



REGIONAL CONSTRUCTION STANDARDS

FIFTH EDITION

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XI. STANDARD BID ITEMS AND UNITS

Section	Bid Item	Category	Unit
301	Clearing and grubbing	Clearing and Grubbing	ACRE or LS
301	Tree protection fencing	Clearing and Grubbing	LF or EA
302	Storm sewer pipe (diameter and type)	Drainage Structures	LF
302	Pipe culverts (waterway opening)	Drainage Structures	LF
302	Pipe reducers (larger diameter)	Drainage Structures	LF
302	Jacked pipe (diameter and type)	Drainage Structures	LF
302	Reinstalled pipe (diameter)	Drainage Structures	LF
302	End sections (standard and size)	Drainage Structures	EA
302	End walls	Drainage Structures	EA
302	Box culverts (waterway opening)	Drainage Structures	LF
302	Pipe grate	Drainage Structures	LF or EA
302	Drop / yard inlets, catch basins, and intake boxes	Drainage Structures	EA
302	Base section (drop inlets and manholes)	Drainage Structures	LF
302	Manhole (0-6' depth) (4 or 5 foot diameter)	Drainage Structures	EA
302	Manhole (>6' depth) (4 or 5 foot diameter)	Drainage Structures	VF
302	Conflict manhole	Drainage Structures	EA
302	Concrete spring boxes	Drainage Structures	EA
302	Junction boxes	Drainage Structures	EA
302	Reconstructed manholes	Drainage Structures	EA
302	Precast Arches	Drainage Structures	LF
303	Regular excavation	Earthwork	CY
303	Pavement demolition (type and depth of pavement) [in proposed pavement]	Earthwork	SY
303	Pavement demolition (type and depth of pavement) [outside proposed pavement]	Earthwork	SY
303	Curb & gutter demolition	Earthwork	LF
303	Existing structure demolition	Earthwork	EA
303	Existing pipe demolition	Earthwork	LF
303	Existing Sidewalk Demolition	Earthwork	SY
303	Existing Driveway Demolition	Earthwork	SY
303	Undercut Excavation (regular)	Earthwork	CY
303	Select Material (min. CBR)	Earthwork	CY
303	Select Bedding (regular)	Earthwork	CY or TON
303	Suitable Fill (regular)	Earthwork	CY or TON
303	Backfill of Undercut Excavation (regular)	Earthwork	CY or TON
303	Surcharge placement and removal	Earthwork	CY
303	Settlement plate	Earthwork	EA
303	Geotextile fabric for Base Preparation	Earthwork	SY
303	Select Bedding Backfill of Undercut Excavation (trenching)	Earthwork	CY or TON
303	Undercut Excavation (trenching)	Earthwork	CY

512	Flagger Service (Police-assisted))	Maintaining Traffic	HR
512	Pilot vehicle	Maintaining Traffic	HR
512	Electronic Arrow	Maintaining Traffic	HR
512	Warning Light	Maintaining Traffic	DAY
512	Group 2 Channelizing Devices	Maintaining Traffic	DAY,
512	Traffic barrier service (per location) (Type and/or standard)	Maintaining Traffic	LF
512	Traffic barrier service guardrail termination (standard)	Maintaining Traffic	EA or LF
512	Impact attenuator service (Type)	Maintaining Traffic	EA
512	Temporary signalization	Maintaining Traffic	LS
512	Construction pavement marking (type and message)	Maintaining Traffic	LF
512	Construction pavement message marking (type and width)	Maintaining Traffic	EA
512	Temporary Pavement marker ([]-way)	Maintaining Traffic	EA
512	Eradication of existing pavement marking (per 6-inch width)	Maintaining Traffic	LF
512	Temporary Detour (standard and type)	Maintaining Traffic	LF
512	Crusher run aggregate (No. 25 or 21A)	Maintaining Traffic	TON
512	Type III Barricades	Maintaining Traffic	EA
512	Construction Signs	Maintaining Traffic	SF
512	Truck Mounted Attenuator	Maintaining Traffic	HR
512	Portable Traffic Control Signal	Maintaining Traffic	LS
512	Portable Changeable Message Sign	Maintaining Traffic	HR
512	Maintenance of Traffic	Maintaining Traffic	LS
513	Mobilization (3 2 payments)	Mobilization & Demobilization	LS
515	Milling Pavement	Milling Pavement	SY
521	Pavers	Pavers	SF
530	Abandon Pipe, (diameter/flowable fill) < larger than 2-inch>	Abandonment of Existing Pipelines and Structures	LF or CY
530	Abandon Meter Boxes	Abandonment of Existing Pipelines and Structures	EA
530	Abandon Laterals and Cleanouts (on Active Mains)	Abandonment of Existing Pipelines and Structures	LF or EA
530	Abandon Drainage Structures	Abandonment of Existing Pipelines and Structures	EA
530	Abandon Metallic Structures	Abandonment of Existing Pipelines and Structures	EA
530	Abandon Manholes	Abandonment of Existing Pipelines	EA
530	Abandon Meter/Valve Vaults/Boxes	Abandonment of Existing Pipelines and Structures	EA
602	Topsoil (4-or 6-inch depth)	Topsoil	ACRE or SY
603	Lime, fertilizer, seed and mulch	Seeding	ACRE or SY
604	Sod, fertilizer and lime	Sodding	SY
605	Plants (Type and size)	Planting	EA
605	Mulching and remulching	Planting	100 SF

