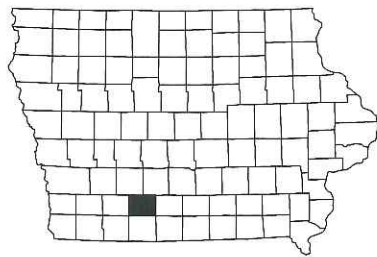


IOWA DEPARTMENT OF NATURAL RESOURCES

CONSTRUCTION DOCUMENTS FOR MOUNT AYR FISHERIES MGT UNIT 12 MILE LAKE JETTIES REPAIR

UNION COUNTY, IOWA

PROJECT #20-04-88-02



Professional Engineer Seal for Heath B. Delzell, Civil Engineer, License No. 21074, State of Iowa. Includes signature and date 1-22-2019.

IOWA ONE CALL logo with phone number 1-800-292-8989 and website www.iowaonecall.com. Includes 811 logo.

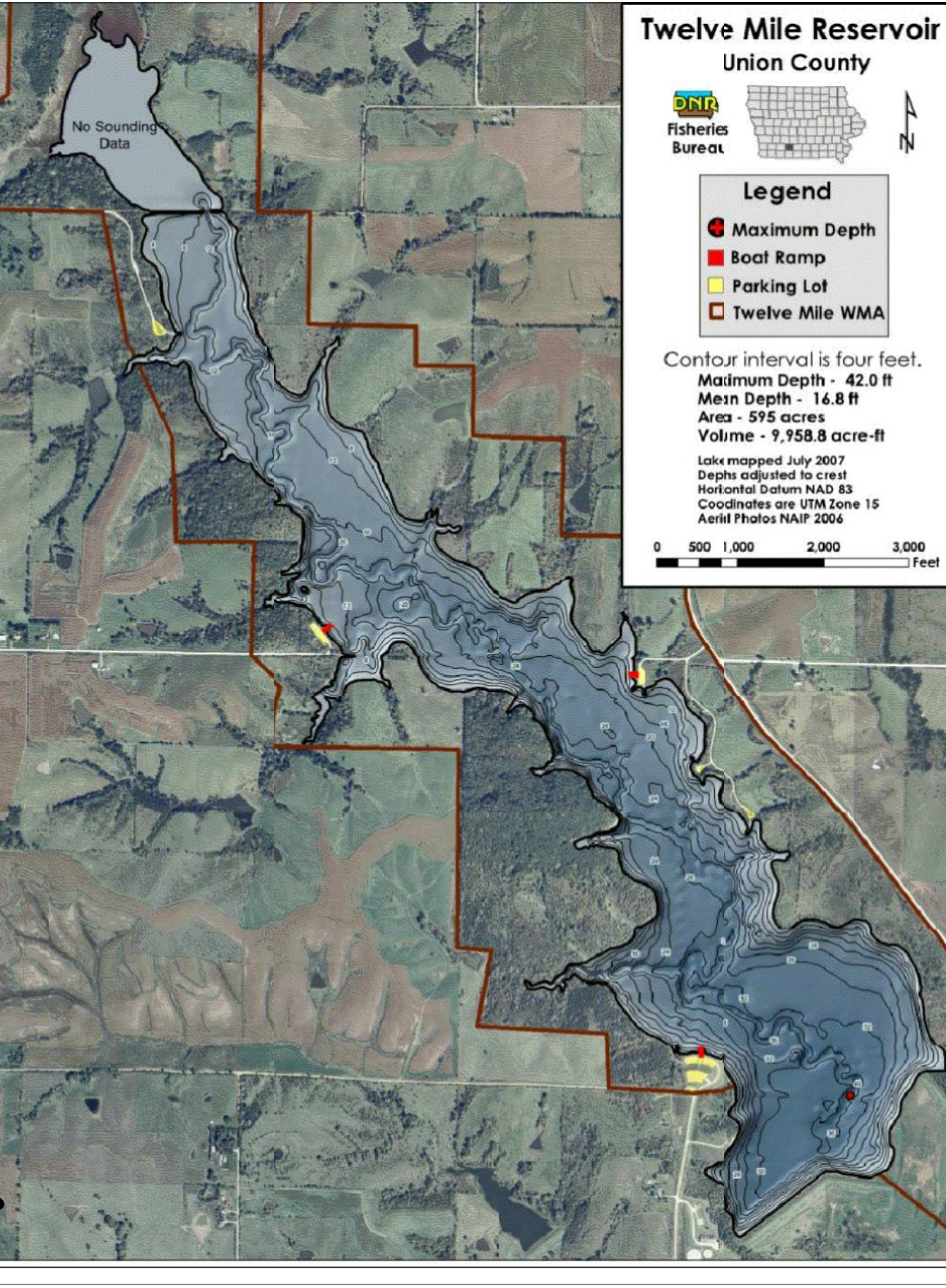
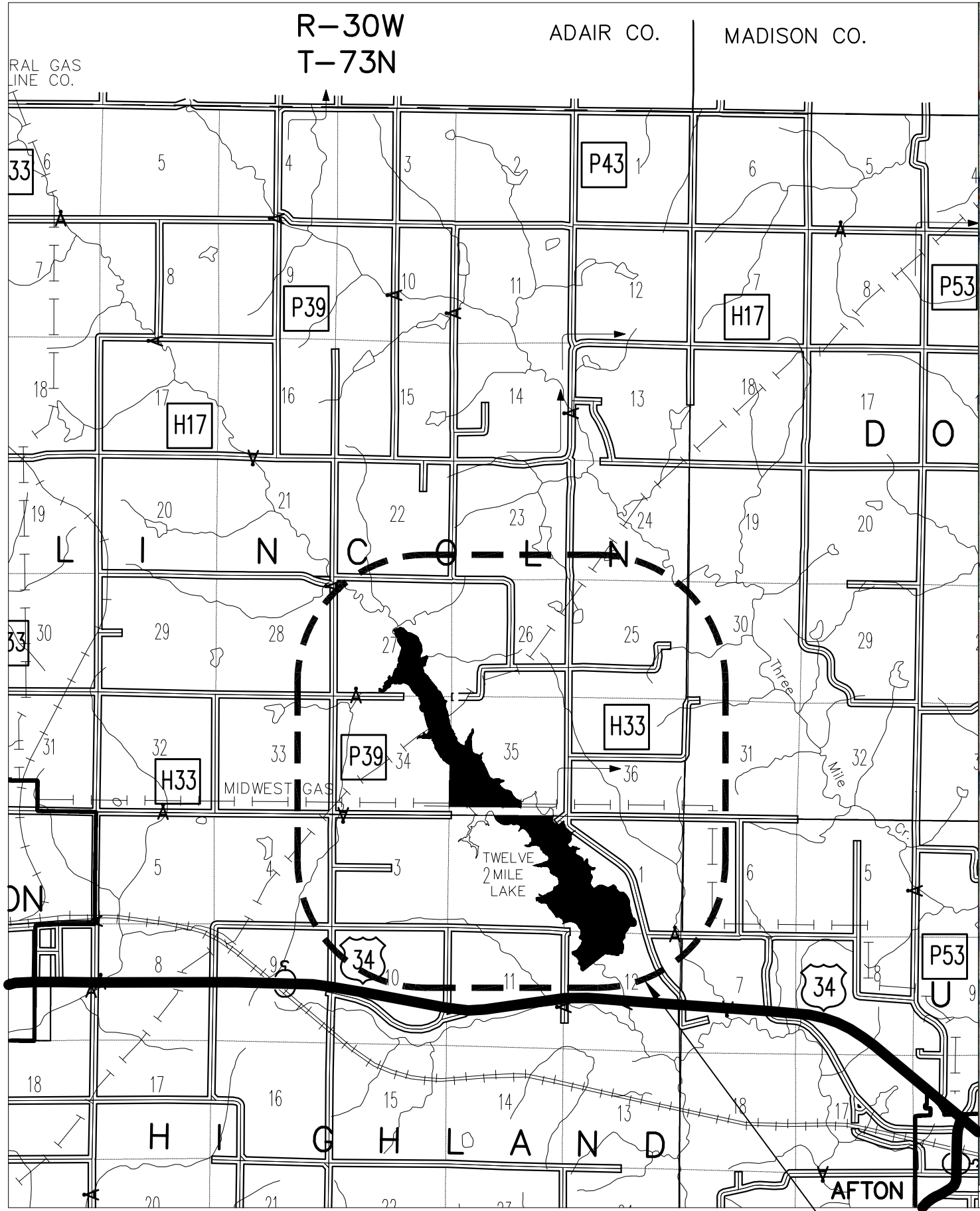
Directory table with columns for PROJECT MANAGER and CONSTRUCTION INSPECTOR, including company, address, contact, and email information for both sides.

