

INDIAN RIVER COUNTY BOARD OF COUNTY COMMISSIONERS

Bid Set

CONTRACT PLANS

FDOT FPID 436416-1-54-01

INDIAN RIVER COUNTY (88)
PROJECT #1325

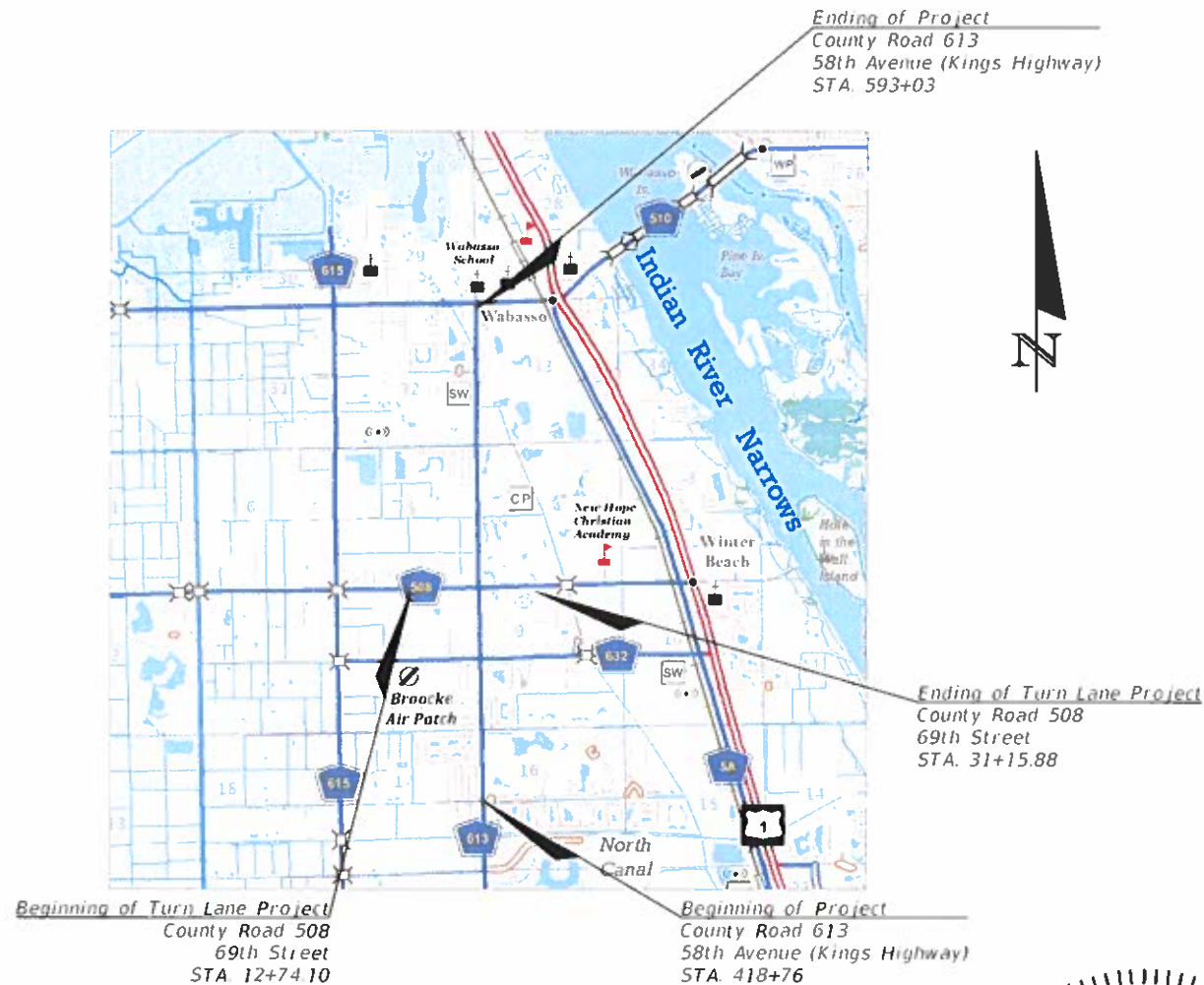
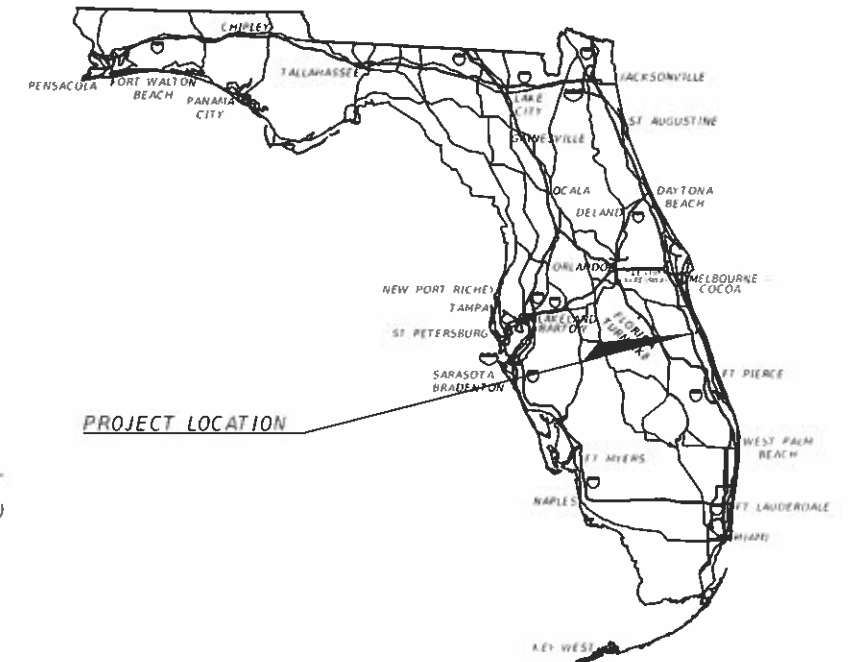
58th AVENUE
(57th STREET TO 85TH STREET)
FULL DEPTH RECLAMATION PROJECT

COMPONENTS OF CONTRACT PLANS SET:

- ROADWAY PLANS: 1-188
- SIGNING AND PAVEMENT MARKING PLANS: S1-S46
- SIGNALIZATION PLANS: T1-T9
- 20 - INCH WATERMAIN RELOCATION UCP#4144

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	SIGNATURE SHEET
3-4	SUMMARY OF QUANTITIES AND PAY ITEMS
5-7	TYPICAL SECTIONS
8-19	TYPICAL DETAILS
20	GENERAL NOTES
21-25	PROJECT LAYOUT SHEETS - CONTROL POINTS
26-42	STORM WATER POLLUTION PREVENTION PLANS
43-44	STORM WATER POLLUTION PREVENTION PLANS
45-78	58TH AVENUE PLAN & PROFILE SHEETS
79-82	69TH STREET PLAN & PROFILE SHEETS
83-99	DETAILED INTERSECTION PLAN SHEETS
100-169	58TH AVENUE SECTIONS
170-179	69TH STREET SECTIONS
180-188	DRAINAGE PLAN AND PROFILES



ELEVATIONS SHOWN HEREIN REFER TO THE NORTH AMERICAN VERTICAL DATUM 1988.
EXISTING CONTOURS SHOWN AT 1.0 FOOT INTERVAL
PROPOSED CONTOURS SHOWN AT 0.5 FOOT INTERVAL

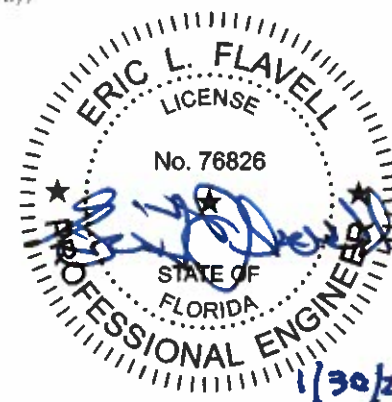
58th AVENUE L= 17,678.53'
69th STREET L= 1,841.78'

GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY2017-18 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website:
<http://www.fl.gov/roadway/DesignStandards/Standards.shtm>

APPLICABLE DSRs:

GOVERNING STANDARD SPECIFICATIONS
Florida Department of Transportation, JAN, 2017 Standard Specifications for Road and Bridge Construction at the following website: <http://www.fl.gov/programmanagement/Implemented/SpecBooks>

PREPARED FOR THE BOARD OF COUNTY COMMISSIONERS
INDIAN RIVER COUNTY, FLORIDA
SUSAN ADAMS, CHAIRMAN
JOSEPH E. FLESCHER, VICE-CHARIMAN
COMMISSIONER BOB SOLARI
COMMISSIONER PETER D. O'BRYAN
COMMISSIONER TIM ZORC
JASON E. BROWN, COUNTY ADMINISTRATOR
JEFFREY R. SMITH, CLERK OF COURT AND COMPTROLLER
DYLAN REINGOLD, COUNTY ATTORNEY
RICHARD B. SZPYRKA, P.E., PUBLIC WORKS DIRECTOR
JAMES W. ENNIS, P.E., PMP, ASSISTANT PUBLIC WORKS DIRECTOR

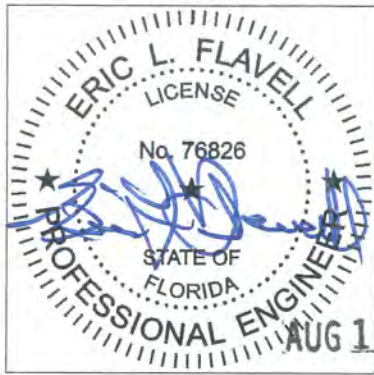


I.R.C. PROJECT MANAGERS:
ROADWAY PRODUCTION ENGINEER:
WILLIAM JOHNSON P.E. - 727-226-1986
ASSISTANT PUBLIC WORKS DIRECTOR
JAMES ENNIS P.E. - 727-226-1221
1801 27th STREET
VERO BEACH, FL 32960-3388

Civil Engineer
ENGINEER OF RECORD

ERIC L. FLAVELL P.E.
P.E. NO. 76826
Bowman Consulting Group
4450 W. Eau Gallie Blvd., Suite 232
Melbourne, Florida 32934
CONTRACT NO.: 436316-1
VENDOR NO.:
CERTIFICATE OF AUTHORIZATION NO.: 30462

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
IRC-1325	17	1



**ERIC L.
FLAVELL**

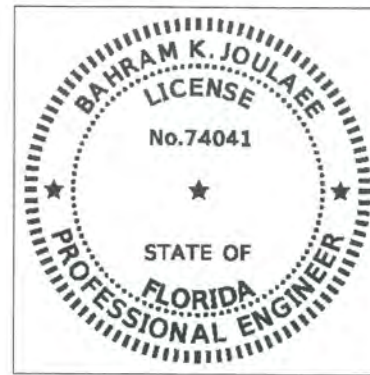
BOWMAN CONSULTING GROUP
4450 EAU GALLIE BLVD.
SUITE 232
MELBOURNE FLORIDA, 32934
OFFICE: 321-255-5434
DIRECT: 321-270-8993

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
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39-40	STORM WATER POLLUTION PREVENTION PLANS
41-74	58TH AVENUE PLAN & PROFILE SHEETS
75-78	69TH STREET PLAN & PROFILE SHEETS
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166-175	69TH STREET SECTIONS
176-184	DRAINAGE PLAN AND PROFILES

**INDEX OF 20TH AVE WATERMAIN
RELOCATION**

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C0.1	SUMMARY OF QUANTITIES
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C1.1	WATER MAIN PLAN & PROFILE
C1.2	WATER MAIN PLAN & PROFILE
C2.0	TEMPORARY ROAD WIDENING PLAN
C2.1	TEMPORARY ROAD SECTIONS & DETAILS
D1.0	DETAILS
D1.1	DETAILS



THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY BAHRAM K. JOULAEI, P.E. ON DATE SHOWN USING A DIGITAL SIGNATURE

LASSITER TRANSPORTATION GROUP, INC.
D/B/A LTG, INC.
1450 WEST GRANADA BOULEVARD, SUITE 2
ORMOND BEACH FL, 32174
CERTIFICATE OF AUTHORIZATION NO. 9227
BAHRAM K. JOULAEI No. 74041

PRINTED COPIES OF THE DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.003, F.A.C.

PLAN INDEX

INDEX OF SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	TABULATION OF QUANTITIES
T-3 THRU T-6	GENERAL NOTES
T-7	SIGNALIZATION PLAN
T-8	STRAIN POLE SCHEDULE
T-9	GUIDE SIGN WORKSHEET

**INDEX OF SIGNING AND PAVEMENT MARKING
PLANS**

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S-8	GENERAL NOTES
S-9 THRU S-42	SIGN & PAVEMENT MARKINGS PLANS - 58TH AVE
S-43 THRU S-46	SIGN & PAVEMENT MARKINGS PLANS - 69TH ST

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

SIGNATURE SHEET

SHEET NO.

2

Civil Drawings					
Item No.	Description	Unit	Quantity	Unit Price	Amount
101-1	MOBILIZATION	LS	1		
102-1	MAINTENANCE OF TRAFFIC	LS	1		
104-1	PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION	LS	1		
110-1-1	CLEARING & GRUBBING	LS	1		
110-7-1	MAILBOX RELOCATION	EA	37		
120-1	REGULAR EXCAVATION	CY	6,700		
120-1A	EXCAVATION OF EXISTING ASPHALT AND BASE	SF	5,000		
120-2	BORROW EXCAVATION (RECLAIMED FDR)	CY	6,000		
120-6	EMBANKMENT	CY	4,150		
121-70	FLOWABLE FILL (NON-EXCAVATABLE)	CY	200		
180-4	TYPE B STABILIZATION, 3' SHOULDER & WIDENING (LBR 40), 12"	SY	22,000		
285-709	OPTIONAL BASE, GROUP 9 (LBR 100), LIMEROCK	CY	600		
327-70-6	MILL EXISTING ASPHALT (1 5" AVERAGE DEPTH)	SY	3,000		
332-1	RECLAIMED ASPHALT BASE COURSE (FULL DEPTH RECLAMATION), 12"	SY	72,000		
332-2	ASPHALT EMULSION TYPE CSS-1h - PAYMENT WILL BE BASED ON ACTUAL QUANTITY	GAL	280,000		
332-3	CEMENT TYPE 1 OR TYPE 2 - PAYMENT WILL BE BASED ON ACTUAL QUANTITY	TN	1,400		
334-1-13A	TYPE SP - 12 5 ASPHALTIC CONCRETE (2" THICK)	SY	86,000		
334-1-13B	TYPE SP - 12 5, ASPHALTIC CONCRETE CONFORM (VARIABLE THICKNESS)	TN	900		
334-1-13C	TYPE SP - 12 5, ASPHALTIC CONCRETE DRIVEWAY, (1-1/2") REMOVE AND REPLACE	SY	400		
337-7-62	TYPE F C - 9 5 ASPHALTIC CONCRETE (1" THICK)	SY	89,000		
400-4-2A	CONCRETE HEADWALL (INCLUDE STEEL)	EA	1		
425-2-14	MANHOLE ALT A, 4', P-7, <10'	EA	3		
425-3-81	JUNCTION BOX, DRAINAGE, SPECIAL, <10, 6'X10'	EA	1		
425-3-81A	JUNCTION STRUCTURE, TYPE E, <10'	EA	2		
425-5	MANHOLE ADJUSTMENT	EA	4		
425-5A	VAULT ADJUSTMENT	EA	9		
425-6	VALVE BOX ADJUSTMENT	EA	79		
425-6A	FIRE HYDRANT ADJUSTMENT	EA	4		
425-6B	FIRE HYDRANT RELOCATION	EA	6		
425-15-21	DITCH BOTTOM INLET, TYPE C, <10'	EA	4		
430-175-112	PIPE CULVERT, RCP, ROUND, 12", S/CD	LF	55		
430-175-112A	PIPE CULVERT, CMP, ROUND, 12", S/CD	LF	20		
430-175-115A	PIPE CULVERT, CMP, ROUND, 15", S/CD	LF	185		
430-175-118	PIPE CULVERT, RCP, ELLIPTICAL, 23"X14", S/CD	LF	84		
430-175-124	PIPE CULVERT, RCP, ROUND, 24", S/CD	LF	327		
430-175-124A	PIPE CULVERT, CMP, ROUND, 24", S/CD	LF	10		
430-175-148	PIPE CULVERT, RCP, ROUND, 48" S/CD	LF	155		
430-175-152	PIPE CULVERT, RCP, ROUND, 52" S/CD (FIELD VERIFY)	LF	10		
430-175-276	PIPE CULVERT, RCP, ELLIPTICAL, 76" x 48" S/CD (FIELD VERIFY)	LF	10		
430-982-121	MITERED END SECTION, RCP, ROUND, 12"	EA	2		
430-982-123	MITERED END SECTION, CMP, ROUND, 15"	EA	6		
430-982-129	MITERED END SECTION, CMP, ROUND, 24"	EA	1		
430-982-129A	MITERED END SECTION, RCP, ROUND, 24"	EA	4		
430-982-625	MITERED END SECTION, RCP, ELLIPTICAL, 18"X12"	EA	5		
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	350		
0520-2-1	CONCRETE CURB, TYPE A	LF	40		
522-1	CONCRETE, 6" THICK, FIBER REINFORCED SIDEWALK, REMOVE & REPLACE	SY	70		

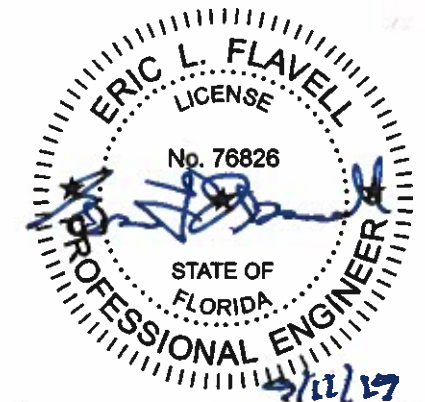
Civil Drawings					
Item No.	Description	Unit	Quantity	Unit Price	Amount
522-1A	HC RAMP, 6" THICK, REMOVE AND REPLACE	SF	240		
522-2	DRIVEWAY CONCRETE, 6" THICK, REMOVE AND REPLACE	SF	1,550		
522-4	BUS SHELTER PAD - CONCRETE, 8" REINFORCED	SF	320		
527-2	DETECTABLE WARNING STRIPS	SF	265		
530-3-3A	RIP RAP, RUBBLE, BANK AND SHORE	CY	600		
536-1-1A	GUARDRAIL, LONG STEEL POSTS WITH A.C. PAVEMENT	LF	1,690		
536-85-24	GUARDRAIL END ANCHORAGE ASSEMBLY PARALLEL WITH A.C. PAVEMENT	EA	6		
550-10-231	FENCE, TYPE B WITH BARBED WIRE	LF	75		
570-1-2	PERFORMANCE TURF - SOD (BAHA OR MATCH EXIST)	SY	44,500		
630-2-11A	CONDUIT (INCLUDES 2-2" DIA HDPE), F&I, OPEN TRENCH	LF	15,000		
630-2-12A	CONDUIT (INCLUDES 2-2" DIA HDPE), F&I, DIRECTIONAL DRILL	LF	2,200		
635-2-12A	PULL BOX, F&I, WITH 6" FIBER CONCRETE COLLAR	EA	27		
706-3	REFLECTIVE PAVEMENT MARKERS (BLUE/BLUE)	EA	22		

PAY ITEM FOOT NOTES: SEE SHEET 4

Signal Drawings					
Item No.	Description	Unit	Quantity	Unit Price	Amount
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	28		
630-2-14	CONDUIT, F&I, ABOVEGROUND	LF	25		
632-7-1	SIGNAL CABLE - NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1		
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA	12		
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA	1		
633-3-15	FIBER OPTIC CONNECTION HARDWARE, F&I, PRETERMINATED PATCH PANEL	EA	1		
634-4-153	SPAN WIRE ASSEMBLY, F&I, TWO POINT, BOX	PI	1		
635-2-11	PULL & SPLICE BOX, F&I, 13"X24" COVER SIZE	EA	4		
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA	1		
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER PURCHASED BY CONTRACTOR	AS	1		
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	100		
641-2-18	PRESTRESSED CONCRETE POLE, F&I, TYPE P-VIII	EA	4		
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL	EA	2		
650-1-24	TRAFFIC SIGNAL, FURNISH & INSTALL, POLYCARBONATE W/ALUM TOP, 3 SECTION, 1 WAY	AS	4		
650-1-29	TRAFFIC SIGNAL, FURNISH & INSTALL, POLYCARBONATE W/ALUMIN, 5 SECTION CLUSTER	AS	4		
660-4-11	VEHICLE DETECTION SYSTEM - VIDEO, F&I, CABINET EQUIPMENT	EA	1		
660-4-12	VEHICLE DETECTION SYSTEM - VIDEO, F&I, ABOVE GROUND EQUIPMENT	EA	4		
670-5-111	TRAFFIC CONTROLLER ASSEMBLY, F&I	AS	1		
684-1-1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSTALL	EA	1		
700-5-22	INTERNALLY ILLUMINATED SIGN, F&I, OVERHEAD MOUNT, 12-18 SF	EA	4		
715-5-31	LUMINAIRE & BRACKET ARM, F&I, ALUMINUM	EA	4		

Signing and Markings Drawings					
Item No.	Description	Unit	Quantity	Unit Price	Amount
700-1-11	SINGLE POST SIGN, F&I, GROUND MOUNT, UP TO 12 SF	AS	2 00		
700-1-50	SINGLE POST SIGN, RELOCATE	AS	28 00		
700-1-60	SINGLE POST SIGN, REMOVE	AS	6		
700-3-601	SIGN PANEL, REMOVE, UP TO 12 SF	EA	8 00		
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	EA	1,365		
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	255		
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	219 00		
711-11-141	THERMOPLASTIC, STANDARD, WHITE, 2-4 DOTTED GUIDELINE/6-10 GAP EXTENSION, 6"	GM	0		
711-11-241	THERMOPLASTIC, STANDARD, YELLOW, 2-4 DOTTED GUIDELINE/6-10 GAP EXTENSION, 6"	GM	0		
711-11-170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	39		
711-11-224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON	LF	850		
711-14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE	EA	31		
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW (BIKE THRU)	EA	31		
711-16-101	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	7 97		
711-16-201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	7 02		
711-16-231	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SKIP, 6"	GM	1 04		
999-1	RECORD DRAWINGS/AS-BUILTS	LS	1		

20 inch Water Main Relocation					
Item No.	Description	Unit	Quantity	Unit Price	Amount
101-1A	Mobilization	LS	1		
102-1A	Maintenance of Traffic	LS	1		
104-1A	Erosion Control	LS	1		
110-1-1A	Cleaning and Grubbing	LS	1		
120-1B	Excavation and Embankment	LS	1		
285-706	Optional Base Course 8" Limerock (LBR = 100)	SY	640		
334-1-13D	Superpave Asphalt Concrete, 2" SP 12 5	SY	580		
570-1-2A	Sod and Site Restoration	SY	900		
630-2-11B	4 - 2" Conduits	LF	560		
1050-42-224A	Furnish and Install 24" HDPE HDD	LF	560		
1050-11-425A	Furnish and Install 20" DIP Water Main	LF	40		
1055-11-4A	Furnish and Install Fittings and Appurtenances	TON	5		
1080-11-404A	Furnish, Install and Remove 12" Bypass Assembly	LS	1		
1080-11-506A	Furnish and Install Air Release Valve and Vault	EA	1		
1080-11-512A	Sample Points	EA	2		
1080-11-512B	Pigging and Flushing	LS	1		
1080-11-512C	Disinfection and Testing	LS	1		
1080-23-120A	Furnish and Install 20" X 12" Wet Tap Assembly	EA	2		
1080-24-112A	Furnish and Install 12" Gate Valve	EA	2		
1080-24-120A	Furnish and Install 20" Gate Valve	EA	2		
1080-27-120A	Furnish and Install 20" Line Stop	EA	2		



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

SUMMARY OF QUANTITIES AND PAY ITEMS

SHEET NO. 3

PAY ITEM FOOTNOTES

101-1 MOBILIZATION: THE LUMP SUM PRICE PAID INCLUDES ALL COSTS ASSOCIATED WITH INSURANCE, BONDS, REQUIRED PERMITS AND FEES, PREPARATION AND SUBMITTAL OF FDEP NOTICE OF INTENT (NOI), SHOP DRAWINGS AND SUBMITTALS, MOVING ONTO THE JOB (MOBILIZATION), MOVING OFF THE JOB (DEMOBILIZATION), PROJECT PHASING, SUPERVISION, COORDINATION OF CONCURRENT WORK WITH OTHER CONTRACTORS, MEETINGS, SURVEYING, RESETTling SURVEY MONUMENTS, VIDEOTAPING SITE PRIOR TO START OF WORK, POTHOLING, DEWATERING, "AS-BUILT" PLANS, AND CLEAN UP OF WORK INDICATED IN THE CONTRACT DOCUMENTS.

102-1 MAINTENANCE OF TRAFFIC: INCLUDES BARRIER WALLS, VERTICAL PANELS, ATTENUATORS, TEMPORARY STRIPING, INCLUDING TEMPORARY STRIPING FOR 15 DAY CURE PERIOD, SIGNS, MESSAGE BOARDS, BARRICADES, PERMANENT RELOCATION OF SIGNS AND ALL OTHER TRAFFIC INCIDENTAL ITEMS REQUIRED FOR THE MAINTENANCE OF TRAFFIC ON A 24 HOUR / 7 DAY BASIS. VARIABLE CHANGING MESSAGE SIGN SHALL IN PLACE 2 WEEKS PRIOR TO ALL ROAD CLOSINGS. ALL COSTS FOR EACH PHASE OF WORK AND THE OVERALL PROJECT SHALL BE INCLUDED. COST SHALL INCLUDE MOT PLANS PREPARED FOR EACH PHASE OF WORK AND THE OVERALL PROJECT, PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA.

110-1-1 CLEARING AND GRUBBING: THE LUMP SUM PRICE PAID INCLUDES REMOVAL AND DISPOSAL OF ALL ITEMS CALLED FOR REMOVAL IN THE DRAWINGS AND SPECIFICATIONS INCLUDING VEGETATION & TOPSOIL, SAW CUTTING, PAVEMENT, ASPHALT OR CONCRETE, CURB AND SIDEWALK, GUARDRAIL, POLES, FENCE, PIPES, HEADWALLS AND/OR STRUCTURES. WORK ALSO INCLUDES RELOCATION OF EXISTING DRAINAGE STRUCTURES, WHERE EXISTING PIPES ARE REMOVED AND THE EXISTING STRUCTURE REMAINS, THE RESULTING HOLE SHALL BE FORMED AND REPAIRED WITH CONCRETE. THE CONTRACTOR SHALL COMPLY WITH THE STATE OF FLORIDA TRENCH SAFETY ACT.

120-1 EXCAVATION: THE UNIT PRICE PAID PER CUBIC YARD INCLUDES ALL COSTS FOR EXCAVATION SHOWN ON THE PLANS FOR ROAD WIDENING AND LOWERING, PROTECTION AND RELOCATION OF EXISTING INFRASTRUCTURE, COMPACTING SUBGRADE TO 12" WITHIN THE PAVED AREA AND STABILIZED SHOULDERS; AND FOR FURNISHING, PLACING AND COMPACTING MATERIAL SHOWN ON THE PLANS FOR CONFORM AREAS OUTSIDE OF THE PAVED ROAD, COMPLETE AND IN PLACE. EXCESS MATERIAL SHALL BE HAULED OFF AND PROPERLY DISPOSED OF. THIS IS A FINAL PAY ITEM BASED ON PLAN QUANTITIES, AND NO ADDITIONAL PAYMENT WILL BE MADE THEREFORE.

120-2 BORROW EXCAVATION (RECLAIMED FDR): THE UNIT PRICE PAID PER CUBIC YARD INCLUDES ALL COSTS FOR REMOVAL OF THE TOP 3" OF PROCESSED BASE MINIMUM, AND ADJUSTED AS REQUIRED FOR ADDITIONAL BASE PREPARED FOR WIDENING, AND INCLUDES PAVEMENT FROM THE ROAD, MATERIAL HANDLING, STOCK PILING, AND FOR FURNISHING, PLACING AND COMPACTING MATERIAL SHOWN AT ROAD WIDENING AND ROAD OVER EXCAVATION AREAS, OR REMOVED AND DISPOSED OF AS REQUIRED TO BALANCE THE SITE. PAY ITEM IS BASED ON WORK OUTSIDE OF EXISTING PAVEMENT TO ACCOMMODATE WIDENING. THIS IS A FINAL PAY ITEM BASED ON PLAN QUANTITIES AND NO ADDITIONAL PAYMENT WILL BE MADE THEREFORE.

120-6 EMBANKMENT: THE UNIT PRICE PAID PER CUBIC YARD INCLUDES ALL COSTS FOR EMBANKMENT SHOWN ON THE PLANS FOR ROAD WIDENING AND LOWERING, PROTECTION AND RELOCATION OF INFRASTRUCTURE, COMPACTING SUBGRADE TO 12" (STRUCTURAL OR STABILIZED SECTION) WITHIN THE PAVED AREA AND STABILIZED SHOULDERS; AND FOR FURNISHING, PLACING AND COMPACTING MATERIAL SHOWN ON THE PLANS FOR CONFORM AREAS OUTSIDE OF THE PAVED ROAD, COMPLETE AND IN PLACE. EXCESS MATERIAL SHALL BE HAULED OFF AND PROPERLY DISPOSED OF. THIS IS A FINAL PAY ITEM BASED ON PLAN QUANTITIES, AND NO ADDITIONAL PAYMENT WILL BE MADE THEREFORE.

160-4 CONSTRUCTION OF STABILIZED SHOULDERS SHALL BE PAID ONLY IN THOSE AREA WHERE THE EXISTING STABILIZED SHOULDER IS IMPACTED BY ROAD WIDENING THIS ITEM INCLUDES ALL STABILIZED SUB-BASE. THIS IS A FINAL PAY ITEM BASED ON PLAN QUANTITIES AND NO ADDITIONAL PAYMENT WILL BE MADE THERE FOR.

285-709 BASE MATERIAL SHALL BE MIXED IN WITH FDR TO PRODUCE A HOMOGENOUS BASE MATERIAL.

332-1 RECLAIMED ASPHALT BASE COURSE (FULL DEPTH RECLAMATION): THE UNIT PRICE PAID PER SQUARE YARD INCLUDES ALL COSTS FOR PROCESSING AND MIXING EXISTING ROADWAY TO REQUIRED DEPTH, PLUS ADDITIONAL BASE, STOCK PILING AND HANDLING MATERIAL MULTIPLE TIMES, HANDLING ADDITIONAL BASE, TEMPLETING FULL ROADWAY WIDTH, INTRODUCING AND MIXING ADMIXTURES, COMPACTION, MAINTENANCE OF THE SURFACE, AND LEVELING COURSE AS REQUIRED FOR A READY TO PAVE SURFACE. WORK INCLUDES CONFIRMING LOWERING OF OBSTRUCTIONS AND WORKING AROUND SHALLOW FEATURES AS CALLED FOR IN THE DRAWINGS. PAY ITEM IS BASED ON EXISTING PAVEMENT AREA FOR THE LIMITS OF WORK.

334 INCLUDES TACK COAT BETWEEN ASPHALT CONCRETE LAYERS.

334-1-13C INCLUDES SAW CUT, REMOVAL OF EXISTING PAVEMENT, GRADE AND AUGMENT BASE AND PAVE.

425-XX ALL WORK SHALL BE IN ACCORDANCE WITH INDIAN RIVER DEPARTMENT OF UTILITY SERVICE STANDARDS.

425-3-8 CONSTRUCT SPECIAL JUNCTION BOX, INCLUDING DEWATERING, EXCAVATION, SUBGRADE BEDDING, PREPARATION AND COMPACTION, BACKFILL AND COMPACTION AND AREA GRADING, WITH SWALE AND CONFORMS.

430-175-XXX ALLOWABLE OPTIONAL MATERIAL IS REINFORCED CONCRETE PIPE, CLASS III, COST INCLUDES CONCRETE COLLARS.

522-XX ALL CONCRETE SHALL BE 6" FIBER REINFORCED AND 3,000 PSI STRENGTH.

530-3-3A RIP RAP, RUBBLE, BANK AND SHORE: THE UNIT PRICE PAID PER SQUARE YARD INCLUDES ALL COSTS FOR EXCAVATION, COMPACTION OF SUBGRADE, PLACING AND SECURING FILTER FABRIC, SETTING KEYSTONE ROCKS, PLACING BEDDING STONE AND ROCK RUBBLE RIP-RAP FROM DRAINAGE FLOW TO LINE TOP OF SLOPE WITHIN THE CANAL RIGHT OF WAY IN ACCORDANCE WITH THE DESIGN DRAWINGS AND DETAILS, COMPLETE AND IN PLACE.

570-1-2 CONTRACTOR TO REPLACE SOD TO MATCH SURROUNDING SOD, COST SHALL BE INCLUDED.

630-2-11A OPEN TRENCH CONDUIT INSTALLATION INCLUDES INSTALLATION OF 2-2" HDPE PIPES PER LINEAL FOOT PAID, ADJUSTING ALIGNMENT FOR OBSTRUCTIONS, MINIMUM DEPTH OF 36" BELOW FINISH GRADE, WARNING TAPE, SWAB PIPE, PULL STRING INSTALLED, INCLUDES 2 CONDUITS PER LINEAL FOOT OF TRENCH INSTALLED, ALL EXCAVATION, BACK FILL, COMPACTION AND RESTORATION.

630-2-12A DIRECTIONAL BORE CONDUIT INSTALLATION INCLUDES 2-2" HDPE PIPES PER LINEAL FOOT PAID, SWAB PIPE, PULL STRING INSTALLED.

635-2-12A SPLICE-PULL BOX SHALL BE PER FDOT INDEX NO. 17700, TELECOM FIBER PULL BOX 17" X 30" / TIER 15 RATING SET TO FINISH GRADE. CONCRETE APRON SHALL BE 3000 PSI CONCRETE WITH FIBER. PULL BOXES WITHIN 5' OF EDGE OF PAVEMENT SHALL BE TRAFFIC RATED.

BID ITEM DESCRIPTIONS FOR 20" WATER MAIN RELOCATION

GENERAL DESCRIPTIONS OF THE WORK FOR WATERLINE REPLACEMENT
 PAYMENT FOR CONFORMING TO ALL THE PROVISIONS OF THE CONTRACT DOCUMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT UNIT PRICES OR LUMP SUM PRICE FOR THE ITEMS OF WORK BID AND SHALL INCLUDE ALL COSTS FOR LABOR, MATERIALS, AND EQUIPMENT REQUIRED FOR THE EXECUTION OF THE WORK UNLESS OTHERWISE SET FORTH.
 THE FOLLOWING SETS FORTH A GENERAL DESCRIPTION OF THE TYPE OF WORK FOR EACH BID ITEM LISTED IN THE SCHEDULE, BUT IS NOT INTENDED TO BE ALL INCLUSIVE. ALL WORK SPECIFICALLY SHOWN, CALLED FOR, OR INDICATED IN THE WATERLINE REPLACEMENT CONTRACT DOCUMENTS SHALL BE PERFORMED WHETHER OR NOT SPECIFICALLY LISTED UNDER AN ITEM DESCRIPTION

101-1A, MOBILIZATION: THE LUMP SUM PRICE PAID INCLUDES ALL COSTS ASSOCIATED WITH INSURANCE, BONDS, REQUIRED PERMITS AND FEES, SHOP DRAWINGS, MOVING ONTO THE JOB (MOBILIZATION), MOVING OFF THE JOB (DEMOBILIZATION), PROJECT PHASING, SUPERVISION, COORDINATION OF CONCURRENT WORK WITH OTHER CONTRACTORS, MEETINGS, CONSTRUCTION SURVEYING, RESETTling SURVEY MONUMENTS, VIDEOTAPING SITE PRIOR TO START OF WORK, POTHOLING, "AS-BUILT" PLANS, AND CLEANUP OF WORK INDICATED IN THE CONTRACT DOCUMENTS FOR BOTH THE WATERLINE WORK AND THE ROAD WIDENING WORK.

102-1A, MAINTENANCE OF TRAFFIC: THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR PREPARATION OF MOT PLANS BY A CERTIFIED FLORIDA PREPARER FOR ALL PHASES OF THE PROJECT, INSTALLATION, AND MAINTENANCE OF TRAFFIC CONTROL AND TEMPORARY SIGNING AND STRIPING, INCLUDING FLAGGERS, BARRICADES, AND TEMPORARY FACILITIES REQUIRED FOR THE SAFE HANDLING OF PEDESTRIAN, BICYCLE AND VEHICULAR TRAFFIC FOR 24 HOURS PER CALENDAR DAY IN ACCORDANCE WITH THE FDOT REQUIREMENTS. THIS BID ITEM INCLUDES, CONSTRUCTING TEMPORARY CONCRETE BARRIERS, INCLUDING CRASH BARRIERS PER THE CONSTRUCTION DRAWINGS, MAINTAINING THEM AND REMOVING THEM AND RESTORING THE PAVEMENT. THIS ITEM INCLUDES, AS-BUILDING THE EXISTING STRIPING WITHIN THE LIMITS OF WORK, REMOVE EXISTING STRIPING AND PLACING TEMPORARY PAINTED LANE STRIPING FOR THE TRAFFIC DIVERSION, MAINTAINING STRIPING AND REMOVING TEMPORARY STRIPING, AND ORIGINAL STRIPING OF THE ROAD TO ORIGINAL CONDITION, COMPLETE AND IN PLACE.

104-1A, EROSION CONTROL: THE LUMP SUM PRICE PAID INCLUDES ALL EROSION CONTROL MEASURES, INCLUDING THE CONTRACTOR PREPARING AND FILING THE NOTICE OF INTENT (NOI) WITH THE FDEP PRIOR TO BEGINNING CONSTRUCTION, SILT FENCE, FLOATING TURBIDITY BARRIERS, ETC. NEEDED TO COMPLY WITH THE SEDIMENTATION AND EROSION CONTROL MEASURES DELINEATED IN THE DESIGN DRAWINGS TO ENSURE NO MIGRATION OF SOILS OFFSITE.

110-1-1A, CLEARING AND GRUBBING: THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR CLEARING, DEMOLITION WATERLINE: INCLUDES REMOVAL OF EXISTING ASPHALT AND SOIL AND OTHER IMPROVEMENTS, REMOVAL OF 20" WATERLINE AND APPURTENANCES AS CALLED FOR ON THE DRAWINGS, GRUBBING, IMPORTING SELECT, SUBSTRUCTURE PROTECTION AND MAINTENANCE, ADJUSTING VAULTS AND BOXES AND VALVES AND MANHOLES AND ETC. TO FINISH GRADE, SALVAGE OF PORTIONS OF THE PIPING THAT WILL BE REMOVED AND DELIVERED TO THE COUNTY, DUST CONTROL, TESTING, AND DISPOSING OF WASTE;
 ROAD WIDENING: PRE-CONSTRUCTION LAYOUT, REMOVALS REQUIRED FOR ROAD WORK, CLEARING OF VEGETATION REPLACEMENT OF PAVEMENT STRUCTURAL SECTION DAMAGED OR REMOVED FROM EITHER INCIDENTAL OR DUE TO CONSTRUCTION ACTIVITIES AND, AND FOR ALL OF ABOVE, APPURTENANT WORK AS REQUIRED TO COMPLETE THE WORK INDICATED IN THE CONTRACT DOCUMENTS.

120-1B, EXCAVATION AND EMBANKMENT: THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR EXCAVATION AND FILL FOR ROAD WIDENING (INCLUDING IMPORTED MATERIAL), SHOULDER CONSTRUCTION, SITE AND SUBGRADE PREPARATION AND COMPACTION READY TO ACCEPT BASE, POST PAVING CLEAN UP AND DRESSING SLOPES AND SHOULDER, IN ACCORDANCE WITH THE DESIGN DRAWINGS, DETAILS, AND SPECIFICATIONS FOR A COMPLETE INSTALLATION.

285-706, OPTIONAL BASE COURSE, 8" LIMEROCK (LBR=100): THE UNIT PRICE PAID PER SQUARE YARD OF BASE PLACED INCLUDES ALL COSTS FOR PROVIDING, PLACING AND COMPACTION BASE COURSE, COMPLETE AND IN PLACE.

334-1-13D, SUPERPAVE ASPHALT CONCRETE, 2" 5P 12.5: THE UNIT PRICE PAID PER SQUARE YARD OF PAVEMENT PLACED INCLUDES ALL COSTS FOR PROVIDING, PLACING AND COMPACTION ASPHALT CONCRETE, COMPLETE AND IN PLACE.

570-1-2A, SOD AND SITE RESTORATION: THE UNIT PRICE PAID PER SQUARE YARD PAID INCLUDES ALL COSTS FOR PREPPING, INSTALLING, WATERING AND MAINTAINING SOD IN ACCORDANCE WITH THE DESIGN DRAWINGS AND SPECIFICATIONS, SITE CLEANUP AND RESTORATION COMPLETE AND IN PLACE.

630-2-11B, 4-2" CONDUITS: WORK INCLUDES THE ATTACHMENT OF FOUR 2" CONDUITS TO THE 24" HDPE DIRECTIONAL DRILL, SWAB, INSTALL PULL STRING AND CAP. THIS ITEM WILL BE PAID FOR AS THE LINEAL FOOTAGE OF THE 24" HDPE DIRECTIONAL DRILL AND WILL INCLUDE THE FOUR CONDUITS FOR THAT LENGTH.

1050-42-224A, FURNISH AND INSTALL 24" HDPE HORIZONTAL DIRECTIONAL DRILL (HDD): THE UNIT PRICE PAID PER LINEAL FOOT INCLUDES ALL COSTS FOR EXCAVATION, DIRECTIONAL DRILLING OPERATIONS, PIPE SUPPORTS, 24" HDPE (DR 11) PIPE, FUSION WELDING, LOCATOR WIRE, FOUR CONDUITS (PAID FOR UNDER SEPARATE BID ITEM), TESTING, RESTORATION, AND ALL OTHER INCIDENTAL APPURTENANCES AND OPERATIONS REQUIRED TO CONSTRUCT IN ACCORDANCE WITH THE DESIGN DRAWINGS AND SPECIFICATIONS, COMPLETE AND IN PLACE.

1050-11-425A, FURNISH AND INSTALL 20" DIP WATER MAIN: THE PRICE PAID PER LINEAL FOOT INCLUDES ALL COSTS FOR EXCAVATION, CONNECTING TO EXISTING FACILITIES BEDDING AND BACKFILL, SUBSTRUCTURE PROTECTION, INSTALL PIPE (DIP PRESSURE CLASS 350), AND APPURTENANCES, LOCATOR WIRE, TESTING, DISINFECTION, AND FLUSHING, RESTORATION, COMPLETE AND IN PLACE.

1055-11-4A, FURNISH AND INSTALL FITTINGS AND APPURTENANCES: THE UNIT PRICE PAID PER TON INCLUDES ALL COSTS FOR THE INSTALLATION OF ALL MECHANICAL JOINT AND FLANGED FITTINGS, RESTRAINTS, AND APPURTENANCES, EXCAVATION, BACKFILL, COMPLETE AND IN PLACE. THIS BID ITEM DOES NOT INCLUDE THOSE FITTINGS ASSOCIATED WITH THE 12" BYPASS ASSEMBLIES AS IDENTIFIED IN DETAILS A AND B ON BID ITEM 1080-11-404A ABOVE.

1080-11-404A, FURNISH, INSTALL AND REMOVE 12" BYPASS ASSEMBLY: THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR EXCAVATION, CONNECTING TO EXISTING FACILITIES BEDDING AND BACKFILL, SUBSTRUCTURE PROTECTION, INSTALL PIPE (PVC C-900 DR18), AND FITTINGS, APPURTENANCES, LOCATOR WIRE, TESTING, DISINFECTION, AND FLUSHING, COMPLETE AND IN PLACE. THIS WORK INCLUDES THE CONSTRUCTION AND REMOVAL OF THE BYPASS PIPING ASSEMBLY AS ILLUSTRATED IN DETAILS A AND B, JUMPER ASSEMBLY, AND CAPPING OF THE GATE VALVES, RESTORATION.

1080-11-506A, FURNISH AND INSTALL AIR RELEASE VALVE (ARV) AND VAULT: THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR A 2" ARV ASSEMBLY AND VAULT IN ACCORDANCE WITH COUNTY STANDARD DETAILS, COMPLETE AND IN PLACE.

1080-11-512A, SAMPLE POINTS: THE UNIT PRICE PAID FOR EACH INCLUDES ALL LABOR AND MATERIALS ASSOCIATED WITH INSTALLATION, COMPLETE AND IN PLACE.

1080-11-512B, PIGGING AND FLUSHING: THE LUMP SUM PRICE PAID INCLUDES ALL LABOR, MATERIALS, TESTING, TEMPORARY CONSTRUCTION AND EQUIPMENT, INCLUDING WATER, BACKFLOW PREVENTERS AND METERS, INCIDENTAL PIPING AND VALVES, FOR COMPLETE PIGGING AND FLUSHING OF ALL INSTALLED MAINS TO THE SATISFACTION OF THE UTILITY.

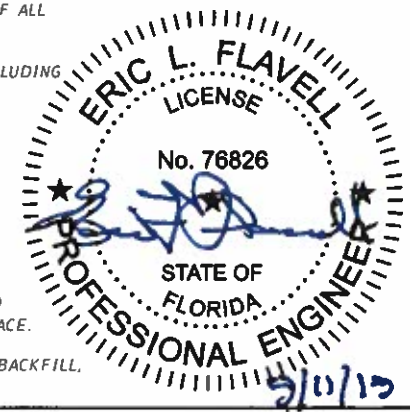
1080-11-512C, DISINFECTION AND TESTING: THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR DISINFECTION AND TESTING, INCLUDING WATER, PRESSURE TESTING BEFORE AND AFTER BORING, CONTINUITY TESTING, FOR A COMPLETE INSTALLATION.

1080-23-120A, FURNISH AND INSTALL 20" X 12" WET TAP ASSEMBLY: THE UNIT PRICE PAID FOR EACH WET TAP INCLUDES ALL EXCAVATION, MATERIALS, LABOR AND PREPARATION FOR THE TESTING AND INSTALLATION OF STAINLESS STEEL TAPPING SLEEVE AND VALVE, ALL APPURTENANCES, DISINFECTION, TESTING, RESTORATION, COMPLETE AND IN PLACE.

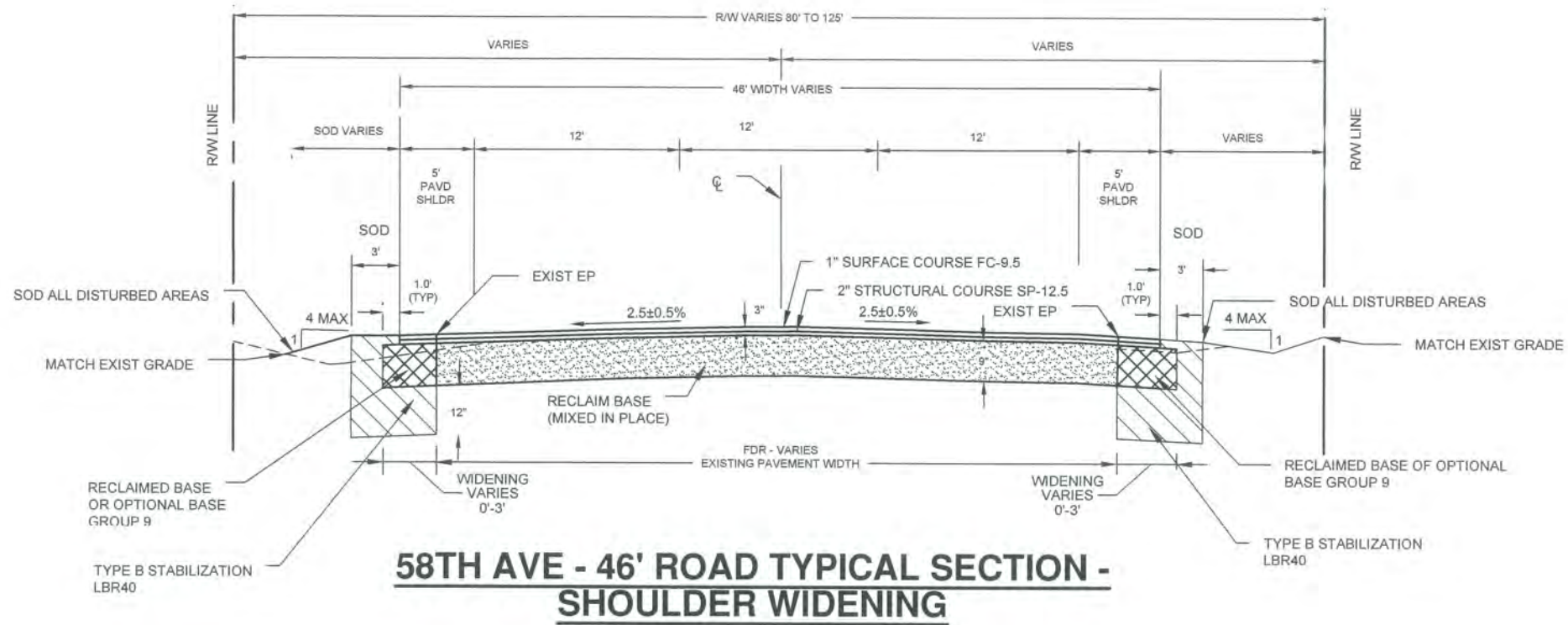
1080-24-112A, FURNISH AND INSTALL 12" GATE VALVE: THE UNIT PRICE PAID FOR EACH INCLUDES ALL COSTS FOR EXCAVATION AND BACKFILL, INSTALLING VALVES, OPERATORS, VALVE BOXES, STEMS, RETAINER GLANDS, TESTING, RESTORATION, COMPLETE AND IN PLACE.

1080-24-120A, FURNISH AND INSTALL 20" GATE VALVE: THE UNIT PRICE PAID FOR EACH INCLUDES ALL COSTS FOR EXCAVATION AND BACKFILL, INSTALLING VALVES, OPERATORS, VALVE BOXES, STEMS, RETAINER GLANDS, TESTING, RESTORATION, COMPLETE AND IN PLACE.

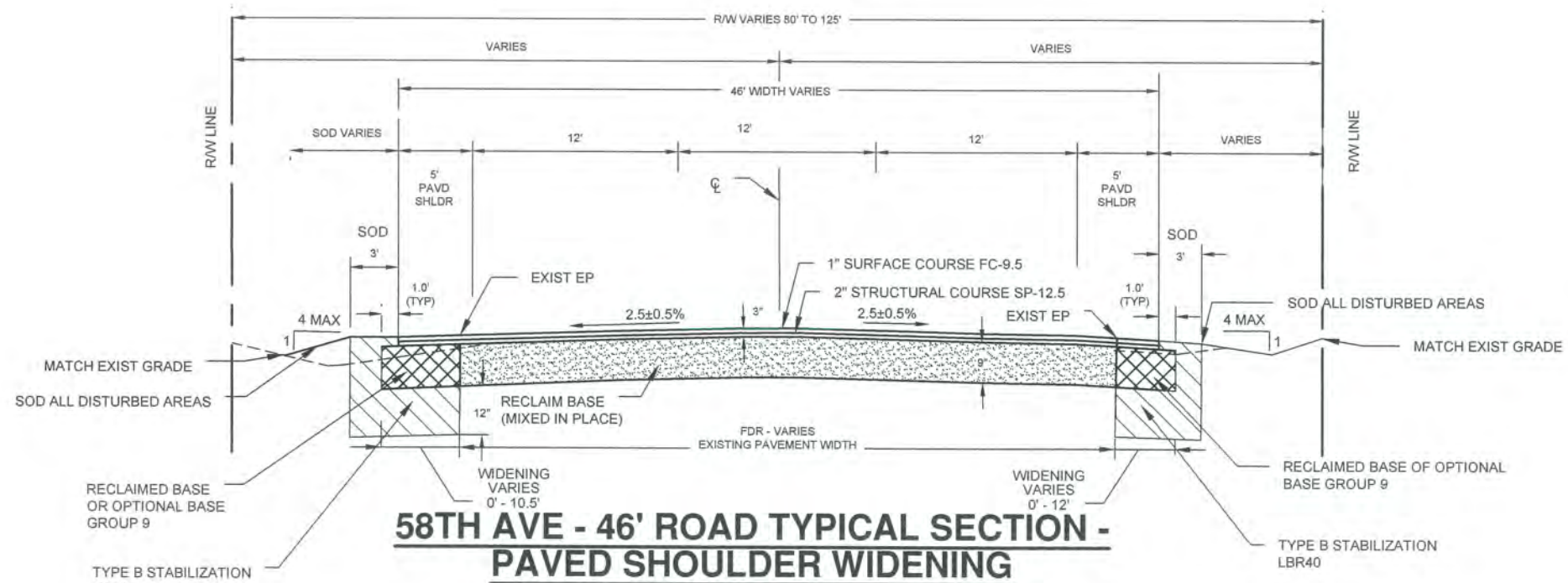
1080-27-120A, FURNISH AND INSTALL 20" LINE STOP: THE UNIT PRICE PAID FOR EACH INCLUDES ALL COSTS FOR EXCAVATION AND BACKFILL, INSTALLING LINE STOPS AND APPURTENANCES, AND TESTING, COMPLETE AND IN PLACE.



REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SUMMARY OF QUANTITIES AND PAY ITEMS	SHEET NO. 4
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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Design Speed = 50 MPH
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 STATION: 531+51 - 546+69
 STATION: 557+83 - 571+66
 STATION: 583+68 - 591+90



Design Speed = 50 MPH
 Scale: NTS
 STATION: 480+67 - 493+31
 STATION: 546+69 - 563+93
 STATION: 591+90 - 595+03

LEGEND	
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	RECLAIMED BASE OR OPTIONAL BASE GROUP 9
	TYPE B STABILIZATION LBR40

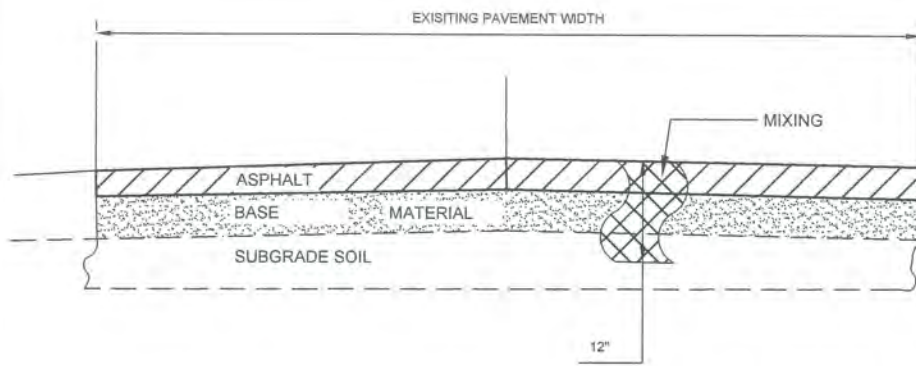


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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	

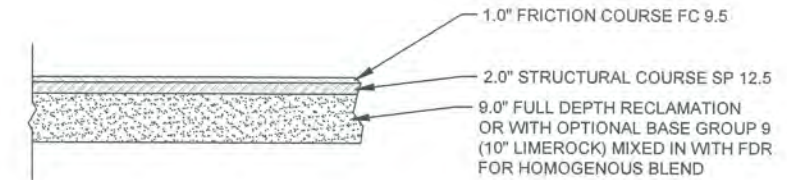
FULL DEPTH RECLAMATION (FDR) MIXING NOTES:

1. EXISTING ASPHALT BASE AND SUBBASE SHALL BE CRUSHED AND MIXED TOGETHER TO FORM A HOMOGENOUS BLEND 12" DEEP. THE BASE AND SUBBASE THROUGHOUT THE PROJECT FALL INTO TWO CATEGORIES WHICH ARE "LIMEROCK BASE" AND "SANDY/CLAY BASE". THE ASPHALT EMULSION AND CEMENT APPLICATION RATES SHALL BE AS LISTED IN THE GEOTECHNICAL REPORTS.
2. APPROXIMATE LOCATION OF "LIMEROCK" AND "SANDY/CLAY" BASE IS SHOWN ON THE PHASING PLANS.
3. THE TOP 3" OF HOMOGENOUS BLENDED MATERIAL (RECLAIMED FDR) SHALL BE REMOVED AND USED IN ROAD WIDENING AREAS OR DISPOSED IF IN EXCESS.
4. AREAS RECEIVING RECLAIMED FDR FROM BOTH CATEGORIES SHALL BE TREATED WITH THE HIGHER APPLICATION RATES FOR ASPHALT EMULSION AND CEMENT.
5. AREAS WITH ROAD LOWERING WILL REQUIRE FDR STOCKPILING AND EXCAVATING SUBGRADE TO THE DESIGN DEPTH AND COMPACTION PRIOR TO PLACING FDR.
6. TYPICAL ROAD CROSS SLOPE IS 2.5%, +/- 0.5%. MINIMUM ROAD CROSS SECTION IS 2%, MAXIMUM CROSS SECTION IS 4%. INTERSECTION CROSS SLOPE IS 1%.
7. ADDITIONAL BASE SHOULD BE MIXED IN TO FDR TO FORM HOMOGENOUS BASE MATERIAL.



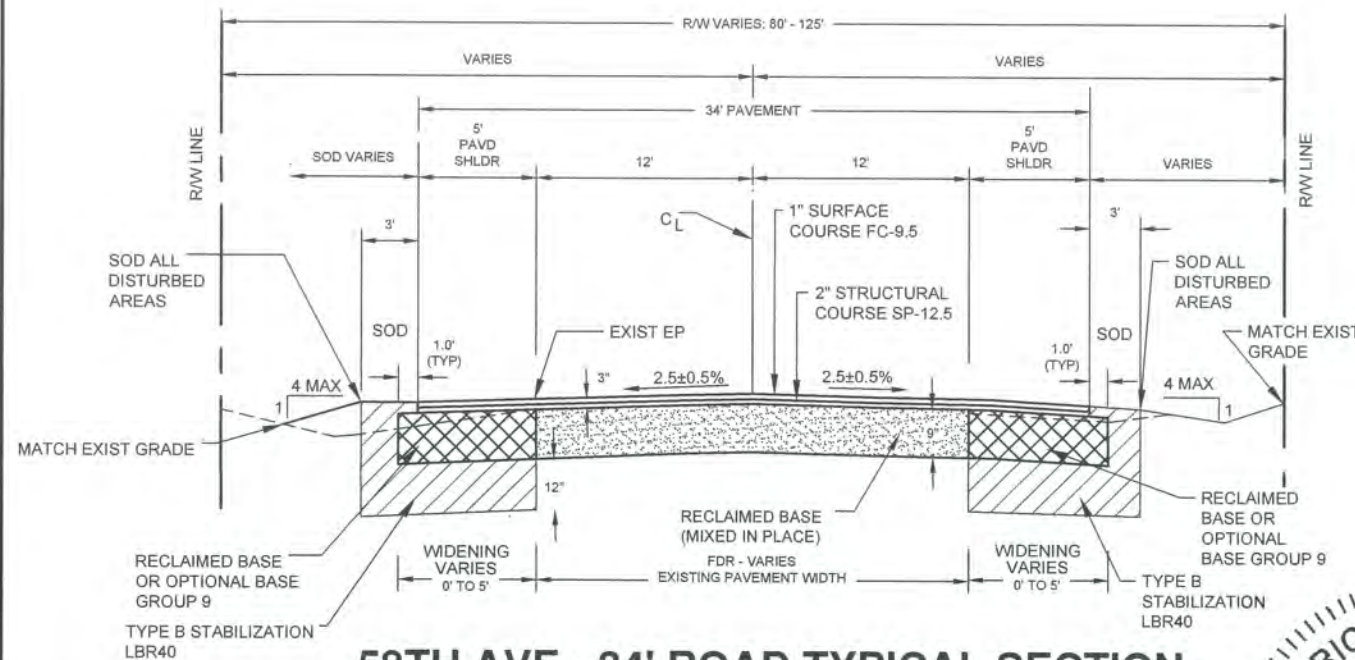
FULL DEPTH RECLAMATION MIXING DETAIL

Scale: NTS



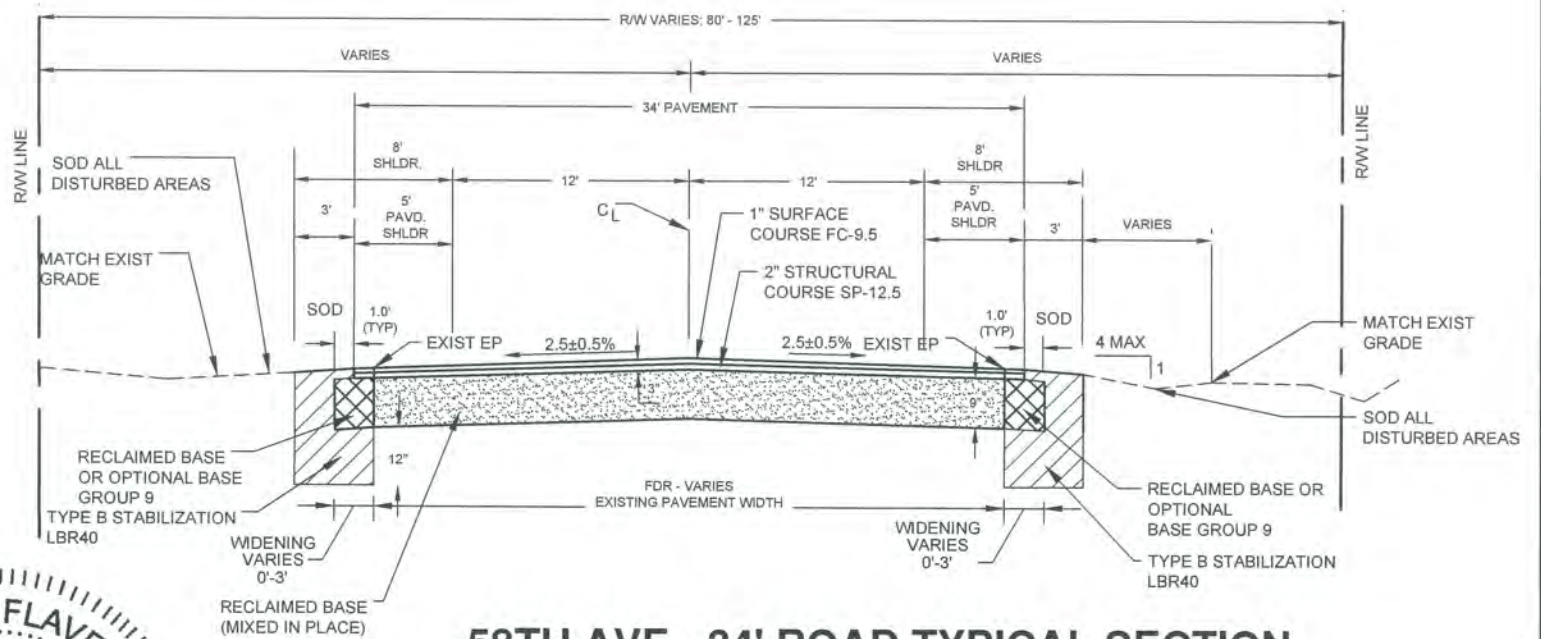
TYPICAL PAVEMENT STRUCTURAL SECTION

Scale: NTS



58TH AVE - 34' ROAD TYPICAL SECTION - PAVED SHOULDER WIDENING

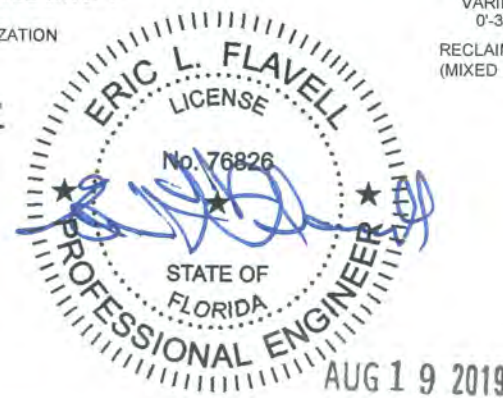
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58TH AVE - 34' ROAD TYPICAL SECTION SHOULDER WIDENING

Design Speed = 50 MPH
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STATION: 571+66 - 583+68

LEGEND	
	RECLAIMED BASE MIXED IN PLACE
	RECLAIMED BASE OR OPTIONAL BASE GROUP 9
	TYPE B STABILIZATION LBR40



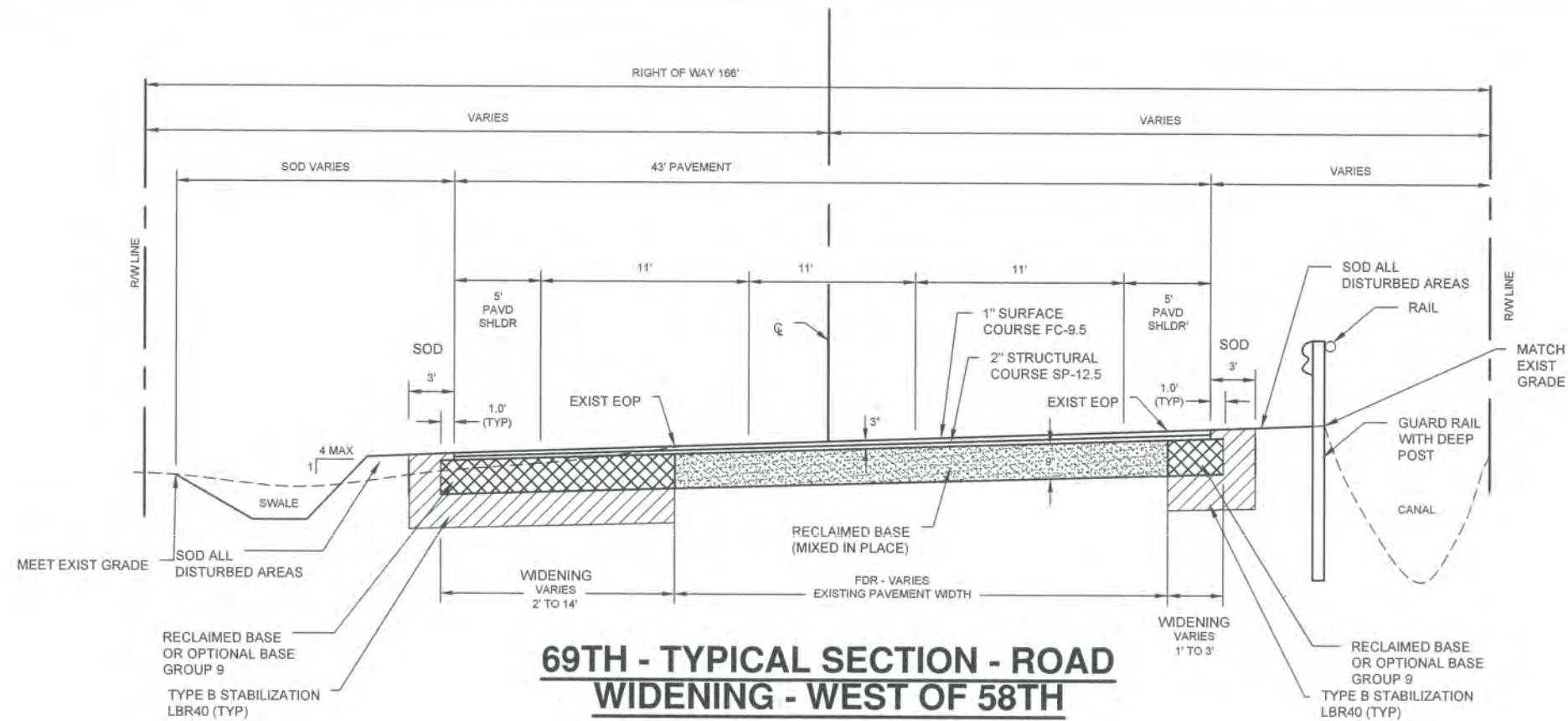
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
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MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

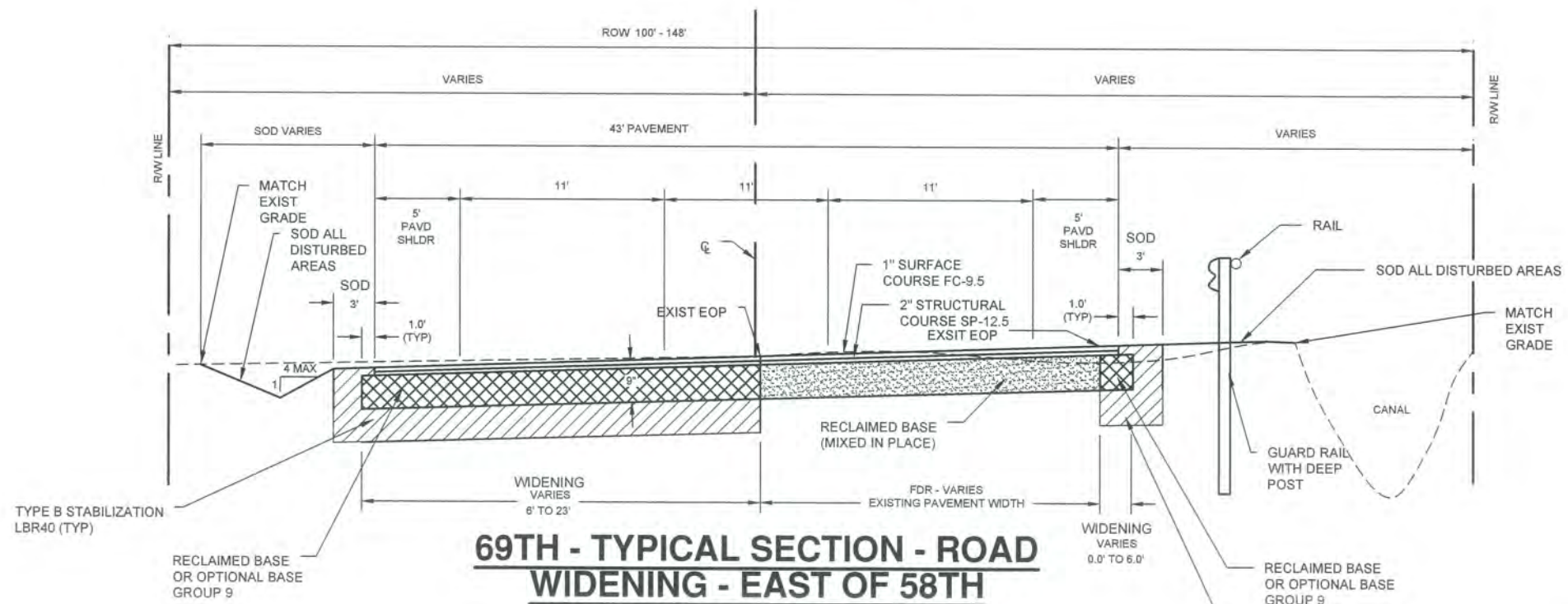
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

TYPICAL SECTIONS

SHEET NO.
6



Design Speed = 50 MPH
Scale: NTS
STATION: 16+49 - 20+26



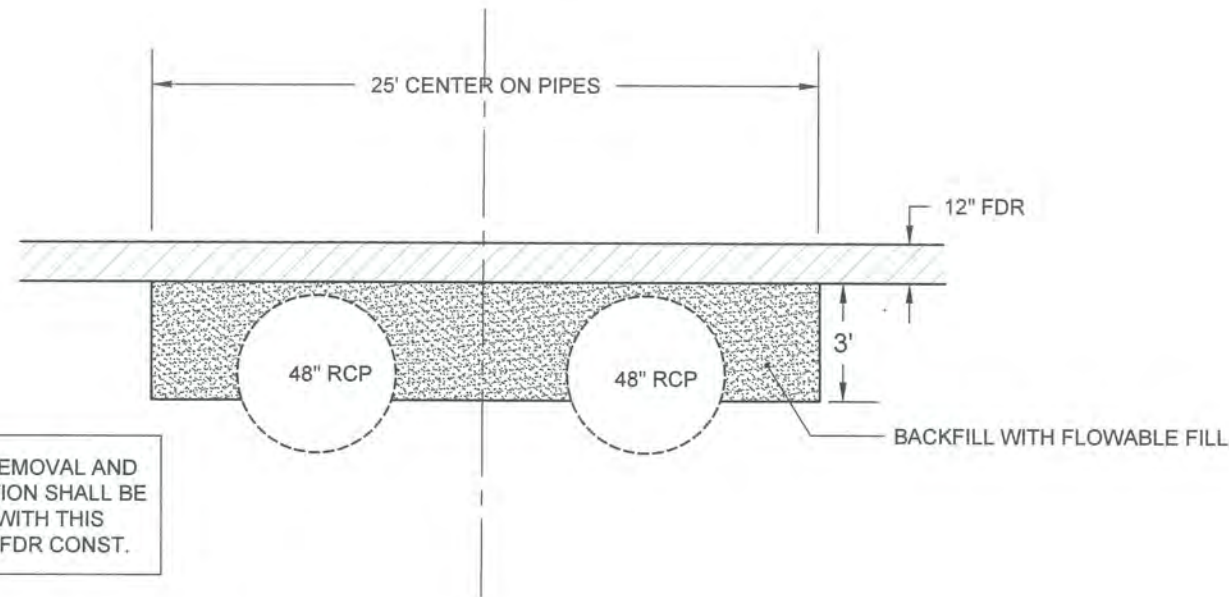
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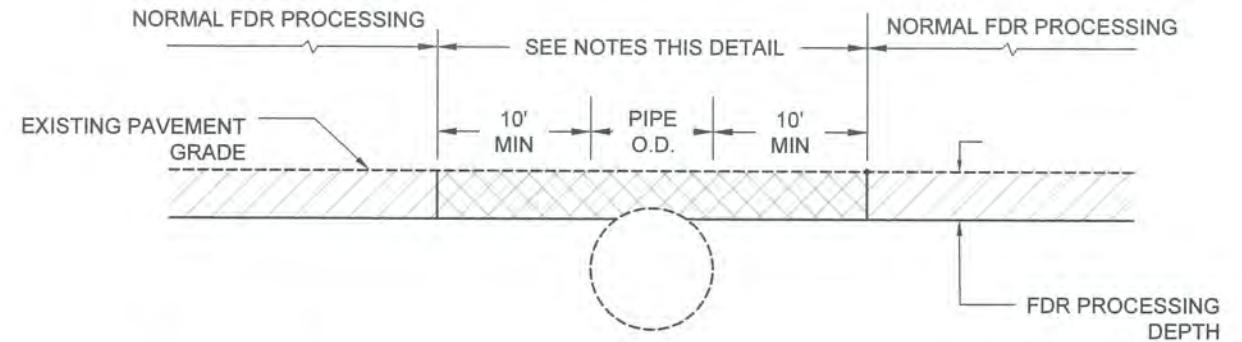
LEGEND	
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	RECLAIMED BASE OR OPTIONAL BASE GROUP 9
	TYPE B STABILIZATION LBR40

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	TYPICAL SECTIONS



CULVERT CROSSING AREA RECONSTRUCTION

Scale: NTS

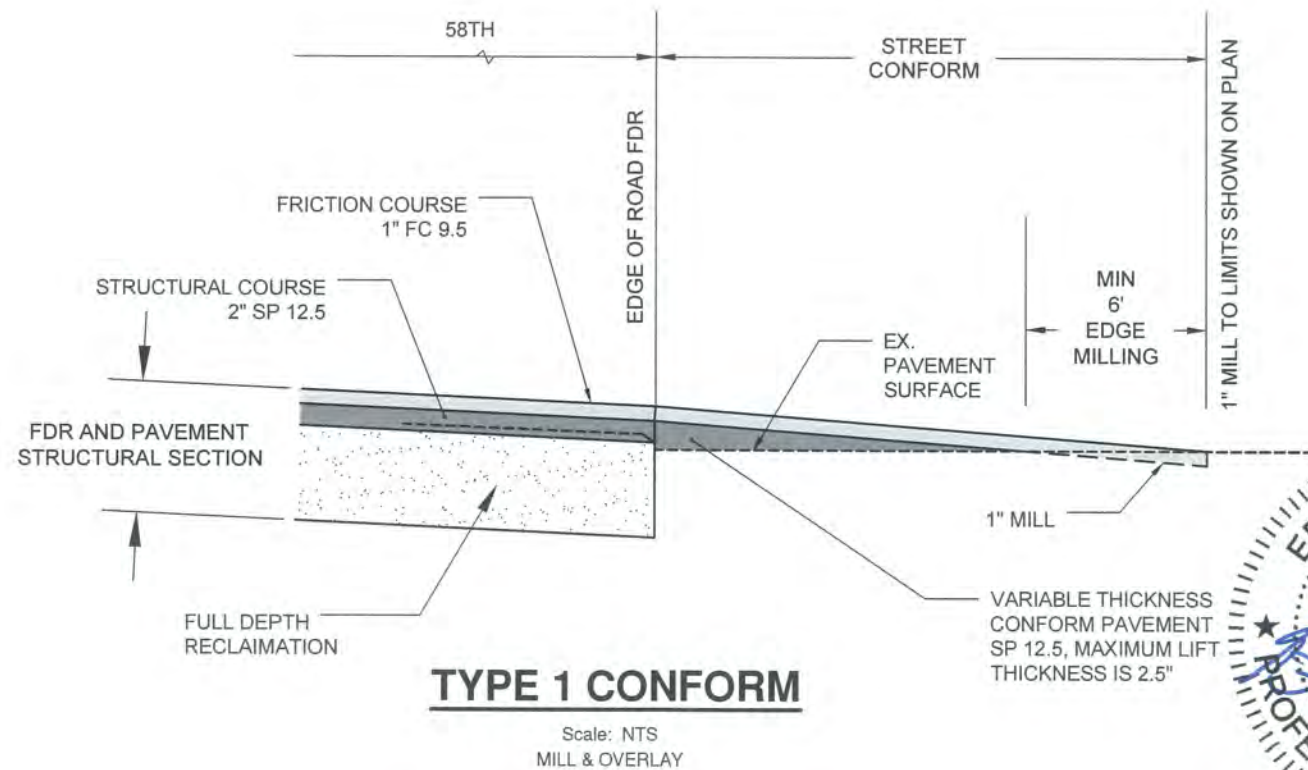


NOTES THIS DETAIL:

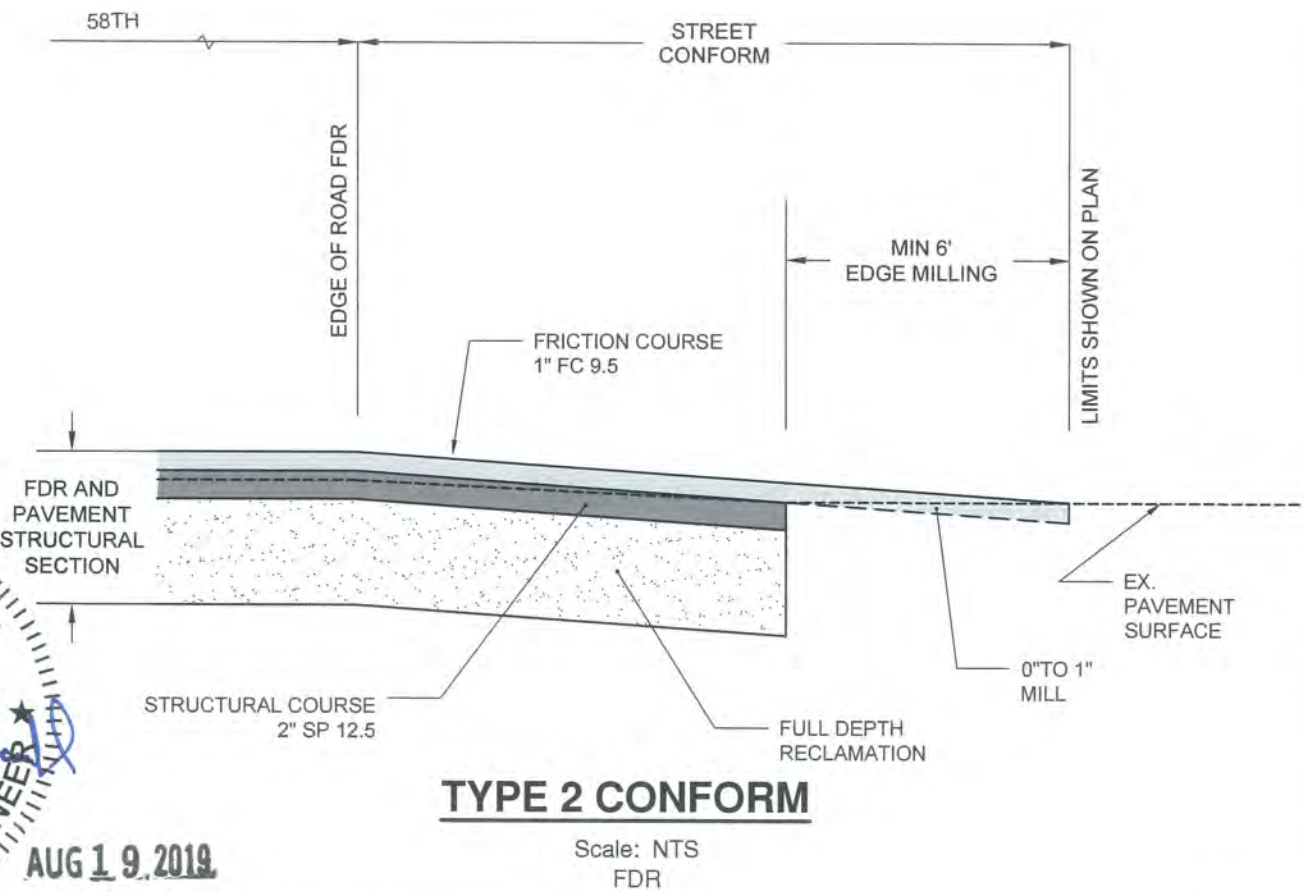
1. CONTRACTOR SHALL PERFORM INDEPENDENT RECONNAISSANCE OF ALL STORM STRUCTURES CROSSING THE ROAD TO DETERMINE IF THERE ARE ANY STRUCTURES THAT COULD BE WITHIN THE FDR PROCESSING DEPTH, AND THESE SHALL BE POTHOLED TO CONFIRM THE DEPTH TO TOP OF PIPE. THESE LOCATIONS SHALL BE FLAGGED BY THE CONTRACTOR SO HE CAN CONTROL HIS OPERATIONS AROUND SHALLOW PIPES.
2. ALL WORK AROUND SHALLOW PIPES SHALL CONFORM TO THIS DETAIL AND WILL REQUIRE HAND WORK. THE VOID LEFT BY EXCAVATING EXISTING BASE AND ASPHALT MATERIAL TO THE FDR PROCESSING DEPTH SHALL BE BACKFILLED WITH PROCESSED FDR MATERIAL. COMPACTION SHALL BE BY STATIC ROLLER AROUND THE SHALLOW PIPES AND CARE SHALL BE TAKEN TO PROTECT EXISTING PIPES IN PLACE.

FDR AT SHALLOW PIPE

Scale: NTS



Scale: NTS
MILL & OVERLAY



Scale: NTS
FDR



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

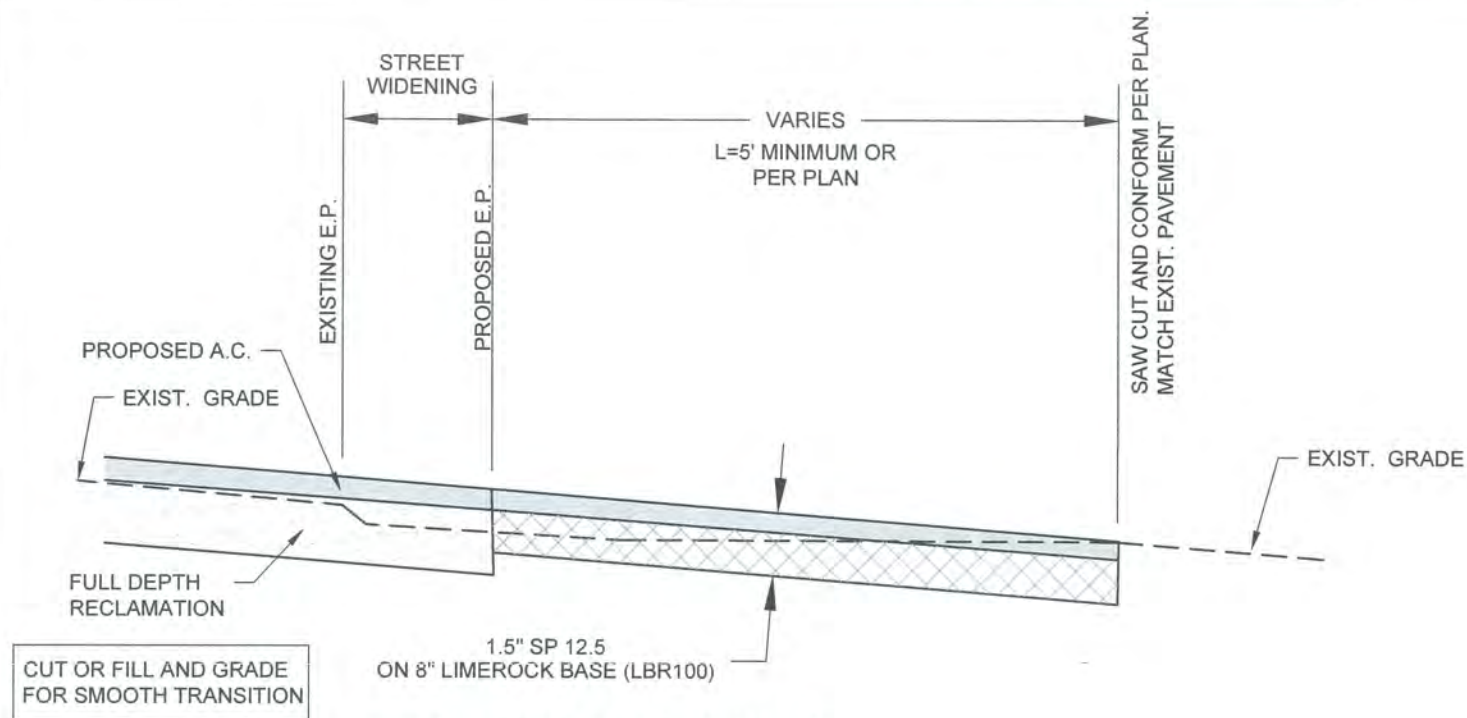
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P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

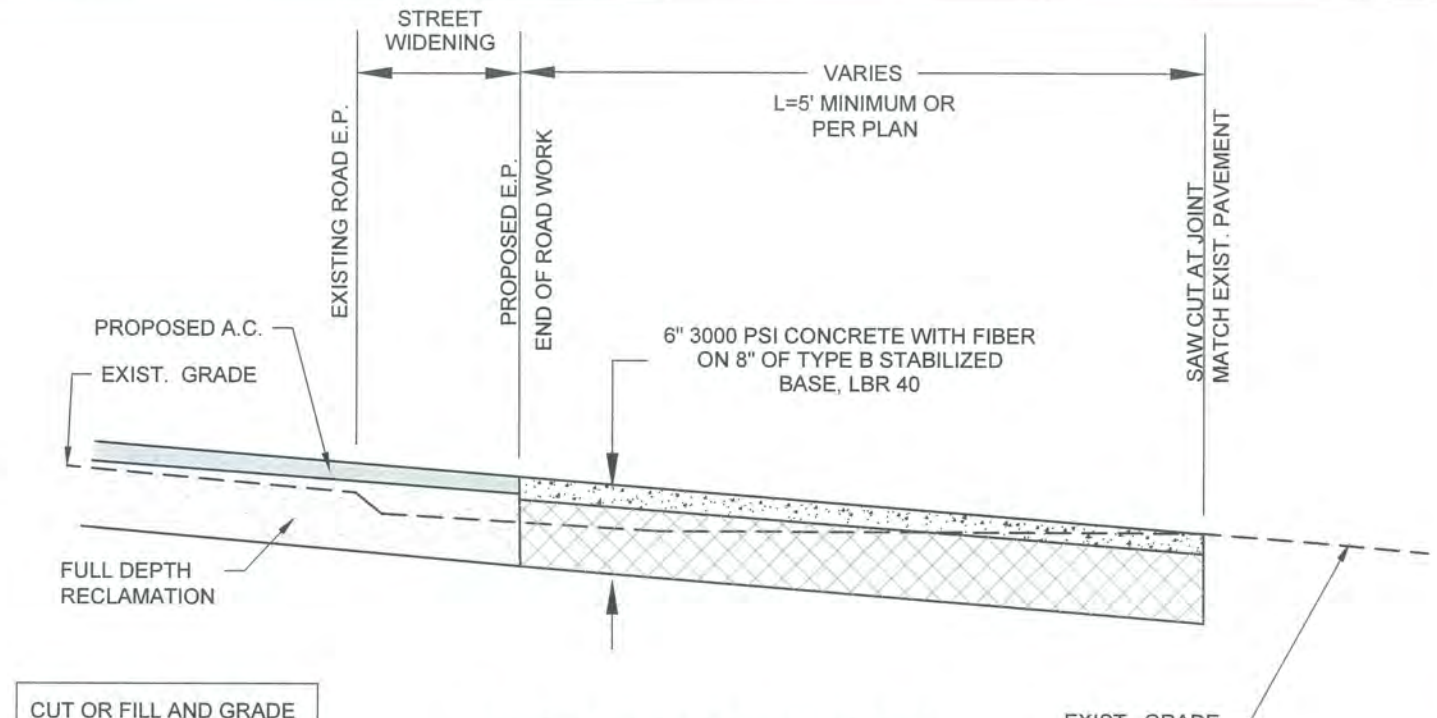
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DETAILS

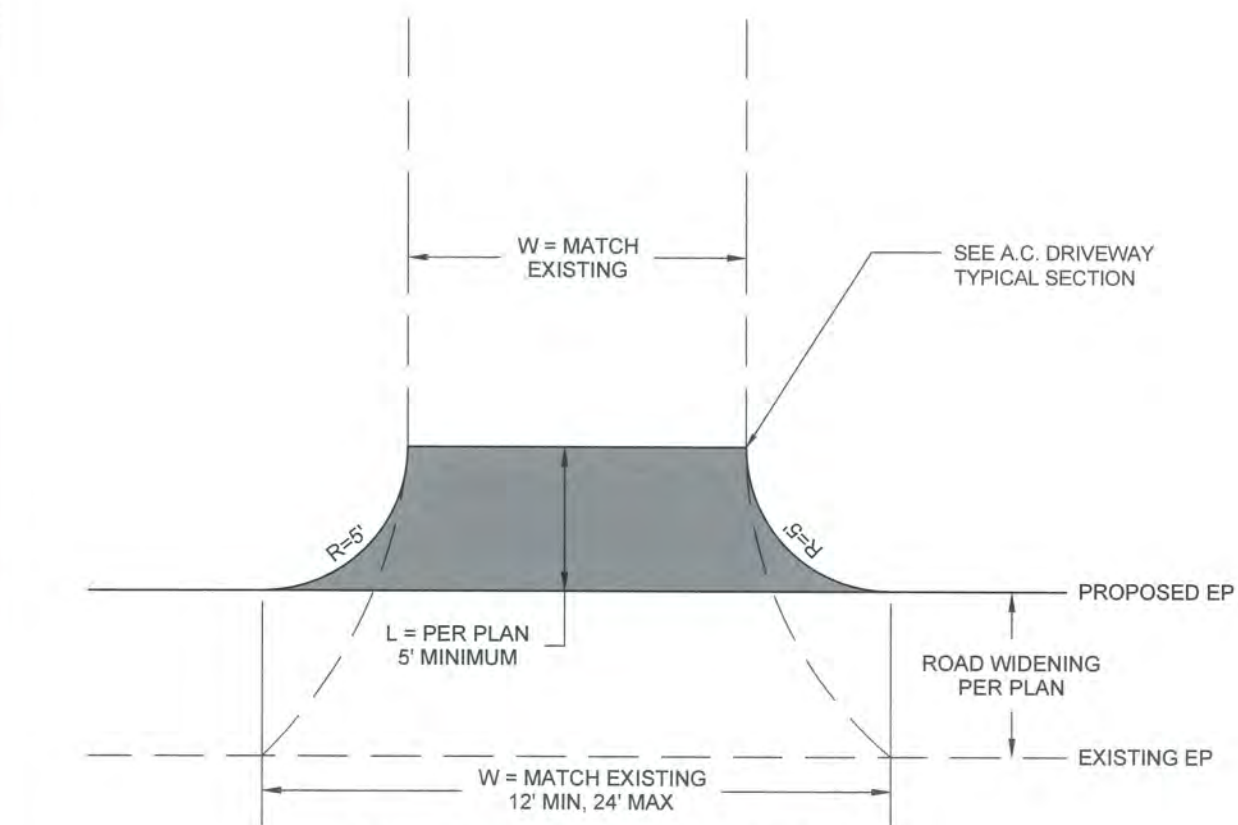
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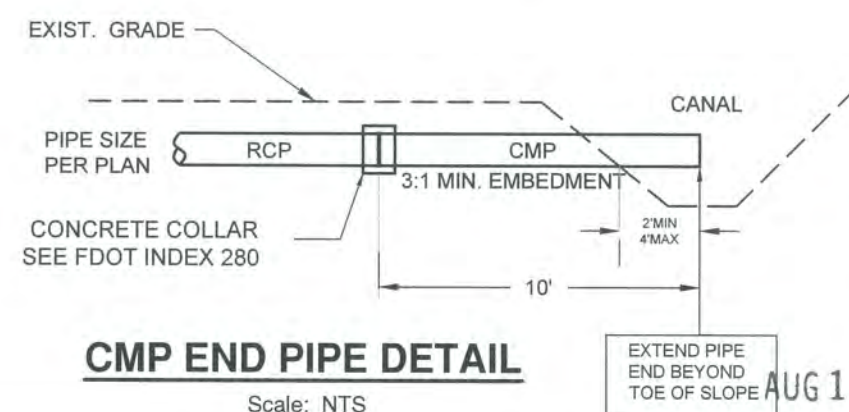
A.C. PAVEMENT DRIVEWAY
Scale: NTS



CONCRETE DRIVEWAY
Scale: NTS



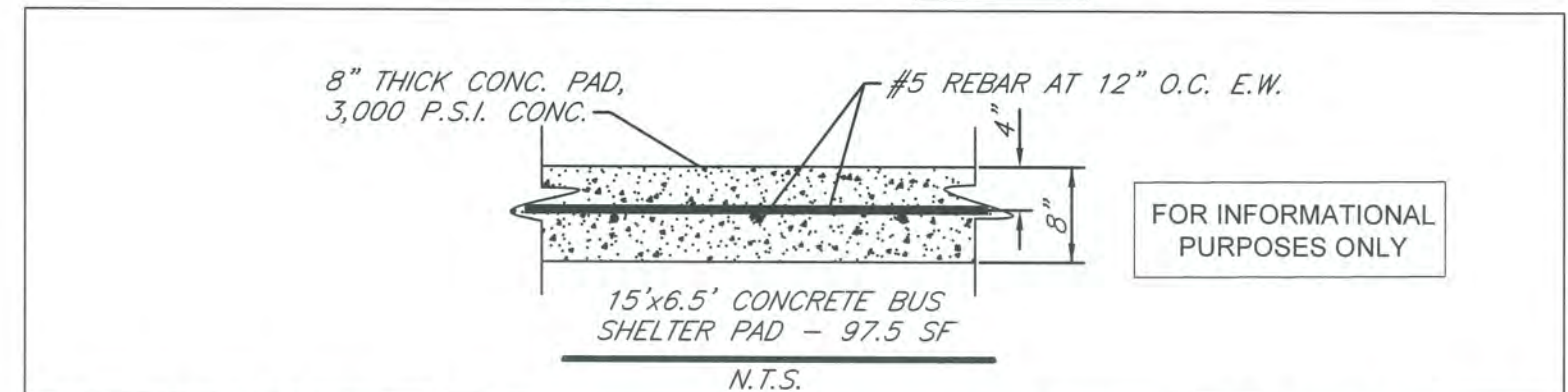
A.C. DRIVEWAY LAYOUT
Scale: NTS



CMP END PIPE DETAIL
Scale: NTS



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FOR INFORMATIONAL PURPOSES ONLY

INDIAN RIVER COUNTY 1801 27TH STREET VERO BEACH, FL 32960 (772) 567-8000		DEPARTMENT OF PUBLIC WORKS	BUS SHELTER PAD TYPICAL SECTION
		ENGINEERING DIVISION	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

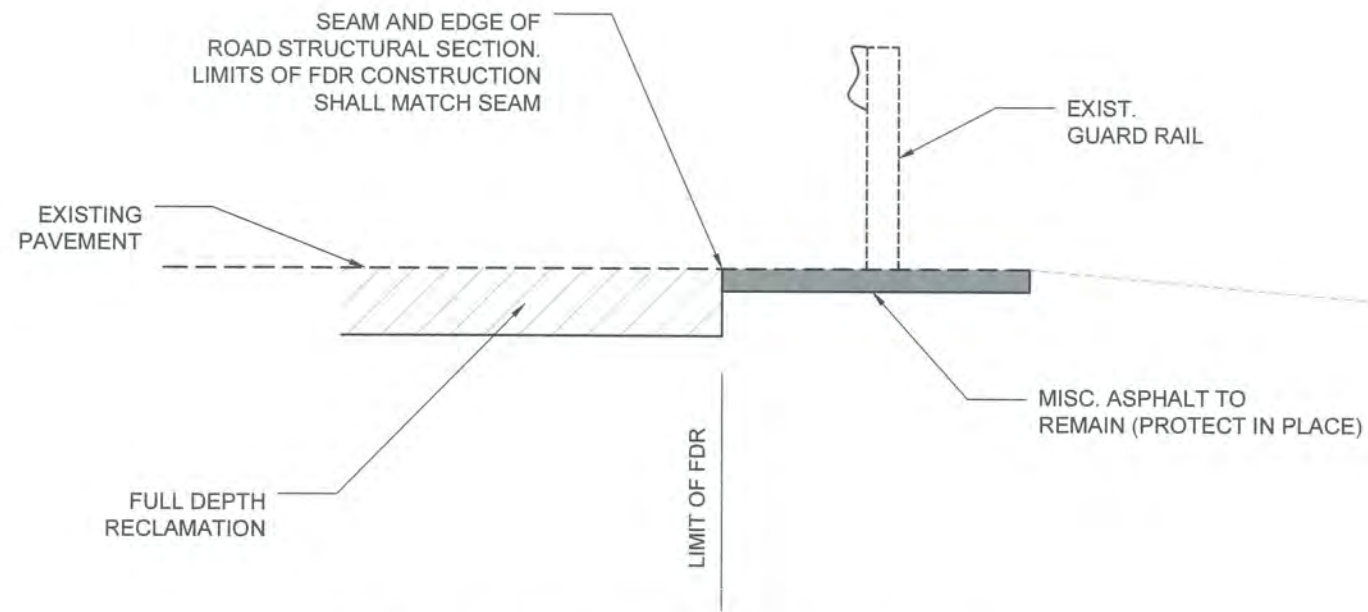
ERIC L. FLAVELL, P.E.
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 4450 W. EAU GALLIE BLVD.
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DETAILS

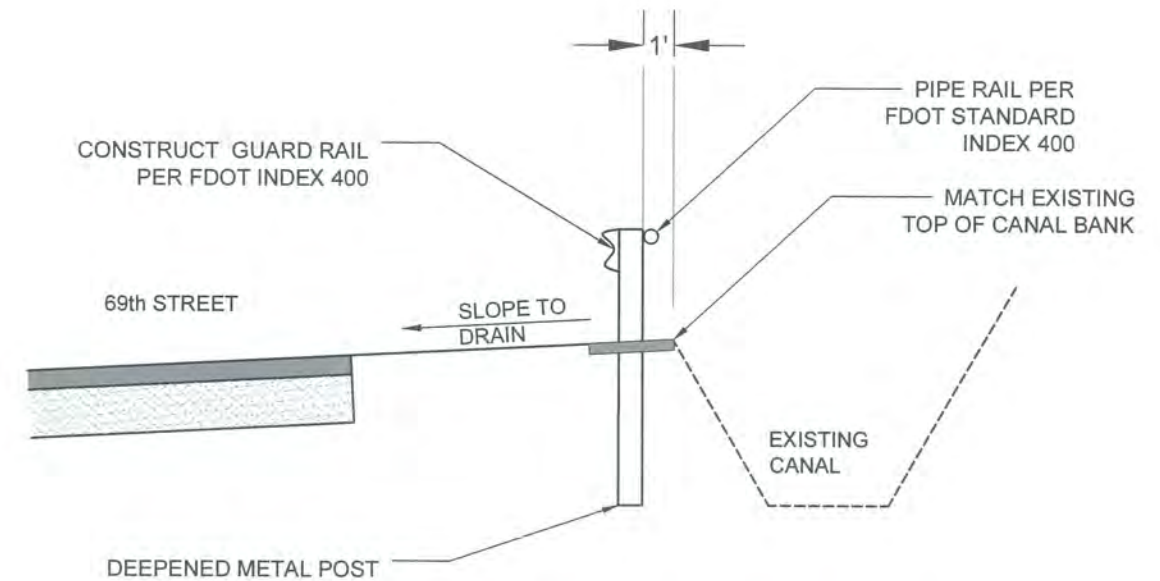
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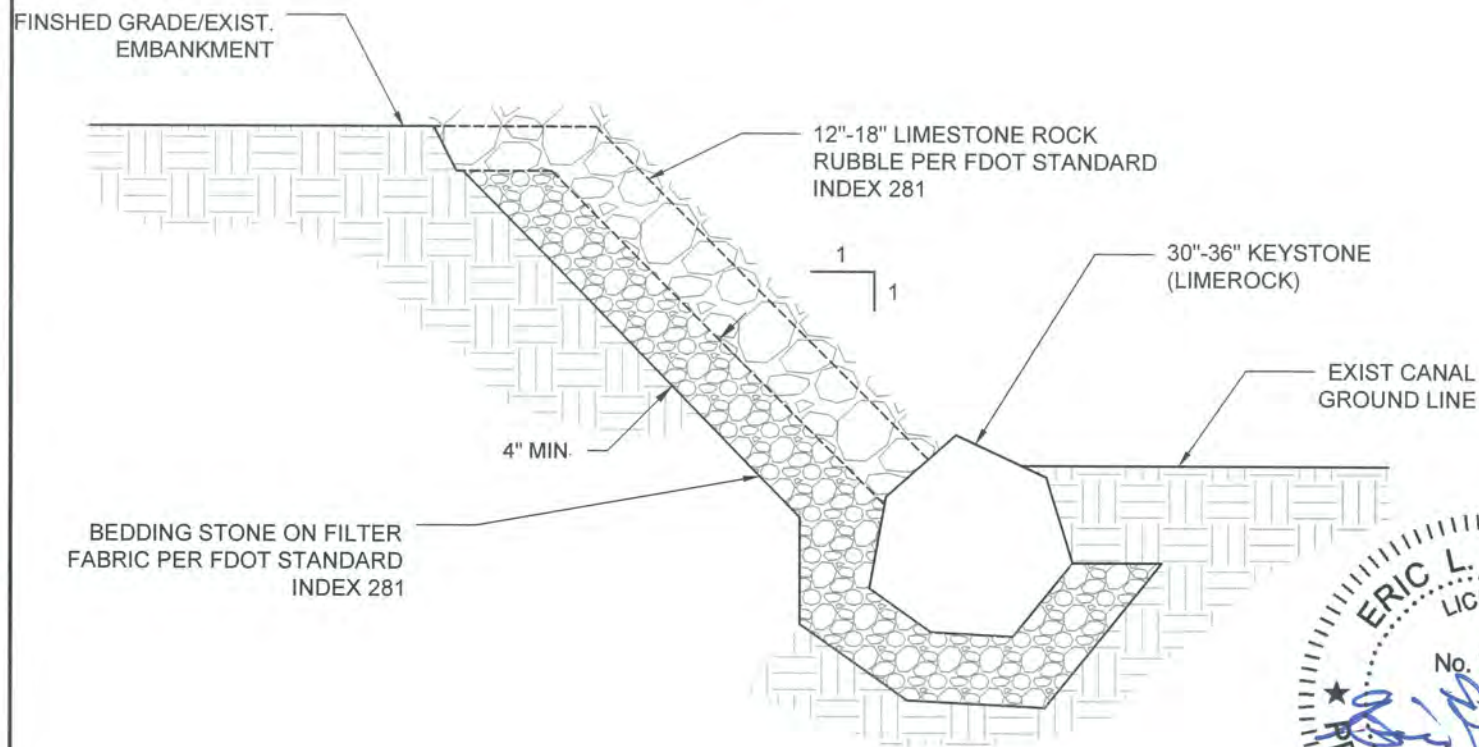
FDR LIMITS AT EXISTING GUARD RAIL

Scale: NTS



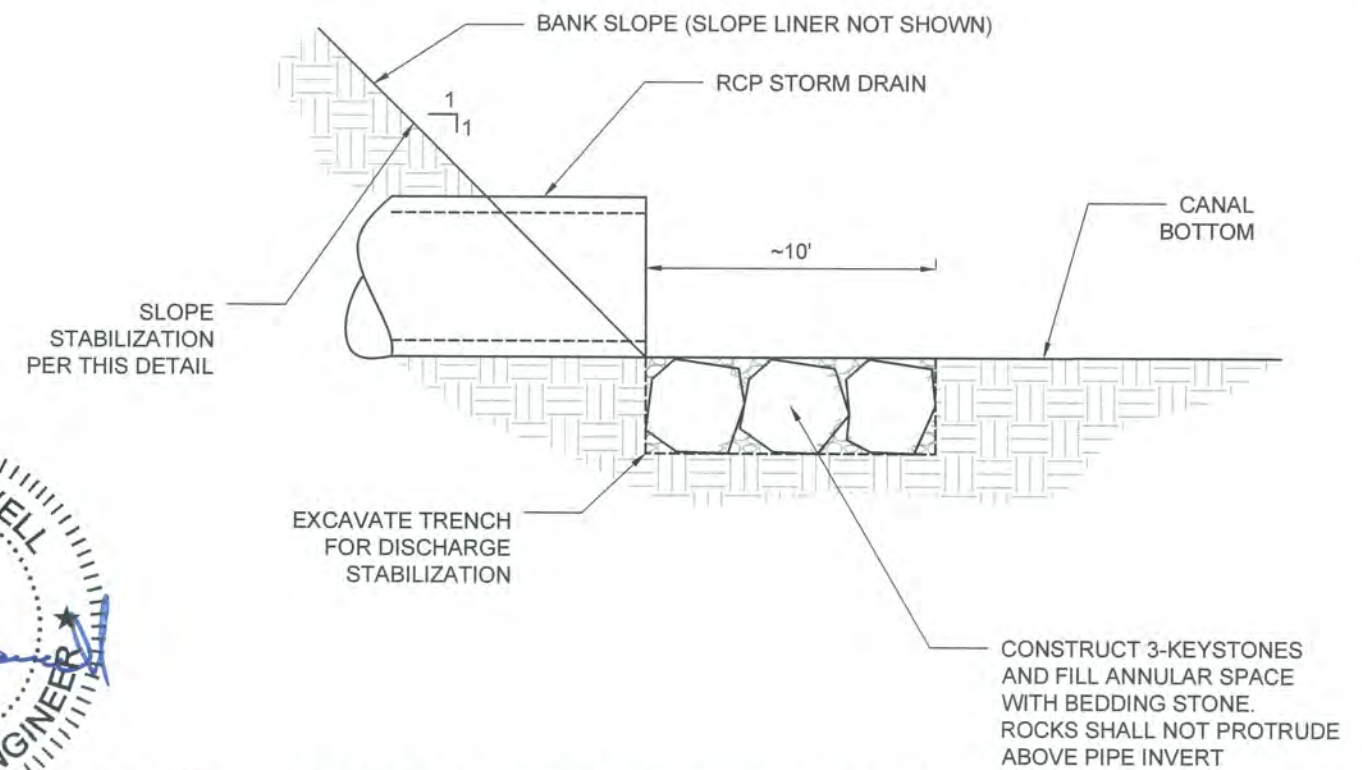
GUARD RAIL AT CANAL DETAIL

Scale: NTS



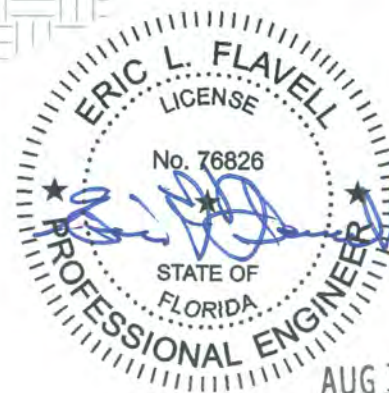
RUBBLE RIP-RAP(SLOPE LINER)

Scale: NTS



RUBBLE RIP-RAP(PIPE DISCHARGE LINER)

Scale: NTS



AUG 19 2019

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DETAILS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

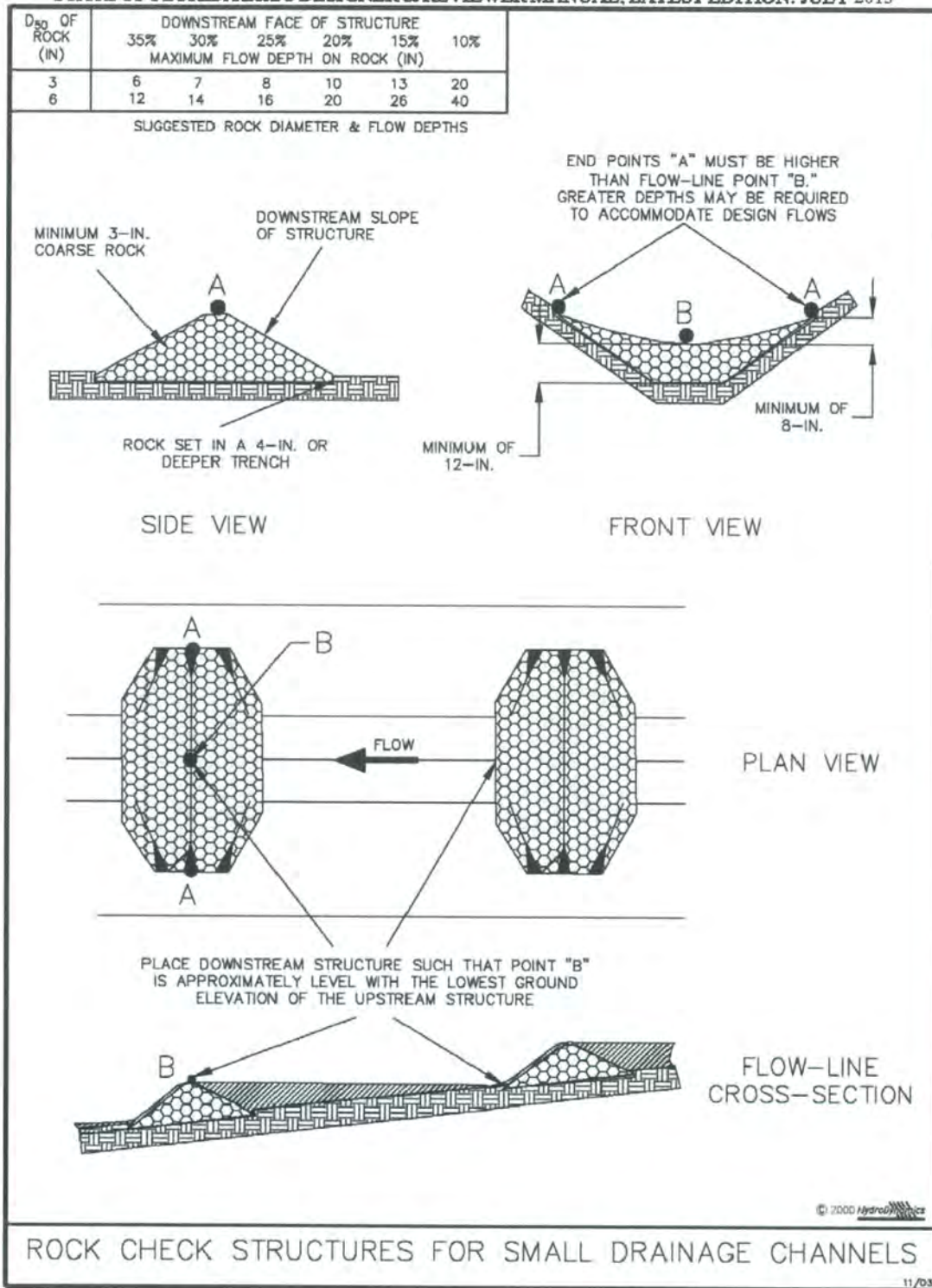


Figure III-11: Rock Check Structures in Small Drainage Channels
 Permission is given by HydroDynamics Incorporated to copy and reproduce this detail

III-33

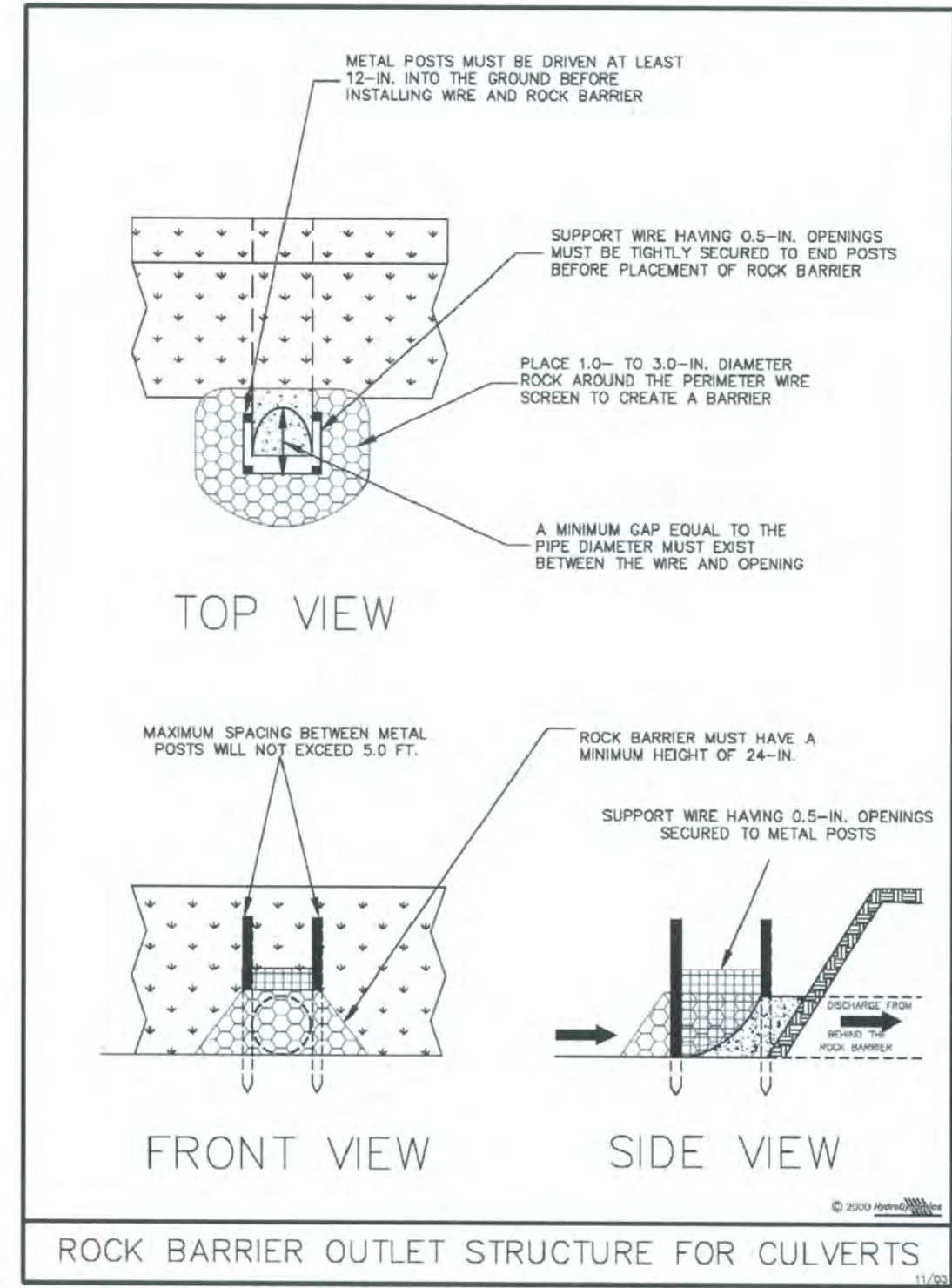


Figure IV-15: Illustration of a Rock Barrier Structure for Culverts

IV-32

REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			DETAILS
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
---	---	---	---	CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	11	

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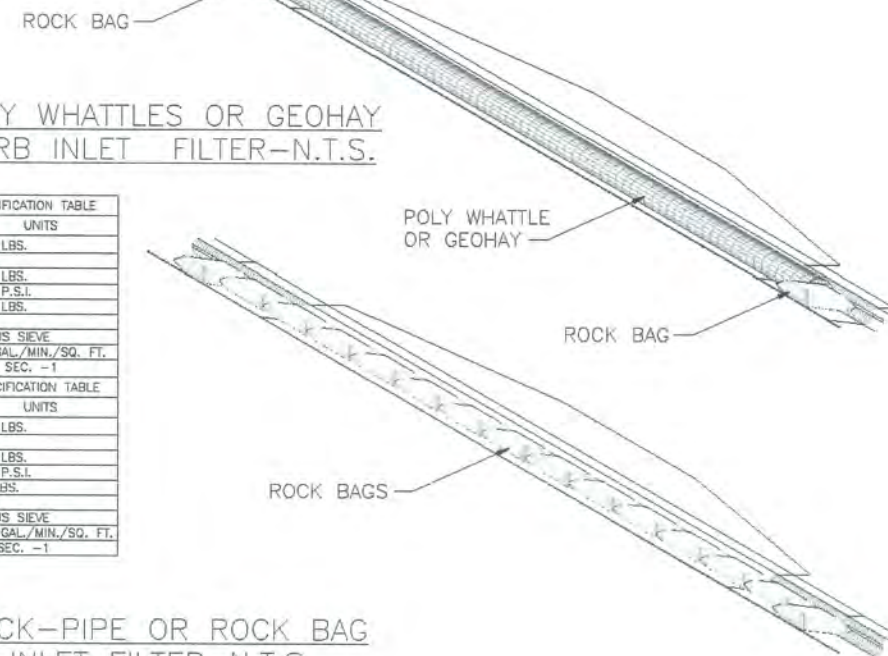
EROSION CONTROL NOTES

- Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land disturbing activity and shall be made functional before up-slope land disturbance takes place.
- All sediment control measures are to be adjusted to meet field conditions at the time of construction and be constructed prior to any grading or disturbance of existing surface material on balance of site. Perimeter sediment barriers shall be constructed to prevent sediment or trash from flowing or floating on to adjacent properties.
- Permanent or temporary soil stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven (7) days to denuded areas that may not be at final grade but will remain undisturbed for longer than 30 days. Permanent stabilization shall be applied to areas that are to be left undisturbed for more than one year.
- During construction of the project, soil stock piles shall be stabilized, covered or contained with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as soil intentionally transported from the project site.
- A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized.
- After any significant rainfall, sediment control structures will be inspected for integrity. Any damaged devices shall be corrected immediately.
- Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume, slope drain structure or approved control.
- Sediment will be prevented from entering any storm water system, ditch or channel. All storm water inlets that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment.
- When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction.
- Periodic inspection and maintenance of all sediment control structures must be provided to ensure intended purpose is accomplished. The developer, owner and/or contractor shall be continually responsible for all sediment controls. Sediment control measures shall be in working condition at the end of each working day.
- Where construction vehicle access routes intersect paved public roads, provisions shall be made to minimize the transport of sediment by tracking onto the paved surface. Where sediment is transported onto a public road surface with curbs and gutters, the road shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual subdivision lots as well as to larger land disturbing activities.
- All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed.
- Properties and waterways downstream from construction sites shall be protected from sediment deposition and erosion at all times during construction.
- Erosion control design and construction shall follow the Typical Details (SWPPP) provided within this plan set.
- Contractor is responsible for all surface water discharges, rainfall run off or dewatering activities.
- Contractor must incorporate all BMP's necessary to meet or exceed state water quality and SWPPP requirements.
- The Pollution Prevention Plan is a minimum guideline only. Additional BMP's may be necessary at contractor's expense.
- NOI to be posted on site.
- Dewatering activities:
 - A - Discharge must not exceed state water quality standards.
 - B - Contractor must have a transferable SJRWMD Consumptive Use Permit known as a "Noticed General Permit For Short Term Construction De-Watering".
 - C - No hydraulic pumps may be used for dewatering unless approved by the water management district for that area.
 - D - No turbid discharge. Turbidity readings are required once a week and must be reported to the project engineer.

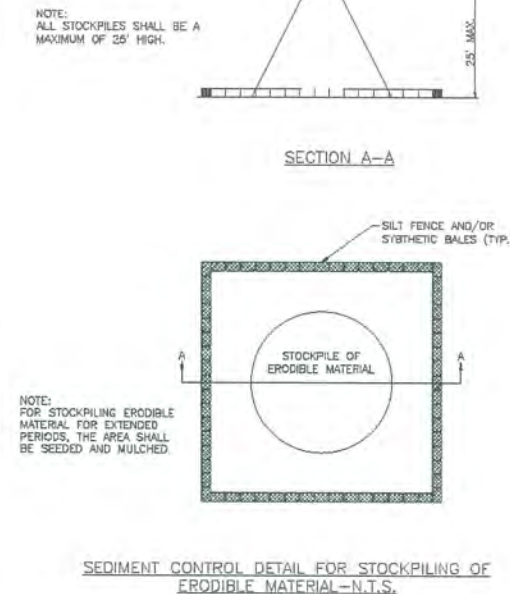
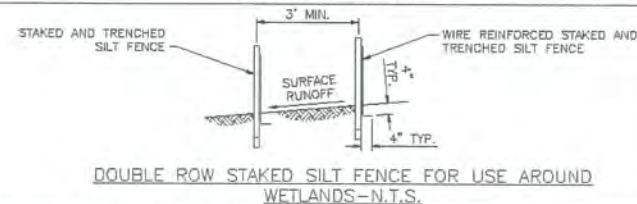
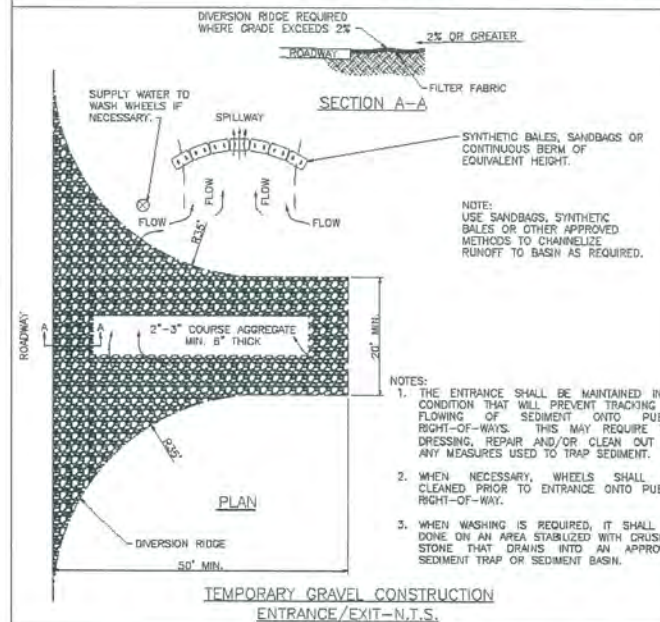
LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS.
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS.
MULLEN BURST	ASTM D-3786	800 P.S.I.
TRAPEZOID TEAR	ASTM D-4533	120 LBS.
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL./MIN./SQ. FT.
PERMITTIVITY	ASTM D-4491	0.55 SEC. -1

MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS.
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	135 LBS.
MULLEN BURST	ASTM D-3786	450 P.S.I.
TRAPEZOID TEAR	ASTM D-4533	45 LBS.
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL./MIN./SQ. FT.
PERMITTIVITY	ASTM D-4491	1.5 SEC. -1

POLY WHATTLES OR GEOHAY
CURB INLET FILTER-N.T.S.



SOCK-PIPE OR ROCK BAG
INLET FILTER-N.T.S.



NO.	REVISION	DATE	BY
1			

INDIAN RIVER COUNTY
1801 27TH STREET
VERO BEACH, FL 32960
(772) 567-8000



DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DESIGNED BY: -	SECTION: -	FIELD BOOK: -	DATE: -
DRAWN BY: -	TOWNSHIP: -	PAGE: -	PROJECT NUMBER: -
APPROVED BY: -	RANGE: -		

SWPPP DETAILS

SHEET
OF

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

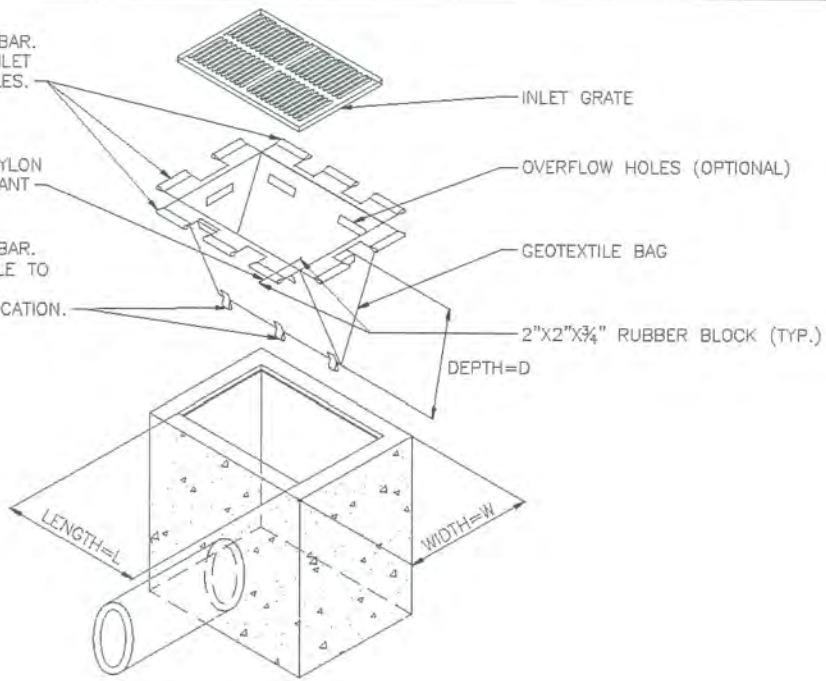
INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DETAILS

LOOPS SIZED FOR 1" REBAR.
LIFT FILTER BAG FROM INLET
USING REBAR FOR HANDLES.

1/2" BRIGHTLY COLORED NYLON
ROPE, EXPANSION RESISTANT

LOOPS SIZED FOR 1" REBAR.
USE REBAR FOR A HANDLE TO
EMPTY FILTER SACK AT A
SEDIMENT COLLECTION LOCATION.

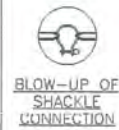


**FILTER SACKS FOR GRATED INLETS
AND STABILIZED ROADWAYS-N.T.S.**

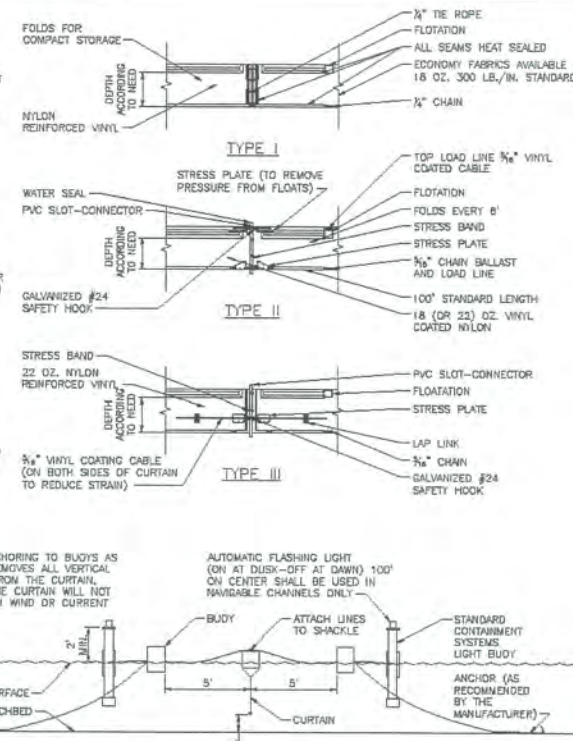
TYPE I. DOT FOR WATERS WITH LOW
CURRENTS (NO MORE THAN ONE FOOT
PER SECOND) AND LIGHT WINDS.
LAKES, PONDS, SMALL STREAMS,
MARSHES. FLEXIBLE TOP FLOATATION
SECTION WITH ENCAPSULATED EPS
FOAM FLOATATION LOGS (6"x6"x4")

TYPE 2. DOT FOR HIGHER CURRENT
WATERS (UP TO FIVE FEET PER
SECOND); DEEPER LAKES, STREAMS,
INTERCOASTAL AND TIDAL AREAS.
INCLUDES AN ENCAPSULATED STEEL
LEAD CABLE ALONG TOP OF BARRIER
AND 6"x6"x4" FLOATATION LOGS. WEAR
STRESS POINTS ARE REINFORCED WITH
SHIELDS.

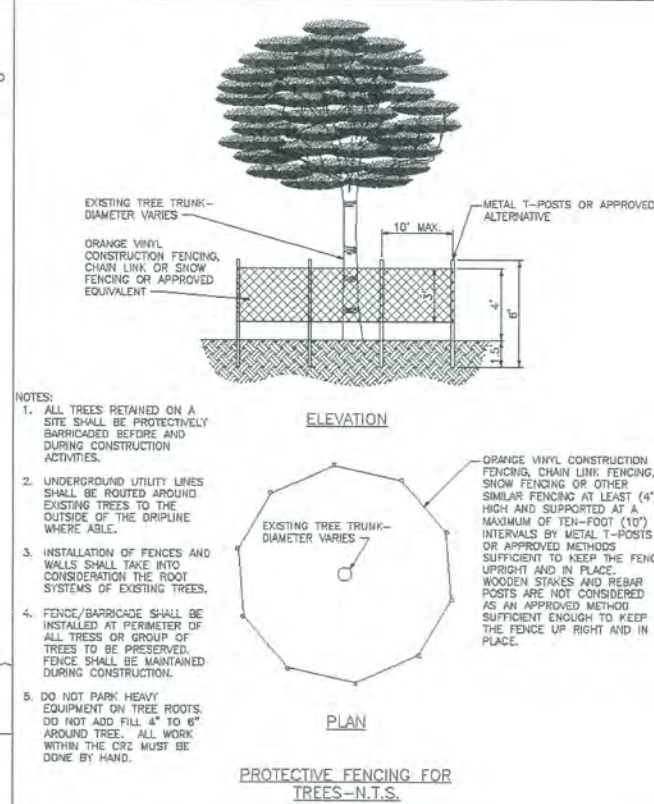
TYPE 3. DOT IS SIMILAR TO TYPE 2.
DOT EXCEPT THAT POLYPROPYLENE
FILTER FABRIC IS PERMANENTLY
INSERTED INTO THE BARRIER SKIRT TO
MEET SOME STATE'S SPECIFICATIONS.



**BLOW-UP OF
SHACKLE
CONNECTION**



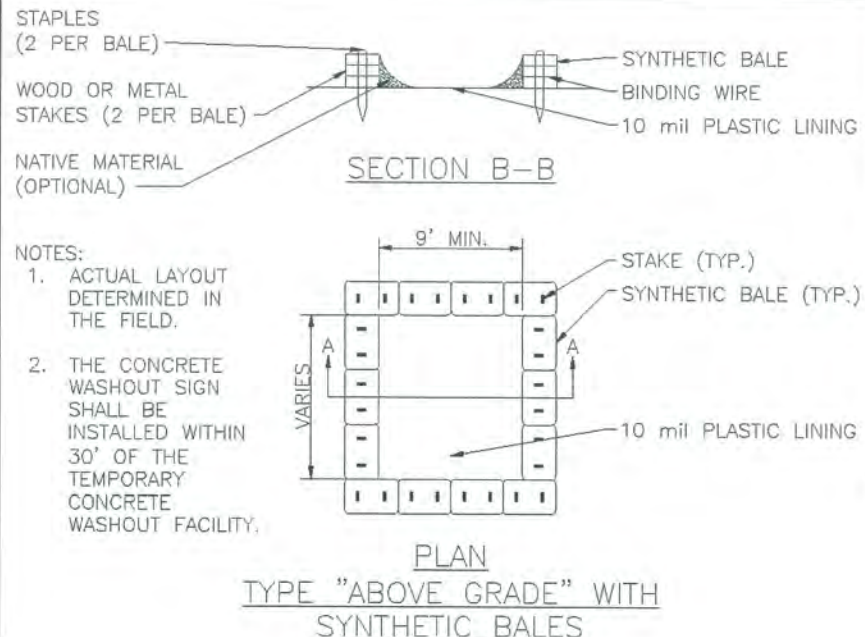
**ORIENTATION WHEN INSTALLED
(TIDAL SITUATION-TYPE III)-N.T.S.**



NOTES:

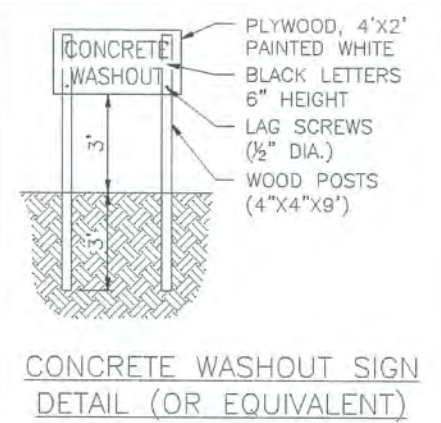
- ALL TREES RETAINED ON A SITE SHALL BE PROTECTIVELY BARRICADED BEFORE AND DURING CONSTRUCTION ACTIVITIES.
- UNDERGROUND UTILITY LINES SHALL BE ROUTED AROUND EXISTING TREES TO THE OUTSIDE OF THE DRIPLINE WHERE ABLE.
- INSTALLATION OF FENCES AND WALLS SHALL TAKE INTO CONSIDERATION THE ROOT SYSTEMS OF EXISTING TREES.
- FENCE/BARRICADE SHALL BE INSTALLED AT PERIMETER OF ALL TREES OR GROUP OF TREES TO BE PRESERVED. FENCE SHALL BE MAINTAINED DURING CONSTRUCTION.
- DO NOT PARK HEAVY EQUIPMENT ON TREE ROOTS. DO NOT ADD FILL 4" TO 6" AROUND TREE. ALL WORK WITHIN THE CRZ MUST BE DONE BY HAND.

**PROTECTIVE FENCING FOR
TREES-N.T.S.**

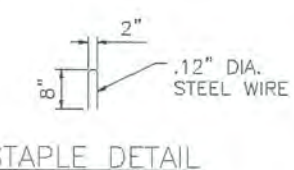


**TYPE "ABOVE GRADE" WITH
SYNTHETIC BALES**

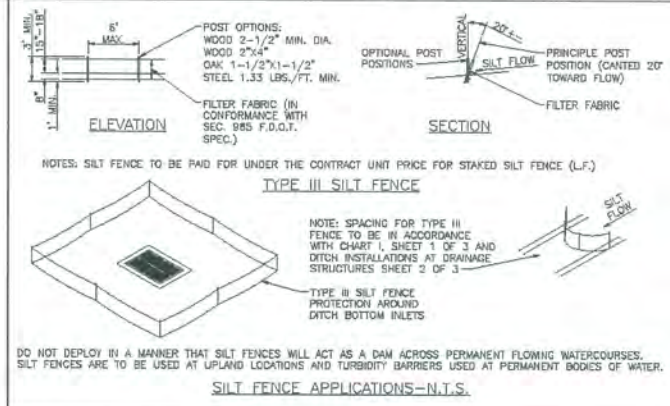
CONCRETE & STUCCO WASTE MANAGEMENT-N.T.S.



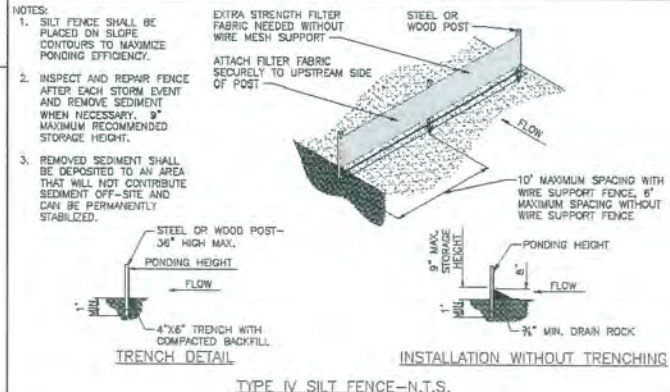
**CONCRETE WASHOUT SIGN
DETAIL (OR EQUIVALENT)**



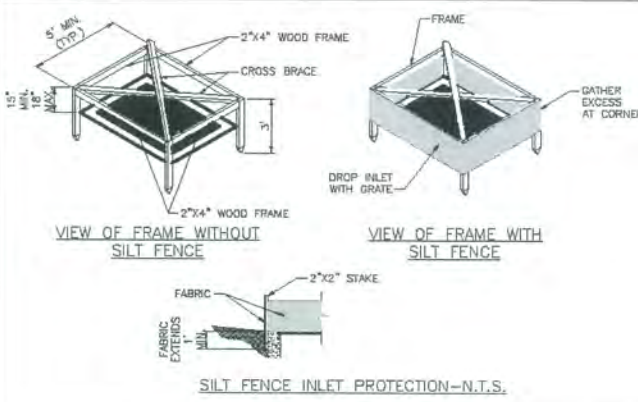
STAPLE DETAIL



SILT FENCE APPLICATIONS-N.T.S.



TYPE IV SILT FENCE-N.T.S.



SILT FENCE INLET PROTECTION-N.T.S.

NO.	REVISION	DATE	BY
1			

INDIAN RIVER COUNTY
1801 27TH STREET
VERO BEACH, FL 32960
(772) 567-8000

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DESIGNED BY: -	SECTION: -	FIELD BOOK: -	DATE: -
DRAWN BY: -	TOWNSHIP: -	PAGE: -	PROJECT NUMBER: -
APPROVED BY: -	RANGE: -		

SWPPP DETAILS

SHEET	OF
-	-

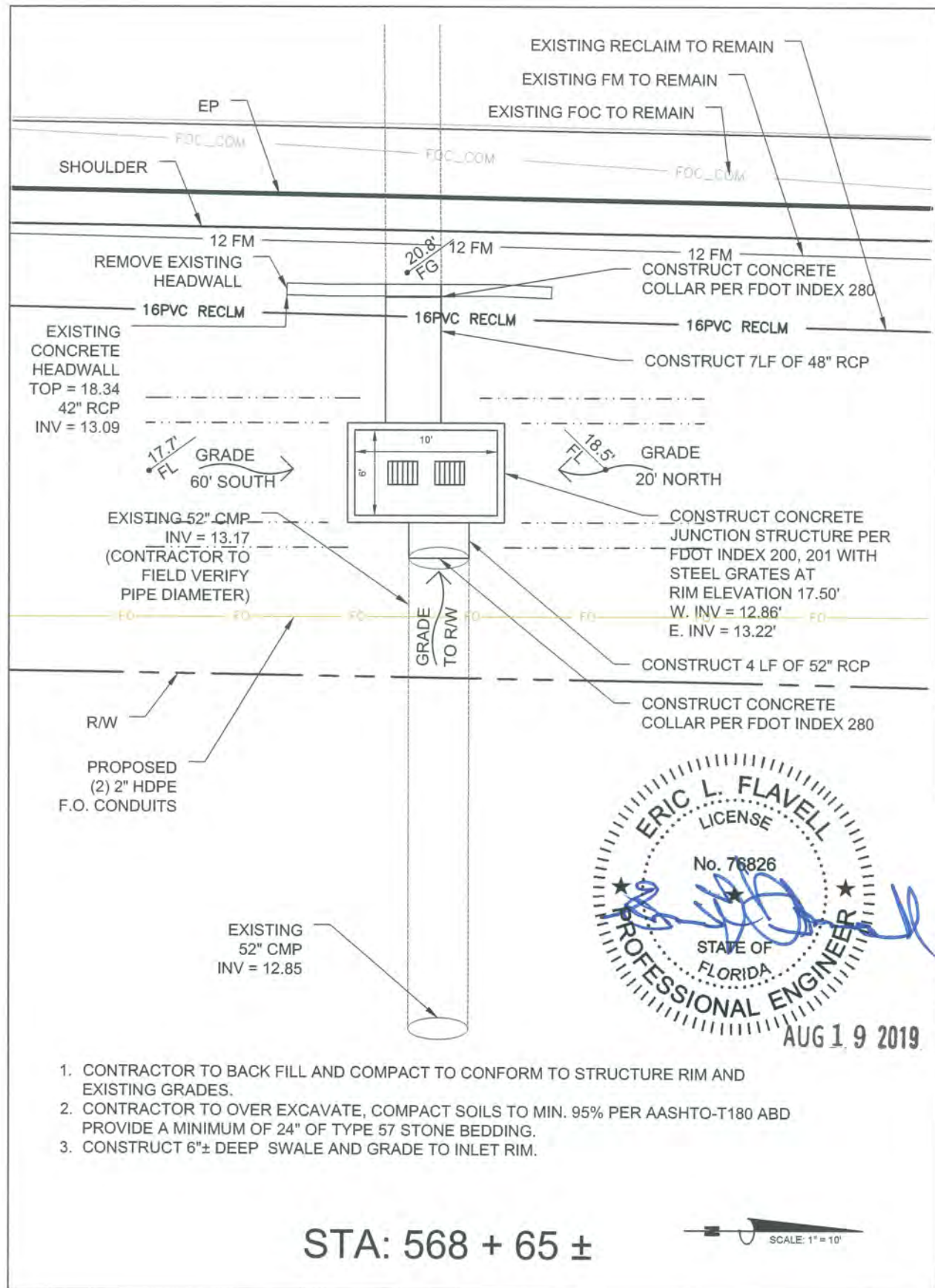
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO. CR-613 58th AVE	COUNTY INDIAN RIVER	FINANCIAL PROJECT ID IRC: 1325 FDOT:436416-1-54-01

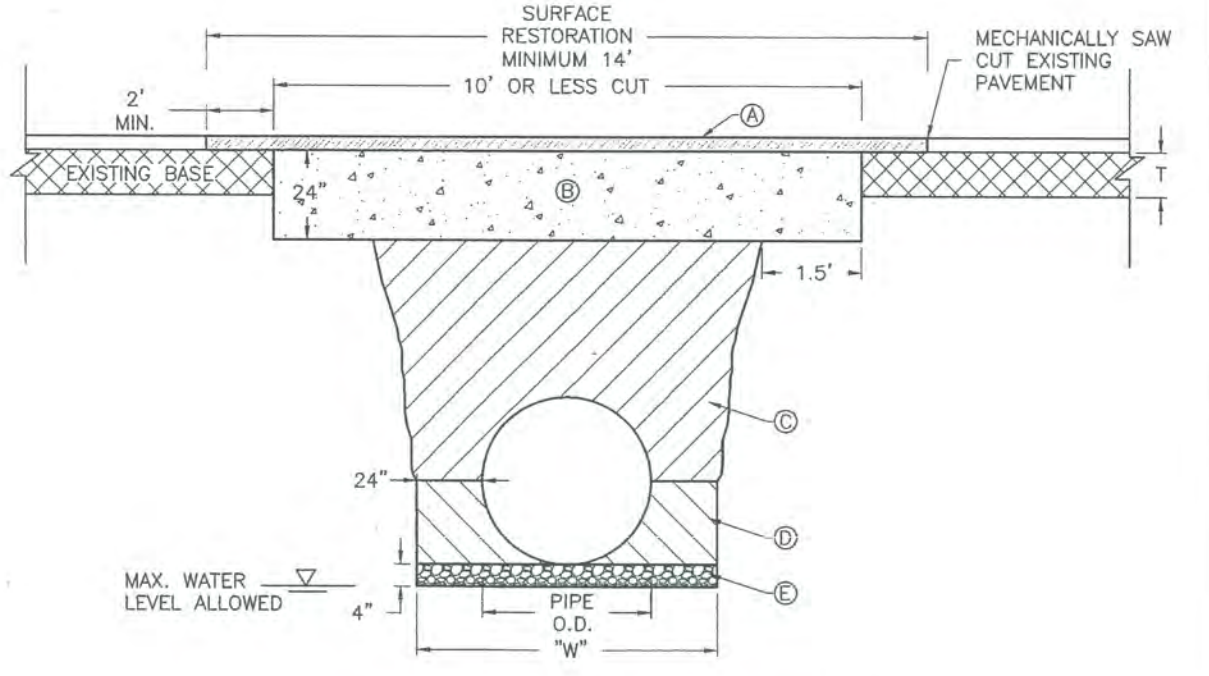
DETAILS

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1. CONTRACTOR TO BACK FILL AND COMPACT TO CONFORM TO STRUCTURE RIM AND EXISTING GRADES.
2. CONTRACTOR TO OVER EXCAVATE, COMPACT SOILS TO MIN. 95% PER AASHTO-T180 ABD PROVIDE A MINIMUM OF 24" OF TYPE 57 STONE BEDDING.
3. CONSTRUCT 6"± DEEP SWALE AND GRADE TO INLET RIM.

STA: 568 + 65 ±



STORMWATER/UTILITY PIPE INSTALLATION

- NOTES:
1. UTILITY CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL COMPLY WITH COUNTY CODE CHAPTER 312.
 - 1.1. ALL INSTALLATIONS LESS THAN 12" DIAMETER AND NON GRAVITY UTILITIES SHALL BE BY DIRECTIONAL BORE.
 - 1.2. PARTIAL LANE CUTS REQUIRE A MINIMUM OF SINGLE LANE RESTORATION.
 2. WHERE SOIL CONDITIONS CANNOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE APPROVED METHOD OF CONSTRUCTION FOR APPROVAL BY THE COUNTY ENGINEER OR DESIGNEE PRIOR TO INSTALLATION.
 3. SHORING MAY BE REQUIRED IN ACCORDANCE WITH ALL INDUSTRY STANDARDS.
 4. NEW SURFACING MATERIALS SHALL BE CONSISTENT OR BETTER THAN EXISTING CONDITIONS AND SHALL HAVE BUTT JOINTS (2.5 INCH MINIMUM THICKNESS).
 5. ALL ROADWAY RESTORATION SHALL COMPLY WITH INDIAN RIVER COUNTY PUBLIC WORKS AND FDOT STANDARDS (LATEST EDITION).
 6. MINIMUM TRENCH WIDTH "W" = PIPE O.D. PLUS 2'-0" ON EACH SIDE.
- Ⓐ MINIMUM EXISTING PAVEMENT DEPTH OR PER COUNTY ROADWAY DESIGN CRITERIA DETAIL, WHICHEVER IS GREATER.
- Ⓑ FLOWABLE FILL AS DEFINED AS NON-EXCAVATABLE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 121, WITH STRENGTH OF 125-300 PSI.
- Ⓒ A.A.S.H.T.O. TYPE A-3 MATERIAL IN MAXIMUM 6" LIFTS COMPACTED AT 98% A.A.S.H.T.O. T-180.
- Ⓓ A.A.S.H.T.O. TYPE A-3 MATERIAL IN MAXIMUM 4" LIFTS COMPACTED AT 98% A.A.S.H.T.O. T-180. EXCAVATABLE FLOWABLE FILL IS ALLOWED WITH PRIOR APPROVAL OF PROPOSED MATERIAL STRENGTH BY THE COUNTY ENGINEER OR DESIGNEE.
- Ⓔ ¾" DIAMETER, WASHED BEDDING ROCK OR PEA ROCK WHERE UNSUITABLE BEDDING MATERIAL EXISTS OR IF DEWATERING IS REQUIRED. SUITABLE MATERIAL IS DEFINED AS STABLE GRANULAR MATERIAL FREE OF ROCK FORMATION, OTHER FOREIGN FORMATIONS AND CONSTRUCTED TO UNIFORM GRADE AND LINE.

INDIAN RIVER COUNTY 1801 27TH STREET VERO BEACH, FL 32960 (772) 226-1283		DEPARTMENT OF PUBLIC WORKS	TRENCH (PAVED AREAS) 10' OR LESS CUT
		ENGINEERING DIVISION	

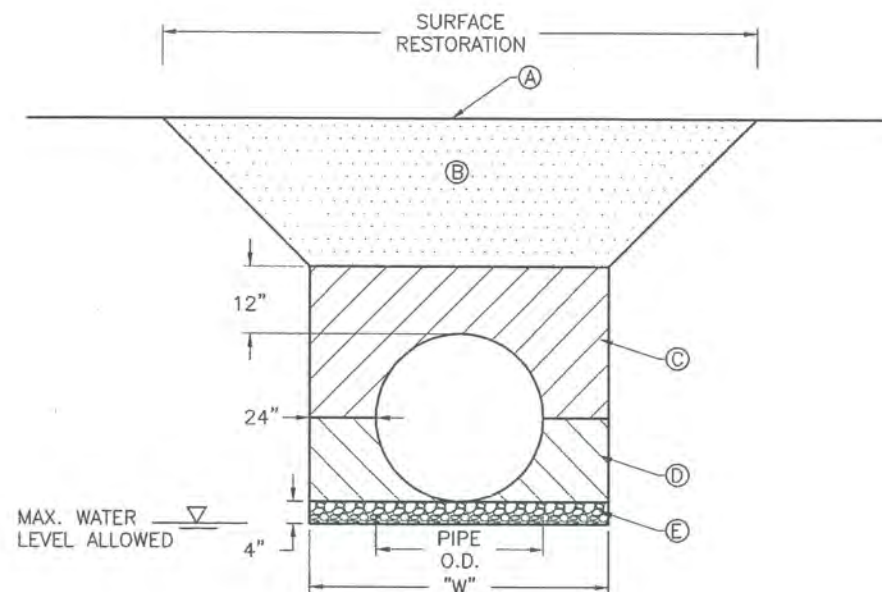
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INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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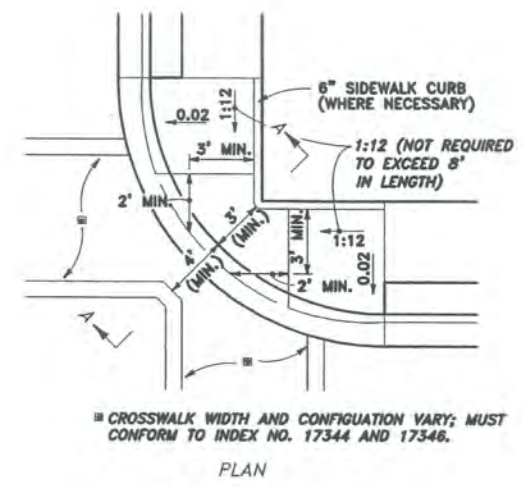
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**STORMWATER/UTILITY PIPE
INSTALLATION**

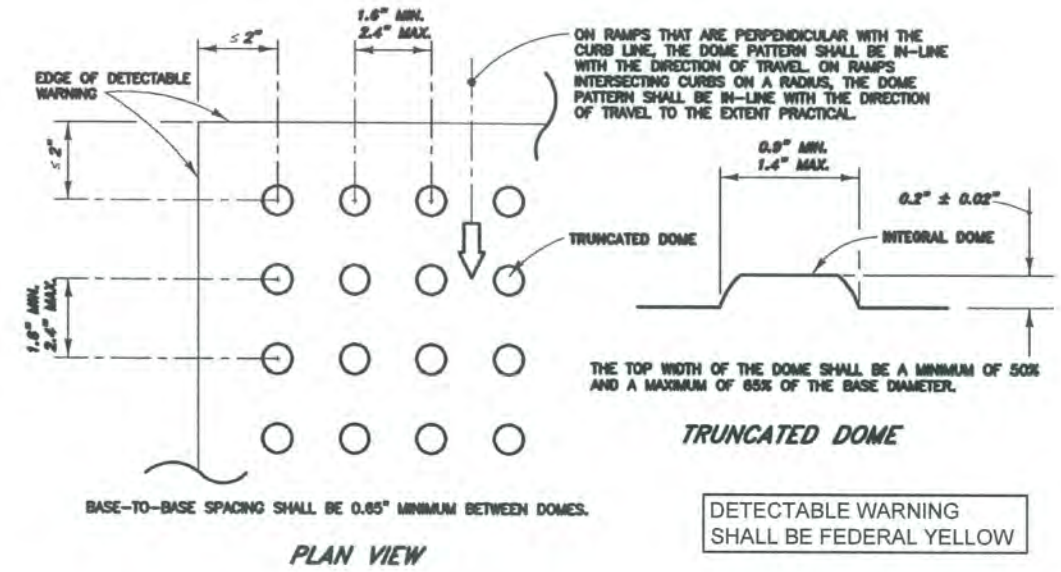
- NOTES:
- UTILITY CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL COMPLY WITH COUNTY CODE CHAPTER 312.
 - WHERE SOIL CONDITIONS CANNOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE METHOD OF CONSTRUCTION FOR APPROVAL BY COUNTY ENGINEER OR DESIGNEE PRIOR TO INSTALLATION.
 - SHORING MAY BE REQUIRED IN ACCORDANCE WITH ALL INDUSTRY STANDARDS.
 - MINIMUM TRENCH WIDTH "W" = PIPE O.D. PLUS 2'-0" ON EACH SIDE.
- Ⓐ MATCH EXISTING GROUND WITH SMOOTH, LEVEL TRANSITION.
- Ⓑ UNPAVED ROADS IN ROW SHALL CONSIST OF 8" LIMEROCK BASE OR COQUINA SHELL IN A MINIMUM OF (2) 4" LIFTS WITH A MINIMUM LBR OF 100 COMPACTED TO 98% MAXIMUM DENSITY PER A.A.S.H.T.O. T-180. WHEN INSTALLATION IS NOT LOCATED IN A TRAVEL LANE, RESTORATION SHALL BE ACCORDING TO Ⓒ BELOW WITH SOD LAID WITHIN THREE DAYS OF FINAL GRADING.
- Ⓒ A.A.S.H.T.O. TYPE A-3 MATERIAL IN MAXIMUM 6" LIFTS COMPACTED AT 98% A.A.S.H.T.O. T-180.
- Ⓓ A.A.S.H.T.O. TYPE A-3 MATERIAL IN MAXIMUM 4" LIFTS COMPACTED AT 98% A.A.S.H.T.O. T-180. EXCAVATABLE FLOWABLE FILL IS ALLOWED WITH PRIOR APPROVAL OF PROPOSED MATERIAL STRENGTH BY COUNTY ENGINEER OR DESIGNEE.
- Ⓔ 3/4" DIAMETER, WASHED BEDDING ROCK OR PEA ROCK WHERE UNSUITABLE BEDDING MATERIAL EXISTS OR DEWATERING IS REQUIRED. SUITABLE MATERIAL IS DEFINED AS STABLE GRANULAR MATERIAL FREE OF ROCK FORMATION, OTHER FOREIGN FORMATIONS AND CONSTRUCTED TO UNIFORM GRADE AND LINE.



PLAN
LANDING 3' (MIN.)
RDWY. PAVT. 2'
6" SIDEWALK CURB (WHERE NECESSARY)
0.02

Ⓒ 26

DIMENSIONAL FEATURES FOR
PUBLIC SIDEWALK COMBINED CORNER
RAMPS UNDER CONDITIONS OF INFEASIBILITY



TRUNCATED DOME

BASE-TO-BASE SPACING SHALL BE 0.85" MINIMUM BETWEEN DOMES.

PLAN VIEW

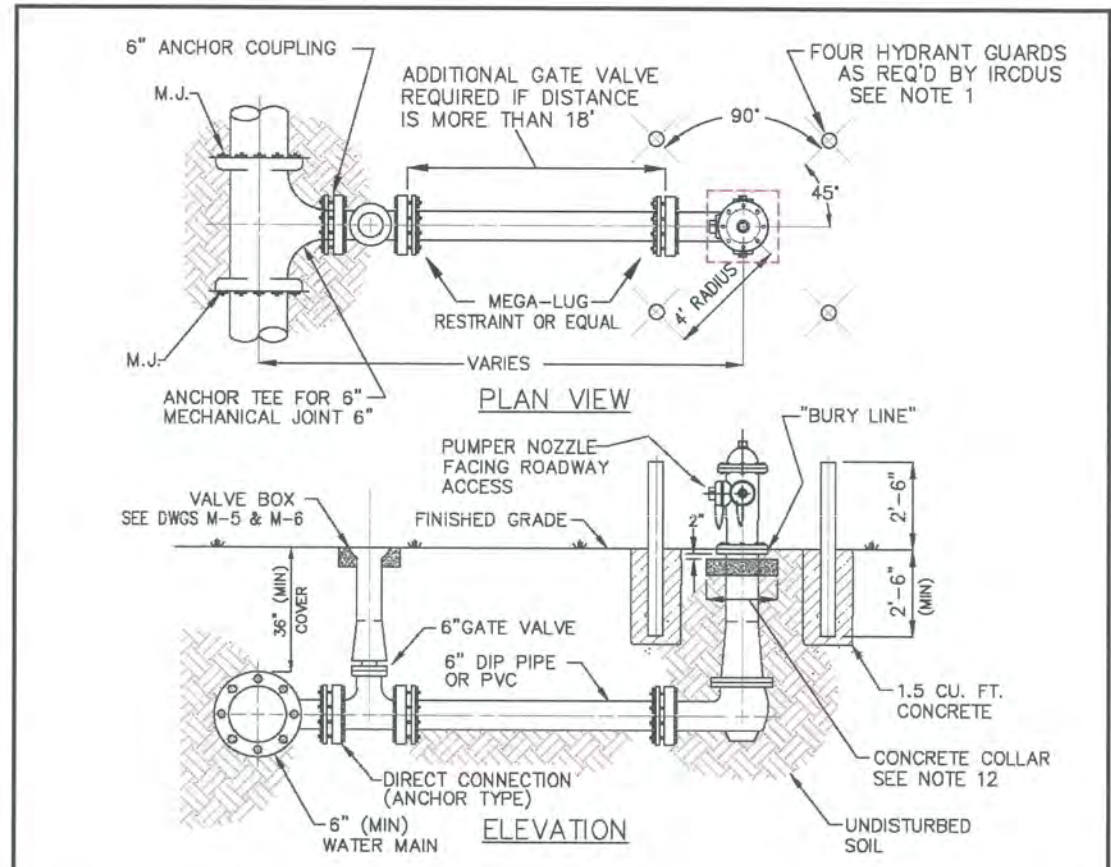
ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24" (310mm) FROM THE BACK OF CURB.

