	DRAWN BY:	CHECKED BY:	APPROVED BY:
11/10/2020	JA	PG	PG

Craven + Thompson and Associates, Inc.
ENGINEERS + PLANNERS + SURVEYORS
 3863 N.W. 63RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 739-4400 TEL: (954) 739-4400
 FLORIDA LICENSED ENGINEERING, SURVEYING & PLANNING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000074

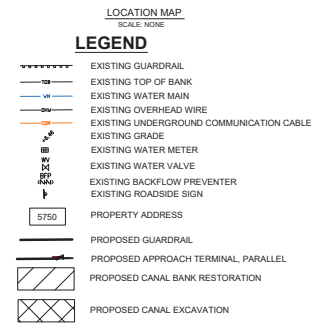
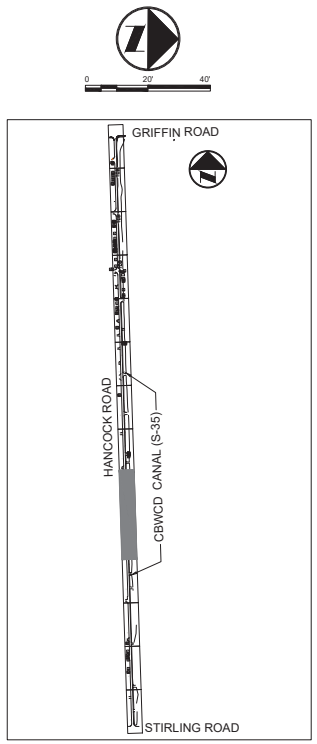
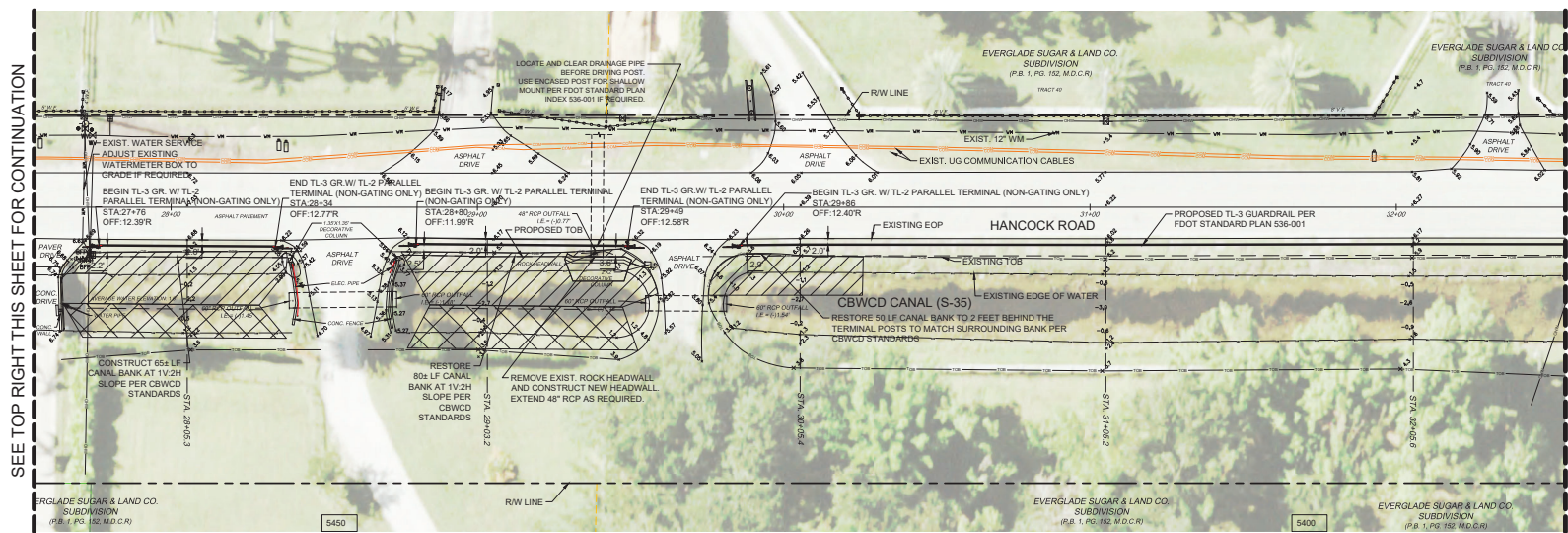
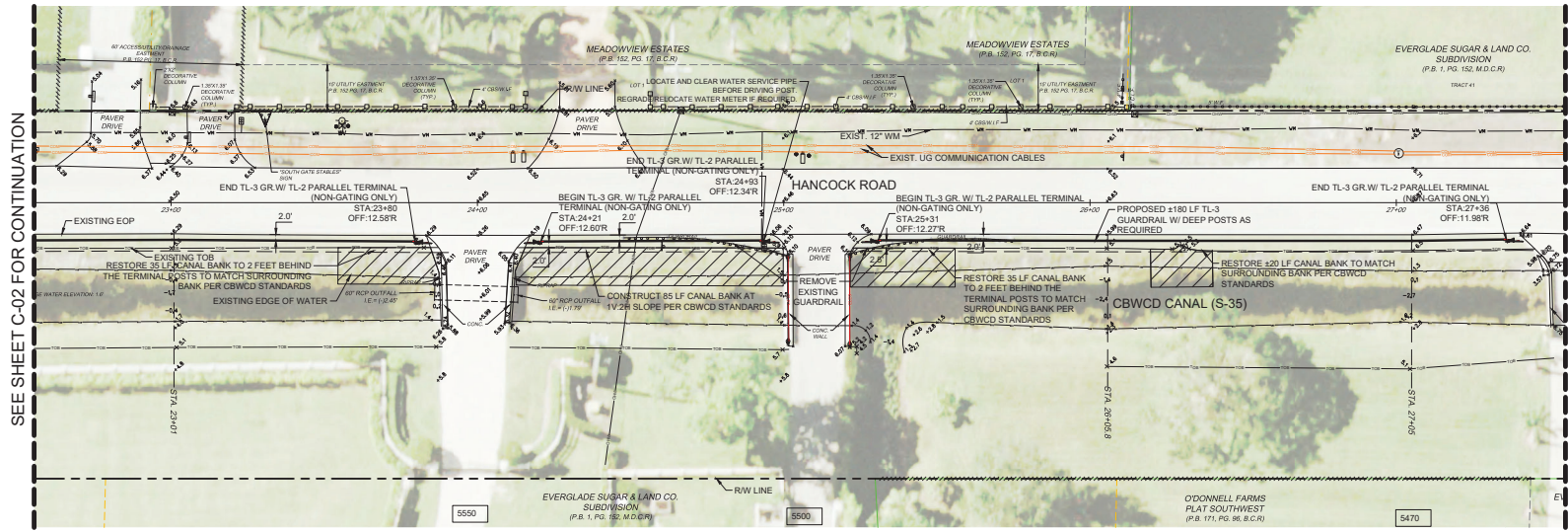
**TOWN OF SOUTHWEST RANCHES
 HANCOCK ROAD GUARDRAIL IMPROVEMENTS
 STIRLING ROAD TO GRIFFIN ROAD**

GUARDRAIL INSTALLATION STA. 3+00 - 12+55.26
 PREPARED FOR:
TOWN OF SOUTHWEST RANCHES

PROJECT NO.	SHEET NUMBER
20-0013-001-01	C-01

Philip P. Joseph
 Florida P.E. No. 50825
 February 17, 2021

R:\Engineering\2020\20-001-01-01-GriffinRoad-Guardrail.dwg [C-03] File 17, 2021 4:56pm P:\JOS/SPH



SEE SHEET C-02 FOR CONTINUATION

SEE BOTTOM LEFT THIS SHEET FOR CONTINUATION

SEE TOP RIGHT THIS SHEET FOR CONTINUATION

SEE SHEET C-04 FOR CONTINUATION

DESCRIPTION	BY	DATE

DATE	DRAWN BY	CHECKED BY	APPROVED BY
11/10/2020	JA	PG	PG

CRAVEN • THOMPSON AND ASSOCIATES, INC.
ENGINEERS • PLANNERS • SURVEYORS
 3863 N.W. 63RD STREET, FORT LAUDERDALE, FLORIDA 33309
 TEL: (954) 738-4400 FAX: (954) 738-4409
 FLORIDA LICENSED ENGINEER SURVEYOR BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 00074

TOWN OF SOUTHWEST RANCHES
HANCOCK ROAD GUARDRAIL IMPROVEMENTS
STIRLING ROAD TO GRIFFIN ROAD

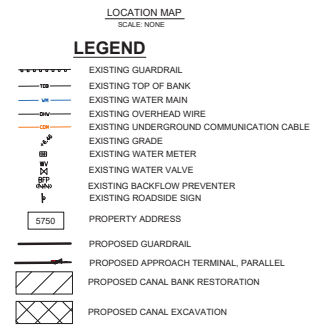
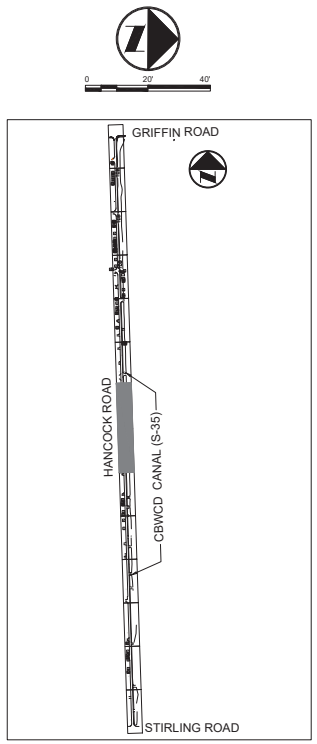
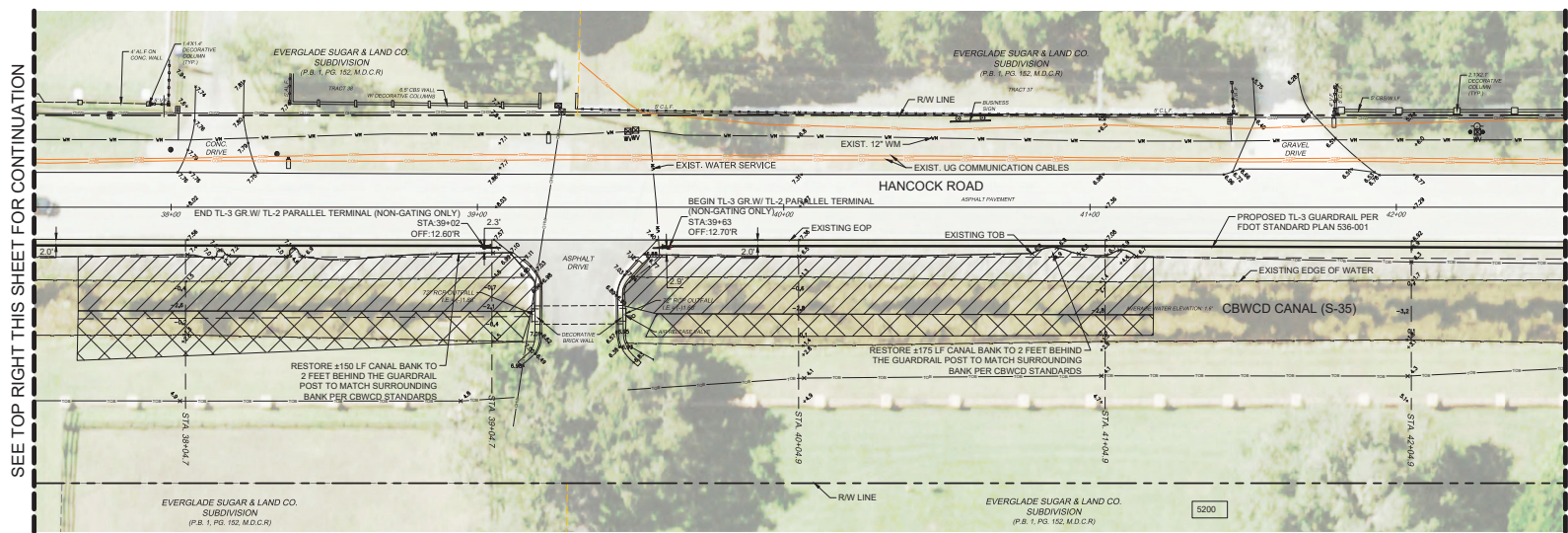
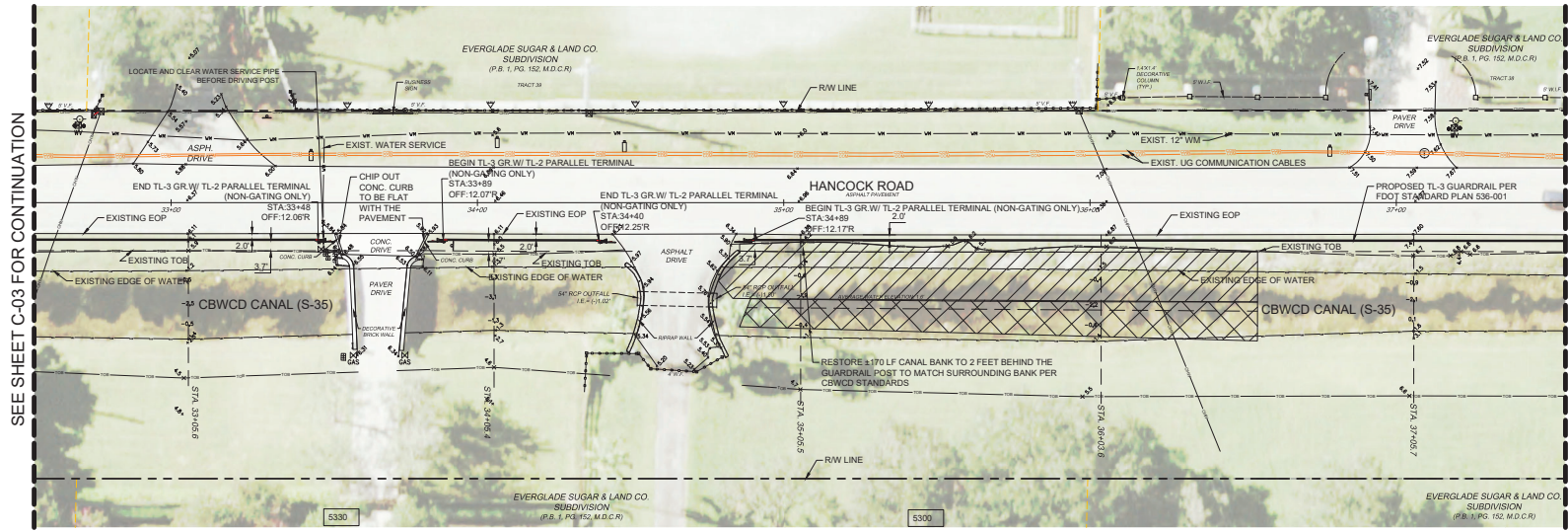
GUARDRAIL INSTALLATION STA. 22+55.26 - 32+55.26

PREPARED FOR:
TOWN OF SOUTHWEST RANCHES

PROJECT NO.	SHEET NUMBER
20-0013-001-01	C-03

Philip P. Joseph
 Florida P.E. No. 50825
 February 17, 2021

R:\Engineering\2020\20-001-001-01-Hancock Road Guardrail\Drawings\20-001-001-01-Guardrail.dwg [C-04] Feb. 17, 2021 4:56pm P.JOSEPH



SEE SHEET C-03 FOR CONTINUATION

SEE BOTTOM LEFT THIS SHEET FOR CONTINUATION

SEE TOP RIGHT THIS SHEET FOR CONTINUATION

SEE SHEET C-05 FOR CONTINUATION

DESCRIPTION	BY	DATE
DATE:	11/10/2020	DRAWN BY: JA
SCALE:	SEE PLAN	CHECKED BY: PG
DESIGN BY: PJP	APPROVED BY: PG	

Craven + Thompson and Associates, Inc.
ENGINEERS + PLANNERS + SURVEYORS
 3463 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
 TEL: (954) 739-4400 FAX: (954) 739-4400
 FLORIDA LICENSED ENGINEERING SURVEYING & PLANNING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000074

