						ΤΟΤΑΙ
ш	INDEX OF SHEETS				REVISIONS	20
2Ø 2Ø	No. DESCRIPTION					20-92-001-010
G [-2Ø	A.1 Title Sheet					PROJECT NUMBER
ΓIN 16-	A.1 Location Map Sheet B Sheets Typical Cross Sections and De	tails				ER-001-4(57)28-92
ET] 36-	B.1 Typical Cross Sections and Details	Hi	ahway Division			R.O.W. PROJECT NUMBER
	C Sheets Quantities and General Inform	ition PLANS	OF PROPOSED IMPROVEMENT ON THE			
	C.1 Estimated Project Quantities					
10 10	C.1 Standard Road Plans	PRIMAI	KY RUAD SYS			
	C.1 General Notes C.2 Tabulations		18581 88'			
ШШ 82	CS Sheets Soils Tabulations		4((5 (U) N (G(U))	iuinni II y		
l Crij	D Sheets Mainline Plan and Profile She					
	* D.1 1993 IA 1 As-Builts * D.2 1952 IA 1 As-Builts		SLIDE REPAIR			
	J Sheets Traffic Control and Staging S	leets	0.6 mi N of IA 78			
	Q Sheets Soils Sheets					
4 2	Q.1 Soils Information Sheet * 0.2 Soils Sheets IA 1		SLALES: As Noted			
	R Sheets Erosion Control Sheets	Refer to	the Proposal Form for list of applicable specifications.			
l Q	RC SheetsQuantities and General InformationRC.1 - 3Signature Block, Quantities and General	. Information				
	RR Sheets Erosion Control Plan Sheets * RR.1 Erosion Control Legend and Symbol Info	mation Sheet	ring Saves. Refer to Article 1105.14 of the Specification		JALL	
Ľ Ú	* RR.2 Erosion Control For Information Only S	eet		1-800-292-898	9 81	
LLI	W.1 - 5 IA 1			www.iowdonecall.co	Knew what's below. Call before you dig.	
	* Color Plan Sheets					
TON Co.	T-7 4N KEOKUK CO. T-7 4N T-7 4N T-	STORH ST Store Store	PROJECT LOCATION M.P. 44.75 SB			
ک		W21 W40				ROADWAY DESIGN
	R-9W	K-8M		INDEY OF SEALS		I hereby certify that this engineering document was prepared
			CN DATA PUPAL SHEET NO.		TYPE	uy me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.
52				ul W. Flattery Primary	Signature Block	Part Thatters 04-07-2020
		2017 20	AADT V.P.D. CS.1 Mat RADT V.P.D. RC.1 Sea	ana K. Godbold Landscap	e Design	Signature Date Paul W. Flattery
			DHV V.P.H.		Singer / O WA	Printed or Typed Name My license renewal date is December 31, 20 21
		1 2 3 Total			Pages or sheets covere	
		Miles Design	ESALS			
FILE NO.	ENGLISH DESIGN TEAM FIATTERY \ JA	<u>۸</u>	WASHING I UN COUNTY		ホーリリ エーチビン / ノーー イダーダイ	SHEEL NUMBER A.I

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	ROADWAY DESIGN	
Paul W. Flattery 15282	I hereby certify that this engineering document was pre- by me or under my direct personal supervision and t am a duly licensed Professional Engineer under the la the State of Iowa.	pared hat I aws of 20
ages or sheets covered	J by this seal: A.1, B.1, C.1-C.2, D.1-D.2, J.1	

|--|--|



(1) Correct and maintain the finished slope to the maximum allowable slope of 3.0 % and minimum allowable slope of 2.0 %.

2618M MODIFIED

Notes:

- 2 Place and compact material to the dashed lines; then blade and shape to foreslope that portion above the solid line in the outer 2' and roll with loaded truck tire.
- (3) Existing shoulder surface to be shaped to a uniform cross slope prior to placing granular shoulder material. Shape to ensure the thickness of the granular shoulder material is not less than the thickness of the resurfacing.

TYPICAL CROSS SECTION HMA RESURFACING & PAVEMENT SCARIFICATION

-28-92	SHEET NUMBER	B.1	

100-1D 10-18-05

100-1A 07-15-97

PROJ	ECT	DESCR	VIPTION
------	-----	-------	----------------

This project involves repairing a foreslope slide in the west emabankment at MM 44.75 on IA 1.