PROJECT DESCRIPTION: THIS PROJECT INVOLVES REPAIRING DETERIORATED JETTIES BY RE-ARMORING THE SIDES OF THE JETTIES WITH CLASS 'E' REVETMENT (RIP RAP) ON, RESTORING THE TOP TO ITS ORIGINAL WIDTH AND RESURFACING THE TOP WITH CLASS 'A' CRUSHED STONE OTHER INCIDENTAL WORK AS REQUIRED BY D.N.R. CONSTRUCTION INSPECTOR IN UNION COUNTY, IOWA.

AUTHORIZATION TO BID: Includes signature of Engineering Bureau Chief and date 1-24-19. Text: AUTHORIZATION - PARKS | WILDLIFE | FISHERIES | LAW ENFORCEMENT | FORESTRY.

SHEET INDEX table with 4 columns: NO., DATE, REVISION, and SHEET No. The index lists: 1 COVER SHEET, 2 PROJECT LOCATION, 3 ESTIMATED QUANTITIES AND GENERAL NOTES, 4 SITE PLAN.

Vertical sidebar area containing the IOWA DEPARTMENT OF NATURAL RESOURCES logo, the DNR logo, project title 'MOUNT AYR FISHERIES MGT UNIT', and sheet number '1'.



**Twelve Mile Reservoir
Union County**



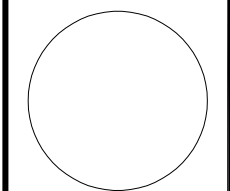
- Legend**
- Maximum Depth
 - Boat Ramp
 - Parking Lot
 - Twelve Mile WMA

Contour interval is four feet.
Maximum Depth - 42.0 ft
Mean Depth - 16.8 ft
Area - 595 acres
Volume - 9,958.8 acre-ft

Lake mapped July 2007
 Depths adjusted to crest
 Horizontal Datum NAD 83
 Coordinates are UTM Zone 15
 Aerial Photos NAIP 2006



CONSULTANT:



**IOWA DEPARTMENT OF
NATURAL RESOURCES**

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



PROJECT LOCATION

12 MILE LAKE JETTIES RESTORATION FOR:

MOUNT AYR FISHERIES MGT UNIT

UNION COUNTY, IA

NO. BY DATE REVISION

NO.	BY	DATE	REVISION

DRAWN BY: PROJECT NUMBER:
E.S. 20-04-88-02

CHK'D BY: DATE:
M.K. AUG/2018

SHEET No:

2

PROJECT LOCATION

ESTIMATED PROJECT QUANTITIES

ITEM	DESCRIPTION	UNIT	TOTAL
1	MOBILIZATION	L.S	1
2	CLASS 'E' REVETMENT (RIP RAP)	TONS	1575
3	CLASS 'A' STONE	TONS	135

ESTIMATED REFERENCE INFORMATION

ITEM	DESCRIPTION
2	CLASS 'E' REVETMENT - BID ITEM INCLUDE SHAPING & PLACING REVETMENT ON THE JETTIES SHOWN ON THESE PLANS. THE REVETMENT SHALL MEET IOWA D.O.T STANDARD SPECIFICATIONS OF HIGHWAY AND BRIDGE SECTION 4130 SERIES 2015 PLUS CURRENT SUPPLEMENTAL SPECIFICATION AND SPECIAL PROVISION. (SEE ALSO CONSTRUCTION NOTE BELOW)
3	CLASS 'A' STONE - BID ITEM IS FOR SUPPLY, PLACING AND COMPACTING OF CLASS 'A' CRUSHED STONE ON THE TOP OF JETTIES AS SHOWN ON THESE PLANS. THE MATERIAL SHALL MEET THE SHALL MEET IOWA D.O.T STANDARD SPECIFICATIONS OF HIGHWAY AND BRIDGE SECTION 4120 SERIES 2015 PLUS CURRENT SUPPLEMENTAL SPECIFICATION AND SPECIAL PROVISION.

GENERAL NOTES:

The contractor shall notify the following two weeks prior to construction:

1. District Inspector:
MARK JOHNSON
515-250-3713

2. Project Manager:
EMMANUEL SANG
(515)-321-7005

The contractor shall verify actual locations and elevations with the D.N.R Inspector. All work shall conform to and be performed in accordance with all applicable codes and ordinances. The contractor shall visit the site and inspect the project area and thoroughly familiarize themselves with the actual job conditions prior to the start of work. Failure to visit the project site shall not relieve the contractor from performing the work in accordance to the plans, specifications, special provisions and contract.

The contractor shall verify, at the site, all dimensions and conditions shown on the plans and shall notify the D.N.R Inspector of any discrepancies, omissions and/or conflicts prior to proceeding with the work. The contractor is responsible for disposal 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 D.N.R Inspector.

The contractor shall not disturb desirable grass areas and desirable trees outside 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 D.N.R inspector.

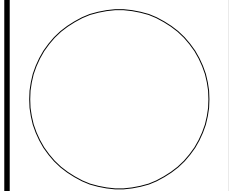
The contractor is expected to have materials, equipment and labor available on a daily basis to install and maintain erosion control features on the project.

The contractor shall be responsible for any damage to existing facilities resulting from their negligence, or that of a subcontractor, and said repairs shall be approved by the owner.

CONSTRUCTION NOTE

ITEM	DESCRIPTION
1.	THE CONTRACTOR SHALL REMOVE ALL THE BRUSH AND SHRUB FROM THE JETTIES BEFORE PLACING NEW RIP RAP. THIS SHALL BE CONSIDERED INCIDENTAL TO RIP RAP PLACEMENT.
2.	THE CONTRACTOR SHALL COORDINATE WITH THE D.N.R FIELD ENGINEER FOR ANY TREE TRIMMING NEEDED FOR ACCESS, AND IT SHALL BE CONSIDERED TO INCIDENTAL TO RIP RAP PLACEMENT.
3.	THE CONTRACTOR SHALL REMOVE AND REPLACE CURB STOPS, SIGNS AND LARGE ROCKS FOR ACCESS. THIS SHALL BE CONSIDERED INCIDENTAL TO RIP RAP PLACEMENT.
4.	THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS AND IT SHALL BE CONSIDERED INCIDENTAL TO RIP RAP PLACEMENT.

