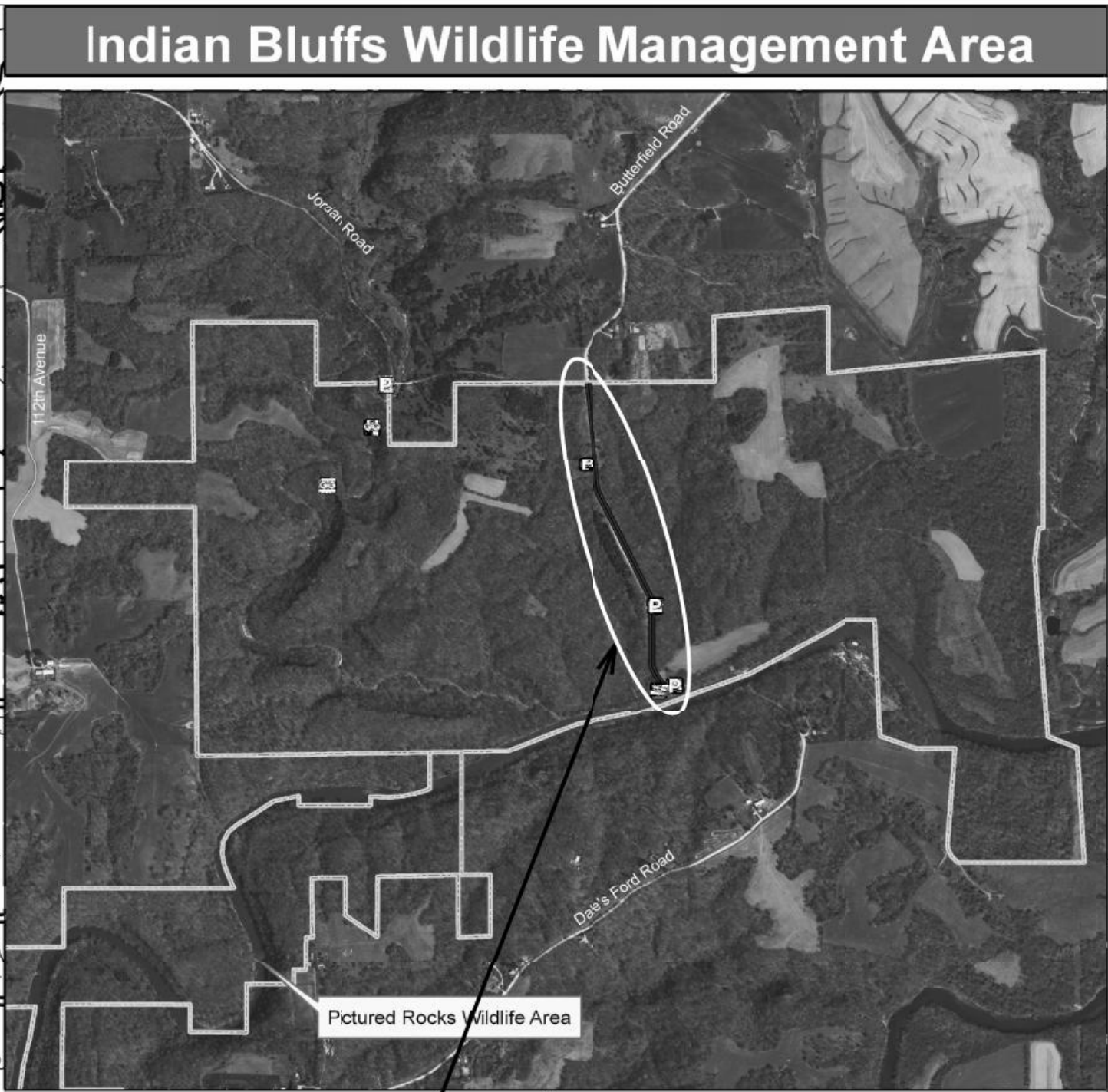