CURB RAMP DETECTABLE WARNING DETAIL
FDOT INDEX #304

INDIAN RIVER COUNTY 1801 27TH STREET VERO BEACH, FL 32960 (772) 226-1283	DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	TRENCH (UNPAVED AREAS)
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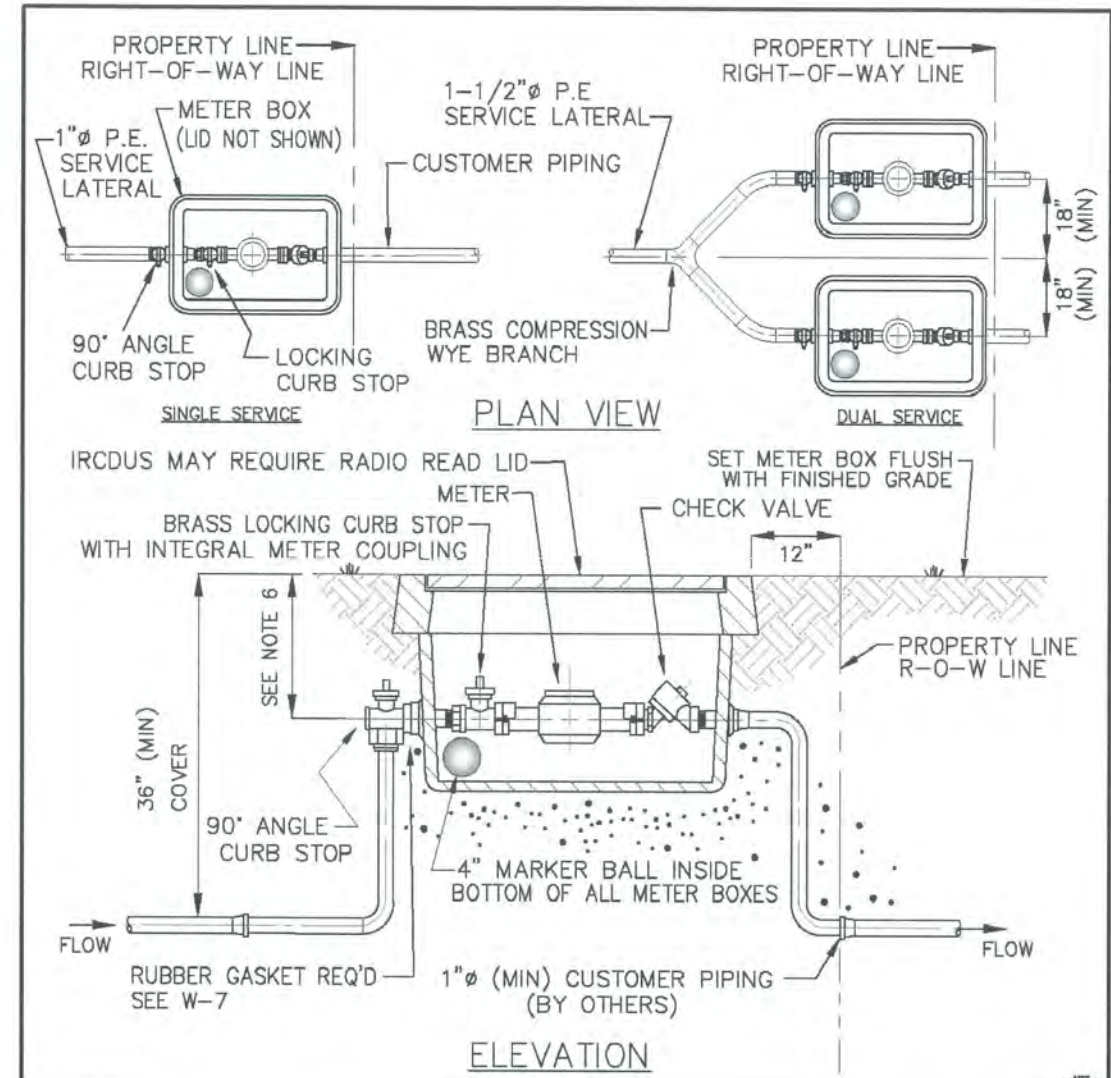
REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			DETAILS
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	15

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- NOTES**
1. HYDRANT GUARDS TO BE 4" DIAMETER GALVANIZED STEEL OR DUCTILE IRON PIPE FILLED WITH CONCRETE WHEN REQUIRED BY IRCDS. GUARDS TO BE PAINTED RED SAME AS HYDRANT AND VALVE COVER.
 2. THE HYDRANT SHOULD BE SET SUCH THAT THE "BURY LINE" ON THE HYDRANT BARREL IS SET AT FINISHED GRADE OR THAT THE OPERATING NUT OF THE PUMPER NOZZLE HYDRANT IS A MINIMUM OF 18" ABOVE FINISHED GRADE.
 3. ALL HYDRANTS SHALL BE TRAFFIC BREAKAWAY TYPE.
 4. COMPLETE ANCHORED FIRE HYDRANT ASSEMBLY MAY BE UTILIZED IN LIEU OF ABOVE.
 5. FIRE HYDRANT SHOULD BE LOCATED A MAXIMUM OF 12' FROM EDGE OF PAVEMENT WHERE POSSIBLE.
 6. ALL MATERIALS ARE TO BE PER IRCDS APPROVED MANUFACTURERS' PRODUCT LIST.
 7. TRACE WIRE TO BE INSTALLED AS PER DETAIL M-13. (TRACE WIRE NOT SHOWN IN DRAWING ABOVE.)
 8. MAINTAIN 7'-6" RADIUS OF HYDRANT PERPENDICULAR TO ROADWAY OR CURB FACE (EXAMPLE MUST BE CLEAR OF SIGNS, TREES, SHRUBS, TRANSFORMERS, UTILITY POLES, ETC.)
 9. HYDRANTS AND PROTECTION DEVICES SHALL HAVE CLEARANCES OF 7'-6" IN FRONT AND TO THE SIDES OF THE FIRE HYDRANT, WITH A 4' CLEARANCE TO THE REAR OF THE HYDRANT UNLESS THE AHJ (AUTHORITY HAVING JURISDICTION) REQUIRES A LARGER CLEAR ZONE.
 10. REFERENCE DRAWINGS M-5, VALVE AND BOX & M-6, VALVE BOX PAD.
 11. CONCRETE COLLAR IS REQUIRED. COLLAR SHALL BE 6" THICK x 2'x2' SQUARE AND LOCATED A MINIMUM 2" BELOW BREAKAWAY FLANGES.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		FIRE HYDRANT DETAILS	DRAWING NO.
			W-2

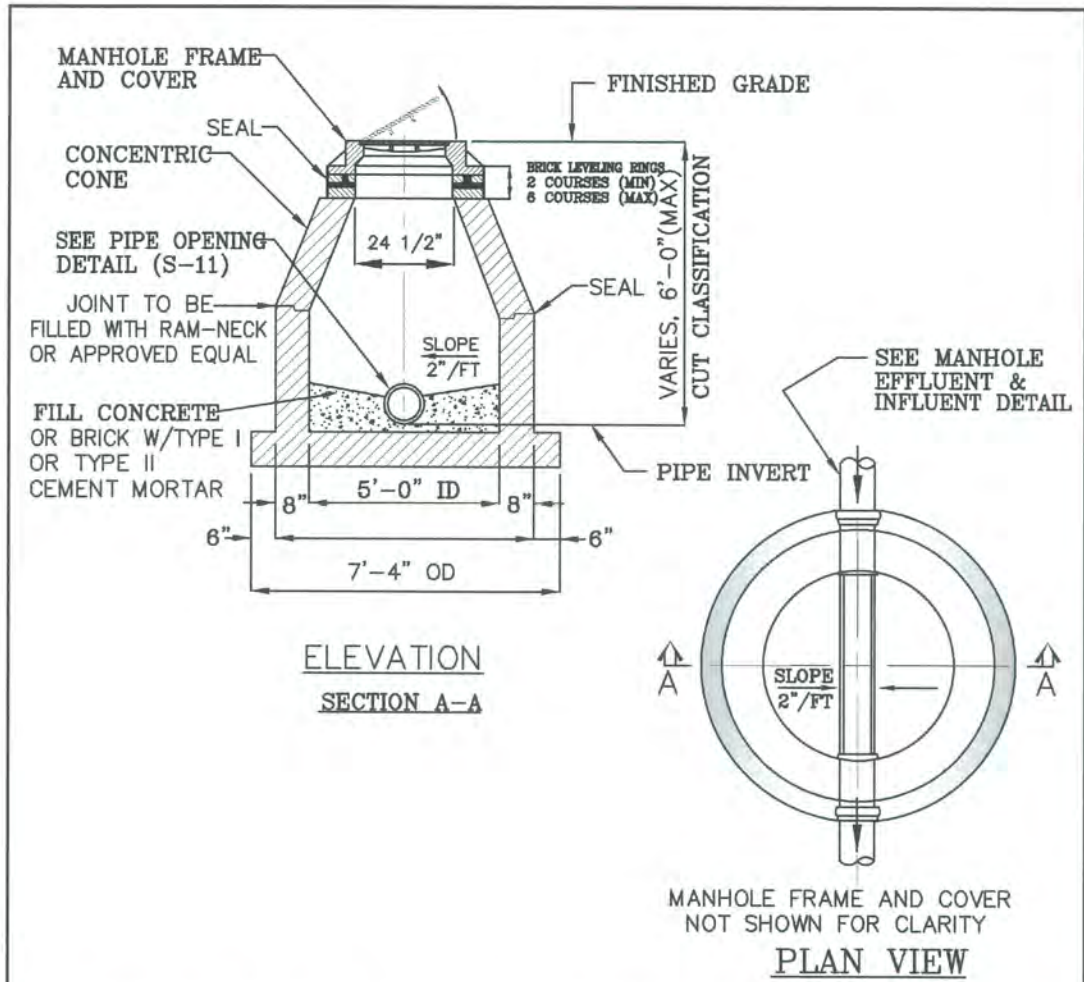


- NOTES**
1. METERS OVER 2" MUST BE APPROVED BY IRCDS AND SHALL BE SUPPLIED AND INSTALLED BY THE DEVELOPER/PROPERTY OWNER.
 2. ALL METERS 2" AND SMALLER WILL BE SUPPLIED AND INSTALLED BY IRCDS.
 3. MINIMUM SIZE OF METER BOXES: 1" SERVICE (12" X 18"); 1-1/2" AND 2" SERVICE (17" X 28").
 4. TRACE WIRE (NOT SHOWN) TO BE INSTALLED AS PER DETAIL M-13.
 5. PLACE A 4" ELECTRONIC MARKER BALL IN THE INSIDE BOTTOM OF ALL METER BOXES.
 6. ALL METER BOXES SHALL BE PER IRCDS APPROVED MANUFACTURERS' PRODUCT LIST.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		METER BOX	DRAWING NO.
			W-6

REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			DETAILS
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	16
				Vincente De Pena	8/16/2019 5:59:57 PM	P:\010514 - Indian River County\010514-01-001 (ENG) - Indian River Co - FDR Project\Engineering\Engineering Plans\43641615401\Roadway\P-DETAILS.dwg		

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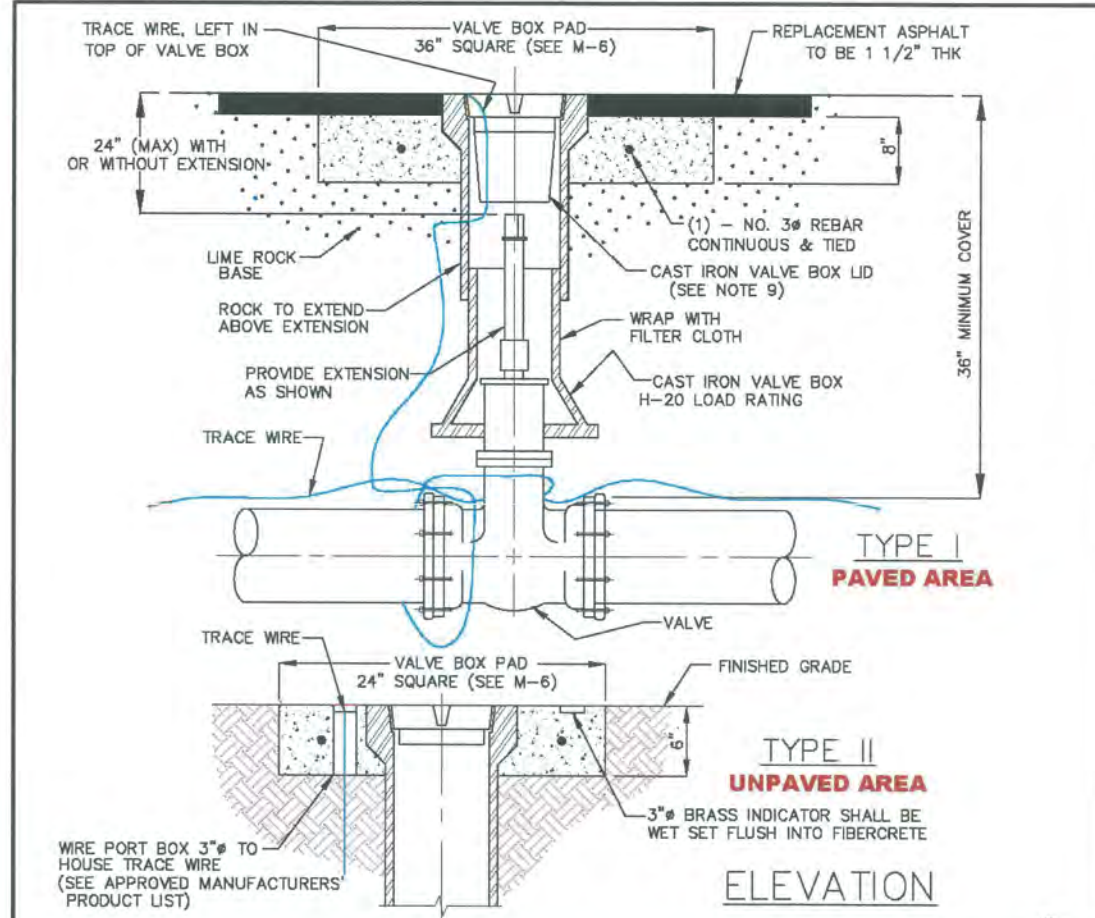


TO BE USED WHEN CUT CLASSIFICATION IS 6'-0" OR LE

NOTES

1. SEE MANHOLE NOTES DRAWING NO. S-5
2. SEE STANDARD MANHOLE CASTING DRAWING NO. S-4
3. SEE PIPE OPENING DETAIL DRAWING NO. S-11
4. SEE MANHOLE EFFLUENT & INFLUENT DETAIL DRAWING NO. S-12
5. SEAL SHALL BE USED AT ALL JOINTS. SEE DRAWING S-5, NOTE 20.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		<h2 style="margin: 0;">MANHOLE STANDARD-SHALLOW</h2>	DRAWING NO. S-6
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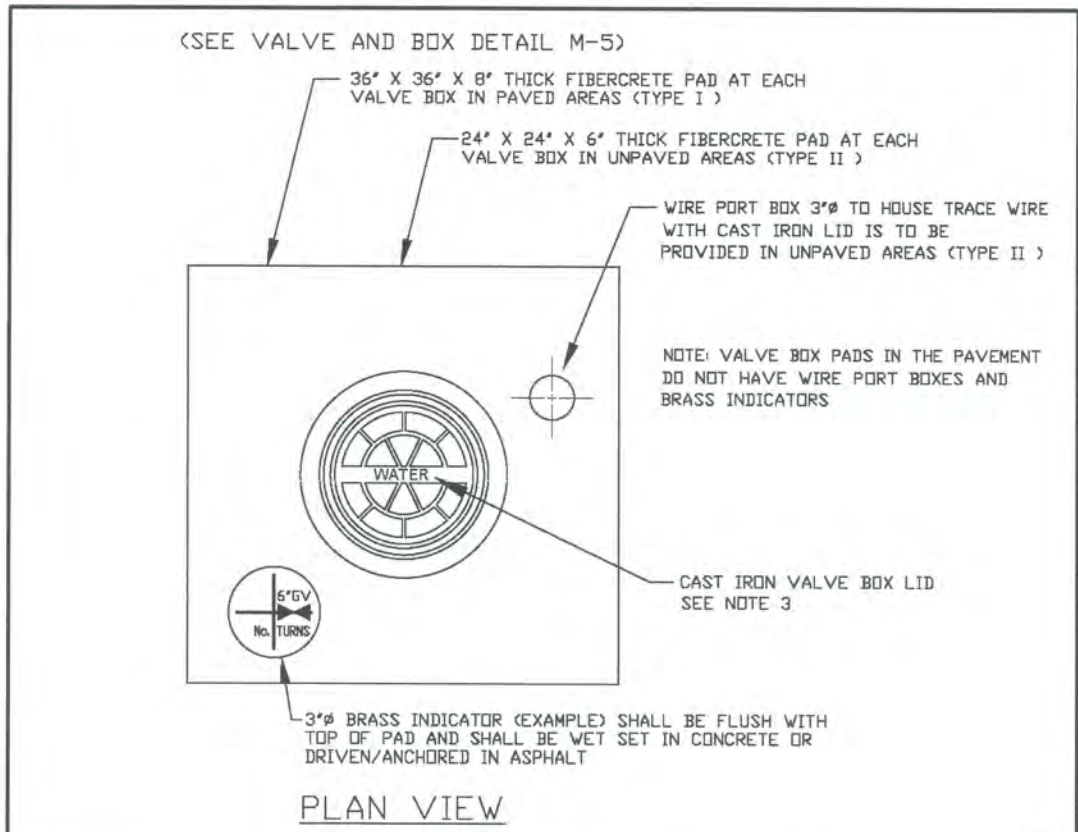
NOTES

1. VALVE BOXES SHALL BE CONSTRUCTED PER MANUFACTURERS' SPECIFICATION.
2. THE USE OF A PVC RISER IS NOT ACCEPTABLE.
3. ALL VALVE BOXES SHALL BE SHAFT/SCREW TYPE OR SHAFT/SLIP TYPE AND CANNOT REST ON THE VALVE.
4. ALL VALVE BOLTS SHALL BE STAINLESS STEEL WITH BRASS NUTS.
5. PERMANENT LAND MARKERS ARE TO BE INSTALLED ADJACENT TO ALL VALVES IN UNPAVED AREAS AS DIRECTED BY IRCBUS. (SEE PERMANENT LAND MARKER DETAIL M-9)
6. ALL VALVES REQUIRE STATE PLANE COORDINATES.
7. TRACE WIRE IS REQUIRED. (SEE TRACE WIRE DETAIL M-13)
8. REFLECTIVE MARKERS ARE TO BE LOCATED IN ROADWAY FOR ALL VALVES. (DETAIL W-1)
9. REFLECTIVE MARKERS FOR:
 - FIRE HYDRANT - BLUE
 - WATER MAIN VALVE - WHITE
 - FORCE MAIN VALVE - GREEN
 - REUSE MAIN VALVE - PURPLE
 - BRINE - BROWN
10. REFLECTIVE MARKERS SHALL NOT BE PLACED IN BIKE LANES.
11. VALVE BOX LID LOCATED IN PAVEMENT SHALL BE A MINIMUM 24 LBS. WITH A MINIMUM 6" LONG THROAT.
12. VALVE BOX SHALL COMPLY WITH FDOT STANDARDS AS APPLICABLE.
13. VALVE EXTENSIONS OVER 36" REQUIRE IRCBUS ENGINEERING APPROVAL.
14. VALVE SPACING ON WATER MAINS SHALL NOT EXCEED 1,000' MAXIMUM.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		<h2 style="margin: 0;">VALVE AND BOX</h2>	DRAWING NO. M-5
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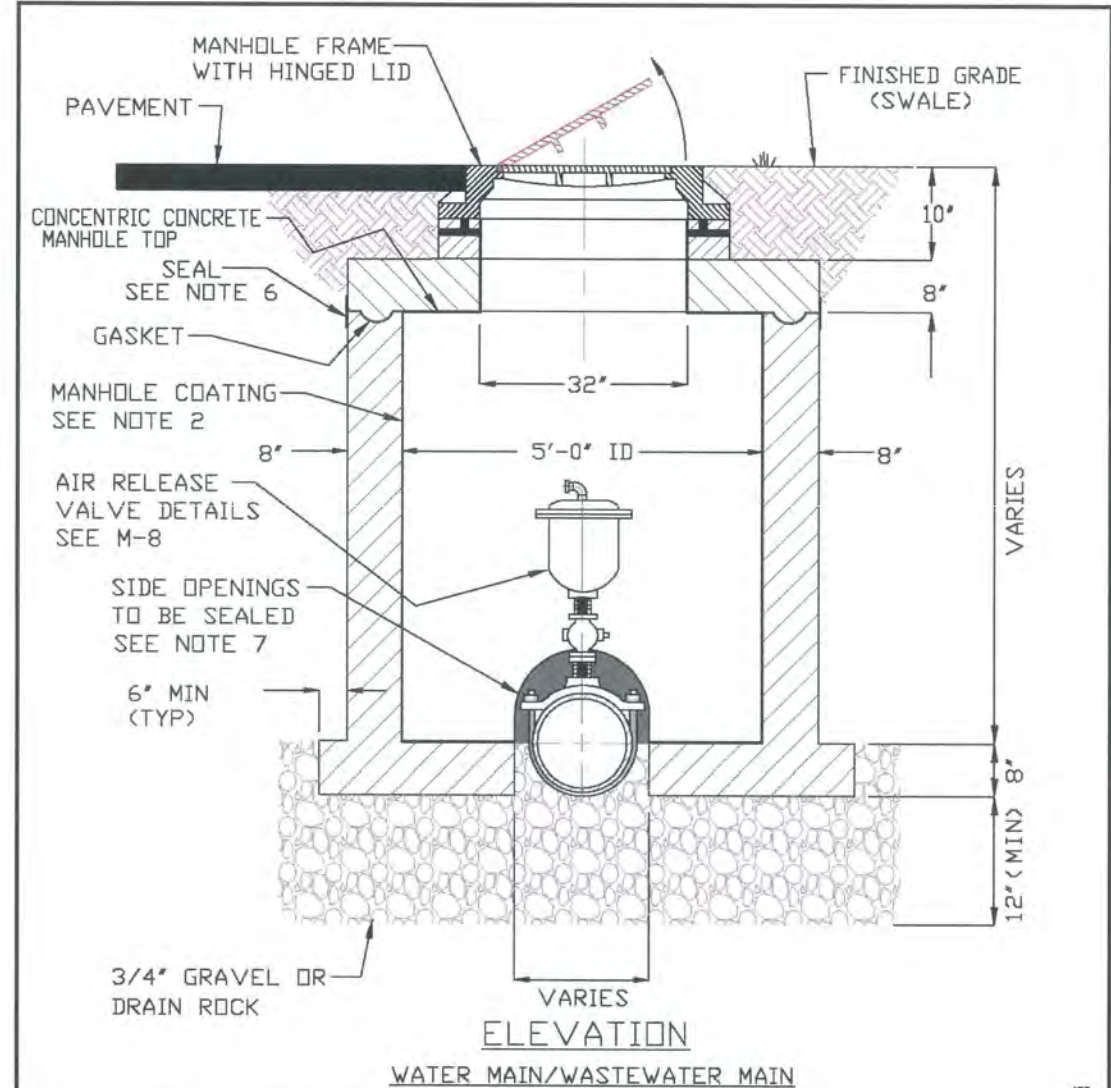
REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY			DETAILS
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	

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- NOTES**
1. VALVE BOX LIDS SHALL BE PAINTED:
 - BLUE - WATER
 - RED - FIRE HYDRANTS
 - GREEN - FORCE MAINS
 - PURPLE - REUSE MAINS
 - BROWN - BRINE
 2. IN UNPAVED AREAS (SEE M-5, TYPE II) A BRASS VALVE INDICATOR IS TO BE PROVIDED. WITH ENGRAVED DIAGRAM OF VALVE LOCATION AND DESCRIPTION. (SEE EXAMPLE ABOVE) INDICATOR SHALL BE FLUSH WITH VALVE PAD.
 3. VALVE BOX LID LOCATED IN PAVEMENT SHALL BE A CAST IRON, STAY-PUT COVER, MINIMUM 24 LBS. WITH A MINIMUM 6" LONG THROAT AND SHALL BE MARKED WITH RAISED LETTERS: "WATER", "SEWER", "BRINE", OR "REUSE WATER" AS APPLICABLE.
 4. VALVE BOX SHALL COMPLY WITH FDOT STANDARDS AS APPLICABLE.
 5. NO VALVE RINGS ARE TO BE USED.
 6. IN TYPE I, PAVED AREAS, THE VALVE BOX PAD TOP ELEVATION SHALL BE EVEN WITH THE ROCK GRADE TO ALLOW BOTH LAYERS OF ASPHALT TO COVER THE VALVE BOX PAD WITH THE FINAL ASPHALT LAYER FLUSH WITH THE TOP OF THE VALVE BOX. (SEE VALVE AND BOX DETAIL M-5)

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		VALVE BOX PAD	DRAWING NO. M-6
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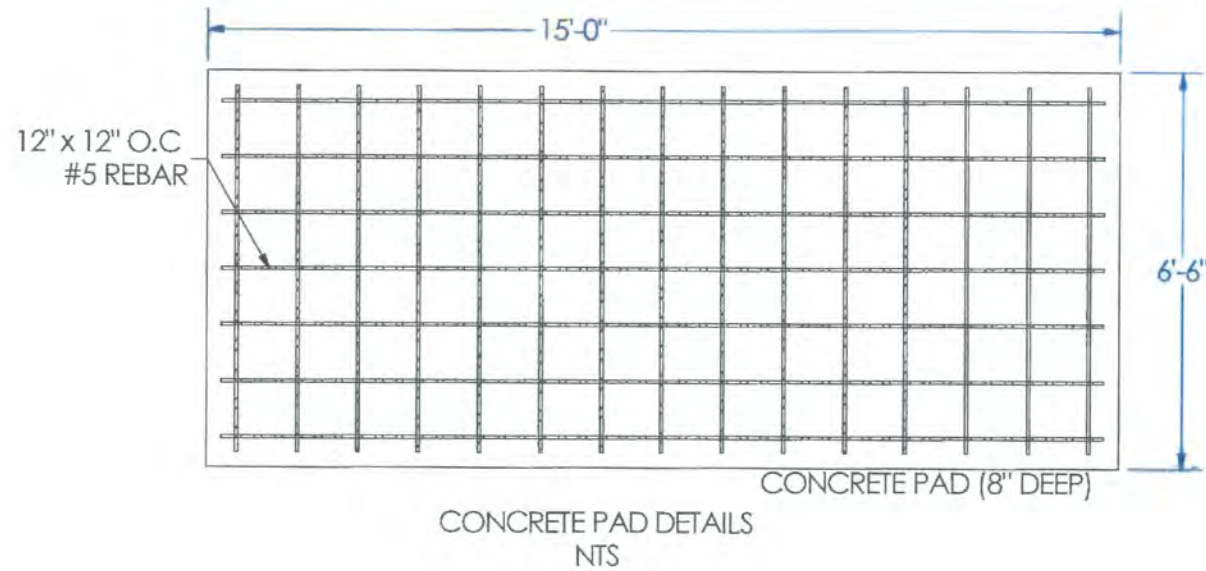


- NOTES**
1. AIR RELEASE VALVE IS TO BE LOCATED INSIDE A CONCRETE MANHOLE WITH HINGED LID. ALL MATERIALS PER IRC/DUS APPROVED MANUFACTURER'S LIST.
 2. MANHOLES FOR SEWER FORCE MAINS SHALL BE COATED. ALL COATING MATERIAL SHALL BE PER IRC/DUS APPROVED MANUFACTURERS' PRODUCT LIST.
 3. SEE AIR RELEASE DETAIL M-18.
 4. SEE TRACER WIRE DETAIL M-13.
 5. WASTEWATER LIDS SHALL BE VENTED.
 6. SEAL SHALL BE USED AT ALL JOINTS. SEE MANHOLE NOTES, S-5, NOTE 20.
 7. OPENING AT BOTH SIDES OF THE MANHOLE TO BE SEALED WITH MATERIALS PER IRC/DUS APPROVED MANUFACTURERS' PRODUCT LIST.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		AIR RELEASE VALVE MANHOLE BELOW GROUND (AUTOMATIC - WATER/WASTEWATER)	DRAWING NO. M-7
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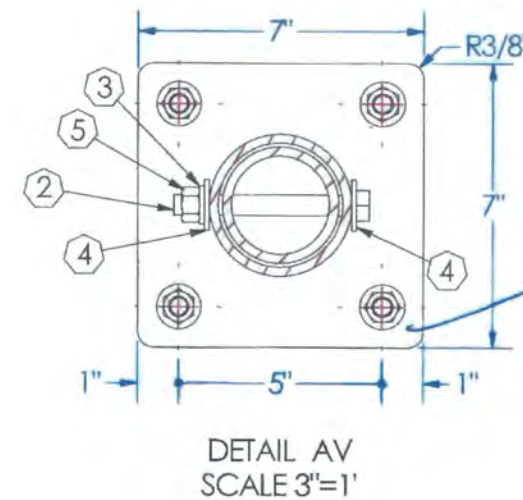
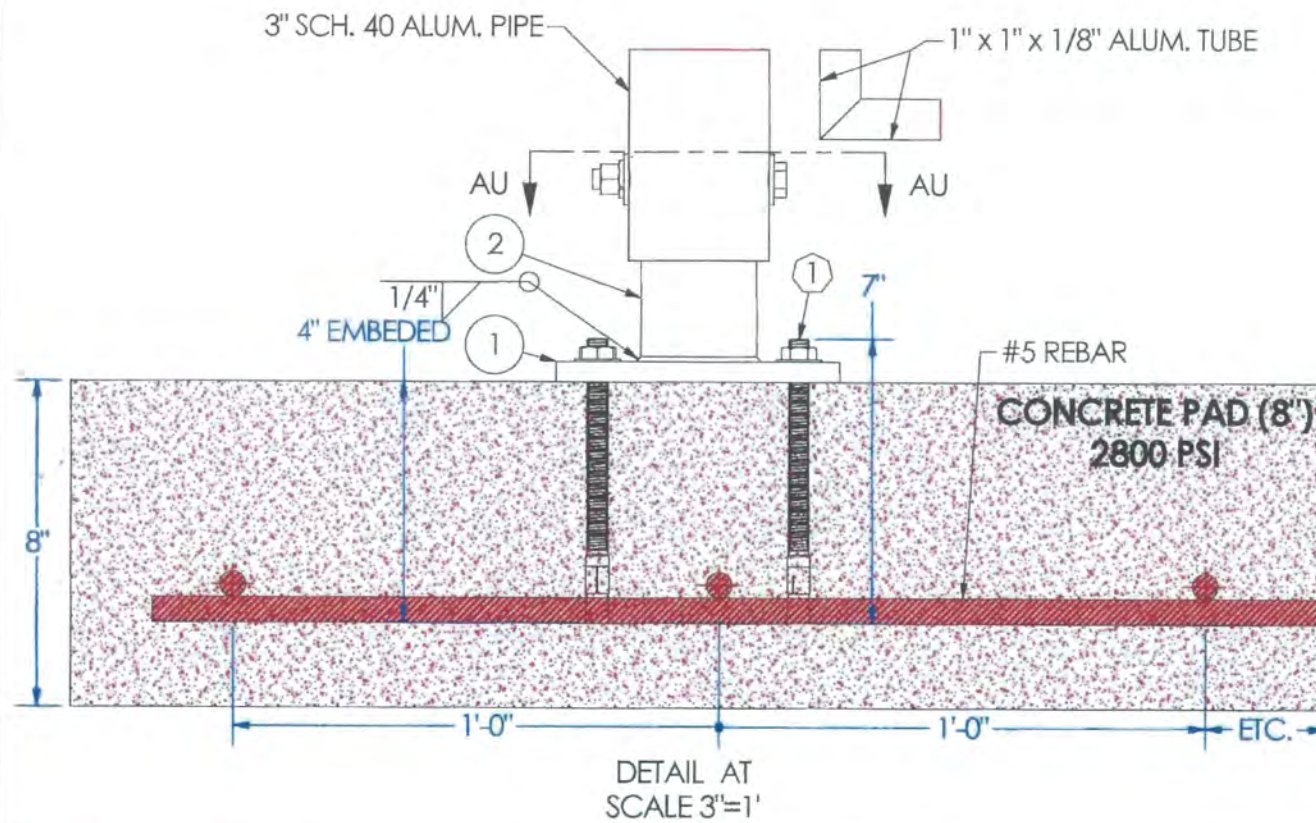
REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			DETAILS
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	18

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SUB-ASSEMBLY		
ITEM	QTY	DESCRIPTION
①	1	1/2" ALUM. PLATE
②	1	2 1/2' STD. ALUM. PIPE

HARDWARE NEEDED		
ITEM	QTY	DESCRIPTION
①	16	1/2"-13 x 7" LONG WEDGE ANCHOR BOLT, 3 1/2" THREAD
②	4	1/2" BOLT, 4 1/2" LENGTH
③	4	1/2" LOCK WASHER
④	24	1/2" WASHER
⑤	20	1/2" NUT



Project Name: Vero Beach		Base Plate (Version 2)		<p>12538 CHADRON AVENUE HAWTHORNE, CA. 90250 TEL. 310 978 2000 800 338 3387 FAX. 310 978 4000</p> <p><small>NOTE: This is an original unpublished drawing created by LMI. It is submitted for your personal use in connection with a project being planned for you by Local Mean Inc. It is not to be shown to anyone outside your organization, nor is it to be used, reproduced, copied, or exhibited in any fashion.</small></p>	△ Date	Revision Description	Sheet
Address:					R1	2/13/2019	More options for anchoring.
City / State: Vero Beach, FL	Project #:						
Sales Person:	File Name: VB_13x4.5	Checked by: William	Approved by: Scott	Date: 5/1/2019			
Drawn by: Carlos J. Galdamez	Scale: Noted						

REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			DETAILS
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01		

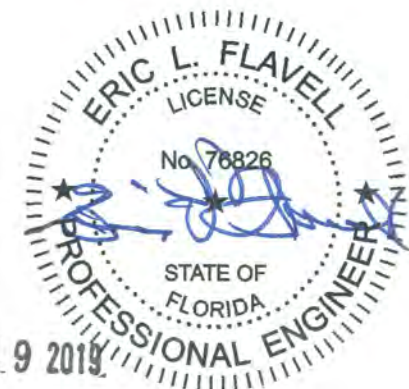
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GENERAL NOTES:

1. CLEARING AND GRUBBING - WITHIN THE LIMITS OF CONSTRUCTION, ALL ITEMS CALLED FOR TO BE REMOVED SHALL BE CLEARED AND DISPOSED OF INCLUDING ALL VEGETATION AND ROOT MATERIAL. ALL VEGETATION, DEBRIS, A.C., CONCRETE OR OTHER UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN AN AREA PROVIDED BY THE CONTRACTOR.
2. NOT USED
3. NOT USED
4. SOD PLACEMENT SHALL BE AS PER F.D.O.T. INDEX #570 SOD TYPE SHALL MATCH EXISTING GRASS FOR EACH PROPERTY.
5. UTILITIES - THE LOCATION OF THE EXISTING UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE AT NO ADDITIONAL COST, TO VERIFY IF OTHER UTILITIES ARE NOT SHOWN ON THE PLANS OR EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY COST, TO VERIFY IF OTHER UTILITIES ARE NOT SHOWN ON THE PLANS OR EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE ENGINEER AND NOTIFY THE RESPECTIVE UTILITY OWNERS TO RESOLVE UTILITY CONFLICTS AND UTILITY ADJUSTMENTS, AS REQUIRED.
6. ANY EXISTING ROADWAY AND/OR UTILITY THAT IS DAMAGED BY THE CONTRACTOR SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
7. EXISTING DRAINAGE STRUCTURES AND PIPES WITHIN THE CONSTRUCTION LIMITS SHALL BE PROTECTED AND REMAIN UNLESS OTHERWISE NOTED.
8. TACK COAT-BITUMINOUS TACK COAT SHALL CONFORM TO THE REQUIREMENTS OF THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2017 EDITION, SECTION 300 AND SHALL BE APPLIED AT THE RATE OF 0.08 GALLONS PER SQUARE YARD. UNLESS A DIFFERENT RATE IS DIRECTED BY THE ENGINEER. COST INCLUDED IN THE UNIT PRICE FOR ASPHALTIC CONCRETE.
9. SURFACE COURSE - TYPE F.C. 9.5 AND STRUCTURAL COURSE-TYPE S.P. 12.5 SHALL CONFORM TO THE REQUIREMENTS OF THE F.D.O.T. SPECIFICATIONS, 2017 EDITION, SECTION 334, THE MINIMUM COMPACTED THICKNESS TO BE AS NOTED.
10. MAIL BOXES TO BE RELOCATED TO 5' FROM EDGE OF PAVEMENT (TYP).
11. PRIOR TO COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 553.851 FOR THE PROTECTION OF UNDERGROUND GAS PIPELINES.
12. THE CONTRACTOR SHALL PREPARE AND MAINTAIN PROPER TRAFFIC CONTROL AT ALL TIMES DURING CONSTRUCTION AND SHALL BE REQUIRED TO PROVIDE ALL BARRICADES LIGHTING, SIGNAGE AND FLAG MEN AS NECESSARY TO PROVIDE FOR THE SAFETY OF THE PUBLIC IN THE AREA OF WORK. THE ROADWAY SHALL REMAIN CLOSED DURING THE CONSTRUCTION OF THE ROADWAY PORTION OF THE PROJECT. THE ROADWAY SHALL BE REOPENED TO TRAFFIC AS SOON AS PRACTICAL. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH CURRENT FLORIDA D.O.T. STANDARDS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. CONTRACTOR SHALL PAY ALL COSTS FOR PREPARING AND MODIFYING MOT PLANS DURING THE COURSE OF THE PROJECT. CONTRACTOR IS REQUIRED TO PROVIDE ALL MAINTENANCE OF TRAFFIC (MOT) FOR THE PROJECT AND ADJUSTING IT AS REQUIRED FOR EACH PHASE OF OR CHANGE IN THE WORK. CONTRACTOR SHALL OBTAIN ALL PERMITS AND APPROVALS ASSOCIATED WITH IMPLEMENTING MOT DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR HAVING MOT PLANS PREPARED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA AND QUALIFIED TO DO THE WORK. MOT SHALL BE IN PLACE AND MAINTAINED THROUGH THE COURSE OF THE ENTIRE PROJECT ON A 24 HOUR BASIS AS NEEDED.
13. THERE SHALL BE NO EXCAVATIONS LEFT OPEN AFTER END OF SHIFT, UNLESS POSITIVELY SHIELDED.

14. ALL CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE STORED A MINIMUM OF 15' FROM THE EDGE OF PAVEMENT AND SHALL BE PROTECTED BY BARRICADES WITH FLASHING YELLOW LIGHTS.
15. THE CONTRACTOR SHALL NOTIFY TRAFFIC ENGINEERING AT (772) 226-1547, 72 HOURS PRIOR TO BEGINNING CONSTRUCTION.
16. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT SUNSHINE STATE ONE CALL SYSTEM AT 1-800-432-4770 FOR LOCATIONS OF UNDERGROUND FACILITIES AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
17. FOR FURTHER UTILITY COORDINATION CONTACT:
 AT&T, LUKE FOLKERTS, (407) 496-6041
 FLORIDA CITY GAS, RON MULLER, (321) 638-3424
 FLORIDA POWER & LIGHT CO. - DISTRIBUTION, ROBERT MORRIS, (772) 226-1821
 FLORIDA POWER & LIGHT CO. - TRANSMISSION, TRACIA D'ANNUNZIO, (561) 940-3560
 FLORIDA PUBLIC UTILITIES, DALE BUTCHER, (561) 602-3702
 INDIAN RIVER COUNTY TELECOMMUNICATIONS, MANNY CABO, (772) 226-1318
 INDIAN RIVER COUNTY UTILITIES, ARJUNA WERAGODA, P.E., (772) 940-9310
 INDIAN RIVER COUNTY TRAFFIC, JANIE HOLLINGSWORTH, P.E., (772) 266-1568
18. CONCRETE - ALL CONCRETE SHALL DEVELOP 3000 P.S.I. (MINIMUM) 28 DAY COMPRESSIVE STRENGTH OR GREATER. SEE ADDITIONAL REQUIREMENTS FOR CONCRETE CULVERT. CLASS II CONCRETE SHALL CONFORM TO THE FLORIDA D.O.T. SPECIFICATIONS, 2017 EDITION. SECTION 346.
19. ALL STRUCTURE LENGTHS AND CENTERLINE SLOPE LENGTHS SHOWN ON THESE DRAWINGS ARE SCALED DISTANCES. ENDWALL LENGTHS ARE TAKEN OUTSIDE OF WALL TO OUTSIDE OF WALL. THE CONTRACTOR SHALL CONFIRM ALL MEASUREMENTS IN THE FIELD AND NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES WITH THE DRAWINGS PRIOR TO PERFORMING THE WORK. ALL QUANTITIES SHALL BE PAID ON THE BASIS OF FIELD MEASUREMENTS OF COMPLETED WORK, EXCEPT PAYMENTS DESIGNATED AS FINAL IN THE BID DESCRIPTIONS.
20. ALL CONCRETE, PAVING, DRAINAGE AND UTILITY WORK SHALL BE CONSTRUCTED IN FULL ACCORDANCE WITH THE APPLICABLE F.D.O.T. AND INDIAN RIVER COUNTY STANDARDS.
21. THE ELEVATIONS SHOWN HEREON ARE BASED UPON THE INDIAN RIVER COUNTY VERTICAL CONTROL NETWORK (I.R.C.V.C.N.) AND ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. 88). ALL BENCHMARKS IN THE I.R.C.V.C.N. MEET OR EXCEED THE ACCURACY REQUIRED PER CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE.
22. THE TOPOGRAPHY SHOWN HEREON WAS PROVIDED BY INDIAN RIVER COUNTY.
23. ANY N.G.V.D. 1929 MONUMENT, N.A.V.D. 1988 MONUMENT, GOVERNMENTAL LAND CORNER OR SURVEY MONUMENTATION WITHIN LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY:
 DAVID W. SCHRYVER, PSM
 INDIAN RIVER COUNTY SURVEYOR
 722-226-1386
24. ALL EXISTING SURVEY AND PROPERTY CORNER MONUMENTS LOCATED WITHIN THE AREA OF PROPOSED CONSTRUCTION ARE TO BE REFERENCE PRIOR TO CONSTRUCTION AND RESET AFTER CONSTRUCTION BY A FLORIDA LICENSED PROFESSIONAL LAND SURVEYOR.
25. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR, BUT NOT LIMITED TO ALL PIPE, DRAINAGE STRUCTURES, ASPHALT & CONCRETE MIX DESIGN, STRIPING MATERIAL, ASPHALT EMULSION MIX DESIGN, WATER PIPE RELOCATION AND DIRECTIONAL DRILL.
26. ALL CHANGES SHALL BE APPROVED IN WRITING BY INDIAN RIVER COUNTY AND THE ENGINEER OF RECORD.

27. ALL WORK SHALL BE DONE IN A WORKMANLIKE MANNER AND SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY, STATE OR FEDERAL REGULATIONS AND/OR CODES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED PRIOR TO INITIATING WORK.
28. ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN CHANGED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.
29. CONTRACTOR SHALL UTILIZE CONSTRUCTION METHODS AND DEVICES SUCH AS TURBIDITY BARRIERS, SYNTHETIC BALES AND FLOATING SILT BARRIERS WHERE NECESSARY TO COMPLY WITH ALL LOCAL, STATE AND FEDERAL WATER QUALITY STANDARDS.
30. CONTRACTOR SHALL PROTECT OR RELOCATE ALL MAIL BOXES WITHIN LIMITS OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE MAIL SERVICE TO INSURE UNINTERRUPTED DELIVERY.
31. CONTRACTOR SHALL LOWER ALL VALVES, MANHOLE RISERS AND COVERS TO BELOW THE FDR AND EXCAVATION DEPTH. UPON COMPLETION OF THE WORK, VALVES AND MANHOLE RISERS AND COVERS SHALL BE ADJUSTED TO FINISH GRADE.
32. VALVE, MANHOLE AND VAULT ADJUSTMENT SHALL INCLUDE ALL IRC UTILITIES ADMINISTRATION REQUIREMENTS INCLUDING CONCRETE PAD, BRASS ID TABS AND WIRE PORTS.
33. DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS. DRIVEWAYS THAT HAVE EXISTING CONCRETE OR A.C. SHALL HAVE THAT MATERIAL SAW CUT AND REMOVED BEFORE CONSTRUCTING THE DRIVEWAY. EXISTING EARTH DRIVEWAYS THAT ARE TO RECEIVE A.C. DRIVEWAYS SHALL BE GRADED AND COMPACTED TO ACCOMMODATE CONSTRUCTION OF THE DRIVEWAY. ALL DRIVEWAYS SHALL BE CONSTRUCTED WITH A SMOOTH TRANSITION BETWEEN THE ROAD AND THE EXISTING DRIVEWAY.
34. A NUMBER OF POLES ARE REQUIRED TO BE RELOCATED ALONG 69TH STREET TO MEET CLEARANCE SETBACKS. CONTRACTOR SHALL COORDINATE WITH FPL TO HAVE THE POLE RELOCATED AND EXISTING POLES REMOVED. SOME POLES ARE WITH IN THE WORK AREA.
35. FIBER OPTIC CONDUIT SHALL CONSIST OF 2-2" HDPE CONDUITS IN PARALELL WITH PULL BOXES. CONTRACTOR SHALL FIELD ADJUST CONDUITS AS NECESSARY TO AVOID EXISTING INFRASTRUCTURE AND OBSTRUCTIONS. ALL DRIVEWAYS AND STREET CROSSING SHALL BE DIRECTIONAL DRILLED. PULL BOXES SHALL BE CONSTRUCTED PER FDOT INDEX 17700. CONTRACTOR TO OBTAIN LOCATES OF EXISTING FIBER OPTIC CABLE FROM INDIAN RIVER COUNTY. CONTRACTOR TO FIELD VERIFY LOCATION OF UTILITIES AND SUBSTRUCTURES TO VERIFY CLEARANCE. FIBER OPTIC TO MAINTAIN 36" MINIMUM COVER AND A MINIMUM OF 12" VERTICAL AND 3' HORIZONTAL SEPARATION AT ALL CONFLICTS OR CROSSINGS.
36. CONTRACTOR TO COORDINATE WITH INDIAN RIVER COUNTY TELECOMMUNICATIONS, MANNY CABO, (772)226-1318 FOR FINAL PULL BOX LOCATIONS PRIOR TO CONSTRUCTION.



REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SHEET NO. 19
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	GENERAL NOTES

PHASING CONSTRUCTION NOTES:

1. CONSTRUCTION OF 69TH STREET, INCLUDING SIGNALIZATION, IS A PRIORITY TO THE COUNTY. CONTRACTOR TO PROVIDE A SCHEDULE DEMONSTRATION WORK SEQUENCING TO COMPLETE 69TH STREET AS EARLY AS POSSIBLE.
2. CONTRACTOR SHALL PREPARE AND PROVIDE MOT AND DETOURS FOR EACH PHASE OF WORK. PLANS SHALL BE PREPARED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. MOT AND DETOURS HAVE TO BE APPROVED IN ADVANCE OF STARTING WORK ON EACH PHASE.
3. ROAD CONSTRUCTION SHOULD PROCEED AS SHOWN ON THE PHASING PLAN.
4. THE CONTRACTOR WILL HAVE 8 WORK DAYS TO COMPLETE EACH WORK PHASE. TIME WILL BE EXTENDED FOR INCLEMENT WEATHER WHEN DETERMINED JUSTIFIED BY THE ENGINEER. CONTRACTOR SHOULD STOP WORK ON THE FDR IF THE WEATHER IS HEAVY FOG, RAINING, OR RAIN IS IMMINENT.
5. CONTRACTOR CAN RECOVER 3" OF BLENDED FDR MATERIAL AND PLACE IT IN ROAD WIDENING AREAS AS BASE. IN LOCATIONS OF MIXED BLENDED MATERIAL FROM DIFFERENT AREAS OF THE PROJECT, THE HIGHER PROPORTIONS OF ASPHALT EMULSION AND CEMENT SHALL BE USED.
6. WORK WILL START ON 58TH AVENUE AT THE NORTH END (85TH STREET) AND PROCEED SOUTH.
7. THE INTENT IS TO CONSTRUCT FULL WIDTH ROAD IN INCREMENTS, FINISHING ONE PHASE UP TO STRUCTURAL COURSE PAVEMENT WITH TEMPORARY STRIPING AND DELINEATION, BEFORE THE NEXT PHASE IS STARTED.
8. ONCE ALL PHASES ARE COMPLETED TO STRUCTURAL COURSE PAVEMENT AND ACCEPTED BY THE ENGINEER, THE CONTRACTOR SHALL COMPLETE THE FINAL 1" FRICTION COURSE.
9. CONTRACTOR SHALL PROVIDE ASPHALT TRANSITION WEDGES AT LOCATIONS WHERE PAVEMENT SURFACE ELEVATIONS DIFFER BY GRATER THAN ONE - INCH

WORK RESTRICTIONS:

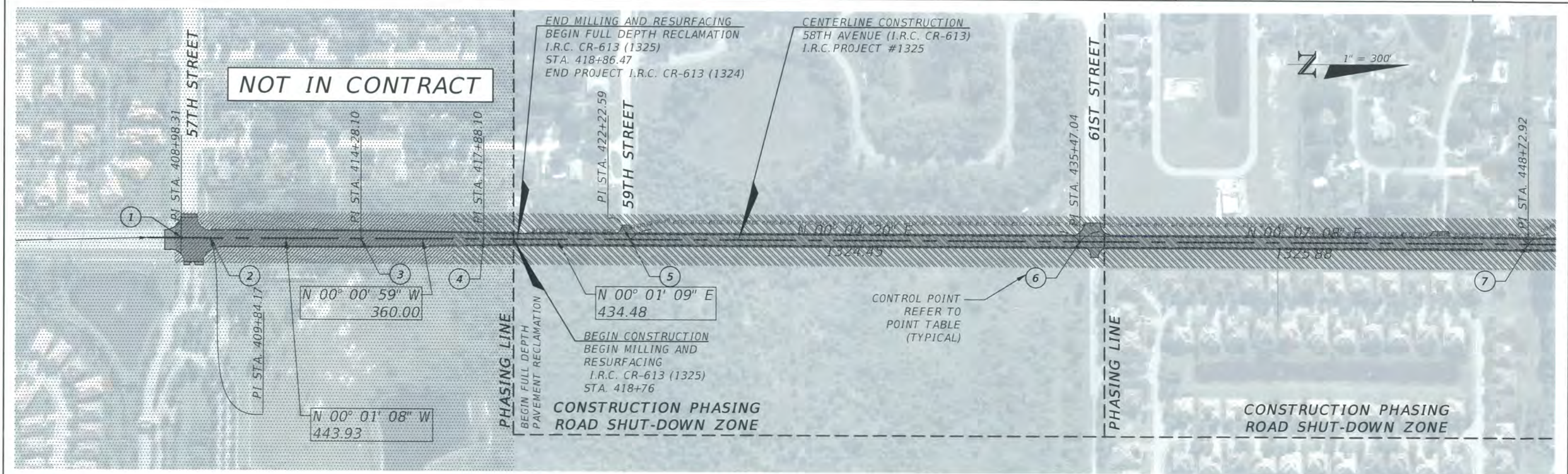
1. EACH PHASE OF WORK SHALL BE AS SHOWN ON THE PHASING PLAN. THE CONTRACTOR CAN REQUEST CHANGES TO THE PLAN IN ADVANCE OF STARTING THE WORK. CONTRACTOR SHALL PREPARE PHASING PLAN DRAWINGS FOR REVIEW AND ANY

- CHANGES SHALL BE APPROVED BY THE ENGINEER BEFORE STARTING WORK.
2. EMERGENCY VEHICLES SHALL HAVE ACCESS THROUGH THE WORK SITE AT ALL TIMES.
 3. ACCESS TO GOLF COURSES MUST BE MAINTAINED DURING GOLF COURSE WORKING HOURS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING EACH GOLF COURSE MANAGER TO DEVELOP AN ACCEPTED METHOD PROVIDING ACCESS TO THEIR PATRONS. CONTRACTOR SHALL DELIVER TO THE ENGINEER WRITTEN PROOF OF ACCEPTANCE BY THE GOLF COURSE MANAGER PRIOR TO START OF WORK ON THAT PHASE.
 4. MOTORISTS THAT LIVE WITHIN A PHASE OF ROAD WORK SHALL HAVE ACCESS TO THEIR PROPERTY ON A 24 HOUR PER DAY BASIS. UNLESS OTHERWISE APPROVED IN WRITING, BY THE PROPERTY OWNER AND COUNTY
 5. BEFORE EACH INCREMENT IS PLACED INTO OPERATION, TEMPORARY PAINTED STRIPING AND SIGNAGE SHALL BE IN PLACE. STRIPING SHALL BE MAINTAINED BY THE CONTRACTOR DURING THE COURSE OF THE WORK, UNTIL FINISH STRIPING IS PLACED. STRIPING TAPE MAY BE USED FOR TEMPORARY STRIPING THAT IS INTENDED FOR USE FOR UP TO THREE WEEKS OR LESS.
 6. THE CONTRACTOR CAN EXCAVATE THE NORTH SIDE OF 69TH STREET AND KEEP OPEN THE SOUTH LANE FOR LOCAL TRAFFIC WITH APPROPRIATE MOT TO PROVIDE A LOCATION TO PLACE MATERIAL REMOVED FROM 58TH AVENUE. TRAFFIC WAIT TIMES SHALL NOT EXCEED 3 MINUTES ON 69TH STREET.



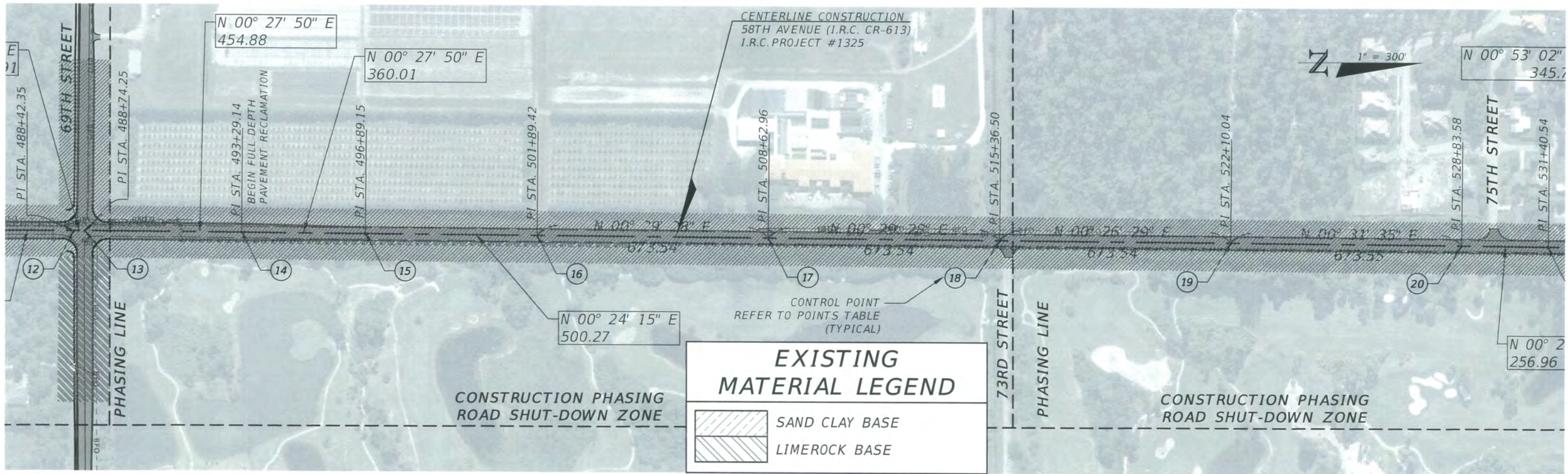
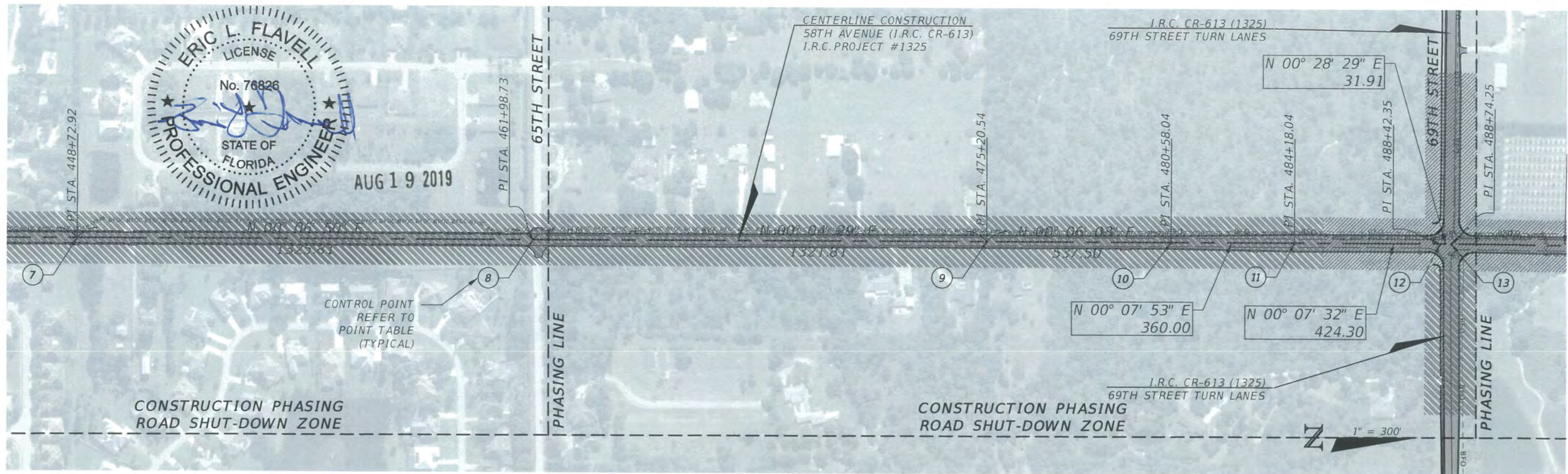
FDR EXISTING MATERIAL TYPE	
SAND CLAY BASE	= STATION 408+98 TO 417+00 (R-1 AND L-1)
LIMEROCK BASE	= STATION 417+00 TO 485+00 (R-1 AND L-1)
SAND CLAY BASE	= STATION 485+00 TO 553+00 (R-1 AND L-1)
LIMEROCK BASE	= STATION 553+00 TO 595+25 (L-1)
SAND CLAY BASE	= STATION 553+00 TO 595+25 (R-1)
LIMEROCK BASE	= 69TH AVENUE EAST OF 58TH STREET
SAND CLAY BASE	= 69TH AVENUE WEST OF 58TH STREET

EXISTING MATERIAL LEGEND	
	SAND CLAY BASE
	LIMEROCK BASE



REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			PROJECT LAYOUT PLAN 58TH AVENUE	SHEET NO. 21
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
---	---	---	---		CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

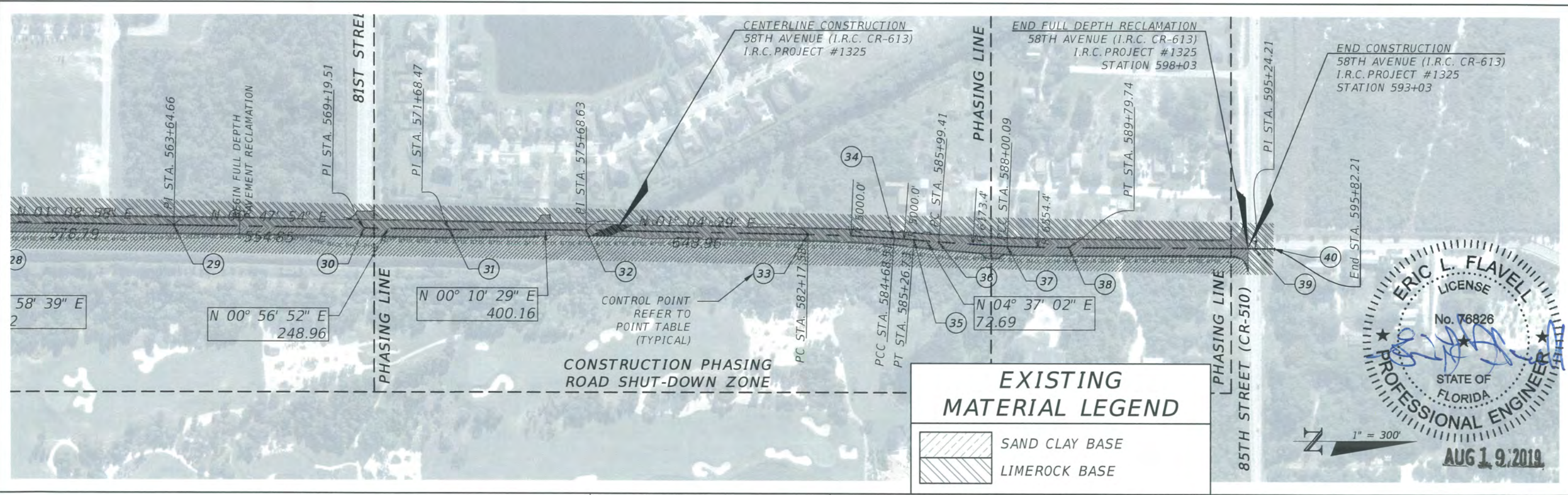
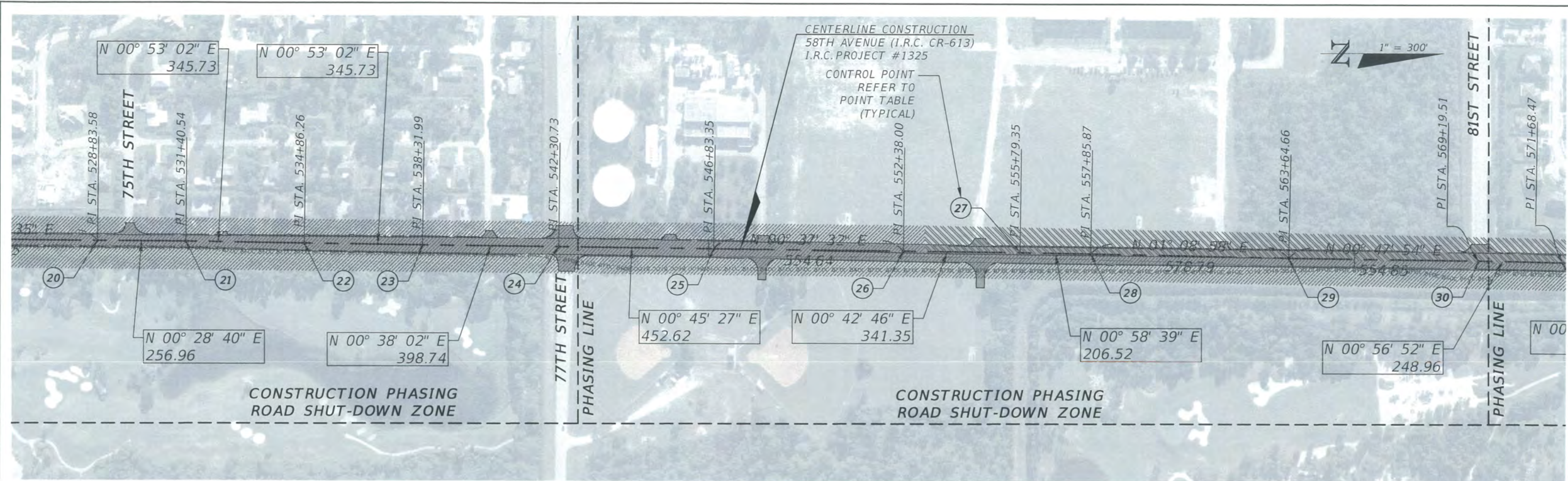
ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PROJECT LAYOUT PLAN
58TH AVENUE

SHEET NO.
 22

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



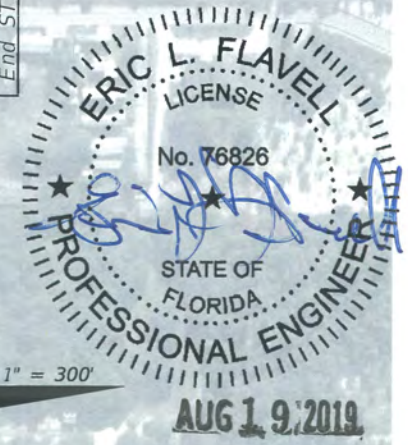
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

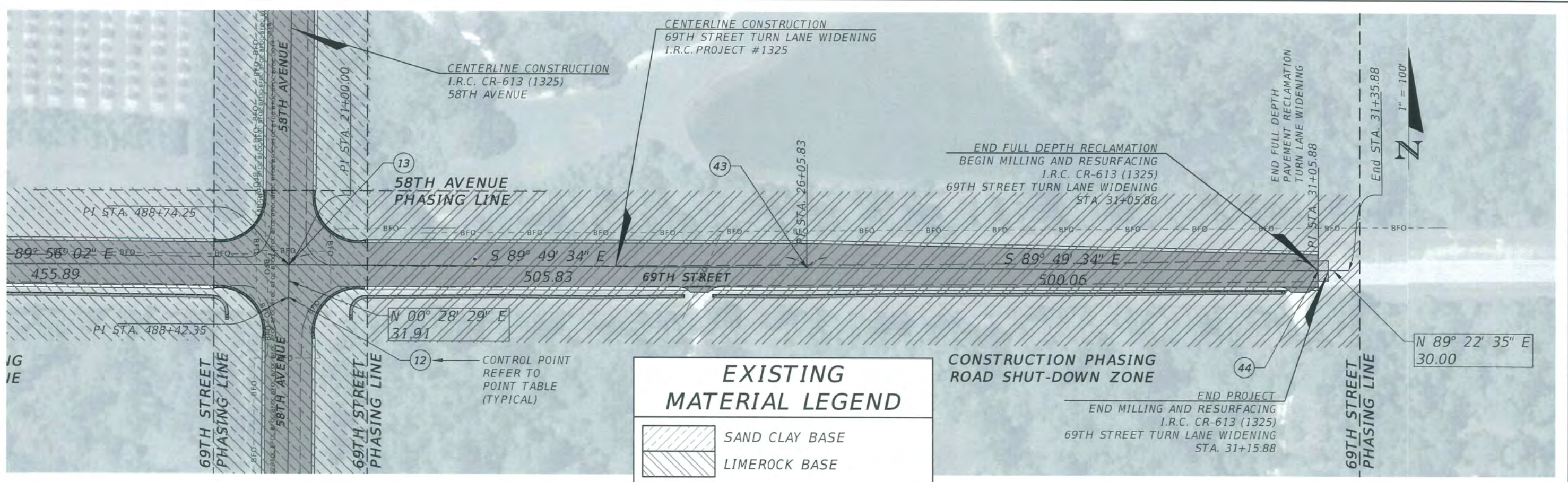
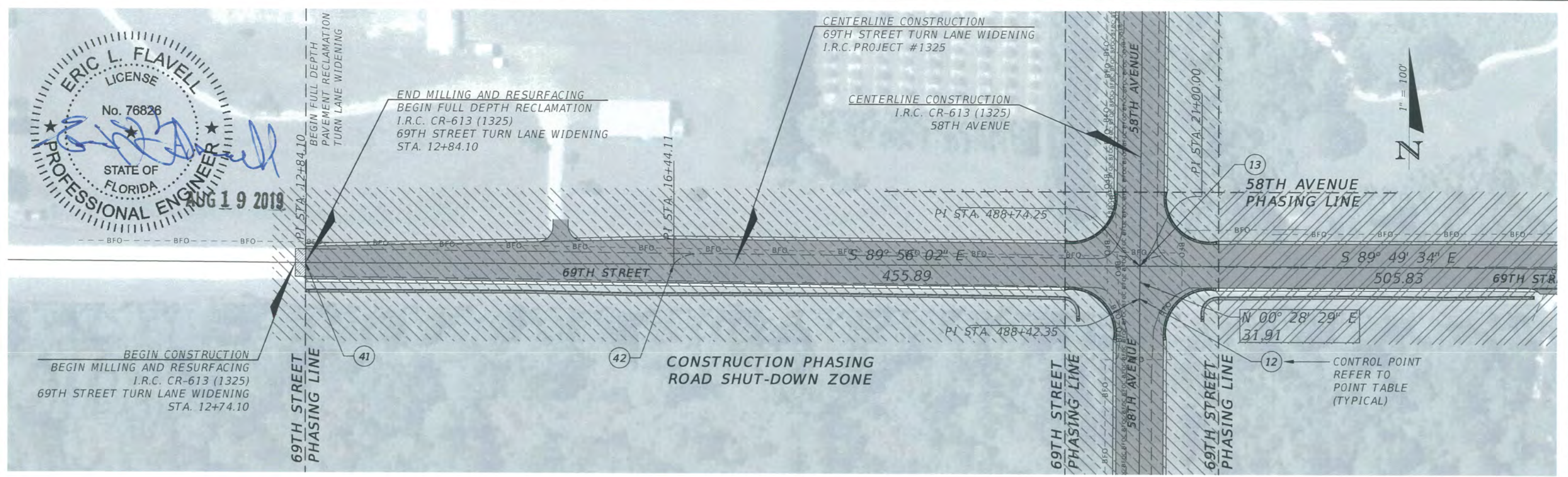
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PROJECT LAYOUT PLAN
58TH AVENUE

SHEET NO.
 23



THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



EXISTING MATERIAL LEGEND	
	SAND CLAY BASE
	LIMEROCK BASE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
---	---	---	---

ERIC L. FLAVELL, P.E.
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 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PROJECT LAYOUT PLAN
69TH STREET

SHEET NO.
 24

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Point Table

	(X) EASTING	(Y) NORTHING	LATITUDE	LONGITUDE
1	835402.09	1223003.873	027° 41' 49.726"	-080° 26' 45.975"
2	835402.63	1223088.062	027° 41' 50.559"	-080° 26' 45.965"
3	835402.48	1223531.992	027° 41' 54.955"	-080° 26' 45.944"
4	835402.38	1223891.993	027° 41' 58.520"	-080° 26' 45.927"
5	835402.53	1224326.478	027° 42' 02.822"	-080° 26' 45.904"
6	835404.19	1225650.929	027° 42' 15.937"	-080° 26' 45.819"
7	835406.94	1226976.803	027° 42' 29.066"	-080° 26' 45.722"
8	835409.58	1228302.614	027° 42' 42.194"	-080° 26' 45.627"
9	835411.30	1229624.420	027° 42' 55.282"	-080° 26' 45.541"
10	835412.25	1230161.923	027° 43' 00.605"	-080° 26' 45.504"
11	835413.07	1230521.922	027° 43' 04.169"	-080° 26' 45.477"
12	835414.00	1230946.224	027° 43' 08.371"	-080° 26' 45.445"
13	835414.27	1230978.132	027° 43' 08.687"	-080° 26' 45.441"
14	835417.95	1231433.000	027° 43' 13.191"	-080° 26' 45.377"
15	835420.87	1231792.996	027° 43' 16.755"	-080° 26' 45.326"
16	835424.39	1232293.255	027° 43' 21.709"	-080° 26' 45.262"
17	835430.17	1232966.772	027° 43' 28.378"	-080° 26' 45.164"
18	835435.94	1233640.288	027° 43' 35.047"	-080° 26' 45.066"
19	835441.12	1234313.805	027° 43' 41.716"	-080° 26' 44.975"
20	835447.31	1234987.322	027° 43' 48.384"	-080° 26' 44.872"
21	835449.46	1235244.270	027° 43' 50.929"	-080° 26' 44.835"
22	835454.79	1235589.953	027° 43' 54.351"	-080° 26' 44.759"
23	835460.12	1235935.637	027° 43' 57.774"	-080° 26' 44.682"
24	835464.54	1236334.354	027° 44' 01.722"	-080° 26' 44.613"
25	835470.52	1236786.937	027° 44' 06.203"	-080° 26' 44.524"





Point Table

	(X) EASTING	(Y) NORTHING	LATITUDE	LONGITUDE
26	835476.57	1237341.549	027° 44' 11.695"	-080° 26' 44.429"
27	835480.82	1237682.873	027° 44' 15.074"	-080° 26' 44.364"
28	835484.34	1237889.364	027° 44' 17.119"	-080° 26' 44.315"
29	835495.95	1238468.043	027° 44' 22.848"	-080° 26' 44.156"
30	835503.69	1239022.838	027° 44' 28.342"	-080° 26' 44.043"
31	835507.80	1239271.762	027° 44' 30.806"	-080° 26' 43.984"
32	835509.02	1239671.917	027° 44' 34.769"	-080° 26' 43.951"
33	835521.19	1240320.758	027° 44' 41.193"	-080° 26' 43.783"
34	835532.19	1240571.414	027° 44' 43.674"	-080° 26' 43.648"
35	835536.54	1240629.471	027° 44' 44.249"	-080° 26' 43.596"
36	835542.39	1240701.922	027° 44' 44.966"	-080° 26' 43.528"
37	835554.91	1240902.199	027° 44' 46.949"	-080° 26' 43.378"
38	835558.56	1241081.811	027° 44' 48.727"	-080° 26' 43.328"
39	835561.03	1241626.276	027° 44' 54.118"	-080° 26' 43.274"
40	835561.29	1241684.267	027° 44' 54.693"	-080° 26' 43.268"
41	834598.37	1230979.073	027° 43' 08.732"	-080° 26' 54.519"
42	834958.38	1230978.657	027° 43' 08.712"	-080° 26' 50.513"
43	835920.09	1230976.597	027° 43' 08.649"	-080° 26' 39.812"
44	836420.15	1230975.079	027° 43' 08.612"	-080° 26' 34.248"

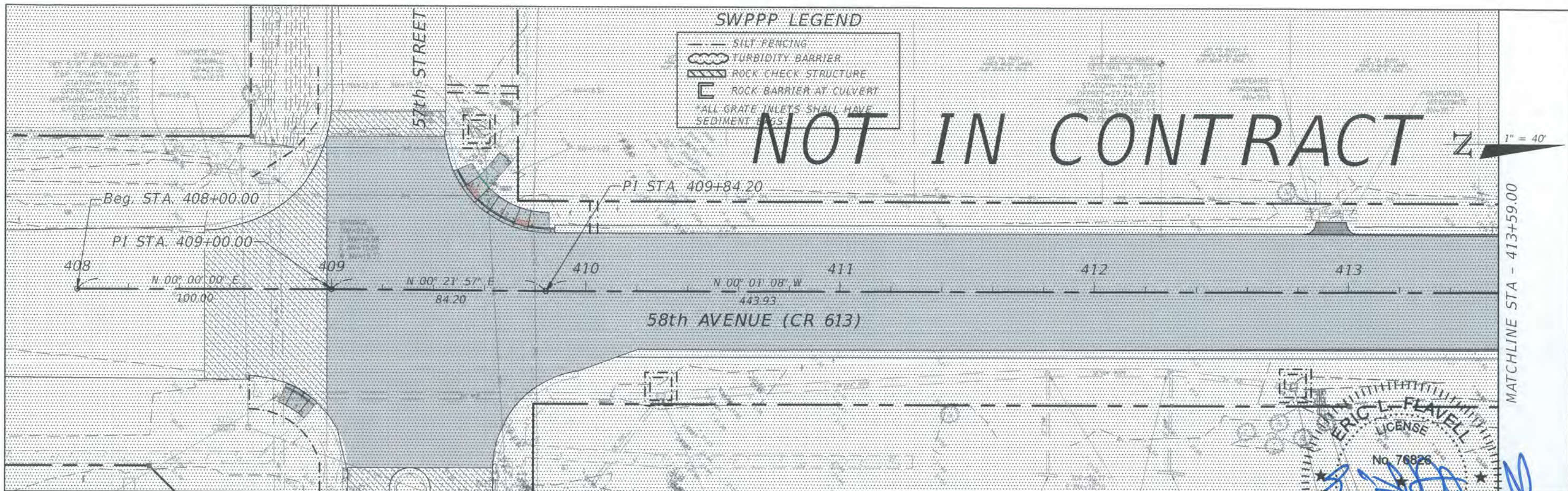


REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY			CONTROL REFERENCE POINTS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
---	---	---	---		---	CR-613 58th AVE	INDIAN RIVER		IRC: 1325 FDOT:436416-1-54-01

SWPPP LEGEND

-  SILT FENCING
-  TURBIDITY BARRIER
-  ROCK CHECK STRUCTURE
-  ROCK BARRIER AT CULVERT
- ALL GRATE INLETS SHALL HAVE SEDIMENT TRAPS

NOT IN CONTRACT



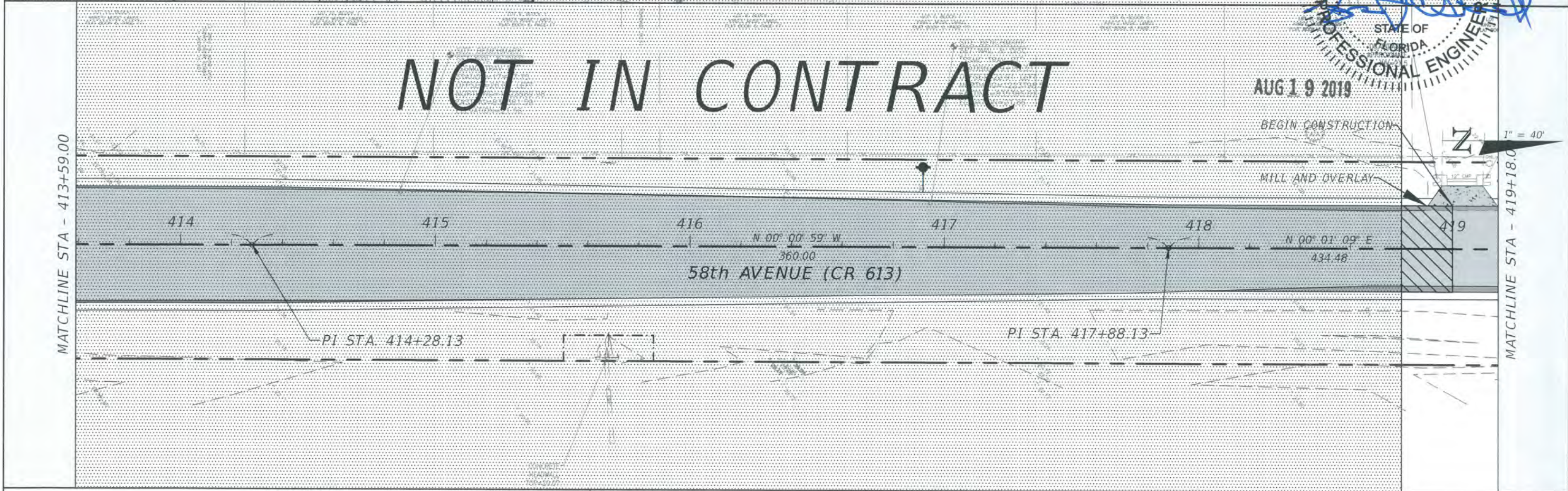
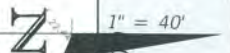
NOT IN CONTRACT



AUG 19 2019

BEGIN CONSTRUCTION

MILL AND OVERLAY



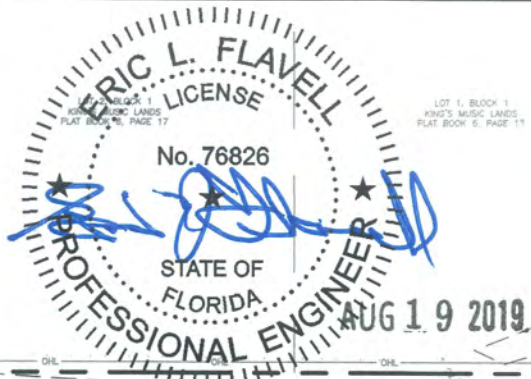
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

SHEET NO.
26



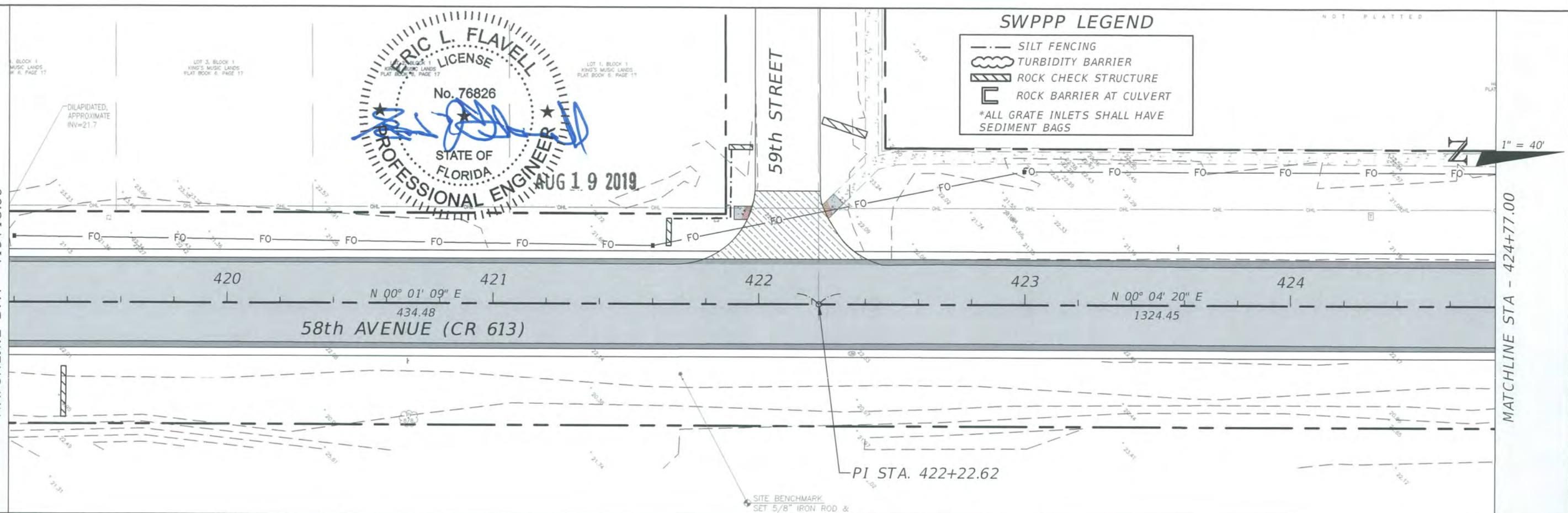
SWPPP LEGEND

- SILT FENCING
- TURBIDITY BARRIER
- ROCK CHECK STRUCTURE
- ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

NOT PLATTED

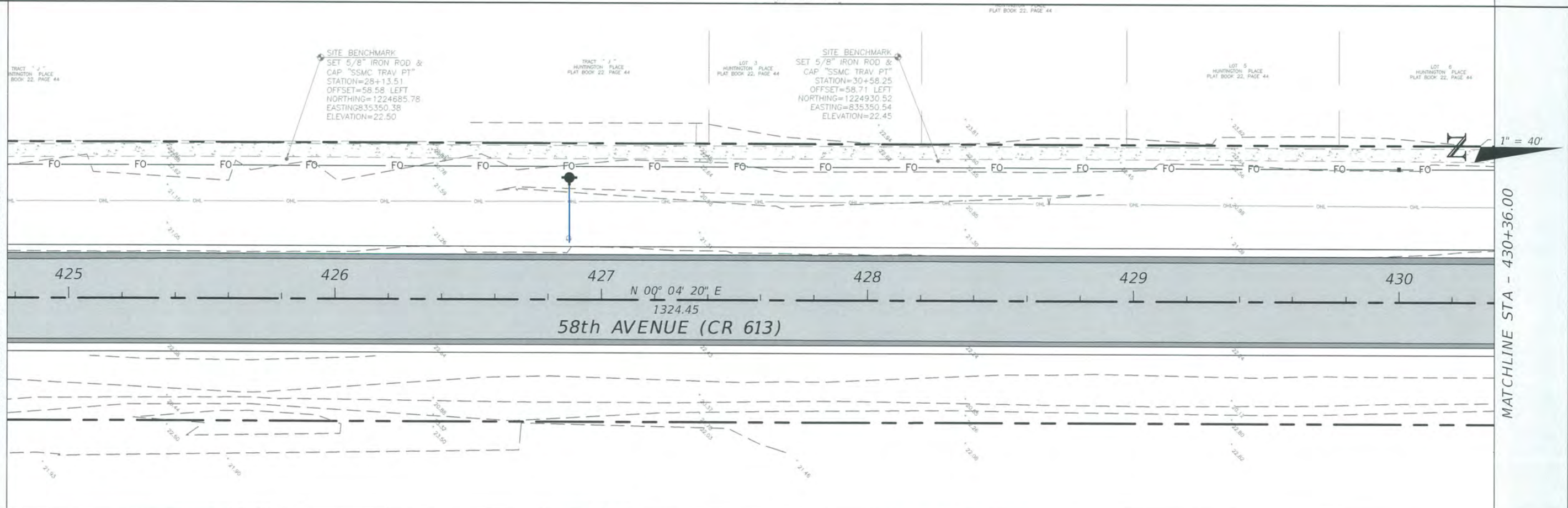
MATCHLINE STA - 419+18.00

MATCHLINE STA - 424+77.00



MATCHLINE STA - 424+77.00

MATCHLINE STA - 430+36.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

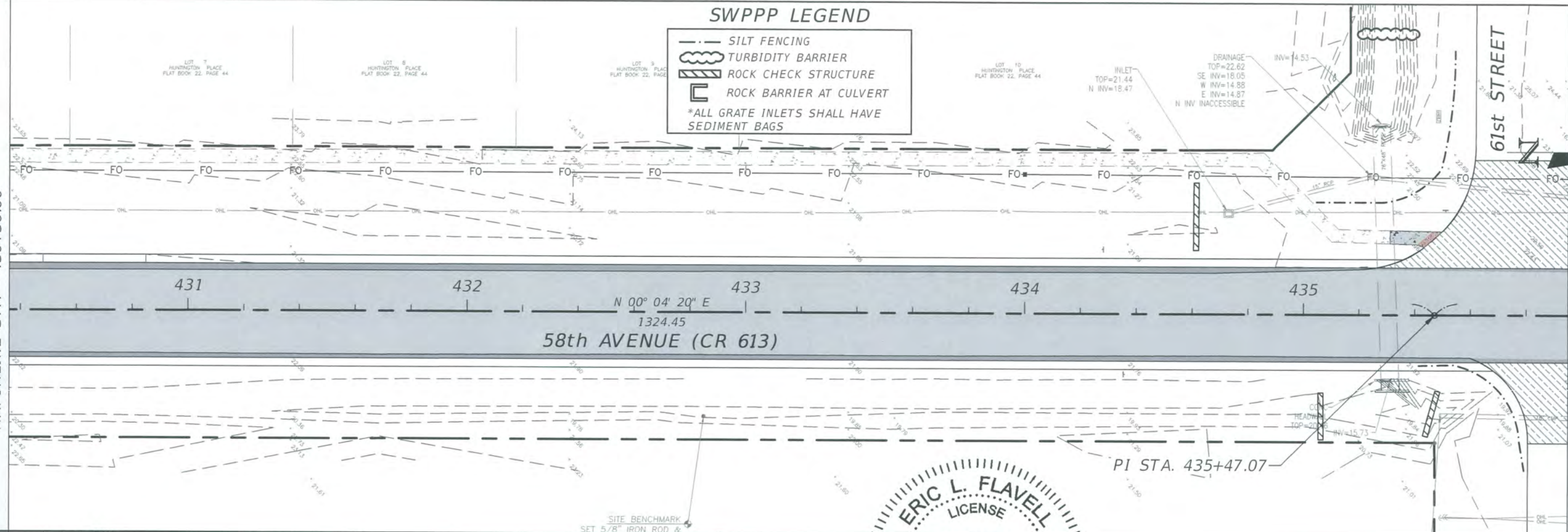
SHEET NO.
27

SWPPP LEGEND

-  SILT FENCING
 -  TURBIDITY BARRIER
 -  ROCK CHECK STRUCTURE
 -  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

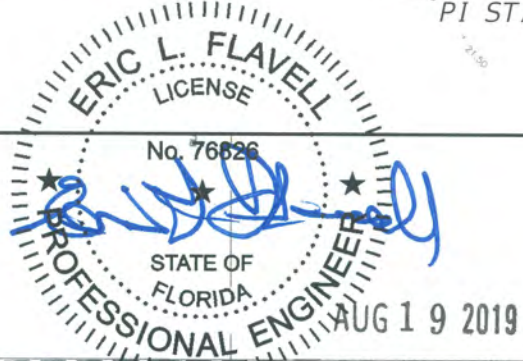
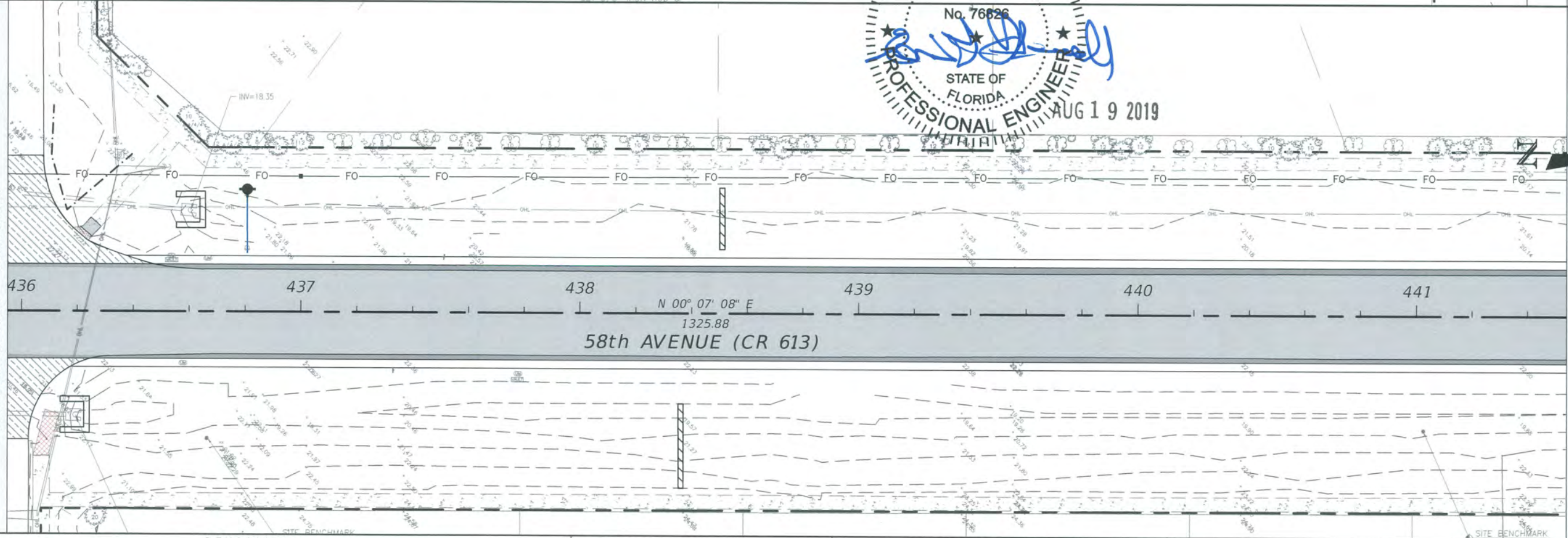
MATCHLINE STA - 430+36.00

MATCHLINE STA - 435+95.00



MATCHLINE STA - 435+95.00

MATCHLINE STA - 441+54.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

SHEET NO.
28

SWPPP LEGEND

- SILT FENCING
- TURBIDITY BARRIER
- ROCK CHECK STRUCTURE
- ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

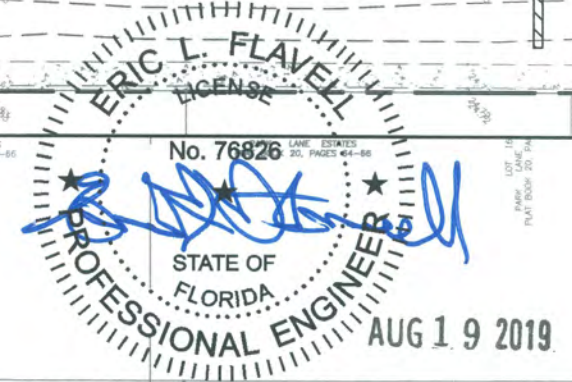
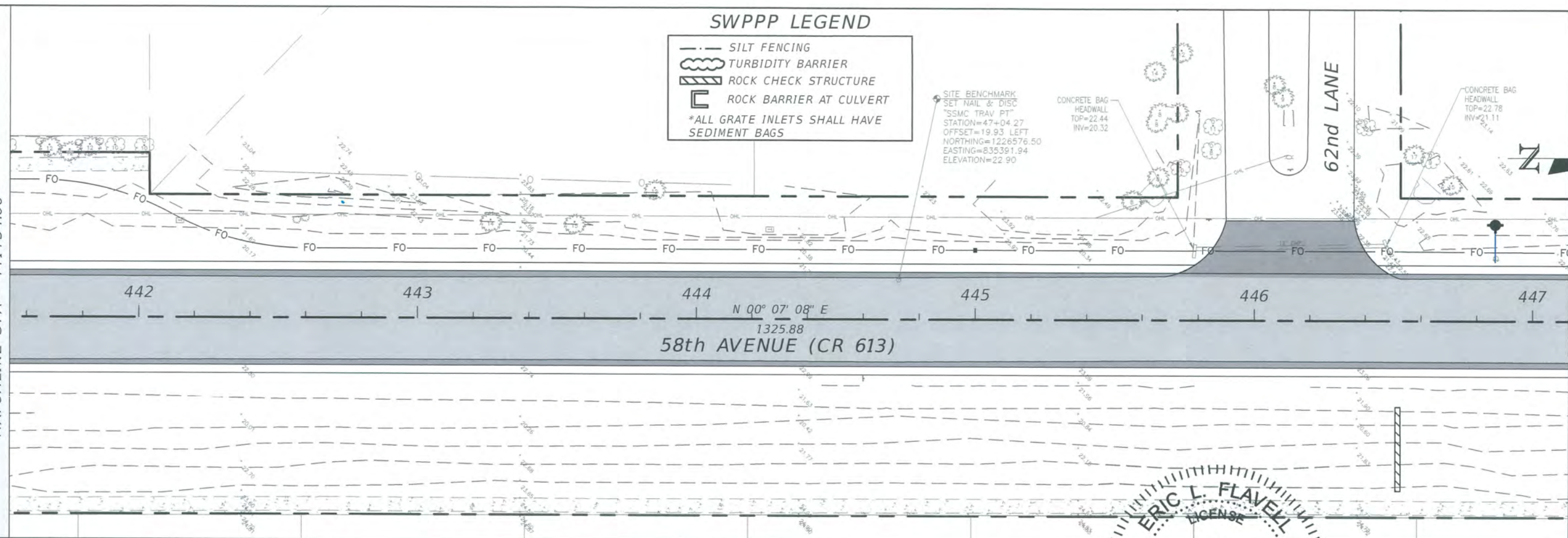
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SET NAIL & DISC
"SSMC TRAV PT"
STATION=47+04.27
OFFSET=19.93 LEFT
NORTHING=1226576.50
EASTING=835391.94
ELEVATION=22.90

CONCRETE BAG
HEADWALL
TOP=22.44
RW=20.32

CONCRETE BAG
HEADWALL
TOP=22.78
RW=21.11

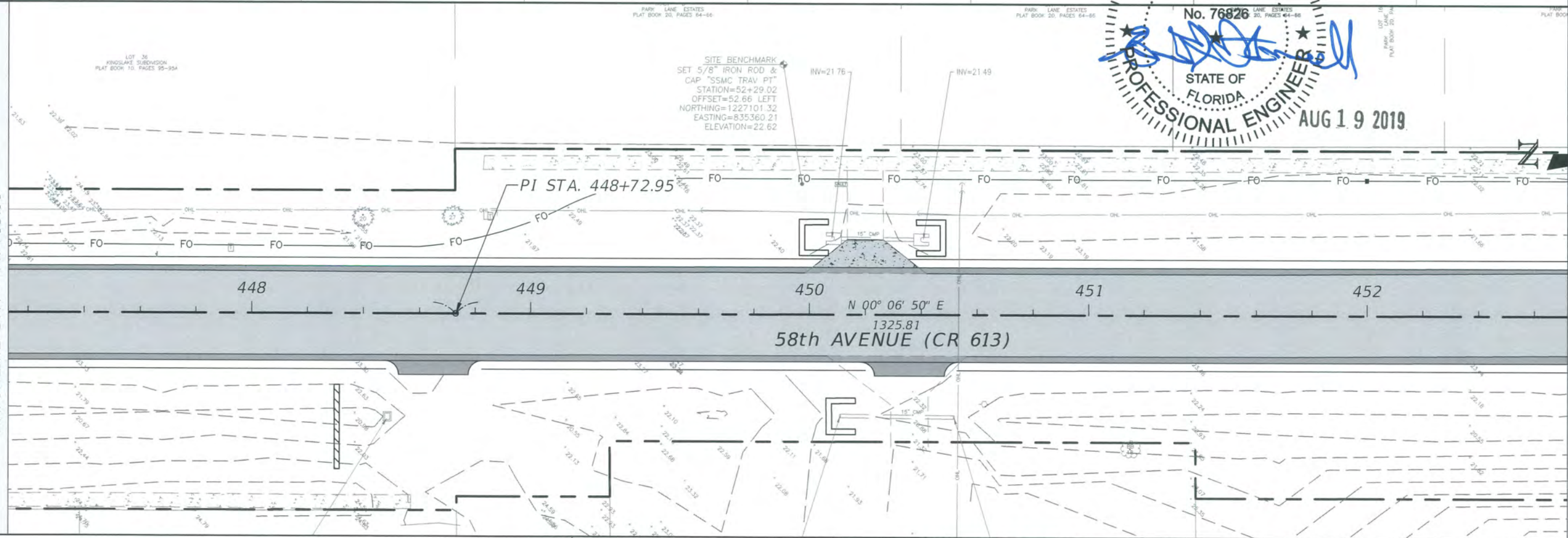
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MATCHLINE STA - 447+13.00



MATCHLINE STA - 447+13.00





MATCHLINE STA - 452+72.00



DATE	DESCRIPTION	DATE	DESCRIPTION

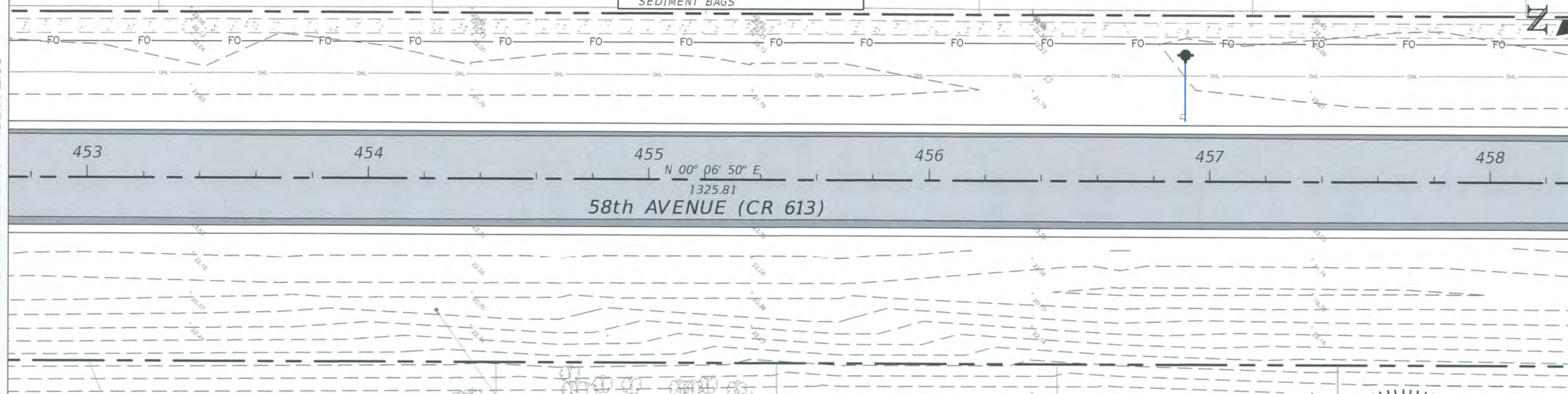
ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462			INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			STORMWATER POLLUTION PREVENTION PLAN - 58TH AVE	SHEET NO. 29
ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IRC: 1325 FDOT:436416-1-54-01			
CR-613 58th AVE	INDIAN RIVER						

SWPPP LEGEND

-  SILT FENCING
 -  TURBIDITY BARRIER
 -  ROCK CHECK STRUCTURE
 -  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

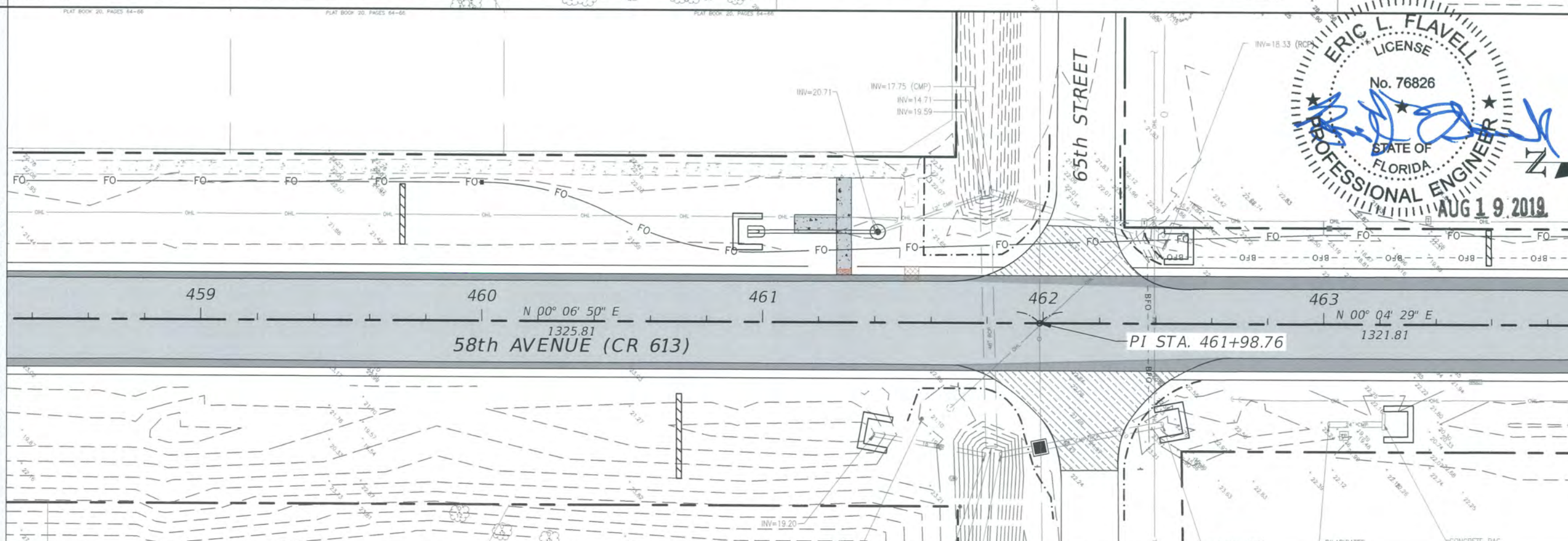
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MATCHLINE STA - 458+31.00



MATCHLINE STA - 458+31.00

MATCHLINE STA - 463+90.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION





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 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

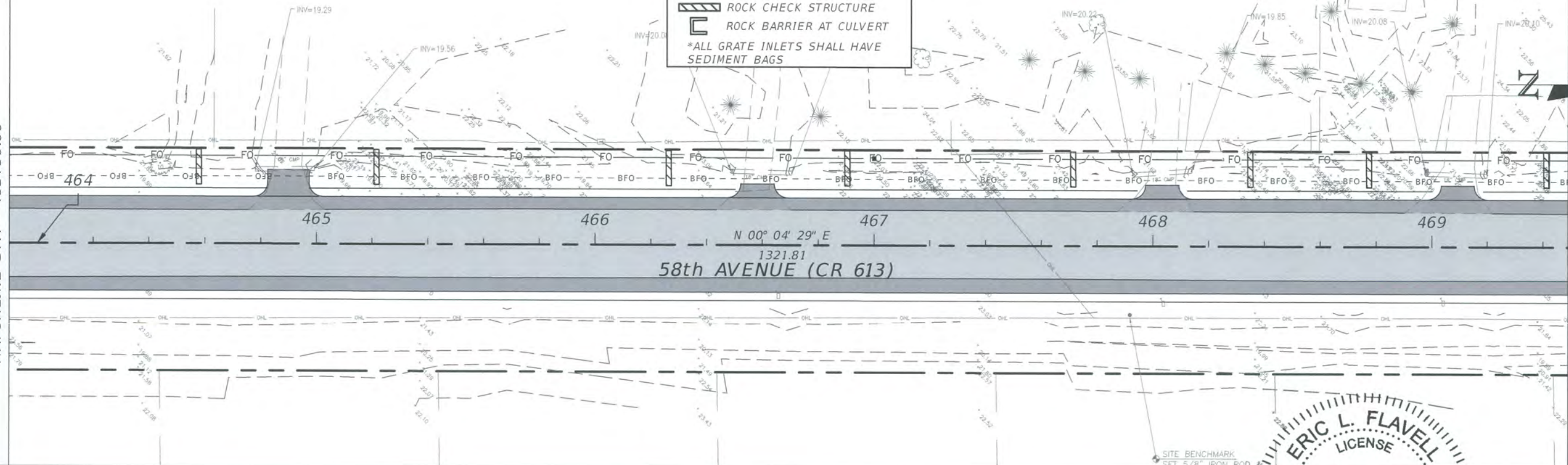
SHEET NO.
30

SWPPP LEGEND

-  SILT FENCING
-  TURBIDITY BARRIER
-  ROCK CHECK STRUCTURE
-  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

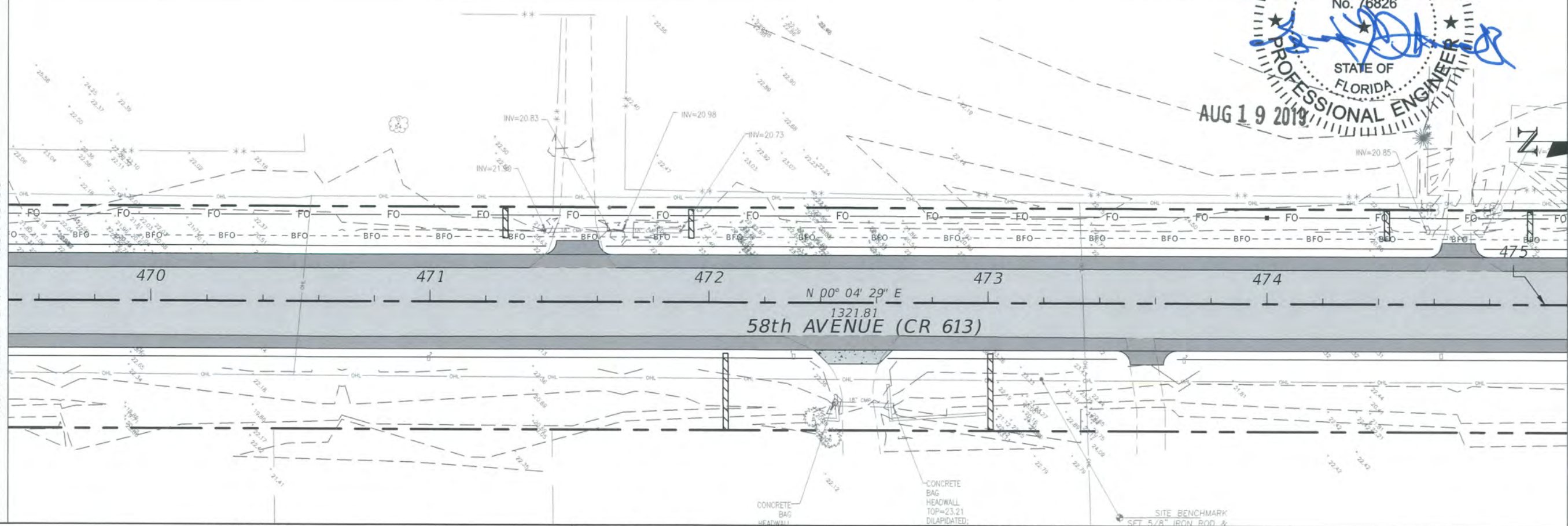
MATCHLINE STA - 463+90.00


MATCHLINE STA - 469+49.00



MATCHLINE STA - 469+49.00

MATCHLINE STA - 475+08.00



ERIC L. FLAVELL
 LICENSE
 No. 76826

 STATE OF FLORIDA
PROFESSIONAL ENGINEER
 AUG 19 2019

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION





ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

SHEET
 NO.
 31

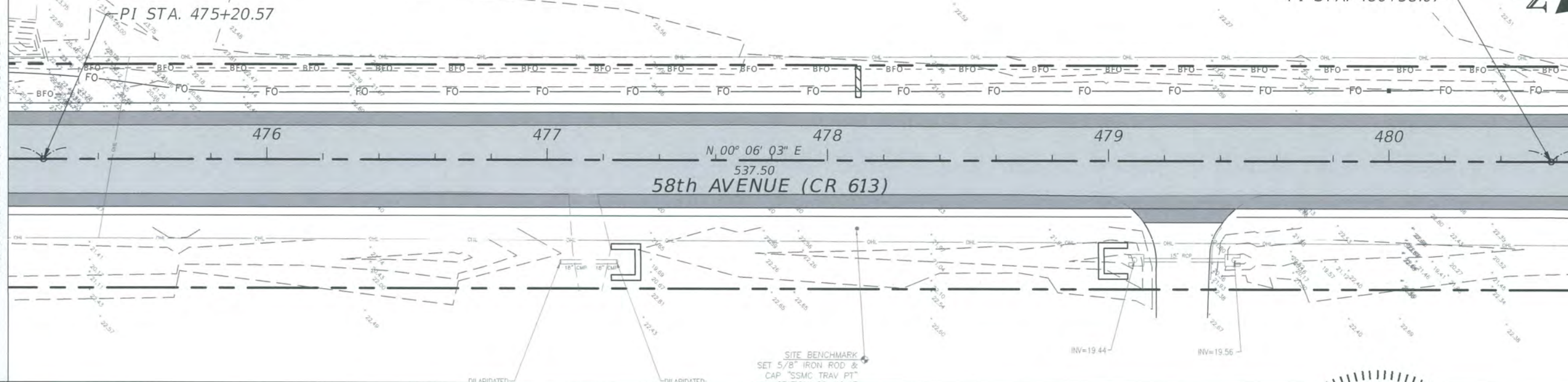
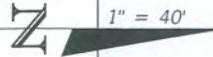
SWPPP LEGEND

-  SILT FENCING
 -  TURBIDITY BARRIER
 -  ROCK CHECK STRUCTURE
 -  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

MATCHLINE STA - 475+08.00

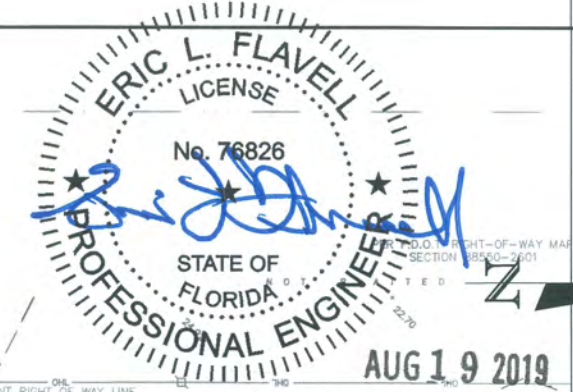
MATCHLINE STA - 480+67.00

PI STA. 480+58.07

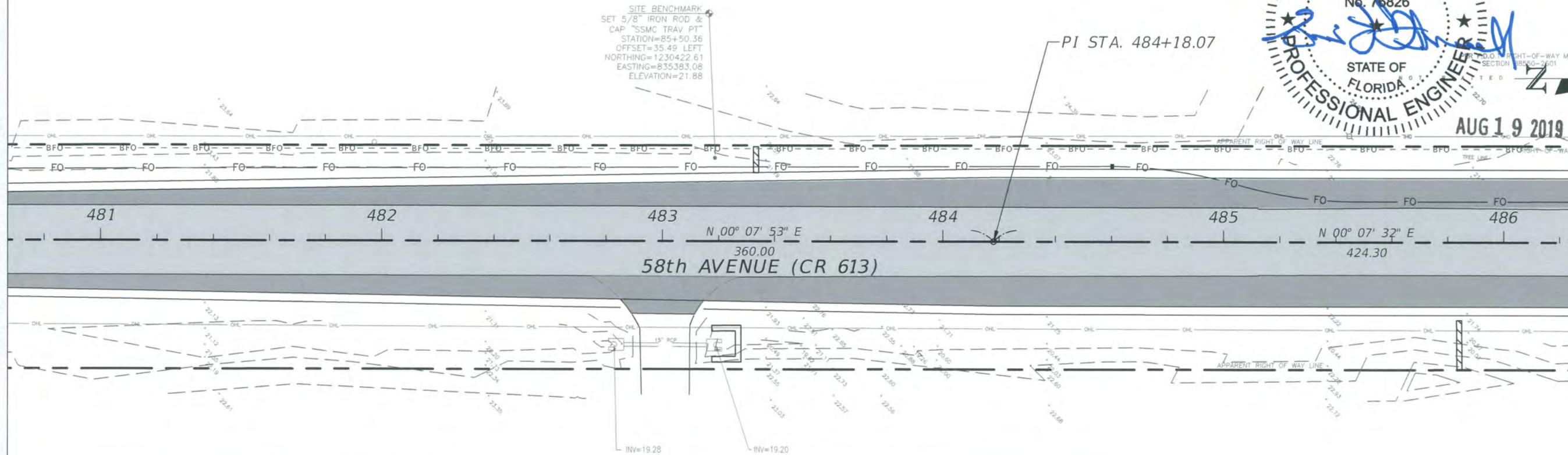


MATCHLINE STA - 480+67.00

MATCHLINE STA - 486+26.00



PI STA. 484+18.07



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

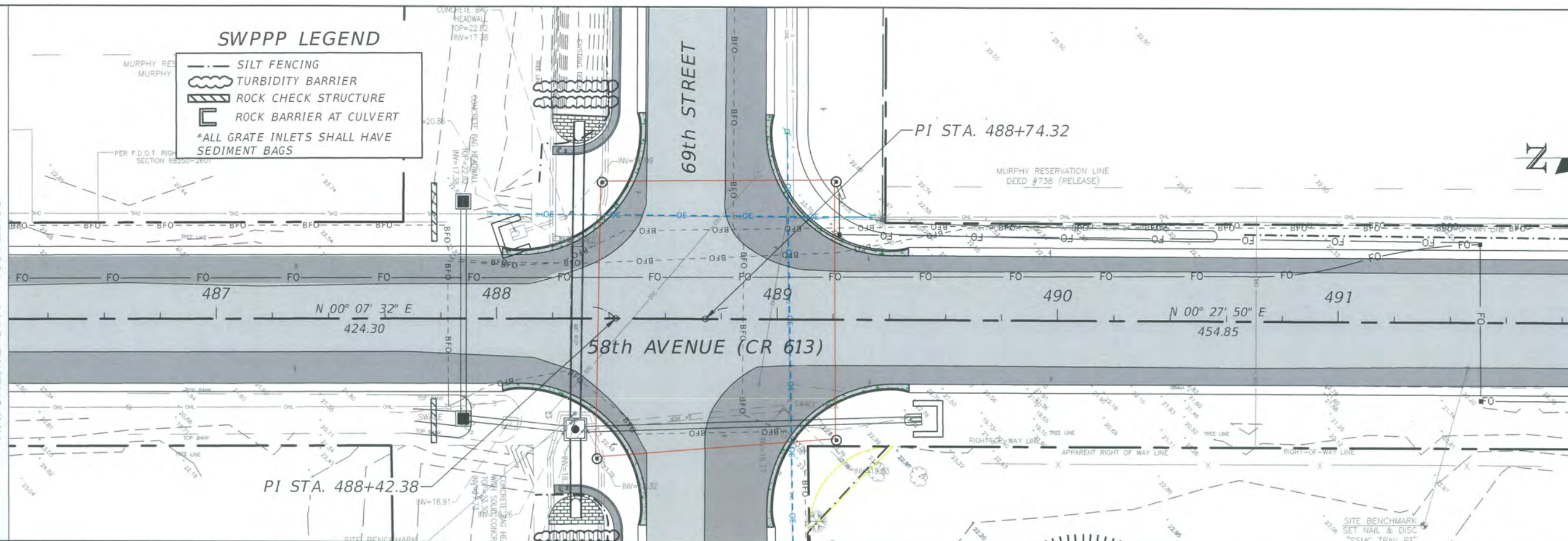
**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

SHEET NO.
32

SWPPP LEGEND

- SILT FENCING
- ▨ TURBIDITY BARRIER
- ▩ ROCK CHECK STRUCTURE
- ⌊ ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

MATCHLINE STA - 486+26.00

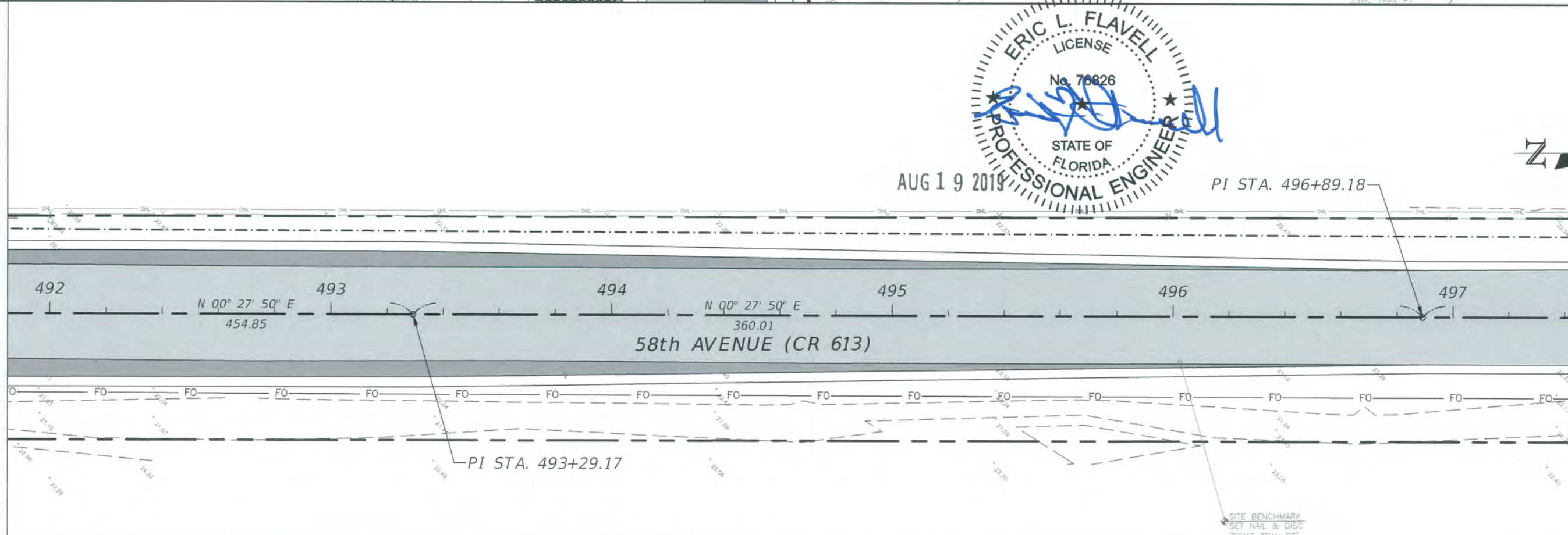


MATCHLINE STA - 491+85.00



AUG 19 2019

PI STA. 496+89.18



MATCHLINE STA - 497+44.00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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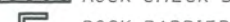
ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

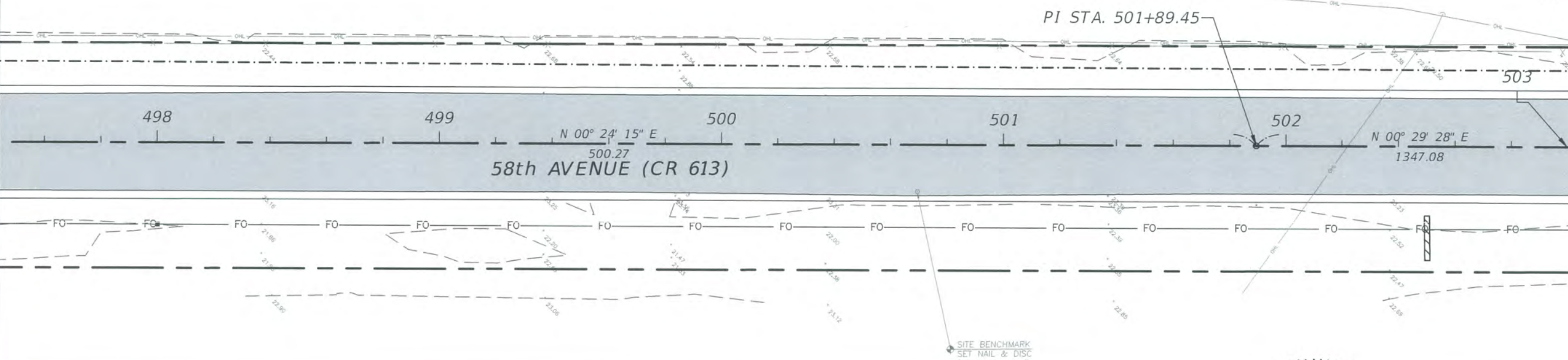
SHEET NO.
33

SWPPP LEGEND

-  SILT FENCING
-  TURBIDITY BARRIER
-  ROCK CHECK STRUCTURE
-  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

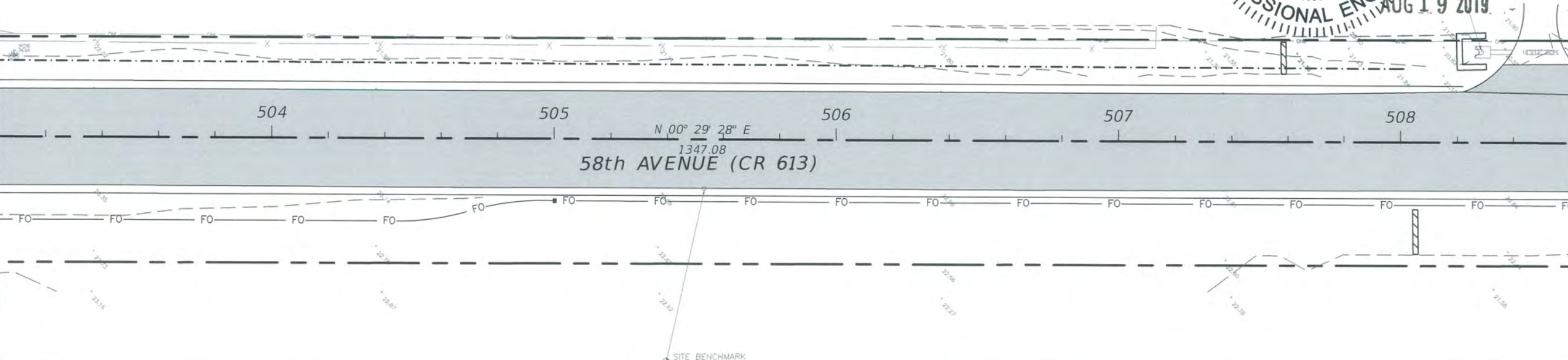
MATCHLINE STA - 497+44.00

MATCHLINE STA - 503+03.00



MATCHLINE STA - 503+03.00

MATCHLINE STA - 508+62.00



DATE	DESCRIPTION	DATE	DESCRIPTION
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INDIAN RIVER COUNTY		
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

SHEET NO.
34

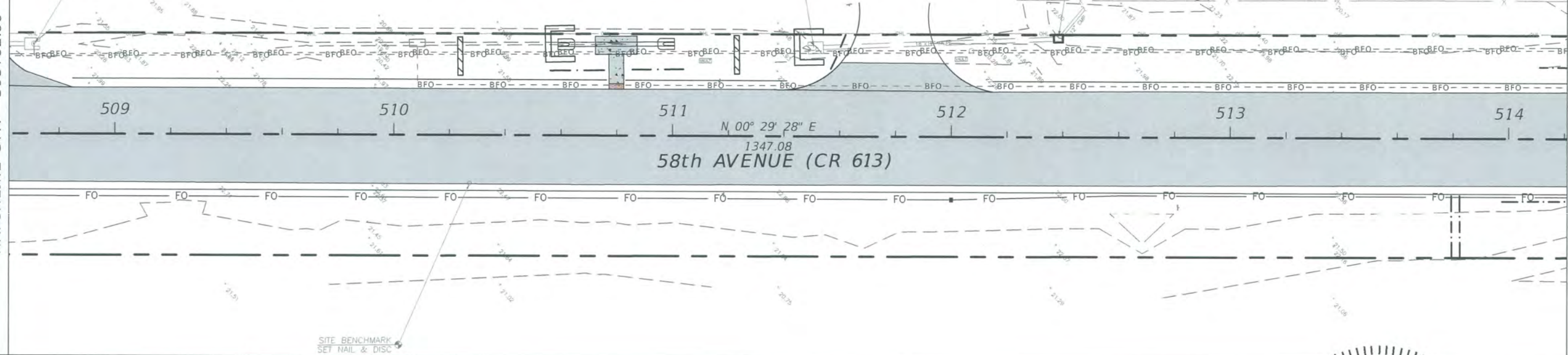
SWPPP LEGEND

-  SILT FENCING
-  TURBIDITY BARRIER
-  ROCK CHECK STRUCTURE
-  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

INLET
TOP=18.80
NW INV=17.44
S INV=16.77

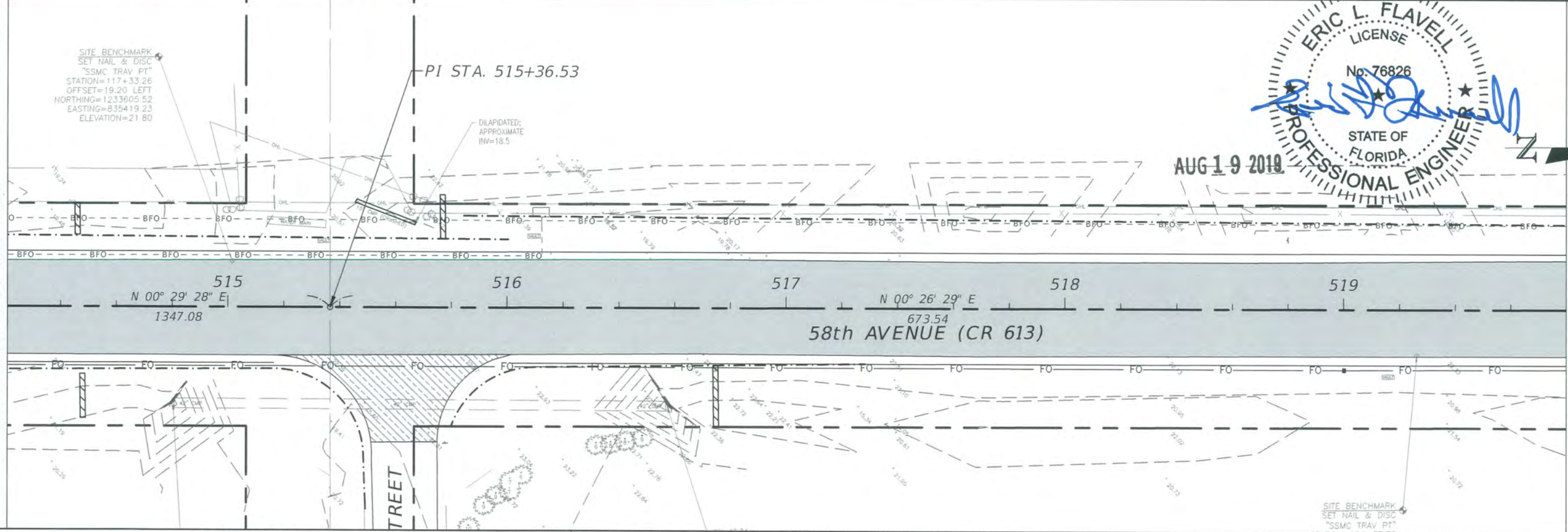
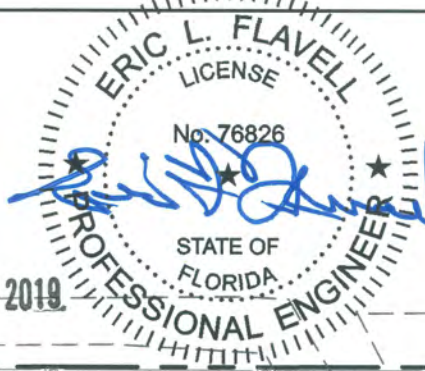
MATCHLINE STA - 508+62.00

MATCHLINE STA - 514+21.00



MATCHLINE STA - 514+21.00

MATCHLINE STA - 519+80.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION





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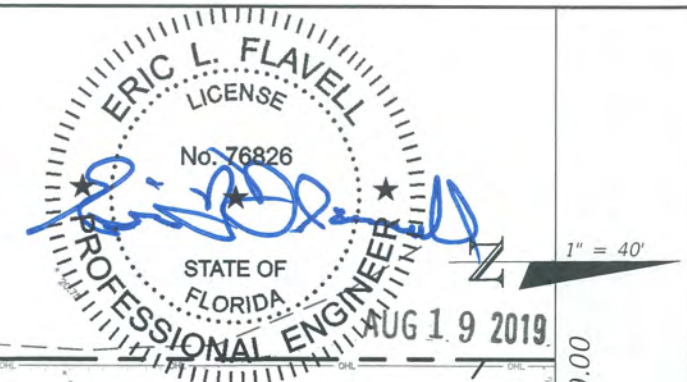
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
PREVENTION PLAN - 58TH AVE**

SHEET NO.
35

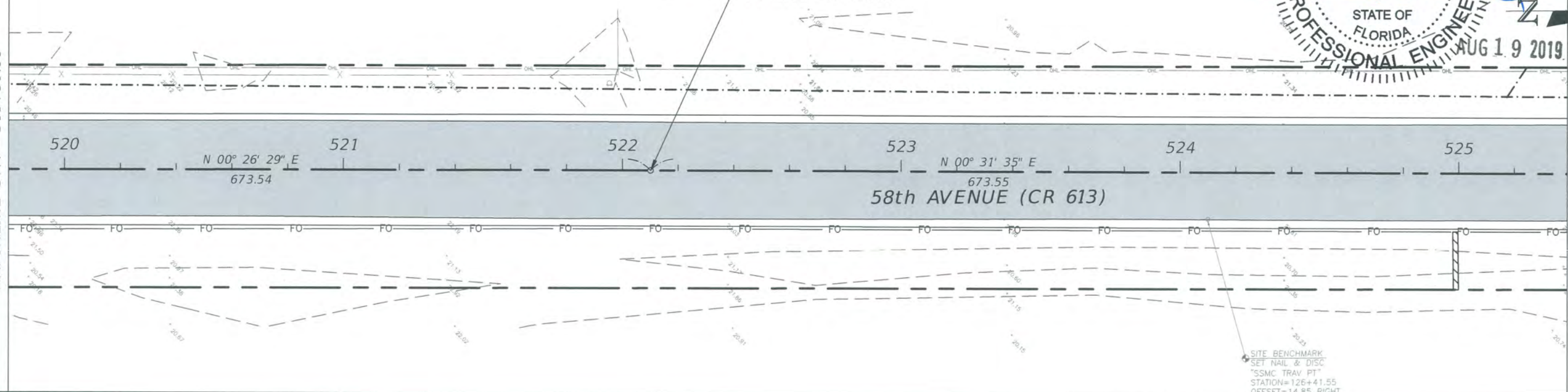
SWPPP LEGEND

-  SILT FENCING
 -  TURBIDITY BARRIER
 -  ROCK CHECK STRUCTURE
 -  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS



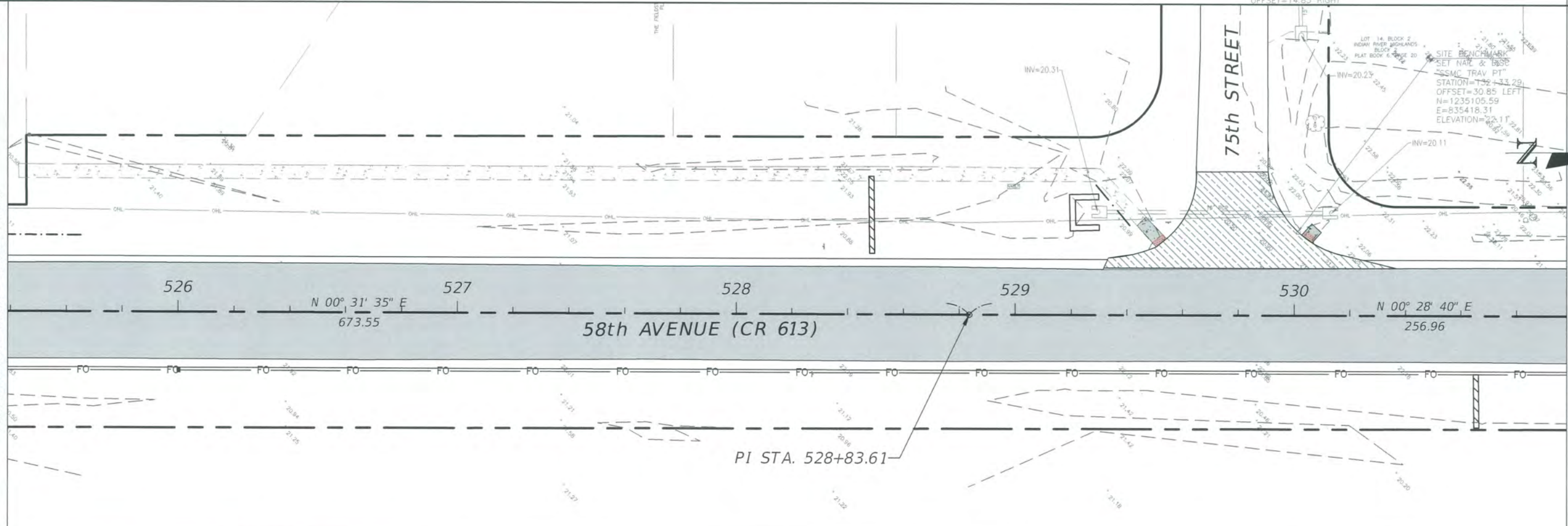
MATCHLINE STA - 519+80.00

MATCHLINE STA - 525+39.00



MATCHLINE STA - 525+39.00

MATCHLINE STA - 530+98.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION





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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLUTION
 PREVENTION PLAN - 58TH AVE**

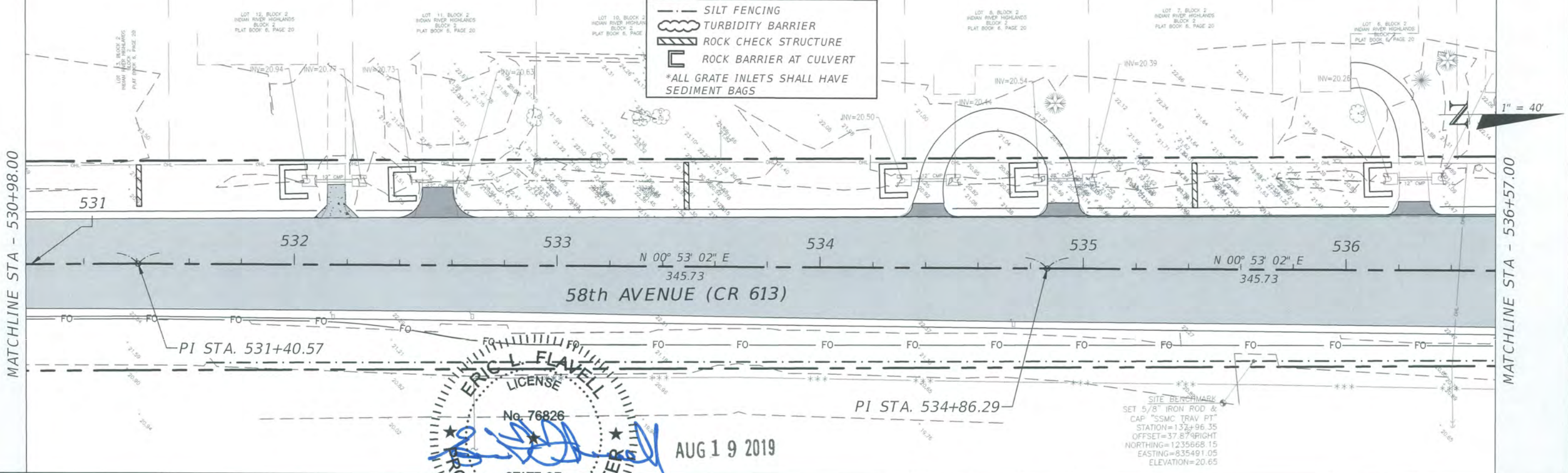
SHEET NO.
36

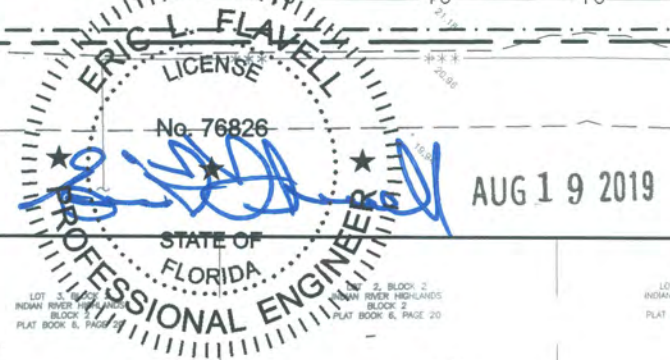
SWPPP LEGEND

-  SILT FENCING
-  TURBIDITY BARRIER
-  ROCK CHECK STRUCTURE
-  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

MATCHLINE STA - 530+98.00

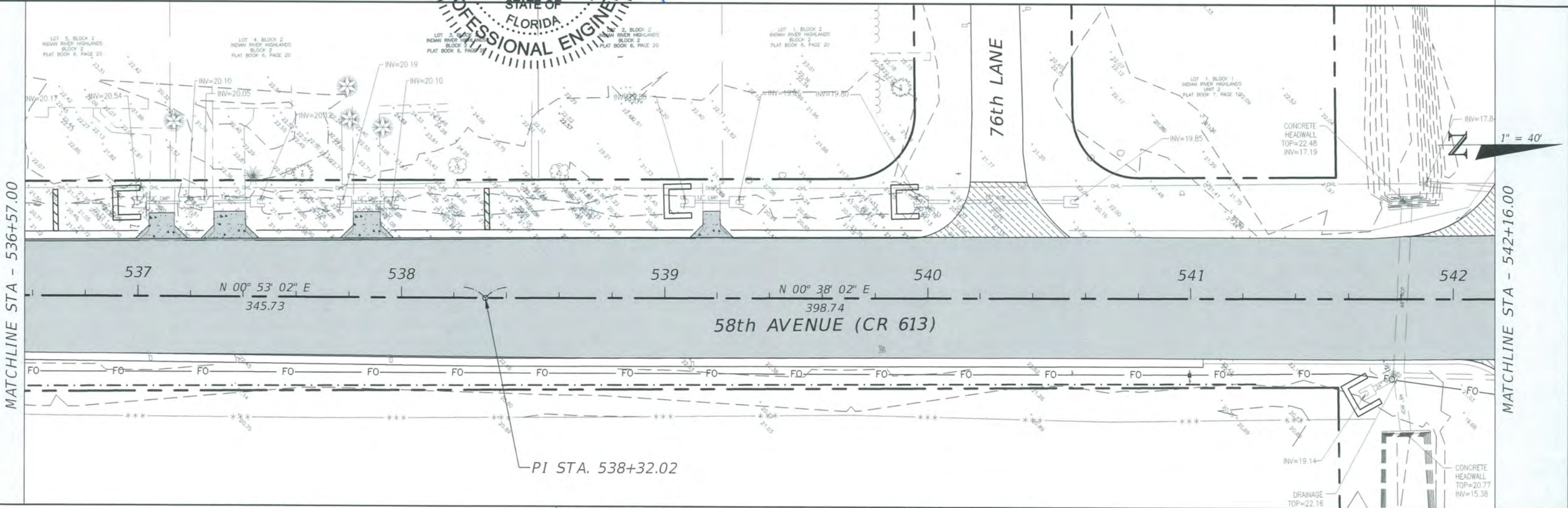
MATCHLINE STA - 536+57.00





MATCHLINE STA - 536+57.00

MATCHLINE STA - 542+16.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION





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 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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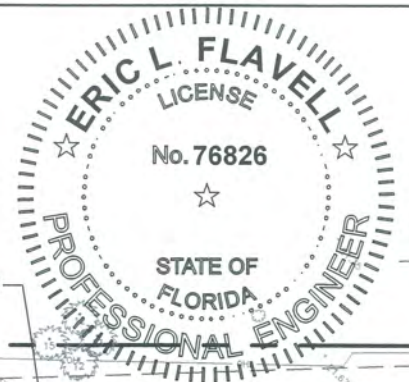
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

SHEET NO.
 37

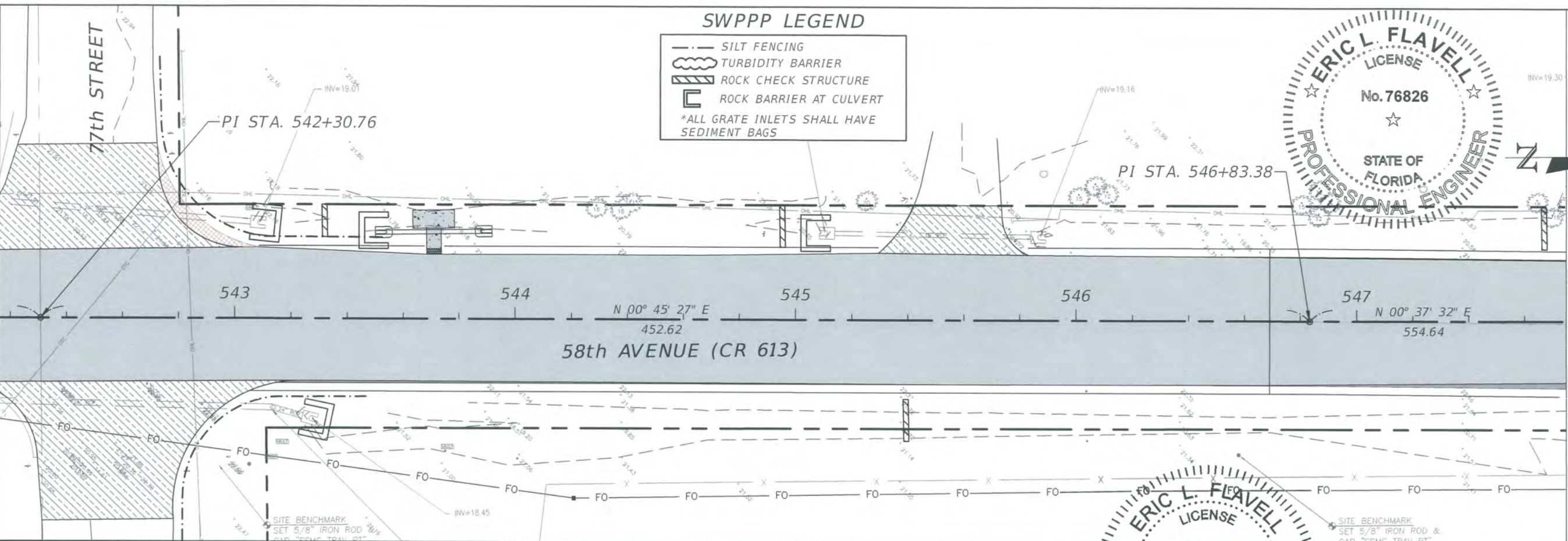
SWPPP LEGEND

-  SILT FENCING
-  TURBIDITY BARRIER
-  ROCK CHECK STRUCTURE
-  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS



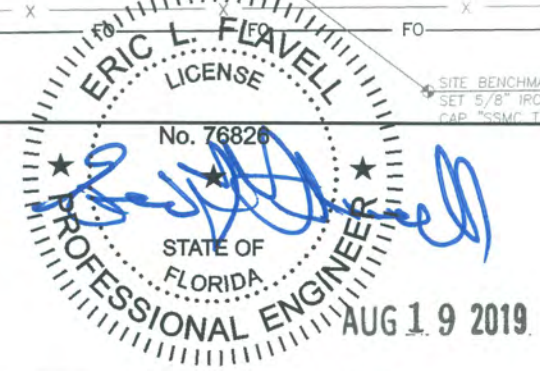
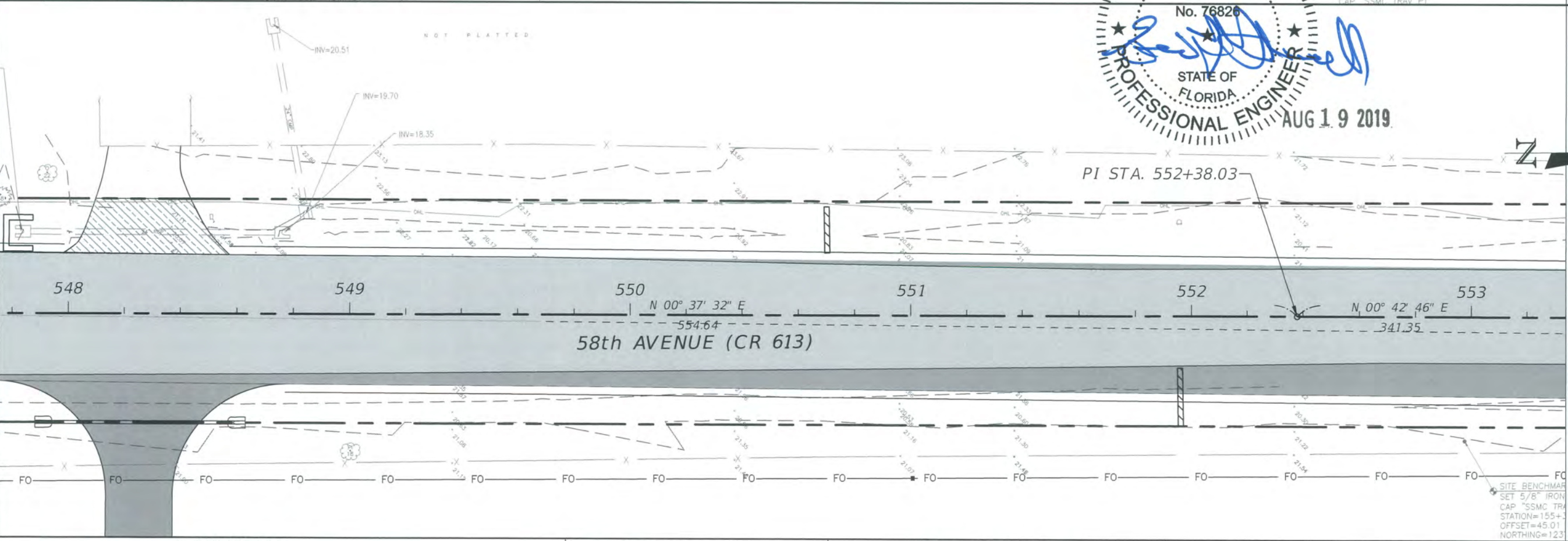
MATCHLINE STA - 542+16.00

MATCHLINE STA - 547+75.00



MATCHLINE STA - 547+75.00

MATCHLINE STA - 553+34.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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 MELBOURNE, FL 32934
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

SHEET NO.
38

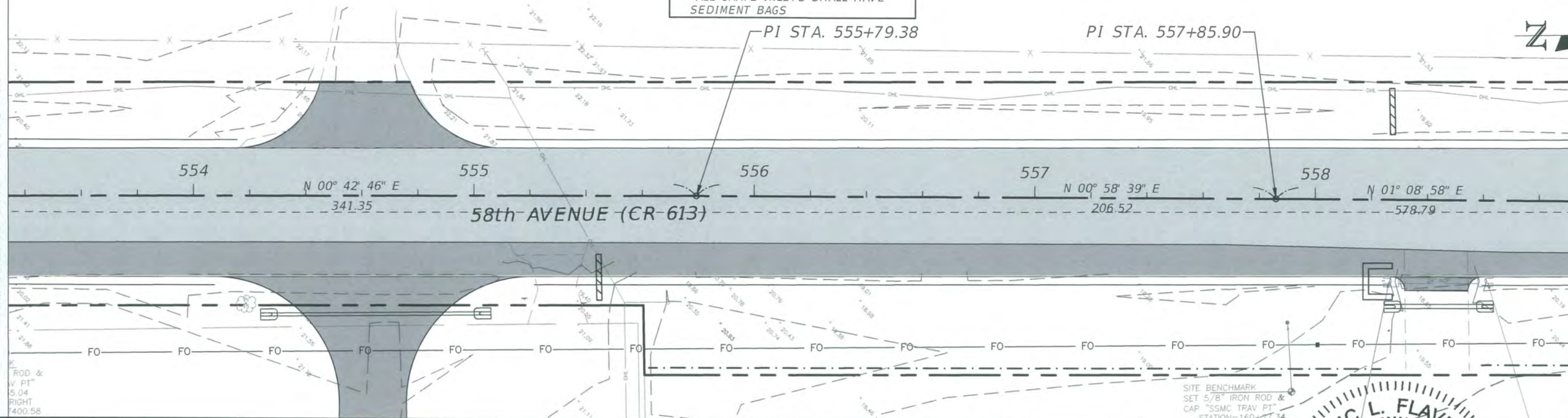
NOT FLA

SWPPP LEGEND

-  SILT FENCING
-  TURBIDITY BARRIER
-  ROCK CHECK STRUCTURE
-  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

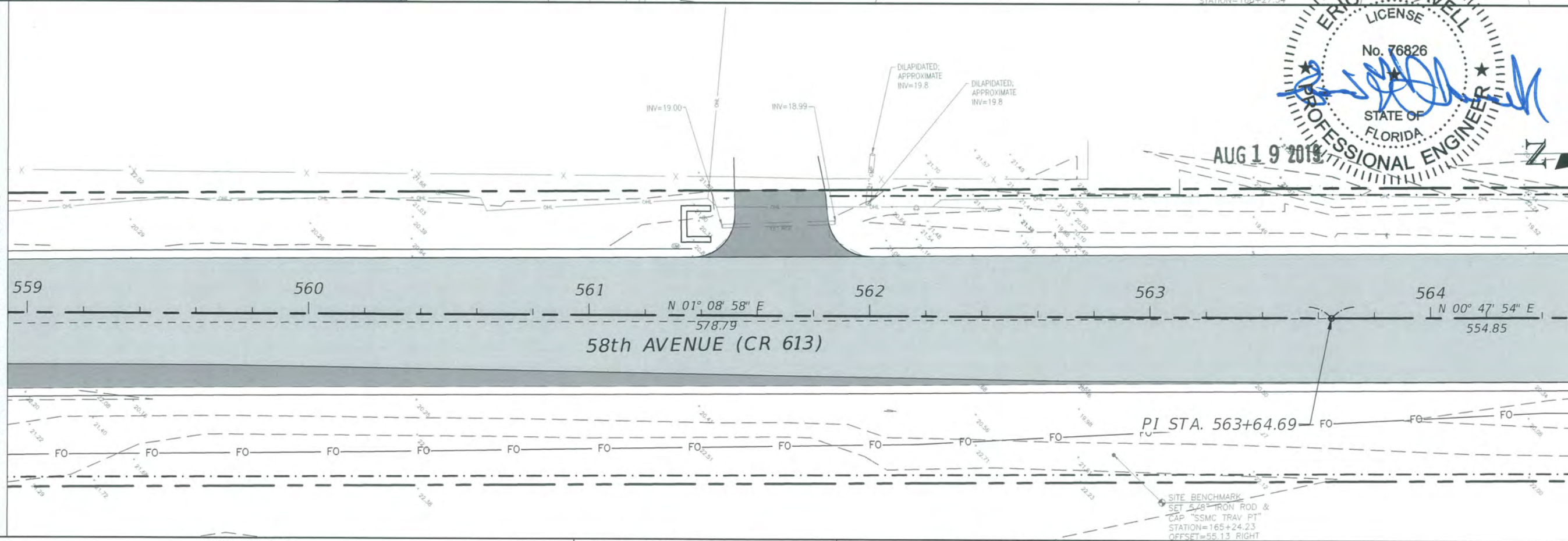
MATCHLINE STA - 553+34.00

MATCHLINE STA - 558+93.00



MATCHLINE STA - 558+93.00

MATCHLINE STA - 564+52.00



ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER

AUG 19 2019

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION





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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

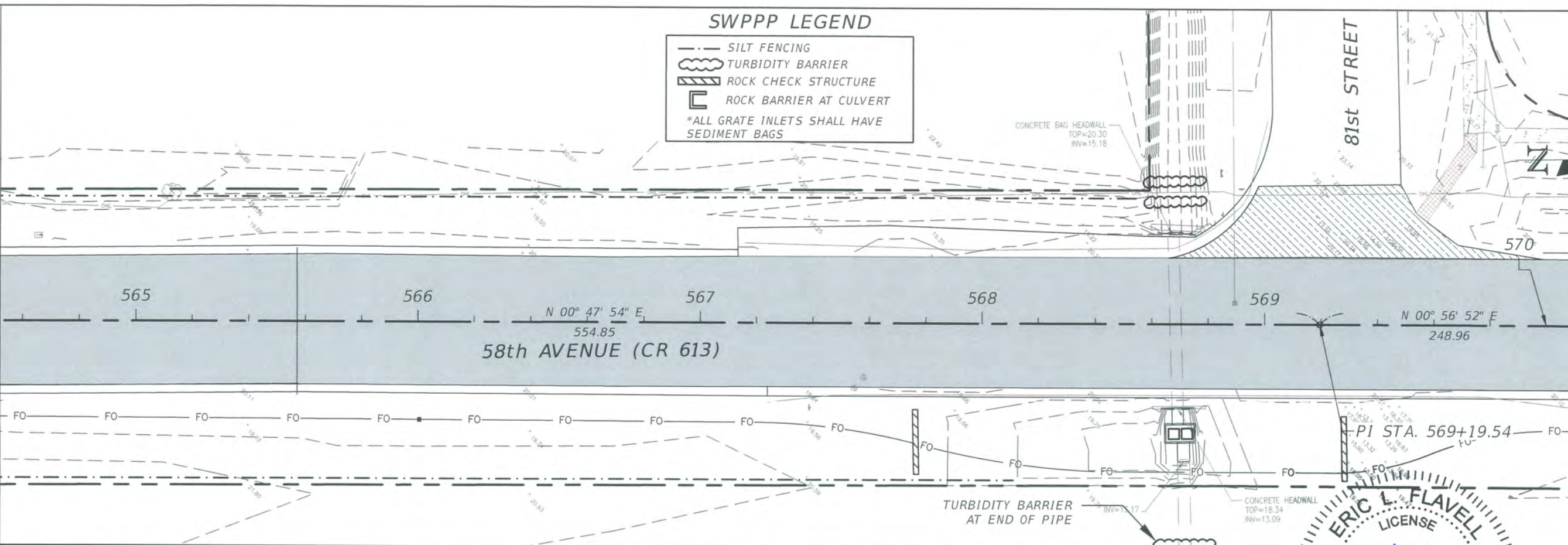
**STORMWATER POLUTION
 PREVENTION PLAN - 58TH AVE**

SHEET
 NO.
 39

SWPPP LEGEND

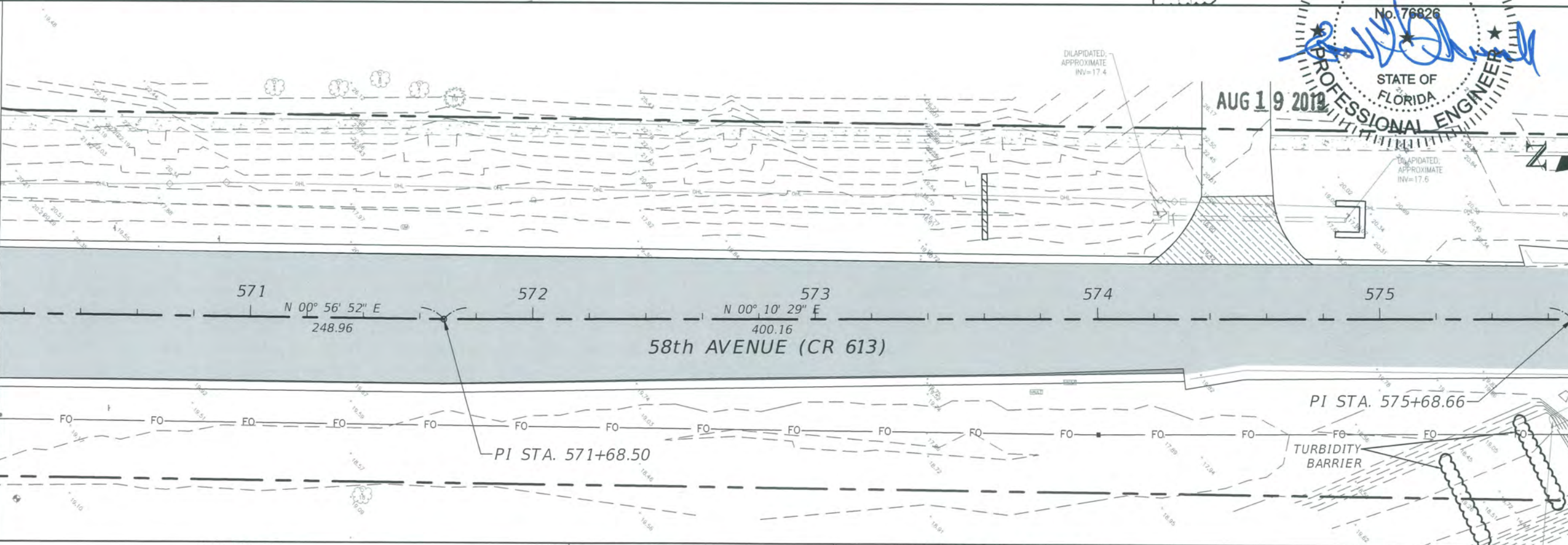
-  SILT FENCING
 -  TURBIDITY BARRIER
 -  ROCK CHECK STRUCTURE
 -  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

MATCHLINE STA - 564+52.00

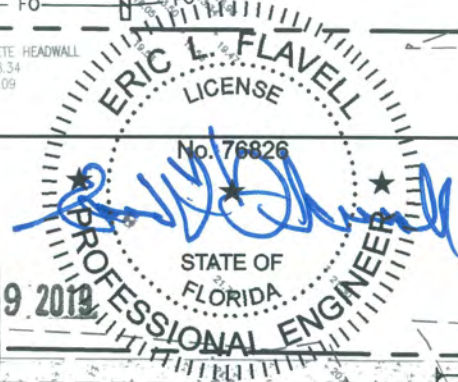


MATCHLINE STA - 570+11.00

MATCHLINE STA - 570+11.00



MATCHLINE STA - 575+70.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION





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INDIAN RIVER COUNTY		
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

SHEET NO.
40

SWPPP LEGEND

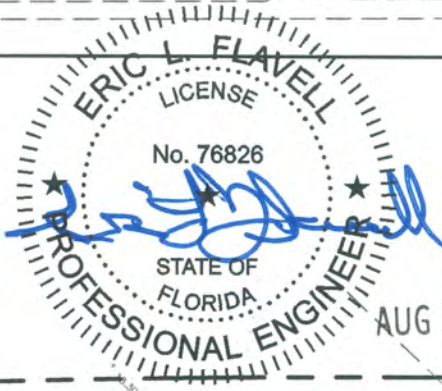
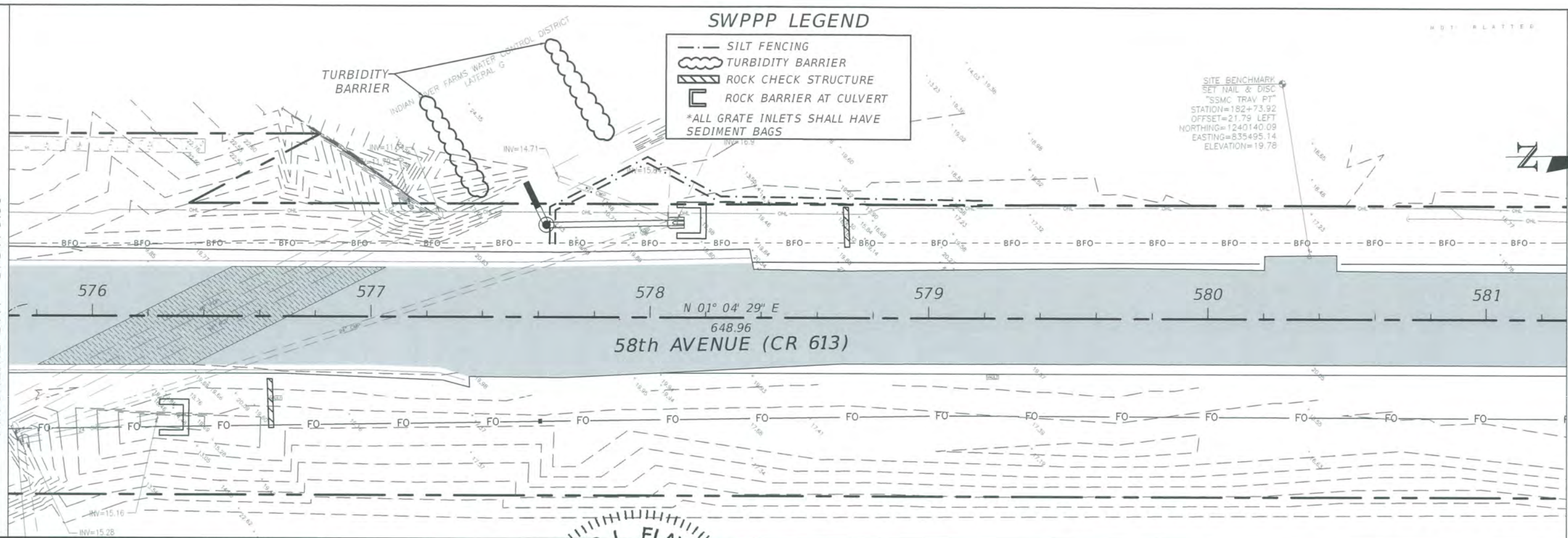
-  SILT FENCING
-  TURBIDITY BARRIER
-  ROCK CHECK STRUCTURE
-  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

SITE BENCHMARK
SET NAIL & DISC
"SSMC TRAV PT"
STATION=182+73.92
OFFSET=21.79 LEFT
NORTHING=1240140.09
EASTING=835495.14
ELEVATION=19.78



MATCHLINE STA - 575+70.00

MATCHLINE STA - 581+29.00



SITE BENCHMARK
SET 5/8" IRON ROD &
CAP "SSMC TRAV PT"
STATION=187+03.19
OFFSET=31.55 LEFT
NORTHING=1240569.47
EASTING=835493.32
ELEVATION=18.73

DILAPIDATED, APPROXIMATE
INV=19.0

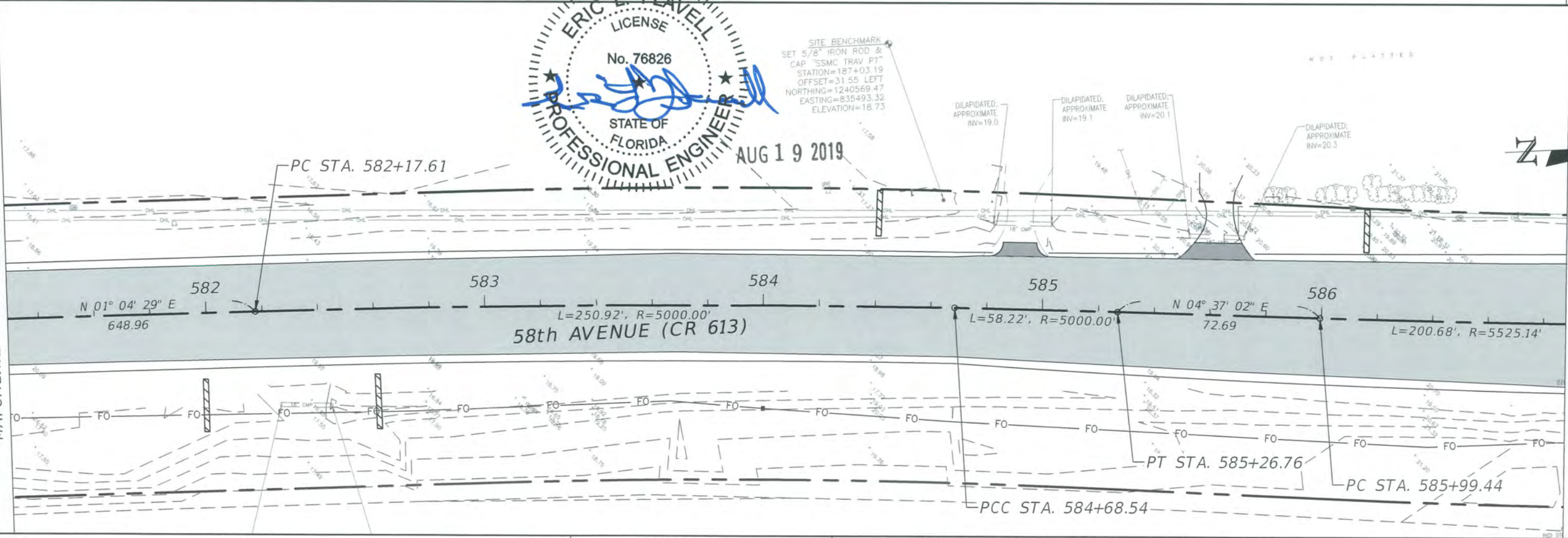
DILAPIDATED, APPROXIMATE
INV=19.1

DILAPIDATED, APPROXIMATE
INV=20.1



MATCHLINE STA - 581+29.00

MATCHLINE STA - 586+88.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION





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MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
PREVENTION PLAN - 58TH AVE**

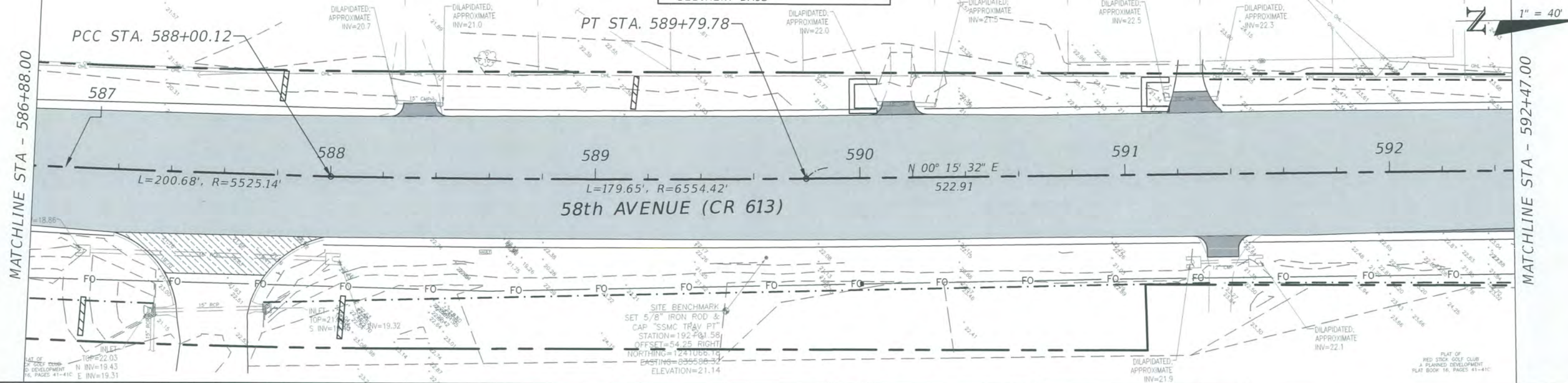
SHEET NO.
41

SWPPP LEGEND

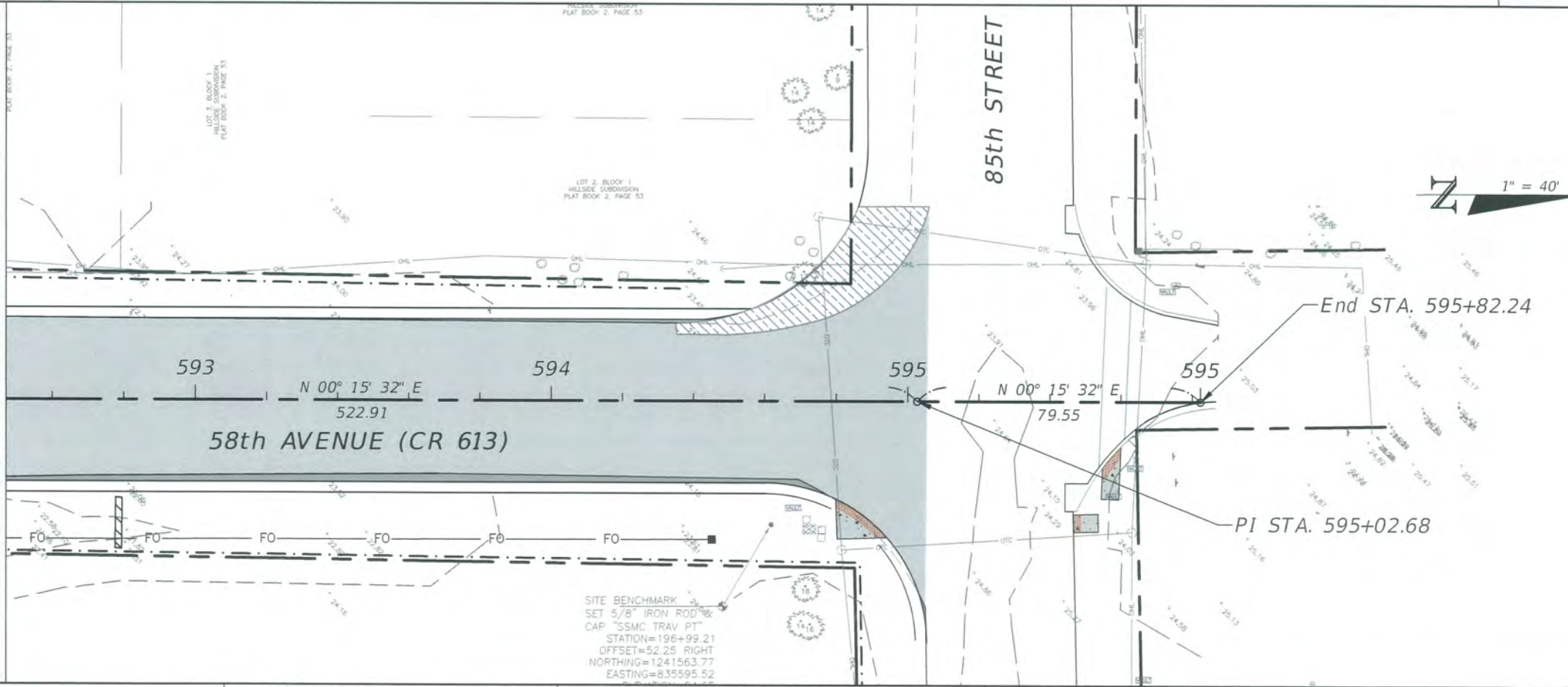
-  SILT FENCING
-  TURBIDITY BARRIER
-  ROCK CHECK STRUCTURE
-  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

MATCHLINE STA - 586+88.00

MATCHLINE STA - 592+47.00



MATCHLINE STA - 592+47.00



DATE	DESCRIPTION	DATE	DESCRIPTION





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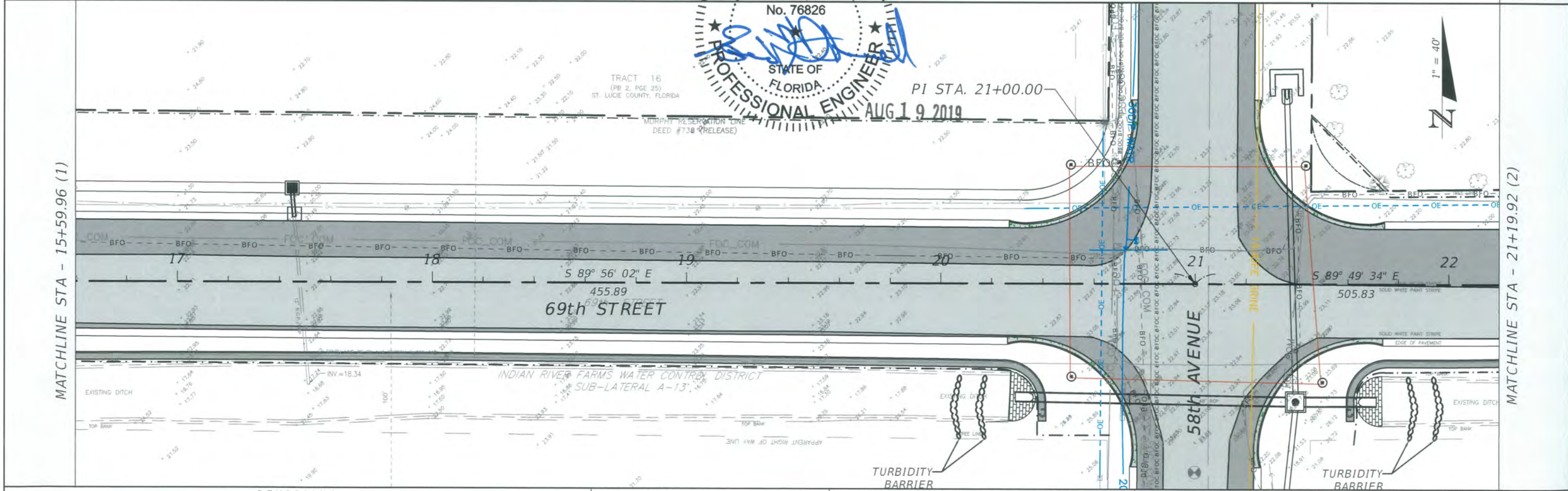
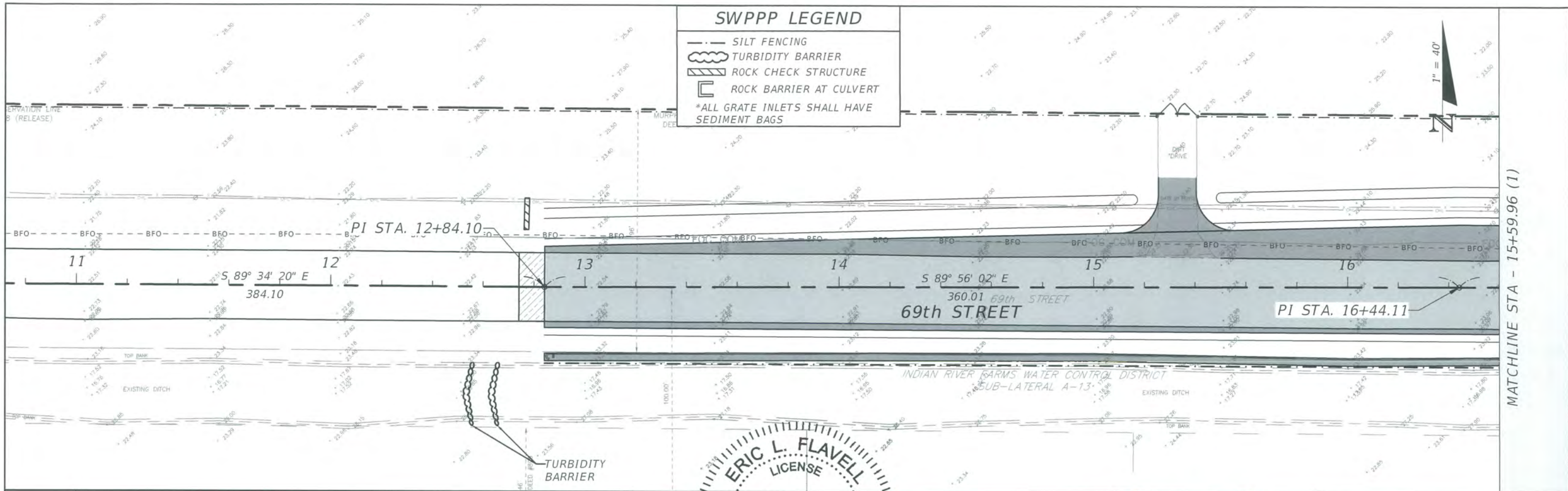
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 58TH AVE**

SHEET NO.
42

SWPPP LEGEND

-  SILT FENCING
-  TURBIDITY BARRIER
-  ROCK CHECK STRUCTURE
-  ROCK BARRIER AT CULVERT
- *ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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 MELBOURNE, FL 32934
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INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 69TH
 STREET**

SHEET NO.
43

SWPPP LEGEND

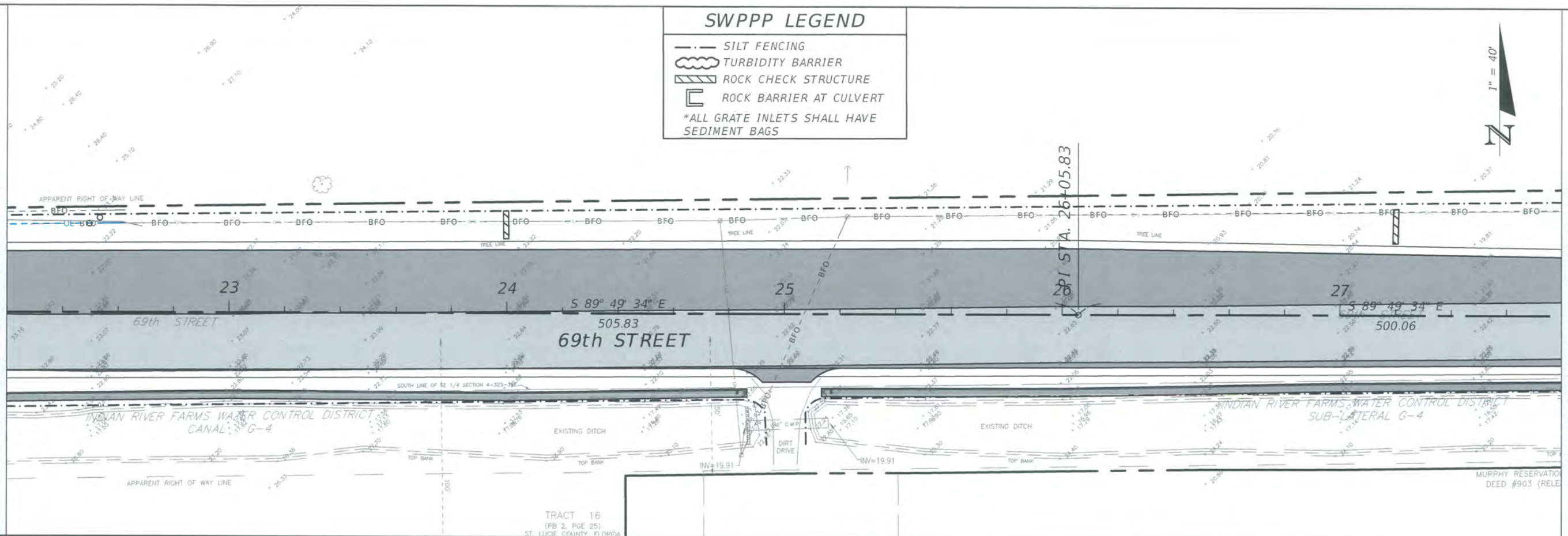
- SILT FENCING
- TURBIDITY BARRIER
- ROCK CHECK STRUCTURE
- ROCK BARRIER AT CULVERT

*ALL GRATE INLETS SHALL HAVE SEDIMENT BAGS

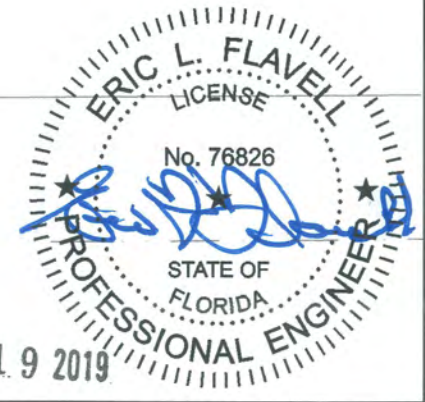
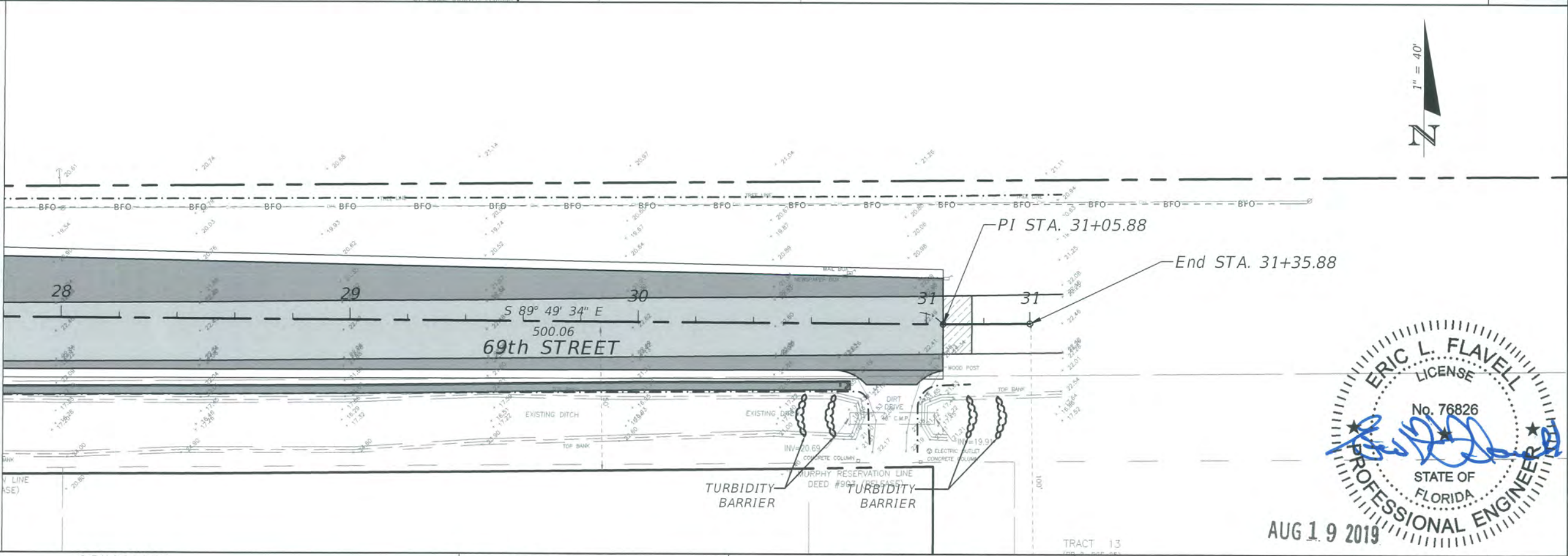


