

43rd AVENUE SIDEWALK FROM AIRPORT DRIVE WEST TO 41st STREET

PROJECT NO. IRC-1503
FM No. 440019-1-58-01

OWNER



Indian River County
Board of County Commissioners
ircgov.com

INDIAN RIVER COUNTY BOARD OF COUNTY COMMISSIONERS

ASSISTANT PUBLIC WORKS DIRECTOR:

JAMES ENNIS, PE
(772) 226-1221
jennis@ircgov.com

INFRASTRUCTURE PROJECT MANAGER:

ROB SKOK
(772) 226-1931
rskok@ircgov.com

ENGINEER



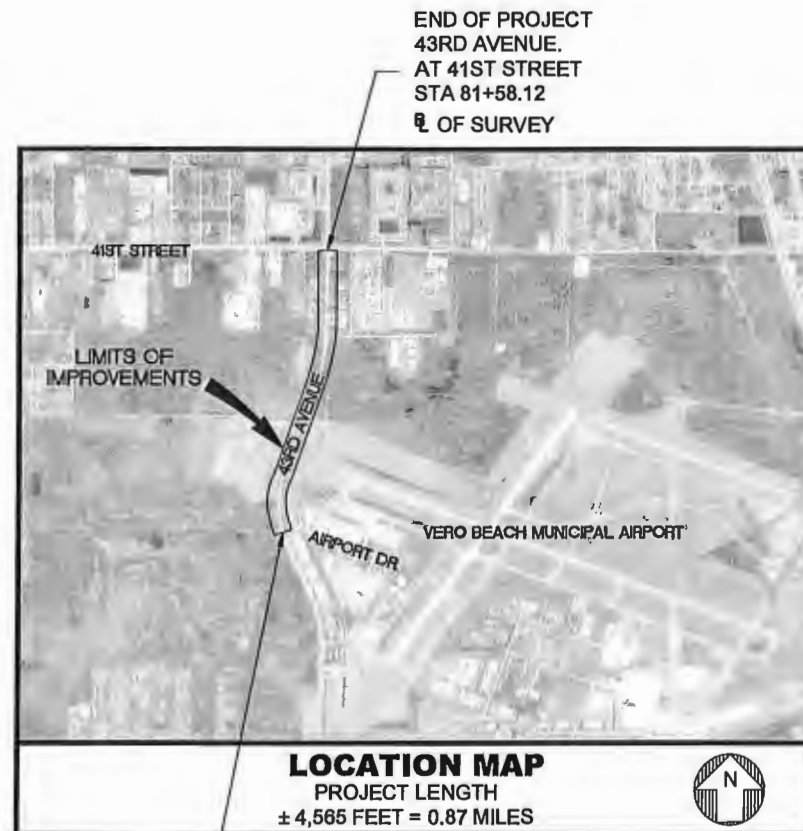
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1835 - 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617
MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9055

GOVERNING STANDARDS AND SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION,
"DESIGN STANDARDS" (2017 EDITION) AND
"STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE
CONSTRUCTION" (2017 EDITION),
AS AMENDED BY CONTRACT DOCUMENTS

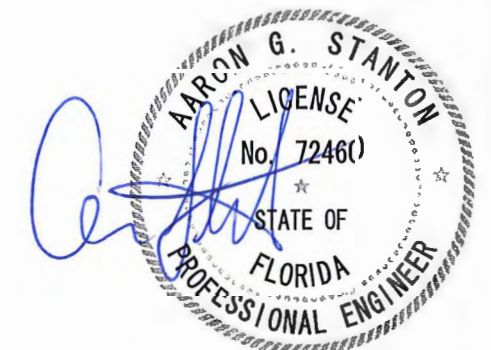
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START PROJECT
43RD AVENUE AT
AIRPORT DRIVE WEST
STA 35+93.26
☒ OF SURVEY

END OF PROJECT
43RD AVENUE
AT 41ST STREET
STA 81+58.12
☒ OF SURVEY



AARON G. STANTON
FL P.E. #7246(1)
DATE 12/31/19
MIN. OB. 18-0043

SHEET
C1

CONSTRUCTION NOTES:

- THE CONTRACTOR IS ADVISED TO THOROUGHLY REVIEW THIS PLAN PACKAGE SO AS TO BE TOTALLY PREPARED TO PRESENT HIS BID PRICES IN THE CONTRACT DOCUMENTS. THE PLAN PACKAGE SUFFICIENTLY DELINEATES THE SCOPE AND INTENT OF THE ROADWAY WORK TO BE ACCOMPLISHED. IT WILL, THEREFORE, BE INCUMBENT ON THE CONTRACTOR TO ADJUST HIS FEE DOLLARS TO REFLECT ANY AND ALL ITEMS WHICH MAY NOT BE CLEARLY OUTLINED OR THOSE ITEMS WHICH MAY NOT BE INDICATED BUT WHICH ARE NECESSARY FOR THE SUCCESSFUL COMPLETION OF THIS PROJECT WITHOUT ADDITIONAL COSTS TO THE OWNER. PAYMENT FOR INCIDENTAL ITEMS NOT SPECIFICALLY COVERED IN THE INDIVIDUAL BID ITEMS SHALL BE INCLUDED IN THE CONTRACT PRICES FOR BID ITEMS.
- CONTRACTOR IS RESPONSIBLE FOR CHECKING ACTUAL SITE CONDITIONS BEFORE STARTING CONSTRUCTION. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH INDIAN RIVER COUNTY AND FOOT "STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", 2017.
- SURFACE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INQUIRE OF THE ENGINEER IF ADDITIONAL INFORMATION IS AVAILABLE, TO MAKE ARRANGEMENTS TO REVIEW SAME PRIOR TO BIDDING, AND IS TO MAKE HIS OWN DETERMINATION AS TO ALL SUBSURFACE CONDITIONS.
- CONTRACTOR SHALL NOTIFY THE ENGINEER IF SOIL OR SUBSURFACE CONDITIONS UNSUITABLE FOR CONSTRUCTION ARE ENCOUNTERED.
- ALL EXCAVATED SOILS DEEMED SUITABLE AS FILL MATERIAL AS DETERMINED BY THE ENGINEER SHALL BE UTILIZED ON SITE BY THE CONTRACTOR AT HIS OWN EXPENSE. THE EXACT LOCATION OF DELIVERY ON SITE SHALL BE DETERMINED BY THE ENGINEER. ALL EXCAVATED SOILS DEEMED UNSUITABLE SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE.
- ITEMS IN CONFLICT WITH DESIGN SUCH AS EXISTING CURBS AND GUTTERS, SIDEWALK, DRAINAGE STRUCTURES PAVEMENT AND EXCESS EXCAVATIONS SHALL FIRST BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD AND IF REQUIRED TO BE REMOVED, SHALL BE REMOVED AND DISPOSED OF IN A LEGAL AND PROPER MANNER AWAY FROM THE JOB SITE AND AT THE CONTRACTOR'S EXPENSE.
- IT SHOULD BE NOTED THAT THE OCCUPATIONAL SAFETY AND HEALTH ACT PROHIBITS THE OPERATING OF EQUIPMENT OR MACHINES CLOSER THAN TEN (10) FEET TO ENERGIZED ELECTRIC LINES RATES AT FIFTY KILOVOLTS OR BELOW. ALSO, NO EXCAVATION IS PERMITTED WITHIN FIVE (5) FEET OF POWER POLE FACILITIES.
- ALL IRONS AND MONUMENTS (P.R.M.'S) SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
- ANY PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED, THE CONTRACTOR WILL NOTIFY THE ENGINEER.
- THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO A CONDITION EQUAL TO, OR BETTER THAN, EXISTING.
- BACKFILL GRADE AND SOD AS REQUIRED AROUND ALL NEW CONSTRUCTION AND ALL DEVELOPED LOTS TO PREVENT EROSION.
- BACKFILL, GRADE AND SOD AS REQUIRED AROUND ALL NEW CONSTRUCTION AND ALL DEVELOPED LOTS TO PREVENT EROSION. SEED AND MULCH WILL ONLY BE ALLOWED TO RESTORE UNDEVELOPED LOTS AFFECTED BY CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL SOD ALL AREAS DISTURBED DUE TO CONSTRUCTION.
- PROPERTY OWNERS AND BUSINESSES WITHIN THE AREA OF CONSTRUCTION SHALL BE GIVEN ACCESS TO THEIR PROPERTY AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.
- THE CONTRACTOR SHALL REMOVE, COVER OR OBLITERATE EXISTING ROADWAY SIGNS AND PAVEMENT MARKINGS THAT CONFLICT WITH THE CONSTRUCTION TRAFFIC CONTROL PLANS.
- CONTRACTOR SHALL CUT AND CAP ANY SPRINKLER LINES AT THE RIGHT-OF-WAY LINE THAT ARE IN CONFLICT WITH THE PROPOSED PROJECT.
- THE CONTRACTOR IS REQUIRED TO PERFORM HIS WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE VARIOUS PERMITS WHICH SHALL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY DRAINAGE MEASURES AS REQUIRED TO ADEQUATELY DRAIN THE PROJECT AND ANY TEMPORARILY TRAVELED ROADWAYS. TEMPORARY DRAINAGE DESIGN, CONSTRUCTION AND MAINTENANCE IS THE CONTRACTOR'S RESPONSIBILITY; HOWEVER, ALL SUCH MEASURES MUST BE APPROVED BY THE ENGINEER.
- THE EXISTING SIDEWALK SHALL NOT BE DISTURBED UNLESS OTHERWISE NOTED.
- GRADES SHOWN ARE FINISHED GRADES.
- ALL ABANDONED UTILITIES (INCLUDING PIPES, CABLES AND STRUCTURES) FOUND IN THE RIGHT OF WAY AND NOT SHOWN ON THE PLANS, ARE TO BE REMOVED AND PROPERLY DISPOSED OF AT THE EXPENSE OF THE CONTRACTOR. THIS INCLUDES ALL EXOTIC PIPES LIKE ASBESTOS-CEMENT PIPE. COST TO BE INCLUDED IN CLEARING AND GRUBBING ITEM.
- DRIVEWAY LOCATIONS AND WIDTHS ARE APPROXIMATE AND ARE TO BE ADJUSTED AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN \bar{v} (BASELINE) AND \bar{c} (CENTERLINE) CONSTRUCTION THROUGHOUT THE PROJECT.
- THE CONTRACTOR SHALL IMPLEMENT TEMPORARY PAVEMENT PAINT MARKINGS UNTIL THE FINAL SURFACE COURSE HAS CURED (MINIMUM THIRTY (30) DAYS AFTER FINAL SURFACE COURSE PLACEMENT).
- PAVEMENT TRANSITION SHALL BE MADE IN ACCORDANCE WITH PAVEMENT TRANSITION DETAIL.

STAGING DURING CONSTRUCTION:

THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING AREAS ASSOCIATED WITH THIS PROJECT WITH THE COUNTY ROADWAY PRODUCTION ENGINEER, WILLIAM JOHNSON, AT (772) 228-1988.

UNIDENTIFIED AREAS OF CONTAMINATION:

- WHEN ENCOUNTERING OR EXPOSING ANY ABNORMAL CONDITION INDICATING THE PRESENCE OF A HAZARDOUS OR TOXIC WASTE, OR CONTAMINANTS, CEASE OPERATIONS IMMEDIATELY IN THE VICINITY AND NOTIFY THE COUNTY ENGINEER, JAMES ENNIS, AT (772) 228-1221. THE PRESENCE OF TANKS OR BARRELS; DISCOLORED EARTH, METAL, WOOD, GROUND WATER, ETC.; VISIBLE FUMES; ABNORMAL ODORS; EXCESSIVELY HOT EARTH; SMOKE; OR OTHER CONDITIONS THAT APPEAR ABNORMAL MAY INDICATE HAZARDOUS OR TOXIC WASTES OR CONTAMINANTS AND MUST BE TREATED WITH EXTREME CAUTION.
- MAKE EVERY EFFORT TO MINIMIZE THE SPREAD OF CONTAMINATION INTO UNCONTAMINATED AREAS. IMMEDIATELY PROVIDE FOR THE HEALTH AND SAFETY OF ALL WORKERS AT THE JOB SITE AND MAKE PROVISIONS NECESSARY FOR THE HEALTH AND SAFETY OF THE PUBLIC THAT MAY BE EXPOSED TO ANY POTENTIALLY HAZARDOUS CONDITIONS. PROVISIONS SHALL MEET ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS OR CODES COVERING HAZARDOUS CONDITIONS AND WILL BE IN A MANNER COMMENSURATE WITH THE GRAVITY OF THE CONDITIONS.
- THE COUNTY ENGINEER AND/OR CONTRACTOR WILL COORDINATE AND MOBILIZE A QUALIFIED CONTAMINATION ASSESSMENT/REMEDIATION (CAR) CONTRACTOR. QUALIFICATIONS OF SUCH CAR CONTRACTOR SHALL INCLUDE, BUT NOT BE LIMITED TO: EXPERIENCE AND PERSONNEL TO PREPARE CONTAMINATION ASSESSMENT PLANS, CONDUCT CONTAMINATION ASSESSMENTS, PREPARE SITE ASSESSMENT REPORTS, REMEDIATION PLANS, IMPLEMENT REMEDIAL ACTION PLANS, RISK BASED CORRECTIVE ACTIONS, STORAGE TANKS SYSTEM REMOVAL, HIGHWAY SPILL RESPONSE AS WELL AS EXPERIENCE WITH INFRASTRUCTURE/CONSTRUCTION ACTIVITIES WITHIN (POTENTIALLY) CONTAMINATED AREAS SPECIFIC TO TRANSPORTATION SYSTEMS.
- ALL THE WORK PERFORMED BY THE CAR CONTRACTOR SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS GOVERNING WORKER SAFETY AND ENVIRONMENTAL REGULATIONS. THIS IS TO INCLUDE OCCUPATIONAL EXPOSURE TO CONTAMINATED SOILS, GROUNDWATER, WASTES AND ATMOSPHERE DURING THE CONSTRUCTION OF ALL FEATURES INCLUDED IN THE CONSTRUCTION PLANS. IN ADDITION, THE CAR CONTRACTOR MUST BE STAFFED WITH FLORIDA LICENSED TECHNICAL PROFESSIONALS (GEOLOGISTS AND ENGINEERS) WHO WILL BE INVOLVED WITH THE PROJECT AND KNOWLEDGEABLE OF THE WORK ACTIVITIES CONDUCTED WITHIN THE IDENTIFIED CONTAMINATED AREAS AND WHO WOULD SIGN AND SEAL PROJECT REPORTS AS REQUIRED FOR SUBMITTAL TO THE APPROPRIATE ENVIRONMENTAL REGULATORY AGENCIES.
- THE COUNTY ENGINEER WILL IMMEDIATELY NOTIFY THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DISTRICT IV CONTAMINATION IMPACT COORDINATOR (DCIC) AT (954) 777-4288 AFTER ENCOUNTERING THE UNIDENTIFIED AREAS OF CONTAMINATION. PRELIMINARY INVESTIGATION BY THE CAR CONTRACTOR WILL DETERMINE THE COURSE OF ACTION NECESSARY FOR SITE SECURITY AND THE STEPS NECESSARY UNDER APPLICABLE LAWS, RULES, AND REGULATIONS FOR ADDITIONAL ASSESSMENT AND/OR REMEDIATION WORK TO RESOLVE THE CONTAMINATION ISSUE.
- FOLLOWING COMPLETION OF THE PROJECT, THE CAR CONTRACTOR SHALL BE REQUIRED TO PROVIDE COPIES OF ALL REPORTS SUBMITTED TO REGULATORY AGENCIES, WASTE MATERIAL PROFILES, MANIFESTS AND/OR DISPOSAL RECEIPTS FOR THE HANDLING OF ALL CONTAMINATED MEDIA INCLUDING BUT NOT LIMITED TO GROUND WATER, WASTE WATER, SOILS, SOLID WASTES, SLUDGE, HAZARDOUS WASTES, AIR MONITORING RECORDS AND SAMPLE RESULTS FOR ALL MATERIALS TESTED AND ANALYZED TO THE COUNTY ENGINEER AND THE FDOT DCIC.

ROADWAY SPECIFICATIONS

GENERAL

- IF WITHIN THAT PARTICULAR SECTION ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE A PART OF THE STANDARD SPECIFICATIONS ALSO.
- ALL WORK SHALL BE IN WORKMANLIKE MANNER AND SHALL CONFORM WITH ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL REGULATIONS AND/OR CODES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED TO BEGIN WORK.
- THE CONTRACTOR SHALL GIVE THE ENGINEER 72 HOURS NOTICE PRIOR TO REQUESTING INSPECTIONS AND SHALL SUPPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND INSPECT THE COMPLETED WORK.
- THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF PROJECT ACCEPTANCE, DURING WHICH ALL FAULTY CONSTRUCTION AND/OR MATERIALS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

STAKING

CONSTRUCTION STAKING WILL BE PERFORMED BY THE CONTRACTOR.

BASE COURSE

THE BASE SHALL BE CONSTRUCTED OF EITHER LIMEROCK MATERIAL OR CEMENTED COQUINA SHELL MATERIAL IN ACCORDANCE WITH STANDARD SPECIFICATIONS.

LIMEROCK BASE AND CEMENTED COQUINA SHELL BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 200 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ROCK PIT CERTIFICATION FOR CEMENTED COQUINA SHELL MATERIAL. BASE SHALL BE COMPACTED BY AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. BASE SHALL BE APPROVED PRIOR TO PRIME CDAT.

PRIME AND TACK COAT

PRIME AND TACK COAT FOR THE BASE SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE STANDARD SPECIFICATIONS.

ASPHALTIC CONCRETE SURFACE COURSE (A.C.S.C.)

TYPE SP 9.5 OR PER PLAN, ACSC SHALL BE CONSTRUCTED FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, IN ACCORDANCE WITH SECTIONS 320, 330, AND 334 OF THE STANDARD SPECIFICATIONS

ROADWAY SPECIFICATIONS CONTINUED:

TESTING

- THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN APPROVED INDEPENDENT TESTING LABORATORY TO CONDUCT ALL REQUIRED TESTS. TEST RESULTS MUST BE SUBMITTED PRIOR TO ANY REQUEST FOR PAYMENT ON THE ABOVE ITEMS.
- IF ANY TEST INDICATES THAT THE WORK DOES NOT MEET THE SPECIFICATIONS, THE SUBSTANDARD AREA SHALL BE REWORKED OR CORRECTED AND RETESTED, AT THE CONTRACTOR'S EXPENSE, UNTIL THE PROVISIONS OF THESE SPECIFICATIONS ARE MET.
- ALL PASSING TESTS SHALL BE PAID FOR BY THE OWNER. ALL FAILING TESTS SHALL BE PAID FOR BY THE CONTRACTOR.

TRAFFIC SPECIFICATIONS

IN ADDITION TO SECTION 700 OF FDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, ALL SIGN SHEET MATERIAL SHALL BE DIAMOND GRADE D63 MANUFACTURED BY 3M COMPANY OR APPROVED EQUAL. SIGN POSTS/SUPPORTS SHALL BE AS PER INDIAN RIVER COUNTY STANDARDS.

CLEAN-UP

THE CONTRACTOR MUST PROVIDE CLEAN-UP OF EXCESS CONSTRUCTION MATERIAL UPON COMPLETION OF THE PROJECT. THE SITE MUST BE LEFT IN A NEAT, CLEAN, GRADED CONDITION.

CONSTRUCTION IN STREETS AND ROAD RIGHT-OF-WAYS

- OPEN ROAD CUTS REQUIRES PRIOR APPROVAL OF THE CITY, COUNTY, STATE OR ANY OTHER AGENCY WHICH MAY HAVE JURISDICTION
- CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS OF THE STATE, COUNTY AND CITY AUTHORITIES REGARDING CLOSING OR RESTRICTING THE USE OF PUBLIC STREETS OR HIGHWAYS.
- TRAFFIC CONTROL ON ALL COUNTY AND STATE HIGHWAY RIGHT-OF-WAYS SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHWA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION.

DRAINAGE SPECIFICATIONS

STORM INLETS AND MANHOLES SHALL BE CONSTRUCTED IN GENERAL ACCORDANCE WITH SECTION 425 & 449 OF THE STANDARD SPECIFICATIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION, 2017.

CONCRETE SHALL HAVE A MINIMUM 28-DAY STRENGTH OF 3000 PSI.

ALL REINFORCING STEEL TO BE ASTM A 615-72 GRADE 40, FYP = 40,000 PSI, AND SHALL BE HANDLED AND PLACED IN ACCORDANCE WITH ACI 318-71.

PRECAST CONCRETE MANHOLES AND STORM INLETS MAY BE USED UPON THE ENGINEER'S APPROVAL OF THE MANUFACTURER'S SHOP DRAWINGS SHALL BE IN ACCORDANCE WITH SECTION 449 OF THE DESIGN STANDARD SPECIFICATIONS.

STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 430 AND RELATED SECTIONS OF THE STANDARD SPECIFICATIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION.

CONCRETE

UNLESS OTHERWISE SPECIFIED OR INDICATED, ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI. ALL WORK SHALL COMPLY WITH THE CURRENT EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE AND THE APPLICABLE BUILDING CODES HAVING JURISDICTION IN THE AREA.

GROUNDWATER

GROUNDWATER MAY BE ENCOUNTERED ON SITE. THE CONTRACTOR SHALL PLAN ACCORDINGLY.

PRECAST CONCRETE DRAINAGE PRODUCTS

ALL PRECAST CONCRETE DRAINAGE PRODUCTS SHALL BE IN ACCORDANCE WITH SECTION 449 OF THE STANDARD SPECIFICATIONS.

RECORD DRAWINGS

CONTRACTOR SHALL KEEP AND MAINTAIN RECORD DRAWINGS ON THE PROJECT SITE AT ALL TIMES WHICH SHALL BE ANNOTATED BY THE CONTRACTOR DEPICTING ANY CHANGES MADE IN THE FIELD WHICH DIFFER FROM THE CONTRACT DRAWINGS. RECORD DRAWINGS SHALL INCLUDE, BUT NOT LIMITED TO, INVERT AND TOP ELEVATIONS OF CULVERTS AND INLET STRUCTURES. CONTRACTOR SHALL SUBMIT COMPLETE AND FINAL RECORD DRAWINGS TO ENGINEER UPON COMPLETION OF PROJECT AND PRIOR TO FINAL INSPECTION AND FINAL PAYMENT.

INSPECTION

MINIMUM CONSTRUCTION INSPECTION CHECKPOINTS

THE ENGINEER SHALL BE NOTIFIED:

- PRIOR TO ANY MAJOR DEVIATION FROM THE APPROVED PLANS.
- PRIOR TO BACKFILLING ANY PIPE TRENCHES.
- UPON COMPLETION OF CONSTRUCTION.

REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 50% REVIEW	08-31-2018	DESIGNED	AGS
2 PER IRC 100% REVIEW	12-17-2018	DRAWN	KB
3 PER IRC 110% REVIEW	02-04-2019	DATE	12/2/2019
4 PER FDOT LAP REVIEW	06-10-2019	CHECKED	AGS
5 REMOVE 6 T.C.E.	07-10-2019	CHECKED	AGS
6 COVER & SUM OF QTY'S	12-02-2019	DATE ISSUED	12/3/2019

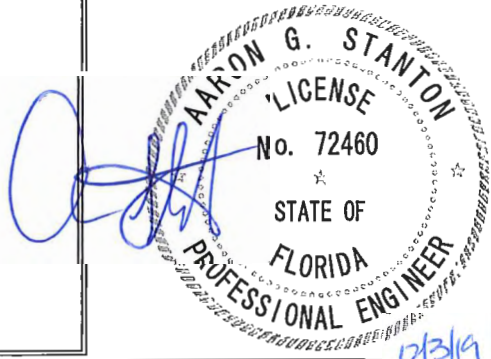
MBV ENGINEERING, INC.
MOIA BOWLES VILLAMAZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

GENERAL NOTES

AARON G. STANTON
FL P.E. #72460
DATE: 12/3/19
18-0043



UTILITY SPECIFICATIONS

- THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND IS RESPONSIBLE FOR THE COORDINATION OF UTILITY RELOCATION.
- CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN THE FIELD WITH UTILITY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION UTILITY OWNERS:

AT&T LUKE FOLKERTS (407) 486-6041 LF2490@ATT.COM MGR OSP PLNG & ENGRG DESIGN+ SOUTHEAST CONSTRUCTION & ENGINEERING, FLORIDA ENGINEERING 7747 ELLIS RD, W MELBOURNE, FL 32904	COMCAST CABLE 940 12TH STREET VERO BEACH, FL 32960 (800) 778-9140	INDIAN RIVER COUNTY ARJUNA WERAGODA P.E. (772) 228-1821 1800 27TH AVE VERO BEACH, FLORIDA
	FLORIDA POWER & LIGHT MARIO ESCALONA (305) 219-9143 4200 FLAGLER AVE. MIAMI, FL 33134	CITY OF VERO BEACH TODD YOUNG (772) 978-5209 17 17TH STREET PO BOX 1389 VERO BEACH, FL 32961
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES A MINIMUM OF 72 HOURS PRIOR TO EXCAVATION, AS REQUIRED BY THE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT. NOTIFY SUNSHINE AT 811.
- UTILITIES ARE TO BE ADJUSTED BY UTILITY OWNER OR AS DIRECTED BY THE ENGINEER.

GENERAL NOTES:

- CONTRACTOR SHALL OBTAIN COPIES OF ALL REQUIRED PERMITS BEFORE COMMENCING WORK. CONTRACTOR SHALL FAMILIARIZE THEMSELV WITH ALL PERMIT CONDITIONS AND PERFORM ALL WORK AN ACCORDANCE WITH ALL SAID CONDITIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST 72 HOURS IN ADVANCE FOR CONSTRUCTION OPERATIONS.
- NO FIELD CHANGES OR DEVIATIONS FROM DESIGN TO BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- SLOPE GRADES FROM ELEVATIONS SHOWN TO EXISTING GRADE. MAXIMUM SLOPE 4:1.
- ENGINEER SHALL BE NOTIFIED AT LEAST 72 HOURS IN ADVANCE FOR ANY INSPECTION.
- THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTORS BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.
- ALL INLETS SHALL HAVE A 6" MIN. SUMP BELOW LOWEST INVERT.
- EROSION CONTROL FENCING MUST BE IN PLACE PRIOR TO GRADING.
- PIPE LENGTHS AND SLOPES SHOWN ARE APPROXIMATE.
- IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- CONTRACTOR SHALL ADJUST INLET/STRUCTURE OR CONNECTION LOCATION AS REQUIRED TO ENSURE PROPOSED STRUCTURES AND PIPES ARE IN PROPER ALIGNMENT AND MATCH SLOPE OF EXISTING PIPES OR CONNECTIONS.
- THIS PLAN CONTEMPLATES ACCESS CONNECTIONS TO ADJACENT ROADS AS SHOWN.
- FILL MATERIAL MAY NOT BE STOCKPILED HIGHER THAN SIX (6) VERTICAL FEET.
- DIMENSIONS SHOWN ARE TO EDGE OF GUTTER OR PAVEMENT. RADII SHOWN ARE TO FACE OF CURB.
- ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH M.U.T.C.D. STANDARDS.
- ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PER INDIAN RIVER COUNTY REQUIREMENTS.
- ANY STATE AND FEDERAL PERMITS THAT MAY BE REQUIRED AS A RESULT OF LAND CLEARING AND LANDSCAPING ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE TO PROTECT AND/OR REPLACE ALL SURVEY MONUMENTATION BY A LICENSED SURVEYOR IN THE STATE OF FLORIDA.
- ALL WORK SHALL BE DONE FROM AND WITHIN THE RIGHT-OF-WAY.

TECHNICAL SPECIFICATIONS

MATERIALS

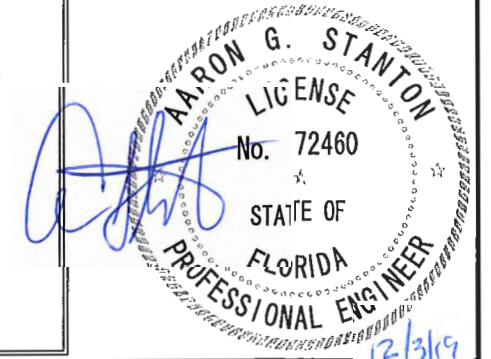
- A.) DRAINAGE PIPING:
- MINIMUM SIZED PIPING SHALL BE 15" OR EQUIVALENT ELLIPTICAL SIZE AND 18" MINIMUM ON COLLECTOR ROADS, UNLESS OTHERWISE NOTED.
 - ALL STORM PIPING SHALL MEET MANUFACTURER'S SPECIFICATIONS. CONTRACTOR TO COORDINATE WITH MANUFACTURER TO ENSURE PROPOSED PIPING DOES NOT REQUIRE ADDITIONAL INSTALLATION MATERIALS, INCLUDING BUT NOT LIMITED TO, STRAPPING, ANCHORING, BUOYANCY, ETC.
 - ALL JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.
- B.) DRAINAGE STRUCTURES:
- ALL CATCH BASINS, INLETS OR MANHOLE STRUCTURES SHALL BE OF PRECAST REINFORCED TYPE PURSUANT TO FDOT DESIGN STANDARDS, LATEST EDITION, UNLESS OTHERWISE APPROVED.
 - ALL STRUCTURES SHALL BE FREE OF DEFECTS SUCH AS CRACKING, HONEYCOMBS AND EXPOSED STEEL REINFORCING INCLUDING BLEED THROUGH.
 - SHOP DRAWINGS SHALL BE SUBMITTED BEFORE ORDERING MATERIAL FOR PLANNED PROJECT. CORRESPONDENCE SHALL BE BETWEEN THE DESIGN ENGINEER AND THE LOCAL GOVERNING AGENCY AND IS THE RESPONSIBILITY OF THE CONTRACTOR.
- C.) OUTFALL SPECIFICATIONS:
- CONTRACTOR TO COORDINATE WITH RESPECTIVE JURISDICTIONAL AGENCY FOR OUTFALL PIPE INTO JURISDICTIONAL CANAL, OR ANY OTHER WATER BODY, TO ENSURE PROPER CONSTRUCTION MEANS AND METHODS PROPOSED ARE ACCEPTABLE. IT IS RECOMMENDED THIS COORDINATION IS DONE PRIOR TO CONTRACTOR'S PRICING.
- D.) MANHOLE COVERS & GRATES:
- MANHOLE FRAMES, COVERS AND GRATES SHALL MEET SPECIFIC PLANNED USE AS DETERMINED BY DESIGN ENGINEER AND THE LOCAL GOVERNING AGENCY.
 - MANHOLE FRAMES AND COVERS SHALL BE OF CAST IRON MATERIALS, UNLESS OTHERWISE NOTED, AND BE FREE FROM CRACKS, HOLES OR COLD SHUTS. FRAMES AND COVERS SHALL CONFORM TO A MINIMUM STANDARD OF USF 1260 SERIES OR EQUIVALENT WITH COVERS STATING "STORM SEWER."
 - FRAMES AND GRATES SHALL BE OF CAST IRON MATERIALS, UNLESS OTHERWISE NOTED, AND BE FREE FROM CRACKS, HOLES AND COLD SHUTS. FRAMES AND GRATES SHALL CONFORM TO A MINIMUM STANDARD OF USF 4160-6210 OR EQUIVALENT.