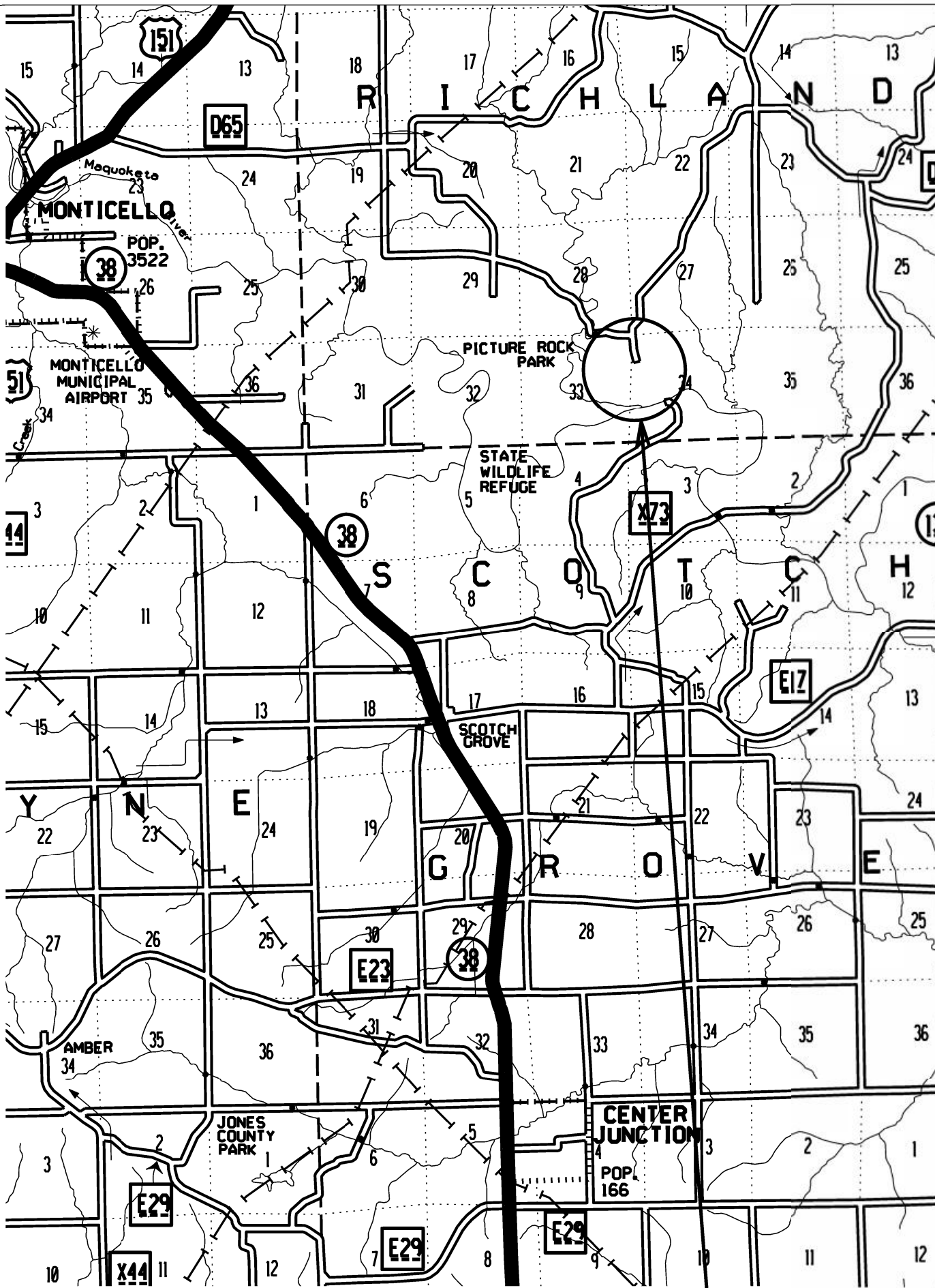


