

Addendum No. 1

To:	Interested Parties	
From:	John E. Van Riper, Project Engineer Division of Engineering	
Date:	Monday, October 8, 2018	
Project:	Washington County Employee Parking Facil	ity
Acknowledg your Bid.	e receipt of this Addendum No. 1 by signing in the s	space provided below and returning with
_	gn and return with your bid may subject the Bidder to rt of the Bid Documents, its supplements and modifie	•
This Addend	dum No. 1 consists of <u>70</u> pages, including this page.	
I hereby ackr	nowledge receipt of Addendum No. 1:	
By:		Date
Sign	ed Name	
Тур	ed Name	
Title	e	
For (Firm):_		

80 West Baltimore Street | Hagerstown, MD 21740-6003 | P: 240.313.2460 | TDD: 711

Addendum No. 1

Washington County Employee Parking Facility

Date Issued: Monday, October 8, 2018

Bids Due: Friday, October 19, 2018 11:00 a.m., local time

The following addendum material is hereby made a part of the Bid Documents. Please note the following changes, information, and/or instructions in connection with the proposed work and submit proposals accordingly.

John E. Van Riper, Project Engineer

By Authority of: Board of County Commissioners Washington County, Maryland

Scott Hobbs, P.E.

Director – Division of Engineering

Addendum No. 1

- Item 1.01 Pre-Bid Meeting Minutes: Held Wednesday, October 3, 2018. Six (6) total pages of meeting minutes are included herein as follows: Pre-Bid Conference Meeting Minutes (2 pages) (Attachment"A"); Pre-bid Agenda (1 page) (Attachment "B"); and Pre-bid Sign-In Sheet (2 pages) (Attachment "C"), all of which shall be incorporated into the Contract Document as attached.
- Item 1.02 Questions and Responses from the Pre-Bid Meeting will be addressed in Addendum 2. All inquiries are due by 4:00 p.m. on Wednesday, October 10, 2018 and will be addressed in Addendum 2. Please submit all inquiries to ecbidquestions@washco-md.net.
- Item 1.03 Revised and updated bid plans are included as Attachment "D". Please note the addition of Underdrain, Reinforced Concrete Pad, and additional quantities and location for Curb and Gutter
- Item 1.04 Revised and updated Bid forms are included as Attachment "E". Pages BF-12 through BF-18 have been revised from the original bid document. These pages (numbered BF-12R through BF-18R) reflect the change showing Addendum 1 in the lower left hand corner of each page. These documents must be used in replacement of the original bid documents. Please note the updated quantities and additional items added to the bid forms.
- Item 1.05 Revised and updated Special Provisions are included as Attachment "F". Replace the Special Provisions in their entirety with those included in Attachment "F".
- Item 1.06 An Asphalt Adjustment will be administered on this project and will reflected in Addendum 2.
- Item 1.07 Quantity for unclassified excavation has been revised. It is anticipated that in fill applications, the contractor shall be able to build upon the existing stone aggregate which shall function as the pavement stone base provided the material meets proof rolling acceptance, and shall remove aggregate as needed in cut applications to install the specified site features. Excavated stone aggregate may be used as a fill material elsewhere on site as needed.

Attachment A Pre-Bid Conference Meeting Minutes



Washington County Employee Parking Facility

County Contract No. MS-EP-241-28

<u>Pre-Bid Meeting Minutes</u> Wednesday, October 3, 2018 at 11:00 a.m.

PB1. Welcome/Introductions

-Attendees were welcomed and a meeting Agenda (Attachment B) and sign-in sheet (Attachment "C") were circulated.

PB2. Project Overview

-This project involves the construction of a new parking lot to be used by the Washington County Employees between Wareham Alley and Franklin Street in the City of Hagerstown. The project consists of grading, paving, concrete curbing, concrete sidewalks, and inlet and pipe installation.

PB3. Project Classification

-The project Classification is Cost Group Class "B" \$100,001 Up to \$500,000.

PB4. Invitation to Bid, Time of Completion & Liquidated Damages

- -This is a 35 consecutive calendar day contract, This project MUST be substantially completed before then end of the year;
- -Liquidated Damages are in the amount of \$250.00 for each consecutive calendar day that the contract extends beyond the scheduled completion date.
- -Bid are irrevocable and may not be withdrawn for 90 days following Bid Opening.

PB5. Special Provisions

-An updated bid set and bid document will be issued in pdf form to all contractors who purchased bid documents. This is a bid set and quantities are subject to change. Any updates will be issued in an addendum.

PB6. Permits

-Contractor is required to obtain any construction permits from the City of Hagerstown prior to construction

80 West Baltimore Street | Hagerstown, MD 21740-6003 | P: 240.313.2460 | TDD: 711

PB7. Exhibits

-The County has prepared a site plan identifying the work to be performed and a location map to show the location of the project. These exhibits are included in the Bid Documents

PB8. Questions

Questions brought up during the meeting will be addressed in Addendum 2.

PB9. Addenda and Interpretations

- -Submit additional bid inquiries in writing by 4:30 P.M. on Wednesday, October 10, 2018. via email or fax to the attention of John Van Riper at ecbidquestions@washco-md.net; or faxed to (240)313-2401.
- -Contract Addenda will be issued to all plan holders via email and will also be uploaded to EMaryland Marketplace. Addenda will include minutes from today's pre-bid conference meeting.

PB10. Preparation of Bid, Bid Forms, Bid Security

- -The detached set of bid forms included with the purchase of bid documents shall be used in submitting contractor bids.
- -A bid security in the amount of 5% of the total bid price made payable to the Board of County Commissioners of Washington County, Maryland shall accompany each submitted bid.

PB 11. Bid Due Date & Location

-Sealed bid properly designated are due by 11:00 A.M., Friday, October 19, 2018, after which time they will be publicly opening in a conference room located at 80 W. Baltimore Street, Hagerstown Maryland 21740. Bidders are encouraged to attend the public bid opening.

PB 12. Meeting Adjournment

Attachment B Pre-Bid Conference Meeting Agenda



Washington County Employee Parking Facility

County Contract No. MS-EP-241-28

<u>Pre-Bid Meeting Agenda</u> Wednesday, October 3, 2018 at 11:00 a.m.

- PB1. Welcome/Introductions
- PB2. Project Overview
- PB3. Project Classification
- PB4. Invitation to Bid, Time of Completion & Liquidated Damages
- PB5. Special Provisions
- PB6. Permits
- PB7. Exhibits
- PB8. Questions
- PB9. Addenda and Interpretations
- -Email: ecbidquestions@washco-md.net;
- -Fax No: (240)313-2401.
- PB10. Preparation of Bid, Bid Forms, Bid Security
- PB 11. Bid Due Date & Location
- PB 12. Meeting Adjournment

Attachment C Pre-Bid Sign in Sheet

CONTRACT NO.: <u>MS-EP-241-28</u> PROJECT NO. <u>28-241</u>

WASHINGTON COUNTY ENGINEERING ATTENDANCE SIGN-IN SHEET FOR PRE-BID CONFERENCE

FOR

Washington County Employee Parking Facility

Representative Name, Title	Firm/Agency	Phones, Office & Cell /Fax /E-mail
John E. Van Riper,	Washington County MD	O: 240.313.2408
Project Engineer	Division of Engineering	Fax: 240.313.2401
		jvanriper@washco-md.net
Blaire Reynolds	Washington County MD	O: 240.313.2420
Project Engineer	Division of Engineering	Fax: 240.313.2401
		breynolds@washco-md.net
Andrew Eshleman	Washington County MD	O: 240.313.2421
Chief of Design	Division of Engineering	Fax: 240.313.2401
		aeshleman@washco-md.net
Greg Jones	Washington County MD	O: 240.313.2421
	Division of Engineering	Fax: 240.313.2401
Project CAD Technician		gjones@washco.md.net
Jimmy Rowland	Outdoor Contractors Inc.	P: 301.491.1257
		Jim@outdoorcontractors.com
Eric Deardorff	FCI	P: 717.352.2186
Elic Deardolli		ericdeardorff@fayettevillecontract
		<u>ors.com</u>
Lonnie G. Doyle	Fayetteville Contractors	O: 717.352.2186
		C: 717.729.2634
		LonnieDoyle@fayettevillecontract
		<u>ors.com</u>
Don Pyatt/Sid Ridenour	Huntzbury Brothers Inc.	P: 301.739.8036
		don@huntzberrybrothers.com

CONTRACT NO.: <u>MS-EP-241-28</u> PROJECT NO. <u>28-241</u>

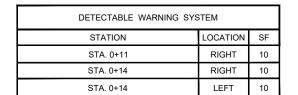
WASHINGTON COUNTY ENGINEERING ATTENDANCE SIGN-IN SHEET FOR PRE-BID CONFERENCE

FOR

Washington County Employee Parking Facility

Representative Name, Title	Firm/Agency	Phones, Office & Cell /Fax /E-mail
Roger Brown	L.W. Wolfe	P: 301.293.2351 - C: 301.573.5359
Allen Pettner	Kinsley	P: 240.313.4900 - apettner@kinsleyconstruction.com
		-
		_

Attachment D Revised Bid Set Plans



DRIVEWAY ENTRANCE SEE MODIFIED CITY STANDARD T-062 DETAIL		
STATION	WIDTH	LOCATION
STA. 0+05 FACE OF CURB TO STA. 0+16 BACK EDGE OF DRIVEWAY	12 FT.	LEFT / RIGHT

REMOVE EXISTING WATER MET	ER TILE	
STATION	LOCATION	EA
STA. 0+18	RIGHT	1

INSTALL SIDEWALK RAMPS		
STATION	LOCATION	
STA. 0+11	RIGHT 40.5'	
STA. 0+14	RIGHT 7.5'	
STA. 0+14	LEFT 7.5'	

REMOVE EXISTING TELEPHONE POLE		
STATION	LOCATION	EA
STA. 1+73	RIGHT	1

MOUNTABLE CONCRETE CURB AND GUTTER (FACE OF CURB)		
STATION	LOCATION	LF
STA. 0+53 TO STA. 0+70	LEFT	89
STA. 2+44	LEFT	30
STA. 0+53 TO STA. 0+70	RIGHT	89

CONCRETE CURB AND GUTTER (FACE OF CURB)		
STATION	LOCATION	LF
STA. 0+06	LEFT	6
STA. 0+16 TO STA. 0+53	LEFT	36
STA. 0+70 TO STA. 2+44	LEFT	199
STA. 0+16 TO STA. 0+53	RIGHT	36
STA. 0+70 TO STA. 2+44	RIGHT	219
STA. 1+31 TO STA. 2+44	LEFT	138

STANDARD CONCRETE SIDEWALK		
STATION	LOCATION	SF
STA. 0+06 TO STA. 0+16	LEFT	381
STA. 0+06 TO STA. 0+16	RIGHT	345

REMOVE EXISTING WR INLET		
STATION	LOCATION	EA
STA. 0+82	20' LEFT	1

REMOVE EXISTING STORM PIPE APPROXIMATE LOCATION IS SHOWN ON THIS DRAWING	
STATION	LF
STA. 0+82 LEFT TO STA. 2+36 RIGHT	162' ±

REINFORCED CONCRETE PAD					
STATION	LOCATION	SF			
STA. 2+20 TO STA. 2+44	LEFT	852			

LOCATION	LF
LEFT	174
	LOCATION LEFT

BID SET NOT FOR CONSTRUCTION

WASHINGTON COUNTY, MARYLAND DIVISION OF ENGINEERING

WASHINGTON COUNTY EMPLOYEE PARKING FACILITY

1" = 20'

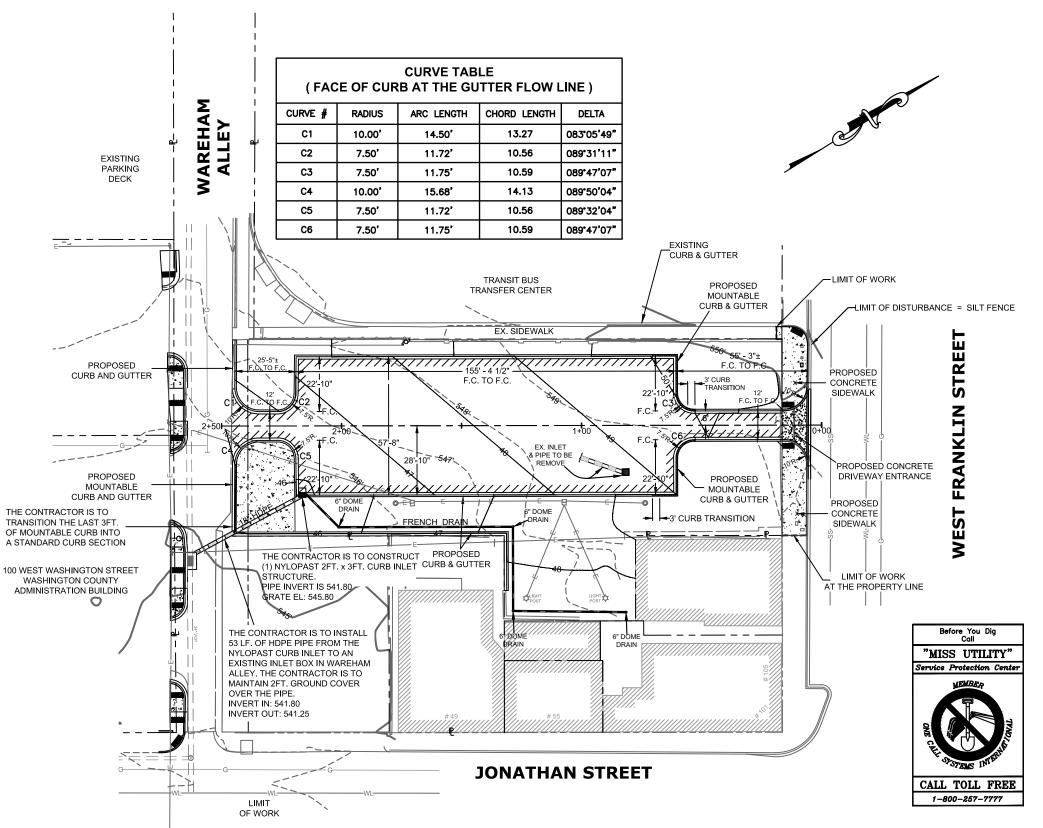
SHEET NO.

01 OF 11

28-241

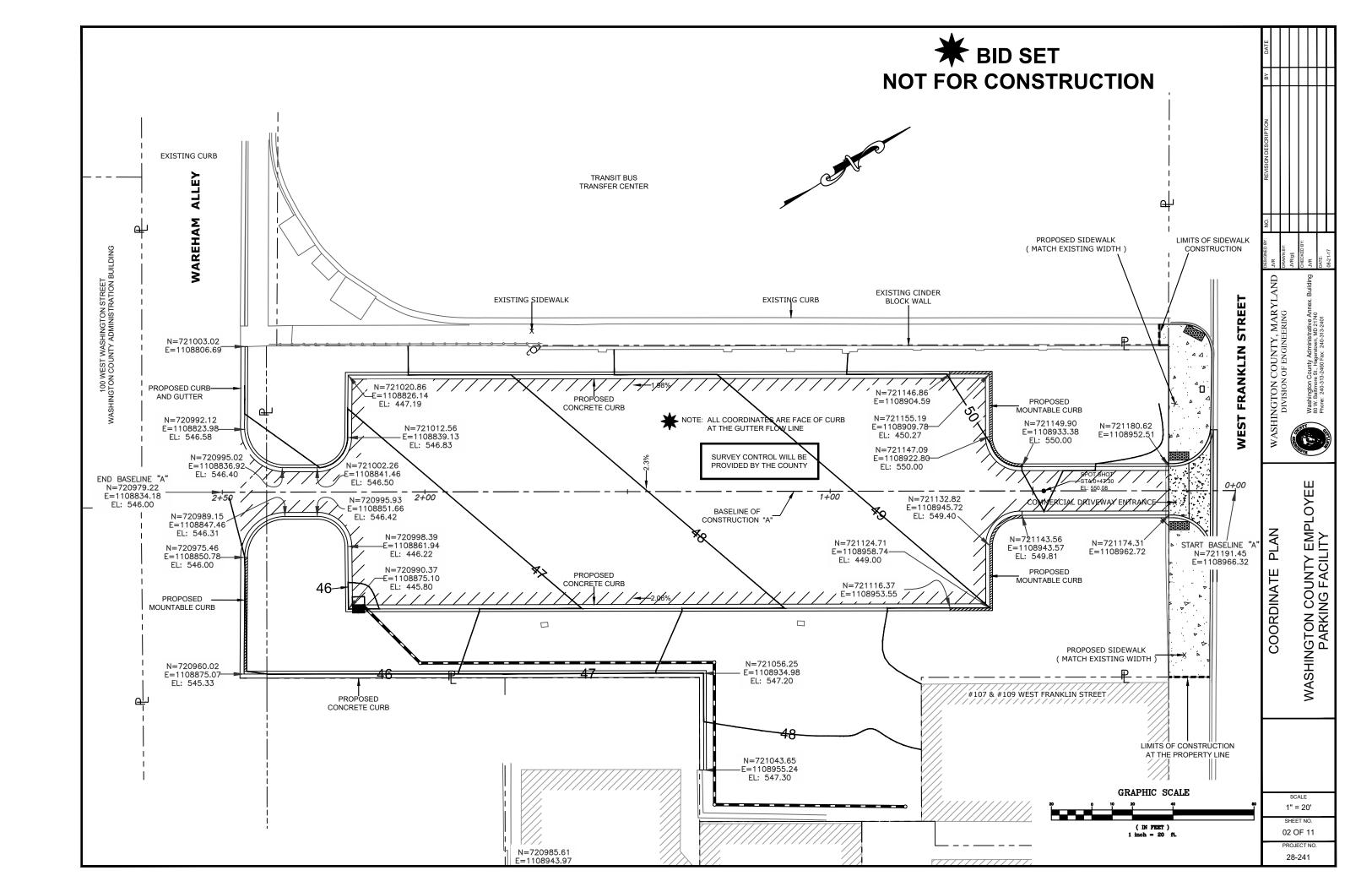
(IN FEET) 1 inch = 20 ft. PLAN

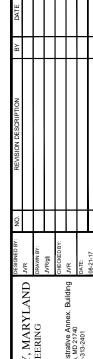
SITE



FULL DEPTH PAVING REPAIR

(SEE PARKING LOT PAVING DETAIL)