MATCHLINE STA - 21+19.92 (2)

MATCHLINE STA - 26+79.88 (3)



MATCHLINE STA - 26+79.88 (3)



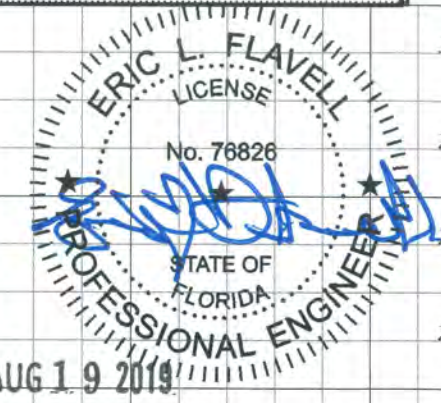
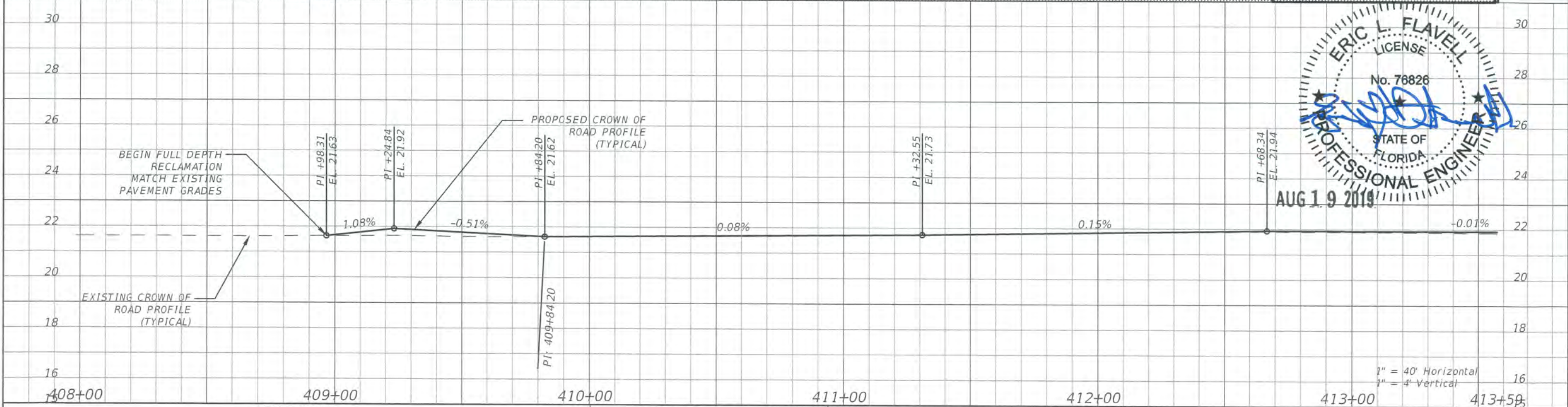
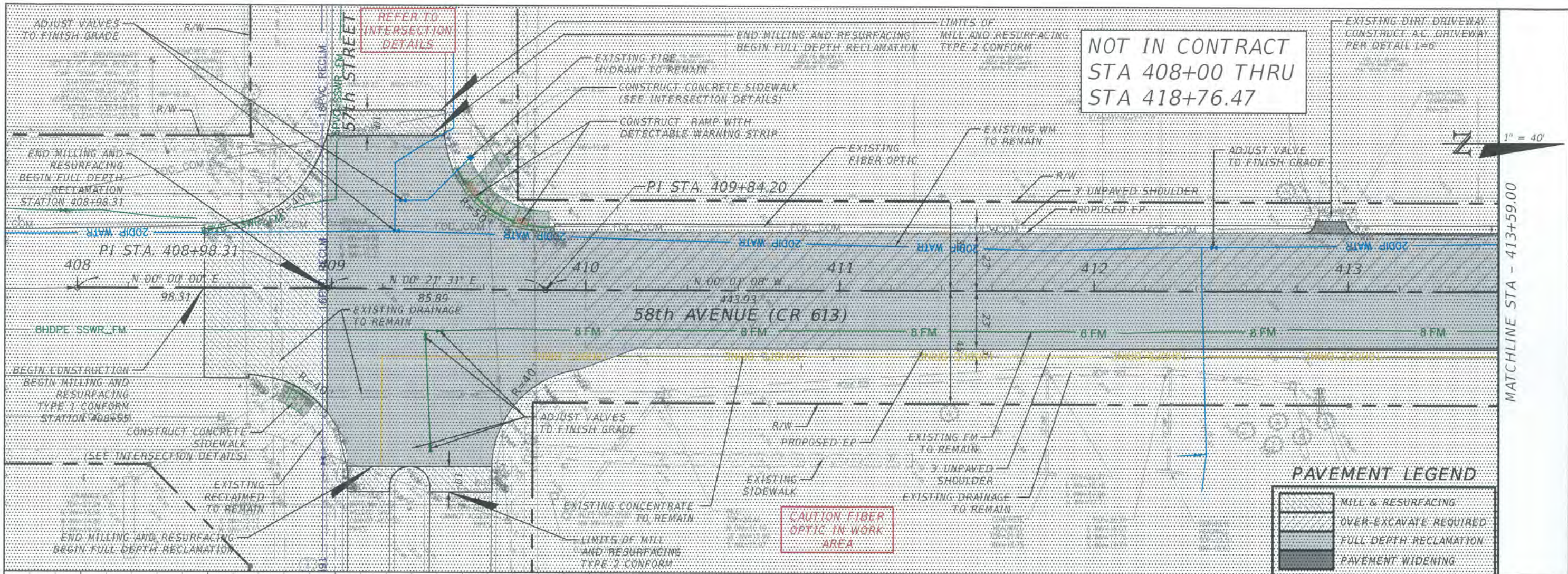
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**STORMWATER POLLUTION
 PREVENTION PLAN - 69TH
 STREET**

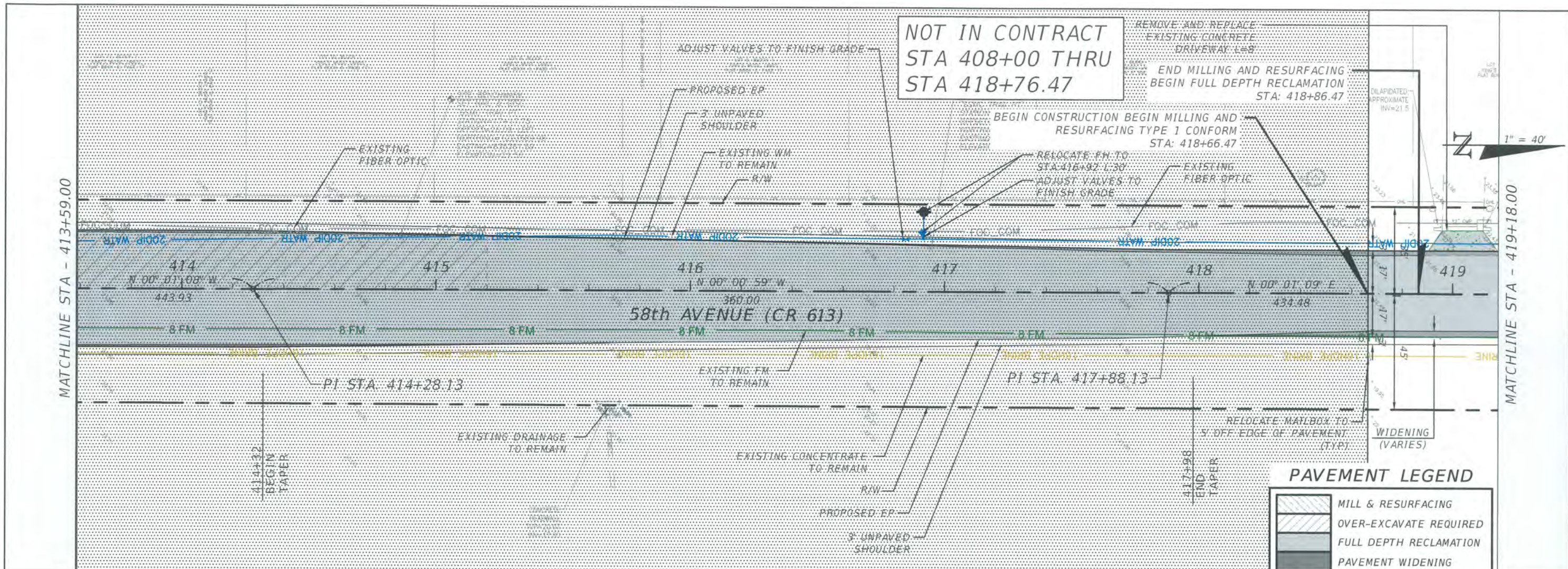
SHEET NO.
44



REVISIONS		DESCRIPTION	
DATE	DESCRIPTION	DATE	DESCRIPTION

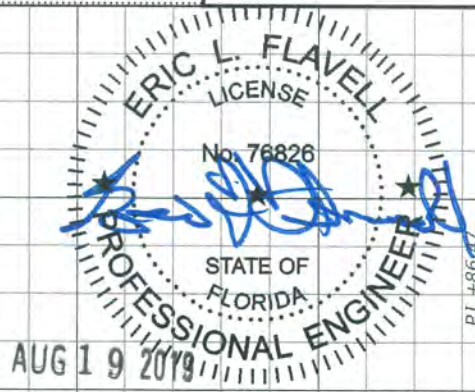
ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462			INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PLAN & PROFILE - 58TH AVE		
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01			

SHEET NO.	45
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PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



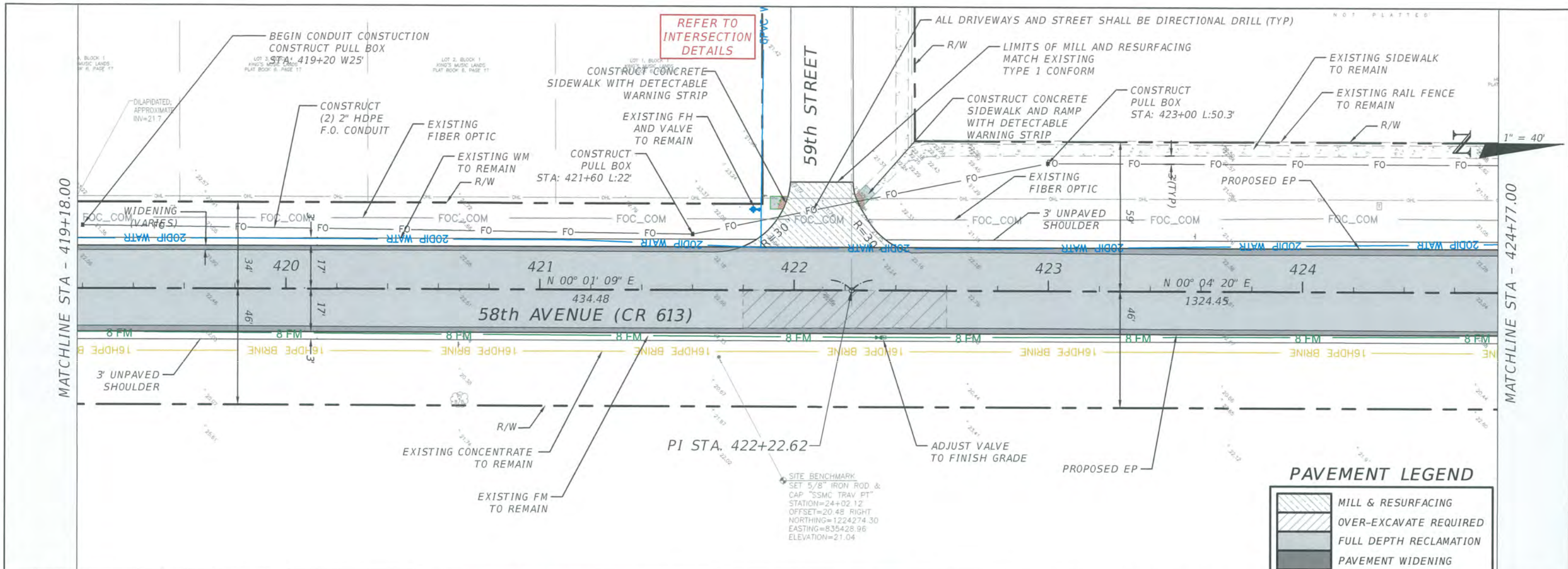
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

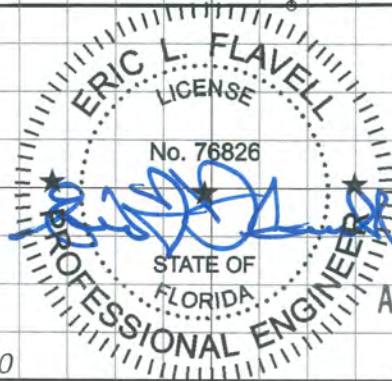
PLAN & PROFILE - 58TH AVE

SHEET NO.
46



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



AUG 19 2019

1" = 40' Horizontal
1" = 4' Vertical

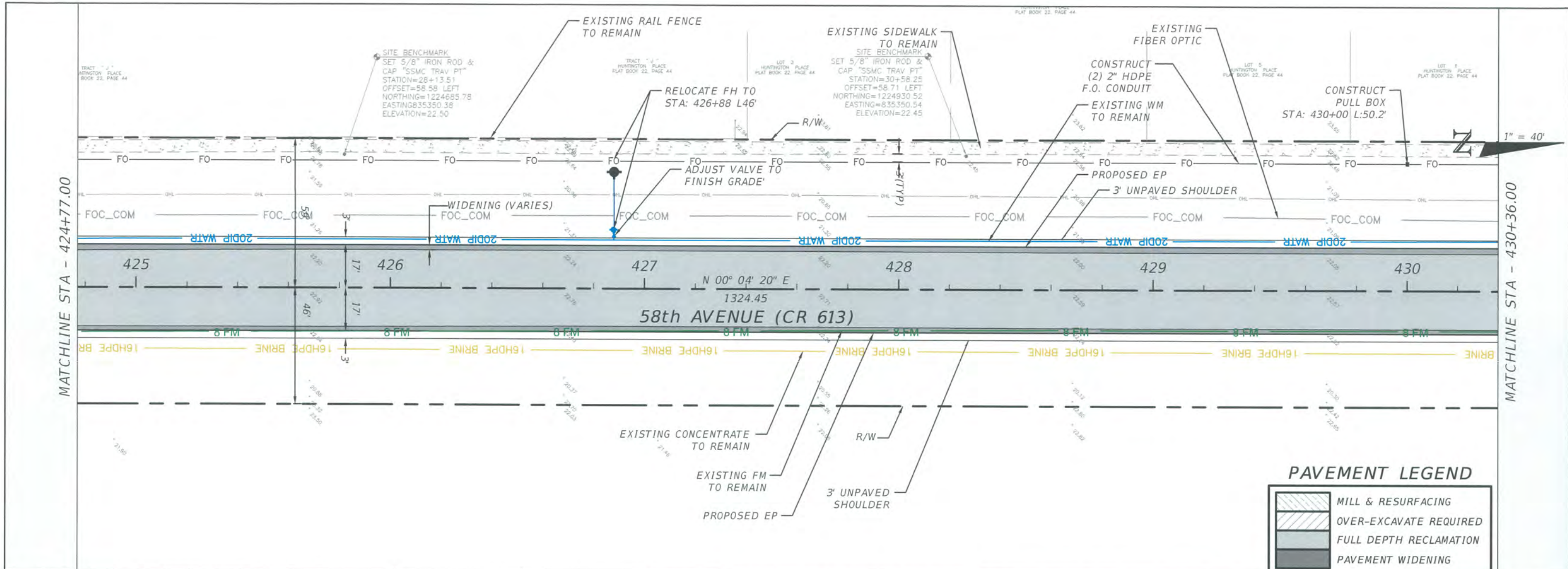
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

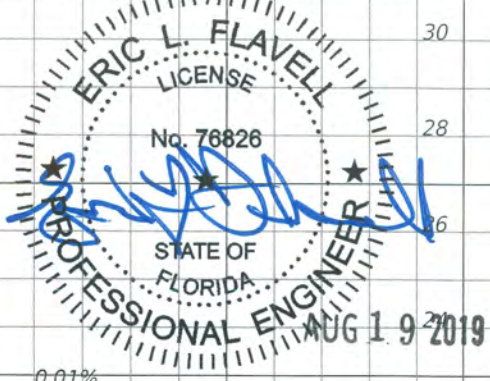
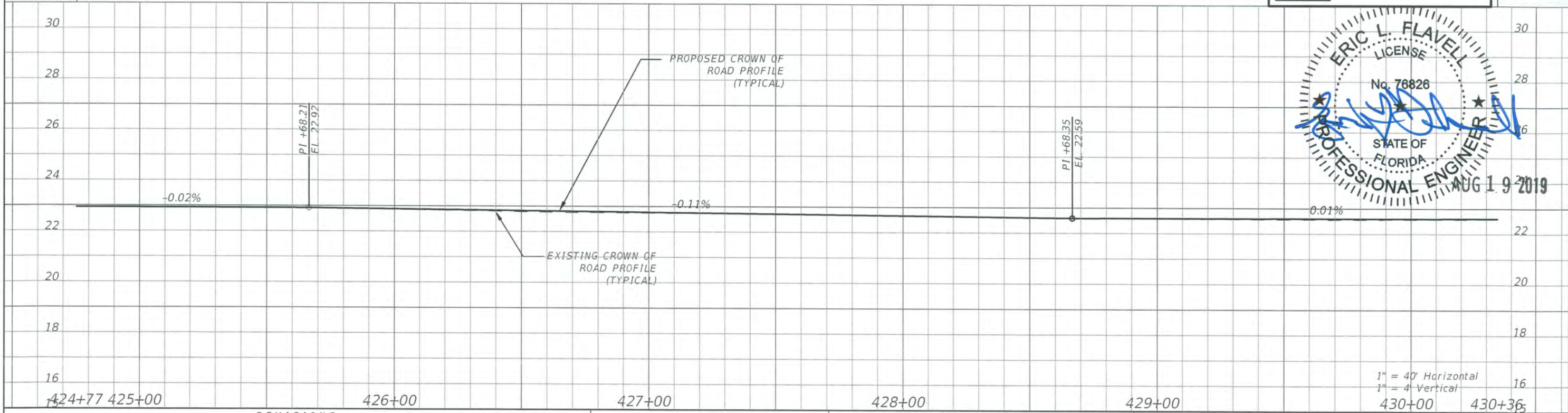
PLAN & PROFILE - 58TH AVE

SHEET NO.
47



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
48

MATCHLINE STA - 430+36.00

MATCHLINE STA - 435+95.00

PAVEMENT LEGEND

-  MILL & RESURFACING
-  OVER-EXCAVATE REQUIRED
-  FULL DEPTH RECLAMATION
-  PAVEMENT WIDENING

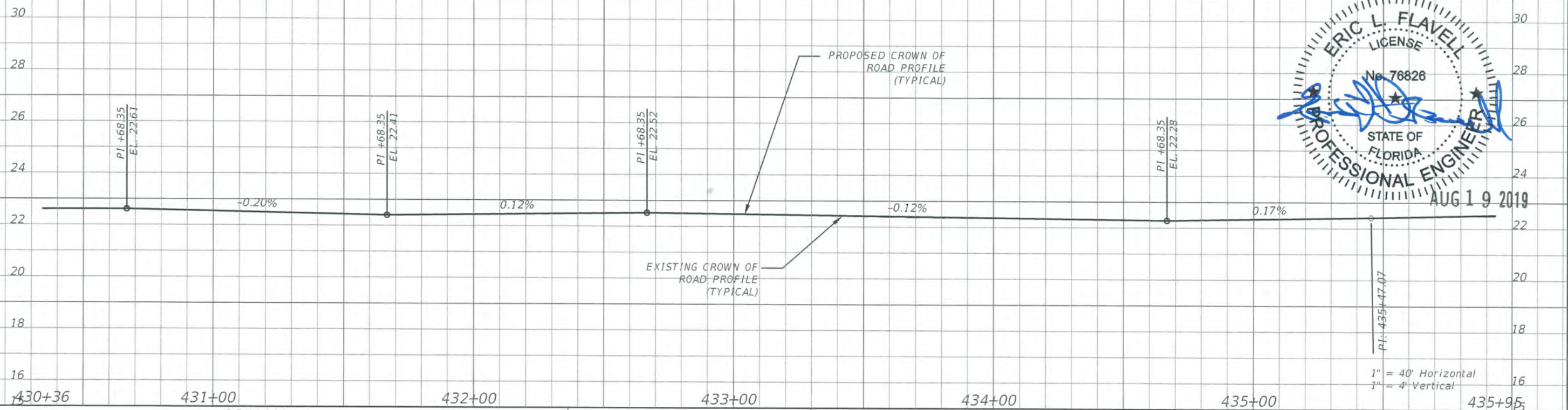
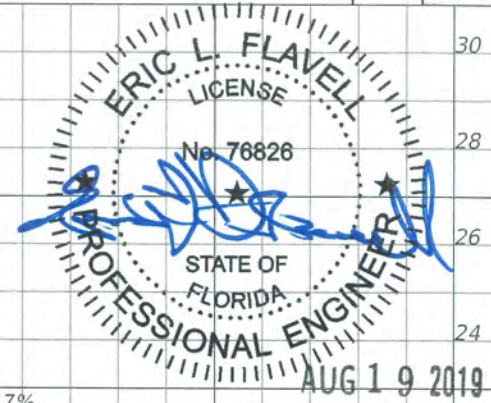
EXISTING FM TO REMAIN
R/W
PROPOSED EP
3' UNPAVED SHOULDER
EXISTING CONCENTRATE TO REMAIN

SITE BENCHMARK
SET 5/8" IRON ROD &
CAP "SSMC TRAV PT"
STATION=35+16.58
OFFSET=31.57 RIGHT
NORTHING=1225388.74
EASTING=835441.35
ELEVATION=19.79

REMOVE EXISTING HEADWALL.
CONSTRUCT PIPE COLLAR AND EXTEND 76" X 48" RCP PIPE TO 10' BEYOND EP
CONSTRUCT HEADWALL PER FDOT INDEX 250 INV. EL 15.88'
REGRADE AND SOD SWALE
POTHOLE BRINE LINE PRIOR TO CONSTRUCTION
RELOCATE BRINE LINE AS REQUIRED FOR CONSTRUCTION

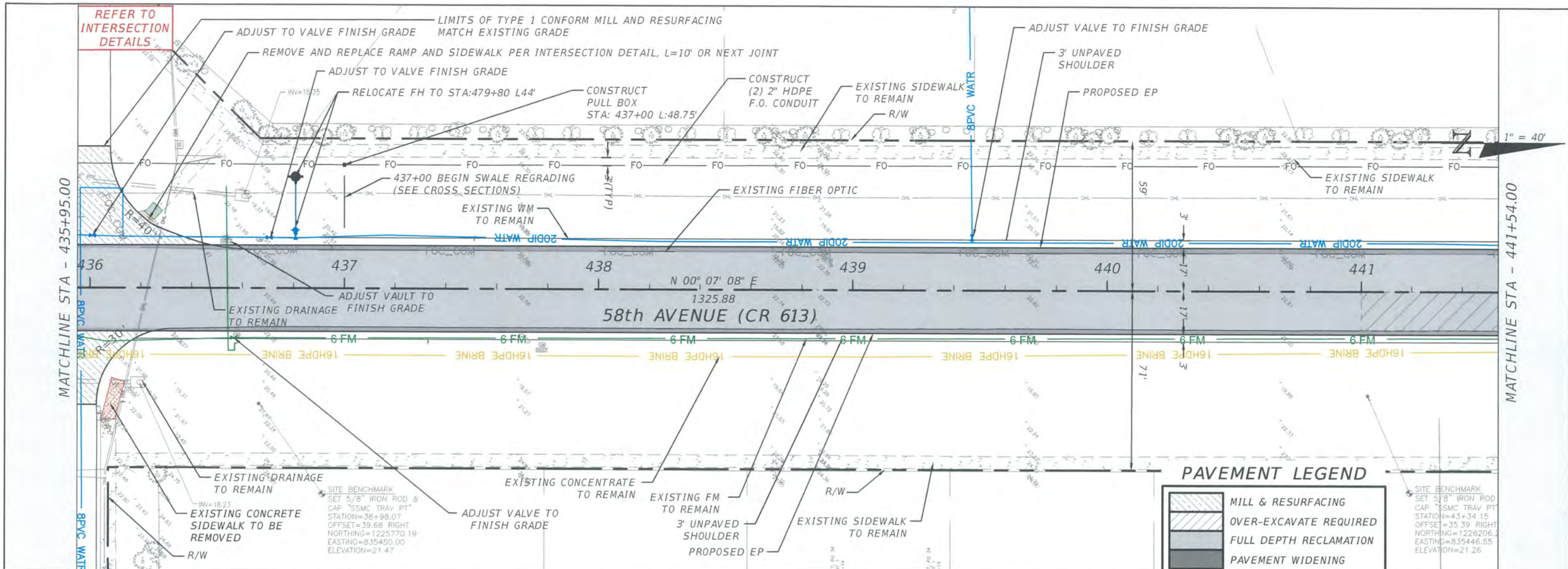
PI STA. 435+47.07

REFER TO INTERSECTION DETAILS



REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SHEET NO. 49
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	

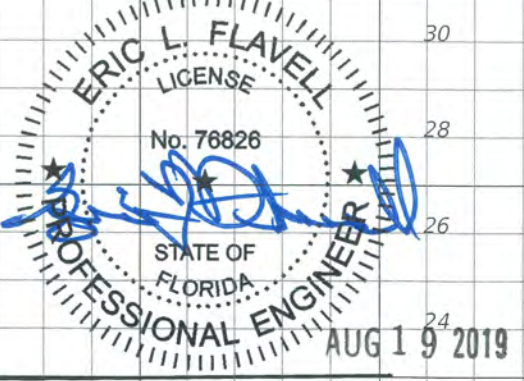
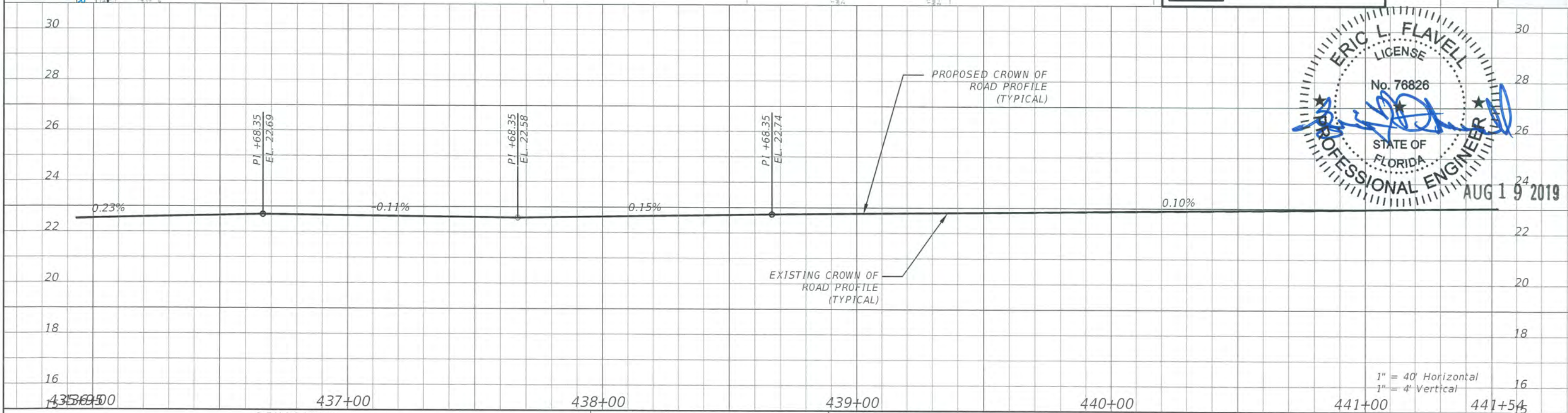
PLAN & PROFILE - 58TH AVE



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

SITE BENCHMARK
 SET 5/8" IRON ROD &
 CAP "SSMC TRAV PT"
 STATION=43+34.15
 OFFSET=35.39 RIGHT
 NORTHING=1225770.19
 EASTING=835446.55
 ELEVATION=21.26



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

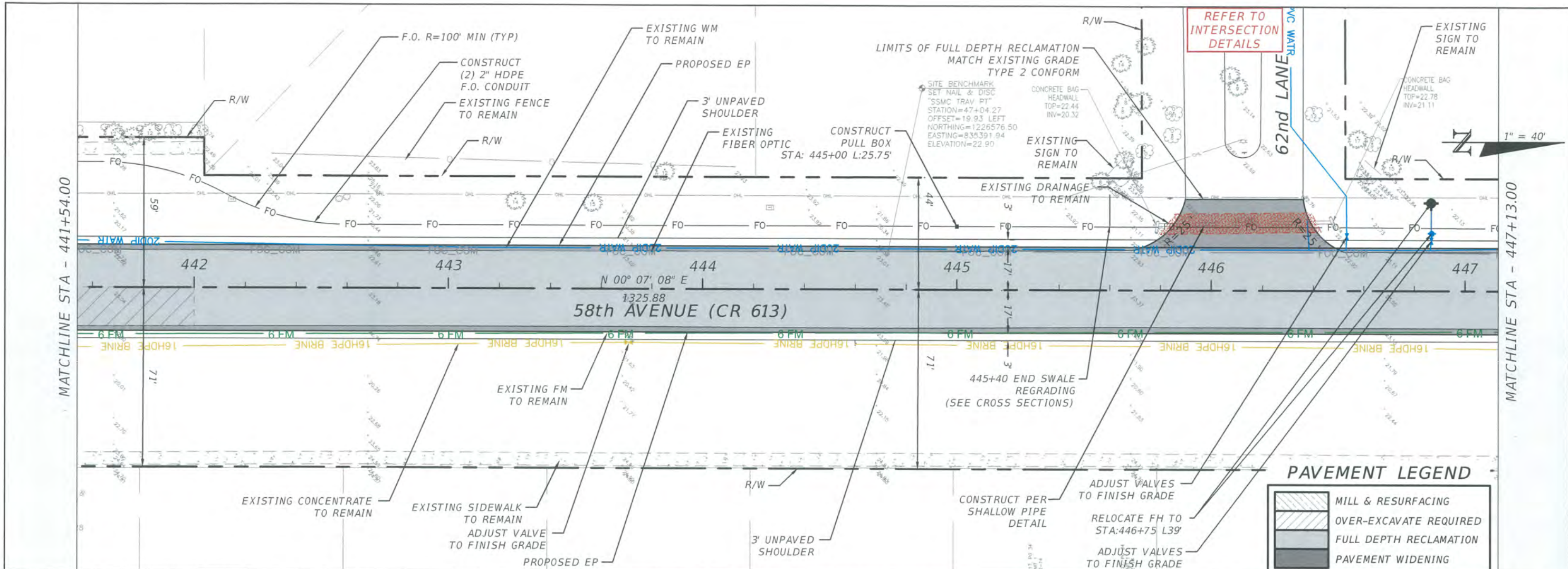
ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
50

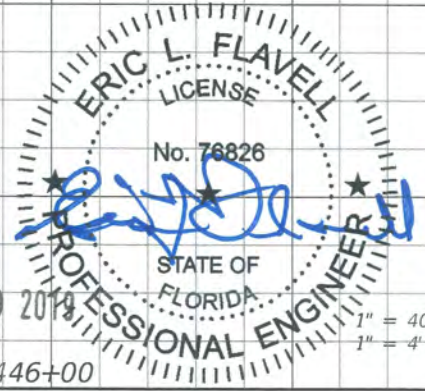
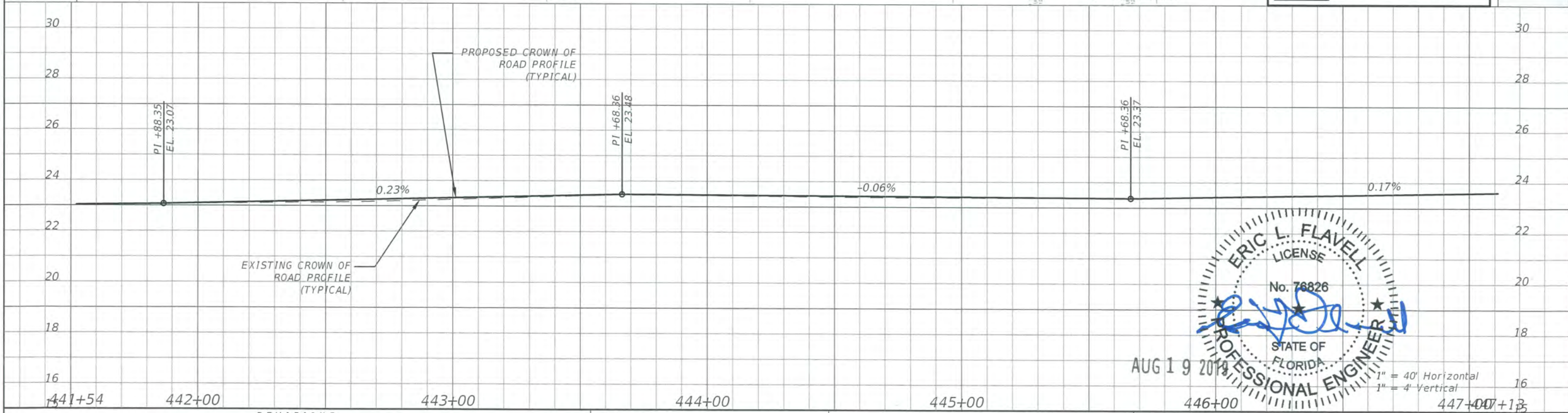


REFER TO INTERSECTION DETAILS



PAVEMENT LEGEND

- MILL & RESURFACING
- OVER-EXCAVATE REQUIRED
- FULL DEPTH RECLAMATION
- PAVEMENT WIDENING



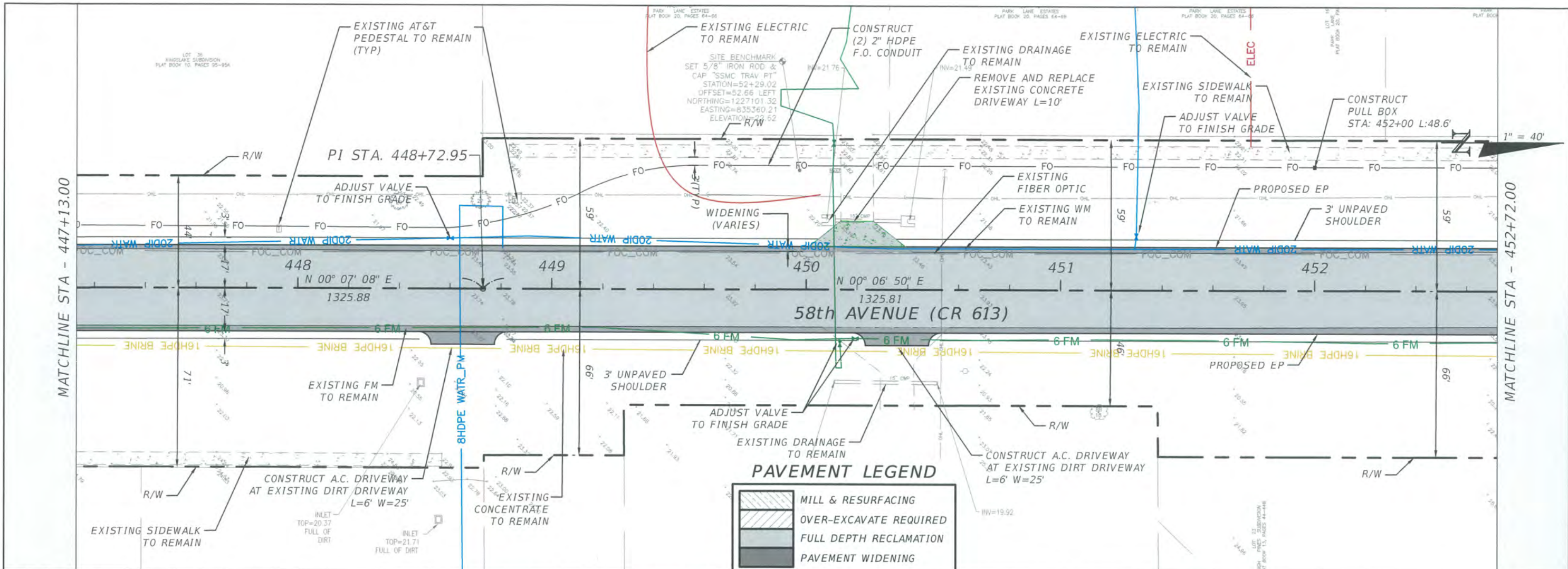
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

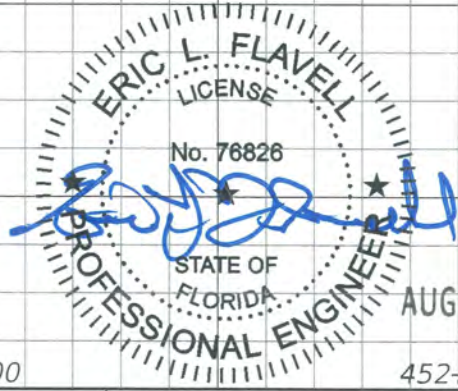
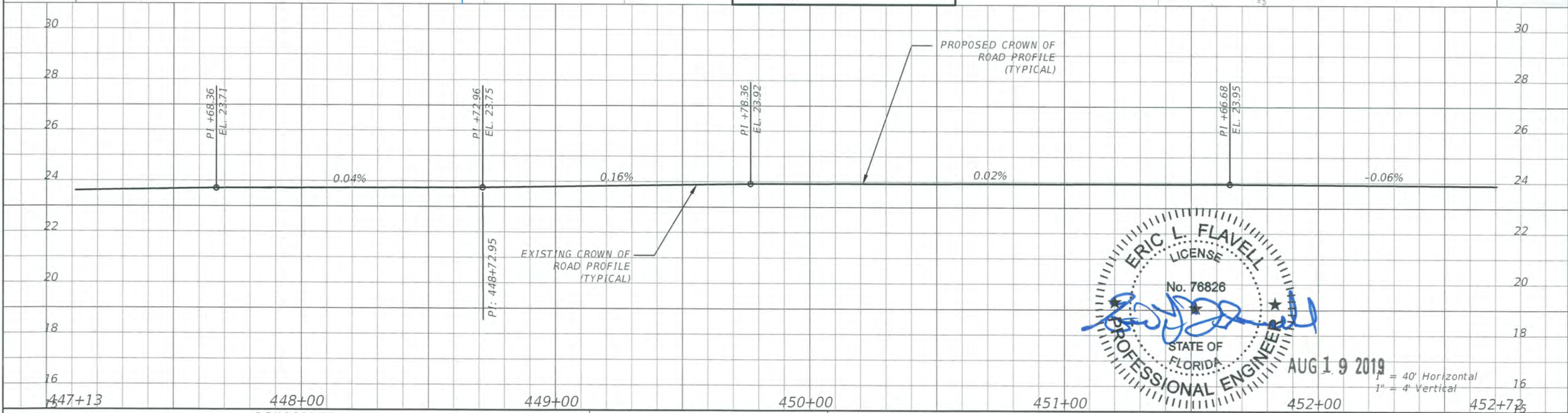
PLAN & PROFILE - 58TH AVE

SHEET NO.
51



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



AUG 19 2019

1" = 40' Horizontal
1" = 4' Vertical

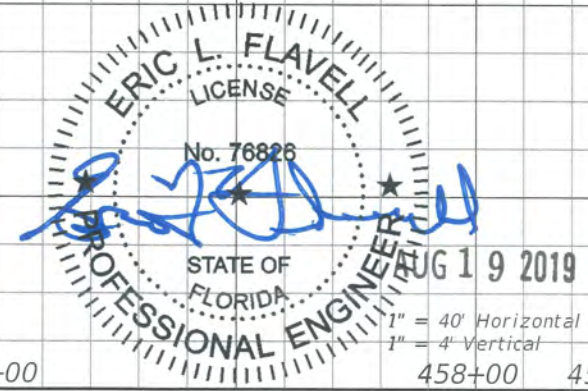
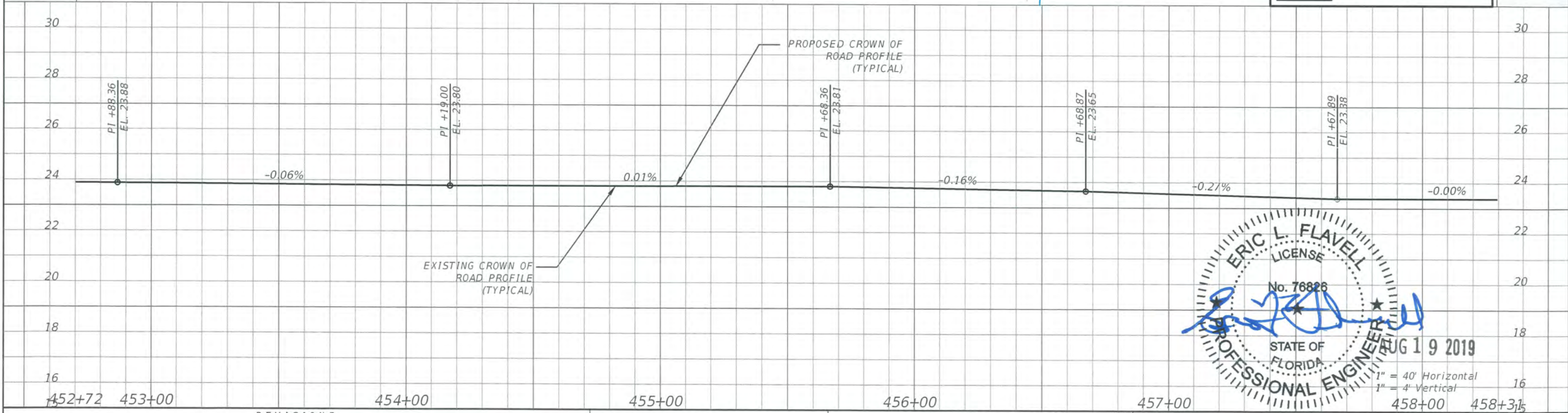
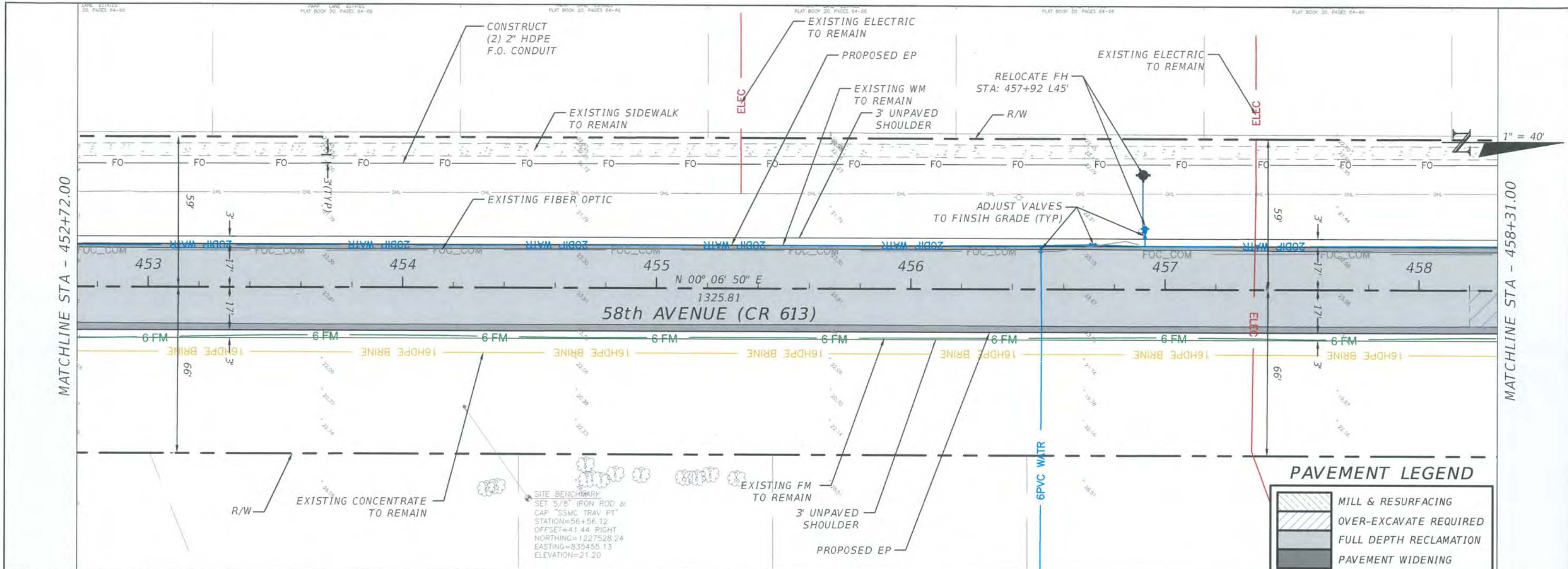
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

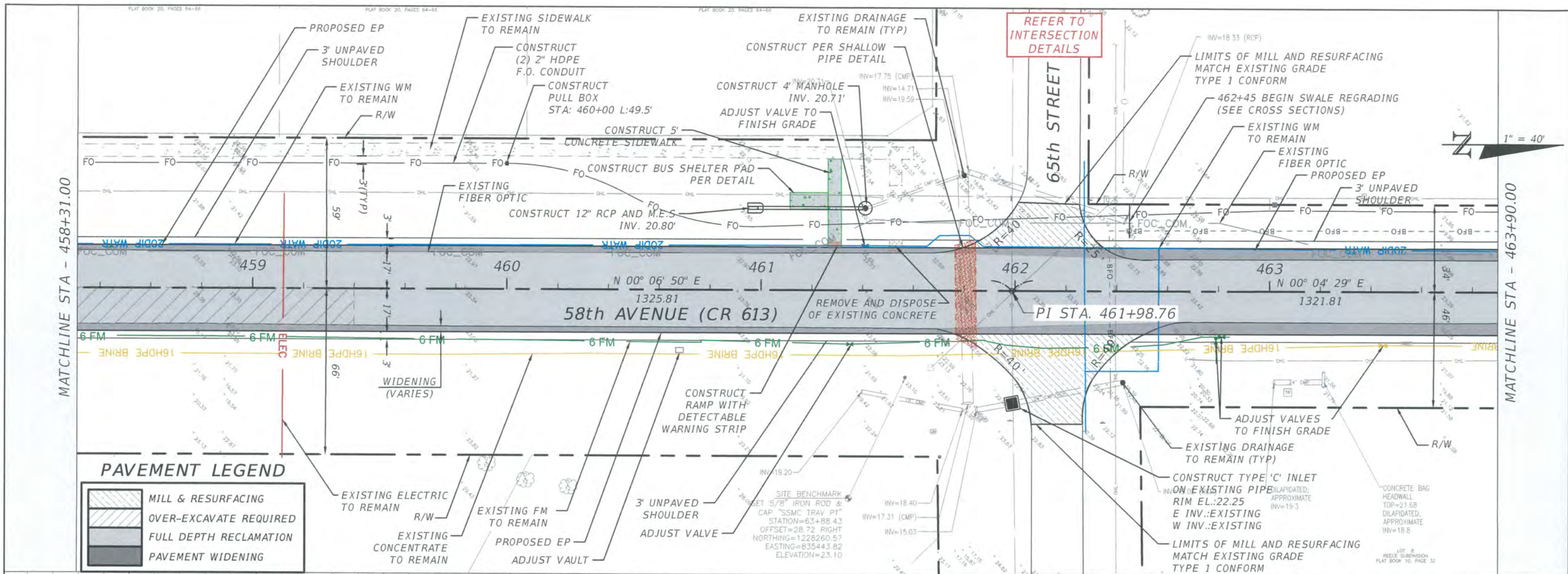
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
52

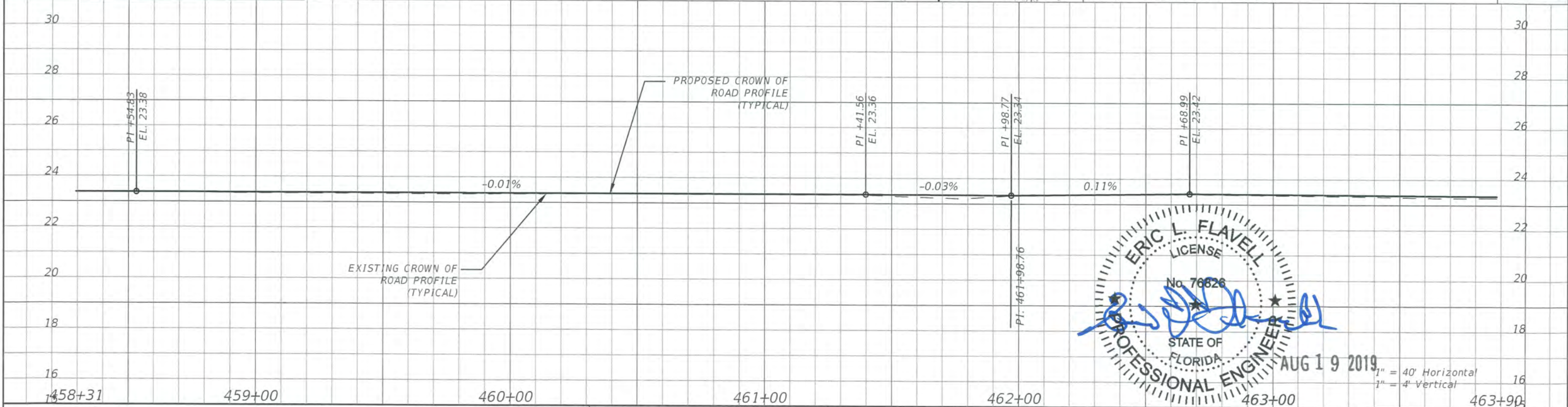


REVISIONS		ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462		INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		PLAN & PROFILE - 58TH AVE	SHEET NO. 53
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY		
---	---	---	---	CR-613	INDIAN RIVER		
				58th AVE		FINANCIAL PROJECT ID IRC: 1325 FDOT:436416-1-54-01	



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

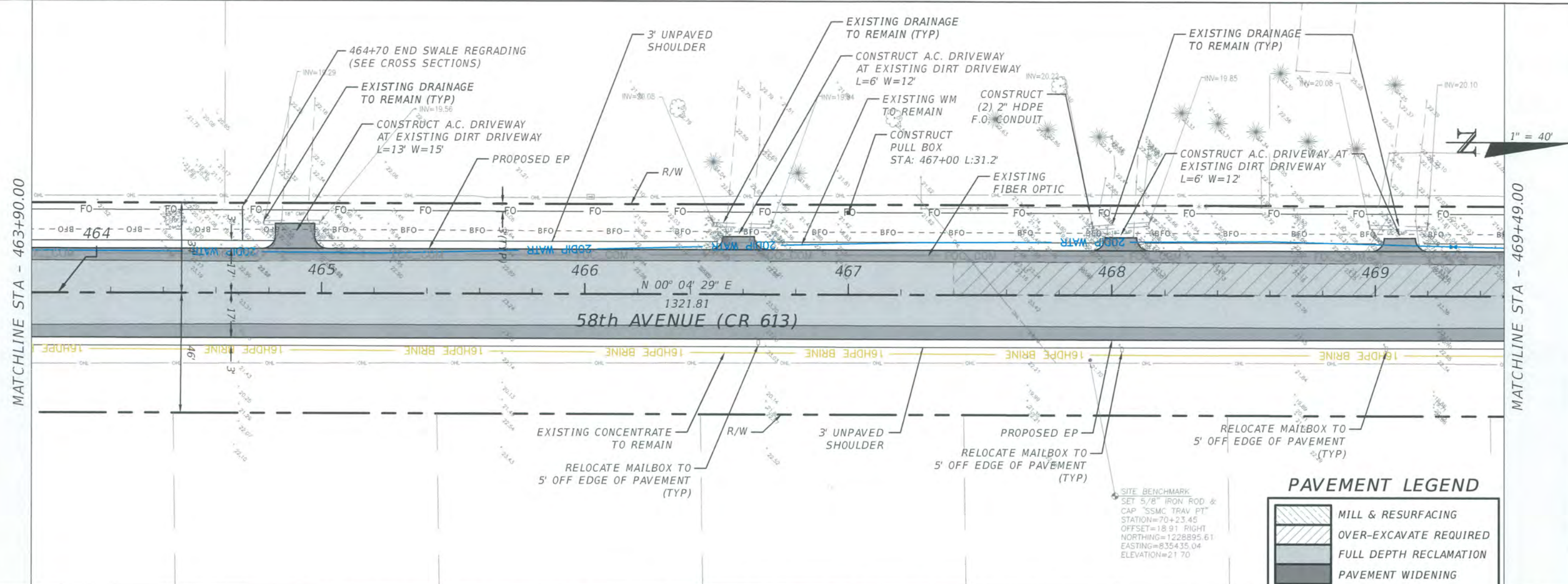


ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 AUG 19 2019

REVISIONS DATE DESCRIPTION DATE DESCRIPTION		ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION ROAD NO. COUNTY FINANCIAL PROJECT ID CR-613 INDIAN RIVER IRC: 1325 58th AVE FDOT:436416-1-54-01	PLAN & PROFILE - 58TH AVE	SHEET NO. 54

MATCHLINE STA - 463+90.00

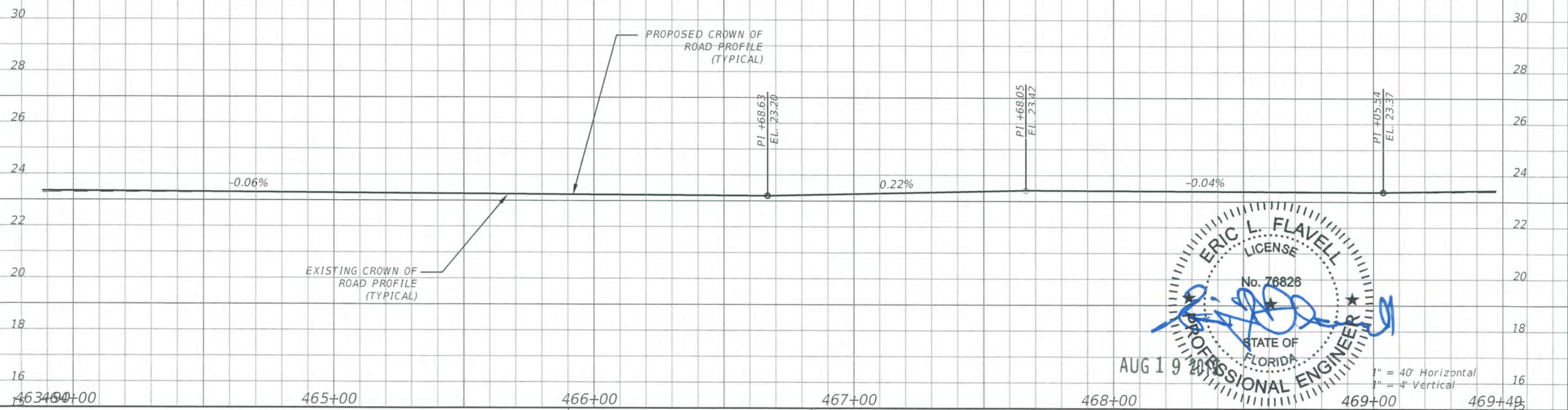
MATCHLINE STA - 469+49.00



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

SITE BENCHMARK
 SET 5/8" IRON ROD &
 CAP "SSMC TRAV PT"
 STATION=70+23.45
 OFFSET=18.91 RIGHT
 NORTHING=1226895.61
 EASTING=835435.04
 ELEVATION=21.70



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

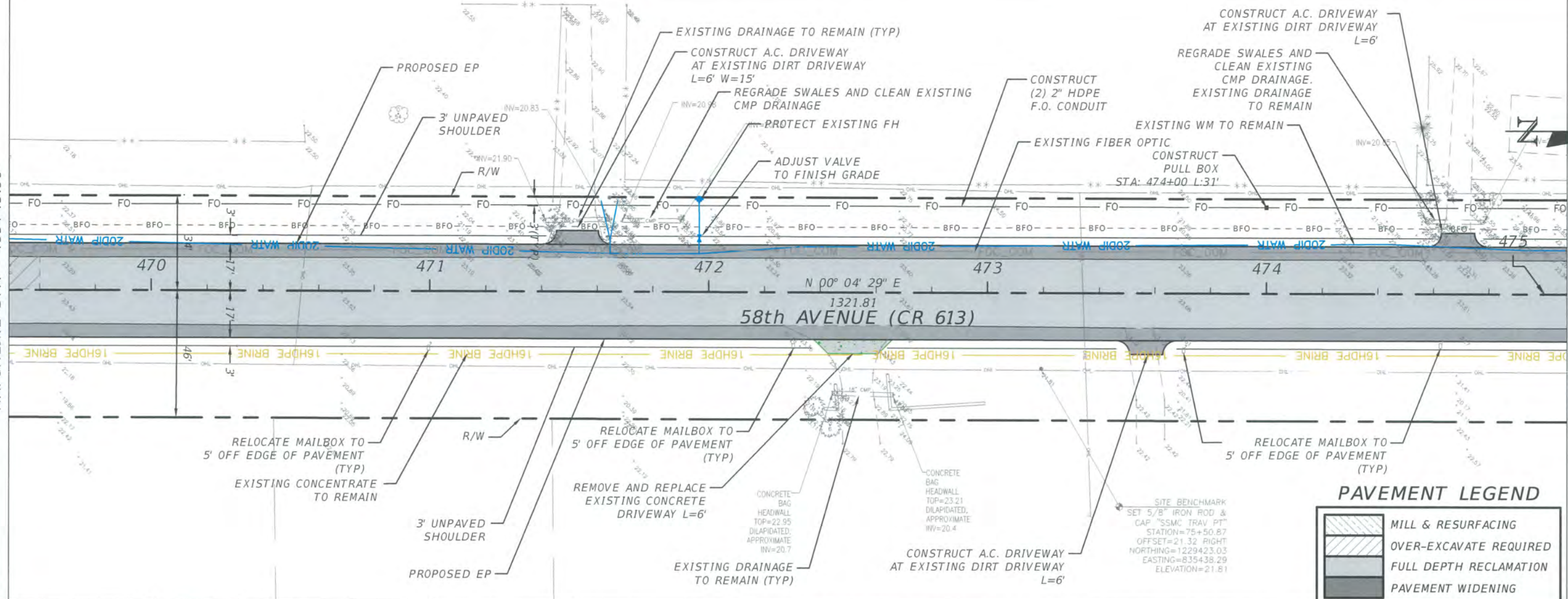
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
55

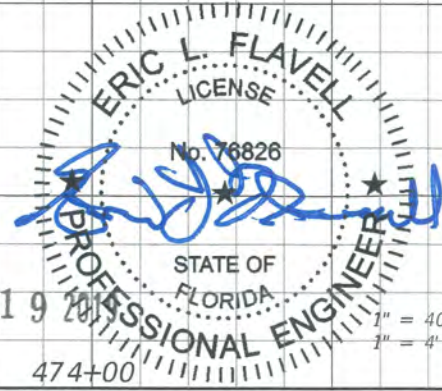
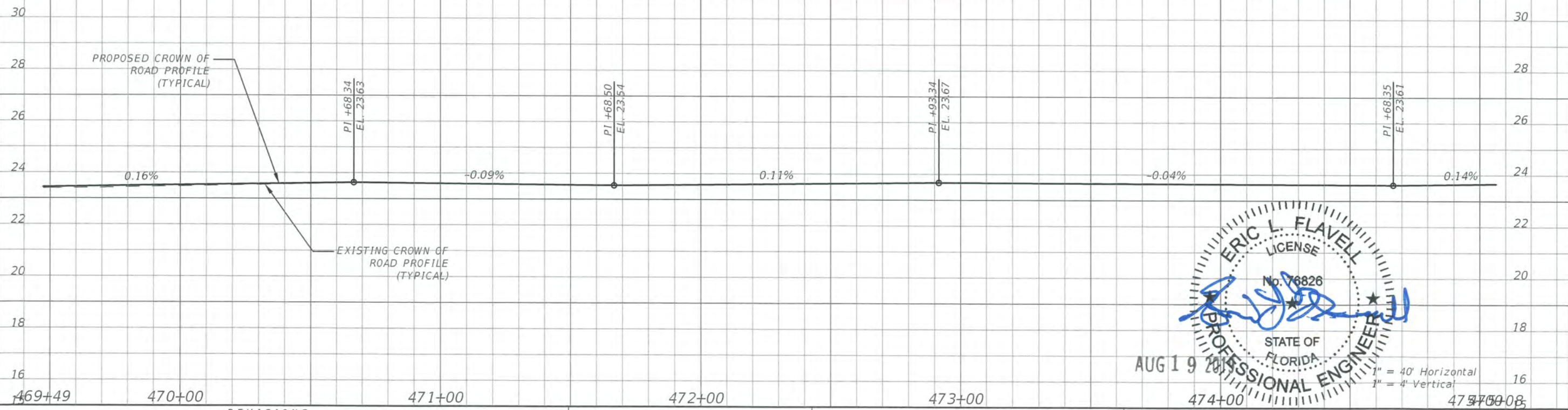
MATCHLINE STA - 469+49.00

MATCHLINE STA - 475+08.00



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

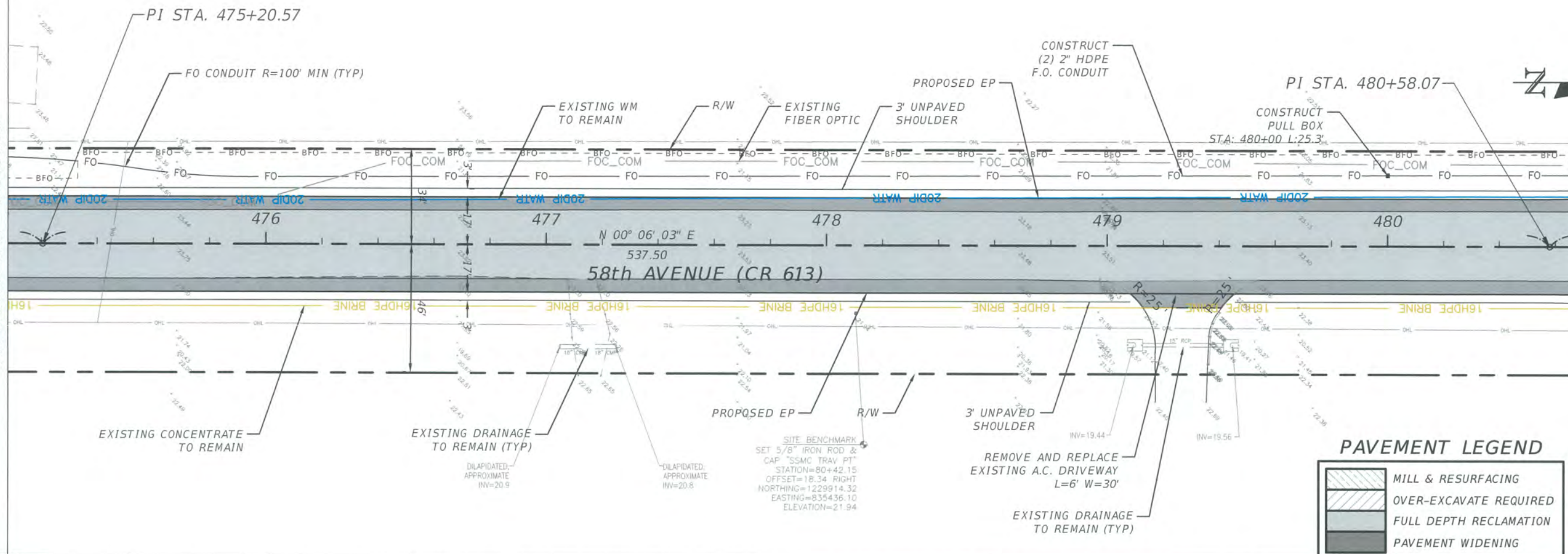
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
56

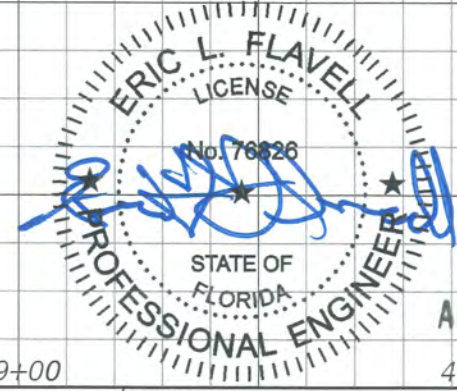
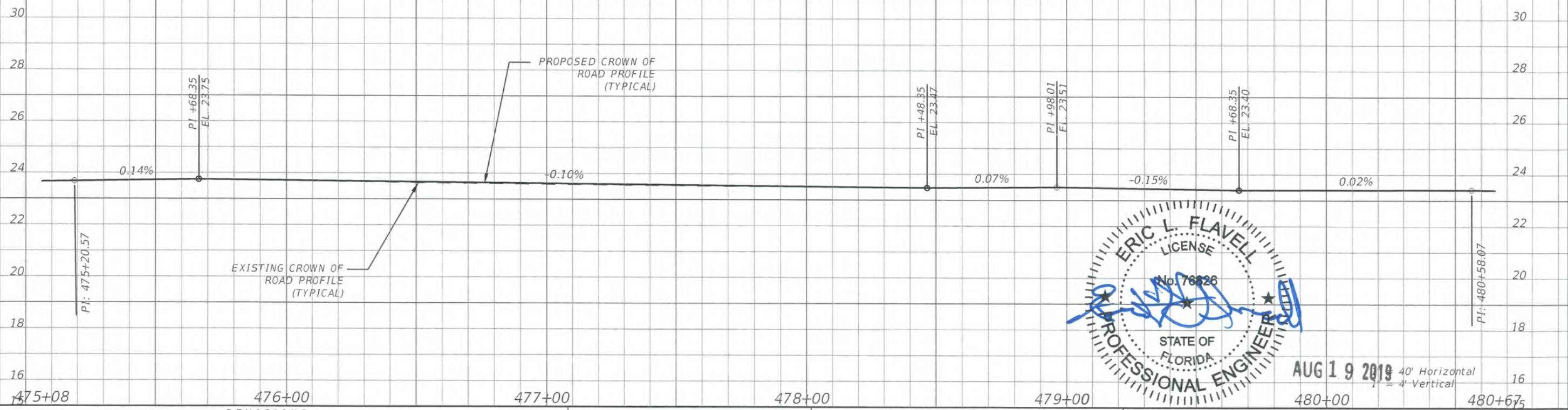
MATCHLINE STA - 475+08.00

MATCHLINE STA - 480+67.00



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



AUG 19 2019
 40' Horizontal
 1" = 4' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

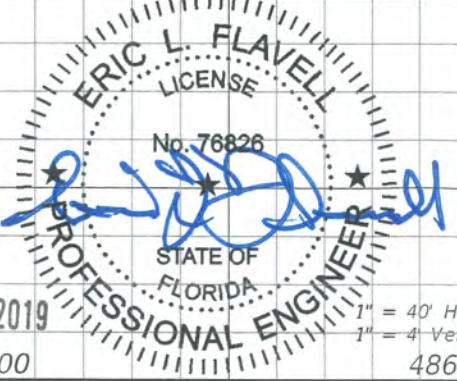
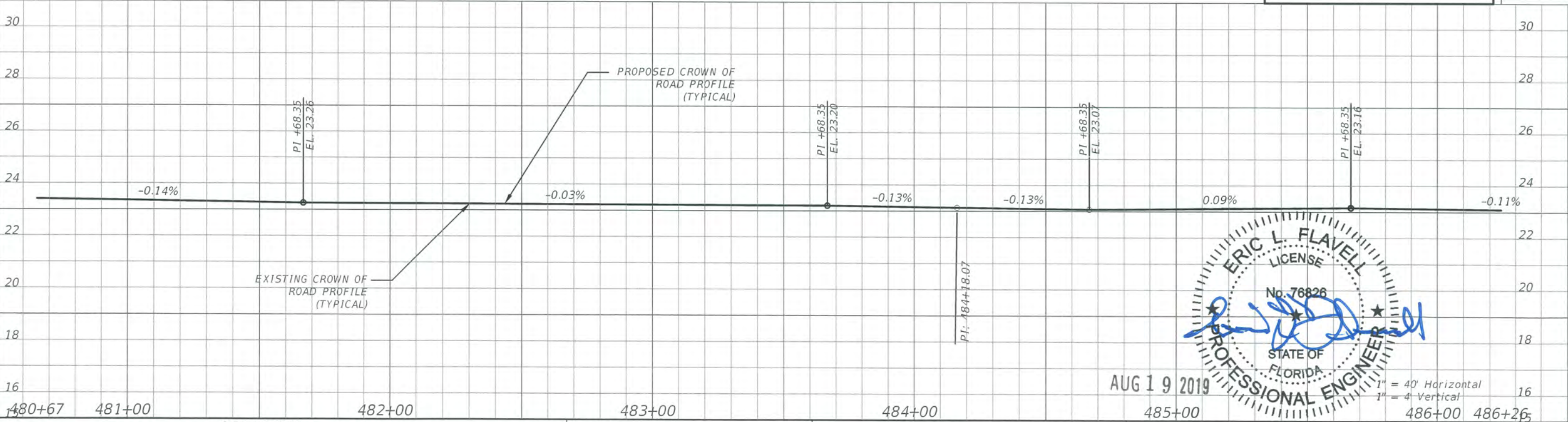
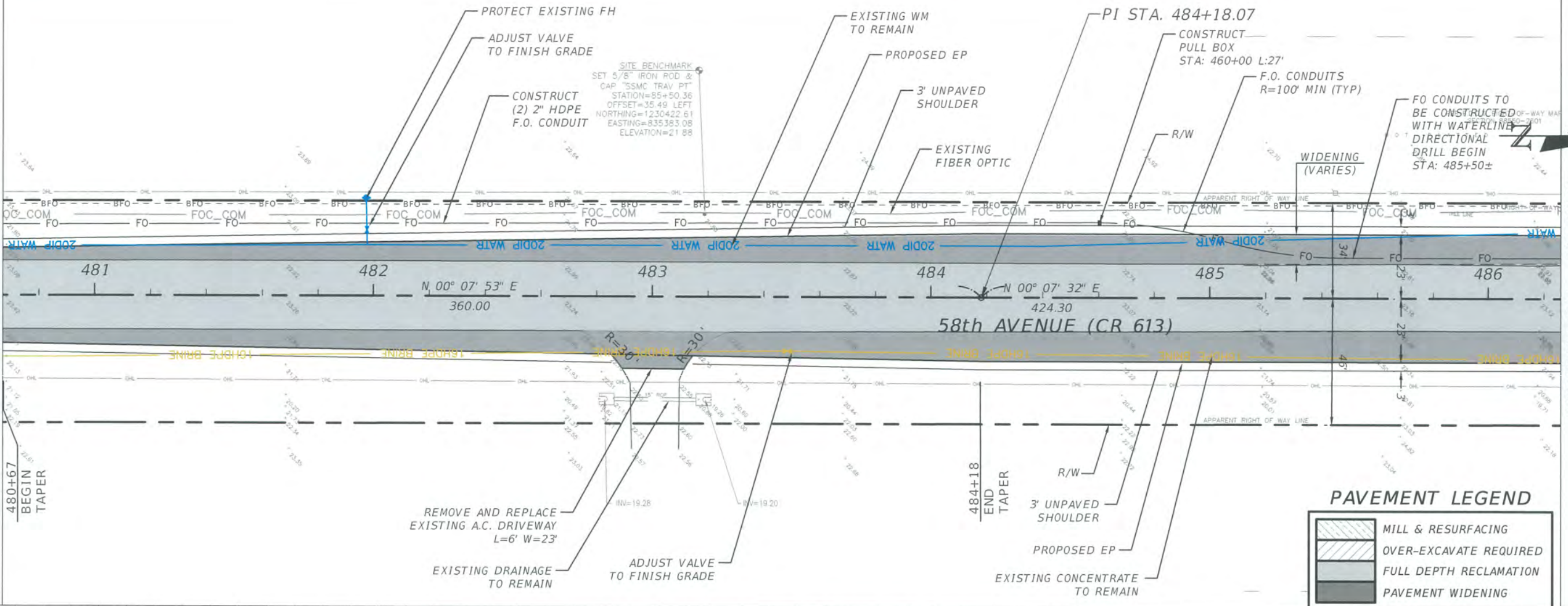
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
57

MATCHLINE STA - 480+67.00

MATCHLINE STA - 486+26.00



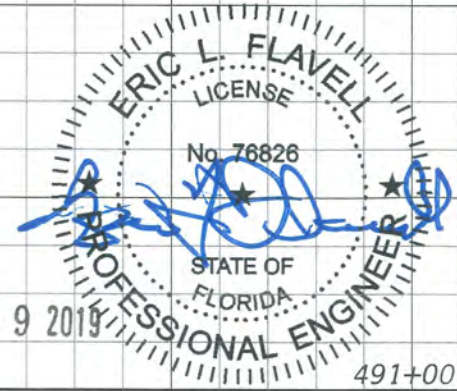
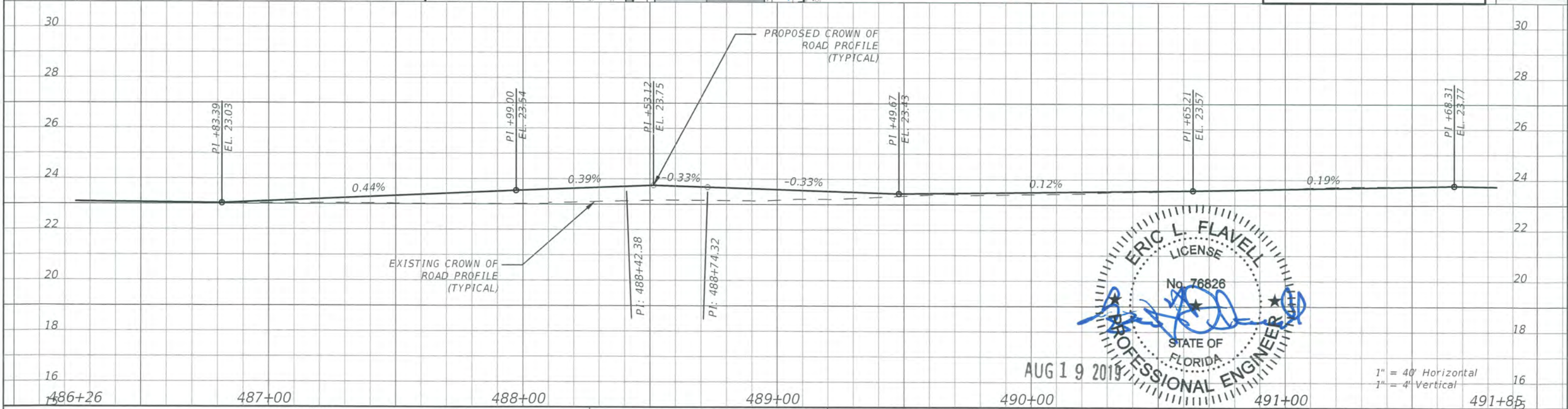
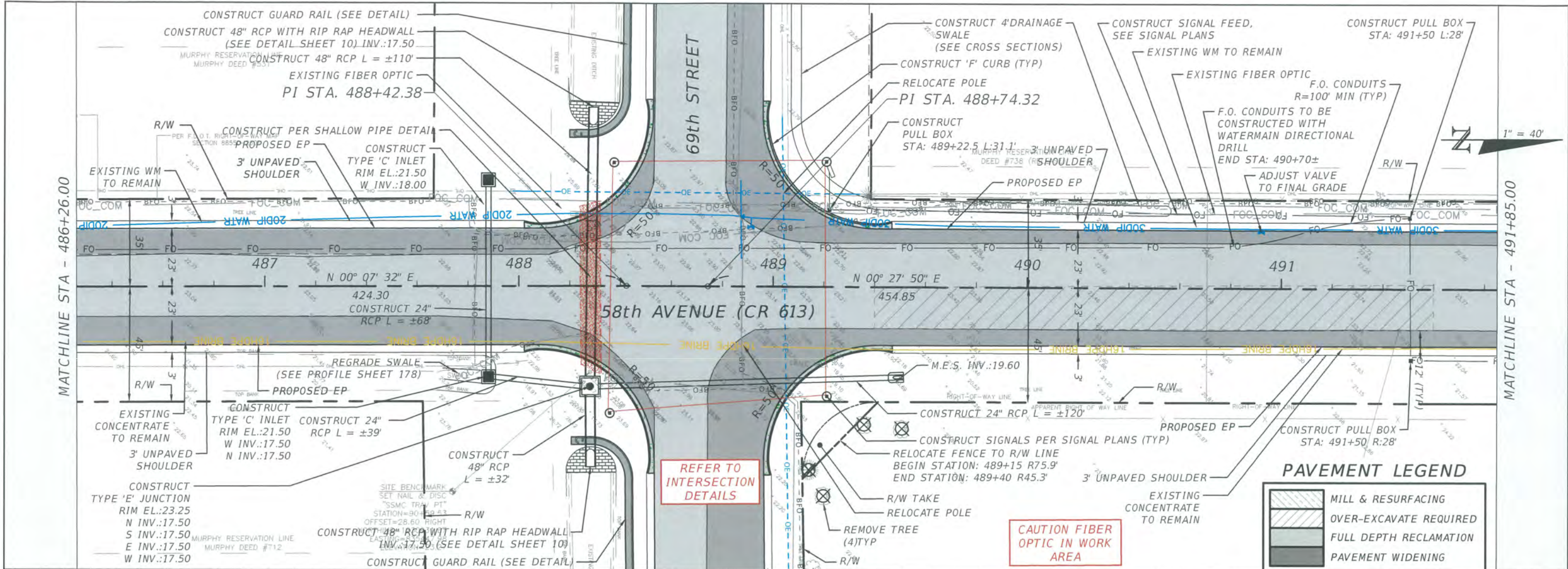
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
58

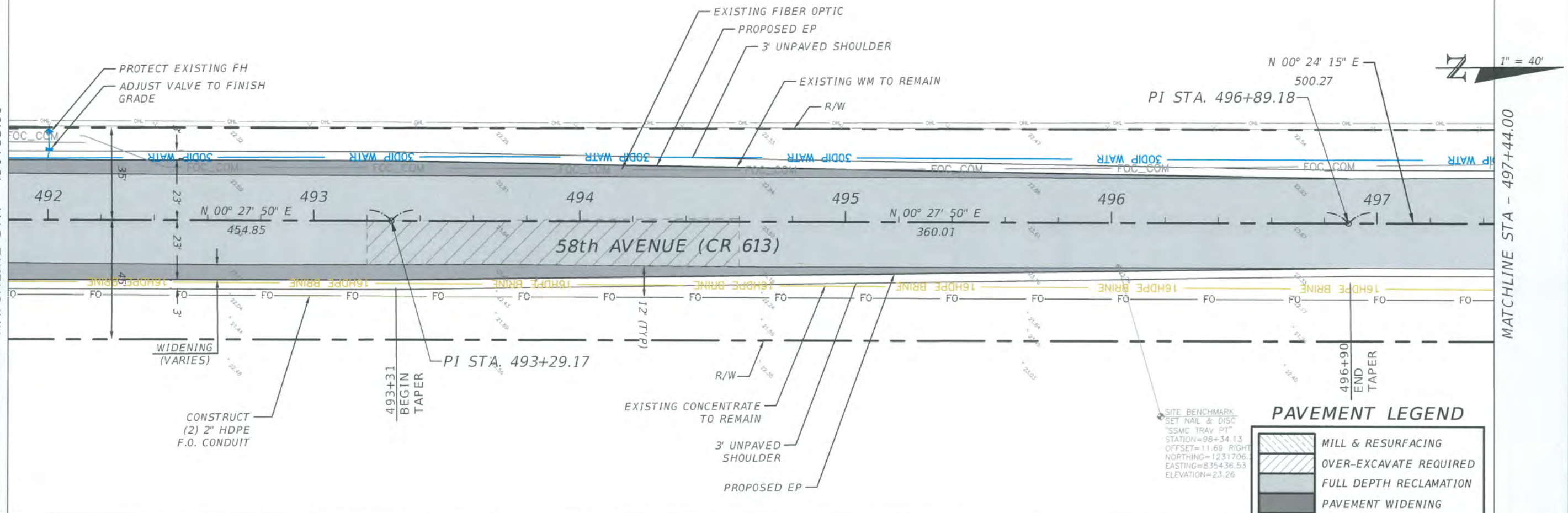


REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SHEET NO. 59
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
---	---	---	---		CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	

PLAN & PROFILE - 58TH AVE

MATCHLINE STA - 491+85.00

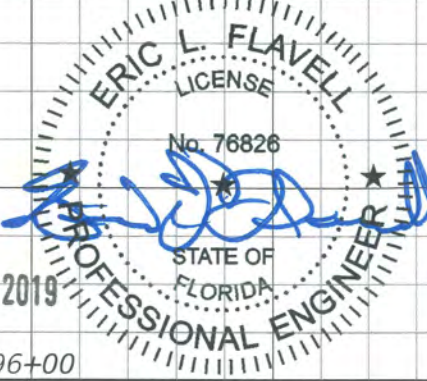
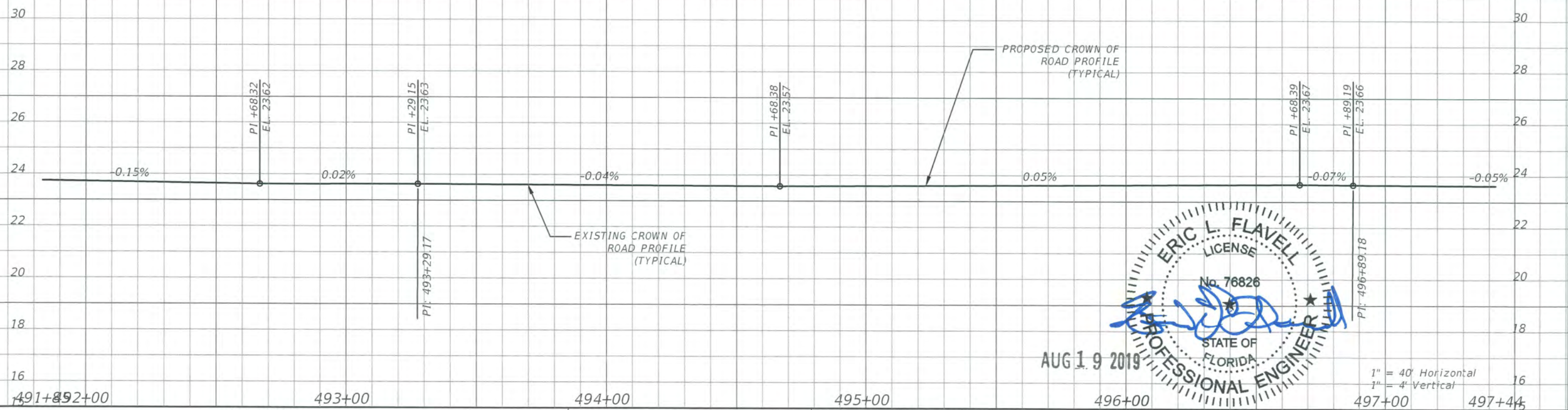
MATCHLINE STA - 497+44.00



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

SITE BENCHMARK
 SET NAIL & DISC
 "SSMC TRAV PT"
 STATION=98+34.13
 OFFSET=11.69 RIGHT
 NORTHING=1231706.1
 EASTING=835436.53
 ELEVATION=23.26



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
---	---	---	---

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
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 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

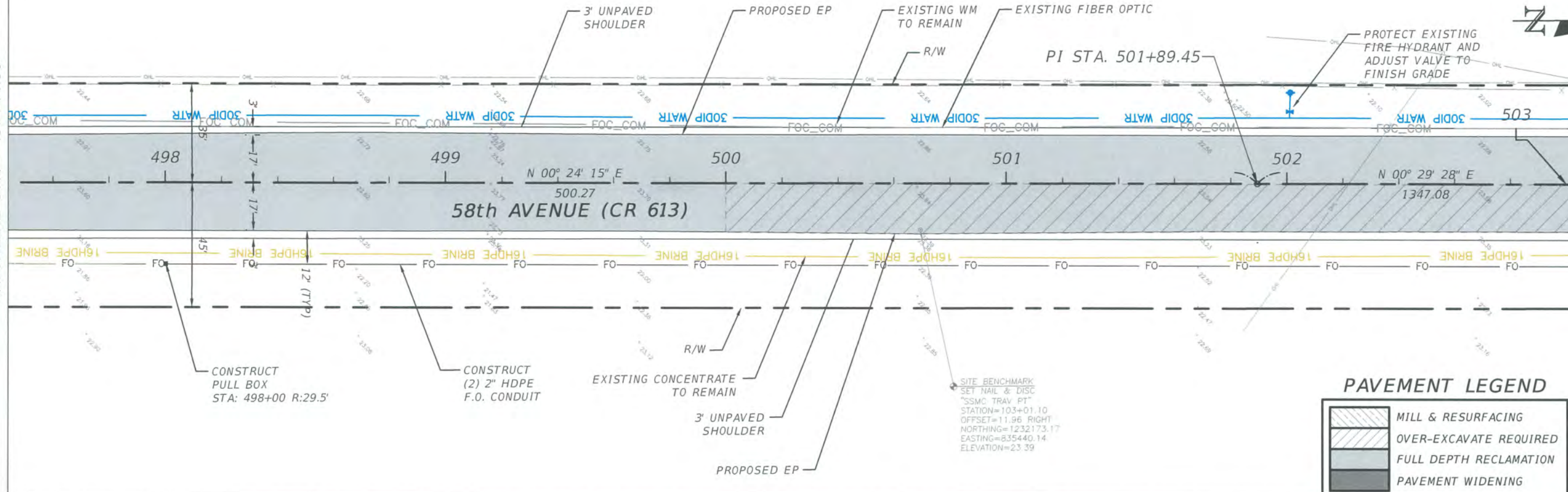
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
60

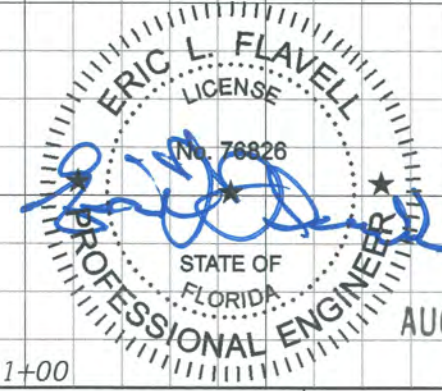
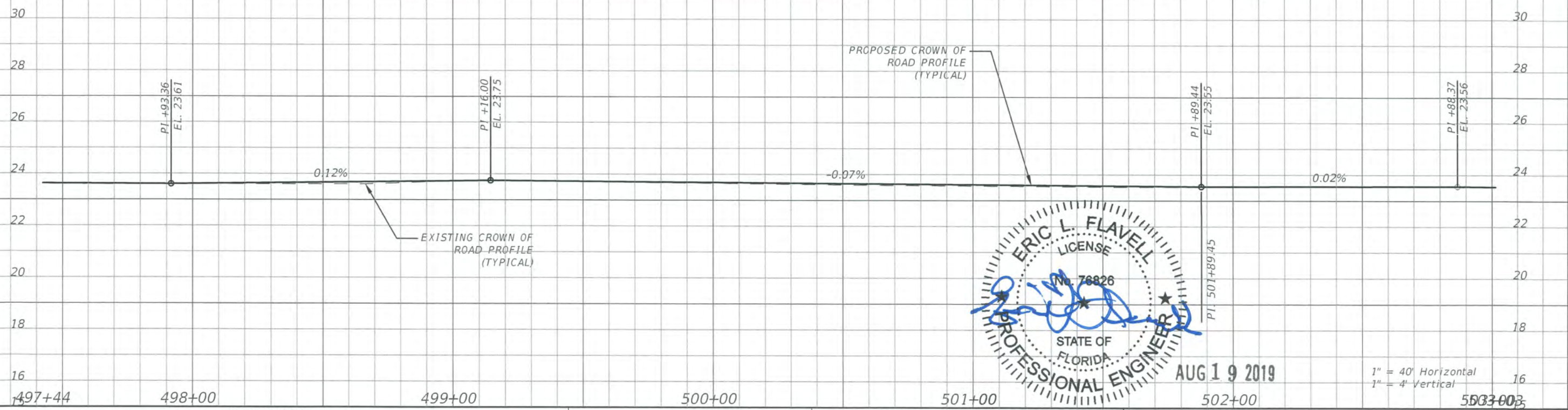
MATCHLINE STA - 497+44.00

MATCHLINE STA - 503+03.00



PAVEMENT LEGEND

- MILL & RESURFACING
- OVER-EXCAVATE REQUIRED
- FULL DEPTH RECLAMATION
- PAVEMENT WIDENING



AUG 19 2019

1" = 40' Horizontal
1" = 4' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
---	---	---	---

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

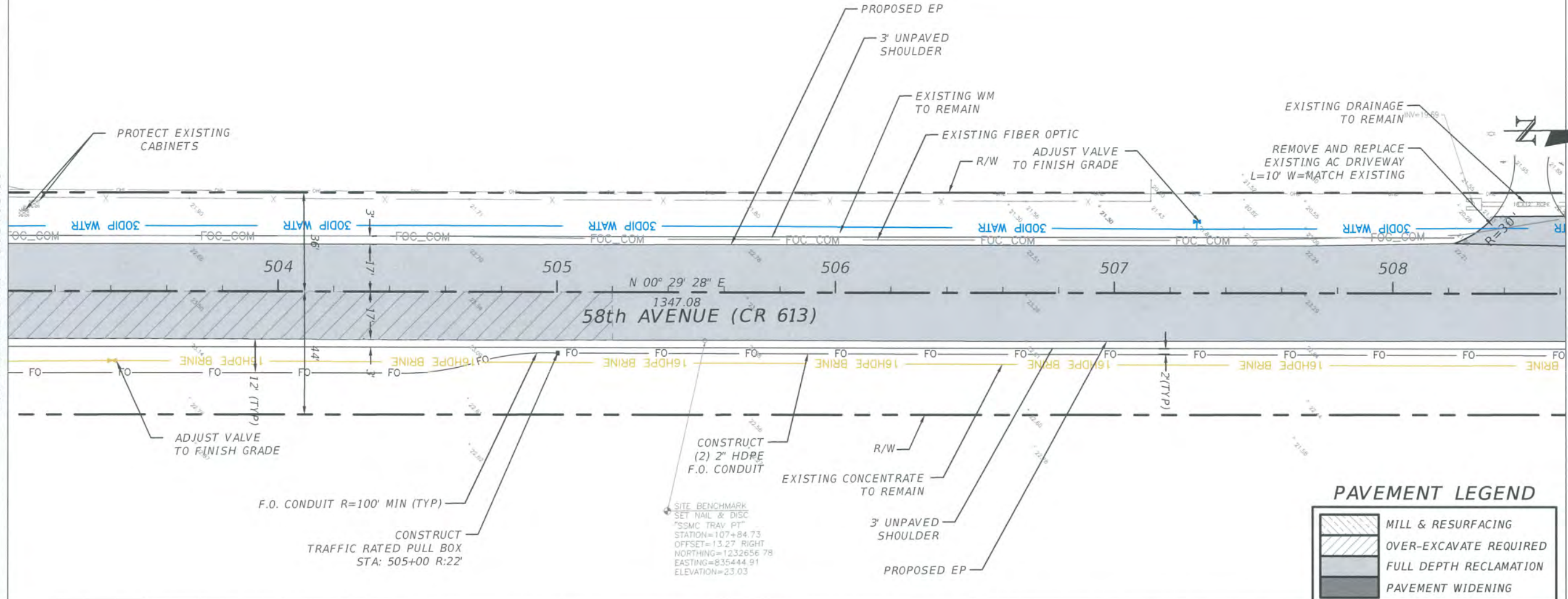
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
61

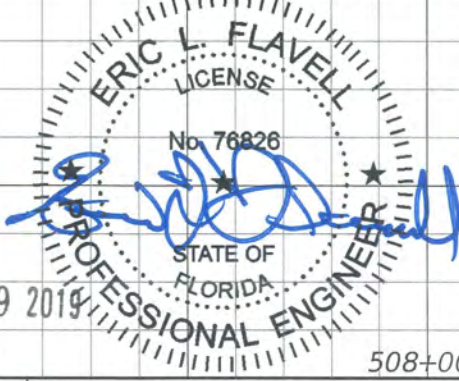
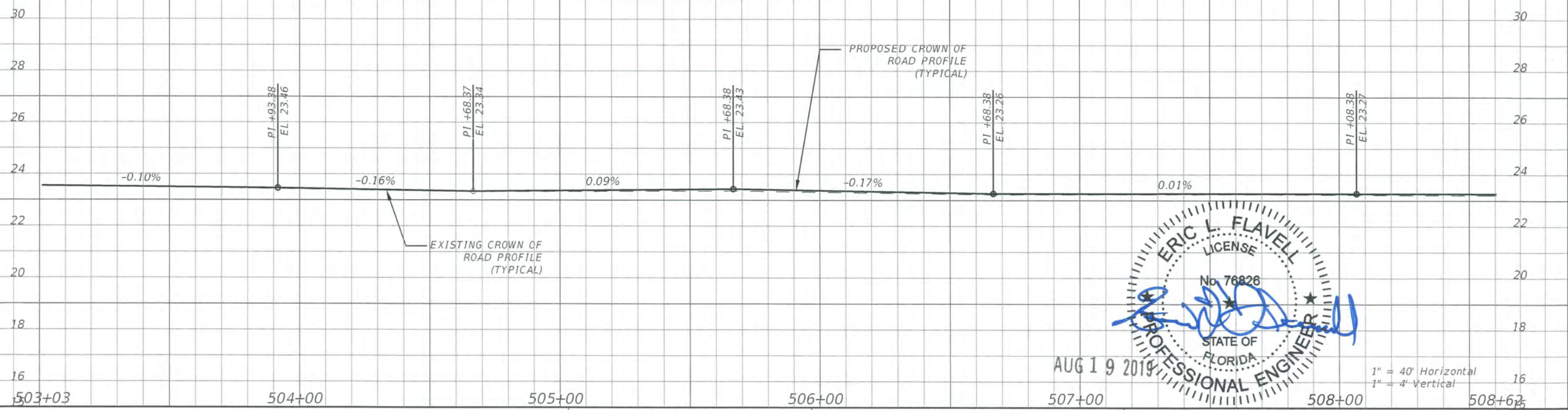
MATCHLINE STA - 503+03.00

MATCHLINE STA - 508+62.00



PAVEMENT LEGEND

- MILL & RESURFACING
- OVER-EXCAVATE REQUIRED
- FULL DEPTH RECLAMATION
- PAVEMENT WIDENING



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

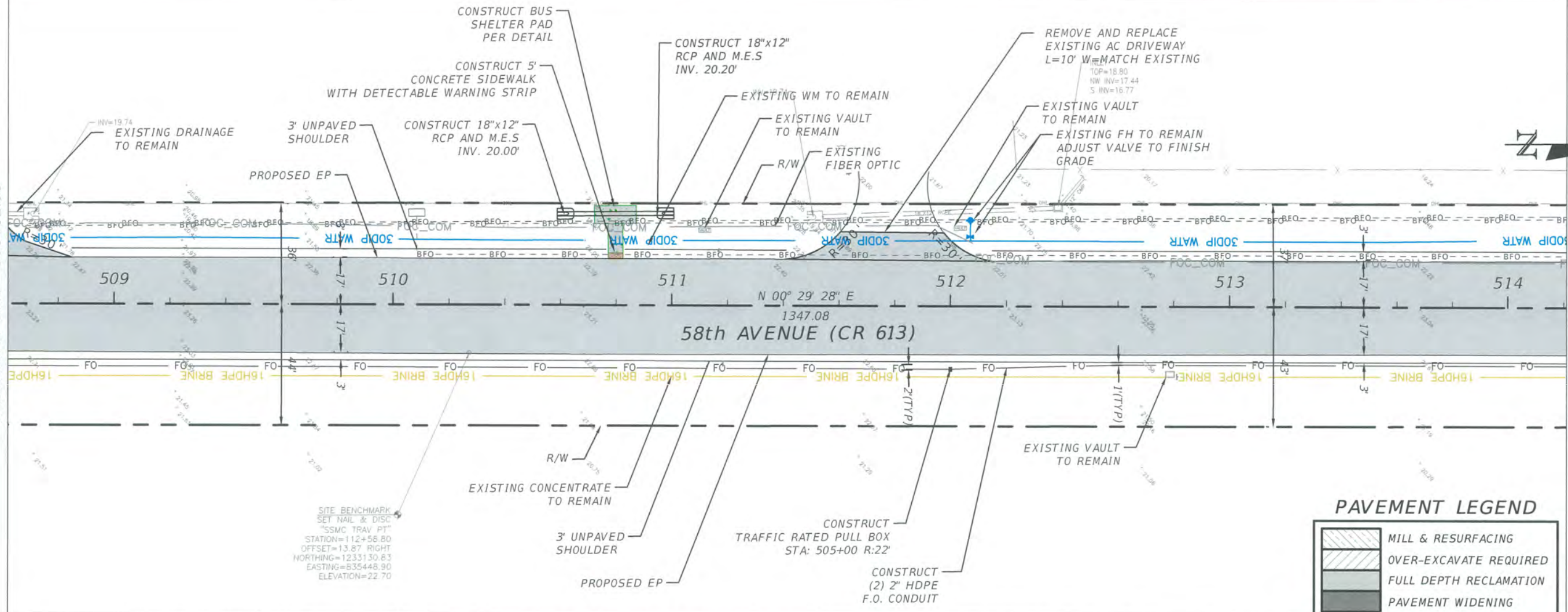
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
62

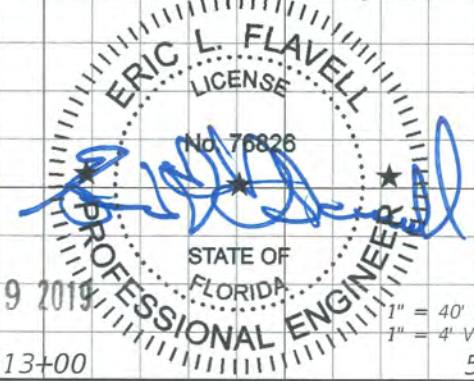
MATCHLINE STA - 508+62.00

MATCHLINE STA - 514+21.00



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



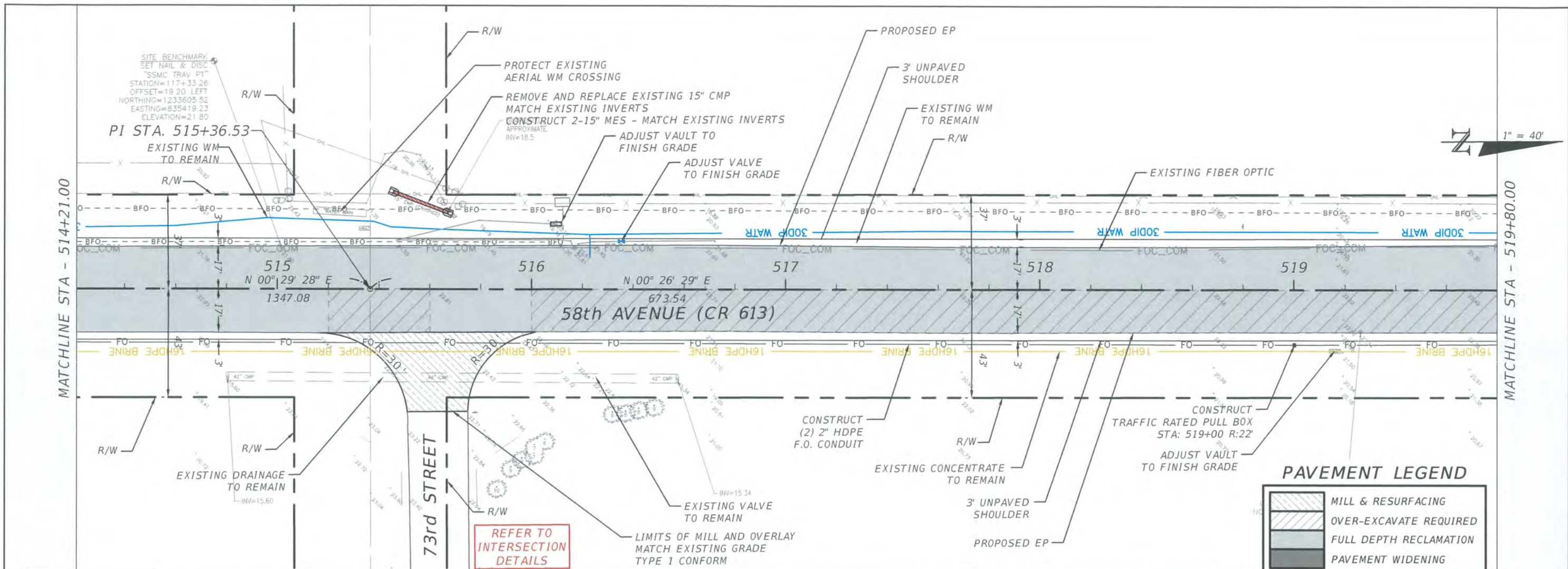
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
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 MELBOURNE, FL 32934
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

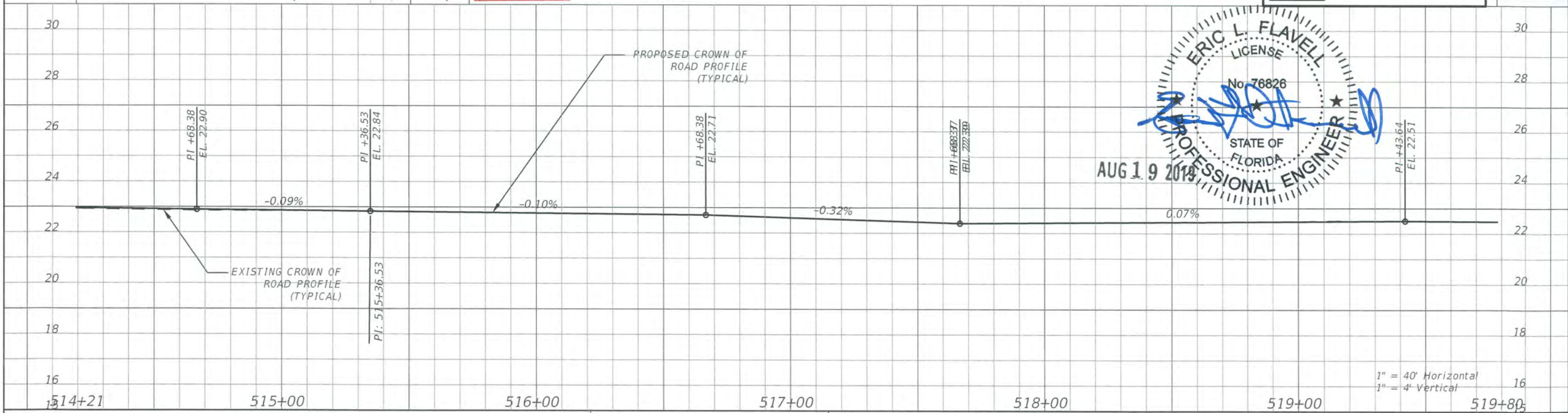
PLAN & PROFILE - 58TH AVE

SHEET NO.
63



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

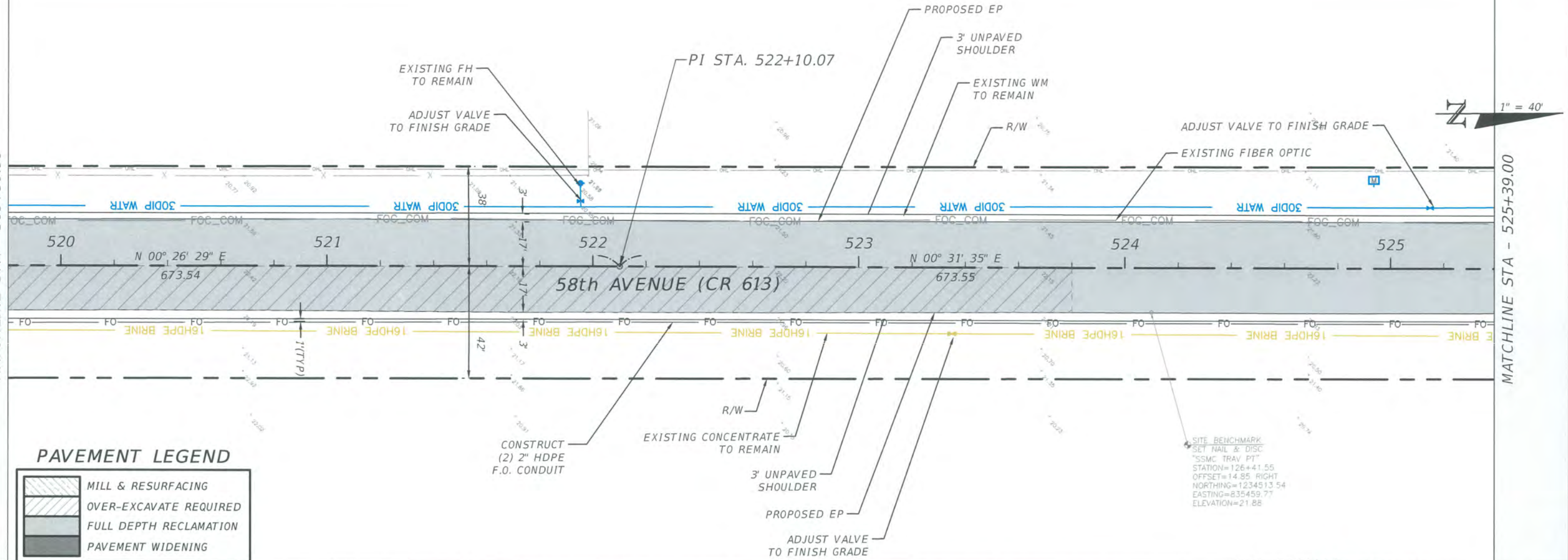
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
64

MATCHLINE STA - 519+80.00

MATCHLINE STA - 525+39.00



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

CONSTRUCT (2) 2" HDPE F.O. CONDUIT

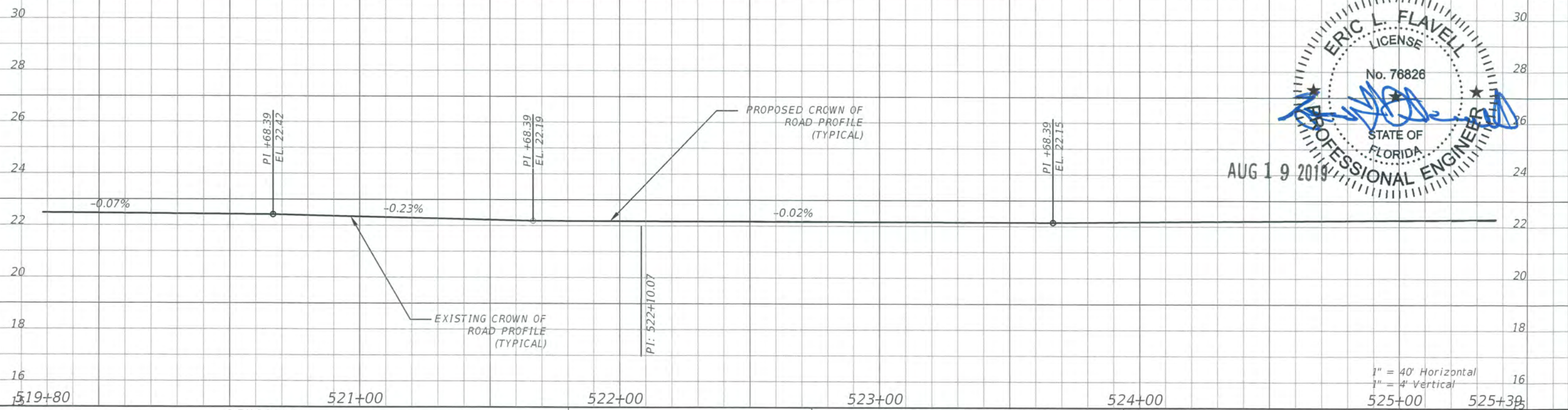
EXISTING CONCENTRATE TO REMAIN

3' UNPAVED SHOULDER

PROPOSED EP

ADJUST VALVE TO FINISH GRADE

SITE BENCHMARK
SET NAIL & DISC
"SSMC TRAV PT"
STATION=126+41.55
OFFSET=14.85 RIGHT
NORTHING=1234513.54
EASTING=835459.77
ELEVATION=21.88



ERIC L. FLAVELL
LICENSE
No. 76826
STATE OF FLORIDA
PROFESSIONAL ENGINEER
AUG 19 2019

1" = 40' Horizontal
1" = 4' Vertical

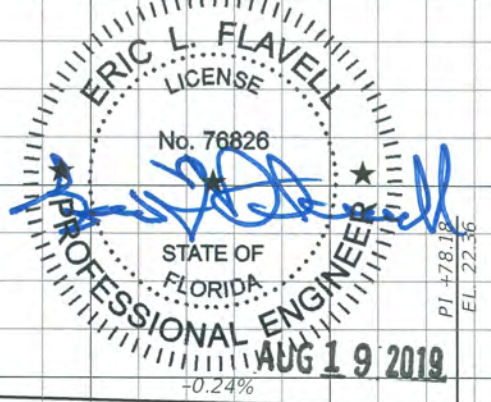
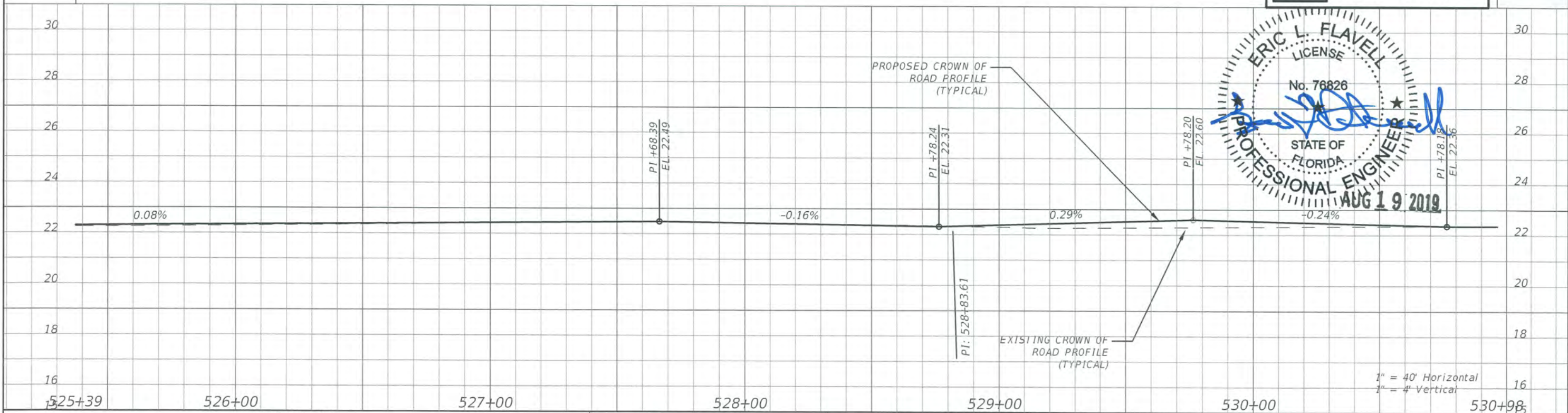
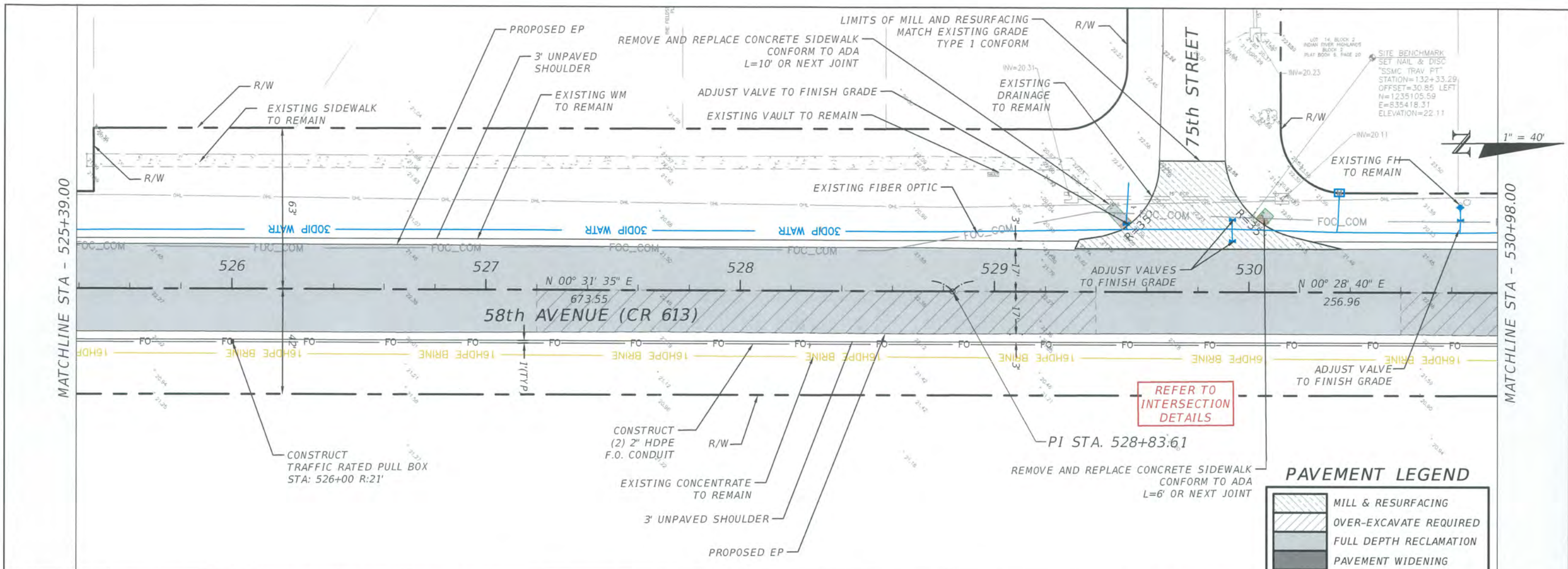
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
65



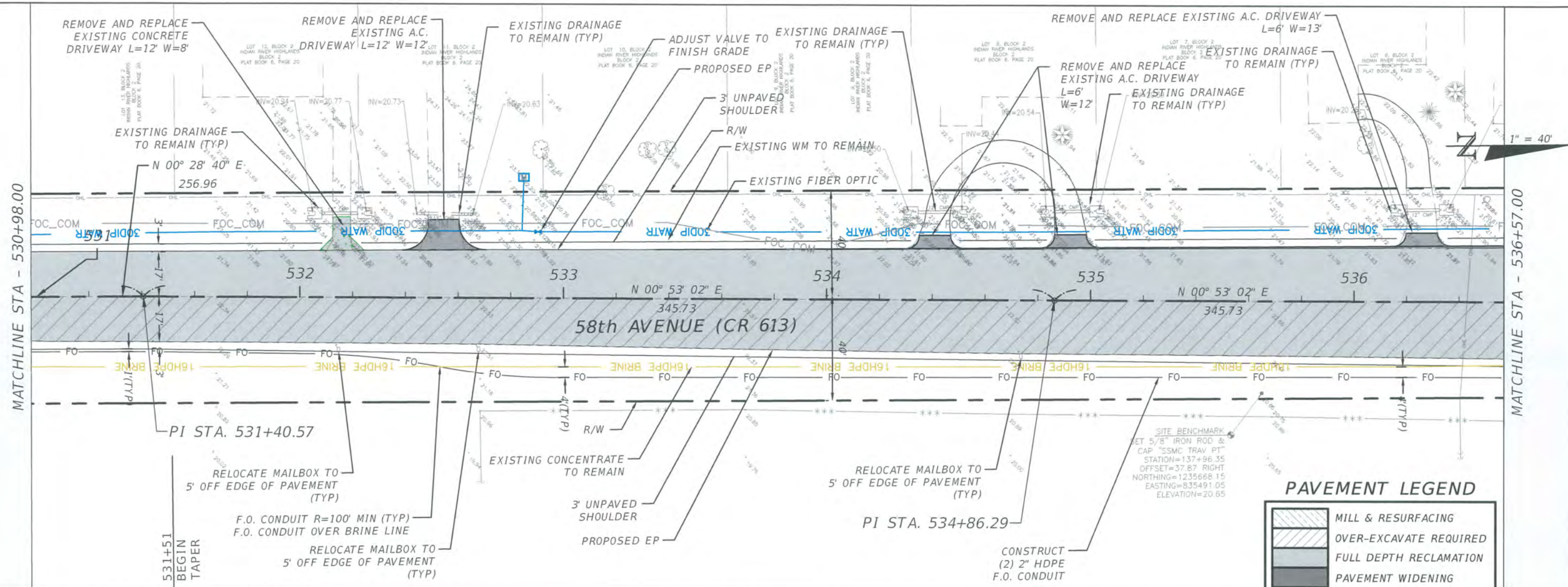
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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 4450 W. EAU GALLIE BLVD.
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

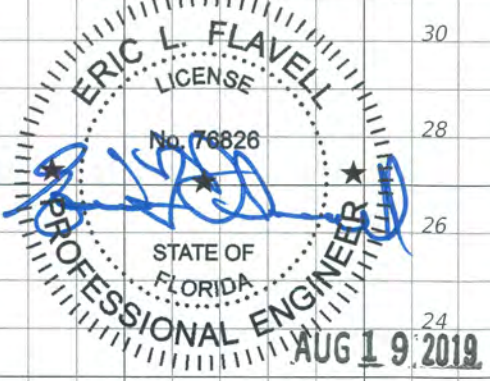
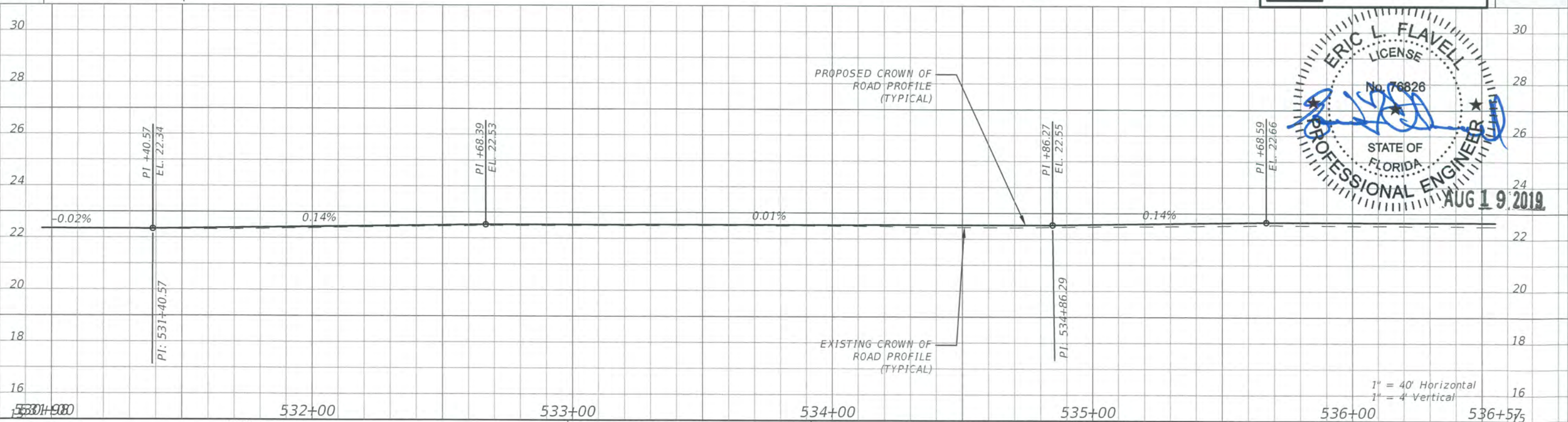
SHEET NO.
66



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

SITE BENCHMARK
 SET 5/8" IRON ROD &
 CAP "SSMC TRAV PT"
 STATION=137+96.35
 OFFSET=37.67 RIGHT
 NORTHING=1235668.15
 EASTING=835491.05
 ELEVATION=20.65



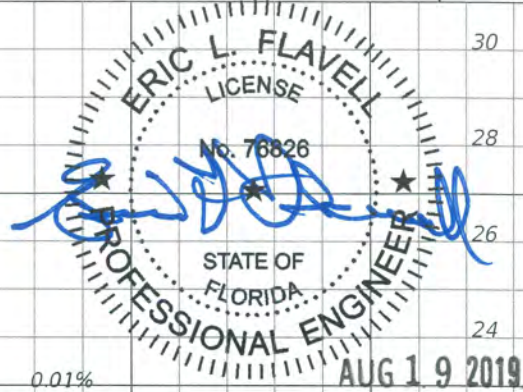
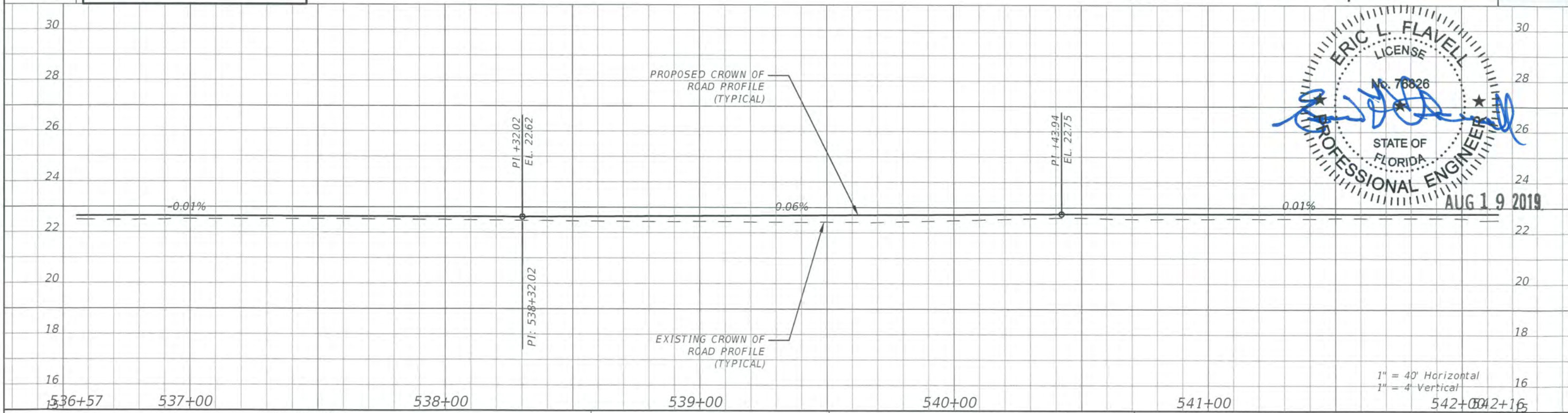
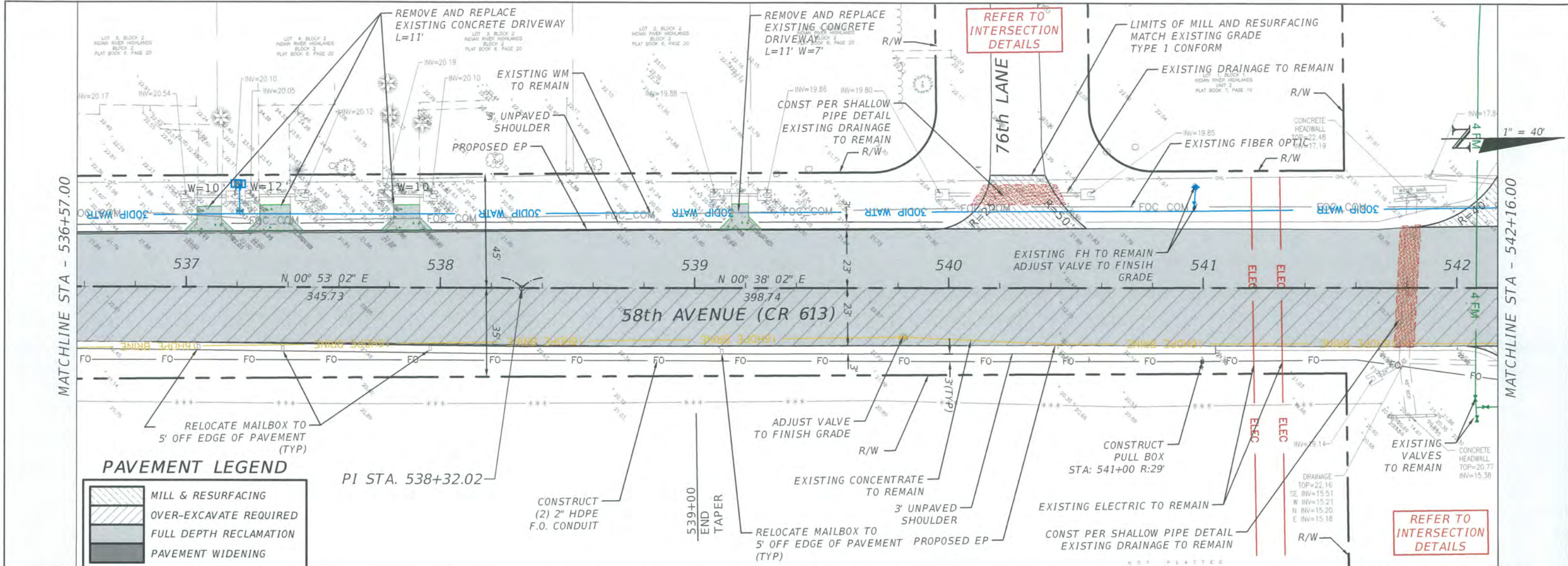
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

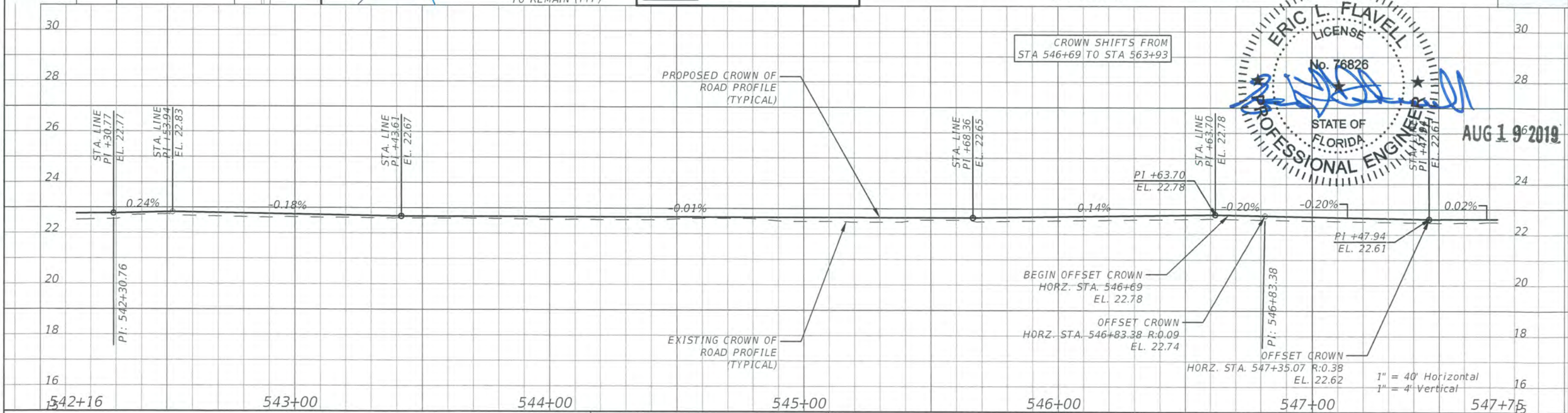
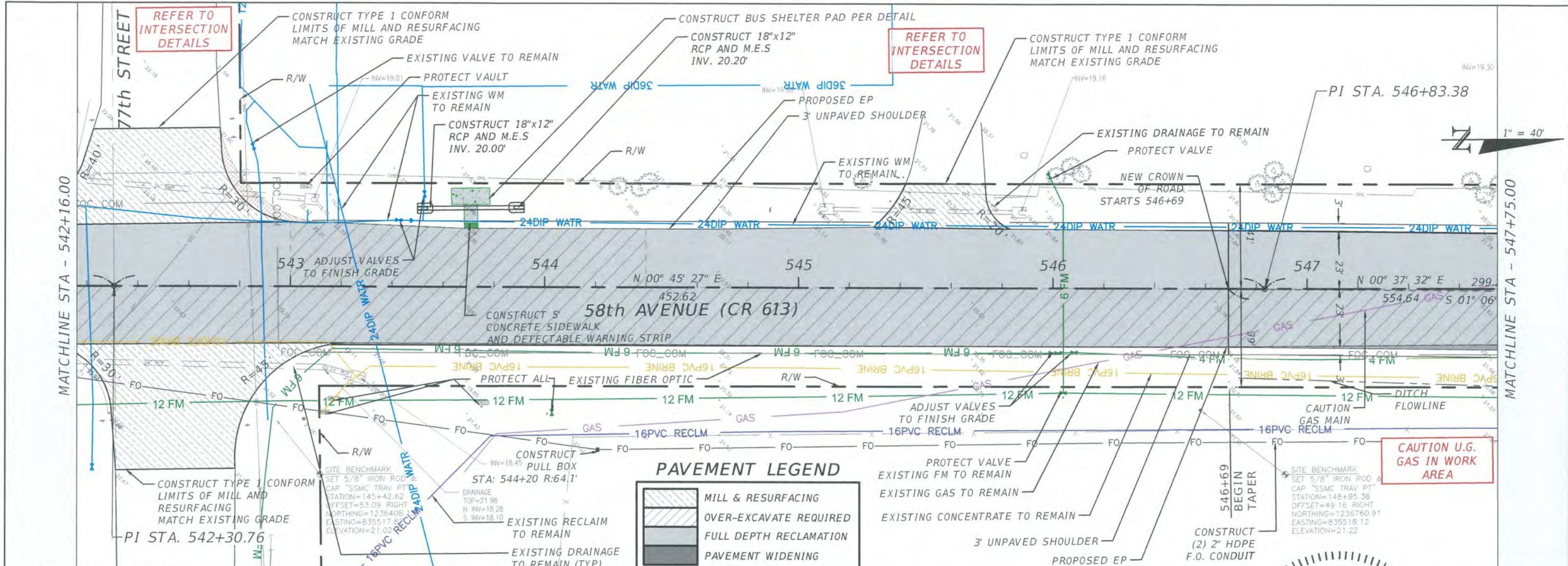
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

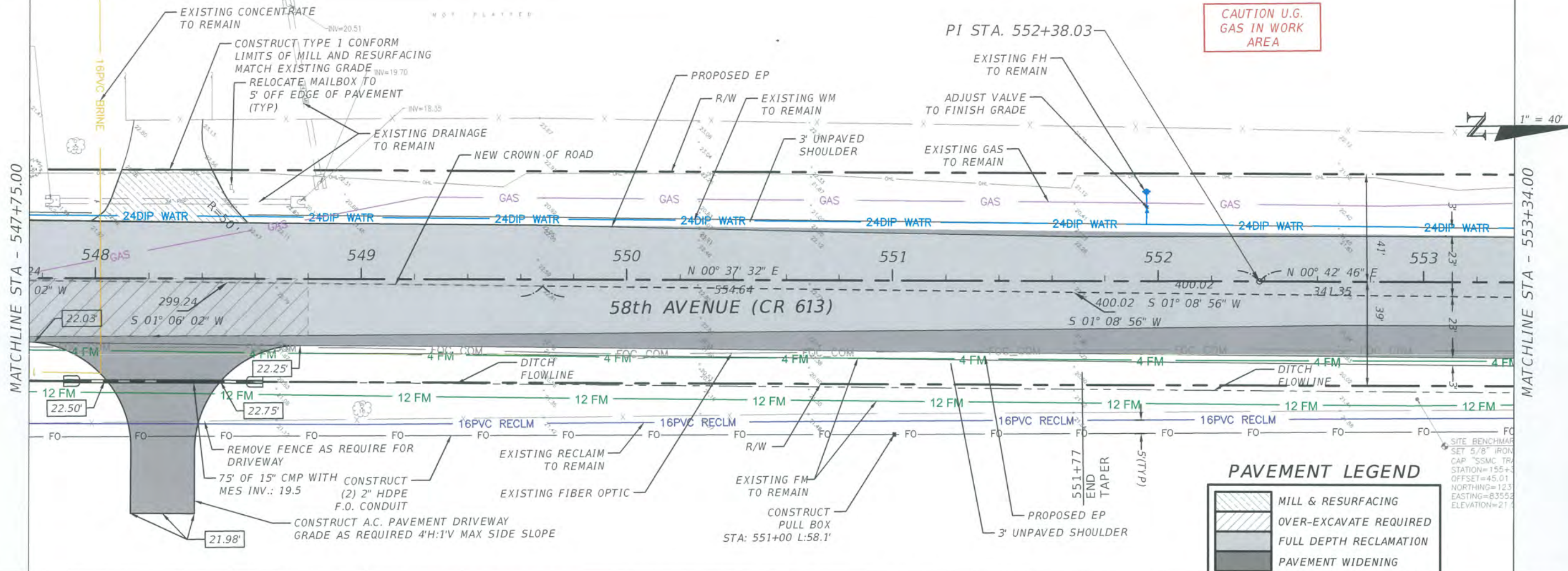
SHEET NO.
67



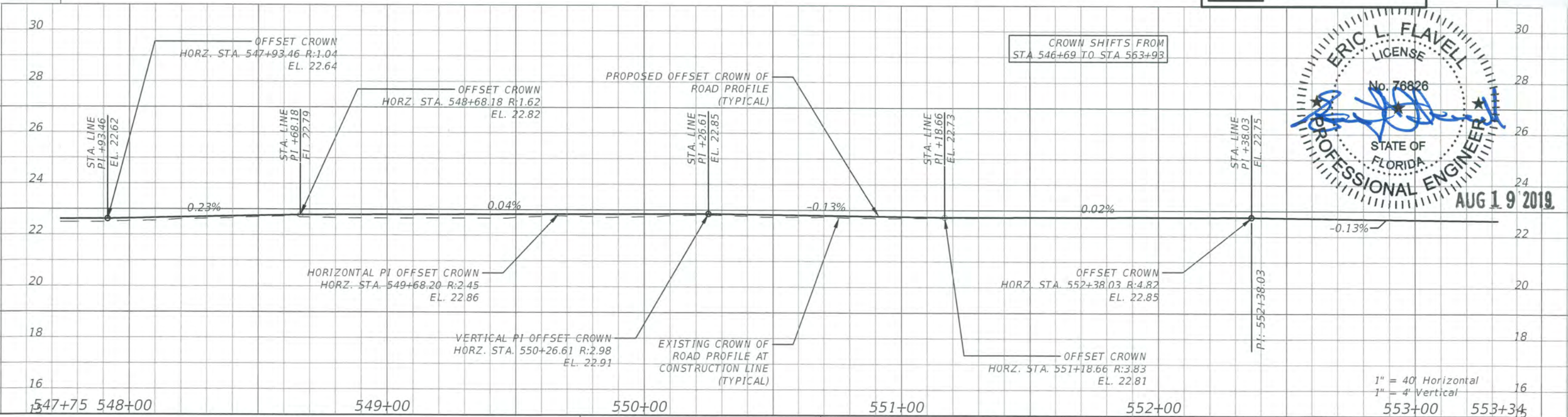
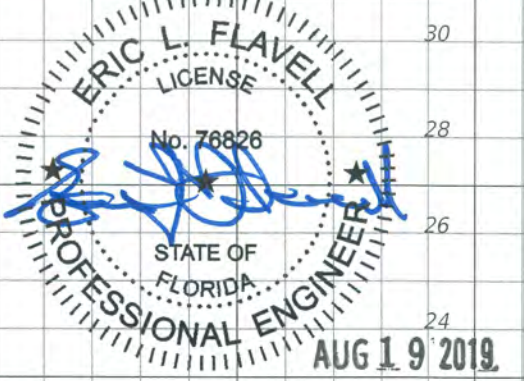
REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			PLAN & PROFILE - 58TH AVE	SHEET NO. 68
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
---	---	---	---		CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01		



REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SHEET NO. 69
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
---	---	---	---	CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	PLAN & PROFILE - 58TH AVE	



CAUTION U.G. GAS IN WORK AREA



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

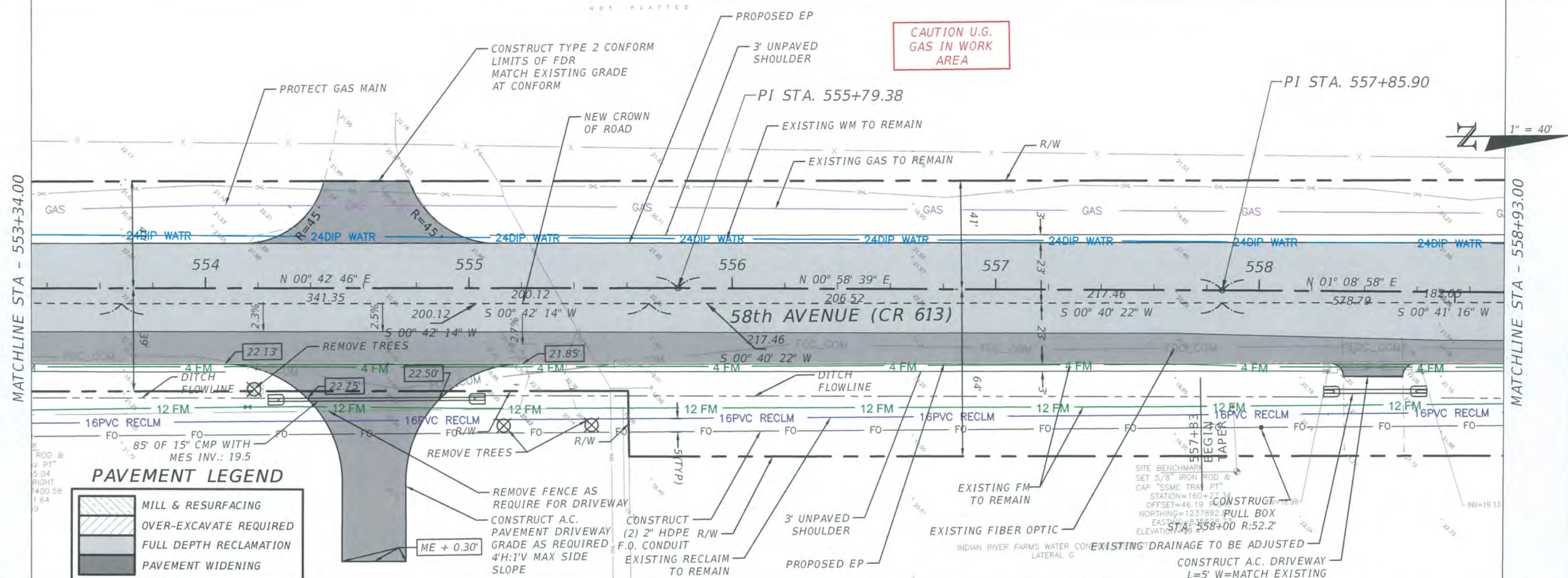
PLAN & PROFILE - 58TH AVE

SHEET NO.
70

MATCHLINE STA - 553+34.00

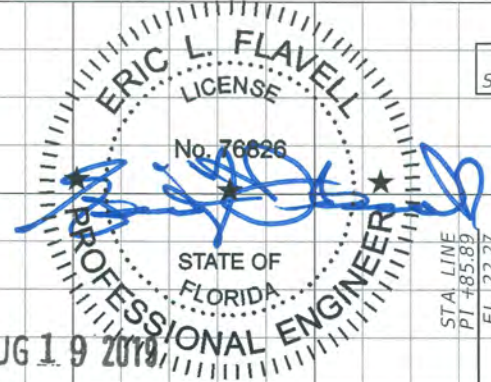
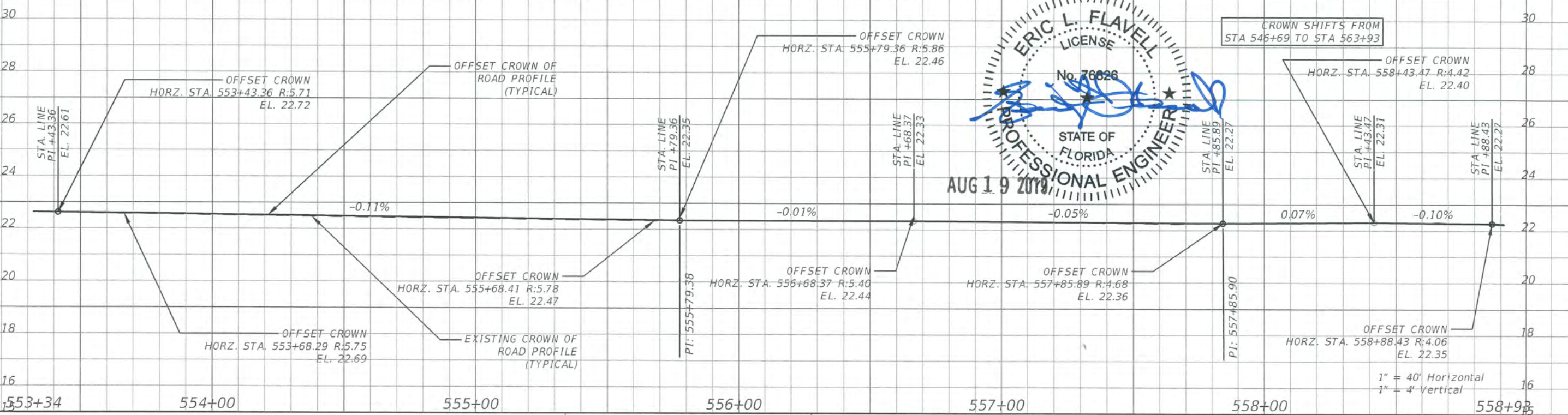
MATCHLINE STA - 558+93.00

CAUTION U.G. GAS IN WORK AREA



PAVEMENT LEGEND

	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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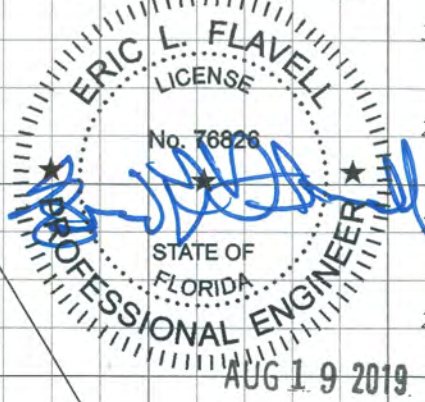
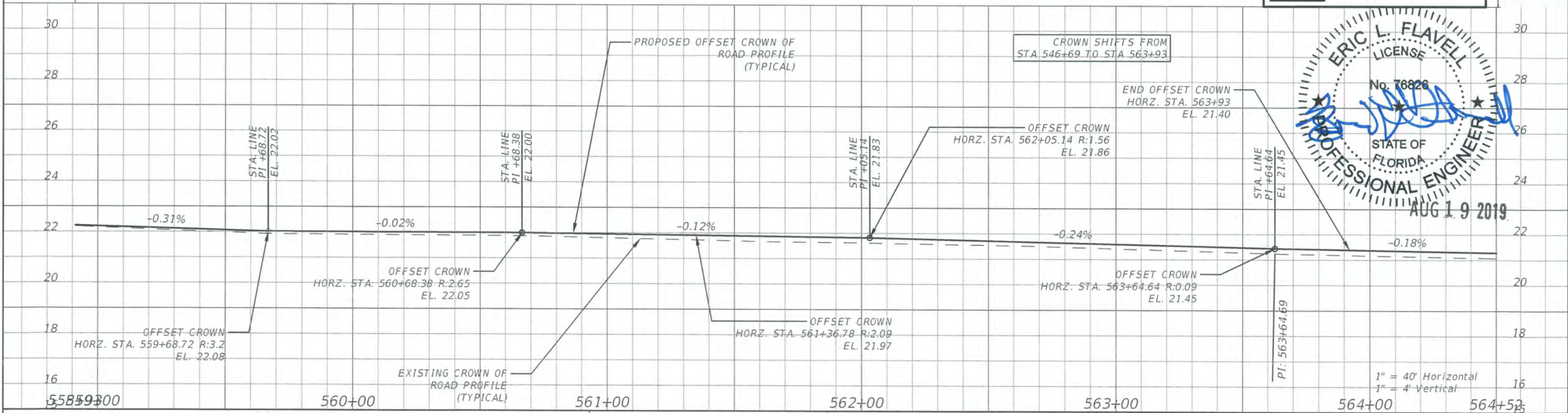
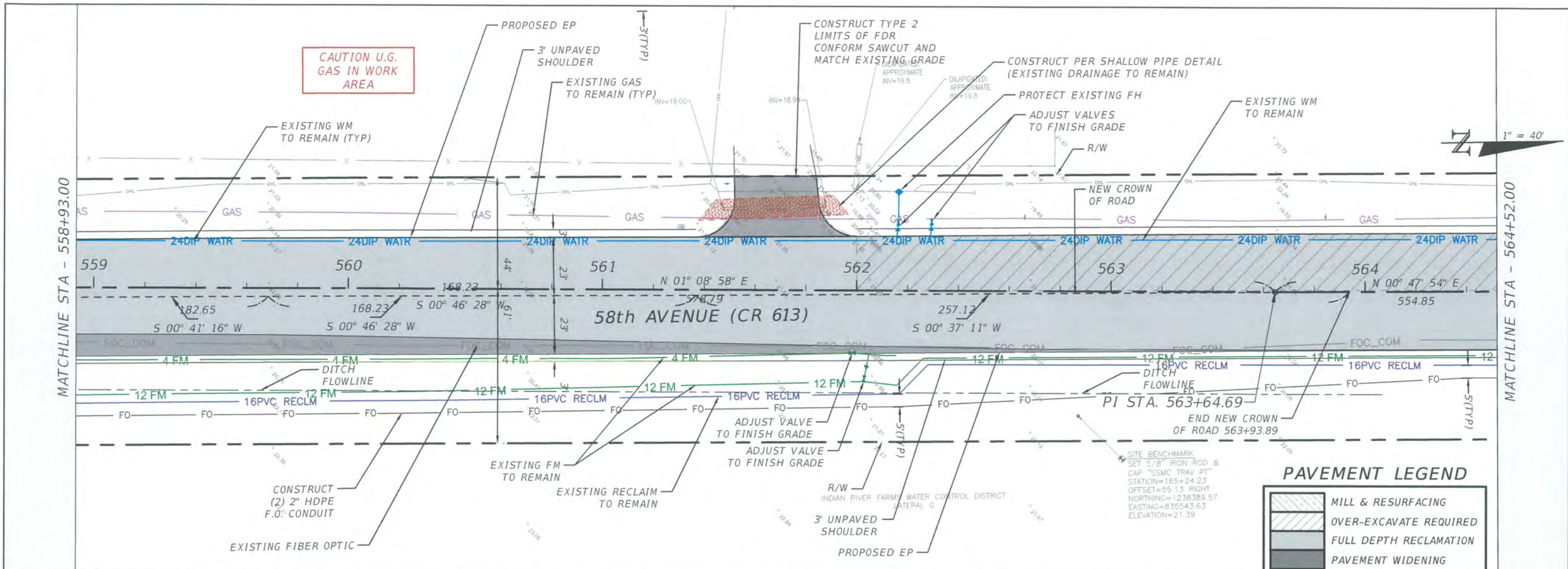
ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
71



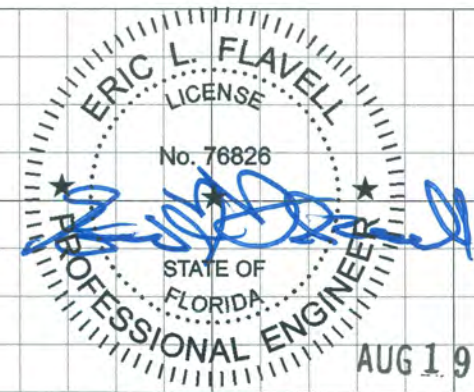
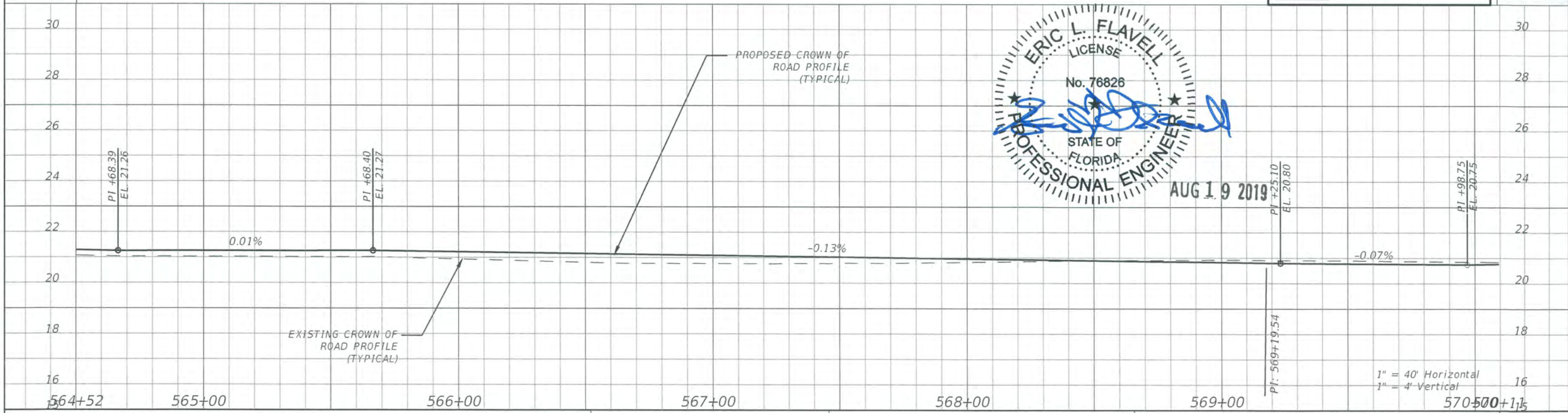
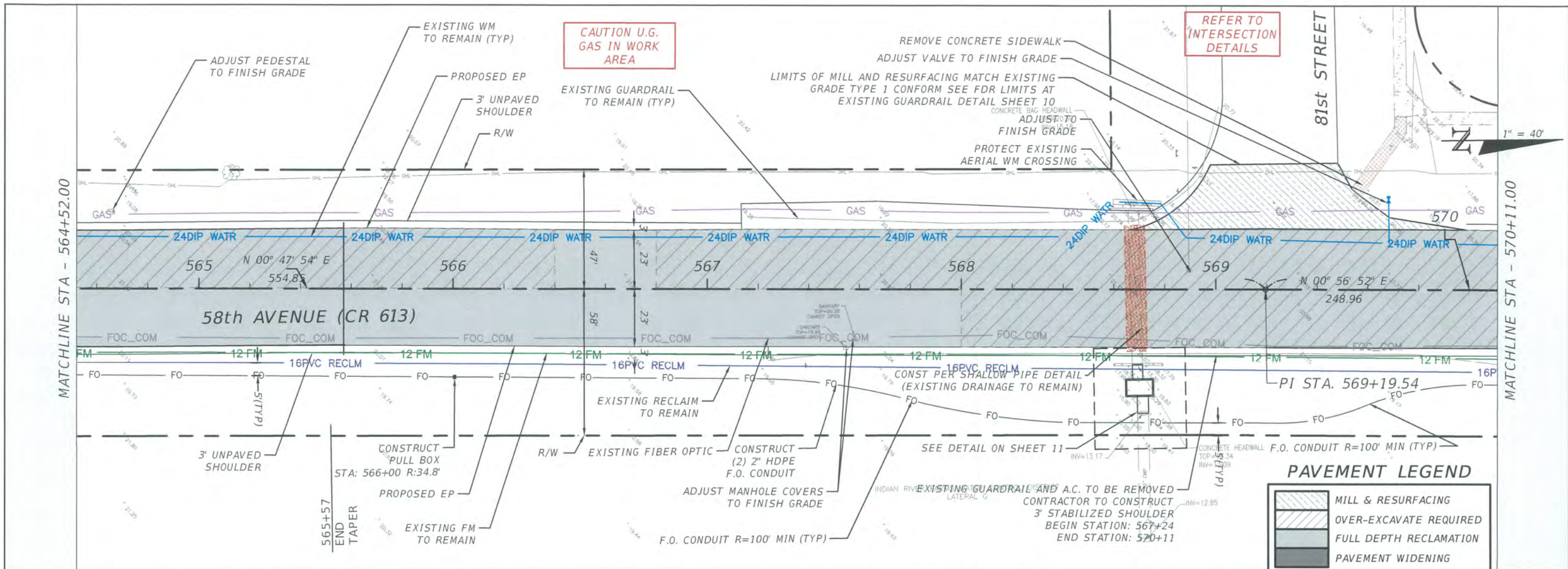
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
72



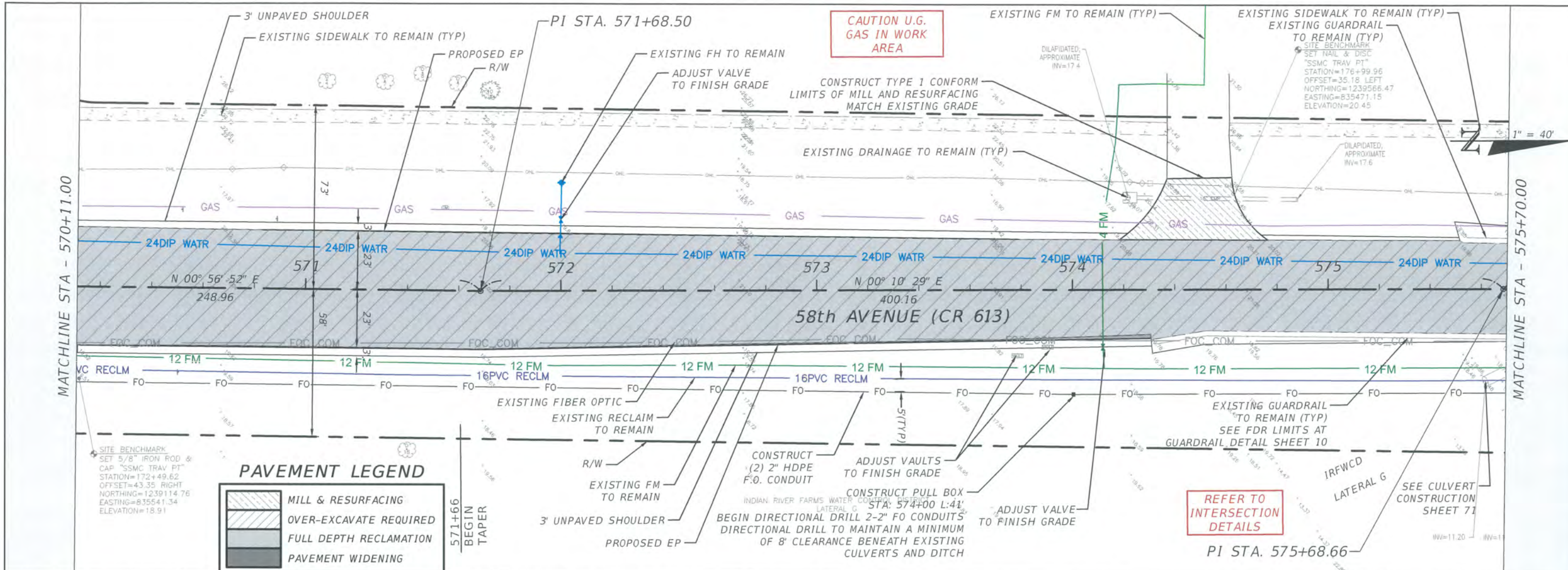
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

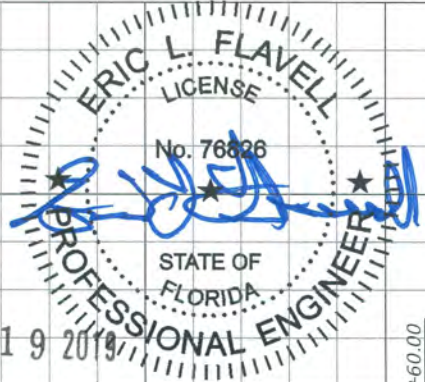
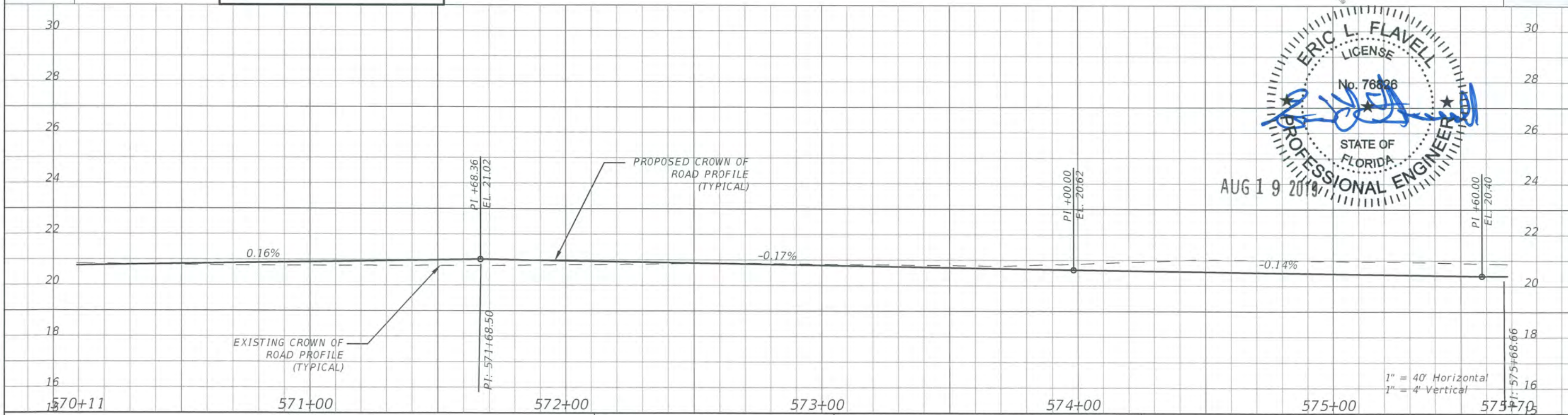
PLAN & PROFILE - 58TH AVE

SHEET NO.
73



PAVEMENT LEGEND

- MILL & RESURFACING
- OVER-EXCAVATE REQUIRED
- FULL DEPTH RECLAMATION
- PAVEMENT WIDENING



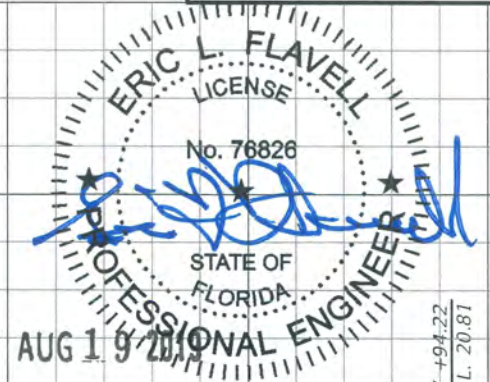
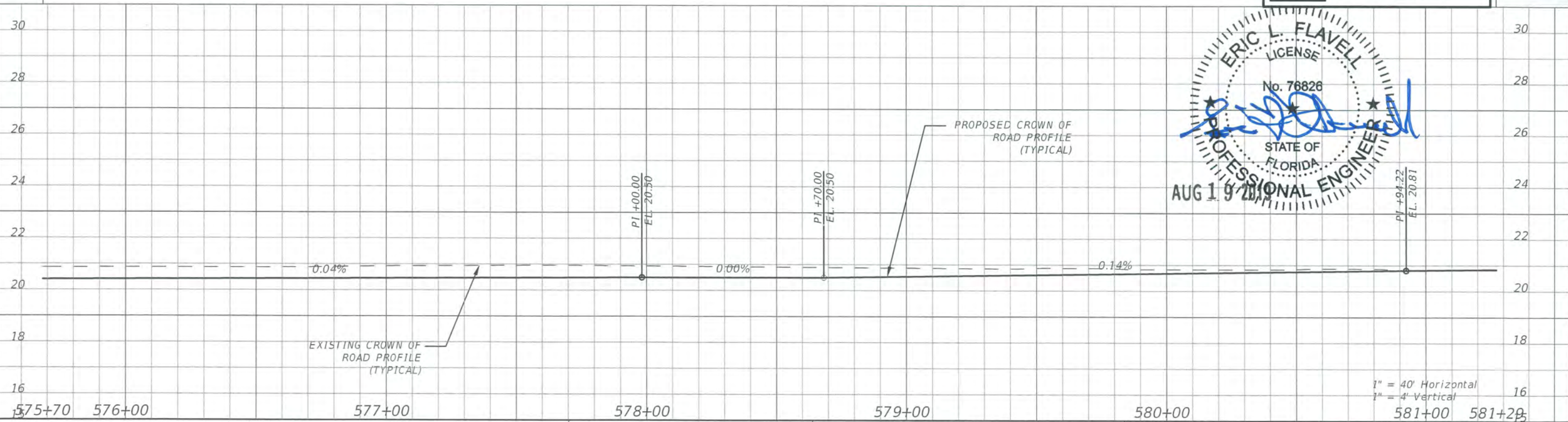
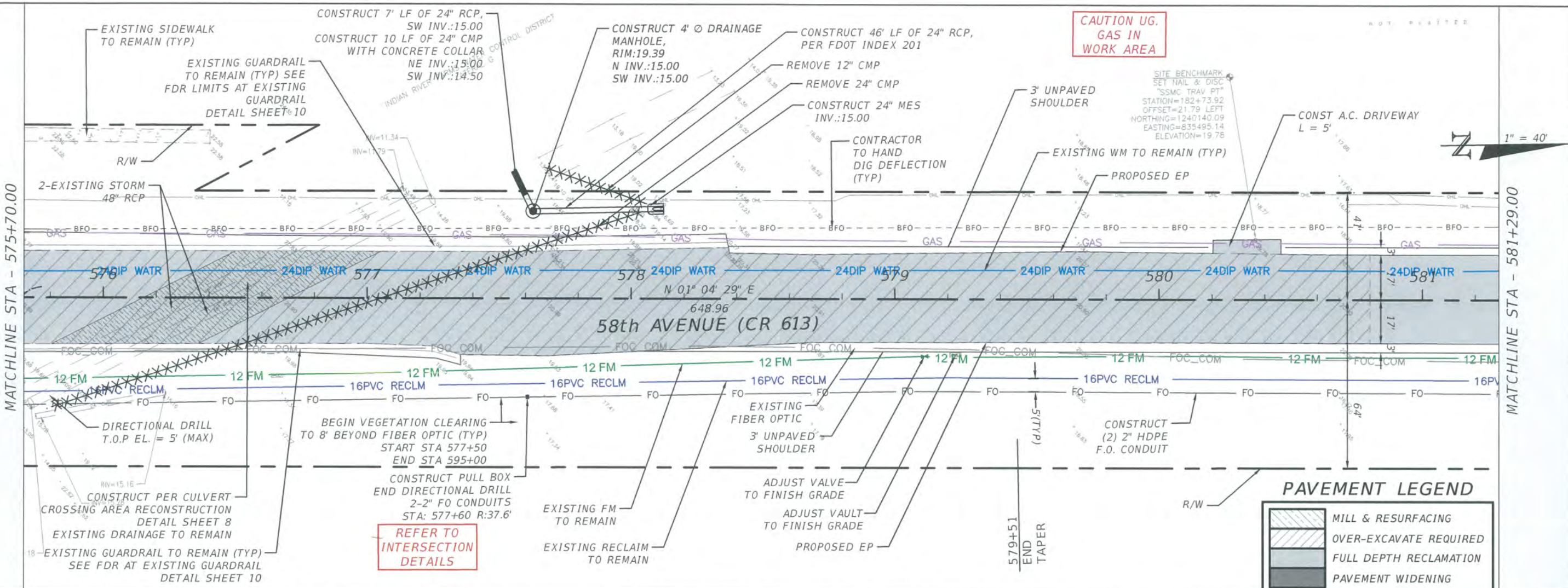
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
74



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

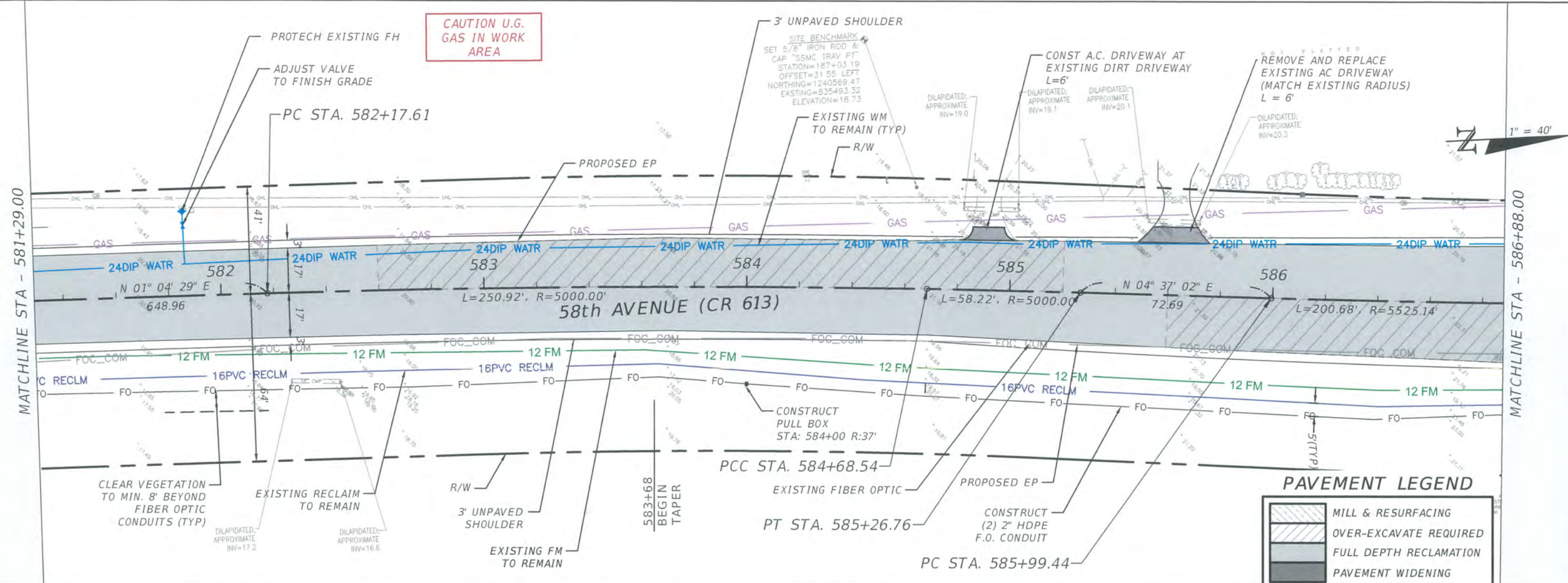
ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

