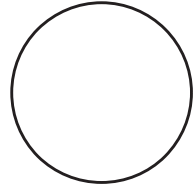


CONSULTANT:



**IOWA DEPARTMENT OF
NATURAL RESOURCES**

ENGINEERING SERVICES • WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034



PROJECT LOCATION MAP

FLOOD DAMAGE REPAIRS REBID FOR:

ODESSA WILDLIFE UNIT

LOUISA COUNTY

NO. BY REVISION

DRAWN BY PROJECT NUMBER:

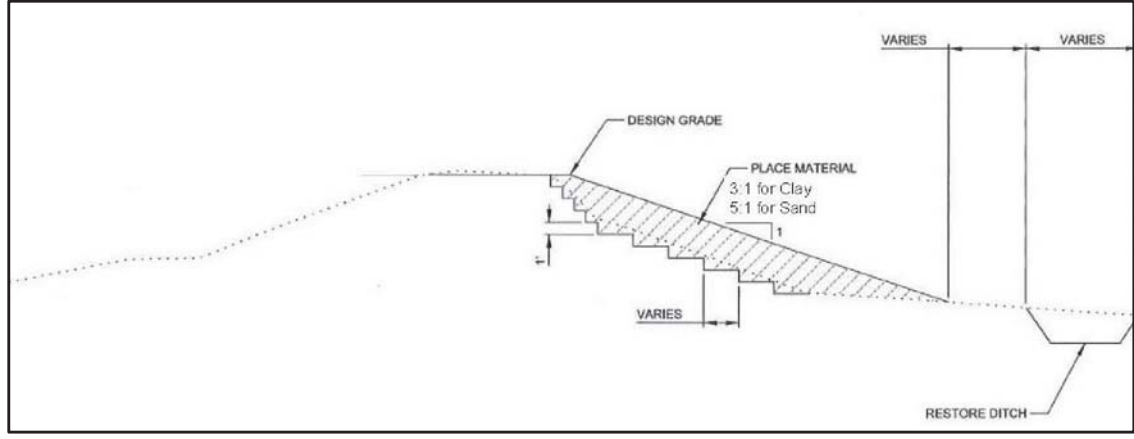
21-06-58-04

CHK'D BY DATE:

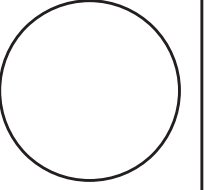
January 18, 2022

SHEET NO.:

A.02



CONSULTANT:



**IOWA DEPARTMENT OF
NATURAL RESOURCES**

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034



GENERAL DETAILS

FLOOD DAMAGE REPAIRS REBID FOR:
ODESSA WILDLIFE UNIT

LOUISA COUNTY

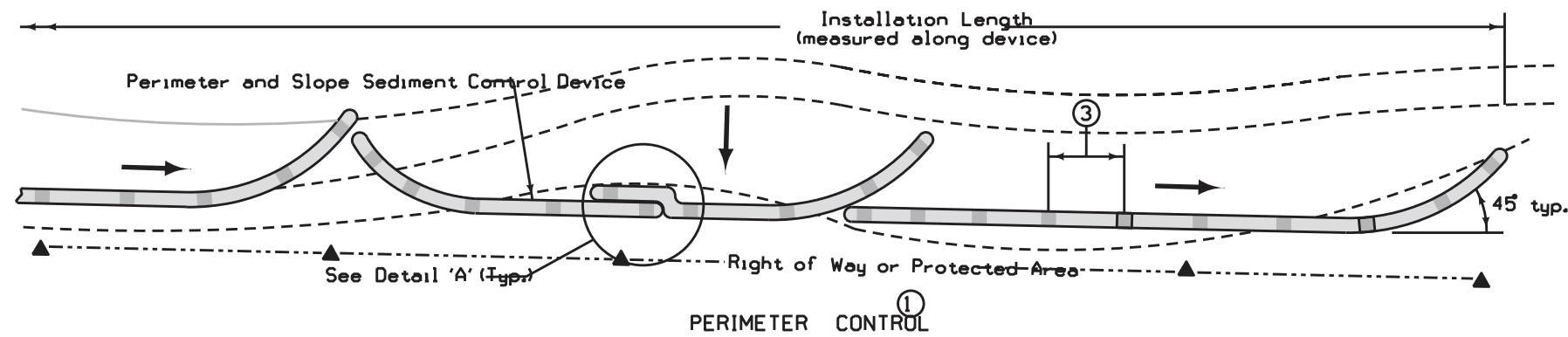
NO.	BY	REVISION

DRAWN BY: PROJECT NUMBER:
21-06-58-04

CHK'D BY: DATE:
January 18, 2022

SHEET No:

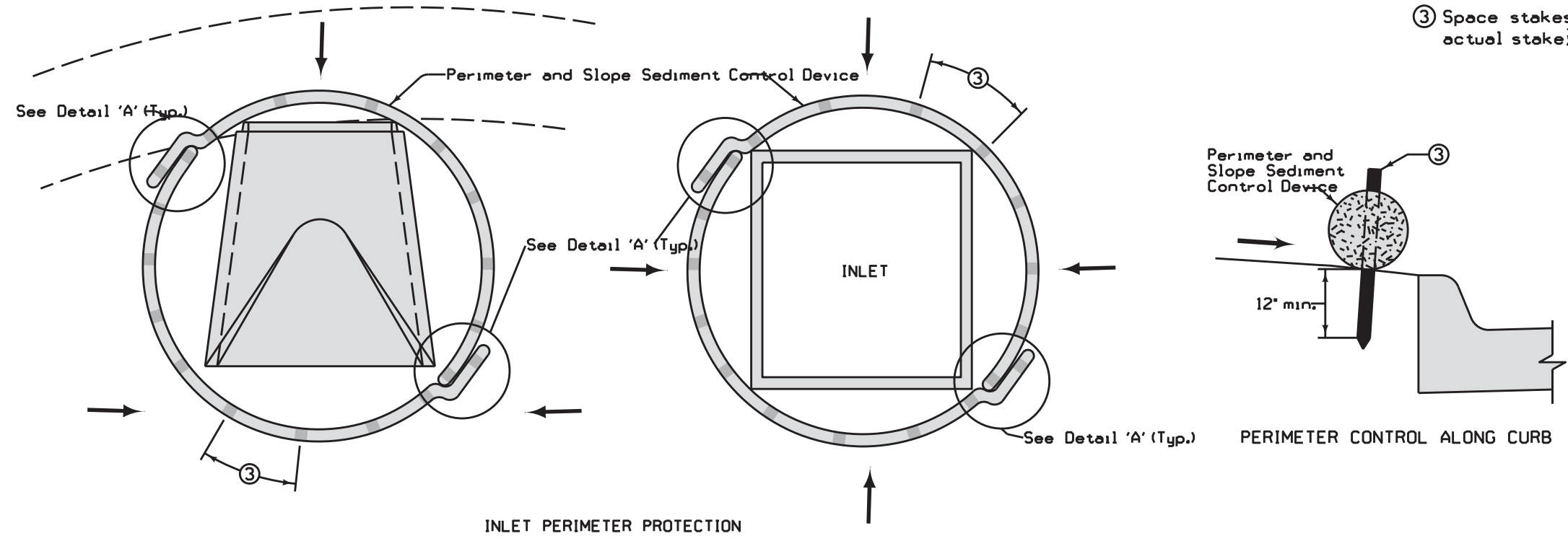
B.01



Not intended for use in perennial or intermittent streams.

Fill and compact rills and gullies (see Detail 'B') prior to placing Perimeter and Slope Sediment Control Device. Ensure ground surface is smooth in order to provide continuous contact with Perimeter and Slope Sediment Control Device. Minor ground shaping may be required. Filling and compacting rills and gullies, and minor ground shaping, is incidental to Perimeter and Slope Sediment Control Device.

- ① Overlap joints per Detail 'A'. Turn the lower 10 feet of each run up the slope to help contain runoff. When placed such that runoff is conveyed along the device, additional run-ups and/or means may be required to reduce erosion along the device. Run-ups will be included in the installation length.
- ② Extra material required to install overlaps will not be included in the installation length.
- ③ Space stakes at 4 foot maximum spacing. Use minimum actual stake ~~2x2~~ wood stakes.



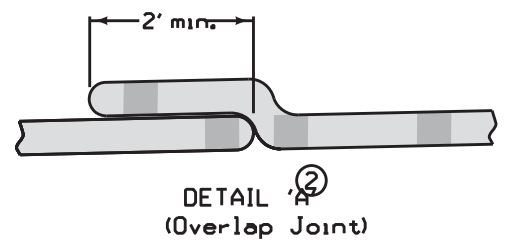
INLET PERIMETER PROTECTION

PERIMETER CONTROL ALONG CURB

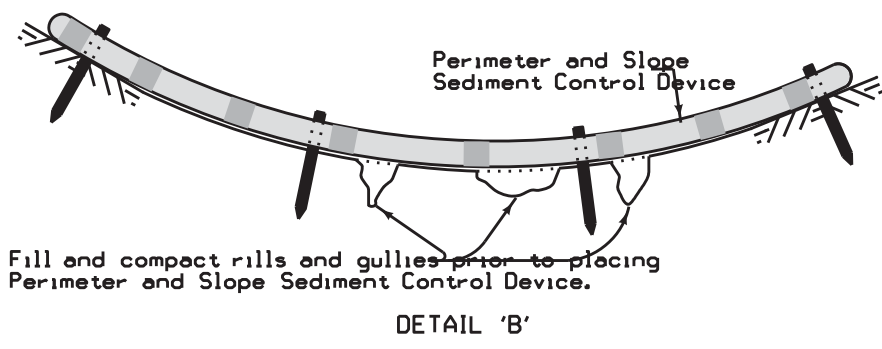
Possible Contract Item:
Perimeter and Slope Sediment Control Device

Possible Tabulation:
100-19

LEGEND	
- - -	Contour Lines
→	Flow
■	Wood Stake ③



DETAIL 'A'
(Overlap Joint)



Fill and compact rills and gullies prior to placing Perimeter and Slope Sediment Control Device.