WASHINGTON COUNTY, MARYLAND DIVISION OF ENGINEERING

WASHINGTON COUNTY EMPLOYEE PARKING FACILITY PAVEMENT MARKING PLAN

1" = 20'

03 OF 11

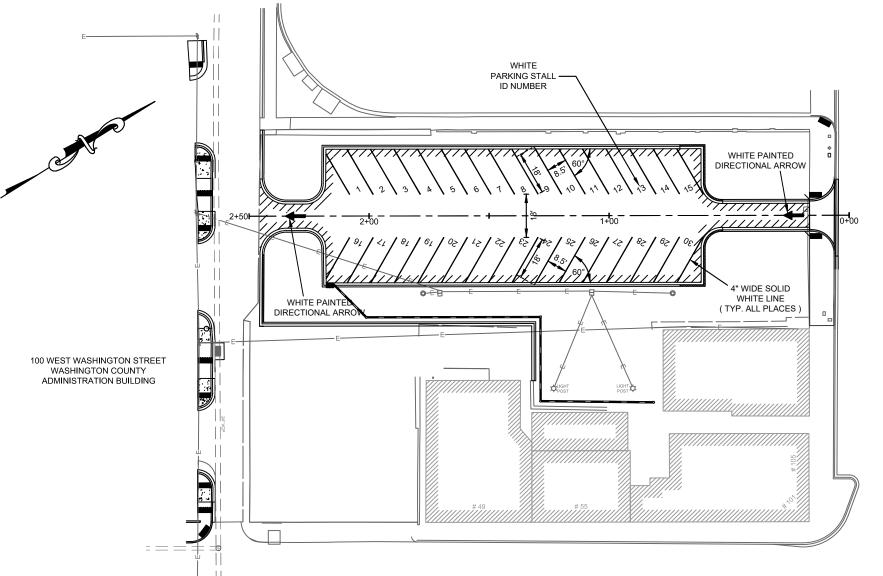
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PAVEMENT MARKINGS

ALL PAVEMENT MARKINGS SHALL CONFORM TO MD-SHA AND MUTCD STANDARDS AND SPECIFICATIONS. 2. THE CONTRACTOR IS RESPONSIBLE FOR PLACING ALL NEW PAVEMENT MARKINGS AND REMOVING ANY OLD CONFLICTING MARKINGS.

EXISTING PARKING DECK

TRANSIT BUS TRANSFER CENTER



Before You Dig Call "MISS UTILITY" CALL TOLL FREE

1-800-257-7777

GRAPHIC SCALE (IN FEET) 1 inch = 20 ft.

GENERAL NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIAL PROVISIONS, THE LATEST EDITION OF THE MD-SHA STANDARD SPECIFICATIONS, AND SUPPLEMENTAL SPECIFICATIONS
- WHERE REFERENCE IS MADE TO STANDARDS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE IN HIS POSSESSION THE MARYLAND SHA BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES WITH THE LATEST UP TO DATE MSHA STANDARDS AS OF THE DATE OF ADVERTISEMENT OF THIS PROJECT
- 3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE LATEST APPROVED SET OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND ANY REFERENCED MD-SHA OR CITY OF HAGERSTOWN STANDARDS AS OF NOTICE TO

HORIZONTAL CONTROL:
THE COORDINATES FOR THIS PROJECT HAVE BEEN ESTABLISHED BY GPS VALUES BASED ON SURROUNDING NGS, WASHINGTON COUNTY AND CITY OF HAGERSTOWN CONTROL MONUMENTS ADJUSTED TO THE MARYLAND GRID SYSTEM, NAD 83(91).

VERTICAL CONTROL:
THE LOCATIONS AND ELEVATIONS BENCHMARKS ARE SHOWN ON GEOMETRIC LAYOUT PLAN. PROJECT ELEVATIONS SHOWN ARE IN U.S. SURVEY FEET AND AGREE WITH THE MARYLAND GRID SYSTEM, NAVD 88

- 6 THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND PROTECTING PROPERTY MARKERS CONTROL POINTS AND BENCHMARKS FOR THE DURATION OF THE CONTRACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE ANY OF THESE POINTS THAT ARE DISTURBED OR DAMAGED DURING THE CONSTRUCTION PROCESS. WHERE NECESSARY, POINTS SHALL BE REPLACED UNDER THE DIRECT SUPERVISION OF A REGISTERED SURVEYOR TO THE STANDARD WITH WHICH THEY WERE ESTABLISHED
- ALL INVERT ELEVATIONS ARE APPROXIMATE. INVERT ELEVATIONS OF PIPES MAY BE MODIFIED, AS DIRECTED BY THE ENGINEER. TO MEET CONDITIONS ENCOUNTERED DURING INSTALLATION OF DRAINAGE STRUCTURES. ALL PIPES SHALL BE CONSTRUCTED ON UNIFORM GRADE BETWEEN INVERT ELEVATIONS AS NOTED ON THE PLANS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 8. THE LOCATIONS AND LENGTHS OF PIPES TO BE INSTALLED SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO
- THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STORM DRAIN STRUCTURES AS NECESSARY IN ORDER TO MEET FIELD CONDITIONS AS APPROVED THE ENGINEER.
- 10. THE CONTRACTOR SHALL MAKE, CHECK, AND BE RESPONSIBLE FOR ALL MEASUREMENTS AND DIMENSIONS NECESSARY FOR THE PROPER CONSTRUCTION OF ALL WORK
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ACTUAL CONDITIONS AND PLANNING ALL CONSTRUCTION ACCORDINGLY. ALL DIMENSIONS SHOWN SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE ANY WORK COMMENCES
- 12. ANY DAMAGE TO ADJACENT ROADS, YARDS, STRUCTURES, FENCES, SHRUBBERY, ETC., DURING CONSTRUCTION SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE COUNTY OR THE PROPERTY OWNERS BEFORE ANY WORK COMMENCES.
- 13. THE CONTRACTOR SHALL GRADE FOR POSITIVE DRAINAGE AT ALL ROADWAY INTERSECTIONS, ENTRANCES, PARKING 28. ALL LAYOUT DIMENSIONS SHOWN ARE TO THE FACE OF CURB UNLESS OTHER WISE NOTED. OTS, AND YARDS IN CONFORMANCE WITH THE PROPOSED DRAINAGE PATTERNS SHOWN ON THE PLANS
- 14. MATERIALS SALVAGED FROM CONSTRUCTION SHALL BECOME THE CONTRACTOR'S PROPERTY UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- 15. WORK SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

-GRADE 1

- 16. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTY AT ALL TIMES, IF ACCESS MUST BE INTERRUPTED FOR SHORT PERIODS OF TIME, THE INTERRUPTION SHALL BE COORDINATED WITH THE ENGINEER AND THE PROPERTY OWNER.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF TRAFFIC THROUGHOUT THE ENTIRE PERIOD OF CONSTRUCTION BY PROVIDING A REASONABLY SMOOTH AND EVEN SURFACE SATISFACTORY FOR THE USE OF PUBLIC TRAFFIC, AND BY PROVIDING ACCESS TO ALL PUBLIC ROADS AND RESIDENTIAL AND COMMERCIAL ENTRANCES AT ALL TIMES. THE CONTRACTOR TO FOLLOW MD- SHA STANDARDS.
- 18. THE CONTRACTOR SHALL ADJUST TO PROPOSED GRADE ALL EXISTING MANHOLES, VALVE BOXES, OR OTHER UTILITIES LOCATED WITHIN THE ASPHALT OVERLAY AND FULL DEPTH ASPHALT PAVING AREAS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE ASPHALT PAY ITEMS NECESSARY TO COMPLETE THE WORK.
- 19. THE CONTRACTOR SHALL ADJUST TO PROPOSED GRADE ALL EXISTING MANHOLES, VALVE BOXES CLEANOLITS OR OTHER LITH ITIES LOCATED WITHIN THE CONCRETE SIDEWALK. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE SIDEWALK ITEMS NECESSARY TO COMPLETE THE WORK.

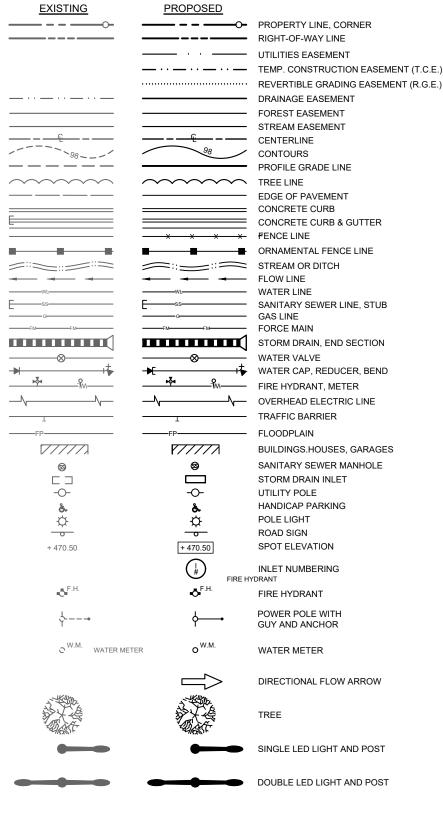
ALL ASPHALT PAVEMENT UTILITY CUTS SHALL BE PERFORMED AND REPAIRED IN ACCORDANCE WITH CITY OF HAGERSTOWN STANDARDS

- 21. IN ANY AREA WHERE ASPHALT THAT IS TO BE REMOVED ADJOINS ASPHALT THAT IS TO REMAIN. THE ASPHALT PAVING SHALL BE SAW CUT IN ORDER TO PROVIDE A CLEAN JOINT BETWEEN THAT WHICH IS TO BE REMOVED AND THAT WHICH IS TO REMAIN.
- IN AREAS WHERE CONCRETE THAT IS TO BE REMOVED ADJOINS CONCRETE THAT IS TO REMAIN, THE CONCRETE SHALL BE SAW CUT AT THE NEAREST JOINT AND A BITUMINOUS EXPANSION JOINT PROVIDED BETWEEN NEW AND EXISTING WORK. WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARDS SET FORTH IN THE SPECIFICATIONS AND ON THE APPROVED CONSTRUCTION DRAWINGS
- CLEARING AND GRUBBING SHALL OCCUR INSIDE THE PLATTED RIGHT OF WAY UNLESS OTHERWISE 23. DIRECTED BY THE ENGINEER.
- UTILITIES: THE LOCATIONS OF UNDERGROUND AND AERIAL UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT TO BE CONSIDERED COMPLETE OR ACCURATE THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST FIVE (5) DAYS PRIOR TO STATING ANY WORK SHOWN ON THESE DRAWINGS. THE CONTRACTOR MUST PROTECT, IN PLACE, ALL ACTIVE UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED ON THE PLANS.

Miss Utility	1-800-257-7777
Washington County Division of Engineering	240-313-2460
Washington County Dept. of Water Quality	240-313-2625
Washington County Soil Conservation District	301-797-6821 (Ext.3)
Potomac Edison (Allegheny Power)	301-582-5266
Columbia Gas (Hagerstown)	240-420-2026
Verizon	301-790-7135
Antietam Cable	240-420-2082
City of Hagerstown Utilities Dept Water & Wastewater Division	301-739-8577 (Ext. 650)

- 25. IF DURING CONSTRUCTION THE CONTRACTOR FINDS THAT CLEARANCES BETWEEN EXISTING UTILITIES AND PROPOSED WORK IS LESS THAN THAT NOTED OR IS LESS THAN SIX INCHES, HE SHALL CONTACT THE ENGINEER FOR INSTRUCTIONS ON HOW TO PROCEED.
- 26. THE CONTRACTOR MUST PROTECT IN PLACE ANY ACTIVE ABOVE GROUND AND OR UNDERGROUND UTILITIES FOUND UNLESS OTHER TREATMENT IS CALLED FOR. REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING. WITH CONSTRUCTION. THE COUNTY OR THE PROPERTY OWNER SHALL NOT BEAR ANY COST OR RESPONSIBILITY FOR DAMAGE TO UTILITIES OR PROPERTY AS THE RESULT OF THE CONTRACTOR'S NEGLIGENCE.
- THE CONTRACTOR SHALL PROTECT AND NOT INTERRUPT EXISTING UTILITY SERVICES DURING CONSTRUCTION. UNLESS AUTHORIZED BY THE ENGINEER. THE CONTRACTOR SHALL SUPPORT EXISTING UNDERGROUND UTILITIES DURING CONSTRUCTION AND THIS SUPPORT SHALL BE INCIDENTAL TO PERTINENT PAY ITEMS. THE LOCATION OF THE UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR.

SYMBOL LEGEND





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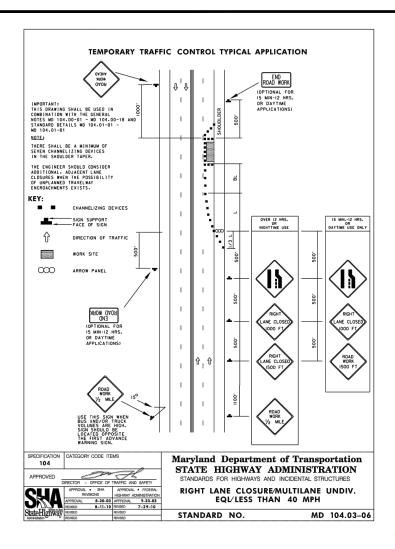
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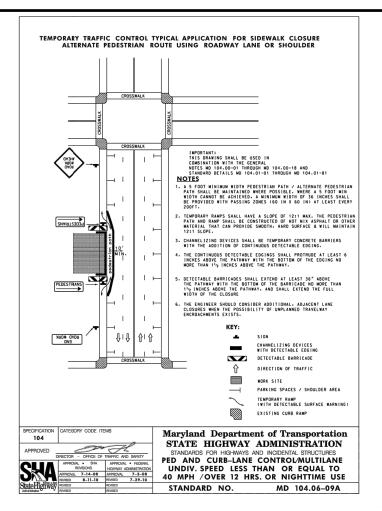
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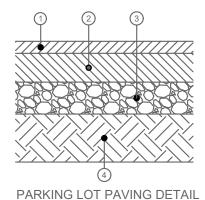
ABBREVIATIONS

AASHTO	-AMERICAN ASSOCIATION OF STATE	G2	-GRADE 2	PVI	-POINT OF VERTICAL INTERSECTION
	HIGHWAY AND TRANSPORTATION OFFICIALS	H.S.D	-HEADLIGHT SIGHT DISTANCE	PVT	-POINT OF VERTICAL TANGENCY
ADT	-AVERAGE DAILY TRAFFIC	HWALL	-HEADWALL	R.	-RADIUS
B.C.	-BOTTOM OF CURB	INV.	-INVERT	RCP	-REINFORCED CONCRETE PIPE
B.F.C.	-BOTTOM FACE OF CURB	K	-RATE OF CHANGE OF GRADE	R.G.E.	-REVERTIBLE GRADING EASEMENT
B/L	-BASE LINE	L	-LENGTH	R.O.W.	-RIGHT OF WAY
-C-	-CUT	LOD	-LIMIT OF DISTURBANCE	S.B.	-SOUTH BOUND
CB.	-CATCH BASIN	LP	-LIGHTPOLE	S.D.	-STORM DRAIN
CL	-CENTERLINE	LVC	-LENGTH OF VERTICAL CURVE	SHLD	-SHOULDER
C/O	-CLEANOUT	MPH	-MILES PER HOUR	S.S.D.	-STOPPING SIGHT DISTANCE
CONC.	-CONCRETE	MSHA	-MARYLAND STATE HIGHWAY ASSOCIATION	STA.	-STATION
CORR.	-CORRECTION	N.P.	-NORTH BOUND	S/W	-SIDEWALK
CULV .	-CULVERT	N.T.S.	-NOT TO SCALE	T	-TANGET
Dc	-DEGREE OF CURVATURE	PC	-POINT OF CURVATURE	T.C.	-TOP OF CURB
DS	-DESIGN SPEED	P.D.E.	-PERPETUAL DRAINAGE EASEMENT	T.C.E.	-TEMPORARY CONSTRUCTION EASEMENT
E	-EXTERNAL	P.G.E.	-PROFILE GRADE ELEVATION	T.P.	-TEST PIT
E.B.	-EAST BOUND	P.G.L.	-PROFILE GRADE LINE	TYP.	-TYPICAL
EL., ELEV.	-ELEVATION	P.I.	-POINT OF INTERSECTION	U/BOX	-UTILITY BOX
ESMT.	-EASEMENT	P/R	-POINT OF ROTATION	V.C.	-VERTICAL CURVE
EX.	-EXISTING	PROP.	-PROPOSED	W.B.	-WEST BOUND
-F-	-FILL	PT.	-POINT OF TANGENCY		

