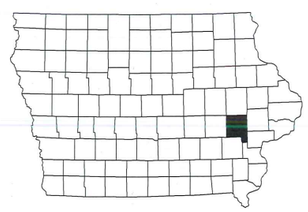
IOWA DEPARTMENT OF NATURAL RESOURCES

CONSTRUCTION DOCUMENTS FOR LAKE MACBRIDE STATE PARK VAULT LATRINES AT MAIN & SAILBOAT RAMPS

JOHNSON COUNTY, IOWA

PROJECT #13-06-52-02

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811



LICENSED PROFESSIONAL ENGINEER
MANDI LU ALDRICH PETERS
14439
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.

Mandi Aldrich Peters 4.15.13
Mandi Lu Aldrich Peters, Iowa Reg. No. 14439 Date

My license renewal date is December 31, 2013

Pages or sheets covered by this seal: 1-10

DIRECTORY

PROJECT MANAGER		CONSTRUCTION INSPECTOR	
COMPANY	IOWA DEPARTMENT OF NATURAL RESOURCES	COMPANY	IOWA DEPARTMENT OF NATURAL RESOURCES
ADDRESS	502 EAST 9TH STREET	ADDRESS	502 EAST 9TH STREET
CITY,STATE,ZIP	DES MOINES, IA 50319	CITY,STATE,ZIP	DES MOINES, IA 50319
CONTACT	MANDI LU ALDRICH	CONTACT	BRUCE FLIPPIN
TELEPHONE	515-205-1698	TELEPHONE	515-250-3719
FAX	515-281-8685	FAX	
EMAIL	Mandi.Aldrich@dnr.iowa.gov	EMAIL	Bruce.Flippin@dnr.iowa.gov

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF INSTALLING A NEW SINGLE VAULT AT THE MAIN BOAT RAMP, THE DEMOLITION OF TWO EXISTING VAULT LATRINE BUILDINGS AT THE SAILBOAT RAMP AND INSTALLING A NEW DOUBLE VAULT LATRINE BUILDING. THIS INCLUDES INSTALLING SIDEWALKS FOR ACCESS TO THE NEW STRUCTURES AT BOTH LOCATIONS, ALL EARTHWORK, SUPPLYING AND INSTALLING THE NEW STRUCTURES AND INCIDENTAL WORK AS REQUIRED BY THE DNR INSPECTOR.

AUTHORIZATION TO BID

4/15/13
AUTHORIZATION - PARKS | WILDLIFE | FISHERIES | LAW ENFORCEMENT | FORESTRY DATE

4/15/13
ENGINEERING BUREAU CHIEF DATE

SHEET INDEX

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2	PROJECT LOCATION MAPS
3	QUANTITIES & NOTES
4	DEMOLITION PLAN - MAIN BOAT RAMP
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9	GENERAL DETAILS
10	DETECTABLE WARNING DETAILS

CONSULTANT:

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

COVER SHEET

VAULT LATRINES AT MAIN & SAILBOAT RAMPS FOR:
LAKE MACBRIDE STATE PARK
JOHNSON COUNTY, IOWA

NO.	BY / DATE	REVISION

DRAWN BY: MLA
PROJECT NUMBER: 13-06-52-02
CHK'D BY:
DATE: 2013
SHEET No: 1

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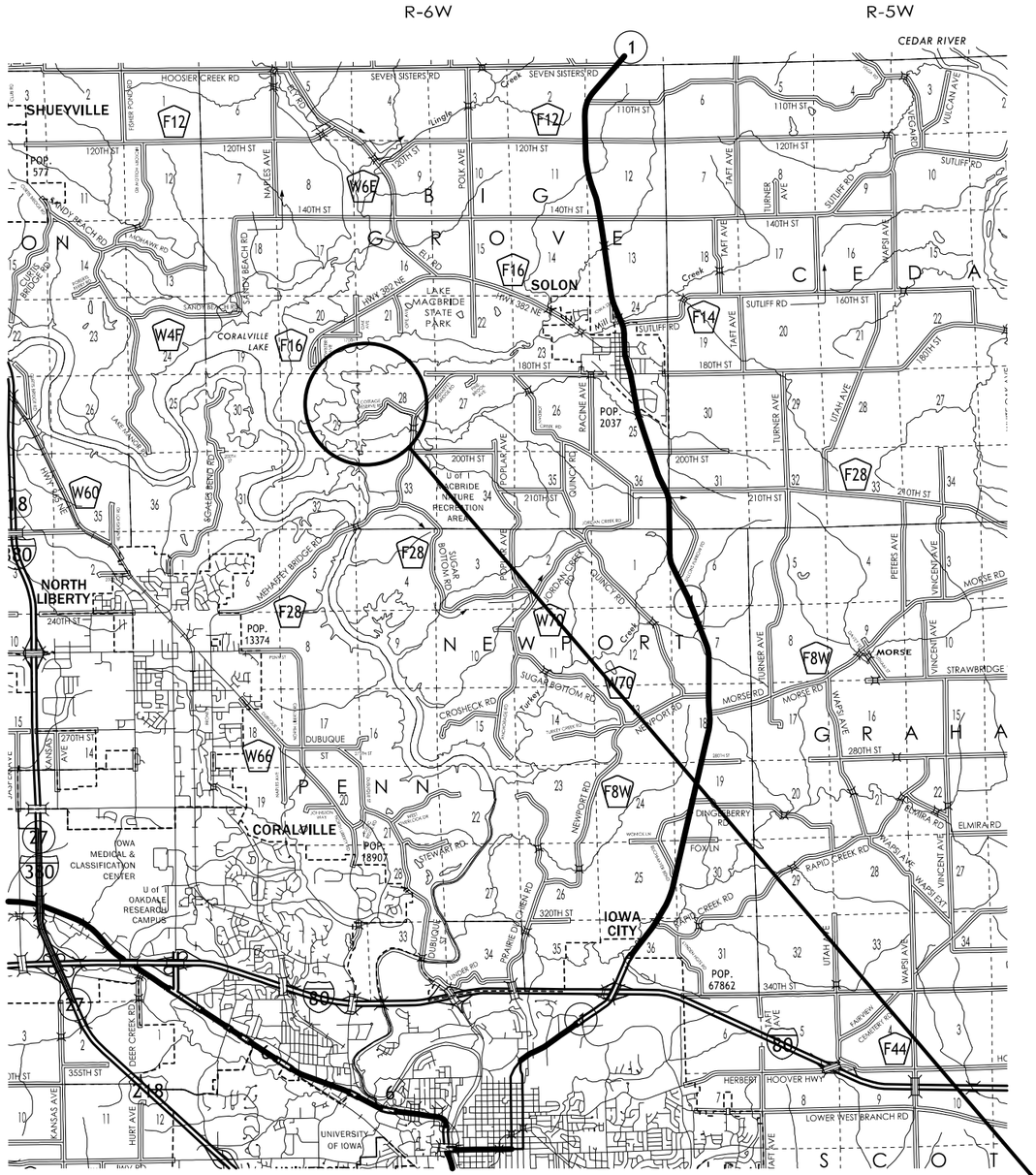
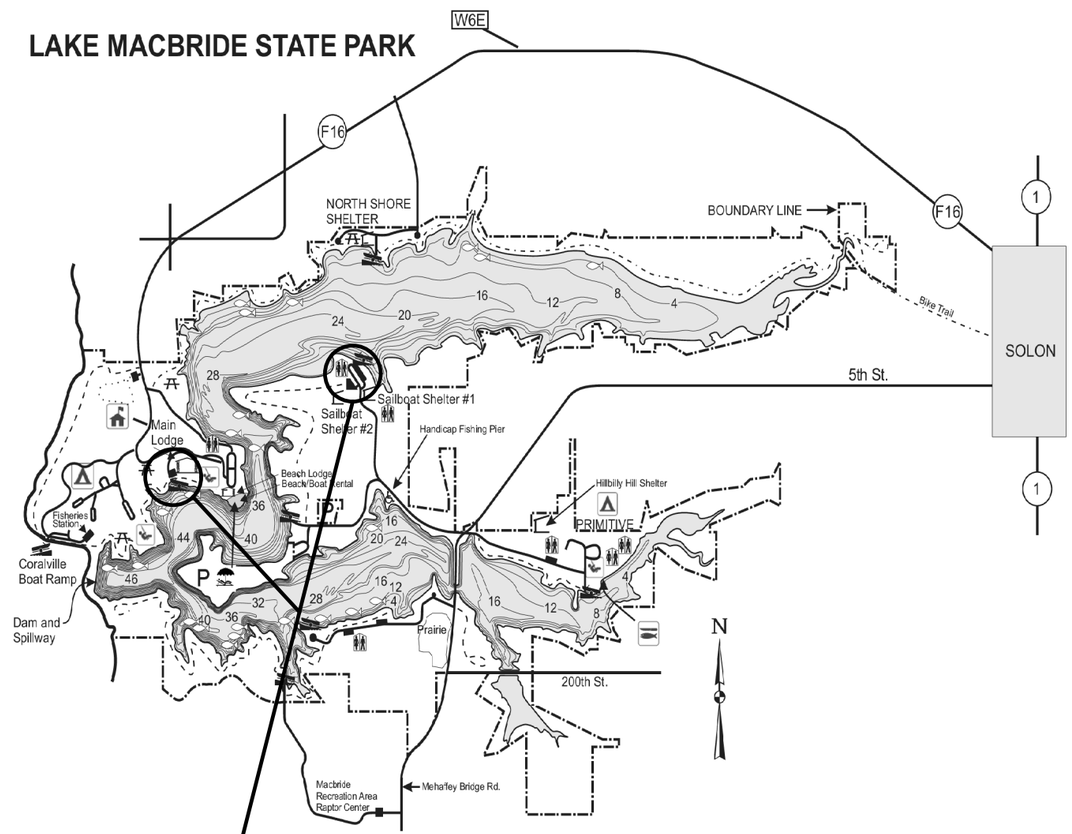


VICINITY MAP



LOCATION MAP

PROJECT LOCATION

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

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

PROJECT LOCATION MAP

VAULT LATRINES AT MAIN & SAILBOAT RAMPS FOR:

LAKE MACBRIDE STATE PARK

JOHNSON COUNTY, IOWA

NO.	BY / DATE	REVISION

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PROJECT NUMBER: 13-06-52-02
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DATE: 2013
SHEET No: 2

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ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	DEMOLITION	LS	1
2	SITE WORK	LS	1
3	CXT SINGLE CASCADIAN RIGHT HAND VAULT STRUCTURE	EACH	1
4	CXT DOUBLE CASCADIAN VAULT STRUCTURE	EACH	1
5	CLASS "A" CRUSHED STONE	TONS	5
6	SIDEWALK, PCC, 5"	SY	15
7	DETECTABLE WARNING PANEL	SF	10
8	EROSION CONTROL	LF	265
9	ELECTRICAL	LS	1
10	CONSTRUCTION STAKING	LS	1

ESTIMATE REFERENCE INFORMATION

ITEM NO.	DESCRIPTION
1	DEMOLITION A. Includes the removal and disposal of the existing building, sidewalk, granular base and hydrant (salvage if in good working order). B. The contractor shall ensure that all utilities are disconnected prior to demolition. C. Disposal is the responsibility of the contractor. D. Contractor is to restore the demolition areas, grade the proposed site according to the design drawings and seed,fertilizer and mulch all disturbed areas. E. The existing lautrines shall not be demolitioned until the new latrines are installed and open for use.
2	SITE WORK A. Site restoration is considered incidental and shall include seed, fertilizer and mulch on all disturbed areas as directed by the DNR inspector. B. Contractor is to grade and shape the latrine and camp pad sites as detailed in the plans.
3-4	SINGLE RIGHT HAND PRECAST CONCRETE VAULT STRUCTURE DOUBLE PRECAST CONCRETE VAULT STRUCTURE A. Contractor will provide and install structure by the plans and Engineers specifications. B. Excavation and backfill for the installation of structure to be considered incidental. C. Bedding material is considered incidental. D. Obtain Iowa Prison Industry hand sanitizer units from park staff and install at both locations. Screws and concrete anchors necessary to attach the units are provided.
5	CLASS "A" CRUSHED STONE A. The sidewalk is to be set on a 6 inch base of Class "A" Stone.
6	SIDEWALK, PCC, 5" A. Contraction joints shall be sawcut at 5 foot maximum spacing to a depth of 1 1/4". Expansion joints shall be installed along the front of the building between the sidewalk and the building and between the sidewalks and the existing roadway. B. Curb cut is considered incidenal. C. Excavation for sidewalk construction is considered incidental.
8	EROSION CONTROL A. Filter sock shall be installed as detailed to prevent sediment from exiting the project site and shall remain in place and be maintained until the site is stabilized.
9	ELECTRICAL Bid item includes furnishing and istalling a 60 amp shut-off box, 13' of conduit along the pole and building, and 30' of electrical line.
10	CONSTRUCTION STAKING Contractor is responsible for the survey staking of the construction of the project.

GENERAL NOTES

A. The contractor shall notify the following two weeks prior to demolition/construction:
   a. Project Manager: Mandi Aldrich (515) 205-1698
   b. District Inspector: Bruce Flippin (515) 250-3719

B. The existing lautrines will not be demolitioned until the new lautrines are installed and open for use.

C. The contractor shall verify actual locations and elevations with the DNR Inspector.

D. All work shall conform to and be performed in accordance with all applicable codes and ordinances.

E. 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.

F. The contractor shall verify, at the site, all dimensions and conditions shown on the plans and shall notify the DNR Inspector of any discrepancies, omissions and/or conflicts prior to proceeding with the work.

G. The contractor is responsible for providing waste area or 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 DNR Inspector.

H. 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 DNR inspector.

I. Where utilities and fixtures are showing as existing on the plans or encountered within the construction area, it shall be the responsibility of the contractor to notify the DNR Inspector of those utilities prior to beginning any construction. The contractor shall be afford access to these facilities for necessary modifications 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 in to avoid damage thereto. No claims for additional compensation will be allowed to the contractor for any interference or delay caused by such work.

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

K. 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. It's me involve seeding, filter sock, silt fence, rock ditch checks, silt basins or silt dikes.

L. 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.

M. All holes resulting from operations of the contractor, including removal of guardrail posts, fence posts, utility poles or piers, shall be filled and consolidated to finish grade as directed by the Engineer to prevent future settlement. The voids shall be filled as soon as practical - preferably the day created and not later than the following day. Any portion of the right of way or project limits (including borrow areas and operation sites) disturbed by any such operations shall be restored to an applicable condition. This operation shall be considered incidental to other bid items in the project.

