

# **APPENDIX F**

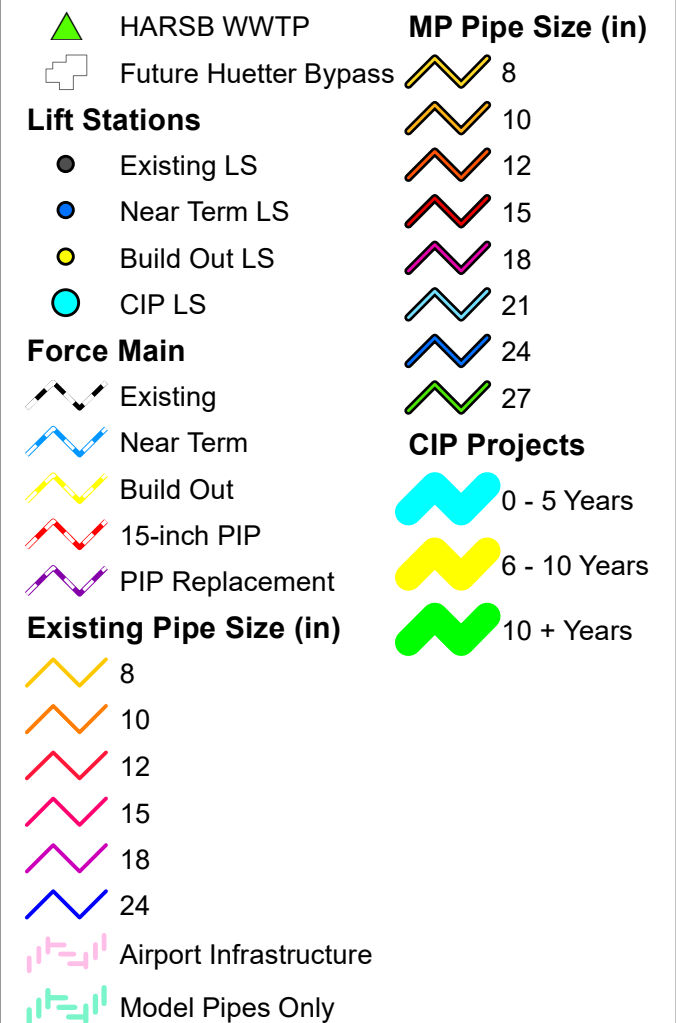
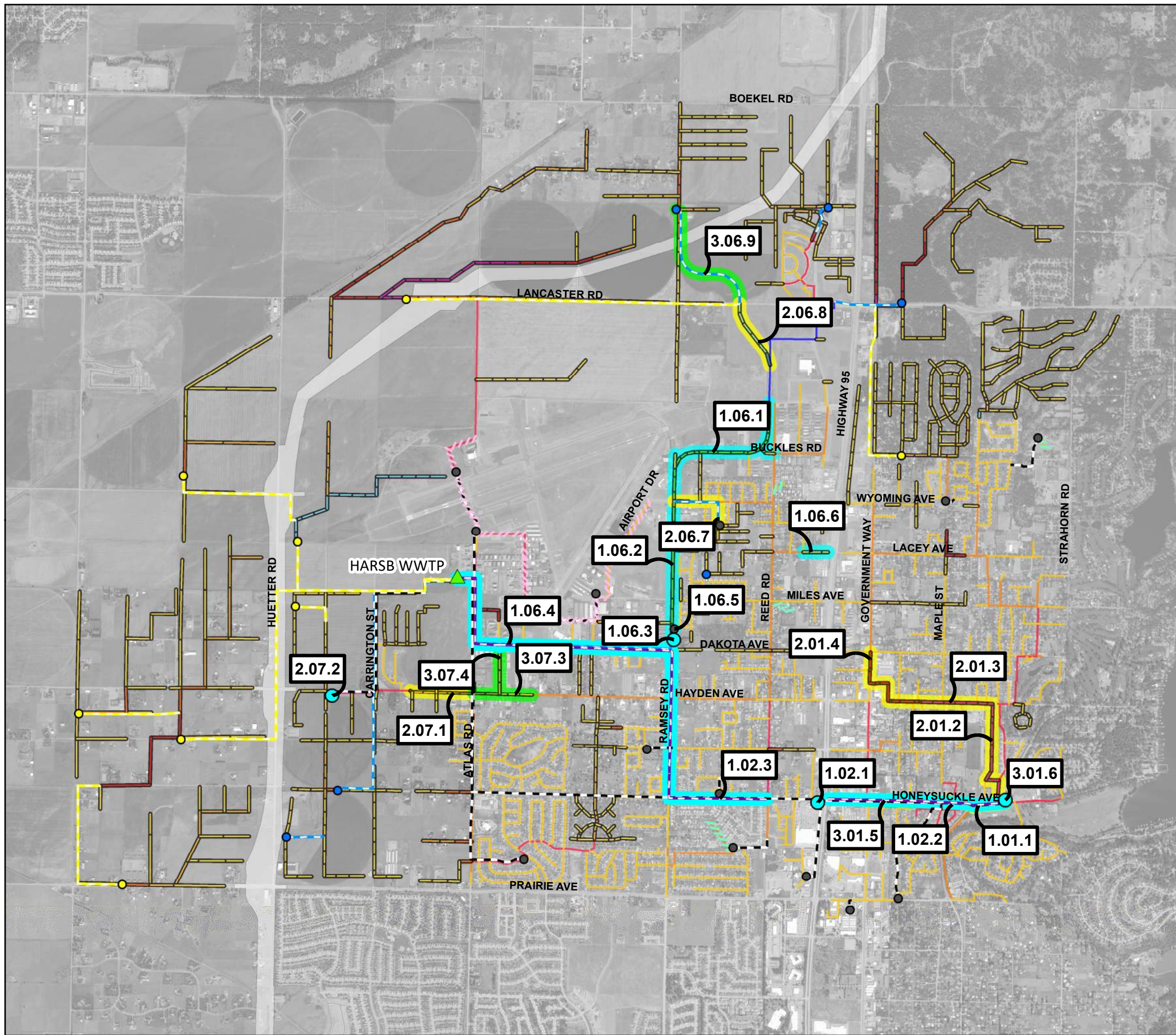
## **CIP Packets**