-POINT OF VERTICAL CURVATURE







SCALE: NONE

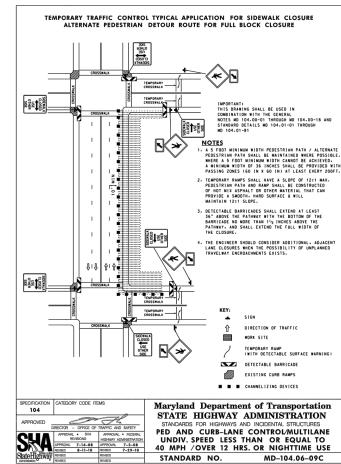
LEGEND

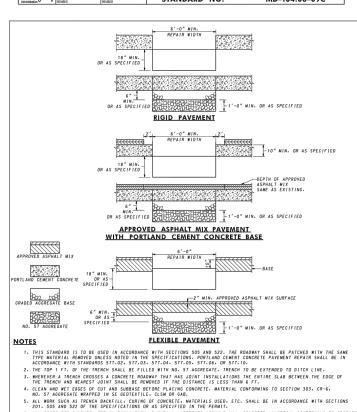
- ① 2" SURFACE COURSE (9.5mm HOT MIX ASPHALT, 1-2" MAX. LIFTS)
- ② 6" BASE COURSE
- (19.0mm HOT MIX ASPHALT, 3- 2" MAX. LIFTS)
- 3 6" GRADED AGGREGATE BASE COURSE (2-3" MAX. LIFTS)
- 4 PREPARED SUBGRADE

NOTES:

- (1) ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, STATE HIGHWAY CONSTRUCTION AND MATERIAL SULLY 2008, AS FOLLOWS
- (2) SUBGRADE PREPARATION SECTION 204 AND SECTION 208 GRADED AGGREGATE BASE COURSE - SECTION 501 HOT MIX ASPHALT - SECTION 504
- (3) SUBGRADE / SHOULDER DRAINS SHALL BE INSTALLED WHERE DEEMED NECESSARY UPON FIELD INSPECTION. DRAINS SHALL BE IN ACCORDANCE WITH SECTION 306







7. CLSM - CONTROLLED LOW STRENGTH MATERIAL. 8. NO. 57 AGGREGATE SHALL BE COMPLETELY WRAPPED IN SE GEOTEXTILE AS DIRECTED BY THE ENGINEER

STANDARD NO.

Maryland Department of Transportation

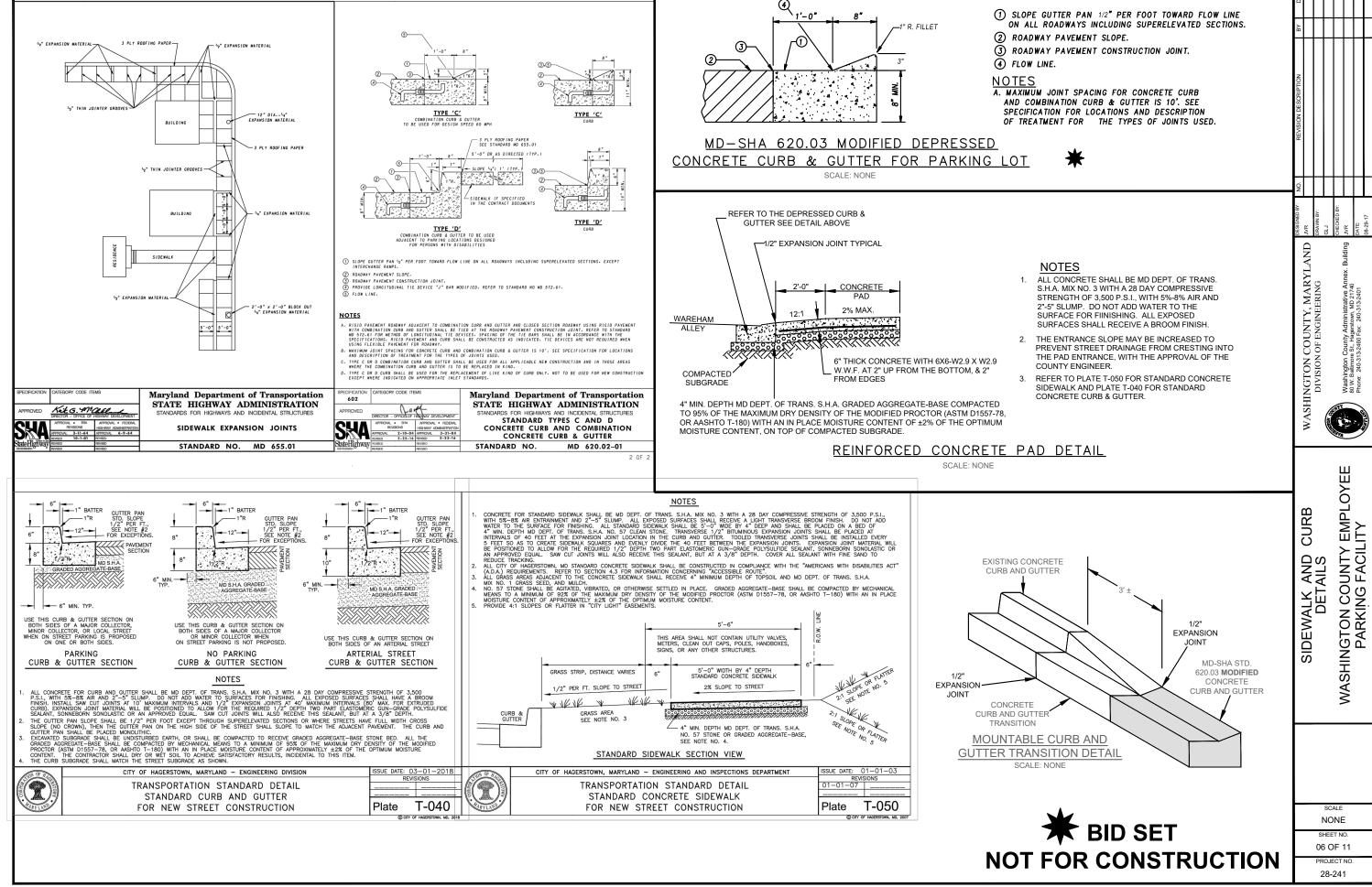
STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES REPAIRING PAVEMENT OPENINGS FOR UTILITY TRENCHES

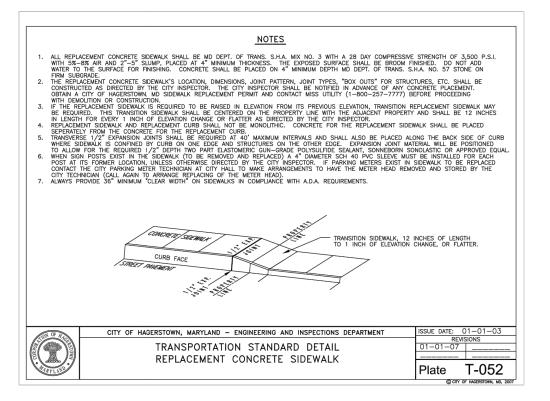


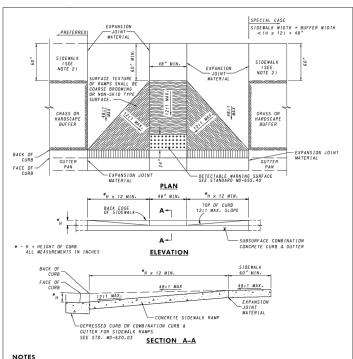
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PROJECT NO.

28-241





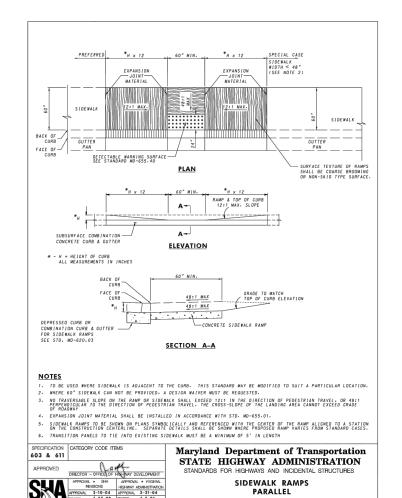


- TO BE USED ON WIDE SIDERALKS OR SIDERALKS WITH SIDNIFICANT SEPARTION FROM THE ROLDWAY WHERE THE GEOMETRY SPECIFIED IN THE DETAILS ADDRESSED AS ADDRESSED AS BE MODIFIED TO SUIT A PARTICULAR LOCATION.

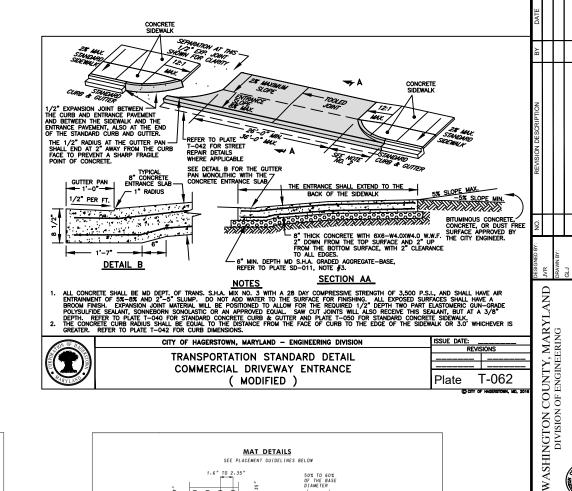
 WHERE 60° SIDEWALK CAN NOT BE PROVIDED. A DESIGN WAIVER MUST BE REQUESTED

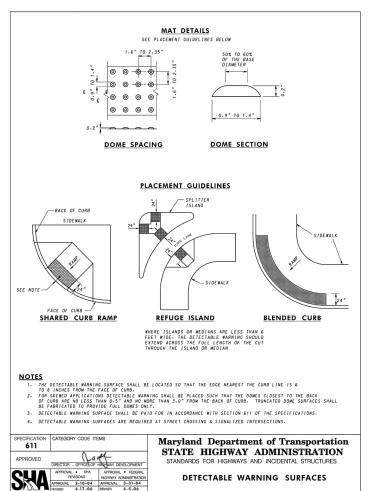
 NO TRANSFARME SUPPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL. OR 48:1
 PERPRODICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
- 5. SIDEWALK RAMPS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE RAMP ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED RAMP VARIES FROM STANDARD CASES.
- . TRANSITION PANELS TO TIE INTO EXISTING SIDEWALK MUST BE A MINIMUM OF 5' IN LENGTH.





STANDARD NO.





(MODIFIED)

BID SET **NOT FOR CONSTRUCTION**

SIDEWALK RAMPS AND COMMERCIAL ENTRANCE DETAILS WASHINGTON COUNTY EMPLOY PARKING FACILITY

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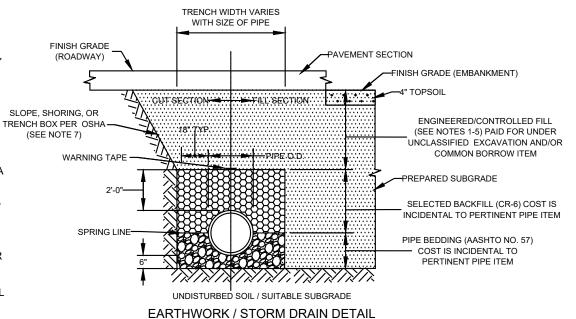
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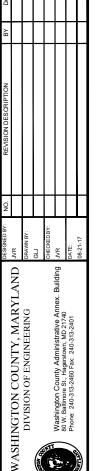
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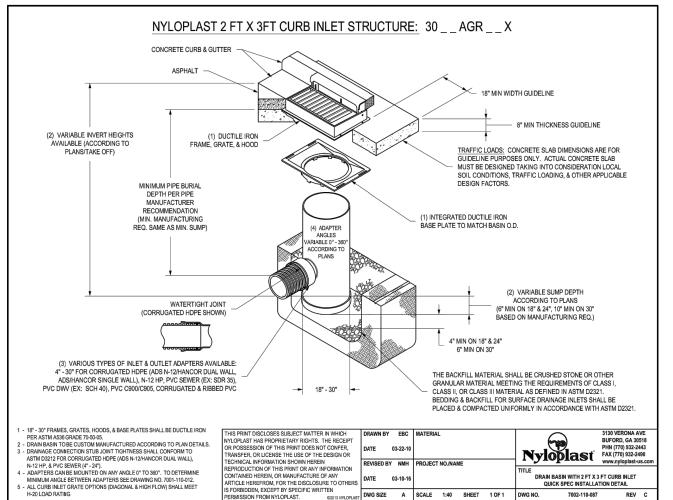
- 1. ENGINEERED/CONTROLLED FILL SHALL HAVE A MAXIMUM DRY DENSITY OF NOT LESS THAN 100 LBS/CF. SATISFACTORY SOILS FOR FILL INCLUDE GW, GP, GM, SW, SM, SC, ML, CL OR A COMBINATION OF THESE GROUP SYMBOLS FROM EXCAVATION OR BORROW WHICH CAN BE COMPACTED TO FORM STABLE EMBANKMENTS AND FILLS (BEING FREE OF ROCK OR GRAVEL LARGER THAN 6 INCHES IN ANY DIMENSION) AS ACCEPTED BY THE ENGINEER. FILL FOR PLACEMENT IN ALL AREAS SHALL CONFORM TO A LIQUID LIMIT OF 45 MAXIMUM AND A PLASTICITY INDEX OF 30 MAXIMUM OR TO THE LIMITS AS CERTIFIED BY THE GEOTECHNICAL ENGINEER. UNSATISFACTORY SOILS/MATERIALS THAT ARE NOT ACCEPTABLE FOR USE INCLUDE CH, MH, OH, OL, PT, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER ORGANIC/DELETERIOUS MATTER. SOILS TREATED WITH LIME AND PLACEMENT OF GEOGRIDS/GEOTEXTILE FABRICS MAY BE USED FOR SUBGRADE REMEDIATION AS CERTIFIED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE ENGINEER.
- 2. ALL PROPOSED FILL AND SUITABLE SUBGRADE MATERIALS SHALL BE REVIEWED AND APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEERING FIRM TO MONITOR CONSTRUCTION ACTIVITIES AND PERFORM TESTING. THE COST OF GEOTECHNICAL AND TESTING SERVICES ARE INCIDENTAL TO THE PERTINENT EXCAVATION, BORROW, AND SUBGRADE ITEMS IN THE CONTRACT.
- 3. THE EXCAVATION AND RE-USE OF EXCAVATED MATERIAL WILL BE MEASURED AND PAID FOR UNDER THE UNCLASSIFIED EXCAVATION ITEM IN THE CONTRACT. AS PART OF THE WORK, THE CONTRACTOR SHALL EXCAVATE AND SEPARATELY STOCKPILE SUITABLE FILL DURING THE PROGRESS OF THE EXCAVATION. CONTRACT QUANTITIES FOR FILL ARE BASED ON RE-USE OF ON SITE SUITABLE EXCAVATED MATERIALS AS WELL AS USE OF IMPORTED COMMON BORROW. THE CONTRACTOR SHALL UTILIZE ALL ON SITE MATERIALS PRIOR TO IMPORTING FILL ON THE PROJECT. THE CONTRACTOR SHALL ADEQUATELY PROTECT THE STOCKPILED MATERIAL THAT IS ACCEPTABLE FOR RE-USE AS FILL. STOCKPILED MATERIAL THAT IS TOO WET TO ACHIEVE PROPER COMPACTION SHALL BE LEFT TO DRAIN, DRY, AND BE AERATED BY HARROWING OR OTHER APPROVED METHODS UNTIL THE MOISTURE CONTENT IS UNIFORM AND WITHIN THE SPECIFIED LIMITS. WHERE CONDITIONS REQUIRE THE IMPORTING OF FILL, THE MATERIAL SHALL BE A SOIL-ROCK MATERIAL (DIRTY CRUSHER RUN, ETC.) FREE OF ORGANIC MATTER THAT MEETS THE REQUIREMENTS FOR SUITABLE BACKFILL AS ACCEPTED BY THE ENGINEER. IMPORTING OF FILL WILL BE MEASURED AND PAID FOR UNDER THE COMMON BORROW ITEM IN THE CONTRACT.
- 4. BEFORE COMPACTION, EACH LAYER SHALL BE MOISTENED OR AERATED BY THE CONTRACTOR AS NECESSARY TO ACHIEVE THE REQUIRED COMPACTION. EACH LAYER SHALL BE COMPACTED TO THE REQUIRED PERCENTAGE OF MAXIMUM DRY DENSITY. FILL SHALL NOT BE PLACED ON SURFACES THAT ARE MUDDY, FROZEN, OR HAVE NOT BEEN APPROVED BY TESTING AND/OR PROOF ROLLING. FREE WATER SHALL BE PREVENTED FROM APPEARING ON THE SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS.
- THE CONTRACTOR SHALL ADHERE TO MSHA SECTION 204 (EMBANKMENT AND SUBGRADE), MSHA SECTION 208 (SUBGRADE PREPARATION), AND MSHA SECTION 210 (TAMPED FILL) FOR CONSTRUCTION OF WORK.
- 6. MAGNETICALLY DETECTABLE WARNING TAPE SHALL ADHERE TO MSHA SECTION 303 (PIPE CULVERTS) AND BE PLACED ABOVE ALL UTILITIES.
- 7. TRENCH SIDES SHALL BE SLOPED AND/OR BRACED WITH SHORING OR PROTECTED WITH A TRENCH BOX PER OSHA REQUIREMENTS. THIS COST IS INCIDENTAL TO THE PERTINENT EXCAVATION AND BACKFILL ITEMS IN THE CONTRACT.
- 8. UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL AS DIRECTED BY THE ENGINEER.



