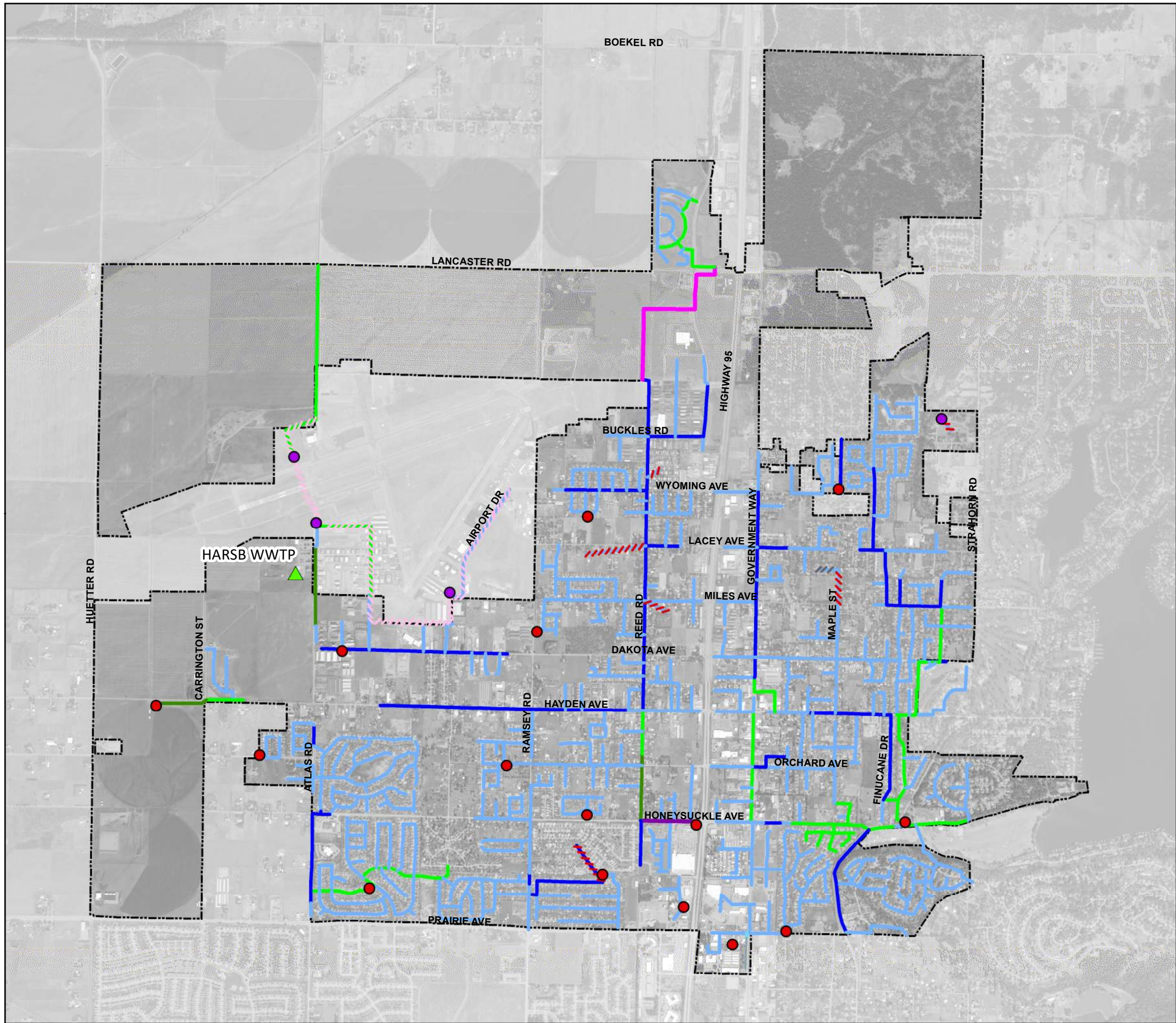



# **APPENDIX A**

## Figures



1. CONCEPT INFORMATION FOR PLANNING PURPOSES ONLY. MUST BE ACCURATELY VERIFIED PRIOR TO DESIGN EFFORTS.  
2. SHARED TIER INFORMATION FROM RATHDRUM PRAIRIE WASTEWATER MASTER PLAN. TO BE ADDRESSED AS PART OF ANNEXATION  
3. EXISTING PIPES SHOWN OUTSIDE OF CITY LIMITS ARE NOT CITY INFRASTRUCTURE. VERIFY OWNERSHIP PRIOR TO DESIGN EFFORTS.





## City of Hayden

### 2020 Collection System Master Plan Update

# Figure A1

## Existing System Gravity Pipes by Size

Hayden City Limits

HARSB WWTP

Existing Lift Station

Private Lift Station

### Existing Gravity Sewer

<= 4"

6"

8"

10"

12"

15"

18"

24"


Model Pipes Only

Dry Line

Airport Infrastructure

0 2,250 4,500 Feet





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**City of Hayden**  
2020 Collection System  
Master Plan Update










**Figure A2**  
*Existing System Sewer Sheds  
Lift Stations and Force Mains*

-  Hayden City Limits
-  HARSB WWTP
-  Existing Lift Station
-  Private Lift Station

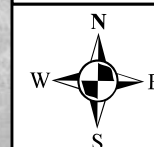
**Existing Sewer Sheds**

-  H-1 Sewer Shed
-  H-2 Sewer Shed
-  H-5 Sewer Shed
-  H-7 Sewer Shed

**Existing Force Main**

-  1.5"
-  4"
-  6"
-  8"
-  10"
-  12"
-  14"
-  16"
-  15" PIP

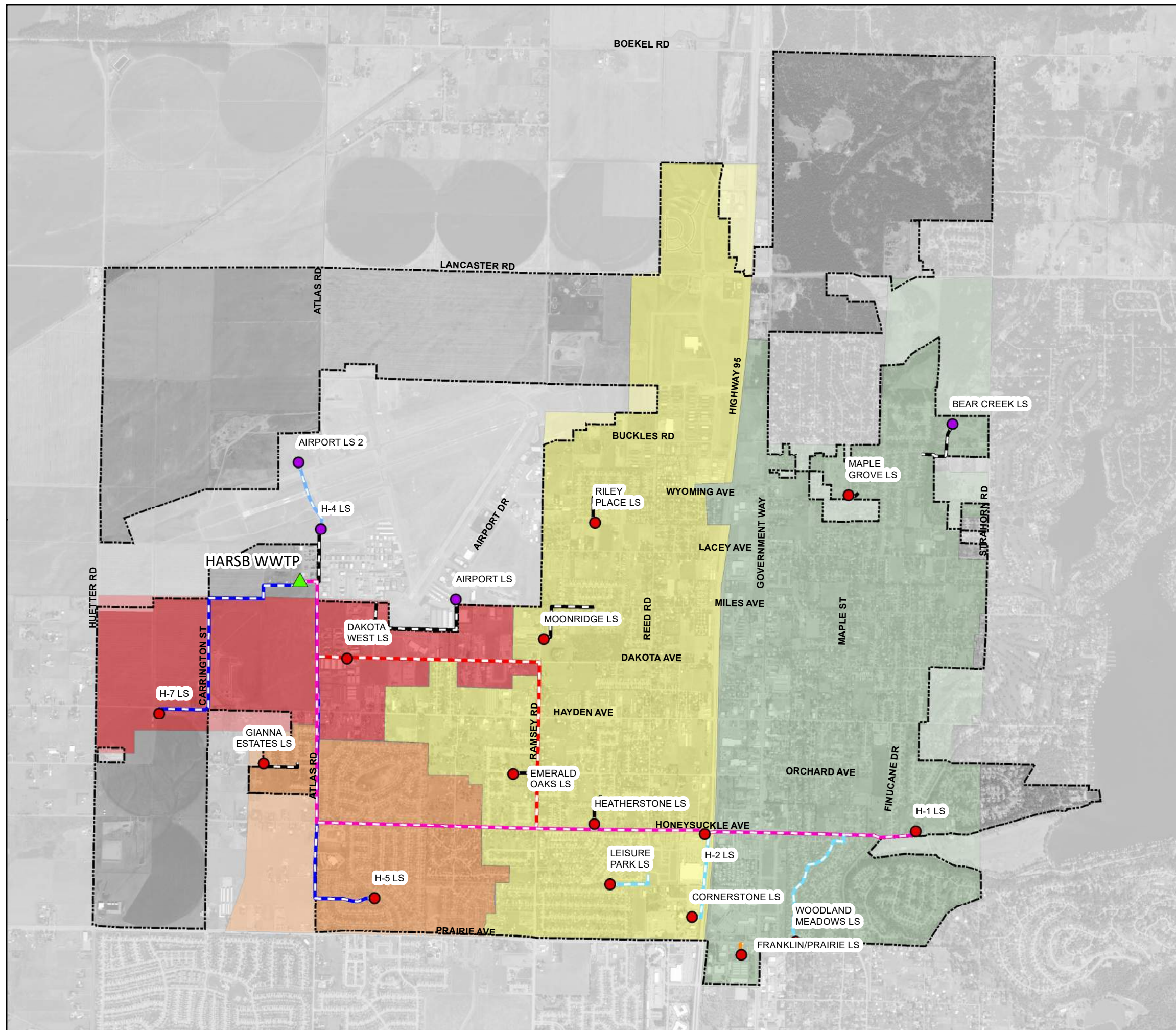
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3. BASIN BOUNDARIES ARE SUBJECT TO CHANGE ON A CASE BY CASE BASIS.