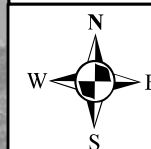
**City of Hayden**  
2020 Collection System  
Master Plan Update

**Figure F1**  
*CIP Summary Map*

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. 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.



0 2,500 5,000  
Feet



PRINT DATE: 2/3/2021





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City of Hayden  
2020 Collection System  
Master Plan Update

Figure F2  
CIP 1.06.1  
Ramsey Road Phase I

CORE ISSUE:

The Reed Road gravity sewer line is nearing capacity. Serving further North requires the development of the H-6 Sewer Basin.

RECOMMENDED SOLUTION:

A 27-inch trunk would be installed in the future Ramsey Road Alignment from Wyoming Avenue connecting to the existing 24-inch Hayden Urban Renewal Agency (HURA) gravity sewer. Special design slope considerations are recommended to minimize downstream depth. Easement procurements may be required. The gravity sewer in Buckles road shall be installed and capped to route future flow into the Ramsey Road line and out of the H-2 Basin after the H-6 Lift Station is completed. This project is assumed to be constructed immediately in advance of the transportation project in Ramsey Road. Surface repair costs within the transportation project boundary have been removed.

OPINION OF PROBABLE COST:

- > 354 LF of 8-inch Gravity Sewer
- > 408 LF of 10-inch Gravity Sewer
- > 4,692 LF of 27-inch Gravity Trunk

\$1,702,000 (2020 Dollars)

PROJECT PRIORITY: 0 - 5 Years



0 190 380 Feet  
PRINT DATE: 2/2/2021



Lift Stations

Existing LS

Near Term LS

Build Out LS

Manhole

Force Main

Existing

Near Term

Build Out

Existing Pipe Size (in)

8

10

12

15

18

24

Model Pipe Only

Abandoned Gravity Sewer

MP Pipe Size (in)