SUMMARY OF QUANTITIES

Item No.	Description	Unit	Quantity
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 AND GRUBBING	LS	1
120-1	REGULAR EXCAVATION	CY	1,599
120-6	EMBANKMENT	CY	1,607
121-70	FLOWABLE FILL	CY	25.4
286-1	TURNOUT CONSTRUCTION / DRIVEWAY BASE OPTIONAL MATL'S	SY	117
334-1-13	SUPERPAVE ASPHALT CONC., TRAFFIC C (PG 76-22, WITH POLYMER) (SP 12.5, 2 LIFTS OF 1.5")	TN	8.8
400-1-2	CLASS I CONCRETE ENDWALL	CY	9.06
425-1521	INLETS, DT BOT., TYPE C, <10'	EA	4
425-1551	INLETS, DT BOT., TYPE E, <10'	EA	2
430-175115	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 15"S/CD (RCP)	LF	70
430-175124	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 24"S/CD (RCP)	LF	152
430-175136	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 36"S/CD (RCP)	LF	109
430-984625	MITERED END SECT, OPTIONAL - ELLIPTICAL / ARCH, 18" SD	EA	4
515-2311	PEDESTRIAN/BICYCLE RAILING, ALUMINUM ONLY, 42" TYPE 1	LF	161
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK (FIBER-REINFORCED)	SY	4,016
527-2	DETECTABLE WARNING	SF	42
570-1-2	PERFORMANCE TURF, SOD (MATCH EXISTING)	SY	9,130
700-1-50	SINGLE POST SIGN, RELOCATE	EA	1
700-1-60	SINGLE POST SIGN, REMOVE	EA	2
711-11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, WHITE, 12" FOR CROSSWALK AND ROUNDABOUT	LF	86
711-11125	THERMOPLASTIC, STANDARD, WHITE, SOLID, WHITE, 24" FOR STOP LINE AND CROSSWALK	LF	12
999-1	AS-BUILT SURVEY (BY REGISTERED SURVEYOR)	LS	1
1644800	FIRE HYDRANT, RELOCATE	EA	1

PAY ITEM FOOTNOTES

- INCLUDES TEMPORARY PAVEMENT, TEMPORARY PAINT/TAPE STRIPING, BARRIER WALLS, VERTICAL PANELS, ATTENUATORS, TEMPORARY STRIPING, SIGNS, MESSAGE BOARDS, BARRICADES, PERMANENT RELOCATION OF SCHOOL SIGNS AND ALL OTHER TRAFFIC INCIDENTAL ITEMS REQUIRED FOR THE MAINTENANCE OF TRAFFIC. ALL TEMPORARY PAVEMENT STRIPING IS TO BE REMOVED PRIOR TO FINAL STRIPING. VARIABLE CHANGING MESSAGE SIGN SHALL BE IN PLACE 2 WEEKS PRIOR TO ALL ROAD CLOSINGS, COST SHALL BE INCLUDED IN THE MAINTENANCE OF TRAFFIC PAY ITEM. COST SHALL INCLUDE AN MOT PLAN PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA.
- COST SHALL INCLUDE ALL NPDES PERMITTING FEES.
- INCLUDES BUT NOT LIMITED TO VEGETATION & TOPSOIL REMOVAL, SAW CUT AND/OR REMOVAL OF EXISTING PAVEMENT, ASPHALT OR CONCRETE, CURB OR SIDEWALK, THE REMOVAL OF EXISTING GUARDRAIL AND THE REMOVAL OF EXISTING PIPES CULVERTS, HEADWALLS AND/OR STRUCTURES WHERE EXISTING PIPES ARE REMOVED AND THE EXISTING STRUCTURE REMAINS. THE RESULTING HOLE SHALL BE FORMED AND FILLED WITH CONCRETE. THE CONTRACTOR SHALL COMPLY WITH THE STATE OF FLORIDA TRENCH SAFETY ACT. INCIDENTAL CONSTRUCTION COSTS INCLUDING AS-BUILT SURVEYING AND DRAWING PREPARATION, SURVEY STAKING AND UTILITY COORDINATION ARE INCLUDED IN THE UNIT COST OF RELATED ITEMS.
- EMBANKMENT FOR FILL OF THE DITCH ON BOTH SIDES OF 43RD AVENUE AT APPROX. STATIONS 18+00 TO 19+00. FILL IN SITU.
- GRAVEL DRIVEWAY AT APPROXIMATE STATION 27+50.
- ANY INCIDENTAL REMOVAL OF STRIPING OR REFLECTIVE PAVEMENT MARKERS SHALL BE REPLACED IN KIND UNDER THIS UNIT COST.
- INCLUDES REMOVAL OF THE 56 LF OF EXISTING 36" C.M.P.
- ALL CONCRETE MATERIAL SHALL BE FIBER REINFORCED AND 3,000 PSI (MIN.) COMPRESSIVE STRENGTH.
- CAST-IN-PLACE DETECTABLE WARNING THAT ARE FEDERAL YELLOW IN COLOR.
- THE CONTRACTOR SHALL COMPLY WITH THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2017 AND 2017 DESIGN STANDARDS.



REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 90% REVIEW	08-31-2018	DESIGNED	AGS
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3 PER IRC 110% REVIEW	02-04-2019	DATE	12/2/2019
4 PER FDOT LAP REVIEW	06-10-2019	CHECKED	AGS
5 REMOVE 6" T.C.E	07-10-2019	CHECKED	AGS
6 COVER & SUM OF QTY'S	12-02-2019	DATE ISSUED	12/3/2019



1835 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617
MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9055

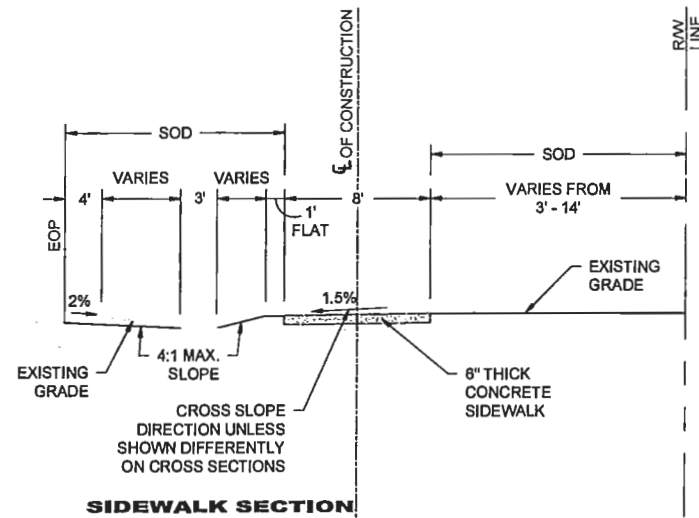
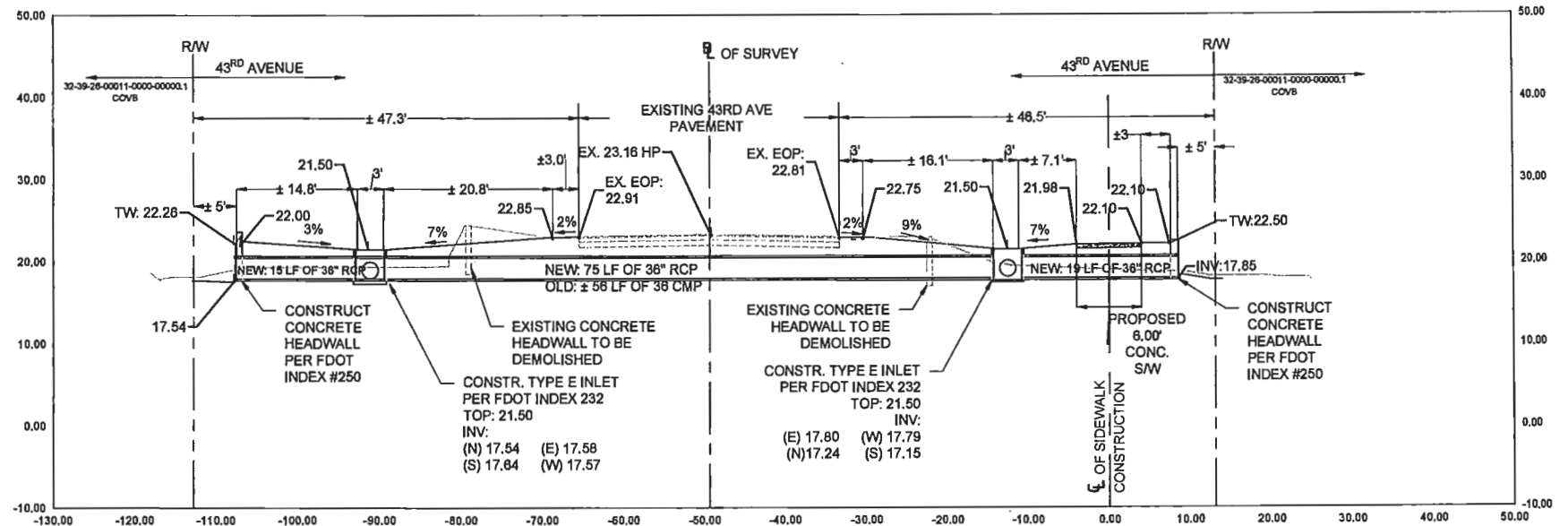
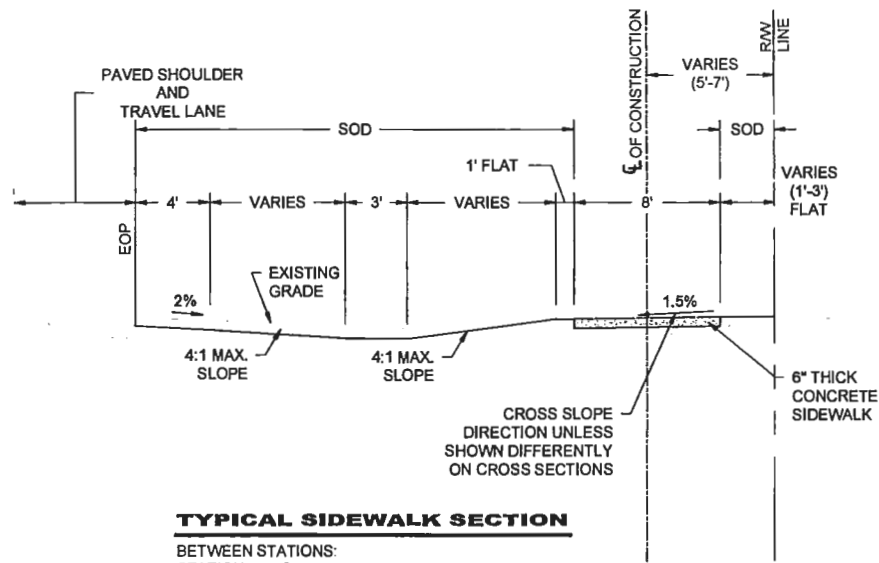
43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

GENERAL NOTES
SUMMARY OF QUANTITIES

AARON G. STANTON
FL. P.E.#72460

C3

DATE: 18-0043



REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 90% REVIEW	08-31-2018	DESIGNED	AGS
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7			

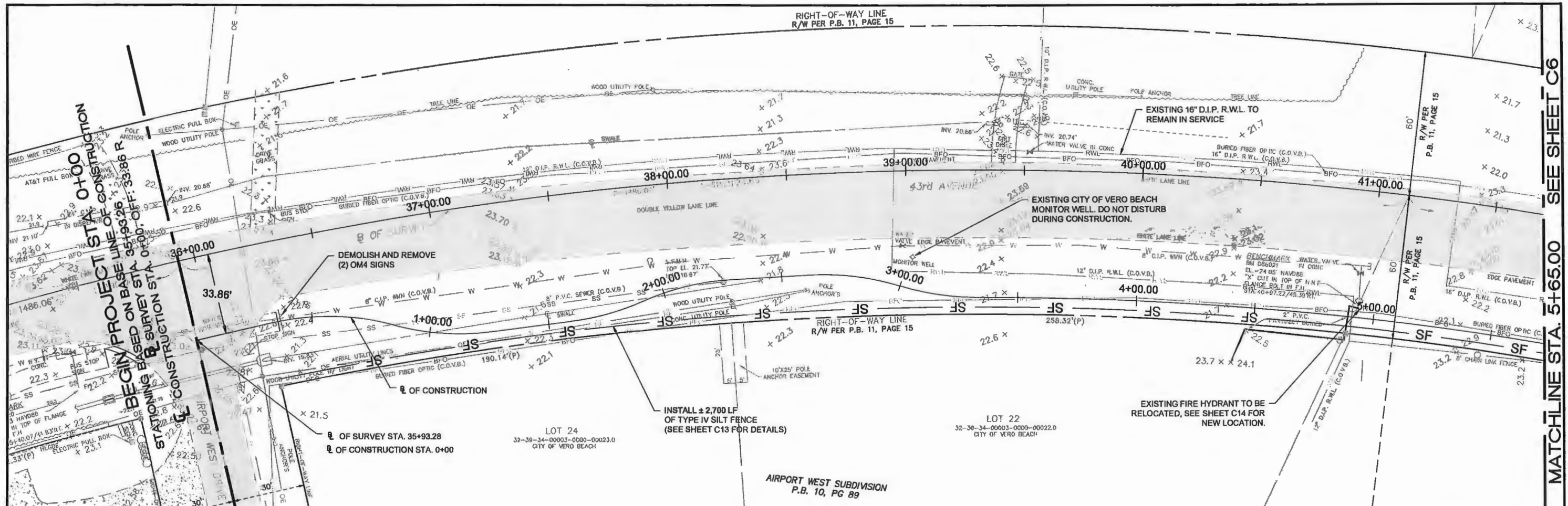
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MOYA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

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PH. (772) 569-0035
FX. (772) 778-3617
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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

TYPICAL SECTIONS

AARON G. STANTON
FL P.E. #72460
DATE: 12/3/19
18-0043
C4

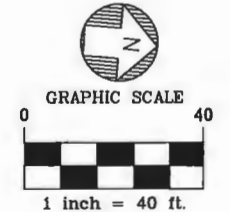


LEGEND

- EXISTING ASPHALT
- SF SILT FENCE (LOCATED 1' OFF R.O.W.)
- RIGHT-OF-WAY LINE

NOTES

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FX. (772) 778-3617
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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

EXISTING CONDITIONS,
DEMOLITION AND EROSION
CONTROL PLAN

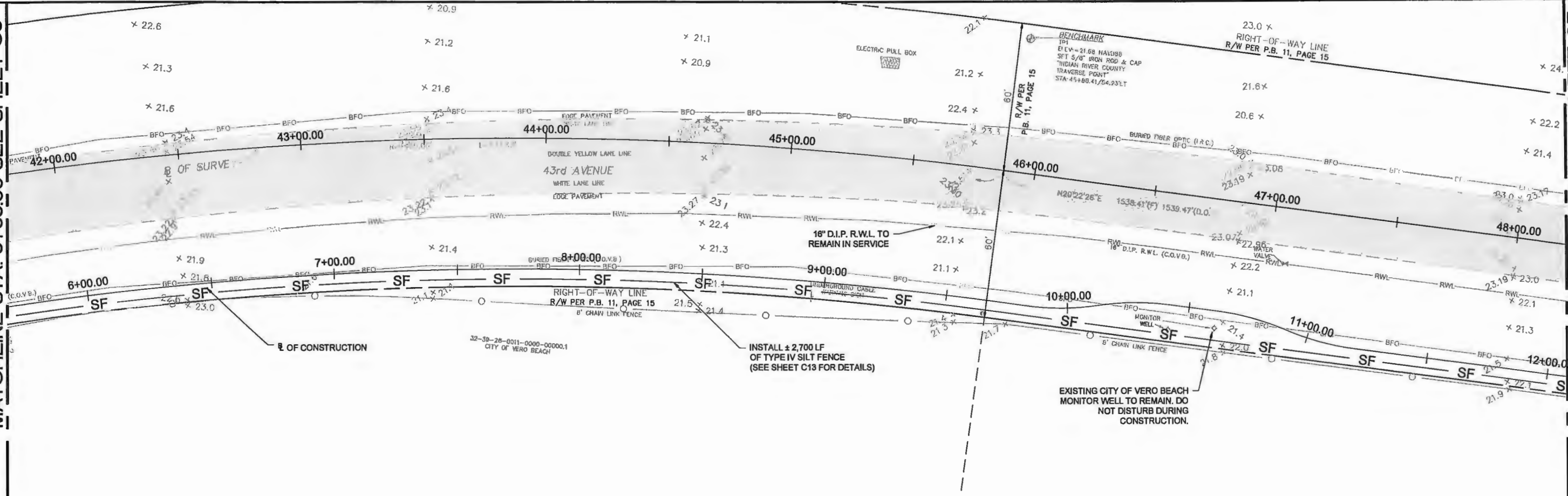
SHEET	C5
AARON G. STANTON FL P.E. #72460	DATE
	18-0043

Aaron G. Stanton
AARON G. STANTON
LICENSE
No. 72460
STATE OF
FLORIDA
PROFESSIONAL ENGINEER




MATCHLINE STA. 5+65.00 SEE SHEET C6

MATCHLINE STA. 5+65.00 SEE SHEET C5

MATCHLINE STA. 12+02.00 SEE SHEET C7

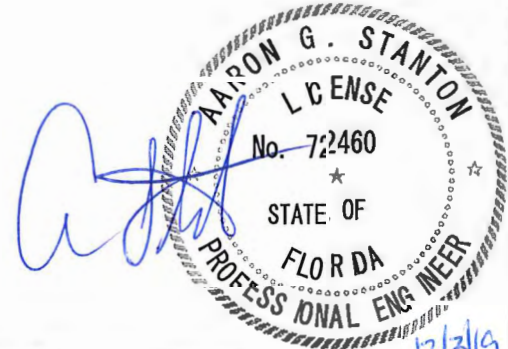
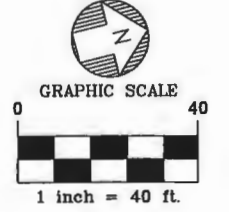


LEGEND

-  EXISTING ASPHALT
-  SILT FENCE (LOCATED 1' OFF R.O.W.)
-  RIGHT-OF-WAY LINE

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6 COVER & SUM OF QTY'S	12-02-2019		

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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

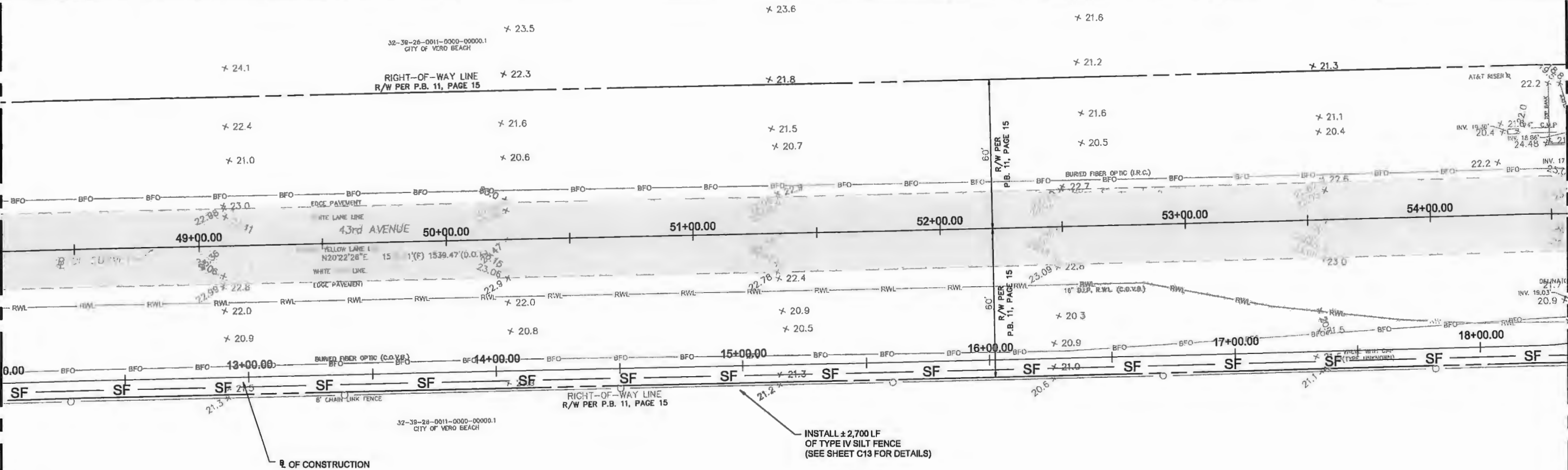
EXISTING CONDITIONS,
DEMOLITION AND EROSION
CONTROL PLAN

AARON G. STANTON FL P.E. #72460	DATE:	18-0043
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SHEET
C6

MATCHLINE STA. 12+02.00 SEE SHEET C6

MATCHLINE STA. 18+39.00 SEE SHEET C8

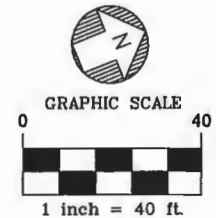


LEGEND

- EXISTING ASPHALT
- SILT FENCE (LOCATED 1' OFF R.O.W.)
- RIGHT-OF-WAY LINE

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REVISIONS	DATE	JOB NO.	18-0043
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5 REMOVE 6" T.C.E.	07-10-2019	DATE ISSUED	12/3/2018
6 COVER & SUM OF QTY'S	12-02-2019		
7			

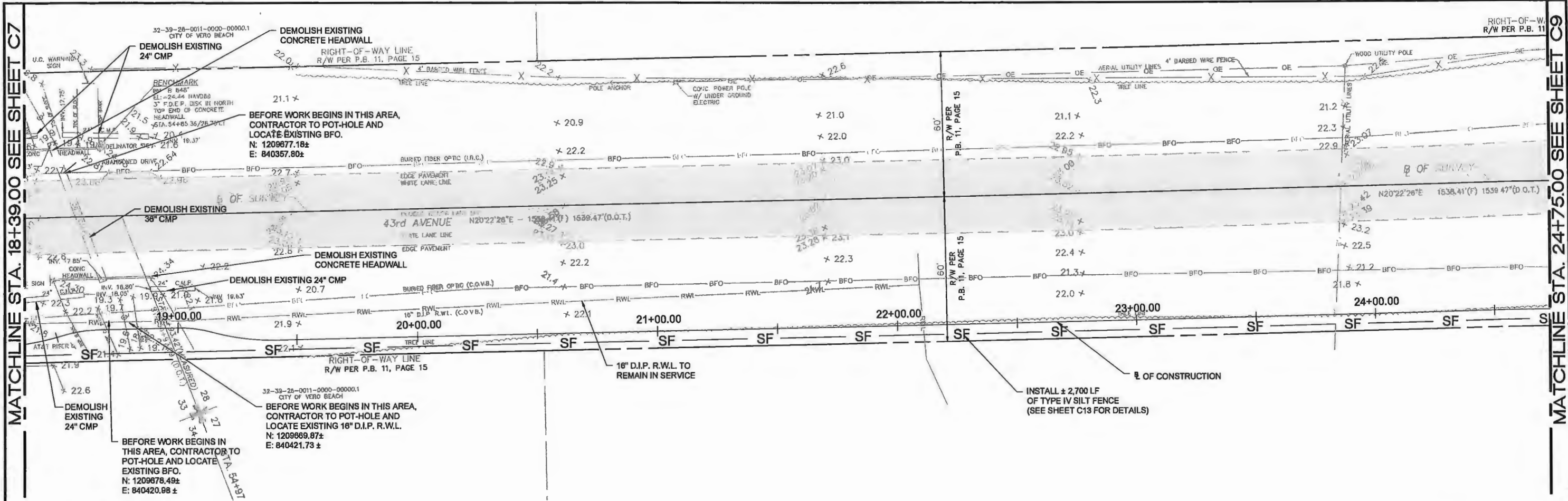
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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

EXISTING CONDITIONS,
DEMOLITION AND EROSION
CONTROL PLAN

AARON G. STANTON FL. P.E. #72460	C7
DATE:	18-0043



MATCHLINE STA. 18+39.00 SEE SHEET C7

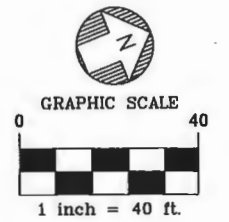
MATCHLINE STA. 24+75.00 SEE SHEET C9

LEGEND

- EXISTING ASPHALT
- SF SILT FENCE (LOCATED 1' OFF R.O.W.)
- RIGHT-OF-WAY LINE

NOTES

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43rd AVENUE SIDEWALK
 FROM AIRPORT DRIVE WEST
 TO 41st STREET

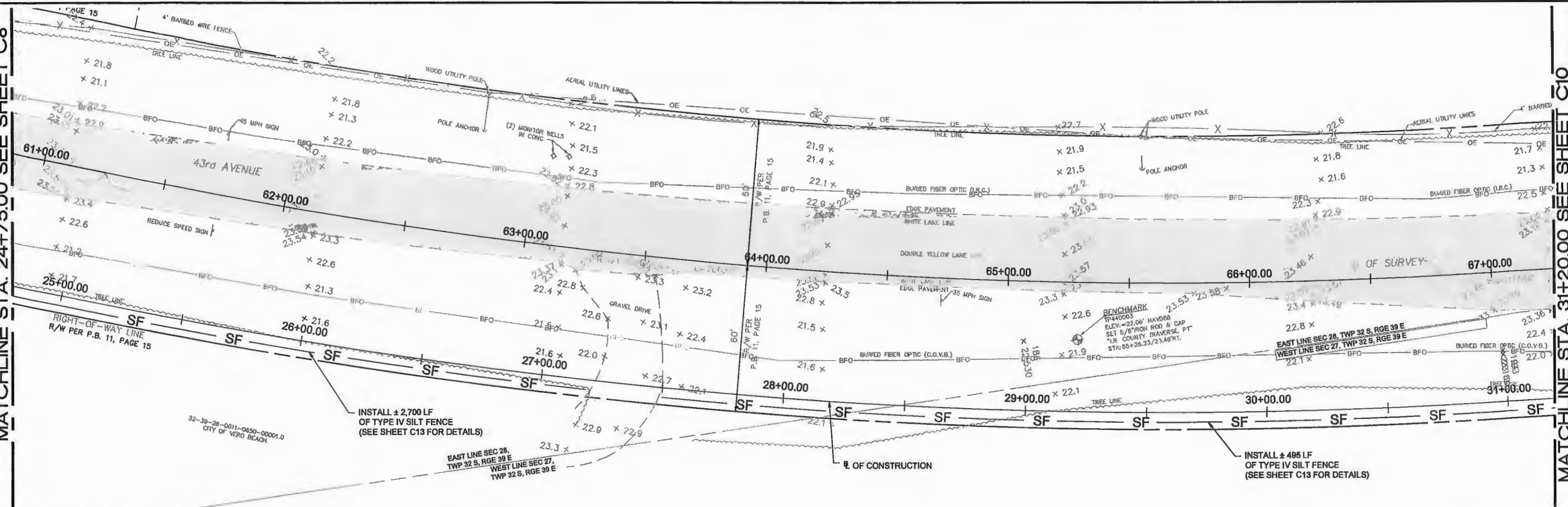
INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

EXISTING CONDITIONS,
 DEMOLITION AND EROSION
 CONTROL PLAN

DATE:	18-0043
PROJECT:	C8

MATCHLINE STA. 24+75.00 SEE SHEET C8

MATCHLINE STA. 31+20.00 SEE SHEET C10

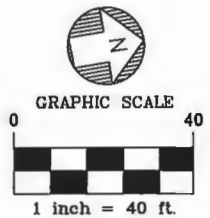


LEGEND

- EXISTING ASPHALT
- SF SILT FENCE (LOCATED 1' OFF R.O.W.)
- RIGHT-OF-WAY LINE

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7			

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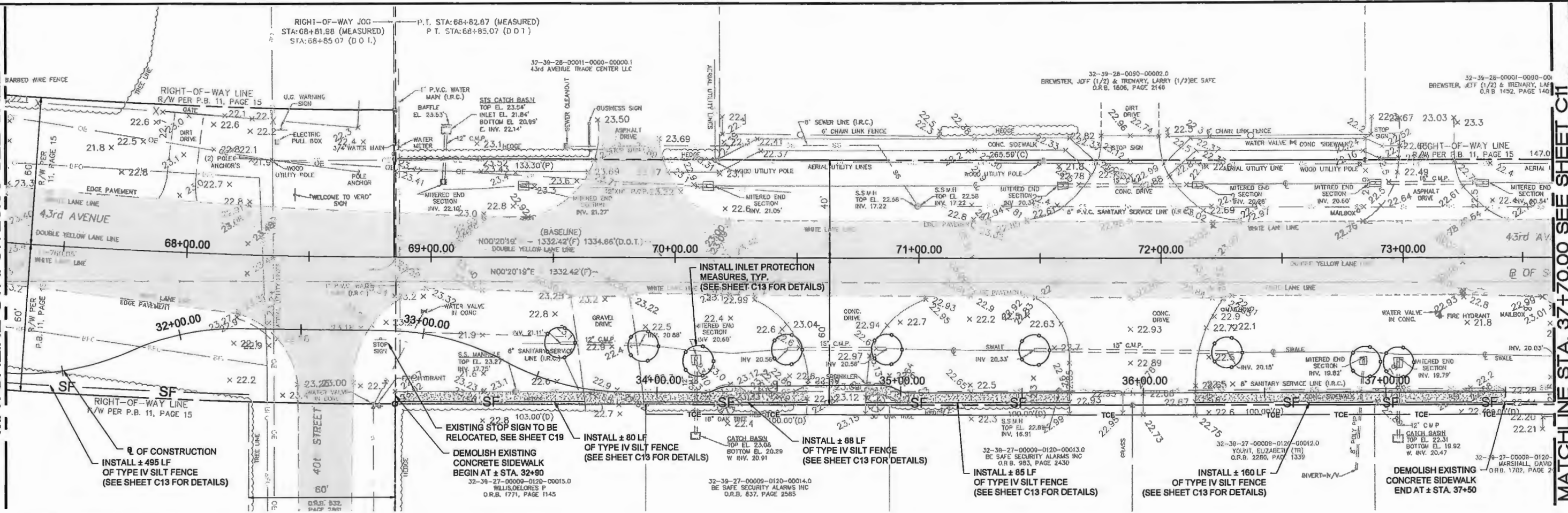
43rd AVENUE SIDEWALK
 FROM AIRPORT DRIVE WEST
 TO 41st STREET
 INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

EXISTING CONDITIONS,
 DEMOLITION AND EROSION
 CONTROL PLAN

DATE:	18-0043
SHEET	C9

MATCHLINE STA. 31+20.00 SEE SHEET C9

MATCHLINE STA. 37+70.00 SEE SHEET C1

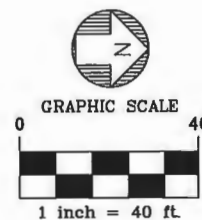


LEGEND

- EXISTING ASPHALT
- SILT FENCE (LOCATED 1' OFF R.O.W.)
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 NOIA BOWLES VILLAMIZAR & ASSOCIATES
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43rd AVENUE FROM
 AIRPORT DRIVE WEST TO
 41st STREET
 INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

EXISTING CONDITIONS,
 DEMOLITION AND EROSION
 CONTROL PLAN

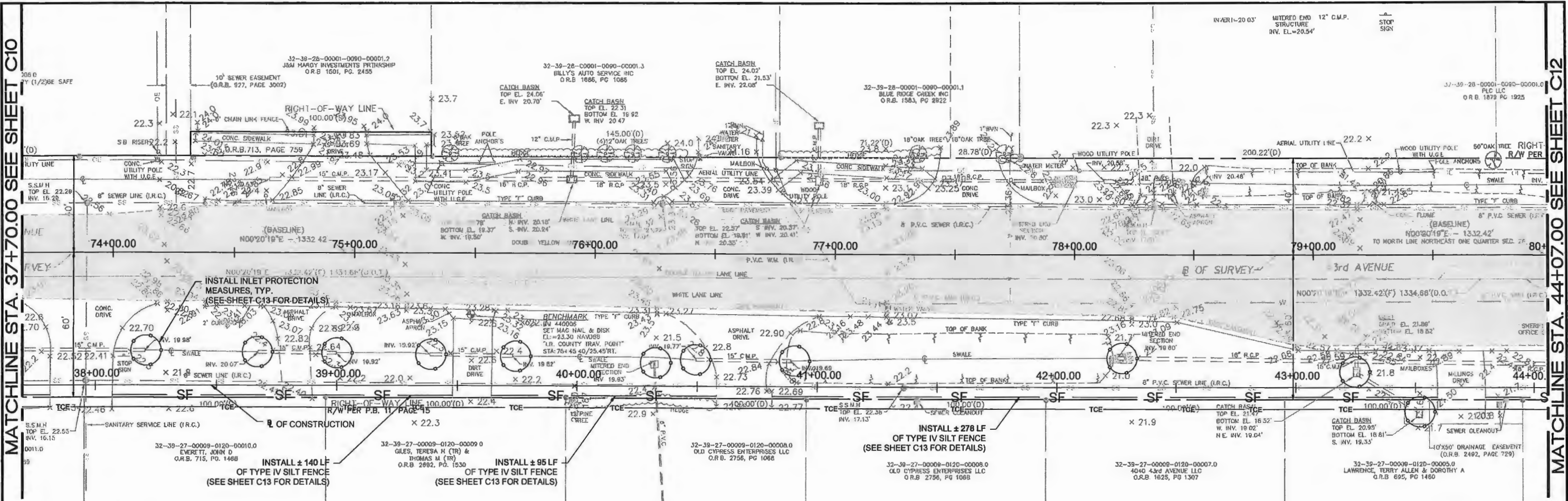
AARON G. STANTON
 L. GENSE
 No. 72460
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER

12/3/19

AARON G. STANTON FL P.E. #72460	C10
DATE:	18-0043

MATCHLINE STA. 37+70.00 SEE SHEET C10

MATCHLINE STA. 44+07.00 SEE SHEET C12

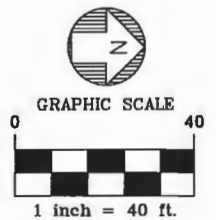


LEGEND

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- RIGHT-OF-WAY LINE

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3. THE CONTRACTOR SHALL PROVIDE A PHASED CONSTRUCTION SEQUENCE ALONG WITH A MAINTENANCE OF TRAFFIC PLAN TO THE COUNTY PRIOR TO CONSTRUCTION



REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 90% REVIEW	08-31-2018	DESIGNED	AGS
2 PER IRC 100% REVIEW	12-17-2018	DRAWN	KB
3 PER IRC 110% REVIEW	02-04-2019	DATE	12/2/2019
4 PER FDOT LAP REVIEW	06-10-2019	CHECKED	AGS
5 REMOVE 6" T.C.E.	07-10-2019	CHECKED	AGS
6 COVER & SUM OF QTY'S	12-02-2019	DATE ISSUED	12/2/2019

MBV
ENGINEERING, INC.
 MOIA BOWLES VILLAMIZAR & ASSOCIATES
 CONSULTING ENGINEERING CA #3728

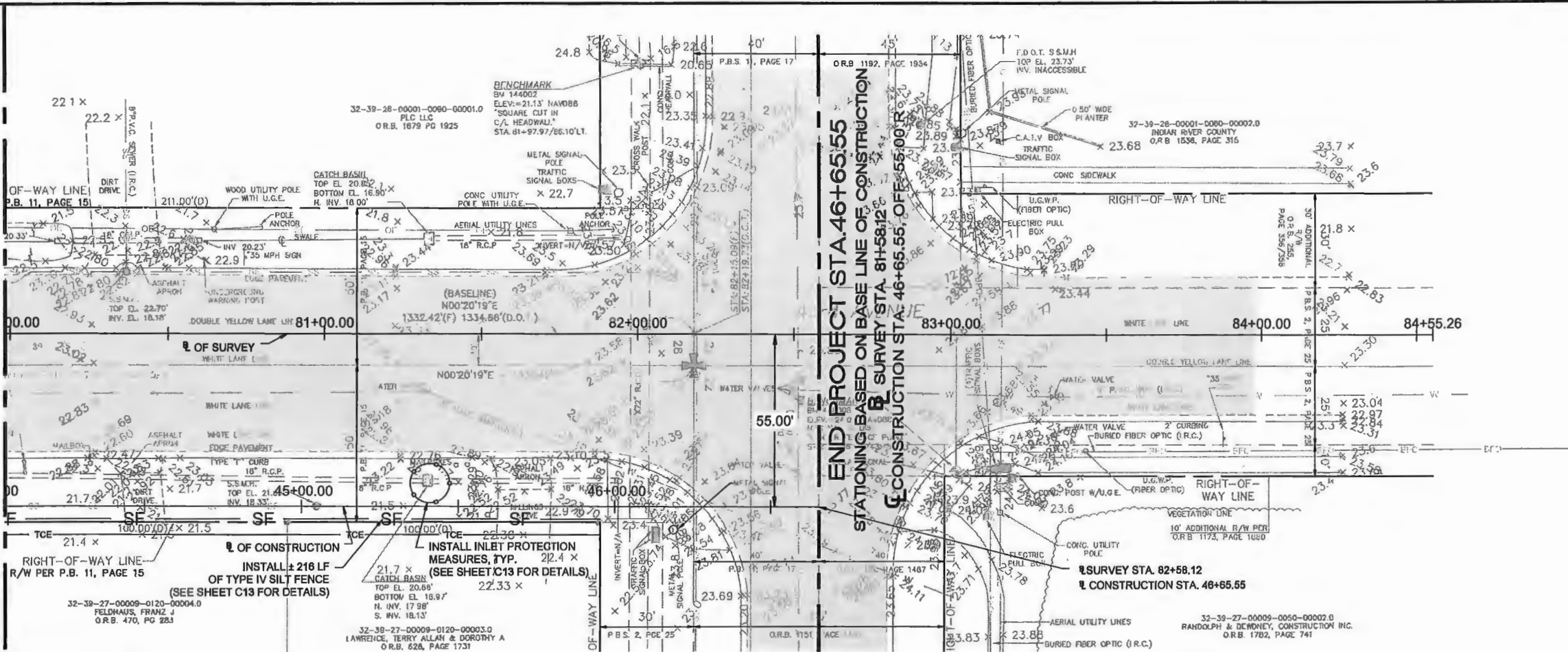
1835 20TH STREET
 VERO BEACH, FL 32960
 PH. (772) 569-0035
 FX. (772) 778-3617
 MELBOURNE, FL - PH (321) 253-1510
 FT. PIERCE, FL - PH (772) 468-0055

43rd AVENUE FROM
 AIRPORT DRIVE WEST TO
 41st STREET
 INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

EXISTING CONDITIONS,
 DEMOLITION AND EROSION
 CONTROL PLAN

SHEET	C11
AARON G. STANTON FL P.E. #72460	DATE: 18-0043

MATCHLINE STA. 44+07.00 SEE SHEET C11



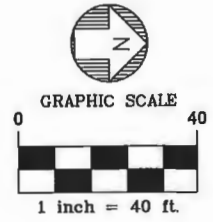
END PROJECT STA. 46+65.55
 STATIONING BASED ON BASE LINE OF CONSTRUCTION
 SURVEY STA. 81+58.12
 CONSTRUCTION STA. 46+65.55 OFF 55.00 R/W

LEGEND

- EXISTING ASPHALT
- SILT FENCE (LOCATED 1' OFF R.O.W.)
- RIGHT-OF-WAY LINE

NOTES

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2. ALL UTILITIES AS SHOWN ARE APPROXIMATE. THE CONTRACTOR IS TO FIELD VERIFY LOCATIONS, DEPTH, SIZE AND MATERIAL. ANY DISCREPANCY FROM THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD AND WORK IN THE AREA STOPPED UNTIL FURTHER NOTICE FROM THE ENGINEER.
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43rd AVENUE FROM
 AIRPORT DRIVE WEST TO
 41st STREET
 INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

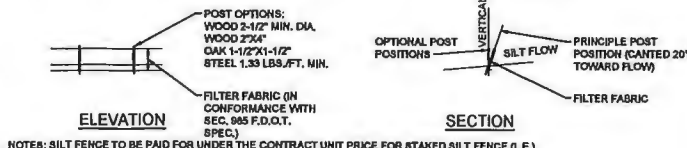
EXISTING CONDITIONS,
 DEMOLITION AND EROSION
 CONTROL PLAN

AARON G. STANTON
 LICENSE
 No. 72460
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER

DATE: 12/3/19

C12

18-0043



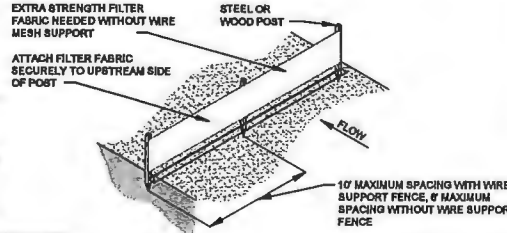
TYPE III SILT FENCE

NOTE: SPACING FOR TYPE III FENCE TO BE IN ACCORDANCE WITH CHART I, SHEET 1 OF 3 AND DITCH INSTALLATIONS AT DRAINAGE STRUCTURES SHEET 2 OF 3

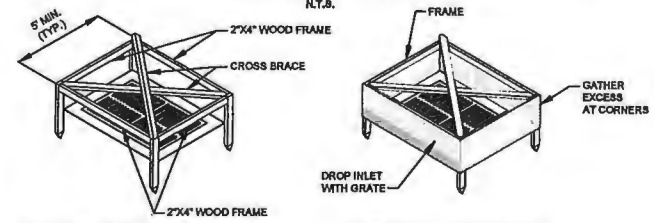
DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

SILT FENCE APPLICATIONS

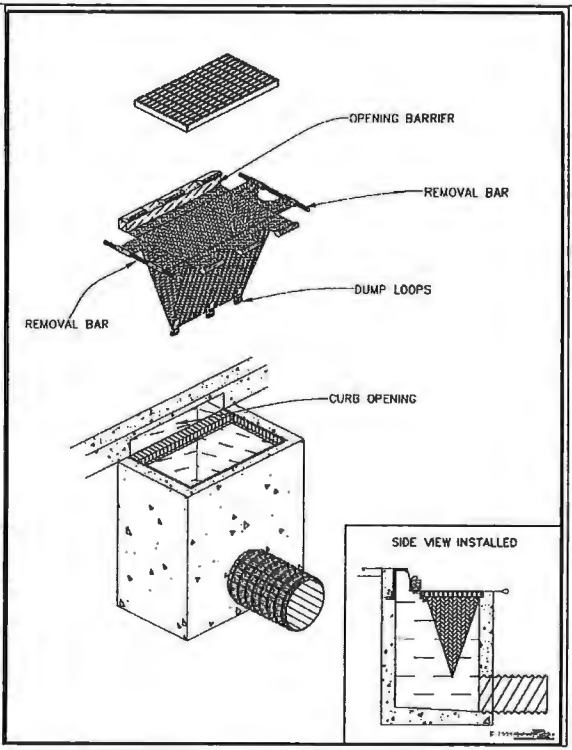
- NOTE:
- SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
 - INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. IF MAXIMUM RECOMMENDED STORAGE HEIGHT.
 - REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.



TYPE IV SILT FENCE



SILT FENCE INLET PROTECTION



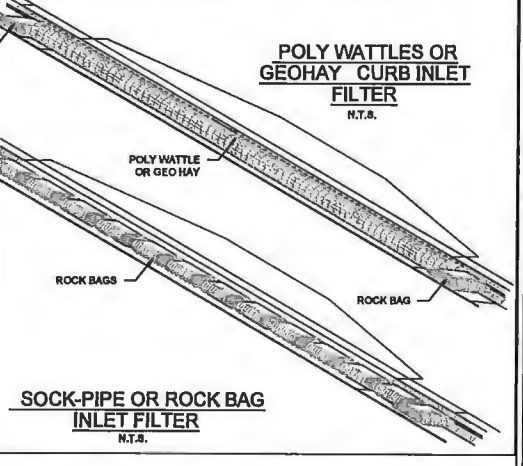
INLET INSERT SEDIMENT CONTAINMENT SYSTEM

LOW TO MODERATE FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4832	300 LBS.
GRAB TENSILE ELONGATION	ASTM D-4832	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./S.F.
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-4832	265 LBS.
GRAB TENSILE ELONGATION	ASTM D-4832	20%
PUNCTURE	ASTM D-4833	135 LBS.
MULLEN BURST	ASTM D-3786	420 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./S.F.
PERMITTIVITY	ASTM D-4491	1.5 SEC. -1

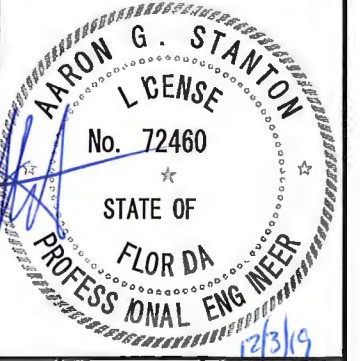


EROSION AND SEDIMENTATION CONTROL NOTES

CONSTRUCTION ACTIVITIES CAN RESULT IN THE GENERATION OF SIGNIFICANT AMOUNTS OF POLLUTANTS WHICH MAY REACH SURFACE OR GROUND WATERS. ONE OF THE PRIMARY POLLUTANTS OF SURFACE WATERS IS SEDIMENT DUE TO EROSION. EXCESSIVE QUANTITIES OF SEDIMENT WHICH REACH WATER BODIES OF FLOOD PLAINS HAVE BEEN SHOWN TO ADVERSELY AFFECT THEIR PHYSICAL, BIOLOGICAL AND CHEMICAL PROPERTIES. TRANSPORTED SEDIMENT CAN OBSTRUCT STREAM CHANNELS, REDUCE HYDRAULIC CAPACITY OF WATER BODIES OF FLOOD PLAINS, REDUCE THE DESIGN CAPACITY OF CULVERTS AND OTHER WORKS, AND ELIMINATE BENTHIC INVERTEBRATES AND FISH SPAWNING SUBSTRATES BY SILTATION. EXCESSIVE SUSPENDED SEDIMENTS REDUCE LIGHT PENETRATION AND THEREFORE, REDUCE PRIMARY PRODUCTIVITY.

MINIMUM STANDARDS

- SEDIMENT BASIN 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 UNSLOPE 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 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN 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 STOCKPILES SHALL BE STABILIZED OR PROTECTED 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. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE REVIEWER, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE SEDIMENT BASIN SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE THE ANTICIPATED SEDIMENT LOADING FROM THE LAND-DISTURBING ACTIVITY. THE OUTFALL DEVICE OR SYSTEM DESIGN SHALL TAKE INTO ACCOUNT THE TOTAL DRAINAGE AREA FLOWING THROUGH THE DISTURBED AREA TO BE SERVED BY THE BASIN.
- 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 OR SLOPE DRAIN STRUCTURE.
- WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
- SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM DRAIN SYSTEM, DITCH OR CHANNEL. ALL STORM SEWER 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.
- BEFORE TEMPORARY OR NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
- 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. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
- WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
- THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
- 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 LEAVING THE PROPERTY. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
- UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - NO MORE THAN 600 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
 - EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 - EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - RESTALLATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
- 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.
- 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, IN THE OPINION OF THE REVIEWER. DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITE SHALL BE PROTECTED FROM SEDIMENT DISPOSITION AND EROSION.
- PHASED PROJECTS SHOULD BE CLEARED IN CONJUNCTION WITH CONSTRUCTION OF EACH PHASE.
- EROSION CONTROL DESIGN AND CONSTRUCTION SHALL FOLLOW THE REQUIREMENTS IN INDEX NOS. 104 AND 105 OF FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS.
- THE REVIEWER MAY APPROVE MODIFICATIONS OR ALTER PLANS TO THESE EROSION CONTROL CRITERIA DUE TO SITE SPECIFIC CONDITIONS.



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4 PER FDOT LAP REVIEW	06-10-2019	CHECKED	AGS
5 REMOVE 6\"/>			

MBV ENGINEERING, INC.
 MOJA BOWLES VILLAMIZAR & ASSOCIATES
 CONSULTING ENGINEERING CA #3728

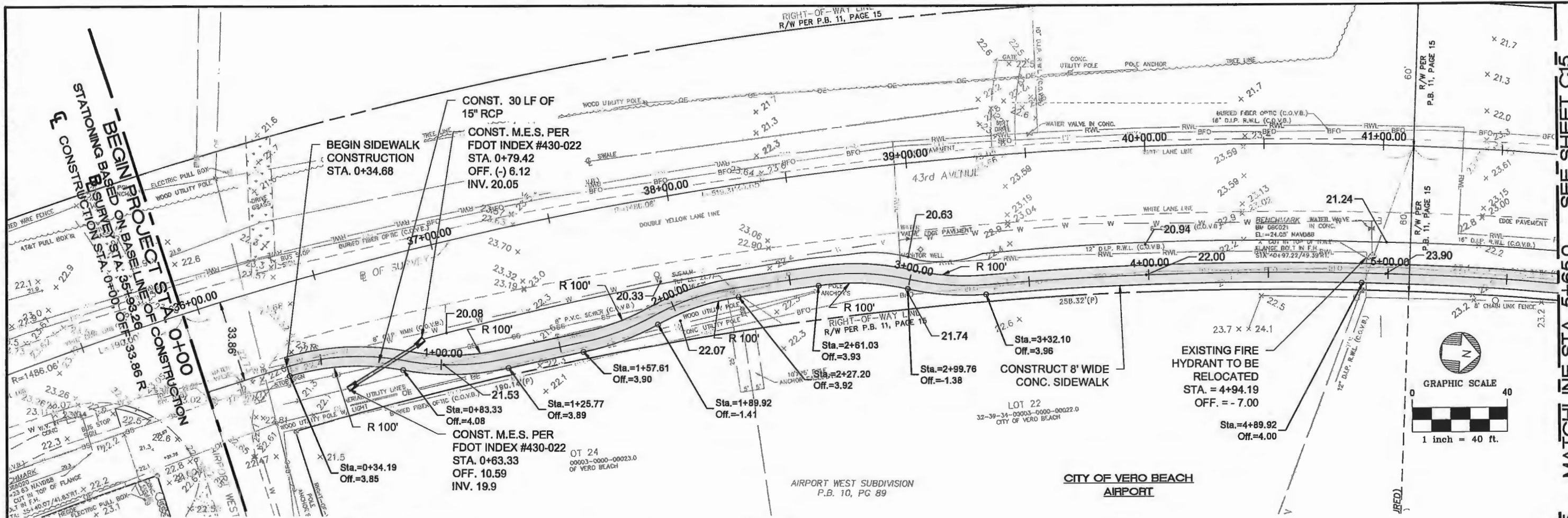
1835 20TH STREET
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43rd AVENUE FROM
 AIRPORT DRIVE WEST TO
 41st STREET
 INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

EROSION CONTROL
 DETAILS

AARON G. STANTON FL P.E.#72460	SHEET C13
DATE:	18-0043

MATCHLINE STA. 5+65.0 SEE SHEET C15



LEGEND

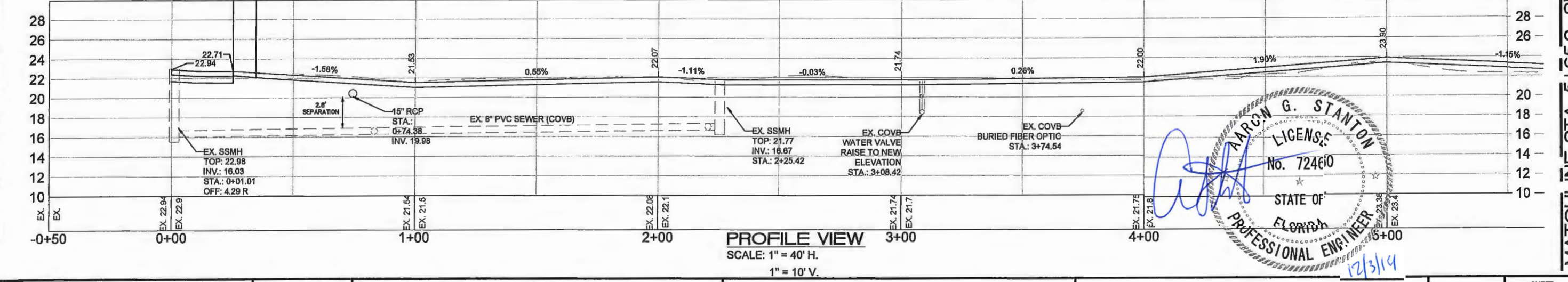
- EXISTING ASPHALT
- PROPOSED 8' W. CONC. SIDEWALK
- PROPOSED ASPHALT OVERLAY
- RIGHT-OF-WAY LINE
- CENTERLINE OF SWALE
- TEMPORARY CONSTRUCTION EASEMENT

NOTES

1. SIDEWALK AT ALL EXISTING STREETS AND DRIVEWAY INTERSECTIONS SHALL MEET EXISTING GRADES, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR IS TO RESTORE ALL DISTURBED AREAS IN KIND.
3. IT SHALL BE REQUIRED THAT ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS BE MAINTAINED AT ALL TIMES.
4. ALL PROPOSED DETECTABLE WARNING SURFACES SHALL BE INSTALLED UTILIZING THE CAST-IN-PLACE METHOD.

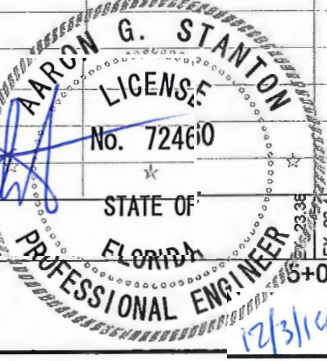
PLAN VIEW

SCALE: 1" = 40'



PROFILE VIEW

SCALE: 1" = 40' H.
1" = 10' V.



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6 COVER & SUM OF QTY'S	12-02-2019		

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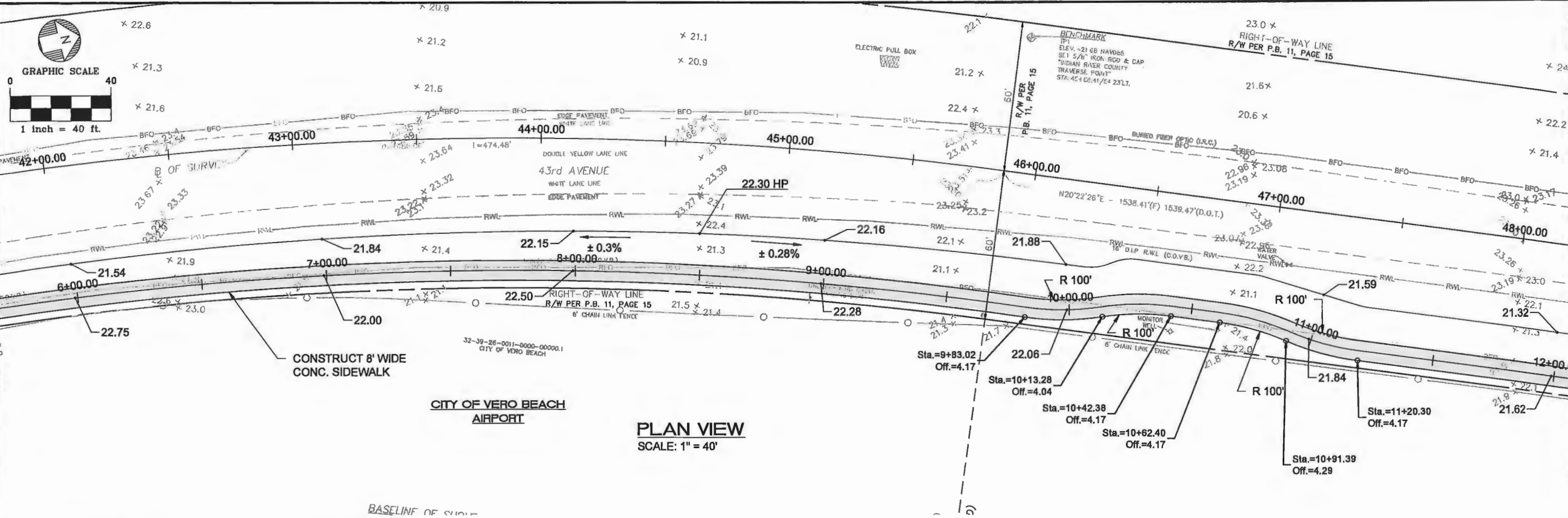
INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

43rd AVENUE SIDEWALK FROM AIRPORT DRIVE WEST TO 41st STREET
 PLAN AND PROFILE

SHEET	C14
AARON G. STANTON FL P.E.#72460	18-0043

MATCHLINE STA. 5+65.00 SEE SHEET C14

MATCHLINE STA. 12+02.00 SEE SHEET C16



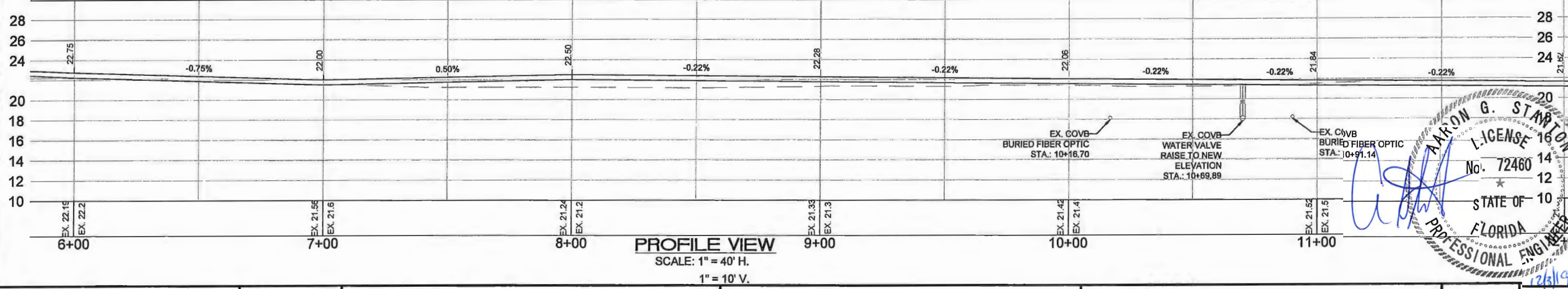
PLAN VIEW
SCALE: 1" = 40'

LEGEND

- EXISTING ASPHALT
- PROPOSED 8' W. CONC. SIDEWALK
- PROPOSED ASPHALT OVERLAY
- RIGHT-OF-WAY LINE
- CENTERLINE OF SWALE
- TEMPORARY CONSTRUCTION EASEMENT

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PROFILE VIEW
SCALE: 1" = 40' H.
1" = 10' V.

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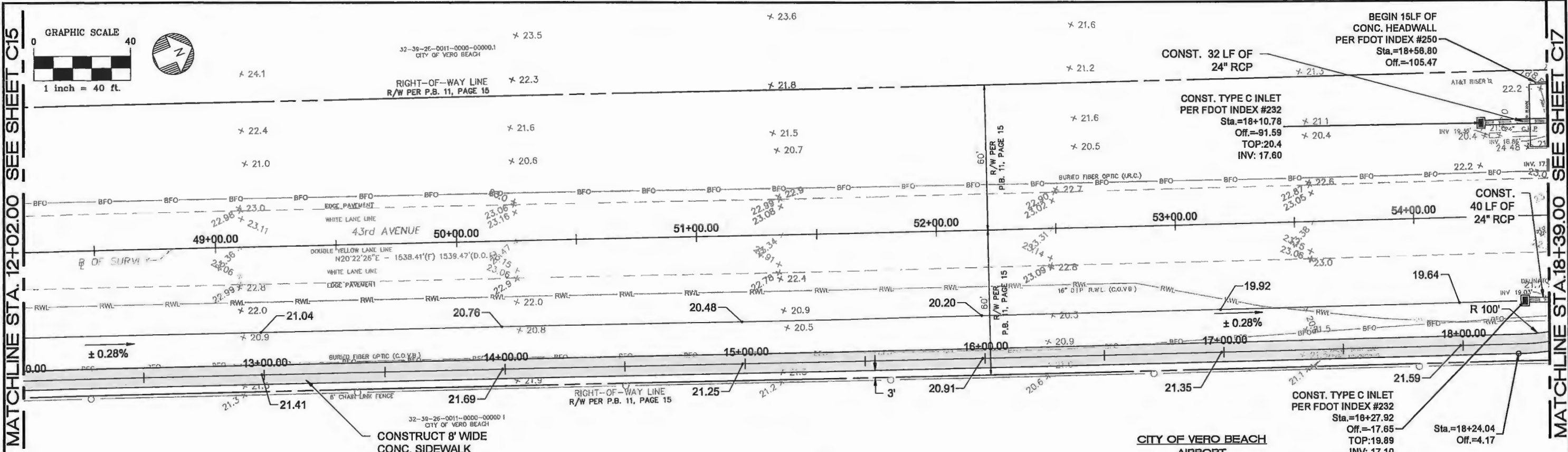
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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

PLAN AND PROFILE

AARON G. STANTON
LICENSE 16200
No. 72460
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DATE: 12/2/2019
18-0043

C15



PLAN VIEW
SCALE: 1" = 40'

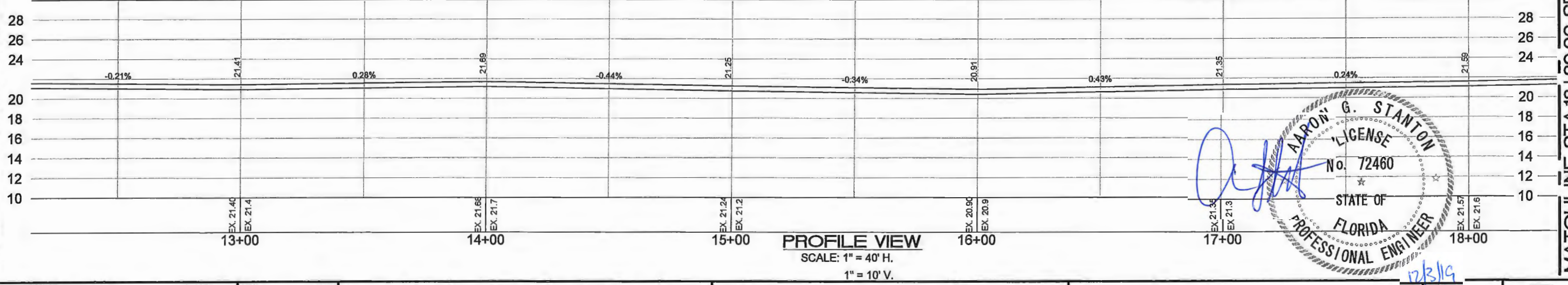
LEGEND

- EXISTING ASPHALT
- PROPOSED 8' W. CONC. SIDEWALK
- PROPOSED ASPHALT OVERLAY
- RIGHT-OF-WAY LINE
- CENTERLINE OF SWALE
- TEMPORARY CONSTRUCTION EASEMENT

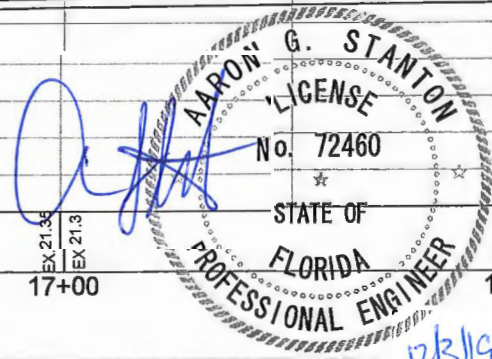
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GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.



PROFILE VIEW
SCALE: 1" = 40' H.
1" = 10' V.