DETAIL 'B'

NO.	BY	DATE	REVISION	
			NO.	DATE
4		04-21-20		

STANDARD ROAD PLAN

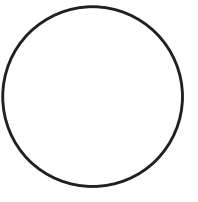
REVISIONS: Modified circle notes 3 and 5.

PROJECT NUMBER: 21-06-58-04

DATE: January 18, 2022

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICES

CONSULTANT:



IOWA DEPARTMENT OF NATURAL RESOURCES
ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034

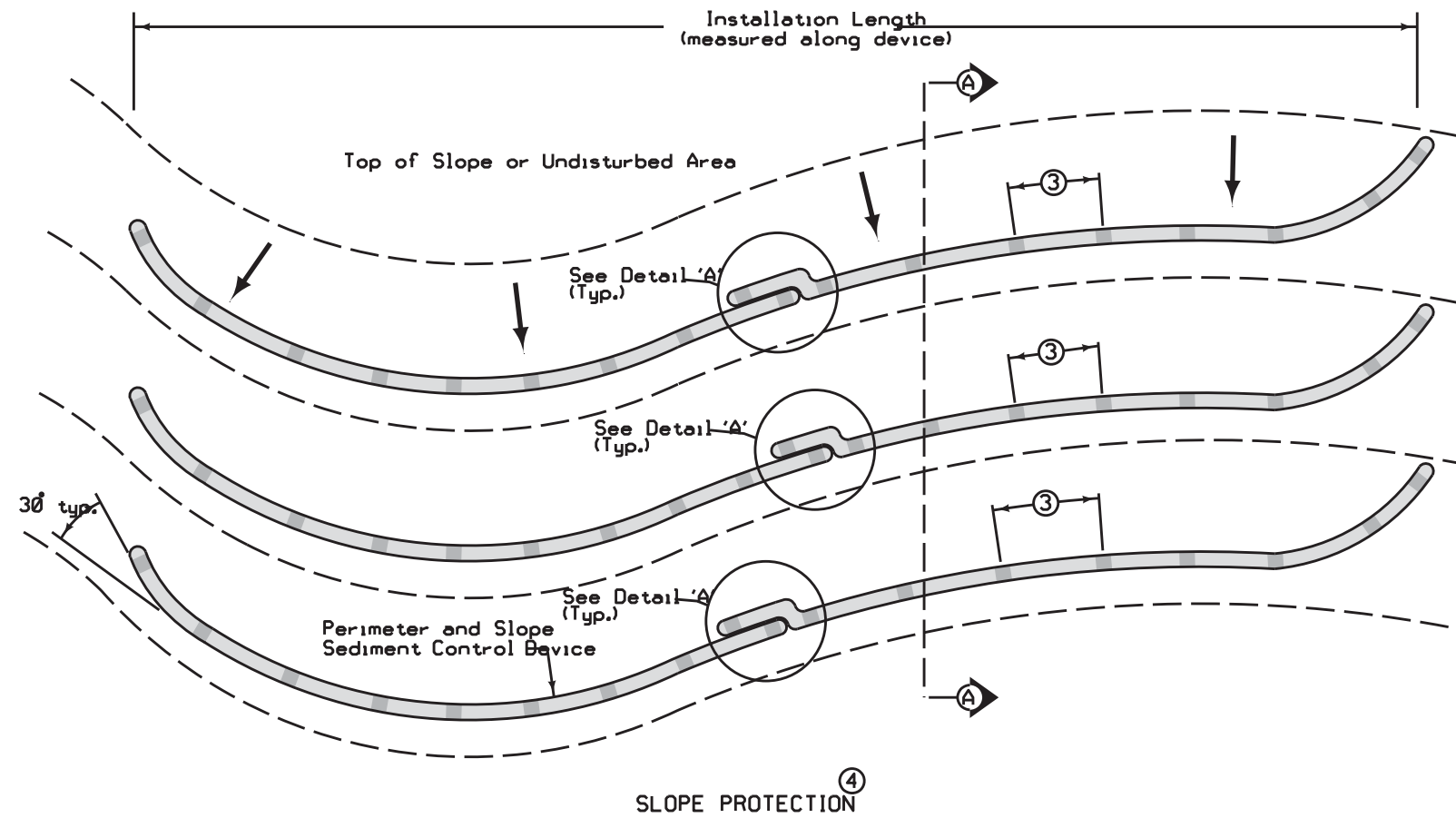


GENERAL DETAILS

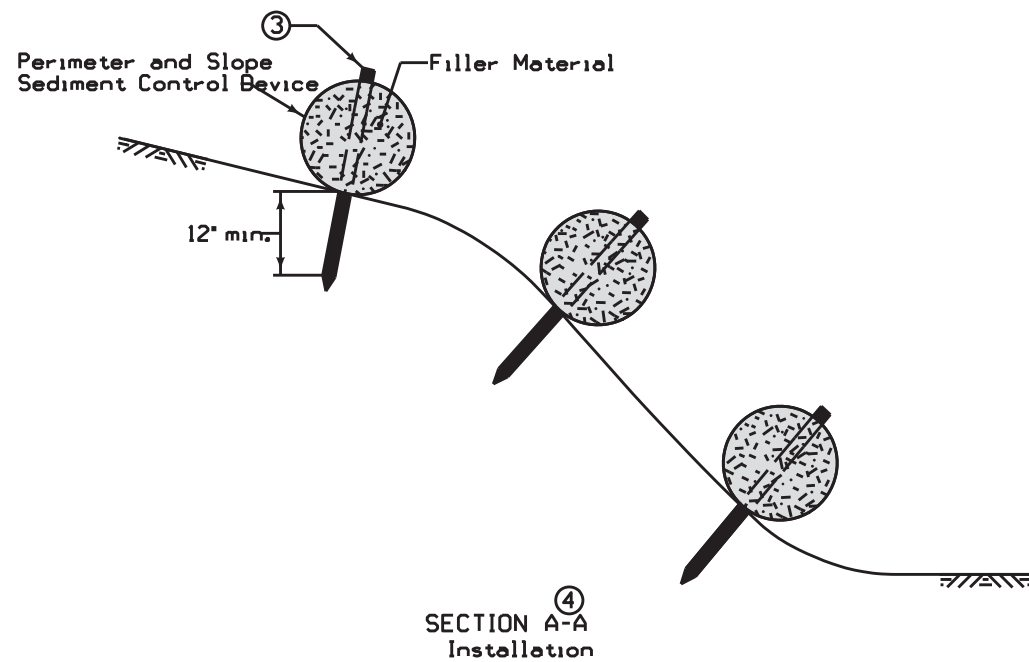
FLOOD DAMAGE REPAIRS REBID FOR:
ODESSA WILDLIFE UNIT

LOUISA COUNTY

B.02



SLOPE PROTECTION ④

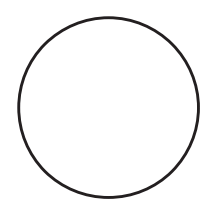


- ③ Space stakes at 4 foot maximum spacing. Use minimum actual stake $\frac{1}{2}$ x $\frac{1}{2}$ wood stakes.