8

10

12

15

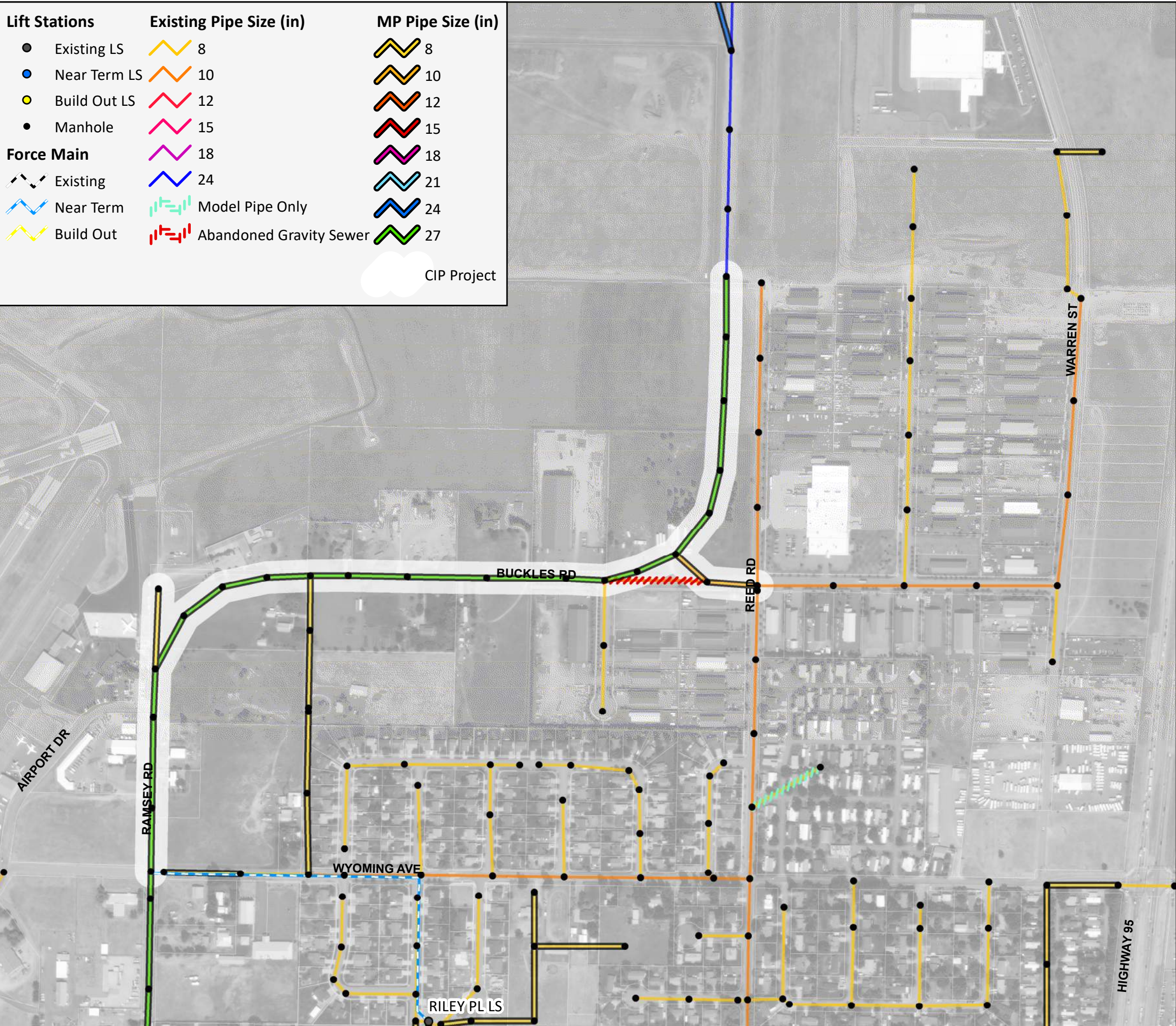
18

21

24

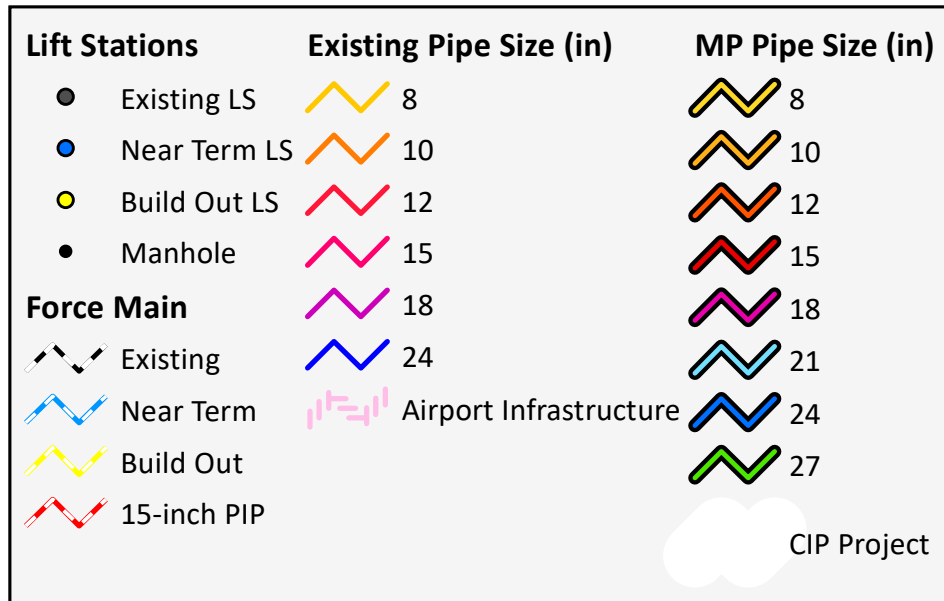
27


CIP Project





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## City of Hayden

### 2020 Collection System Master Plan Update

# Figure F3

## CIP 1.06.2

### Ramsey Road Phase II

**CORE ISSUE:**

The Reed Road gravity sewer line is nearing capacity. Serving further North requires the development of the H-6 Sewer Basin.