Standard Utility Notes

- Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas
- Contractor to place excavated materials in a dump truck and hauled to an approved location to wasted materials to paved areas.
- Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.
- 4. In areas where the construction takes to place outside of the existing roadbed, Contractor to install silt fence along the downhill side of the trench before beginning construction and place excavated material from the trench on the uphill side.
- 5. If dewatering of the trench is required, Contractor to pump water to filter bag to dewater.
- Contractor to sweep streets of any debris or sediments caused by construction operations and dispose of at an approved location.
- 7. Contractor to stabilize all disturbed areas with seed & mulch or





BID SET
NOT FOR CONSTRUCTION

GRADING NOTES AND DETAILS
WASHINGTON COUNTY EMPLOYE
PARKING FACILITY

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SCALE NONE

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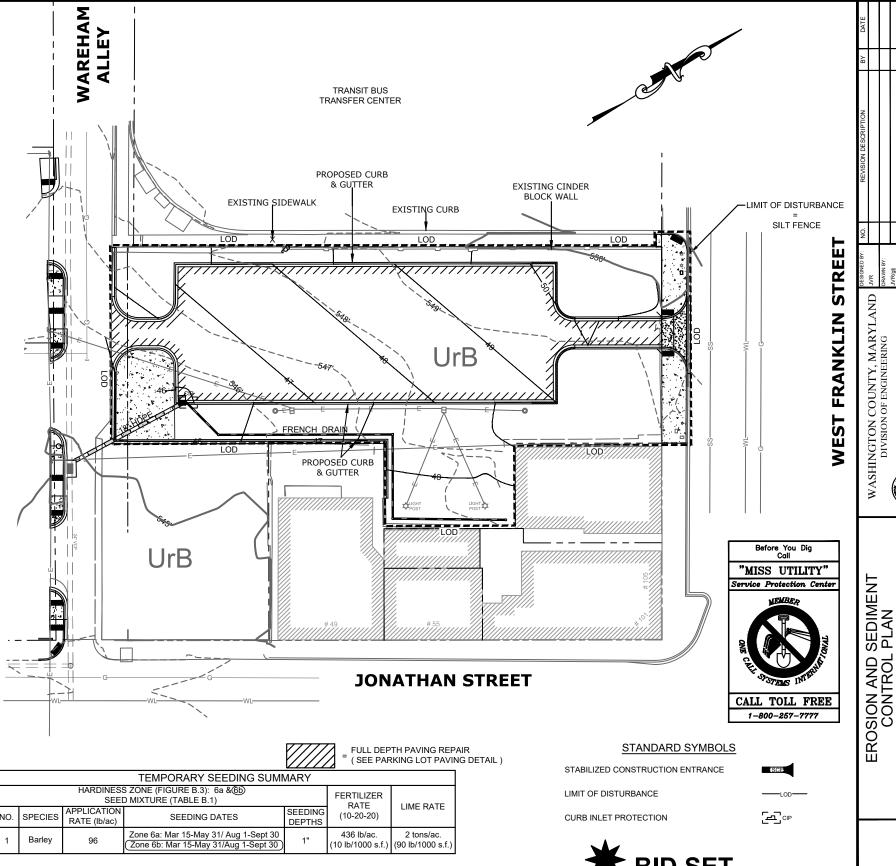
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SEQUENCE OF CONSTRUCTION

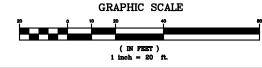
- CONTRACTOR SHALL NOTIFY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT, THE CITY OF HAGERSTOWN ENGINEER
 AND THE WASHINGTON COUNTY ENGINEERING DEPARTMENT AT LEAST 5 DAYS PRIOR TO BEGINNING CONSTRUCTION TO
 ARRANGE A PRE-CONSTRUCTION MEETING.
- 2. CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1800-257-7777 A MINIMUM OF 3 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
- 3. CONTRACTOR TO INSTALL STABILIZED CONSTRUCTION ENTRANCE AS SHOWN.
- 4. INSTALL PERIMETER CONTROLS INCLUDING SILT FENCE.
- 5. INSTALL INLET STRUCTURE AND INSTALL 18" HP PIPE BETWEEN NEW INLET AND EXISTING INLET SHOW ON PLANS. PROVIDE TEMPORARY CAP ON END OF PIPE AND PROVIDE INLET PROTECTION AS REQUIRED. ONLY DO AS MUCH WORK AS CAN BE STABILIZED IN ONE DAY. ONCE CONTRACTOR HAS REACHED EXISTING INLET LOCATION, CONTRACTOR IS TO CORE INTO INLET AND PROVIDE APPROPRIATE CONNECTION BETWEEN PIPE AND EXISTING INLET.
- 6. STABILIZED DISTURBED AREA
- 7. REMOVE EXISTING CONCRETE FROM FRANKLIN STREET AND PERFORM ROUGH GRADING FOR PARKING LOT AS DELINEATED ON SHEET 01 ANY REMOVED ASPHALT AND CONCRETE SHALL BE HAULED TO AN APPROVED DUMP SITE.
- 8. INSTALL INLET PROTECTION.
- 9. COMPLETE FINE GRADING, CURB AND GUTTER, SIDEWALK AND BASE COURSE OF PAVING FOR PARKING LOT.
- 10. STABILIZED DISTURBED AREAS
- 11. INSTALL SURFACE COURSE PAVING AND PERFORM LINE PAINTING.
- 12. IMPORT AND PLACE FURNISHED TOPSOIL.
- 13. STABILIZE DISTURBED AREAS.
- 14. WHEN ALL DISTURBED AREAS ARE STABILIZED CONTACT THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT, OFFICE OF THE CITY OF HAGERSTOWN ENGINEER AND THE WASHINGTON COUNTY ENGINEERING DEPARTMENT AT LEAST 5 DAYS PRIOR TO THE REMOVAL OF ANY SEDIMENT CONTROL FEATURES TO SCHEDULE A FINAL SITE CLOSEOUT REVIEW MEETING.

SOIL EROSION, SEDIMENT CONTROL & SEEDING NOTES

- 1. ALL SOIL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND THE PROVISIONS OF THE APPROVED PLAN.
- 2. ALL GRADING AND STABILIZATION SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", "SECTION B GRADING AND STABILIZATION" AND THE PROVISIONS OF THE APPROVED PLAN.
- 3. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (BMP'S) ARE TO BE CONSTRUCTED AND/OR INSTALLED PRIOR TO OR AT THE INITIATION OF GRADING IN ACCORDANCE WITH "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND THE APPROVED PLAN.
- 4. A GRADING UNIT IS THE MAXIMUM CONTIGUOUS AREA ALLOWED TO BE GRADED AT A GIVEN TIME AND IS LIMITED TO 20 ACRES. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY AND/OR THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT (APPROVAL AUTHORITY). UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
- 5. FOR INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, TEMPORARY OR PERMANENT STABILIZATION MUST BE COMPLETED WITHIN:
- a. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3:1 HORIZONTAL TO VERTICAL (3:1)
- b. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
- 6. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITHIN THE 7 DAY STABILIZATION REQUIREMENT, AS WELL AS, STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION (AS APPLICABLE).
- 7. ALL CONSTRUCTED CHANNELS AND SWALES SHALL HAVE SPECIFIED TREATMENT INSTALLED TO THE DESIGN FLOW DEPTH COMPLETED DOWNSTREAM TO UPSTREAM AS CONSTRUCTION PROGRESSES. AN INSTALLATION DETAIL SHALL BE SHOWN ON THE PLANS.
- 8. ALL STORM DRAIN AND SANITARY SEWER LINES NOT IN PAVED AREAS ARE TO BE MULCHED AND SEEDED WITHIN 3 DAYS OF INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.
- 9. ELECTRIC POWER, TELEPHONE, AND GAS LINES ARE TO BE COMPACTED, SEEDED, AND MULCHED WITHIN 3 DAYS AFTER INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.
- 10.NO SLOPE SHALL BE GREATER THAN 2:1.
- 11.AS REQUIRED BY SECTION B, OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, "ADEQUATE VEGETATIVE STABILIZATION", IS DEFINED AS 95 PERCENT GROUND COVER. THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT REQUIRES THE PROJECT ADHERE TO THIS FOR SCHEDULING OF THE FINAL SITE CLOSEOUT REVIEW, AND/OR RELEASE OF THE SITE FOR SOIL EROSION AND SEDIMENT CONTROL.



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NOT FOR CONSTRUCTION



SCALE

1" = 20'

SHEET NO.

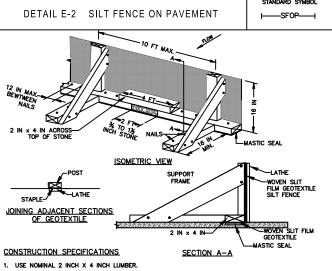
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PROJECT NO.

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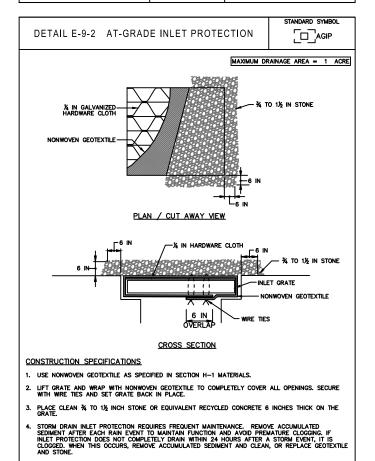
GTON COUNTY EMPLOY PARKING FACILITY

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- 2. USE WOVEN SLIT FILM GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS
- PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
- PROVIDE A TWO FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER GEOTEXTILE.
- KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2x4.
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. ATTACH LATHE.
- PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT-LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
- 9. SECURE BOARDS TO PAVEMENT WITH 40D 5 INCH MINIMUM LENGTH NAILS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL FROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION U.S. DEPARTMENT OF AGRICULTURE
URAL RESOURCES CONSERVATION SERVICE

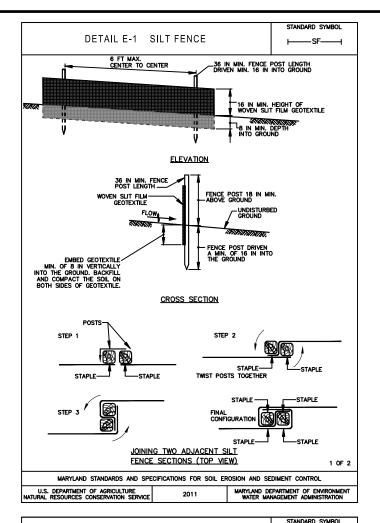


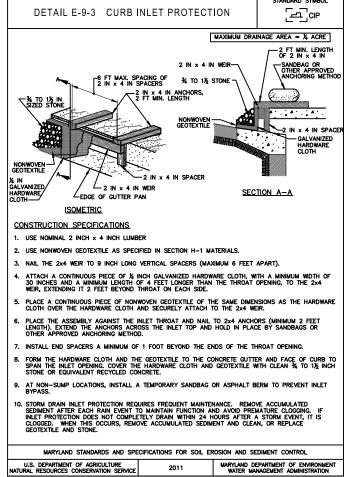
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

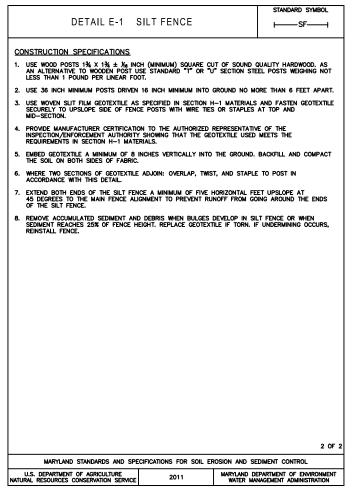
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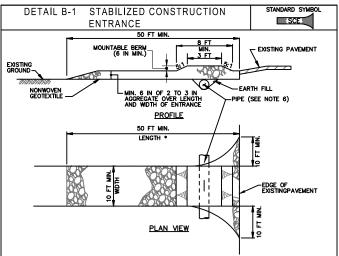
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION









CONSTRUCTION SPECIFICATIONS

- . PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT), USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- . PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE, PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
- . PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011

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WASHINGTON COUNTY, MARYLAND DIVISION OF ENGINEERING

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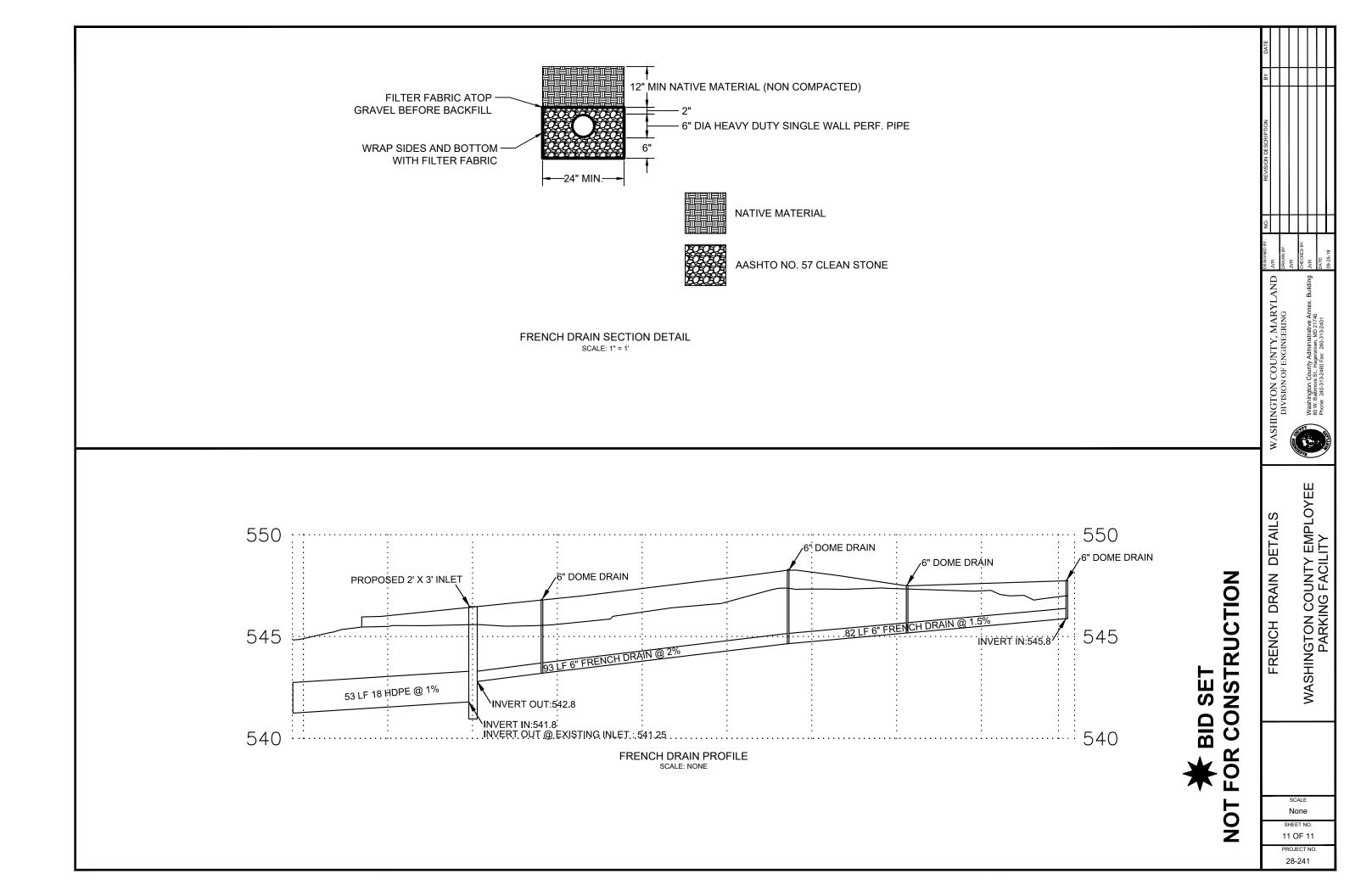
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28-241