- ④ Install Slope Protection perpendicular to slope (parallel contours). Overlap joints per Detail 'A'. Run the last 10 feet of each device up the slope to prevent flow runaround. Run-ups will be included in the installation length.

LEGEND	
	Contour Lines
	Flow
	Wood Stake ③

STANDARD ROAD PLAN	REVISION	
	4	04-21-20
EC-204		SHEET 2 of 3
REVISIONS: Modified circle notes 3 and 5.		
APPROVED BY DESIGN METHODS ENGINEER		
PERIMETER AND SLOPE SEDIMENT CONTROL DEVICES		

CONSULTANT:



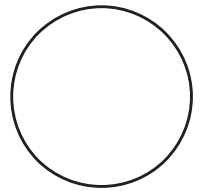
IOWA DEPARTMENT OF NATURAL RESOURCES
 ENGINEERING SERVICES - WALLACE BUILDING
 502 E. 9TH ST., DES MOINES, IA 50319-0034



GENERAL DETAILS
 FLOOD DAMAGE REPAIRS REBID FOR:
ODESSA WILDLIFE UNIT
 LOUISA COUNTY

NO.	BY	REVISION
DRAWN BY:	PROJECT NUMBER:	21-06-58-04
CHK'D BY:	DATE:	January 18, 2022
SHEET NO.:	B.03	

CONSULTANT:



IOWA DEPARTMENT OF
NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034



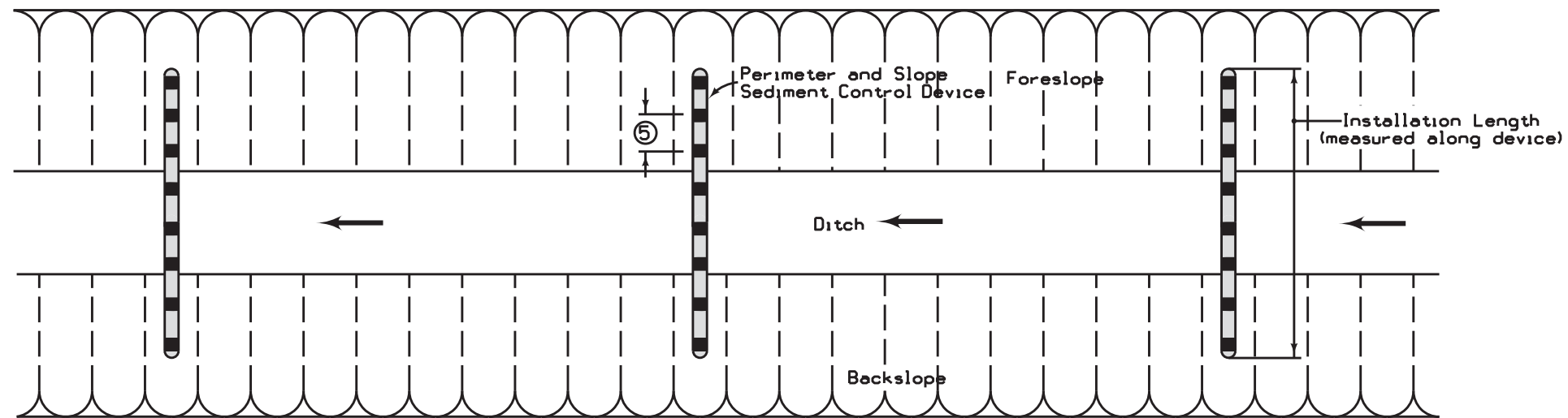
GENERAL DETAILS

FLOOD DAMAGE REPAIRS REBID FOR:

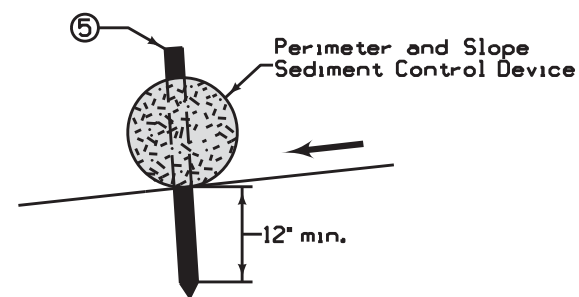
ODESSA WILDLIFE UNIT

LOUISA COUNTY

- ⑤ Space stakes at 2 foot maximum spacing. Use minimum actual stake size wood stakes.
- ⑥ Install Ditch Protection perpendicular to ditch. Over joints per Detail 'A'.



DITCH PROTECTION ⑥



INSTALLATION IN DITCH

LEGEND	
---	Contour Lines
←	Flow
■	Wood Stake ⑤

NO.	BY	REVISION	
		DATE	DESCRIPTION
4		04-21-20	

STANDARD ROAD PLAN
EC-204
 SHEET 3 of 3

REVISIONS: Modified circle notes 3 and 5.

APPROVED BY DESIGN METHODS ENGINEER

**PERIMETER AND SLOPE SEDIMENT
CONTROL DEVICES**

DRAWN BY:	PROJECT NUMBER: 21-06-58-04
CHK'D BY:	DATE: January 18, 2022
SHEET NO.:	B.04

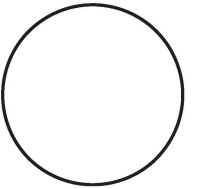
ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM	UNIT	TOTAL
1	Earthwork, Fill Hauled and Placed, Clean Sand (Site 1)	CY	297
2	Erosion Control Mat, RECP Type 2.A (Site 1)	SY	112
3	Seeding and Fertilizing (Site 1)	ACRES	0.1
4	Earthwork, Fill Hauled and Placed, Clay (Site 2)	CY	3,260
5	Erosion Control Mat, RECP Type 2.C (Site 2)	SY	4,889
6	Seeding and Fertilizing(Site 2)	ACRES	1.5
7	Earthwork, Fill Hauled and Placed, Clay and Clean Sand (Site 3)	CY	5
8	Erosion Control Mat, RECP Type 2.C (Site 3)	SY	14
9	Seeding and Fertilizing (Site 3)	ACRES	0.1
10	Earthwork, Fill Hauled and Placed, Clay and Clean Sand (Site 4)	CY	3
11	Erosion Control Mat, RECP Type 2.C (Site 4)	SY	9
12	Seeding and Fertilizing (Site 4)	ACRES	0.1
13	Earthwork, Fill Hauled and Placed, Clay and Clean Sand (Site 5)	CY	3
14	Erosion Control Mat, RECP Type 2.C (Site 5)	SY	9
15	Seeding and Fertilizing (Site 5)	ACRES	0.1
16	Earthwork, Fill Hauled and Placed, Clay and Clean Sand (Site 6)	CY	1
17	Erosion Control Mat, RECP Type 2.C (Site 6)	SY	3
18	Seeding and Fertilizing (Site 6)	ACRES	0.1
19	Earthwork, Fill Hauled and Placed, Clay and Clean Sand (Site 7)	CY	17
20	Erosion Control Mat, RECP Type 2.C (Site 7)	SY	51
21	Seeding and Fertilizing (Site 7)	ACRES	0.1
22	Seeding and Fertilizing (Construction Road)	ACRES	3.1
23	Mobilization	LS	1