Indian Bluffs Wildlife Management Area



Legend

- State Areas open to hunting
- WMA Boundary
- Parking Lot
- Boat Ramp
- Scenic Overlook
- Access Road
- 2010 Aerial Photography

Map Creation Date: 3/2011

DNR

Acres: 630

Habitat: 3/4 Timber, 1/4 Upland

Species: Deer, Turkey, Squirrel, Rabbit

Contact: Curt Kemmerer
Maquoketa Wildlife Unit
563-357-2035

Jones County, Iowa
T-86N, R-22W, Sections 27-28, 33-34

Directions: 1 mile W of Cascade,
5 miles S on Butterfield Rd

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

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

PROJECT LOCATION MAP

ROAD MAINTENANCE FOR:
INDIAN BLUFFS WMA

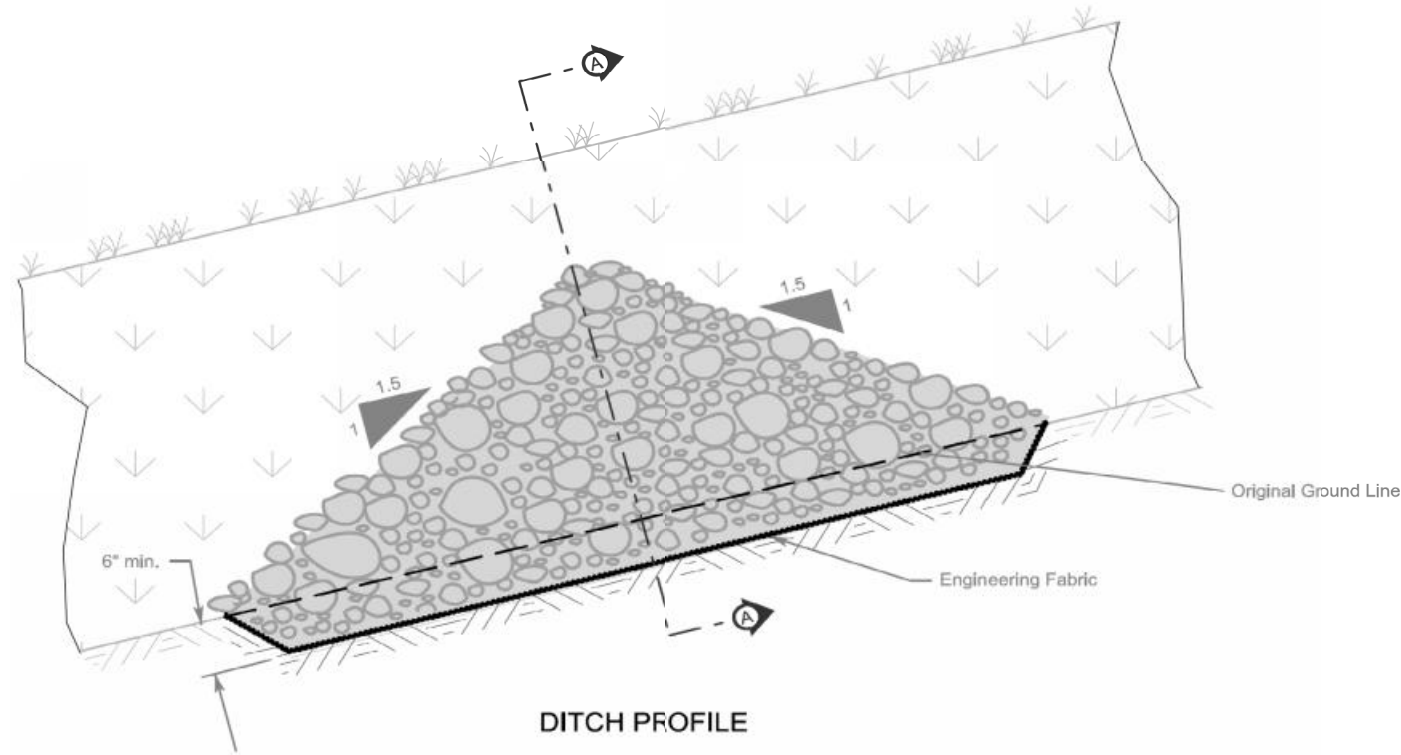
JONES COUNTY

NO.	BY	REVISION

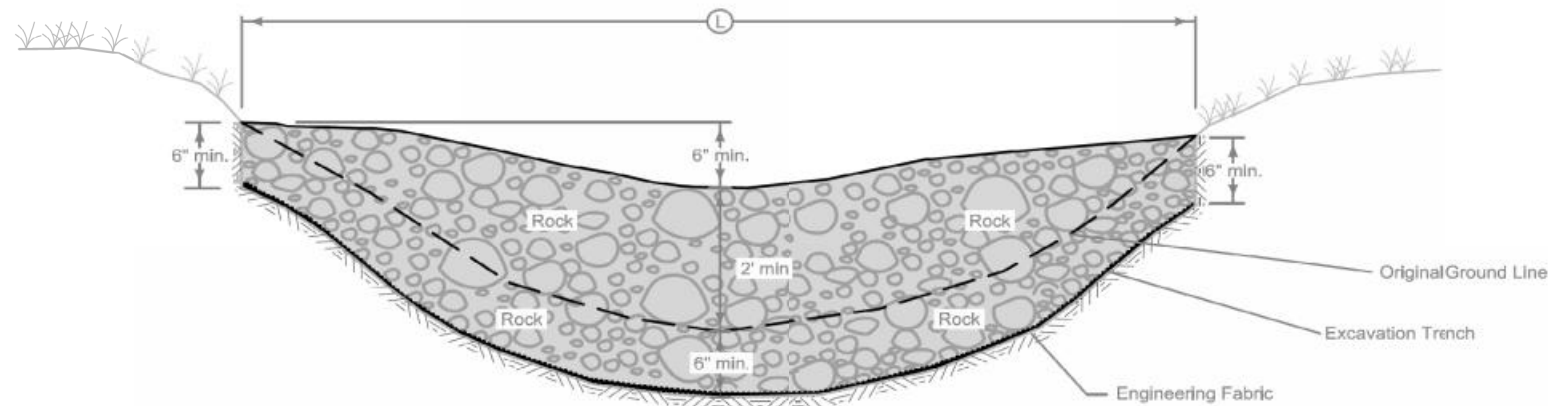
DRAWN BY: BLF PROJECT NUMBER: 18-06-53-01
 CHK'D BY: DATE: MARCH 2020
 SHEET No: **A.02**

DESIGNER INFO

Use Class D Revetment to construct Rock Check Dam.



DITCH PROFILE



SECTION A-A

Possible Contract Items:
 Rock Check Dam
 Maintenance of Rock Check Dam
 Removal of Rock Check Dam

Possible Tabulation:
 100-32

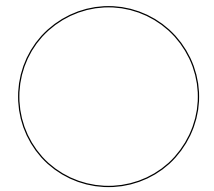
IOWADOT	REVISION
	New 10-16-18
STANDARD ROAD PLAN	EC-302
	SHEET 1 of 1

REVISIONS: New. Replaces Design Detail 570-2

APPROVED BY DESIGN METHODS ENGINEER

ROCK CHECK DAM

CONSULTANT:



IOWA DEPARTMENT OF NATURAL RESOURCES

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



TYPICAL CROSS SECTIONS AND DETAILS

ROAD MAINTENANCE FOR:
INDIAN BLUFFS WMA
 JONES COUNTY

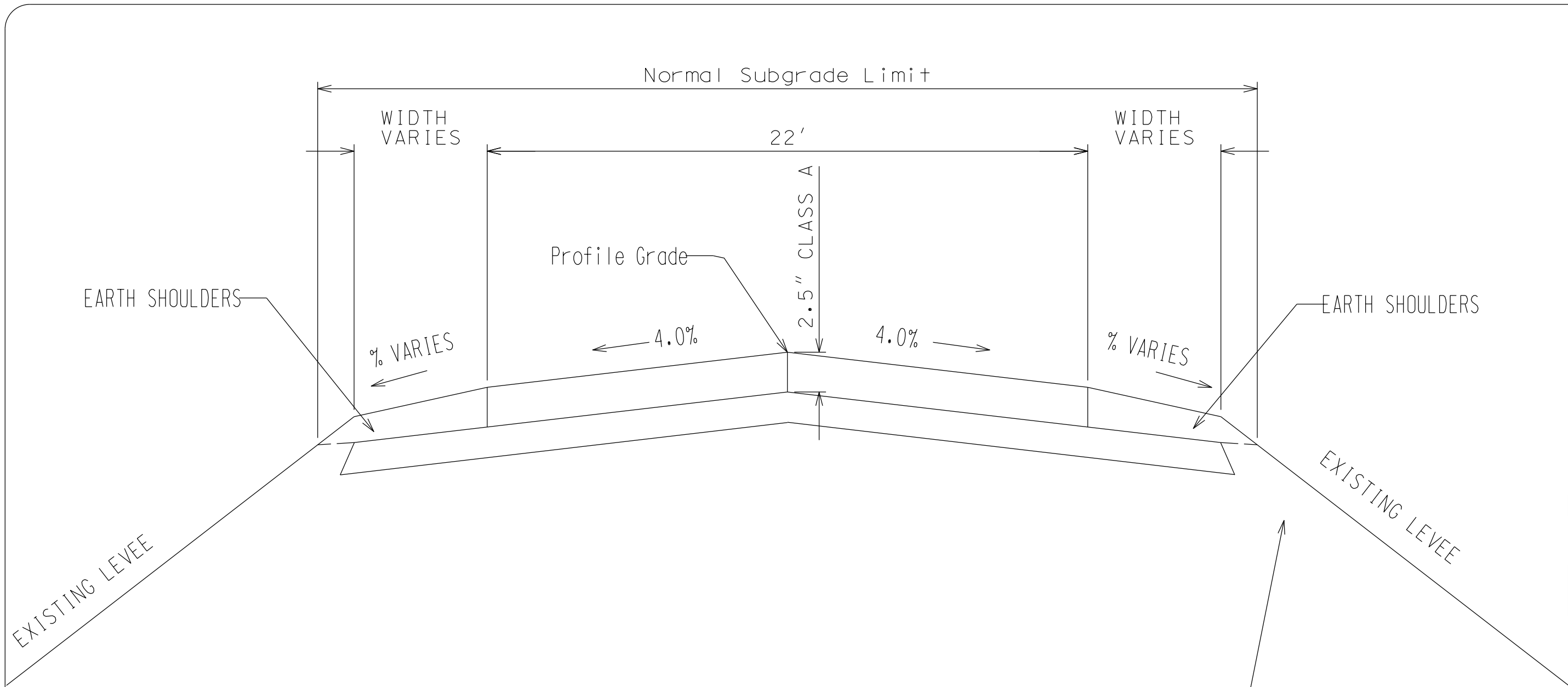
NO. BY DATE REVISION

DRAWN BY: PROJECT NUMBER:
 BLF 18-06-53-01

CHK'D BY: DATE:
 MARCH 2020

SHEET NO.:

B.02



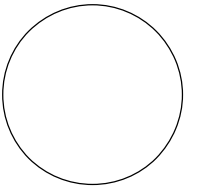
Note:

Normal sections shown may be appropriately modified for areas specifically designated by the Engineer.

Typical Roadway Section - Center Crown

STATION	TO	STATION	LOCATION	WIDTH
0+00		25+80	MAIN ROAD	22'
25+80		35+70	REALIGNMENT	16'

CONSULTANT:



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502 E. 9TH ST., DES MOINES, IA 50319-0034



TYPICAL CROSS SECTIONS AND DETAILS

ROAD MAINTENANCE FOR:

INDIAN BLUFFS WMA

JONES COUNTY

NO. BY DATE REVISION

DRAWN BY: PROJECT NUMBER:
BLF 18-06-53-01

CHK'D BY: DATE:
MARCH 2020

SHEET No:

B.03

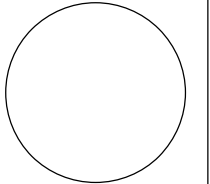
ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM	UNIT	TOTAL
1	2101 - CLEARING/GRUBBING	LS	1
2	2102 - EXCAVATION, CL 10, RDWY+BORROW	CY	35
3	2102 - EXCAVATION, CL 12, BOULDER/ROCK FRAGMENT	CY	72
4	2125 - RESHAPING/CLEANING DITCHES	STA	35.7
5	2127 - RECONSTRUCTION OF ROADBED - BLADING/SHAPING	STA	29.5
6	2127 - RECONSTRUCTION OF ROADBED - MOVING ROAD	STA	6.2
7	2312 - GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE	TON	1363
8	2312 - GRANULAR SURFACING ON ROAD, MACADAM STONE	TON	210
9	2507 - EROSION STONE - DITCH CHECKS	TON	119
10	2507 - EROSION STONE - OUTLETS	TON	30
11	2518 - SAFETY CLOSURE	EACH	2
12	2533 - MOBILIZATION	LS	1
13	2601 - STABILIZE CROP - SEED+FERTILIZE	ACRE	2.4