ESTIMATED PROJECT QUANTITIES (1 DIVISION PROJECT)

Item No.	Item Code	Item	Unit	Total	As Built
1	2101-0850001	CLEARING AND GRUBBING	ACRE	0.4	
2	2102-2625000	EMBANKMENT-IN-PLACE	CY	1,657.0	
3	2102-2710090	EXCAVATION, CLASS 10, WASTE	CY	874.0	
4	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	650.0	
5	2107-3825025	GRANULAR MATERIAL FOR BLANKET AND SUBDRAIN	CY	162.0	
6	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	35.0	
7	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	2.50	
8	2214-5145150	PAVEMENT SCARIFICATION	SY	100.0	
9	2303-0001000	HOT MIX ASPHALT MIXTURE, WEDGE, LEVELING OR STRENGTHENING CO URSE	TON	5.5	
10	2303-1033502	HOT MIX ASPHALT STANDARD TRAFFIC, SURFACE COURSE, 1/2 IN. MI X,	TON	11.03	
		FRICTION L-2			
11	2303-1252343	ASPHALT BINDER, PG 52-34S, STANDARD TRAFFIC	TON	0.99	
12	2502-8212024	SUBDRAIN, LONGITUDINAL, (BACKSLOPE) 4 IN. DIA.	LF	430.0	
13	2502-8221306	SUBDRAIN OUTLET, DR-306	EACH	2	
14	2528-8445110	TRAFFIC CONTROL	LS	1.00	
15	2533-4980005	MOBILIZATION	LS	1.00	
	SEE R	SHEETS FOR ADDITIONAL BID ITEMS AND	QUAN	TITIES.	
			1		
	1		1	1	-

		ESTIMATE REFERE
Item No.	Item Code	
1	2101-0850001	CLEARING AND GRUBBING
		Quantity includes all disturbed areas.
-	-	-
2	2102-2625000	EMBANKMENT-IN-PLACE
3	2102-2710090	EXCAVATION, CLASS 10, WASTE
		See Tab. 103-12 in the CS Sheets for locati
-	-	
4	2105-8425015	IUPSUIL, SIRIP, SALVAGE AND SPREAD
		See Tab. 103-10 and Tab. 103-12 in the CS S
-	-	- CRANULAR MATERIAL FOR REANKET AND SURDRATH
	2107-3823023	See Tab 103-12 in the CS Sheets for locati
	-	
6	2121-7425020	GRANULAR SHOULDERS, TYPE B
7	2123-7450000	SHOULDER CONSTRUCTION. EARTH
-		See Tab. 112-9 in the C Sheets for location
-	-	-
8	2214-5145150	PAVEMENT SCARIFICATION
9	2303-0001000	HOT MIX ASPHALT MIXTURE, WEDGE, LEVELING OR
10	2303-1033502	HOT MIX ASPHALT STANDARD TRAFFIC, SURFACE C
11	2303-1252343	ASPHALT BINDER, PG 52-34S, STANDARD TRAFFIC
		See Typical 2618M in the B Sheets and Tab.
-	-	-
12	2502-8212024	SUBDRAIN, LONGITUDINAL, (BACKSLOPE) 4 IN. D
13	2502-8221306	SUBDRAIN OUTLET, DR-306
		See Tab. 104-9 in the CS Sheets for locatio
-	-	
14	2528-8445110	
- 15	2533-4980005	
15	2555-4580005	
-	-	-

							1	105-4 0-18-11
			STANDARD I	ROAD PLANS				
		The following	g Standard Road Plans apply	y to construction work o	on this project.			
Number	Date			Title				
DR-303	10-17-17	Subdrains (Longitudina	al)					
DR-306	10-16-18	Precast Concrete Headw	all for Subdrain Outlets					
PV-202	04-21-20	Hot Mix Asphalt Resurf	acing					
TC-1	10-15-19	Work Not Affecting Tra	affic (Two-Lane or Multi-La	ane)				
TC-202	04-21-15	Work Within 15 ft of 1	raveled Way					
TC-213	10-15-19	Lane Closure with Flag	gers					
								262.6
								262-6
							1	9-18-05
					UTILITI	ES		
				(NOT /	A POINT 25	5 PROJ	ECT)	
				This is NOT a POINT 25	5 project and is n	ot subject	to the	
				provisions of TAC 761-	-115.25.		. co che	
				p. 0.1010.00 01 1AC 701				
			EP_001_1(57)	28-02	CHEET NUMBER	C 1		
ONTING		ITT FROJECT NUMBER	EK-001-4(57)	20-32	SHELI NUMBER	C.1		

FILE NO.	ENGLISH	DESIGN TEAM Flattery\Jack	WASHINGTON COUNTY	PROJECT NUMBER	ER-001-4(57)-

100-4A 10-29-02

INFORMATION

Description

ions and details.

