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2023 KNOLLWOOD DRIVE IMPROVEMENTS

MUNICIPAL PROJECT NO. 4132

FEASIBILITY REPORT

Council Approval Date: March 15, 2022

Prepared for
City of Baxter

WSN No. 2020-11417

2023 KNOLLWOOD DRIVE IMPROVEMENTS


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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.



Alex Bitter
Professional Engineer

57744

License Number

02-22-2022

Date

2023 KNOLLWOOD DRIVE IMPROVEMENTS

MUNICIPAL PROJECT NO. 4132

FEASIBILITY REPORT

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STATEMENT OF PURPOSE

The purpose of this Report is to review the feasibility of the reconstruction of the roadway and trail segment for Knollwood Drive from Highland Scenic Road (CSAH 48) to Foley Road.

On August 18, 2020, WiDSETH received authorization to complete a Feasibility Report relative to these improvements.

This Report will review existing conditions, propose feasible improvements, estimate project costs, discuss project implementation, and present conclusions and recommendations for the project area.

The project area is shown in Figure 1.



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DATE: NOV 2020
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2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
 CITY OF BAXTER
 BAXTER, MINNESOTA
 FIGURE 1 - PROJECT AREA

SHEET NO.
FIG-1

W:\srs-mn-loc\files\Projects\City of Baxter-32232\2020-11417\CADD\Civil\C-PA-2020-11417.dwg Plotted by: Alex Bitter 3/2/2022 10:26:27 AM © 2022 WIDSETH

EXISTING CONDITIONS

Background:

The proposed project involves the reconstruction of Knollwood Drive from Highland Scenic Road (CSAH 48) to Foley Road. This section of Knollwood Drive is a collector roadway situated in a residential area between T.H. 210 and Forestview Middle School. The local roadways connecting to Knollwood Drive include Jepson Road, Kingwood Drive, Interlachen Road, Timberlane Drive, Woodland Road, and Knollwood Court.

Knollwood Drive corridor is zoned Low Density Residential (R-1) and is located within a 66-foot wide platted right-of-way. The roadway corridor was last improved in 2000 with the “Parkwood Area Improvements Project”. The project included the construction of gravity sanitary sewer, sanitary sewer forcemain, storm sewer, stormwater treatment basin and urban roadway section.

Roadway:

The existing roadway is a 36-foot wide roadway with concrete curb and gutter and storm sewer. The roadway consists of a 12.5' wide lane in the northbound direction, a 14' wide lane in the southbound direction and an 8' parking lane along the west side of the road. The roadway is constructed with 5" of aggregate base and 3.5" of bituminous. This roadway section does not meet the current City standard for a 10-ton roadway. In 2019, the roadway was given a PASER Rating ranging from 3 to 5 which means the roadway is in poor to fair condition with numerous potholes and longitudinal, lateral, and alligator cracking of the bituminous.

The curb and gutter and concrete pavement/valley gutters are also in poor condition. Many of the curb sections are cracked and many of the joints have severe deterioration. It is estimated that approximately 70% of the existing curb and gutter has reached the end of its useful life and in need of replacement.

Municipal Storm Sewer:

The storm sewer network consists of drainage structures, conveyance piping, and basins. There are two separate storm sewer systems located along the roadway. The south system begins approximately 420 feet south of the intersection of Interlachen Road and flows south crossing Highland Scenic Road into a series of stormwater infiltration basins located northwest of the Forestview Middle School. The north system serves Knollwood Drive from Timberlane Drive to Foley Road. This system flows west on Knollwood Court to a stormwater basin on the south side of the cul-de-sac.

Trail:

There is a 12-foot wide bituminous trail located along the east side of the roadway immediately behind the curb. There is no boulevard area between the curb and trail. This trail was last reconstructed in 2000 as part of the Parkwood Area Improvements Project. The trail section was constructed with 2 inches of bituminous and 4 inches of class 5 aggregate base. Since the reconstruction in 2000, the City of Baxter has completed regular crack sealing on the trail surface. There have not been any major repairs to the trail such as mill and overlay.

In 2017, the City completed an ADA Transition Plan. The Plan included a self-evaluation of the City’s current transportation infrastructure policies, practices, and programs. The self-evaluation also included an inventory and assessment of existing pedestrian facilities. During this evaluation, it was noted the Knollwood Drive trail is non-ADA compliant at each trail/driveway/roadway intersection due to surface cracking, running and cross slope exceeding the maximum allowed slope, no defined landing and the cross slope of the trail exceeding the 2% minimum allowed.

Traffic Data:

Based on the MNDOT Traffic Mapping Application, the Average Daily Traffic (ADT) for this section of roadway is 1900. This was last updated in 2019. The historical ADT is as follows:

| <u>Year</u> | <u>Existing ADT</u> |
|-------------|---------------------|
| 2019 | 1,900 |
| 2015 | 1,750 |
| 2011 | 1,750 |
| 2007 | 1,600 |
| 2005 | 1,850 |
| 2001 | 1,600 |

Bolton Menk has also estimated an existing ADT of 1,900 vehicles per day based on traffic counts completed in October 2021 for the design of the Foley Road and Inglewood Drive intersection project. After the closure of the Knollwood Drive and T.H. 210 intersection, Bolton Menk is estimating/projecting the ADT on Knollwood Drive in the design year 2040 will be 1,250 vehicles per day.

Sanitary Sewer:

Municipal sanitary sewer collection piping is currently in place along the Knollwood Drive project area. The south portion of the sanitary sewer, approximately 350 feet south of Interlachen Road is an eight-inch (8”) PVC that flows to the south to Lift Station #12 that is located southeast of

the intersection of Highland Scenic Road and Knollwood Drive. The four-inch (4") force main from Lift Station #12 flows to the south to lift station 23. From this manhole, the sanitary sewer starts out as a ten-inch (10") PVC for approximately 2,385 feet and transitions to a twelve-inch (12") PVC at the intersection of Knollwood Court. The twelve-inch (12") PVC continues for 958 feet to the intersection of Foley Road. The sanitary sewer along Knollwood Drive also picks up sanitary sewer from Jepson Road, Timberlane Drive, and Knollwood Court. Sanitary from Kingwood Drive and Interlachen Road flow to Parkwood Drive to Mountain Ash Drive and to lift station #9 on Mountain Ash Drive.

Water Distribution System:

Municipal water distribution piping was constructed in 1979. Ten-inch (10") PVC watermain is currently located in the Knollwood Drive corridor. The ten-inch (10") PVC watermain connects to a ten-inch (10") PVC that runs along Highland Scenic and to a twelve-inch (12") PVC that runs along Foley Road. Watermain services extend down each of the roads that connect to Knollwood Drive.

Hydrants, valves, and main extensions are located through the project corridor. Knollwood Drive was identified as an area that may contain plastic watermain fittings in a study completed in 2020. The City has experienced numerous failures of plastic watermain fittings which have resulted in costly repairs and unaccounted water loss. There are no other known issues with the water system in the project area.

The existing conditions in the project area are shown in Figures 2 – 4 in the Appendix.

PROPOSED IMPROVEMENTS

Proposed improvements consist of the reconstruction of Knollwood Drive. After two public meetings and input from the community, a final roadway section has been selected.

Roadway Improvements:

Knollwood Drive is proposed to be reconstructed using full depth reclamation (FDR). FDR uses a self-propelled pulverizing machine to grind the entire pavement section and a portion of the underlying gravel base material in place. This process destroys all existing pavement cracks and homogenizes the material into a useable aggregate base platform on which a new bituminous surface is paved. Once the roadway is reclaimed, excess material will be removed, the remaining reclaimed base will be compacted and three lifts of bituminous totaling 5 inches.