ESTIMATE REFERENCE INFORMATION	
ITEM NO.	DESCRIPTION
1	A. Remove all trees/brush within the designated area. B. Dispose of offsite.
2, 3	A. Locations will be determined by the DNR Field Engineer. B. For roadway core-out and/or rock removal. C. Clean inlet and outlet of ALL existing roadway culverts. Line outlets with erosion stone.
4	A. Clean ditches to typical detail. B. Includes both sides of roadway. C. Place and level spoil on road heading west, just south of BOP. D. STA 0+00 - 25+80; 32+00 - 35+70.
5	A. Repair potholes by scarifying surrounding area to depth of pothole and recompacting. B. Re-establish roadway crown - 4% positive drainage each way from centerline; 4% across the width in banked sections. C. Remove any high shoulder areas, before spreading new rock.
6	A. Verify location, direction and dimensions with DNR Field Engineer before beginning construction. B. Roadway must be moved a minimum of 10 feet east from existing location. C. Includes ditch construction, both sides of roadway. D. Use spoil from west ditch construction between STA 25+80 - 32+00 for fill in east ditch. E. Place and level any excess spoil on road heading west, just south of BOP.
7	A. A final leveling of the aggregate after being dumped, is required. B. From DOT approved source. C. Approximate 2.5-inch depth.
8	A. Place at the direction of the DNR Field Engineer. DOT approved source.
9	A. Verify locations with DNR Field Engineer. Approximately 1.75 ton per ditch check.
10	A. Verify limits of placement with DNR Field Engineer.
11	A. Follow current Iowa DOT Standard Specifications section 2518 for closure requirements. B. Safety Closure - BOP. C. Road Closure "Local Traffic Only" - intersection near 88th Ave & Butterfield Road.
13	A. Use DOT Rural mix.

48 - HOUR MINIMUM NOTICE TO DNR FIELD ENGINEER BEFORE BEGINNING ANY NEW WORK.

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:



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NATURAL RESOURCES

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



QUANTITIES AND GENERAL INFORMATION

ROAD MAINTENANCE FOR:
INDIAN BLUFFS WMA

JONES COUNTY

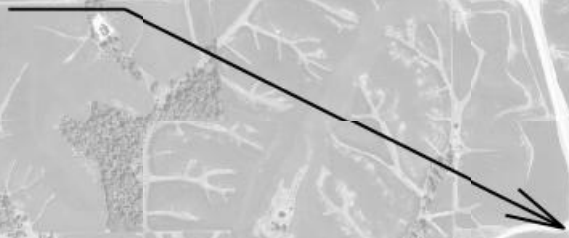
NO.	BY	REVISION

DRAWN BY:	PROJECT NUMBER:
BLF	18-06-53-01
CHK'D BY:	DATE:
	MARCH 2020

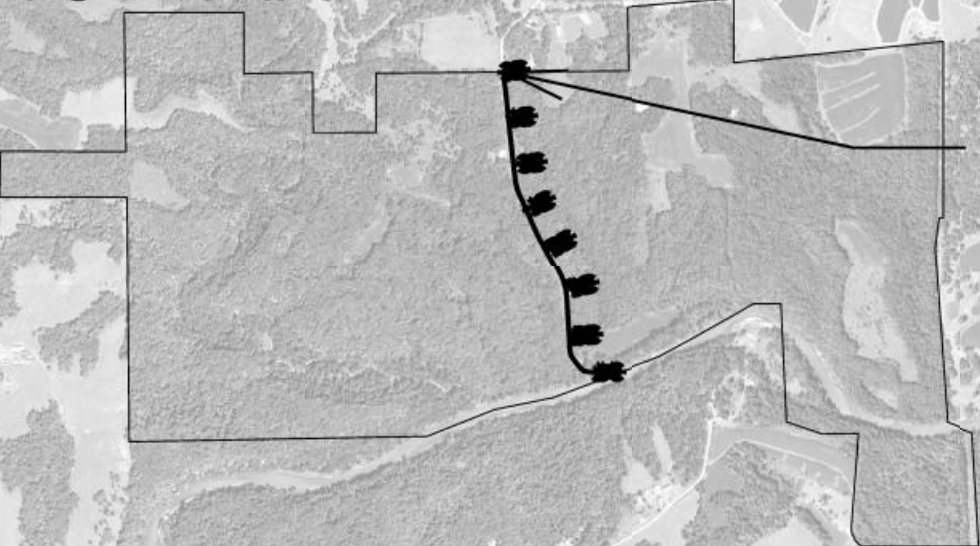
SHEET NO:

C.01

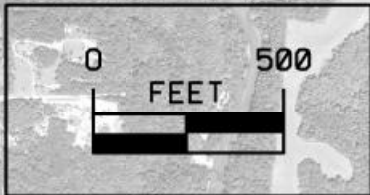
ROAD CLOSURE
 "LOCAL TRAFFIC ONLY"
 88th Ave & Butterfield Road