Sheets for locations and details.

ions and details.

ns and details.

R STRENGTHENING CO URSE COURSE, 1/2 IN. MI X, FRICTION L-2

100-25M in the C Sheets for locations and details.

DIA.

ons and details.

													HMA	PAVEM	ENT													100-25M Modified
		<u>}</u>) (© 			z 5																		
E			© ©	B		<u> </u>			==				-	CI W	hannelized /iden Existi	I Intersection ng Roadway												
	<u> </u>			Ramp or	E F Loop Tape				77					CI Re	hannelized	I Intersection ed Roadway						 (1) (2) (3) (4) 	Does no Refer to Refer to Quantity Estimato	t include o tabulati o PV-410, y includes ed for 1 a	raised isl on 112-4 f PV-411, PV Pavement pplication	and area o or quanti 7-412, and Header. 1 at 0.05 p	or curb. ties. PV-414. gal./sq. y	d.
Calculations assume	a surface o	course i	unit weight (lt	bs/cf) of	f 147, an	intermedi	ate course	e unit we	eight (lb	s/cf) of	147, a	base cour	rse unit	weight (l	.bs/cf) o	f 0, and a	special	backfill un	it weight ((lbs/cf) o Bi	f 140. d Items							
Road 5	Talana Sta	ation to	o Station	Width	Length	Area	A	В	c	D	E	F	G	Н	Su	Ho rface	nt Mix As HMA, Leve Strer C	phalt Pavem , Wedge, eling or nghtening Course	ent Ba	se	Surface	Intermediate uapuig	Base	Special Backfill	Modified Subbase	Granular Subbase	Pavement Scarification	(4) Tack Coat
				FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	TONS	SY	TONS	SY	TONS	SY	TONS	TONS	TONS	TONS	СҮ	SY	SY	GAL
IA 1 SB	131+	50.00	132+25.00	12.0	75.0	100.0									11.03	100.0	5.5	5 100.0			0.66	0.33					100.0	5.0
TOTALS:															11.03	100.0	5.5	100.0			0.66	0.33					100.0	5.0
 Lane(s) to which th Bid Item Applies only for P. Does not include sh Calculations assummed 	he shoulder Paved Should hrink. He a HMA uni	r is ad <u>-</u> ders cor it weigt	jacent. nstructed on pr nt (1bs/cf) of	roject wi 0, a Spe	ith existi ecial Back	ng granul fill unit	ar shoulde weight (1	ers. lbs/cf) d	of 140, a	nd a Gran	ular Sh	oulder ur	SHO	ULDER	RS													112-9 10-15-13
	Locatio	n			P	G				3)					. Reir	forced		Quantities							Earth Sho	ulder Cons	struction	
Road Identification	0f Traffic	ation to	o Station	Side	Width FT	Width FT	Lengtl	/ C	CY	Hot 2 TON	Mix Asp	ohalt ON/STA	Binder TONS	Paved Should SY	d P ler Sho	aved bulder SY 2	HMA Alt	Special E cernate TON/STA	PCC Al TON ⁽²⁾	ternate TON/STA	Modi+i Subbas	ed Gra	anular S ON②	houlder TON/STA	STA ²	Alternates HMA CY 4	PCC CY ④	Remarks
IA 1 SB	3 130+	50.00	133+00.00			8.6	250	0.0															35.0	14.0	2.5	0.7		
TOTALS:																							35.0		2.5	0.7		
FILE NO.	ENGLISH	DESIGN	N TEAM Flat	ttery	\Jack									WASH	INGT	ON COUNT	Y PROJE	ECT NUMBER	ER-0	01-4(5	57)2	28-92		SHE	ET NUMBER	C.2	2	