The roadway is proposed to be narrowed from 36' wide to 32' wide from face of curb to face of curb. The west curb line will remain in place the east curb line will be moved 4' west. This is for two reasons: (1) the main line storm sewer is located under the west curb line and (2) to pull the back of the east curb away from the trail. The roadway will include two-11' drive lanes and an 8' wide parking lane along the west side of the road.

One hundred percent (100%) curb and gutter and concrete pavement/valley gutter replacement is proposed. Analysis indicates that approximately 70% of the curb and gutter requires replacement and when more than 50% of the curb and gutter requires replacement, it is more economical to remove and replace all curb and gutter versus selective removal and replacement. A new concrete valley gutter is proposed at Jepson Road, Kingwood Drive, Interlachen Road, Timberlane Drive, Woodland Road, and Knollwood Court to help promote drainage across the intersections.

The City is planning improvements to Foley Road and the Knollwood Drive and T.H. 210 intersection in 2022. The project will remove the Railroad crossing connection of Knollwood Drive with T.H. 210 and move the T.H. 210 intersection to Inglewood Drive. Foley Road will also be realigned as part of this project. This project will need to be coordinated with the final T.H. 210/Railroad crossing design of Knollwood Drive.

Storm Sewer Improvements:

Narrowing the roadway from 36' wide to 32' wide will require modifications of the catch basins located along the east side of the roadway. This work will require the removal of the catch

basins/piping and construction of new catch basins in the new curb line located 4' to the west of the current location. Other storm sewer improvements include reconstruction of all remaining existing drainage structures. This work includes removal of the casting and concrete rings to the top of the concrete structure. The structure will be reconstructed with new concrete rings and a casting designed to help prevent the migration of sediment material from the roadway bed into the drainage structure.

Trail Improvements:

The existing 12-foot trail is proposed to be removed and replaced with a new 10-foot wide bituminous trail. The trail section will consist of 5" aggregate base and 3" of bituminous. The trail will be separated from the roadway by a 5-foot wide grassed boulevard which will eliminate the ADA slope compliance issues at each driveway crossing. Pedestrian curb ramps with truncated domes will be constructed at each City roadway crossing.

Water Improvements:

The plastic watermain tee study completed in 2020 identified Knollwood Drive as an area that may contain plastic watermain tees. It is estimated there are two plastic watermain tees that may need replacing at that south end of Knollwood drive at the intersection of CSAH 48. Exploratory excavations are proposed at each tee location to determine the fitting material type. There are nine watermain tees that extend down Knollwood that required an exploratory excavation. If plastic tees are encountered, they will be removed and replaced with mechanical joint ductile iron tees.

The Hydrant Installation Year Review study that was completed in 2020 identified Knollwood Drive contains 7 hydrants that were installed in 1979. The City has found that hydrants installed from 1977 to 1979 are in need of restoration due to corrosion that causes leaking.

Other improvements to Knollwood Drive include:

- Adjust existing grades to address drainage issues.
- Replace and adjust the upper sections of water valve boxes.
- Reconstruct sanitary sewer manhole castings/rings and install water infiltration barrier.
- Replace driveways to the right-of-way line.
- Install new signage and pavement markings.
- LED street lighting upgrades.

Do Nothing Option

This option would be considered the “Do Nothing” Option. With the existing condition of the roadway, some type of maintenance/reconstruction work will be necessary in the near future. Maintenance/rehabilitation options include continued seal cracking and patching, bituminous mill and inlay or other options such as micro surfacing. Crack sealing and patching would be considered an interim fix and is not a good long-term solution. It should be noted that a mill and overlay or micro surfacing project would require the City to bring the trail into compliance with current ADA requirements. As discussed in the proposed improvements, the trail crossings at each of the driveways and roadway does not meet ADA cross slope requirements. To bring the trail into compliance, a separation between the trail and roadway is required. The trail would need to be completely reconstructed or, another option to consider, is complete removal of the trail. Based on the current condition of the roadway, a mill and overlay or micro surfacing project is not recommended and, therefore, no detailed cost estimates were prepared for this Option.

The proposed improvements are shown in more detail in Figures 5 – 7 in the Appendix.

The existing and proposed typical sections can be found in Figure 8.

ESTIMATED PROJECT COSTS

Estimated project costs for the proposed improvements to Knollwood Drive are summarized below for each Option:

Proposed Improvements:

| | |
|--------------------------------------|--------------------|
| Roadway: | \$1,651,172 |
| Trail: | \$560,730 |
| Storm Sewer: | \$104,574 |
| Sanitary Sewer: | \$39,549 |
| Water Distribution: | <u>\$95,073</u> |
| ESTIMATED TOTAL PROJECT COST: | \$2,451,098 |

Do Nothing Option:

No costs were calculated for this Option because this Option does not meet the long-term roadway preservation goals of the City (see Do Nothing Option discussion under Proposed Improvements).

The costs estimated herein are intended to convey a general and approximate picture of the costs that would most likely be incurred today in carrying out the proposed work. Costs can vary widely depending upon many factors such as weather, economic conditions, size of project, and the workload of available contractors. Actual costs can only be determined by bidding the project. Detailed breakdowns of the estimates are provided in the Appendix. Costs estimated above include estimated construction costs, 15% contingencies, and 25% soft costs including engineering, administration, and legal fees. **The costs are calculated in 2022 dollars and need to be updated in the future based upon the current economic conditions at the time the project is being considered.**

PROJECT IMPLEMENTATION

Funding for improvements are proposed to be obtained from assessments to benefitted property owners and the City of Baxter. The estimated assessments included in this Report were calculated in accordance with City policy utilizing the Unit Assessment Method. A detailed description of the assessment methods utilized by the City of Baxter can be found in the most recent version of the “City of Baxter – Assessment Policy for Public Initiated Improvements”.

In accordance with City policy, 100% of FDR project costs up to 26 feet in width for R-1 properties are assessed to the adjacent benefitting properties. The area is mostly comprised of residential properties with similar sized lots, so the Unit Assessment Method was selected. Unit assessments are calculated by dividing the total assessable project cost by the number of units/lots in the project area. Existing parcels under single ownership that were large enough to be subdivided in accordance with the subdivision ordinance were assumed to be assessed for the total number of future lots that could result from such a split. Existing parcels with multiple dwelling units were assumed to be assessed one unit for each dwelling currently on the parcel.

The project area contains a substantial number of intersection roadways and corner lots that do not access their parcels from Knollwood Drive. In accordance with the City’s assessment policy, these lots are not assessable with this project and would be assessed when the streets they access from are improved. Because there are so many unassessable corner lots, the City will pick up the corner lot assessments to help hold the assessable costs lower for the project. This practice is similar to past projects where the City picked up assessments for corner lot and back lot frontage to help keep the project more affordable.

The City was also assumed to pay all costs associated with the additional bituminous thickness required to meet a 10-ton design strength. The estimated section required to meet the State Aid Standard 10-ton design strength is 5 inches of bituminous and 6 inches of aggregate base. The typical city street in Baxter has a pavement section composed of 3 ½ inches of bituminous and 5 inches of aggregate base. It was assumed the City would pick up the cost associated with the additional 1 ½ inches of bituminous required to meet the 10-ton design. The additional 1-inch of aggregate base required to meet the 10-ton design would not be picked up by the City because the additional base is being created by the FDR process and does not add to the overall project cost.

The City was also assumed to pay all costs associated with curb and gutter, storm sewer improvements, trail improvements, roadway lighting, sanitary sewer system improvements, and water system improvements that would not typically be associated with a normal residential roadway maintenance improvement.