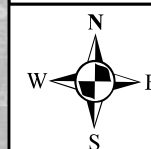
**City of Hayden**  
2020 Collection System  
Master Plan Update

**Figure A3**  
*Study Area, Land Use and Zoning  
Labeled by G\_ID Number*

-  Hayden City Limits
-  Hayden Study Area
-  No Service Areas
-  Future Huetter Bypass
-  Parcel Line
-  HARSB WWTP

- Land Use**
-  Agricultural
  -  Commercial
  -  Light Industrial
  -  Mixed Residential
  -  Mixed Use
  -  Rural
  -  Rural Suburban
  -  Single Family

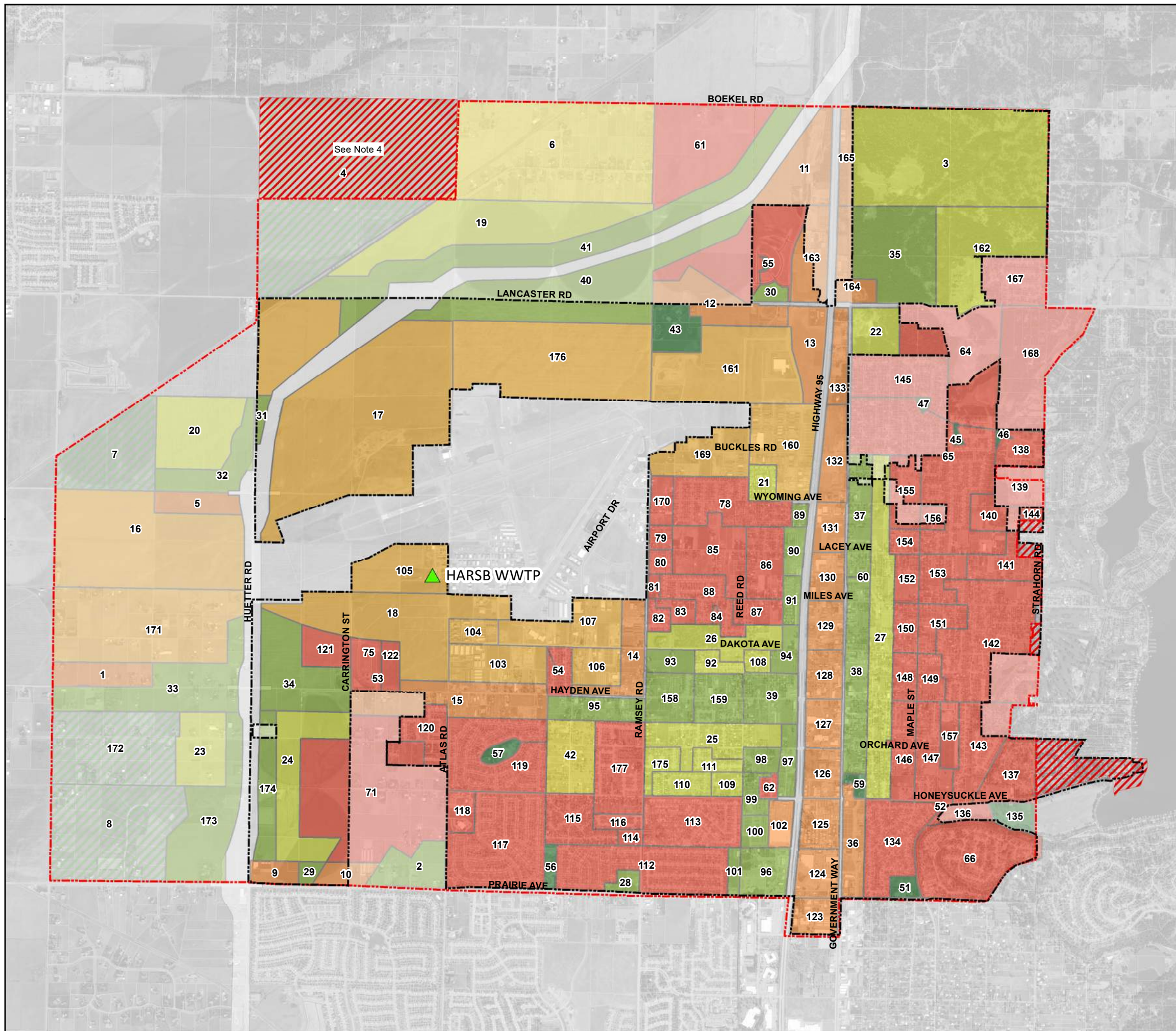
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Feet



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4. LAND USE AREAS OUTSIDE OF HAYDEN CITY LIMITS AND SERVED BY LAND APPLICATION ON A CASE BY CASE BASIS.



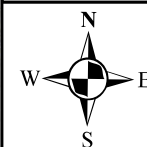


**City of Hayden**  
2020 Collection System  
Master Plan Update

**Figure A4**  
*Flow Monitoring Sites*

-  Hayden City Limits
-  HARSB WWTP
-  Flow Monitoring Site
-  Existing Lift Station
-  Private Lift Station
-  Existing Force Main
-  Existing Gravity Pipes
-  Airport Infrastructure
-  Dry Line
-  Model Pipes Only

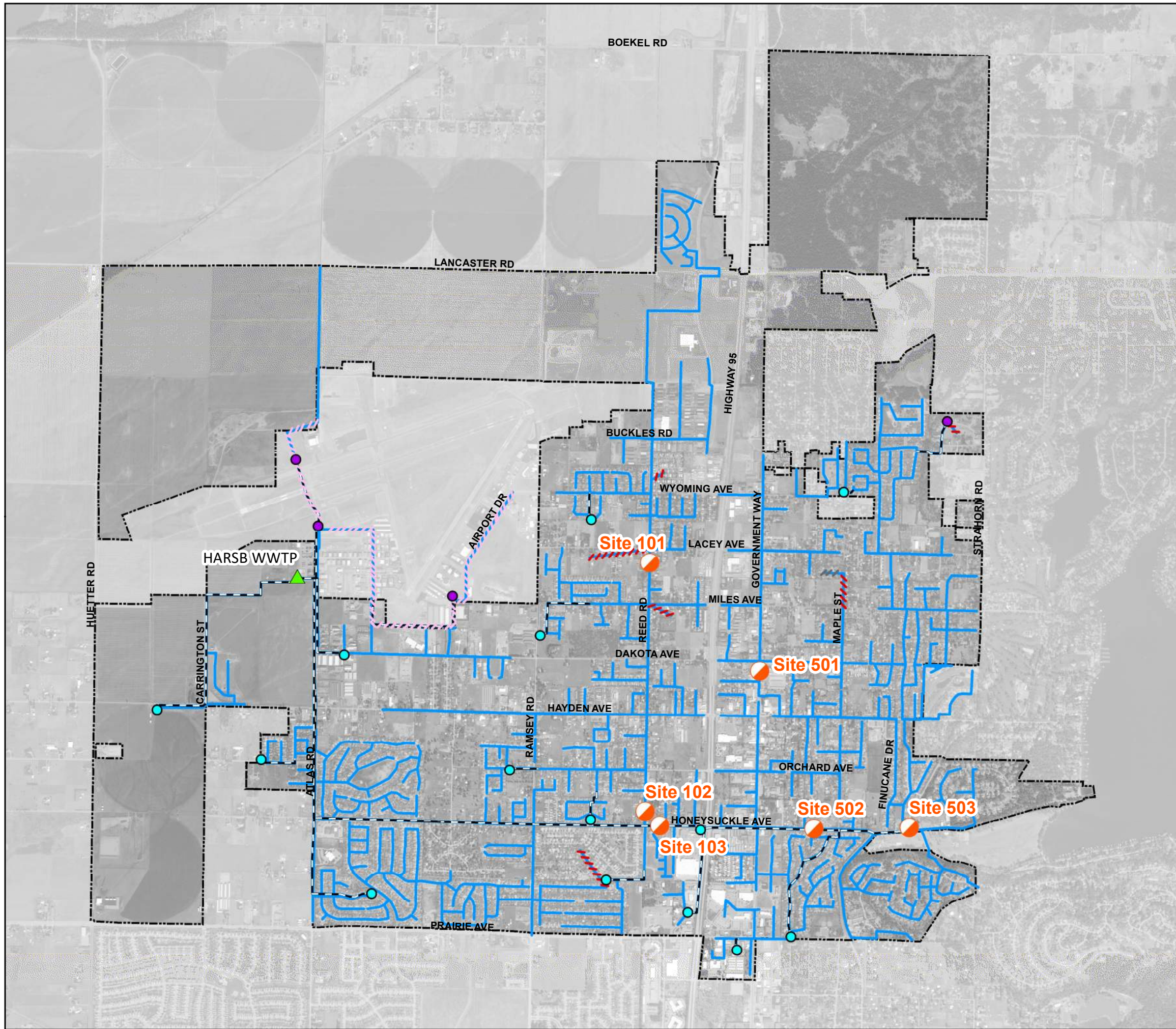
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













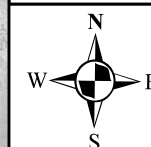
**City of Hayden**  
2020 Collection System  
Master Plan Update

# Figure A5

*Existing Model Results  
Wet Weather Depth Over Diameter*

-  Hayden City Limits
-  HARSB WWTP
-  Existing Lift Station
-  Private Lift Station
- Existing System d/D**
-  0.00 - 0.25
-  0.26 - 0.50
-  0.51 - 0.65
-  0.66 - 0.75
-  0.76 - 0.85
-  0.86 - 1.00
-  Airport Infrastructure
-  Dry Line
-  Model Pipes Only

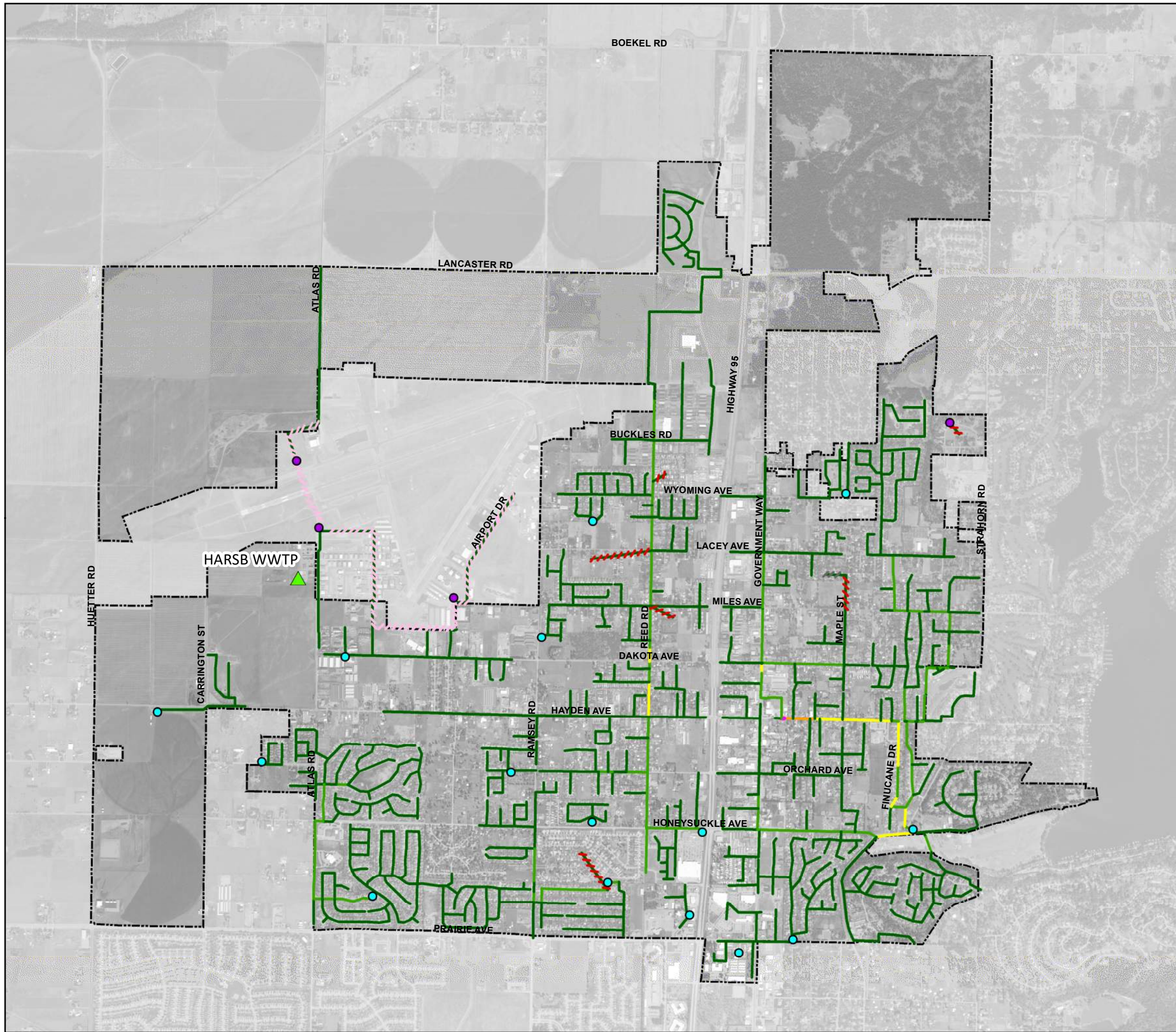
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










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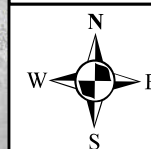


**City of Hayden**  
2020 Collection System  
Master Plan Update

**Figure A6**  
*Near Term Model Results*  
*No Improvements Scenario*  
*Wet Weather Depth Over Diameter*

-  Hayden City Limits
-  HARSB WWTP
-  Lift Station
-  Private Lift Station
-  Airport Infrastructure
-  Dry Line
-  Model Pipes Only
- Near Term System d/D**
-  0.00 - 0.25
-  0.26 - 0.50
-  0.51 - 0.65
-  0.66 - 0.75
-  0.76 - 0.85
-  0.86 - 1.00

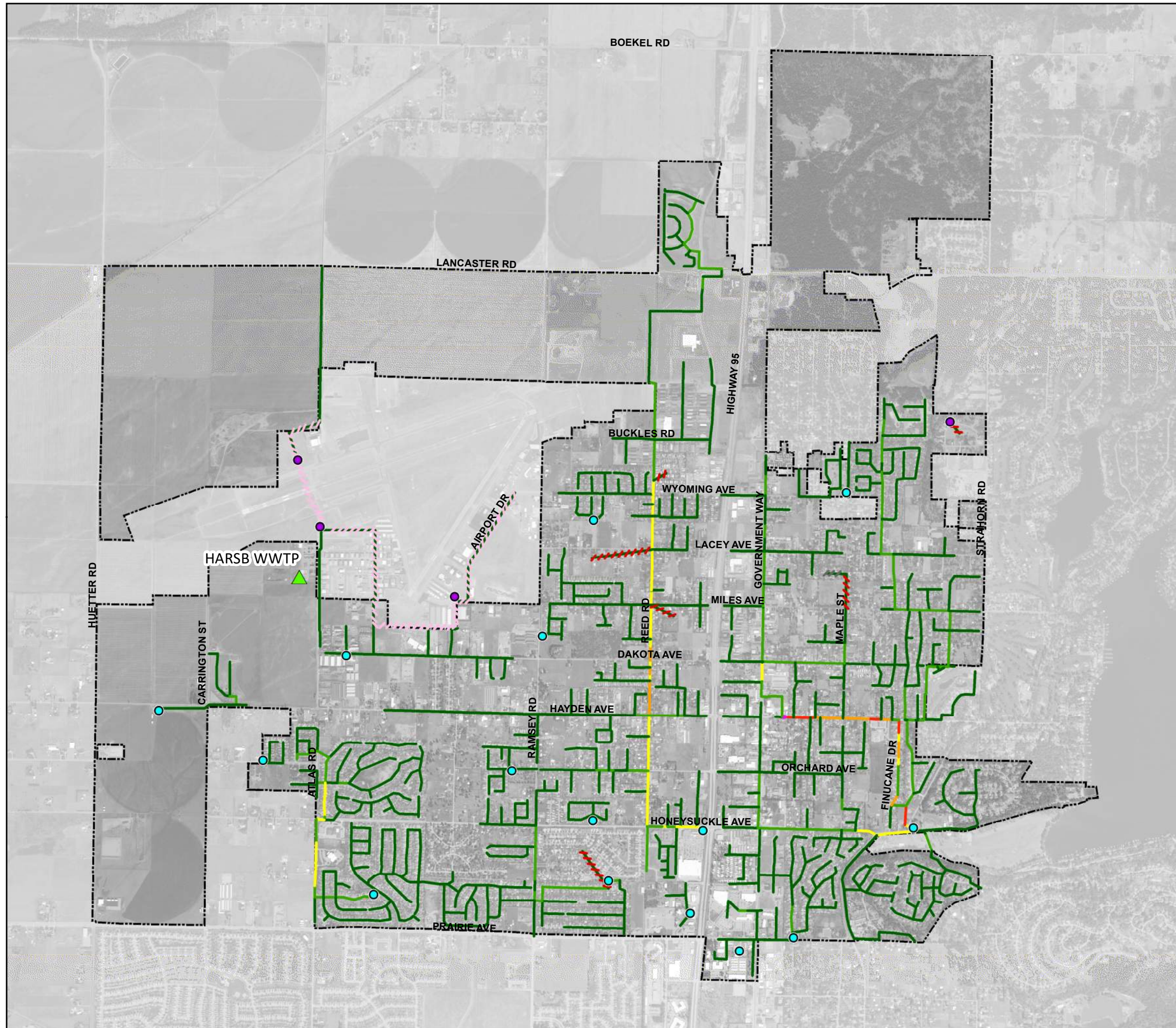
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Feet