**RECOMMENDED SOLUTION:**


A 27-inch trunk would be installed in Ramsey Road from Wyoming Avenue, connecting to the 27-inch trunk installed as Ramsey Road Phase I, to the future H-6 Lift Station. 8-inch gravity sewer would be installed South of the H-6 Lift Station to Dakota Avenue. Easement procurements may be required. Surface repair is assumed to return the disturbed road to the original condition.

**OPINION OF PROBABLE COST:**

> 574 LF of 8-inch Gravity Sewer  
> 3,720 LF of 27-inch Gravity Trunk


**\$1,574,000** (2020 Dollars)

**PROJECT PRIORITY:** 0 - 5 Years



0 215 430 Feet

PRINT DATE: 2/2/2021



JUB ENGINEERS, INC.



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City of Hayden  
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Figure F4  
CIP 1.06.3  
H-6 Lift Station

**CORE ISSUE:**  
The Reed Road gravity sewer line is nearing capacity. Serving further North requires the development of the H-6 Sewer Basin.

**RECOMMENDED SOLUTION:**  
The H-6 Lift Station will serve approximately 2,800 acres within the future H-6 Sewer Basin and convey flow to the HARSB WWTP. The lift station has been sized to provide capacity for the build out system flows. It is recommended for the lift station to be designed to allow for phasing as development occurs. Easement and property procurement will be required. Lift station location as shown on the map is approximate and should be addressed as a part of design.

- OPINION OF PROBABLE COST:**
- > Wet Pit
  - > Valve Vault
  - > Overflow Basin
  - > Control Building
  - > Site Piping
  - > Equipment
  - > Land Purchase

\$2,419,000 (2020 Dollars)

PROJECT PRIORITY: 0 - 5 Years



0 45 90 Feet  
PRINT DATE: 2/2/2021



Lift Stations

Existing LS

Near Term LS

Build Out LS

H-6 Lift Station

Manhole

Existing

Near Term

Build Out

15-inch PIP

H-6 Force Main

Existing Pipe Size (in)

MP Pipe Size (in)

8

10

12

15

18

24

8

10

12

15

18

21

24

27

CIP Project



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Figure F5  
CIP 1.06.4  
H-6 Force Main

**CORE ISSUE:**  
The Reed Road gravity sewer line is nearing capacity. Serving further North requires the development of the H-6 Sewer Basin.

**RECOMMENDED SOLUTION:**  
The H-6 Force Main system will run approximately 7,706 feet and convey flow to the HARSB WWTP. The force mains have been sized to provide capacity for the build out system flows and allow for lift station phasing. It is recommended to use parallel force mains with the equivalent area of an 18-inch diameter. This results in the use of parallel 10-inch and 16-inch force mains. The portion of the 15-inch Pressure Irrigation Pipe (PIP) located within the project boundary is to be upsized to an 18-inch pressure pipe as a part of this project in coordination with HARSB. Easement procurement may be required. Force main location within the roadway as shown on the map is approximate and should be addressed as a part of design.

**OPINION OF PROBABLE COST:**  
> 7,706 LF of 10-inch Pressure Pipe to H-6 LS  
> 7,706 LF of 16-inch Pressure Pipe to H-6 LS  
> 7,494 LF of 18-inch Pressure Pipe to replace PIP

**\$5,491,000** (2020 Dollars)

**PROJECT PRIORITY:** 0 - 5 Years

0 240 480 Feet  
PRINT DATE: 2/2/2021

J-U-B ENGINEERS, INC.