In summary, the City was assumed to pick up the following costs:

- All roadway costs in excess of 26 feet in width
- Bituminous thickness in excess of 3 ½ inches
- Concrete curb and gutter
- Corner lot assessments
- Storm sewer project costs
- Sanitary sewer project costs
- Water system project costs
- Street lighting project costs
- Trail project costs

Based upon the above methodology and assumptions, the following was determined:

| | |
|---|-----------------|
| Estimated Roadway Project Cost: | \$1,651,172 |
| Estimated City Costs | |
| Excess Roadway Width/Depth and Curb & Gutter: | \$916,890 |
| Estimated Assessable Roadway Project Costs: | \$734,282 |
| Total Estimated Number of ERUs: | 71 |
| Estimated Assessment per ERU: | \$10,342 |

Project Cost Summary

| | |
|--|--------------------|
| Total Estimated Project Cost: | \$2,451,098 |
| Assessed Project Costs (Estimated) | |
| Benefitting Property Assessments (60 ERUs): | \$620,520 |
| City Assessments (11 ERUs): | \$113,762 |

City Cost Summary

| | |
|-----------------------------|--------------------|
| Roadway: | \$916,890 |
| Roadway Assessments: | \$113,762 |
| Trail: | \$560,730 |
| Storm Sewer: | \$104,575 |
| Sanitary Sewer: | \$39,549 |
| Water: | <u>\$95,073</u> |
| Estimated City Cost: | \$1,830,579 |

The total City share of the project is estimated to be \$1,830,579 or 74.7% of the total project cost. Assessable project costs total \$620,520 or 25.3% of the total estimated project cost.

CONCLUSIONS AND RECOMMENDATIONS

This Report has studied the feasibility of improving Knollwood Drive as part of the City's ongoing pavement management plan. This Report presents two options for Council consideration and to assist with obtaining public input on the project. A summary of each option is as follows:

- 32' wide urban roadway (curb & gutter) with a paved trail separated from the roadway by a 5' wide boulevard area. This Option would provide two-11' wide drive lanes and an 8' parking lane on the west side of the roadway. This roadway and trail section would have the same combined width as the current roadway and trail. Both the west curb line and east side of the trail would remain in the same location.
- Do nothing and continue with ongoing maintenance of the roadway. Crack sealing and patching would be considered an interim fix however this is not a good long-term solution.

Based on the current condition of the roadway and the City's commitment to the pavement management plan, full depth reclamation of the roadway and reconstruction of the bituminous trail is recommended. Please note, pavement design recommendations in this Report are preliminary. A pavement coring study should be completed to verify existing pavement and base thickness and to classify supporting base material. This information is necessary to properly design the pavement section to meet the desired 10-ton design strength.

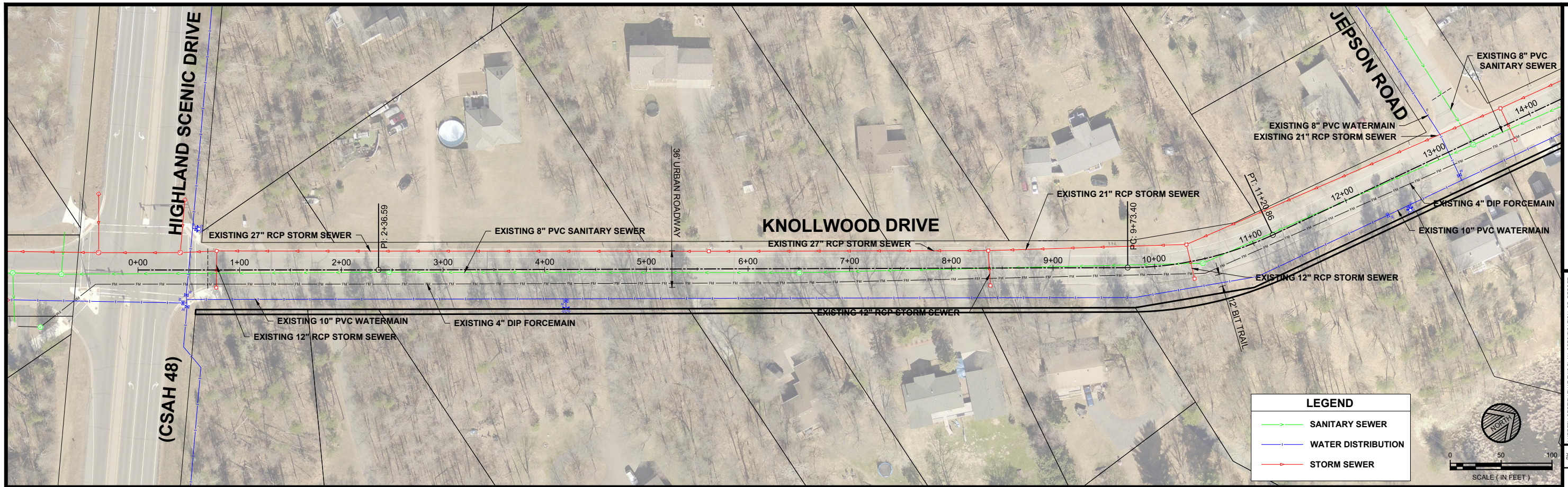
The total estimated project cost is \$2,451,099. Roadway assessments are calculated at \$10,342, assuming the City picks up ERU assessments for unassessable corner lots. The total estimated City cost is \$1,830,579 or 74.7% of the total project cost. The total estimated assessments to benefitting properties is \$620,520 or 25.3% of the total project cost.

In conclusion, it is our opinion that the proposed improvements associated with the proposed improvements as considered in this Report are feasible and we do not foresee any major problems other than normal inconveniences associated with construction such as noise and traffic disturbance. These situations would be temporary in nature and we would anticipate the construction would last approximately 3 months depending on the contractor, weather, and other factors.

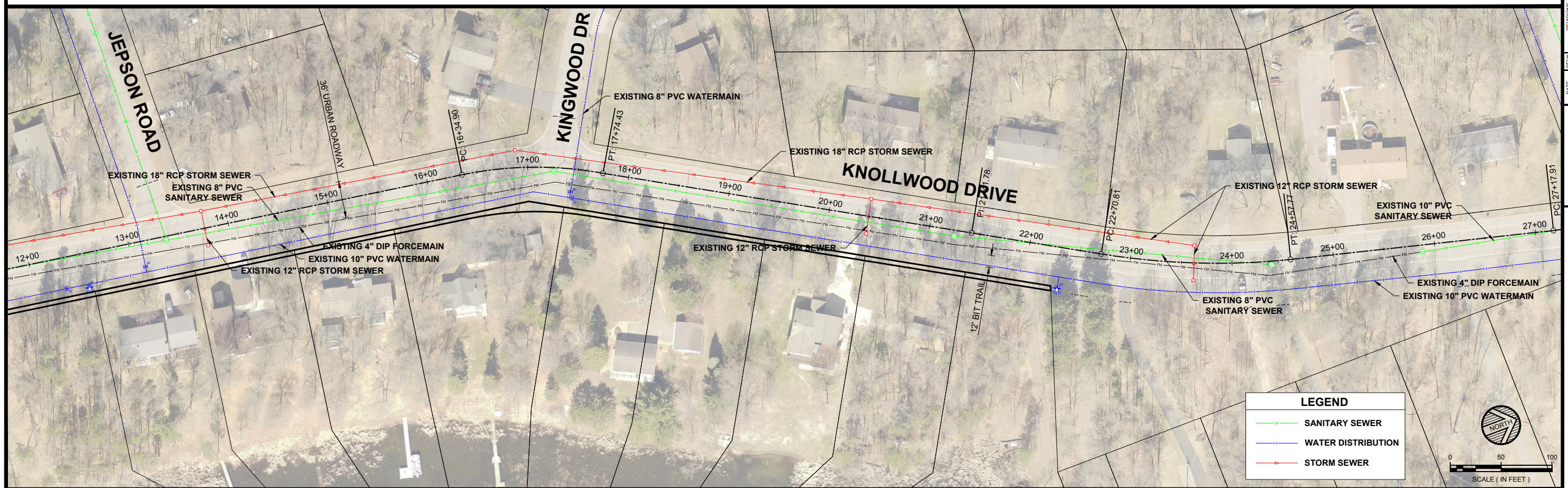
We recommend the City proceed as follows:

1. Review Report with Utilities Commission and City Council
2. Approve Feasibility Report
3. Share project information with affected property owners and the public through the project website, mailings, and other forms of public outreach
4. Obtain public input and modify the project as necessary
5. Order the Improvement Hearing
6. Conduct Improvement Hearing
7. Prepare plans and specifications
8. Review and approve the plans and specifications and authorize advertisement for bids
9. Review bids and update project costs and assessments
10. If costs are favorable, schedule the Assessments Hearing
11. Prepare final costs and assessments and schedule the Assessment Hearing
12. Conduct Assessment Hearing and adopt assessment rolls
13. Award the construction contract
14. Construct the project

APPENDIX A



KNOLLWOOD DRIVE START - 13+00



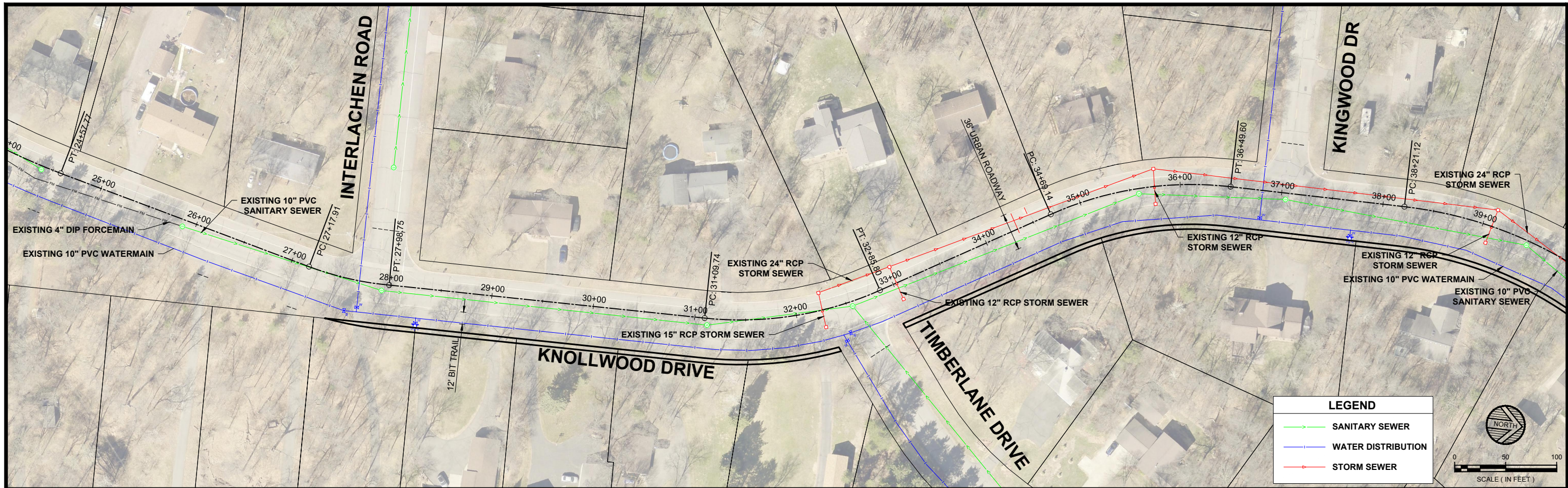
KNOLLWOOD DRIVE STA 13+00 - 23+00

BY: ARIC L. WELCH, L.C. NO. 4783
DATE: ---
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS, OR 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.

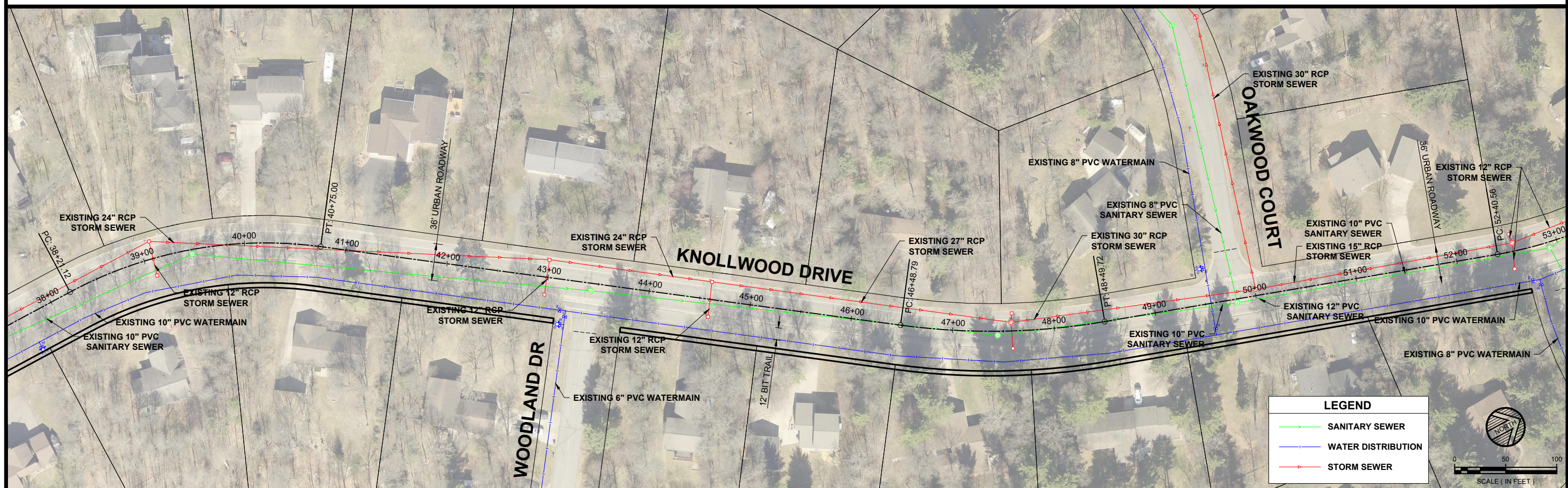
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| JOB NUMBER: | 2020-11417 |

2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
CITY OF BAXTER
BAXTER, MINNESOTA
FIGURE 2 - EXISTING CONDITIONS



KNOLLWOOD DRIVE STA 26+00 - 39+00



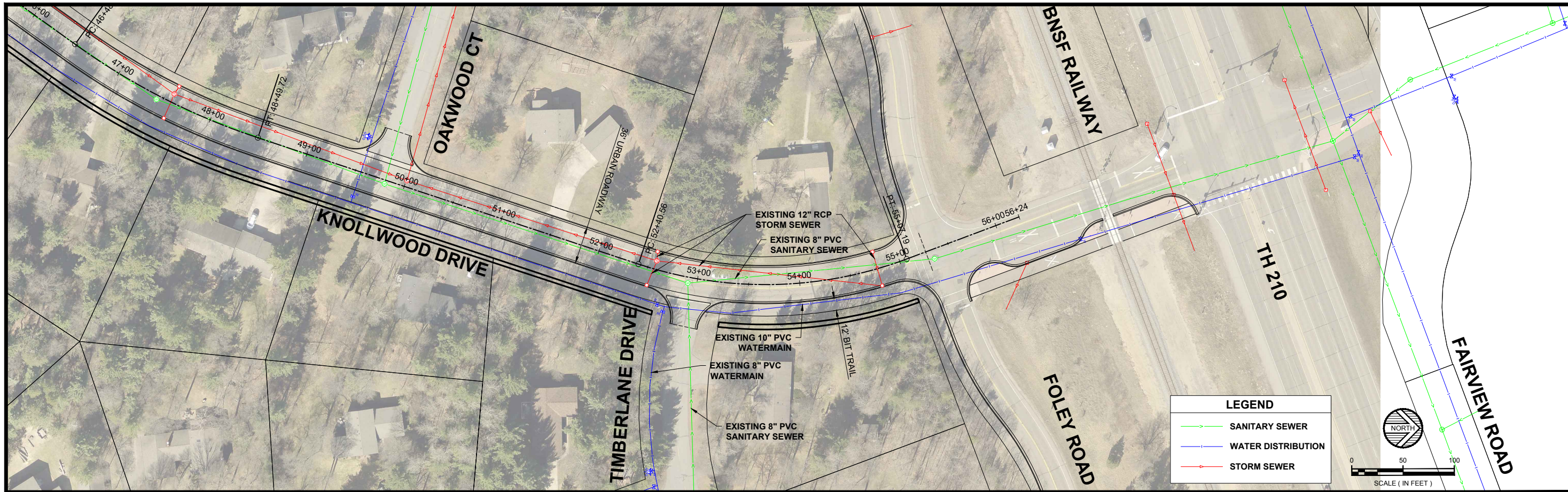
KNOLLWOOD DRIVE STA 39+00 - 52+00

BY: ARIC L. WELCH, LIC. NO. 41883
DATE: ---
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS, OR 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.

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2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
CITY OF BAXTER
BAXTER, MINNESOTA
FIGURE 3 - EXISTING CONDITIONS



KNOLLWOOD DRIVE STA 52+00 - END

WIDSETH
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

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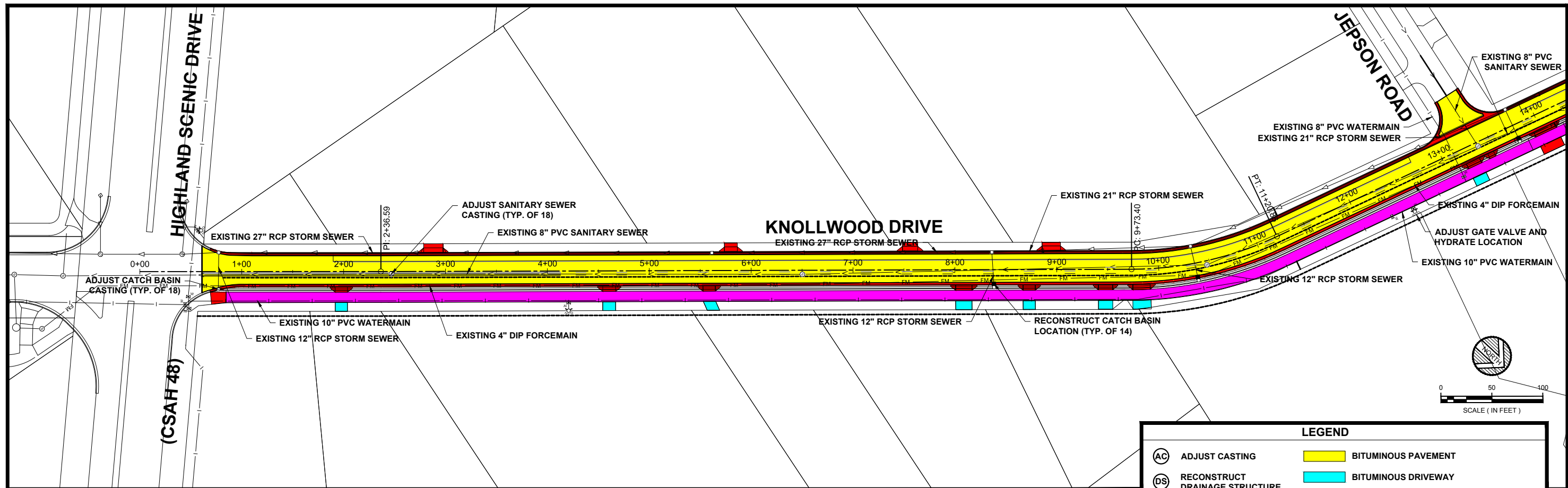
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2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
 CITY OF BAXTER
 BAXTER, MINNESOTA
 FIGURE 4 - EXISTING CONDITIONS

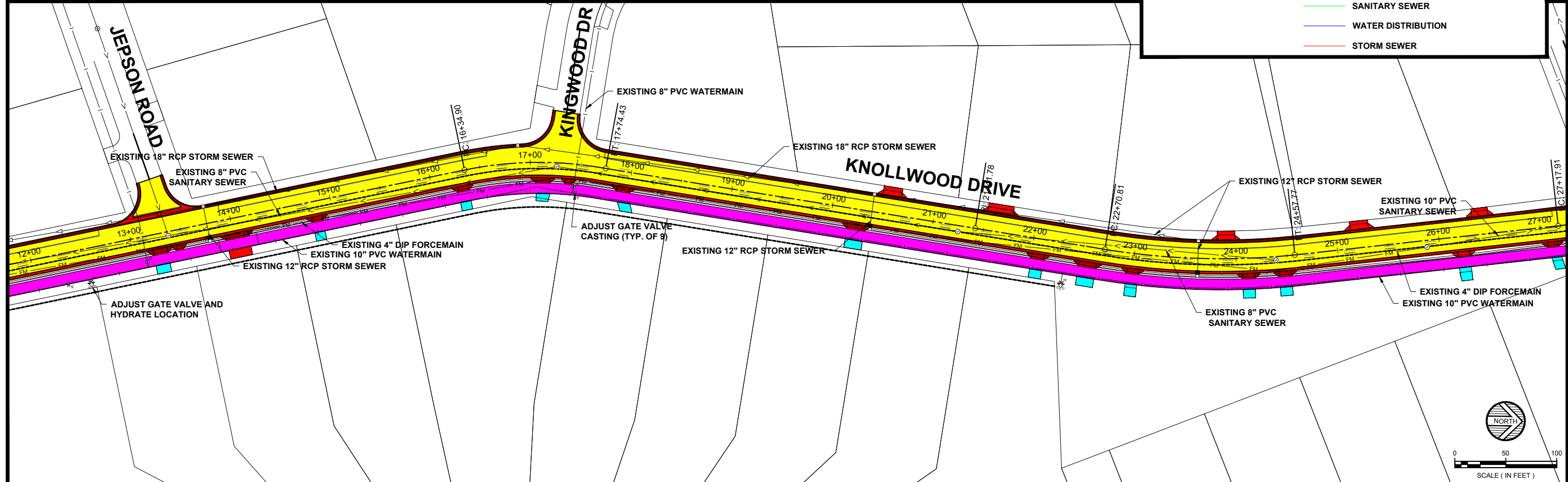
SHEET NO. **FIG-4**
 SHEET 4 OF ###

THESE PLANS AND SPECIFICATIONS FOR THIS PROJECT WERE 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.