MATCHLINE STA. 12+02.00 SEE SHEET C15

MATCHLINE STA. 18+39.00 SEE SHEET C17

REVISIONS	DATE	JOB NO.	18-0043
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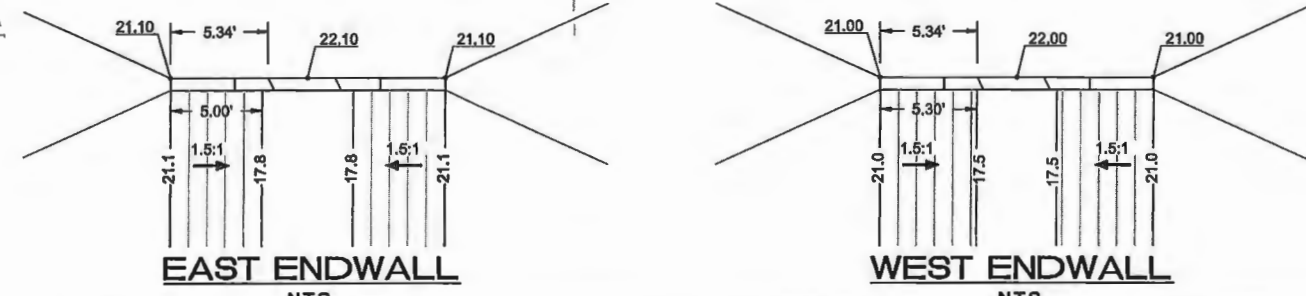
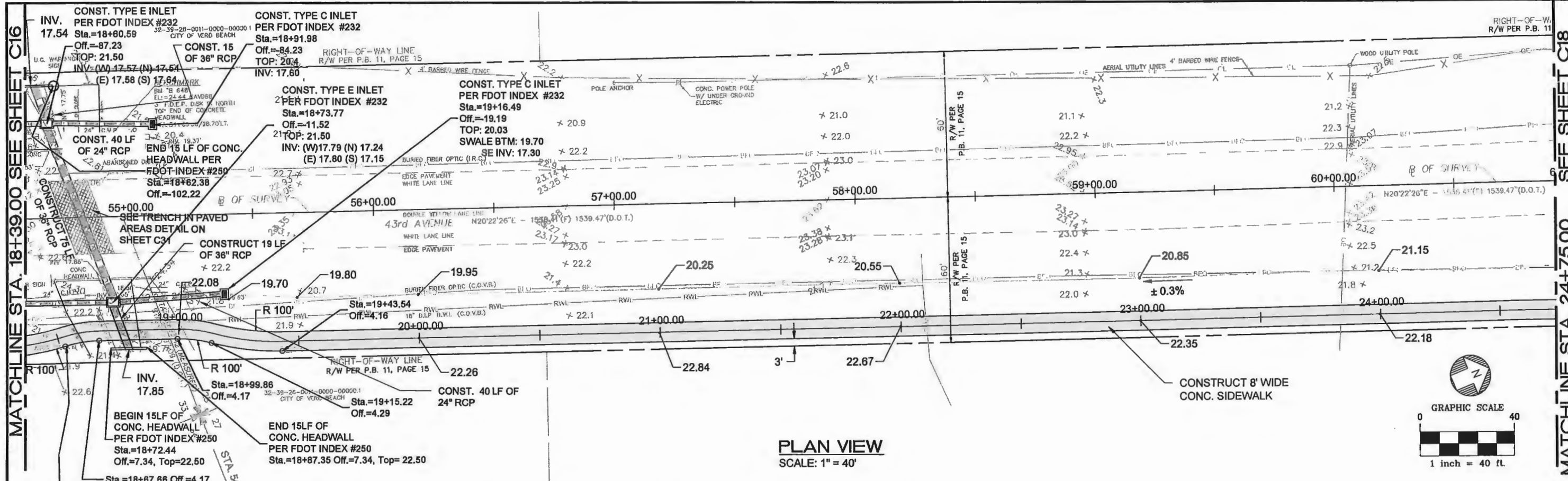
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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

PLAN AND PROFILE

SHEET	C16
AARON G. STANTON FL. P.E. #72460	
DATE:	18-0043



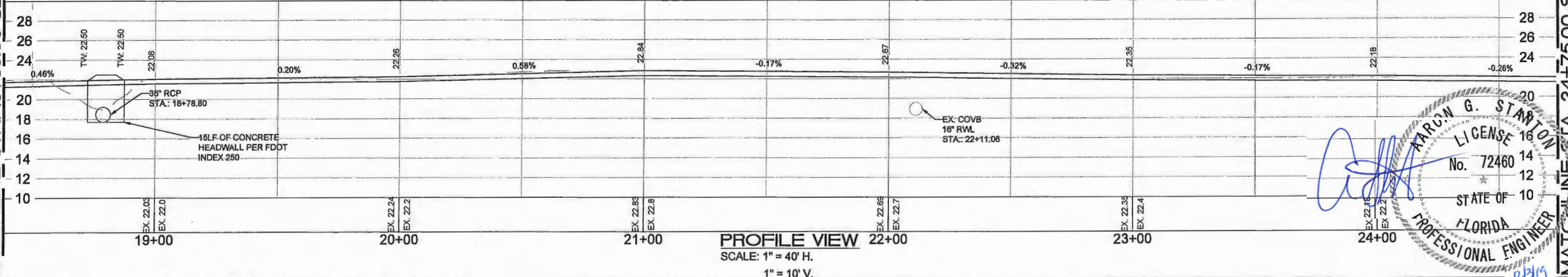
NOTES

1. SIDEWALK AT ALL EXISTING STREETS AND DRIVEWAY INTERSECTIONS SHALL MEET EXISTING GRADES, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR IS TO RESTORE ALL DISTURBED AREAS IN KIND.
3. IT SHALL BE REQUIRED THAT ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS BE MAINTAINED AT ALL TIMES.
4. ALL PROPOSED DETECTABLE WARNING SURFACES SHALL BE INSTALLED UTILIZING THE CAST-IN-PLACE METHOD.

LEGEND

- EXISTING ASPHALT
- PROPOSED 8' W. CONC. SIDEWALK
- PROPOSED ASPHALT OVERLAY
- RIGHT-OF-WAY LINE
- CENTERLINE OF SWALE
- TEMPORARY CONSTRUCTION EASEMENT

GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.



PROFILE VIEW
SCALE: 1" = 40' H.
1" = 10' V.

AARON G. STANTON
LICENSE 1620
No. 72460
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REVISIONS	DATE	JOB NO.
1 PER IRC 90% REVIEW	08-31-2018	18-0043
2 PER IRC 100% REVIEW	12-17-2018	DESIGNED AGS
3 PER IRC 110% REVIEW	02-04-2019	DRAWN KB
4 PER FDOT LAP REVIEW	06-10-2019	DATE 12/2/2019
5 REMOVE 5' T.C.E.	07-10-2019	CHECKED AGS
6 COVER & SUM OF QTY'S	12-02-2019	DATE ISSUED 12/2/2019

MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

1835 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617
MELBOURNE, FL - PH (321) 253-1610
FT. PIERCE, FL - PH (772) 468-8055

**43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET**

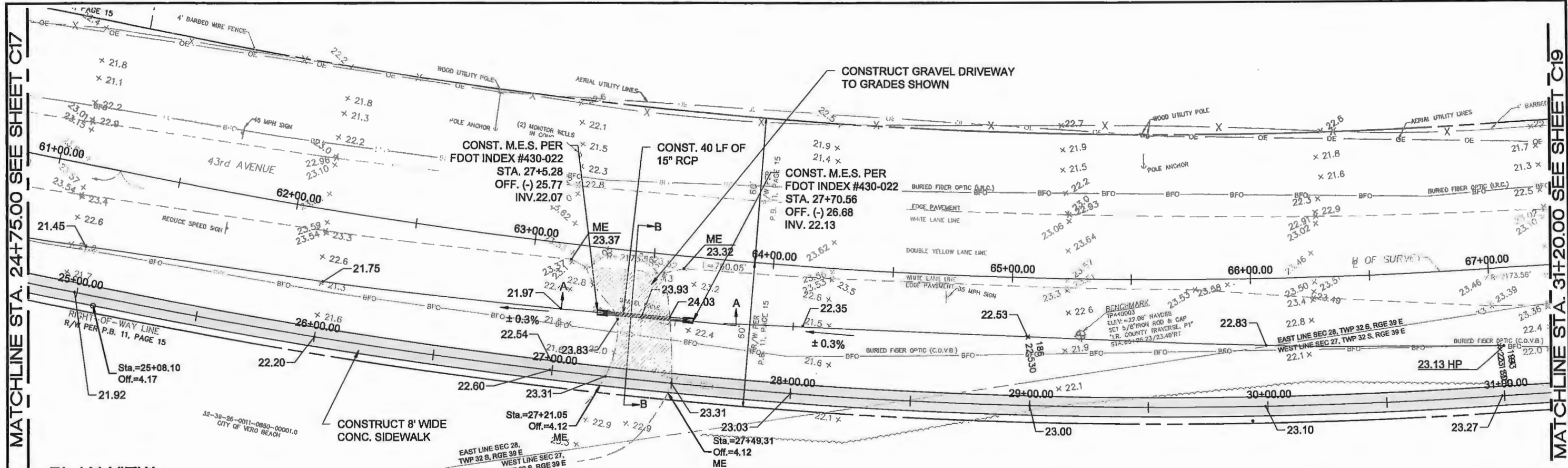
INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

PLAN AND PROFILE

C17

AARON G. STANTON
FL P.E.#72460

DATE: 18-0043



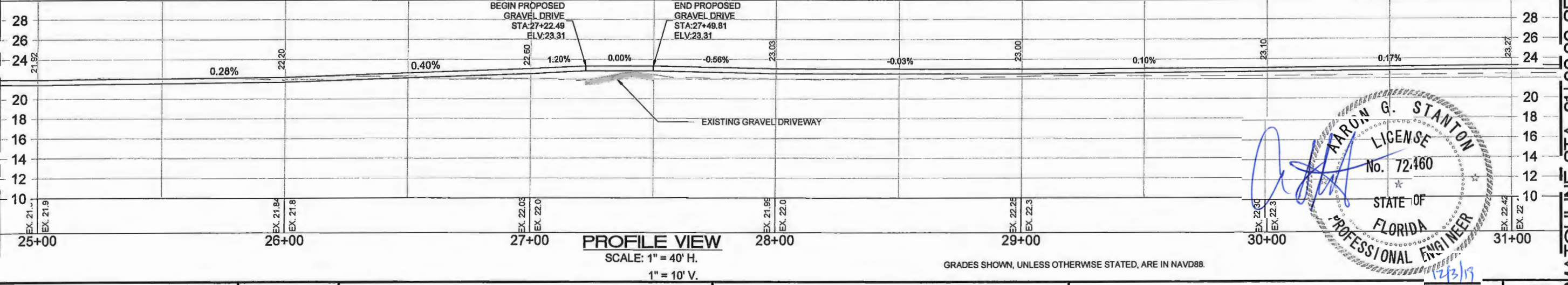
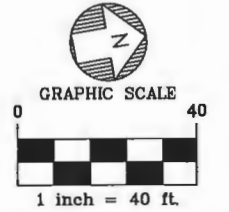
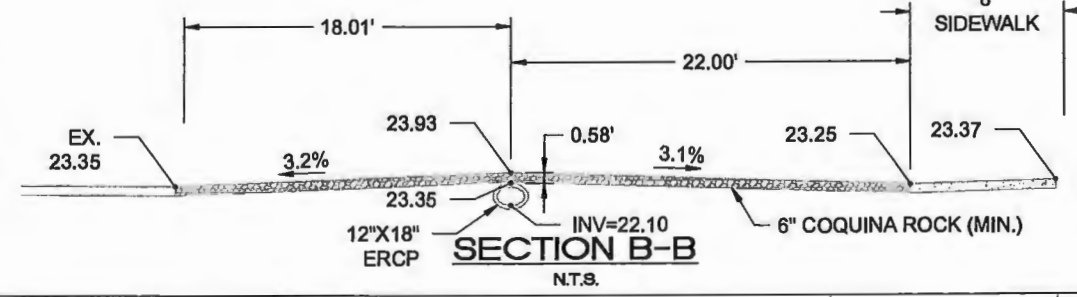
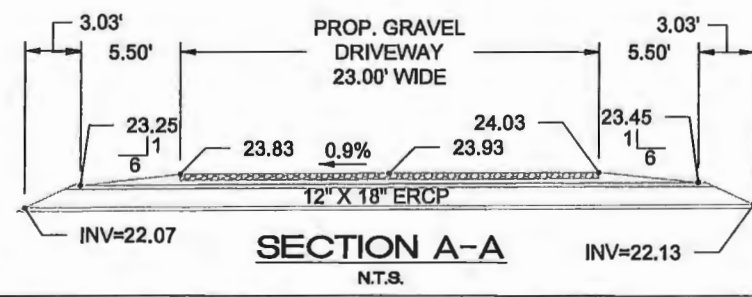
PLAN VIEW
SCALE: 1" = 40'

LEGEND

- EXISTING ASPHALT
- PROPOSED 8' W. CONC. SIDEWALK
- PROPOSED ASPHALT OVERLAY
- EXISTING ROCK / ADDED
- RIGHT-OF-WAY LINE
- CENTERLINE OF SWALE
- TEMPORARY CONSTRUCTION EASEMENT

NOTES

1. SIDEWALK AT ALL EXISTING STREETS AND DRIVEWAY INTERSECTIONS SHALL MEET EXISTING GRADES, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR IS TO RESTORE ALL DISTURBED AREAS IN KIND.
3. IT SHALL BE REQUIRED THAT ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS BE MAINTAINED AT ALL TIMES.
4. ALL PROPOSED DETECTABLE WARNING SURFACES SHALL BE INSTALLED UTILIZING THE CAST-IN-PLACE METHOD.



PROFILE VIEW
SCALE: 1" = 40' H.
1" = 10' V.

GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.



MATCHLINE STA. 24+75.00 SEE SHEET C17

MATCHLINE STA. 31+20.00 SEE SHEET C19

REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 90% REVIEW	08-31-2018	DESIGNED	AGS
2 PER IRC 100% REVIEW	12-17-2018	DRAWN	KB
3 PER IRC 110% REVIEW	02-04-2019	DATE	12/22/2019
4 PER FDOT LAP REVIEW	06-10-2019	CHECKED	AGS
5 REMOVE 6' T.C.E.	07-10-2019	CHECKED	AGS
6 COVER & SUM OF QTY'S	12-02-2019	DATE ISSUED	12/3/2019

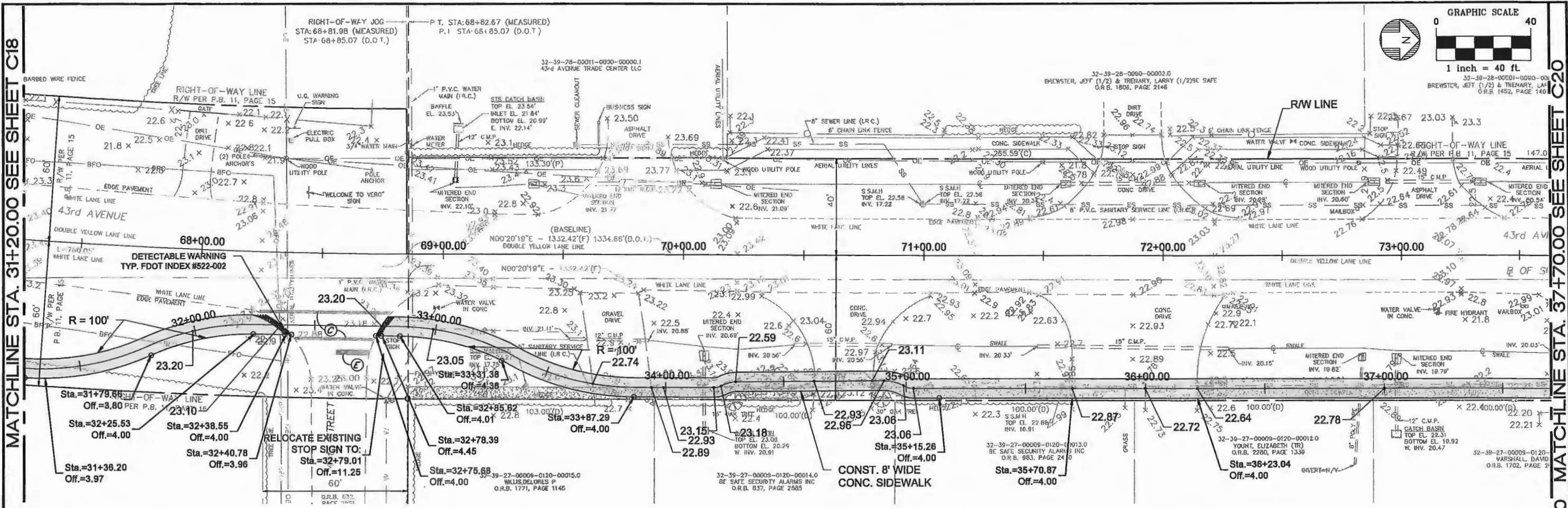
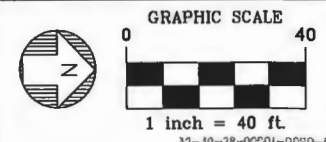
MBV ENGINEERING, INC.
MOYA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

1835 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617
MELBOURNE, FL - PH (321) 293-1510
FT. PIERCE, FL - PH (772) 488-9055

43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

PLAN AND PROFILE

DATE:	18-0043
SHEET	C18



LEGEND

- EXISTING ASPHALT
- PROPOSED 8' W. CONC. SIDEWALK
- PROPOSED ASPHALT OVERLAY
- RIGHT-OF-WAY LINE
- CENTERLINE OF SWALE
- TEMPORARY CONSTRUCTION EASEMENT

NOTES

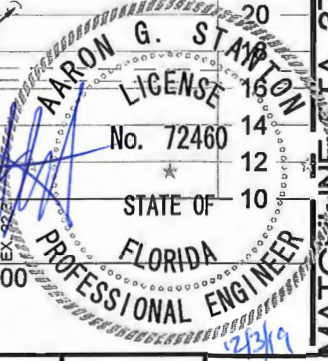
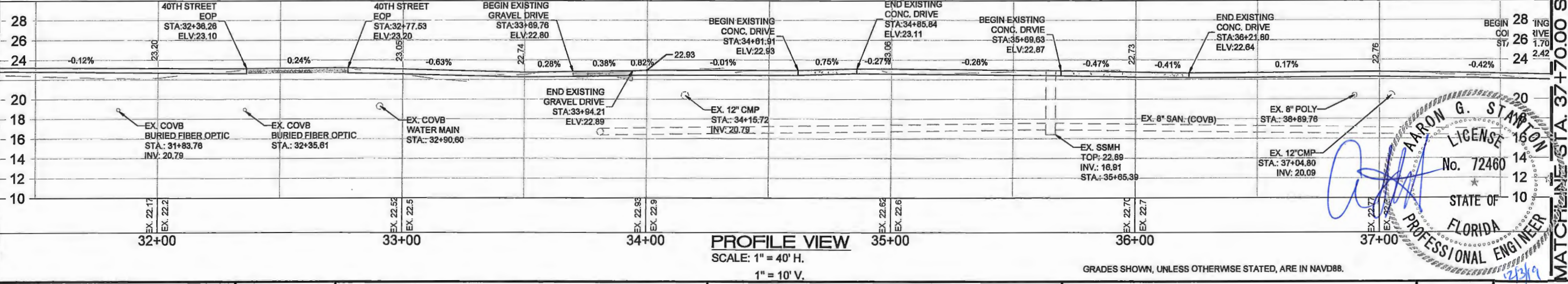
1. SIDEWALK AT ALL EXISTING STREETS AND DRIVEWAY INTERSECTIONS SHALL MEET EXISTING GRADES, UNLESS OTHERWISE NOTED.
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4. ALL PROPOSED DETECTABLE WARNING SURFACES SHALL BE INSTALLED UTILIZING THE CAST-IN-PLACE METHOD.

PLAN VIEW

SCALE: 1" = 40'

IRC PAVEMENT STRIPING LEGEND

- | | |
|-------------------------------|--|
| A = 6" SOLID WHITE | K = 6" DOUBLE YELLOW |
| B = 8" SOLID WHITE | L = 6" SKIP YELLOW (10' - 30') |
| C = 12" SOLID WHITE | M = 6" SKIP YELLOW (6' - 10') |
| D = 18" SOLID WHITE | N = 6" SKIP YELLOW (2' - 4') |
| E = 24" SOLID WHITE | P = RPM MONO-DIRECTIONAL (WHITE/CLEAR) |
| F = 6" SKIP WHITE (10' - 30') | Q = RPM BI-DIRECTIONAL (AMBER/AMBER) |
| G = 6" SKIP WHITE (6' - 10') | R = FDP (WHITE) |
| H = 6" SKIP WHITE (2' - 4') | S = FDP (YELLOW) |
| I = 6" SOLID YELLOW | T = RPM (WHITE/RED) |
| J = 18" SOLID YELLOW | |



REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 90% REVIEW	08-31-2018	DESIGNED	AGS
2 PER IRC 100% REVIEW	12-17-2018	DRAWN	KB
3 PER IRC 110% REVIEW	02-04-2019	DATE	12/2/2019
4 PER FDOT LAP REVIEW	06-10-2019	CHECKED	AGS
5 REMOVE B.T.C.E.	07-10-2019	DATE ISSUED	12/3/2019
6 COVER & SUM OF QTY'S	12-02-2019		

MBV ENGINEERING, INC.
 MOIA BOWLES VILLAMIZAR & ASSOCIATES
 CONSULTING ENGINEERING CA #3728

1835 20TH STREET
 VERO BEACH, FL 32960
 PH. (772) 569-0035
 FX. (772) 778-3617
 MELBOURNE, FL - PH (321) 253-1510
 FT. PIERCE, FL - PH (772) 488-9055

43rd AVENUE SIDEWALK
 FROM AIRPORT DRIVE WEST
 TO 41st STREET

INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

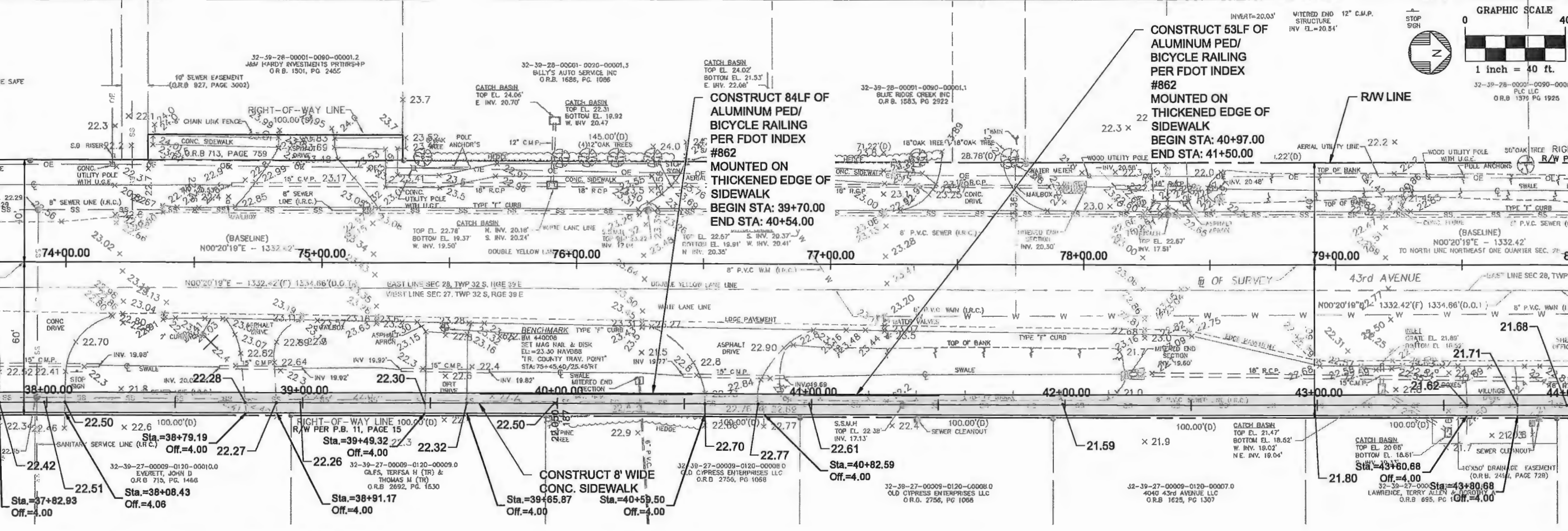
PLAN AND PROFILE

GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.

SHEET	C19
AARON G. STANTON FL P.E.#72460	18-0043

MATCHLINE STA. 37+70.00 SEE SHEET C19

MATCHLINE STA. 44+07.00 SEE SHEET C21

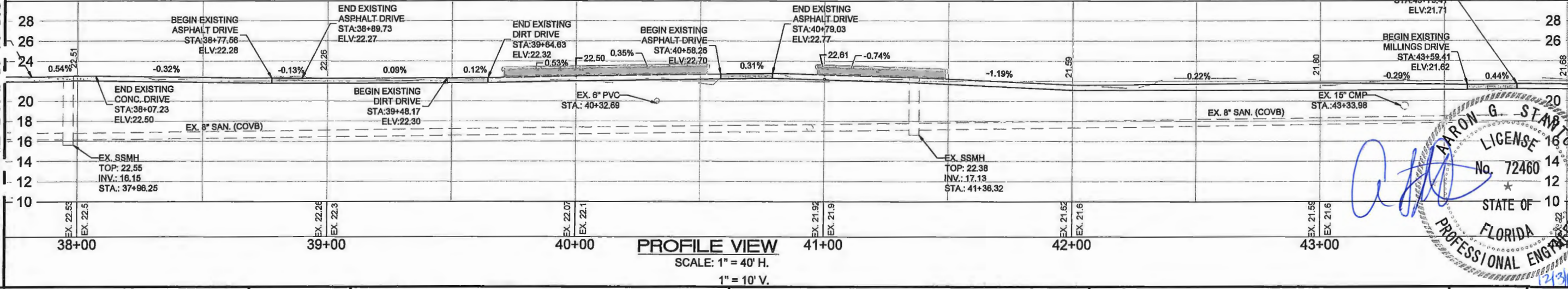


LEGEND

	EXISTING ASPHALT
	PROPOSED 8' W. CONC. SIDEWALK
	PROPOSED ASPHALT OVERLAY
	RIGHT-OF-WAY LINE
	CENTERLINE OF SWALE
	TEMPORARY CONSTRUCTION EASEMENT

- NOTES**
- SIDEWALK AT ALL EXISTING STREETS AND DRIVEWAY INTERSECTIONS SHALL MEET EXISTING GRADES, UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR IS TO RESTORE ALL DISTURBED AREAS IN KIND.
 - IT SHALL BE REQUIRED THAT ACCESS TO PUBLIC AND PRIVATE DRIVEWAYS BE MAINTAINED AT ALL TIMES.
 - ALL PROPOSED DETECTABLE WARNING SURFACES SHALL BE INSTALLED UTILIZING THE CAST-IN-PLACE METHOD.

PLAN VIEW
SCALE: 1" = 40'



PROFILE VIEW
SCALE: 1" = 40' H.
1" = 10' V.



REVISIONS	DATE	JOB NO.
1 PER IRC 90% REVIEW	08-31-2018	18-0043
2 PER IRC 100% REVIEW	12-17-2018	AGS
3 PER IRC 110% REVIEW	02-04-2019	KB
4 PER FDOT LAP REVIEW	06-10-2019	
5 REMOVE & T.C.E.	07-10-2019	
6 COVER & SUM OF QTY'S	12-02-2019	

MBV ENGINEERING, INC.
NOIA BOWLES VILLAMIZAR & ASSOCIATES
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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET

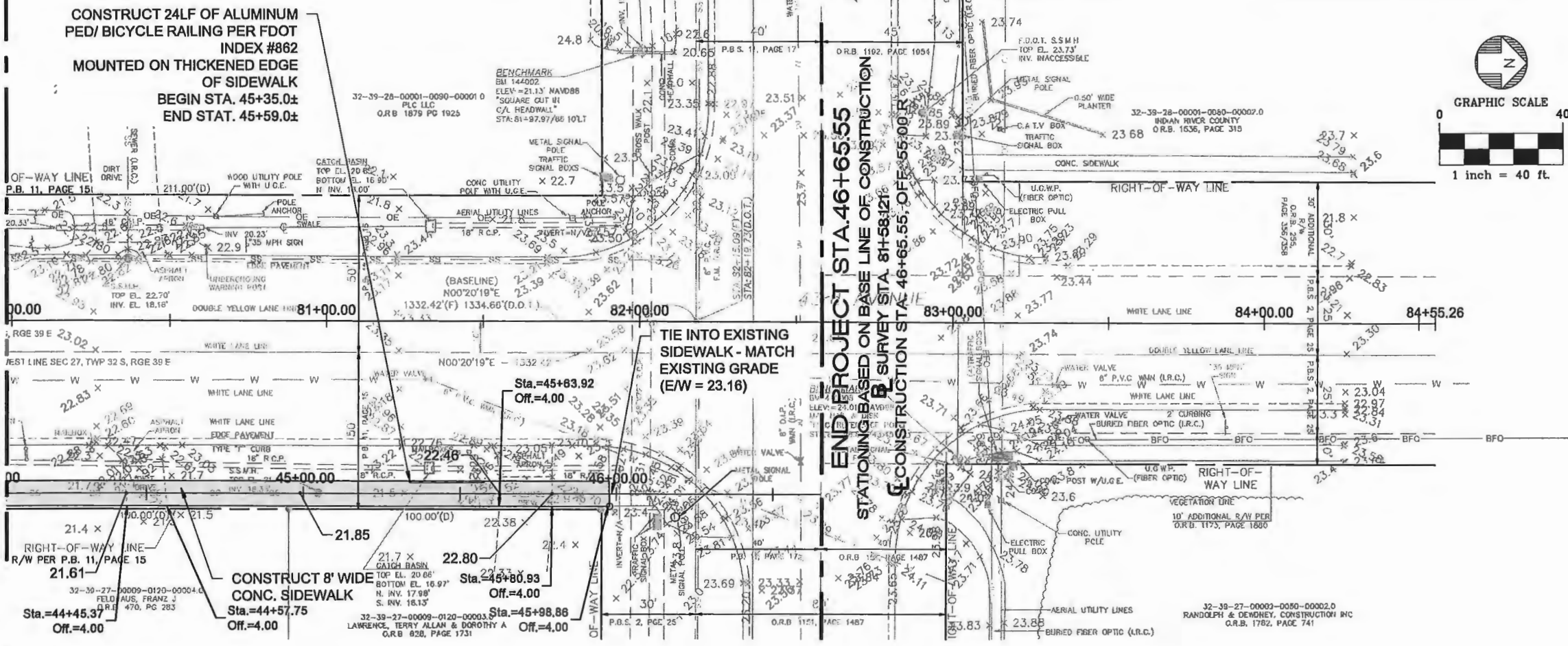
INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

PLAN AND PROFILE

SHEET	C20
DATE:	18-0043

MATCHLINE STA. 44+07.00 SEE SHEET C20

MATCHLINE STA. 44+07.00 SEE SHEET C20



LEGEND

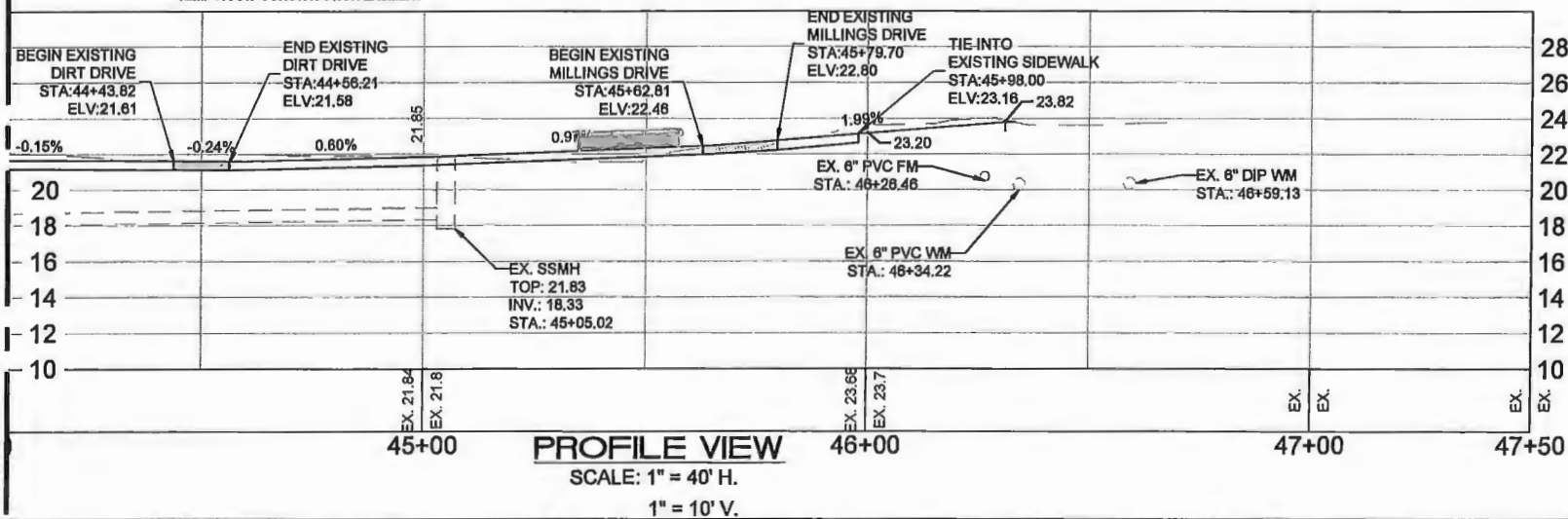
- EXISTING ASPHALT
- PROPOSED 8' W. CONC. SIDEWALK
- PROPOSED ASPHALT OVERLAY
- RIGHT-OF-WAY LINE
- CENTERLINE OF SWALE
- TEMPORARY CONSTRUCTION EASEMENT

PLAN VIEW

SCALE: 1" = 40'

NOTES

1. SIDEWALK AT ALL EXISTING STREETS AND DRIVEWAY INTERSECTIONS SHALL MEET EXISTING GRADES, UNLESS OTHERWISE NOTED.
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PROFILE VIEW

SCALE: 1" = 40' H.