HARSB WWTP

**Lift Stations**

- Existing LS
- Near Term LS
- Build Out LS
- H-6 Lift Station
- Manhole

**Force Main**

- Existing
- Near Term
- Build Out
- H-6 Force Main
- PIP Replacement

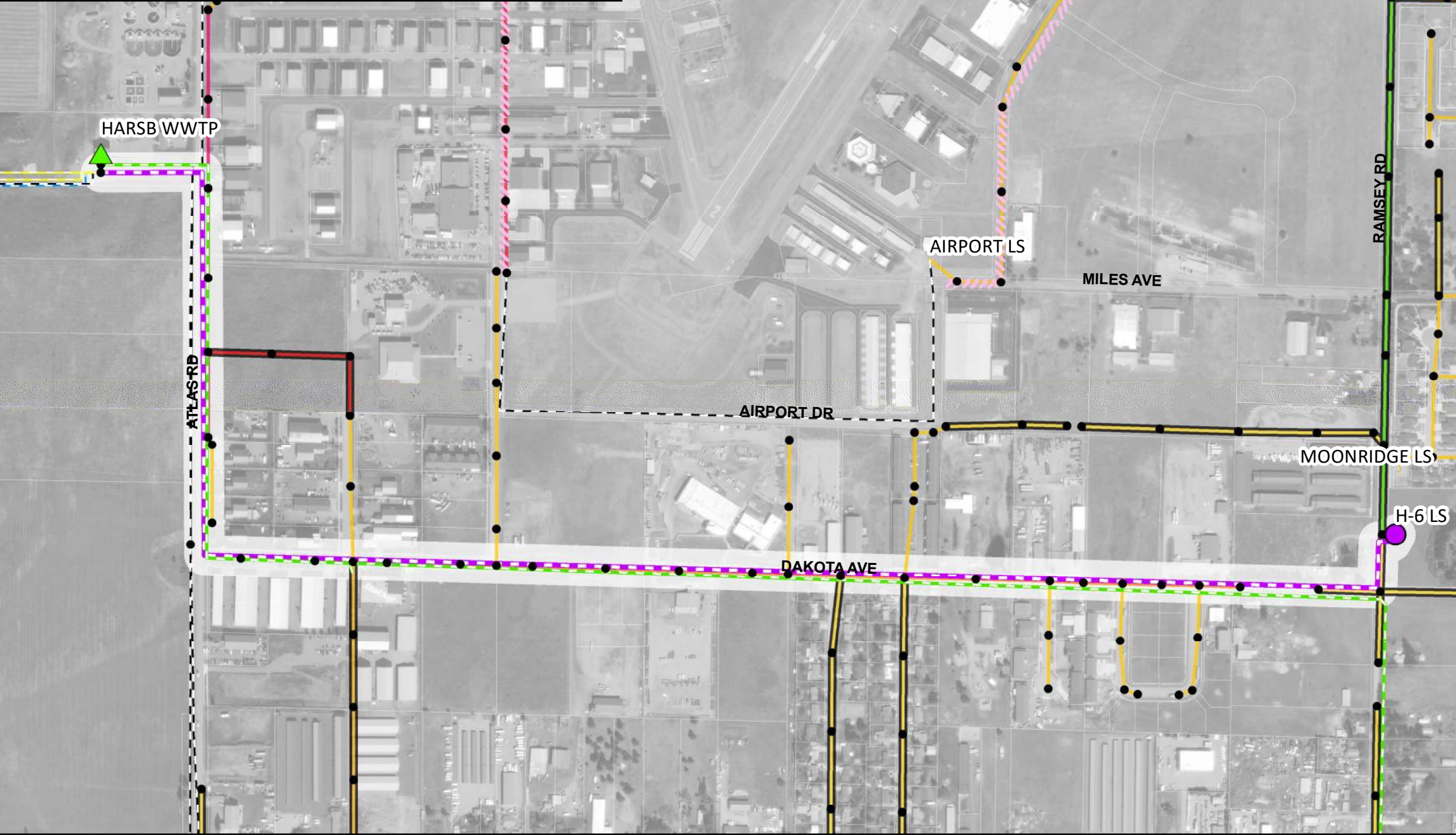
**Existing Pipe Size (in)**

- 8
- 10
- 12
- 15
- 18
- 24
- Airport Infrastructure

**MP Pipe Size (in)**

- 8
- 10
- 12
- 15
- 18
- 21
- 24
- 27

CIP Project





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City of Hayden

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Figure F6

CIP 1.06.5  
Moonridge Force Main

CORE ISSUE:

The Reed Road gravity sewer line is nearing capacity. Serving further North requires the development of the H-6 Sewer Basin.

RECOMMENDED SOLUTION:

In an effort to relieve the Reed Road Line of future capacity issues, the Moonridge Force Main discharge should be re-routed into the future 24-inch gravity trunk line in Ramsey Road and flow to the future H-6 Lift Station. This allows for the abandonment of the existing force main that flows into the H-2 Basin. Easement procurement may be required. Force main location within the roadway as shown on the map is approximate and should be addressed as a part of design.