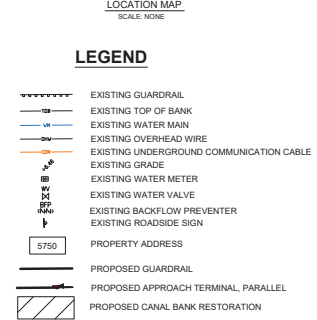
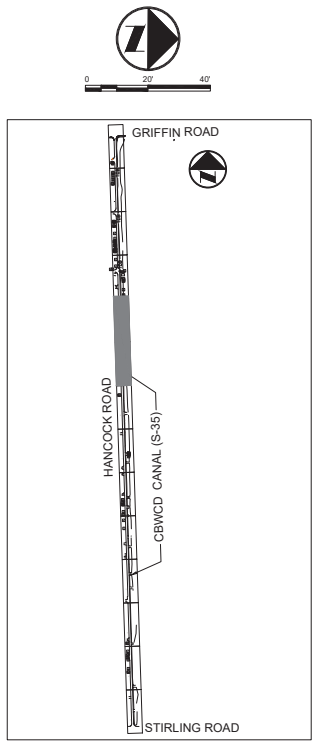
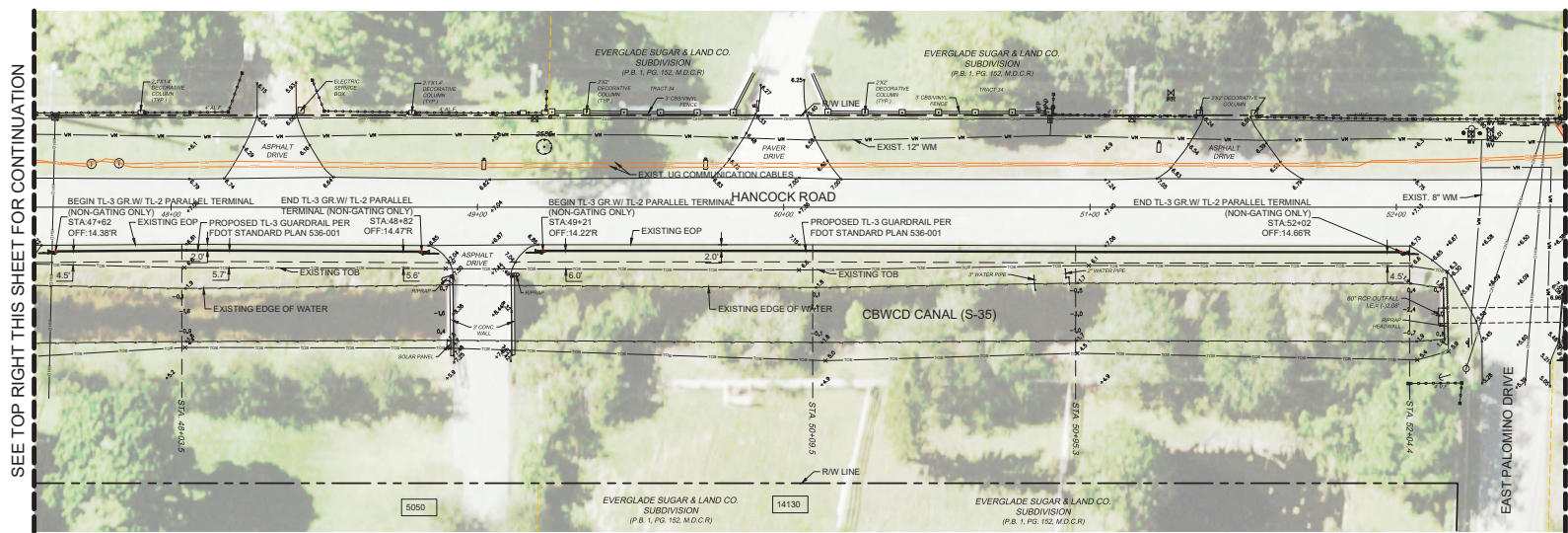
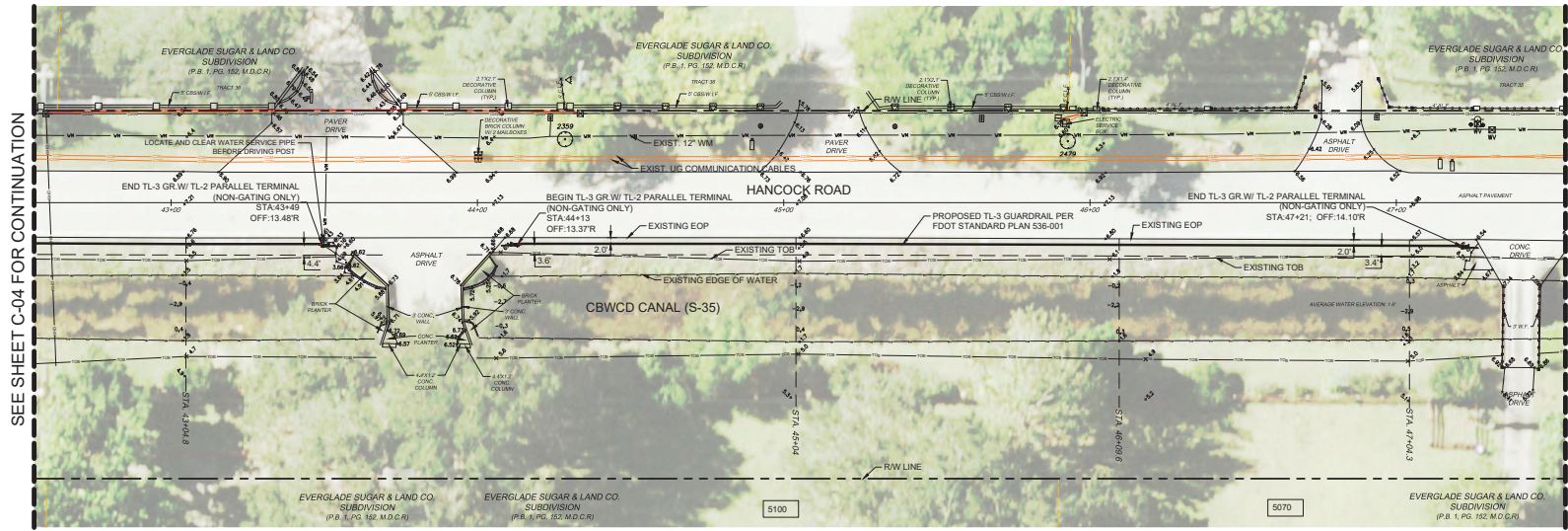
**TOWN OF SOUTHWEST RANCHES
 HANCOCK ROAD GUARDRAIL IMPROVEMENTS
 STIRLING ROAD TO GRIFFIN ROAD**

GUARDRAIL INSTALLATION STA. 32+55.26 - 42+55.26
 PREPARED FOR:
TOWN OF SOUTHWEST RANCHES

PROJECT NO.	SHEET NUMBER
20-0013-001-01	C-04

Philip P. Joseph
 Florida P.E. No. 50825
 February 17, 2021

R:\Engineering\2020\20-0013-001-01-Guardrail.dwg [C-05] Feb 17, 2021 4:57pm PJ055PH



SEE SHEET C-04 FOR CONTINUATION

SEE BOTTOM LEFT THIS SHEET FOR CONTINUATION

SEE RIGHT THIS SHEET FOR CONTINUATION

SEE SHEET C-06 FOR CONTINUATION

DESCRIPTION	BY	DATE
SCALE	SEE PLAN	
DESIGN BY	PPJ	APPROVED BY

CRAVEN • THOMPSON AND ASSOCIATES, INC.
ENGINEERS • PLANNERS • SURVEYORS
 3863 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
 TEL: (954) 739-4400 FAX: (954) 739-4400
 FLORIDA LICENSED ENGINEERING SURVEYING & PLANNING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000074