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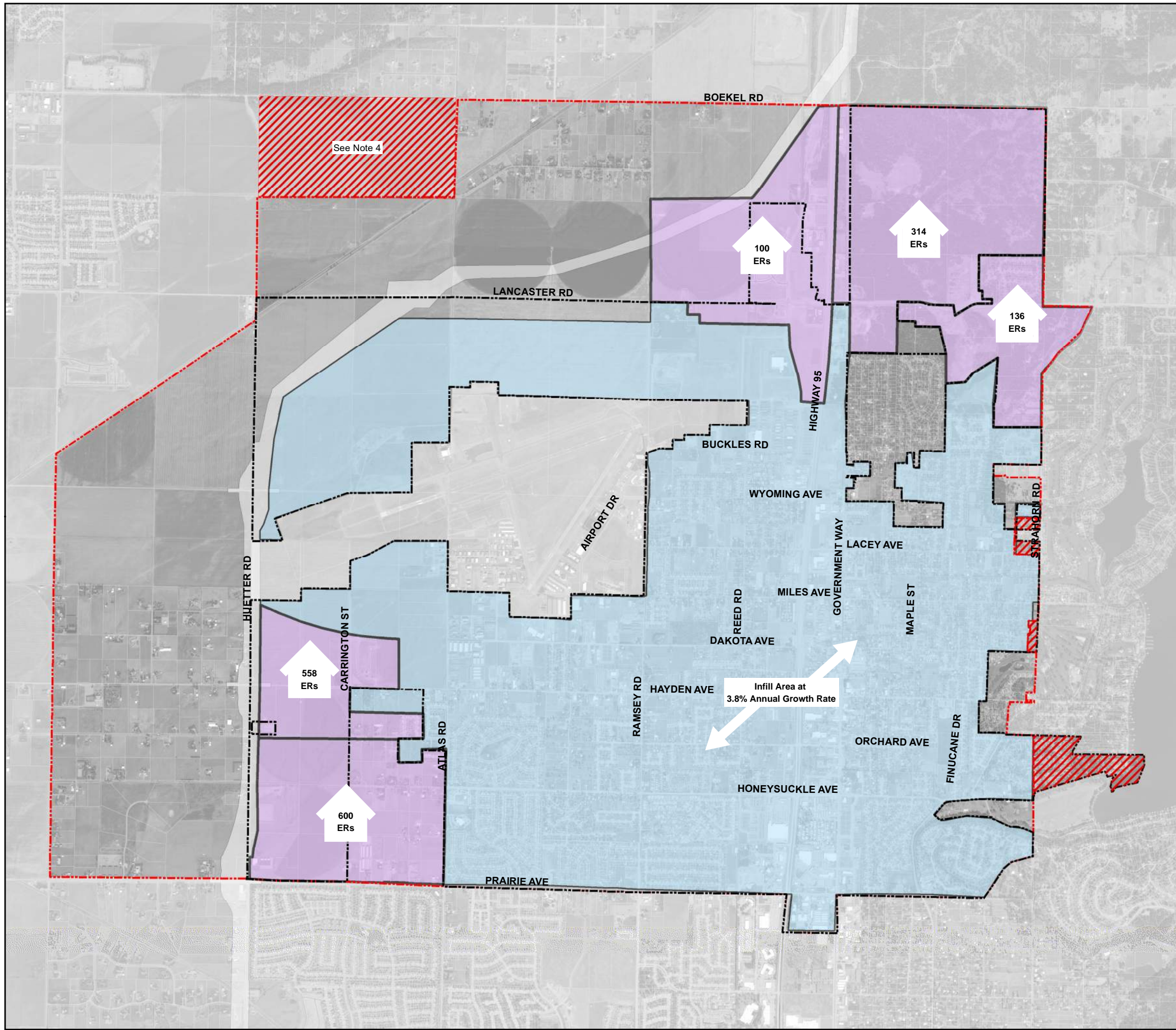



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4. LAND USE AREAS OUTSIDE OF HAYDEN CITY LIMITS AND SERVED BY LAND APPLICATION ON A CASE BY CASE BASIS.







## City of Hayden


### 2020 Collection System Master Plan Update


# Figure A7


## Near Term System Residential Growth Allocations

 No Service Areas


 Hayden City Limits


 Hayden Study Area

 Parcel Line


 Future Huetter Bypass

### Near Term Growth


 Area of Infill

 Future Growth Area

0 2,500 5,000 Feet





















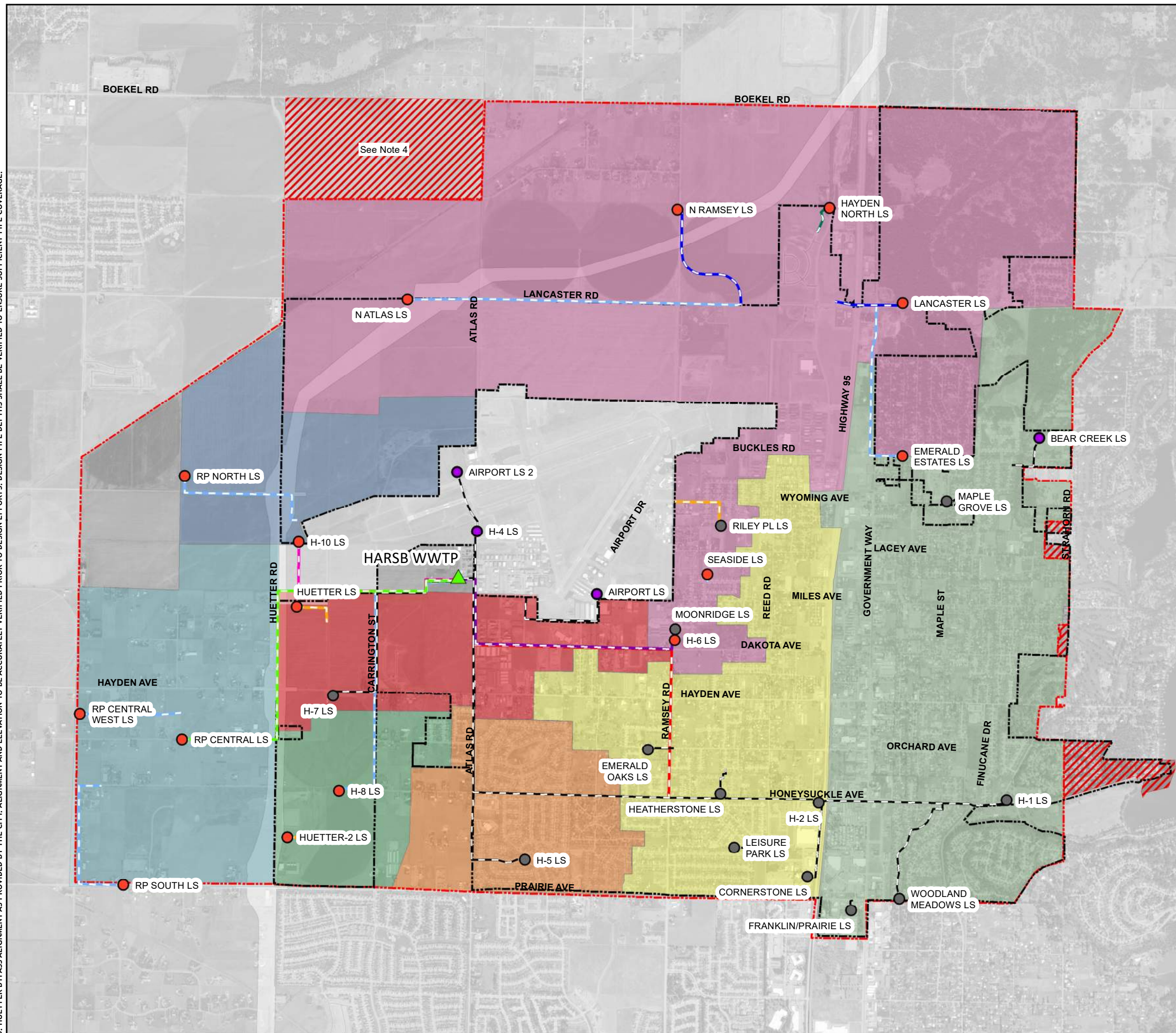
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	Hayden City Limits	<b>Force Mains</b>
	Hayden Study Area	 Existing
	No Service Areas	 Future, 4"
	Future Huetter Bypass	 Future, 6"
	HARSB WWTP	 Future, 8"
	Private Lift Station	 Future, 10"
	Existing Lift Station	 Future, 12"
	Future Lift Station	 Future, 16"
<b>Future Sewer Sheds</b>		 Future, 18"
	H-1 Sewer Shed	 15" PIP