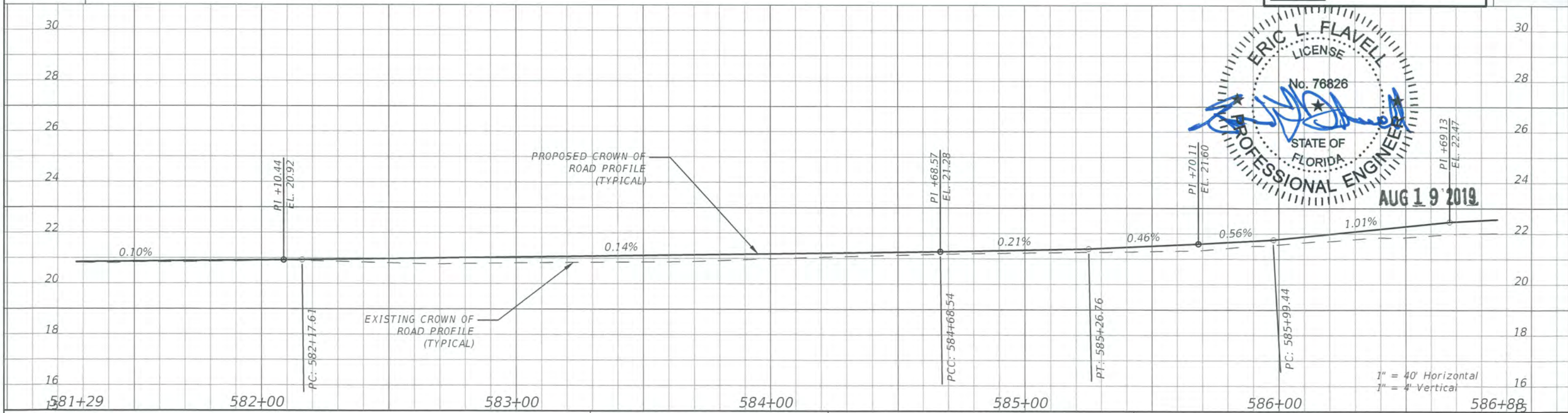
SHEET NO.
75

CAUTION U.G. GAS IN WORK AREA



PAVEMENT LEGEND

- MILL & RESURFACING
- OVER-EXCAVATE REQUIRED
- FULL DEPTH RECLAMATION
- PAVEMENT WIDENING



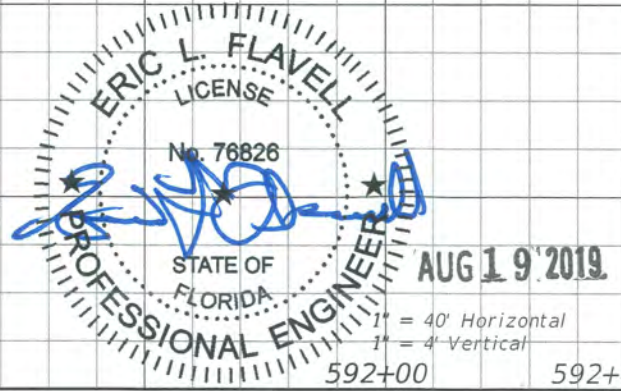
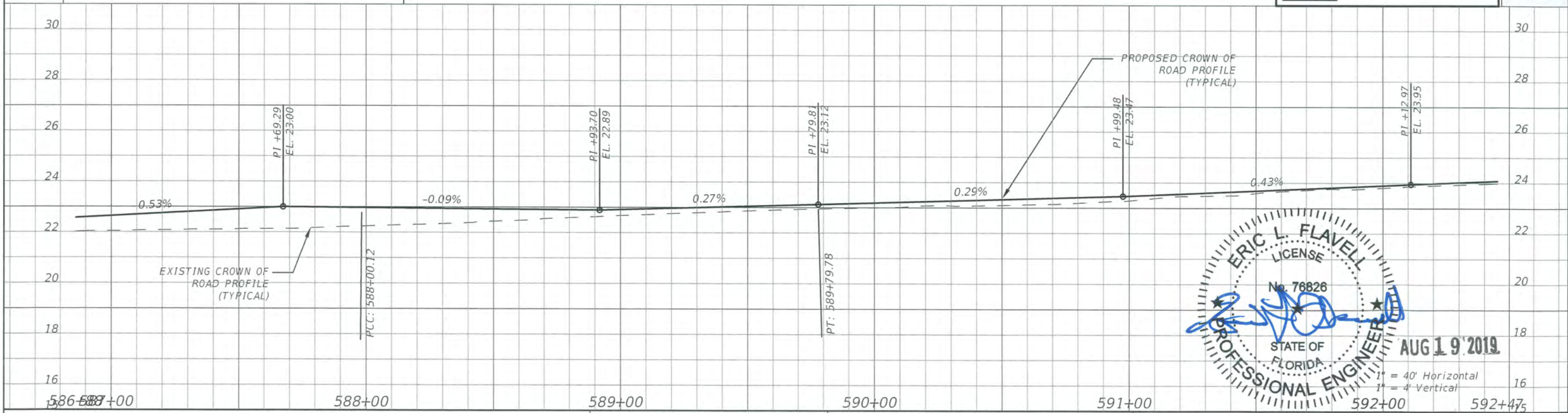
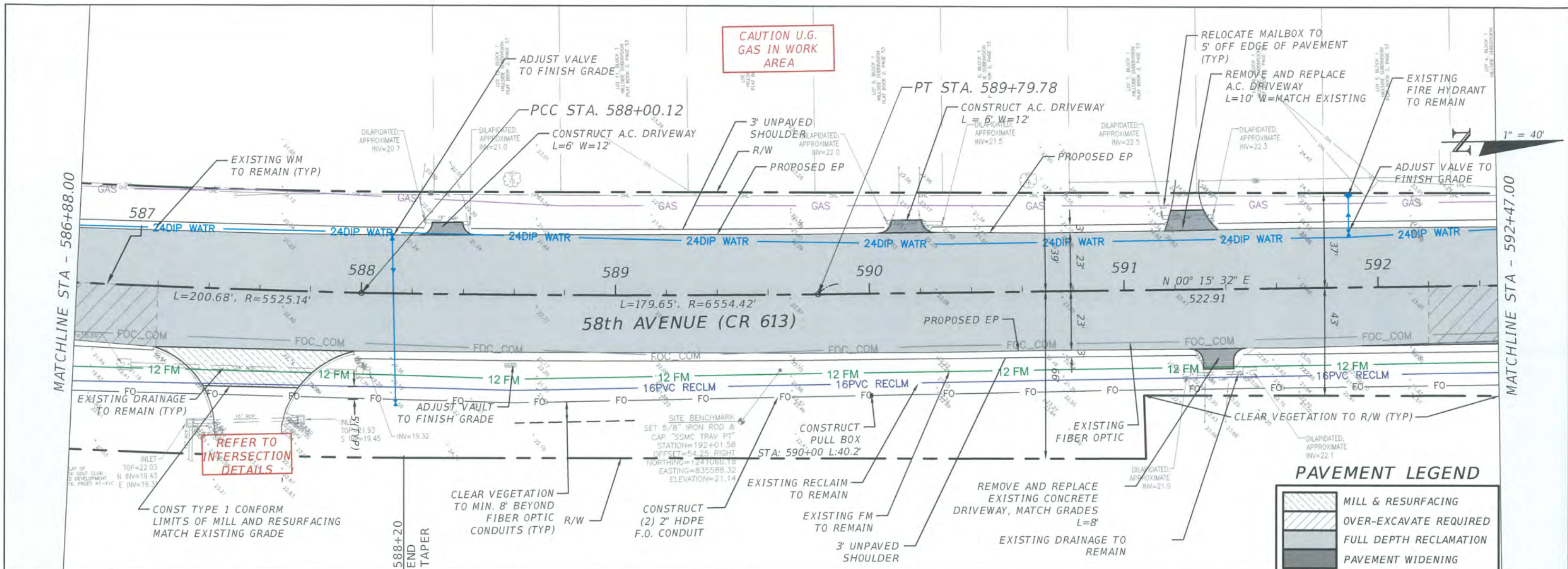
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 58TH AVE

SHEET NO.
76



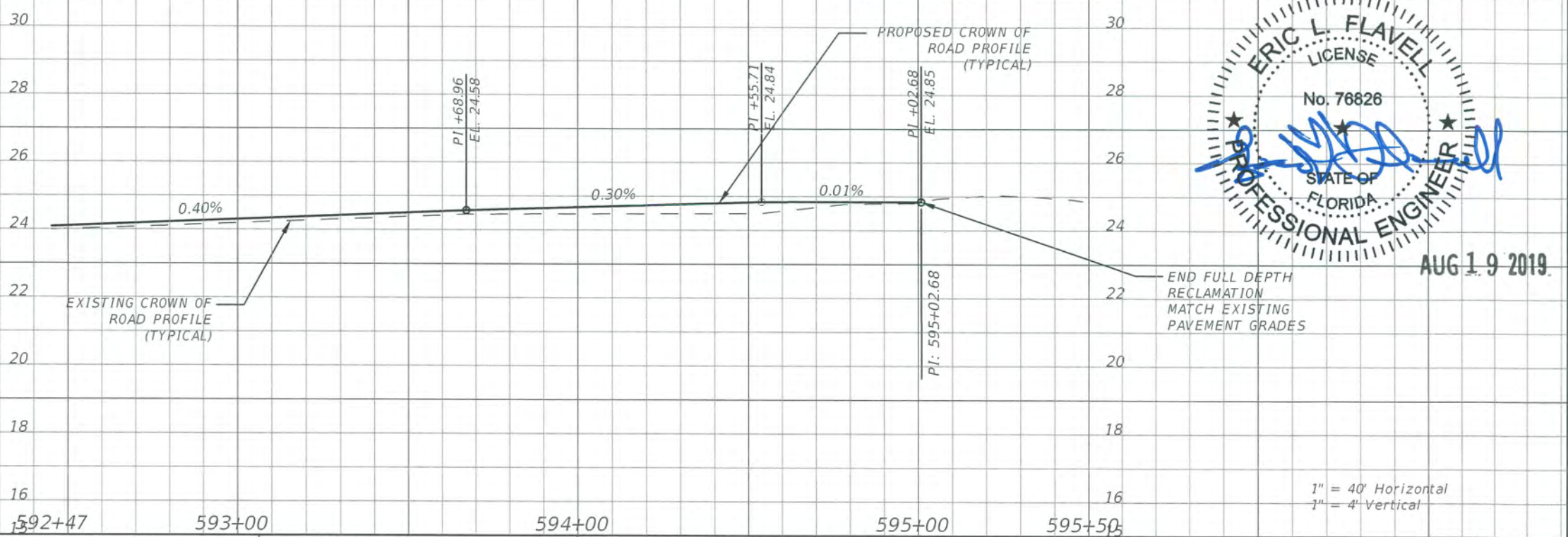
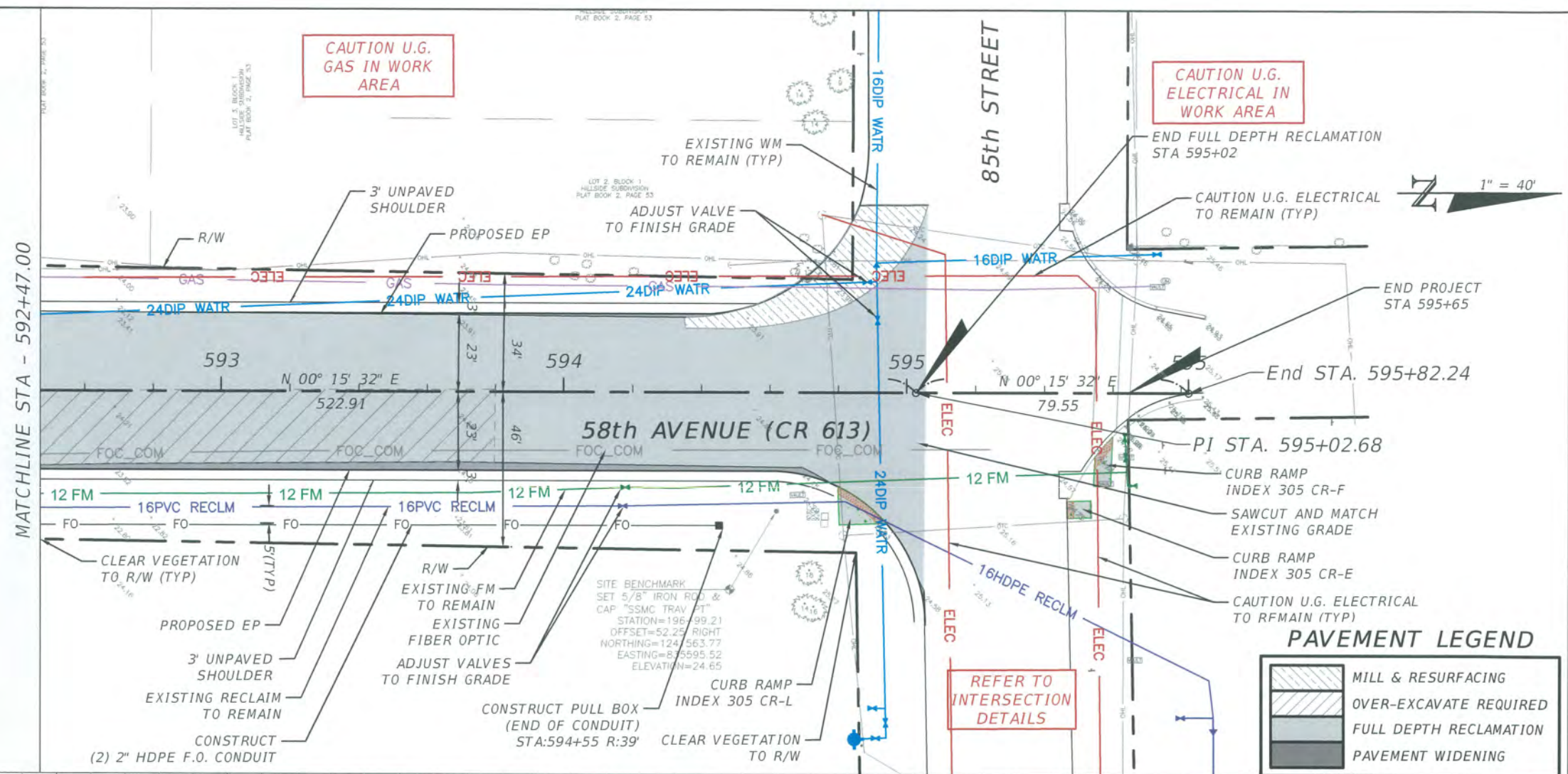
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

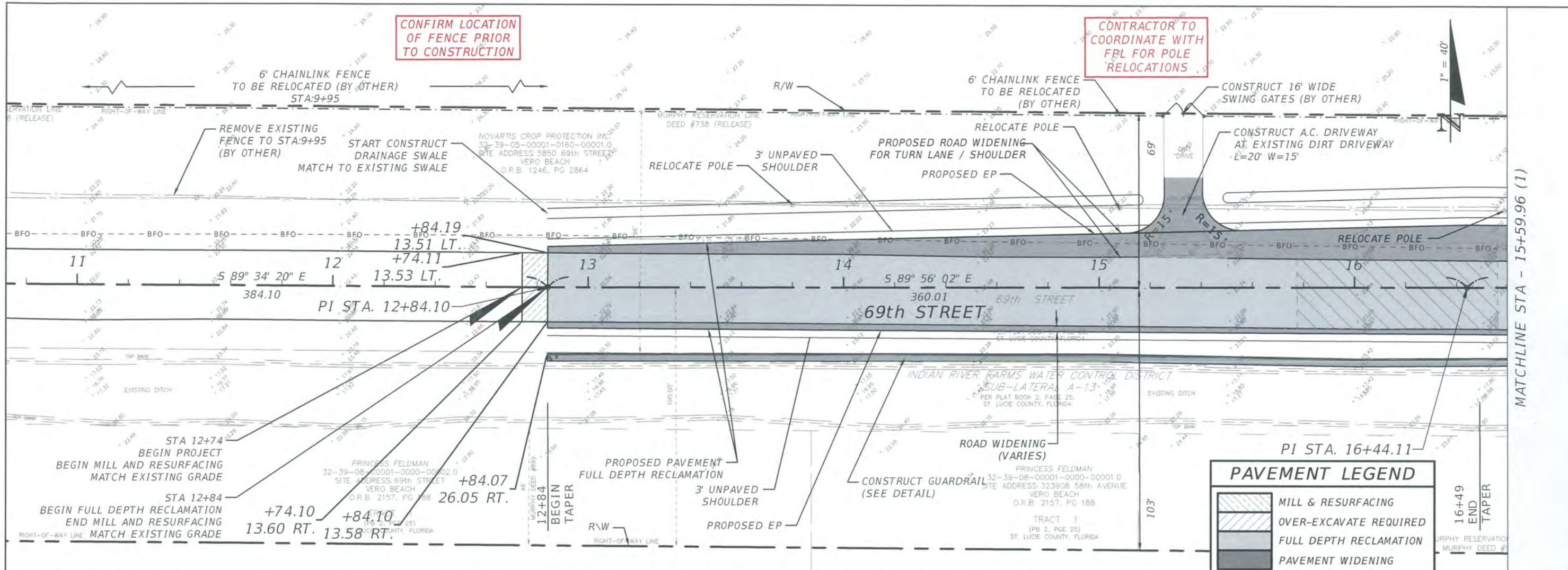
PLAN & PROFILE - 58TH AVE

SHEET NO.
77



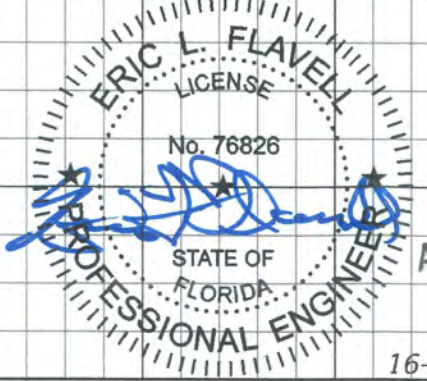
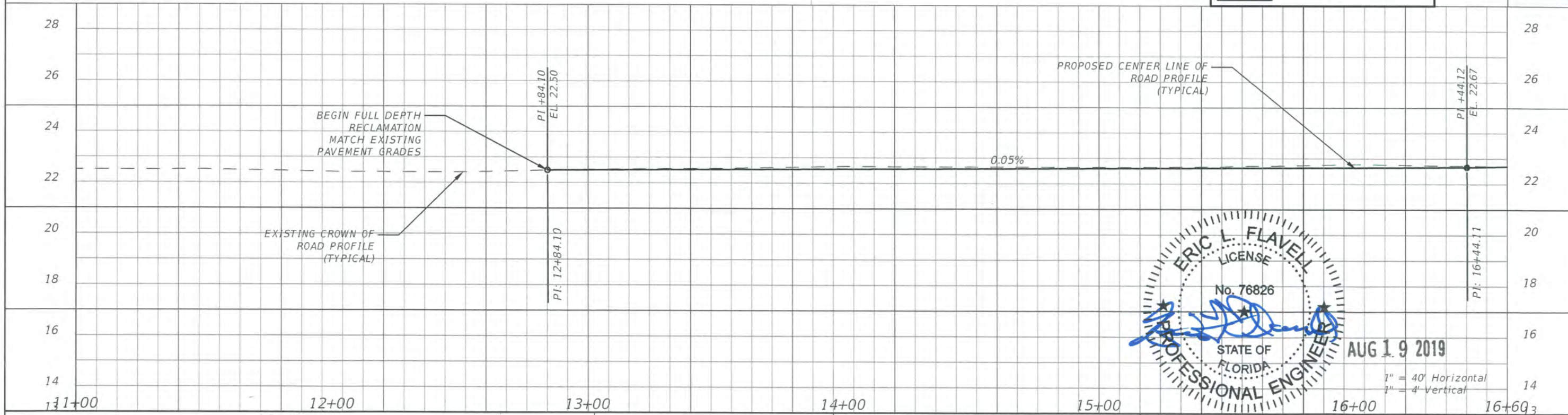
ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 AUG 19 2019

REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			PLAN & PROFILE - 58TH AVE	SHEET NO. 78
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
---	---	---	---		CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01		



PAVEMENT LEGEND

- MILL & RESURFACING
- OVER-EXCAVATE REQUIRED
- FULL DEPTH RECLAMATION
- PAVEMENT WIDENING



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

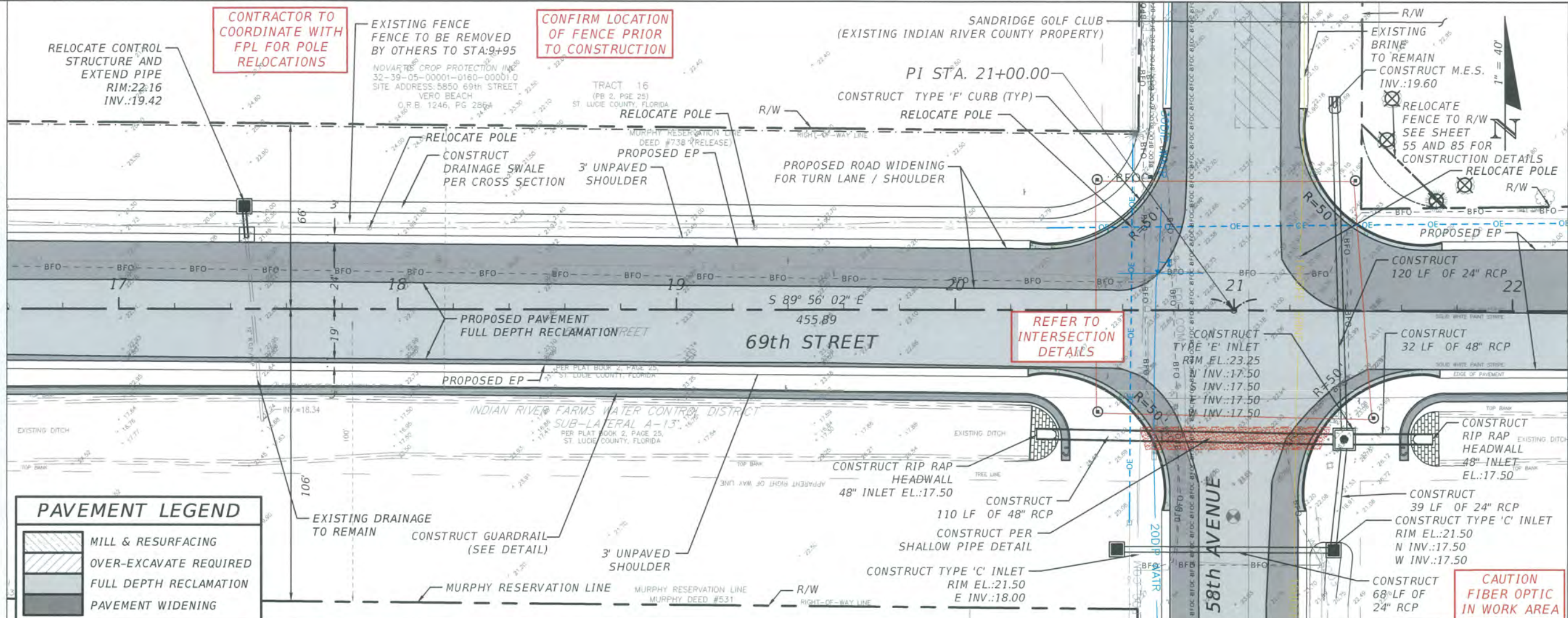
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 69TH STREET

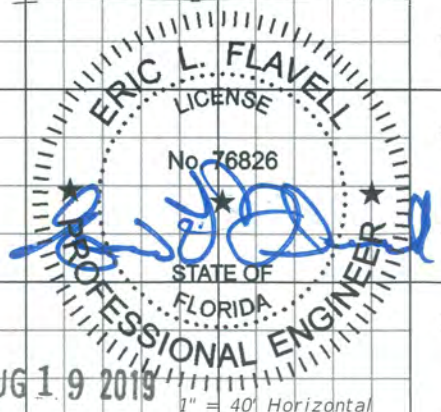
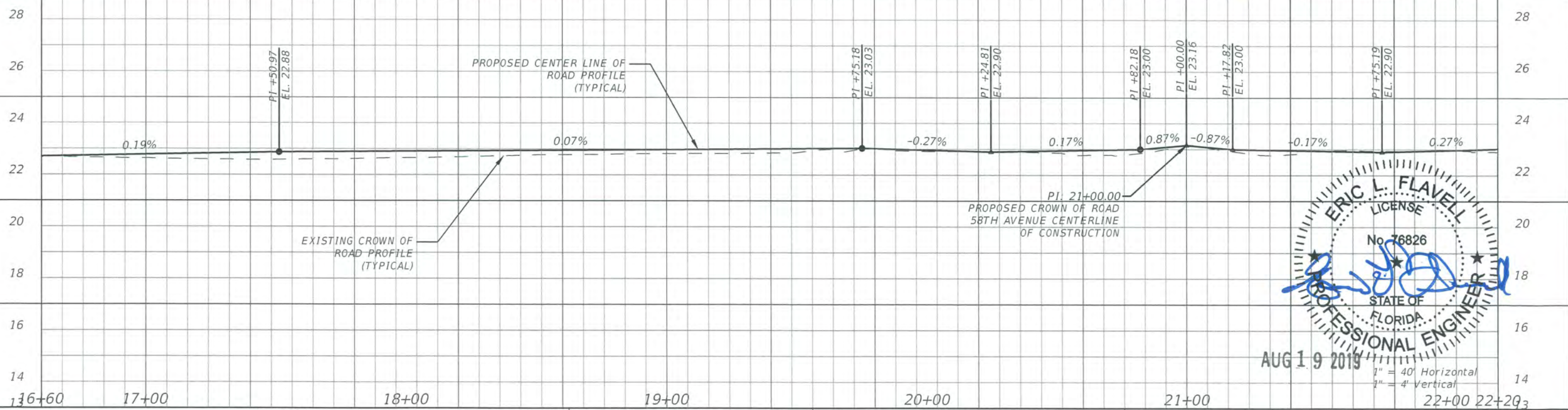
SHEET NO.
79

MATCHLINE STA - 15+59.96 (1)

MATCHLINE STA - 21+19.92 (2)



PAVEMENT LEGEND	
	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 69TH STREET

SHEET NO.
80

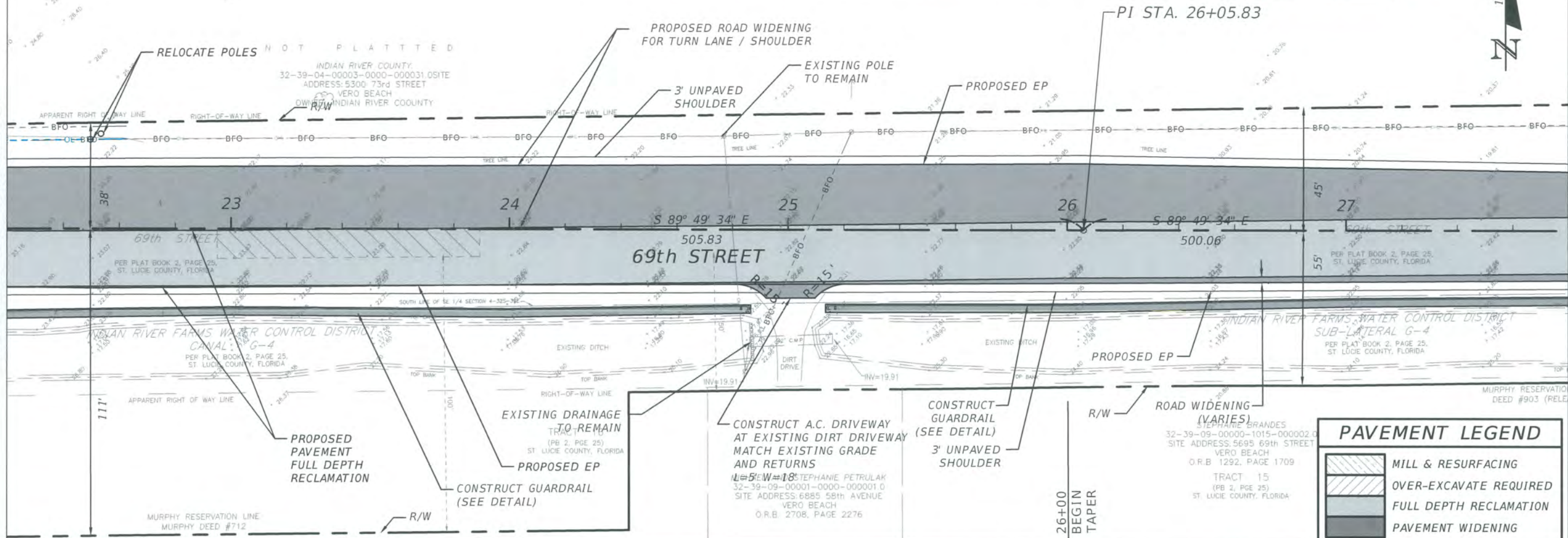
SANDRIDGE GOLF CLUB
(EXISTING INDIAN RIVER COUNTY PROPERTY)

CONTRACTOR TO
COORDINATE WITH
FPL FOR POLE
RELOCATIONS



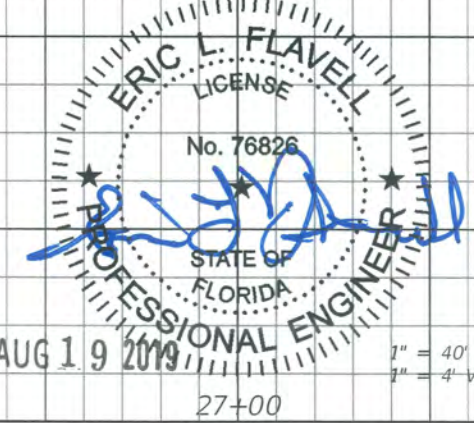
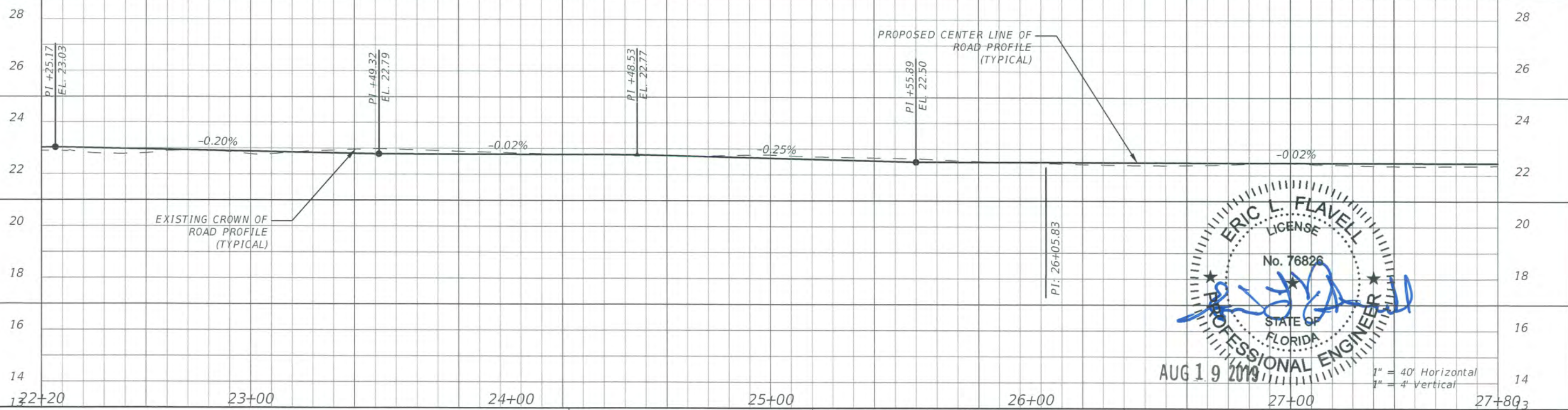
MATCHLINE STA - 21+19.92 (2)

MATCHLINE STA - 26+79.88 (3)



PAVEMENT LEGEND

- MILL & RESURFACING
- OVER-EXCAVATE REQUIRED
- FULL DEPTH RECLAMATION
- PAVEMENT WIDENING



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 69TH STREET

SHEET NO.
81

**SANDRIDGE GOLF CLUB
(EXISTING INDIAN RIVER COUNTY PROPERTY)**

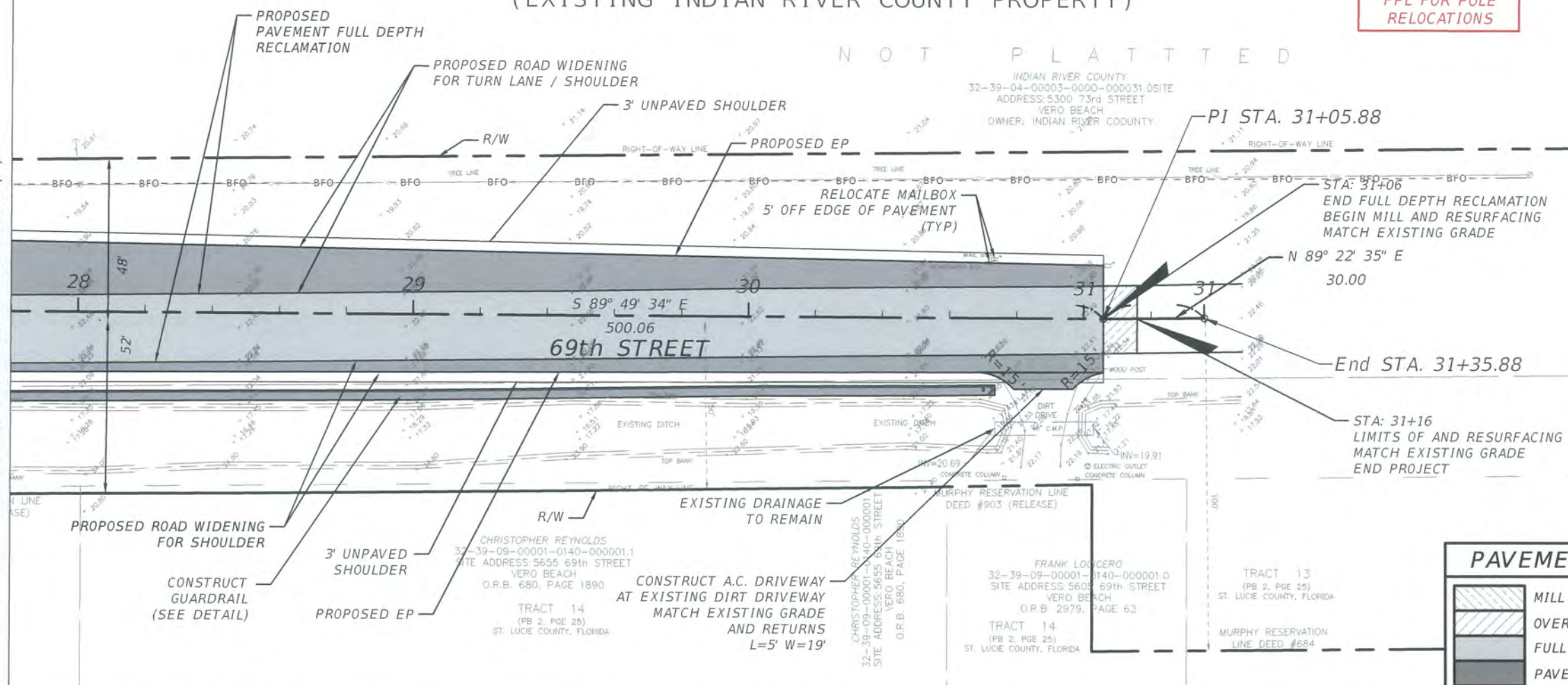
**CONTRACTOR TO
COORDINATE WITH
FPL FOR POLE
RELOCATIONS**



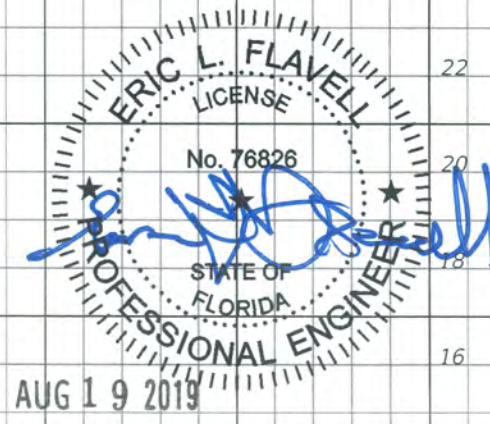
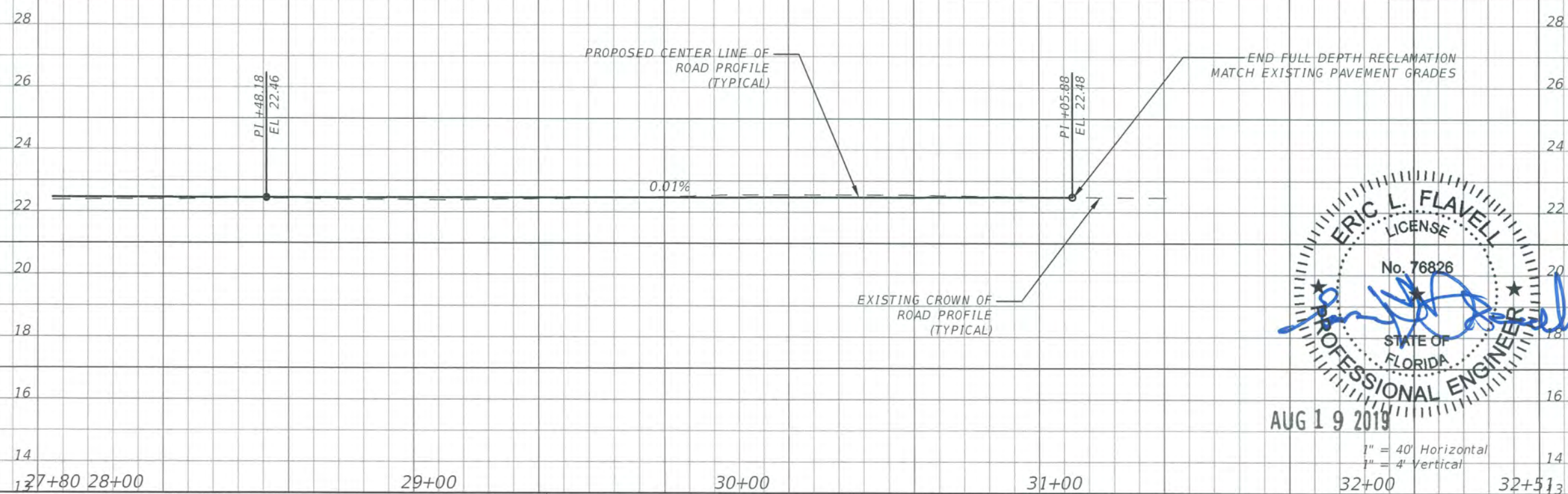
NOT PLATTED

INDIAN RIVER COUNTY
32-39-04-00003-0000-000031.0 SITE
ADDRESS: 5300 73rd STREET
VERO BEACH
OWNER: INDIAN RIVER COUNTY

MATCHLINE STA - 26+79.88 (3)



PAVEMENT LEGEND	
	MILL & RESURFACING
	OVER-EXCAVATE REQUIRED
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING



1" = 40' Horizontal
1" = 4' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

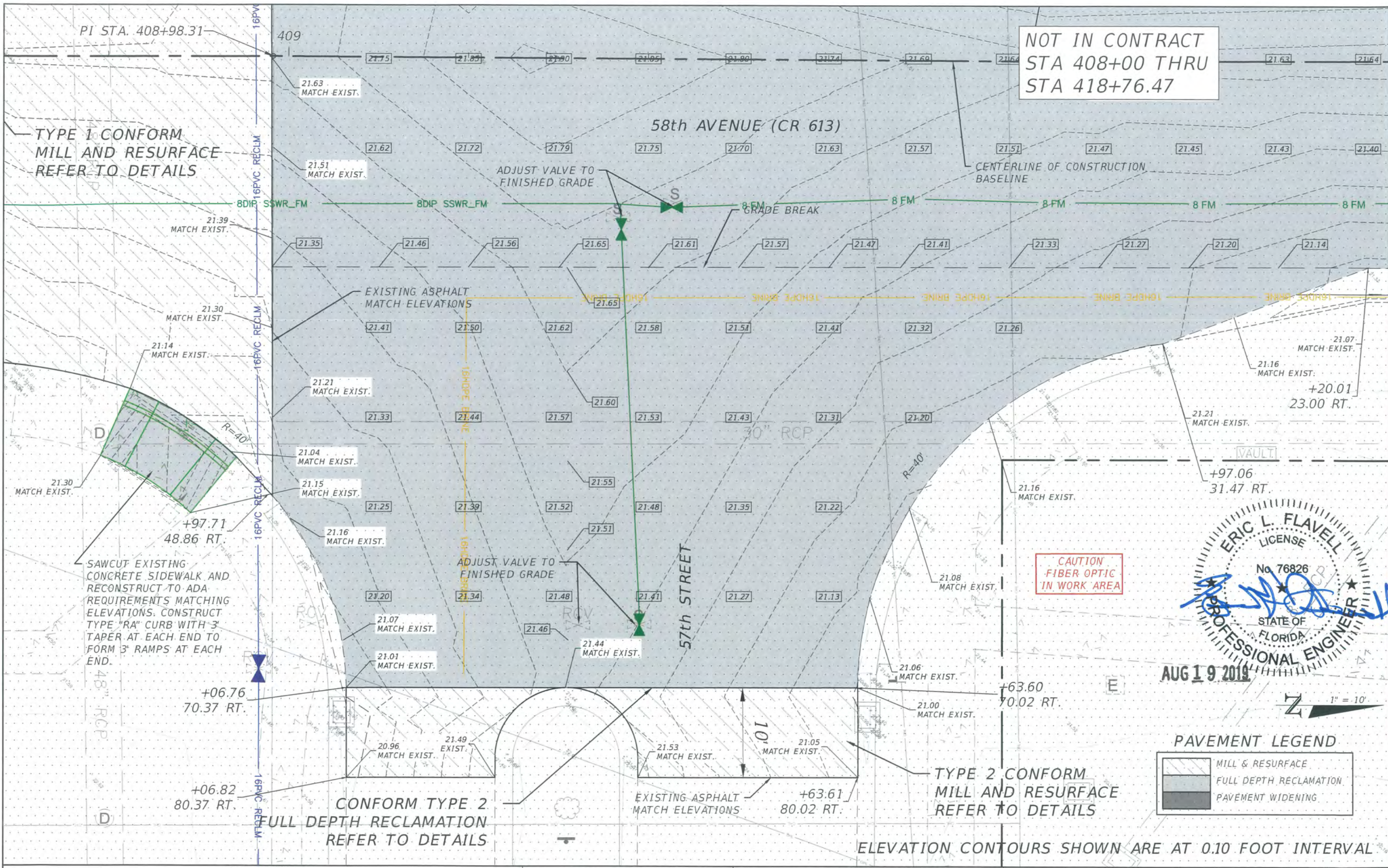
ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

PLAN & PROFILE - 69TH STREET

SHEET NO.
82

NOT IN CONTRACT
STA 408+00 THRU
STA 418+76.47



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

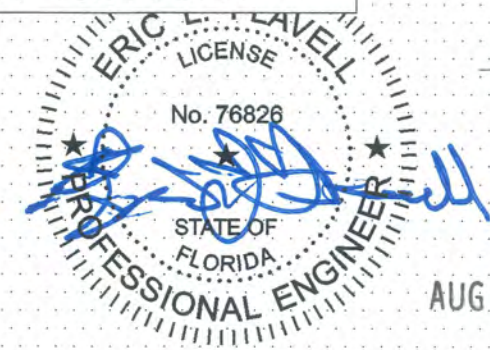
INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DETAIL PLAN SHEET 57TH STREET EAST HALF

SHEET NO.
83

CONFORM TYPE 2
FULL DEPTH RECLAMATION
REFER TO DETAILS

TYPE 2 CONFORM
MILL NOT IN CONTRACT
REFE STA 408+00 THRU
STA 418+76.47

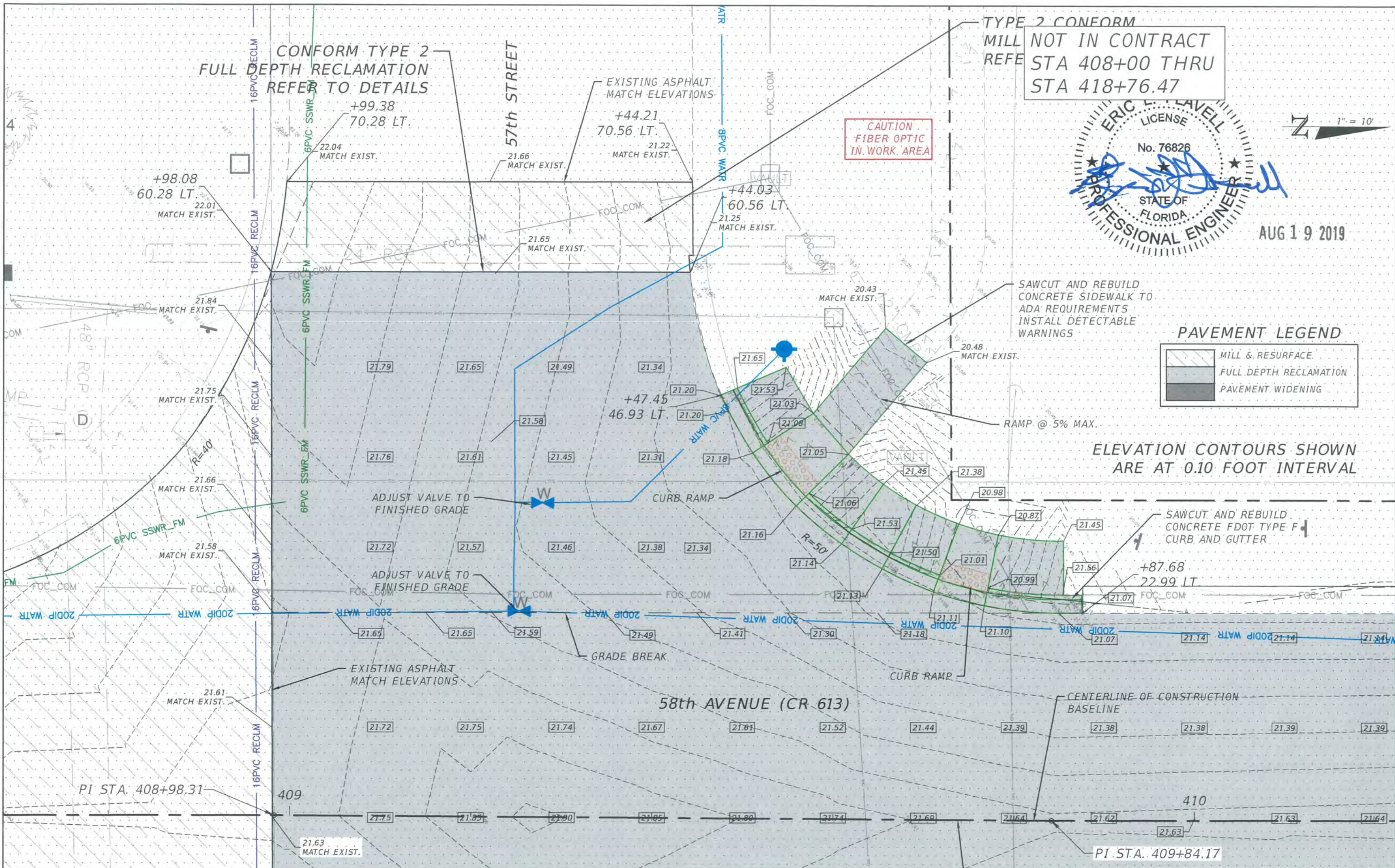


CAUTION
FIBER OPTIC
IN WORK AREA

PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN
ARE AT 0.10 FOOT INTERVAL



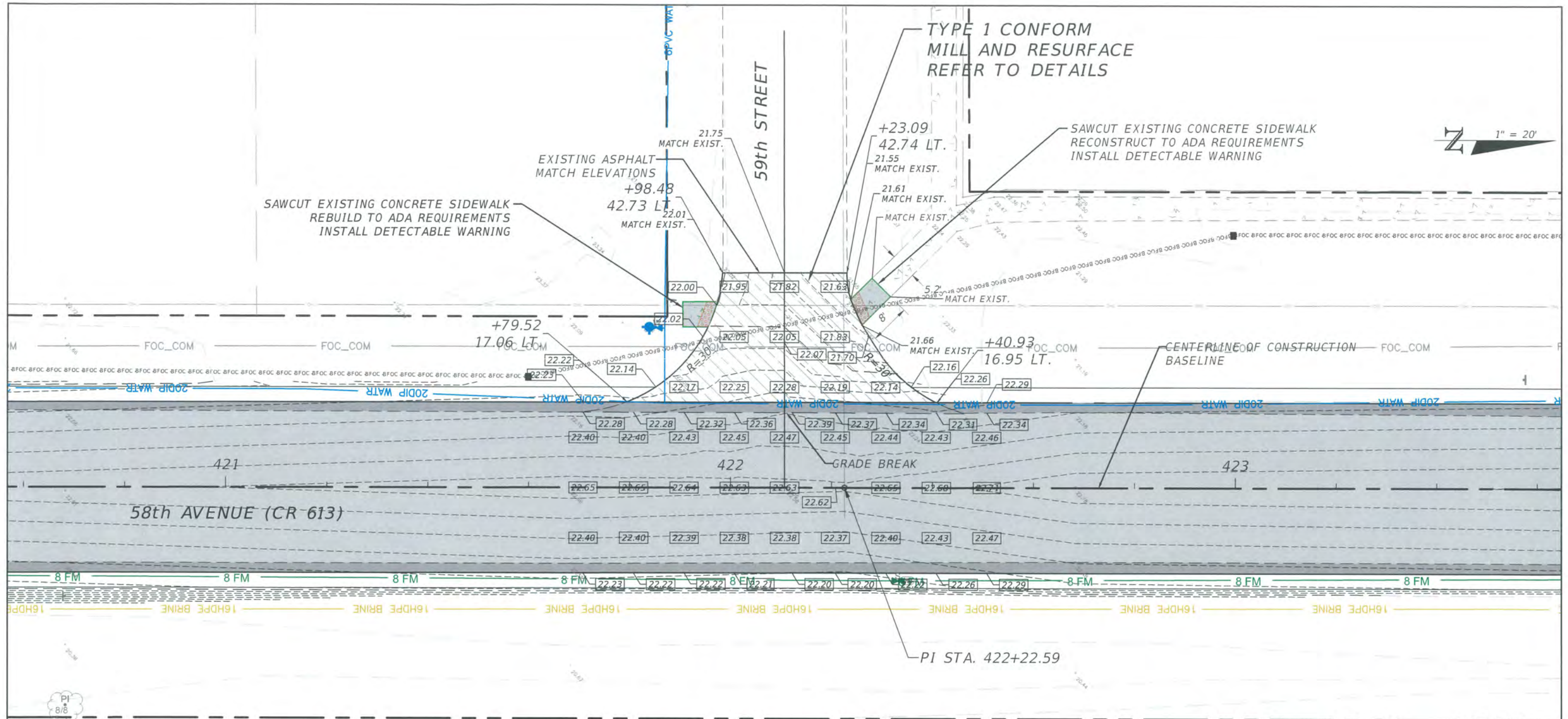
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

**DETAIL PLAN SHEET 57TH
STREET WEST HALF**

SHEET NO.
84



PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN ARE AT 0.10 FOOT INTERVAL

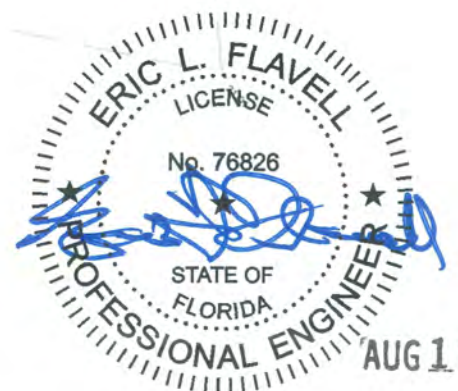
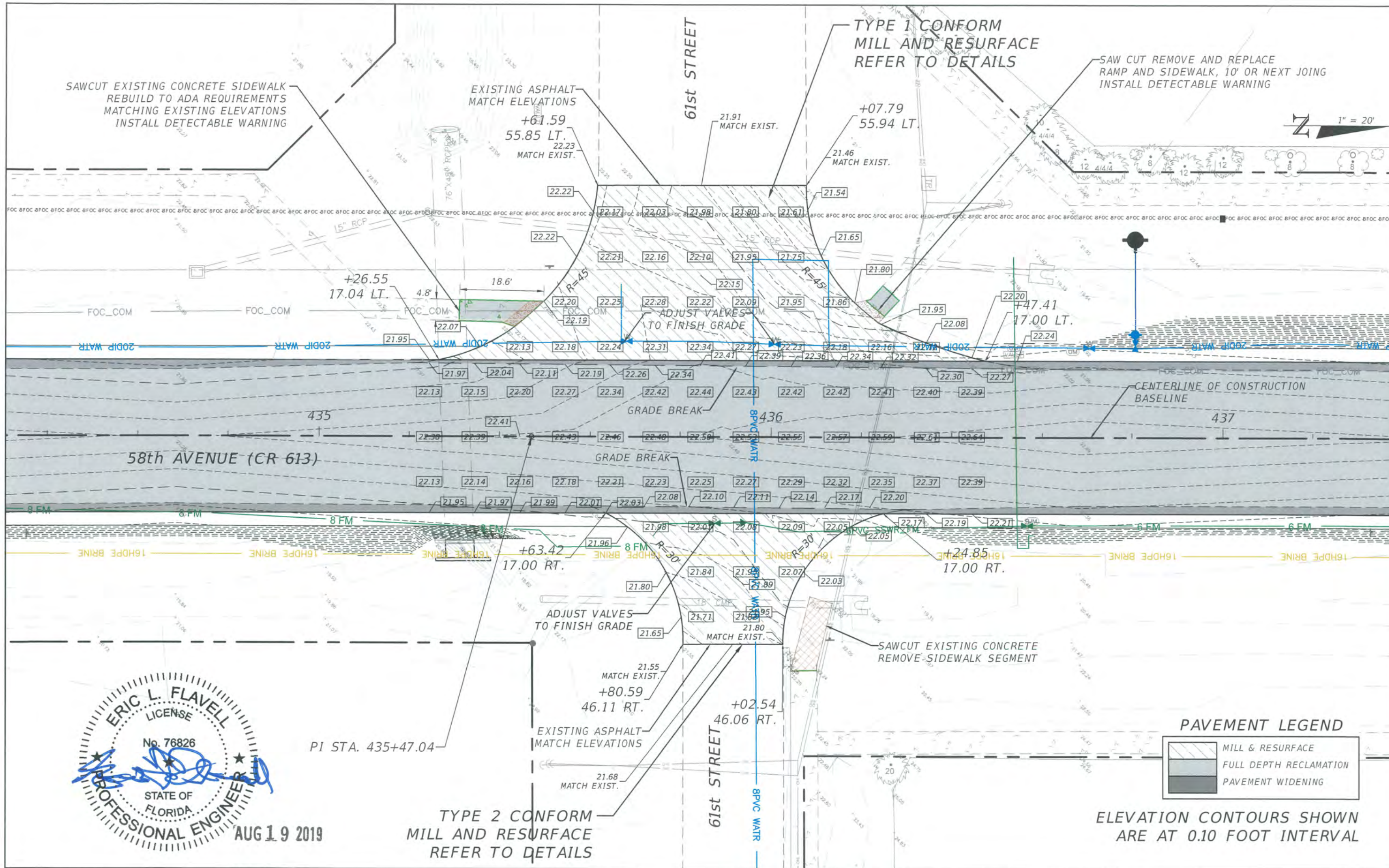
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**DETAIL PLAN SHEET
59TH STREET**

SHEET NO.
85



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

DETAIL PLAN SHEET 61ST STREET

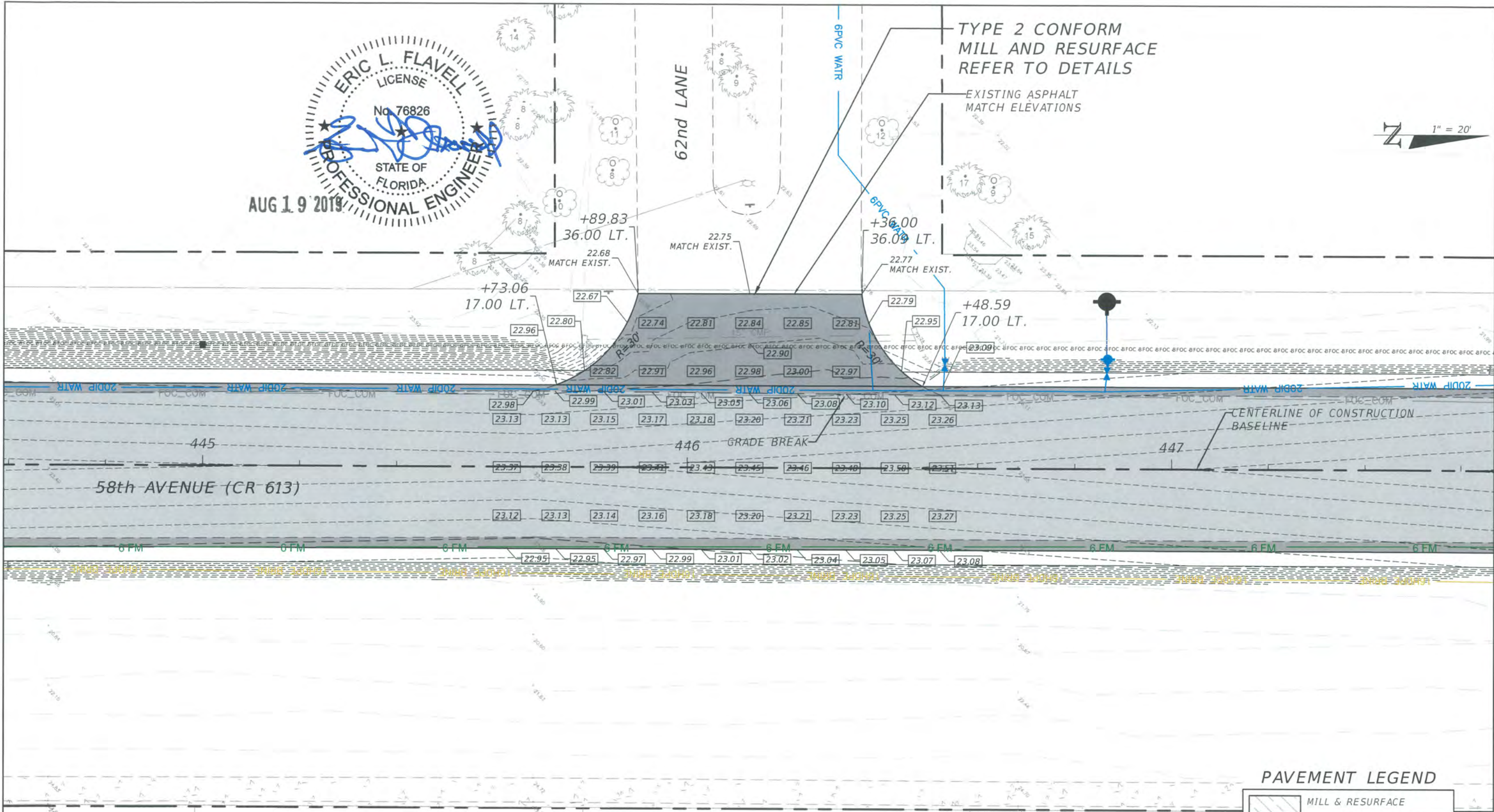
SHEET NO.
86



62nd LANE

TYPE 2 CONFORM
MILL AND RESURFACE
REFER TO DETAILS

EXISTING ASPHALT
MATCH ELEVATIONS

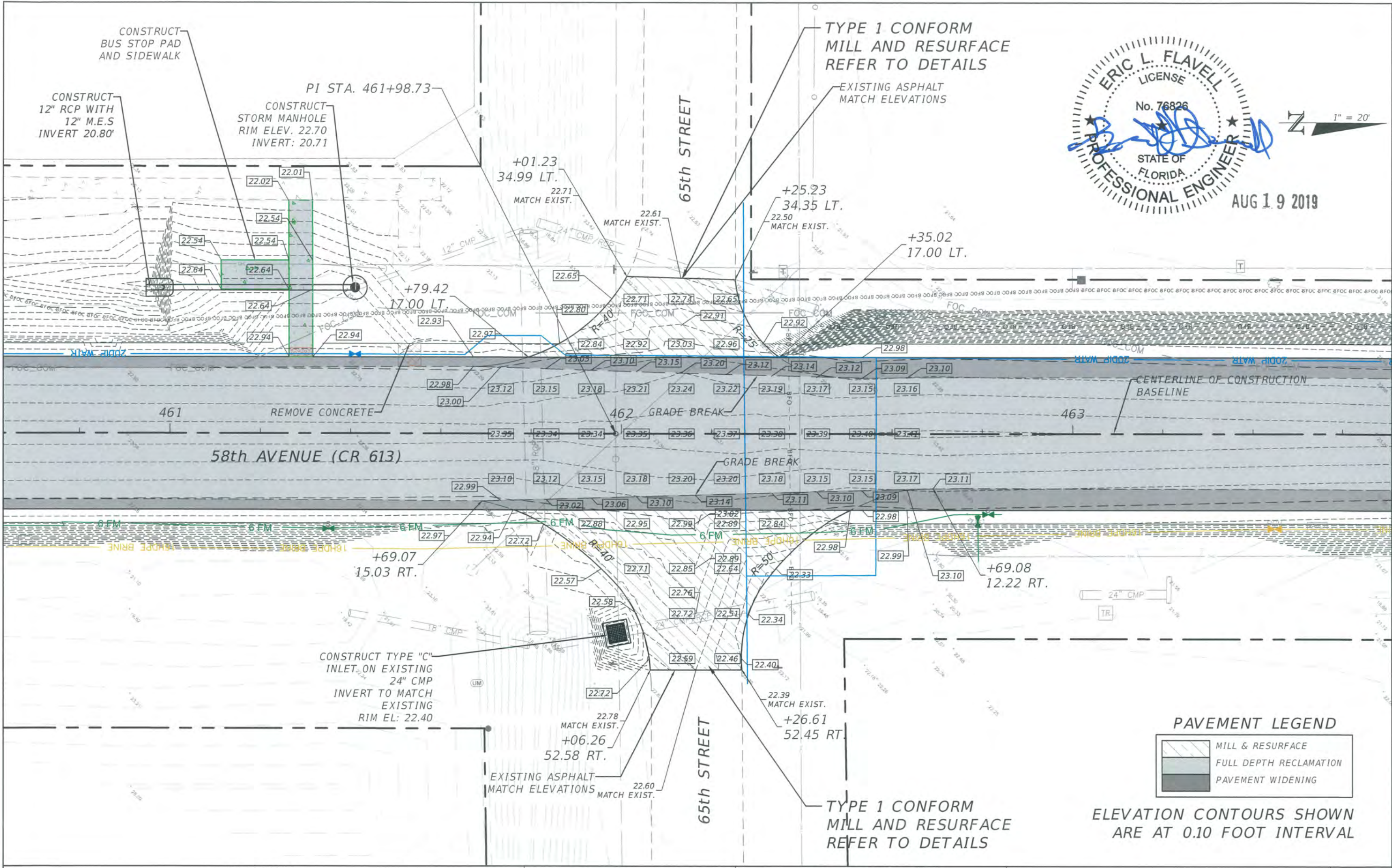


PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN
ARE AT 0.10 FOOT INTERVAL

REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			DETAIL PLAN SHEET 62ND LANE	SHEET NO. 87
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
---	---	---	---		CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01		



ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF
 FLORIDA
PROFESSIONAL ENGINEER

AUG 19 2019
 1" = 20'

PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN
ARE AT 0.10 FOOT INTERVAL

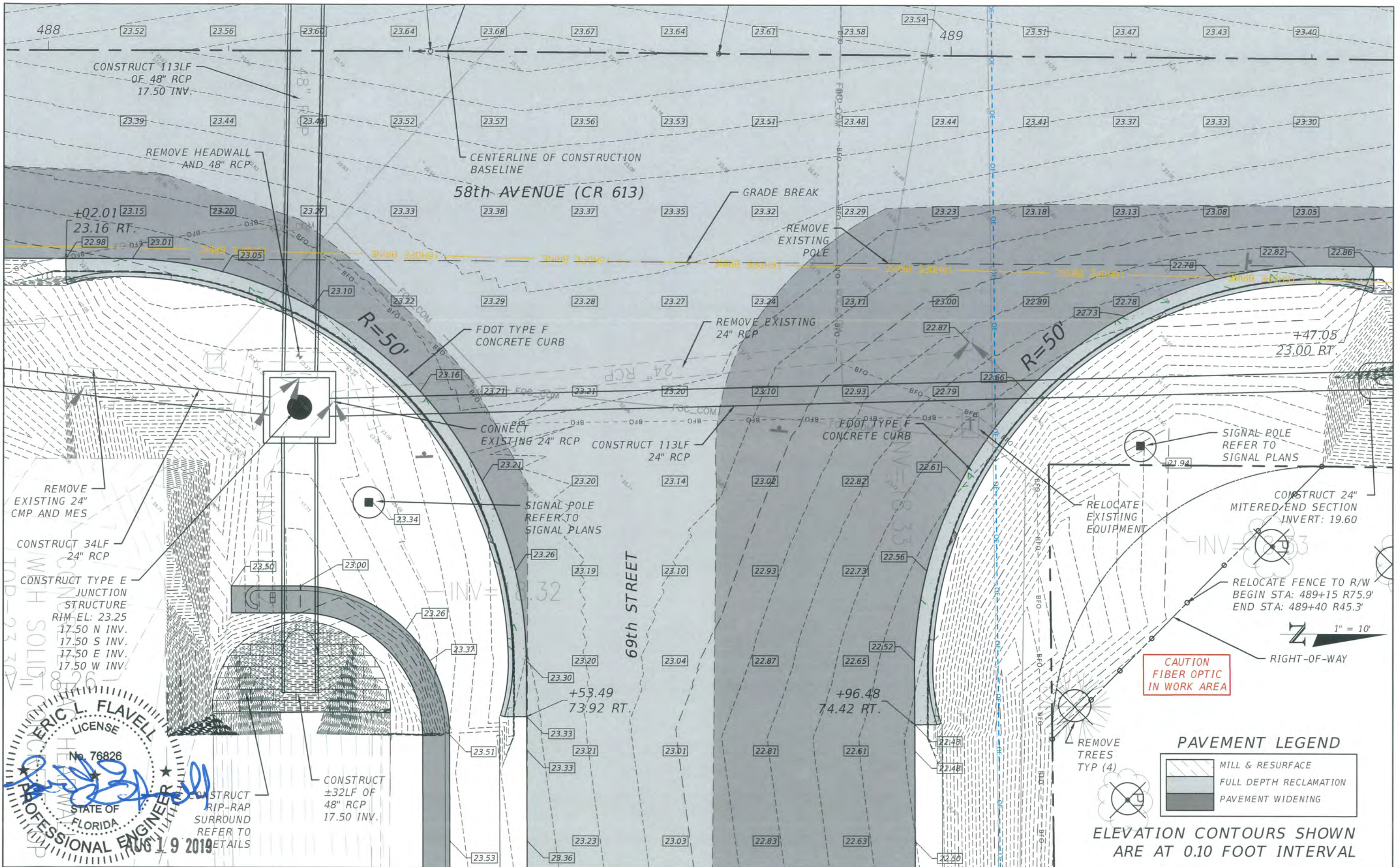
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

**DETAIL PLAN SHEET 65TH
STREET**

SHEET
 NO.
 88



ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 AUG 19 2019

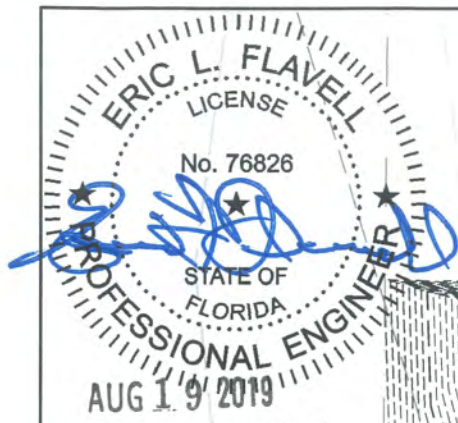
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

DETAIL PLAN SHEET
69TH STREET EAST HALF

SHEET NO.
 89



CAUTION
FIBER OPTIC
IN WORK AREA

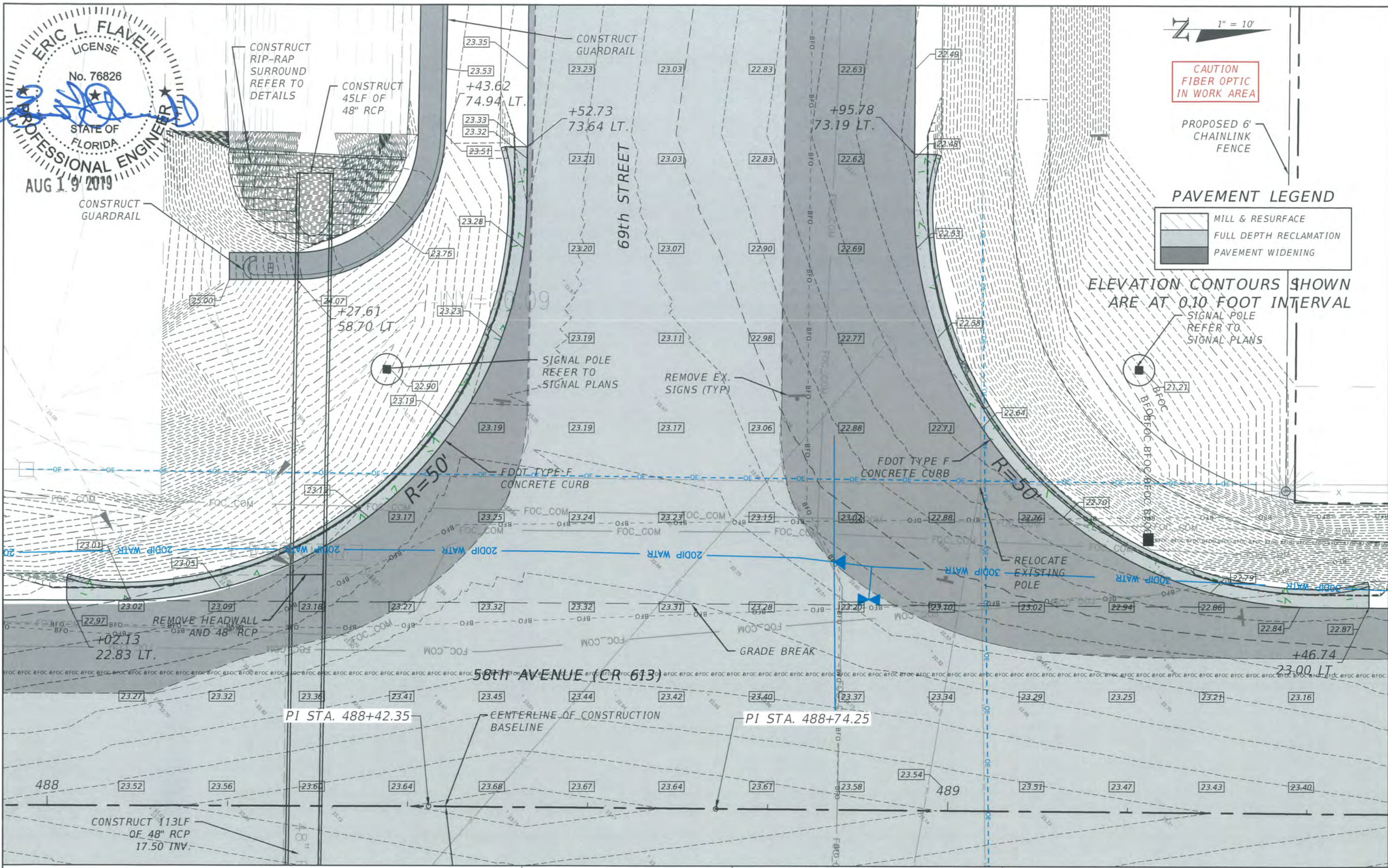
PROPOSED 6'
CHAINLINK
FENCE

PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN
ARE AT 0.10 FOOT INTERVAL

SIGNAL POLE
REFER TO
SIGNAL PLANS



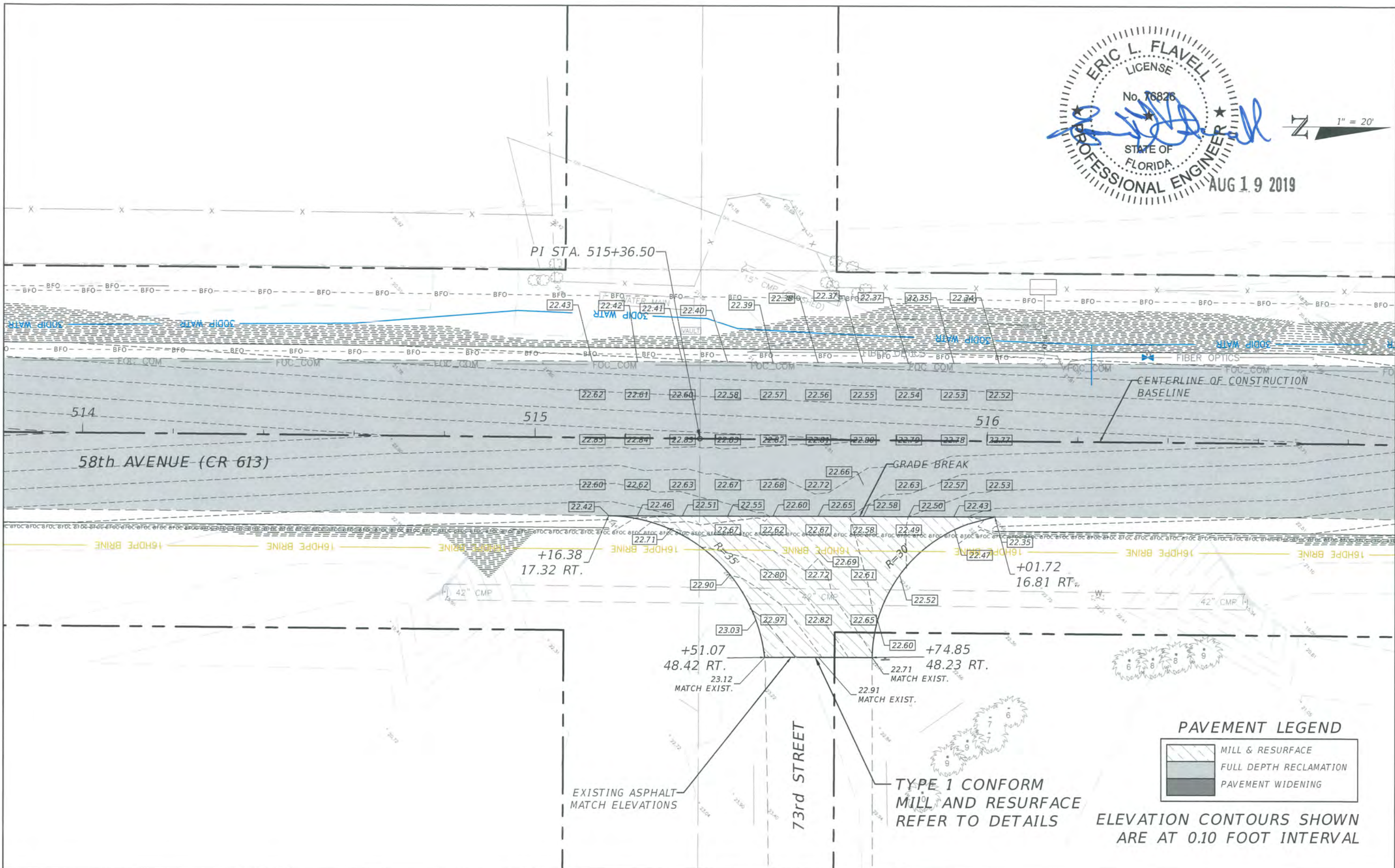
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

DETAIL PLAN SHEET
69TH STREET WEST HALF

SHEET NO.
90



PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN ARE AT 0.10 FOOT INTERVAL

TYPE 1 CONFORM
MILL AND RESURFACE
REFER TO DETAILS

EXISTING ASPHALT
MATCH ELEVATIONS

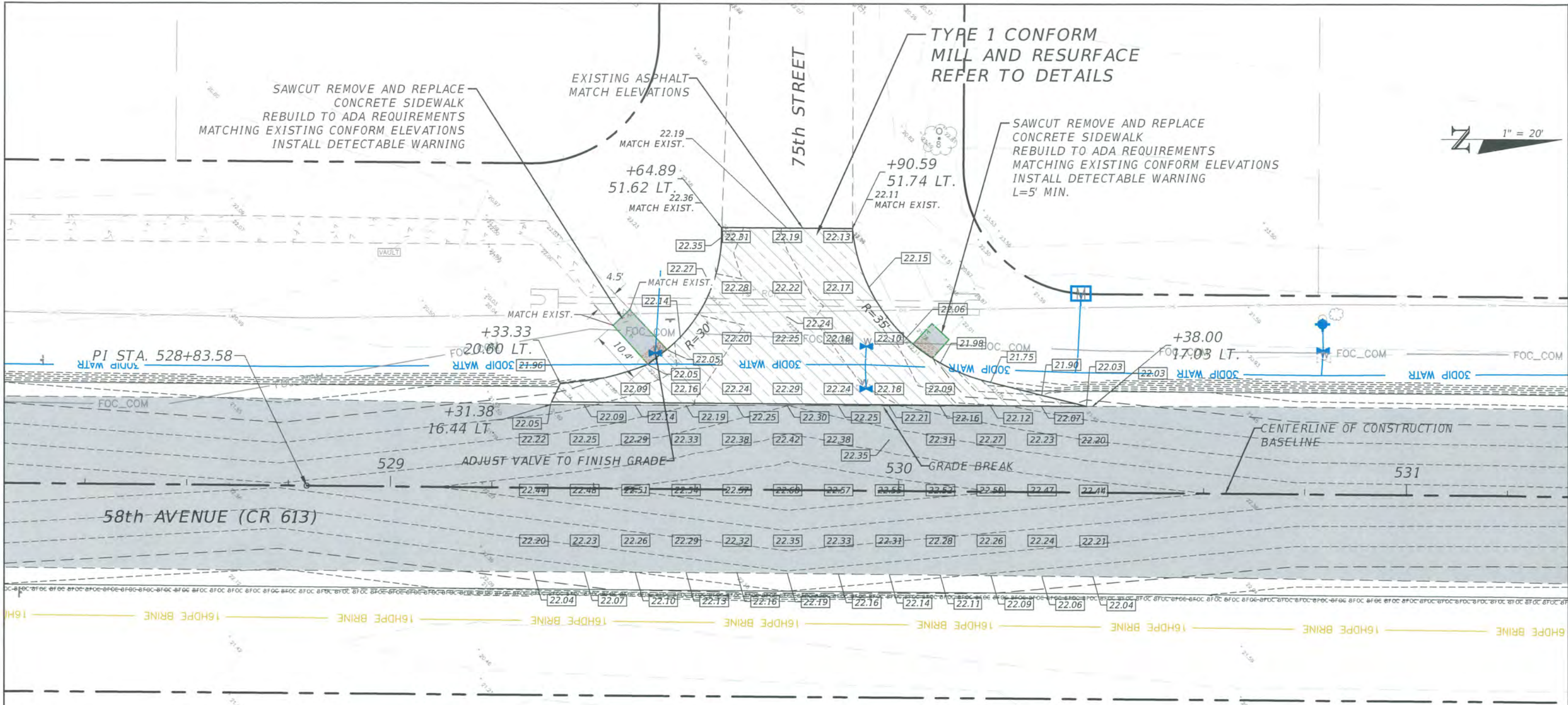
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**DETAIL PLAN SHEET
73RD STREET**

SHEET NO.
91



PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN ARE AT 0.10 FOOT INTERVAL

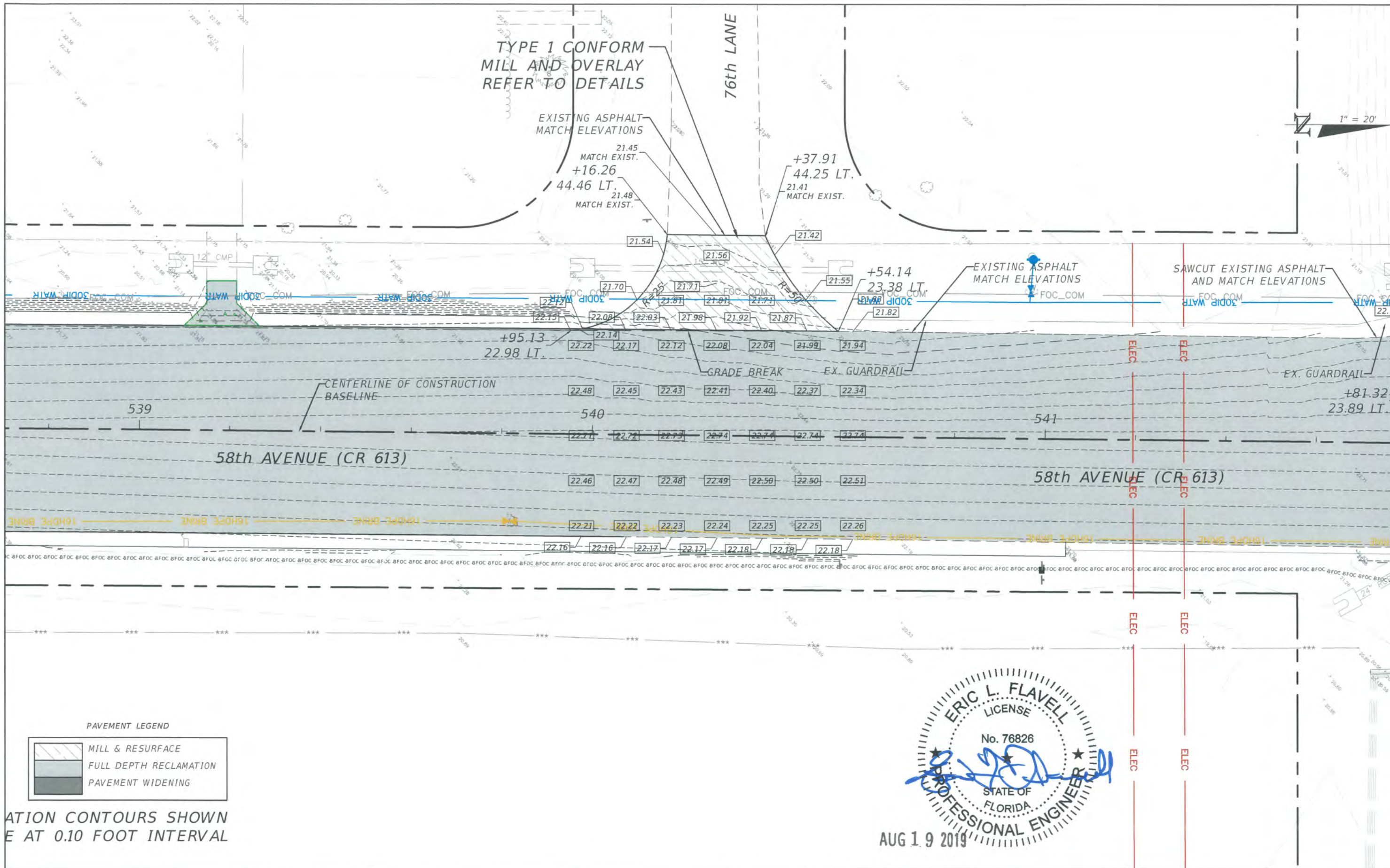
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**DETAIL PLAN SHEET
75TH STREET**

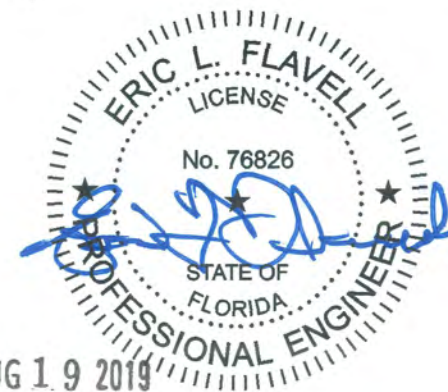
SHEET NO.
92



PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN AT 0.10 FOOT INTERVAL



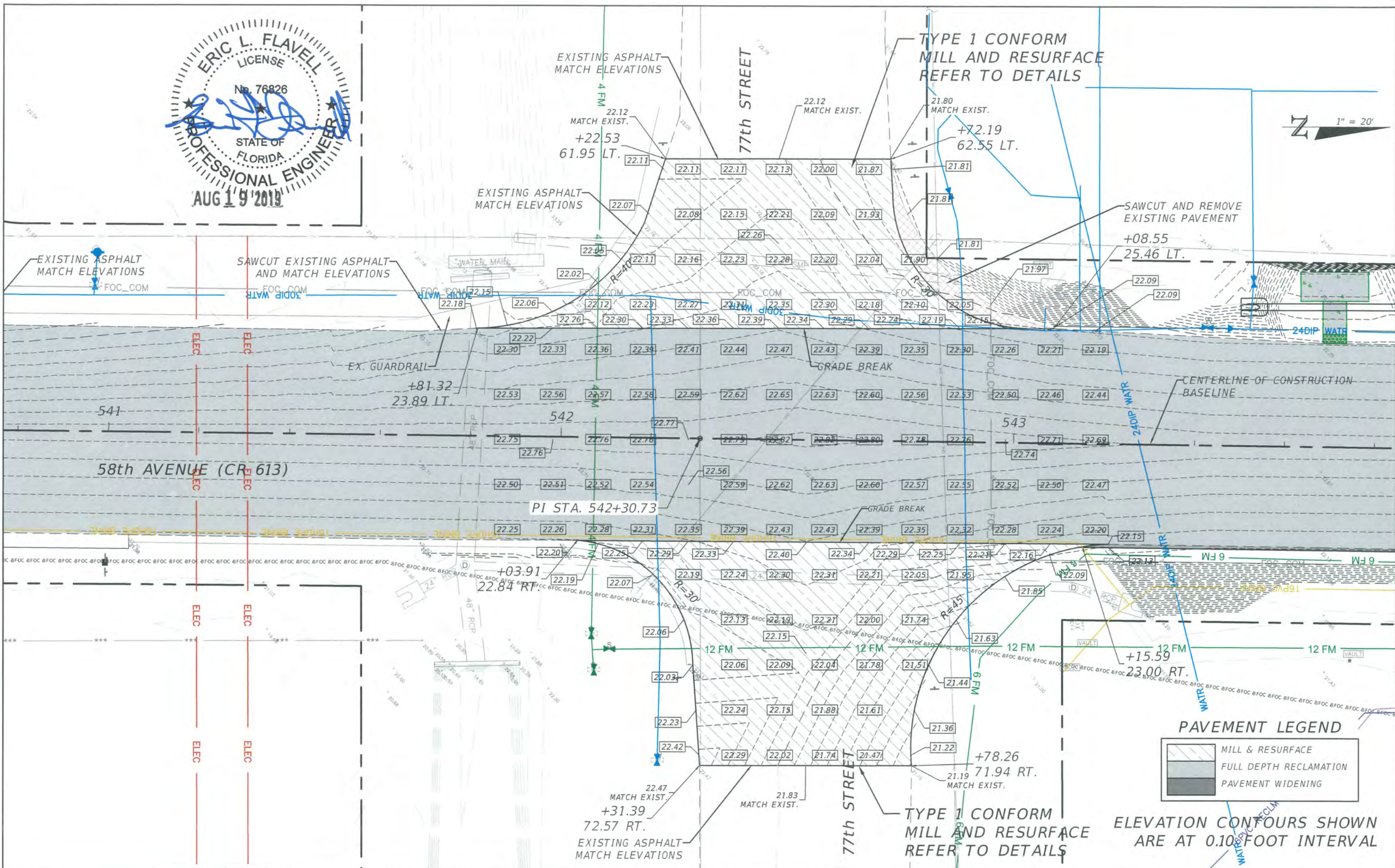
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DETAIL PLAN SHEET
 76TH LANE

SHEET NO.
93



PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN ARE AT 0.10 FOOT INTERVAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

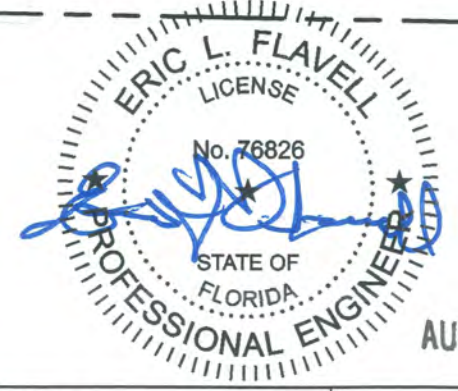
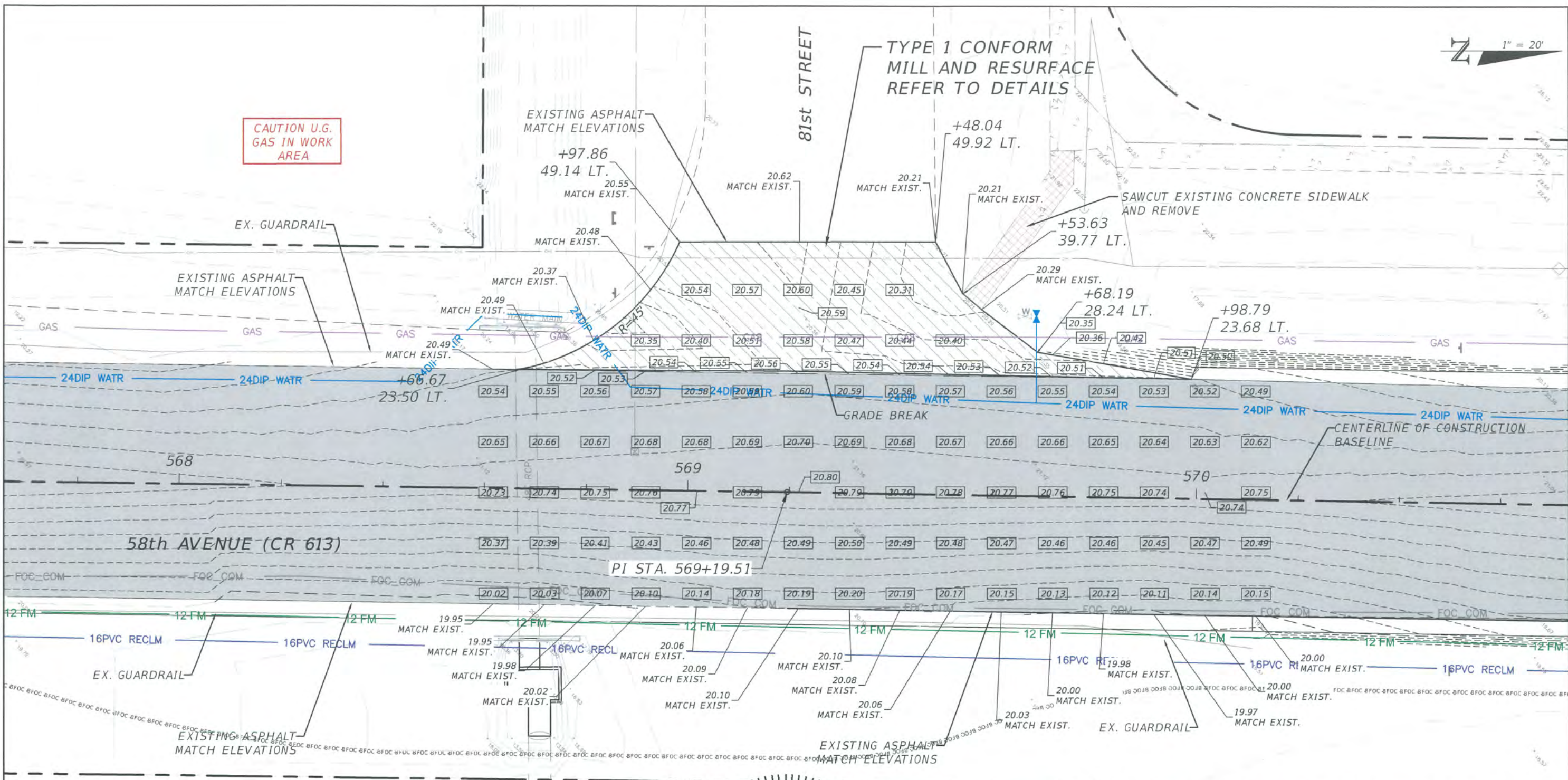
ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

**DETAIL PLAN SHEET
 77TH STREET**

SHEET NO.
 94

CAUTION U.G. GAS IN WORK AREA



PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN ARE AT 0.10 FOOT INTERVAL

INDIAN RIVER FARMS WATER CONTROL DISTRICT LATERAL G

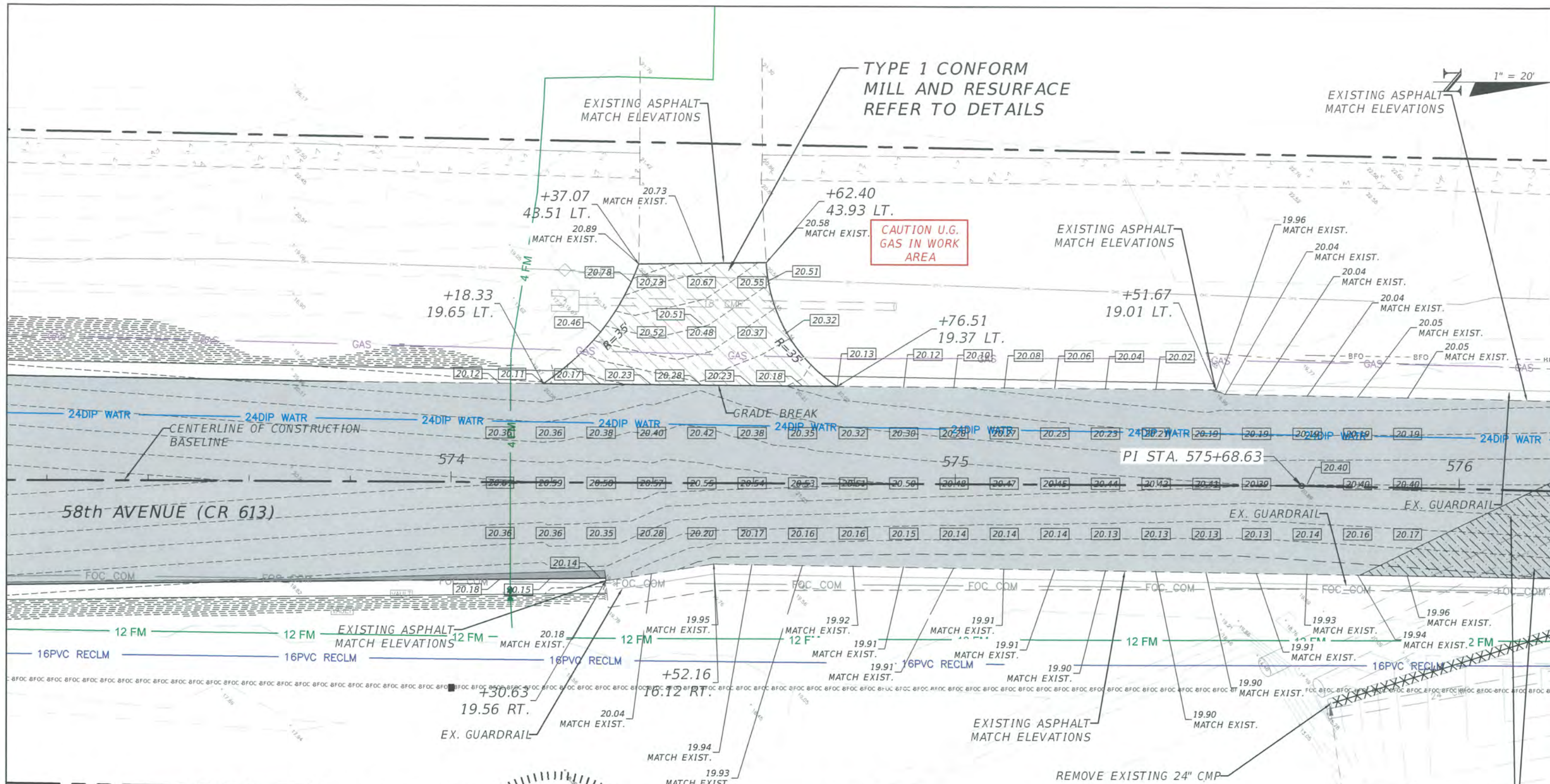
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

**DETAIL PLAN SHEET
81ST STREET**

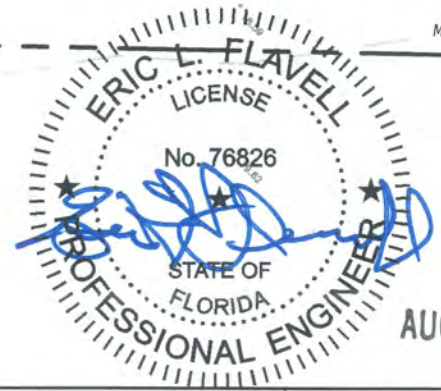
SHEET NO.
95



PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN ARE AT 0.10 FOOT INTERVAL



REVISIONS	
DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

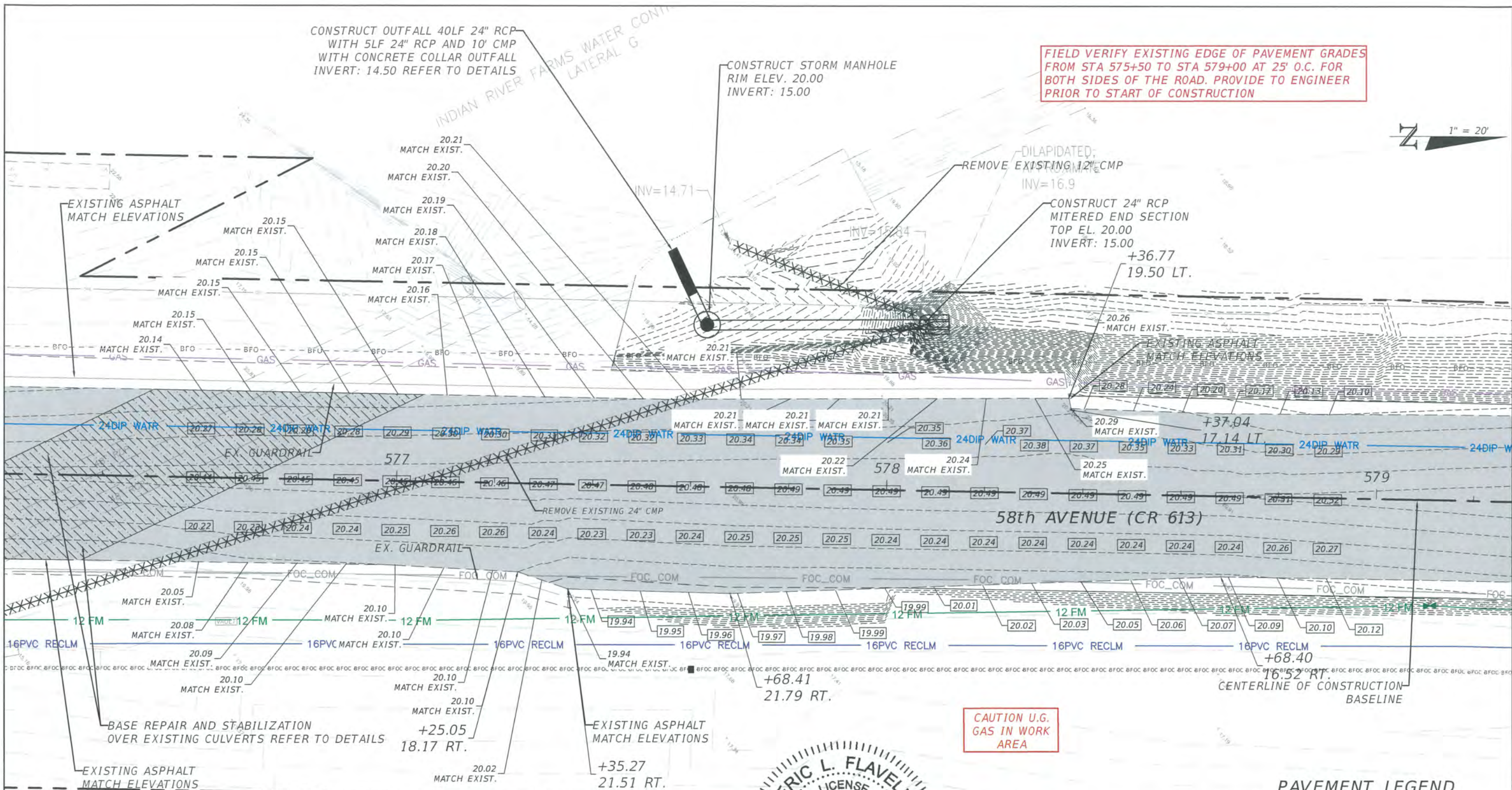
DETAIL PLAN SHEET LATERAL G CANAL EAST

SHEET NO.
96

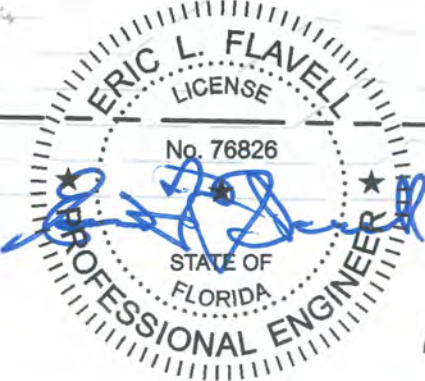
CONSTRUCT OUTFALL 40LF 24" RCP WITH 5LF 24" RCP AND 10' CMP WITH CONCRETE COLLAR OUTFALL INVERT: 14.50 REFER TO DETAILS

CONSTRUCT STORM MANHOLE RIM ELEV. 20.00 INVERT: 15.00

FIELD VERIFY EXISTING EDGE OF PAVEMENT GRADES FROM STA 575+50 TO STA 579+00 AT 25' O.C. FOR BOTH SIDES OF THE ROAD. PROVIDE TO ENGINEER PRIOR TO START OF CONSTRUCTION



CAUTION U.G. GAS IN WORK AREA



AUG 19 2019

PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN ARE AT 0.10 FOOT INTERVAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

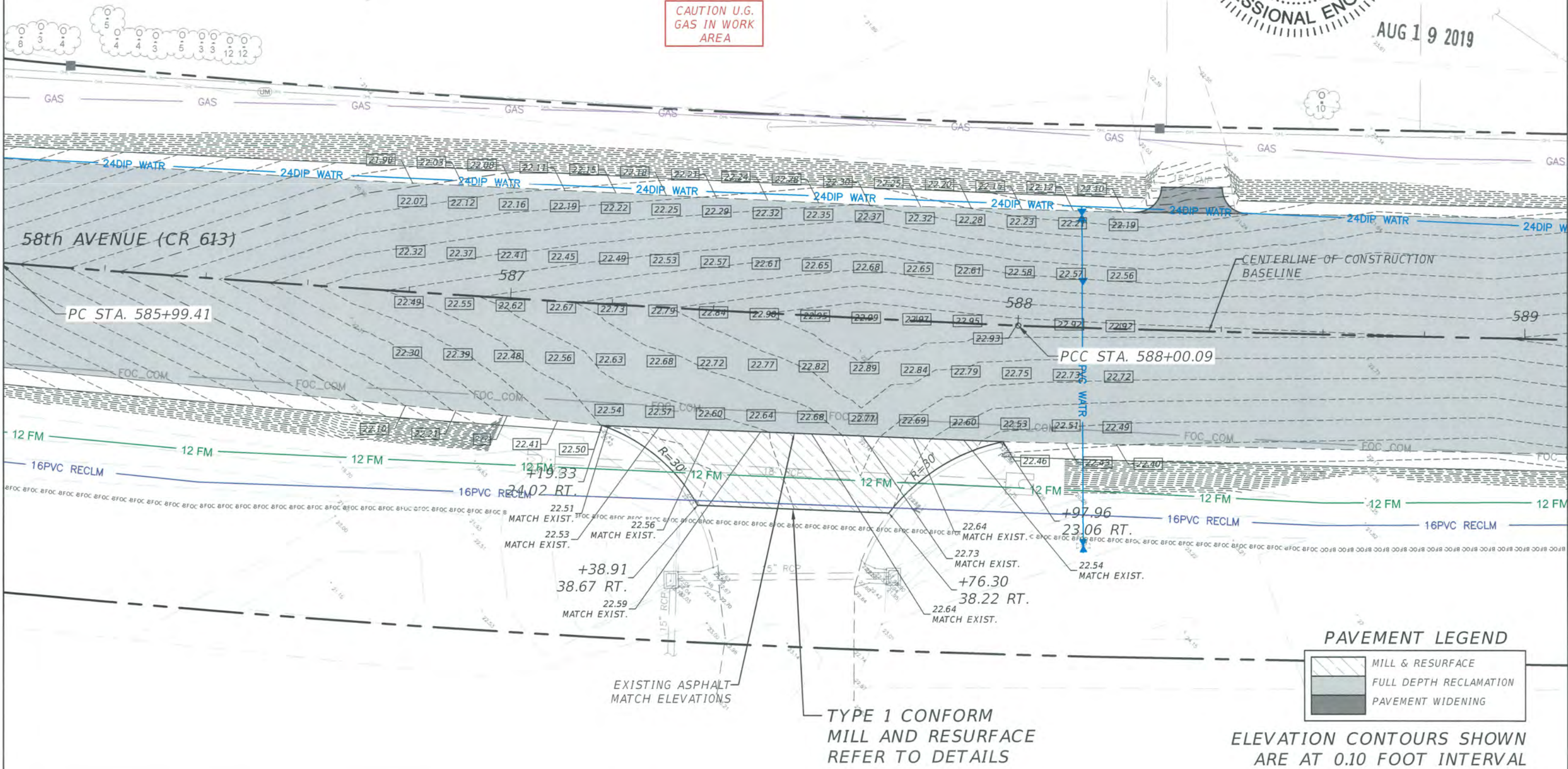
DETAIL PLAN SHEET LATERAL G CANAL WEST

SHEET NO.
97



AUG 19 2019

CAUTION U.G. GAS IN WORK AREA



PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN ARE AT 0.10 FOOT INTERVAL

TYPE 1 CONFORM MILL AND RESURFACE REFER TO DETAILS

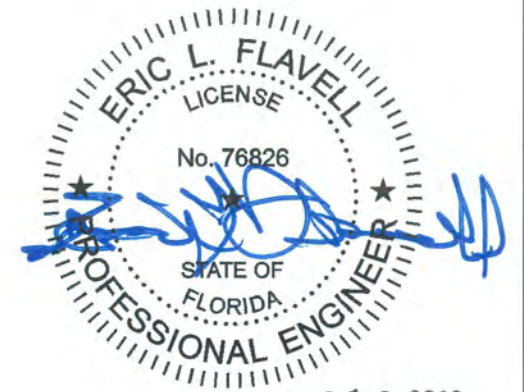
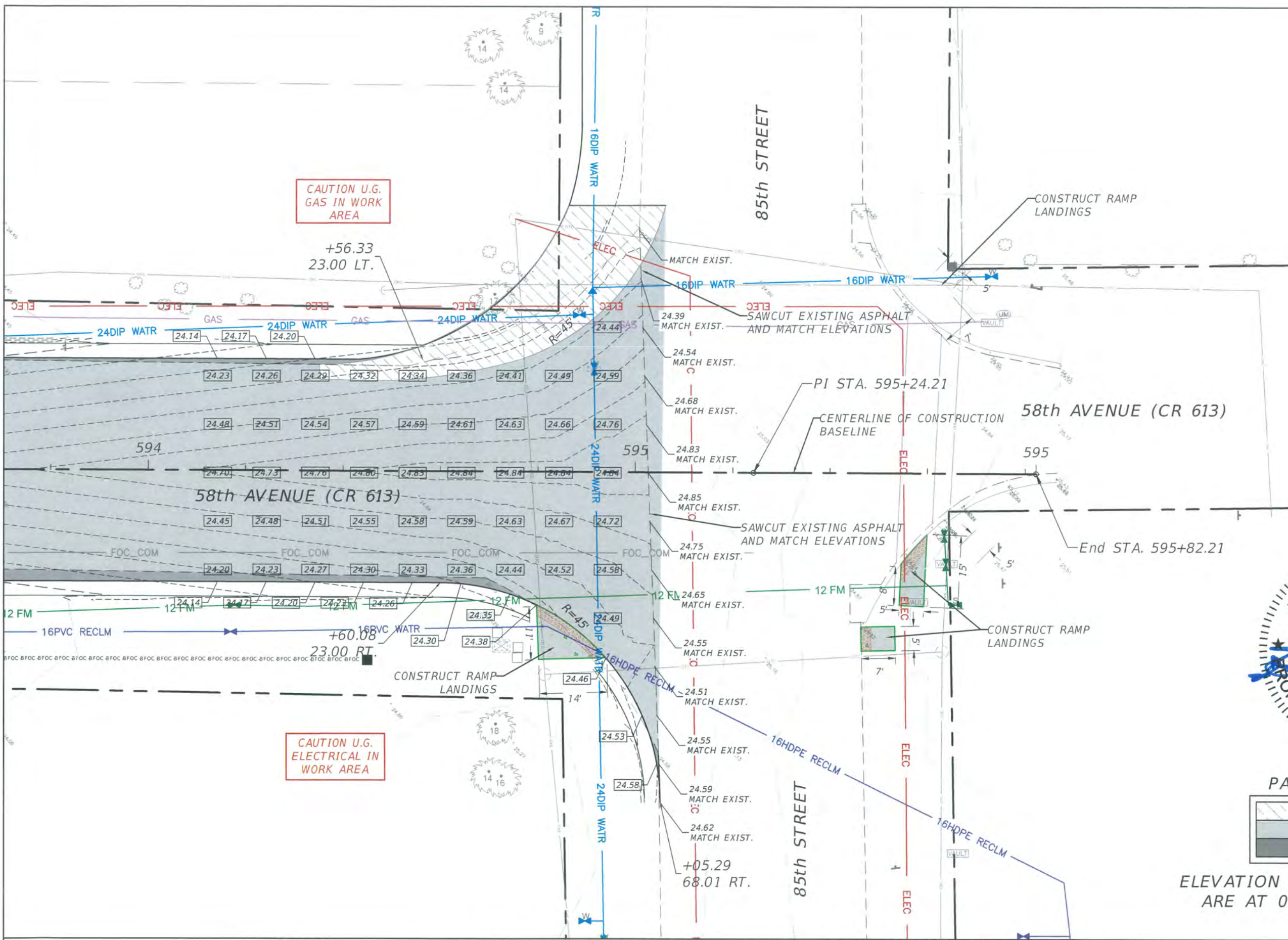
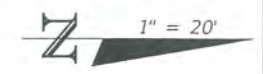
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

DETAIL PLAN SHEET REDSITCK
GOLF CLUB ENTRANCE

SHEET NO.
 98



AUG 19 2019

PAVEMENT LEGEND

	MILL & RESURFACE
	FULL DEPTH RECLAMATION
	PAVEMENT WIDENING

ELEVATION CONTOURS SHOWN ARE AT 0.10 FOOT INTERVAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DETAIL PLAN SHEET 85TH STREET (CR 510)

SHEET NO.
99

NOT IN CONTRACT
STA 408+00 THRU
STA 418+76.47

CENTERLINE 57TH STREET - EAST

Material(s) at Station 409+31.04	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	8.85F
Overbuild	3.85F
Reclaimed Reclamation	5.85F
Full Depth Reclamation	17.45F
Base Material	8.85F
SubBase Material	0.05F
Cut Existing	8.85F
Fill Proposed	0.05F
Over Excavate	0.05F

409+31.04

58TH AVENUE

CENTERLINE
CONSTRUCTION

EXISTING
SSWR FM
8" HDPE

EXISTING
BRINE
16" HDPE

CENTERLINE 57TH STREET - WEST

Material(s) at Station 409+22.17	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	8.85F
Overbuild	2.25F
Reclaimed Reclamation	5.45F
Full Depth Reclamation	18.35F
Base Material	8.85F
SubBase Material	0.05F
Cut Existing	8.85F
Fill Proposed	0.05F
Over Excavate	0.05F

409+22.17

58TH AVENUE

CENTERLINE
CONSTRUCTION

EXISTING
FIBER OPTIC

EXISTING
WATER
20" DIP

MATCH
EXISTING
GRADE

EXISTING
FIBER OPTIC

EXISTING
WATER
20" DIP

EXISTING
SSWR FM
8" HDPE

Material(s) at Station 409+00.00	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	8.85F
Overbuild	0.85F
Reclaimed Reclamation	11.35F
Full Depth Reclamation	33.95F
Base Material	8.85F
SubBase Material	0.05F
Cut Existing	8.85F
Fill Proposed	0.05F
Over Excavate	0.05F

409+00.00

58TH AVENUE

CENTERLINE
CONSTRUCTION

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
---	---	---	---

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION
ROAD NO. COUNTY FINANCIAL PROJECT ID
CR-613 INDIAN RIVER IRC: 1325
58th AVE FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE



SHEET NO.
100

NOT IN CONTRACT
STA 408+00 THRU
STA 418+76.47

Material(s) at Station 412+00.00

Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.65F
Overbuild	0.05F
Reclaimed Reclamation	11.45F
Full Depth Reclamation	34.35F
Base Material	0.25F
SubBase Material	0.15F
Cut Existing	1.35F
Fill Proposed	0.15F
Over Excavate	0.95F

412+00.00

Material(s) at Station 411+00.00

Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	0.15F
Reclaimed Reclamation	11.55F
Full Depth Reclamation	34.55F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.55F
Fill Proposed	0.15F
Over Excavate	1.15F

411+00.00

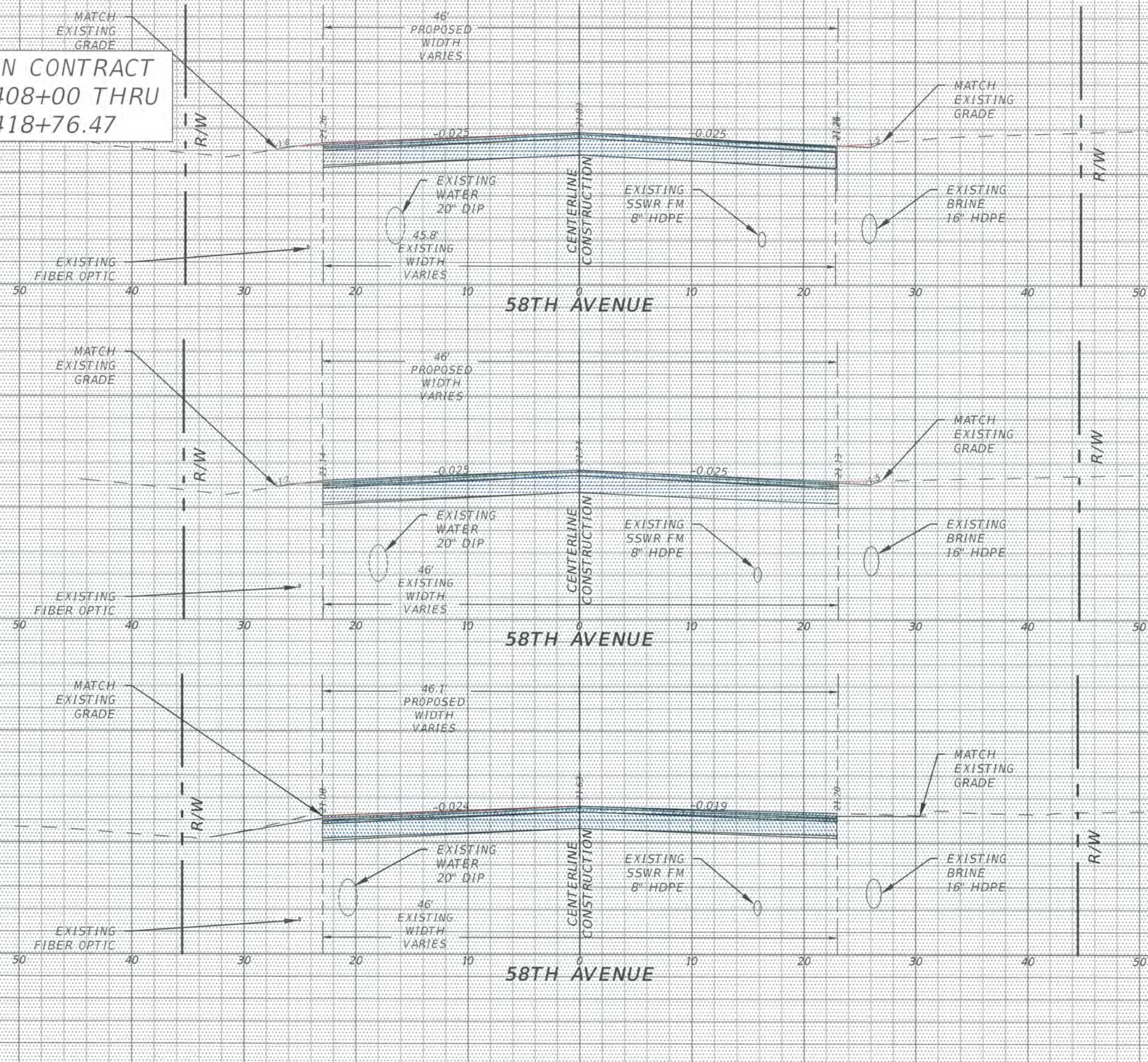
Material(s) at Station 410+00.00

Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	0.05F
Reclaimed Reclamation	11.55F
Full Depth Reclamation	34.55F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	1.35F
Fill Proposed	0.05F
Over Excavate	2.55F

410+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 101



NOT IN CONTRACT
STA 408+00 THRU
STA 418+76.47

Material(s) at Station 415+00.00

Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.35F
Overbuild	0.65F
Reclaimed Recrimation	10.75F
Full Depth Reclamation	32.15F
Base Material	0.85F
SubBase Material	0.95F
Cut Existing	0.35F
Fill Proposed	0.95F
Over Excavate	1.05F

415+00.00

Material(s) at Station 414+00.00

Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	0.45F
Reclaimed Recrimation	11.05F
Full Depth Reclamation	33.15F
Base Material	1.65F
SubBase Material	1.95F
Cut Existing	0.15F
Fill Proposed	0.75F
Over Excavate	0.95F

414+00.00

Material(s) at Station 413+00.00

Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.65F
Overbuild	1.15F
Reclaimed Recrimation	11.35F
Full Depth Reclamation	33.95F
Base Material	0.75F
SubBase Material	0.75F
Cut Existing	0.85F
Fill Proposed	1.75F
Over Excavate	1.65F

413+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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4450 W. EAU GALLIE BLVD.
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INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 102



1" = 10' Horizontal
1" = 5' Vertical

NOT IN CONTRACT
STA 408+00 THRU
STA 418+76.47

Material(s) at Station 418+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	2.75F
Reclaimed Reclamation	8.25F
Full Depth Reclamation	24.65F
Base Material	1.85F
SubBase Material	1.15F
Cut Existing	0.85F
Fill Proposed	2.25F
Over Excavate	0.05F

418+00.00

Material(s) at Station 417+00.00

Material Name	Area
Asphalt Friction Course	3.15F
Asphalt Structural Course	6.25F
Overbuild	2.95F
Reclaimed Reclamation	9.25F
Full Depth Reclamation	27.65F
Base Material	0.55F
SubBase Material	0.55F
Cut Existing	0.85F
Fill Proposed	0.85F
Over Excavate	0.05F

417+00.00

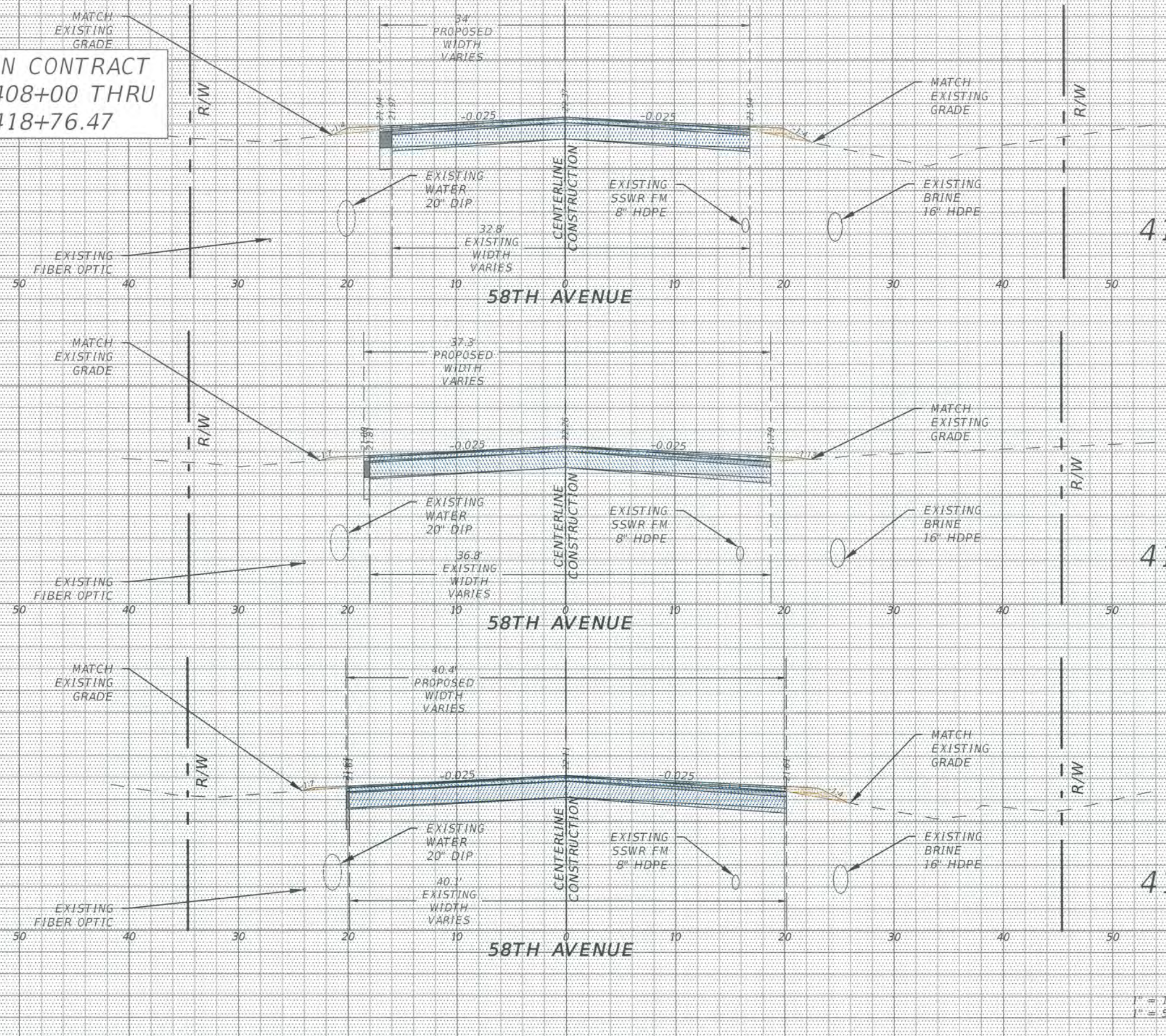
Material(s) at Station 416+00.00

Material Name	Area
Asphalt Friction Course	3.45F
Asphalt Structural Course	6.75F
Overbuild	3.45F
Reclaimed Reclamation	10.05F
Full Depth Reclamation	30.05F
Base Material	0.35F
SubBase Material	0.35F
Cut Existing	0.85F
Fill Proposed	1.95F
Over Excavate	0.05F

416+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

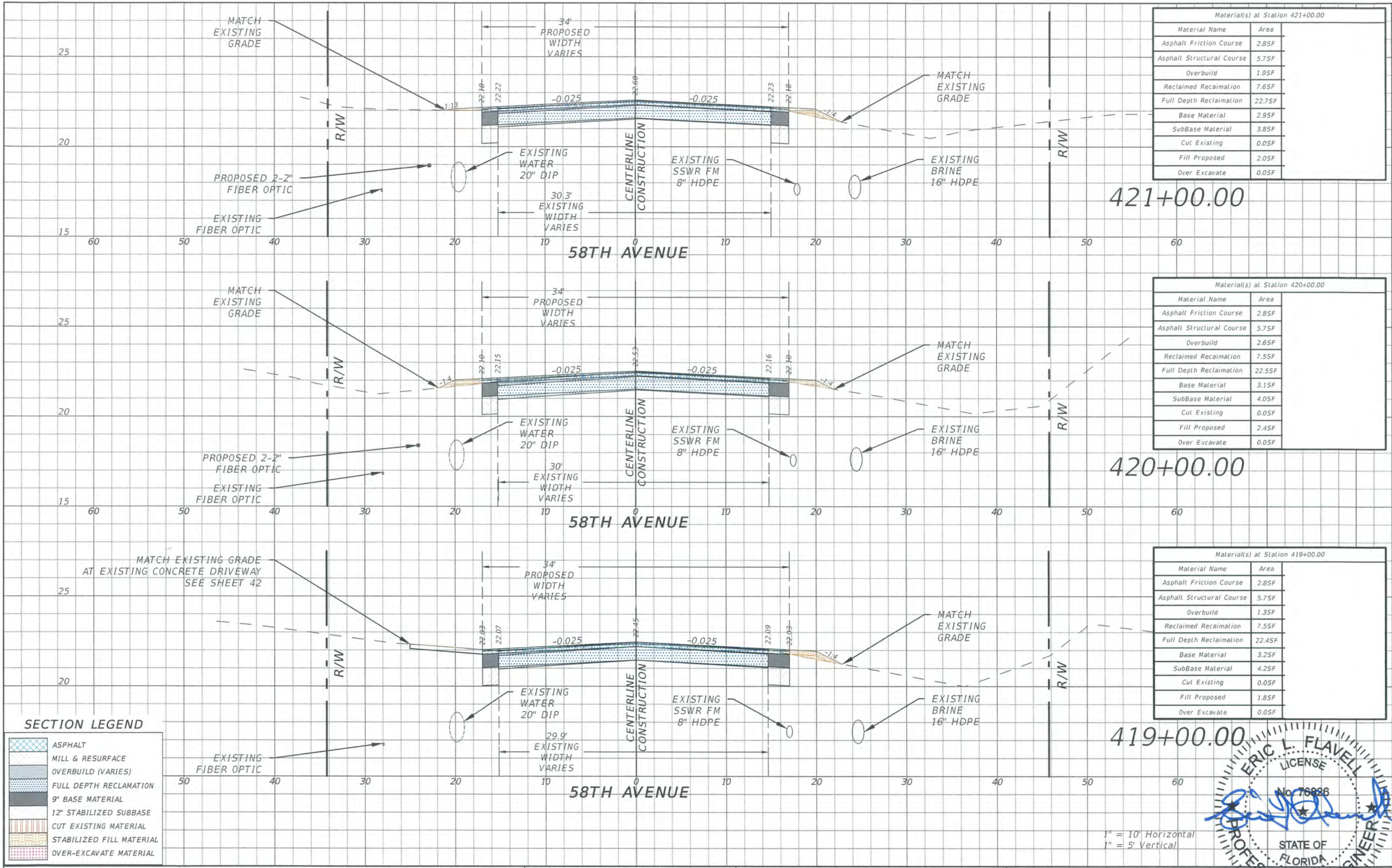
ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 103





Material(s) at Station 421+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.95F
Reclaimed Reclamation	7.65F
Full Depth Reclamation	22.75F
Base Material	2.95F
SubBase Material	3.85F
Cut Existing	0.05F
Fill Proposed	2.05F
Over Excavate	0.05F

Material(s) at Station 420+00.00

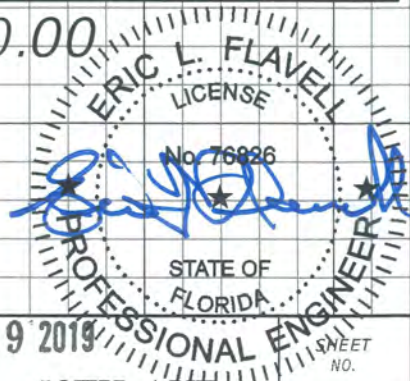
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	2.65F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.55F
Base Material	3.15F
SubBase Material	4.05F
Cut Existing	0.05F
Fill Proposed	2.45F
Over Excavate	0.05F

Material(s) at Station 419+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.35F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.45F
Base Material	3.25F
SubBase Material	4.25F
Cut Existing	0.05F
Fill Proposed	1.85F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL



1" = 10' Horizontal
1" = 5' Vertical

REVISIONS

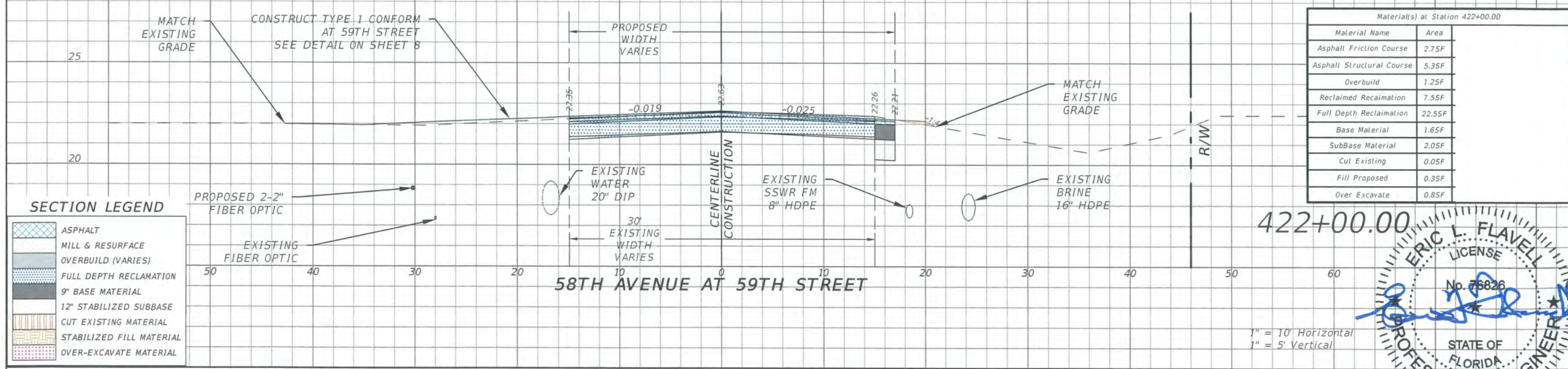
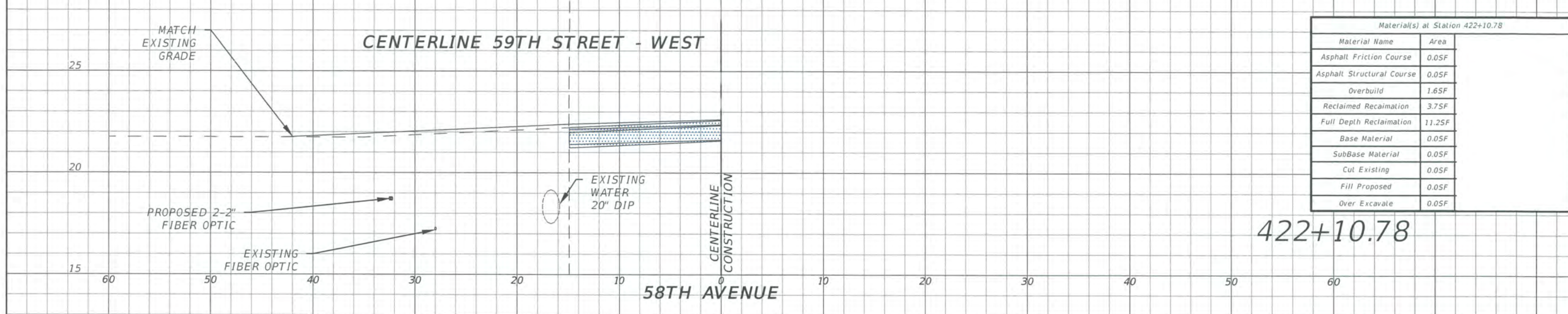
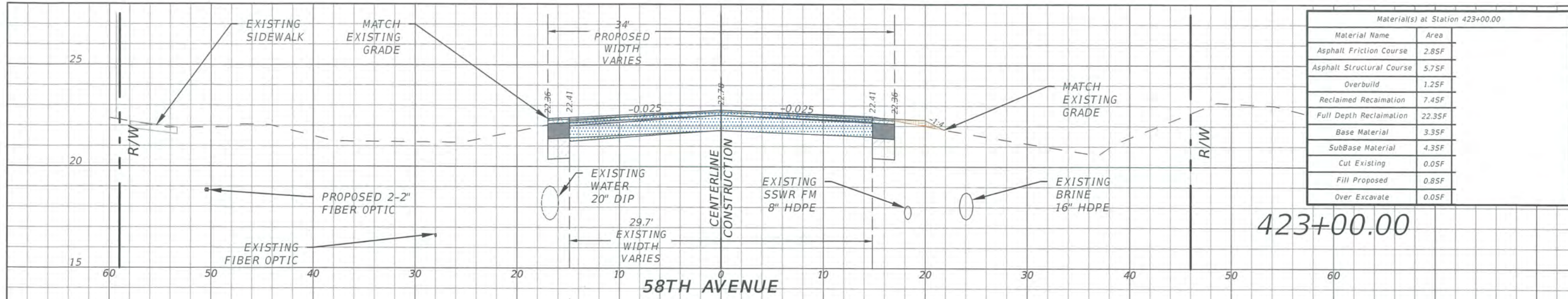
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ERIC L. FLAVELL, P.E.
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BOWMAN CONSULTING GROUP
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INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 104



SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

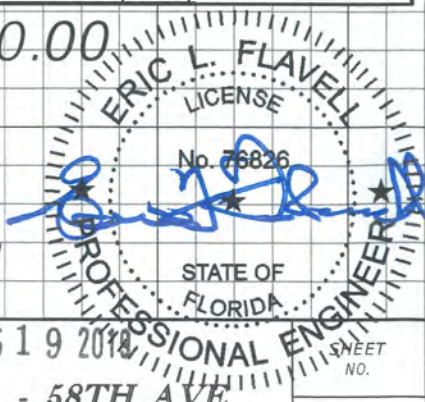
DATE	DESCRIPTION	DATE	DESCRIPTION
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 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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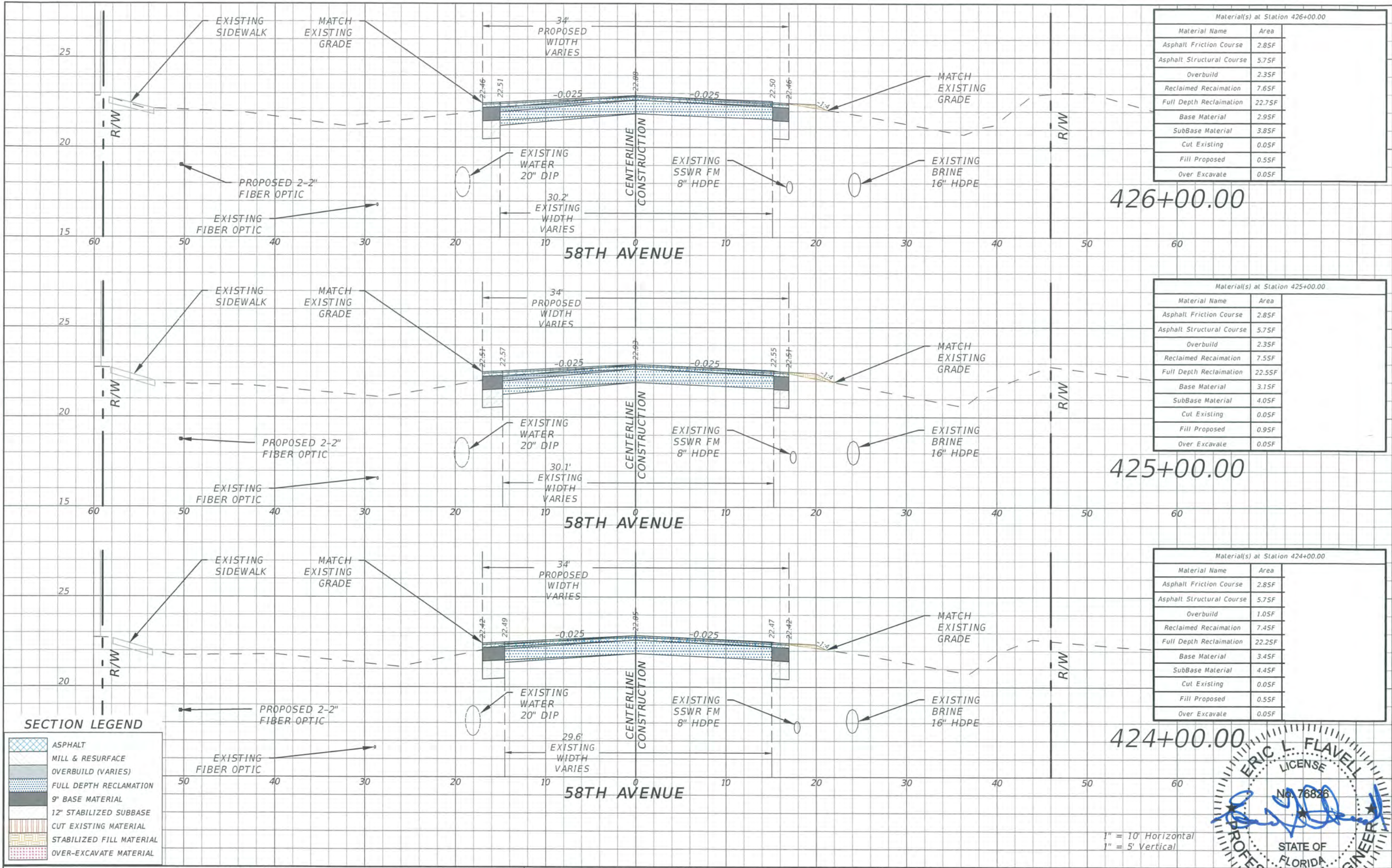
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2018
CROSS SECTIONS - 58TH AVE
 SHEET NO. 105



1" = 10' Horizontal
 1" = 5' Vertical



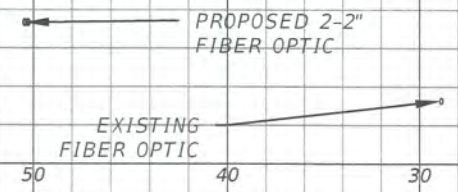
Material(s) at Station 426+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	2.35F
Reclaimed Reclamation	7.65F
Full Depth Reclamation	22.75F
Base Material	2.95F
SubBase Material	3.85F
Cut Existing	0.05F
Fill Proposed	0.55F
Over Excavate	0.05F

Material(s) at Station 425+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	2.35F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.55F
Base Material	3.15F
SubBase Material	4.05F
Cut Existing	0.05F
Fill Proposed	0.95F
Over Excavate	0.05F

Material(s) at Station 424+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.05F
Reclaimed Reclamation	7.45F
Full Depth Reclamation	22.25F
Base Material	3.45F
SubBase Material	4.45F
Cut Existing	0.05F
Fill Proposed	0.55F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL



1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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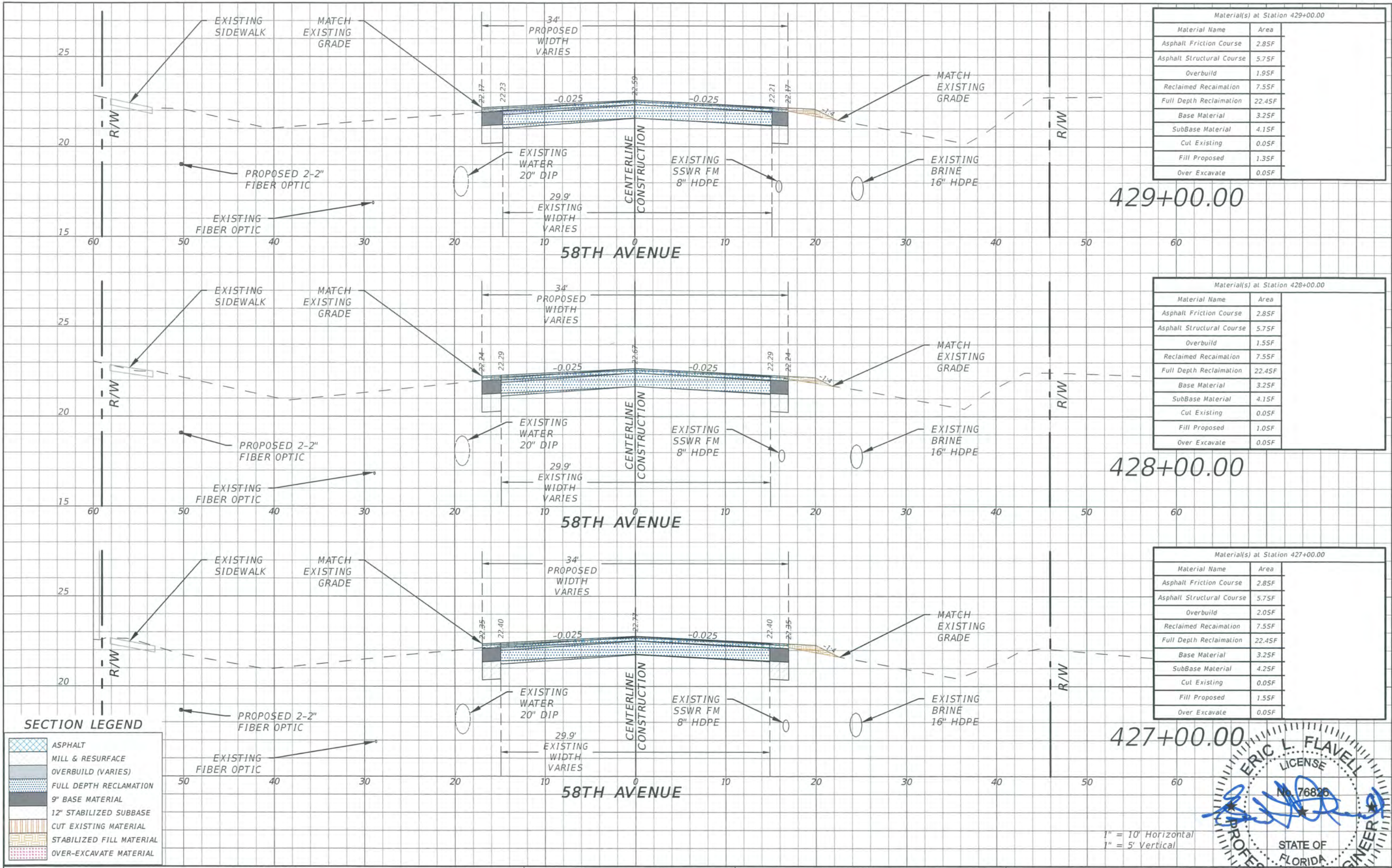
ERIC L. FLAVELL, P.E.
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BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

SHEET NO.
106



Material(s) at Station 429+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.95F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.45F
Base Material	3.25F
SubBase Material	4.15F
Cut Existing	0.05F
Fill Proposed	1.35F
Over Excavate	0.05F

Material(s) at Station 428+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.55F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.45F
Base Material	3.25F
SubBase Material	4.15F
Cut Existing	0.05F
Fill Proposed	1.05F
Over Excavate	0.05F

Material(s) at Station 427+00.00

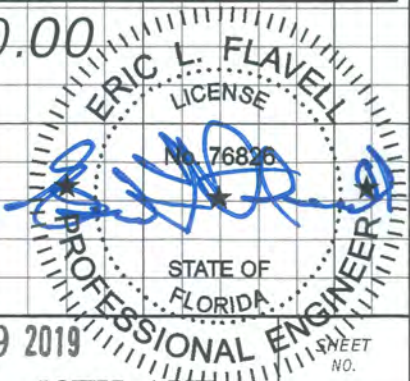
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	2.05F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.45F
Base Material	3.25F
SubBase Material	4.25F
Cut Existing	0.05F
Fill Proposed	1.55F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

PROPOSED 2-2" FIBER OPTIC
EXISTING FIBER OPTIC

1" = 10' Horizontal
1" = 5' Vertical



REVISIONS

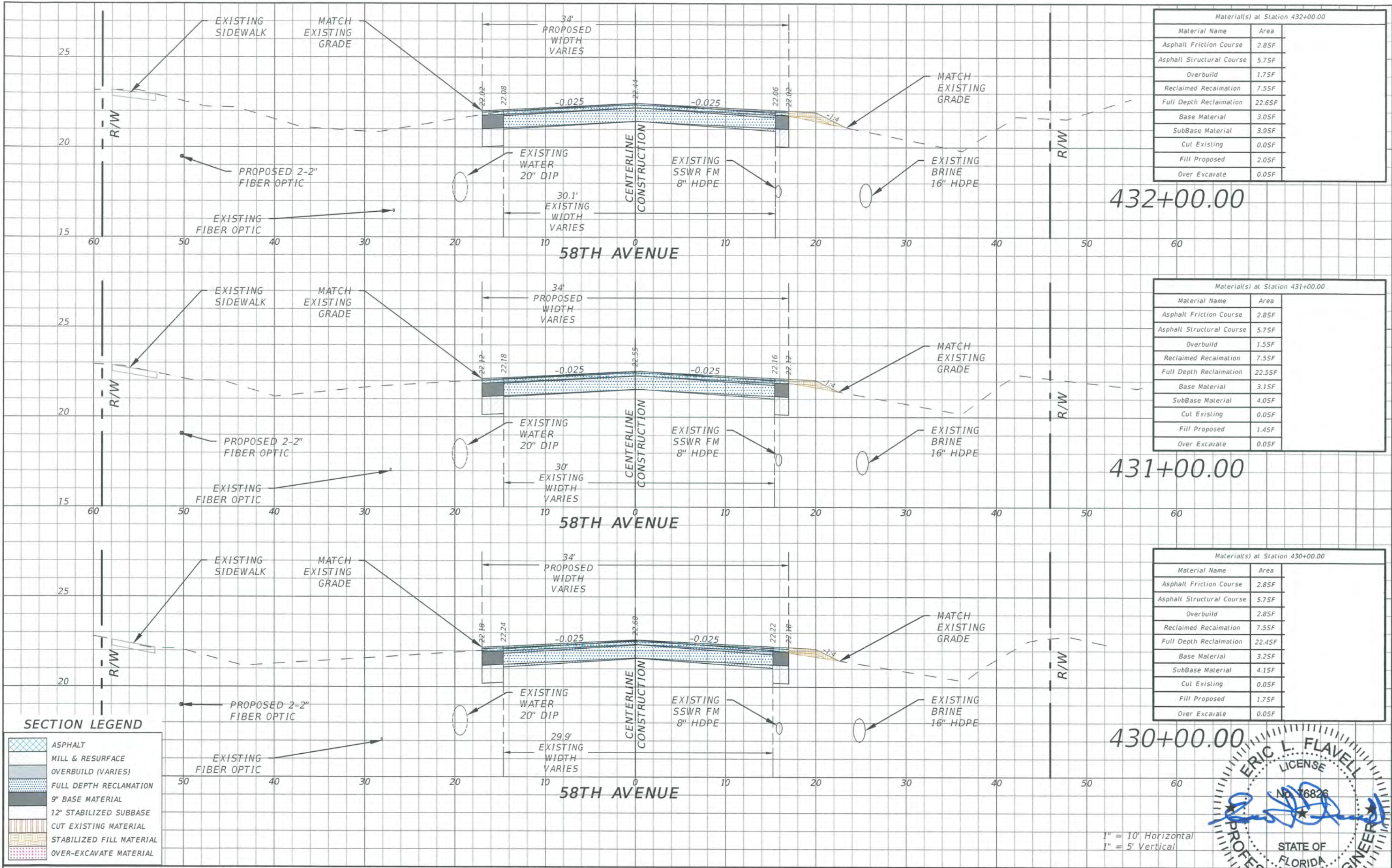
DATE	DESCRIPTION	DATE	DESCRIPTION
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MELBOURNE, FL 32934
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INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 107



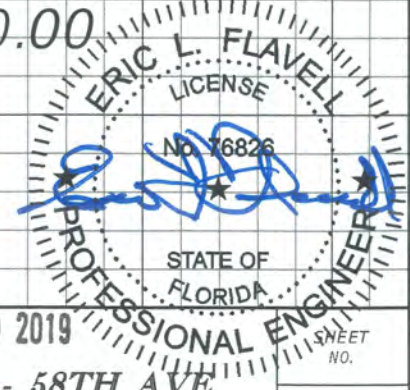
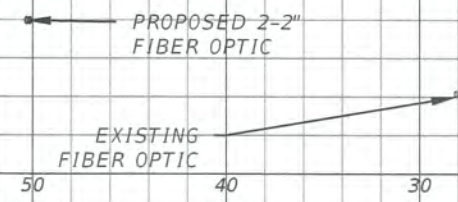
Material(s) at Station 432+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.75F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.65F
Base Material	3.05F
SubBase Material	3.95F
Cut Existing	0.05F
Fill Proposed	2.05F
Over Excavate	0.05F

Material(s) at Station 431+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.55F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.55F
Base Material	3.15F
SubBase Material	4.05F
Cut Existing	0.05F
Fill Proposed	1.45F
Over Excavate	0.05F

Material(s) at Station 430+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	2.85F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.45F
Base Material	3.25F
SubBase Material	4.15F
Cut Existing	0.05F
Fill Proposed	1.75F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL



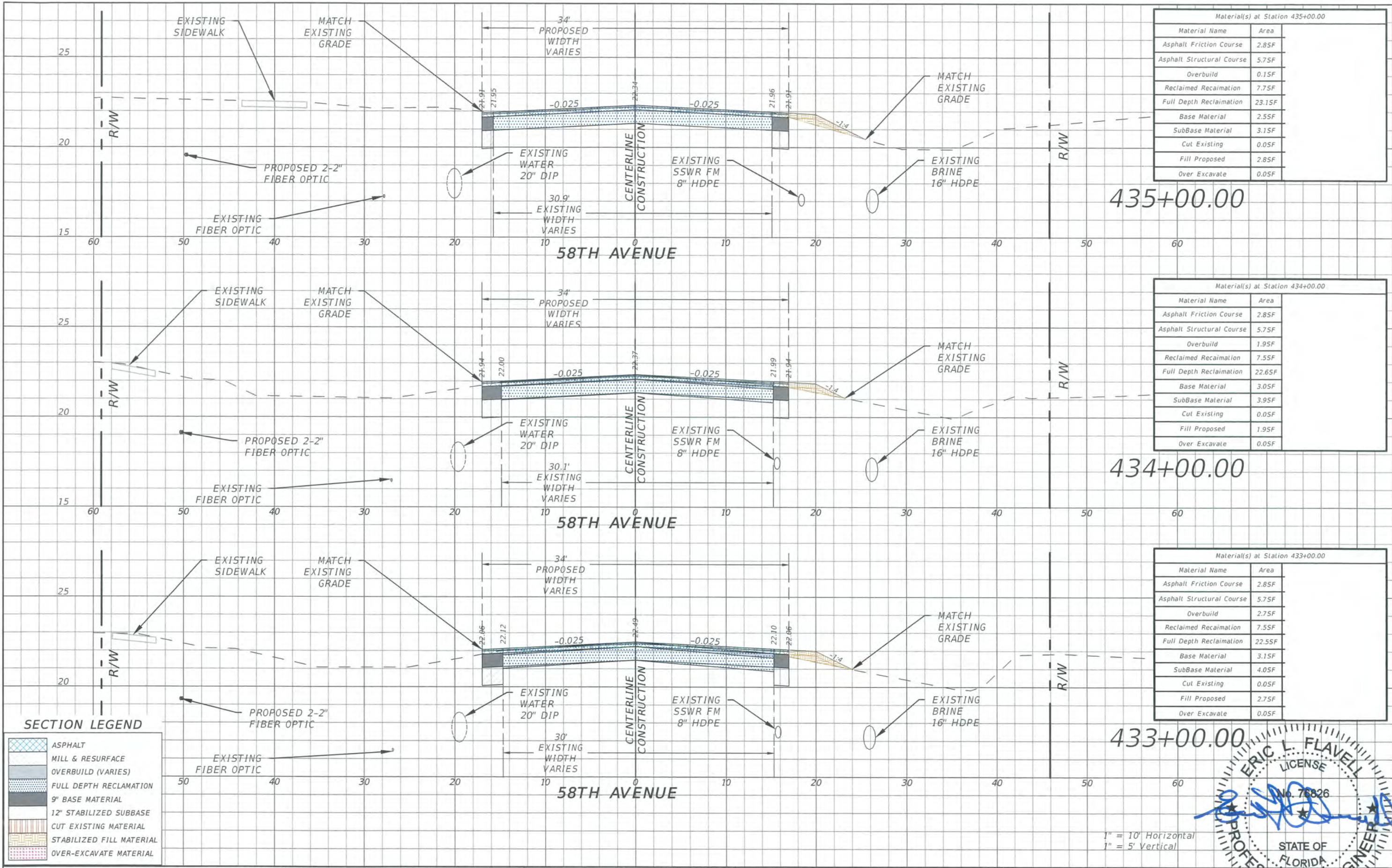
1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 108



Material(s) at Station 435+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.15F
Reclaimed Reclamation	7.75F
Full Depth Reclamation	23.15F
Base Material	2.55F
SubBase Material	3.15F
Cut Existing	0.05F
Fill Proposed	2.85F
Over Excavate	0.05F

Material(s) at Station 434+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.95F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.65F
Base Material	3.05F
SubBase Material	3.95F
Cut Existing	0.05F
Fill Proposed	1.95F
Over Excavate	0.05F

Material(s) at Station 433+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	2.75F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.55F
Base Material	3.15F
SubBase Material	4.05F
Cut Existing	0.05F
Fill Proposed	2.75F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

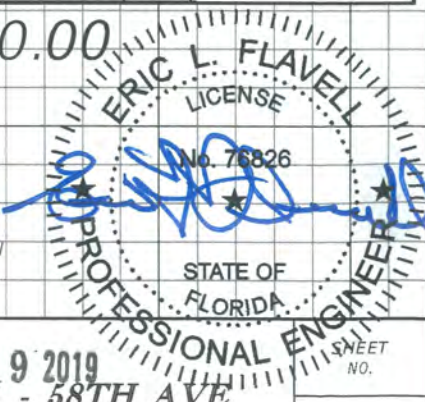
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

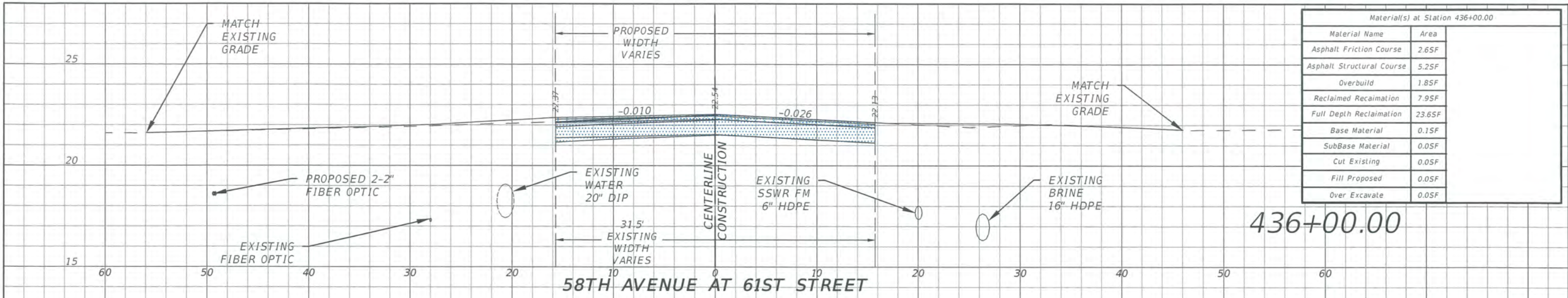
AUG 19 2019
CROSS SECTIONS - 58TH AVE



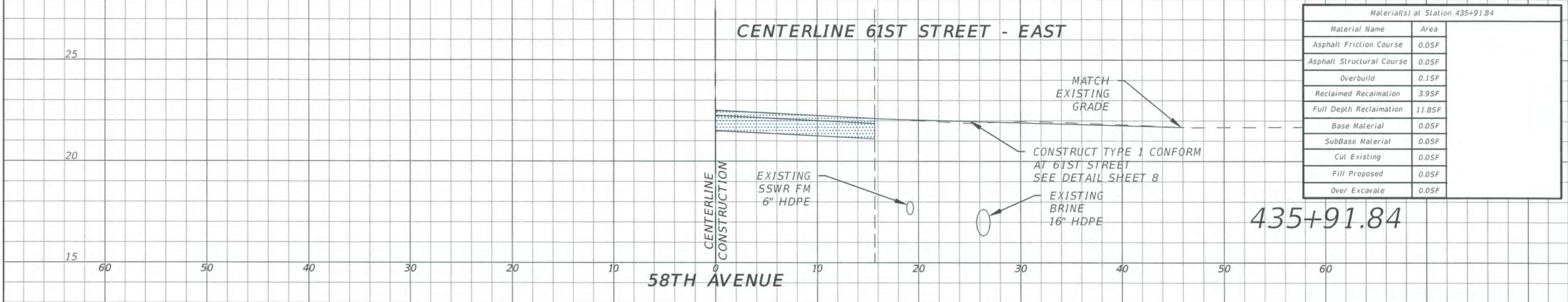
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 1" = 5' Vertical

SHEET NO.