N. Topsoil shall be spread to a minimum thickness of 6 inches on all disturbed unpaved areas.

O. The contractor shall seed, fertilize and mulch all disturbed areas with Class "C" seed mix.

P. Backfill to the top of all rock or paved surfaces.

CONSULTANT:

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

QUANTITIES & NOTES

VAULT LATRINES AT MAIN & SAILBOAT RAMPS FOR:
LAKE MACBRIDE STATE PARK
JOHNSON COUNTY, IOWA

NO	BY / DATE	REVISION

DRAWN BY: MLA
PROJECT NUMBER: 13-06-52-02
CHK'D BY:
DATE: 2013
SHEET No: 3

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DEMOLITION PLAN - MAIN

VAULT LATRINES AT MAIN & SAILBOAT RAMPS FOR:

LAKE MACBRIDE STATE PARK

JOHNSON COUNTY, IOWA

IOWA DEPARTMENT OF NATURAL RESOURCES

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

CONSULTANT:

NO.	DATE	REVISION

DRAWN BY: MLA
PROJECT NUMBER: 13-06-52-02
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DATE: 2013

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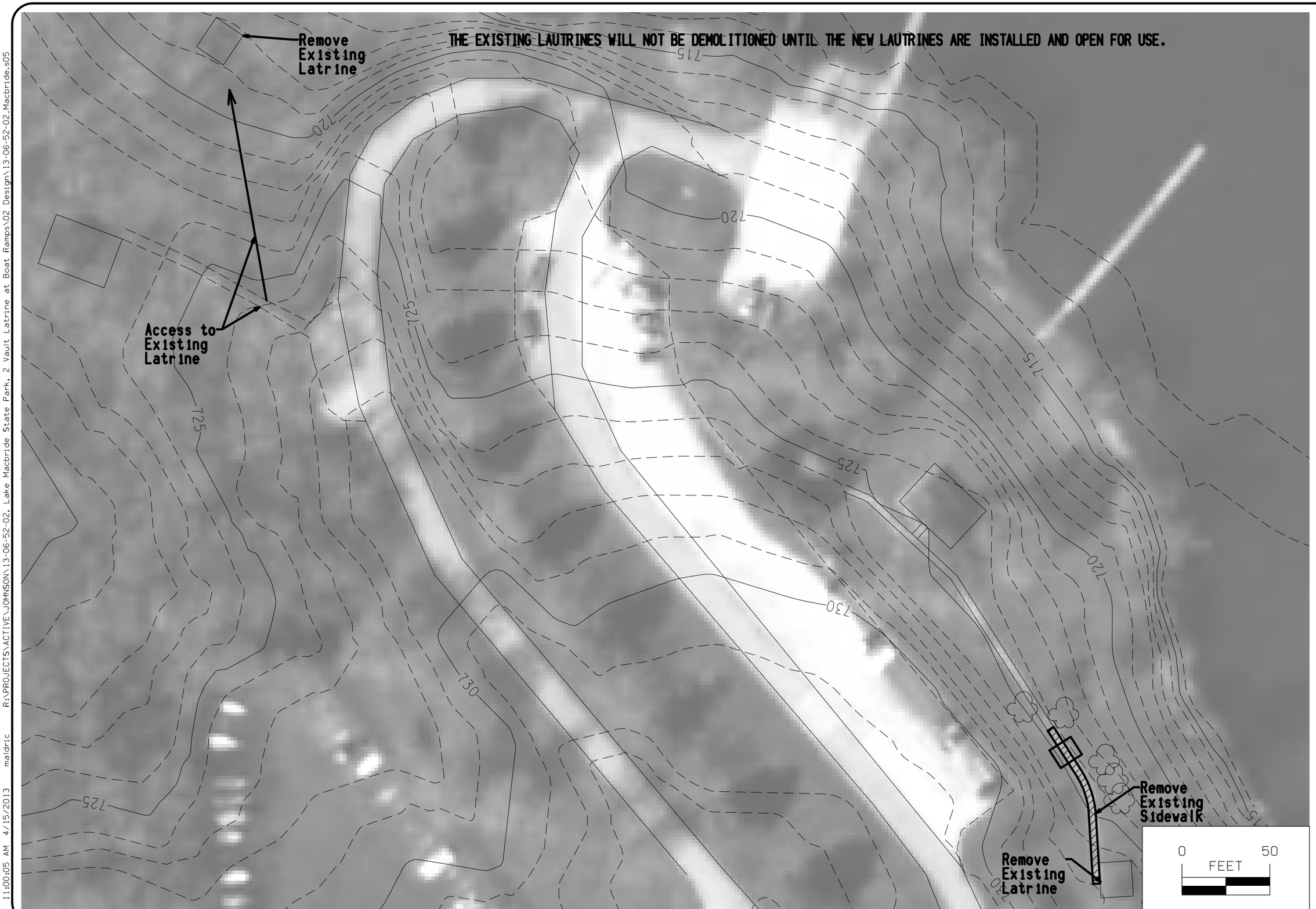

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

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

DNR

DEMOLITION PLAN - SAILBOAT

VAULT LATRINES AT MAIN & SAILBOAT RAMPS FOR:

LAKE MACBRIDE STATE PARK

JOHNSON COUNTY, IOWA

NO	BY / DATE	REVISION

DRAWN BY: MLA	PROJECT NUMBER: 13-06-52-02
CHK'D BY:	DATE: 2013

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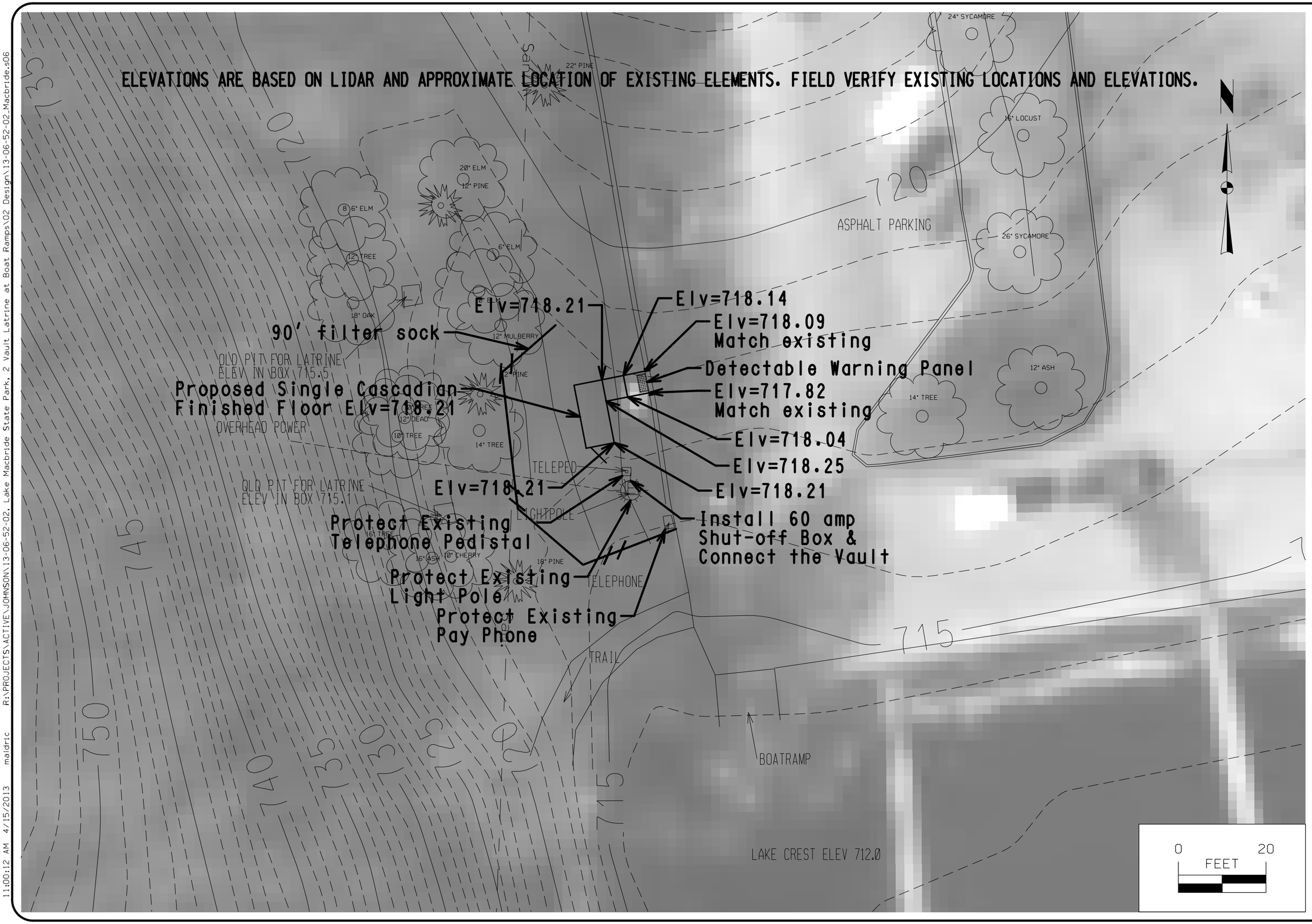

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

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

SITE PLAN - MAIN

VAULT LATRINES AT MAIN & SAILBOAT RAMPS FOR:

LAKE MACBRIDE STATE PARK

JOHNSON COUNTY, IOWA

NO.	BY DATE	REVISION

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CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

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

SITE PLAN - MAIN

VAULT LATRINES AT MAIN & SAILBOAT RAMPS FOR:

LAKE MACBRIDE STATE PARK

JOHNSON COUNTY, IOWA

NO.	BY / DATE	REVISION

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	2013

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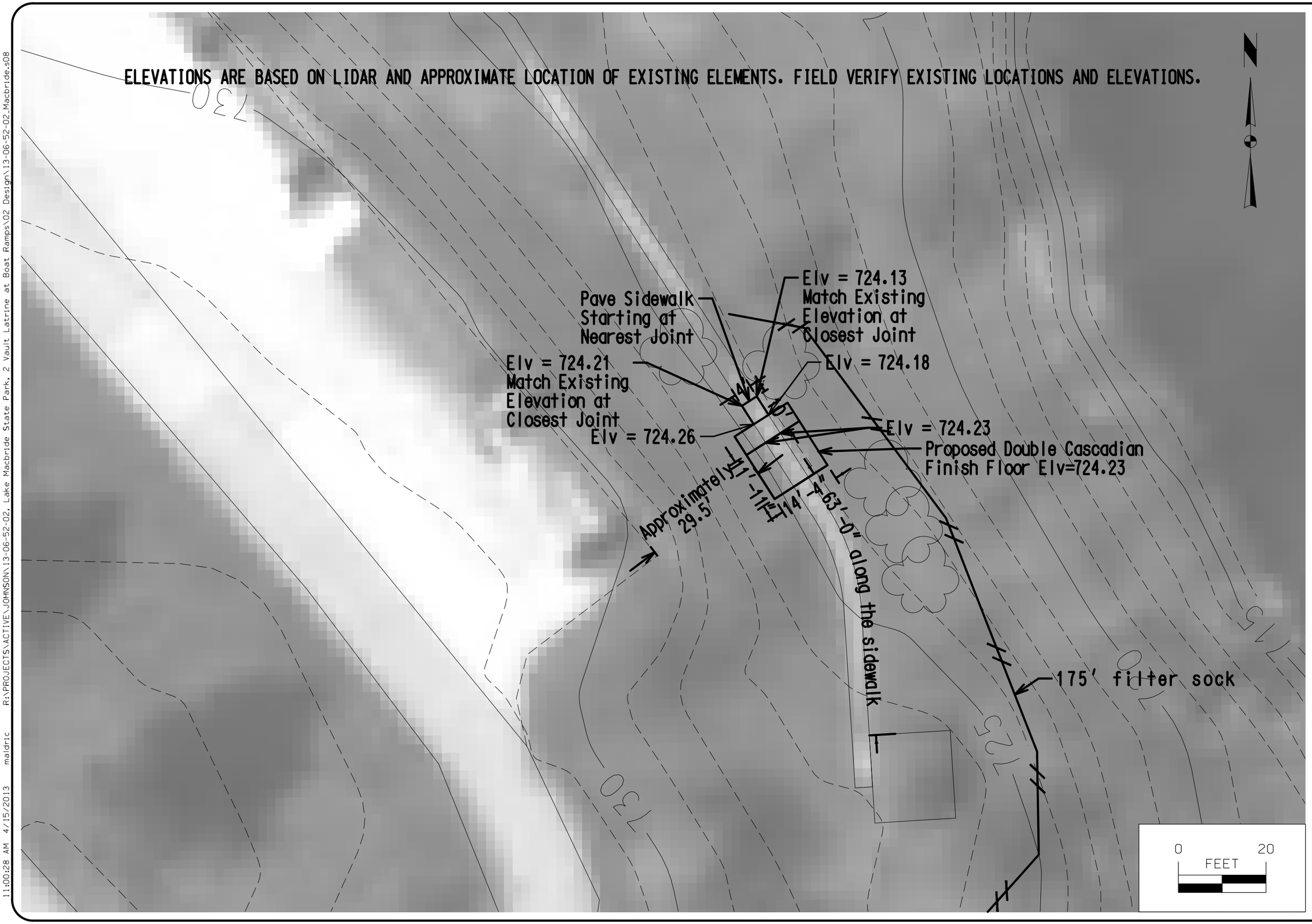

CONSULTANT:

IOWA DEPARTMENT OF NATURAL RESOURCES

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

DNR

SITE PLAN - SAILBOAT

VAULT LATRINES AT MAIN & SAILBOAT RAMPS FOR:

LAKE MACBRIDE STATE PARK

JOHNSON COUNTY, IOWA

NO	BY / DATE	REVISION

DRAWN BY: MLA	PROJECT NUMBER: 13-06-52-02
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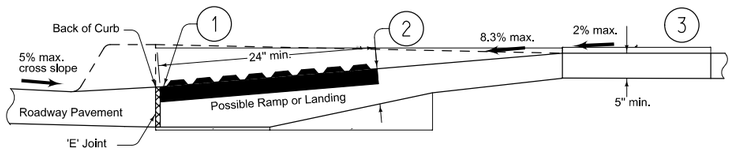
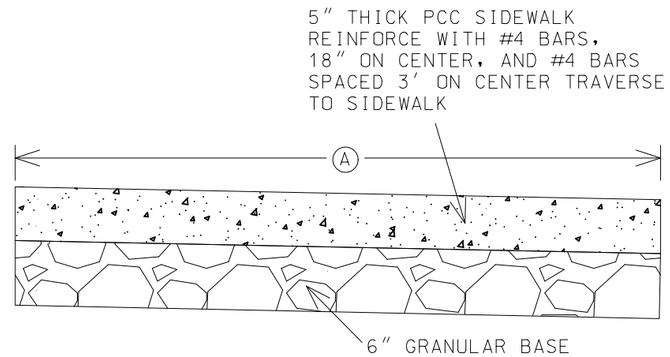


TYPICAL SECTION – CURB RAMP

1 Install a 24″ wide (min) strip of detectable warnings at the back of the curb. Extend the detectable warnings across the full width of the ramp.

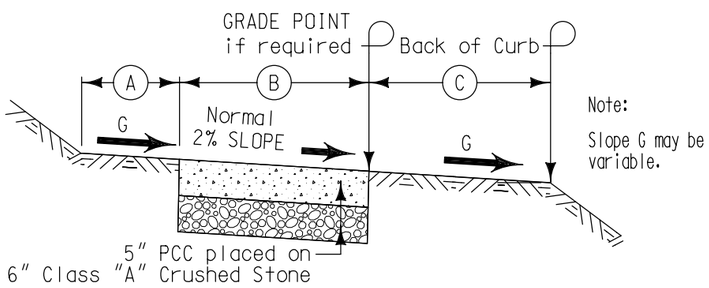
2 Provide a minimum of 6″ of concrete below the detectable warning panel.