Attachment E Revised Bid Forms

ITEM	CODE	QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE		ITEM TOTAL	-
101		LUMP SUM	L.S.	MOBILIZATION				
102		LUMP SUM	L.S.	MAINTENANCE OF TRAFFIC				
103		LUMP SUM	L.S.	CONSTRUCTION STAKEOUT				
	Contract No	tegory <u>100</u> . MS-EP-241-28 endum 1			Total This S	Sheet		

ITEM	CODE	QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE		ITEM TOTAL	1
201		300	C.Y.	UNCLASSIFIED EXCAVATION				
202		20	C.Y.	CONTINGENT UNSUITABLE MATERIAL EXCAVATION		_		
203		100	S.Y.	REMOVAL OF EXISTING PAVEMENT, SIDEWALK OR CONCRETE		_		
204		30	C.Y.	CONTINGENT SELECT BACKFILL				
End Category <u>200</u> Contract No. MS-EP-241-28 Addendum 1			•		Total This S.	Sheet		

ITEM	CODE	QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE	ITEM TOTAL
301		LUMP SUM	L.S.	REMOVAL OF EXISTING INLETS		
302		53	L.F.	18" HDPE		
303		1	EA	NYLOPLAST 2FT X 3FT CURB INLET STRUCTURE		
304		30	C.Y.	CONTINGENT: SELECT BACKFILL USING CR-6		
305		85	LF	6" DIAMETER DUAL WALL PERFORATED STORM DRAINAGE PIPE		
306		100	LF	6" DIAMETER DUAL WALL STORM DRAINAGE PIPE		
307		4	EA	6" DUCTILE IRON DROP IN DRAINAGE GRATE		
308		LUMP SUM	L.S.	EROSION AND SEDIMENT CONTROL		
	End Category 3 <u>00</u> Contract No. MS-EP-241-28 Addendum 1				Total This Sheet	

ITEM	CODE	QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE	ITEM TOTAL	
401		LUMP SUM	L.S.	REMOVAL OF EXISTING TELEPHONE POLE			
402		LUMP SUM	L.S.	REMOVAL OF EXISTING WATER METER TILE			
	End Ca Contract No	tegory 4 <u>00</u> . MS-EP-241-28			Total This She	eet	
	Adde	endum 1					

ITEM	CODE	QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE	ITEM TOTAL
501		1070	S.Y.	6" GRADED AGGREGATE BASE COURSE		
502		140	TON	HOT MIX ASPHALT SUPERPAVE SURFACE, 9.5mm		
503		370	TON	HOT MIX ASPHALT SUPERPAVE BASE, 19.0mm		
504		175	L.F.	SAW CUTTING		
505		LUMP SUM	L.S.	PAVEMENT MARKINGS		
End Category 5 <u>00</u> Contract No. MS-EP-241-28 Addendum 1			1		Total This She	eet

ITEM	CODE	QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE	ITEM TOTAL
601		500	L.F.	CONCRETE CURB AND GUTTER		
602		208	L.F.	MOUNTABLE CONCRETE CURB AND GUTTER		
603		900	S.F.	CONCRETE SIDEWALK REPLACEMENT AND ENTRANCE APRONS		
604		30	S.F.	DETECTABLE WARNING SURFACES		
605		852	S.F.	REINFORCED CONCRETE PAD		
End Category 6 <u>00</u> Contract No. MS-EP-241-28. Addendum 1					Total This Shee	et

ITEM	CODE	QUANTITY	UNIT	ITEM DESCRIPTION	UNIT PRICE	ITEM TOTAL
701		865	S.Y.	PLACING FURNISHED TOPSOIL, 4" DEPTH		
702		865	S.Y.	TEMPORARY SEEDING STABILIZATION		
	End Co	togory 700				
		tegory 7 <u>00</u> . MS-EP-241-28 endum 1		Total This Sheet		

Attachment F Revised Special Provisions

SPECIAL PROVISIONS

PROJECT NO. 28-241

(WASHINGTON COUNTY EMPLOYEE PARKING FACILITY)

SPECIAL PROVISIONS

FOR

WASHINGTON COUNTY EMPLOYEE PARKING FACILITY

IN

WASHINGTON COUNTY, MARYLAND

THE PROJECT

The project involves the construction of a parking lot for Washington County Employees located between Wareham Alley and Franklin Street. The work includes grading, installation of pipe and inlet, installation of new concrete curb and sidewalk and paving.

CATEGORY 100

Item No. 101 - MOBILIZATION

- **.01 DESCRIPTION:** This work shall consist of the construction preparatory operations, including the movement of personnel and equipment to the project site and for the establishment of the contractor's field office, buildings, and other facilities including power hook up necessary to begin work.
- .02 MATERIALS: Not applicable.
- .03 CONSTRUCTION:
 - A. All work performed in providing the facilities, equipment, and services shall be done in a safe and workmanlike manner.
 - B. All equipment shall be of the type and size necessary to perform the required work.
- .04 MEASUREMENT AND PAYMENT: Mobilization will not be measured for payment but will be paid for at the Contract lump sum price. The cost of all required insurance and bonds will be incidental to the Contract lump sum price for mobilization. Payment of 50 percent of the Contract lump sum will be made in the first monthly estimate after the Contractor has established the necessary facilities for starting construction activities at the site. The remaining 50 percent will be prorated and paid in equal amounts on each

SPECIAL PROVISIONS PROJECT NO. 28-241 (WASHINGTON COUNTY EMPLOYEE PARKING FACILITY)

subsequent monthly estimate. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work. Payment of the Contract lump sum price will not be made more than once, regardless of the fact that the Contractor may have, for any reason, shut the work down on the project, moved his equipment away from the project and then back again. If an item for mobilization is not provided, the cost of mobilization will be incidental to the other items specified in the Contract documents.

Item No. 102 - MAINTENANCE OF TRAFFIC

- **DESCRIPTION:** This work shall consist of maintaining traffic, both vehicular and pedestrian, on, along, or through the construction area or detour route as shown by the Traffic Control Plan (TCP) or noted on the plans. This section sets forth the traffic control requirements necessary for the safe and continuous maintenance of traffic throughout the area affected by the work.
- **MATERIALS:** All materials shall be in accordance with Section 104 of the MSHA Specification Booklet.

.03 CONSTRUCTION:

- A. All traffic control devices and methods used shall conform to the Manual on Uniform Traffic Control Devices (MUTCD), latest edition.
- B. If applicable, Contractor to provide sufficient number of flagmen and take all necessary precautions for the protection of the work area and safety of the public. All personnel involved in flagging operations shall have approved flagger certification by the State Highway Administration.
- C. On projects where traffic is detoured around the work area, Contractor shall place signing as shown by the TCP.
- D. On projects where traffic is to be maintained through the work area, the Contractor shall maintain one (1) lane traffic during work hours and two (2) lane during nonwork hours. There will be no lane closures allowed on the weekends.
- E. Traffic control devices shall be installed at the inception of construction and shall be properly maintained and/or operated for the length of the Contract.
- F. All salvaged material and devices, i.e. TCP signs, etc., shall become the property of the Contractor.
- G. Damaged signs shall be repaired or replaced as soon as possible so as to maintain the proper traffic flow.

SPECIAL PROVISIONS PROJECT NO. 28-241 (WASHINGTON COUNTY EMPLOYEE PARKING FACILITY)

- H. Weeds, shrubbery, construction equipment or material, spoil, etc., shall not be allowed to obscure any traffic control device.
- I. Upon removal of signs, Contractor is to restore all disturbed areas, sod or pavement, to its original condition.
- J. The Contractor shall furnish and apply water as directed to assist in the controlling of dust.
- .04 MEASUREMENT AND PAYMENT: Maintenance of Traffic will not be measured for payment but will be paid for at the Contract lump sum price. One hundred percent (100%) of the lump sum price will be prorated for monthly payments of equal amounts. Monthly payment will be made upon satisfactory completion of the previous month's work. Any discrepancies from the Contract plans and/or the MUTCD will be documented and provided to the Contractor for resolution. Any discrepancies not addressed by the Contractor may constitute a corresponding reduction of payment. The payment will be full compensation for all work necessary to maintain traffic including all work, sequence of operations, flagmen, water, and furnishing, placing, moving, repairing, replacing, removing, and restoration of all traffic control devices necessary for the fulfillment of the Contract requirements and implementation of the approved Traffic Control Plan shown on the plans.

Item No. 103 - CONSTRUCTION STAKEOUT

- **.01 DESCRIPTION:** This work shall consist of providing all survey, and furnishing, placing and maintaining construction layout points (stakes, hubs, nails, crosses, etc.) as necessary to construct the work as shown on the plans and/or as directed by the Engineer.
- .02 MATERIALS: Not applicable.

.03 CONSTRUCTION:

- A. Prior to beginning work, the Owner will establish the roadway centerline or a baseline of construction for use by the Contractor. The stakeout and related information will be provided one time only.
- B. Centerline or baseline Station (stakes, hubs, nails, crosses, etc.) spacing shall not exceed 50 feet and shall extend a minimum of 100 feet beyond the limits of construction. Additional necessary points, such as points of curvature (PCs), points of tangency (PTs), break points, intersection points, equality stations, etc. shall also be staked by the Owner.

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- C. The Owner will establish appropriately spaced vertical control points (benchmarks) and stake necessary offset or reference points, including all P.C.s and P.T.s, for the preservation and re-establishment of the centerline or baseline.
- D. It shall be the Contractor's responsibility to provide all survey (including establishing layout lines, elevations, grades, forms, templates, etc.) required to build the work as shown on plans and/or as directed by the Engineer.
- E. All work relating to this Section shall comply with the Minimum Standards of Practice for Land Surveying, published by the State of Maryland when applicable or as directed by the Engineer.
- F. The Contractor shall utilize competent personnel, acceptable to the Owner, for construction stakeout.
- G. The Contractor shall coordinate construction stakeout with the Owner during construction. The Engineer shall be provided copies of stakeout sheets, survey notes (written and/or electronic), cut sheets, etc. as requested.
- H. If requested by the Owner, the Contractor shall reset the centerline or baseline as originally staked. Copies of all survey notes shall be given to the Owner.
- .04 MEASUREMENT AND PAYMENT: Construction Stakeout will not be measured for payment but will be paid for at the Contract lump sum price. The payment will be full compensation for all survey, material, labor, equipment, tools and incidentals necessary to complete the work. Payment will be prorated and paid in equal amounts on each monthly estimate.

CATEGORY 200

Item No. 201- <u>UNCLASSIFIED EXCAVATION</u>

.01 **DESCRIPTION:** This work shall consist of all excavation and grading to the lines and grades specified in the Contract documents. All excavation on this project shall be unclassified and shall include all material regardless of type.

All suitable material from excavation operations shall be used for construction of embankments and restoration of existing grades throughout the limits of the work. Such work shall be performed in accordance with Section 204 of the MSHA Specification Booklet. The Contractor shall be responsible for providing all required testing prior to placing material. All excavation on this project shall be unclassified and shall include all material regardless of type.

.02 MATERIALS: Not applicable.

.03 CONSTRUCTION:

- A. Sections 201.01.02 through 201.03.08 of the MSHA Specification Booklet shall apply for all project grading and excavation.
- B. Moisture and compaction requirements shall conform to Section 204.03.04.
- C. The limit of Unclassified Excavation shall be one (1) foot below existing ground in fill areas and at subgrade in cut areas or as shown on plans.
- based on the actual volume in cubic yards of material removed as measured by the Engineer at the time of construction. The method of measurement and volume computation shall be the average end area method, based on actual cross sections measured, and paid for at the Contract unit price bid per cubic yard. No adjustments will be made for material swelling. The payment will be full compensation for all excavation and hauling, blasting, formation and compaction of embankments and backfills, disposing of excess and unsuitable materials, existing pavement, preparation and completion of subgrade and shoulders except as otherwise specified, serrated slopes, rounded and transition slopes and for all material, labor, equipment, tools and incidentals necessary to complete the work. Payment will not be made for excavation of any material that is used for purposes other than those designed.

Item No. 202 - CONTINGENT UNSUITABLE MATERIAL EXCAVATION

- .01 **DESCRIPTION:** This work shall consist of the removal of Unsuitable Material encountered at or below the normal limit for Unclassified Excavation as described for that item or as shown on the Plans. Unsuitable material to be removed shall be based upon the judgment of the Engineer and shall be removed to the extent directed by the Engineer. The proposed quantities include a contingent item for this work, which shall be used if so directed by the Engineer.
- .02 MATERIALS: Not applicable.

.03 CONSTRUCTION:

- A. All voids created by the removal of unsuitable material shall be backfilled with an approved Select Backfill or Common Borrow as directed by the Engineer.
- B. Prior to placing backfill in the above described area, the County will take Cross-Sections or field measurements to determine the amount of excavation and borrow required to perform this item of work.
- C. Failure on the part of the Contractor to give the County the required notice or placing backfill prior to taking of cross-sections is at his own risk and expense.
- .04 MEASUREMENT AND PAYMENT: Contingent Unsuitable Material Excavation will be measured as described in B above and paid for at the Contract Unit price bid per cubic yard. The payment shall be full compensation for all labor, materials, equipment, excavation, disposal, and incidentals necessary to complete this item of work.

Item No. 203 - REMOVAL OF EXISTING PAVEMENT, SIDEWALK OR CONCRETE

- **.01 DESCRIPTION:** This work shall consist of the full depth removal and disposal of existing pavement or sidewalk within the normal limits of construction as shown on the plans and/or as directed by the Engineer.
- .02 MATERIALS: Not applicable.

.03 CONSTRUCTION:

- A. The Contractor shall saw cut the existing pavement along the lines as shown on the plans and/or as directed by the Engineer.
- B. The Contractor shall not damage sections which are not to be removed. Damage done by the Contractor to those areas to remain in place shall be repaired or restored

at the Contractor's expense.

.04 MEASUREMENT AND PAYMENT: Removal of Existing Pavement will be measured and paid for at the Contract unit price bid per square yard. The payment will be full compensation for all labor, equipment, tools, excavation, removal, hauling, disposal, and incidentals necessary to complete the work.

CATEGORY 300

Item No. 301 - REMOVAL OF EXISTING INLET AND PIPE

- .01 **DESCRIPTION:** This work shall consist of the removal and disposal of existing inlet and pipe (any size) as shown on the plans and/or as directed by the Engineer.
- .02 MATERIALS:

Crusher Run Aggregate CR-6

MDOT SHA Standard Section 901.01

.03 CONSTRUCTION:

- A. All pipe and materials from inlet shall be disposed of at an approved disposal area.
- B. The Contractor shall comply with all trench safety and confined space entry requirements as specified in MOSH and OSHA specifications.
- C. Appropriate traffic control devices shall be in place and functional prior to commencing any work on this item.
- D. Compaction may be achieved using tamped fill methods conforming to Section 210, acceptable to the Engineer.
- .04 MEASUREMENT AND PAYMENT: Removal of Existing Structures will be not be measured for payment but will be paid for at the Contract lump sum bid. The payment will be full compensation for all labor, equipment, materials, tools, excavation; removal and disposal of existing pipes and concrete/stone inlet and backfill; and incidentals necessary to complete the work.

Item No. 302 - 18" DIAMETER HIGH DENSITY POLYETHYLENE PIPE (HDPE)

.01 DESCRIPTION: This work shall consist of furnishing and placing High Density Polyethylene Pipe (HDPE) on firm bedding to the lines and grades as shown on the plans and/or as directed by the Engineer.

.02 MATERIALS:

High Density Polyethylene Pipe

AASHTO M294, Type S or ASTM F2306

Cell Classification ASTM D3350 (435400C)

Joint Gasket ASTM F477

The pipe shall have a Plastic Pipe Institute designation and the supplier shall furnish a manufacturer's certification stating that the material in the pipe meets the above requirements.

The pipe shall be dual wall (smooth interior wall and corrugated exterior outside wall), watertight and capable of carrying the required loads.

Pipe Bedding

Crusher Run Aggregate CR-6, Section 901

.03 CONSTRUCTION:

- A. Refer to Section 303 of the SHA Specification Booklet and ASTM D2321 for work relating to proposed pipe construction.
- B. Pipe lengths and elevations shall be field verified by the Contractor and Engineer prior to installation of pipe.
- C. Pipe shall be joined using a bell and spigot soil-tight gasket joint. Bell and spigot connections shall be spun-on or welded bell and valley or saddle gasket. The gaskets shall be installed by the pipe manufacturer and free of debris when installed. A joint lubricant supplied by the manufacturer shall be used on the gasket and bell during installation.
- D. At a concrete endwall or inlet, the end of the pipe shall be in a manner that provides a secure connection. A non-shrink grout shall be used to provide a neat watertight seal between the pipe and endwall.
- E. In all areas, non-traffic, existing or proposed, no trench shall be left open during non-work hours (i.e. nights, holidays, weekends, shut downs, etc.).
- will be measured and paid for at the Contract unit price bid per linear foot. Measurement of the HDPE pipe installed in place, completed and accepted, will be from end to end of each completed pipe run (measured down the centerline of each pipe). The price bid shall include all shoring, dewatering, hauling, storing, pipe, bedding material, bed preparation, rehandling of material, any fill material, any joint connections, and all tools, labor, equipment, and incidentals necessary to complete the work.

