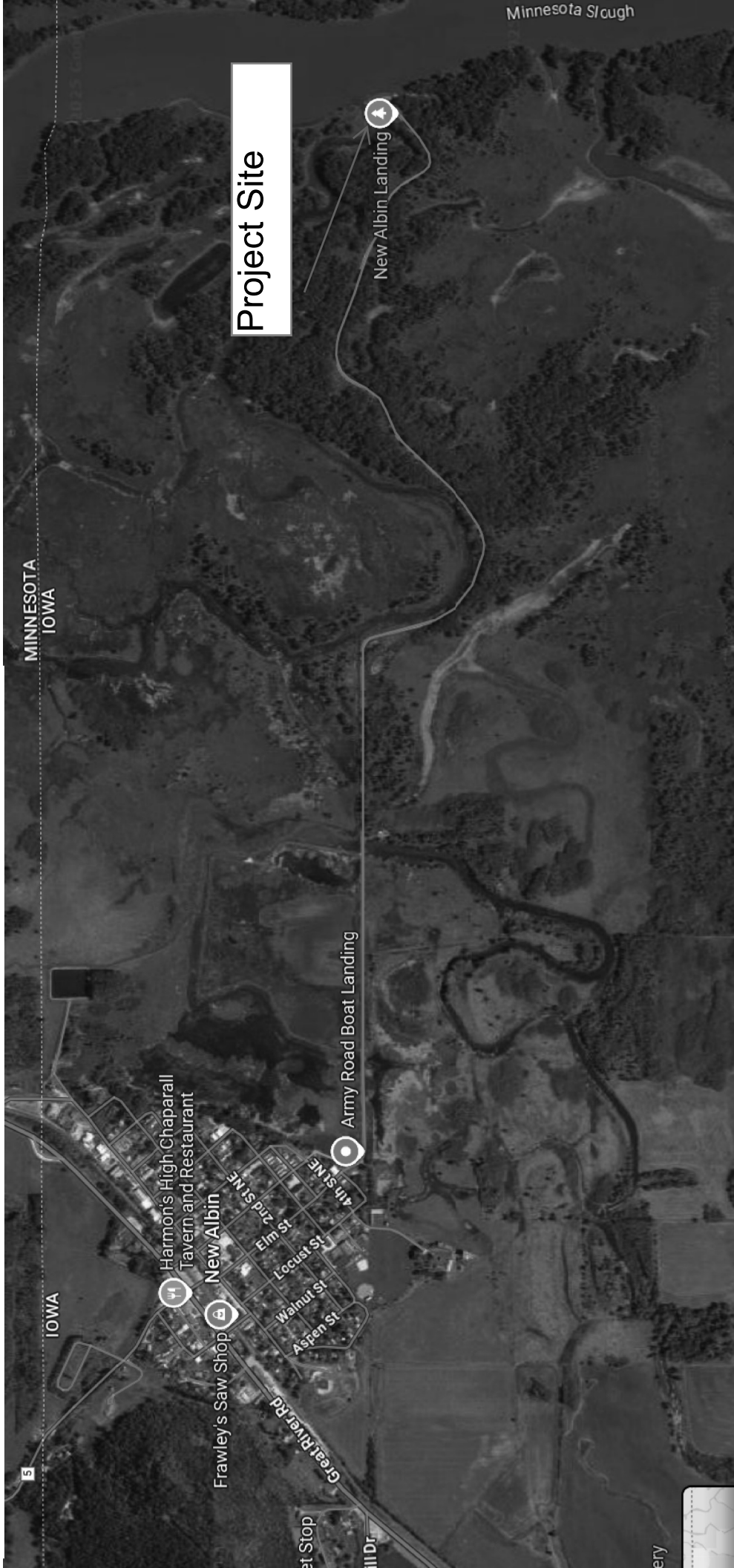


25-03-03-02 Upper Iowa Wildlife Unit Pool Slough Boat Ramps