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4. LAND USE AREAS OUTSIDE OF HAYDEN CITY LIMITS AND SERVED BY LAND APPLICATION ON A CASE BY CASE BASIS.  
5. HUETTER BYPASS ALIGNMENT AS PROVIDED BY THE CITY. ALIGNMENT AND ELEVATION TO BE ACCURATELY VERIFIED PRIOR TO DESIGN EFFORTS. DESIGN PIPE DEPTHS SHALL BE VERIFIED TO ENSURE SUFFICIENT PIPE COVERAGE.



City of Hayden

2020 Collection System

Master Plan Update

Figure A9

Near Term System

Improvements Scenario

Design Pipes by Size

- Hayden City Limits

Hayden Study Area

No Service Areas

Future Huetter Bypass

HARSB WWTP

Private Lift Station

Existing Lift Station

Near Term Lift Station

Airport Infrastructure

Model Pipes Only
- Force Main**

Existing

Design, 4"

Design, 6"

Design, 8"

Design, 10"

Design, 18"

**Gravity Pipes**

Existing Pipe

Design, 8"

Design, 10"

Design, 12"

Design, 15"

Design, 18"

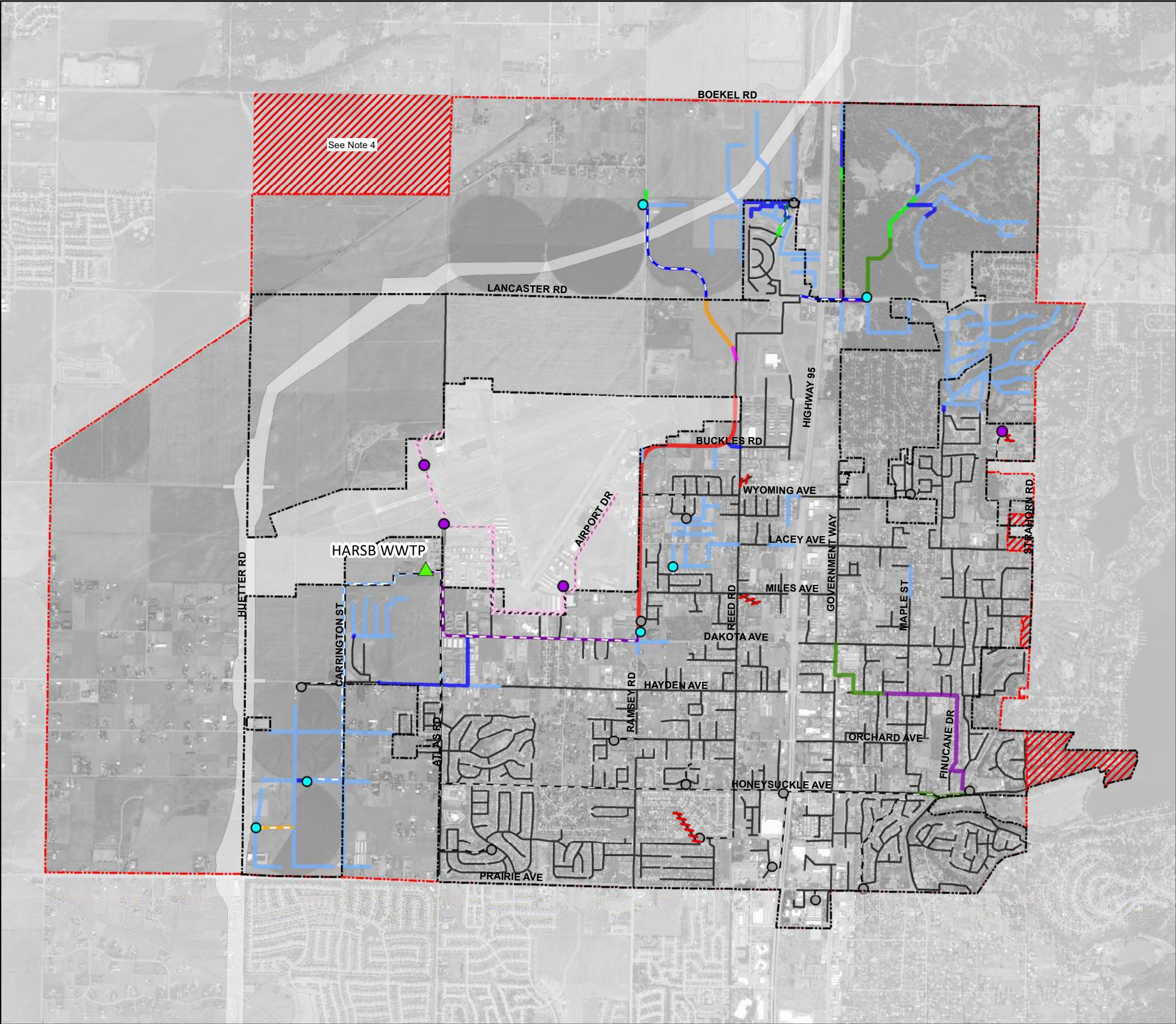
Design, 21"

Design, 24"

Design, 27"

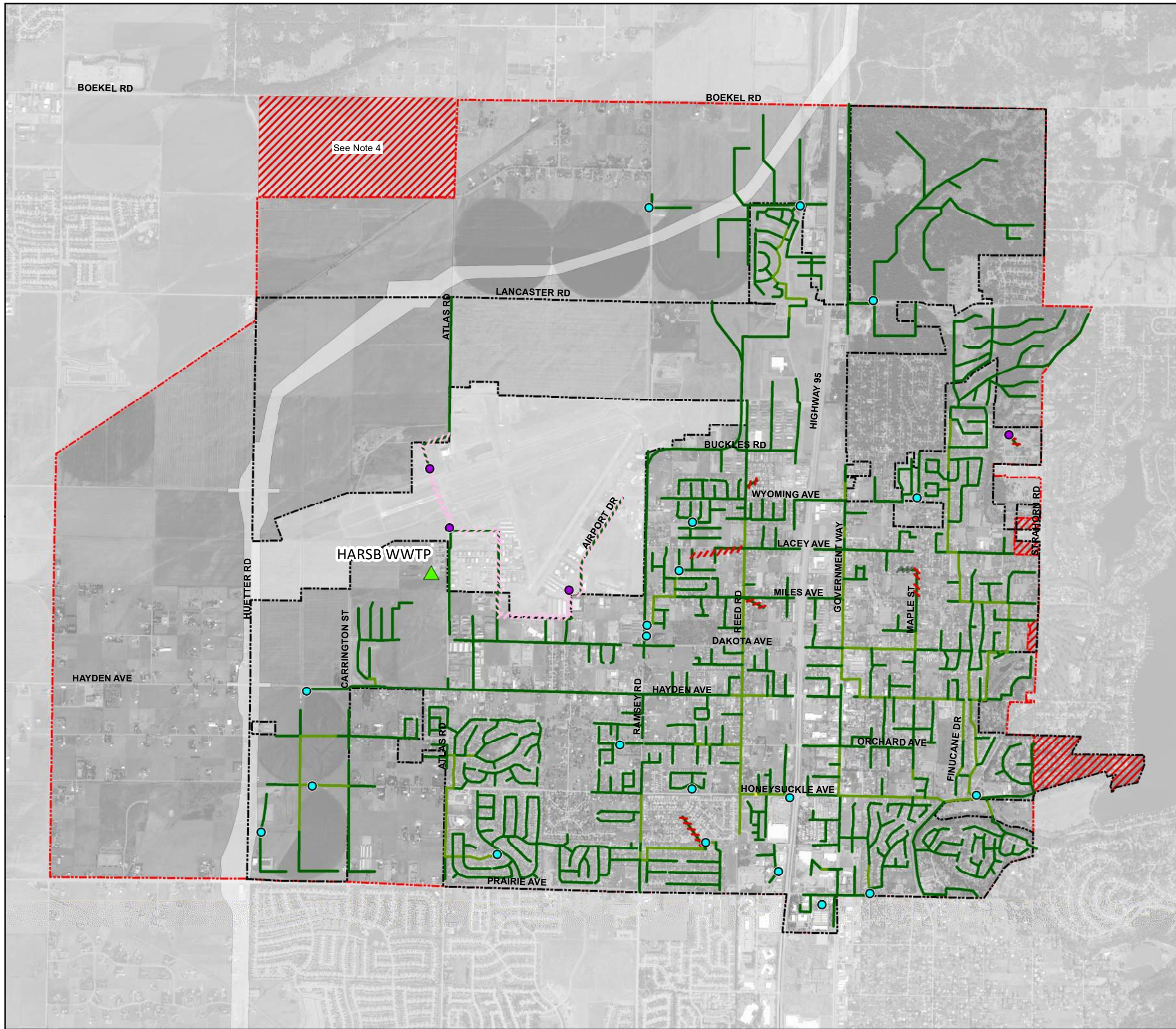



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4. LAND USE AREAS OUTSIDE OF HAYDEN CITY LIMITS AND SERVED BY LAND APPLICATION ON A CASE BY CASE BASIS.





















