



**SPECIAL UTILITY COMMISSION AGENDA**  
**Wednesday, March 16, 2016**  
**5:30 p.m.**

1. **Meeting Called to Order**
2. **Roll Call**
3. **Consent Agenda**  
*The following items are considered non-controversial by staff and are recommended to be read and passed in one motion. Any commission member, staff, citizen or meeting attendee can request one or more items be pulled from the consent agenda and the item will be pulled and addressed immediately after the passage of the consent agenda. Otherwise, the following will be passed in one motion:*
  - A) Approval of Minutes from March 3, 2016 (pp. 2 - 16).

**Agenda**

4. 2016 Mill and Overlay Improvements Feasibility Report (Enclosed in packet).
5. 2016 Fairview Road Plans & Specifications (Enclosed in packet).
6. Excelsior Road, Fairview Road and Edgewood Drive Improvements Feasibility Report (Enclosed in packet).
7. InSite Draft Developers Agreement (Enclosed in packet).
8. Fixed Network Water Meter Replacement Project (pp. 17 – 20).
9. Adjourn.

**UTILITIES COMMISSION**  
**March 2, 2016**

The regular meeting of the Baxter Utilities Commission was called to order at 5:30 p.m. by Chairman Rock Yliniemi.

MEMBERS PRESENT: Commissioners Jack Christofferson, Shawn Crochet, Dave Franzen, Doug Wolf, and Chairman Rock Yliniemi.

MEMBERS ABSENT: Council Liaison Mark Cross.

STAFF PRESENT: Public Works Director/City Engineer Trevor Walter and Administrative Assistant Mary Haugen.

OTHERS PRESENT: WSN Consulting Engineer Aric Welch and WSN Consulting Engineer Tim Ramerth.

**APPROVAL OF MINUTES**

**MOTION** by Commissioner Crochet, seconded by Commissioner Wolf to approve the Utilities Commission minutes of February 3, 2016. Motion carried unanimously.

**2015 DELLWOOD DRIVE & NOVOTNY ROAD, INGLEWOOD DRIVE AND INDEPENDENCE ROAD IMPROVEMENTS PROJECT PARTIAL PAY ESTIMATE NO. 4**

WSN Consulting Engineer Welch reviewed Partial Pay Estimate No. 4 for the 2015 Dellwood Drive, Novotny Road, Inglewood Drive and Independence Road Improvements Project with the commission. WSN Consulting Engineer Welch had no concerns with Partial Pay Estimate No. 4 and recommends approval.

**MOTION** by Commissioner Franzen, seconded by Commissioner Crochet to recommend City Council approve the R. L. Larson Excavating Partial Pay Estimate No. 4 in the amount of \$15,634.69 for the 2015 Dellwood Drive & Novotny Road, Inglewood Drive and Independence Road Improvements Project. Motion carried unanimously.

**WSN PROPOSAL FOR ENGINEERING SERVICES FOR THE ISLE DRIVE OFFICE PARK STORMWATER MANAGEMENT PLAN UPDATE**

WSN Consulting Engineer Welch reviewed the proposal to update the Stormwater Management Plan for the Isle Drive Office Park area. The plan will also include preliminary stormwater management layouts for the future road extension of Falcon Drive and development.

The proposed scope of services includes the following:

- Meet with City staff to define the study area and identify the study parameters.
- Research and gather existing information to the study area.
- Update the existing basemap using available property record drawings, aerial photos and topography information.

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- Re-delineate the drainage areas within the study area.
- Visit the study area to ground truth and confirm the delineation.
- Calculate the 100-year stormwater runoff volumes.
- Define stormwater outlet locations.
- Layout necessary storm sewer piping and ditching improvement options.
- Coordinate outlet locations and piping/ditching alignments with future roadway improvements.
- Compile and summarize findings in a Stormwater Management Plan.
- Present the report to the Utilities Commission and Council.

WSN proposes to perform the services described above on an hourly basis for the Not to Exceed amount of \$4,250.00.

Public Works Director/City Engineer Walter informed the commission this information on 100 year storm elevations is need along with the new FEMA mapping in the areas along Isle Drive and Falcon Drive. This information assists staff with marketing on city owned parcels and private parcels in the area.

**MOTION** by Commissioner Wolf, seconded by Commissioner Christofferson to recommend City Council approve the WSN Proposal for Engineering Services for Isle Drive Office Park Stormwater Management Plan Update in the Not to Exceed Amount of \$4,250.00. Motion carried unanimously.

### **WSN MILL AND OVERLAY IMPROVEMENTS PROJECT MONTHLY UPDATE**

WSN Consulting Engineer Welch informed the commission the kick-off meeting was held on January 22, 2016. City staff has been working on checking the condition of storm and sanitary manholes and gate valves. All manholes and storm structures have been checked and information has been passed on to the engineer by City staff. All but two of the existing water gate valves have been checked. The remaining two valves could not be checked because ice inside the valve box prevented them from being keyed.

Due to snowfall events, it has been difficult to schedule Braun to complete the Ground Penetrating Radar (GPR) investigation. The streets need to be cleaned and dry to obtain accurate results and staff has been working to assist with cleaning of the roadways. After Braun is able to complete the GPR the coring study will follow with coring locations determined by the GPR results.

Work on the feasibility report and design is about 80% complete. The results from the GPR are needed to verify the pavement rehabilitation recommendations prior to finalizing the report and plans.

The schedule has slipped a bit due to weather and inability to complete the GPR investigation. To keep the project on schedule, Mr. Welch is requesting a special Utilities Commission meeting

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on March 16, 2016 to review the feasibility report. The special meeting should allow WSN to keep the original planned bidding and construction start dates.

**MOTION** by Commissioner Franzen, seconded by Commissioner Crochet to set a special Utilities Commission meeting on March 16, 2016 at 5:30 p.m. Motion carried unanimously.

### **WSN STORMWATER MAINTENANCE PLAN FOR DITCH CLEANING ON DELLWOOD DRIVE AND T.H. 210**

Public Works Director/City Engineer Walter informed the commission the stormwater from the MnDOT ditch is backing up into Aldi's storm water chamber system located under their parking lot.

WSN Consulting Engineer Welch explained the apron in the ditch is set 3-feet below the ditch which is causing the water to build up before it can drain. The drainage system needs to be cleaned to remove the settlement that has built up over the years in MnDOT TH 371 ditch and a weir will need to be installed in one of the upstream storm sewer catch basins. The weir will force the water to pond in MnDOT's ditch.

The weir will be fabricated and installed by City staff which will assist with keeping any associated costs down. Commissioner Crochet inquired if MnDOT would participate with the project. Public Works Director/City Engineer Walter stated he will contact the local office for participation but is expecting MnDOT to say that it is 100% City cost.

WSN Consulting Engineer Welch stated there are underground utilities which could be impacted by the cleaning the TH 371 ditch.

### **WSN DRAFT FEASIBILITY REPORT FOR THE CROW WING COUNTY 2016 DELLWOOD DRIVE RECONSTRUCTION PROJECT**

WSN Consulting Engineer Welch reviewed the roadway improvements being considered on Dellwood Drive from Novotny Road to C.S.A.H. 49 (Wise Road). The roadway in the project area is currently under the jurisdictions of the City of Baxter (50%), Crow Wing County First Assessment District (FAD) (25%) and the City of Brainerd (25%) based on current municipal boundaries. Three parcels abutting the roadway are currently within the Baxter municipal limits and the remaining parcels are located in the First Assessment District (Unorganized Territory) of Crow Wing County and the City of Brainerd. The parcels in the City of Baxter are currently zoned Regional Commercial (C-2), Office Service (OS) and Special Residential/Cluster (RS).

Recently, Crow Wing County applied for and secured a grant through the Local Road Improvement Program (LRIP) for upgrading the roadway. Planned improvements include widening the roadway, increasing the design strength of the roadway and securing a defined right-of-way corridor. As a result of the varying jurisdiction in the project, the City of Baxter would have a share of the proposed costs

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### Existing Conditions

The project area is along Dellwood Drive between Novotny Road and C.S.A.H. 49 (Wise Road), a distance of approximately ½ mile. The existing roadway is a rural (no curb/gutter) bituminous surfaced roadway approximately 24 feet in width. Drainage is handled by swales located on either side of the paved surface. No major improvements have been done to the road for many years and the roadway is in poor condition. The City of Baxter “Comprehensive Pavement Management System”, prepared by Bolton & Menk, Inc. and dated June 18, 2013, did not review this area since it was maintained by Crow Wing County at the time of the evaluation.

### Proposed Improvements

Proposed improvements consist of complete reconstruction of the roadway. The proposed roadway section consists of bituminous surfaced 12’ travel lanes and 6’ shoulders/bike lanes in each direction for a total width of 36’ edge-to-edge with a 10’ clear zone along the edges. Drainage will be controlled via swales on both sides of the roadway. In addition, Crow Wing County is securing a defined 80’ right-of-way corridor for the roadway.

### Estimated Project Costs

The total estimated construction cost for the proposed improvements is \$333,457 as provided by Crow Wing County. The LRIP grant was \$214,695 making the local portion of the project \$118,762. It should be noted that the grant amount is a maximum and is fixed as long as the grant amount does not exceed 90% of the construction costs. If bids come in higher than the estimates, the local share would increase. If bids are considerably lower than the estimates, the grant amount could cover up to 90% of the bid amount.

The proposed breakdown of the cost shares is as follows:

Total Estimated Construction Cost	\$333,457
LRIP Grant Amount:	<u>\$214,695</u>
Local Share of Construction Cost	\$118,762

City of Baxter Share (50%): \$59,381

County FAD/City of Brainerd Share (50%): \$59,381

Please note, the above costs only reflect construction costs and do not include soft costs such as engineering, administration, legal and right-of-way acquisition. Costs can vary widely depending upon many factors such as weather, economic conditions, size of project, and the workload of available contractors. Costs presented above were determined by the Crow Wing County Highway Department and are based on estimated 2015 construction costs. Actual costs can only be determined by bidding the project.

### Project Implementation

This review only pertains to the estimated City of Baxter costs and no review was done for any proposed County costs. Funding of the City of Baxter share will be obtained via City contribution and special assessments to benefited property owners. All estimated assessments

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were determined in accordance with the current version of the “City of Baxter – Assessment Policy for Public Initiated Improvements”. Based on the current City assessment policy, all costs for roadway maintenance activities (FDR or Mill and Overlay), up to a maximum of 44’ in width, would be assessed to the benefitted property owners with no City contribution.

Since parcels in the project area vary significantly in size and use, the “Front Foot” assessment method was utilized. To calculate “front footages” for each parcel, the right-of-way line was offset 35’ into C-2 and OS properties and 40’ into RS properties to minimize discrepancies associated with angular lots. An attached sketch shows the calculated “front footages” for each parcel in the municipal limits within the project area.

For purposes of this report two scenarios were reviewed for estimating assessments. Method 1 calculates the assessed costs based on the actual project costs incurred by the City. 100% of the projects costs are assessed to the benefitting properties.

### Method 1 - Assessments Based on Actual City Costs:

Estimated City Share of Construction Cost (50% of total construction cost):	\$59,381
Estimated City Share of Clearing and Grubbing:	\$2,775
Estimated Engineering Cost (18% of total construction cost share):	\$30,011
Estimated City Engineering Cost:	\$3,500
Estimated Legal, Financing and Other Costs:	\$2600
<u>Estimated Right-Of-Way Cost:</u>	<u>\$8,320</u>
Total Estimated City Of Baxter Project Cost:	\$106,587
Estimated Assessable Footage:	2,539
Estimated Cost per Assessable Foot:	\$41.98
Total City Cost:	\$0.00

The second assessment review was conducted because Crow Wing County is proposing complete reconstruction of the roadway. These improvements are significantly more involved than normal pavement maintenance procedures that typically would be undertaken by the City in accordance with the pavement management plan. The recommended maintenance activity for Dellwood Drive would be full-depth reclamation (FDR) based on the following:

Existing pavement condition warrants FDR maintenance.

The existing zoning is 50% RS and 50% OS/C-2.

There is no existing commercial development along the roadway and widening/upgrading to a commercial roadway section would not be warranted at this time based on existing traffic volumes and traffic generation from adjacent properties.

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The estimate prepared was based on the existing 24' foot wide roadway with no consideration for the additional width being proposed by Crow Wing County. This estimate reflects the costs the City would likely incur if the roadway was maintained in accordance with the recommended standard pavement management techniques.

### Method 2 - Assessments Based Normal City Roadway Maintenance (FDR):

Estimated FDR Construction Cost:	\$54,791
Contingencies (10%):	\$5,479
Subtotal:	\$60,270
Estimated Engineering, Legal and Administrative (20%):	\$12,054
Total Estimated City Of Baxter Project Cost:	\$72,324
Estimated Assessable Footage (both sides of roadway):	2,539
Estimated Cost per Assessable Foot:	\$28.49
Estimated Actual Project Cost:	\$104,487
Estimated Assessed Cost (see Assessment Calculation Worksheet):	\$72,324
Estimated City Cost:	\$32,163

A copy of the cost estimates and assessment calculations is attached to this document.

### Conclusions and Recommendations

This memorandum studied the feasibility of upgrading Dellwood Drive as part of the proposed Crow Wing County project. All proposed improvements considered were as recommended by Crow Wing County and in conjunction with their LRIP grant. The only other option considered was the "Do Nothing" approach which was eliminated from detailed consideration since the County has undertaken the project and been awarded the grant funding.

It is recommended assessments be based on the lower of the two assessment methods presented. Based on preliminary estimates, Method 2 – FDR has the lowest per foot assessment cost. This recommendation is based on the fact that roadway would likely not have been widened if the County had not pursued the project and been successful in securing the LRIP grant funding. The total estimated project cost is \$104,487. Assessed costs (based on Method 2 – FDR) are estimated to be \$72,324 or 69.2% and City costs are estimated to be \$32,163 or 30.8%. If unit bid prices are significantly lower than estimated, it may be possible that Method 1 could produce lower per foot assessments. Both methods should be reviewed using actual unit bid prices prior to calculating final assessments.

In conclusion, we feel the proposed improvements are feasible for construction. We do not foresee any major problems other than normal inconveniences associated with construction such as noise, dust and traffic disturbance. These situations would be temporary in nature and we

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would anticipate the project to take approximately 1 month to complete. We recommend the City proceed as follows:

- Review the feasibility study to determine if the City should proceed with the project. If the City Council decides to move forward, we recommend the City proceeds as follows:
- Pass a resolution receiving the report and calling the Improvement Hearing.
- Hold the Improvement Hearing.
- Pass a resolution ordering the improvement and preparation of plans and specifications.
- Pass a resolution approving plans/specifications and authorizing advertisement for bids.
- Review bids and recommend award of the construction contract.
- After construction is complete, pass a resolution declaring costs to be assessed and ordering preparation of the proposed assessment.
- Pass a resolution for hearing on the proposed assessment.
- Hold the Assessment Hearing.
- Pass a resolution adopting the assessments.

Public Works Director/City Engineer Walter informed the commission that bids were opened and came in slightly lower than the engineers estimate. True costs will not be known until the project has been completed and final quantities are known.

**MOTION** by Commissioner Crochet, seconded by Commissioner Christofferson to recommend City Council approve the WSN Feasibility Report for the Crow Wing County 2016 Dellwood Drive Reconstruction Project. Motion carried unanimously.

### **2016 FAIRVIEW ROAD IMPROVEMENTS PROJECT MONTHLY UPDATE**

Public Works Director/City Engineer Walter stated the plans are 95% complete and the goal is to have commission review the plans at the March 16<sup>th</sup> special meeting.

### **13179 HOMESTEAD DRIVE CONDITIONAL USE PERMIT**

The commission reviewed the conditional use permit for 13179 Homestead Drive. The property owner plans to build on the northern 100-feet of the 200-feet of shoreline to reserve the possibility of a future lot split.

Public Works Director/City Engineer Walter informed the commission that utilities were installed with the 2005 East Perch Lake Improvements Project. Sanitary sewer and water stubs were installed every 100 feet which resulted in the parcel having four assessments.

The commission had no concerns with the conditional use permit contingent on an assessment agreement being in place regarding the existing four (4) water and Four (4) sanitary sewer stubs and the City retaining the right for four assessments in the future.

**MOTION** by Commissioner Crochet, seconded by Commissioner Franzen to recommend advising the Planning & Zoning Commission that the Utilities Commission recommends

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approval of the Conditional Use Permit with a condition that an agreement is in place regarding the existing four (4) water and four (4) sanitary sewer stubs and retain the City rights for four (4) future assessments be in place before a building permit is issued. Motion carried unanimously.

### **6245 PARIS ROAD ADMINISTRATIVE SUBDIVISION AND CONDITIONAL USE PERMIT**

The commission reviewed the subdivision and conditional use permit for 6245 Paris Road. The property owner is requesting to combine two platted lots of record in order to construct a larger garage.

The commission had no concerns with this request since there are no existing city utilities at this time.

**MOTION** by Commissioner Crochet, seconded by Commissioner Christofferson to recommend advising the Planning & Zoning Commission that the Utilities Commission recommends approval of the Administrative Subdivision of 6245 Paris Road with a condition that an assessment agreement for future assessments is recorded against the platted lot. Motion carried unanimously.

### **14540 DELLWOOD DRIVE CONDITIONAL USE PERMIT AND WSB TRAFFIC MEMO**

The commission reviewed the conditional use permit, stormwater calculations and traffic memo for 14540 Dellwood Drive. The proposed site improvements for Riverwood Bank are considered redevelopment for storm water requirements and platting is not required under current City code.

WSN Consulting Engineer Tim Ramerth representing the property owner informed the commission that utility connections will be derived from the Target private access road to the east of this site. Storm water management will be retained onsite with a 5-year, 24-hour storm event as per City ordinance. Currently the site drains directly to surrounding catch basins within the city right-of-way without any prior treatment. Because of site topography, all drainage will not be able to be routed to the infiltration area. A minimal amount of site area will still drain directly to the City infrastructure. WSN has maximized the site area that drains to the infiltration basin for the 5-year runoff from the site.

Public Works Director/City Engineer Walter stated a Developers Agreement will be needed for the new water line that will be extended into the property with the installation of a new fire hydrant. Development agreement will also cover the new sanitary sewer line and storm sewer design for the site.

The site was reviewed by WSB Traffic Engineer Chuck Rickart due to the high volume of traffic in the area. The following is WSB's review:

As requested we have reviewed the traffic and access for the proposed Riverwood Bank development located north of Clearwater Road and west of Dellwood Drive on the old

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Bonanza restaurant site. The developer is proposing to construct a 7,344 sf building to include the banking area as well as a café (coffee shop) area. The bank includes a three bay drive-thru. The café area will be included in the banking area (no separation) and will only provide walk up service with no drive-thru proposed. The site plan also includes a future 4,700 sf expansion area east of the proposed building.

A basic traffic engineering approach to providing a safe and efficient roadway system is managing access to it. The spacing of intersections and driveways should be controlled as defined by roadway functional class and traffic volumes. This approach limits the impact of driveways on average speeds and levels of service on roadways appropriate to the function of the facilities. Some linkage to land uses may become somewhat less direct, but this needs to be balanced against the overall gains in terms of operational and safety conditions. New developments and sites which are being redeveloped may be required to provide internal traffic design so as to limit the number of driveways to the roadway system and/or to provide that access on appropriate roadways. The City of Baxter has identified an access spacing guideline in the Comprehensive plan of 600 feet in commercial areas such as this.

The proposed site plan provides three access locations to the adjacent roadway system. Two access locations are provided to the east/west Target Access Road on the north side of the site, and; one access location is provided to Clearwater Road on the south side of the site. While this is the same access configuration the old Bonanza restaurant site provided, the two easterly driveways (one to the Target Access Road and one to Clearwater Road) have been moved approximately 100 feet further east than the former driveways. The new access on Clearwater Road is located approximately 240 feet from the stop bar at Dellwood Drive and 130 feet from the north/south Target Access Road.

Based on the Institute of Transportation Engineers (ITE) “*Trip Generation Manual, 9<sup>th</sup> Edition*” the former Bonanza restaurant site would generate approximately 155 PM peak hour trips and 1,060 daily trips. The proposed Bank site without the expansion would generate approximately 175 PM peak hour trips and 1,090 daily trips. The proposed Bank site with the expansion would generate approximately 295 PM peak hour trips and 1,785 daily trips.

Based on our review of the preliminary plans and anticipated traffic generation from the site we offer the following comments.

1. The proposed width of the easterly access driveways are 25 feet (Target Access Road driveway) and 26 feet (Clearwater Road driveway). While the City’s minimum allowable driveway width is 24 feet it would be recommended that a minimum of 32 feet be used to insure truck turning radii can be accommodated.
2. The bank drive-thru area on the north side of the site is designated as one-way west bound. This creates an extremely large area of pavement (approximately 52 feet in width). With traffic exiting from the parking lot in front of the building and entering at the driveway from the Target Access Road there is a potential for confusion.

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Consideration should be given to narrowing up this area and defining the drive isle from the parking lot to the driveway access location.

3. The location of the proposed driveways on the Target Access Road and Clearwater Road are shown in satisfactory locations. The safety of traffic on the Target Access Road and Clearwater Road interacting with traffic on Dellwood Drive will be improved by moving the easterly driveways further to the east creating additional vehicle staking distance.
4. Based on the City's Comprehensive Plan guidelines no access should be provided on Clearwater Road for this site. However, based on the traffic review the proposed bank and café use will initially generate approximately the same amount of traffic as the previous Bonanza restaurant use with no reported safety or operation concerns.

However, with the proposed expansion the PM peak hour traffic would increase by more than 100 vehicles and the daily traffic would increase by more than 700 vehicles. This additional traffic could create safety and operation issues at the proposed driveway. Two alternatives could be considered to insure the safety and operation of traffic on Clearwater Road.

- Provide a center left turn lane on Clearwater Road from Dellwood Drive to east of the north/south Target Access Road. This would improve safety and operations by removing left turning traffic from the through lane. Clearwater Road is currently approximately 44 feet in width which would be sufficient to restripe the roadway adding the center lane. This could be completed with the current full depth reclamation project planned for the summer of 2016.
- Remove the driveway and provide an alternative access driveway to the north/south Target Access Road through the future parking area on the east side of the site. This would improve safety and operations by removing the access to Clearwater Road and moving the traffic to the existing access at the north/south Target Access Road. This would be implemented when the building expansion was completed.

**MOTION** by Commissioner Wolf, seconded by Commissioner Christofferson to recommend advising the Planning & Zoning Commission that the Utilities Commission recommends approval with the following conditions:

1. Require a signed Development Agreement for water, sanitary sewer and storm sewer be in place before the City issues a building permit.
2. Ask for an additional 7 feet of right-of-way on the north side of Clearwater Road.
3. Require a 20 foot wide utility easement over the water line and around the fire hydrant.
4. City will restripe Clearwater Road with a left center turn lane as part of the 2016 full depth reclamation project on Clearwater Road.

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5. City will take out existing concrete curb cut and install new concrete curb cut as part of the 2016 full depth reclamation project on Clearwater Road

Motion carried unanimously.

### **CITY LAND SALE FOR THE NORTHLAND ARBORETUM TO HAVE A SIGN LOCATED AT THE CORNER OF CONSERVATION DRIVE AND EXCELSIOR ROAD**

Public Works Director/City Engineer Walter informed the commission the City has received a request from the Northland Arboretum to have a sign located at the corner of Conservation Drive and Excelsior Road. The City of Baxter cannot permit the sign since the City does not allow off premise signage.

The City of Baxter could choose to sell the triangular parcel to Crow Wing County which in turn would lease the property to the Northland Arboretum. The City would maintain control of the existing infrastructure such as right-of-way, storm water ponding and utility easements.

Council Liaison Cross stated the Comprehensive Plan addresses the Northland Arboretum as an integral part of the City's storm water management plan. Commissioner Wolf stated the Northland Arboretum adds value to the City of Baxter as a destination spot for the community.

The commission expressed a few concerns that the City Council should be consider due to the commercial area surrounding the land, commercial storm water system and traffic flow.

- Easements should be required over the entire proposed platted lot for streets (right of way), water, sanitary sewer and storm water and only allow the sign to be constructed in one very small confined area
- Sign should not conflict with sight lines of the intersection
- Sign height & dimensional restrictions should be required in order to control sight lines
- Future sign removal or moving of the sign as requested by the City for future improvements should be at the expense of the Northland Arboretum
- Plat existing right-of-way of Conservation drive and Excelsior Road as part of the platting of the land

### **BOLTON & MENK 2016 GOLF COURSE DRIVE IMPROVEMENTS PROJECT – DESIGN DRIVE STORM SEWER REROUTE**

Public Works Director/City Engineer Walter reviewed BMI 2016 Golf Course Drive Improvement Project for the Design Drive Storm Sewer Reroute memorandum and submitted it into the record.

The supplemental preliminary cost estimate to extend storm sewer along Golf Course Drive from the existing outlet south to Excelsior Road and provide a cost to perform an analysis of the existing storm sewer network within the contributing watershed to verify if there is adequate capacity in the storm sewer flowing north under the Mills Fleet Farm building to handle planned improvements.

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### Background

The commercial areas between Dellwood Drive and Golf Course Drive from Design Road north to the Body Work Collision Center property is served by a storm sewer network that outlets across Design Road approximately 300 feet west of Golf Course Drive and continues south onto Mills Properties Inc. property where it combines with storm sewer from Excelsior Road and is conveyed east through a 66" concrete pipe under the Mills Fleet Farm building that outlets under Golf Course Drive to the drainage ditch on Evangelical Lutheran Good Samaritan property.

The benefits of completing the storm sewer re-routing are:

1. Cost savings related to street reconstruction to complete this construction with the Golf Course Drive improvement project.
2. Removes public infrastructure from private property which in return reduces City liability.
3. Re-routing flow from the north creates additional storm sewer capacity for proposed improvements to Excelsior Drive west of Trunk Highway 371 which will be needed as proposed in the draft feasibility report Widseth, Smith, Nolting (WSN) is completing.

### Preliminary Cost Estimate

The Golf Course Drive Feasibility Report prepared by WSN and dated June 23, 2015 has an estimated project cost of \$1,305,340. As proposed the City of Baxter will fund storm sewer improvements on Golf Course Drive from Universal Drive to Country Club Estates in the amount \$391,160 (30%) and the remaining project costs in the amount of \$914,180 (70%) will be assessed to benefitting properties.

A preliminary cost estimate to re-route the existing storm sewer on Design Road to the drainage ditch on Evangelical Lutheran Good Samaritan property as part of the Golf Course Drive Improvement Project was presented. We estimate this will add \$293,500 to the Golf Course Drive Improvement project. The estimate includes a 10% construction contingency to account for construction items not included and variances in unit prices, 20% for engineering services, and 5% for administrative and legal services. If the scope of the Golf Course Drive project was expanded as proposed the total estimated project cost would be \$1,598,840. As proposed the Golf Course Drive project will assess \$914,180 which will meet or exceed 20% of the project cost being funded by special assessments as required for public bonding.

A preliminary cost estimate to extend storm sewer on Golf Course Drive from the drainage ditch on Evangelical Lutheran Good Samaritan property south to the intersection with Excelsior Road as part of the Golf Course Drive Improvement Project was presented. We estimate this will add \$180,750 to the Golf Course Drive Improvement project. The estimate includes a 10% construction contingency to account for construction items not included and variances in unit prices, 20% for engineering services, and 5% for administrative and legal services. If the scope of the Golf Course Drive project was expanded to include the Design Road storm sewer re-route and storm sewer to Excelsior Road the total estimated project cost would be \$1,779,590. As

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proposed the Golf Course Drive project will assess \$914,180 which will meet or exceed 20% of the project cost being funded by special assessments as required for public bonding.

We estimate the cost to analyze the capacity of the existing storm sewer that runs from Excelsior Road north under the Mills Fleet Farm building to be \$7,450. This will involve modeling the entire contributing watershed to see how the current storm sewer network responds to a 10-year rainfall event. We will prepare a summary report of current inflow and recommend pipe sizes for a re-route if appropriate. With the size and complexity of the existing watershed we request that electronic copies of existing studies and data be made available to aid in the creation of the watershed model. If a re-route on Excelsior Road is ultimately chosen this study would be utilized in the Golf Course Drive storm sewer design which is the majority of the engineering effort to extend storm sewer south to Excelsior Road.

Cost estimates presented here are meant to be used as a guideline in the decision making process. If there is a consensus from the City Council to move forward with the storm sewer re-routing a more refined cost estimate will be provided as part of a supplement to the Golf Course Drive Improvement Project Feasibility Report.

For additional City Council information, in order to complete a full depth reclamation and repave the remaining 820 feet of Design Road west to Dellwood Drive would cost approximately \$86,000.00. This cost estimate includes 10% contingency and 25% for Engineering, Legal and Administration costs.

The commission held an extensive discussion on the storm sewer piping which was installed with the 1983 Commercial Area Improvements. Council Liaison Cross requested staff review all easements, agreements and permits in the project files for the construction of Mills Fleet Farm building. He also recommended the condition of the concrete pipe be reviewed for current conditions of pipe.

### **WSN AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES FOR THE NORTH INGLEWOOD DRIVE IMPROVEMENTS FEASIBILITY REPORT**

WSN Consulting Engineer Welch reviewed the proposal to prepare a feasibility report for the North Inglewood Drive Area Improvements. The project area includes Inglewood Drive from Peace Road to CSAH 77 and CSAH 77 from Edgewood Drive to 1,100 feet west of Inglewood Drive. WSN is familiar with the project area and has completed the preliminary sanitary sewer and water layouts.

It is our understanding the project will consist of the following improvements:

- Sanitary sewer lift station on Peace Road
- Gravity sanitary sewer collection system
- Sanitary sewer forcemain
- Water distribution system
- Roadway reconstruction

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Our proposed scope of services is as follows:

### Feasibility Study

WSN proposes to complete a feasibility study meeting the requirements of the Minnesota Chapter 429 assessment process. Specific items included with this proposal are:

- Research of existing documents and studies
- Preparation of preliminary report exhibits
- Preparation of preliminary property acquisition exhibit
- Estimated preliminary quantities
- Preparation of preliminary cost estimates and assessment calculations.
- Preparation of draft feasibility report that includes a review of existing conditions, proposed improvements, estimated project costs, project implementation and discussion of conclusions and recommendations.
- Review of preliminary study with City staff, Utilities Commission and Council.
- Prepare final study based on City review comments.

WSN proposes to perform the services described above on an hourly basis, in accordance with the attached fee schedule, for the not-to-exceed amount of \$5,000.00.

**MOTION** by Commissioner Franzen, seconded by Commissioner Crochet to recommend City Council approve the WSN Agreement for Professional Engineering Services for the North Inglewood Drive Area Improvements Feasibility Report in the Not to Exceed amount of \$5,000.00. Motion carried unanimously.

### **DEPARTMENT OF TRANSPORTATION NOTICE OF ANNUAL DISTRIBUTION**

The Minnesota Department of Transportation Notice of Annual Distribution was submitted to the commission as information only.

### **TKDA FIXED NETWORK WATER METER REPLACEMENT PROJECT PLANS AND SPECIFICATIONS**

Information only. The City Council took action at the February 2 council meeting. Bid opening was on Friday, February 26, 2016 and two bids were received.

### **SPECIAL MEETING REQUEST FOR MARCH 16, 2016**

Requested Items on Agenda:

- A. 2016 Mill and Overlay Improvements Plans & Specifications Review & Recommendation
- B. 2016 Fairview Road and Trail Plans & Specifications Review & Recommendation
- C. 2016 Excelsior Road, Edgewood Drive and Fairview Road Roundabout and Bike Lane Design Feasibility Report

**UTILITIES COMMISSION – 03/03/16**

D. Fixed Network Water Meter Replacement Project Bids

Commissioner Christofferson informed the commission that he will not be able to attend the meeting. Commissioner Wolf stated that he has a prior engagement and will be late to the meeting.

**2016 CROW WING COUNTY COST SHARE AGREEMENT FOR THE 2016 CITY OF BAXTER STRIPING PROJECT**

Public Works Director/City Engineer Walter reviewed the Crow Wing County Cost Share Agreement for the 2016 City of Baxter Striping Project. The 2016 Streets budget has \$31,000.00 allocated for city-wide striping.

Public Works Director/City Engineer Walter has no concerns with the agreement and recommends approval.

**MOTION** by Commissioner Franzen, seconded by Commissioner Christofferson to recommend City Council approve the 2016 Crow Wing County Cost Share Agreement for the 2016 City of Baxter Striping Project in the estimated amount of \$30,002.89. Motion carried unanimously.

**ADJOURNMENT**

**MOTION** by Commissioner Crochet, seconded by Commissioner Christofferson to adjourn the meeting at 8:00 p.m. Motion carried unanimously.

Approved by:

Submitted by,

\_\_\_\_\_  
Rock Yliniemi  
Chairman

\_\_\_\_\_  
Mary Haugen  
Administrative Assistant

## REQUEST FOR COUNCIL ACTION

03.15.2016

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**Department Origination:** IT; Public Works

**Agenda Section:** Consent

---

**Agenda Item:** Award contract for the Fixed Network Water Meter Reading System Project to Dakota Supply Group in the estimated amount of \$883,841.33.

---

**Approval Required:** Simple Majority of Vote of the Council

---

### **BACKGROUND**

In February, the City advertised for bids for a fixed network water meter reading system. Two vendors submitted proposals, which were reviewed and analyzed by City and TKDA staff. After analyzing initial project costs, 25 year life cycle costs, and contacting references, City and TKDA staff recommends awarding a contract to Dakota Supply Group (DSG). The attached award recommendation letter from TKDA provides a summary of the bid packages.

### **FINANCIAL IMPLICATIONS**

The 2016 adopted budget includes \$1.1 million dollars for the fixed network water meter reading system project, with funding from local option sales tax collections. The DSG bid package total, plus the estimated cost of additional recommended meter replacements is \$883,841.33.

Bid package totals were calculated using best estimate quantities. Total project costs will be determined by actual quantities used, based on bid unit pricing, at the completion of the project. In addition, the City will need to acquire some server infrastructure for storage of meter reading data, at a cost to be determined.

### **STAFF RECOMMENDATIONS**

Staff recommends awarding a contract for the Fixed Network Water Meter Reading System Project to Dakota Supply Group in the estimated amount of \$883,841.33.

### **COUNCIL ACTION REQUESTED**

**MOTION** to award contract for the Fixed Network Water Meter Reading System Project to Dakota Supply Group in the estimated amount of \$883,841.33.

Attached: TKDA Recommendation Letter

444 Cedar Street, Suite 1500  
 Saint Paul, MN 55101  
 651.292.4400  
 tkda.com



March 8, 2016

Todd DeBoer  
 GIS/IT Director  
 13190 Memorywood Drive  
 Baxter, Minnesota 56425

Re: Bid Award Recommendation  
 Fixed Network Water Meter Replacement Project  
 TKDA Project No. 16035.000

Dear Mr. DeBoer:

On February 26, 2016, the City of Baxter received proposals for the above referenced project. Proposals were received from two vendors for the replacement of all water meters and summary information is as follows:

	DSG	Ferguson Waterworks
Bid Package "A"	\$567,044.54	\$760,147.81
Bid Package "B" With Outside Radios	\$268,233.79	\$429,208.64
Total	\$835,278.33	\$1,189,356.45

Bid Package "A" includes furnishing the meter products under Schedule No. 1 and Schedule No. 2. Bid Package "B" includes Schedule No. 3 for installation of the meters with an alternate bid item to install the radios on the outside of the building and the installation of the equipment required for the fixed network system and Schedule No. 4 for long term maintenance and extended warranty costs including the alternate bid item for the annual fee for the Vendor hosted equipment. One contract should be awarded to include Bid Package "A" and Bid Package "B."

To determine the 25 year life cycle costs for the expected life of the water metering system, inflation is projected to increase 3.0% per year for future pricing. The total costs are listed in the table below.

City of Baxter  
 Bid Award Recommendation  
 3/8/2016  
 Page 2

### 25 Year Life Cycle Costs

	DSG	FERGUSON WATERWORKS
Schedule 1	\$ 550,174.62	\$ 728,226.62
Schedule 2- Replacement Meters for 25 Years (1.03i)	\$ 527,010.17	\$ 646,500.06
Schedule 3 Installation	\$ 220,292.79	\$ 289,254.64
Add Amount for Outside Radios	\$ 45,791.00	\$ 136,300.00
Schedule 4- Annual Fee Per Year	\$ 2,150.00	\$ 3,654.00
Annual Fee for 25 years (1.03i)	\$ 69,773.70	\$ 118,582.84
Vendor Hosted Fee for 25 Years (1.03i)	\$ 389,434.60	\$ 584,151.91
Cellular Backhaul Fee for 25 Years for 3 collectors (1.03i)	\$ 57,320.07	
Questionnaire- Current Radio Replacement Cost	\$ 73.86	\$ 93.75
Questionnaire- Radio Prorated % at Year 14	40%	45%
All Radios Changeout at year 14	\$ 85,677.60	\$ 122,343.75
<b>Total 25 Year Cost</b>	<b>\$ 1,945,474.55</b>	<b>\$ 2,625,359.82</b>

TKDA has reviewed the Vendor experience, local support available as listed in the bid questionnaires and the life cycle costs associated with the water metering systems. After discussions with City staff we recommend that the City of Baxter award a contract to DSG for their Bid Package "A" and Bid Package "B" proposal for a total of \$835,278.33.

As DSG does not have compound meters for the commercial meters over 2" in size and after discussions with City staff, they would like to change the 3" and 4" meters to vertical turbine meters and the 6" meter to a mag meter for the listed unit prices for those sizes. Also, for the approximately 335 newer Neptune meters, City staff would like to replace these with new meters from DSG so there is only one manufacturer for the meter bodies for the entire City. This will add \$48,563 to the contract amount and will be reflected in the total unit prices at the completion of the project.

The contract award should be based upon unit prices listed in the Bid Package "A" and Bid Package "B" proposals dated February 26, 2016. Pricing for future meter purchases listed in Schedule No. 2 and the extended warranty and maintenance fee listed in Schedule No. 4 should be adjusted based on the changes in the producer price index (PPI) for totalizing fluid meters and counting devices at an index interval of December to December until the year 2040 as specified.

If you have questions or require additional information, please contact me at 651.292.4578.

City of Baxter  
Bid Award Recommendation  
3/8/2016  
Page 3

Sincerely,



Matthew R. Ellingson, P.E.  
Project Engineer

# MEMO

**Date:** March 10, 2016  
**To:** **Baxter Utilities Commission**  
**From:** Aric Welch  
**Cc:** Trevor Walter  
**Project Name:** 2016 Mill and Overlay, FDR and Turn Lane Improvements  
**Project No.:** 0102B0379.000  
**Subject:** **Feasibility Study Update**



Brainerd/Baxter  
7804 Industrial Park Road  
PO Box 2720  
Baxter, MN 56425-2720

218.829.5117   
218.829.2517 

Brainerd@wsn.us.com 

[WidsethSmithNotling.com](http://WidsethSmithNotling.com)

Please note the attached feasibility study is draft copy and does not represent our final recommendations as they relate to the proposed roadway and pavement improvements. We are still awaiting two important pieces of information before we can formulate our final recommendations and finalize the report.

Braun is still in the process of finalizing the pavement evaluation report. The ground penetrating radar was completed the week of February 29<sup>th</sup> and the pavement coring study was completed on March 7<sup>th</sup>. The pavement evaluation report will contain detailed information on existing pavement and base thicknesses and pavement design/rehabilitation recommendations. The recommendations in the draft report are based on available record drawing information and the 2013 Pavement Management Plan only.

We are meeting with City staff on Friday March 11<sup>th</sup> to walk the project areas. We will walk all of the curb and gutter and determine which areas need to be replaced. We will also review other issues including drainage on some of the residential roadways. In the current report we have bumped up the contingencies to 15% to cover some of the additional items we anticipated will be added after the walk through is complete.

If additional information becomes available, we will present an updated report at next week's meeting.

**2016 MILL & OVERLAY, FULL DEPTH RECLAMATION AND TURN  
LANE IMPROVEMENTS**

**MUNICIPAL PROJECT NO. ????**

**FEASIBILITY REPORT**

Prepared for  
City of Baxter

WSN No. 0102B0379.000

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.

---

Aric Welch Professional Engineer	41983 License Number	Date
-------------------------------------	-------------------------	------

# 2016 MILL & OVERLAY, FULL DEPTH RECLAMATION AND TURN LANE IMPROVEMENTS

## FEASIBILITY REPORT

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### APPENDIX

Preliminary Plans  
Figure 2 Commercial Project Area Access  
Engineer's Estimate and Assessment Calculations

Figures 2-8 Assessment Exhibits  
Individual Assessment Worksheet  
Pavement Evaluation Report  
Project Schedule

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## **STATEMENT OF PURPOSE**

The purpose of this report is to review the feasibility of improving various roadway segments within the municipal limits as part of the City of Baxter's ongoing pavement management program. Both residential and commercial roadways are scheduled for maintenance improvement in 2016. On January 19, 2016, the City Council authorized WSN to complete a Feasibility Report relative to these improvements.

Commercial roadways being reviewed as part of this report include segments of Clearwater Road and Woida Road. Residential roadways being reviewed as part of this report include all or a part of Cedardale Lane, Brentwood Road, Briarwood Lane, Birchdale Lane, Ashdale Lane, Second Street, First Street, Maplewood Drive, Kenwood Drive, Kenwood Court, Glenwood Drive, Madeline Drive, John Street and Mary Street.

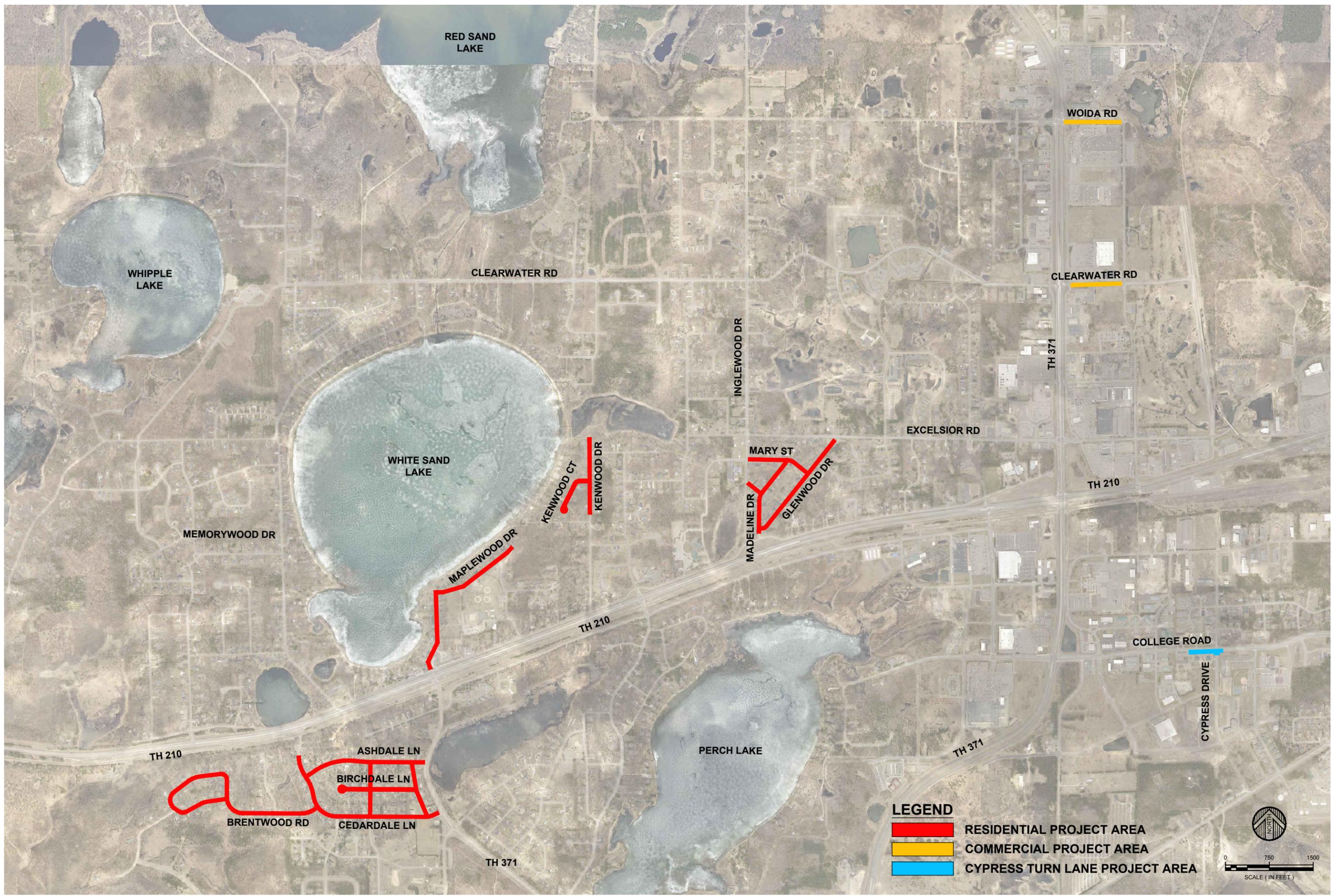
In addition to maintenance of existing roadways, construction of a right turn lane for eastbound traffic on College Road wishing to travel south on Cypress Drive is also being reviewed.

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

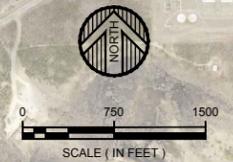
The project areas are shown in Figure 1.

**FIGURE 1 – PROJECT AREA**

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- LEGEND**
- RESIDENTIAL PROJECT AREA
  - COMMERCIAL PROJECT AREA
  - CYPRESS TURN LANE PROJECT AREA



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

<b>DATE:</b> MAR 2016	<b>DATE:</b> MAR 2016	<b>DATE:</b> MAR 2016
<b>SCALE:</b> AS SHOWN	<b>SCALE:</b> AS SHOWN	<b>SCALE:</b> AS SHOWN
<b>DRAWN BY:</b> A.L.W.	<b>DRAWN BY:</b> A.L.W.	<b>DRAWN BY:</b> A.L.W.
<b>CHECKED BY:</b> A.L.W.	<b>CHECKED BY:</b> A.L.W.	<b>CHECKED BY:</b> A.L.W.
<b>JOB NUMBER:</b> 0102B0379.000	<b>JOB NUMBER:</b> 0102B0379.000	<b>JOB NUMBER:</b> 0102B0379.000

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.

BY: ARIC WELCH      DATE:      LIC. NO. 41983

**2016 MILL & OVERLAY AND FULL DEPTH RECLAMATION  
CITY OF BAXTER  
BAXTER, MINNESOTA**

**FIGURE 1 - PROJECT AREA**

SHEET NO.      OF

## **EXISTING CONDITIONS**

### **Residential Area Improvements**

All residential roadway segments within the project area are currently rural sections with surface drainage swales or ditches along the roadway edges. Zoning in the residential project predominately Low Density Residential (R-1) with some parkland areas and school property zoned Public Benefit (PB) and the Baxter Cemetery zoned Memorial Park/Cemetery (MS). The majority of these residential roadways were constructed between 1989 and 1991, with the exception of Briarwood Lane that was constructed in 1993 and a segment of Brentwood Road that was constructed in 1998. All residential roadway sections in the project areas were considered to be in “good” condition in 2013.

Known bituminous surface problems or issues that need to be reviewed during design include the following:

- Broken up pavement at the corner of Mapleton Road where the roadway turns from a north/south direction to east/west.
- Bituminous curbing on Ashdale Lane from First Street to Highland Scenic Road (CSAH 48).
- Drainage issue at 134113 Maplewood Drive.

The City of Baxter “Comprehensive Pavement Management System” conducted in 2013, recommended maintenance improvements to all roadways in the project areas be done via milling and overlaying.

### **Commercial Area Improvements**

The two commercial roadway segments, Woida Road and Clearwater Road, are currently urban sections with curb / gutter / storm sewer, located in busy commercially developed areas between TH 371 and Golf Course Drive. Zoning in the project area is Regional Commercial (C-2). Both roadways are currently on the State-Aid (MSAS) system. The segments of Clearwater Road and Woida Road in the project area were originally constructed between 20 and 25 years ago and considered to be in “fair” to “good” condition when reviewed in 2013. There are no known problems related to the storm water handling systems in the project areas.

Known problems or issues that need to be addressed during design include the following:

- Storm Manhole on Clearwater Road has access number of adjusting rings.
- All storm sewer curb inlet casting need to be removed and replaced to prevent future roadway cave-ins due to water infiltration.
- Misc. cracked concrete curb & gutter needs to be replaced.
- Loop detectors on Woida Road need to be replaced.
- The upper sections of water valve boxes need to be replaced and adjusted.
- Sanitary sewer manhole castings and rings need to be reconstructed and sealed against water infiltration.
- Pavement markings on Clearwater Road need to be modified to accommodate proposed bank on the former Bonanza site.

In addition to the general maintenance recommendations provided with the 2013 Pavement Management Plan, Braun Intertec has been retained to conduct a pavement evaluation report for the existing pavement sections and subgrade immediately beneath the pavement. Ground Penetrating Radar (GPR) was utilized to determine thicknesses of the existing bituminous surfacing and supporting base layers. Pavement cores and auger borings were also used to verify pavement thicknesses and classify supporting base material. A copy of the Braun report is included in the Appendix.

Table 1 summarizes the existing conditions relative to all roadways in the residential and commercial project areas reviewed as part of this report.

#### Cypress Drive Turn Lane

College Road is currently a 5-lane urban roadway and is the busiest corridor in Baxter with a 2011 Average Daily Traffic (ADT) count of 9,600 vehicles per day. As part of the City's long-range transportation plan, Cypress Drive is being developed as a north-south collector. As the Cypress Drive corridor is constructed, the intersection with College Road will need to be upgraded. Recently the City acquired additional property on the southwest quadrant of the College Road / Cypress Drive intersection. The acquisition of this property provides an opportunity for construction of a southbound right-turn lane from College Road to Cypress Drive.

Table 1 – Existing Conditions Summary

Roadway	Description	Year Constructed	Recorded Bit. & Agg. Base Depth	GPR Avg. Bit & Agg. Base Depth	Coring Avg. Bit & Agg. Base Depth	Roadway Width	PACER Rating (2103)	Recommended Maintenance (2013)
<b>Commercial Project Area - MSAS Routes</b>								
Clearwater Road	TH 371 to Target Entrance	1991		3.7", 4.8"	NA	44'	5 - Fair	Mill & Overlay
Clearwater Road	Target Entrance to Golf Course Drive	1996	2", 4"		3.0", 4.5"		6 - Good	Mill & Overlay
Woida Road	TH 371 to Dellwood Drive	1993				70' - 80'	6 - Good	Mill & Overlay
Woida Road	Dellwood Drive to Golf Course Drive	1996	3.5", 5"			36' - 70'	6 - Good	Mill & Overlay
<b>Residential Project Area</b>								
Cedardale Lane	North Terminus to CSAH 48	1991	3", 3"			24	6 - Good	Mill & Overlay
Brentwood Road	Briarwood Lane to Meredith Drive	1998	3.5", 4"			26	6 - Good	Mill & Overlay
Brentwood Road	Meredith Drive to Cedardale Lane	1991	3", 3"			24	6 - Good	Mill & Overlay
Briarwood Lane	Brentwood Road to Brentwood Road	1993	3", 4"				6 - Good	Mill & Overlay
Birchdale Lane	West Terminus to First Street	1991	3", 3"			24	6 - Good	Mill & Overlay
Ashdale Lane	Cedardale Lane to CSAH 48	1991	3", 3"			24	6 - Good	Mill & Overlay
Second Street	Cedardale Lane to Ashdale Lane	1991	3", 3"			24	6 - Good	Mill & Overlay
First Street	Cedardale Lane to Ashdale Lane	1991	3", 3"			24	6 - Good	Mill & Overlay
Maplewood Drive	Fairview Road to Maplewood Drive	1989	3.5", 4"			24	6 - Good	Mill & Overlay
Maplewood Drive	Maplewood Drive to East Terminus	1989	3", 3"			24	6 - Good	Mill & Overlay
Kenwood Drive	Sandstone Road to North Terminus	1989	3", 3"			24	6 - Good	Mill & Overlay
Kenwood Court	West Terminus to Kenwood Drive	1989	3", 3"			24	6 - Good	Mill & Overlay
Glenwood Drive	Madeline Drive to Excelsior Road	1989	3", 3"			24	6 - Good	Mill & Overlay
Madeline Drive	Fairview Road to Mary Street	1989	3", 3"			24	6 - Good	Mill & Overlay
John Street	Inglewood Drive to Madeline Drive	1989	3", 3"			24	6 - Good	Mill & Overlay
Mary Street	Inglewood Drive to Glenwood Drive	1989	3", 3"			24	6 - Good	Mill & Overlay

## **PROPOSED IMPROVEMENTS**

### **Residential Roadway Improvements**

Proposed improvements include milling and overlaying all residential roadways within the project area. Milling is proposed to remove the top 1 ½" of existing bituminous surfacing and then overlaying with 2" of new bituminous surfacing. No options to complete FDR were considered for the residential roadways and the proposed improvements are as recommended by the 2015 Pavement Management Plan.

Other improvements in the mill and overlay area include the following:

- Reconstruct sanitary sewer manhole castings/rings and install water infiltration barrier.
- Replace and adjust the upper sections of water valve boxes.
- Full depth bituminous repair/reconstruction in the following locations:
  - Corner of Mapleton Road where the roadway turns from a north/south direction to east/west.
- Bituminous curbing on Ashdale Lane from First Street to Highland Scenic Road (CSAH 48).
- Ditching improvements at 13413 Maplewood Drive.
- Pavement markings in accordance with City standards for residential roadways.

### **Commercial Roadway Improvements**

Two options were considered for improvements to the segments of Woida Road and Clearwater Road located in the project areas.

Mill and Overlay - Milling and overlaying the existing bituminous surface, as recommended in the 2013 Pavement Management Plan, is an acceptable State-Aid maintenance activity. However, any future reconstruction of a State-Aid roadway like Woida Road and Clearwater Road, would require the roadway be constructed to 10-ton design standards. In acknowledgement of these requirements, the City of Baxter has determined that commercial roadways should meet 10-ton design requirements to better handle heavy commercial traffic commonly associated with commercial development and provide long-term benefit to commercial area property owners. The mill and overlay process does not repair problems associated with the poor or failing aggregate base or subgrade materials and areas with these types of concerns would need to be

dug up and repaired prior to milling and overlaying. It should also be noted that milling and overlaying does not prevent reflective cracking from appearing in the new surfacing within a year or two of the overlay, creating negative public opinion and increased future maintenance costs. For these reasons, the mill and overlay process was not examined in any further detail.

Full Depth Reclamation – Full depth reclamation (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 to pave a new bituminous surface. In an urban roadway section, it is necessary to remove and stockpile a portion of the material to make room for the bituminous pavement. Two lifts of bituminous totaling 4 ½ inches are then proposed to be placed on the reclaimed base material. The benefits of the FDR process include the elimination of reflective cracking, longer pavement life (typically 20 years with proper maintenance), improved ride, reduced maintenance costs and a resulting 10-ton design strength roadway meeting State-Aid and City requirements.

Other improvements in the full depth reclamation area include the following:

- Install a one foot manhole section on the storm sewer manhole on Clearwater Road.
- Replace all storm sewer curb inlet castings and install a water infiltration barrier.
- Replace misc. cracked concrete curb & gutter sections.
- Install new loop detectors on Woida Road.
- Replace and adjust the upper sections of water valve boxes.
- Reconstruct sanitary sewer manhole castings/rings and install water infiltration barrier.
- Install pavement markings on Clearwater Road in accordance with the WSB recommendation for the redevelopment of the former Bonanza site.
- Remove and replace entrance to former Bonanza site.

Table 2 lists the proposed roadway improvements for the roadways in the residential and commercial project areas. Additional details are also shown in the attached preliminary plans located in the Appendix.

#### Cypress Drive Turn Lane

Proposed improvements to College Drive include removal of approximately 400' of the existing

curb/gutter and trail along the south side of College Road and private parking lot pavement in the southwest quadrant of the College Road / Cypress Drive intersection. A new 12' wide right turn lane is proposed to be constructed with the 10' non-motorized trail relocated to accommodate the widened roadway section. Minor improvements to the existing storm sewer piping and structure geometry would be required to accommodate the widened road section. Two water services would also need to be extended to match the new configuration. Improvements to the private property would also be proposed to compensate for lost parking as a result of the proposed improvements.

Table 2 – Proposed Improvement Summary

Roadway	Description	2011 ADT	Assumed Existing ADT for Design	Assumed Heavy Vehicle %	10-Ton Design (Bit, Agg)	Recommended Construction Method
<b>Commercial Project Area - MSAS Routes</b>						
Clearwater Road	TH 371 to Target Entrance	Not Available	3880 (Estimated)	3.6%	4", 6"	? FDR, ? Stockpile Excess ABM, 6" ABM, 4" Bit
Clearwater Road	Target Entrance to Golf Course Drive	Not Available	3880 (Estimated)	3.6%	4", 6"	? FDR, ? Stockpile Excess ABM, 6" ABM, 4" Bit
Woida Road	TH 371 to Dellwood Drive	3,400	3,880	3.6%	4", 6"	? FDR, ? Stockpile Excess ABM, 6" ABM, 4" Bit
Woida Road	Dellwood Drive to Golf Course Drive	3,400	3,880	3.6%	4", 6"	? FDR, ? Stockpile Excess ABM, 6" ABM, 4" Bit
<b>Residential Project Area</b>						
Cedardale Lane	North Terminus to CSAH 48	NA	NA	NA	NA	1.5" Mill, 2" Bit
Brentwood Road	Briarwood Lane to Meredith Drive					
Brentwood Road	Meredith Drive to Cedardale Lane					
Briarwood Lane	Brentwood Road to Brentwood Road					
Birchdale Lane	West Terminus to First Street					
Ashdale Lane	Cedardale Lane to CSAH 48					
Second Street	Cedardale Lane to Ashdale Lane					
First Street	Cedardale Lane to Ashdale Lane					
Maplewood Drive	Fairview Road to Maplewood Drive					
Maplewood Drive	Maplewood Drive to East Terminus					
Kenwood Drive	Sandstone Road to North Terminus					
Kenwood Court	West Terminus to Kenwood Drive					
Glenwood Drive	Madeline Drive to Excelsior Road					
Madeline Drive	Fairview Road to Mary Street					
John Street	Inglewood Drive to Madeline Drive					
Mary Street	Inglewood Drive to Glenwood Drive					

Do Nothing Option

The do nothing option was considered as an option to all proposed improvements. Doing nothing does not promote preserving the existing roadway network via pavement management and does not prepare for future long-term transportation plans being considered by the City of Baxter.

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## **ESTIMATED PROJECT COSTS**

Estimated project costs for the proposed improvements are summarized below:

Residential Mill and Overlay:	\$924,190
Commercial Full Depth Reclamation:	\$331,110
Cypress Drive Turn Lane:	<u>\$164,930</u>
<b>ESTIMATED TOTAL PROJECT COST:</b>	<b>\$1,420,230</b>

The costs estimated herein are intended to convey a general and approximate picture of the costs that would probably 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, 10% contingencies, and soft costs including engineering, administration, financing, and legal fees.

**The costs are calculated in 2015 dollars and need to be updated in the future based on the current economic conditions at the time the project is being considered.**

## **PROJECT IMPLEMENTATION**

Funding for improvements would 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 one of the following two methods: (1) Unit Assessment Method or (2) Front Footage 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”.

Based on the improvement type and adjacent zoning, project costs have been split into three project areas for the purposes of assessment and city cost calculation. Based on the previously described methodology, the following project allocations were determined.

### **Residential Mill and Overlay**

In accordance with City policy, 100% of mill and overlay improvement costs up to 26' in width for R-1 and RS 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 the such a split.

The City owns several parcels in the project area including Southdale Park on Cederdale Lane and the Baxter Cemetery and Oscar Kristofferson Park on Maplewood Drive. These parcels were determined to be classified as Community Parks that provide a city wide benefit. In accordance with City policy, these properties were assumed to be assessed unit assessments similar to the adjacent residential properties. Assessments were based on the potential number of residential lots that could occupy the roadway frontage. For residential properties it was assumed that corners lots would need a minimum frontage of 120' and mid-block lots would need a minimum frontage of 100'.

The project area also includes property owned by ISD 181 on Maplewood Drive. In accordance with City policy, this parcel is to be assessed in the same manner as the adjacent residential properties with the number of assessments calculated using the same methodology as the City owner properties.

Based on the above methodology and assumptions, the following were determined:

Total Estimated Project Costs:	\$924,190
Total Estimated Number of Units/Lots:	277
Estimated Cost per Unit/Lot:	\$3,336

In accordance with City policy, assessments for mill and overlay projects are to be collected over a 7 year term. The interest rate would be set at 1.5% above the True Interest Cost rate on the bond issue. Interest would also be added based on the number of days between when the assessment is adopted by the Council and the end of the calendar year in which the assessment is levied. The estimated annual payment based on an estimated interest rate 5% would be \$584 per year.

### **Commercial Full Depth Reclamation**

In accordance with City policy, 100% of full depth reclamation improvement costs, up to 44' in width in commercial areas, are assessed to the adjacent benefitting properties. Costs for roadway improvements in excess of 44' are considered to be City costs. The areas abutting the project are all zoned commercial and, in accordance with past practice, the front footage assessment method was selected. Assessments are calculated by dividing the total assessable project cost by the total assessable frontage. The assessable frontage is based on the length as calculated at the building set back line which is 35' in commercial zoning districts.

It was also determined that the City would contribute all costs associated with the improvements to Woida Road between TH 371 and the east side of Dellwood Drive. The roadway was considered to be a part of the frontage road system for TH 371 which provides a benefit that extends to areas outside of the immediate project area. The area of roadway improvements on Woida Road considered to be City cost is shown in Figure 9.

Based on the above methodology and assumptions, the following were determined:

Total Estimated Project Costs:	\$331,110
City Cost – Woida Road and Roadway Width in Excess of 44':	\$77,680
Total Estimated Assessable Costs:	\$253,430
Total Estimated Assessable Frontage:	3,262
Estimated Cost per Foot:	\$77.69

In accordance with City policy, assessments for full depth reclamation projects are to be collected over a 12 year term. The interest rate would be set at 1.5% above the True Interest Cost rate on the bond issue. Interest would also be added based on the number of days between when the assessment is adopted by the Council and the end of the calendar year in which the assessment is levied.

Detailed assessment rate calculations and estimated individual assessments are included in the Appendix. Figures 3 through 9 in the Appendix also show the number of assessable units and front footages for each parcel in the project area.

**Cypress Drive Turn Lane**

All costs associated with the Cypress Turn Lane improvements were assumed to be funded by City contribution since the proposed improvements provide city-wide benefit.

## CONCLUSIONS AND RECOMMENDATIONS

This report has studied the feasibility of roadway maintenance and reconstruction of various commercial and residential roadways in the City of Baxter along with a right turn lane at College Road and Cypress Drive. For assessment purposes, the project was separated into three sub-areas.

### Residential Area

The residential area includes Cedardale Lane, Brentwood Road, Briarwood Lane, Birchdale Lane, Ashdale Lane, Second Street, First Street, Maplewood Drive, Kenwood Drive, Kenwood Court, Glenwood Drive, Madeline Drive, John Street and Mary Street. Based on the pavement evaluation study, mill and overlay is the recommended roadway maintenance activity.

Assessments were calculated using per unit assessment method and are estimated to be \$3,211 per unit/lot. The residential sub area project cost summary is as follows:

Estimated City Cost:	\$0
Estimated Assessable Costs:	\$924,190

### Commercial Area

The commercial area includes Clearwater Road and Woida Road. Mill and overlay and FDR improvements were considered but for reasons previously explained in this report, FDR is the recommended approach. Assessments were calculated using the front footage assessment method and are estimated to be \$74.76 per foot. The commercial sub-area project cost summary is as follows:

Estimated City Cost:	\$77,680
Estimated Assessable Costs:	\$253,430
Estimated Sub-Project Cost:	\$331,110

### Cypress Drive Turn Lane

The Cypress Drive turn lane improvements are 100% city costs and no assessments are associated with this project area. The total estimated sub-area project cost is \$164,930.

### Total Project Area Cost Summary

Total Estimated City Cost:	\$242,610 (17.1%)
Total Estimate Assessable Project Costs:	\$1,177,620 (82.9%)
Total Estimated Project Costs:	\$1,420,230

In conclusion, we feel the proposed improvements 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 2 months depending on the contractor, weather and other factors.

In conclusion, we recommend the City proceed as follows in accordance with Project Schedule located in the Appendix:

1. City staff review and comment on the report.
2. Review the report with the Utilities Commission.
3. Update the report based on staff and Utilities Commission comments as necessary.
4. Hold a public informational meeting to obtain input from property owners.
5. Review report with City Council and schedule the Improvement Hearing.
6. Approve the report and schedule the Improvement Hearing.
7. Review final plans with the Utilities Commission.
8. Conduct Improvement Hearing and order the project.
9. Review and approve the plans and specifications and authorize advertisement for bids.
10. Review bids and update project costs and assessments.
11. If costs are favorable, award the construction contract and begin construction.
12. Prepare final costs and assessments and schedule the Assessment Hearing.
13. Conduct Assessment Hearing and adopt assessment rolls.

# APPENDICES

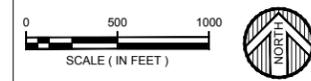
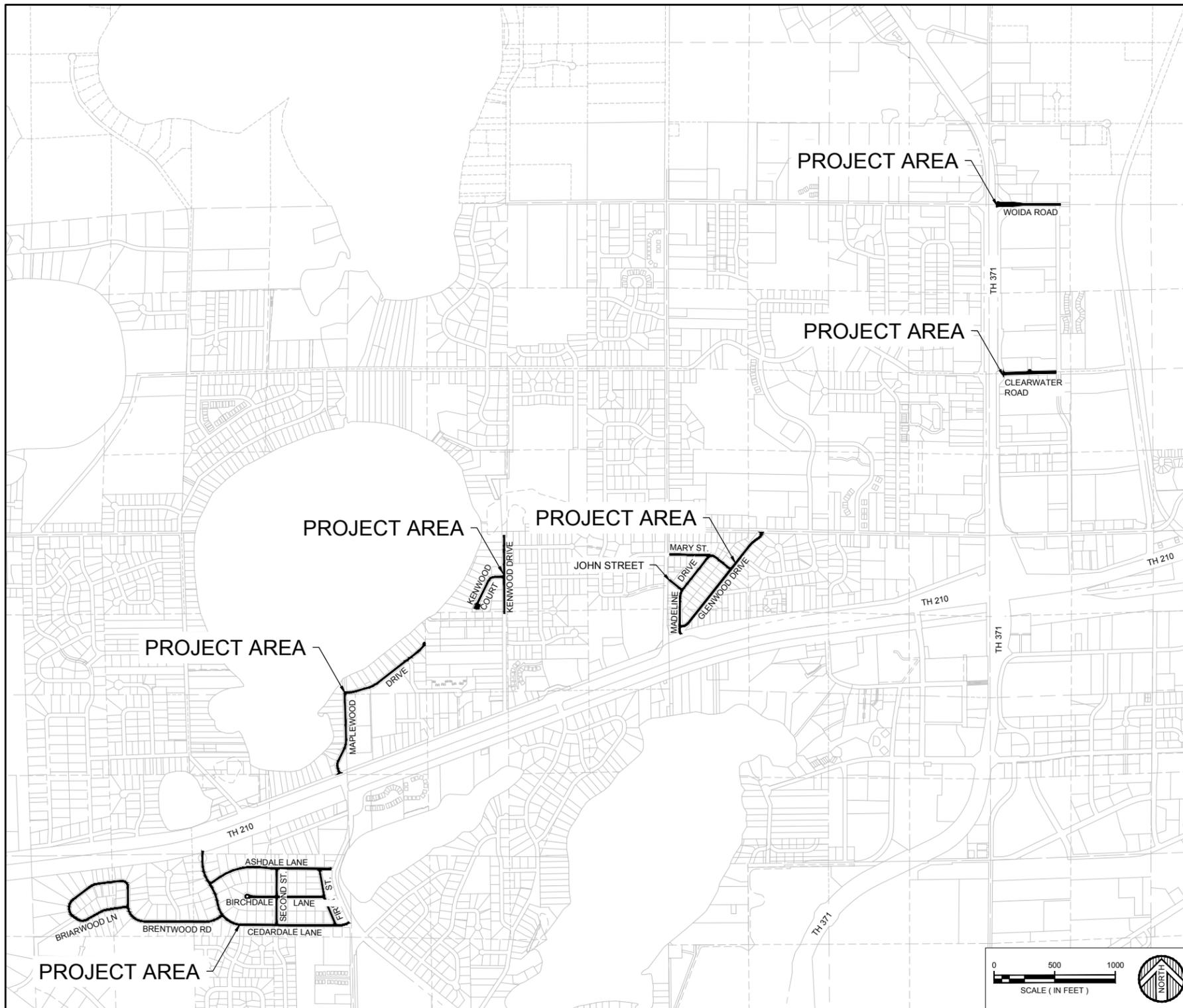
Preliminary Plans  
Figure 2 Commercial Project Area Access  
Engineer's Estimate and Assessment Calculations  
Figures 2-8 Assessment Exhibits  
Individual Assessment Worksheet  
**Pavement Evaluation Report**

DRAFT

# 2016 MILL AND OVERLAY PROJECT

CONSTRUCTION PLANS FOR: MILL AND OVERLAY, FULL DEPTH RECLAMATION AND DRAINAGE STRUCTURE IMPROVEMENTS

## BAXTER, MINNESOTA MUNICIPAL PROJECT NO. ?????



GOVERNING SPECIFICATIONS	
THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.	
INDEX TO DRAWINGS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES & CHARTS
3	TYPICAL SECTIONS AND CONSTRUCTION NOTES
4	DETAILS
5-15	MILL AND OVERLAY PLAN SHEETS
16	FULL DEPTH RECLAMATION PLAN SHEETS
17-18	STORM WATER POLLUTION PREVENTION PLANS
19	EROSION CONTROL PLAN
20-21	EXISTING LOOP DETECTOR SHEETS- WOIDA ROAD
22	DETOUR PLAN - CLEARWATER AND WOIDA ROAD
23-24	TRAFFIC CONTROL PLAN - CLEARWATER AND WOIDA ROAD
CITY OFFICIALS	
MAYOR:	DARREL OLSON
CITY COUNCIL:	TODD HOLMAN MARK CROSS STEVE BARROWS QUINN NYSTROM
UTILITIES COMMISSION:	ROCK YLINIEMI - CHAIR DAVE FRANZEN SHAWN CROCHET DOUGLAS WOLF JACK CHRISTOFFERSON
CITY ADMINISTRATOR:	GORDON HEITKE
PUBLIC WORKS DIRECTOR / CITY ENGINEER:	TREVOR WALTER
APPROVALS	
RECOMMENDED FOR APPROVAL _____	CITY CONSULTING ENGINEER DATE
RECOMMENDED FOR APPROVAL _____	PUBLIC WORKS DIRECTOR / CITY ENGINEER DATE

**Draft**

Engineering  
Architecture  
Surveying  
Environmental  
**WIDSETH SMITH NOLTING**  
 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: 01/26/2016  
 BY: [Signature]  
 REVISIONS: [Table]  
 DATE: [Table]  
 REVISION: [Table]  
 DESCRIPTION: [Table]  
 JOB NUMBER: 0102B0379.000  
 2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
 TITLE SHEET  
 SHEET NO. 1



WE HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY US OR UNDER OUR CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
DATE: 01/22/2016  
BY: JRC/HEL

STATEMENT OF ESTIMATED QUANTITIES								
ITEM NO.	CHART LETTER	SPEC. NO.	ITEM DESCRIPTION	UNIT	MILL & OVERLAY	CLEARWATER ROAD	WOIDA ROAD	PROJECT TOTAL
1		2021.501	MOBILIZATION	LUMP SUM				0
2		2104.501	REMOVE CURB AND GUTTER	LIN FT		100	202	302
3		2104.505	REMOVE CONCRETE PAVEMENT	SQ YD			73	73
4		2104.505	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD		16		16
5		2104.509	REMOVE CASTING	EACH		5	8	13
6		2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT		42	60	102
7		2104.511	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	60	26	375	461
8		2105.501	COMMON EXCAVATION	CU YD		464		464
9		2105.607	HAUL AND STOCKPILE EXCESS MATERIAL	CU YD			584	584
10		2112.603	RECLAIMED AGGREGATE BASE PREPARATION	ROAD STA		9	11	20
11		2123.610	STREET SWEEPER (TYPE WET PICKUP)	HOURL	6	10	10	26
12		2130.501	WATER	MGAL		50	100	150
13		2215.501	FULL DEPTH RECLAMATION	SQ YD		4175	5260	9435
14		2232.501	MILL BITUMINOUS SURFACE (1.5")	SQ YD	62338			62338
15		2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	6234	209	263	8706
16		2360.501	TYPE SP 9.5 WEARING COURSE MIXTURE (2.C)	TON	7,169	1085	605	8859
17		2360.501	TYPE SP 12.5 NON WEARING COURSE MIXTURE (2.C)	TON		1356	756	2112
18		2504.602	ADJUST VALVE BOX	EACH	3	2	12	17
19		2506.602	RECONSTRUCT DRAINAGE STRUCTURE	EACH		5	8	13
20		2506.602	ADJUST FRAME AND RING CASTING (SANITARY)	EACH	73	3	4	80
21		2531.501	CONCRETE CURB AND GUTTER DESIGN B618	LIN FT		100	60	160
22		2531.501	CONCRETE CURB AND GUTTER DESIGN B624	LIN FT			125	125
23		2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD		13	73	86
24		2563.601	TRAFFIC CONTROL	LUMP SUM				0
25		2565.602	RK'D PVC LOOP DETECTOR 6"x6"	EACH			6	6
26		2573.502	SILT FENCE, TYPE HI	LIN FT			400	400
27		2573.530	STORM DRAIN INLET PROTECTION	EACH		15	13	28
28		2573.535	STABILIZED CONSTRUCTION EXIT	LUMP SUM		0.5	0.5	1
29		2574.525	SCREENED TOPSOIL BORROW (LV)	CU YD	496	18	26	540
30		2575.505	SODDING TYPE LAWN	SQ YD		112	156	268
31	A	2575.604	SITE RESTORATION	SQ YD	8933			8933
32		2582.501	PAVEMENT MESSAGE PAINT	SQ FT		60	84	144
33	B	2582.502	4" SOLID LINE PAINT	LIN FT		400	520	920
34	B	2582.502	8" SOLID LINE PAINT	LIN FT	230			230
35	B	2582.502	12" SOLID LINE PAINT	LIN FT		125		125
36	B	2582.502	4" BROKEN LINE PAINT	LIN FT	3154		120	3274
37	B	2582.502	4" DOUBLE SOLID LINE PAINT	LIN FT	6940	1175	105	8220

EROSION CONTROL - SITE RESTORATION (SY)						A
LOCATION	AREA SQ YD	TURF ESTABLISHMENT				
		FERTILIZER TYPE 1 POUND	SCREENED TOPSOIL BORROW CU YD	SEED MIXTURE 25-151 POUND	HYDRAULIC REINFORCED FIBER MATRIX POUND	
SOUTHDALE AREA	4956	307	275	410	3072	
MAPLETON DRIVE	1244	77	69	103	771	
KENWOOD DR. & KENWOOD CT.	867	54	48	72	537	
MADLINE, GLENWOOD, MARY & JOHN	1867	116	104	154	1157	
<b>TOTALS</b>	<b>8933</b>	<b>554</b>	<b>496</b>	<b>738</b>	<b>5537</b>	

BASIS OF ESTIMATED QUANTITIES	
BITUMINOUS MATERIAL FOR TACK COAT (OLD & MILLED ASPHALT)	=0.10 GAL/SY (UNDILUTED)
BITUMINOUS MATERIAL FOR TACK COAT (NEW ASPHALT)	=0.05 GAL/SY (UNDILUTED)
BITUMINOUS WEARING COURSE MIXTURE	=115 LB/SY/IN THICKNESS

STRIPING						B
STA. - STA.	4" SOLID LINE WHITE PAINT	8" SOLID LINE WHITE PAINT (CROSSWALK)	12" SOLID LINE YELLOW PAINT (CROSSWALK)	4" BROKEN LINE YELLOW (40' CYCLE)	4" DOUBLE SOLID LINE YELLOW PAINT	
	LF	LF	LF	LF	LF	
ASHDALE				300	550	
BROOKDALE				219	350	
2ND ST				0	850	
1ST ST				62	700	
CEDARDALE				613	230	
BRENTWOOD				619	350	
BRIARWOOD				110	350	
MAPLEWOOD		230		524	350	
KENWOOD DR				257		
KENWOOD CT				65	350	
MADLINE DR				192	480	
JOHN ST				0	260	
MARY ST				74	700	
GLENWOOD DR				119	1400	
CLEARWATER RD	400		125		1175	
WOIDA RD	520			120	105	
<b>TOTAL</b>	<b>920</b>	<b>230</b>	<b>125</b>	<b>327</b>	<b>8220</b>	

DATE: FEB. 2016  
SCALE: AS SHOWN  
DRAWN BY: M.A.S.  
CHECKED BY: A.L.W.  
JOB NUMBER: 0102B0379.000

2016 MILL AND OVERLAY PROJECT  
CITY OF BAXTER  
BAXTER, MINNESOTA

STATEMENT OF ESTIMATED QUANTITIES AND CHARTS

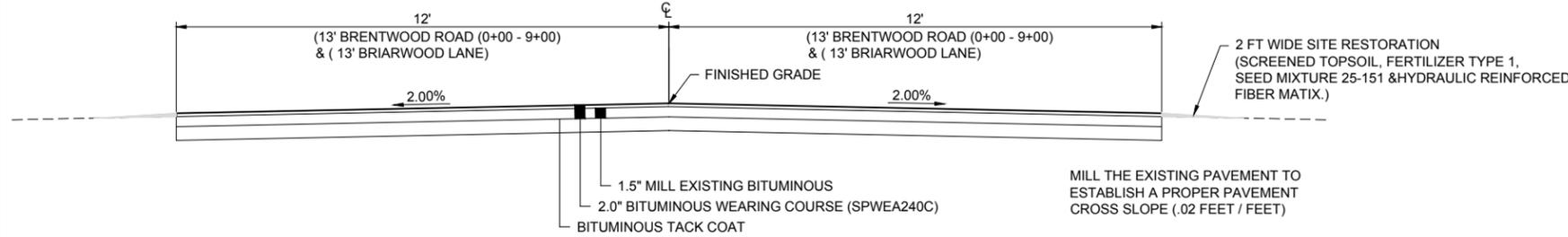
**Draft**

SOUTHDALE:  
 ASHDALE LANE, BIRCHDALE LANE, 2ND STREET, 1ST STREET  
 CEDARDALE LANE,  
 BRENTWOOD ROAD,  
 26' WIDE - BRENTWOOD ROAD - STA. 0+00 - 9+00  
 26' WIDE - BRIARWOOD LANE  
 MAPLEWOOD DRIVE  
 KENWOOD DRIVE, KENWOOD COURT  
 MADELINE DRIVE, JOHN STREET, MARY STREET GLENWOOD DRIVE

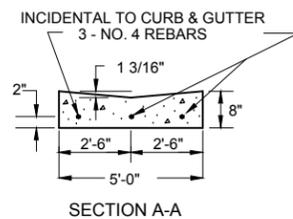
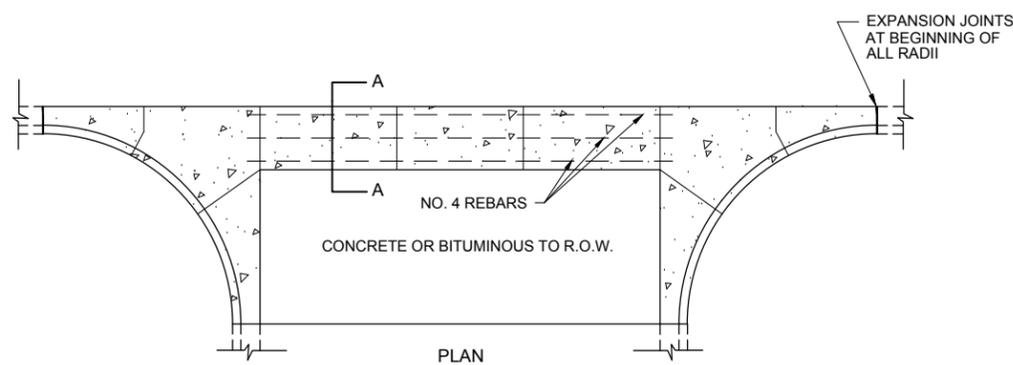
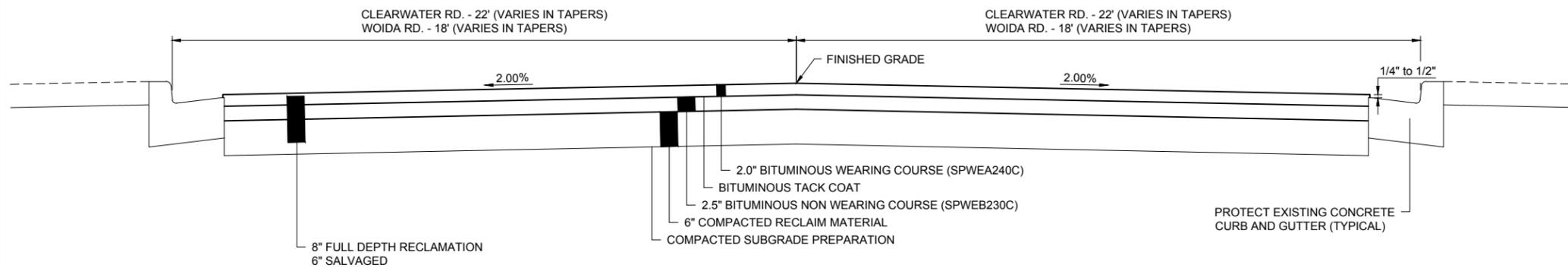
APPLICABLE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD PLATES	
PLATE NO.	DESCRIPTION
4010H	CONCRETE ADJUSTING RING
7100H	CONCRETE CURB & GUTTER
8000I	STANDARD BARRICADES
8132B	PREFORMED RIGID PVC CONDUIT LOOP DETECTOR

**GENERAL UTILITY NOTES:**

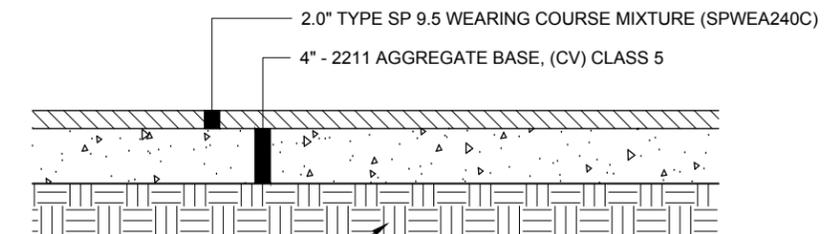
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES WITH THE PLAN.
- THE CONTRACTOR SHALL CONTACT "GOPHER STATE ONE CALL" FOR UTILITY LOCATIONS PRIOR TO UTILITY INSTALLATION.
- THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE38-02, ENTITLED STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA.
- ALL CATCH BASINS, MANHOLES AND GATE VALVES ARE TO BE ADJUSTED PRIOR TO BEGINNING PAVING OPERATIONS.
- ALL SAWCUT EDGES IN CONCRETE PAVEMENT AND BITUMINOUS PAVEMENT SHALL BE PROTECTED AFTER REMOVALS THROUGH THE DURATION OF THE PROJECT. PAYMENT FOR SAWCUTTING WILL BE MADE ONLY ONCE. ADDITIONAL SAWCUTTING TO MAINTAIN A CLEAN SAWCUT EDGE WILL BE AT THE EXPENSE OF THE CONTRACTOR.
- PLACEMENT OF TACK COAT SHALL BE ACCORDANCE WITH SPECIFICATION 2357. ALL COSTS OF FURNISHING AND APPLYING BITUMINOUS TACK COAT MATERIAL WILL BE INCIDENTAL WITH NO DIRECT COMPENSATION BEING MADE THEREFORE.



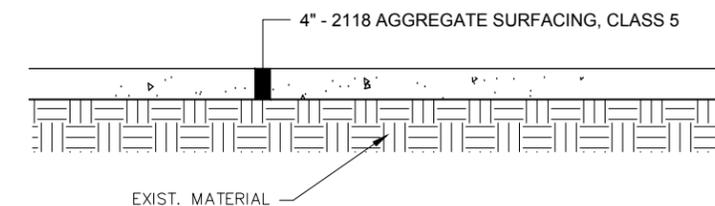
**TYPICAL SECTION  
 FULL DEPTH RECLAMATION (FDR)  
 CLEARWATER ROAD  
 WOIDA ROAD**



**8" COMMERCIAL CONCRETE DRIVEWAY**



**TYPICAL BITUMINOUS DRIVEWAY SECTION**



**TYPICAL AGGREGATE SURFACING RESTORATION SECTION**



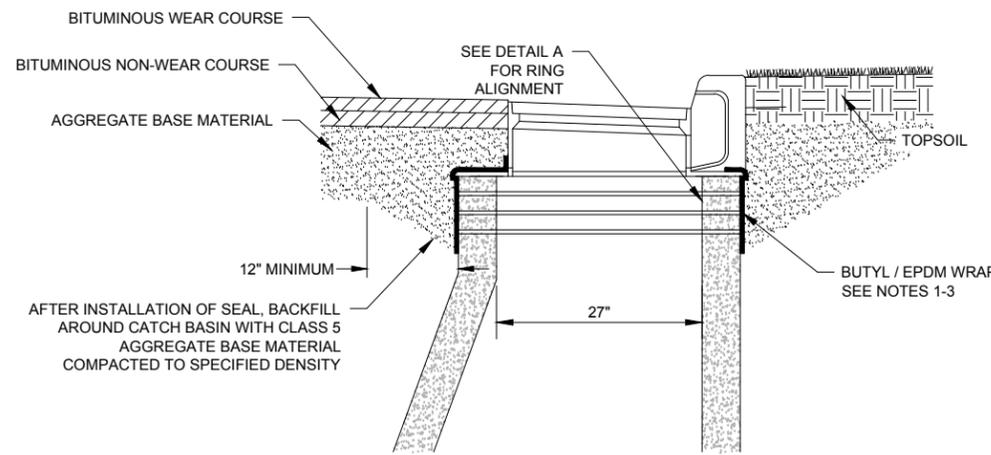
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
 DATE: 01/26/2016  
 DATE: 01/26/2016  
 DATE: 01/26/2016

DATE	REV	DESCRIPTION

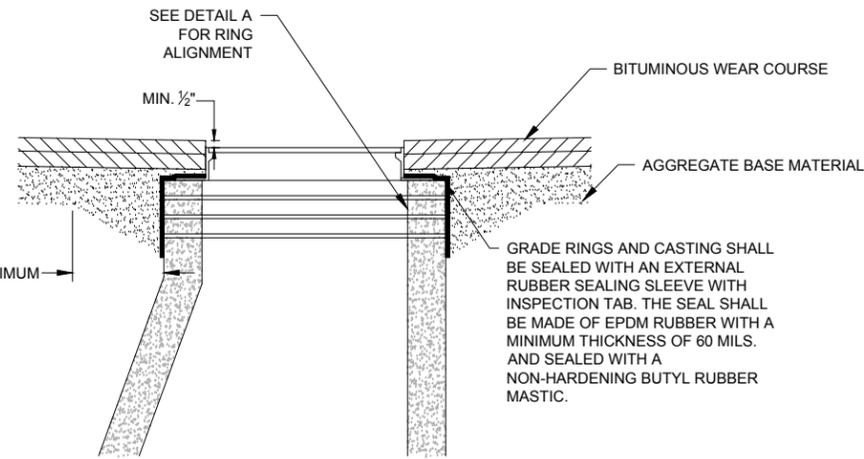
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 SCALE: AS SHOWN  
 DRAWN BY: M.A.S.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 0102B0379.000

2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
**TYPICAL SECTION & CONSTRUCTION NOTES**

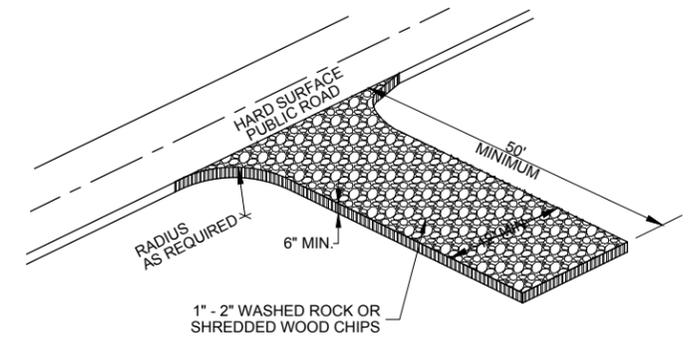
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**ADJUSTING RING AND SEAL**  
STORM SEWER CATCH BASIN AT CURB



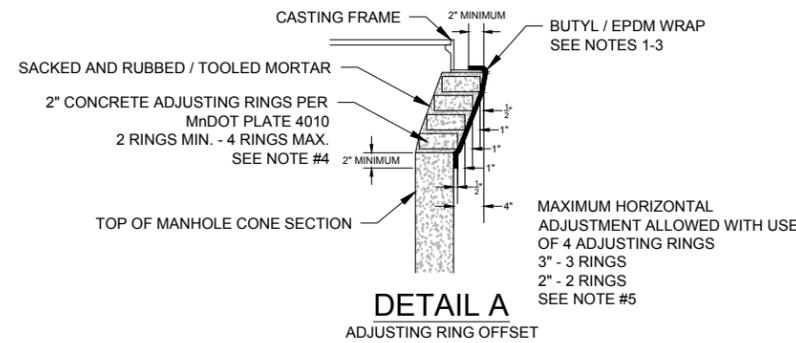
**ADJUST FRAME AND RING CASTING**  
SANITARY MANHOLES IN ROADWAYS



**CONSTRUCTION EXIT**

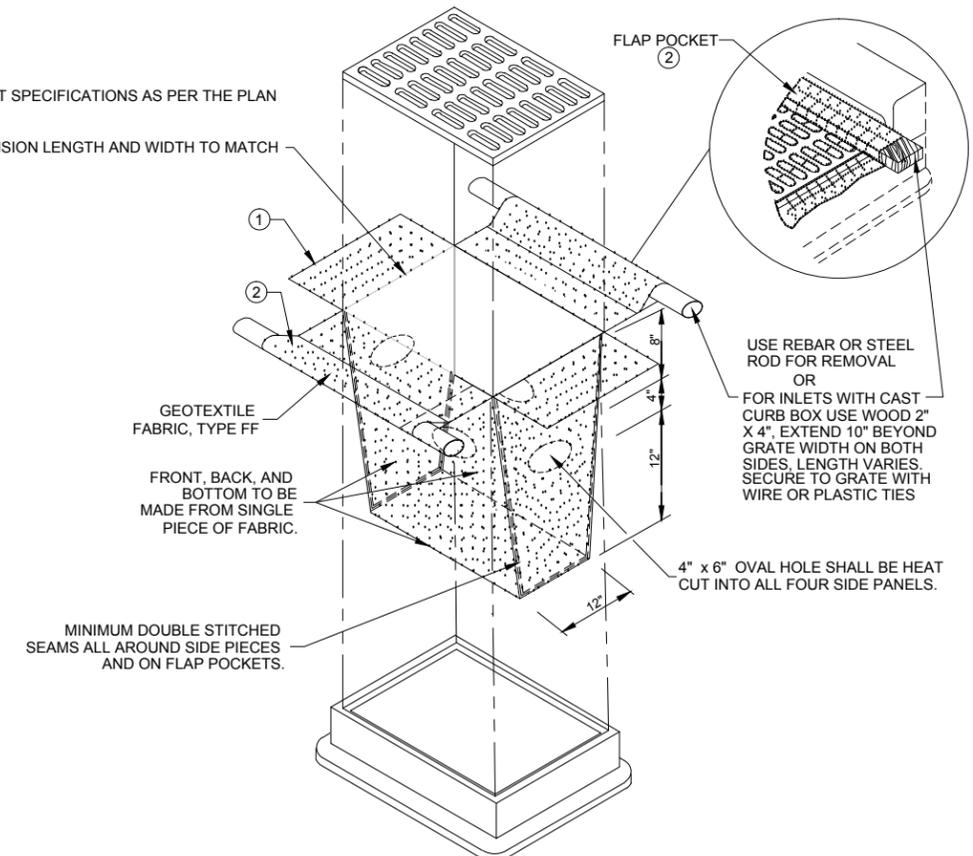
**NOTES:**

- ALL SANITARY MANHOLES WITHIN THE LIMITS OF PAVING ARE TO HAVE THE CONCRETE ADJUSTING RINGS REMOVED TO THE TOP OF THE CONE. THE EXISTING CONCRETE ADJUSTING RINGS ARE TO BE REPLACED WITH NEW CONCRETE RINGS. THE CASTING IS TO BE SALVAGED (SANITARY) AND RE-INSTALLED ALONG WITH AN INFI-SHIELD EXTERNAL SEAL (WITH INSPECTION TAB) PRIOR TO BACKFILLING AROUND THE RINGS AND CASTING. BACKFILLING TO BE DONE IN 6" LIFTS AND COMPACTED WITH AN UPRIGHT RAMMER.
- BUTYL (.030") / EPDM (.045") WRAP PLACED AROUND CONCRETE RINGS. LAP HORIZONTAL JOINTS 1 1/2" MIN. AND FOLD OVER ONTO CASTING FRAME 2" MIN.
- ON FLAT COVER STRUCTURES, MATERIAL SHALL ALSO BE EXTENDED ONTO PRECAST TOP 2" MIN.
- BUTYL / EPDM WRAP IS INCIDENTAL TO STRUCTURE CONSTRUCTION.
- PRECAST SHOP DRAWINGS SHALL UTILIZE STRUCTURE HEIGHTS TO ALLOW 0.5' (2 RINGS) MINIMUM TO 1.0' (4 RINGS) MAXIMUM BUILD HEIGHT PLUS ACTUAL FRAME / CASTING HEIGHT.
- CONTRACTOR SHALL FIELD ADJUST STRUCTURE AND PIPE TO MAINTAIN MAXIMUM RING OFFSET DIMENSIONS PER DETAIL. HORIZONTAL ADJUSTMENT SHALL NOT EXCEED 1" BETWEEN RINGS AS SHOWN IN DETAIL A.
- METAL ADJUSTMENT RING / BAND SHALL BE FIELD WELDED TO FRAME IF UTILIZED BY CONTRACTOR.



**DETAIL A**  
ADJUSTING RING OFFSET

INLET SPECIFICATIONS AS PER THE PLAN  
DIMENSION LENGTH AND WIDTH TO MATCH

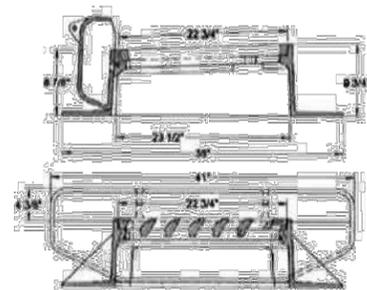


**INLET PROTECTION ③**  
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)

**R-3250-DVSP**  
**Combination Inlet Frame, Grate, Curb Box**

**Heavy Duty**

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3250-DVSP	V	1.3	5.0



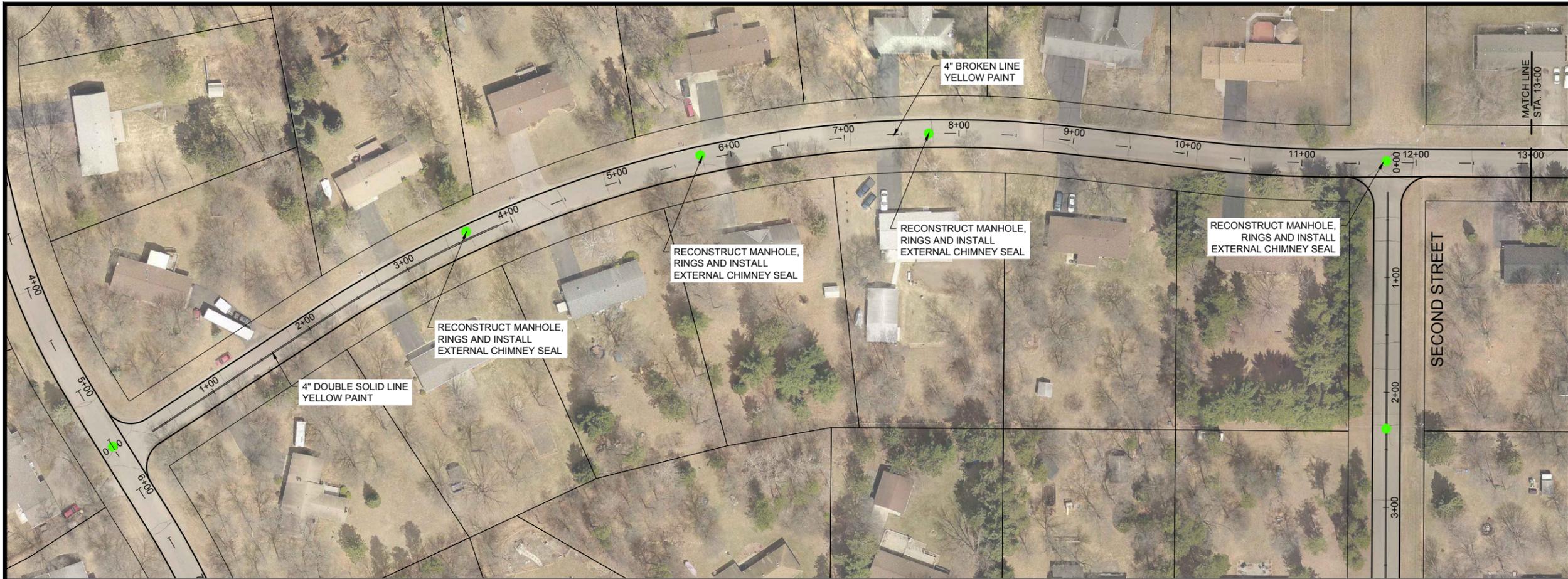
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DRAWN BY: M.A.S.  
CHECKED BY: A.L.W.  
DATE: FEB. 2016  
AS SHOWN

DATE	REV	DESCRIPTION

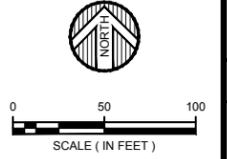
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DRAWN BY: M.A.S.  
CHECKED BY: A.L.W.  
JOB NUMBER: 0102B0379.000

2016 MILL AND OVERLAY PROJECT  
CITY OF BAXTER  
BAXTER, MINNESOTA  
**DETAILS**

**Draft**



# ASHDALE LANE



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

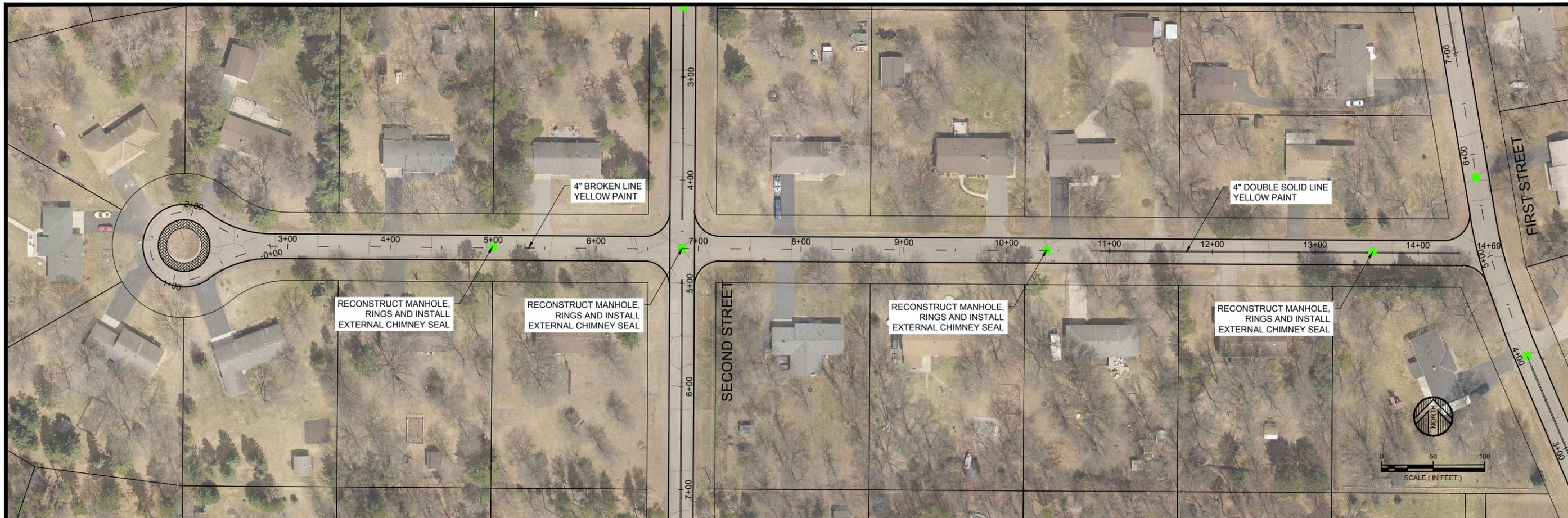
DATE: 01/26/2016  
 PROJECT NO.: 0122B0373.000  
 SHEET NO.: 5

DATE	REVISION DESCRIPTION	BY

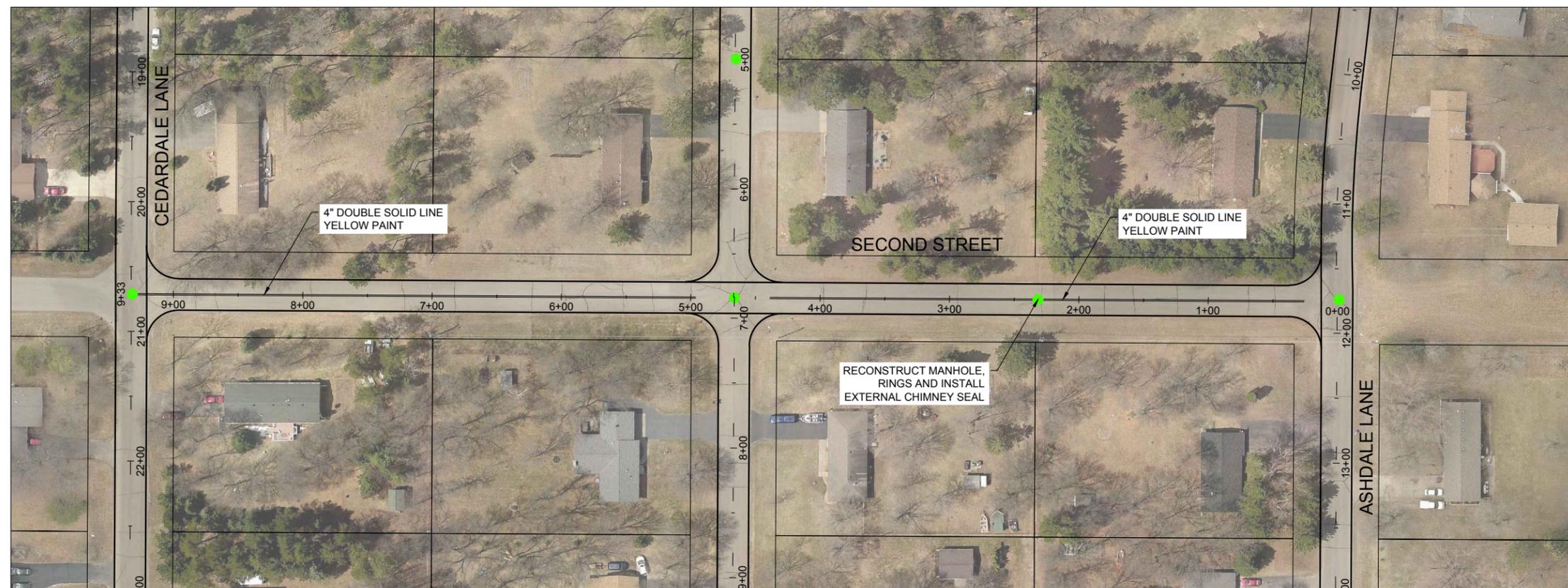
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 SCALE: AS SHOWN  
 DRAWN BY: M.A.S.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 0122B0373.000

2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
 ASHDALE LANE

**Draft**



# BIRCHDALE LANE



# SECOND STREET



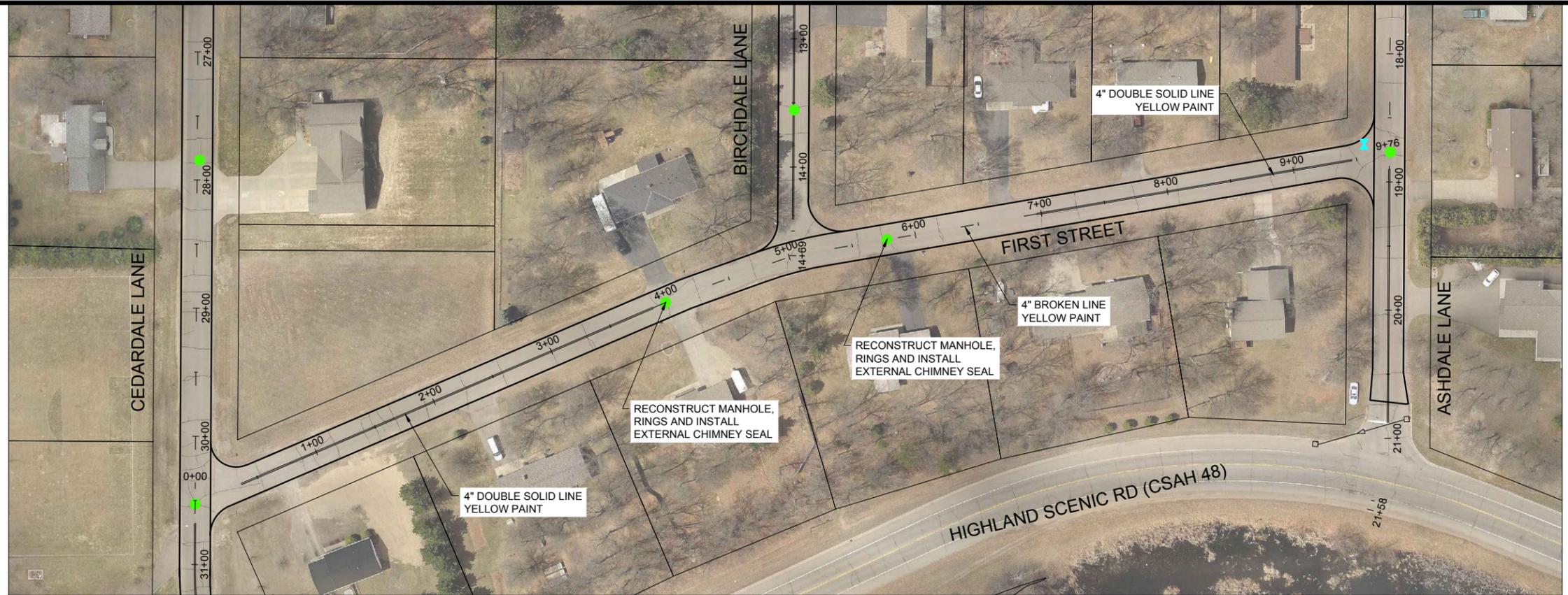
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 01/26/2016  
 PROJECT NO.: 0102B0373.000  
 SHEET NO.: 6

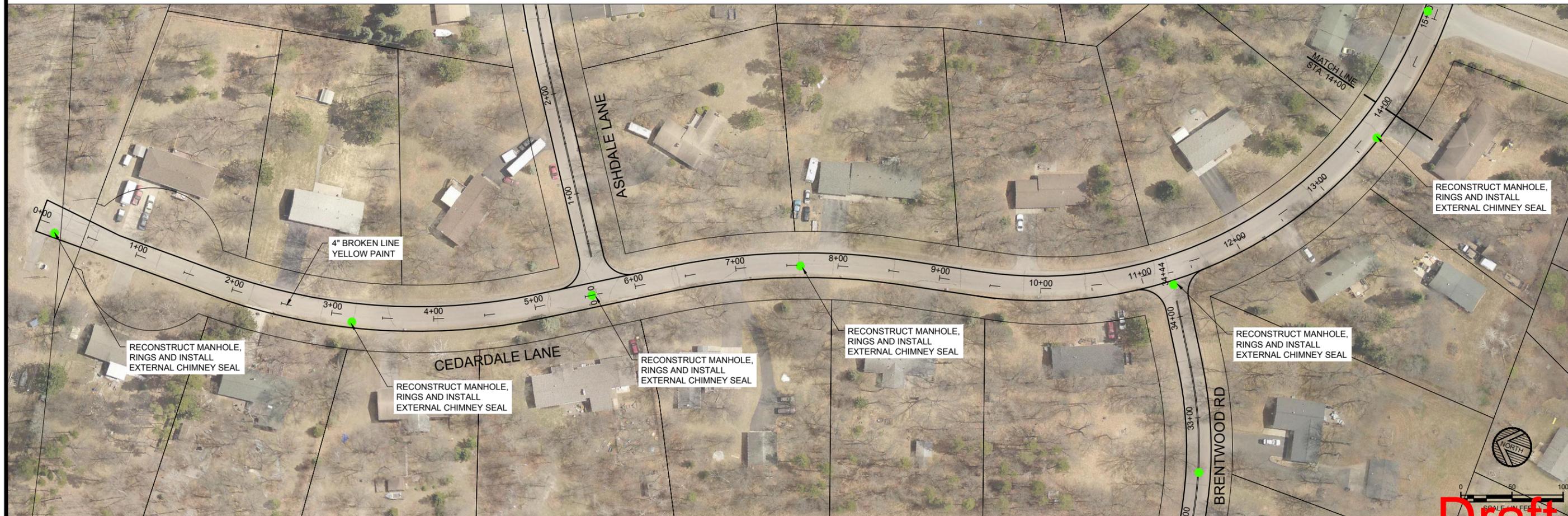
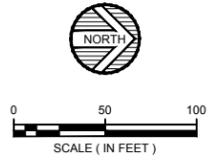
REV#	DATE	DESCRIPTION

DATE: FEB. 2016  
 SCALE: AS SHOWN  
 DRAWN BY: M.A.S.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 0102B0373.000

2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
 BIRCHDALE LANE & 2ND STREET



# FIRST STREET



# CEDARDALE LANE



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

DATE: FEB. 2016  
 SCALE: AS SHOWN  
 DRAWN BY: M.A.S.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 0102B0373.000

2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
 FIRST STREET & CEDARDALE LANE

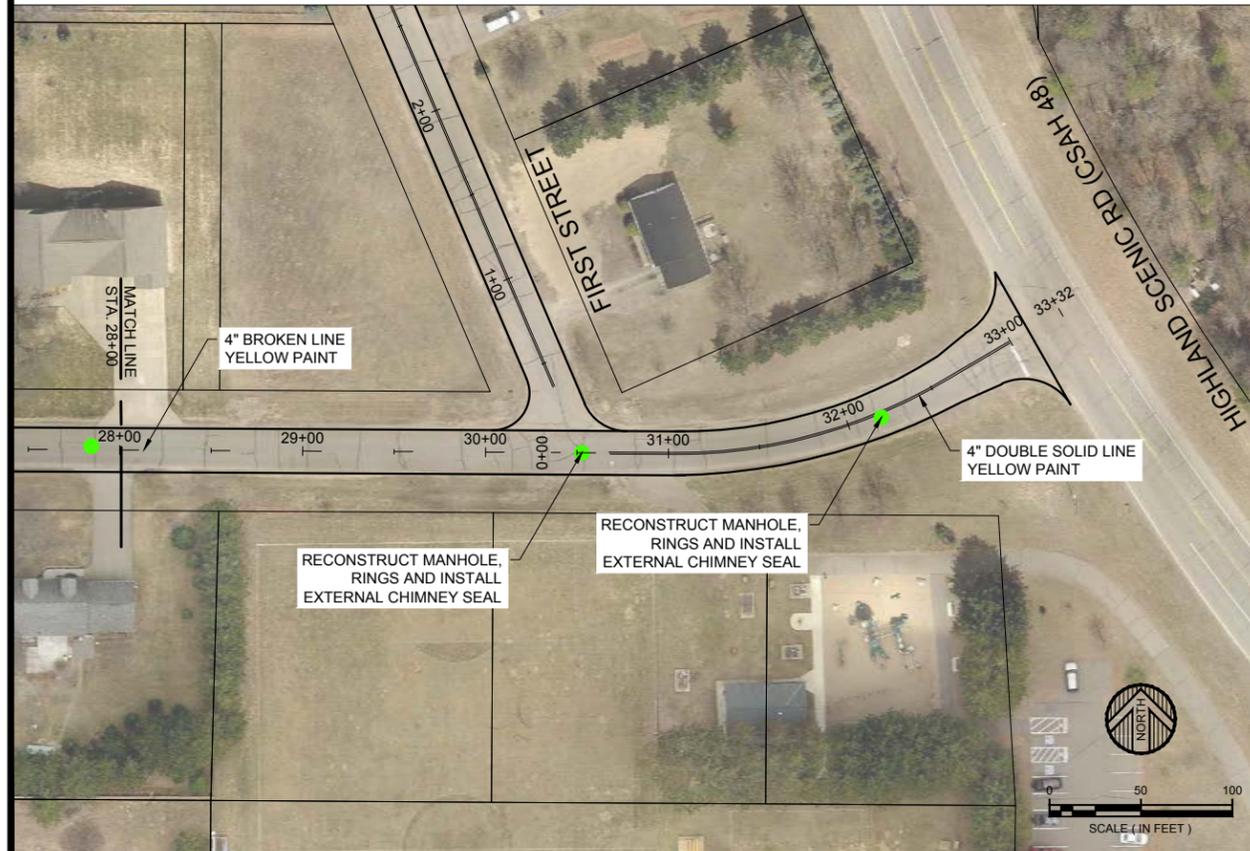
SHEET NO. 7

DATE: 01/23/2016  
 TIME: 10:43:01 AM  
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**Draft**



# CEDARDALE LANE



# CEDARDALE LANE



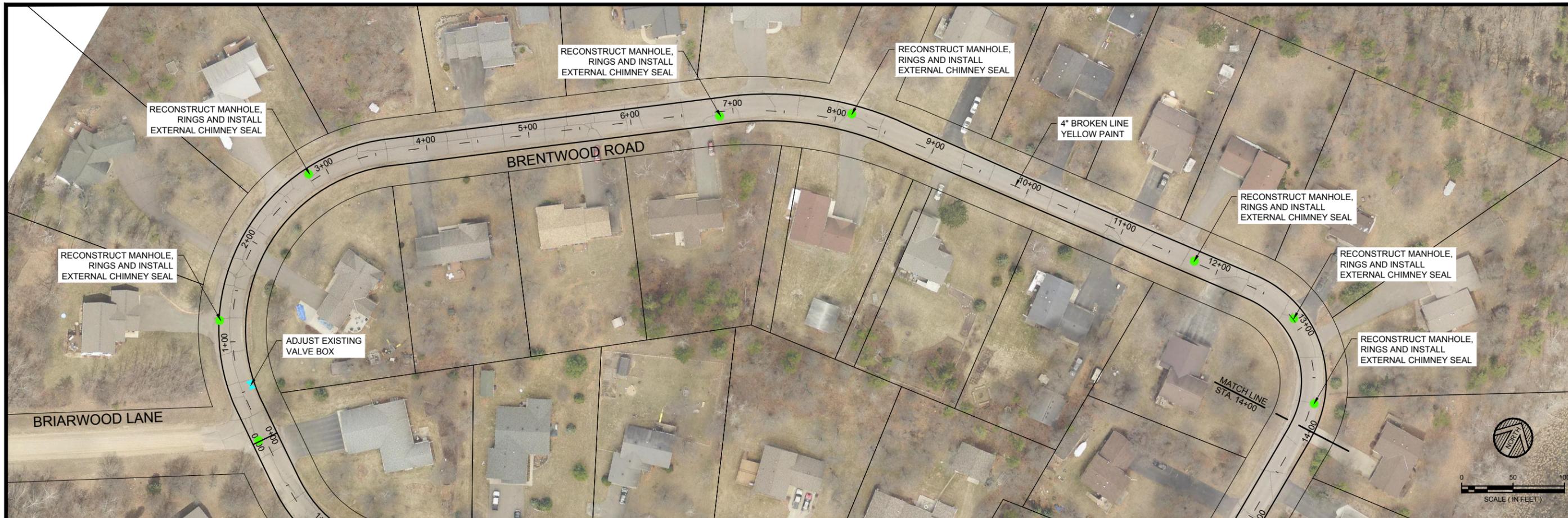
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2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
 CEDARDALE LANE

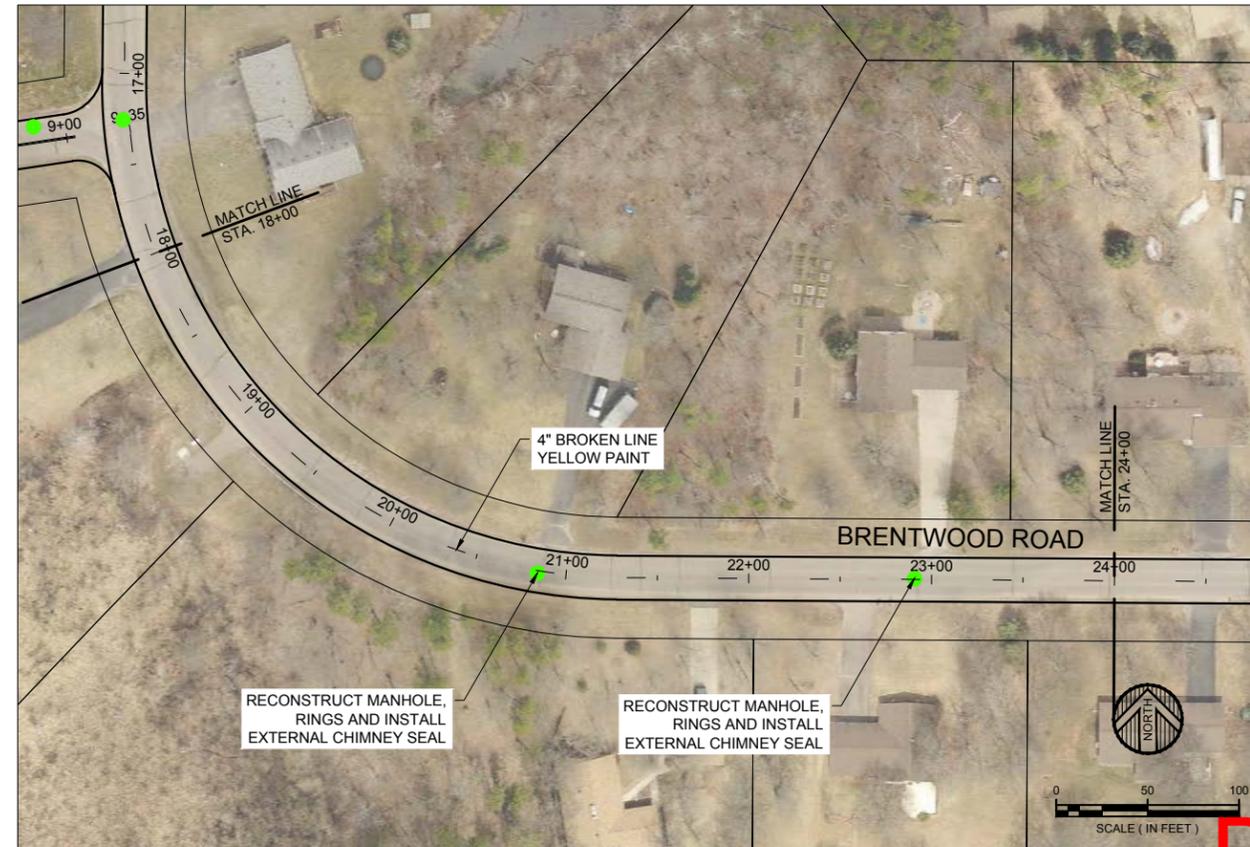
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## BRENTWOOD ROAD



## BRENTWOOD ROAD



## BRENTWOOD ROAD



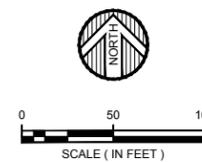
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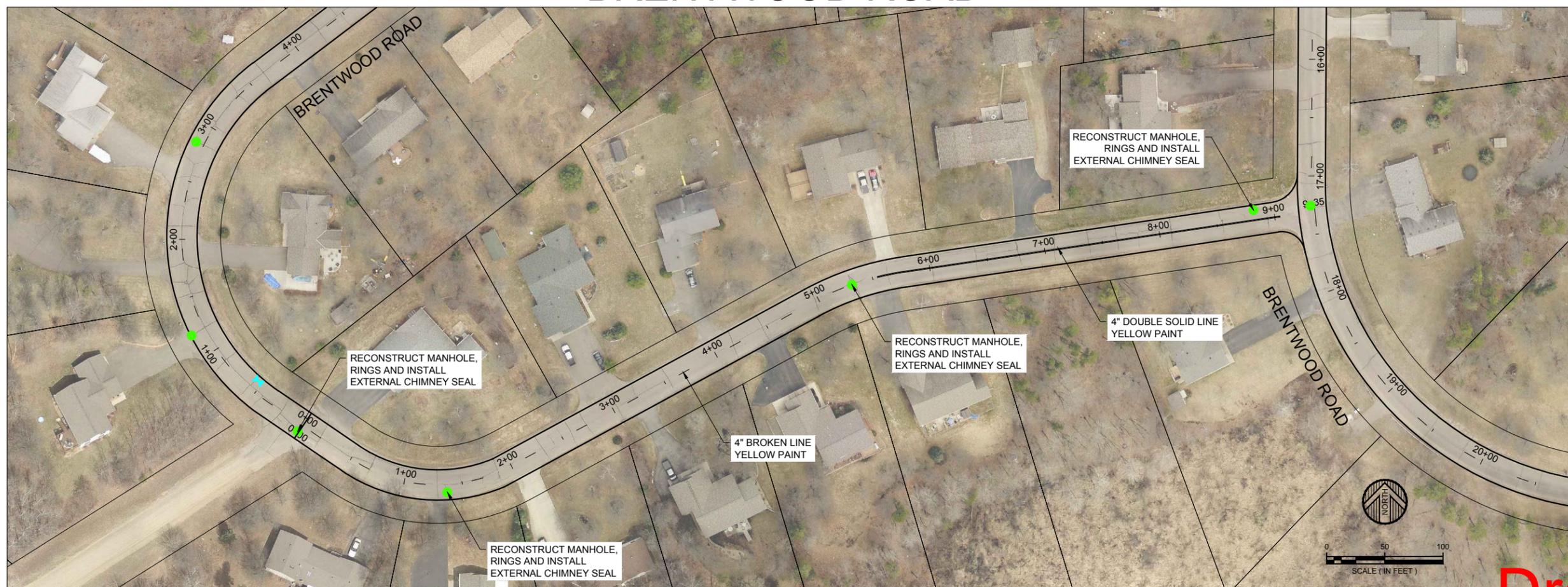
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2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
**BRENTWOOD ROAD**

**Draft**



## BRENTWOOD ROAD



## BRIARWOOD LANE



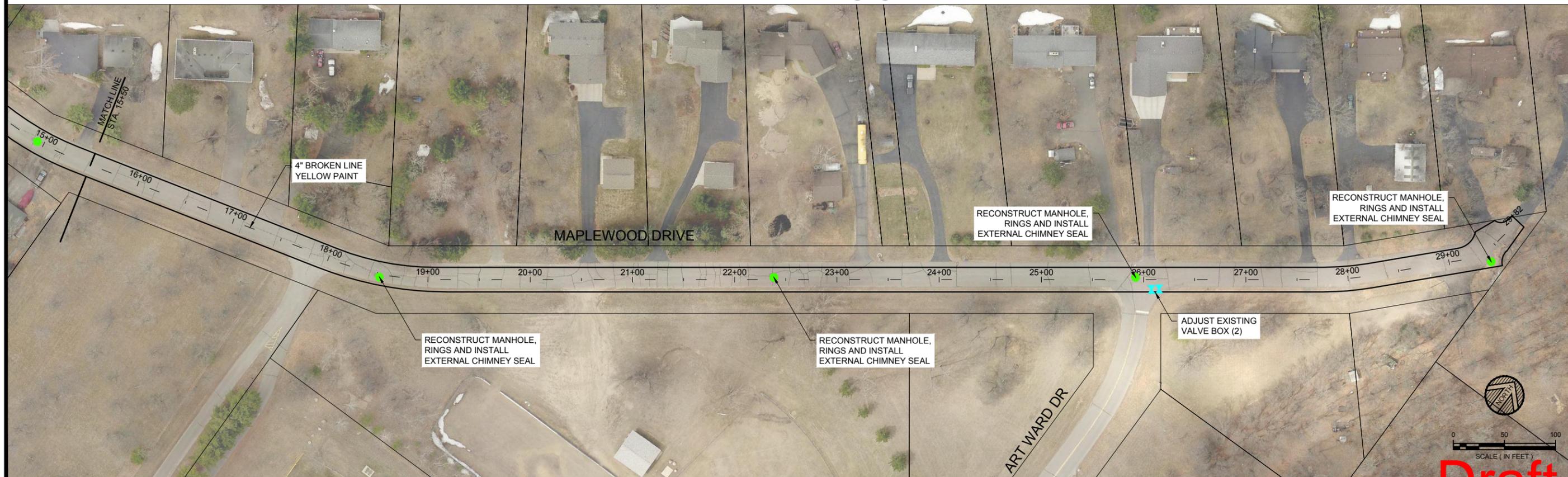
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2016 MILL AND OVERLAY PROJECT  
CITY OF BAXTER  
BAXTER, MINNESOTA  
BRENTWOOD ROAD & BRIARWOOD LANE

**Draft**



MAPLEWOOD DRIVE

MAPLEWOOD DRIVE



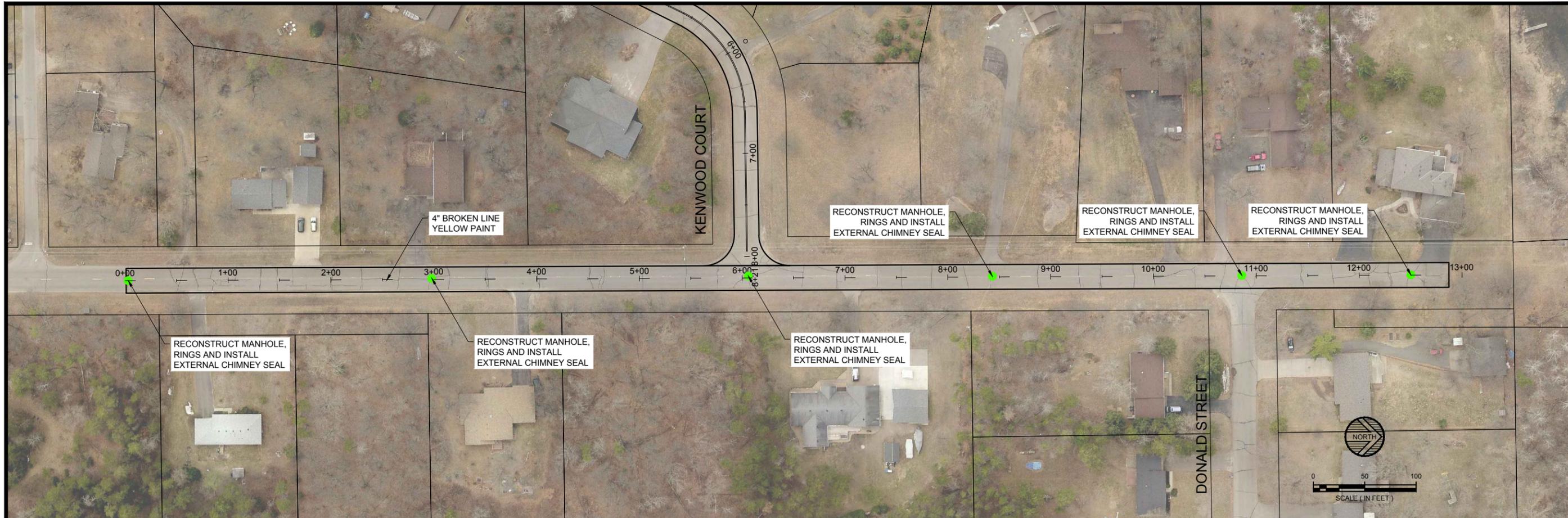
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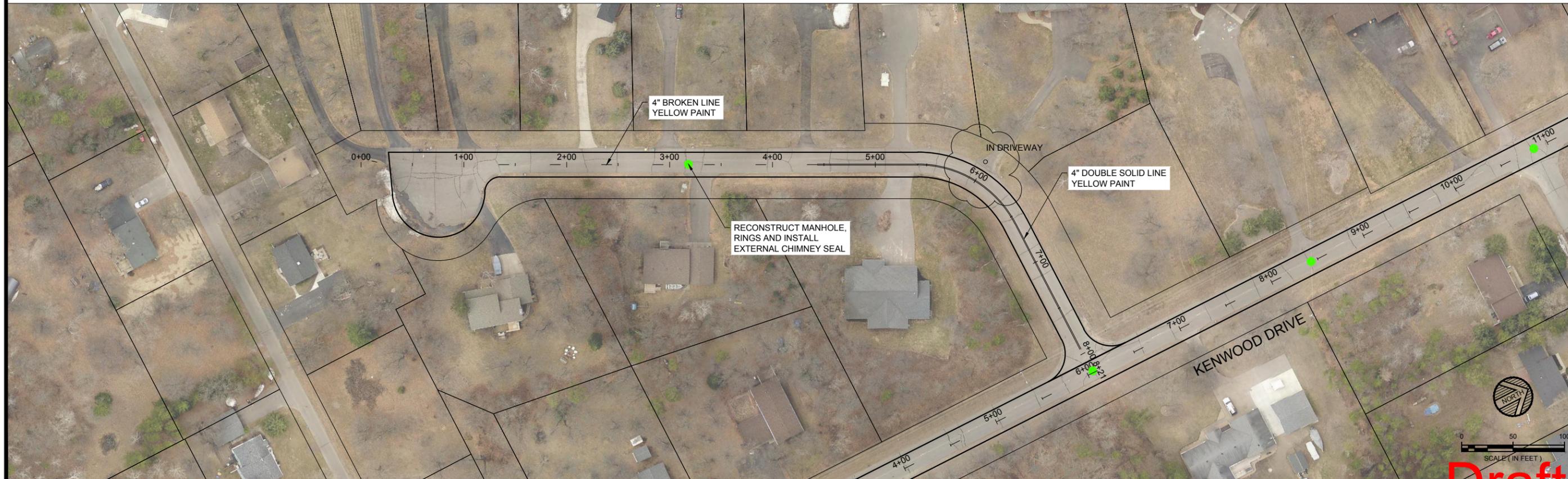
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2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
 MAPLEWOOD DRIVE

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# KENWOOD DRIVE



# KENWOOD COURT

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 BY: [Signature]

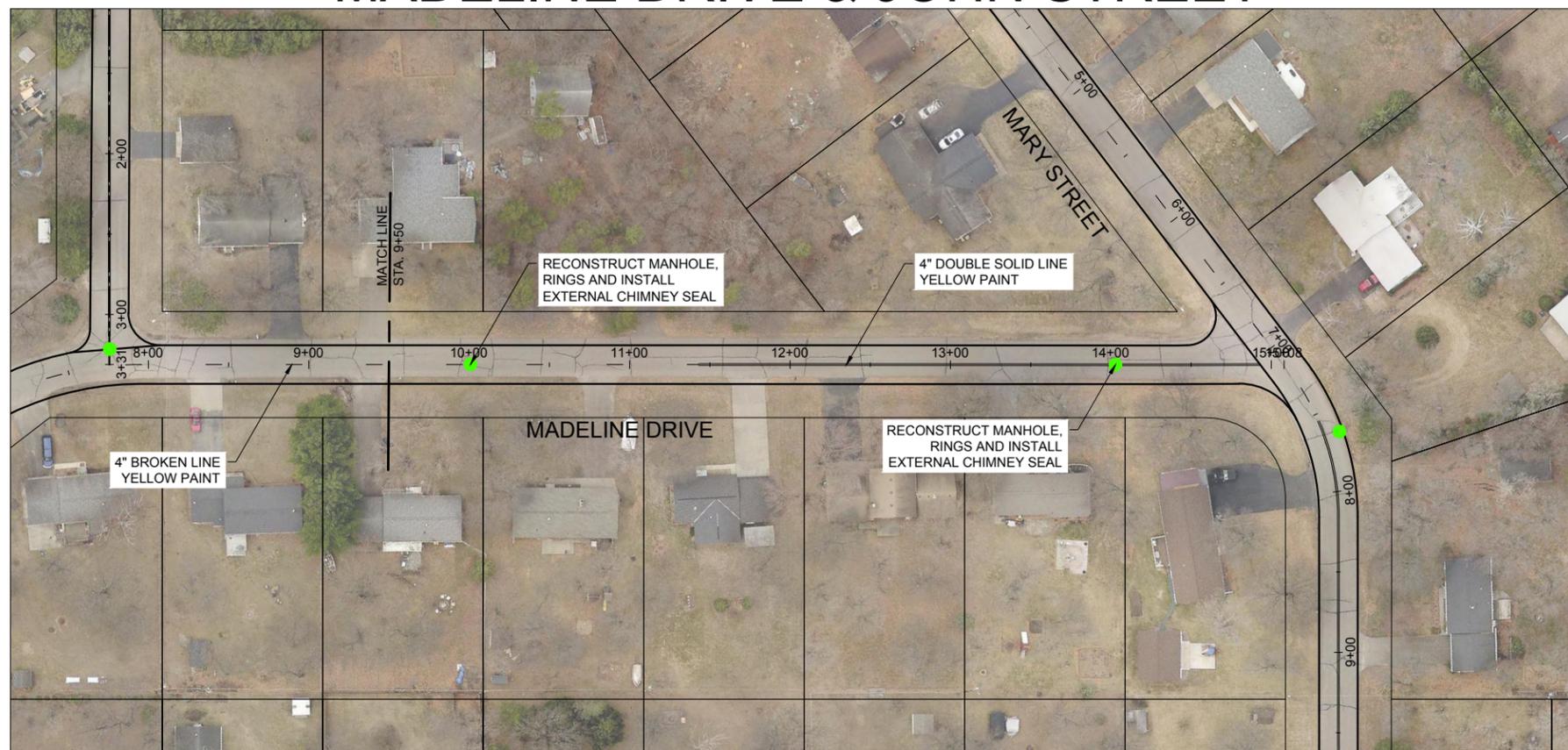
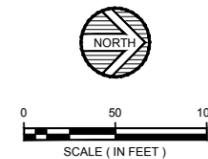
DATE	REV	DESCRIPTION

DATE: FEB. 2016  
 SCALE: AS SHOWN  
 DRAWN BY: M.A.S.  
 CHECKED BY: A.L.W.  
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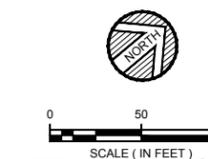
2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
 KENWOOD DRIVE AND KENWOOD COURT



## MADELINE DRIVE & JOHN STREET



## MADELINE DRIVE



**Draft**

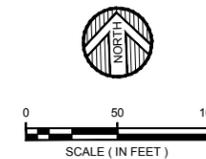
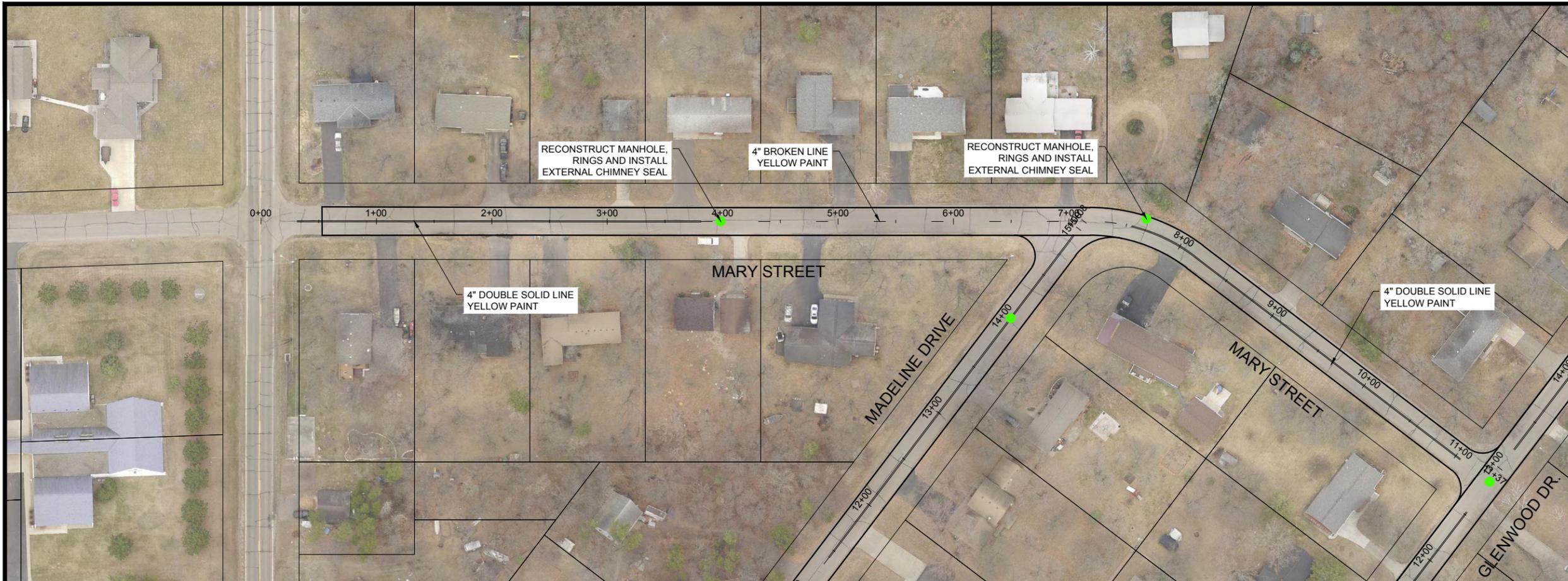


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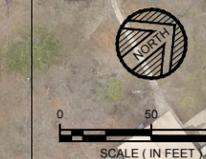
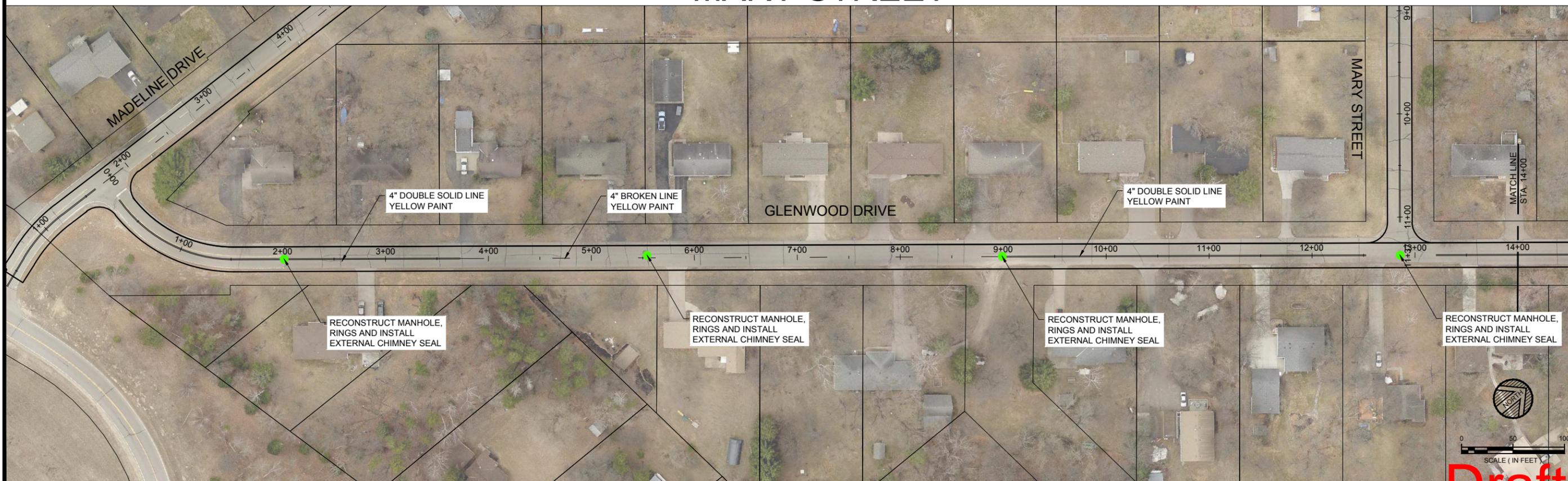
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2016 MILL AND OVERLAY PROJECT  
CITY OF BAXTER  
BAXTER, MINNESOTA  
MADLINE DRIVE AND JOHN STREET



# MARY STREET



# GLENWOOD DRIVE



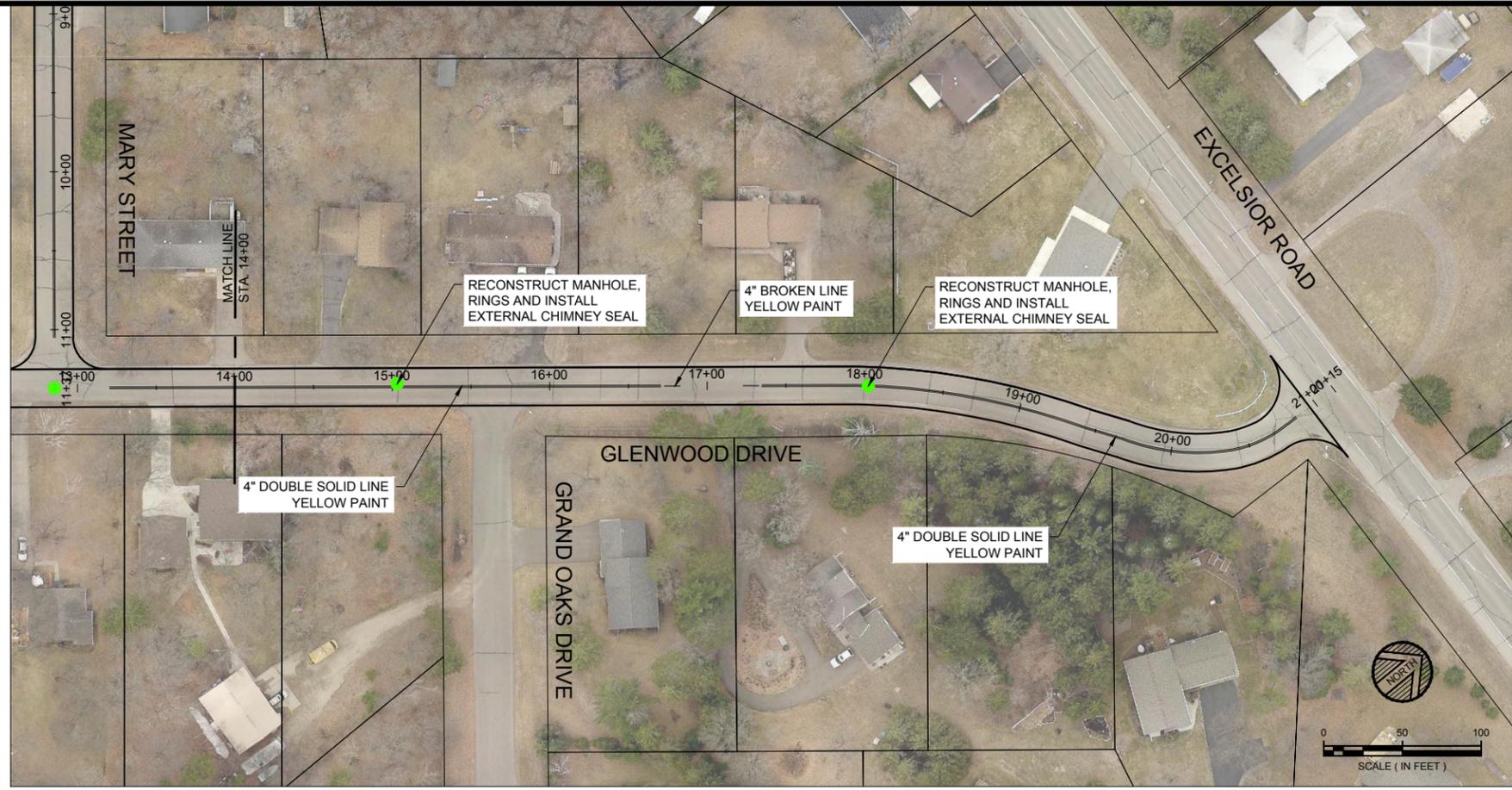
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2016 MILL AND OVERLAY PROJECT  
CITY OF BAXTER  
BAXTER, MINNESOTA  
MARY STREET AND GLENWOOD DRIVE

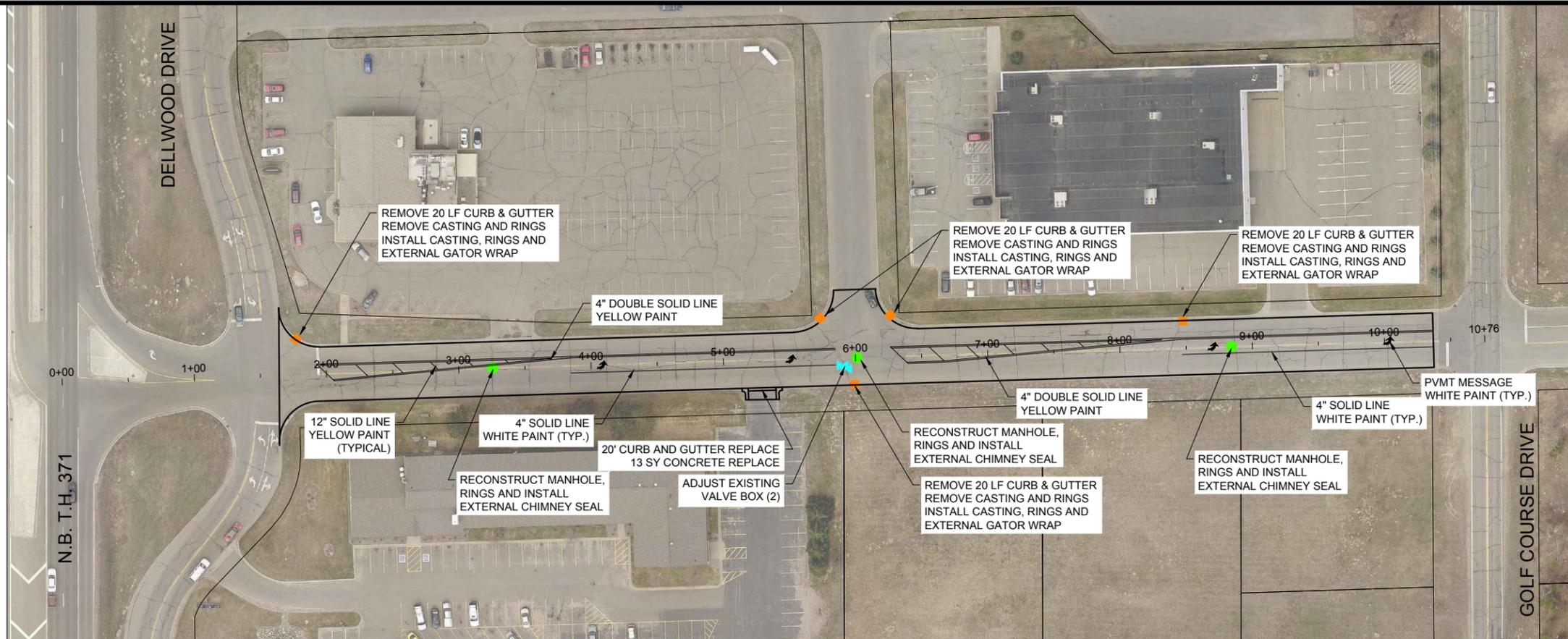
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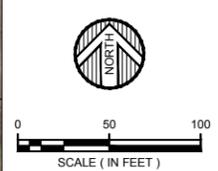
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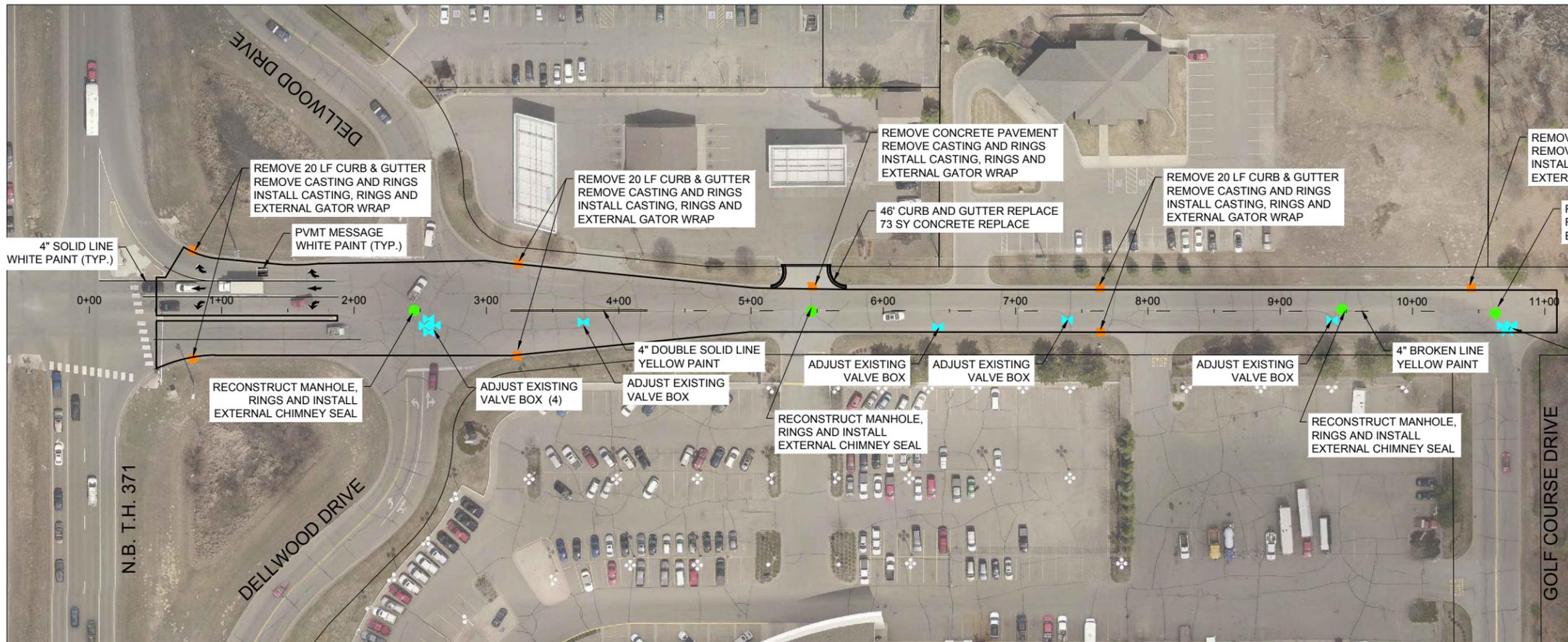
2016 MILL AND OVERLAY PROJECT CITY OF BAXTER BAXTER, MINNESOTA		DATE: FEB. 2016 SCALE: AS SHOWN DRAWN BY: M.A.S. CHECKED BY: A.L.W.		JOB NUMBER: 0102B0379.000	
DATE	REV#	REVISIONS DESCRIPTION	BY	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	
				ERIC HELCI	DATE: 11/02/2016 10:44:00 AM
SHEET NO. 15			WIDSETH SMITH NOLTING Engineering   Architecture   Surveying   Environmental		



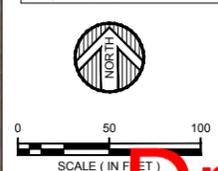
CLEARWATER ROAD	
WEARING COURSE	2.0"
NON WEARING COURSE	2.5"
SALVAGED BASE	6.0"
SUBCUT	4"
RECLAIM DEPTH	8"



## CLEARWATER ROAD



WOIDA ROAD	
WEARING COURSE	2.0"
NON WEARING COURSE	2.5"
SALVAGED BASE	6.0"
SUBCUT	9"
RECLAIM DEPTH	10"



## WOIDA ROAD



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2016 MILL AND OVERLAY PROJECT  
CITY OF BAXTER  
BAXTER, MINNESOTA

CLEARWATER ROAD AND WOIDA ROAD

**Draft**

# STORM WATER POLLUTION PREVENTION PLAN

## Erosion Prevention Practices

The Contractor/ECS is responsible for the Erosion Prevention Practices contained in Part IV.B of the NPDES Permit. The Contractor/ECS must plan for and implement appropriate construction phasing, vegetative buffer strips, horizontal slope grading and other construction practices that minimize erosion. The location of areas not to be disturbed must be delineated (marked) on the development site before work begins. All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.

The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the construction site, must be stabilized within 200 lineal feet from the property edge, or from the discharge into any surface water. Stabilization must be complete within 24 hours after connecting to surface water.

Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours after connection to a surface water.

## Sediment Control Practices

The Contractor/ECS is responsible for the Sediment Control Practices contained in Part IV.C of the NPDES Permit. Sediment Control Practices must be installed on all down gradient perimeters before any upgradient land disturbing activities begin. There shall be no unbroken slope length greater than 75 feet for slopes with a grade of 3:1 or steeper. These practices must remain in place until Final Stabilization has been established in accordance with Part IV.G of the NPDES Permit.

The timing of installation of Sediment Control Practices may be adjusted to accommodate short-term activities such as clearing or grubbing, or passage of vehicles. Short-term activities must be completed as quickly as possible and the practices must be installed immediately after the activity is completed. However, the Sediment Control Practices must be installed before the next precipitation event even if the activity is not complete.

All storm drain inlets must be protected by appropriate BMP's during construction until all sources with potential for discharging to the inlet have been stabilized. Inlet protection may be removed if a specific safety concern has been identified and the procedure in Part IV.C.4 of the NPDES Permit is followed.

Temporary soil stockpiles must have silt fence or other effective sediment controls, and can not be placed in surface waters, including stormwater conveyances such as curb and gutter systems, or conduit and ditches unless there is a bypass for stormwater. Vehicle tracking of sediment from the construction site must be minimized by BMP's such as stone or wood chip pads, concrete or steel wash racks, or equivalent systems. Street sweeping with collection must be used if such BMP's are not adequate to prevent sediment from being tracked onto the street (see Part IV.E.4.d of the NPDES Permit). Dewatering related to the construction activity must comply with Part IV.D of the NPDES Permit. Dewatering discharge that may have turbid or sediment laden discharge must be discharged to a temporary or permanent sedimentation basin on the project site whenever possible and BMP's must be implemented to prevent water containing sediment or other pollutants from being discharged to a Water of the State.

Contractor may construct temporary sedimentation basins in accordance with Part III.B of the NPDES Permit.

## Payment

Cost for permanent and temporary erosion and sediment control measures shown on the plans will be paid per unit bid prices. The costs to maintain and remove these devices shall be incidental to the bid items. The cost for temporary seeding, soil stabilization, or any additional temporary erosion and sediment control devices shall be paid according to MN/DOT Spec. 2573.5 or 2575.5 as applicable. All costs for documentation required by the Permit shall be incidental to other items unless a specific bid item is established.

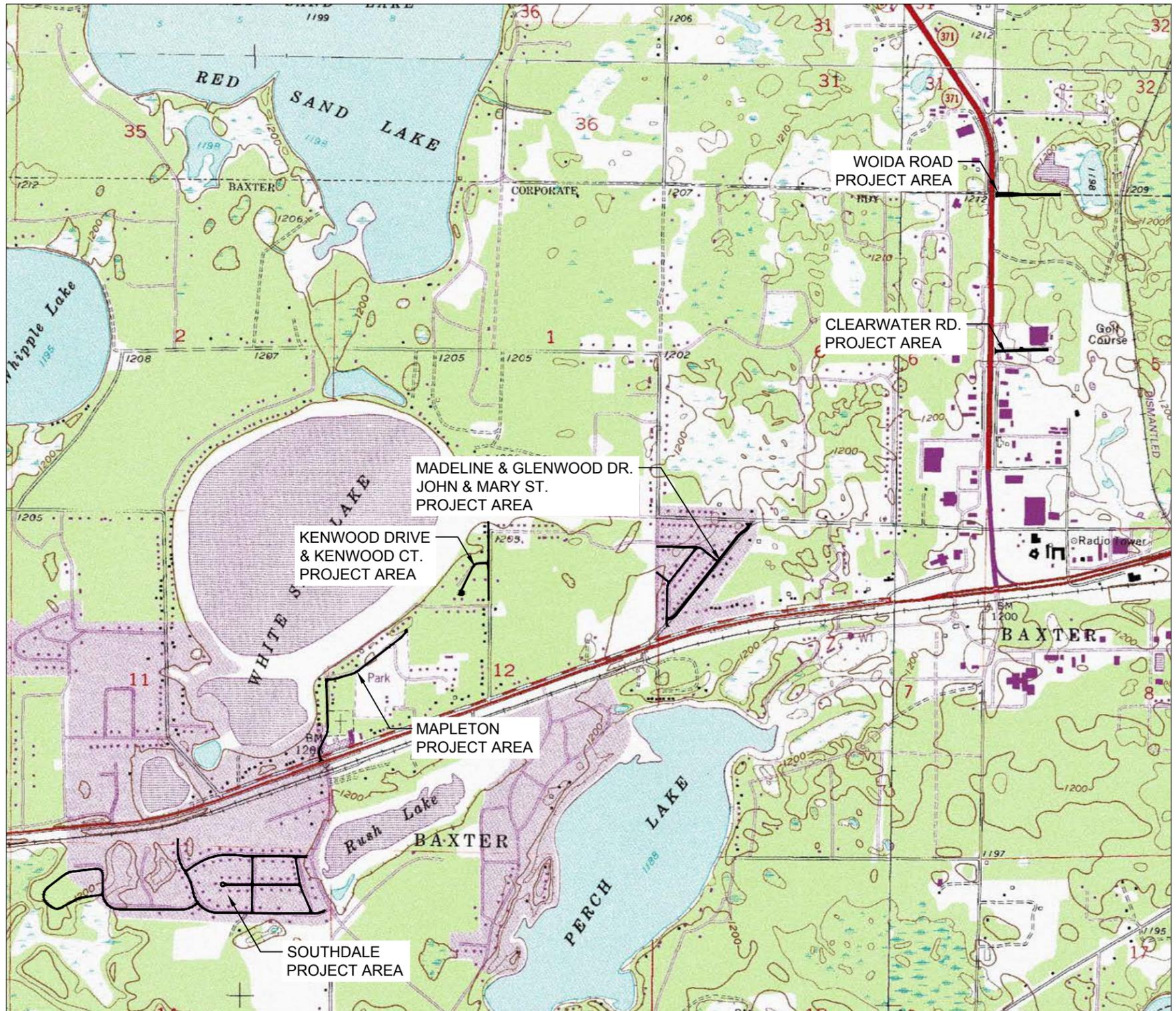
## Contacts:

Agency	Permit	Name	Phone Number
MPCA	NPDES	Scott Lucas	1-218-316-3874
City of Baxter	Owner	Trevor Walter	1-218-831-3086
SWPPP Design	NPDES	Mark Skogen	1-218-316-3637
EC Supervisor			

## Amendments to SWPPP

- 1.
- 2.
- 3.

Date



U.S.G.S. QUADRANGLE OF PROJECT LOCATION

**Draft**

Engineering  
Architecture  
Surveying  
Environmental

**WIDSETH SMITH NOLTING**

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JOB NUMBER: 0102B0379.000

2016 MILL AND OVERLAY PROJECT  
CITY OF BAXTER  
BAXTER, MINNESOTA

STORM WATER POLLUTION PREVENTION PLAN

SHEET NO. 17

# STORM WATER POLLUTION PREVENTION PLAN

## Project Location:

The City of Baxter is proposing to mill and overlay four different areas of the city as part of an existing maintenance plan and reclaim and repave two existing urban design streets in the commercial area of the city. The Southdale area is located in the city of Baxter, Crow Wing County in Section 14 Range 29 W Township 133 N. Mapleton Drive, Kenwood Drive and Kenwood Court are in Section 12 Range 29 W Township 133N and Madeline Drive, Glenwood Drive, Mary and John Street are in Section 7 Range 28 W Township 133N. Clearwater and Woida Road are in the commercial area of Baxter and are in Section 5 Range 28W Township 133N.

## Existing Site Description:

The Southdale Area, Mapleton, Kenwood Drive, Kenwood Court, Madeline, Glenwood Drive, Mary and John Street is an established roadway that serves residences with access along the roadway. There are existing utilities in place in the right of way at this time that serve the residential lots. Properties abutting the project area are primarily residential in nature. Clearwater and Woida Road is an established roadway that serves the commercial area abutting the T.H. 371 north corridor.

## Proposed Project Description:

The Southdale Area, Mapleton, Kenwood Drive, Kenwood Court, Madeline, Glenwood Drive, Mary and John Street will include milling the existing 24' wide bituminous roadway and overlaying with 24' bituminous wear course. Existing impervious surfaces within the project, including bituminous roadway is estimated at 561,038 s.f. (12.88 acres). The proposed impervious surfaces for the project are estimated at 561,038 s.f. (12.88 acres). Existing storm water runoff patterns consist of shallow ditches on each side of an elevated 24 foot bituminous roadway. Clearwater and Woida Road will include full depth reclamation of the existing 33' bituminous surfacing, class 5 base and sub-base leaving the existing concrete curb and gutter in place. Existing impervious surfaces within the project is estimated at 84,913 s.f. (1.95 acres). The proposed impervious surface for these areas are estimated at 84,913 s.f. (1.95 acres). Clearwater and Woida Roadways are served by an existing storm sewer system piping surface water to existing ponding areas.

## Rare Plant or Animal Species

Blandings turtles, a State-Listed endangered and threatened species, have been reported in the vicinity of the project and may be encountered on-site. If Blandings turtles are found on site, State law and rules prohibit the destruction of threatened or endangered species. If turtles are in imminent danger, they should be moved by hand out of harm's way. Otherwise they should be left undisturbed. A Blandings turtle fact sheet that describes the habitat use and life history of this species, including a list of recommendations for avoiding and minimizing impacts, is provided in special provisions.

## Unique Storm Water Management Features

No unique storm water management features exist for this project.

## TMDL Implementation Plans Containing Storm Water Requirements

No TMDL Implementation Plans currently exist for the receiving waters on this project.

## Long Term Maintenance

Long term maintenance of the permanent storm water management system will be by City of Baxter personnel.

## Erosion Control Supervisor Requirements

The Contractor must identify an Erosion Control Supervisor (ECS) who is knowledgeable and experienced in the application of erosion and sediment control Best Management Practices (BMP's). The ECS must work with the Project Engineer to oversee and implement the SWPPP, and the installation, inspection, and maintenance of erosion and sediment control BMP's before, during and after construction. The Contractor/ECS is required to comply with the training requirements in Part III.A of the NPDES Permit. The permittee(s) shall ensure that employees are properly trained in the following areas with certification proof provided at the pre-construction conference. SWPPP Preparation:

Name: Mark Skogen  
 Dates of Training: January 27-28, 2015 - Univ. of Minnesota  
 Instructors Name providing Training: J. Chapman

Content of Training (incl. hours): Recertification-Design of SWPPP - 12 hrs.

## Site Manager:

Name: \_\_\_\_\_  
 Dates of Training: \_\_\_\_\_  
 Instructors Name providing Training: \_\_\_\_\_  
 Content of Training (incl. hours): \_\_\_\_\_

## BMP Installer:

Name: \_\_\_\_\_  
 Dates of Training: \_\_\_\_\_  
 Instructors Name providing Training: \_\_\_\_\_  
 Content of Training (incl. hours): \_\_\_\_\_

The Contractor/ECS shall develop a chain of responsibility with all operators on the site to ensure that the SWPPP will be implemented and stay in effect until the project site has undergone Final Stabilization in accordance with Part IV.G of the NPDES Permit and a Notice of Termination (NOT) has been submitted to the MPCA in accordance with Part II.C of the NPDES Permit. The Contractor/ECS must routinely inspect the entire construction site at least once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inch in 24 hours. The Contractor shall take action to eliminate any deficiencies found during these inspections and contact the MPCA if contaminated stormwater has reached any surface water. The Contractor must provide 2 rain gauges to be installed on the construction site. Inspections, maintenance and documentation must be in accordance with the NPDES Permit Part IV.E. See Part III.D of the NPDES Permit for record retention requirements. Copies of the inspection records are to be submitted to the Engineer. The Contractor/ECS or Project Engineer must amend the SWPPP as necessary to include additional requirements, such as additional or modified BMP's, designed to correct problems or address situations in accordance with Part III.A.5 of the NPDES Permit.

## Construction Practices to Minimize Storm Water Contamination

- Stockpiles should be constructed away from slopes and natural drainage ways.
- Collected solid waste (sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.
- No construction materials can be buried on site.
- Licensed sanitary waste management handler must dispose of sanitary waste.
- Fertilizers must be stored in covered locations.
- Restricted access to chemical storage areas must be provided to prevent vandalism.
- All chemicals must be stored in locked containers when not in use.
- Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge.
- Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
- Vehicles must be monitored for leaks and preventative maintenance scheduled.
- Spill kits must be available during equipment fueling and maintenance operations.
- External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.
- Asphalt substances must be applied according to manufactures recommendations.

## Construction Practices to Minimize Storm Water Contamination (cont'd)

- Spray guns must be cleaned on removable surfaces such as tarpaulins.
- Contractor/Erosion Control Supervisor must make a spill response plan before the application of any chemical that may be harmful to the environment.
- All spills must be reported immediately. Spill cleanup materials must be available on site. Material shall include but not limited to brooms, mops, rags, gloves, absorbent material, sand plastic and metal containers. Spills that reach storm water conveyance systems connected to a Water of the State must be immediately reported to the MPCA State Duty Officer.
- Contractor must control weeds on the entire project site.
- Form release oil must be applied over a pallet covered with absorbent material to collect excess fluid. The absorbent material shall be replaced when saturated.
- Dust control must be provided as conditions warrant.

## Temporary and Permanent Erosion Control Practices

BMP's proposed for temporary and permanent erosion control are shown on the erosion control plan sheets and are further identified as follows:

### Temporary Erosion Control Methods

- Hand placed silt fence shall be placed in all locations as indicated on the erosion control plan sheets prior to any removal operations.
- Stabilized construction exits shall be placed at all locations construction vehicles will be exiting the project area.
- Storm drain inlet protection devices will change as construction progresses. It is intended that at a minimum of two different methods will be employed. One method before the curb and gutter is placed, and a different method prior to curb and gutter placement.

The contractor must have a concrete washout waste site. Containment must be designed so that it does not result in runoff from the washout area.

### Temporary Sediment Control Methods

- Storm drain inlet protection devices will change as construction progresses. It is intended that at a minimum of two different methods will be employed. One method during curb and gutter / catch basin casting replacement, and a different method after curb and gutter reconstruction.

### Permanent Erosion Control Methods

Permanent erosion control will be by topsoil, seed mixture 25-151 and hydraulic reinforced fiber matrix type mulch on all areas disturbed by construction activities that are residential. Sod will be placed in areas that are commercial and after storm sewer reconstruction activities.

## Unique Environmental Concerns

No unique environmental concerns exist for this project.

## Timing of BMP Installation

Erosion and sediment control BMP's must be installed as necessary to minimize erosion from disturbed surfaces and capture sediment onsite. All BMP's must conform with Part IV of the NPDES Permit.

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DATE: FEB. 2016

SCALE: AS SHOWN

DRAWN BY: M.A.S.

CHECKED BY: A.L.W.

S&P NUMBER: 0102B0379.000

2016 MILL AND OVERLAY PROJECT

CITY OF BAXTER

BAXTER, MINNESOTA

STORM WATER POLLUTION PREVENTION PLAN

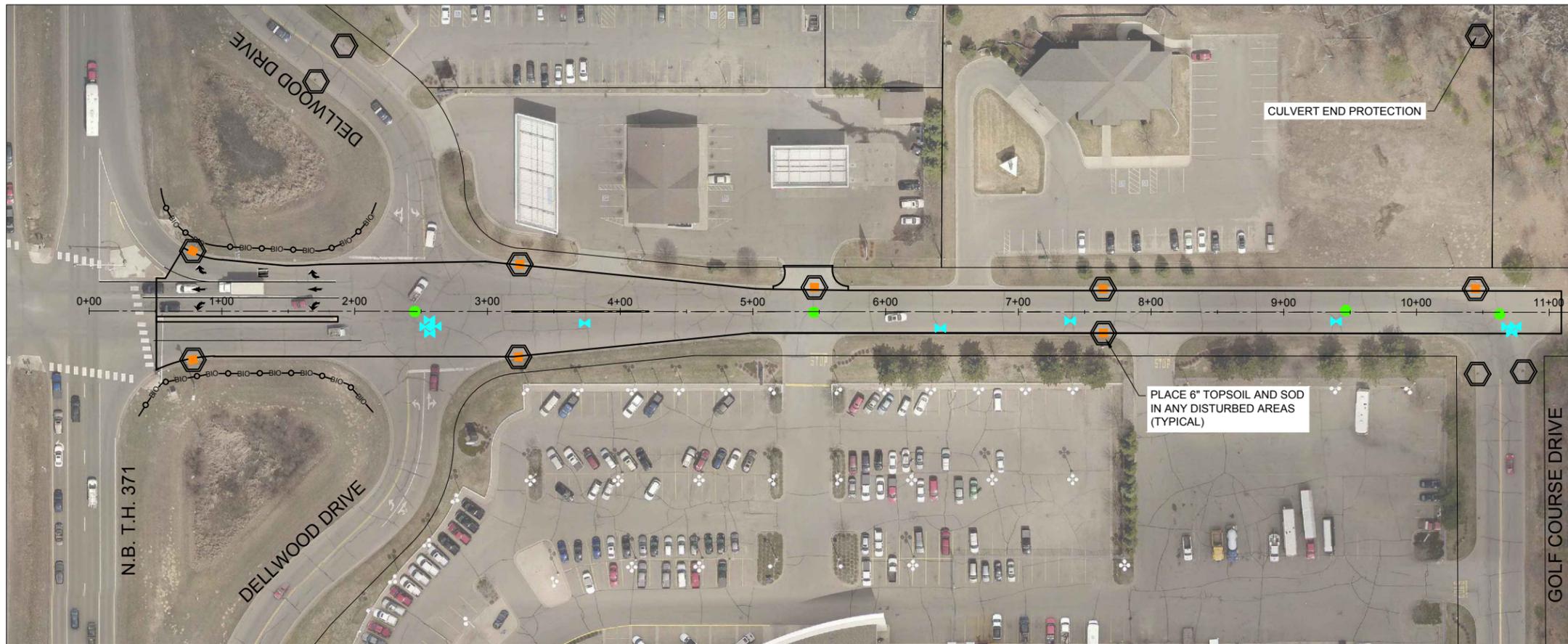
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18

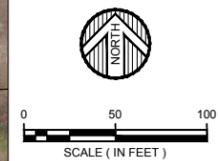
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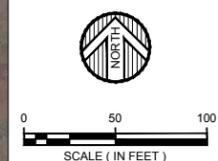
## CLEARWATER ROAD



## WOIDA ROAD



EROSION CONTROL SYMBOLS	
	STORM DRAIN INLET PROTECTION
	BIO ROLL



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

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CHECKED BY: A.L.W.  
JOB NUMBER: 0102B0379.000

2016 MILL AND OVERLAY PROJECT  
CITY OF BAXTER  
BAXTER, MINNESOTA

EROSION CONTROL

SHEET NO. 19

**Draft**



LOOP DETECTORS			
NUMBER	SIZE	FUNCTION	LOCATION
D1-1	6X6	1	20'x50'
D1-2	6X6	1	5'x35'
D2-1	6X6	1	475'
D2-2	6X6	1	475'
D4-1	2-6X6	1	120'
D4-2	6X6	1	5'
D4-3	6X6	1	5'
D5-1	6X6	1	20'x50'
D5-2	6X6	1	5'x35'
D6-1	6X6	1	475'
D6-2	6X6	1	475'
D8-1	2-6X6	1	120'
D8-2	2-6X6	1	5' & 20'
D8-3	2-6X6	1	5' & 20'

- NOTES:**
- SEE SPECIAL PROVISIONS FOR STATE FURNISHED MATERIALS.
  - EACH SIGNAL FACE SHALL BE 12 INCH 3-SECTION R-Y-G, EXCEPT PHASES 1 & 5 SIGNAL FACES SHALL BE RLTA-YLTA-GLTA.
  - EACH SIGNAL FACE SHALL HAVE A BACKGROUND SHIELD.
  - PEDESTRIAN INDICATIONS SHALL BE 12"X12".
  - SIGNAL SYSTEM FLASH MODE SHALL BE RED-RED.
  - PLACE ADVANCE WARNING FLASHERS 850' FROM STOP BAR 1/4" NMC
- ▲ 7. ADJUST HAND HOLES AS INDICATED, NEED TO BE ADJUSTED UP.**
- 8. ADD LOOP WIRES FOR D1-2 AND D5-2**
- 9. HOLES ON POLES TO BE SEALED.**
- 10. REMOVE AND F&I D5-1 WIRE**
- 11. PED INDICATIONS TO BE COUNTDOWN LED.**
- 12. P.B. HOLES ON POLES TO BE SEALED.**

**2** P100 POLE FOUNDATION  
 TYPE P100-A35-D40-9 (DAVIT AT 350°)  
 ONEWAY SIGNAL (OVERHEAD) END MOUNTED  
 ONEWAY SIGNAL MID MASTARM MOUNTED 12' AND 24' FROM END  
 TYPE 10B POLE MOUNTED (0°)  
 TYPE 10B POLE MOUNTED (270°)  
 LUMINAIRE-200 WATT HPS WITH PEC/CH.SW.  
 2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4C)  
 EXTEND INTO H.H. 6  
 3" RSC  
 2-12/C#12  
 2-3/C#12  
 2-3/C#12 (LUM)  
 1-3/C#12 }EVP  
 1-3/C#20 }EVP  
 3-3/C#12  
 3-3/C#12 (LUM)  
 5-2/C#14  
 1-3/C#12 (LUM)  
 1-5/C#12 (FLASHERS)  
 1-3/C#12 }EVP  
 1-3/C#20 }EVP

**5** REMOVE-2-PED.PUSHBUTTONS AND SIGNS  
 2-PED INDICATIONS AT 90°&270°  
 F&I-2-C.D.PED.INDICATION AT 90°&270°  
 1-APS P.B.&SIGN PB4-1(RT ARROW) MOUNTED 270°  
 F&I-1-2/C#14

**5** F&I-14' PED. POLE AND BASE  
 2-ANGLE MOUNT SIGNAL HEADS MOUNTED AT 90°&270°  
 2-ANGLE MOUNT C.D. PED. INDICATION MOUNTED AT 90°&270°  
 1-APS PB4-2(DBL ARROW) MOUNTED AT 0°  
 EXTEND INTO H.H.5  
 3" CONDUIT  
 1-3/C#12  
 1-12/C#12

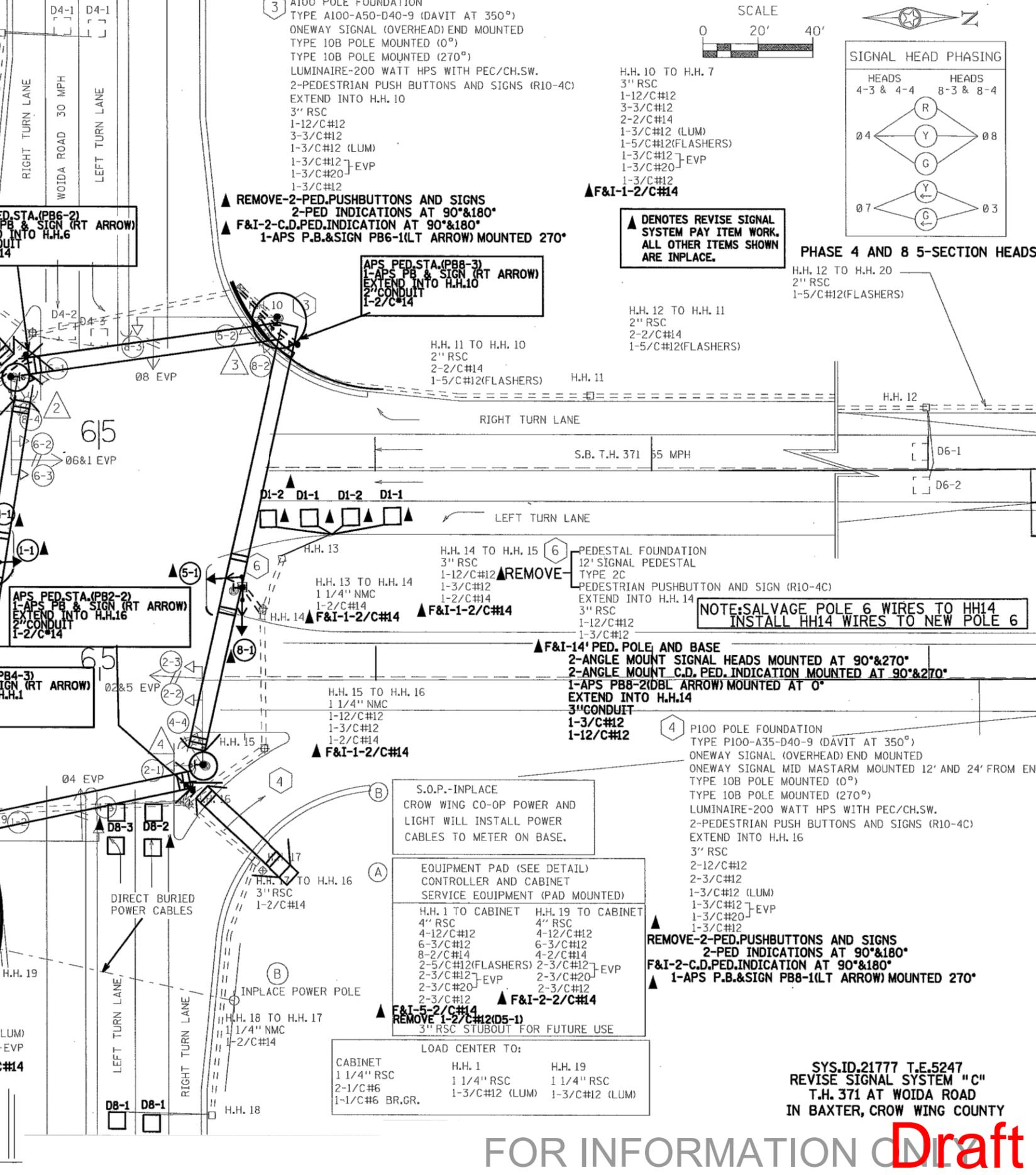
**5** REMOVE-2-PED.PUSHBUTTONS AND SIGNS  
 2-PED INDICATIONS AT 90°&180°  
 F&I-2-C.D.PED.INDICATION AT 90°&180°  
 1-APS P.B.&SIGN PB2-1(LT ARROW) MOUNTED 270°  
 F&I-2-2/C#14

**4** P100 POLE FOUNDATION  
 TYPE P100-A35-D40-9 (DAVIT AT 350°)  
 ONEWAY SIGNAL (OVERHEAD) END MOUNTED  
 ONEWAY SIGNAL MID MASTARM MOUNTED 12' AND 24' FROM END  
 TYPE 10B POLE MOUNTED (0°)  
 TYPE 10B POLE MOUNTED (270°)  
 LUMINAIRE-200 WATT HPS WITH PEC/CH.SW.  
 2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4C)  
 EXTEND INTO H.H. 19  
 3" RSC  
 1-12/C#12  
 3-3/C#12  
 2-3/C#12 (LUM)  
 1-3/C#12 }EVP  
 1-3/C#20 }EVP  
 1-3/C#12

**4** REMOVE-2-PED.PUSHBUTTONS AND SIGNS  
 2-PED INDICATIONS AT 90°&180°  
 F&I-2-C.D.PED.INDICATION AT 90°&180°  
 1-APS P.B.&SIGN PB8-1(LT ARROW) MOUNTED 270°  
 F&I-2-2/C#14

**4** REMOVE-2-PED.PUSHBUTTONS AND SIGNS  
 2-PED INDICATIONS AT 90°&180°  
 F&I-2-C.D.PED.INDICATION AT 90°&180°  
 1-APS P.B.&SIGN PB8-2(LT ARROW) MOUNTED 270°  
 F&I-2-2/C#14

**4** REMOVE-2-PED.PUSHBUTTONS AND SIGNS  
 2-PED INDICATIONS AT 90°&180°  
 F&I-2-C.D.PED.INDICATION AT 90°&180°  
 1-APS P.B.&SIGN PB8-3(LT ARROW) MOUNTED 270°  
 F&I-2-2/C#14

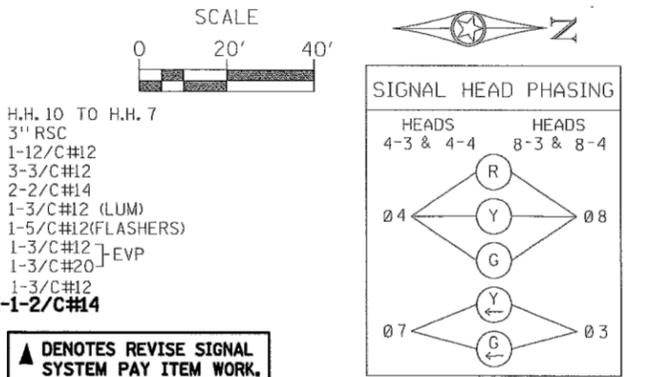


**▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.**

**▲ REMOVE-2-PED.PUSHBUTTONS AND SIGNS 2-PED INDICATIONS AT 90°&270°**

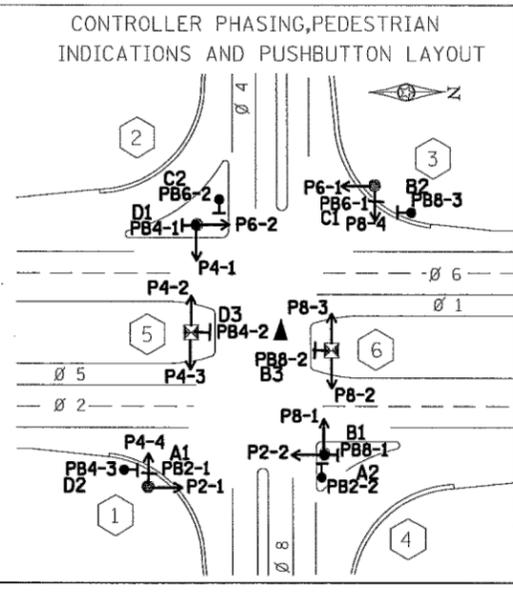
**▲ F&I-14' PED. POLE AND BASE 2-ANGLE MOUNT SIGNAL HEADS MOUNTED AT 90°&270°**

**▲ REMOVE-2-PED.PUSHBUTTONS AND SIGNS 2-PED INDICATIONS AT 90°&180°**



**▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.**

**▲ REMOVE-2-PED.PUSHBUTTONS AND SIGNS 2-PED INDICATIONS AT 90°&180°**



**▲ REMOVE-2-PED.PUSHBUTTONS AND SIGNS 2-PED INDICATIONS AT 90°&180°**

SYS.ID.21777 T.E.5247  
 REVISE SIGNAL SYSTEM "C"  
 T.H. 371 AT WOLDA ROAD  
 IN BAXTER, CROW WING COUNTY

**FOR INFORMATION ONLY** **Draft**

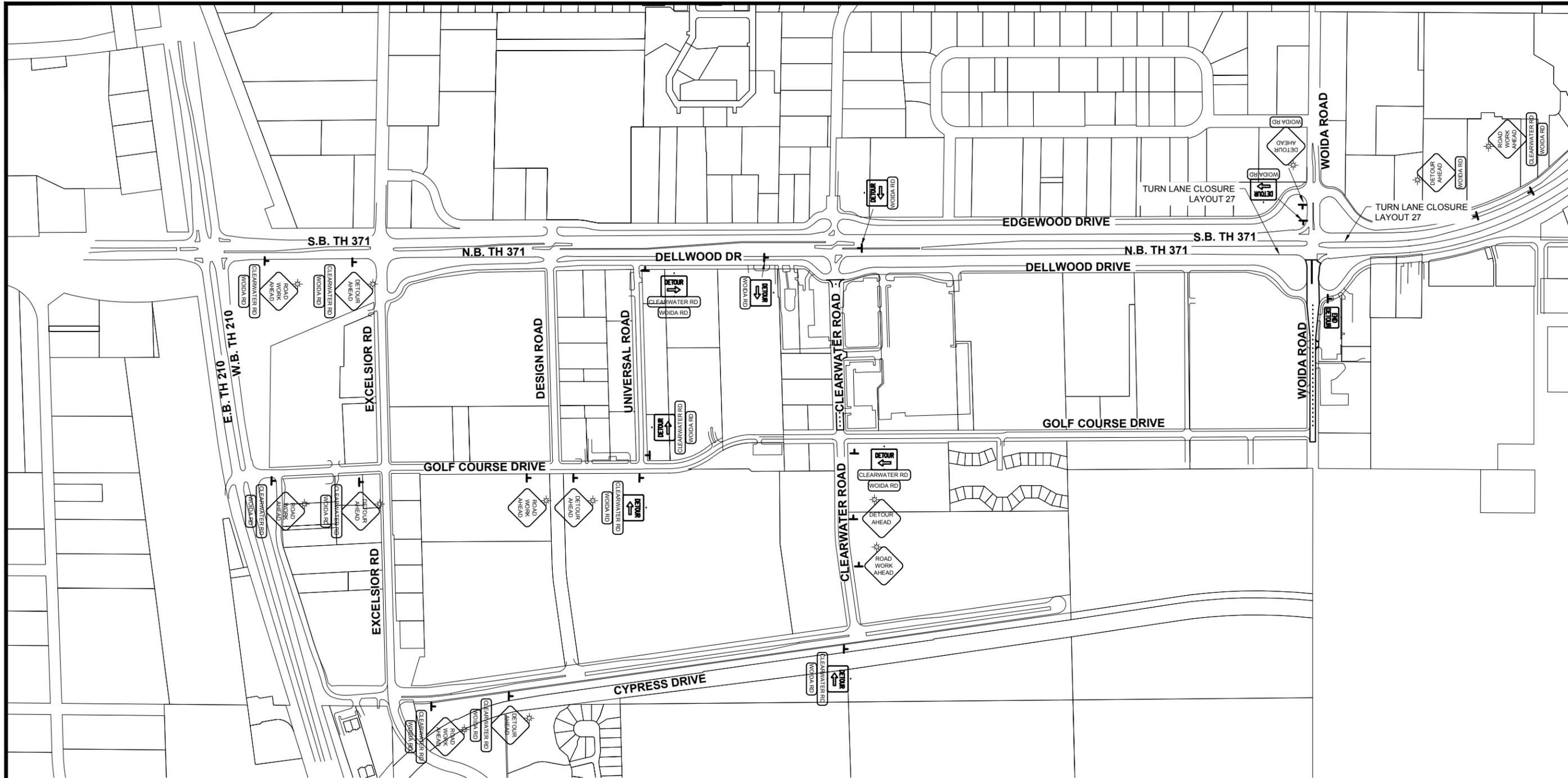
**WIDSETH SMITH NOLTING**  
 Engineering | Architecture | Surveying | Environmental

DATE: 01/26/2016  
 SCALE: AS SHOWN  
 DRAWN BY: M.A.S.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 010280379.000

2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA

EXISTING WOLDA ROAD LOOP PLANS

SHEET NO. 21

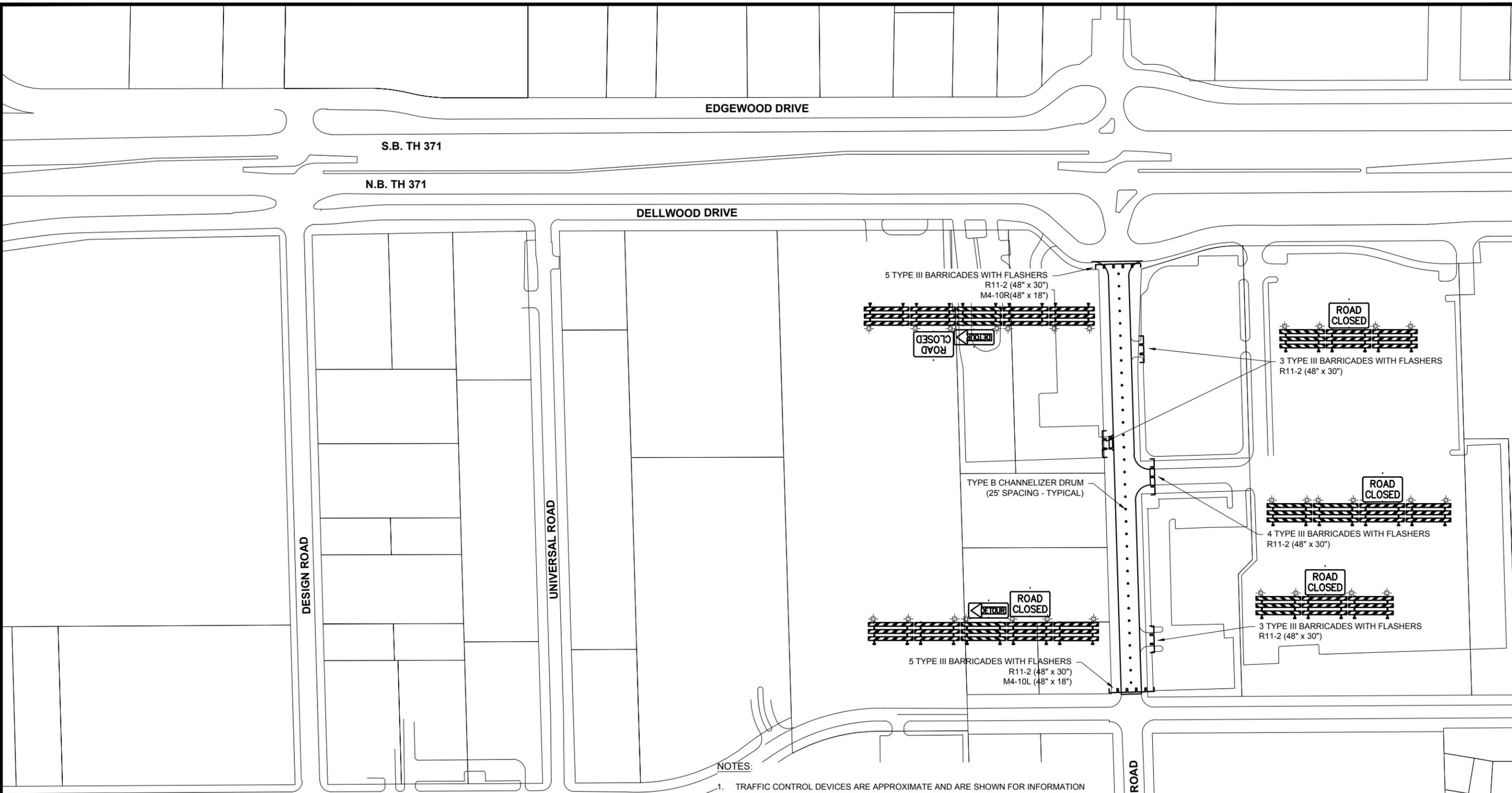


**NOTES:**

1. TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND ARE SHOWN FOR INFORMATION ONLY. PAYMENT FOR TRAFFIC CONTROL IS INTENDED TO COVER ALL SUCH DEVICES AND LAYOUTS NEEDED TO COMPLY WITH PART VI OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE SUPPLEMENTARY FIELD MANUAL.
2. ALL COSTS ASSOCIATED WITH TRAFFIC CONTROL (SHOWN & NOT SHOWN) , INCLUDING: FLAGGERS, SIGNS, POSTS, BARRICADES, DRUMS, CONES, LABOR, ETC; SHALL BE INCLUDED IN THE PRICE BIT FOR ITEM 2563.601 TRAFFIC CONTROL.
3. FIELD CONDITIONS MAY REQUIRE MODIFICATIONS OF THIS LAYOUT AS DEEMED NECESSARY BY THE ENGINEER AND CONTRACTOR.
4. BARRICADES AND SIGNAGE SHALL MOVE WITH THE CONTRACTORS DAILY OPERATIONS, IN ACCORDANCE WITH THE MMUTCD MANUAL.
5. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
6. CONTRACTOR TO USE SHOULDER CLOSURE TRAFFIC CONTROL LAYOUTS TO RECONSTRUCT STORM SEWER STRUCTURES, CONCRETE REPAIRS PRIOR TO TREE CONSTRUCTION OPERATIONS.

Draft

 <p><b>WIDSETH SMITH NOLTING</b> Engineering   Architecture   Surveying   Environmental</p>	
<p>DATE: FEB. 2016 SCALE: AS SHOWN DRAWN BY: M.A.S. CHECKED BY: A.L.W.</p>	<p>DATE: 01/20/2016 JOB NUMBER: 0102B0379.000</p>
<p>2016 MILL AND OVERLAY PROJECT CITY OF BAXTER BAXTER, MINNESOTA</p>	
<p>DETOUR PLAN - CLEARWATER &amp; WOIDA RD</p>	
<p>SHEET NO. <b>22</b></p>	
<p>I:\0102B-City of Baxter\0102B0379-2016 Mill &amp; Overlay\0102B0379.000-2016 Mill &amp; Overlay\CADD\Civil\TC-0102B0379.dwg Plotted by: Mark Skogen 2/23/2016 10:45:19 AM © 2016 WIDSETH SMITH NOLTING</p>	



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6. CONTRACTOR TO USE SHOULDER CLOSURE TRAFFIC CONTROL LAYOUTS TO RECONSTRUCT STORM SEWER STRUCTURES, CONCRETE REPAIRS PRIOR TO STREET CONSTRUCTION OPERATIONS.



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

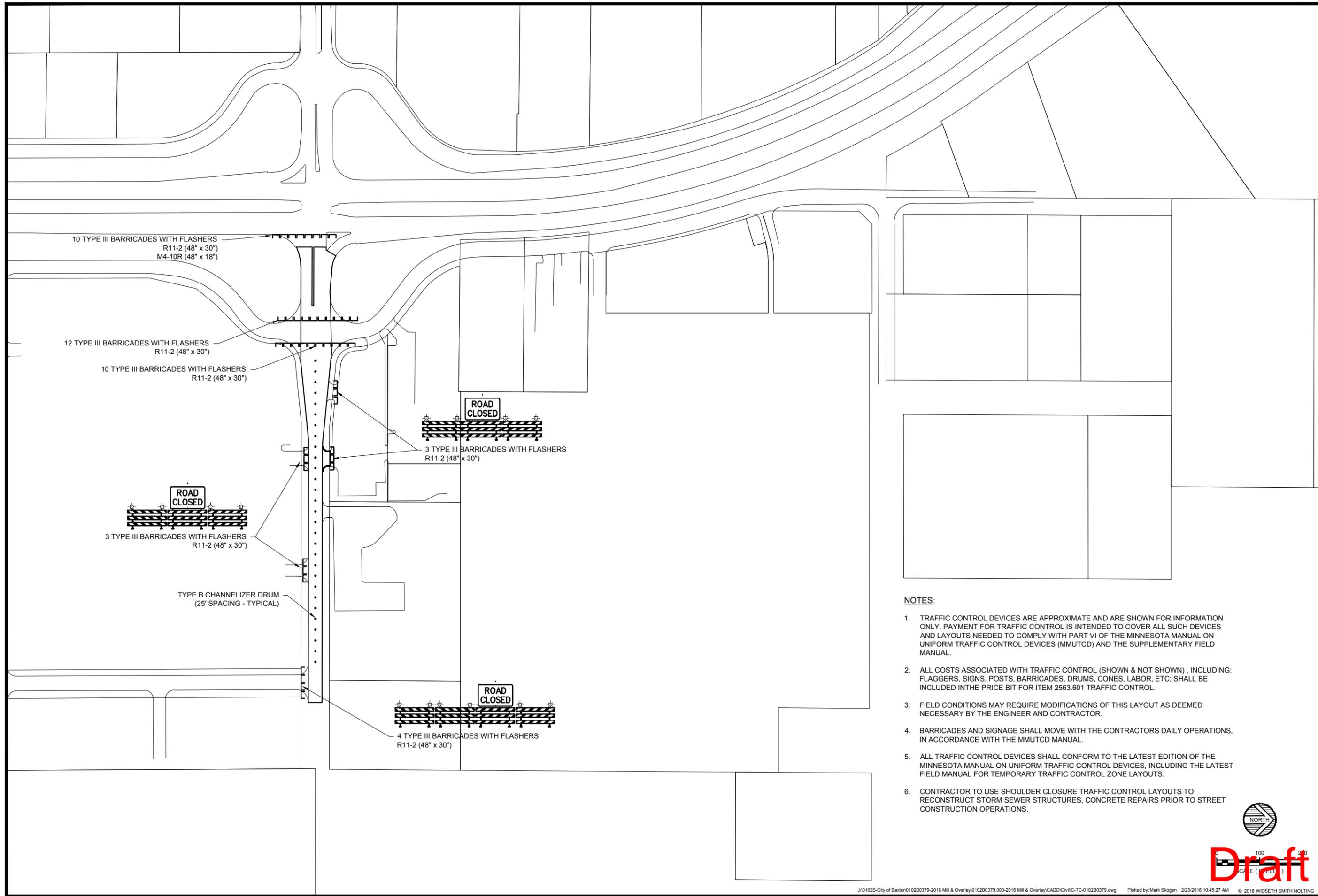
DATE: 01/22/2016  
 BY: JRC/HEL/CI

DATE	REV	DESCRIPTION

DATE: FEB. 2016  
 SCALE: AS SHOWN  
 DRAWN BY: M.A.S.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 0102B0379.000

2016 MILL AND OVERLAY PROJECT  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
 TRAFFIC CONTROL PLAN - CLEARWATER ROAD

**Draft**



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DATE: 01/20/2016  
 PROJECT NO.: 0102B0379.000  
 SHEET NO.: 24

DATE	REVISION DESCRIPTION	BY

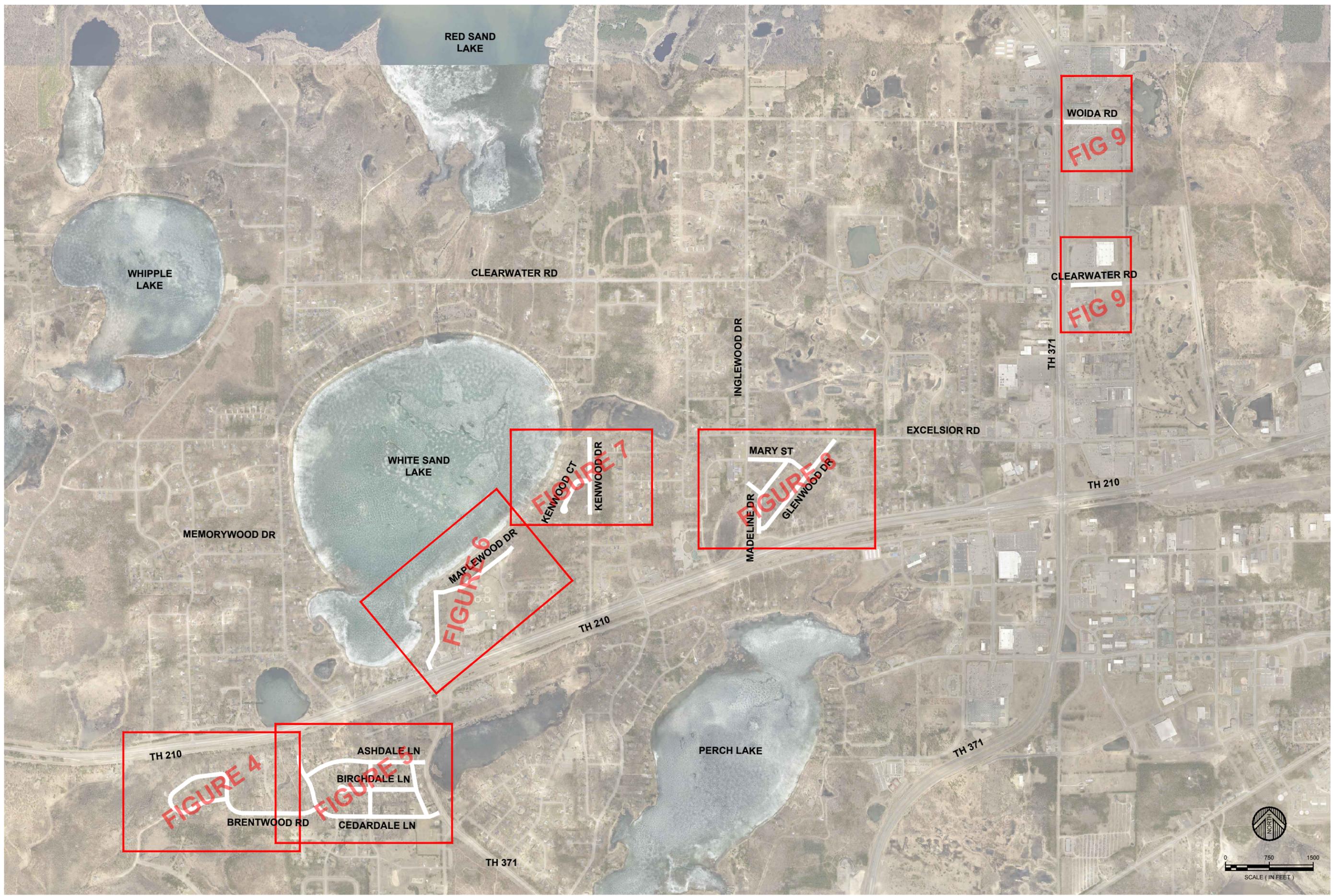
DATE: FEB. 2016  
 SCALE: AS SHOWN  
 DRAWN BY: M.A.S.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 0102B0379.000

**2016 MILL & OVERLAY AND FULL DEPTH RECLAMATION PROJECT  
ENGINEER'S ESTIMATE AND ASSESSMENT CALCULATIONS  
BAXTER, MN  
Friday, March 04, 2016**

ITEM NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	MILL & OVERLAY		FULL DEPTH RECLAMATION						CYPRESS TURN LANE		PROJECT TOTAL	
					ROADWAY		CLEARWATER ROAD		WOIDA ROAD		WOIDA ROAD BUILD OUT		ROADWAY		ESTIMATED QUANTITY	TOTAL COST
					ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST		
1	2021.501	MOBILIZATION	LUMP SUM	\$30,000.00	0.65	\$19,500.00	0.1	\$3,000.00	0.08	\$2,400.00	0.06	\$1,800.00	0.11	\$3,300.00	1	\$30,000.00
2	2101.502	CLEARING	TREE	\$275.00									5	\$1,375.00	5	\$1,375.00
3	2101.507	GRUBBING	TREE	\$275.00									5	\$1,375.00	5	\$1,375.00
4	2102.502	PAVEMENT MARKING REMOVAL-PERMANENT	LIN FT	\$1.50									480	\$720.00	480	\$720.00
5	2104.501	REMOVE SEWER PIPE (STORM)	LIN FT	\$12.00									51	\$612.00	51	\$612.00
6	2104.501	REMOVE CURB AND GUTTER	LIN FT	\$7.00									487	\$3,409.00	789	\$5,523.00
7	2104.501	REMOVE SANITARY SERVICE PIPE	LIN FT	\$8.00									46	\$368.00	46	\$368.00
8	2104.501	REMOVE WATER SERVICE PIPE	LIN FT	\$8.00									46	\$368.00	46	\$368.00
9	2104.505	REMOVE CONCRETE PAVEMENT	SQ YD	\$10.00									98	\$980.00	171	\$1,710.00
10	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	\$5.00									1474	\$7,370.00	1490	\$7,450.00
11	2104.509	REMOVE CASTING	EACH	\$250.00									1	\$250.00	14	\$3,500.00
12	2104.509	REMOVE CURB STOP AND BOX	EACH	\$200.00									2	\$400.00	2	\$400.00
13	2104.509	REMOVE SANITARY CLEANOUT	EACH	\$200.00									2	\$400.00	2	\$400.00
14	2104.509	REMOVE DRAINAGE STRUCTURE	EACH	\$300.00									1	\$300.00	1	\$300.00
15	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	\$6.00									13	\$78.00	115	\$690.00
16	2104.511	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	\$2.50	60	\$150.00	42	\$252.00	60	\$360.00			1111	\$2,777.50	1572	\$3,930.00
17	2104.523	SALVAGE SIGN TYPE C	EACH	\$35.00			26	\$65.00	60	\$150.00	315	\$787.50	4	\$140.00	4	\$140.00
18	2104.601	RELOCATE MAILBOXES AND SUPPORT	LUMP SUM	\$500.00									1	\$500.00	1	\$500.00
19	2104.601	RELOCATE BUILDING SIGN	LUMP SUM	\$4,000.00									1	\$4,000.00	1	\$4,000.00
20	2104.601	SALVAGE IRRIGATION EQUIPMENT	LUMP SUM	\$600.00									1	\$600.00	1	\$600.00
21	2105.501	COMMON EXCAVATION	CU YD	\$14.00			464	\$6,496.00					520	\$7,280.00	984	\$13,776.00
22	2105.607	HAUL AND STOCKPILE EXCESS MATERIAL	CU YD	\$12.00					356	\$4,272.00	228	\$2,736.00			584	\$7,008.00
23	2211.503	AGGREGATE BASE (CV) CLASS 5	CU YD	\$25.00			9	\$1,800.00	8	\$1,600.00	3	\$600.00	280	\$7,000.00	280	\$7,000.00
24	2112.603	RECLAIMED AGGREGATE BASE PREPARATION	ROAD STA	\$200.00			10	\$1,250.00	6	\$750.00	4	\$500.00			20	\$4,000.00
25	2123.610	STREET SWEEPER (TYPE WET PICKUP)	HOUR	\$125.00	6	\$750.00	50	\$2,000.00	60	\$2,400.00	40	\$1,600.00			26	\$3,250.00
26	2130.501	WATER	MGAL	\$40.00			4175	\$8,350.00	3200	\$6,400.00	2060	\$4,120.00			150	\$6,000.00
27	2215.501	FULL DEPTH RECLAMATION	SQ YD	\$2.00											9435	\$18,870.00
28	2232.501	MILL BITUMINOUS SURFACE (1.5")	SQ YD	\$2.75	62338	\$171,429.50									62338	\$171,429.50
29	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	\$2.00	6233	\$12,466.00	209	\$418.00	160	\$320.00	103	\$206.00			6705	\$13,410.00
30	2360.501	TYPE SP 9.5 WEARING COURSE MIXTURE (2,C)	TON	\$52.50	7170	\$376,425.00	480	\$25,200.00	365	\$19,162.50	240	\$12,600.00	315	\$16,537.50	8570	\$449,925.00
31	2360.501	TYPE SP 12.5 NON WEARING COURSE MIXTURE (2,C)	TON	\$55.00			600	\$33,000.00	456	\$25,080.00	300	\$16,500.00			1356	\$74,580.00
32	2503.541	12" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	\$32.00									47	\$1,504.00	47	\$1,504.00
33	2503.541	15" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT	\$35.00									51	\$1,785.00	51	\$1,785.00
34	2503.602	CONNECT TO EXISTING SANITARY SEWER SERVICE	EACH	\$500.00									1	\$500.00	1	\$500.00
35	2504.601	INSTALL IRRIGATION EQUIPMENT	LUMP SUM	\$1,500.00									1	\$1,500.00	1	\$1,500.00
36	2504.602	ADJUST VALVE BOX	EACH	\$250.00	3	\$750.00	2	\$500.00	8	\$2,000.00	4	\$1,000.00			17	\$4,250.00
37	2504.602	CONNECT TO EXISTING WATER SERVICE	EACH	\$500.00									2	\$1,000.00	2	\$1,000.00
38	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN SD-48	LIN FT	\$475.00									7.82	\$3,714.50	7.82	\$3,714.50
39	2506.602	RECONSTRUCT DRAINAGE STRUCTURE	EACH	\$500.00			5	\$2,500.00	6	\$3,000.00	2	\$1,000.00			13	\$6,500.00
40	2506.602	ADJUST FRAME AND RING CASTING (SANITARY)	EACH	\$800.00	73	\$58,400.00	3	\$2,400.00	3	\$2,400.00	1	\$800.00			80	\$64,000.00
41	2506.516	CASTING ASSEMBLY	EACH	\$750.00									2	\$1,500.00	2	\$1,500.00
42	2506.602	CONNECT TO EXISTING DRAINAGE STRUCTURE	EACH	\$750.00									1	\$750.00	1	\$750.00
43	2531.501	CONCRETE CURB AND GUTTER DESIGN B618	LIN FT	\$29.00			100	\$2,900.00	60	\$1,740.00					160	\$4,640.00
44	2531.501	CONCRETE CURB AND GUTTER DESIGN B624	LIN FT	\$32.00					85	\$2,720.00	40	\$1,280.00	476	\$15,232.00	601	\$19,232.00
45	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	\$60.00									44	\$2,640.00	44	\$2,640.00
46	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	\$70.00			13	\$910.00	73	\$5,110.00					86	\$6,020.00
47	2531.603	CONCRETE GUTTER DESIGN SPECIAL	LIN FT	\$25.00									42	\$1,050.00	42	\$1,050.00
48	2531.604	8" CONCRETE VALLEY GUTTER	SQ YD	\$70.00									53	\$3,710.00	53	\$3,710.00
49	2531.618	TRUNCATED DOMES	SQ FT	\$45.00									48	\$2,160.00	48	\$2,160.00
50	2563.601	TRAFFIC CONTROL	LUMP SUM	\$15,000.00	0.65	\$9,750.00	0.1	\$1,500.00	0.08	\$1,200.00	0.06	\$900.00	0.11	\$1,650.00	1	\$15,000.00
51	2564.602	INSTALL SIGN	EACH	\$150.00									4	\$600.00	4	\$600.00
52	2565.602	RIGID PVC LOOP DETECTOR 6'X6'	EACH	\$1,200.00									6	\$7,200.00	6	\$7,200.00
53	2571.502	DECIDUOUS TREE 10' HT B&B	TREE	\$750.00									5	\$3,750.00	5	\$3,750.00
54	2573.502	SILT FENCE, TYPE HI	LIN FT	\$2.50									400	\$1,000.00	400	\$1,000.00
55	2573.530	STORM DRAIN INLET PROTECTION	EACH	\$125.00			15	\$1,875.00	11	\$1,375.00	2	\$250.00	3	\$375.00	31	\$3,875.00
56	2573.535	STABILIZED CONSTRUCTION EXIT	LUMP SUM	\$750.00			0.5	\$375.00	0.25	\$187.50	0.25	\$187.50			1	\$750.00
57	2574.525	SCREENED TOPSOIL BORROW (LV)	CU YD	\$25.00	496	\$12,400.00	18	\$450.00	22	\$550.00	4	\$100.00	106	\$2,650.00	646	\$16,150.00
58	2575.505	SODDING TYPE LAWN	SQ YD	\$6.00			112	\$672.00	132	\$792.00	24	\$144.00	937	\$5,622.00	1205	\$7,230.00
59	2575.604	SITE RESTORATION	SQ YD	\$1.75	8934	\$15,634.50									8934	\$15,634.50
60	2582.501	PAVEMENT MESSAGE PAINT	SQ FT	\$12.50			60	\$750.00			84	\$1,050.00	44.12	\$551.50	188.12	\$2,351.50
61	2582.502	4" SOLID LINE PAINT	LIN FT	\$0.50			400	\$200.00			520	\$260.00	1575	\$787.50	2495	\$1,247.50
62	2582.502	8" SOLID LINE PAINT	LIN FT	\$1.00	230	\$230.00							114	\$114.00	344	\$344.00
63	2582.502	12" SOLID LINE PAINT	LIN FT	\$2.75			125	\$343.75							125	\$343.75
64	2582.502	4" BROKEN LINE PAINT	LIN FT	\$0.50	3154.2	\$1,577.10			120	\$60.00					3274.2	\$1,637.10
65	2582.502	4" DOUBLE SOLID LINE PAINT	LIN FT	\$0.50	6940	\$3,470.00	1175	\$587.50	105	\$52.50			50	\$25.00	8270	\$4,135.00

**2016 MILL & OVERLAY AND FULL DEPTH RECLAMATION PROJECT  
ENGINEER'S ESTIMATE AND ASSESSMENT CALCULATIONS  
BAXTER, MN  
Friday, March 04, 2016**

ITEM NO.	SPEC. NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	MILL & OVERLAY		FULL DEPTH RECLAMATION						CYPRESS TURN LANE		PROJECT TOTAL																									
					ROADWAY		CLEARWATER ROAD		WOIDA ROAD		WOIDA ROAD BUILD OUT		ROADWAY		ESTIMATED QUANTITY	TOTAL COST																								
					ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST	ESTIMATED QUANTITY	TOTAL COST																										
66	2611.4A	1-1/2" POLYETHYLENE SERVICE PIPE	LIN FT	\$25.00																																				
67	2611.4D	1-1/2" CURB STOP & BOX	EACH	\$500.00																																				
68	2621.4F	6" PVC SERVICE PIPE (SCH 40)	LIN FT	\$25.00																																				
69	2621.4F	6" PVC CLEAN OUT RISER (SCH 40)	EACH	\$500.00																																				
ESTIMATED CONSTRUCTION COST:				\$1,045,213.35	65.34%	\$682,932.10	9.55%	\$99,824.25	8.37%	\$87,445.50	5.49%	\$57,401.00	11.25%	\$117,610.50	100.00%	\$1,045,213.35																								
CONTINGENCIES (15%):				\$156,782.00		\$102,439.82		\$14,973.64		\$13,116.83		\$8,610.15		\$17,641.58		\$156,782.00																								
SUBTOTAL:				\$1,201,995.35		\$785,371.92		\$114,797.89		\$100,562.33		\$66,011.15		\$135,252.08		\$1,201,995.35																								
ENGINEERING (ESTIMATED):				\$164,409.00		\$113,312.93		\$16,562.96		\$14,509.06		\$9,524.04		\$10,500.00		\$164,409.00																								
PREVIOUS ENGINEERING (CYPRESS TURN LANE):				\$12,785.00										\$12,785.00		\$12,785.00																								
LEGAL, FINANCE AND OTHER COSTS:				\$15,000.00		\$9,800.85		\$1,432.59		\$1,254.94		\$823.77		\$1,687.84		\$15,000.00																								
PREVIOUS CITY COSTS - CYPRESS TURN LANE (ESTIMATED):				\$2,000.00										\$2,000.00		\$2,000.00																								
ADMINISTRATION (2%):				\$24,039.91		\$15,707.44		\$2,295.96		\$2,011.25		\$1,320.22		\$2,705.04		\$24,039.91																								
<b>ESTIMATED TOTAL PROJECT COST:</b>				<b>\$1,420,229.26</b>		<b>\$924,193.14</b>		<b>\$135,089.40</b>		<b>\$118,337.58</b>		<b>\$77,679.19</b>		<b>\$164,929.96</b>		<b>\$1,420,229.26</b>																								
<b>ASSESSMENT CALCULATIONS</b>																																								
RESIDENTIAL MILL & OVERLAY																																								
ESTIMATED CITY COSTS:																																								
ESTIMATED ASSESSABLE PROJECT COSTS:																																								
ESTIMATED NUMBER OF ASSESSABLE LOTS:																																								
ESTIMATED COST PER ASSESSABLE LOT:																																								
COMMERCIAL FULL DEPTH RECLAMATION																																								
ESTIMATED CITY COSTS:																																								
ESTIMATED ASSESSABLE PROJECT COSTS:																																								
ESTIMATED ASSESSABLE FRONTAGE:																																								
ESTIMATED COST PER ASSESSABLE FOOT:																																								
<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td></td> <td>COMBINED FDR</td> <td></td> </tr> <tr> <td></td> <td></td> <td>PROJECT</td> <td></td> </tr> <tr> <td>\$0.00</td> <td></td> <td>\$253,426.98</td> <td>\$0.00</td> </tr> <tr> <td>\$135,089.40</td> <td></td> <td>3,262</td> <td>\$118,337.58</td> </tr> <tr> <td>1,731</td> <td></td> <td>\$77.69</td> <td>1,531</td> </tr> <tr> <td>\$78.04</td> <td></td> <td></td> <td>\$77.29</td> </tr> </table>																			COMBINED FDR				PROJECT		\$0.00		\$253,426.98	\$0.00	\$135,089.40		3,262	\$118,337.58	1,731		\$77.69	1,531	\$78.04			\$77.29
		COMBINED FDR																																						
		PROJECT																																						
\$0.00		\$253,426.98	\$0.00																																					
\$135,089.40		3,262	\$118,337.58																																					
1,731		\$77.69	1,531																																					
\$78.04			\$77.29																																					
<b>ESTIMATED COST SUMMARY</b>																																								
ESTIMATED CITY COSTS:																																								
ESTIMATED ASSESSABLE COSTS:																																								
ESTIMATED TOTAL PROJECT COST:																																								



BY: HERBERT CHERY 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. 41983  
 ARIC WELCH

REVISIONS DESCRIPTION	DATE	REV

DATE: MAR 2016  
 SCALE: AS SHOWN  
 DRAWN BY: A.L.W.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 0102B0379.000

2016 MILL & OVERLAY AND FULL DEPTH RECLAMATION  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
**FIGURE 3 - ASSESSMENT EXHIBIT LAYOUTS**

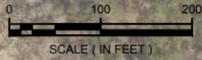


I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT  
 WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION  
 THAT I AM A FULLY LICENSED ENGINEER UNDER THE LAWS OF THE  
 STATE OF MINNESOTA.

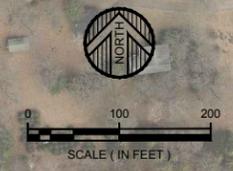
REV#	DATE	DESCRIPTION

DATE: MAR 2018  
 SCALE: AS SHOWN  
 DRAWN BY: A.L.W.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 0102B0379.000

**2016 MILL & OVERLAY AND FULL DEPTH RECLAMATION**  
**CITY OF BAXTER**  
**BAXTER, MINNESOTA**  
**FIGURE 4 - ASSESSMENT EXHIBIT**



**LEGEND**  
 [Yellow Outline] **ASSESSABLE PROPERTIES**  
 [Red Circle with 'R'] **UNIT ASSESSMENT**



**LEGEND**  
 [Yellow Outline] ASSESSABLE PROPERTIES  
 [Red Circle with R] UNIT ASSESSMENT

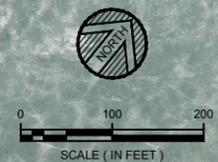


I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A FULLY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE	REVISIONS DESCRIPTION	BY
MAR 2018		

DATE: MAR 2018  
 SCALE: AS SHOWN  
 DRAWN BY: A.L.W.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 0102B0379.000

2016 MILL & OVERLAY AND FULL DEPTH RECLAMATION  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
**FIGURE 5 - ASSESSMENT EXHIBIT**



**LEGEND**  
 [Yellow Shaded Area] ASSESSABLE PROPERTIES  
 (R) UNIT ASSESSMENT



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A FULLY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE	REVISIONS DESCRIPTION	BY

DATE: MAR 2018  
 SCALE: AS SHOWN  
 DRAWN BY: A.L.W.  
 CHECKED BY: A.L.W.  
 JOB NUMBER: 0102B0379.000

2016 MILL & OVERLAY AND FULL DEPTH RECLAMATION  
 CITY OF BAXTER  
 BAXTER, MINNESOTA  
**FIGURE 6 - ASSESSMENT EXHIBIT**



0 90 180  
SCALE ( IN FEET )

**LEGEND**

**ASSESSABLE PROPERTIES**

**UNIT ASSESSMENT**

WHITE SAND LAKE



KENWOOD DRIVE

DONALD STREET

EDMONTON ROAD

KNOLLWOOD DRIVE

FAIRMONT COURT

SANDSTONE ROAD

KENWOOD COURT



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT  
IS THE WORK OF ME OR UNDER MY CLOSE PERSONAL SUPERVISION  
AND THAT I AM A FULLY LICENSED ENGINEER UNDER THE LAWS OF THE  
STATE OF MINNESOTA.  
BY: DATE: 3/16/16 LIC. NO. 41883  
ERIC WELCH

REV#	DATE	DESCRIPTION	BY

DATE: MAR 2016  
SCALE: AS SHOWN  
DRAWN BY: A.L.W.  
CHECKED BY: A.L.W.  
JOB NUMBER: 0102B0379.000

2016 MILL & OVERLAY AND FULL DEPTH RECLAMATION  
CITY OF BAXTER  
BAXTER, MINNESOTA  
**FIGURE 7 - ASSESSMENT EXHIBIT**



**LEGEND**

**ASSESSABLE PROPERTIES**

**UNIT ASSESSMENT**

0 100 200  
SCALE ( IN FEET )

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

DATE: MAR 2018  
SCALE: AS SHOWN  
DRAWN BY: A.L.W.  
CHECKED BY: A.L.W.  
JOB NUMBER: 0102B0379.000

DATE: ###-##-##  
DATE: ###-##-##  
DATE: ###-##-##  
DATE: ###-##-##

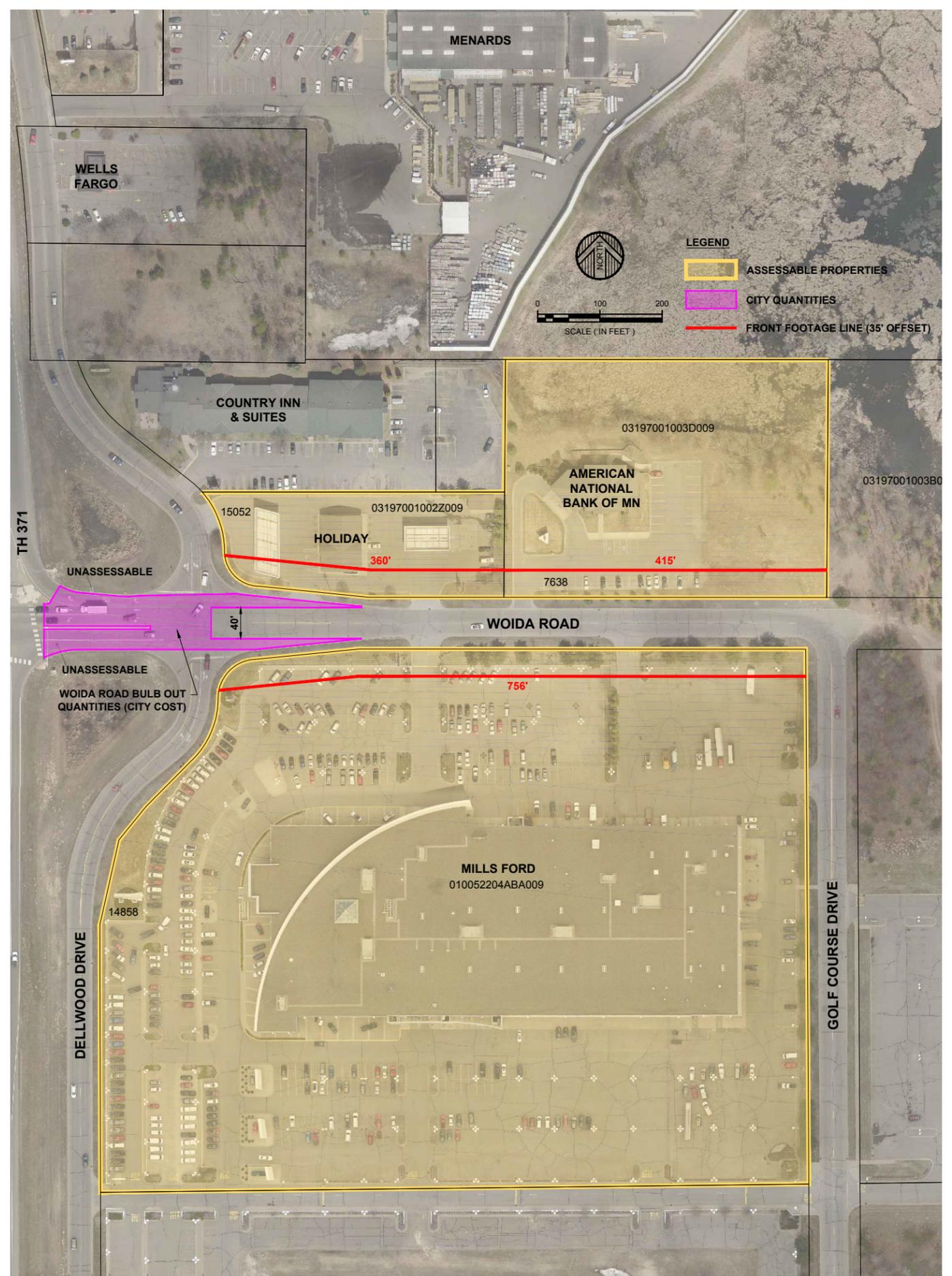
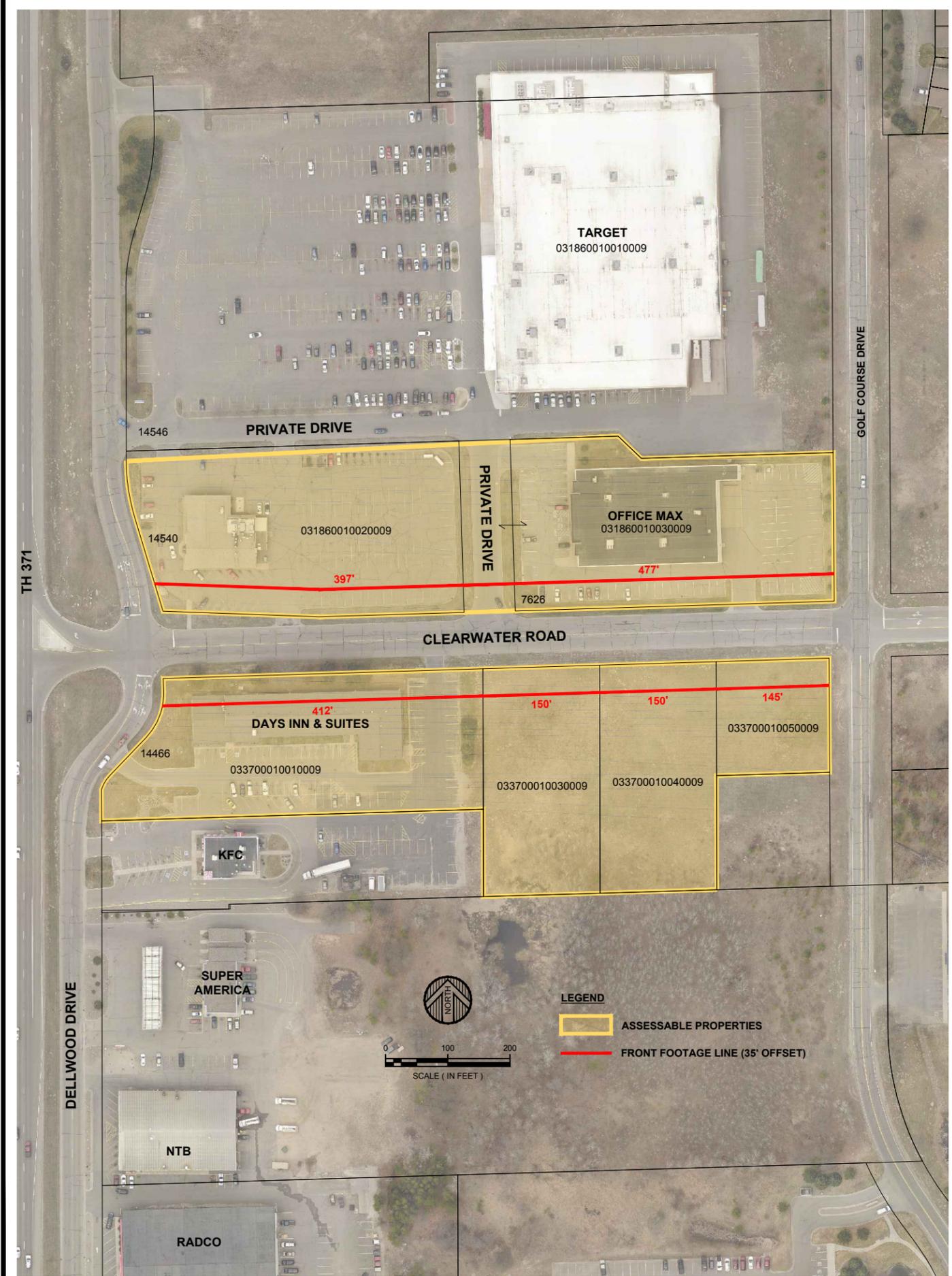
REVISIONS DESCRIPTION BY

DATE REVW

DATE: MAR 2018  
SCALE: AS SHOWN  
DRAWN BY: A.L.W.  
CHECKED BY: A.L.W.  
JOB NUMBER: 0102B0379.000

2016 MILL & OVERLAY AND FULL DEPTH RECLAMATION  
CITY OF BAXTER  
BAXTER, MINNESOTA  
**FIGURE 8 - ASSESSMENT EXHIBIT**

SHEET NO. OF



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

2016 MILL & OVERLAY AND FULL DEPTH RECLAMATION  
CITY OF BAXTER  
BAXTER, MINNESOTA

FIGURE 9 - ASSESSMENT EXHIBIT

DATE: MAR 2018  
SCALE: AS SHOWN  
DRAWN BY: A.L.W.  
CHECKED BY: A.L.W.  
JOB NUMBER: 0102B0379.000

DATE	REV	DESCRIPTION

BY:  

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A FULLY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ERIC WELCH      DATE:  

UC: NO. 41683

SHEET  OF

**2016 MILL & OVERLAY, FULL DEPTH RECLAMATION AND TURN LANE CONSTRUCTION  
INDIVIDUAL ASSESSMENT CALCULATIONS  
BAXTER, MN**

ESTIMATED INTEREST RATE: 5.00%  
ESTIMATED DAYS BEFORE FIRST YEAR: 95  
FIRST YEAR OF ASSESSMENT: 2017

ESTIMATED COST PER UNIT ASSESSMENT - MILL & OVERLAY \$3,336.44  
ESTIMATED COST PER FOOT ASSESSMENT - FULL DEPTH RE \$77.69

R.E. CODE	PROPERTY ADDRESS	OWNER	UNIT ASSESSMENTS	FRONT FOOTAGE	ASSESSMENT TERM	ESTIMATED ASSESSMENT	2016 INTEREST (SEE NOTE 1)	CERTIFIED AMOUNT
			MILL & OVERLAY	FULL DEPTH RECLAMATION				
<b>CEDARDALE LANE</b>								
020114300BA009	5030 CEDARDALE LN	AITCHISON, ROBERT T	1		7	\$3,336.44	\$43.42	\$3,379.86
020114300BB009		BALKO, ROBERT D	1		7	\$3,336.44	\$43.42	\$3,379.86
3105000070009	5036 CEDARDALE LN	SEEGMILLER, CHARLES A & JUDY K	1		7	\$3,336.44	\$43.42	\$3,379.86
31020010010009	5039 CEDARDALE LN	DESING, ERIC K & MARY JANE	1		7	\$3,336.44	\$43.42	\$3,379.86
31020010020009	5057 CEDARDALE LN	HIRSCHENBERGER FAMILY TRST A/D, RICHARD H & NANCY J HIRSCHENBERGER	1		7	\$3,336.44	\$43.42	\$3,379.86
31050000080009	5058 CEDARDALE LN	SCHLOEMER, KAREN M	1		7	\$3,336.44	\$43.42	\$3,379.86
03102001003Z009	5075 CEDARDALE LN	KETCHUM, GEORGE F & PATRICIA	1		7	\$3,336.44	\$43.42	\$3,379.86
03102001004B009	5101 CEDARDALE LN	SIMONS, JO ANNMARIE	1		7	\$3,336.44	\$43.42	\$3,379.86
31020010050009	5125 CEDARDALE LN	THORKELSON, ROBERT & THERESA	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010080009	5136 CEDARDALE LN	RAMIG, MICHAEL & DANA F	1		7	\$3,336.44	\$43.42	\$3,379.86
31020010060009	5153 CEDARDALE LN	BOLZ, CARRIE L	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010090009	5164 CEDARDALE LN	LOCKWOOD, DAMIAN J	1		7	\$3,336.44	\$43.42	\$3,379.86
31020010070009	5175 CEDARDALE LN	HAUBLE, LEROY M & KATHRYN A	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010100009	5196 CEDARDALE LN	KRUEGER, GARY A & CAROLIN M	1		7	\$3,336.44	\$43.42	\$3,379.86
31020020010009	5203 CEDARDALE LN	PIKULA, MICHAEL V & PAMELA R	1		7	\$3,336.44	\$43.42	\$3,379.86
31020020020009	5223 CEDARDALE LN	DEVRIES, MATTHEW D & STEFANIE A & JAMES F NELSON & CONSTANCE M NELSON	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010110009	5230 CEDARDALE LN	BOWMAN, ROBERT W & KATHERINE	1		7	\$3,336.44	\$43.42	\$3,379.86
0310200090BD009	5257 CEDARDALE LN	FINNEGAN, KEVIN & MARY E	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010120009	5258 CEDARDALE LN	ANDERSON, SAMUEL S & LORI L	1		7	\$3,336.44	\$43.42	\$3,379.86
0310200090BC009	5275 CEDARDALE LN	BRINK, TERRY L II & JANE M	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010130009	5280 CEDARDALE LN	NORTHERN STATES INVESTMENTS LLP	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010140009	5302 CEDARDALE LN	KLAUSE, ALEX A & LYNN M	1		7	\$3,336.44	\$43.42	\$3,379.86
0310200090BA009	5309 CEDARDALE LN	BRASTRUP, TIMOTHY J & KATHLEEN	1		7	\$3,336.44	\$43.42	\$3,379.86
31040030060009	5334 CEDARDALE LN	PUTTBRESE, CALVIN R & SANDRA	1		7	\$3,336.44	\$43.42	\$3,379.86
31040040080009	5341 CEDARDALE LN	FRENCH, SCOTT A & DARCI L	1		7	\$3,336.44	\$43.42	\$3,379.86
31040040070009	5353 CEDARDALE LN	BINDER, KATHY	1		7	\$3,336.44	\$43.42	\$3,379.86
31040030070009	5362 CEDARDALE LN	DAVIDSON, DANIEL SCOTT	1		7	\$3,336.44	\$43.42	\$3,379.86
31040030080009	5376 CEDARDALE LN	ANDERSON, DANIEL G & KATHY ML	1		7	\$3,336.44	\$43.42	\$3,379.86
31040040060009	5379 CEDARDALE LN	GOLDSTEIN, RUSS J & LUANN R	1		7	\$3,336.44	\$43.42	\$3,379.86
31040040050009	5403 CEDARDALE LN	OWEN, JACKIE A & ELEANOR J	1		7	\$3,336.44	\$43.42	\$3,379.86
31040030090009	5404 CEDARDALE LN	OWENS, JAMES F & JENNIFER A III	1		7	\$3,336.44	\$43.42	\$3,379.86
31040040040009	5427 CEDARDALE LN	OWEN, CAROLYN R	1		7	\$3,336.44	\$43.42	\$3,379.86
03104003010B009	5428 CEDARDALE LN	TULENCHIK, RORI R & SUZANNE K	1		7	\$3,336.44	\$43.42	\$3,379.86
31040030110009		TULENCHIK, RORI R & SUZANNE K	1		7	\$3,336.44	\$43.42	\$3,379.86
31040040010009		CITY OF BAXTER	1		7	\$3,336.44	\$43.42	\$3,379.86
31040040020009		CITY OF BAXTER	1		7	\$3,336.44	\$43.42	\$3,379.86
31040040030009		CITY OF BAXTER	1		7	\$3,336.44	\$43.42	\$3,379.86
<b>ASHDALE LANE</b>								
31210010070009	5071 ASHDALE LN	RAU, JAMES G & COLLEEN K	1		7	\$3,336.44	\$43.42	\$3,379.86
31050000090009	5078 ASHDALE LN	MCCABE, JEANNINE E	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010060009	5103 ASHDALE LN	CREMERS, JOHN J & DAVID P	1		7	\$3,336.44	\$43.42	\$3,379.86
31050000060009	5104 ASHDALE LN	LAMB, DENNIS M & JONICE R	1		7	\$3,336.44	\$43.42	\$3,379.86
31050000050009	5130 ASHDALE LN	RABEHL, MARILYN A	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010050009	5131 ASHDALE LN	HOUSE, BENJAMIN G JR & NICOLE A	1		7	\$3,336.44	\$43.42	\$3,379.86
31050000040009	5160 ASHDALE LN	KUB, GARY J & GAYLE	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010040009	5161 ASHDALE LN	JMKS PROPERTIES LLC	1		7	\$3,336.44	\$43.42	\$3,379.86
31050000030009	5186 ASHDALE LN	HERBON, HELEN JO	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010030009	5189 ASHDALE LN	ROBBINS, RONALD C & SHARON S	1		7	\$3,336.44	\$43.42	\$3,379.86
31050000020009	5216 ASHDALE LN	GRUBER, MARY JO A REVOCABLE TRUST, C/O KEVIN & MARY JO GRUBER	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010020009	5221 ASHDALE LN	BENEDICT, CARROLL	1		7	\$3,336.44	\$43.42	\$3,379.86
31050000010009	5244 ASHDALE LN	THOMAS, JOHN H	1		7	\$3,336.44	\$43.42	\$3,379.86
31210010010009	5247 ASHDALE LN	HOEFS, DAVID J & MAXINE	1		7	\$3,336.44	\$43.42	\$3,379.86
31040020050009	5293 ASHDALE LN	BACHEL, BRADLEY & YONG S PAK 61ST MAIN CO	1		7	\$3,336.44	\$43.42	\$3,379.86
31040010070009	5298 ASHDALE LN	YAMADA, STEPHANIE	1		7	\$3,336.44	\$43.42	\$3,379.86
31040020040009	5313 ASHDALE LN	BOSER, SCOTT M	1		7	\$3,336.44	\$43.42	\$3,379.86
31040010060009	5326 ASHDALE LN	HOLMAN, TODD D & GLENYS M WARNER-HO	1		7	\$3,336.44	\$43.42	\$3,379.86
31040020030009	5343 ASHDALE LN	WARBURTON, JEANETTE & ELTON	1		7	\$3,336.44	\$43.42	\$3,379.86
31040010050009	5344 ASHDALE LN	KELLY, DEBRA L & MICHAEL & BRENDA, C/O GEORGIA KELLY	1		7	\$3,336.44	\$43.42	\$3,379.86
31040020010009	5379 ASHDALE LN	GOGOLIN, JAMES M & PATRICIA	1		7	\$3,336.44	\$43.42	\$3,379.86
31040010040009	5380 ASHDALE LN	ROHLOFF, GERTRUDE	1		7	\$3,336.44	\$43.42	\$3,379.86
31040010030009	5410 ASHDALE LN	KENTON, ORLA J	1		7	\$3,336.44	\$43.42	\$3,379.86
03104001001Z009	5424 ASHDALE LN	KRETZMAN, JEROME D & SHERLYNN	1		7	\$3,336.44	\$43.42	\$3,379.86

**2016 MILL & OVERLAY, FULL DEPTH RECLAMATION AND TURN LANE CONSTRUCTION  
INDIVIDUAL ASSESSMENT CALCULATIONS  
BAXTER, MN**

ESTIMATED INTEREST RATE: 5.00%  
ESTIMATED DAYS BEFORE FIRST YEAR: 95  
FIRST YEAR OF ASSESSMENT: 2017

ESTIMATED COST PER UNIT ASSESSMENT - MILL & OVERLAY \$3,336.44  
ESTIMATED COST PER FOOT ASSESSMENT - FULL DEPTH RE \$77.69

R.E. CODE	PROPERTY ADDRESS	OWNER	UNIT ASSESSMENTS	FRONT FOOTAGE	ASSESSMENT TERM	ESTIMATED ASSESSMENT	2016 INTEREST (SEE NOTE 1)	CERTIFIED AMOUNT
			MILL & OVERLAY	FULL DEPTH RECLAMATION				
<b>FIRST STREET</b>								
31040050060009	12798 FIRST ST	SCHRADER, BENJAMIN T	1		7	\$3,336.44	\$43.42	\$3,379.86
31040050050009	12826 FIRST ST	BUTLER, ROBERT I & PEGGY	1		7	\$3,336.44	\$43.42	\$3,379.86
31040050040009	12854 FIRST ST	POWELL, JEREMY & JERA	1		7	\$3,336.44	\$43.42	\$3,379.86
31040030010009	12855 FIRST ST	LUZAICH, KRISTOPHER T & AMANDA R	1		7	\$3,336.44	\$43.42	\$3,379.86
31040050030009	12888 FIRST ST	MUELLER, THEOPHILUS E & DONNA	1		7	\$3,336.44	\$43.42	\$3,379.86
31040020090009	12903 FIRST ST	KUGLIN, DALE ALLEN & DIANE RENAE	1		7	\$3,336.44	\$43.42	\$3,379.86
31040050020009	12908 FIRST ST	MANUEL, LUANA M	1		7	\$3,336.44	\$43.42	\$3,379.86
31040020020009	12921 FIRST ST	THOMPSON, TODD W & ROXANNE D	1		7	\$3,336.44	\$43.42	\$3,379.86
31040050010009	12936 FIRST ST	BELCHER, CLEMENS E	1		7	\$3,336.44	\$43.42	\$3,379.86
<b>BIRCHDALE LANE</b>								
31170000050009	5164 BIRCHDALE LN	STAVE, DARRELL & ELIZABETH	1		7	\$3,336.44	\$43.42	\$3,379.86
31170000060009	5166 BIRCHDALE LN	MALADY, SHAUN M & JESSICA C	1		7	\$3,336.44	\$43.42	\$3,379.86
31170000040009	5167 BIRCHDALE LN	BENSON, ELIZABETH A	1		7	\$3,336.44	\$43.42	\$3,379.86
31170000070009	5176 BIRCHDALE LN	BROWN, LEAH M	1		7	\$3,336.44	\$43.42	\$3,379.86
31170000030009	5179 BIRCHDALE LN	PINTA, LINDA A & MARK A	1		7	\$3,336.44	\$43.42	\$3,379.86
31170000020009	5211 BIRCHDALE LN	AXELSON, LARRY W & MARGARET	1		7	\$3,336.44	\$43.42	\$3,379.86
31170000080009	5212 BIRCHDALE LN	DRIETZ, STEVEN J & LISA A	1		7	\$3,336.44	\$43.42	\$3,379.86
31170000090009	5240 BIRCHDALE LN	DWYER, ANDREW J & DARCY J	1		7	\$3,336.44	\$43.42	\$3,379.86
31170000010009	5241 BIRCHDALE LN	LINDGREN, HEIDI	1		7	\$3,336.44	\$43.42	\$3,379.86
31040020060009	5286 BIRCHDALE LN	MIES, JODY M & REBECCA J	1		7	\$3,336.44	\$43.42	\$3,379.86
31040030050009	5289 BIRCHDALE LN	DALY, JAMES J & MARGIE	1		7	\$3,336.44	\$43.42	\$3,379.86
31040030040009	5311 BIRCHDALE LN	BOELTER, JAMES H & SHIRLEY L	1		7	\$3,336.44	\$43.42	\$3,379.86
31040020070009	5324 BIRCHDALE LN	PETERSON, KELLY D, C/O DONALD & DEVONA PETERSON	1		7	\$3,336.44	\$43.42	\$3,379.86
31040020080009	5336 BIRCHDALE LN	MAIER, DANIEL J & NONA	1		7	\$3,336.44	\$43.42	\$3,379.86
31040030030009	5341 BIRCHDALE LN	SPREEMAN, TRENT L & KRISTY	1		7	\$3,336.44	\$43.42	\$3,379.86
31040030020009	5369 BIRCHDALE LN	WITTHUHN, TODD & BELINDA	1		7	\$3,336.44	\$43.42	\$3,379.86
31040020100009	5380 BIRCHDALE LN	TRETTER, JAMES R & CONSTANCE	1		7	\$3,336.44	\$43.42	\$3,379.86
<b>BRENTWOOD ROAD</b>								
32310020070009	4632 BRENTWOOD RD	RAMERTH, MICHELLE L	1		7	\$3,336.44	\$43.42	\$3,379.86
32310020060009	4638 BRENTWOOD RD	CLOSE, CHRISTOPHER C	1		7	\$3,336.44	\$43.42	\$3,379.86
32310010040009	4639 BRENTWOOD RD	SOLSETH, KRISTOPHER A & JENNIFER	1		7	\$3,336.44	\$43.42	\$3,379.86
32310020050009	4650 BRENTWOOD RD	FUNDANET, LEE JR & LETTIE	1		7	\$3,336.44	\$43.42	\$3,379.86
32310020040009		SOLSETH, KRISTOPHER A & JENNIFER	1		7	\$3,336.44	\$43.42	\$3,379.86
32310010030009	4669 BRENTWOOD RD	BASO, CHRISTOPHER E & KERRI E	1		7	\$3,336.44	\$43.42	\$3,379.86
32310020030009	4680 BRENTWOOD RD	OTTERSON, NICHOLAS & KATIE	1		7	\$3,336.44	\$43.42	\$3,379.86
32310010020009	4693 BRENTWOOD RD	BINGGELI, KEITH W & DEBRA R	1		7	\$3,336.44	\$43.42	\$3,379.86
32310020020009	4702 BRENTWOOD RD	JOHNSON, JANA M	1		7	\$3,336.44	\$43.42	\$3,379.86
32310010010009	4707 BRENTWOOD RD	GIFFERSON, MAXINE L TRUST, MAXINE L & LYLE E GIFFERSON, TRSTEE	1		7	\$3,336.44	\$43.42	\$3,379.86
32310020010009	4716 BRENTWOOD RD	BOLIN, STEPHEN & JULIE	1		7	\$3,336.44	\$43.42	\$3,379.86
03171002006Z009	4729 BRENTWOOD RD	FREIHAMMER, WILLIAM D & MARY E	1		7	\$3,336.44	\$43.42	\$3,379.86
31710010100009	4740 BRENTWOOD RD	MOORES, RANDALL J	1		7	\$3,336.44	\$43.42	\$3,379.86
31710020050009	4741 BRENTWOOD RD	WAGNILD, ALAN L & KATHLEEN A	1		7	\$3,336.44	\$43.42	\$3,379.86
31710010090009	4754 BRENTWOOD RD	HEMQUIST, HARRIS W & SHERI R	1		7	\$3,336.44	\$43.42	\$3,379.86
31710020040009	4765 BRENTWOOD RD	DEWEY, TAMMY	1		7	\$3,336.44	\$43.42	\$3,379.86
31710010080009	4766 BRENTWOOD RD	LAVOY, CASSANDRA	1		7	\$3,336.44	\$43.42	\$3,379.86
31710010070009	4774 BRENTWOOD RD	BUBALO, DANIEL M	1		7	\$3,336.44	\$43.42	\$3,379.86
31710020030009	4781 BRENTWOOD RD	LARSON, KEVIN L & KIMBERLY R	1		7	\$3,336.44	\$43.42	\$3,379.86
31710010060009	4790 BRENTWOOD RD	SCHMOLKE, DAVID ALEXANDER	1		7	\$3,336.44	\$43.42	\$3,379.86
31710010050009	4796 BRENTWOOD RD	BARTZ, JAKE & DANIELLE	1		7	\$3,336.44	\$43.42	\$3,379.86
31710010040009	4806 BRENTWOOD RD	KLEFFMAN, CHAD R	1		7	\$3,336.44	\$43.42	\$3,379.86
31710010030009	4814 BRENTWOOD RD	MOHS, PETER D & JULIE	1		7	\$3,336.44	\$43.42	\$3,379.86
31710020020009	4821 BRENTWOOD RD	RUNYAN, MICHAEL C & LAURA L	1		7	\$3,336.44	\$43.42	\$3,379.86
31710010020009	4830 BRENTWOOD RD	HENNEN, RANDY J & DENISE E	1		7	\$3,336.44	\$43.42	\$3,379.86
03171002001Z009	4837 BRENTWOOD RD	GILBERTSON, RONALD S & ELAINE	1		7	\$3,336.44	\$43.42	\$3,379.86
31710010010009	4854 BRENTWOOD RD	ROTHLEUTNER, SANDRA	1		7	\$3,336.44	\$43.42	\$3,379.86
31710030010009	4865 BRENTWOOD RD	HENDRICKSON, CARL B & MICHELE K	1		7	\$3,336.44	\$43.42	\$3,379.86
31450020040009	4902 BRENTWOOD RD	ZACHER, ROBERT W JR & CYNTHIA A	1		7	\$3,336.44	\$43.42	\$3,379.86
31450010040009	4915 BRENTWOOD RD	CHRISTOFFERSON, JACK R & IRENE M	1		7	\$3,336.44	\$43.42	\$3,379.86
31450010030009	4925 BRENTWOOD RD	UNDERLAND, SCOTT M & ANGELA	1		7	\$3,336.44	\$43.42	\$3,379.86
31450020030009	4930 BRENTWOOD RD	DOWNING, DAVID J & KAREN A	1		7	\$3,336.44	\$43.42	\$3,379.86
31450010020009	4949 BRENTWOOD RD	BATTERS, DAVID A & JULIE A	1		7	\$3,336.44	\$43.42	\$3,379.86
31450020020009	4950 BRENTWOOD RD	HART, RONALD L & ARLENE	1		7	\$3,336.44	\$43.42	\$3,379.86

**2016 MILL & OVERLAY, FULL DEPTH RECLAMATION AND TURN LANE CONSTRUCTION  
INDIVIDUAL ASSESSMENT CALCULATIONS  
BAXTER, MN**

ESTIMATED INTEREST RATE: 5.00%  
ESTIMATED DAYS BEFORE FIRST YEAR: 95  
FIRST YEAR OF ASSESSMENT: 2017

ESTIMATED COST PER UNIT ASSESSMENT - MILL & OVERLAY \$3,336.44  
ESTIMATED COST PER FOOT ASSESSMENT - FULL DEPTH RE \$77.69

R.E. CODE	PROPERTY ADDRESS	OWNER	UNIT ASSESSMENTS	FRONT FOOTAGE	ASSESSMENT TERM	ESTIMATED ASSESSMENT	2016 INTEREST (SEE NOTE 1)	CERTIFIED AMOUNT
			MILL & OVERLAY	FULL DEPTH RECLAMATION				
31450010010009	4969 BRENTWOOD RD	PRINCE, BRADY H & AMANDA E	1		7	\$3,336.44	\$43.42	\$3,379.86
31450020010009	4970 BRENTWOOD RD	NELSON, JOHN D & NANCY J	1		7	\$3,336.44	\$43.42	\$3,379.86
31180010050009	4993 BRENTWOOD RD	MOORE, DANIEL & WENDY	1		7	\$3,336.44	\$43.42	\$3,379.86
31180020030009	5000 BRENTWOOD RD	CARLSON, JILL A	1		7	\$3,336.44	\$43.42	\$3,379.86
31180010040009	5005 BRENTWOOD RD	STENBERG, DOUGLAS D & LORI A	1		7	\$3,336.44	\$43.42	\$3,379.86
31180020020009	5020 BRENTWOOD RD	WHIRLEY, SUSANNE M	1		7	\$3,336.44	\$43.42	\$3,379.86
31180010030009	5029 BRENTWOOD RD	MOSER, JACOB T & ASHLEY K	1		7	\$3,336.44	\$43.42	\$3,379.86
31180020010009	5036 BRENTWOOD RD	KLASKY, ALBERT N & THERESA J	1		7	\$3,336.44	\$43.42	\$3,379.86
31180010020009	5055 BRENTWOOD RD	ACJ PROPERTIES LLC	1		7	\$3,336.44	\$43.42	\$3,379.86
31180010010009	5065 BRENTWOOD RD	PAUMEN REVOCABLE TRUST, PATRICK J & SANDRA L PAUMEN TRUSTEE	1		7	\$3,336.44	\$43.42	\$3,379.86
<b>BRIARWOOD LANE</b>								
31930010050009	4668 BRIARWOOD LN	OSBORNE, ROBERT L & SHARON R	1		7	\$3,336.44	\$43.42	\$3,379.86
31930020010009	4681 BRIARWOOD LN	BEARD, HEATH & RACHEL	1		7	\$3,336.44	\$43.42	\$3,379.86
31930020020009	4687 BRIARWOOD LN	CLAUSEN, SHIRLEY	1		7	\$3,336.44	\$43.42	\$3,379.86
31930020030009	4697 BRIARWOOD LN	ALHOLM, JULIE L & STACIE L	1		7	\$3,336.44	\$43.42	\$3,379.86
31930010040009	4706 BRIARWOOD LN	HIGHT, GREGORY N & REBECCA HOLBROOK HIGHT	1		7	\$3,336.44	\$43.42	\$3,379.86
31930020040009	4713 BRIARWOOD LN	BROWN, CURTIS L & JANET R	1		7	\$3,336.44	\$43.42	\$3,379.86
31930010030009	4720 BRIARWOOD LN	CHRIST EVANGELICAL LUTHERAN CHURCH	1		7	\$3,336.44	\$43.42	\$3,379.86
31930020050009	4729 BRIARWOOD LN	SMITH, JEFFERY K & LU ANN	1		7	\$3,336.44	\$43.42	\$3,379.86
31930020060009	4741 BRIARWOOD LN	EVANS, KURT W & MARY E	1		7	\$3,336.44	\$43.42	\$3,379.86
31930010020009	4742 BRIARWOOD LN	SWANSON FAMILY JOINT REV TRUST, RODNEY & SANDRA SWANSON TRUSTEES	1		7	\$3,336.44	\$43.42	\$3,379.86
31930010010009	4758 BRIARWOOD LN	BJORGE, ROBERT O & HELEN	1		7	\$3,336.44	\$43.42	\$3,379.86
31930020070009		HENDRICKSON, CARL B & MICHELE K	1		7	\$3,336.44	\$43.42	\$3,379.86
<b>MAPLEWOOD DRIVE</b>								
311600000700000000	13274 MAPLEWOOD DR	TGAR PROPERTIES LLC	1		7	\$3,336.44	\$43.42	\$3,379.86
03116000007D009	13287 MAPLEWOOD DR	NIKLAUS, JOSEPH W & ANNE L	1		7	\$3,336.44	\$43.42	\$3,379.86
03116000007I009	13297 MAPLEWOOD DR	HANSON, DAVID C & WENDY E	1		7	\$3,336.44	\$43.42	\$3,379.86
03116000007H009	13311 MAPLEWOOD DR	OLSON, DARWIN & SUSAN	1		7	\$3,336.44	\$43.42	\$3,379.86
03116000006Z009	13325 MAPLEWOOD DR	DALLY, PATRICIA	1		7	\$3,336.44	\$43.42	\$3,379.86
020114404A00009	13343 MAPLEWOOD DR	POHLKAMP, JOSEPH G & MARY A	1		7	\$3,336.44	\$43.42	\$3,379.86
020114404B00009	13359 MAPLEWOOD DR	JUENEMANN, DANIELLE R & LEONARD	1		7	\$3,336.44	\$43.42	\$3,379.86
020123200I00009	13366 MAPLEWOOD DR	PETERSEN, MARK & CONNIE	1		7	\$3,336.44	\$43.42	\$3,379.86
31160000050009	13371 MAPLEWOOD DR	NELSON, ROBERT M & SHARI D	1		7	\$3,336.44	\$43.42	\$3,379.86
020123200H00009	13382 MAPLEWOOD DR	H & H PROPERTIES OF MN LLC	1		7	\$3,336.44	\$43.42	\$3,379.86
31160000040009	13385 MAPLEWOOD DR	DAY, KENNETH E & MARY L	1		7	\$3,336.44	\$43.42	\$3,379.86
31160000030009	13395 MAPLEWOOD DR	HANGGE, SCOTT E & MARY J	1		7	\$3,336.44	\$43.42	\$3,379.86
020123200G00009	13398 MAPLEWOOD DR	RUEGER, ELDEN P III & WENDY JO	1		7	\$3,336.44	\$43.42	\$3,379.86
020123200F00009	13410 MAPLEWOOD DR	DEVINE, DANIEL P & JESSICA S	1		7	\$3,336.44	\$43.42	\$3,379.86
31160000020009	13413 MAPLEWOOD DR	WOTCZAK, KENNETH J & JOANNE C	1		7	\$3,336.44	\$43.42	\$3,379.86
03116000001B009	13425 MAPLEWOOD DR	NELSON, TIMOTHY C & ABIGAIL DOLLOFF	1		7	\$3,336.44	\$43.42	\$3,379.86
03116000001A009	13437 MAPLEWOOD DR	REAL ESTATE CONNECTION LLC	1		7	\$3,336.44	\$43.42	\$3,379.86
2012320000000000	13456 MAPLEWOOD DR	VANDEPUTTE, KATHLEEN M	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302O00009	13463 MAPLEWOOD DR	AUS, DAVID P & AMY K	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302N00009	13483 MAPLEWOOD DR	LEININGER, CHRISTINE B	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302L00009	13489 MAPLEWOOD DR	DAHLBERG FAMILY REV TRUST AGR, MELVIN & JOAN DAHLBERG TRUSTEES	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302KA0009		DAHLBERG FAMILY REV TRUST AGR, MELVIN & JOAN DAHLBERG TRUSTEES	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302JC0009	13531 MAPLEWOOD DR	BALTES, TERENCE L & JACINTA	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302JB0009	13541 MAPLEWOOD DR	FISH FAMILY REV LIVING TRUST, JOHN H & MERYL A FISH TRUSTEES	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302I00009	13567 MAPLEWOOD DR	MATHISON, GARY A & JANICE	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302G00009	13579 MAPLEWOOD DR	JOHNSON, VIVIAN E	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302F00009	13603 MAPLEWOOD DR	STRADTMAN, JACQUELINE & SCOTT LONGANECKER	1		7	\$3,336.44	\$43.42	\$3,379.86
2012230200000000	13607 MAPLEWOOD DR	HAAKONSON, JAMES A & KATIE J	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302D00009	13627 MAPLEWOOD DR	NORWOOD, CURTIS F & BONITA	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302C00009	13633 MAPLEWOOD DR	FRY, TIMOTHY A & SHANDOLYNN R	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302B00009	13647 MAPLEWOOD DR	MUEHLHAUSEN, GARALD C	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302AY0009	13649 MAPLEWOOD DR	WIKOFF, ERIC J & TRICIA A	2		7	\$6,672.88	\$86.84	\$6,759.72
020122302PAA009		FRY, TIMOTHY A & SHANDOLYNN R	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302PAB009		HAAKONSON, JAMES A & KATIE J	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302PF0009		CITY OF BAXTER	1		7	\$3,336.44	\$43.42	\$3,379.86
020122302Q00009		CITY OF BAXTER	6		7	\$20,018.64	\$260.52	\$20,279.16
33500010010009		CITY OF BAXTER	3		7	\$10,009.32	\$130.26	\$10,139.58
020123200R00009	13328 MAPLEWOOD DR	BAXTER CEMETARY	4		7	\$13,345.76	\$173.68	\$13,519.44
03116000007B009		IND SCHOOL DIST, # 181	3		7	\$10,009.32	\$130.26	\$10,139.58

**2016 MILL & OVERLAY, FULL DEPTH RECLAMATION AND TURN LANE CONSTRUCTION  
INDIVIDUAL ASSESSMENT CALCULATIONS  
BAXTER, MN**

ESTIMATED INTEREST RATE: 5.00%  
ESTIMATED DAYS BEFORE FIRST YEAR: 95  
FIRST YEAR OF ASSESSMENT: 2017

ESTIMATED COST PER UNIT ASSESSMENT - MILL & OVERLAY \$3,336.44  
ESTIMATED COST PER FOOT ASSESSMENT - FULL DEPTH RE \$77.69

R.E. CODE	PROPERTY ADDRESS	OWNER	UNIT ASSESSMENTS	FRONT FOOTAGE	ASSESSMENT TERM	ESTIMATED ASSESSMENT	2016 INTEREST (SEE NOTE 1)	CERTIFIED AMOUNT
			MILL & OVERLAY	FULL DEPTH RECLAMATION				
<b>KENWOOD DRIVE</b>								
020121200D00009	13756 KENWOOD DR	BLOWERS, JODY L	1		7	\$3,336.44	\$43.42	\$3,379.86
03163002005A009	13775 KENWOOD DR	DWYER, MARY A	1		7	\$3,336.44	\$43.42	\$3,379.86
020121200C00009		SCHMIDT, JAMES A & KATHLEEN	1		7	\$3,336.44	\$43.42	\$3,379.86
03163002001Z009	13795 KENWOOD DR	BLOWERS, MICHAEL M & CAROL	1		7	\$3,336.44	\$43.42	\$3,379.86
20121200000000000	13814 KENWOOD DR	SCHMIDT, JAMES A & KATHLEEN	1		7	\$3,336.44	\$43.42	\$3,379.86
020121200F00009	13876 KENWOOD DR	PANKRATZ, DONALD R & CAROL J	3		7	\$10,009.32	\$130.26	\$10,139.58
334000100100009	13887 KENWOOD DR	LAPOSKY, NATHAN & MELISSA	1		7	\$3,336.44	\$43.42	\$3,379.86
334000100200009	13905 KENWOOD DR	HARBOTT, ASHLEY M	1		7	\$3,336.44	\$43.42	\$3,379.86
316300100100009	13937 KENWOOD DR	KOPEK, BRIAN T & HOLLIE IVEY-KOPEK	1		7	\$3,336.44	\$43.42	\$3,379.86
020122101BA0009	13945 KENWOOD DR	SARFF LIVING TRUST, MILTON A & MARLENE A SARFF TRSTEES	1		7	\$3,336.44	\$43.42	\$3,379.86
020122101A00009	13971 KENWOOD DR	BEILKE, LOREN L & LAURA	1		7	\$3,336.44	\$43.42	\$3,379.86
<b>KENWOOD COURT</b>								
316300101100009	13757 KENWOOD CT	ZEMKE, JOHN P & KRISTIN D ROSENQUIS	1		7	\$3,336.44	\$43.42	\$3,379.86
316300101000009	13759 KENWOOD CT	LELAND, HAL M & KELLI B	1		7	\$3,336.44	\$43.42	\$3,379.86
316300100900009	13769 KENWOOD CT	BIALKA, MICHAEL & JUDY	1		7	\$3,336.44	\$43.42	\$3,379.86
03163002004B009	13770 KENWOOD CT	GOLL, STEVEN A & RENAE	1		7	\$3,336.44	\$43.42	\$3,379.86
316300100800009	13783 KENWOOD CT	DIRLAM, GARY P & ELIZABETH	1		7	\$3,336.44	\$43.42	\$3,379.86
316300100700009	13793 KENWOOD CT	DUNHAM, BRIAN D & EMILY J	1		7	\$3,336.44	\$43.42	\$3,379.86
316300200300009	13796 KENWOOD CT	MAKEY, DEAN M & JANE	1		7	\$3,336.44	\$43.42	\$3,379.86
316300100600009	13809 KENWOOD CT	SAMPSON, THOMAS S & DEBBIE L	1		7	\$3,336.44	\$43.42	\$3,379.86
334000100400009	13821 KENWOOD CT	FENSTAD, ERIC & BROOKE	1		7	\$3,336.44	\$43.42	\$3,379.86
316300200100009	13822 KENWOOD CT	ROSENQUIST, GLORIA J REV TRUST	1		7	\$3,336.44	\$43.42	\$3,379.86
334000100300009	13831 KENWOOD CT	LAPOSKY, NATHAN & MELISSA	1		7	\$3,336.44	\$43.42	\$3,379.86
<b>GLENWOOD DRIVE</b>								
03123003001A009	13709 GLENWOOD DR	LOMEN, SHELLY A	1		7	\$3,336.44	\$43.42	\$3,379.86
312300300200009	13727 GLENWOOD DR	SAULSBURY, RYAN B & TRISHA J	1		7	\$3,336.44	\$43.42	\$3,379.86
312200200600009	13728 GLENWOOD DR	RANDALL, KARL A	1		7	\$3,336.44	\$43.42	\$3,379.86
312300300300009	13743 GLENWOOD DR	SIMMONS, ALIINA R & EDWARD C	1		7	\$3,336.44	\$43.42	\$3,379.86
312300300400009	13763 GLENWOOD DR	KENOW, THOMAS G & MARILEE	1		7	\$3,336.44	\$43.42	\$3,379.86
312200200300009	13772 GLENWOOD DR	ANDERSON, WENDELL R & JULIANA C	1		7	\$3,336.44	\$43.42	\$3,379.86
312300300500009	13773 GLENWOOD DR	OLSON, DONALD E & BETTY J	1		7	\$3,336.44	\$43.42	\$3,379.86
312300300600009	13793 GLENWOOD DR	ENGDAHL, ILENE G & RONALD N	1		7	\$3,336.44	\$43.42	\$3,379.86
312300300700009	13801 GLENWOOD DR	GERARD, CYNTHIA S	1		7	\$3,336.44	\$43.42	\$3,379.86
312200200200009	13804 GLENWOOD DR	OAKRIDGE HOMES SILS INC	1		7	\$3,336.44	\$43.42	\$3,379.86
312300300800009	13815 GLENWOOD DR	WYMORE, SETH & CALA LAURENE	1		7	\$3,336.44	\$43.42	\$3,379.86
312200100700009	13828 GLENWOOD DR	HAAS, WALTER R II	1		7	\$3,336.44	\$43.42	\$3,379.86
312300300900009	13839 GLENWOOD DR	SCHAEFER, SANDRA REVOCABLE TRUST	1		7	\$3,336.44	\$43.42	\$3,379.86
312200100600009	13840 GLENWOOD DR	THUNE, RORY J	1		7	\$3,336.44	\$43.42	\$3,379.86
312300301000009	13845 GLENWOOD DR	LAYMAN, LINDA R	1		7	\$3,336.44	\$43.42	\$3,379.86
312200100500009	13856 GLENWOOD DR	TYRRELL, DAVID R & MARILYN C	1		7	\$3,336.44	\$43.42	\$3,379.86
312300301100009	13859 GLENWOOD DR	TUIL, RONALD & ALICE	1		7	\$3,336.44	\$43.42	\$3,379.86
312200100400009	13876 GLENWOOD DR	JOHNSON, KATHLEEN A	1		7	\$3,336.44	\$43.42	\$3,379.86
312200100300009	13888 GLENWOOD DR	JOHNSON, RANDY ET UX	1		7	\$3,336.44	\$43.42	\$3,379.86
312300101900009	13895 GLENWOOD DR	LORENO, NICKOLAS F	1		7	\$3,336.44	\$43.42	\$3,379.86
312300101800009	13903 GLENWOOD DR	BERG, PHILIP C	1		7	\$3,336.44	\$43.42	\$3,379.86
312300101700009	13925 GLENWOOD DR	ZEBROSKI, MATTHEW J	1		7	\$3,336.44	\$43.42	\$3,379.86
03122001001Z009	13942 GLENWOOD DR	DEWEY, LISA	1		7	\$3,336.44	\$43.42	\$3,379.86
312300101500009	13949 GLENWOOD DR	BARE, CAROLYN M	1		7	\$3,336.44	\$43.42	\$3,379.86
324400100700009		SWENSON, GREGORY L & CYNTHIA S	1		7	\$3,336.44	\$43.42	\$3,379.86
<b>MARY STREET</b>								
312300102900009	6508 MARY ST	SMITH, STEPHANIE L	1		7	\$3,336.44	\$43.42	\$3,379.86
312300200100009	6517 MARY ST	HAAS, WALTER R II	1		7	\$3,336.44	\$43.42	\$3,379.86
312300102800009	6532 MARY ST	BADGER, ROBERT L & CELESTE	1		7	\$3,336.44	\$43.42	\$3,379.86
312300200200009	6533 MARY ST	BORASH, DAVID M & AMY	1		7	\$3,336.44	\$43.42	\$3,379.86
312300200300009	6543 MARY ST	TAGTMEIER, AIMEE	1		7	\$3,336.44	\$43.42	\$3,379.86
312300102700009	6552 MARY ST	HAAS, WALTER R II	1		7	\$3,336.44	\$43.42	\$3,379.86
312300102600009	6560 MARY ST	TADYCH, JANICE MAE	1		7	\$3,336.44	\$43.42	\$3,379.86
312300200400009	6569 MARY ST	CONKLIN, ADAM D & STEPHANIE A	1		7	\$3,336.44	\$43.42	\$3,379.86
312300200500009	6581 MARY ST	CLOUGH, ROBERT D & SHARON A	1		7	\$3,336.44	\$43.42	\$3,379.86

**2016 MILL & OVERLAY, FULL DEPTH RECLAMATION AND TURN LANE CONSTRUCTION  
INDIVIDUAL ASSESSMENT CALCULATIONS  
BAXTER, MN**

ESTIMATED INTEREST RATE: 5.00%  
ESTIMATED DAYS BEFORE FIRST YEAR: 95  
FIRST YEAR OF ASSESSMENT: 2017

ESTIMATED COST PER UNIT ASSESSMENT - MILL & OVERLAY \$3,336.44  
ESTIMATED COST PER FOOT ASSESSMENT - FULL DEPTH RE \$77.69

R.E. CODE	PROPERTY ADDRESS	OWNER	UNIT ASSESSMENTS	FRONT FOOTAGE	ASSESSMENT TERM	ESTIMATED ASSESSMENT	2016 INTEREST (SEE NOTE 1)	CERTIFIED AMOUNT
			MILL & OVERLAY	FULL DEPTH RECLAMATION				
31230010250009	6584 MARY ST	GLENDE, JAMES	1		7	\$3,336.44	\$43.42	\$3,379.86
31230010240009	6592 MARY ST	MILLER, RANDAL K & AMY	1		7	\$3,336.44	\$43.42	\$3,379.86
31230010230009	6620 MARY ST	DAVIS, MELISSA S	1		7	\$3,336.44	\$43.42	\$3,379.86
31230010220009		DAVIS, MELISSA S	1		7	\$3,336.44	\$43.42	\$3,379.86
31230030120009	6639 MARY ST	ELWELL, JOSEPH L & JUDITH	1		7	\$3,336.44	\$43.42	\$3,379.86
03123001020Z009	6652 MARY ST	LARSON, MARY E	1		7	\$3,336.44	\$43.42	\$3,379.86
<b>MADLINE DRIVE</b>								
03123004007A009	13681 MADLINE DR	SUITE PROPERTIES LLC	1		7	\$3,336.44	\$43.42	\$3,379.86
31230040060009	13707 MADLINE DR	PLANTE, LARRY D & DOROTHY	1		7	\$3,336.44	\$43.42	\$3,379.86
31230040050009	13725 MADLINE DR	JANSMA, BRIAN J & DEBORAH	1		7	\$3,336.44	\$43.42	\$3,379.86
31230040040009	13733 MADLINE DR	WANG, MING GANG & QIAO YAN LIN	1		7	\$3,336.44	\$43.42	\$3,379.86
31230040030009	13763 MADLINE DR	LACY, KENNETH L & BETH M	1		7	\$3,336.44	\$43.42	\$3,379.86
31230030200009	13764 MADLINE DR	MURPHY, ALICIA	1		7	\$3,336.44	\$43.42	\$3,379.86
31230030190009	13784 MADLINE DR	VELASQUEZ, JOSE A & DELORES LAFOLLE	1		7	\$3,336.44	\$43.42	\$3,379.86
31230030180009	13808 MADLINE DR	SAXUM, STEVEN M & MARY C	1		7	\$3,336.44	\$43.42	\$3,379.86
31230020080009	13817 MADLINE DR	FALENSCHEK, JOHN ALAN	1		7	\$3,336.44	\$43.42	\$3,379.86
31230030170009	13824 MADLINE DR	HEINLEN, JEFFREY	1		7	\$3,336.44	\$43.42	\$3,379.86
31230020070009	13825 MADLINE DR	TUCHSCHERER, DAVID S & CAROL	1		7	\$3,336.44	\$43.42	\$3,379.86
31230030160009	13848 MADLINE DR	NELSON, TIMOTHY P & MELISSA S	1		7	\$3,336.44	\$43.42	\$3,379.86
31230020060009	13853 MADLINE DR	TUCHSCHERER, DAVID S & CAROL	1		7	\$3,336.44	\$43.42	\$3,379.86
31230030150009	13864 MADLINE DR	MCKERCHER, LUCILLE A, C/O PALMA R STENBERG	1		7	\$3,336.44	\$43.42	\$3,379.86
31230030140009	13872 MADLINE DR	DENNISTON, NORMA L	1		7	\$3,336.44	\$43.42	\$3,379.86
31230030130009	13890 MADLINE DR	PETERSON, DAVID B&JENNIFER PETERSEN	1		7	\$3,336.44	\$43.42	\$3,379.86
							\$0.00	\$0.00
<b>JOHN STREET</b>								
31230020090009	6506 JOHN ST	KICKER FAMILY REV LIVING TRUST	1		7	\$3,336.44	\$43.42	\$3,379.86
31230040010009	6519 JOHN ST	BURNARD, TIMOTHY A & LYNETTE	1		7	\$3,336.44	\$43.42	\$3,379.86
<b>CLEARWATER ROAD</b>								
33700010010009	14466 DELLWOOD DR	WATLAND PROPERTIES INC		412	12	\$32,008.28	\$416.55	\$32,424.83
33700010030009		KFC BUILDING PARTNERSHIP		150	12	\$11,653.50	\$151.66	\$11,805.16
33700010040009		KFC BUILDING PARTNERSHIP		150	12	\$11,653.50	\$151.66	\$11,805.16
33700010050009		KFC BUILDING PARTNERSHIP		145	12	\$11,265.05	\$146.60	\$11,411.65
31860010020009	14540 DELLWOOD DR	RIVERWOOD BANK		397	12	\$30,842.93	\$401.38	\$31,244.31
31860010030009	7626 CLEARWATER RD	OFFBRAIN LLC, C/O CORELOGIC COMMERCIA TAX SERV		477	12	\$37,058.13	\$482.26	\$37,540.39
<b>WOIDA ROAD</b>								
010052204ABA009	14858 DELLWOOD DR	MILLS PROPERTIES, INC		756	12	\$58,733.64	\$764.34	\$59,497.98
03197001002Z009	15052 DELLWOOD DR	HOLIDAY STATIONSTORE, S INC		360	12	\$27,968.40	\$363.97	\$28,332.37
03197001003D009	7638 WOIDA RD	AMERICAN NATIONAL BANK OF MN		415	12	\$32,241.35	\$419.58	\$32,660.93
			277	3262		\$1,177,618.66	\$15,325.17	\$1,192,943.83

**NOTES**

1. THE 2016 INTEREST AMOUNT IS CALCULATED BASED ON AN ASSESSMENT HEARING DATE OF SEPTEMBER 27, 2016. THIS AMOUNT WILL VARY DEPENDING ON ACTUAL ASSESSMENT HEARING DATE.

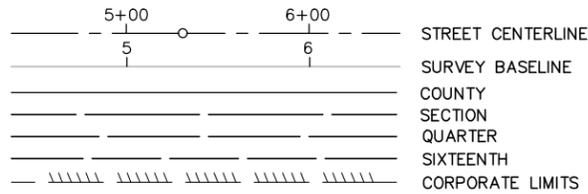
**PROJECT SCHEDULE**  
**2016 MILL & OVERLAY PROJECT**  
**BAXTER, MN**  
**Wednesday, February 24, 2016**

DESIGN TASKS	DATES	REMARKS	NOTES
Proposals Due	Tuesday, January 12, 2016		
Award of Engineering Contract	Tuesday, January 19, 2016	City Council Meeting	
Recommendation to Approve Feasibility Report	Wednesday, March 16, 2016	Special Utilities Commission Meeting	
Public Information Meeting	Week of March 21, 2016		
Review Feasibility Study at Council Workshop		City Council Workshop	
Resolution Accepting Feasibility Report and Ordering Improvement Hearing	Tuesday, April 05, 2016	City Council Meeting	
Review Plans and Specifications	Wednesday, April 06, 2016	Utilities Commission Meeting	
Mailed Notice for Improvement Hearing	Thursday, April 07, 2016	One notice at least 10 days prior to hearing	
First Published Notice for Improvement Hearing	Friday, April 08, 2016	Twice in local newspaper, one week apart, last notice must be at least three days prior to hearing.	
Second Published Notice for Improvement Hearing	Friday, April 15, 2016		
Improvement Hearing	Monday, April 18, 2016		
Resolution Ordering Project and Preparation of Final Plans and Specifications	Tuesday, April 19, 2016	City Council Meeting	
Resolution Approving Plans and Authorizing Advertisement for Bid			
Bidding Publication	Friday, April 22, 2016	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.	
Bid Opening	Tuesday, May 17, 2016	By default bid remains subject to acceptance for 60 days after the Bid opening.	
Notice of Award	Tuesday, June 07, 2016	City Council Meeting. Contractor has 15 days to deliver signed agreement, bonds and insurance certificates.	
Bid review with Utilities Commission	Wednesday, June 08, 2016	Utilities Commission Meeting	6
Public Information Meeting	Thursday, June 16, 2016		
Begin Construction	Monday, June 20, 2016	8 Weeks of Construction	3
Construction Complete	Friday, August 12, 2016		
Resolution Ordering Assessment Hearing	Tuesday, September 06, 2016	City Council Meeting	
Mailed Notice for Assessment Hearing	Thursday, September 08, 2016	One notice at least two weeks prior to hearing	
Published Notice for Assessment Hearing	Friday, September 09, 2016	Once in local newspaper at least two weeks prior to hearing.	
Assessment Hearing	Tuesday, September 27, 2016		5
Resolution Adopting Assessment Rolls	Tuesday, October 04, 2016		
End of Assessment Appeal Period	Thursday, November 03, 2016	Appeals to district court must be made within 30 days after adoption of the assessment roll.	4

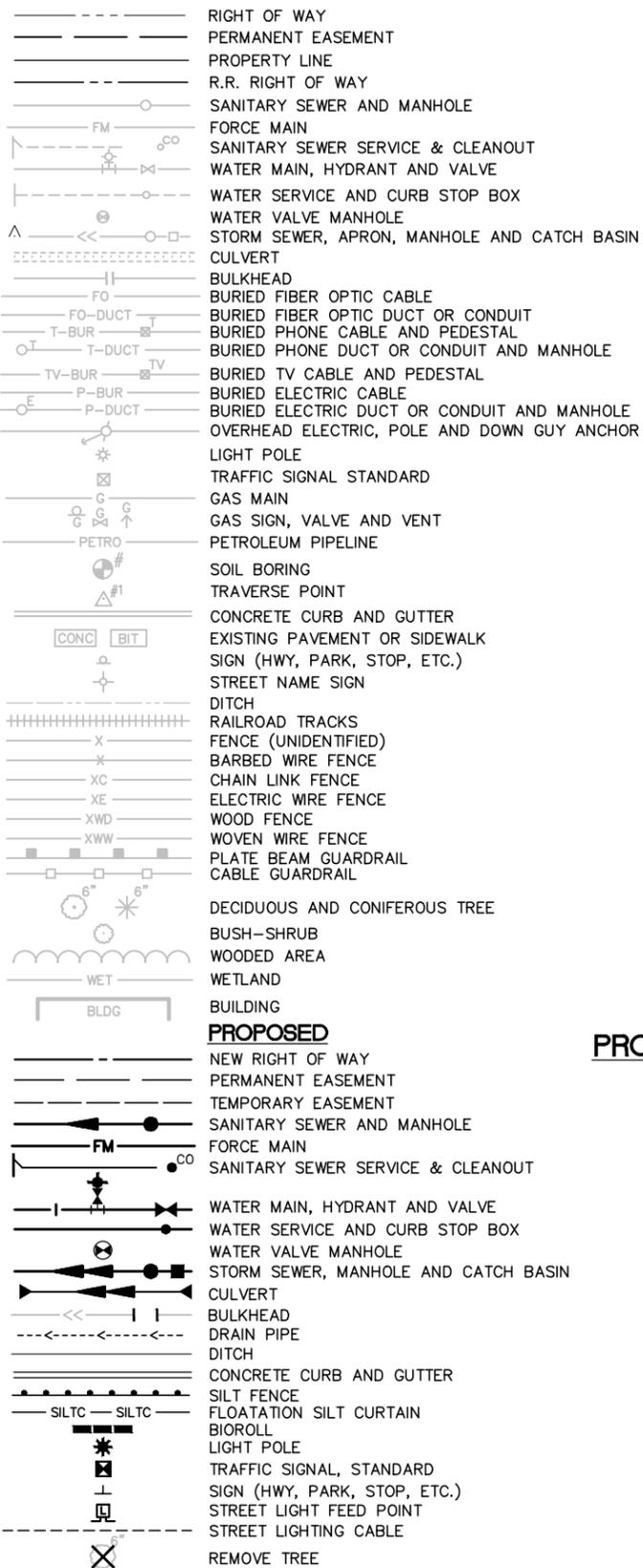
**NOTES**

1. City Council Meetings held on 1st and 3rd Tuesday @ 7:00 p.m.
2. Utilities Commission Meetings held on 1st Wednesday @ 5:30 p.m.
3. We estimate the work can be completed in 8 weeks based on the size of the project. The construction contract would be set up so the work on Clearwater Road and Wolda Road is completed first so that it does not run concurrently with the Golf Course Drive project.
4. An August 12, 2016 construction completion date does not allow the City to hold the Assessment Hearing and start construction after the 30-day appeal period
5. The Assessment Hearing could be held as early as the Week of June 20, 2016. Since the 30-day appeal period cannot be met, we have shown the Assessment Hearing after construction is complete and final costs are known.
6. Special Utilities Commission meeting could be held on May 25, 2016 or June 1, 2016 to get recommendation for approval prior to Council Meeting.
7. Schedule could be accelerated with the addition of special Utilities Commission and Council meetings.
8. **All dates are subject to change, this is a living document.**

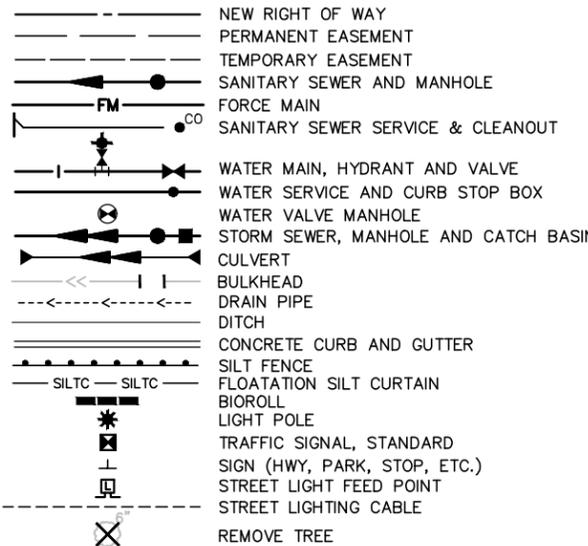
**LEGEND**



**EXISTING**



**PROPOSED**



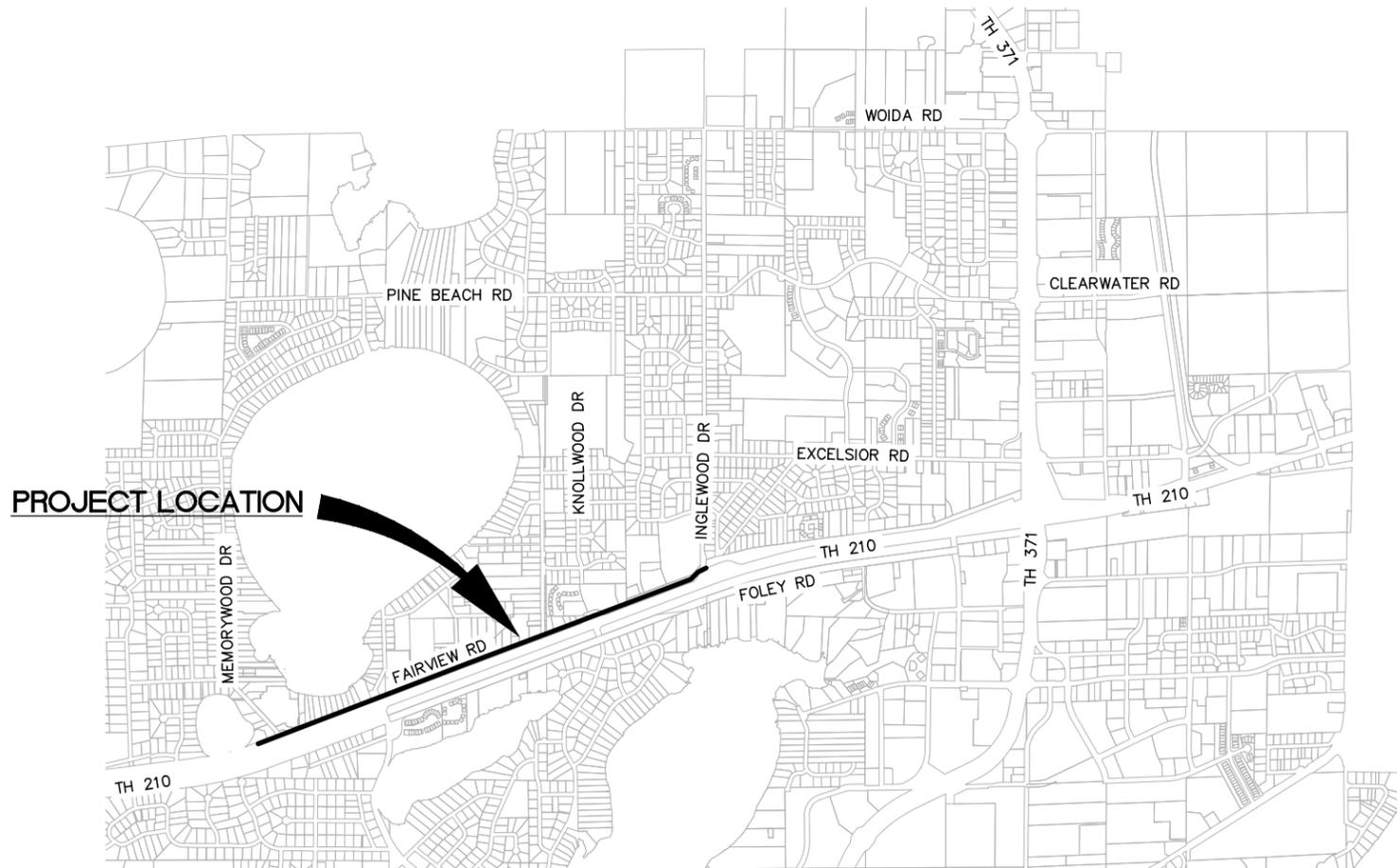
# CITY OF BAXTER, MINNESOTA

## CONSTRUCTION PLANS FOR

### MILL AND OVERLAY, FULL DEPTH RECLAMATION, ROAD WIDENING, STORM SEWER IMPROVEMENTS, AND PEDESTRIAN RAMP IMPROVEMENTS

# 2016 FAIRVIEW ROAD IMPROVEMENTS

CITY PROJECT #



**GOVERNING SPECIFICATIONS**

THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE 2014 EDITION OF THE "MATERIALS LAB SUPPLEMENTAL SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN EXCEPT AS MODIFIED BY THE SPECIFICATIONS FOR THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MMUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS", - CURRENT EDITION.

**INDEX**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-3	TYPICAL SECTIONS, EARTHWORK SUMMARY, STANDARD PLATES, & CONSTRUCTION NOTES
4-5	DETAILS
6-10	STAGING & TRAFFIC CONTROL PLAN
11-15	REMOVAL PLAN
16-27	STREET & STRUCTURE PLAN & PROFILES
28-30	INTERSECTION DETAILS
31-35	SWPPP
36-40	EROSION CONTROL & TURF ESTABLISHMENT PLAN
41-46	SIGNING AND STRIPING PLAN
47-76	CROSS SECTIONS

THIS PLAN CONTAINS 76 SHEETS.

**PROJECT LOCATION**



**BAXTER, MINNESOTA**

**SEH** PHONE: 320.229.4300  
1200 25TH AVENUE SOUTH  
P.O. BOX 1717  
ST. CLOUD, MN 56302-1717  
www.sehinc.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.

Signature: SCOTT D. HEDLUND, PE  
Date: 03/09/2016 Lic. No. 40686

FILE NO.  
BAXTE133676  
1  
76

NOTE:  
THE SUBSURFACE UTILITY QUALITY INFORMATION IN THIS PLAN IS 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."

THE CONTRACTOR SHALL CALL THE GOPHER STATE ONE CALL SYSTEM AT 811 BEFORE COMMENCING EXCAVATION.

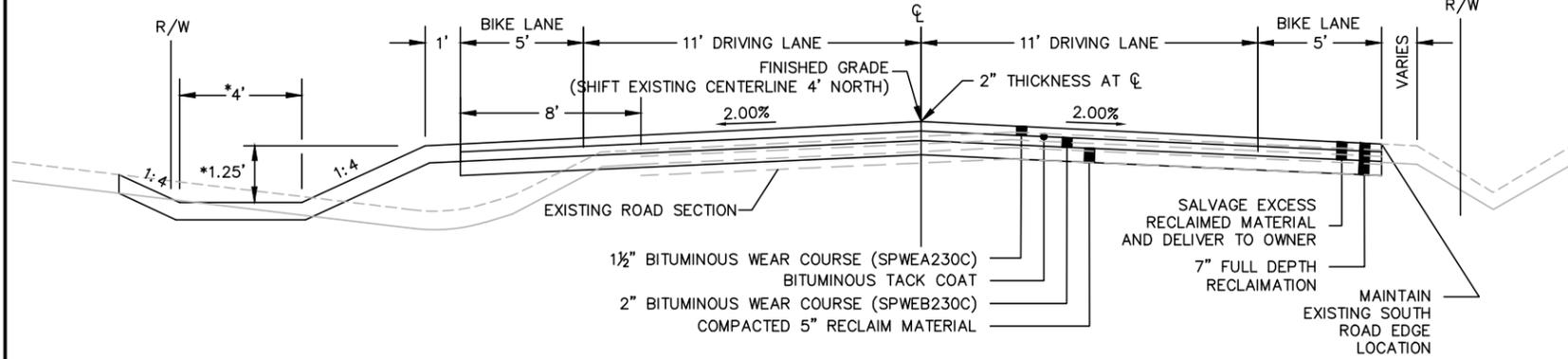


Know what's below.  
Call before you dig.

**TYPICAL SECTION  
FULL DEPTH RECLAMATION (FDR) -  
WIDENING TO 5' SHOULDERS EACH SIDE**

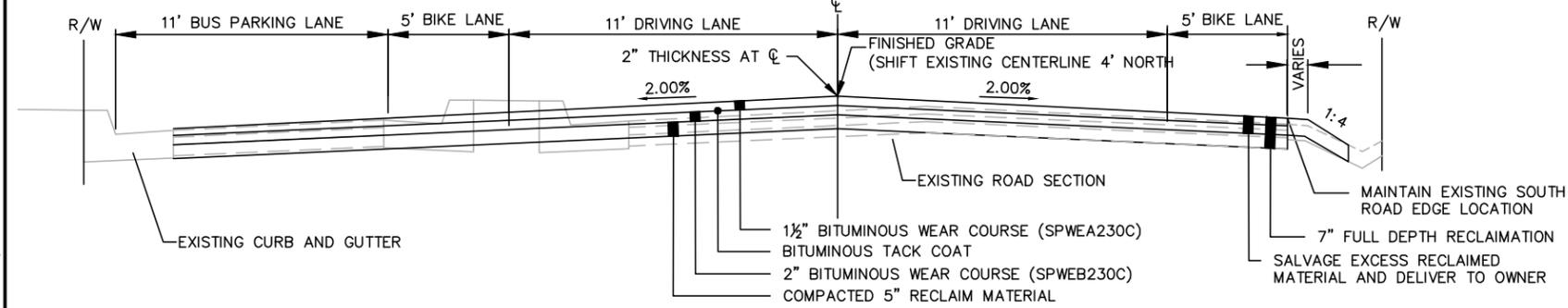
FAIRVIEW RD - MEMORYWOOD RD TO INGLEWOOD DR

\* 6' DITCH BOTTOM AND 1.5' DEPTH STA: 32+79-34+00, 36+84-38+73, 44+85-47+25, 57+00-59+60, 62+30-68+75 TH 210 R/W



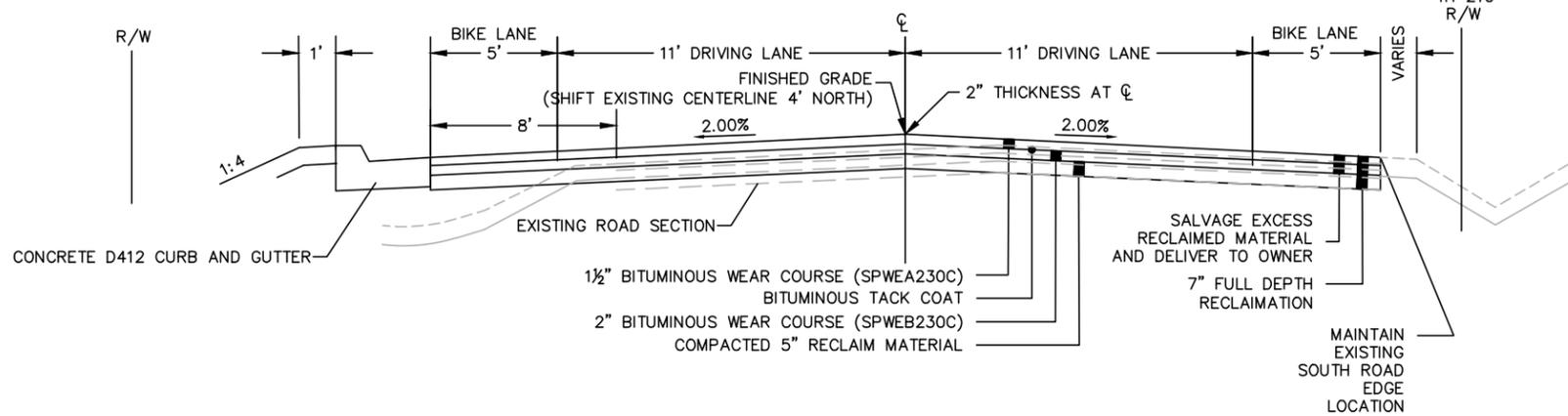
**TYPICAL SECTION  
FULL DEPTH RECLAMATION (FDR) -  
WIDENING TO 5' SHOULDERS EACH SIDE**

FAIRVIEW RD - ELEMENTARY SCHOOL BUS PARKING LANE



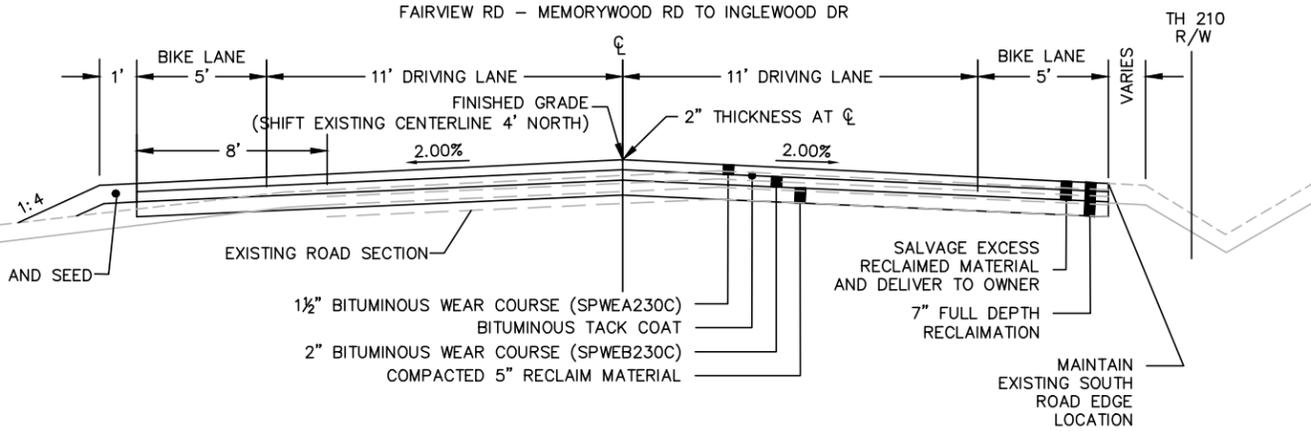
**TYPICAL SECTION  
FULL DEPTH RECLAMATION (FDR) -  
WIDENING TO 5' SHOULDERS EACH SIDE**

FAIRVIEW RD - STA 14+50-18+08



**TYPICAL SECTION  
FULL DEPTH RECLAMATION (FDR) -  
WIDENING TO 5' SHOULDERS EACH SIDE**

FAIRVIEW RD - MEMORYWOOD RD TO INGLEWOOD DR



P:\AE\B\BAXTE\133676\5-final-dgn\5-final-dgn\10-drawings\10-Civil\cod\dwg\pnshts\bx133676\_ty.dwg 3/9/2016 5:05 PM byears

DRAWN BY: BDY				
DESIGNER: RVH				
CHECKED BY: SDH				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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.

SCOTT D. HEDLUND, PE  
Date: 03/09/2016 Lic. No. 40686

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**2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA**

TYPICAL SECTIONS,

FILE NO.  
BAXTE133676

2  
76

# EARTHWORK SUMMARY

## EXCAVATION (CY)

TOPSOIL EXCAVATION (UA) (ASSUMES AVERAGE TOPSOIL THICKNESS OF 2")	620 CY	
GRADING MATERIAL EXCAVATION (UA)	4506 CY	
RECLAIMED BITUMINOUS (7") (UA)	(4405) CY	⑤
COMMON (UA) (PAY QUANTITY)	TOTAL = 5126 CY	①

TOPSOIL AVAILABLE FOR EMBANKMENT (1.40 SHRINKAGE FACTOR) (CV)	442 CY	
GRADING MATERIAL AVAILABLE FOR EMBANKMENT (1.14 SWELL FACTOR, 1.40 SHRINKAGE FACTOR) (CV)	3669 CY	③
	TOTAL = 4111 CY	

## EMBANKMENT (CY)

TOPSOIL REQUIRED (CV) (RESPREAD DEPTH OF APPROXIMATELY 4")	2505 CY	②
SELECT GRADING MATERIAL REQUIRED (CV)	1521 CY	
	TOTAL = 4026 CY	

DIFFERENCE (CY) = 85 CY LONG

- ① INCLUDES TOPSOIL
- ② RESPREAD APPROXIMATELY 12" OVER LOTS, BUILDING PADS, AND DISTURBED STREET RIGHT OF WAY.
- ③ SWELL & SHRINKAGE FACTORS ARE LISTED FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF APPLICABLE COMPACTION FACTORS.
- ④ EARTHWORK VOLUMES ARE COMPUTED BY THE DIGITAL SURFACE MODEL METHOD DETERMINED FROM ORIGINAL AND PROPOSED FINAL SURFACE CONTOURS. EXCAVATED VOLUMES (EV) AND QUANTITIES WILL NOT BE DETERMINED BY FIELD MEASUREMENTS.
- ⑤ RECLAIMED BITUMINOUS MATERIAL PAID FOR UNDER RECLAIMED AGGREGATE BASE PREPARATION.

### GRADING DEFINITIONS

CY = CUBIC YARDS  
 UA = UNADJUSTED VOLUME  
 EV = EXCAVATED VOLUME  
 LV = LOOSE VOLUME  
 CV = COMPACTED VOLUME

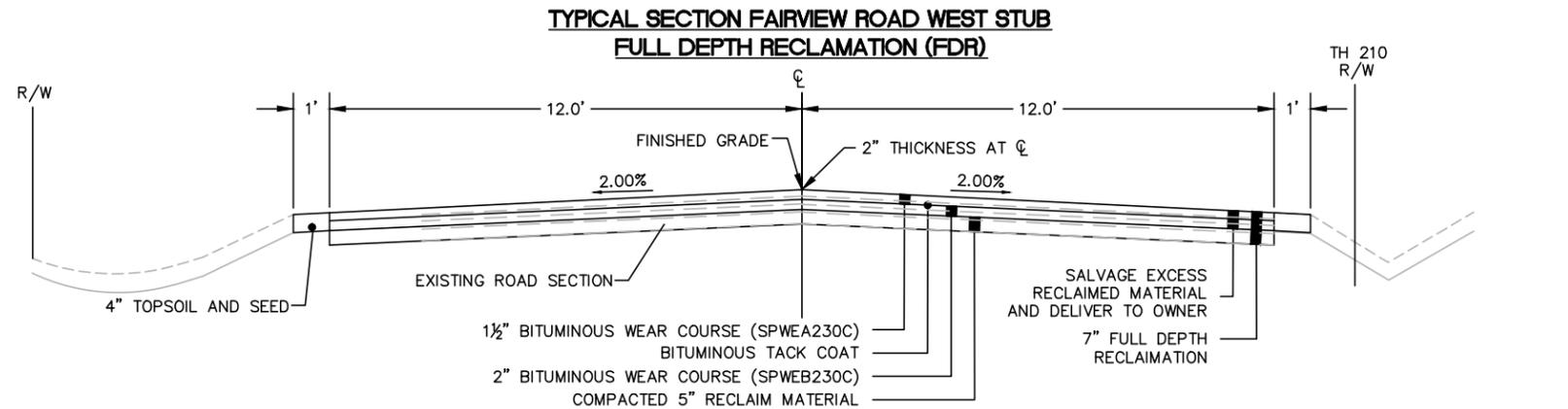
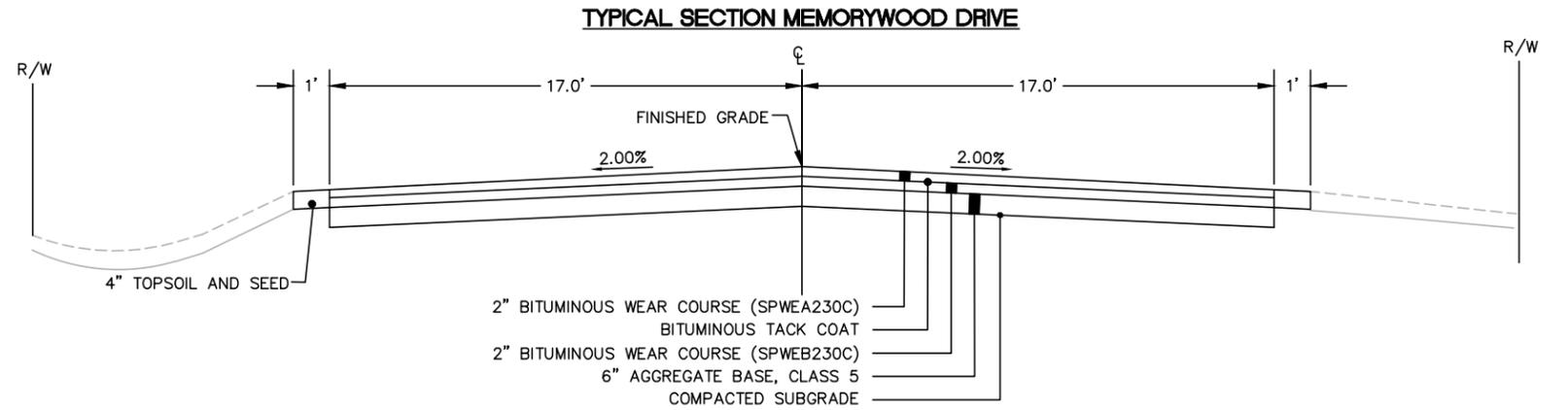
TOPSOIL = SOIL CONSIDERED NOT ACCEPTABLE FOR USE AS FILL IN ROADWAYS, SIDEWALKS, DRIVEWAYS, STORM WATER PONDS, AND BUILDING PADS AS DETERMINED BY THE ENGINEER IN THE FIELD

GRADING MATERIAL = MATERIAL NOT CLASSIFIED HEREIN AS TOPSOIL

### STANDARD PLATES

THE FOLLOWING STANDARD PLATES APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE
3006G	GASKET JOINT FOR R.C. PIPE
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3145G	CONCRETE PIPE OR PRECAST CULVERT TIES
4020J	MANHOLE OR CATCH BASIN
4024A	48" DIA. PRECAST SHALLOW DEPTH CATCH BASIN -DESIGN SD
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4180J	MANHOLE OR CATCH BASIN STEP
7035N	CONCRETE WALK AND CURB RETURNS AT ENTRANCES
7038A	DETECTABLE WARNING SURFACE TRUNCATED DOMES
7100H	CONCRETE CURB AND GUTTER
8000J	STANDARD BARRICADES
9322K	CHAIN LINK FENCE



### CONSTRUCTION NOTES

1. CONSTRUCTION LIMITS ARE THE RIGHT OF WAY UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL CONTACT UTILITY COMPANIES AND COORDINATE RELOCATION OF UTILITIES AS REQUIRED.
3. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL EROSION CONTROL MEASURES AS SHOWN ON THESE PLANS AND SPECIFICATIONS AND IMPLEMENT ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY IN ORDER TO MEET THE PROVISIONS OF THE SWPPP AND PROTECT ADJACENT PROPERTY.
4. TEMPORARY SEEDING PAY ITEM SHALL INCLUDE MULTIPLE MOBILIZATION COSTS.
5. OPENINGS ON ALL DRAINAGE STRUCTURES AND SANITARY MANHOLES THAT ARE NOT IN A BITUMINOUS OR CONCRETE SURFACE SHALL BE WRAPPED WITH GEOTEXTILE FABRIC OR PROTECTED WITH BMP DEVICE.
6. ALL SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, & GRADES ARE COMPUTED CENTER-TO-CENTER OF STRUCTURES.
7. ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MMUTCD, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS", JANUARY 2014.
8. THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY LEVEL D. THIS 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". THE CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED BEFORE DIGGING. THE CONTRACTOR SHALL CONTACT UTILITY COMPANIES TO RELOCATE UTILITIES AS REQUIRED.
9. ALL TOPSOIL OR UNSUITABLE SOIL SHALL BE STRIPPED PRIOR TO THE INSTALLATION OF STREETS, SIDEWALKS, AND UTILITIES. THE CONTRACTOR SHALL SALVAGE AND STOCKPILE SUITABLE TOPSOIL FOR LATER USE. AN NECESSARY TOPSOIL STRIPPING WITHIN THE PROJECT LIMITS IS INCLUDED IN THE COMMON EXCAVATION BID ITEM. THE CONTRACTOR SHALL USE ALL AVAILABLE TOPSOIL STOCKPILED ON SITE THAT MEETS PROJECT SPECIFICATIONS PRIOR TO IMPORTING BORROW.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OFF-SITE ALL TREES, STUMPS, BRUSH, NON-CONFORMING TOPSOIL, OR OTHER DEBRIS THAT EXISTS WITHIN THE CONSTRUCTION AREA.
11. EXCESS MATERIALS AND DEBRIS GENERATED BY THE PROJECT, EXCEPT RECLAIMED MATERIALS, SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT LIMITS, UNLESS DIRECTED OTHERWISE.
12. CONTRACTOR SHALL SALVAGE ALL STREET SIGNS IF NEEDED AND REPLACE AS CONSTRUCTION ENDS.
13. RESTORE DISTURBED AREAS WITH 4" TOPSOIL AND SEED, FERTILIZER, AND HYDRAULIC MATRIX TYPE FRM (FIBER REINFORCED MATRIX).
14. THE LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED IN THE FIELD BEFORE DIGGING. EXISTING UTILITIES MAY NOT BE RELOCATED PRIOR TO THE START OF CONSTRUCTION AS DETAILED IN THE DRAWINGS.
15. SAWCUT BITUMINOUS AND CONCRETE AS DIRECTED BY THE ENGINEER PRIOR TO REMOVAL. THE CONTRACTOR SHALL SAWCUT PAVEMENT, CURB, AND SIDEWALK AS INDICATED ON THE PLANS TO SEPARATE EXISTING MATERIAL TO BE REMOVED BY MEANS OF AN APPROVED SAW. SUITABLE GUIDELINES OR DEVICES SHALL BE USED TO ASSURE CUTTING A NEAT, STRAIGHT LINE AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN BY THE CONTRACTOR SO AS NOT TO DAMAGE THE REMAINING MATERIALS DIRECTLY ADJACENT TO THE MATERIALS TO BE REMOVED. ANY DAMAGE TO THE EXISTING MATERIAL RESULTING FROM THE MATERIAL REMOVAL OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
16. ALL ELEVATIONS GIVEN ARE TO FINISHED GRADE.
17. THE CONTRACTOR SHALL BID THE PROJECT WITH THE UNDERSTANDING THAT PRIVATE UTILITIES MAY NOT BE MOVED, UNLESS SPECIFICALLY NOTED FOR RELOCATION ON THE PLANS.
18. ALL PEDESTRIAN RAMPS SHALL BE EQUAL TO THE PATH WIDTH AT THE RAMP LOCATION.

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DRAWN BY: <u>BDY</u>				
DESIGNER: <u>RVH</u>				
CHECKED BY: <u>SDH</u>				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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.

SCOTT D. HEDLUND, PE  
 Lic. No. 40686  
 Date: 03/09/2016

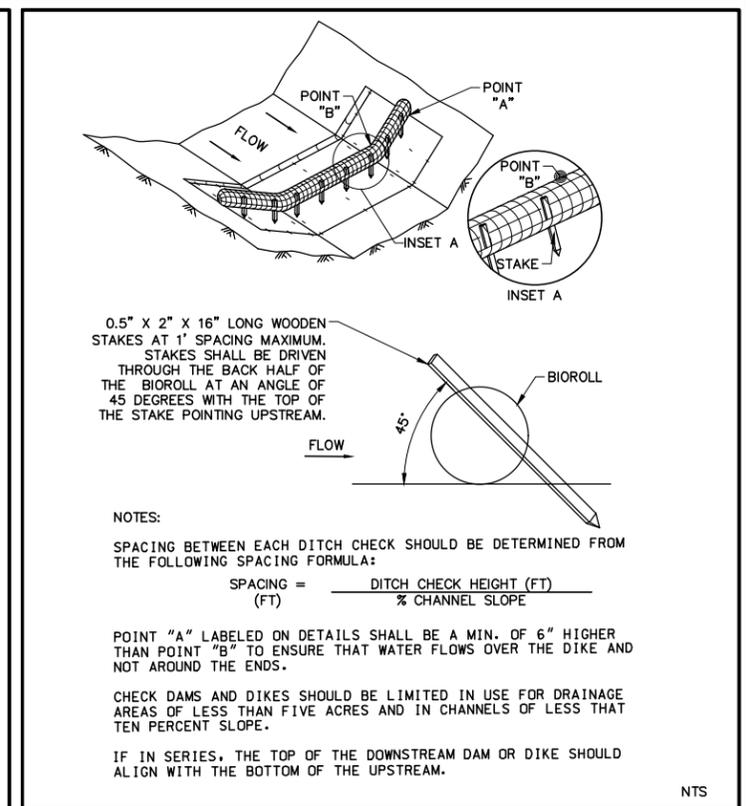
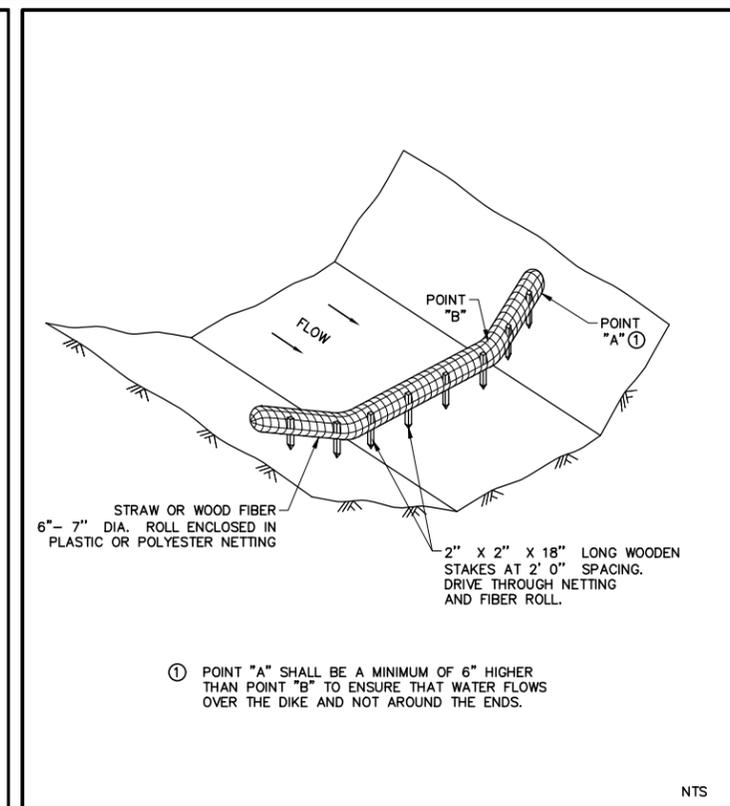
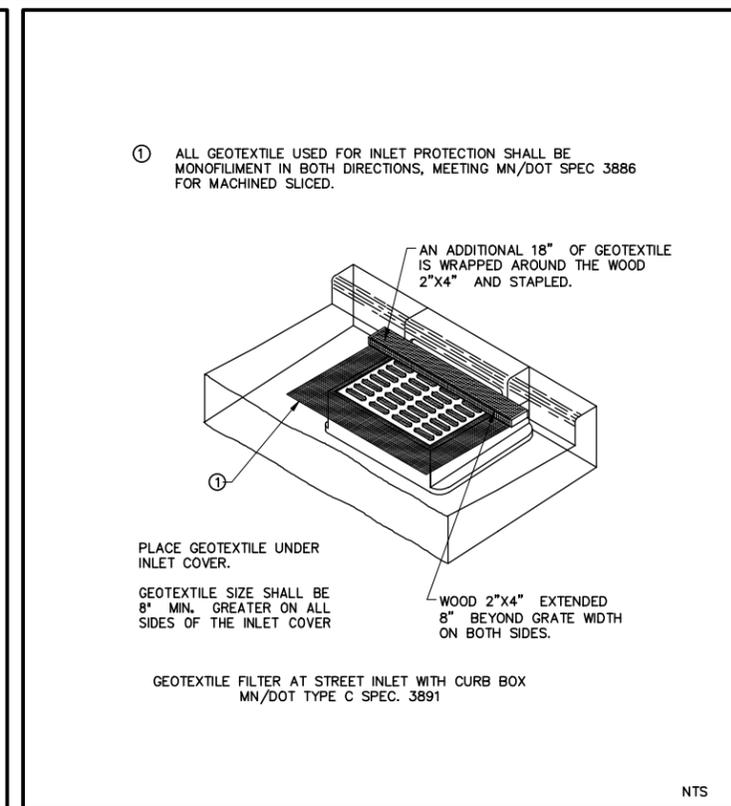
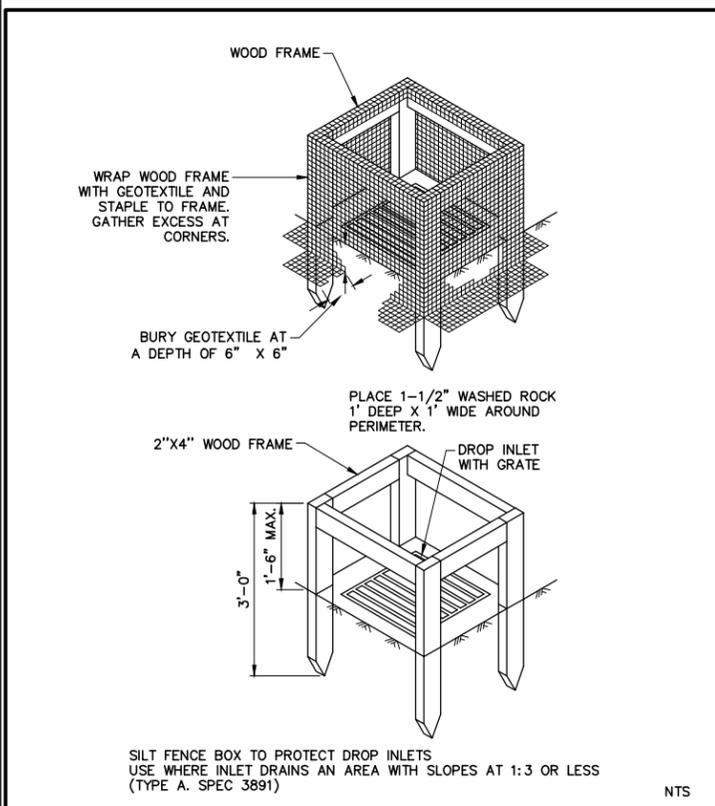


**2016 FAIRVIEW ROAD IMPROVEMENTS BAXTER, MINNESOTA**

**TYPICAL SECTIONS, EARTH WORK SUMMARY, STANDARD PLATES, AND CONSTRUCTION NOTES**

FILE NO. BAXTE133676  
**3**  
**76**

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Revised: Oct. 2011

SEH Plate No. ERO-01

INLET PROTECTION - TYPE A

NTS

SEH

Revised: Oct. 2011

SEH Plate No. ERO-03

INLET PROTECTION - TYPE C

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SEH

Revised: Oct. 2011

SEH Plate No. ERO-05

BIOROLL DITCH CHECK

NTS

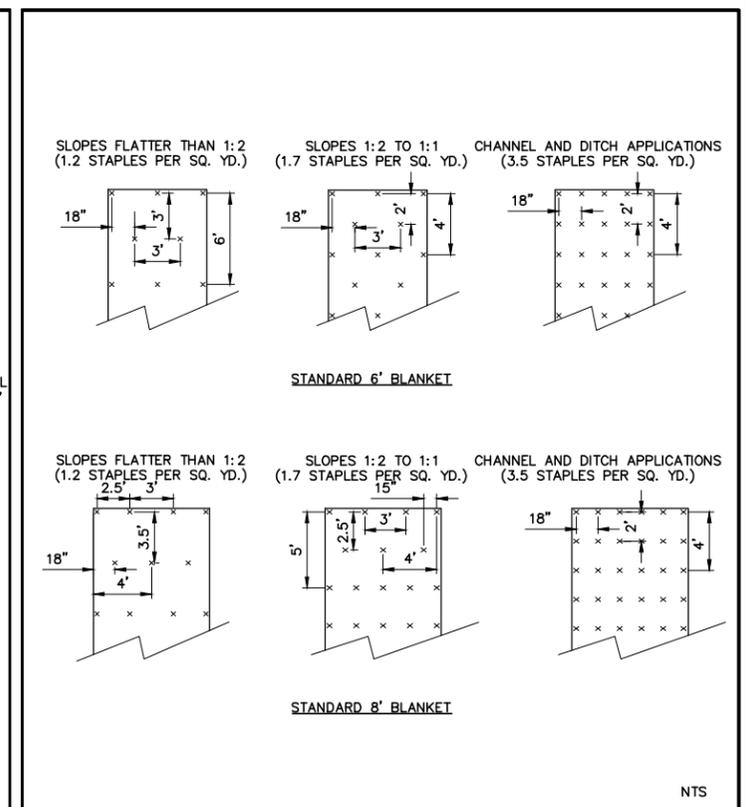
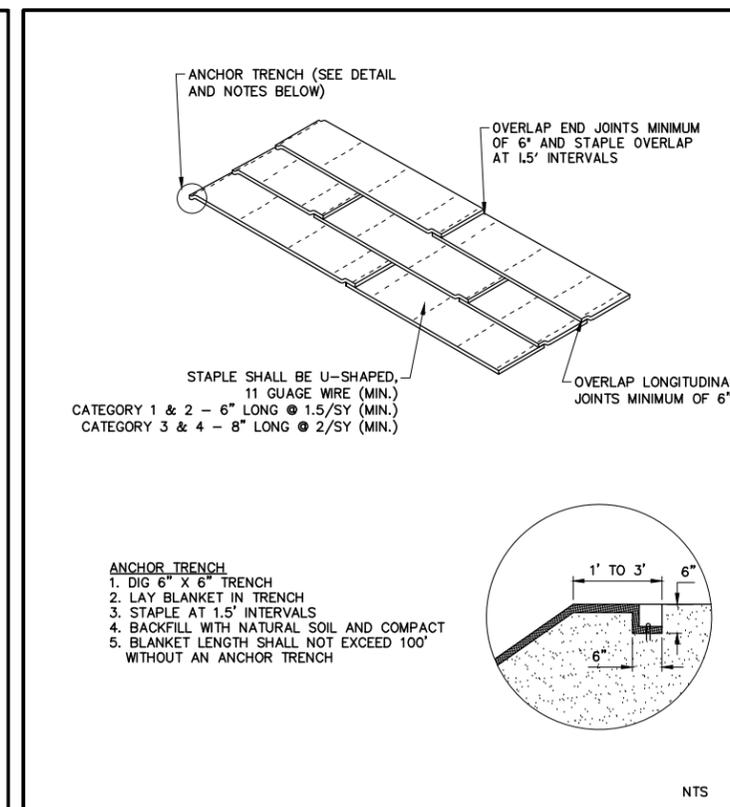
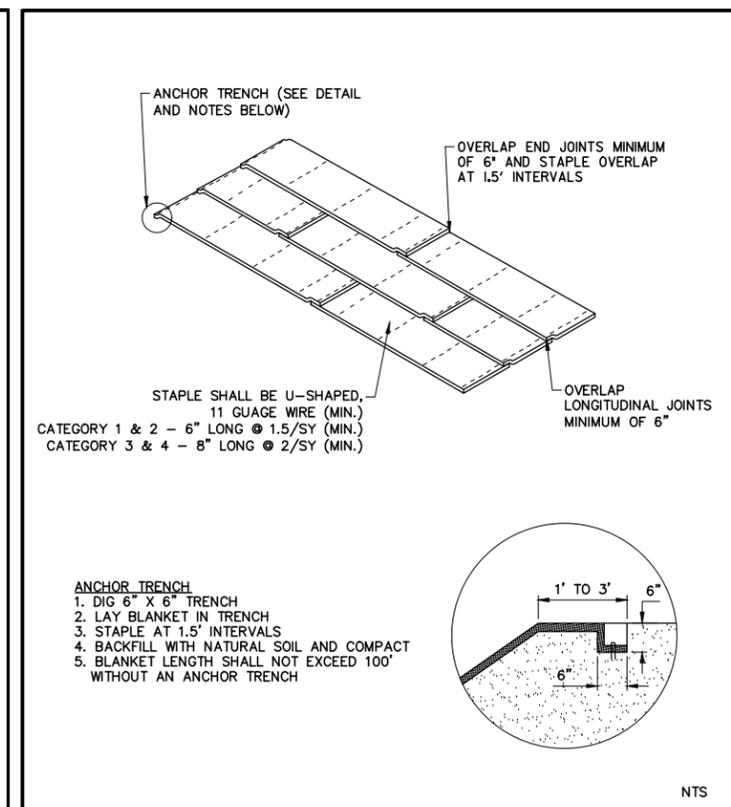
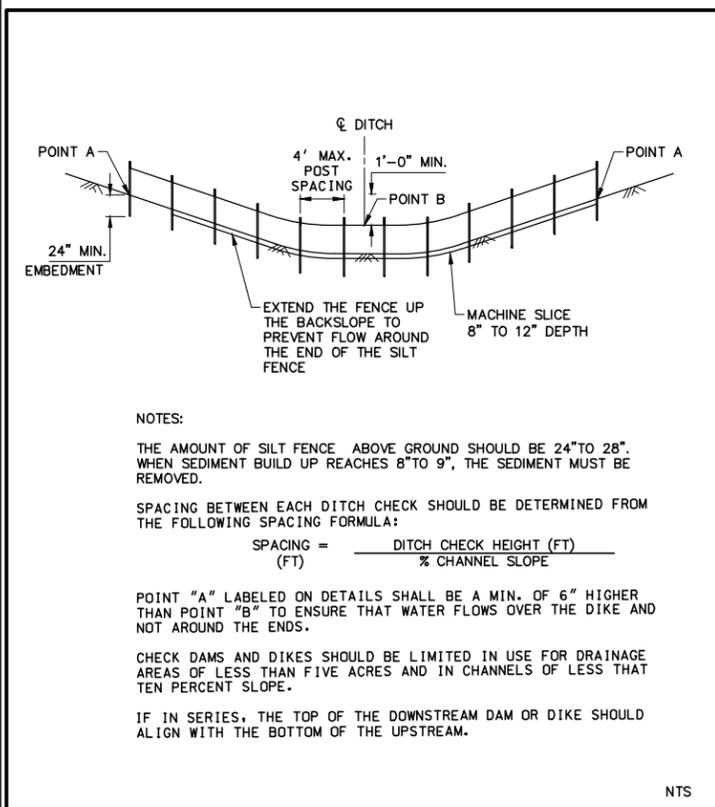
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Revised: Oct. 2011

SEH Plate No. ERO-07

BIOROLL STAKING

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Revised: Oct. 2011

SEH Plate No. ERO-08

SILT FENCE DITCH CHECK

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Revised: Oct. 2011

SEH Plate No. ERO-11

EROSION CONTROL BLANKET INSTALLATION

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Revised: Oct. 2011

SEH Plate No. ERO-12

BLANKET STAPLING PATTERN (PLATE 1 OF 2)

NTS

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Revised: Oct. 2011

SEH Plate No. ERO-12

BLANKET STAPLING PATTERN (PLATE 2 OF 2)

NTS

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DESIGNER:	RVH
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DESIGN TEAM	

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Date: 03/09/2016

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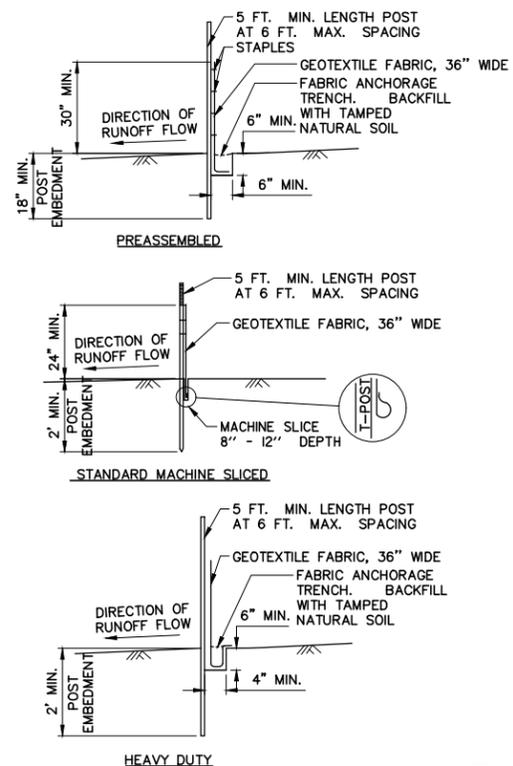
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2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA

DETAILS

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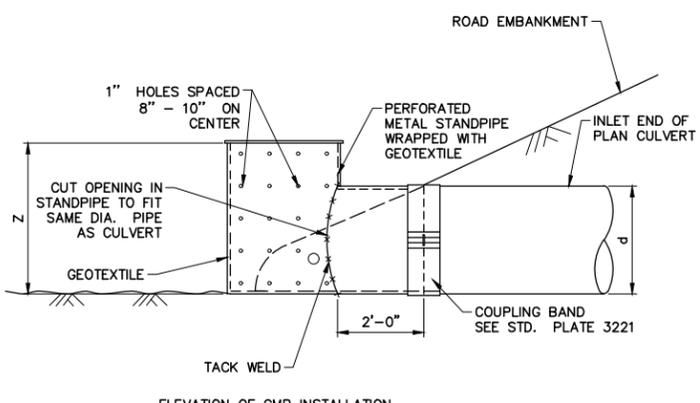
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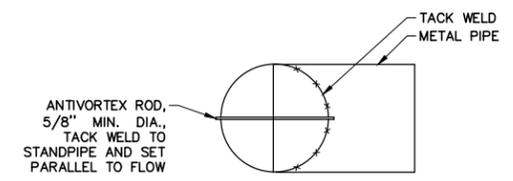
DESIGN GUIDELINES:  
(SEE MNDOT SPEC.  
2573.3C AND 3886)

HEAVY DUTY

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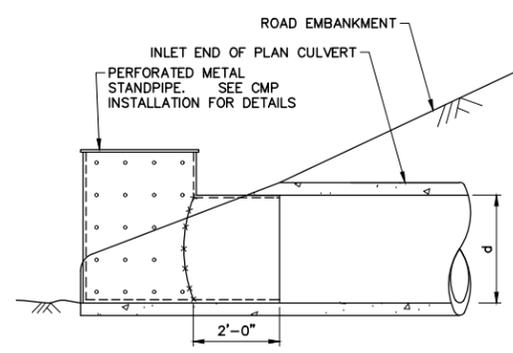
ELEVATION OF CMP INSTALLATION



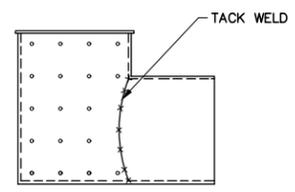
PLAN VIEW

d = DIA. OF STANDPIPE EQUAL TO DIA. OF PLAN CULVERT  
Z = LENGTH OF PERFORATED STANDPIPE (d + 12")

NTS



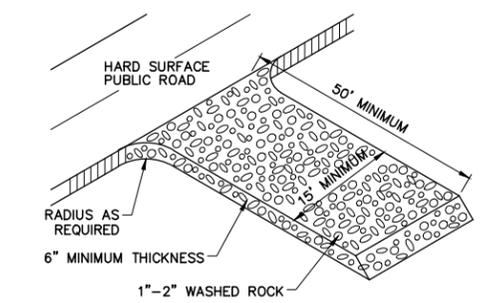
ELEVATION OF RCP INSTALLATION



CULVERT STANDPIPE

d = DIA. OF STANDPIPE EQUAL TO DIA. OF PLAN CULVERT  
Z = LENGTH OF PERFORATED STANDPIPE (d + 12")

NTS



NOTE:  
TO PREVENT TRACKING OF MUD ONTO  
PAVED ROADS, INSTALL ADDITIONAL  
ROCK OR REMOVE AND REPLACE THE PAD  
AS REQUIRED

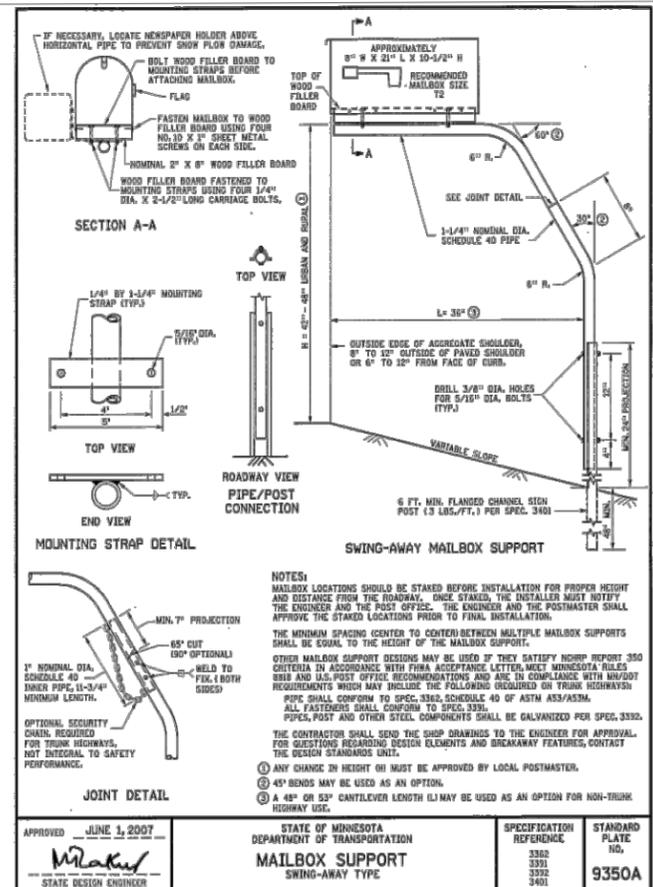
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SEH logo | **SILT FENCE** | Revised: Jan. 2013 | SEH Plate No. ERO-15

SEH logo | **CULVERT PROTECTION (PLATE 1 OF 2)** | Revised: Oct. 2011 | SEH Plate No. ERO-17

SEH logo | **CULVERT PROTECTION (PLATE 2 OF 2)** | Revised: Oct. 2011 | SEH Plate No. ERO-17

SEH logo | **ROCK CONSTRUCTION ENTRANCE** | Revised: Oct. 2011 | SEH Plate No. ERO-35



NOTES:  
MAILBOX LOCATIONS SHOULD BE STAKED BEFORE INSTALLATION FOR PROPER HEIGHT AND DISTANCE FROM THE ROADWAY. ONCE STAKED, THE INSTALLER MUST NOTIFY THE OWNER AND THE POST OFFICE. THE ENGINEER AND THE POSTMASTER SHALL APPROVE THE STAKED LOCATIONS PRIOR TO FINAL INSTALLATION.  
THE MINIMUM SPACING CENTER TO CENTER BETWEEN MULTIPLE MAILBOX SUPPORTS SHALL BE EQUAL TO THE HEIGHT OF THE MAILBOX SUPPORT.  
OTHER MAILBOX SUPPORT DESIGNS MAY BE USED IF THEY SATISFY NCHRP REPORT 350 CRITERIA IN ACCORDANCE WITH FHWA ACCEPTANCE LETTER, MEET MINNESOTA RULES 88B AND 8A.5, POST OFFICE RECOMMENDATIONS AND ARE IN COMPLIANCE WITH HANDBOOK REQUIREMENTS WHICH MAY INCLUDE THE FOLLOWING (REGULATED OR TRUNK HIGHWAYS):  
PIPE SHALL CONFORM TO SPEC. 3362, SCHEDULE 40 OF ASTM A53/A58A.  
ALL FASTENERS SHALL CONFORM TO SPEC. 3361.  
PIPES, POST AND OTHER STEEL COMPONENTS SHALL BE GALVANIZED PER SPEC. 3362.  
THE CONTRACTOR SHALL SEND THE SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL. FOR QUESTIONS REGARDING DESIGN ELEMENTS AND BREAKAWAY FEATURES, CONTACT THE DESIGN STANDARDS UNIT.  
① ANY CHANGE IN HEIGHT OR MUST BE APPROVED BY LOCAL POSTMASTER.  
② 45° BENDS MAY BE USED AS AN OPTION.  
③ A 48" OR 53" CANTILEVER LENGTH (L) MAY BE USED AS AN OPTION FOR NON-TRUNK HIGHWAY USE.

APPROVED: JUNE 1, 2007 | STATE DESIGN ENGINEER | STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION | MAILBOX SUPPORT SWING-AWAY TYPE | SPECIFICATION REFERENCE: 3362, 3361, 3362, 3401 | STANDARD PLATE NO. 9350A

DRAWN BY: BDY  
DESIGNER: RVH  
CHECKED BY: SDH  
DESIGN TEAM

NO.	BY	DATE	REVISIONS

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SCOTT D. HEDLUND, PE  
Date: 03/09/2016 Lic. No. 40686

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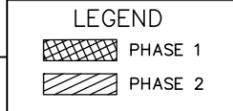
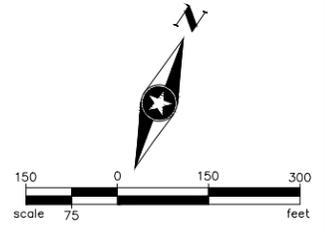
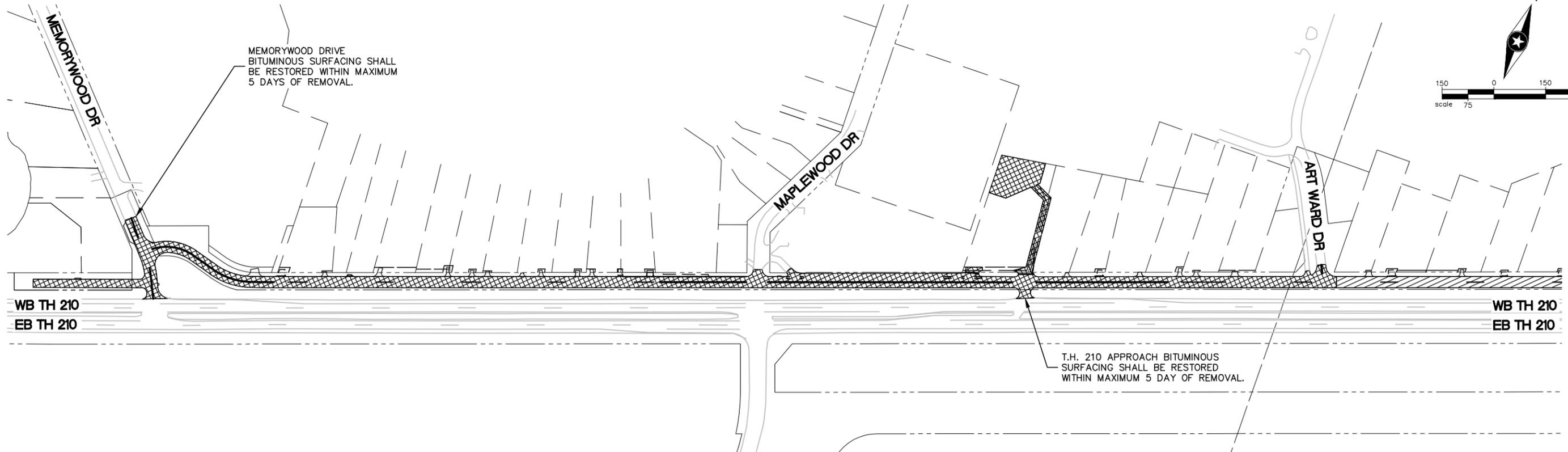
2016 FAIRVIEW ROAD IMPROVEMENTS BAXTER, MINNESOTA

DETAILS

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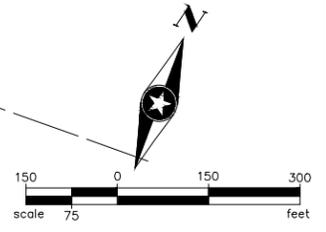
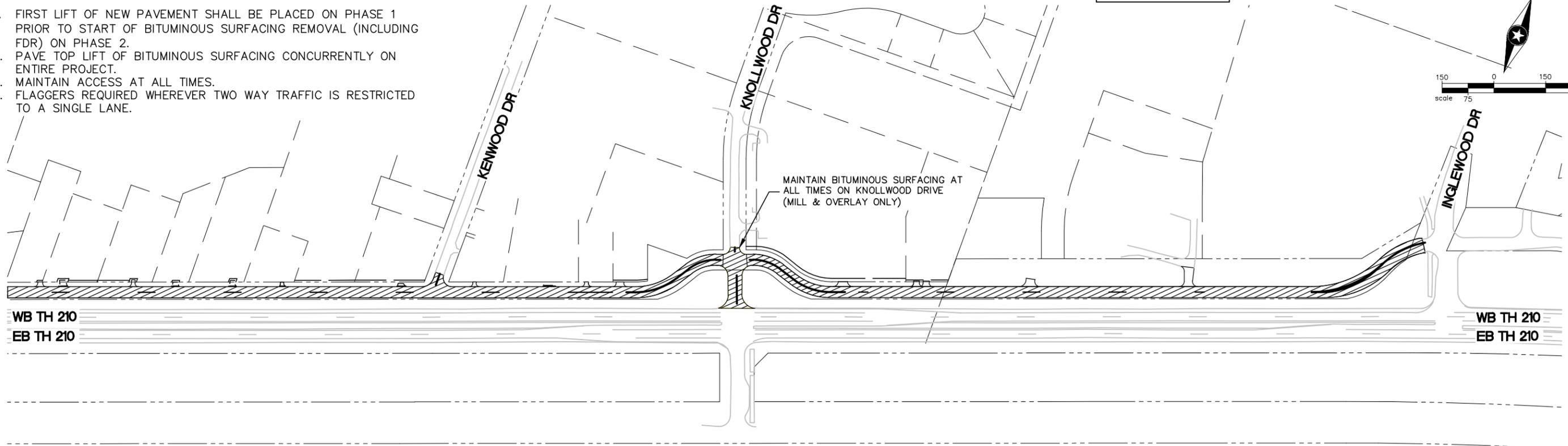
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**STAGING NOTES:**

1. FIRST LIFT OF NEW PAVEMENT SHALL BE PLACED ON PHASE 1 PRIOR TO START OF BITUMINOUS SURFACING REMOVAL (INCLUDING FDR) ON PHASE 2.
2. PAVE TOP LIFT OF BITUMINOUS SURFACING CONCURRENTLY ON ENTIRE PROJECT.
3. MAINTAIN ACCESS AT ALL TIMES.
4. FLAGGERS REQUIRED WHEREVER TWO WAY TRAFFIC IS RESTRICTED TO A SINGLE LANE.



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DESIGNER:	RVH
CHECKED BY:	SDH
DESIGN TEAM	

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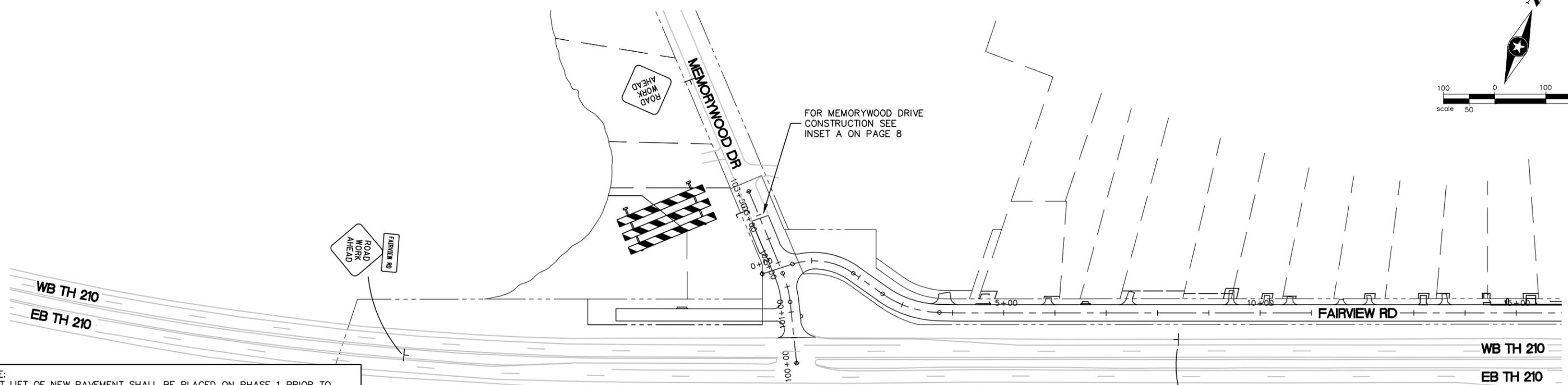
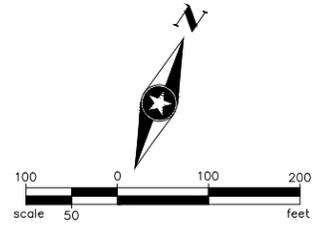


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**2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA**

**TRAFFIC CONTROL PHASING**

FILE NO.  
BAXTE133676



NOTE:  
FIRST LIFT OF NEW PAVEMENT SHALL BE PLACED ON PHASE 1 PRIOR TO START OF BITUMINOUS SURFACING REMOVALS (INCLUDING FDR) ON PHASE 2.

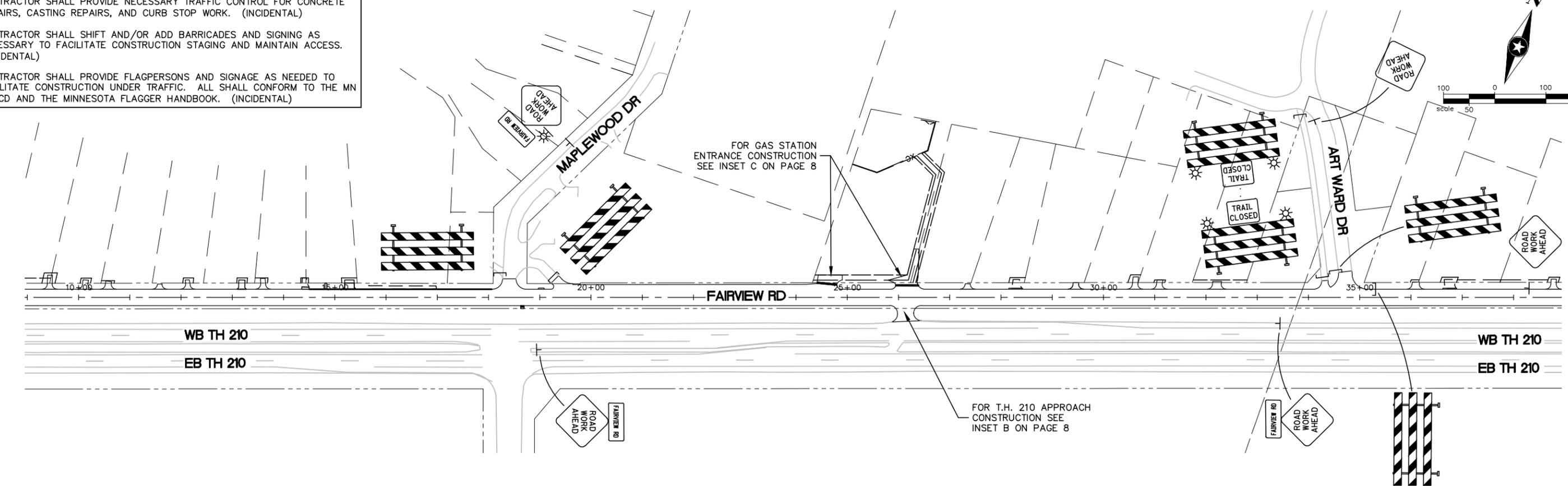
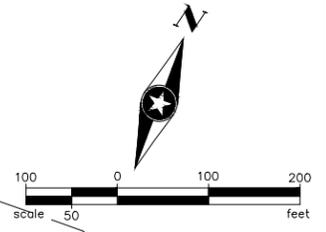
ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

TRAFFIC CONTROL DEVICES SHOWN ARE APPROXIMATE AND FOR INFORMATION ONLY. ADDITIONAL ITEMS MAY BE REQUIRED TO PROPERLY FACILITATE TRAFFIC FLOW. (INCIDENTAL)

CONTRACTOR SHALL PROVIDE NECESSARY TRAFFIC CONTROL FOR CONCRETE REPAIRS, CASTING REPAIRS, AND CURB STOP WORK. (INCIDENTAL)

CONTRACTOR SHALL SHIFT AND/OR ADD BARRICADES AND SIGNING AS NECESSARY TO FACILITATE CONSTRUCTION STAGING AND MAINTAIN ACCESS. (INCIDENTAL)

CONTRACTOR SHALL PROVIDE FLAGPERSONS AND SIGNAGE AS NEEDED TO FACILITATE CONSTRUCTION UNDER TRAFFIC. ALL SHALL CONFORM TO THE MN MUTCD AND THE MINNESOTA FLAGGER HANDBOOK. (INCIDENTAL)



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DESIGNER: RVH  
CHECKED BY: SDH

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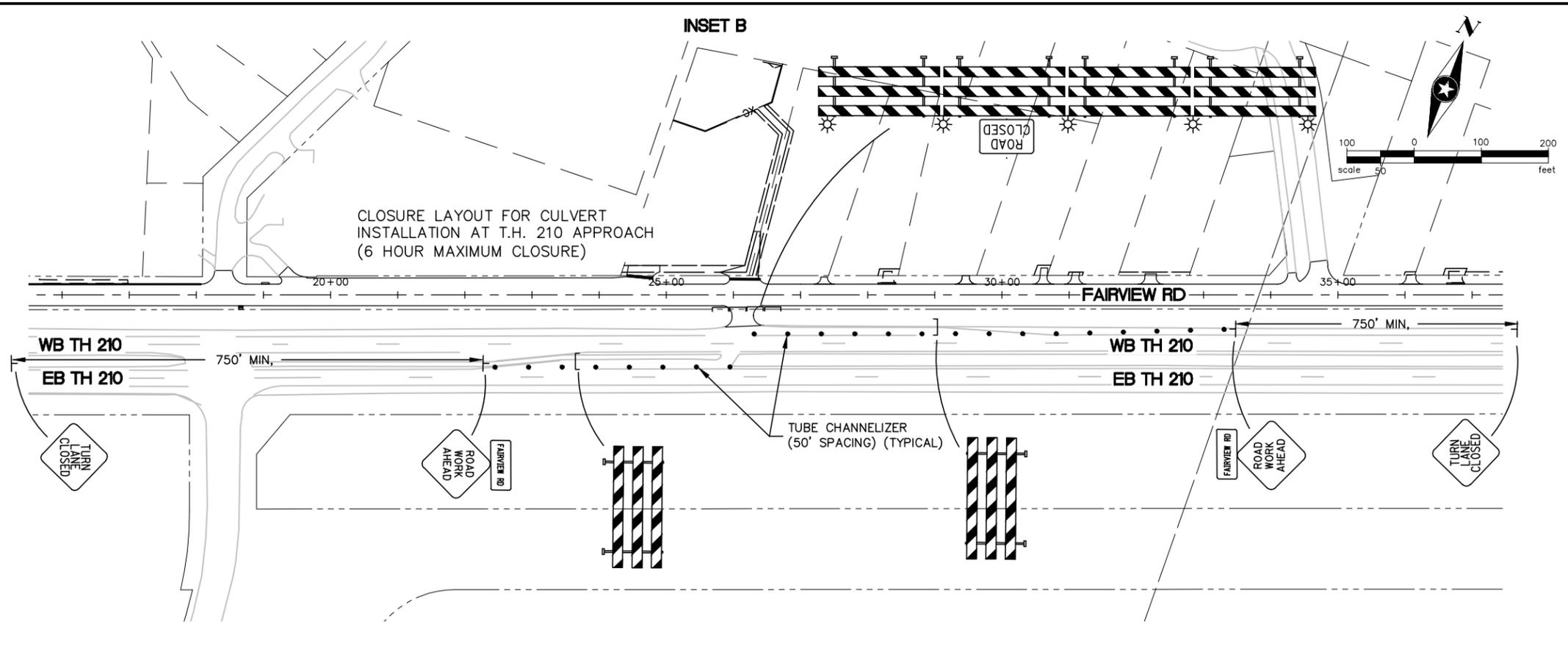
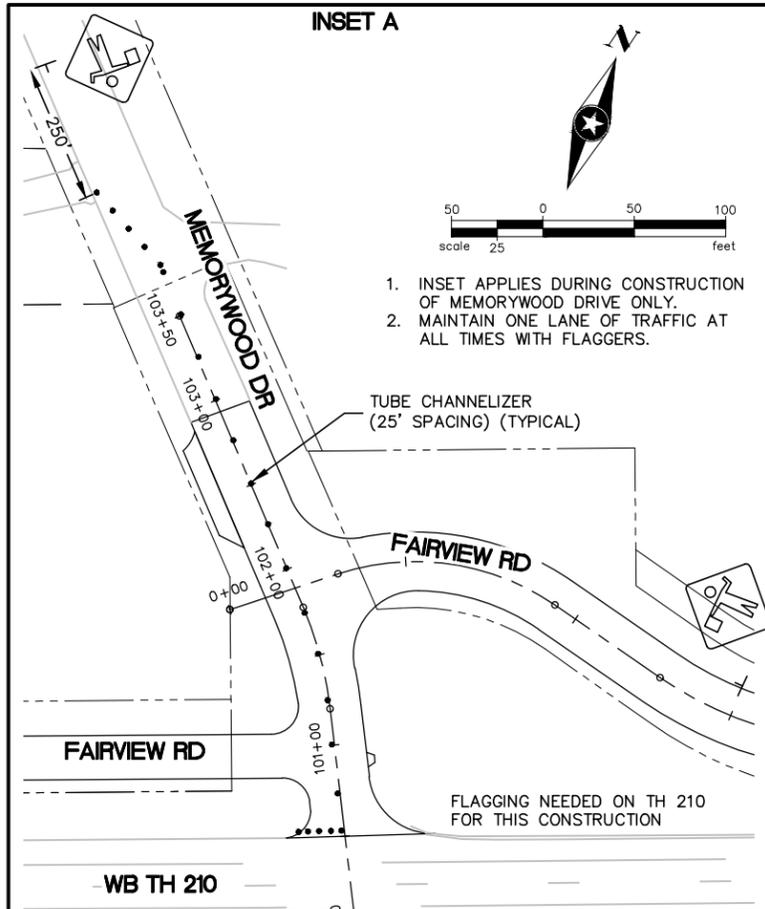
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**2016 FAIRVIEW ROAD IMPROVEMENTS BAXTER, MINNESOTA**

**TRAFFIC CONTROL PLAN PHASE 1**

FILE NO.  
BAXTE133676

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NOTE:  
FIRST LIFT OF NEW PAVEMENT SHALL BE PLACED ON PHASE 1 PRIOR TO START OF BITUMINOUS SURFACING REMOVALS (INCLUDING FDR) ON PHASE 2.

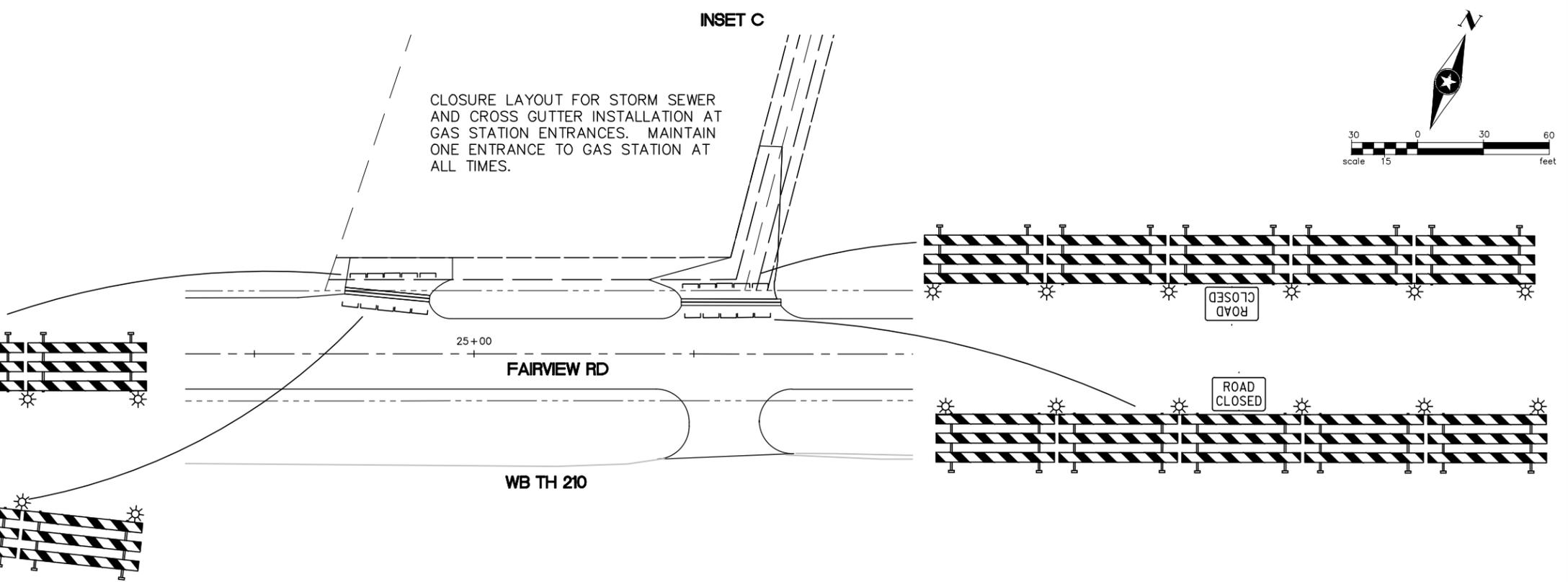
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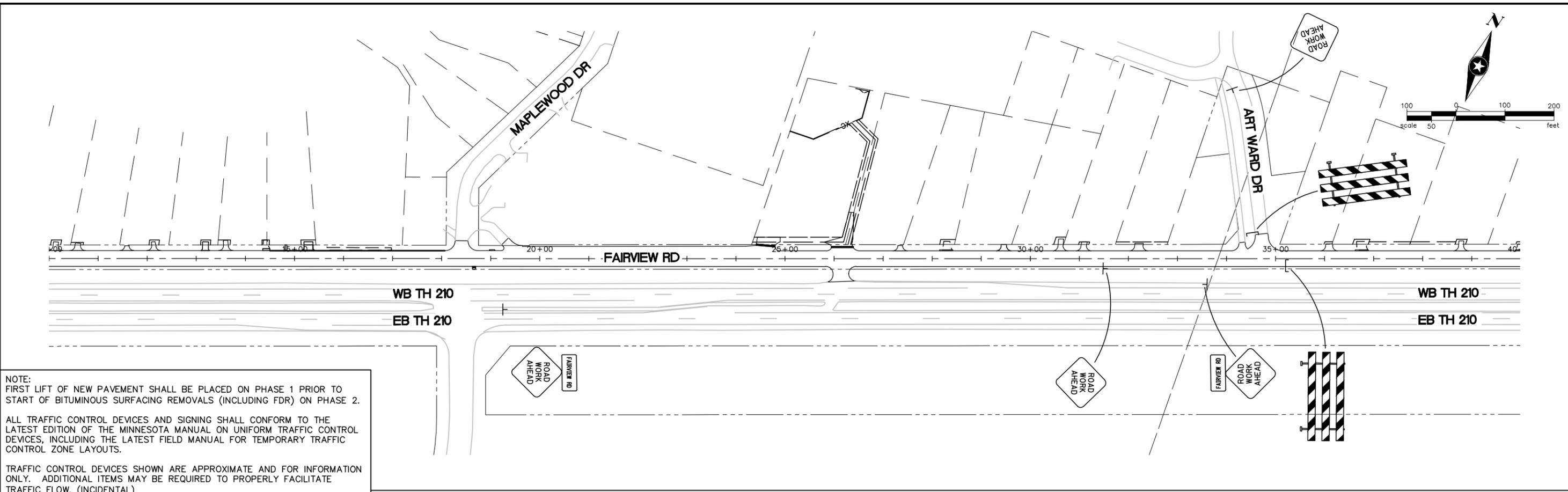
TRAFFIC CONTROL PLAN  
PHASE 1

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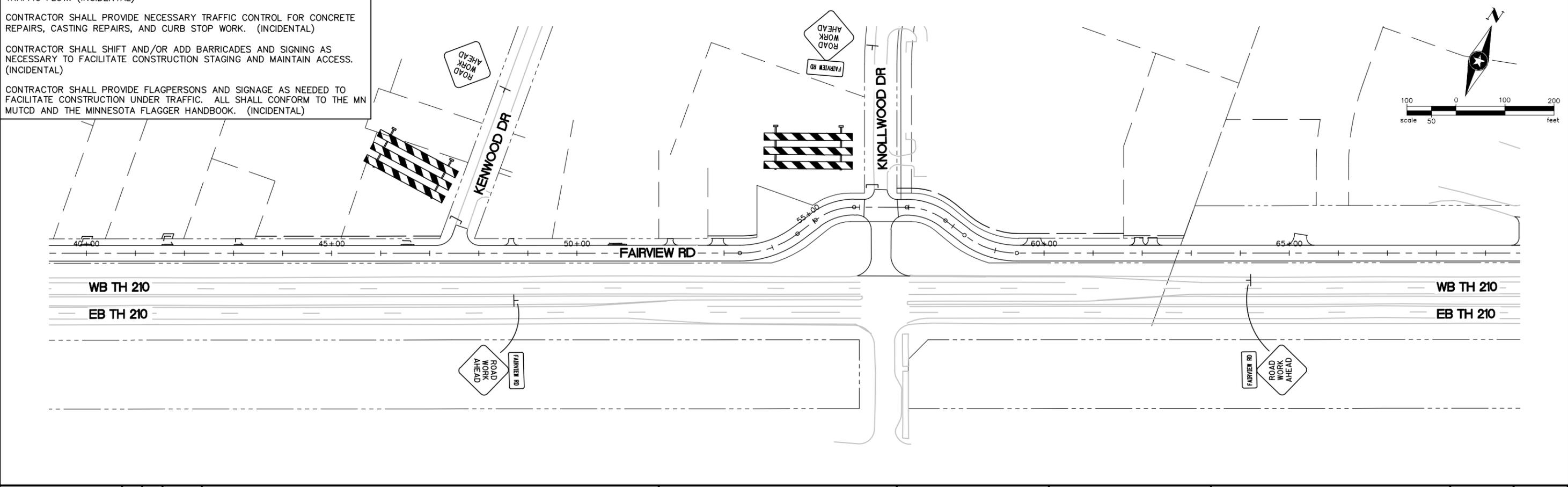
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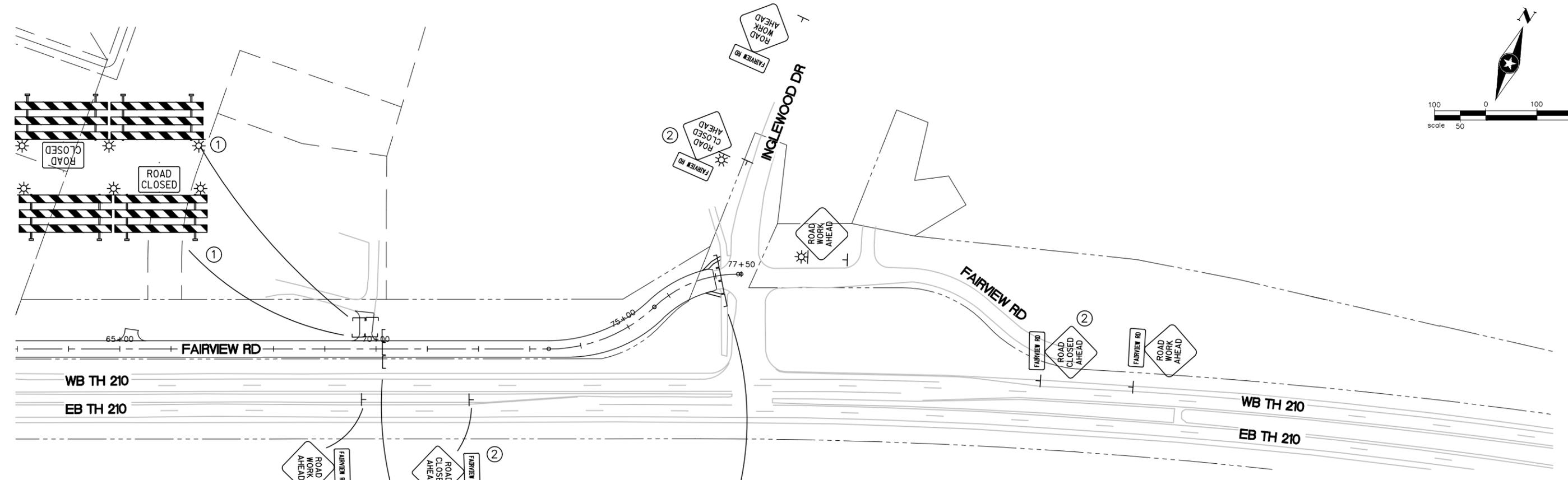
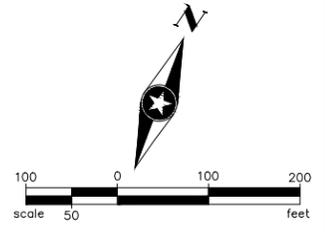
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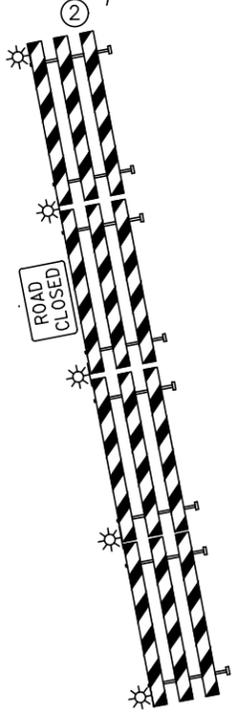
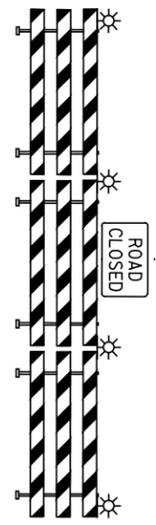
2016 FAIRVIEW ROAD IMPROVEMENTS  
BAXTER, MINNESOTA

TRAFFIC CONTROL PLAN  
PHASE 2

FILE NO. BAXTE133676  
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- ① CLOSURE LAYOUT FOR CULVERT INSTALLATION AT LAKEWOOD CHURCH ENTRANCE (6 HOUR MAXIMUM CLOSURE)
- ② CLOSURE LAYOUT FOR CULVERT INSTALLATION FROM EAST OF LAKEWOOD CHURCH ENTRANCE TO INGLEWOOD DRIVE (DAYTIME CLOSURE ONLY WITH A MAXIMUM 3 DAY DURATION)



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ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

TRAFFIC CONTROL DEVICES SHOWN ARE APPROXIMATE AND FOR INFORMATION ONLY. ADDITIONAL ITEMS MAY BE REQUIRED TO PROPERLY FACILITATE TRAFFIC FLOW. (INCIDENTAL)

CONTRACTOR SHALL PROVIDE NECESSARY TRAFFIC CONTROL FOR CONCRETE REPAIRS, CASTING REPAIRS, AND CURB STOP WORK. (INCIDENTAL)

CONTRACTOR SHALL SHIFT AND/OR ADD BARRICADES AND SIGNAGE AS NECESSARY TO FACILITATE CONSTRUCTION STAGING AND MAINTAIN ACCESS. (INCIDENTAL)

CONTRACTOR SHALL PROVIDE FLAGPERSONS AND SIGNAGE AS NEEDED TO FACILITATE CONSTRUCTION UNDER TRAFFIC. ALL SHALL CONFORM TO THE MN MUTCD AND THE MINNESOTA FLAGGER HANDBOOK. (INCIDENTAL)

DRAWN BY: BDY  
 DESIGNER: RVH  
 CHECKED BY: SDH

DESIGN TEAM	NO.	BY	DATE	REVISIONS

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.

SCOTT D. HEDLUND, PE  
 Date: 03/09/2016 Lic. No. 40686



2016 FAIRVIEW ROAD IMPROVEMENTS  
 BAXTER, MINNESOTA

TRAFFIC CONTROL PLAN  
 PHASE 2

FILE NO.  
 BAXTE133676

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LAWRENCE LEROY LEE TRUST  
5418 FAIRVIEW RD

TOAR PROPERTIES LLC  
5428 + 5428 FAIRVIEW RD

ALBERTO + LOS KLGOPE  
13253 MAPLEWOOD RD

IND SCHOOL DIST #181  
5546 FAIRVIEW RD

CTB ENTERPRISES  
5632 FAIRVIEW RD

CTB ENTERPRISES  
5610 FAIRVIEW RD

JOSHUA MILES  
5648 FAIRVIEW RD

IND SCHOOL DIST #181  
5546 FAIRVIEW RD

IND SCHOOL DIST #181  
5546 FAIRVIEW RD

BAXTER ELEMENTARY SCHOOL

SUPER AMERICA  
GAS STATION

SALVAGE & REINSTALL  
SHRUBS, BOULDERS, AND 2"  
LANDSCAPE ROCK - LS

CONSTRUCTION LIMITS  
ADJUST PEDESTAL  
(BY OTHERS)

DO NOT DISTURB TREES  
(TRIM ONLY IF NECESSARY  
AS DIRECTED BY ENGINEER  
IN FIELD - INCIDENTAL)

MOVE GUY WIRE TO 1 FT BEHIND CURB.  
INSTALL HAZARD DELINEATOR SIGN SPECIAL.

ADJUST VALVE BOX

CLEAR & GRUB  
TREE (BY ACRE)

CLEAR & GRUB  
TREE (BY ACRE)

CLEAR & GRUB  
TREE (BY ACRE)

NOTE:  
ALL CLEARING & GRUBBING, TREE &  
SHRUB TRIMMING, AND ANY  
TRANSPLANTING SHALL BE MARKED  
AND VERIFIED BY ENGINEER IN FIELD.

WB TH 210

FAIRVIEW ROAD

WB TH 210

FAIRVIEW ROAD

WB TH 210

- X CLEAR & GRUB TREE
- REMOVE CURB & GUTTER
- ▨ REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- ① SALVAGE SIGN
- ② RELOCATE/ADJUST POWER POLE GUY WIRE (BY OTHERS)
- ③ ADJUST POWER POLE (BY OTHERS)
- ④ SALVAGE MAILBOX & REINSTALL ON NEW SWING AWAY MAILBOX SUPPORT
- ⑤ SALVAGE & REINSTALL 911 SIGN
- ⑥ SALVAGE & INSTALL MAILBOX

DRAWN BY:	BDY			
DESIGNER:	RVH			
CHECKED BY:	SDH			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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SCOTT D. HEDLUND, PE  
Date: 03/09/2016 Lic. No. 40686

SEH  
PHONE: 320.229.4300  
1200 25TH AVENUE SOUTH  
P.O. BOX 1717  
ST. CLOUD, MN 56302-1717  
www.sehinc.com

2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA

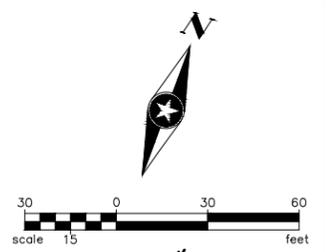
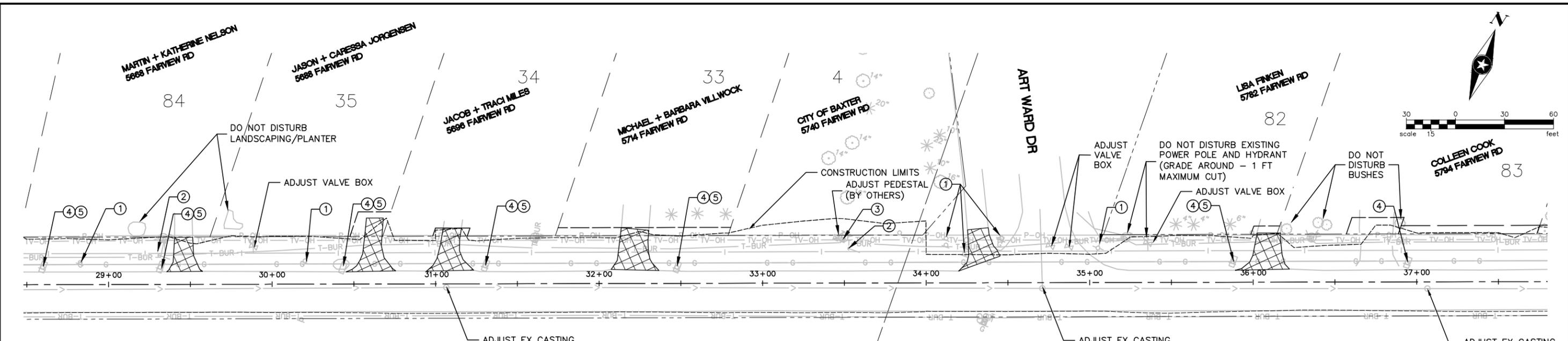
REMOVAL PLAN

FILE NO.  
BAXTE133676

12  
76

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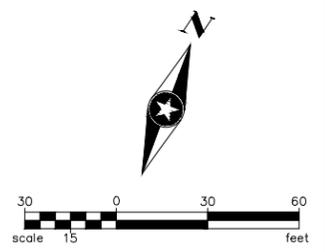
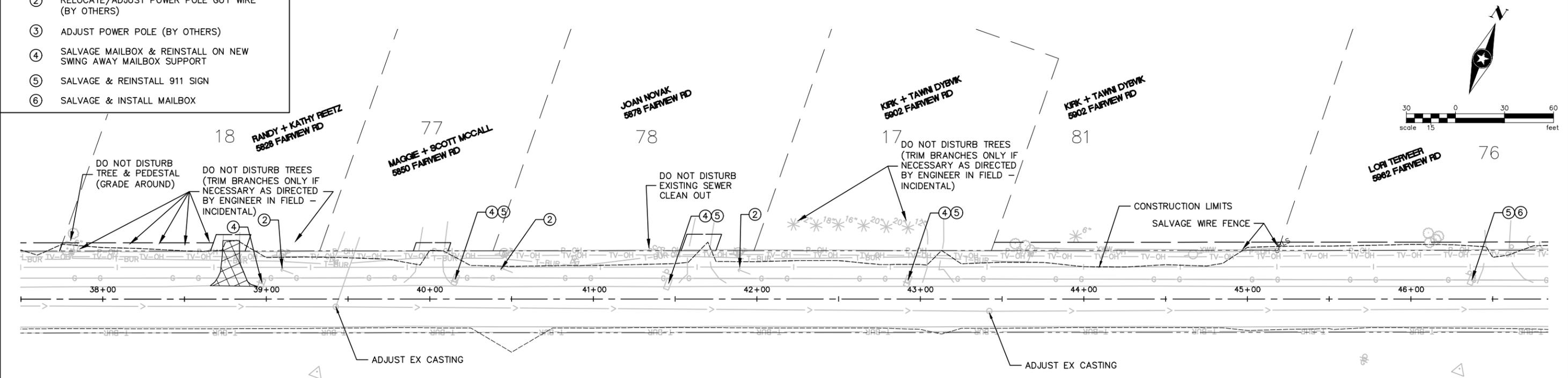


- NOTE:  
ALL CLEARING & GRUBBING, TREE & SHRUB TRIMMING, AND ANY TRANSPLANTING SHALL BE MARKED AND VERIFIED BY ENGINEER IN FIELD.
- X** CLEAR & GRUB TREE
  - REMOVE CURB & GUTTER
  - ▨** REMOVE BITUMINOUS DRIVEWAY PAVEMENT
  - REMOVE CONCRETE DRIVEWAY PAVEMENT
  - ① SALVAGE SIGN
  - ② RELOCATE/ADJUST POWER POLE GUY WIRE (BY OTHERS)
  - ③ ADJUST POWER POLE (BY OTHERS)
  - ④ SALVAGE MAILBOX & REINSTALL ON NEW SWING AWAY MAILBOX SUPPORT
  - ⑤ SALVAGE & REINSTALL 911 SIGN
  - ⑥ SALVAGE & INSTALL MAILBOX

WB TH 210

WB TH 210

# FAIRVIEW ROAD



WB TH 210

WB TH 210

# FAIRVIEW ROAD

DRAWN BY:	BDY			
DESIGNER:	RVH			
CHECKED BY:	SDH			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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Date: 03/09/2016  
SCOTT D. HEDLUND, PE  
Lic. No. 40686



2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA

REMOVAL PLAN

FILE NO.  
BAXTE133676

13  
76

LOUI TERVEER  
5962 FAIRVIEW RD

76

CARLOS MAYORAL  
6000 FAIRVIEW RD

72

TOPI SCHINDLER  
6036 FAIRVIEW RD

101

DAVID SCHONROCK  
6056 FAIRVIEW RD

71

NICHOLAS + LISA MILLER  
6072 FAIRVIEW RD

70

MICHAEL NELSON-DORAN

74

DO NOT DISTURB TREES  
(TRIM BRANCHES ONLY IF  
NECESSARY AS DIRECTED  
BY ENGINEER IN FIELD -  
INCIDENTAL)

KENWOOD DR

SALVAGE LANDSCAPING  
& DELIVER TO PROPERTY  
OWNER

ADJUST  
PEDESTALS  
(BY OTHERS)

DO NOT DISTURB  
EXISTING TREES

CONSTRUCTION LIMITS

DO NOT DISTURB  
EXISTING TREES

DO NOT DISTURB  
EXISTING LIGHT

DO NOT DISTURB  
METAL FENCE

DO NOT DISTURB  
EXISTING LIGHTS

ADJUST PEDESTAL  
(BY OTHERS)

SALVAGE & INSTALL  
EXISTING FENCE

47+00

48+00

49+00

50+00

51+00

52+00

53+00

54+00

55+00

ADJUST EX CASTING

ADJUST EX CASTING

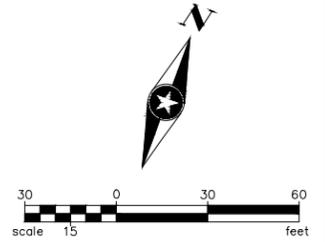
SALVAGE LANDSCAPING AT  
MAILBOX AND DELIVER TO  
PROPERTY OWNER

WB TH 210

- X CLEAR & GRUB TREE
- REMOVE CURB & GUTTER
- ▨ REMOVE BITUMINOUS DRIVEWAY PAVEMENT
- REMOVE CONCRETE DRIVEWAY PAVEMENT
- ① SALVAGE SIGN
- ② RELOCATE/ADJUST POWER POLE GUY WIRE (BY OTHERS)
- ③ ADJUST POWER POLE (BY OTHERS)
- ④ SALVAGE MAILBOX & REINSTALL ON NEW SWING AWAY MAILBOX SUPPORT
- ⑤ SALVAGE & REINSTALL 911 SIGN
- ⑥ SALVAGE & INSTALL MAILBOX

WB TH 210

# FAIRVIEW ROAD



NOTE:  
ALL CLEARING & GRUBBING, TREE &  
SHRUB TRIMMING, AND ANY  
TRANSPLANTING SHALL BE MARKED  
AND VERIFIED BY ENGINEER IN FIELD.

MICHAEL NELSON-DORAN

74

FULL DEPTH RECLAMATION  
ON FAIRVIEW RD

KNOLLWOOD DR

FULL DEPTH RECLAMATION  
ON FAIRVIEW RD

ADJUST PEDESTAL  
(BY OTHERS)

CONSTRUCTION LIMITS

LORD OF LIFE LUTHERAN CHURCH  
690 FAIRVIEW RD

75

DO NOT DISTURB  
ORNAMENTAL TREE

DO NOT DISTURB  
LIGHTED CHURCH  
SIGN AND  
APPURTENANCES

54+00

55+00

56+00

57+00

58+00

59+00

60+00

61+00

62+00

1 1/2" BITUMINOUS MILLING  
ON KNOLLWOOD DR

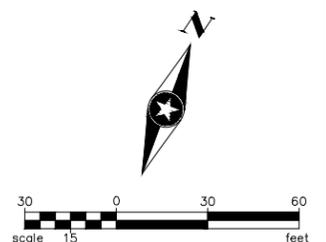
PROTECT CURB  
DURING CONSTRUCTION

ADJUST EX CASTING

WB TH 210

# FAIRVIEW ROAD

WB TH 210



DRAWN BY: BDY  
 DESIGNER: RVH  
 CHECKED BY: SDH

DESIGN TEAM	NO.	BY	DATE	REVISIONS

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DATE: 03/09/2016  
 LIC. NO.: 40686

SEH  
 PHONE: 320.229.4300  
 1200 25TH AVENUE SOUTH  
 P.O. BOX 1717  
 ST. CLOUD, MN 56302-1717  
 www.sehinc.com

2016 FAIRVIEW ROAD  
 IMPROVEMENTS  
 BAXTER, MINNESOTA

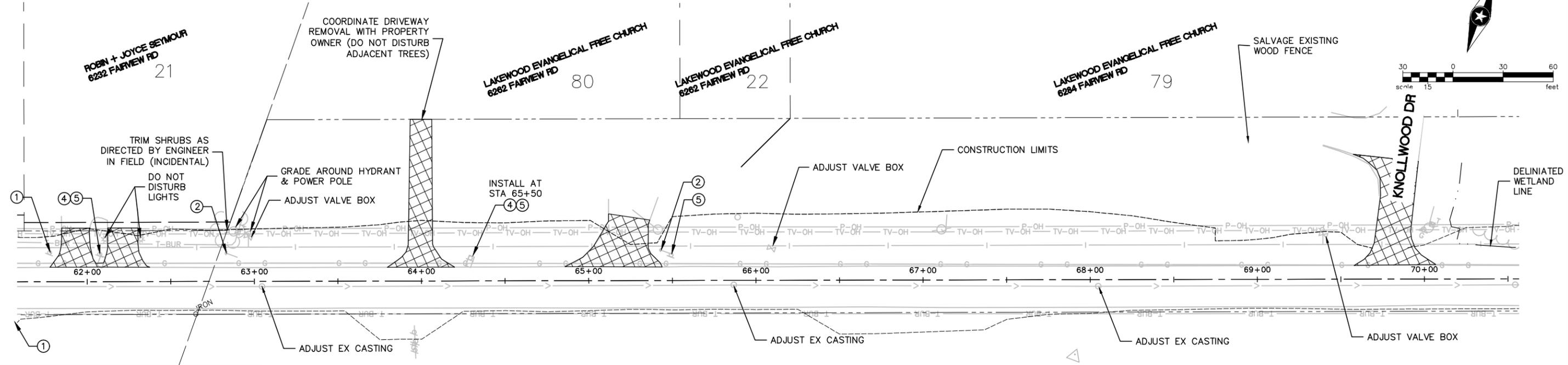
REMOVAL PLAN

FILE NO.  
 BAXTE133676

14  
 76

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- X** CLEAR & GRUB TREE (BY EACH)  
 REMOVE CURB & GUTTER  
 REMOVE BITUMINOUS DRIVEWAY PAVEMENT  
 REMOVE CONCRETE DRIVEWAY PAVEMENT  
 ① SALVAGE SIGN  
 ② RELOCATE/ADJUST POWER POLE GUY WIRE (BY OTHERS)  
 ③ ADJUST POWER POLE (BY OTHERS)  
 ④ SALVAGE MAILBOX & REINSTALL ON NEW SWING AWAY MAILBOX SUPPORT  
 ⑤ SALVAGE & REINSTALL 911 SIGN  
 ⑥ SALVAGE & INSTALL MAILBOX

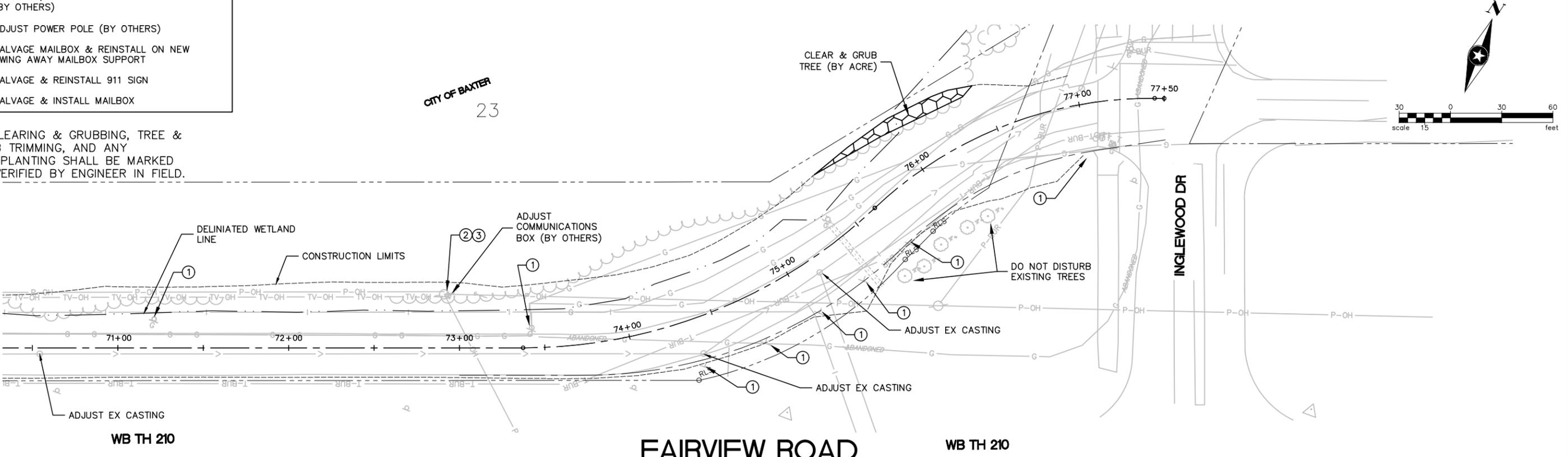
WB TH 210

WB TH 210

# FAIRVIEW ROAD

NOTE:  
 ALL CLEARING & GRUBBING, TREE & SHRUB TRIMMING, AND ANY TRANSPLANTING SHALL BE MARKED AND VERIFIED BY ENGINEER IN FIELD.

CITY OF BAXTER  
 23



WB TH 210

WB TH 210

# FAIRVIEW ROAD

DRAWN BY: BDY  
 DESIGNER: RVH  
 CHECKED BY: SDH

DESIGN TEAM	NO.	BY	DATE	REVISIONS

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 Date: 03/09/2016  
 SCOTT D. HEDLUND, PE  
 Lic. No. 40686



2016 FAIRVIEW ROAD  
 IMPROVEMENTS  
 BAXTER, MINNESOTA

REMOVAL PLAN

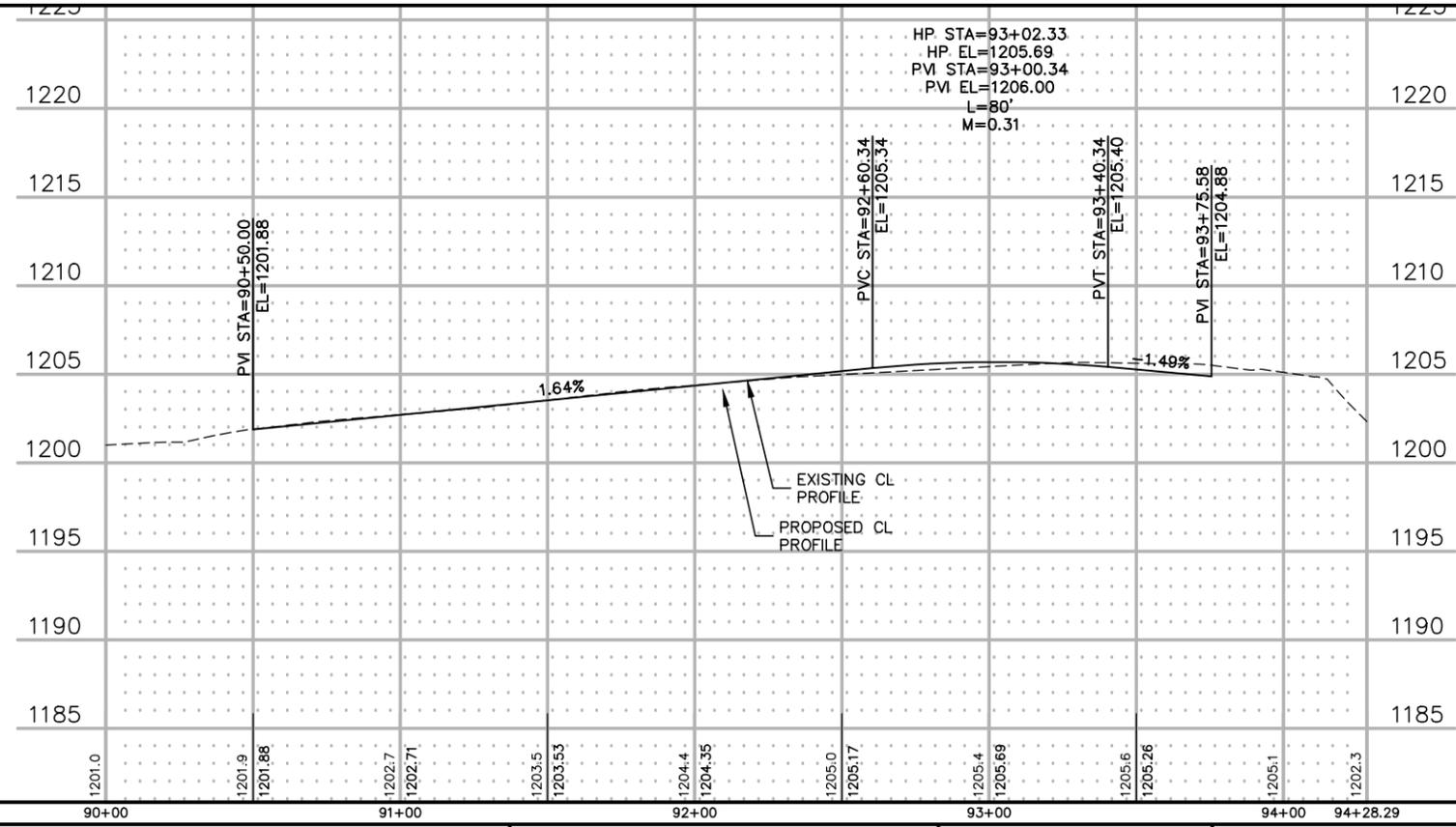
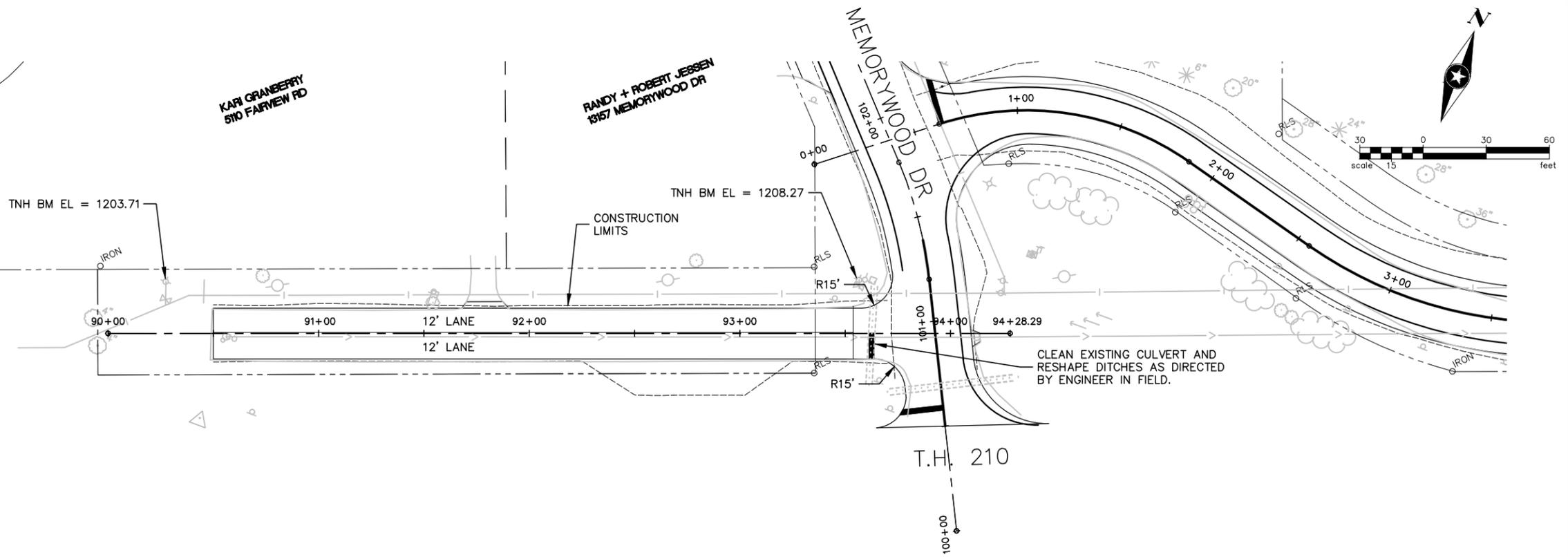
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 76

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TNH BENCHMARK EL. 1203.71  
WEST END FAIRVIEW RD STUB  
1988 DATUM

TNH BENCHMARK EL. 1208.27  
NW QUAD OF FAIRVIEW RD  
STUB AND MEMORYWOOD DR  
1988 DATUM

# FAIRVIEW ROAD (WEST STUB)



DRAWN BY:	BDY
DESIGNER:	RVH
CHECKED BY:	SDH
DESIGN TEAM	

NO.	BY	DATE	REVISIONS

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SCOTT D. HEDLUND, PE  
Date: 03/09/2016 Lic. No. 40686

PHONE: 320.229.4300  
1200 25TH AVENUE SOUTH  
P.O. BOX 1717  
ST. CLOUD, MN 56302-1717  
www.sehinc.com

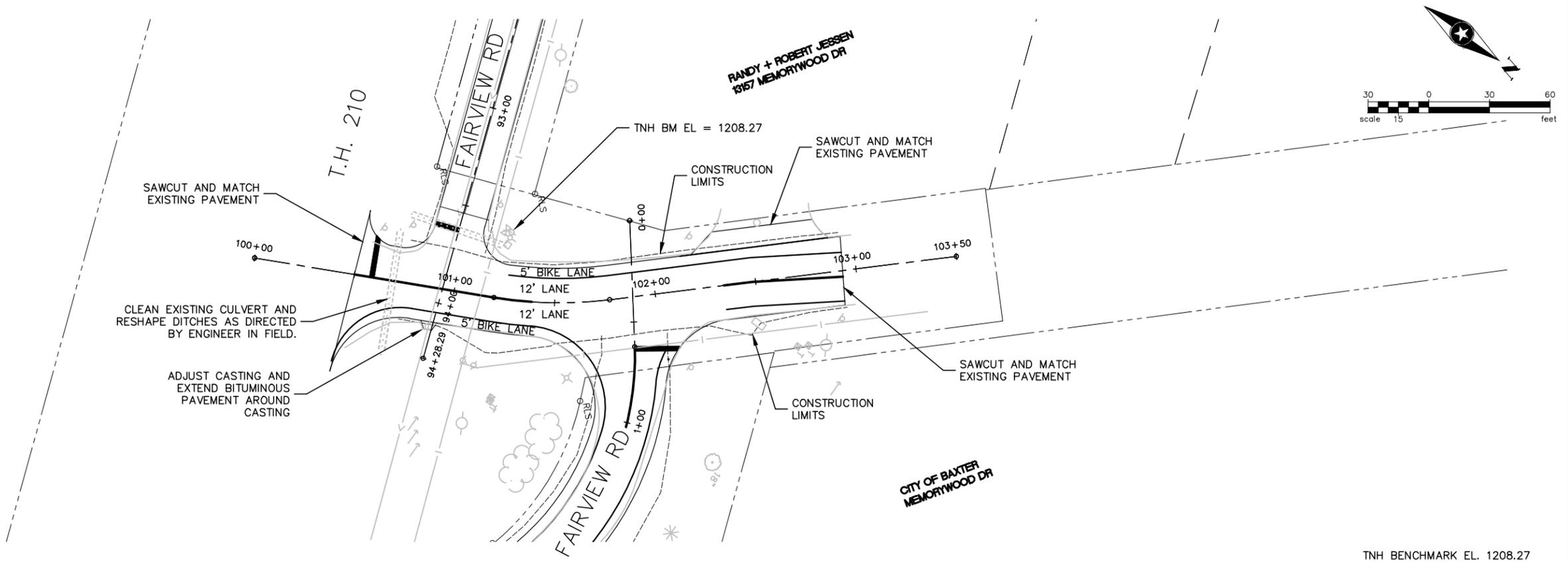
**2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA**

**FDR PLAN AND PROFILE**

FILE NO.  
BAXTE133676

**16**  
**76**

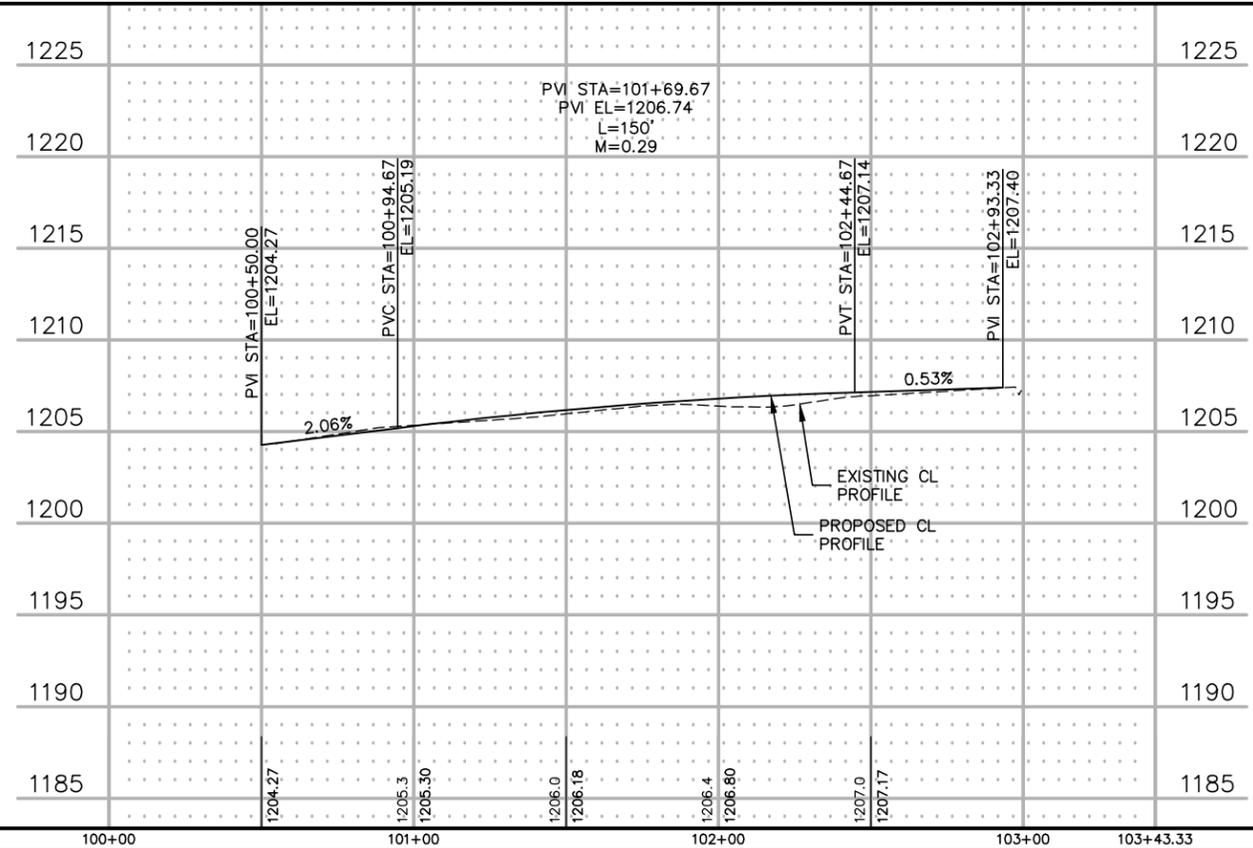
P:\AE\B\BAXTE\133676\5-final-dgn\5-final-dgn\10-Civil\cod\dwg\p\shits\B\133676pp\_MEMORYWOOD.dwg 3/8/2016 6:06 PM byecis



TNH BENCHMARK EL. 1203.71  
WEST END FAIRVIEW RD STUB  
1988 DATUM

TNH BENCHMARK EL. 1208.27  
NW QUAD OF FAIRVIEW RD  
STUB AND MEMORYWOOD DR  
1988 DATUM

# MEMORYWOOD DRIVE



DRAWN BY: BDY  
DESIGNER: RVH  
CHECKED BY: SDH  
DESIGN TEAM

NO.	BY	DATE	REVISIONS

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Date: 03/09/2016 SCOTT D. HEDLUND, PE Lic. No. 40686

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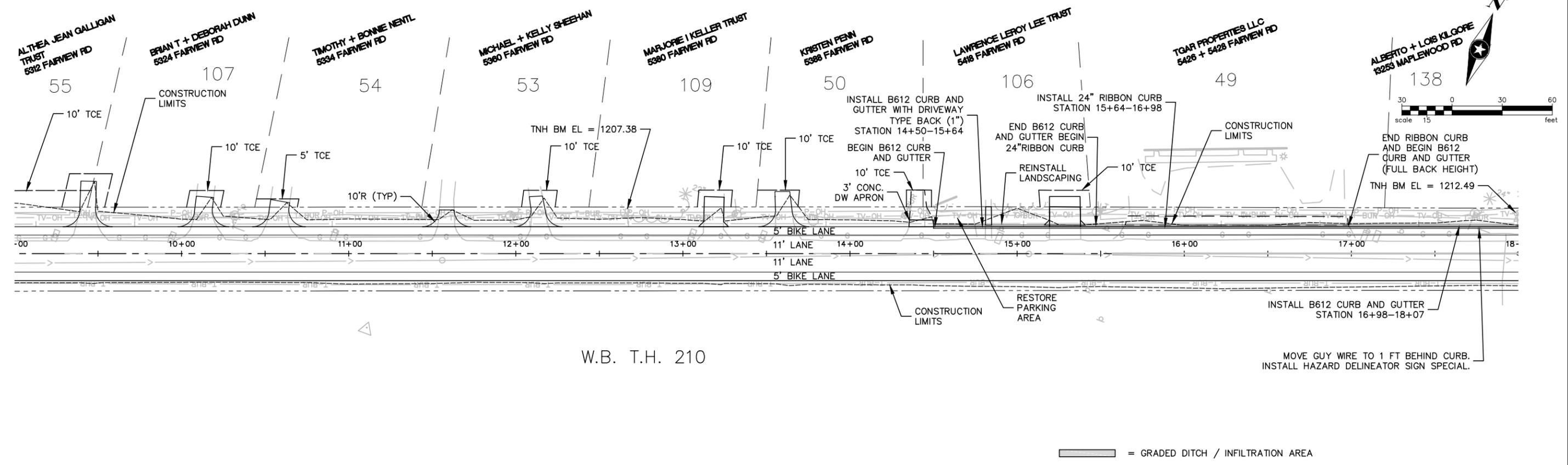
**2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA**

**FDR PLAN AND PROFILE**

FILE NO. **17**  
BAXTE133676  
**76**



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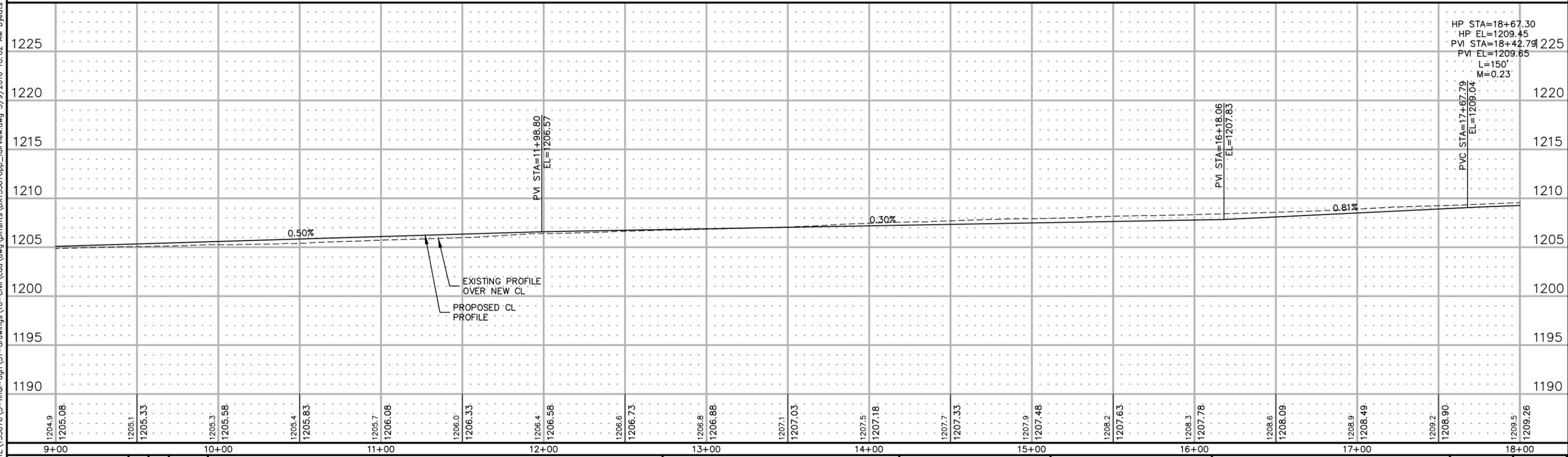
W.B. T.H. 210

▬ = GRADED DITCH / INFILTRATION AREA

TNH BENCHMARK EL. 1207.38  
FAIRVIEW RD STA 12+16, 26'LT  
1988 DATUM

# FAIRVIEW ROAD

TNH BENCHMARK EL. 1212.49  
NW QUAD OF FAIRVIEW RD AND  
MAPLEWOOD DR - 1988 DATUM



DRAWN BY: BDY  
DESIGNER: RVH  
CHECKED BY: SDH

NO.	BY	DATE	REVISIONS

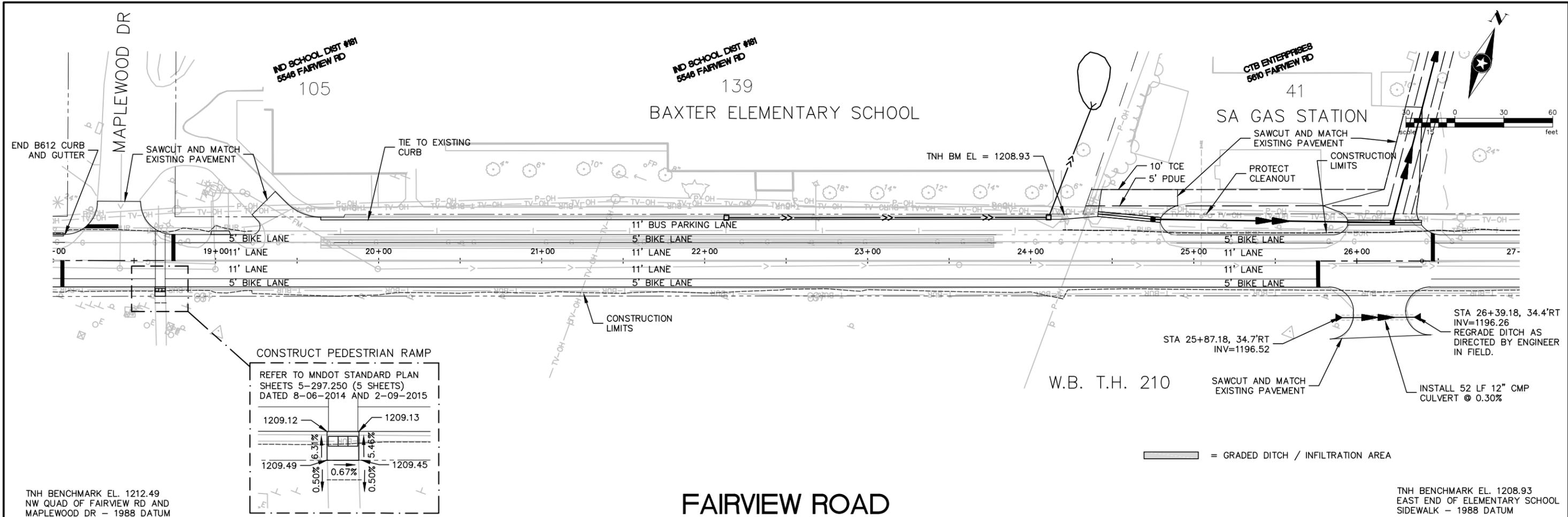
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
Date: 03/09/2016  
SCOTT D. HEDLUND, PE  
Lic. No. 40686



2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA

PLAN AND PROFILE

FILE NO.  
BAXTE133676  
19  
76



DRAWN BY: BDY  
 DESIGNER: RVH  
 CHECKED BY: SDH

NO.	BY	DATE	REVISIONS

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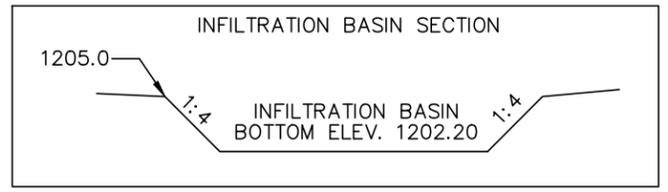
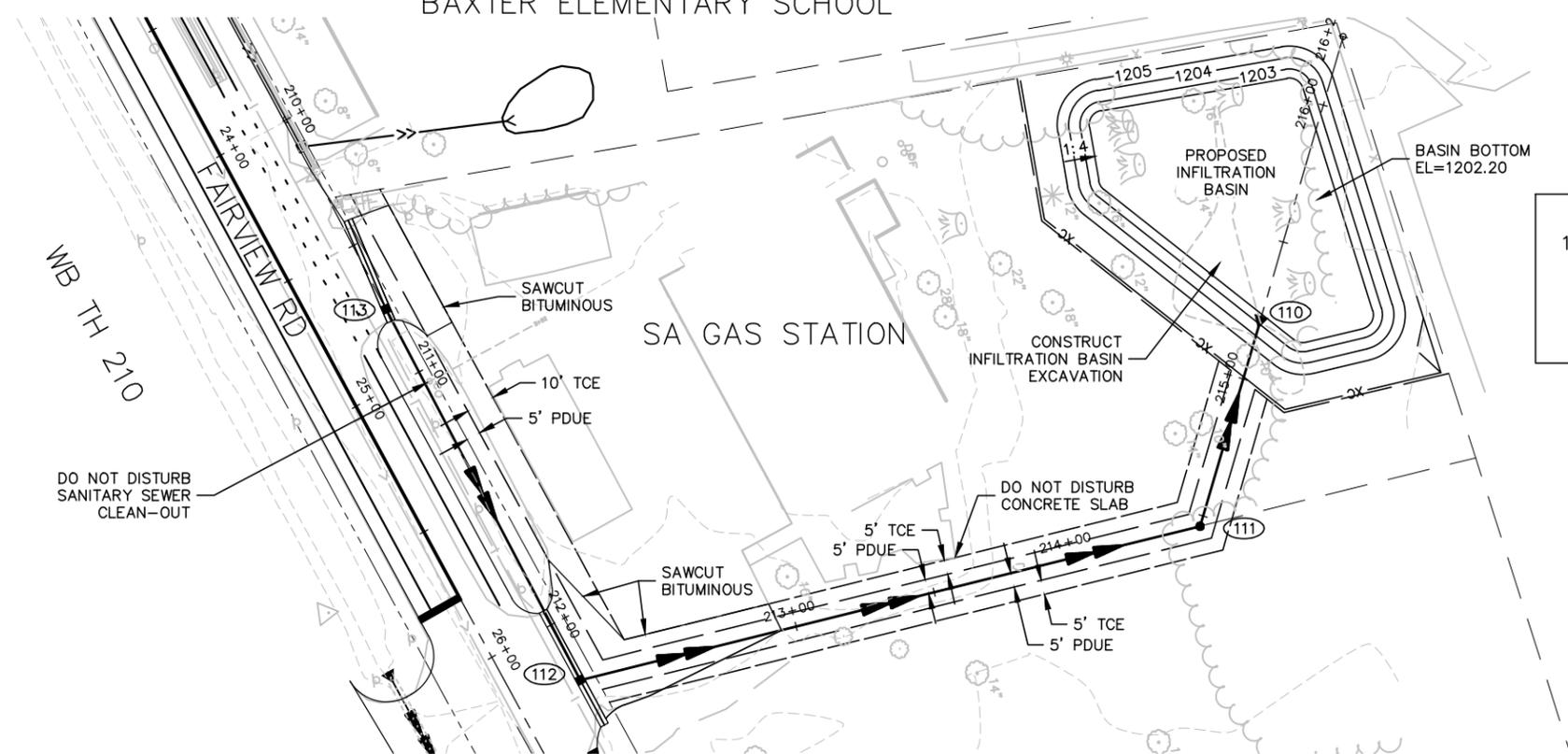
2016 FAIRVIEW ROAD IMPROVEMENTS  
 BAXTER, MINNESOTA

PLAN AND PROFILE

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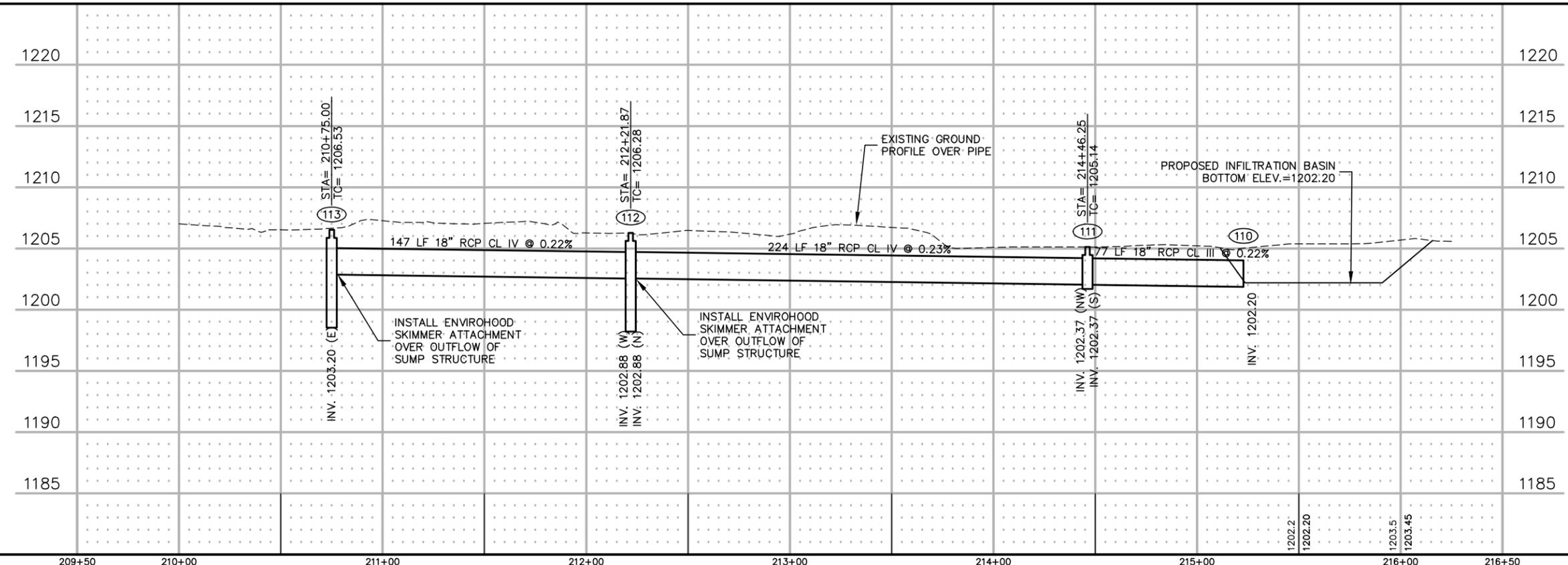
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BAXTER ELEMENTARY SCHOOL



FAIRVIEW ROAD

TNH BENCHMARK EL. 1208.93  
EAST END OF ELEMENTARY SCHOOL  
SIDEWALK - 1988 DATUM



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DRAWN BY: BDY  
DESIGNER: RVH  
CHECKED BY: SDH  
DESIGN TEAM

NO.	BY	DATE	REVISIONS

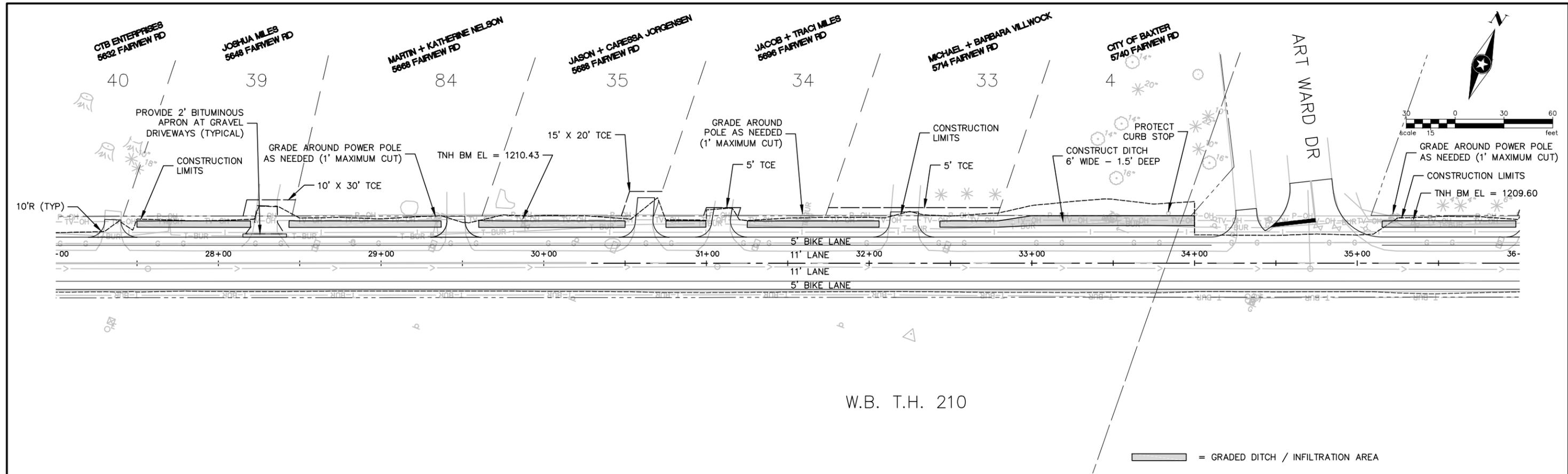
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
Date: 03/09/2016  
SCOTT D. HEDLUND, PE  
Lic. No. 40686



2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA

DRAINAGE PLAN AND PROFILE

FILE NO.  
BAXTE133676  
21  
76



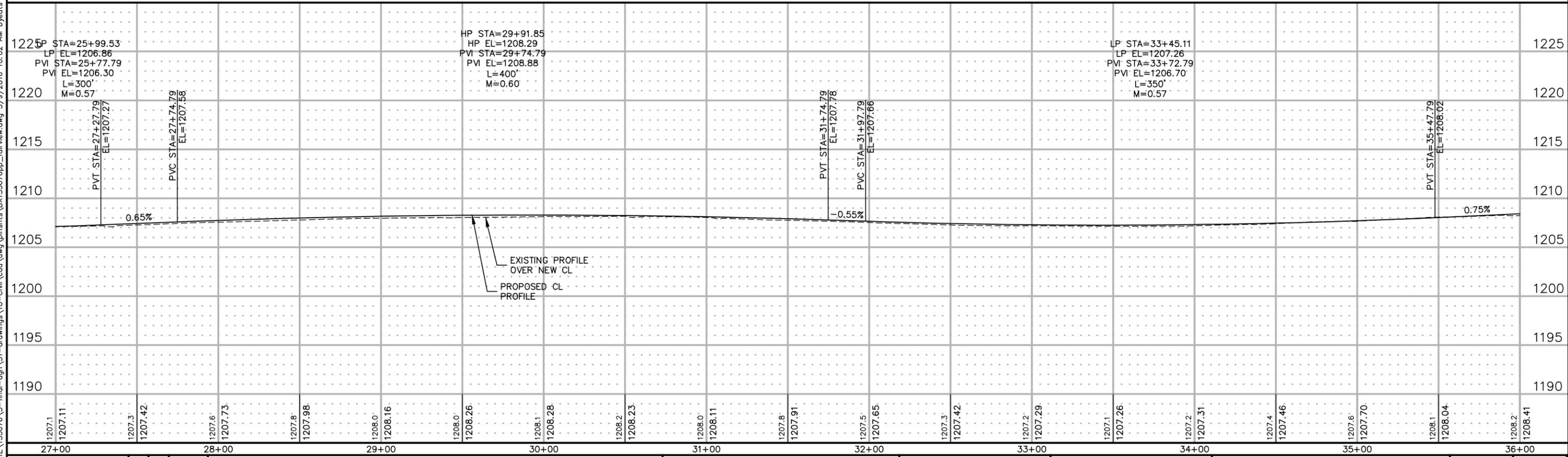
W.B. T.H. 210

# FAIRVIEW ROAD

TNH BENCHMARK EL. 1210.43  
FAIRVIEW RD STA 29+89, 26'LT  
1988 DATUM

TNH BENCHMARK EL. 1209.60  
NE QUAD OF FAIRVIEW RD AND  
ART WARD DR - 1988 DATUM

▬ = GRADED DITCH / INFILTRATION AREA



DRAWN BY: BDY  
DESIGNER: RVH  
CHECKED BY: SDH

NO.	BY	DATE	REVISIONS

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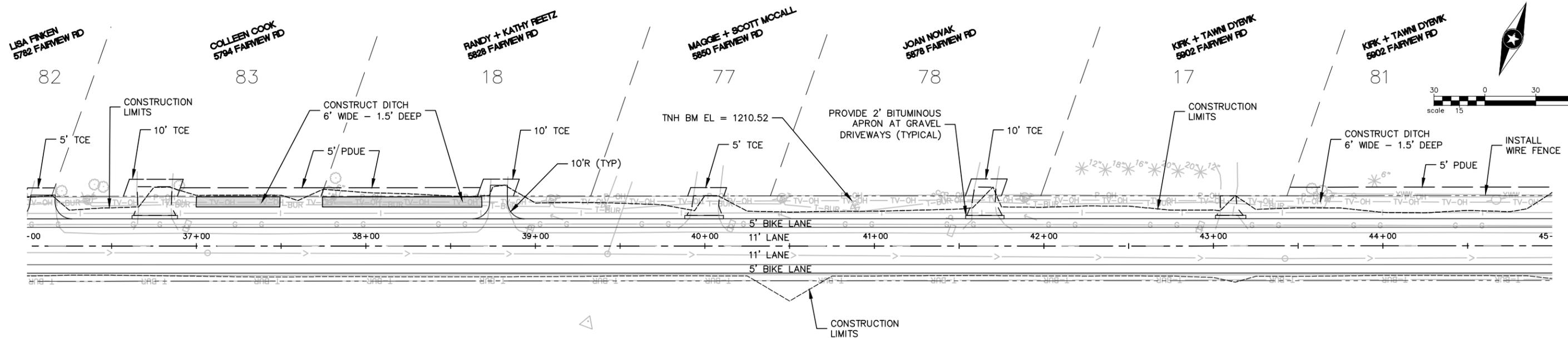
2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA

PLAN AND PROFILE

FILE NO.  
BAXTE133676  
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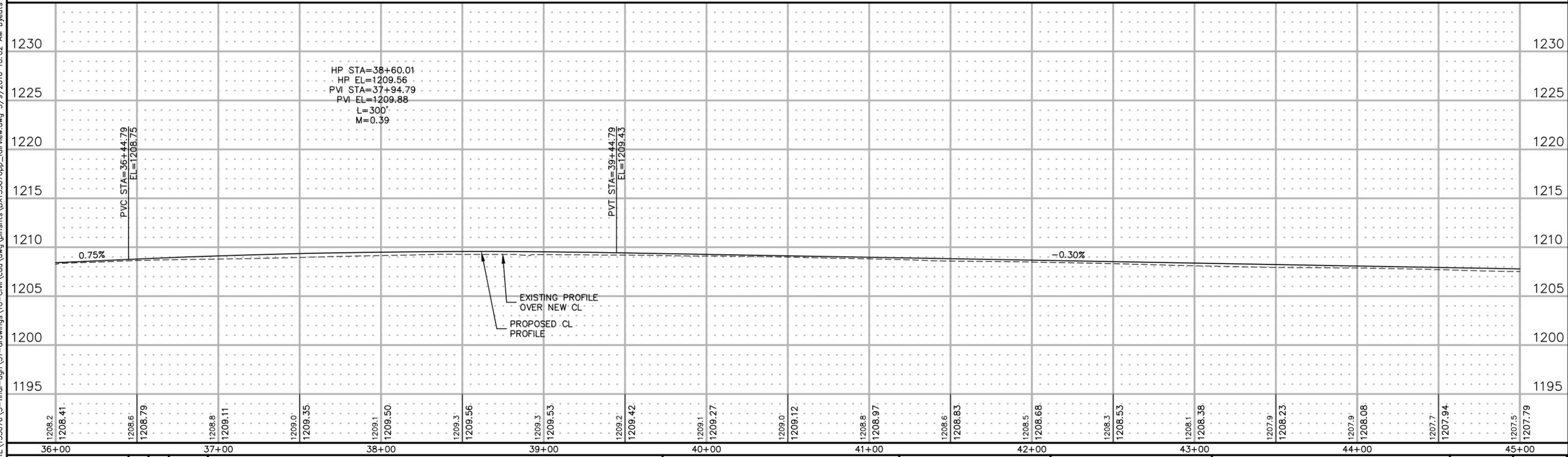
W.B. T.H. 210

TNH BENCHMARK EL. 1210.52  
FAIRVIEW RD STA 40+89, 25'LT  
1988 DATUM

TNH BENCHMARK EL. 1209.16  
NE QUAD OF FAIRVIEW RD AND  
KENWOOD DR - 1988 DATUM

# FAIRVIEW ROAD

▬ = GRADED DITCH / INFILTRATION AREA



DRAWN BY: BDY  
DESIGNER: RVH  
CHECKED BY: SDH

NO.	BY	DATE	REVISIONS

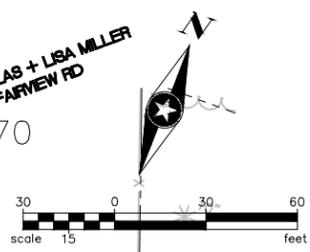
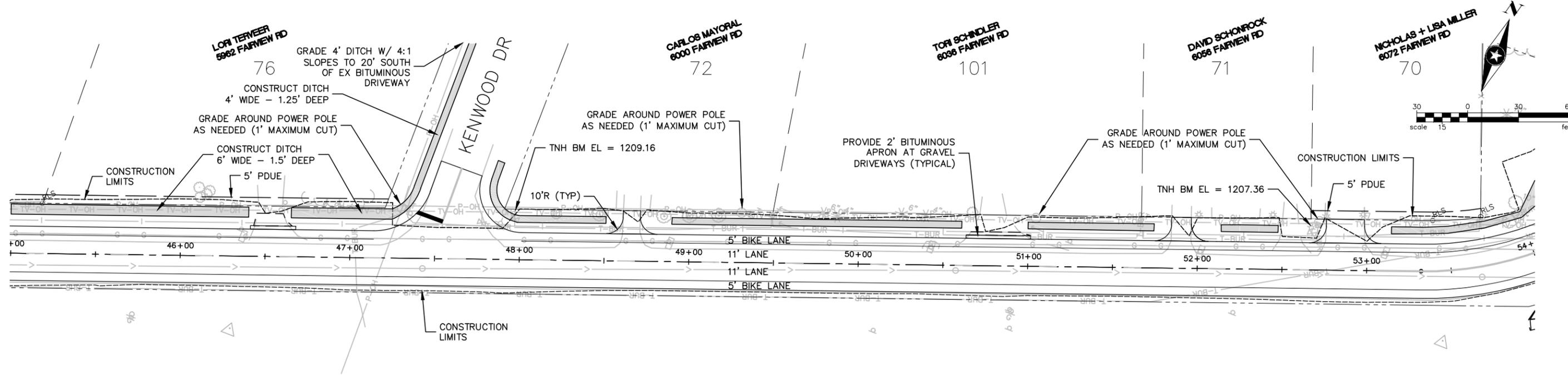
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Date: 03/09/2016  
SCOTT D. HEDLUND, PE  
Lic. No. 40686

**SEH**  
PHONE: 320.229.4300  
1200 25TH AVENUE SOUTH  
P.O. BOX 1717  
ST. CLOUD, MN 56302-1717  
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**2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA**

**PLAN AND PROFILE**

FILE NO.  
BAXTE133676  
**23**  
**76**



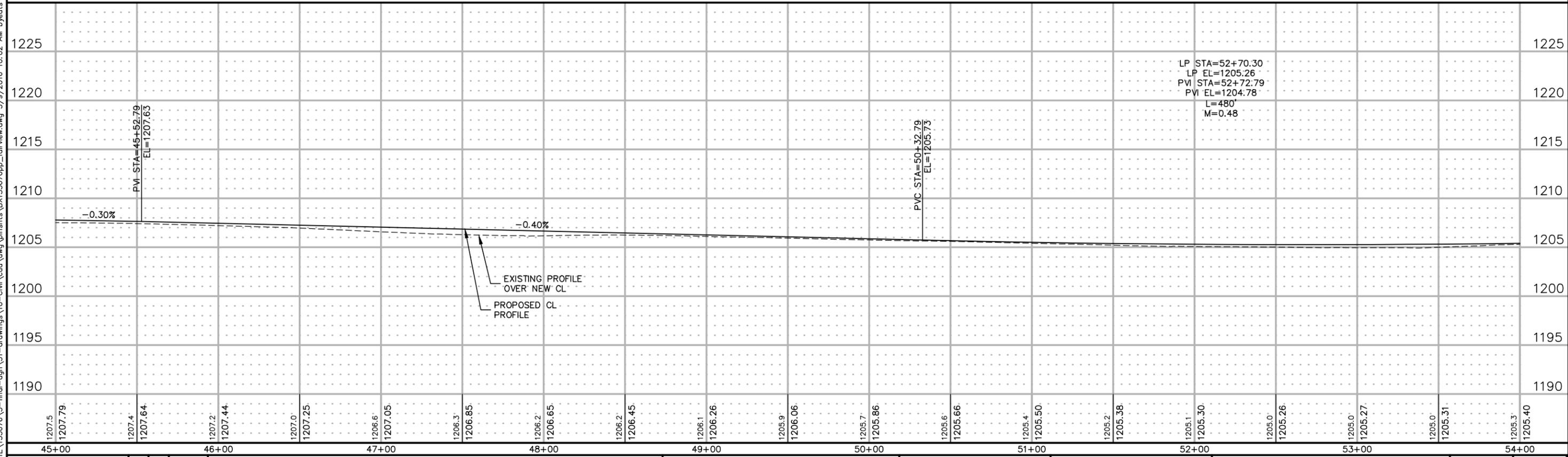
W.B. T.H. 210

# FAIRVIEW ROAD

TNH BENCHMARK EL. 1209.16  
NE QUAD OF FAIRVIEW RD AND  
KENWOOD DR - 1988 DATUM

TNH BENCHMARK EL. 1207.36  
FAIRVIEW RD STA 52+67, 26'LT  
1988 DATUM

▬ = GRADED DITCH / INFILTRATION AREA



DRAWN BY: BDY  
DESIGNER: RVH  
CHECKED BY: SDH

NO.	BY	DATE	REVISIONS

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.  
Date: 03/09/2016  
SCOTT D. HEDLUND, PE  
Lic. No. 40686

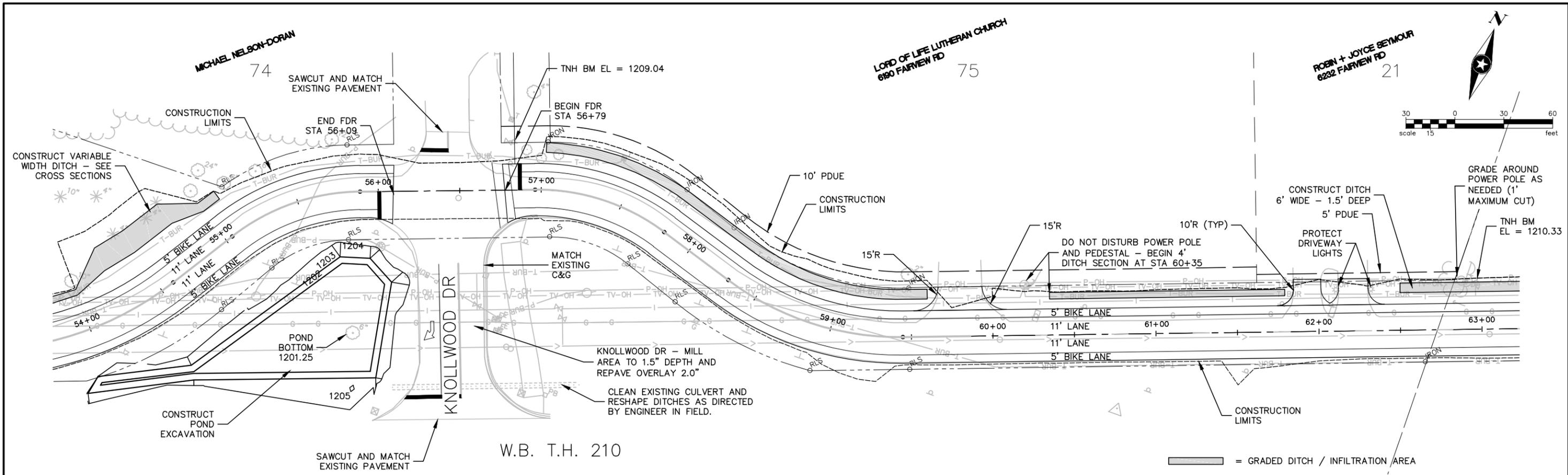


2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA

PLAN AND PROFILE

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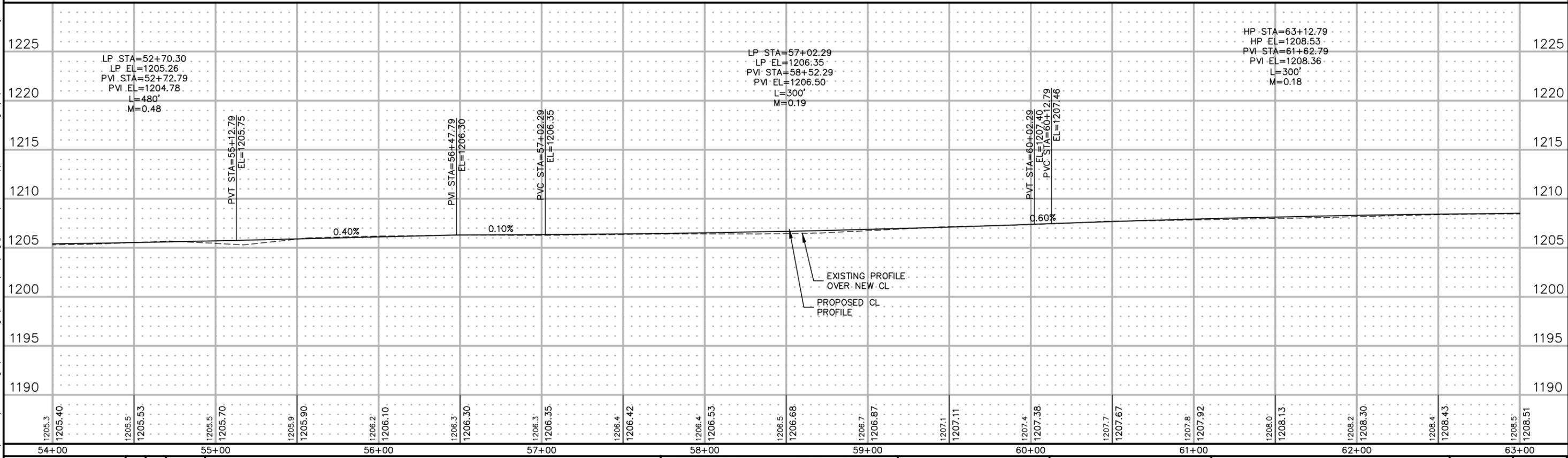
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TNH BENCHMARK EL. 1209.04  
NE QUAD OF FAIRVIEW RD AND  
KNOLLWOOD DR - 1988 DATUM

# FAIRVIEW ROAD

TNH BENCHMARK EL. 1210.33  
FAIRVIEW RD STA 62+97, 29'LT  
1988 DATUM



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DESIGNER: RVH  
CHECKED BY: SDH

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2016 FAIRVIEW ROAD  
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BAXTER, MINNESOTA

PLAN AND PROFILE

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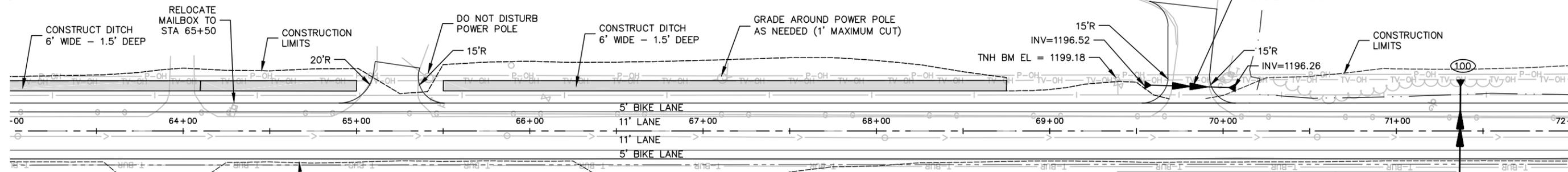
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LAKWOOD EVANGELICAL FREE CHURCH  
6282 FAIRVIEW RD 80

LAKWOOD EVANGELICAL FREE CHURCH  
6282 FAIRVIEW RD 22

LAKWOOD EVANGELICAL FREE CHURCH  
6284 FAIRVIEW RD 79

CITY OF BAXTER 23



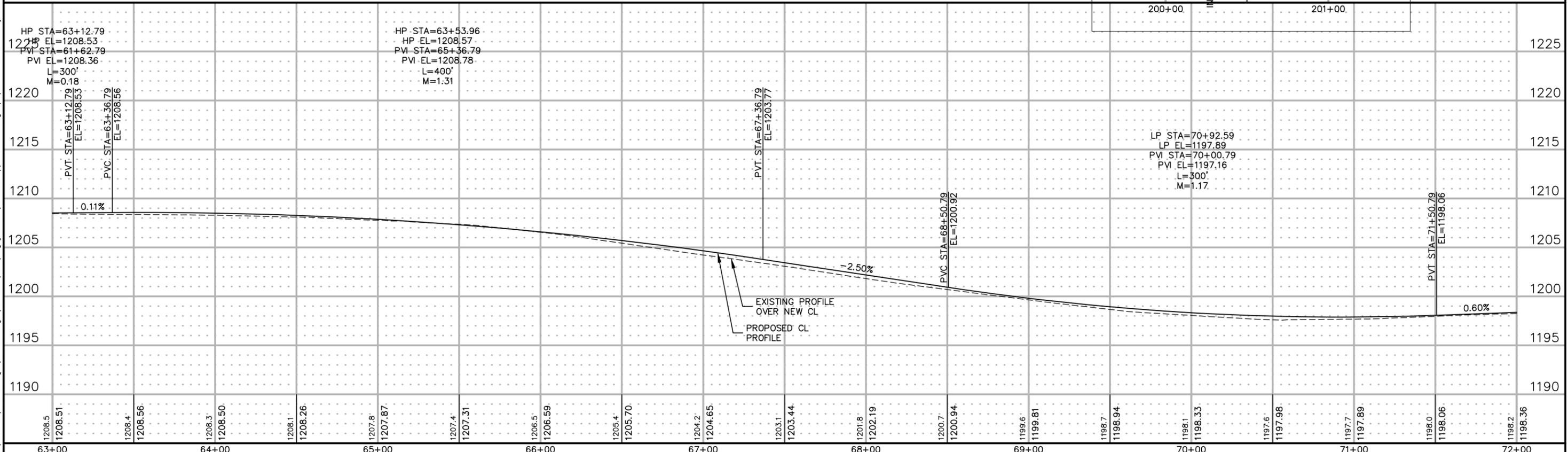
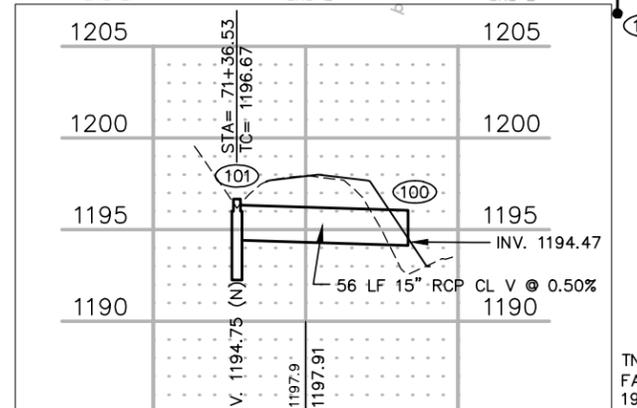
W.B. T.H. 210

# FAIRVIEW ROAD

TNH BENCHMARK EL. 1210.33  
FAIRVIEW RD STA 62+97, 29'LT  
1988 DATUM

TNH BENCHMARK EL. 1199.18  
FAIRVIEW RD STA 69+39, 30'LT  
1988 DATUM

▬ = GRADED DITCH / INFILTRATION AREA



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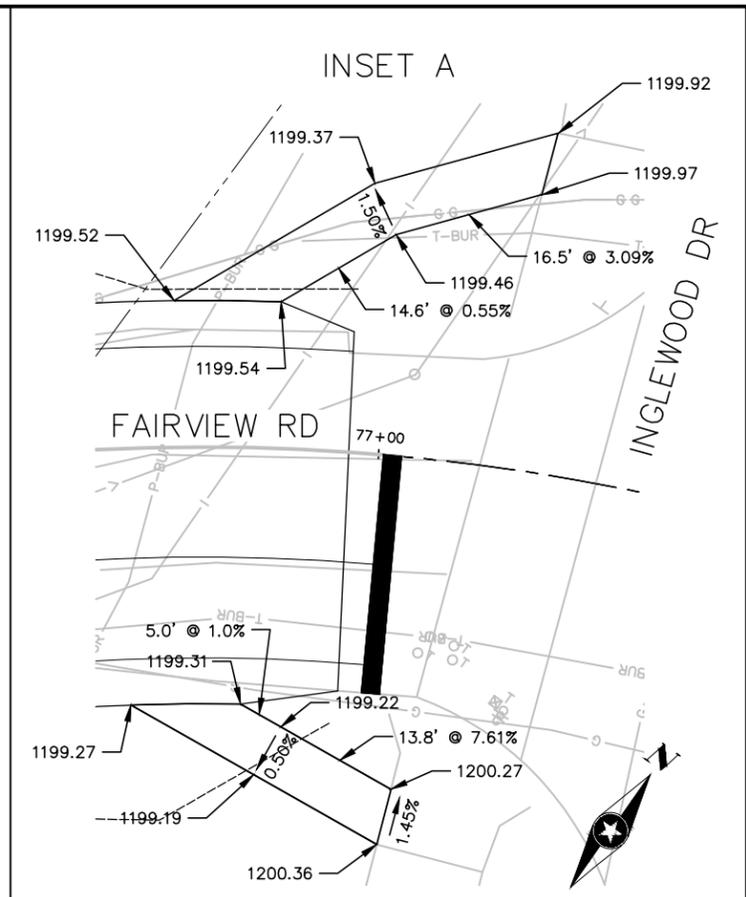
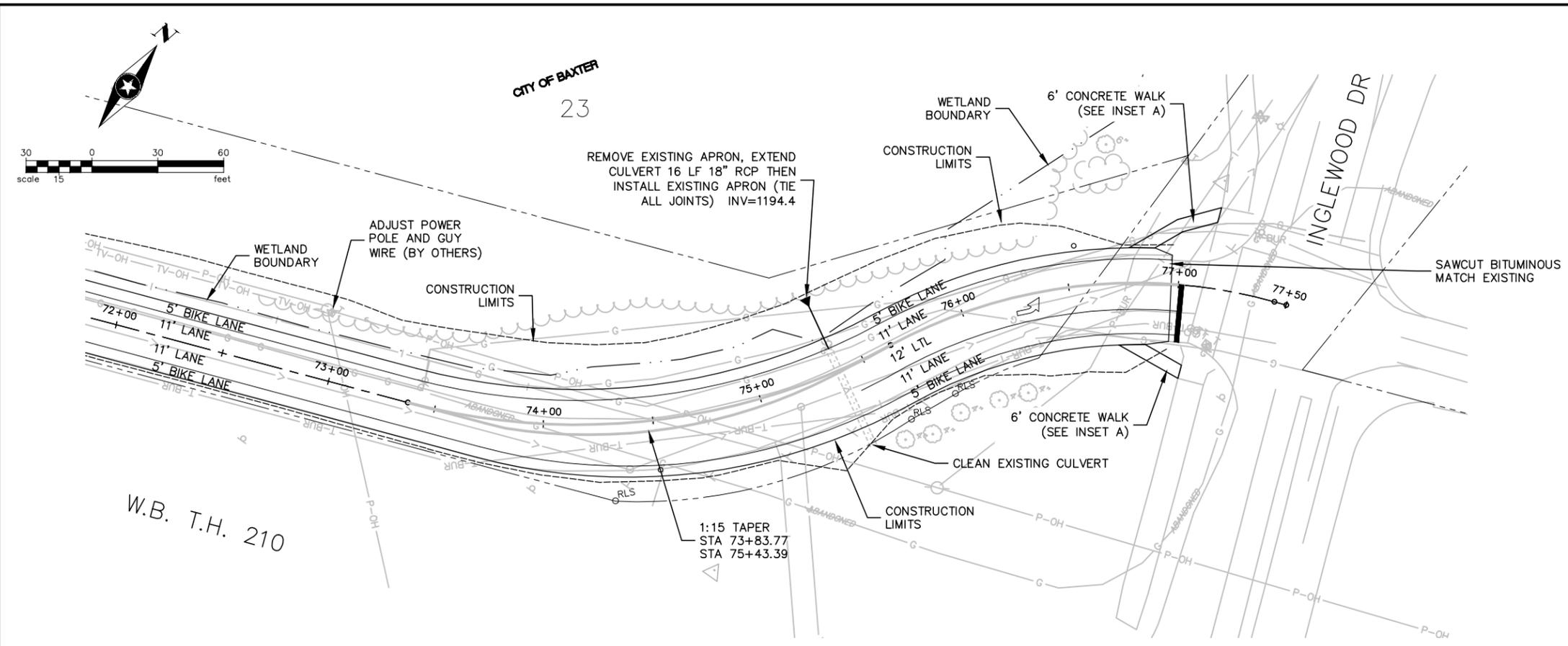
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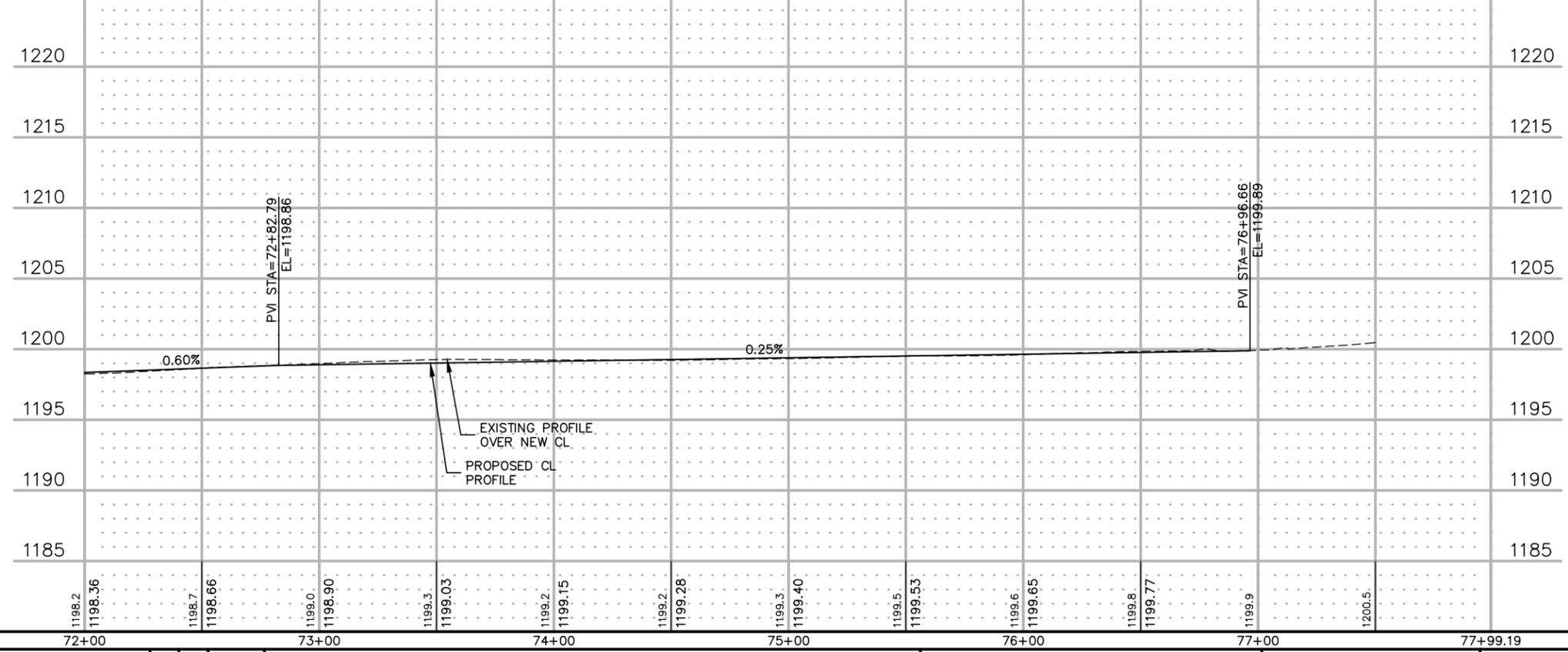
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TNH BENCHMARK EL. 1199.18  
FAIRVIEW RD STA 69+39, 30'LT  
1988 DATUM

**FAIRVIEW ROAD**



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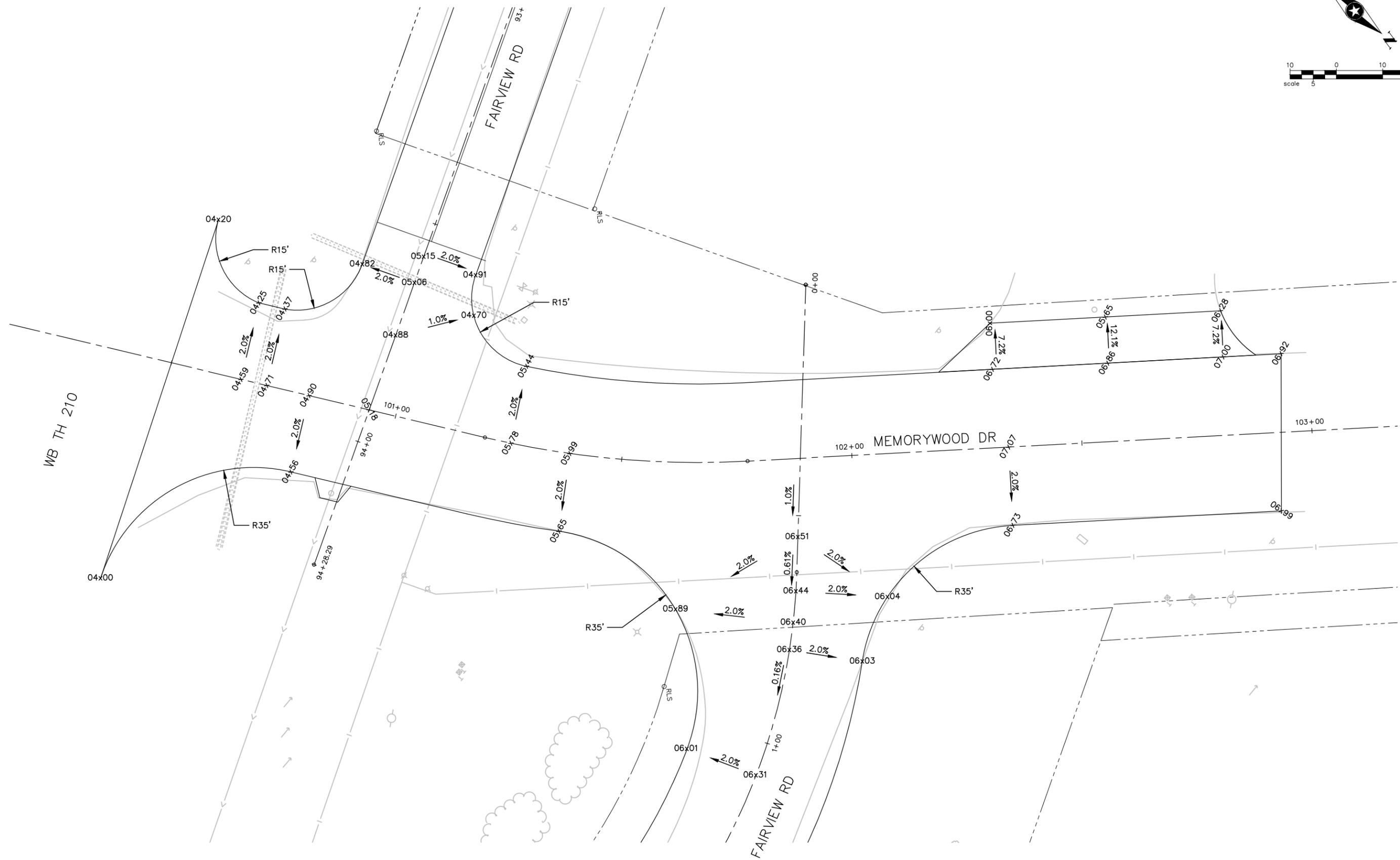
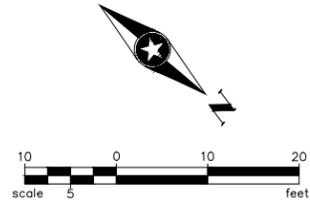
**SEH**  
PHONE: 320.229.4300  
1200 25TH AVENUE SOUTH  
P.O. BOX 1717  
ST. CLOUD, MN 56302-1717  
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**2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA**

**PLAN AND PROFILE**

FILE NO.  
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**76**



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DESIGNER:	RVH				
CHECKED BY:	SDH				
DESIGN TEAM		NO.	BY	DATE	REVISIONS

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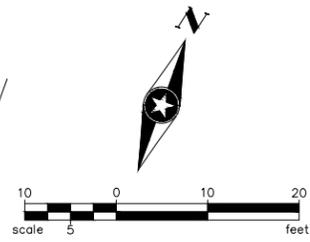
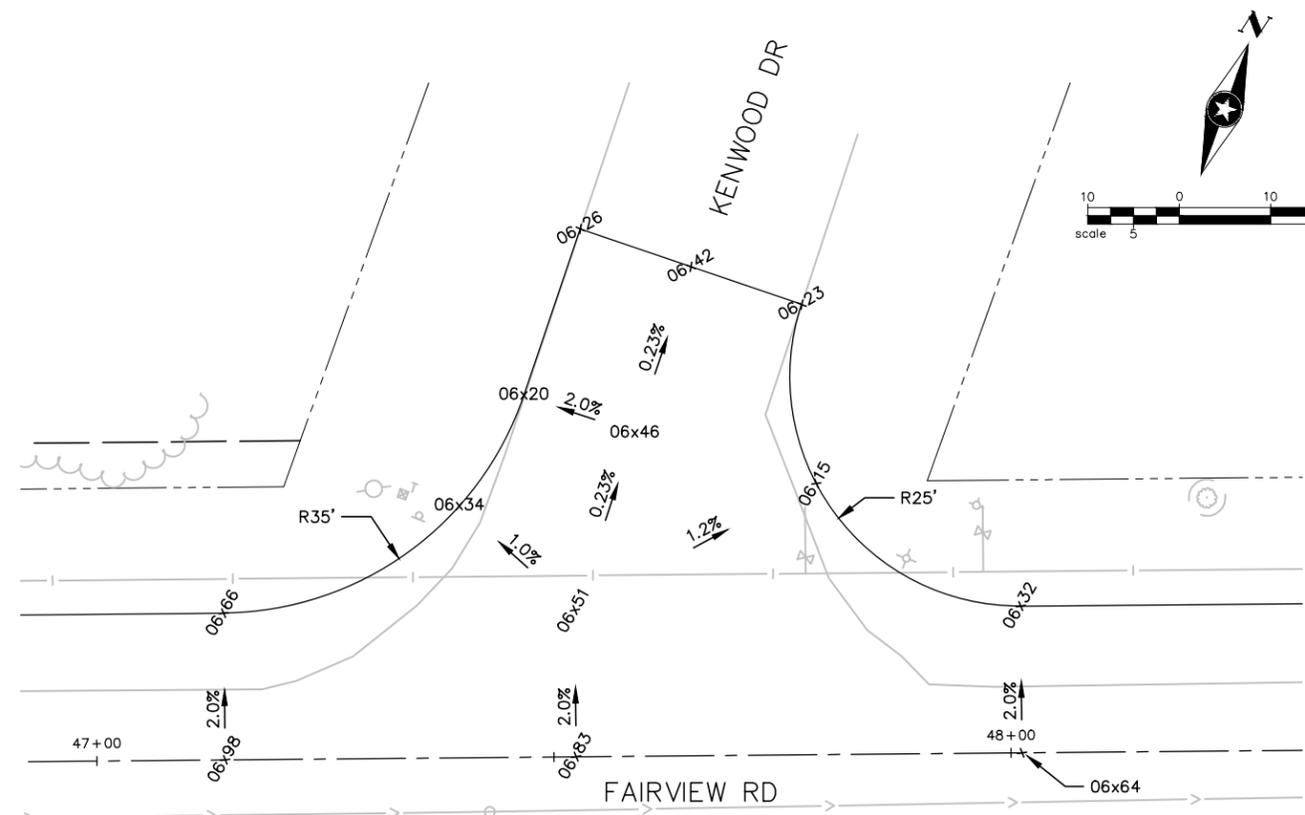
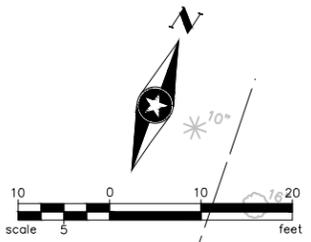
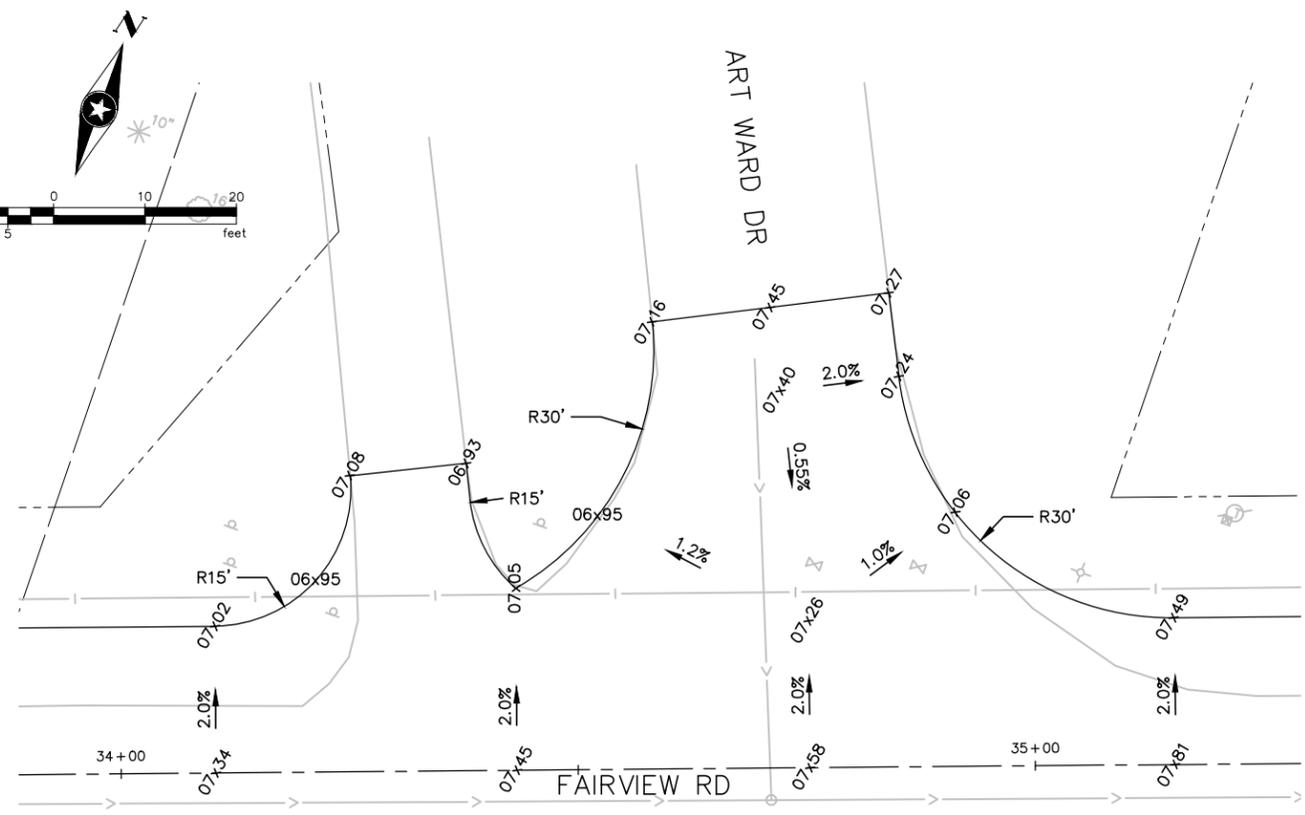
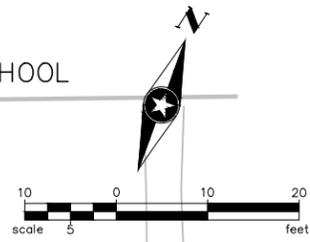
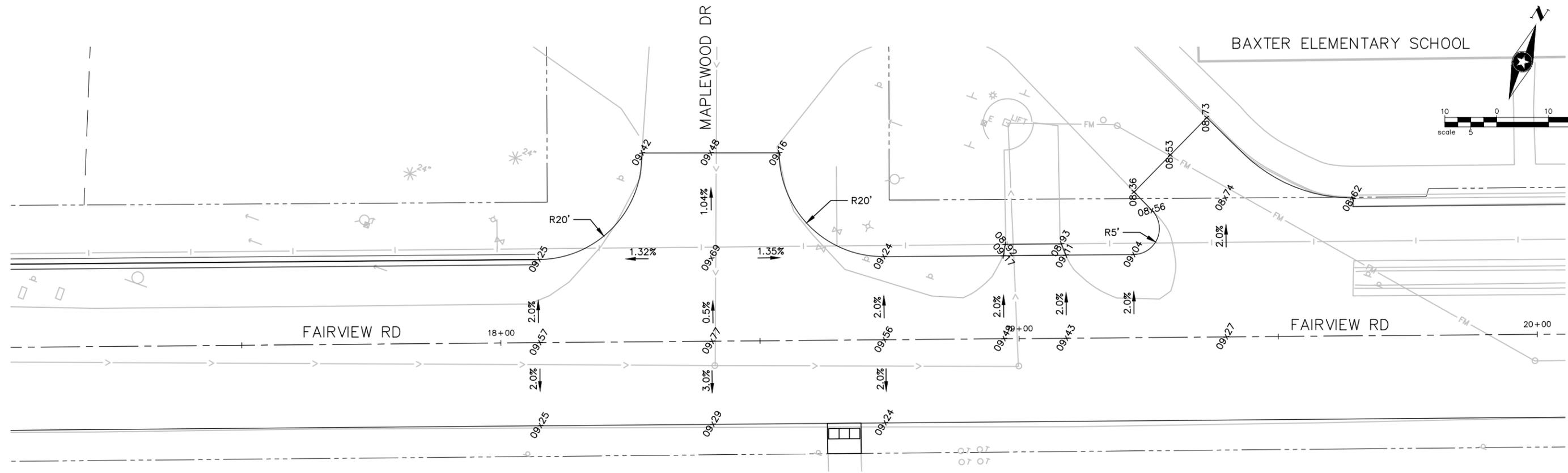
**2016 FAIRVIEW ROAD  
 IMPROVEMENTS  
 BAXTER, MINNESOTA**

**INTERSECTION DETAILS**

FILE NO.  
 BAXTE133676

**28**  
**76**

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**2016 FAIRVIEW ROAD  
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 BAXTER, MINNESOTA**

**INTERSECTION DETAILS**

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**29  
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BAXTER ELEMENTARY SCHOOL

SUPER AMERICA GAS STATION

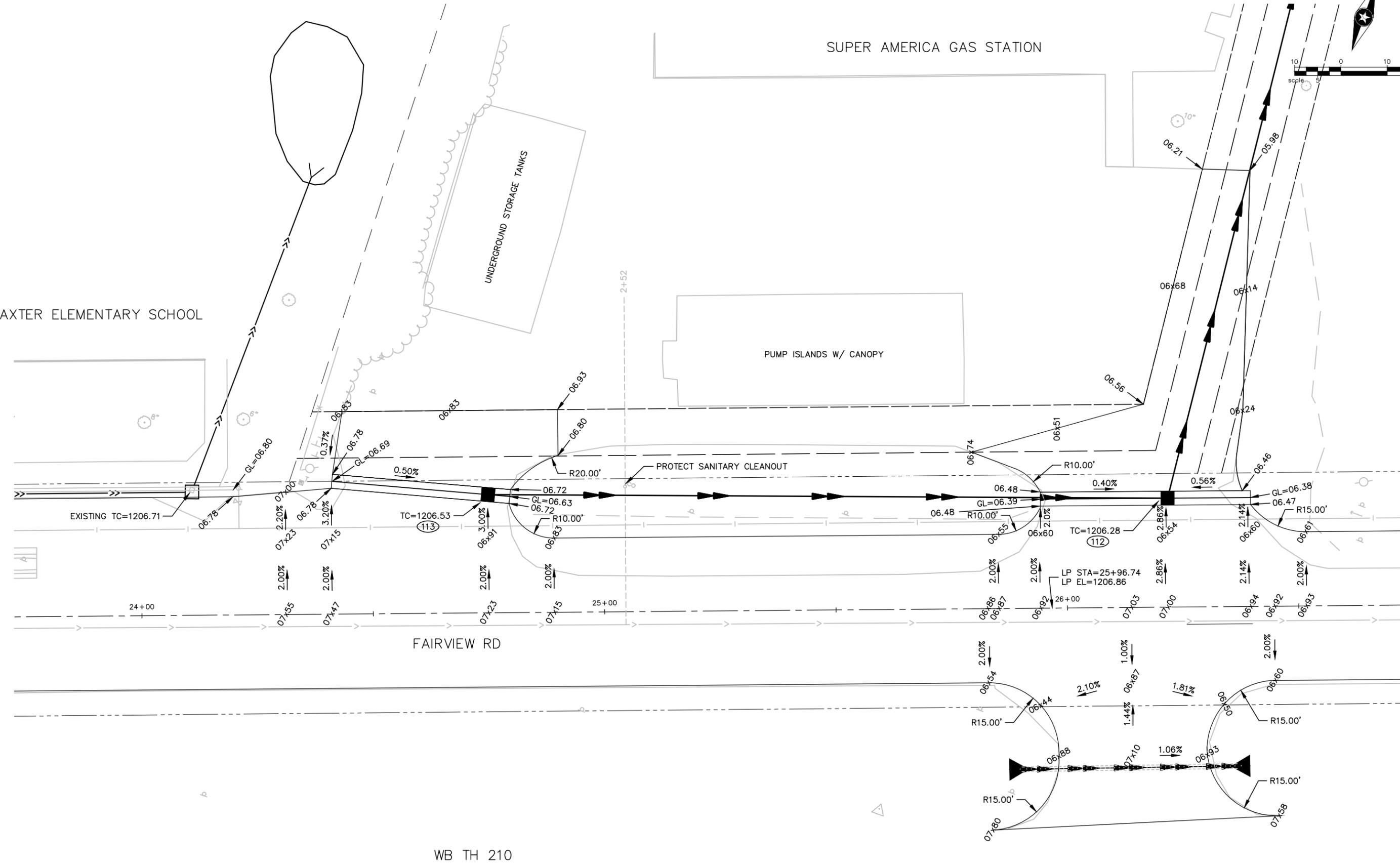
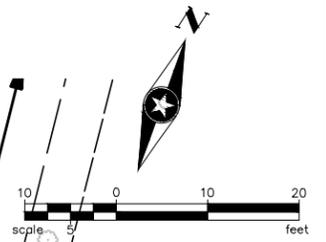
UNDERGROUND STORAGE TANKS

PUMP ISLANDS W/ CANOPY

PROTECT SANITARY CLEANOUT

FAIRVIEW RD

WB TH 210



DRAWN BY:	BDY			
DESIGNER:	RVH			
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2016 FAIRVIEW ROAD IMPROVEMENTS  
BAXTER, MINNESOTA

INTERSECTION DETAILS

FILE NO. BAXTE133676

30  
76

**SWPPP SUMMARY/OVERVIEW:**

THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO ADDRESS THE REQUIREMENTS OF NPDES PERMIT MN R100001, PART III, SUBPART A. THIS SWPPP INCLUDES A COMBINATION OF NARRATIVE AND PLAN SHEETS THAT DESCRIBE THE TEMPORARY AND PERMANENT STORM WATER MANAGEMENT PLAN FOR THE PROJECT.

**PROJECT INFORMATION:**

LOCATION:	BAXTER, MINNESOTA
LATITUDE/LONGITUDE: :	X
PROJECT DESCRIPTION:	RECLAMATION AND REPAVING OF STREETS
SOIL DISTURBING ACTIVITIES:	ROAD RECLAMATION, CULVERTS, STORM SEWER & POND

**CONTACTS:**

OWNER:	CITY OF BAXTER
CONTACT:	TREVOR WALTER
ADDRESS:	13190 MEMORYWOOD DR. BAXTER, MN 56425
PHONE:	218.454.5110
EMAIL:	TWALTER@BAXTERMN.GOV

ENGINEER:	SHORT ELLIOTT HENDRICKSON INC. (SEH)
CONTACT:	SCOTT HEDLUND
PHONE:	320.229.4345
EMAIL:	SHEDLUND@SEHINC.COM
PROJECT NO.:	BAXTE 133676

**KNOWLEDGEABLE PERSON/CHAIN OF RESPONSIBILITY**

THE CONTRACTOR SHALL IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPs WHO WILL OVERSEE THE IMPLEMENTATION OF THE SWPPP, INCLUDING: INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs. THE GENERAL CONTRACTOR SHALL ATTACH CONTACT INFORMATION TO THE SWPPP PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

CONTRACTOR: \_\_\_\_\_  
 CONTACT: \_\_\_\_\_  
 PHONE: \_\_\_\_\_  
 EMAIL: \_\_\_\_\_

THE CONTRACTOR SHALL ESTABLISH A CHAIN OF RESPONSIBILITY FOR ALL CONTRACTORS AND SUB-CONTRACTORS ON SITE TO ENSURE THE SWPPP IS BEING PROPERLY IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE CHAIN OF RESPONSIBILITY TO THE OWNER AND ATTACH TO THE SWPPP PRIOR TO ANY CONSTRUCTION ACTIVITY.

**GENERAL SWPPP RESPONSIBILITIES:**

THE CONTRACTOR SHALL KEEP THE SWPPP, INCLUDING ALL AMENDMENTS AND INSPECTION AND MAINTENANCE RECORDS ON SITE DURING CONSTRUCTION.

THE SWPPP WILL BE AMENDED AS NEEDED AND/OR AS REQUIRED BY PROVISIONS OF THE PERMIT. AMENDMENTS WILL BE APPROVED BY BOTH THE OWNER AND CONTRACTOR AND WILL BE ATTACHED OR OTHERWISE INCLUDED WITH THE SWPPP DOCUMENTS. THE SWPPP AMENDMENTS SHALL BE INITIATED, FACILITATED, AND PROCESSED BY THE CONTRACTOR. THE SWPPP AND AMENDMENTS SHALL BE KEPT ON SITE BY THE CONTRACTOR WHENEVER CONSTRUCTION ACTIVITY IS IN PROGRESS.

THE CONTRACTOR SHALL DOCUMENT AMENDMENTS TO THE SWPPP AS A RESULT OF INSPECTION(S) WITHIN 7 DAYS.

BOTH THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER TERMINATION AND/OR TRANSFER OF THE PERMIT.

**LONG TERM OPERATION AND MAINTENANCE**

THE OWNER WILL BE RESPONSIBLE OR WILL OTHERWISE IDENTIFY WHO WILL BE RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM(S).

THE OWNER WILL PREPARE AND IMPLEMENT A PERMANENT STORMWATER TREATMENT SYSTEM(S) MAINTENANCE PLAN.

**TRAINING DOCUMENTATION:**

PREPARER/DESIGNER OF SWPPP:	DAVID W BLOMME
EMPLOYER:	SHORT ELLIOTT HENDRICKSON INC. (SEH)
TRAINING AND DATE OBTAINED:	MARCH 2016 UMN SWPP DESIGN
NAME OF INSTRUCTOR(S):	UMN / MPCA

THE CONTRACTOR (OPERATOR) SHALL ADD TO THE SWPPP TRAINING RECORDS FOR THE FOLLOWING PERSONNEL:

- INDIVIDUALS OVERSEEING THE IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP
- INDIVIDUALS PERFORMING INSPECTIONS
- INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPs

TRAINING MUST RELATE TO THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES AND SHALL INCLUDE:

- 1) DATES OF TRAINING
- 2) NAME OF INSTRUCTORS
- 3) CONTENT AND HOURS OF TRAINING

THE CONTRACTOR SHALL ENSURE THAT THE INDIVIDUALS ARE TRAINED BY LOCAL, STATE, FEDERAL AGENCIES, PROFESSIONAL ORGANIZATIONS, OR OTHER ENTITIES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, PERIMETER CONTROL, PERMANENT STORMWATER MANAGEMENT AND THE MINNESOTA NPDES/SDS CONSTRUCTION STORMWATER PERMIT.

**PROJECT SUMMARY:**

TOTAL PROJECT AREA:	XX AC
TOTAL DISTURBED AREA:	XX AC
PRE-CONSTRUCTION IMPERVIOUS AREA:	15 AC
POST-CONSTRUCTION IMPERVIOUS AREA:	16.2 AC
IMPERVIOUS AREA ADDED:	1.2 AC

**RECEIVING WATER(S) WITHIN ONE MILE FROM PROJECT BOUNDARIES:**

(<http://pca-gis02.pca.state.mn.us/CSW/index.html>)

ID	NAME	TYPE	SPECIAL WATER CLASSIFICATION	TMDL
18037900	WHITE SAND LAKE	LAKE	N/A	N/A

**ADDITIONAL BMPs AND/OR ACTIONS REQUIRED:**

N/A	
DOES THE PROJECT DISCHARGE TO A CALCAREOUS FEN:	N
IS THE PROJECT LOCATED IN A KARST AREA:	N
PROJECTS LOCATED IN KARST AREA MEASURES IMPLEMENTED TO ENSURE PROTECTION OF DRINKING WATER SUPPLY:	
N/A	

**SITE SOIL INFORMATION:** (<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>)

(SOIL INFORMATION PROVIDED IS FOR NPDES PERMIT INFORMATION ONLY. SOIL INFORMATION WAS OBTAINED FROM THE USGS WEBSITE. THE CONTRACTOR SHALL NOT RELY ON THIS SOIL INFORMATION FOR CONSTRUCTION PURPOSES.)

SOIL NAME:	HYDROLOGIC CLASSIFICATION:
ZIMMERMAN LOAMY FINE SAND	A
LOUGEE-BARBER-GUIDA COMPLEX	A

**RELATED REVIEWS & PERMITS:**

ENVIRONMENTAL, WETLAND, ENDANGERED OR THREATENED SPECIES, ARCHEOLOGICAL, LOCAL, STATE, AND/OR FEDERAL REVIEWS/PERMITS:

TYPE OF PERMIT/REVIEW:	REQUIRED ACTION(S):
X	X
X	X

**IMPLEMENTATION SEQUENCE:**

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING SEQUENCE. THE ENGINEER MAY APPROVE ADJUSTMENTS TO THE SEQUENCE AS NEEDED.

1.	INSTALL ROCK CONSTRUCTION ENTRANCE(S)
2.	INSTALL PERIMETER CONTROL AND STABILIZE DOWN GRADIENT BOUNDARIES
3.	COMPLETE SITE GRADING
4.	INSTALL UTILITIES, STORM SEWER, INLET PROTECTION, CURB & GUTTER, PAVING
5.	COMPLETE FINAL GRADING AND STABILIZE DISTURBED AREAS
6.	AFTER CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ACCUMULATED SEDIMENT, REMOVE BMPs, AND RE-STABILIZE ANY AREAS DISTURBED BY THEIR REMOVAL.

**THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE SWPPP:**

PLAN AND PROFILE PLAN SHEETS:  
 EROSION AND SEDIMENT CONTROL PLAN SHEETS:  
 TURF ESTABLISHMENT PLAN SHEETS:  
 STORM SEWER PLAN & PROFILE PLAN SHEETS:  
 GRADING PLAN SHEETS:  
 DETAIL PLAN SHEETS:  
 SWPPP NOTE AND DETAIL SHEETS:  
 PROJECT SPECIFICATIONS:  
 PROJECT BID FORM:

**PROJECT SPECIFIC NOTES:**

XX

**TEMPORARY SEDIMENT BASINS:**

THE CONTRACTOR SHALL INSTALL TEMPORARY SEDIMENT BASIN(S) INDICATED ON PLANS AND REQUIRED BY THE NPDES CONSTRUCTION PERMIT.

TEMPORARY SEDIMENT BASIN OUTLETS SHALL BE CONSTRUCTED TO PREVENT SHORT-CIRCUITING AND PREVENT THE DISCHARGE OF FLOATING DEBRIS.

BASINS MUST HAVE THE ABILITY TO ALLOW COMPLETE DRAWDOWN, INCLUDE A STABILIZED EMERGENCY OVERFLOW, WITHDRAW WATER FROM THE SURFACE, AND PROVIDE ENERGY DISSIPATION AT THE OUTLET.

TEMPORARY SEDIMENT BASINS SHALL BE PROVIDED WITH ENERGY DISSIPATION AT ANY BASIN OUTLET TO PREVENT SOIL EROSION.

SEDIMENT BASINS MUST BE SITUATED OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONES, AND MUST BE DESIGNED TO AVOID THE DRAINING WATER FROM WETLANDS.

TEMPORARY SEDIMENT BASINS SHALL BE CONSTRUCTED AND MADE OPERATIONAL CONCURRENT OR PRIOR TO SOIL DISTURBANCE THAT IS UPGRADIENT AND CONTRIBUTES RUNOFF TO THE BASIN.

**PERMANENT STORMWATER MANAGEMENT SYSTEM**

PERMANENT STORMWATER MANAGEMENT SYSTEM IS DESIGNED TO MEET THE REQUIREMENTS OF NPDES GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY.

NEW (ADDED) IMPERVIOUS:	1.2 AC	
WATER QUALITY VOLUME (WQV):	0.10 AF	
PERMANENT MANAGEMENT SYSTEM:	WQV INFILTRATED	WQV TREATED (NOT INFILTRATED)
	X 0.47 AF	0 AF
TOTAL WQV INFILTRATED/TREATED	0.47 AF	
IF NOT INFILTRATING TOTAL WQV - DOCUMENT REASON FOR INFEASIBILITY:		
N/A		

**INFILTRATION/FILTRATION DESIGN PARAMETERS:**

DESIGN INFILTRATION RATE:	0.8 IN/HR
CALCULATED DRAWDOWN TIME:	48 HR

CONTRACTOR SHALL ENSURE INFILTRATION/FILTRATION SYSTEMS ARE NOT BE EXCAVATED TO FINAL GRADE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND FULLY STABILIZED.

CONTRACTOR SHALL IMPLEMENT RIGOROUS EROSION PREVENTION AND SEDIMENT CONTROLS BMPs SHALL BE USED TO KEEP SEDIMENT AND RUNOFF COMPLETELY AWAY FROM THE INFILTRATION/FILTRATION AREA(S).

CONTRACTOR SHALL STAKE OFF AND MARK INFILTRATION/FILTRATION AREA(S) TO AVOID SOIL COMPACTION.

THE CONTRACTOR SHALL COMPLETE ON-SITE TESTING TO VERIFY INFILTRATION/FILTRATION RATES AFTER ALL CONSTRUCTION IS COMPLETE.

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DESIGNER: RVH				
CHECKED BY: SDH				
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SCOTT D. HEDLUND, PE  
 Date: 03/09/2016 Lic. No. 40686



**2016 FAIRVIEW ROAD IMPROVEMENTS BAXTER, MINNESOTA**

**SWPP PLAN**

FILE NO. BAXTE133676  
**31**  
**76**

**EROSION PREVENTION MEASURES AND TIMING:**

THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION PREVENTION MEASURES FOR THE PROJECT.

EROSION PREVENTION MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL EROSION PREVENTION MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL PLAN AND IMPLEMENT APPROPRIATE CONSTRUCTION PRACTICES AND CONSTRUCTION PHASING TO MINIMIZE EROSION AND RETAIN VEGETATION WHENEVER POSSIBLE.

THE CONTRACTOR SHALL DELINEATE AREAS NOT TO BE DISTURBED AND/OR TO BE PROTECTED WITH FLAGS, STAKES, SIGNS, SILT FENCE, OR OTHER MEANS NECESSARY TO PROTECT THESE AREAS BEFORE CONSTRUCTION BEGINS ON THE SITE.

THE CONTRACTOR SHALL STABILIZE OF ALL EXPOSED SOILS IMMEDIATELY TO LIMIT SOIL EROSION. IN NO CASE SHALL ANY EXPOSED AREAS, INCLUDING STOCK PILES, HAVE EXPOSED SOILS FOR MORE THAN 7 DAYS WITHOUT PROVIDING TEMPORARY OR PERMANENT STABILIZATION.

DRAINAGE PATHS, DITCHES, AND/OR SWALES SHALL HAVE TEMPORARY OR PERMANENT STABILIZATION WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER OR 24 HOURS AFTER CONSTRUCTION ACTIVITY IN THE DITCH/SWALE HAS TEMPORARILY OR PERMANENTLY CEASED.

THE CONTRACTOR SHALL COMPLETE THE STABILIZATION OF ALL EXPOSED SOILS WITHIN 24 HOURS THAT LIE WITHIN 200 FEET OF PUBLIC WATERS PROMULGATED "WORK IN WATER RESTRICTIONS" BY THE MN DNR DURING SPECIFIED FISH SPAWNING TIMES.

THE CONTRACTOR SHALL IMPLEMENT STORMWATER CONVEYANCE CHANNELS WHEN APPROPRIATE TO ROUTE WATER AROUND UNSTABILIZED AREAS ON SITE TO REDUCE EROSION.

THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL BMPS AND VELOCITY DISSIPATION DEVICES ALONG CONSTRUCTED STORMWATER CONVEYANCE CHANNELS AND OUTLETS.

THE CONTRACTOR SHALL STABILIZE TEMPORARY AND/OR PERMANENT DRAINAGE DITCHES OR SWALES WITHIN 200 LINEAL FEET FROM PROPERTY EDGE, OR DISCHARGE POINT(S) WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE.

TEMPORARY OR PERMANENT DITCHES OR SWALES USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

THE CONTRACTOR SHALL NOT UTILIZE HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILIAR EROSION PREVENTION PRACTICES AS A FORM OF STABILIZATION FOR TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES.

THE CONTRACTOR SHALL ENSURE PIPE OUTLETS HAVE TEMPORARY OR PERMANENT ENERGY DISSIPATION WITH IN 24 HOURS OF CONNECTION TO A SURFACE WATER.

THE CONTRACTOR SHALL DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION. VELOCITY DISSIPATION DEVICES MUST BE USED TO PREVENT EROSION WHEN DIRECTING STORMWATER TO VEGETATED AREAS.

**SEDIMENT CONTROL MEASURES AND TIMING:**

THE CONTRACTOR IS RESPONSIBLE FOR ALL SEDIMENT CONTROL MEASURES FOR THE PROJECT.

SEDIMENT CONTROL MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL MEASURES ARE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADE LAND DISTURBING ACTIVITIES BEGIN. THESE MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.

THE CONTRACTOR SHALL ENSURE THERE ARE NO UNBROKEN SLOPE LENGTH GREATER THAN 75 FEET ON SLOPES 3:1 OR STEEPER.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL PRACTICES REMOVED OR ADJUSTED FOR SHORT-TERM ACTIVITIES BE RE-INSTALLED IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE REINSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.

THE CONTRACTOR SHALL ENSURE STORM DRAIN INLETS AND CULVERT INLETS ARE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAS BEEN STABILIZED. INLET AND CULVERT PROTECTION SHALL CONFORM TO THE 2014 MNDOT SPECIFICATIONS 2573.

THE CONTRACTOR SHALL ENSURE STOCK PILES ARE PROVIDED WITH AN EFFECTIVE SEDIMENT PERIMETER CONTROL AND STOCK PILES SHALL NOT BE PLACED IN ANY TYPE OF SURFACE WATER OR NATURAL BUFFER.

THE CONTRACTOR SHALL INSTALL PERIMETER CONTROL AROUND ALL STAGING AREAS, BORROW PITS, AND AREAS CONSIDERED ENVIRONMENTALLY SENSITIVE.

THE CONTRACTOR SHALL ENSURE VEHICLE TRACKING BE MINIMIZED WITH EFFECTIVE BMPS. WHERE THE BMPS FAIL TO PREVENT SEDIMENT FROM TRACKING ONTO STREETS THE CONTRACTOR SHALL CONDUCT STREET SWEEPING TO REMOVE ALL TRACKED SEDIMENT.

THE CONTRACTOR SHALL IMPLEMENT CONSTRUCTION PRACTICES TO MINIMIZE SOIL COMPACTION.

THE CONTRACTOR SHALL ENSURE ALL CONSTRUCTION ACTIVITY REMAIN WITHIN PROJECT LIMITS AND THAT ALL IDENTIFIED RECEIVING WATER BUFFERS ARE MAINTAINED.

THE CONTRACTOR SHALL NOT UTILIZE SEDIMENT CONTROL CHEMICALS ON SITE.

**EROSION PREVENTION BMP SUMMARY:**

SEE EROSION AND SEDIMENT CONTROL PLAN SHEET AND BID FORM FOR TYPE, LOCATION, AND QUANTITY OF EROSION PREVENTION BMPS.

**SEDIMENT CONTROL BMP SUMMARY:**

SEE EROSION AND SEDIMENT CONTROL PLAN SHEETS AND BID FORM FOR TYPE, LOCATION, AND QUANTITY OF SEDIMENT CONTROL BMPS.

**DEWATERING AND BASIN DRAINING ACTIVITIES:**

THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL DEWATERING AND SURFACE DRAINAGE REGULATIONS.

WATER FROM DEWATERING ACTIVITIES SHALL DISCHARGE TO A TEMPORARY AND/OR PERMANENT SEDIMENT BASIN.

IF WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN, IT SHALL BE TREATED WITH OTHER APPROPRIATE BMPS, TO EFFECTIVELY REMOVE SEDIMENT.

DISCHARGE THAT CONTAINS OIL OR GREASE MUST BE TREATED WITH AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE PRIOR TO DISCHARGE.

DISCHARGE POINTS SHALL BE PROTECTED FROM EROSION AND SCOUR.

DISCHARGE WATER SHALL BE DISPERSED OVER AN ACCEPTED ENERGY DISSIPATION MEASURE.

WATER FROM DEWATERING SHALL BE DISCHARGED IN A MANNER THAN DOES NOT CAUSE NUISANCE CONDITIONS, EROSION, OR INUNDATION OF WETLANDS.

BACKWASH WATER USED FOR FILTERING SHALL BE HAULED AWAY FOR DISPOSAL, RETURNED TO THE BEGINNING OF TREATMENT PROCESS, OR INCORPORATED INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. THE CONTRACTOR SHALL REPLACE AND CLEAN FILTER MEDIAS USED IN DEWATERING DEVICES WHEN REQUIRED TO MAINTAIN ADEQUATE FUNCTION.

**INSPECTION AND MAINTENANCE:**

ALL INSPECTIONS, MAINTENANCE, REPAIRS, REPLACEMENTS, AND REMOVAL OF BMPS IS TO BE CONSIDERED INCIDENTAL TO THE BMP BID ITEMS.

THE CONTRACTOR IS RESPONSIBLE FOR COMPLETING SITE INSPECTIONS, AND BMP MAINTENANCE TO ENSURE COMPLIANCE WITH THE PERMIT REQUIREMENTS.

THE CONTRACTOR SHALL INSPECT THE CONSTRUCTION SITE ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

THE CONTRACTOR SHALL DOCUMENT A WRITTEN SUMMARY OF ALL INSPECTIONS AND MAINTENANCE ACTIVITIES CONDUCTED WITHIN 24 HOURS OF OCCURRENCE. RECORDS OF EACH ACTIVITY SHALL INCLUDE THE FOLLOWING:

- DATE AND TIME OF INSPECTIONS;
- NAME OF PERSON(S) CONDUCTING INSPECTION;
- FINDINGS AND RECOMMENDATIONS FOR CORRECTIVE ACTIONS IF NECESSARY;
- CORRECTIVE ACTIONS TAKEN;
- DATE AND AMOUNT OF RAINFALL EVENTS;
- POINTS OF DISCHARGE OBSERVED DURING INSPECTION AND DESCRIPTION OF THE DISCHARGE
- AMENDMENTS MADE TO THE SWPPP.

THE CONTRACTOR SHALL SUBMIT A COPY OF THE WRITTEN INSPECTIONS TO THE ENGINEER AND OWNER ON A MONTHLY BASIS. IF MONTHLY INSPECTION REPORTS ARE NOT SUBMITTED, MONTHLY PAYMENTS MAY BE HELD.

THE CONTRACTOR SHALL KEEP THE SWPPP, ALL INSPECTION REPORTS, AND AMENDMENTS ONSITE. THE CONTRACTOR SHALL DESIGNATE A SPECIFIC ONSITE LOCATION TO KEEP THE RECORDS

THE CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY BMP'S, AS WELL AS EROSION AND SEDIMENT CONTROL BMP'S.

THE CONTRACTOR SHALL INSPECT EROSION PREVENTION AND SEDIMENTATION CONTROL BMPS TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NONFUNCTIONAL BMPS SHALL BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS WITHIN 24 HOURS OF FINDING. THE CONTRACTOR SHALL INVESTIGATE AND COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:

PERIMETER CONTROL DEVICES, INCLUDING SILT FENCE SHALL BE REPAIRED, OR REPLACED, WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 OF THE DEVICE HEIGHT. THESE REPAIRS SHALL BE MADE WITHIN 24 HOURS OF DISCOVERY.

TEMPORARY AND PERMANENT SEDIMENT BASINS SHALL BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY.

SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. THE CONTRACTOR SHALL REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. THE CONTRACTOR SHALL RE-STABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN 7 DAYS OF DISCOVERY, UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL CONSTRAINTS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND OBTAIN ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.

CONSTRUCTION SITE VEHICLE EXIT LOCATIONS SHALL BE INSPECTED DAILY FOR EVIDENCE OF SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY.

IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANOR AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.

INFILTRATION AREAS SHALL BE INSPECTED FOR SIGNS OF SEDIMENTATION AND COMPACTION.

**POLLUTION PREVENTION MANAGEMENT MEASURES:**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POLLUTION PREVENTION MANAGEMENT MEASURES.

ALL POLLUTION PREVENTION MEASURES ARE CONSIDERED INCIDENTAL TO THE MOBILIZATION BID ITEM, UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS RESPONSIBLE FOR INFORMING ALL VISITORS AND/OR PERSONNEL ON-SITE OF THE POLLUTION PREVENTION MANAGEMENT MEASURES. POLLUTION PREVENTION MANAGEMENT MEASURES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL, IN COMPLIANCE WITH MPCA DISPOSAL REQUIREMENTS, OF ALL HAZARDOUS MATERIALS, SOLID WASTE, AND PRODUCTS ON-SITE.

THE CONTRACTOR SHALL ENSURE BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS ARE KEPT UNDER COVER TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS ARE COVERED TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE HAZARDOUS MATERIALS AND TOXIC WASTE IS PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE OR HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.

THE CONTRACTOR SHALL ENSURE ASPHALT SUBSTANCES USED ON-SITE SHALL ARE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

THE CONTRACTOR SHALL ENSURE PAINT CONTAINERS AND CURING COMPOUNDS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT AND/OR CURING COMPOUNDS SHALL NOT BE DISCHARGED INTO THE STORM SEWER SYSTEM AND SHALL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURE'S INSTRUCTION.

THE CONTRACTOR SHALL ENSURE SOLID WASTE BE STORED, COLLECTED AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINN. R. CH. 7035.

THE CONTRACTOR SHALL ENSURE POTABLE TOILETS ARE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE MUST BE DISPOSED OF PROPERLY IN ACCORDANCE WITH MINN. R. CH. 7041.

THE CONTRACTOR SHALL MONITOR ALL VEHICLES ON-SITE FOR LEAKS AND RECEIVE REGULAR PREVENTION MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.

EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES AND ENGINE DEGREASING ARE PROHIBITED AT THE CONSTRUCTION SITE.

THE CONTRACTOR SHALL ENSURE WASHOUT WASTE MUST CONTACT THE GROUND AND BE PROPERLY DISPOSED OF IN COMPLIANCE WITH MPCA RULES.

THE CONTRACTOR SHALL INCLUDE SPILL KITS WITH ALL FUELING SOURCES AND MAINTENANCE ACTIVITIES. SECONDARY CONTAINMENT MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ENSURE SPILLS ARE CONTAINED AND CLEANED UP IMMEDIATELY UPON DISCOVERY. SPILLS LARGE ENOUGH TO REACH THE STORM WATER CONVEYANCE SYSTEM SHALL BE REPORTED TO THE MINNESOTA DUTY OFFICER AT 1.800.422.0798.

**FINAL STABILIZATION:**

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING FINAL STABILIZATION OF THE ENTIRE SITE. FINAL STABILIZATION INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

ALL SOIL DISTURBING ACTIVITIES HAVE BEEN COMPLETED.

ALL EXPOSED SOILS HAVE BEEN UNIFORMLY STABILIZED WITH AT LEAST 70% VEGETATION COVERAGE.

PERMANENT STORM WATER MANAGEMENT SYSTEM(S) ARE CONSTRUCTED AND ARE OPERATING AS DESIGNED.

ALL DRAINAGE DITCHES, PONDS, AND ALL STORM WATER CONVEYANCE SYSTEMS HAVE BEEN CLEARED OF SEDIMENT AND STABILIZED WITH PERMANENT COVER TO PRECLUDE EROSION.

ALL TEMPORARY BMPS HAVE BEEN REMOVED AND PROPERLY DISPOSED OF.

IN RESIDENTIAL CONSTRUCTION, INDIVIDUAL LOTS ARE CONSIDERED FINALLY STABILIZED IF THE STRUCTURE(S) ARE FINISHED AND TEMPORARY EROSION PROTECTION AND DOWNGRADEMENT PERIMETER CONTROL HAS BEEN COMPLETED, THE RESIDENCE HAS BEEN SOLD TO THE HOMEOWNER, AND THE HOMEOWNER HAS BEEN PROVIDED A "HOMEOWNER FACT SHEET" BY THE CONTRACTOR TO INFORM THE HOMEOWNER OF THE NEEDS FOR, AND BENEFITS OF, PERMANENT COVER.

AGRICULTURAL LAND DISTURBED HAS BEEN RETURNED TO ITS PRECONSTRUCTION AGRICULTURAL USE.

FINAL STABILIZATION SHALL BE PREFORMED IN ACCORDANCE WITH MNDOT 2014 SPECIFICATION 2575.

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DESIGNER: <u>RVH</u>				
CHECKED BY: <u>SDH</u>				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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.

SCOTT D. HEDLUND, PE  
Date: 03/09/2016 Lic. No. 40686

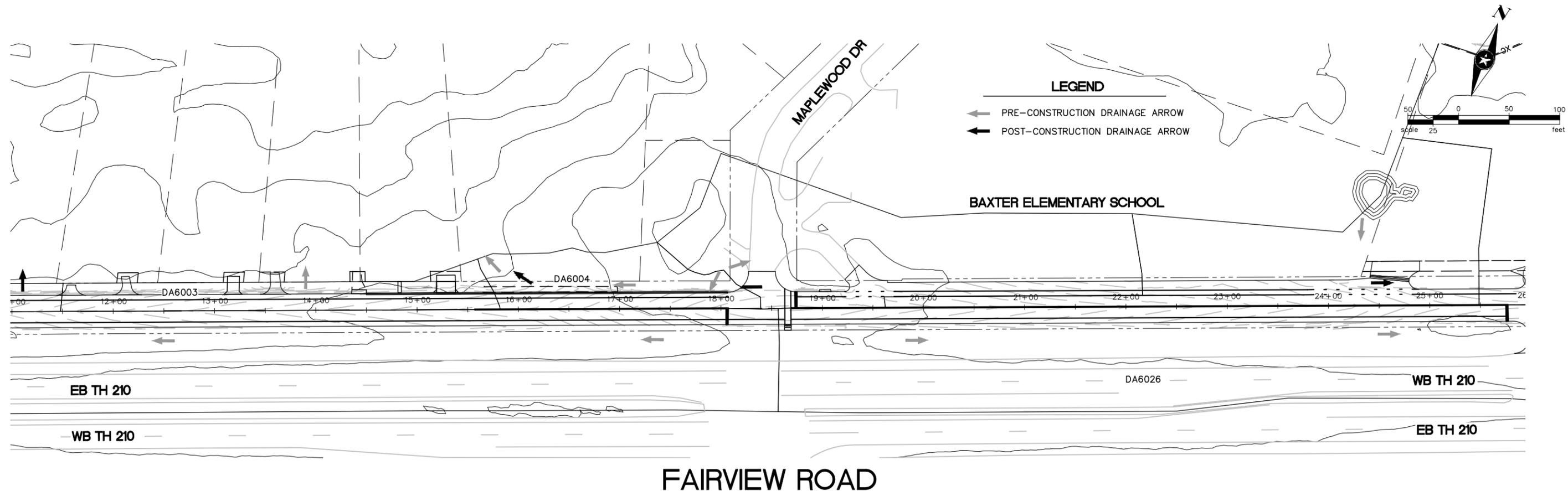
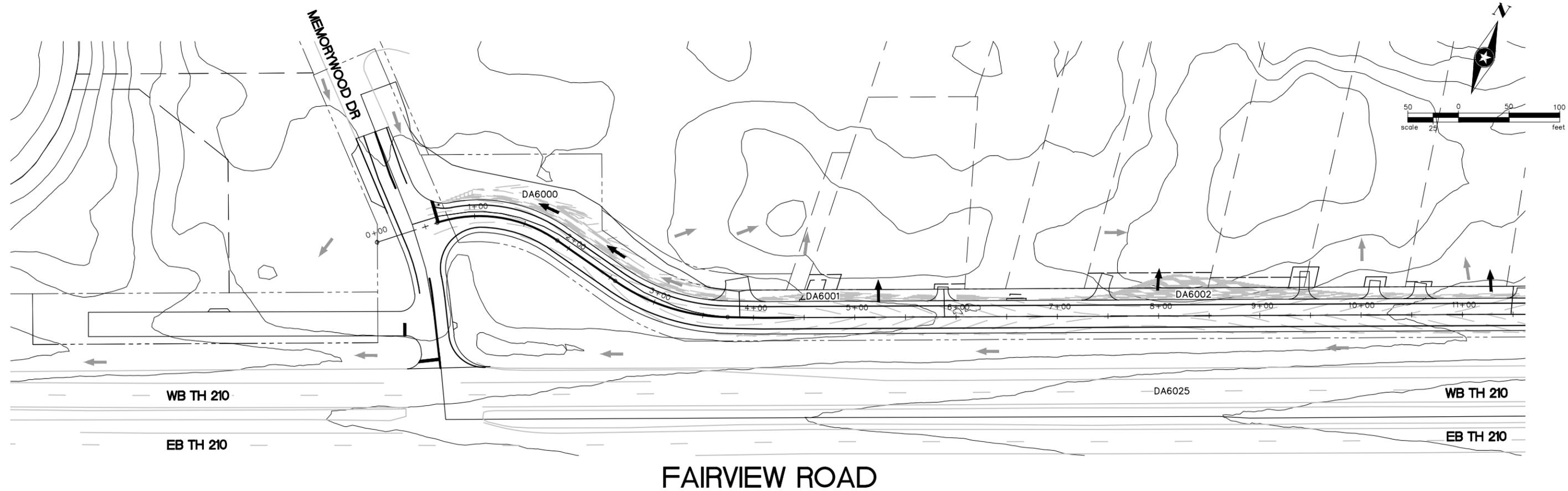


**2016 FAIRVIEW ROAD IMPROVEMENTS BAXTER, MINNESOTA**

**SWPP PLAN**

FILE NO. **BAXTE133676**

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**76**



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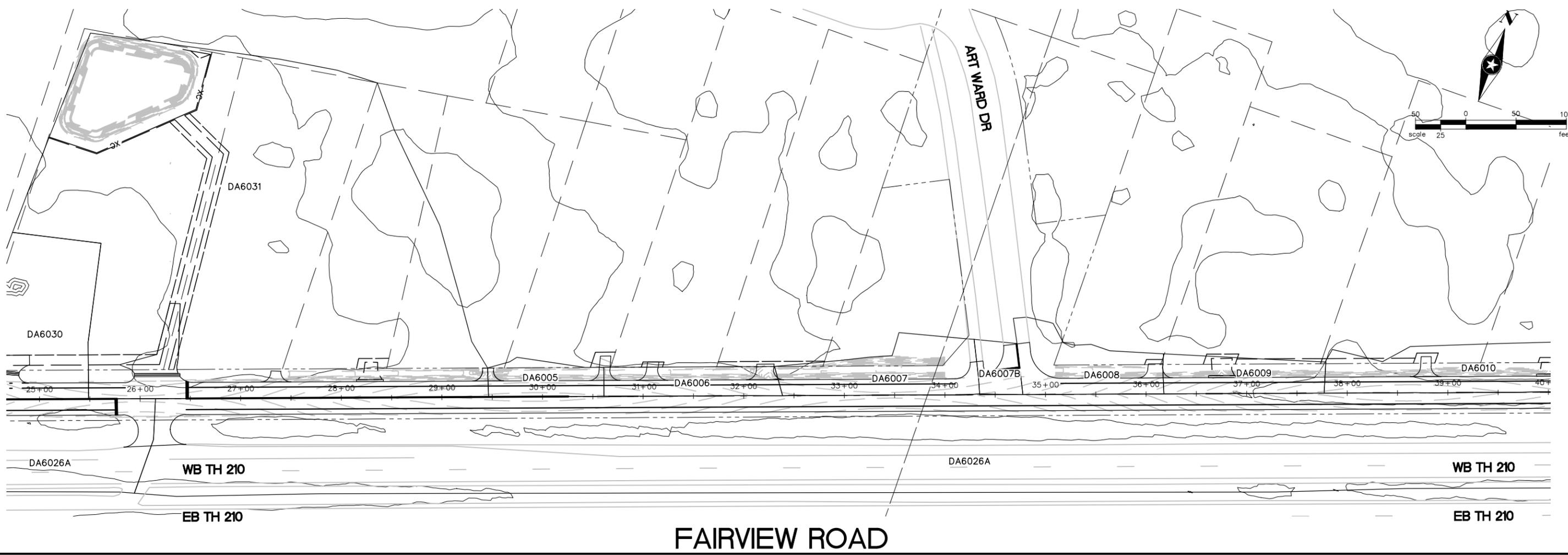
**2016 FAIRVIEW ROAD IMPROVEMENTS BAXTER, MINNESOTA**

**SWPPP PLAN**

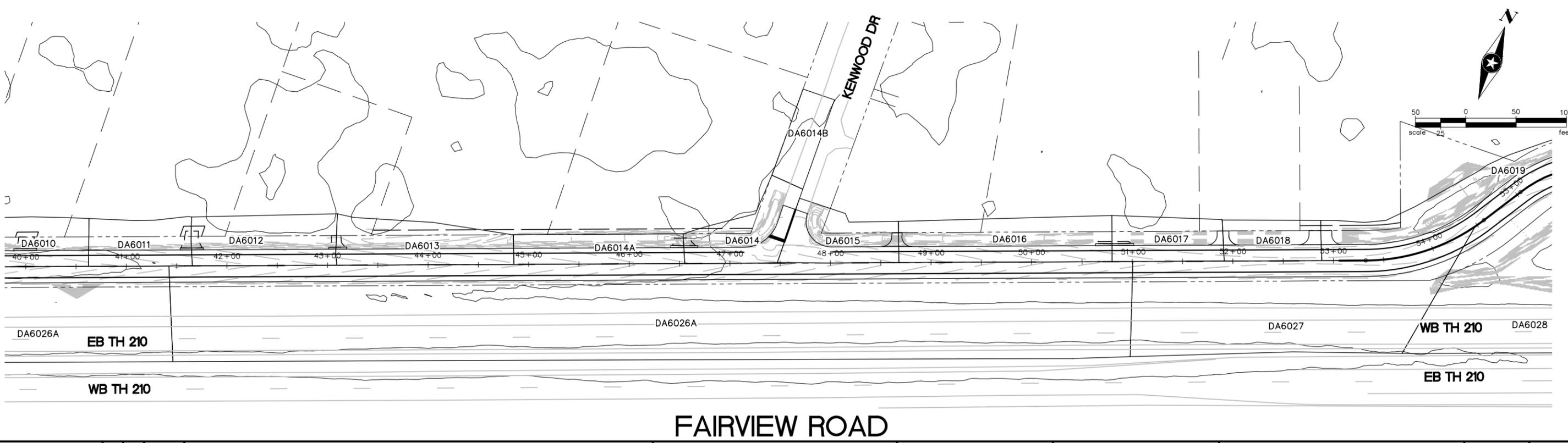
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### FAIRVIEW ROAD



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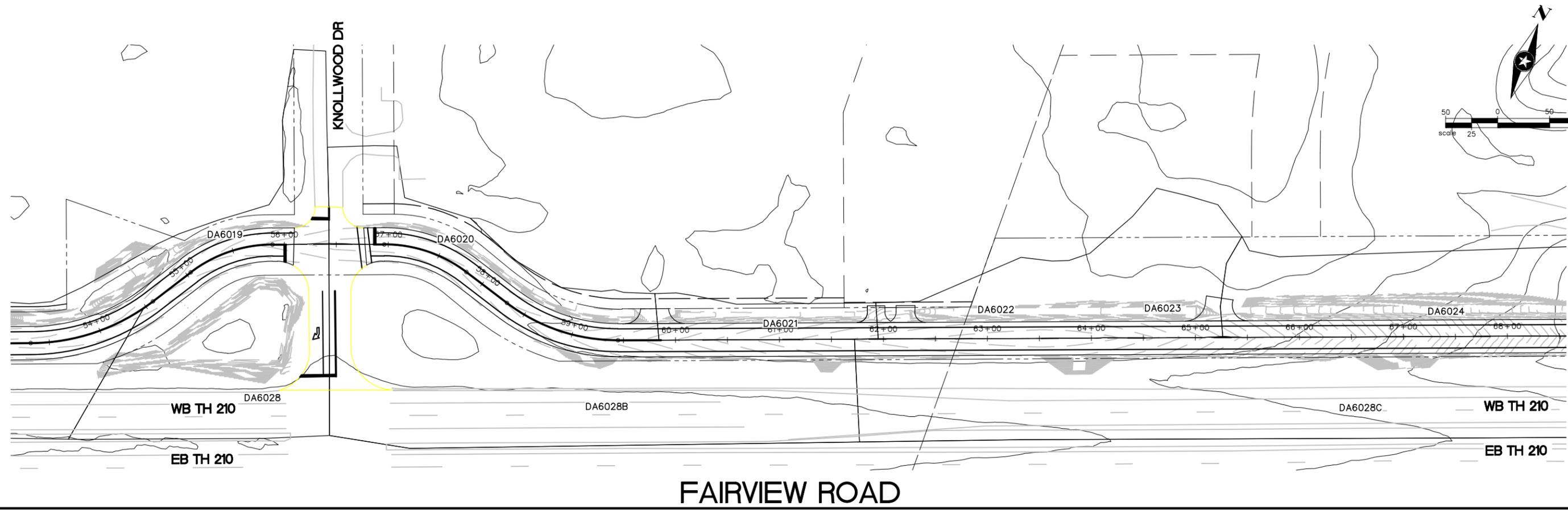
2016 FAIRVIEW ROAD  
 IMPROVEMENTS  
 BAXTER, MINNESOTA

SWPP PLAN

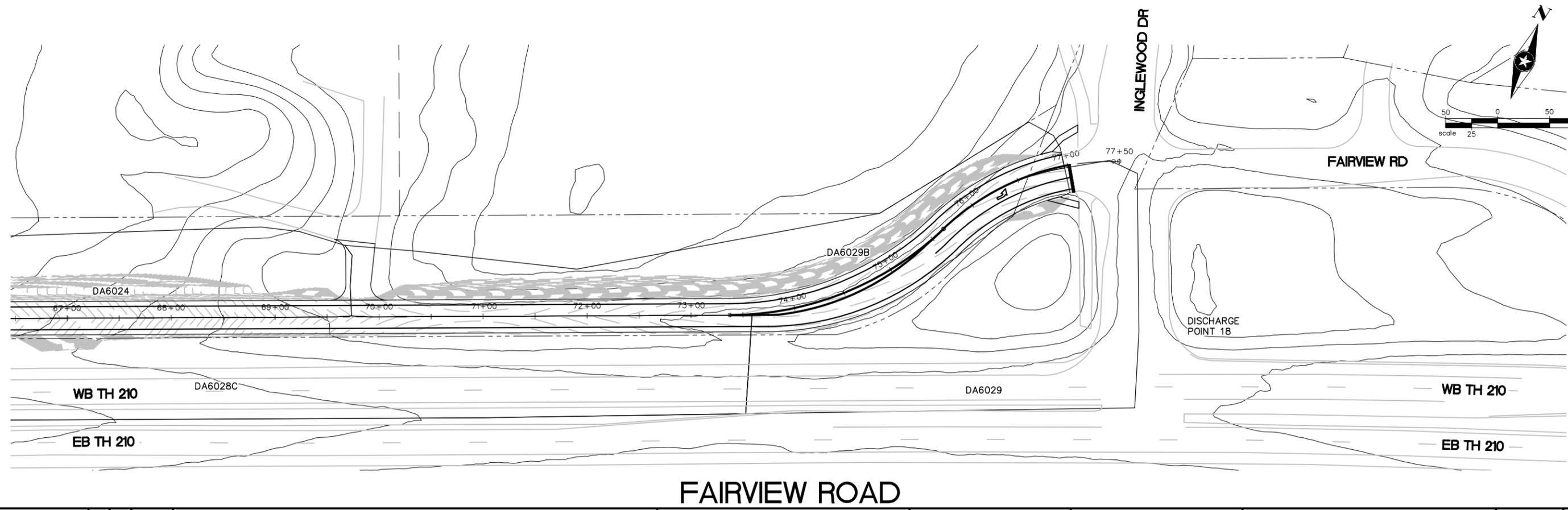
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**FAIRVIEW ROAD**



**FAIRVIEW ROAD**

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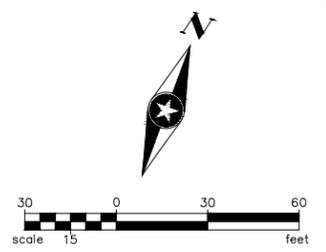
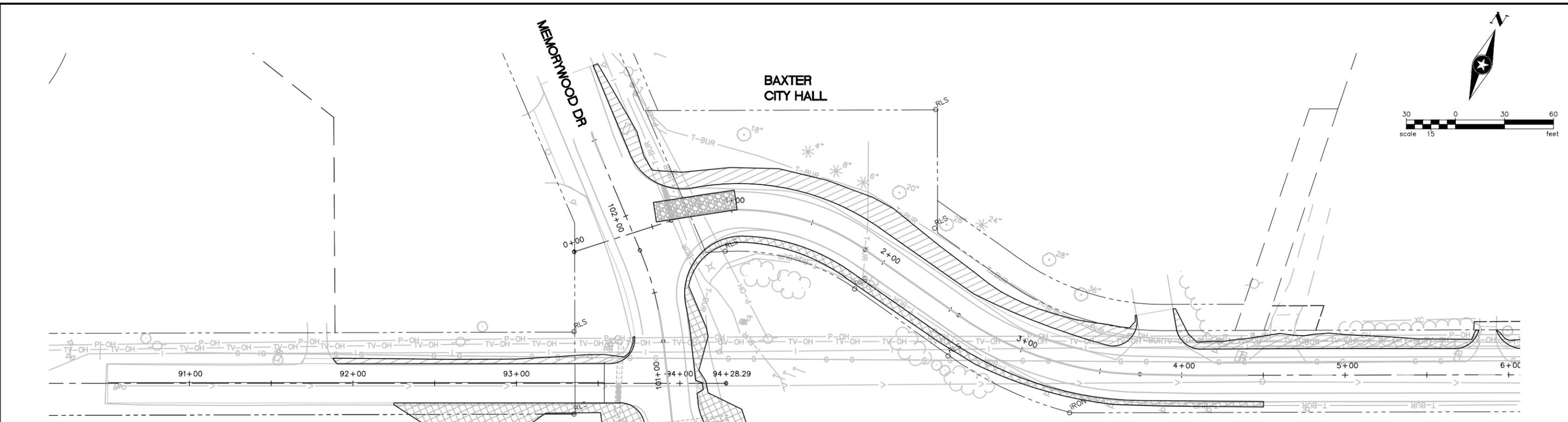


**2016 FAIRVIEW ROAD IMPROVEMENTS**  
 BAXTER, MINNESOTA

**SWPP PLAN**

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	INLET PROTECTION (POP-UP HEAD, SILT FENCE RING, SEDIMENT INLET HAT, ROCK LOG, OR APPROVED EQUAL)
	SILT FENCE
	TEMPORARY DITCH CHECK
	STABILIZED CONSTRUCTION EXIT
	4" TOPSOIL, SEED MIX 25-151 @ 240 LBS/ACRE, FERTILIZER 20-0-20 @ 350 LBS/ACRE, HYDRAULIC MATRIX TYPE FRM @ 3900 LBS/AC
	4" TOPSOIL, SEED MIX 25-131 @ 220 LBS/ACRE, FERTILIZER 20-0-20 @ 350 LBS/ACRE, HYDRAULIC MATRIX TYPE FRM @ 3900 LBS/AC
	4" TOPSOIL, SEED MIX 34-181 @ 10 LBS/ACRE, FERTILIZER 20-0-20 @ 350 LBS/ACRE, HYDRAULIC MATRIX TYPE FRM @ 3900 LBS/AC

IF AN AREA WILL NOT BE ACTIVELY WORKED WITHIN SEVEN (7) CALENDAR DAYS, TEMPORARY SITE STABILIZATION SHALL BE COMPLETED USING SEED MIX 22-111 @ 60 LBS/ACRE AND HYDRAULIC MATRIX TYPE HYDRAULIC MULCH @ 2500 LBS/ACRE

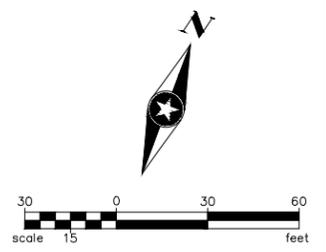
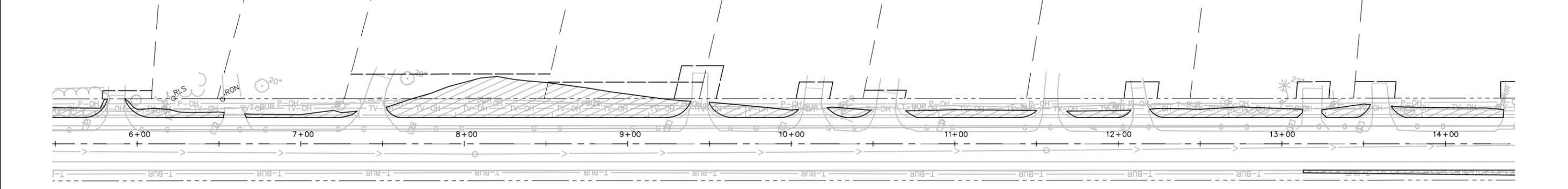
TEMPORARY SEEDING ITEMS SHALL INCLUDE MULTIPLE MOBILIZATION COSTS.

TOPSOIL PLACEMENT AND FINE GRADING SHALL BE APPROVED BY THE ENGINEER OR THEIR REPRESENTATIVE PRIOR TO SEEDING.

SEEDING AND FERTILIZER PLACEMENT MUST BE COMPLETED PRIOR TO THE APPLICATION OF THE FIBER REINFORCED MATRIX (FRM).

## FAIRVIEW ROAD

WB TH 210



WB TH 210

WB TH 210

## FAIRVIEW ROAD

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DESIGNER:	RVH			
CHECKED BY:	SDH			
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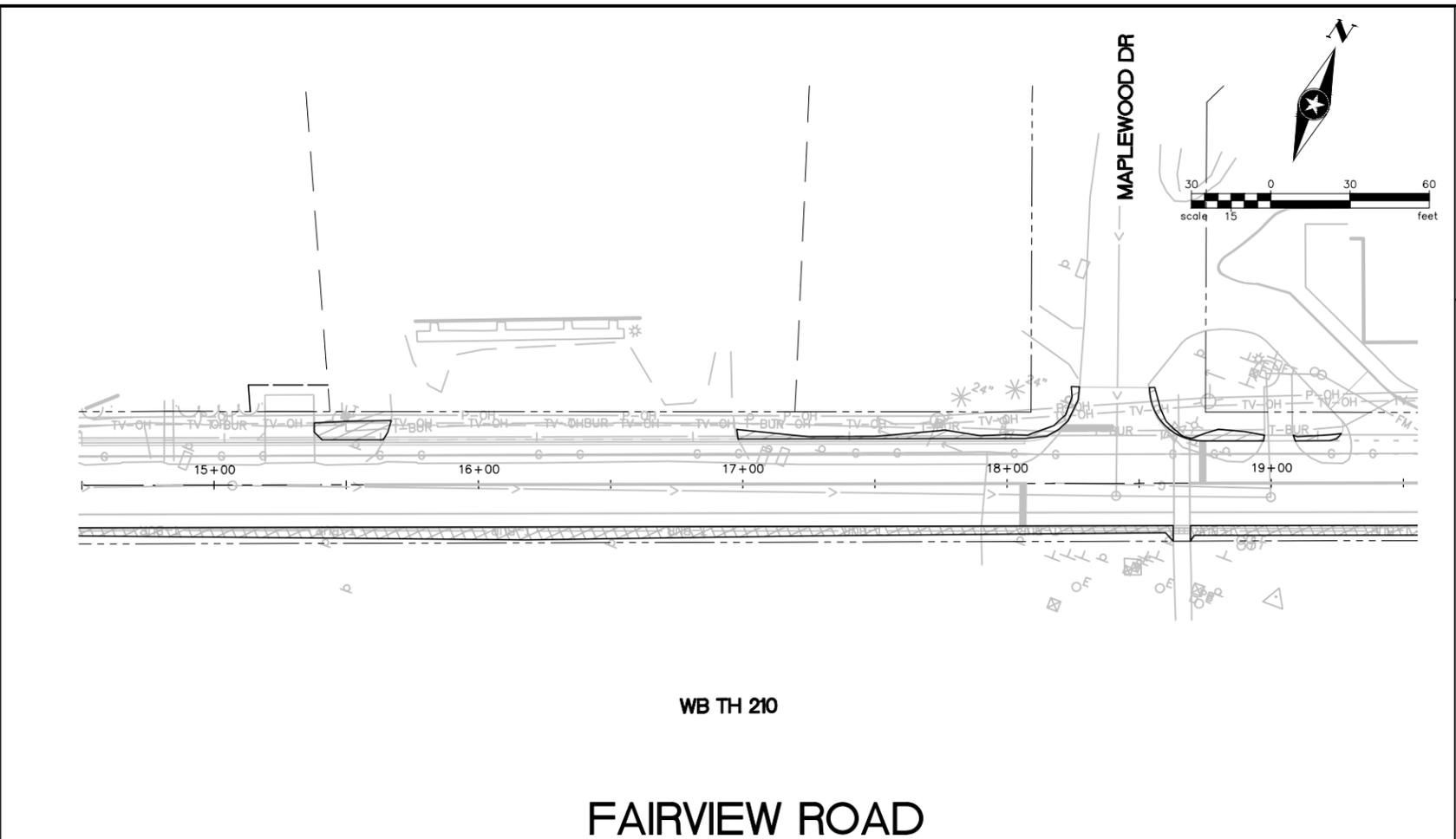
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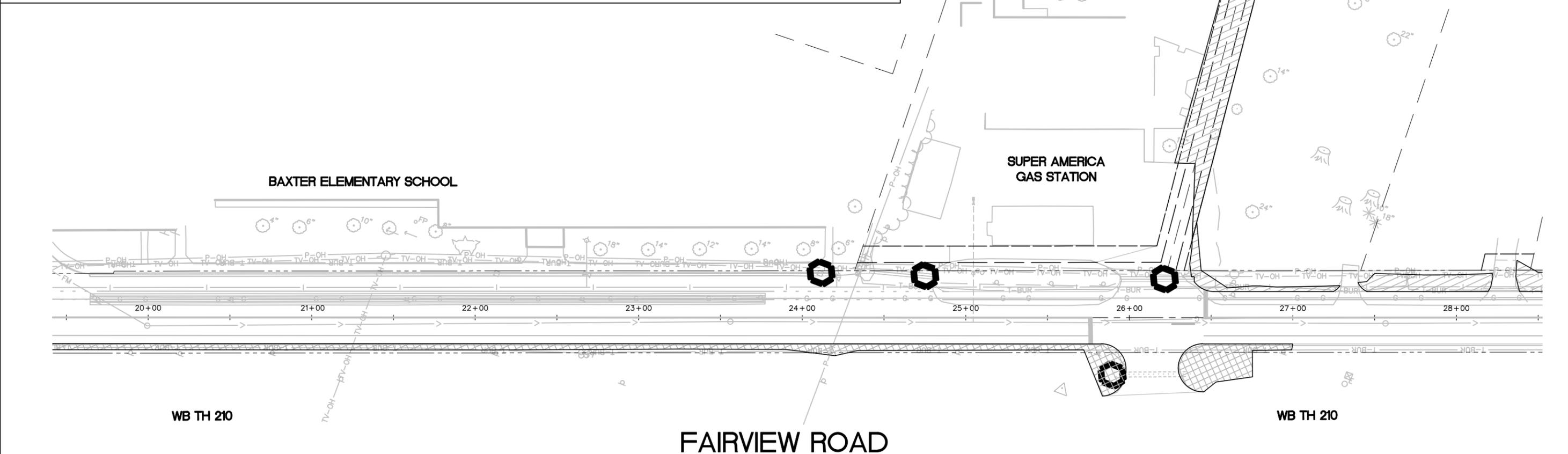
EROSION CONTROL AND  
TURF ESTABLISHMENT PLAN

FILE NO.  
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WB TH 210  
FAIRVIEW ROAD



WB TH 210

FAIRVIEW ROAD

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-  INLET PROTECTION (POP-UP HEAD, SILT FENCE RING, SEDIMENT INLET HAT, ROCK LOG, OR APPROVED EQUAL)
  -  SILT FENCE
  -  TEMPORARY DITCH CHECK
  -  STABILIZED CONSTRUCTION EXIT
  -  4" TOPSOIL, SEED MIX 25-151 @ 240 LBS/ACRE, FERTILIZER 20-0-20 @ 350 LBS/ACRE, HYDRAULIC MATRIX TYPE FRM @ 3900 LBS/AC
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- TEMPORARY SEEDING ITEMS SHALL INCLUDE MULTIPLE MOBILIZATION COSTS.
- TOPSOIL PLACEMENT AND FINE GRADING SHALL BE APPROVED BY THE ENGINEER OR THEIR REPRESENTATIVE PRIOR TO SEEDING.
- SEEDING AND FERTILIZER PLACEMENT MUST BE COMPLETED PRIOR TO THE APPLICATION OF THE FIBER REINFORCED MATRIX (FRM).

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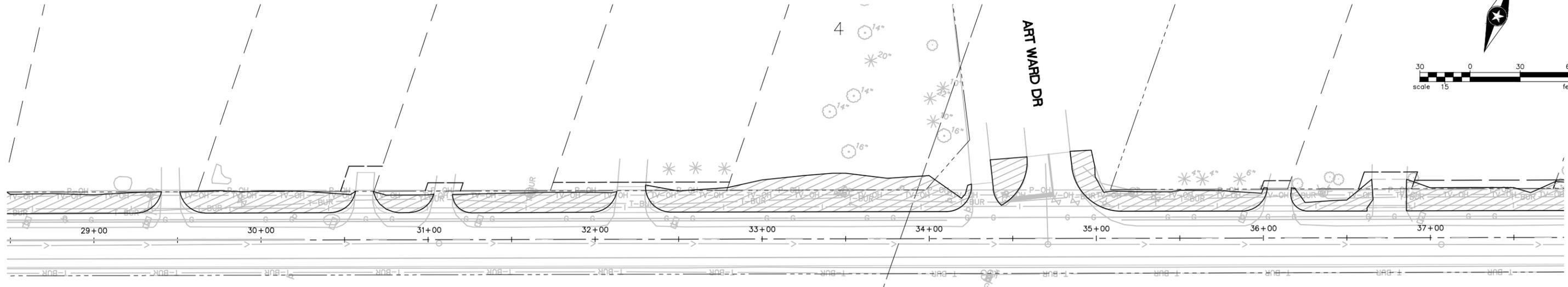
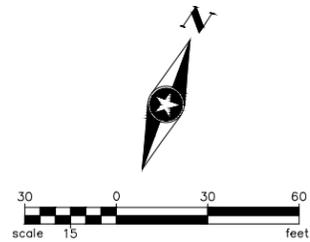
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2016 FAIRVIEW ROAD  
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EROSION CONTROL AND  
TURF ESTABLISHMENT PLAN

FILE NO. **37**  
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WB TH 210

## FAIRVIEW ROAD

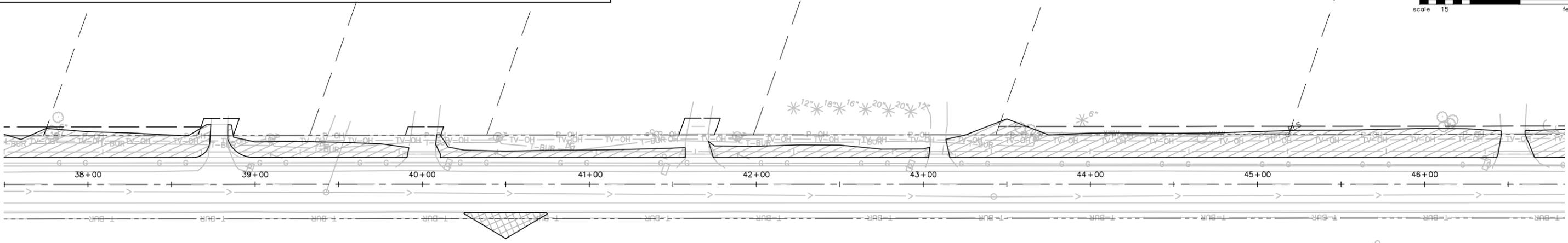
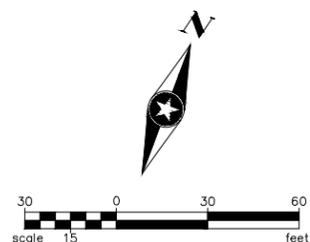
	INLET PROTECTION (POP-UP HEAD, SILT FENCE RING, SEDIMENT INLET HAT, ROCK LOG, OR APPROVED EQUAL)
	SILT FENCE
	TEMPORARY DITCH CHECK
	STABILIZED CONSTRUCTION EXIT
	4" TOPSOIL, SEED MIX 25-151 @ 240 LBS/ACRE, FERTILIZER 20-0-20 @ 350 LBS/ACRE, HYDRAULIC MATRIX TYPE FRM @ 3900 LBS/AC
	4" TOPSOIL, SEED MIX 25-131 @ 220 LBS/ACRE, FERTILIZER 20-0-20 @ 350 LBS/ACRE, HYDRAULIC MATRIX TYPE FRM @ 3900 LBS/AC
	4" TOPSOIL, SEED MIX 34-181 @ 10 LBS/ACRE, FERTILIZER 20-0-20 @ 350 LBS/ACRE, HYDRAULIC MATRIX TYPE FRM @ 3900 LBS/AC

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TEMPORARY SEEDING ITEMS SHALL INCLUDE MULTIPLE MOBILIZATION COSTS.

TOPSOIL PLACEMENT AND FINE GRADING SHALL BE APPROVED BY THE ENGINEER OR THEIR REPRESENTATIVE PRIOR TO SEEDING.

SEEDING AND FERTILIZER PLACEMENT MUST BE COMPLETED PRIOR TO THE APPLICATION OF THE FIBER REINFORCED MATRIX (FRM).



WB TH 210

WB TH 210

## FAIRVIEW ROAD

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DESIGNER: RVH			
CHECKED BY: SDH			
DESIGN TEAM	NO.	BY	DATE

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.

SCOTT D. HEDLUND, PE  
Date: 03/09/2016 Lic. No. 40686

PHONE: 320.229.4300  
1200 25TH AVENUE SOUTH  
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ST. CLOUD, MN 56302-1717  
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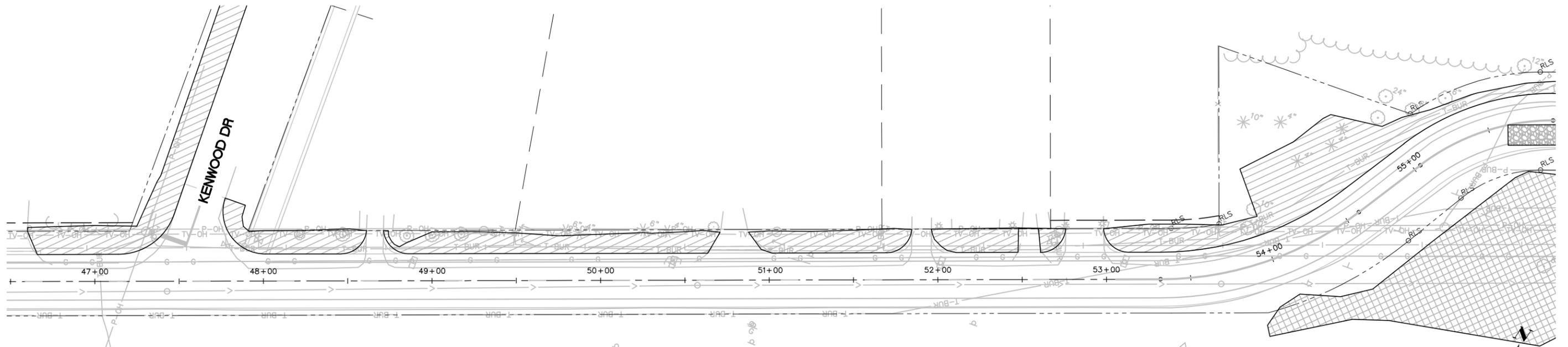
2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA

EROSION CONTROL AND  
TURF ESTABLISHMENT PLAN

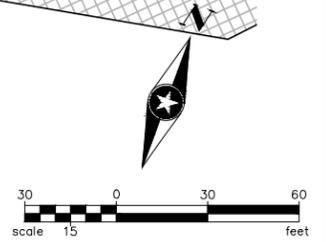
FILE NO.  
BAXTE133676

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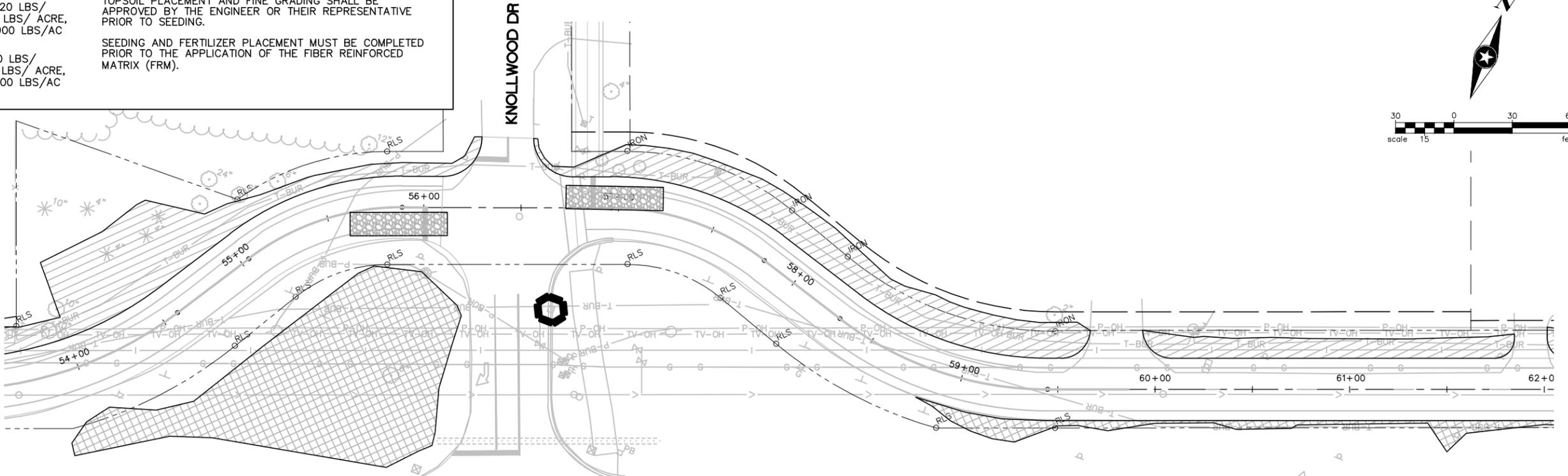
WB TH 210



	INLET PROTECTION (POP-UP HEAD, SILT FENCE RING, SEDIMENT INLET HAT, ROCK LOG, OR APPROVED EQUAL)	<p>IF AN AREA WILL NOT BE ACTIVELY WORKED WITHIN SEVEN (7) CALENDAR DAYS, TEMPORARY SITE STABILIZATION SHALL BE COMPLETED USING SEED MIX 22-111 @ 60 LBS/ACRE AND HYDRAULIC MATRIX TYPE HYDRAULIC MULCH @ 2500 LBS/ ACRE</p> <p>TEMPORARY SEEDING ITEMS SHALL INCLUDE MULTIPLE MOBILIZATION COSTS.</p> <p>TOPSOIL PLACEMENT AND FINE GRADING SHALL BE APPROVED BY THE ENGINEER OR THEIR REPRESENTATIVE PRIOR TO SEEDING.</p> <p>SEEDING AND FERTILIZER PLACEMENT MUST BE COMPLETED PRIOR TO THE APPLICATION OF THE FIBER REINFORCED MATRIX (FRM).</p>
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	STABILIZED CONSTRUCTION EXIT	
	4" TOPSOIL, SEED MIX 25-151 @ 240 LBS/ ACRE, FERTILIZER 20-0-20 @ 350 LBS/ ACRE, HYDRAULIC MATRIX TYPE FRM @ 3900 LBS/AC	
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## FAIRVIEW ROAD

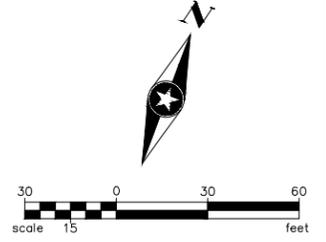
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WB TH 210

WB TH 210

## FAIRVIEW ROAD



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DRAWN BY:	BDY			
DESIGNER:	RVH			
CHECKED BY:	SDH			
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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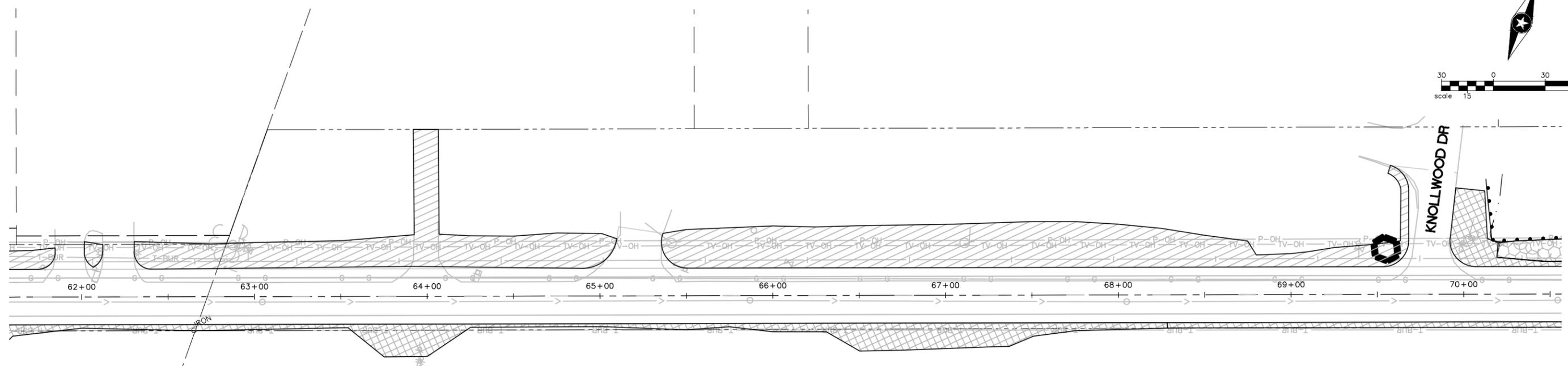
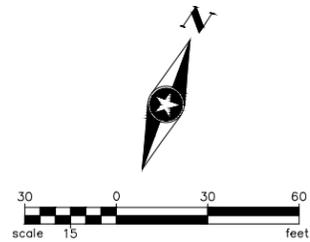
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2016 FAIRVIEW ROAD  
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BAXTER, MINNESOTA

EROSION CONTROL AND  
TURF ESTABLISHMENT PLAN

FILE NO.  
BAXTE133676

39  
76



**INLET PROTECTION (POP-UP HEAD, SILT FENCE RING, SEDIMENT INLET HAT, ROCK LOG, OR APPROVED EQUAL)**

**SILT FENCE**

**TEMPORARY DITCH CHECK**

**STABILIZED CONSTRUCTION EXIT**

**4" TOPSOIL, SEED MIX 25-151 @ 240 LBS/ACRE, FERTILIZER 20-0-20 @ 350 LBS/ACRE, HYDRAULIC MATRIX TYPE FRM @ 3900 LBS/AC**

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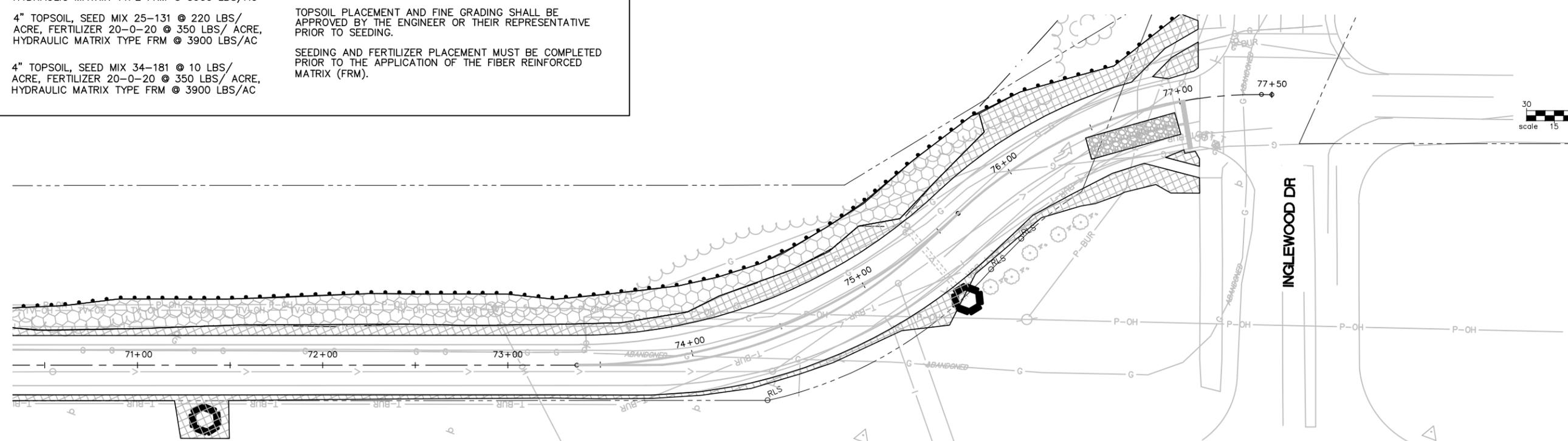
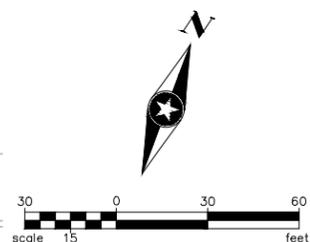
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WB TH 210

# FAIRVIEW ROAD



WB TH 210

# FAIRVIEW ROAD

WB TH 210

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**2016 FAIRVIEW ROAD IMPROVEMENTS BAXTER, MINNESOTA**

**EROSION CONTROL AND TURF ESTABLISHMENT PLAN**

FILE NO. BAXTE133676

**40**  
**76**

GENERAL STRIPING REQUIREMENTS

THE ENGINEER'S INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD SPOTTING, LOCATION, AND INSPECTION. THE ENGINEER WILL PLACE NECESSARY "SPOTTING" AT APPROPRIATE POINTS TO PROVIDE HORIZONTAL CONTROL FOR STRIPING AND TO DETERMINE NECESSARY STARTING AND CUTOFF POINTS. BROKEN LINE INTERVALS WILL NOT BE MARKED. LONGITUDINAL JOINTS, PAVEMENT EDGES, AND EXISTING MARKINGS SHALL SERVE AS HORIZONTAL CONTROL WHEN SO DIRECTED.

EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY A YIELD SIGN, STOP SIGN, OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE RADIUS FOR THE INTERSECTION OR AT MARKED STOP LINES OR CROSSWALKS.

A TOLERANCE OF +/- 1/4 INCH FROM THE SPECIFIED WIDTH WILL BE ALLOWED FOR STRIPING PROVIDED THE VARIATION IS GRADUAL AND DOES NOT DETRACT FROM THE GENERAL APPEARANCE. BROKEN LINE SEGMENTS MAY VARY UP TO ONE-QUARTER FOOT FROM THE SPECIFIED LENGTHS PROVIDED THE OVER AND UNDER VARIATIONS ARE REASONABLY COMPENSATORY, ALIGNMENT DEVIATIONS FROM THE CONTROL GUIDE SHALL NOT EXCEED 2 INCHES. MATERIAL SHALL NOT BE APPLIED OVER LONGITUDINAL JOINT. ESTABLISHMENT OF APPLICATION TOLERANCES SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLY AS CLOSELY AS PRACTICABLE WITH THE PLANNED DIMENSIONS.

PAINT

AT THE TIME OF APPLYING THE MARKING MATERIAL, THE APPLICATION AREA SHALL BE FREE OF CONTAMINATION. THE CONTRACTOR SHALL CLEAN THE ROADWAY SURFACE PRIOR TO THE LINE APPLICATION IN A MANNER AND TO THE EXTENT REQUIRED BY THE ENGINEER.

GLASS BEADS SHALL BE APPLIED IMMEDIATELY AFTER THE APPLICATION OF THE PAINT LINE.

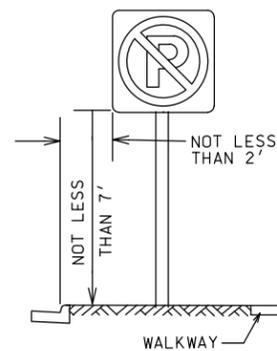
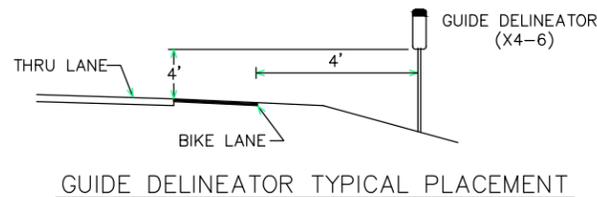
EXCEPT WHEN USED AS A TEMPORARY MARKING, PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE WEATHER WHEN THE AIR TEMPERATURE IS 50 DEGREES F OR HIGHER AND SHALL NOT BE APPLIED WHEN THE WIND OR OTHER CONDITIONS CAUSE A FILM OF DUST TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL CAN BE APPLIED.

THE FILLING OF TANKS, POURING OF MATERIALS, OR THE CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF THE MATERIAL.

SIGNING NOTES

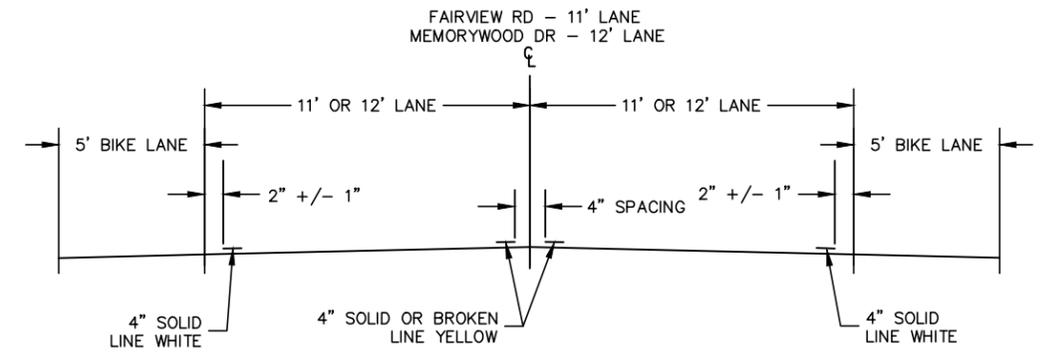
ALL FURNISHED AND SALVAGED SIGNS SHALL BE PLACED ON NEW GALVANIZED POSTS.

ALL SIGN POSTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 AND MEET THE REQUIREMENTS OF Mn/DOT SPECIFICATION 3401.2.

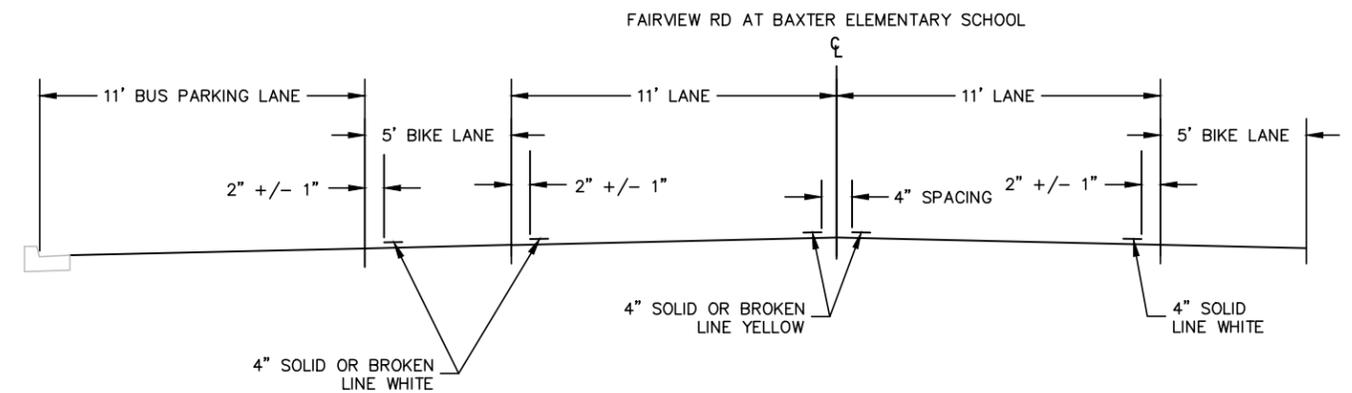


URBAN DISTRICT  
HEIGHT AND LATERAL LOCATION OF SIGNS  
NO SCALE

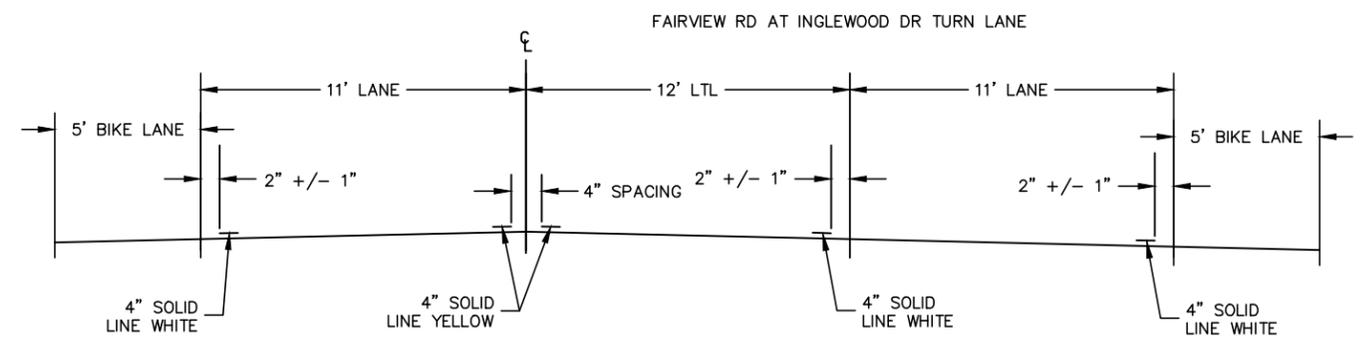
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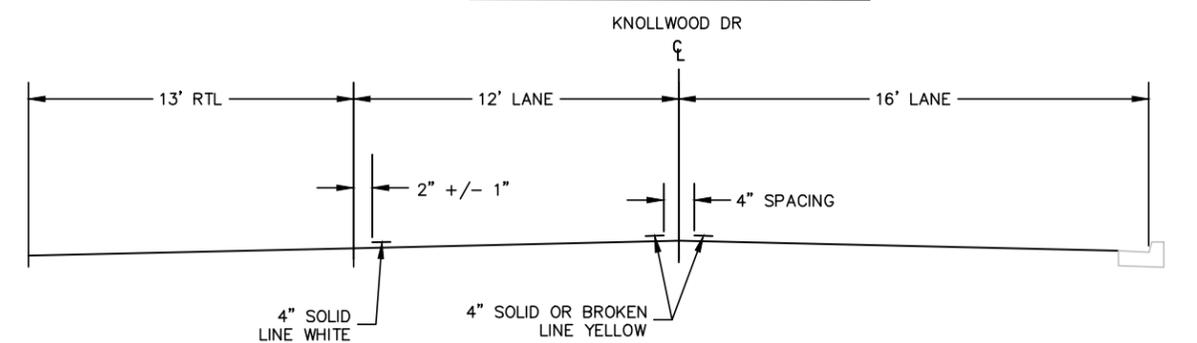
STRIPING TYPICAL SECTION



STRIPING TYPICAL SECTION



STRIPING TYPICAL SECTION



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DRAWN BY:	BDY
DESIGNER:	RVH
CHECKED BY:	SDH
DESIGN TEAM	

NO.	BY	DATE	REVISIONS

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SCOTT D. HEDLUND, PE  
Date: 03/09/2016 Lic. No. 40686

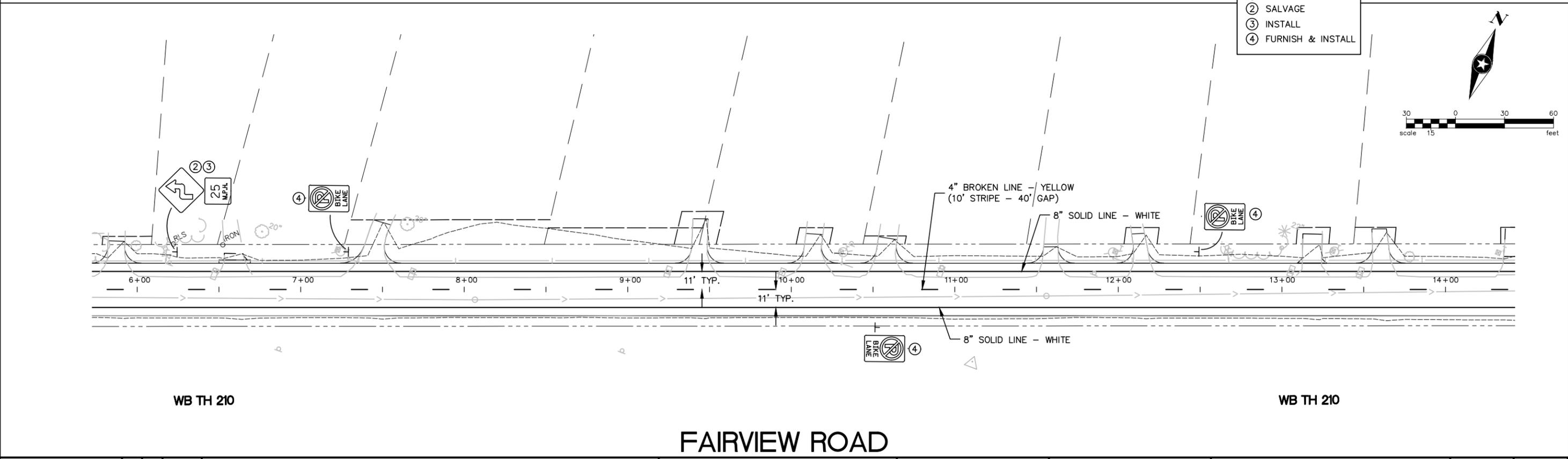
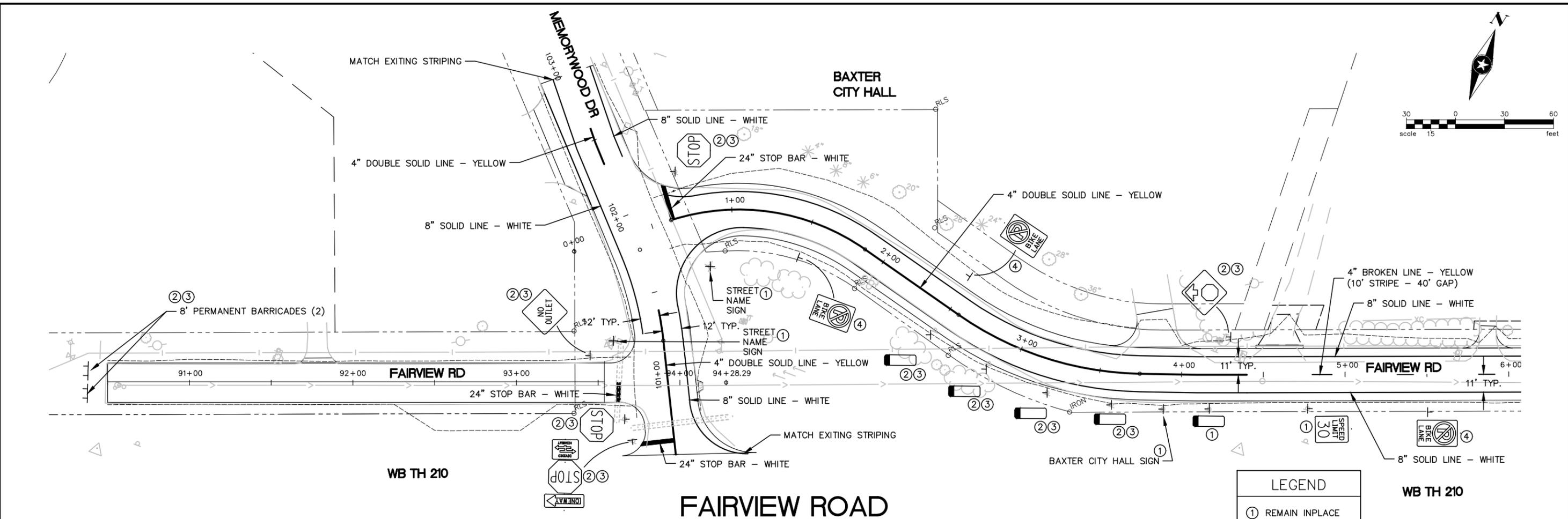


2016 FAIRVIEW ROAD IMPROVEMENTS BAXTER, MINNESOTA

SIGNING AND STRIPING NOTES AND DETAILS

FILE NO. BAXTE133676  
41  
76

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DRAWN BY: BDY  
 DESIGNER: RVH  
 CHECKED BY: SDH

DESIGN TEAM	NO.	BY	DATE	REVISIONS

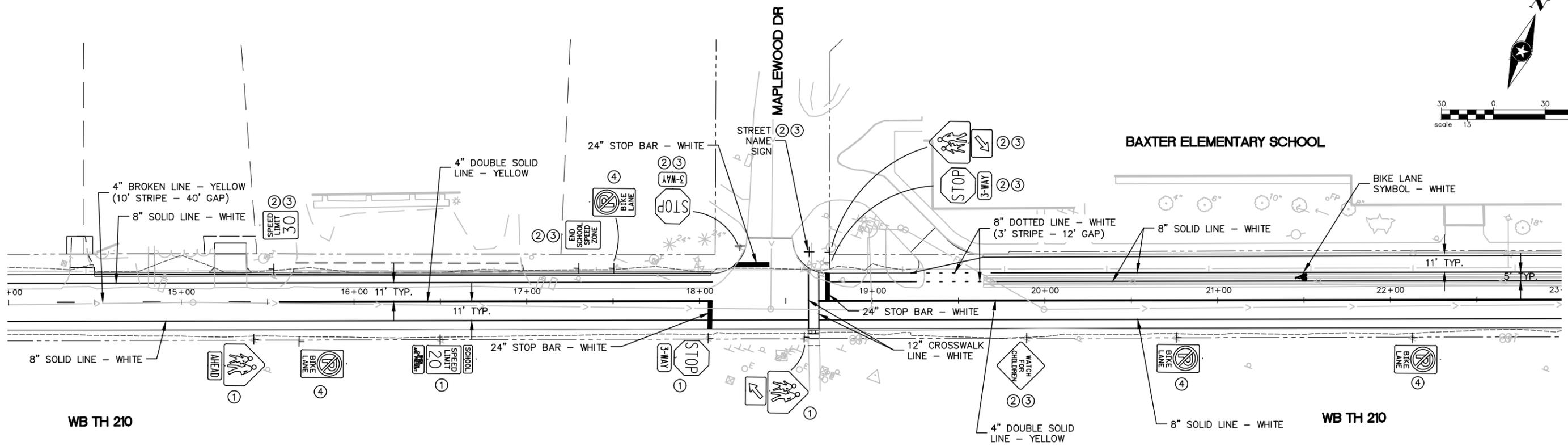
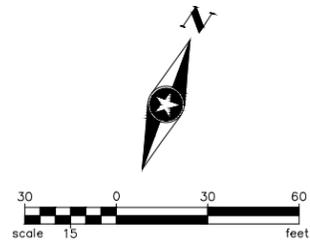
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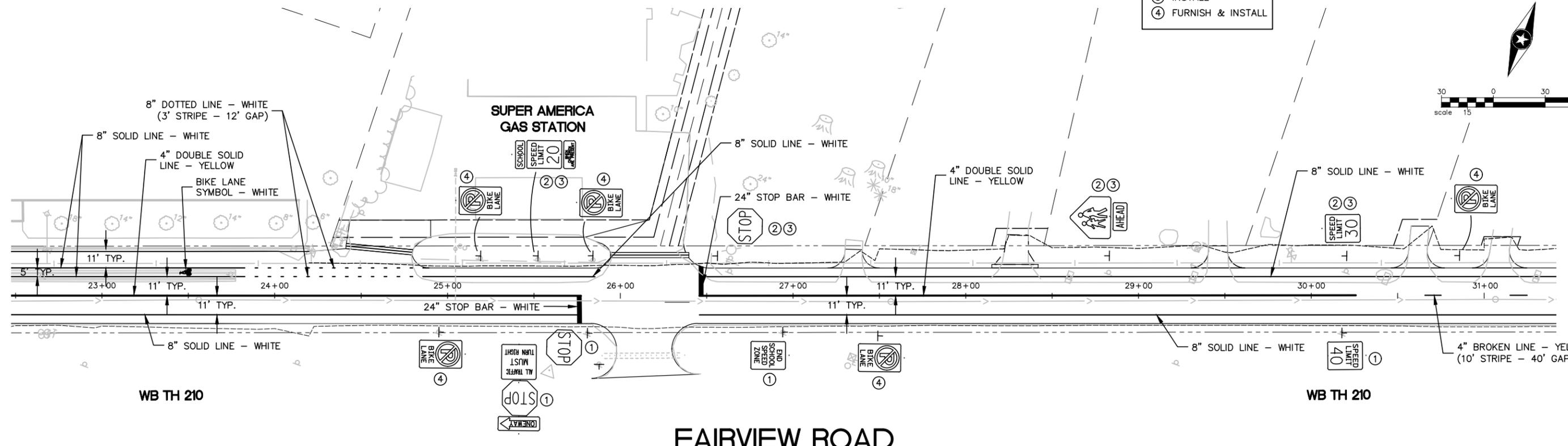
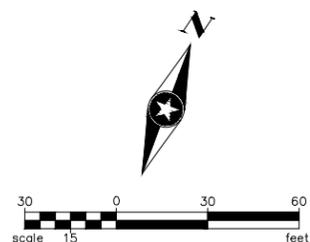
2016 FAIRVIEW ROAD IMPROVEMENTS  
 BAXTER, MINNESOTA

SIGNING AND STRIPING PLAN

FILE NO. BAXTE133676  
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LEGEND	
①	REMAIN INPLACE
②	SALVAGE
③	INSTALL
④	FURNISH & INSTALL



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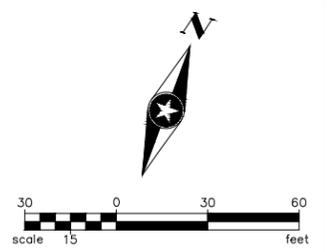
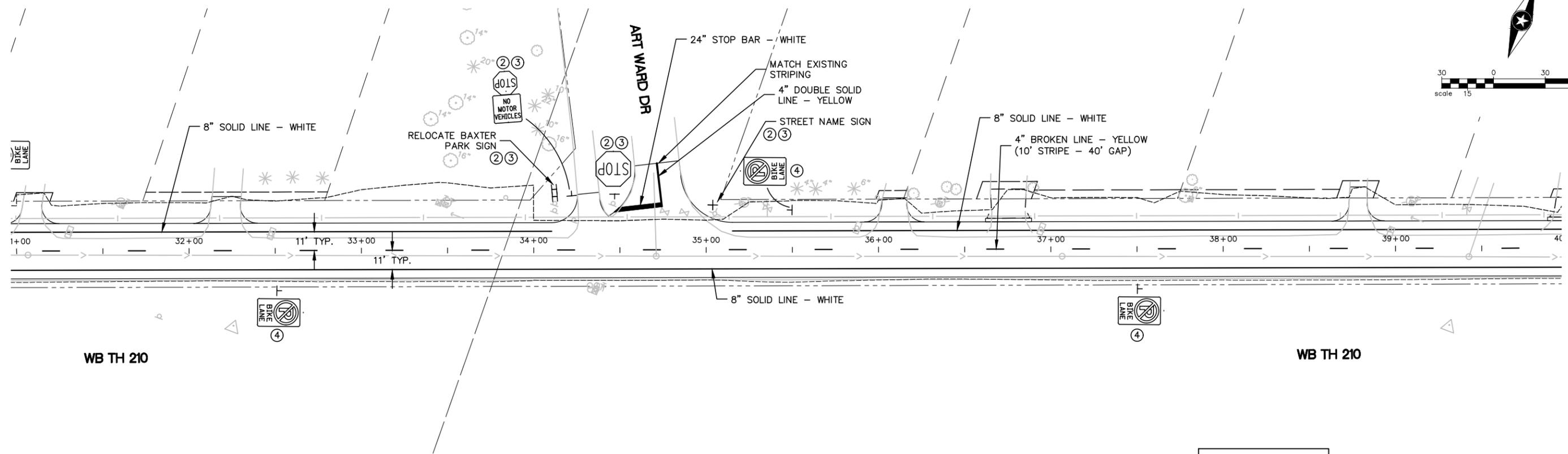


2016 FAIRVIEW ROAD  
 IMPROVEMENTS  
 BAXTER, MINNESOTA

SIGNING AND STRIPING PLAN

FILE NO.  
 BAXTE133676  
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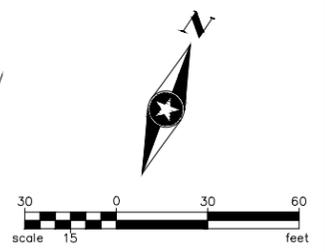
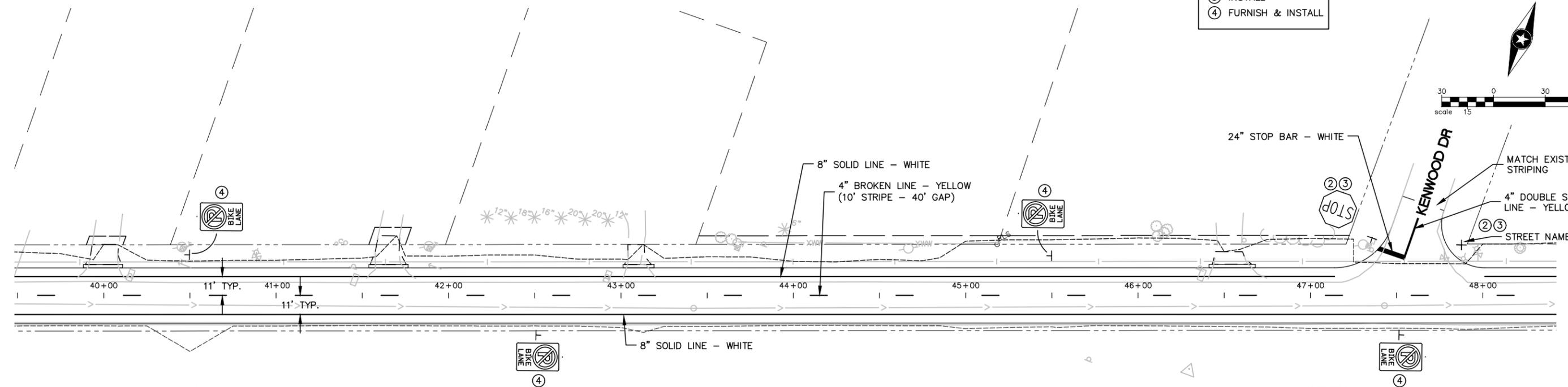


WB TH 210

WB TH 210

### FAIRVIEW ROAD

LEGEND	
①	REMAIN INPLACE
②	SALVAGE
③	INSTALL
④	FURNISH & INSTALL



WB TH 210

WB TH 210

### FAIRVIEW ROAD

DRAWN BY:	BDY			
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CHECKED BY:	SDH			
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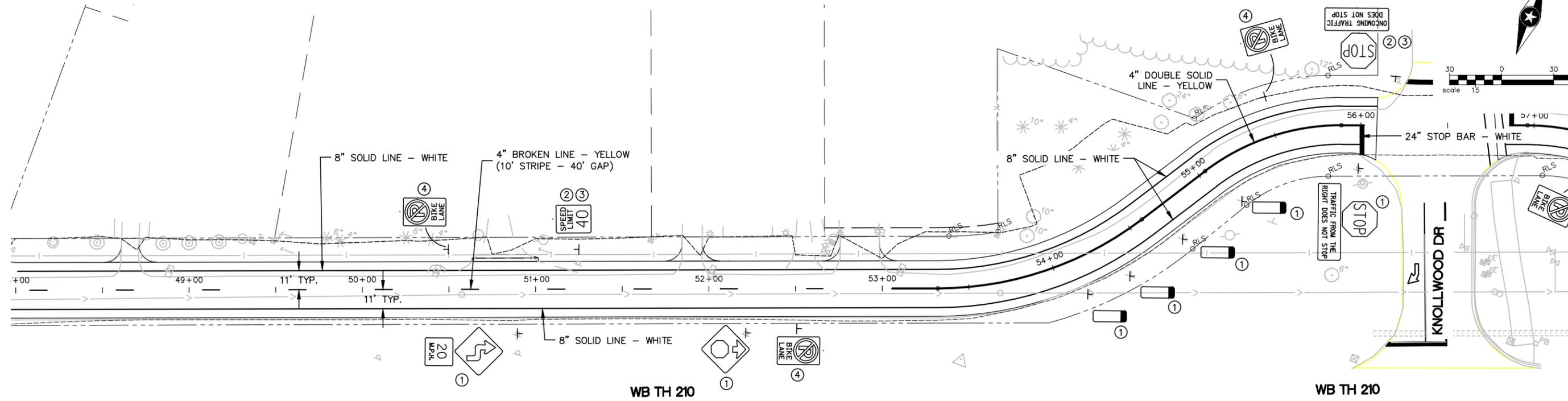
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**2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA**

**SIGNING AND STRIPING PLAN**

FILE NO.  
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**44**  
**76**

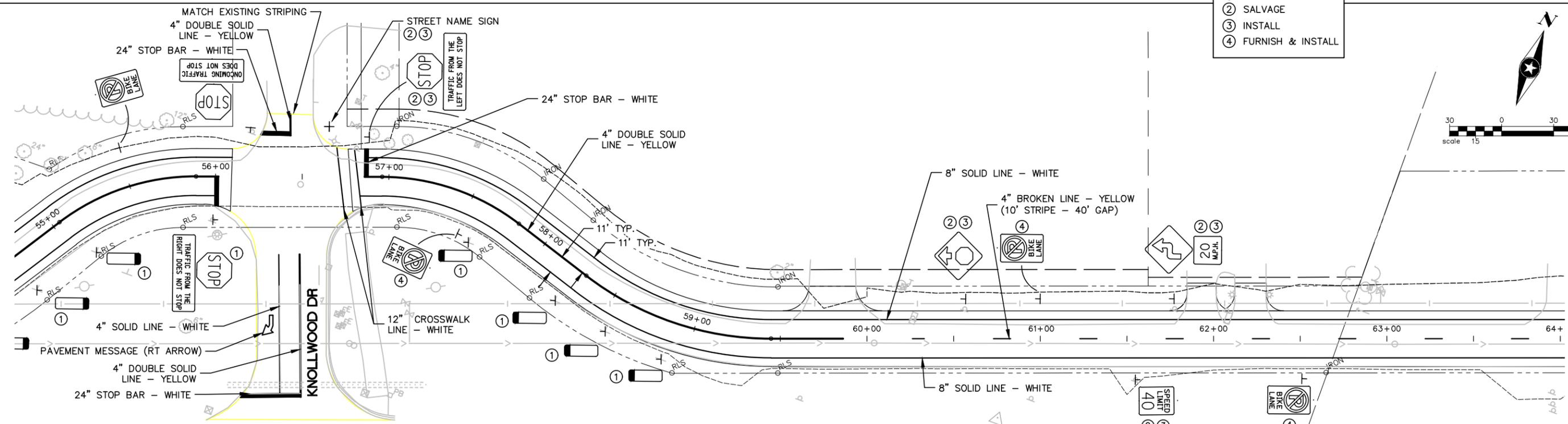


WB TH 210

WB TH 210

# FAIRVIEW ROAD

LEGEND	
①	REMAIN INPLACE
②	SALVAGE
③	INSTALL
④	FURNISH & INSTALL



WB TH 210

WB TH 210

# FAIRVIEW ROAD

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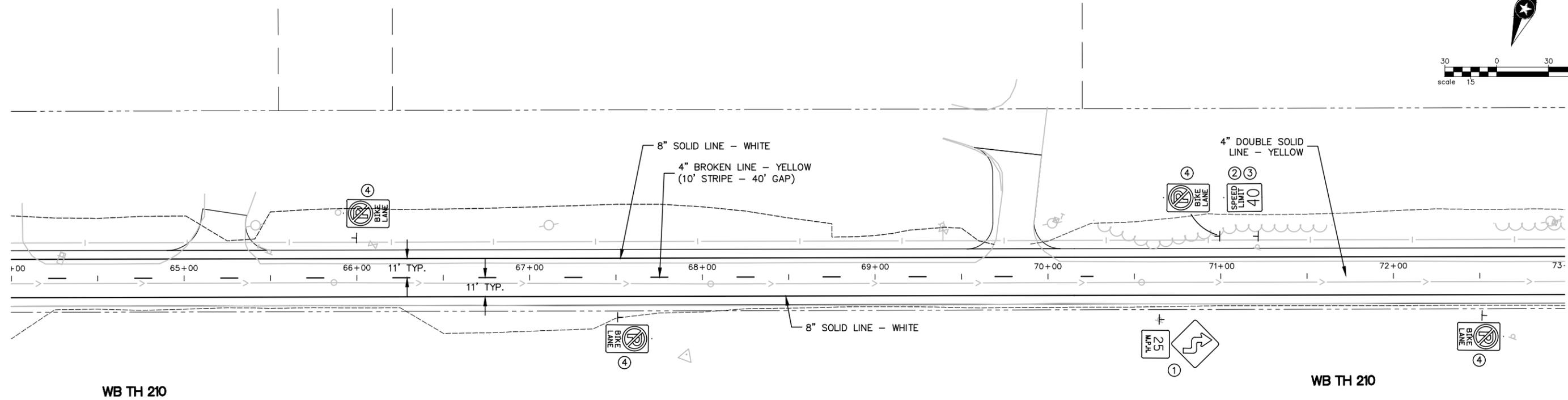
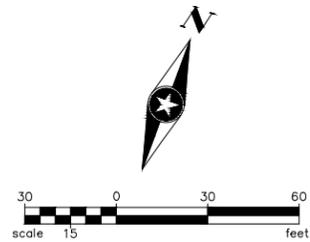
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2016 FAIRVIEW ROAD  
IMPROVEMENTS  
BAXTER, MINNESOTA

SIGNING AND STRIPING PLAN

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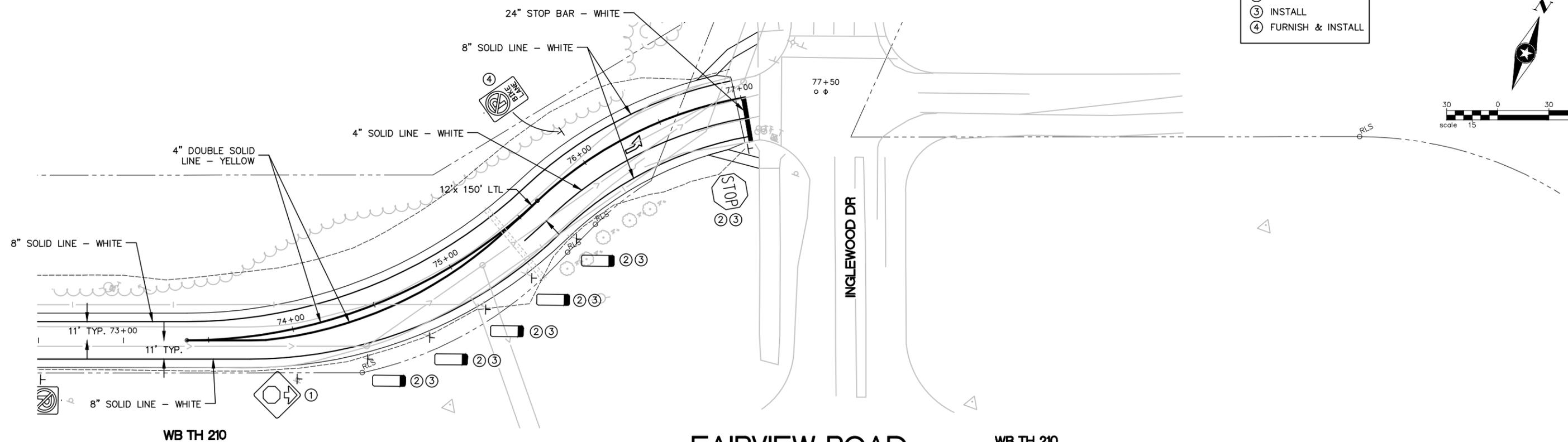


WB TH 210

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# FAIRVIEW ROAD

LEGEND	
①	REMAIN INPLACE
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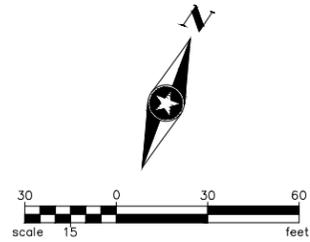


WB TH 210

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# FAIRVIEW ROAD

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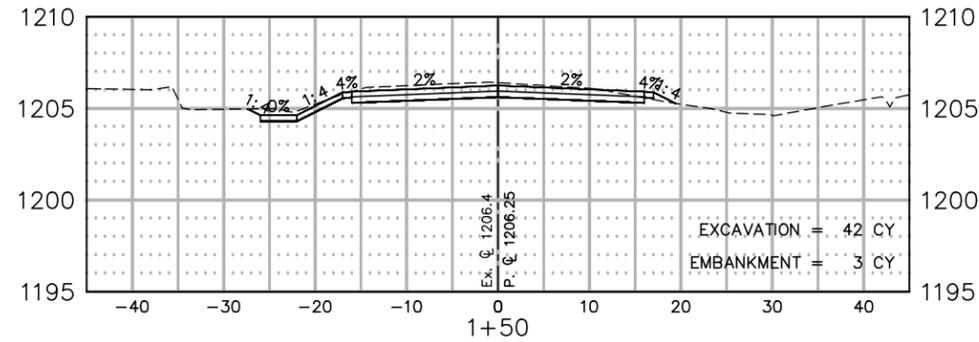
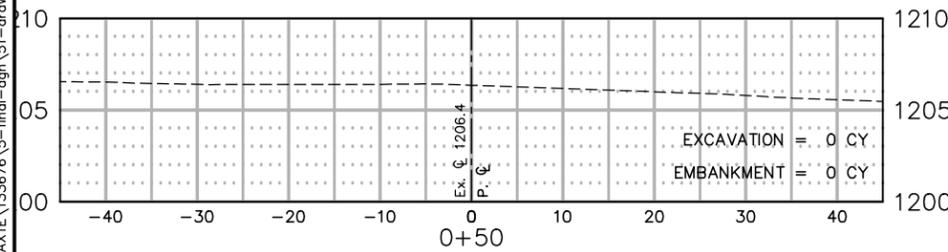
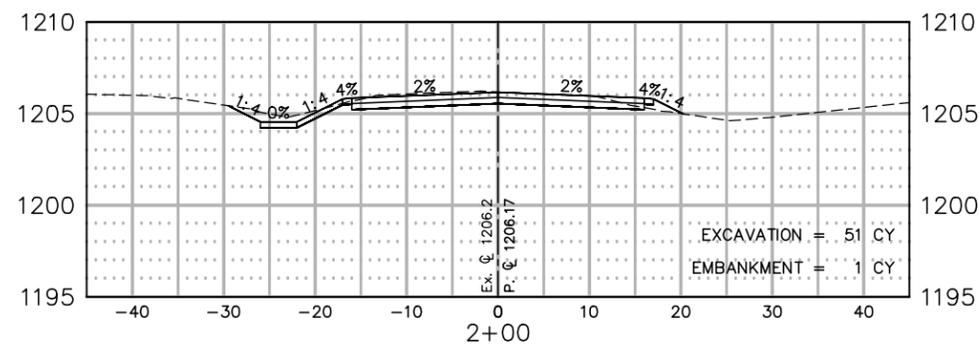
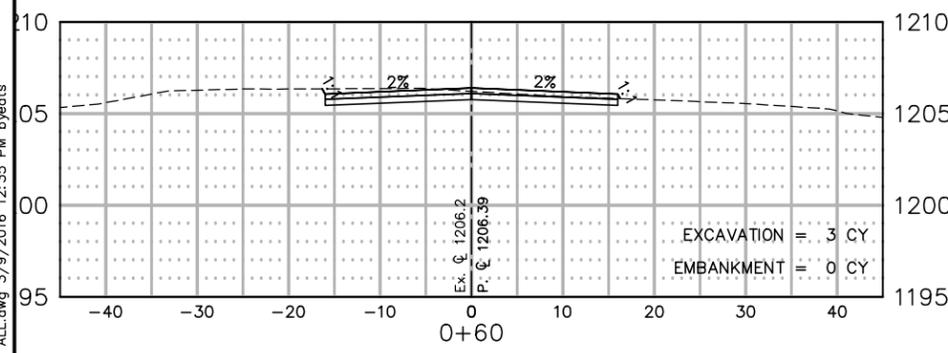
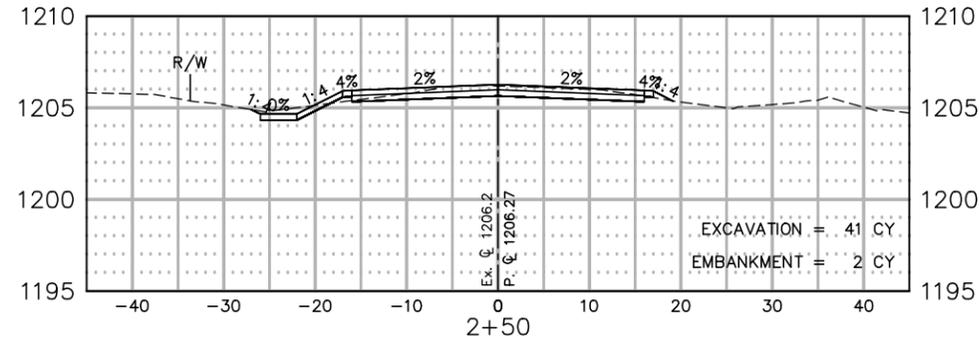
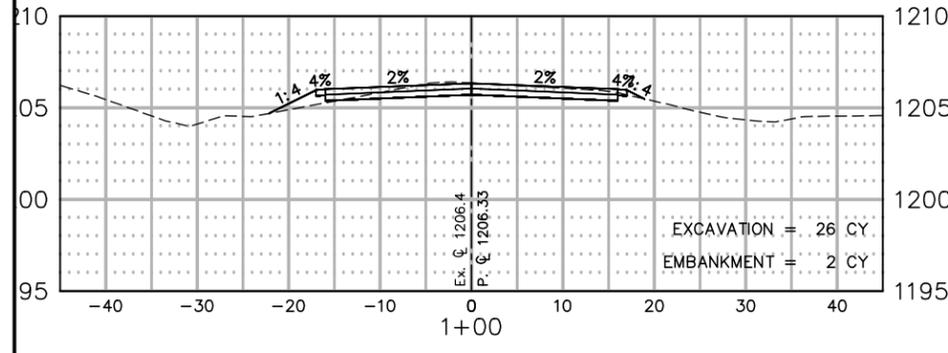
**2016 FAIRVIEW ROAD IMPROVEMENTS**  
BAXTER, MINNESOTA

**SIGNING AND STRIPING PLAN**

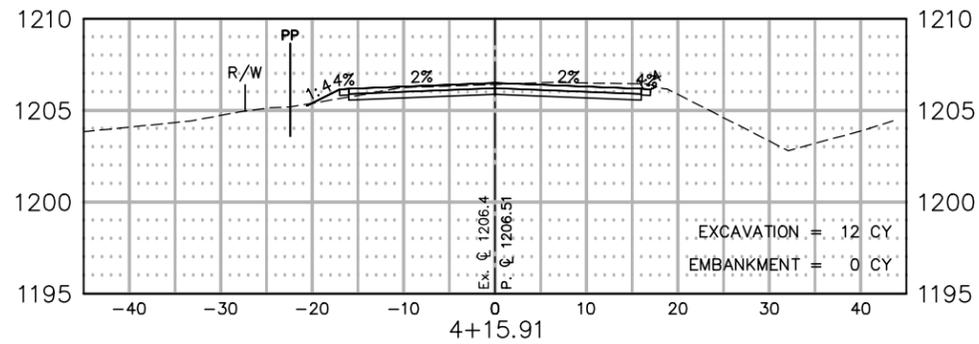
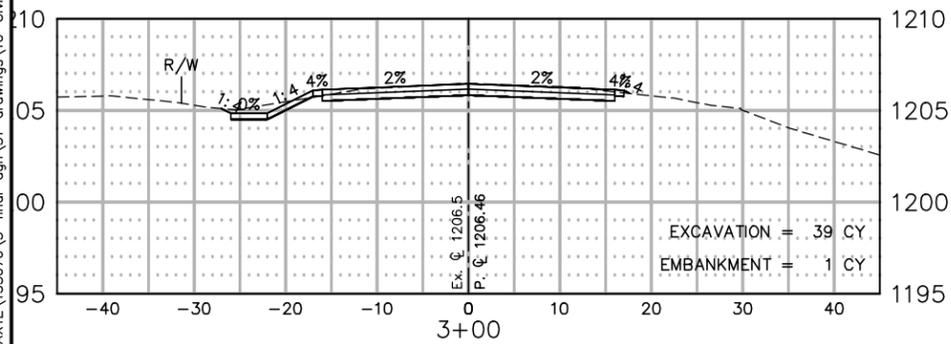
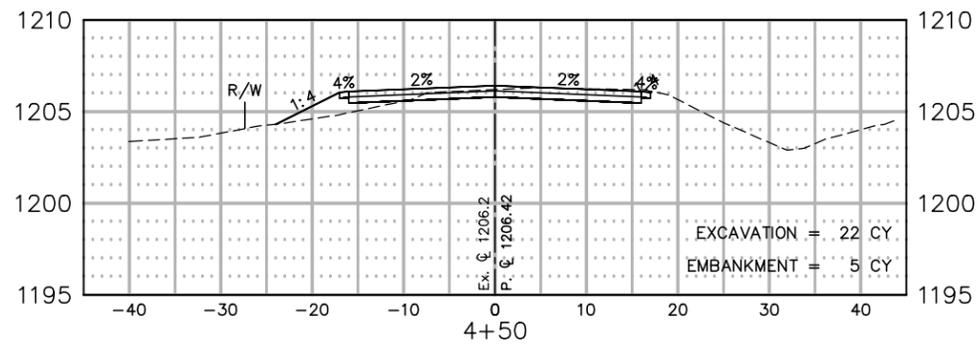
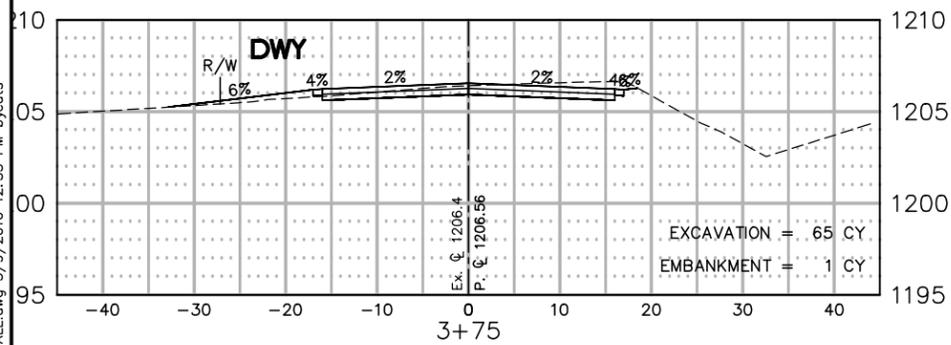
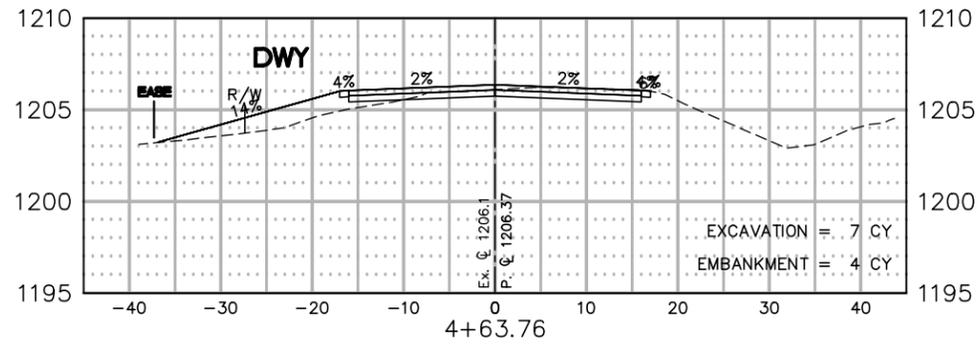
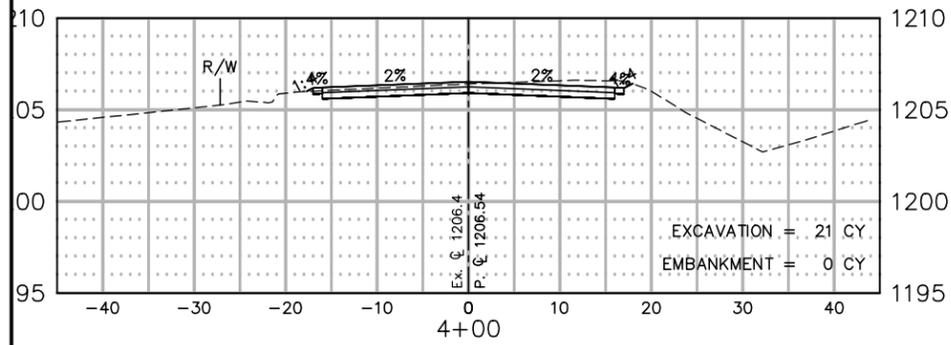
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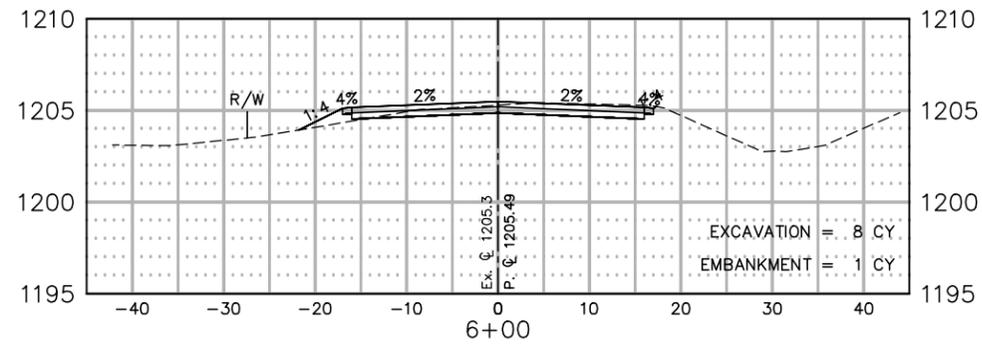
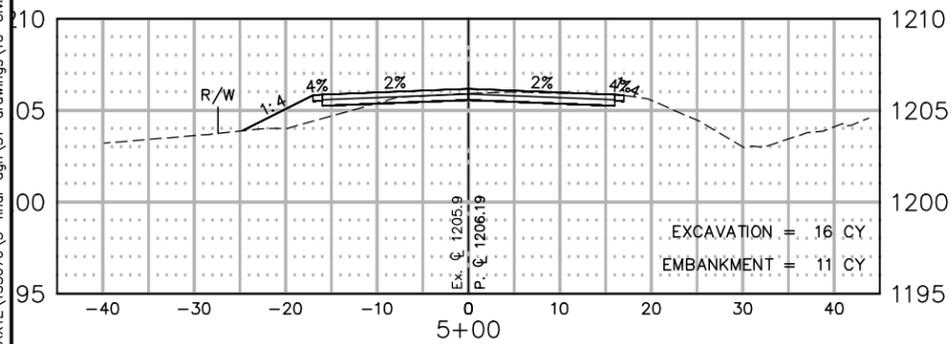
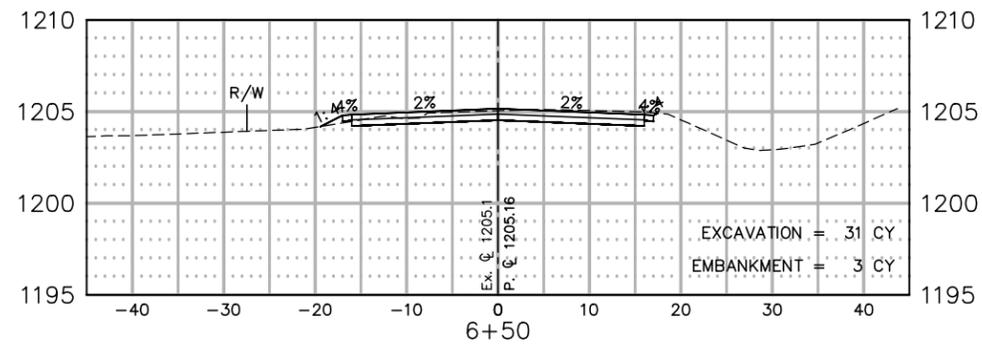
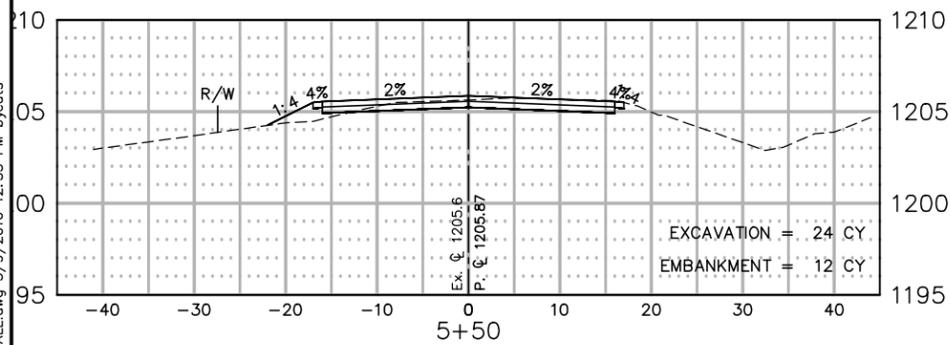
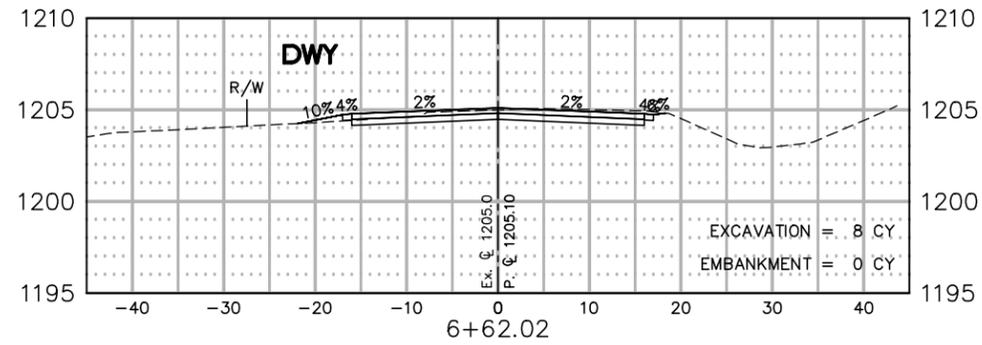
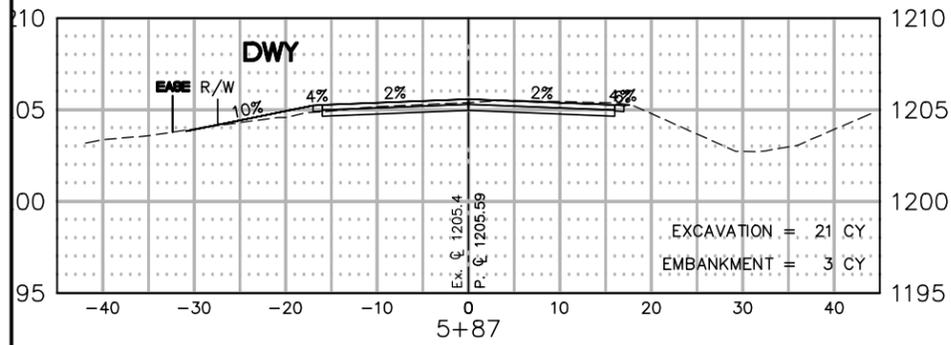
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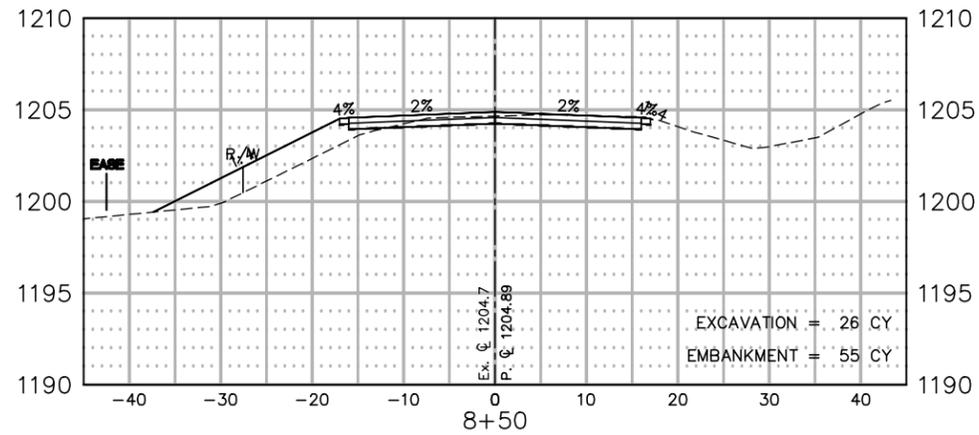
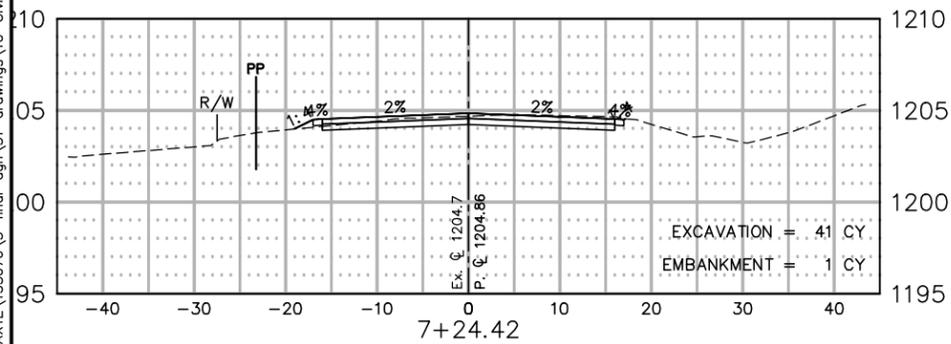
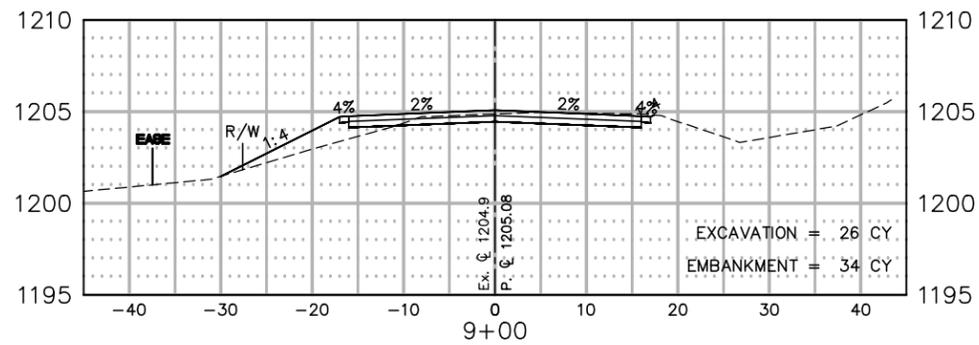
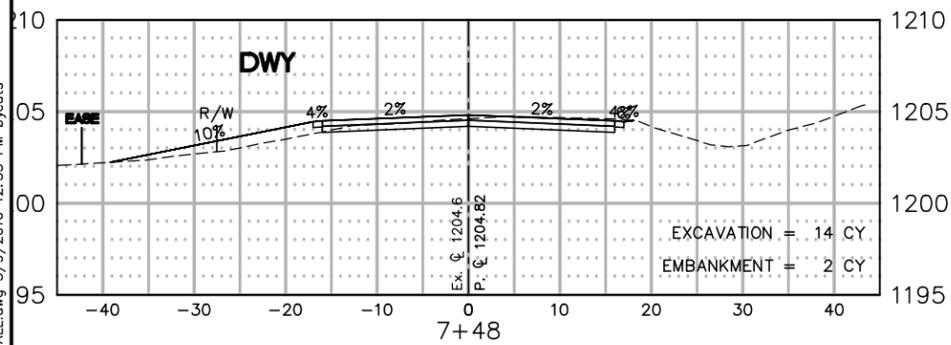
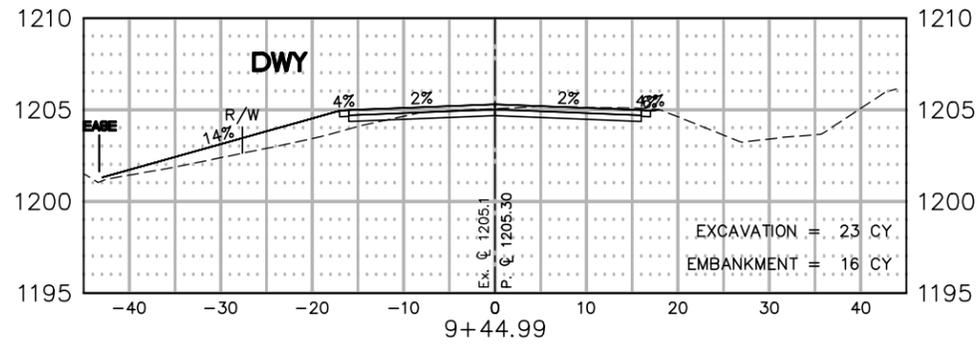
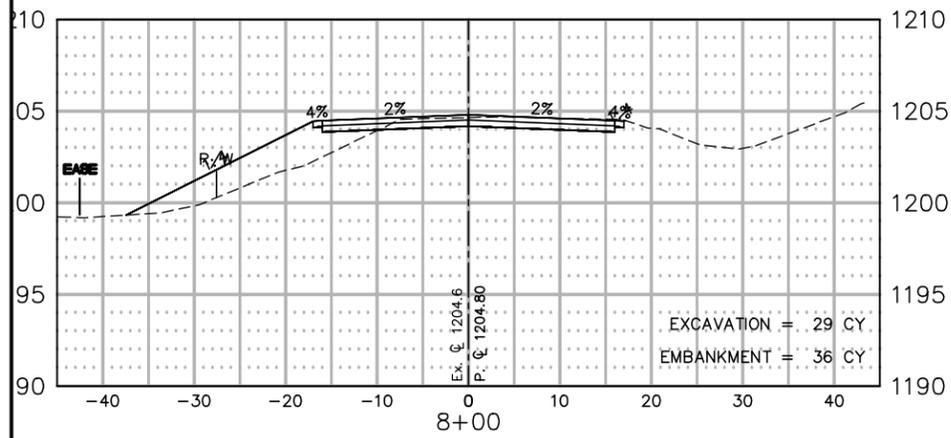
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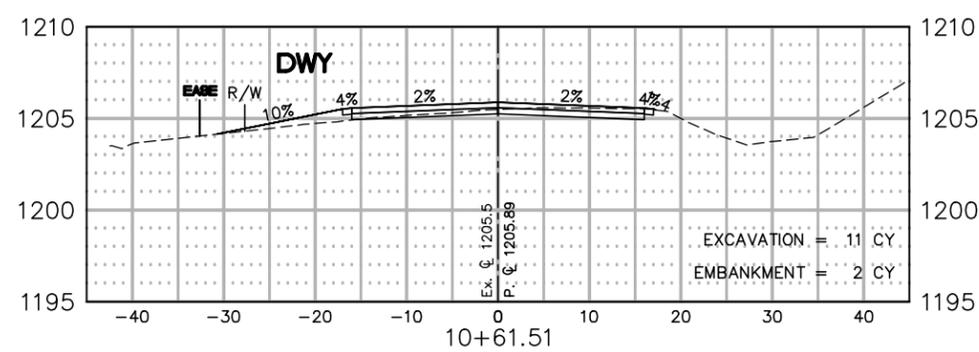
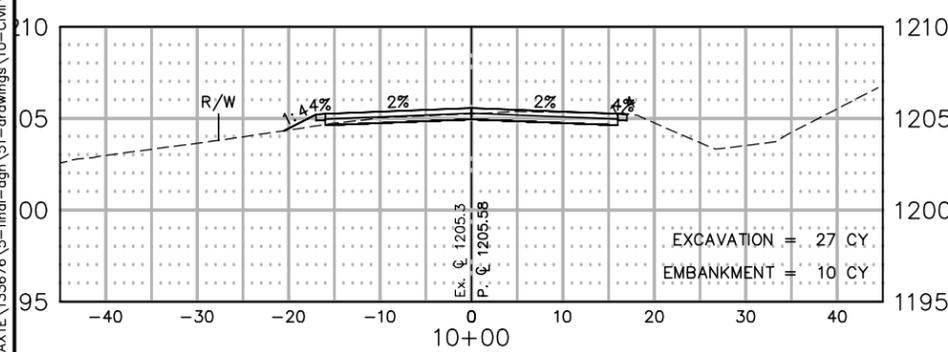
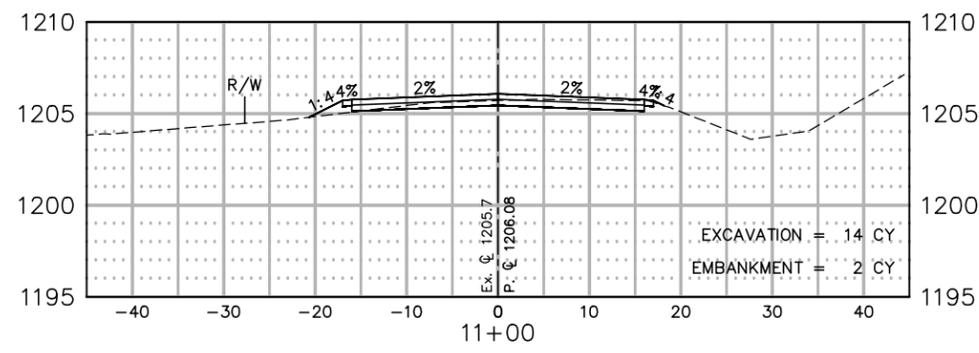
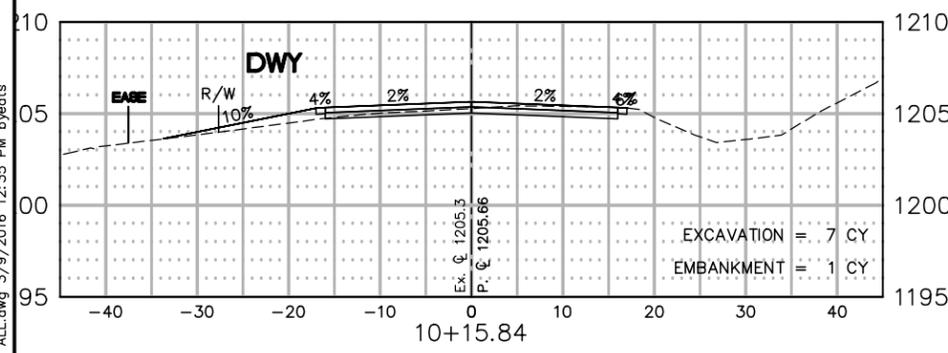
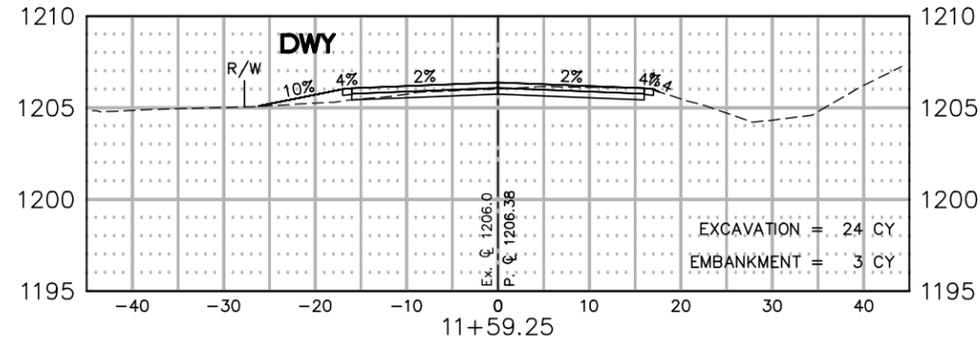
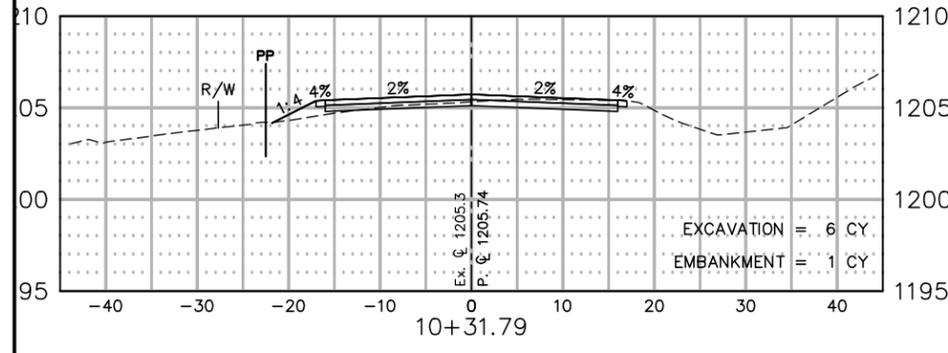
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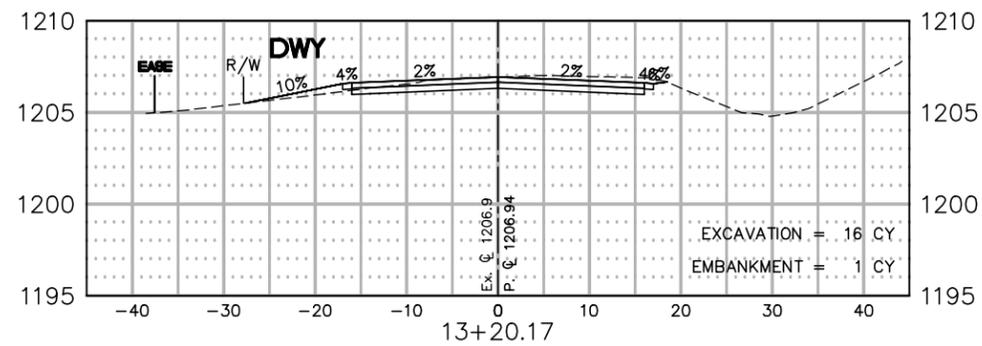
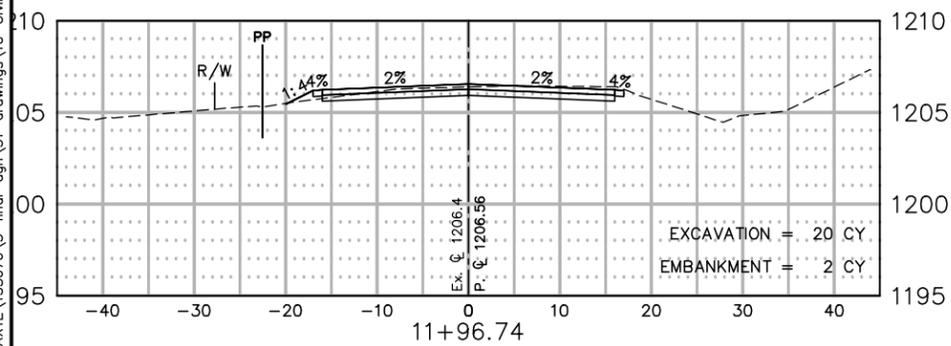
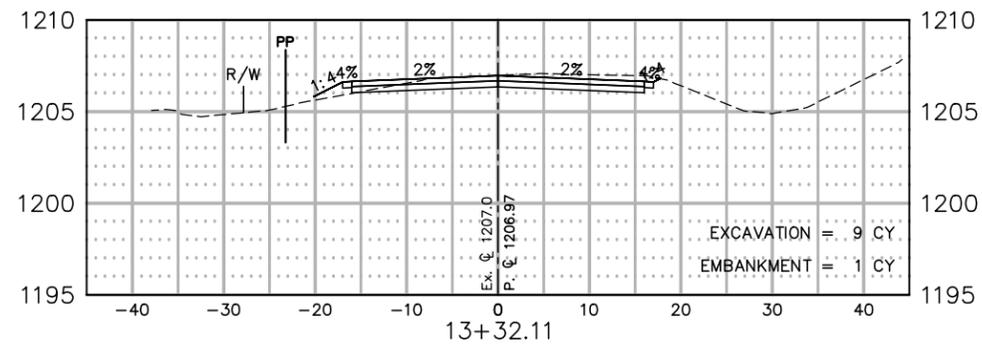
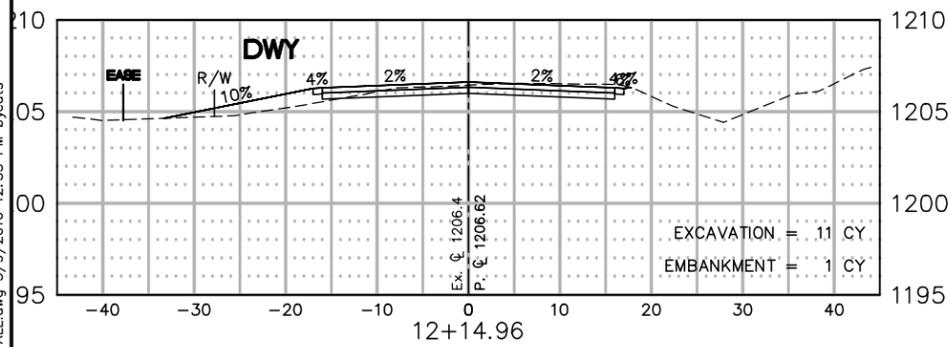
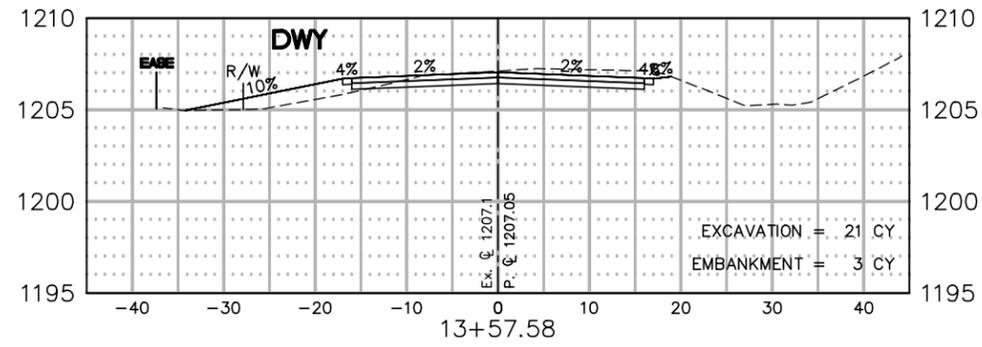
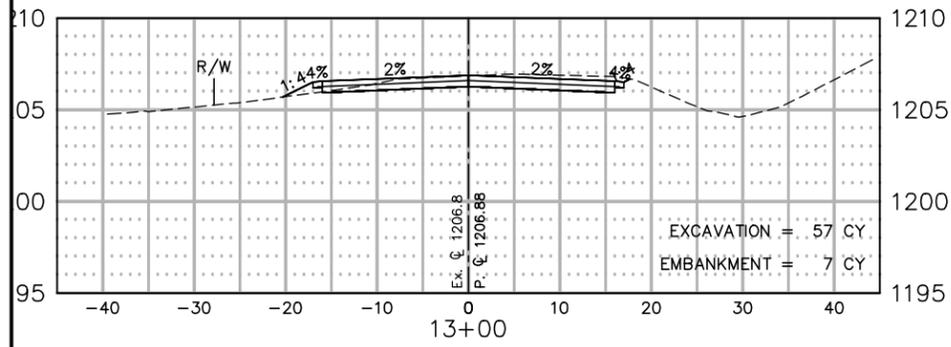
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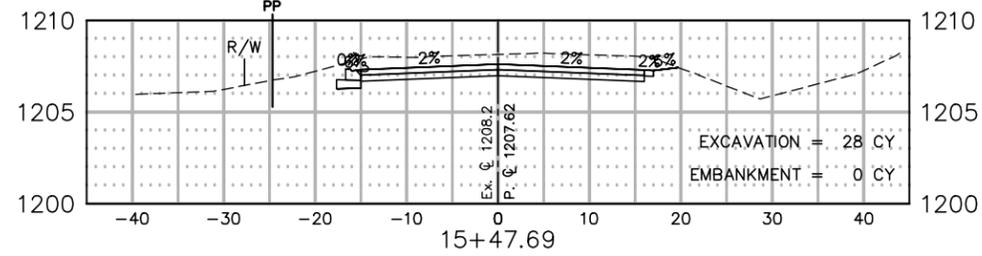
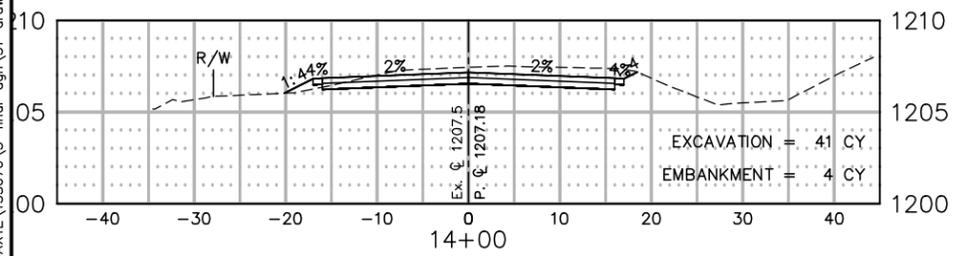
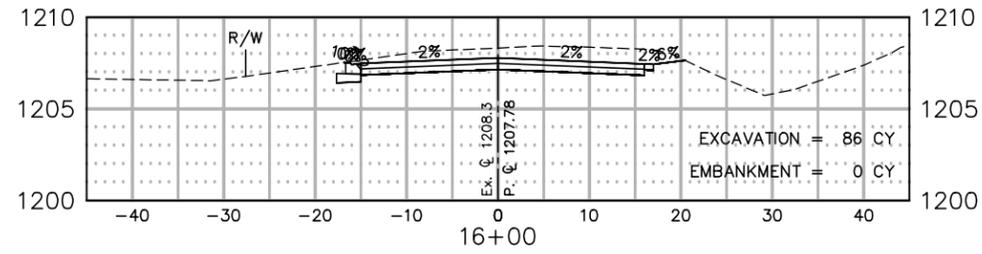
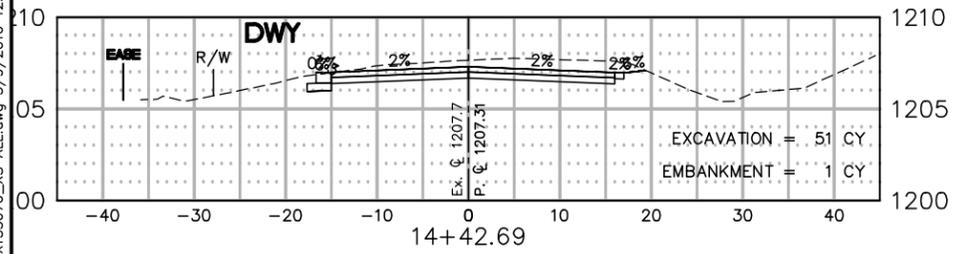
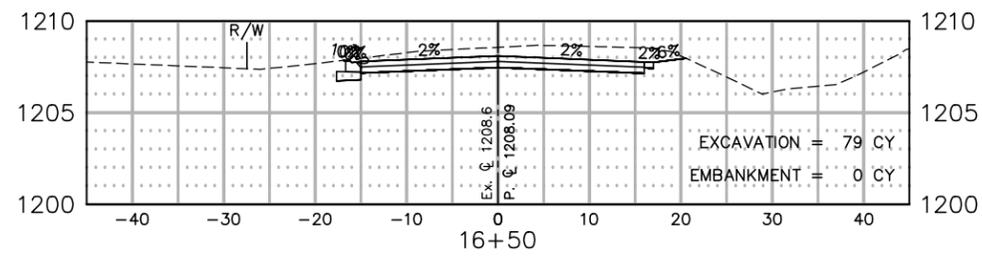
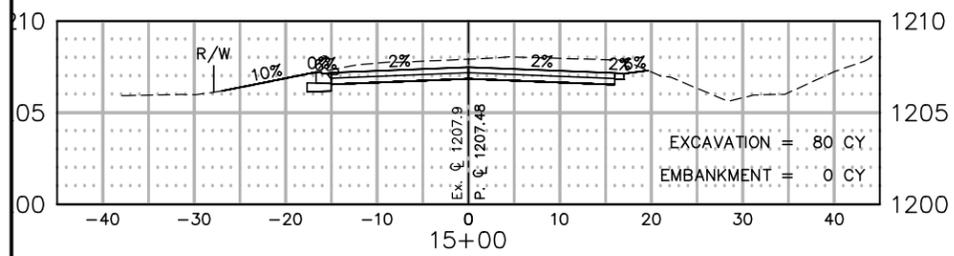
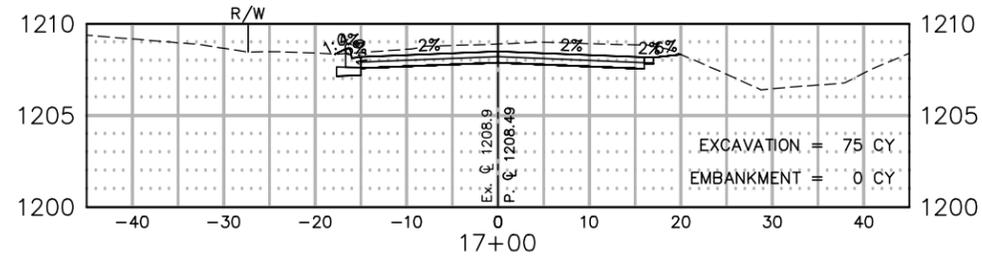
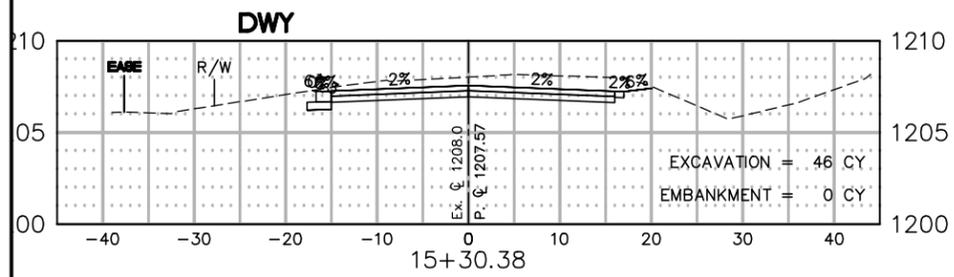
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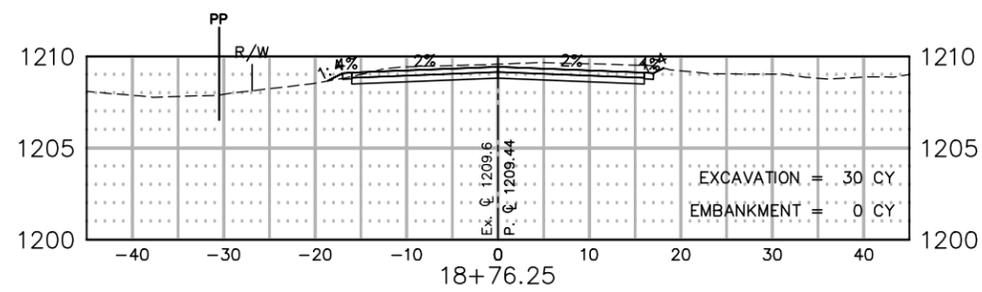
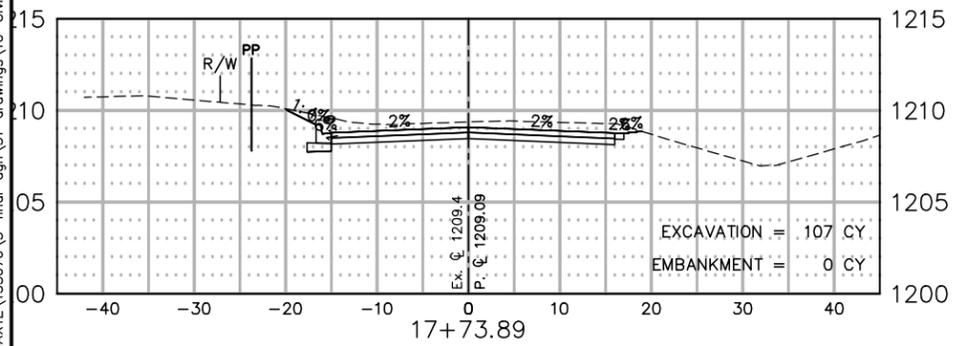
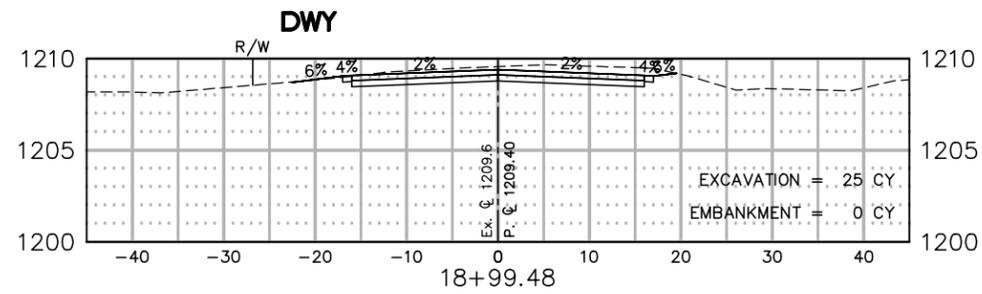
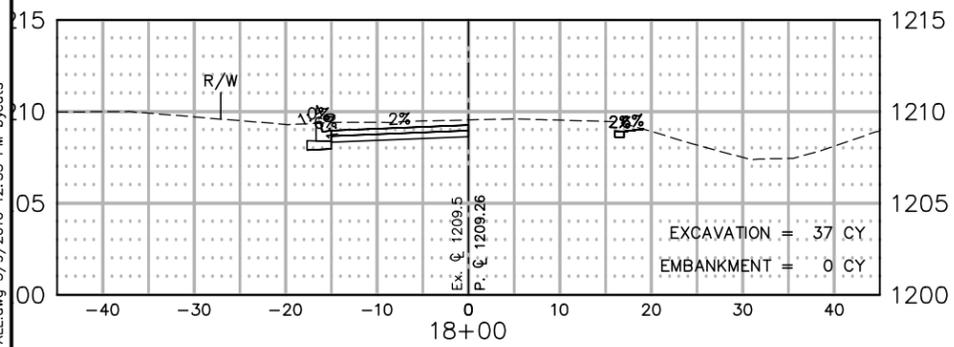
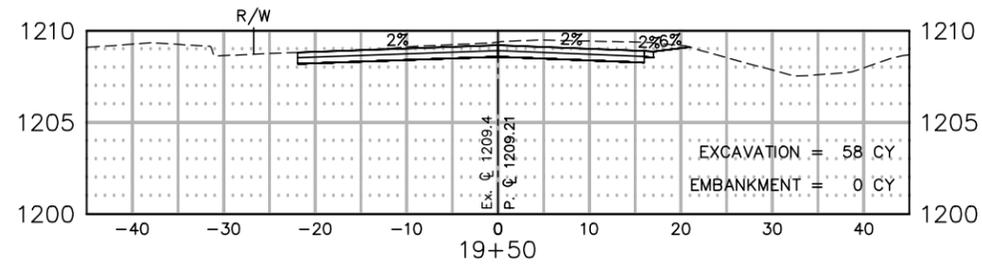
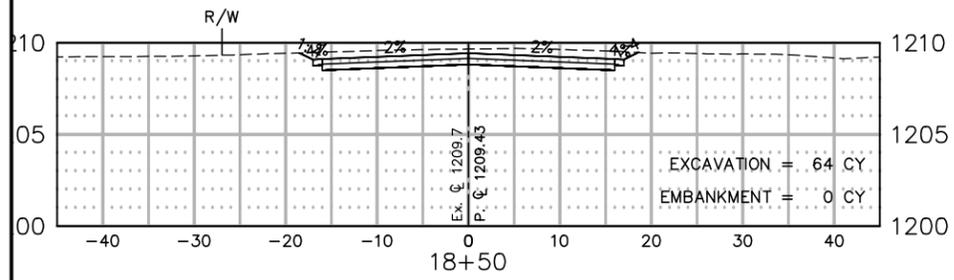
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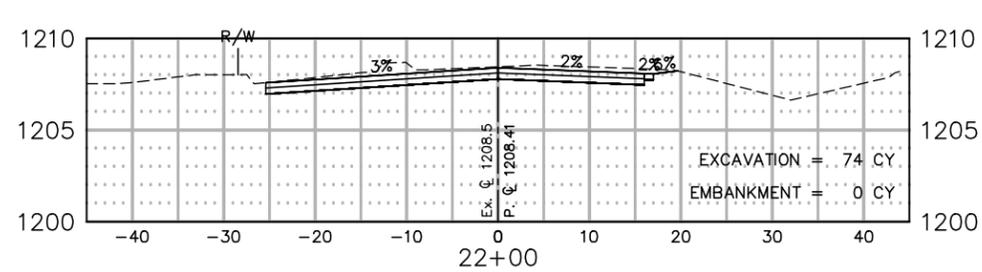
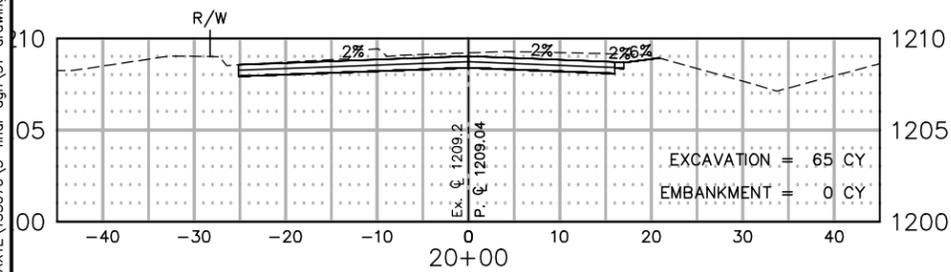
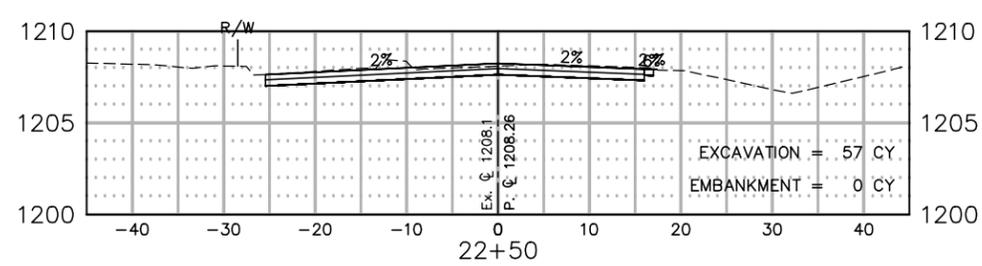
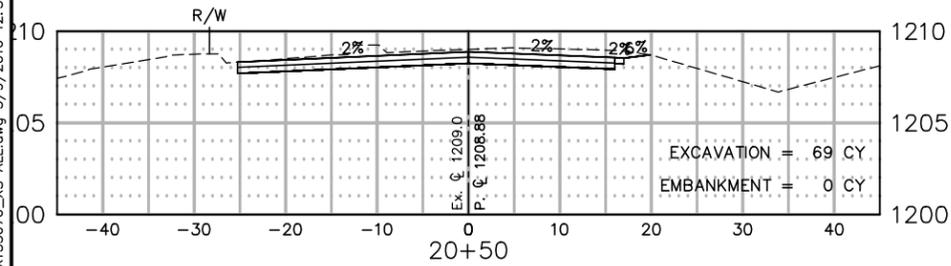
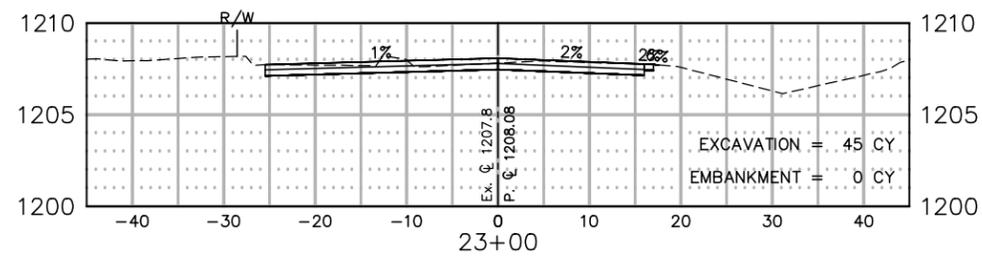
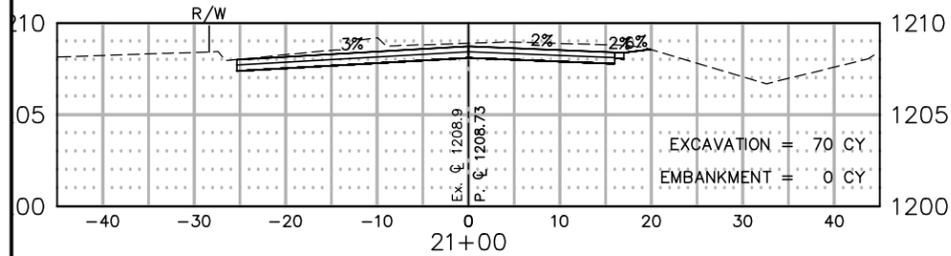
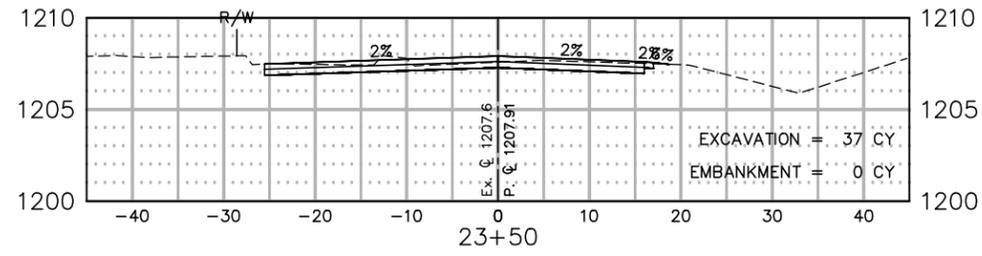
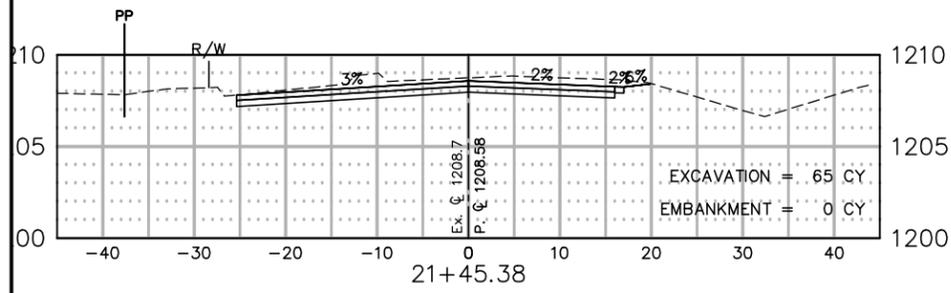
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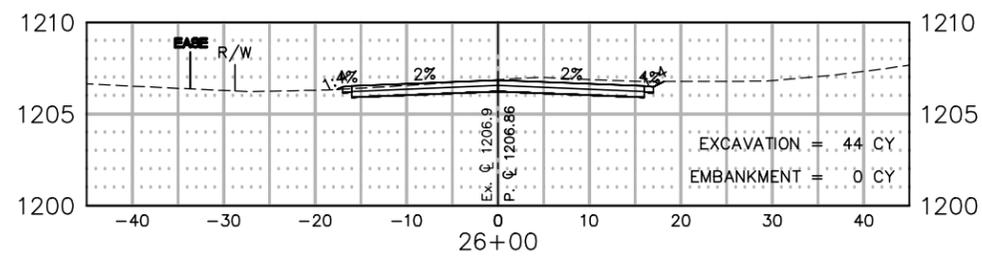
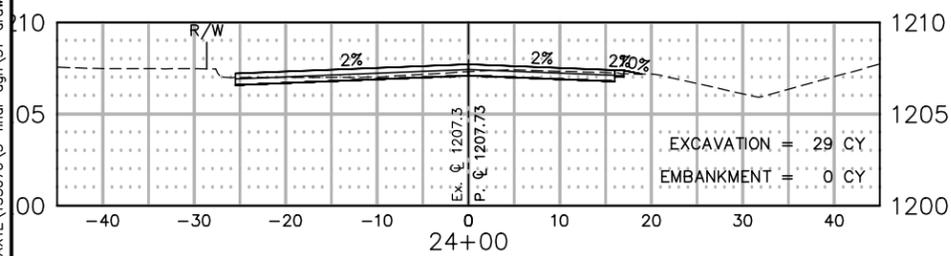
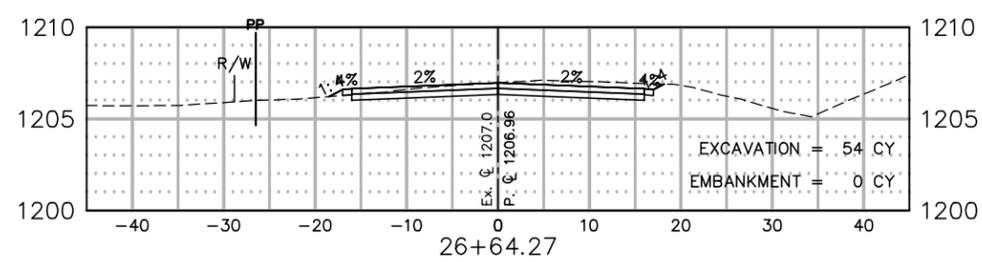
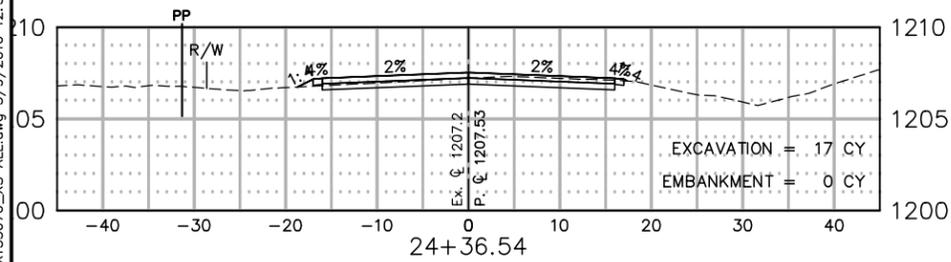
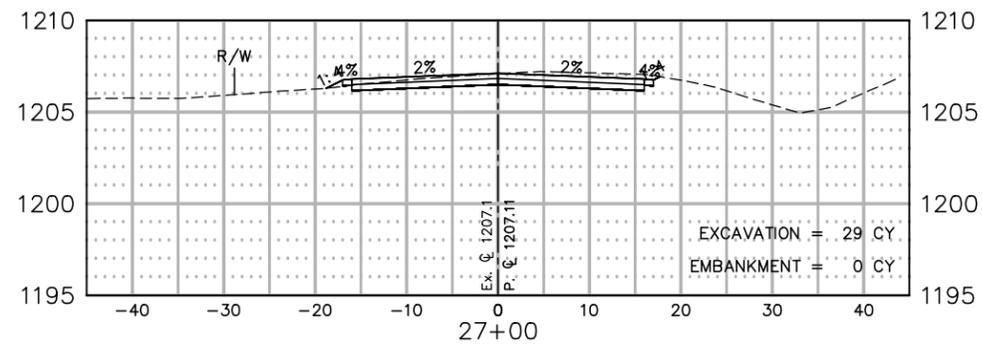
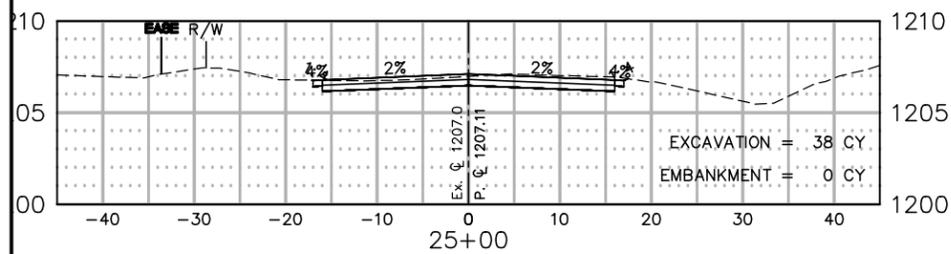
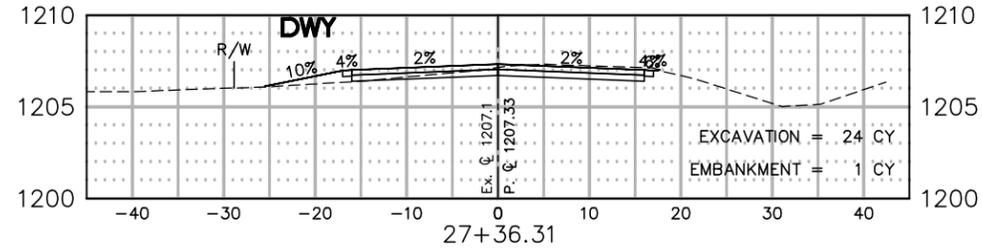
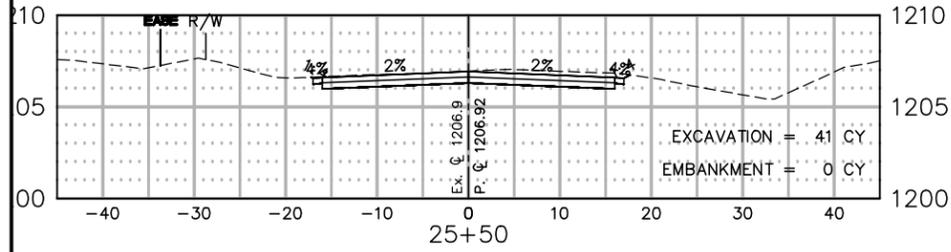
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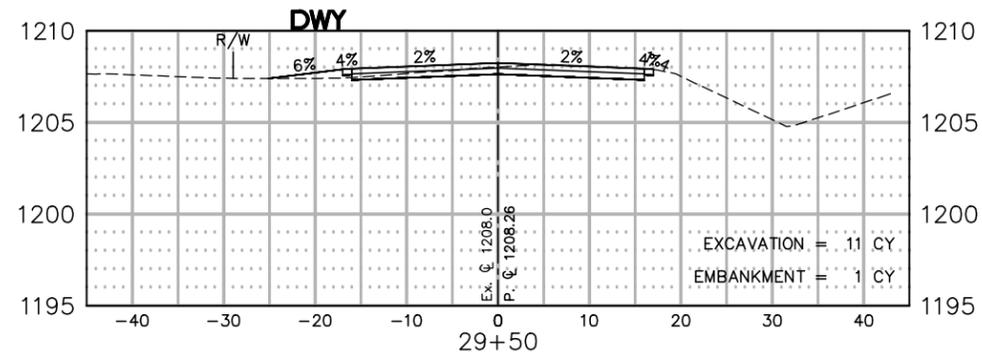
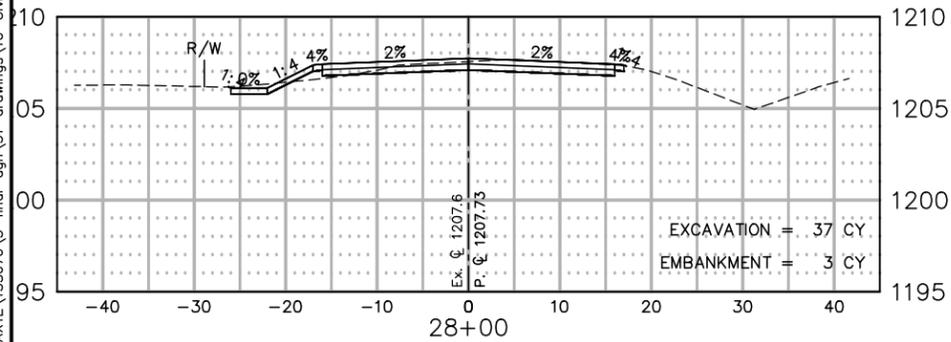
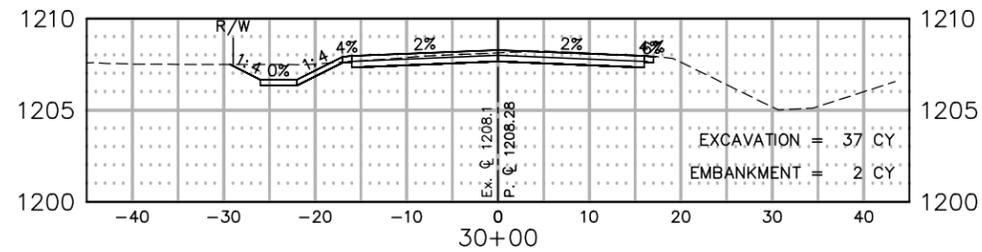
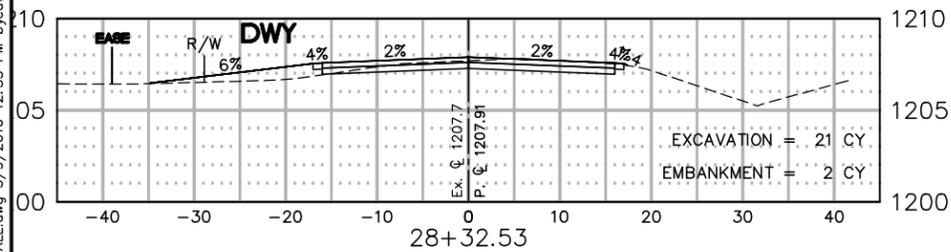
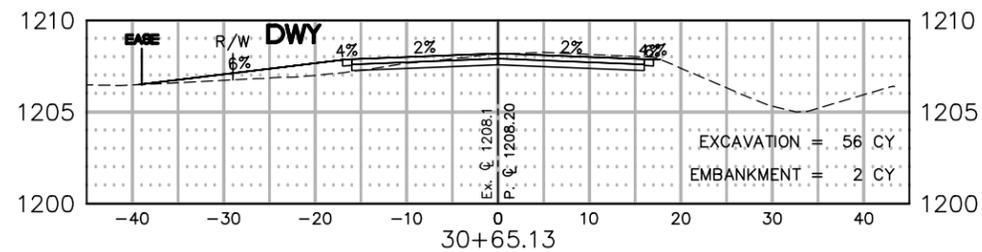
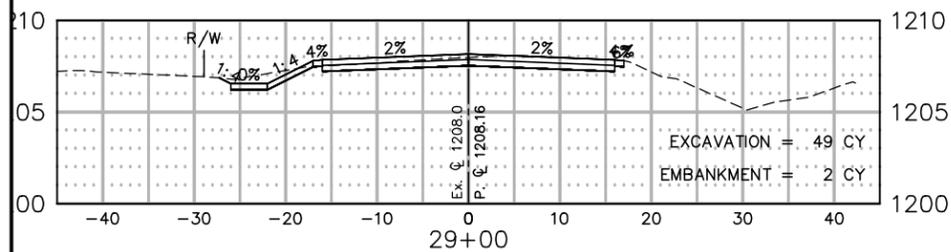
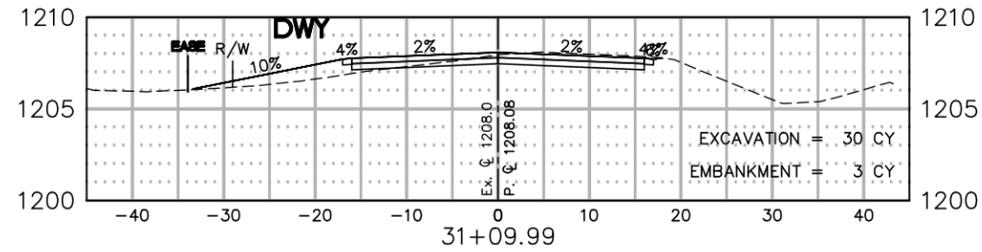
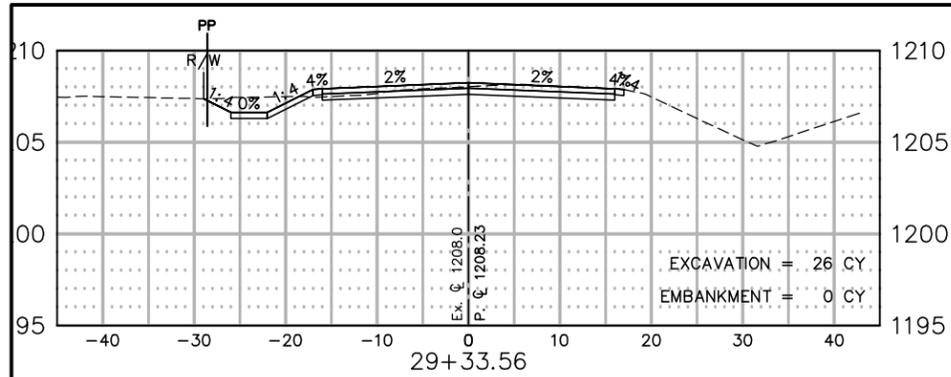
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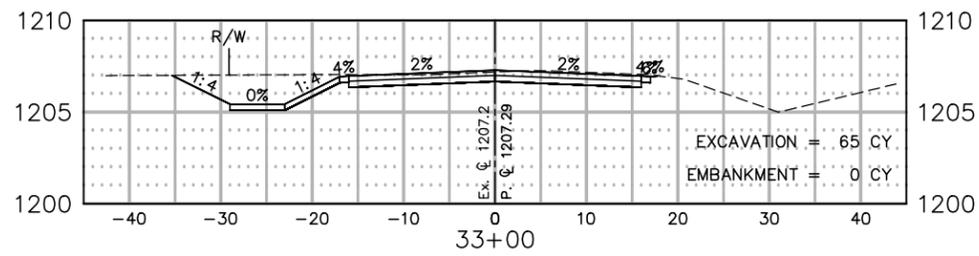
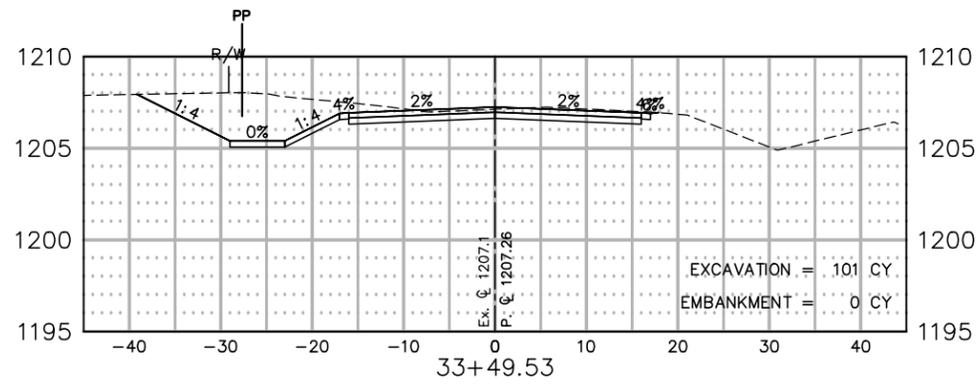
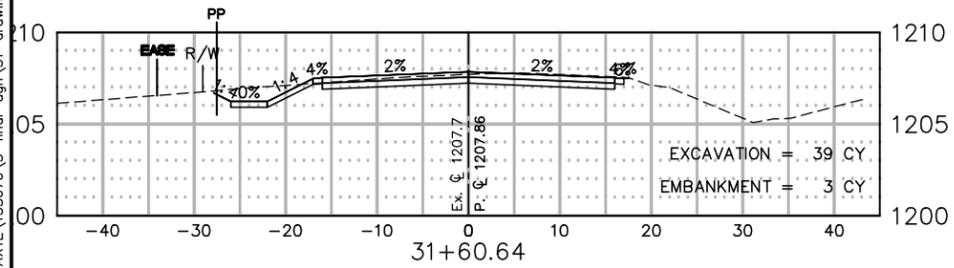
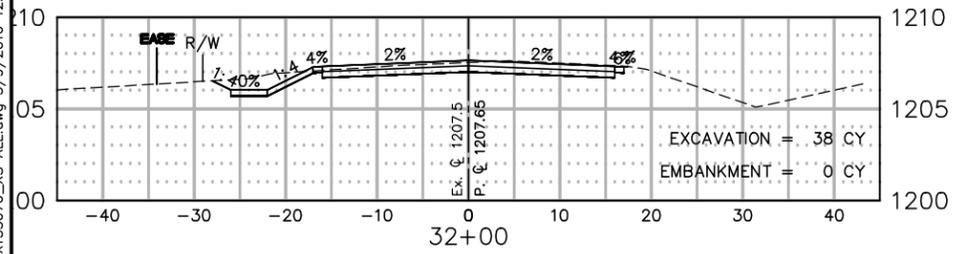
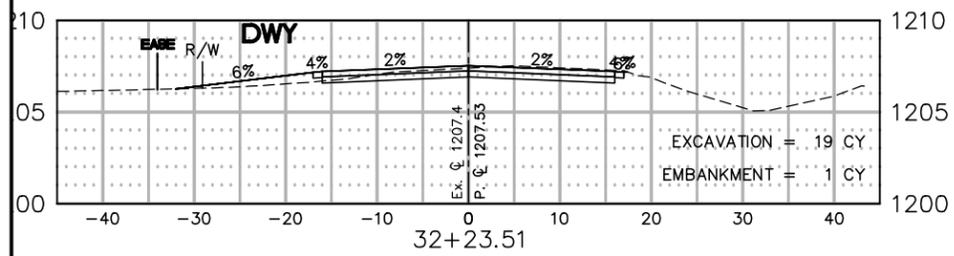
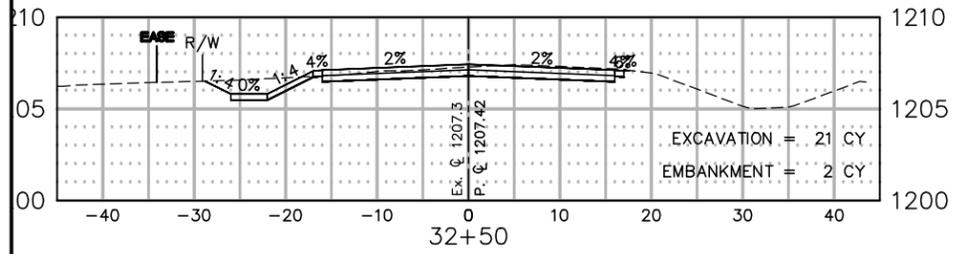
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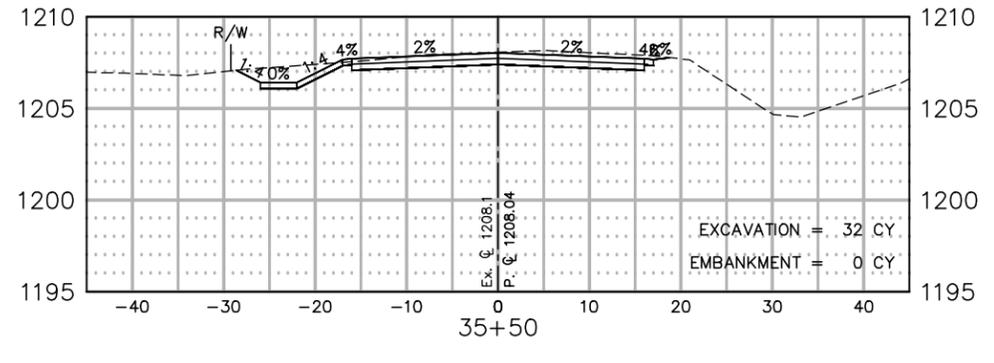
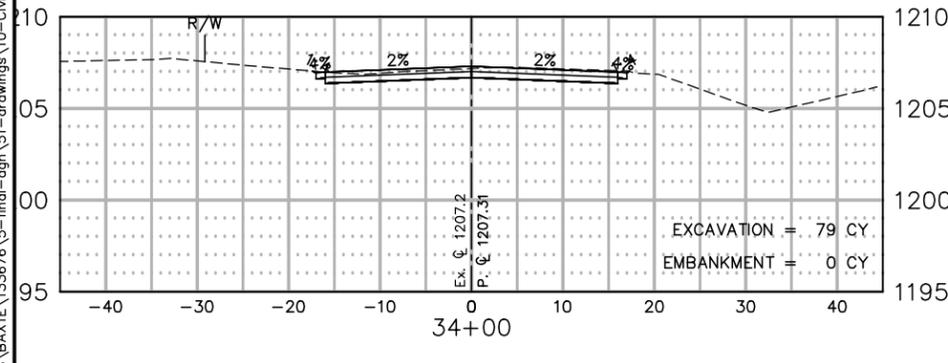
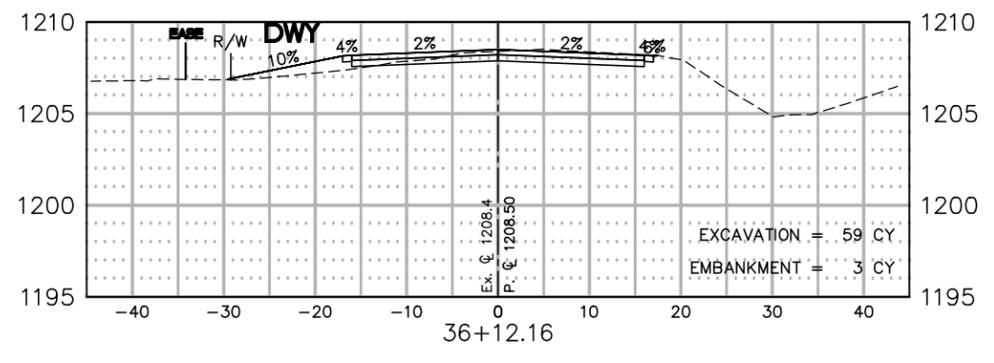
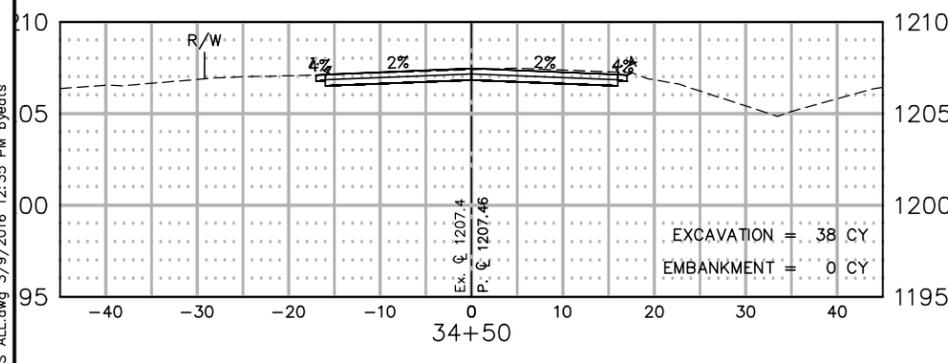
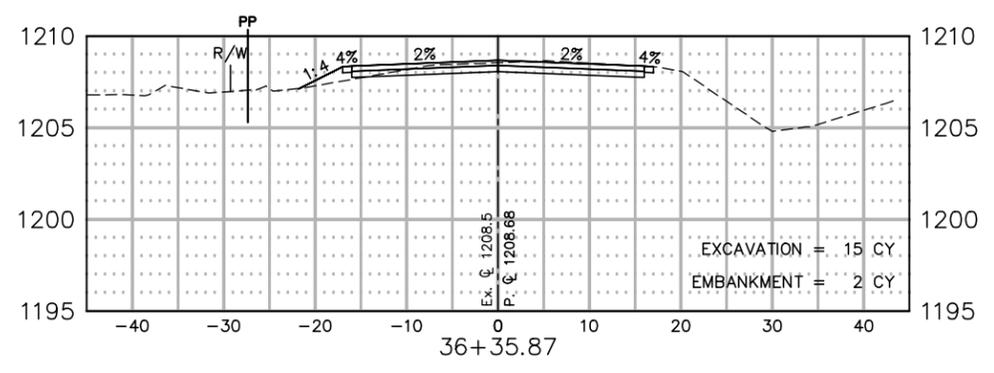
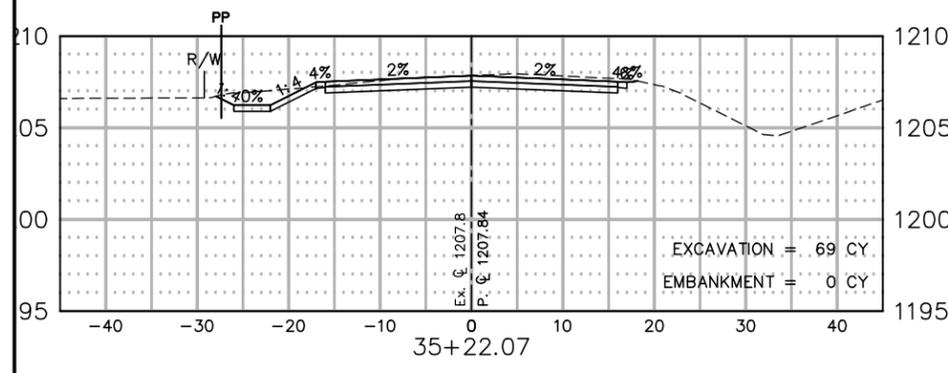
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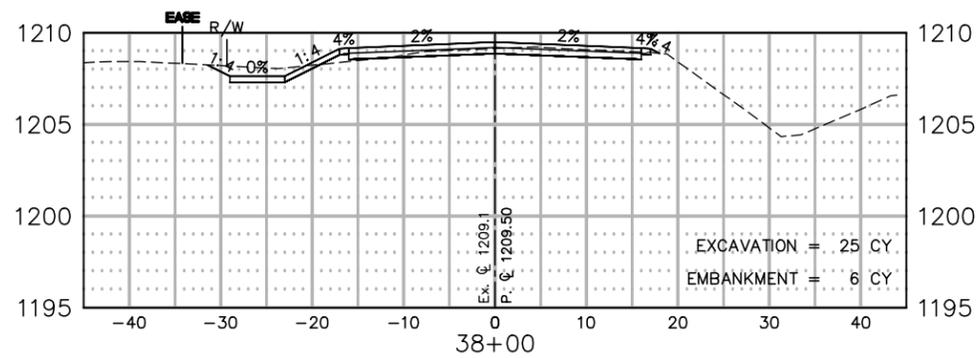
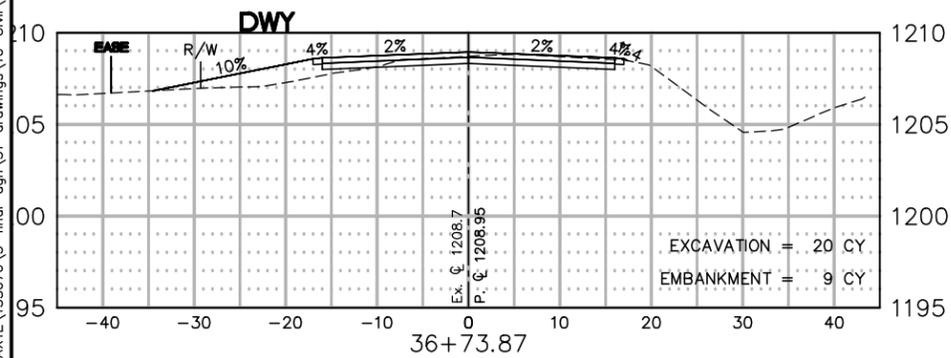
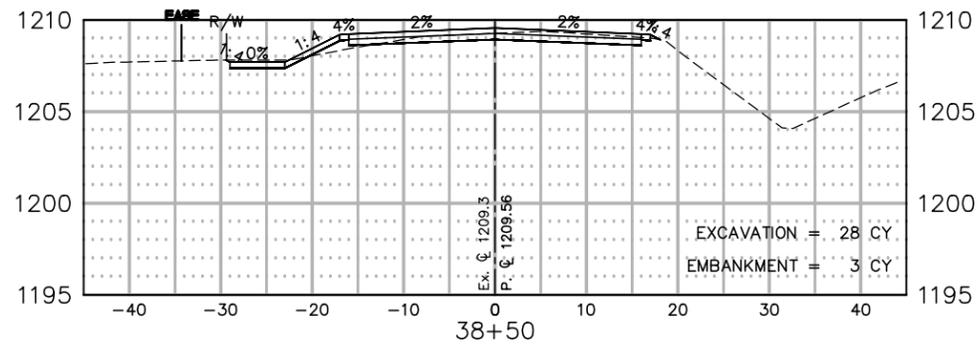
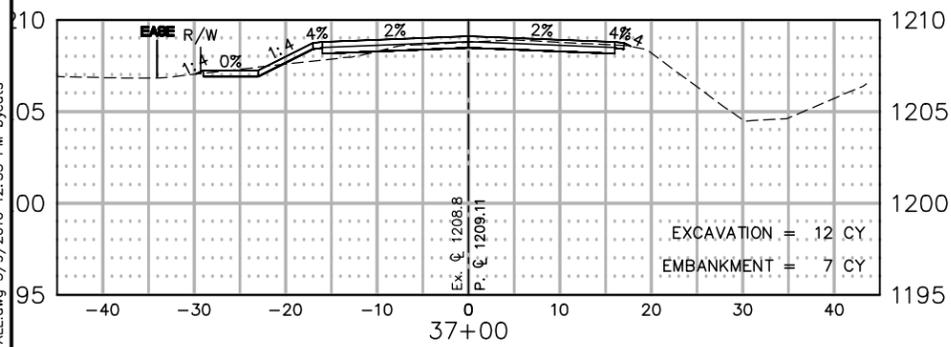
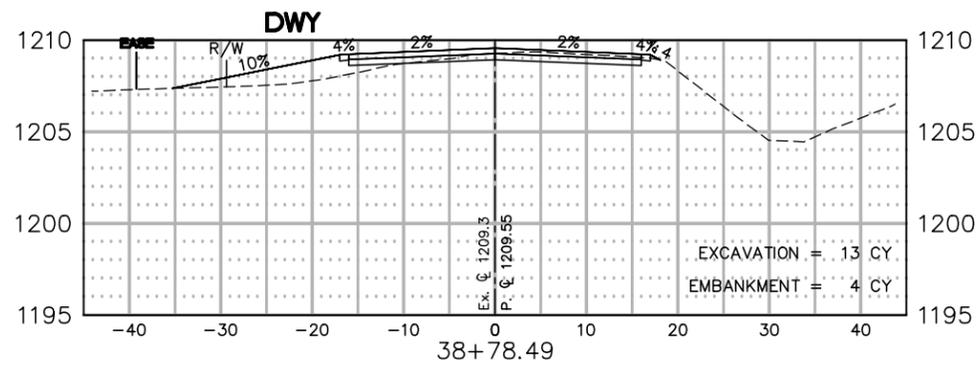
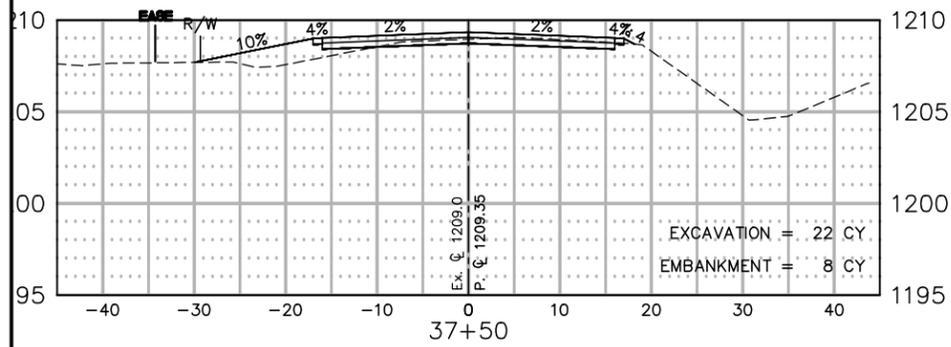
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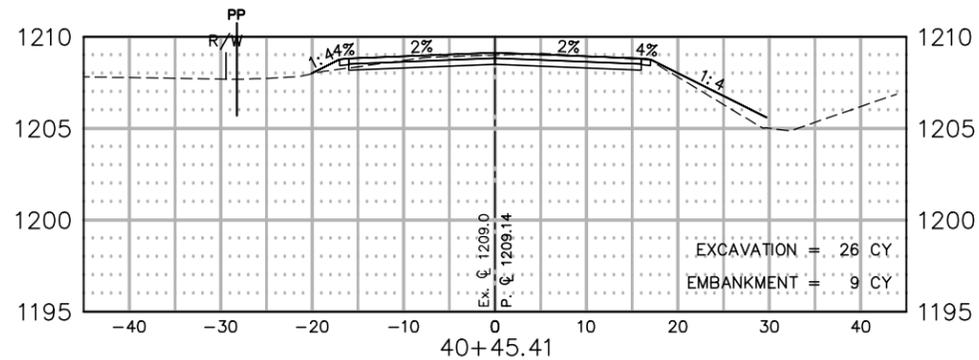
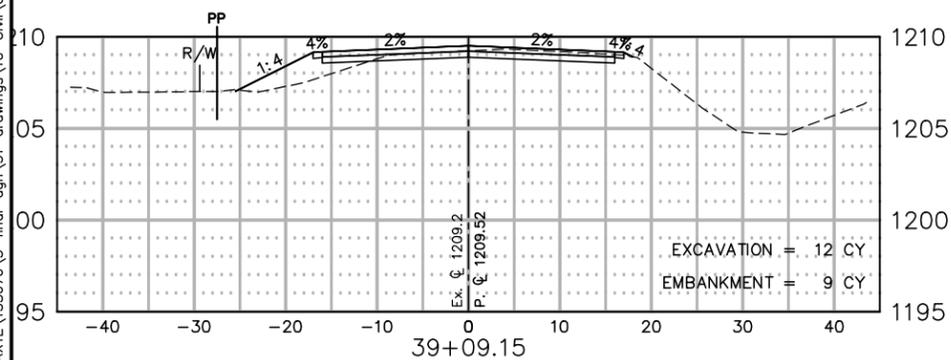
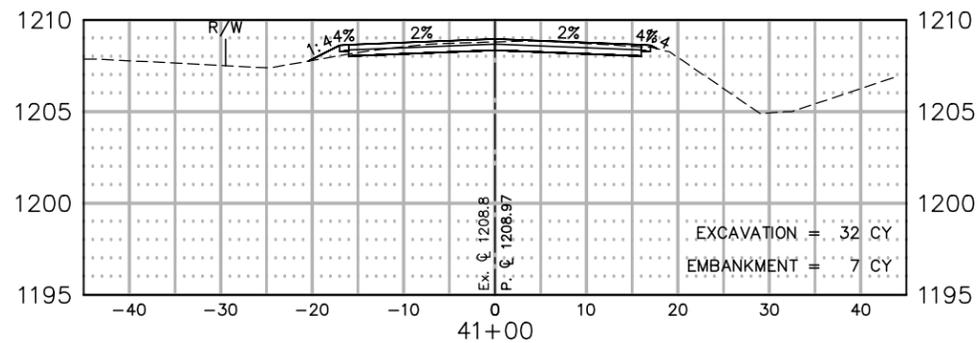
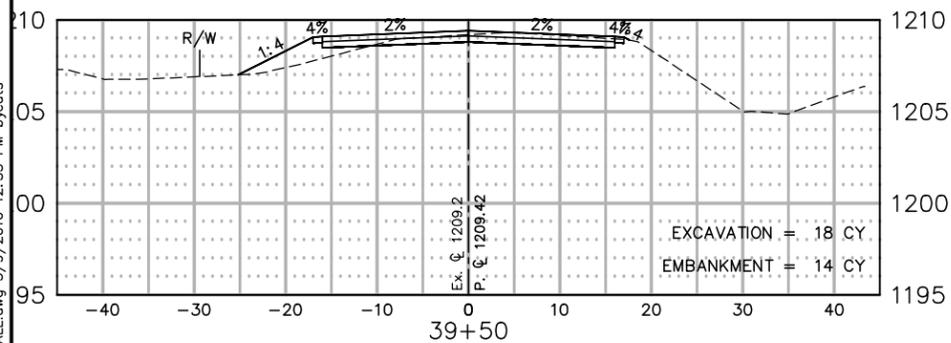
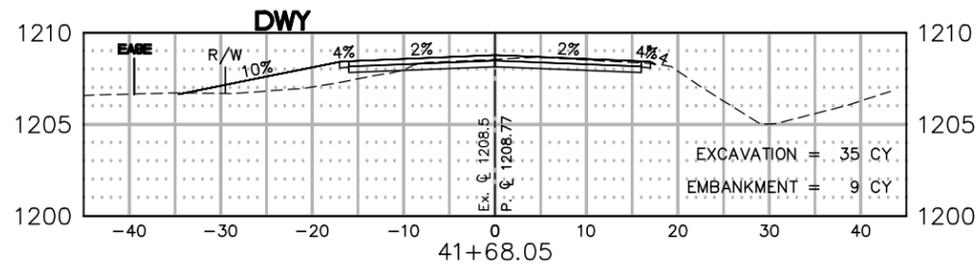
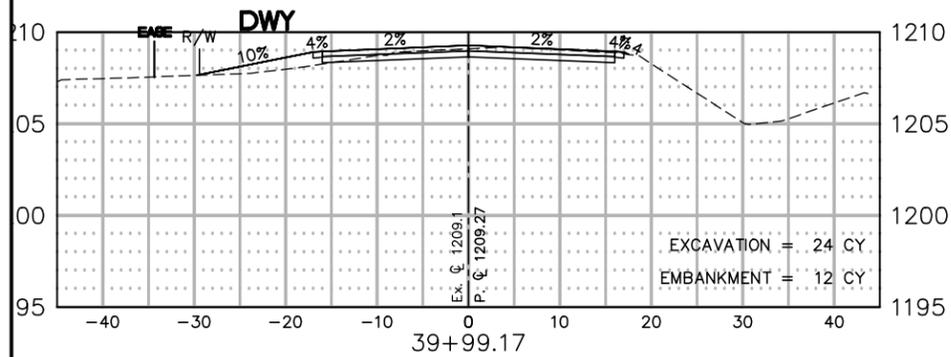
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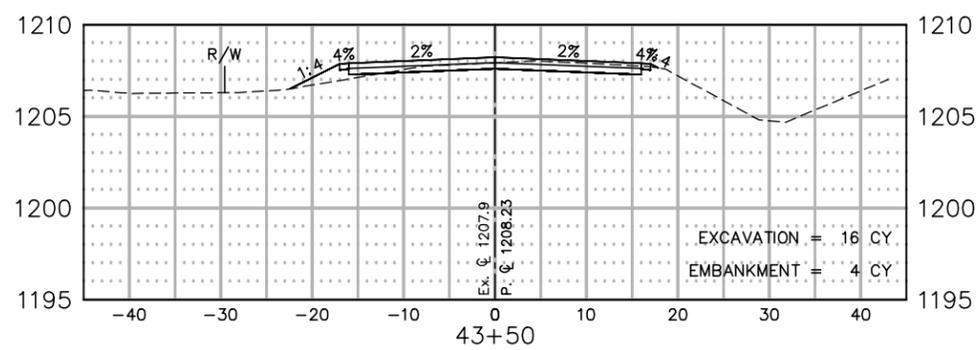
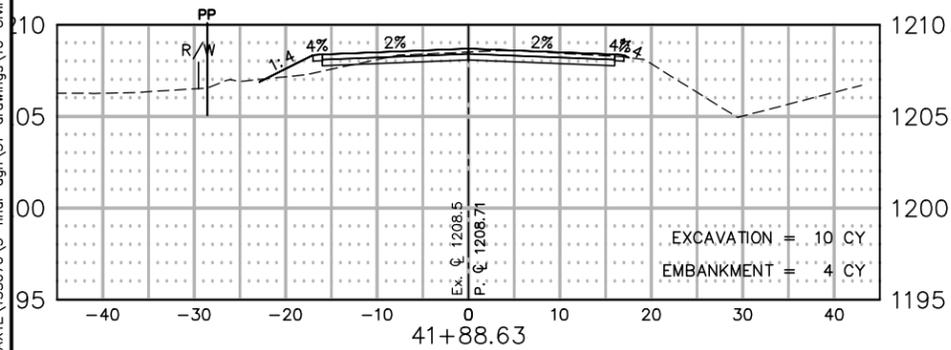
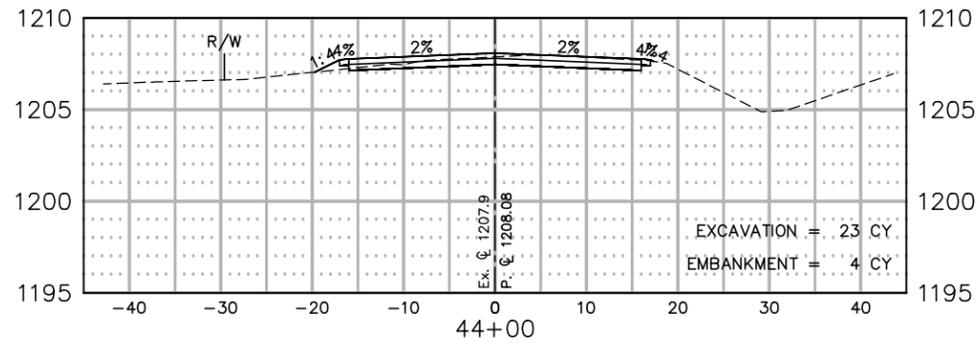
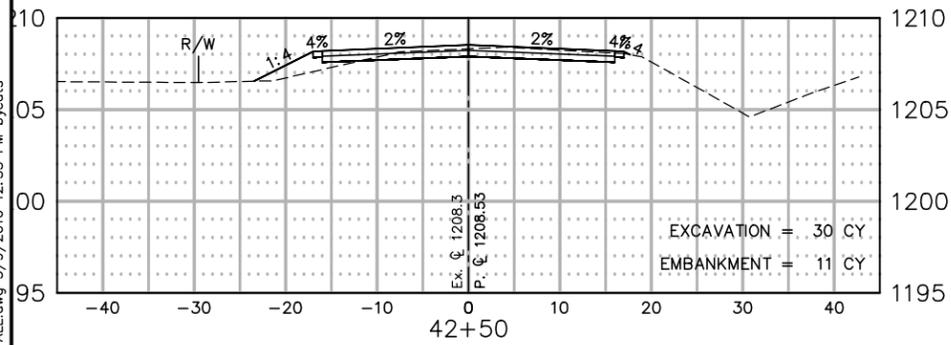
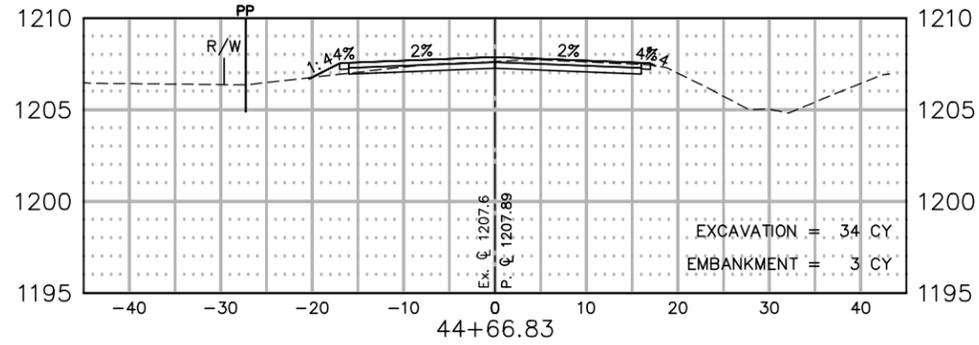
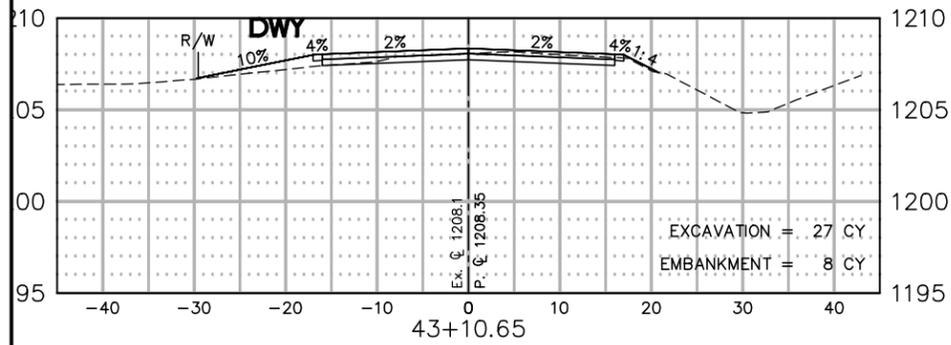
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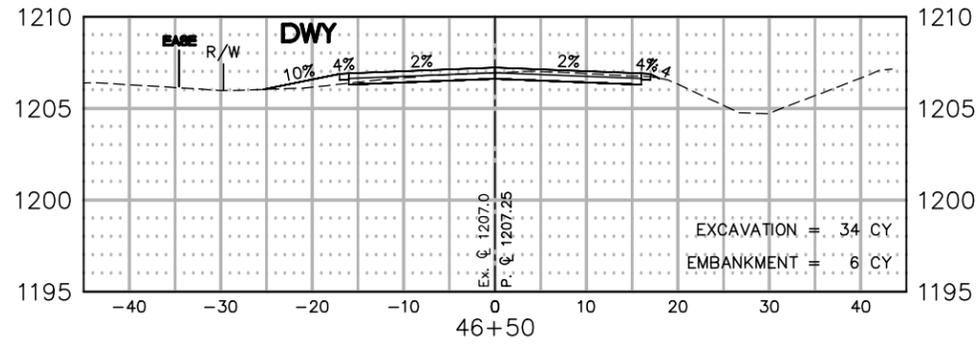
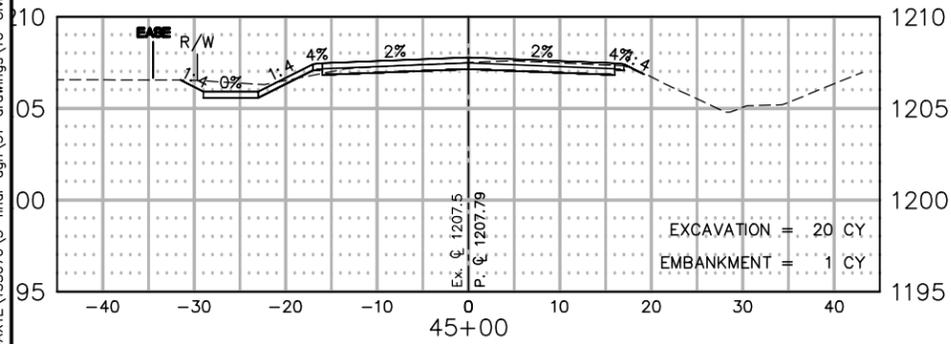
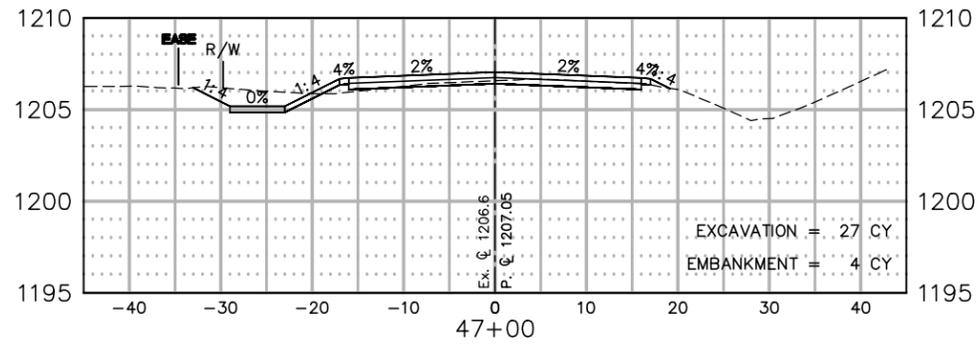
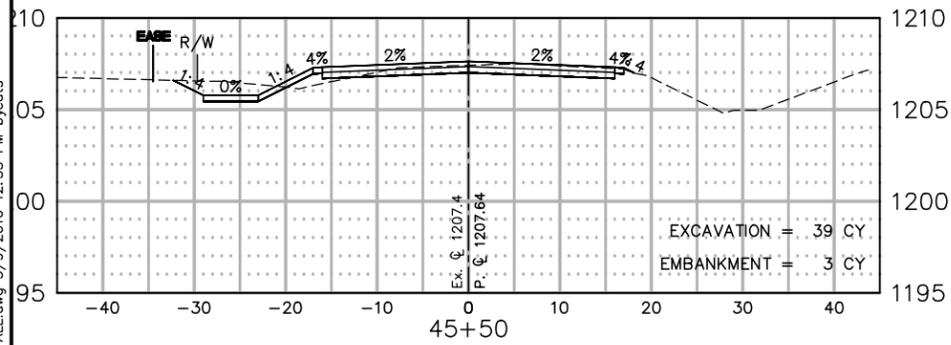
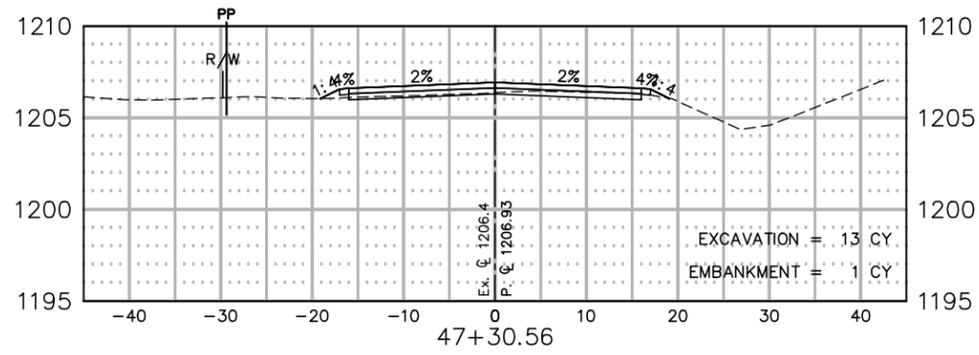
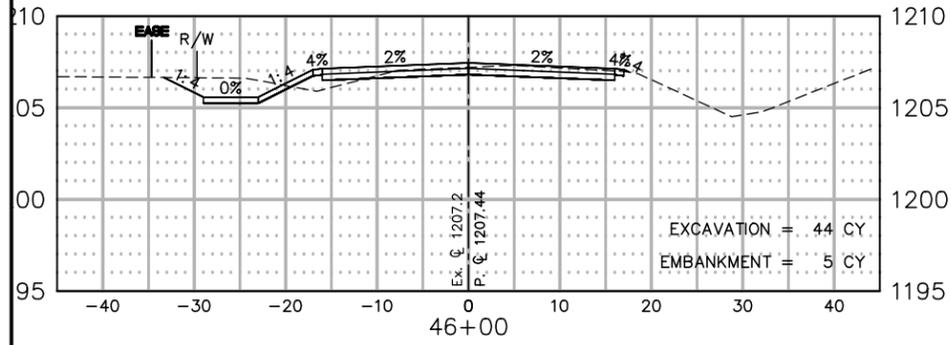
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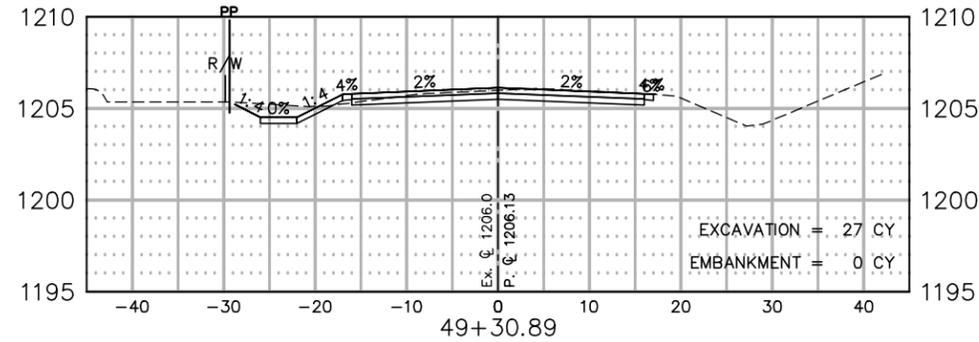
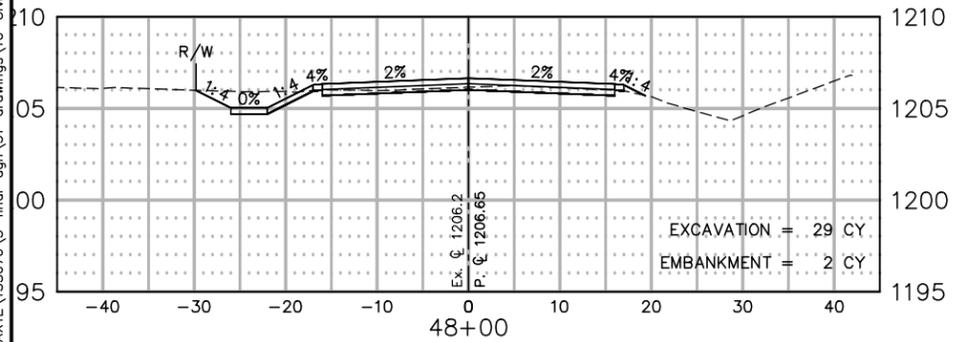
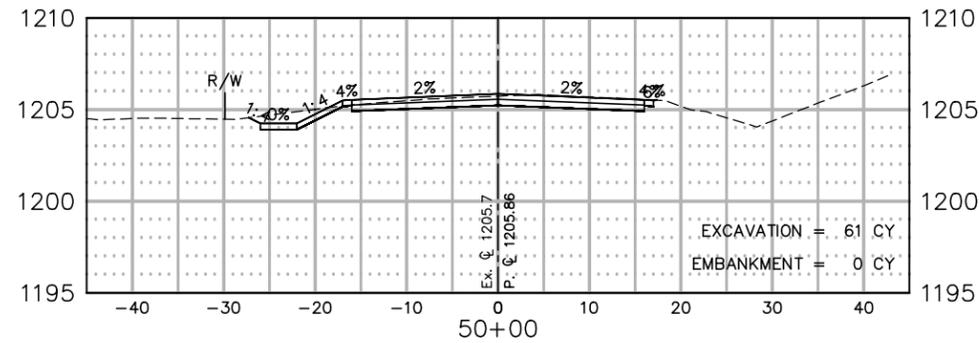
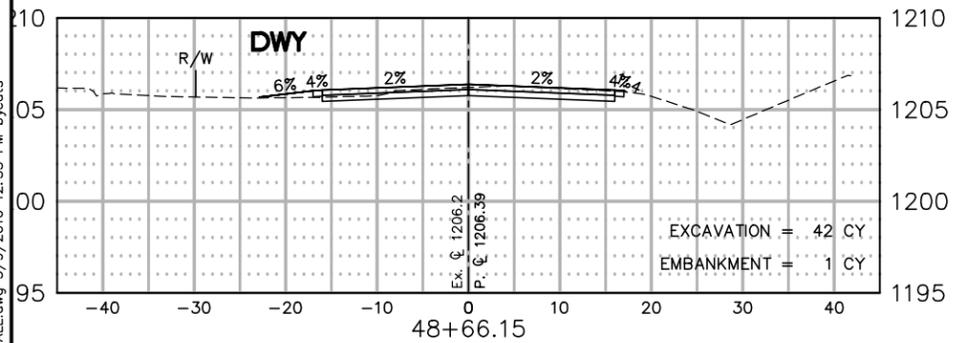
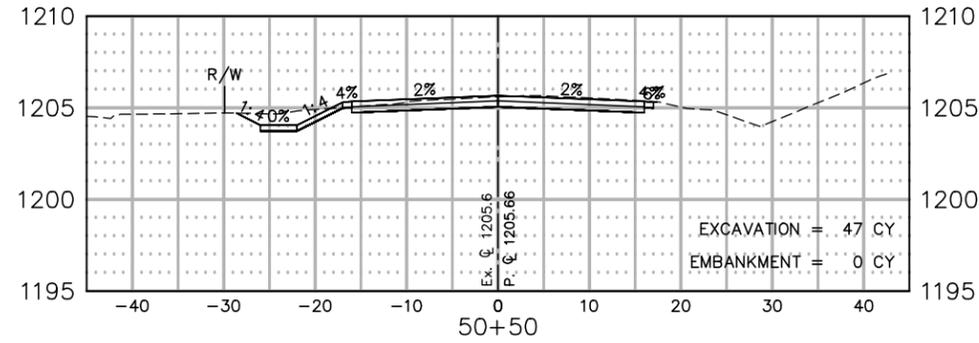
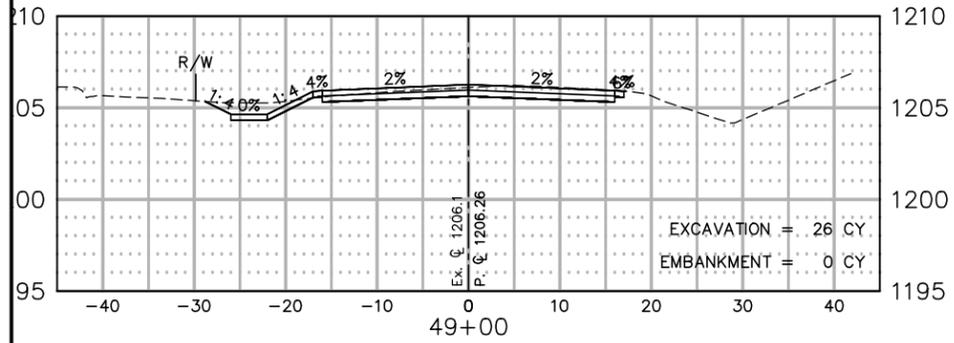
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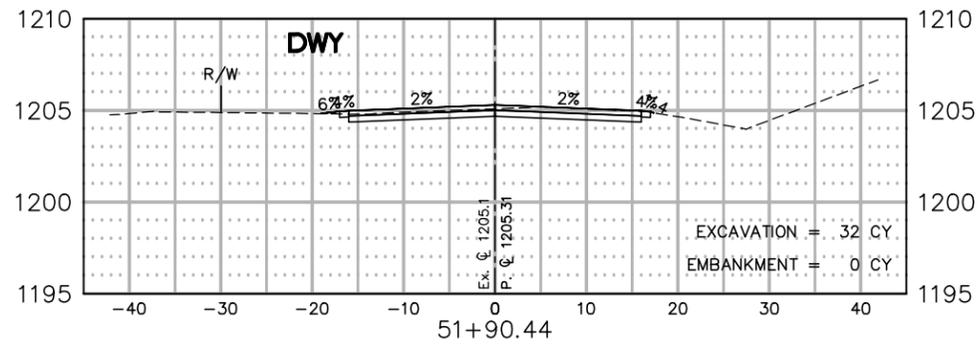
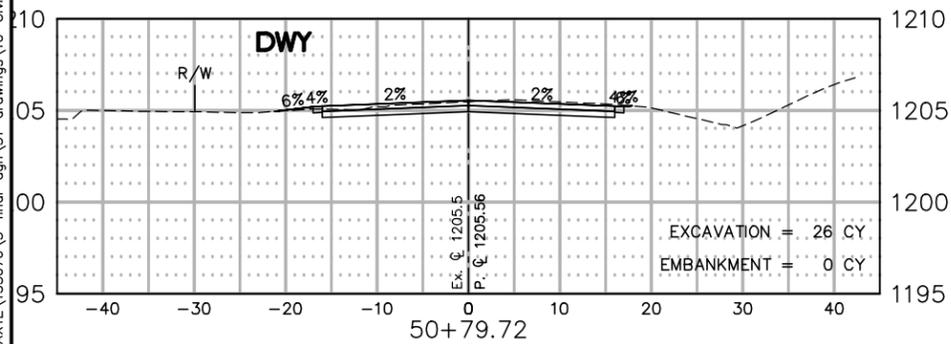
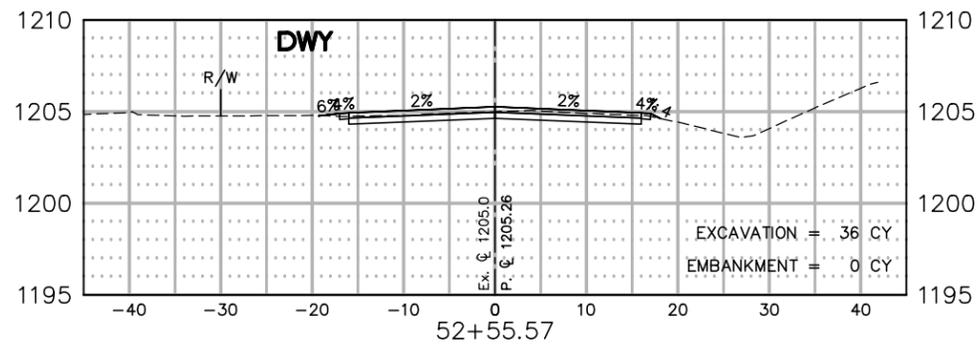
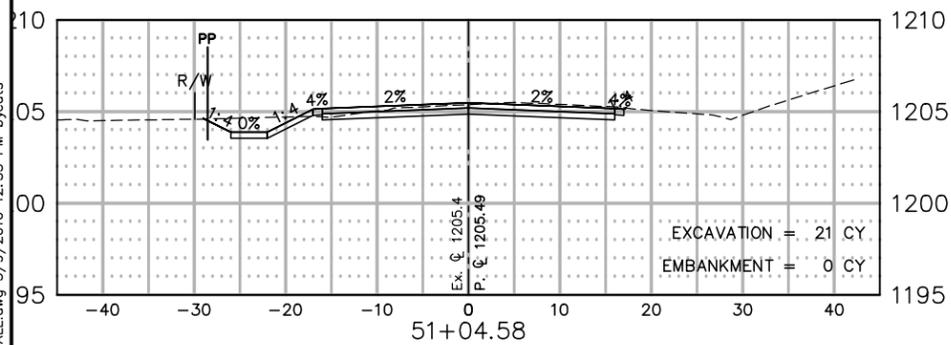
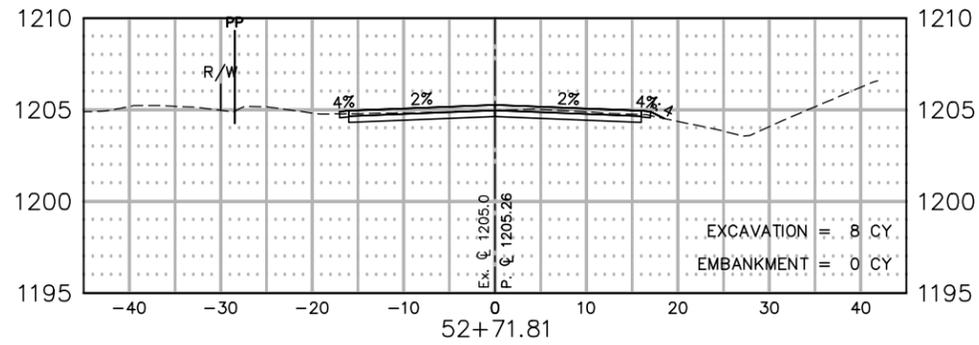
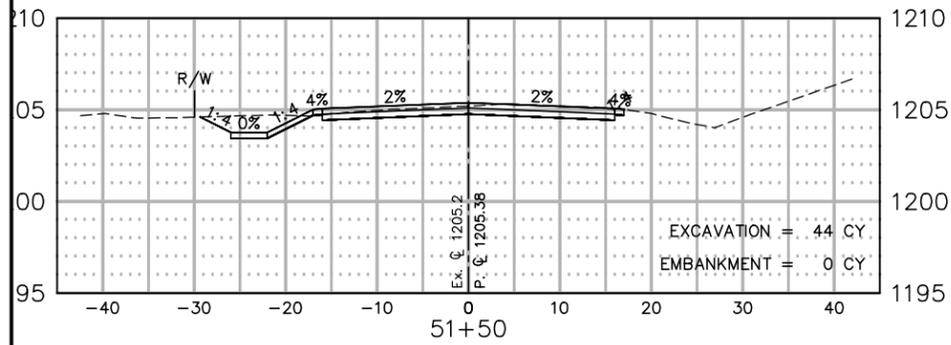
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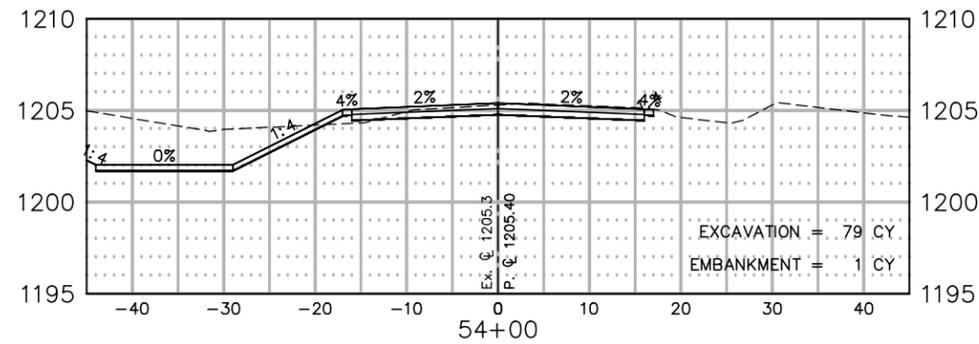
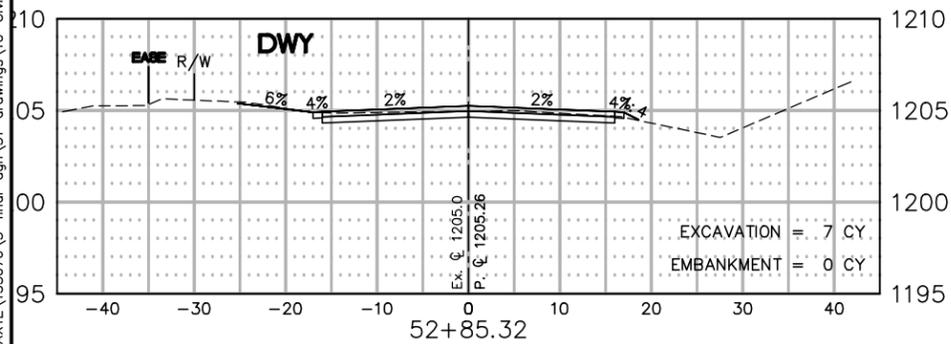
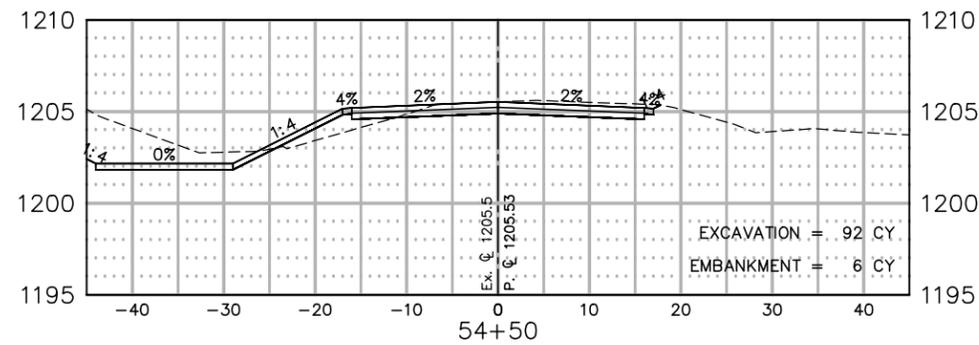
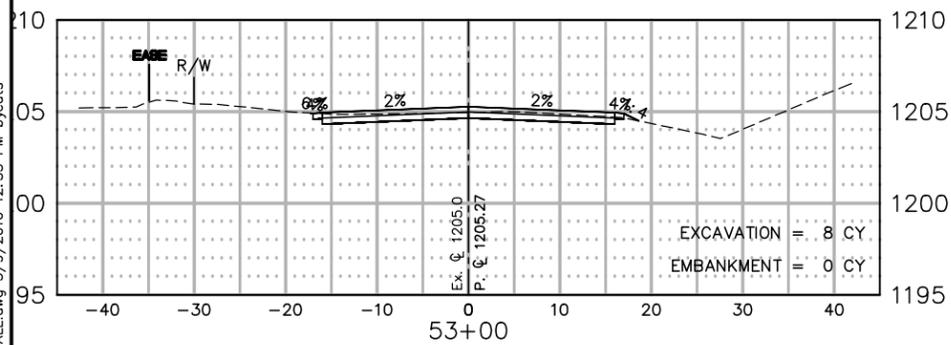
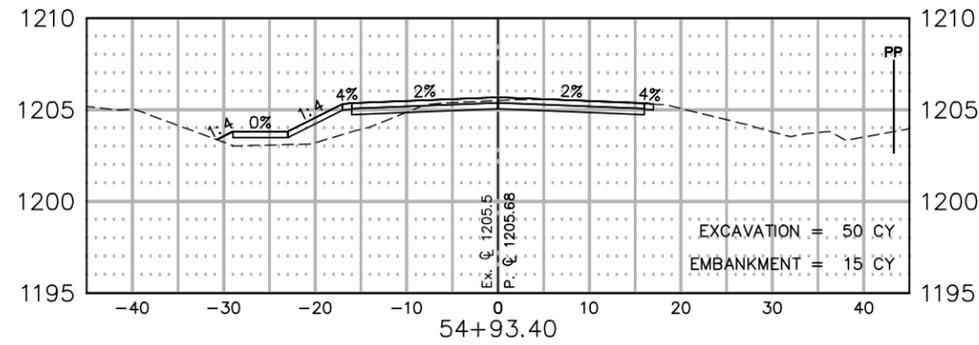
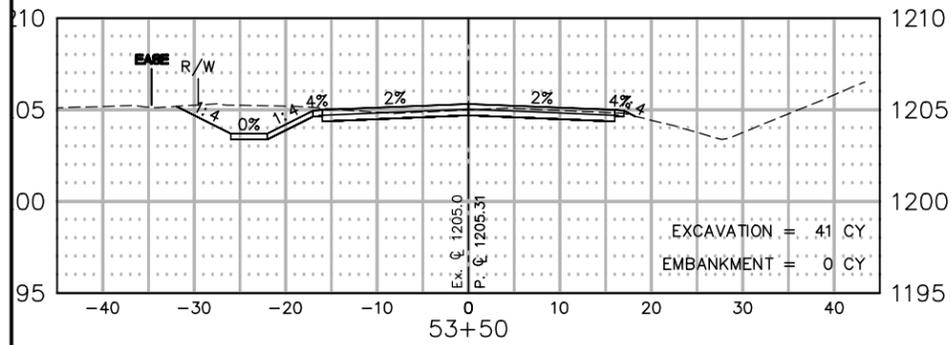
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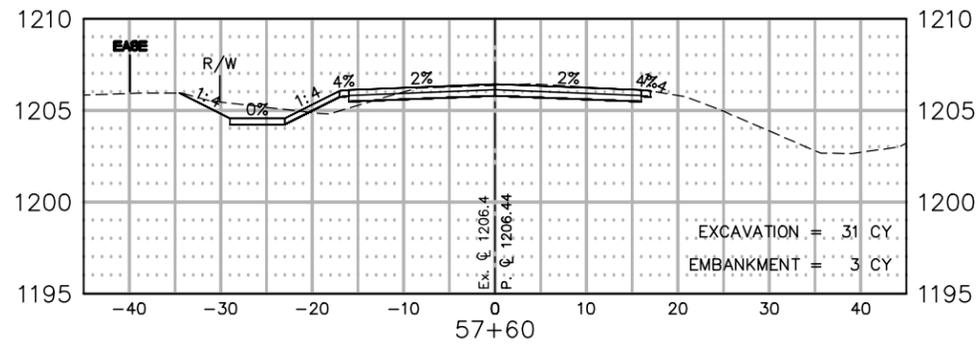
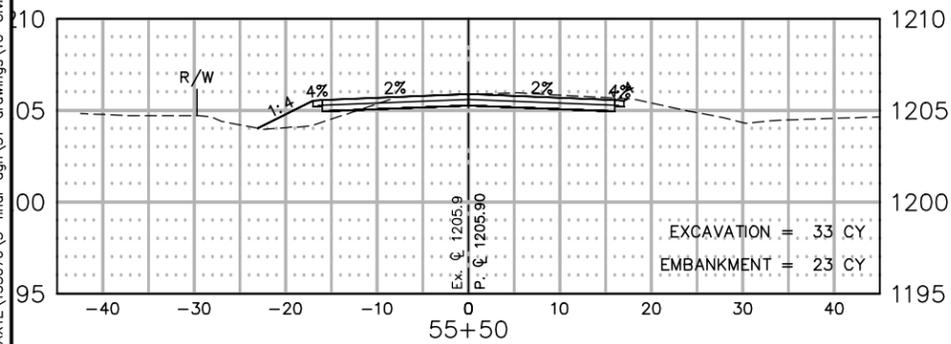
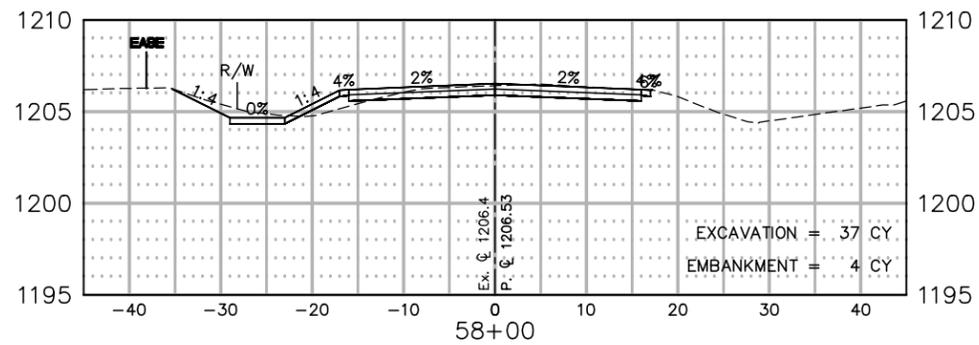
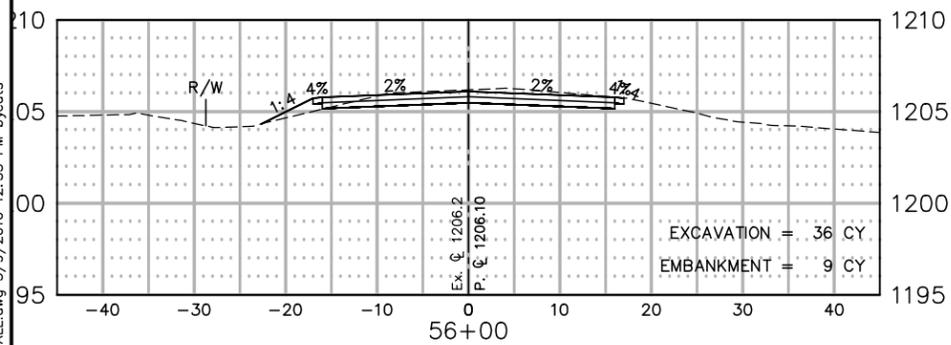
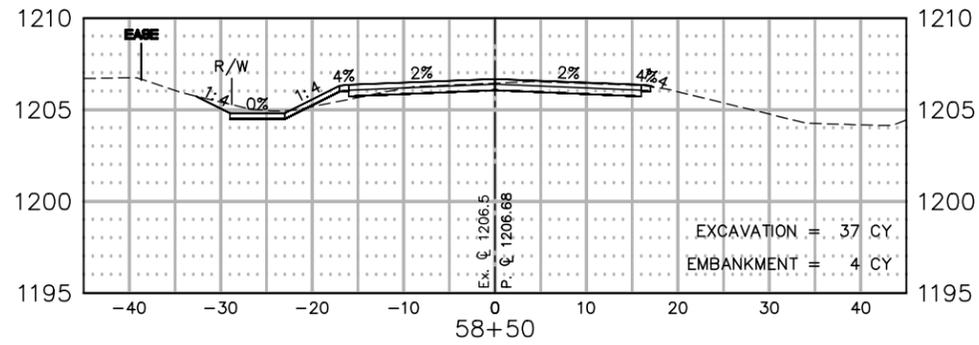
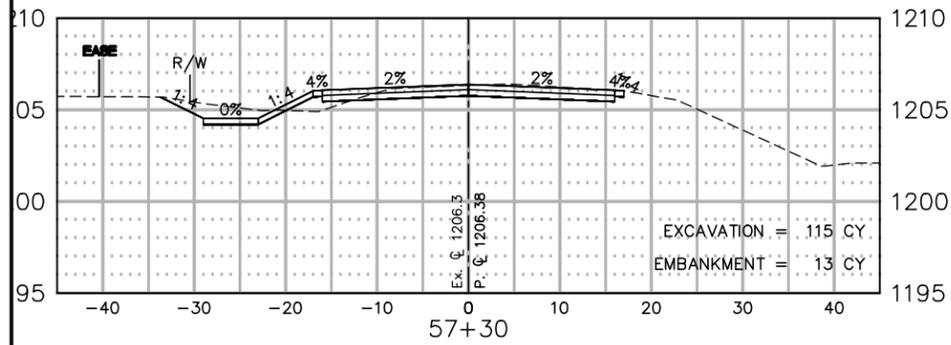
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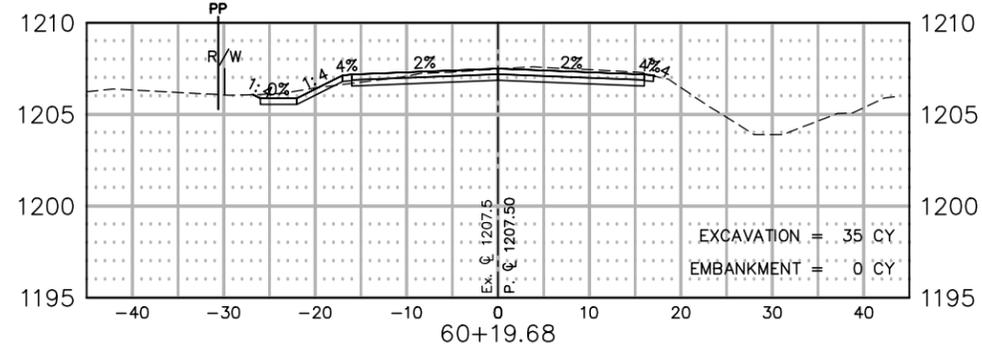
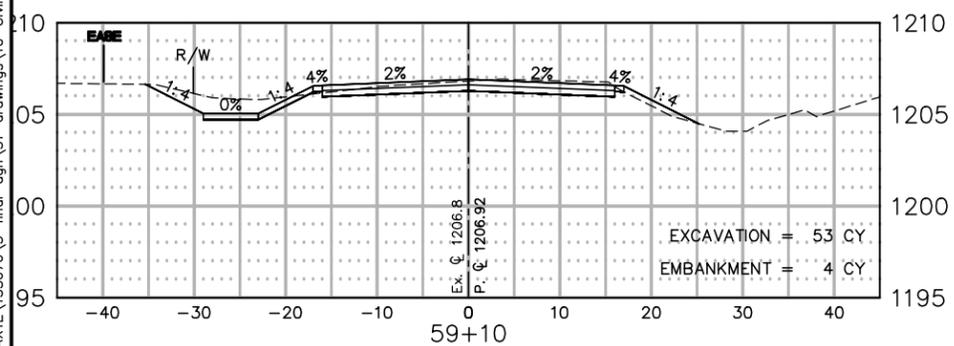
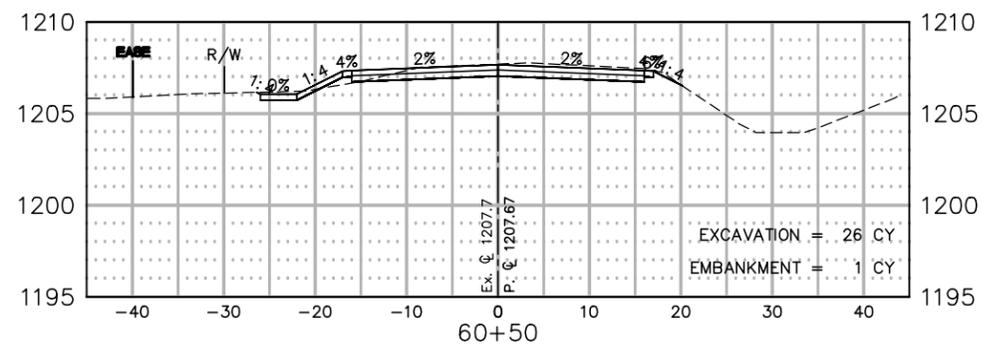
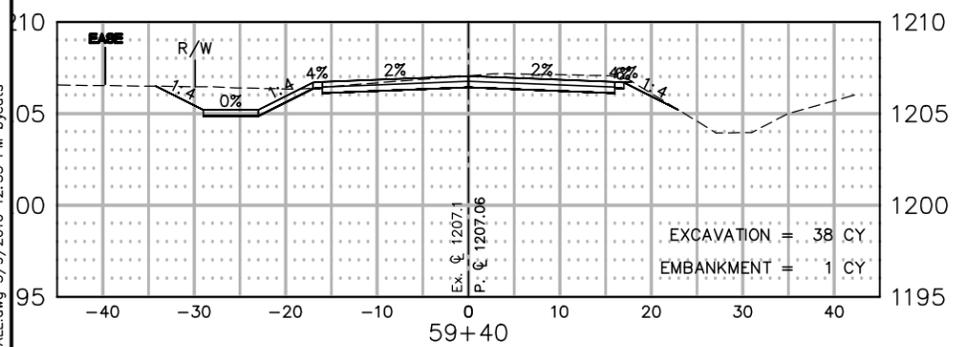
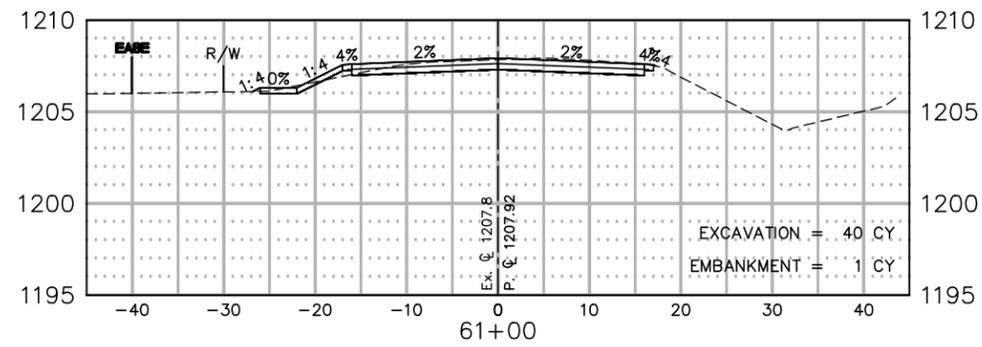
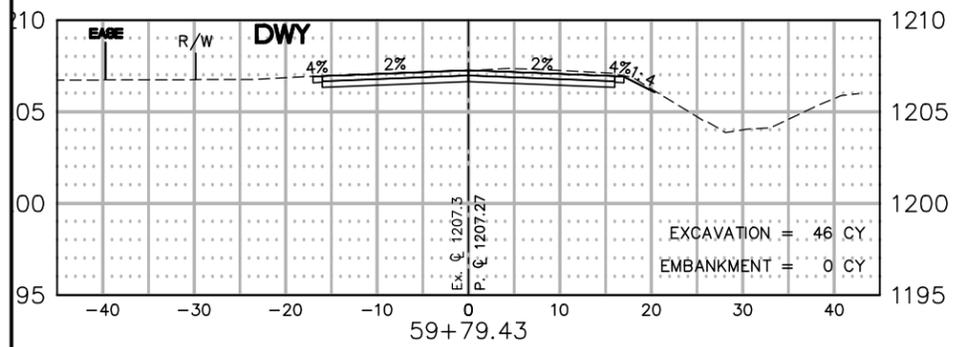
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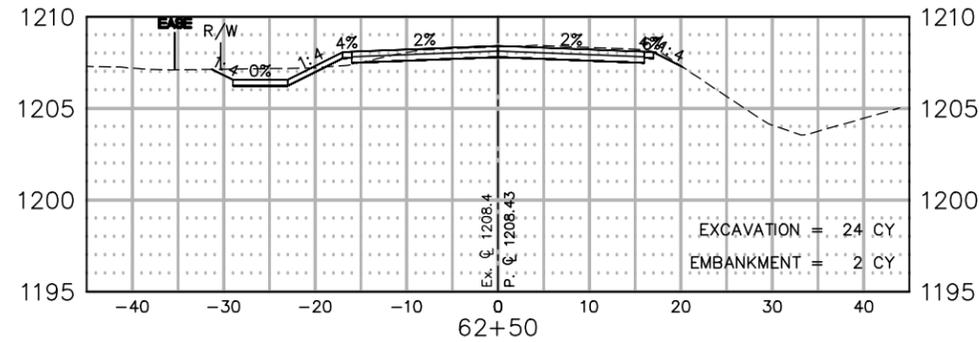
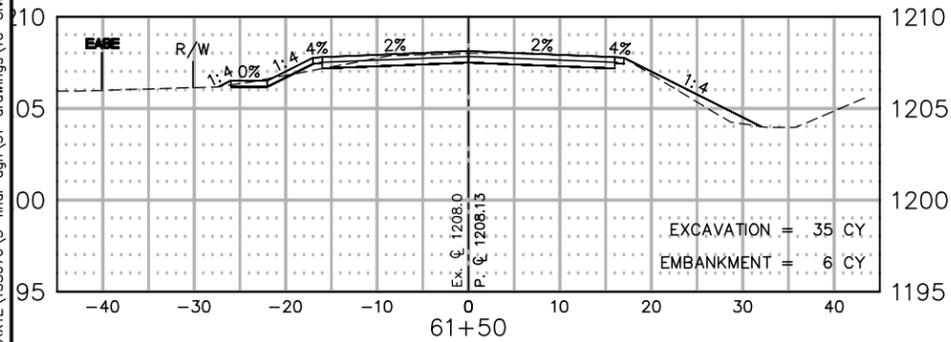
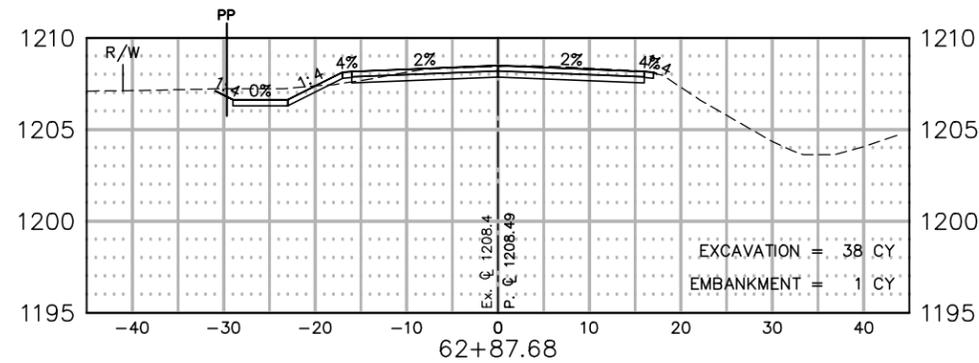
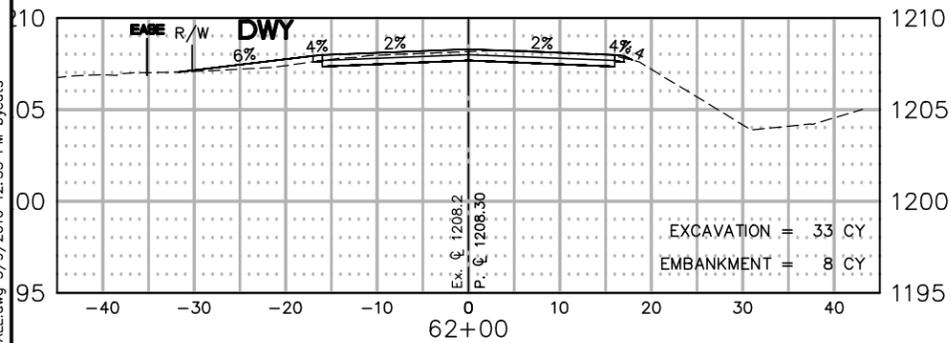
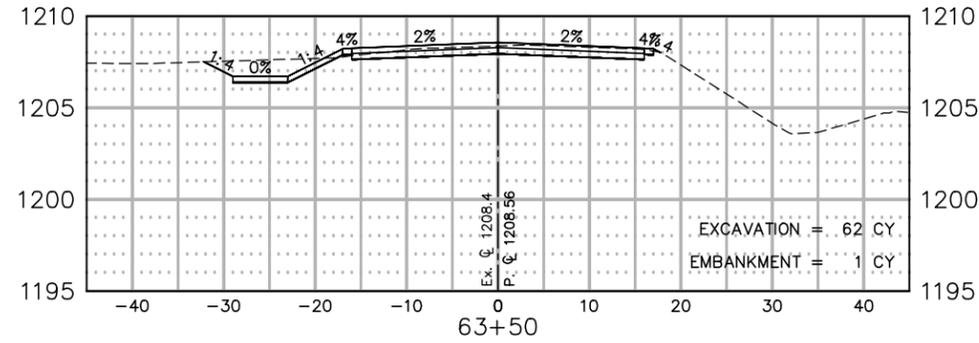
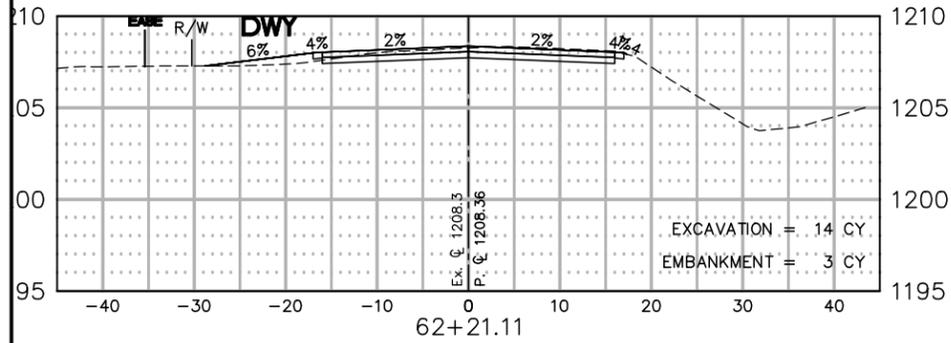
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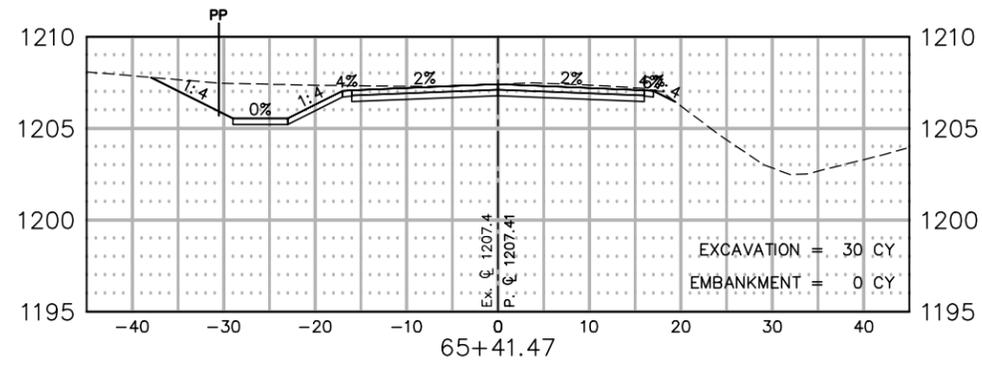
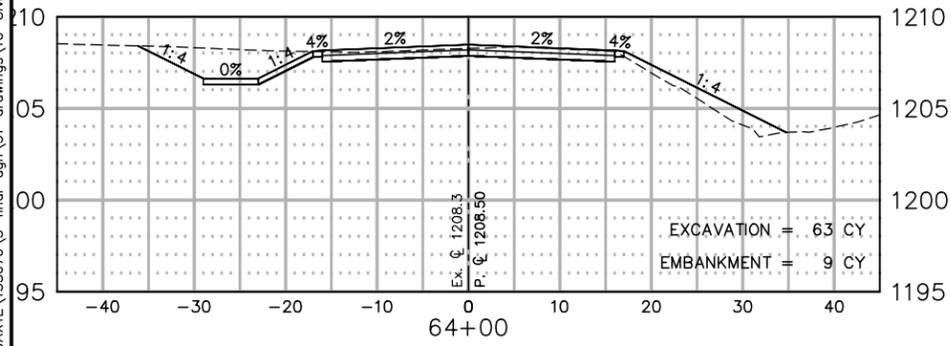
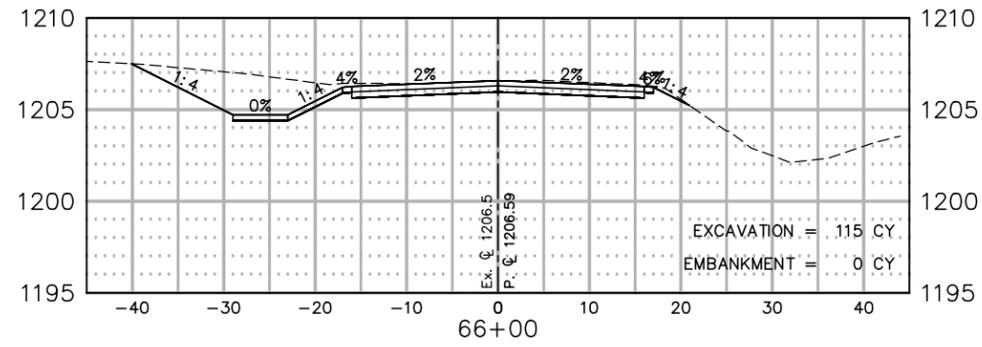
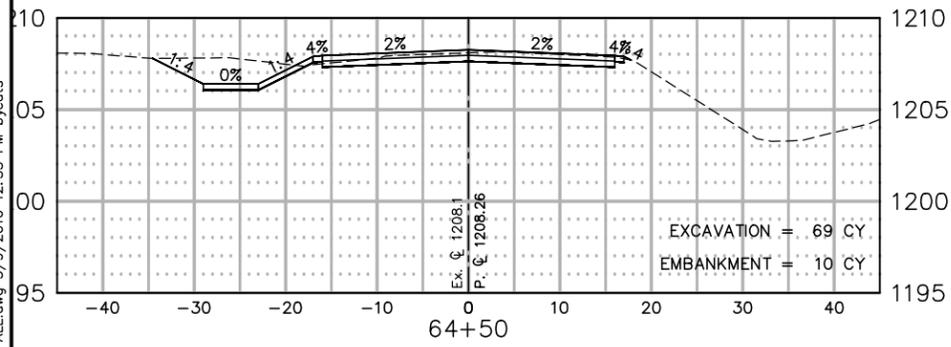
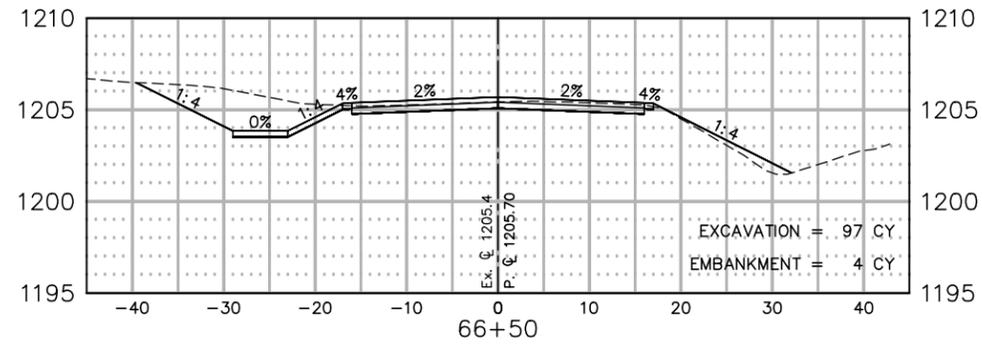
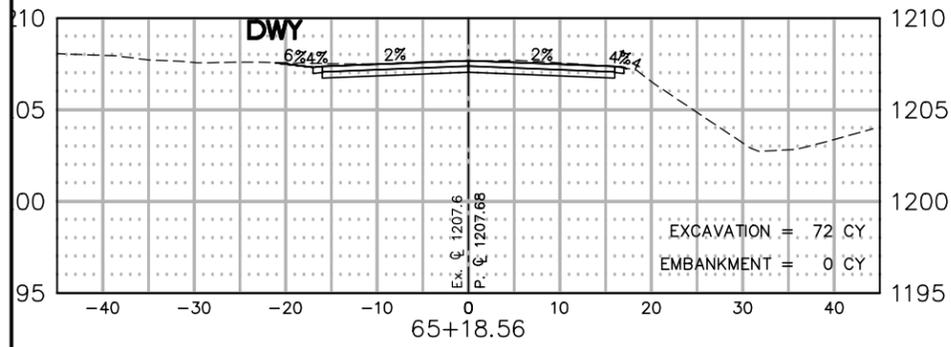
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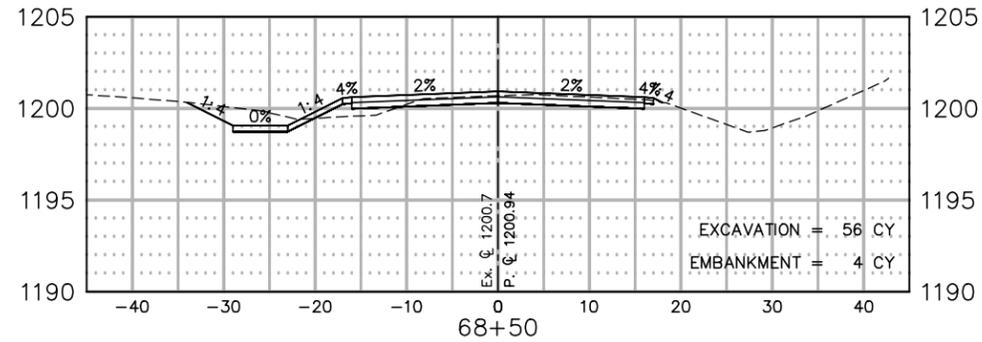
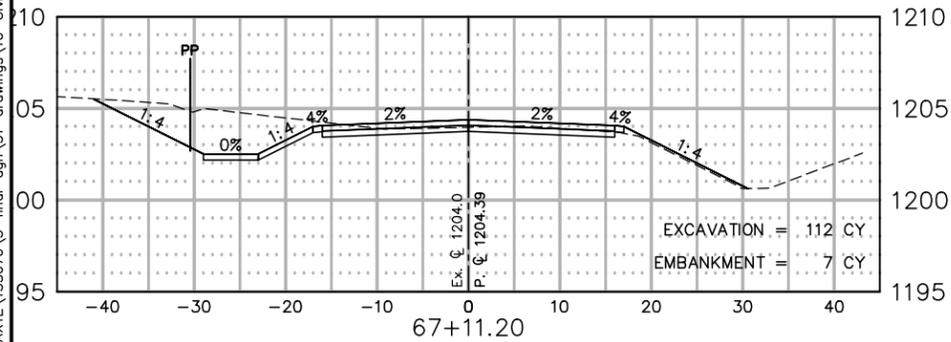
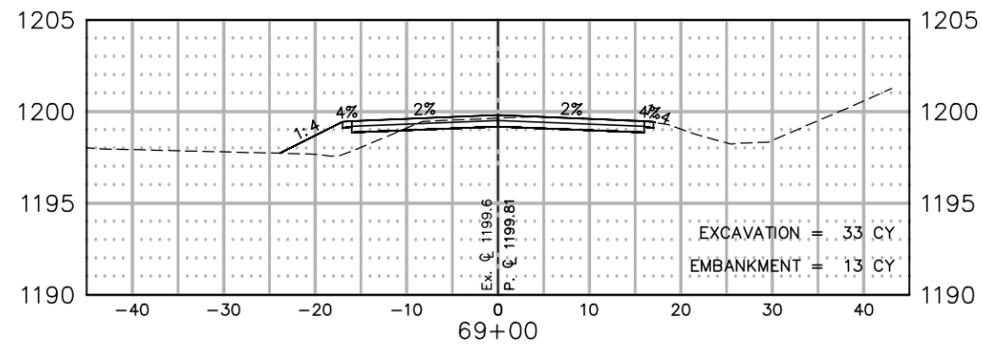
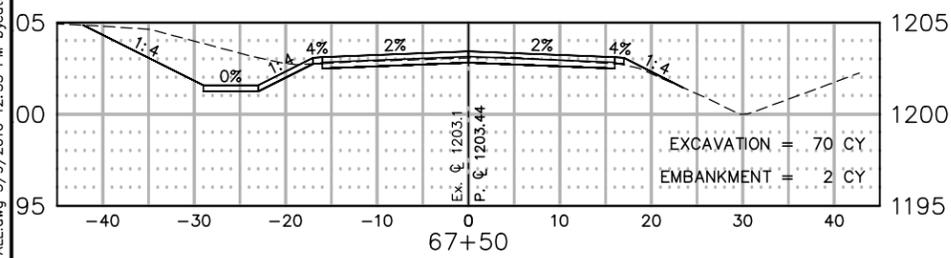
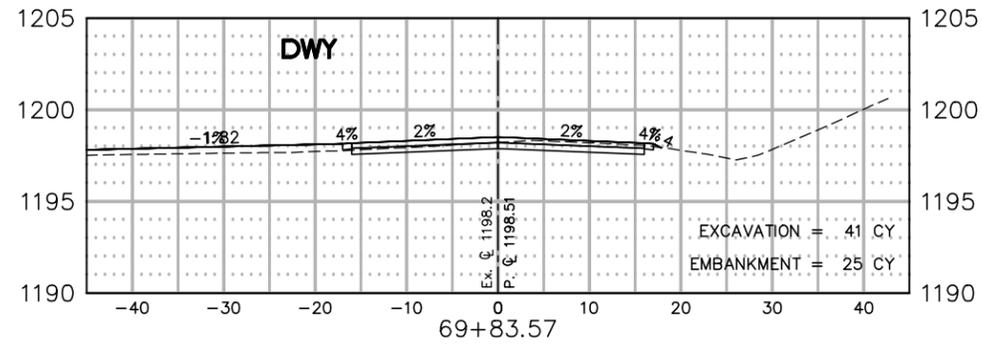
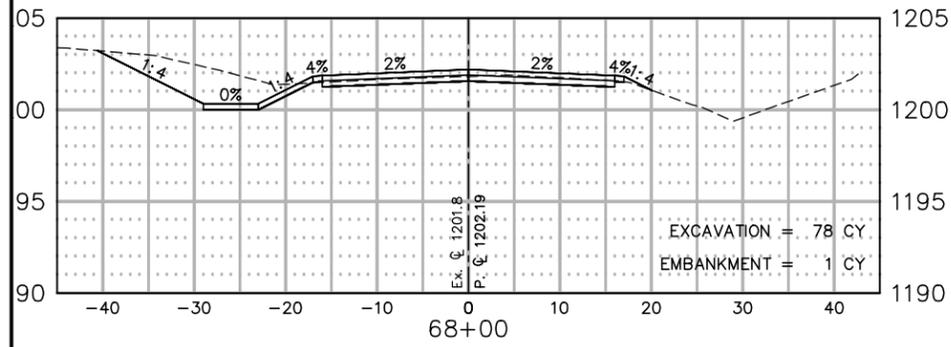
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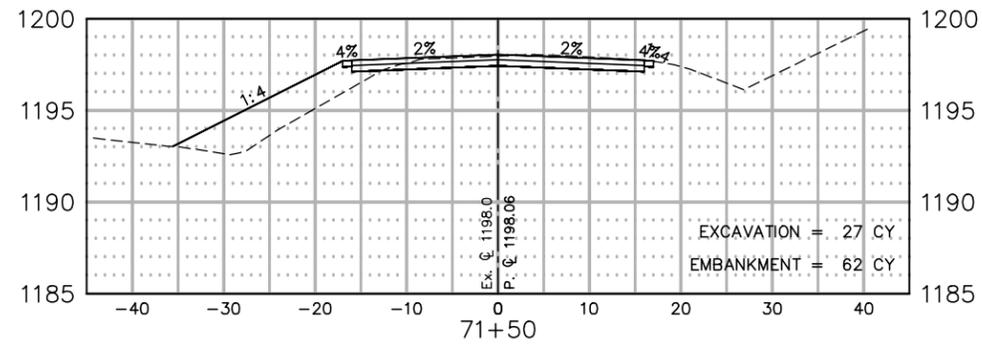
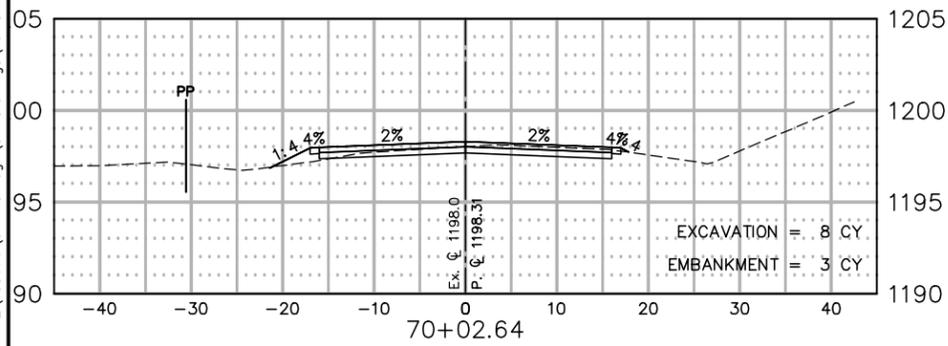
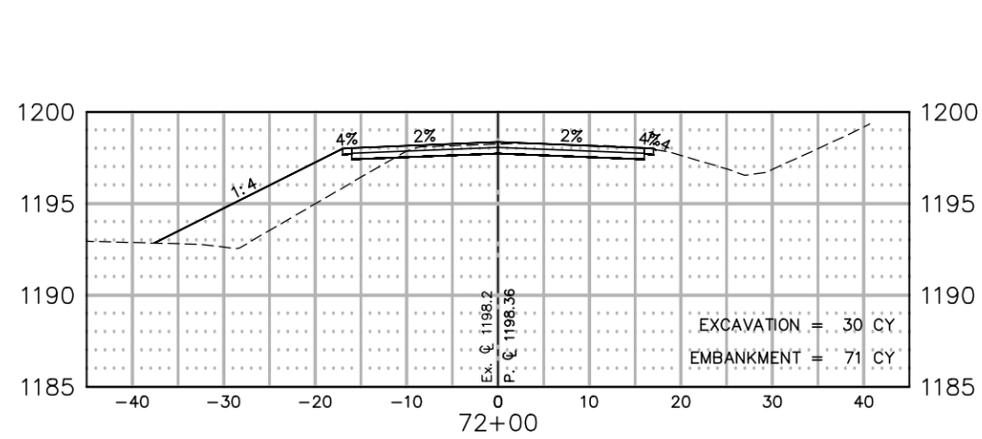
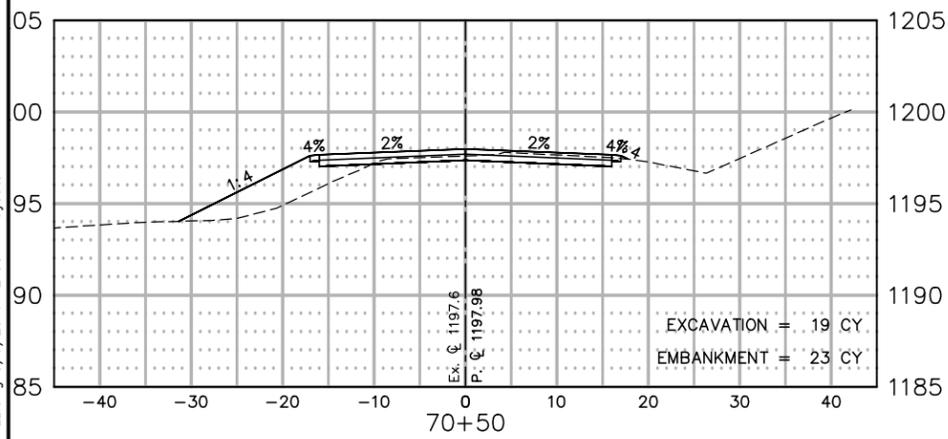
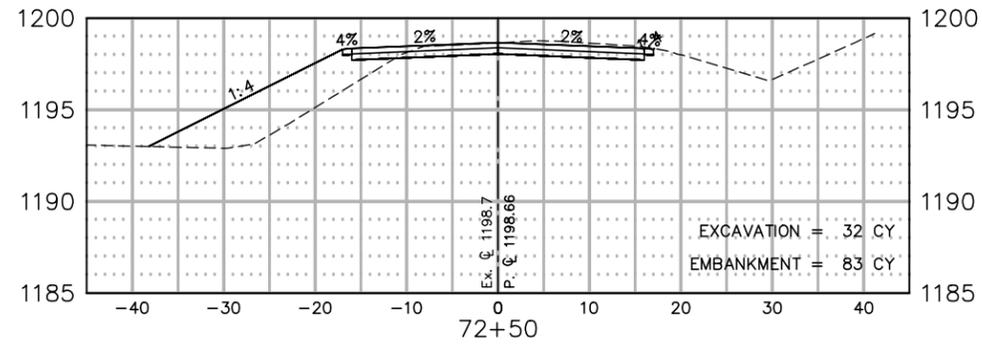
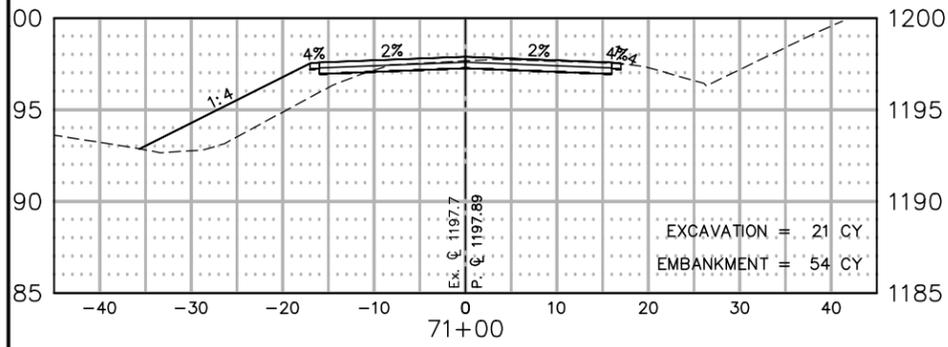
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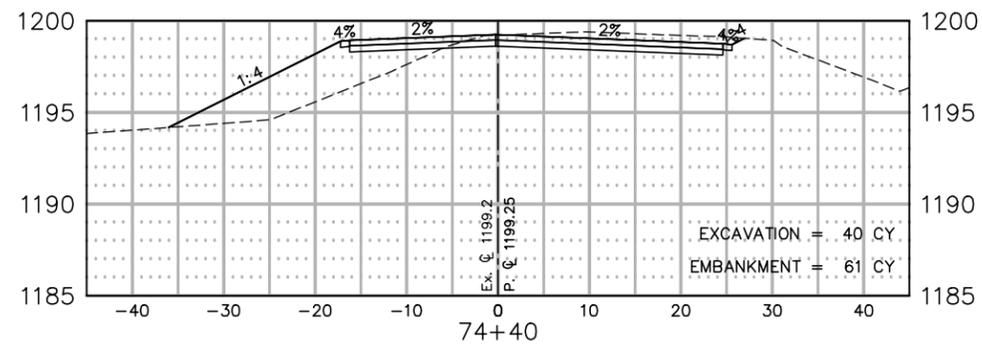
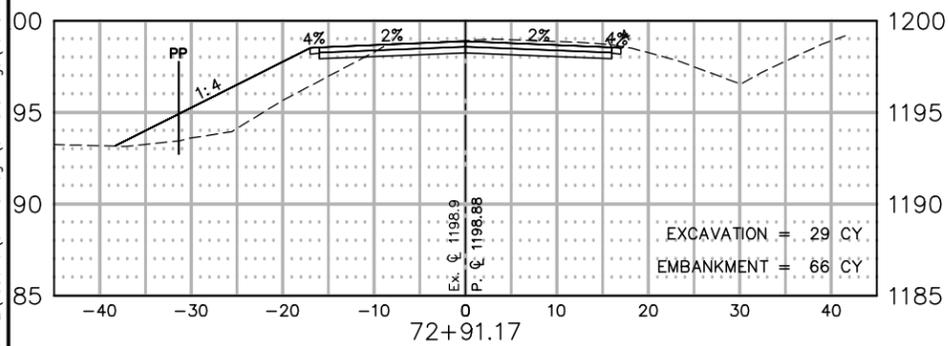
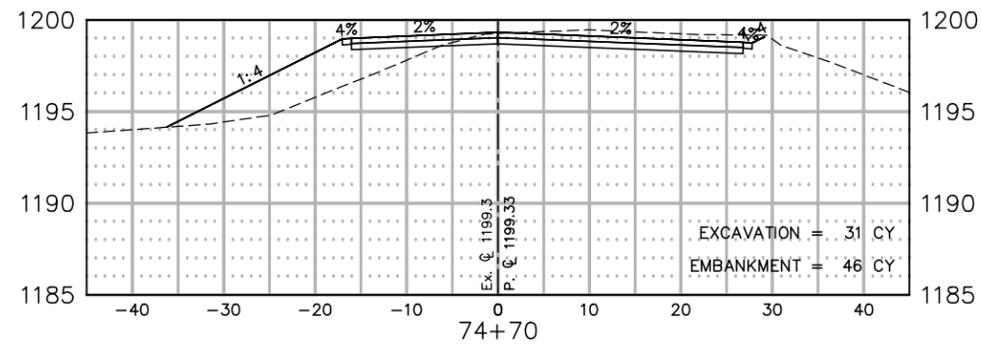
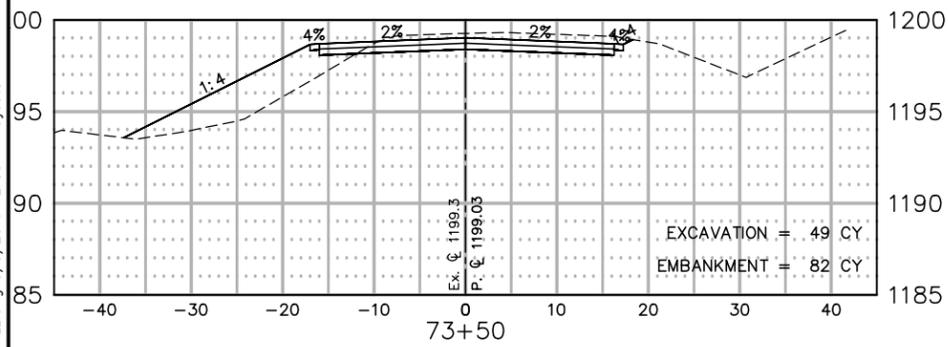
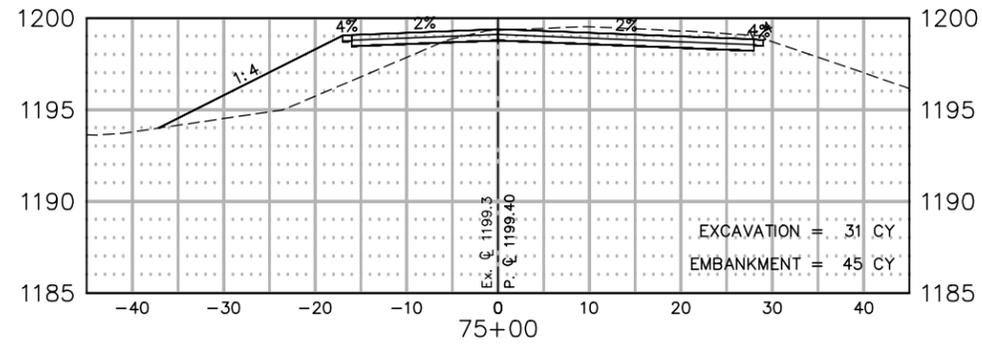
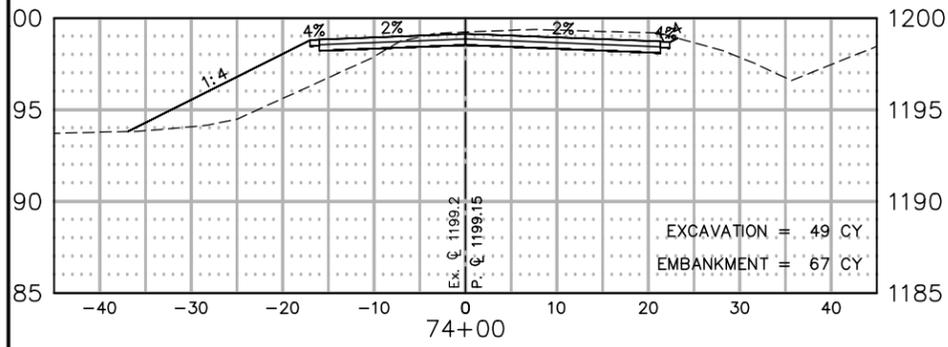
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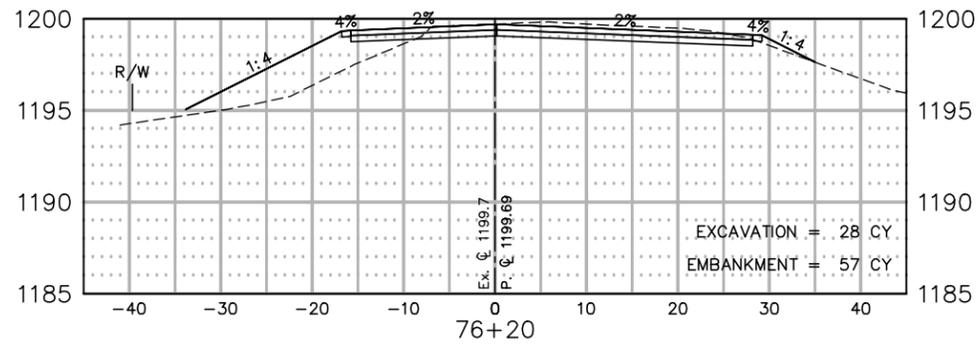
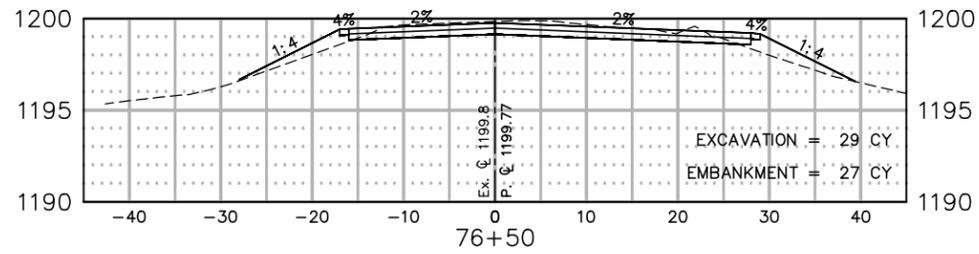
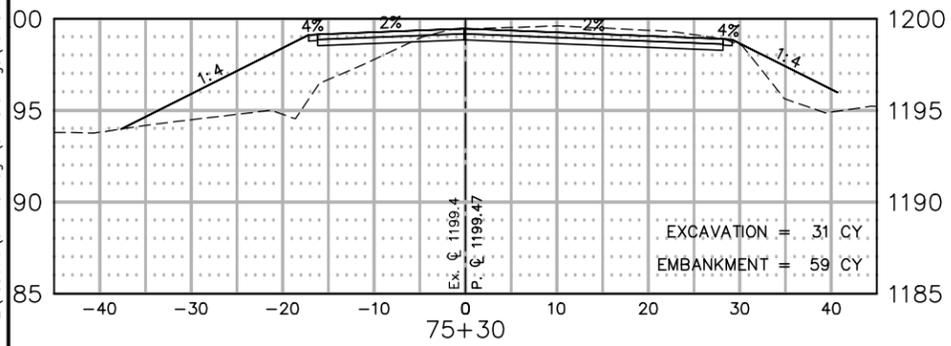
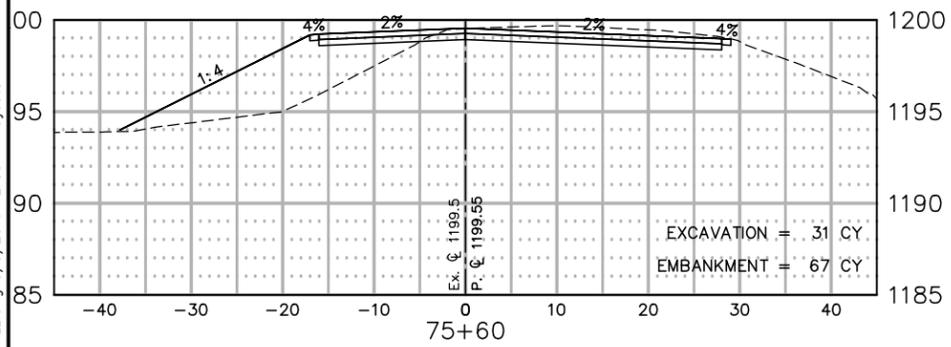
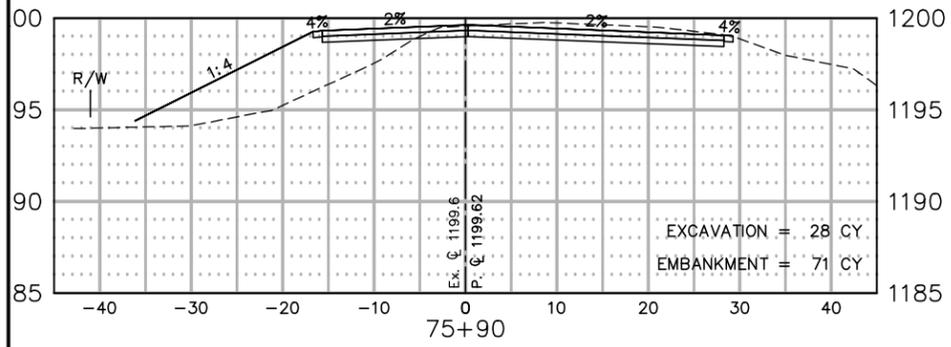
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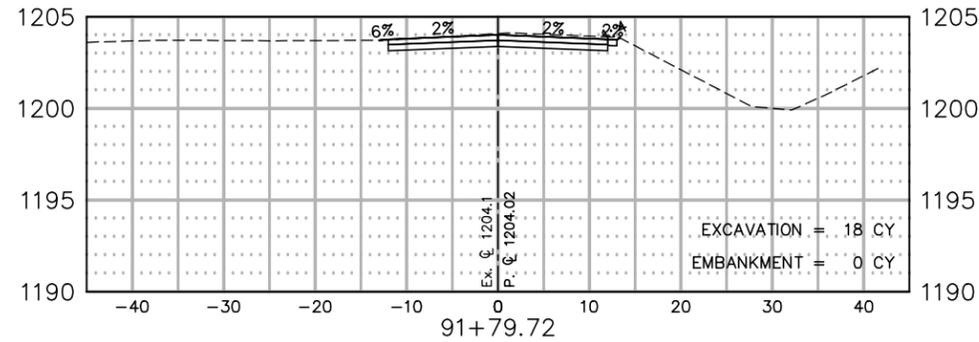
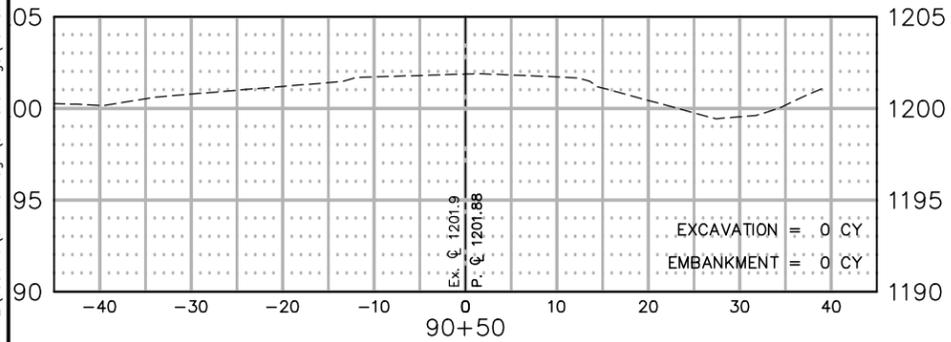
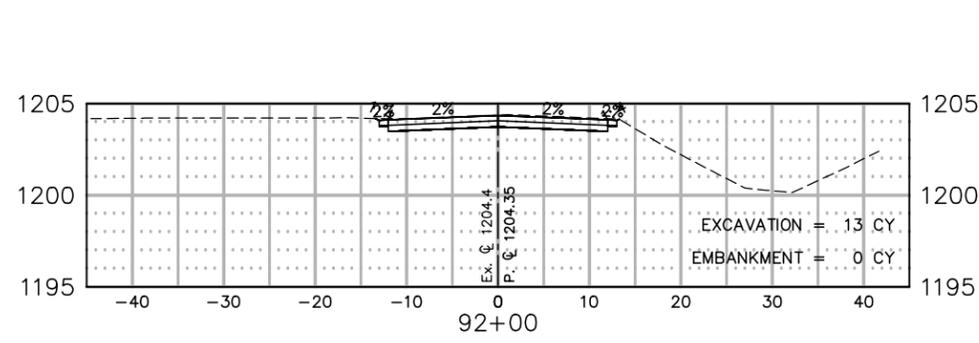
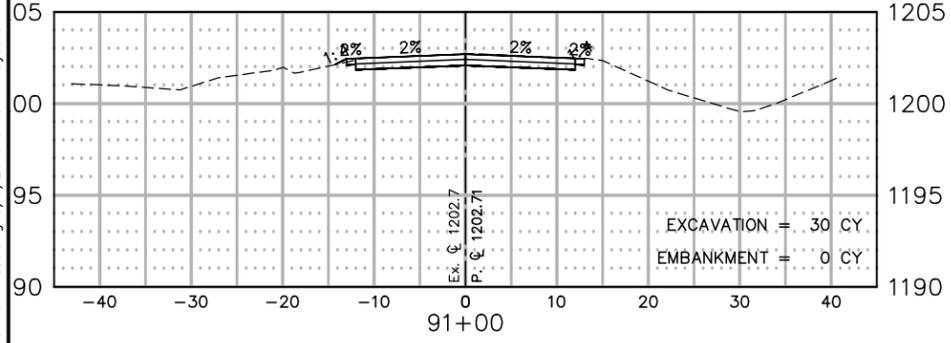
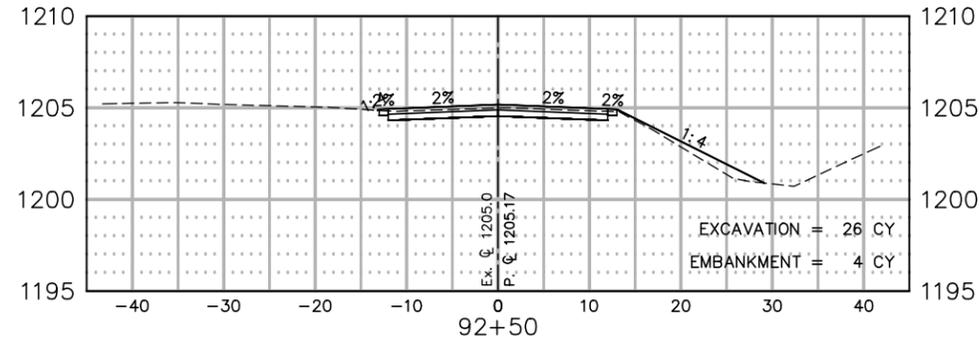
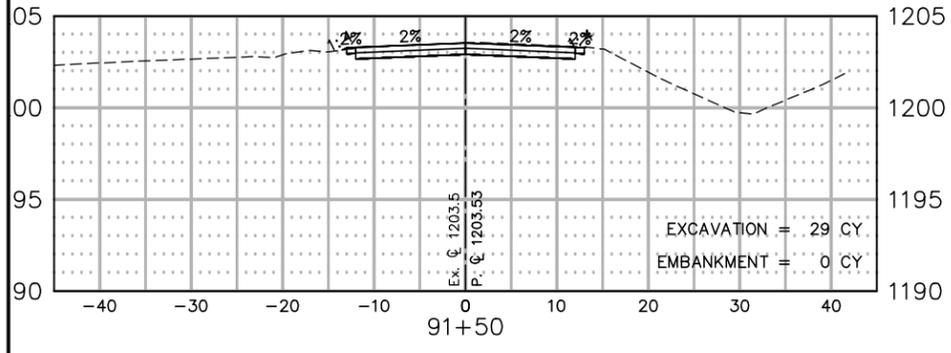
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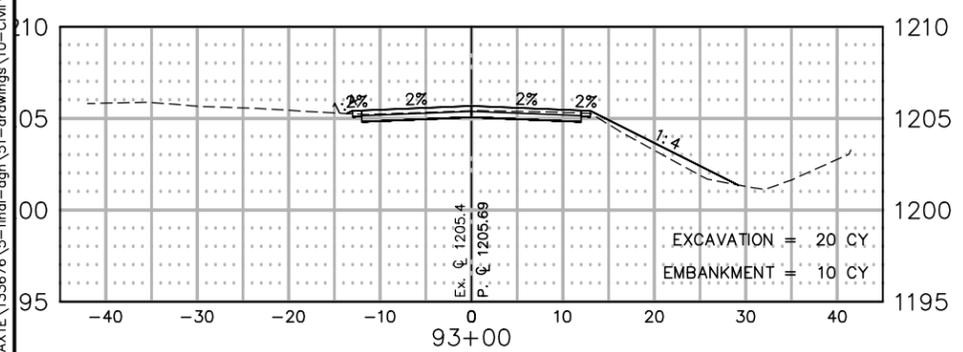
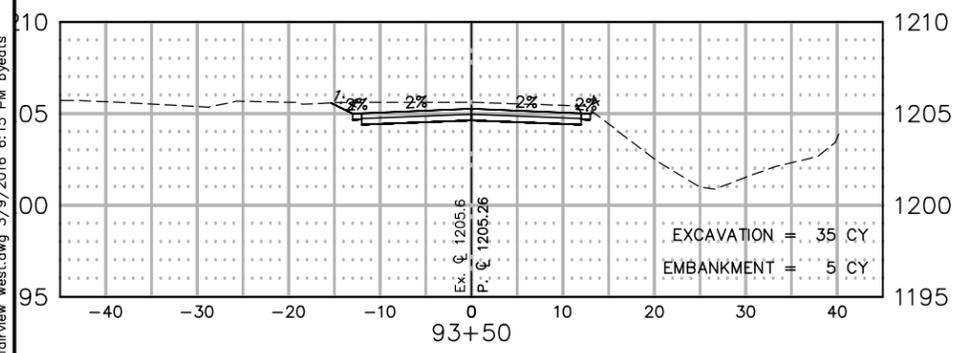
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# EXCELSIOR ROAD, FAIRVIEW ROAD AND EDGEWOOD DRIVE IMPROVEMENTS

## MUNICIPAL PROJECT NO. 4097

### FEASIBILITY REPORT

Council Approval Date:

**Prepared for**  
City of Baxter

**WSN No. 0102B0373.000**

**EXCELSIOR ROAD, FAIRVIEW ROAD AND EDGEWOOD DRIVE  
IMPROVEMENTS**

**MUNICIPAL PROJECT NO. 4097**

**FEASIBILITY REPORT**

Prepared for  
City of Baxter

WSN No. 0102B0373.000

DRAFT

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.

---

Aric Welch  
Professional Engineer

41983  
License Number

Date

# EXCELSIOR ROAD, FAIRVIEW ROAD AND EDGEWOOD DRIVE IMPROVEMENTS

## FEASIBILITY STUDY

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### LIST OF EXHIBITS

- “A” Project Area
- “B” Existing Conditions
- “C” Proposed Improvements – Utilities
- “D” Proposed Improvements - Roadway
- “E” Assessment Exhibit

### APPENDIX

- Preliminary Cost Estimate
- Estimated Project Schedule

## **STATEMENT OF PURPOSE**

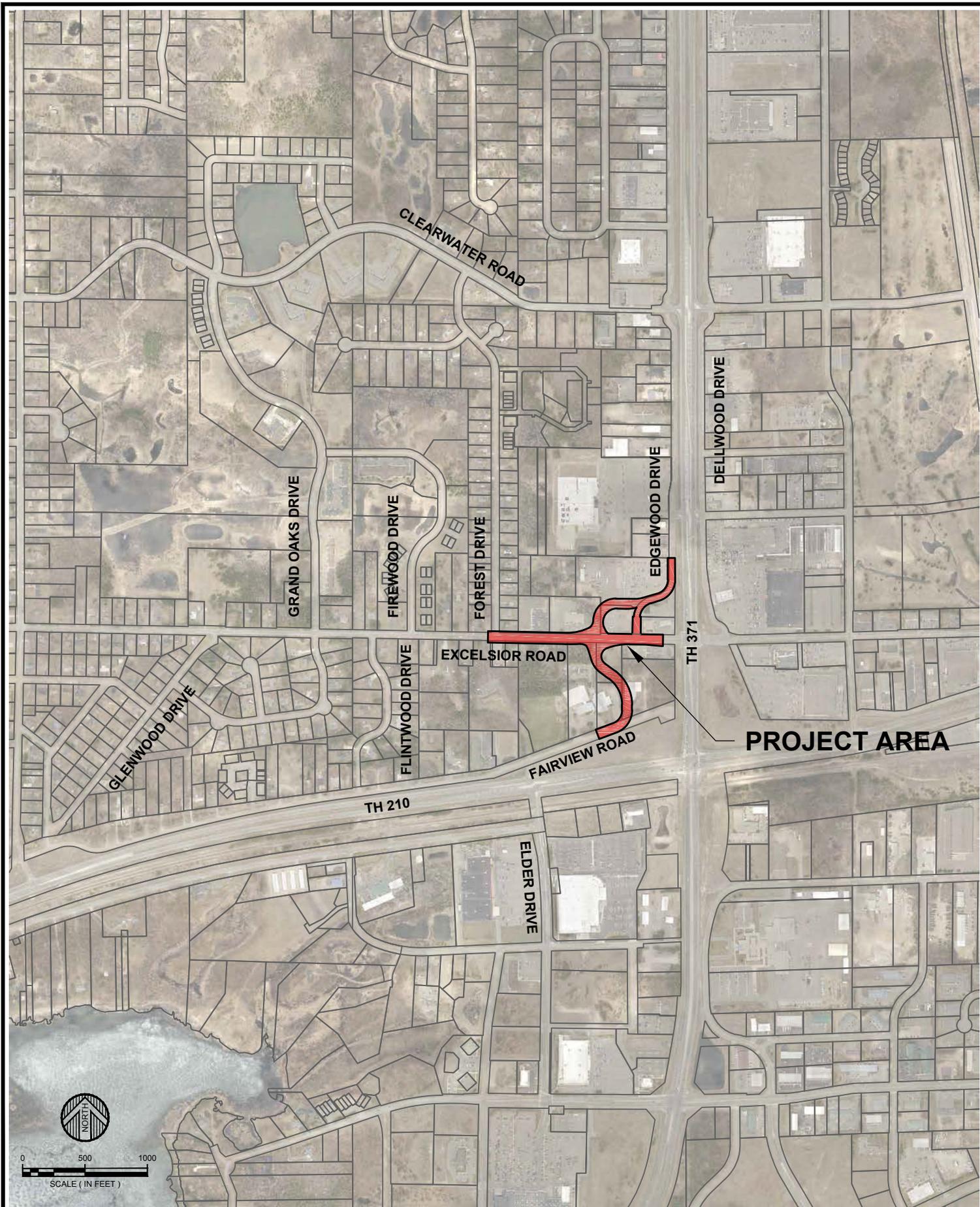
The purpose of this report is to study the feasibility of reconfiguring an existing transportation corridor configuration located northwest of the T.H. 210 / T.H. 371 intersection. The project area is shown in Exhibit A.

The City has been considering these improvements for many years and the concept has been included as part of the Long Range Transportation and Functional Classification Street Map presented as part of the City's Comprehensive Plan. Considerable development has occurred since roadways in the project area were constructed, resulting in increased vehicular traffic flows and additional potential conflict points. In addition, the need for non-motorized (pedestrian and bicycle) access has also increased and the project area currently does not provide defined non-motorized access routes. Recently two private developments (one north of Excelsior and one south of Excelsior) in the project area have been under consideration, expediting the need for consideration of the proposed improvements.

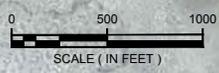
On August 4, 2015, the Baxter City Council approved the "Excelsior Area Transportation Study" as prepared by WSB and Associates, Inc. Following that meeting, two alternatives were prepared and presented by WSB to address concerns related to the potential for development occurring at different times on the north and/or south of Excelsior Road. In addition to the study an Intersection Control Evaluation (ICE) was prepared by WSB. The recommendation is to construct a single lane roundabout at the intersection of Excelsior Road with Fairview Drive from the south and Edgewood Drive from the north. Geometrics of the intersection should include the option for a free right turn for southbound traffic on Edgewood Drive.

On December 15, 2015, the City Council authorized WSN to complete a Feasibility Study of the project area.

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



**PROJECT AREA**



SCALE ( IN FEET )

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	REV	REVISIONS DESCRIPTION	BY

DATE:	DEC 2015	<b>EXCELSIOR, FAIRVIEW &amp; EDGEWOOD IMPROVEMENTS</b> <b>CITY OF BAXTER</b> <b>BAXTER, MINNESOTA</b> <b>EXHIBIT A - PROJECT AREA</b>	SHEET NO. <b>A</b> SHEET OF
SCALE:	AS SHOWN		
DRAWN BY:	A.L.W.		
CHECKED BY:	A.L.W.		
JOB NUMBER:	0102B0373.000		

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

DATE:      LIC. NO.:

JOB NUMBER: 0102B0373.000

SHEET OF

## **EXISTING CONDITIONS**

The project area is located northwest of the T.H. 210 and T.H. 371 intersection.

### **Zoning and Development**

Zoning is currently Regional Commercial (C2) for the first ¼ mile west lying of T.H. 371, encompassing the project area. West of there, the zoning changes to Low Density Residential (R-1) and Medium Density Residential (R-2) north of Excelsior Road, and Low Density Residential (R-1) and Neighborhood Commercial (C1) south of Excelsior Road. Based on the 2015 Comprehensive Plan Update, future land use in the project area will be Commercial for areas currently zoned C-2 and OS. The only exception would be the Excelsior Court parcel that would be zoned High Density Residential in the future.

Commercial development located immediately adjacent to the project area and north of Excelsior Road consists of a grocery store, strip mall, liquor store and fuel / convenience facility and a low income apartment complex. Additional development north of Excelsior, but not immediately adjacent to the project area includes a sporting goods retailer, fast food restaurant and sit down restaurant. Development south of Excelsior Road consists of a bank, a church and a development previously utilized as a beverage distribution facility.

### **Existing Roadways**

Excelsior Road is currently a combination of urban and rural segments. West of the Edgewood Drive intersection, the roadway is rural (no curb/gutter) approximately 34' in width. This section of roadway was constructed in 1989 when sanitary sewer and water improvements were installed. Between East of Edgewood Drive, the roadway is a divided section with a combination of urban construction (curb/gutter) on the north side and rural on the south side with varying width. This segment of roadway was constructed in 2000 by MnDOT as part of the T.H. 371 Bypass project. Excelsior Road is on the Baxter State-Aid System (MSAS) as Route number 106.

Edgewood Drive is currently an urban roadway approximately 36' in width from face of curb to face of curb. This roadway was originally constructed in 1990 as part of the County Market (Cub) development. In 2015 the south 575' of Edgewood Drive was updated with a mill and overlay process. North of there the roadway was completely reconstructed using full-depth reclamation.

Edgewood Drive is also on the Baxter State-Aid System (MSAS) as Route number 115.

Fairview Road is currently a rural roadway approximately 24' in width and was constructed in 1998 by MnDOT as part of the "T.H. 210 improvements". Fairview Road currently terminates in a cul-de-sac approximately 100' in diameter. Storm water is handled via swales on either side of the roadway edges.

The City of Baxter "Comprehensive Pavement Management System" indicates existing bituminous surface conditions in 2013 varied from fair to good. Recommended roadway improvements include a combination of sealcoating and mill / overlay. Detailed PASER ratings by roadway segment are as follows:

<u>Roadway Segment</u>	<u>PASER Rating</u>	<u>Description</u>
Excelsior – East of Edgewood	5	Fair
Excelsior – West of Edgewood	4	Fair
Edgewood Drive	NA	Improved 2015
Fairview	6	Good

#### Existing Drainage and Storm Sewer Systems

Surface drainage on Excelsior Road, from a point approximately 150' west of Edgewood Drive, currently is collected in drainage structures and conveyed easterly through a storm sewer network across T.H. 371. Pipes in this network vary from 12" Reinforced Concrete Pipe (RCP) to 36" RCP.

Surface drainage on Edgewood Drive currently is collected in drainage structures and conveyed northerly and westerly through a storm sewer network discharging into a drainage basin between the Cub Foods store Gander Mountain. Pipes in this network vary from 12" RCP to 36" RCP. This storm water network is part of the larger "Section 6" storm water handling and conveyance system.

Excelsior Road, west of Edgewood Drive, and Fairview Road are currently rural roadways and drainage is handled via shallow drainage swales located on either side of the roadway.

There are no known stormwater issues in the immediate project area. We are aware of a

stormwater ponding concern west of the project area on Excelsior Road.

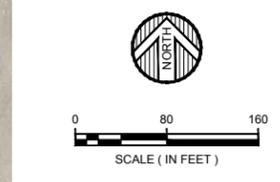
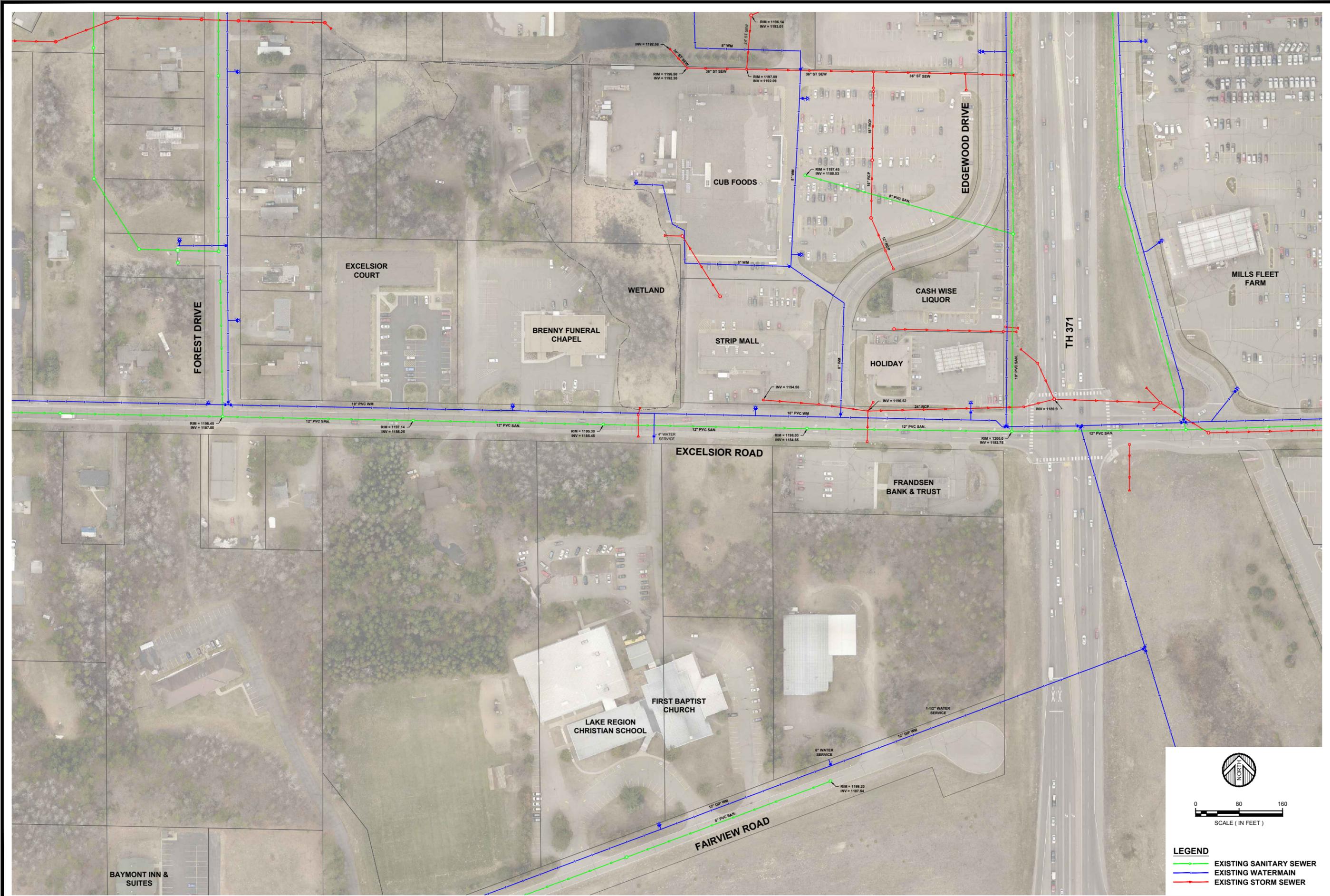
#### Existing Sanitary Sewer Collection System

Sanitary sewer service was originally extended to the project area as part of the “1977 Municipal Sanitary Sewer and Water Improvements” when twelve inch sanitary sewer collection piping was extended from the east, along Excelsior Road, crossing T.H. 371 to the west back slope. From there 10” sanitary sewer was extended northerly along the west back slope of T.H. 371. A twelve-inch PVC sanitary sewer main was continued westerly along Excelsior as part of the “1989 Sewer and Water Improvements, Municipal Project No. 87-2”. An eight inch PVC sanitary sewer main was then extended from the west back slope of T.H. 371, across Edgewood Drive, to the grocery store as part of the County Market development in 1990. The sanitary sewer collection system, north of Excelsior Road, conveys sanitary waste in a southerly and easterly direction. An eight-inch PVC sanitary sewer main was constructed along the centerline of Fairview Drive project area in 1998 by MnDOT as part of the “T.H. 210 improvements”. Sanitary waste is conveyed in a westerly direction along Fairview Road. Manholes are located along all sanitary sewer collection mains allowing maintenance of the system. Adjoining properties are serviced with four or six inch sanitary sewer services. No problems with the existing sanitary sewer system in the project area are known.

#### Existing Water Distribution System

Municipal water service was originally extended to the project area as part of the 1977 Municipal Sanitary Sewer and Water Improvements. Ten inch Ductile Iron Pipe (DIP) water main was extended from the east along Excelsior Road, across T.H. 371 and through the project area. An eight inch water main was then extended northerly and westerly along Edgewood Drive and through the grocery store parking area as part of the “County Market” development in 1990. Municipal water service was extended to the Fairview Drive project area as part of the 1977 Municipal Sanitary Sewer and Water Improvements. Twelve inch Ductile Iron Pipe (DIP) water main was extended between T.H. 371 and Flintwood Drive. Hydrants and valves are located along all water distribution mains allowing operation and maintenance of the system and adjoining properties are connected to the mains. No problems with the existing water distribution system in the project area are known.

Exhibit “B” shows the existing conditions in the project area.



**LEGEND**

- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER

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

UC. NO. 41883  
DATE: ###/###/###  
LIC. NO. 41883

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A FULLY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: DEC 2015  
SCALE: AS SHOWN  
DRAWN BY: A.L.W.  
CHECKED BY: A.L.W.  
JOB NUMBER: 0102B0373.000

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EXCELSIOR, FAIRVIEW AND EDGEWOOD IMPROVEMENTS  
CITY OF BAXTER  
BAXTER, MINNESOTA

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**EXHIBIT B - EXISTING CONDITIONS**

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SHEET NO. **B**

## **PROPOSED IMPROVEMENTS**

Proposed improvements include:

- South of Excelsior Road, extension of Fairview Road to Excelsior Road
- North of Excelsior Road, realignment of Edgewood Drive
- Relocation and replacement of the Excelsior Road and Edgewood Drive / Fairview Road intersection.

The geometric layouts presented in this report are the same as those presented in the “Excelsior Area Transportation Study” and Intersection Control Evaluation (ICE) reports prepared by WSB and Associated, Inc., and approved by the City of Baxter. Please note, these layouts are conceptual only at this time.

### **Proposed Roadways**

Proposed roadway improvements include relocation of the existing Excelsior Road / Edgewood Drive intersection to approximately 320' west of its current location. North of Excelsior Road, Edgewood Drive would be realigned from its current location on the east side of the strip mall, to extend along the north and west side of the strip mall. South of Excelsior Road, Fairview Road would be extended northerly through Fruth Beverage parcel to connect with the relocated Edgewood Drive location. The easterly end of Fairview Road and the cul-de-sac would be removed. The intersection is proposed to be a single lane roundabout with provisions to construct a free right lane in the future, for southbound Edgewood Drive traffic wishing to continue in a westerly direction.

East of Edgewood Drive, Excelsior Road is proposed to be a single-lane divided urban (curb/gutter) roadway approximately 44' in width. West of Edgewood Drive, Excelsior Road is proposed to be a single-lane urban (curb/gutter) undivided section approximately 36' in width from Edgewood Drive through the Forest Drive intersection. North of Excelsior Road, Edgewood Drive is proposed to be a single-lane undivided urban (curb/gutter) roadway with a minimum width of 36'. South of Excelsior Road, Fairview Road is proposed to be a single-lane urban (curb/gutter) undivided section approximately 40' in width from Excelsior Road to 740' east of Elder Drive where the new alignment matches into the existing alignment.

All roadways are proposed to meet a 10-ton design strength with pavement markings meeting State-Aid design requirements.

#### Proposed Trail and Pedestrian Facilities

Currently the project area does not provide a defined off road network of non-motorized trails. The proposed project provides the framework for trail improvements throughout the area. Proposed trail improvements include a 10' wide bituminous surfaced trail on the south side of Excelsior Road from the T.H. 371 crosswalk to the west side of the Fairview Road connection. This trail continues southerly along the west side of Fairview Road and westerly along the north side of Excelsior Road. West of Edgewood Drive, a 10' wide bituminous surfaced trail is also proposed on the north side of Excelsior Road. This trail continues northerly along the west side of Edgewood Drive. It should be noted that 10' trails are proposed, in lieu of typical trail width of 12', to minimize property acquisition.

#### Proposed Storm Sewer System

The proposed urban roadway sections will require the installation of storm sewer networks. Surface drainage on Excelsior Road is proposed to be collected in drainage basins and pipes connecting to the existing storm water network that crosses T.H. 371, conveying surface runoff in an easterly direction. This network also handles drainage from the southerly 100' of Edgewood Drive and the northerly 400' of Fairview Road. The southerly portion of Fairview Road will also contain a storm sewer network that collects surface run off in drainage basins and conveys it southerly to a new storm water basin proposed east of Fairview Road in the area currently occupied by the roadway, but being abandoned. The northerly end of Edgewood Drive will also contain minimal new drainage structures and piping connecting to the existing Section 6 storm water network in the Cub Foods parking lot. All storm sewer piping is proposed to be Reinforced Concrete Pipe (RCP) varying between 12' and 24" in diameter.

Based on the conceptual review of the existing storm water system on Excelsior Road, it does not appear that significant additional drainage area will be added to the system as a result of the proposed improvements. During detailed design the existing and proposed drainage areas should be reviewed to determine if additional ponding will be required downstream of the proposed improvements to handle the additional storm water runoff. We have not included any downstream ponding modification to the existing drainage system in this report.

## Wetlands

Constructing the roadway and trails as proposed will result in impacts to existing wetland areas lying north of Excelsior Road and west of Cub Foods. Based on our conceptual layouts, we estimate approximately 14,000 square feet of wetland will be impacted. The estimated wetland impact area by improvement type is as follows:

<u>Improvement</u>	<u>Estimated Wetland Impact</u>
Roadway	13,570 sf
<u>Separated 10' Trail</u>	<u>3,670 sf</u>
Total	17,240 sf

Please note, the areas listed above are estimated based on our knowledge of the area. We are not aware of any official wetland delineations conducted by the City. It is likely the property owner may have more specific information on the actual delineated wetland edges that should be requested if additional detail is necessary.

Previous discussions with Crow Wing County and the Technical Evaluation Panel (TEP) have indicated the roadway portion of the project may qualify for the Minnesota Local Government Road Wetland Replacement Program (LGRWRP) but the trail improvements may not. To be eligible for this program, the City must demonstrate the improvements are necessary for the health and safety of the traveling public.

It can be argued that widening the roadway with designated bike/pedestrian lanes with the additional separated trail will increase the overall safety of the roadway by minimizing conflicts between vehicles and pedestrians. We recommend the City move forward with the LGRWRP application with the trail included. If the TEP does not approve the trail portion of the application, the City could look at the following options:

- Mitigate the wetland impacts.
- Find an alternate separated trail alignment that does not impact existing wetlands.
- Move the trail to the east side of the roadway.
- Construct a boardwalk across the wetland.

### Sanitary Sewer Improvements

No significant improvements to the sanitary sewer are being proposed with this project. The only change proposed is on the south end of Fairview Road where the existing roadway and sanitary sewer will be removed and 8" PVC gravity flow sanitary sewer pipes extended northerly along the newly realigned Fairview Road. Sanitary sewer manholes will be installed at approximately 400' intervals and 6" PVC services will be installed to each existing and potential developable parcels. During design, all manholes, mainline sewers, and service lines should be inspected to determine if any repairs or modifications are required.

### Water Improvements

The only proposed improvement to the water distribution system is the construction of a new 8" PVC watermain along the realigned segment of Fairview Road. This line will connect the existing watermain along Fairview Road to the existing main along Excelsior Road. Construction of this main not only provides service to the area, but also loops the system improving maintenance and flow characteristics. Hydrants and valves will be installed along the new watermain to facilitate fire protection and maintenance operations. 1 ½" water services will be installed to each existing and potential developable parcels. During design, all existing mainline pipes, hydrants, valves and services should be inspected to determine if any repairs or modifications are required.

### Property Acquisition

A considerable amount of property acquisition will be necessary as part of this project. For purposes of this report we have estimated property acquisition costs based on zoning and land use/type.

For purposes of this report, it was assumed that the developments currently being considered both north (Cub) and South (Fruth) of Excelsior Road, would donate property for the new roadway corridors as part of the development process. This would be typical of any development being considered in the City. In exchange, the City would dedicate any vacated property back to the proposed developers. For the proposed development on Cub and Fruth parcels we have assumed no payment for property acquisition would be required.

### Dewatering

Based on previous soil investigation reports and visual observation, dewatering will likely be required to install the municipal utility (sewer and water) lines as proposed. Ground water elevations vary significantly over time, and the extent of dewatering required will depend on ground water elevations at the time of construction.

### Restoration

Turf restoration is proposed utilizing 4-inches of topsoil and a combination of seed and sod. Seed is proposed in disturbed areas that are currently undeveloped and no maintained yards currently exist. Sod and erosion protection blankets will be incorporated during construction where developments have existing mowed and maintained areas or in locations where steeper grades have the potential to create erosion problems. Proposed restoration improvements include placement of a tree screen along the east side of the Brenny property.

### Existing Private Developments

Reconfiguration of the roadways and utility systems as proposed in this report will have significant impacts to existing private developments in the project area. Potential impacts include ingress / egress changes, grading modifications, parking reconfiguration, lighting modifications, private utility (gas, telephone, fiber-optics, power) changes, storm sewer modifications, screening and landscaping.

Detailed review of all private site developments was not included with the original scope of this study. However, during preparation of the report the City requested additional analysis of the following:

- Cub Foods parking and drive aisle
- Strip Mall parking and drive aisle
- Brenny Funeral Chapel screening

Improvements to the Cub Foods property will include parking lot reconfiguration and realignment of the drive aisle leading to the store front. The proposed improvements will result in the loss of approximately 37 parking stalls. City Staff has determined the remaining parking is adequate for the current use of the property. The drive aisle was realigned to match the proposed entrance into the Strip Mall to the south. The realignment will leave an area between the drive aisle and store that has the potential to become a nice landscaped outdoor space adjacent to the

proposed City trail and Cub Foods store front. Improvements as proposed will require a variance a variance from the required setbacks for the existing building and parking lot.

Improvements to the Strip Mall property will include parking modifications and drive aisle realignment. To meet parking requirements, it will be necessary to vacate the existing right-of-way between the Strip Mall and Holiday/Cash Wise Liquor (the City will need to retain an easement of the existing watermain). This area will be used to create a new parking area containing 20 parking stalls. City staff has determined the proposed parking lot configuration meets the required number of parking stalls for the existing building; however, a variance will be required for the set back from the right-of-way. A variance will also be required for the building set back along the west side. The drive aisle located across from the realigned Cub Foods entrance will provide access off of Edgewood Drive to the Strip Mall, Holiday and Cash Wise Liquor. Holiday would retain the right in/right out access off Excelsior Road and Cash Wise liquor would retain the existing access to Edgewood Drive located north of the building.

Brenny Funeral Chapel has expressed concern with proximity of the roundabout and roadway along the east side of building where the receiving entrance is located. Due to the nature of the business, they have requested screening be built into the project to protect the privacy of their clients. For the purposes of this report, we have included provisions for a 125' long and 8' high privacy wall/fence constructed of precast panels fabricated to match the exterior of the existing building. Depending on the design of the fence/wall and whether it connects to the building, a variance or conditional use permit will be required.

For the purposes of this report, we have calculated private site improvement costs based on the preliminary layout work completed for the study with an allowance for additional work that will likely be necessary to offset the impacts of the proposed roadway and intersection improvements. Private site improvement costs are included with the roadway portion of the cost estimate.

Additional review and analysis of private development impacts will likely be required once the City has presented this report to business owners in the project area.

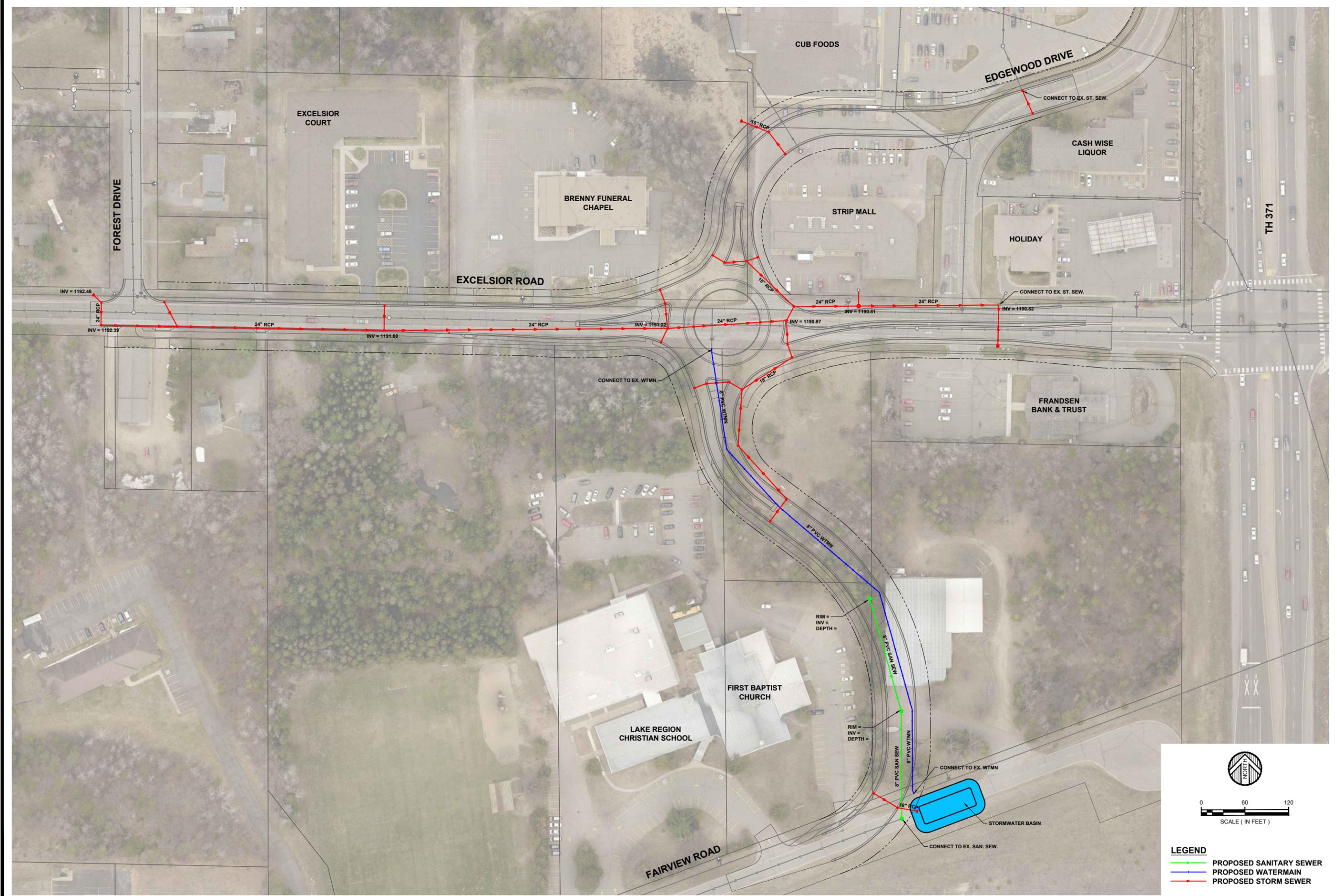
### Alternatives

The only other option considered as part of this report was the "Do Nothing" approach. This

option was eliminated since it does not accomplish any of the utility or transportation goals for the area or provide any benefit to property owners in the project area.

Exhibit "C" shows the proposed utility improvements and Exhibit "D" shows the proposed roadway and trail improvements.

DRAFT



  
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 SCALE ( IN FEET )

**LEGEND**

- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- PROPOSED STORM SEWER

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



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A FULLY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE	REVISIONS DESCRIPTION	BY

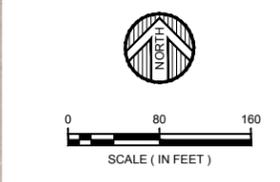
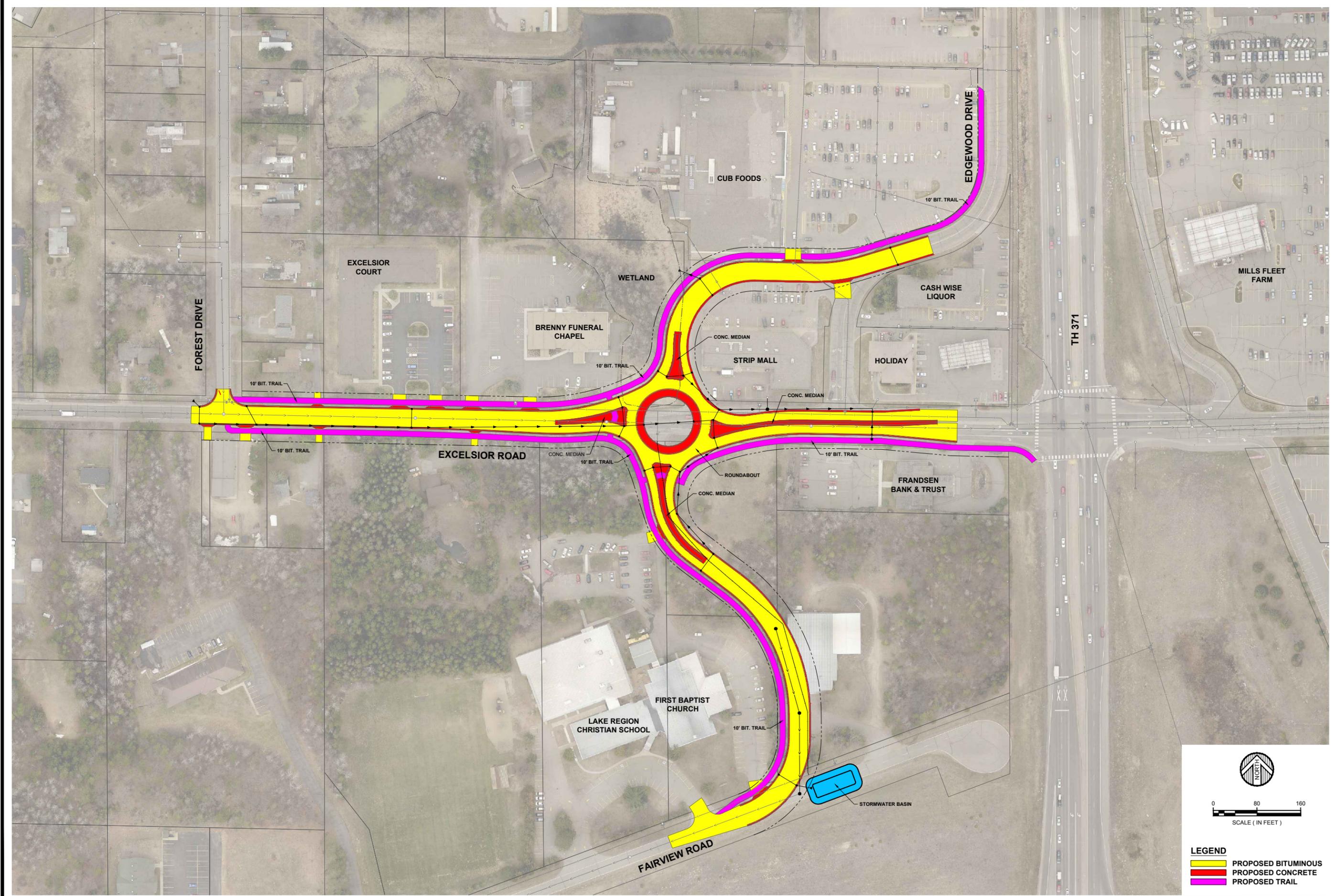
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JOB NUMBER: 0102B0373.000

EXCELSIOR, FAIRVIEW AND EDGEWOOD IMPROVEMENTS  
CITY OF BAXTER  
BAXTER, MINNESOTA

**EXHIBIT C - PROPOSED IMPROVEMENTS**

SHEET NO. **C**

DATE: ###/###/###  
LIC. NO. 41683  
ERIC WELCH



**LEGEND**

<span style="display:inline-block; width:15px; height:10px; background-color:yellow; border:1px solid black;"></span>	PROPOSED BITUMINOUS
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<span style="display:inline-block; width:15px; height:10px; background-color:magenta; border:1px solid black;"></span>	PROPOSED TRAIL

**EXCELSIOR, FAIRVIEW AND EDGEWOOD IMPROVEMENTS**  
CITY OF BAXTER  
BAXTER, MINNESOTA

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

<b>DATE:</b> DEC 2015	<b>AS SHOWN</b>	<b>DATE:</b>	<b>UC. NO.:</b> 41883
<b>SCALE:</b>	<b>A.L.W.</b>	<b>DATE:</b>	<b>UC. NO.:</b>
<b>DRAWN BY:</b>	<b>A.L.W.</b>	<b>DATE:</b>	<b>UC. NO.:</b>
<b>CHECKED BY:</b>	<b>A.L.W.</b>	<b>DATE:</b>	<b>UC. NO.:</b>
<b>JOB NUMBER:</b> 0102B0373.000			

**EXHIBIT D - PROSED ROADWAY IMPROVEMENTS**

**BY:**

**REVISIONS DESCRIPTION:**

REV#	DATE	DESCRIPTION

**SHEET NO. D**

**PLOTTED BY:** ARIC WELCH

**DATE:** 1/6/2016 11:20:00 AM

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**DEVELOPMENT AGREEMENT FOR BAXTER, MN (14230 DELLWOOD N) LLC**

**THIS AGREEMENT**, made this \_\_\_\_ day of \_\_\_\_\_, 2016, by Baxter, MN (14230 Dellwood N) LLC a Illinois Limited Liability Company, party of the first part, hereinafter referred to as "Developer", and City of Baxter, party of the second part, hereinafter referred to as "City".

**WITNESSETH:**

**WHEREAS**, The Developer is the owner of LOT 2, BLOCK ONE, CITIZEN'S ADDITION, in the City of Baxter, Crow Wing County, Minnesota according to the plat thereof on file with the Crow Wing County Recorder, a copy of which is attached hereto as **Attachment A**; and

**WHEREAS**, the proposed Development includes the construction and installation of municipal water lines, private drainage controls, private 5-year storm water design, private bituminous surfaced parking lot, and other private improvements (hereinafter referred to as "Improvements") hereinafter described; and

**WHEREAS**, the Developer will construct the Improvements pursuant to the terms of this Agreement and as described in Sheets CS1, C1-8, CL1 (10 sheets total), Construction Plans and Specifications for Sanitary Sewer, Water, Storm Sewer, Grading, Drainage, Erosion Control, landscaping, traffic control and detour plan for Insite Real Estate investment Properties, L.L.C. Retail Building (**See Attachment B**) dated January 26, 2016 and prepared by Brian Schultz, P.E of Schultz Engineering & Site Design; and sheet LS952-1867 Exhibit (1 sheet total) for Lighting plan for Insite Real Estate Investment Properties, L.L.C. Retail Building (**See Attachment C**) prepared by Steven Hahn of Luma Sales Associates Lighting and Controls dated December 17, 2015; and

**WHEREAS**, The water main is public up to the valve and domestic water line curb stop and/or valve; and

**WHEREAS**, Developer would like to dedicate said water utilities upon acceptance by the City; and

**WHEREAS**, the Developer will construct all proposed Private Improvements pursuant to the terms of this Agreement and pay for all related costs, including any costs incurred or to be

incurred by the City for engineering, legal and administrative services related to the Privately Installed Improvements; and

**WHEREAS**, the Developer shall provide a Performance Bond in the amount of \$42,112.50 (125% of the Construction Contract Amount of the "Municipal Portion") as detailed on **Attachment M** for the Improvements. No interest shall accrue on said deposit.

**NOW, THEREFORE**, in consideration of the premises and the mutual obligations of the parties contained herein, it is agreed between the parties as follows:

1. The City shall accept the dedication of said water line as long as all conditions in this agreement are met by the Developer.
2. All material and construction shall conform to the City of Baxter standard specifications. When conflicts arise between the City specs, general notes and Developer specs, the more stringent shall take precedence.
3. The Developer shall construct said Utilities in accordance with city specifications as detailed in **Attachment D** Sanitary Sewer Standard Construction Drawings, **Attachment E** Sanitary Sewer Specifications, **Attachment F** Watermain Standard Construction Drawings, and **Attachment G** Watermain Specifications.
4. The Developer shall restore the Dellwood Drive right-of-way in accordance with city specifications as detailed in **Attachment H** Right-of-Way Restoration.
5. The Developer shall reimburse the City for GIS Incorporation costs related to said "Improvements" into the "City" GIS system. The City shall charge at an hourly rate of \$58.00. (The City will charge in one hour increments) The City's estimate for the total cost of these charges is **\$348.00** and is attached hereto as **Attachment I**.
6. The Developer shall reimburse the City for all inspection costs related to said "Improvements" ensuring that they are constructed to "City" specifications. The City shall inspect full time at an hourly rate of \$50.00. (The City will charge in one hour increments) The City's estimate for the total cost of these charges is **\$2,200.00** and is attached hereto as **Attachment J**.
7. The Developer shall complete as-built drawings and submit them in electronic format in ".dwg file form" at the Developer's expense. As-built plans shall include a complete set of plans depicting what was actually built. Plans shall include all valves, hydrants, curb stops, sewer manholes, sewer clean-outs, and sewer service ends with County Coordinates on each item. Further plans shall include all storm sewer manhole, inverts, overflows, outflows, catch basins, and storm water ponds with elevations and County Coordinates on each item. Entire parcel showing 1-foot contours, percentage of pervious, impervious, Class 5 surfaces and Bench Marks and control points within two months of

substantial completion of the Utilities.

8. The Developer shall prevent surface water and subsurface or groundwater from flowing into excavations and from flooding the project site and surrounding area. Dewatering may be required by the City for the following applications:
  - a. Connection to the new water services and mains.
  - b. Connection to the new sanitary sewer services and main.
  - c. Any other applications as deemed necessary by the city.

The Developer shall not allow water to accumulate in excavations. Dewater to prevent softening of foundation bottoms, under-cutting footings and any other detrimental to stability of subgrades and foundations.

Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey water away from excavation.

Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rain water and water removed from excavations to collecting or run-off areas. Do not use trench excavation as temporary drainage ditches.

Whenever the bottom of the trench is soft and will not furnish suitable support for the pipe, the excavation shall be carried to 8 inches below the bottom of the pipe and refilled with crushed rock of 1½" inch washed concrete rock and well tamped in place to form a firm foundation for the pipe. The crushed rock used for this purpose shall be of the same size and quality as specified for coarse aggregate for concrete. The cost for crushed rock trench bottom stabilization shall be the full responsibility of the contractor.

The Developer shall obtain any permits to perform dewatering operations. The Developer is also responsible for any adverse effects on adjacent wells, water table levels, and surface water levels.

9. The City shall accept the dedication of these Public Utilities and thus accept further maintenance responsibilities upon providing a written letter of acceptance to the Developer.
10. The Developer shall be responsible for any sediment and erosion that is caused by the over land, over flow system from the 5-year storm water infiltration basins to the City or discharge to any public water way systems.
11. City agrees that all "Improvements", which are a part of the Development when fully constructed and approved for acceptance by the City Engineer, Baxter Utility Commission and City Council shall become part of the municipal utility system.

The City shall keep the Performance Bond of \$42,112.50 for one year after the acceptance of said improvements. If during construction these "Improvements" are moved from what is set forth on the plat, the Developer must execute new utility easements before this release is granted.

12. Developer shall be responsible for survey services to establish vertical and horizontal control and alignment points and staking for the placement of the main line sanitary sewer, storm sewer and water main.
13. The Developer understands that the following costs will also apply to the project:
  - a. Sewer Availability Charge (SAC) (\$3,400.00 per each unit in year 2016)
  - b. Water Availability Charge (WAC) (\$3,100.00 per each unit in year 2016)

The SAC and WAC fees will be payable at such time as a building permit is requested from the City. The fees are subject to an increase by the City Council. The City's total cost of SAC & WAC charges is **\$13,457.25** and is attached hereto as **Attachment K**.

14. Prior to execution of this document, all fees due the City set forth in this paragraph and paragraphs 5, 6, 13 and 14 above are due. Upon completion of construction, the City shall refund any remaining funds if the actual costs listed in this paragraph and paragraphs 5 and 6 were lower than estimated. All other fees due the City for any legal or administrative fees are estimated at **\$900.00** as shown on **Attachment L** attached hereto. If the actual costs exceed the estimates, the City shall bill developer for this surplus and the bill shall be paid within 30 days. No interest shall accrue on any monies held by the City pursuant to this paragraph. If any bill due the City is unpaid after 30 days, a late fee shall be assessed equaling 5% of the unpaid balance and this late fee shall be re-assessed at each 30 day interval thereafter. If after multiple attempts to collect any outstanding bill(s) remain unpaid, the developer agrees the City may collect the outstanding amount plus interest and other fees related to the collection, hereinafter referred to as "Total Bill", by any other means including, but not limited to, certification to the Crow Wing County Auditor of the Total Bill with accrued interest and a \$300.00 administrative fee. The Developer hereby authorizes the City to certify Total Bill to the following year's LOT 2, BLOCK ONE, CITIZEN'S ADDITION at eight percent interest. The developer agrees to waive any notice of hearing related to adopting said assessment and this certification may be done by the City without further notice or consent of the Developer or its successors.
15. Developer has provided from their engineer/contractor certified individual cost of the watermain components that will become part of the city's system "Municipal Portion" at completion of the project and is attached hereto as **Attachment M**.
16. This Agreement shall inure to the benefit of and shall be binding upon the

Developer and the City and their respective successors, agents and assignees, and shall be binding upon all future owners of all or any part of LOT 2, BLOCK ONE, CITIZEN'S ADDITION and shall be deemed covenants running with the land. However, nothing in this Agreement, expressed or implied, shall give to any other person or entity any benefit or legal or equitable right, remedy or claim under this Agreement. This Agreement, at the option of the City, may be placed on record with the County Recorder so as to give notice hereof to subsequent purchases and encumbrances.

IN TESTIMONY WHEREOF, the parties hereto have executed this Agreement as of the day and year set forth above.

*[SIGNATURES APPEAR ON PAGES 6 AND 7]*

DEVELOPER:

Baxter, MN (14230 Dellwood N) LLC

By: \_\_\_\_\_

Robin Rash  
Its Manager

STATE OF MINNESOTA     )  
  ) ss.  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2016, by Robin Rash, Its Manager of Baxter, MN (14230 Dellwood N) LLC a Illinois Limited Liability Company, on behalf of the Company.

\_\_\_\_\_  
Notary Public



## **SCHEDULE OF ATTACHMENTS**

ATTACHMENT A	Plat – Lot2 Block 1, Citizen’s Addition
ATTACHMENT B	Construction Plans and Specifications for Insite Real Estate investment Properties Retail Building, Sanitary Sewer, Watermain, Storm Sewer, Grading, Drainage, Erosion Control, Landscape Plan, Traffic Control and Detour Plan.
ATTACHMENT C	Construction Plans and Specifications for Insite Real Estate investment Properties Retail Building, Lighting Plan
ATTACHMENT D	Sanitary Sewer Standard Construction Drawings.
ATTACHMENT E	Sanitary Sewer Specifications.
ATTACHMENT F	Watermain Standard Construction Drawings.
ATTACHMENT G	Watermain Specifications.
ATTACHMENT H	Right-of-way Restoration.
ATTACHMENT I	GIS Incorporation costs.
ATTACHMENT J	City estimated Inspection costs.
ATTACHMENT K	Detail of SAC/WAC Fees.
ATTACHMENT L	Detail of Legal, Administrative and Other Fees Due City.
ATTACHMENT M	Engineer’s Estimate from Exit Lakes Realty Office Buildings for Construction of Municipal Portion of Privately Installed Improvements.