

1 Payment will be made under:

| Pay Item | Pay Unit |
|---------------------------|-----------------|
| Right-of-Way Markers | Each |
| Control-of-Access Markers | Each |

2

SECTION 808

3

OBLITERATION OF EXISTING ROAD

4

808-1 DESCRIPTION

5

The work covered by this section consists of the obliteration of an existing road outside of the construction limits.

6

7

808-2 CONSTRUCTION METHODS

8

Remove any existing pavement as directed. Fill or grade and shape the entire roadway to a degree that will blend with the adjacent topography and suitable for the application of vegetative cover.

9

10

11

808-3 MEASUREMENT AND PAYMENT

12

Removal of Existing Asphalt Pavement and *Removal of Existing Concrete Pavement* will be measured and paid in accordance with Article 250-3. The work includes, but is not limited to, all breaking up, removing, and disposing of pavement; all plowing of the roadbed; and all grading and excavation necessary to reshape the roadway.

13

14

15

16

Removal of Existing Concrete Pavement will be measured and paid in accordance with the requirements of Article 250-3. Such price includes, but is not limited to, all breaking up, removing and disposing of pavement; all plowing of the roadbed; and all grading and excavation necessary to reshape the roadway.

17

18

19

20

All materials excavated in obliterating the abandoned roadway will be paid at the contract price for *Unclassified Excavation* in accordance with Article 225-7.

21

22

Any additional material that is required to complete the reshaping of the roadway will be paid at the contract unit price for *Unclassified Excavation* in accordance with Article 225-7 or at the contract unit price for *Borrow Excavation* in accordance with Article 230-5, depending on the source of the material.

23

24

25

26

All seeding and mulching performed on obliterated areas will be paid at the contract unit prices for the items established in the contract.

27

28

SECTION 815

29

SUBSURFACE DRAINAGE

30

815-1 DESCRIPTION

31

Construct subsurface drains, underdrains, blind drains and other types of drains in accordance with the contract or as directed. Install markers to locate concrete pads for drains as shown in the plans. This section does not apply to shoulder drains; see Section 816.

32

33

34

815-2 MATERIALS

35

Refer to Division 10.

| Item | Section |
|--|----------------|
| Geotextile for Subsurface Drains, Type 1 | 1056 |
| Pavement Marker Paint | 1087 |
| Portland Cement Concrete, Class B | 1000 |
| Select Material, Class V | 1016 |
| Steel Marker Paint | 1080-12 |
| Steel Markers | 1072-2 |

Section 815

Item

Subsurface Drainage Materials

Section

1044

- 1 Use Class B concrete for concrete pads. Provide Type 1 geotextile for filtration geotextiles.
2 Provide subdrain coarse aggregate (standard size No. 78M) for subsurface drains and subdrain
3 fine aggregate (standard size No. 2S or 2MS) for underdrains and blind drains.

4 **815-3 CONSTRUCTION METHODS**

- 5 Excavate trenches as necessary in accordance with the contract or as directed. Install blind
6 drains at a depth of 4 to 6 ft below subgrade elevation. Install subdrain pipes for subsurface
7 drains and underdrains at a depth of 4 to 6 ft below subgrade elevation unless the subgrade
8 will be proof rolled. For subsurface drains and underdrains in subgrades that will be proof
9 rolled, install subdrain pipes at a depth of 6 ft below subgrade elevation.

- 10 Do not leave filtration geotextiles exposed for more than 7 days before covering with
11 material. For subsurface drains, line trench with filtration geotextiles and overlap adjacent
12 geotextiles at least 18". Overlap geotextile closures on top of subdrain coarse aggregate at
13 least 6" and secure with mechanical ties.

- 14 Provide subdrain pipes with positive drainage towards outlets. Firmly connect subdrain pipes
15 together as needed. Place perforated subdrain pipes with perforations down except for pipes
16 in dry materials, in which case turn perforations up or use non-perforated pipes. For concrete
17 pipes in dry materials, construct joints that meet Subarticle 300-6(A).

- 18 Place subdrain aggregate beneath, around and over subdrain pipes such that pipes are covered
19 by at least 6" of aggregate unless shown otherwise in the plans. Do not displace or damage
20 subdrain pipes while placing and compacting subdrain aggregate. Lightly compact backfill
21 material such that settlement is minimized.

- 22 Use solvent cement for connecting Schedule 40 PVC outlet pipes and fittings such as wyes,
23 tees and elbows. Provide connectors for outlet pipes and fittings that are watertight and
24 suitable for gravity flow conditions. Cover open ends of outlet pipes with rodent screens as
25 shown in the plans.

- 26 Connect drains to concrete pads or existing drainage structures at ends of outlet pipes.
27 Construct concrete pads and provide an ordinary surface finish in accordance with Section
28 825. Install steel and pavement markers at concrete pads as shown in the plans.

- 29 Allow drains to function for up to 30 days or a sufficient time as determined by the Engineer
30 before undercutting, proof rolling or constructing embankments over drains.

31 **815-4 MEASUREMENT AND PAYMENT**

- 32 *Subdrain Excavation* will be measured and paid in cubic yards. Excavation will be measured
33 based on the trench width shown in the plans or approved by the Engineer and the actual
34 trench depth as determined by the Engineer. The contract unit price for *Subdrain Excavation*
35 will be full compensation for excavating trenches and backfilling above subdrain aggregate.

- 36 *Geotextile for Subsurface Drains* will be measured and paid in square yards. Filtration
37 geotextiles in a trench will be measured in place based on the subdrain aggregate width shown
38 in the plans or approved by the Engineer and the actual aggregate depth as determined by the
39 Engineer. No additional payment will be made for overlapping geotextiles. The contract unit
40 price for *Geotextile for Subsurface Drains* will be full compensation for supplying,
41 transporting and installing filtration geotextiles and mechanical ties.

Section 816

1 *Subdrain Fine Aggregate* and *Subdrain Coarse Aggregate* will be measured and paid in cubic
2 yards. Subdrain aggregate in a trench will be measured in place based on the aggregate width
3 shown in the plans or approved by the Engineer and the actual aggregate depth as determined
4 by the Engineer. When subdrain aggregate is not placed in a trench, aggregate will be
5 measured in place based on the aggregate dimensions shown in the plans or as determined by
6 the Engineer. The contract unit prices for *Subdrain Fine Aggregate* and *Subdrain Coarse*
7 *Aggregate* will be full compensation for furnishing, hauling, handling, placing, compacting
8 and maintaining subdrain aggregate.

9 ___" *Perforated Subdrain Pipe* and ___" *Outlet Pipe* will be measured and paid in linear feet.
10 Pipes will be measured in place as the pipe length, including fittings, to the nearest 0.1 ft with
11 no deduction for fittings. The contract unit prices for ___" *Perforated Subdrain Pipe* and
12 ___" *Outlet Pipe* will be full compensation for supplying, transporting and installing pipes,
13 fittings and rodent screens and making joint connections.

14 *Subdrain Pipe Outlets* will be measured and paid in units of each. Outlets will be measured
15 as the number of concrete pads or connections to existing drainage structures. The contract
16 unit price for *Subdrain Pipe Outlets* will be full compensation for concrete pads including
17 furnishing concrete, constructing pads and providing and placing markers and connecting
18 pipes to existing drainage structures including cutting into structures, removing existing paved
19 ditches and grouting around connections.

20 Payment will be made under:

| Pay Item | Pay Unit |
|----------------------------------|-----------------|
| Subdrain Excavation | Cubic Yard |
| Geotextile for Subsurface Drains | Square Yard |
| Subdrain Fine Aggregate | Cubic Yard |
| Subdrain Coarse Aggregate | Cubic Yard |
| ___" Perforated Subdrain Pipe | Linear Foot |
| ___" Outlet Pipe | Linear Foot |
| Subdrain Pipe Outlet | Each |

21

SECTION 816 SHOULDER DRAINS

22

816-1 DESCRIPTION

24 Construct shoulder drains and furnish and install painted pavement markers and vertical
25 markers to locate concrete pads for the drains in accordance with the requirements of the
26 contract.

816-2 MATERIALS

28 Refer to Division 10.

| Item | Section |
|--|----------------|
| Concrete Pipe and Fittings | 1044-3 |
| Corrugated Plastic Pipe and Fittings | 1044-7 |
| Corrugated Steel Pipe and Fittings | 1044-5 |
| Geotextile for Shoulder Drains, Type 1 | 1056 |
| Outlet Pipe | 1044-8 |
| Pavement Marker Paint | 1087 |
| PVC Pipe | 1044-6 |
| Portland Cement Concrete, Class B | 1000 |
| Shoulder Drain Aggregate, No. 57 Stone | 1005 |
| Steel Marker | 1072-2 |
| Steel Marker Paint | 1080-12 |