Item No. 303 – NYLOPLAST 2 FT X 3FT CURB INLET STRUCTURE

.01 DESCRIPTION: This work shall consist of the installation of the Nyloplast 2ft X 3ft Curb inlet structure.

.02 MATERIALS:

Provided by the County:

- A. The curb inlet structure required for this contract shall be manufactured from PVC pipe stock, utilizing a thermo-molding process to reform the pipe stock to the specified configuration. The drainage pipe connection stubs shall be manufactured form PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The pipe bell spigot shall be joined to the main body of the structure. The raw material used to manufacture the pipe stock that is used to manufacture the main body and pipe stubs of the surface drainage inlets shall conform to ASTM D1784 cell class 12454.
- B. The grate, frame and hood for all curb inlet structures shall be ductile iron and shall be made specifically for each so as to provide a round bottom flange that closely matches the diameter of the PVC structure body. The grate, frame and hood shall be capable of supporting H-20 wheel loading for traffic areas. The hood section will have a solid back and be adjustable by use of three (3) locking hex head bolts. The metal used in the manufacture of the castings shall conform to ASTM A536 grade 70-50- 05 for ductile iron.

.03 CONSTRUCTION:

A. The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class 1, class 2, or class 3 material as defined in ASTM D2321. Bedding and backfill for the curb inlet structure shall be placed and compacted uniformly in accordance with ASTM D2321. The curb inlet structure body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For H-20 load rated installations, a concrete ring will be poured under the frame, grate, and hood. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to ASTM D2321 guidelines.

.04 MEASUREMENT AND PAYMENT: Nyloplast inlet structure will be measured and paid for at the Contract unit price bid per each. The price bid shall include all shoring, dewatering, hauling, storing, bedding material, bed preparation, rehandling of material, and all tools, labor, equipment, and incidentals necessary to complete the work.

Item No. 304 - <u>CONTINGENT SELECT BACKFILL USING CRUSHER RUN</u> AGGREGATE CR-6

.01 DESCRIPTION: Place selected backfill material and compact. The proposed quantities include a contingent item for the work, which shall be used if so directed by the Engineer

.02 MATERIALS:

No. 57 Aggregate Crusher Run Aggregate CR-6 MDOT SHA Standard Section 901.01 MDOT SHA Standard Section 901.01

.03 CONSTRUCTION:

- A. All voids created by the removal of unsuitable material shall be backfilled with an approved Select Backfill or Common Borrow as directed by the Engineer.
- B. Prior to placing backfill in the above described area, the County will take Cross-Sections or field measurements to determine the amount of excavation and borrow required to perform this item of work.
- C. Failure on the part of the Contractor to give the County the required notice or placing backfill prior to taking of cross-sections is at his own risk and expense.
- .04 MEASUREMENT AND PAYMENT: Contingent Unsuitable Material Excavation will be measured as described in B above and paid for at the Contract Unit price bid per cubic yard. The payment shall be full compensation for all labor, materials, equipment, excavation, disposal, and incidentals necessary to complete this item of work.

Item No. 305 - <u>6" DIAMETER DUAL WALL PERFORATED STORM DRAINAGE PIPE</u> Item No. 306 - 6" DIAMETER DUAL WALL STORM DRAINAGE PIPE

Item No. 307 - 6" DUCTILE IRON DROP IN DRAINAGE GRATE

.01 **DESCRIPTION:** This work shall consist of furnishing and placing 6" DIA Dual wall (perforated) storm drainage pipe on firm bedding to the lines and grades as shown on the plans and/or as directed by the Engineer. This also includes placement of 6" Ductile Iron Drop in Drainage Grates and any connections necessary to the storm drainage pipes as shown on the plans and/or as directed by the Engineer.

.02 MATERIALS.

No. 57 Aggregate

Portland Cement Concrete Mix No 2

Pipe

MDOT SHA Standard Section 901.01

MDOT SHA Standard Section 902.10

MDOT SHA Standard Section 905

MDOT SHA Standard Section 919

Securing Pins of Staples

MDOT SHA Standard Section 919

MDOT SHA Standard Section 919

MDOT SHA Standard Section 909.04

Gratings and Steps

.03 CONSTRUCTION.

Coordinate the field installation of traffic barrier, signs, lighting, and landscaping with the Engineer to avoid any damage to the underdrains, subgrade drains, or outlet pipes. Correct any damage to the underdrains, subgrade drains, or outlet pipes.

- **03.01 Excavation.** Excavate trenches to the specified dimensions and grade. Ensure that the sides and bottom of trenches are smooth and uniform to prevent tearing of the geotextile when backfilling. For excavated material, refer to 402.03.01.
- **03.02** Geotextile. Place geotextile when specified. Place it with the machine direction parallel to the longitudinal direction of the trench. Ensure that it is of sufficient width to completely enclose the underdrain trench, including specified overlaps.

Place the geotextile tightly against the underdrain trench to eliminate voids beneath the geotextile. Avoid wrinkles and folds. Maintain at least a 24 in. overlap at joint ends or breaks. Pin joints and overlaps to securely hold the geotextile in place until placement of the cover material. Pin longitudinal joints, overlaps, and edges no more than 50 ft on center.

Replace or repair damaged geotextile.

- **03.03 Pipe Placement.** Slope the underdrain pipe to maintain positive drainage toward the outlet. Place perforated pipes with the perforations down and arranged symmetrically about the vertical axis. Plug the ends of trunk lines, wyes, tees, or ells as directed. Make joints and connections in accordance with the manufacturer's recommendations.
- **03.04 Outlets.** Outlet the underdrains into drainage structures whenever possible. Outlets that empty into a drainage structure shall be at least 9 in. above the normal flow line in the structure and be constructed of normal underdrain outlet pipe. Maintain at least 18 in. of cover over the pipe. Rodent screens are not required when an underdrain outfalls into a drainage structure.

When outfalled into a slope or ditch, slope the outlet pipe at least three percent. Use Type 'S' (smooth interior wall) polyethylene (PE), or smooth-wall polyvinyl chloride profile wall (PPWP) pipe according to Section 905. Construct a sloped concrete headwall with a removable rodent screen at the end of the outlet pipe. Place a flexible delineator post on the slope headwall.

- **03.05** Backfill. Backfill trenches to the specified dimensions and grades. Backfill underdrain and outlet trenches as the work progresses.
- (a) Underdrain. Lightly tamp aggregate backfill, and screed or rake to provide proper

thickness and grade.

(b) Outlets. Backfill according to Section 210.

Replace geotextile, underdrain pipe, and outlet pipe damaged by excessive tamping. Cover longitudinal underdrain with the next pavement layer within 72 hours. Cover all other underdrain within 48 hours. Protect underdrain, including the geotextile, from contamination by soil fines. Replace or repair clogged geotextile and any underdrain trench that becomes contaminated.

03.07 Cleaning Existing Outlets. Clean existing underdrain pipe outlets and dispose of the material. Remove and replace existing rodent screens. Where there are no screens, install them as directed.

03.08 Permanent Subgrade Drains. Construct permanent subgrade drains when specified. Subgrade drains consist of trenches excavated through the shoulder and roadside grading from the edges of the road pavement to a side ditch, embankment slope, or other approved outlet and filled with aggregate. Locate subgrade drains at low points, and space them at 25 ft intervals for a distance of 125 ft on each side of the low point, then at intervals of 100 ft to within 125 ft of the high point. Before placing the road pavement and before completion of the shoulder paving or final roadside grading areas, cut and shape trenches to a width of 24 in. Place No. 57 aggregate to the underside of the shoulder material and to the underside of the specified topsoil thickness in the roadside grading area. The portion of the trench within the roadside grading area shall be completely wrapped in geotextile. The bottom of the trench at the end adjacent to the road pavement shall be at least 2 in. below the subgrade.

.04 MEASUREMENT AND PAYMENT

The payment will be full compensation for all excavation, pipe, coupling bands, aggregate, backfill, geotextile, and all material, labor, equipment, tools, and incidentals necessary to complete the work. Measurement for storm drainage pipe will be at the contract price of per linear foot. The Measurement of the Storm Drainage Grates will be per each item. All items associated with the installation of these items are incidental to their respective pay item.

Item No. 308 — EROSION AND SEDIMENT CONTROL

308.01 DESCRIPTION. Install and maintain erosion and sediment control (ESC) measures throughout the life of the Contract to control erosion and to minimize the release of sediments into adjacent areas and nearby rivers, streams, lakes, reservoirs, bays, and coastal waters. Implement the approved ESC plan and approved modifications. Identify staging and stockpile areas, and apply ESC measures as approved.

308.01.01 Erosion and Sediment Control Manager (ESCM). Designate an Erosion and Sediment Control Manager (ESCM) to implement the ESC plan and to oversee the installation, maintenance, and inspection of the ESC measures.

308.01.02 Severe Weather Event. A severe weather event is defined as a weather event in which measured rainfall exceeds 3 in. in a continuous 24-hr period based upon rainfall data obtained from the nearest official National Weather Service (NWS) gauge station in proximity to the project site.

308.01.03 Quality Assurance (QA) Toolkit. The Quality Assurance (QA) Toolkit is a web-based system that contains project and permit information, a history of ESC inspection reports, and is used to submit, track and receive approvals for modifications to the ESC plans.

308.02 MATERIALS.

Riprap	901.03
4 to 7 in. Stone	901.05
Asphalt Mixes	904
Pipe	905
Gabion Wire	906
Steel Plate	909.02
Welding Material	909.03
Fence Fabric for Super Silt Fence	914.01.01
Geotextile, Woven and Non-Woven	919, Class E
Geotextile, Woven Slit Film	919, Class F
Soil Amendments	920.02
Compost	920.02.05, Type C
Fertilizer	920.03
Mulch	920.04
Soil Stabilization Matting	920.05
Seed and Turfgrass Sod	920.06
Straw Bales	921.08
2 to 3 in. Stone	M 43, No. 2
3/4 to 1-1/2 in. Stone	M 43, No. 4
No. 57 Stone	M 43, No. 57

308.02.01 Filter Log Casing. Produced from 5 mil thick continuous high-density polyethylene or polypropylene, woven into a tubular mesh netting material with openings in the knitted mesh of 1/8 in. to 3/8 in.

308.03 CONSTRUCTION.

308.03.01 Preliminary. Prior to beginning any construction activity, complete the following.

a) Attend a Pre-Construction Erosion and Sediment Control Meeting with the Engineer and the Regional Environmental Coordinator (REC) to discuss ESC schedule, responsibilities, and modification procedures.

- b) Submit the location of the nearest official National Weather Service (NWS) gauge station. Alternatively, a gauge station may be installed. Alternate gauge station proposals must be acceptable to and approved by the Engineer and the REC. Include detailed information regarding the type, location, accuracy, methodology, and security of the rain gauge in the proposal for consideration.
- c) Demarcate all wetlands, wetland buffers, floodplains, waters of the United States (WUS), tree protection areas, and the Limit of Disturbance (LOD) per Section 107. Ensure the demarcations are inspected and approved.

308.03.02 Contractor Responsibilities. Prior to beginning any earth disturbing activity, complete the following.

- (a) Install ESC measures per 308.03.03. Ensure that controls are inspected and approved.
- (c) Ensure that all stormwater runoff from disturbed areas is directed to installed ESC measures.
- (d) Do not remove any ESC measure without the approval from the Regional Environmental Coordinator (REC).
- (e) Ensure that dewatering practices do not cause any visible changes to stream clarity.

308.03.02 Standards and Specifications. Construct and maintain in good working order all ESC measures as specified and in accordance with the latest versions of the following.

- (a) Maryland Department of the Environment (MDE) ESC and stormwater management (SWM) regulations, including but not limited to the pertinent sections of the Annotated Code of Maryland and the Code of Maryland Regulations (COMAR).
- **(b)** MDE "Maryland Standards and Specifications for Soil Erosion and Sediment Control."
- (c) MDE "Maryland Stormwater Design Manual, Volumes I and II."
- (d) SHA Field Guide for Erosion and Sediment Control.

Keep a copy of the MDE "Maryland Standards and Specifications for Soil Erosion and Sediment Control" on the project site throughout the duration of the Contract.

308.03.03 Erosion and Sediment Control Plan and Sequence of Construction. Implement the approved ESC plan and Sequence of Construction. All changes to the approved ESC plan or Sequence of Construction require Administration approval. Submit modifications to the approved ESC plan and Sequence of Construction to the Administration using the QA Toolkit at least 14 days prior to the desired time to implement the change. Ensure that all changes are approved before

implementing the change.

Submit modifications overlaid on approved plans. Ensure submittals are full-size, reasonably legible, clear, and easily understood; use the standard symbology and names of ESC measures in the Contract Documents; and follow the design requirements specified in 308.03.02 (a) through 308.03.02 (d).

When requested by the Administration, obtain the services of a Professional Engineer, licensed in the State of Maryland, to develop the ESC modification submittals.

308.03.04 Erosion and Sediment Control Manager (ESCM). At least 10 days prior to beginning any work, assign and submit the name and credentials for approval an Erosion and Sediment Control Manager (ESCM). Ensure that the ESCM and the superintendent have successfully completed the MDE "Responsible Personnel Certification Training for Erosion and Sediment Control" and the Administration's "Erosion and Sediment Control Certification Training for Contractors and Inspectors." The certifications must be current for the entire duration of the Contract. If the certification expires or is revoked for either person, immediately replace the person with an appropriately qualified and certified person acceptable to the Administration. No work may proceed without the appropriate certified personnel in place. Any substitutes for the ESCM will be subject to approval. The Administration reserves the right to require a reassignment of the ESCM duties to another individual for any reason.

The ESCM is primarily responsible for and has the authority to implement the approved ESC plans, schedules, and methods of operation for both on-site and off-site activities. The ESCM's duties and responsibilities include the following.

- (a) Attendance at the Pre-Construction ESC Field Meeting and periodic field meetings to evaluate the effectiveness of measures already installed and to plan for the implementation of necessary controls proposed for succeeding areas of soil disturbance.
- (b) Daily inspections of the ESC measures to ensure that all measures are always in place and to develop a list of activities and schedules to ensure compliance with the Contract Documents.
- (c) Maintenance of a log of the daily inspections in 308.03.04 (b), including actions taken, and submit a written report at the end of each work day.
- (d) With the Engineer, conducting post-storm inspections both during and beyond normal working hours and submitting a written report.
- (e) Having the authority to mobilize crews to make immediate repairs to the ESC measures during working and non-working hours.
- (f) When requested, accompanying the Engineer during REC inspections and inspections made by regulatory agencies.

(g) Coordinating with the Engineer to ensure that all deficiencies are immediately corrected and that the project always complies with the approved ESC plan.

308.03.05 Quality Assurance Ratings. The REC will routinely inspect the Project Site to ensure compliance with the approved Erosion and Sediment Control (ESC) and Stormwater Management (SWM) Plans. The REC will assign scores based on these inspections. The scores will be reported on Form No. OOC61/QA-1: Erosion/Sediment Control and Stormwater Management Field Investigation Report. The REC will use the scores to determine the following ratings.

Quality Assurance Ratings

SCORE	RATING
≥90.0	A
80.0 - 89.9	В
70.0 - 79.9	С
60.0 - 69.9	D
< 60.0	F

- (a) Rating A. The Project complies with the approved plan. Minor corrective actions may be necessary.
- **(b)** Rating B. The Project generally complies with the approved plan; however, corrective actions are necessary.
- (c) Rating C. The Project generally complies with the approved plan; however, deficiencies noted require corrective action within 72 hours and shutdown conditions may arise quickly. The Project Site will be re-inspected within 72 hours and routine inspection frequency may increase.
- (d) Rating D. The Project is in non-compliance. The Administration will shut down earthwork operations. Focus work efforts on correcting ESC deficiencies. The Project Site will be reinspected within 72 hours. Complete all required corrective actions within the 72-hour period for the Project to be upgraded to a 'B' rating. Failure to upgrade the Project from a 'D' rating to a 'B' or better rating will result in the Project being rated an 'F'. Liquidated damages will be imposed for each day the Project has a 'D' rating and inspection frequency may increase.
- (e) Rating F. The Project is in non-compliance. An 'F' rating indicates one or more of the following.
 - (1) A score of less than 60.

- (2) Required permits and approvals have not been obtained.
- (3) The approved LOD has been exceeded.
- (4) Wetlands, wetland buffers, waters of the US (WUS), floodplains, and/or tree preservation areas have been encroached upon without prior necessary and adequate approval.
- (5) The work is not proceeding per the approved ESC plan, Sequence of Construction, and/or ESC schedule.

