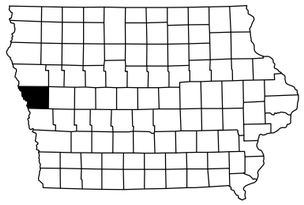
# IOWA DEPARTMENT OF NATURAL RESOURCES

# CONSTRUCTION DOCUMENTS
# FOR
# BLUE LAKE AUX. WATER MAIN
# LEWIS & CLARK STATE PARK

# MONONA COUNTY, IOWA

## PROJECT #17-01-67-04



LICENSED PROFESSIONAL ENGINEER
SHAHID HAMEED
16633
ENVIRONMENTAL
IOWA

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.

Shahid Hameed — Date

My license renewal date is December 31, 2018.

Pages or sheets covered by this seal: ALL

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

### DIRECTORY

| PROJECT MANAGER | | CONSTRUCTION INSPECTOR | |
|---|---|---|---|
| COMPANY | IOWA DEPARTMENT OF NATURAL RESOURCES | COMPANY | IOWA DEPARTMENT OF NATURAL RESOURCES |
| ADDRESS | 502 EAST 9TH STREET | ADDRESS | 613 APOLLO RD |
| CITY,STATE,ZIP | DES MOINES, IA 50319 | CITY,STATE,ZIP | HINTON, IA 51024-8827 |
| CONTACT | MIKE HAMEED | CONTACT | JEFF FELTS |
| TELEPHONE | 515-725-8467 | TELEPHONE | 515-250-3712 |
| FAX | | FAX | |
| EMAIL | Mike.Hameed@dnr.iowa.gov | EMAIL | Jeff.Felts@dnr.iowa.gov |

### PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF REPLACING 6969 LF. OF EXISTING 12 INCH PVC WATERMAIN WITH 16 INCH DIA. PVC WATERMAIN FROM AN EXISTING WELL TO BLUE LAKE AT LEWIS AND CLARK STATE PARK, MONONA COUNTY, IOWA.

### AUTHORIZATION TO BID

AUTHORIZATION - PARKS | WILDLIFE | FISHERIES | LAW ENFORCEMENT | FORESTRY

ENGINEERING BUREAU CHIEF — DATE

### SHEET INDEX



CONSULTANT:


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


DNR

COVER SHEET
BLUE LAKE AUX. WATER MAIN
LEWIS & CLARK STATE PARK
MONONA COUNTY, IA

| NO. | BY DATE | REVISION |
|---|---|---|
| | | |

| | |
|---|---|
| DRAWN BY: MH | PROJECT NUMBER: 17-01-67-04 |
| CHK'D BY: | DATE: 9/2017 |

SHEET No: 1

# PROJECT LOCATION

CONSULTANT:

**IOWA DEPARTMENT OF NATURAL RESOURCES**

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

DNR

PROJECT LOCATION

BLUE LAKE AUX. WATER MAIN

LEWIS & CLARK STATE PARK

MONONA COUNTY, IA

| NO. | BY DATE | REVISION |
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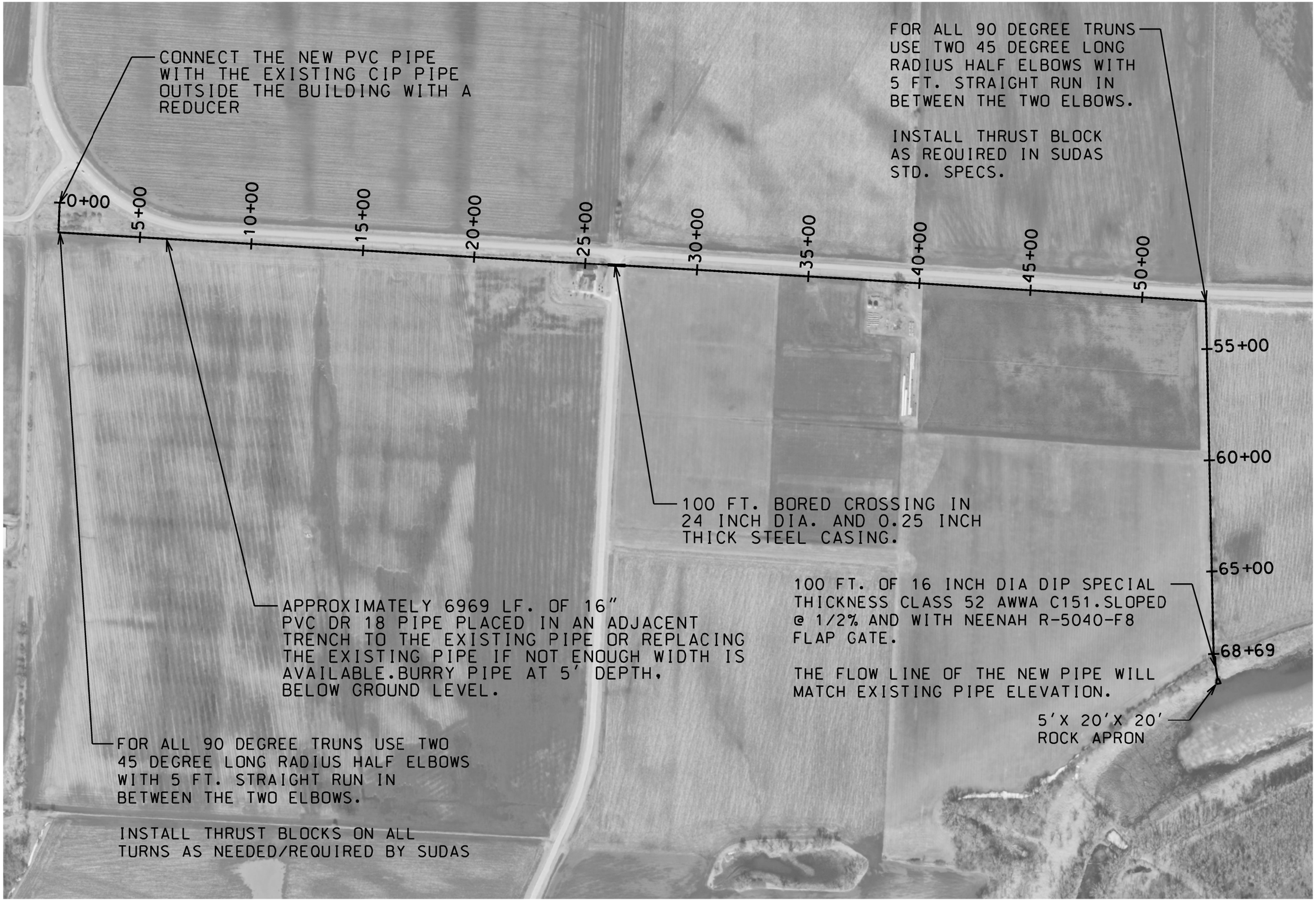
DRAWN BY: MH
PROJECT NUMBER: 17-01-67-04
CHK'D BY:
DATE: 9/2017
SHEET No: 2