TOWN OF SOUTHWEST RANCHES
HAWKCOCK ROAD GUARDRAIL IMPROVEMENTS
STIRLING ROAD TO GRIFFIN ROAD

GUARDRAIL INSTALLATION STA. 42+55.26 - 52+55.26
 PREPARED FOR:
TOWN OF SOUTHWEST RANCHES

PROJECT NO.	SHEET NUMBER
20-0013-001-01	C-05

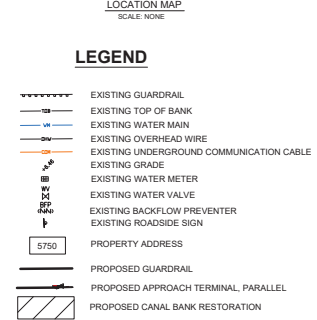
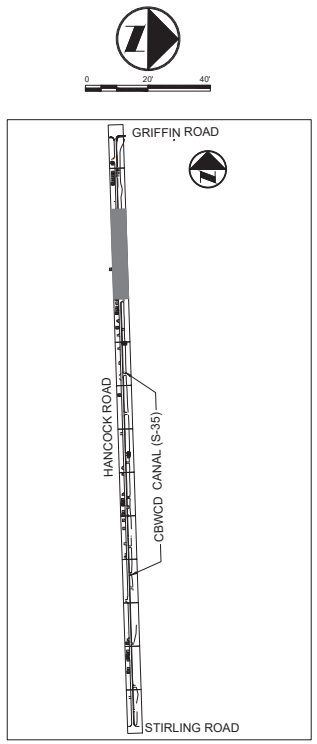
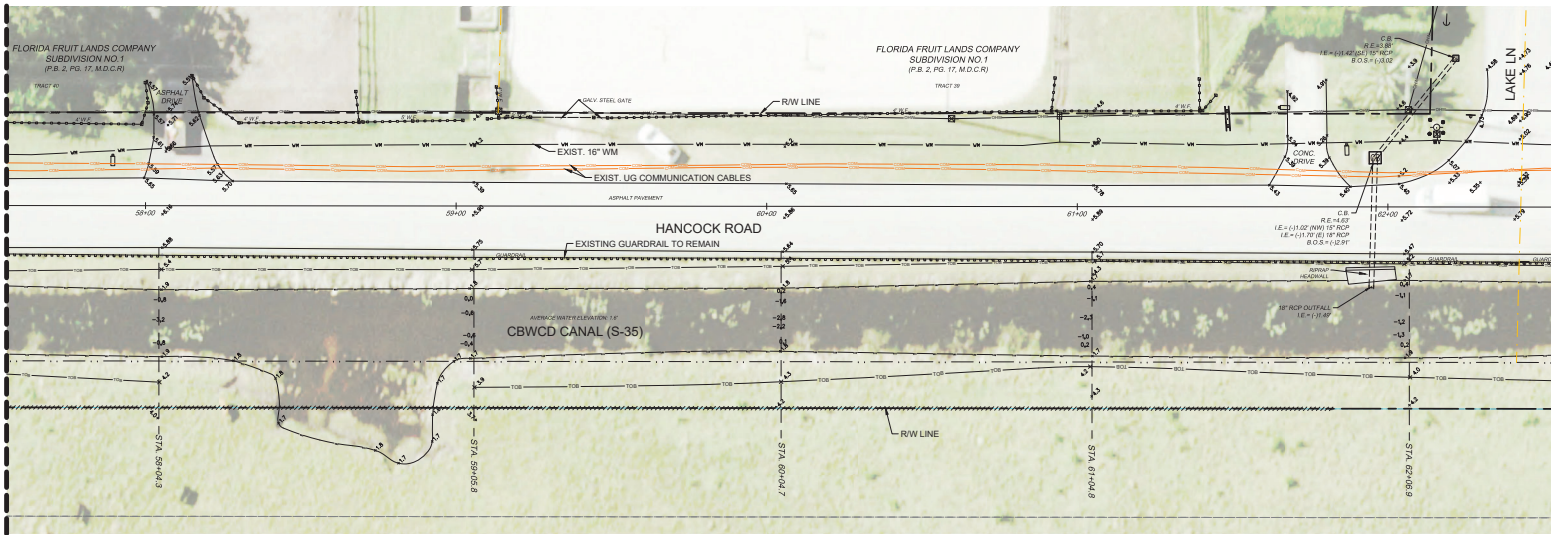
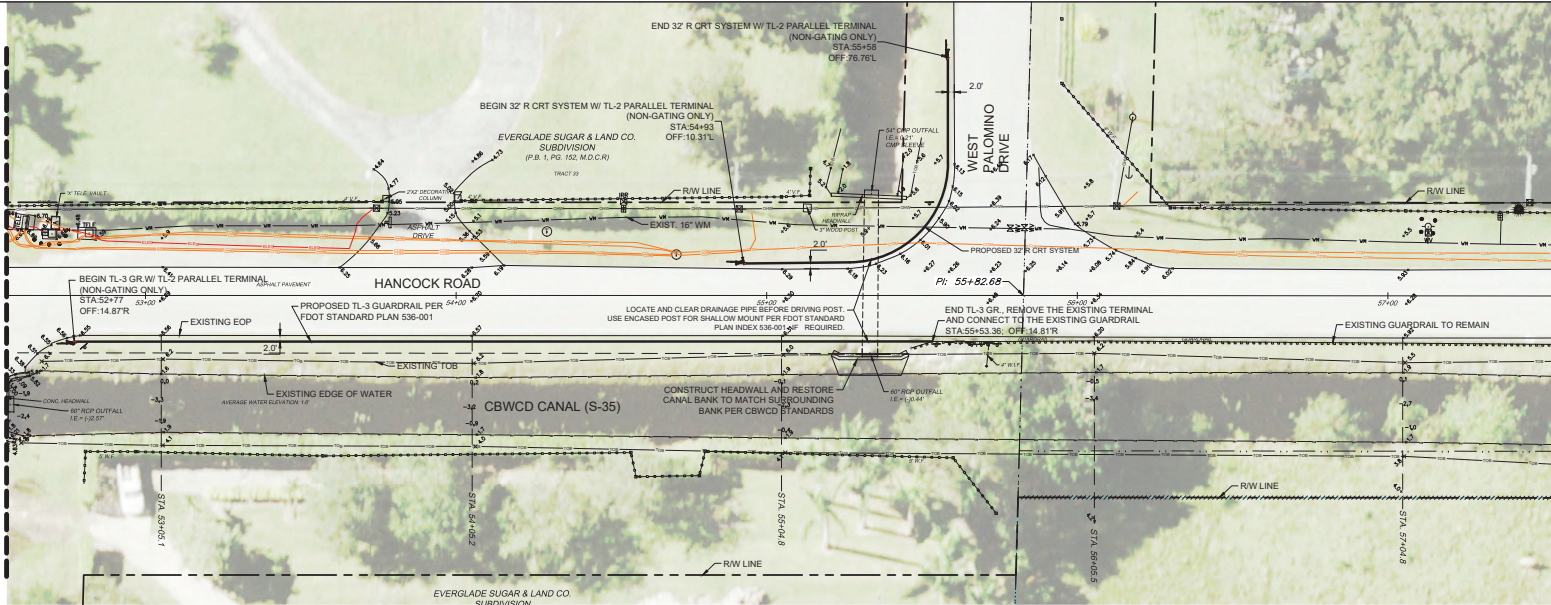
Philip P. Joseph
 Florida P.E. No. 50825
 February 17, 2021

SEE SHEET C-05 FOR CONTINUATION

SEE TOP RIGHT THIS SHEET FOR CONTINUATION

SEE BOTTOM LEFT THIS SHEET FOR CONTINUATION

SEE SHEET C-07 FOR CONTINUATION



DESCRIPTION	BY	DATE	DRAWN BY	CHECKED BY	APPROVED BY
		11/10/2020	JA	PG	PG
SCALE:	SEE PLAN				
DESIGN BY:	PJP				

Craven • Thompson and Associates, Inc.
ENGINEERS • PLANNERS • SURVEYORS
 3463 N.W. 63RD STREET, FORT LAUDERDALE, FLORIDA 33309
 TEL: (954) 739-4400 FAX: (954) 739-4400
 FLORIDA LICENSED ENGINEERING SURVEYING & PLANNING BUSINESS NO. 371
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000074

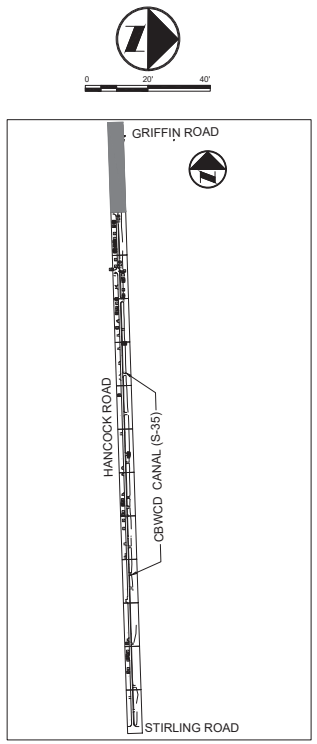
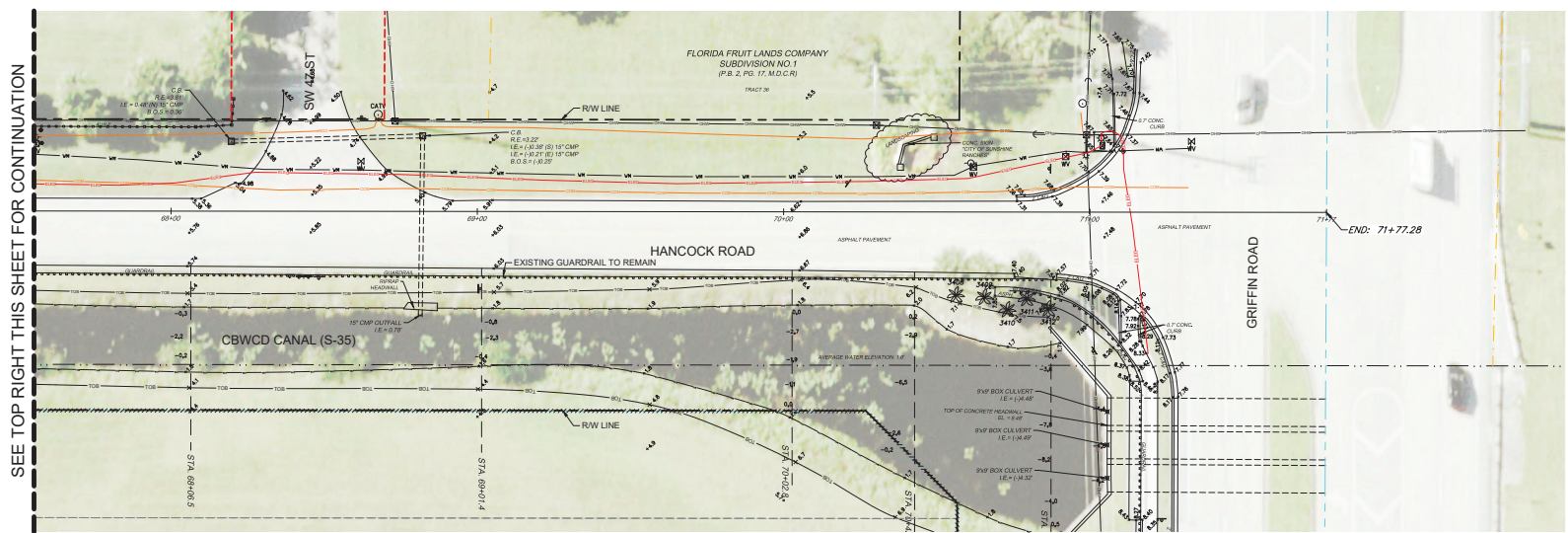
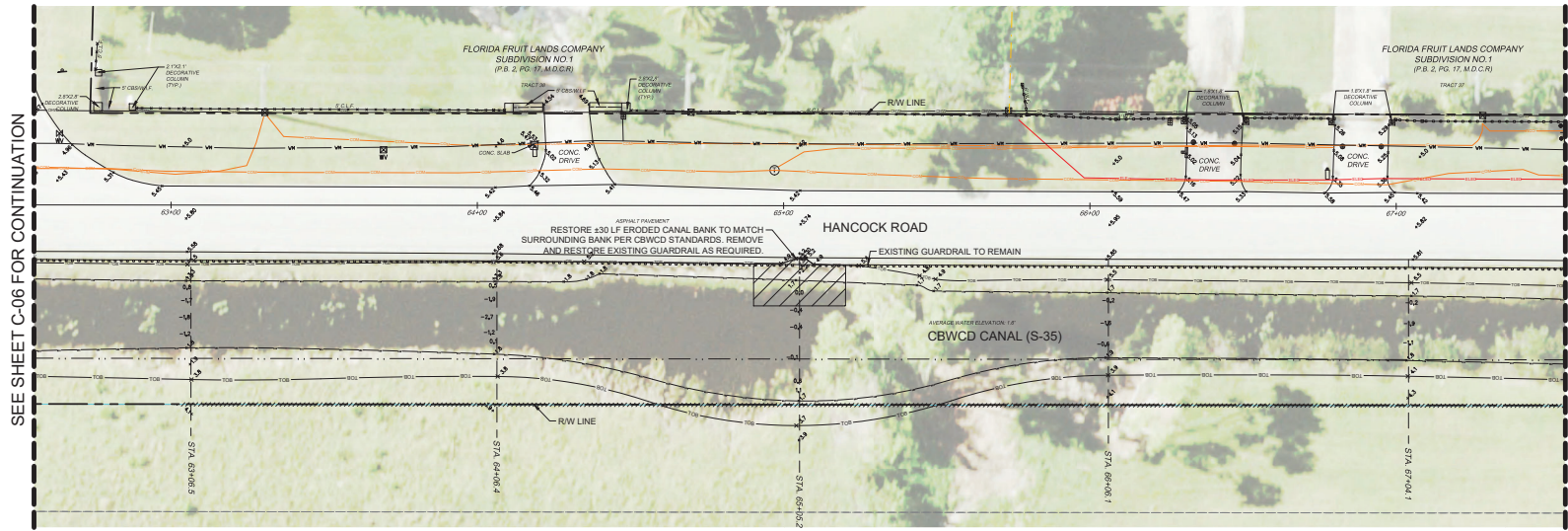
TOWN OF SOUTHWEST RANCHES
HANCOCK ROAD GUARDRAIL IMPROVEMENTS
STIRLING ROAD TO GRIFFIN ROAD

GUARDRAIL INSTALLATION STA. 52+55.26 - 62+55.26
 PREPARED FOR:
TOWN OF SOUTHWEST RANCHES

PROJECT NO.	SHEET NUMBER
20-0013-001-01	C-06

Philip P. Joseph
 Florida P.E. No. 50825
 February 17, 2021

R:\Engineering\2020\20-0013-001-01-Guardrail\Drawings\20-0013-001-01-Guardrail.dwg [C-07] Feb. 17, 2021 4:56pm PJ055PH



LEGEND

- EXISTING GUARDRAIL
- EXISTING TOP OF BANK
- EXISTING WATER MAIN
- EXISTING OVERHEAD WIRE
- EXISTING UNDERGROUND COMMUNICATION CABLE
- EXISTING GRADE
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING BACKFLOW PREVENTER
- EXISTING ROADSIDE SIGN
- PROPERTY ADDRESS
- PROPOSED GUARDRAIL
- PROPOSED APPROACH TERMINAL PARALLEL
- PROPOSED CANAL BANK RESTORATION

DESCRIPTION:	BY:	DATE:	DATE:	DRAWN BY:	JA
SCALE:	SEE PLAN	CHECKED BY:	PG	DESIGN BY:	PJJ
		APPROVED BY:	PG		

Craven + Thompson and Associates, Inc.
ENGINEERS + PLANNERS + SURVEYORS
 2863 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 738-4400 TEL: (954) 738-4400
 FLORIDA LICENSED ENGINEERING SURVEYING & PLANNING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000074

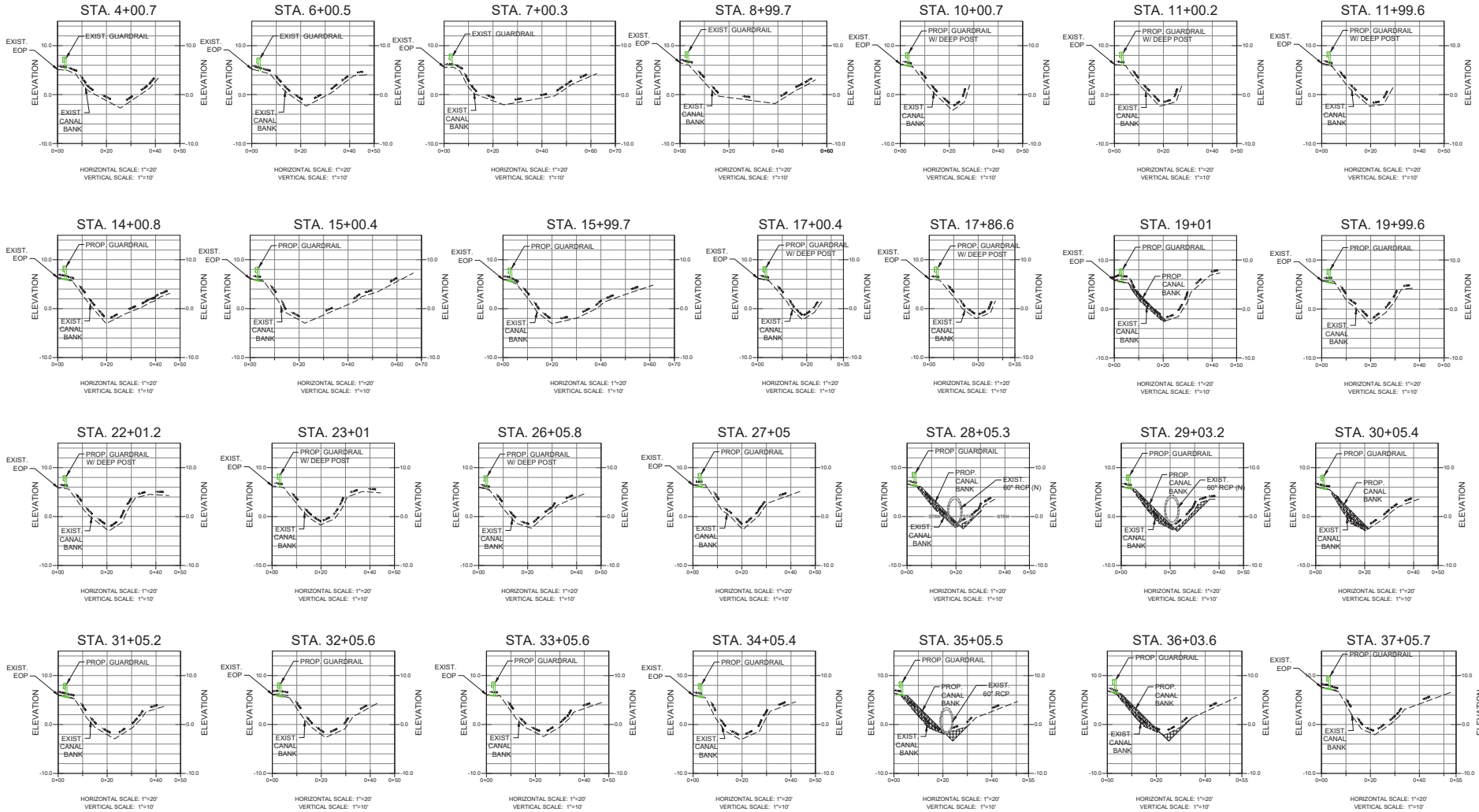
TOWN OF SOUTHWEST RANCHES
HANCOCK ROAD GUARDRAIL IMPROVEMENTS
STIRLING ROAD TO GRIFFIN ROAD

GUARDRAIL INSTALLATION STA. 62+55.26 - 71+77.28
 PREPARED FOR:
TOWN OF SOUTHWEST RANCHES

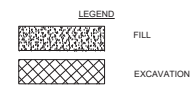
PROJECT NO.	SHEET NUMBER
20-0013-001-01	C-07

Philip P. Joseph
 Florida P.E. No. 50825
 February 17, 2021

SCALE: 1" = 20' HORIZONTAL
1" = 10' VERTICAL



NOTE: EXIST. GUARDRAIL SHOWN IS NOT TO SCALE



R:\Engineering\2020\20-0013-0013-01-01-Hancock Road Guardrail\Drawings\20-0013-0013-Cover_Cross Sections.dwg [C-01] Feb 18, 2021 10:05am PJOSPEH

DESCRIPTION:	BY:	DATE:	11/10/2020	DRAWN BY:	JA
	SCALE:	SEE PLAN	CHECKED BY:	PG	
	DESIGN BY:	PJP	APPROVED BY:	PG	

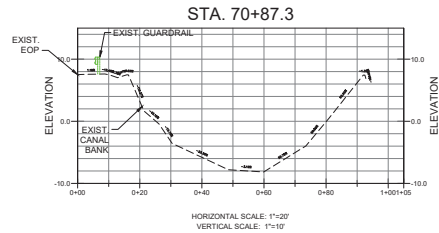
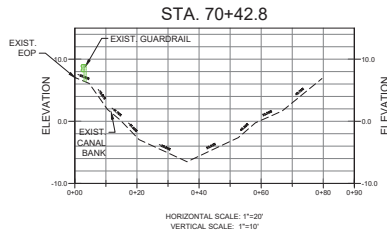
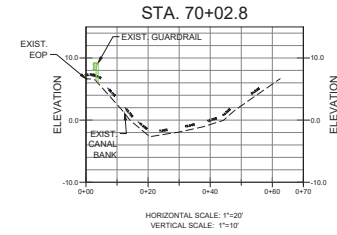
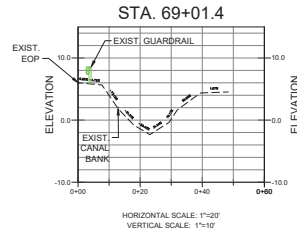
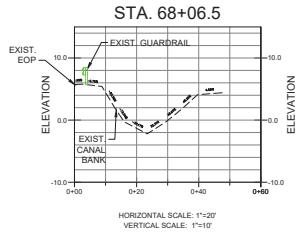
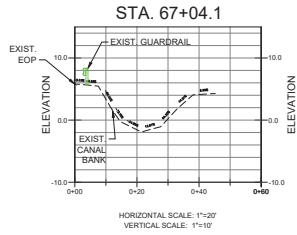
CRAVEN • THOMPSON AND ASSOCIATES, INC.
ENGINEERS • PLANNERS • SURVEYORS
 3463 N.W. 63RD STREET, FORT LAUDERDALE, FLORIDA 33309
 TEL: (954) 739-4400 FAX: (954) 739-4400
 FLORIDA LICENSED ENGINEERING SURVEYING & PLANNING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000074

TOWN OF SOUTHWEST RANCHES
HANCOCK ROAD GUARDRAIL IMPROVEMENTS
STIRLING ROAD TO GRIFFIN ROAD

CANAL CROSS SECTIONS
 PREPARED FOR:
TOWN OF SOUTHWEST RANCHES

PROJECT NO.	20-0013-001-01	SHEET NUMBER	CS-01
-------------	----------------	--------------	-------

Philip P. Joseph
 Florida P.E. No. 50825
 February 18, 2021



NOTE: EXIST. GUARDRAIL SHOWN IS NOT TO SCALE

R:\Engineering\2020\20-0013-001-01-Hancock Road Guardrail Drawings\20-0013-001-01-Cross Section\dwg [CS-03].Feb 18, 2021 10:08am P.JOSEPH

DESCRIPTION:	BY:	DATE:	11/10/2020	DRAWN BY:	JA
		SCALE:	SEE PLAN	CHECKED BY:	PG
		DESIGN BY:	PPJ	APPROVED BY:	PG

CRAVEN • THOMPSON AND ASSOCIATES, INC.
ENGINEERS • PLANNERS • SURVEYORS
 3863 N.W. 63RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 739-4409 TEL: (954) 739-4400
 FLORIDA LICENSED ENGINEERING SURVEYING & PLANNING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000074

**TOWN OF SOUTHWEST RANCHES
 HANCOCK ROAD GUARDRAIL IMPROVEMENTS
 STIRLING ROAD TO GRIFFIN ROAD**

CANAL CROSS SECTIONS
 PREPARED FOR:
TOWN OF SOUTHWEST RANCHES

PROJECT NO.	SHEET NUMBER
20-0013-001-01	CS-03

Philip P. Joseph
 Florida P.E. No. 50825
 February 18, 2021

CBWCD GENERAL NOTES

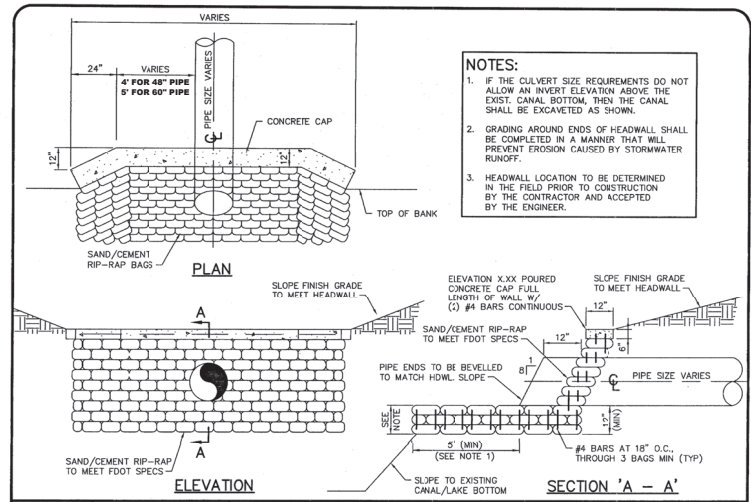
- The following General Notes are required by Central Broward Water Control District. They are not meant to be all inclusive, and it is the Engineer of Records' responsibility to add any notes which will inform the Owner and the Contractor of any additional requirement of the Central Broward Water Control District.
- Any revisions to these plans must be approved by the Central Broward Water Control District prior to construction.
- Bonds: Upon District Board of Commissioners approval of plans, but before construction can commence, the following items must be complied with:
 - Bond (cash or surety), in the District's favor, must be posted in the amount of 110 percent of the developer's Engineer of Record's estimate of cost of construction of the paving and drainage works. (Subject to approval of the cost estimate by the District Secretary/Manager or District Engineer.)
 - Swales, lake/bond banks, slopes, canals and other excavations shall be bonded separately from other drainage improvements and will be held by the District until successful completion. The amount of this separate bond will be determined by the District Board of Commissioners and by recommendation of the District Secretary/Manager.
 - The District's Bond Form is the only form approved for use, and it shall be a recorded instrument. Release or reduction from the recorded instrument shall be the responsibility of the applicant.
 - Bonds shall be provided by the principals of development only. Contractor or Sub-Contractor bonds are not acceptable.
 - Upon successful completion of construction, and acceptance of "As-Built/Record Drawings" by the District Board of Commissioners, a percentage of the performance bond as determined by the District may be released. The balance of bond shall remain in full force and effect for an additional twelve (12) months after final inspection and approval, unless supplemented by new bond forms in the required amounts and approved by the District Attorney.
- Inspections: When construction is in progress, the District's Inspector will inspect the installation of drainage works, according to an inspection schedule established by the Board of Commissioners. Inspection must be made by District personnel before backfilling of any storm drain structures, pipes, infiltration trenches, work in District canals, and before placement of asphalt or concrete pavement. Call (954) 432-5110 for an inspection appointment a minimum of twenty-four (24) hours in advance. All costs of periodic inspections of construction by the District shall be borne by the developer.
- Limerock base course shall conform to the requirements of Section 911 of Florida Department of Transportation Standard Specifications, except the minimum percentage of carbonates of calcium and magnesium shall be sixty percent (60 %).
- All muck and deleterious soils shall be removed from the top of bank to top of bank limits of dry detention/retention areas, and exfiltration trenches down to a minimum of five feet (5') below the water control elevation and replaced with suitable well-draining soils.
- All nuisance vegetation shall be removed from within the project limits and within the portion of the CBWCD canal that falls within the property boundary. This also applies when the property abuts a roadway and the District canal is located on the opposite side of the road with respect to the property. In this case, nuisance vegetation shall be removed from the canal bank nearest the property line.
- Existing storm sewers shall be cleaned from the point of connection with new storm sewers or drainage structures to the first existing structure upstream and downstream of the point of connection. Television inspection of the pipes shall be reviewed and certified that they are clean by the Engineer of Record prior to submittal of as-built drawings to the District.
- The limits of any easement to be dedicated to the District shall be staked prior to installing trees to be located within three (3) feet of a District easement. The stakes shall remain in place until the site or landscape contractor verifies the intended plant location does not encroach into a District easement.
- The District Secretary/Manager and District Engineer shall be notified prior to the submittal of as-built/record drawings of any encroachment within a District easement not expressly approved by the District Board of Commissioners.
- As-Built Survey and Record Drawing: "As-Built" plans from the Surveyor of Record must be certified as "Record Drawings" by the Engineer of Record. The Surveyor's certification shall include the last date of field data acquisition. The Engineer's certification shall include the CBWCD permit compliance statement. As-Built's shall

CBWCD GENERAL NOTES CONT'D

- be provided as an overlay on the approved construction drawings at the same scale for comparison purposes. All references to "proposed" shall be struck through and replaced with the as-built condition. As-Built submittals shall follow the same format of general review as described in the Central Broward Water Control District's *Stormwater Management Regulations, Standards, Procedures, and Design Criteria Manual*.
- Lake/pond, canal, and dry detention/retention area as-builts will be cross-sectioned showing the designed section as dashed, as-built section as solid, and have the top of bank reference to the Lake/Canal Maintenance Easement. Spacing between each cross-section shall be such as to provide enough data to determine if the lake/pond/canal/dry detention/retention area was constructed as designed. The maximum spacing between cross sections shall be 100'.
 - The contractor shall provide stable and permanent elevation benchmarks on the top of each headwall cap for pipes discharging into District canals and driveway culverts along District canals. The benchmark elevation shall be based on North American Vertical Datum of 1988 (NAVD88) and include the datum reference using National Geodetic Survey benchmarks or Florida Department of Transportation benchmarks in NAVD88 and only converted back to National Geodetic Vertical Datum of 1929 (NGVD29). The other shall be based on NGVD29 and include the datum reference. Each headwall shall have one (1) NAVD88 and one (1) NGVD29 benchmark. Culverts connecting District canals only require one (1) benchmark per each pair of headwalls.
 - The Surveyor of Record shall annotate the benchmark elevations on the as-built drawing in the format provided by the District Engineer. The benchmark data shall also include a Northing/Easting coordinate at the center of each headwall. The horizontal datum shall be based on State Plane, Florida East Zone, North American Datum of 1983/1990 (NAD83/90).

CONSTRUCTION NOTES

- GUARDRAIL SHALL BE INSTALLED IN ACCORDANCE WITH FDOT FY2020-21 STANDARD PLANS INDEX 536-001 AND FDOT STANDARD SPECIFICATION 536. THE ACTUAL NUMBER AND SPACING OF POSTS SHALL BE IN ACCORDANCE WITH THE INDEX. DEEP POSTS OR SPECIAL POSTS SHALL BE REQUIRED AS SHOWN ON THE PLANS OR WHERE THE FIELD CONDITIONS DICTATE AS APPROVED BY THE ENGINEER.
- EVEN THOUGH THE POSTED SPEED LIMIT OF THE ROADWAY IS ONLY 25 MPH, TL-3 GUARDRAIL IS PROPOSED CONSERVATIVELY DUE TO THE LIMITED SETBACK DISTANCE TO THE EXISTING CANAL BANK.
- THE PROPOSED GUARDRAIL IS DESIGNED WITH THE MAX-TENSION TL-2 PARALLEL END TERMINAL MANUFACTURED BY LINDSAY TRANSPORTATION SOLUTIONS INCLUDED IN FDOT APPROVED PRODUCT LIST AS A NON-GATING TERMINAL.
- CONTRACTOR SHALL TAKE ALL MEASURES TO UTILIZE INSTALLATION TECHNIQUES THAT WILL ENSURE PROTECTION OF AND WILL AVOID DISTURBANCE TO THE CANAL BANK EXCEPT AS PROPOSED BY PLANS TO RESTORE/RECONSTRUCT THE CANAL BANK.
- CONTRACTOR SHALL NOT STOCKPILE MATERIAL IN THE PUBLIC RIGHT-OF-WAY NOR ON PRIVATE PROPERTY AND WILL INDEPENDENTLY SECURE AN ACCEPTABLE LOCATION.
- AT THE END OF EACH WORK DAY, CONTRACTOR SHALL THOROUGHLY CLEAR RIGHT-OF-WAY, OPEN LANES FOR NORMAL TRAFFIC AND SHIELD UNFINISHED WORK PRODUCT TO PROVIDE VEHICULAR SAFETY.
- CONTRACTOR SHALL REPAIR STRIPING DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL PROTECT OR REMOVE/REINSTALL ALL ROAD SIGNS AND STRUCTURES DURING CONSTRUCTION INCLUDING SIGNAGE, MAILBOXES, FENCES, ETC. TO ENSURE CONSISTENT LINE AND GRADE GUARDRAIL INSTALLATION.
- CONTRACTOR SHALL OBTAIN ANY REQUIRED NPDES PERMITS AND WILL PROVIDE ALL SEDIMENT AND TURBIDITY CONTROL DEVICES USING BEST MANAGEMENT PRACTICES (BMP'S).
- CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX 102-600 SERIES TO BE APPROVED BY THE TOWN OF SOUTHWEST RANCHES AND THE PROJECT CEM TEAM.
- CONTRACTOR SHALL PROTECT ALL UTILITIES WITHIN PROJECT LIMITS WHETHER SHOWN OR NOT ON PLANS AND SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY ALL AGENCIES WITH JURISDICTION PRIOR TO CONSTRUCTION TO INCLUDE ALL UTILITIES, SHERIFF, SCHOOL BOARD, TOWN OF SOUTHWEST RANCHES, ETC.
- SELECT CANAL CROSS-SECTIONS ARE SHOWN FOR CONTRACTOR TO DETERMINE NEED FOR SPECIAL POST LENGTH AND CANAL BANK RESTORATION/EXCAVATION QUANTITY ESTIMATE AS APPLICABLE.
- CONTRACTOR SHALL PROVIDE ALL SHOP DRAWINGS TO ENGINEER FOR APPROVAL.

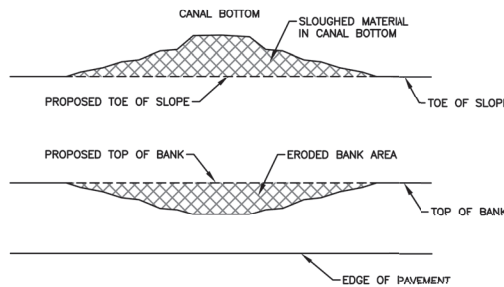


RIP-RAP HEADWALL DETAIL

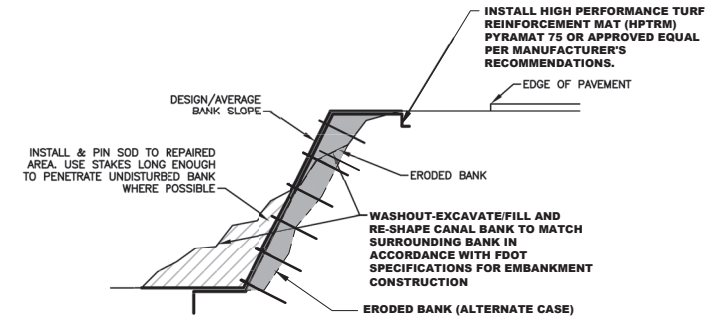
N.T.S. (TOWN OF DAVIE DRAINAGE DETAIL D-6 SEE NOTE 3)

NOTES

- OWNER SHALL RETAIN A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA TO INSPECT AND CERTIFY THE INSTALLATION.
- CONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS SHOWING THE INVERT(S), TOP OF HEADWALL, AND UPSTREAM AND DOWNSTREAM CROSS SECTIONS OF EXCAVATED CANAL CERTIFIED BY A FLORIDA LICENSE SURVEYOR.
- HEADWALLS SHALL INCLUDE WINGED ENDWALLS SIMILAR TO THE FDOT "WINGED CONCRETE ENDWALLS" DETAIL [FDOT STANDARD PLANS INDEX NO. 430-040, LATEST EDITION] FOR PRECAST HEADWALLS OR THE TOWN OF DAVIE "RIP RAP HEADWALL" DETAIL (TOD STANDARD PAVING AND DRAINAGE DETAIL D-6, LATEST EDITION) FOR RIP RAP HEADWALLS SHOWN ABOVE.
- PRE-CAST OR CAST-IN-PLACE CONCRETE HEADWALL MAY BE INSTALLED AS AN ALTERNATIVE TO A RIPRAP HEADWALL. CONTRACTOR SHALL PROVIDE SIGNED/SEALED DESIGN DRAWINGS BY A FLORIDA LICENSED ENGINEER FOR THE APPROPRIATE INSTALLATION TYPE.
- FOR HEADWALLS INSTALLED IN LAKES/LAKES, THE MAXIMUM CROWN OF PIPE SHALL BE THE DISTRICT'S WATER CONTROL ELEVATION.
- FOR HEADWALLS INSTALLED IN DISTRICT CANALS, THE TOP OF HEADWALL SHALL BE SET AT 1' ABOVE THE DISTRICT'S WATER CONTROL ELEVATION.
- PROVIDE STABLE AND PERMANENT BENCHMARK SHOWING BOTH NAVD88 AND NGVD29 ELEVATIONS AT EACH HEADWALL IN A DISTRICT CANAL. REFER TO THE CBWCD CRITERIA MANUAL FOR REQUIRED INFORMATION.



PLAN VIEW



SECTION VIEW

TYPICAL BANK REPAIR DETAIL

N. T. S.

CBWCD - August 12, 2020

EXHIBIT "J" - CBWCD GENERAL NOTES

DESCRIPTION	BY	DATE	DATE	DRAWN BY	JA
SCALE	SEE PLAN			CHECKED BY	PG
DESIGN BY	PPJ			APPROVED BY	PG

CRAVEN • THOMPSON AND ASSOCIATES, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 3465 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 738-4409 TEL: (954) 738-4400
 FLORIDA LICENSED PROFESSIONAL ENGINEERS NO. 371
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000074

TOWN OF SOUTHWEST RANCHES
 HANCOCK ROAD GUARDRAIL IMPROVEMENTS
 STIRLING ROAD TO GRIFFIN ROAD

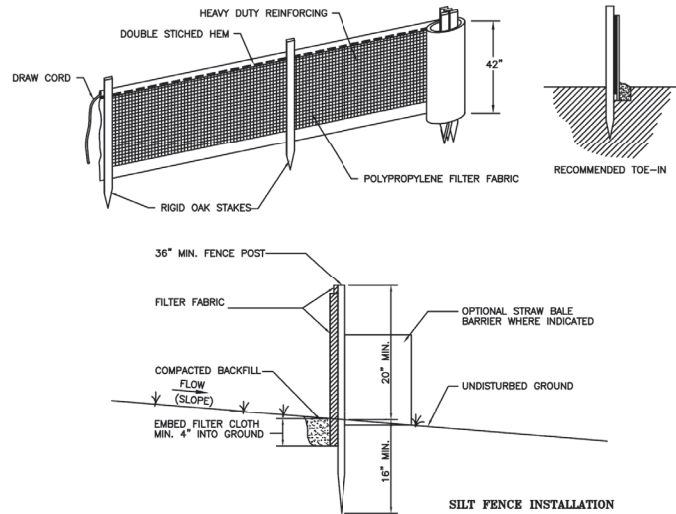
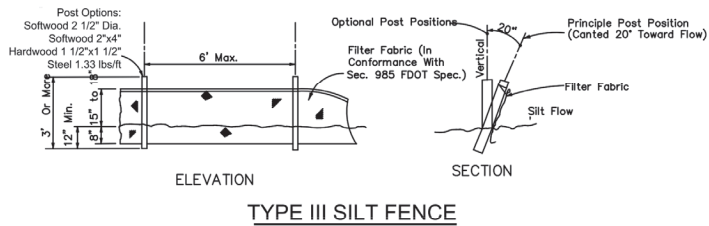
CANAL BANK RESTORATION DETAILS & NOTES

PREPARED FOR:
 TOWN OF SOUTHWEST RANCHES

PROJECT NO.
 20-0013-001-01

SHEET NUMBER
 DET-1

Philip P. Joseph
 Florida P.E. No. 50825
 February 19, 2021



SILT FENCE NOTES:

1. FILTER FABRIC FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH TIES SPACED EVERY 24 INCHES AT TOP AND MID. SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE OR DEPTH OF ACCUMULATED SEDIMENT REACHES 6 INCHES.
5. SILT FENCE SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL CONSTRUCTION IS COMPLETE.
6. THE CONTRACTOR SHALL INSPECT AND REPAIR THE SILT FENCE AFTER EACH RAIN EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
7. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFFSITE AND CAN BE PERMANENTLY STABILIZED.
8. THE SILT FENCE SHALL BE PLACED ON SLOPE CONTOUR TO MAXIMIZE ITS PONDING EFFICIENCY.
9. IF DITCH LEVEL IS DEEPER THAN 30", THEN A FLOATING SILT SCREEN SHALL BE USED

R:\Engineering\2020\20-0013-001-01 Hancock Road Guardrail Drawings\20-0013-001-01.dwg [CP-1] Feb 18, 2021 10:05am PJOSEPH

DESCRIPTION:	BY:	DATE:	11/10/2020	DRAWN BY:	JA
		SCALE:	SEE PLAN	CHECKED BY:	PG
		DESIGN BY:	PPJ	APPROVED BY:	PG

CRAVEN • THOMPSON AND ASSOCIATES, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 3663 N.W. 63RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 739-4409 TEL: (954) 739-4400
 FLORIDA LICENSED ENGINEERING, SURVEYING & PLANNING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 000074

**TOWN OF SOUTHWEST RANCHES
 HANCOCK ROAD GUARDRAIL IMPROVEMENTS
 STIRLING ROAD TO GRIFFIN ROAD**

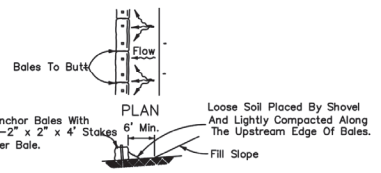
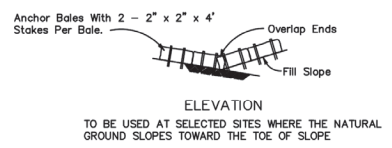
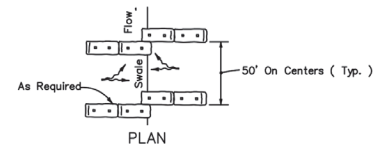
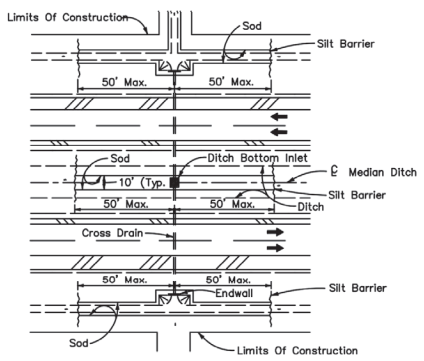
EROSION & SEDIMENT CONTROL GUIDE PLAN

PREPARED FOR:
TOWN OF SOUTHWEST RANCHES

PROJECT NO.
20-0013-001-01

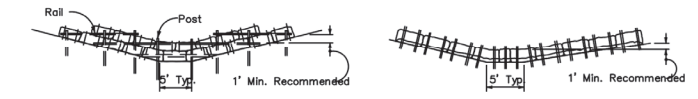
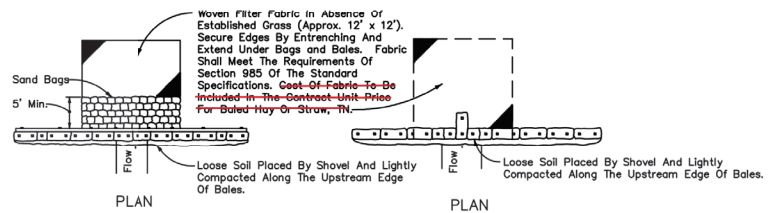
Philip P. Joseph
 Florida P.E. No. 50825
 February 18, 2021

SHEET NUMBER
ECP-1



TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES TOWARD THE TOE OF THE SLOPE.

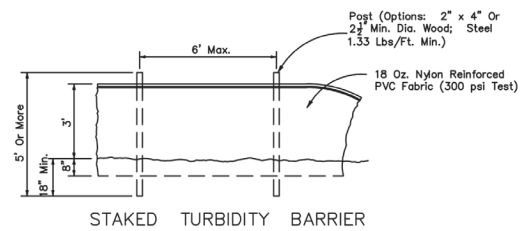
BARRIERS FOR FILL SLOPES



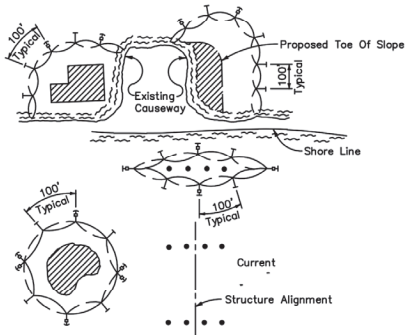
Application and Spacing: The use of Types I & II baffle barriers shall be limited to the conditions outlined in Chart I, Sheet 1 of 3, Index No. 102

TYPE II TYPE I
BARRIER FOR UNPAVED DITCHES

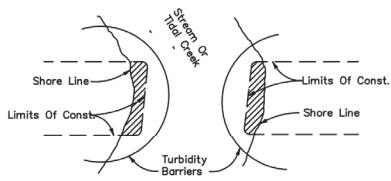
DITCH INSTALLATIONS AT DRAINAGE STRUCTURES



STAKED TURBIDITY BARRIER



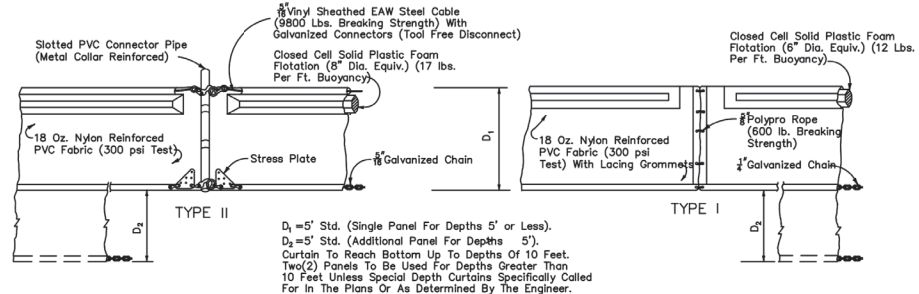
LEGEND
 • Pile Locations
 ▨ Dredge Or Fill Area
 → Mooring Buoy w/Anchor
 — Anchor
 ○ Barrier Movement Due To Current Action



- NOTES:
- Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
 - Number and spacing of anchors dependent on current velocities.
 - Deployment of barrier around pile locations may vary to accommodate construction operations.
 - Navigation may require segmenting barrier during construction operations.
 - For additional information see Section 104 of the Standard Specifications.

Note:
 Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

TURBIDITY BARRIER APPLICATIONS



NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS

DESCRIPTION:				BY:	DATE:	11/10/2020	DRAWN BY:	JA
SCALE:				SEE PLAN	CHECKED BY:	PG		
DESIGN BY:				PPJ	APPROVED BY:	PG		

CRAVEN + THOMPSON AND ASSOCIATES, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 3463 N.W. 63RD STREET, FORT LAUDERDALE, FLORIDA 33309
 FAX: (954) 738-4400 TEL: (954) 738-4400
 FLORIDA LICENSED ENGINEERING SURVEYING & PLANNING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. 00074

TOWN OF SOUTHWEST RANCHES
 HANCOCK ROAD GUARDRAIL IMPROVEMENTS
 STIRLING ROAD TO GRIFFIN ROAD

EROSION & SEDIMENT CONTROL GUIDE PLAN
 PREPARED FOR:
 TOWN OF SOUTHWEST RANCHES

PROJECT NO. SHEET NUMBER
 20-0013-001-01 ECP-2

R:\Engineering\2020\20-0013-001-01 Hancock Road Guardrail\Drawings\20-0013-001-01-02.dwg [CP-2] Feb. 18, 2021 10:06am PJOSEPH

Philip P. Joseph
 Florida P.E. No. 50825
 February 18, 2021