ESTIMATE REFERENCE INFORMATION	
ITEM NO.	DESCRIPTION
	<p>Earthwork, Fill Hauled and Placed (All sites)</p> <p>A. Borrow material shall be contractor furnished.</p> <p>B. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event, March 12, 2019 (i.e. an existing quarry that has been licensed prior to the event).</p> <p>For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g. a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a subrecipient or their contractor commencing borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding.</p> <p>Documentation of borrow sources utilized is required at closeout.</p> <p>C. Place fill as directed by the DNR Inspector.</p> <p>D. Clearing, grubbing and stripping vegetation shall be incidental.</p> <p>E. Steel plates to protect outlet structure crossing shall be incidental.</p> <p>Erosion Control Mat, RECP Type 2.A (Site 1) Erosion Control Mat, RECP Type 2.C (Site 2-7)</p> <p>A. Clearing, grubbing and stripping vegetation shall be incidental.</p> <p>B. Placed on repaired side slope.</p> <p>C. SUDAS Standard Specifications, Section 9040 - Erosion and Sediment Control-2.05</p> <p>Seeding and Fertilizing (All sites and construction road)</p> <p>A. Seed with a cover crop of oats seeded at 1 bushels per acre immediately upon completion of earthwork shall be incidental.</p> <p>B. Seed mix below to be planted between August 1 - September 30.</p> <p>Smooth Brome 6 lbs/ac Perennial Rye 6 lbs/ac Tall Fescue 10 lbs/ac Red Clover 4 lbs/ac</p>

NOTES
<p>1. Damage to the levee due to access and construction activities shall be repaired to pre-construction conditions and shall be incidental.</p> <p>2. The dike shall be mowed short to facilitate snake visibility (during the active season) in the area where equipment will be in use.</p> <p>3. The Contractors shall be made aware of the potential for state-listed snakes in the area through September. If a snake is observed, the contractor shall avoid contact with the snake and notify DNR staff for assistance in moving it to a safer location outside of the construction area should that be necessary.</p>

GENERAL NOTES
<p>Verify actual locations and elevations with DNR Engineer.</p> <p>All work shall conform to and be performed in accordance with all applicable codes and ordinances.</p> <p>The contractor shall visit the site and inspect the project area and thoroughly familiarize themselves with the actual job conditions prior to bidding and the start of work. Failure to visit the project site shall not relieve the contractor from performing the work in accordance to the plans, specification, special provisions and contract.</p> <p>The contractor shall verify, at the site, all dimensions and conditions shown on the plans and shall notify the DNR Engineer of any discrepancies, omissions, and/or conflicts prior to proceeding with the work.</p> <p>It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans or approved by the DNR Engineer.</p> <p>The contractor shall not disturb desirable grass areas and desirable trees outside the construction limits. The contractor will not be permitted to park or service vehicles and equipment or use these areas for storage of materials. Storage, parking and service areas will be subject to the approval of the DNR Engineer.</p> <p>Where utilities and fixtures are shown as Existing on the plans or encountered within the construction area, it shall be the responsibility of the contractor to notify the DNR Engineer of those utilities prior to the beginning of any construction. The contractor shall be afforded access to these facilities for necessary modification of services. Underground facilities, structures and utilities have been plotted from available surveys and records and therefore their locations must be considered approximate only. It is possible there may be others, the existence of which is presently not known or shown. It is the contractor's responsibility to determine their existence and exact location and to avoid damage thereto. No claims for additional compensation will be allowed to the contractor for any interference or delay caused by such work.</p> <p>The contractor shall shape graded area to maintain surface drainage. All elevations are to finish grade.</p> <p>The contractor is expected to have materials, equipment, and labor available on a daily basis to install and maintain erosion control features on the project. This may involve seeding, silt fence, rock ditch checks, silt basins or silt dikes.</p>

CONSULTANT:



IOWA DEPARTMENT OF
NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034



QUANTITIES AND GENERAL INFORMATION

FLOOD DAMAGE REPAIRS REBID FOR:

ODESSA WILDLIFE UNIT

LOUISA COUNTY

NO. DATE REVISION

DRAWN BY: PROJECT NUMBER:
21-06-58-04

CHK'D BY: DATE:
January 18, 2022

SHEET NO.:

C.01

Site 3
 41.159397,-91.039200
 Clear, grub and strip vegetation to 6-inch depth.
 Embankment Fill (20'x6'x1'), Clay for levee cap and exterior slopes and
 clean sand for interior levee slope repairs.
 Erosion Matting on 3:1 Side Slope (20'x6')
 Seeding and Fertilizing

Site 4
 41.159096,-91.039422
 Clear, grub and strip vegetation to 6-inch depth.
 Embankment Fill (20'x4'x1'), Clay for levee cap and exterior slopes and
 clean sand for interior levee slope repairs.
 Erosion Matting on 3:1 Side Slope (20'x4')
 Seeding and Fertilizing

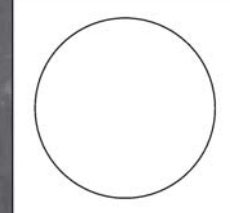
Site 6
 41.155626,-91.042954
 Clear, grub and strip vegetation to 6-inch depth.
 Embankment Fill (8'x3'x1'), Clay for levee cap and exterior slopes and
 clean sand for interior levee slope repairs.
 Erosion Matting on 3:1 Side Slope (8'x3')
 Seeding and Fertilizing