OPINION OF PROBABLE COST:

> 108 LF of 4-inch Pressure Pipe

\$19,000 (2020 Dollars)

PROJECT PRIORITY: 0 - 5 Years



0 25 50 Feet  
PRINT DATE: 2/2/2021



Lift Stations

● Existing LS

● Near Term LS

● Build Out LS

● Moonridge Lift Station

● Manhole

Existing

Near Term

Build Out

Moonridge Force Main

Abandoned Force Main

Existing Pipe Size (in)

MP Pipe Size (in)

8

10

12

15

18

24

8

10

12

15

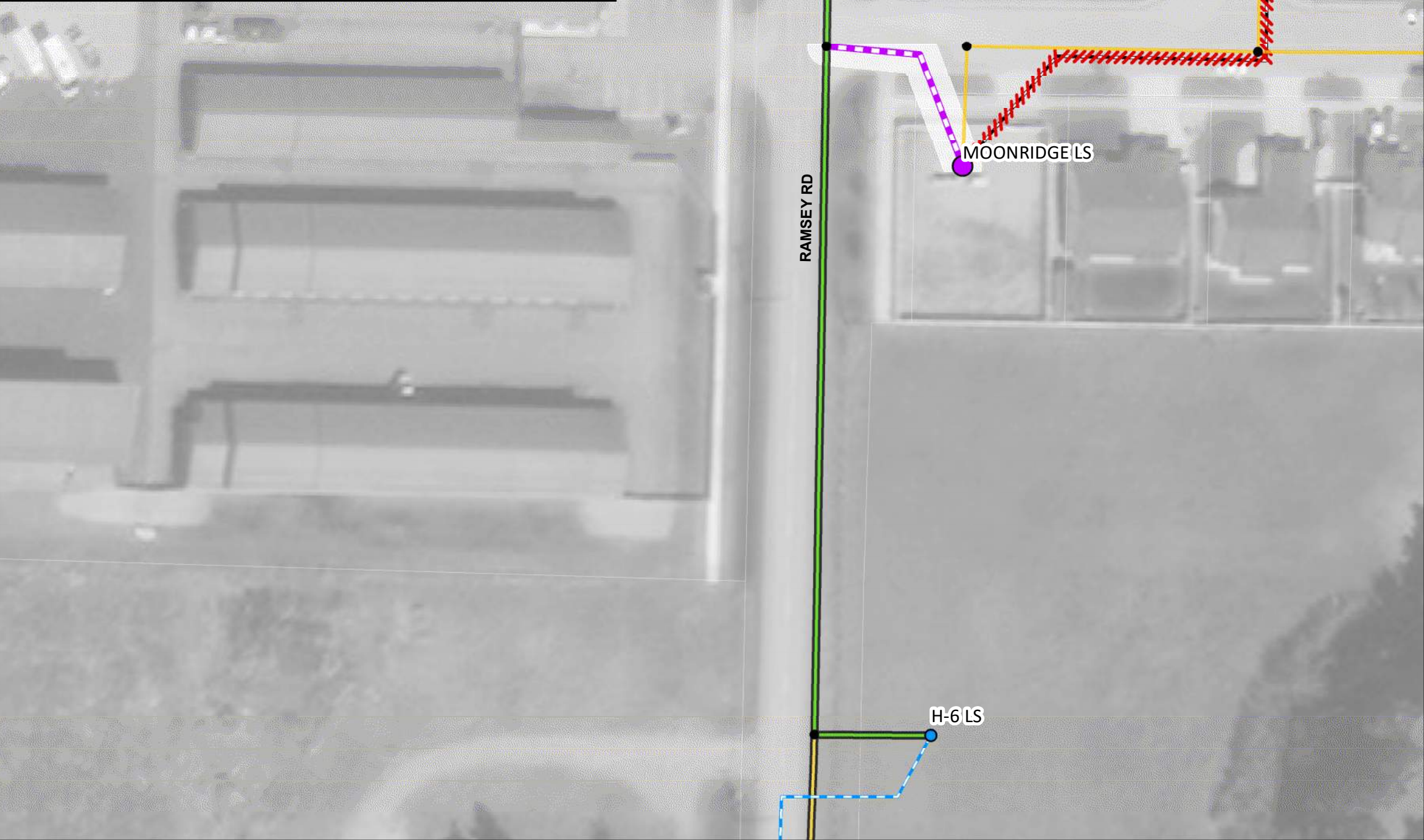
18

21

24

27

CIP Project





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Lift Stations

● Existing LS

● Near Term LS

● Build Out LS

● Manhole

Force Main

Existing

Near Term

Build Out

Existing Pipe Size (in)

8

10

12

15

18

24

MP Pipe Size (in)

8

10

12

15


18

21

24

27

CIP Project



City of Hayden

2020 Collection System Master Plan Update

Figure F7

CIP 1.06.6

Lacey Avenue Gravity

CORE ISSUE:

There is opportunity for infill growth within the H-2 Basin.