ARIC L. WELCH L.C. NO. 41883 DATE: ---



KNOLLWOOD DRIVE START - 13+00

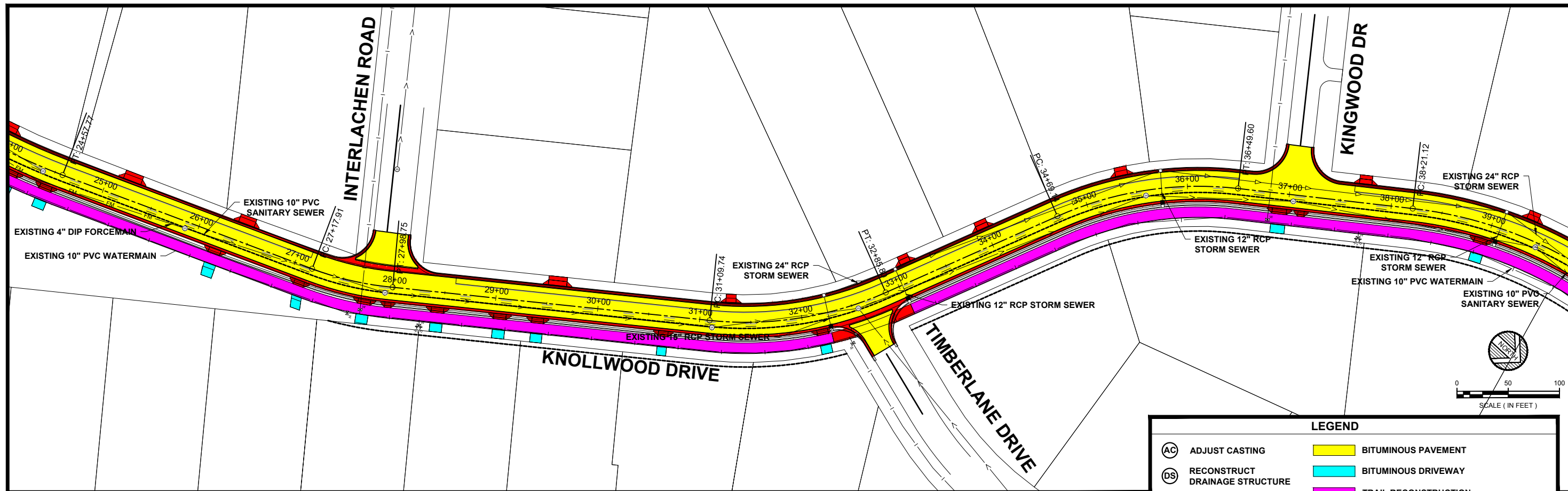


KNOLLWOOD DRIVE STA 13+00 - 23+00

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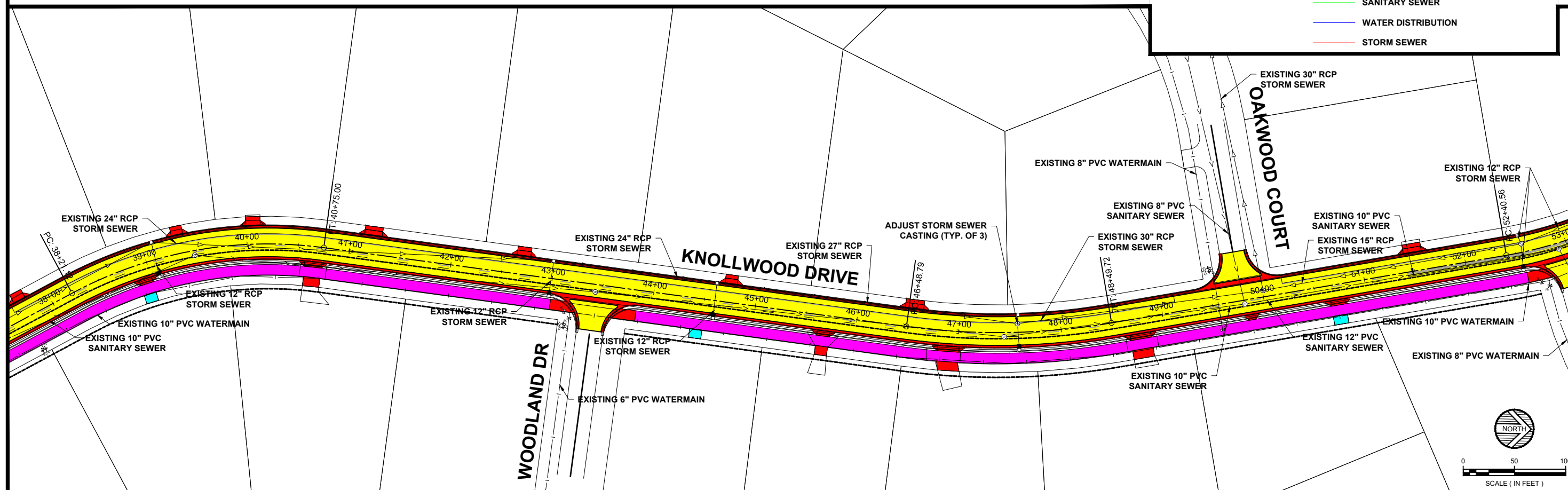
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| JOB NUMBER: | 2020-11417 |

2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
CITY OF BAXTER
BAXTER, MINNESOTA
FIGURE 5 - PROPOSED IMPROVEMENTS



KNOLLWOOD DRIVE STA 26+00 - 39+00

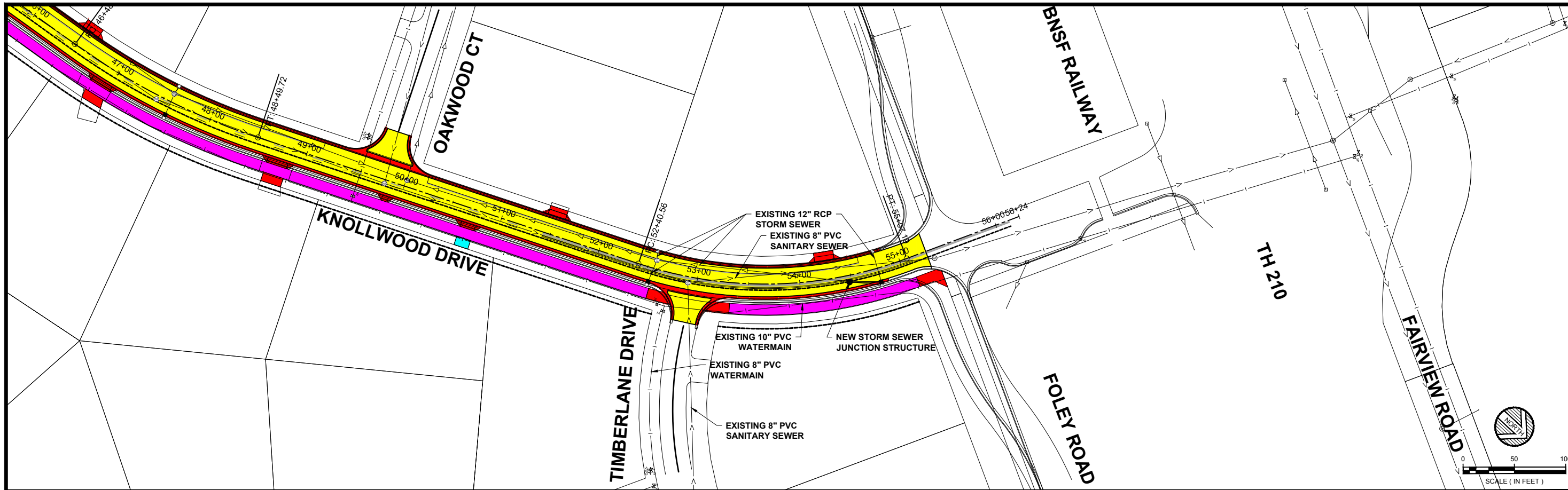
| LEGEND | | | |
|--------|-------------------------------------|---------------|-----------------------------------|
| (AC) | ADJUST CASTING | [Yellow Box] | BITUMINOUS PAVEMENT |
| (DS) | RECONSTRUCT DRAINAGE STRUCTURE | [Cyan Box] | BITUMINOUS DRIVEWAY |
| (GV) | REMOVE & REPLACE GATE VALVE BOX TOP | [Magenta Box] | TRAIL RECONSTRUCTION |
| | | [Red Box] | CONCRETE CURB & GUTTER / PAVEMENT |
| | | [Green Line] | SANITARY SEWER |
| | | [Blue Line] | WATER DISTRIBUTION |
| | | [Red Line] | STORM SEWER |