CONSULTANT:

**IOWA DEPARTMENT OF NATURAL RESOURCES**

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

# WATER MAIN PLAN VIEW

BLUE LAKE AUX. WATER MAIN FOR
LEWIS & CLARK STATE PARK
MONONA COUNTY

| NO. | BY DATE | REVISION |
|---|---|---|

DRAWN BY:
PROJECT NUMBER: 17-01-67-04
CHK'D BY:
DATE: M.H

SHEET No: 3

## ESTIMATED PROJECT QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL |
|---|---|---|---|
| 1 | MOBILIZATION | LUMP SUM | 1 |
| 2 | INSTALL 16 INCH DIA. PVC DR 18 PIPE, TRENCHED | LF | 6869 |
| 3 | INSTALL 24 INCH STEEL CASING PIPE, BORED | LF | 100 |
| 4 | REMOVE EXISTING 12 INCH PVC PIPE AND DISPOSAL | LF | 4000 |
| 5 | INSTALL 16 INCH DIA DIP PIPE, THICKNESS CLASS 52, AWWA C151 | LF | 100 |
| 6 | PLACE 2 FT. THICK, 225 SQ. FT OF CLASS D RIP RAP APRON | TON | 3.5 |
| 7 | CUT EXISTING CIP PIPE AND CONNECT NEW PVC PIPE OUTSIDE OF THE PUMP HOUSE | LUMP SUM | 1 |
| 8 | TRACER WIRE #12 | LF | 6969 |
| 9 | SEEDING AND SITE RESTORATION | LUMP SUM | 1 |
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## ESTIMATE REFERENCE INFORMATION

| ITEM NO. | DESCRIPTION |
|---|---|
| 2 | A. The pipe and installation will comply with C900 and SUDAS standard specifications.<br><br>B. Installation of thrust blocks, connections between dissimilar pipes and any other ancillary items will be incidental to the bid item. |
| 3 | A. The installation of casing and carrier pipe will be in conformance with SUDAS division 3.<br><br>B. Minimum wall thickness of the casing pipe shall not be less than 0.25 inches.<br><br>C. This item includes the cost and installation of the carrier pipe. |
| 4 | A. The old CIP pipe will be removed if interfering with the allignment of the new pipe OR if directed by IDNR field engineer. The old pipe will become property of the contractor. |
| 5. | A. Cost of pipe installation will include securing the pipe in existing wooden pipe brace structure and installation of new flap gate as specified on sheet 3. |

## GENERAL NOTES

Verify actual locations and elevations with DNR Engineer.

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 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.

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.

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.

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.

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.

The contractor shall shape graded area to maintain surface drainage. All elevations are to finish grade.

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.

All work will be in conformance with SUDAS standard specifications.

The construction limits will be within the county ROW that is 10 feet from the edge of the pavement and is 20 foot wide on the south side of county road K42 and 20 foot wide corridor on the west side of the eastern edge of private farmland.

Before starting construction, the contractor is responsible for coordinating and obtaining all necessary permits form the County Engineer.

CONSULTANT:

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QUANTITIES AND GENERAL INFORMATION

BLUE LAKE AUX. WATER MAIN FOR
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