## City of Hayden

### 2020 Collection System Master Plan Update

# Figure A10


## Near Term Model Results Improvements Scenario

### Wet Weather Depth Over Diameter


-  HARSB WWTP
-  Private Lift Station
-  Lift Station
-  Airport Infrastructure
-  Dry Line
-  Model Pipes Only
- Near Term System d/D**
  -  0.00 - 0.25
  -  0.26 - 0.50
  -  0.51 - 0.65
  -  0.66 - 0.75
  -  0.76 - 0.85
  -  0.86 - 1.00
-  Hayden City Limits
-  Hayden Study Area
-  No Service Areas
-  Future Huetter Bypass

02,5005,000

Feet



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**City of Hayden**  
**2020 Collection System**  
**Master Plan Update**

**Figure A11**  
*Future Build Out System*  
*Improvement Priority*

-  HARSB WWTP
-  Hayden City Limits
-  Hayden Study Area
-  No Service Areas
-  Future Huetter Bypass







**Lift Station Improvement**

-  Existing
-  0 - 5 Years
-  6 - 10 Years
-  10+ Years

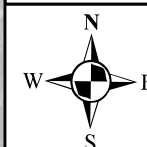
**Force Main Improvement**

-  Existing
-  0 - 5 Years
-  6 - 10 Years
-  10+ Years

**Collection System Pipe Improvement**

-  Existing
-  0 - 5 Years
-  6 - 10 Years
-  10+ Years
-  Airport Infrastructure
-  Model Pipes Only

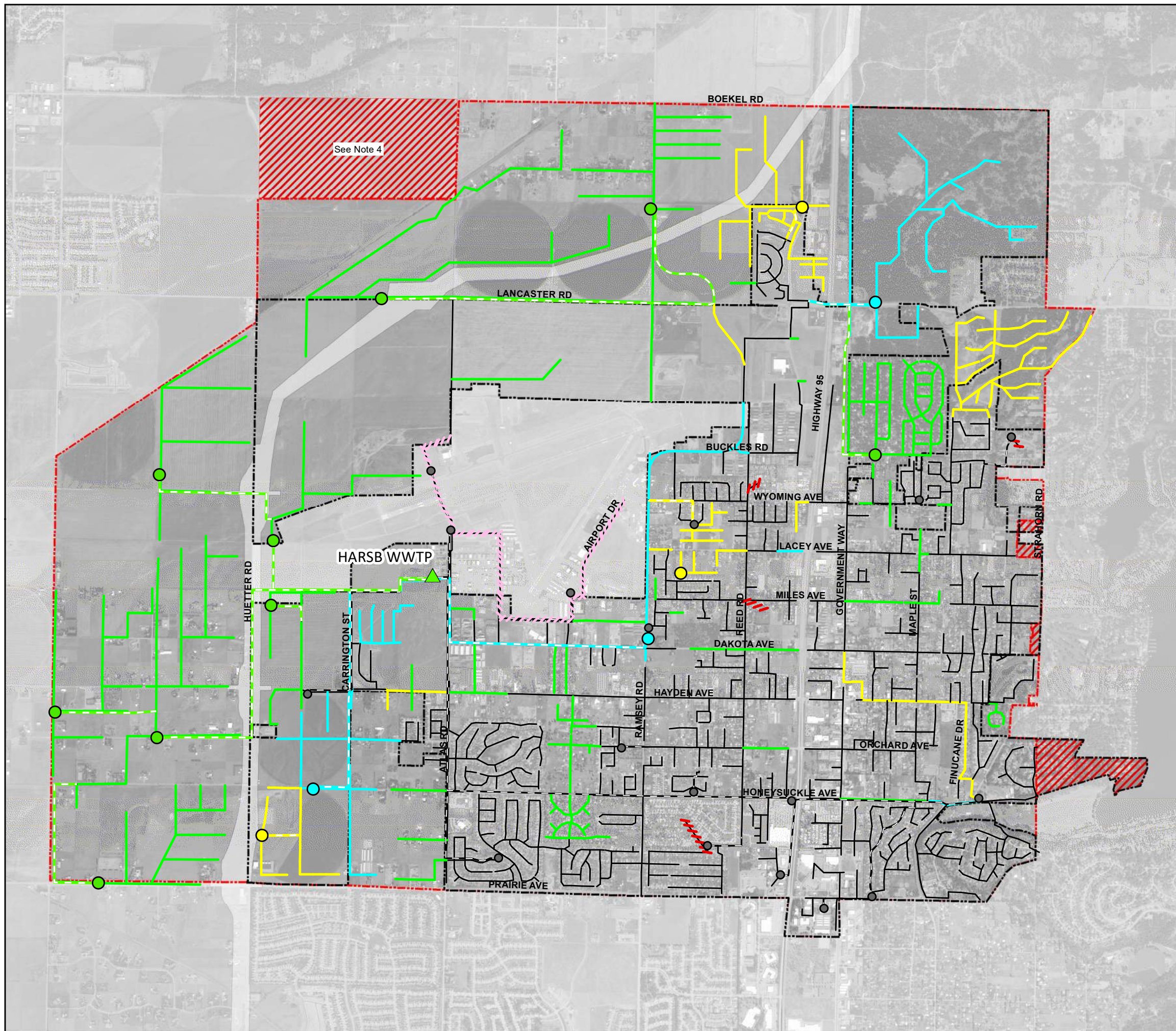
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Feet



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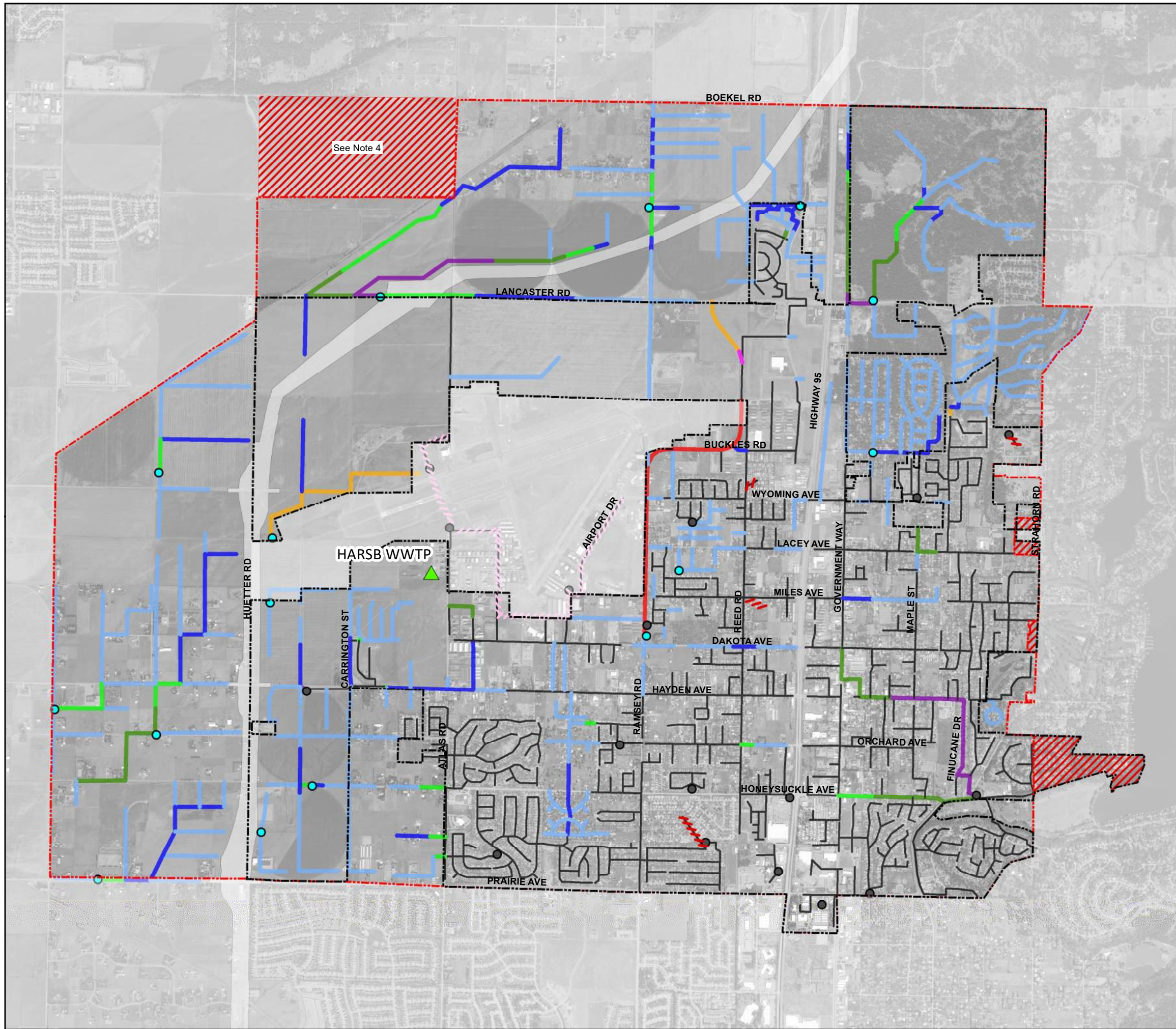