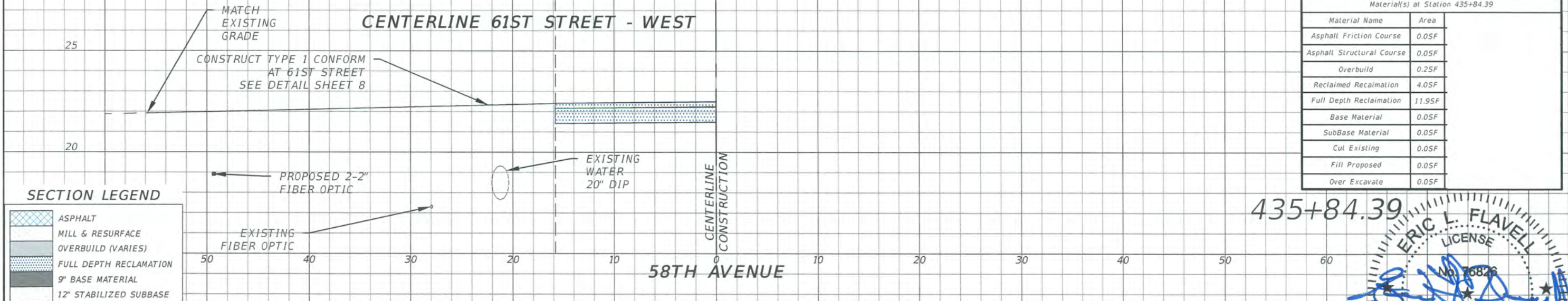
109



Material(s) at Station 436+00.00	
Material Name	Area
Asphalt Friction Course	2.65F
Asphalt Structural Course	5.25F
Overbuild	1.85F
Reclaimed Reclamation	7.95F
Full Depth Reclamation	23.65F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F



Material(s) at Station 435+91.84	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.15F
Reclaimed Reclamation	3.95F
Full Depth Reclamation	11.85F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F



Material(s) at Station 435+84.39	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.25F
Reclaimed Reclamation	4.05F
Full Depth Reclamation	11.95F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

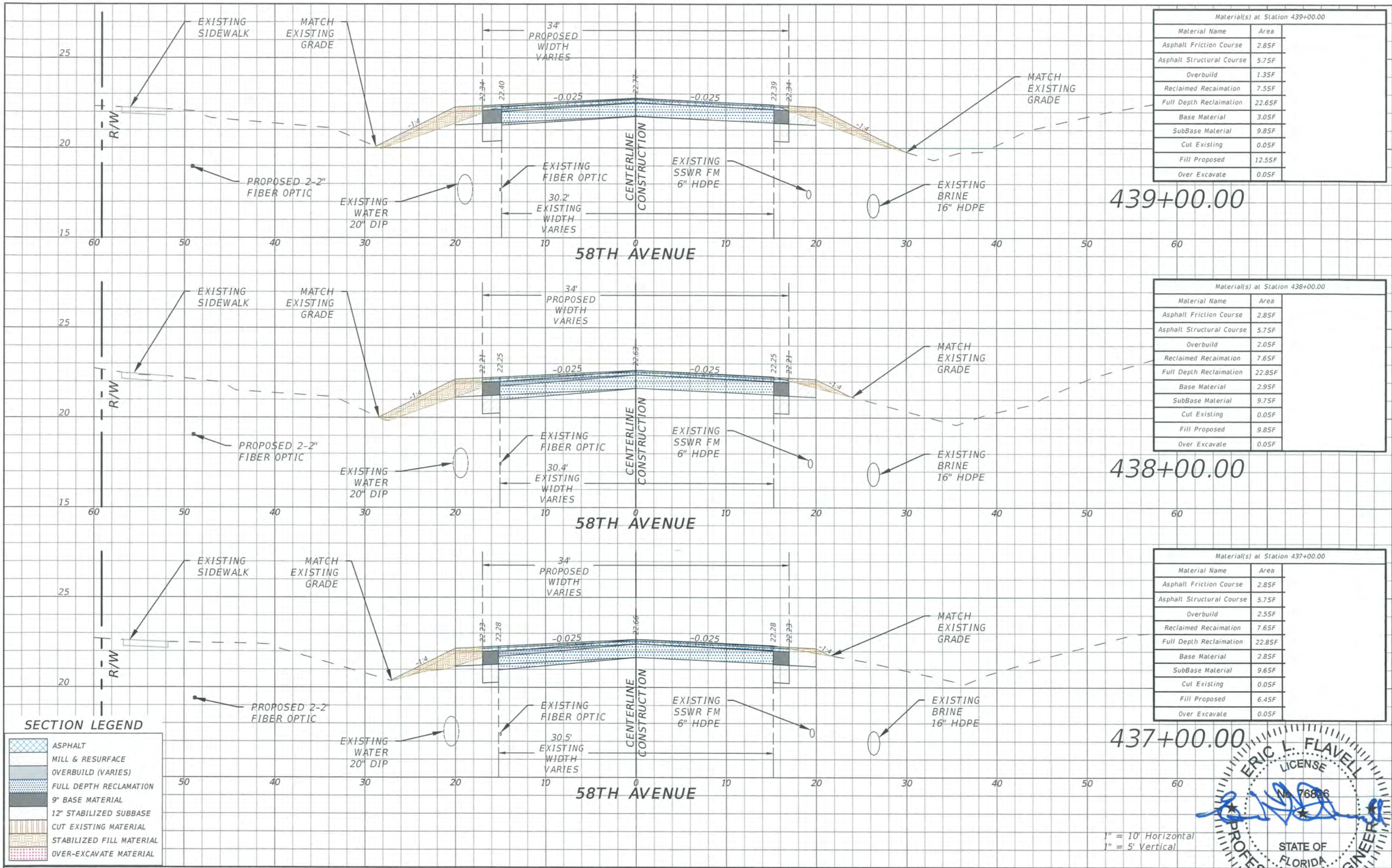
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

PROFESSIONAL ENGINEER
 ERIC L. FLAVELL
 LICENSE No. 76826
 STATE OF FLORIDA

SHEET NO. 110



Material(s) at Station 439+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.35F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.65F
Base Material	3.05F
SubBase Material	9.85F
Cut Existing	0.05F
Fill Proposed	12.55F
Over Excavate	0.05F

Material(s) at Station 438+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	2.05F
Reclaimed Reclamation	7.65F
Full Depth Reclamation	22.85F
Base Material	2.95F
SubBase Material	9.75F
Cut Existing	0.05F
Fill Proposed	9.85F
Over Excavate	0.05F

Material(s) at Station 437+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	2.55F
Reclaimed Reclamation	7.65F
Full Depth Reclamation	22.85F
Base Material	2.85F
SubBase Material	9.65F
Cut Existing	0.05F
Fill Proposed	6.45F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

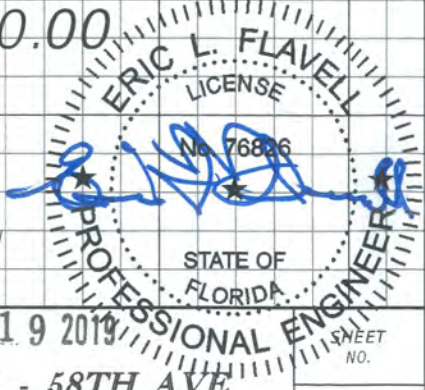
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

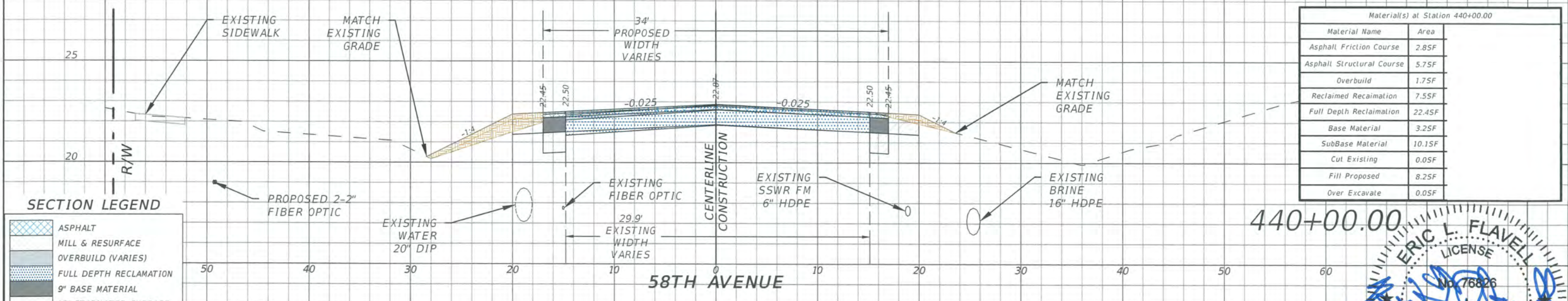
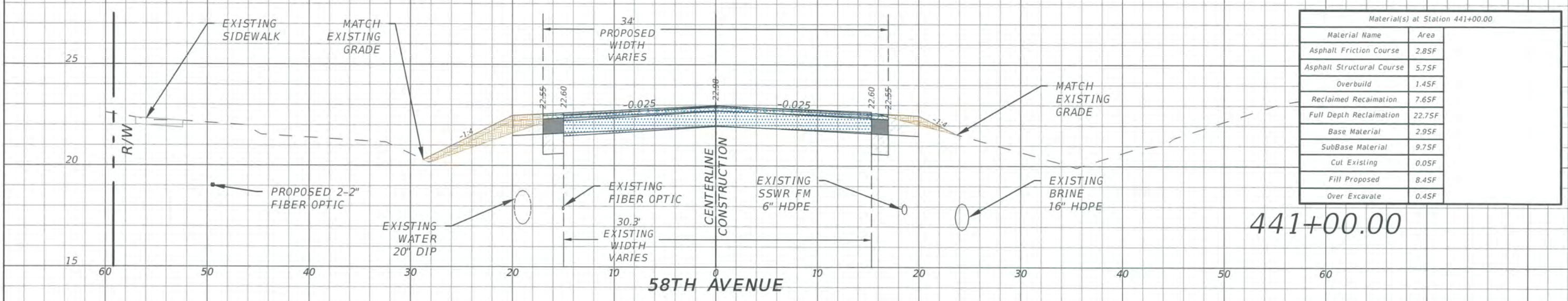
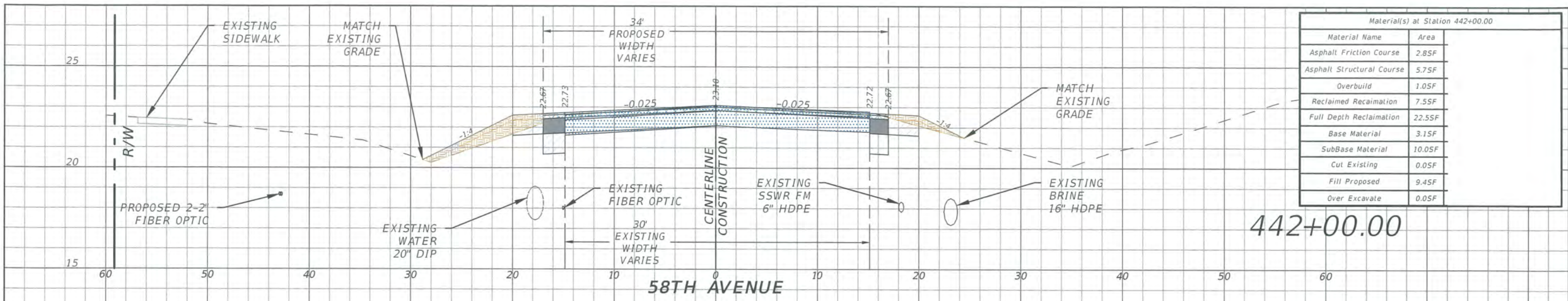
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 111



1" = 10' Horizontal
 1" = 5' Vertical



SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

PROPOSED 2-2" FIBER OPTIC
EXISTING WATER 20" DIP
EXISTING FIBER OPTIC
EXISTING BRINE 16" HDPE



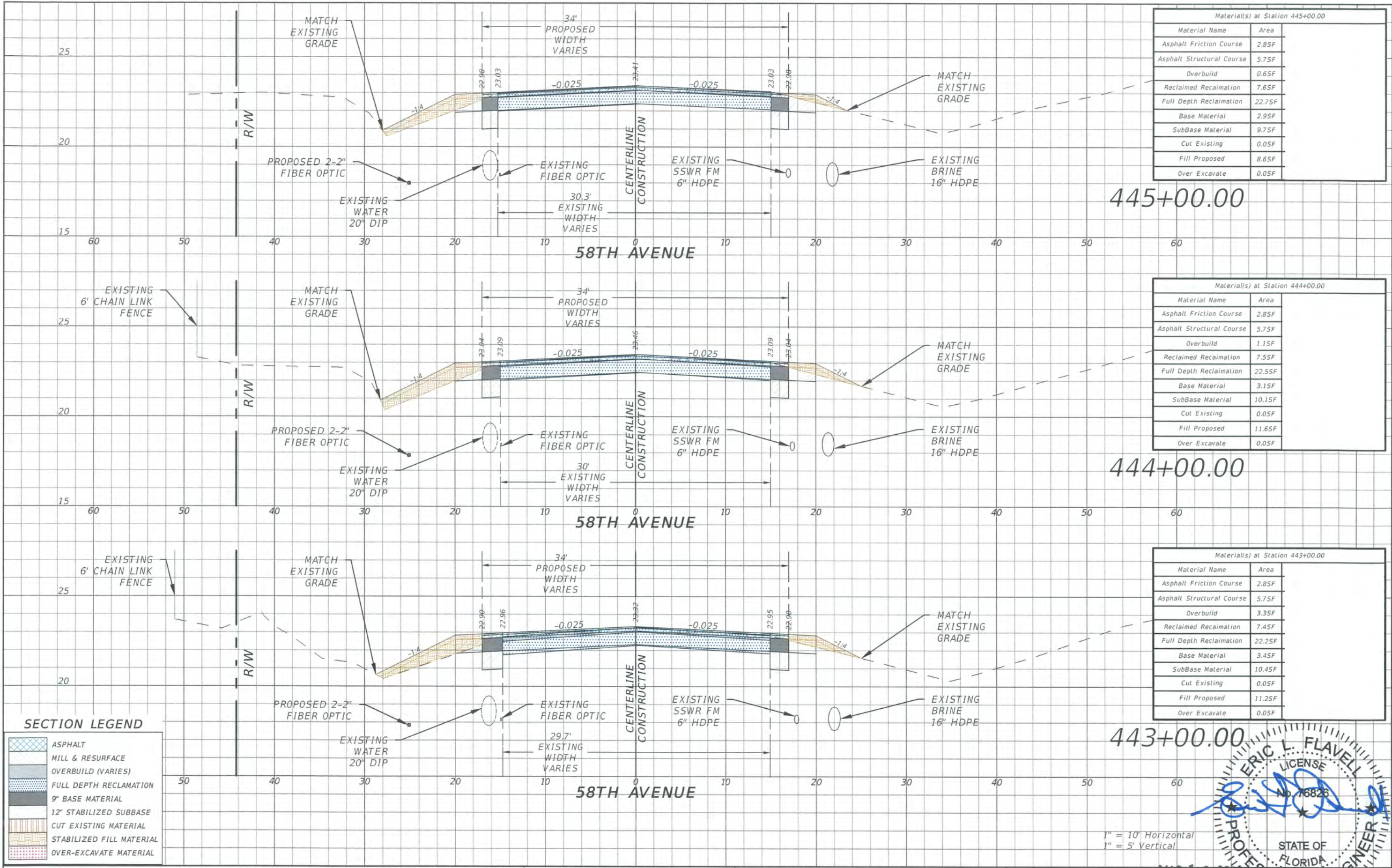
1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 112



Material(s) at Station 445+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.65F
Reclaimed Reclamation	7.65F
Full Depth Reclamation	22.75F
Base Material	2.95F
SubBase Material	9.75F
Cut Existing	0.05F
Fill Proposed	8.65F
Over Excavate	0.05F

Material(s) at Station 444+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.15F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.55F
Base Material	3.15F
SubBase Material	10.15F
Cut Existing	0.05F
Fill Proposed	11.65F
Over Excavate	0.05F

Material(s) at Station 443+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	3.35F
Reclaimed Reclamation	7.45F
Full Depth Reclamation	22.25F
Base Material	3.45F
SubBase Material	10.45F
Cut Existing	0.05F
Fill Proposed	11.25F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

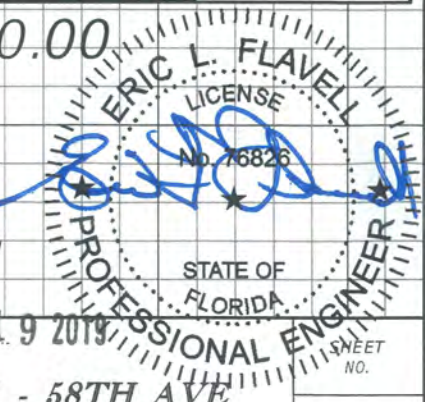
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

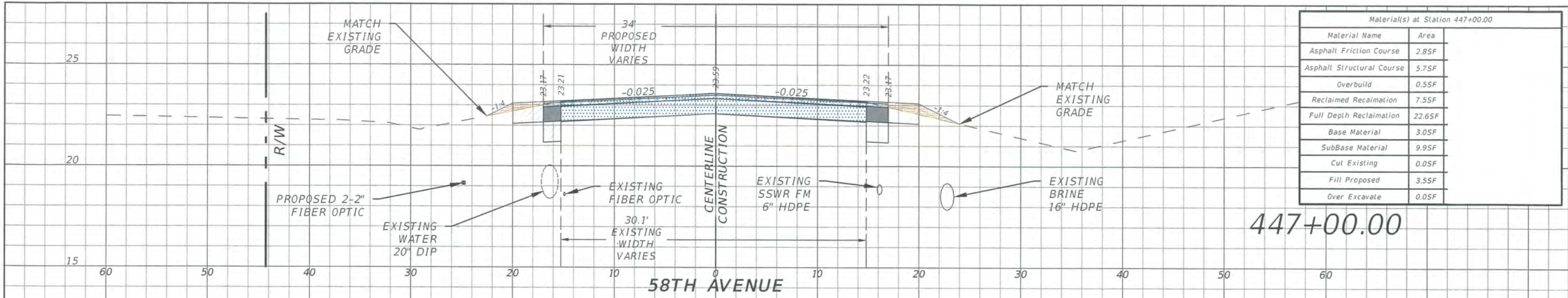
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 113

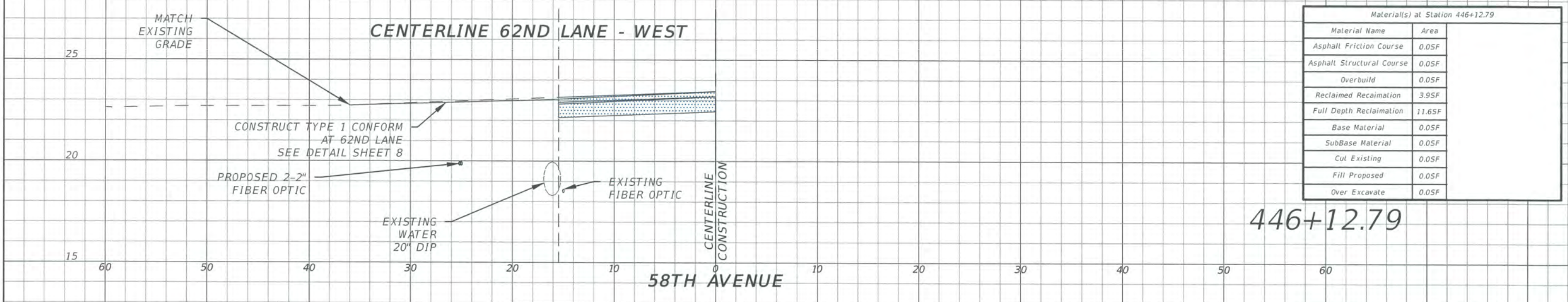


1" = 10' Horizontal
 1" = 5' Vertical



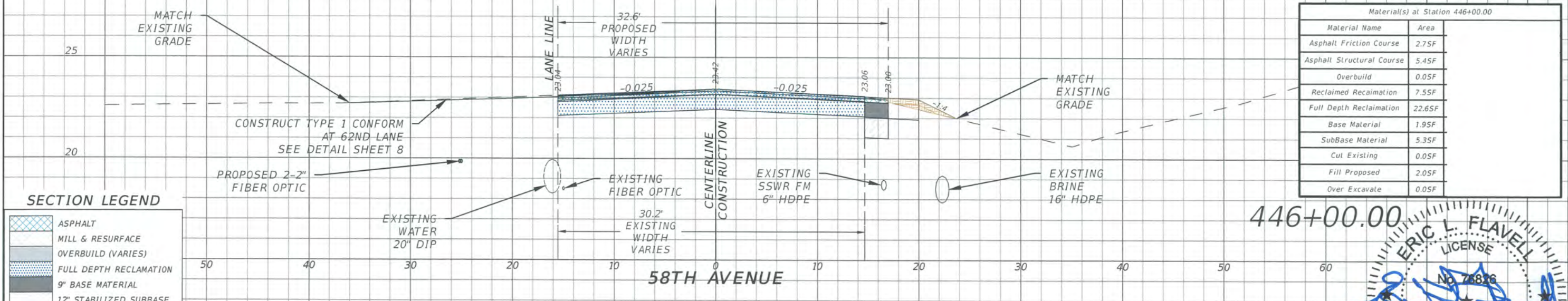
Material(s) at Station 447+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.55F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.65F
Base Material	3.05F
SubBase Material	9.95F
Cut Existing	0.05F
Fill Proposed	3.55F
Over Excavate	0.05F

447+00.00



Material(s) at Station 446+12.79	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	3.95F
Full Depth Reclamation	11.65F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

446+12.79

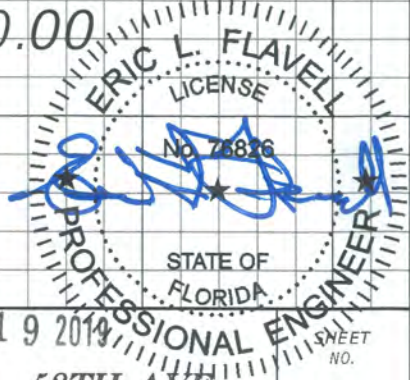


Material(s) at Station 446+00.00	
Material Name	Area
Asphalt Friction Course	2.75F
Asphalt Structural Course	5.45F
Overbuild	0.05F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.65F
Base Material	1.95F
SubBase Material	5.35F
Cut Existing	0.05F
Fill Proposed	2.05F
Over Excavate	0.05F

446+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL



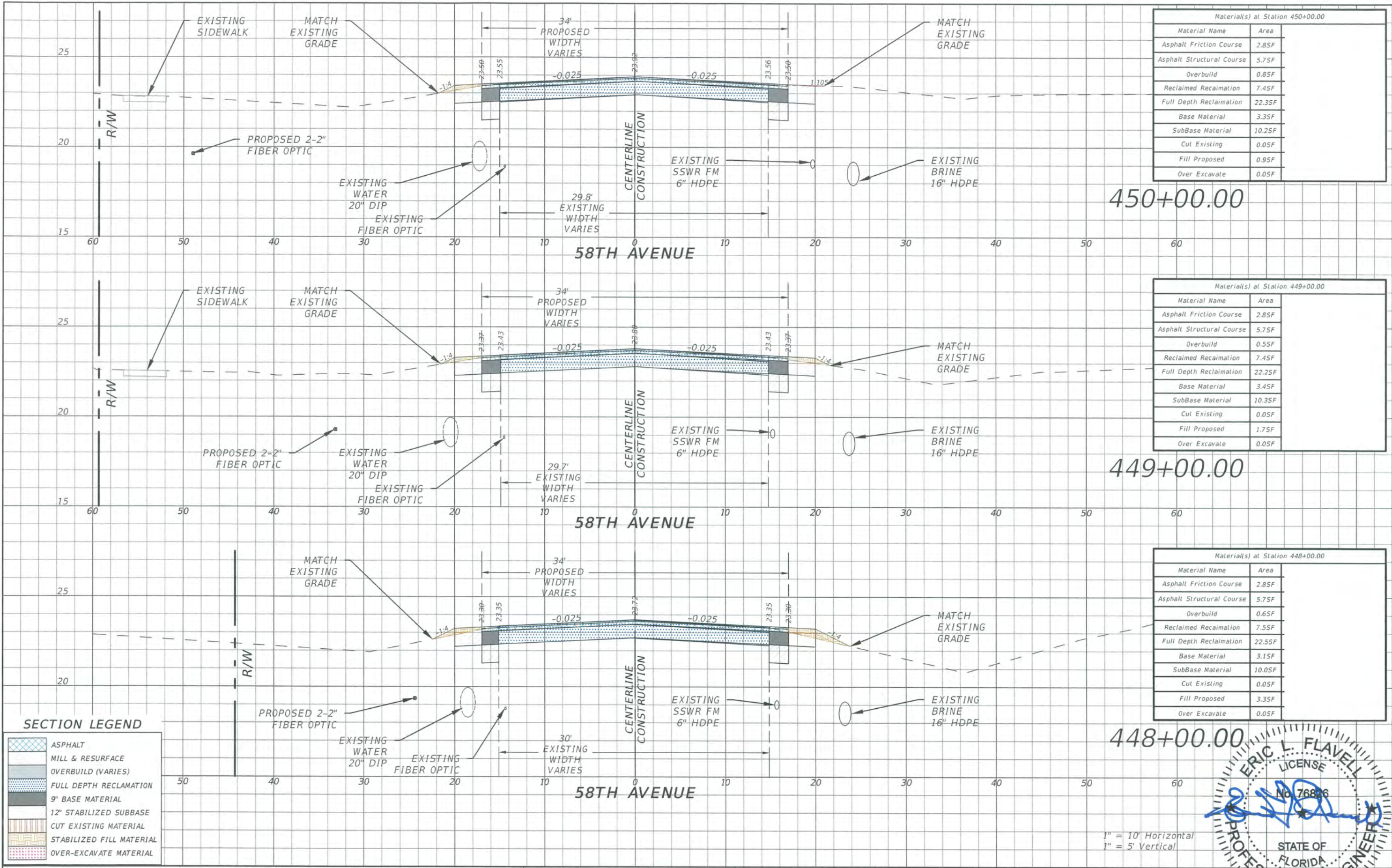
1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 114



Material(s) at Station 450+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.85F
Reclaimed Reclamation	7.45F
Full Depth Reclamation	22.35F
Base Material	3.35F
SubBase Material	10.25F
Cut Existing	0.05F
Fill Proposed	0.95F
Over Excavate	0.05F

Material(s) at Station 449+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.55F
Reclaimed Reclamation	7.45F
Full Depth Reclamation	22.25F
Base Material	3.45F
SubBase Material	10.35F
Cut Existing	0.05F
Fill Proposed	1.75F
Over Excavate	0.05F

Material(s) at Station 448+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.65F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.55F
Base Material	3.15F
SubBase Material	10.05F
Cut Existing	0.05F
Fill Proposed	3.35F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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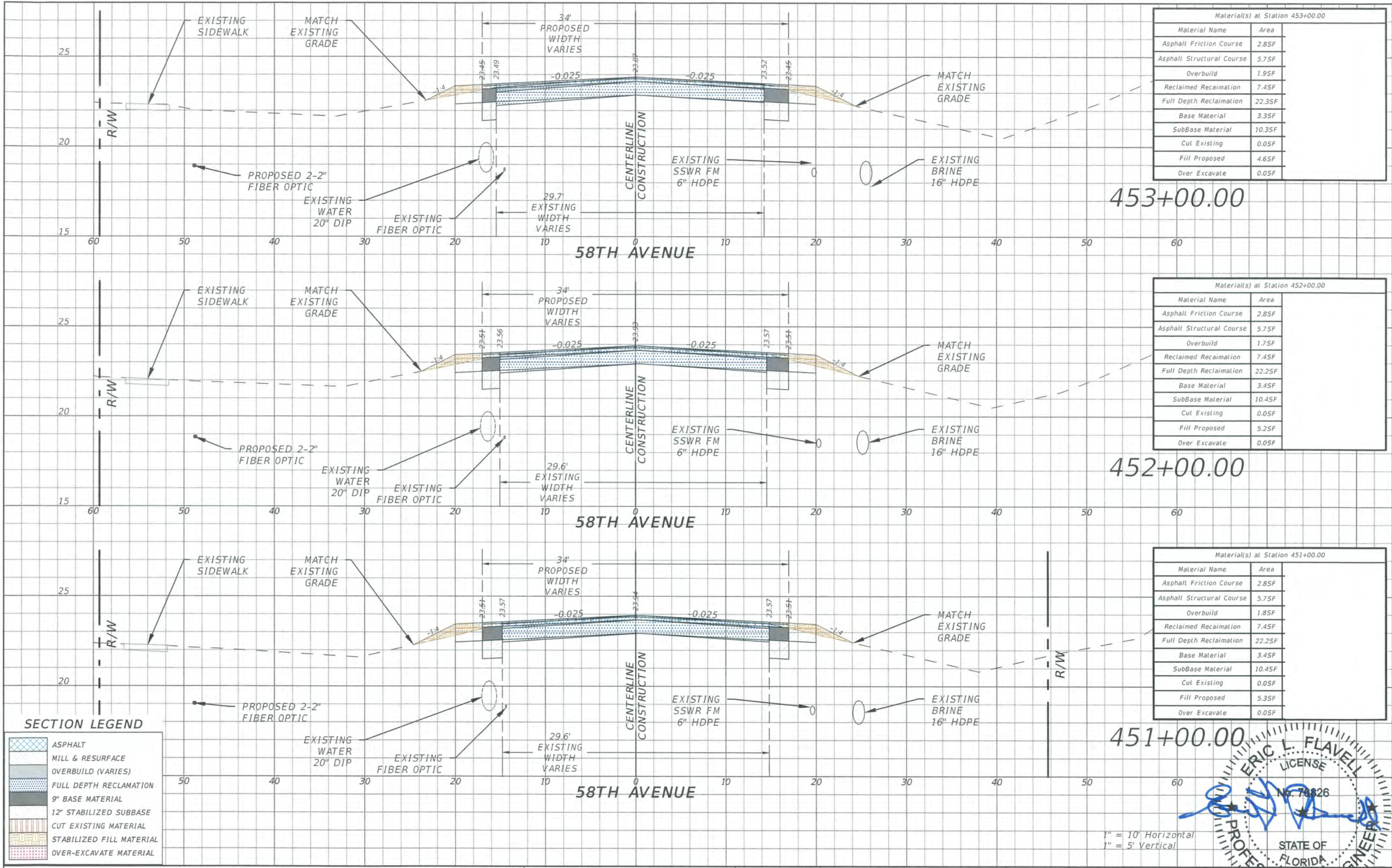
ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 ERIC L. FLAVELL
 LICENSE No. 76826
 AUG 19 2018
CROSS SECTIONS - 58TH AVE
 SHEET NO. 115

1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 453+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.95F
Reclaimed Reclamation	7.45F
Full Depth Reclamation	22.35F
Base Material	3.35F
SubBase Material	10.35F
Cut Existing	0.05F
Fill Proposed	4.65F
Over Excavate	0.05F

453+00.00

Material(s) at Station 452+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.75F
Reclaimed Reclamation	7.45F
Full Depth Reclamation	22.25F
Base Material	3.45F
SubBase Material	10.45F
Cut Existing	0.05F
Fill Proposed	5.25F
Over Excavate	0.05F

452+00.00

Material(s) at Station 451+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.85F
Reclaimed Reclamation	7.45F
Full Depth Reclamation	22.25F
Base Material	3.45F
SubBase Material	10.45F
Cut Existing	0.05F
Fill Proposed	5.35F
Over Excavate	0.05F

451+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

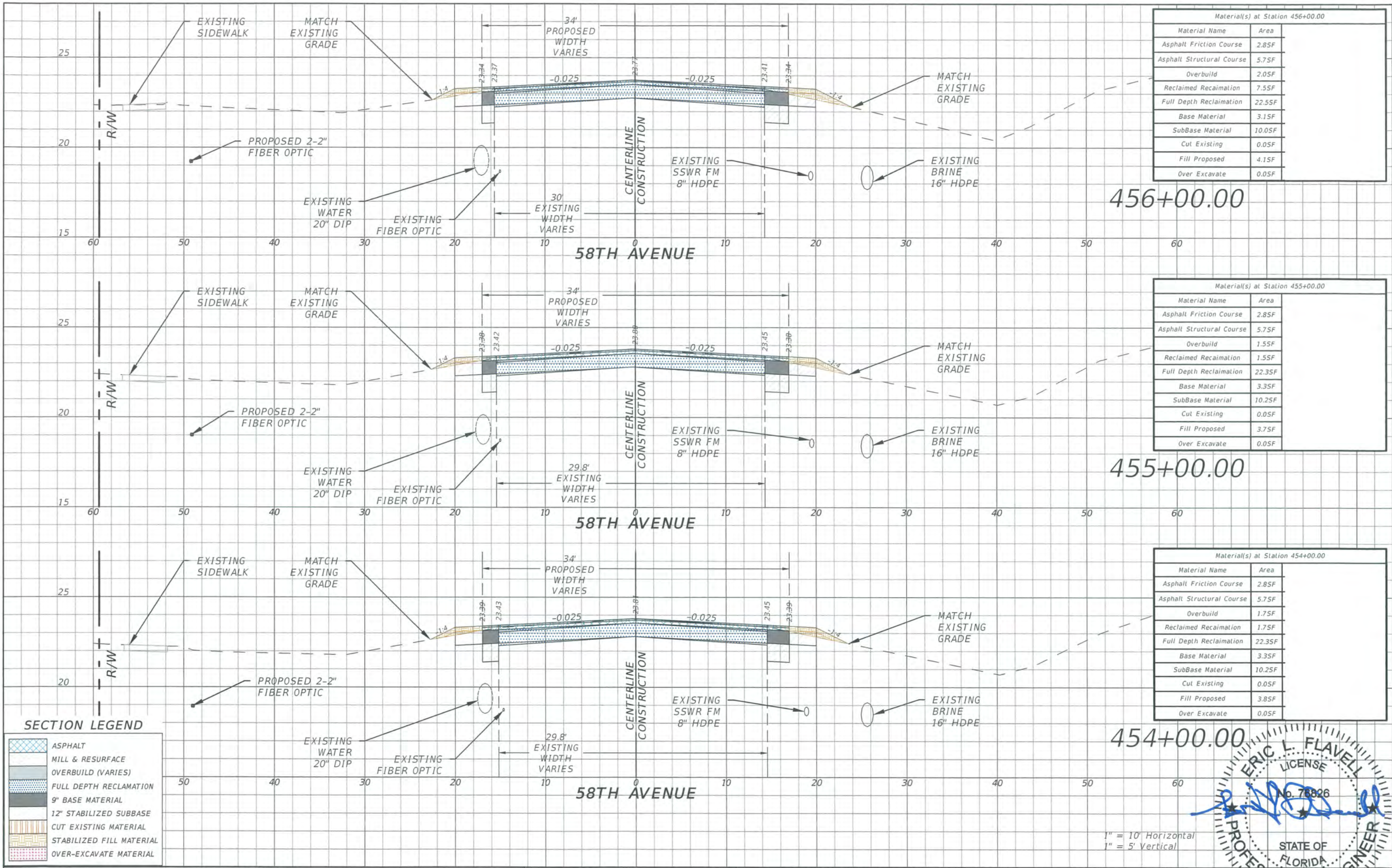
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

SHEET NO. 116



Material(s) at Station 456+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	2.05F
Reclaimed Reclamation	7.55F
Full Depth Reclamation	22.55F
Base Material	3.15F
SubBase Material	10.05F
Cut Existing	0.05F
Fill Proposed	4.15F
Over Excavate	0.05F

Material(s) at Station 455+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.55F
Reclaimed Reclamation	1.55F
Full Depth Reclamation	22.35F
Base Material	3.35F
SubBase Material	10.25F
Cut Existing	0.05F
Fill Proposed	3.75F
Over Excavate	0.05F

Material(s) at Station 454+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.75F
Reclaimed Reclamation	1.75F
Full Depth Reclamation	22.35F
Base Material	3.35F
SubBase Material	10.25F
Cut Existing	0.05F
Fill Proposed	3.85F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

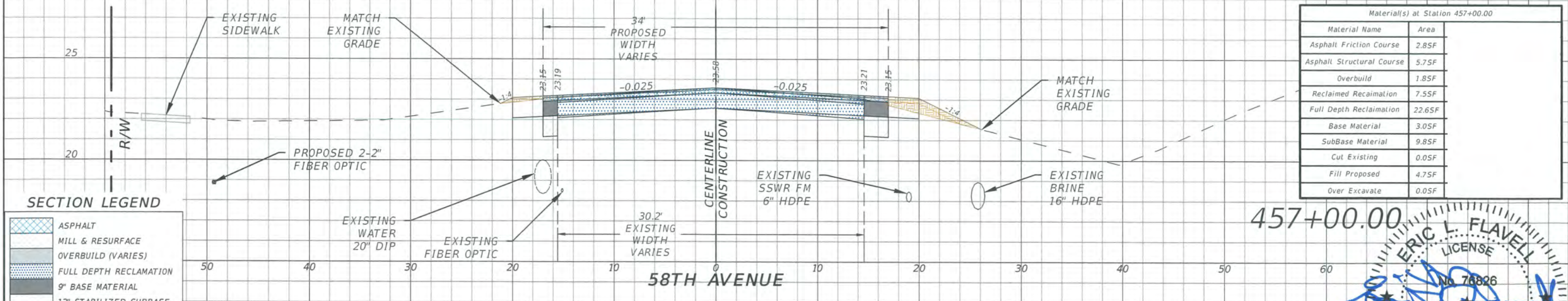
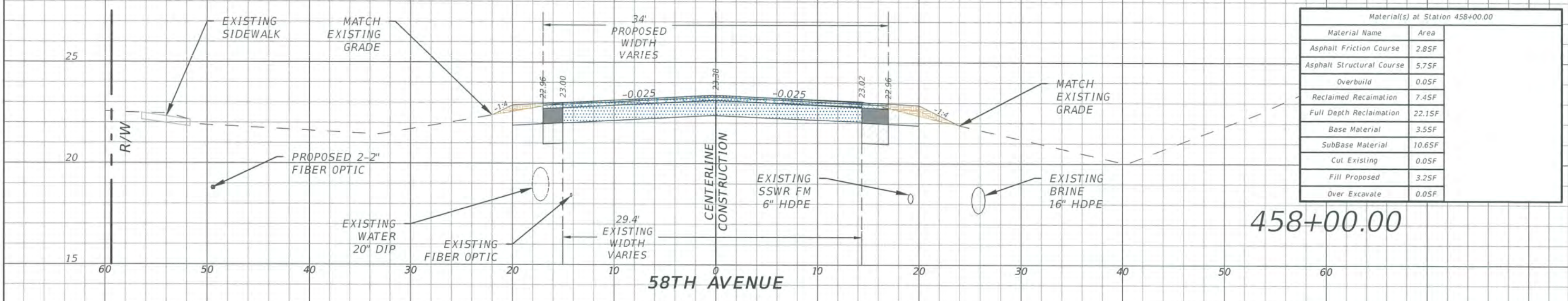
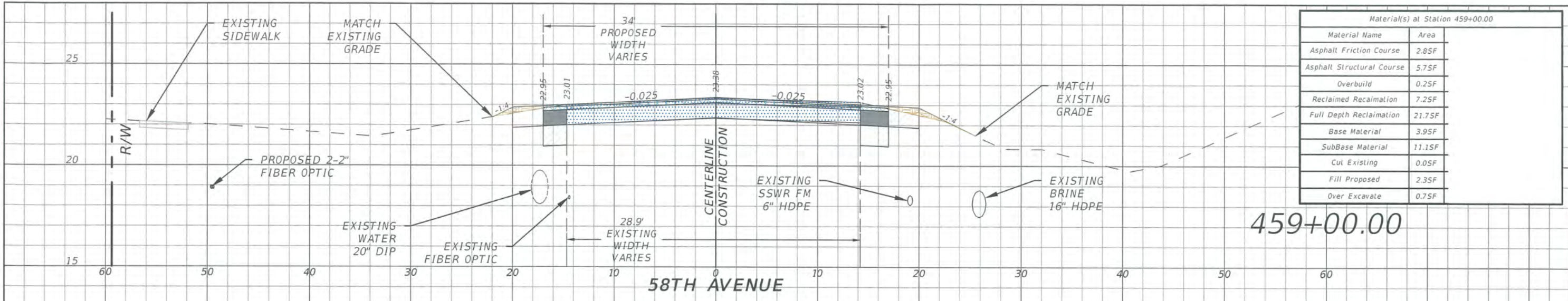
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

SHEET NO. 117



SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

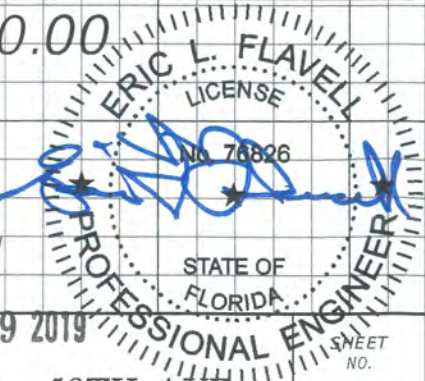
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO. CR-613 58th AVE	COUNTY INDIAN RIVER	FINANCIAL PROJECT ID IRC: 1325 FDOT:436416-1-54-01
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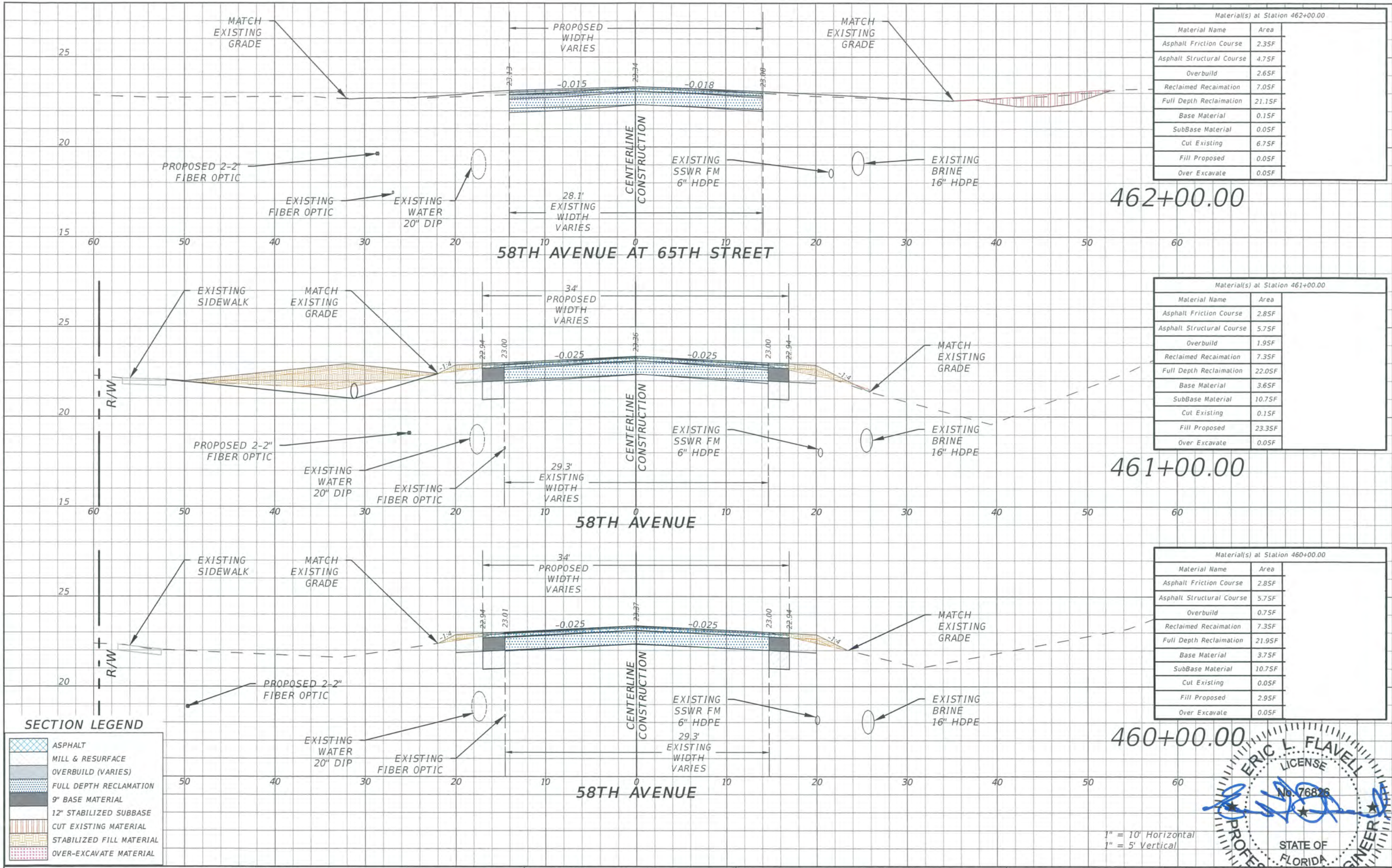
AUG 19 2019

CROSS SECTIONS - 58TH AVE

118



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 462+00.00

Material Name	Area
Asphalt Friction Course	2.35F
Asphalt Structural Course	4.75F
Overbuild	2.65F
Reclaimed Reclamation	7.05F
Full Depth Reclamation	21.15F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	6.75F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 461+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.95F
Reclaimed Reclamation	7.35F
Full Depth Reclamation	22.05F
Base Material	3.65F
SubBase Material	10.75F
Cut Existing	0.15F
Fill Proposed	23.35F
Over Excavate	0.05F

Material(s) at Station 460+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.75F
Reclaimed Reclamation	7.35F
Full Depth Reclamation	21.95F
Base Material	3.75F
SubBase Material	10.75F
Cut Existing	0.05F
Fill Proposed	2.95F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

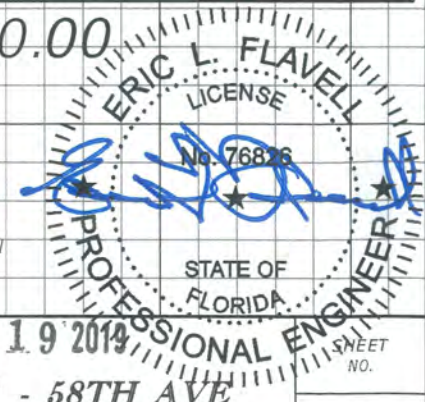
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

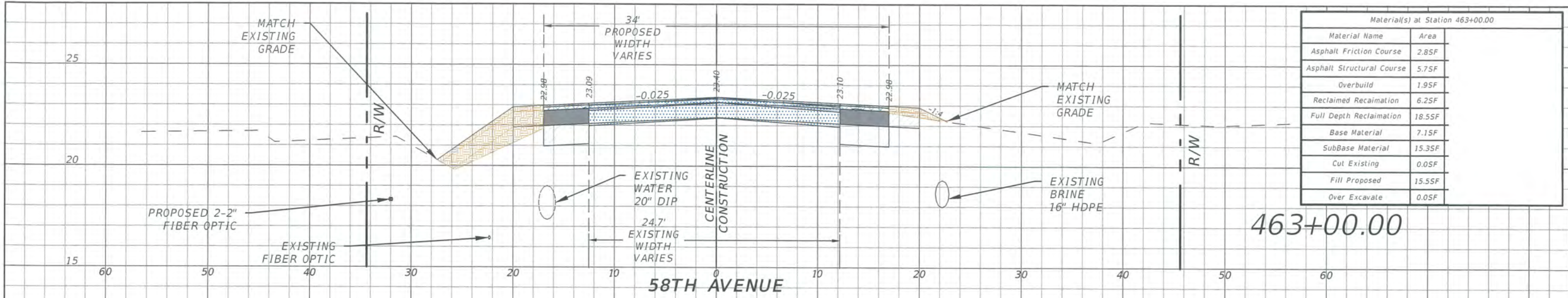
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

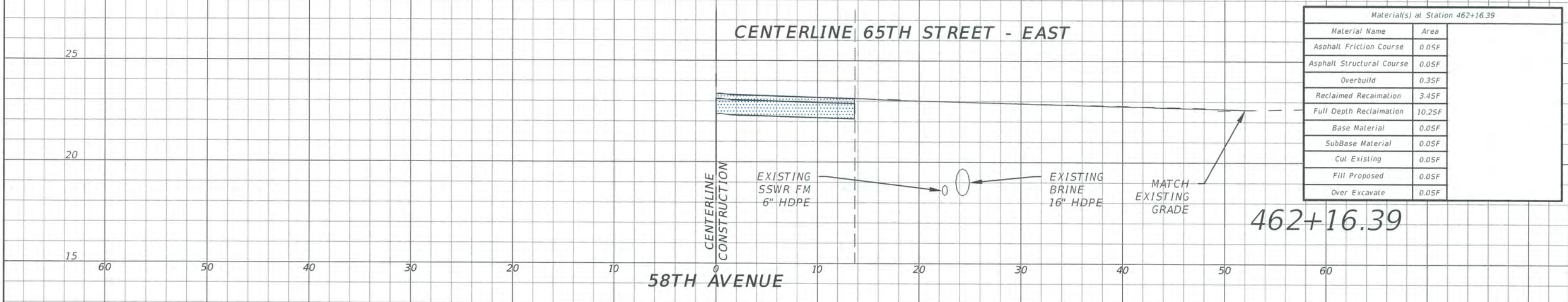
AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 119



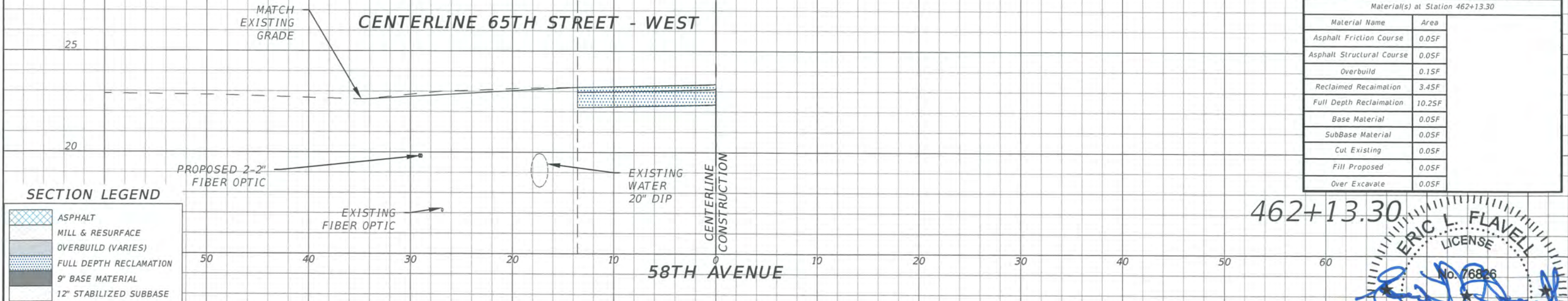
1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 463+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.95F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.55F
Base Material	7.15F
SubBase Material	15.35F
Cut Existing	0.05F
Fill Proposed	15.55F
Over Excavate	0.05F



Material(s) at Station 462+16.39	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.35F
Reclaimed Reclamation	3.45F
Full Depth Reclamation	10.25F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F



Material(s) at Station 462+13.30	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.15F
Reclaimed Reclamation	3.45F
Full Depth Reclamation	10.25F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

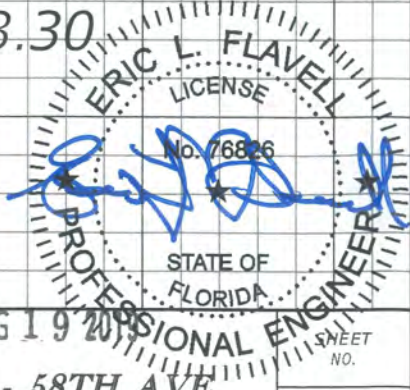
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

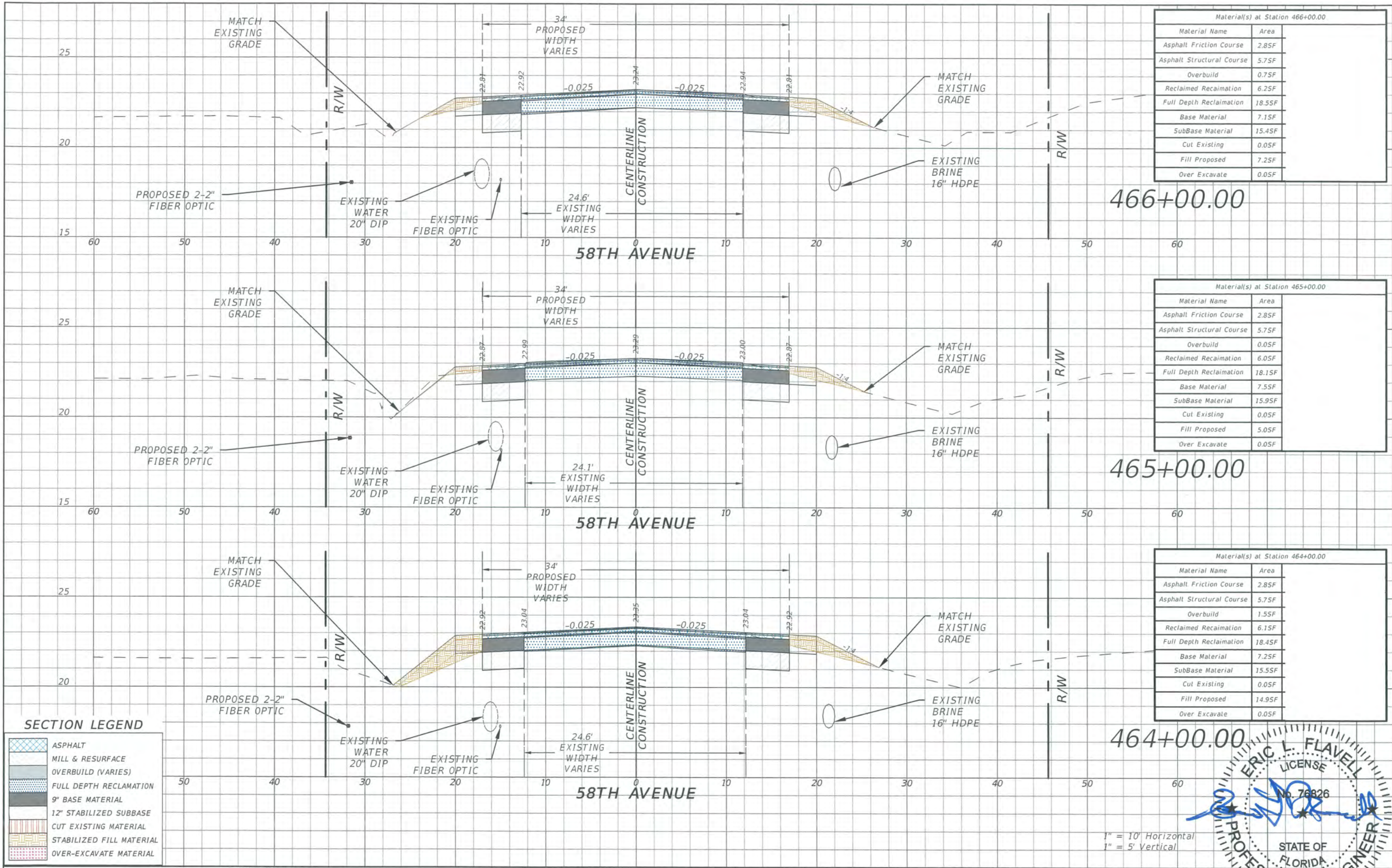
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 120



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 466+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.75F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.55F
Base Material	7.15F
SubBase Material	15.45F
Cut Existing	0.05F
Fill Proposed	7.25F
Over Excavate	0.05F

Material(s) at Station 465+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.05F
Reclaimed Reclamation	6.05F
Full Depth Reclamation	18.15F
Base Material	7.55F
SubBase Material	15.95F
Cut Existing	0.05F
Fill Proposed	5.05F
Over Excavate	0.05F

Material(s) at Station 464+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.55F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.45F
Base Material	7.25F
SubBase Material	15.55F
Cut Existing	0.05F
Fill Proposed	14.95F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

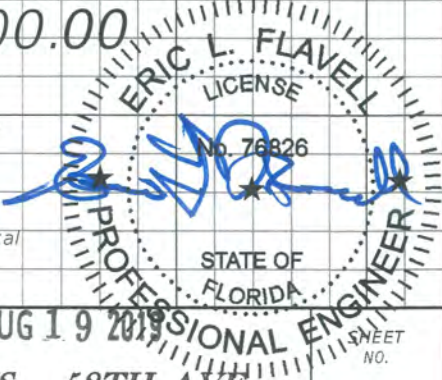
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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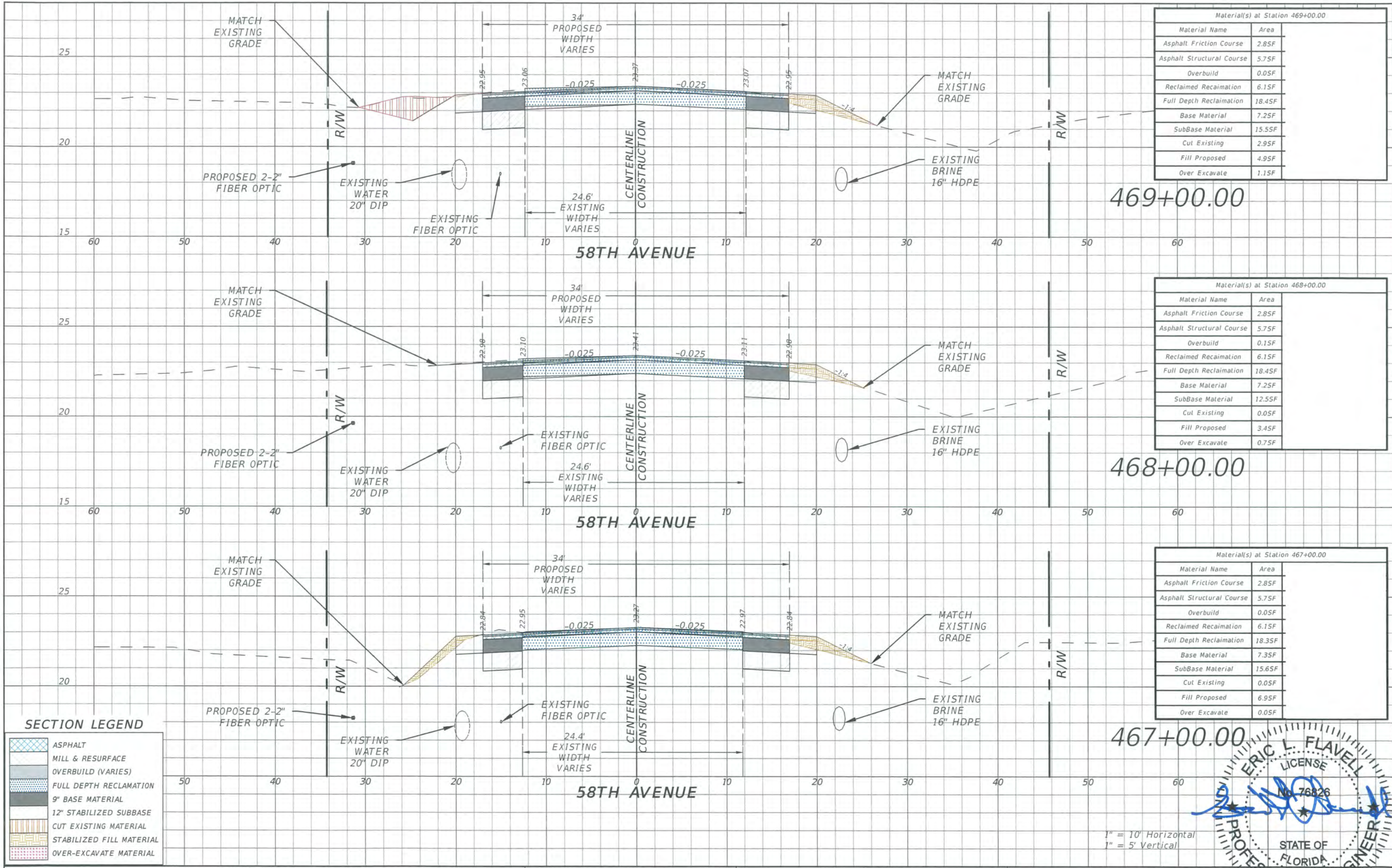
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 121



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 469+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.05F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.45F
Base Material	7.25F
SubBase Material	15.55F
Cut Existing	2.95F
Fill Proposed	4.95F
Over Excavate	1.15F

Material(s) at Station 468+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.15F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.45F
Base Material	7.25F
SubBase Material	12.55F
Cut Existing	0.05F
Fill Proposed	3.45F
Over Excavate	0.75F

Material(s) at Station 467+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.05F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.35F
Base Material	7.35F
SubBase Material	15.65F
Cut Existing	0.05F
Fill Proposed	6.95F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

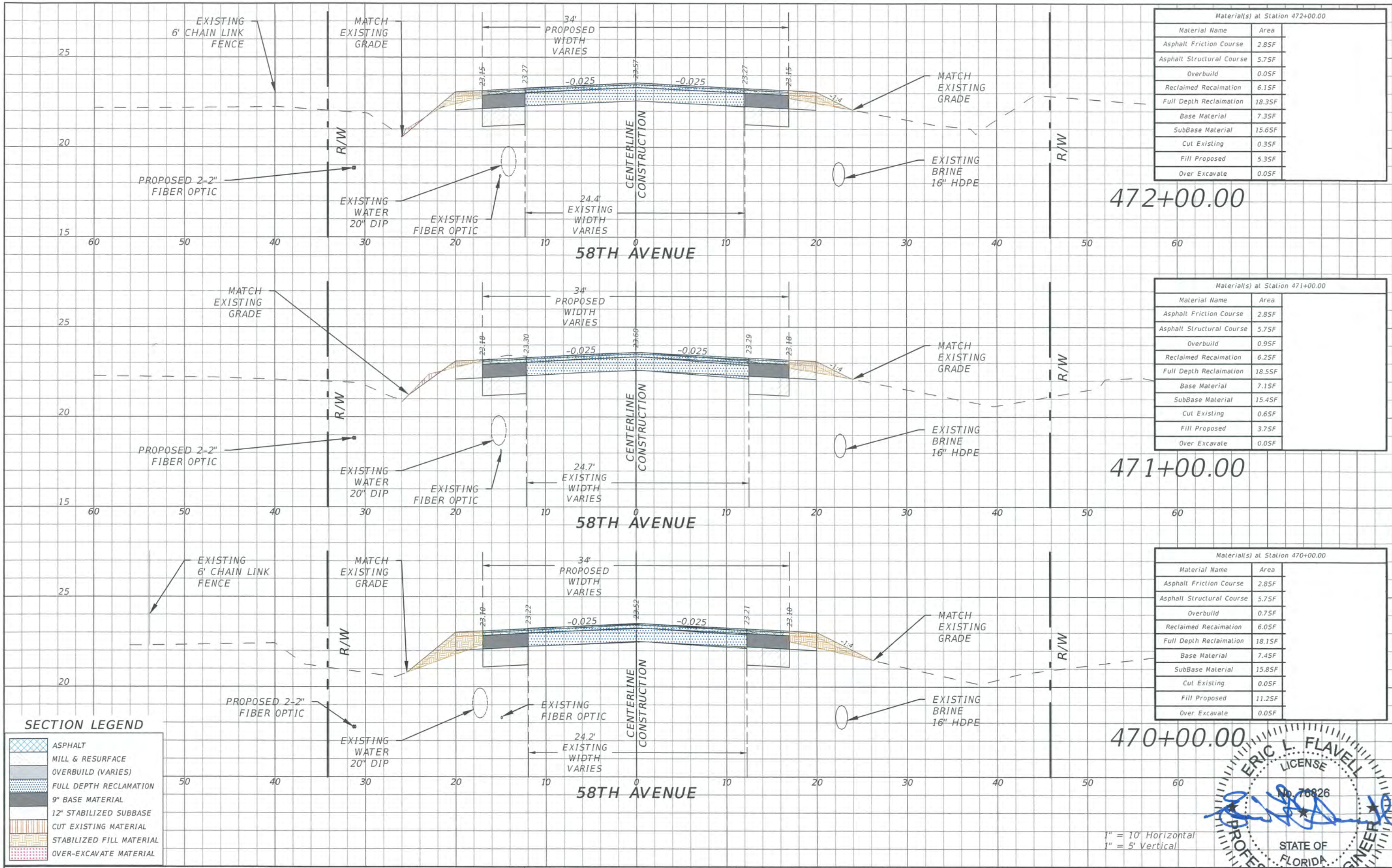
ROAD NO. CR-613 58th AVE	COUNTY INDIAN RIVER	FINANCIAL PROJECT ID IRC: 1325 FDOT:436416-1-54-01
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AUG 19, 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE No. 76826
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA

SHEET NO. 122



Material(s) at Station 472+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.05F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.35F
Base Material	7.35F
SubBase Material	15.65F
Cut Existing	0.35F
Fill Proposed	5.35F
Over Excavate	0.05F

Material(s) at Station 471+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.95F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.55F
Base Material	7.15F
SubBase Material	15.45F
Cut Existing	0.65F
Fill Proposed	3.75F
Over Excavate	0.05F

Material(s) at Station 470+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.75F
Reclaimed Reclamation	6.05F
Full Depth Reclamation	18.15F
Base Material	7.45F
SubBase Material	15.85F
Cut Existing	0.05F
Fill Proposed	11.25F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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 MELBOURNE, FL 32934
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

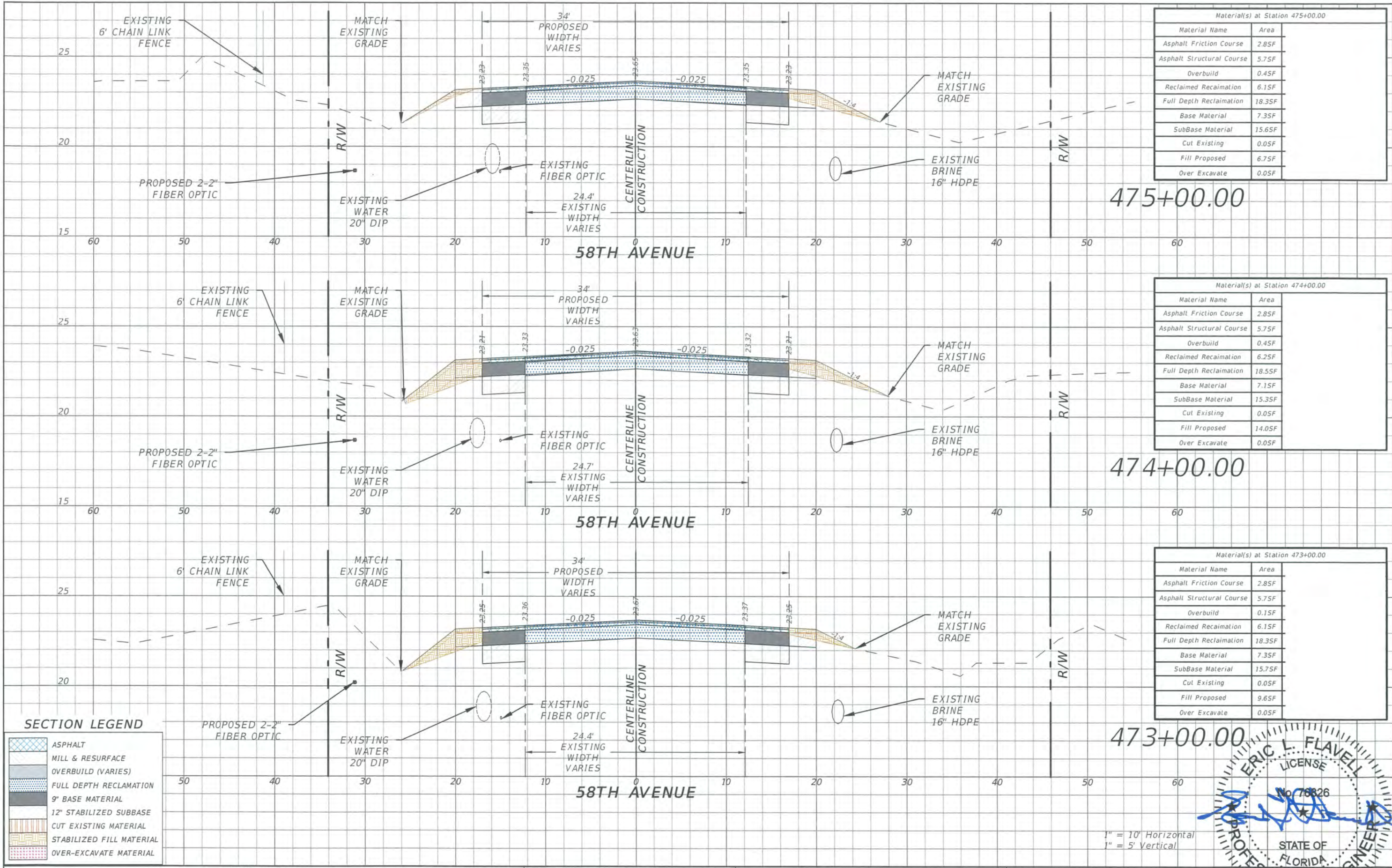
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

PROFESSIONAL ENGINEER
 ERIC L. FLAVELL
 LICENSE No. 76826
 STATE OF FLORIDA

SHEET NO. 123



Material(s) at Station 475+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.45F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.35F
Base Material	7.35F
SubBase Material	15.65F
Cut Existing	0.05F
Fill Proposed	6.75F
Over Excavate	0.05F

Material(s) at Station 474+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.45F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.55F
Base Material	7.15F
SubBase Material	15.35F
Cut Existing	0.05F
Fill Proposed	14.05F
Over Excavate	0.05F

Material(s) at Station 473+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.15F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.35F
Base Material	7.35F
SubBase Material	15.75F
Cut Existing	0.05F
Fill Proposed	9.65F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

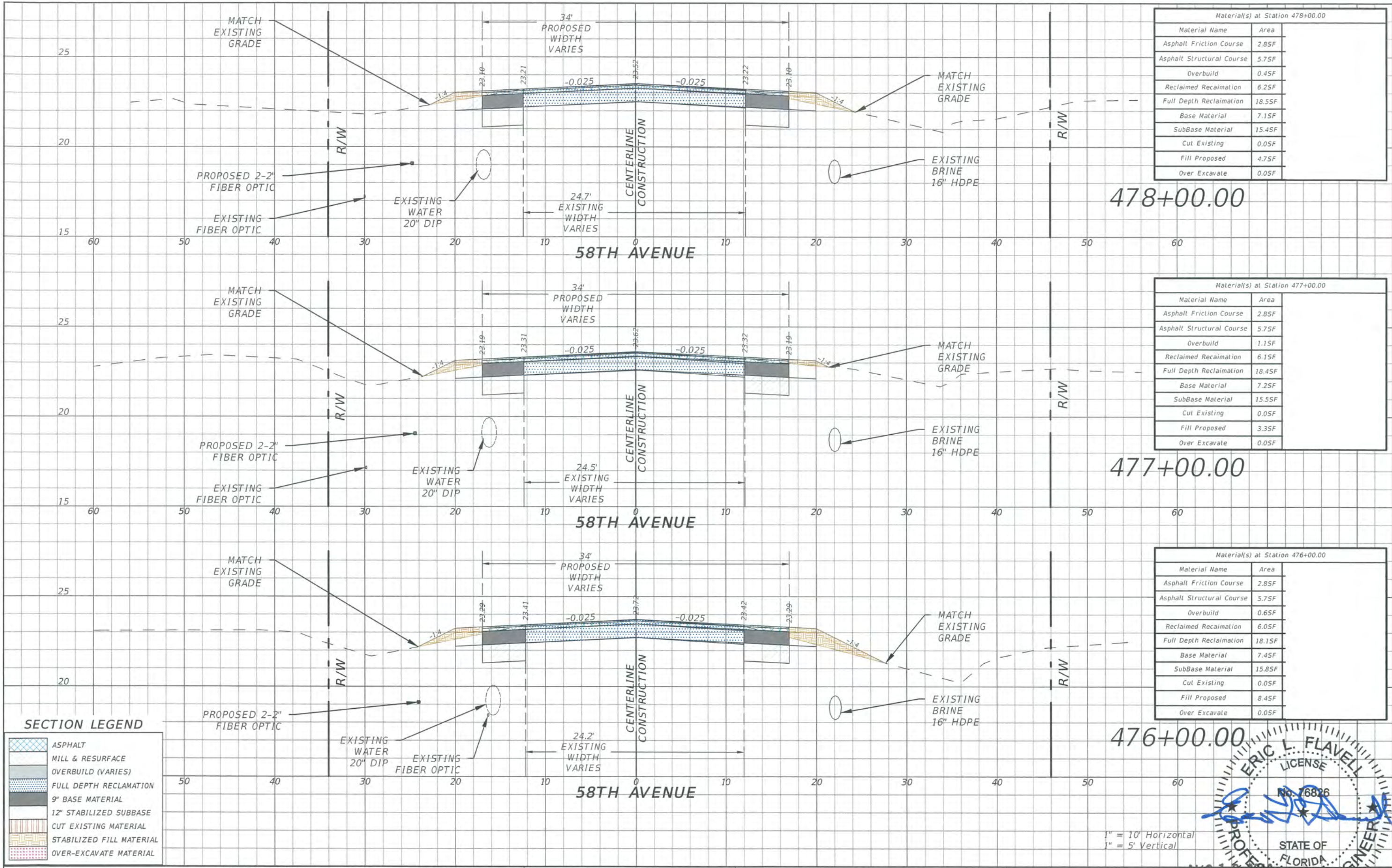
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

SHEET NO. 124



Material(s) at Station 478+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.45F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.55F
Base Material	7.15F
SubBase Material	15.45F
Cut Existing	0.05F
Fill Proposed	4.75F
Over Excavate	0.05F

Material(s) at Station 477+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	1.15F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.45F
Base Material	7.25F
SubBase Material	15.55F
Cut Existing	0.05F
Fill Proposed	3.35F
Over Excavate	0.05F

Material(s) at Station 476+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.65F
Reclaimed Reclamation	6.05F
Full Depth Reclamation	18.15F
Base Material	7.45F
SubBase Material	15.85F
Cut Existing	0.05F
Fill Proposed	8.45F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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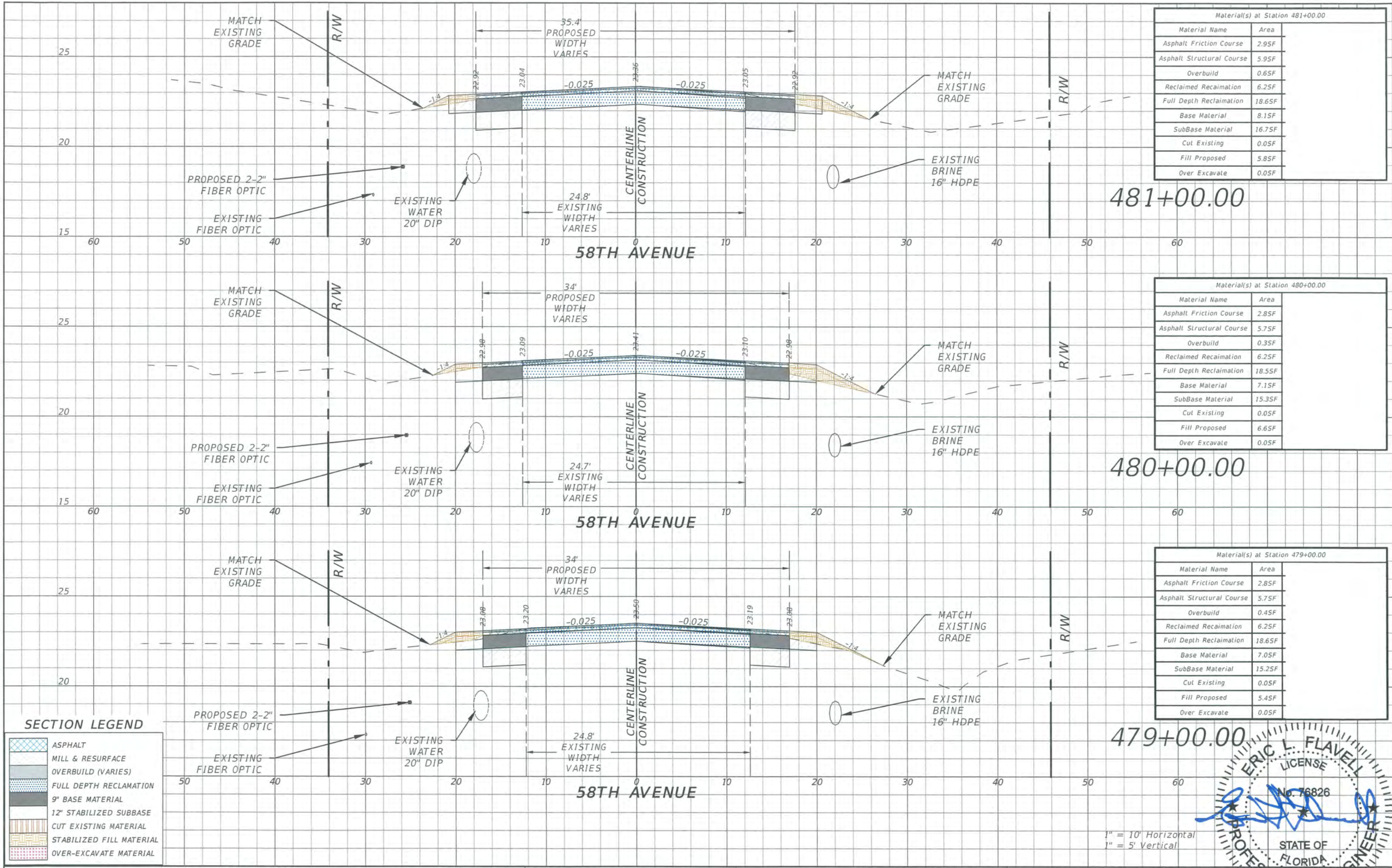
ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA
 LICENSE No. 76826
CROSS SECTIONS - 58TH AVE
 SHEET NO. 125

1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 481+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.95F
Overbuild	0.65F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.65F
Base Material	8.15F
SubBase Material	16.75F
Cut Existing	0.05F
Fill Proposed	5.85F
Over Excavate	0.05F

Material(s) at Station 480+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.35F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.55F
Base Material	7.15F
SubBase Material	15.35F
Cut Existing	0.05F
Fill Proposed	6.65F
Over Excavate	0.05F

Material(s) at Station 479+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	0.45F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.65F
Base Material	7.05F
SubBase Material	15.25F
Cut Existing	0.05F
Fill Proposed	5.45F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

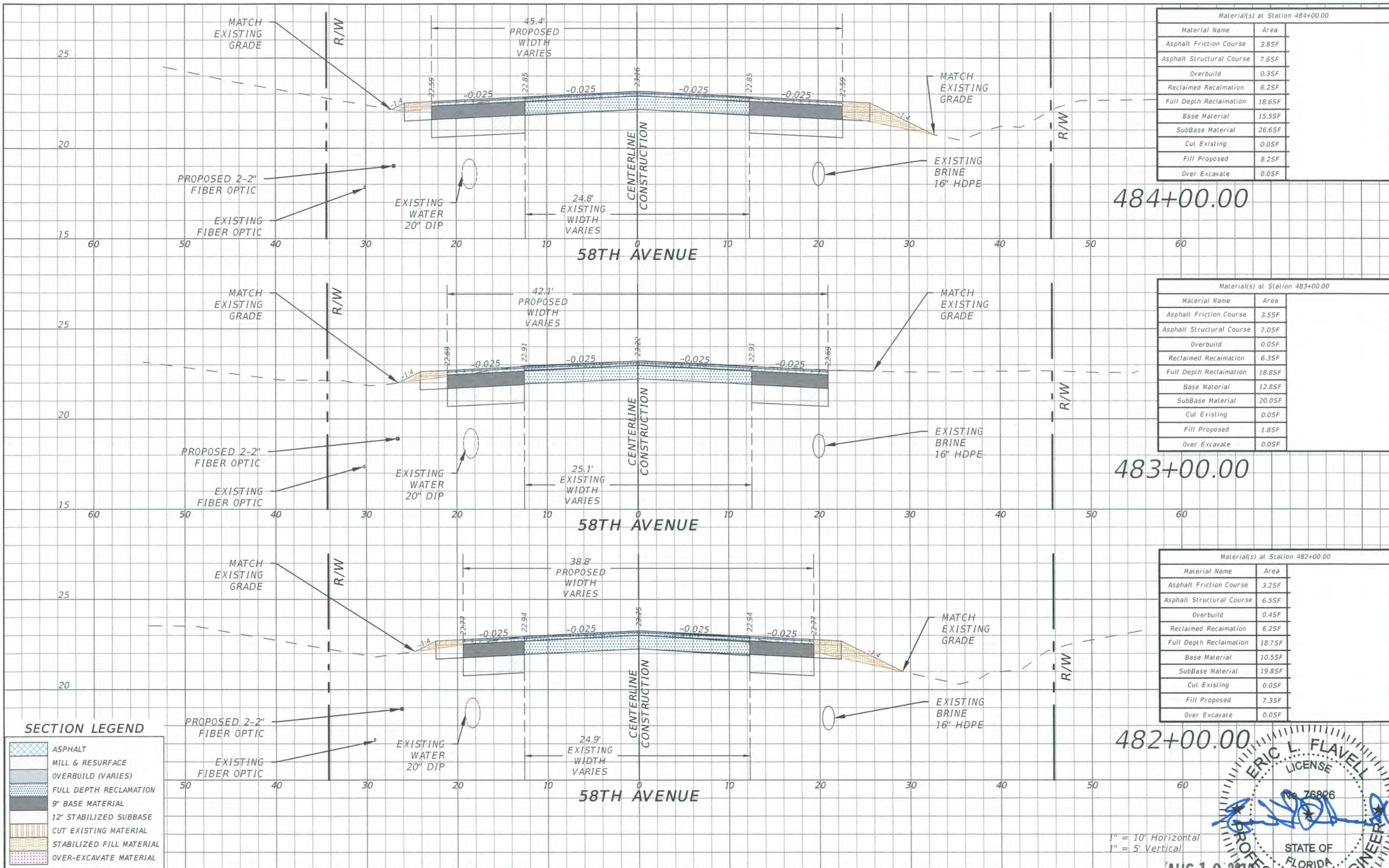
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE No. 76826
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA

SHEET NO. 126



Material(s) at Station 484+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.65F
Overbuild	0.35F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.65F
Base Material	15.55F
SubBase Material	26.65F
Cut Existing	0.05F
Fill Proposed	8.25F
Over Excavate	0.05F

484+00.00

Material(s) at Station 483+00.00	
Material Name	Area
Asphalt Friction Course	3.55F
Asphalt Structural Course	7.05F
Overbuild	0.05F
Reclaimed Reclamation	6.35F
Full Depth Reclamation	18.85F
Base Material	12.85F
SubBase Material	20.05F
Cut Existing	0.05F
Fill Proposed	1.85F
Over Excavate	0.05F

483+00.00

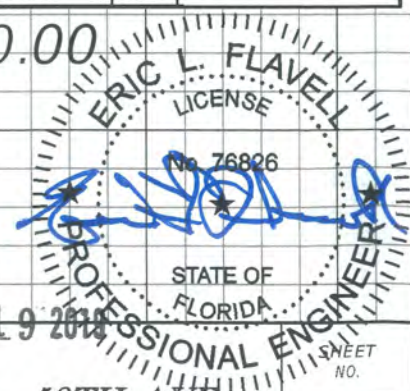
Material(s) at Station 482+00.00	
Material Name	Area
Asphalt Friction Course	3.25F
Asphalt Structural Course	6.55F
Overbuild	0.45F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.75F
Base Material	10.55F
SubBase Material	19.85F
Cut Existing	0.05F
Fill Proposed	7.35F
Over Excavate	0.05F

482+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

PROPOSED 2-2" FIBER OPTIC
EXISTING FIBER OPTIC
EXISTING WATER 20" DIP



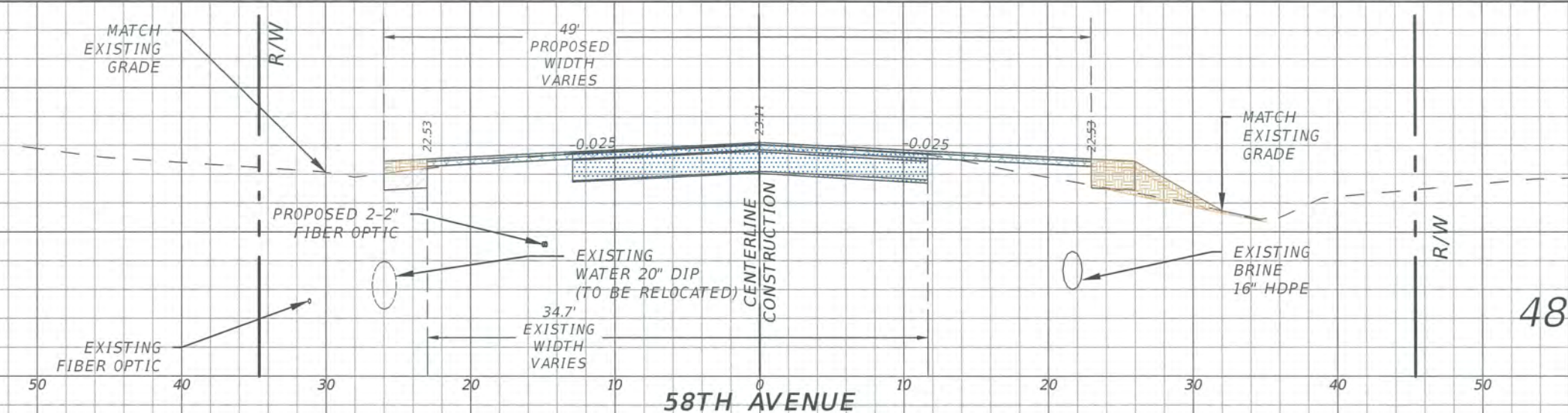
1" = 10' Horizontal
1" = 5' Vertical

CROSS SECTIONS - 58TH AVE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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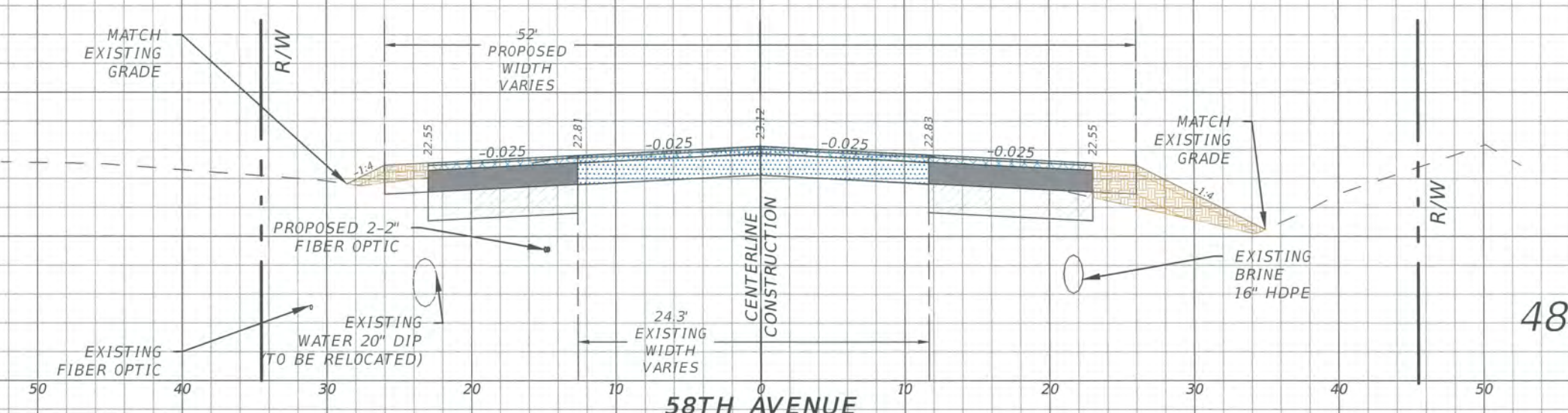
ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01



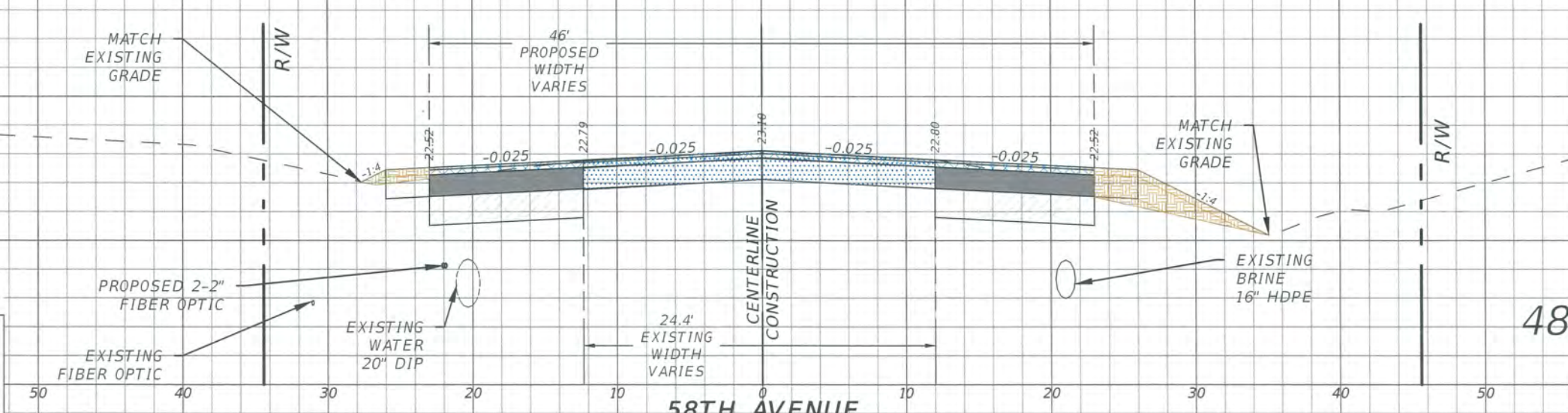
Material(s) at Station 487+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	1.75F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.45F
Base Material	0.25F
SubBase Material	6.05F
Cut Existing	0.05F
Fill Proposed	8.45F
Over Excavate	0.05F

487+00.00



Material(s) at Station 486+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	0.15F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.25F
Base Material	16.45F
SubBase Material	27.75F
Cut Existing	0.05F
Fill Proposed	14.05F
Over Excavate	0.05F

486+00.00



Material(s) at Station 485+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	0.15F
Reclaimed Reclamation	6.15F
Full Depth Reclamation	18.35F
Base Material	16.35F
SubBase Material	27.75F
Cut Existing	0.05F
Fill Proposed	11.05F
Over Excavate	0.05F

485+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

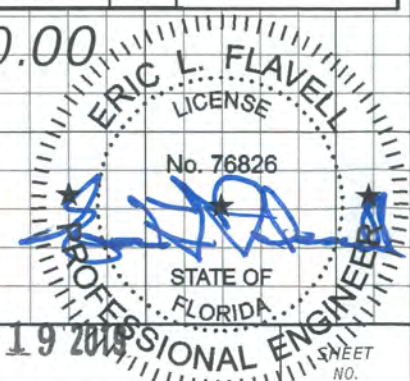
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ERIC L. FLAVELL, P.E.
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 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

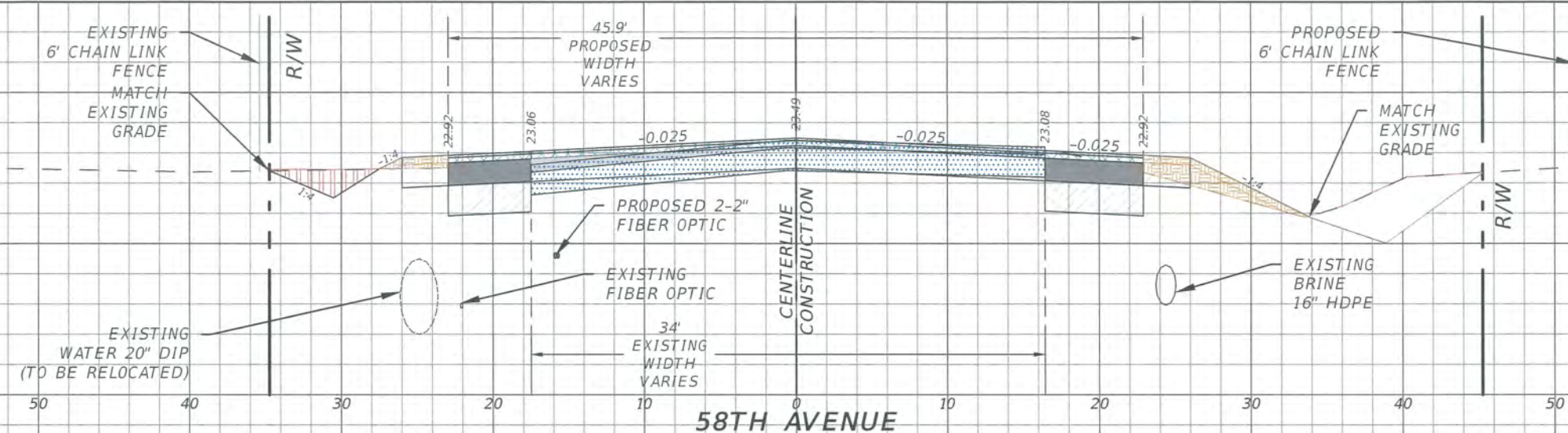
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 128



1" = 10' Horizontal
 1" = 5' Vertical



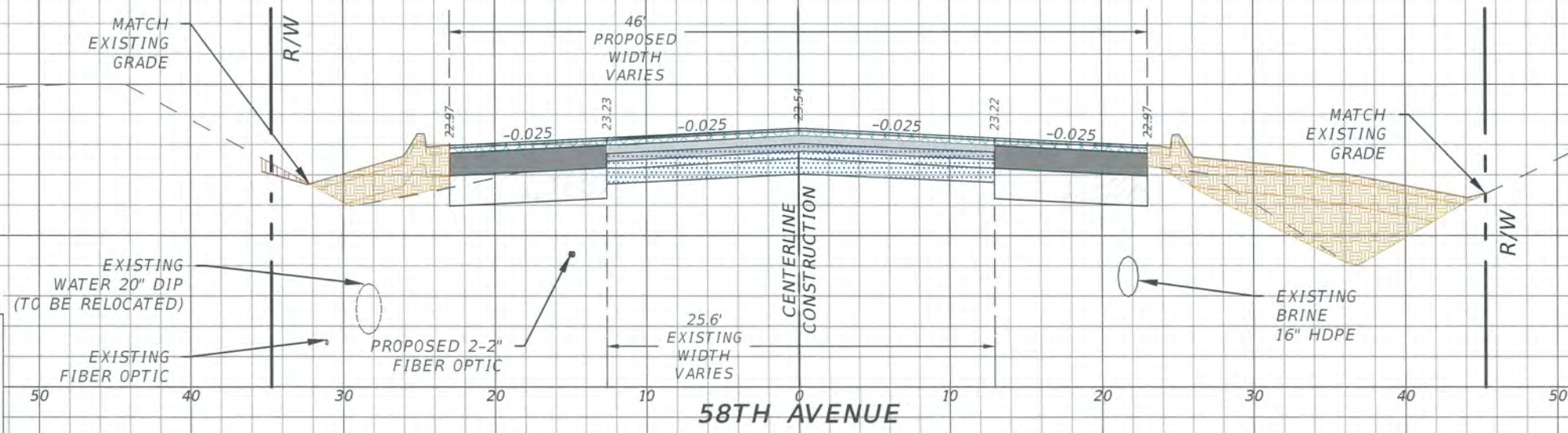
Material(s) at Station 490+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.65F
Overbuild	4.55F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.55F
Base Material	9.15F
SubBase Material	18.15F
Cut Existing	14.65F
Fill Proposed	7.65F
Over Excavate	0.65F

490+00.00



Material(s) at Station 489+00.00	
Material Name	Area
Asphalt Friction Course	2.75F
Asphalt Structural Course	5.35F
Overbuild	17.95F
Reclaimed Reclamation	9.35F
Full Depth Reclamation	27.85F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	1.65F
Fill Proposed	4.15F
Over Excavate	0.05F

489+00.00



Material(s) at Station 488+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	12.65F
Reclaimed Reclamation	6.45F
Full Depth Reclamation	19.25F
Base Material	15.45F
SubBase Material	20.45F
Cut Existing	0.75F
Fill Proposed	47.25F
Over Excavate	0.05F

488+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

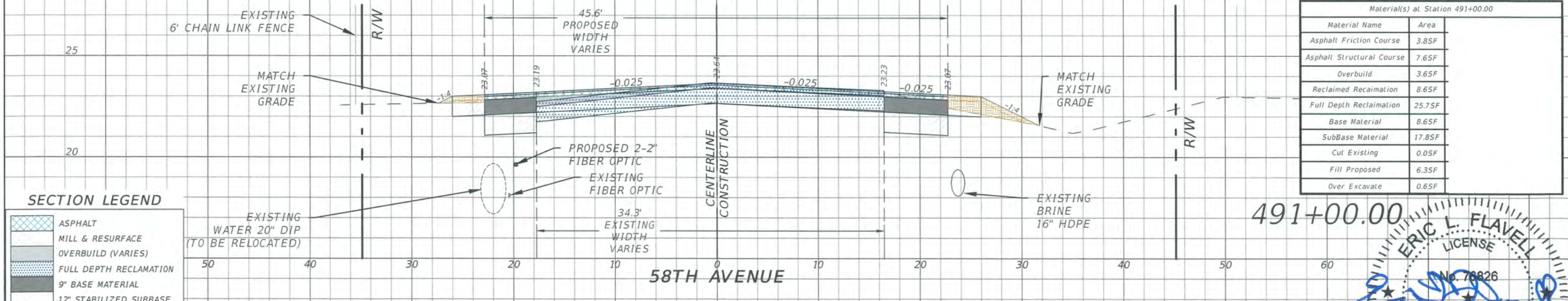
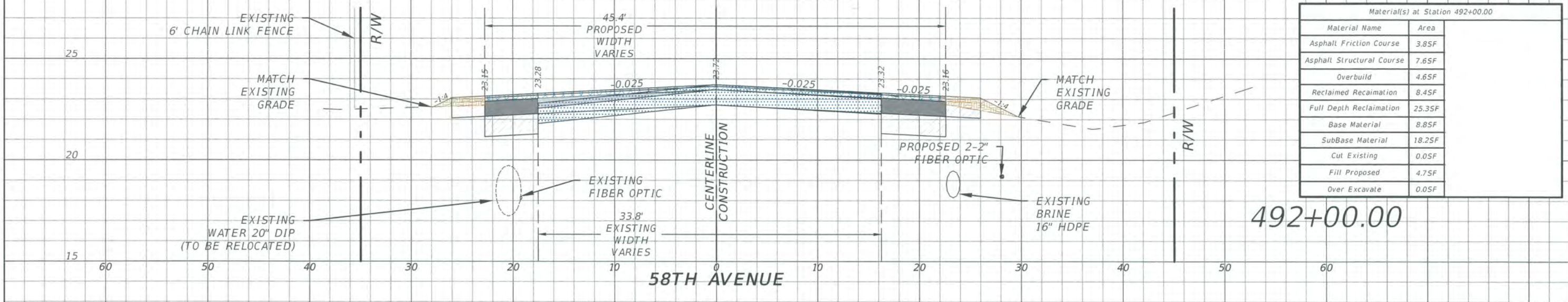
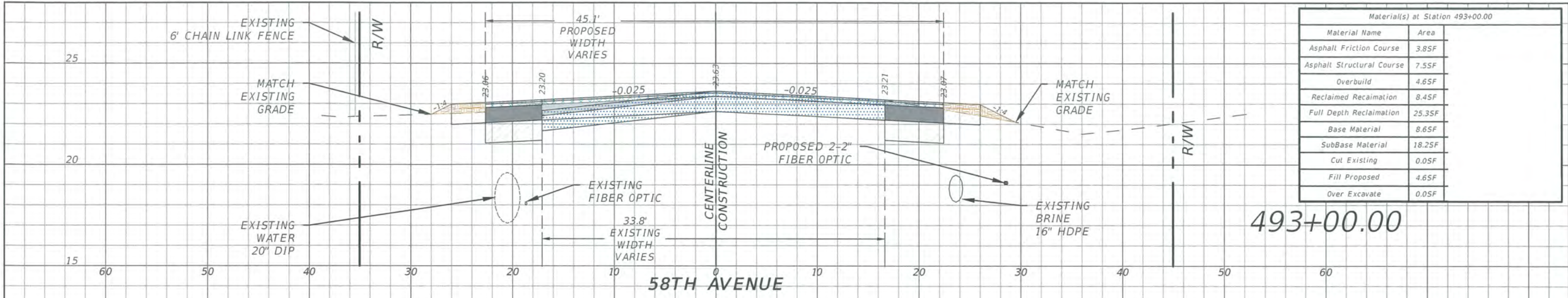
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

SHEET NO. 129



SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

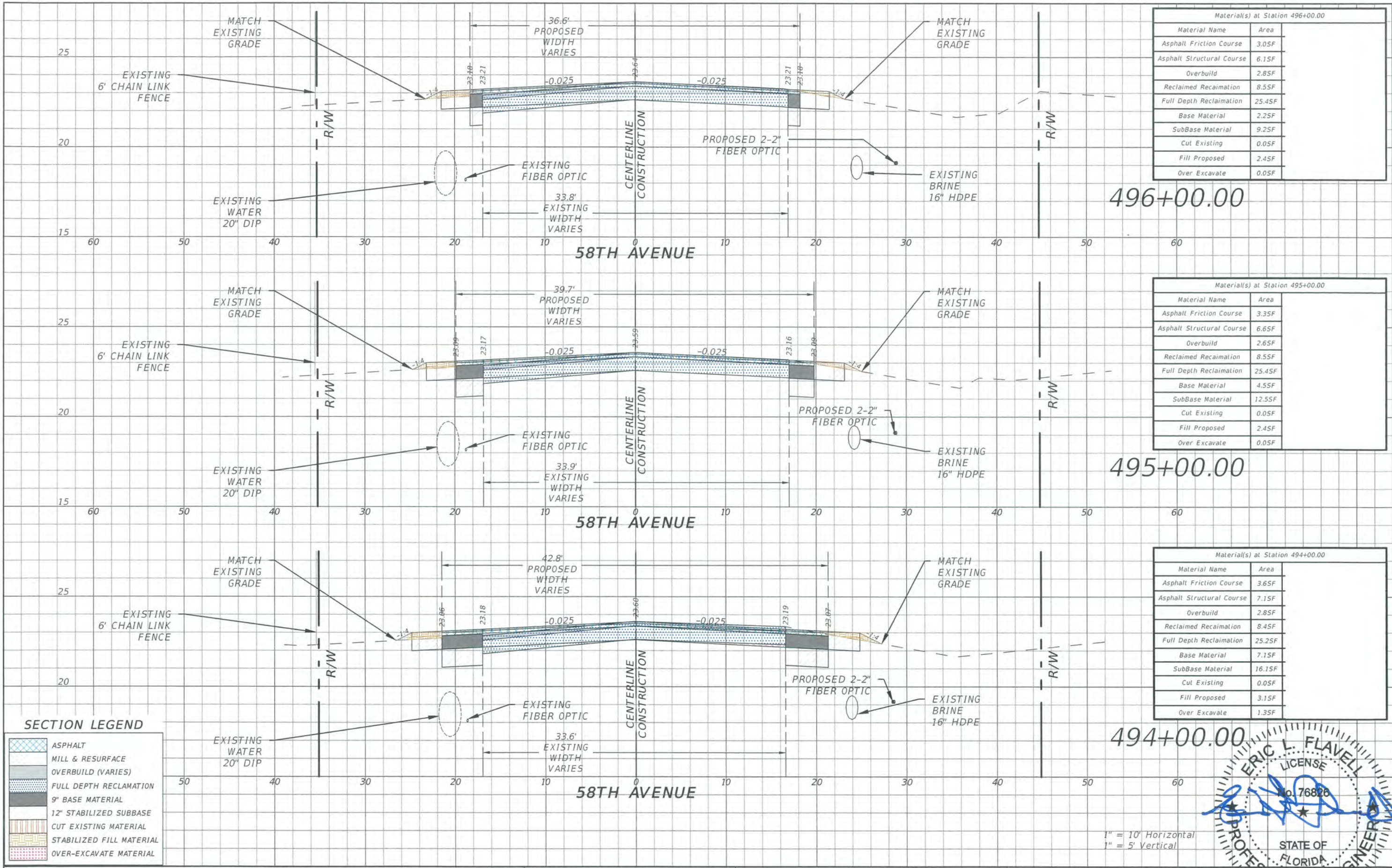
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 No. 76826
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA

SHEET NO. 130



Material(s) at Station 496+00.00	
Material Name	Area
Asphalt Friction Course	3.05F
Asphalt Structural Course	6.15F
Overbuild	2.85F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.45F
Base Material	2.25F
SubBase Material	9.25F
Cut Existing	0.05F
Fill Proposed	2.45F
Over Excavate	0.05F

496+00.00

Material(s) at Station 495+00.00	
Material Name	Area
Asphalt Friction Course	3.35F
Asphalt Structural Course	6.65F
Overbuild	2.65F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.45F
Base Material	4.55F
SubBase Material	12.55F
Cut Existing	0.05F
Fill Proposed	2.45F
Over Excavate	0.05F

495+00.00

Material(s) at Station 494+00.00	
Material Name	Area
Asphalt Friction Course	3.65F
Asphalt Structural Course	7.15F
Overbuild	2.85F
Reclaimed Reclamation	8.45F
Full Depth Reclamation	25.25F
Base Material	7.15F
SubBase Material	16.15F
Cut Existing	0.05F
Fill Proposed	3.15F
Over Excavate	1.35F

494+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

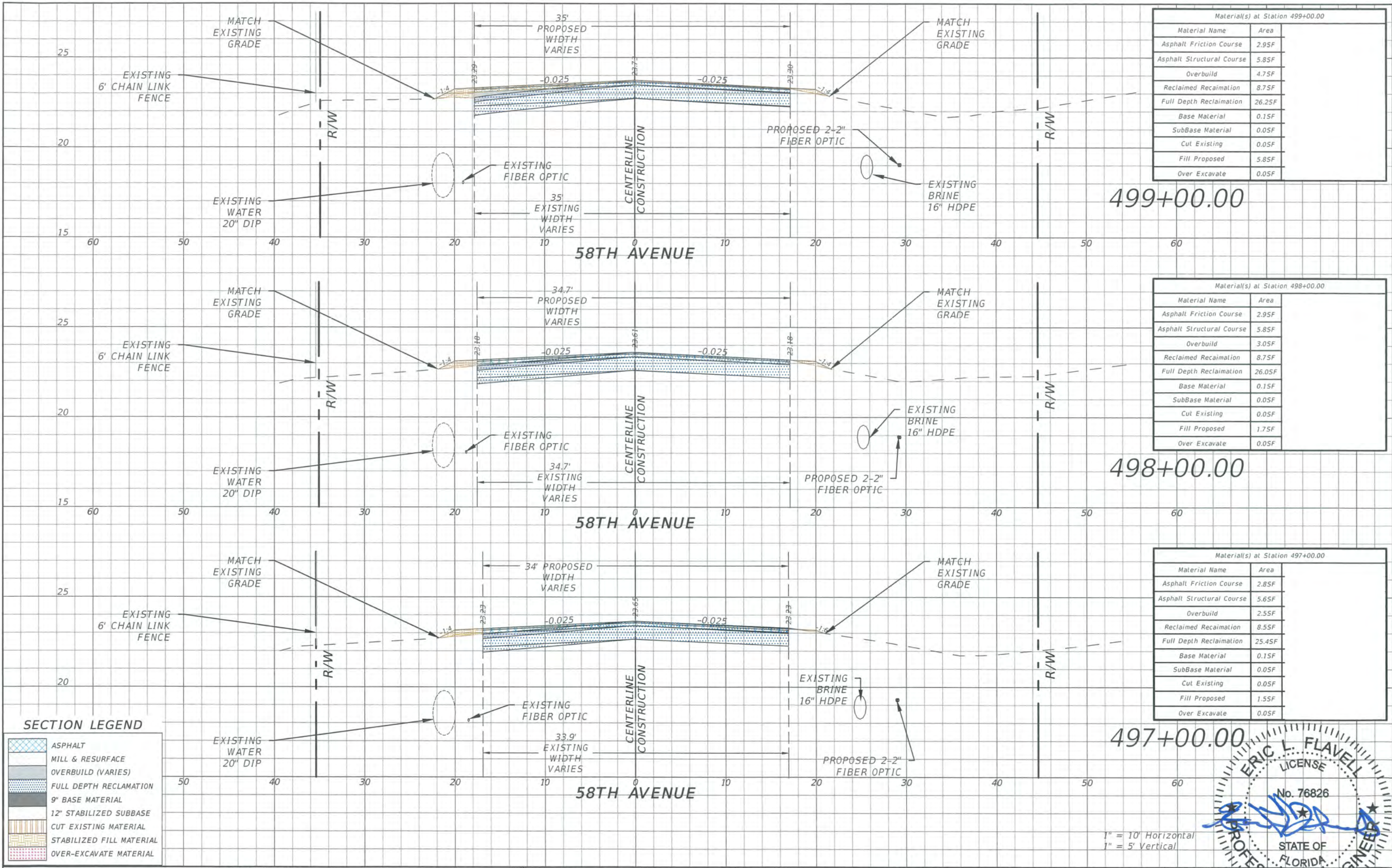
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

PROFESSIONAL ENGINEER
 ERIC L. FLAVELL
 LICENSE No. 76826
 STATE OF FLORIDA

SHEET NO. 131



Material(s) at Station 499+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	4.75F
Reclaimed Reclamation	8.75F
Full Depth Reclamation	26.25F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	5.85F
Over Excavate	0.05F

Material(s) at Station 498+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	3.05F
Reclaimed Reclamation	8.75F
Full Depth Reclamation	26.05F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	1.75F
Over Excavate	0.05F

Material(s) at Station 497+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	2.55F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.45F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	1.55F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

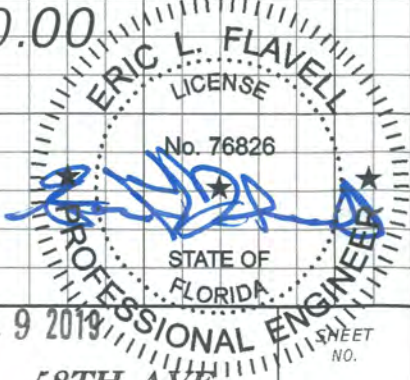
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ERIC L. FLAVELL, P.E.
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 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

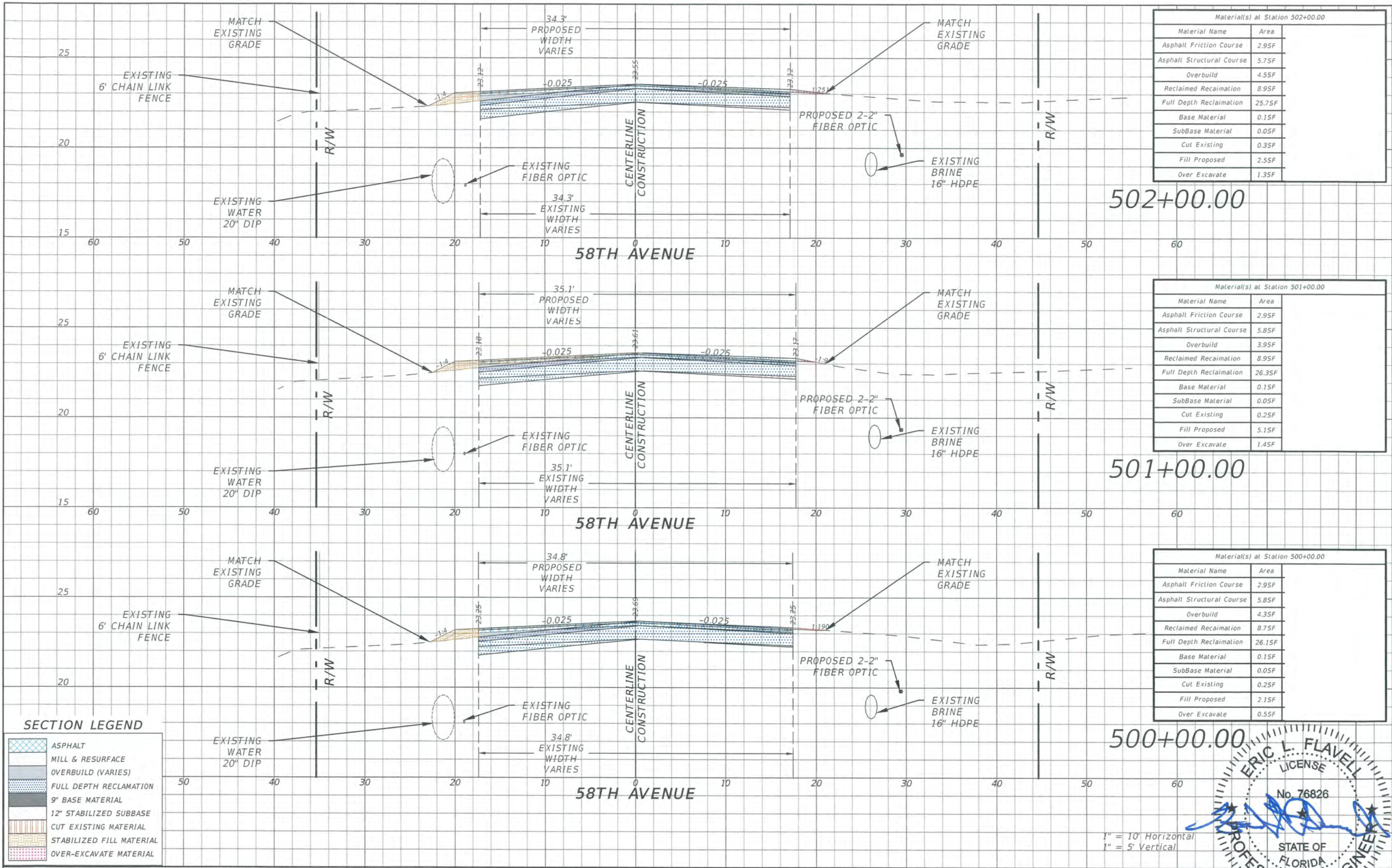
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 132



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 502+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	4.55F
Reclaimed Reclamation	8.95F
Full Depth Reclamation	25.75F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.35F
Fill Proposed	2.55F
Over Excavate	1.35F

502+00.00

Material(s) at Station 501+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	3.95F
Reclaimed Reclamation	8.95F
Full Depth Reclamation	26.35F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.25F
Fill Proposed	5.15F
Over Excavate	1.45F

501+00.00

Material(s) at Station 500+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	4.35F
Reclaimed Reclamation	8.75F
Full Depth Reclamation	26.15F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.25F
Fill Proposed	2.15F
Over Excavate	0.55F

500+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

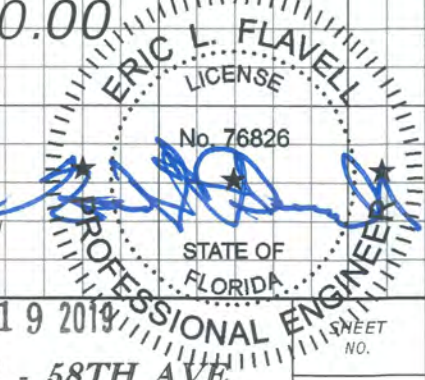
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 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

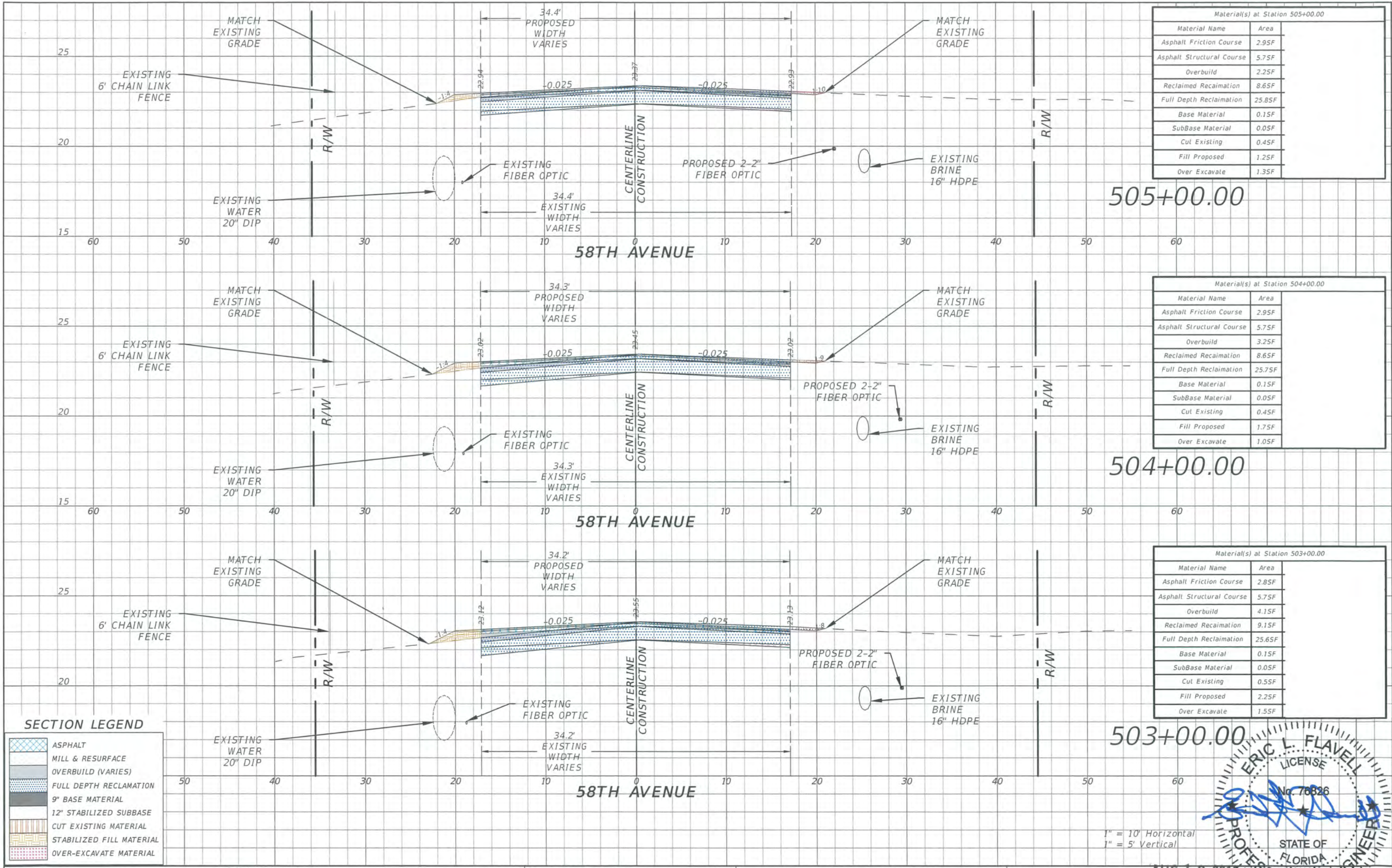
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 133



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 505+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	2.25F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.85F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.45F
Fill Proposed	1.25F
Over Excavate	1.35F

Material(s) at Station 504+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	3.25F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.75F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.45F
Fill Proposed	1.75F
Over Excavate	1.05F

Material(s) at Station 503+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	4.15F
Reclaimed Reclamation	9.15F
Full Depth Reclamation	25.65F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.55F
Fill Proposed	2.25F
Over Excavate	1.55F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

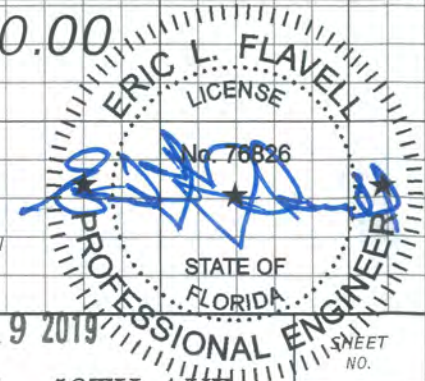
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 4450 W. EAU GALLIE BLVD.
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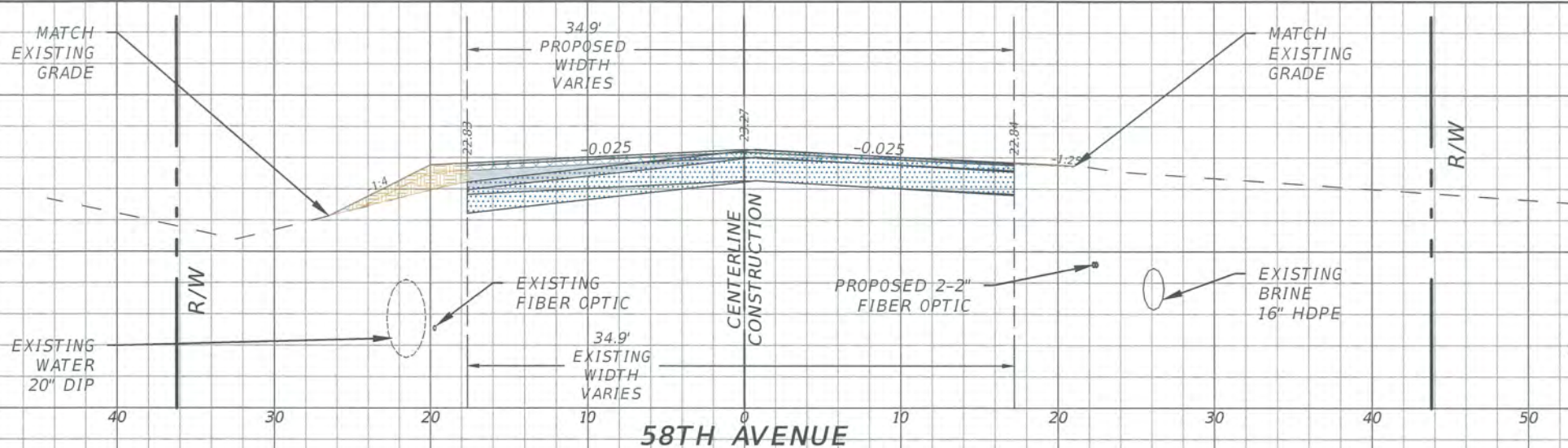
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 134

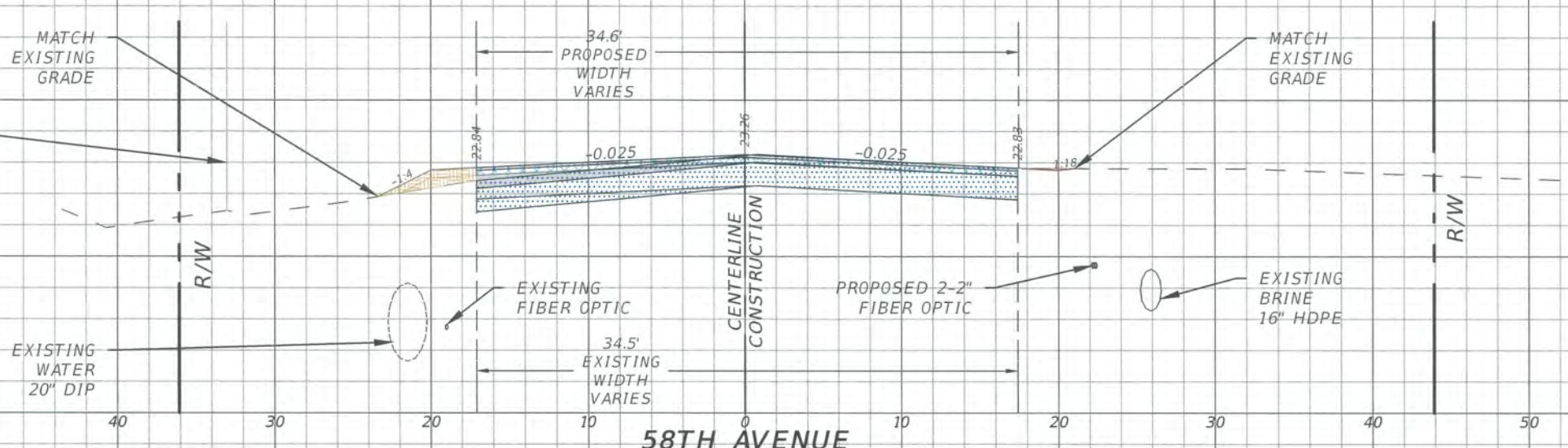


1" = 10' Horizontal
 1" = 5' Vertical



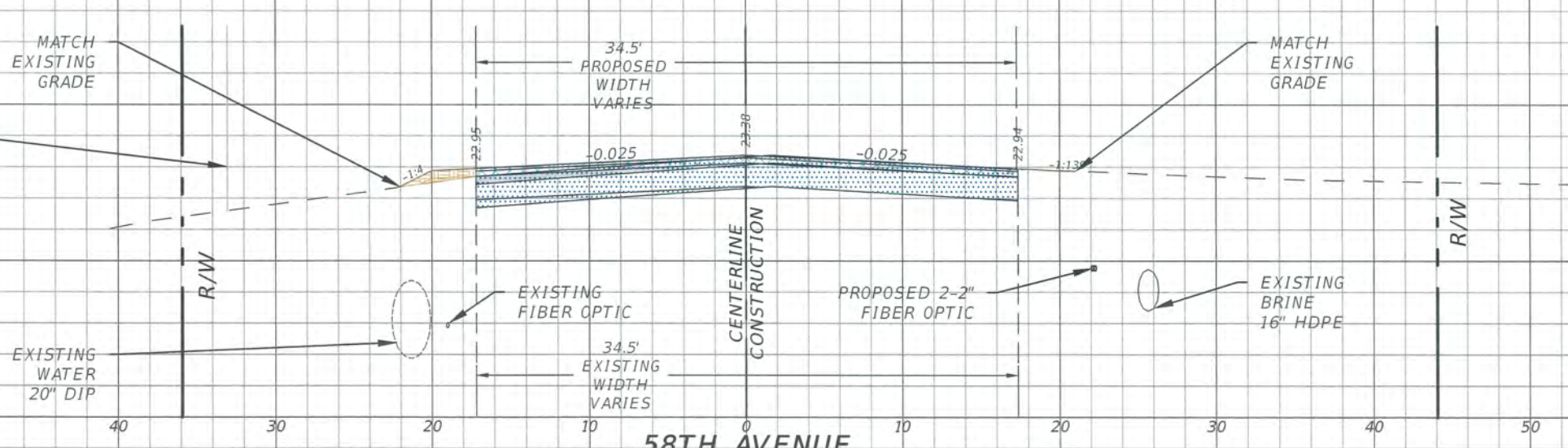
Material(s) at Station 508+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	5.95F
Reclaimed Reclamation	8.75F
Full Depth Reclamation	26.15F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	4.45F
Over Excavate	0.05F

508+00.00



Material(s) at Station 507+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	3.95F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.95F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.15F
Fill Proposed	2.45F
Over Excavate	0.05F

507+00.00



Material(s) at Station 506+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	2.75F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.95F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	1.35F
Over Excavate	0.05F

506+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

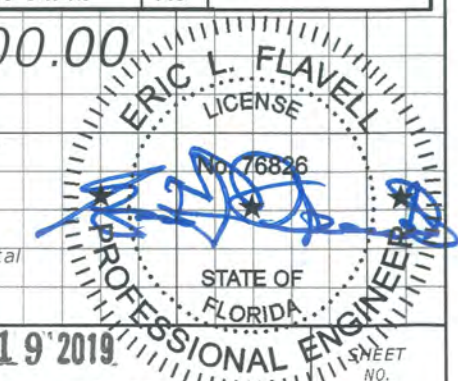
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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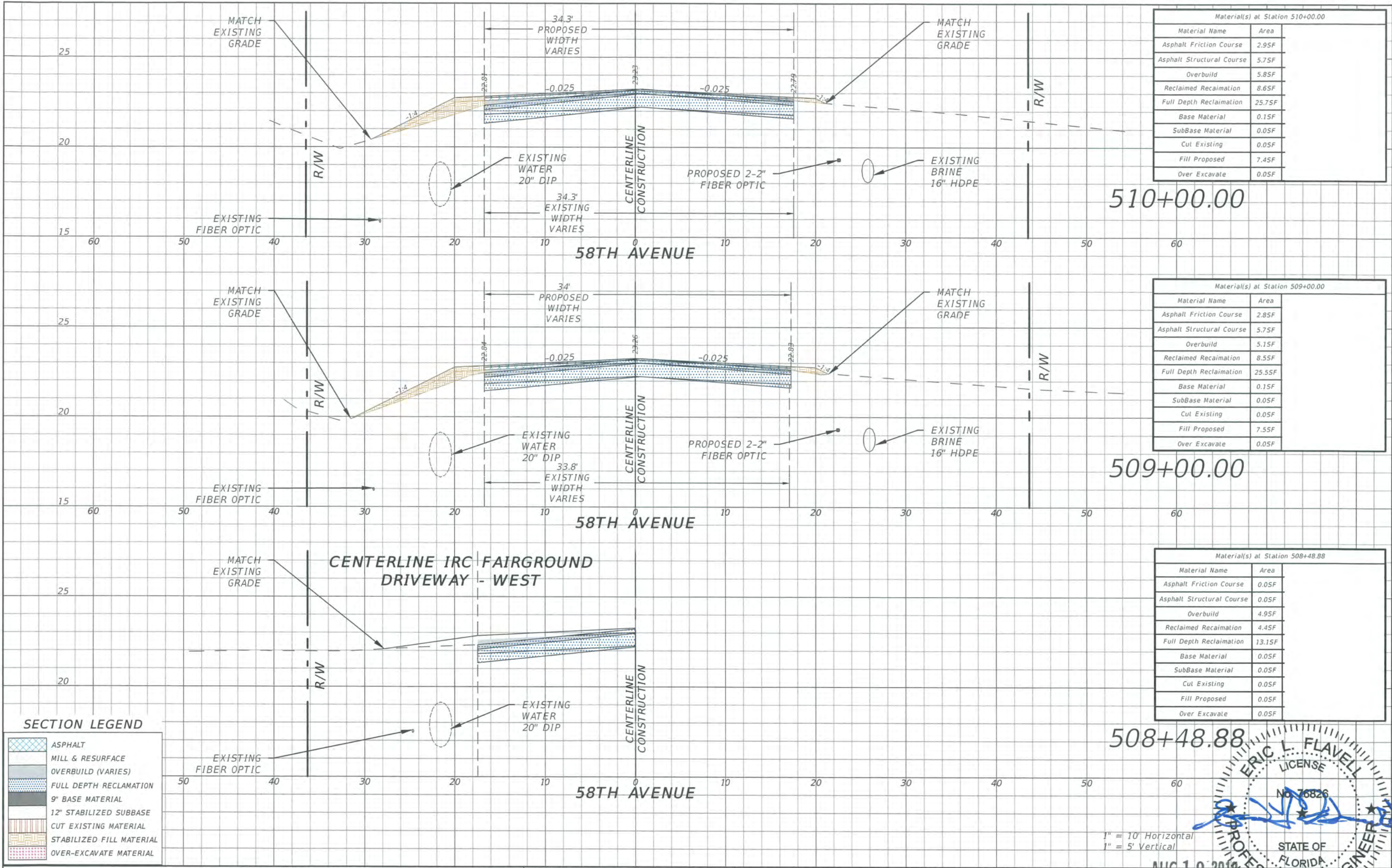
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 135



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 510+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	5.85F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.75F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	7.45F
Over Excavate	0.05F

510+00.00

Material(s) at Station 509+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	5.15F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.55F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	7.55F
Over Excavate	0.05F

509+00.00

Material(s) at Station 508+48.88	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	4.95F
Reclaimed Reclamation	4.45F
Full Depth Reclamation	13.15F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

508+48.88

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

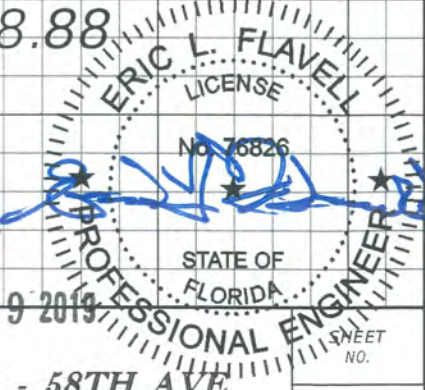
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

CROSS SECTIONS - 58TH AVE

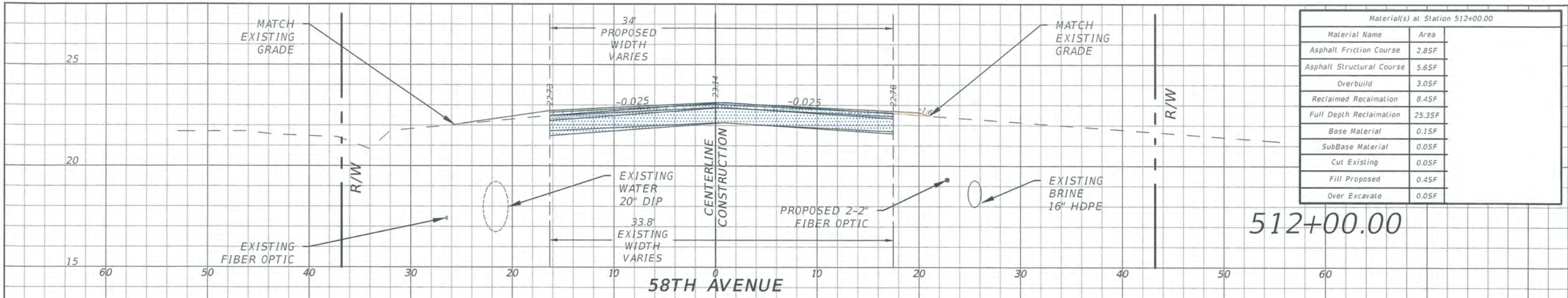


1" = 10' Horizontal
 1" = 5' Vertical

AUG 19 2019

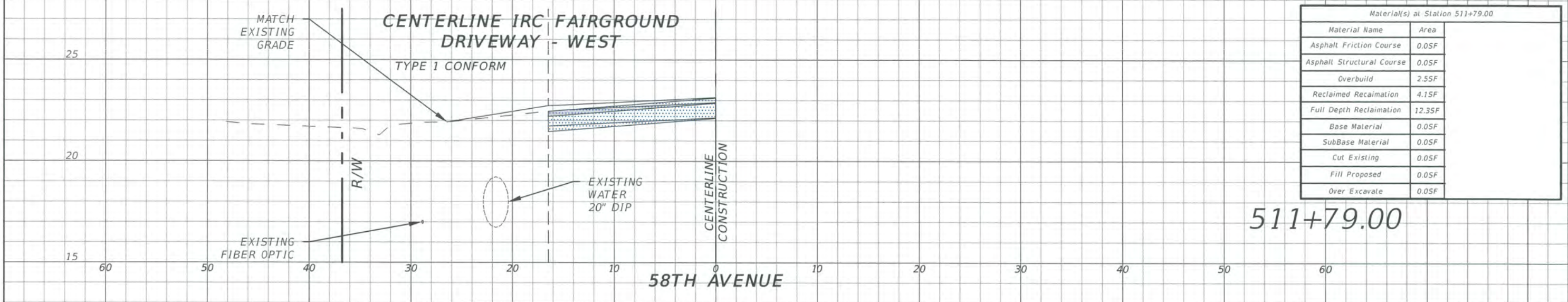
SHEET NO.

136



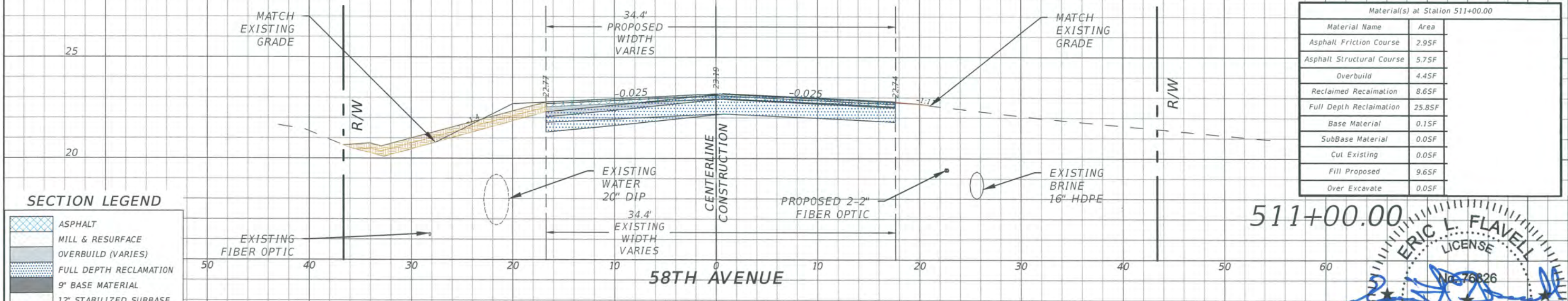
Material(s) at Station 512+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	3.05F
Reclaimed Reclamation	8.45F
Full Depth Reclamation	25.35F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.45F
Over Excavate	0.05F

512+00.00



Material(s) at Station 511+79.00	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	2.55F
Reclaimed Reclamation	4.15F
Full Depth Reclamation	12.35F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

511+79.00

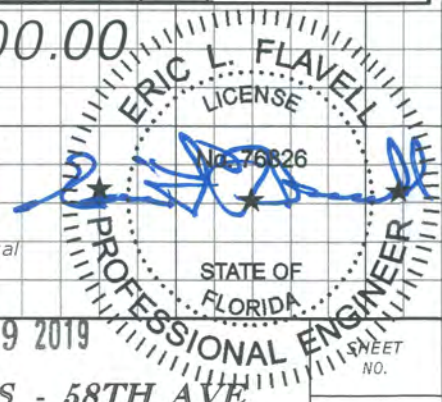


Material(s) at Station 511+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	4.45F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.85F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	9.65F
Over Excavate	0.05F

511+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL



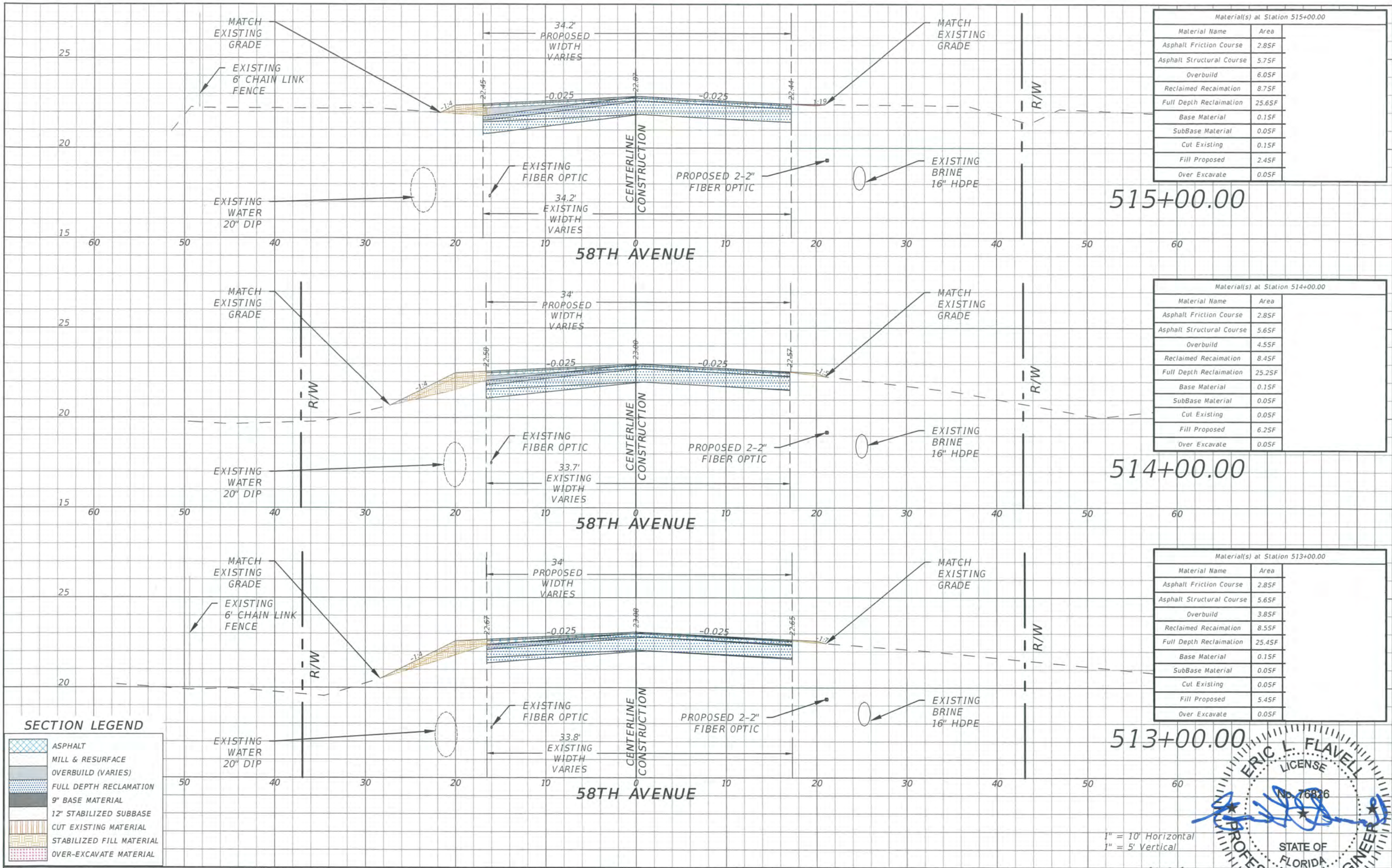
1" = 10' Horizontal
1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 137



Material(s) at Station 515+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	6.05F
Reclaimed Reclamation	8.75F
Full Depth Reclamation	25.65F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.15F
Fill Proposed	2.45F
Over Excavate	0.05F

Material(s) at Station 514+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	4.55F
Reclaimed Reclamation	8.45F
Full Depth Reclamation	25.25F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	6.25F
Over Excavate	0.05F

Material(s) at Station 513+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	3.85F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.45F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	5.45F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

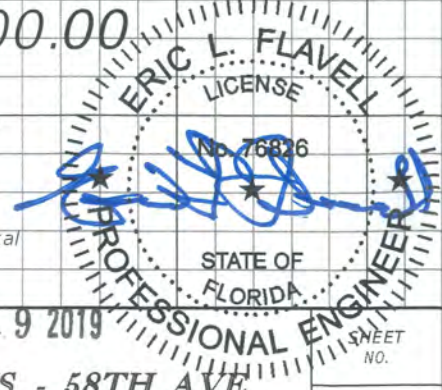
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ERIC L. FLAVELL, P.E.
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 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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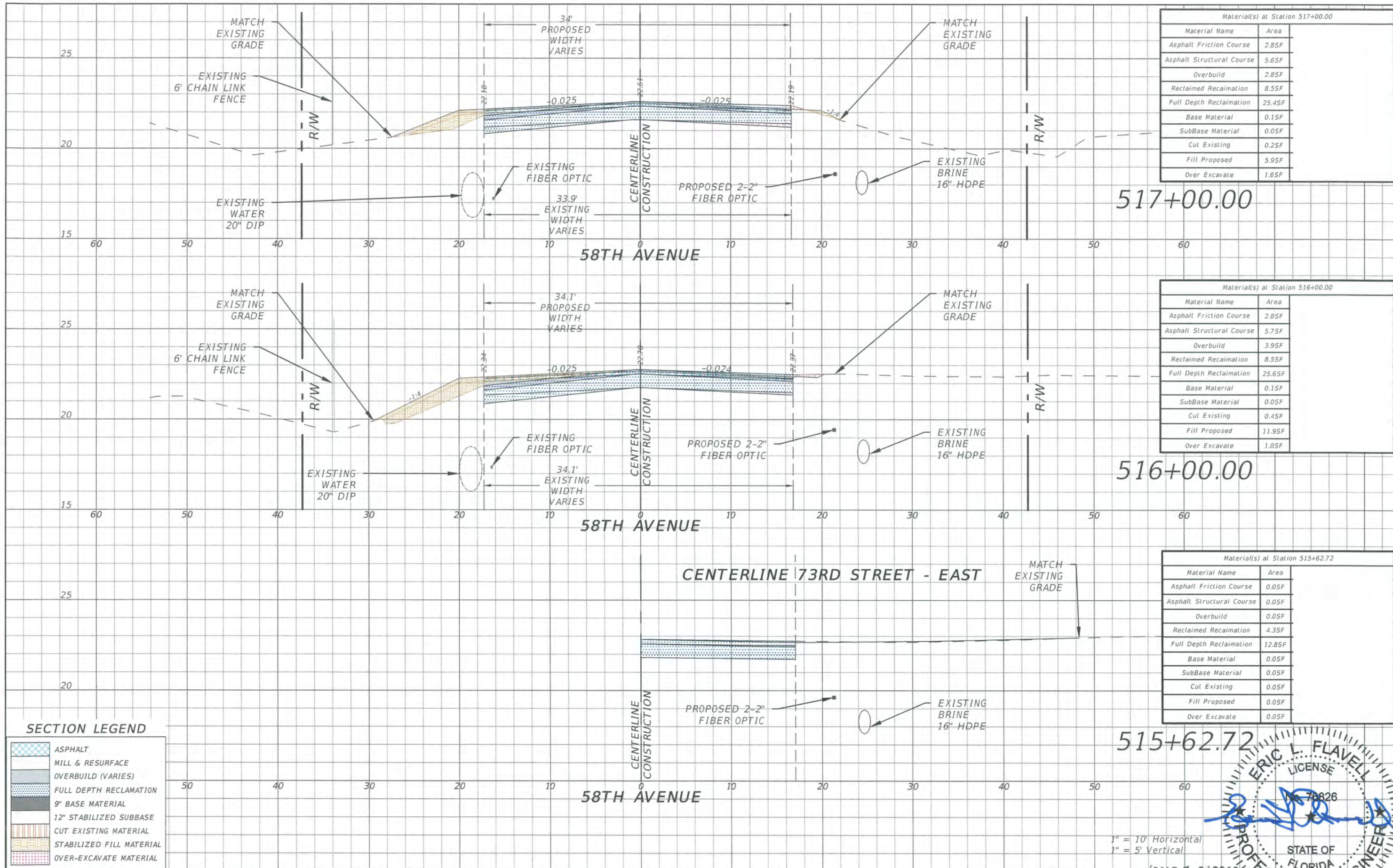
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 138



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 517+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	2.85F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.45F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.25F
Fill Proposed	5.95F
Over Excavate	1.65F

Material(s) at Station 516+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	3.95F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.65F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.45F
Fill Proposed	11.95F
Over Excavate	1.05F

Material(s) at Station 515+62.72

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	4.35F
Full Depth Reclamation	12.85F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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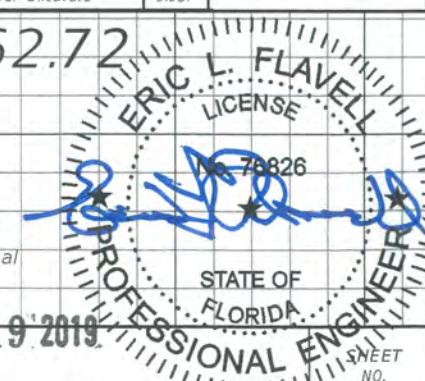
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 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

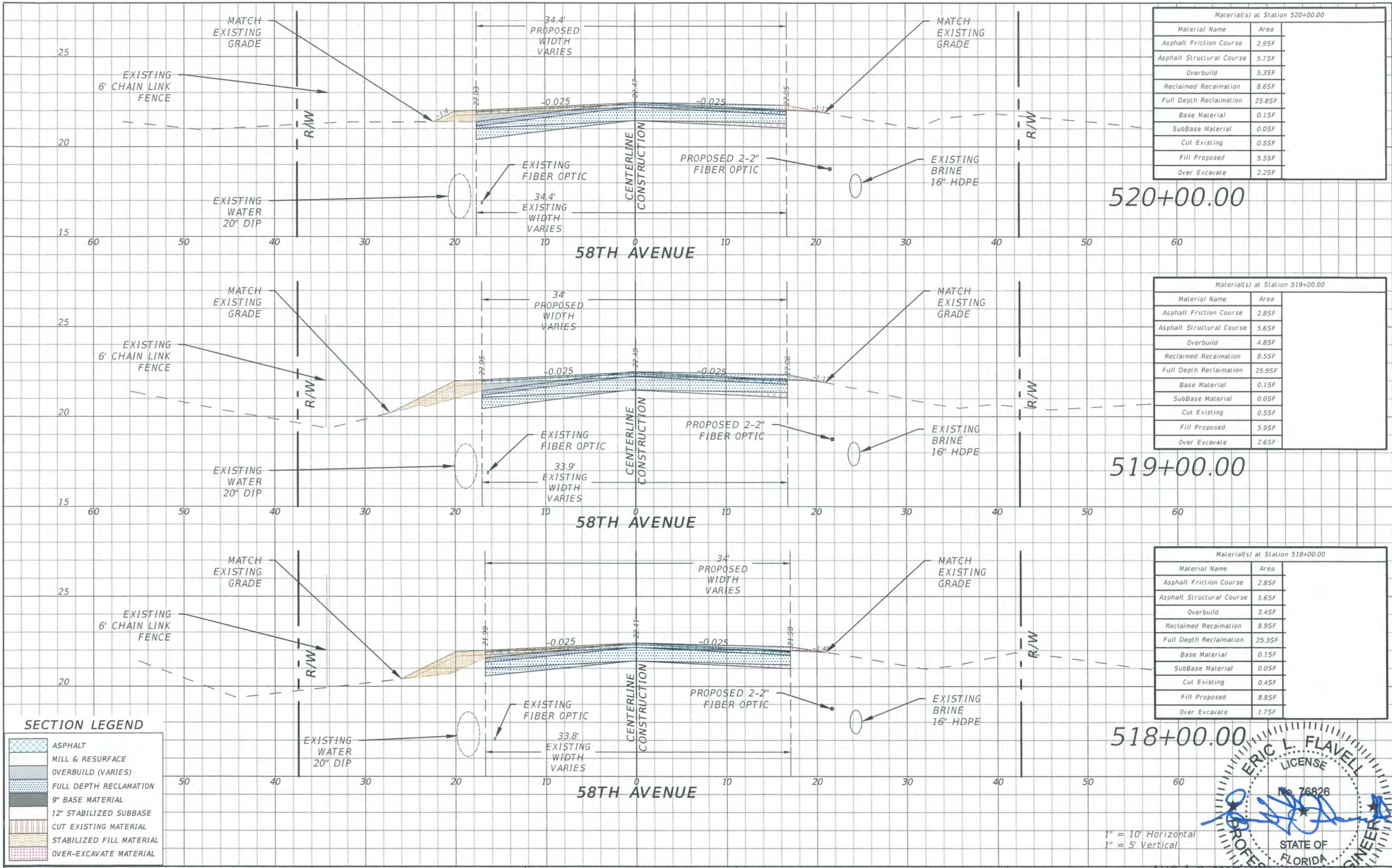
CROSS SECTIONS - 58TH AVE

139



1" = 10' Horizontal
 1" = 5' Vertical

AUG 19 2019



Material(s) at Station 520+00.00

Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	5.35F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.85F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.55F
Fill Proposed	5.55F
Over Excavate	2.25F

Material(s) at Station 519+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	4.85F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.95F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.55F
Fill Proposed	5.95F
Over Excavate	2.65F

Material(s) at Station 518+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	3.45F
Reclaimed Reclamation	8.95F
Full Depth Reclamation	25.35F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.45F
Fill Proposed	8.85F
Over Excavate	1.75F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

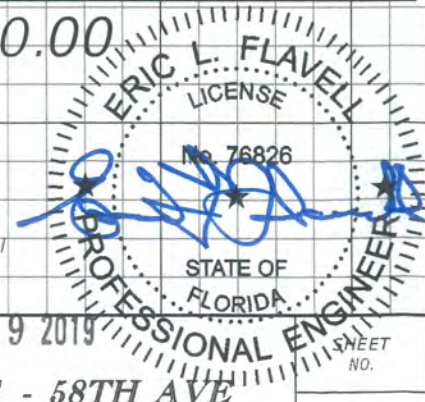
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

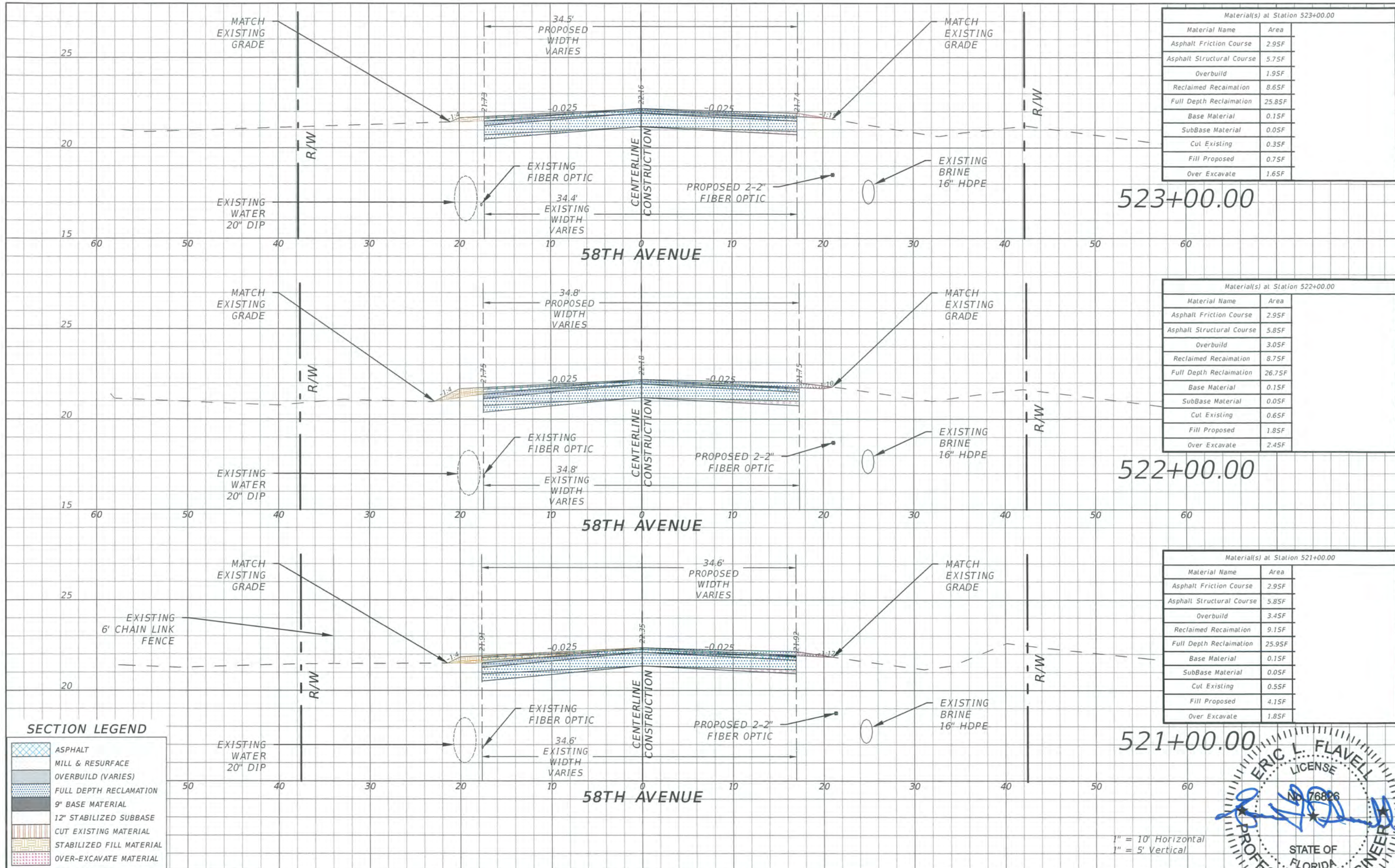
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 140



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 523+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	1.95F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.85F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.35F
Fill Proposed	0.75F
Over Excavate	1.65F

Material(s) at Station 522+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	3.05F
Reclaimed Reclamation	8.75F
Full Depth Reclamation	26.75F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.65F
Fill Proposed	1.85F
Over Excavate	2.45F

Material(s) at Station 521+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	3.45F
Reclaimed Reclamation	9.15F
Full Depth Reclamation	25.95F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.55F
Fill Proposed	4.15F
Over Excavate	1.85F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

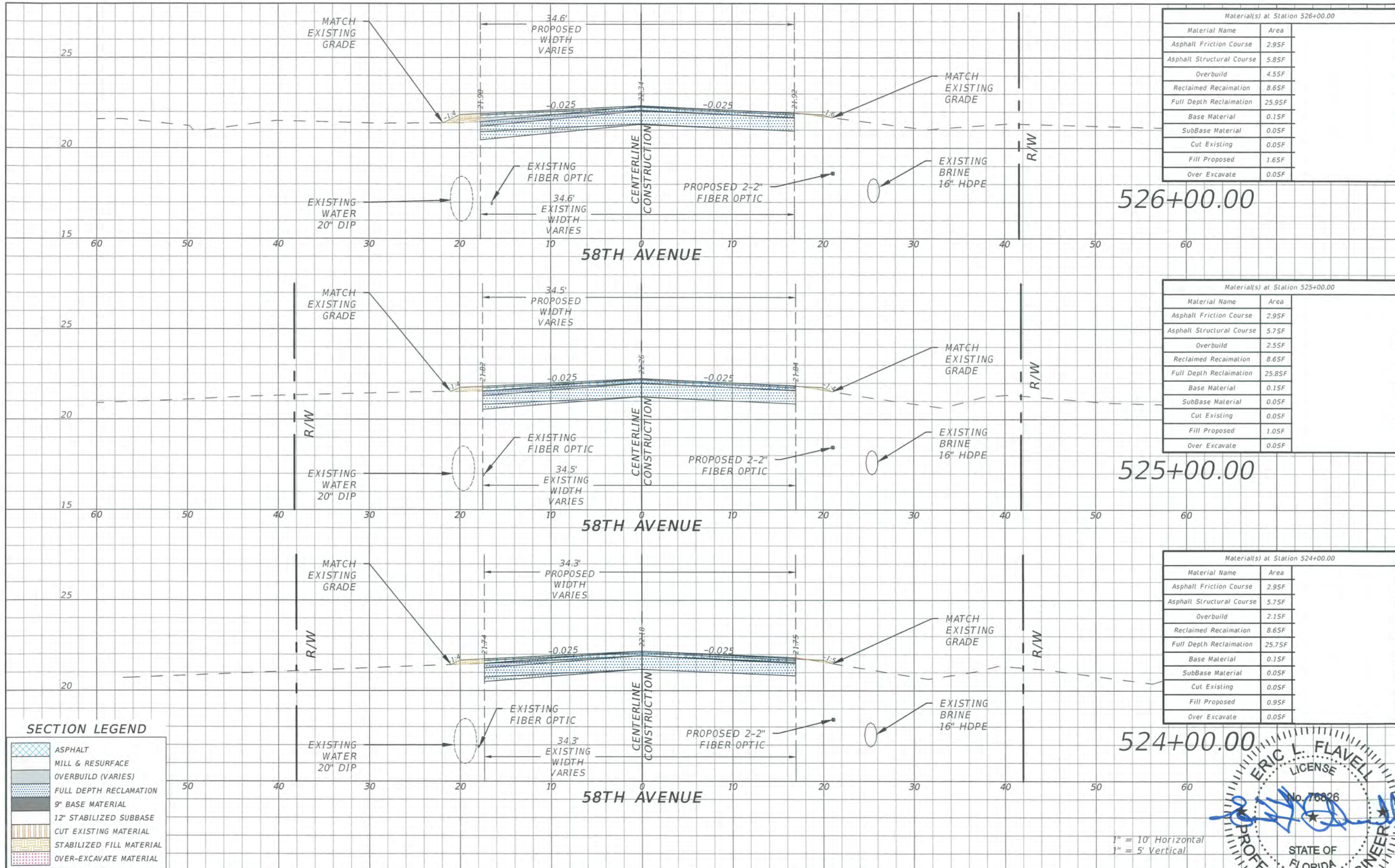
AUG 19 2019

CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 NO. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

SHEET NO. 141



Material(s) at Station 526+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	4.55F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.95F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	1.65F
Over Excavate	0.05F

Material(s) at Station 525+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	2.55F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.85F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	1.05F
Over Excavate	0.05F

Material(s) at Station 524+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	2.15F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.75F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.95F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

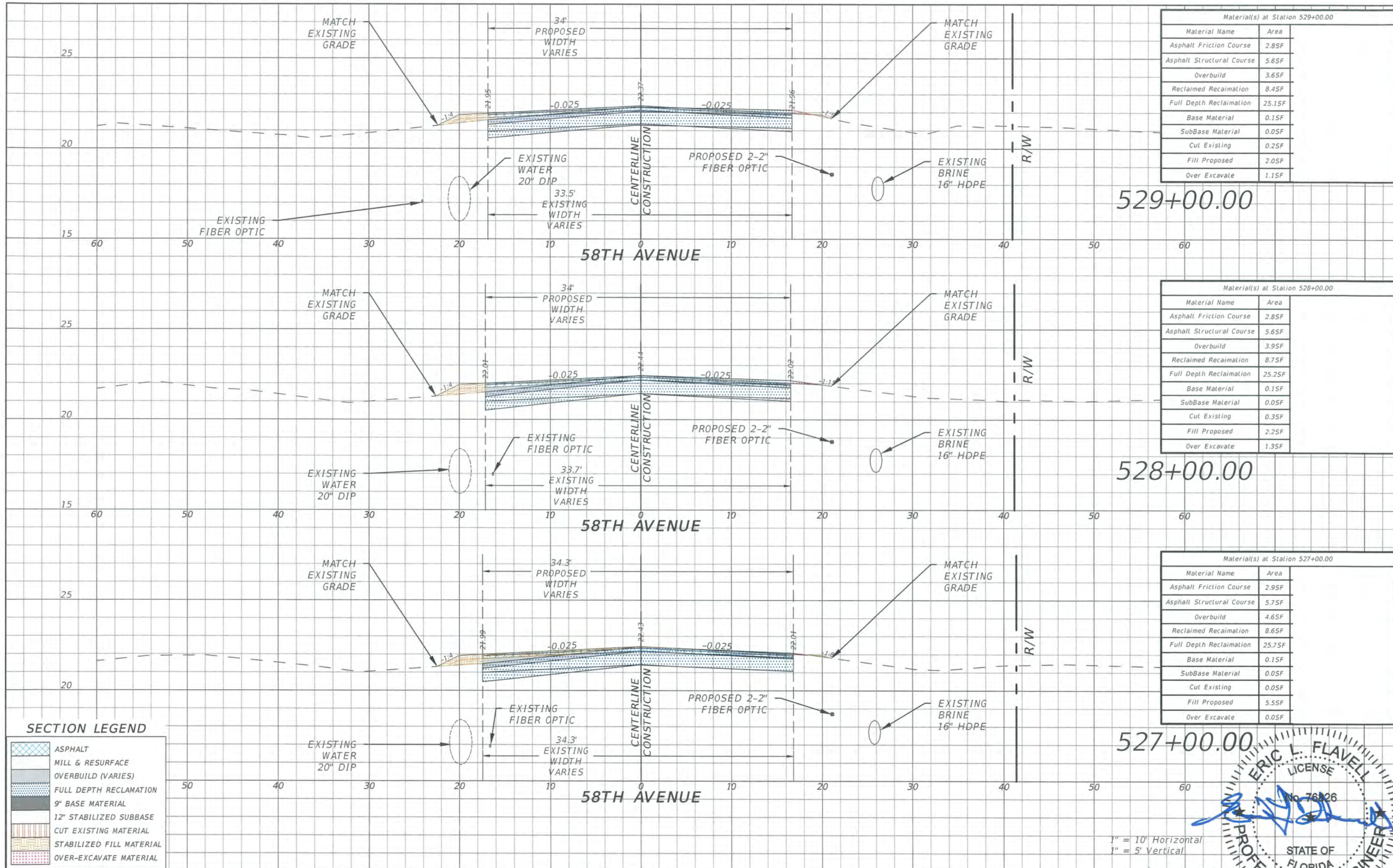
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 No. 76826
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA

SHEET NO. 142



Material(s) at Station 529+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	3.65F
Reclaimed Reclamation	8.45F
Full Depth Reclamation	25.15F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.25F
Fill Proposed	2.05F
Over Excavate	1.15F

529+00.00

Material(s) at Station 528+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	3.95F
Reclaimed Reclamation	8.75F
Full Depth Reclamation	25.25F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.35F
Fill Proposed	2.25F
Over Excavate	1.35F

528+00.00

Material(s) at Station 527+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	4.65F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.75F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	5.55F
Over Excavate	0.05F

527+00.00

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

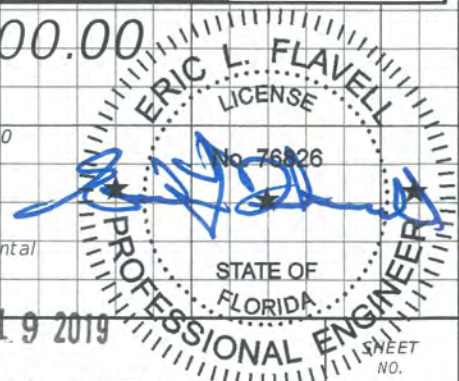
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

CROSS SECTIONS - 58TH AVE

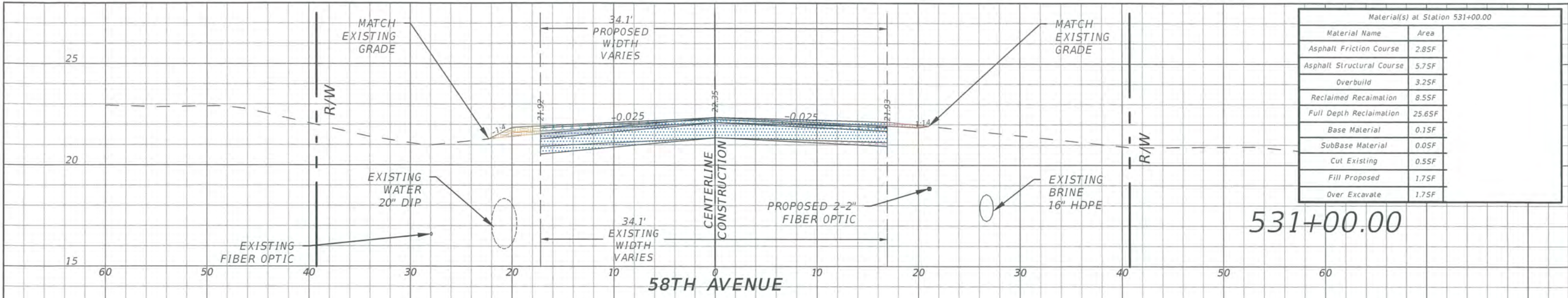


1" = 10' Horizontal
 1" = 5' Vertical

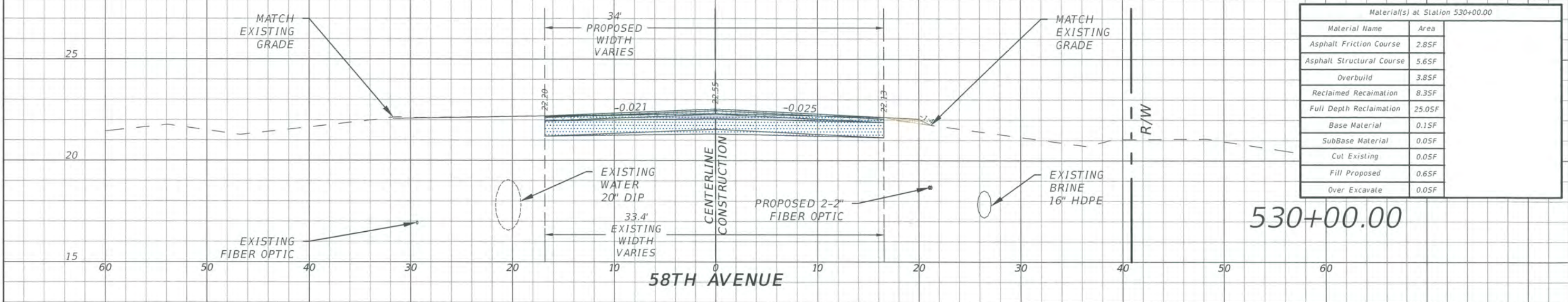
AUG 19 2019

SHEET NO.