Site 7
 41.156011,-91.042672
 Clear, grub and strip vegetation to 6-inch depth.
 Embankment Fill (19'x24'x1'), Clay for levee cap and exterior slopes and
 clean sand for interior levee slope repairs.
 Erosion Matting on 3:1 Side Slope (19'x24')
 Seeding and Fertilizing

Site 5
 41.153826,-91.045274
 Clear, grub and strip vegetation to 6-inch depth.
 Embankment Fill (20'x4'x1'), Clay for levee cap and exterior slopes and
 clean sand for interior levee slope repairs.
 Erosion Matting on 3:1 Side Slope (20'x4')
 Seeding and Fertilizing

Site 1
 41.151291,-91.050569
 Clear, Grub and Strip Vegetation.
 Excavate to create stair step grade.
 Embankment Fill (50'x40'x4'), Clean Sand.
 Erosion Matting on 5:1 Side Slope (50'x20')
 Seeding and Fertilizing

CONSULTANT:



IOWA DEPARTMENT OF
 NATURAL RESOURCES
 ENGINEERING SERVICES - WALLACE BUILDING
 502 E. 9TH ST., DES MOINES, IA 50319-0034

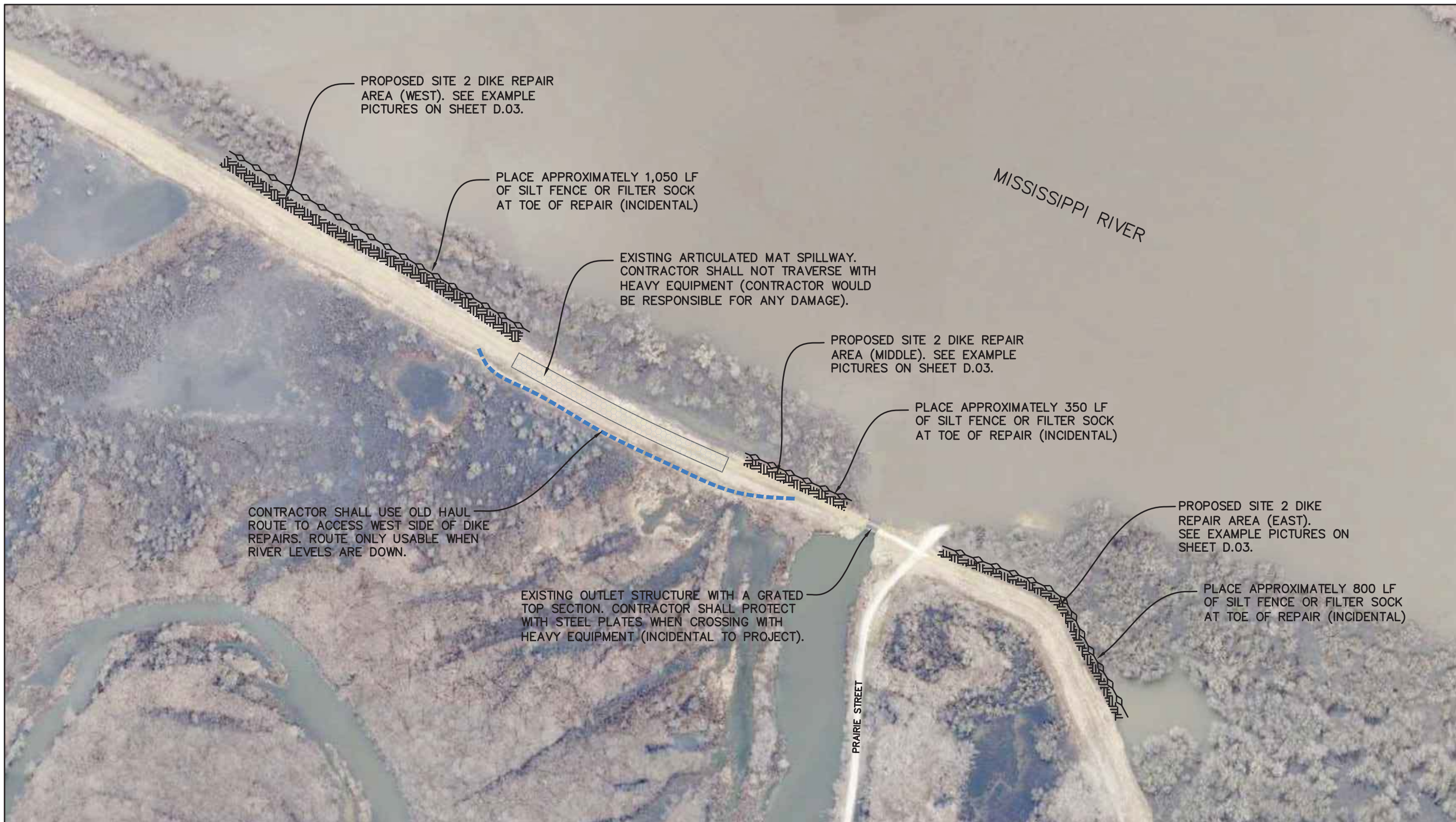


DIKE REPAIR PLAN - SITE 1, 3-7

FLOOD DAMAGE REPAIRS REBID FOR:
 ODESSA WILDLIFE UNIT
 IOWA COUNTY

NO.	BY	DATE	REVISION

DRAWN BY: PROJECT NUMBER:
 21-06-58-04
 CHK'D BY: DATE:
 January 18, 2022
 SHEET No:
D.01



PROPOSED SITE 2 DIKE REPAIR AREA (WEST). SEE EXAMPLE PICTURES ON SHEET D.03.

PLACE APPROXIMATELY 1,050 LF OF SILT FENCE OR FILTER SOCK AT TOE OF REPAIR (INCIDENTAL)

EXISTING ARTICULATED MAT SPILLWAY. CONTRACTOR SHALL NOT TRAVERSE WITH HEAVY EQUIPMENT (CONTRACTOR WOULD BE RESPONSIBLE FOR ANY DAMAGE).

PROPOSED SITE 2 DIKE REPAIR AREA (MIDDLE). SEE EXAMPLE PICTURES ON SHEET D.03.

PLACE APPROXIMATELY 350 LF OF SILT FENCE OR FILTER SOCK AT TOE OF REPAIR (INCIDENTAL)

CONTRACTOR SHALL USE OLD HAUL ROUTE TO ACCESS WEST SIDE OF DIKE REPAIRS. ROUTE ONLY USABLE WHEN RIVER LEVELS ARE DOWN.

