

**Surface Transportation Block Grant Program – Urban (STBG-U)  
Project Application and Ranking Process - Roadway Reconstruct/Expansion**

Due: February 3, 2021

Project Name, Location and Brief Description: Woodruff; Lincoln to Yellowstone, Idaho Falls. This is a roadway reconstruction and widening project from Lincoln to Yellowstone. It will increase the roadway from 2 lanes to 5 lanes (2 thru lanes NB, 2 thru lane SB and 1 center turn lane).

Attachment 2435 Form

**A) Congestion Relief and System Operations (0-25 points)**

*When assigning points consider how well the project provides immediate and long term congestion relief at an intersection, roadway or the network as a whole.*

How congested is the intersection or roadway segment currently and projected to be in the future? Traffic on Woodruff backs up significantly (over 2 blocks) during the afternoon peak hours South of Lincoln and South of Yellowstone as the roadway on the north side of the intersection of Lincoln and Woodruff is restricted to 1 lane each direction.

1) Current v/c ratio: **1.03**

2) Projected no-build v/c ratio: **1.25**

To what degree is the project expected to improve capacity, not only on the roadway itself but elsewhere in the transportation system? **Woodruff South of the intersection of Lincoln and Woodruff will improve significantly with this project. This project will also grant significant relief to 25th East as the area grows significantly due to the development of the Costco at the intersection of 25th East and Lincoln.**

3) Projected build v/c ratio\*: **0.50**

| Location: | Transportation system v/c ratios*: |                  |
|-----------|------------------------------------|------------------|
| 4)        | No-build v/c ratio:                | Build v/c ratio: |
| 5)        | No-build v/c ratio:                | Build v/c ratio: |
| 6)        | No-build v/c ratio:                | Build v/c ratio: |
| 7)        | No-build v/c ratio:                | Build v/c ratio: |
| 8)        | No-build v/c ratio:                | Build v/c ratio: |

\*may require additional model runs to determine traffic projections under build conditions. Contact BMPO.

Capacity Worksheet

## **B) Safety (0-25 points)**

*When assigning points consider how well the project addresses high accident locations by including safety improvements to mediate the primary causes of crashes.*

What location(s) exist within the projects scope that are considered to have a high degree of accidents? Why are they deemed to be critical accident locations that need attention? The intersections of Woodruff and Lincoln and the South leg of the Intersection of Woodruff and Yellowstone. There are also a number of accidents along the roadway between these intersections.

Accident Location and Rates:

1) **Intersection of Woodruff & Lincoln**

|          |             |            |               |
|----------|-------------|------------|---------------|
| Crash: 2 | Severity: 3 | Density: 1 | Overall: 2.00 |
|----------|-------------|------------|---------------|

2) **Woodruff between Lincoln & Yellowstone**

|          |             |            |               |
|----------|-------------|------------|---------------|
| Crash: 2 | Severity: 3 | Density: 0 | Overall: 1.67 |
|----------|-------------|------------|---------------|

3) **Intersection of Woodruff & Yellowstone (South leg only)**

|          |             |            |               |
|----------|-------------|------------|---------------|
| Crash: 4 | Severity: 4 | Density: 0 | Overall: 2.67 |
|----------|-------------|------------|---------------|

### Accident Worksheet

What are the primary causes of accidents and contributing circumstances from crash reports? 52% of the accidents are rear end accidents due to traffic back-ups and inattention. 35% are angle turning accidents and head on accidents that would be prevented by the addition of the center left turn lane. The remaining accidents 13% are utility pole strikes, side swipe and run off the roadway accidents.

Identify project design elements/counter measures implemented to address primary causes of accidents.

Include related crash reduction factor:

| Crash reduction counter measures:     | Crash reduction factor:  |
|---------------------------------------|--|
| 1) Center Left Turn Lane Installation | 92% per CMF Clearing House (see attached)                        |
| 2) Construction of Curb & Sidewalks   | 78% of Pedestrian accidents per CMF Clearinghouse (see attached) |
| 3) Additional Thru lanes              | 24% per CMF Clearing House (see attached)                        |

### **C) System Preservation (0-20 points)**

*When assigning points consider how well the project preserves or enhances the transportation system.*

What is the current pavement condition? Poor with evidence of potholing and block stress cracking. See attached photos.

Pavement surface rating: 3

[Pavement Rating System \(for more information regarding surface rating\)](#)

What traffic control devices, if any, will be added or upgraded? Roadway Illumination will be provided. Pavement Striping and crosswalks at the intersections will be enhanced. Signing throughout the project will be upgraded.

What bridges in poor condition, if any, will be replaced (deck, superstructure, and/or substructure or culvert) as part of this project? What bridges in fair or poor condition, if any, will be rehabilitated as part of this project?

N/A

### **D) Multi-modal and Accessibility (0-10 points)**

*When scoring points consider if the project includes multi-modal facilities for improved accessibility, connectivity and safety.*

Plan or study that identifies multi-modal project or need: [Connecting Our Community Plan](#)

What bicycle and pedestrian improvements, if any, are included in the project? Sidewalk connectivity will be accommodated on the East and West side of the roadway.

What public transportation improvements, if any, are included in the project? Pedestrian access for bus stops can be accommodated with the design along this route.

### **E) Support Economic Vitality (0-10 points)**

*When scoring points consider if the project improves access to housing, jobs, recreation and other areas of economic importance.*

What corridor preservation techniques, if any, were implemented in relation to the project? The corridor has been preserved through platting dedicated right of way to accommodate this facility.

Does the project extend an existing roadway or address a gap in the roadway network? No, however additional lanes are provided as the roadway is above capacity and traffic is increasing drastically.

### **F) Project Feasibility (0-10 points)**

*When scoring points consider if the project is good fit for federal funds based on cost and impacts.*

Attachment 1150 Form

What is the total estimated cost of the project? \$2,535,000

What is the estimated cost per mile? \$4,424,031

Is the project coordinated with other funding sources? No

What potential environmental impacts may require remediation? None other than normal projects.

WOODRUFF; Lincoln to Yellowstone

APPENDIX A: VICINITY MAP

# VICINITY MAP



1 " = 1,000 '

N WOODRUFF AVE -  
LINCOLN RD TO N YELLOWSTONE HWY

MP 7.075 TO MP 7.592

BONNEVILLE COUNTY  
CITY OF IDAHO FALLS

WOODRUFF; Lincoln to Yellowstone

APPENDIX B: ITD 1150



# Project Cost Summary Sheet

ITD 1150 (Rev. 06-17)  
itd.idaho.gov

Round Estimates to Nearest \$1,000

|   |                 |               |                 |          |
|---|-----------------|---------------|-----------------|----------|
| Key Number                                    | Project Number  |               |                 | Date     |
|   |                 |               |                 | 2/2/2021 |
| Location                                      |                 |               |                 | District |
| Woodruff, Lincoln to Yellowstone; Idaho Falls |                 |               |                 | 6        |
| Segment Code                                  | Begin Mile Post | End Mile Post | Length in Miles |          |
| 4180  | 7.075           | 7.592         | 0.517           |          |

|  | Previous ITD 1150  | Initial or Revise To |
|--|--|----------------------|
| 1a. Preliminary Engineering (PE)   |  | \$25,000             |
| 1b. Preliminary Engineering by Consultant (PEC)  |  | \$200,000            |
| 2. Right-of-Way: Number of Parcels   | Number of Relocations  |                      |
| 3. Utility Adjustments:  | <input type="checkbox"/> Work <input type="checkbox"/> Materials <input type="checkbox"/> By State <input checked="" type="checkbox"/> By Others |                      |
| 4. Earthwork   |  | \$94,000             |
| 5. Drainage and Minor Structures   |  | \$106,000            |
| 6. Pavement and Base   |  | \$688,000            |
| 7. Railroad Crossing:  |  |                      |
| Grade/Separation Structure   |  |                      |
| At-Grade Signals   | <input type="checkbox"/> Yes <input type="checkbox"/> No   |                      |
| 8. Bridges/Grade Separation Structures:  |  |                      |
| <input type="checkbox"/> New Structure   | Length/Width   |                      |
| Location   |  |                      |
| <input type="checkbox"/> Repair/Widening/Rehabilitation  | Length/Width   |                      |
| Location   |  |                      |
| 9. Traffic Items (Delineators, Signing, Channelization, Lighting, and Signals)                       |  | \$170,000            |
| 10. Temporary Traffic Control (Sign, Pavement Markings, Flagging, and Traffic Separation)            |  | \$50,000             |
| 11. Detours  |  |                      |
| 12. Landscaping  |  | \$40,000             |
| 13. Mitigation Measures  |  | \$20,000             |
| 14. Other Items (Roadside Development, Guardrail, Fencing, Sidewalks, Curb and Gutter, C.S.S. Items) |  | \$387,000            |
| 15. Cost of Constructions (Items 3 through 14)   |  | \$1,555,000          |
| 16. Mobilization 10 % of Item 15   |  | \$156,000            |
| 17. Construction Engineer and Contingencies  | 35 % of Items 15 and 16  | \$599,000            |
| 18. Total Construction Cost (15 + 16 + 17)   |  | \$2,310,000          |
| 19. Total Project Cost ( 1 + 2 + 18)   |  | \$2,535,000          |
| 20. Project Cost Per Mile  | \$1,000  | \$4,903,000          |

Prepared By:

Chris Canfield, P.E. Assistant Public Works Director

WOODRUFF; Lincoln to Yellowstone

APPENDIX C: ITD 2435

## Local Federal-Aid Project Request

**Instructions**

- Under Character of Proposed Work, mark appropriate boxes when work includes Bridge Approaches in addition to a Bridge.
- Attach a Vicinity Map showing the extent of the project limits.
- Attach an ITD 1150, Project Cost Summary Sheet.
- Signature of an appropriate local official is the only kind recognized.

**Note:** In Applying for a Federal-Aid Project, You are Agreeing to Follow all of the Federal Requirements Which Can Add Substantial Time and Costs to the Development of the Project.

|   |                |
|---|----------------|
| Sponsor (City, County, Highway District, State/Federal Agency)<br>Idaho Falls | Date<br>2/2/21 |
|---|----------------|

|  |                             |                              |                      |
|--|-----------------------------|------------------------------|----------------------|
| Project Title (Name of Street or Road)<br>Woodruff; Lincoln to Yellowstone | F.A. Route Number<br>004180 | Project Length<br>0.568 Mile | Bridge Length<br>N/A |
|--|-----------------------------|------------------------------|----------------------|

|   |
|---|
| Project Limits (Local Landmarks at Each End of the Project)<br>Woodruff; Lincoln to Yellowstone |
|---|

|   |  |  |   |
|---|--|--|---|
| Character of Proposed Work (Mark Appropriate Items) |  |  |   |
| <input checked="" type="checkbox"/> Excavation      | <input checked="" type="checkbox"/> Bicycle Facilities | <input type="checkbox"/> Utilities           | <input checked="" type="checkbox"/> Sidewalk  |
| <input checked="" type="checkbox"/> Drainage        | <input checked="" type="checkbox"/> Traffic Control    | <input type="checkbox"/> Landscaping         | <input checked="" type="checkbox"/> Seal Coat |
| <input checked="" type="checkbox"/> Base            | <input type="checkbox"/> Bridge(s)                     | <input type="checkbox"/> Guardrail           | <input type="checkbox"/>                      |
| <input checked="" type="checkbox"/> Bit. Surface    | <input checked="" type="checkbox"/> Curb & Gutter      | <input checked="" type="checkbox"/> Lighting |   |

|   |
|---|
| Estimated Costs (Attach ITD 1150, Project Cost Summary Sheet) |
|---|

|  |
|--|
| Preliminary Engineering (ITD 1150, Line 1) <u>\$ 225,000</u> |
| Right-of-Way (ITD 1150, Line 2) <u>\$ 0.00</u>               |
| Construction (ITD 1150, Line 18) <u>\$ 2,310,000</u>         |

|  |
|--|
| Preliminary Engineering By: <input type="checkbox"/> Sponsor Forces <input checked="" type="checkbox"/> Consultant |
|--|

|  |
|--|
| Checklist (Provide Names, Locations, and Type of Facilities) |
|--|

|  |     |
|--|-----|
| Railroad Crossing                      | N/A |
| Within 2 miles of an Airport           | N/A |
| Parks (City, County, State or Federal) | N/A |
| Environmentally Sensitive Areas        | N/A |
| Federal Lands (Indian, BLM, etc.)      | N/A |
| Historical Sites                       | N/A |
| Schools                                | N/A |
| Other                                  | N/A |

|  |
|--|
| Additional Right-of-Way Required: <input checked="" type="checkbox"/> None <input type="checkbox"/> Minor (1-3 Parcels) <input type="checkbox"/> Extensive (4 or More Parcels) |
|--|

|   |
|---|
| Will any Person or Business be Displaced: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possibly |
|---|

| Standards       | Existing | Proposed | Standards                            | Existing | Proposed |
|-----------------|----------|----------|--------------------------------------|----------|----------|
| Number of Lanes | 2        | 5        | Roadway Width (Shoulder to Shoulder) | 28 ft    | 65 ft    |
| Pavement Type   | Plantmix | Plantmix | Right-of-Way Width                   | 100 ft   | 100 ft   |

|                         |                                      |
|-------------------------|--------------------------------------|
| Sponsor's Signature<br> | Title<br>Asst. Public Works Director |
|-------------------------|--------------------------------------|

**Additional Information to be Furnished by the District**

|                           |              |    |         |
|---------------------------|--------------|----|---------|
| Functional Classification | Terrain Type | 20 | ADT/DHV |
|---------------------------|--------------|----|---------|

WOODRUFF; Lincoln to Yellowstone

APPENDIX D: Capacity Worksheets

Capacity Worksheet for Roadway Segments

|   |  |   |
|---|--|---|
| <b>Roadway Segment</b>                  | Woodruff<br>004180; Lincoln to Yellowstone |   |
| <b>Current/Model Year</b>               | 2021                                       |   |
| <b>Functional Classification</b>        | Minor Arterial                             | <a href="https://static1.squarespace.com/static/5f4818ef31f0ff53d986ae65/t/5f909fe001f962385e5ebd7f/1603313637320/2040-L RTP.pdf">https://static1.squarespace.com/static/5f4818ef31f0ff53d986ae65/t/5f909fe001f962385e5ebd7f/1603313637320/2040-L RTP.pdf</a> (see pages 8 and 9) |
| <b>Number of Current/Future Lanes</b>   | 2/5  |   |
| <b>Capacity Threshold</b>               | 12501                                      |   |
| <b>Current/Projected Traffic Volume</b> | 12890                                      | <a href="https://www.bmpo.org/traffic-counts">https://www.bmpo.org/traffic-counts</a> <u>adjusted from the 2014 count</u>   |
| <b>V/C Ratio</b>                        | 1.03                                       |   |
| <br><b>Collector</b>                    |  |   |
| One Lane                                | 5251                                       |   |
| Two Lanes                               | 10501                                      |   |
| Three Lanes                             | 13001                                      |   |
| Four Lanes                              | 20501                                      |   |
| Five Lanes                              | 25001                                      |   |
| <br><b>Minor Arterial</b>               |  |   |
| Two Lanes                               | 12501                                      |   |
| Three Lanes                             | 16001                                      |   |
| Four Lanes                              | 26001                                      |   |
| Five Lanes                              | 31001                                      |   |
| <br><b>Principal Arterial</b>           |  |   |
| Two Lanes                               | 14001                                      |   |
| Three Lanes                             | 18501                                      |   |
| Four Lanes                              | 31001                                      |   |
| Five Lanes                              | 37001                                      |   |
| Six Lanes                               | 47001                                      |   |
| Seven Lanes                             | 56001                                      |   |
| <br><b>Freeway</b>                      |  |   |
| Four Lanes                              | 83001                                      |   |
| Six Lanes                               | 124001                                     |   |

**Capacity Worksheet for Roadway Segments**

|   |  |   |
|---|--|---|
| <b>Roadway Segment</b>                  | Woodruff<br>004180; Lincoln to Yellowstone |   |
| <b>Current/Model Year</b>               | 2021                                       |   |
| <b>Functional Classification</b>        | Minor Arterial                             | <a href="https://static1.squarespace.com/static/5f4818ef31f0ff53d986ae65/t/5f909fe001f962385e5ebd7f/1603313637320/2040-L RTP.pdf">https://static1.squarespace.com/static/5f4818ef31f0ff53d986ae65/t/5f909fe001f962385e5ebd7f/1603313637320/2040-L RTP.pdf</a> (see pages 8 and 9) |
| <b>Number of Current/Future Lanes</b>   | 2/5  |   |
| <b>Capacity Threshold</b>               | 12501                                      |   |
| <b>Current/Projected Traffic Volume</b> | 15610                                      | <a href="https://www.bmpo.org/traffic-counts">https://www.bmpo.org/traffic-counts</a> based on 2040 projection fomr 2014 count  |
| <b>V/C Ratio</b>                        | 1.25                                       |   |
| <br><b>Collector</b>                    |  |   |
| One Lane                                | 5251                                       |   |
| Two Lanes                               | 10501                                      |   |
| Three Lanes                             | 13001                                      |   |
| Four Lanes                              | 20501                                      |   |
| Five Lanes                              | 25001                                      |   |
| <br><b>Minor Arterial</b>               |  |   |
| Two Lanes                               | 12501                                      |   |
| Three Lanes                             | 16001                                      |   |
| Four Lanes                              | 26001                                      |   |
| Five Lanes                              | 31001                                      |   |
| <br><b>Principal Arterial</b>           |  |   |
| Two Lanes                               | 14001                                      |   |
| Three Lanes                             | 18501                                      |   |
| Four Lanes                              | 31001                                      |   |
| Five Lanes                              | 37001                                      |   |
| Six Lanes                               | 47001                                      |   |
| Seven Lanes                             | 56001                                      |   |
| <br><b>Freeway</b>                      |  |   |
| Four Lanes                              | 83001                                      |   |
| Six Lanes                               | 124001                                     |   |

**Capacity Worksheet for Roadway Segments**

|   |  |   |
|---|--|---|
| <b>Roadway Segment</b>                  | Woodruff<br>004180; Lincoln to Yellowstone |   |
| <b>Current/Model Year</b>               | 2021                                       |   |
| <b>Functional Classification</b>        | Minor Arterial                             | <a href="https://static1.squarespace.com/static/5f4818ef31f0ff53d986ae65/t/5f909fe001f962385e5ebd7f/1603313637320/2040-LRTP.pdf">https://static1.squarespace.com/static/5f4818ef31f0ff53d986ae65/t/5f909fe001f962385e5ebd7f/1603313637320/2040-LRTP.pdf</a> (see pages 8 and 9) |
| <b>Number of Current/Future Lanes</b>   | 2/5  |   |
| <b>Capacity Threshold</b>               | 31001                                      |   |
| <b>Current/Projected Traffic Volume</b> | 15610                                      | <a href="https://www.bmpo.org/traffic-counts">https://www.bmpo.org/traffic-counts</a> based on 2040 projection fomr 2014 count  |
| <b>V/C Ratio</b>                        | 0.50                                       |   |
| <br>                                    |  |   |
| <b>Collector</b>                        |  |   |
| One Lane                                | 5251                                       |   |
| Two Lanes                               | 10501                                      |   |
| Three Lanes                             | 13001                                      |   |
| Four Lanes                              | 20501                                      |   |
| Five Lanes                              | 25001                                      |   |
| <br>                                    |  |   |
| <b>Minor Arterial</b>                   |  |   |
| Two Lanes                               | 12501                                      |   |
| Three Lanes                             | 16001                                      |   |
| Four Lanes                              | 26001                                      |   |
| Five Lanes                              | 31001                                      |   |
| <br>                                    |  |   |
| <b>Principal Arterial</b>               |  |   |
| Two Lanes                               | 14001                                      |   |
| Three Lanes                             | 18501                                      |   |
| Four Lanes                              | 31001                                      |   |
| Five Lanes                              | 37001                                      |   |
| Six Lanes                               | 47001                                      |   |
| Seven Lanes                             | 56001                                      |   |
| <br>                                    |  |   |
| <b>Freeway</b>                          |  |   |
| Four Lanes                              | 83001                                      |   |
| Six Lanes                               | 124001                                     |   |

WOODRUFF; Lincoln to Yellowstone

APPENDIX D: Accident Worksheets & CMF's

## Basic Intersection Crash Performance

Location:

Woodruff & Lincoln

Years:

2015 - 2020

Input Analysis Period (in years)

|       |
|-------|
| 5     |
| 0     |
| 0     |
| 4     |
| 9     |
| 22    |
| 26690 |

[Historical Crash Data - WebCARS Office of Highway Safety](#)

Input # Fatal Crashes at Intersection (Not # of Persons)

Input # of 'A' Severity Crashes at Intersection

Input # of 'B' Severity Crashes at Intersection

Input # of 'C' Severity Crashes at Intersection

Input # of Property Damage Crashes at Intersection

Input Average # of Vehicles Entering Intersection Daily\*

<https://www.bmpo.org/traffic-counts>

\*Average number of vehicles entering intersection can be calculated by adding ADTs for all of the intersection legs, and then dividing that by 2. This assumes that directional split of the roadway for the average day is 50/50

**Intersection Crash Rate** (average 0.65) =

0.72 per million entering vehicles

**Intersection Severity Rate** (average 1.00) =

1.07

**Intersection Crash Density** (average 5.00) =

7.00 crashes per year

Crash Rate Score

|      |
|------|
| 2    |
| 3    |
| 1    |
| 2.00 |

Severity Rate Score

Crash Density Score

**Overall Rate (average 1.33)**

## Basic Intersection Crash Performance

**Location:**

Woodruff; Lincoln to Yellowstone

**Years:**

2015 - 2020

Input Analysis Period (in years)

|       |
|-------|
| 5     |
| 0     |
| 1     |
| 2     |
| 5     |
| 7     |
| 12890 |

[Historical Crash Data - WebCARS Office of Highway Safety](#)

Input # Fatal Crashes at Intersection (Not # of Persons)

Input # of 'A' Severity Crashes at Intersection

Input # of 'B' Severity Crashes at Intersection

Input # of 'C' Severity Crashes at Intersection

Input # of Property Damage Crashes at Intersection

Input Average # of Vehicles Entering Intersection Daily\*

\*Average number of vehicles entering intersection can be calculated by adding ADTs for all of the intersection legs, and then dividing that by 2. This assumes that directional split of the roadway for the average day is 50/50

**Intersection Crash Rate** (average 0.65) =

|      |                               |
|------|-------------------------------|
| 0.64 | per million entering vehicles |
| 1.15 |                               |
| 3.00 | crashes per year              |

**Intersection Severity Rate** (average 1.00) =

**Intersection Crash Density** (average 5.00) =

Crash Rate Score

|      |
|------|
| 2    |
| 3    |
| 0    |
| 1.67 |

Severity Rate Score

Crash Density Score

**Overall Rate** (average 1.33)

## Basic Intersection Crash Performance

Location:

Woodruff & Yellowstone (South Approach)

Years:

2015 - 2020

Input Analysis Period (in years)

|      |
|------|
| 5    |
| 0    |
| 1    |
| 1    |
| 3    |
| 8    |
| 6445 |

[Historical Crash Data - WebCARS Office of Highway Safety](#)

Input # Fatal Crashes at Intersection (Not # of Persons)

Input # of 'A' Severity Crashes at Intersection

Input # of 'B' Severity Crashes at Intersection

Input # of 'C' Severity Crashes at Intersection

Input # of Property Damage Crashes at Intersection

Input Average # of Vehicles Entering Intersection Daily\*

<https://www.bmpo.org/traffic-counts>

\*Average number of vehicles entering intersection can be calculated by adding ADTs for all of the intersection legs, and then dividing that by 2. This assumes that directional split of the roadway for the average day is 50/50

**Intersection Crash Rate** (average 0.65) =

1.11 per million entering vehicles

**Intersection Severity Rate** (average 1.00) =

1.79

**Intersection Crash Density** (average 5.00) =

2.60 crashes per year

Crash Rate Score

|      |
|------|
| 4    |
| 4    |
| 0    |
| 2.67 |

Severity Rate Score

Crash Density Score

**Overall Rate (average 1.33)**

## Woodruff (Lincoln to Yellowstone) Accident reduction Crash Modification Factors

2/2/21

### [CMF Clearinghouse >> Search Results](#)

▼ Countermeasure: Add two-way left-turn lane

| Compare                  | CMF  | CRF(%) | Quality | Crash Type | Crash Severity | Area Type | Reference                 | Comments |
|--------------------------|------|--------|---------|------------|----------------|-----------|---------------------------|----------|
| <input type="checkbox"/> | 0.92 | 8      |         | All        | All            |           | HOVEY AND CHOWDHURY, 2005 |          |

### [CMF Clearinghouse >> Search Results](#)

▼ Countermeasure: Install sidewalk

| Compare                  | CMF  | CRF(%) | Quality | Crash Type      | Crash Severity | Area Type | Reference           | Comments  |
|--------------------------|------|--------|---------|-----------------|----------------|-----------|---------------------|---|
| <input type="checkbox"/> | 1.78 | -78    |         | Vehicle/bicycle |                | Urban     | ALLURI ET AL., 2017 | Minor Arterial, Major Collector, and... [READ MORE] |

### [CMF Clearinghouse >> Search Results](#)

▼ Countermeasure: Install an additional lane

| Compare                  | CMF  | CRF(%) | Quality | Crash Type | Crash Severity                    | Area Type | Reference          | Comments                                      |
|--------------------------|------|--------|---------|------------|-----------------------------------|-----------|--------------------|---|
| <input type="checkbox"/> | 0.76 | 24     |         | All        | Fatal,Serious injury,Minor injury | Urban     | DIXON ET AL., 2016 | CMF applies to adding one ... [READ MORE]     |
| <input type="checkbox"/> | 0.75 | 25     |         | All        | Fatal,Serious injury,Minor injury | Urban     | DIXON ET AL., 2016 | CMFs of adding one additional ... [READ MORE] |
| <input type="checkbox"/> | 0.74 | 26     |         | All        | Fatal,Serious injury,Minor injury | Urban     | DIXON ET AL., 2016 | CMFs of adding one additional ... [READ MORE] |

WOODRUFF; Lincoln to Yellowstone

APPENDIX E: Photos



Woodruff Existing Conditions



Woodruff Pavement Conditions (cracking and potholing)



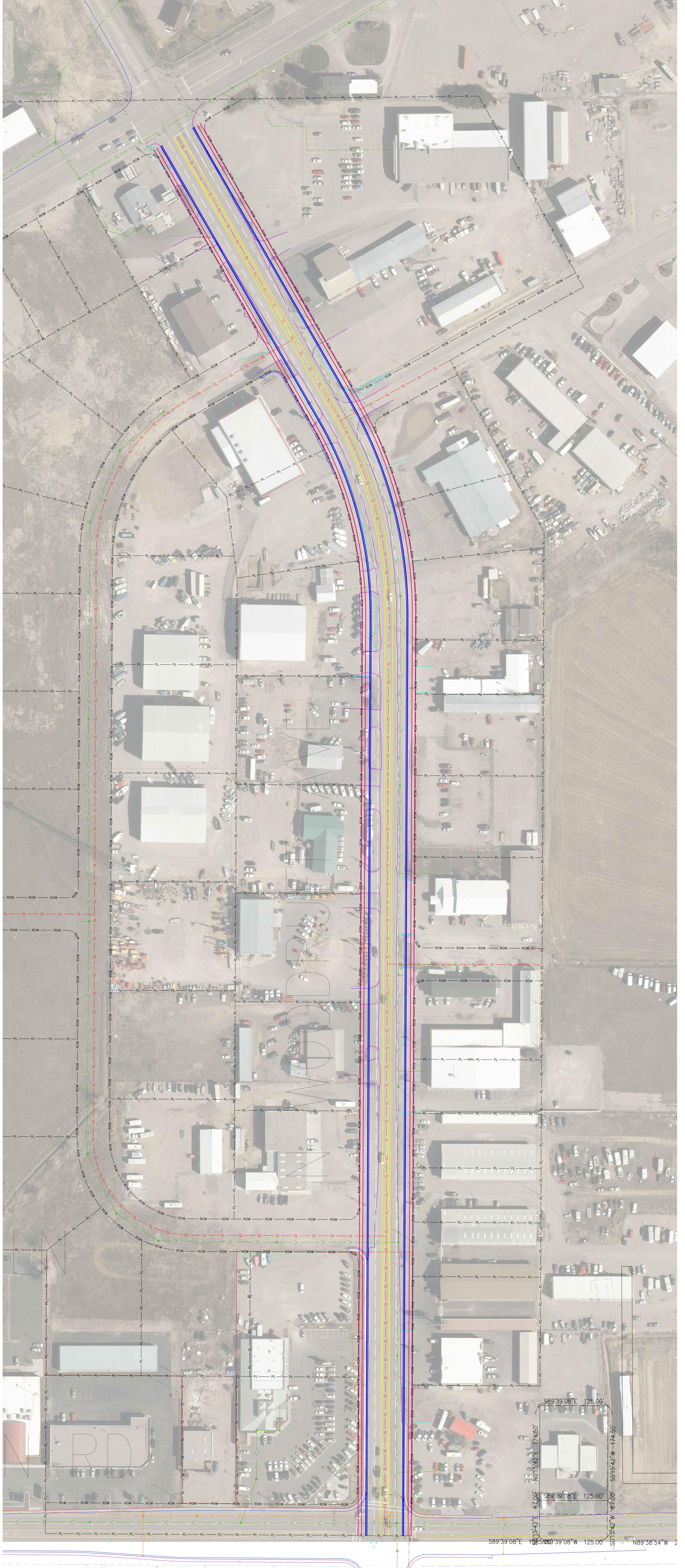
Woodruff pavement cracking and rutting



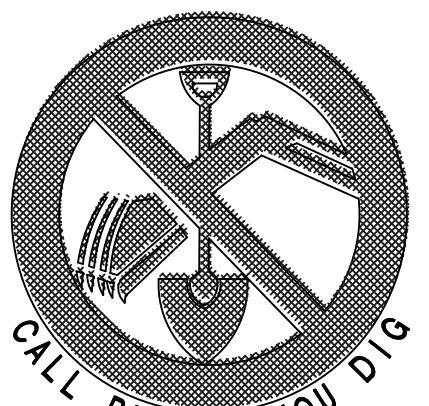
Woodruff pavement cracking, rutting and potholing.

WOODRUFF; Lincoln to Yellowstone

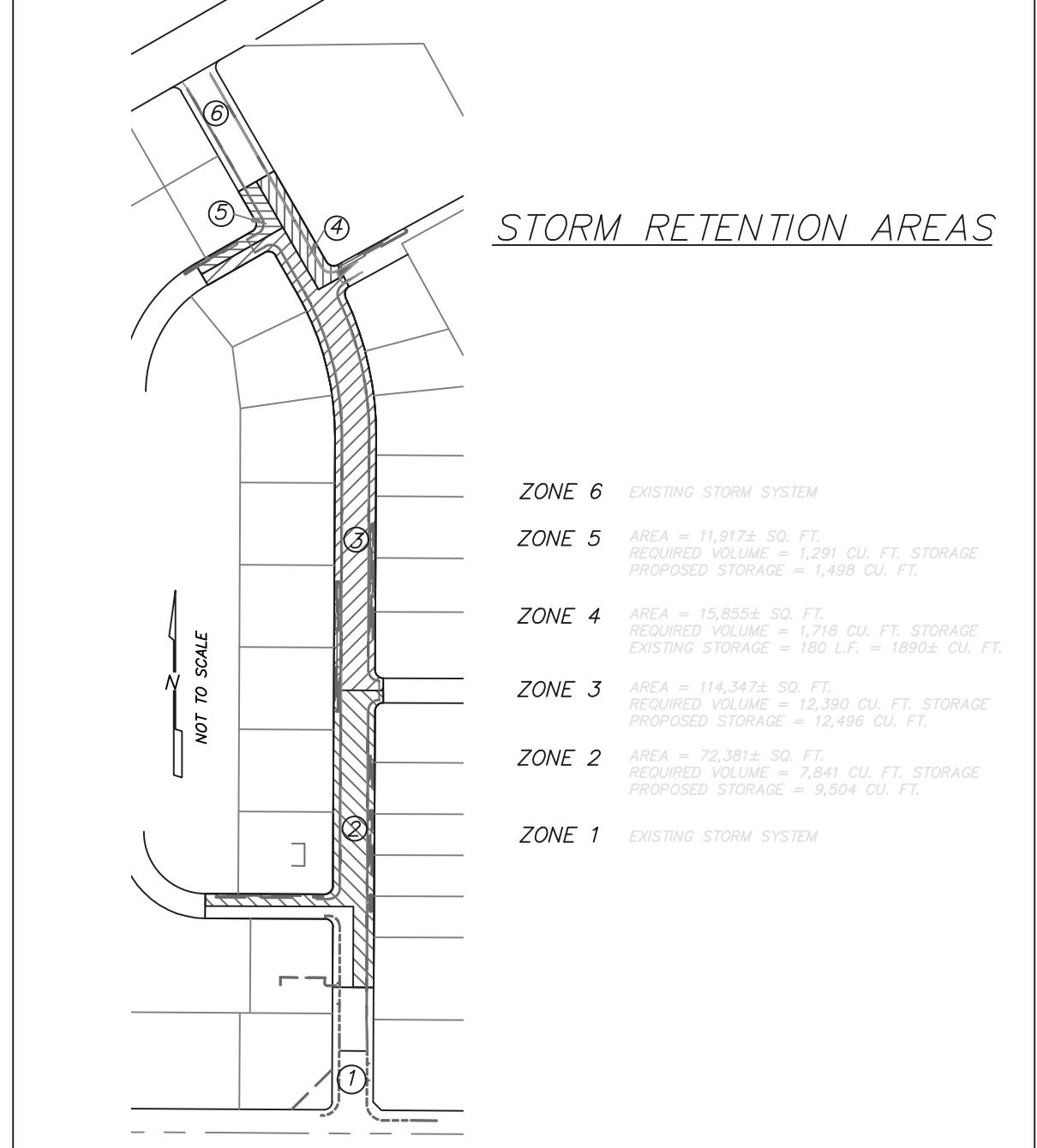
APPENDIX F: Preliminary Plans



| PRO.                                | EXIST.      | DESCRIPTION                            |
|-------------------------------------|-------------|--|
| X                                   | X           | PROPOSED/EXISTING ELEVATION            |
| +                                   | +           | PROPOSED/EXISTING FIRE HYDRANT         |
| ○                                   | ○           | PROPOSED/EXISTING VALVE                |
| ●                                   | ●           | PROPOSED/EXISTING PLUG                 |
| □                                   | □           | PROPOSED/EXISTING MANHOLE              |
| □                                   | □           | PROPOSED/EXISTING STORM DRAIN INLET    |
| ●                                   | ●           | PROPOSED/EXISTING POWER POLE W/ ANCHOR |
| ●                                   | ●           | PROPOSED/EXISTING STREET LIGHT         |
| —                                   | —           | PROPOSED/EXISTING CURB AND GUTTER      |
| —                                   | —           | PROPOSED/EXISTING WALK                 |
| ●                                   | ○           | SET/FOUND IRON ROD (PROP. CORNER)      |
| —                                   | —           | DRAINAGE FLOW ARROW                    |
| ■                                   | ■           | PROPOSED ASPHALT                       |
| LINETYPE                            | DESCRIPTION |  |
| PRESSURE LINE (WATER LINE)          |             |  |
| PIPE FLOW LINE (SANITARY AND STORM) |             |  |
| FENCE LINE                          |             |  |
| GAS LINE                            |             |  |
| TELEPHONE LINE                      |             |  |
| OVERHEAD POWER LINE                 |             |  |
| UNDERGROUND POWER LINE              |             |  |
| UNDERGROUND PVC POWER CONDUIT       |             |  |
| —                                   | —           | DRAINAGE FLOW BREAKLINE                |



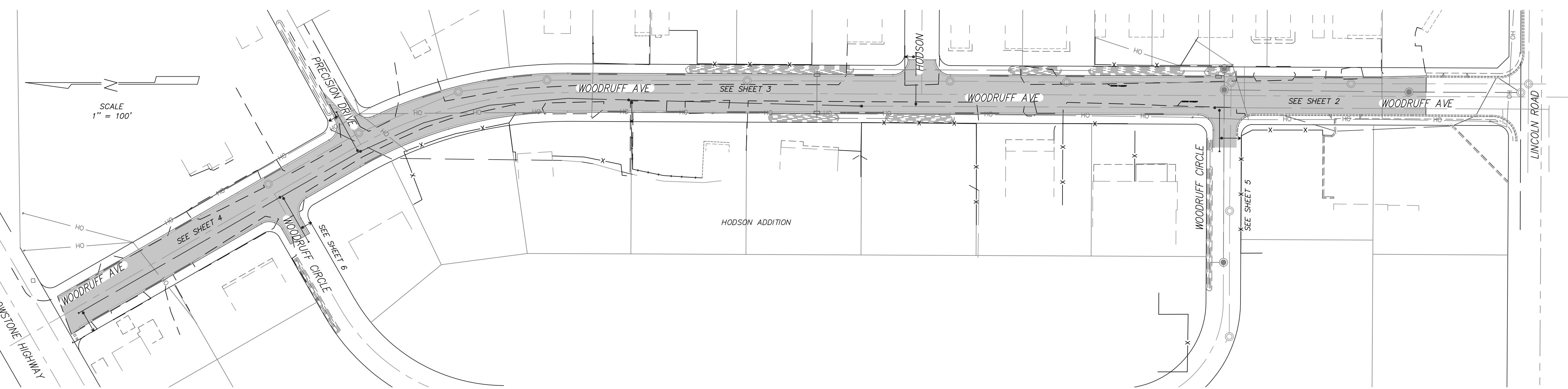
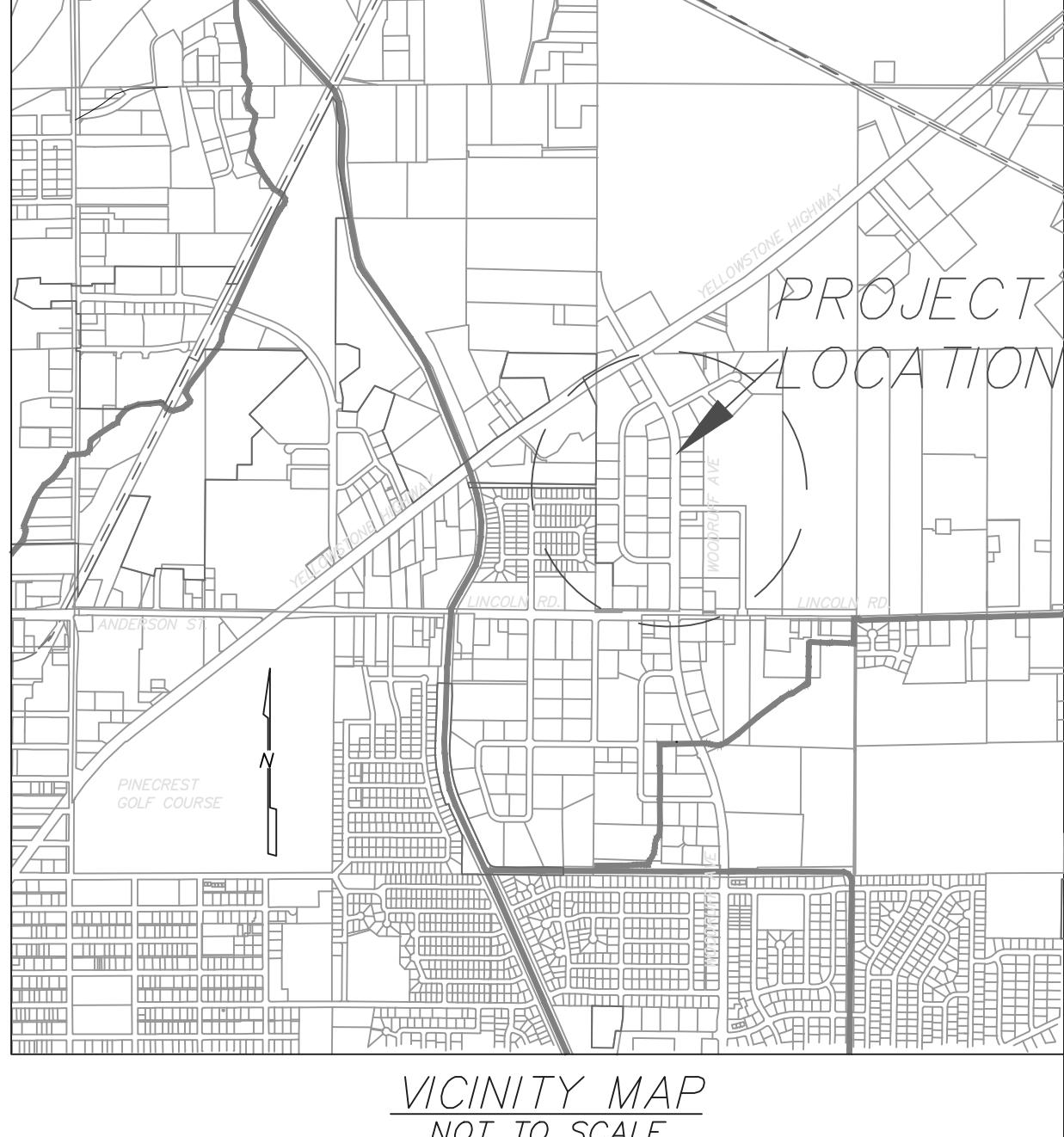
CITY OF IDAHO FALLS 612-8250  
DIG LINE 811 OR 1-800-342-1585



# IMPROVEMENT DRAWINGS FOR WOODRUFF AVE. AN ADDITION TO BONNEVILLE COUNTY

## STREET AND WATER IMPROVEMENTS

PLAN AND PROFILES  
WOODRUFF CIRCLE  
STRIPING PLAN  
SHEETS 2-4  
SHEETS 5-6  
SHEET 7



### GENERAL NOTES

- ROAD, AND CONCRETE SIDEWALK CONSTRUCTION SHALL BE TO THE BONNEVILLE COUNTY STANDARD SPECIFICATIONS.
- THE GENERAL CONTRACTOR IS REQUIRED TO HAVE ON HAND AT THE JOB SITE A COPY OF BONNEVILLE COUNTY ROAD AND BRIDGE STANDARD SPECIFICATIONS AND DRAWINGS. THE IDAHO FALLS SPECIFICATIONS AND DRAWINGS ARE AVAILABLE ON THE A4 [HTTP://WWW.IDAHOFALLS.US/MAIN/DOCUMENTS.ASP?DOCUMENT\\_ID=66](http://www.idahofalls.us/main/documents.asp?document_id=66).
- WATER VALVE LOCATIONS ARE 5' FROM TEE ON MAIN LINES AND 2' FROM HYDRANT LINES.
- FIRE HYDRANTS SHALL BE LOCATED 3' BEHIND CURB. VALVE FOR HYDRANT SHALL BE LOCATED IN ASPHALT MIN. 2' FEET FROM TEE.
- CONTRACTOR SHALL CONTACT DIG-LINE AT (800) 342-1585 PRIOR TO ANY UTILITY CONSTRUCTION.
- THE CONTRACTOR INCORPORATING THE SEWER AND SANITARY LINES SHALL PROVIDE COMPACTATION TEST REPORTS TO THE CITY OF IDAHO FALLS. THE CONTRACTOR SHALL PROVIDE LEVELS OF TECHNICALLY COMPACTED TESTS ARE BEING ACHIEVED. ALL COSTS TO PROVIDE BACKFILL TEST REPORTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ROAD CONSTRUCTION SHALL COMPLY WITH CURRENT COUNTY SPECIFICATIONS.
- BONNEVILLE COUNTY WILL NOT MAINTAIN ROAD UNTIL CONSTRUCTED TO THE CONTRACTOR'S SATISFACTION.
- ALL SIGNS SHALL BE CONSTRUCTED ACCORDING TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. (SEE SUBDIVISION SIGNING NOTES ABOVE.) CONSTRUCTED TO BONNEVILLE COUNTY PUBLIC WORKS 2007 SPECIFICATIONS AND DWG'S.
- LOT CORNERS AND CENTERLINE INTERSECTION MONUMENTS HAVE BEEN STAKED AS SHOWN ON THE RECORDED PLAT OF THIS SUBDIVISION. SHOULD ANY OF THESE MONUMENTS BE LOST OR DISTURBED DURING CONSTRUCTION, IDAHO CODE 55-1613 REQUIRES SAID MONUMENTS WILL BE REESTABLISHED BY A PROFESSIONAL LAND SURVEYOR AT THE EXPENSE OF THE AGENCY OR PERSON CAUSING THE LOSS OR DISTURBANCE.
- THE CONTRACTOR SHALL MAINTAIN 10' HORIZ. AND 18" VERT. SEPARATION BETWEEN WATER AND SEWER LINES.
- ALL WATER MAINLINES SHALL BE D.I. CLASS 50.
- ALL CONSTRUCTION OF WATER AND STORM CONSTRUCTION SHALL BE TO THE CITY OF IDAHO FALLS STANDARDS. THE SPECIFICATIONS AND DRAWINGS ARE AVAILABLE ONLINE AT [HTTP://WWW.IDAHOFALLS.US/MAIN/DOCUMENTS.ASP?DOCUMENT\\_ID=66](http://www.idahofalls.us/main/documents.asp?document_id=66).
- DEPOT CURB AND ALL INTERSECTIONS OBTAINABLE TO THE CITY OF IDAHO FALLS STANDARDS.
- ALL STORM PIPE AND SANITARY SEWER PIPE SHALL BE CITY OF IDAHO FALLS STANDARD.
- THE CONTRACTOR SHALL LOCATE, RETAIN, AND PROTECT ALL EXISTING UTILITIES.
- THE WATER LINE CONSTRUCTION SHALL CONFORM TO THE DEPARTMENT OF ENVIRONMENTAL QUALITY REGULATIONS OF PUBLIC DRINKING WATER SYSTEMS AND DISINFECTION SPECIFICATIONS SHOULD BE TO ANSI/AWWA C 651-92: DISINFECTION OF WATER MAINS STANDARDS.
- TEMPORARY BLOW-OFFS SHALL BE INSTALLED ON DEAD-END WATER LINES.
- TEMPORARY TRENCHES SHALL NOT EXCEED 8' IN DEPTH OR FINISH GRADE.
- ALL INLET BOXES SHALL BE TYPE 1 SIDE OPENING.
- ALL POWER, CABLE TV, AND TELEPHONE TRENCHES SHALL BE TO THE CITY OF IDAHO FALLS STANDARDS.
- CONTRACTOR SHALL INSTALL ALL SANITARY SEWER MAINS AND SERVICE LINES PRIOR TO INSTALLING ANY WATER SYSTEM IMPROVEMENTS. ADJUST WATER LINES FROM 5' TO 7' OF COVER AS REQUIRED TO AVOID SANITARY SEWER SERVICE LINES.
- ALL UTILITIES ADJUSTMENT OF MAN HOLES, WATER VALVES, ETC. SHALL BE ADJUSTED BY THE PAVING CONTRACTOR.
- SEWER, GAS, AND POWER SERVICES ARE SHOWN AS A COURTESY ONLY AND ARE ONLY APPROXIMATE LOCATIONS. CONTRACTOR TO VERIFY LOCATIONS AND ANY OTHER EXISTING CROSSINGS PRIOR TO ANY EARTH EXCAVATION.
- CONTRACTOR TO REMOVE AND REPLACE EXISTING STREET SIGNS AS PER BONNEVILLE COUNTY AND CITY OF IDAHO FALLS STANDARDS.
- RETAIN AND PROTECT EXISTING SANITARY SEWER SERVICES, SANITARY SEWER MAIN LINES, AND SANITARY SEWER MANHOLES.
- RETAIN AND PROTECT EXISTING ASPHALT IN PARKING LOT/ACCESS AREAS.
- RETAIN AND PROTECT EXISTING UTILITIES AND UNDERGROUND UTILITIES, INCLUDING GAS MAIN LINES, GAS SERVICE LINES, PHONE PEDESTALS, UNDERGROUND PHONE, CABLE, ETC. AND TO TAKE CAUTION FOR CROSSINGS OF SAID UTILITIES.
- POWER POLES CONFLICTING WITH PROPOSED ROAD, TO BE RE-LOCATED BY ROCKY MOUNTAIN POWER.
- CONTRACTOR REQUIRED TO HAVE A SWPPP IN PLACE PRIOR TO ANY EARTH WORK OR CONSTRUCTION.

REVIEWED BY \_\_\_\_\_  
PROGRESSIVE IRRIGATION

REVIEWED BY \_\_\_\_\_  
ROCKY MOUNTAIN POWER

APPROVED BY \_\_\_\_\_  
CITY OF IDAHO FALLS

APPROVED BY \_\_\_\_\_  
BONN. COUNTY PUBLIC WORKS DEPT.

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

1020 Lincoln Road  
Idaho Falls, Idaho 83401 (208) 524-6175

6275

SHT. 1 OF 7

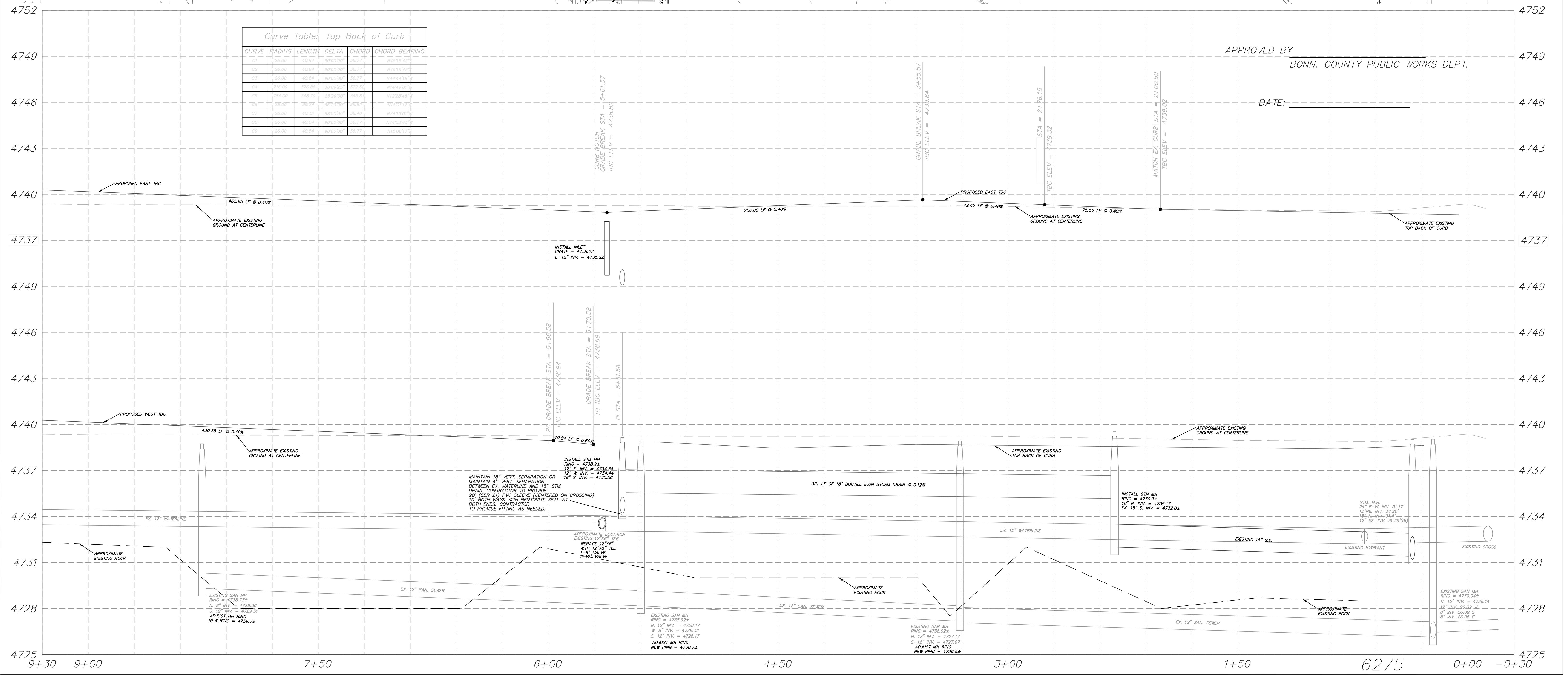
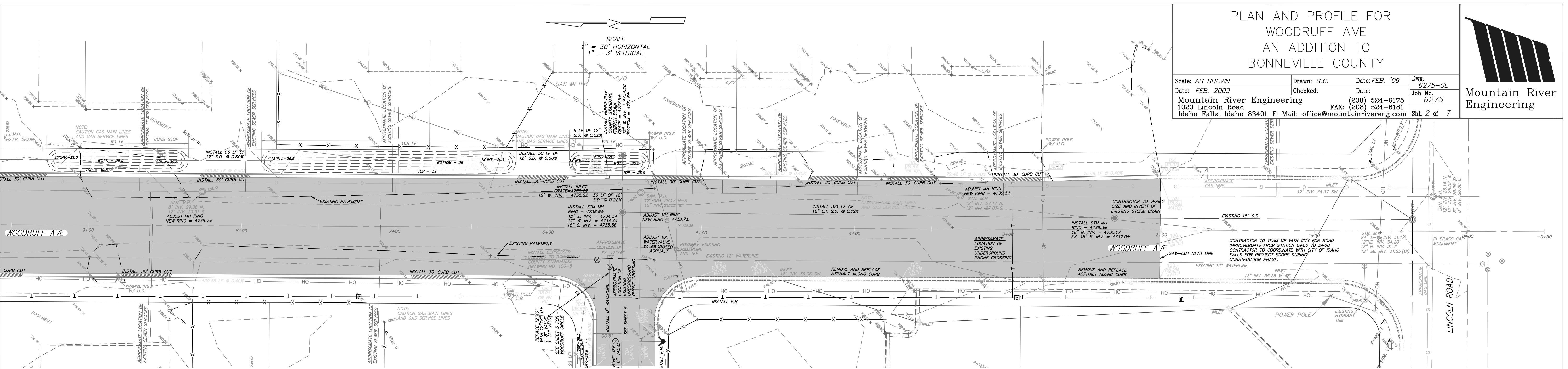


Mountain River  
Engineering

PLAN AND PROFILE FOR  
WOODRUFF AVE  
AN ADDITION TO  
BONNEVILLE COUNTY

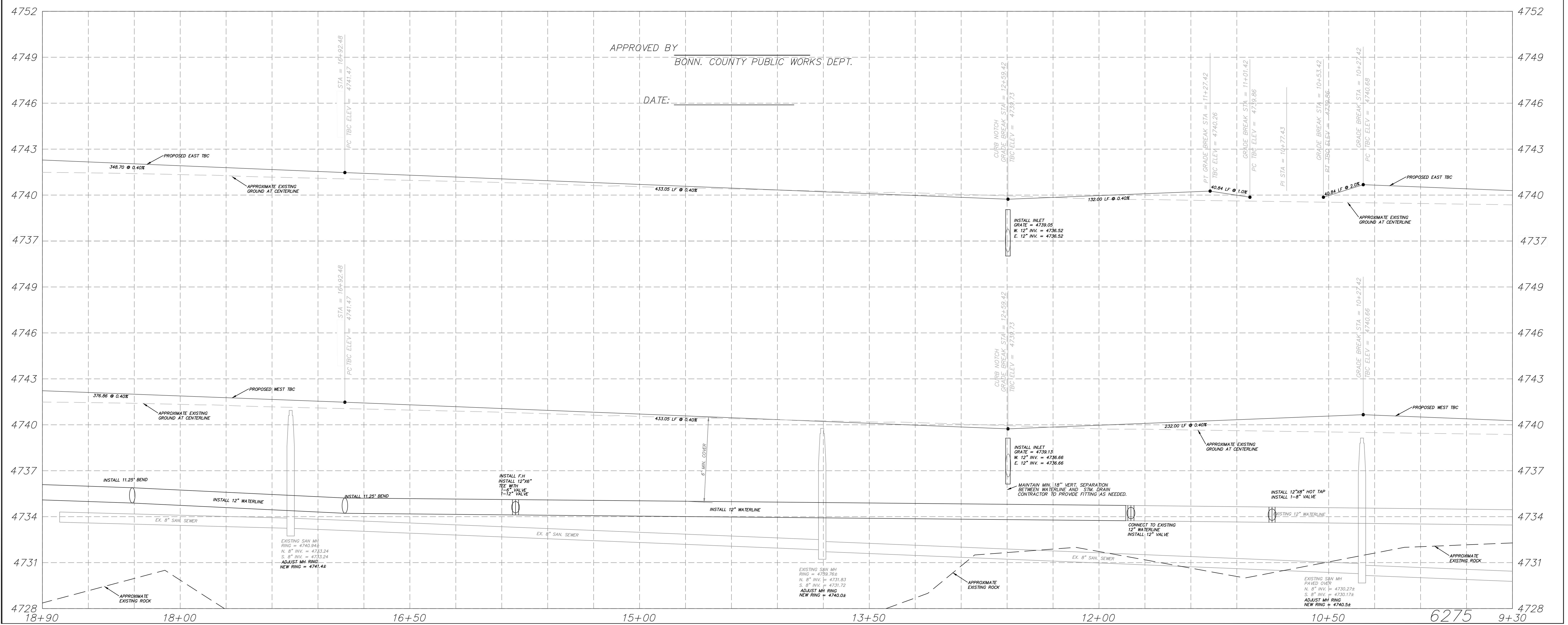
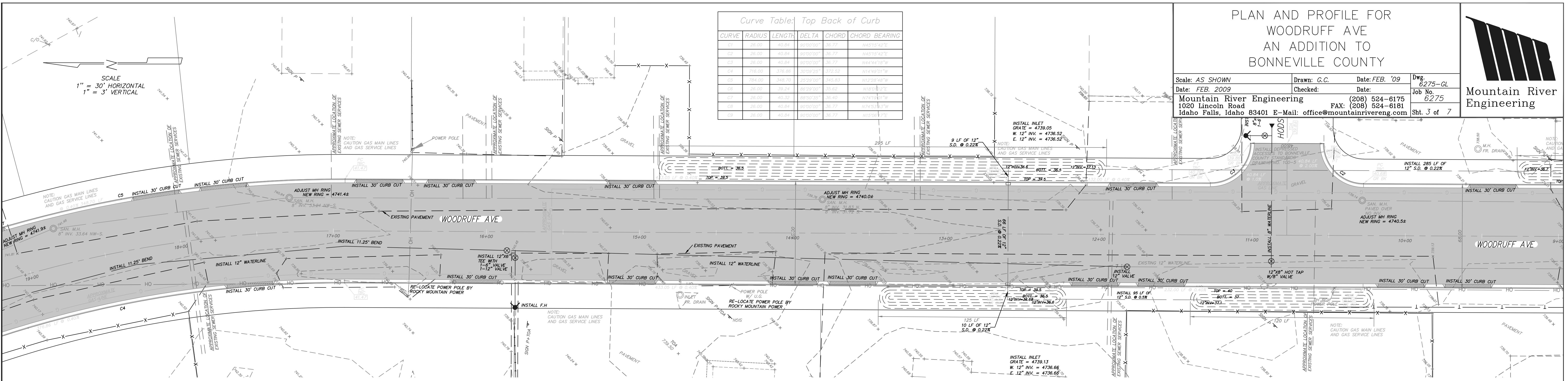


Scale: AS SHOWN Drawn: G.C. Date: FEB. '09 Dwg. 6275-GL  
Date: FEB. 2009 Checked: Job No. 6275  
Mountain River Engineering (208) 524-6175 FAX: (208) 524-6181 E-Mail: office@mountainrivereng.com Sht. 2 of 7



**PLAN AND PROFILE FOR  
WOODRUFF AVE  
AN ADDITION TO  
BONNEVILLE COUNTY**

Scale: AS SHOWN Drawn: G.C. Date: FEB. '09 Dwg. 6275-GL  
Date: FEB. 2009 Checked: Date: Job No. 6275  
Mountain River Engineering 1020 Lincoln Road (208) 524-6175 FAX: (208) 524-6181 E-Mail: office@mountainrivereeng.com Sh. 3 of 7

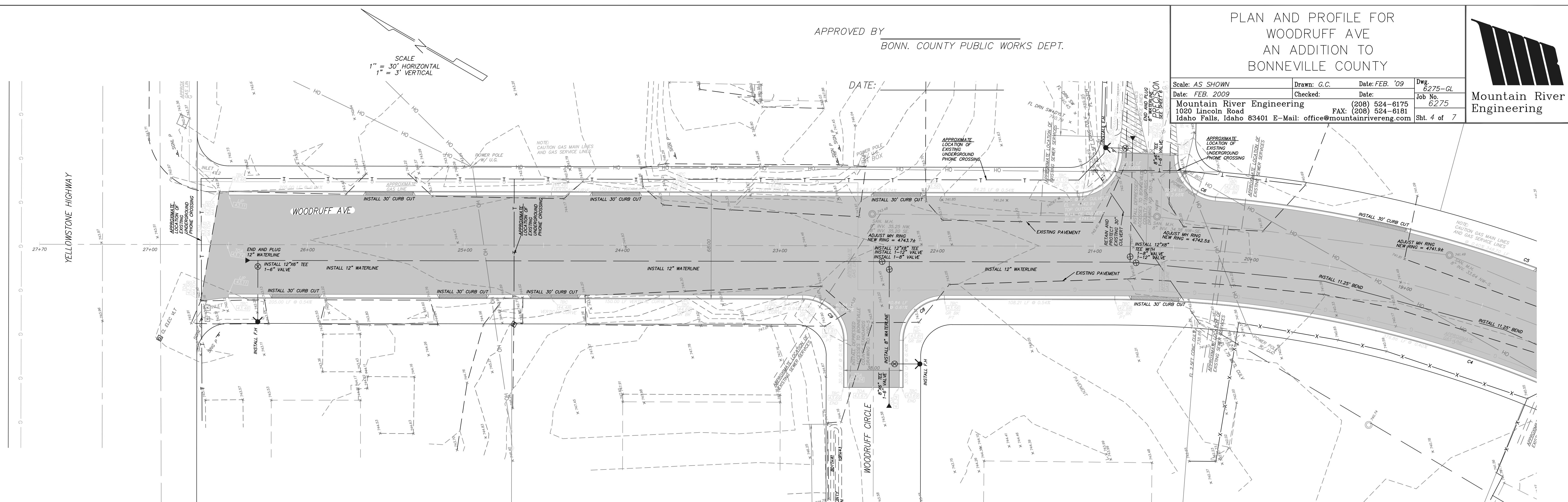


PLAN AND PROFILE FOR  
WOODRUFF AVE  
AN ADDITION TO  
BONNEVILLE COUNTY

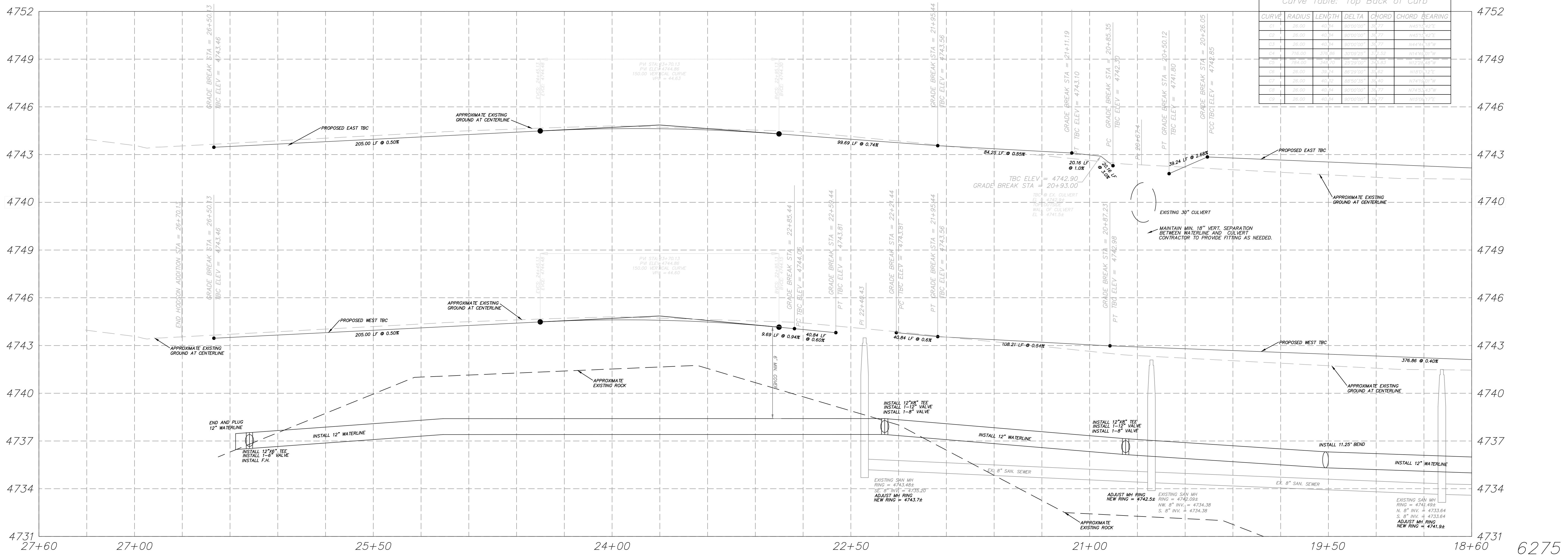


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BONN. COUNTY PUBLIC WORKS DEPT.

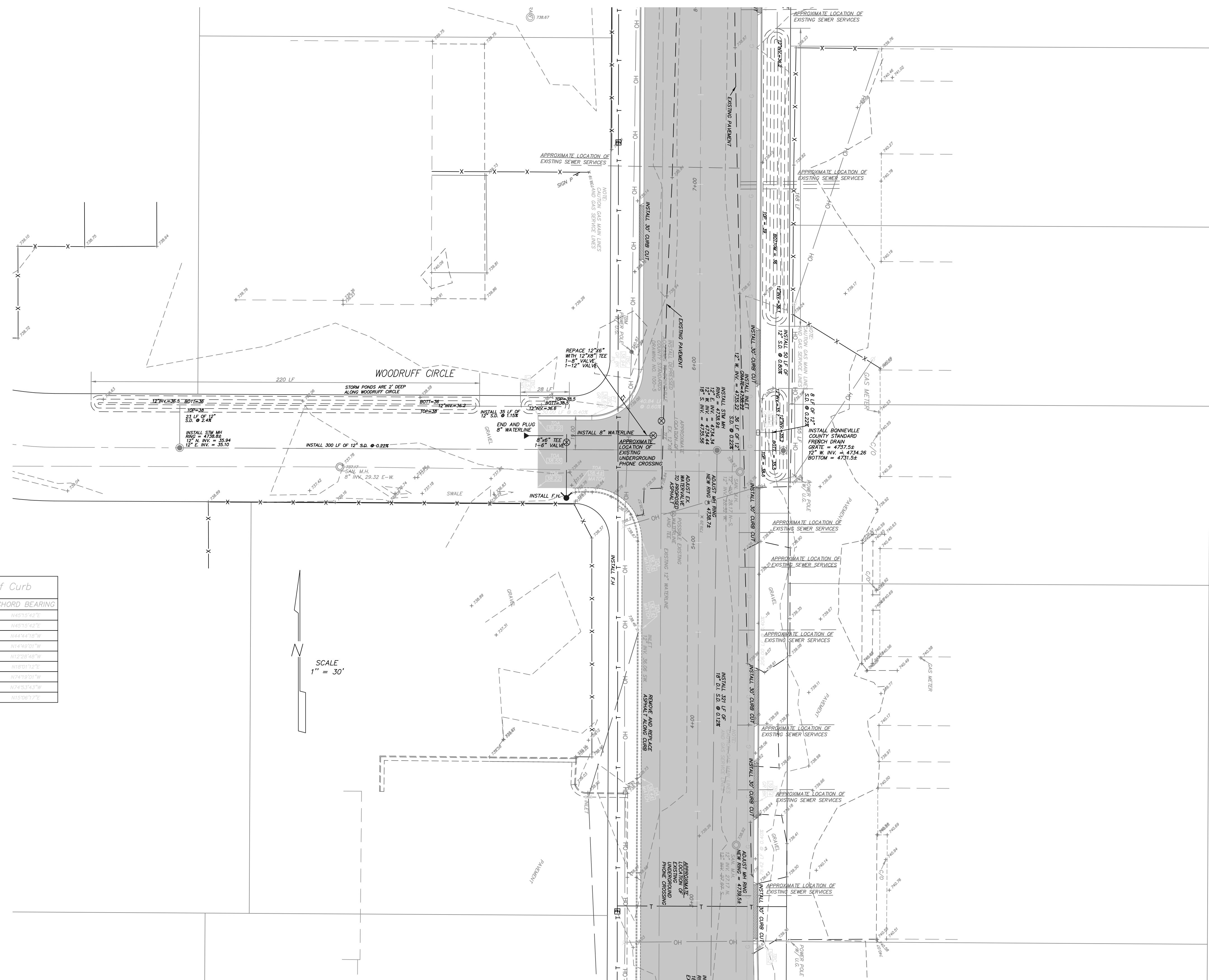
Scale: AS SHOWN Drawn: G.C. Date: FEB. '09 Dwg. 6275-GL  
Checked: Date: Job No. 6275 (208) 524-6175 FAX: (208) 524-6181 E-Mail: office@mountainriveng.com Sh. 4 of 7



| Curve Table: Top Back of Curb |        |        |           |       |               |
|-------------------------------|--------|--------|-----------|-------|---------------|
| CURVE                         | RADIUS | LENGTH | DELTA     | CHORD | CHORD BEARING |
| C1                            | 26.00  | 40.54  | 80°00'00" | 27.77 | N45°42'E      |
| C2                            | 26.00  | 40.54  | 80°00'00" | 27.77 | N45°42'E      |
| C3                            | 26.00  | 40.54  | 80°00'00" | 27.77 | N45°42'E      |
| C4                            | 26.00  | 40.54  | 80°00'00" | 27.77 | N45°42'E      |
| C5                            | 26.00  | 40.54  | 80°00'00" | 27.77 | N45°42'E      |
| C6                            | 26.00  | 40.54  | 80°00'00" | 27.77 | N45°42'E      |
| C7                            | 26.00  | 40.54  | 80°00'00" | 27.77 | N45°42'E      |
| C8                            | 26.00  | 40.54  | 80°00'00" | 27.77 | N45°42'E      |
| C9                            | 26.00  | 40.54  | 80°00'00" | 27.77 | N45°42'E      |



| PRO.                                | EXIST. | DESCRIPTION                            |
|-------------------------------------|--------|--|
| P                                   | X      | PROPOSED/EXISTING ELEVATION            |
| A                                   | X      | PROPOSED/EXISTING FIRE HYDRANT         |
| M                                   | X      | PROPOSED/EXISTING VALVE                |
| R                                   | X      | PROPOSED/EXISTING PLUG                 |
| S                                   | O      | PROPOSED/EXISTING MANHOLE              |
| D                                   | □      | PROPOSED/EXISTING STORM DRAIN INLET    |
| P                                   | ○      | PROPOSED/EXISTING POWER POLE W/ ANCHOR |
| L                                   | ●      | PROPOSED/EXISTING STREET LIGHT         |
| C                                   | —      | PROPOSED/EXISTING CURB AND GUTTER      |
| W                                   | —      | PROPOSED/EXISTING WALK                 |
| •                                   | ●      | SET/FOUND IRON ROD (PROP. CORNER)      |
| —                                   | →      | DRAINAGE FLOW ARROW                    |
| PROPOSED ASPHALT                    |        |  |
| LINETYPE                            |        |  |
| DESCRIPTION                         |        |  |
| PRESSURE LINE (WATER LINE)          |        |  |
| PIPE FLOW LINE (SANITARY AND STORM) |        |  |
| FENCE LINE                          |        |  |
| GAS LINE                            |        |  |
| T                                   |        |  |
| OH                                  |        |  |
| OVERHEAD POWER LINE                 |        |  |
| UG                                  |        |  |
| UNDERGROUND POWER LINE              |        |  |
| UNDERGROUND PVC POWER CONDUIT       |        |  |
| DRAINAGE FLOW BREAKLINE             |        |  |



APPROVED BY  
BONN. COUNTY PUBLIC WORKS DEPT.