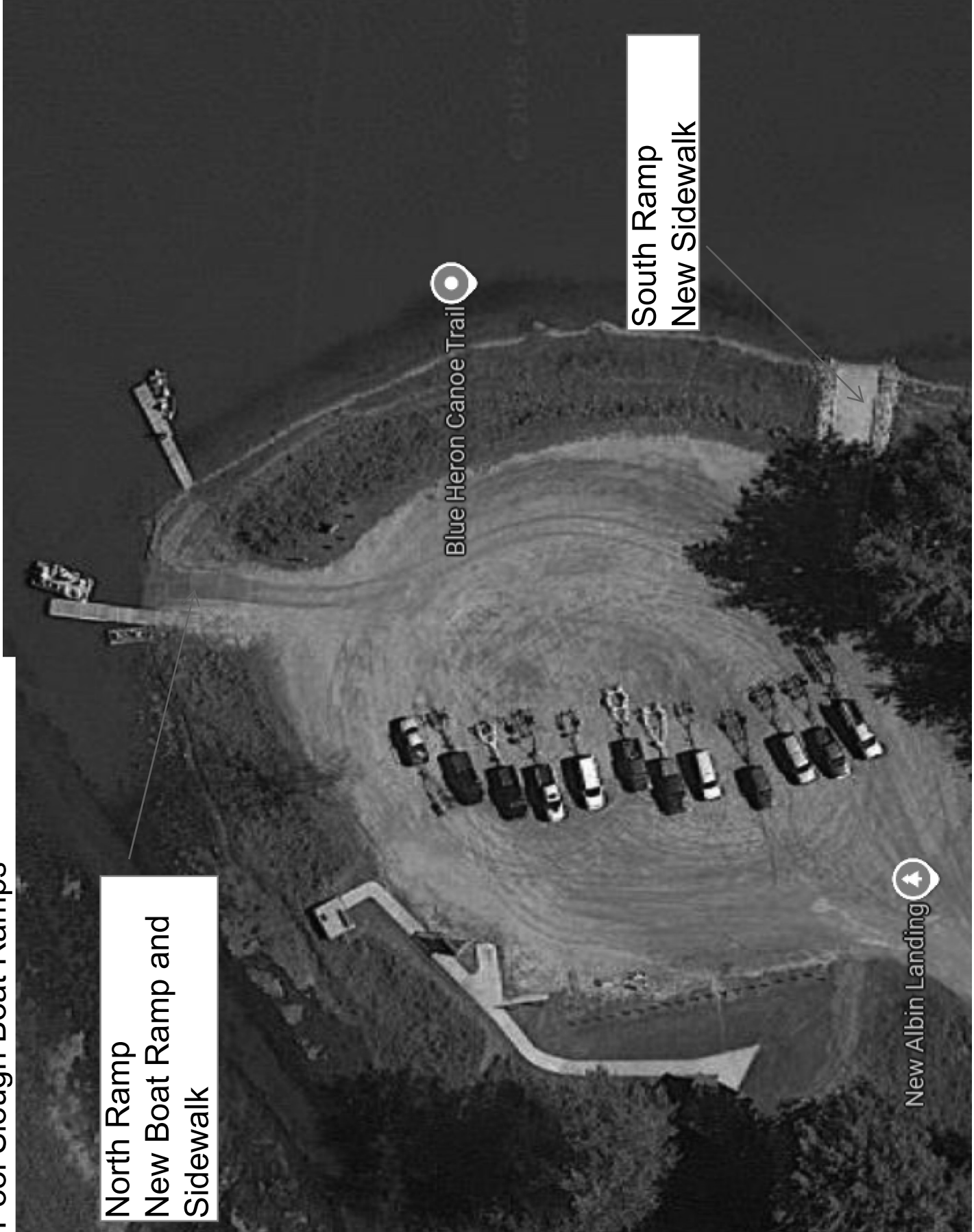
25-03-03-02 Upper Iowa Wildlife Unit
Pool Slough Boat Ramps