3 Landing: Maximum slope of 2% in any direction.



(A) = 5′ at the main boat ramp; 4′ at the sail boat ramp

SIDEWALK DETAIL



Reinforce concrete with #4 bars, 18″ on center longitudinally, and #4 bars spaced 3′ on center traverse to sidewalk

Cross slope transition at 1% per foot or less

TYPICAL SIDEWALK DETAILS

STATION TO STATION	SIDE	(A) Feet	(B) Feet	(C) Feet	NEW CONSTRUCTION
ALL		2	5	2	

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GENERAL DETAILS

VAULT LATRINES AT MAIN & SAILBOAT RAMPS FOR:

LAKE MACBRIDE STATE PARK

JOHNSON COUNTY, IOWA

NO	BY / DATE	REVISION

DRAWN BY: MLA
PROJECT NUMBER: 13-06-52-02
CHK'D BY:
DATE: 2013
SHEET No: 9

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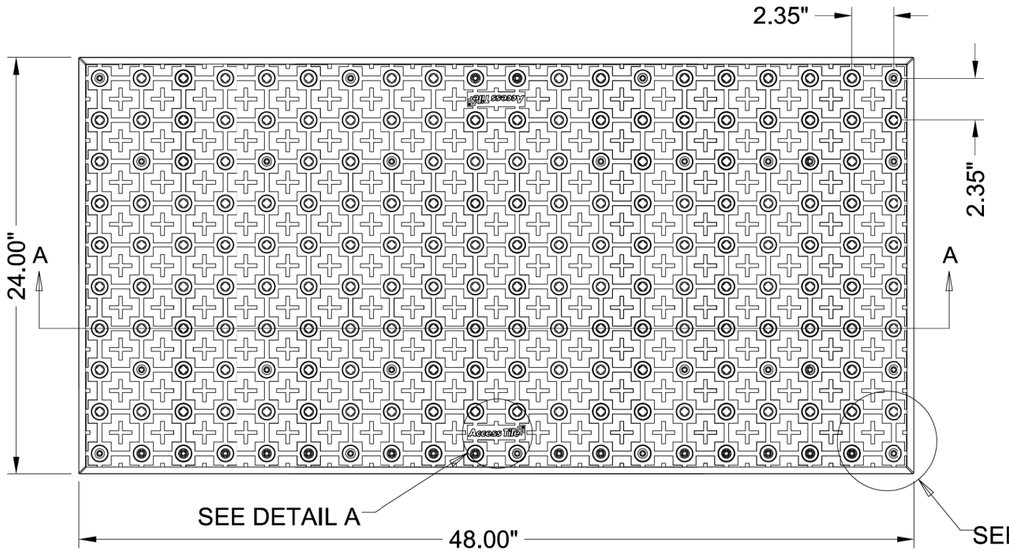
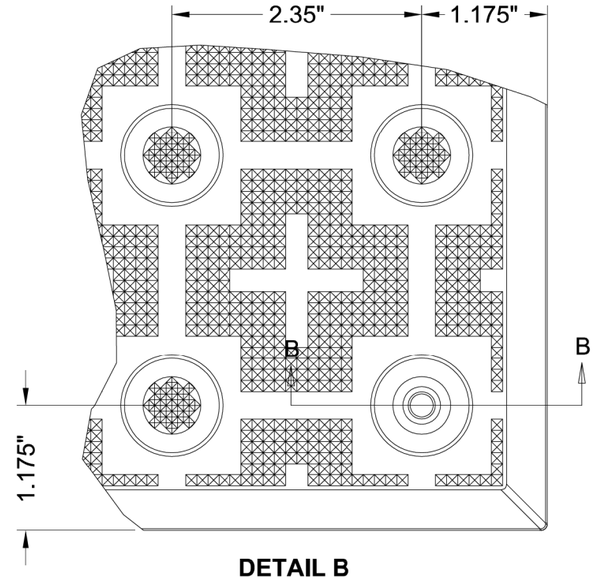
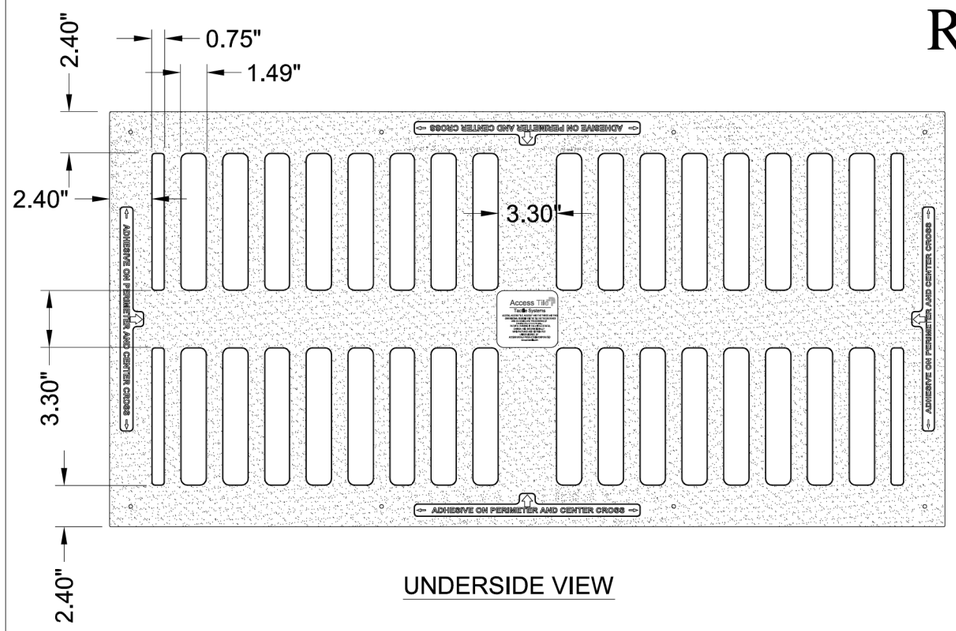