DATE: \_\_\_\_\_

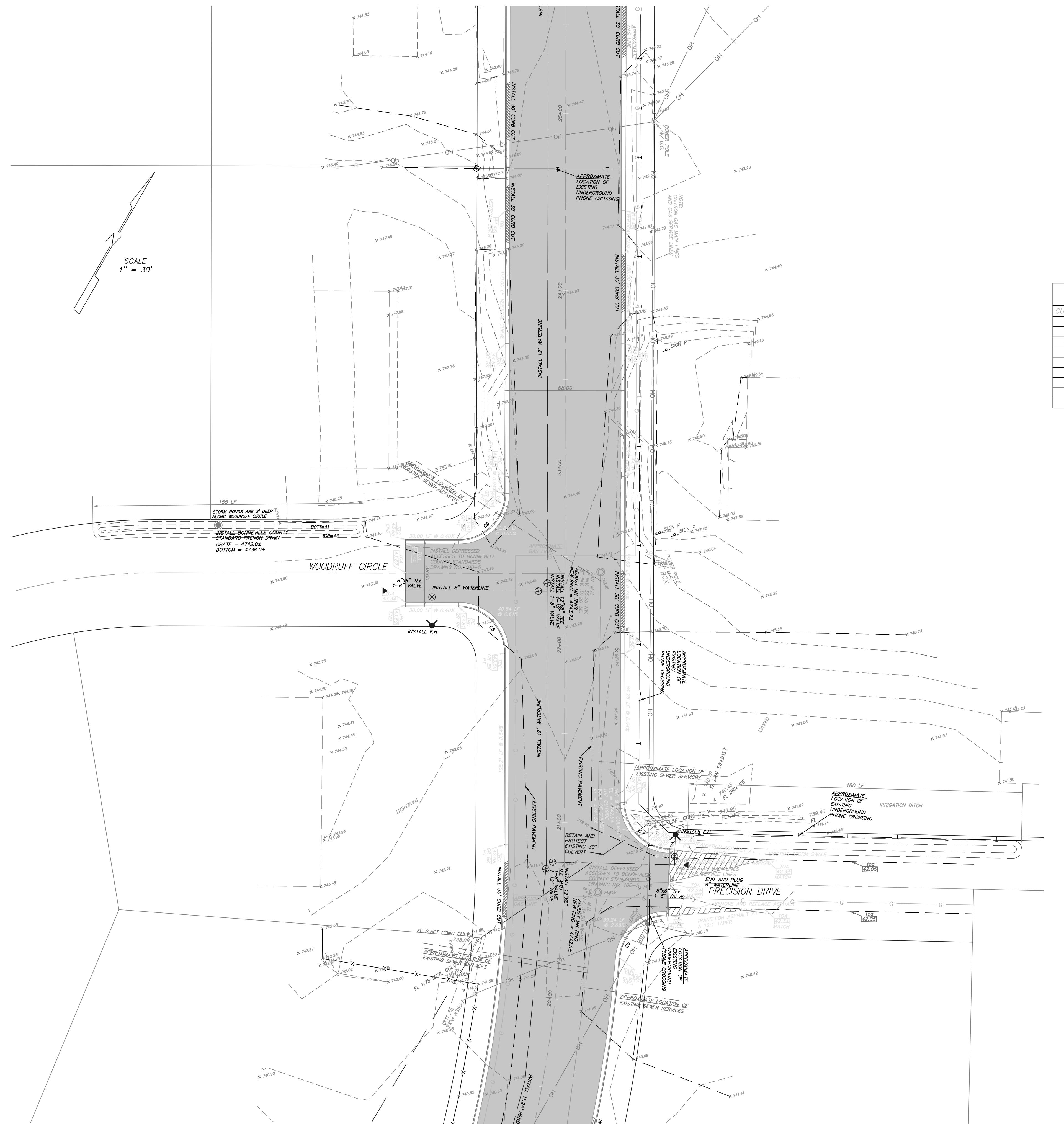
Revision

GENERAL LAYOUT FOR  
WOODRUFF CIRCLE  
AN ADDITION TO  
BONNEVILLE COUNTY

|                            |             |                |  |
|----------------------------|-------------|----------------|--|
| Scale: 1" = 30'            | Drawn: G.C. | Date: FEB. '09 | Dwg. #   |
| Date: FEB. 2009            | Checked:    | Date:          | 6275-GL  |
| Mountain River Engineering | Job No.     | 6275           | (208) 524-6175   |
| 1020 Lincoln Road          | FAX:        | (208) 524-6181 | Idaho Falls, Idaho 83401 E-Mail: office@mountainrivereng.com |
|                            |             |                | Sh. 5 of 7   |



| SYMBOL LEGEND           |        |  |
|-------------------------|--------|--|
| PRO.                    | EXIST. | DESCRIPTION                            |
| PAV<br>[50/50]<br>MATCH | X-1600 | PROPOSED/EXISTING ELEVATION            |
| [●]                     | [●]    | PROPOSED/EXISTING FIRE HYDRANT         |
| ⊗                       | ⊗      | PROPOSED/EXISTING VALVE                |
| ►                       | ►      | PROPOSED/EXISTING PLUG                 |
| ●                       | ●      | PROPOSED/EXISTING MANHOLE              |
| □                       | □      | PROPOSED/EXISTING STORM DRAIN INLET    |
| ◐                       | ◐      | PROPOSED/EXISTING POWER POLE W/ ANCHOR |
| ◆                       | ◆      | PROPOSED/EXISTING STREET LIGHT         |
| —                       | —      | PROPOSED/EXISTING CURB AND GUTTER      |
| —                       | —      | PROPOSED/EXISTING WALK                 |
| ●                       | ○      | SET/FOUND IRON ROD (PROP. CORNER)      |
| →                       | →      | DRAINAGE FLOW ARROW                    |
| [■]                     | [■]    | PROPOSED ASPHALT                       |
| LINETYPE                |        |  |
| DESCRIPTION             |        |  |
| —                       | —      | PRESSURE LINE (WATER LINE)             |
| —                       | —      | PIPE FLOW LINE (SANITARY AND STORM)    |
| X                       | —      | FENCE LINE                             |
| G                       | —      | GAS LINE                               |
| T                       | —      | TELEPHONE LINE                         |
| OH                      | —      | OVERHEAD POWER LINE                    |
| UG                      | —      | UNDERGROUND POWER LINE                 |
| E                       | —      | UNDERGROUND PVC POWER CONDUIT          |
| — · —                   | —      | DRAINAGE FLOW BREAKLINE                |



| Curve Table: Top Back of Curb |        |        |           |                   |
|-------------------------------|--------|--------|-----------|-------------------|
| CURVE                         | RADIUS | LENGTH | DELTA     | CHORD             |
| C1                            | 25.00  | 40.84  | 89°00'00" | 36.77 N45°14'2"E  |
| C5                            | 50.00  | 40.84  | 89°00'00" | 36.77 N45°14'2"E  |
| C2                            | 50.00  | 40.84  | 89°00'00" | 36.77 N45°14'2"E  |
| C3                            | 50.00  | 37.69  | 89°00'00" | 36.77 N45°14'2"E  |
| C4                            | 204.00 | 346.70 | 29°29'00" | 162.81 N112°54'W  |
| C6                            | 25.00  | 39.24  | 89°29'00" | 36.82 N101°17'2"E |
| C7                            | 25.00  | 40.32  | 89°50'35" | 36.40 N74°10'01"W |
| C8                            | 25.00  | 40.84  | 89°00'00" | 36.77 N74°54'37"W |
| C9                            | 25.00  | 40.84  | 89°00'00" | 36.77 N125°07'7"E |

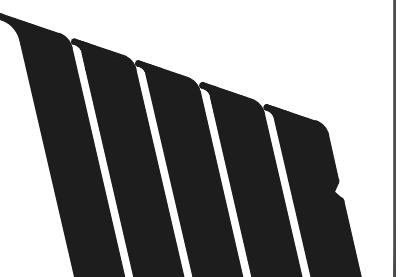
APPROVED BY  
BONN. COUNTY PUBLIC WORKS DEPT.

DATE: \_\_\_\_\_

Revision \_\_\_\_\_

GENERAL LAYOUT FOR  
WOODRUFF CIRCLE AND PRECISION DRIVE  
AN ADDITION TO  
BONNEVILLE COUNTY

|   |             |                |                 |
|---|-------------|----------------|-----------------|
| Scale: 1" = 30'   | Drawn: G.C. | Date: FEB. '09 | Dwg No. 6275-GL |
| Date: FEB. 2009   | Checked:    | Date:          | Job No. 6275    |
| Mountain River Engineering (208) 524-6175<br>1020 Lincoln Road FAX: (208) 524-6181<br>Idaho Falls, Idaho 83401 E-Mail: office@mountainrivereng.com Sh. 6 of 7 |             |                |                 |



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