North Ramp
New Boat Ramp and
Sidewalk

South Ramp
New Sidewalk

Blue Heron Canoe Trail

New Albin Landing



Items of Work:		
Work or Material	Unit	Quantity
Mobilization	L.S.	1
North Boat Ramp Demolition	L.S.	1
6" Structural Concrete Class "C" Mix – Boat Ramp	Sq. Yds	109
Earthwork - Sidewalk	Cu. Yds	14
4" Structural Concrete Class "C" Mix - Sidewalk	Sq. Yds	67

Construction Specifications	
IA-1	Site Preparation
IA-5	Pollution Control
IA-21	Excavation
IA-23	Earth Fill

General Notes:

Contractor is required to follow Iowa One Call Law. IowaOneCall.com of call 811.

TICKET#_____.

If a cultural resource is identified during construction, stop immediately and notify local Iowa Department of Natural Resources Staff or Engineer.

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.

25-03-03-02 Upper Iowa Wildlife Unit-Pool Slough Boat Ramps

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.



Kenneth M. Howe, P.E.

June 2nd, 2025

25-03-03-02 Upper Iowa Wildlife Unit
Pool Slough Boat Ramps
North Ramp - New Ramp and Sidewalk



Demo Existing Boat Ramp
15' x 55'

New 5' x 35' Sidewalk

New 15' x 65' Boat Ramp

25-03-03-02 Upper Iowa Wildlife Unit
Pool Slough Boat Ramps
South Ramp - New Sidewalk

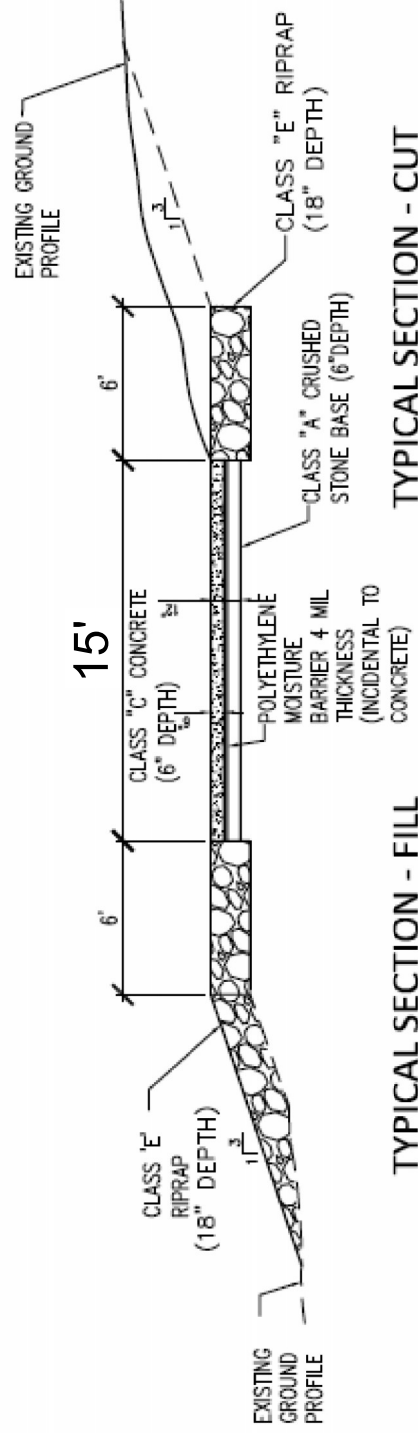


Iowa DNR to Remove Tree

New Sidewalk 5' x 85'