When a project is in non-compliance, the Administration will shut down the entire project until the project receives a 'B' or better rating. Focus all work efforts on correcting ESC deficiencies. Liquidated damages will be imposed for each day the Project has an 'F' rating and inspection frequency may increase

308.03.06 Shutdowns. If a Project is rated 'C', correct all deficiencies within 72 hours. The Project Site will be re-inspected at the end of the 72-hour period. If the deficiencies have not been satisfactorily corrected, the Project will be rated 'D' and all earthwork operations will be shut down.

If consecutive 'C' ratings are received, expect notification that the overall effort appears marginal and that a shutdown of all earthwork operations is imminent if ESC efforts do not substantially improve within 72 hours. The Project Site will be re-inspected at the end of the 72-hour period. If the deficiencies are not satisfactorily corrected, or if other deficiencies are identified, and the Project receives less than a 'B' rating, a 'D' rating will be given and all earthwork operations will be shut down.

If the deficiencies are not corrected in 72 hours, an 'F' rating will be given, and the entire Project will be shut down. When degradation to a regulatorily protected resource, occurs or has already occurred, or if corrective measures remain uncompleted after the 72-hour period, the Administration may elect to have the corrective actions performed by another contractor or by Administration personnel.

The second time that a Project is rated 'F', the ESC Training Certificate issued by the Administration will be immediately revoked from the superintendent and the ESCM for at least six-months and until successful completion of the Administration's Erosion and Sediment Control Certification Program. Immediately replace the superintendent and ESCM and focus all work efforts on correcting ESC deficiencies.

308.03.07 Severe Weather Event. Maintain, repair, or replace any damaged ESC measures within 72 hours of a severe weather event occurrence.

Refer to GP-7.12 for unforeseen conditions.

308.03.08 Pre-Construction Conference. Present a general overview at the Pre-Construction Conference of how ESC measures shall be implemented.

308.03.09 Initial Controls. Install all perimeter controls, such as silt fence, super silt fence, earth dikes, sediment traps, and sediment basins, prior to grubbing operations.

If it is determined that the clearing area has been disturbed and a potential for sediment runoff or erosion exists, install the controls at that time as directed.

308.03.10 Maintenance. Always maintain ESC measures throughout the life of the Contract, whether active or inactive. Maintain access to all ESC measures until they are removed.

Inspect ESC measures immediately after storm events. Clean out as necessary and repair or replace all damaged ESC measures as the first order of business after the storm event.

308.03.11 Stabilization Requirements. Following initial soil disturbance, complete permanent or temporary stabilization within the following.

- (a) Three calendar days for the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and
- **(b)** Seven calendar days as to all other disturbed or graded areas on the Project not under active grading.
- (c) Areas between temporary berms, except median areas, need not be stabilized during incremental stabilization.
- (d) Sensitive areas may require less than three- or seven-day stabilization. Maintain as necessary to ensure continued stabilization.
- (e) Track slopes within two days of establishment per 701.03.
- **308.03.12 Waste Areas.** From the appropriate authority and while coordinating with the Engineer, obtain approval for off-site waste areas not delineated in the Contract Documents. Protect waste areas and stockpile areas with ESC measures per 308.03.11 (a) and (b).
- **308.03.13 MDE Inspections.** Work is subject to field inspections by MDE. If non-compliance is determined, the MDE Water Management Administration (WMA) inspector will immediately notify the Engineer of needed corrective actions. Corrective actions may require a shutdown of construction activities until the non-compliance is satisfactorily corrected. Focus all efforts on correcting ESC deficiencies found during MDE inspections.

308.03.14 Stabilized Construction Entrance (SCE). Construct stabilized construction entrances (SCEs) as specified.

Rehabilitate SCEs with periodic top dressing using additional aggregate, replacing the drainage pipe beneath the SCE if one was installed, or making other repairs to the SCE and sediment trapping devices.

When necessary, place wash racks to prevent tracking of mud and sediment from disturbed areas onto roadways or other areas.

308.03.15 Side or Berm Ditches and Culverts. Construct side ditches in fill areas and berm ditches in cut areas. Construction includes the installation of lining. Protect linings from sediment deposits. Place silt fence along the banks of existing streams as specified prior to placing any culverts. To help avoid sedimentation during construction, divert the streams around the location of the culvert until the proposed culvert and channel are stabilized.

308.03.16 Erosion and Sediment Control Original Excavation. Excavate, construct embankments, grade, and backfill for sediment traps, sediment basins, and other ESC measures.

Ensure that excavation and embankments meet the dimensions for each ESC measure as specified. Stockpile excavated material and use for backfill when the ESC measures are removed.

308.03.17 Erosion and Sediment Control Cleanout Excavation. Remove accumulated sediment from ESC measures and other areas during routine maintenance of ESC measures and as directed.

Clean out sediment traps as necessary to ensure that at least 50 percent of the wet storage capacity is always available. Ensure that riprap outlet sediment traps have at least 75 percent of the wet storage capacity always available. Remove sediment from silt fence and super silt fence when sediment reaches 25% of the height of the fence and from stone check dams when sediment reaches 50 percent of the height of the dams. Remove sediment from stone outlet structures when sediment is within 6 in, of the weir crest.

Place removed sediment in an approved waste site. Material stored on-site may be reused once it is dried and if it meets embankment requirements unless otherwise specified.

308.03.18 Heavy Use Areas. Locate and size heavy use areas used for activities such as staging and storage. From the appropriate authority and while coordinating with the Engineer, obtain approval for off-site heavy use areas not delineated in the Contract Documents. Obtain any necessary permits or modifications for non-specified heavy use areas.

308.03.19 Stockpile Areas. Locate and size stockpile areas. From the appropriate authority and while coordinating with the Engineer, obtain approval for off-site stockpile areas not delineated in the Contract Documents. Obtain any necessary permits or modifications for non-specified stockpile

areas.

- **308.03.20** Earth Dike. Do not use sod as stabilization unless specifically approved.
- **308.03.21 Temporary Swale.** Do not use sod as stabilization unless specifically approved.
- **308.03.22** Perimeter Dike Swale. Do not use sod as stabilization unless specifically approved.
- **308.03.23** Pipe Slope Drain. When slope drains are placed on grade, construct interceptor berms to direct flow into the flared end section.
- **308.03.24 Stone Check Dam.** Construct using Class 0 riprap.
- **308.03.25 Riprap Inflow Protection.** Construct per Section 312.
- **308.03.26 Gabion Inflow Protection.** Construct per Section 313.
- **308.03.27 Rock Outlet Protection.** Construct per Section 312.
- 308.03.28 Gabion Outlet Protection. Construct per Section 313.
- **308.03.29 Plunge Pool.** Construct per Section 312.
- **308.03.30 Super Silt Fence.** Construct as specified with the following exception:
 - Run a 7-gauge top tension wire continuously between posts.
- **308.03.31 Filter Berms.** Construct berms of wood chips and up to 50 percent compost.
- **308.03.32 Filter Log.** Use compost for the filter media. Install filter logs parallel to contours and perpendicular to sheet flow from disturbed areas.

Where a connection is needed, there are two options based on whether the filter log is being filled on-site or offsite. Overlap prefilled filter logs by 1-ft minimum and staked where they connect. Sleeve filter log casings that are filled onsite. After one filter log section is filled and tied off (knotted), pull the second filter log section over the first (2 ft) and "sleeve," creating an overlap.

Remove sediment when it has accumulated to a depth of half the exposed height of the filter log. Replace the filter log if torn or damaged. Reinstall the filter log if undermining or dislodging occurs.

Drive stakes perpendicular to water flow at a maximum of 8 ft intervals. Restrict vehicular and construction traffic from crossing filter logs.

Upon stabilization of the drainage area to the filter log and with approval, remove stakes. The filter log may be left in place and vegetated, or removed. In the former case, cut the filter log casing open, remove all non-biodegradable material, spread the compost as a soil supplement, and seed as specified.

308.03.33 Filter Bag. Determine the bag dimensions necessary to provide the required storage volume, determine pump and hose sizes, and install.

308.03.34 Straw Bales. Embed the bales to a depth of at least 4 in., and anchor in place with two No. 4 reinforcement bars, steel pickets, or 2 x 2 in. wood stakes, 36 in. length. Locate the anchoring devices at approximate third points along the longitudinal center line of each bale, driven through the bale and into the ground to a depth of 12 to 18 in.

308.03.35 Stone Outlet Structure. Stabilize the area immediately after removal of the structure.

308.03.36 Temporary Gabion Outlet Structure. As specified in Section 313. Grade and stabilize the area beneath the structure, immediately upon removal.

308.03.37 Portable Sediment Tank. Determine the dimensions necessary to provide the required storage volume.

308.03.38 Dewatering. Dewater only when conditions allow. Ensure that dewatering activities do not cause any visible change to stream clarity. If a sediment plume is visible, immediately cease the dewatering activity. Direct any pumping activity, including dewatering sediment traps and basins, through an approved dewatering device.

308.03.39 Sediment Traps. Excavate sediment traps to the specified length, width, and depth.

At locations where filtration facilities are specified, prevent runoff from adjacent unstabilized areas from entering the locations. Ensure that bottom elevations of sediment control devices are at least 2 ft higher than the finished grade bottom elevation. When converting a sediment trap to a permanent stormwater facility, remove and dispose of all accumulated sediment prior to final grading.

When grading and paving operations are complete and vegetation is established on the slopes and channels to the satisfaction of the Engineer, refill the sediment traps with suitable materials, shape, and permanently stabilize as specified.

308.03.40 Stone for Sediment Control. Place No. 57 aggregate, 3/4 to 1-1/2 in. stone, 2 to 3 in. stone, 4 to 7 in. stone, and riprap as specified.

308.03.41 Maintenance of Stream Flow. Maintain the continuous flow of waterways during operations as specified and as directed.

- (a) Implement the approved ESC plan. Any changes to the approved ESC plan require approval from the appropriate regulatory authorities.
- **(b)** A different plan for maintenance of stream flow may be submitted, but approval from the Engineer and the appropriate approval authority is required.
- (c) If the stream diversion system as shown is not capable of blocking the flow of water through the soil beneath the system, design and provide an effective means of diverting the water away from the designated areas.
- (d) Ensure that all excavation performed within the diverted stream is performed in a dewatered condition, which may require additional pumps, sheeting, shoring, cofferdams, etc.
- (e) If the proposed system does not perform satisfactorily or additional material and equipment is required to dewater the site and excavated areas, adjust the stream diversion system and obtain approvals from the appropriate approving authorities.
- (f) Securely anchor the stream diversion system in place to prevent movement during high water events. Submit the proposed method of anchoring for approval. Do not install anchors beyond the limits of disturbance (LODs) or infringe on the channel area available for stream flow.
- **(g)** Upon completion of construction and when temporary drainage devices are no longer necessary, with the approval of the REC and the Engineer, remove and dispose of the devices in an acceptable manner.
- **308.03.42 Sandbags.** Furnish and install sandbags to contain or divert water and sediment as specified and as directed.
- **308.03.43 Removal of Controls.** Do not remove ESC measures until all previously disturbed areas are vegetated with at least a 3-in. growth of grass, and removal of the ESC measures is approved by the REC and the Engineer. Immediately stabilize those areas where ESC measures are removed as specified and as directed.
- **308.04 MEASUREMENT AND PAYMENT.** Erosion and Sediment control will not be measured for payment but will be paid for the Contract lump sum bid. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work. The maintenance, repair, removal and resetting, and final removal of ESC measures will not be measured, but the cost will be incidental to the Contract price.

END OF SECTION 300

PROJECT NO. 28-241

(WASHINGTON COUNTY EMPLOYEE PARKING FACILITY)

CATEGORY 400

Item No. 401 - REMOVAL OF EXISTING TELEPHONE POLE

- .01 **DESCRIPTION:** This work shall consist of the removal and disposal of existing telephone pole as shown on the plans and/or as directed by the Engineer.
- .02 MATERIALS:

No. 57 Aggregate

MDOT SHA Standard Section 901.01

.03 CONSTRUCTION:

- A. All pipe and materials from inlet shall be disposed of at an approved disposal area.
- B. The Contractor shall comply with all trench safety and confined space entry requirements as specified in MOSH and OSHA specifications.
- C. Appropriate traffic control devices shall be in place and functional prior to commencing any work on this item.
- D. Compaction may be achieved using tamped fill methods conforming to Section 210, acceptable to the Engineer.
- .04 MEASUREMENT AND PAYMENT: Removal of Existing Telephone Pole will be not be measured for payment but will be paid for at the Contract lump sum bid. The payment will be full compensation for all labor, equipment, materials, tools, excavation; removal and disposal of existing pole and backfill; and incidentals necessary to complete the work.

Item No. 402 - REMOVAL OF EXISTING WATER METER TILE

- **DESCRIPTION:** This work shall consist of the removal and disposal of existing water meter tile as shown on the plans and/or as directed by the Engineer.
- .02 MATERIALS:

No. 57 Aggregate

MDOT SHA Standard Section 901.01

.03 CONSTRUCTION:

A. All pipe and materials from inlet shall be disposed of at an approved disposal area.

- B. The Contractor shall comply with all trench safety and confined space entry requirements as specified in MOSH and OSHA specifications.
- C. Appropriate traffic control devices shall be in place and functional prior to commencing any work on this item.
- D. Compaction may be achieved using tamped fill methods conforming to Section 210, acceptable to the Engineer.
- .04 MEASUREMENT AND PAYMENT: Removal of Existing water meter tile will be not be measured for payment but will be paid for at the Contract lump sum bid. The payment will be full compensation for all labor, equipment, materials, tools, excavation; removal and disposal of water meter tile and backfill; and incidentals necessary to complete the work.

PROJECT NO. 28-241

(WASHINGTON COUNTY EMPLOYEE PARKING FACILITY)

CATEGORY 500

Item No. 501 - 6" GRADED AGGREGATE BASE COURSE

.01 DESCRIPTION: This item of work shall consist of furnishing and placing graded aggregate to the lines, grades, width and depth as shown on the plans, details and/or as directed by the Engineer.

.02 MATERIALS:

Graded Aggregate Base Course

MSHA Section 901, 915.04

Portland Cement

Emulsified Asphalt

Water

MSHA Section 902, Type I or IA

MSHA Section 904.05

MSHA Section 921.01

Moisture & Dust Control Agents

MSHA Section 921.02

.03 CONSTRUCTION:

- A. The Contractor shall protect the subgrade and base against damage from all causes. Any part of the subgrade or base that is damaged shall be repaired or replaced by and at the Contractor's expense, in a manner acceptable to the Engineer.
- B. All equipment, including the production plant and on-site equipment, shall be subject to approval by the Engineer. The plant shall be ready for inspection by the Engineer at least 48 hours prior to the start of construction operations.
- C. Mixed base materials shall be handled and transported in a manner that minimizes segregation and loss of moisture. All loads shall be covered in conformance with state laws.
- D. The base material shall be uniformly spread without segregating the coarse and fine particles, in layers of approximately equal thickness, to provide the specified depth.
- E. The surface of the base material shall be shaped to the required lines, grades and cross-section shown on the plans.
- F. Refer to Section 501.03 of the MSHA Specification Booklet for additional conditions.
- .04 MEASUREMENT AND PAYMENT: Graded Aggregate Base Course will be measured and paid for at the Contract unit price bid per square yard. The payment will be full compensation for all aggregate, furnishing, hauling, placing, grading, materials, labor,

equipment, tools and incidentals necessary to complete the work.

Item No. 502 - <u>HOT MIX ASPHALT SUPERPAVE 9.5mm (PG 64-22)</u> Item No. 503 - HOT MIX ASPHALT SUPERPAVE 19.0mm (PG 64-22)

.01 **DESCRIPTION:** This work shall consist of furnishing and installing Hot Mix Asphalt (HMA) Superpave courses as shown herein and/or as directed by the Engineer. HMA Superpave courses shall consist of crushed stone, crushed slag, or crushed gravel and fine aggregate, slag or stone screening or a combination thereof combined with asphalt cement. The Engineer will permit the use of Superpave courses containing RAP material in the specified mixes. This material must meet state requirements. Contractor shall provide maintenance of traffic if required.

.02 MATERIALS:

- A. Hot Mix Asphalt Superpave Mixes shall meet the requirements of <u>Standard</u> <u>Specification for SUPERPAVE Volumetric Mix Design, AASHTO Designations MP2-99</u>, and be subject to approval by the engineer.
- B. The Contractor shall submit a certificate of analysis showing conformance with Performance Graded Asphalt Binder Specification, MP1 for the following mixes:

Mix	Binder
HMA Superpave 9.5 mm	PG 64-22
HMA Superpave 12.5 mm	PG 70-22
HMA Superpave 19.0 mm	PG 64-22
HMA Superpave 25.0 mm	PG 64-22

(Job mix formulas will be required for the above mixes prior to placing)

- C. Mixes shall be designed for an Equivalent Single Axle Load (ESAL) range of 0.3 million to < 3.0 million ESAL's (compaction level 2) and a seven (7) Day Average Design Air Temperature < 39°C.
- D. The allowable percentage of recycled asphalt pavement (RAP) and its suitability for use shall be in conformance with MSMT 412. The allowable amount of RAP in the specified mixes shall not exceed 15%. When using 15% or less of RAP, binder viscosity adjustments are not required. Documentation of RAP stockpile quality and traceability shall be submitted to the Engineer for an approval prior to use.
- E. Crushed glass and roofing shingles shall not be used in the Superpave mixes.