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4. LAND USE AREAS OUTSIDE OF HAYDEN CITY LIMITS AND SERVED BY LAND APPLICATION ON A CASE BY CASE BASIS.





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4. LAND USE AREAS OUTSIDE OF HAYDEN CITY LIMITS AND SERVED BY LAND APPLICATION ON A CASE BY CASE BASIS.





## City of Hayden

### 2020 Collection System Master Plan Update

# Figure A12

## Future Build Out System Gravity Design Pipes by Size

▲ HARSB WWTP

⬢ Hayden City Limits

⬢ Hayden Study Area

⬢ No Service Areas

⬢ Future Huetter Bypass

● Existing Lift Station

● Future Lift Station

⬢ Airport Infrastructure

⬢ Model Pipes Only

**Gravity Pipes**

⬢ Existing

⬢ Design, 8"

⬢ Design, 10"

⬢ Design, 12"

⬢ Design, 15"


⬢ Design, 18"

⬢ Design, 21"


⬢ Design, 24"

⬢ Design, 27"

0 2,500 5,000 Feet



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City of Hayden

2020 Collection System

Master Plan Update

Figure A13

Future Build Out Model Results  
Pipes by Average Depth

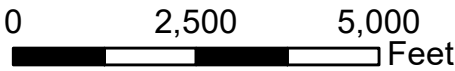
- HARSB WWTP
- Hayden City Limits
- Hayden Study Area
- No Service Areas
- Future Huetter Bypass

Lift Stations

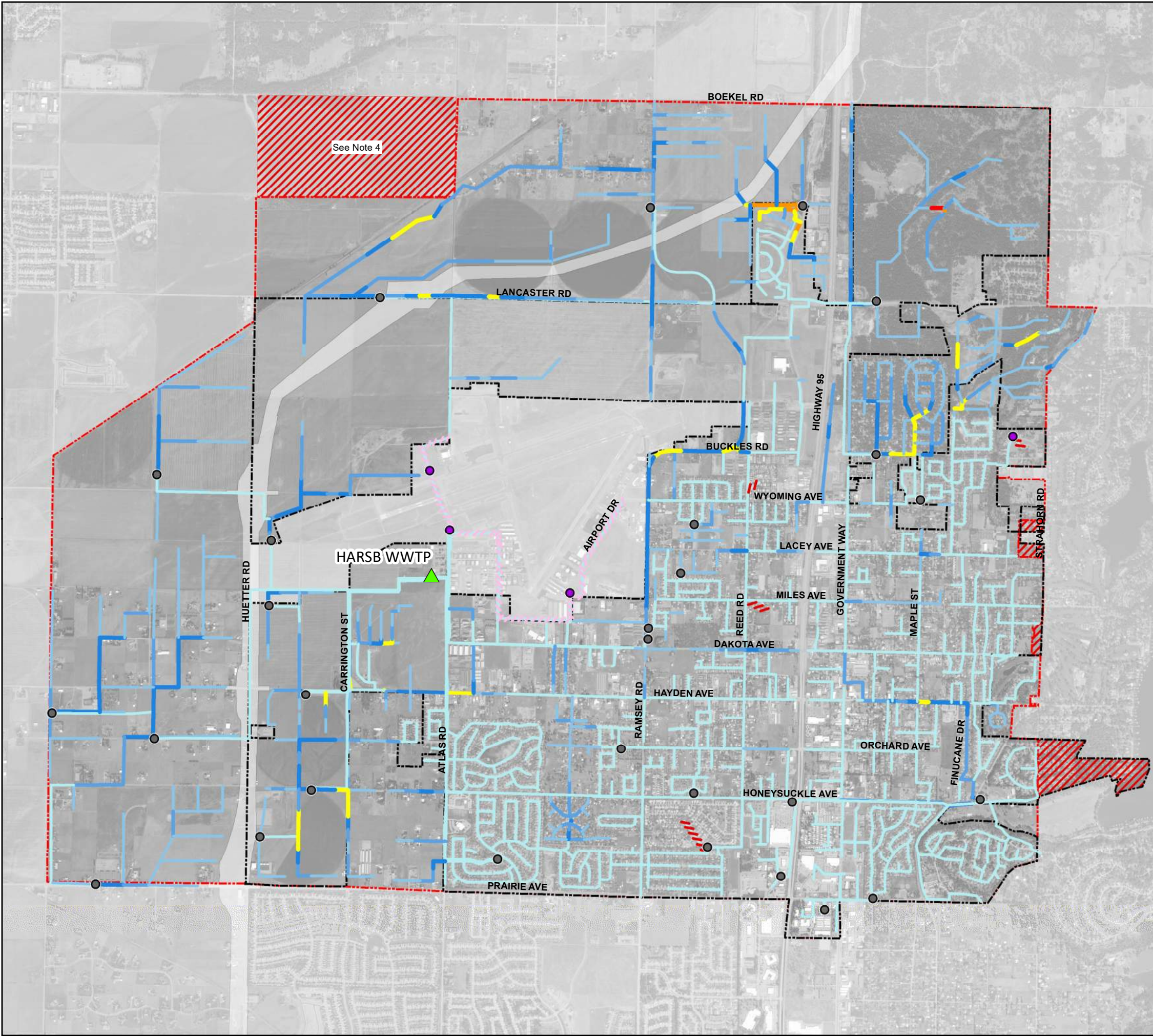
- Private Lift Station
- Lift Station

Build Out System Depth (ft)

- 0.00 - 5.00
- 5.01 - 10.00
- 10.01 - 15.00
- 15.01 - 20.00
- 20.01 - 25.00
- 25.01 - 30.00
- 30.01 - 35.00
- Airport Infrastructure
- Model Pipes Only