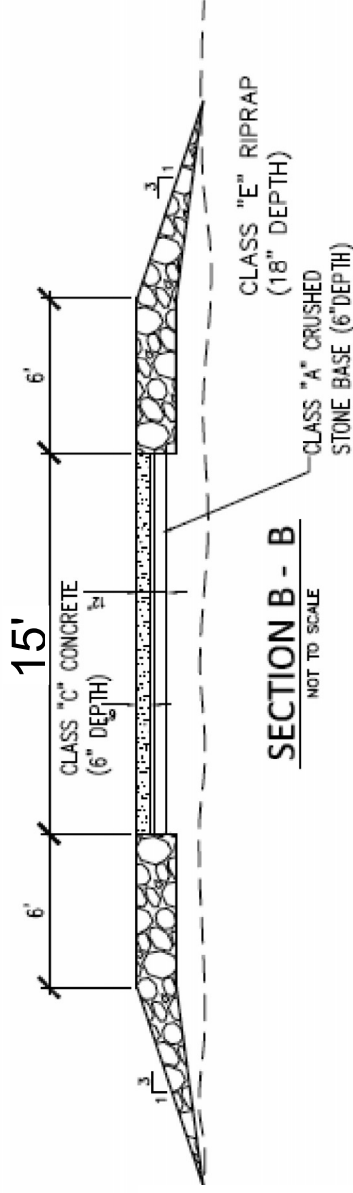
25-03-03-02 Upper Iowa Wildlife Unit-Pool Slough Boat Ramps Cross Section View

Does not show sidewalk



SECTION A - A

NOT TO SCALE

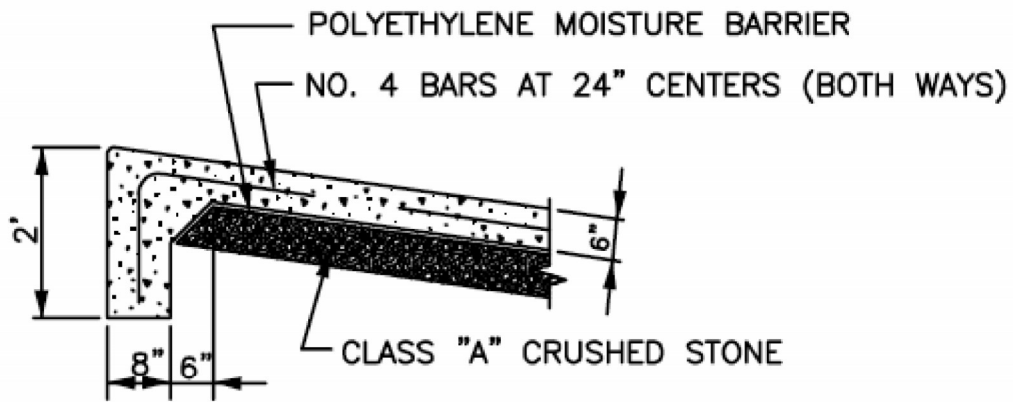


GENERAL NOTES

- ALL CONCRETE SHALL CONFORM TO CLASS "C4" MIX, I. D. O. T. SPECIFICATION SERIES 2012
- ALL EXPOSED EDGES OF CONCRETE TO BE BEVELED WITH 3/4" CHAMFER STRIPS
- REINFORCING STEEL -- GRADE 40 -- DEFORMED CONTRACTOR TO PROVIDE AN INDEPENDANT TESTING LABORATORY FOR EACH DAY'S POUR. LAB TO TEST CONCRETE FOR AIR CONTENT (7±1.5%), SLUMP (2-4"), AND COMPRESSIVE STRENGTH AT 28 DAYS (4000 PSI).

THAT PORTION OF THE RAMP TO BE PLACED BELOW THE WATERLINE MAY BE FORMED ABOVE THE WATERLINE AND CAREFULLY PUSHED INTO POSITION UNDERWATER TO THE LOCATION AND ELEVATION AS SHOWN ON THE PLAN AND AS APPROVED BY THE ENGINEER. THE REMAINING SECTIONS OF THE RAMP SHALL BE FORMED AND POURED IN PLACE.

