**SPECIAL JOINT COUNCIL MEETING**
**WITH PUBLIC WORKS COMMISSION**
CITY OF CROSSLAKE
MONDAY, JANUARY 4, 2016
4:00 P.M. – CITY HALL

1. City Council Call to Order
   a. Pledge of Allegiance

2. Planning and Zoning (Council Action-Motion)
   a. Metes and Bounds Subdivision, 120081100BA0009, Anthony and Mary Fraser, Involving 24 Acres Into 3 Tracts
   b. Park Dedication Recommendation

3. Public Safety (Council Action-Motion)
   a. Memo dated 1/4/16 from Chief Hartman Re: Hiring Part-Time Officer
   b. Resolution Authorizing Participation in the PERA Police and Fire Plan for New Officer
   c. Resolution Accepting Donation
   d. Memo dated 1/4/16 from Chief Lohmiller Re: LAMDA Donation and Approval to Purchase 4-AED's

4. Public Works Commission Call to Order

5. Dream Island Bridge Project
   a. Dave Reese - Review Feasibility Study
      1. Arch-Span Option D Supplement
   b. Heidi Lindgren of DNR – Review State Requirements and Comments on Construction
   c. Council and Commission Questions and Discussions
   d. Public Comment (limited to three minutes per person)
   e. Resolution Receiving Feasibility Report and Calling Hearing on Improvement (Motion)

6. City Council Adjourn

7. Public Works Commission Approval of December 7, 2015 Meeting Minutes (Motion)

8. Discussion of 2016 Commission Appointments

9. Other Business

10. Public Works Commission Adjourn

2. a.

**Anthony R & Mary L Fraser**
**120081100BA0009**

Herzog invited McCormick of Land Design Solutions, the applicant's representative to step up to the podium. Kolstad read the metes and bounds subdivision request, the history of the parcel and the surrounding parcel sizes in comparison to the proposed parcels into the record. Herzog asked if any of the commissioners had additional questions, but none were forthcoming. It was stated that it was a straight forward request by the applicant. Herzog opened the public hearing with no response, so the public hearing was closed. Nevin requested clarification on the metes and bounds process versus the plat process. Pence explained the differences in the procedural needs and process. Herzog requested Kolstad to initiate the findings of fact procedure with the board members deliberating and responding to each question.

**December 23, 2015 Action:**
**Motion by Lafon; supported by Nevin to approve a recommendation to the city council to:**

1. **Subdivide parcel 120081100BA0009 involving 24 acres into 3 tracts**

**Per the findings of fact as discussed, the on-sites conducted on 12-22-15 and as shown on the certificate of survey received at the Planning & Zoning office dated 12-8-15 located at 37754 County Road 66, Crosslake, MN 56442**

**Conditions:**
1. **Work with the county highway department to obtain an access off of County Road 66**
2. **Park dedication fee submitted to Planning & Zoning office prior to City Council meeting on January 4, 2016**

**Findings: See attached**

**All members voting "Aye", Motion carried.**

**City of Crosslake**
**Planning Commission/Board of Adjustment**

**Summary of Record**

**Anthony R & Mary L Fraser** -Part of NE 1/4 of the NE 1/4, Sec 8, City of Crosslake, 120081100BA0009 at 37754 County Road 66, Crosslake, MN 56442

Request:

- To subdivide parcel #120081100BA0009 involving 24 acres into 3 tracts

Chronology of events:

- November 24, 2015 -Application submitted
- December 8, 2015 -Published in local newspaper
- December 8, 2015 -Notices sent out
- December 22, 2015 – Planning Commission/Board of Adjust on-site
- December 23, 2015 – Planning Commission/Board of Adjust meeting -Decision made to recommend approval for the subdivision of property
- January 4, 2016 -Crosslake City Council Meeting - Decision to approve the subdivision of parcel 120081100BA0009 involving 24 acres into 3 tracts

Packet Information:

- Public Hearing Notice
- Staff Report
- Development Review Team Minutes
- Certificate of Survey
- Subdivision application
- Quit Claim Deed
- Site Suitability
- Authorized Agent Form

Correspondence:

- There was no correspondence

December 23, 2015

Findings of Fact

Supporting/Denying a Metes and Bounds Subdivision

*Findings should be made in either recommending for or against a metes and bounds subdivision, and should reference Chapter 44 of the City Ordinance. The following questions are to be considered, but are not limited to:*

1. Does the proposed metes and bounds subdivision conform to the City's Comprehensive Plan?
   Yes **X** No
   - **Continue to guide residential growth in an orderly and compact manner so that new developments can be effectively served by public improvements and that the character and quality of the City's existing neighborhoods can be maintained and enhanced. Encourage well-designed residential subdivisions at urban densities in the planned growth areas of the City. Locate higher density residential developments in areas adjacent to moderate density developments and outside of the shoreland district.**

2. Is the proposed metes and bounds subdivision consistent with the existing City Ordinance? Specify the applicable sections of the ordinance.
   Yes **X** No
   - **The current land use classification is shoreland district and the proposed subdivision meet or exceed the minimum requirements for lot width and lot area**
   - **There is adequate ingress/egress onto County Rd 66**

3. Are there any other standards, rules or requirements that this metes and bounds subdivision must meet?
   Yes **X** No Specify other required standards.
   - **The proposed lots have adequate area for septic systems**

4. Is the proposed metes and bounds subdivision compatible with the present land uses in the area of the proposal?
   Yes **X** No Zoning District Shoreland
   - **It is consistent with the surrounding zoning and uses in the area**
   - **As observed at the Planning Commission/Board of Adjustment on-site on December 22, 2015 the proposed tract sizes are consistent with the neighborhood and other residential uses.**
   - **Adjacent to Limited Commercial on the south**

5. Does the proposed metes and bounds subdivision conform to all applicable performance standards in Article 4 of the Subdivision Ordinance?
   Yes **X** No
   - **The proposed lots meet or exceed the minimum lot size requirements for Shoreland District**
   - **There is adequate ingress/egress onto County Road 66**
   - **The proposed lots have adequate area for septic system**

6. Other issues pertinent to this matter.
   - **Work with the County Highway Department on any access needs**
   - **Pay the park dedication fee before the city council meeting**

**Decision: Motion by Lafon; supported by Nevin to approve a recommendation to the city council to:**

1. **Subdivide parcel 120081100BA0009 involving 24 acres into 3 tracts**

**Per the findings of fact as discussed, the on-sites conducted on 12-22-15 and as shown on the certificate of survey received at the Planning & Zoning office dated 12-8-15 located at 37754 County Road 66, Crosslake, MN 56442**

**Conditions:**

1. **Work with the county highway department to obtain an access off of County Road 66**
2. **Park dedication fee submitted to Planning & Zoning office prior to City Council meeting on January 4, 2016**

**All members voting "Aye", Motion carried.**

Date: 1-22-16 Signature: _____
Chairman

City Hall: 218-692-2688
Planning & Zoning: 218-692-2689
Fax: 218-692-2687

37028 County Road 66
Crosslake, Minnesota 56442
http://crosslake.govoffice.com

**CITY OF CROSSLAKE**

**PLANNING COMMISSION/BOARD OF ADJUSTMENT**
**December 23, 2015**
**9:00 A.M.**

Crosslake City Hall
37028 County Road 66, Crosslake MN 56442
(218) 692-2689

**PUBLIC HEARING NOTICE**

**Applicant:** Anthony R & Mary L Fraser

**Site Location:** 37754 County Road 66, Crosslake, MN 56442

**Request:**

- Subdivision of property

**To:**

- To subdivide parcel #120081100BA0009 involving 24 acres into 3 tracts

**Notification:** Pursuant to Minnesota Statutes Chapter 462 and the City of Crosslake Zoning Ordinance, you are hereby notified of a public hearing before the City of Crosslake Planning Commission/Board of Adjustment. Property owners have been notified according to MN State Statute 462 and has been published in the Northland Press. Please share this notice with any of your neighbors who may not have been notified by mail.

**Information:** Copies of the application and all maps, diagrams or documents are available at Crosslake City Hall or by contacting the Crosslake Planning & Zoning staff at 218-692-2689. Please submit your comments in writing including your name and mailing address to Crosslake City Hall or (crosslakepz@crosslake.net).

# STAFF REPORT

Property Owner/Applicant: Anthony R & Mary L Fraser

Parcel Number(s): 120081100BA0009

Application Submitted: November 24, 2015

Action Deadline: January 22, 2016

60 Day Extension Letter sent: N/A

City Council Date: January 11, 2016

**Authorized Agent:** Kevin McCormick

**Request:** To subdivide parcel #120081100BA0009 involving 24 acres into 3 tracts

**Current Zoning:** Shoreland District

**Adjacent Land Use/Zoning:**
North – Shoreland District
South – Limited Commercial District
East – Shoreland District
West – Shoreland District

**Development Review Team Minutes held on 11-10-15:**

- Property is located at 37754 County Road 66, Crosslake, MN 56442
- Proposed to subdivide the 24.45 acre parcel into two approximately 5 + acres and one into approximately 14 +/- acres totaling three parcels
- A compliance inspection is filed and compliant dated October 26, 2015
- Planning Commission/Board of Adjustment will make a recommendation to the Crosslake City Council

Property owner was informed that before they could be placed on a public hearing agenda the following information is required:

1. A certificate of survey meeting the requirements outlined in Chapter 44 of the Code of Ordinances of the City of Crosslake
2. No septic site suitability's per parcel will be required due to parcels being over 5 acres
3. A complete Metes and Bounds application with all required paperwork
4. The public hearing fee of $100.00 + $75.00 per new lot
5. Upon recommendation from the Planning Commission/Board of Adjustment to the City Council and before the city council meeting a park dedication fee of $1,500.00 or 10% of land per new lot or a combination thereof as outlined in Chapter 44, Sec. 44-402 is required

**Parcel History:**

- November 2007 – Permit to construct a fence
- October 2015 – Compliance Inspection

**City Ordinance:**

Land subdivision must be accomplished in a manner that contributes to an attractive, orderly, stable and wholesome community environment with adequate public services and safe streets. All land subdivisions, including plats, shall fully comply with the regulations in this chapter and as may be addressed in other chapters of this Code. (Sec. 44.1)

**City Community Plan:**

Continue to guide residential growth in an orderly and compact manner so that new developments can be effectively served by public improvements and that the character and quality of the City's existing neighborhoods can be maintained and enhanced. Encourage well-designed residential subdivisions at urban densities in the planned growth areas of the City. Locate higher density residential developments in areas adjacent to moderate density developments and outside of the shoreland district.

**Agencies Notified and Responses Received:**

**County Highway:** No comments were received as of 12-15-15
**DNR:** No comments were received as of 12-15-15
**City Engineer:**
**City Attorney:**
**Lake Association:** No comments were received as of 12-15-15
**Crosslake Public Works:** No comments were received as of 12-15-15
**Crosslake Park, Recreation & Library:** No comments were received as of 12-15-15
**Concerned Parties:** No comments were received as of 12-15-15

**POSSIBLE MOTION:**

To make a recommendation to the Crosslake City Council to approve/table/deny the subdivision of parcel #120081100BA0009 involving 24 acres into 3 tracts located at 37754 County Road 66, Sec 8, City of Crosslake

# Certificate of Survey

## Part of NE 1/4 of NE 1/4
## Section 8 Township 137 North Range 27 West
## Crow Wing County, Minnesota

Wetlands Delineated by
Meister Environmental Services

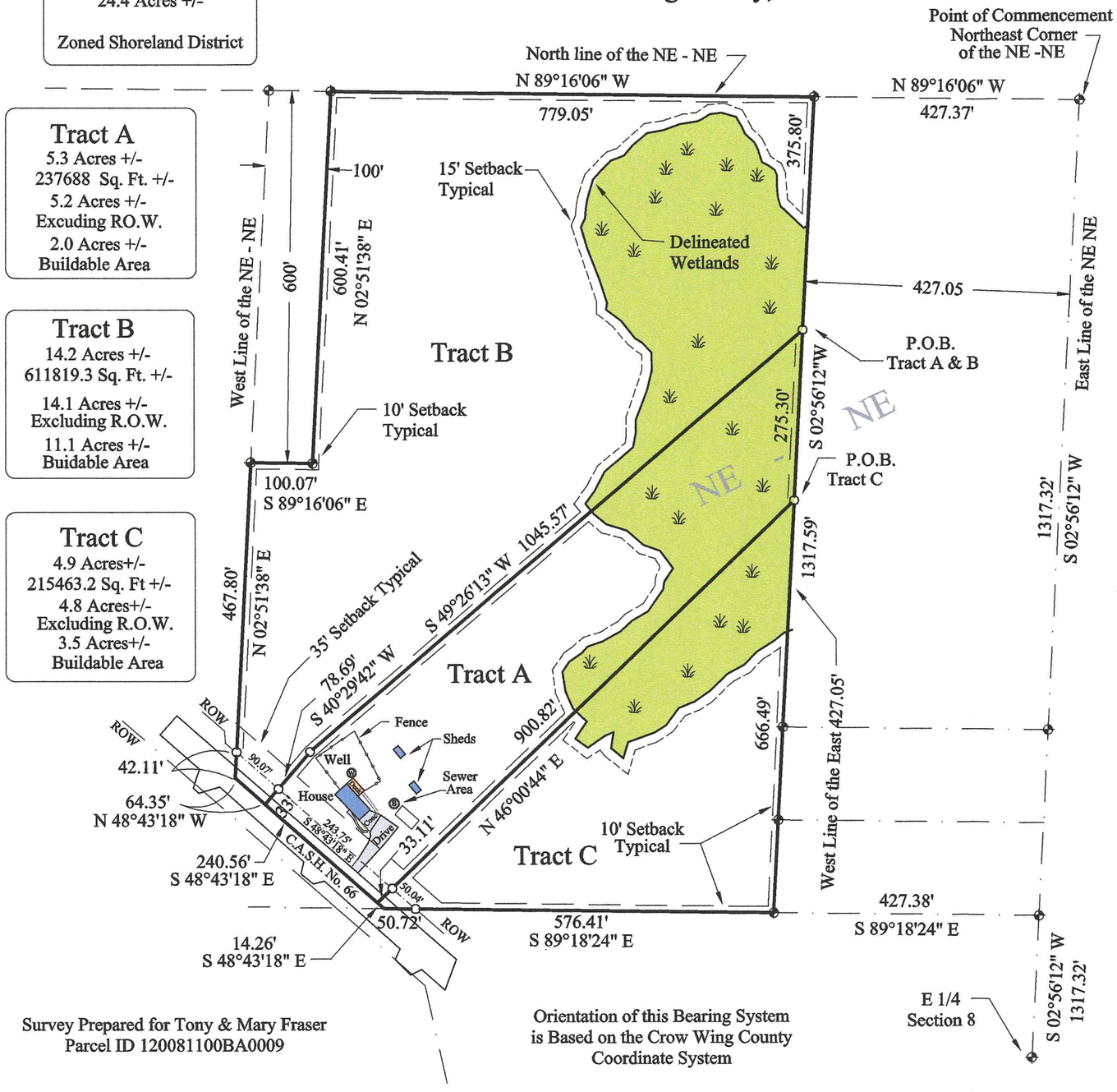
Existing Lot Area
24.4 Acres +/-

Zoned Shoreland District

**Tract A**
5.3 Acres +/-
237688 Sq. Ft. +/-
5.2 Acres +/-
Excuding RO.W.
2.0 Acres +/-
Buildable Area

**Tract B**
14.2 Acres +/-
611819.3 Sq. Ft. +/-
14.1 Acres +/-
Excluding R.O.W.
11.1 Acres +/-
Buidable Area

**Tract C**
4.9 Acres+/-
215463.2 Sq. Ft +/-
4.8 Acres+/-
Excluding R.O.W.
3.5 Acres+/-
Buildable Area




Survey Prepared for Tony & Mary Fraser
Parcel ID 120081100BA0009

Orientation of this Bearing System
is Based on the Crow Wing County
Coordinate System

0 200 400 600

N W E S

RECEIVED
DEC 10 2015
BY:

Tract A

That part of the Northeast Quarter of the Northeast Quarter of Section 8, Township 137, Range 27, Crow Wing County, Minnesota which lies northerly of the centerline of County State Aid Highway Number 66 as now laid out and traveled, and which lies West of a line drawn parallel with and distant 427.05 feet West of the East line of said Northeast Quarter of the Northeast Quarter, as measured at right angles from said East line, more particularly described as follows:

Commencing at the Northeast corner of said Northeast Quarter of the Northeast Quarter, thence North 89 degrees 16 minutes 06 seconds West, along the North line of said Northeast Quarter of the Northeast Quarter, a distance of 427.37 feet; thence South 02 degrees 56 minutes 12 seconds West 375.80 feet, along the West line of the East 427.05 feet of said Northeast Quarter of the Northeast Quarter to the point of beginning; thence South 49 degrees 26 minutes 13 seconds West 1045.57 feet; thence South 40 degrees 29 minutes 42 seconds West 111.69 feet, more or less to the Centerline of County Road 66; thence South 48 degrees 43 minutes 18 seconds East 240.56 feet; thence North 46 degrees 00 minutes 44 seconds East 933.93 feet; thence North 02 degrees 56 minutes 12 seconds West 273.30 feet, to the point of beginning.

Said Tract contains 5.3 Acres, more or less

Subject to the right of way of said CSAH 66

Subject to easement , restrictions and reservations of record

Tract B

That part of the Northeast Quarter of the Northeast Quarter of Section 8, Township 137, Range 27, Crow Wing County, Minnesota which lies northerly of the centerline of County State Aid Highway Number 66 as now laid out and traveled, and which lies West of a line drawn parallel with and distant 427.05 feet West of the East line of said Northeast Quarter of the Northeast Quarter, as measured at right angles from said East line, and lying northerly of the following described line:
Commencing at the Northeast corner of said Northeast Quarter of the Northeast Quarter, thence North 89 degrees 16 minutes 06 seconds West, along the North line of said Northeast Quarter of the Northeast Quarter, a distance of 427.37 feet; thence South 02 degrees 56 minutes 12 seconds West 375.80 feet, along the West line of the East 427.05 feet of said Northeast Quarter of the Northeast Quarter to the point of beginning of the line to be described; thence South 49 degrees 26 minutes 13 seconds West 1045.57 feet; thence South 40 degrees 29 minutes 42 seconds West 111.69 feet, more or less to the Centerline of County Road 66; thence North 48 degrees 43 minutes 18 seconds West 64.35 feet, more or less, to the West line of said Northeast Quarter of the Northeast Quarter, and said line there terminating.

And

Except the North 600.00 feet of the West 100.00 feet of said Northeast Quarter of the Northeast Quarter.

Said Tract contains 14.2 Acres, more or less.

Subject to the right of way of said CSAH 66

Subject to easement, restrictions and reservations of record

Tract C

That part of the Northeast Quarter of the Northeast Quarter of Section 8, Township 137, Range 27, Crow Wing County, Minnesota which lies northerly of the centerline of County State Aid Highway Number 66 as now laid out and traveled, and which lies West of a line drawn parallel with and distant 427.05 feet West of the East line of said Northeast Quarter of the Northeast Quarter, as measured at right angles from said East line, more particularly described as follows:
Commencing at the Northeast corner of said Northeast Quarter of the Northeast Quarter, thence North 89 degrees 16 minutes 06 seconds West, along the North line of said Northeast Quarter of the Northeast Quarter, a distance of 427.37 feet; thence South 02 degrees 56 minutes 12 seconds West 651.10 feet, to the point of beginning; Thence South 46 degrees 00 minutes 44 seconds West 933.93 feet; more or less, to the Centerline of County Road 66; thence South 48 degrees 43 minutes 18 seconds East 14.26 feet; thence South 89 Degrees 18 minutes 24 seconds East 627.13 feet; thence North 02 degrees 56 minutes 12 seconds East 666.49 feet, to the point of beginning.

Said Tract contains 4.9 Acres, more or less

Subject to the right of way of said CSAH 66

Subject to easement , restrictions and reservations of record

Tract A Existing Impervious Surface Calculations

Existing Structures = 2,164 Sq. Ft. +/-
Existing Drive = 2,107 Sq. Ft. +/-
Existing Concrete = 969 Sq. Ft. +/-

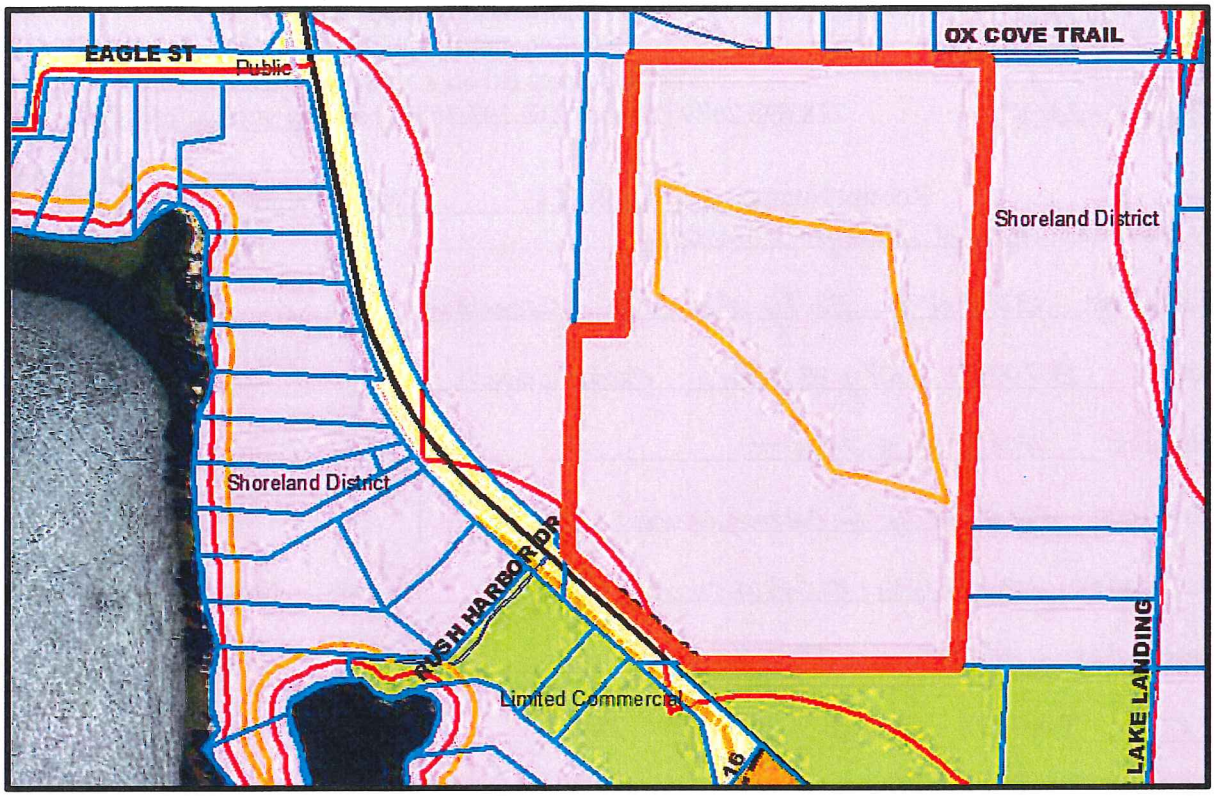
Total Impervious Surface Area = 5,330 Sq. Ft. +/- = 2%
Total Lot Area = 237,688 Sq. Ft. +/-

Revised 12/08/2015

I hereby certify that this survey was completed by me, or under my direct supervision and that I am a duly licensed land surveyor of the state of Minnesota.

Signature _____ Date 12/08/15
John J. Hinzmann Jr. Registration No. 15294


Land Design Solutions
Complete Land Consultation Services
218-562-4202 PO Box 814 Nisswa MN 56468


EAGLE ST
Public
OX COVE TRAIL
Shoreland District
Shoreland District
RUSH HARBOR DR
Limited Commercial
LAKE LANDING
16

**Subdivisions Application**
Planning and Zoning Department
37028 County Rd 66, Crosslake, MN 56442
218.692.2689 (Phone) 218.692.2687 (Fax) www.cityofcrosslake.org

RECEIVED
NOV 24 2015

Receipt Number: 695833 Permit Number: S 1510191

Property Owner(s): Tony & Mary Fraser

Mailing Address: 37754 Cnty Rd 66 Crosslake

Site Address: 37754 Cnty Rd 66 Crosslake

Phone Number: 839 - 8745

E-Mail Address: fraserty@crosslake.net

Parcel Number(s): 12008110OBA00009

Legal Description: See attached

Sec 5 Twp 137 Rge 26 / 27 / 28

Land Involved: Width: _____ Length: _____ Acres: 84

Lake/River Name: N/A Rush

Do you own land adjacent to this parcel(s)? ____ Yes ✓ No

If yes, list Parcel Number(s) N/A

Authorized Agent: Kevin McCormick

Agent Address: PO Box 814 Nisswa MN 56468

Agent Phone Number: 218-820-0854

Signature of Property Owner(s) Anthony R Fraser Date 11/24/15

Signature of Authorized Agent(s) [signature] Date 11-24-15

**Subdivision Type**
(Check applicable request)
- ☒ Metes and Bounds
- ☐ Residential Preliminary Plat
- ☐ Residential Final Plat
- ☐ Commercial Preliminary Plat
- ☐ Commercial Final Plat

**Development**
2 new Number of proposed lots
_____ Number of proposed outlots

**Access**
_____ Public Road
_____ Easement
Easement recorded: ___ Yes ___ No

**Septic**
Compliance _____
SSTS Design _____
Site Suitability _____

- ☐ All applications must be accompanied by signed Certificate of Survey
- ☐ Residential Fee: Preliminary $500 + $100 per lot; Final $500 + $25 per lot Payable to "City of Crosslake"
- ☐ Commercial Fee: Preliminary $750 + $150 per lot; Final $750 + $50 per lot Payable to "City of Crosslake"
- ☒ Metes & Bounds: $100 + $75 per lot Payable to "City of Crosslake" $75 x 2 = $150 + $100 = $250
- ☐ **Above Fees will require additional** Park Dedication Fees of $1,500 per unit/lot or 10% of buildable land as measured pre-plat for park purposes or a combination of both Payable to "City of Crosslake"
- ☐ No decisions were made on an applicant's request at the DRT meeting. Submittal of an application after DRT does not constitute approval. Approval or denial of application is determined at a public meeting by the City Council after a recommendation from the Planning Commission/Board of Adjustment per Minnesota Statute 462 and the City of Crosslake Land Use Ordinance.

For Office Use:
Application accepted by CS Date 11-24-15 Land Use District SD Lake Class GD Park, Rec, Lib _____


0 70 140 280 Feet

Client/Job Number:
Fraser

Prepared By:
Ben Meister

**Legend**

- Boundary
- FIPS
- TPOST
- Wetland

# Wetland Location Map

Map is for visual Purposes only.
Data sources: MI DNR/LMIC

Date:
11/4/15

City of Crosslake Planning Commission/Board of Adjustment

Findings of Fact

Supporting/Denying a Metes and Bounds Subdivision

*Findings should be made in either recommending for or against a metes and bounds subdivision, and should reference Chapter 44 of the City Ordinance. The following questions are to be considered, but are not limited to:*

1. Does the proposed metes and bounds subdivision conform to the City's Comprehensive Plan?
   Yes No

2. Is the proposed metes and bounds subdivision consistent with the existing City Ordinance? Specify the applicable sections of the ordinance.
   Yes No

3. Are there any other standards, rules or requirements that this metes and bounds subdivision must meet?
   Yes No Specify other required standards.

4. Is the proposed metes and bounds subdivision compatible with the present land uses in the area of the proposal?
   Yes No Zoning District

5. Does the proposed metes and bounds subdivision conform to all applicable performance standards in Article 4 of the Subdivision Ordinance?
   Yes No

6. Other issues pertinent to this matter.

2. b.

**Staff Report**
**Crosslake Parks, Recreation and Library**

**Date: December 29, 2015**

**To: Crosslake City Council**
**From: Jon Henke, Director**

**Subject: Fraser Park Dedication Recommendation**

The Park/Library Commission will review the subdivision request the first week of January. The Park Department recommends cash in lieu of land for the Fraser Subdivision.

Jon Henke, Director
Crosslake Parks, Recreation and Library

3. a.

ROBERT HARTMAN, Chief

POLICE DEPARTMENT
CITY OF CROSSLAKE
CROSSLAKE, MN 56442

Office - 692-2222
Emergency - Dial 911

# MEMO:

01/04/2016

TO: Crosslake City Council

FROM: Crosslake Police Chief
Robert G. Hartman

REFERENCE: Hiring part time officer

At this time I am requesting permission to hire Damien Stalker, as a part time police officer with the Crosslake Police Department.

Over the past few weeks I have lost two part time officers. One quit and the other was hired as a full time officer with another department and will not be allowed to work part time else ware.

Robert Hartman

Thank you,
Chief Robert G. Hartman

3.b.

**CITY OF CROSSLAKE**
**RESOLUTION NO. 16-____**

**RESOLUTION AUTHORIZING PARTICIPATION IN THE PERA POLICE AND FIRE PLAN**

WHEREAS, the policy of the State of Minnesota as declared in Minnesota Statutes 353.63 is to give special consideration to employees who perform hazardous work and devote their time and skills to protecting the property and personal safety of others; and

WHEREAS, Minnesota Statutes Section 353.64 permits governmental subdivisions to request coverage in the Public Employees Police and Fire plan for eligible employees of police departments whose position duties meet the requirements stated therein and listed below.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CROSSLAKE, MINNESOTA hereby declares that the position titled Part-Time Police Officer, currently held by **DAMIEN STALKER** meets all of the following Police and Fire membership requirements:

1. Said position requires a license by the Minnesota peace officer standards and training board under sections 626.84 to 626.863 and this employee is so licensed;
2. Said position's primary (over 50%) duty is to enforce the general criminal laws of the state;
3. Said position charges this employee with the prevention and detection of crime;
4. Said position gives this employee the full power of arrest, and
5. Said position is assigned to a designated police or sheriff's department.

BE IT FURTHER RESOLVED that this governing body hereby requests that the above-named employee be accepted as a member of the Public Employees Police and Fire Plan effective the date of this employee's initial Police and Fire salary deduction by the governmental subdivision.

_____ _____

Michael Lyonais, Finance Director Steve Roe, Mayor

STATE OF MINNESOTA
COUNTY OF CROW WING
I, Charlene Nelson, Clerk of the City of Crosslake, Minnesota, do hereby certify that this is a true and correct transcript of the resolution that was adopted at a meeting held on the 4th day of January, 2016; the original of which is on file in this office. I further certify that five members voted in favor of this resolution and that five members were present and voting.

Signed: _____ Date: _____

3.C.

City of Crosslake

**RESOLUTION 16-_____**

RESOLUTION ACCEPTING DONATION(S)

WHEREAS, the City of Crosslake encourages public donations to help defray costs to the general public of providing services and improving the quality of life in Crosslake; and

WHEREAS, the City of Crosslake is generally authorized to accept donations of real and personal property pursuant to Minnesota Statutes Section 465.03 for the benefit of citizens; and

WHEREAS, said Statute 465.03 requires that all gifts and donations of real or personal property be accepted only with the adoption of a resolution approved by two-thirds of the members of the City Council; and

WHEREAS, the following person/persons and/or entity/entities has/have donated real and/or personal property as follows:

| FROM | DONATION | INTENDED PURPOSE |
|---|---|---|
| Lakes Area Medical Development Assn | $5,000.00 | Fire Department purchase of 4-Automated External Defibrillators (AED's) |

; and

WHEREAS, the City of Crosslake will strive to use the donation as intended by the donor; and

WHEREAS, the City Council finds that it is appropriate to accept said donation(s) as offered.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Crosslake that the donation(s) as described above are accepted as allowed by law.

Passed this 4th day of January, 2016.

_____
Steve Roe
Mayor

ATTEST:

_____
Charlene Nelson
City Clerk

(SEAL)

3.d.

# Memo

Monday January 4, 2016

City Council Meeting

Subject: LAMDA Donation to the Crosslake Fire Department.

Chief Lohmiller is looking for a motion and approval of a $5,000 donation from the Lakes Area Medical Development Association (LAMDA). Donation Letter and Thank You letter attached.

Chief Lohmiller is looking for a motion to purchase 4 – Automated External Defibrillators (AED's) for the Crosslake Fire Department not to exceed $5,000. The balance of the monies donated will go for EMS supplies.

Thank you,

Chip Lohmiller

Chief
Crosslake Fire Department

# LAKES AREA MEDICAL DEVELOPMENT ASSOCIATION

**P.O. Box 171**
**Pequot Lakes, MN 56472**

City of Crosslake

December 10, 2015

Dear Sirs:

Lakes Area Medical Development Association (LAMDA), a 501(c)(3) organization, will be liquidating assets by making donations to other 501(c)(3) organizations in Crow Wing and Southern Cass counties as part of the dissolution process, as well as to city and township Fire and Rescue programs.

LAMDA was organized on November 15, 1977 by Donald Engen and other incorporators. Don Engen was appointed President at that time. The purpose of the organization was to raise funds to build a medical clinic and hire a doctor in Pequot Lakes and to promote health and wellness to Northern Crow Wing County. Key community members Chuck Griffin, Barbara Uppgaard, Dene Carney, David Kolesar, and Glenn Birkeland, the early Board members, were a major part of the incorporation to oversee fundraising and support the efforts of President Don Engen. A second clinic was eventually built by LAMDA in Crosslake. LAMDA owned the clinics and leased them to Essentia Health of Brainerd. Essentia Health managed all internal clinic operations and hired the doctors and support staff. This process has been very successful over the years and served as a model for clinics in other communities.

Don Engen has served as president since 1977 and present Board members Karen Christofferson, Mark Jurchen, Jim Oraskovich, Roger Schwieters and Sharon Thurlow assisted Don with the sale of the clinics to Essentia Health of Brainerd in February 2015.

Your government entity has been selected by the Board of Directors to receive 5,000 to assist your organization with services you offer to the residents of your area. The Board selected your organization as one of several whose activities we feel promote and encourage fire and relief worthwhile programs. We congratulate you on your fine work and wish you continued success.

Sincerely

Don Engen, Director Don Engen

Jim Oraskovich, Director

Karen Christofferson, Director

Mark Jurchen, Director

Roger Schwieters, Director

Sharon Thurlow, Director

PHONE: 218-692-4836
FAX: 218-692-4837
EMAIL: danddengen@crosslake.net

DONALD H. ENGEN
CERTIFIED PUBLIC ACCOUNTANT
37512 FOREST LODGE RD. - CROSSLAKE, MN 56442

MEMBER
MINNESOTA SOCIETY
OF CERTIFIED
PUBLIC ACCOUNTANTS

MEMBER
AMERICAN INSTITUTE
OF CERTIFIED
PUBLIC ACCOUNTANTS

1677

**LAKES AREA MEDICAL DEVELOPMENT ASSOCIATION**
BOX 171
PEQUOT LAKES, MN 56472

75-1683/919
BRANCH 2

DATE 12-11-15

PAY TO THE ORDER OF City of Crosslake - Fire & Rescue Fund | $ 5000.00

five Thousand & 00/100 DOLLARS

Security features included. Details on back.

NORTHERN national bank
CROSSLAKE BRANCH
MAIN STREET
CROSSLAKE, MN 56442
218-692-2455

FOR _____

P11 Engen

MP

⑈001677⑈ ⑆091916831⑆ 204100078 6⑈

# Crosslake Fire Department

**37028 County Rd 66**
**Crosslake, MN 56442**

December 17, 2015

LAMDA
Director: Don Engen
P. O. Box 171
Pequot Lakes, MN 56472

The Crosslake Fire Department and the City of Crosslake would like to thank the Lakes Area Medical Development Association for the donation of $5,000 to our organization.

The Crosslake Fire Department responds to both Fire and Emergency Medical calls covering a jurisdiction of 37 square miles and responds to an increasing amount of calls each year. On average we respond to 225 medical calls and 80 fire emergency calls annually. Our staff consists of 21 members including 1 Paramedic, 4 Emergency Medical Technicians and 12 Emergency Medical Responders. This donation will be used to purchase 4 - Automated External Defibrillators (AED's) for our medical response staff.

We sincerely thank the LAMDA for all of the hard work the association has done to bring medical care to our area.

Chip Lohmiller
Chief
Crosslake Fire Department
612-868-6744 Cell
218-692-2688 Work
Chief1@crosslake.net

5.a

WIDSETH SMITH NOLTING

**FEASIBILITY REPORT**

**FOR**

# PROPOSED REPLACEMENT OF BRIDGE L6376 (DREAM ISLAND)

Prepared for:

**Crosslake, Minnesota**

Issued: DECEMBER 2015

***WSN No. 107B0147.000***

**Brainerd/Baxter Office:**
*7804 Industrial Park Road*
*P.O. Box 2720*
*Baxter, MN 56425-2720*
Phone: 218-829-5117
Fax: 218-829-2517

# CERTIFICATION

## FEASIBILITY REPORT

## FOR

# REPLACEMENT OF BRIDGE L6376 (DREAM ISLAND)

# CROSSLAKE, MINNESOTA

By

WIDSETH SMITH NOLTING

Baxter, MN 56425

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

12-4-15

David Reese, P.E. Reg. No. 23432 Date
Professional Engineer

12-4-2015

Kent Rohr, P.E. Reg. No. 21179 Date
Professional Engineer

0107B0147.000 CS

# Table of Contents

## Feasibility Report

## For

## Replacement of Bridge L6376 (Dream Island)

## Crosslake, Minnesota



**EXHIBITS**

## STATEMENT OF PURPOSE

The City of Crosslake, in accordance with its special assessment policy, State of Minnesota requirements, and Ch. 429 Special Assessments procedures, has initiated a feasibility study for replacement of Bridge L6376 on Dream Island Road. The bridge provides the sole access to island properties on Dream Island over the channel to Little Pine Lake. The study area is shown on the location map provided as **EXHIBIT 1**.

The purpose of this report is the following:

- Summarize existing bridge conditions and determination of need,
- Outline feasible bridge replacement options; type of structure, size, aesthetics, potential environmental impacts, and future maintenance anticipated,
- Gather public, permitting authority, and funding agency input,
- Prepare cost estimates for the options considered, and approximate State and local share of the costs,
- Describe the method of assessment proposed for local (non-participating) project costs and provide an estimate of the potential assessments to benefited property owners.

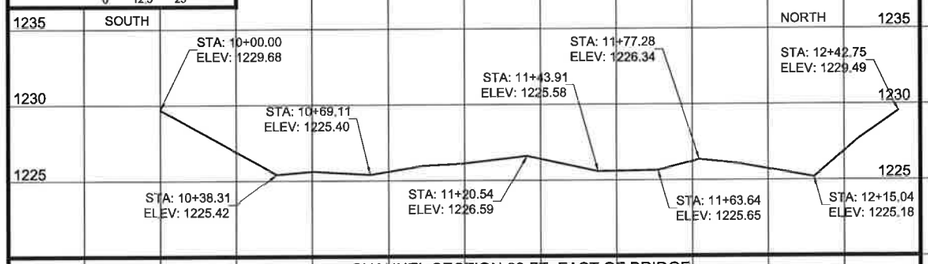
# Exhibit 1 – Study Area/Existing Conditions

J:\0107B-City of Crosslake\0107B0147-Dream Island Bridge Replacement\0107B0147.000-Dream Island Bridge Replacement\CADD\Civil\C-BR-147B-PLAT.dwg, 4/28/2015 10:10:59 AM, jacob.ekola

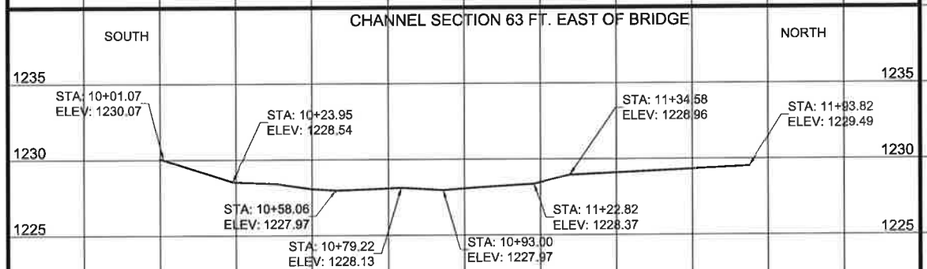
## CHANNEL X-SEC

SCALE: VERT. 0 2.5 5 HOR. 0 12.5 25

### CHANNEL SECTION 41 FT. WEST OF BRIDGE



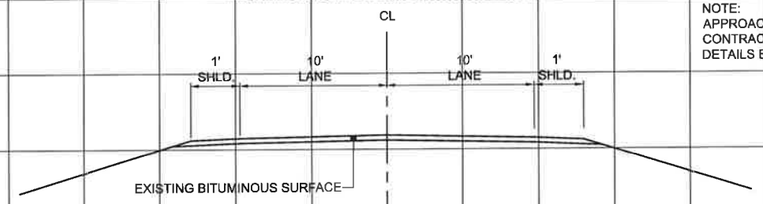

### CHANNEL SECTION 63 FT. EAST OF BRIDGE




## TYPICAL SECTIONS & PERTINENT DATA

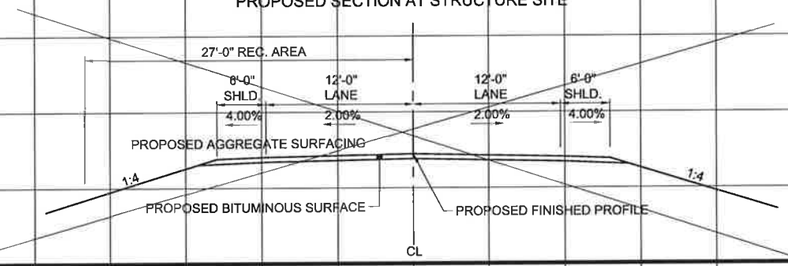
SCALES AS SHOWN

### EXISTING SECTION AT STRUCTURE SITE




NOTE:
APPROACH GRADING UNDER SAME CONTRACT. SEE APPROACH GRADING DETAILS ELSEWHERE IN THIS PLANSET.

### PROPOSED SECTION AT STRUCTURE SITE




## Fed. Proj. No.

LOCATION ENGINEER'S OBSERVATIONS AT BRIDGE SITE

1, Special Features: Waterfalls,dams,floods,ice,debris,sliding banks,recreational boating,

2, Other bridges or culverts over the same stream (particularly structures which carry high water without overflow of roadway) :Given location,type length,height above high water,cross-sectional area etc,

3, Apparent highwater elevation ..... Obtained from .....

4, Other data: Approx, velocity of water at time of survey .....

HYDRAULIC ENGINEERS RECOMMENDATION

DATE X

Stream or ditch designation X
Drainage area X SQ. MI.
Max. flood on record UNKNOWN C.F.S. (DATE)
Max. observed highwater elevation X
Design flood( 100 yr. freq.) X C.F.S.
Headwater elevation X Ft.
Design mean velocity through structure X F.P.S.
Total stage increase X Ft.
Low member at or above elevation X Ft.
Waterway area req'd. below elevation X = X Sq. Ft. at Rt. angles to channel
Basic flood (100 yr. freq.) X C.F.S.
Headwater elevation X Ft.
Total stage increase X Ft.
Mean velocity through structure X F.P.S.
Flowline elevation X Ft. Skew angle X°
Estimated preliminary total scour at pier elevation X Ft. (500 or OT yr. freq.)

SCOUR CONFIRMATION RECOMMENDATION

DATE X

Total scour at pier elevation X Ft. (500 or OT yr. freq.)
Scour code: SCOUR CODE L

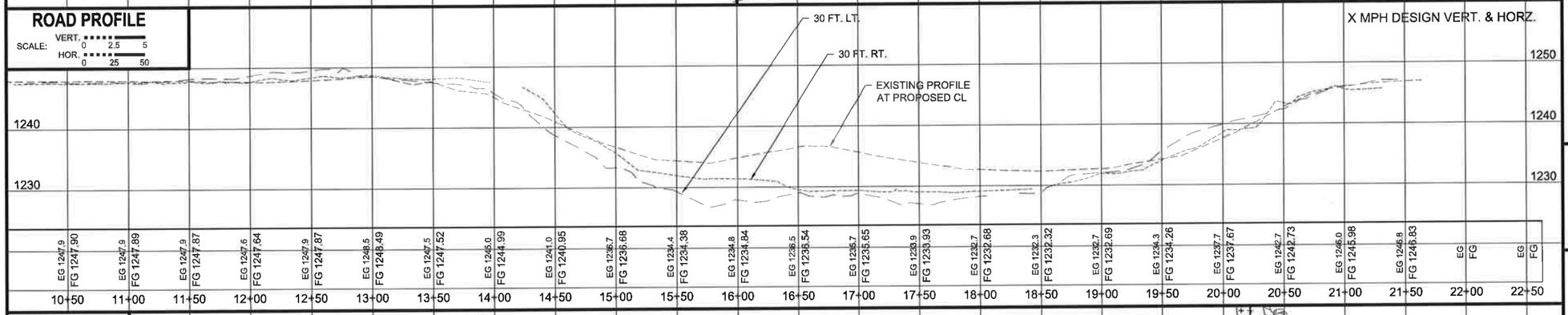
FOUNDATION ENGINEERS RECOMMENDATION

DATE .....

## ROAD PROFILE

SCALE: VERT. 0 2.5 5 HOR. 0 25 50

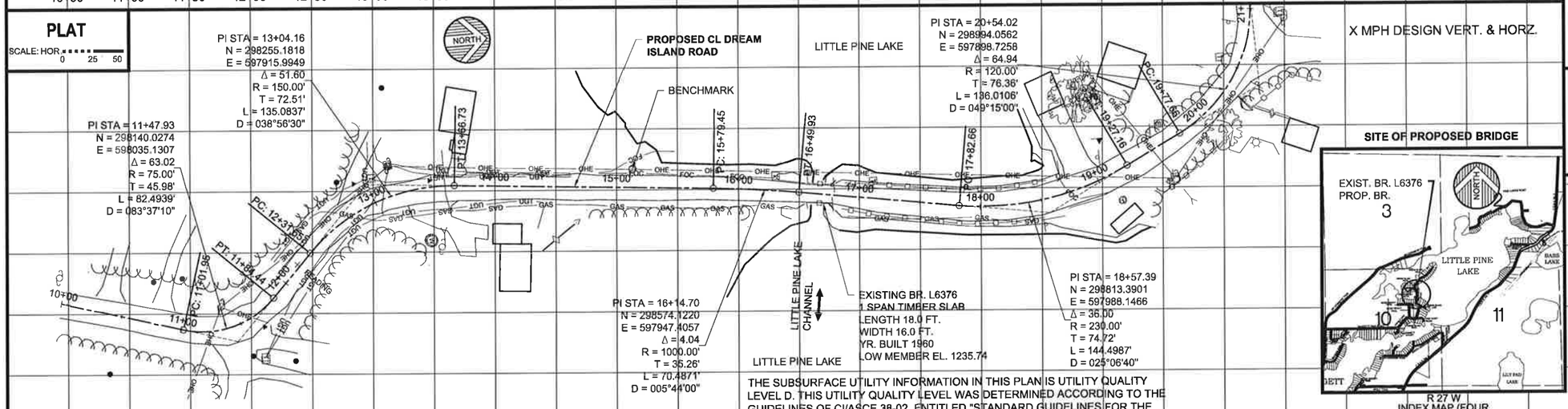
X MPH DESIGN VERT. & HORZ.




## PLAT

SCALE: HOR. 0 25 50

X MPH DESIGN VERT. & HORZ.




### SITE OF PROPOSED BRIDGE




THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES BY MEANS OF GOPHER STATE ONE CALL SYSTEM PRIOR TO COMMENCING WORK (GOPHER STATE # 800-252-1166).



Bridge survey sheets made from:
WIDSETH SMITH NOLTING FIELD SURVEY SPRING 2015

Bench mark elevation 1235.89 (NAVD 1988 Adj.)
Location RR SPIKE IN POWER POLE STA. 15+13, 15 FT. LT.

MINNESOTA
DEPARTMENT OF TRANSPORTATION

## BRIDGE SURVEY

AT MILE POINT ..... ON DREAM ISLAND ROAD
PROPOSED BRIDGE LOCATED 1.7 MILES
EAST OF JCT. CSAH 6
SEC. 10 TWP. 137 N R. 27 W
CITY CROSS LAKE COUNTY CROW WING
BRIDGE NO. L6376 (EXISTING)
BRIDGE NO. (PROPOSED)

CERTIFIED BY: PRELIMINARY PROFESSIONAL ENGINEER: PETER J. SARBERG LICENSE NO. 44959 DATE: 2015

JOB NUMBER: 0107B147

SHEET NO. ---- OF 1 SHEETS

## EXISTING CONDITIONS

In 1957, the Department of Natural Resources (DNR) issued a permit allowing construction of an earthen fill causeway between Dream Island and the main shoreline. A bridge was required to be included within the causeway per the permit. In 1960, the causeway and road were completed; however, a bridge was not constructed. In 1961, a culvert was installed by the road developer. The current Dream Island Bridge (Bridge L6376) was constructed in 1968, replacing the culvert. This bridge was refurbished in 1988, and remains in service today. This historical record was provided by the DNR and bridge records on file at Crosslake City Hall and Crow Wing County Highway Department.

Bridge L6376 is a single span timber slab supported on timber pile bent piers. Timber backing planks span between the piles to retain the approach fills. The bridge is 18 feet long with a clear roadway width of 14.7 feet. The bridge is considered structurally deficient with a sufficiency rating of 46.3 out of 100. The bridge substructure timbers are deteriorating and have little salvage value remaining. Recent damage to a timber pile has required the bridge to be posted for reduced loading. The 2014 County Bridge Inspection Report is included as **EXHIBIT 2**; the report identifies many of the substructure elements that are deteriorated, hollow, tipping piling and retaining members, and settlement. The bridge is located on Dream Island Road and is the only access to Dream Island; the average daily traffic (ADT) is estimated at less than 50. The bridge spans over a narrow channel between parts of Little Pine Lake; the channel width below the bridge is approximately 12 feet. Due to shallow water depth at the bridge (ranging

from 0-12 inches depending on the reservoir pool elevation), passage of watercraft is very limited. The City has not maintained watercraft channels, and continues this policy to date. Dream Island Road has a bituminous surface and a current roadway width of 22 feet near the bridge.

**Exhibit 2 – Crow Wing County Bridge Inspection Report (February 2, 2015)**

G. 3. a.

CROW WING COUNTY
MINNESOTA

February 2, 2015

City of Crosslake
Clerk Char Nelson
37028 County Road 66
Crosslake, MN 56442

Re: Annual Bridge Inspections

Dear Char Nelson,

The annual bridge inspections for 2014 have been completed in accordance with Minnesota Statutes, Chapter 165. A bridge is defined as a drainage structure with a span of 10-feet or more; therefore, large culverts are considered bridges for inspection purposes as well as the more conventional bridge structures. A copy of the inspection report for bridges inspected in 2014 under your jurisdiction is enclosed. Please note that all bridges are not necessarily inspected each year. Depending on the type and condition of a structure the inspection frequency may be as high a 48-month interval.

The key information to look at on the inspection report may be the comments made by the Inspector and any change in an element condition from years prior printed in red. On the structure inventory report, the "Sufficiency Rating" is of some interest, which is located in the upper right corner of the report.

Since bridges represent a considerable investment of taxpayer dollars, you are encouraged to seriously review each report as well as conduct an on-site review of your bridges to confirm existing conditions and take appropriate action. This office is available to provide advice as to maintenance procedures and answer any questions related to bridges. You may contact the following: Wayne Dosh, Senior Engineering Technician and Certified Bridge Inspector; Rob Hall, Assistant County Highway Engineer and Tim Bray, County Highway Engineer.

Sincerely,

Tim Bray
County Highway Engineer

By: _____
Wayne Dosh
Senior Engineering Technician

Timothy Bray
County Engineer
Highway Department
16589 County Road 142
Brainerd, MN 56401

Office: (218) 824-1110
Fax: (218824-1110
www.crowwing.us

# 2014 ROUTINE
# BRIDGE INSPECTION REPORT

## BRIDGE # L6376
## DREAM ISLAND RD over CHANNEL LITTLE PINE LK

**DISTRICT:** District 3 **COUNTY:** Crow Wing **CITY/TOWNSHIP:** Cross Lake

**Date(s) of Inspection:** 10/29/2014

**Equipment Used:** Boat, Other - hammer, tape measure (25' or longer), waders

**Owner:** City or Municipal Highway Agency

**Inspected By:** Dosh, Wayne

**Report Written By:** Wayne Dosh

**Report Reviewed By:** Timothy Bray

**Final Report Date:** 02/12/2015

MnDOT Bridge Office
3485 Hadley Avenue North
Oakdale, MN 55128

MINNESOTA DEPARTMENT OF TRANSPORTATION

# MnDOT Structure Inventory Report

**Bridge ID:** L6376 DREAM ISLAND RD **over** CHANNEL LITTLE PINE LK **Date:** 02/12/2015

## GENERAL

**Agency Br. No.**
**District** District 3
**Maint. Area** **Crew**
**County** 018 - Crow Wing
**City** Cross Lake
**Township**
**Desc. Loc.** 1.7 MI E OF JCT CSAH 6
**Sect., Twp., Range** 10 - 137N - 27W
**Latitude** Deg 46 Min 42 Sec 2.59
**Longitude** Deg 94 Min 4 Sec 34.52
**Custodian** 04 - City or Municipal Highway Agenc
**Owner** 04 - City or Municipal Highway Agenc
**BMU Agreement**
**Year Built** 1960
**MN Year Reconstructed** 1988
**FHWA Year Reconstructed**
**MN Temporary Status**
**Bridge Plan Location** 3 - COUNTY
**Date Opened to Traffic**
**On-Off System** 0 - OFF
**Legislative District** 04B

## STRUCTURE

**Service On** 1 - Highway
**Service Under** 5 - Waterway
**Main Span Type**
7 - Timber 09 - Slab Span
**Main Span Detail**
**Appr. Span Type**

**Appr. Span Detail**
**Skew** 0
**Culvert Type**
**Barrel Length** ft.
**Cantilever ID**

## NUMBER OF SPANS

**MAIN:** 1 **APPR:** 0 **TOTAL:** 1
**Main Span Length** 16.0 ft.
**Structure Length** 18.0 ft.
**Deck Width (Out-to-Out)** 16.0 ft.
**Deck Material** 8 - Wood or Timber
**Wear Surf Type** 6 - Bituminous
**Wear Surf Install Year** 2012
**Wear Course/Fill Depth** 0.00 ft.
**Deck Membrane** 0 - None
**Deck Rebars** N - Not Applicable (no deck)
**Deck Rebars Install Year**
**Structure Area (Out-to-Out)** 288 sq. ft.
**Roadway Area (Curb-to-Curb)** 269 sq. ft.
**Sidewalk Width** Lt 0.00 ft. Rt 0.00 ft.
**Curb Height** Lt 0.92 ft. Rt 0.92 ft.
**Rail Type** Lt 06 Rt 06

## ROADWAY

**Bridge Match ID (TIS)** 0
**Roadway O/U Key** Route On Structure
**Route Sys** 10 - MUN **Number** 24
**Roadway Name or Description**
DREAM ISLAND RD (MUN 24)
**Level of Service** 1 - MAINLINE
**Roadway Type** 3 - One lane bridge for 2-way traffi
**Control Section (TH Only)**
**Reference Point** 002+00.070
**Detour Length** 99.0 mi
**Lanes** On 1 Under 0
ADT 30 Year 1989
**HCADT** 0 **ADTT** 0 %
**Functional Class** 09 - Rural - Local

## RDWY DIMENSIONS

| If Divided | NB-EB | SB-WB |
|---|---|---|
| Roadway Width | 14.70 ft. | ft. |
| Vertical Clearance | ft. | ft. |
| Max. Vert. Clear. | ft. | ft. |
| Horizontal Clear. | ft. | ft. |
| Lateral Clearance | ft. | ft. |

**Appr. Surface Width** 17.0 ft.
**Bridge Roadway Width** 14.7 ft.
**Median Width On Bridge** ft.

## MISC. BRIDGE DATA

**Structure Flared** 0 - No flare
**Parallel Structure** N - No parallel structure
**Field Conn. ID**
**Abutment Foundation** 2 - TIMBER
**(Material/Type)** 4 - PILE BENT
**Pier Foundation** N - N/A
**(Material/Type)** N - N/A
**Historic Status** 5 - Not eligible

## PAINT

**Year Painted**
**Unsound Paint %**
**Painted Area** sq. ft.
**Primer Type**
**Finish Type**

## BRIDGE SIGNS

**Posted Load** 0 - Not Required
**Traffic** 0 - Not Required
**Horizontal** 1 - Object Markers
**Vertical** N - Not Applicable

## INSPECTION

**Userkey** 58
**Unofficial Structurally Deficient** Y
**Unofficial Functionally Obsolete** N
**Unofficial Sufficiency Rating** 46.3
**Routine Inspection Date** 10/29/2014
**Routine Inspection Frequency** 24
**Inspector Name** County, Crow Wing
**Status** A - Open

## NBI CONDITION RATINGS

**Deck** 8 - Very Good Condition
**Unsound Deck %**
**Superstructure** 7 - Good Condition
**Substructure** 4 - Poor Condition
**Channel** 5 - Bank eroded; Major damage
**Culvert** N - Not Applicable

## NBI APPRAISAL RATINGS

**Structure Evaluation** 4
**Deck Geometry** 6
**Underclearances** N
**Water Adequacy** 7 - Slight Chance of Overtop
**Approach Alignment** 5 - Somewhat better than m

## SAFETY FEATURES

**Bridge Railing** 1 - MEETS STANDARDS
**GR Transition** N - NOT REQUIRED
**Appr. Guardrail** N - NOT REQUIRED
**GR Termini** N - NOT REQUIRED

## IN DEPTH INSP.

| | Y/N | Freq | Date |
|---|---|---|---|
| Frac. Critical | | | |
| Underwater | | | |
| Pinned Asbly. | | | |
| Spec. Feat. | | | |

## WATERWAY

**Drainage Area (sq. mi.)**
**Waterway Opening** 100 sq. ft.
**Navigation Control** 0 - No nav. control on waterw
**Pier Protection**
**Nav. Clr. (ft.)** **Vert.** ft. **Horiz.** ft.
**Nav. Vert. Lift Bridge Clear. (ft.)**
**MN Scour Code** J - SCOUR SUSC **Year** 1992

## CAPACITY RATINGS

**Design Load** 6 - HS 20+MOD
**Operating Rating** 2 - AS HS 23.0
**Inventory Rating** 2 - AS HS 16.0
**Posting VEH:** **SEMI:** **DBL:**
**Rating Date** 2/7/2008

**MnDOT Permit Codes**

**A:** N - N/A
**B:** N - N/A
**C:** N - N/A

# MnDOT BRIDGE INSPECTION REPORT

02/12/2015

Inspector: County, Crow Wing

## BRIDGE L6376 DREAM ISLAND RD OVER CHANNEL LITTLE PINE LK — ROUTINE INSP. DATE: 10/29/2014

County: Crow Wing
City: Cross Lake
Township:
Section: 10 Township: 137N Range: 27W
Span Type: 7 - Wood or Timber 01 - Slab
List:
NBI Deck: 8 Super: 7 Sub: 4 Chan: 5

Location: 1.7 MI E OF JCT CSAH 6
Route: 10 - MUN 24 Ref. Pt.: 002+00.070
Control Section:
Maint. Area:
Local Agency Bridge Nbr.:
Culv: N
Open, Posted, Closed: A - Open
MN Scour Code: J - SCOUR SUSCEPT

Length: 18.0 ft.
Deck Width: 16.0 ft.
Rdwy. Area/ Pct. Unsnd: 269 sq. ft. / %
Paint Area/ Pct. Unsnd: sq. ft. / %
Culvert: N/A
Postings:

Appraisal Ratings - Approach: 5 Waterway: 7
Required Bridge Signs - Load Posting: 0 - Not Required Traffic: 0 - Not Required
Horizntal: 1 - Object Markers Vertical: N - Not Applicable

Unofficial Structurally Deficient Y
Unofficial Functionally Obsolete N
Unofficial Sufficiency Rating 46.3

Structure Unit:

| ELEM NBR | ELEMENT NAME | ENV | REPORT TYPE | INSP. DATE | QUANTITY | QTY CS 1 | QTY CS 2 | QTY CS 3 | QTY CS 4 | QTY CS 5 |
|---|---|---|---|---|---|---|---|---|---|---|
| 055 | Timber Slab with Bituminous (AC) Overlay | 2 | Routine | 10/29/2014 | 291 SF | 291 | 0 | 0 | 0 | N/A |
| | | | Routine | 11/02/2012 | 291 SF | 291 | 0 | 0 | 0 | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14 New bituminous wearing surface summer 2012. Old bituminous was removed from deck. Cracks in the bituminous at the bridge ends has been sealed.
11/02/12: New bituminous wearing surface summer 2012. Old bituminous was removed from deck.
< none >

| ELEM NBR | ELEMENT NAME | ENV | REPORT TYPE | INSP. DATE | QUANTITY | QTY CS 1 | QTY CS 2 | QTY CS 3 | QTY CS 4 | QTY CS 5 |
|---|---|---|---|---|---|---|---|---|---|---|
| 206 | Timber Column | 2 | Routine | 10/29/2014 | 10 EA | 0 | 9 | 0 | 1 | N/A |
| | | | Routine | 11/02/2012 | 10 EA | 0 | 9 | 0 | 1 | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14: Beaver have been are again chewing on pile #4. The beaver have chewed 5.5" into a 8.5" diameter pile. Other pile, #'s 2,3,4 in the north abutment and all of the pile in the south abutment have chew or claw marks on them. Center pile on the N is cut in the middle to fit backer boards. Looks like the out side piles are the principle support. Piles are tipping toward the center of the channel. There appears to be no tie backs in the abutment.
10/29/14: Call and talked to Ted Strand(Crosslake) and sent messaged Dave Reese(WSN, Crosslake Engineering Consultant) about the damage done to pile #4. Kent Rohr(WSN Structural Engineer) was on site on 10/30 and looked at the damage. He recommended reinforcing the damaged pile and protecting all of the piling from future beaver damage by rapping the pile w/ galvanized sheeting. Galvanized chain link fencing was suggested instead of the sheeting to minimize trapping moisture and because it would be easier for Ted to handle if his crews were doing the work and readily available. The bridge has been posted by the city to 5 tons until repairs can be made.
11/02/12: Beaver has chewed part way through #4 pile in the south abutment. Center pile on the N is cut in the middle to fit backer boards. Looks like the out side piles are the principle support. Piles are tipping toward the center of the channel. There appears to be no tie backs in the abutment.
10/24/08: Center pile on the N is cut in the middle to fit backer boards. Looks like the out side piles are the principle support. Piles are tipping toward the center of the channel. There appears to be no tie backs in the abutment.
11/03/06: Center pile on the N is cut in the middle to fit backer boards. Looks like the out side piles are the principle support. Piles are tipping toward the center of the channel. There appears to be no tie backs in the abutment.

| ELEM NBR | ELEMENT NAME | ENV | REPORT TYPE | INSP. DATE | QUANTITY | QTY CS 1 | QTY CS 2 | QTY CS 3 | QTY CS 4 | QTY CS 5 |
|---|---|---|---|---|---|---|---|---|---|---|
| 216 | Timber Abutment | 2 | Routine | 10/29/2014 | 33 LF | 0 | 33 | 0 | 0 | N/A |
| | | | Routine | 11/02/2012 | 33 LF | 0 | 33 | 0 | 0 | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14 - 10/24/08: Backer boards are rotated toward the channel and are no longer plumb.
11/03/06: Backer boards are rotated toward the channel and are no longer plumb.

Structure Unit:

| ELEM NBR | ELEMENT NAME | ENV | REPORT TYPE | INSP. DATE | QUANTITY | QTY CS 1 | QTY CS 2 | QTY CS 3 | QTY CS 4 | QTY CS 5 |
|---|---|---|---|---|---|---|---|---|---|---|
| 235 | Timber Pier Cap | 2 | Routine | 10/29/2014 | 33 LF | 0 | 16 | 16 | 0 | N/A |
| | | | Routine | 11/02/2012 | 33 LF | 0 | 16 | 16 | 0 | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14 - 10/24/08: NE corner has shifted on the pile and is no longer completely supported by the pile.
11/03/06: NE corner has shifted on the pile and is no longer completely supported by the pile.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 332 | Timber Bridge Railing | 2 | Routine | 10/29/2014 | 36 LF | 27 | 9 | 0 | N/A | N/A |
| | | | Routine | 11/02/2012 | 118 LF | 118 | 0 | 0 | N/A | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14: Ted Strand(Crosslake) reported a traffic hit on the bridge rail at the NE corner of the bridge. He reported that the outside couple of boards of the nail laminated panel separated and that the bridge railing pulled out away from the bridge. He said that they used their backhoe and hammer to put everything back into the correct position. On closer inspection found a minor separation of the outside 2 boards of the east bridge panel at the northeast corner of the bridge under the curb, only visible from the end of the deck.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 360 | Substructure Settlement & Movement Smart Flag | 1 | Routine | 10/29/2014 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| | | | Routine | 11/02/2012 | 1 EA | 1 | 0 | 0 | N/A | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14: Minor settlement in the south approach. Measurements taken between the piling caps, found the east side a difference of 0.03 feet and the west side a difference of 0.02 feet since the measurements were last made in 2012.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 386 | Timber Wingwall | 2 | Routine | 10/29/2014 | 4 EA | 0 | 3 | 1 | 0 | N/A |
| | | | Routine | 11/02/2012 | 4 EA | 0 | 3 | 1 | 0 | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14: SE wingwall is 2-3 feet out of plumb. The pile supporting the NW wingwall is hollow.

10/24/08: SE wingwall is 2-3 feet out of plumb.
11/03/06: SE wingwall is 2-3 feet out of plumb.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 407 | Bituminous Approach Roadway | 1 | Routine | 10/29/2014 | 2 EA | 2 | 0 | 0 | 0 | N/A |
| | | | Routine | 11/02/2012 | 2 EA | 2 | 0 | 0 | 0 | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14: There is some minor settlement on the shoulders and at the south abutment.
11/02/12: Repaired summer 2012 with new wearing surface.
10/28/10: Both approaches are now showing some signs of minor settlement.
10/24/08: Some settlement in the S. Approach.

Structure Unit:

| ELEM NBR | ELEMENT NAME | ENV | REPORT TYPE | INSP. DATE | QUANTITY | QTY CS 1 | QTY CS 2 | QTY CS 3 | QTY CS 4 | QTY CS 5 |
|---|---|---|---|---|---|---|---|---|---|---|
| 415 | Timber Transverse Stiffener Beam (Timber Slabs) | 1 | Routine | 10/29/2014 | 33 LF | 33 | 0 | 0 | 0 | N/A |
| | | | Routine | 11/02/2012 | 33 LF | 33 | 0 | 0 | 0 | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14: Found one of the nuts in the south beam loose.
10/28/10: All connections appear tight.
10/24/08: Spreader has been tightened. 1 bolt found loose.
11/03/06: Need to tighten spreader beam bolts.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 964 | Critical Finding Smart Flag | 2 | Routine | 10/29/2014 | 1 EA | 1 | 0 | N/A | N/A | N/A |
| | | | Routine | 11/02/2012 | 1 EA | 1 | 0 | N/A | N/A | N/A |

☐Requires Monitoring ☐Monitored

Notes: DO NOT DELETE THIS CRITICAL FINDING SMART FLAG.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 981 | Signing | 2 | Routine | 10/29/2014 | 1 EA | 1 | 0 | 0 | 0 | 0 |
| | | | Routine | 11/02/2012 | 1 EA | 1 | 0 | 0 | 0 | 0 |

☐Requires Monitoring ☐Monitored

Notes: < none >

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 984 | Deck & Approach Drainage | 2 | Routine | 10/29/2014 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| | | | Routine | 11/02/2012 | 1 EA | 0 | 1 | 0 | N/A | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14: Bio-rolls are still in place from the road work done in 2012, allowing vegetation to get established.
10/24/08: The approach drainage is contributing to the erosion occurring behind the abutments.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 985 | Slopes & Slope Protection | 2 | Routine | 10/29/2014 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| | | | Routine | 11/02/2012 | 1 EA | 0 | 1 | 0 | N/A | N/A |

☐Requires Monitoring ☐Monitored

Notes: 10/29/14: Vegetation has been established behind the wingwalls slowing the erosion from the road runoff.
10/28/10: Foot traffic and rod drainage is causing washouts and settlement behind both wingwalls at the S abutment.
10/24/08: Washouts and settlement behind both wingwalls at the S abutment.
11/03/06: Washouts and settlement behind both wingwalls at the S abutment.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 986 | Curb & Sidewalk | 2 | Routine | 10/29/2014 | 1 EA | 1 | 0 | 0 | N/A | N/A |
| | | | Routine | 11/02/2012 | 1 EA | 1 | 0 | 0 | N/A | N/A |

☐Requires Monitoring ☐Monitored

Notes: < none >

General Notes: 10/29/14: Was able to wade beneath the bridge. West side measured 16.27' between nails in the timber caps a difference of 0.02 feet from 2012. The east side measures 15.84' between nails in the timber caps, a difference of 0.03 feet from 2012. Was able to see daylight under deck over hang between the south approach and the south abutment. The short filler boards

Structure Unit:

| ELEM NBR | ELEMENT NAME | ENV | REPORT TYPE | INSP. DATE | QUANTITY | QTY CS 1 | QTY CS 2 | QTY CS 3 | QTY CS 4 | QTY CS 5 |
|---|---|---|---|---|---|---|---|---|---|---|

between the bridge deck and the wingwall at the NW corner of the bridge are rotten and could present a danger to pedestrians stepping on them.
11/02/12: Was able to wade beneath the bridge and see all elements. West side measured 16.29' between nails in the timber caps and 15.87' on the east side between nails. it appears no movement has occurred. the bituminous wearing surface was replaced summer 2012. There was some minor cracking appearing in the bituminous surface at the bridge ends.
10/28/10: Was able to wade under the bridge and see all elements. Measurements where taken and no movement of the substructure was found at this time. Distance between the piles are W side - 16.29' & E side - 15.86'.
10/24/08: Was able to wade under the bridge and see all elements. Measurements where taken and no movement of the substructure was found at this time. The spreader beam has been tightened. Distance between the piles are W side - 16.29' & E side - 15.86'.
11/03/06: Was able to wade through under the bridge and see all elements. I see little or no settlement in the approaches. Any movement in the abutments probably occurred some time ago. There are gaps between the deck and the beam stiffeners, some of the washers are loose. The first backer board under the deck on the E side is about 6"-8" further back into the fill then the rest of the abutment backer boards. There is 6"-7" of bit on the deck.
10-26-2004: NO STRUCTURAL PROBLEMS APPARENT.

58. Deck NBI: New bituminous surface summer 2012.

36A. Brdg Railings NBI:

36B. Transitions NBI:

36C. Appr Guardrail NBI:

36D. Appr Guardrail Terminal NBI:

59. Superstructure NBI:

60. Substructure NBI: 10/29/14: Beaver have chewed partway through pile #4 in the south abutment. The abutment and wingwalls are tipped toward the channel.

61. Channel NBI: Wingwalls are tipping toward the channel. Some minor erosion occurring from road runoff. The pile supporting the NW wingwall is hollow.

62. Culvert NBI:

71. Waterway Adeq NBI:

72. Appr Roadway Alignment NBI:

Inventory Notes:

Wayne Dosh
Inspector's Signature

Timothy Bray
Reviewer's Signature

## PROPOSED IMPROVEMENTS

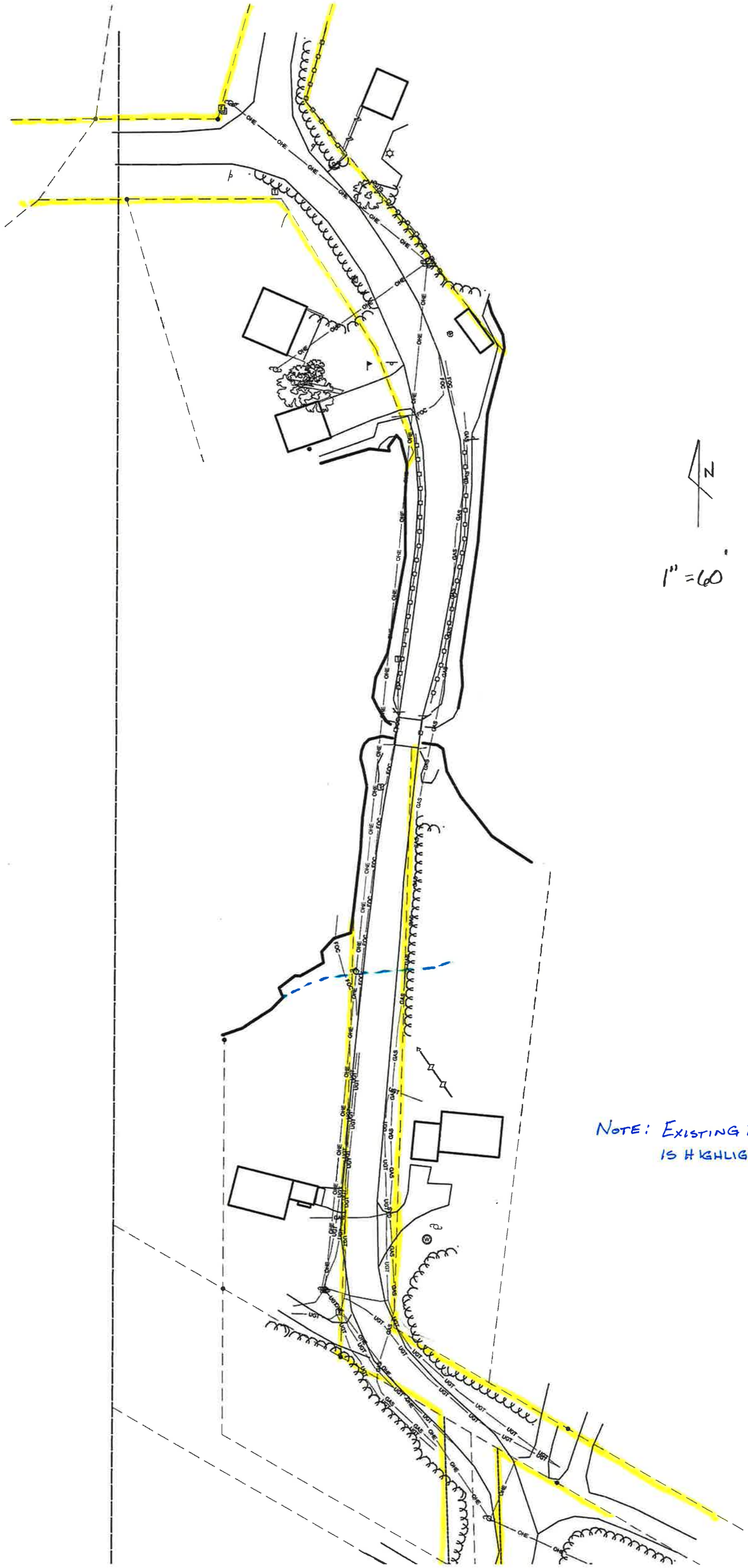
A new bridge structure and associated approach grading is recommended to replace the existing timber bridge. The bridge will be designed per current Minnesota Department of Transportation (MnDOT) and American Association of State Highway and Transportation Officials (AASHTO) requirements. A hydraulic analysis for the site has been completed to determine the minimum size bridge opening; the minimum width of the new bridge opening will be required to meet or exceed the existing opening. Preliminary input received from the DNR and residents on the mainland adjacent to the bridge, is a larger bridge opening is desired. The hydraulic analysis does not indicate width of bridge opening will be a factor on restricting or inducing water flow through the bridge opening, or would subsequently result in improved water quality or clarity. Three bridge design options have been reviewed, including:

- Option A - A single line of pre-cast concrete box culverts,
- Option B - A single-span concrete beam bridge, and
- Option C - A multi-span concrete field-cast bridge.

In all of these options, the standard design speed of 30 mph cannot be achieved due to topography, geometric design standards and site restrictions. Therefore, a design variance will be required, and this area will require a reduced speed zone posting of 20 mph. In addition, permanent right-of-way must be acquired in some areas due to existing inadequate width. Temporary construction easements will also be necessary to allow for construction of a temporary bypass roadway, final approach grading and road embankment slopes. Existing right-of-way conditions are shown in **EXHIBIT 3**. Existing utilities, including underground fiber optic cable and natural gas will require relocation. No insurmountable construction issues are

apparent for any of the three options considered. The project scope does not include lake dredging or channel construction in excess of the minimum amount of excavation required to construct a replacement bridge.

## Exhibit 3 – Existing Right-of-Way Drawing and Surveys of Record

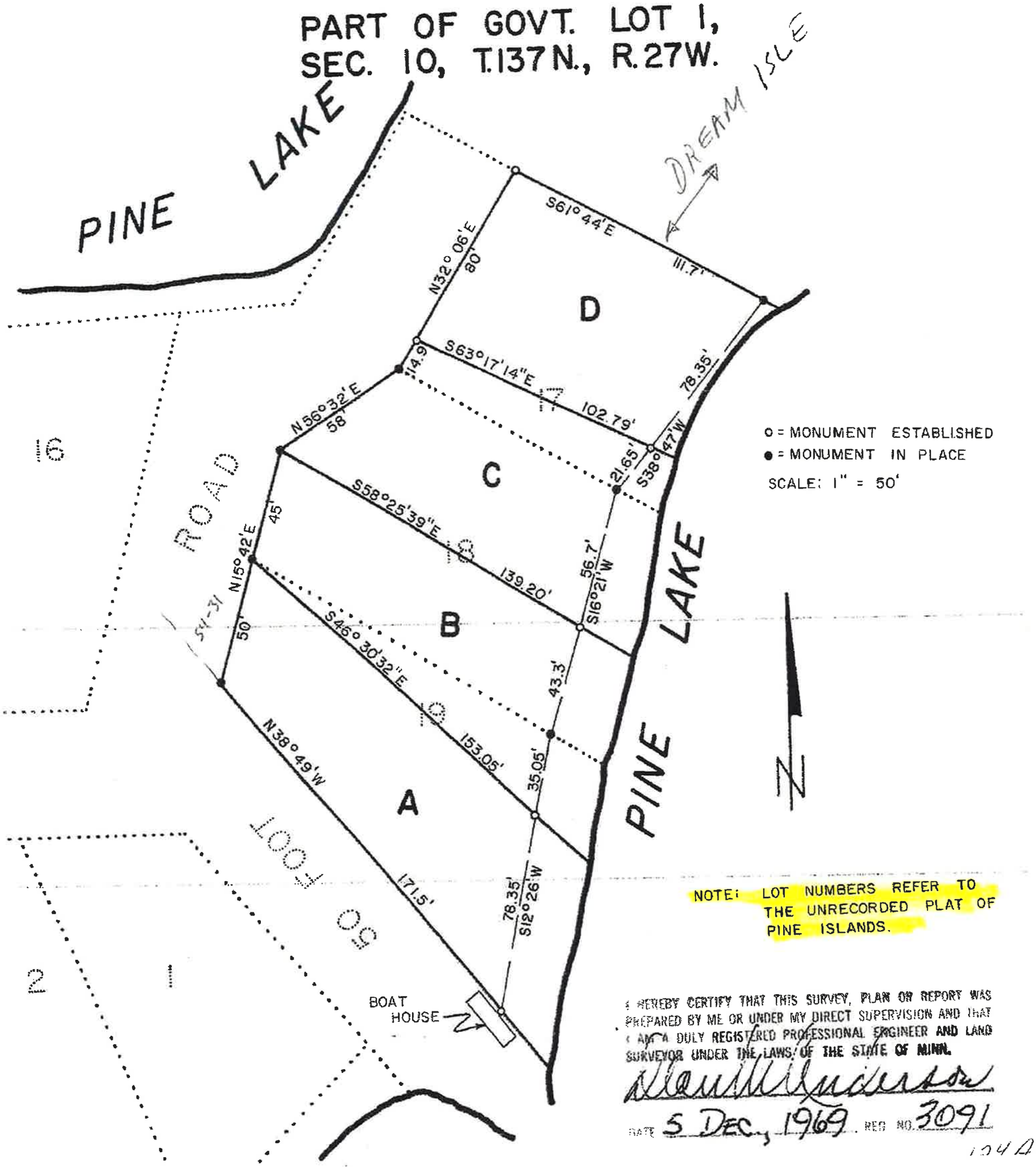



NOTE: EXISTING RIGHT-OF-WAY IS HIGHLIGHTED IN YELLOW.

**DEAN M. ANDERSON**
REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR
310 South Third Street
BRAINERD, MINN. 56401

# PLAT OF SURVEY

## PART OF GOVT. LOT 1, SEC. 10, T.137N., R.27W.




o = MONUMENT ESTABLISHED
● = MONUMENT IN PLACE
SCALE: 1" = 50'

NOTE: LOT NUMBERS REFER TO THE UNRECORDED PLAT OF PINE ISLANDS.

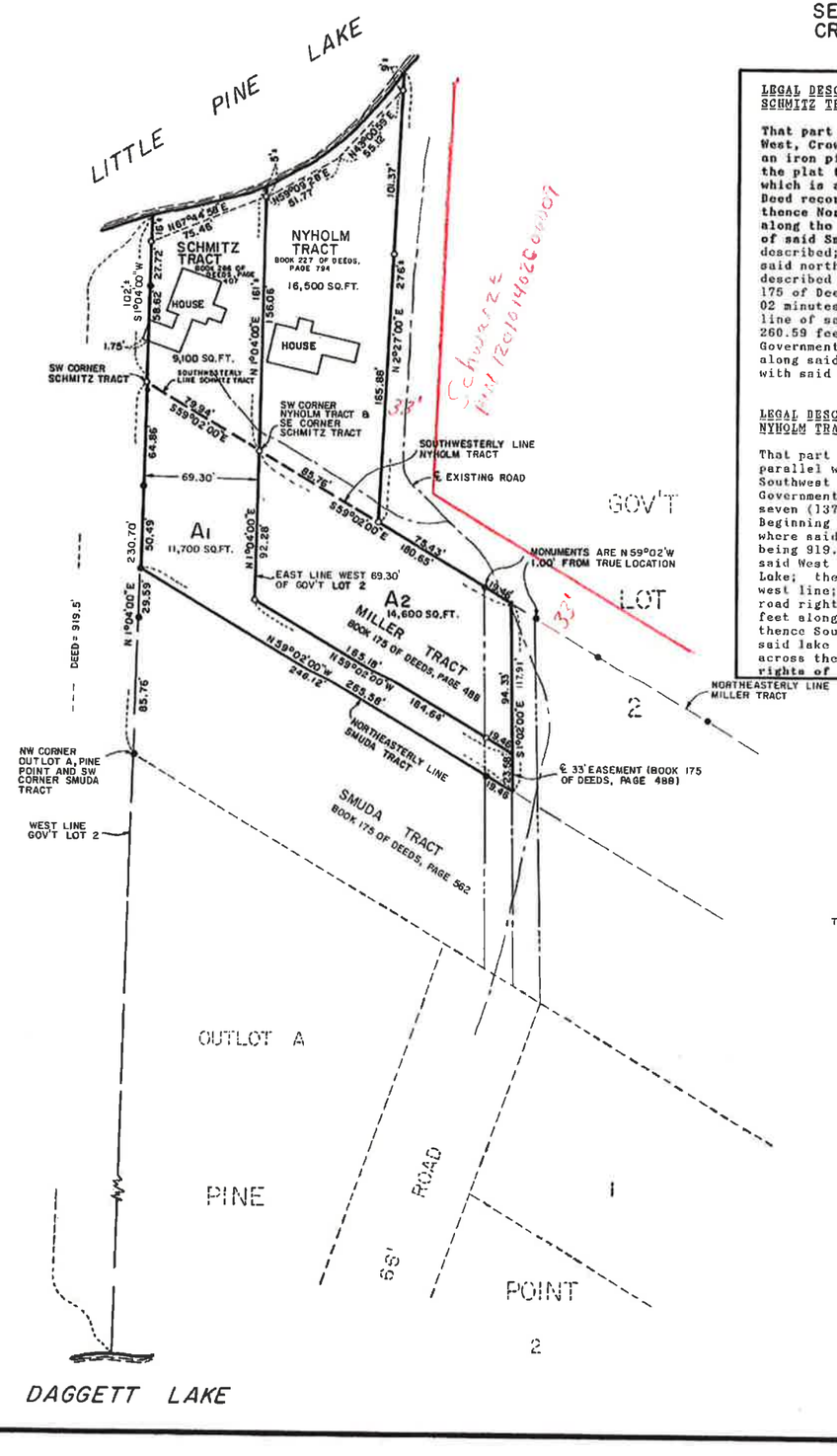
I HEREBY CERTIFY THAT THIS SURVEY, PLAN OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINN.

Dean M. Anderson

DATE 5 DEC., 1969 REG NO. 3091

# CERTIFICATE OF SURVEY

PART OF GOV'T LOT 2
SEC. 10, T. 137 N., R. 27 W.
CROW WING COUNTY, MN.




TOTAL AREAS:
SCHMITZ TRACT & TRACT A1 = 20,800 SQ.FT.
NYHOLM TRACT & TRACT A2 = 31,100 SQ.FT.

LEGAL DESCRIPTION BY OTHERS:
SCHMITZ TRACT BOOK 355 OF DEEDS, PAGE 481:

That part of Government Lot 2, Section 10, Township 137 North, Range 27 West, Crow Wing County, Minnesota, described as follows: Commencing at an iron pipe, the northwest corner of Outlot A, PINE POINT according to the plat thereof on file in the Crow Wing County Recorders Office, which is also the southwest corner of the tract deeded to Smuda by the Deed recorded in Book 175 of Deeds, Page 562 in said recorders office; thence North 1 degree 04 minutes East, assumed bearing, 115.35 feet along the west line of said Government Lot 2 to the northeasterly line of said Smuda tract, the point of beginning of the tract to be described; thence South 59 degrees 02 minutes East 265.58 feet along said northeasterly line to the centerline of the 33 foot road easement described in the tract deeded to Miller by the Deed recorded in Book 175 of Deeds, Page 488 in said recorders office; thence North 1 degree 02 minutes West 117.91 feet along said centerline to the northeasterly line of said Miller tract; thence North 59 degrees 02 minutes West 260.59 feet along said northeasterly line to said west line of Government Lot 2; thence South 1 degree 04 minutes West 115.35 feet along said west line to the point of beginning; subject to and together with said easement described in Book 175 of Deeds, Page 488.

LEGAL DESCRIPTION BY OTHERS
NYHOLM TRACT BOOK 227 OF DEEDS, PAGE 794:

That part of the following described tract lying east of a line drawn parallel with and 69.3 feet east of the boundary line between the Southwest One-quarter of Northeast One-quarter (SW1/4 of NE1/4) and Government Lot Two (2), Section Ten (10), Township One Hundred Thirty-seven (137) North, Range Twenty-seven (27) West, described as follows: Beginning at an iron pipe on the west line of said Government Lot 2 where said line intersects the shore of Little Pine Lake, said point being 919.5 feet North 1 degree 04 minutes East of the point where the said West line of Government Lot 2 intersects the shore of Daggett Lake; thence South 1 degree 04 minutes West 59.4 feet along the said west line; thence South 59 degrees 02 minutes East 165.7 feet to the road right-of-way line; thence North 2 degrees 27 minutes East 200 feet along said right-of-way line to the shore of Little Pine Lake; thence South 69 degrees 44 minutes West 159.3 feet along the shore of said lake to the place of beginning, together with an easement over and across the existing road leading to said tract, subject to flowage rights of record and other reservations of record.

TRACT A1:

That part of Government Lot 2, Section 10, Township 137 North, Range 27 West, Crow Wing County, Minnesota, described as follows: Commencing at an iron pipe, the northwest corner of Outlot A, PINE POINT, according to the plat thereof on file in the Crow Wing County Recorder's Office, which is also the southwest corner of the tract deeded to Smuda by the Deed recorded in Book 175 of Deeds, Page 562 in said Recorder's Office; thence North 01 degree 04 minutes 00 seconds East, assumed bearing, 115.35 feet along the west line of said Government Lot 2 to the northeasterly line of said Smuda Tract, the point of beginning of the tract to be described; thence South 59 degrees 02 minutes 00 seconds East 265.58 feet along said northeasterly line to the centerline of the 33 foot road easement described in the tract deeded to Miller by the Deed recorded in Book 175 of Deeds, Page 488 in said Recorder's Office; thence North 01 degree 02 minutes 00 seconds West 23.58 feet along said centerline; thence North 59 degrees 02 minutes 00 seconds West 184.64 feet to the east line of the West 69.30 feet of said Government Lot 2; thence North 01 degree 04 minutes 00 seconds East 92.28 feet along said east line of the West 69.30 feet of Government Lot 2 to the point on the northeasterly line of said Miller Tract which is the southeast corner of the tract deeded to Schmitz by the Deed recorded in Book 286 of Deeds, Page 407, in said Recorder's Office; thence North 59 degrees 02 minutes 00 seconds West 79.94 feet along said northeasterly line of the Miller Tract and along the southwesterly line of said Schmitz Tract to the point on the west line of said Government Lot 2 which is the southwest corner of said Schmitz Tract; thence South 01 degree 04 minutes 00 seconds West 115.35 feet along said west line of Government Lot 2 to the point of beginning. Subject to and together with said easement described in Book 175 of Deeds, Page 488; subject to other easements, reservations, or restrictions of record, if any.

TRACT A2:

That part of Government Lot 2, Section 10, Township 137 North, Range 27 West, Crow Wing County, Minnesota, described as follows: Commencing at an iron pipe, the northwest corner of Outlot A, PINE POINT, according to the plat thereof on file in the Crow Wing County Recorder's Office, which is also the southwest corner of the tract deeded to Smuda by the Deed recorded in Book 175 of Deeds, Page 562 in said Recorder's Office; thence North 01 degree 04 minutes 00 seconds East, assumed bearing, 115.35 feet along the west line of said Government Lot 2 to the northeasterly line of said Smuda Tract; thence South 59 degree 02 minutes 00 seconds East 265.58 feet along said northeasterly line to the centerline of the 33 foot road easement described in the tract deeded to Miller by the Deed recorded in Book 175 of Deeds, Page 488 in said Recorder's Office; thence North 01 degree 02 minutes 00 seconds West 23.58 feet along said centerline to the point of beginning of the tract to be described; thence North 59 degrees 02 minutes 00 seconds West 184.64 feet to the east line of the West 69.30 feet of said Government Lot 2; thence North 01 degree 04 minutes 00 seconds East 92.28 feet along said east line of the West 69.30 feet of Government Lot 2 to the point on the northeasterly line of said Miller Tract which is the southwest corner of the tract deeded to Nyholm by the Deed recorded in Book 227 of Deeds, Page 794 in said Recorder's Office; thence South 59 degrees 02 minutes 00 seconds East 180.65 feet along said northeasterly line of the Miller Tract and along the southwesterly line of said Nyholm tract to said centerline of the 33 foot road easement described in Book 175 of Deeds, Page 488; thence South 01 degree 02 minutes 00 seconds East 94.33 feet along said centerline to the point of beginning. Subject to and together with said easement described in Book 175 of Deeds, Page 488; subject to other easements, reservations, or restrictions of record, if any.

SCALE: 1 INCH = 50 FEET
● = IRON MONUMENT FOUND IN PLACE
○ = 1/2" IRON PIPE MONUMENT SET
ORIENTATION OF THIS BEARING SYSTEM IS ASSUMED

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of Minnesota.

Anthony W. Nolting

Reg. No. 13376 Date Dec. 16, 1985

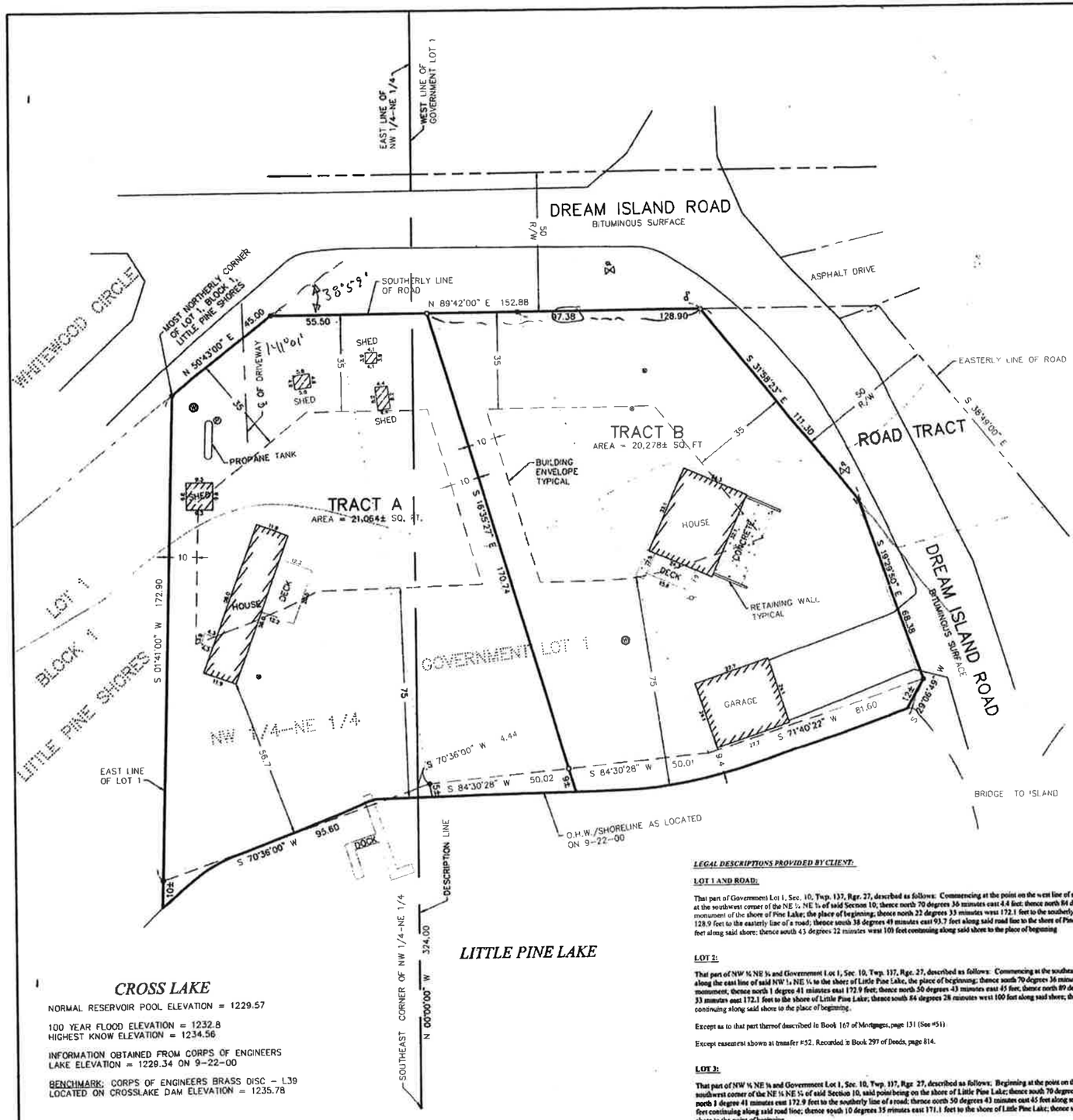
REQUESTED BY:
HENRY M. SCHMITZ
and
LEONARD W. NYHOLM


WIDSETH SMITH NOLTING & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
401 Golf Course Drive
P.O. Box 765
Brainerd, Minnesota 56401
(218) 829-5117


DATE: 10/25/84
DRAWN BY: CMN
CHECKED BY: JWM
JOB NO. 2908214
BOOK 348 PAGE 17
FILE NO. 4284

# CERTIFICATE OF SURVEY

## PART OF GOVERNMENT LOT 1, SECTION 10, TOWNSHIP 137 NORTH, RANGE 27 WEST, CROW WING COUNTY, MINNESOTA




***PROPOSED LEGAL DESCRIPTIONS:***

**TRACT A**

That part of the Northwest Quarter of the Northeast Quarter and that part of Government Lot 1, all in Section 10, Township 137 North, Range 27 West, Crow Wing County, Minnesota, described as follows:
Beginning at the most Northerly corner of Lot 1, Block One, LITTLE PINE SHORES, according to the recorded plat thereof, said County, and assuming the East line of said Lot 1 bears South 1 degree 41 minutes 00 seconds West; thence North 50 degrees 43 minutes 00 seconds East 45.00 feet; thence North 89 degrees 42 minutes 00 seconds East 55.50 feet; thence South 16 degrees 35 minutes 27 seconds East 180 feet, more or less, to the shoreline of Little Pine Lake, thence Southwesterly along said shoreline to the East line of said Lot 1; thence North 1 degree 41 minutes 00 seconds East along said East line 183 feet, more or less, to the point of beginning.

**TRACT B**

That part of Government Lot 1, Section 10, Township 137 North, Range 27 West, Crow Wing County, Minnesota, described as follows:
Commencing at the most Northerly corner of Lot 1, Block One, LITTLE PINE SHORES, according to the recorded plat thereof, said County, and assuming the East line of said Lot 1 bears South 1 degree 41 minutes 00 seconds West; thence North 50 degrees 43 minutes 00 seconds East 45.00 feet; thence North 89 degrees 42 minutes 00 seconds East 55.50 feet to the point of beginning of the tract to be herein described; thence North 89 degrees 42 minutes 00 seconds East 97.38 feet; thence South 31 degrees 58 minutes 23 seconds East 111.30 feet; thence South 19 degrees 29 minutes 50 seconds East 68.38 feet; thence South 29 degrees 06 minutes 49 seconds West 12 feet, more or less, to the shoreline of Little Pine Lake; thence Southwesterly along said shoreline to the intersection with a line bearing South 16 degrees 35 minutes 27 seconds East from the point of beginning; thence North 16 degrees 35 minutes 27 seconds West 179 feet, more or less, to the point of beginning.

**ROAD TRACT**

That part of the following described property:

That part of Government Lot 1, Section 10, Township 137 North, Range 27 West, Crow Wing County, Minnesota, described as follows: Commencing at the point on the West line of said Government Lot 1, which is 324 feet North of the one-sixteenth corner at the Southwest corner of the Northeast Quarter of the Northeast Quarter of said Section 10; thence North 70 degrees 36 minutes East 4.4 feet; thence North 84 degrees 28 minutes East 100 feet to an iron pipe monument of the shore of Little Pine Lake, the place of beginning; thence North 22 degrees 33 minutes West 172.1 feet to the Southerly line of a road; thence North 89 degrees 42 minutes East 128.9 feet to the Easterly line of a road; thence South 38 degrees 49 minutes East 93.7 feet along said road line to the shore of Little Pine Lake; thence South 75 degrees 10 minutes West 54.7 feet along said shore; thence South 43 degrees 22 minutes West 100 feet continuing along said shore to the place of beginning.

Which lies Easterly of the following described line: Commencing at the most Northerly corner of Lot 1, Block One, LITTLE PINE SHORES, according to the recorded plat thereof, said County, and assuming the East line of said Lot 1 bears South 1 degree 41 minutes 00 seconds West; thence North 50 degrees 43 minutes 00 seconds East 45.00 feet; thence North 89 degrees 42 minutes 00 seconds East 152.88 feet to the point of beginning of the line to be herein described; thence South 31 degrees 58 minutes 23 seconds East 111.30 feet; thence South 19 degrees 29 minutes 50 seconds East 68.38 feet; thence South 29 degrees 06 minutes 49 seconds West 12 feet, more or less, to the shoreline of Little Pine Lake and said line there terminating.

***LEGAL DESCRIPTIONS PROVIDED BY CLIENT:***

**LOT 1 AND ROAD:**

That part of Government Lot 1, Sec. 10, Twp. 137, Rge. 27, described as follows: Commencing at the point on the west line of said Lot 1 which is 324 feet north of the 1 16th corner at the southwest corner of the NE ¼ NE ¼ of said Section 10; thence north 70 degrees 36 minutes east 4.4 feet; thence north 84 degrees 28 minutes east 100 feet to an iron pipe monument of the shore of Pine Lake; the place of beginning; thence north 22 degrees 33 minutes west 172.1 feet to the southerly line of a road; thence north 89 degrees 42 minutes east 128.9 feet to the easterly line of a road; thence south 38 degrees 49 minutes east 93.7 feet along said road line to the shore of Pine Lake; thence south 75 degrees 10 minutes west 54.7 feet along said shore; thence south 43 degrees 22 minutes west 100 feet continuing along said shore to the place of beginning

**LOT 2:**

That part of NW ¼ NE ¼ and Government Lot 1, Sec. 10, Twp. 137, Rge. 27, described as follows: Commencing at the southeast corner of said NW ¼ NE ¼; thence north 324 feet along the east line of said NW ¼ NE ¼ to the shore of Little Pine Lake, the place of beginning; thence north 70 degrees 36 minutes west 95.6 feet along said shore to an iron pipe monument, thence north 1 degree 41 minutes east 172.9 feet; thence north 50 degrees 43 minutes east 45 feet; thence north 89 degrees 42 minutes east 86 feet; thence south 22 degrees 33 minutes east 172.1 feet to the shore of Little Pine Lake; thence south 84 degrees 28 minutes west 100 feet along said shore; thence south 70 degrees 36 minutes west 4.4 feet continuing along said shore to the place of beginning.

Except as to that part thereof described in Book 167 of Mortgages, page 131 (See #51)

Except easement shown at transfer #52, Recorded in Book 297 of Deeds, page 814.

**LOT 3:**

That part of NW ¼ NE ¼ and Government Lot 1, Sec. 10, Twp. 137, Rge. 27, described as follows: Beginning at the point on the west line of said Lot 1 which is 324 feet north of the southwest corner of the NE ¼ NE ¼ of said Section 10, said point being on the shore of Little Pine Lake; thence south 70 degrees 36 minutes west 95.6 feet along said shore; thence north 1 degree 41 minutes east 172.9 feet to the southerly line of a road; thence north 50 degrees 43 minutes east 45 feet along said road; thence north 89 degrees 42 minutes east 23 feet continuing along said road line; thence south 10 degrees 35 minutes east 171.1 feet to the shore of Little Pine Lake; thence south 70 degrees 36 minutes west 4.4 feet along said shore to the point of beginning.

Except easement shown at transfer #53, Recorded in Book 297 of Deeds, page 814.

ORIENTATION OF THIS BEARING SYSTEM IS BASED ON THE EAST LINE OF LOT 1, BLOCK 1, LITTLE PINE SHORES TO HAVE AN ASSUMED BEARING OF S 01°41'00" W

CONTOUR INTERVAL = 10 FEET

CONTOURS ARE TAKEN FROM U.S.G.S. QUADRANGLE MAP

**NOTE:**
ALL TRACTS CONTAIN SUFFICIENT AREA TO SUPPORT A MINIMUM OF TWO SEWAGE DRAINFIELD SITES WHICH WILL MEET ALL SETBACK REQUIREMENTS OF THE CROSSLAKE CITY ORDINANCE.

SURVEYOR'S NOTE: THE TRACTS SURVEYED ARE BASED ON THE DESCRIPTIONS OF RECORD AND FOUND MONUMENTATION FROM SAID TRACTS AND THE PLAT OF LITTLE PINE SHORES. THE EXCEPTION PORTIONS OF THE DESCRIPTIONS ARE INCORRECTLY REFERENCED AND HAVE NOT BEEN USED OR SHOWN.

- ● DENOTES MONUMENT FOUND
- ○ DENOTES IRON MONUMENT SET MARKED BY LICENSE NO. 17008
- -o- DENOTES POWER POLE
- ☌ DENOTES TELEPHONE PEDESTAL
- ⊛ DENOTES SANITARY SEWER CLEAN OUT
- ⊠ DENOTES GAS LINE SIGN
- Ⓟ DENOTES WATER PUMP
- Ⓦ DENOTES EXISTING WELL


Landecker & Associates, Inc.
Engineering - Surveying - Planning
Pequot Lakes, MN 56472
Phone 1-800-450-4940 Fax 218-568-5404


I HEREBY CERTIFY THAT THIS SURVEY, PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.
Kurt D. Landecker
DATE 9-22-00 LIC. NO. 17008

| REVISIONS | DATE | BY |
|---|---|---|
| DESCRIPTION | | |

| | |
|---|---|
| DATE: | 9-22-00 |
| SCALE: | HORZ. 1" = 20' VERT. NONE |
| COMPUTER: | CD01328 |
| FIELD BOOK: | BOOK 199 PG. 18 |
| FILE NO: | CD01328 |
| PROJ. MGR | KTM |
| CHECKED BY: | DSL |
| DRAWN BY: | JMD |

CERTIFICATE OF SURVEY
JOHANNA T. WILLIE
37789 DREAM ISLAND ROAD
CROSSLAKE, MN. 56442

SHEET 1 OF 1

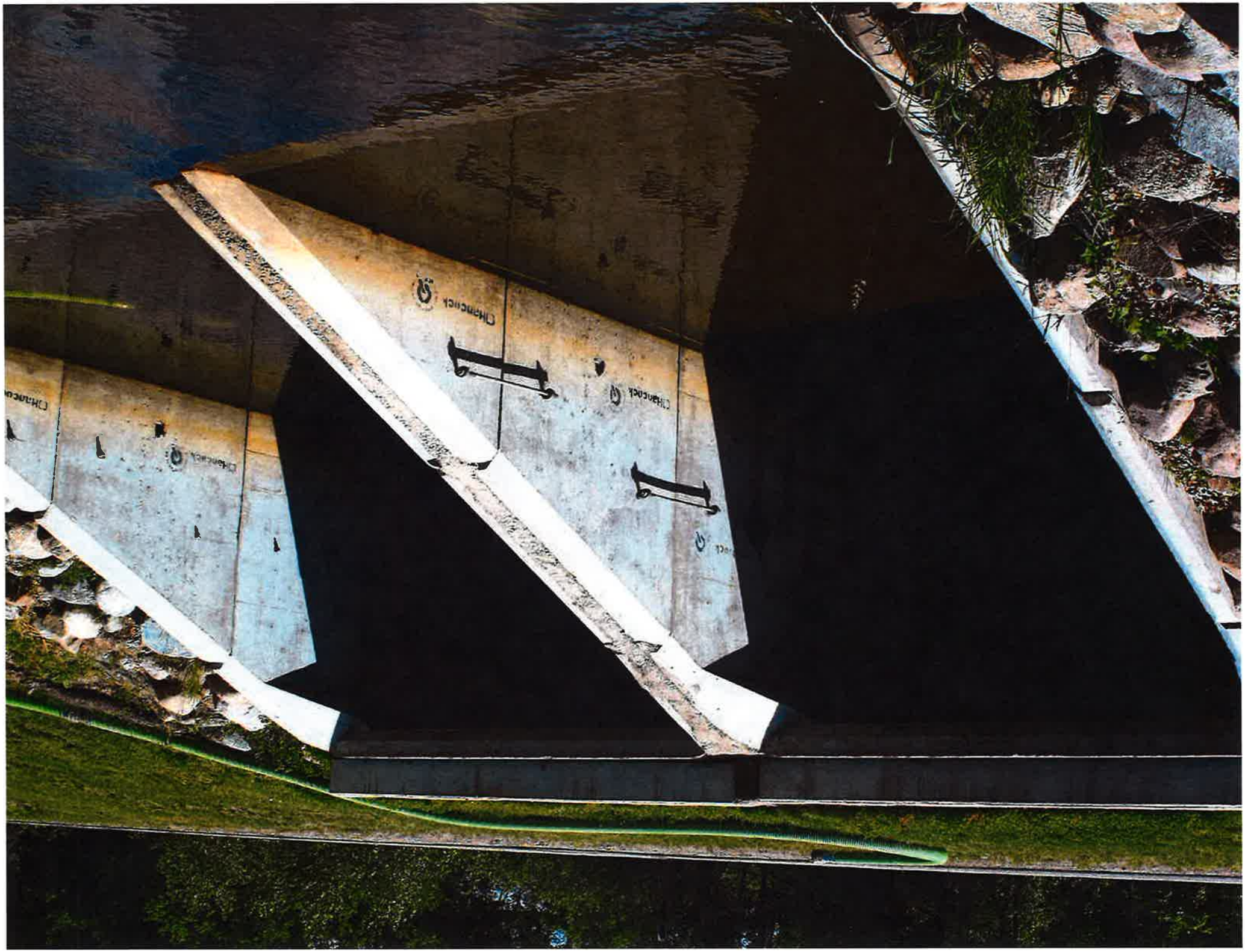
Sec 10 T137 R27

72

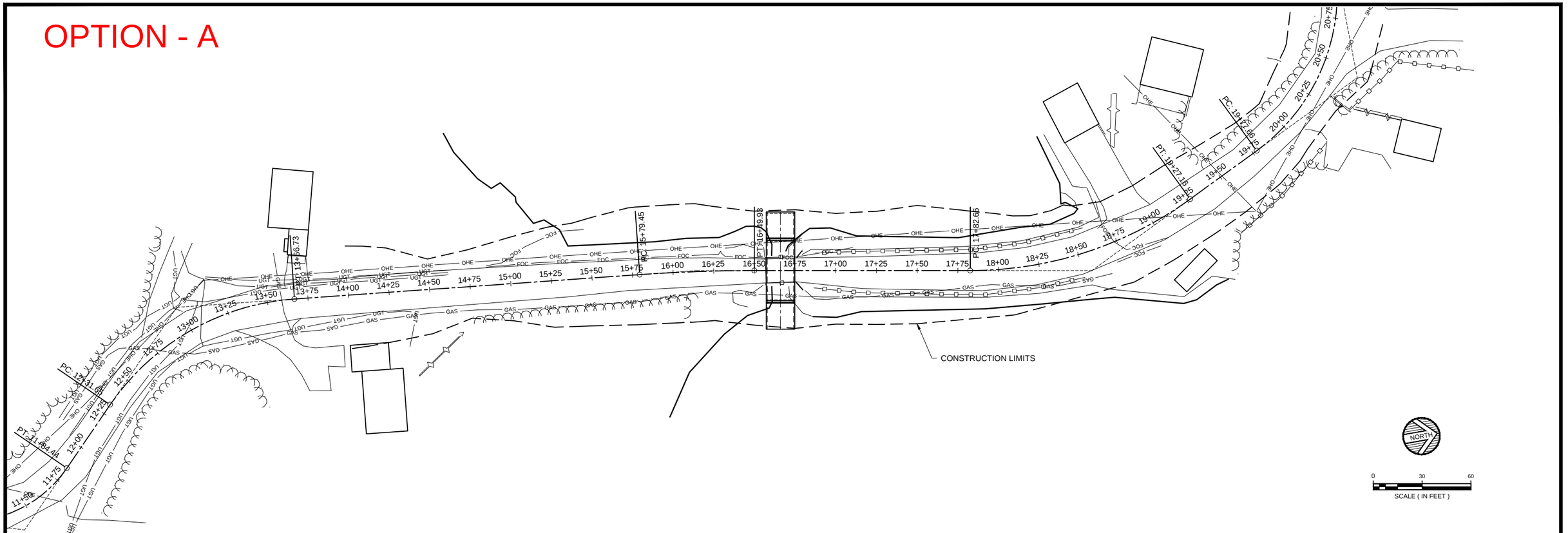
**Option A – 16’ Wide x 10’ High Box Culvert**

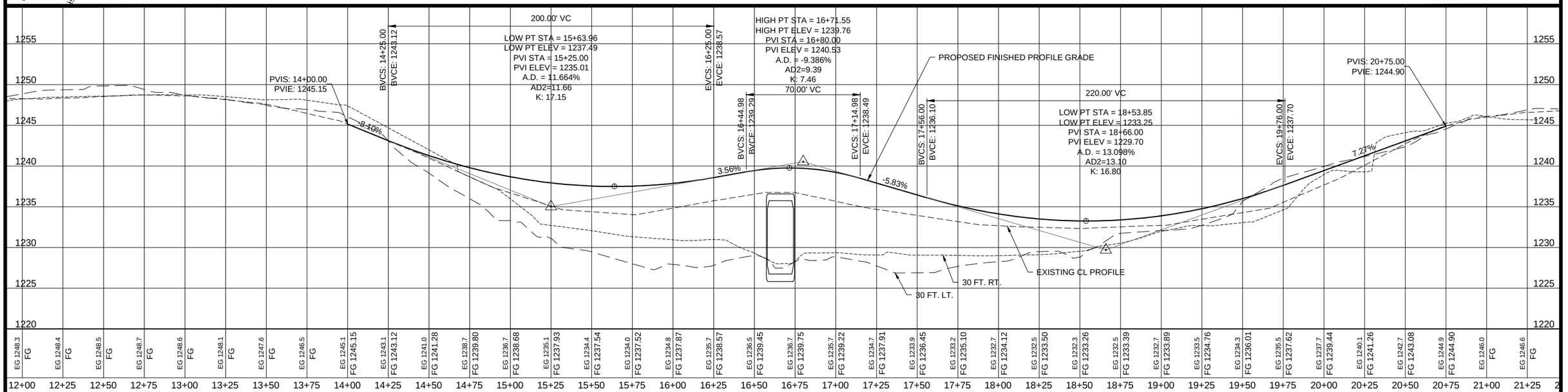
A pre-cast concrete box culvert can feasibly be constructed with standard tapered concrete end sections, or a cast-in-place concrete headwall with a steel railing can be installed for improved aesthetics (example photos of each type and the proposed plan/profile drawing are included as **EXHIBIT 4**). If the headwall can be located outside of the standard clear zone, no guard railing is required. To maintain the existing low member elevation (and the existing headway beneath the bridge), and to keep the grade-raise on each side of the bridge as minimal as possible, a concrete distribution slab would be required over the box culvert. The bottom of the culvert would be set approximately 12” lower than the bottom of the existing channel. The culvert will likely silt in and stabilize near the current lake-bottom elevations on either side of the bridge over time. A temporary bypass road would be constructed along the east side of the bridge to maintain access to the island during bridge construction. The bridge approaches must be raised 1-3 feet higher in elevation than existing conditions due to the proposed height and extended span of the bridge, and to meet the geometric road profile standards. The approach grade-raising will require widening of the roadway embankments, which will require vegetation removal near the bridge for placement of road embankment fill.

## Exhibit 4 – Bridge Option ‘A’ (Photos/Plan/Profile Drawing)



# OPTION - A






CERTIFIED BY: PRELIMINARY
PROFESSIONAL ENGINEER: KENT A. ROHR
LICENSE NO. 21179 DATE: 2015

JOB NUMBER: 0107B147

----

SHEET NO. ---- OF B5 SHEETS

WIDSETH SMITH NOLTING
Engineering | Architecture | Surveying | Environmental

PLAN & PROFILE BOX

APPROVED

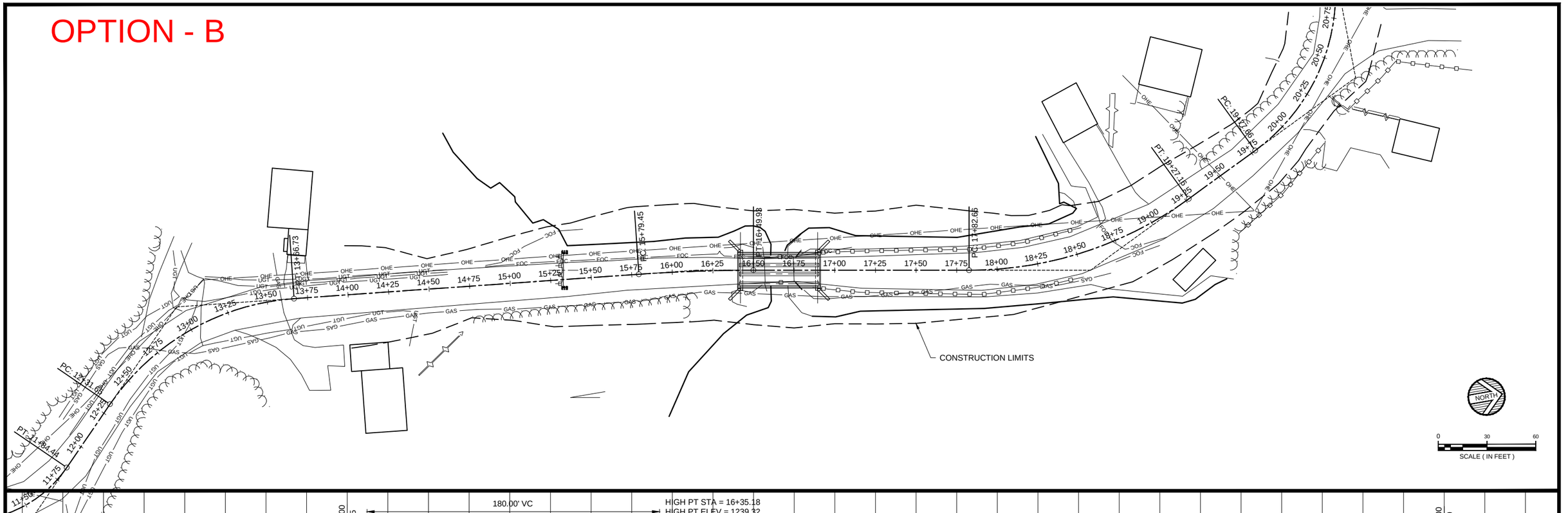
| | | |
|---|---|---|
| DES. BY K.A.R. | DR. BY G.A.M. | BRIDGE NO. |
| CHK. BY D.A.N. | CHK. BY K.A.R. | ---- |

**Option B – 50' Single-Span Pre-cast Concrete Beam Bridge**

A 50-foot wide pre-cast concrete beam bridge can feasibly be constructed that will provide approximately 20-25 feet of channel width as shown on the plan/profile drawings in **EXHIBIT 5**. Causeway fill material placed in the late 1950's would be excavated to the approximate original lake-bottom elevation below the span; the excavated soil, if suitable for roadway embankment, would be used to construct the new approaches or for construction of the temporary bypass roadway. The DNR has indicated all soil excavated from the lake, transported and disposed of offsite, and all equipment in contact with the lake, must be handled in accordance with procedures outlined by the State due to the infested waters status (zebra mussels). This will result in increased project cost. The extended span of the bridge will require the roadway approaches to be elevated 1-4 feet higher than existing road grade elevations; consequently, the embankment width will be wider than Option A. Preliminary layouts and construction limits indicate adjacent driveways may require partial reconstruction and, depending on their location, elevating of 0.5 – 1.0 feet to meet the new road surface elevation.

## Exhibit 5 – Bridge Option ‘B’ (Plan/Profile Drawings)

# OPTION - B






CERTIFIED BY: PRELIMINARY
PROFESSIONAL ENGINEER: KENT A. ROHR
LICENSE NO. 21179
DATE: 2015

JOB NUMBER: 0107B147

----

SHEET NO. ---- OF B5 SHEETS

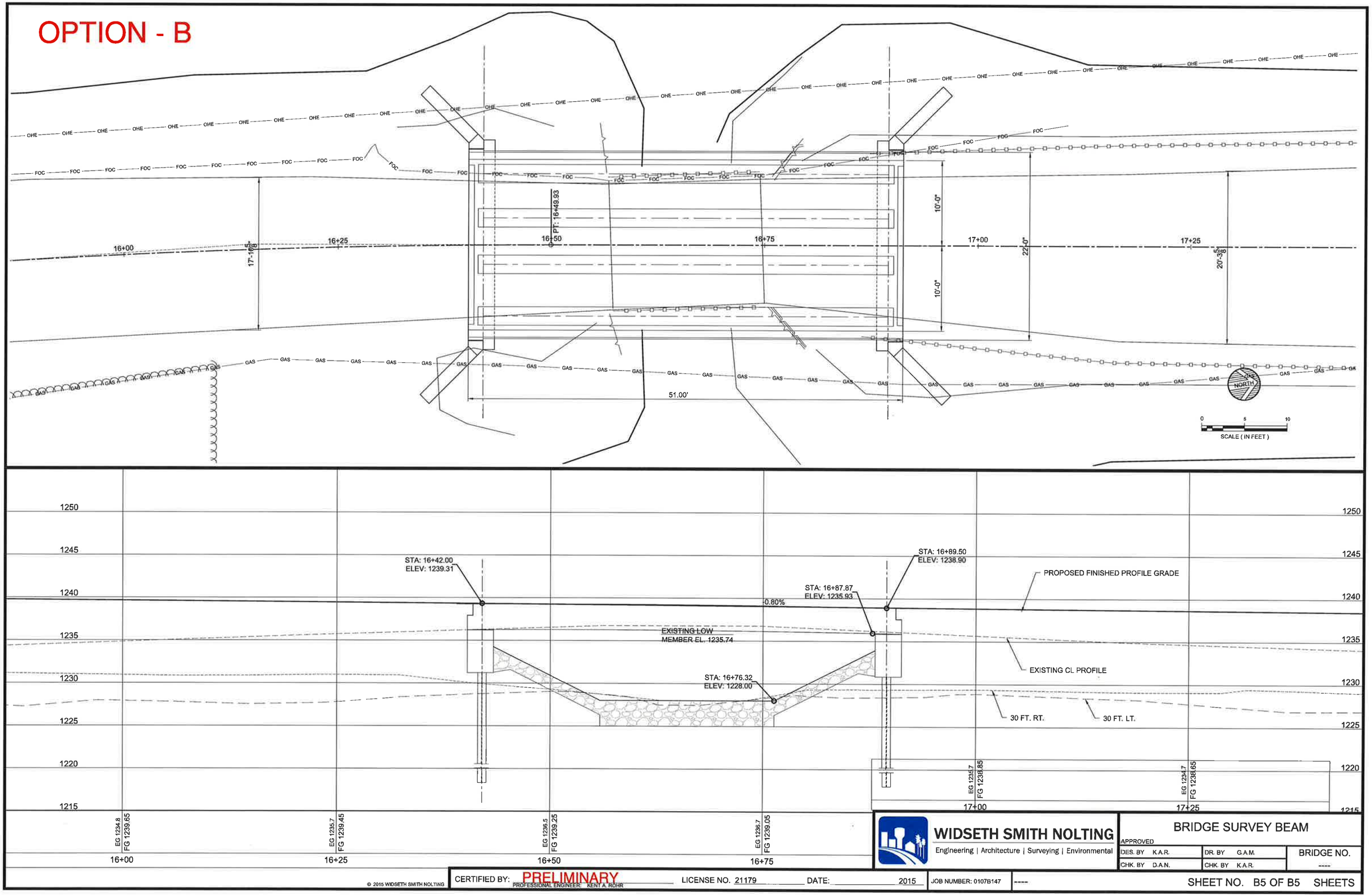
**WIDSETH SMITH NOLTING**
Engineering | Architecture | Surveying | Environmental

PLAN & PROFILE BEAM

APPROVED

| DES. BY K.A.R. | DR. BY G.A.M. | BRIDGE NO. |
|---|---|---|
| CHK. BY D.A.N. | CHK. BY K.A.R. | ---- |

# OPTION - B






CERTIFIED BY: PRELIMINARY PROFESSIONAL ENGINEER: KENT A. ROHR LICENSE NO. 21179 DATE: 2015

WIDSETH SMITH NOLTING
Engineering | Architecture | Surveying | Environmental

BRIDGE SURVEY BEAM

APPROVED

| DES. BY K.A.R. | DR. BY G.A.M. | BRIDGE NO. |
|---|---|---|
| CHK. BY D.A.N. | CHK. BY K.A.R. | ---- |

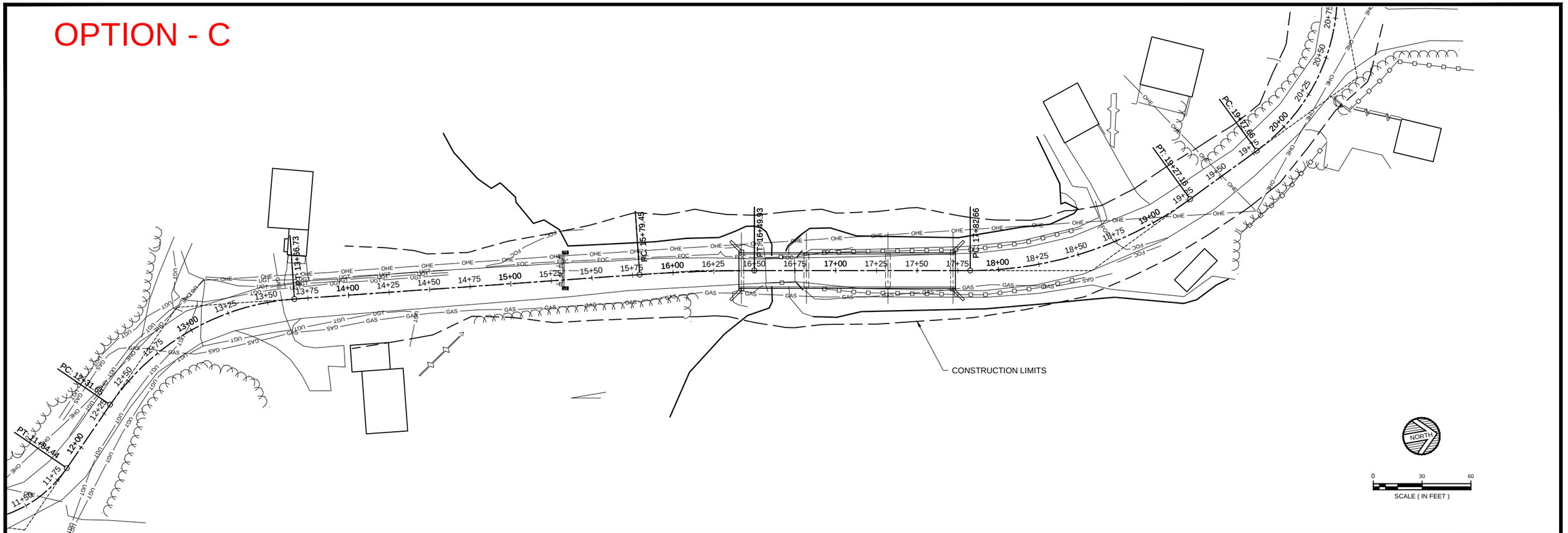
JOB NUMBER: 0107B147 ---- SHEET NO. B5 OF B5 SHEETS

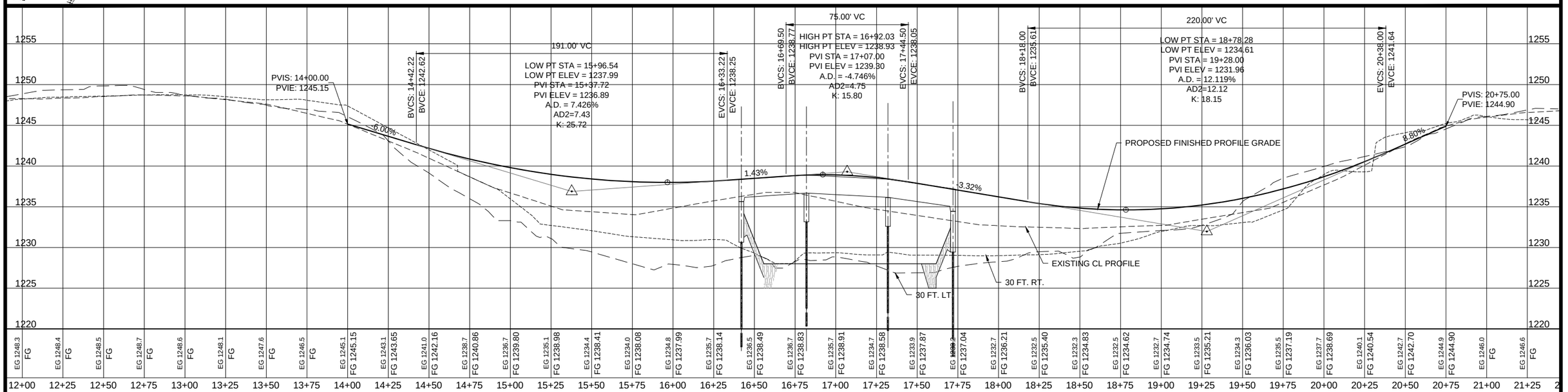
**Option C – 133' Multi-Span Cast-in-Place Concrete Slab Bridge**

The City agreed to study the maximum span of bridge that could feasibly be constructed at this location based on requests from residents. A 133-foot wide multi-span bridge can feasibly be constructed that will provide approximately 105-110 feet of channel width as shown in **EXHIBIT 6**. Similar to the beam bridge, the original causeway fill material would be removed to the extent needed for bridge construction, as close as possible to the original lake-bottom elevation. Due to the extended bridge span, the roadway approaches must be elevated 1-5 feet higher than existing road grade elevations; consequently, the embankment width will be wider than Option B, and the adjacent driveways would be impacted more severely, requiring reconstruction and elevation of driveways to meet the new road surface elevation.

## Exhibit 6 – Bridge Option ‘C’ (Plan/Profile Drawings)

# OPTION - C






CERTIFIED BY: PRELIMINARY
PROFESSIONAL ENGINEER: KENT A. ROHR
LICENSE NO. 21179 DATE: 2015

JOB NUMBER: 0107B147

----

SHEET NO. ---- OF B5 SHEETS

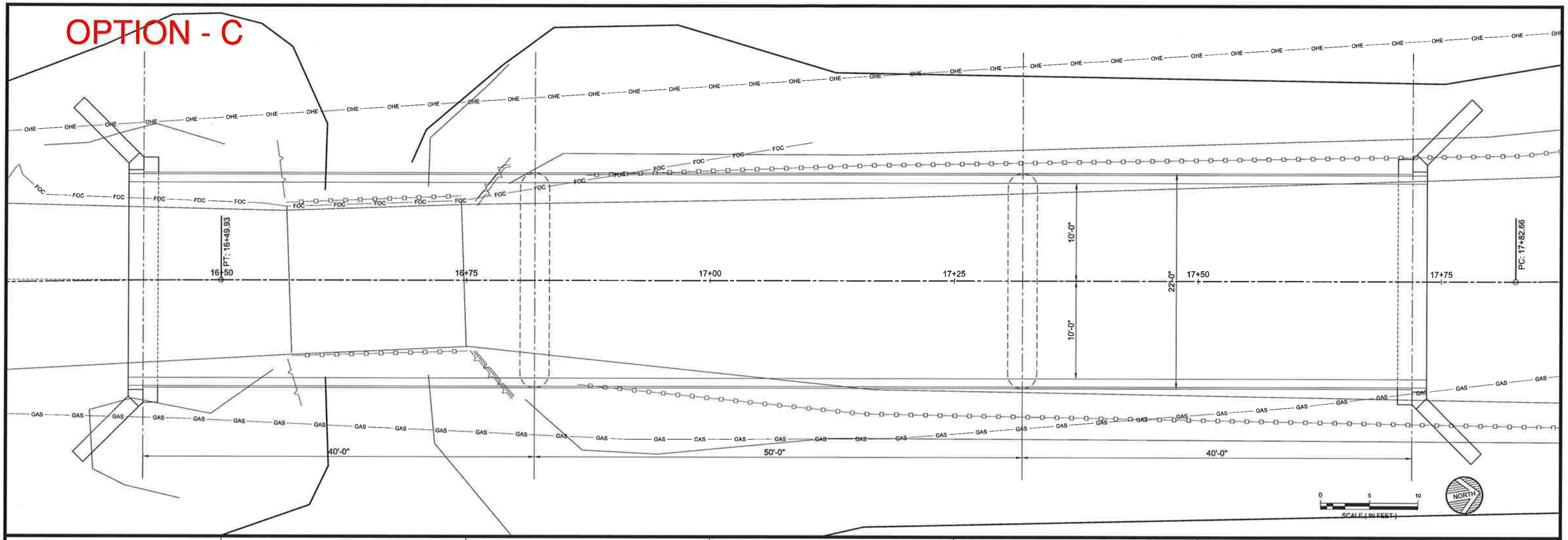
**WIDSETH SMITH NOLTING**
Engineering | Architecture | Surveying | Environmental

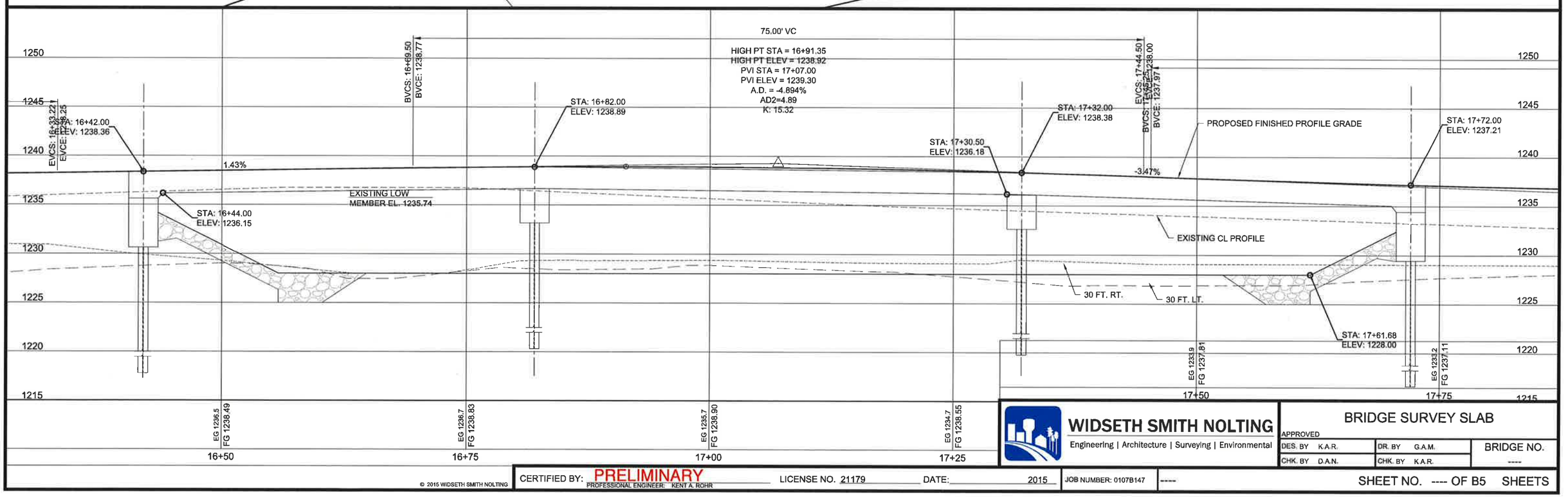
PLAN & PROFILE SLAB

APPROVED

| | | |
|---|---|---|
| DES. BY K.A.R. | DR. BY G.A.M. | BRIDGE NO. |
| CHK. BY D.A.N. | CHK. BY K.A.R. | ---- |

# OPTION - C






CERTIFIED BY: PRELIMINARY
PROFESSIONAL ENGINEER: KENT A. ROHR
LICENSE NO. 21179 DATE: 2015

WIDSETH SMITH NOLTING
Engineering | Architecture | Surveying | Environmental

JOB NUMBER: 0107B147

BRIDGE SURVEY SLAB

APPROVED

| DES. BY K.A.R. | DR. BY G.A.M. | BRIDGE NO. |
|---|---|---|
| CHK. BY D.A.N. | CHK. BY K.A.R. | ---- |

SHEET NO. ---- OF B5 SHEETS

The single and multi-span concrete bridge options can be designed with standard concrete guard rails or with a timber railing system similar to the bridge at Sunrise Island. As mentioned previously, the project scope does not include dredging a channel on each side of the bridge for improved boat passage. This would require DNR approval and ongoing maintenance dredging. Preliminary input from the DNR is that this is not favored by the Agency. Roadway approaches to the bridge will be upgraded to a 24 foot width (11' lanes and 1' shoulders) per MnDOT's current design standards and tapered back to the current road widths at the touchdown points approximately 200 feet each side of the bridge. Widening of the roadway embankment will be necessary to meet design standards, and this will likely require wetland fill permitting; however, in each case, fill is also being removed from public waters thereby mitigating a portion of the fill placed in the 1950's. A permit application to the Soil and Water Conservation District and/or Corps of Engineers is recommended to determine if exemptions apply.

**FUNDING**

The City intends to apply for State Bridge Bond (SBB) funding for the bridge replacement. Other sources of funding were reviewed that may apply to removal of fill deposited as part of the original causeway construction; these included the Clean Water Fund (CWF) which is primarily intended for drainage projects, and the Conservation Partners Habitat Fund (Lessard-Sams) program. Board Conservationists indicated this project would not likely be eligible for CWF, but may be for the Habitat Fund. These programs are highly competitive and intended for water quality improvement. It has been our experience that the cost and time commitment pursuing such funding, administering the funding, and coordinating

multiple funding sources on different timetables and deadlines creates more cost issues than benefits in many cases. The SBB funding will cover the cost of causeway fill removal in order to complete the bridge replacement project. The remainder of the causeway fill must remain in place for the approaches to the bridge. Therefore, pursuing additional highly competitive funding sources for funds that will already be provided under the bridge program does not seem to be a prudent use of resources, time, and effort.

## ESTIMATED PROJECT COSTS

### OPTION A

16' x 10' Box Culvert (widest standard width can go to 20' with special design):

| | | |
|---|---|---|
| Design | | $45,000 |
| Construction | Structure | $125,000 |
| | Approaches | 100,000 |
| | Road Bypass | 85,000 |
| Construction Total | | $310,000 |
| Construction Observation | | $30,000 |
| Testing | | $3,500 |
| Right-of-Way | | $10,000 |
| **Project Estimated Total** | | **$398,500** |

Note: Concrete headwalls and railing in lieu of standard end sections will increase construction cost by approximately $36,000.

### OPTION B

50' x 22' Single Span Precast Concrete Beam Bridge (20' roadway, timber rails)

| | | |
|---|---|---|
| Geotechnical | | $5,000 |
| Design | | $50,000 |
| Construction | Structure | $240,000 |
| | Approaches | 110,000 |
| | Road Bypass | 85,000 |
| Construction Total | | $435,000 |
| Construction Observation | | $60,000 |
| Testing | | $7,500 |

| | | |
|---|---|---|
| Right-of-Way | | $10,000 |
| **Project Estimated Total** | | **$567,500** |

**OPTION C**

133' x 22' Three-Span CIP Concrete Slab Bridge (20' roadway, timber rails)

| | | |
|---|---|---|
| Geotechnical | | $5,000 |
| Design | | $60,000 |
| Construction | Structure | $525,000 |
| | Approaches | 120,000 |
| | Road Bypass | 85,000 |
| Construction Total | | $730,000 |
| Construction Observation | | $85,000 |
| Testing | | $7,500 |
| Right-of-Way | | $10,000 |
| **Project Estimated Total** | | **$897,500** |

## PROPOSED METHOD OF ASSESSMENT

The City's policy is to assess 50% of the total bridge project cost that is not covered by State Bridge Bond funds. The State Legislature recently revised the bridge bond funding eligibility for small cities with a population of 5,000 or less so the local cost share responsibility has been substantially reduced. Small cities now have similar eligibility for State bridge funds as Townships. Bridge Bond funds now may be used for 100 percent of the bridge construction work, 100 percent of the bridge approach costs that are in excess of

$10,000 and 100 percent of the design and engineering costs that are in excess of $10,000. Bridge removal cost is considered an approach grading cost, and bypass roadway costs are also an eligible cost. Approach grading includes the road area from the bridge to the touchdown point where an alignment that meets design standards can match into the existing alignment. Therefore, the apparent minimum cost anticipated for the local (City) share is $20,000. However, there are potential costs that could become City costs, such as: excessive approach construction costs, non-construction (soft) costs such as right-of-way acquisition, testing, construction observation, appraisals, legal, or other professional costs that cumulatively exceed 25% of the construction costs (a State cap on soft costs), or additional construction costs that are incurred after funding is capped at the low bid amount for the grant award. For these reasons, we recommend the City include a contingency for local share costs, and base estimates of assessments on $80,000. This estimate will be used to demonstrate the methodology of assessment, and to provide an approximate assessment value per lot.

Based on a count of the lots identified on the Crow Wing County GIS database, there are 40 lots on Dream Island. Three homes are situated on two lots each, and there are 2 vacant lots that appear to be buildable. Therefore, the total number of assessable (equivalent) lots on the island is estimated to be 37.

Based on the estimated local cost obligation of $80,000, $40,000 being assessed (50%), and a total of 37 equivalent lots being assessed, the total estimated assessment per equivalent lot is $1,081.

The City Council will decide the term and interest rate of the assessments. Past bridge assessments were based on a term of 10 years at 4%. If we apply this same scenario, the

annual payments on a principal assessment amount of $1,081 would be approximately $133 per year. Property owners would have the option to pay the assessment in full within 30 days of adoption of the assessment roll to avoid paying any interest on the assessment.

## CONCLUSIONS

Three bridge replacement options have been reviewed that can feasibly be constructed with no apparent insurmountable construction issues. Option A, the box culvert, fulfills the scope and intent of the project; however, this option is not preferred by the permitting agency (DNR) and indications are it would not be permitted. Option B, the 50-foot concrete beam bridge fulfills the scope and intent of the project, addresses the concerns raised by the DNR and some of the residents to a degree, would be permitted by the DNR, and is fundable by all indications of the State Bridge Office. Option C, the multi-span concrete slab bridge, fulfills the scope and intent of the project, addresses the concerns of the DNR and some of the residents to a larger degree, would be permitted by the DNR, but would not be completely funded as indicated by the State Bridge Office. The City would assume an additional local share of project cost of approximately $295,000, the estimated difference between Option B and C. This would increase the estimated assessments to approximately $5,067 per equivalent lot.

## RECOMMENDATIONS

We recommend the City proceed with Option B, the 50-foot concrete beam bridge on the basis of feasibility, cost, and to address environmental issues raised by residents in the project area. The next steps, should the City Council wish to proceed, are:

1. Pass a resolution approving the Feasibility Report,
2. Pass a resolution scheduling a Public Hearing,
3. Convene the Public Hearing and receive public testimony,
4. Based on the outcome of the public hearing, advance the project to the plan preparation stage and submit for funding, or revise the scope of the recommended project.

5.
a.
1.

# ARCH-SPAN (OPTION 'D') SUPPLEMENT

**To**

**FEASIBILITY REPORT**

**FOR**

# REPLACEMENT OF BRIDGE L6376 (DREAM ISLAND)

# CROSSLAKE, MINNESOTA

**Date: December 22, 2015**

By

WIDSETH SMITH NOLTING

Baxter, MN 56425

Total Pages Supplemental Report – 5

Attachments:

- Morrison County Arch Span Photos and WSN Plan
- WSN Preliminary Plan and Profile – Option D
- MnDOT Arch Span Cost Report
- Approved Product Suppliers List

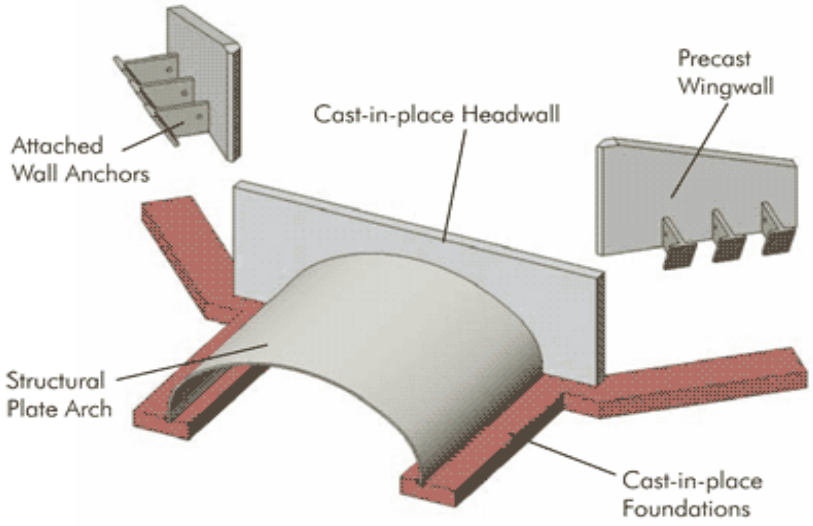
## PURPOSE

The purpose of this Supplement to the Feasibility Study, dated December 4, 2015, is to provide additional information for a fourth bridge design option requested by residents and authorized by the City of Crosslake. The additional bridge design option is known as an arch-span, or 3-sided box culvert, with a characteristic open bottom and vertical sides.

Option D – 24'-Wide Single-Span Pre-cast Arch (3-Sided Box Bridge)

A 24-foot wide pre-cast concrete arch bridge can feasibly be constructed that will provide approximately 20 feet of channel width. This type of bridge will require approximately 2 feet of fill material over the top of the concrete span that will be contained within cast-in-place concrete headwalls on the sides. As a result, the roadway approaches must be elevated similarly to Option 'A', the box-culvert option. The embankment width would also be similar to Option 'A'. Adjacent driveways will require partial reconstruction and, depending on their location, elevating of 0.5 – 1.5 feet to meet the new road surface elevation. This bridge type will require cofferdams to be constructed in the waterway, and the lake water continuously pumped out in order to build the foundation systems. Photos of an arch-span bridge located in Morrison County are attached that show the sheet pile cofferdams and bridge under construction. The Morrison County Bridge has a span of 32 feet with a 12 foot rise. Bridge piling is required under each side of the arch; spread footings must be formed and cast in the dry space within the cofferdams. The elevation of the spread footings must be sufficiently deep to prevent migration of the approach material underneath the arch foundation and into the channel void within the arch. Future channel dredging within the arch, if desired, would be limited by the depth of the foundation elevations that can feasibly be constructed. End sections of the arch-span will consist of pre-cast sectional wing walls and a cast-in-place headwall requiring footing extensions for support. A preliminary layout plan and profile is attached for Option D.

The DNR has provided input that a more natural open-bottom channel is preferable to a concrete bottom associated with a box culvert. However, the Agency must consider if the type of construction exceeds more than a minimum encroachment, change, or damage to the environment, particularly the ecology of the waters (MN Rule 6115.0230 Subp. 5) compared to the 50' span bridge (Option B) which has abutments built above the waterline.




As mentioned previously, the project scope does not include dredging a channel on each side of the bridge for improved boat passage. This would require additional DNR approval and ongoing maintenance dredging. Preliminary input from the DNR is this is not favored by the Agency. Roadway approaches to the bridge will be upgraded to a 24 foot width (11' lanes and 1' shoulders) per MnDOT's current design standards and tapered back to the current road widths at the touchdown points approximately 200 feet each side of the bridge.

**ESTIMATED PROJECT COSTS**

**OPTION D**
24' Single-Span Precast Concrete Arch (3-sided box); 20' roadway, timber rails

| | | |
|---|---|---|
| Geotechnical | | $5,000 |
| Design | | $50,000 |
| Construction | Structure | $320,000 |
| | Approaches | 110,000 |
| | Road Bypass | 85,000 |
| Construction Total | | $515,000 |
| Construction Observation | | $60,000 |
| Testing | | $7,500 |
| Right-of-Way | | $10,000 |
| **Project Estimated Total** | | **$647,500** |

The costs for geotechnical, engineering design, construction observation, testing, and right-of-way are estimated to be the same as for the beam bridge (Option B).

The most recent MnDOT arch-span bridge bid recorded is in 2014. The bridge was 20 feet in length, and the total project bid was $861,722; the associated Bridge Cost Report is attached to this supplement. The project consisted of a new pedestrian bridge (Bridge 19570) over a roadway, and was not constructed in a lake bed. The associated foundation conditions did not require cofferdams or the same construction methods that will need to be employed for the Crosslake bridge. The cost of construction in the Crosslake estimate reflects the differences in construction methods and techniques that will be required due to the setting and locale of the Dream Island Bridge.

The Morrison County arch span bridge was completed at a project cost of $1,040,000. $90,000 in liquidated damages were applied to the Contract because of significant delays associated with the concrete precast section delivery and installation, and in the field-casting of the headwalls which resulted in the completion date in the Contract not being met.

There are currently three listed suppliers of precast arches on MnDOT's approved products list. Product information from these suppliers is attached.

Cost considerations the City should be aware of include: arch-span bridges are not commonly selected due to the extensive foundation requirements, constructability issues are encountered when below the water table or in a waterway, some suppliers have limited span lengths that are commonly available (or standard), increased spans may require custom-built precast sections, and the number of contractors that are experienced in the techniques of constructing arch-spans in Minnesota is limited. These factors all result in this option routinely being more expensive than other options that are more commonly used in the State. Also, due to the open bottom, there is inherently more risk of foundation stability and with future dredging efforts.

**PROPOSED METHOD OF ASSESSMENT**

The State Bridge Office has provided input to the amount of funds that will be considered for feasible bridge options (MnDOT Letter Dated December 2, 2015; attached). This indicates the least cost option that is permittable by the DNR would be considered for funding; this is Option 'B', the 50' beam bridge at an estimated cost of $567,500. If the City were to select Option 'D', the estimated portion of the cost that would become additional local share would be the difference in the construction cost ($515,000 - $435,000), or approximately $80,000. This additional cost, plus the original estimated local share for Option 'B', results in a total estimated local share cost obligation of

$160,000. Implementing the City's policy of assessing 50%, and using the estimated number of 37 equivalent lots to be assessed, results in a total estimated assessment per equivalent lot of $2,160.

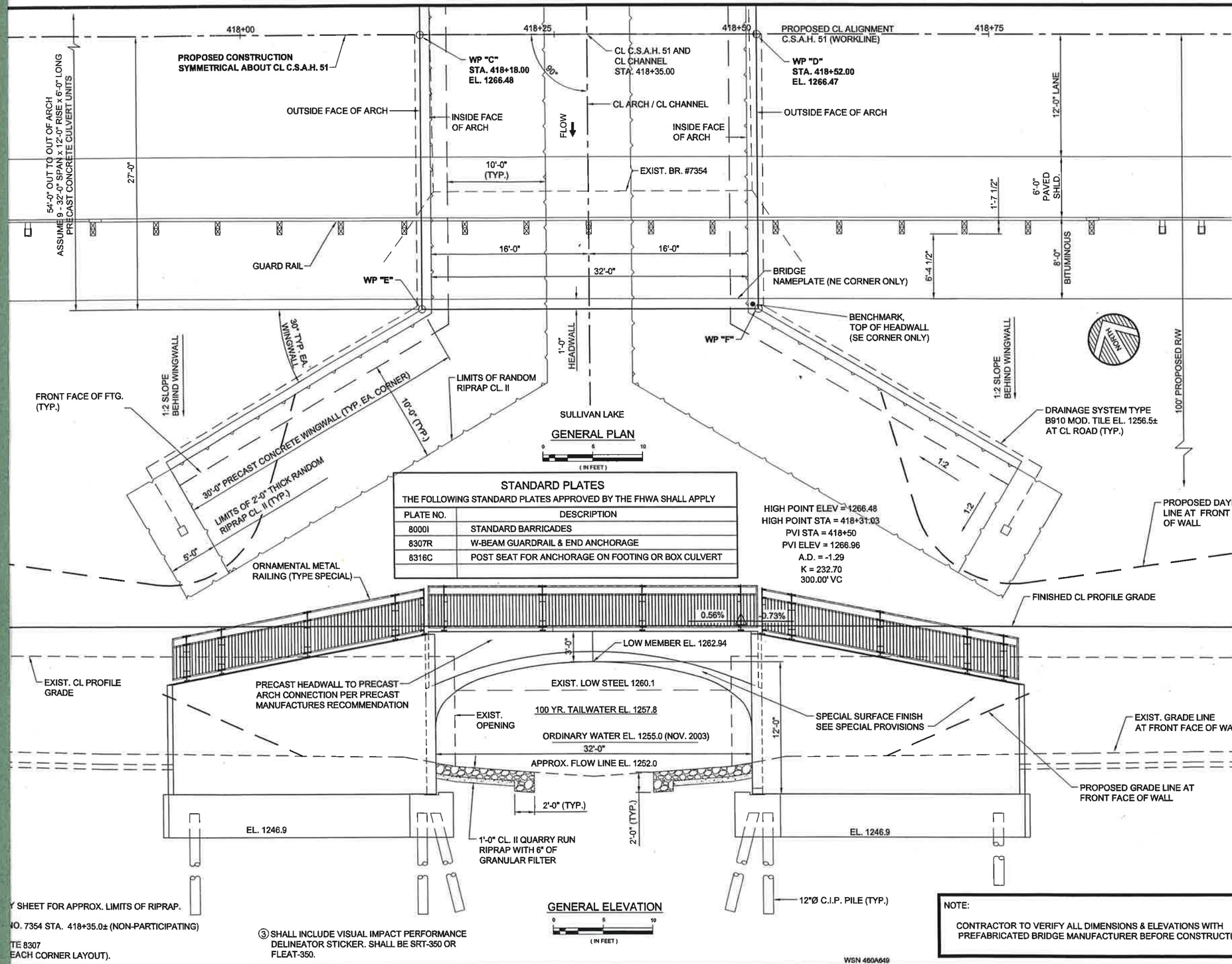
## CONCLUSIONS

Option 'D' can be feasibly constructed and fulfills the scope and intent of the project; however, there are inherently more risks due to the design of the footing system, more environmental impacts due to the construction methods that must be employed, more capital cost of construction, and more direct cost to the land owners that would be assessed. The DNR may look more favorably on an open-bottom culvert than a box-culvert, but may not permit this option based on exceeding more than a minimum encroachment, change, or damage to the environment, particularly the ecology of the waters.

## RECOMMENDATIONS

We recommend the City proceed with Option B, the 50-foot concrete beam bridge as this remains to be the best solution based on feasibility of construction, risk associated with footing design and construction, experience of contractors with this type of construction, viability of permitting, capital cost of the improvements, least environmental impact, and least local cost impact.

WIDSETH SMITH NOLTING
CLIENT MORRISON CO. BRIDGE # 49344 PROJECT # 046040649
S.P.# 049-651-011 SAP#
• 610 Filmore Street • P.O. Box 1028 • Alexandria, MN 56308 • Phone: 320-762-8149 • Fax: 320-762-0263 • E-Mail • wsn-mn@rea-alp.com




GENERAL PLAN

0 5 10 (IN FEET)

GENERAL ELEVATION

0 5 10 (IN FEET)

## STANDARD PLATES

THE FOLLOWING STANDARD PLATES APPROVED BY THE FHWA SHALL APPLY

| PLATE NO. | DESCRIPTION |
|---|---|
| 8000I | STANDARD BARRICADES |
| 8307R | W-BEAM GUARDRAIL & END ANCHORAGE |
| 8316C | POST SEAT FOR ANCHORAGE ON FOOTING OR BOX CULVERT |
| | |

Y SHEET FOR APPROX. LIMITS OF RIPRAP.

NO. 7354 STA. 418+35.0± (NON-PARTICIPATING)

TE 8307
EACH CORNER LAYOUT).

③ SHALL INCLUDE VISUAL IMPACT PERFORMANCE DELINEATOR STICKER. SHALL BE SRT-350 OR FLEAT-350.

NOTE:

CONTRACTOR TO VERIFY ALL DIMENSIONS & ELEVATIONS WITH PREFABRICATED BRIDGE MANUFACTURER BEFORE CONSTRUCTION.

WSN 460A649

## SCHEDULE OF QUANTITIES FOR ENTIRE BRIDGE

| 2021.501 | 2401.501 | 2401.541 | 2401.601 | 2401.601 | 2401.601 | 2401.618 | 2402.583 | 2402.590 | 2412.601 | 2412.602 | 2442.501 | 2451.505 | 2452.507 | 2452.508 | 2452.519 | 2501.603 | 2502.603 | 2511.503 | 2554.501 | 2554.523 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOBILIZATION | STRUCTURAL CONCRETE (1A43) | REINFORCEMENT BARS | STRUCTURE EXCAVATION | SLOPE PREPARATION | FOUNDATION PREPARATION | SPECIAL SURFACE FINISH (INPLACE) | ORNAMENTAL METAL RAILING (TYPE SPECIAL) | ELASTOMERIC BEARING PAD TYPE 1 | PRECAST CONCRETE WINGWALLS | PRECAST CONCRETE HEADWALL | REMOVE OLD BRIDGE ① | AGGREGATE BACKFILL (LV) | C.I.P. CONC. PILING DELIVERED 12" | C.I.P. CONC. PILING DRIVEN 12" | C.I.P. CONC. TEST PILES 70 FT. LONG 12" | PRECAST REINF CONC ARCH 32' x 12' | DRAINAGE SYSTEM TYPE (B910) | QUARRY RUN RIPRAP CLASS II | TRAFFIC BARRIER DESIGN B8307 ② | END TREATMENT SLOTTED RAIL TERMINAL ③ |
| LUMP SUM | CU. YD. | POUNDS | LUMP SUM | LUMP SUM | LUMP SUM | SQ. FT. | LIN. FT. | EACH | LUMP SUM | EACH | LUMP SUM | CU. YD. | LIN. FT. | LIN. FT. | EACH | LIN. FT. | LUMP SUM | CU. YD. | LIN. FT. | EACH |
| 1 | 181 (P) | 17,250 (P) | 1 | 1 | 1 | 1500 | 192 | 36 | 1 | 2 | 1 | 2050 | 3480 | 3480 | 2 | 54 | 1 | 140 | 200 | 4 |

| 2554.602 |
|---|
| GUARDRAIL POST SEATS |
| EACH |
| 10 |

## DESIGN DATA

2004 AND CURRENT INTERIM A.A.S.H.T.O. LRFD BRIDGE DESIGN SPECIFICATIONS LOAD AND RESISTANCE FACTOR DESIGN METHOD.
HL 93 LIVE LOAD

DEAD LOAD INCLUDES:
20 PSF ALLOWABLE FOR FUTURE WEARING COURSE MODIFICATIONS

MATERIAL DESIGN PROPERTIES:

PRECAST CONCRETE: f'c = 5000 p.s.i.

REINFORCED CONCRETE:
f'c = 4000 p.s.i. n = 8 fy = 60,000 p.s.i. Reinf.
STRUCTURAL STEEL:
fy = 36,000 p.s.i. Spec. 3306

UNIT WEIGHT OF FILL = 130 p.c.f.
APPROX. FILL HEIGHT AT CL = 2'-6"

DESIGN SPEED 50 MILES PER HOUR

CURRENT ADT 300 (2007)
PROJECTED ADT 420 (2027)
BRIDGE OPERATING RATING HS NA

## CONSTRUCTION NOTES

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

THE FIRST TWO DIGITS OF EACH BAR MARK INDICATE THE BAR SIZE. BARS MARKED WITH THE SUFFIX "E" SHALL BE EPOXY COATED IN ACCORDANCE WITH SPEC. 3301.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

B.M. ELEV. 1262.69 (M.S.L. 1929 Adj)
CHISELED "X" IN SW ABUTMENT STA. 418+20 RT. 19'

COUNTY APPROVAL

DATE COUNTY ENGINEER, MORRISON CO.

WIDSETH SMITH NOLTING
ENGINEERS
ARCHITECTS
LAND SURVEYORS
PROJECT MANAGERS
ALEXANDRIA, MN.
PHONE 320-762-8149
FAX 320-762-0263
www.wsn-mn.com

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

PROFESSIONAL ENGINEER / KENT A. ROHR

DATE 1/4/2007 LICENSE NO. 21179

C.S.A.H. 51 MORRISON COUNTY

MINNESOTA DEPARTMENT OF TRANS.

## Bridge No. 49J44

C.S.A.H. 51 OVER THE PLATTE RIVER 1.1 MILES NW OF THE JCT. WITH CO. RD. 272.

54' PRECAST CONCRETE ARCH CULVERT.

SPAN IDENT. NO. 115

GENERAL PLAN AND ELEVATION

SEC. 6 T 42 N R 28 W

TOWNSHIP RICHARDSON COUNTY MORRISON

APPROVED

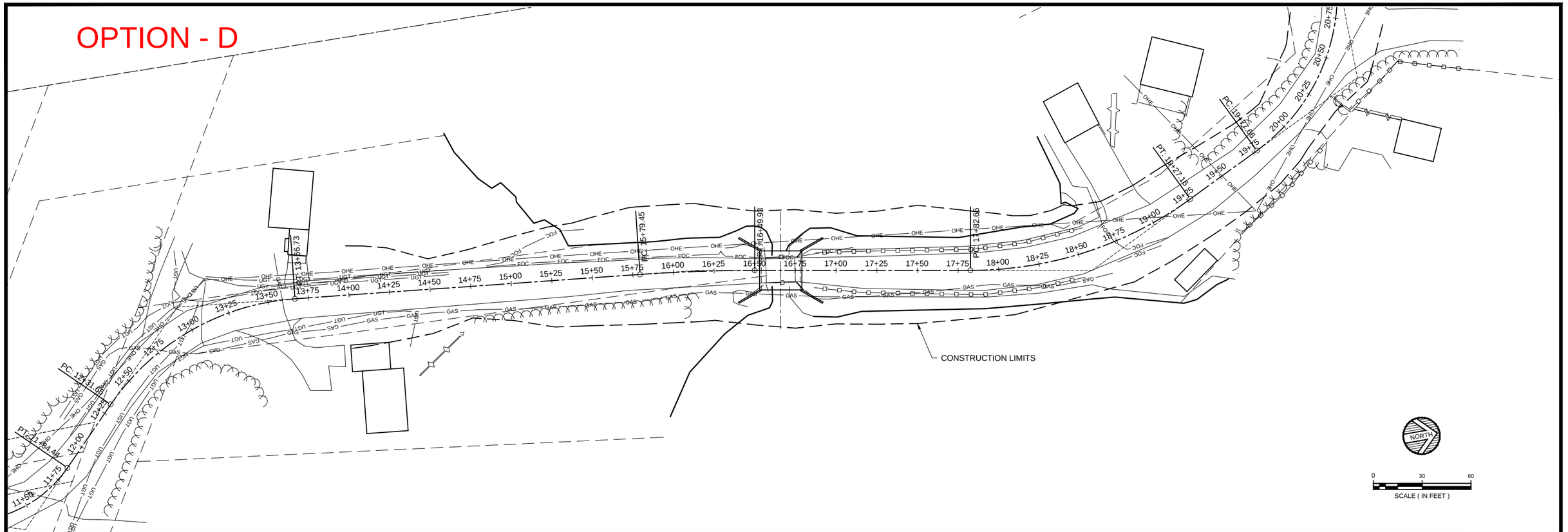
STATE BRIDGE ENGINEER DATE

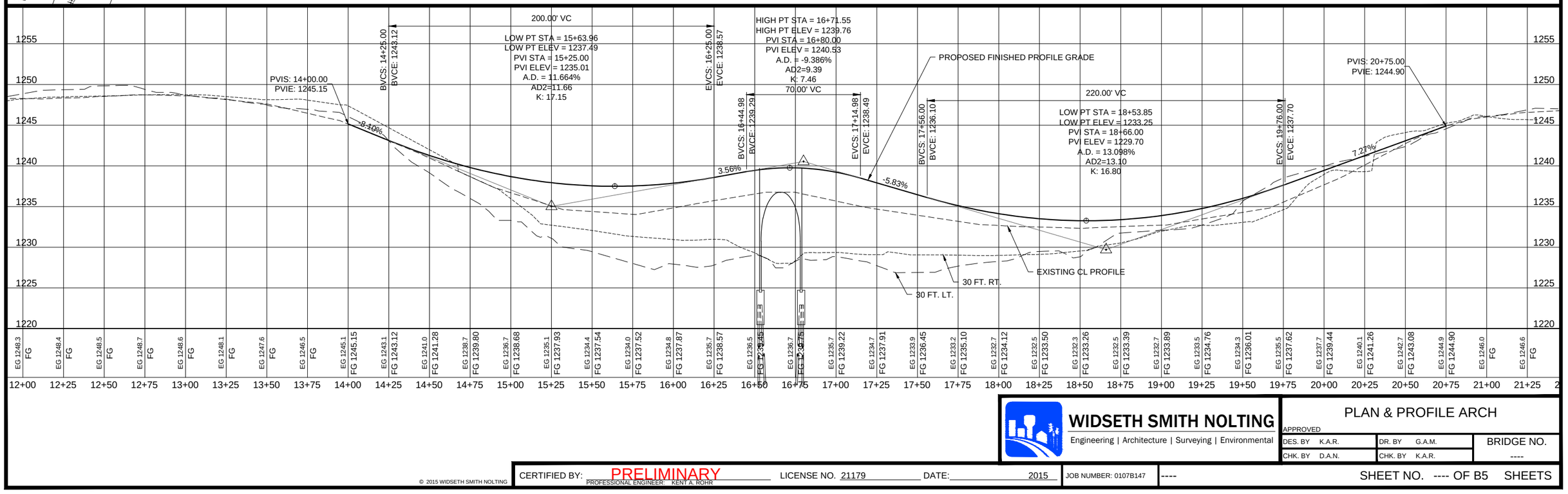
STATE AID PROJ NO. 49-651-11

| DES. BY | J.R.R. | DR. BY | J.A.K. |
|---|---|---|---|
| CHK. BY | K.A.R. | CHK. BY | T.J.M. |

SHEET NO. B1 OF B16 SHEETS

# OPTION - D






CERTIFIED BY: PRELIMINARY LICENSE NO. 21179 DATE: 2015
PROFESSIONAL ENGINEER: KENT A. ROHR

JOB NUMBER: 0107B147 ----

WIDSETH SMITH NOLTING
Engineering | Architecture | Surveying | Environmental

PLAN & PROFILE ARCH

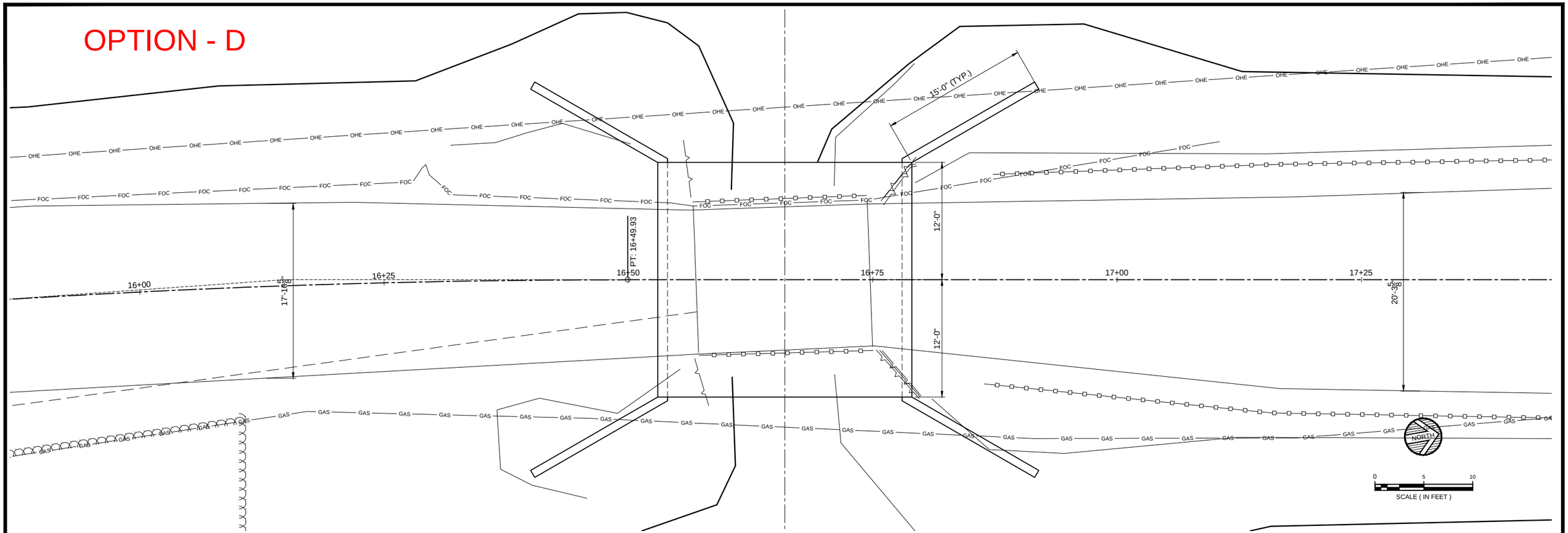
APPROVED

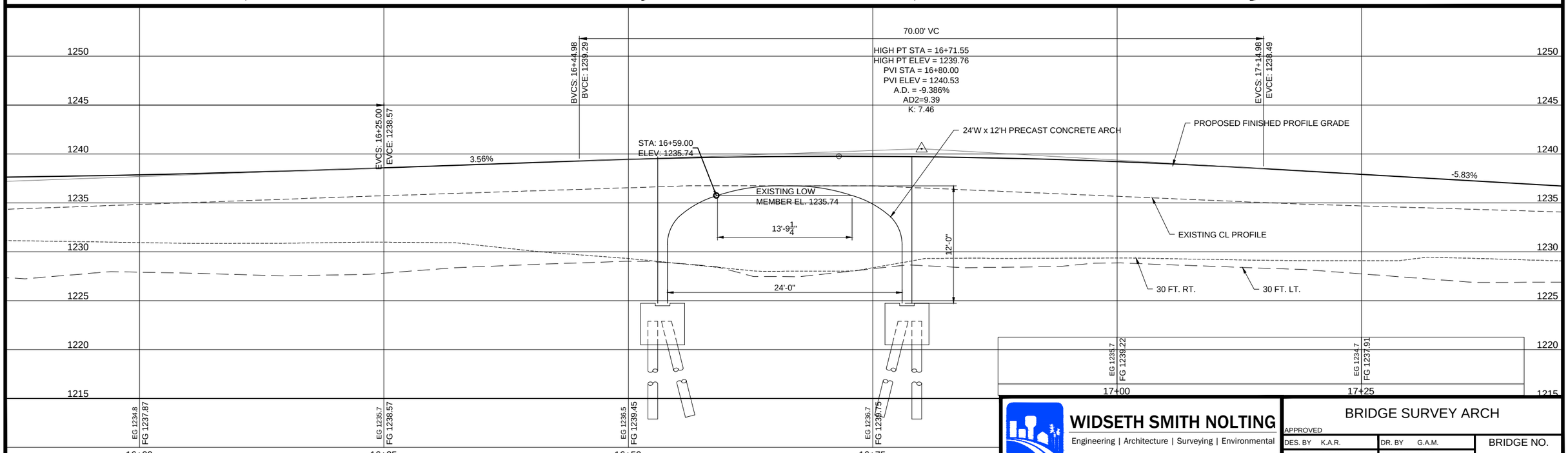
| DES. BY K.A.R. | DR. BY G.A.M. | BRIDGE NO. |
|---|---|---|
| CHK. BY D.A.N. | CHK. BY K.A.R. | ---- |

SHEET NO. ---- OF B5 SHEETS

J:\0107B-City of Crosslake\0107B0147-Dream Island Bridge Replacement\CADD\Civil\C-BR-147B-SURVEY ARCH.dwg, 12/22/2015 8:05:31 AM, jacob.ekola

# OPTION - D






CERTIFIED BY: PRELIMINARY LICENSE NO. 21179 DATE: 2015

PROFESSIONAL ENGINEER: KENT A. ROHR

JOB NUMBER: 0107B147 ----

SHEET NO. ---- OF B5 SHEETS

**WIDSETH SMITH NOLTING**

Engineering | Architecture | Surveying | Environmental

BRIDGE SURVEY ARCH

APPROVED

| | | | |
|---|---|---|---|
| DES. BY K.A.R. | DR. BY G.A.M. | BRIDGE NO. |
| CHK. BY D.A.N. | CHK. BY K.A.R. | ---- |

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# MnDOT State Aid Bridge Office
# 2014 Calendar Year - - Bridge Cost Report

## Separated per Structure Type

BEAM TYPE= ***CONCRETE ARCH***

| New Bridge Number | Project Type | Project Number | Length | Beam Type Code | Letting Date | Area | Cost | Unit Cost |
|---|---|---|---|---|---|---|---|---|
| 19J62 | SP | 019-090-015 | 20.00 | C-ARCH | 7/1/2014 | 1920 | $861,722 | $448.81 |
| | | | | | | | | |

| | |
|---|---|
| ***Total Cost*** | **$861,722** |
| ***Total Deck Area*** | **1,920** |
| ***Average Cost per Sq Ft*** | **$448.81** |
| ***Total Number of Bridges*** | **1** |

Minnesota Department of Transportation

# Approved/Qualified Products

## Three-sided precast concrete bridge structure

| Three-sided Precast Concrete Bridge Structure Approved Products | | | |
|---|---|---|---|
| **Manufacturer** | **Description** | **Approval Date** | **Restrictions** |
| Conspan Bridge Systems (http://www.con-span.com/CON-SPAN/nof_main.html) | Arched top | 8/2003 | The gravity anchored wingwall will be evaluated based in scour conditions on a project by project basis. |
| Cretex Arch Bridge (http://www.kccp.com/Catalog/kccp/KCCPcretexarch.htm) | Arched top | 6/2004 | The gravity anchored wingwall will be evaluated based in scour conditions on a project by project basis. |
| Pretek Group LLC (http://www.pretekgroup.com/) | Arched top | 7/2013 | The gravity anchored wingwall will be evaluated based in scour conditions on a project by project basis. |
| Hanson Pipe & Products, Inc. (http://www.hansonpipeandprecast.com/) | Flat top | 1/2006 | Approved for CIP wingwall. |
| Hy-span Systems, Inc. (http://www.hyspanbridge.com/index.html) | Flat top | 1/2004 | |
| Oldcastle Precast, Inc. (http://www.oldcastleprecast.com/Pages/default.aspx) | Flat top | 8/2003 | |

## Guidance

- Tech Memo (/products/bridge/pdf/techmemo519b04-2010.pdf) (PDF)

## Contact

Khalid Obeidat
Bridge Office
khalid.obeidat@state.mn.us (mailto:khalid.obeidat@state.mn.us)
651-366-4485

**Minnesota Department of Transportation**
**District 3**
7694 Industrial Park Road
Baxter, MN 56425

Office Phone: 218-828-5700
Fax: 218-828-5814
Toll Free: 1-800-657-3971

December 2, 2015



Dave Reese
Crosslake City Engineer
WSN
7804 Industrial Park Road
Baxter, MN 56425

RE: City of Crosslake – Dream Island Bridge (L6376)

Dear Mr. Reese:

I have reviewed the October 2015 feasibility report sent to me and would offer the following response to the use of bridge bond funding at this location. Factoring in the permitting requirements that may be necessary, both Option A and Option B would be eligible for bridge bond funding. Also, I would approve any alternate design that meets state aid standards, and costs the same or less than Option B.

Bridge bond funds are in limited supply, and any structure above and beyond the basic requirements, would need alternate funding sources to supplement any costs of what Option B, single lane bridge, would be estimated. If Option C were selected, bond funds would be prorated in this manner.

You had asked what the local cost will be for the city of Crosslake. It is difficult to give you an exact number without detailed plan sheets. In general, if Option A or B are chosen, the City will be required to pay a maximum of $10,000 for engineering and a maximum of $10,000 for construction costs, for a total of $20,000. Exceptions that could cost the City additional dollars might include any engineering costs that exceed 25% of the total project construction cost and aesthetic treatments, such as bridge rail or stone work, extending the project beyond local termini. Specific cost details are attached to your report.

Once you are ready to begin design, I would recommend sending a bridge application for bond funds to our office for approval.

Thanks for the opportunity for an early review. Please feel free to contact me if you have further questions.

Sincerely,

Kelvin Howieson
ADE, Traffic & State Aid

cc: Tim Bray
Patti Loken

5. e.

RESOLUTION NO. 16_____

CITY OF CROSSLAKE
COUNTY OF CROW WING
STATE OF MINNESOTA

RESOLUTION RECEIVING FEASIBILITY REPORT AND
CALLING HEARING ON IMPROVEMENT

WHEREAS, pursuant to resolution of the Council adopted December 14, 2015, a report has been prepared by Widseth Smith Nolting, the City's Engineer, with reference to the replacement of the Dream Island Bridge, including portions of Dream Island Road comprising the bridge approaches, and this report was received by the Council on December 14, 2015, and

WHEREAS, the report provides information regarding whether the proposed improvement is necessary, cost-effective, and feasible; whether it should best be made as proposed or in connection with some other improvement; the estimated cost of the improvement as recommended; and a description of the methodology used to calculate individual assessments for affected parcels.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF CROSSLAKE, MINNESOTA:

1. The Council will consider the improvement of such bridge and street in accordance with the report and the assessment of benefited property for all or a portion of the cost of the improvement pursuant to Minnesota Statutes, Chapter 429 at an estimated cost of the improvement of $567,500.

2. A public hearing shall be held on such proposed improvement on the 20th day of January, 2016, in the Council chambers of City Hall at 6:00 P.M. and the clerk shall give mailed and published notice of such hearing and improvement as required by law.

Adopted by the Crosslake City Council this 4th day of January, 2016.

Steve Roe
Mayor

Charlene Nelson
City Clerk

Public Works Meeting Notes
December 7, 2015

Members Present: Gary Olson, Darrell Shannon, Tim Berg, Dale Melberg, John Pribyl
Others Present: Dave Schrupp, Ted Strand, Doug Vierzba, Dave Reese (WSN)
Visitors: 9 Residents from the Dream Island/Moen Beach Road vicinity, Steve Roe

1. **Call to order** - Meeting was called to order at 4:05 pm.
2. **Approval of November 2nd Meeting Minutes**. Motion to approve by Shannon, Second by Melberg, all in favor.
3. **Dream Island Bridge Project Discussion.** WSN completed the final Feasibility Report for Dream Island and Dave Reese reviewed the report in detail. The October 29th, 2014 County conducted bridge inspection report for this bridge has now been included in the study. This report lists bridge elements that have failed over time, are beginning to fail or are out of plumb/alignment today. Dave commented that the abutments are leaning toward the lake, some of the pilings are now hollow and there is ongoing piling damage caused by local beavers, all of which are listed in the report. The report indicated the bridge "Sufficiency" rating is 46.3 out of 100 and Dave commented that when Sufficiency rates are less than 50, replacement of the structure is in order. He indicated the substructure of the bridge dates back to the 1960s and the decking and railings were replaced 28 years ago. Given the substructure is failing, Dave indicated WSN is recommending replacement of the bridge to current standards and that the city seek state bridge bond funding to assist with the replacement costs.

   Three options were included in the study:

   - Option A-Box Culvert
   - Option B-Single Span Bridge, roughly 50' between abutments
   - Option C- A longer Concrete Span bridge of length suitable for the site

   He indicated one of the goals was to provide a channel that is at least as large as the current channel width. A drawing showing right of way information has been included in the report. Dave noted that property lot lines prior to construction of the current bridge extended to the shoreline. When fill was added in the lake during construction of the current bridge the property lines moved to the expanded shoreline. Dave indicated the city will have to certify the ROW is available, adequate for the project and suitable for long-term maintenance. Temporary easements will be needed for construction purposes; example would be the temporary road on the east side of the bridge. Some driveway elevations may have to be changed during the construction to allow for proper drainage.

   Dave indicated Option A, Box Culvert, would be the option most resembling the existing bridge and was the first approach the city considered. Knowing that a DNR permit is required for construction of a new bridge, WSN contacted the DNR regarding the design to determine the feasibility of the approach early in the process rather than making a formal lengthy submittal of the box culvert approach. The DNR did respond to this design and in mid-2015 indicated that it would not be permitted.

As a result of the DNR response, WSN was instructed to look at two other options as previously mentioned, B and C. Existing Channel width is approximately 12 feet and option B (Single Span Bridge) would provide a water channel width in the 20-25 feet range. Excavation of causeway fill material would only be conducted under the planned footprint and utilized for approaches on both ends, bolstering would be required. It was noted the multi span bridge option would remove more material from the area; present challenges with respect to road elevations and would impact adjoining properties the most.

Dave indicated a question was raised during the study with respect to what the State Bridge Bond Fund would allow for Crosslake. Feedback from the State Bridge Bond personnel indicated normal funding would be provided for Option B but if the city opted to pursue the longer Option C, the city would have to cover the cost difference of the two. Cost B=$567,500, Cost C=$897,500; difference of $330,000 would become additional local share.

Dave indicated that to complete the project the city needs to move ahead to submit plans for a replacement to the state which would allow the city to get in line for funding, should funding be provided by the legislature during the next session.

Dave reviewed all three options in the report. He reiterated the goal was to maintain about 6.5' to 7' of clearance beneath all options and that 3 to 5 feet of existing fill would be removed from the bottom of the lake in the construction area. The resulting water depth beneath the bridge would be in the vicinity of 3-4'. It was noted that rip-rap material would filled in under the bridge, from abutment to abutment to stabilize the area beneath the bridge to prevent erosion and may decrease the navigable water level beneath the bridge. Mr. Hoppe (DI resident) questioned the benefit of building a bridge that does not increase navigability or water flow or limit weed growth as requested by some of the residents, and asked if there was no other shorter bridge that would do. Dave indicated the purpose of the excavation beneath the bridge was to remove fill material to the original lake bottom to allow for proper construction. Dave stated that the WSN recommendation, based on what is permitable by the state agency (DNR) and what is fundable and affordable for the city, is Option B. He indicated this option would provide a channel width that would be approximately 5 feet wider than the existing channel width.

Mr. Hoppe indicated he was one of 21 people in favor of a bridge shorter than 50 feet. He did not want to come down the road and see 50 feet of 2 lane concrete. He preferred a 20 feet long bridge. Darrell Shannon indicated a 20' bridge would not satisfy the state requirements as the channel would have been made narrower than it is today. Mr. Hoppe stated a company exists that makes 3 sided precast bridge components, (SHAW) that could be used to make a 20 foot wide bridge instead of a 50' bridge. This is an inverted precast "U" design structure that sits on footings that would provide at least the same channel width as currently exists; 18 feet between abutments and a 12 foot channel. Dave agreed there are many options for bridge construction and the only difference in what is being proposed and the request by Mr. Hoppe would be the vertical walls. Many of the construction steps will remain in both cases. He indicated the trapezoidal design, which is being proposed, is generally considered more economical in the long run but the requested design may be an option that could be reviewed.

Dave reviewed recent bridge funding changes that have reduced the costs for bridge work to cities with populations less than 5,000. He discussed the required need to discuss assessments as part of the study. The study indicated the local share of a replacement bridge cost (Option B) would be estimated to be $80,000, with 50% being assessed to each of the 37 island lots of record. Each would be assessed $1,081 for Option B. If option C were approved the assessment per lot would increase to $5,067.

Mr. Hoppe asked if the Moen Beach residents were going to chip in their fair share as previously discussed or was that just noise we heard from the Moen Beach residents. Dave indicated the City Council would determine who is assessed for the replacement bridge. Another resident asked about legacy funds and Dave indicated the report does cover their recommendation regarding other funding. He indicated managing funding from two sources is a challenge given the timing of each could be different. He indicated it cost money to obtain funds and in his past experience, the cost benefit is not worth the effort.

At the completion of the study presentation Darrell Shannon made a motion to accept and forward WSN's Feasibility Study Report, which included the recommendation to pursue option B, with the additional request that WSN provide a rough or budgetary estimate of cost for a 4th option as described by Mr. Hoppe. The motion was seconded by Dale Melberg and all voted in favor of moving the study to the city council to be discussed at the January 4th joint meeting.

The commission agreed to include the following project timeline as part of today's meeting minutes which summarizes in brief form the actions taken on the project to date.

***2015 Dream Island Bridge Project Timeline***

January

- Commission agreed with Ted's suggestion that replacement was high priority given condition
- Commission recommendation to spend $20,000 to complete preliminary design
- Preliminary design would allow for resident input
- Being proactive on a replacement was deemed necessary

May

- Discussed prior authorization by council of $35K to WSN to begin work on replacement
- Project Timeline created by WSN
- Resident requested Environmental Assessment Worksheet. EAW not initiated as it is not required by state law, the project would incur added cost and delay
- Advised the DNR will be involved in the review with other entities
- Advised state funds, if available, will pay for a portion of the costs
- Commission recommended to hold open house for July to discuss costs with impacted residents

June

- No quorum at the PW meeting. Suggestion made to hold the information meeting with residents on July 17th.
- WSN has enough funding to work through submission to state for funding
- WSN waiting on response from DNR regarding current direction

July

- Informal Open House set for July 17th
- No response from DNR regarding the project
- Resident questions received in the last month regarding the bridge

July 17th Open House Comments:

- Many Island residents attended the meeting as well as off-island residents
- Regular communication of project status requested
- Discussed initial frugal culvert type design at a cost of roughly $325K
- Some wanted longer bridge, some wanted shorter bridge
- Some concerns about water flow, clearance, water depth
- Discussed DNR position that a box culvert design would not be allowed to replace the existing bridge, per Heidi Lindgren 7-16 email.

August

- Discussed open house comments
- Agreed to have WSN send out status updates to residents via email and city website
- WSN engineers indicated bridge timber deterioration will continue in next year

September

- Heidi Lindgren(DNR), Dave Reese and Peter Sarberg toured the bridge site prior to the meeting
- Q & A session with residents
- Heard comments from DNR at meeting
- Recommendation made for WSN to explore a span bridge, given DNR position
- WSN to review minimum span type design, 40-50' and max that would comply with Minnesota design standards

October

- Reviewed WSN's Draft Feasibility Study for the project
- Three options presented:
    - A-Box Culvert Design-$395K
    - B-50' Span (Max for single span)-$572K
    - C-133' Span (Max for given location)-$897K
- WSN advised state funding changes for cities with populations less than 5,000 would limit the city's cost to $10K for Engineering and $10K for construction. Some additional costs would have to be planned for beyond the $20K stated
- Next steps were to meet with county and state bridge managers to discuss options

November

- Discussed meeting with state and county bridge managers. Preliminary, unofficial consensus was option B, given DNR position regarding box culvert design
- State to send letter to the City regarding funding allocation
- Several emails received from residents regarding flow, navigation, water depth, clearance
- Comments made by several residents
- Motion made and approved to hold a Joint Meeting with the City Council at the January meeting to discuss the Bridge options

*END OF TIMELINE*

The following letter from Dream Island residents (unsigned) was presented to Gary Olson and Dave Schrupp at this meeting and outlines Dream Island resident's bridge preferences.

To: Dave Schrupp & Gary Olson
From: Rich Hoppe

## DREAM ISLAND BRIDGE PREFERENCE OF PROPERTY OWNERS

**The following Dream Island Property Owners prefer that the current Dream Island Bridge be repaired if possible, or be replaced with an unobtrusive bridge that does not detract from the natural appearance of Dream Island. They are opposed to replacing the Dream Island Bridge with one that is significantly longer than the current bridge (about 20 feet long).**

| | |
|---|---|
| Total Dream Island Property Owners | 34 |
| Owners in favor of bridge repair or replace with same size | 21 |
| Percent opposed to longer bridge | 61.8% |

| Dream Island Road | |
|---|---|
| LUTGEN, DAVID F & MICHELLE M | 37789 DREAM ISLAND RD |
| SWANSON, DARRELL E & SUSAN | 37804 DREAM ISLAND RD |
| LIDDLE, ROBERT A & CARA M | 37844 DREAM ISLAND RD |
| ENGER, DANIEL & LORI L | 37854 DREAM ISLAND RD |
| BERREAU, ROSEMARY E (1/2 INT) | 37872 DREAM ISLAND RD |
| VIEBAHN, DORIS V | 37898 DREAM ISLAND RD |
| ERICKSON, LEANNA L | 37901 DREAM ISLAND RD |
| HANSON, LARRY T | 37922 DREAM ISLAND RD |
| HOPPE, RICHARD P & KATHY R | 37931 DREAM ISLAND RD |
| DAGNON, PAUL A & BARBARA J | 37938 DREAM ISLAND RD |
| OTTERSON, DANIEL T & JILL M HELEY-OTTERSON | 37948 DREAM ISLAND RD |
| BERREAU, NICHOLAS F & MISHA A | 37966 DREAM ISLAND RD |
| BOEN, NICHOLAS & DIANE L | 37967 DREAM ISLAND RD |
| ZILGE, MARTHALEE | 37988 DREAM ISLAND RD |
| FRISCH, KENNETH D & SUSAN E & MATT | 37991 DREAM ISLAND RD |
| ROLFER, NYLE J & DARLENE L | 37996 DREAM ISLAND RD |
| BRUSSEAU, SHANNON J & LISA M | 38022 DREAM ISLAND RD |
| FISCHER, JUDITH C TRTEE | 38046 DREAM ISLAND RD |
| BEHRMAN, LEIGH & JANE | 38047 DREAM ISLAND RD |

| Dream Island Circle | |
|---|---|
| VAN BEUSEKOM, PAMELA S | 15420 DREAM ISLAND CIR |
| ANDERSON, DANIEL A & CATHERINE M | 15446 DREAM ISLAND CIR |

4. **Melinda Shores Bridge Update**. Dave Reese indicated we have received one quote from three contractors. Pratt has provided a bid for $47,660. The original estimate was $37,000 for the project. Permitting has been done and the DNR has approved contingent on the city paying the $600 permit fee. He indicated we need to expedite paying the $600 DNR permit fee. Pratt indicated they can do this project in 3-4 days, very labor intensive. Gary Olson moved to have Ted immediately authorize payment of the $600 DNR permit fee and to approve the quote by Pratt to make repairs to the Melinda Shores Bridge. Second by John Pribyl, all in favor.

5. **Road Projects-2016**

    a. **Draft Road Assessment Policy for resurfacing existing paved city streets-**No discussion

    b. **Review 2016 Road Projects-**Commission conducted a tour of the parking lot by Andy's and Manhattan Point Blvd. from 3-4pm. The parking lot is in need of repaving. It should be noted the Corps of Engineers owns the property and the City has a 99 year lease and is required to maintain the site. Commercial owners in the area own roughly 25 feet of pavement outward from their businesses and will be required to share in the cost of the repaving project. To move the paving project along, a motion was made by Gary Olson to have the council authorize $2,500 to have WSN complete a parking lot survey while the weather supports the effort. Second by Dale Melberg, all in favor. Dave Reese stated WSN would present further cost information at the January meeting.

    Regarding road projects in general, John Pribyl stated we need to strongly consider the need for new trails when we complete road projects within the city; that trails are great amenities to have in the city. Manhattan Point Blvd is one of the pending road projects where we have a partial trail, completed in 2010, that at some point should be completed if Manhattan Point Blvd. reconstruction takes place.

    Gary Olson commented that Manhattan Point Blvd reconstruction, if done right, would require some leveling of the road and improvements in drainage, which will increase the project costs. Ted indicated the 2016 budget approval will be on 12-14 and 2016 road project funding will be known after the meeting.

    Dave Schrupp questioned the criteria used to determine which roads will be upgraded each year. It was noted that some residents do not want Manhattan Point Blvd. cleared for a new wider version of the road and do not see the need to widen the road or to tear it all up to resolve a few soft spots. The road was built in the 1970s and has benefited from the existing soil type that allows for adequate drainage in most areas.

    Gary Olson and others on the commission indicated we need to continue to appropriate annual funding for road upgrades/maintenance as they are in need of maintenance work. No decisions were made regarding the 2016 road projects. Discussion will carry into 2016 meetings.

6. **Waste Water System-WSN proposal update.** Dave Reese indicated WSN was working on the project at the present time, nothing to submit at this meeting.

7. **Public Works Operations Update.** No discussion this meeting

8. **Other Business.**

a. **Golden Rule Sewer Connection Request.** Ted indicated that one owner now owns two lots with two sewer connections. As the owner will only utilize one connection, the owner has requested to be billed for only one

sewer connection. Shannon motion to reduce the sewer fee by 1 monthly fee with the caveat that the fee will be billed again should a new connection be made to the unused connection. Second by Gary Olson, all in favor.

9. **Adjourn** Motion by Shannon to adjourn the meeting at 6:05, second by Melberg, all in favor.

## Supporting Documentation to be attached to these notes:

-Final Feasibility Study on Dream Island from WSN dated December 2015