1" = 10' V.



REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 90% REVIEW	08-31-2018	DESIGNED	AGS
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3 PER IRC 110% REVIEW	02-04-2019	DATE	12/22/2019
4 PER FDOT LAP REVIEW	08-10-2019	CHECKED	AGS
5 REMOVE 5' T.O.E.	07-10-2019	DATE ISSUED	12/3/2019
6 COVER & SUM OF QTY'S	12-02-2019		

DATE	JOB NO.	18-0043
08-31-2018	DESIGNED	AGS
12-17-2018	DRAWN	KB
02-04-2019	DATE	12/22/2019
08-10-2019	CHECKED	AGS
07-10-2019	DATE ISSUED	12/3/2019

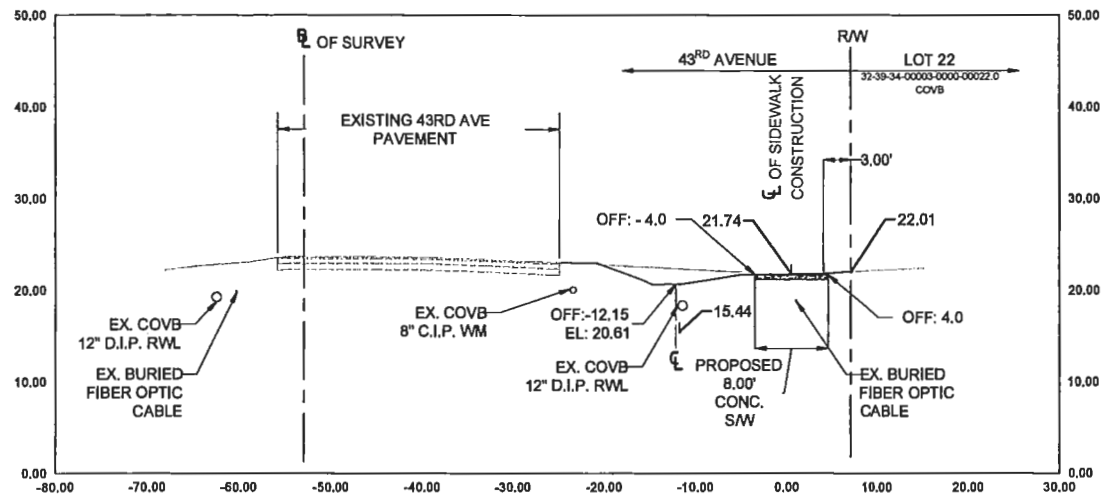
MBV ENGINEERING, INC.
 MOVA BOWLES VILLAMIZAR & ASSOCIATES
 CONSULTING ENGINEERING CA #3728

1835 20TH STREET
 VERO BEACH, FL 32960
 PH. (772) 569-0035
 FX. (772) 778-3617
 MELBOURNE, FL - PH (321) 253-1510
 FT. PIERCE, FL - PH (772) 468-9055

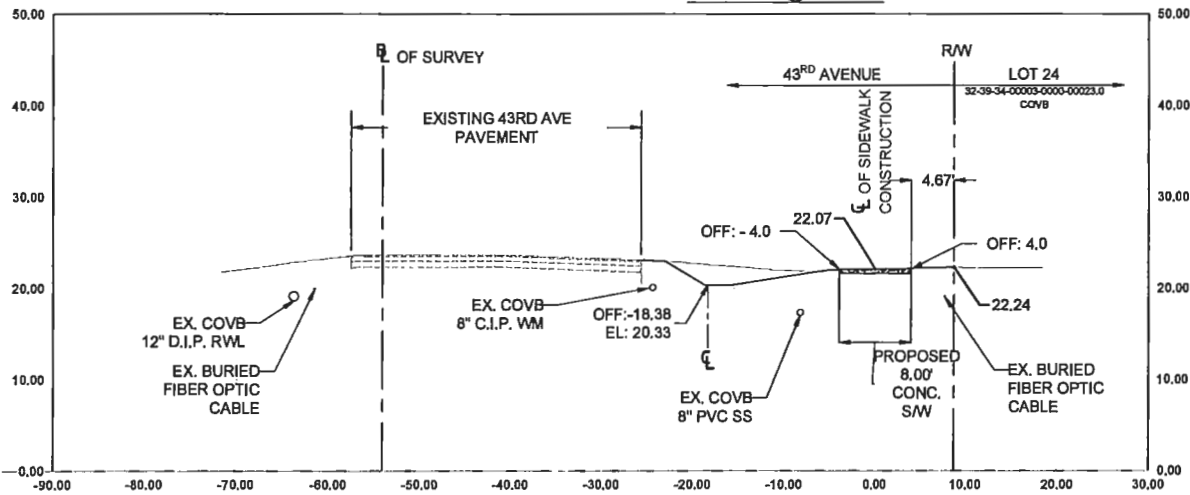
43rd AVENUE SIDEWALK
 FROM AIRPORT DRIVE WEST
 TO 41st STREET
 INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

PLAN AND PROFILE

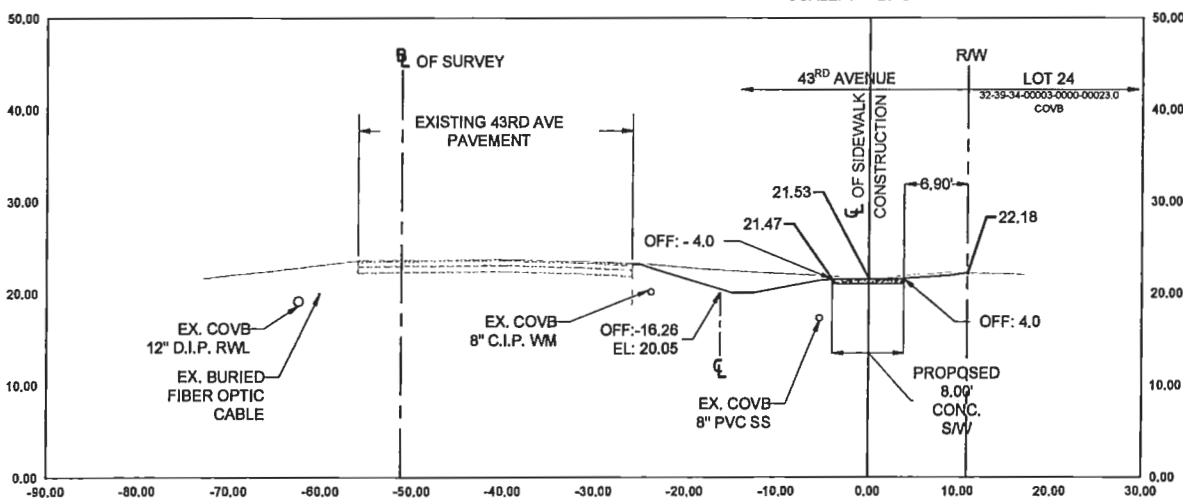
SHEET	C21
AARON G. STANTON FL. P.E.#72460	18-0043



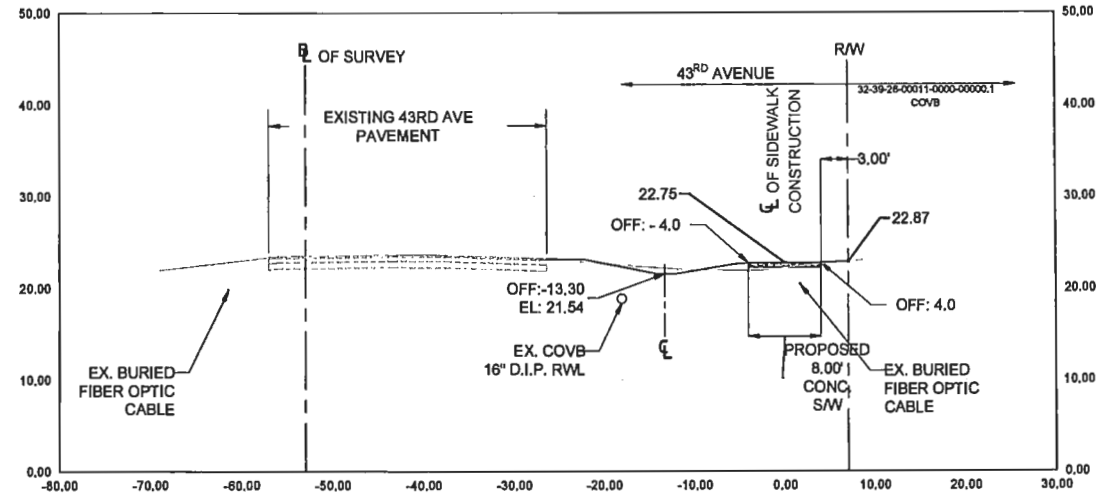
SECTION @ 3+00.00 SCALE: 1" = 20'-0"



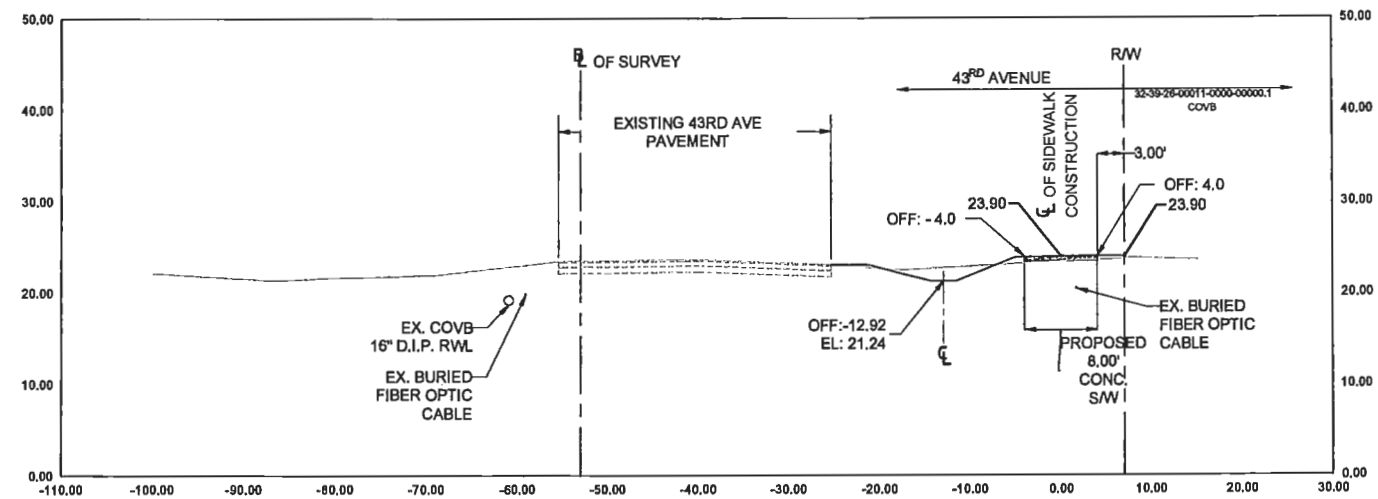
SECTION @ 2+00.00 SCALE: 1" = 20'-0"



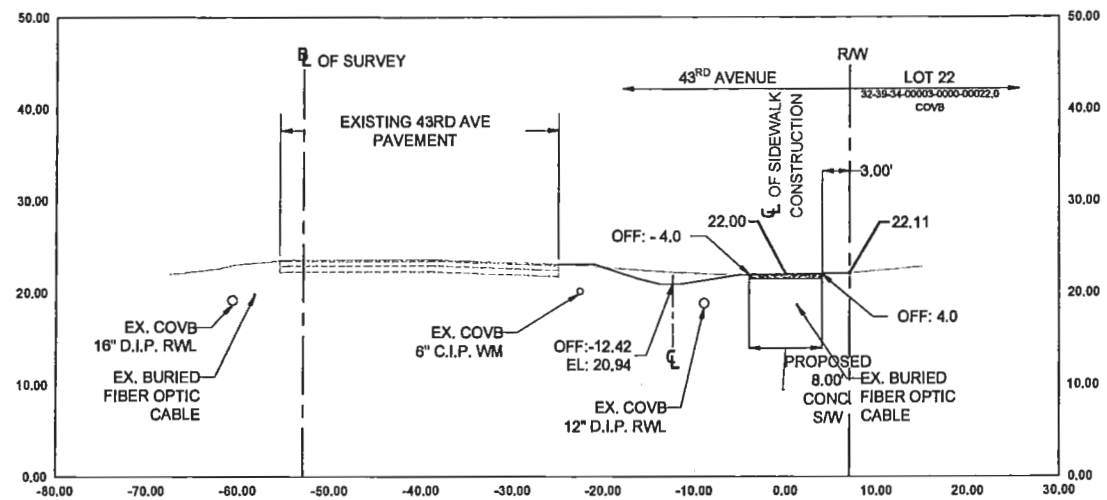
SECTION @ 1+00.00 SCALE: 1" = 20'-0"



SECTION @ 6+00.00 SCALE: 1" = 20'-0"

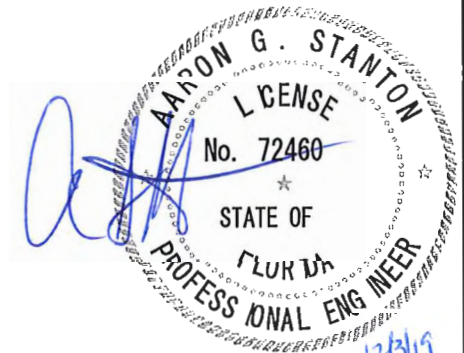


SECTION @ 5+00.00 SCALE: 1" = 20'-0"



SECTION @ 4+00.00 SCALE: 1" = 20'-0"

GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.



REVISIONS	DATE	JOB NO	18-0043
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3 PER IRC 110% REVIEW	02-04-2019	DATE	12/2/2019
4 PER FDOT LAP REVIEW	06-10-2019	CHECKED	AGS
5 REMOVE 5' T.C.E	07-10-2019	DATE ISSUED	12/2/2019
6 COVER & SUM OF QTY'S	12-02-2019		

DESIGNED	AGS
DRAWN	KB
DATE	12/2/2019
CHECKED	AGS
DATE ISSUED	12/2/2019

IMBV
ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

1835 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617
MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 488-9055

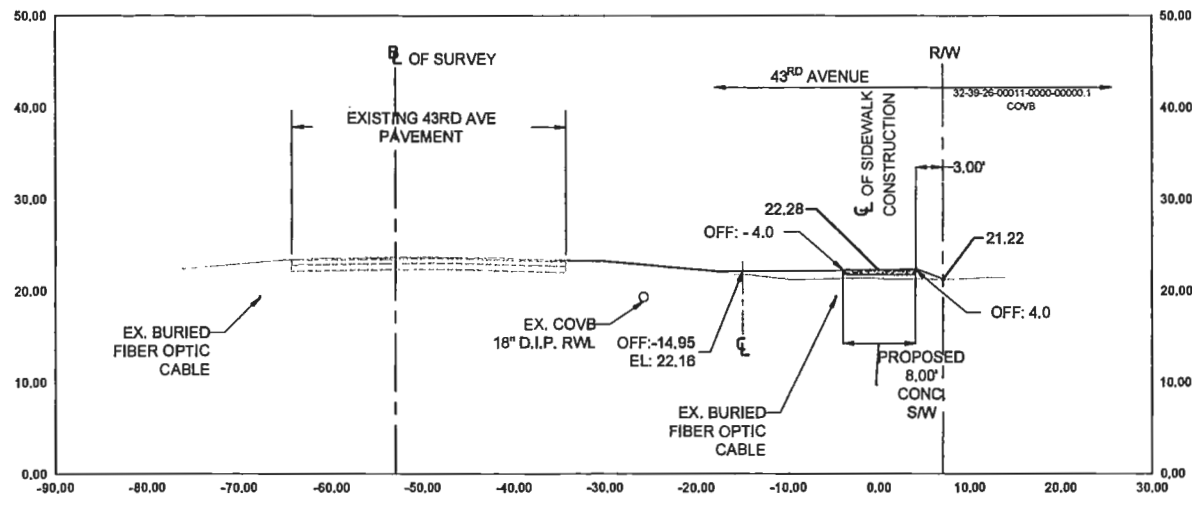
43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

CROSS SECTIONS

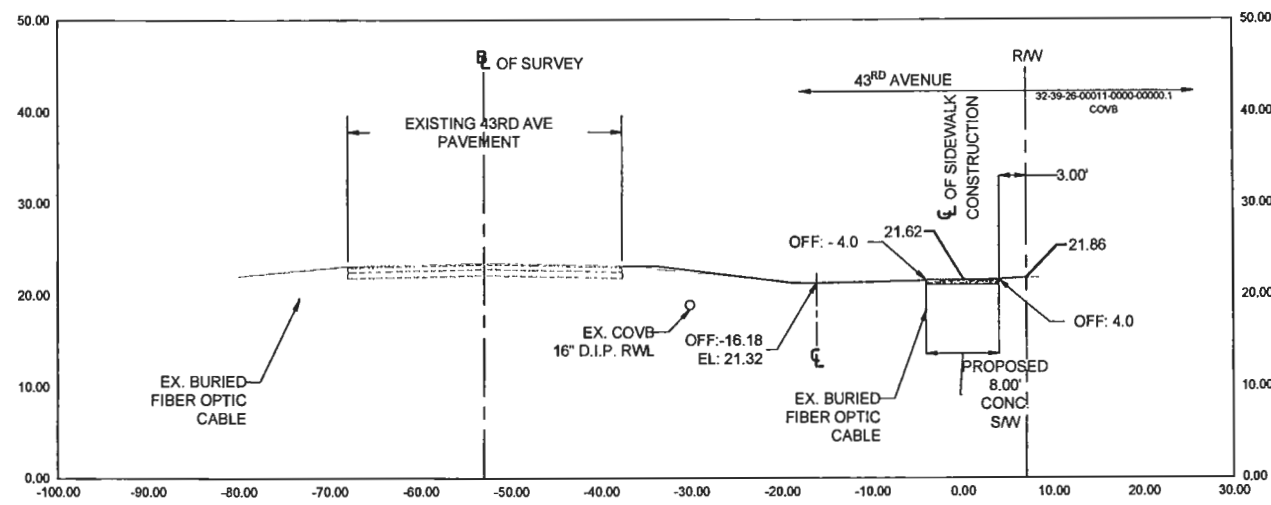
AARON G. STANTON
FL P.E. #72460
DATE:

C22

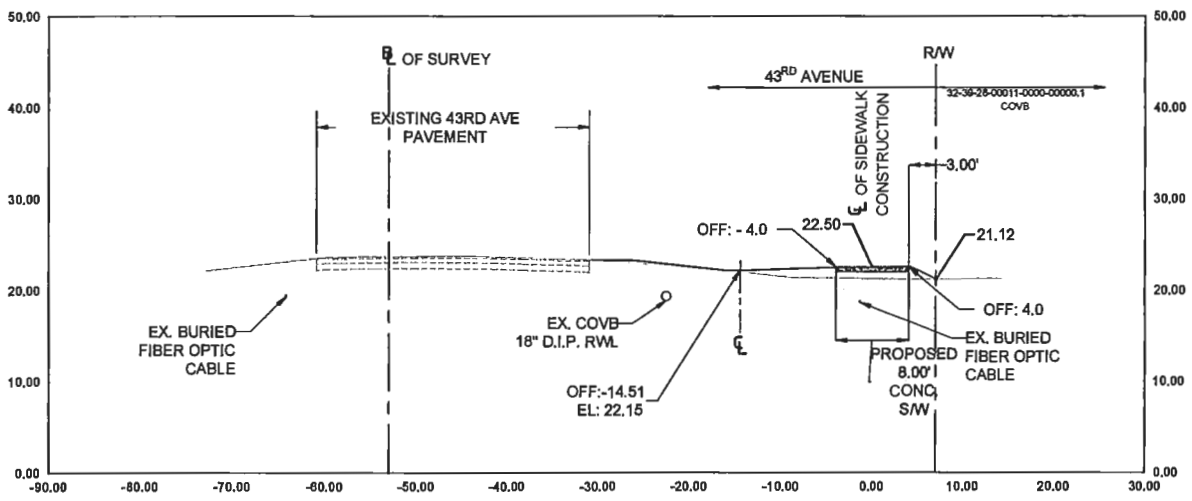
18-0043



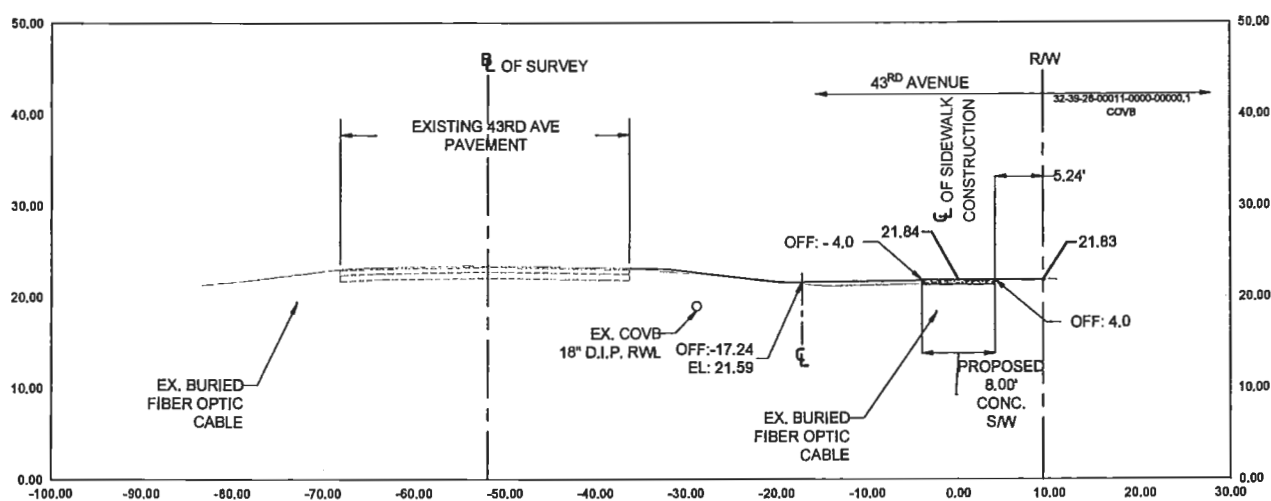
SECTION @ 9+00.00
SCALE: 1" = 20'-0"



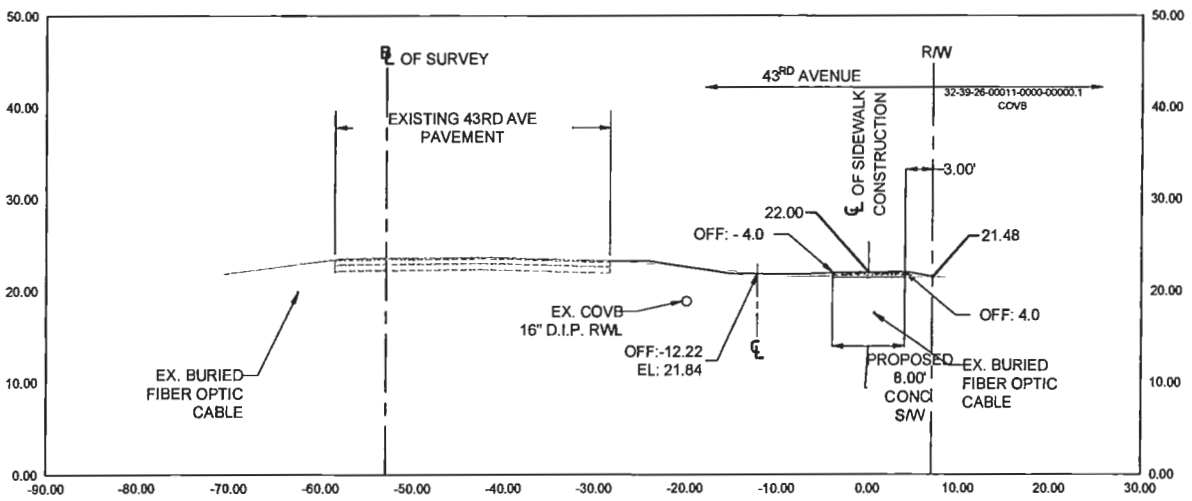
SECTION @ 12+00.00
SCALE: 1" = 20'-0"



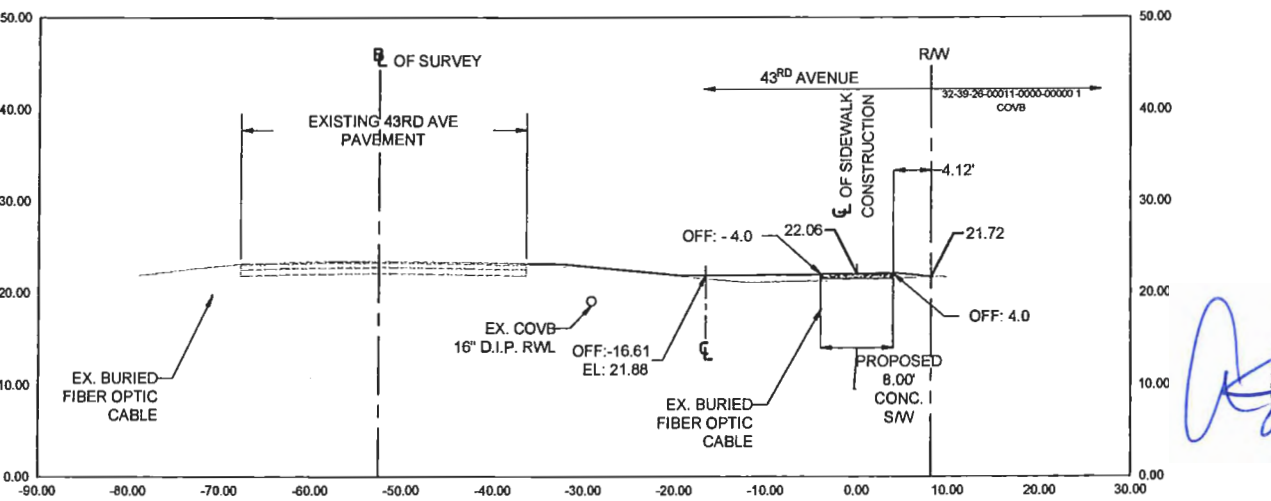
SECTION @ 8+00.00
SCALE: 1" = 20'-0"



SECTION @ 11+00.00
SCALE: 1" = 20'-0"



SECTION @ 7+00.00
SCALE: 1" = 20'-0"



SECTION @ 10+00.00
SCALE: 1" = 20'-0"

GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.