.03 CONSTRUCTION:

- A. Prior to placing Superpave, the Contractor, Engineer, Inspector, and Paving Foreman shall hold a weekly meeting for the purpose of the Contractor outlining his schedule of paving.
- B. The Contractor shall construct the final riding surface to tie into the existing surface by an approved method, which shall include the cutting or grinding of a notch into the pavement. In addition to notching, the Contractor shall achieve a smooth transition from the new asphalt concrete overlay to the existing pavement as a standard industry practice, and with the approval of the Engineer. The material shall be of a type to insure that raveling will not occur. All costs for constructing tie-ins in the asphalt concrete overlay shall be considered incidental and included in the price bid per ton for Superpave courses.
- C. The Contractor shall provide a certification from SHA for "Standard Practice for Certifying Supplier for Performance Graded Asphalt Binder (AASHTO PP-26)" to the Washington County Engineer.
- D. Contractor shall provide details of asphalt plant, list of equipment, trained technicians, and SHA Certified Laboratory details, which will be engaged on this project. This certification shall be submitted along with the bid proposal for evaluation/approval. The Contractor shall also submit the approved SHA mix design to the Engineer prior to the commencement of paving operations.
- E. All construction shall be done in accordance with MSHA, Section 504.03. However, for testing purposes, the nuclear/core method shall be utilized with a minimum of four nuclear density tests required. The Contractor shall comply with these testing standards established for the quality control, and must submit the test results to the Owner for review within 24 hours after they are received. The Owner reserves the right to stop the paving operation and ask for corrections if the test results do not meet the Specification Standards. The Engineer may change the testing frequency as he deems necessary.

The Contractor shall also be responsible for all material testing (laboratory and field) on Superpave, as required by the applicable documents from SHA, AASHTO, and/or as directed by the Engineer. All documentation, including the Compaction Test Reports, shall be given to the Owner's Representative at the end of each working day. Reports shall specify road names and termini. Three core drill samples shall be taken by the Contractor for each lot, and will be required on the Superpave as directed by the Engineer, for quality control purposes. Contractor shall be responsible for any delay caused by the laboratory, which may affect his work performance on the project. If all or any part of "in-place"

material does not meet specification/ mix design, the Contractor shall repair or replace at his own expense.

- F. The Contractor shall protect the pavement against damage from all causes associated with his construction operations. Any part of the pavement that is damaged shall be repaired or replaced by and at the expense of the Contractor.
- G. Where Superpave courses are placed at a depth of 1 in. (25 mm) or less, the material shall be tested by nuclear density gauge when tested as specified in AASHTO T-238.
- H. The Contractor, at the Engineer's request, shall permit the County's representative to obtain Superpave samples as material passes from the paver during application. Samples will be obtained by the shovel method.
- J. The Owner may request that the Contractor provide additional random samples for testing during Superpave placement for each project band. If additional testing is required, the Contractor shall perform such tests as deemed necessary at no cost to the Owner.
- K. Certified test results of density achieved shall be submitted by the paving contractor or his representative to the Washington County Engineer within forty-eight (48) hours after placement of asphalt.
- L. At anytime during the period of the contract, the Engineer may increase, delete, or substitute Superpave tonnage listed herein at his discretion.

.04 MEASUREMENT AND PAYMENT:

- A. Delete Section 504.04 of the MSHA Specifications in its entirety and insert the following.
- B. Superpave Hot Mix Asphalt pavements will be measured and paid for at the Contract unit price bid per ton for the respective types of Superpave. The payment will be full compensation for furnishing, hauling, placing, field and laboratory testing, tack coat, labor, temporary traffic control, equipment, tools and incidentals necessary to complete the work.
- C. There will be no adjustments made the Contract unit price per ton, due to fluctuation in purchase price of asphalt cement or for any other reason for this item.

D. Superpave shall be compacted to an in-place density of 92.0 to 97.0 percent of the maximum density. If the Contractor obtains 92.0 to 97.0 percent densities, payment will be made at 100% of the Contract unit price bid per ton for the material at that density. Likewise, densities from 91.9 to 90.0 percent will be paid for at 93% of the Contract unit price bid per ton for the material at that density. In accordance with GP-5.02, all densities falling below 89.9 percent shall either be milled out and replaced, or left in place at the Engineer's discretion. Replacement material successfully placed will be paid for at original depth and/or tonnage of initial placement. Newly placed material requiring replacement and the grinding out thereof shall be at the Contractor's expense.

Item No. 504 - <u>SAW CUTTING</u>

.01 DESCRIPTION: This work shall consist of saw cutting asphalt pavement at the locations shown on the plans and/or as directed by the Engineer.

.02 MATERIALS:

Tack Coat MSHA Section 904.03, 504.03.04

Joint Sealer MSHA Section 911

.03 CONSTRUCTION:

- A. Saw cuts shall occur at all locations where the new and old surfaces meet to provide a continuous bond.
- B. Prior to placing new pavement, the entire face of existing pavement shall be coated with tack coat.
- C. After new pavement has been placed, all joints shall be filled with approved joint sealer.
- D. Appropriate traffic control devices shall be in place and functional prior to commencing any work on this item.
- .04 MEASUREMENT AND PAYMENT: Saw Cutting will be measured and paid for at the Contract unit price bid per linear foot. The price bid shall include all labor, equipment, tack coat, joint sealer, milling at tie-in points, and incidentals necessary to complete the work.

Item No. 505 –PAVEMENT MARKINGS

.01 **DESCRIPTION:** This work shall consist of applying a nontoxic lead free waterborne

pavement marking paint to pavement surfaces as specified in the Contract Documents or as directed by the Engineer.

.02 MATERIALS:

Paint is a nontoxic lead free waterborne pavement marking and is a non-durable material. All Paint Pavement Marking material shall be selected from the Maryland State Highway Qualified Products List.

.03 CONSTRUCTION:

- A. Adhere to Section 549.03 of the MSHA Specification Booklet
- .04 MEASUREMENT AND PAYMENT: All Pavement markings shall be measured and paid for at the Contract unit price per linear foot applied. Measurement will be made only along the centerline of actual painted line (excluding skips or gaps). The payment will be full compensation for furnishing and applying the pavement marking (line markings, letters, numbers, arrows and symbols) will be made under the pertinent pavement markings items. Quality control will not be measured but the cost will be incidental to the pertinent items specified.

Corrective actions for markings unsatisfactorily installed as determined by the Engineer or that fail during the observation period, shall be at no additional cost (including Maintenance of Traffic) to the County.

(WASHINGTON COUNTY EMPLOYEE PARKING FACILITY)

CATEGORY 600

Item No. 601 – <u>CONCRETE CURB AND GUTTER</u>

.01 DESCRIPTION: Refer to Section 602.01 of the MDOT SHA Standard Specifications.

.02 MATERIALS: Refer to Section 602.02 of the MDOT SHA Standard Specifications.

.03 CONSTRUCTION: Refer to MDOT SHA Standard Specifications Section 602.03 and the following:

A. The Contractor will be required to provide as a minimum, test for slump, air content, mix temperature and four (4) cylinders per pour for laboratory testing including delivery to the County approved testing laboratory. Test results shall be provided to the County with copies of all test results provided to the Contractor. Testing and acceptance parameters shall be in accordance with MDOT SHA Standard Supplemental Specifications Section 902, with the exception that the Contractor shall provide and pay for an approved Field Technician to perform the field sampling and testing. Cost associated with field sampling and testing of concrete shall be at the expense of the Contractor.

.04 MEASUREMENT AND PAYMENT: Refer to MDOT SHA Standard Specifications Section 602.04 and the following:

A. Casting of cylinders, testing and sampling, delivery to the laboratory, laboratory and field technician costs shall be considered incidental to unit price bid.

Item No. 602 – MOUNTABLE CONCRETE CURB AND GUTTER

.01 DESCRIPTION: Refer to Section 602.01 of the MDOT SHA Standard Specifications.

.02 MATERIALS: Refer to Section 602.02 of the MDOT SHA Standard Specifications.

.03 CONSTRUCTION: Refer to MDOT SHA Standard Specifications Section 602.03 and the following:

A. The Contractor will be required to provide as a minimum, test for slump, air content, mix temperature and four (4) cylinders per pour for laboratory testing including delivery to the County approved testing laboratory. Test results shall be provided to the County with copies of all test results provided to the Contractor. Testing and acceptance parameters shall be in accordance with MDOT SHA Standard Supplemental Specifications Section 902, with the exception that the Contractor shall provide and pay for an approved Field Technician to perform the field sampling and testing. Cost associated with field sampling and testing of concrete shall be at the

expense of the Contractor.

.04 MEASUREMENT AND PAYMENT: Refer to MDOT SHA Standard Specifications Section 602.04 and the following:

A. Casting of cylinders, testing and sampling, delivery to the laboratory, laboratory and field technician costs shall be considered incidental to unit price bid.

Item No. 603 – <u>SIDEWALK REPLACEMENT AND ENTRANCE APRON</u>

.01 DESCRIPTION: This work shall consist of replacing sidewalk and entrance apron as shown on the Plans, Details, and/or as directed by the Engineer.

.02 MATERIALS:

Curing Materials

MDOT SHA Standard Section 902.07

Form Release Compound

Concrete Mix No.3

MDOT SHA Standard Section 902.10.03

MDOT SHA Standard Section 902.10.03

MDOT SHA Standard Section 908

MDOT SHA Standard Section 911.01

Preformed Joint Filler

MDOT SHA Standard Section 911.02

MDOT SHA Standard Section 911.02

MDOT SHA Standard Section 911.07

Mix No. PC

.03 CONSTRUCTION: Refer to MDOT SHA Standard Specifications Section 603.03 and the following:

- A. The Contractor will be required to provide as a minimum, test for slump, air content, mix temperature and four (4) cylinders per pour for laboratory testing including delivery to the County approved testing laboratory. Test results shall be provided to the County with copies of all test results provided to the Contractor. Testing and acceptance parameters shall be in accordance with MDOT SHA Standard Supplemental Specifications Section 902, with the exception that the Contractor shall provide and pay for an approved Field Technician to perform the field sampling and testing. Cost associated with field sampling and testing of concrete shall be at the expense of the Contractor.
- **.04 MEASUREMENT AND PAYMENT:** Sidewalk replacement and entrance Apron will be measured and paid at the Contract unit price per square foot. The payment will include: excavation, backfill, disposal of excess or unsuitable material, forms, reinforcement when specified, joints, sealer, compaction, curing, finishing, aggregate reservoir stone, and all material, labor, equipment, tools, and incidentals necessary to complete the work.

Item No. 604 – <u>CAST-IN-PLACE REPLACEABLE DETECTABLE WARNING SURFACES</u>

.01 DESCRIPTION: Refer to MDOT SHA Standard Specifications Section 611.01.

.02 MATERIALS: Refer to MDOT SHA Standard Specifications Section 611.02 and the following:

Detectable Warning Surfaces MDOT SHA Standard Section 925. Surface Applied – Type IIa Cast-In-Place Replaceable – Type I, Modified Removable, Vitrified Polymer Composite (Yellow – Color)

.03 CONSTRUCTION: Refer to MDOT SHA Standard Specification 611.03 and the following:

A. The Contractor shall install the cast-in place or surface applied DWS system in conformance with the manufacturer's recommendations. These recommendations shall address the conditions of the concrete surface on which the system is to be applied, surface finish, presence of curing compound, length of cure, etc. The recommendations shall also address ambient temperature, moisture conditions, adhesive shelf life, set time, tools required, and other details about the technique of system installation.

.04 MEASUREMENT AND PAYMENT: Refer to MDOT SHA Standard Specifications Section 611.04.

Item No. 605 – REINFORCED CONCRETE PAD

.01 DESCRIPTION: This work shall consist of constructing a reinforced concrete pad as shown on the Plans, Details, and/or as directed by the Engineer.

.02 MATERIALS:

Curing Materials

MDOT SHA Standard Section 902.07

Form Release Compound

Concrete Mix No.3

MDOT SHA Standard Section 902.10.03

MDOT SHA Standard Section 902.10.03

MDOT SHA Standard Section 908

MDOT SHA Standard Section 911.01

Preformed Joint Filler

MDOT SHA Standard Section 911.02

MDOT SHA Standard Section 911.02

MDOT SHA Standard Section 911.07

Mix No. PC

.03 CONSTRUCTION: Refer to MDOT SHA Standard Specifications Section 603.03 and the following:

A. The Contractor will be required to provide as a minimum, test for slump, air content, mix temperature and four (4) cylinders per pour for laboratory testing including delivery to the County approved testing laboratory. Test results shall be provided to the County with copies of all test results provided to the Contractor. Testing and acceptance parameters shall be in accordance with MDOT SHA Standard Supplemental Specifications Section 902, with the exception that the Contractor shall provide and pay for an approved Field Technician to perform the field sampling and testing. Cost associated with field sampling and testing of concrete shall be at the expense of the Contractor.

.04 MEASUREMENT AND PAYMENT: Reinforced Concrete Pad at the Contract unit price per square foot. The payment will include: excavation, backfill, disposal of excess or unsuitable material, forms, reinforcement when specified, joints, sealer, compaction, curing, finishing, aggregate reservoir stone, and all material, labor, equipment, tools, and incidentals necessary to complete the work.

Item No. 605 – <u>REINFORCED CONCRETE PAD</u>

.01 DESCRIPTION: This work shall consist of constructing the 6" reinforced concrete pad in accordance with plans and specifications.

.02 MATERIALS:

Curing Materials MDOT SHA Standard Section 902.07 Form Release Compound MDOT SHA Standard Section 902.08 Concrete Mix No.3 MDOT SHA Standard Section 902.10.03 Welded Wire Fabric MDOT SHA Standard Section 908 Joint Sealer MDOT SHA Standard Section 911.01 Preformed Joint Filler MDOT SHA Standard Section 911.02 Roofing Paper MDOT SHA Standard Section 911.07 Reinforcement Steel MDOT SHA Standard Section 908

.03 CONSTRUCTION: Refer to Contract Drawings, MDOT SHA Standard Specifications Section 603.03 and the following:

A. The Contractor will be required to provide as a minimum, test for slump, air content, mix temperature and four (4) cylinders per pour for laboratory testing including delivery to the County approved testing laboratory. Test results shall be provided to the County with copies of all test results provided to the Contractor. Testing and acceptance parameters shall be in accordance with MDOT SHA Standard Supplemental Specifications Section 902, with the exception that the Contractor shall provide and pay for an approved Field Technician to perform the field sampling and testing. Cost associated with field sampling and testing of concrete shall be at the expense of the Contractor.

.04 MEASUREMENT AND PAYMENT: Concrete pad will be measured and paid at the Contract unit price per lump sum. The payment will include: excavation, backfill, disposal of excess or unsuitable material, forms, reinforcement when specified, joints, sealer, compaction, curing, finishing, aggregate reservoir stone, and all material, labor, equipment, tools, and incidentals necessary to complete the work.

END OF CATEGORY 600

CATEGORY 700

Item No. 701 - PLACING FURNISHED TOPSOIL, 4" DEPTH

.01 DESCRIPTION: This work shall consist of the preparation of surfaces, excavating, topsoil, hauling, placing and spreading of topsoil on all disturbed areas.

.02 MATERIALS:

Furnished Topsoil MSHA Section 920.01.02 Agricultural Limestone MSHA Section 920.02 Miscellaneous Items MSHA Section 920.08

.03 CONSTRUCTION:

- A. Place topsoil to those areas throughout the project area, as directed by the Engineer.
- A. The Contractor shall make all arrangements and assume all responsibility for consents, agreements and payments with owners of property involved in topsoil operations.
- B. Stockpiled topsoil shall be in accordance with Section 701.03.03 of the MSHA Specification Booklet.
- C. Refer to Section 703 of the MSHA Specification Booklet for additional conditions.
- D. Additional excavation required for the placement of topsoil below the planned elevations, will not be paid for separately but will be considered to be incidental to the placing of topsoil.
- and paid for at the Contract unit price bid per square yard and shall include all topsoil, labor, tools, equipment, hauling, placing, spreading and incidentals necessary to establish an acceptable stand of vegetation, or 95% of the disturbed area within 4 weeks of seeding.

Item No. 702 – TEMPORARY SEEDING STABILIZATION

DESCRIPTION. Adhere to Section 704.01 of the MDOT SHA Standard Specifications and the

following:

MEASUREMENT AND PAYMENT: Temporary Mulch and Temporary Seed will be measured and paid for at the Contract unit price for one or more of the specified items. The payment will be full compensation for all material, labor, equipment, tools, disposal fees and incidentals necessary to complete the work.

702.04.01 Temporary Mulch, applied as either temporary straw mulch or temporary matting mulch, will be measured and paid for at the Contract unit price per square yard.

702.04.02 Temporary Seed will be measured and paid for at the Contract unit price per square yard.

END OF CATEGORY 700