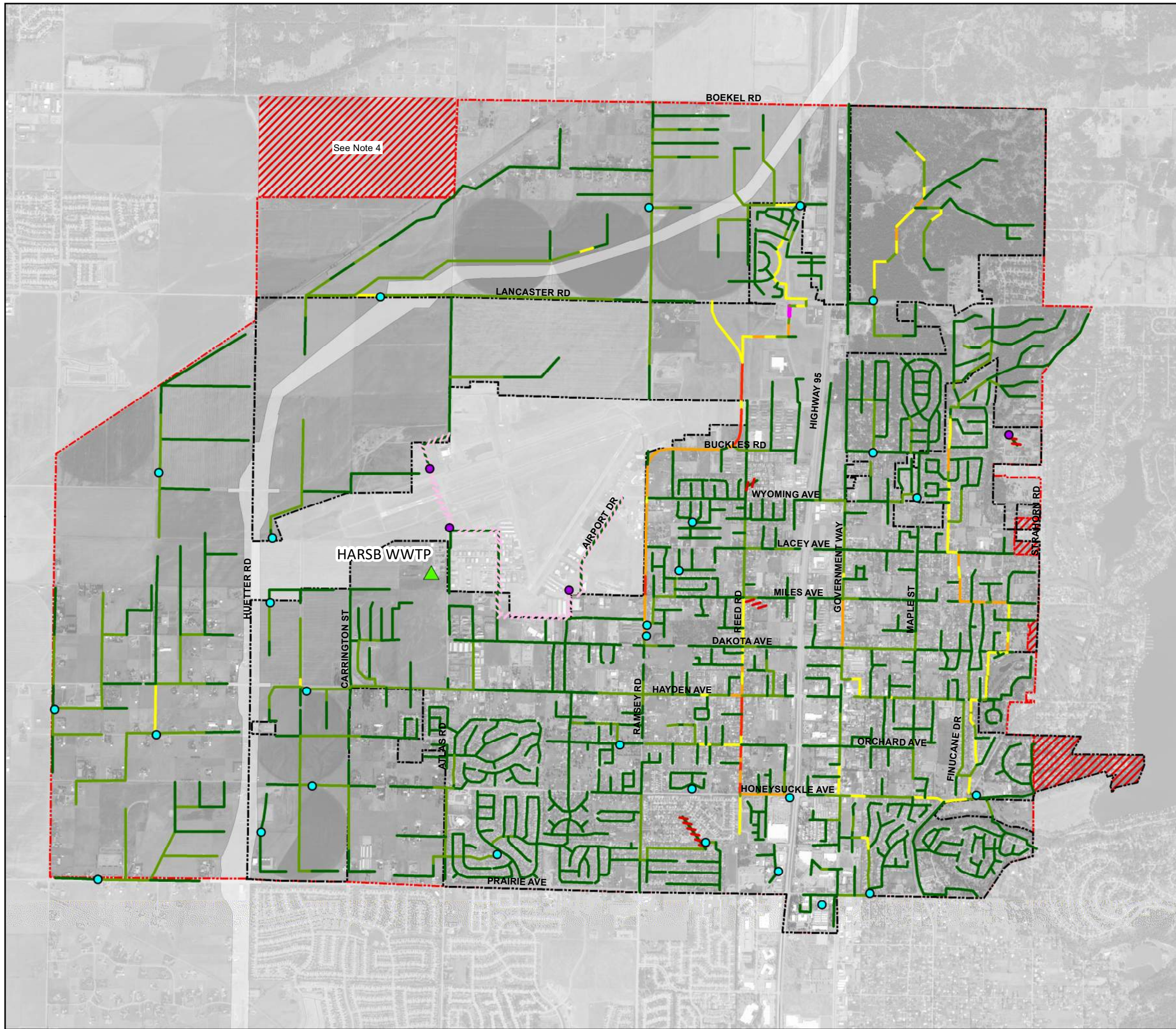



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## City of Hayden









### 2020 Collection System Master Plan Update

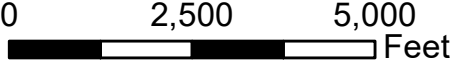
# Figure A14

## Future Build Out Model Results Wet Weather Depth Over Diameter


-  HARSB WWTP
-  Hayden City Limits
-  Hayden Study Area
-  No Service Areas
-  Future Huetter Bypass
-  Lift Station
-  Private Lift Station

### Build Out System d/D

-  0.00 - 0.25
-  0.26 - 0.50
-  0.51 - 0.65
-  0.66 - 0.75
-  0.76 - 0.85
-  0.86 - 1.00
-  Airport Infrastructure
-  Model Pipes Only




0 2,500 5,000 Feet



W N E S

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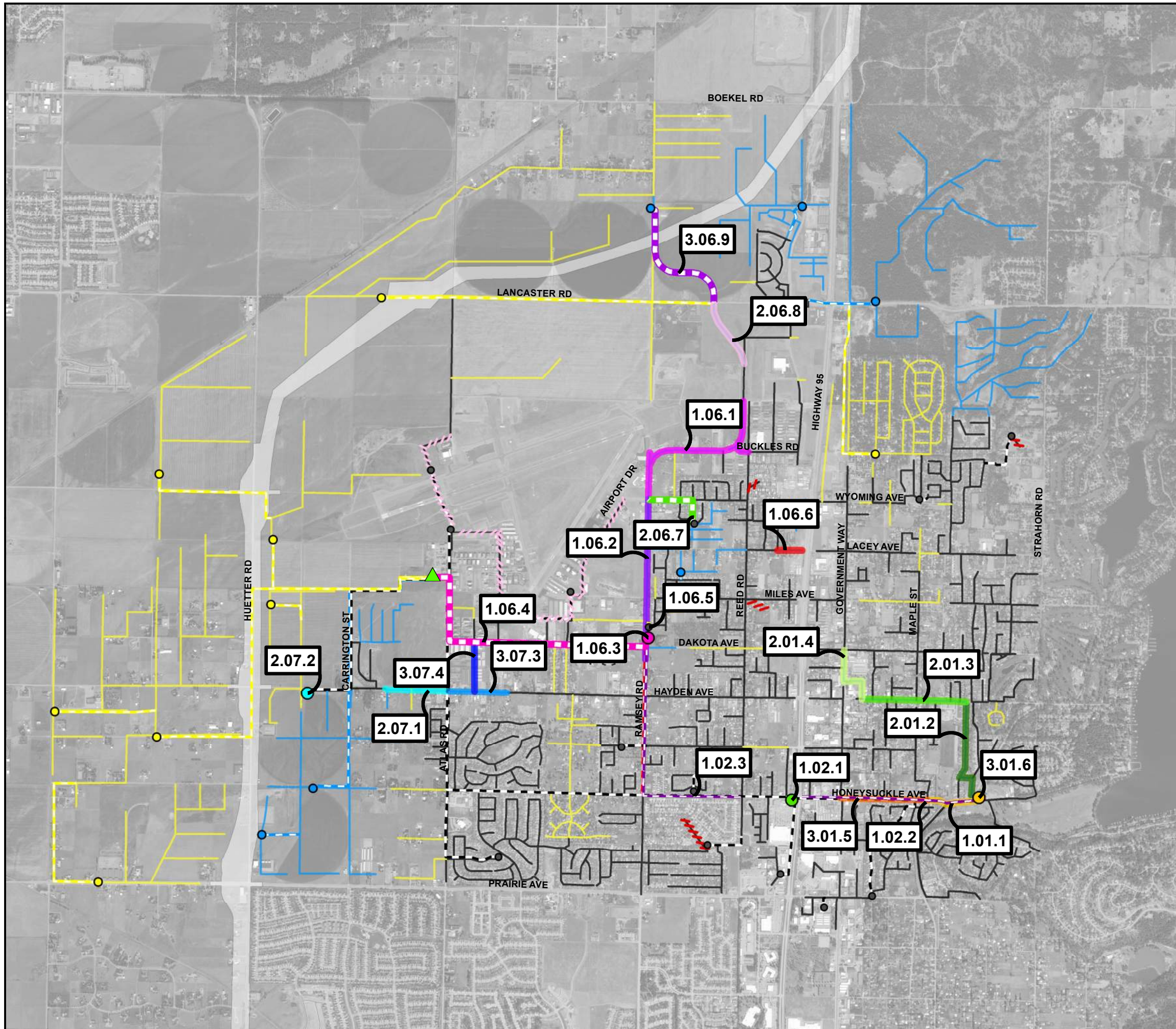
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2020 Collection System  
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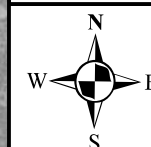
**Figure A15**  
*Study Area and Future System  
CIP Projects*

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- |                       |                                |
|-----------------------|--------------------------------|
| HARSB WWTP            | <b>CIP Force Mains</b>         |
| <b>Lift Station</b>   | 1.06.4 - H-6                   |
| Existing LS           | 1.06.5 - Moonridge             |
| Near Term LS          | 2.06.7 - Riley Place           |
| Build Out LS          | 3.06.9 - North Ramsey          |
| 1.02.1 - H-2 LS       | 1.02.2 Honeysuckle FM P1       |
| 1.06.3 - H-6 LS       | 1.02.3 Honeysuckle FM P2       |
| 2.07.2 - H-7 LS       | <b>CIP Gravity Sewer</b>       |
| 3.01.6 - H-1 LS       | 1.01.1 - Honeysuckle P1        |
| Future Huetter Bypass | 3.01.5 - Honeysuckle P2        |
| <b>Force Main</b>     | 1.06.1 - Ramsey P1             |
| Existing              | 1.06.2 - Ramsey P2             |
| Near Term             | 1.06.6 - Lacey Ave             |
| Build Out             | 2.06.8 - Ramsey P3             |
| 15-inch PIP           | 2.01.2 - Finucane Dr Upsize    |
| <b>Gravity Sewer</b>  | 2.01.3 - Hayden Ave Upsize     |
| Existing              | 2.01.4 - Government Way Upsize |
| Near Term Design Pipe | 2.07.1 - Hayden Ave P1         |
| Build Out Design Pipe | 3.07.3 - Hayden Ave P2         |
|                       | 3.07.4 - Dakota Elimination    |
|                       | Airport Infrastructure         |
|                       | Model Pipes Only               |

0 2,500 5,000  
Feet



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