REVISIONS	DATE	JOB NO.	18-0043
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5 REMOVE S.T.C.E	07-10-2019	DATE ISSUED	12/3/2019
6 COVER & SUM OF QTY'S	12-02-2019		

MBV
ENGINEERING, INC.
MOYA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

1835 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617
MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9055

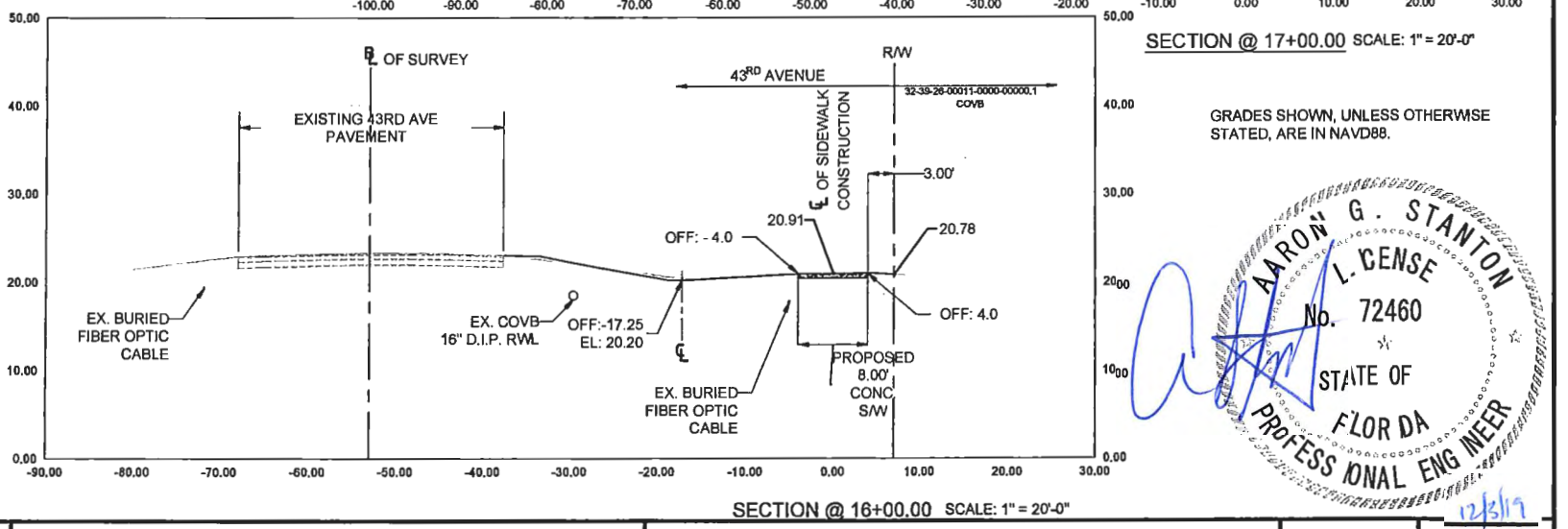
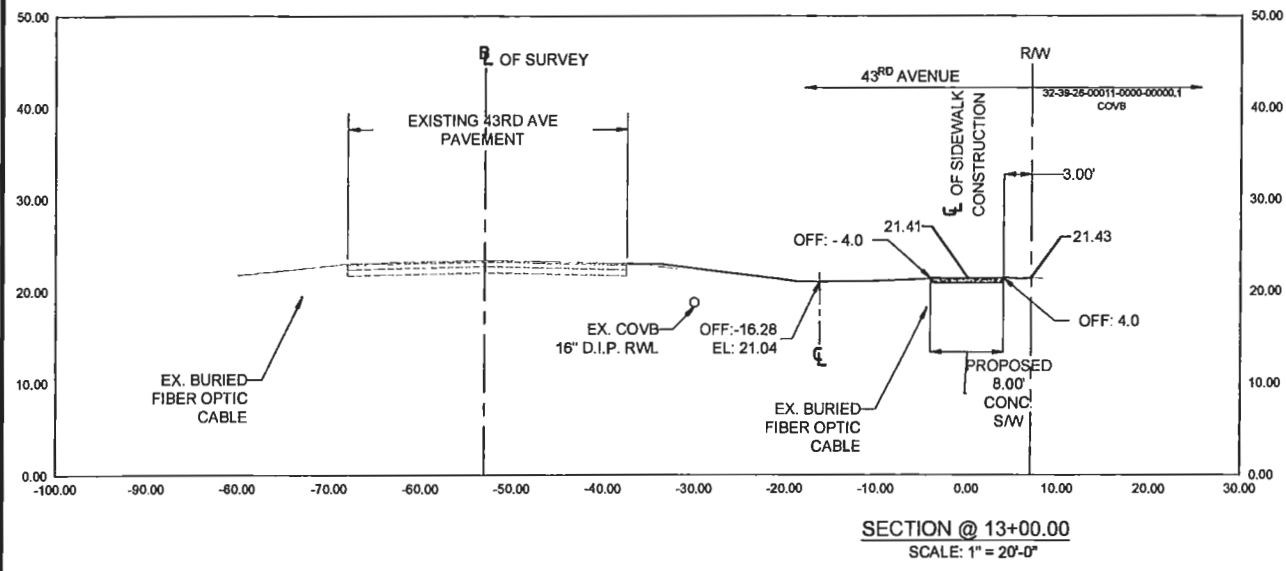
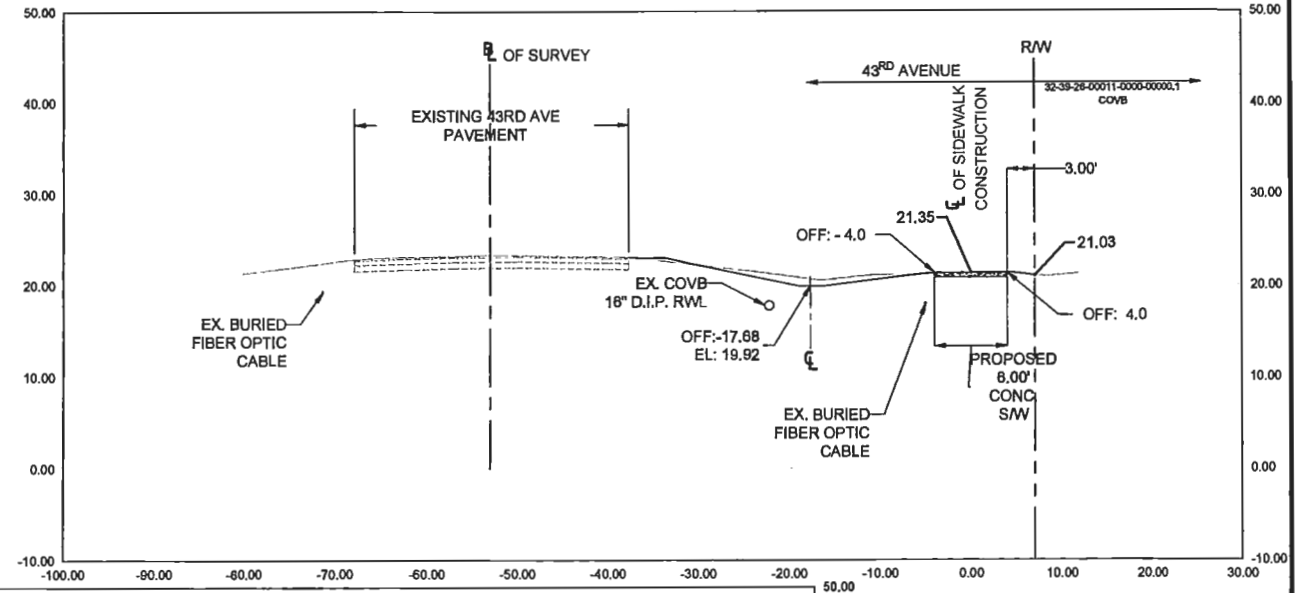
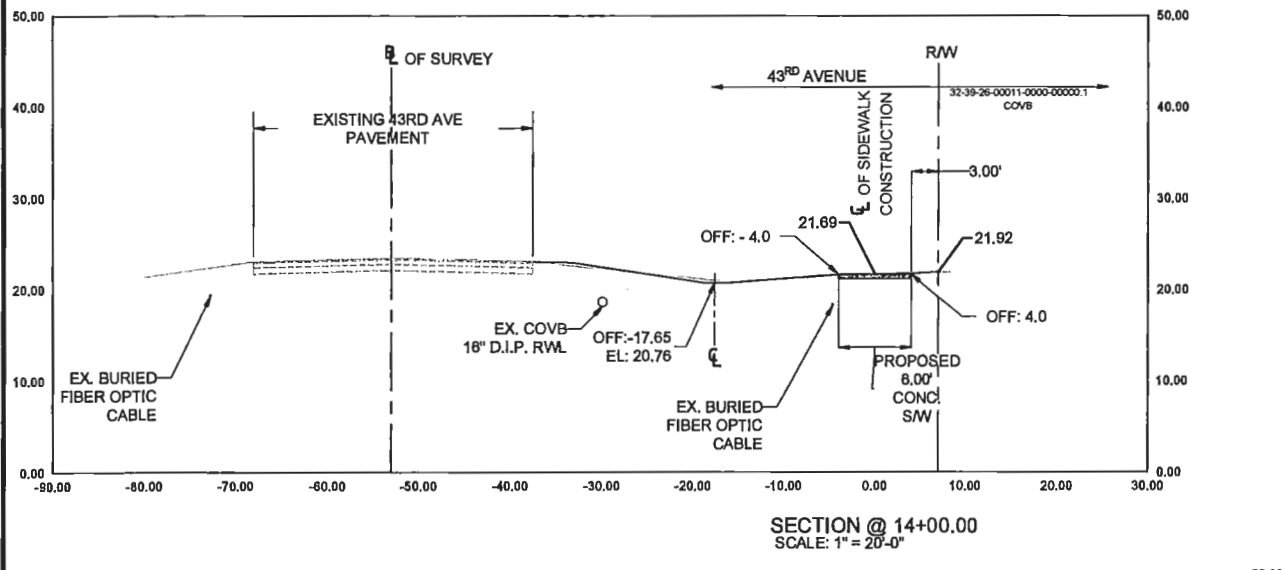
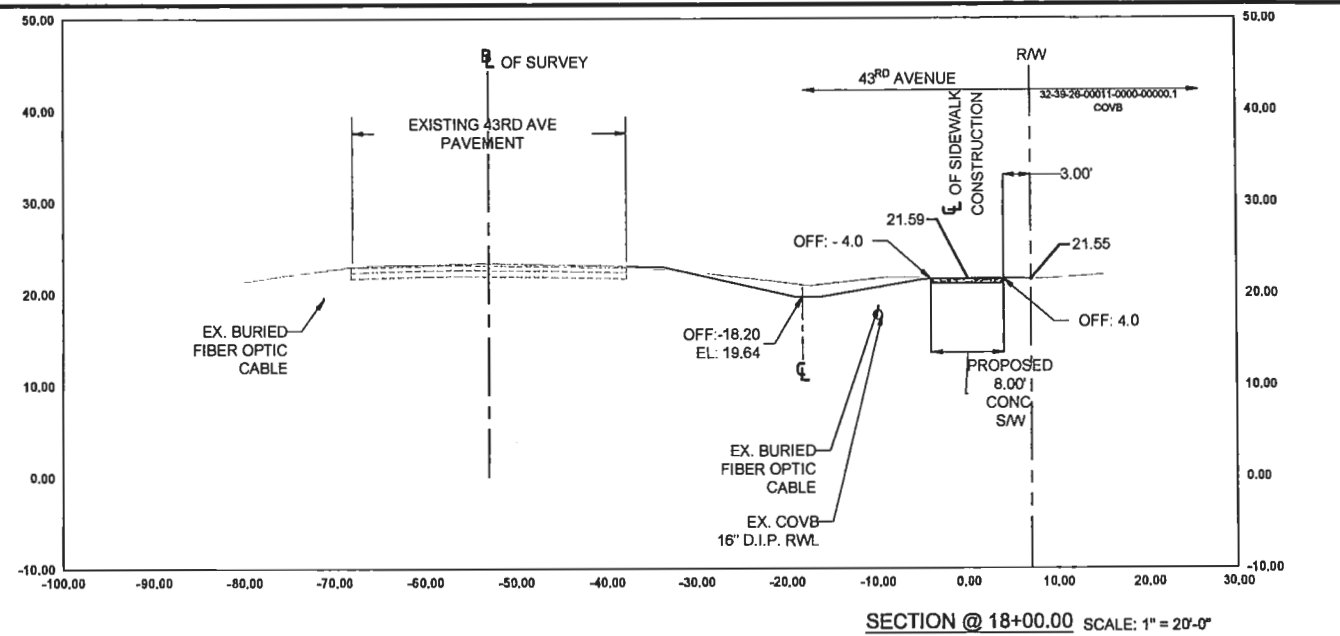
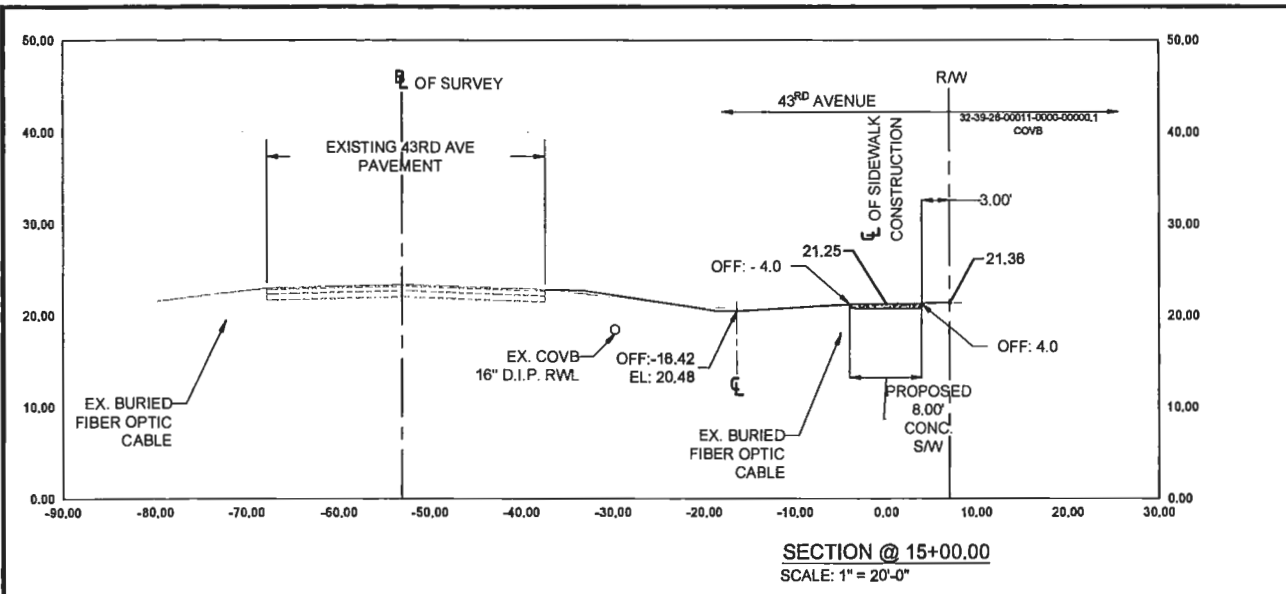
43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

CROSS SECTIONS

AARON G. STANTON
FL. P.E. #72460
DATE:

C23

18-0043



GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.

AARON G. STANTON
L. GENSE
No. 72460
STATE OF FLORIDA
PROFESSIONAL ENGINEER

12/31/19

REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 90% REVIEW	08-31-2018	DESIGNED	AGS
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6 COVER & SUM OF QTY'S	12-02-2019		
7			

MBV ENGINEERING, INC.
MOYA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

1835 20TH STREET
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MELBOURNE, FL - PH (321) 253-1610
FT. PIERCE, FL - PH (772) 468-9055

43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET

INDIAN RIVER COUNTY PROJECT NO. IRC-1503

FLORIDA

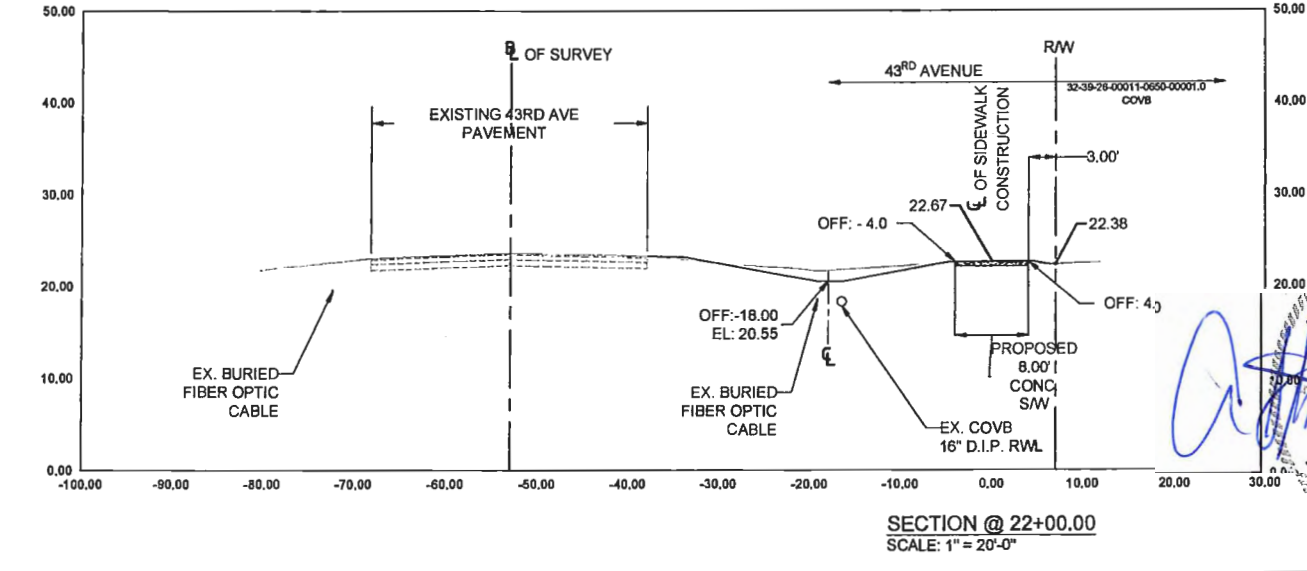
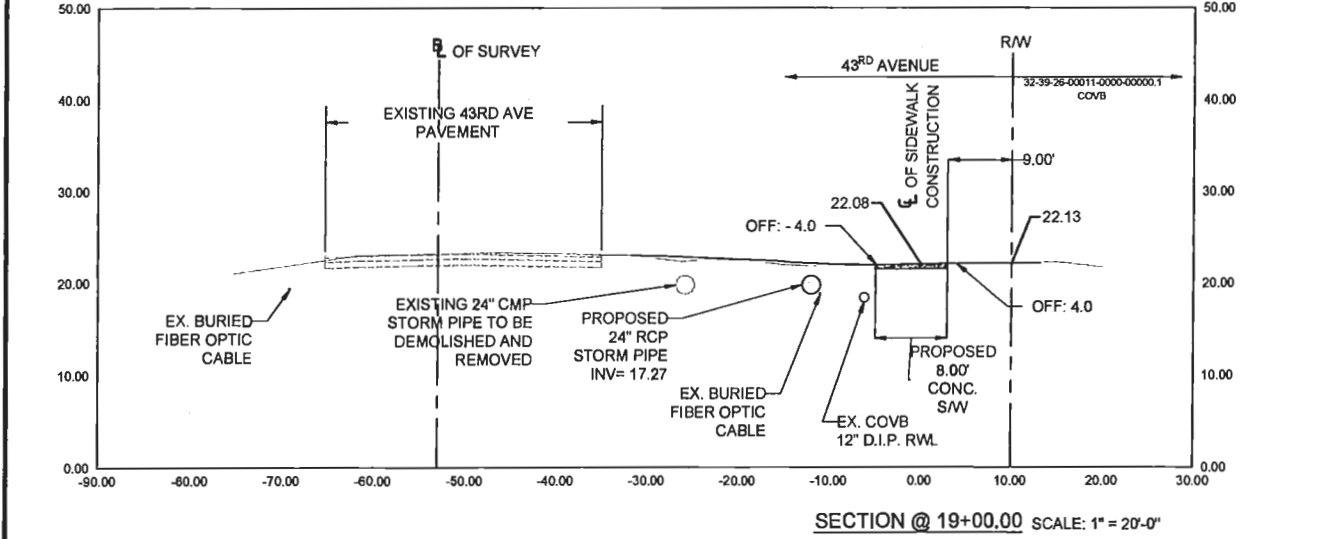
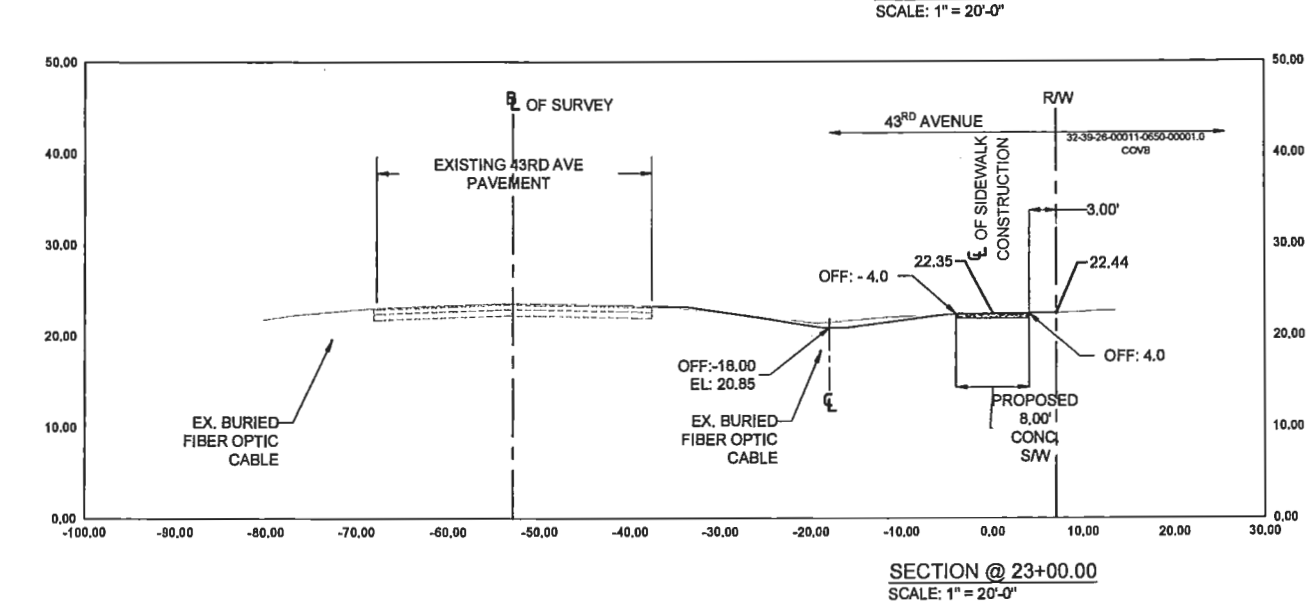
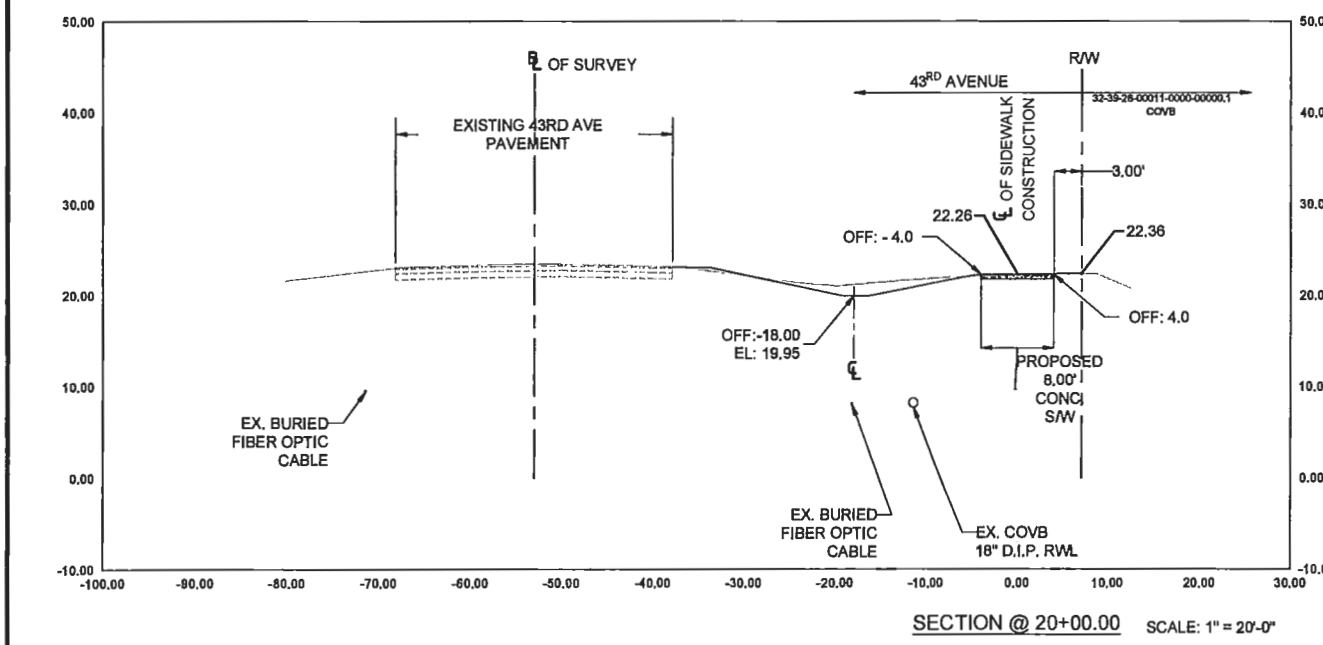
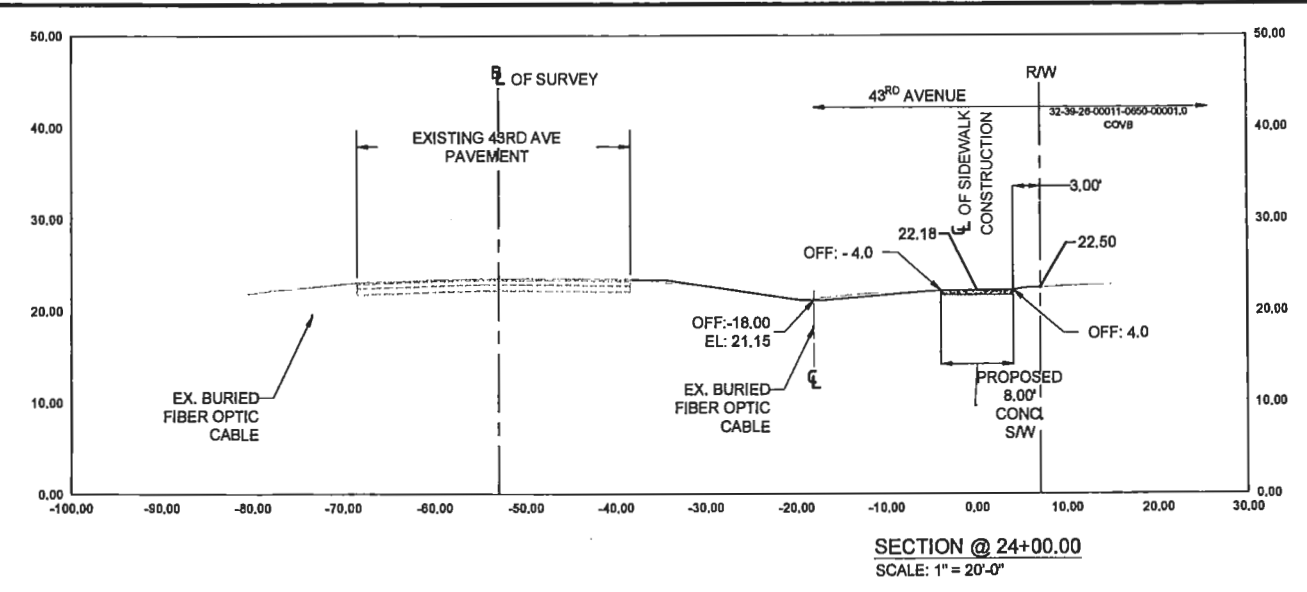
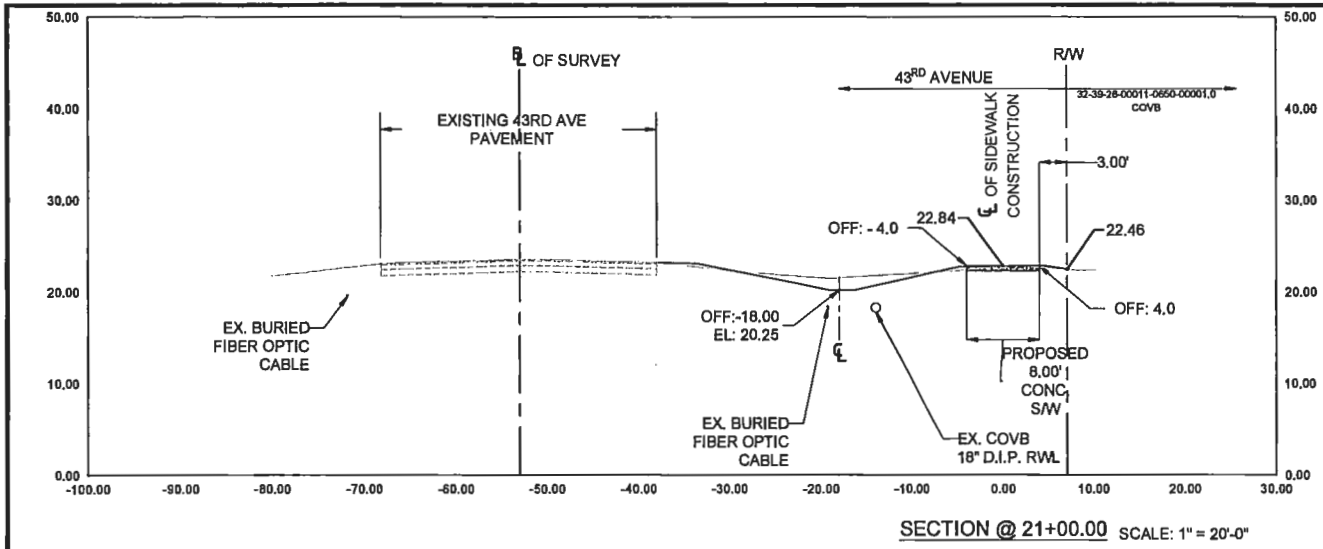
CROSS SECTIONS

AARON G. STANTON
FL. P.E. #12460

DATE:

18-0043

C24



GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.