PLAN

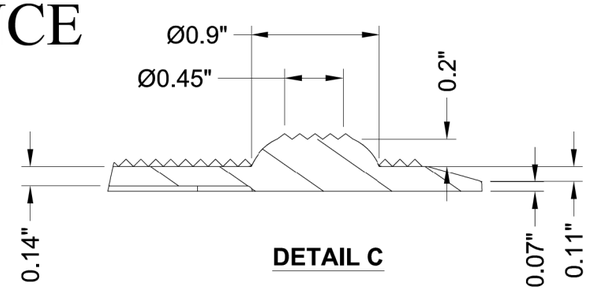


DETAIL B

FOR REFERENCE ONLY



UNDERSIDE VIEW



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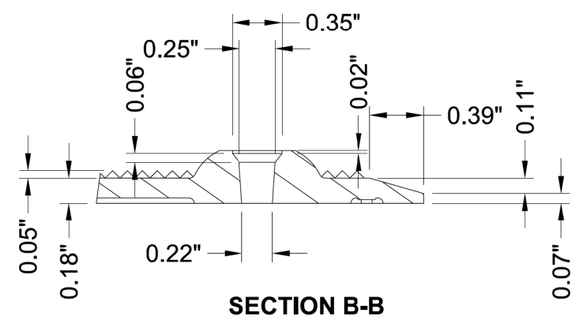
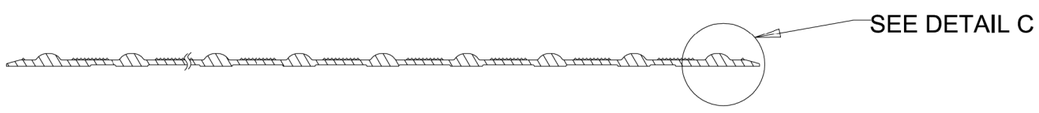


SECTION B-B



SECTION A-A

DETAIL A

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PATENTS PENDING IN THE UNITED STATES, CANADA AND INTERNATIONALLY MANUFACTURED AND DISTRIBUTED UNDER LICENSE BY ACCESS WORLD PRODUCTS INCORPORATED
www.accesstile.com
Ⓓ KENNETH E. SZEKELY

MATERIAL LIST

ITEM	DESCRIPTION	PART NO.	QTY
1	ACCESS TILE	ACC-S-2X4	1
2	TeK™ ANCHOR	ACC-S-ANCH	8
3	TACTILE BOND AND SEAL	TBS-010	1 ea

NOTE: FASTENERS AND 1 TUBE OF TACTILE BOND AND SEAL ARE INCLUDED WITH TILE

REFERENCE DRAWINGS

DWG. NO.	DESCRIPTION

No.	DATE	REVISION	APPR.

SCALE 1"=1'-0" U.N.O. FULL SIZE ONLY 0 3 6 9 12 15

DESIGNED KES	DATE 10/09/2008
DRAWN RWO	10/15/2008
CHECKED KES	
PROJECT MANAGER	
TRADE DETECTABLE WARNING SURFACE	PART NO. ACC-S-2X4
MATERIAL POLYMER COMPOSITE	

SUBJECT
ACCESS TILE®
TRUNCATED DOME, DETECTABLE WARNING TACTILE SURFACE

PROJECT
ACCESS TILE®
TRUNCATED DOME, DETECTABLE WARNING TACTILE SURFACE
2X4 SURFACE APPLIED
INLINE DOME TILE DRAWING.

DRAWING NO. ACC-S-2X4 | REV. NO. Ø

CONSULTANT:

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

DNR

DETECTABLE WARNING DETAILS

VAULT LATRINES AT MAIN & SAILBOAT RAMPS FOR:
LAKE MACBRIDE STATE PARK
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DRAWN BY: MLA | PROJECT NUMBER: 13-06-52-02
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SHEET No: 10

11:00:29 AM 4/15/2013 maldric R:\PROJECTS\ACTIVE\JOHNSON\13-06-52-02, Lake Macbride State Park, 2 Vault Latrine at Boat Ramps\02 Design\13-06-52-02_Macbride.s10