143



Material(s) at Station 531+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	3.25F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.65F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.55F
Fill Proposed	1.75F
Over Excavate	1.75F



Material(s) at Station 530+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	3.85F
Reclaimed Reclamation	8.35F
Full Depth Reclamation	25.05F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.65F
Over Excavate	0.05F



Material(s) at Station 529+78.06	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	3.25F
Reclaimed Reclamation	4.25F
Full Depth Reclamation	12.55F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

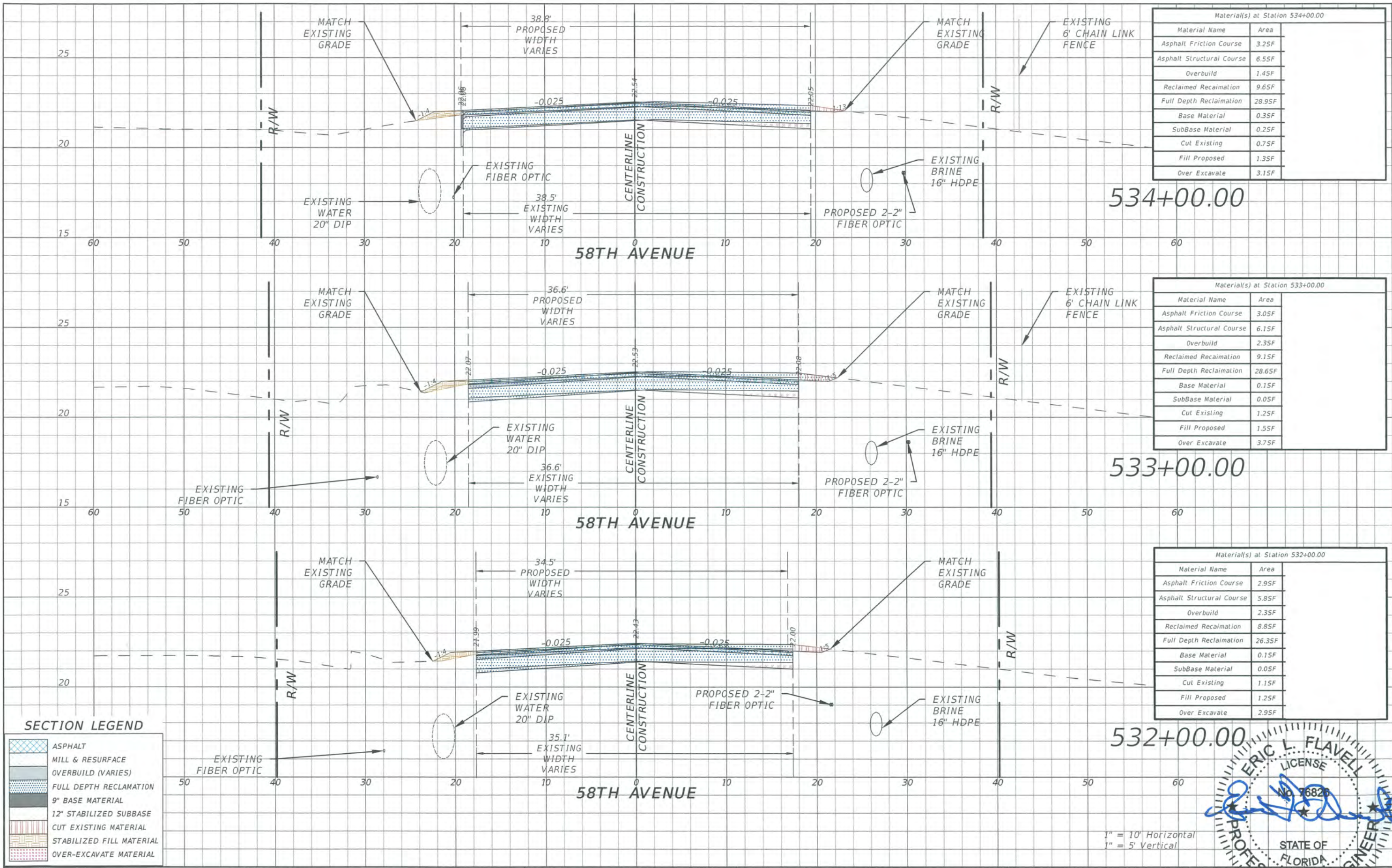
AUG 19 2019

CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

SHEET NO. 144



Material(s) at Station 534+00.00

Material Name	Area
Asphalt Friction Course	3.25F
Asphalt Structural Course	6.55F
Overbuild	1.45F
Reclaimed Reclamation	9.65F
Full Depth Reclamation	28.95F
Base Material	0.35F
SubBase Material	0.25F
Cut Existing	0.75F
Fill Proposed	1.35F
Over Excavate	3.15F

Material(s) at Station 533+00.00

Material Name	Area
Asphalt Friction Course	3.05F
Asphalt Structural Course	6.15F
Overbuild	2.35F
Reclaimed Reclamation	9.15F
Full Depth Reclamation	28.65F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	1.25F
Fill Proposed	1.55F
Over Excavate	3.75F

Material(s) at Station 532+00.00

Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	2.35F
Reclaimed Reclamation	8.85F
Full Depth Reclamation	26.35F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	1.15F
Fill Proposed	1.25F
Over Excavate	2.95F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

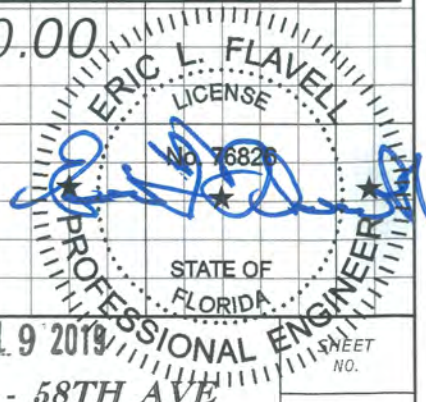
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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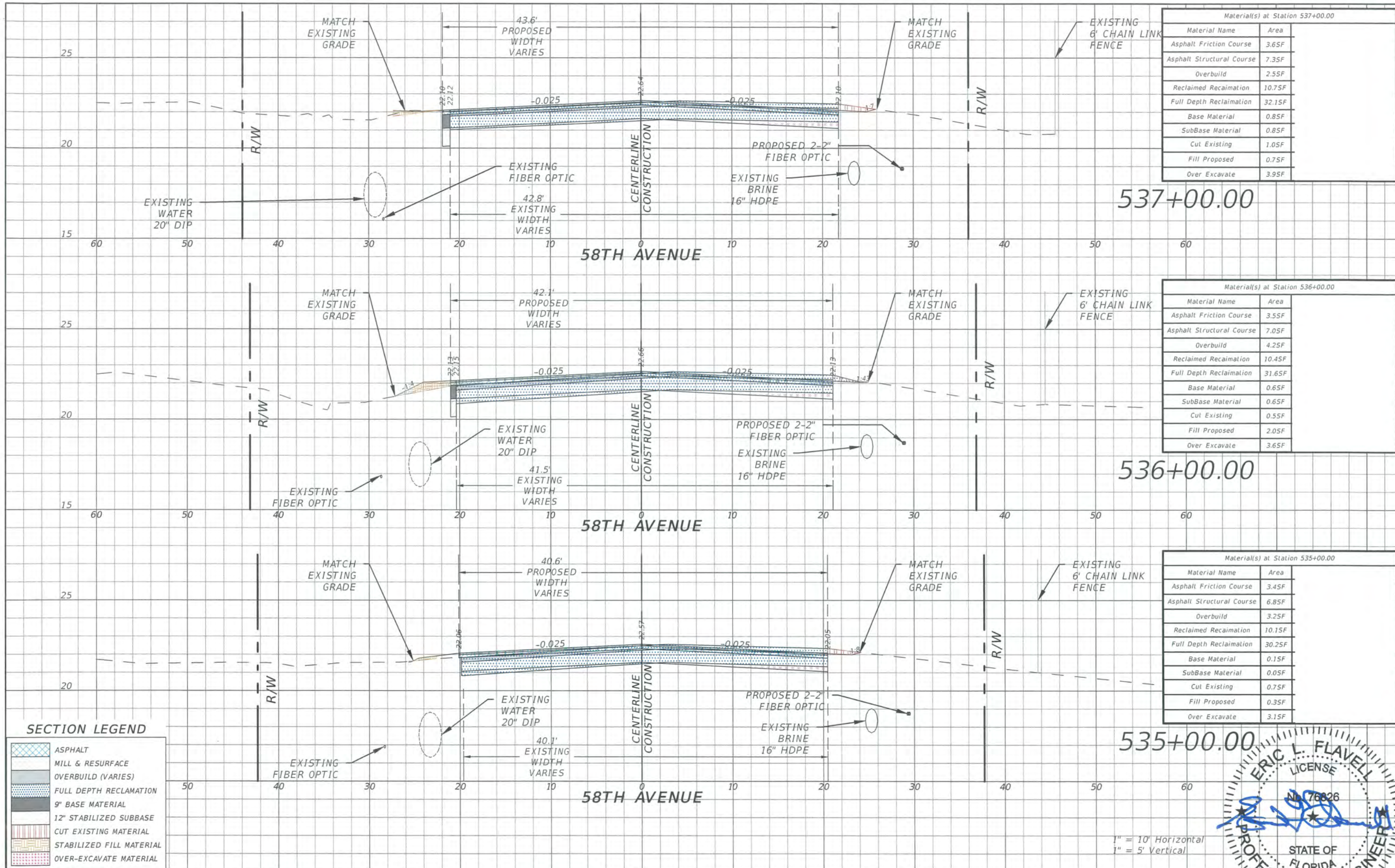
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 145



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 537+00.00

Material Name	Area
Asphalt Friction Course	3.65F
Asphalt Structural Course	7.35F
Overbuild	2.55F
Reclaimed Reclamation	10.75F
Full Depth Reclamation	32.15F
Base Material	0.85F
SubBase Material	0.85F
Cut Existing	1.05F
Fill Proposed	0.75F
Over Excavate	3.95F

Material(s) at Station 536+00.00

Material Name	Area
Asphalt Friction Course	3.55F
Asphalt Structural Course	7.05F
Overbuild	4.25F
Reclaimed Reclamation	10.45F
Full Depth Reclamation	31.65F
Base Material	0.65F
SubBase Material	0.65F
Cut Existing	0.55F
Fill Proposed	2.05F
Over Excavate	3.65F

Material(s) at Station 535+00.00

Material Name	Area
Asphalt Friction Course	3.45F
Asphalt Structural Course	6.85F
Overbuild	3.25F
Reclaimed Reclamation	10.15F
Full Depth Reclamation	30.25F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.75F
Fill Proposed	0.35F
Over Excavate	3.15F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

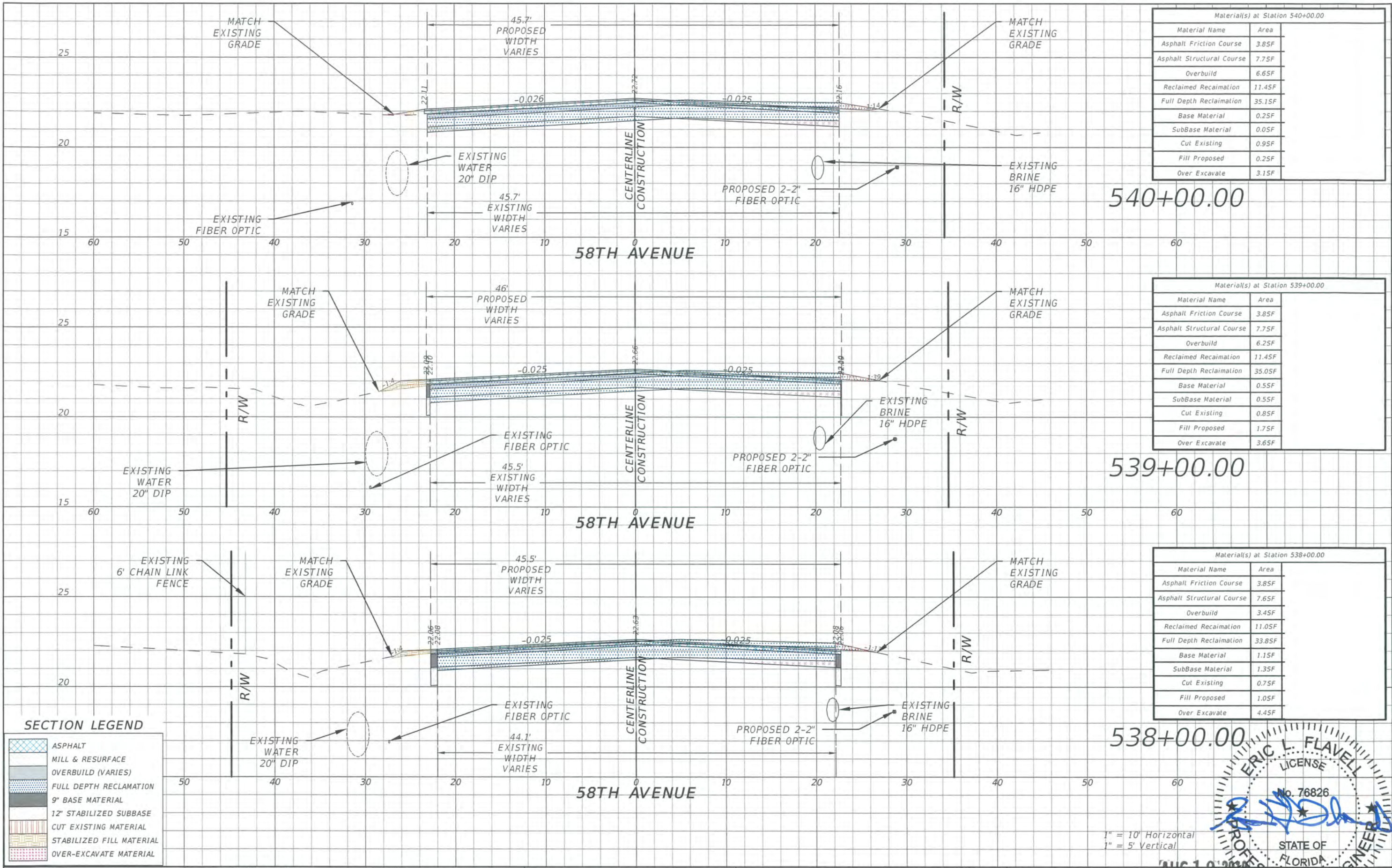
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 No. 76826
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA

SHEET NO. 146



Material(s) at Station 540+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	6.65F
Reclaimed Reclamation	11.45F
Full Depth Reclamation	35.15F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.95F
Fill Proposed	0.25F
Over Excavate	3.15F

Material(s) at Station 539+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	6.25F
Reclaimed Reclamation	11.45F
Full Depth Reclamation	35.05F
Base Material	0.55F
SubBase Material	0.55F
Cut Existing	0.85F
Fill Proposed	1.75F
Over Excavate	3.65F

Material(s) at Station 538+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.65F
Overbuild	3.45F
Reclaimed Reclamation	11.05F
Full Depth Reclamation	33.85F
Base Material	1.15F
SubBase Material	1.35F
Cut Existing	0.75F
Fill Proposed	1.05F
Over Excavate	4.45F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
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 4450 W. EAU GALLIE BLVD.
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

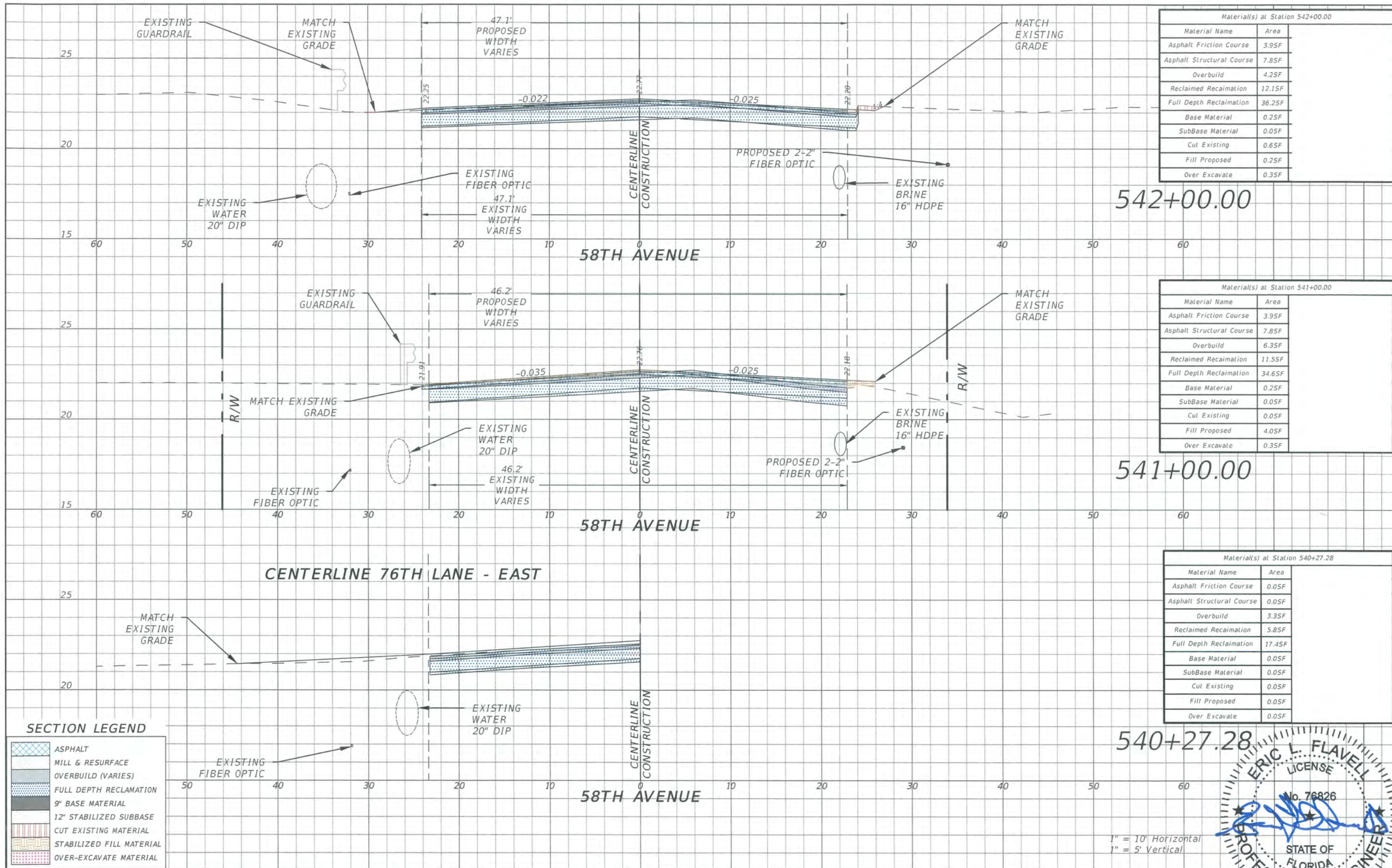
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

AUG 19 2019

SHEET NO. 147



Material(s) at Station 542+00.00	
Material Name	Area
Asphalt Friction Course	3.95F
Asphalt Structural Course	7.85F
Overbuild	4.25F
Reclaimed Reclamation	12.15F
Full Depth Reclamation	36.25F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.65F
Fill Proposed	0.25F
Over Excavate	0.35F

542+00.00

Material(s) at Station 541+00.00	
Material Name	Area
Asphalt Friction Course	3.95F
Asphalt Structural Course	7.85F
Overbuild	6.35F
Reclaimed Reclamation	11.55F
Full Depth Reclamation	34.65F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	4.05F
Over Excavate	0.35F

541+00.00

Material(s) at Station 540+27.28	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	3.35F
Reclaimed Reclamation	5.85F
Full Depth Reclamation	17.45F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

540+27.28

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

EXISTING FIBER OPTIC

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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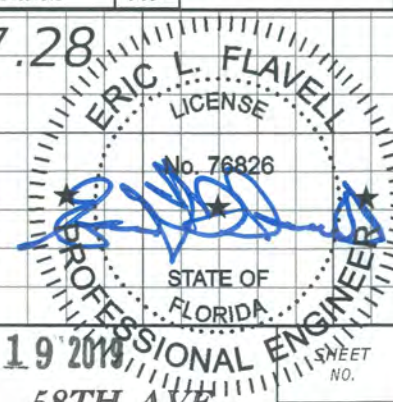
ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

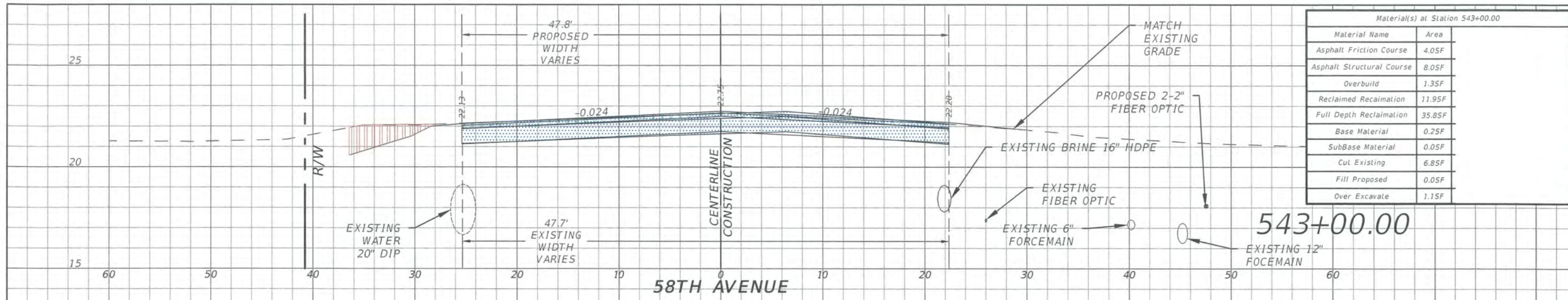
AUG 19 2019

CROSS SECTIONS - 58TH AVE

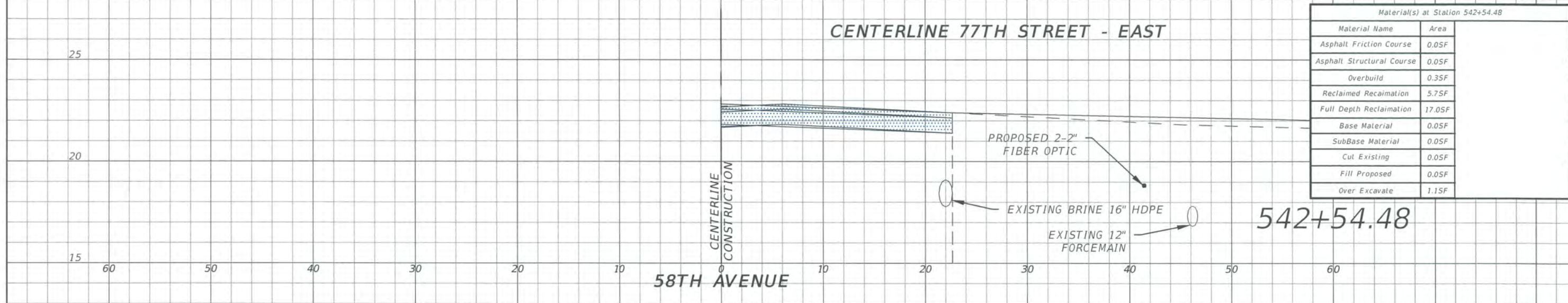
SHEET NO. 148



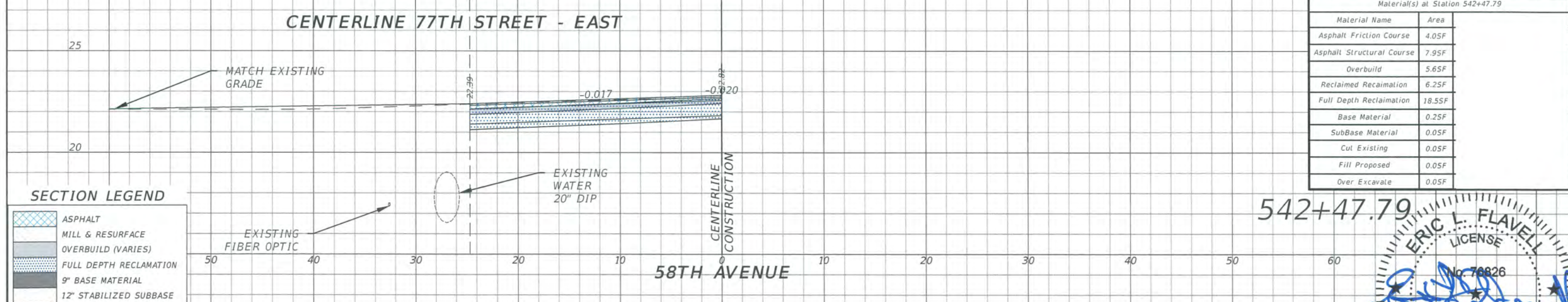
1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 543+00.00	
Material Name	Area
Asphalt Friction Course	4.05F
Asphalt Structural Course	8.05F
Overbuild	1.35F
Reclaimed Reclamation	11.95F
Full Depth Reclamation	35.85F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	6.85F
Fill Proposed	0.05F
Over Excavate	1.15F



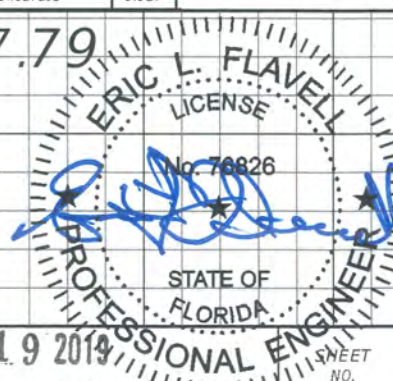
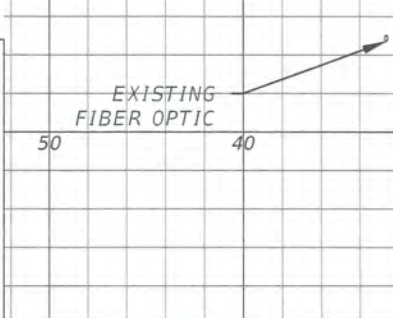
Material(s) at Station 542+54.48	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.35F
Reclaimed Reclamation	5.75F
Full Depth Reclamation	17.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	1.15F



Material(s) at Station 542+47.79	
Material Name	Area
Asphalt Friction Course	4.05F
Asphalt Structural Course	7.95F
Overbuild	5.65F
Reclaimed Reclamation	6.25F
Full Depth Reclamation	18.55F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

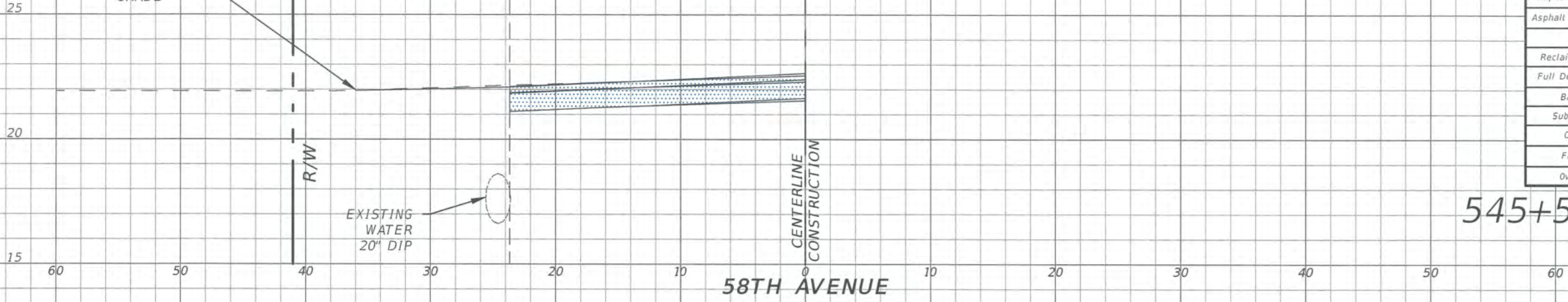
INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 149

MATCH EXISTING GRADE
CENTERLINE DRIVEWAY - EAST

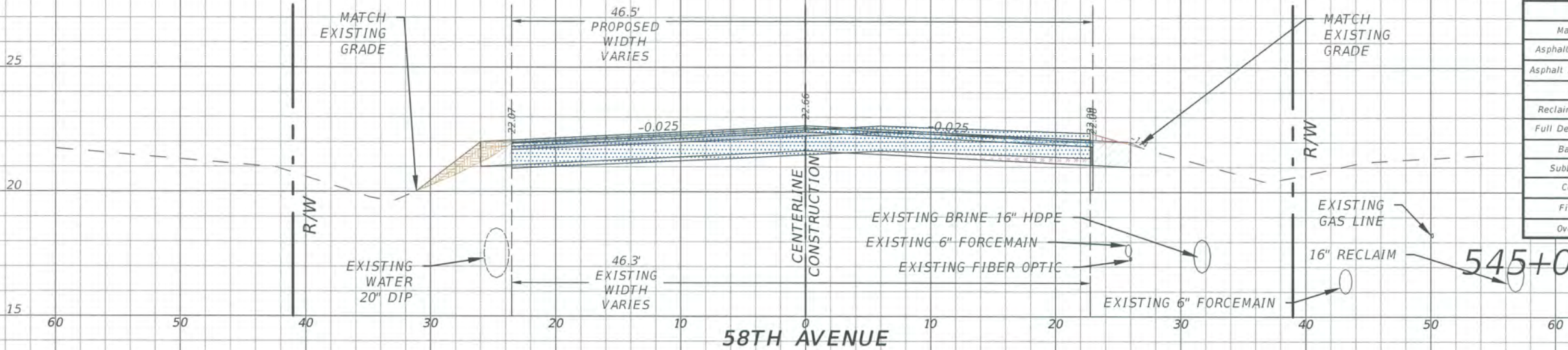
Material(s) at Station 545+56.44	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.65F
Reclaimed Reclamation	5.95F
Full Depth Reclamation	17.75F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

545+56.44



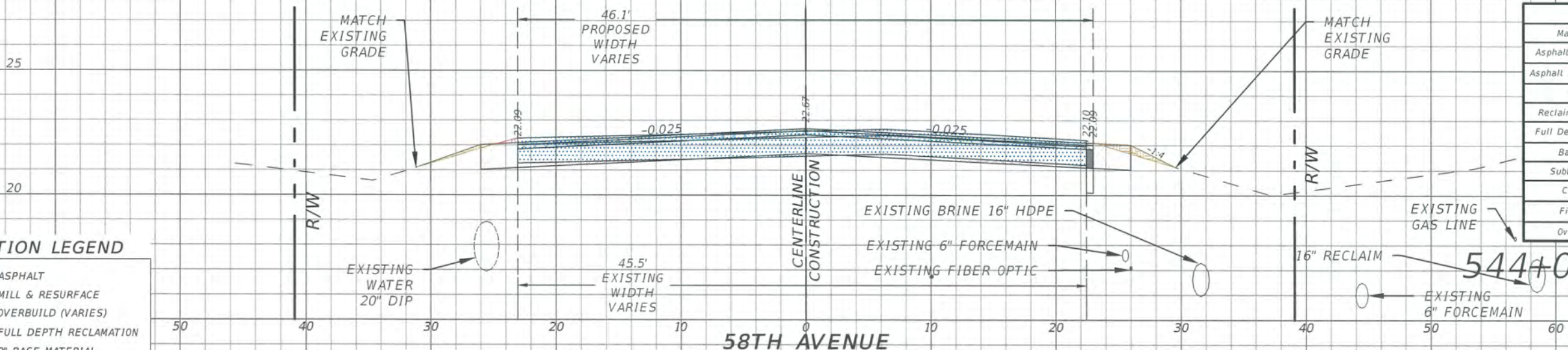
Material(s) at Station 545+00.00	
Material Name	Area
Asphalt Friction Course	3.95F
Asphalt Structural Course	7.85F
Overbuild	3.85F
Reclaimed Reclamation	11.65F
Full Depth Reclamation	34.75F
Base Material	0.35F
SubBase Material	5.75F
Cut Existing	0.35F
Fill Proposed	3.65F
Over Excavate	3.75F

545+00.00



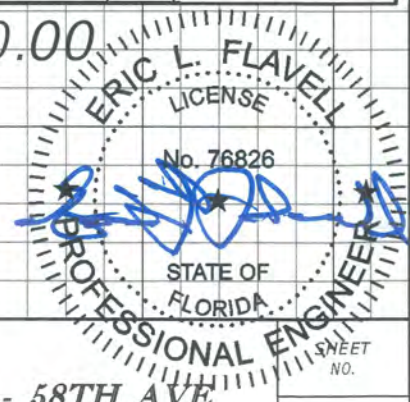
Material(s) at Station 544+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	0.65F
Reclaimed Reclamation	11.45F
Full Depth Reclamation	34.15F
Base Material	0.65F
SubBase Material	6.55F
Cut Existing	0.25F
Fill Proposed	1.65F
Over Excavate	3.55F

544+00.00



SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL



1" = 10' Horizontal
 1" = 5' Vertical

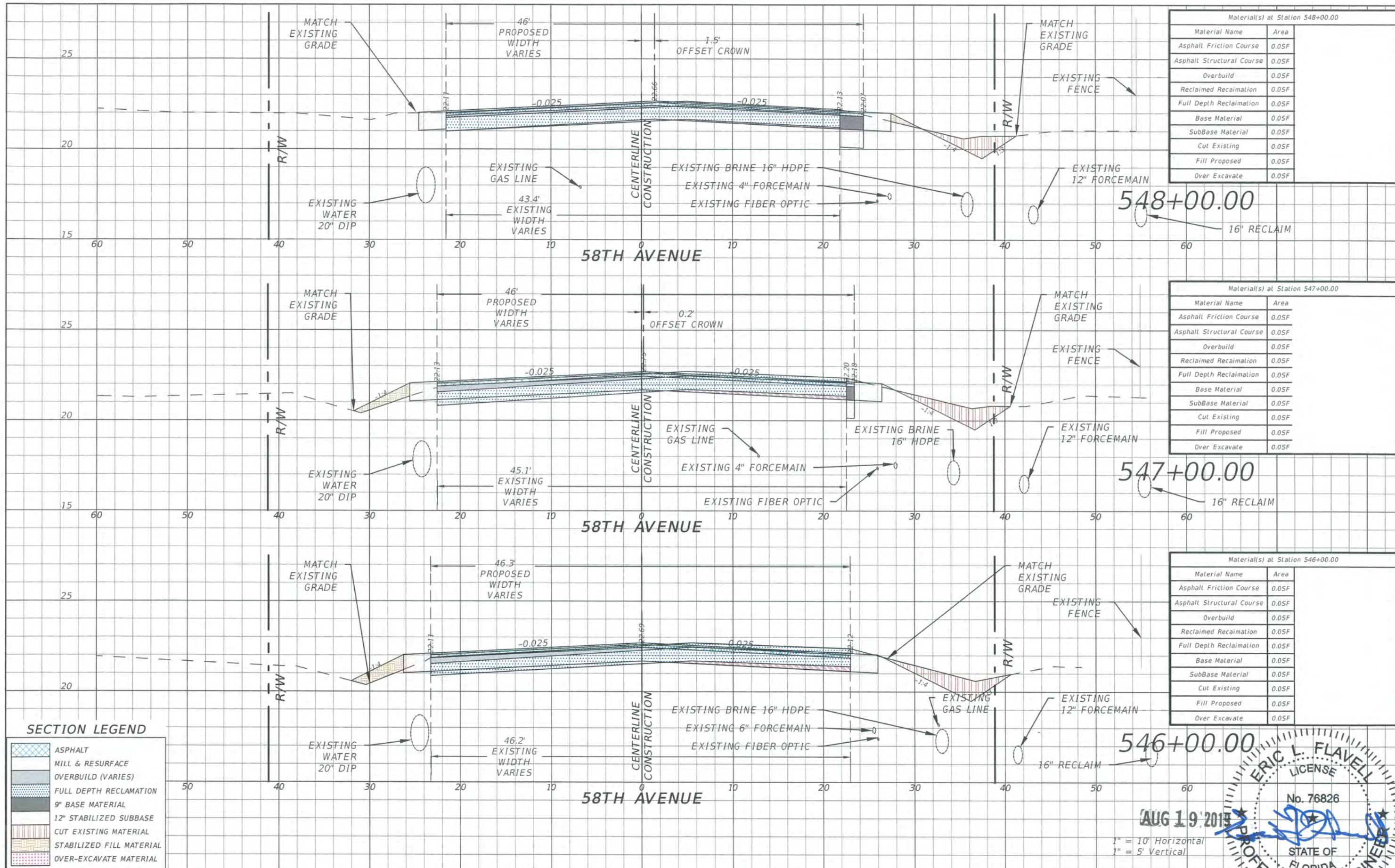
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

CROSS SECTIONS - 58TH AVE

SHEET NO.
 150



Material(s) at Station 548+00.00	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 547+00.00	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 546+00.00	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

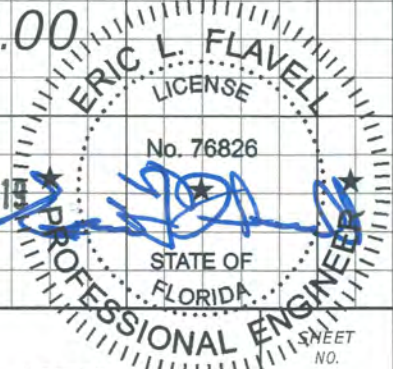
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
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 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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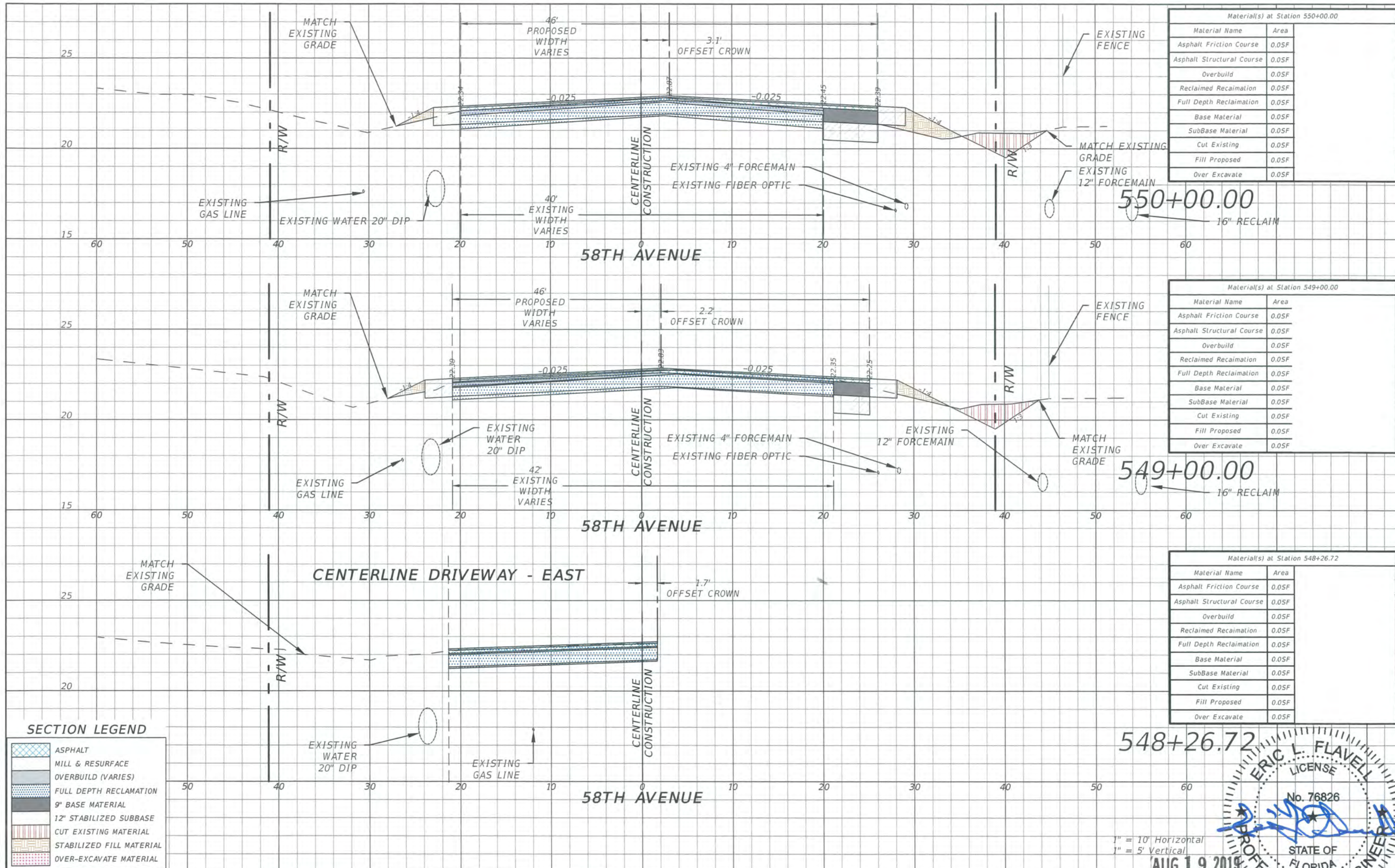
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

CROSS SECTIONS - 58TH AVE



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 550+00.00	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 549+00.00	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 548+26.72	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

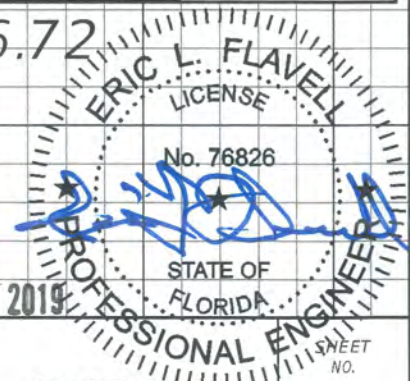
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
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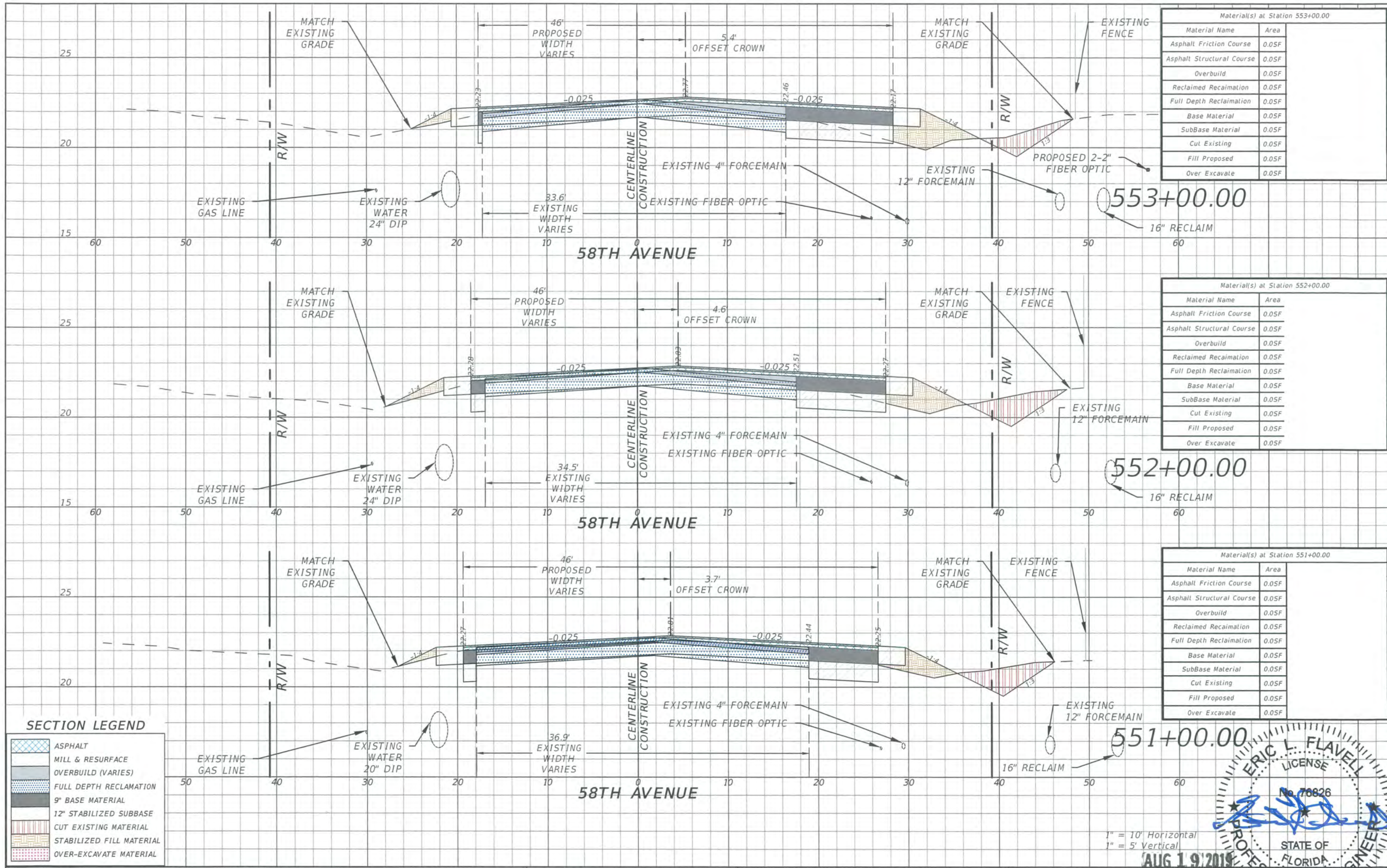
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

CROSS SECTIONS - 58TH AVE



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 553+00.00

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 552+00.00

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 551+00.00

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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 4450 W. EAU GALLIE BLVD.
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

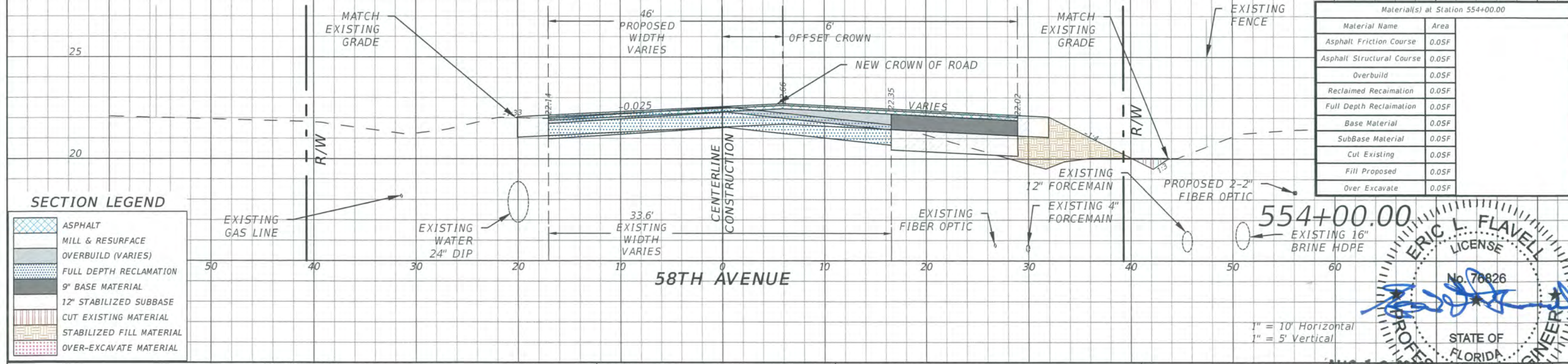
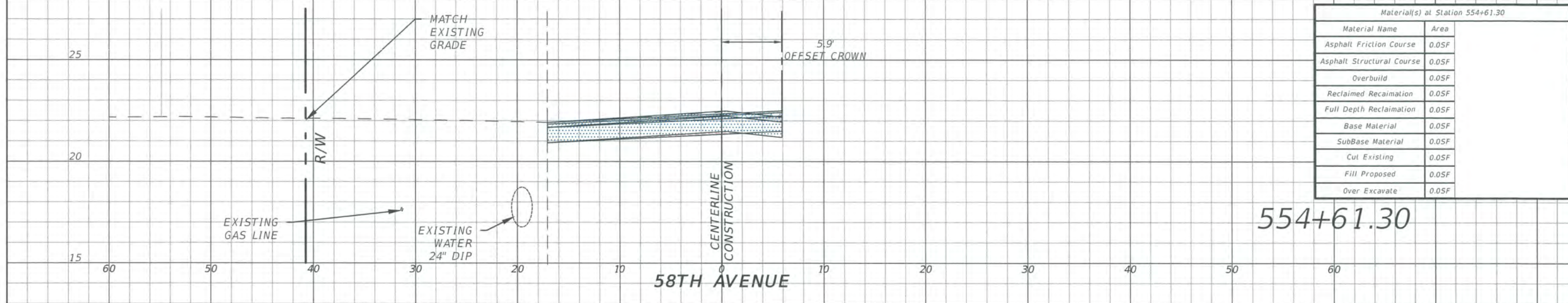
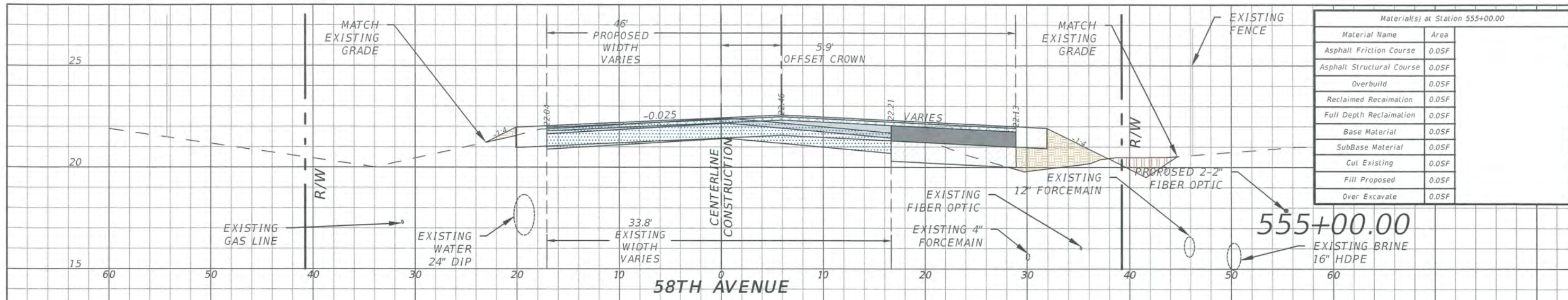
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

AUG 19 2019

ERIC L. FLAVELL
 LICENSE No. 76826
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA

SHEET NO. 153



SECTION LEGEND

[Pattern]	ASPHALT
[Pattern]	MILL & RESURFACE
[Pattern]	OVERBUILD (VARIES)
[Pattern]	FULL DEPTH RECLAMATION
[Pattern]	9" BASE MATERIAL
[Pattern]	12" STABILIZED SUBBASE
[Pattern]	CUT EXISTING MATERIAL
[Pattern]	STABILIZED FILL MATERIAL
[Pattern]	OVER-EXCAVATE MATERIAL

REVISIONS

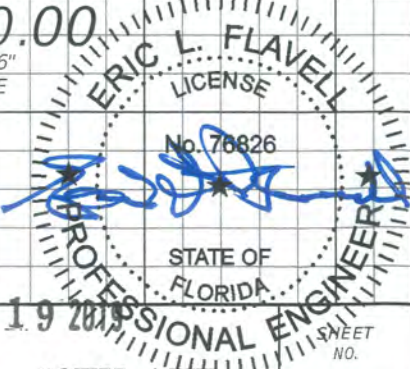
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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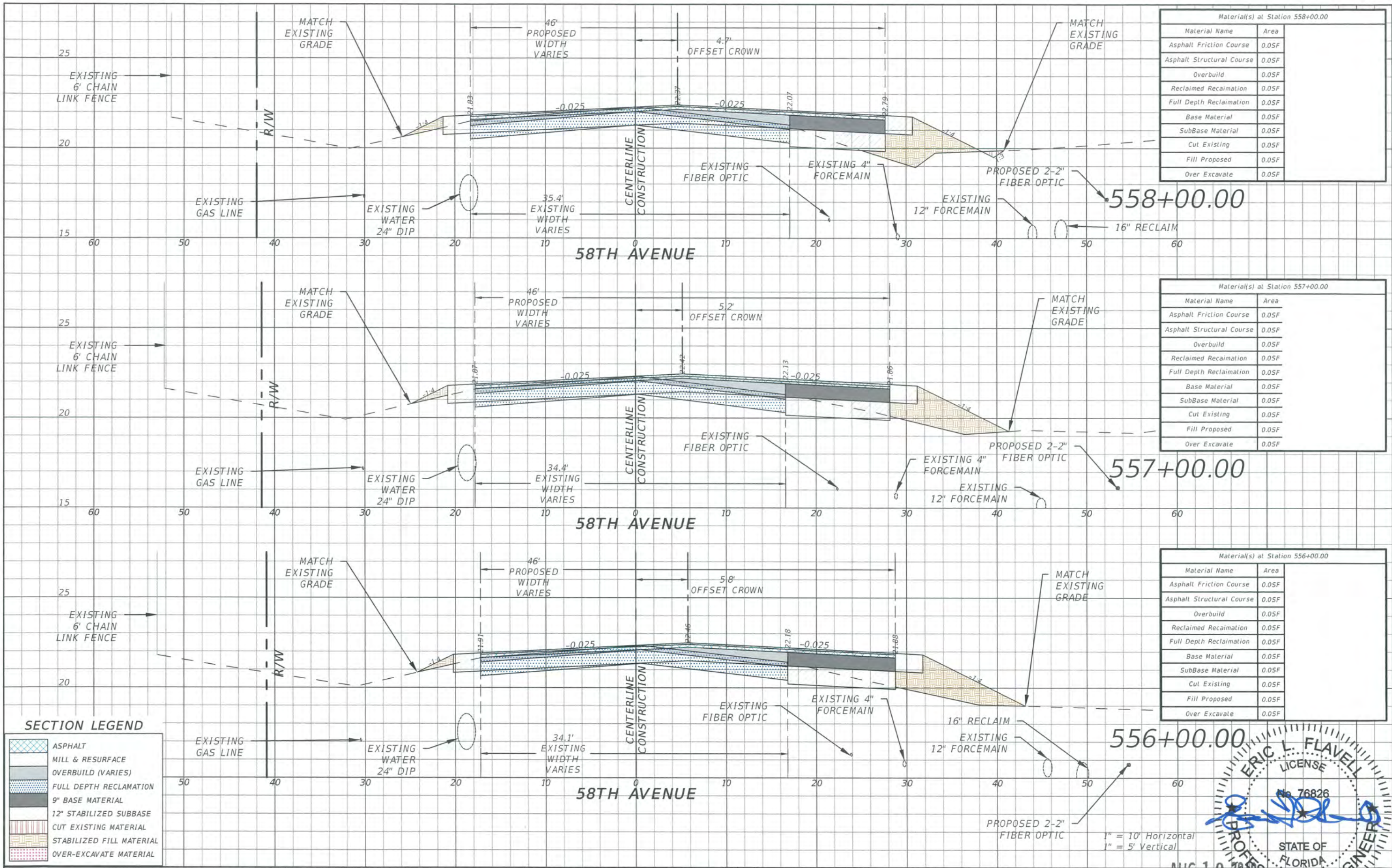
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 154



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 558+00.00

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 557+00.00

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 556+00.00

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

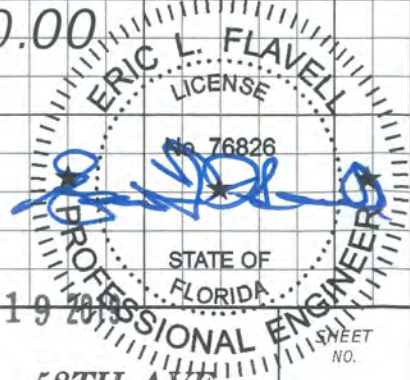
DATE	DESCRIPTION	DATE	DESCRIPTION

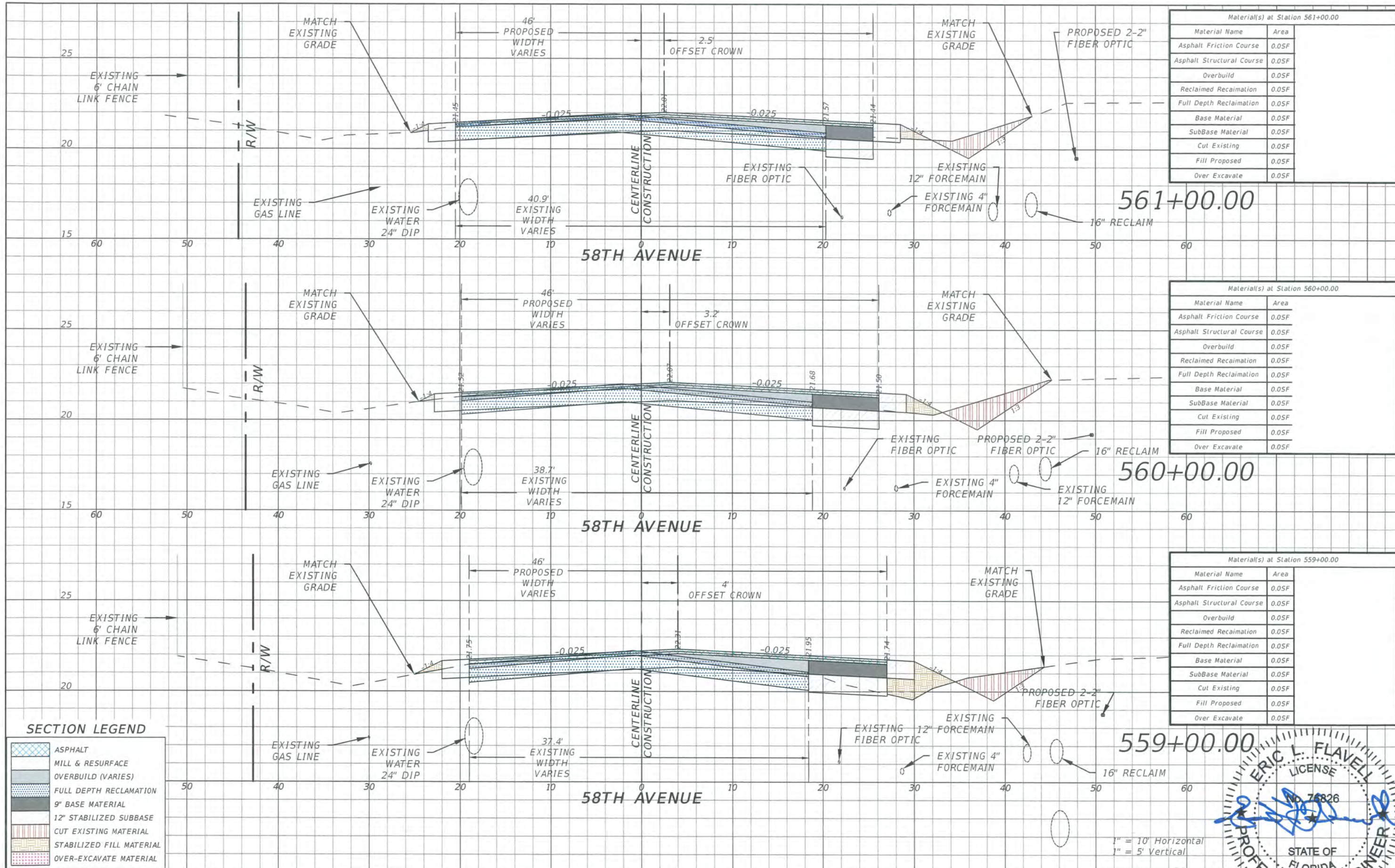
ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 155





Materials at Station 561+00.00

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Materials at Station 560+00.00

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Materials at Station 559+00.00

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

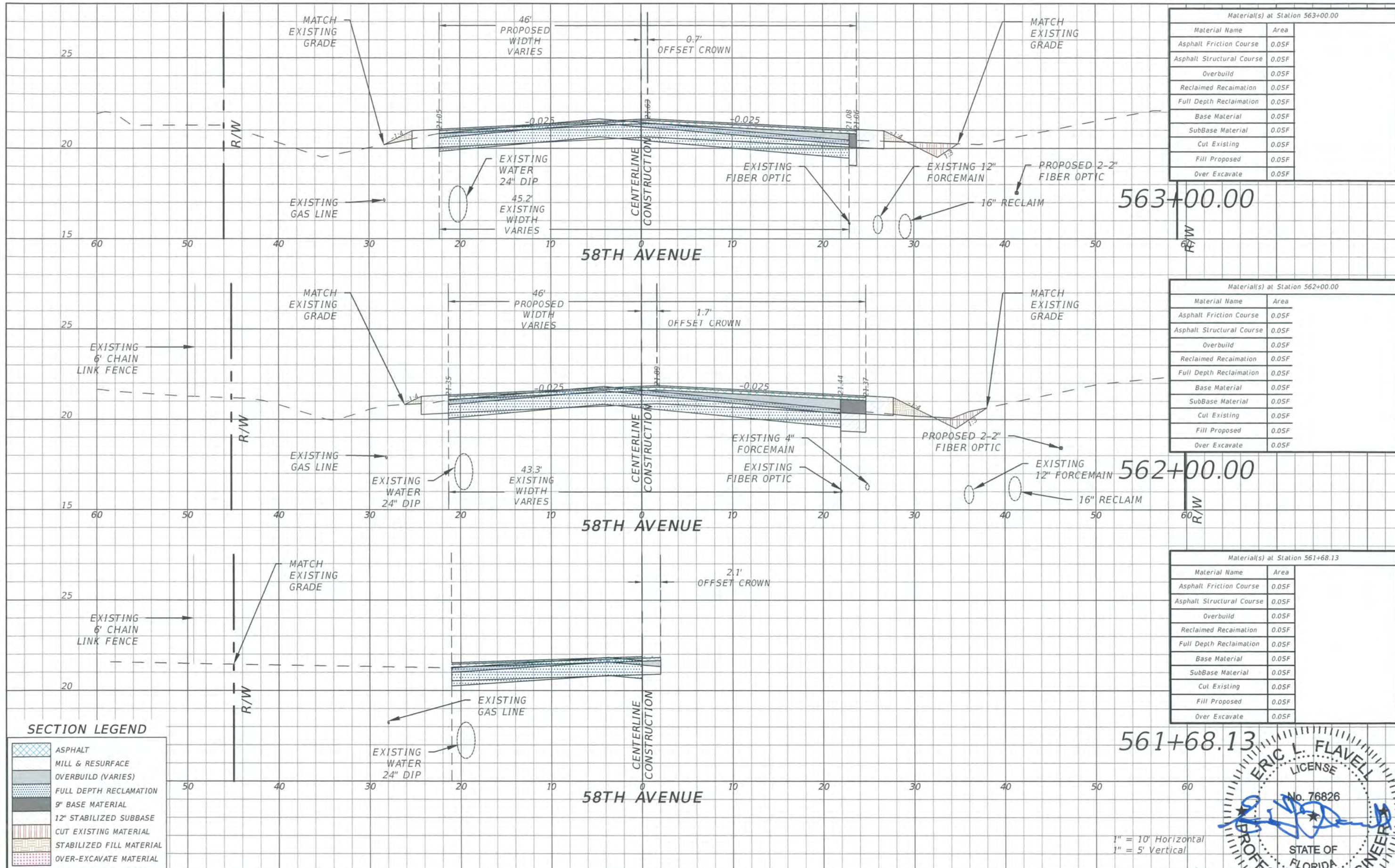
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

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 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

AUG 19 2019

SHEET NO. 156



Material(s) at Station 563+00.00	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 562+00.00	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

Material(s) at Station 561+68.13	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9\"/>
	12\"/>
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
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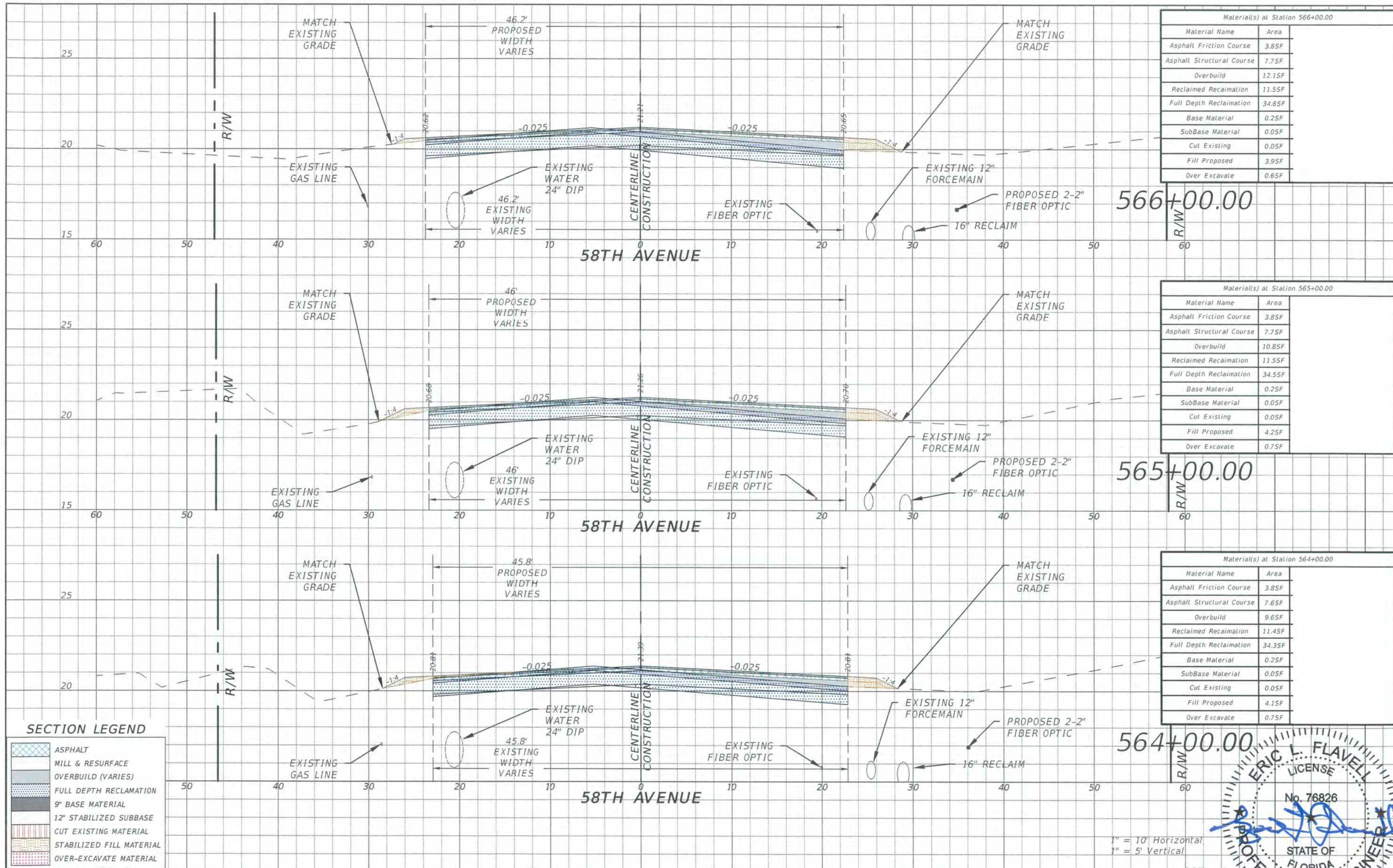
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 157



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 566+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	12.15F
Reclaimed Reclamation	11.55F
Full Depth Reclamation	34.65F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	3.95F
Over Excavate	0.65F

Material(s) at Station 565+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	10.85F
Reclaimed Reclamation	11.55F
Full Depth Reclamation	34.55F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	4.25F
Over Excavate	0.75F

Material(s) at Station 564+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.65F
Overbuild	9.65F
Reclaimed Reclamation	11.45F
Full Depth Reclamation	34.35F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	4.15F
Over Excavate	0.75F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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 4450 W. EAU GALLIE BLVD.
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

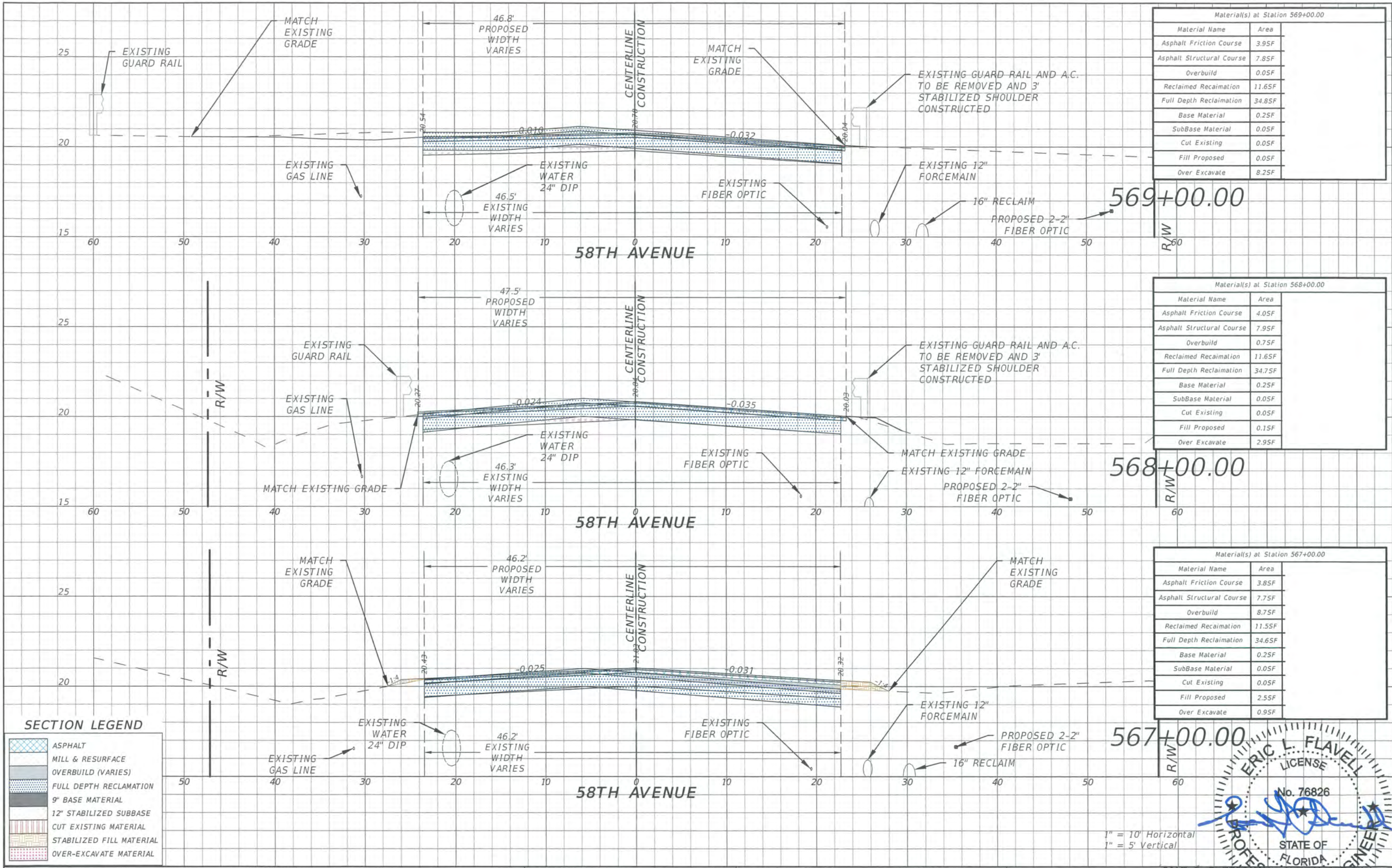
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

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 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

AUG 19 2019

SHEET NO. 158



Material(s) at Station 569+00.00

Material Name	Area
Asphalt Friction Course	3.95F
Asphalt Structural Course	7.85F
Overbuild	0.05F
Reclaimed Reclamation	11.65F
Full Depth Reclamation	34.85F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	8.25F

Material(s) at Station 568+00.00

Material Name	Area
Asphalt Friction Course	4.05F
Asphalt Structural Course	7.95F
Overbuild	0.75F
Reclaimed Reclamation	11.65F
Full Depth Reclamation	34.75F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.15F
Over Excavate	2.95F

Material(s) at Station 567+00.00

Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	8.75F
Reclaimed Reclamation	11.55F
Full Depth Reclamation	34.65F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	2.55F
Over Excavate	0.95F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

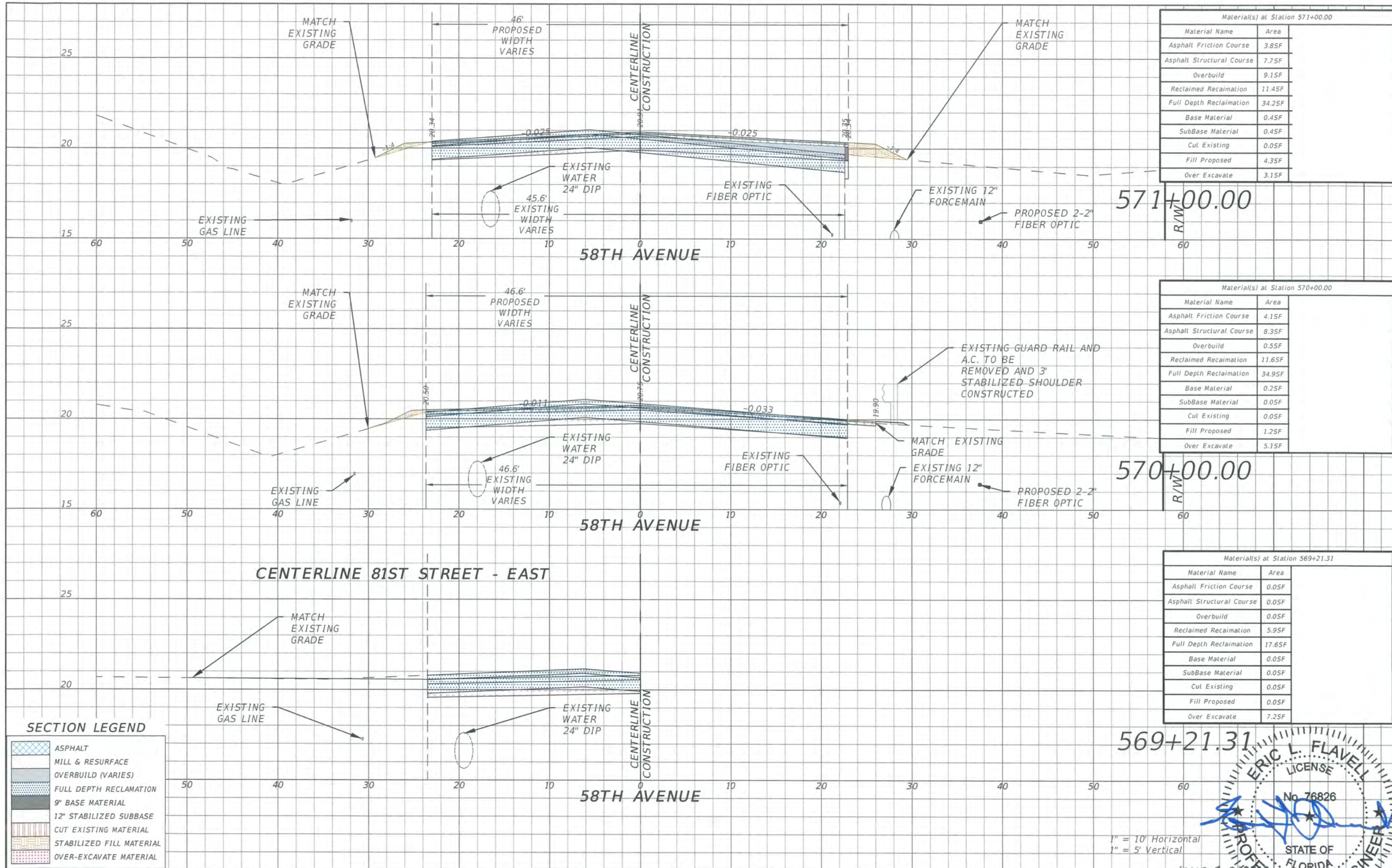
AUG 19 2019

CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
 1" = 5' Vertical

ERIC L. FLAVELL
 LICENSE
 No. 76826
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

SHEET NO. 159



Material(s) at Station 571+00.00

Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	9.15F
Reclaimed Reclamation	11.45F
Full Depth Reclamation	34.25F
Base Material	0.45F
SubBase Material	0.45F
Cut Existing	0.05F
Fill Proposed	4.35F
Over Excavate	3.15F

Material(s) at Station 570+00.00

Material Name	Area
Asphalt Friction Course	4.15F
Asphalt Structural Course	8.35F
Overbuild	0.55F
Reclaimed Reclamation	11.65F
Full Depth Reclamation	34.95F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	1.25F
Over Excavate	5.15F

Material(s) at Station 569+21.31

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	5.95F
Full Depth Reclamation	17.65F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	7.25F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

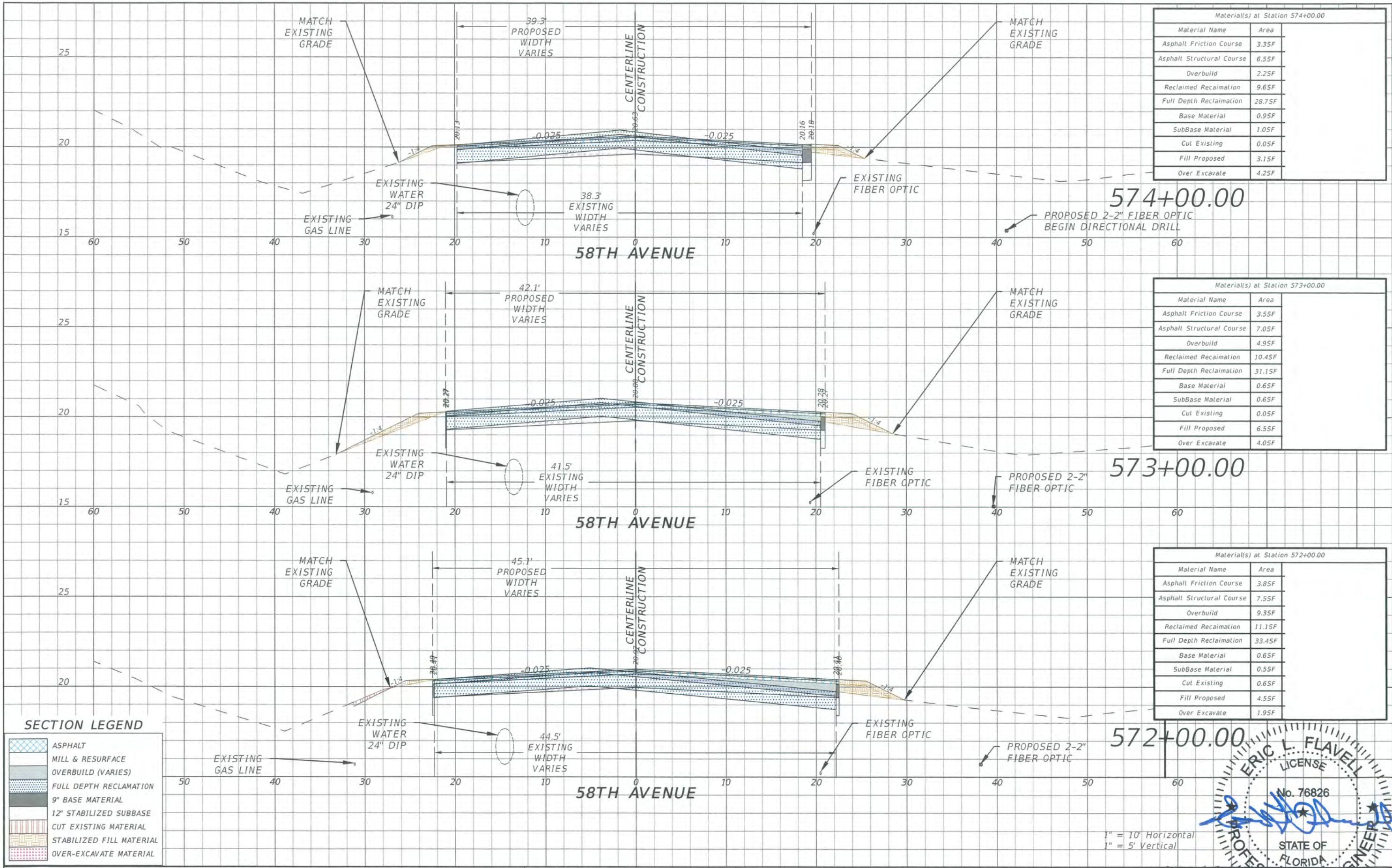
1" = 10' Horizontal
 1" = 5' Vertical

CROSS SECTIONS - 58TH AVE

AUG 19 2019

PROFESSIONAL ENGINEER
 ERIC L. FLAVELL
 LICENSE No. 76826
 STATE OF FLORIDA

SHEET NO. 160



Material(s) at Station 574+00.00	
Material Name	Area
Asphalt Friction Course	3.35F
Asphalt Structural Course	6.55F
Overbuild	2.25F
Reclaimed Reclamation	9.65F
Full Depth Reclamation	28.75F
Base Material	0.95F
SubBase Material	1.05F
Cut Existing	0.05F
Fill Proposed	3.15F
Over Excavate	4.25F

Material(s) at Station 573+00.00	
Material Name	Area
Asphalt Friction Course	3.55F
Asphalt Structural Course	7.05F
Overbuild	4.95F
Reclaimed Reclamation	10.45F
Full Depth Reclamation	31.15F
Base Material	0.65F
SubBase Material	0.65F
Cut Existing	0.05F
Fill Proposed	6.55F
Over Excavate	4.05F

Material(s) at Station 572+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.55F
Overbuild	9.35F
Reclaimed Reclamation	11.15F
Full Depth Reclamation	33.45F
Base Material	0.65F
SubBase Material	0.55F
Cut Existing	0.65F
Fill Proposed	4.55F
Over Excavate	1.95F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

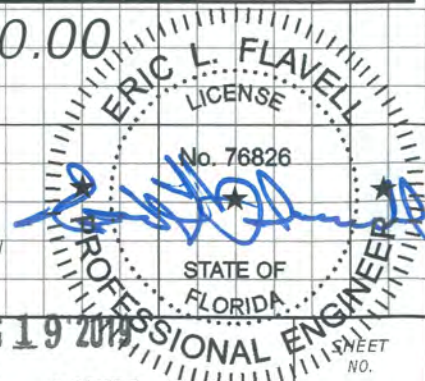
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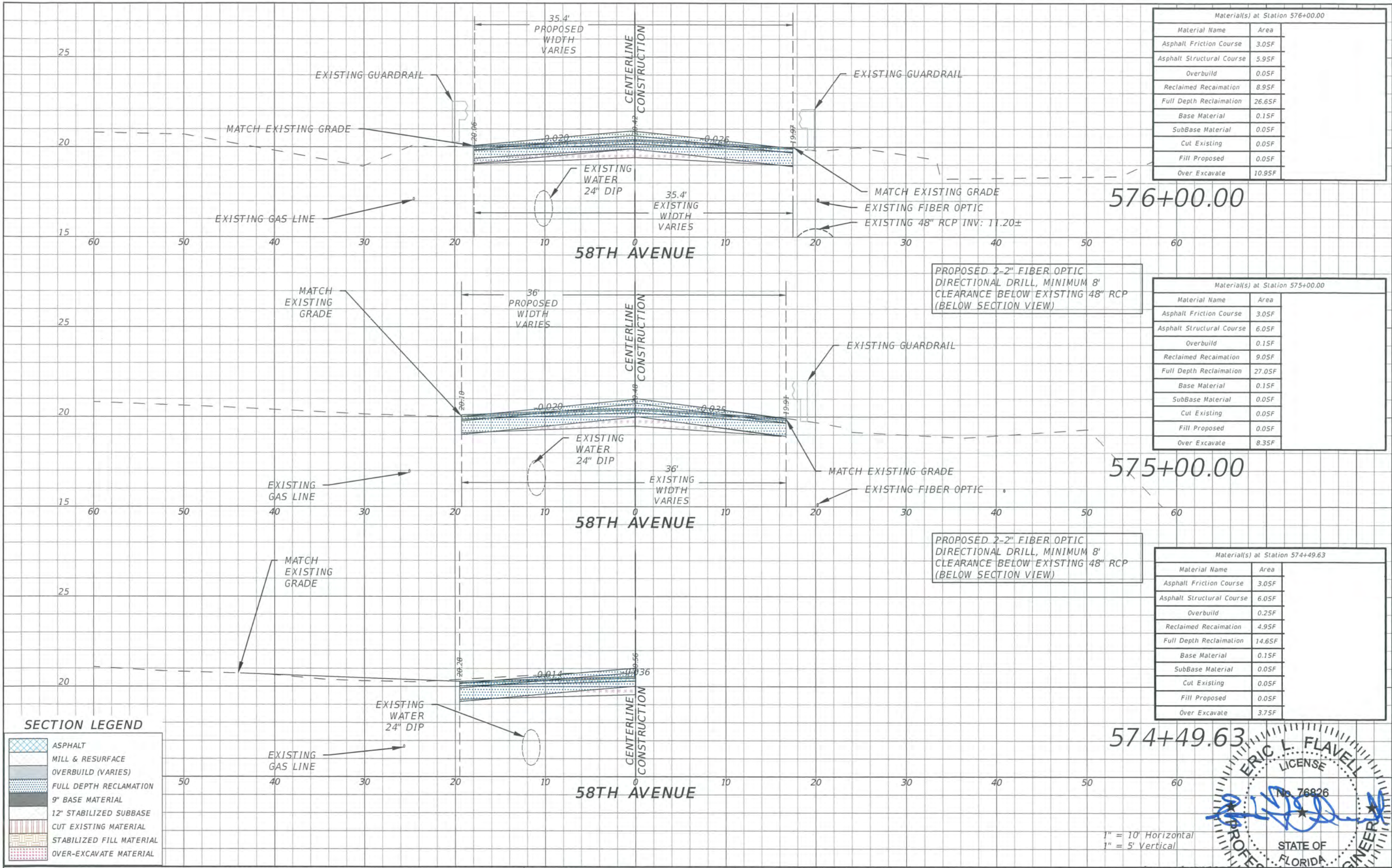
INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 161



1" = 10' Horizontal
1" = 5' Vertical



Material(s) at Station 576+00.00

Material Name	Area
Asphalt Friction Course	3.05F
Asphalt Structural Course	5.95F
Overbuild	0.05F
Reclaimed Reclamation	8.95F
Full Depth Reclamation	26.65F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	10.95F

Material(s) at Station 575+00.00

Material Name	Area
Asphalt Friction Course	3.05F
Asphalt Structural Course	6.05F
Overbuild	0.15F
Reclaimed Reclamation	9.05F
Full Depth Reclamation	27.05F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	8.35F

Material(s) at Station 574+49.63

Material Name	Area
Asphalt Friction Course	3.05F
Asphalt Structural Course	6.05F
Overbuild	0.25F
Reclaimed Reclamation	4.95F
Full Depth Reclamation	14.65F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	3.75F

PROPOSED 2-2" FIBER OPTIC DIRECTIONAL DRILL, MINIMUM 8' CLEARANCE BELOW EXISTING 48" RCP (BELOW SECTION VIEW)

PROPOSED 2-2" FIBER OPTIC DIRECTIONAL DRILL, MINIMUM 8' CLEARANCE BELOW EXISTING 48" RCP (BELOW SECTION VIEW)

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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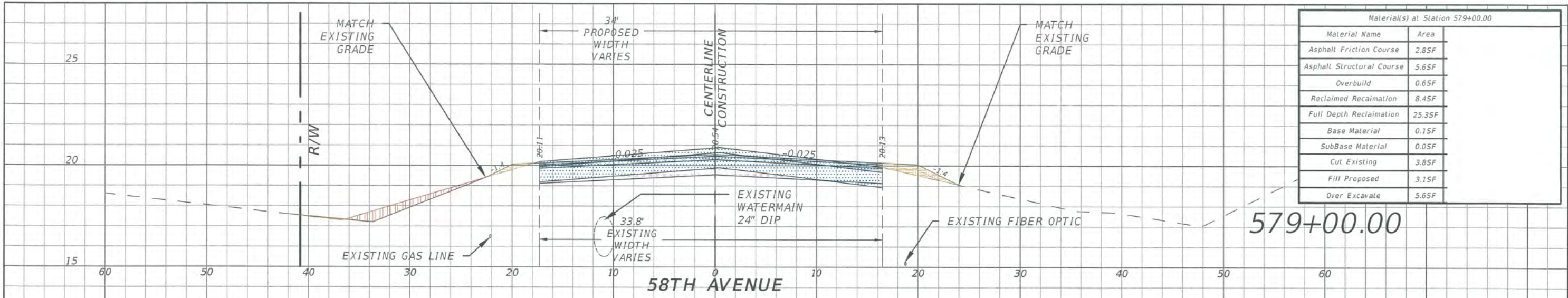
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

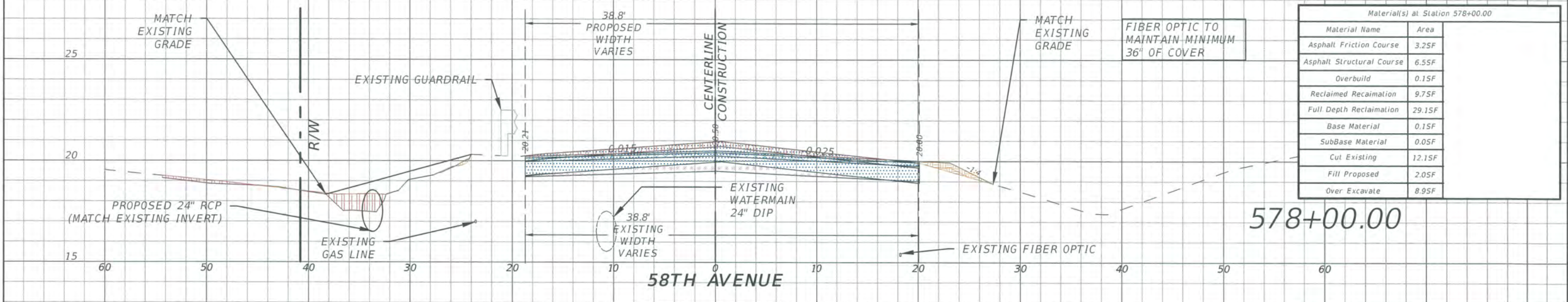
AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 162



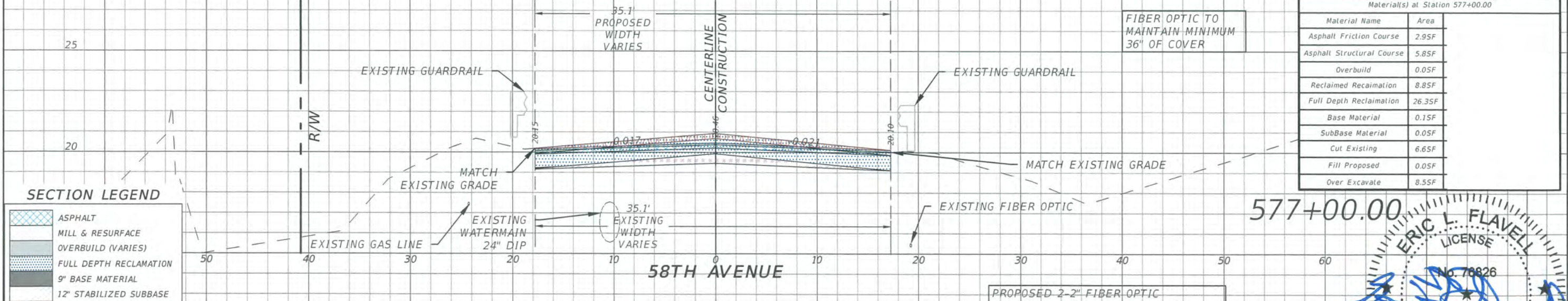
1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 579+00.00	
Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	0.65F
Reclaimed Reclamation	8.45F
Full Depth Reclamation	25.35F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	3.85F
Fill Proposed	3.15F
Over Excavate	5.65F



Material(s) at Station 578+00.00	
Material Name	Area
Asphalt Friction Course	3.25F
Asphalt Structural Course	6.55F
Overbuild	0.15F
Reclaimed Reclamation	9.75F
Full Depth Reclamation	29.15F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	12.15F
Fill Proposed	2.05F
Over Excavate	8.95F



Material(s) at Station 577+00.00	
Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	0.05F
Reclaimed Reclamation	8.85F
Full Depth Reclamation	26.35F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	6.65F
Fill Proposed	0.05F
Over Excavate	8.55F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

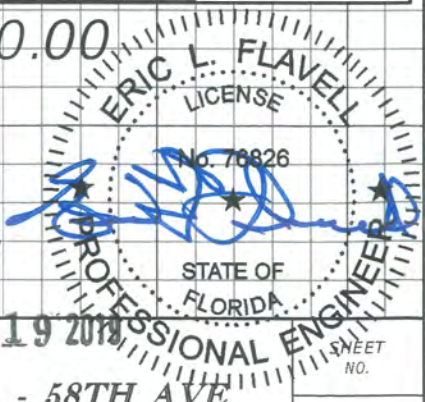
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

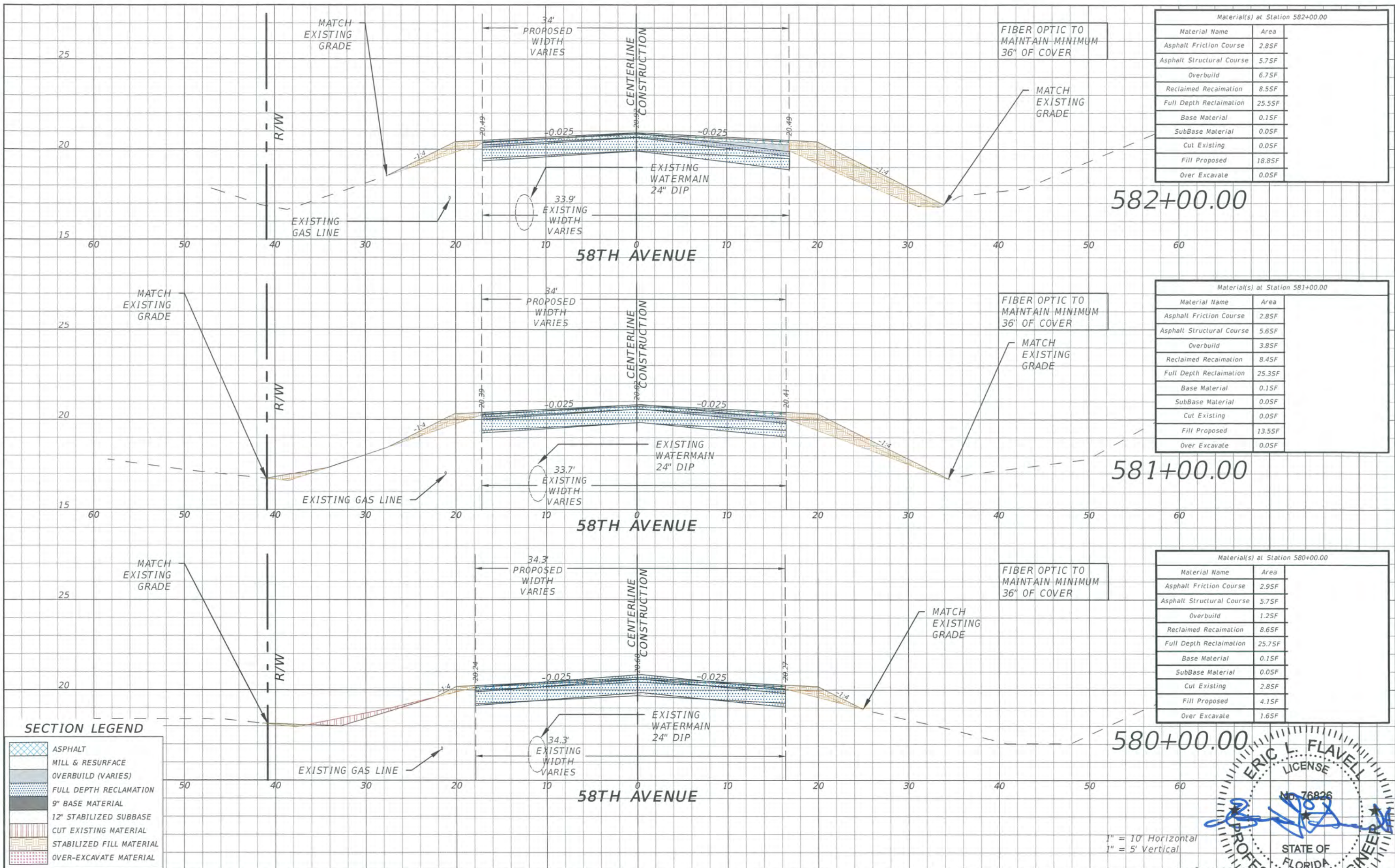
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 163



PROPOSED 2-2" FIBER OPTIC
 DIRECTIONAL DRILL, MINIMUM 8'
 CLEARANCE BELOW EXISTING 48" RCP
 (BELOW SECTION VIEW)

1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 582+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.75F
Overbuild	6.75F
Reclaimed Reclamation	8.55F
Full Depth Reclamation	25.55F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	18.85F
Over Excavate	0.05F

Material(s) at Station 581+00.00

Material Name	Area
Asphalt Friction Course	2.85F
Asphalt Structural Course	5.65F
Overbuild	3.85F
Reclaimed Reclamation	8.45F
Full Depth Reclamation	25.35F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	13.55F
Over Excavate	0.05F

Material(s) at Station 580+00.00

Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.75F
Overbuild	1.25F
Reclaimed Reclamation	8.65F
Full Depth Reclamation	25.75F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	2.85F
Fill Proposed	4.15F
Over Excavate	1.65F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

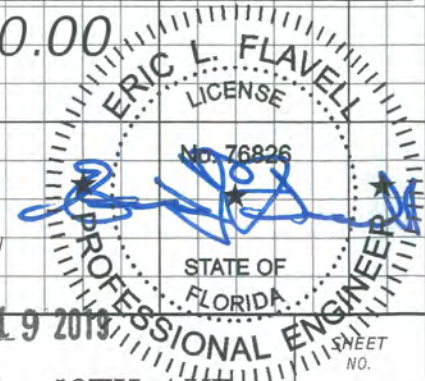
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ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

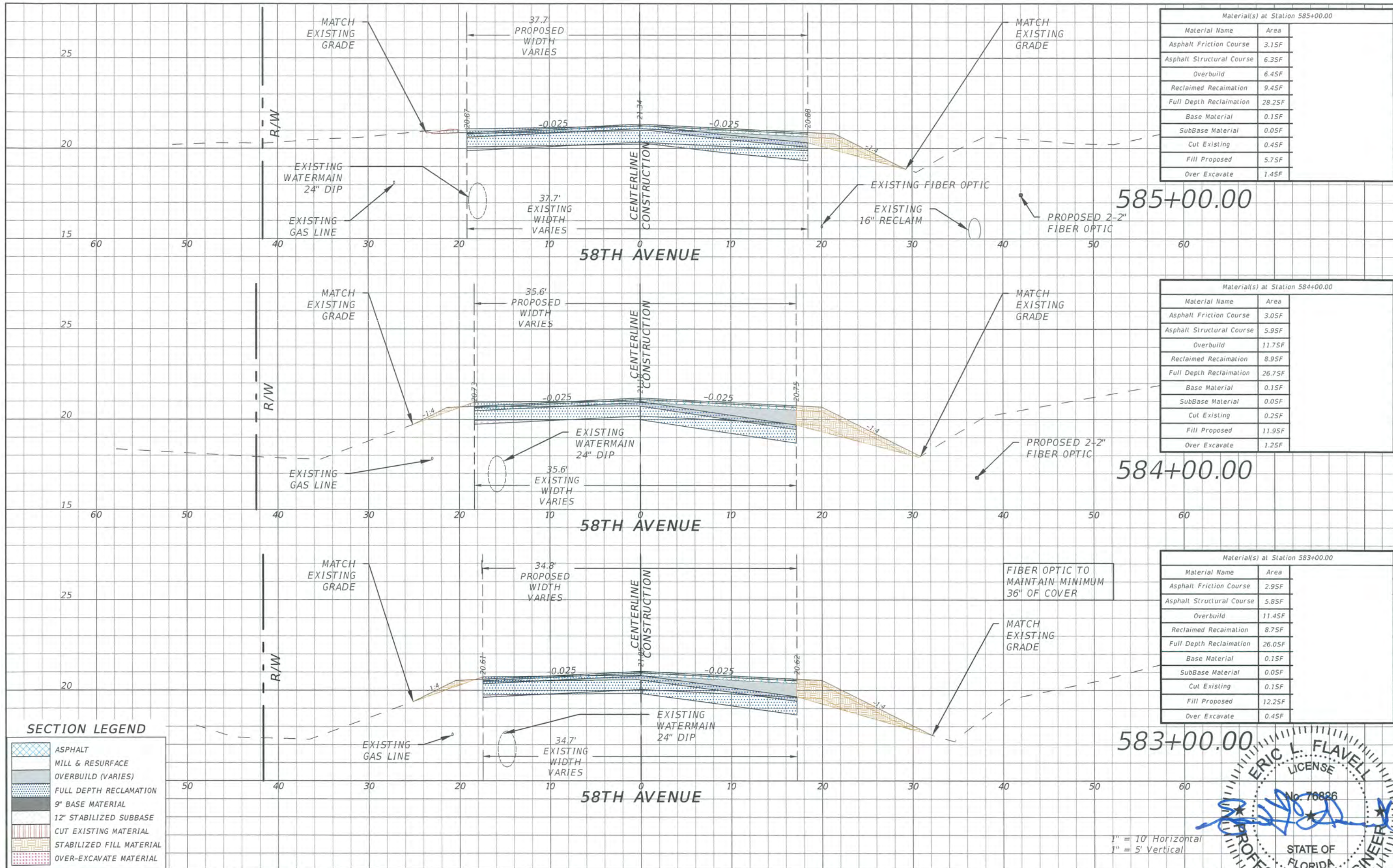
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 164



1" = 10' Horizontal
 1" = 5' Vertical



Material(s) at Station 585+00.00

Material Name	Area
Asphalt Friction Course	3.15F
Asphalt Structural Course	6.35F
Overbuild	6.45F
Reclaimed Reclamation	9.45F
Full Depth Reclamation	28.25F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.45F
Fill Proposed	5.75F
Over Excavate	1.45F

Material(s) at Station 584+00.00

Material Name	Area
Asphalt Friction Course	3.05F
Asphalt Structural Course	5.95F
Overbuild	11.75F
Reclaimed Reclamation	8.95F
Full Depth Reclamation	26.75F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.25F
Fill Proposed	11.95F
Over Excavate	1.25F

Material(s) at Station 583+00.00

Material Name	Area
Asphalt Friction Course	2.95F
Asphalt Structural Course	5.85F
Overbuild	11.45F
Reclaimed Reclamation	8.75F
Full Depth Reclamation	26.05F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.15F
Fill Proposed	12.25F
Over Excavate	0.45F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9\"/>
	12\"/>
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

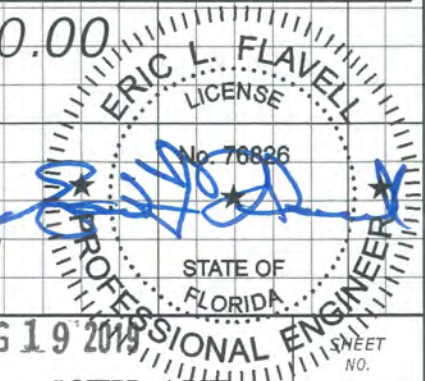
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 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
 CROSS SECTIONS - 58TH AVE
 SHEET NO. 165



1" = 10' Horizontal
 1" = 5' Vertical

CENTERLINE REDSTICK GOLF CLUB
ENTRANCE - EAST

MATCH
EXISTING
GRADE

Material(s) at Station 587+57.43	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	7.65F
Reclaimed Reclamation	5.85F
Full Depth Reclamation	17.55F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

587+57.43

58TH AVENUE

Material(s) at Station 587+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.55F
Overbuild	22.85F
Reclaimed Reclamation	11.35F
Full Depth Reclamation	33.85F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	7.85F
Over Excavate	0.15F

587+00.00

58TH AVENUE

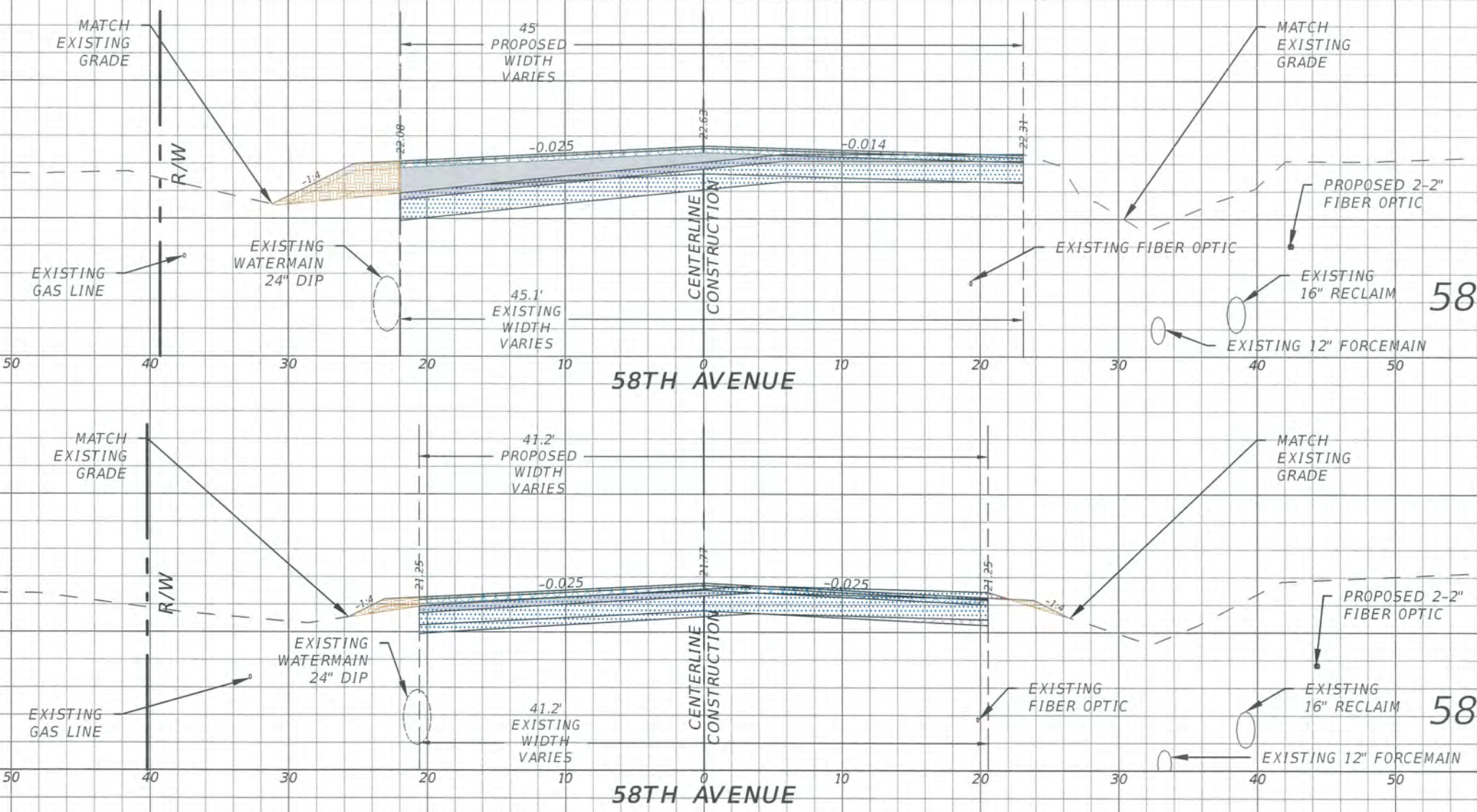
Material(s) at Station 586+00.00	
Material Name	Area
Asphalt Friction Course	3.45F
Asphalt Structural Course	6.95F
Overbuild	5.75F
Reclaimed Reclamation	10.45F
Full Depth Reclamation	30.95F
Base Material	0.15F
SubBase Material	0.05F
Cut Existing	0.25F
Fill Proposed	2.15F
Over Excavate	1.75F

586+00.00

58TH AVENUE

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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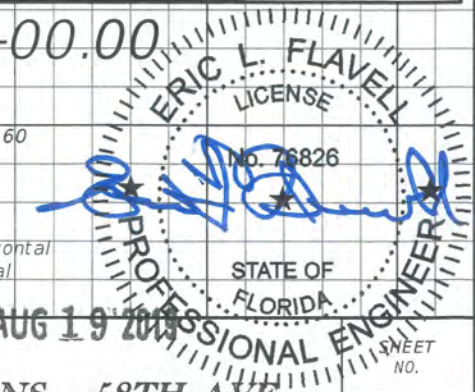
ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

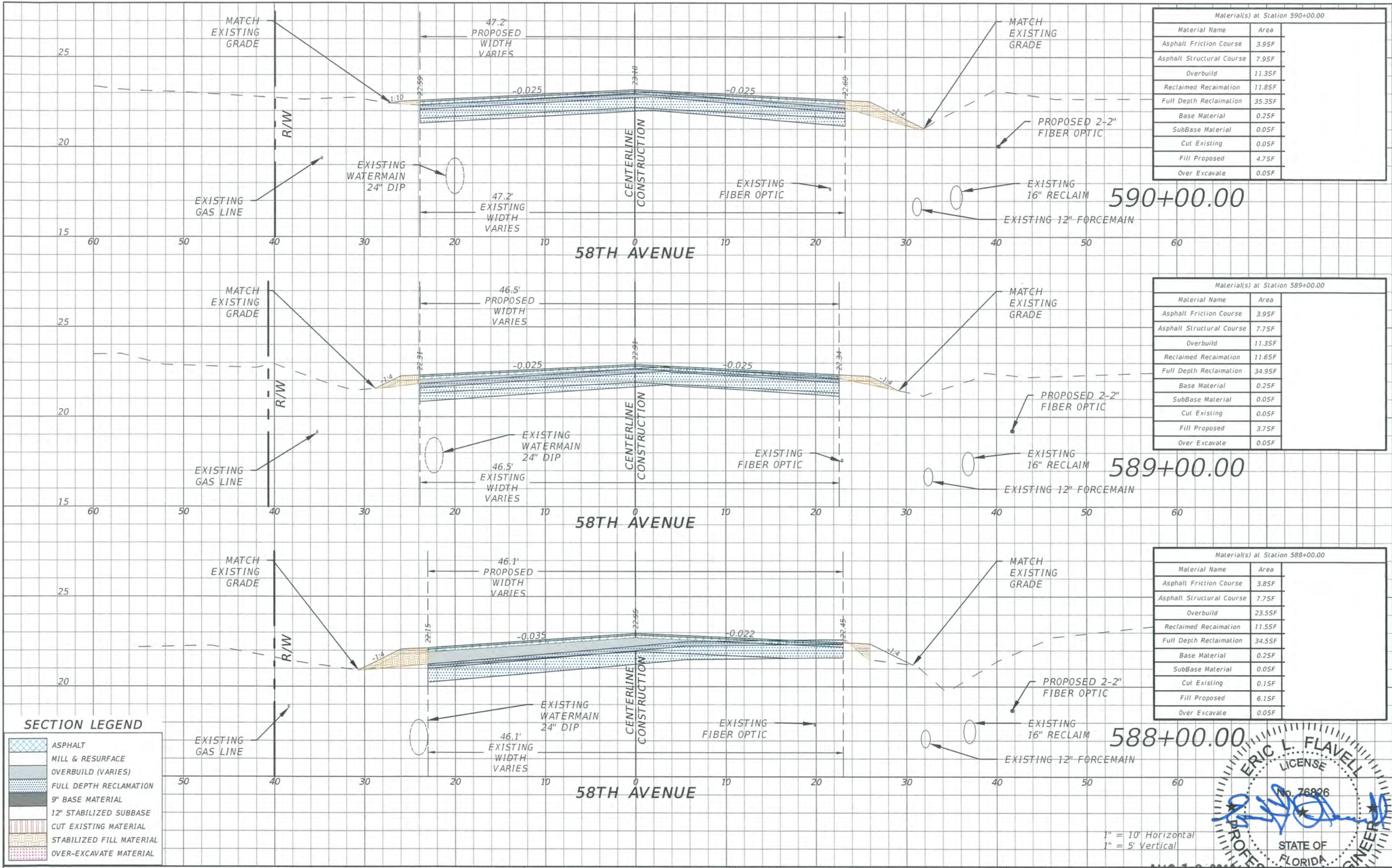
CROSS SECTIONS - 58TH AVE

166



1" = 10' Horizontal
1" = 5' Vertical

AUG 19 2015



Material(s) at Station 590+00.00	
Material Name	Area
Asphalt Friction Course	3.95F
Asphalt Structural Course	7.95F
Overbuild	11.35F
Reclaimed Reclamation	11.85F
Full Depth Reclamation	35.35F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	4.75F
Over Excavate	0.05F

Material(s) at Station 589+00.00	
Material Name	Area
Asphalt Friction Course	3.95F
Asphalt Structural Course	7.75F
Overbuild	11.35F
Reclaimed Reclamation	11.65F
Full Depth Reclamation	34.95F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	3.75F
Over Excavate	0.05F

Material(s) at Station 588+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	23.55F
Reclaimed Reclamation	11.55F
Full Depth Reclamation	34.55F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.15F
Fill Proposed	6.15F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

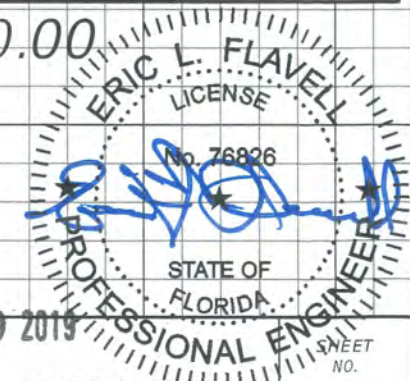
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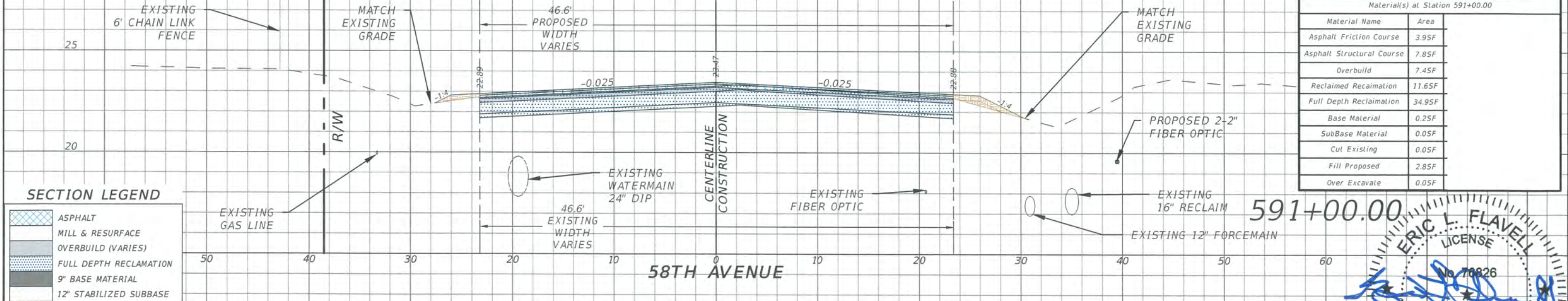
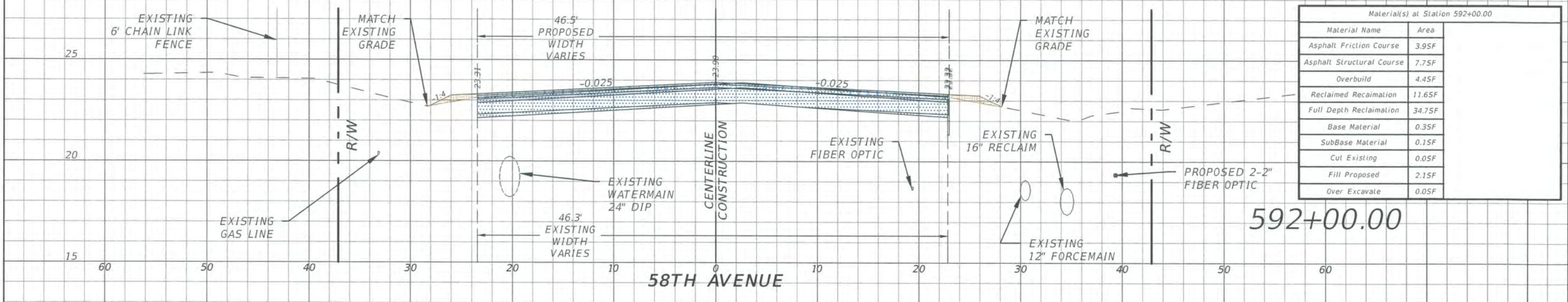
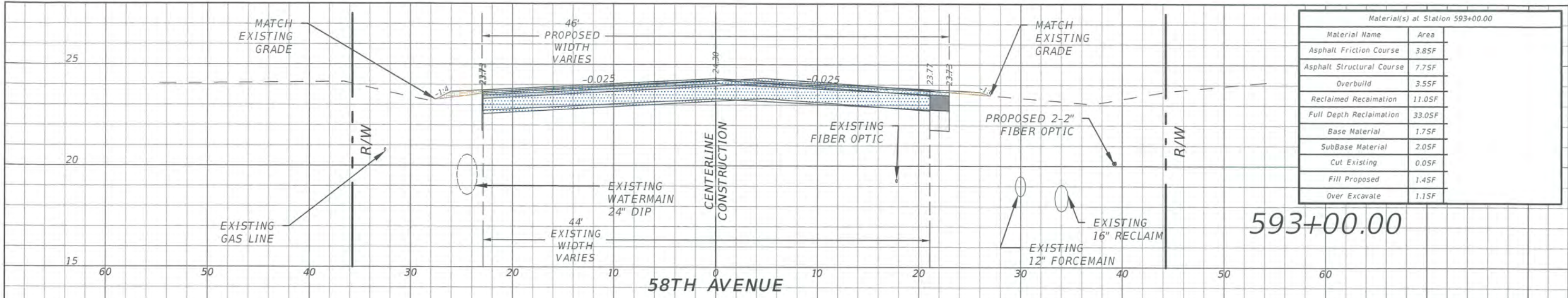
INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
SHEET NO. 167



1" = 10' Horizontal
1" = 5' Vertical



SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

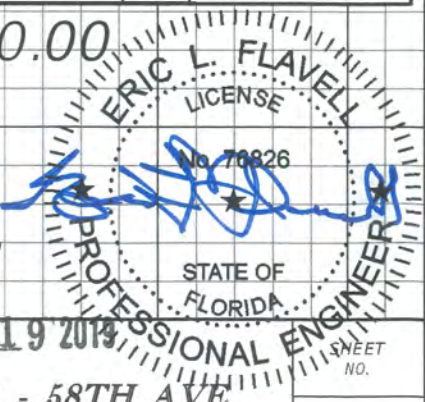
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
 MELBOURNE, FL 32934
 CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE
 SHEET NO. 168



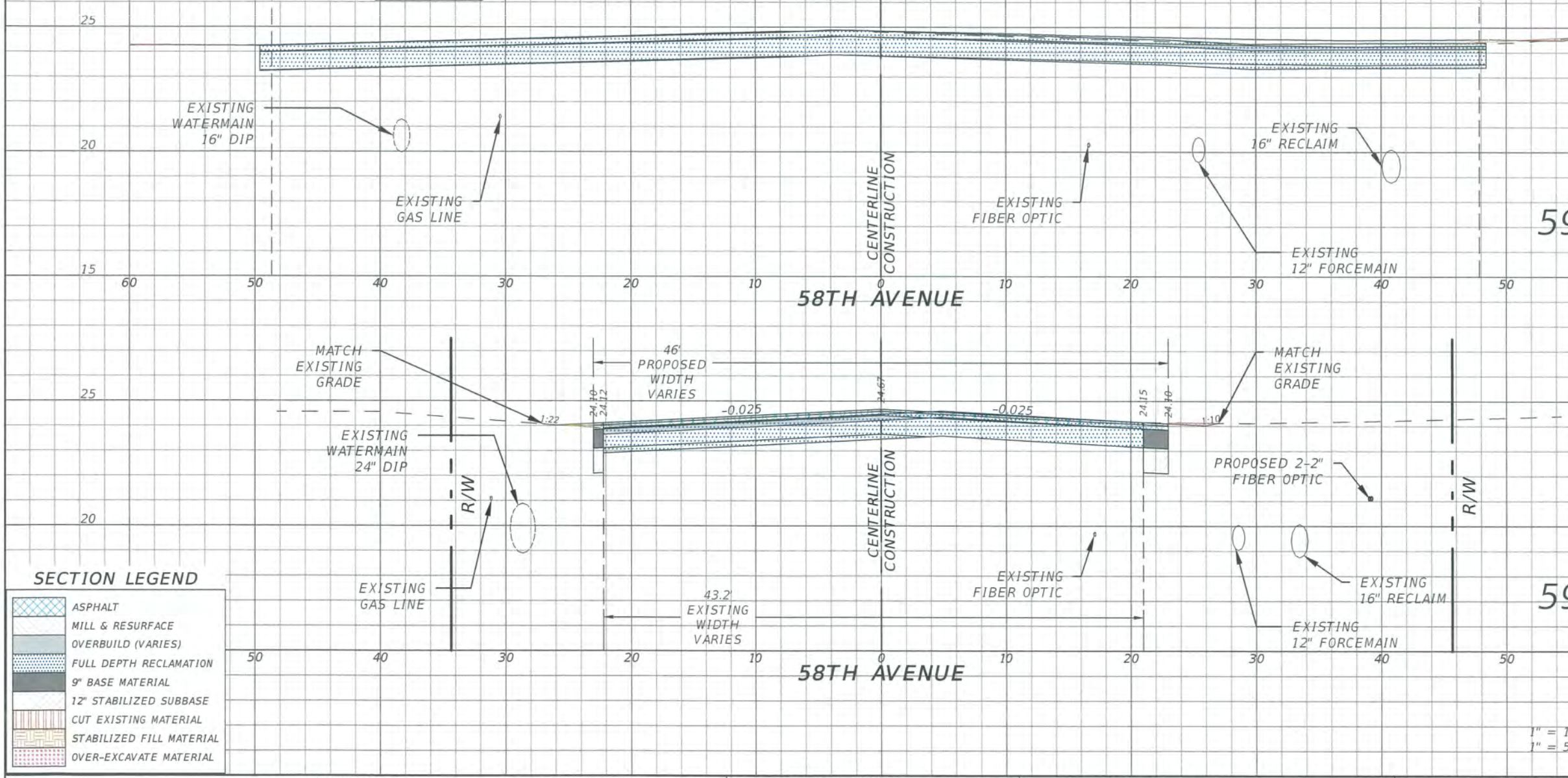
1" = 10' Horizontal
 1" = 5' Vertical

Model Areas & Quantities 58th & 69th			
Pay Item	Bid Item 58th & 69th	Model Area (SF)	Model Area (SY)
120-1a	Excavation of Existing Asphalt & Base	3,108	345
160-4	Type B Stabilization, 12" thick	102,670	11,408 Stabilized Shoulder
			13,153 Stabilized Subgrade
			24,561 Total Stabilized Material 12" Thick
327-70-1	Mill Existing Asphalt	21,752	2,417
332-1	Reclaimed Asphalt Base Courses (FDR 12")	646,378	71,820
334-13a	Type SP-12.5 (2" Thick)	751,715	84,968
334-13b	Type SP-12.5 (Variable Thickness)	18,038	2,004 See Tonnage calc below
334-13c	Type SP-12.5 (Driveway Remove/Replace)	3,240	360
337-7-82	Type FC-9.5 (1" Thick)	773,467	87,385
	Existing Pavement Area	646,378	71,820
	Widened Pavement Area	118,369	13,152
	Overbuild 58th Ave, 9" equivalent	111,240	12,360
	Overbuild 69th Street, 9" equivalent	10,008	1,112
	Over Excavate 58th & 69th, 9" equivalent	22,824	2,536
	Total Area of 9" equivalent FDR	908,819	100,980 For Calculating Admixture Quantity

Model Volumes & Quantities 58th & 69th					
	Area (SF)	Depth (In)	Volume (CF)	Volume (CY)	Weight (TN)
Excavation for Widened Areas	118,369	12	118,369	4,384	
Excavation for ditches*				1,680	
Excavation for Road Overexcavation*				634	
Regular Excavation				6,698	Cut
120-1a Excavation of Existing Asphalt & Base					
120-2 Borrow Excavation (Reclaimed FDR - 3")	646,378	3	161,595	5,985	Total FDR Base Recovered
FDR for Widened Areas (9" Base)	118,369	9	88,777	3,288	
Overbuild 58th Ave*				3,090	
Overbuild 69th Street*				278	
Over Excavate 58th & 69th*				634	
FDR Driveways	3,108	9	2,331	86	
				7,376	Total Reclaimed FDR Base Needed
285-709 Optional Base, Group 9, LBR=100 Limerock				1,391	FDR Difference
120-6 Embankment*				4,140	Fill
334-13b Type SP-12.5 (Variable Thickness)	18,038	4	5,953		446 Ton

FDR Additive Calculations for Bid Estimate					
Additive	Rate	Area Teated (SY)	Rate per 9"	Total	Unit
Emulsion	2.5% by Weight	100,980	2.5	252,450	Gal
Cement	3.0% by Weight	100,980	25	2,524,500	lbs
				1,262	ton

INTERSECTION OF 58TH AVENUE AND C.R. 510 (85TH STREET)



Material(s) at Station 595+00.00	
Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	6.05F
Reclaimed Reclamation	24.55F
Full Depth Reclamation	73.55F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.45F
Fill Proposed	0.35F
Over Excavate	0.05F

Material(s) at Station 594+00.00	
Material Name	Area
Asphalt Friction Course	3.85F
Asphalt Structural Course	7.75F
Overbuild	4.95F
Reclaimed Reclamation	10.85F
Full Depth Reclamation	32.45F
Base Material	2.25F
SubBase Material	2.85F
Cut Existing	0.35F
Fill Proposed	0.25F
Over Excavate	0.05F

SECTION LEGEND	
	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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BOWMAN CONSULTING GROUP
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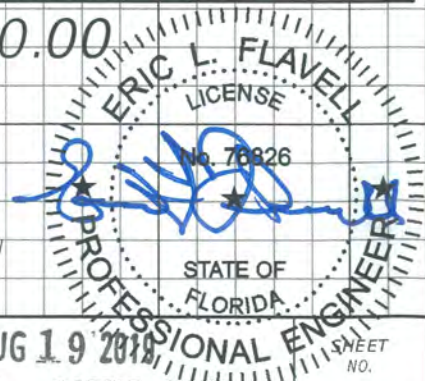
INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

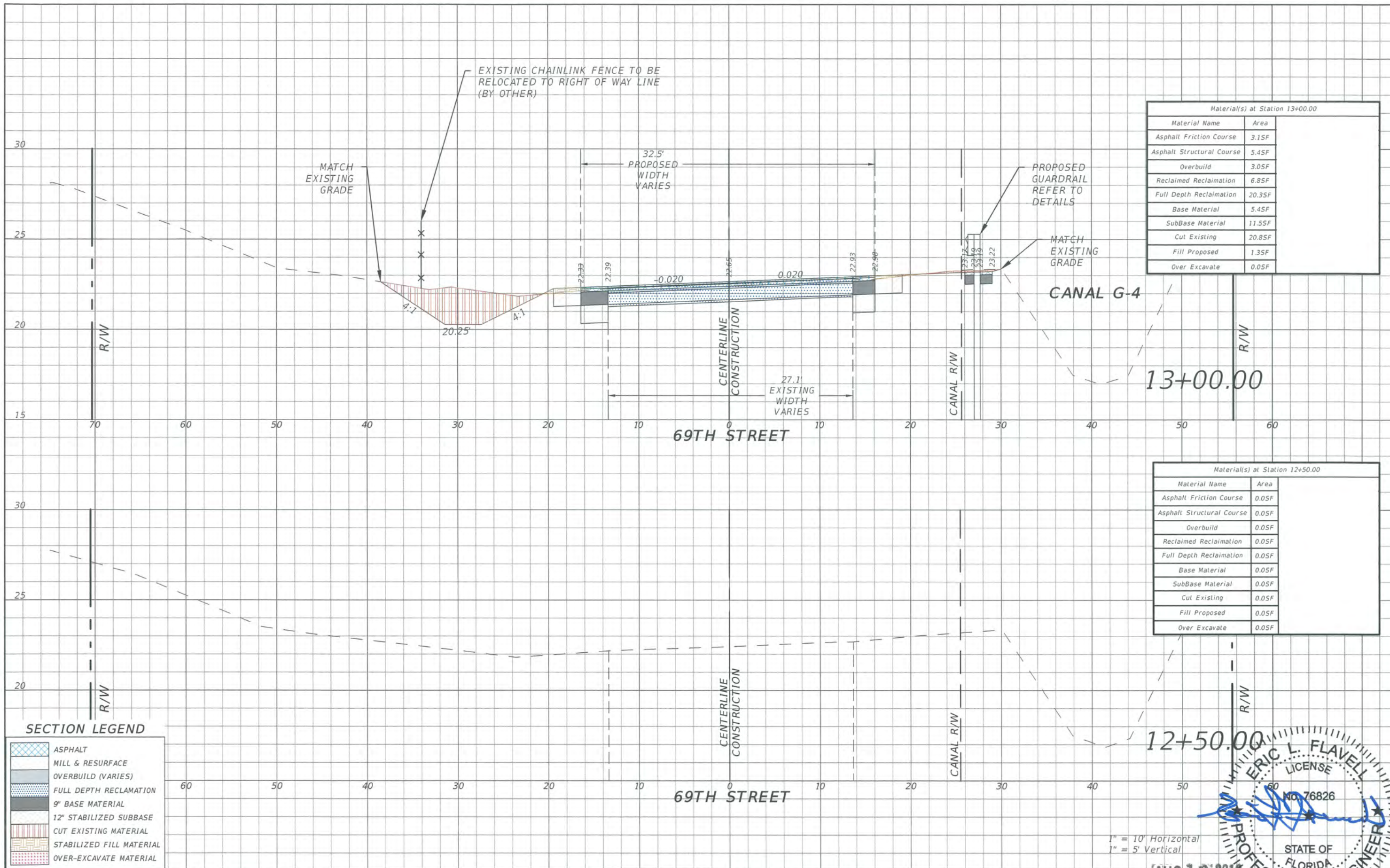
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 58TH AVE

1" = 10' Horizontal
1" = 5' Vertical

169





Material(s) at Station 13+00.00

Material Name	Area
Asphalt Friction Course	3.15F
Asphalt Structural Course	5.45F
Overbuild	3.05F
Reclaimed Reclamation	6.85F
Full Depth Reclamation	20.35F
Base Material	5.45F
SubBase Material	11.55F
Cut Existing	20.85F
Fill Proposed	1.35F
Over Excavate	0.05F

Material(s) at Station 12+50.00

Material Name	Area
Asphalt Friction Course	0.05F
Asphalt Structural Course	0.05F
Overbuild	0.05F
Reclaimed Reclamation	0.05F
Full Depth Reclamation	0.05F
Base Material	0.05F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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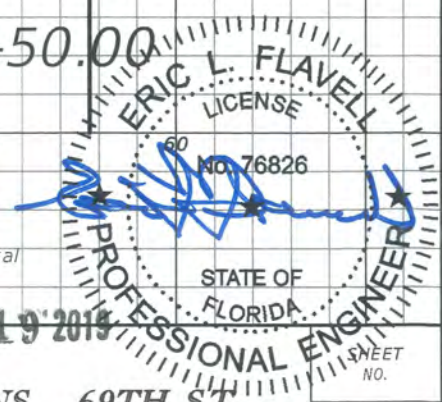
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

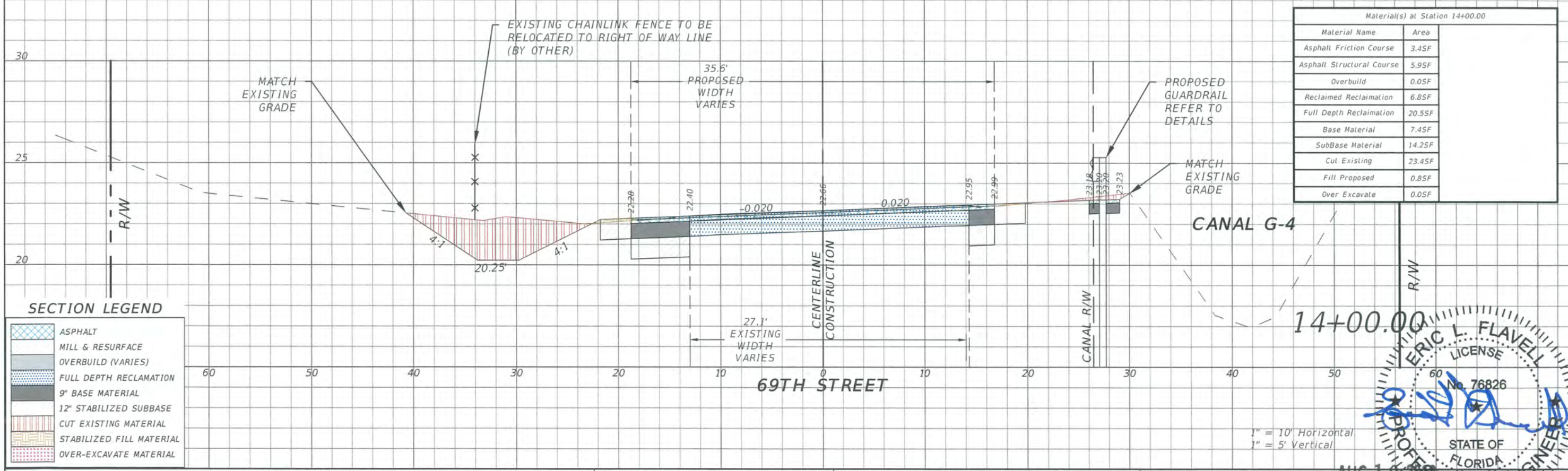
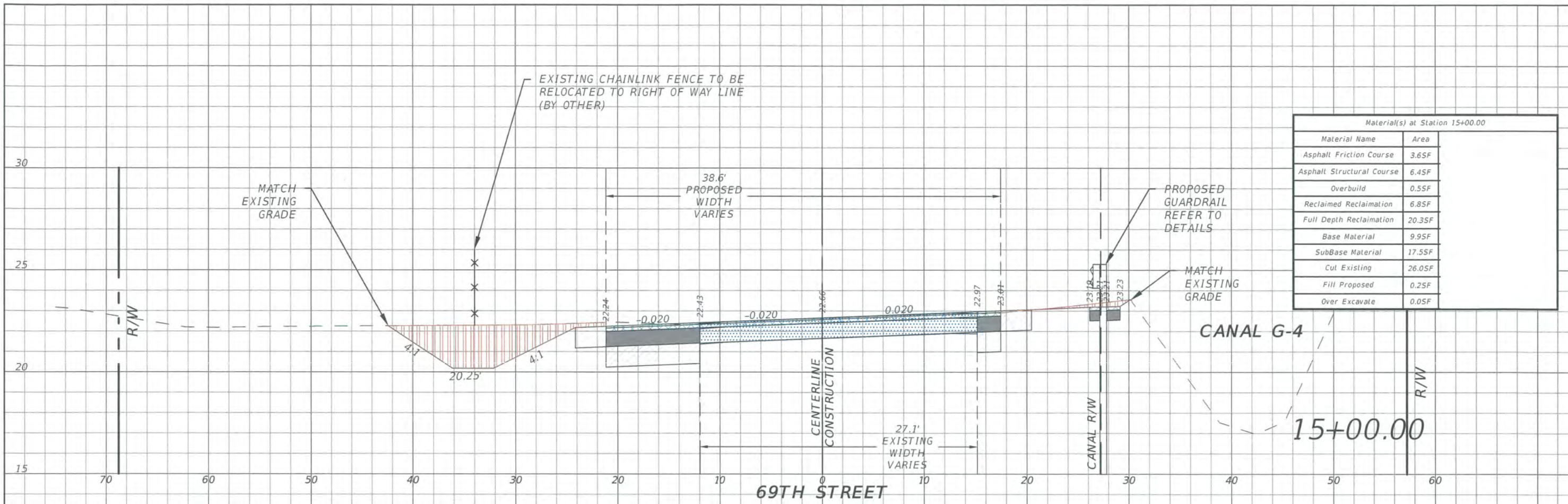
CROSS SECTIONS - 69TH ST

AUG 19 2019

170



1" = 10' Horizontal
 1" = 5' Vertical



SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

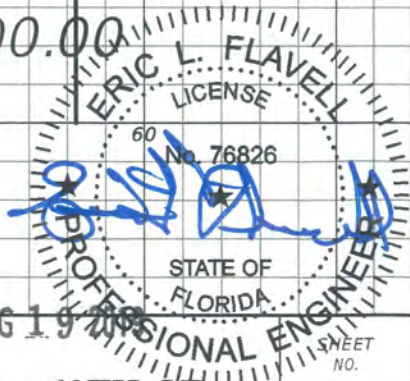
REVISIONS			
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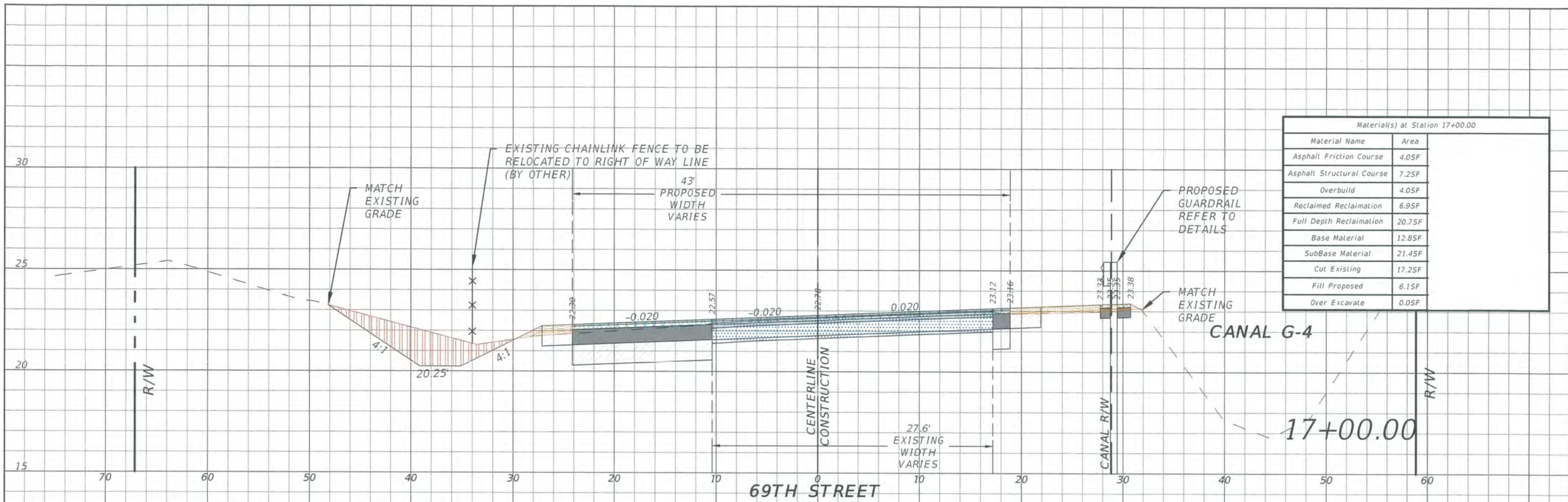
INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

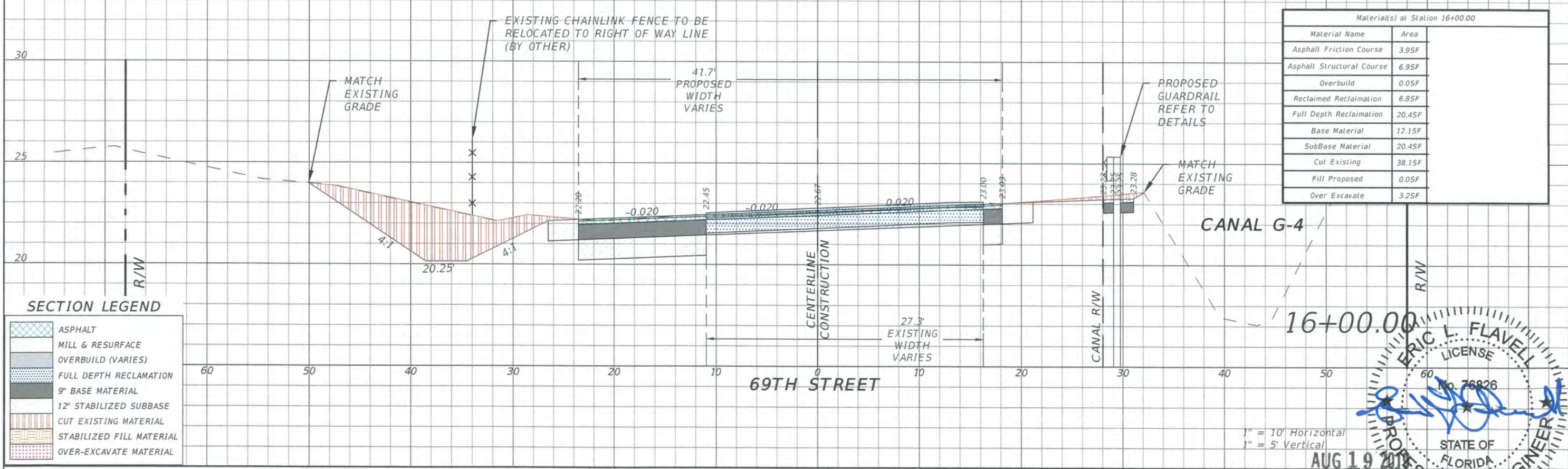
CROSS SECTIONS - 69TH ST



AUG 19 2019



Material(s) at Station 17+00.00	
Material Name	Area
Asphalt Friction Course	4.05F
Asphalt Structural Course	7.25F
Overbuild	4.05F
Reclaimed Reclamation	6.95F
Full Depth Reclamation	20.75F
Base Material	12.85F
SubBase Material	21.45F
Cut Existing	17.25F
Fill Proposed	6.15F
Over Excavate	0.05F



Material(s) at Station 16+00.00	
Material Name	Area
Asphalt Friction Course	3.95F
Asphalt Structural Course	6.95F
Overbuild	0.05F
Reclaimed Reclamation	6.85F
Full Depth Reclamation	20.45F
Base Material	12.15F
SubBase Material	20.45F
Cut Existing	38.15F
Fill Proposed	0.05F
Over Excavate	3.25F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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INDIAN RIVER COUNTY
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

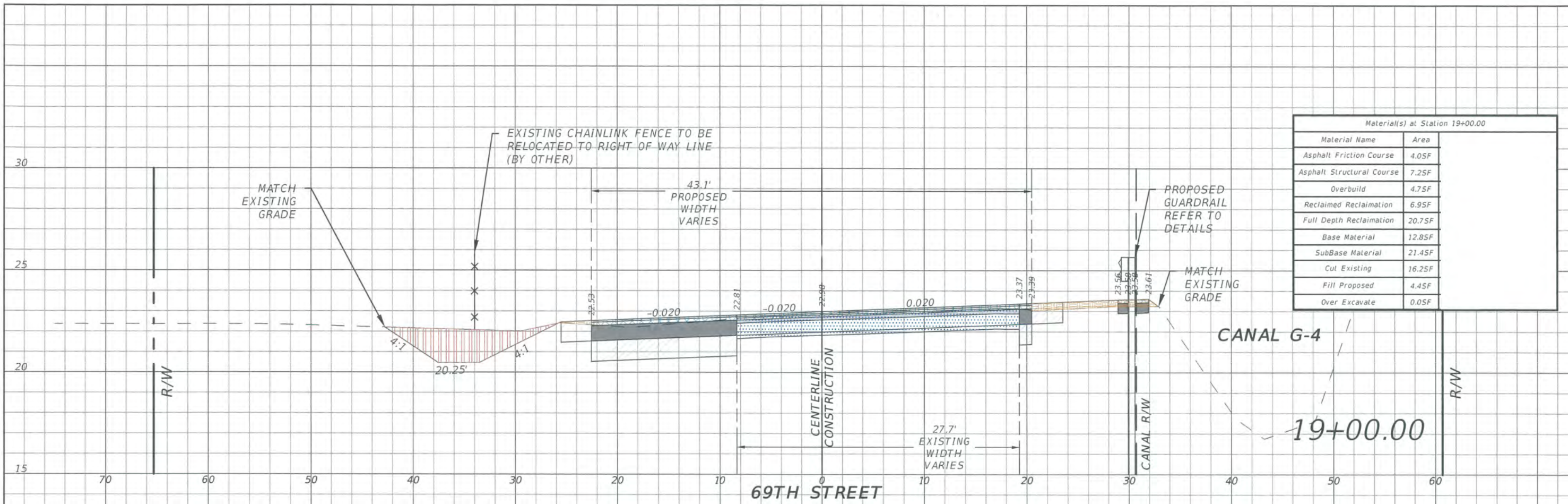
CROSS SECTIONS - 69TH ST



1" = 10' Horizontal
 1" = 5' Vertical

AUG 19 2018

SHEET NO.



Material(s) at Station 19+00.00	
Material Name	Area
Asphalt Friction Course	4.05F
Asphalt Structural Course	7.25F
Overbuild	4.75F
Reclaimed Reclamation	6.95F
Full Depth Reclamation	20.75F
Base Material	12.85F
SubBase Material	21.45F
Cut Existing	16.25F
Fill Proposed	4.45F
Over Excavate	0.05F



Material(s) at Station 18+00.00	
Material Name	Area
Asphalt Friction Course	4.05F
Asphalt Structural Course	7.25F
Overbuild	7.05F
Reclaimed Reclamation	6.95F
Full Depth Reclamation	20.65F
Base Material	12.95F
SubBase Material	21.55F
Cut Existing	15.45F
Fill Proposed	9.35F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

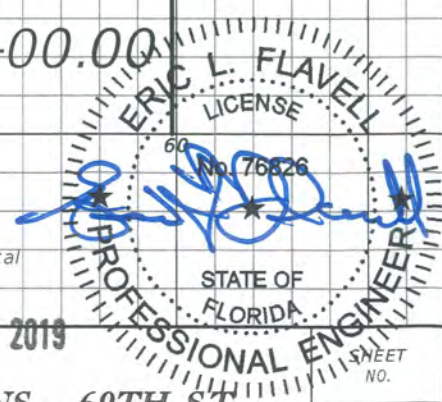
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2019
CROSS SECTIONS - 69TH ST
 SHEET NO. 173



1" = 10' Horizontal
 1" = 5' Vertical

CENTERLINE 58TH AVE - NORTH

CENTERLINE 58TH AVE - SOUTH

Material(s) at Station 21+00.00	
Material Name	Area
Asphalt Friction Course	4.15F
Asphalt Structural Course	8.35F
Overbuild	25.75F
Reclaimed Reclamation	12.45F
Full Depth Reclamation	37.25F
Base Material	0.25F
SubBase Material	0.05F
Cut Existing	0.05F
Fill Proposed	0.05F
Over Excavate	0.05F

21+00.00

69TH STREET

EXISTING CHAINLINK FENCE TO BE RELOCATED TO RIGHT OF WAY LINE (BY OTHER)

43.1' PROPOSED WIDTH VARIES

PROPOSED GUARDRAIL REFER TO DETAILS

MATCH EXISTING GRADE

CANAL G-4

Material(s) at Station 20+00.00	
Material Name	Area
Asphalt Friction Course	4.05F
Asphalt Structural Course	7.25F
Overbuild	2.95F
Reclaimed Reclamation	7.05F
Full Depth Reclamation	20.95F
Base Material	12.75F
SubBase Material	21.25F
Cut Existing	22.35F
Fill Proposed	2.65F
Over Excavate	0.05F

20+00.00

69TH STREET

CENTERLINE CONSTRUCTION

27.8' EXISTING WIDTH VARIES

CANAL R/W

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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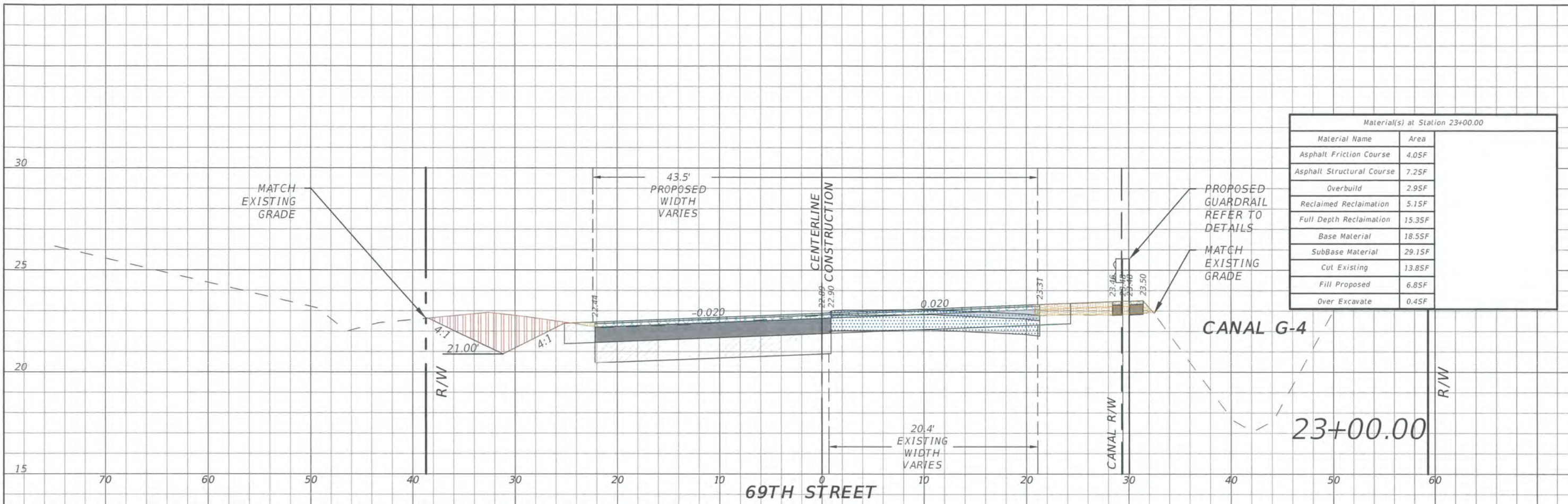
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

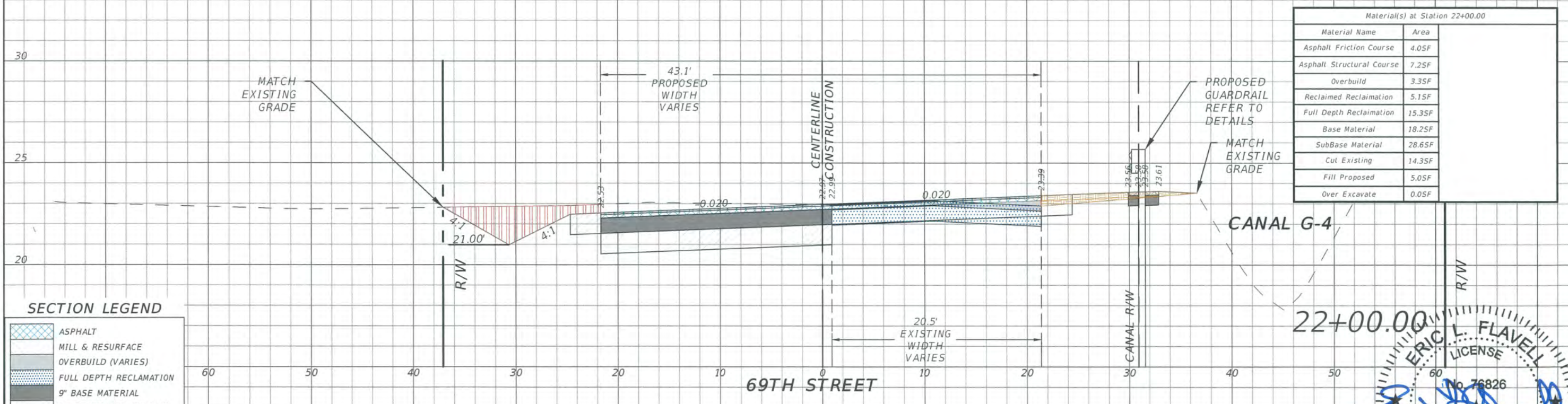
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

CROSS SECTIONS - 69TH ST





Material(s) at Station 23+00.00	
Material Name	Area
Asphalt Friction Course	4.05F
Asphalt Structural Course	7.25F
Overbuild	2.95F
Reclaimed Reclamation	5.15F
Full Depth Reclamation	15.35F
Base Material	18.55F
SubBase Material	29.15F
Cut Existing	13.85F
Fill Proposed	6.85F
Over Excavate	0.45F



Material(s) at Station 22+00.00	
Material Name	Area
Asphalt Friction Course	4.05F
Asphalt Structural Course	7.25F
Overbuild	3.35F
Reclaimed Reclamation	5.15F
Full Depth Reclamation	15.35F
Base Material	18.25F
SubBase Material	28.65F
Cut Existing	14.35F
Fill Proposed	5.05F
Over Excavate	0.05F

SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

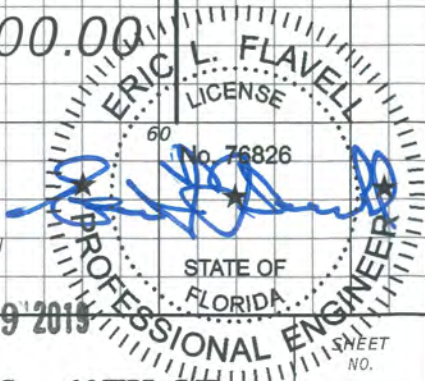
REVISIONS			
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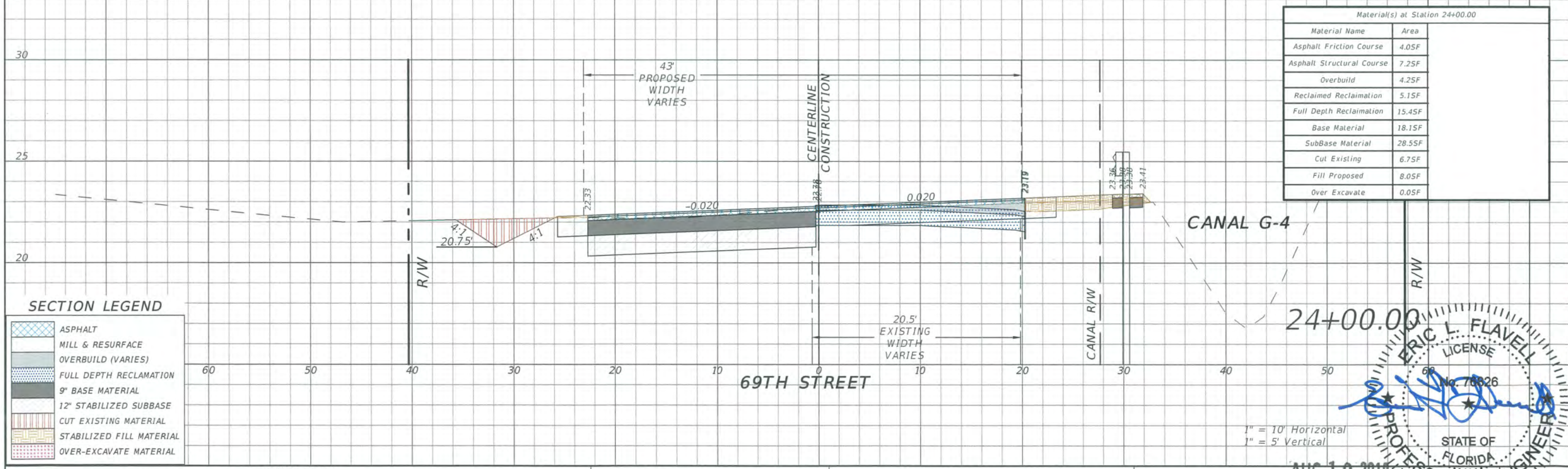
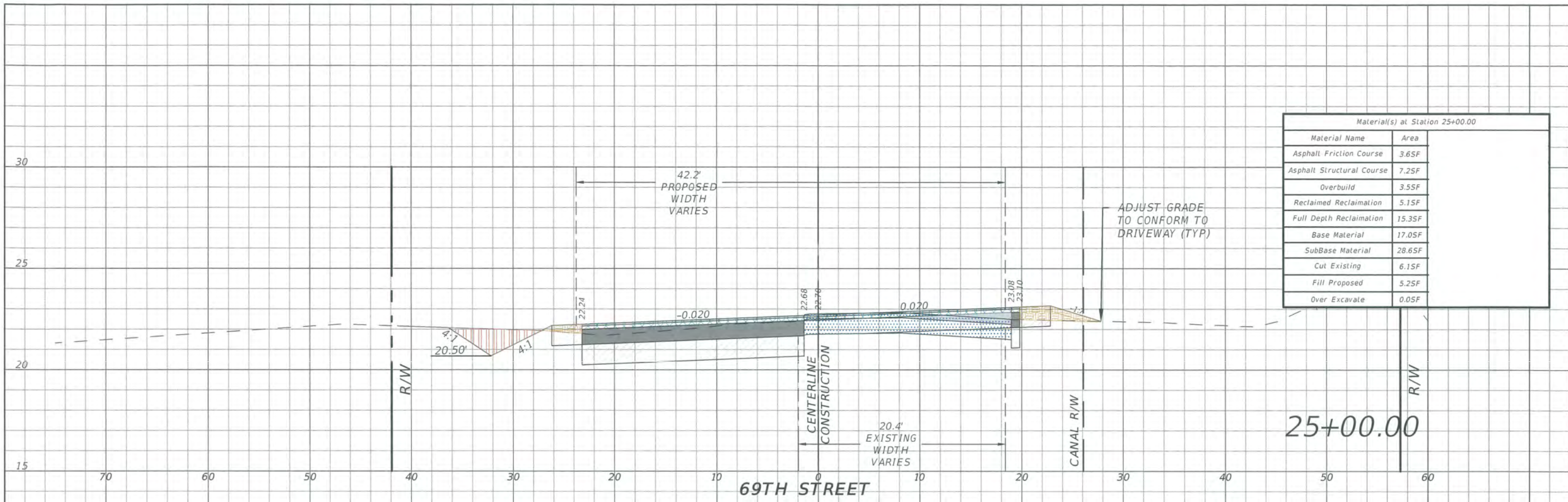
INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

AUG 19 2015
 CROSS SECTIONS - 69TH ST
 SHEET NO. 175



1" = 10' Horizontal
 1" = 5' Vertical



SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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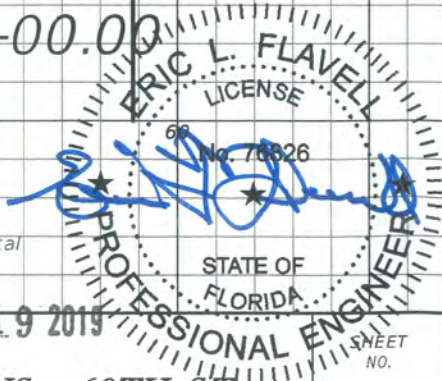
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

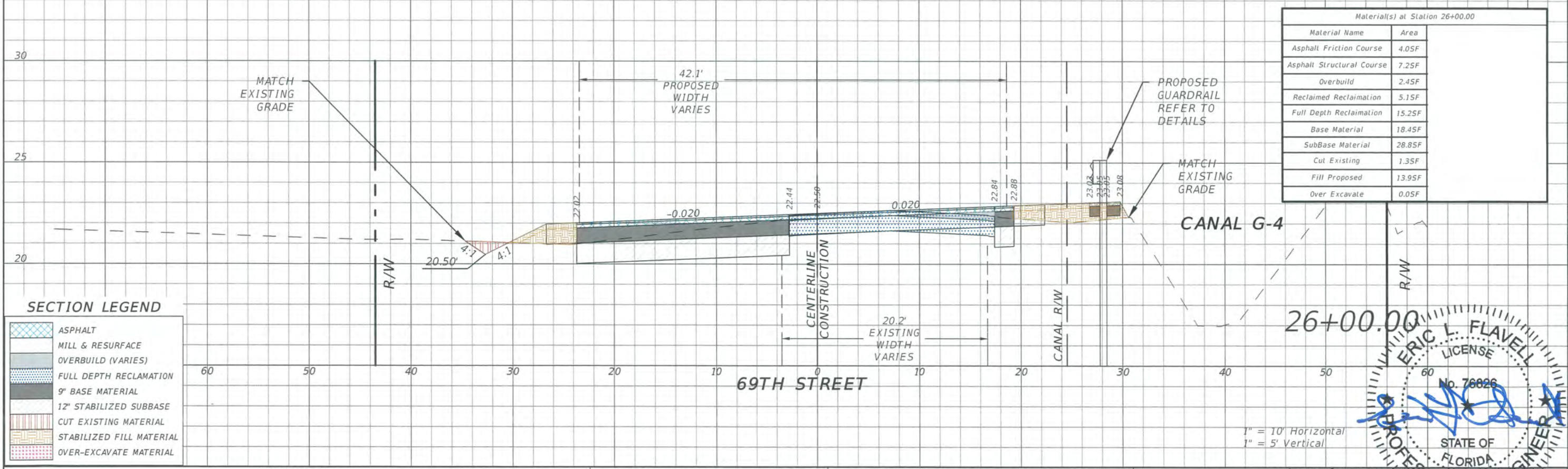
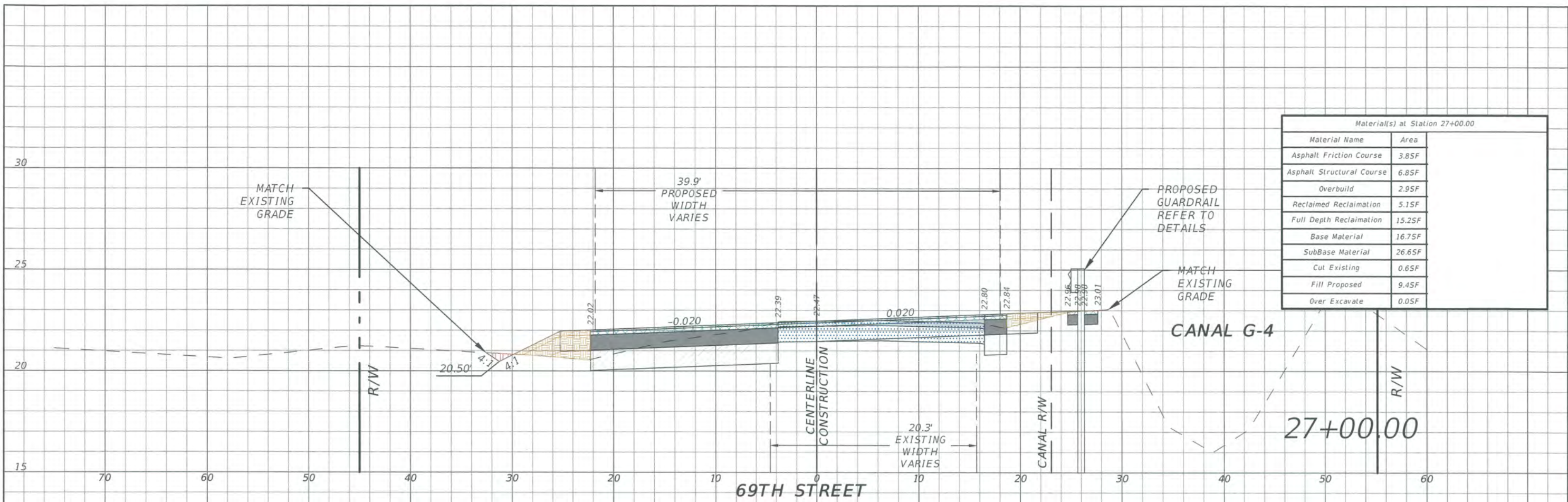
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

CROSS SECTIONS - 69TH ST

1" = 10' Horizontal
 1" = 5' Vertical



AUG 19 2019



SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

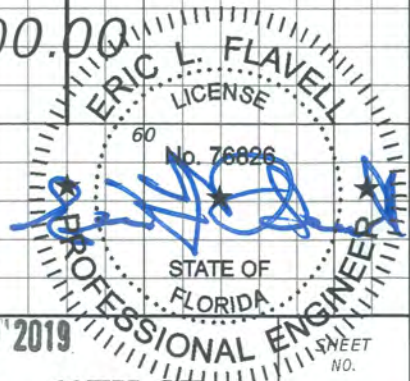
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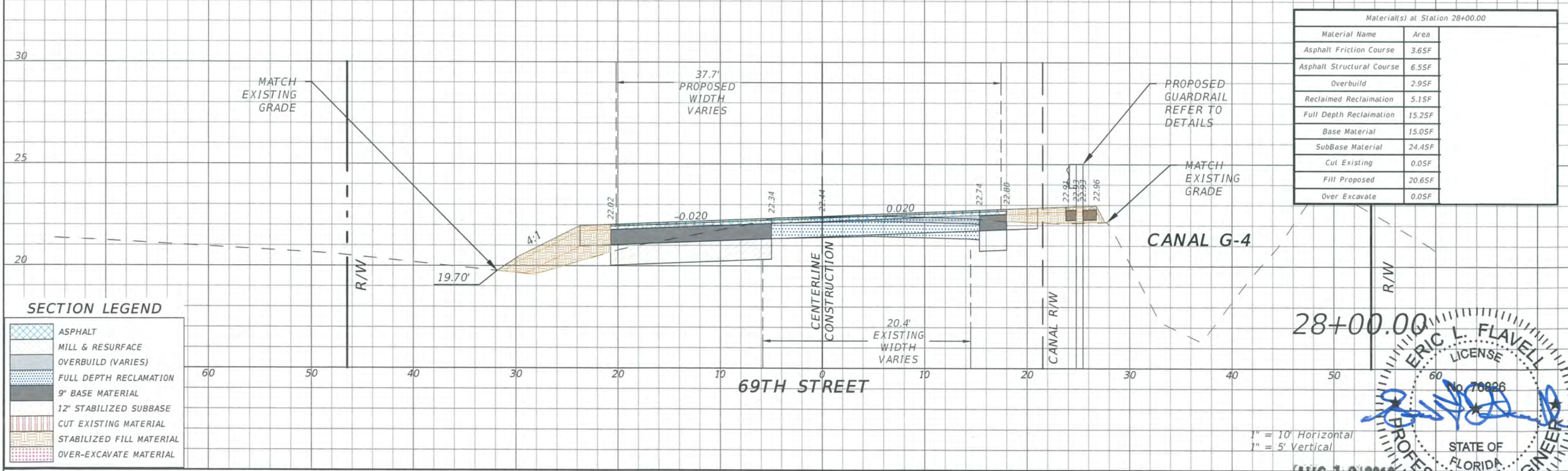
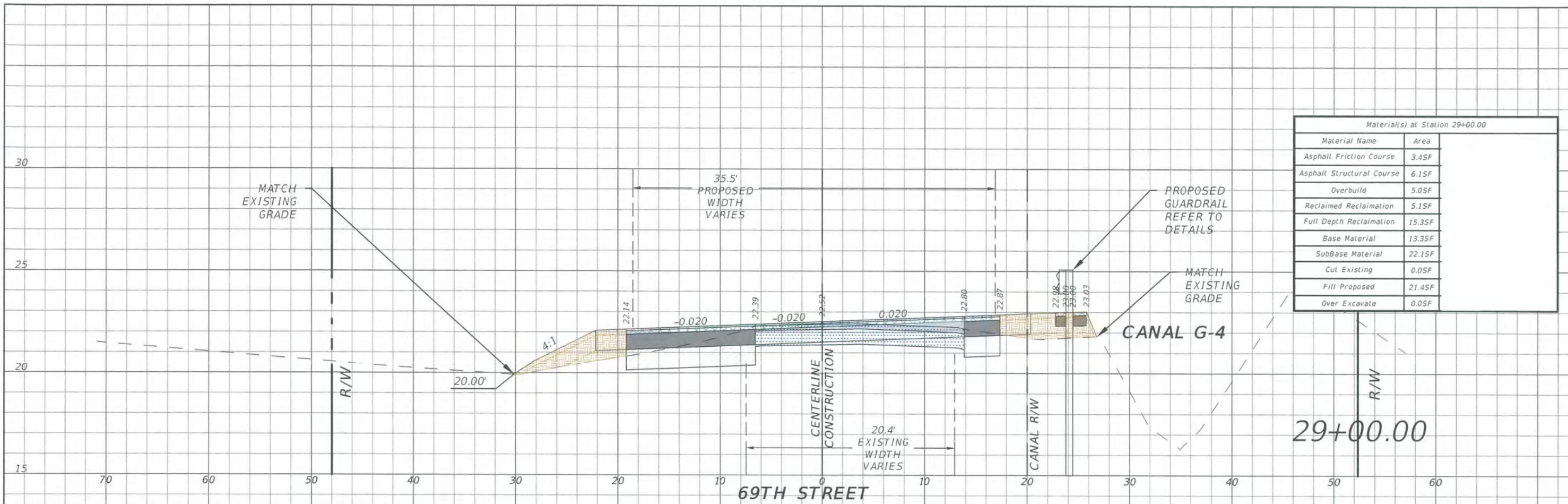
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613	INDIAN RIVER	IRC: 1325
58th AVE		FDOT:436416-1-54-01

AUG 19'2019
CROSS SECTIONS - 69TH ST





SECTION LEGEND

	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
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INDIAN RIVER COUNTY
 DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

CROSS SECTIONS - 69TH ST

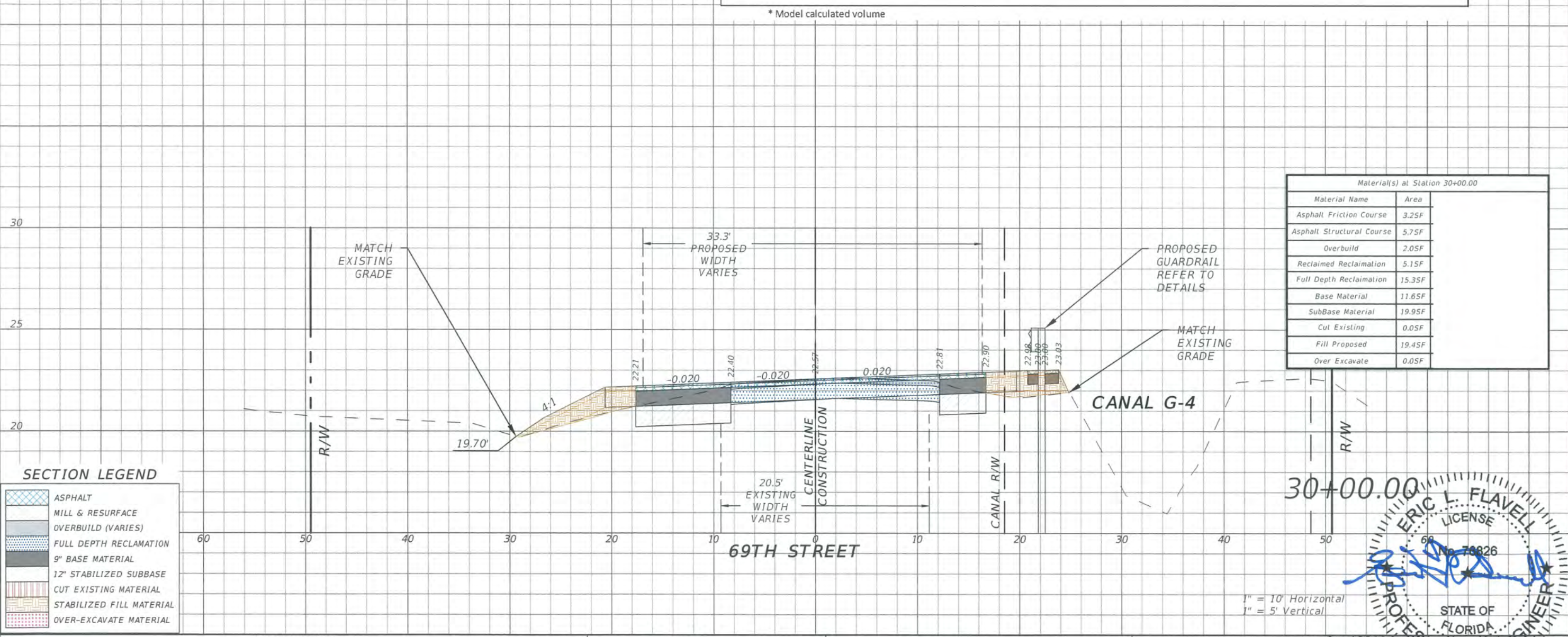


Model Areas & Quantities 58th & 69th			
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			13,153 Stabilized Subgrade
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Overbuild 58th Ave*				3,090	
Overbuild 69th Street*				278	
Over Excavate 58th & 69th*				634	
FDR Driveways	3,108	9	2,331	86	
				7,376	Total Reclaimed FDR Base Needed
285-709 Optional Base, Group 9, LBR=100 Limerock				1,391	FDR Difference
120-6 Embankment *				4,140	Fill
334-13b Type SP-12.5 (Variable Thickness)	18,038	4	5,953		446 Ton

FDR Additive Calculations for Bid Estimate					
Additive	Rate	Area Teated (SY)	Rate per 9"	Total	Unit
Emulsion	2.5% by Weight	100,980	2.5	252,450	Gal
Cement	3.0% by Weight	100,980	25	2,524,500	lbs
				1,262	ton

* Model calculated volume



SECTION LEGEND	
	ASPHALT
	MILL & RESURFACE
	OVERBUILD (VARIES)
	FULL DEPTH RECLAMATION
	9" BASE MATERIAL
	12" STABILIZED SUBBASE
	CUT EXISTING MATERIAL
	STABILIZED FILL MATERIAL
	OVER-EXCAVATE MATERIAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
----	----	----	----

ERIC L. FLAVELL, P.E.
P.E. LICENSE NUMBER 76826
BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

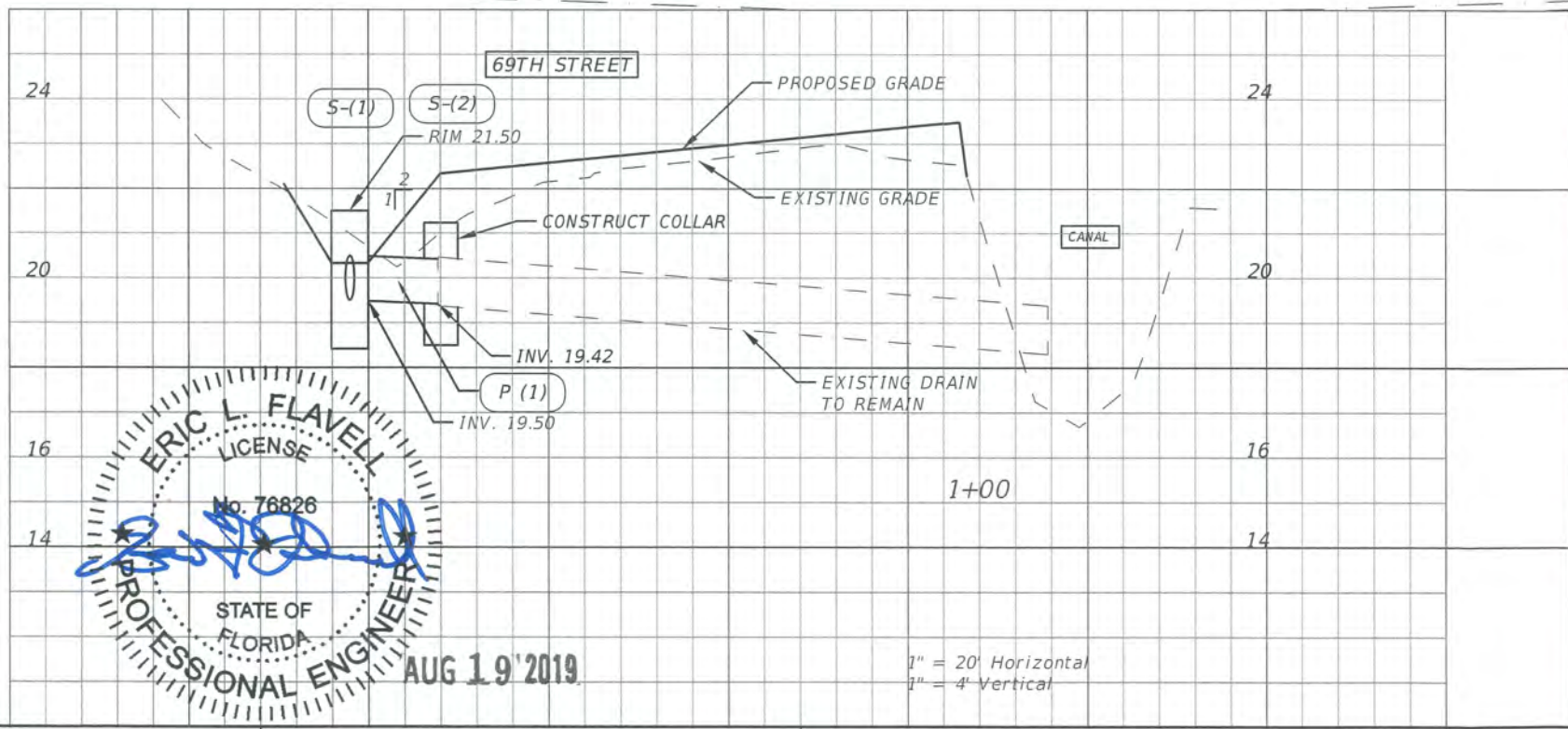
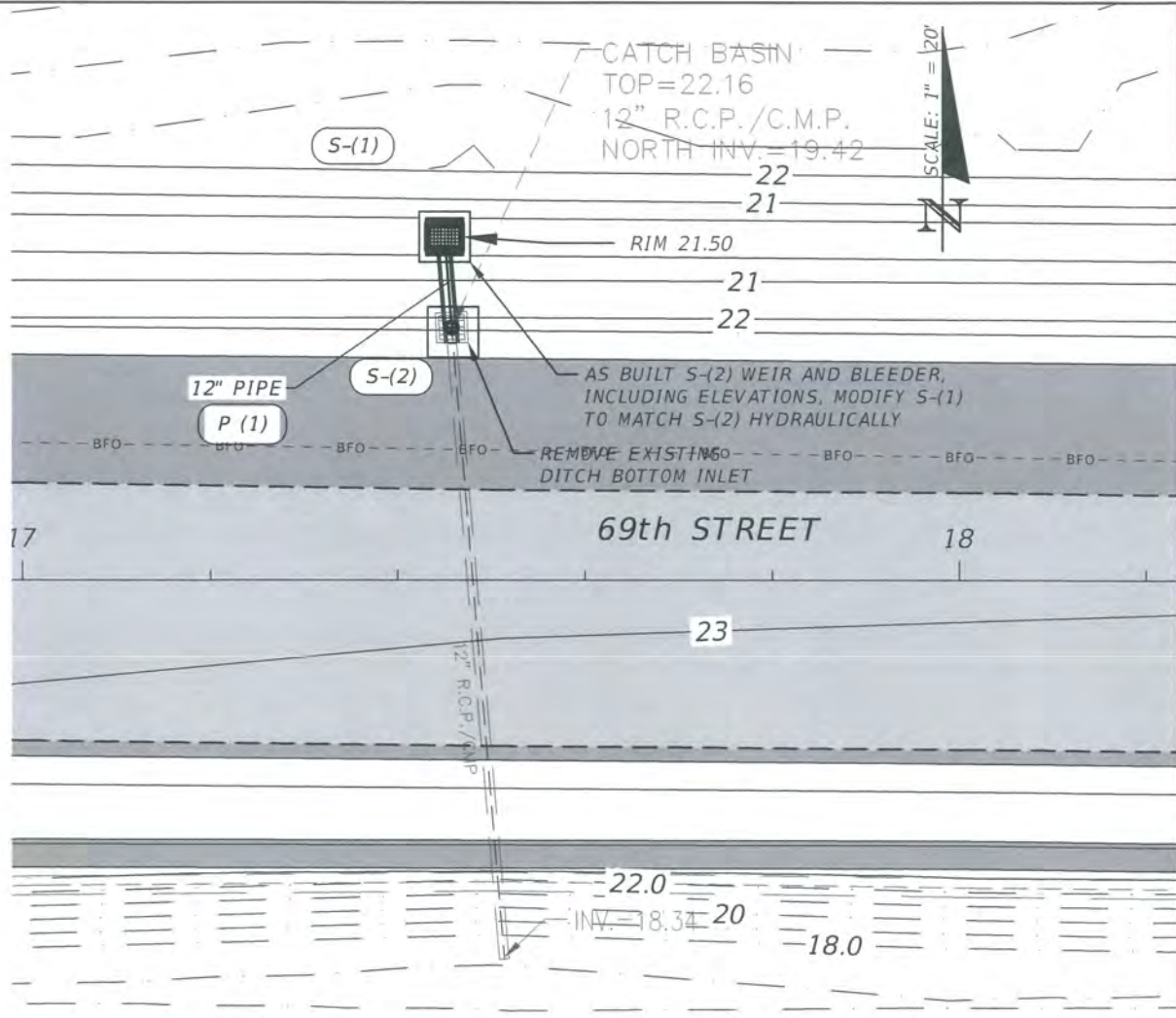
INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

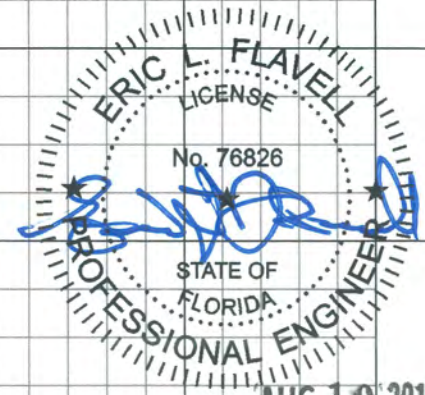
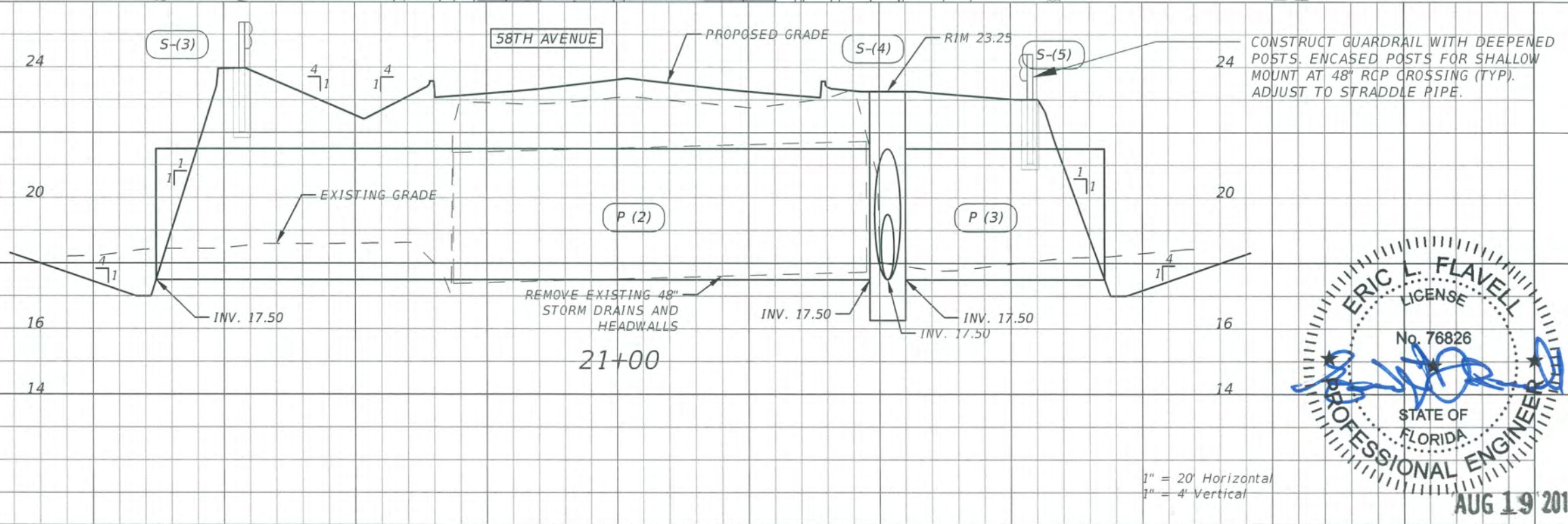
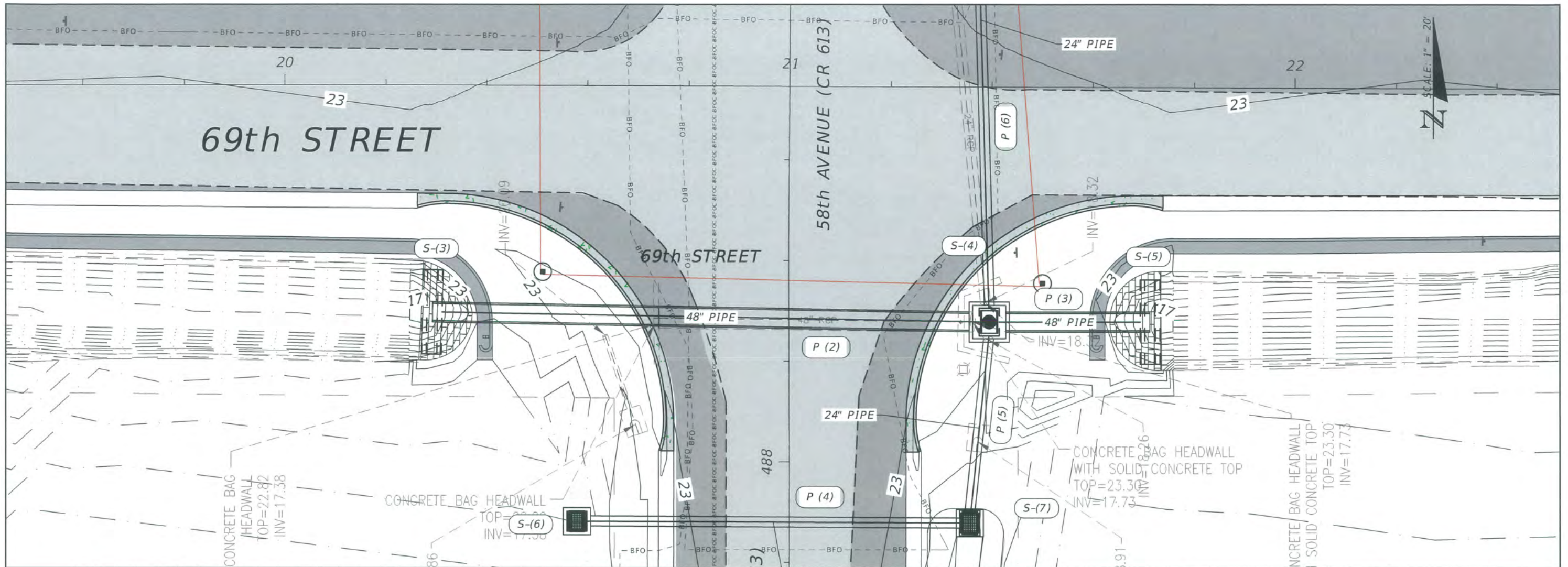
AUG 19 2019
CROSS SECTIONS - 69TH ST
1" = 10' Horizontal
1" = 5' Vertical
PROFESSIONAL ENGINEER
STATE OF FLORIDA
76826
SHEET NO. 179