AARON G. STANTON
L GENSE
 No. 72460
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 12/31/19

REVISIONS	DATE	JOB NO.
1 PER IRC 90% REVIEW	08-31-2018	18-0043
2 PER IRC 100% REVIEW	12-17-2018	DESIGNED AGS
3 PER IRC 110% REVIEW	02-04-2019	DRAWN KB
4 PER FDOT LAP REVIEW	06-10-2019	DATE 12/2/2019
5 REMOVE & T.C.E	07-10-2019	CHECKED AGS
6 COVER & SUM OF QTY'S	12-02-2019	DATE ISSUED 12/3/2019

MBV ENGINEERING, INC.
 MOYA BOWLES VILLAMIZAR & ASSOCIATES
 CONSULTING ENGINEERING CA #3728

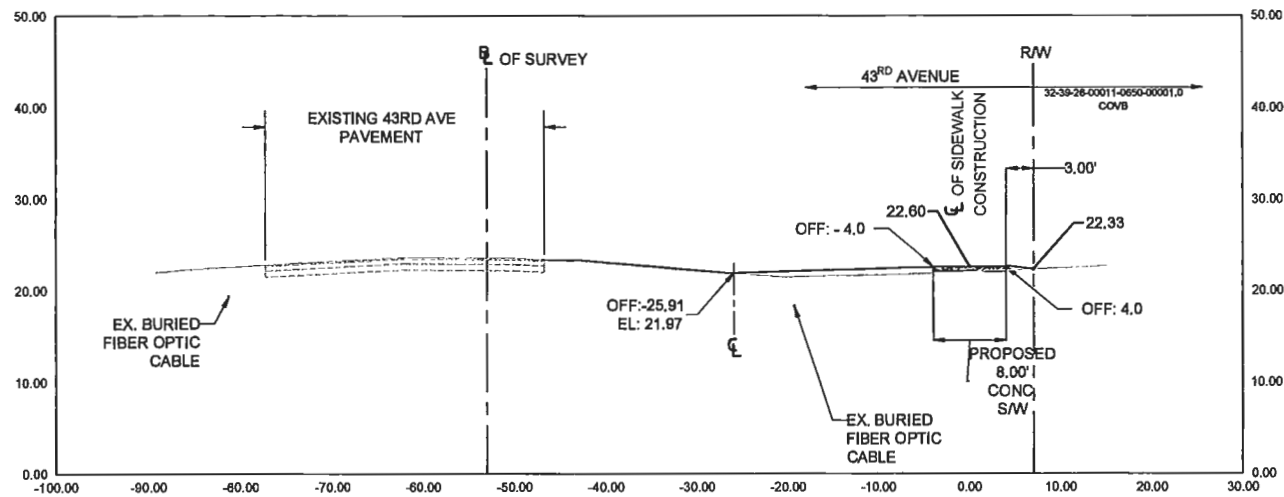
1835 20TH STREET
 VERO BEACH, FL 32960
 PH. (772) 569-0035
 FX. (772) 778-3817
 MELBOURNE, FL - PH (321) 253-1510
 FT. PIERCE, FL - PH (772) 468-9055

43rd AVENUE SIDEWALK
 FROM AIRPORT DRIVE WEST
 TO 41st STREET
 INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

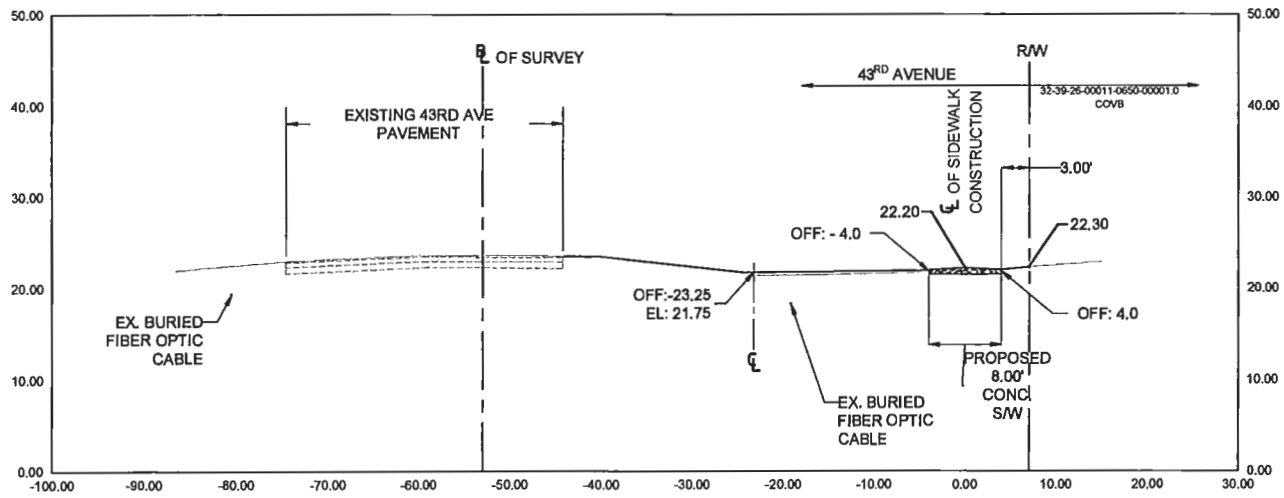
CROSS SECTIONS

AARON G. STANTON
 FL P.E. #72460
 DATE: 18-0043

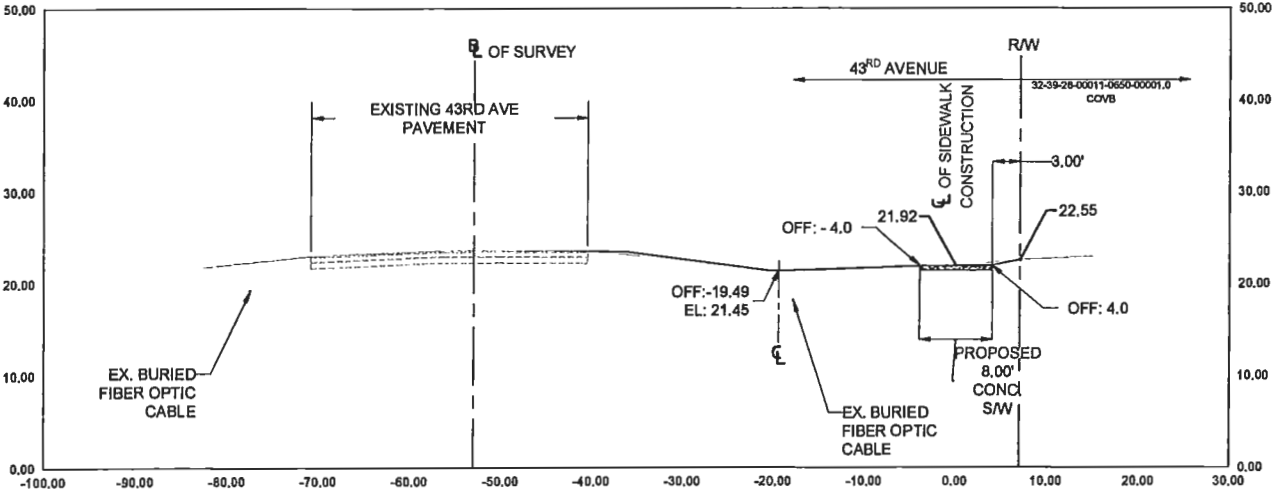
C25



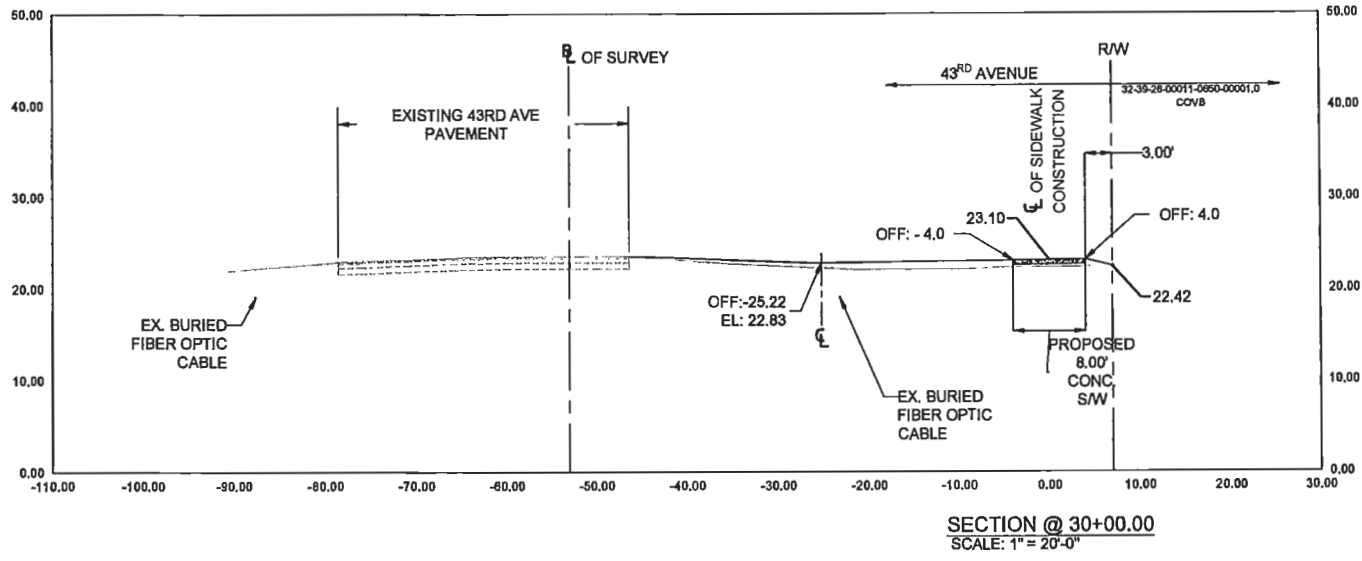
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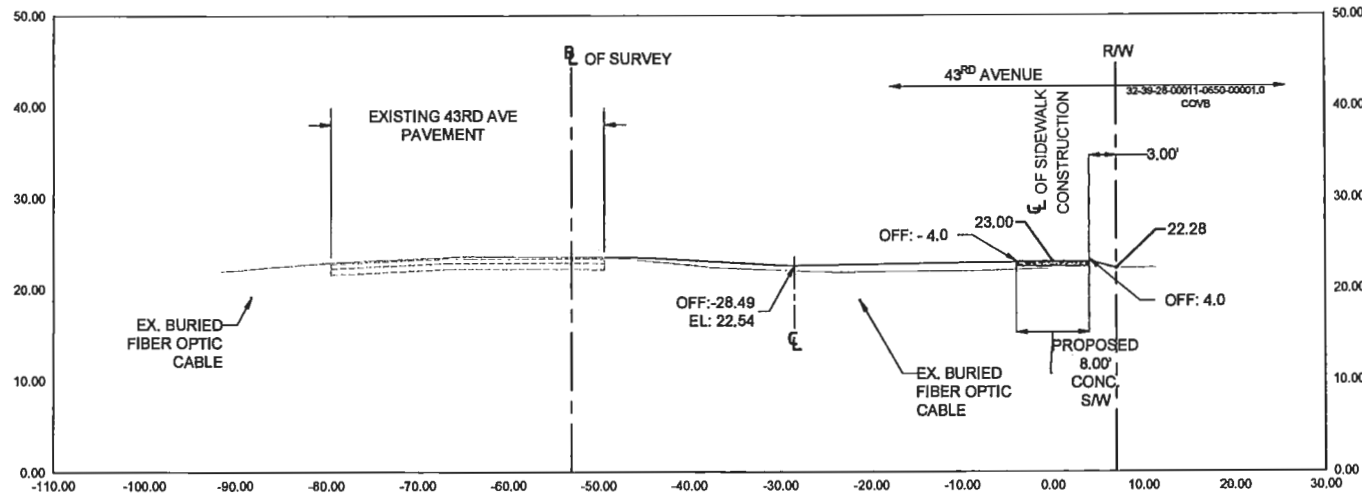
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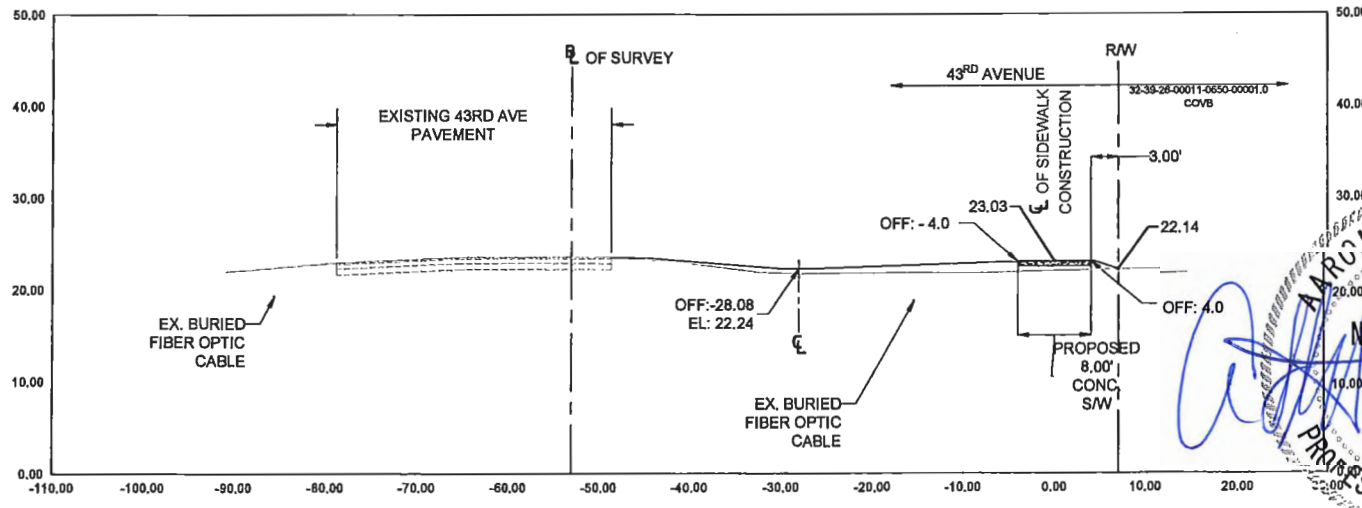
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SECTION @ 30+00.00 SCALE: 1" = 20'-0"



SECTION @ 29+00.00 SCALE: 1" = 20'-0"



SECTION @ 28+00.00 SCALE: 1" = 20'-0"

GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.

AARON G. STANTON
 LICENSE
 No. 72460
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER

REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 90% REVIEW	08-31-2018	DESIGNED	AGS
2 PER IRC 100% REVIEW	12-17-2018	DRAWN	KB
3 PER IRC 110% REVIEW	02-04-2019	DATE	12/2/2019
4 PER FDOT LAP REVIEW	06-10-2019	CHECKED	AGS
5 REMOVE S.T.C.E.	07-19-2019	DATE ISSUED	12/3/2019
6 COVER & SUM OF QTY'S	12-02-2019		

MBV ENGINEERING, INC.
 MOYA BOYLES VILLAMIZAR & ASSOCIATES
 CONSULTING ENGINEERING CA #3728

1835 20TH STREET
 VERO BEACH, FL 32960
 PH. (772) 569-0035
 FX. (772) 778-3617
 MELBOURNE, FL - PH (321) 293-1510
 FT. PIERCE, FL - PH (772) 468-9055

43rd AVENUE SIDEWALK
 FROM AIRPORT DRIVE WEST
 TO 41st STREET

INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

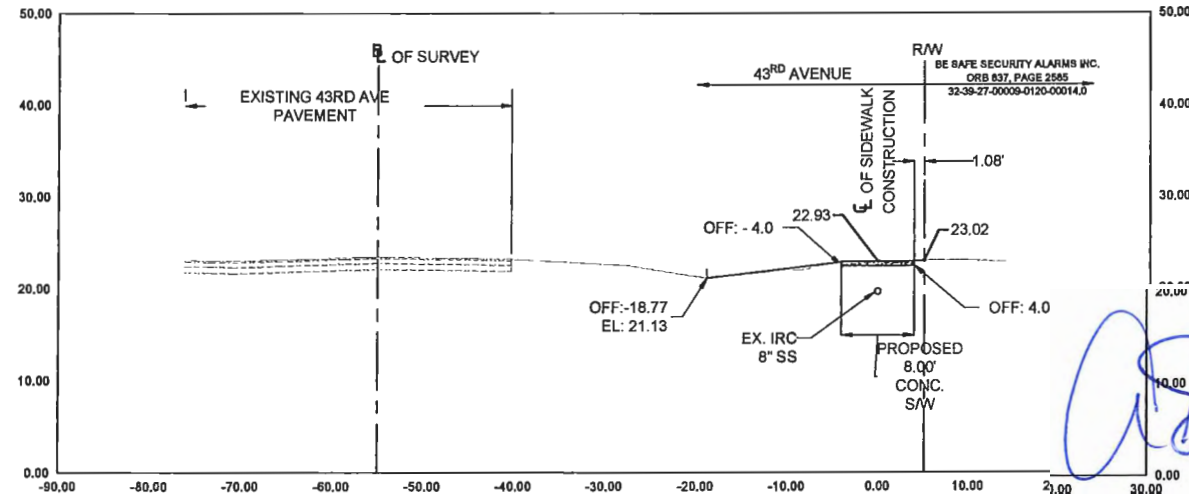
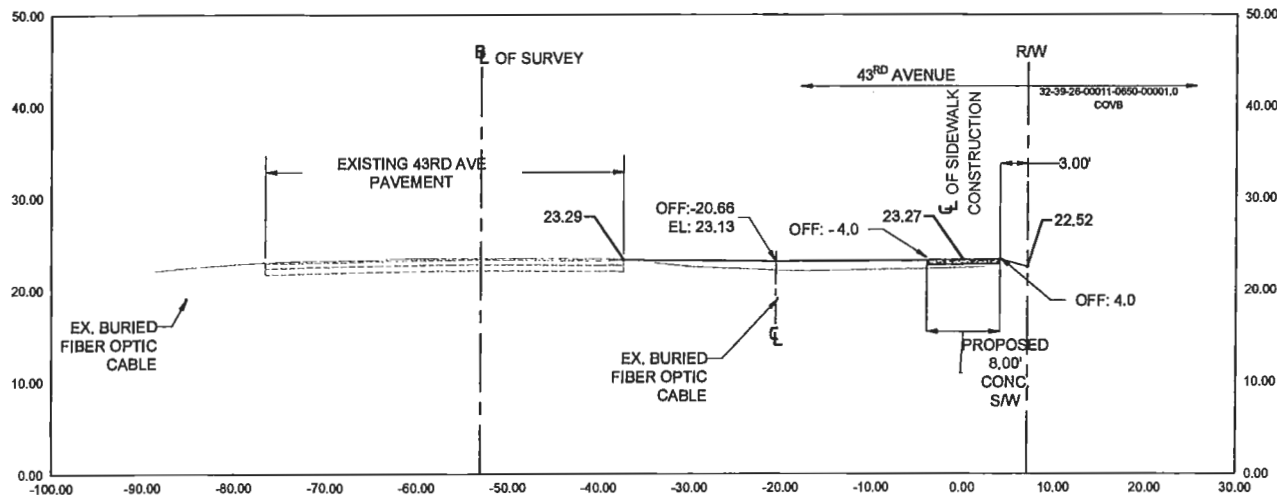
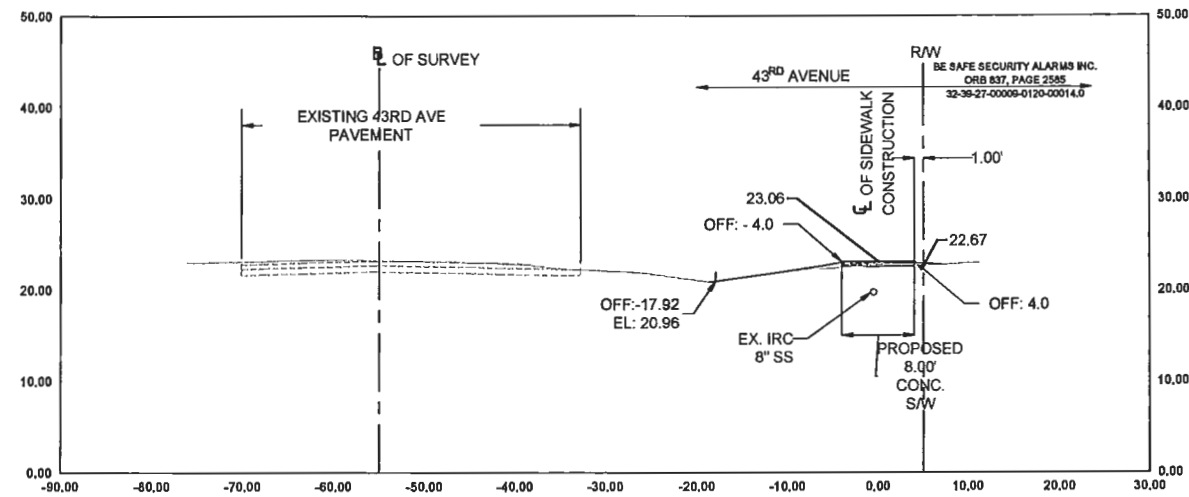
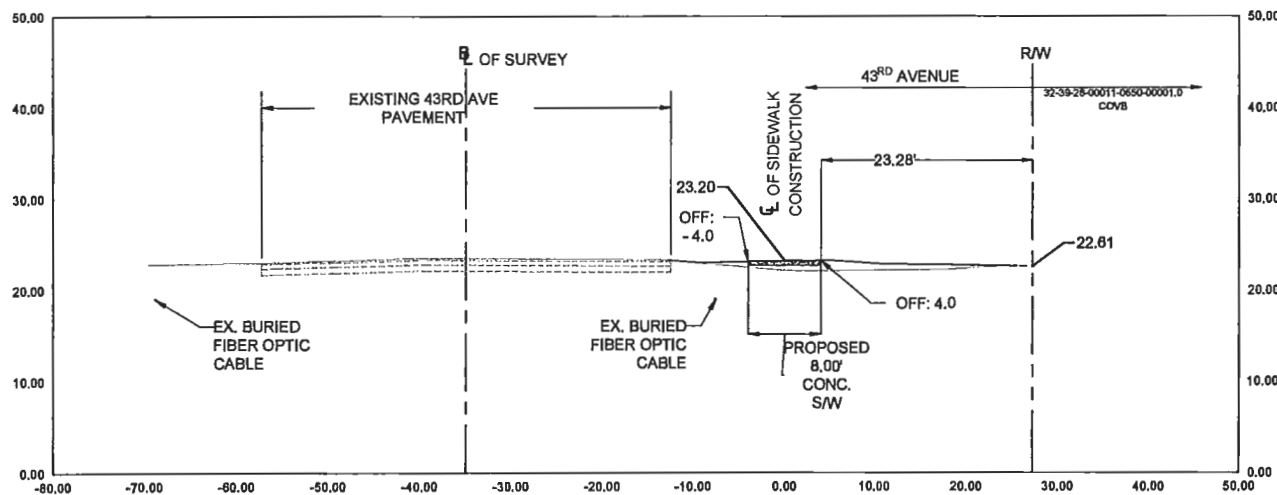
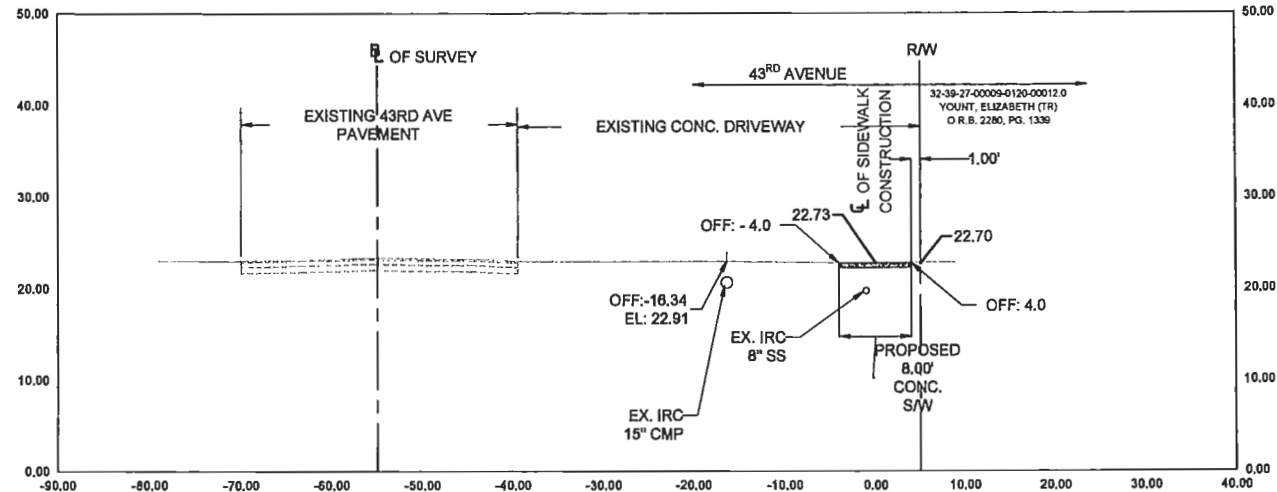
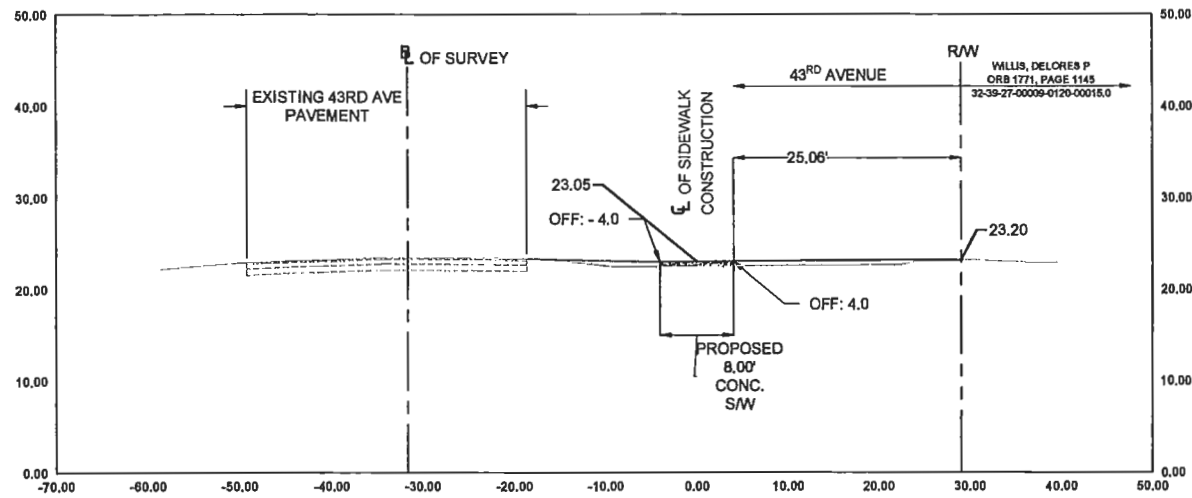
CROSS SECTIONS

AARON G. STANTON
 FL. P.E. #72460

DATE: 12/3/19

18-0043

C26



GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.

AARON G. STANTON
L GENSE
No. 72460
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REVISIONS	DATE	JOB NO.
1 PER IRC 90% REVIEW	08-31-2018	18-0043
2 PER IRC 100% REVIEW	12-17-2018	DESIGNED AGS
3 PER IRC 110% REVIEW	02-04-2019	DRAWN KB
4 PER FDOT LAP REVIEW	06-10-2019	DATE 12/2/2019
5 REMOVE 8" T.C.E.	07-10-2019	CHECKED AGS
6 COVER & SUM OF QTY'S	12-02-2019	DATE ISSUED 12/3/2019

MBV ENGINEERING, INC.
MOYA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

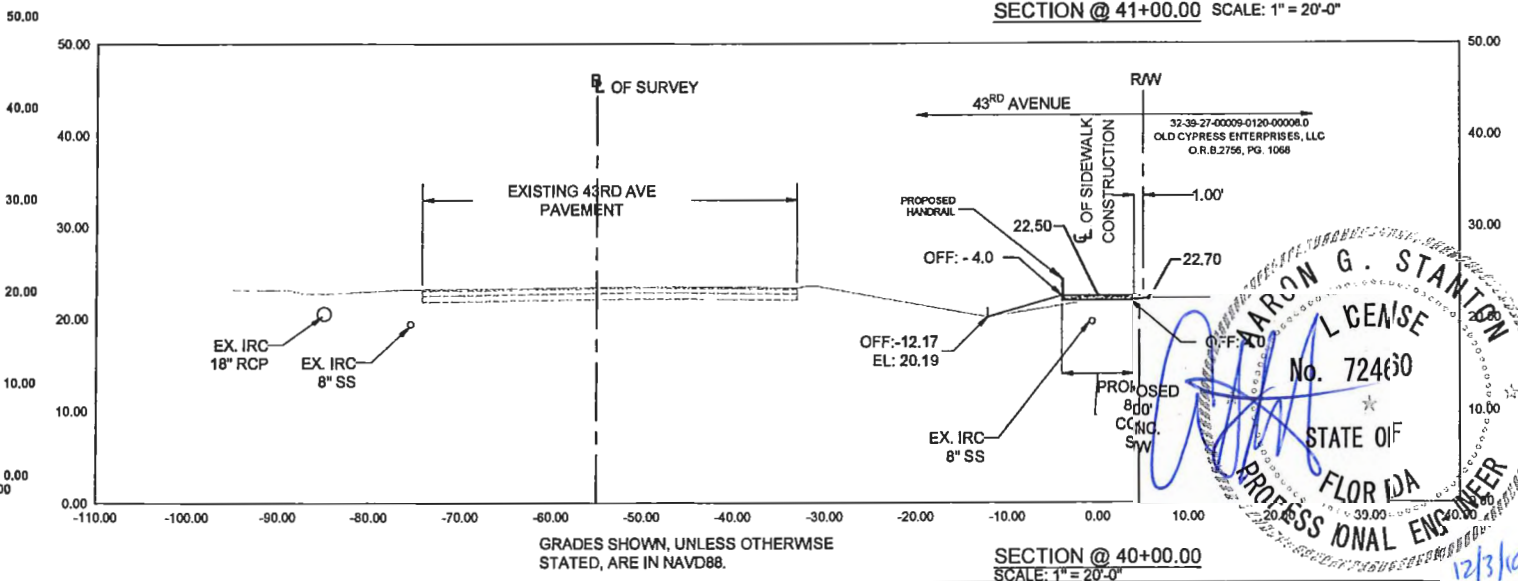
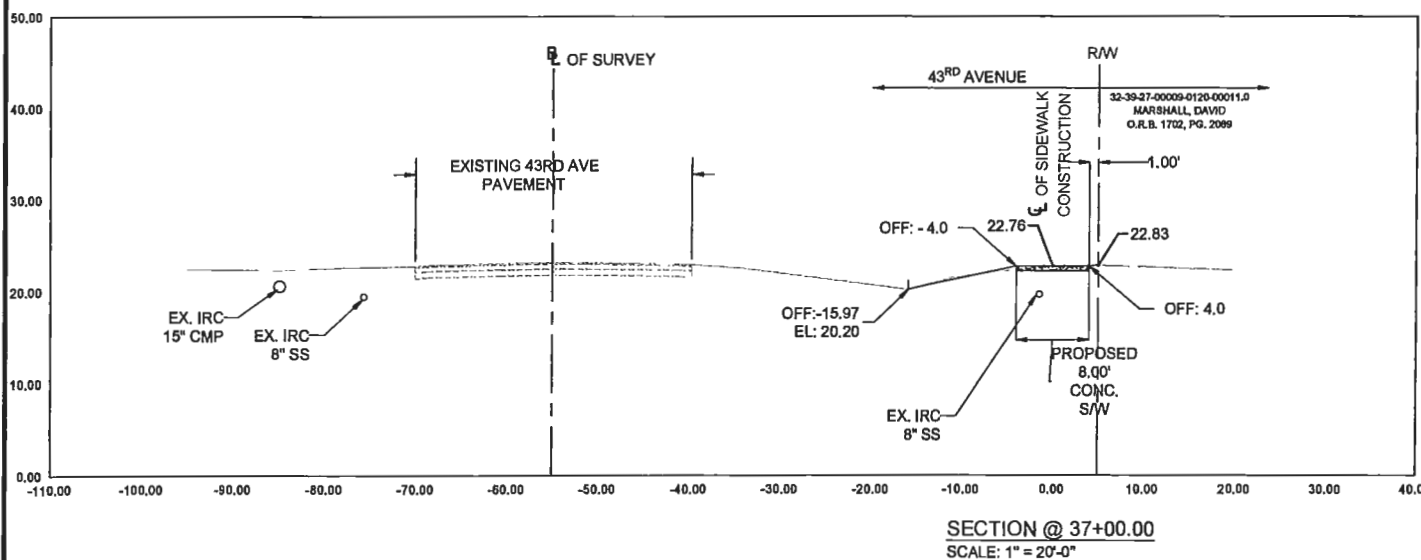
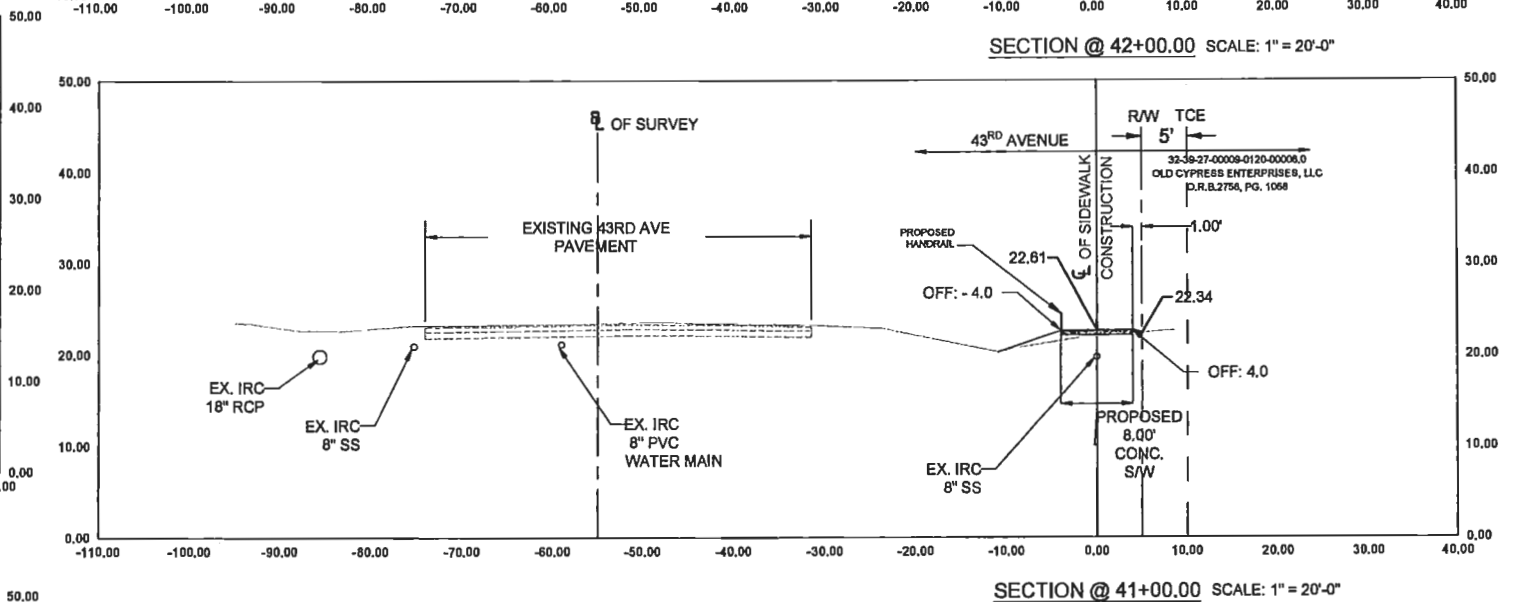
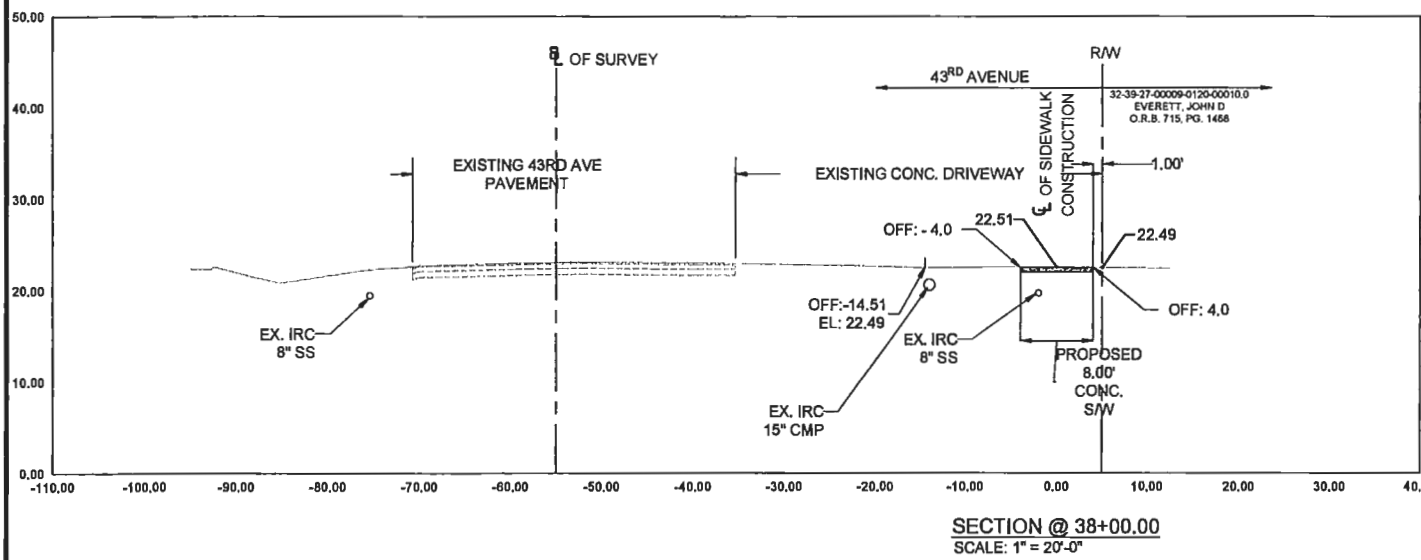
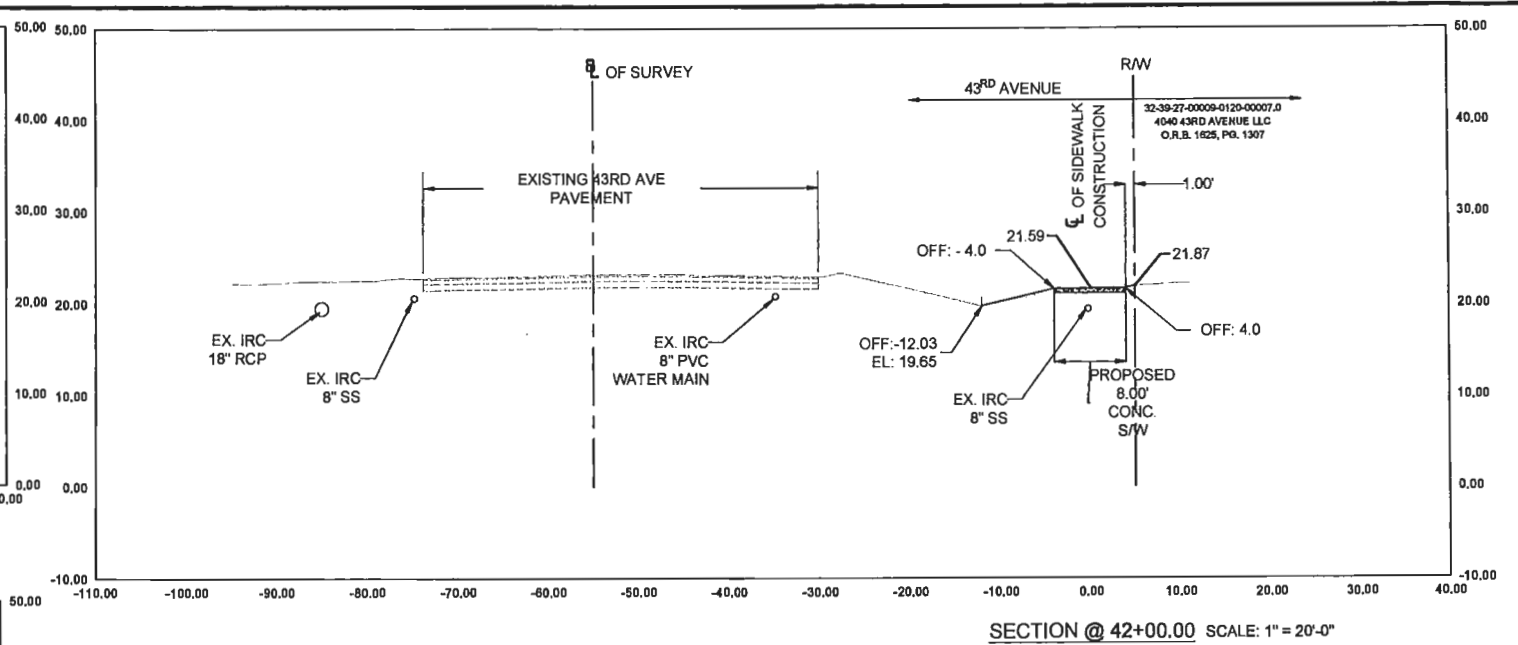
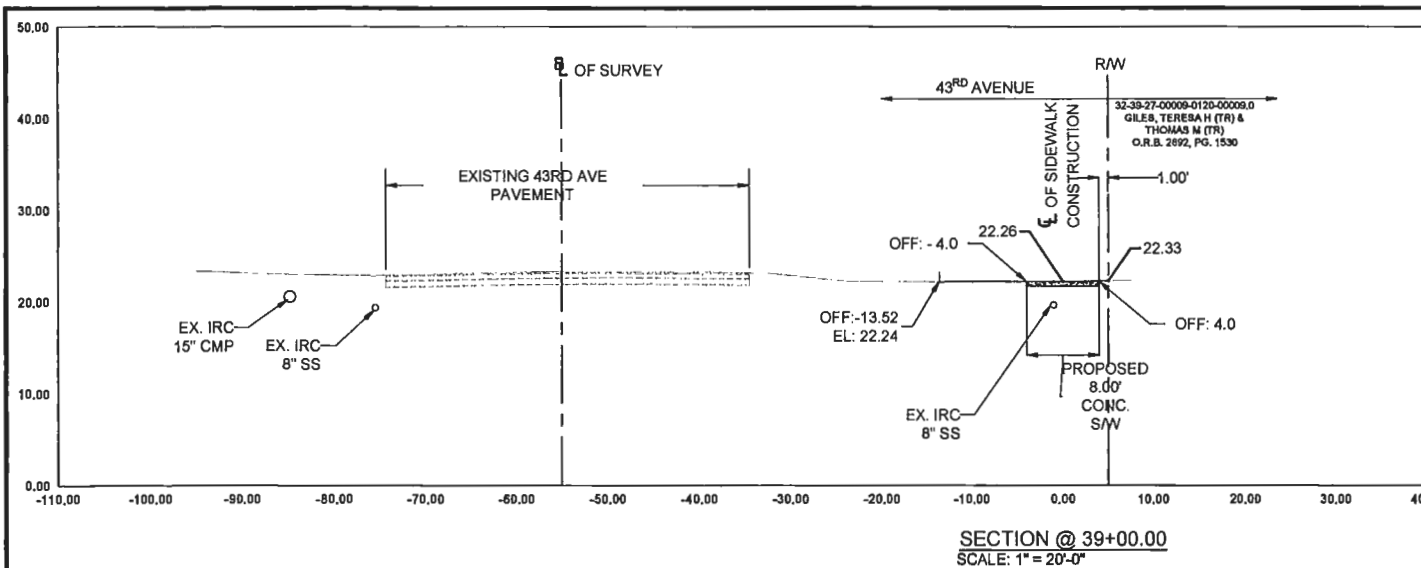
1835 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617
MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9055

