

TECHNICAL SPECIFICATIONS

- MATERIALS**
- A.) DRAINAGE PIPING:**
- 1.) MINIMUM SIZED PIPING SHALL BE 15" OR EQUIVALENT ELLIPTICAL SIZE AND 18" MINIMUM ON COLLECTOR ROADS, UNLESS OTHERWISE NOTED.
 - 2.) 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.
 - 3.) ALL JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.
 - 4.) SAFETY BARS SHALL BE PLACED ON PIPE AND MITERED END SECTIONS WHERE DETERMINED NECESSARY.
 - 5.) OUTFALL END RUN TO DITCHES SHALL HAVE A MITERED END SECTION WITH SAFETY BARS TO MATCH EXISTING DITCH BANK SLOPE WITH APPROPRIATE EROSION CONTROL MEASURES UNLESS OTHERWISE NOTED.
- B.) DRAINAGE STRUCTURES:**
- 1.) ALL DRAINAGE STRUCTURES SHALL MEET SPECIFIC PLANNED USE AS DETERMINED BY THE DESIGN ENGINEER AND THE LOCAL GOVERNING AGENCY.
 - 2.) ALL CATCH BASINS, INLETS OR MANHOLE STRUCTURES SHALL BE OF PRECAST REINFORCED TYPE PURSUANT TO FDOT DESIGN STANDARDS, LATEST EDITION, UNLESS OTHERWISE APPROVED.
 - 3.) ALL STRUCTURES SHALL BE FREE OF DEFECTS SUCH AS CRACKING, HONEY COMBS AND EXPOSED STEEL REINFORCING INCLUDING BLEED THROUGH.
 - 4.) SHOP DRAWINGS SHALL BE SUBMITTED BEFORE ORDERING MATERIAL FOR PLANNED PROJECT. CORRESPONDING SHALL BE BETWEEN THE DESIGN ENGINEER AND THE LOCAL GOVERNING AGENCY AND IS THE RESPONSIBILITY OF THE CONTRACTOR.
- C.) OUTFALL SPECIFICATIONS:**
- 1.) OUTFALL STRUCTURES SHALL INCLUDE ALUMINUM SKIMMERS, WEIR DEVICES, WEEP HOLES AND DRAW DOWN SYSTEMS AS DETERMINED BY DESIGN ENGINEER AND THE LOCAL GOVERNING AGENCY AS REQUIRED.
 - 2.) HARDWARE TO ATTACH DEVICES TO OUTFALL STRUCTURES SHALL BE STAINLESS STEEL MATERIAL.
 - 3.) 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:**
- 1.) MANHOLE FRAMES, COVERS AND GRATES SHALL MEET SPECIFIC PLANNED USE AS DETERMINED BY DESIGN ENGINEER AND THE LOCAL GOVERNING AGENCY.
 - 2.) 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."
 - 3.) 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.
- 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.
- 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:**
GROUND WATER MAY BE ENCOUNTERED ON SITE. CONTRACTOR TO PLAN ACCORDINGLY.
- 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.

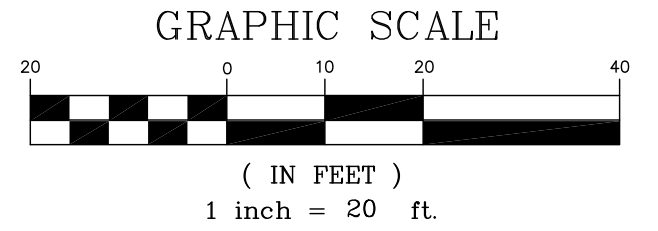
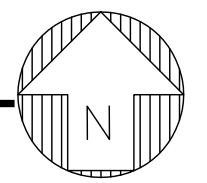
EXISTING TRENCH DRAIN SCHEDULE (BY SURVEYOR)

TRENCH DRAIN IDENTIFICATION	TOP GRATE EAST	TOP GRATE WEST	BOTTOM EAST	BOTTOM CENTER	BOTTOM WEST
TD-1	16.04	16.03	15.39	15.04	15.38
TD-2	16.00	16.03	15.35	15.02	15.38
TD-3	16.06	13.04	12.36	11.95	12.36
TD-4	16.06	16.09	15.41	15.08	15.44
TD-5	16.10	16.10	15.48	15.00	15.50
TD-6	16.06	16.02	15.41	15.04	15.37

72 HOURS BEFORE DIGGING
CALL TOLL FREE
811
KNOW WHAT'S BELOW

PAVING, GRADING AND DRAINAGE PLAN

SCALE: 1" = 20'



REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		

JOB NO. 16-0107

DESIGNED	DATE
DB/RT	MAY 2016
THA/IB	MAY 2016
SCALE	

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

EMBY
ENGINEERING, INC.
MOA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #378

PAVING, GRADING AND DRAINAGE PLAN

FT. PIERCE TRANSFER STATION EXPANSION WASTE MANAGEMENT INC., OF FLORIDA

AARON J. BOWLES
FL. P.E.#55313

DATE:

SHEET
C5
OF 6
16-0107