KNOLLWOOD DRIVE STA 39+00 - 52+00

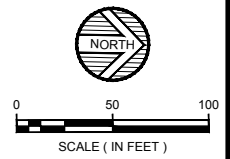
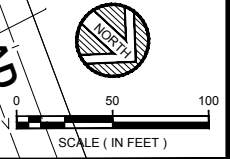
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2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
CITY OF BAXTER
BAXTER, MINNESOTA
FIGURE 6 - PROPOSED IMPROVEMENTS



KNOLLWOOD DRIVE STA 52+00 - END

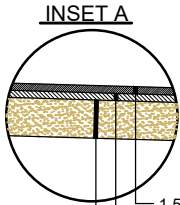
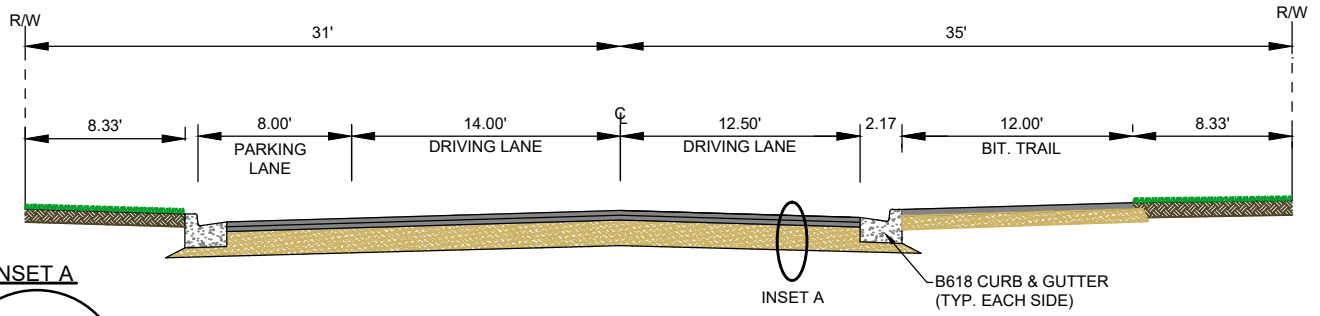
| LEGEND | |
|---------------|-------------------------------------|
| (AC) | ADJUST CASTING |
| (DS) | RECONSTRUCT DRAINAGE STRUCTURE |
| (GV) | REMOVE & REPLACE GATE VALVE BOX TOP |
| [Yellow Box] | BITUMINOUS PAVEMENT |
| [Cyan Box] | BITUMINOUS DRIVEWAY |
| [Magenta Box] | TRAIL RECONSTRUCTION |
| [Red Box] | CONCRETE CURB & GUTTER / PAVEMENT |
| [Green Line] | SANITARY SEWER |
| [Blue Line] | WATER DISTRIBUTION |
| [Red Line] | STORM SEWER |



BY: ARIC L. WELCH, LIC. NO. 41883
 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 THE LAWS OF THE STATE OF MINNESOTA.
 DATE: ---

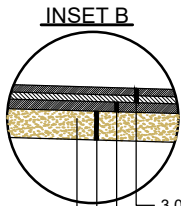
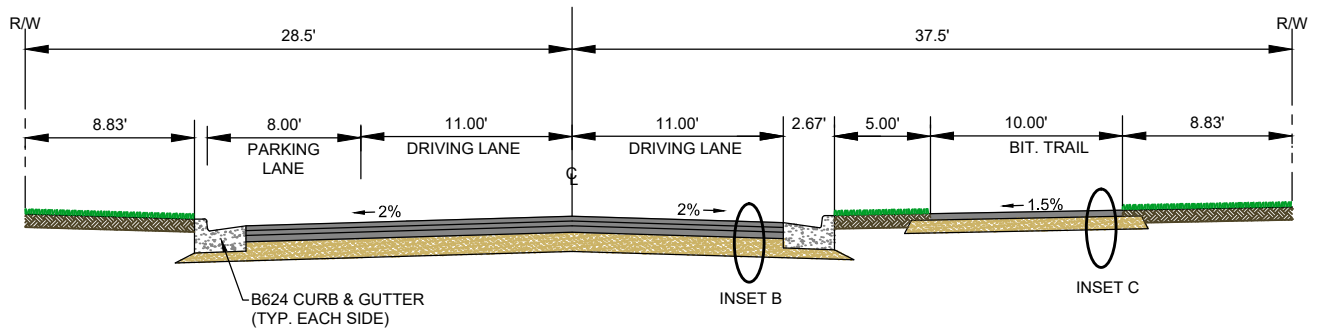
| DATE | REVISION DESCRIPTION |
|----------|------------------------|
| NOV/2020 | AS SHOWN |
| | DRAWN BY: ADB |
| | CHECKED BY: ALW |
| | JOB NUMBER: 2020-11417 |

2020 KNOLLWOOD DRIVE S FEASIBILITY STUDY
 CITY OF BAXTER
 BAXTER, MINNESOTA
FIGURE 7 - PROPOSED IMPROVEMENTS

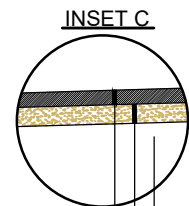


- 1.5" WEARING COURSE
- 2.0" NON-WEARING COURSE
- 5" AGGREGATE BASE CLASS 5

**EXISTING ROADWAY SECTION
KNOLLWOOD DRIVE**



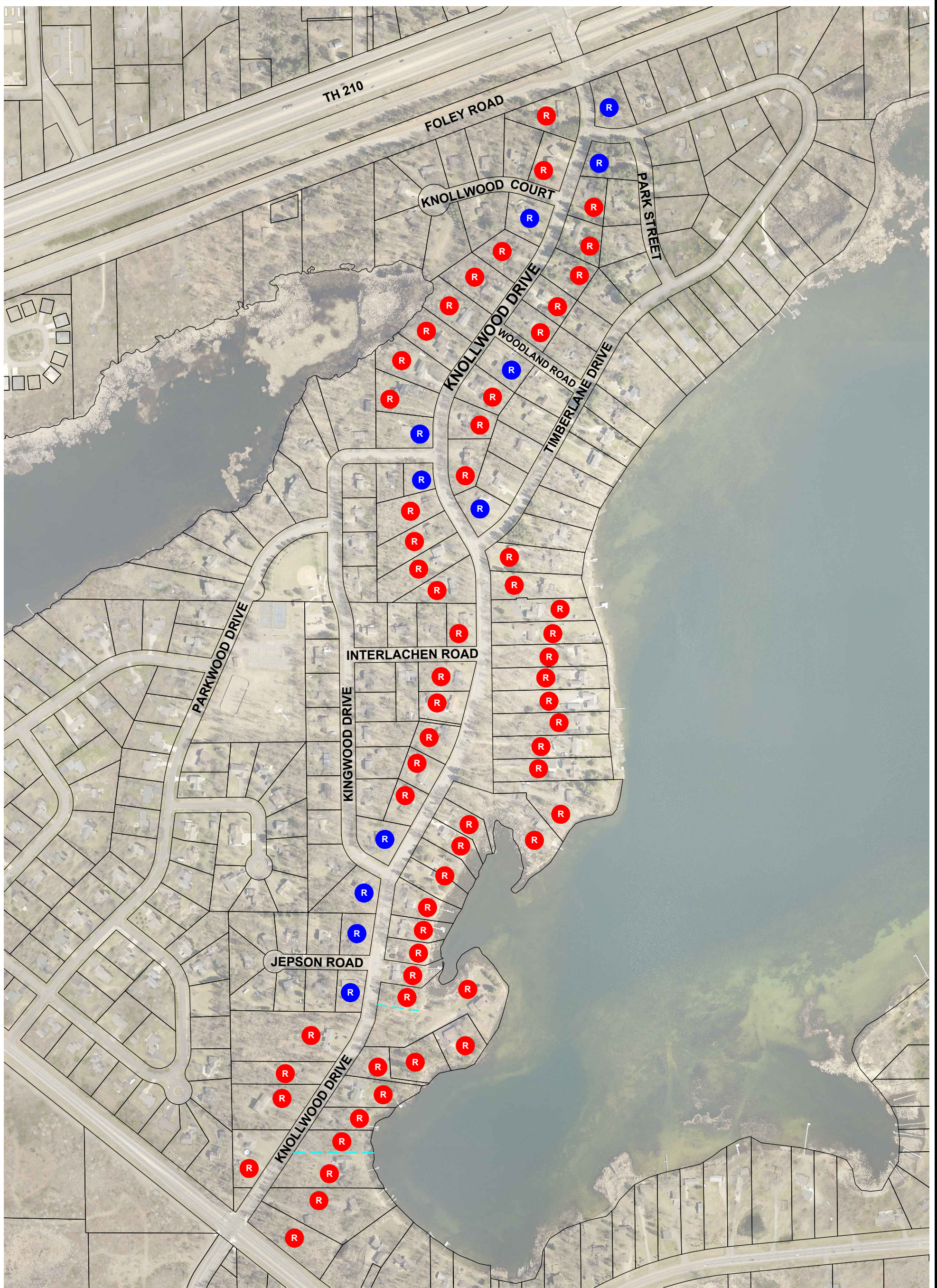
- 3.0" TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) (SPWEA340C) PLACED IN TWO LIFTS
- 2.0" TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,B) (SPNWB330B)
- 6" COMPACTED RECLAIMED BASE
- BACKFILL WITH MATERIALS MEETING THE REQUIREMENTS OF SELECT GRANULAR BORROW