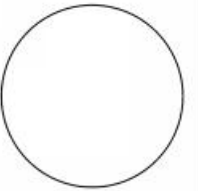
INDIAN BLUFFS WMA



SAFETY CLOSURE



CONSULTANT:



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



SITE PLAN

ROAD MAINTENANCE FOR:

INDIAN BLUFFS WMA

JONES COUNTY

NO.	BY	REVISION

DRAWN BY: BLF PROJECT NUMBER: 18-06-53-01
 CHK'D BY: DATE: MARCH 2020

SHEET No: **D.01**

DAYLIGHT DITCH

20+00

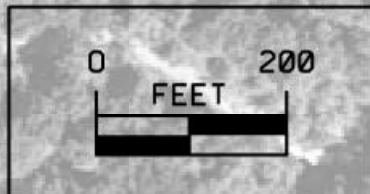
DAYLIGHT DITCH

25+00

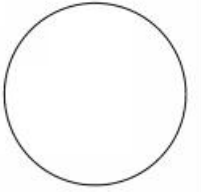
SEE SHEET D.04 FOR DETAILS
25+80 THRU 32+00

30+00

35+70



CONSULTANT:



IOWA DEPARTMENT OF
NATURAL RESOURCES

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



SITE PLAN

ROAD MAINTENANCE FOR:

INDIAN BLUFFS WMA

JONES COUNTY

NO. BY REVISION

DATE

NO. BY REVISION

DATE

NO. BY REVISION

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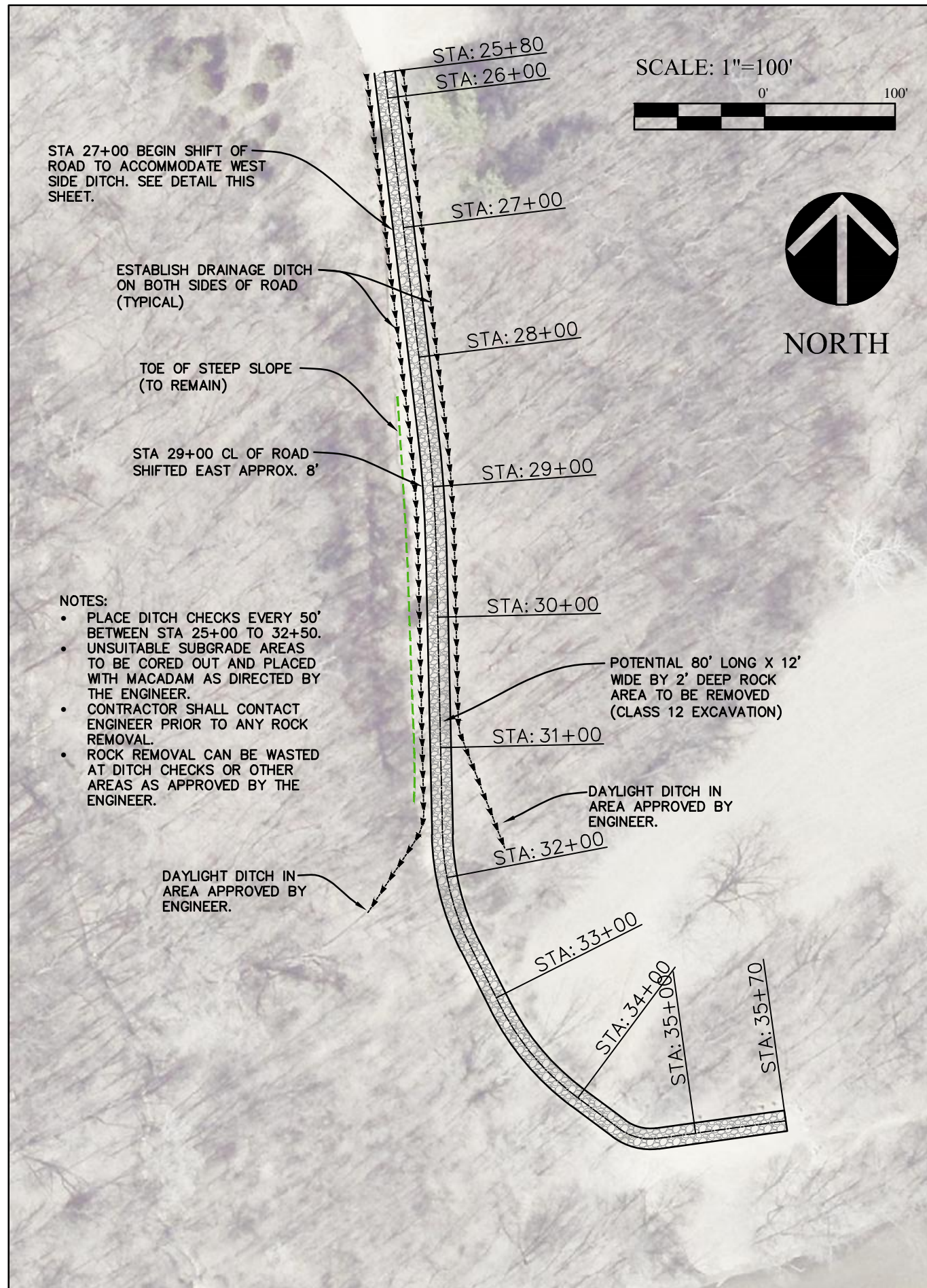
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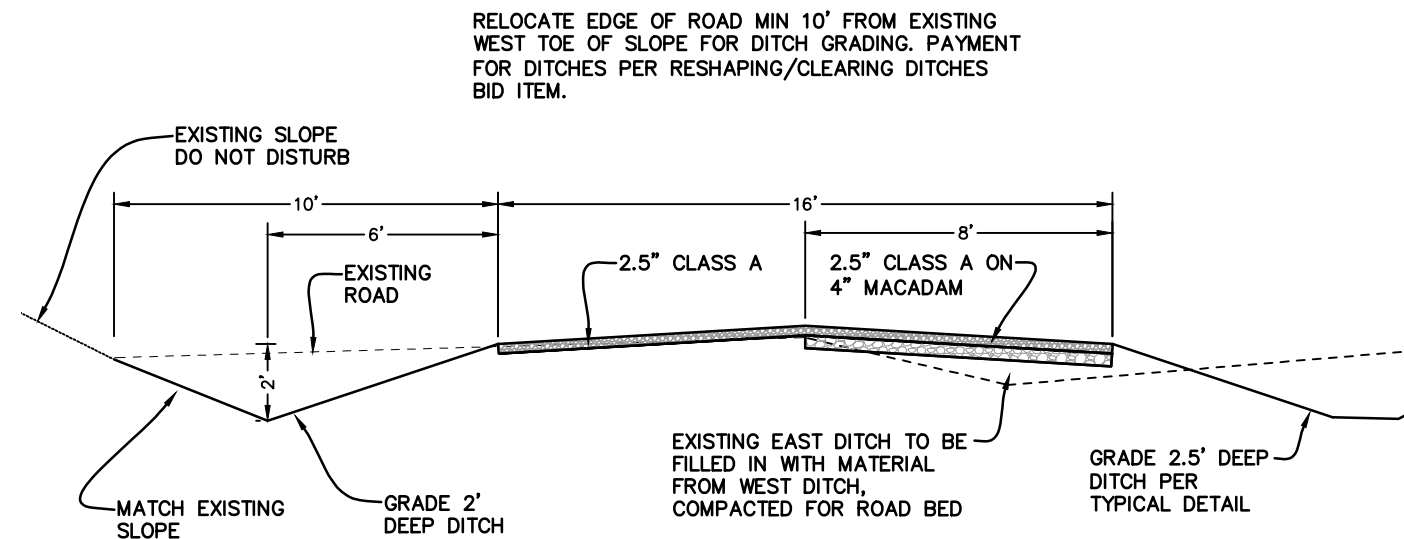
CHECKED BY: DATE: MARCH 2020

SHEET No.:

D.03



PICTURE OF ROAD LOOKING NORTH FROM STA 32+00



ROAD SHIFT SECTION STA 25+80 TO 32+00

CONSULTANT:
NONE

IOWA DEPARTMENT OF
NATURAL RESOURCES

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



SITE PLAN

ROAD MAINTENANCE FOR:

INDIAN BLUFFS WMA

JONES COUNTY, IA

NO. DATE REVISION

DRAWN BY: MDD PROJECT NUMBER: 18-06-53-01

CHK'D BY: DATE:

SHEET No:

D.04