ABANDONED COAL MINE
RESTORATION

NORTHERN MAINTENANCE
VARIOUS SITES

CONTRACT DEL1815208566/E009-228
CLAY, GREENE, SULLIVAN, PARKE, OWEN, VERMILLION, AND VIGO COUNTIES

SCOPE OF WORK INCLUDES:
DITCH CONSTRUCTION
SEEP DRAIN CONSTRUCTION
SUBSIDENCE FILL

CERTIFIED BY:  
ENGINEERING SUPERVISOR  
DATE

APPROVED BY:  
DIRECTOR, DIVISION OF RECLAMATION  
DATE
2010 AML Standard Specifications shall be used with this project.

Erosion control blanket, riprap, aggregate, and other materials placed in ditches as directed will be paid for separately in accordance with the schedule of supplemental unit prices.

INDEX

<table>
<thead>
<tr>
<th>SHEET NO.</th>
<th>SHEET TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TITLE</td>
</tr>
<tr>
<td>2</td>
<td>INDEX &amp; LOCATION MAP</td>
</tr>
<tr>
<td>3</td>
<td>WORK ORDER</td>
</tr>
<tr>
<td>4 - 8</td>
<td>DETAILS</td>
</tr>
</tbody>
</table>

Location Map

OpenStreetMap©
Type I Ditch
Graded Slopes
6'

Staple edge on both sides every foot for erosion control blanket

Line ditch with material as directed

Type II Ditch
Graded Slopes
10'

Staple edge on both sides every foot for erosion control blanket

Line ditch with material as directed

Type III Ditch
Graded Slopes
16' 14'

1.5' of revetment riprap

6" of No. 53 coarse aggregate

Type IV Ditch
Graded Slopes
22' 20'

1.5' of revetment riprap

6" of No. 53 coarse aggregate

Note: Erosion control blanket, riprap, aggregate, and other materials placed in ditches as directed will be paid for separately in accordance with the schedule of supplemental unit prices.
Temporary Check Dam, Straw Bale

1" x 2" wood stakes (typical)

Straw bales laid on side with bailing wire or nylon as shown

Bailing wire or nylon

Stakes to be driven toward next bale, min. 12" into ground

4" min.
**SCALE SHEET**

**SITE DETAILS - TILE DRAIN**

**STATE OF INDIANA**
**DEPARTMENT OF NATURAL RESOURCES**
**DIVISION OF RECLAMATION**

**Lateral Detail**
A-A

**Collection Pipe**
B-B

- **Soil**: 2' min.
- **6" perforated drainage tubing**: 2' min.
- **Coarse aggregate No. 53 wrapped in geotextile**:

**Flow**

**DATE MADE**
1/12/2018

**DATE REVISED**
3/12/2018 3:13:43 PM

**DESIGNED BY**
C.J.H.

**DRAWN BY**
C.J.H.

**PROJECT**
E009-228

**SITE**
VARIOUS
Typical Subsidence Backfill

Type A

- Existing ground
- Depth of existing depression, varies
- Excavate to stable base, varies
- Bottom width of excavation, varies
- Revetment Riprap
- Depth of existing depression, varies
- Excavate to stable base, varies
- Bottom width of excavation, varies
- Any combination of riprap, aggregate, or flowable fill as directed
- Revetment Riprap
- Grade to Drain
- 3' min.
- 2'

Type B

- Existing ground
- Depth of existing depression, varies
- Excavate to stable base, varies
- Bottom width of excavation, varies
- Revetment Riprap
- Soil Fill
- Depth of existing depression, varies
- Excavate to stable base, varies
- Bottom width of excavation, varies
- Any combination of riprap, aggregate, or flowable fill as directed
- Revetment Riprap
- Grade to Drain
- 3' min.
- 2'
Backfill to cover as much of the pipe as possible without obstructing the opening.

Welded gate sized to fit pipe opening.

Profile wall HDPE pipe, round, 24".

Collar, 6" x 3/8" plate, rolled to fit interior dimension of pipe.

Connecting pin, 1" rod, welded to collar and flange plate.

Flange, 4" x 3/8" plate, bent to fit from collar to outside of pipe.

Cross members, 3" x 3" x 3/8" angle, cut to fit opening, welded to collar.

Profile wall HDPE pipe, round, 24".

Note: Entire welded gate shall be cleaned and painted with rust inhibiting primer, then top coated with high quality enamel paint (black or brown) prior to installation.