25-03-03-02 Upper Iowa Wildlife Unit
Pool Slough Boat Ramps
Upper Section

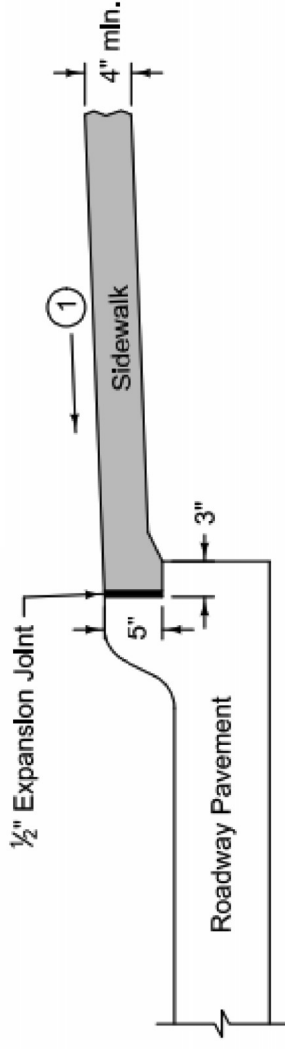


DETAIL "A"

NOTE:
REINFORCING STEEL,
POLYETHYLENE SHEETING,
AND TIE BARS ARE TO BE
INCIDENTAL TO BID PRICE
FOR CONCRETE.

25-03-03-02 Upper Iowa Wildlife Unit Pool Slough Boat Ramps Sidewalk Detail

Target cross slope of 1.5%
with a maximum cross
slope of 2.0%



DETAIL 2

1. Remove all vegetation and roots from ground surface.
2. Construct grade to final subgrade elevation.
- a. Cut area: Remove all material that will be displaced by the sidewalk.
- b. Fill area: Scarify the surface to be covered with embankment to a depth of at least 6 inches and compact. Construct embankment in lifts of 6 inches or less and compact each lift. Tamp surface with a mechanical tamper until firm and unyielding.
3. Remove all soft, spongy, or yielding spots and fill the void with suitable backfill material.

IOWA DEPARTMENT OF NATURAL RESOURCES
CONSTRUCTION SERVICES BUREAU
NOVEMBER 1996

IOWA METHOD FOR PLACEMENT OF CONCRETE BOAT RAMPS UNDER WATER

- 1) Place riprap stone in water to within six inches of the final subgrade of the concrete slab. Place grade stakes and string line on posts in water to set grade.
- 2) Place six inches of Class A crushed stone (3/4 inch) on top of riprap and fill voids. After filling voids there should be a minimum of two inches of crushed stone on top of riprap, and base should be to final grade.
- 3) Build temporary fill to grade for pouring the underwater portion of the ramp.
- 4) Place two inches of Class A crushed stone (3/4 inch) on top of temporary fill and then place two layers of six mil polyethylene on top.
- 5) Pour concrete (4,000 psi) for slab in place on temporary fill, with two layers of 6 mil polyethylene on top of subgrade. Take a minimum of two test cylinders for testing.
- 6) Let poured ramp section cure for a minimum of two weeks, unless seven-day test results exceed 3,200 pounds.
- 7) Test one cylinder at seven days for compressive strength; if greater than 3,200 psi then ramp section can be pushed into place. Second cylinder would be used for test at fourteen days if first cylinder did not meet 3,200 psi.
- 8) Bend exposed rebars at top end of underwater slab. Place wood timbers (4" planks are usually sufficient, but timber up to twelve inch by twelve inch has been used) up against end of section.
- 9) Use dozer, loader or large backhoe to push section into place, taking care to follow proposed alignment and grade.
- 10) Check final location and grade against string line and grade stakes.

If slab is not to proper grade it can be removed by placing a cable around slab and pulling it out of the water with a dozer. Grade can then be corrected and slab re-pushed.

Lengths of lower ramp sections are generally 30-40 feet long depending on a design grade of 16-18 percent and a recommended water depth of 4 feet at the end of the ramp.

NOTE: The above method has been used successfully for over 300 boat ramp installations in Iowa for the period from 1970 to present. Widths of ramp slabs have ranged from 14 feet for a single lane ramp to 45 feet for a triple lane ramp.

25-03-03-02 Upper Iowa Wildlife Unit
Pool Slough Boat Ramps