1. Atterberg Limits

Atterberg limits shall conform to the following when tested in accordance with the requirements of VTM-7:

Max. Liquid Limit
30

Max. Plasticity Index
9

2. CBR

Tests for CBR will be performed in accordance with the requirements of VTM-8 for conformance to the specified value.

B. Suitable and unsuitable fill material shall be defined as follows:

Suitable soil materials are defined as those complying with ASTM D2487 United Soil Classification System (USCS) groups GW, GP, GM, **SM, SC**, SW, and SP. Suitable backfill materials shall be free of particles of clay, rock or gravel larger than 2-inches in any dimension, debris, waste, frozen material, roots, all organic material, and any other deleterious matter.

Unsuitable soil materials are defined as those complying with ASTM D2487 USCS soil classification groups MH, ML, CH, CL, OL, OH, GC, ~~SM, SC~~, and PT, unless otherwise approved by the Owner.

C. ~~Select Bedding - is bedding material in addition to that required by the Drawings defined on the bid schedule (For Section 302 and Division 8 activities of this document, Bedding material shall be~~ **crushed stone or gravel aggregate conforming to VDOT Number 57 stone** in accordance with Paragraph V.5.1.G.1 or as otherwise specified ~~and shown on the Drawings.~~


D. Materials other than suitable fill that are shown on the Drawings or specified in the Contract Documents shall conform to the applicable requirements of the Contract Documents.

E. Lightweight Aggregate

These specifications cover lightweight aggregate used in hydraulic cement concrete and asphalt surface treatment.

1. Lightweight aggregate shall consist of clay, shale, or slate expanded through a sintering or rotary kiln.
2. Lightweight aggregate used in hydraulic cement concrete shall conform to the requirements of AASHTO M195.
3. Lightweight aggregate used for asphalt surface treatment shall conform to the requirements of AASHTO M195 except that Sections 3, 6, and 8 will not apply. Grading shall conform to the requirements of Table 200-5.1-6 except that the maximum percentage by weight of material passing the No. 8 sieve shall be 16 % and passing the No. 16 sieve shall be 9 %.

NOTES:

1. "W" = MAXIMUM PAYMENT WIDTH FOR CONTINGENT ITEMS IN TRENCH EXCAVATION.
2. VOLUMES TO BE CALCULATED BY AVERAGE END AREA METHOD AS DESCRIBED IN EW_02 AND WIDTH ("W") AS DETERMINED IN EW_03.
3. NO ADDITIONAL PAYMENT WILL BE MADE FOR EXTRA WIDTH TO ACCOMMODATE MANHOLES OR OTHER APPURTENANCES.
4. MEASUREMENT OF LENGTH TO BE ALONG CENTERLINE OF PIPE FROM START TO FINISH OF CONTINGENT ITEM.
5. CONTINGENT ITEMS INCLUDE SELECT MATERIAL,  ~~SELECT BEDDING~~ AND UNDERCUT EXCAVATION.
6. TONNAGE FOR CONTINGENT ITEMS SHALL BE COMPUTED USING THE UNIT WEIGHTS AS SPECIFIED FOR THE TYPE OF MATERIAL WITH VOLUMES DERIVED AS FOLLOWS:
#57 STONE = 100 LBS./CUBIC FOOT
#21A, 21B, OR 26 STONE = 138 LBS./CUBIC FOOT
SAND (VDOT GRADE A) = 110 LBS./CUBIC FOOT

TRENCH WIDTH DETAIL FOR PAYMENT OF CONTINGENT ITEMS

NOT TO SCALE

 REVISED 9/23/2011

REFERENCE 200,303	CATEGORY EARTHWORK	DATE 12/10	SHEET No. 2 OF 2	DETAIL No. EW_03
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