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ESTIMATED QUANTITIES

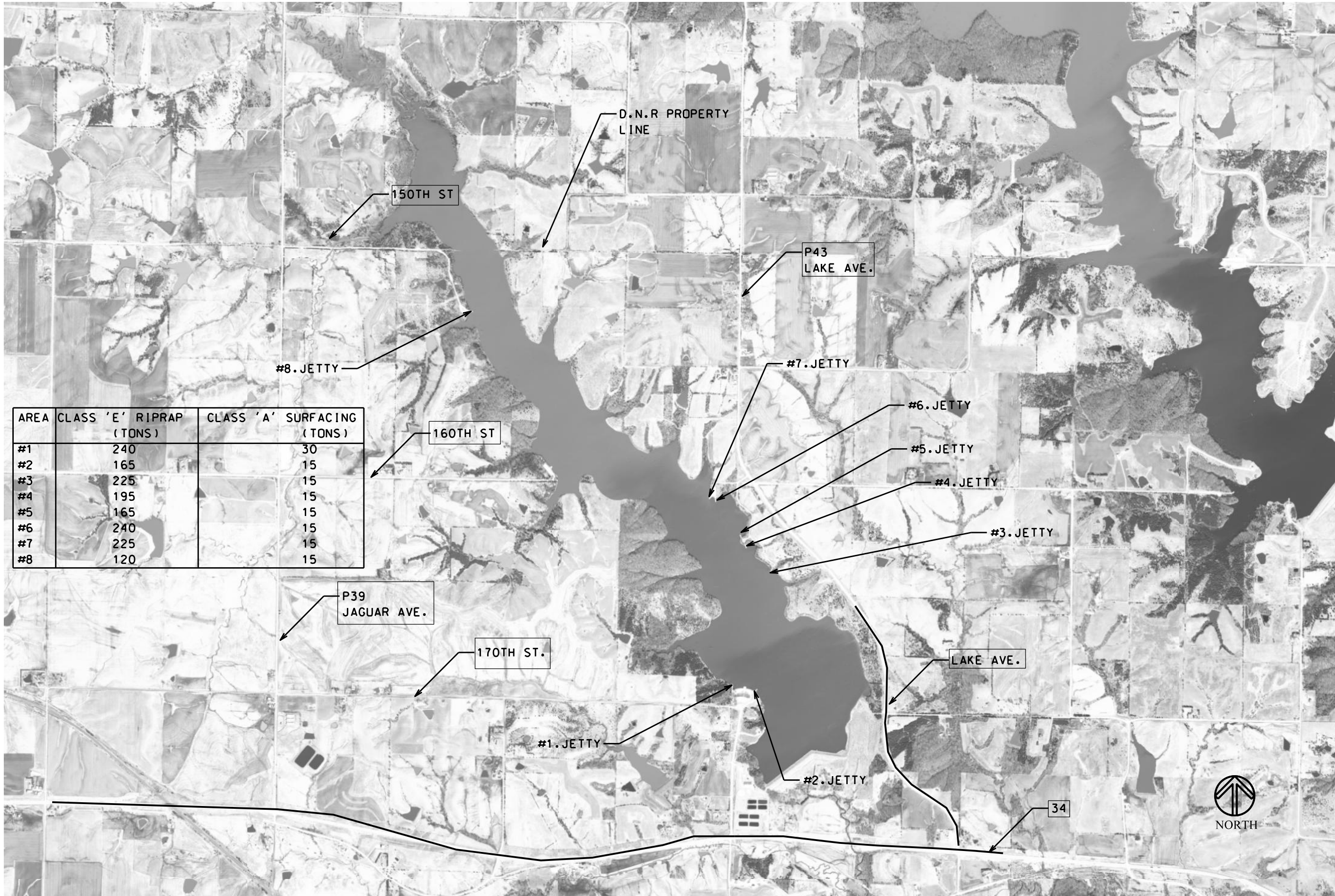
12 MILE LAKE JETTIES RESTORATION FOR:

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CHK'D BY: M.J	DATE: AUG/2018



AREA	CLASS 'E' RIPRAP (TONS)	CLASS 'A' SURFACING (TONS)
#1	240	30
#2	165	15
#3	225	15
#4	195	15
#5	165	15
#6	240	15
#7	225	15
#8	120	15

CONSULTANT:

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SITE PLAN

12 MILE LAKE JETTIES RESTORATION FOR:

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UNION COUNTY, IA

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CHK'D BY: M.J DATE: AUG/2018

SHEET No: