

FEASIBILITY REPORT
FOR
PROPOSED ROAD IMPROVEMENT PROJECT
OF
ROLLING OAKS COURT
CREDIT RIVER TOWNSHIP, MINNESOTA
OCTOBER 2014

Prepared by:



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I hereby certify that this Plan, Specification, or Report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under State of Minnesota Statutes 326.02 to 326.16.

A handwritten signature in blue ink, appearing to read 'Shane Nelson', is written over a horizontal line.

Shane Nelson, PE

43381
License No.

October 3, 2014
Date

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EXHIBITS

- EXHIBIT A. Rolling Oaks Court - Benefiting Properties
- EXHIBIT B. Local Residential Rural Street Section
- EXHIBIT C. Rolling Oaks Court Improvement Project - Preliminary Cost Estimate

I. INTRODUCTION

The purpose of this feasibility report is to present the Township of Credit River with a preliminary examination of road improvements for Rolling Oaks Court. The report discusses the scope of the improvements to Rolling Oaks Court. The report was initiated by the Credit River Town Board after a board meeting, and has been prepared in compliance with Minnesota State Statutes 429 for projects resulting in special assessments.

II. PROJECT LOCATION

Rolling Oaks Court is located in Section 27, Township 114 North, Range 21 West, Credit River Township, Scott County, Minnesota. There are currently 7 existing properties that receive their direct access from the project and 1 property with a driveway to a detached garage. The residential properties are rural type lots with lot sizes ranging from 2.5 acres to 5.0 acres. The project area and roadway locations are depicted on the Benefiting Properties Exhibit (Exhibit A) included in the Appendix of this report.

III. ROADWAY IMPROVEMENT PROJECT

A. Existing Conditions

Rolling Oaks Court was originally constructed in 1987. The road has not been reconstructed since it was originally built over 27 years ago. There are many indications that the road is failing and is near or at the end of its design life.

Maintenance has been performed on an as needed basis. Severe transverse and alligator cracking were observed. Some causes of road cracking may be repetitive loads, excessive loads, failure of subgrade material, poorly drained subgrades, and weathering.

Rolling Oaks Court is approximately 750 feet in length and predominately utilizes a rural section with ditches and driveway culverts. The width of the existing road is approximately 23 feet with little to no shoulders. The existing cul-de-sac bulb on the south end of Rolling Oaks Court is approximately 88 feet in diameter, which does not meet Township standards, but may be sufficient for the anticipated traffic.

A geotechnical investigation has not been performed at the time of this report. However, a geotechnical report shall be obtained prior to final design to determine if any additional subgrade work is required and for the pavement design. Geotechnical investigations are also necessary to adequately determine the existing bituminous and Class 5 thicknesses.

The total length of the project is approximately 0.14 miles (750 feet).

B. Proposed Improvements

The project consists of reclaiming the existing bituminous and adding Class 5 Aggregate Base prior to paving Rolling Oaks Court. The current road does not meet the current Township standard width. Improving the road to the Township standard width of 26 feet is beyond the scope of this report. This project proposes to confine the roadway surface to the existing width, approximately 23 feet, with a new gravel shoulder. The assumed section for this report was 3 1/2" of bituminous with 12" of Class 5 aggregate base. Easements or right of way were not considered for purposes of this report. Further evaluation of existing easements/right of way will be necessary during final design.

The project involves reclaiming the existing bituminous surface and aggregate base and performing a test roll to identify any soft spots in the subgrade. Assuming the subgrade is sufficient, Class 5 Aggregate Base will be added to the required thickness. Excavation for proper ditching will be completed and new driveway and road culverts will be installed. Shouldering material will be placed on each side of the road to establish the shoulder level with the new bituminous surface.

C. Estimated Costs

The 2015 construction costs have been estimated for the proposed Rolling Oaks Court improvement project assuming that it would be bid in conjunction with other Town improvement projects. If the project was completed as a stand-alone project, project costs could be expected to be 15-25% higher. The estimated costs are estimates only and are not guaranteed prices. The costs shown are estimates based on actual bid prices from projects of similar scope and adjusted for inflation.

Before bidding, the construction estimate should be updated to reflect changes in construction costs and the final design. Final contracts will be awarded on a unit price basis and the contractor will only be paid for work completed. No costs are included for easements. The total estimated project cost is \$137,500. An estimate of the cost of the improvements is shown in Exhibit C.

D. Financing and Assessments

The Township costs of the improvements for the reconstruction of Rolling Oaks Court are proposed to be partially assessed to the benefiting properties. For this project, the recommended assessment method is to assess the benefiting properties on a per unit basis. We have identified 7 properties that receive their direct access from the proposed improvements and are proposed to be assessed one unit each. We have identified an 8th property that receives access to a

detached garage from the proposed improvements and is proposed to be assessed 0.5 units.

The Township may pass a general obligation/revenue bond that will be backed by assessment of the costs to the benefiting properties. The assessments may be paid in full up front or amortized over a period of time, typically 10 years, with an interest rate as determined by the Town Board. Generally, interest rates on assessments are on the order of 6 percent.

The Township policy is to pay forty percent of the project costs and assess the remaining sixty percent to the benefitting properties. Therefore, the proposed cost to be assessed to the benefitting properties with this project is estimated at \$82,500. The remaining amount, estimated at \$55,000, will be paid from Township funds.

For this project, sixty percent assessment to the benefiting properties would yield an assessment of approximately \$11,000 per full unit and \$5,500 per half unit.

IV. PROJECT SCHEDULE

The schedule of the project will be determined by the Town Board with consideration of resident input. A tentative schedule is as follows:

October 6, 2014	Town Board Approval of Feasibility Report and Calls for a Public Improvement Hearing. Mail Notice of Public Improvement Hearing.
November 3, 2014	Town Board conducts Public Improvement Hearing Town Board Orders Plans and Specifications
February 2, 2015	Town Board Approves Plans and Specifications and Authorizes Advertisement for Bids
March 2015	Bid Opening Town Board Conducts Assessment Hearing
April/May 2015	Town Board Approves Bids and Awards Contract
June 2015	Construction Starts
August 2015	Substantial Completion

V. CONCLUSIONS AND RECOMMENDATIONS

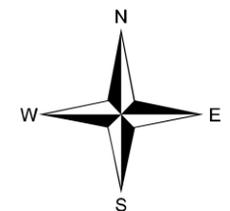
We find that this project is necessary, cost effective and feasible from a technical and engineering standpoint, and benefits the properties proposed to be assessed. We would recommend that the Town Board accept this report.

CREDIT RIVER TOWNSHIP

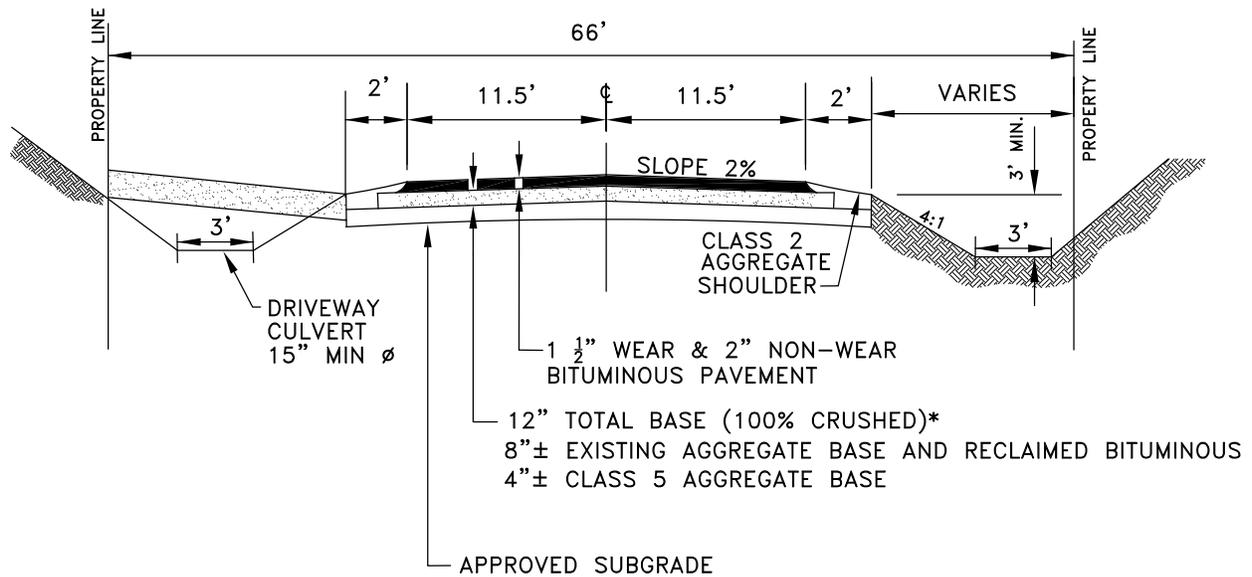
Legend

-  Benefiting Parcel
-  Direct Access - 7 Total
-  Indirect Access - 1 Total
-  Project Location

ROLLING OAKS CT
2015 RECONSTRUCTION PROJECT
BENEFITING PROPERTIES
EXHIBIT



K:\cad_eng\PROJECTS\GIS\CT31\CT31\CT31\170TH STREET



* SUBJECT TO REVIEW BY QUALIFIED SOILS ENGINEER

CREDIT RIVER TOWNSHIP
 ROLLING OAKS COURT
 LOCAL RESIDENTIAL RURAL STREET SECTION



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EXHIBIT B

EXHIBIT C
ROLLING OAKS COURT
IMPROVEMENT PROJECT
PRELIMINARY COST ESTIMATE
CREDIT RIVER TOWNSHIP

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY		UNIT PRICE	EXTENSION
1	MOBILIZATION	1	L.S.	\$6,000.00	\$6,000.00
2	CLEARING AND GRUBBING	1	L.S.	\$2,500.00	\$2,500.00
3	REMOVE BITUMINOUS PAVEMENT (DRIVEWAYS)	83	S.Y.	\$5.00	\$415.00
4	REMOVE SIGN	3	EACH	\$50.00	\$150.00
5	SAWING BITUMINOUS PAVEMENT	176	L.F.	\$3.50	\$616.00
6	SALVAGE AND REINSTALL E911 SIGNS	7	EACH	\$40.00	\$280.00
7	SALVAGE AND REINSTALL MAILBOXES	7	EACH	\$120.00	\$840.00
8	COMMON EXCAVATION (CV)	75	C.Y.	\$7.00	\$525.00
9	SUBGRADE CORRECTION	1	L.S.	\$8,000.00	\$8,000.00
10	SUBGRADE PREPARATION	8	RDSTA	\$250.00	\$2,000.00
11	AGGREGATE BASE CLASS 5	646	TON	\$14.50	\$9,367.00
12	AGGREGATE SHOULDERING	94	TON	\$20.00	\$1,880.00
13	BITUMINOUS PAVEMENT RECLAMATION (P)	2593	S.Y.	\$1.50	\$3,889.50
14	TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)	235	TON	\$65.00	\$15,275.00
15	TYPE SP 12.5 NON WEARING COURSE MIXTURE (2,B)	314	TON	\$60.00	\$18,840.00
16	BITUMINOUS DRIVEWAY PAVEMENT 2.5" THICK	83	S.Y.	\$13.00	\$1,079.00
17	BITUMINOUS MATERIAL FOR TACK COAT (0.05 gal/SY)	130	GAL	\$3.00	\$390.00
18	15" CS PIPE CULVERT	120	LF	\$28.00	\$3,360.00
19	15" CS PIPE APRON	12	EACH	\$150.00	\$1,800.00
20	18" RC PIPE APRON	4	EACH	\$500.00	\$2,000.00
21	18" RC PIPE CULVERT	200	LF	\$36.00	\$7,200.00
22	WEEP DRAINS	2	EACH	\$200.00	\$400.00
23	SIGN PANEL TYPE C	21	S.F.	\$75.00	\$1,575.00
24	TRAFFIC CONTROL	1	L.S.	\$750.00	\$750.00
25	SILT FENCE	800	LF	\$2.50	\$2,000.00
26	SELECT TOPSOIL BORROW	365	C.Y.	\$25.00	\$9,125.00
27	SEEDING	0.50	ACRE	\$3,000.00	\$1,500.00
28	EROSION CONTROL BLANKET CATEGORY 3	55	S.Y.	\$2.50	\$137.50

ESTIMATED CONSTRUCTION COST	\$101,894
CONSTRUCTION CONTINGENCY (10%)	\$10,132
ENGINEERING, LEGAL AND FINANCING (25%)	\$25,474
ESTIMATED PROJECT COST	\$137,500