EXISTING OUTLET STRUCTURE WITH A GRATED TOP SECTION. CONTRACTOR SHALL PROTECT WITH STEEL PLATES WHEN CROSSING WITH HEAVY EQUIPMENT (INCIDENTAL TO PROJECT).

PROPOSED SITE 2 DIKE REPAIR AREA (EAST). SEE EXAMPLE PICTURES ON SHEET D.03.

PLACE APPROXIMATELY 800 LF OF SILT FENCE OR FILTER SOCK AT TOE OF REPAIR (INCIDENTAL)

MISSISSIPPI RIVER

PRAIRIE STREET

SITE 2 DIKE REPAIR NOTES:

1. EMBANKMENT FILL AREAS TO BE MARKED BY THE IOWA DNR FIELD ENGINEER AND ARE APPROXIMATELY 20' WIDE BY 2' DEPTH IN THE AREAS SHOWN (2,200 LF TOTAL FOR AN APPROXIMATE FILL QUANTITY OF 3,260 CY).
2. CONTRACTOR SHALL CLEAR, GRUB AND STRIP ALL VEGETATION AND TOPSOIL TO A 6-INCH DEPTH (INCIDENTAL).
3. PLACE CLAY FILL IN 8-INCH COMPACTED LIFTS STAIR STEPPED PER DETAIL ON SHEET B.01.
4. PLACE ANY REMAINING STRIPPED TOPSOIL OVER THE CLAY FILL (INCIDENTAL).
5. SEED, FERTILIZE AND PLACE EROSION CONTROL MATTING (APPROXIMATELY 4,889 SY).
6. SILT FENCE AND/OR 8" FILTER SOCK TO BE PLACED AT THE TOE OF THE REPAIRS (INCIDENTAL).

SCALE: 1"=300'



NORTH

CONSULTANT:
NONE

**IOWA DEPARTMENT OF
NATURAL RESOURCES**

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034



DIKE REPAIR PLAN - SITE 2

FLOOD DAMAGE REPAIRS FOR:

ODESSA WILDLIFE UNIT

LOUISA COUNTY

NO.	DATE	REVISION

DRAWN BY MDJ	PROJECT NUMBER 21-06-58-04
CHECKED BY H.D.	DATE JANUARY 2022
SHEET No.	

D.02

AT THE TIME OF BIDDING, SITE 2 MAY BE DIFFICULT TO ACCESS OR VIEW DUE TO SNOW AND VEGETATION COVER. BELOW ARE EXAMPLE PICTURES OF THE DAMAGE.

WEST END



MIDDLE AREA



EAST END



CONSULTANT:
NONE

IOWA DEPARTMENT OF
NATURAL RESOURCES

ENGINEERING SERVICES - WALLACE BUILDING
502 E. 9TH ST., DES MOINES, IA 50319-0034



DIKE REPAIR PLAN - SITE 2

FLOOD DAMAGE REPAIRS FOR:

ODESSA WILDLIFE UNIT

LOUISA COUNTY

NO.	DATE	REVISION

DRAWN BY: MDD PROJECT NUMBER: 21-06-58-04

CHECKED BY: H.D. DATE: JANUARY 2022

SHEET No:

D.03