STRUCTURE TABLE					
QTY	STR. #	STATION	SIDE	DESCRIPTION	CONNECTED PIPE
1	S-(1)	17+45.01	Lt.	Index No. 232 - Ditch Bottom Inlet - Type C	12" Pipe Culvert S/CD
1	S-(2)	17+45.77	Lt.	Existing Ditch Bottom Inlet to be Removed - Connect new Pipe	12" Pipe Culvert S/CD
1	S-(3)	20+29.29	Rt.	Index No. 258 - Rip Rap - Single 18-84 in. Dia Pipe, see detail sheet 10	48" Pipe Culvert S/CD
1	S-(4)	21+39.52	Rt.	Index No. 232 - Ditch Bottom Inlet - Type E	48" Pipe Culvert S/CD 24" Pipe Culvert S/CD 48" Pipe Culvert S/CD 24" Pipe Culvert S/CD
1	S-(5)	21+71.26	Rt.	Index No. 258 - Rip Rap - Single 18-84 in. Dia Pipe, see detail sheet 10	48" Pipe Culvert S/CD
1	S-(6)	487+88.10	Lt.	Index No. 232 - Ditch Bottom Inlet - Type C	24" Pipe Culvert S/CD
1	S-(7)	487+87.94	Rt.	Index No. 232 - Ditch Bottom Inlet - Type D	24" Pipe Culvert S/CD 24" Pipe Culvert S/CD
1	S-(8)	489+48.03	Rt.	Index No. 272 - Cross Drain MES with 1:4 Slope - Single Round Conc. Pipe	24" Pipe Culvert S/CD
1	S-(9)	577+55.51	Lt.	-	24" Pipe Culvert S/CD
1	S-(10)	577+62.87	Lt.	Index No. 201 - Type 8 Manhole (Eccentric Cone with 1 or 2-Piece Cover, Round Structure Bottom)	24" Pipe Culvert S/CD 24" Pipe Culvert S/CD
1	S-(11)	578+08.73	Lt.	Index No. 272 - Cross Drain MES with 1:4 Slope - Single Round Conc. Pipe	24" Pipe Culvert S/CD
1	S-(12)	460+97.10	Lt.	Index No. 272 - Cross Drain MES with 1:4 Slope - Single Round Conc. Pipe	12" Pipe Culvert S/CD
1	S-(13)	461+40.99	Lt.	Index No. 201 - Type 7 Manhole (1 or 2-Piece Cover (Center), Round Bottom)	12" Pipe Culvert S/CD
1	S-(14)	461+84.90	Rt.	Existing End of Pipe	24" Pipe Culvert S/CD
1	S-(15)	461+98.83	Rt.	Index No. 232 - Ditch Bottom Inlet - Type C	24" Pipe Culvert S/CD 24" Pipe Culvert S/CD
1	S-(16)	462+42.35	Rt.	Existing End of Pipe	24" Pipe Culvert S/CD
1	S-(17)	510+61.21	Lt.	Index No. 272 - Cross Drain MES with 1:4 Slope - Single Round Conc. Pipe	12" Vertical Elliptical Concrete Pipe
1	S-(18)	510+98.19	Lt.	Index No. 272 - Cross Drain MES with 1:4 Slope - Single Round Conc. Pipe	12" Vertical Elliptical Concrete Pipe
1	S-(19)	543+52.40	Lt.	Index No. 272 - Cross Drain MES with 1:4 Slope - Single Round Conc. Pipe	12" Vertical Elliptical Concrete Pipe
1	S-(20)	543+89.38	Lt.	Index No. 272 - Cross Drain MES with 1:4 Slope - Single Round Conc. Pipe	12" Vertical Elliptical Concrete Pipe

PIPE TABLE					
#	STR. #	SIDE	DESCRIPTION	SIZE INCHES	LENGTH
P(1)	S-(2)	-27.05 Lt.	12" RCP, ROUND	12.0"	9.75'
P(2)	S-(3)	45.09 Rt.	48" RCP, ROUND	48.0"	110.24'
P(3)	S-(4)	46.67 Rt.	48" RCP, ROUND	48.0"	31.74'
P(4)	S-(6)	86.53 Rt.	24" RCP, ROUND	24.0"	75.00'
P(5)	S-(7)	35.66 Rt.	24" RCP, ROUND	24.0"	37.91'
P(6)	S-(4)	39.60 Rt.	24" RCP, ROUND	24.0"	120.00'
P(7)	S-(9)	-48.43 Lt.	24" RCP / CMP, ROUND	24.0"	16.99'
P(8)	S-(10)	-33.19 Lt.	24" RCP, ROUND	24.0"	45.86'
P(9)	S-(13)	-32.44 Lt.	12" RCP, ROUND	12.0"	43.89'
P(10)	S-(16)	36.09 Rt.	24" RCP, ROUND	24.0"	14.25'
P(11)	S-(15)	44.40 Rt.	24" RCP, ROUND	24.0"	44.41'
P(12)	S-(18)	-33.05 Lt.	23" x 14" Vertical Elliptical Concrete Pipe	12.0"	48.00'
P(13)	S-(20)	-31.33 Lt.	23" x 14" Vertical Elliptical Concrete Pipe	12.0"	36.99'



REVISIONS				ERIC L. FLAVELL, P.E. P.E. LICENSE NUMBER 76826 BOWMAN CONSULTING GROUP 4450 W. EAU GALLIE BLVD. MELBOURNE, FL 32934 CERTIFICATE OF AUTHORIZATION 30462	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SHEET NO. 180
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
---	---	---	---		CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01	



1" = 20' Horizontal
1" = 4' Vertical

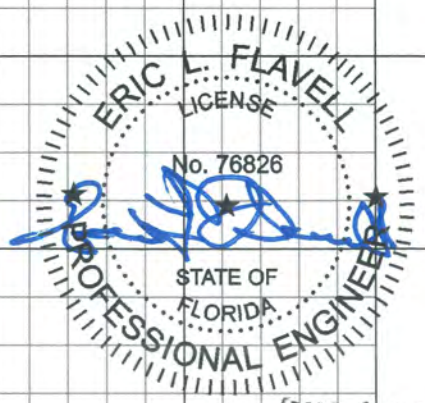
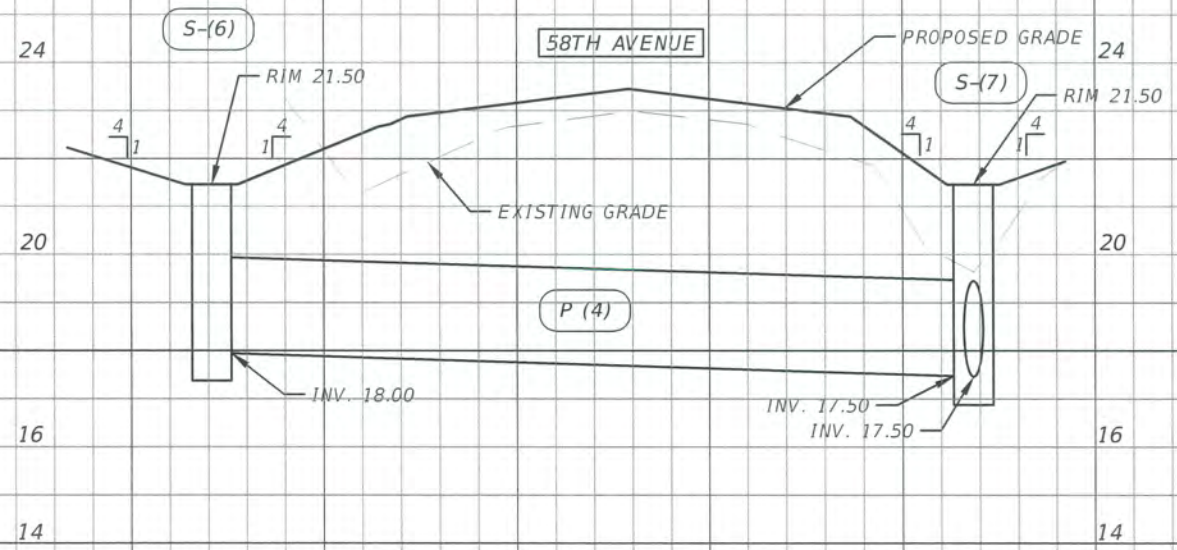
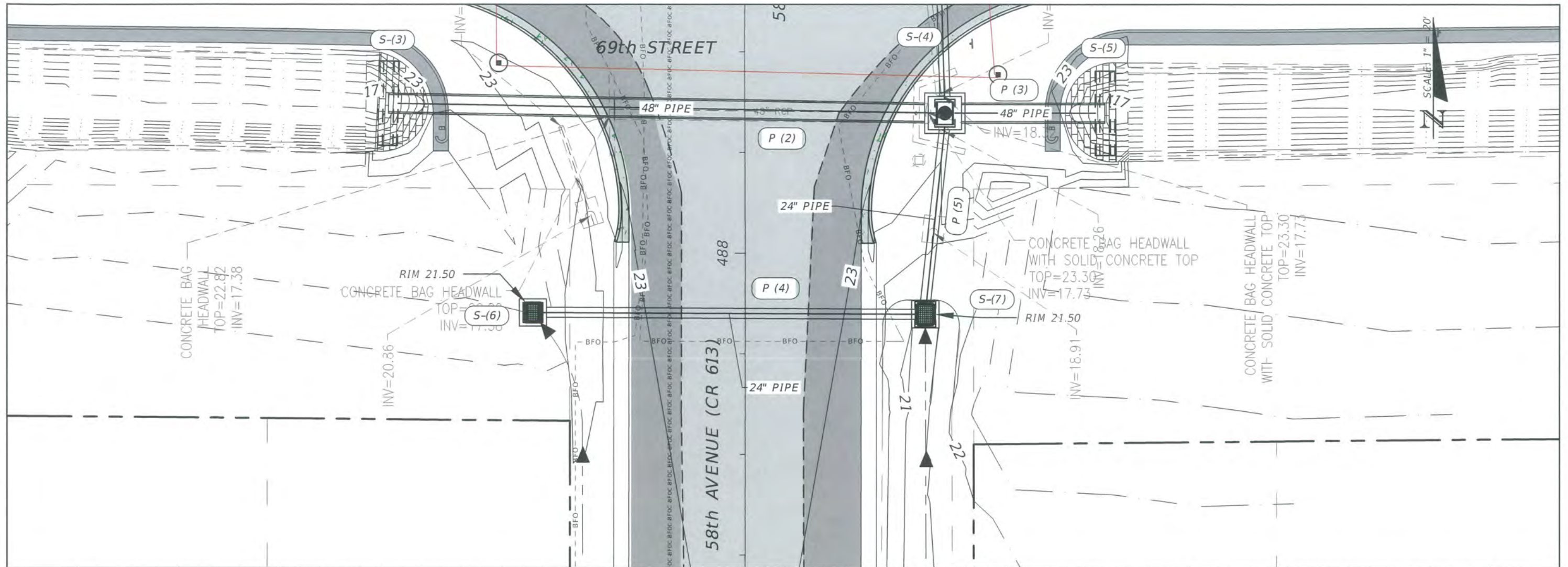
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
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CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DRAINAGE PLAN AND PROFILE

SHEET NO.
181



AUG 19 2019

1" = 20' Horizontal
1" = 4' Vertical

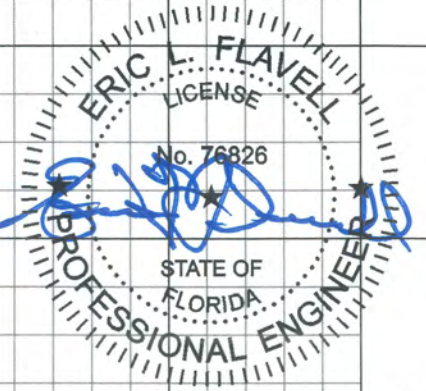
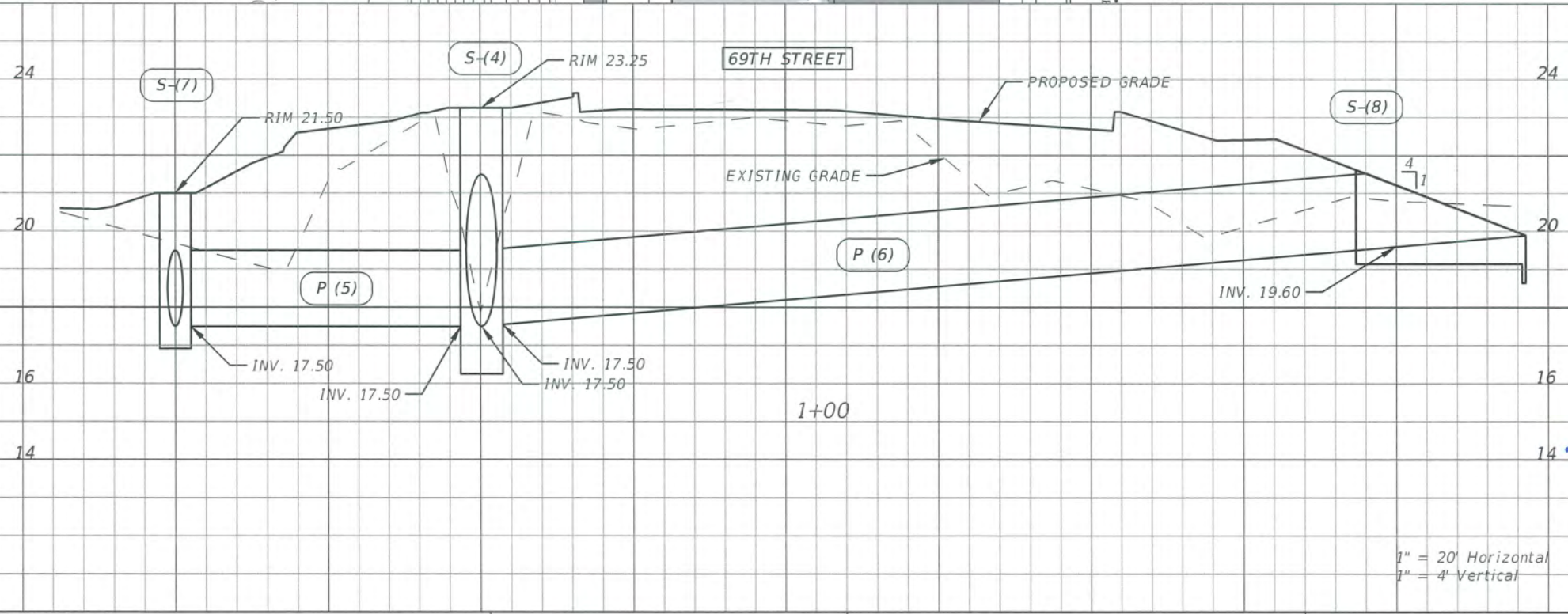
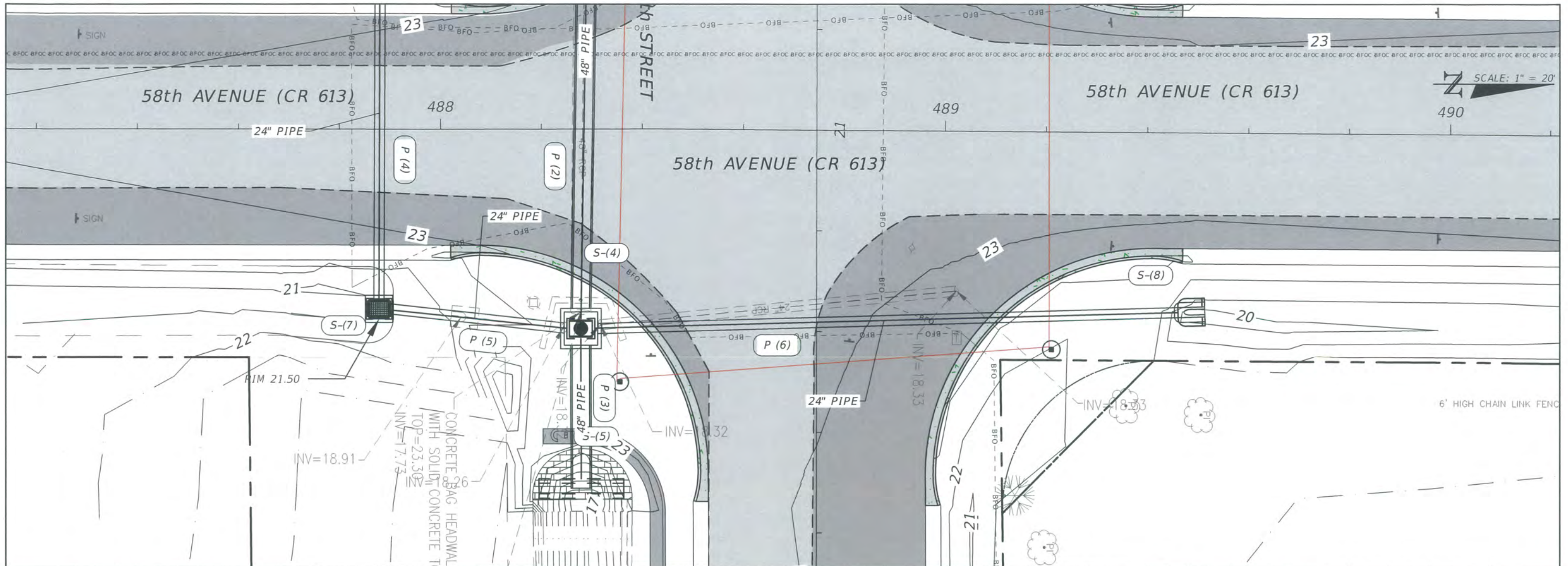
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DRAINAGE PLAN AND PROFILE

SHEET NO.
182



AUG 19 2019

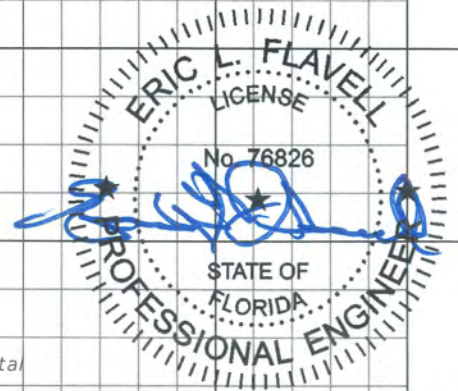
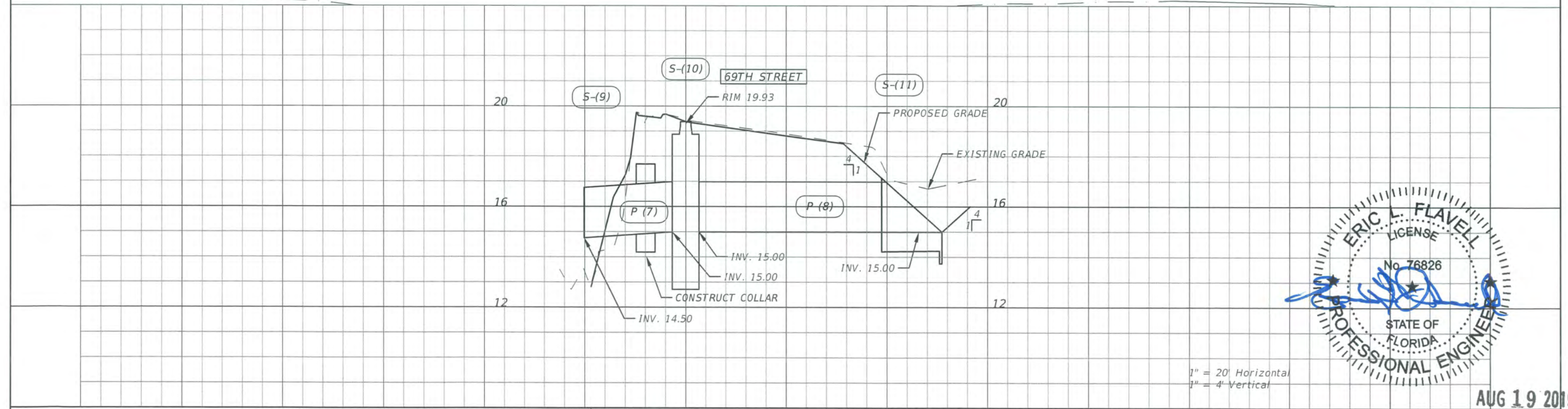
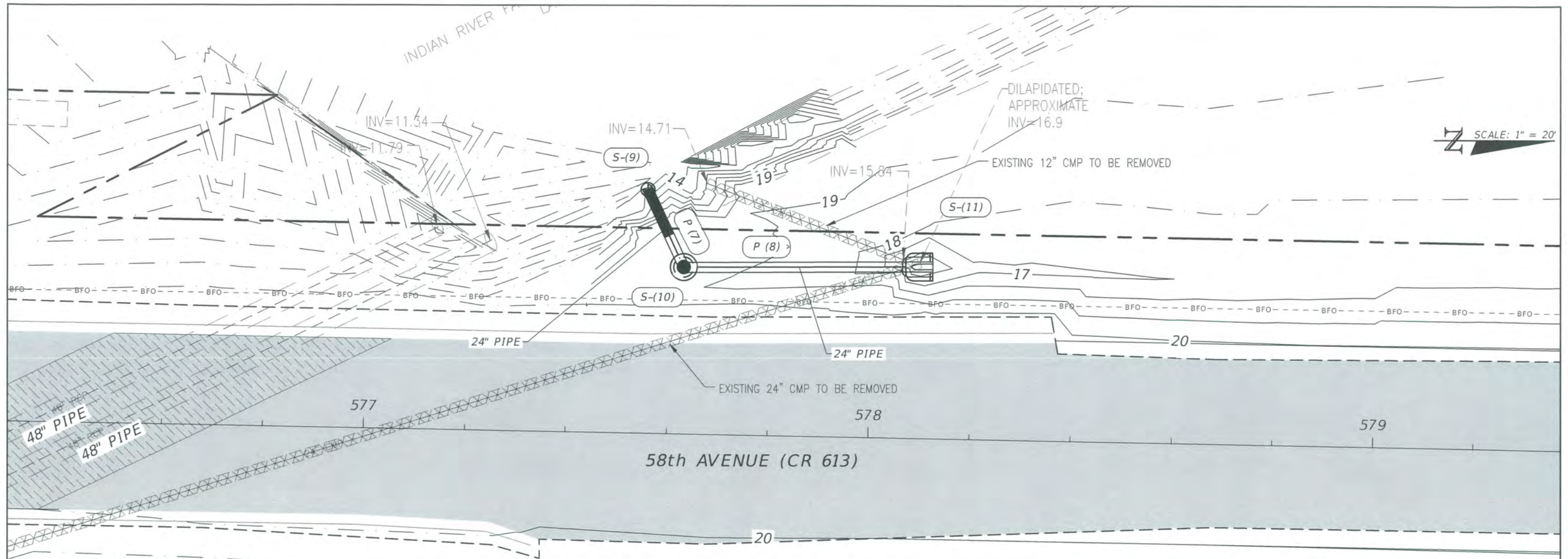
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DRAINAGE PLAN AND PROFILE

SHEET NO.
183



1" = 20' Horizontal
1" = 4' Vertical

AUG 19 2019

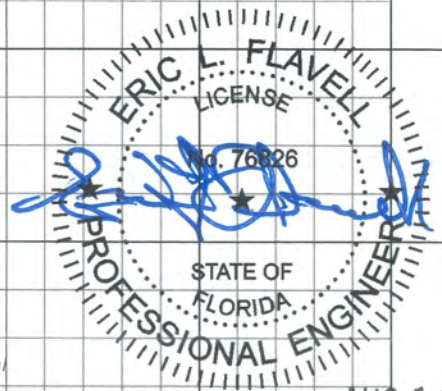
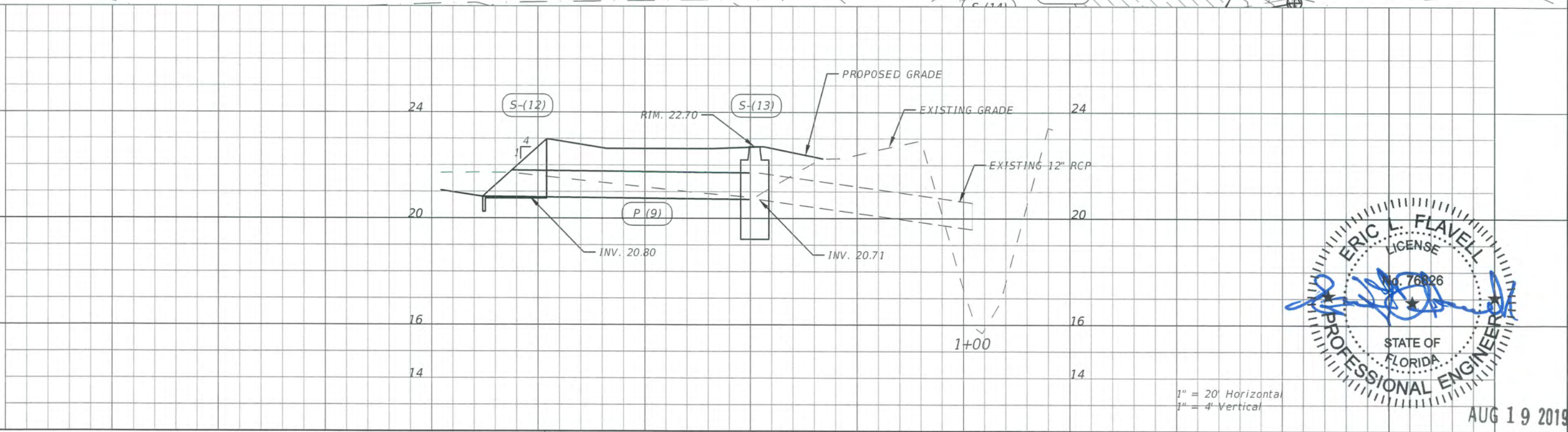
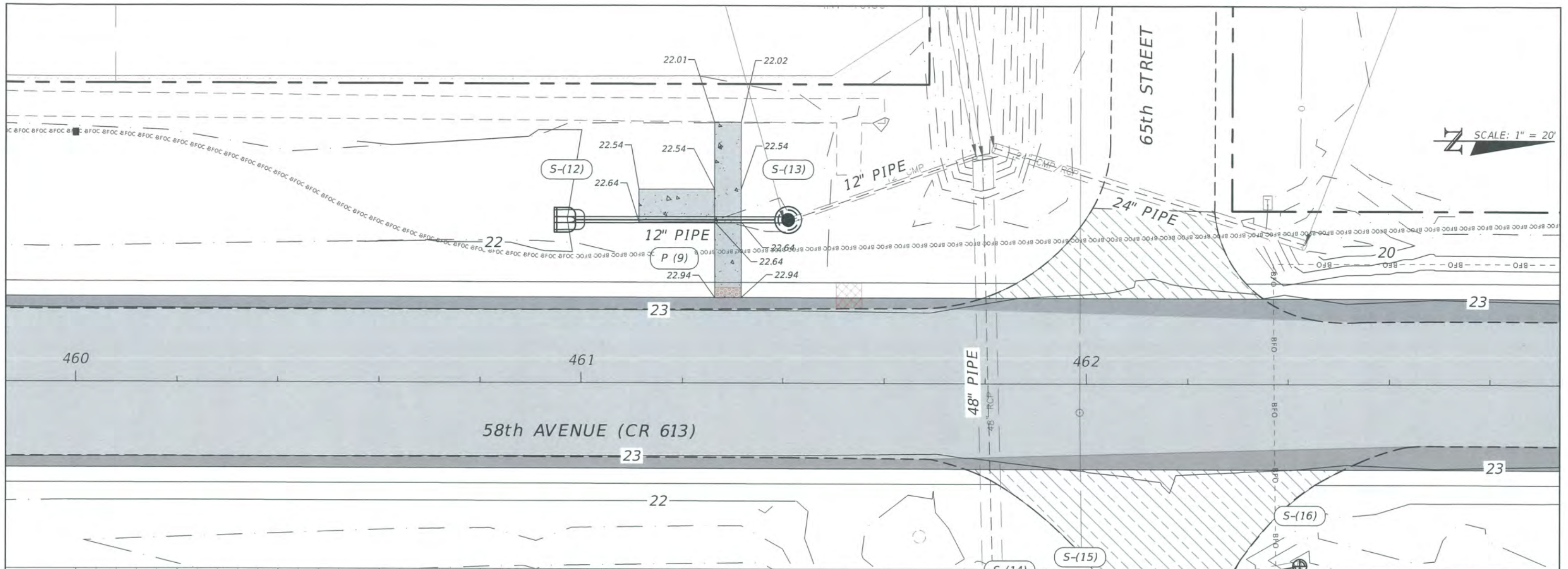
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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BOWMAN CONSULTING GROUP
4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
CERTIFICATE OF AUTHORIZATION 30462

INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DRAINAGE PLAN AND PROFILE

SHEET NO.
184



AUG 19 2019

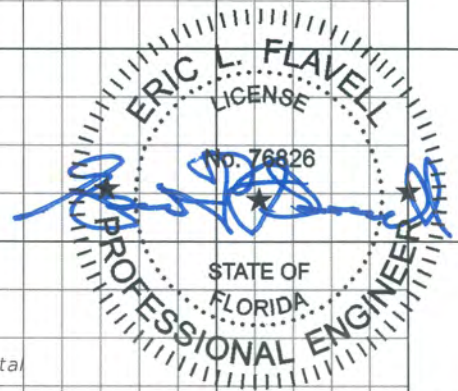
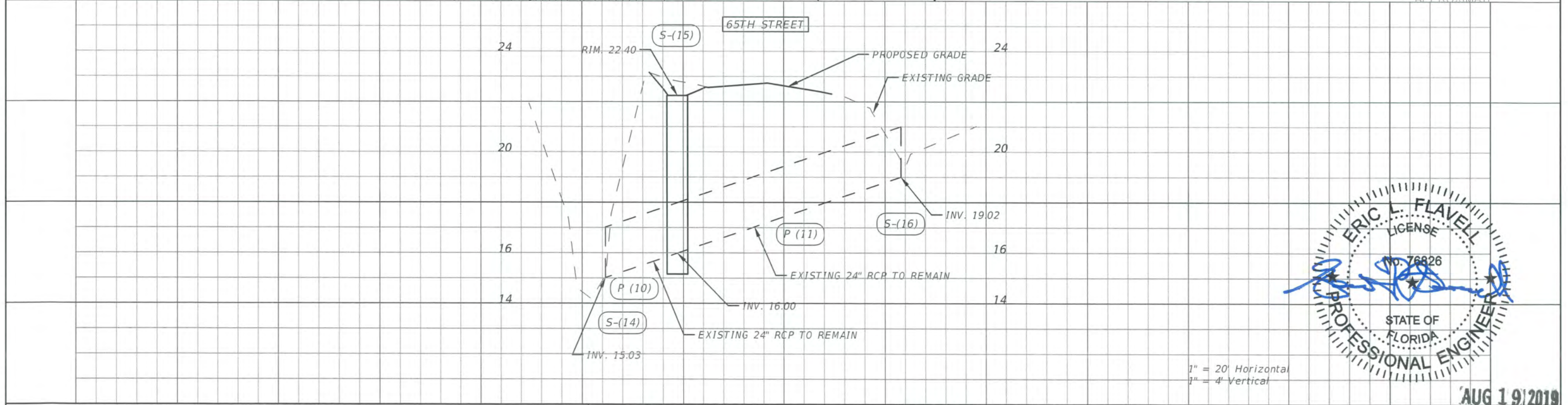
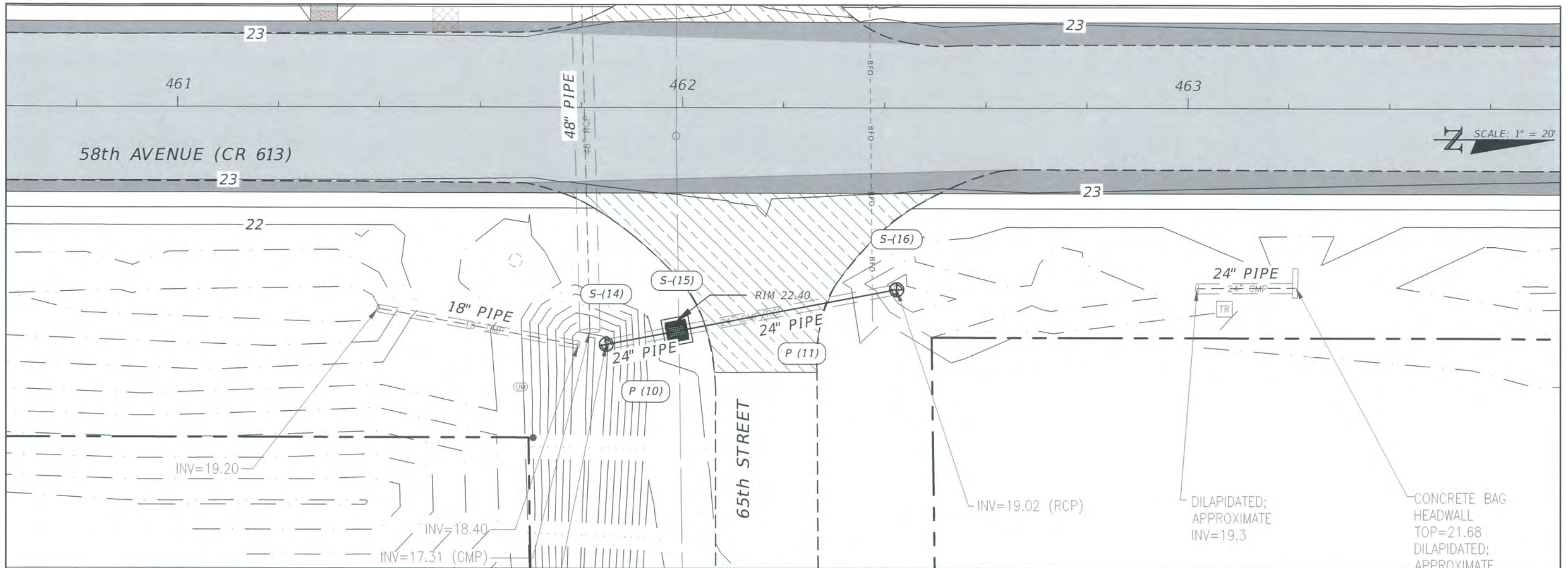
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
 P.E. LICENSE NUMBER 76826
 BOWMAN CONSULTING GROUP
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DRAINAGE PLAN AND PROFILE

SHEET NO.
185



AUG 19 2019

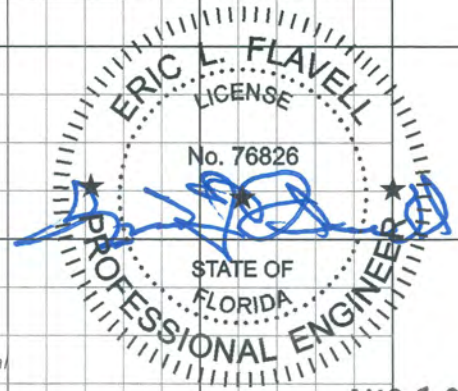
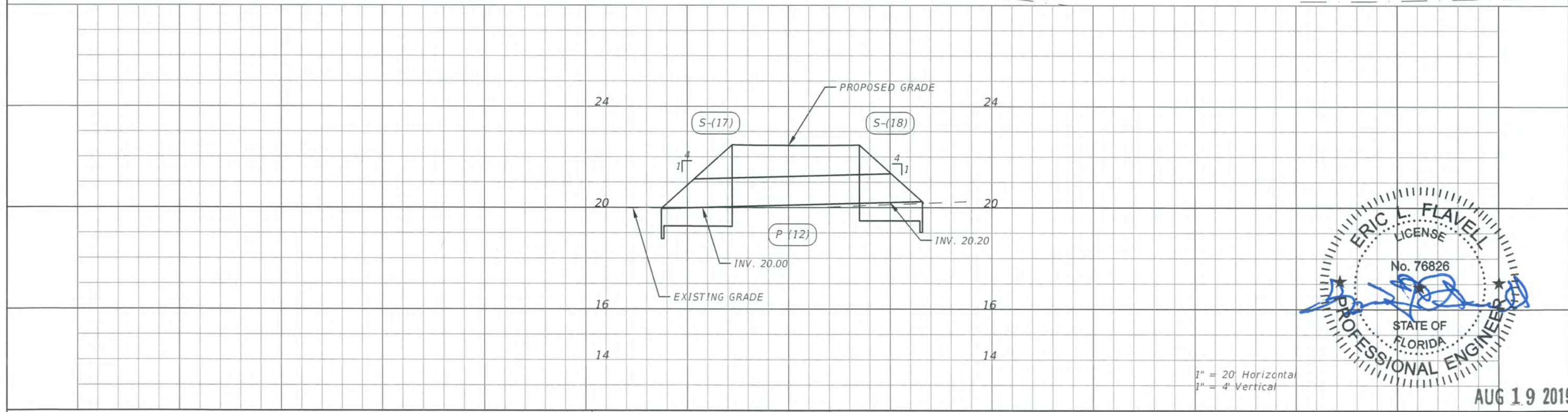
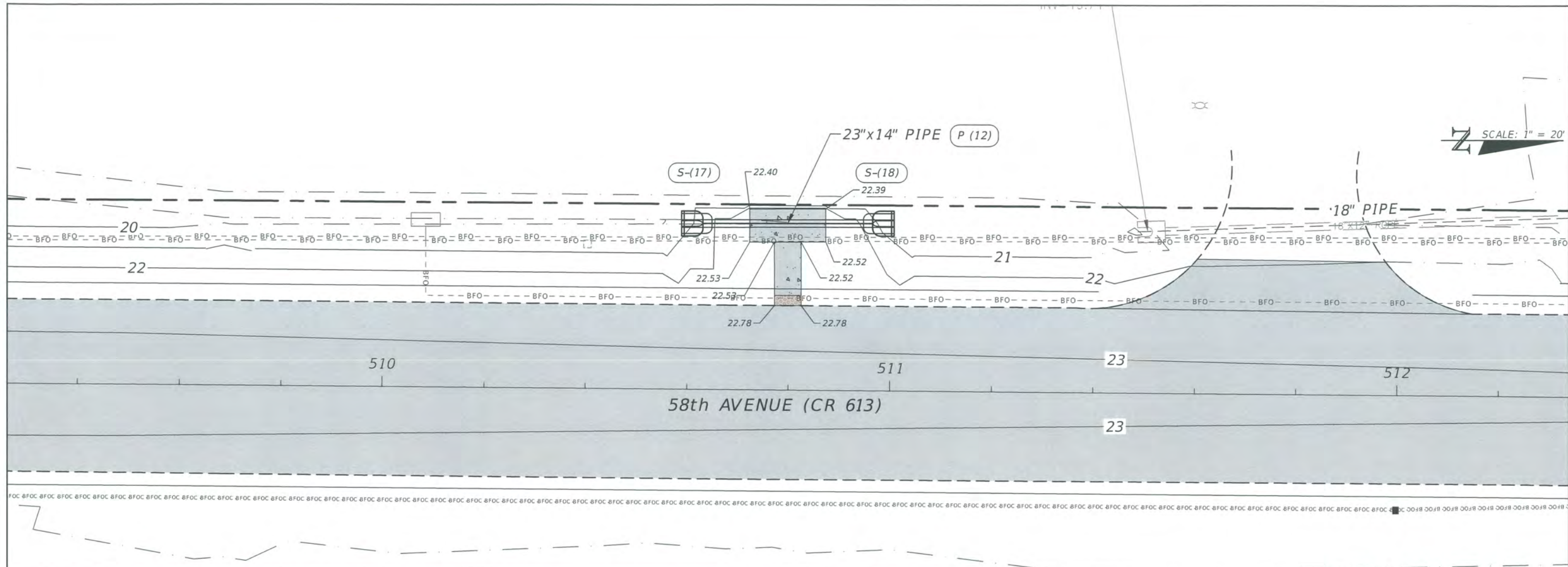
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ERIC L. FLAVELL, P.E.
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 BOWMAN CONSULTING GROUP
 4450 W. EAU GALLIE BLVD.
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DRAINAGE PLAN AND PROFILE

SHEET NO.
186



AUG 19 2019

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

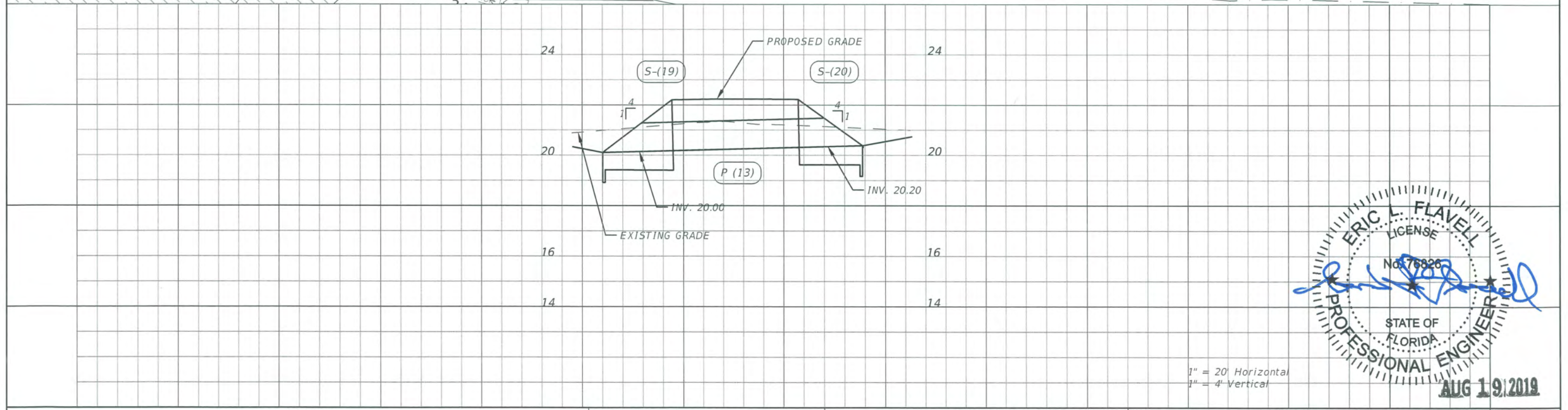
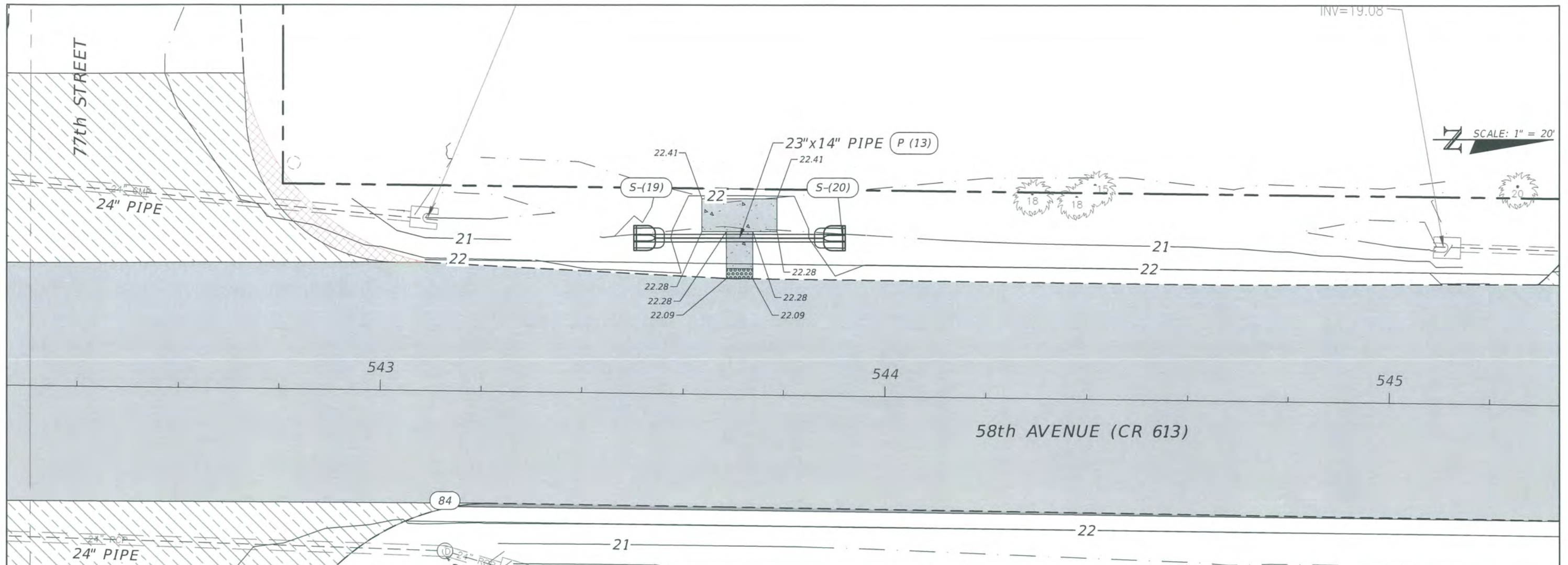
ERIC L. FLAVELL, P.E.
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4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
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INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

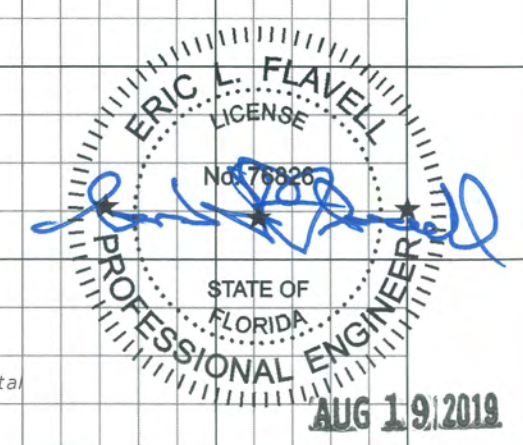
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DRAINAGE PLAN AND PROFILE

SHEET NO.
187



1" = 20' Horizontal
1" = 4' Vertical



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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ERIC L. FLAVELL, P.E.
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4450 W. EAU GALLIE BLVD.
MELBOURNE, FL 32934
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INDIAN RIVER COUNTY		
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT:436416-1-54-01

DRAINAGE PLAN AND PROFILE

SHEET NO.
188

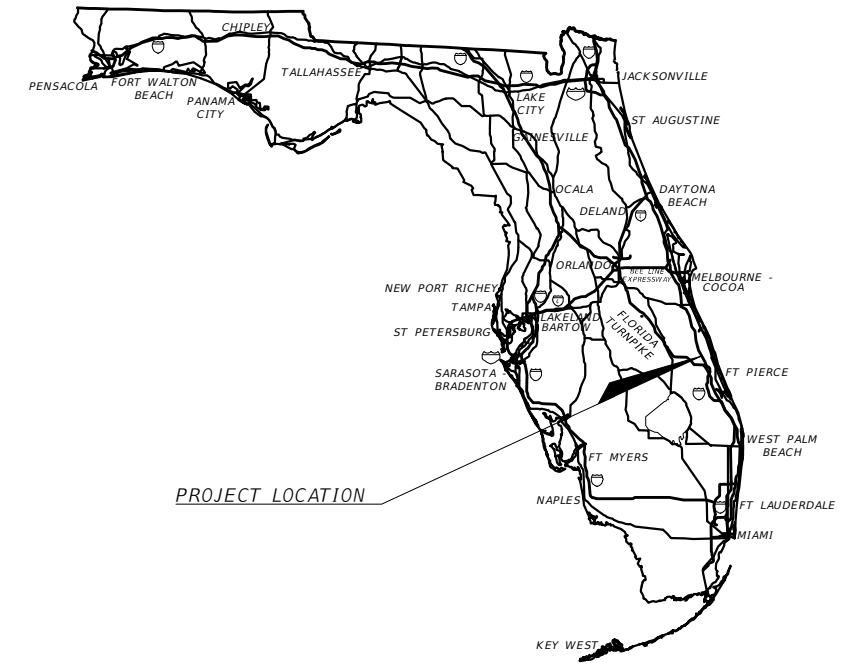
**INDIAN RIVER COUNTY
BOARD OF COUNTY COMMISSIONERS**

CONTRACT PLANS

FINANCIAL PROJECT ID 436416-1-54-01
(FEDERAL FUNDS)

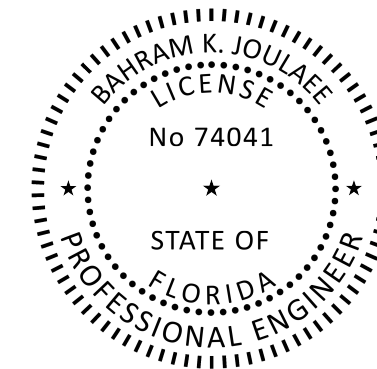
INDIAN RIVER COUNTY (88)
COUNTY ROAD NO. 613

**SIGNING AND PAVEMENT
MARKING PLANS**



INDEX OF SIGNING & PAVEMENT MARKING PLANS

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
S-1	KEY SHEET
S-2 TO S-7	TABULATION OF QUANTITIES
S-8	GENERAL NOTES
S-9 TO S-42	SIGNING & PAVEMENT MARKING PLANS - 58TH AVE
S-43 TO S-46	SIGNING & PAVEMENT MARKING PLANS - 69TH ST



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED SIGNED AND SEALED
AND THE SIGNATURE MUST BE VERIFIED
ON ANY ELECTRONIC COPIES

PLANS PREPARED BY:



SIGNING AND PAVEMENT
MARKING PLANS
ENGINEER OF RECORD:

BAHRAM K. JOULAEI, P.E.
P.E. No. 74041
1450 WEST GRANADA BLVD. SUITE 2
ORMOND BEACH FLORIDA, 32174
PH. 386.257.2571 FAX: 386.257.6996
CERTIFICATE OF AUTHORIZATION NO.: 9227

GOVERNING STANDARDS AND SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION, 2017-2018 DESIGN STANDARDS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, AND JANUARY 2017 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

FOR DESIGN STANDARDS CLICK ON THE "DESIGN STANDARDS" LINK AT THE FOLLOWING WEB SITE:

[HTTP://WWW.DOT.STATE.FL.US/RDDESIGN](http://www.dot.state.fl.us/rddesign)

FOR THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION CLICK ON THE "SPECIFICATIONS" LINK AT THE FOLLOWING WEB SITE:

[HTTP://WWW.DOT.STATE.FL.US/SPECIFICATIONSOFFICE/](http://www.dot.state.fl.us/specificationsoffice/)

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
	2019	S-1

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			S-9 (N.I.C.)		S-10		S-11		S-12		S-13		S-14		S-15		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL				
700-1-11	SINGLE POST SIGN (FURNISHED & INSTALLED, GROUND MOUNTED) (UP TO 12 SF) W2-1, W-16-8P, R3-17, R3-17AP, R3-17BP	AS					2				1		1				4			
700-1-50	SINGLE POST SIGN (RELOCATE)	AS					2				1		1		1		5			
700-1-60	SINGLE POST SIGN (REMOVE)	AS									1		1				2			
700-3-601	SIGN PANEL, REMOVE, UP TO 12 SF	EA									1		1				2			
706-3	REFLECTIVE PAVEMENT MARKER (F&I)																			
	YELLOW/YELLOW (Y/Y)	EA		2			26		28		26		28		26		136			
	WHITE/RED (W/R)	EA																		
	(MONODIRECTIONAL YELLOW)	EA																		
711-11-123	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR CROSSWALK, 12"	LF					54				84						138			
711-11-125	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR STOP LINE OR CROSSWALK, 24"	LF					12				31						43			
711-11-141	THERMOPLASTIC, STD., WHITE, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM					0.01				0.01		0.01		0.01		0.04			
711-11-241	THERMOPLASTIC, STD., YELLOW, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM																		
711-11-170	THERMOPLASTIC PAVEMENT MARKINGS, ARROWS	EA																		
711-11-224	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, FOR DIAGONAL OR CHEVRON, 18"	LF																		
711-14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE OR SYMBOL (BIKE)	EA					2				1		2		1		6			
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW (BIKE THRU)	EA					2				1		2		1		6			
711-16-101	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID, 6"	GM		0.01		0.20		0.21		0.19		0.19		0.18		0.98				
711-16-201	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, 6"	GM		0.01		0.19		0.21		0.19		0.20		0.18		0.98				
711-16-231	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, 10'-30' SKIP, 6"	GM																		

REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01	TABULATION OF QUANTITIES (1)
								S-2

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL			
			S-16		S-17		S-18		S-19		S-20		S-21		S-22		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
700-1-11	SINGLE POST SIGN (FURNISHED & INSTALLED, GROUND MOUNTED) (UP TO 12 SF) W2-1, W-16-8P, R3-17, R3-17AP, R3-17BP	AS																		
700-1-50	SINGLE POST SIGN (RELOCATE)	AS	1				4		2								7			
700-1-60	SINGLE POST SIGN (REMOVE)	AS																		
700-3-601	SIGN PANEL, REMOVE, UP TO 12 SF	EA																		
706-3	REFLECTIVE PAVEMENT MARKER (F&I)																			
	YELLOW/YELLOW (Y/Y)	EA	28		28		26		28		28		27		58		223			
	WHITE/RED (W/R)	EA													7		111			
	(MONODIRECTIONAL YELLOW)	EA																		
711-11-123	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR CROSSWALK, 12"	LF																		
711-11-125	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR STOP LINE OR CROSSWALK, 24"	LF																		
711-11-141	THERMOPLASTIC, STD., WHITE, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM					0.05								0.02		0.07			
711-11-241	THERMOPLASTIC, STD., YELLOW, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM													0.02		0.02			
711-11-170	THERMOPLASTIC PAVEMENT MARKINGS, ARROWS	EA													2		2			
711-11-224	THERMOPLASTIC. PAVEM. MARKINGS, STD. YELLOW, SOLID, FOR DIAGONAL OR CHEVRON, 18"	LF													82		82			
		LF																		
711-14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE OR SYMBOL (BIKE)	EA	2				2				1		1				6			
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW (BIKE THRU)	EA	2				2				1		1				6			
711-16-101	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID, 6"	GM	0.21		0.21		0.12		0.21		0.21		0.21		0.24		1.41			
711-16-201	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, 6"	GM	0.21		0.21		0.19		0.21		0.21		0.21		0.33		1.57			
711-16-231	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, 10'-30' SKIP, 6"	GM																		

REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			TABULATION OF QUANTITIES (2)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		S-3
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			S-23		S-24		S-25		S-26		S-27		S-28		S-29		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
700-1-11	SINGLE POST SIGN (FURNISHED & INSTALLED, GROUND MOUNTED) (UP TO 12 SF) W2-1, W-16-8P, R3-17, R3-17AP, R3-17BP	AS	2														2			
700-1-50	SINGLE POST SIGN (RELOCATE)	AS	5		1												6			
700-1-60	SINGLE POST SIGN (REMOVE)	AS	4														4			
700-3-601	SIGN PANEL, REMOVE, UP TO 12 SF	EA	4														4			
706-3	REFLECTIVE PAVEMENT MARKER (F&I)																			
	YELLOW/YELLOW (Y/Y)	EA	32		64		28		28		28		26		28		234			
	WHITE/RED (W/R)	EA	28		3												31			
	(MONODIRECTIONAL YELLOW)	EA																		
711-11-123	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR CROSSWALK, 12"	LF																		
711-11-125	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR STOP LINE OR CROSSWALK, 24"	LF	89														89			
711-11-141	THERMOPLASTIC, STD., WHITE, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM	0.02		0.02						0.06		0.01				0.11			
711-11-241	THERMOPLASTIC, STD., YELLOW, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM																		
711-11-170	THERMOPLASTIC PAVEMENT MARKINGS, ARROWS	EA	7														7			
711-11-224	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, FOR DIAGONAL OR CHEVRON, 18"	LF			93												93			
711-14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE OR SYMBOL (BIKE)	EA	3			2							2				7			
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW (BIKE THRU)	EA	3			2							2				7			
711-16-101	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID, 6"	GM	0.18		0.22	0.21		0.21		0.15		0.18		0.21			1.36			
711-16-201	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, 6"	GM	0.19		0.36	0.21		0.21		0.21		0.18		0.21			1.57			
711-16-231	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, 10'-30' SKIP, 6"	GM																		

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BAHRAM K. JOULAE, P.E.
P.E. LICENSE NUMBER 74041
LTG ENGINEERING & PLANNING
1450 WEST GRANADA BOULEVARD, SUITE 2
ORMOND BEACH, FLORIDA 32174
CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

TABULATION OF QUANTITIES (3)

SHEET NO.
S-4

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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL			
			S-30		S-31		S-32		S-33		S-34		S-35		S-36		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
700-1-11	SINGLE POST SIGN (FURNISHED & INSTALLED, GROUND MOUNTED) (UP TO 12 SF) W2-1, W-16-8P, R3-17, R3-17AP, R3-17BP	AS					1		1							2				
700-1-50	SINGLE POST SIGN (RELOCATE)	AS	1				2		2					1		6				
700-1-60	SINGLE POST SIGN (REMOVE)	AS																		
700-3-601	SIGN PANEL, REMOVE, UP TO 12 SF	EA																		
706-3	REFLECTIVE PAVEMENT MARKER (F&I) YELLOW/YELLOW (Y/Y)	EA	26		54		40		52		60		58		74		364			
	WHITE/RED (W/R)	EA					15		19								34			
	(MONODIRECTIONAL YELLOW)	EA																		
711-11-123	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR CROSSWALK, 12"	LF	105													105				
711-11-125	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR STOP LINE OR CROSSWALK, 24"	LF	17				12		99		53		60		20		261			
711-11-141	THERMOPLASTIC, STD., WHITE, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM	0.01				0.03		0.05		0.03		0.04		0.02		0.18			
711-11-241	THERMOPLASTIC, STD., YELLOW, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM			0.05		0.08													
711-11-170	THERMOPLASTIC PAVEMENT MARKINGS, ARROWS	EA					4		6		4		4		4		22			
711-11-224	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, FOR DIAGONAL OR CHEVRON, 18"	LF			44		32		70						78		224			
711-14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE OR SYMBOL (BIKE)	EA	2				1		1				2				6			
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW (BIKE THRU)	EA	2				1		1				2				6			
711-16-101	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID, 6"	GM	0.17		0.21		0.24		0.21		0.19		0.18		0.21		1.41			
711-16-201	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, 6"	GM	0.19		0.29		0.23		0.23		0.21		0.21		0.26		1.62			
711-16-231	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, 10'-30' SKIP, 6"	GM							0.02		0.21		0.02		0.17		0.42			

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BAHRAM K. JOULAE, P.E.
P.E. LICENSE NUMBER 74041
LTG ENGINEERING & PLANNING
1450 WEST GRANADA BOULEVARD, SUITE 2
ORMOND BEACH, FLORIDA 32174
CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

TABULATION OF QUANTITIES (4)

SHEET NO.
S-5

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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL			
			S-37		S-38		S-39		S-40		S-41		S-42		S-43		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
700-1-11	SINGLE POST SIGN (FURNISHED & INSTALLED, GROUND MOUNTED) (UP TO 12 SF) W2-1, W-16-8P, R3-17, R3-17AP, R3-17BP	AS										2				2				
700-1-50	SINGLE POST SIGN (RELOCATE)	AS	1		1							1				3				
700-1-60	SINGLE POST SIGN (REMOVE)	AS																		
700-3-601	SIGN PANEL, REMOVE, UP TO 12 SF	EA																		
706-3	REFLECTIVE PAVEMENT MARKER (F&I)																			
	YELLOW/YELLOW (Y/Y)	EA	30		64		28		42		42		12		50		268			
	WHITE/RED (W/R)	EA									13		11				24			
	(MONODIRECTIONAL YELLOW)	EA																		
711-11-123	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR CROSSWALK, 12"	LF																		
711-11-125	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR STOP LINE OR CROSSWALK, 24"	LF	21		25								25				71			
711-11-141	THERMOPLASTIC, STD., WHITE, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM	0.03								0.04		0.02				0.09			
711-11-241	THERMOPLASTIC, STD., YELLOW, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM	0.04		0.02												0.06			
711-11-170	THERMOPLASTIC PAVEMENT MARKINGS, ARROWS	EA	5								6		4				15			
711-11-224	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, FOR DIAGONAL OR CHEVRON, 18"	LF	15		245				40		58				85		443			
711-14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE OR SYMBOL (BIKE)	EA	2		1				2		1		1				7			
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW (BIKE THRU)	EA	2		1		1		1		1		1				7			
711-16-101	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID, 6"	GM	0.29		0.18		0.21		0.21		0.25		0.09		0.14		1.37			
711-16-201	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, 6"	GM	0.19		0.37		0.21		0.29		0.25		0.08		0.27		1.66			
711-16-231	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, 10'-30' SKIP, 6"	GM																		

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BAHRAM K. JOULAE, P.E.
P.E. LICENSE NUMBER 74041
LTG ENGINEERING & PLANNING
1450 WEST GRANADA BOULEVARD, SUITE 2
ORMOND BEACH, FLORIDA 32174
CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

TABULATION OF QUANTITIES (5)

SHEET NO.
S-6

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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL		
			S-44		S-45		S-46								PLAN	FINAL	PLAN	FINAL	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL					
700-1-11	SINGLE POST SIGN (FURNISHED & INSTALLED, GROUND MOUNTED) (UP TO 12 SF) W2-1, W-16-8P, R3-17, R3-17AP, R3-17BP	AS																10	
700-1-50	SINGLE POST SIGN (RELOCATE)	AS			1												1	28	
700-1-60	SINGLE POST SIGN (REMOVE)	AS	1		1												2	8	
700-3-601	SIGN PANEL, REMOVE, UP TO 12 SF	EA	1		1												2	8	
706-3	REFLECTIVE PAVEMENT MARKER (F&I)																		
	YELLOW/YELLOW (Y/Y)	EA	20		48		44										112	1337	
	WHITE/RED (W/R)	EA	13		17												30	230	
	(MONODIRECTIONAL YELLOW)	EA																	
711-11-123	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR CROSSWALK, 12"	LF																243	
711-11-125	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID FOR STOP LINE OR CROSSWALK, 24"	LF																464	
711-11-141	THERMOPLASTIC, STD., WHITE, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM																0.49	
711-11-241	THERMOPLASTIC, STD., YELLOW, 2'-4' DOTTED GUIDELINE/ 6'-10' GAP EXTENSION, 6"	GM																0.08	
711-11-170	THERMOPLASTIC PAVEMENT MARKINGS, ARROWS	EA	3		4												7	53	
711-11-224	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, FOR DIAGONAL OR CHEVRON, 18"	LF	4		60		32										96	938	
711-14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE OR SYMBOL (BIKE)	EA																32	
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW (BIKE THRU)	EA																32	
711-16-101	THERMOPLASTIC PAVEMENT MARKINGS, STD. WHITE, SOLID, 6"	GM	0.17		0.27		0.12										0.56	7.09	
711-16-201	THERMOPLASTIC PAVEMENT MARKINGS, STD. YELLOW, SOLID, 6"	GM	0.14		0.25		0.23										0.62	8.02	
711-16-231	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, 10'-30' SKIP, 6"	GM																0.42	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BAHRAM K. JOULAE, P.E.
P.E. LICENSE NUMBER 74041
LTG ENGINEERING & PLANNING
1450 WEST GRANADA BOULEVARD, SUITE 2
ORMOND BEACH, FLORIDA 32174
CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY
DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

TABULATION OF QUANTITIES (6)

SHEET NO.
S-7

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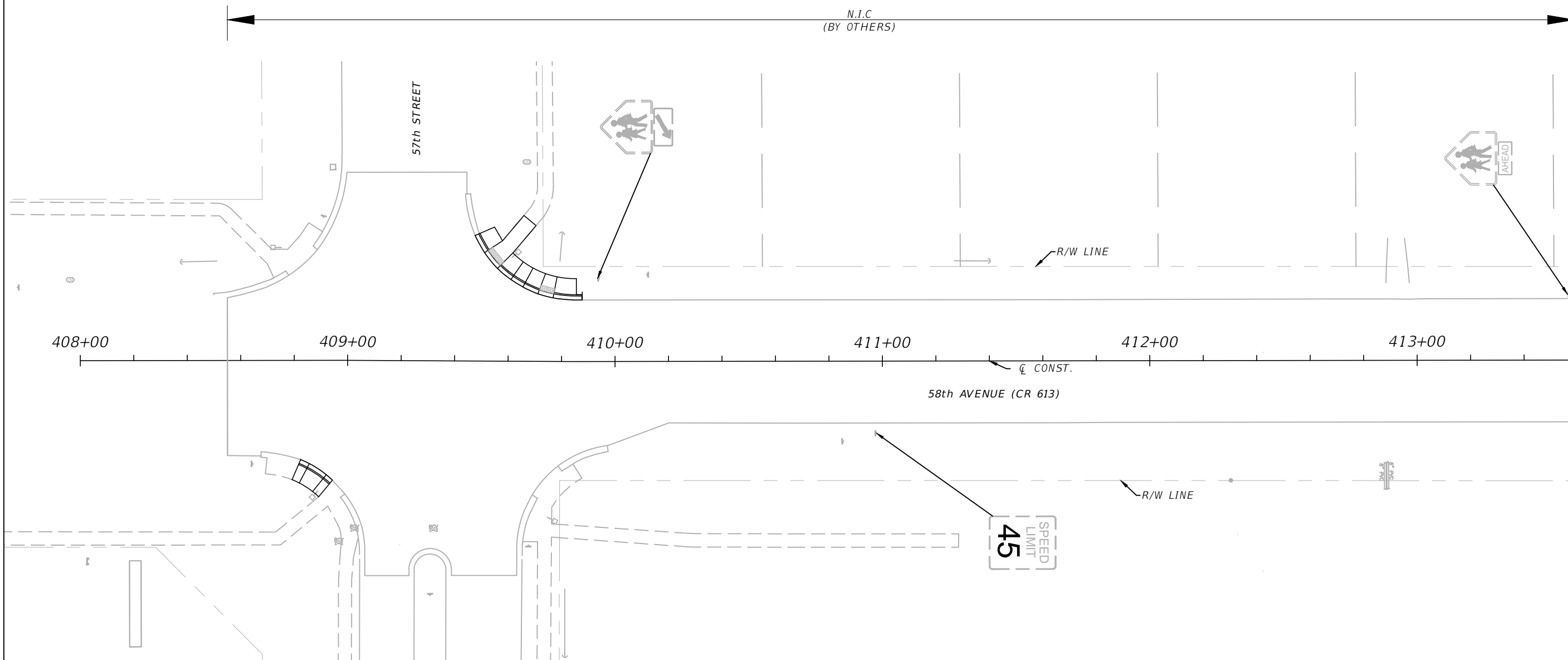
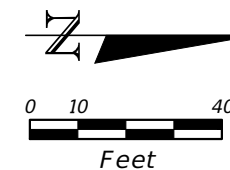
SIGNING AND PAVEMENT MARKINGS GENERAL NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE AND REPLACE ALL EXISTING SIGNS AND PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH THE CONSTRUCTION OPERATIONS. IF SIGNS ARE DAMAGED BY THE CONTRACTOR, THE SIGN SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
2. ALL EXISTING SIGNS ARE TO REMAIN UNLESS OTHERWISE NOTED ON THE PLANS.
3. ALL FINAL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED IN THE PLANS. PAINT WILL BE USED ON THE ON THE FRICTION COURSE DURING THE CURE PERIOD.
4. RECAP OR REFURBISH, AS APPROPRIATE, EXISTING PAVEMENT MARKINGS SHOWN AS PROPOSED WHICH ARE OUTSIDE THE LIMIT OF MILLING & RESURFACING.
5. UNLESS OTHERWISE NOTED ON PLANS, ALL CROSSWALKS ACROSS MAJOR STREETS SHALL BE 10' IN WIDTH AND ALL CROSSWALK ACROSS SIDE STREET SHALL BE 6' IN WIDTH. MEASUREMENTS SHALL BE FROM INSIDE TO INSIDE OF 12' STRIPES.
6. RECAP OR REFURBISH, AS APPROPRIATE, EXISTING PAVEMENT MARKINGS SHOWN AS PROPOSED WHICH ARE OUTSIDE THE LIMIT OF MILLING & RESURFACING.

PAY ITEM FOOT NOTE:

1. PAY ITEM 700-1-50 SINGLE POST SIGN, RELOCATE OF THE SIGN SHALL BE PLACED AS PER INDEX 17302, CASE II.

R E V I S I O N S				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		S-8
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

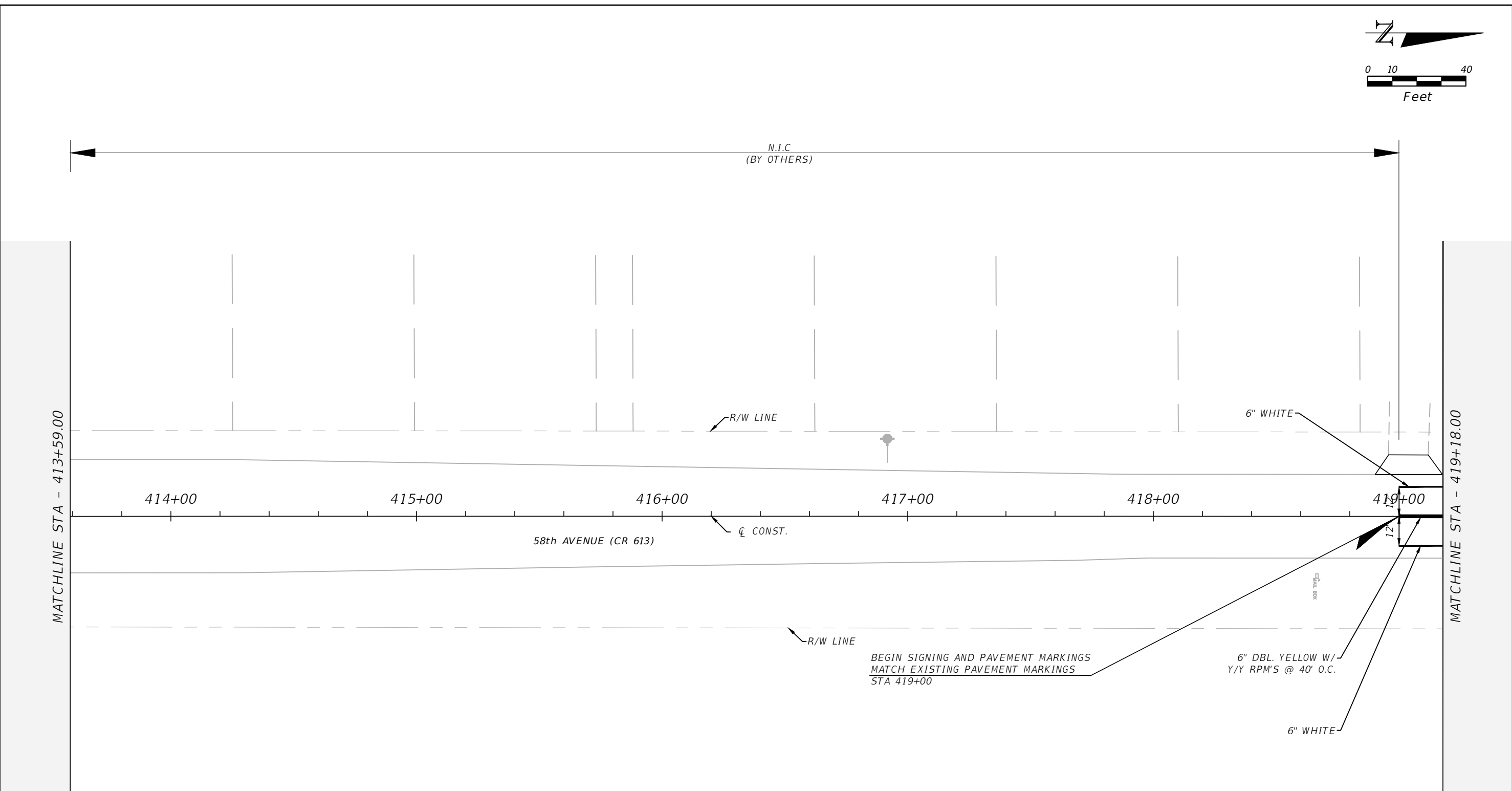
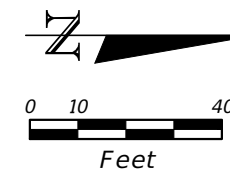
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-9

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

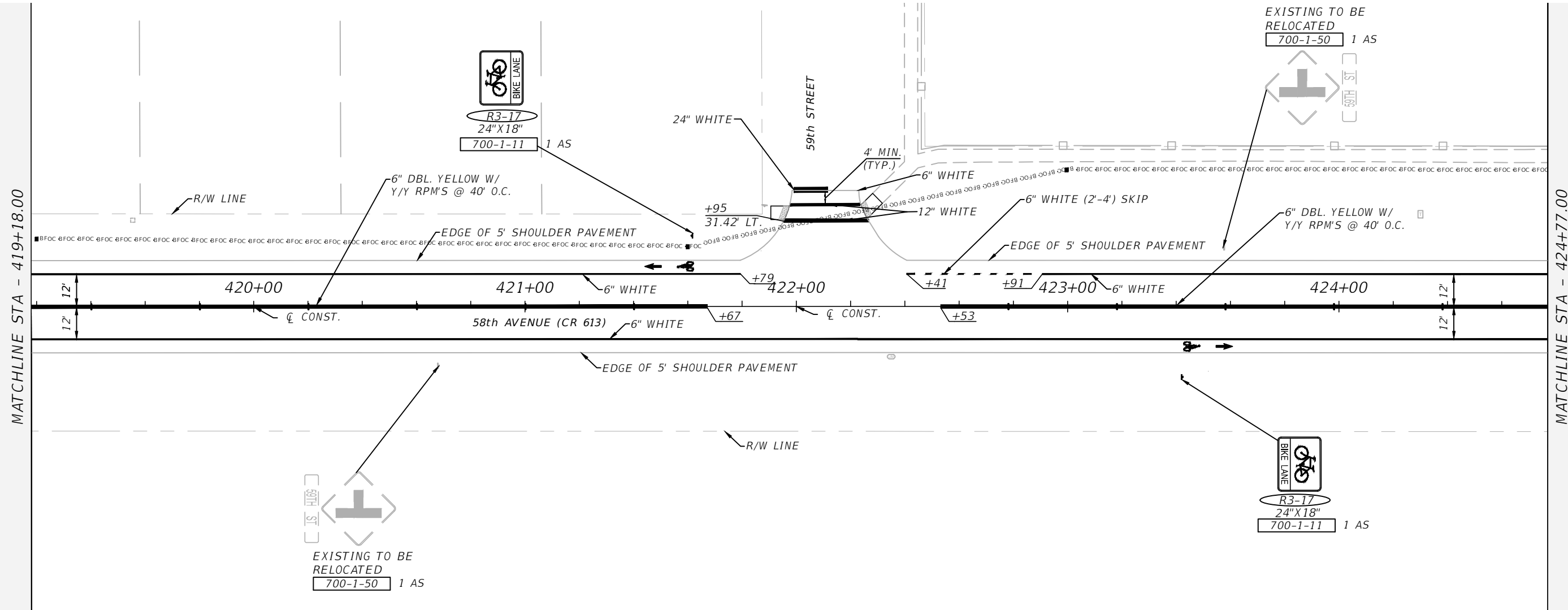
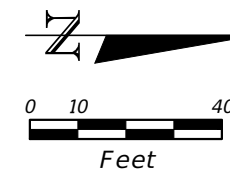
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-10

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MATCHLINE STA - 419+18.00

MATCHLINE STA - 424+77.00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

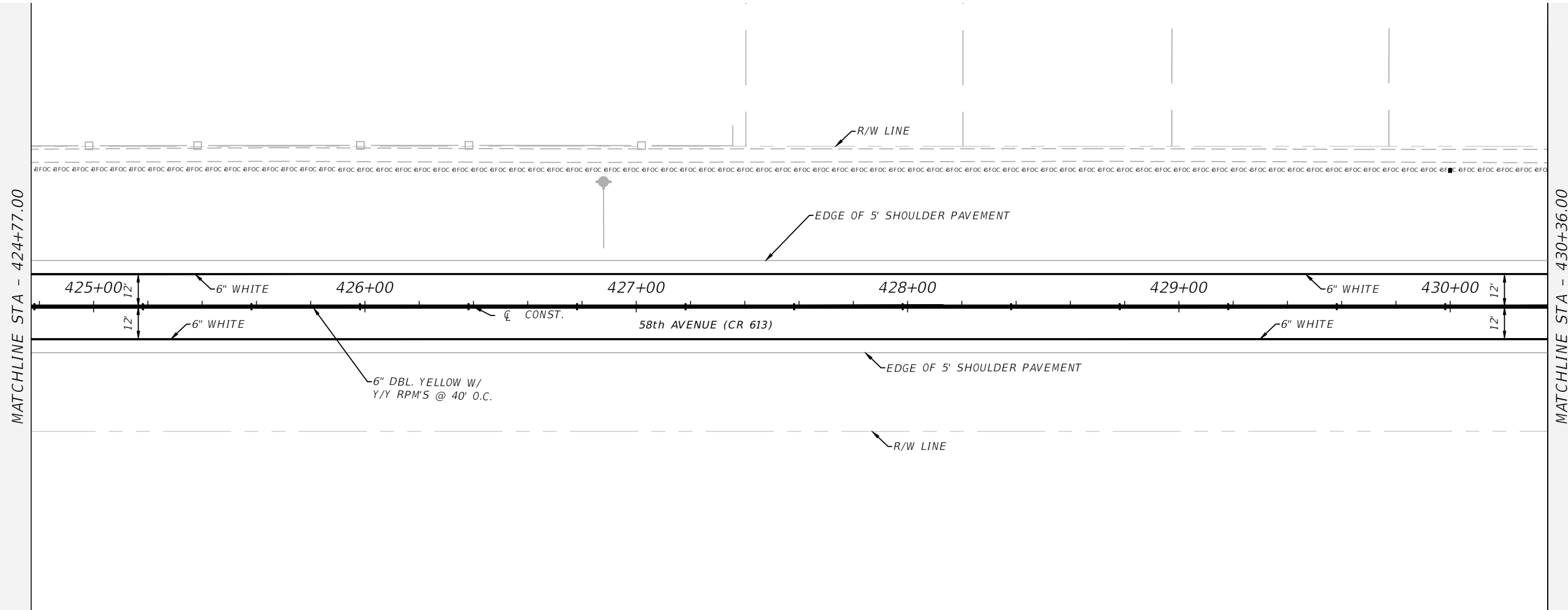
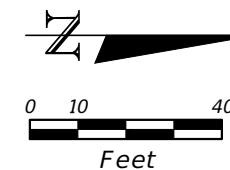
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-11

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MATCHLINE STA - 424+77.00

MATCHLINE STA - 430+36.00

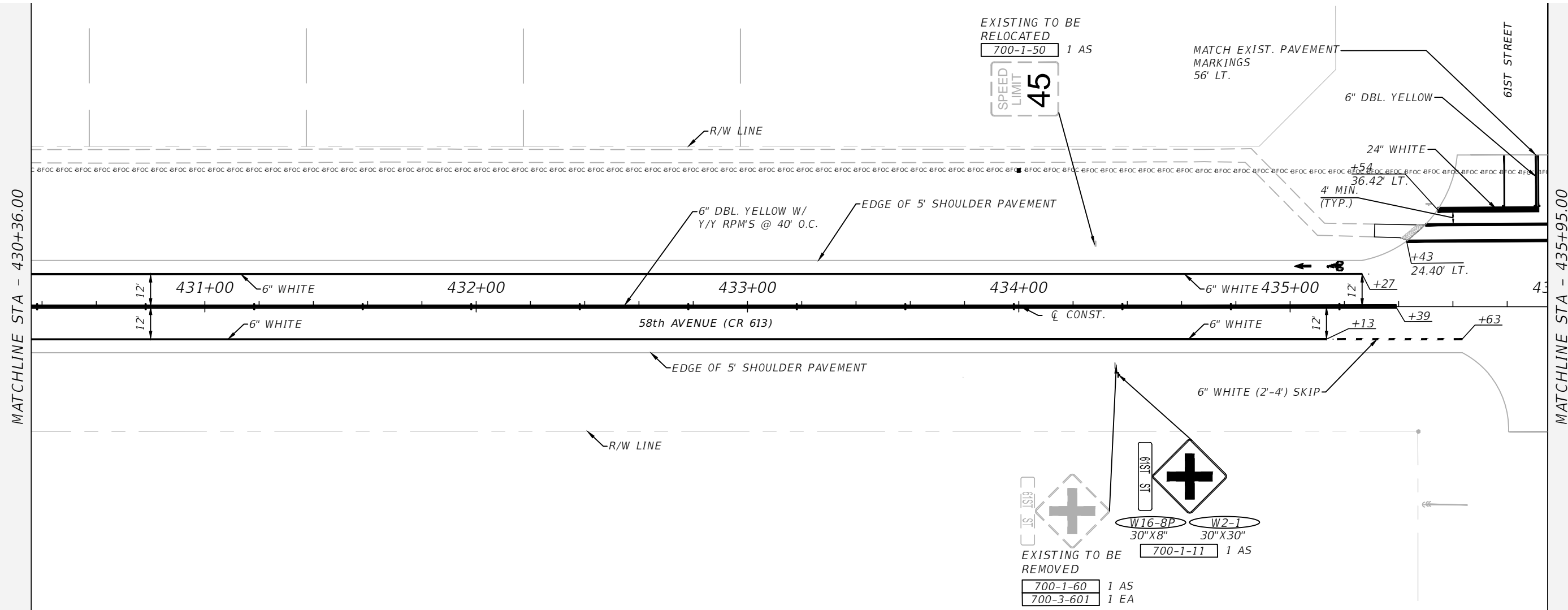
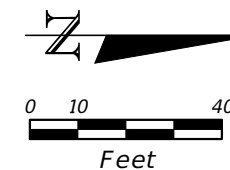
REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SIGNING & PAVEMENT MARKING PLANS-58TH AVE	SHEET NO. 5-12
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		

ALBERTO

8/13/2019 4:01 PM

X:\jobs\4300\4371.00\cad\43641615401\Signing\PLANS\00.dwg

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EXISTING TO BE REMOVED

700-1-60 1 AS
700-3-601 1 EA

EXISTING TO BE RELOCATED

700-1-50 1 AS

700-1-11 1 AS

W16-8P 30" X 8"
W2-1 30" X 30"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

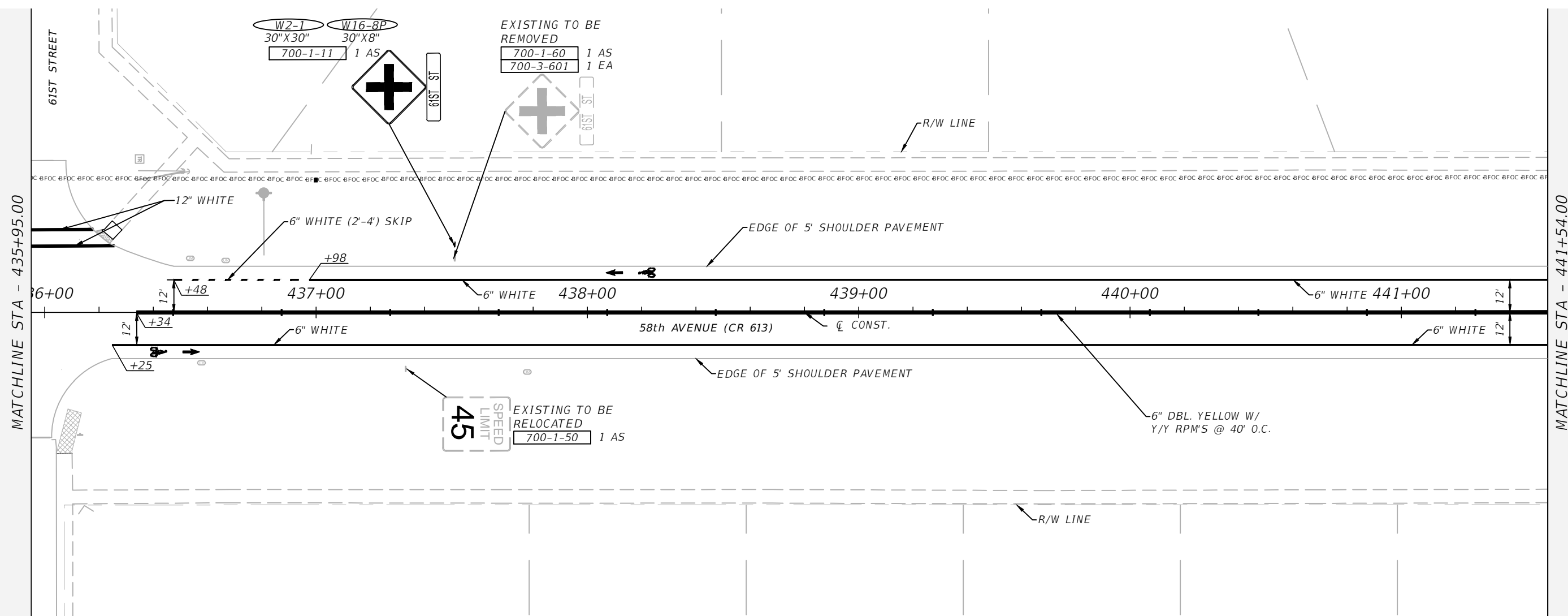
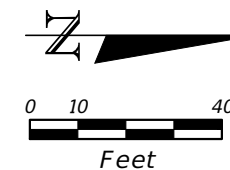
BAHRAM K. JOULAE, P.E.
P.E. LICENSE NUMBER 74041
LTG ENGINEERING & PLANNING
1450 WEST GRANADA BOULEVARD, SUITE 2
ORMOND BEACH, FLORIDA 32174
CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-13

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

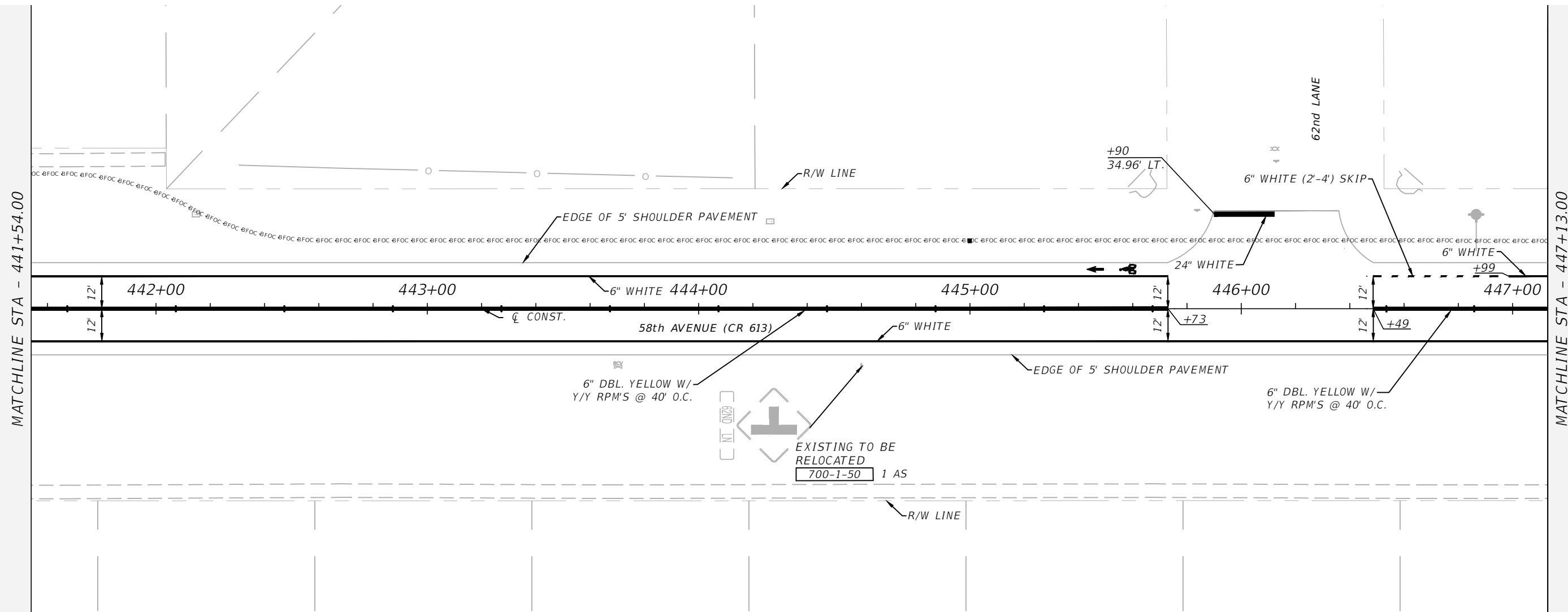
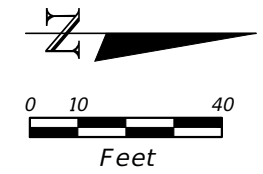
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
S-14

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

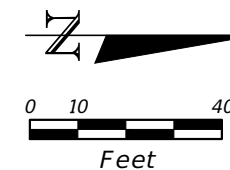
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

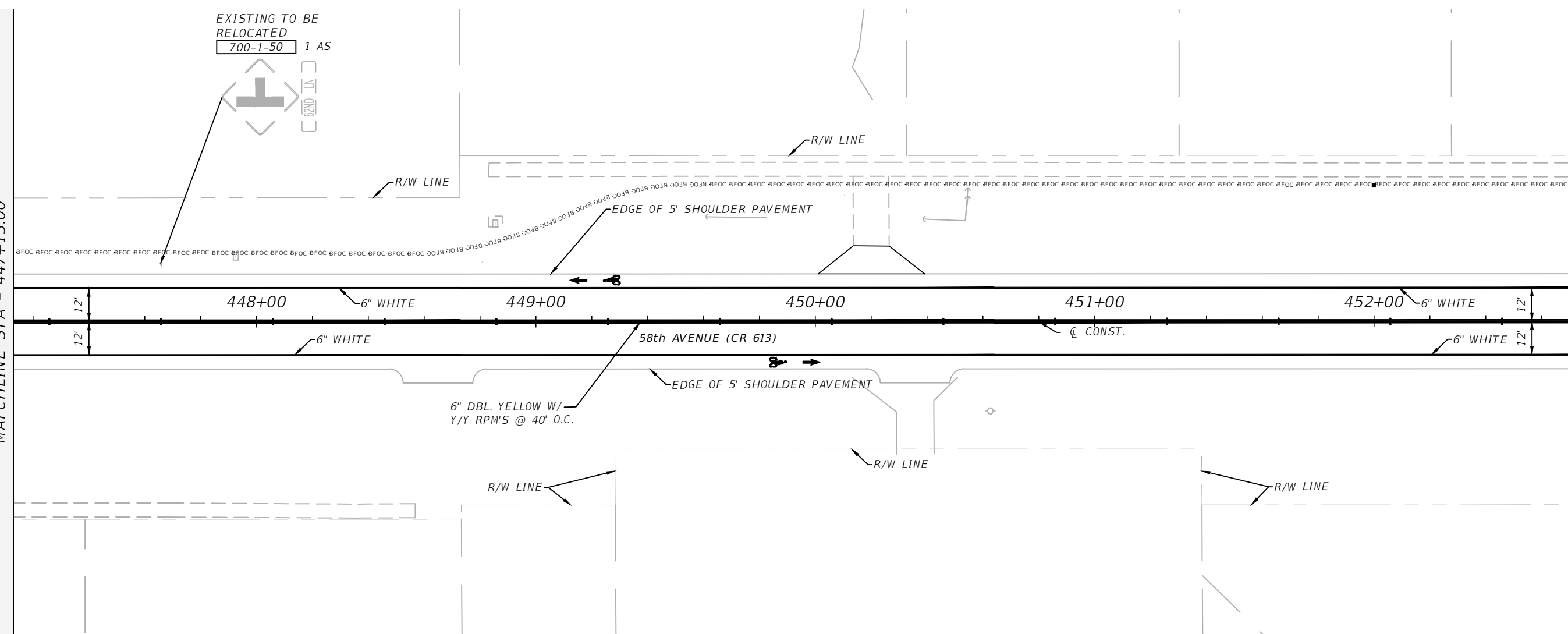
SHEET NO.
5-15

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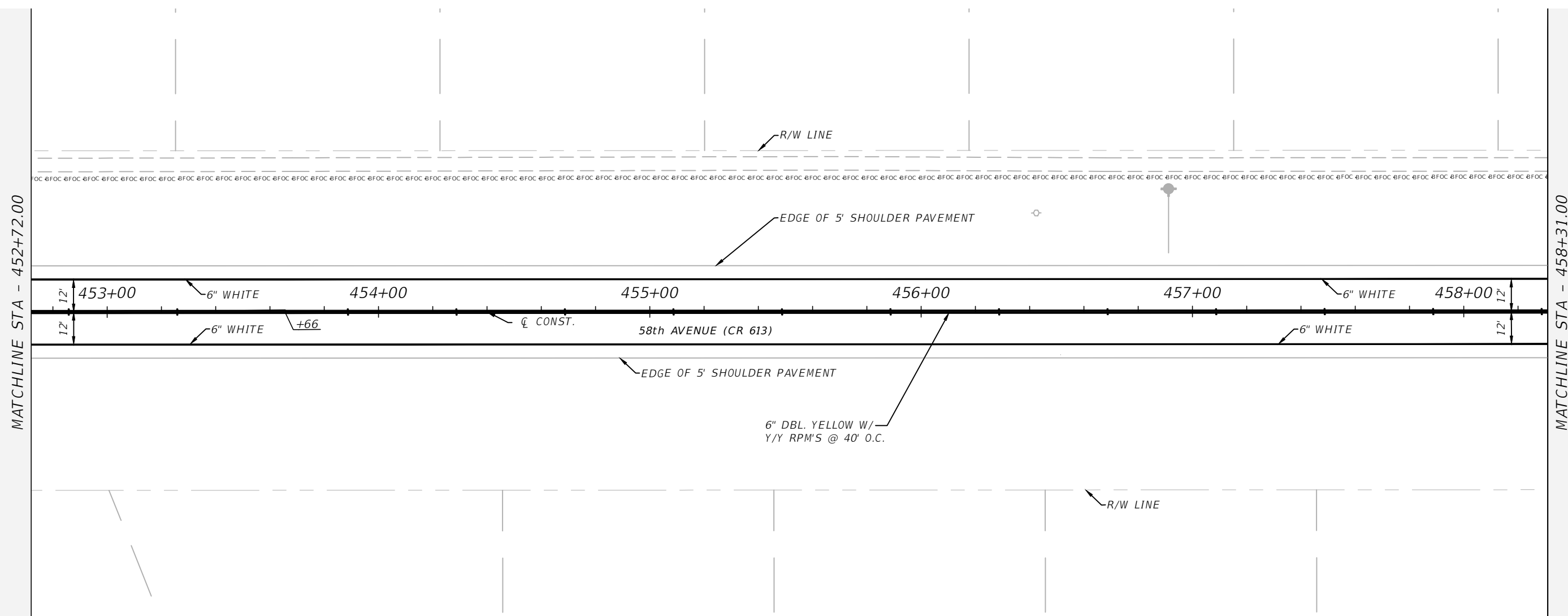
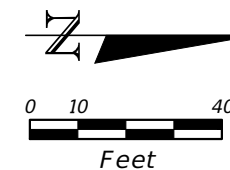
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MATCHLINE STA - 452+72.00



REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SIGNING & PAVEMENT MARKING PLANS-58TH AVE	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		5-16
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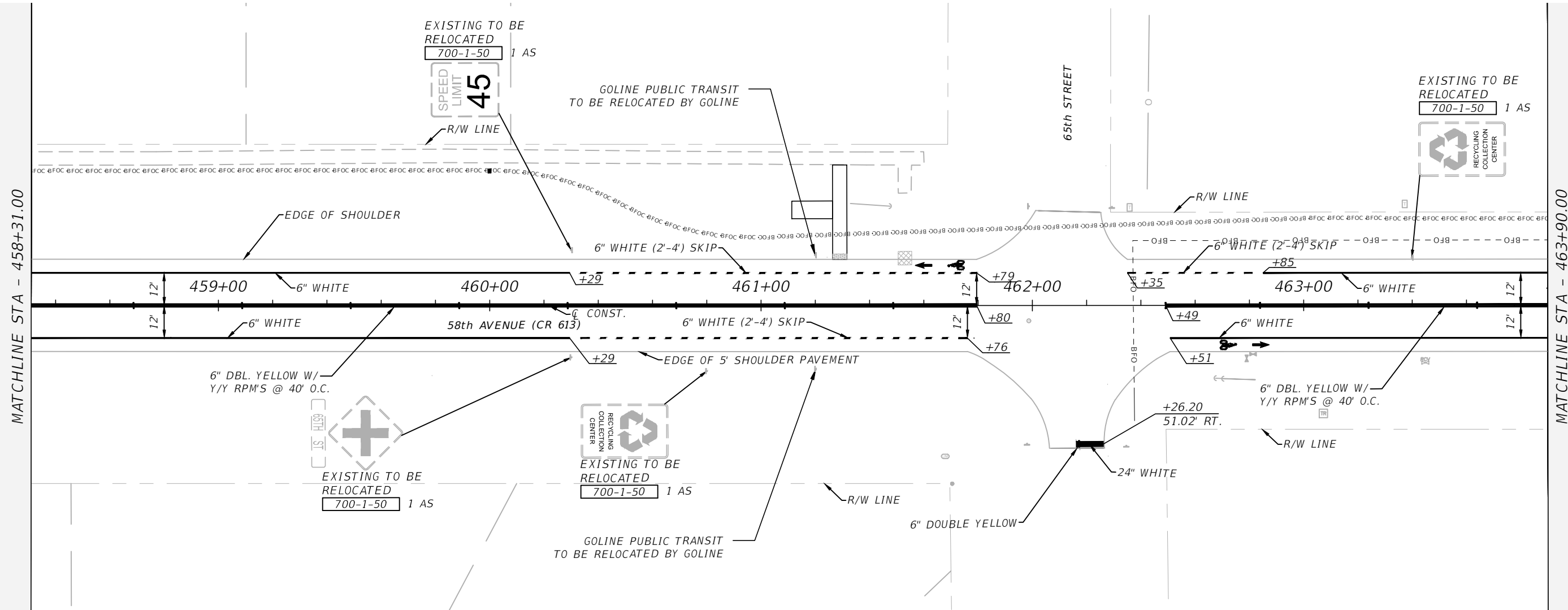
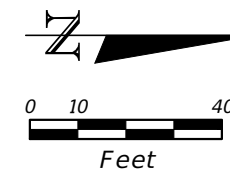
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MATCHLINE STA - 452+72.00

MATCHLINE STA - 458+31.00

REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SIGNING & PAVEMENT MARKING PLANS-58TH AVE	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		5-17
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

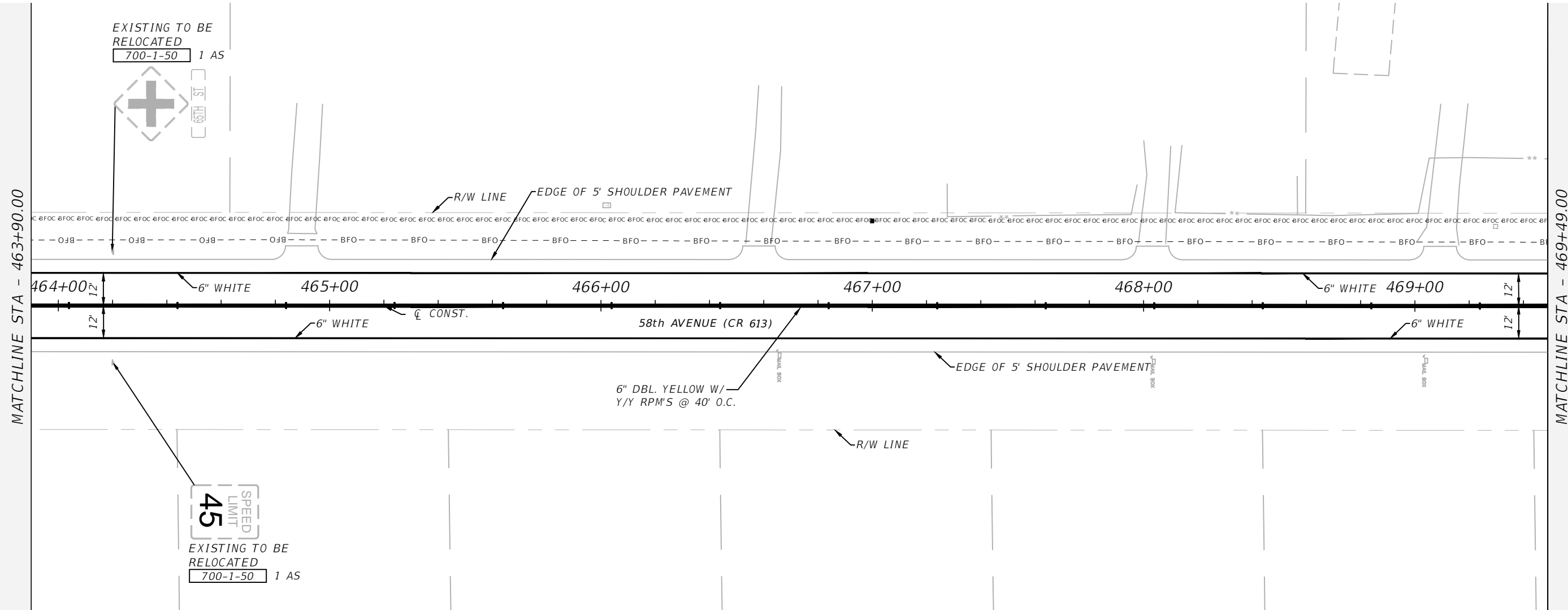
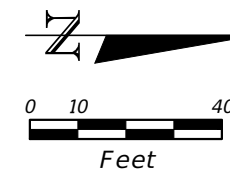
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-18

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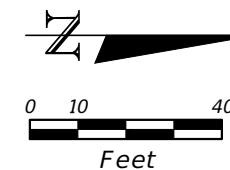


MATCHLINE STA - 463+90.00

MATCHLINE STA - 469+49.00

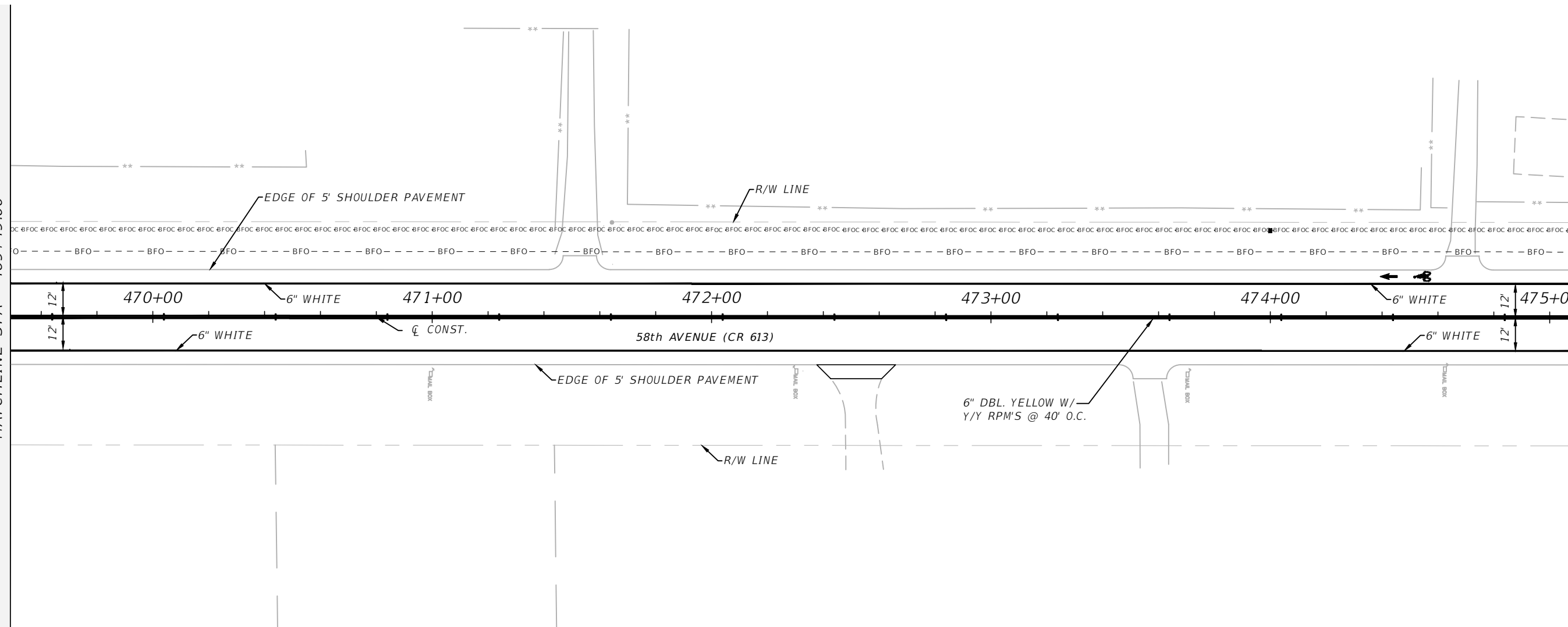
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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		

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MATCHLINE STA - 469+49.00

MATCHLINE STA - 475+08.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

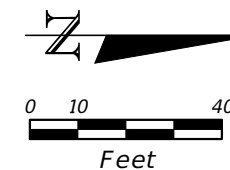
BAHRAM K. JOULAE, P.E.
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 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

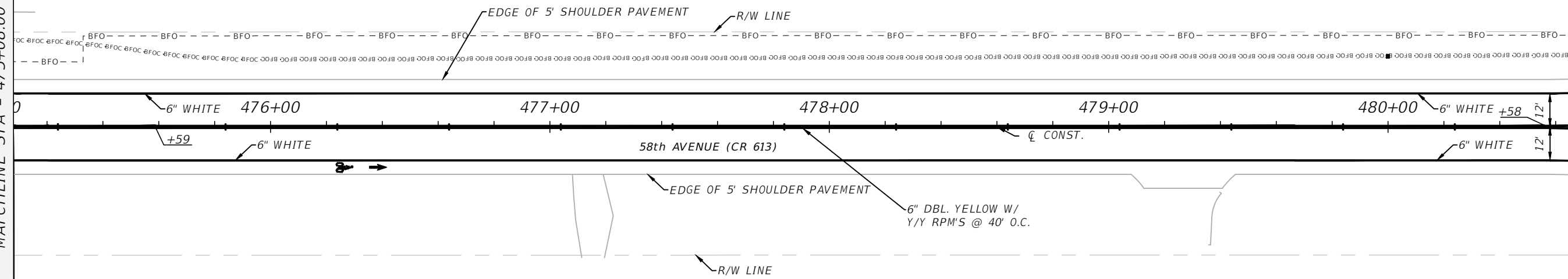
SHEET NO.
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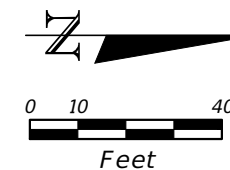
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MATCHLINE STA - 480+67.00



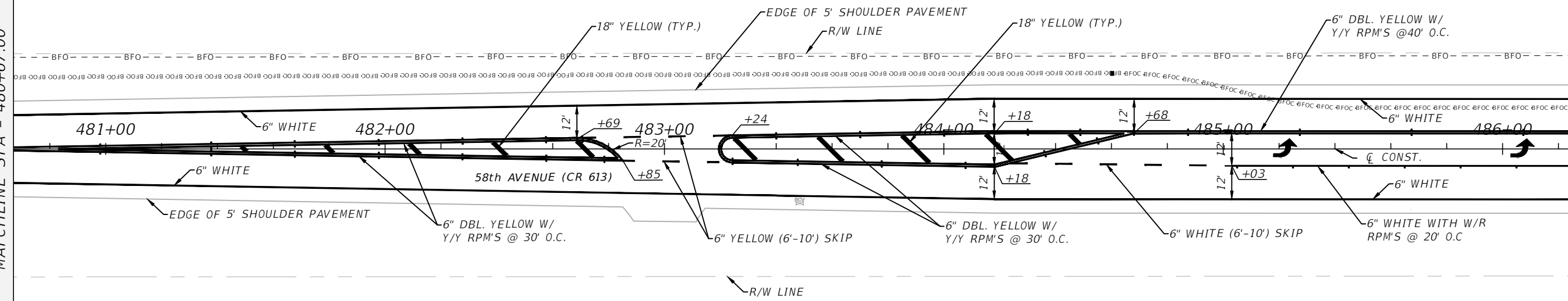
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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		5-21
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		

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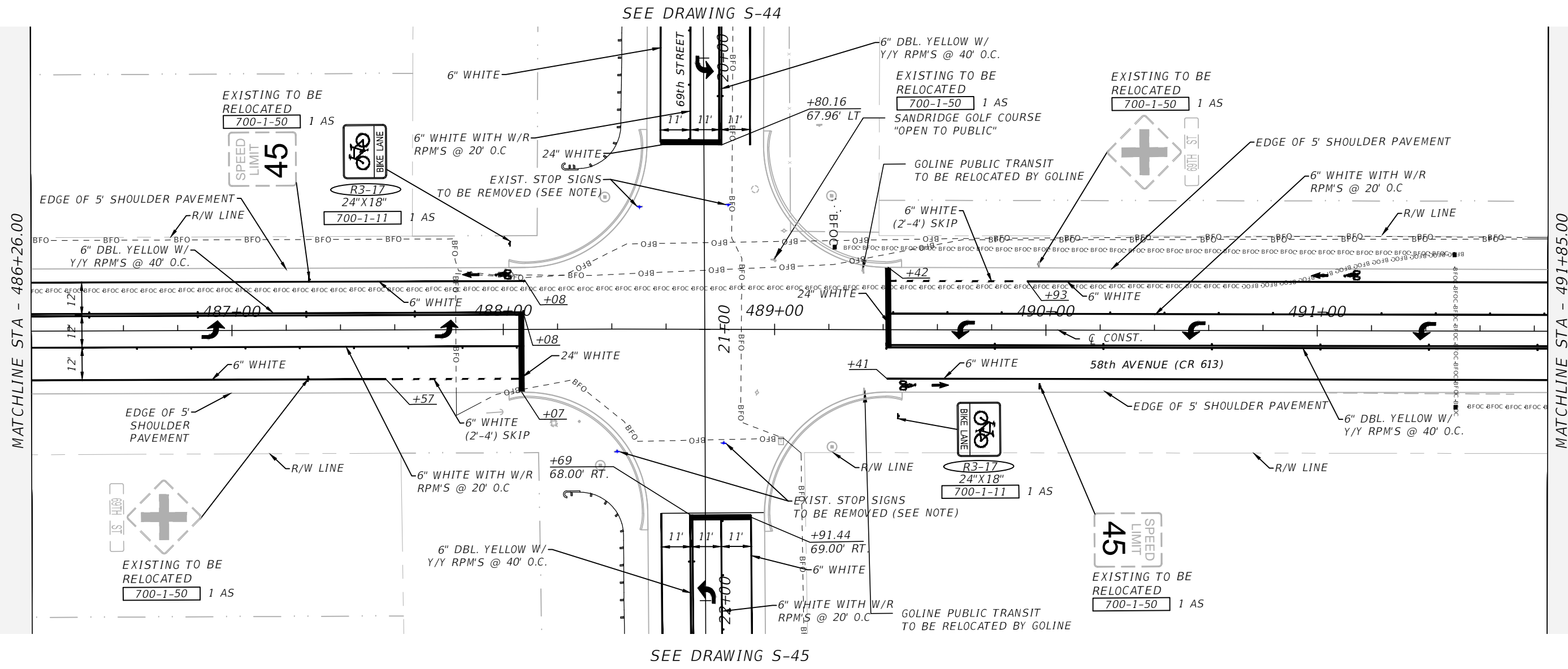
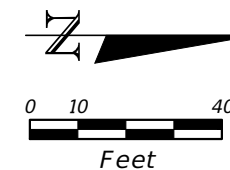
MATCHLINE STA - 480+67.00

MATCHLINE STA - 486+26.00



REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SIGNING & PAVEMENT MARKING PLANS-58TH AVE	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		5-22
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		

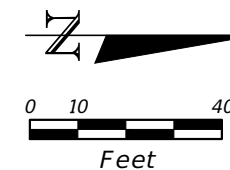
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NOTE:
 EXISTING STOP SIGN POSTS & PANELS SHALL BE REMOVED ONLY WHEN
 FLASHING MODES OF THE NEW TRAFFIC SIGNAL ARE OVER & FULLY
 ACCEPTED SIGNAL IS OPERATIONAL.

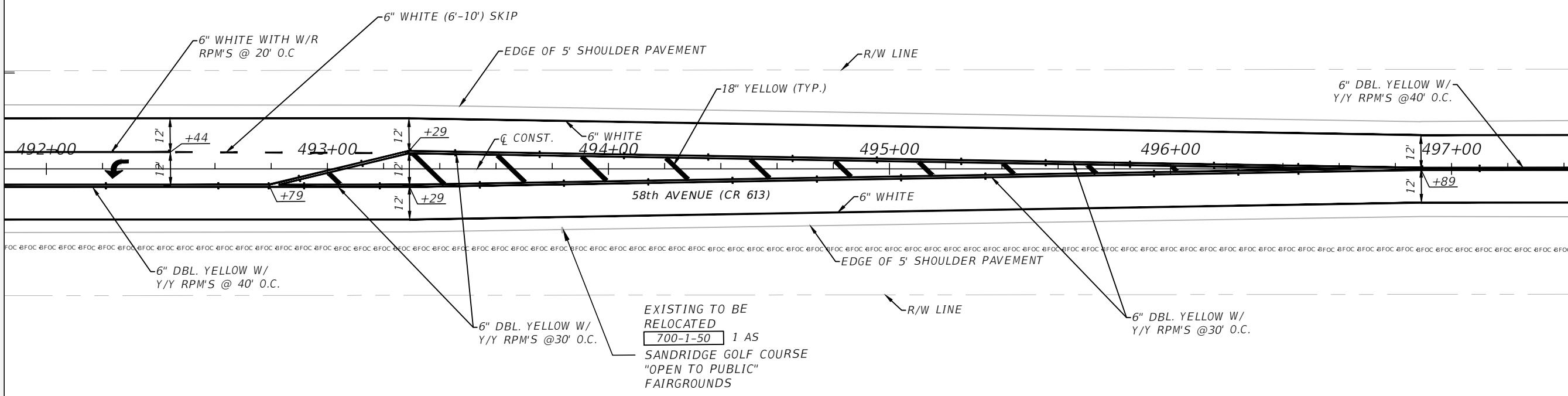
REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SHEET NO. 5-23
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		

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MATCHLINE STA - 491+85.00

MATCHLINE STA - 497+44.00



EXISTING TO BE RELOCATED
 700-1-50 1 AS
 SANDRIDGE GOLF COURSE
 "OPEN TO PUBLIC"
 FAIRGROUNDS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

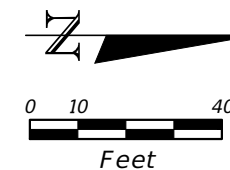
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

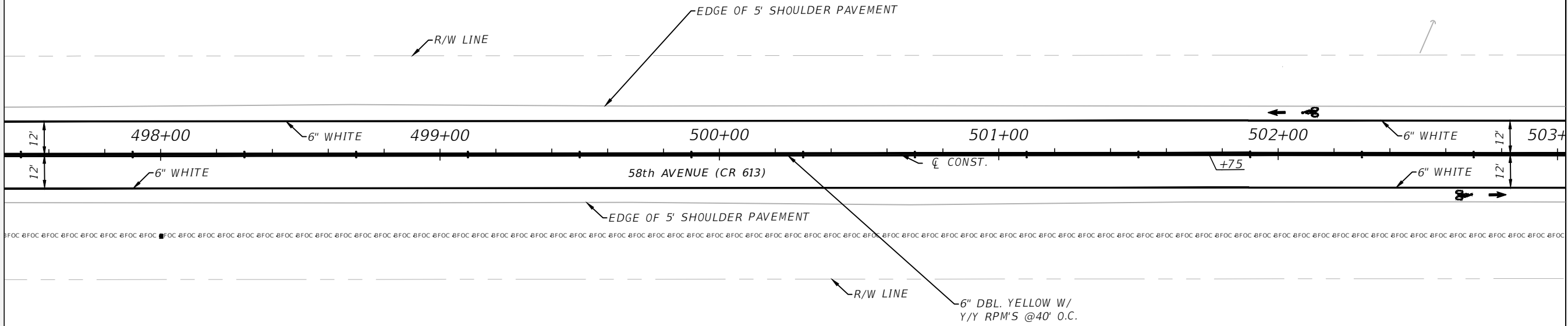
SHEET NO.
5-24

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MATCHLINE STA - 497+44.00

MATCHLINE STA - 503+03.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

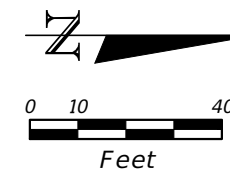
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

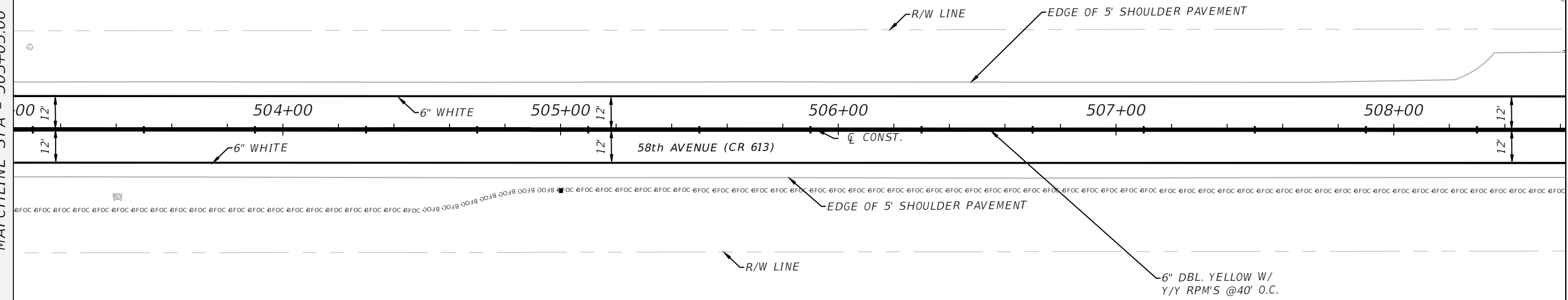
SHEET NO.
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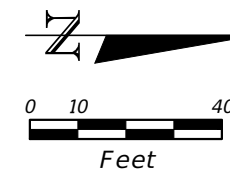
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MATCHLINE STA - 508+62.00



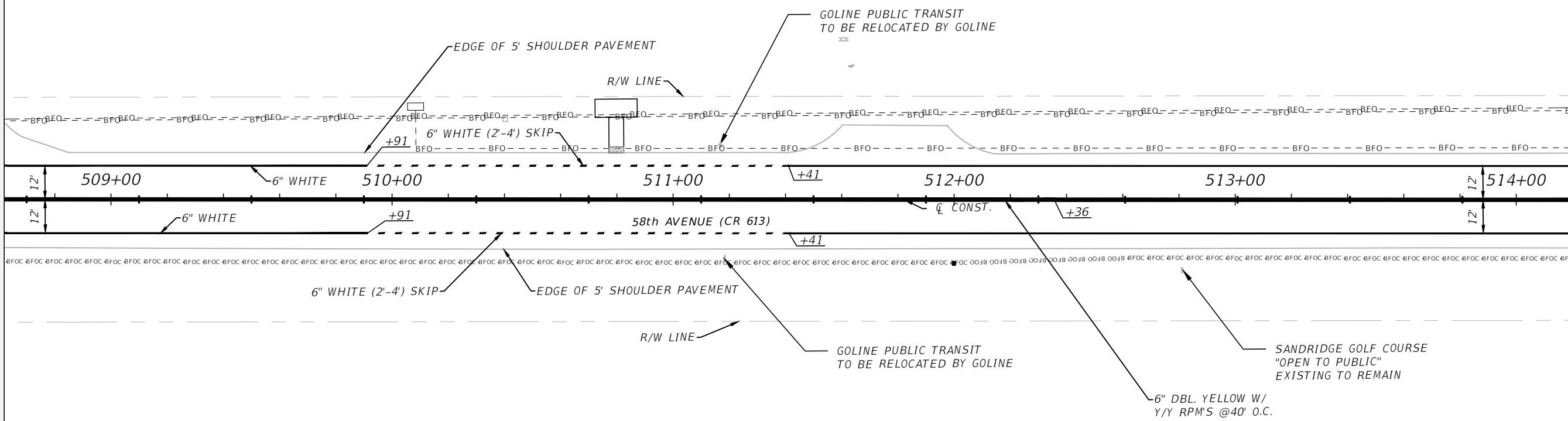
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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		5-26
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MATCHLINE STA - 508+62.00

MATCHLINE STA - 514+21.00



REVISIONS			
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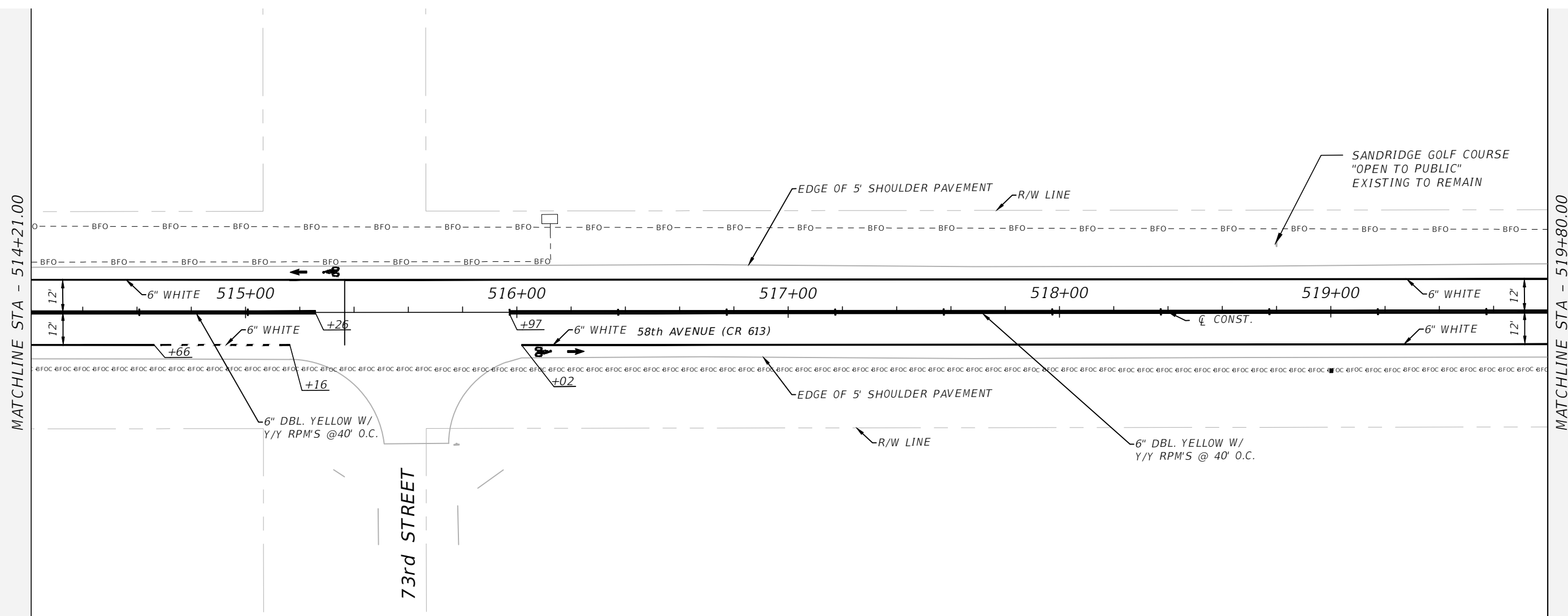
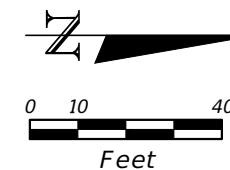
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
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 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-27

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

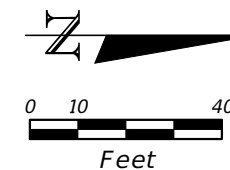
BAHRAM K. JOULAE, P.E.
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INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

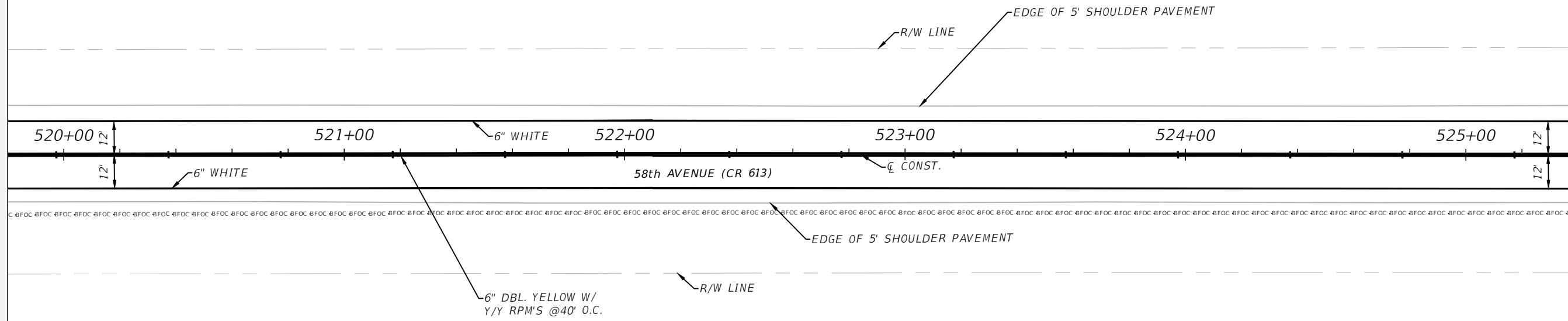
SHEET NO.
5-28

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MATCHLINE STA - 519+80.00

MATCHLINE STA - 525+39.00



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

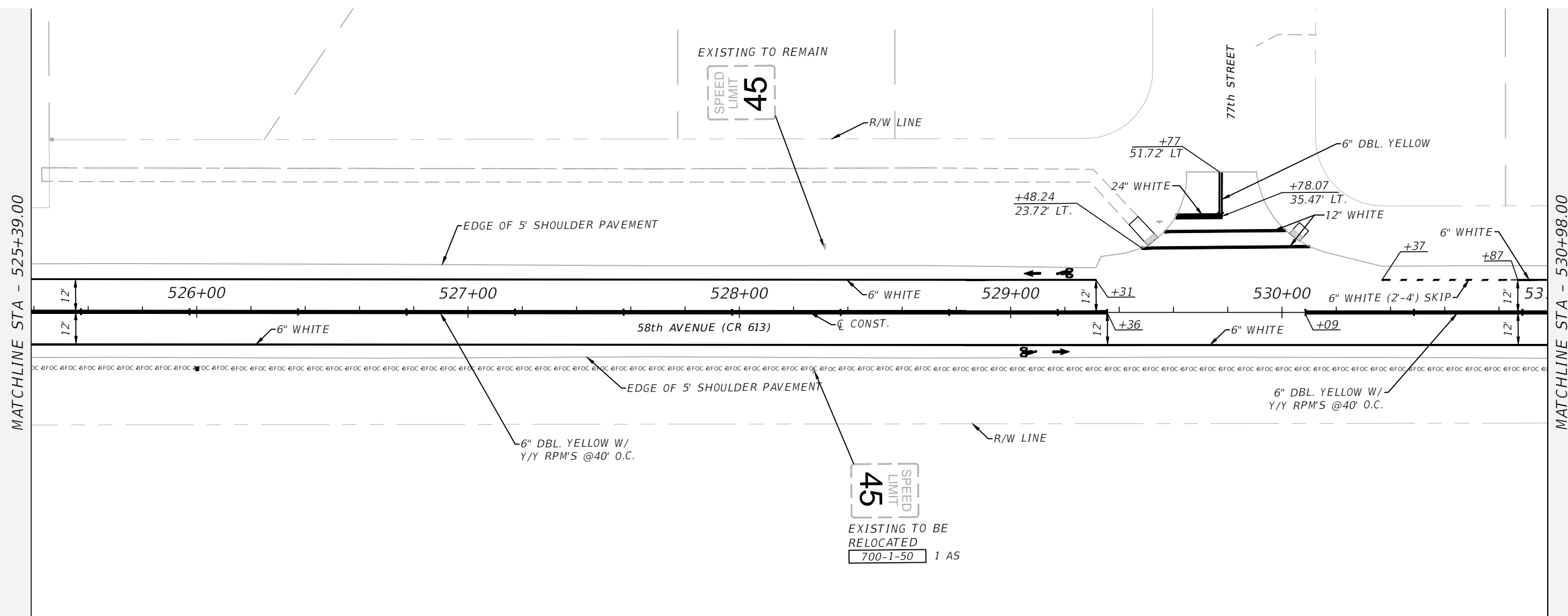
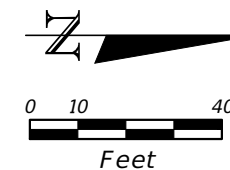
BAHRAM K. JOULAE, P.E.
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 1450 WEST GRANADA BOULEVARD, SUITE 2
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INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-29

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.



MATCHLINE STA - 525+39.00

MATCHLINE STA - 530+98.00

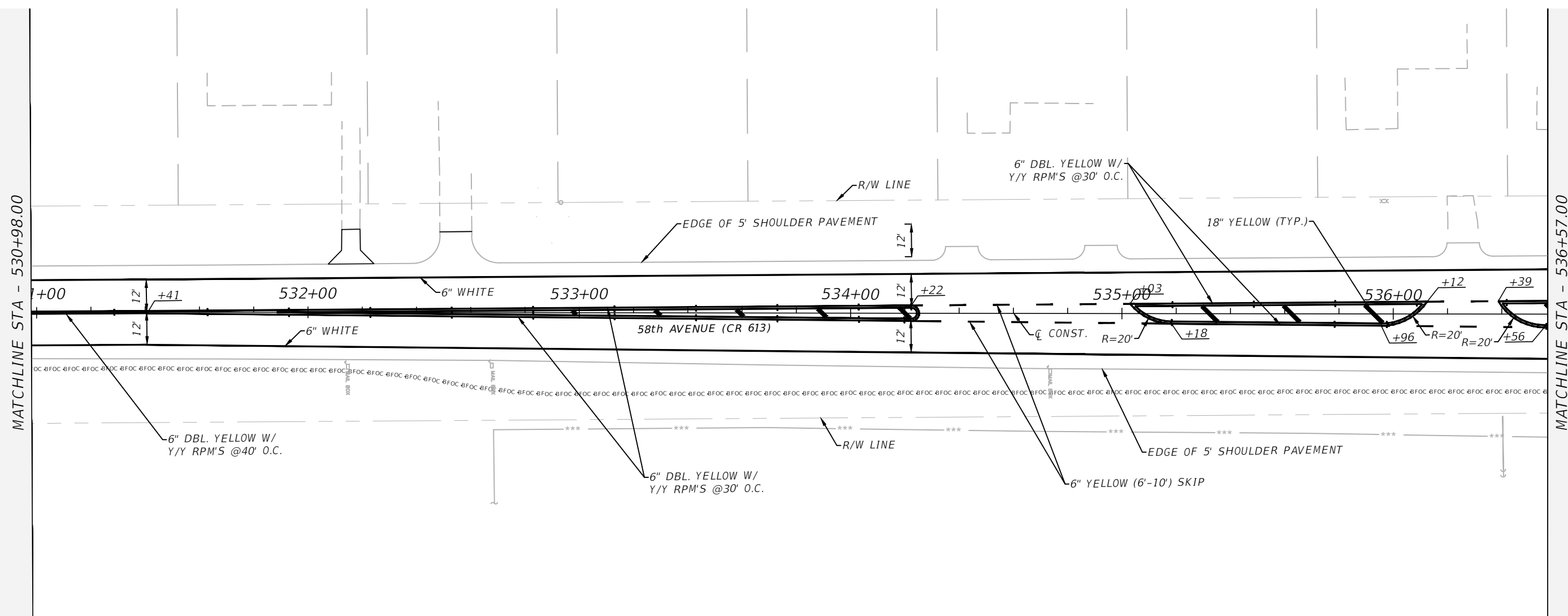
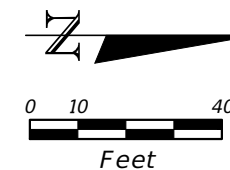
REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SIGNING & PAVEMENT MARKING PLANS-58TH AVE	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		5-30
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		

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REVISIONS			
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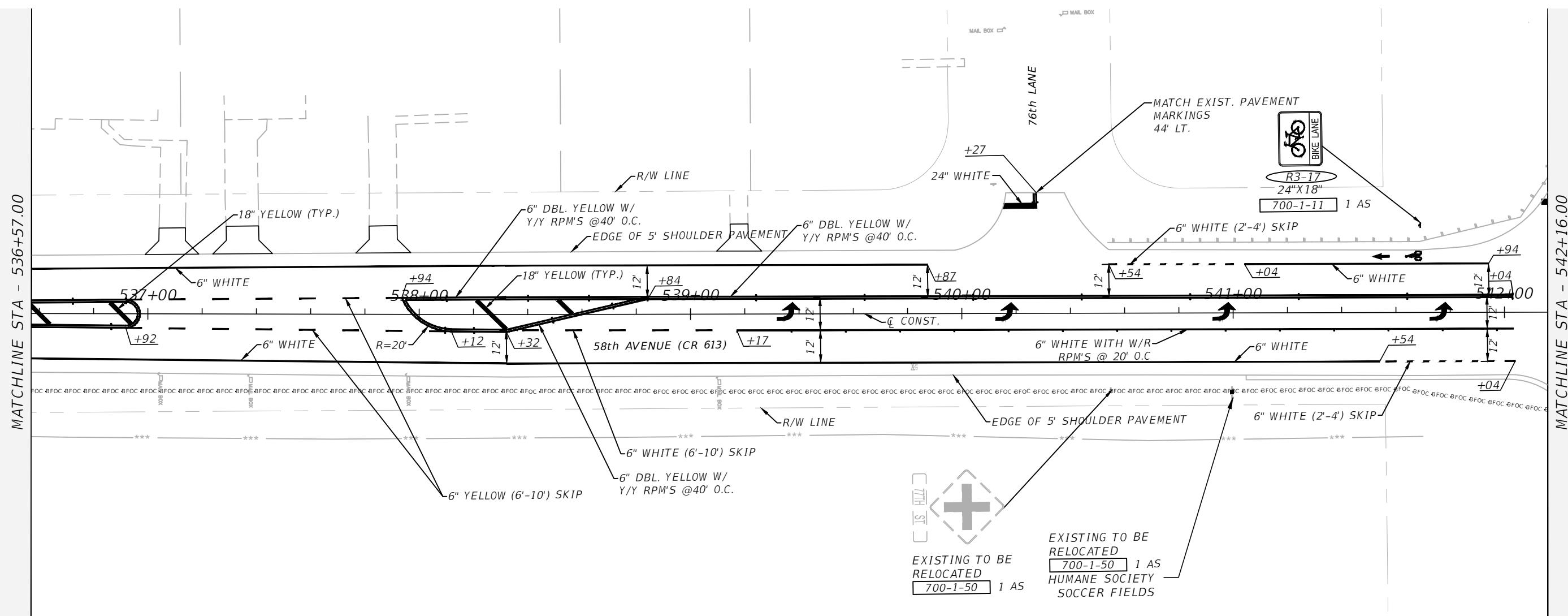
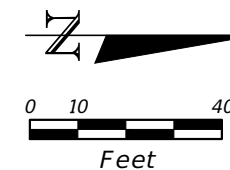
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
S-31

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

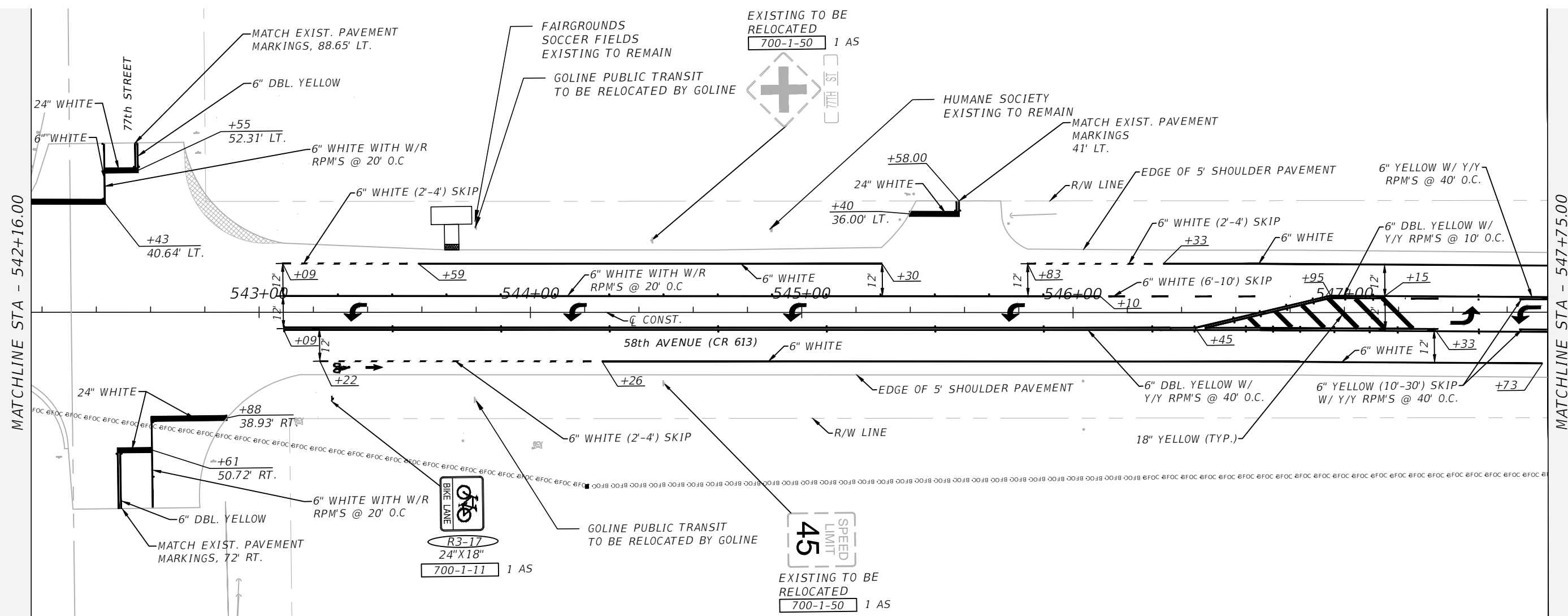
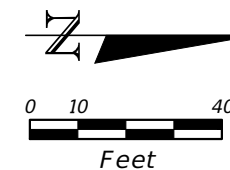
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

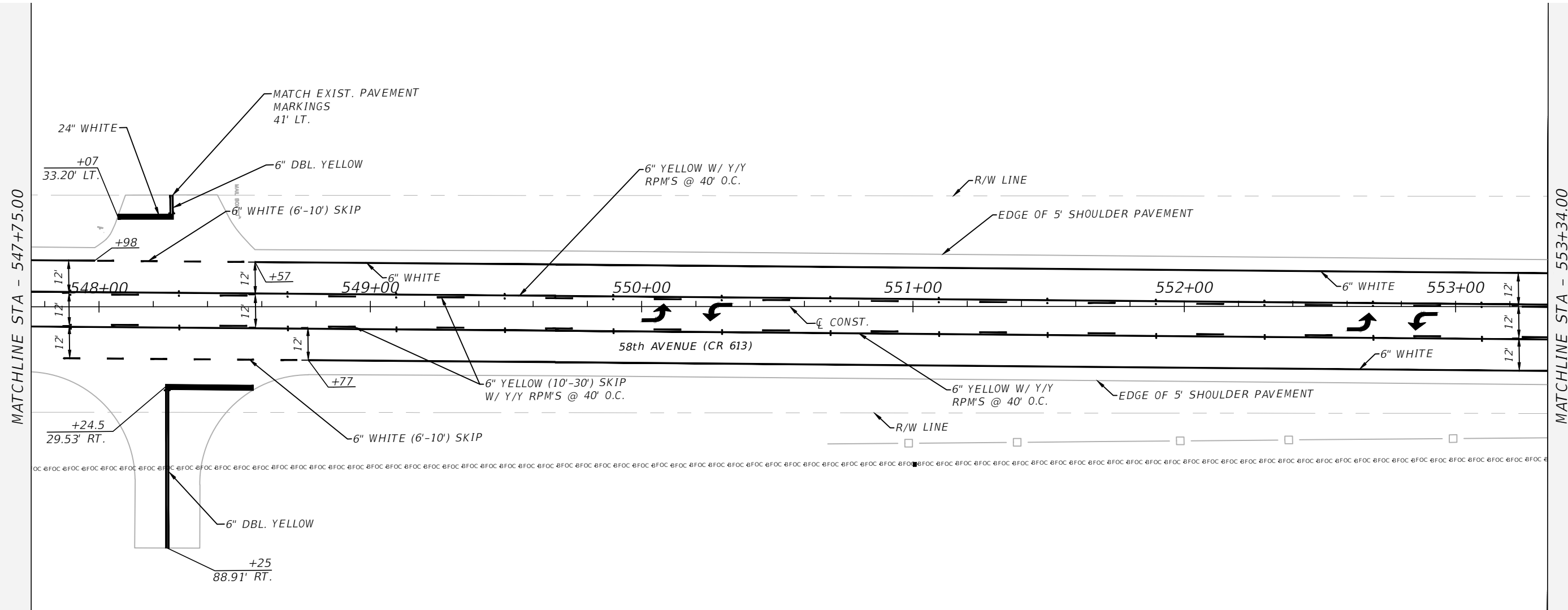
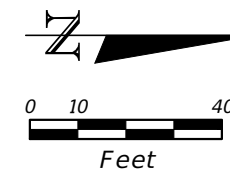
SHEET NO.
5-32

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

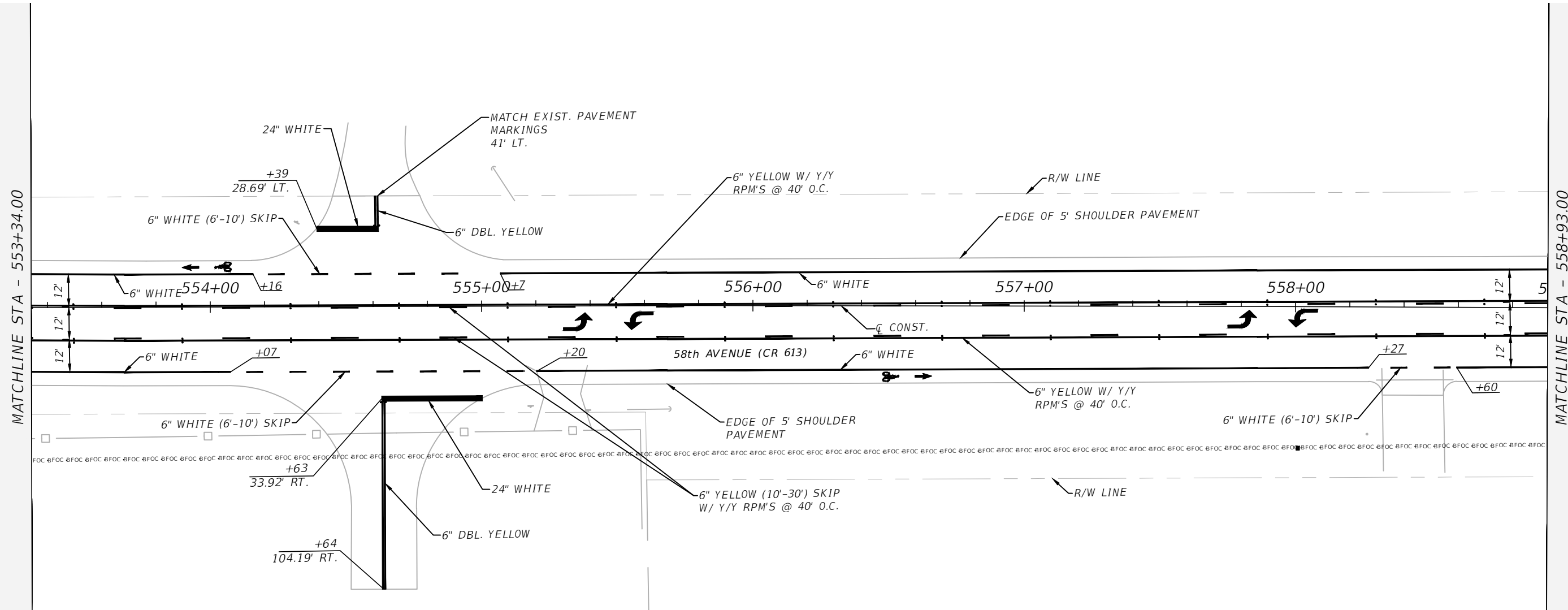
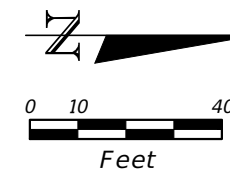
BAHRAM K. JOULAE, P.E.
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 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
S-34

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

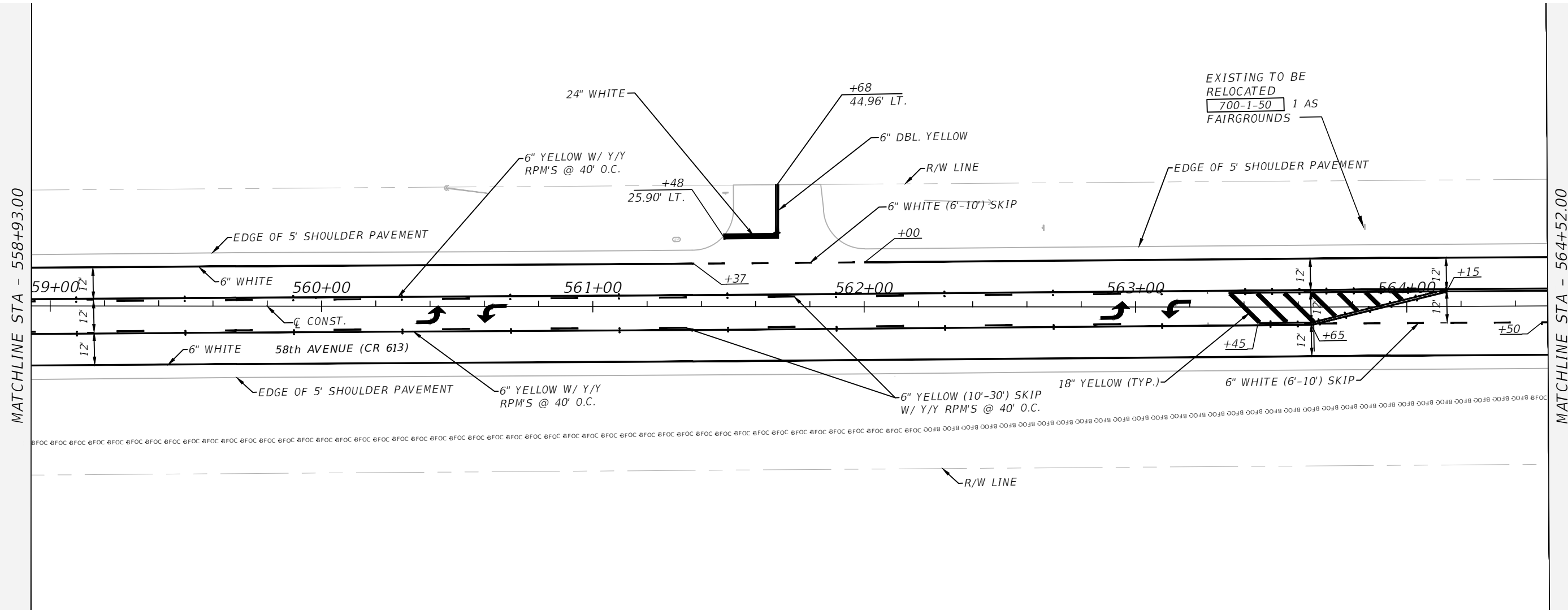
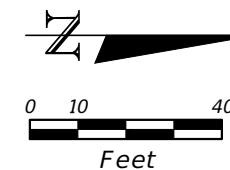
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
S-35

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.

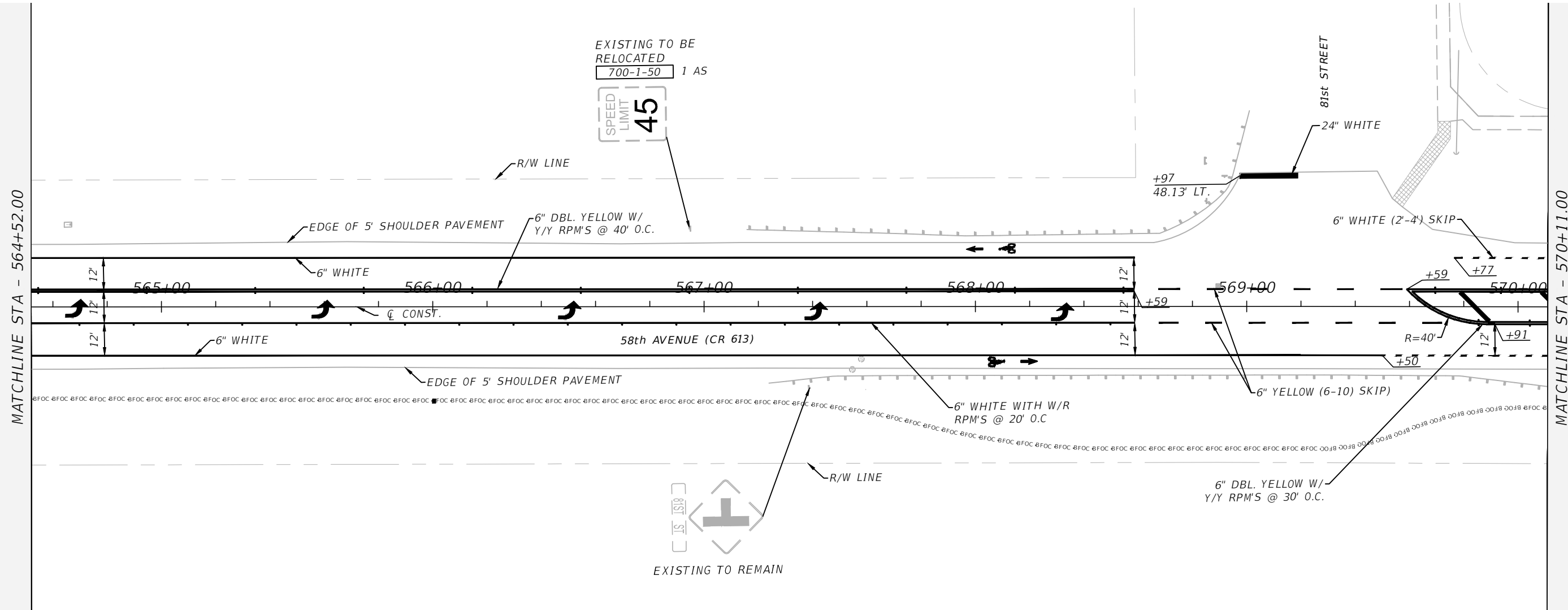
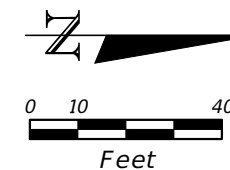


MATCHLINE STA - 558+93.00

MATCHLINE STA - 564+52.00

REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SIGNING & PAVEMENT MARKING PLANS-58TH AVE	SHEET NO. S-36
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

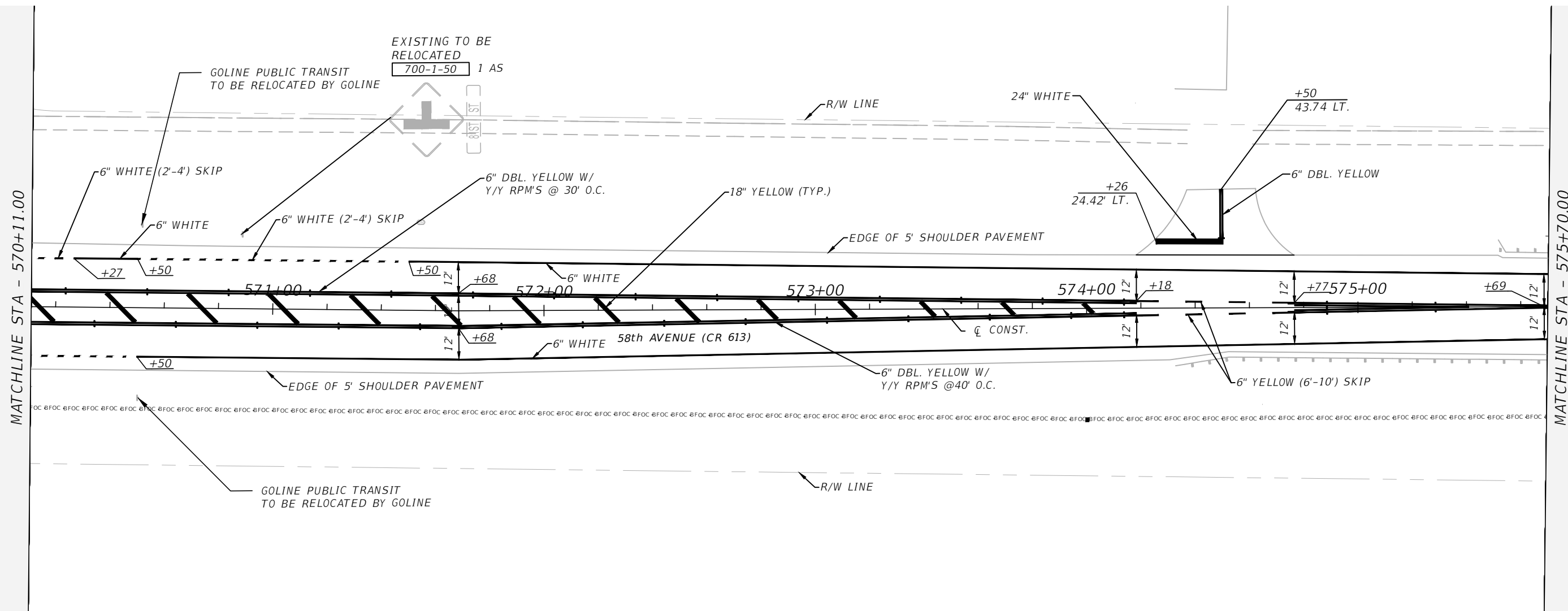
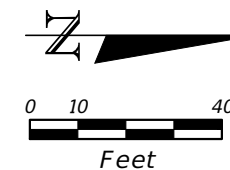
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-37

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

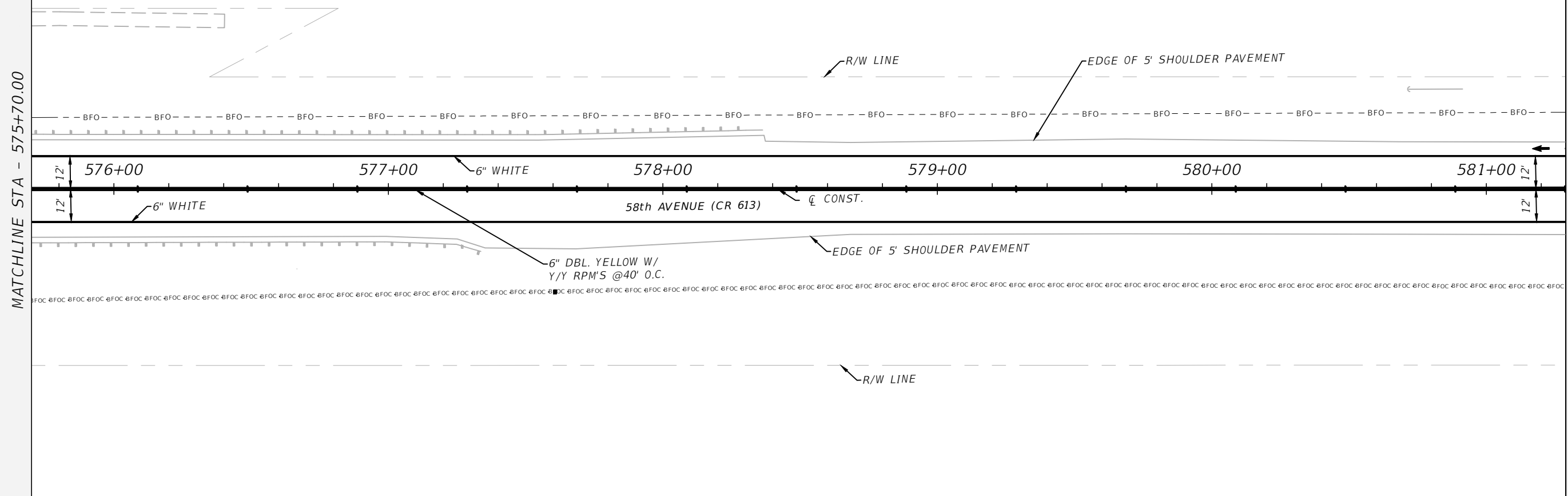
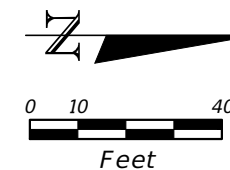
BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
S-38

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MATCHLINE STA - 575+70.00

MATCHLINE STA - 581+29.00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

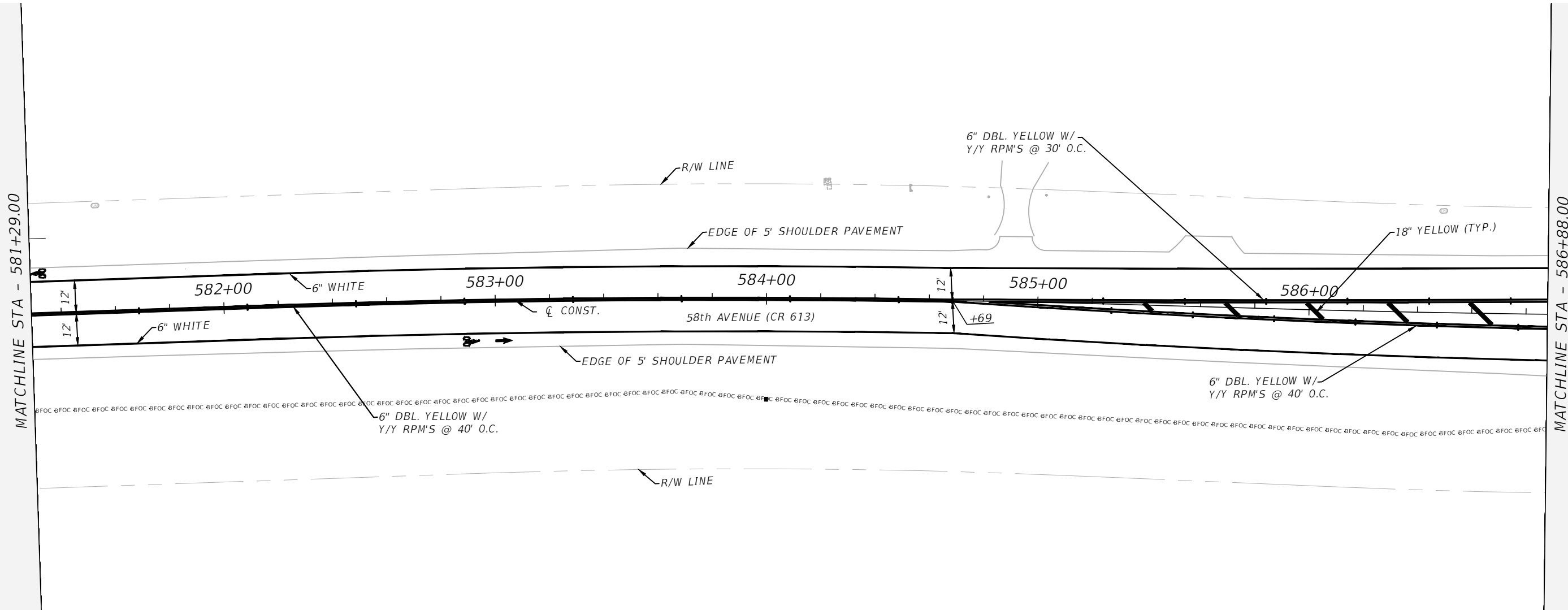
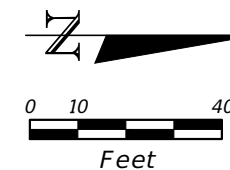
BAHRAM K. JOULAE, P.E.
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 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-39

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

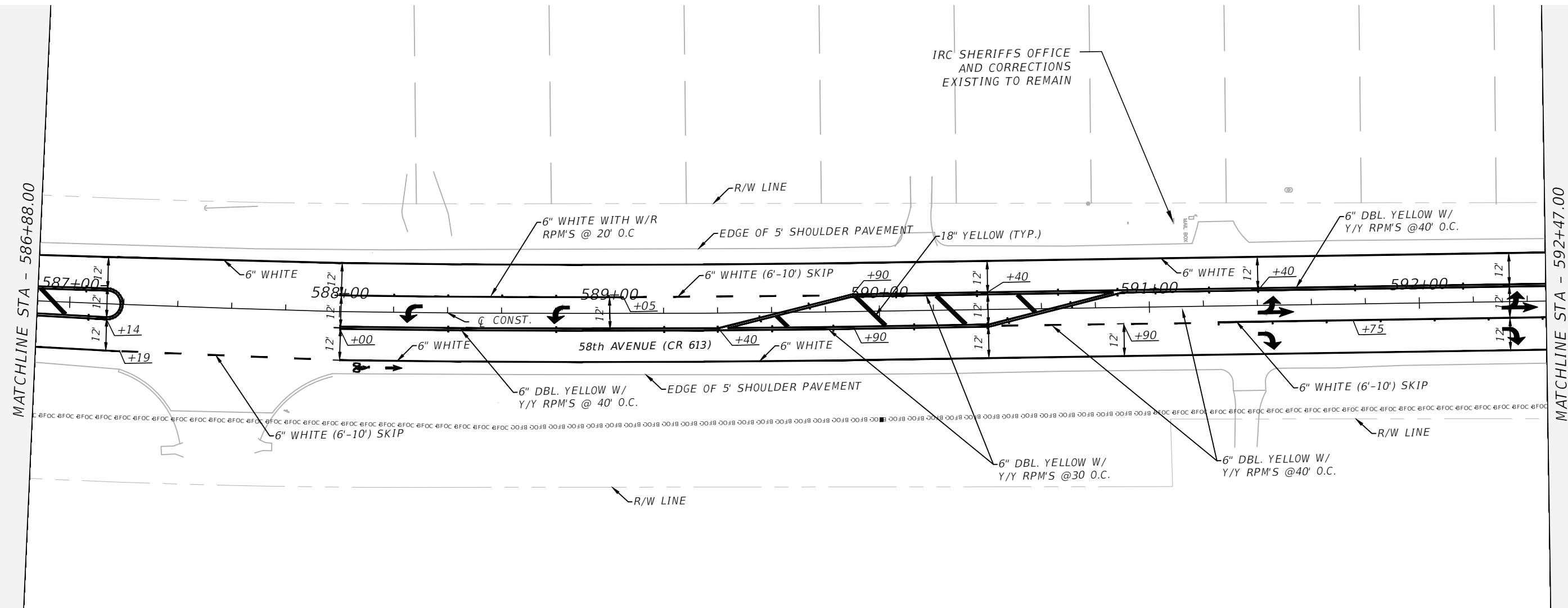
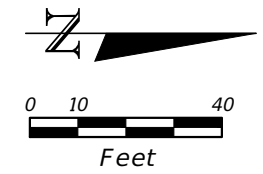
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INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-40

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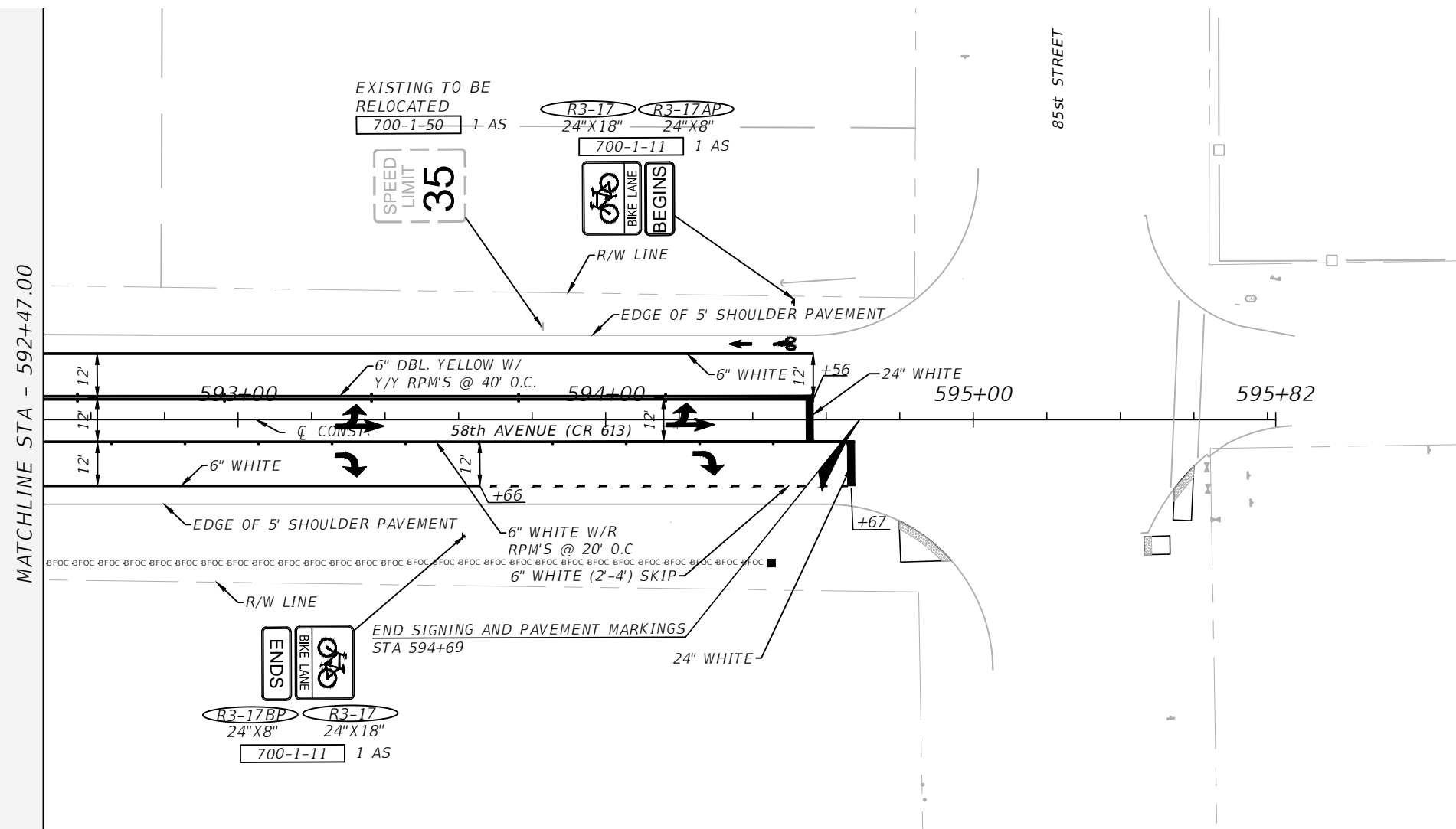
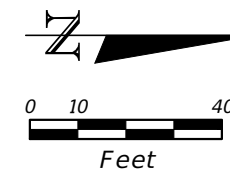
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
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 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-41



MATCHLINE STA - 592+47.00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

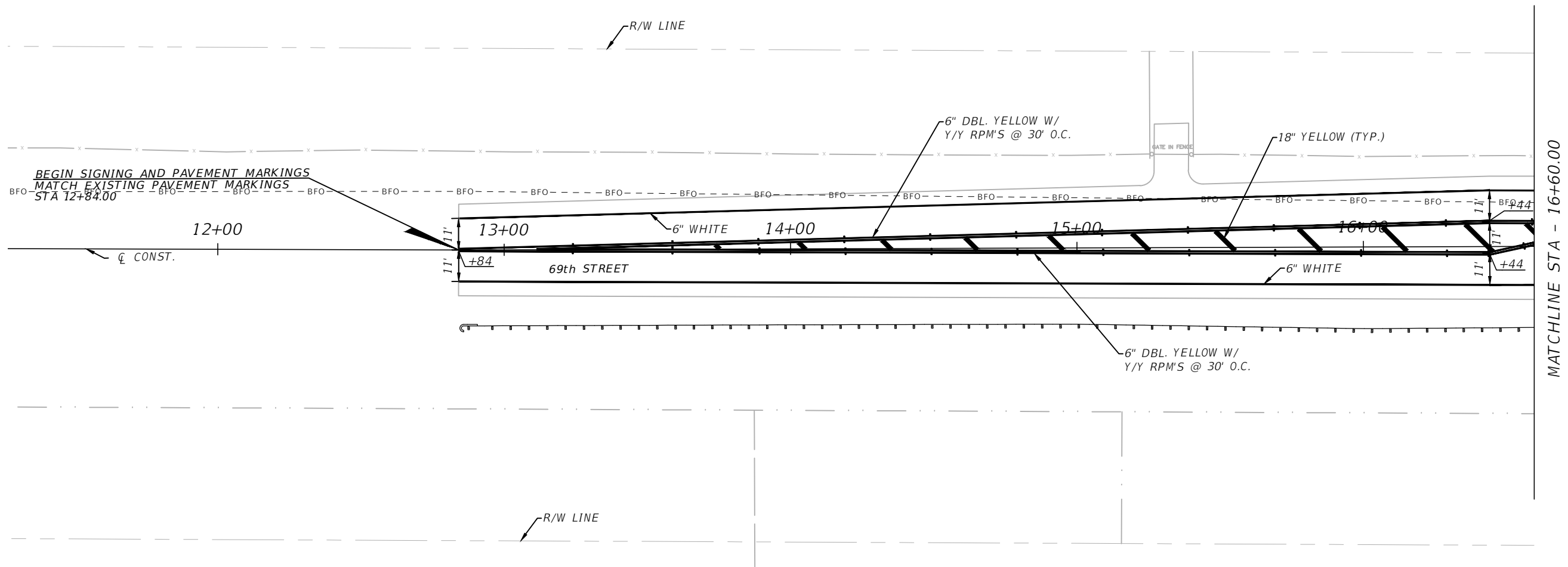
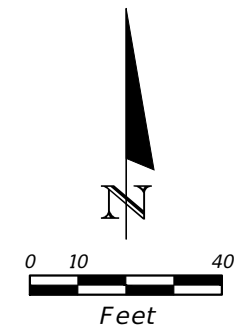
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INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-58TH AVE**

SHEET NO.
5-42

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

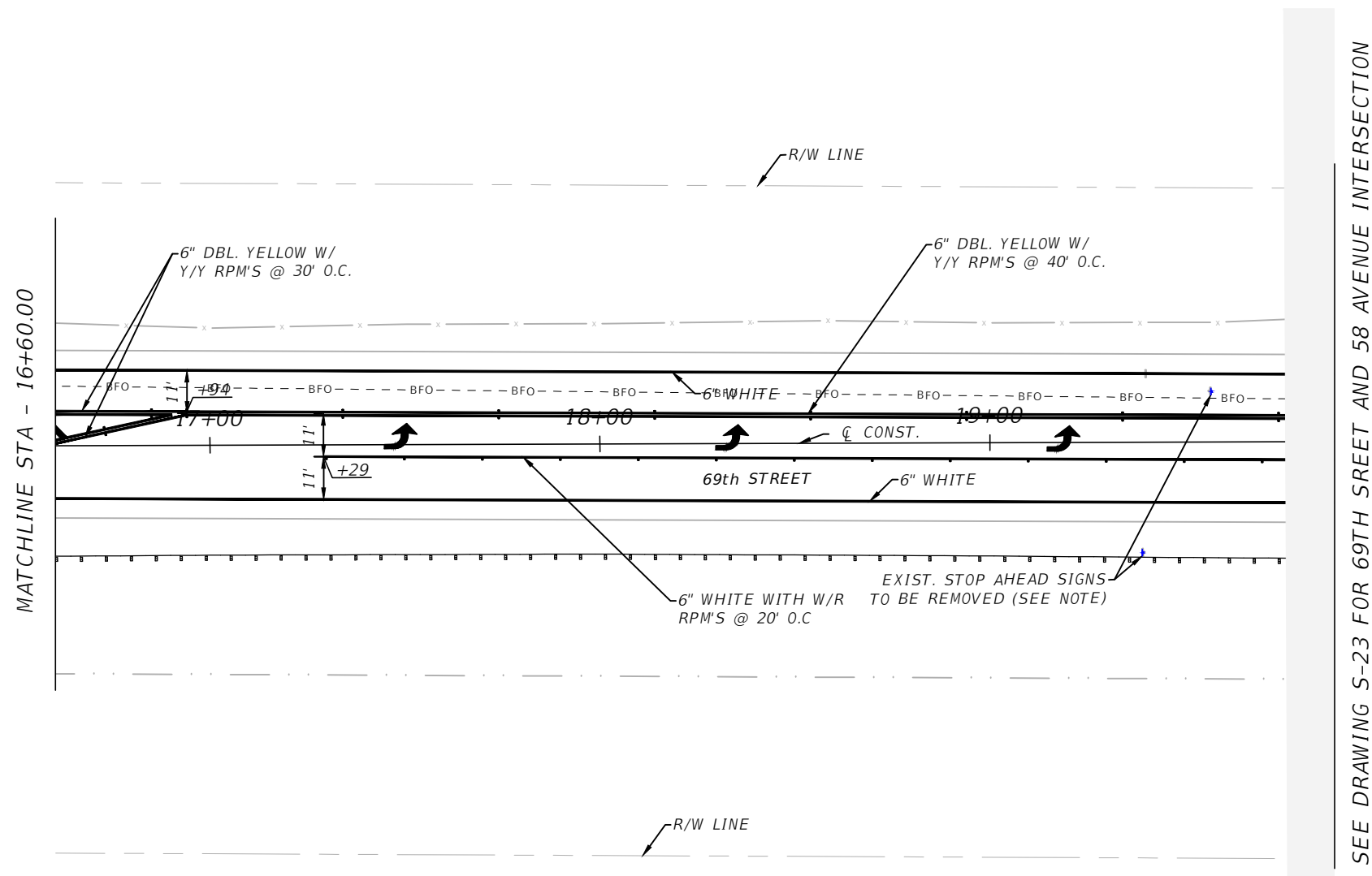
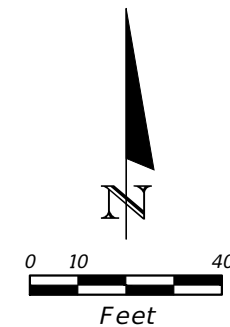
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 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01

**SIGNING & PAVEMENT
MARKING PLANS-69TH ST**

SHEET
NO.
5-43

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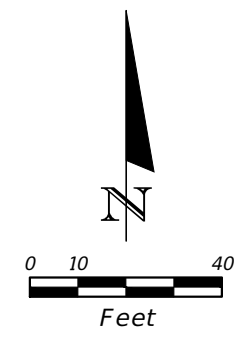


SEE DRAWING S-23 FOR 69TH STREET AND 58 AVENUE INTERSECTION

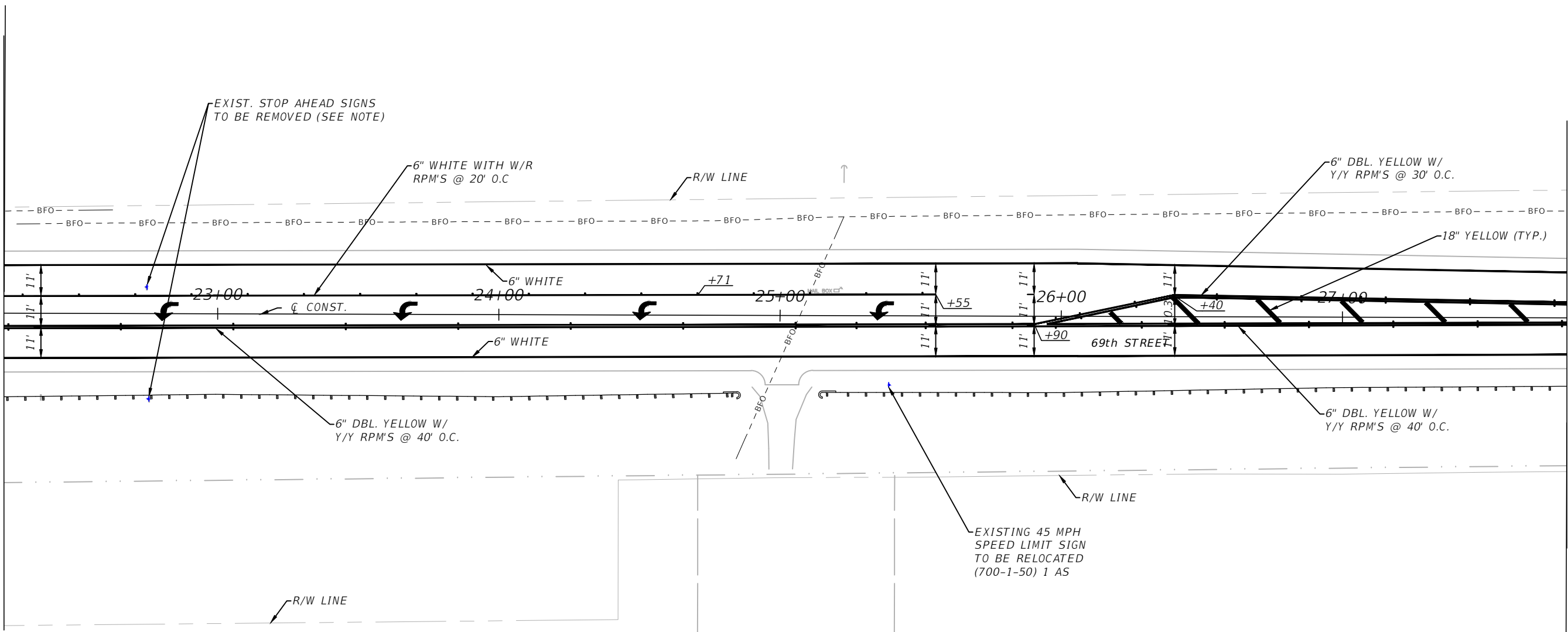
NOTE:
 EXISTING STOP AHEAD SIGN POSTS & PANELS SHALL BE REMOVED ONLY WHEN
 FLASHING MODES OF THE NEW TRAFFIC SIGNAL ARE OVER & FULLY
 ACCEPTED SIGNAL IS OPERATIONAL.

REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SIGNING & PAVEMENT MARKING PLANS-69TH ST	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		5-44
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		

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SEE DRAWING S-23 FOR 69TH STREET AND 58 AVENUE INTERSECTION

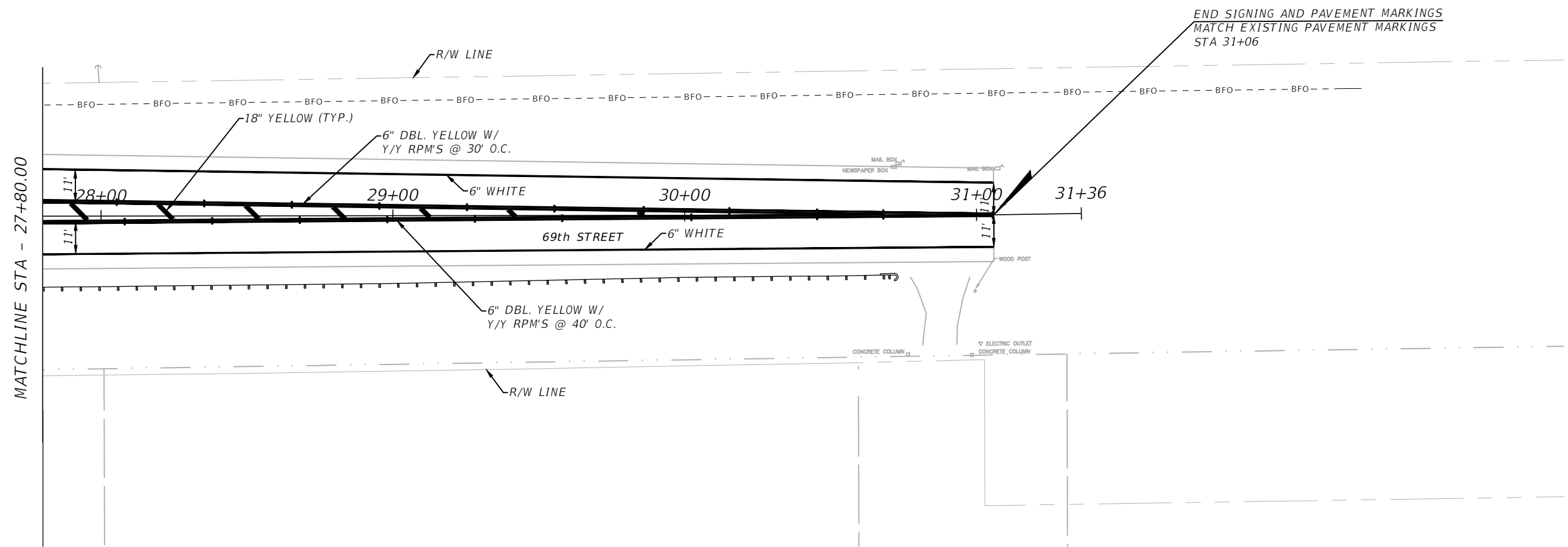
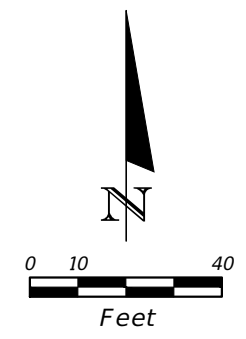


MATCHLINE STA - 27+80.00

NOTE:
 EXISTING STOP AHEAD SIGN POSTS & PANELS SHALL BE REMOVED ONLY WHEN FLASHING MODES OF THE NEW TRAFFIC SIGNAL ARE OVER & FULLY ACCEPTED SIGNAL IS OPERATIONAL.

REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SIGNING & PAVEMENT MARKING PLANS-69TH ST	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		S-45
					CR-613 58th AVE	INDIAN RIVER	IRC: 1325 FDOT: 436416-1-54-01		

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END SIGNING AND PAVEMENT MARKINGS
MATCH EXISTING PAVEMENT MARKINGS
STA 31+06

REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY DEPARTMENT OF PUBLIC WORKS/ENGINEERING DIVISION			SIGNING & PAVEMENT MARKING PLANS-69TH ST	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		5-46
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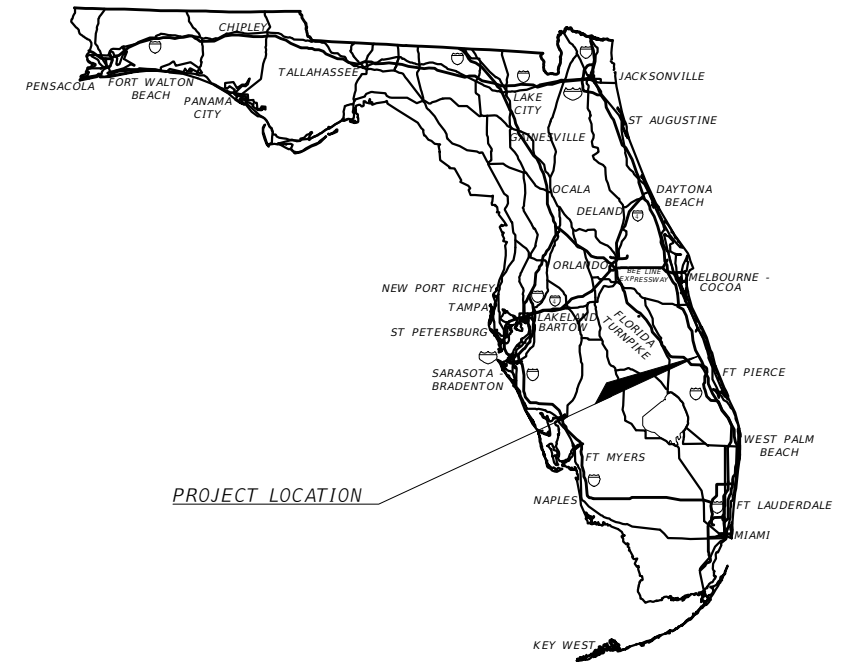
**INDIAN RIVER COUNTY
BOARD OF COUNTY COMMISSIONERS**

CONTRACT PLANS

FINANCIAL PROJECT ID 436416-1-54-01
(FEDERAL FUNDS)

INDIAN RIVER COUNTY (88)
COUNTY ROAD NO. 613

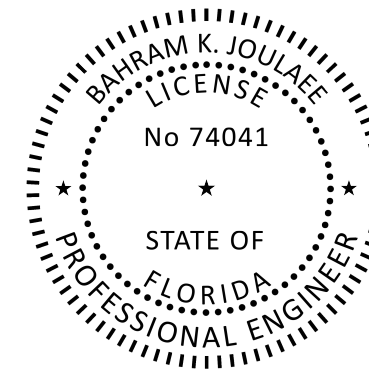
SIGNALIZATION PLANS



PROJECT LOCATION

INDEX OF SIGNALIZATION PLANS

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
T-1	KEY SHEET
T-2	TABULATION OF QUANTITIES
T-3 Thru T-6	GENERAL NOTES
T-7	SIGNALIZATION PLAN
T-8	STRAIN POLE DETAIL
T-9	GUIDE SIGN WORKSHEET



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL.

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PLANS PREPARED BY:



SIGNINGNALIZATION
ENGINEER OF RECORD:

BAHRAM K. JOULAE, P.E.
P.E. No. 74041
1450 WEST GRANADA BLVD. SUITE 2
ORMOND BEACH FLORIDA, 32174
PH. 386.257.2571 FAX: 386.257.6996
CERTIFICATE OF AUTHORIZATION NO.: 9227

GOVERNING STANDARDS AND SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION, 2017-2018 DESIGN STANDARDS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, AND 2017 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

FOR DESIGN STANDARDS CLICK ON THE "DESIGN STANDARDS" LINK AT THE FOLLOWING WEB SITE:

[HTTP://WWW.DOT.STATE.FL.US/RDDESIGN](http://www.dot.state.fl.us/rddesign)

FOR THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION CLICK ON THE "SPECIFICATIONS" LINK AT THE FOLLOWING WEB SITE:

[HTTP://WWW.DOT.STATE.FL.US/SPECIFICATIONSOFFICE/](http://www.dot.state.fl.us/specificationsoffice/)

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
	2019	T-1

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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS		TOTAL THIS SHEET		GRAND TOTAL	
			T-7		PLAN	FINAL	PLAN	FINAL
			PLAN	FINAL				
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	28		28		28	
630-2-14	CONDUIT, F&I, ABOVEGROUND	LF	25		25		25	
632-7-1	SIGNAL CABLE - NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1		1		1	
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA	12		12		12	
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA	1		1		1	
633-3-15	FIBER OPTIC CONNECTION HARDWARE, F&I, PRETERMINATED PATCH PANEL	EA	1		1		1	
634-4-153	SPAN WIRE ASSEMBLY, F&I, TWO POINT, BOX	PI	1		1		1	
635-2-11	PULL & SPLICE BOX, F&I, 13'X24' COVER SIZE	EA	4		4		4	
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA	1		1		1	
639-1-122	ELECTRICAL POWER SERVICE, F&I, UG, METER PURCHASED BY CONTRACTOR	AS	1		1		1	
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	100		100		100	
641-2-18	PRESTRESSED CONCRETE POLE, F&I, TYPE P-VIII	EA	4		4		4	
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE REMOVAL	EA	2		2		2	
650-1-24	TRAFFIC SIGNAL, FURNISH & INSTALL POLYCARBONATE W/ALUM TOP, 3 SECTION, 1 WAY	AS	4		4		4	
650-1-29	TRAFFIC SIGNAL, FURNISH & INSTALL POLYCARBONATE W ALUMIN, 5 SECTION CLUSTER, 1 WAY	AS	4		4		4	
660-4-11	VEHICLE DETECTION SYSTEM- VIDEO, F&I CABINET EQUIPMENT	EA	1		1		1	
660-4-12	VEHICLE DETECTION SYSTEM- VIDEO, F&I ABOVE GROUND EQUIPMENT	EA	4		4		4	
670-5-111	TRAFFIC CONTROLLER ASSEMBLY, F&I	AS	1		1		1	
684-1-1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSTALL	EA	1		1		1	
700-5-22	INTERNALLY ILLUMINATED SIGN, F&I, OVERHEAD MOUNT, 12-18 SF	EA	4		4		4	
715-5-31	LUMINAIRE & BRACKET ARM, F&I, ALUMINUM, F&I NEW LUMINAIRE	EA	4		4		4	

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INDIAN RIVER COUNTY - TRAFFIC SIGNAL GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD); FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (STANDARD SPECIFICATIONS) 2017; FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS (STANDARD INDEX(ES)) 2017, ALL SUPPLEMENTS THERETO; NATIONAL ELECTRIC CODE; INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS; AND ANY OR ALL INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION REQUIREMENTS.
2. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNAL AND RELATED COMMUNICATIONS EQUIPMENT IS INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION (IRCTED) (772) 226-1547. ALL TRAFFIC SIGNAL AND RELATED COMMUNICATIONS EQUIPMENT WHEN USING PAY ITEM SERIES: 632, 634, 635, 660, 670, 684 AND 685 FOR THIS CONTRACT SHALL BE COMPATIBLE WITH IRCTED'S CENTRAL COMPUTER NETWORK SYSTEM. PRIOR TO ANY PURCHASING OF THE ABOVE PRODUCTS, ENSURE THEY HAVE BEEN APPROVED FOR SYSTEM COMPATIBILITY BY THE MAINTAINING AGENCY.
3. IRCTED SHALL BE NOTIFIED AT (772) 226-1547 AT LEAST TWO (2) FULL BUSINESS DAYS PRIOR TO ANY WORK BEING PERFORMED AT A SIGNALIZED LOCATION IN ORDER TO PROPERLY TRANSFER MAINTENANCE RESPONSIBILITIES.
4. THE CONTRACTOR SHALL DELIVER ALL REMOVED TRAFFIC SIGNAL EQUIPMENT, EXCEPT CONCRETE STRAIN POLES, TO IRCTED LOCATED AT 4548 41ST STREET, VERO BEACH, FL 32967 (772) 226-3460. THE COST OF DELIVERY TO IRCTED SHALL BE INCLUDED IN THE REMOVAL OF THE RELATED SIGNAL PAY ITEM. THE CONTRACTOR SHALL CONTACT THE IRCTED SEVEN (7) FULL BUSINESS DAYS PRIOR TO THE DELIVERY OF ANY REMOVED EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR CONCRETE STRAIN POLE DISPOSAL AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR SHALL BE ADVISED THAT OTHER PROJECTS MAY BE UNDER CONSTRUCTION CONCURRENTLY WITH THIS PROJECT AND THAT COORDINATION EFFORTS MAY BE NECESSARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE CONSTRUCTION SCHEDULE AND FOR THE AMOUNT OF COORDINATION REQUIRED. THE COST SHALL BE INCLUDED IN THE BID.
6. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND OTHER FEATURES AFFECTING HIS/HER WORK PRIOR TO CONSTRUCTION, AND NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER RELATED WORK ACTIVITY WHEN CONFLICT BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED.
7. THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE-CALL AT 1-800-432-4770 FOR LOCATIONS OF UTILITIES WITHIN THE AREA(S) OF CONSTRUCTION FOR THIS PROJECT A MINIMUM OF TWO (2) FULL BUSINESS DAYS PRIOR TO ANY DIGGING OR EXCAVATION ACTIVITIES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO CONTACT ANY UTILITY OWNER(S) THAT MY NOT BE A "SUNSHINE" MEMBER.
8. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE LOCATION AND PROTECTION, REPAIR AND/OR REPLACEMENT OF ALL UTILITIES THAT MAY BE AFFECTED BY THE CONSTRUCTION OF THIS PROJECT. EXISTING UTILITIES SHALL BE MAINTAINED IN SERVICE DURING CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE UTILITY OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ANY REQUIRED UTILITY RELOCATIONS.
9. THE CONTRACTOR SHALL NOTIFY ALL INVOLVED UTILITIES TWO (2) FULL BUSINESS DAYS IN ADVANCE, BEFORE SETTING TRAFFIC SIGNAL POLES OR PERFORMING ANY DIGGING OR OTHER EXCAVATION WORK, SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR. KNOWN UTILITY COMPANIES INCLUDE:

<u>COMPANY</u>	<u>FACILITIES</u>	<u>CONTACT</u>	<u>TELEPHONE NUMBER</u>
AT&T	TELEPHONE	USIC DISPATCH CENTER	(800) 778-9140
CITY GAS COMPANY OF FLORIDA	GAS	DOROTHY HAMILTON	(321) 638-3412
FLORIDA POWER & LIGHT INDIAN RIVER	ELECTRIC	USIC DISPATCH CENTER	(800) 778-9140
INDIAN RIVER COUNTY PUBLIC WORKS	SIGNALIZATION	JOHN ANKENY	(772) 226-1563
INDIAN RIVER COUNTY UTILITIES	WATER & SEWER	PHIL HARTSFIELD	(772) 538-7539
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE COMPANY PROVIDING ELECTRICAL POWER TO DETERMINE IF A SERVICE PROCESSING FEE IS REQUIRED. IF REQUIRED, FEE SHALL BE REFLECTED IN THE CONTRACTOR'S BID UNIT PRICE FOR ELECTRICAL POWER SERVICE ASSEMBLY.
11. THE CONTRACTOR SHALL COORDINATE AND FIELD VERIFY LOCATION(S) OF THE ELECTRIC SERVICE POINT PRIOR TO INSTALLING CONDUIT, DISCONNECT SWITCH, AND PULL BOXES.
12. (IF APPLICABLE) IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING OR TRENCHING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS IN ACCORDANCE WITH SECTION 2-4 OF THE FDOT SPECIFICATIONS.
13. THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH THE APPLICABLE GUIDELINES SET FORTH IN FDOT DESIGN STANDARD INDEXES 600 THROUGH 660; THE MUTCD; AND SECTION 102 OF THE STANDARD SPECIFICATIONS.
14. THE CONTRACTOR SHALL MAKE ALL VIDEO DETECTORS INSTALLED AS PART OF THE PROJECT FULLY OPERATIONAL IN ACCORDANCE WITH THEIR ASSOCIATED ISOLATED INTERSECTION SIGNAL TIMING CHART PRIOR TO THE ACTIVATION OF THE SIGNAL.
15. THE CONTRACTOR SHALL VERIFY ALL SIGNAL POLE ELEVATIONS AND LOCATIONS INCLUDING POSSIBLE UTILITY CONFLICTS PRIOR TO PROCUREMENT. THE CONTRACTOR SHALL VERIFY THAT ALL SIGNAL POLE ELEVATIONS WILL MEET MUTCD, FDOT AND INDIAN RIVER COUNTY REQUIREMENTS FOR LOW POINT OF CLEARANCE. ALL SIGNAL ASSEMBLIES SHALL HAVE A VERTICAL CLEARANCE OF 17.5 FEET MINIMUM AND 19 FEET MAXIMUM FROM THE BOTTOM OF THE ASSEMBLY TO THE ROAD.
16. UNDER NO CIRCUMSTANCES SHALL ENERGIZED CABLE BE PLACED IN THE SAME CONDUIT OR PULL BOX AS VIDEO DETECTION CABLE.
17. ALL FIELD WIRING SHALL BE NEATLY BUNDLED AND CLEARLY IDENTIFIED WITH PERMANENT LEGIBLE, WEATHERPROOF TAGS THAT ARE SECURELY ATTACHED TO EACH CABLE. THE TAGGING SYSTEM PROPOSED SHALL BE SUBMITTED FOR APPROVAL WITH THE OTHER EQUIPMENT SUBMITTALS REQUIRED FOR THIS PROJECT.
18. THE CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION UNLESS SPECIFIED OTHERWISE.
19. TRAFFIC SIGNAL ACCEPTANCE TESTING PROCEDURES SHALL BE IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
20. THERE WILL BE A 90 DAY WARRANTY PERIOD SUBJECT TO THE REQUIREMENTS CONTAINED IN ARTICLE (SECTIONS 611-5 THROUGH 611-7.3) "CONTRACTOR'S WARRANTY PERIOD FOR SIGNAL INSTALLATIONS" AS FOUND IN FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2017.
21. THE CONTRACTOR SHALL PROVIDE FOUR COPIES OF MARKED-UP (AS-BUILT) CONSTRUCTION PLANS, AND ONE CAD FILE OF SUCH, COPY OF SHOP DRAWING AND A COPY OF MAST ARM SPECIFICATION AND ANY/ALL APPROVED SHOP DRAWINGS AT THE TIME OF SIGNAL CONDITIONAL ACCEPTANCE INSPECTION BY THE MAINTAINING AGENCY.
22. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW IN ACCORDANCE WITH SECTION 603 OF THE STANDARD SPECIFICATIONS: (APPLICABLE CONTACT PERSON'S INFORMATION)
23. THE CONTRACTOR SHALL SUBMIT IN WRITING A REQUEST FOR SIGNAL INSPECTION TO THE MAINTAINING AGENCY. (ALLOW TWO (2) WEEKS FOR SIGNAL INSPECTION).

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.

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24. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN FOUR (4) PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGNS (PCMS) FOR A PERIOD OF TWO WEEKS. THE PCMS WILL BE LOCATED AT AN APPROPRIATE DISTANCE IN ADVANCE OF THE APPROACHES TO THE NEW SIGNALIZED INTERSECTION AS SPECIFIED BY THE MAINTAINING AGENCY'S ENGINEER. THE PCMS WILL BE PROVIDED ONE (1) WEEK PRIOR TO THE SCHEDULED ACTIVATION TO FULL COLOR OPERATION AND SHALL REMAIN IN PLACE FOR ONE (1) WEEK FOLLOWING ACTIVATION. COST OF FURNISHING PCMS TO BE INCLUDED UNDER PAY ITEM NO. 102-1 - MAINTENANCE OF TRAFFIC.

25. IN ACCORDANCE WITH FDOT STANDARDS & SPECIFICATIONS, THE CONTRACTOR SHALL PROVIDE THE ASSOCIATED TRAFFIC SIGNAL MANUFACTURER WARRANTIES FOR THE ASSOCIATED MATERIALS AND/OR EQUIPMENT PRIOR TO THE FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL.

26. PRIOR TO ACTIVATION THE PCMS SIGN SHALL BE:

- (PANEL ONE - LINE 1) "TRAFFIC"
- (PANEL ONE - LINE 2) "SIGNAL"
- (PANEL ONE - LINE 3) "WILL BE"
- (PANEL TWO - LINE 1) "ACTIVE"
- (PANEL TWO - LINE 2) "ON DAY"
- (PANEL TWO - LINE 3) "MONTH XX"

SUBSTITUTION FOR THE WORD "DAY" SHALL BE AS FOLLOWS:

- SUNDAY AS "SUN"
- MONDAY AS "MON"
- TUESDAY AS "TUES"
- WEDNESDAY AS "WED"
- THURSDAY AS "THUR"
- FRIDAY AS "FRI"
- SATURDAY AS "SAT"

SUBSTITUTION FOR THE WORD "MONTH" SHALL BE AS FOLLOWS:

- JANUARY AS "JAN"
- FEBRUARY AS "FEB"
- MARCH AS "MAR"
- APRIL AS "APR"
- MAY AS "MAY"
- JUNE AS "JUN"
- JULY AS "JUL"
- AUGUST AS "AUG"
- SEPTEMBER AS "SEP"
- OCTOBER AS "OCT"
- NOVEMBER AS "NOV"
- DECEMBER AS "DEC"

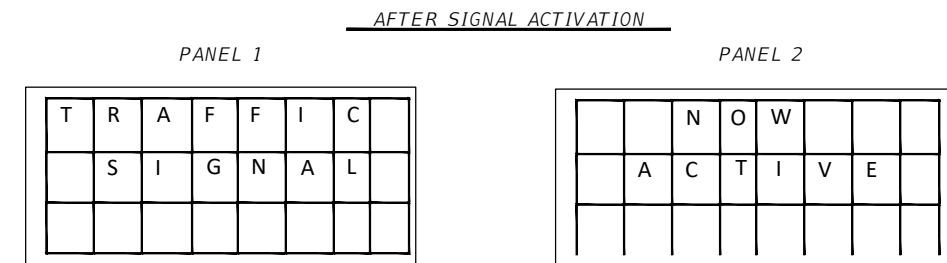
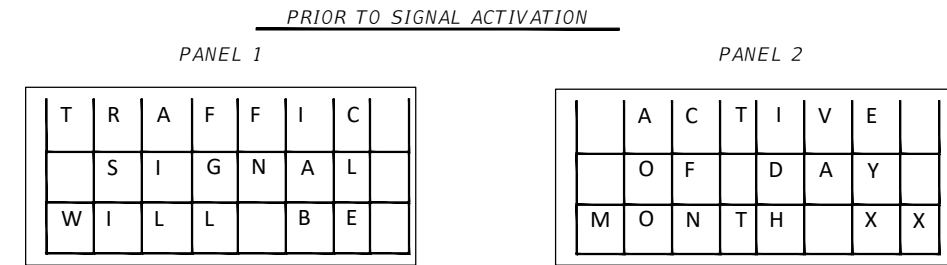
SUBSTITUTION FOR THE WORD "XX" SHALL BE AS FOLLOWS:

THE NUMERICAL DAY OF THE MONTH, FROM ONE (1) TO THIRTY-ONE (31). THE DATES LESS THAN TEN (10) SHALL BE PRECEDED BY A ZERO (0); EXAMPLE: "JAN 03" FOR JANUARY 3RD.

27. AFTER THE TURN-ON, THE PCMS SHALL BE CHANGED TO:

- (PANEL ONE - LINE 1) "TRAFFIC" (PANEL ONE - LINE 2) "SIGNAL" (PANEL TWO - LINE 1) "NOW" (PANEL TWO - LINE 2) "ACTIVE"

PANEL TWO, LINE AND LINE 2, SHALL FLASH THREE (3) TIMES BEFORE REVERTING BACK TO PANEL ONE.



28. THE ENGINEER OR CONTRACTOR SHALL SUBMIT IN WRITING A REQUEST FOR SIGNAL ACTIVATION (TURN-ON) TO THE MAINTAINING AGENCY. THE MAINTAINING AGENCY WILL SCHEDULE THE SIGNAL ACTIVATION A MINIMUM OF SEVEN (7) DAYS AFTER NOTIFICATION THAT THE SIGNAL HAS BEEN PLACED FLASHING MODE AND INSPECTIONS BY MAINTAINING AGENCY FORCES HAVE BEEN COMPLETED.

29. THE CONTRACTOR SHALL BE PRESENT AND SHALL CONDUCT THE TURN-ON TO FULL COLOR OPERATION IN THE PRESENCE OF THE MAINTAINING AGENCY'S ENGINEER. NO ACTIVATIONS SHALL BE SCHEDULED ON MONDAYS, FRIDAYS OR WEEKENDS UNLESS OTHERWISE APPROVED BY THE MAINTAINING AGENCY'S ENGINEER. ANY PROPOSED OR NECESSARY SCHEDULE CHANGE DURING THE SEVEN (7) DAYS PRIOR TO SCHEDULED TURN-ON WILL BE AT THE DETERMINATION AND DISCRETION OF THE MAINTAINING AGENCY'S ENGINEER.

30. UPON COMPLETION AND FINAL ACCEPTANCE OF THE PERMANENT TRAFFIC SIGNAL INSTALLATION BY INDIAN RIVER COUNTY, THE SIGNALS AND EQUIPMENT SHALL BE MAINTAINED BY IRCTED.

31. WHEN IRCTED DETERMINES THAT THE NEED FOR A TRAFFIC SIGNAL IS CRITICAL TO THE PUBLIC WELFARE, EARLY TURN-ON OF THE SIGNAL MAY BE REQUIRED BEFORE THE COMPLETION OF THE CONTRACT. IF THIS NEED ARISES, IRCTED MAY ASSUME THE RESPONSIBILITY FOR MAINTENANCE AND LIABILITY, OR NEGOTIATE WITH THE CONTRACTOR FOR MAINTENANCE AND LIABILITY, FOR SUCH A SIGNAL. NEW SIGNALS SHALL NOT BE PLACED ON FULL COLOR OPERATION UNTIL THE DATE OF INSPECTION EXCEPT AS STATED ABOVE. NEW SIGNALS SHALL BE FLASHED NO LESS THAN A WEEK OR MORE THAN TWO WEEKS PRIOR TO THE INSPECTION. SIGNAL HEADS MUST BE BAGGED WITH BURLAP OR TURNED BACK UNTIL THIS TIME.

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A. POWER SERVICE

1. POWER SERVICES SHALL FOLLOW THE LATEST STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD INDEX NO. 17736
2. POWER SERVICES ARE TO BE 120/240 VAC WITH TRIPLEX SERVICE DROP WIRE.
3. CITY OF VERO BEACH POWER SUPPLIED INSTALLATIONS MUST HAVE A SPECIAL METER CAN, SUPPLIED FROM THE CITY OF VERO BEACH TRANSMISSION & DISTRIBUTION.
4. FLORIDA POWER & LIGHT POWER SUPPLIED INSTALLATIONS REQUIRE A METER CAN.
5. MAST ARM POWER SERVICES SHALL BE MOUNTED ON A STUB POLE.
6. CONCRETE STRAIN POLE INSTALLATIONS SHALL HAVE THE POWER SERVICE MOUNTED ON THE STRAIN POLE.

B. TRAFFIC SIGNAL CONTROLLER

1. SHALL BE COMPATIBLE WITH ECONOLITE SYSTEM SOFTWARE.
2. SHALL HAVE INTERNAL TIME-BASED CAPABILITIES
3. SHALL HAVE INTERNAL RAILROAD PREEMPTION WITH IMMEDIATE RETURN TO COORDINATION.
4. SHALL HAVE A REMOVABLE EEPROM WITH DOWNLOAD AND UPLOAD CAPABILITIES.

C. TRAFFIC SIGNAL COMMUNICATIONS INTERCONNECT

NOTE: VARIANCE TO COMMUNICATION INTERCONNECT DUE TO DESIGN CRITERIA WOULD REQUIRE PRIOR APPROVAL FROM INDIAN RIVER COUNTY.

1. TWO 2" CONDUITS SHALL BE INSTALLED WITH ALL INTERCONNECT RUNS.
2. PULL BOXES CONTAINING INTERCONNECT ARE TO BE INSTALLED AT NO MORE THAN 1000 FOOT INTERVALS MARKED "TRAFFIC SIGNAL" (FDOT DESIGN STANDARD 17700).
3. FIBER OPTIC INTERCONNECT RUNS SHALL HAVE A SLACK/SPLICE BOX AT ALL SIGNALIZED INTERSECTIONS MARKED "FIBER OPTICS". SLACK/SPLICE BOXES SHALL CONTAIN A MINIMUM OF 100 FEET OF FIBER OPTIC CABLE SLACK (FDOT DESIGN STANDARD 17700) AND SHALL BE LOCATED AT NO MORE THAN 1/2-MILE INTERVALS.
4. FIBER OPTIC CABLE SHALL BE 96-FIBER SINGLE MODE. A #14 AWG (OR IRC-APPROVED ALTERNATIVE) TRACE WIRE SHALL BE INSTALLED WITH THE FIBER RUN.
5. THE CONNECTION FROM THE SLACK/SPLICE BOX TO THE SIGNAL CABINET (PIG TAIL) SHALL BE A 12-FIBER SINGLE MODE CABLE. FIBER IN THE CABINET SHALL BE TERMINATED IN A FIBER OPTIC TERMINAL PANEL.
6. IN THE CABINET, DATA CONVERSION WILL BE ACCOMPLISHED WITH RUGGEDCOM GIGABIT ETHERNET SWITCH OR IRC-APPROVED EQUIVALENT.

D. TRAFFIC SIGNAL MAST ARM

1. MAST ARMS SHALL FOLLOW THE LATEST STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS INDEX NO. 17743 - 17745.
2. ALL MAST ARM POLES SHALL HAVE HIGH-PRESSURE SODIUM, COBRA HEAD LUMINAIRES, BARRING OBSTRUCTIONS OR DESIGN CRITERIA.
3. MAST ARM POLES ARE TO HAVE A TERMINAL COMPARTMENT IN PLACE OF A HAND HOLE, PER FDOT INDEX NO. 17745.
4. MAST ARM MOUNTING HEIGHT (MEASUREMENT UB INDEX NO. 17743) SHALL BE 19- FEET FOR HORIZONTAL AND 20- FEET FOR VERTICAL MOUNTED SIGNALS, IN THE ABSENCES OF GEOMETRIC ABNORMALTIES.
5. ALL MAST ARMS SHALL BE GALVANIZED STEEL WITH FACTORY FINISHED HUNTER GREEN POWDER COATING IN ACCORDANCE WITH FDOT.
6. MAST ARMS ARE TO HAVE INTERNALLY-ILLUMINATED SINGLE-SIDED STREET NAME SIGNS WITH LOCAL STREET NAMES AND 1" WHITE BORDER. THE STREET NAME SIGNS ARE TO BE MOUNTED WITH FIXED BRACKETS ON THE ARM BETWEEN THE POLE AND THE FIRST TRAFFIC SIGNAL.

E. TRAFFIC SIGNAL POLES & SPAN WIRE

1. POLES SHALL FOLLOW THE LATEST STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD INDEX NO. 17725.
2. STRAIN POLES SHALL HAVE HIGH-PRESSURE SODIUM, COBRA HEAD LUMINAIRES, BARRING OBSTRUCTIONS OR DESIGN CRITERIA.
3. BOTH UPPER AND LOWER SPAN SHALL BE 7/16 INCH CABLE WIRE.
4. THE SIGNAL CABLE SHALL BE ATTACHED TO THE MESSENGER WIRE BY LASHING RODS.

F. TRAFFIC SIGNAL HEADS

1. TRAFFIC SIGNALS MOUNTED ON SPAN CABLE ARE TO BE LIGHTWEIGHT, (RED SECTION TO BE ALUMINUM AND ALL OTHER SECTIONS TO BE POLY PLASTIC), 12 INCH INDICATIONS.
2. TRAFFIC SIGNALS MOUNTED ON MAST SUPPORTS ARE TO BE ALL ALUMINUM 12-INCH INDICATIONS. THE MOUNTING SHALL BE HORIZONTAL USING PELCO ASTRO BRAC OR IRC-APPROVED EQUIVALENT. SPAN MOUNT SIGNALS ARE TO BE MOUNTED VERTICAL. ALL VEHICLE SIGNAL HEADS ARE TO HAVE RETRO-REFLECTIVE BACK PLATES.
3. TRAFFIC SIGNALS ARE TO BE SUPPLIED WITH ALL LED INDICATIONS, INCLUDING ALL ARROWS AND YELLOWS.
4. TRAFFIC SIGNALS ARE TO BE SUPPLIED WITH TUNNEL VISORS.
5. TRAFFIC SIGNALS AND ASSOCIATED ACCESSORIES, INCLUDING BUT NOT LIMITED TO BACKPLATES SHALL BE MCCAIN.
6. PEDESTRIAN SIGNALS ARE TO BE COUNT DOWN PEDESTRIAL SIGNALS WITH INTERNATIONAL-STYLE HAND/MAN (SYMBOLS) WITH FULL (NOT OUTLINE) LED INDICATIONS.

G. VIDEO DETECTORS

1. VIDEO DETECTION SYSTEM SHALL BE ECONOLITE LATEST TECHNOLOGY OR IRC-APPROVED EQUIVALENT.

H. VIDEO SURVEILLANCE

1. VIDEO CAMERAS SHALL BE BOSCH PAN, TILT & ZOOM LATEST TECHNOLOGY OR IRC-APPROVED EQUIVALENT.

I. BATTERY BACK-UP

1. BATTERY BACKUP SYSTEM IS TO BE USED ON ALL INSTALLATIONS UNLESS OTHERWISE STATED.
2. BATTERY BACKUP SHALL BE ALPHA FXM 2000 UPS W/SNMP.

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PAY ITEM NOTES

PAY ITEM NO. 101-1

INCLUDES ALL NECESSARY EQUIPMENT INCLUDING A TWO PERSON BUCKET TRUCK FOR USE BY THE ENGINEER OR COUNTY REPRESENTATIVE DURING INSPECTION OF TRAFFIC SIGNAL.

PAY ITEM NO.102-1

INCLUDES ALL COSTS ASSOCIATED WITH FURNISHING, INSTALLING MAINTAINING AND REMOVAL OF ALL ITEMS OF MAINTENANCE OF TRAFFIC NOT PAID FOR UNDER SEPARATE ITEMS.

PAY ITEM NO. 630-2-11

SHALL BE INSTALLED PER SECTION 630, OF FDOT'S STANDARD SPECIFICATIONS. ALL CONDUITS SHALL ENTER PULL BOXES AS REQUIRED IN FDOT STANDARD INDEX 17721, SHEET 2 OF 2. ALL CONDUIT SHALL BE 2 INCH, SCHEDULE 40 PVC UNLESS SPECIFIED OTHERWISE IN THE PLANS OR SPECIFICATIONS.

PAY ITEM NO. 630-2-12

SHALL CONSIST OF MULTIPLE 2 INCH SCHEDULE 40 PVC SLEEVES PER BORE. SEE SPECIFIC PLAN SHEETS FOR NUMBER REQUIRED FOR THE BORE. ALL DIRECTIONAL BORING SHALL BE DONE IN CONFORMANCE WITH FDOT UTILITY ACCOMODATIONS MANUAL REQUIREMENTS.

PAY ITEM NO. 632-7-1

SHALL BE INSTALLED PER FDOT STANDARD INDEX 17700 AS APPLICABLE. THREE SPARE CONDUCTORS PER SIGNAL CABLE ARE REQUIRED. SPARES SHALL BE GROUNDED TO THE BUS GROUNDING FACILITY IN THE CONTROLLER CABINET. THE CONTRACTOR SHALL VERIFY COLOR CODES WITH INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION FOR THE SIGNAL CONDUCTORS PRIOR TO ORDERING.

PAY ITEM NO. 635-2-11

SHALL BE INSTALLED IN ACCORDANCE WITH FDOT STANDARD INDEX 17721, AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SIZE THE PULL BOXES SUCH THAT THEY WILL ALLOW PLACEMENT OF ALL CABLES INSIDE THE PULL BOXES WHILE MAINTAINING THE REQUIRED MINIMUM BENDING RADII ON THE CABLES AND NOT EXCEEDING THE MAXIMUM BENDING RADII OF THE CABLES. PULL BOX COVERS SHALL BE FDOT APPROVED OF NON-METALLIC CONSTRUCTION WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FIBER OPTIC" AS APPROPRIATE. PULL BOXES SHALL BE QUAZITE AND PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER, THE PULL BOXES SHALL BE PLACED A MINIMUM OF 7 FEET FROM THE EDGE OF PAVEMENT WITH PULL BOXES AND LIDS BEING TRAFFIC BEARING. PULL BOXES SHALL NOT BE PLACED IN PEDESTRIAN RAMPS.

PAY ITEM NO. 639-1-122

SHALL INCLUDE THE COST OF ALL LABOR, MATERIALS, AND PERMITS REQUIRED TO FURNISH AND INSTALL THE ASSEMBLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL AGENCIES REQUIRED FOR APPROVAL OF THE COMPLETED INSTALLATION. FDOT STANDARD INDEX 17736 (AS APPLICABLE) SHALL APPLY.

PAY ITEM NO. 639-2-1

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING THE CONDUCTORS FOR THE POWER SERVICE.

PAY ITEM NO. 650-1-24 AND 650-1-29

HEADS SHALL HAVE AN ALUMINUM TOP SECTION WITH ALL OTHER SECTIONS POLYCARBONATE, BLACK IN COLOR. TUNNEL VISORS SHALL BE FULL VISORS. SIGNAL DISPLAYS SHALL BE LED. THE CONTRACTOR SHALL CONTACT THE INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION PRIOR TO ORDERING. THIS IS TO ENSURE THAT THEY MEET COUNTY STANDARDS AND ARE CONSISTENT WITH LED UNITS CURRENTLY IN SERVICE WITH THE COUNTY. ALL BACKPLATES SHALL BE ALUMINUM WITH RETRO REFLECTIVE SHEETING.

PAY ITEM NO. 660-4-11 AND 660-4-12

SHALL CONSIST OF 4 VEHICLE DETECTOR ASSEMBLIES (VIDEO TYPE), ECONOLITE VIDEO DETECTION, LATEST TECHNOLOGY. A COMPLETE VIDEO DETECTION INSTALLATION CONSISTENT WITH INDIAN RIVER COUNTY STANDARDS FOR ALL APPROACHES OF THE INTERSECTION IS REQUIRED. THE EQUIPMENT SHALL BE VIDEO DETECTION UNITS CAPABLE OF INTERFACE WITH THE TRAFFIC SIGNAL CONTROLLER UNIT AND SHALL INCLUDE THE COST OF MOUNTING ARMS TO EXTEND CAMERA TO A POSITION OVER THE ROADWAY. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE SUPPLIER AND INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION TO ENSURE RELIABLE OPERATION. CAMERA LOCATIONS MAY REQUIRE ADJUSTMENT IN THE FIELD. CONTACT INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION BEFORE ORDERING.

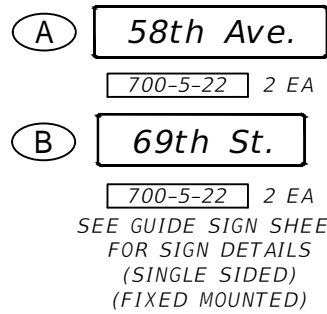
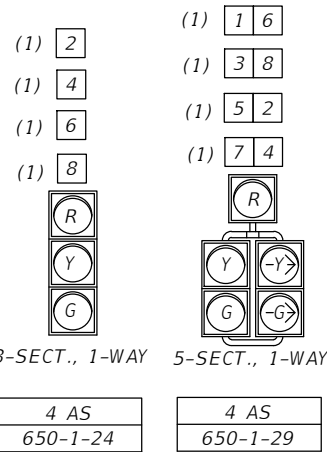
PAY ITEM NO. 670-5-111

THE CONTRACTOR SHALL COORDINATE WITH THE INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION PRIOR TO ORDERING ANY CONTROLLER RELATED EQUIPMENT.

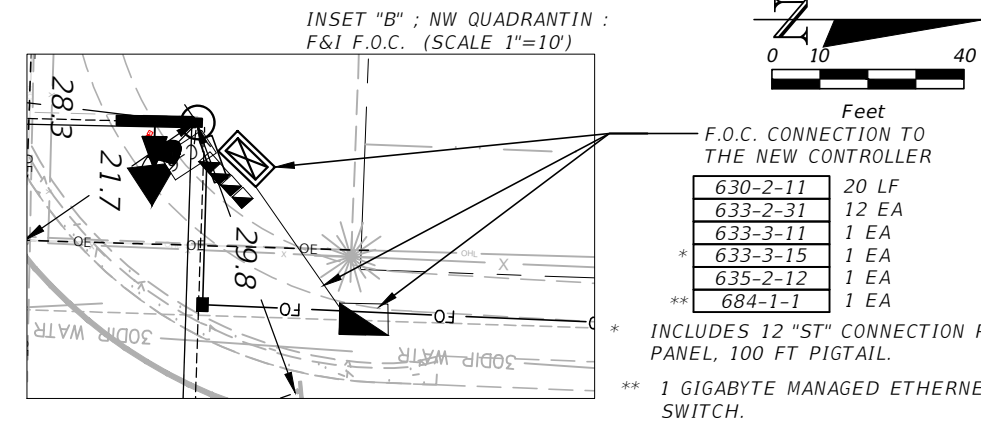
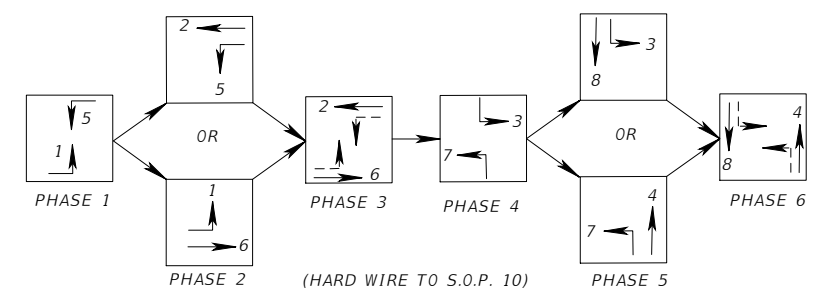
ALL TRAFFIC SIGNAL EQUIPMENT MUST BE CONSISTENT WITH INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS. CONTRACTOR SHALL COORDINATE WITH THE INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION TO CONFIRM THAT EQUIPMENT STANDARDS HAVE NOT CHANGED SINCE THE TIME OF PUBLICATION OF THESE PLANS.

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.

REVISIONS				BAHRAM K. JOULAE, P.E. P.E. LICENSE NUMBER 74041 LTG ENGINEERING & PLANNING 1450 WEST GRANADA BOULEVARD, SUITE 2 ORMOND BEACH, FLORIDA 32174 CERTIFICATE OF AUTHORIZATION 9227	INDIAN RIVER COUNTY			GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	PERMIT NO.		
----	----					CR-613 58th AVE	INDIAN RIVER		INDIIRC-1325 FDOT:436416-1-54-01



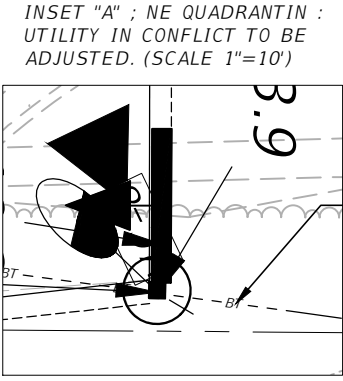
REMOVAL ITEMS:
641-2-80 2 EA



- F.O.C. CONNECTION TO THE NEW CONTROLLER
- 630-2-11 20 LF
 - 633-2-31 12 EA
 - 633-3-11 1 EA
 - 633-3-15 1 EA
 - 635-2-12 1 EA
 - 684-1-1 1 EA
- * INCLUDES 12 "ST" CONNECTION PATCH PANEL, 100 FT PIGTAIL.
- ** 1 GIGABYTE MANAGED ETHERNET SWITCH.

DETECTOR UNIT NO.	DETECTION ZONE	COVERAGE AREA	DELAY (SEC.)
VC 2	VDZ 5	10' X 40'	5
	VDZ 2	11' X 170'	5
VC 4	VDZ 7	10' X 40'	5
	VDZ 4	10' X 40'	5
VC 6	VDZ 1	10' X 40'	5
	VDZ 6	11' X 170'	5
VC 8	VDZ 3	10' X 40'	5
	VDZ 8	10' X 40'	5

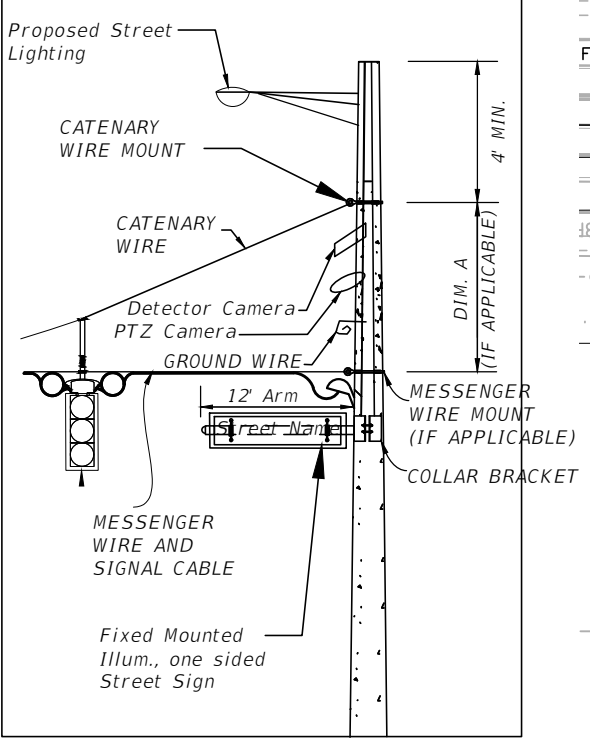
SIGNALIZATION NOTE:
1. ELEVATION NOTED ARE AT EXISTING GRADE



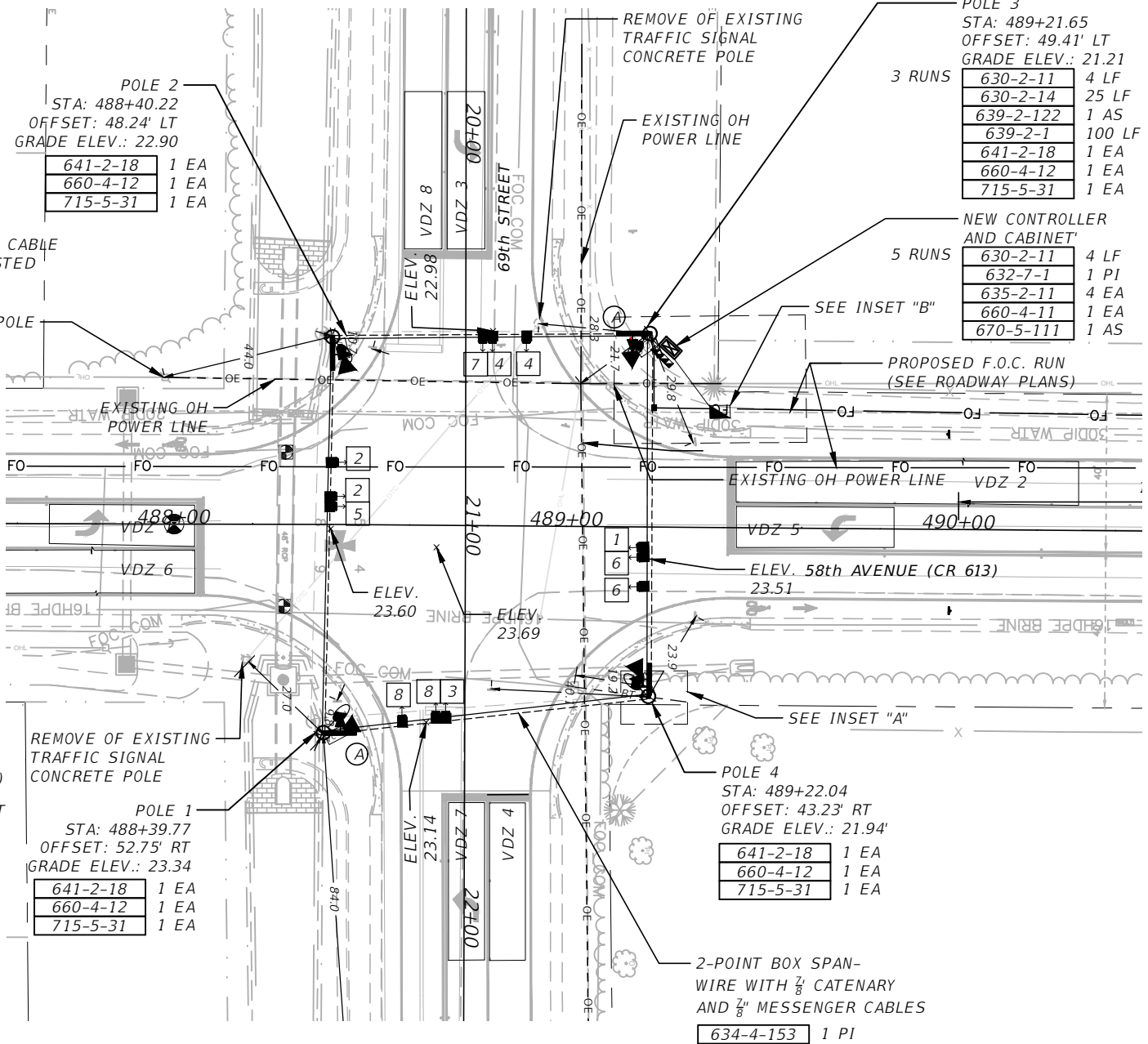
TIMING FUNCTION	MOVEMENT NUMBER							
MOVEMENT DIRECTION	1	2	3	4	5	6	7	8
MINIMUM GREEN	10	15	6	10	10	15	6	10
EXTENSION								
MAXIMUM GREEN 1	30	65	20	30	30	65	20	30
MAXIMUM GREEN 2								
YELLOW CLEARANCE	3.7	4.4	3.7	4	3.7	4.4	3.7	4
ALL RED	2.5	2.8	2.9	2.1	2.5	2.8	2.9	2.1
PEDESTRIAN WALK								
PED. CLEARANCE								
MIN. RECALL		X				X		
NON LOCK	X		X	X	X	X		X

SIGNAL TIMING IS INITIAL AND MAY REQUIRE ADJUSTMENT BY THE MAINTAINING AGENCY.

- CONTROLLER OPERATION:
- MAJOR STREET IS 58TH AVENUE (MOVEMENT 2 & 6)
 - MINOR STREET IS 69TH STREET (MOVEMENT 4 & 8)
 - THE CONTROLLER CABINET SHALL BE FULLY WIRED AND FURNISHED WITH ALL EQUIPMENT NECESSARY TO RUN THE CONTROLLER AS S.O.P. 10.
 - FLASHING OPERATION IS YELLOW FOR MOVEMENT 2 & 6 AND RED FOR 4 AND 8.



VIDEO CAMERA, STREET NAME SIGN, AND LIGHTING MOUNT (TYP.):



DATE	DESCRIPTION	DATE	DESCRIPTION
---	---	---	---

BAHRAM K. JOULAE, P.E.
P.E. LICENSE NUMBER 74041
LTG ENGINEERING & PLANNING
1450 WEST GRANADA BOULEVARD, SUITE 2
ORMOND BEACH, FLORIDA 32174
CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY		
ROAD NO.	COUNTY	PERMIT NO.
CR-613 58th AVE	INDIAN RIVER	INDIIRC-1325 FDOT:436416-1-54-01

SIGNALIZATION PLAN
SW 58TH AVE. AT 69TH ST.

SHEET NO.
T-7

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.

STRAIN POLE SCHEDULE

ID NO.	SHEET NO.	POLE LOCATION		FINAL GRADE ELEVATION	CROWN ELEVATION	POLE TYPE	POLE LENGTH (L)	POLE HEIGHT (H)	DEPTH (D)	DIMENSION (A)	PAY ITEM NUMBER
		STATION	OFFSET								
1	T-7	488+39.77	52.75 RT	23.34	23.60	VIII	50	33.96	16.04	5.20	641-2-18
2	T-7	488+40.22	48.24' LT	22.90	22.98	VIII	50	35.25	14.75	6.05	641-2-18
3	T-7	489+21.65	49.41' LT	21.21	23.51	VIII	48	35.94	12.06	5.05	641-2-18
4	T-7	489+22.04	43.23' RT	21.94	23.14	VIII	48	35.76	12.24	5.60	641-2-18

SCHEDULE NOTES:

FOR CONCRETE STRAIN POLES, WORK WITH INDEX 17725.

MESSENGER WIRE SHALL BE UTILITY GRADE, 7/16" DIAMETER.
 CATENARY WIRE SHALL BE UTILITY GRADE, 7/16" DIAMETER.
 CABLES INSTALLED WITH A MINIMUM SEPARATION OF 1.0 FEET

NOTES:

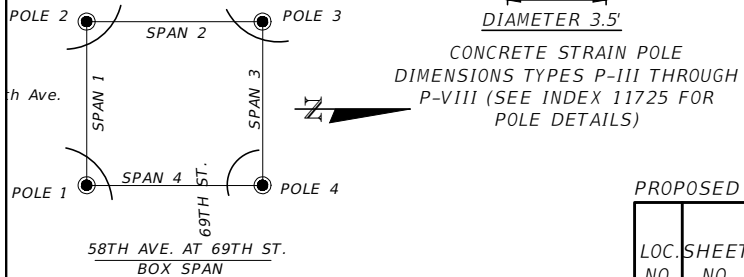
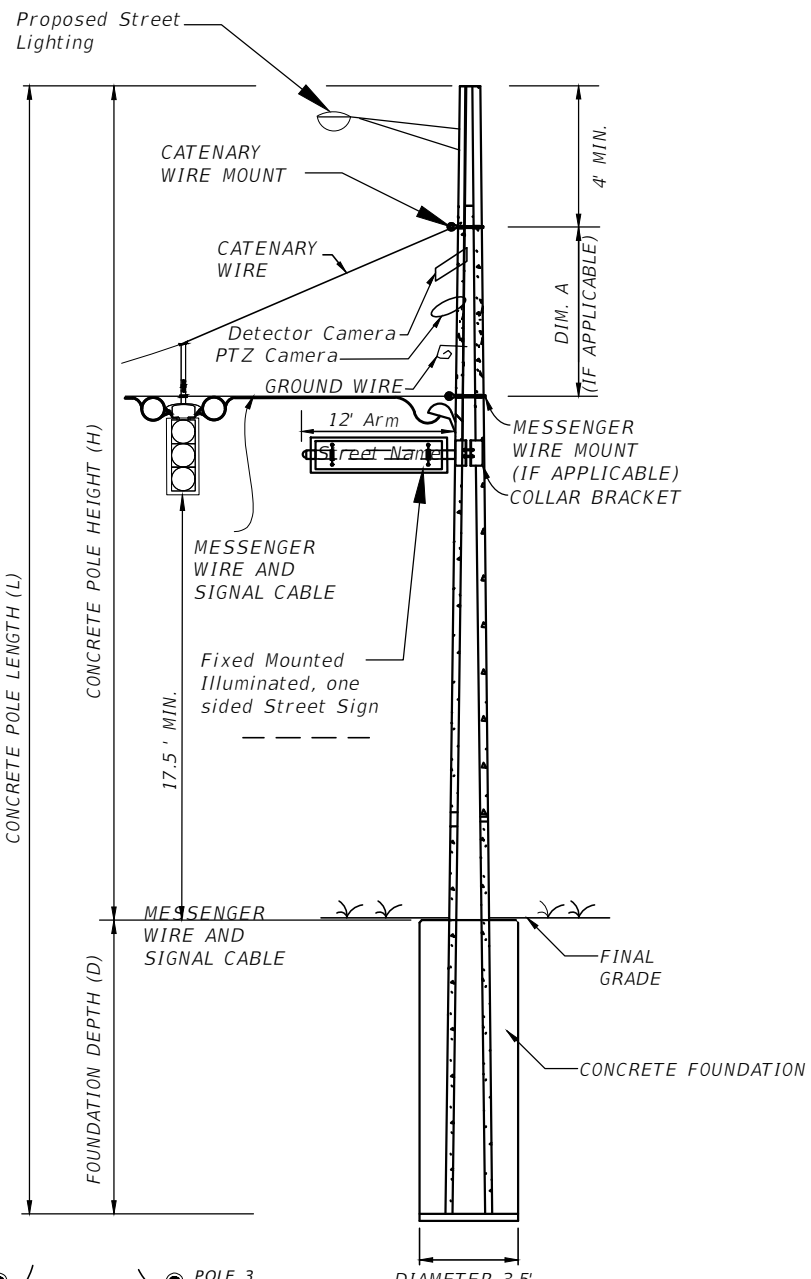
1. FOOTING CONSTRUCTION SHALL COMPLY WITH FDOT SPECIFICATION SECTION 641 - CONCRETE STRAIN POLES. SW 58TH Ave. AT 69th St.: 2-POINT ATTACHMENT WITH Design Wind Speed = 160 MPH
2. CONCRETE STRAIN POLES SHALL BE CLASS V SPECIAL CONCRETE, f'c = 6,000 psi, PER INDEX 17725.
3. DESIGN OF THE CONCRETE STRAIN POLE SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS.
4. MESSENGER CABLE ELEVATION SHALL BE SET AT: SW 58th Ave. AND AT 69th St.: 48.10'
5. FOR ALL OTHER DETAILS AND REQUIREMENTS ON CONCRETE STRAIN POLES, REFER TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
6. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL ELEVATIONS LISTED HEREIN.
7. INFORMATION BELOW IS FOR PURPOSES ONLY. FIELD ADJUSTMENTS MAY BE REQUIRED.
8. SEE APPROPRIATE PLAN SHEET FOR PROPOSED SIGNAL HEAD ALIGNMENTS AND SIGN CONFIGURATION/LOCATION.
10. PROPOSED LOADING, DISTANCE FROM THE POLE IS IN THE CLOCKWISE DIRECTION.

FOUNDATION NOTES:

EXCAVATION & BACKFILL: EXCAVATION AND BACKFILL FOR THE FOOTINGS SHALL BE IN ACCORDANCE WITH ARTICLES 125-4 AND 125-82 WITH THE EXCEPTION OF THE BACKFILL. IN LIEU OF THE REQUIREMENTS FOR OBTAINING THE SPECIFIED DENSITY, MAY BE HAND TAMPED IN FOUR INCH MAXIMUM LAYERS OR MACHINE TAMPED IN SIX INCH MAXIMUM LAYERS. THE MATERIAL SHOULD BE NEITHER DRY NOR SATURATED. AT THE CONTRACTORS OPTION BACKFILLING MAY BE DONE WITH POURED CONCRETE.

CONCRETE: FOOTING TO BE POURED WITH CLASS I CONCRETE (SECTION 345).

FORMS: FORMS SHALL BE IN ACCORDANCE WITH ARTICLE 700-8.3. (IF THE FOOTING IS POURED IN A OVERSIZED HOLE, THE CONCRETE IN THE TOP SIX INCHES SHALL BE PLACED IN A FORM.) ALL EXPOSED SURFACES SHALL BE TROWELED TO A SMOOTH FINISH.



PROPOSED LOADING

LOC. NO.	SHEET NO.	P O L E	LOCATION BY STA.	CRIT. ROAD ELEV.	GROUND ELEV. AT POLE	S P A N	SPAN LENGTH	SIGNAL DATA DISTANCE FROM POLE/NUMBER OF SECTIONS																SIGN DATA DISTANCE FROM POLE(*)/HEIGHT & WIDTH (*ENTER POLE NO. AS INDICATED ABOVE IF ATTACHED TO POLE)																				
								DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.										
								DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.	DIST.	SEC.									
1	T-7	1	488+39.77	23.69	23.34	1	101.00	59.00	5	69.00	3													P1	2'	7'																		
		2	488+40.22	23.69	22.90	2	81.00	39.50	5	49.50	3													P2	2'	6'																		
		3	489+21.65	23.69	21.21	3	92.50	49.50	5	59.50	3													P3	2'	7'																		
		4	489+22.04	23.69	21.94	4	83.50	53.50	5	63.50	3													P4	2'	6'																		

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
---	---	---	---

BAHRAM K. JOULAE, P.E.
 P.E. LICENSE NUMBER 74041
 LTG ENGINEERING & PLANNING
 1450 WEST GRANADA BOULEVARD, SUITE 2
 ORMOND BEACH, FLORIDA 32174
 CERTIFICATE OF AUTHORIZATION 9227

INDIAN RIVER COUNTY

ROAD NO.	COUNTY	PERMIT NO.
CR-613 58th AVE	INDIAN RIVER	INDIIRC-1325 FDOT:436416-1-54-01

STRAIN POLE DETAIL

SHEET NO.
T-8

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F. A. C.



DEPARTMENT OF UTILITY SERVICES
 WATER, WASTEWATER,
 & RECLAIMED WATER
 UTILITY CONSTRUCTION STANDARDS

SEPTEMBER
 2017

PROPOSED RELOCATION

20-INCH WATER MAIN RELOCATION-UCP# 4144

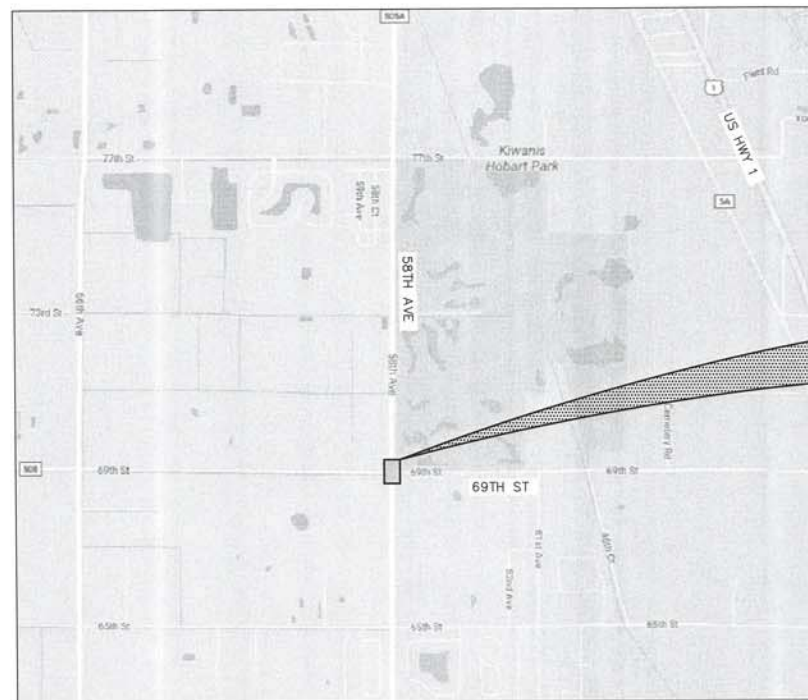
58TH AVENUE AT 69TH STREET

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF A 600 LF 24" DIAMETER HIGH DENSITY POLYETHYLENE PIPE TO BE INSTALLED VIA HORIZONTAL DIRECTIONAL DRILL TO REPLACE THE CORRESPONDING SECTION OF THE EXISTING 20" DIAMETER DUCTILE IRON PIPE LOCATED ALONG 58TH AVENUE AT 69TH STREET. THE EXISTING AERIAL CROSSING LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION WILL BE IMPACTED BY THE PROPOSED ROAD WIDENING PROJECT, AND THE CROSSING WILL BE REPLACED VIA THIS HORIZONTAL DIRECTIONAL DRILL PROJECT.

UTILITY AGENCY AND CONTACTS

SANITARY SEWER & WATER	INDIAN RIVER COUNTY UTILITIES 1840 25TH ST. VERO BEACH, FL 32960 CONTACT: ARJUNA WERAGODA PHONE: (772) 940-9310
NATURAL GAS	FLORIDA PUBLIC UTILITIES 209 N SAPODILLA AVE. WEST PALM BEACH, FL 33401 CONTACT: DALE BUTCHER PHONE: (321) 638-3424
TRAFFIC	INDIAN RIVER COUNTY PUBLIC WORKS 1800 27TH ST. VERO BEACH, FL 32960 CONTACT: MARC WEBB PHONE: (772) 770-5118
ELECTRIC	FLORIDA POWER & LIGHT CO. 3301 ORANGE AVE. FT PIERCE, FL 34947 CONTACT: ROBERT MORRIS PHONE: (772) 226-1821
COUNTY FIBER	INDIAN RIVER COUNTY TELECOMMUNICATIONS 1495 NW BRITT RD. STUART, FL 34944 CONTACT: MANY CABO PHONE: (772) 226-1381
TELECOMMUNICATION	ROAD MOVES--AT&T 3300 OKEECHOBEE RD. ROOM 237 FORT PIERCE, FL 34947 CONTACT: MARK GUTIERREZ PHONE: (772) 460-4443

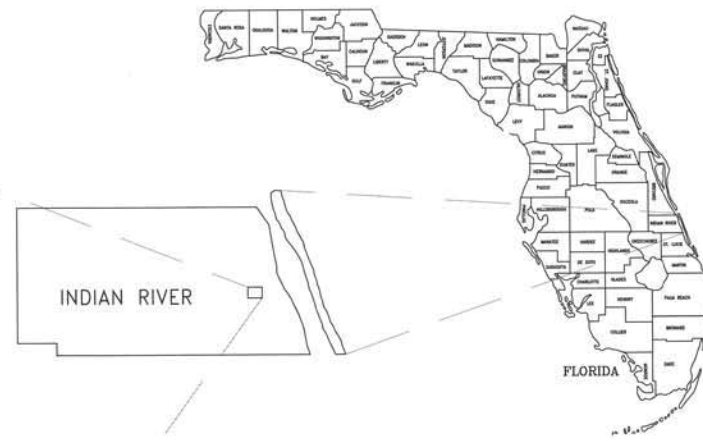


SITE LOCATION MAP
 NOT TO SCALE

DIRECTIONS TO PROJECT SITE:

FROM INTERSTATE 95, EXIT 147 ONTO SEBASTIAN BLVD HEAD EAST. TURN SOUTH ON TO 90TH AVE. THIS WILL TURN IN TO 85TH ST WHEN THE ROAD TURNS EAST. TURN SOUTH ON TO 58TH AVE. SITE IS LOCATED AT THE INTERSECTION OF 58TH AVE AND 69TH ST.

COUNTY COMMISSIONERS:
 SUSAN ADAMS, VICE-CHAIRMAN, DISTRICT 1
 JOSEPH E. FLESCHER, COMMISSIONER, DISTRICT 2
 TIM ZORC, COMMISSIONER, DISTRICT 3
 PETER D. O'BRYAN, CHAIRMAN, DISTRICT 4
 BOB SOLARI, CHAIRMAN, DISTRICT 5



Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER SHEET
C0.1	SUMMARY OF QUANTITIES
C1.0	SITE PLAN
C1.1	WATER MAIN PLAN & PROFILE
C1.2	WATER MAIN PLAN & PROFILE
C2.0	TEMPORARY ROAD WIDENING PLAN
C2.1	TEMPORARY ROAD SECTIONS & DETAILS
D1.0	DETAILS
D1.1	DETAILS

RECEIVED

AUG 22, 2019

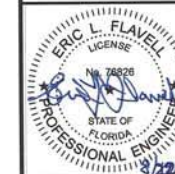
INDIAN RIVER COUNTY
 ENGINEERING DIVISION

CIVIL ENGINEER:
 BOWMAN CONSULTING
 ENGINEER OF RECORD:
 ERIC L. FLAVELL
 4450 W. EAU GALLIE BLVD.
 SUITE 232
 MELBOURNE, FL - 32934
 PHONE: (321) 255-5434

SURVEYOR:
 INDIAN COUNTY SURVEYOR
 SURVEYOR OF RECORD:
 DAVID W. SCHRUYER
 1801 27TH ST.
 VERO BEACH, FL-32960
 PHONE: (772)-226-1386

BENCHMARK:

VERTICAL INFORMATION SHOWN HEREON REFERS TO INDIAN RIVER COUNTY BENCHMARK 23010 BEING FOUND "X" CUT ON THE NORTH FLANGE BOLT OF A FIRE HYDRANT, 45 FEET SOUTH OF THE CENTERLINE OF COUNTY ROAD 510 AND 180 FEET WEST OF THE CENTERLINE OF THE 59TH AVENUE, HAVING A PUBLISHED ELEVATION OF 24.182 FT, NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD88); AND INDIAN RIVER COUNTY BENCHMARK197021 BEING A FOUND "X" CUT ON THE NORTHEAST FLANGE BOLT OF A FIRE HYDRANT, 6 FT WEST OF THE EDGE OF PAVEMENT OF 58TH AVENUE AND 210 FT SOUTH OF THE CENTERLINE OF 57TH STREET, HAVING PUBLISHED ELEVATION OF 22.307, NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD88).



ERIC L. FLAVELL
 LICENSE NO. 76826
 08/22/2019
 PLAN STATUS

DATE	DESCRIPTION
WFA DESIGN	PK DRAWN
ELF	CHKD
SCALE	
JOB No. 010514-01-001	
DATE 08/22/2019	
FILE#010514-01-001-01-001-C0.0	
SHEET C0.0	

COVER SHEET
 20-INCH WATER MAIN RELOCATION
 UCP# 4144
 58TH AVENUE AT 69TH STREET
 INDIAN RIVER COUNTY

Bowman Consulting Group, Ltd.
 4450 W. Eau Gallie Blvd
 Suite 232
 Melbourne, FL 32934
 Phone: (321) 255-5434
 Fax: (321) 255-7751
 www.bowmanconsulting.com
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BID ITEM DESCRIPTIONS

GENERAL DESCRIPTIONS OF THE WORK

PAYMENT FOR CONFORMING TO ALL THE PROVISIONS OF THE CONTRACT DOCUMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT UNIT PRICES OR LUMP SUM PRICE FOR THE ITEMS OF WORK BID AND SHALL INCLUDE ALL COSTS FOR LABOR, MATERIALS, AND EQUIPMENT REQUIRED FOR THE EXECUTION OF THE WORK UNLESS OTHERWISE SET FORTH.

THE FOLLOWING SETS FORTH A GENERAL DESCRIPTION OF THE TYPE OF WORK FOR EACH BID ITEM LISTED IN THE SCHEDULE, BUT IS NOT INTENDED TO BE ALL INCLUSIVE. ALL WORK SPECIFICALLY SHOWN, CALLED FOR, OR INDICATED IN THE CONTRACT DOCUMENTS SHALL BE PERFORMED WHETHER OR NOT SPECIFICALLY LISTED UNDER AN ITEM DESCRIPTION

1. **MOBILIZATION:** THE LUMP SUM PRICE PAID INCLUDES ALL COSTS ASSOCIATED WITH INSURANCE, BONDS, REQUIRED PERMITS AND FEES, SHOP DRAWINGS, MOVING ONTO THE JOB (MOBILIZATION), MOVING OFF THE JOB (DEMOBILIZATION), PROJECT PHASING, SUPERVISION, COORDINATION OF CONCURRENT WORK WITH OTHER CONTRACTORS, MEETINGS, CONSTRUCTION SURVEYING, RESETTING SURVEY MONUMENTS, VIDEOTAPING SITE PRIOR TO START OF WORK, POTHOLING, "AS-BUILT" PLANS, AND CLEANUP OF WORK INDICATED IN THE CONTRACT DOCUMENTS FOR BOTH THE WATERLINE WORK AND THE ROAD WIDENING WORK.
2. **MAINTENANCE OF TRAFFIC:** THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR PREPARATION OF MOT PLANS BY A CERTIFIED FLORIDA PREPARER FOR ALL PHASES OF THE PROJECT, INSTALLATION, AND MAINTENANCE OF TRAFFIC CONTROL AND TEMPORARY SIGNING AND STRIPING, INCLUDING FLAGGERS, BARRICADES, AND TEMPORARY FACILITIES REQUIRED FOR THE FDOT REQUIREMENTS. PEDESTRIAN, BICYCLE AND VEHICULAR TRAFFIC FOR 24 HOURS PER CALENDAR DAY IN ACCORDANCE WITH THE FDOT REQUIREMENTS. THIS BID ITEM INCLUDES, CONSTRUCTING TEMPORARY CONCRETE BARRIERS, INCLUDING CRASH BARRIERS PER THE CONSTRUCTION DRAWINGS, MAINTAINING THEM AND REMOVING THEM AND RESTORING THE PAVEMENT. THIS ITEM INCLUDES, AS-BUILDING THE EXISTING STRIPING WITHIN THE LIMITS OF WORK, REMOVE EXISTING STRIPING AND PLACING TEMPORARY PAINTED LANE STRIPING FOR THE TRAFFIC DIVERSION, MAINTAINING STRIPING AND REMOVING TEMPORARY STRIPING, AND FINAL STRIPING OF THE ROAD TO ORIGINAL CONDITION, COMPLETE AND IN PLACE.
3. **FDEP NOTICE OF INTENT:** THE LUMP SUM PRICE PAID INCLUDES ALL FEES AND COSTS ASSOCIATED WITH THE CONTRACTOR PREPARING AND FILING THE NOTICE OF INTENT (NOI) WITH THE FDEP PRIOR TO BEGINNING CONSTRUCTION.
4. **EROSION CONTROL:** THE LUMP SUM PRICE PAID INCLUDES ALL EROSION CONTROL MEASURES, INCLUDING SILT FENCE, FLOATING TURBIDITY BARRIERS, ETC. NEEDED TO COMPLY WITH THE SEDIMENTATION AND EROSION CONTROL MEASURES DELINEATED IN THE DESIGN DRAWINGS TO ENSURE NO MIGRATION OF SOILS OFFSITE.
5. **DEMOLITION/SITE PREPARATION:** THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR CLEARING, DEMOLITION, REMOVAL OF EXISTING ASPHALT AND SOIL AND OTHER IMPROVEMENTS, REMOVAL OF 20" WATERLINE AND APPURTENANCES AS CALLED FOR ON THE DRAWINGS, GRUBBING, STRIPPING, IMPORTING SELECT MATERIAL, MASS GRADING, FINE GRADING, COMPACTION, SUBSTRUCTURE PROTECTION AND MAINTENANCE, ADJUSTING VAULTS AND BOXES AND VALVES AND MANHOLES AND ETC. TO FINISH GRADE, SALVAGE OF PORTIONS OF THE PIPING THAT WILL BE REMOVED AND DELIVERED TO THE COUNTY, SITE MAINTENANCE AND RESTORATION, DUST CONTROL, TESTING, AND DISPOSING OF WASTE AND APPURTENANT WORK AS REQUIRED TO COMPLETE THE WORK INDICATED IN THE CONTRACT DOCUMENTS.
6. **FURNISH AND INSTALL 20" LINE STOP:** THE UNIT PRICE PAID FOR EACH INCLUDES ALL COSTS FOR EXCAVATION AND BACKFILL, INSTALLING LINE STOPS AND APPURTENANCES, VALVE VAULTS, AND TESTING, COMPLETE AND IN PLACE.
7. **FURNISH AND INSTALL 24" HDPE HORIZONTAL DIRECTIONAL DRILL (HDD):** THE UNIT PRICE PAID PER LINEAL FOOT INCLUDES ALL COSTS FOR EXCAVATION, RESTORATION, DIRECTIONAL DRILLING OPERATIONS, PIPE SUPPORTS, 24" HDPE (DR 11) PIPE, FUSION WELDING, LOCATOR WIRE, TESTING AND ALL OTHER INCIDENTAL APPURTENANCES AND OPERATIONS REQUIRED TO CONSTRUCT IN ACCORDANCE WITH THE DESIGN DRAWINGS AND SPECIFICATIONS, COMPLETE AND IN PLACE.
8. **FURNISH, INSTALL AND REMOVE 12" BYPASS ASSEMBLY:** THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR EXCAVATION, RESTORATION, CONNECTING TO EXISTING FACILITIES BEDDING AND BACKFILL, SUBSTRUCTURE PROTECTION, INSTALL PIPE (PVC C-900 DR18), AND FITTINGS, APPURTENANCES, LOCATOR WIRE, TESTING, DISINFECTION, AND FLUSHING, COMPLETE AND IN PLACE. THIS WORK INCLUDES THE CONSTRUCTION AND REMOVAL OF THE BYPASS PIPING ASSEMBLY AS ILLUSTRATED IN DETAILS A AND B, JUMPER ASSEMBLY, AND CAPPING OF THE GATE VALVES.
9. **FURNISH AND INSTALL 20" DIP WATER MAIN:** THE PRICE PAID PER LINEAL FOOT INCLUDES ALL COSTS FOR EXCAVATION, RESTORATION, CONNECTING TO EXISTING FACILITIES BEDDING AND BACKFILL, SUBSTRUCTURE PROTECTION, INSTALL PIPE (DIP PRESSURE CLASS 350), AND APPURTENANCES, LOCATOR WIRE, TESTING, DISINFECTION, AND FLUSHING, COMPLETE AND IN PLACE.
10. **FURNISH AND INSTALL 20" X 12" WET TAP ASSEMBLY:** THE UNIT PRICE PAID FOR EACH WET TAP INCLUDES ALL EXCAVATION, MATERIALS, LABOR AND PREPARATION FOR THE TESTING AND INSTALLATION OF THE STAINLESS STEEL TAPPING SLEEVE AND VALVE, ALL APPURTENANCES, DISINFECTION, TESTING, COMPLETE AND IN PLACE.
11. **FURNISH AND INSTALL 20" GATE VALVE:** THE UNIT PRICE PAID FOR EACH INCLUDES ALL COSTS FOR EXCAVATION AND BACKFILL, INSTALLING VALVES, OPERATORS, VALVE BOXES, STEMS, RETAINER GLANDS, TESTING, COMPLETE AND IN PLACE.
12. **FURNISH AND INSTALL 12" GATE VALVE:** THE UNIT PRICE PAID FOR EACH INCLUDES ALL COSTS FOR EXCAVATION AND BACKFILL, INSTALLING VALVES, OPERATORS, VALVE BOXES, STEMS, RETAINER GLANDS, TESTING, COMPLETE AND IN PLACE.
13. **FURNISH AND INSTALL FITTINGS AND APPURTENANCES:** THE UNIT PRICE PAID PER TON INCLUDES ALL COSTS FOR THE INSTALLATION OF ALL MECHANICAL JOINT AND FLANGED FITTINGS, RESTRAINTS, AND APPURTENANCES, EXCAVATION, BACKFILL, COMPLETE AND IN PLACE. THIS BID ITEM DOES NOT INCLUDE THOSE FITTINGS ASSOCIATED WITH THE 12" BYPASS ASSEMBLIES AS IDENTIFIED IN DETAILS A AND B ON SHEET C.1.2, AND BID ITEM 8 ABOVE.
14. **FURNISH AND INSTALL AIR RELEASE VALVE (ARV) AND VAULT:** THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR A 2" ARV ASSEMBLY AND VAULT IN ACCORDANCE WITH COUNTY STANDARD DETAILS, COMPLETE AND IN PLACE.
15. **DISINFECTION AND TESTING:** THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR DISINFECTION AND TESTING, INCLUDING WATER, PRESSURE TESTING BEFORE AND AFTER BORING, CONTINUITY TESTING, DENSITY TESTING, ROADWAY CORES, STRING LINING, SUFFICIENT FOR A COMPLETE INSTALLATION.
16. **SAMPLE POINTS:** THE UNIT PRICE PAID FOR EACH INCLUDES ALL LABOR AND MATERIALS ASSOCIATED WITH INSTALLATION, COMPLETE AND IN PLACE.
17. **PIGGING AND FLUSHING:** THE LUMP SUM PRICE PAID INCLUDES ALL LABOR, MATERIALS, TESTING, TEMPORARY CONSTRUCTION AND EQUIPMENT, INCLUDING WATER, BACKFLOW PREVENTERS AND METERS, INCIDENTAL PIPING AND VALVES, FOR COMPLETE PIGGING AND FLUSHING OF ALL INSTALLED MAINS TO THE SATISFACTION OF THE UTILITY.
18. **ROAD CLEARING AND GRUBBING:** THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR REMOVALS REQUIRED FOR ROAD WORK, CLEARING OF VEGETATION REPLACEMENT OF PAVEMENT STRUCTURAL SECTION DAMAGED OR REMOVED FROM EITHER INCIDENTAL AND DUE TO CONSTRUCTION ACTIVITIES INCLUDING SUBBASE, BASE, COMPACTION, GRADING, AND THE REPLACEMENT OF PAINTED STRIPING TO ITS PRE-CONSTRUCTION LAYOUT, FOR A COMPLETE RESTORATION IN PLACE.
19. **EXCAVATION AND EMBANKMENT:** THE LUMP SUM PRICE PAID INCLUDES ALL COSTS FOR EXCAVATION AND FILL FOR ROAD WIDENING (INCLUDING IMPORTED MATERIAL), SHOULDER CONSTRUCTION, SITE AND SUBGRADE PREPARATION AND COMPACTION READY TO ACCEPT BASE, POST PAVING CLEAN UP AND DRESSING SLOPES AND SHOULDER, IN ACCORDANCE WITH THE DESIGN DRAWINGS, DETAILS, AND SPECIFICATIONS FOR A COMPLETE INSTALLATION. THIS IS A FINAL PAY ITEM BASED ON PLAN QUANTITIES, AND NO ADDITIONAL PAYMENT WILL BE MADE THEREFORE.
20. **OPTIONAL BASE COURSE 8" LIMEROCK (LBR=100):** THE UNIT PRICE PAID PER SQUARE YARD OF BASE PLACED INCLUDES ALL COSTS FOR PROVIDING, PLACING AND COMPACTION BASE COURSE, COMPLETE AND IN PLACE.
21. **SUPERPAVE ASPHALT CONCRETE, 2" SP 12.5:** THE UNIT PRICE PAID PER SQUARE YARD OF PAVEMENT PLACED INCLUDES ALL COSTS FOR PROVIDING, PLACING AND COMPACTION ASPHALT CONCRETE, COMPLETE AND IN PLACE.
22. **SOD AND SITE RESTORATION:** THE UNIT PRICE PAID PER SQUARE YARD PAID INCLUDES ALL COSTS FOR PREPPING, INSTALLING, WATERING AND MAINTAINING SOD IN ACCORDANCE WITH THE DESIGN DRAWINGS AND SPECIFICATIONS, COMPLETE AND IN PLACE.

SCHEDULE OF BID ITEMS

20-INCH WATER MAIN RELOCATION

THIS BID IS SUBMITTED TO:

INDIAN RIVER COUNTY PURCHASING

1800 27TH STREET

VERO BEACH, FLORIDA 32960

BY: _____
COMPANY NAME

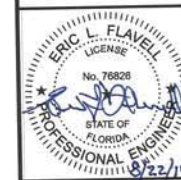
ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
1	MOBILIZATION	1	LS		
2	MAINTENANCE OF TRAFFIC	1	LS		
3	FDEP NOTICE OF INTENT	1	LS		
4	EROSION CONTROL	1	LS		
5	DEMOLITION / SITE PREPARATION	1	LS		
6	FURNISH AND INSTALL 20" LINE STOP	2	EA		
7	FURNISH AND INSTALL 24" HDPE HDD	560	LF		
8	FURNISH, INSTALL AND REMOVE 12" BYPASS ASSEMBLY	1	LS		
9	FURNISH AND INSTALL 20" DIP WATER MAIN	20	LF		
10	FURNISH AND INSTALL 20" X 12" WET TAP ASSEMBLY	2	EA		
11	FURNISH AND INSTALL 20" GATE VALVE	2	EA		
12	FURNISH AND INSTALL 12" GATE VALVE	2	EA		
13	FURNISH AND INSTALL FITTINGS AND APPURTENANCES	5.0	TON		
14	FURNISH AND INSTALL AIR RELEASE VALVE AND VAULT	1	EA		
15	DISINFECTION AND TESTING	1	LS		
16	SAMPLE POINTS	2	EA		
17	PIGGING AND FLUSHING	1	LS		
18	ROAD CLEARING AND GRUBBING	1	LS		
19	EXCAVATION AND EMBANKMENT	1	LS		
20	OPTIONAL BASE COURSE 8" LIMEROCK (LBR=100)	580	SY		
21	SUPERPAVE ASPHALT CONCRETE, 2" SP 12.5	580	SY		
22	SOD AND SITE RESTORATION	900	SY		
23	2" HDPE HDD FO CONDUIT	2240	LF		
TOTAL BID					

ALL MATERIALS AND INSTALLATION SHALL BE PER INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES (IRCDUS) STANDARDS AND SPECIFICATIONS DATED JANUARY 2015 OR LATEST REVISION UNLESS OTHERWISE NOTED IN THE BID DOCUMENTS. CONTRACTOR WILL BE PROVIDED WITH A COPY OF CONSTRUCTION PLANS IN AUTOCAD FORMAT TO USE FOR USE IN PREPARING RECORD/AS-BUILT DRAWINGS. THE UNIT PRICE(S) BID WILL INCLUDE AND AND ALL LABOR AND MATERIALS, LISTED OR NOT LISTED, NECESSARY TO FURNISH THE COUNTY A COMPLETE AND WORKING WATER SYSTEM AS INDICATED ON THE CONSTRUCTION PLANS AND BID DOCUMENTS.



Bowman Consulting Group, Ltd.
4450 W. Eau Gallie Blvd
Suite 232
Melbourne, FL 32934
Phone: (321) 255-5454
Fax: (321) 255-7751
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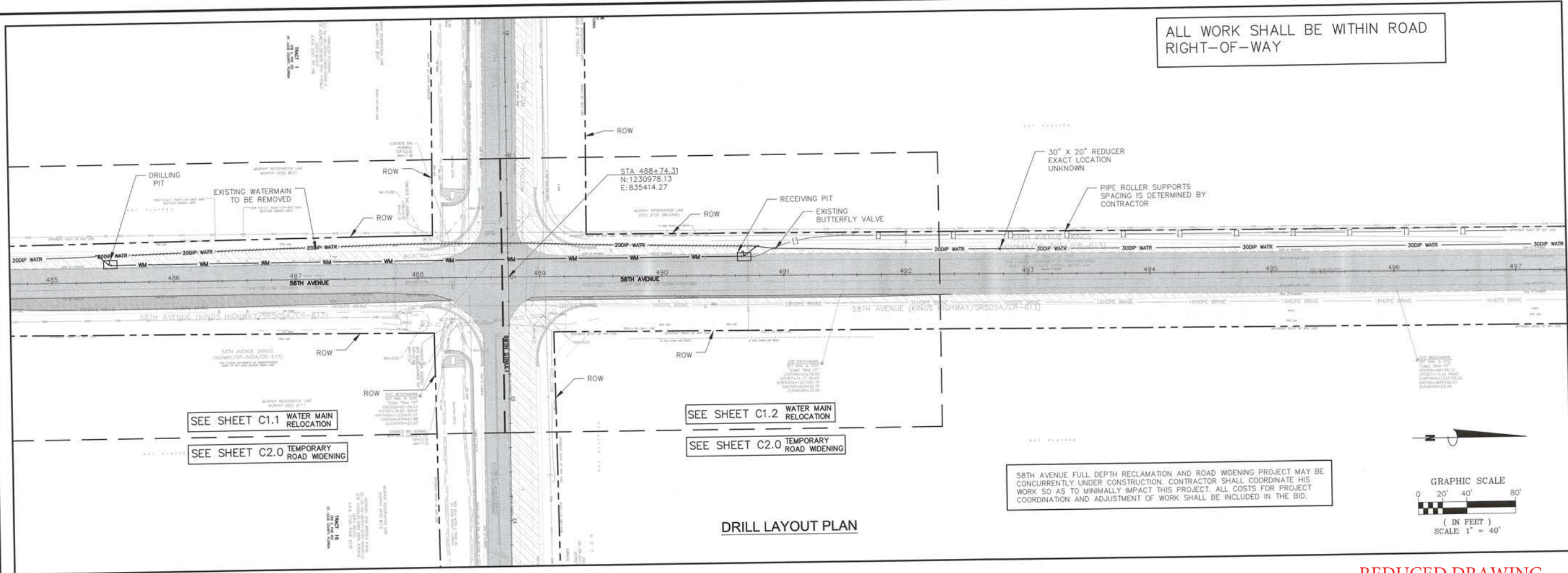
SUMMARY OF QUANTITIES
20-INCH WATER MAIN RELOCATION
UPC# 4144
58TH AVENUE AT 69TH STREET
INDIAN RIVER COUNTY



ERIC L. FLAVEL
LICENSE NO. 76826
08/22/2019
PLAN STATUS

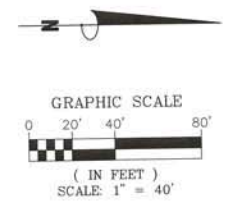
DATE	DESCRIPTION
WFA DESIGN	PK ELN
SCALE	ELN
JOB No.	010514-01-001
DATE	08/22/2019
FILE	010514-01-0-0-01-01-01-01-01
SHEET	C0.1

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ALL WORK SHALL BE WITHIN ROAD RIGHT-OF-WAY

DRILL LAYOUT PLAN



58TH AVENUE FULL DEPTH RECLAMATION AND ROAD WIDENING PROJECT MAY BE CONCURRENTLY UNDER CONSTRUCTION. CONTRACTOR SHALL COORDINATE HIS WORK SO AS TO MINIMALLY IMPACT THIS PROJECT. ALL COSTS FOR PROJECT COORDINATION AND ADJUSTMENT OF WORK SHALL BE INCLUDED IN THE BID.

GENERAL NOTES

- CLEARING AND GRUBBING - WITHIN THE LIMITS OF CONSTRUCTION, ALL VEGETATION AND ROOT MATERIAL SHALL BE REMOVED.
- ALL VEGETATION, DEBRIS, PAVEMENT, CONCRETE OR OTHER UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN AN AREA PROVIDED BY THE CONTRACTOR.
- NONE OF THE EXISTING BASE MATERIAL THAT IS REMOVED IS TO BE USED IN CONSTRUCTION OF THE BASE.
- SOD PLACEMENT SHALL BE AS PER F.D.O.T. INDEX #105. SOD TYPE SHALL MATCH EXISTING GRASS FOR EACH PROPERTY.
- UTILITIES - THE LOCATION OF THE EXISTING UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE AT NO ADDITIONAL COST, TO VERIFY IF OTHER UTILITIES ARE NOT SHOWN ON THE PLANS OR EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE ENGINEER AND NOTIFY THE RESPECTIVE UTILITY OWNERS TO RESOLVE UTILITY CONFLICTS AND UTILITY ADJUSTMENTS, AS REQUIRED.
- ANY EXISTING ROADWAY AND/OR UTILITY THAT IS DAMAGED BY THE CONTRACTOR SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING DRAINAGE STRUCTURES AND PIPES WITHIN THE CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
- TACK COAT-BITUMINOUS TACK COAT SHALL CONFORM WITH THE REQUIREMENTS OF THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2017 EDITION, SECTION 300 AND SHALL BE APPLIED AT THE RATE OF 0.08 GALLONS PER SQUARE YARD, UNLESS A DIFFERENT RATE IS DIRECTED BY THE ENGINEER. COST INCLUDED IN THE UNIT PRICE FOR ASPHALTIC CONCRETE.
- SURFACE COURSE-STRUCTURAL COURSE-TYPE S.P. 12.5 SHALL CONFORM WITH THE REQUIREMENTS OF THE F.D.O.T. SPECIFICATIONS, 2017 EDITION, SECTION 334, THE MINIMUM COMPACTED THICKNESS TO BE AS NOTED.
- PRIOR TO COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 353.851 FOR THE PROTECTION OF UNDERGROUND GAS PIPELINES.
- THE CONTRACTOR SHALL PREPARE AND MAINTAIN PROPER TRAFFIC CONTROL AT ALL TIMES DURING CONSTRUCTION AND SHALL BE REQUIRED TO PROVIDE ALL BARRICADES LIGHTING, SIGNAGE AND FLAGGING AS NECESSARY TO PROVIDE FOR THE SAFETY OF THE PUBLIC IN THE AREA OF WORK. THE ROADWAY SHALL REMAIN OPEN DURING THE CONSTRUCTION OF THE ROADWAY PORTION OF THE PROJECT. THE ROADWAY SHALL BE REOPENED TO TRAFFIC AS SOON AS PRACTICAL. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH CURRENT FLORIDA D.O.D. STANDARDS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- THERE SHALL BE NO EXCAVATIONS LEFT OPEN AFTER DARK.
- ALL CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE STORED A MINIMUM OF 15' FROM THE EDGE OF PAVEMENT AND SHALL BE PROTECTED BY BARRICADES WITH FLASHING YELLOW LIGHTS.
- THE CONTRACTOR SHALL NOTIFY TRAFFIC ENGINEERING AT (772) 226-1547, 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT SUNSHINE STATE ONE CALL SYSTEM AT 1-800-432-4770 FOR LOCATIONS OF UNDERGROUND FACILITIES AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
- FOR FURTHER UTILITY COORDINATION CONTACT:
ROBERT MORRIS, FLORIDA POWER & LIGHT CO. (772) 226-1821
MARK GUTIERREZ, AT&T (772) 460-4443
ARAJNA WERAGODA, P.E., INDIAN RIVER COUNTY UTILITIES (772) 940-9310
RON MULLER, FLORIDA CITY GAS (321) 638-3424
MANNY CABO, INDIAN RIVER COUNTY TELECOMMUNICATIONS (772)226-1318
DALE BUTCHER, FLORIDA PUBLIC UTILITIES (561) 602-3702
- CONCRETE - ALL CONCRETE SHALL DEVELOP 3000 P.S.I. (MINIMUM) 28 DAY COMPRESSIVE STRENGTH OR GREATER. SEE ADDITIONAL REQUIREMENTS FOR CONCRETE CULVERT. CLASS II CONCRETE SHALL CONFORM WITH THE FLORIDA D.O.T. SPECIFICATIONS, 2017 EDITION, SECTION 346.
- ALL CONCRETE, PAVING, DRAINAGE AND UTILITY WORK SHALL BE CONSTRUCTED IN FULL ACCORDANCE WITH THE APPLICABLE FOOT AND INDIAN RIVER COUNTY STANDARDS.
- THE TOPOGRAPHY SHOWN HEREON WAS PROVIDED BY INDIAN RIVER COUNTY.
- ANY N.G.V.D. 1928 MONUMENT, N.A.V.D. 1988 MONUMENT, GOVERNMENTAL LAND CORNER OR SURVEY MONUMENTATION WITHIN LIMITS OF CONSTRUCTIONS TO BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY: DAVID W. SCHRYVER, PSM, INDIAN RIVER COUNTY SURVEYOR (702) 226-1386
- ALL EXISTING SURVEY AND PROPERTY CORNER MONUMENTS LOCATED WITHIN THE AREA OF PROPOSED CONSTRUCTION ARE TO BE REFERENCED PRIOR TO CONSTRUCTION AND RESET AFTER CONSTRUCTION BY A FLORIDA LICENSED PROFESSIONAL LAND SURVEYOR.
- GUARANTEE - ALL MATERIAL AND EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE THEREOF, AGAINST DEFECTIVE MATERIALS, DESIGN AND WORKMANSHIP. UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY PART OF THE GUARANTEED EQUIPMENT OR MATERIALS DURING THE GUARANTEE PERIOD, THE AFFECTED PART, PARTS OR MATERIALS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. IN THE EVENT THE CONTRACTOR FAILS TO MAKE THE NECESSARY REPLACEMENT OR REPAIRS WITHIN SEVEN DAYS AFTER NOTIFICATION BY THE OWNER, THE OWNER MAY ACCOMPLISH THE WORK AT THE EXPENSE OF THE CONTRACTOR. (FINAL ACCEPTANCE IS CONSIDERED TO BE FINAL APPROVAL BY THE I.R.C. BOARD OF COUNTY COMMISSIONERS.)
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR, BUT NOT LIMITED TO ALL PIPE, FITTING VALVES, ASPHALT & CONCRETE MIX DESIGN, STRIPPING MATERIAL, ASPHALT MIX DESIGN, WATER PIPE RELOCATION AND DIRECTIONAL DRILL.
- ALL CHANGES SHALL BE APPROVED IN WRITING BY INDIAN RIVER COUNTY AND THE ENGINEER OF RECORD.
- ALL WORK SHALL BE DONE IN A WORKMANLIKE MANNER AND SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY, STATE OR FEDERAL REGULATIONS AND/OR CODES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED PRIOR TO INITIATING WORK.
- ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN CHANGED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.
- CONTRACTOR SHALL UTILIZE CONSTRUCTION METHODS AND DEVICES SUCH AS TURBIDITY BARRIERS, SYNTHETIC BALES AND FLOATING SILT BARRIERS WHERE NECESSARY TO COMPLY WITH ALL LOCAL, STATE AND FEDERAL WATER QUALITY STANDARDS.
- CONTRACTOR IS REQUIRED TO PROVIDE ALL MAINTENANCE OF TRAFFIC (MOT) FOR THE PROJECT AND ADJUSTING IT AS REQUIRED FOR EACH PHASE OF, OR CHANGE IN WORK.
- CONTRACTOR SHALL OBTAIN ALL PERMITS AND APPROVALS ASSOCIATED WITH IMPLEMENTING MOT DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR HAVING MOT PLANS PREPARED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA AND QUALIFIED TO DO THE WORK. MOT SHALL BE IN PLACED AND MAINTAINED THROUGHOUT THE COURSE OF THE ENTIRE PROJECT ON A 24 HOUR BASIS AS NEEDED.

LEGEND

- EXISTING ROAD
- TEMPORARY PAVEMENT
- FUTURE ROAD WIDENING

CONSTRUCTION SEQUENCE

- PREPARE MOT PLANS, AND PROVIDE MOT AS NECESSARY FOR TEMPORARY ROAD WIDENING, DIRECTIONAL BORE RIG AND SITE LAYOUT. ADJUST MOT AS REQUIRED FOR OPERATIONS IN PROGRESS.
- CONSTRUCT TEMPORARY ROAD WIDENING FOR TRAFFIC DIVERSION.
- FUSION WELD HDPE PIPE, INSTALL TRACE WIRES, AND PLACE ON ROLLERS.
- PRESSURE TEST HDPE WATER MAIN.
- INSTALL 24"HDPE WATER MAIN AND BUNDLE FOUR(4) 2" HDPE (FIBER OPTIC) CONDUITS VIA HORIZONTAL DIRECTIONAL DRILL. (CONTRACTOR TO VERIFY CLEARANCE DURING BACK-REAMING.)
- INSTALL 20"LINE STOPS AND PROVIDE FOR ABOVE GRADE PROTECTION.
- INSTALL 20"x 12"WET TAPS.
- INSTALL AIR RELEASE VALVE ASSEMBLY.
- INSTALL BYPASS ASSEMBLIES AND SAMPLE POINTS.
- INSTALL TEMPORARY JUMPER ON EXISTING 20" WATERMAIN PER IRCUDS REQUIREMENTS FOR CONSTRUCTION WATER (SEE DETAILS ON SHEETS C1.2 AND D1.1).
- PIG THE HDPE WATER MAIN (A MINIMUM OF TWO PASSES AND CLEAR WATER) AND RUN A MANDREL TO VERIFY PIPE INTEGRITY.
- PRESSURE TEST INSTALLED HDPE WATER MAIN AND BYPASS ASSEMBLIES WITH WATER FROM THE TEMPORARY JUMPER.
- RESTRAIN ALL UPSTREAM AND DOWNSTREAM JOINTS IN ACCORDANCE WITH IRCUDS RESTRAIN SCHEDULE AND DESIGN DRAWINGS.
- CHLORINATE AND BAC-T HDPE WATER MAIN AND BYPASS ASSEMBLIES.
- SUBMIT ASBUILT DRAWINGS FOR REVIEW AND OBTAIN FDEP CLEARANCE.
- UPON RECEIPT OF FDEP CLEARANCE, IRCUDS TO OPEN NORTH 12" GATE VALVE AND FLUSH MAIN NORTH TO SOUTH.
- CONSTRUCT 20"DIP CONNECTION SPOOL ASSEMBLIES IN ACCORDANCE WITH DETAILS ON SHEET C1.2.
- CLOSE LINE STOPS AND DIVERT FLOW FROM THE EXISTING 20"DIP WATERMAIN THROUGH THE 12" BYPASS ASSEMBLIES.
- SAWCUT AND REMOVE EXISTING 20"DIP MAIN AND AERIAL CROSSING.
- INSTALL 20"DIP CONNECTION SPOOL ASSEMBLIES.
- REMOVE 12" BYPASS PER DETAILS ON SHEET C1.2 AND PLACE 20" HDPE WM IN SERVICE.
- OPEN LINE STOPS SLOWLY AND ALLOW FLOW THROUGH 20" DIVERSION.
- OBTAIN BAC-T SAMPLES LOCALLY TO VERIFY DISINFECTION OF THE COMPLETED ASSEMBLY.
- CLOSE 12" GATE VALVES UPON INSPECTION OF NEW INSTALLATION.
- REMOVE BYPASS ASSEMBLIES PER DESIGN DETAILS A AND B.
- INSTALL BLIND FLANGES ON ALL EXPOSED 12" GATE VALVES.
- REMOVE LINES STOP BONNETS AND INSTALL BLIND FLANGES.
- BACKFILL AND COMPACT ALL DISTURBED AREAS IN 12" LIFTS.
- CONTINUITY TEST THE INSTALLED MAIN AND APPURTENANCES, INSTALL VALVE BOXES AND COLLARS.
- REPAIR EXISTING PAVEMENT IN 58TH AVENUE DAMAGED DURING CONSTRUCTION AND RESTRIPE ROAD FOR RESTORED CONDITION.
- RESTORE AND SOO ALL DISTURBED AREAS.

REDUCED DRAWING NOT TO SCALE INFORMATION ONLY



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Bowman Consulting Group, Ltd.
4450 W. Eau Gallie Blvd
Suite 232
Melbourne, FL 32934
Phone: (321) 255-5434
Fax: (321) 255-7751
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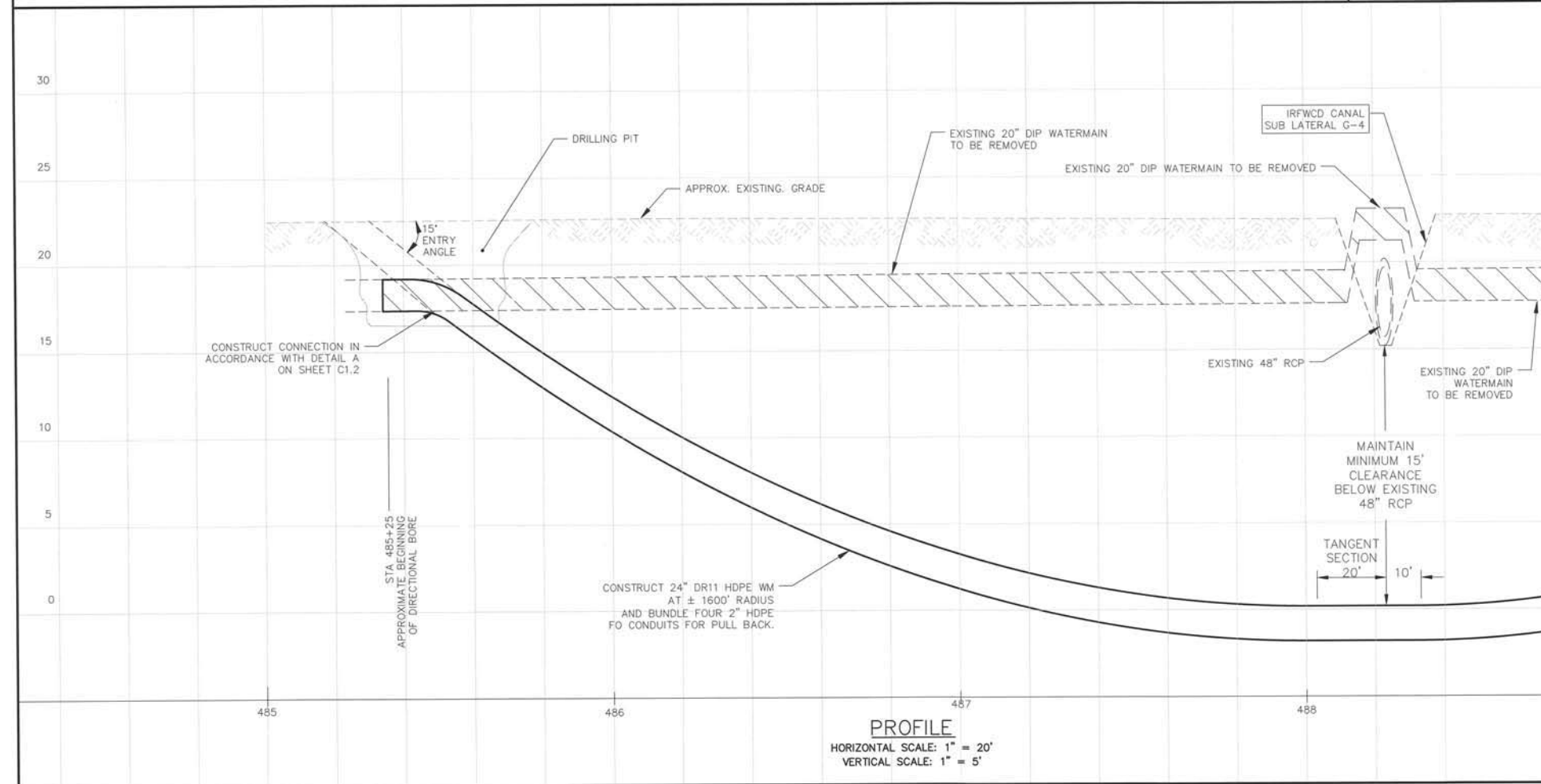
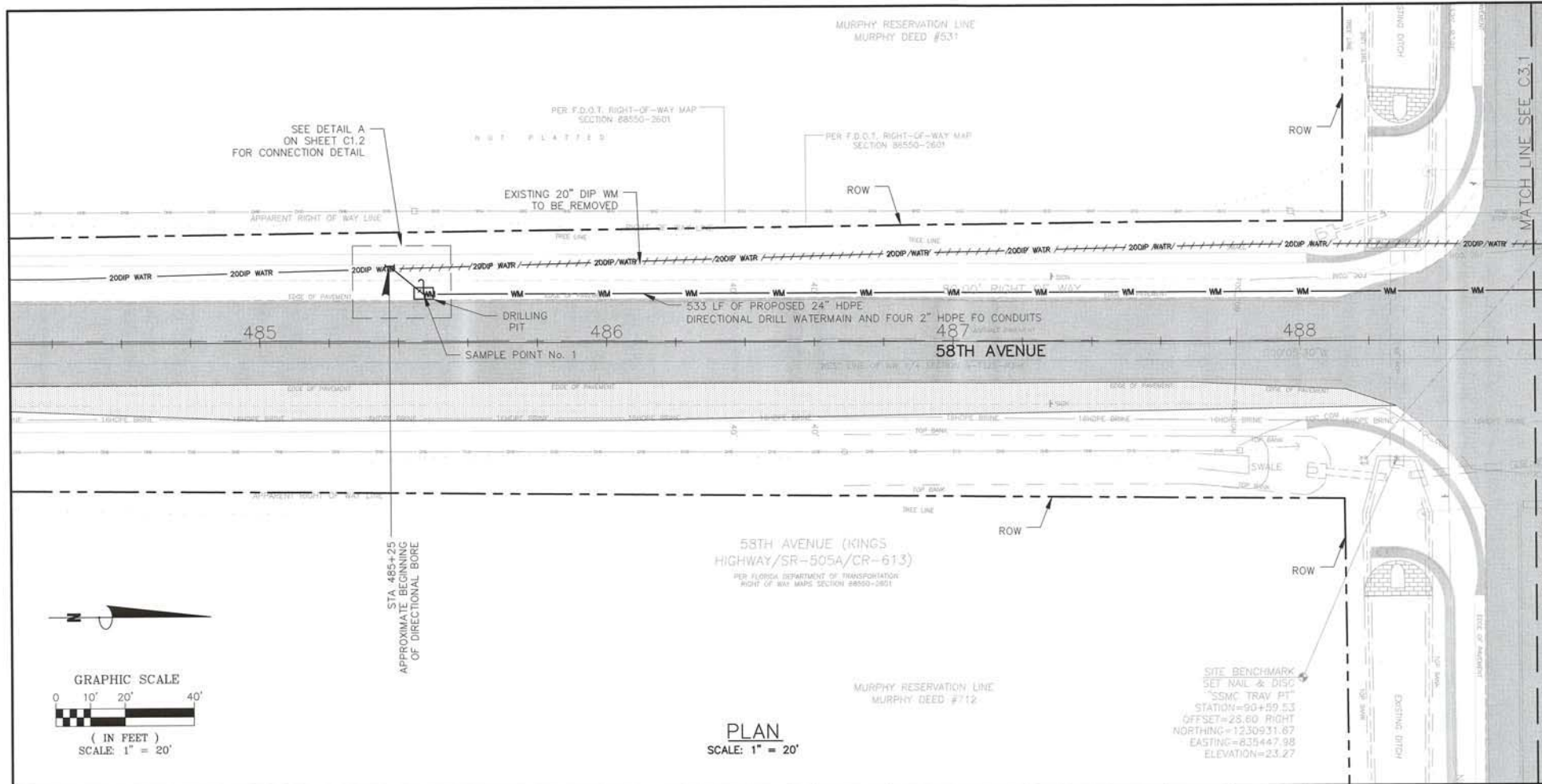
SITE PLAN
20-INCH WATER MAIN RELOCATION
UPC# 4144
58TH AVENUE AT 69TH STREET
INDIAN RIVER COUNTY



ERIC L. FLAVEL LICENSE NO. 76826 08/22/2019 PLAN STATUS		
DATE	DESCRIPTION	
WFA	PK	ELF
DESIGN	DRAWN	CHKD
SCALE 1" = 40'		
JOB No. 010514-01-001		
DATE 08/22/2019		
FILE 010514-01-01-01-04-C1.0-PPS.DWG		
SHEET		C1.0

LEGEND

-  EXISTING ROAD
-  TEMPORARY PAVEMENT



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Bowman Consulting Group, Ltd.
4450 W. Eau Gallie Blvd
Suite 232
Melbourne, FL 32934
Phone: (321) 255-5434
Fax: (321) 255-7751
www.bowmanconsulting.com
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WATER MAIN PLAN AND PROFILE
20-INCH WATER MAIN RELOCATION
UPC# 4144
58TH AVENUE AT 69TH STREET
INDIAN RIVER COUNTY



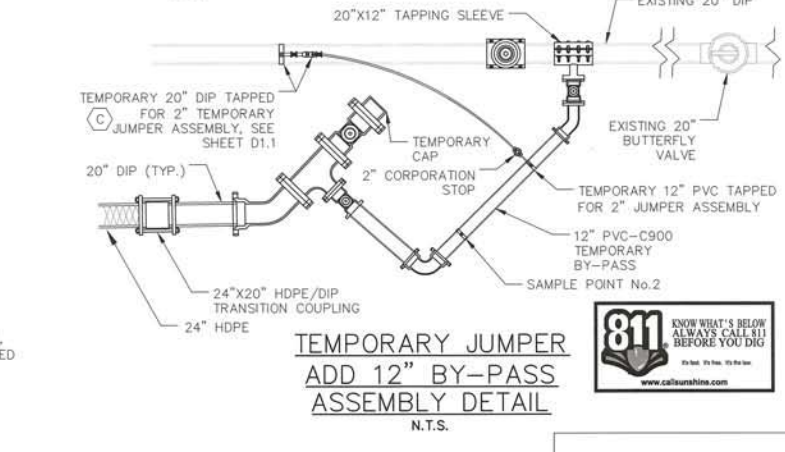
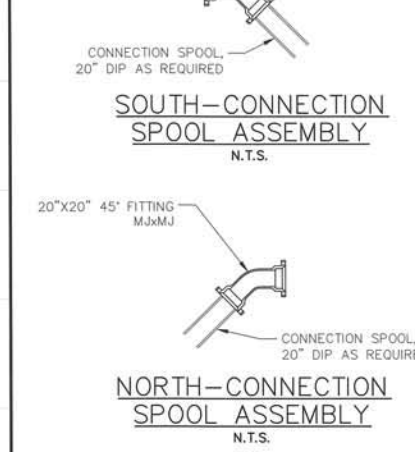
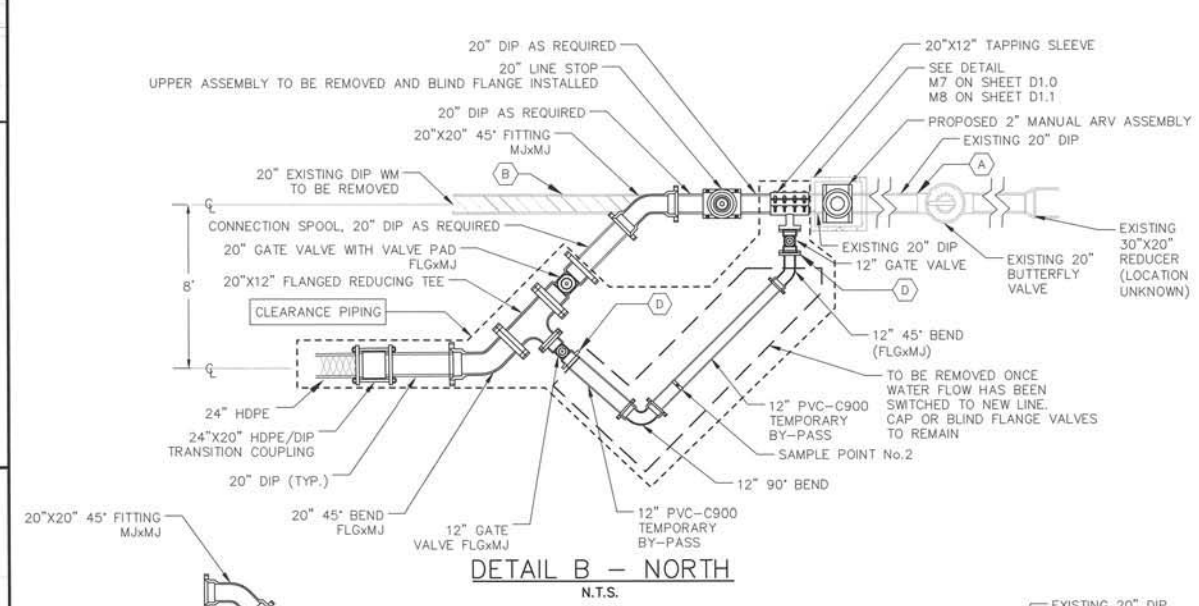
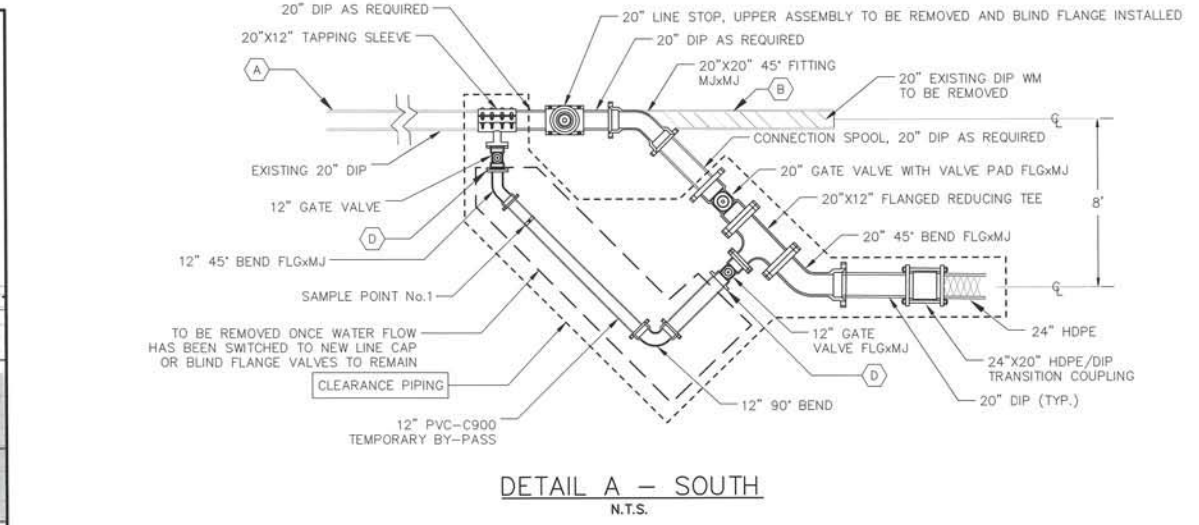
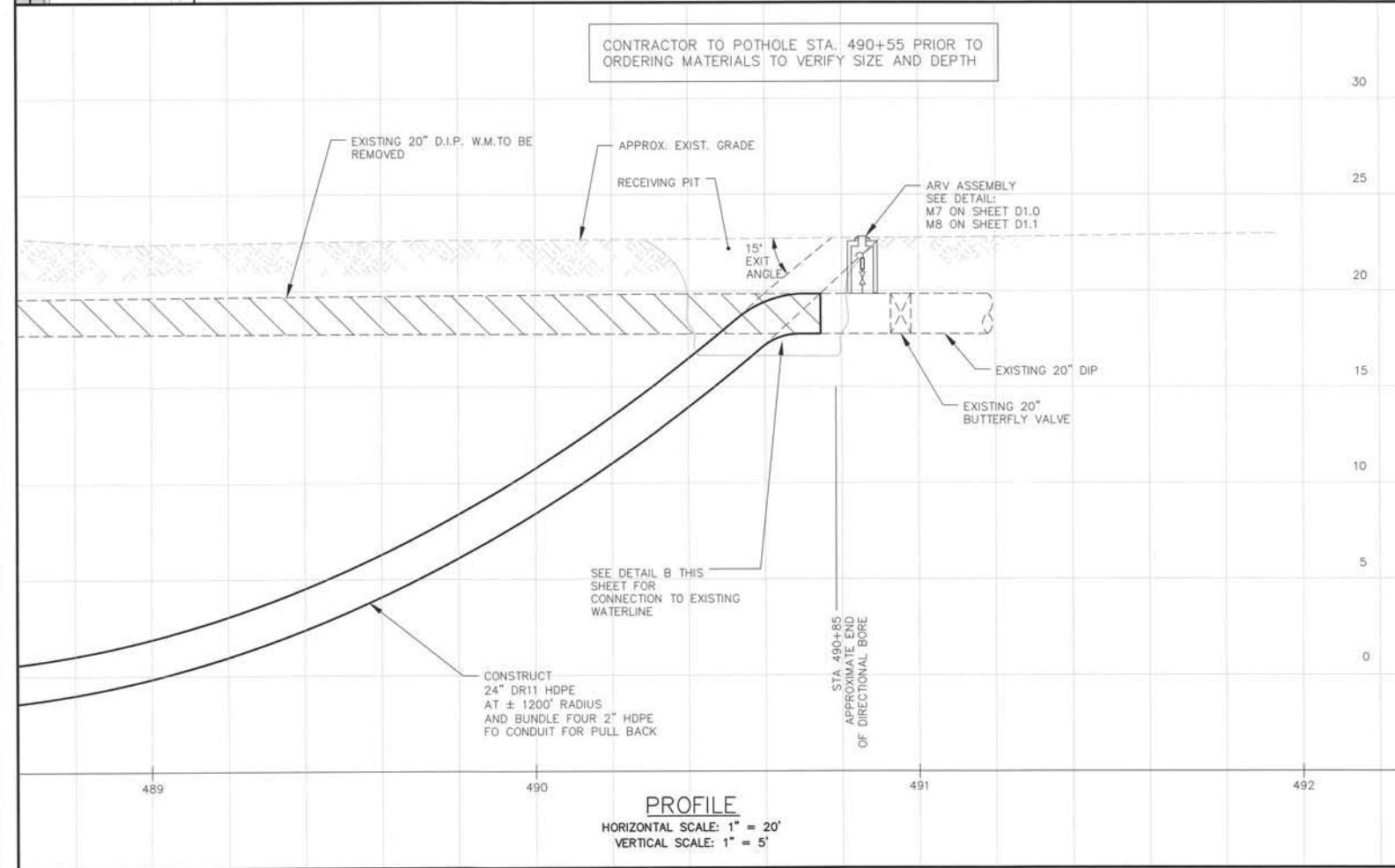
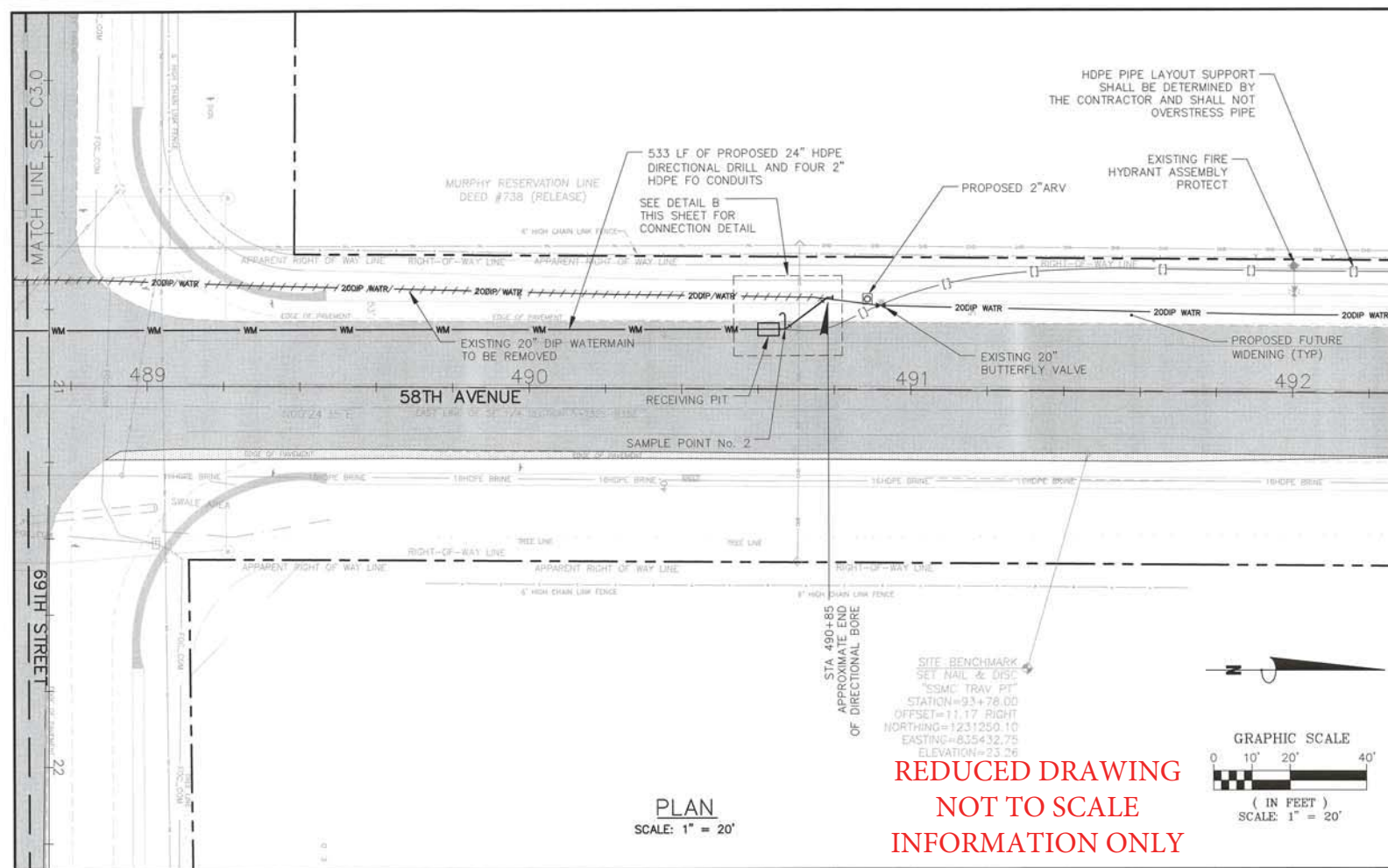
ERIC L. FLAVEL
LICENSE NO. 76826
08/22/2019
PLAN STATUS

DATE	DESCRIPTION
WFA DESIGN	PK DRAWN
ELF	CHKD
SCALE	AS SHOWN
JOB No.	010514-01-001
DATE	08/22/2019
FILE	010514-01-0-CP-001-04-C1.0-PPS.DWG

SHEET **C1.1**

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GENERAL NOTES:

- ALL FITTINGS TO BE RESTRAINED MECHANICAL JOINT UNLESS OTHERWISE NOTED.
- ALL FITTINGS AND PIPE TO BE RESTRAINED IN ACCORDANCE WITH IRCSDS STANDARDS.
- CONTRACTOR IS RESPONSIBLE FOR PREPARING AND PERMITTING MOT FOR THE WORK.
- MINIMUM 3" SEPARATION BETWEEN FITTINGS AND APPURTENANCES ON MECHANICAL JOINT CONNECTIONS.

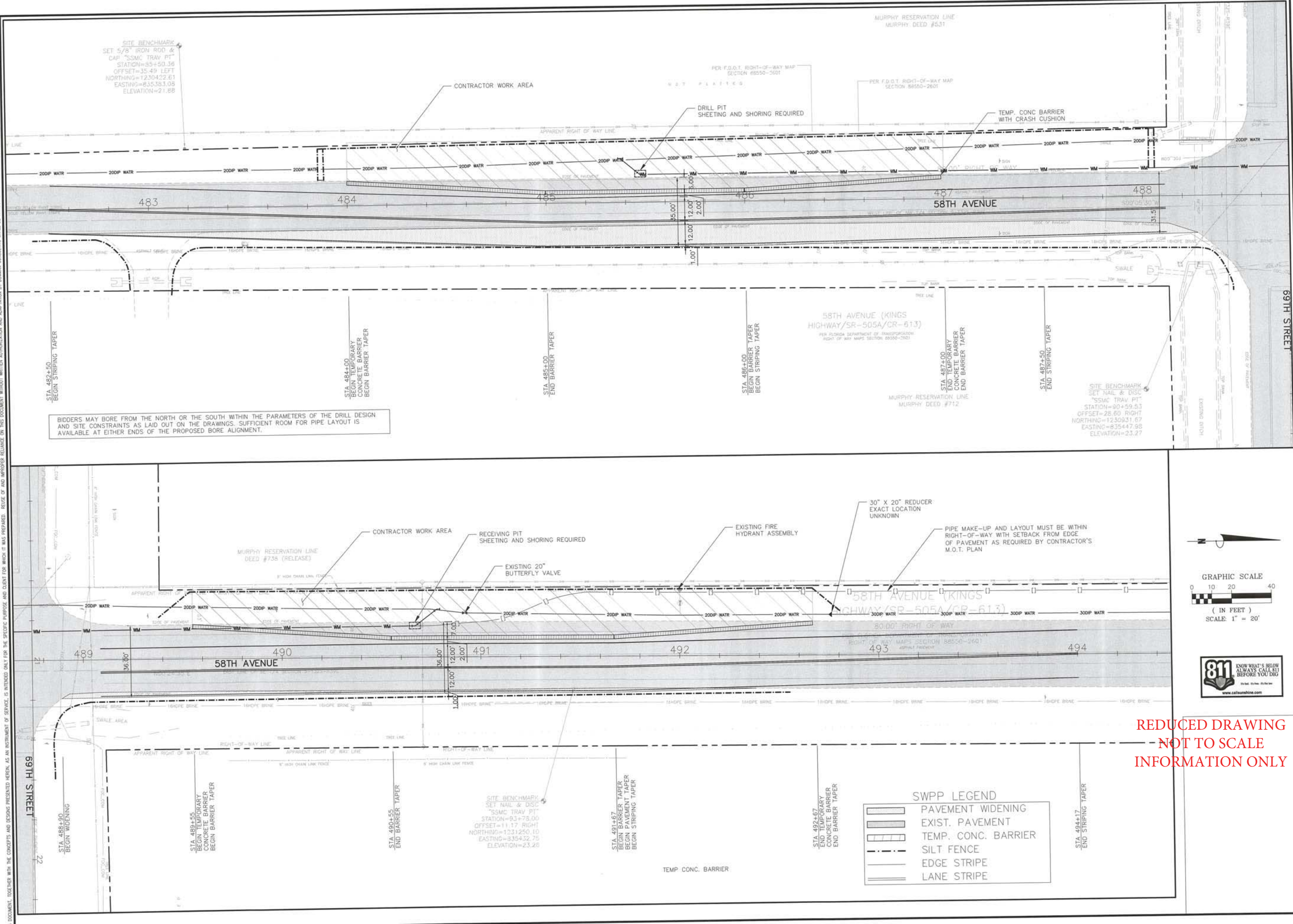
CONSTRUCTION NOTES THIS SHEET:

- CONTRACTOR SHALL EXCAVATE AND EXPOSE THE EXISTING PIPE JOINTS, STARTING AT THE LINESTOP AND INSTALL A RESTRAINT AT EACH JOINT FOR 220' PRIOR TO CLOSING THE LINE STOP.
- ONCE THE NEW LINE IS INSTALLED, TESTED AND ACCEPTED, THE EXISTING 20" DIP WATERMAIN CAN BE CUT AND REMOVED BETWEEN THE PROPOSED 20" 45° BEND FITTINGS.
- THE TEMPORARY JUMPER CONNECTION ON EXISTING MAIN IS FOR THE CONTRACTORS USE WITH PROVIDING PIPELINE FILL WATER, PIG DIFFERENTIAL PRESSURE, AND OTHER USES.
- INSTALL CAP OR BLIND FLANGE ONCE PIPE IS REMOVED.

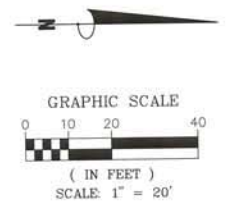
ERIC L. FLAVEL
 LICENSE NO. 76826
 08/22/2019

PLAN STATUS		
DATE	DESCRIPTION	
	WFA DESIGN	PK DRAWN
	ELF CHECKED	CHD
SCALE AS SHOWN		
JOB No. 010514-01-001		
DATE 08/22/2019		
FILE 010514-01-0-CP-001-04-C1.0-PPS.DWG		
C1.2		
SHEET		

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BIDDERS MAY BORE FROM THE NORTH OR THE SOUTH WITHIN THE PARAMETERS OF THE DRILL DESIGN AND SITE CONSTRAINTS AS LAID OUT ON THE DRAWINGS. SUFFICIENT ROOM FOR PIPE LAYOUT IS AVAILABLE AT EITHER ENDS OF THE PROPOSED BORE ALIGNMENT.



SWPP LEGEND

	PAVEMENT WIDENING
	EXIST. PAVEMENT
	TEMP. CONC. BARRIER
	SILT FENCE
	EDGE STRIPE
	LANE STRIPE

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Bowman Consulting Group, Ltd.
4450 W. Eau Gallie Blvd
Suite 232
Melbourne, FL 32934
Phone: (321) 255-5434
Fax: (321) 255-7751
www.bowmanconsulting.com
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TEMPORARY ROAD WIDENING PLAN
20-INCH WATER MAIN RELOCATION
UPC# 4144
58TH AVENUE AT 69TH STREET
INDIAN RIVER COUNTY

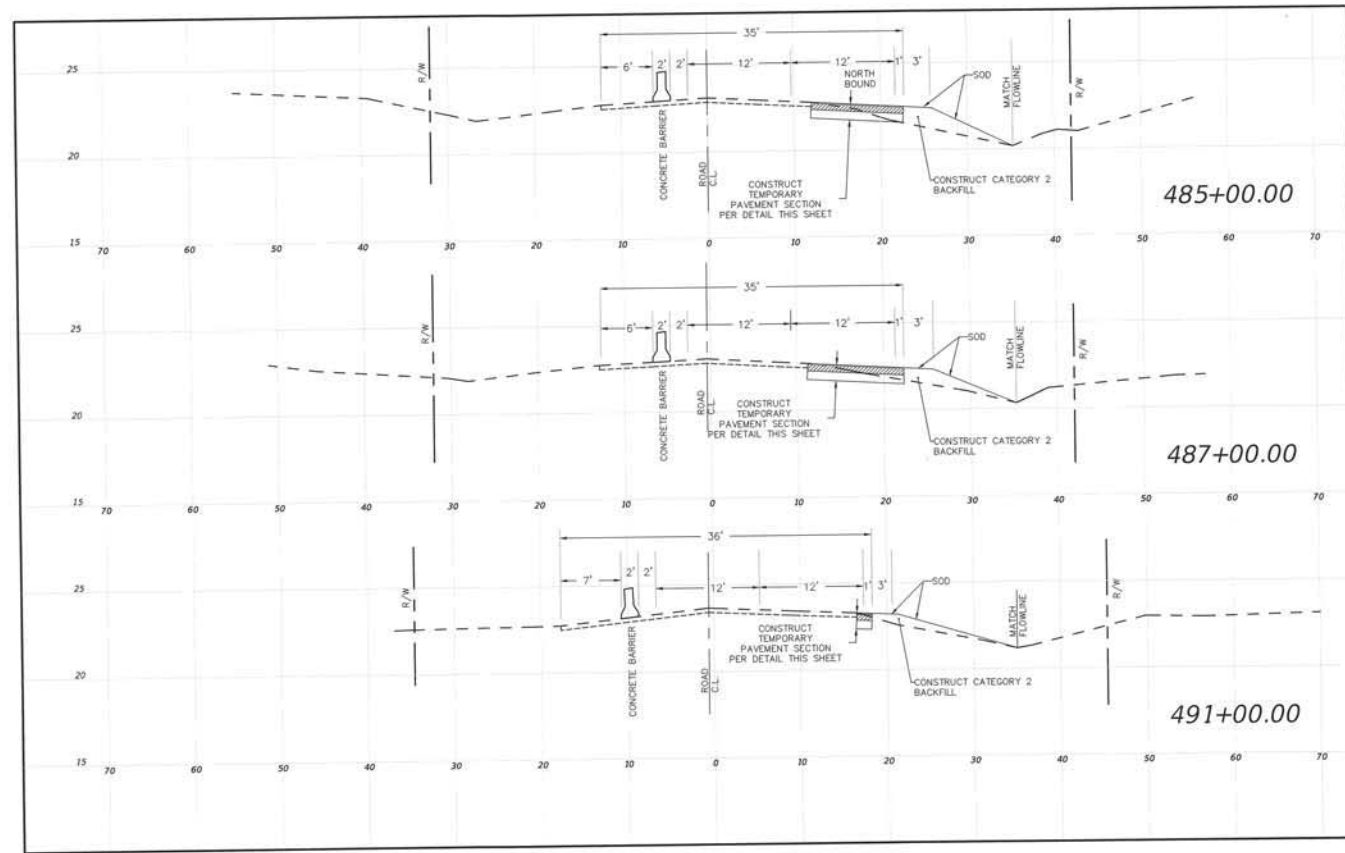


ERIC L. FLAVEL
LICENSE NO. 76826
08/22/2019
PLAN STATUS

DATE	DESCRIPTION
WFA DESIGN	PK DRAWN
ELF	CHKD
SCALE 1" = 20'	
JOB No. 010514-01-001	
DATE 08/22/2019	
FILED 0514-01-0-01-04-04-C2-0-R001	
SHEET C2.0	

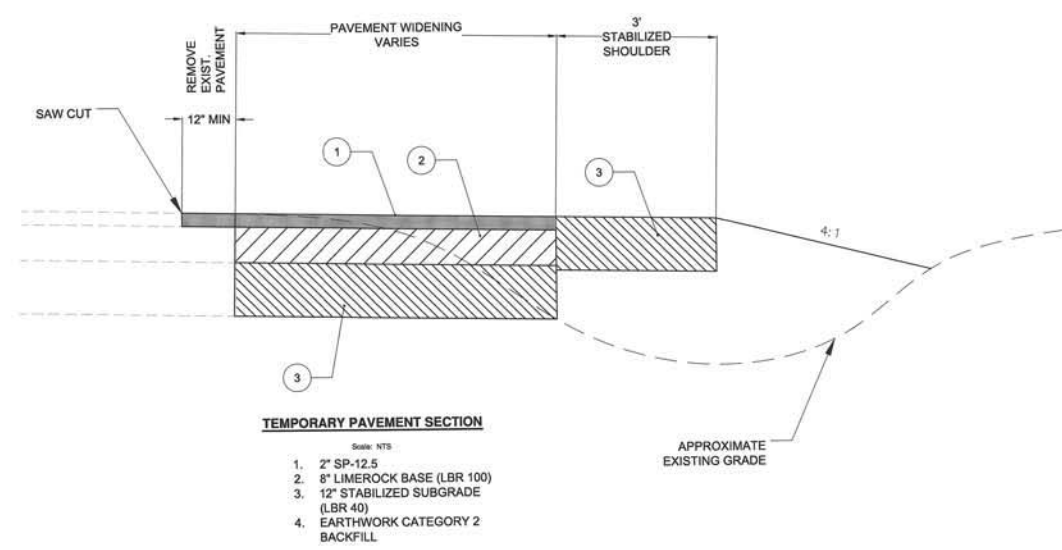
REDUCED DRAWING
NOT TO SCALE
INFORMATION ONLY

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TEMPORARY ROAD WIDENING SECTIONS
Scale: 1"=10'

REDUCED DRAWING
NOT TO SCALE
INFORMATION ONLY



- TEMPORARY PAVEMENT SECTION**
Scale: NTS
1. 2" SP-12.5
 2. 8" LIMEROCK BASE (LBR 100)
 3. 12" STABILIZED SUBGRADE (LBR 40)
 4. EARTHWORK CATEGORY 2 BACKFILL



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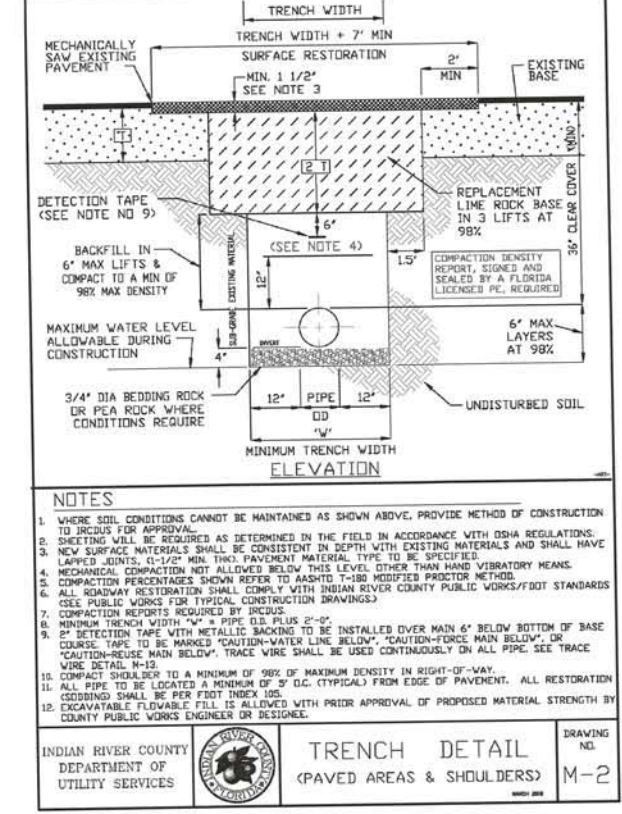
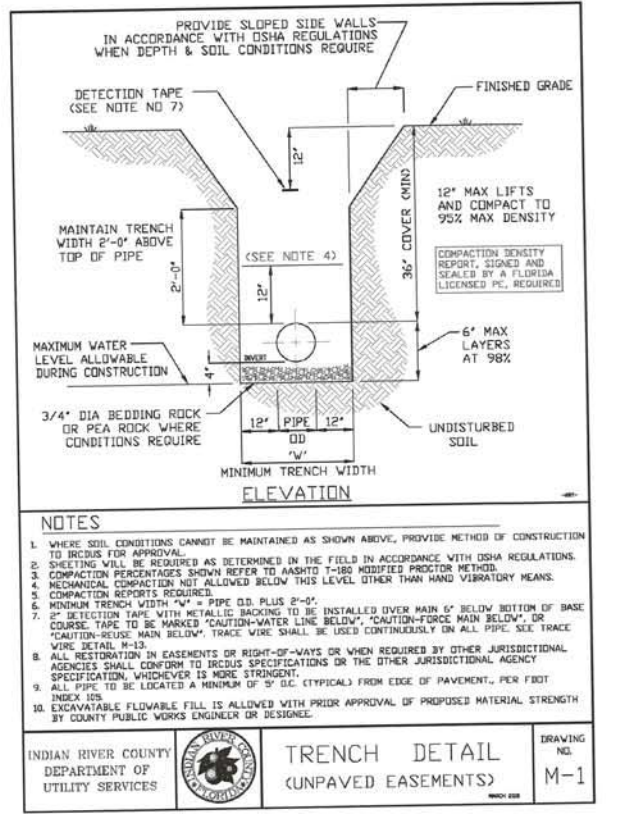
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TEMPORARY ROAD PLAN SECTIONS
20-INCH WATER MAIN RELOCATION
UPC# 4144
58TH AVENUE AT 69TH STREET
INDIAN RIVER COUNTY



ERIC L. FLAVEL LICENSE NO. 76826 08/22/2019 PLAN STATUS		
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WFA	PK	ELF
DESIGN	DRAWN	CHKD
SCALE		
JOB No. 010514-01-001		
DATE 08/22/2019		
FILE 010514-01-01-01-04-C20-ROAD		
SHEET		C2.1

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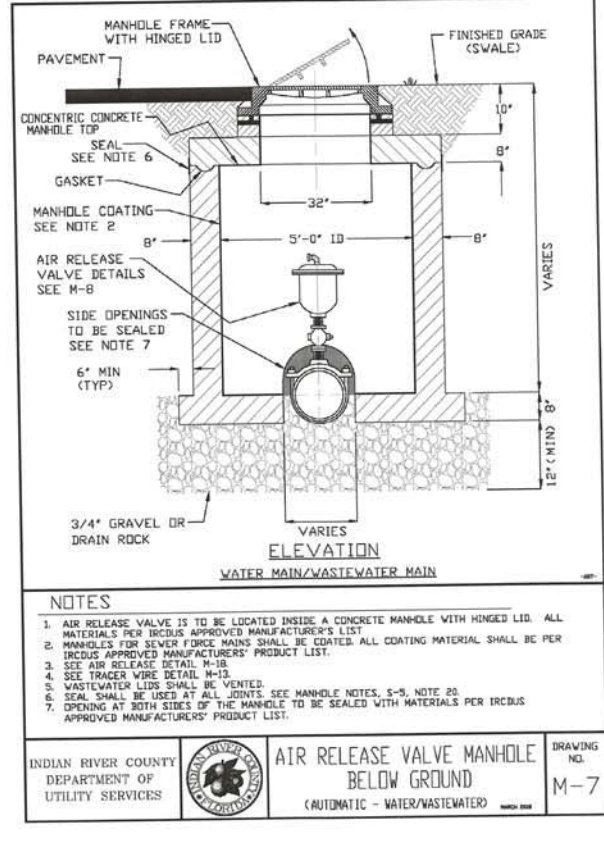
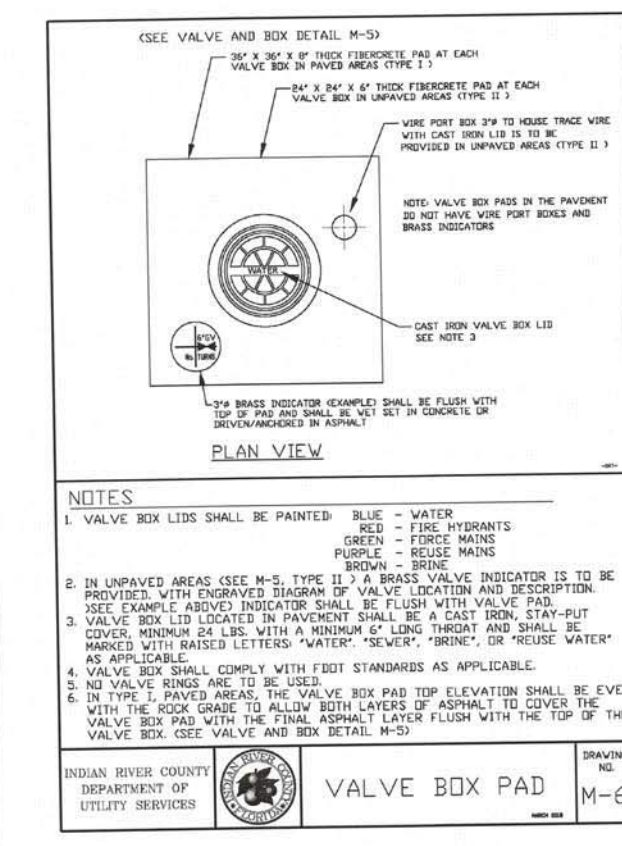
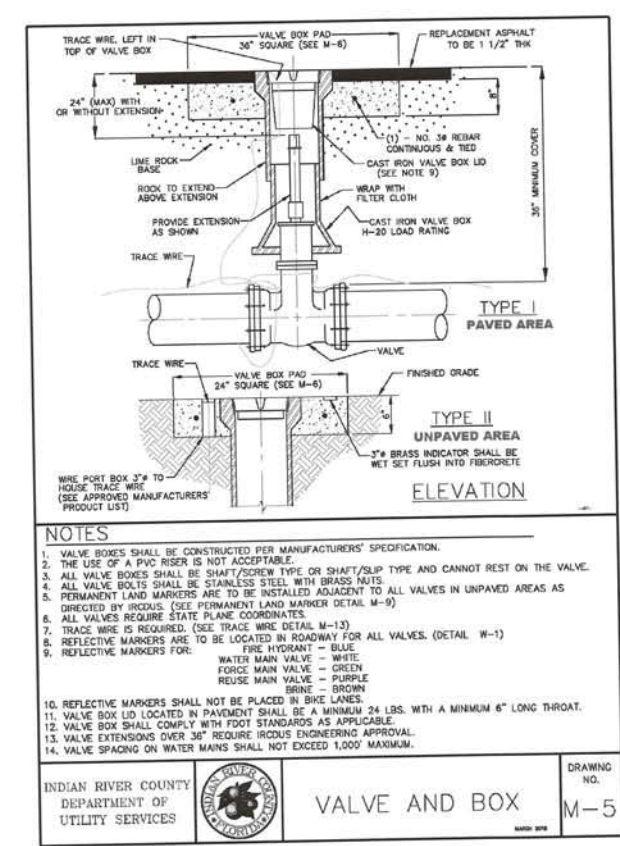
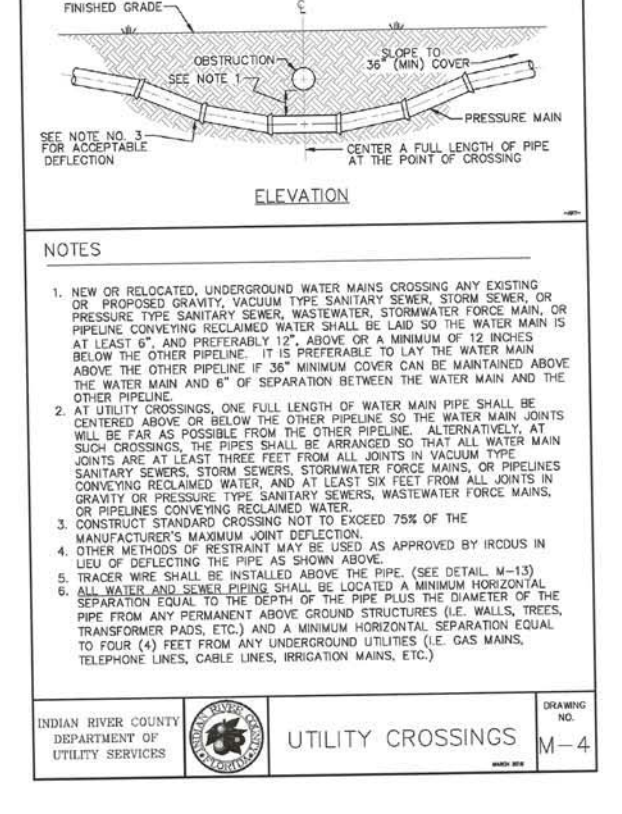
RESTRAINED PIPE LENGTHS AND SCHEDULE NOTES
INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITY SERVICES

RESTRAINED LENGTH IN FEET FOR REDUCER	PIPE DIAMETER (INCHES)	P. V. C.	D. I. P.
0'	4"	0	0
0'	6"	0	0
0'	8"	0	0
0'	10"	0	0
0'	12"	0	0
0'	14"	0	0
0'	16"	0	0
0'	18"	0	0
0'	20"	0	0
0'	24"	0	0
0'	30"	0	0
0'	36"	0	0
0'	42"	0	0
0'	48"	0	0
0'	60"	0	0
0'	72"	0	0
0'	84"	0	0
0'	96"	0	0
0'	108"	0	0
0'	120"	0	0
0'	132"	0	0
0'	144"	0	0
0'	156"	0	0
0'	168"	0	0
0'	180"	0	0
0'	192"	0	0
0'	204"	0	0
0'	216"	0	0
0'	228"	0	0
0'	240"	0	0
0'	252"	0	0
0'	264"	0	0
0'	276"	0	0
0'	288"	0	0
0'	300"	0	0

RESTRAINED LENGTHS FOR DEAD ENDS AND BRANCHES FROM TEES SHALL BE THE SAME AS FOR 50' ENDS.

INDIAN RIVER COUNTY
DEPARTMENT OF
UTILITY SERVICES

DRIVING NO. M-3



SELECTED DETAILS ARE INCLUDED IN THE DRAWINGS AS A CONVENIENCE TO THE CONTRACTOR. THE FOLLOWING CONSTRUCTION STANDARDS ARE INCORPORATED BY REFERENCE AND INCLUDE: THE FDOT 2017-18 DESIGN STANDARDS, THE INDIAN RIVER COUNTY DEPARTMENT OF UTILITIES SERVICES CONSTRUCTION DRAWINGS, AND THE INDIAN RIVER COUNTY ROAD DESIGN STANDARDS, AS IF SPELLED OUT IN THEIR ENTIRETY. ALL WORK SHALL CONFORM TO THESE STANDARDS WHETHER SPECIFICALLY INCLUDED ON THE DRAWINGS OR NOT.

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DETAILS 20-INCH WATER MAIN RELOCATION
UPC# 4144
58TH AVENUE AT 69TH STREET
INDIAN RIVER COUNTY

ERIC L. FLAVEL
LICENSE NO. 76826
PROFESSIONAL ENGINEER

ERIC L. FLAVEL
LICENSE NO. 76826
PLAN STATUS

DATE	DESCRIPTION

WFA DESIGN	PK DRAWN	ELF CHKD

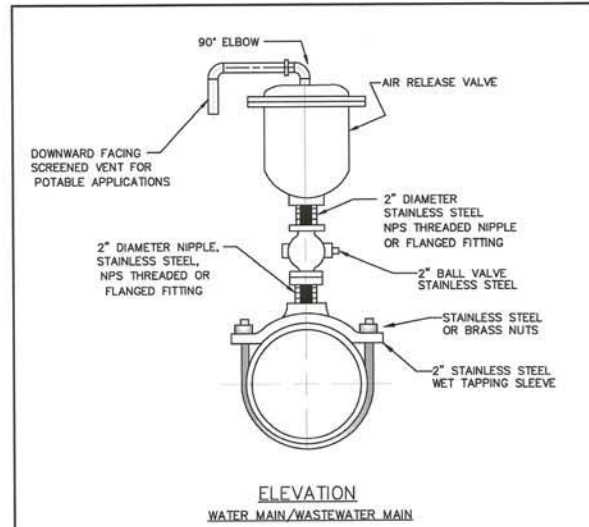
JOB No. 010514-01-001

DATE:

FILE:

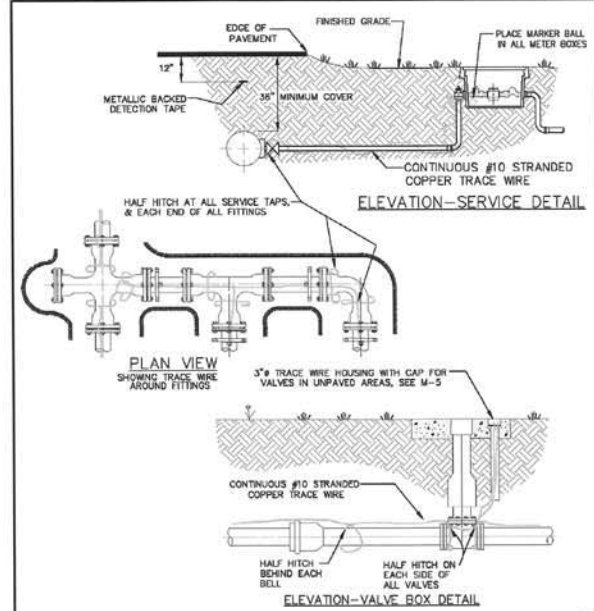
SHEET: **D1.0**

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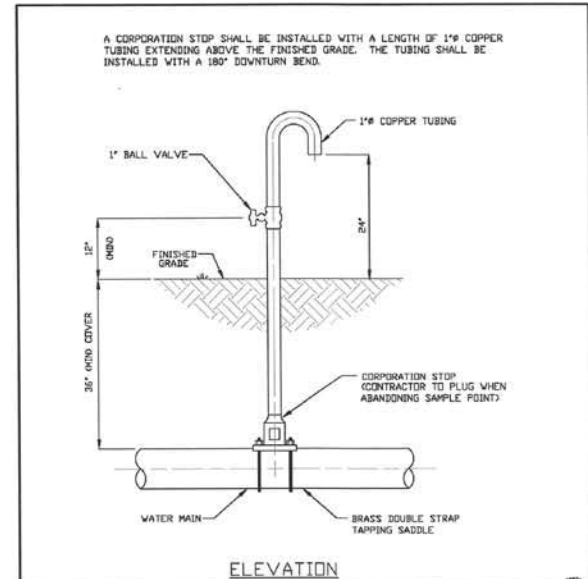
- NOTES**
1. AUTOMATIC AIR RELEASE VALVE TO BE LOCATED ONLY WHERE CONDITIONS MAKE IT INACCESSIBLE OR AS REQUIRED BY THE IRCDS.
 2. AIR RELEASE RISERS TO BE IN A VERTICAL PLUMB POSITION AND PLACED AT SUMMITS IN THE SYSTEM. FOR DIRECTIONAL BORES, AIR RELEASE VALVES ARE TO BE PLACED ON EITHER SIDE OF THE CROSSING.
 3. SEE TRACE WIRE DETAIL, M-13
 4. FOR AIR RELEASE VALVES LARGER THAN 2" CONSULT IRCDS.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		AIR RELEASE VALVE ASSEMBLY ABOVE GROUND (AUTOMATIC - WATER/WASTEWATER)	DRAWING NO. M-8
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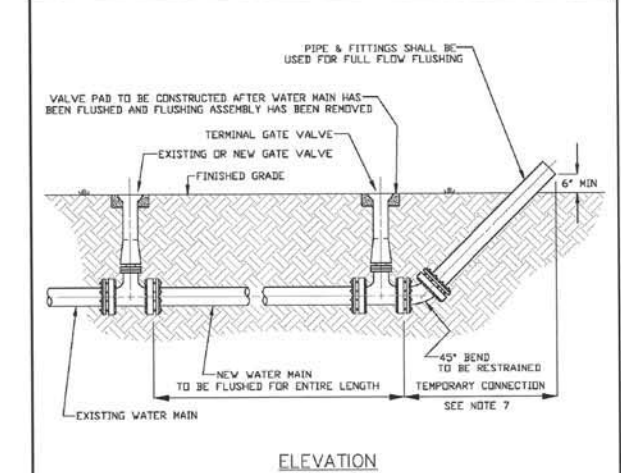
- NOTES**
1. TRACE WIRE IS REQUIRED ON ALL PIPES REGARDLESS OF MATERIAL.
 2. INCLUDE ALL COST OF MATERIAL AND LABOR TO INSTALL TRACE WIRE IN PRICE OF PIPE.
 3. CONTRACTOR IS RESPONSIBLE FOR CONTINUITY THROUGHOUT ENTIRE PROJECT OF ALL TRACE WIRE.
 4. ALL CONNECTIONS SHALL BE MADE WITH DIRECT BURY CONNECTORS.
 5. ALL MATERIALS ARE TO BE PER IRCDS APPROVED MANUFACTURERS' PRODUCT LIST.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		TRACE WIRE DETAILS	DRAWING NO. M-13
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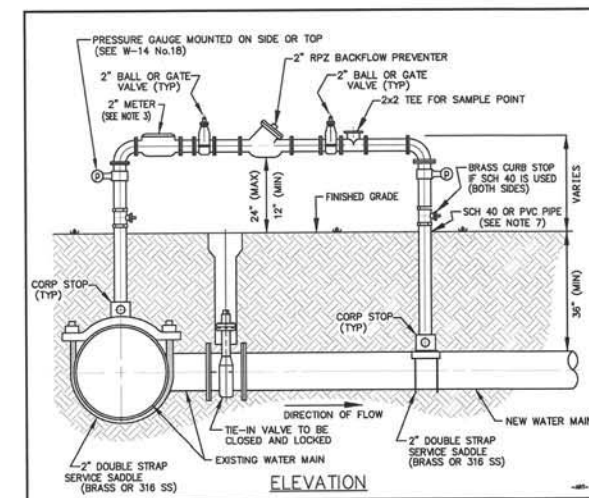
- NOTES**
1. TEMPORARY SAMPLING POINT SHALL BE CONSTRUCTED OF SCHEDULE 40 PVC PIPE OR OTHER MATERIALS AS APPROVED BY IRCDS.
 2. NO SAMPLE POINT SHALL BE CONSTRUCTED ON FIRE HYDRANTS.
 3. CERTIFICATION OF PRESSURE TEST, TWO CONSECUTIVE DAYS OF SUCCESSFUL BACTERIOLOGICAL TESTS, AND CLEARANCE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION IS REQUIRED BEFORE THE SAMPLE TAP CAN BE ABANDONED.
 4. WHEN SAMPLING IS COMPLETE, TUBING SHALL BE REMOVED AND CORPORATION STOP PLUGGED.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		TEMPORARY SAMPLING POINT (BACTERIOLOGICAL)	DRAWING NO. W-8
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- NOTES**
1. A FULL BORE FLUSH IS THE ONLY FLUSHING METHOD APPROVED FOR MAINS. ALL FIRE HYDRANTS AND DETECTOR CHECK VALVES SHALL BE INSPECTED AND TESTED TO ENSURE THAT NO FOREIGN OBJECTS IMPIDE THE FLOW OF WATER. FOR DETAILS ON LINE FILLING, SEE W-14.
 2. A PRESSURE GAUGE SHALL BE INSTALLED UPSTREAM OF THE FLUSHING POINT. PRESSURE UPSTREAM SHALL NOT FALL BELOW 20 P.S.I.
 3. PROVIDE ALL NECESSARY JOINT RESTRAINTS SUCH AS MEGALUGS, RESTRAINED JOINT HARNESS, OR APPROVED EQUAL IN ACCORDANCE WITH IRCDS STANDARDS. SEE M-3.
 4. IRCDS PERSONNEL, AFTER A MINIMUM OF A 48 HOUR NOTICE BY THE CONTRACTOR, SHALL BE PRESENT FOR ALL FLUSHING ACTIVITIES AND SHALL OPERATE ALL EXISTING VALVES.
 5. FOR TRANSMISSION MAINS 12" DIAMETER OR LARGER, "PIGGING" IS REQUIRED.
 6. TEMPORARY CONNECTION FOR FLUSHING SHALL BE SAME DIAMETER PIPE AS THE NEW MAIN AND VALVE.
 7. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION AGAINST EROSION DOWNSTREAM OF EXIT PIPE DURING FLUSHING OF MAIN TO MEET THE APPROVAL OF IRCDS.
 8. WHEN FLUSHING IS COMPLETE, THE TEMPORARY FLUSHING ASSEMBLY SHALL BE REMOVED AND THE GATE VALVE SHALL BE PLUGGED.
 9. FIELD INSPECTION BY IRCDS IS REQUIRED BEFORE UTILITIES ARE ACCEPTED.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		FULL BORE FLUSHING CONNECTION	DRAWING NO. W-9
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- NOTES**
1. A TEMPORARY JUMPER CONNECTION IS TO BE USED FOR FILLING ANY NEW WATER MAIN OF ANY SIZE FROM THE EXISTING ACTIVE WATER MAINS AND FOR THE FLUSHING OF NEW MAINS UP TO 6" DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR PULLING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE.
 2. TIE-IN VALVE SHALL BE OPERATED BY IRCDS PERSONNEL ONLY AND IN THE PRESENCE OF THE ENGINEER OF RECORD.
 3. IRCDS SHALL PROVIDE METER AFTER APPLICATION FOR SERVICE AND AFTER THE DEPOSIT AND ALL FEES HAVE BEEN PAID.
 4. A 2" TEMPORARY JUMPER TO BE USED UNLESS OTHERWISE DIRECTED BY IRCDS.
 5. ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION DEVICE, FITTINGS, VALVES, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 6. ALL MATERIALS TO BE PER IRCDS APPROVED MANUFACTURERS' PRODUCT LIST.
 7. VERTICAL PIPING FOR THE JUMPER SHALL BE SCHEDULE 40 OR 80 PVC OR SDR CTS PE TUBING. IF PE TUBING IS USED, A BRASS CURB STOP IS REQUIRED.
 8. SEE DRAWING V-14 FOR CONTINUATION OF NOTES.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES		TEMPORARY JUMPER DETAIL	DRAWING NO. W-13
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INDIAN RIVER COUNTY
20-INCH WATER MAIN RELOCATION
UPC# 4144
58TH AVENUE AT 69TH STREET



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FILE 010514-01-0-01-04-01-0-03.DWG		
SHEET D1.1		