																								103-1 10-15-1
												SLI	DE RE	PAIR										
Site No.	Begin	Location Sta. E	nd Sta.	Side	Boulders (12 Exc.	Cl. Embankme Pla	ent-in- ace	Cl: Excavation	Waste	Class Reve	s "E" Engineer tment Fabrio	ing Erosio	on Stone	Gra. Material Blankets & Subdrain	Macadam Stone Slope Protection	Furnis Sprea	Top Soil sh & Strip ad &	o, Salvage Spread			Re	emarks		
1	130+	25.00	132+15.00	Lt.	CY	C\	Y 1657	CY	CY 87	4	ns SY	T	ons	<u>CY</u> 162	SY	СҮ		CY 650						
										LONG	ITUDINAL	SUBDRA	IN SH		and bac	KSLOPI	E							104- 10-17-
* No	ot a bid	item. Bridg	ge berm qua Loca	ntitie	es assume a	trench dept	h of 24	inches.	Long	itudinal S	ubdrain (DR-303)	Kere		Su	bdrain Outlet									
Lino	Bood	on Long	Loca	11011			Depth	Shoulder	Bac	kslope	Bridge Berm	(EW-203 or	EW-204)	DR-303,	DR-305 or DR	-306	Porous*	Class "A"* Crushed				Remarks		
No.	Ident	ification	Stati	on to	Station	Side (Size Le	ngth Size	Length	Standard Road Pi and Type	lan Size	Length	Station	Standard R and T	load Plan Type		Stone	_			Kellar KS		
1		NBL	130+25	.00	132+15.00	0 LT	IN 66.0	IN	-1 IN 4.0	215.0				131+20.0	00	DR-306	26.5		place	e on bench at eleva	tion 665			
2		NBL	130+25	.00	132+15.00	9 LT	66.0		4.0	215.0			_	130+25.0	0	DR-306	26.5		place	e on bench at eleva	tion 655			
																200								
otals									0.0	430.0					DR-	-306 = 2								
					TOPSOI	L STRIF	PPINO	G AND P	LACEMEN	Г Г		103 04-18	-10	EMBANKM	IENT WIT	H MOI	STURE		03-6 .7-17		SHRI	NKAGE	DATA	103-7 08-01-08
Ro	ad Ident:	ification	Locatio Dir. of Traffic	n Begin	Station I	End Station	— Topsoi Th	1 Stripping Nickness	Topsoil Place Thickness	ment	Remarks		Ma 10 fe	oisture Contro ocations and d oreslope templ	l is required epths. Stabil ate and topsoi	for all C ity berms l will not	lass 10 fil placed out t require M	l placed in a side the norm oisture Contr	ll al ol.	Material Class 10		% 30%	Remar	<5
IA 1			SBL	13	30+25.00	132+15.00		12.0	TIA	8.0										Topsoil		40%		
																				G	EOTEC	CHNIC/	L DESIG	
																				Superson and A States of A Sta	by me am a	e or under my d duly licensed	rect personal super Professional Enginee	vision and that I r under the laws of
																				Mark A.	the S	State of Iowa.	<u> </u>	3/2/2
																				Dell	Signa	ature	Leh	Date

WASHINGTON COUNTY PROJECT NUMBER ER-001-4(57)--2 ENGLISH DESIGN TEAM MEGIVERN\DELL\MOYLE FILE NO. 3/3/2020 12:55:41 PM gmoyle c:\pw_work\pwmain\gmoyle\d1013251\92001057.xlsm

-9 17

GEOT	ECHNICAL DESIGN
POFESSIOA Mark A. Dell 21208	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. Mark A. Dell Printed or Typed Name My license renewal date is December 31, 2021
Pages or sheets covered by t	this seal: <u>CS.1, Q.1-2, W.1-5</u>
28-92	SHEET NUMBER CS.1



FILE NO.	ENGLISH	DESIGN TEAM Flattery \ Jack	WASHINGTON COUNTY	PROJECT NUMBER	ER-001-4(57)-
10:34:22 AM 2/25/2020	mjack	pw:\\ntPwInt1.dot.int.lan:PWMain\Documents\Projects\9200101020\De	sign\CADD_Files\Sheet_Files\92001057_D01.dgn		

2002 Hed-fred	
Rebeau	
Firsthed slippe shall match assuting powerent except that the measure allowable slope in 3.0 2, minimum allowable slope is 2.8 %. Section may be madified as devocated by the engineer through areas of special shaping.	
Pefer to totalistics instang of agenelowered curves and Standard Read Rens for additional requirements through agenelievated curves.	
Shoulder network as specified elementary in them plane refer to hyperois [123] for "type & fronder Surfaced Shoulden".	
Tack Cost estimated for 2 applications.	
Includes 429 tans for ensure convention.	
TYPICAL CROSS SECTION HALT CEMENT CONCRETE RESURFACING	