- 3.0" BITUMINOUS WALK TYPE SP 9.5 WEARING COURSE MIXTURE (2,C) (SPWEA240C) PLACED IN TWO LIFTS (PAID FOR AS 3" BITUMINOUS WALK, SQ. FT.)
- 4" AGGREGATE BASE CLASS 5 (CV)
- BACKFILL WITH MATERIALS MEETING THE REQUIREMENTS OF SELECT GRANULAR BORROW

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

APPENDIX B



ASSESSMENT TOTALS

| ASSESSMENT TYPE | TOTAL NUMBER |
|--------------------|--------------|
| ROADWAY (R) | 60 |
| ROADWAY - CITY (R) | 11 |

LEGEND

- R ERU
- R ERU - CITY
- POTENTIAL LOT SPLIT



W:\shared\proj\proj\city of Baxter-2223\2020-11\17\CADD\Civil\2020-11\17 Assessment Exhibit.dwg Plotted by: AWC Walsh 3/17/2022 5:05:38 PM © 2022 WIDSETH

2023 KNOLLWOOD DRIVE IMPROVEMENTS

CITY OF BAXTER
BAXTER, MINNESOTA

FIGURE 9 - ASSESSMENT EXHIBIT

DATE: JULY 2021

SCALE: AS SHOWN

DRAWN BY: A.L.W.

CHECKED BY: A.L.W.

JOB NUMBER: 2020-11417

| DATE | REV# | REVISIONS DESCRIPTION | BY |
|------|------|-----------------------|----|
| | | | |
| | | | |
| | | | |

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 THE LAWS OF THE STATE OF MINNESOTA.

DATE: LIC. NO.



APPENDIX C

PROPOSED PROJECT SCHEDULE
2023 KNOLLWOOD DRIVE IMPROVEMENTS, MUNICIPAL PROJECT NO. 4132
BAXTER, MN
Friday, July 23, 2021

| MAJOR TASKS AND MILESTONES | DATES | REMARKS | NOTES |
|---|---------------------------|--|-------|
| Recommendation to Approve Feasibility Report | Wednesday, August 4, 2021 | Utilities Commission Meeting | |
| Review Feasibility Report at Council Workshop | Tuesday, August 17, 2021 | City Council Meeting | 4 |
| Public Information Meetings | Fall of 2021 | | |
| Request for Proposals from Engineering Consultants | Winter/Spring 2022 | | |
| Award of Consultant Contract | Winter/Spring 2022 | City Council Meeting | 4 |
| Resolution Ordering Preparation of Feasibility Report | | | |
| Revise Report | Spring 2022 | | |
| Recommendation to Approve Feasibility Report | Spring/Summer 2022 | Utilities Commission Meeting | |
| Review Feasibility Study at Council Workshop | Spring/Summer 2022 | City Council Workshop and Meeting | 4 |
| Resolution Receiving Feasibility Report and Calling Improvement Hearing | | | |
| Mailed Notice for Improvement Hearing | Summer 2022 | One notice at least 10 days prior to hearing | |
| First Published Notice for Improvement Hearing | Summer 2022 | Twice in local newspaper, one week apart, last notice must be at least three days prior to hearing. | 3 |
| Bidding Publication | Summer 2022 | Publication must be made at least three weeks before last day to submit bids, at least once in official newspaper and once in trade paper or First Class city newspaper. | 3 |
| Second Published Notice for Improvement Hearing | Summer 2022 | | |
| Improvement Hearing | Summer 2022 | | |
| Resolution Ordering Improvement and Preparation of Plans | Summer 2022 | City Council Meeting | 4 |
| Design and Preparation of Plans and Specifications | Summer/Fall 2022 | | |
| Review Plans and Specifications | Fall/Winter 2022 | Utilities Commission Meeting | |
| Resolution Approving Plans and Specifications and Ordering Advertisement for Bids | Fall/Winter 2022 | City Council Meeting | 4 |
| Bid Opening | Winter 2022 | By default bid remains subject to acceptance for 60 days after the Bid opening. | |
| Resolution Ordering Assessment Hearing | Winter 2023 | City Council Meeting | 4 |
| Mailed Notice for Assessment Hearing | Winter 2023 | One notice at least two weeks prior to hearing | |
| Published Notice for Assessment Hearing | Winter 2023 | Once in local newspaper at least two weeks prior to hearing. | 3 |
| Bid review with Utilities Commission | Winter 2023 | Utilities Commission Meeting | |
| Assessment Hearing | Winter 2023 | | |
| Resolution Adopting Assessment Rolls | Winter/Spring 2023 | City Council Meeting | 4 |
| End of Assessment Appeal Period | Winter/Spring 2023 | Appeals to district court must be made within 30 days after adoption of the assessment roll. | |
| Notice of Award | Winter/Spring 2023 | City Council Meeting. Contractor has 15 days to deliver signed agreement, bonds, and insurance certificates. | 4 |
| Pre-Construction Meeting | Spring 2023 | | |
| Public Information Meeting - Construction | Spring 2023 | | |
| Begin Construction | Spring 2023 | 3 Months of Full Time Construction | |
| | | | |
| Construction Complete | Summer/Fall 2023 | | |

NOTES

1. City Council Meetings held on 1st and 3rd Tuesdays @ 7:00 p.m.
2. Utilities Commission Meetings held on 1st Wednesday @ 5:30 p.m.
3. Brainerd Dispatch is currently only running legal notices on Wednesdays and Sundays. Deadline for Wednesday publication is noon on Monday and deadline for Sunday publication is noon on Thursday.
4. The project schedule assumes all Council actions are taken at a regular scheduled meetings. The schedule could be accelerated with special meetings.
5. **All dates are subject to change, this is a living document. Dates may change based on coordination with other 2023 projects.**