43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

CROSS SECTIONS

AARON G. STANTON
FL P.E. #72460
DATE: 12/3/19
18-0043

C27



AARON G. STANTON
LICENSE
No. 724630
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

REVISIONS	DATE	JOB NO.
1 PER IRC 90% REVIEW	08-31-2018	18-0043
2 PER IRC 100% REVIEW	12-17-2018	DESIGNED AGS
3 PER IRC 110% REVIEW	02-04-2019	DRAWN KB
4 PER FDOT LAP REVIEW	06-10-2019	DATE 12/2/2019
5 REMOVE 6\" T.C.E.	07-10-2019	CHECKED AGS
6 COVER & SUM OF QTY'S	12-02-2019	DATE ISSUED 12/3/2019
7		

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

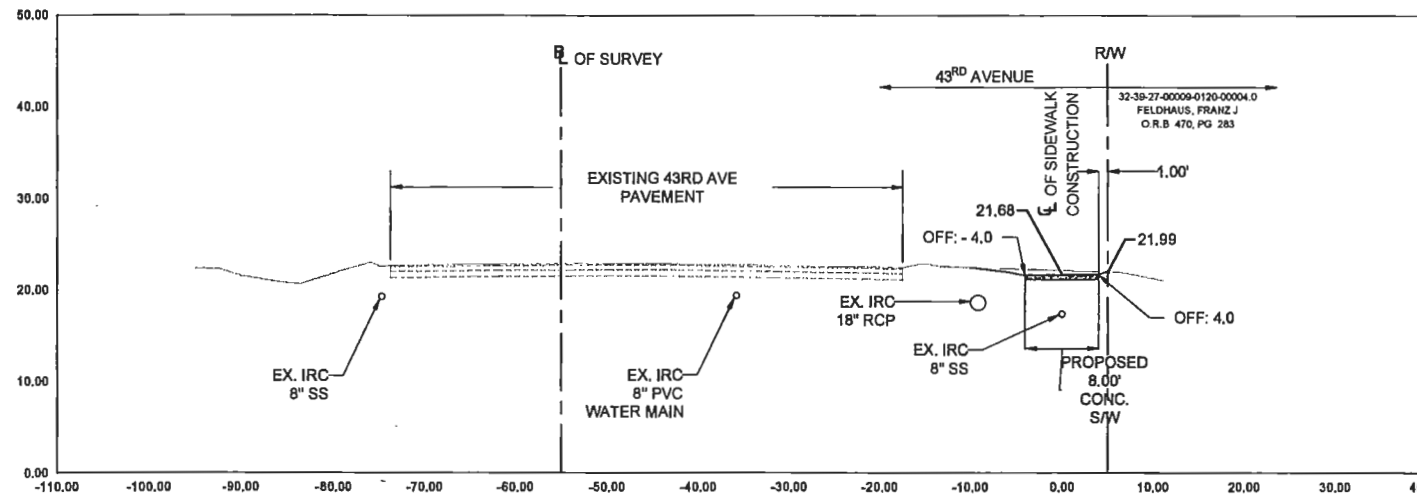
1835 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
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MELBOURNE, FL - PH (321) 253-1510
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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

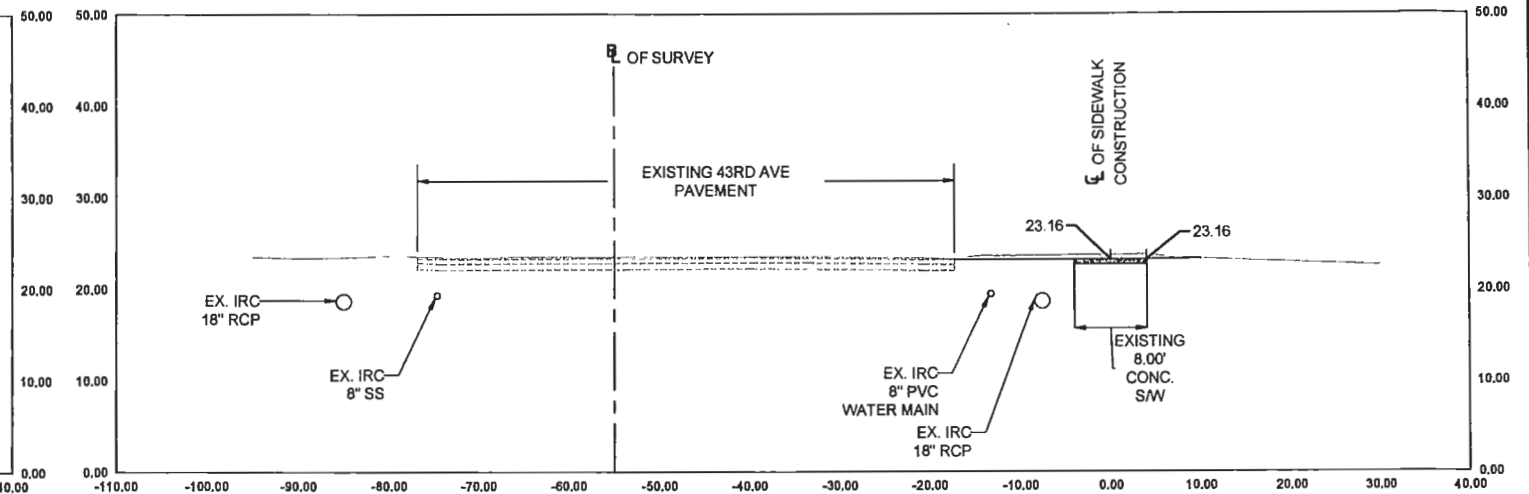
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AARON G. STANTON
FL. P.E. #724630
DATE: 12/3/19
18-0043

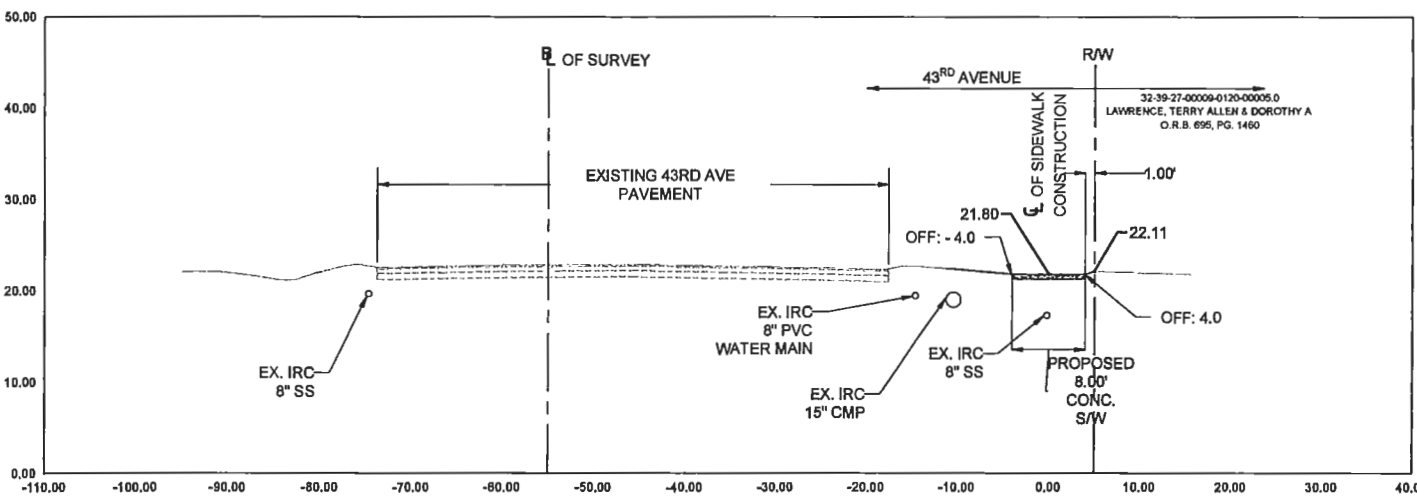
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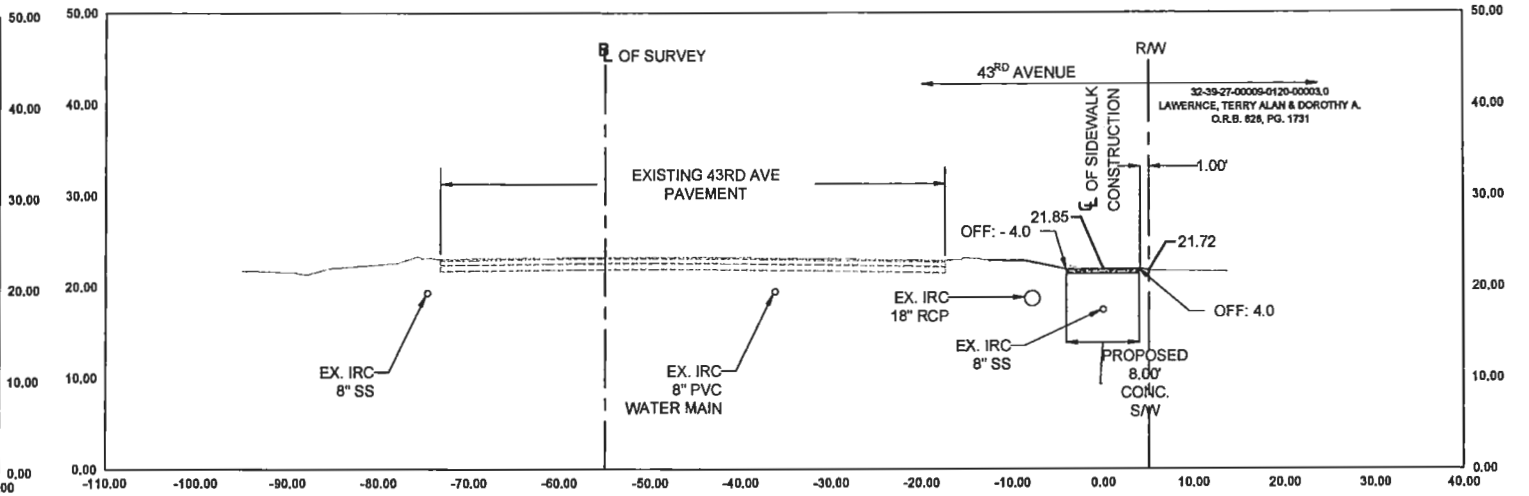
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SCALE: 1" = 20'-0"



SECTION @ 46+00.00
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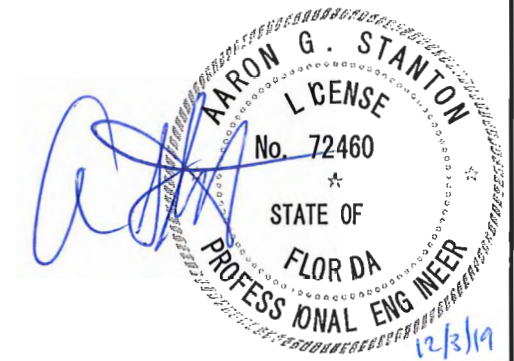


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SECTION @ 45+00.00
SCALE: 1" = 20'-0"

GRADES SHOWN, UNLESS OTHERWISE STATED, ARE IN NAVD88.



REVISIONS	DATE
1 PER IRC 90% REVIEW	08-31-2018
2 PER IRC 100% REVIEW	12-17-2018
3 PER IRC 110% REVIEW	02-04-2019
4 PER FDOT LAP REVIEW	06-10-2019
5 REMOVE 5 T.C.E.	07-10-2019
6 COVER & SUM OF QTYS	12-02-2019
7	

JOB NO.	18-0043
DESIGNED	AGS
DRAWN	KB
DATE	12/2/2019
CHECKED	AGS
DATE ISSUED	12/3/2019

MBV
ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

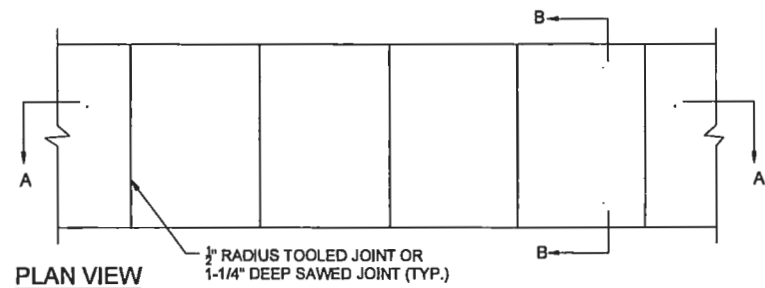
1835 20TH STREET
VERO BEACH, FL 32960
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MELBOURNE, FL - PH (321) 253-1510
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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

CROSS SECTIONS

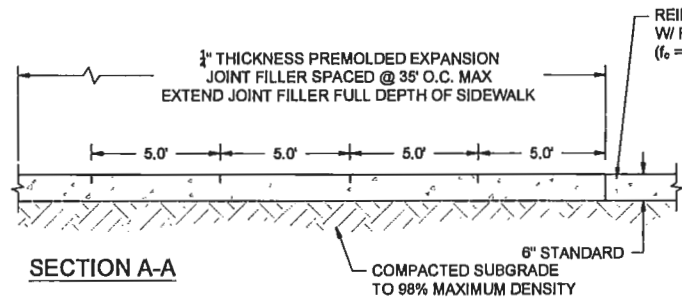
DATE	18-0043
AARON G. STANTON FL P.E. #72460	

SHEET
C29



NOTE: PROVIDE 1/2" EXPANSION JOINT BETWEEN SIDEWALK AND ALL FIXED OBJECTS

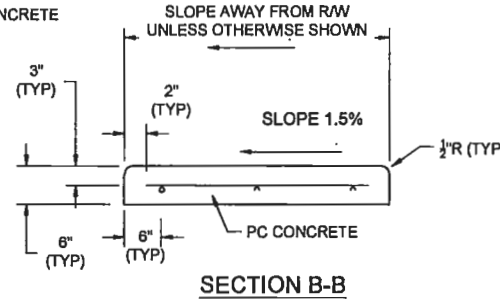
PLAN VIEW
1/2" RADIUS TOOLED JOINT OR 1-1/4" DEEP SAWED JOINT (TYP.)



SECTION A-A

NOTE: WHERE REQUIRED REINFORCEMENT WILL BE No. 3 BARS 24" O.C. EACH WAY MAX. SPACING, OR 6 x 6 - W1.4 X W1.4 WWF

**CONCRETE SIDEWALK
DETAIL**
N.T.S.



SECTION B-B

ROAD CLASSIFICATION	ASPHALT	BASE	SUBGRADE/SUBBASE
	TYPE AND THICKNESS	THICKNESS	THICKNESS
1,3,4,5 PRIVATE LOCAL SUBDIVISION	(1) 1.5" LAYER OF SP-9.5	6"	8"
	(2) 1" LAYERS OF SP-9.5		
	1" OF SP-9.5 OVER 1.25" OF SP-12.5		
2,5,7 PUBLIC LOCAL	(2) 1" LAYERS OF SP-9.5	8"	12"
	1" OF SP-9.5 OVER 1.5" OF SP-12.5		
2,5,6,7 PUBLIC COLLECTOR OR ARTERIAL RIGHT TURNLANE	1" OF SP-9.5 OVER 1.5" OF SP-9.5	10"	12"
	1" OF SP-9.5 OVER 1.5" OF SP-12.5		
	(1) 2.5" LAYER OF SP-12.5		
2,5,6,7 PUBLIC ARTERIAL	(2) 1.5" LAYERS OF SP-9.5	10"	12"
	1" OF SP-9.5 OVER 2" OF SP-12.5		
	(2) 1.5" LAYER OF SP-12.5		

NOTES:

1. IRC 913.09(3)(J)(1)
2. FDOT TOPIC #625-010-002, FDOT FLEXIBLE PAVEMENT DESIGN MANUAL, TABLE 5.11, PG 5-32 (LATEST EDITION).
3. PRIVATELY OWNED AND MAINTAINED ROADWAYS SHALL HAVE A STABILIZED SUB-GRADE WITH A LIMEROCK BEARING RATIO OF 40 AND SHALL BE COMPACTED TO NINETY-EIGHT (98) PERCENT MAXIMUM DRY DENSITY AS ESTABLISHED BY A.A.S.H.T.O. PROCEDURE T-180.
4. PRIVATELY OWNED AND MAINTAINED ROADWAYS SHALL HAVE A BASE CONSISTING OF CEMENTED COQUINA SHELL OR LIMEROCK WITH A LIMEROCK BEARING RATIO OF 100 MEETING FDOT SPECIFICATIONS COMPACTED TO NINETY-EIGHT (98) PERCENT DRY DENSITY AS ESTABLISHED BY A.A.S.H.T.O. PROCEDURE T-180.
5. ALL ASPHALT MIXES TO MEET FDOT STANDARD SPECIFICATIONS SECTION 334 - (LATEST EDITION).
6. ASPHALT TRAFFIC LEVEL C FOR ALL CONDITIONS EXCEPT THAT ARTERIAL MAY REQUIRE TRAFFIC LEVEL D. SP-9.5 SHALL NOT BE INSTALLED IN TRAFFIC LEVEL C CONDITIONS.
7. PUBLICLY OWNED AND MAINTAINED ROADWAYS SHALL MEET FDOT SPECIFICATIONS FOR MATERIAL AND COMPACTION.

43RD AVE IS CLASSIFIED AS A MINOR ARTERIAL ROADWAY

LAND DEVELOPMENT
DESIGN STANDARDS AND SPECIFICATIONS

DATE: 11/1/2016
INDEX: 16
James William Ennis, P.E.
Florida Reg. No. 71938
Public Works - County Engineer

*ROADWAY DESIGN
CRITERIA*



REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 90% REVIEW	08-31-2018	DESIGNED	AGS
2 PER IRC 100% REVIEW	12-17-2018	DRAWN	KB
3 PER IRC 110% REVIEW	02-04-2019	DATE	4/17/2019
4 PER FDOT LAP REVIEW	06-10-2019	CHECKED	AGS
5 REMOVE 6" T.C.E.	07-10-2019	DATE ISSUED	12/3/2019
6 COVER & SUM OF QTY'S	12-02-2019		
7			

**MBV
ENGINEERING, INC.**
MOYA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

1835 20TH STREET
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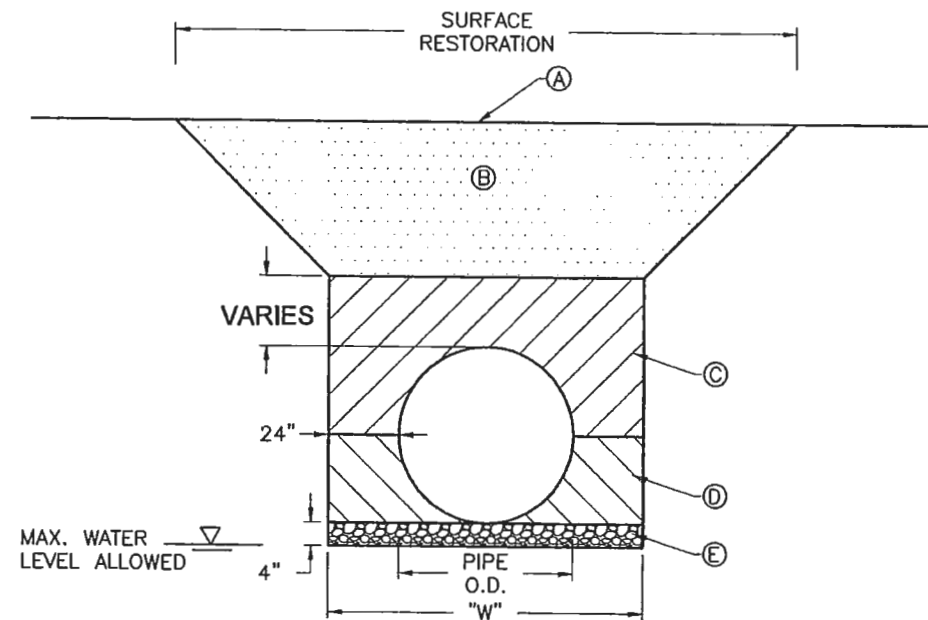
43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
TO 41st STREET
INDIAN RIVER COUNTY PROJECT NO. IRC-1503
FLORIDA

GENERAL DETAILS

AARON G. STANTON
FL P.E. #72460

C30

18-0043

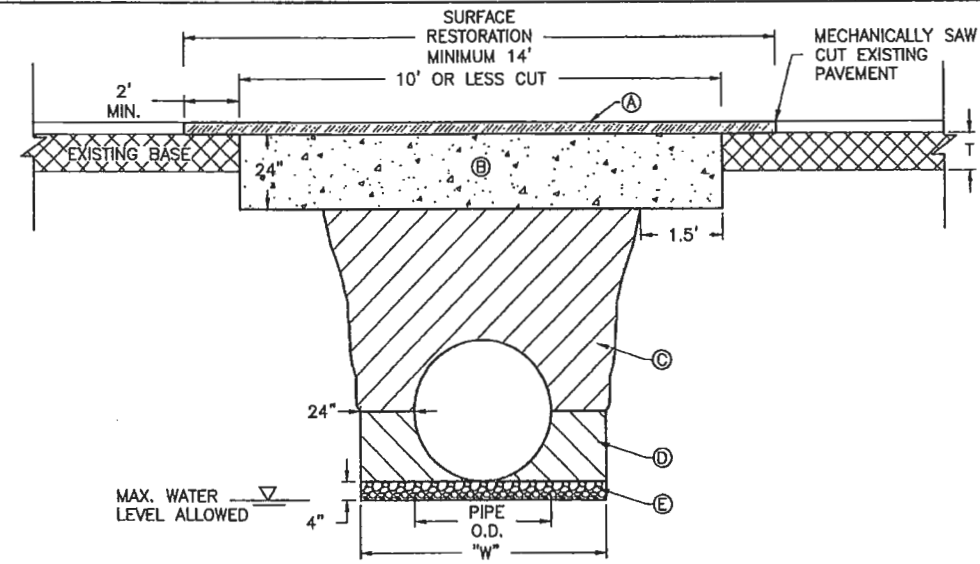


**STORMWATER/UTILITY PIPE
INSTALLATION**

NOTES:

1. UTILITY CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL COMPLY WITH COUNTY CODE CHAPTER 312.
2. WHERE SOIL CONDITIONS CANNOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE METHOD OF CONSTRUCTION FOR APPROVAL BY COUNTY ENGINEER OR DESIGNEE PRIOR TO INSTALLATION.
3. SHORING MAY BE REQUIRED IN ACCORDANCE WITH ALL INDUSTRY STANDARDS.
4. 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.



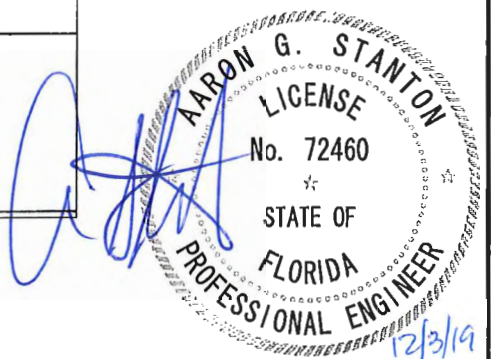
**STORMWATER/UTILITY PIPE
INSTALLATION**

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 FOOT 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.
 - Ⓔ 3/4" 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.

LAND DEVELOPMENT DESIGN STANDARDS AND SPECIFICATIONS	
DATE:	11/1/2016
INDEX:	1B
James William Ennis, P.E. Florida Reg. No. 71938 Public Works - County Engineer	

**TRENCH
(PAVED AREAS)
10' OR LESS CUT**



REVISIONS	DATE	JOB NO.	18-0043
1 PER IRC 90% REVIEW	08-31-2018	DESIGNED	AGS
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3 PER IRC 110% REVIEW	02-04-2019	DATE	4/17/2019
4 PER FDOT LAP REVIEW	08-10-2019	CHECKED	AGS
5 REMOVE 5' T.C.E.	07-10-2019	DATE ISSUED	12/3/2019
6 COVER & SUM OF QTY'S	12-02-2019		
7 -			

MBV
ENGINEERING, INC.
MOYA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728

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43rd AVENUE SIDEWALK
FROM AIRPORT DRIVE WEST
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INDIAN RIVER COUNTY PROJECT NO. IRC-1503 FLORIDA

GENERAL DETAILS

SHEET	C31
DATE:	18-0043