28-92	SHEET NUMBER	D.1	



Traffic or	n IA 1 shall	be maintained at a	TRAFFIC	CONTROL PLAN	108-23A 08-01-08			
					511 TRAVEL RESTRIC	TIONS		
Route	Direction	County		Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restrictio
			No travel restriction	ns expected.				
Other work include the operations same area. None provi	COORDIN in progress of construction with those of Project ided.	NATED OPER during the same pen of the projects f other contractor	ATIONS riod of time will listed. Coordinate s working within the Type of Work					

FILE NO. ENGLISH DESIGN TEAM Flattery\Jack BR-001-4(57)-

108-25 10-21-14

on	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks

28-92	SHEET NUMBER	J.1

Slide Repair - IA 1

On the west (left) side of IA 1 from approximate Station 130+25 to Station 132+15, bench and rebuild the foreslope to pre-existing conditions (3:1 slope or flatter) using suitable Class 10 cohesive material.

The repair shall start near/at the toe of the existing foreslope and then extend up-slope to within 1-foot of the outside edge of the gravel shoulder.

Benches shall extend a minimum of 6 feet into the undisturbed foreslope.

Slope repair shall avoid damaging the water service utility located near the toe of the existing foreslope.

Install a foreslope bench drain on the benches as shown on Sheet W.3 and detailed in Tab 104-09.

Strip 12 inches of surficial material to be considered topsoil and then spread 8 inches of this topsoil material after rebuilding the foreslope.

Actual limits of the repair will depend on conditions at the time of construction.

FILE NO. ENGLISH DESIGN TEAM MEGIVERN/DELL/MOYLE WASHINGTON COUNTY PROJECT NUMBER ER-ØØ1-4(57)28-92 SHEET NUMBER Q.1						
FILE NO. ENGLISH DESIGN TEAM MEGIVERN/DELL/MOYLE WASHINGTON COUNTY PROJECT NUMBER ER-001-4(57)28-92 SHEET NUMBER Q.1						
FILE NO. ENGLISH DESIGN TEAM MEGIVERN/DELL/MOYLE WASHINGTON COUNTY PROJECT NUMBER ER-ØØ1-4(57)28-92 SHEET NUMBER Q.1						
	FILE NO.	ENGLISH	DESIGN TEAM MEGIVERN\DELL\MOYLE	WASHINGTON COUNTY	PROJECT NUMBER ER-001-4(57)28-92	SHEET NUMBER Q.1



100-1A 07-15-97

ESTIMATED PROJECT QUANTITIES

		(I DIVISION PROJECT)			
Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2601-2638352	SLOPE PROTECTION, WOOD EXCELSIOR MAT	SQ	56.0	
2	2601-2643110	WATERING FOR SOD, SPECIAL DITCH CONTROL, OR SLOPE PROTECTION	MGAL	11.20	
3	2601-2643412	TURF REINFORCEMENT MAT, TYPE 2	SQ	56.0	
4	2602-0000020	SILT FENCE	LF	231.3	
5	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	231.3	
6	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	23.1	
7	2602-0000150	STABILIZED CONSTRUCTION ENTRANCE, EC-303	LF	100.0	
8	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1	
9	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1	

100-4A 10-29-02

ESTIMATE REFERENCE INFORMATION Item Code Description Item No. 2601-2638352 SLOPE PROTECTION, WOOD EXCELSIOR MAT 1 Refer to Tab. 100-22 for locations. Refer to Standard Road Plan EC-103 ------Prepare seedbed according to Article 2601.03, B, 4, of the Standard Specifications prior to seeding and fertilizing under the slope protection. 2601-2643110 WATERING FOR SOD, SPECIAL DITCH CONTROL, OR SLOPE PROTECTION 2 Estimate for watering Special Ditch Control, Slope Protection Areas, Turf Reinforcement Mat, or Transition Mat is based on a total of four waterings at a rate of 50 gallons per square. Estimate for watering Sod is based on a total of six waterings at a rate of 100 gallons per square. 2601-2643412 TURF REINFORCEMENT MAT, TYPE 2 2602-0000020 SILT FENCE 4 Refer to Tab. 100-17. The tabulation includes estimated locations for placement of "Silt Fence" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes tab quantity for the paving project for new locations and 10% of the original tab quantity for the grading project (insert original tab quantity from the grading project) for field adjustments and replacements. 2602-0000071 REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS 5 This item is included for silt fence and silt fence for ditch check removal required for staging reasons, removal to allow for replacement (replacement to be paid separately), or for areas that have achieved 70% permanent growth. 6 2602-0000101 MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK This item is included for maintaining the new silt fence and silt fence ditch checks installed for the paving project and existing silt fence and silt fence ditch checks installed as part of the grading project. 2602-0000150 STABILIZED CONSTRUCTION ENTRANCE, EC-303 8 2602-0010010 MOBILIZATIONS, EROSION CONTROL 2602-0010020 MOBILIZATIONS, EMERGENCY EROSION CONTROL

FILE NO.	ENGLISH	DESIGN TEAM GODBOLD\POHLEN\MCDONALD	WASHINGTON COUNTY	PROJECT NUMBER ER-001-4(57)



			105-4 10 18 11	
		STANDARD		HERBICIDE
		JI ANDARD		
Number	Date	The following Standard Road Plans appl	y to construction work on this project.	For all nerbicide applications, the following pro-
EC-103	04-21-15	Wood Excelsior Mat for Slope Protection	litte	аррту.
EC-104	04-17-18	Turf Reinforced Mat (TRM)		1. Follow all laws, rules and regulations related
EC-201	10-15-19	Silt Fence		of pesticides, including but not limited to:
EC-502	04-21-15	Seeding in Rural Areas		a. Follow all herbicide label directions, rest
				precautions.
				D. The company responsible for the herbicide a
				(IDALS) as a commercial pesticide applicator comp
		232-3A	232-3C	c. The person applying the herbicide must be c
		04-16-19	04-16-19	IDALS as a pesticide applicator in Category 6, Ri
	F	ROSTON CONTROL	FROSTON CONTROL	herbicide applications that require an aquatic ce
	_			applicator must also be certified as a pesticide
	(RURAL SEEDING)	(NATIVE GRASS SEEDING)	Category 5, Aquatics.
Following	the completi	ion of work in a disturbed area and according	Following the completion of work in a disturbed area and according	application site:
to the see	ding dates i	in Section 2601 of the Standard	to the seeding dates in Section 2601 of the Standard	i. For applications on the primary highway
Specificat	ions, place	seed, fertilizer, and mulch on the disturbed	Specifications, place seed and mulch on the disturbed area lying 8	only products labeled for use on highway rights-o
area lying	8 feet adja	acent to shoulder and median as follows:	feet or more beyond the shoulder as follows:	roadsides.
	and fontili	ize according to the neguinements of Anticle	CEED MTY.	ii. For applications to or over water, use o
2601.03.C.	3 and Section	on 4169 of the Standard Specifications	Big bluestem (Andronogon geradii) 6 lbs. PLS/Acre (7.0 kg/ba)	intermittent nockets of standing water such as t
,			Indiangrass (Sorghastrum nutans) 6 lbs. PLS/Acre (7.0 kg/ha)	product is labeled for such use.
Place mulc	h according	to the requirements of Articles	Little bluestem (Schizachyrium scoparium)	iii. For applications to areas in the water c
2601.03,E,	2,a and 4169	9.07,A of the Standard Specifications.	6 lbs. PLS/Acre (7.0 kg/ha)	of the ditch that do not contain water at the tim
Decessing	the coodbod	funniching and applying cood	Partridge Pea (Chamaecrista fasciculata)	use only products labeled for non-irrigation ditc
fortilizor	and mulch	are all incidental to mobilization and will	4 IDS. PLS/ACTE (4.5 Kg/Hd) Sideoats grama (Boutelous curtinendula)	aquatic sites.
not be pai	d for separa	ately.	4 lbs. PLS/Acre (4.5 kg/ha)	water unless required coverage is obtained under
-			Canada wildrye (Elymus canadensis) 2 lbs. PLS/Acre (2.2 kg/ha)	Pollutant Discharge and Elimination System (NPDES
		232-11	Switchgrass (Panicum virgatum) 1 lbs. PLS/Acre (1.1 kg/ha)	Discharge Permit through Iowa DNR. If standing or
		04-16-19	Oats (Avena sativa) 32 lbs./Acre (36.0 kg/ha)	encountered in areas when they need to be sprayed
	E	ROSION CONTROL	Eurnich Big bluecter Indiangnass Canada wildowe and Little	(Roadside Development) to determine if submittal
			bluestem that is debearded or equal to facilitate the application	intent (Noi) is required.
	(ZIART	LIZING CROP SEEDING)	of seed.	2. Schedule work according to weather conditions
If outside	of permaner	nt seeding dates in Section 2601 of the		to avoid off-target damage, such as runoff, leach
Standard S	pecification	ns, or if required by a storm water permit,	Furnish seed certified as Source Identified Class (Yellow Tag)	volatilization.
piace stad	11121ng crop	, fertilizer, and mutch on the disturbed	Source Go-lowa. Dats are excluded from this requirement.	a. Do not spray herbicide 24 hours prior to to
	11005.		Place seed according to the requirements of Article 4169.02 of the	conditions
Place seed	and fertili	ize according to the requirements of Article	Standard Specifications.	b. For areas with saturated soil, such as ditc
2601.03,C,	1 and Section	on 4169 of the Standard Specifications.		spray herbicide 24 hours prior to forecast precip
D 1			Place mulch according to the requirements of Articles	using products labeled for aquatic sites.
Place mulc	h according	to the requirements of Articles	2601.03,E,2,a and 4169.07,A of the Standard Specifications.	c. For conventional applications, avoid applic
2001.00,E,	a anu 4163, مرد	, or, A of the Stanuaru Specifications.	Prenaring the seedhed furnishing and applying seed and mulch	speed exceeds 10 mpn. For invert applications, av
Preparing	the seedbed,	, furnishing and applying seed,	are incidental to mobilization and will not be paid for separately.	d. For conventional foliar applications. use a
fertilizer	, and mulch	are incidental to mobilization and will not		and maintain drift control throughout the applica
be paid fo	r separately	/.		adding more to the tank as it breaks down from ag
		101 0		e. Avoid spraying volatile products when tempe
		201-3 10-17-17		f Check the TDALS Sensitive Crons Directory a
		CTODM WATED		adjacent to a listed operation when wind is blowi

on-hand and at locations of storage, transport, and application.

application in relation to weather conditions and plant growth stage. Follow any label recommendations given as "for best results."

a. For weed applications:

i. To determine if weeds are "actively growing," use as a guideline that there needs to have been at least 1 hour of temperature above 65° F and 1 hour of sun in the day prior to, of, or forecast before a rain the day after the application.

ii. For spring applications to thistles, apply after basal leaves of Canada thistles are fully extended, and after rosettes of musk thistle are at least 8 inches diameter, but before flower stage

iii. For fall applications to thistles, apply prior to the second hard freeze of 28° F, unless otherwise listed in the label directions.

b. For tree and brush applications:

STORM WATER

BEST MANAGEMENT PRACTICES

When the following best management practices are used, they are intended to account for disturbed areas where storage volume cannot be provided: Silt Fence and TRM Type II

DESIGN TEAM GODBOLD POHLEN MCDONALD FILE NO. ENGLISH 17/2020

WASHINGTON COUNTY PROJECT NUMBER ER-001-4(57)

231-2 10-16-12

ovisions shall

to the handling

rictions, and

applicator must be Land Stewardship banv.

ertified through ight-of-Way. For ertification, the applicator in

for the

right-of-way, use of-way or

only products unless tire ruts, and the

conveyance portion ne of application, ch banks or

ding or flowing a National 5) Pesticide flowing water is I, notify Iowa DOT of a Notice of

and take measures ning, drift and

recast ant runoff

h bottoms, do not oitation, unless

ations when wind oid applications

drift retardant ation period by gitation.

ratures are

and do not spray .ng towards it.

3. Respond to allegations of any off-target damage attributed to handling and spraying of herbicide.

4. Provide the following documents to the Engineer for approval not less than 2 weeks prior to the application. a. A copy of the herbicide and adjuvant labels, including any

applicable supplemental labels.

b. A copy of the herbicide and adjuvant Material Safety Data Sheets (MSDS.)

5. Have copies of the herbicide and adjuvant labels and MSDSs

6. Schedule work to maximize efficiency of the herbicide

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HERBICIDE

i. For foliar applications and cut stump/surface applications with water-soluble products, apply after leaves are fully opened in the spring and prior to leaf discoloration in the fall.

ii. For cut stump applications with oil soluble products, do not apply during periods of heavy sap flow. Use as a guideline that heavy sap flow occurs in late winter to early spring when nighttime temperatures below 32° F are followed by daytime comperatures above 32° F with sunny conditions.

iii. For cut stump and basal bark applications, add sufficient dye so that treated areas are visible to inspection 7 days after application.

. Notify the Engineer prior to calibrating, mixing and applying merbicides, including incidental items.

8. Provide copies of daily spray logs to the RCE at the end of each week of spraying (form provided by Iowa DOT).

9. If Contractor does not complete spray item on schedule, the Engineer may adjust the schedule.

-28-92	SHEET NUMBER	RC.2	

												100-22 04-21-15
				ROLI	LED EI	ROSION	CONTI	ROL				
Locatio	on					Turf Roi	nforcement	Mat (TRM)	(FC-104)	Slope Protection	Special Ditch	
Road Identification	Begin	End	Side		W					(EC-103)	Control (EC-101)	Remarks
	Station	Station	Jue	FT	FT	Squares	Squares	Squares	Squares	Squares	Squares	
Нwу 1	133+65.00	135+50.00	Lt	185	30		56					
Hwy 1	133+65.00	135+50.00	Lt	185	30					56		
Rolled Erosion Control Tab Totals:							56			56		
		100-17 04-20-10										
TABULATION OF SIL Refer to EC-201	T FENCES											

FILE NO.	ENGLISH	DESIGN TEAM GODBOLD POHLEN MCDONALD	WASHINGTON COUNTY	PROJECT NUMBER	ER-001-4(57)-
2/17/2020 2.1E.22 DM	nnahlan	c. \nu uonk\numpin\idotcontnol nnohlon\d1012260\02001057_DC01_ulcm			

Location

Begin Station End Station Side

SF Bid Totals: SF maintenance Totals: SF Removal Totals:

133+65.00 135+50.00 Lt

SF Tab Totals:

Length

LF

185.0

185.0

Remarks

 231.3
 125% of Tab Total

 23.1
 10% of Bid Total

 231.3
 100% of Bid Total

28-92	SHEET NUMBER	RC.3	
-			

LINE STYLE LEGEND OF EROSION CONTROL SHEETS		PLAN VIEW COLOR LEGEND	OF EROSION CONTROL SHEE
Silt Fence Perimeter and Slope Sediment Control Device (9") Perimeter and Slope Sediment Control Device (12") Perimeter and Slope Sediment Control Device (20") Open-Throat Curb Intake Sediment Filter Concentrated Flow Sheet Flow		LINEWORK Design Color No. Green (2) Existing Topographic Fe Blue (1) Proposed Alignment, Sta Magenta (5) Existing Utilities Black (0) Permanent Erosion Contr Blaze Orange (222) Temporary Erosion Contr SHADING Design Color No. Citron Citron (234) Mulching, All Types Light Brown (238) Special Ditch Control, Wo	atures and Labels tioning, Tic Marks, and Alignment Anno ol Features <u>Transparency</u> 50% pod Excelsior Mat Ø%
			ROSION CONTROL SHEETS
CELL LEGEND OF ENOSION CONTROL SHEETS			COSTON CONTROL SHELTS
Temporary Sediment Control basin			poron
Erosion Control for Circular Intake or Manhole Well		Seeding and Fertilizing	
Erosion Control for Rectangular Intake or Manhole Well		R Seeding and Fertilizing (Rural)	DOOD Turf Reinforcement Mat Type 2
Grate Intake Sediment Filter Bag		Seeding and Fertilizing (Urban)	5000 DOOD Turf Reinforcement Mat Type 3
Stormwater Drainage Basin Discharge Point		Native Grass Seeding	Turf Reinforcement Mat Type 4
		Salt Tolerant Seeding	Slope Protection,
		Wetland Grass Seeding	Transition Mat
		WF Wildflower Seeding	ନ୍ଦ୍ରୁ ନୁଦ୍ଦୁଧି ଜୁଦ୍ଦୁଧି ନୁଦ୍ଦୁଧି
		Sodding	ୁଙ୍କୁ ଜୀବୃତ୍ତି ଜୁଠୁବୁ Rock Features, Temporary ଜୁତୁବୁଣ୍ଡୁ
		I	
		I	NFORMATION SHE
			(COVERS SHEET SERIES R
FILE NO. ENGLISH DESIGN TEAM GODBOLD \ POHLEN \ MCDONALD	WASHINGTON COUNTY	PROJECT NUMBER ER-001-4(57)28-92	SHEET NUMBER RR.1

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