CORE ISSUE:

There is opportunity for infill growth within the H-2 Basin.

RECOMMENDED SOLUTION:

The gravity sewer in Lacey Avenue should be extended from Krest Court to Highway 95. An 8-inch gravity sewer pipe should be installed in Lacey Avenue. Easement procurements may be required.

RECOMMENDED SOLUTION:

The gravity sewer in Lacey Avenue should be extended from Krest Court to Highway 95. An 8-inch gravity sewer pipe should be installed in Lacey Avenue. Easement procurements may be required.

OPINION OF PROBABLE COST:

> 660 LF of 8-inch Gravity Sewer

OPINION OF PROBABLE COST:

> 660 LF of 8-inch Gravity Sewer

\$130,000

(2020 Dollars)

\$130,000


(2020 Dollars)

PROJECT PRIORITY:

0 - 5 Years


PROJECT PRIORITY:

0 - 5 Years



0 45 90 Feet

PRINT DATE: 2/2/2021



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City of Hayden

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Figure F8

CIP 1.02.2

Honeysuckle Force Main  
Replacement Phase I

CORE ISSUE:

The HARSB Pressure Irrigation Pipe (PIP) force main extends from the H-1 Lift Station on Honeysuckle Avenue, Ramsey Road, Dakota Avenue, and Atlas Road and discharges to the HARSB WWTP. Portions of the PIP forcemain have already been replaced as part of previous projects.

RECOMMENDED SOLUTION:

The portion of the 15-inch PIP from the H-1 Lift Station to Highway 95 is to be upsized to an 18-inch pressure pipe in coordination with HARSB. The upsized pressure pipe will connect to the existing 18-inch forcemain that was a previous PIP replacement project. Easement procurement may be required. Force main location within the roadway as shown on the map is approximate and should be addressed as a part of design.

OPINION OF PROBABLE COST:

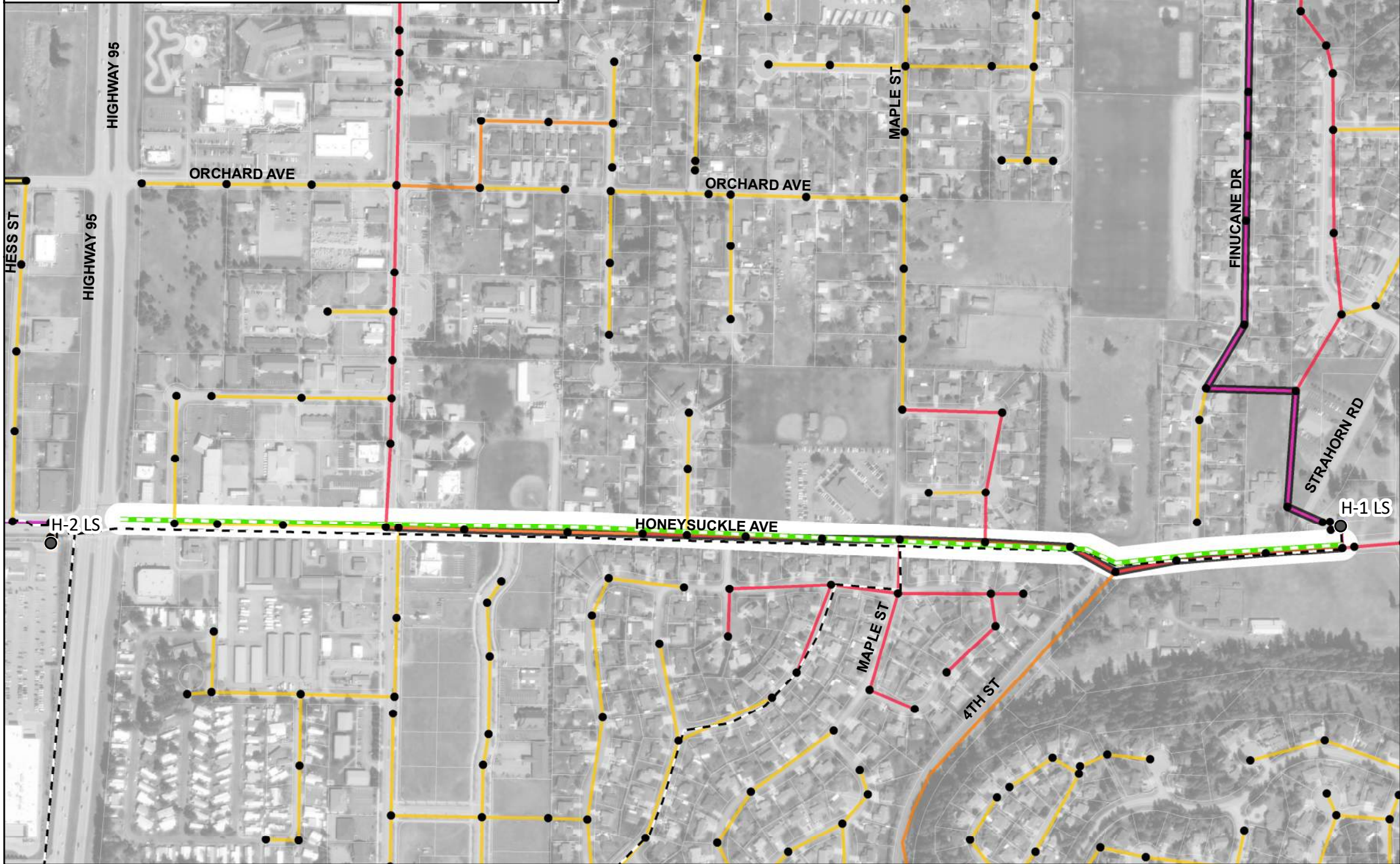
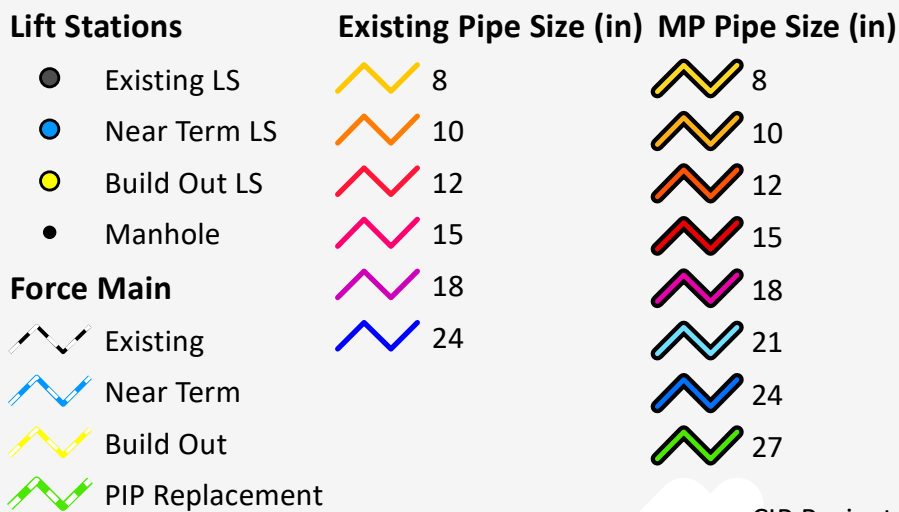
> 4,730 LF of 18-inch Pressure Pipe

\$1,800,000 (2020 Dollars)

PROJECT PRIORITY: 0 - 5 Years



0 200 400 Feet  
PRINT DATE: 2/2/2021





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Figure F9  
CIP 1.02.3  
Honeysuckle Force Main  
Replacement Phase II

**CORE ISSUE:**  
The HARSB Pressure Irrigation Pipe (PIP) force main extends from the H-1 Lift Station on Honeysuckle Avenue, Ramsey Road, Dakota Avenue, and Atlas Road and discharges to the HARSB WWTP. Portions of the PIP forcemain have already been replaced as part of previous projects.

**RECOMMENDED SOLUTION:**  
The portion of the 15-inch PIP from Reed Road to Dakota Avenue is to be upsized to an 18-inch pressure pipe in coordination with HARSB. The upsized pressure pipe will connect to the existing 18-inch forcemain at Reed Road that was a previous PIP replacement project and connect to the portion that is to be replaced in coordination with the H-6 Force Main CIP Project. Easement procurement may be required. Force main location within the roadway as shown on the map is approximate and should be addressed as a part of design.

**OPINION OF PROBABLE COST:**  
> 6,547 LF of 18-inch Pressure Pipe

**\$2,490,000** (2020 Dollars)

**PROJECT PRIORITY:** 0 - 5 Years

0 212.5 425 Feet  
PRINT DATE: 2/2/2021

J-U-B ENGINEERS, INC.

HARSB WWTP

**Lift Stations**

- Existing LS
- Near Term LS
- Build Out LS
- Manhole

**Force Main**

- Existing
- Near Term
- Build Out
- PIP Replacement

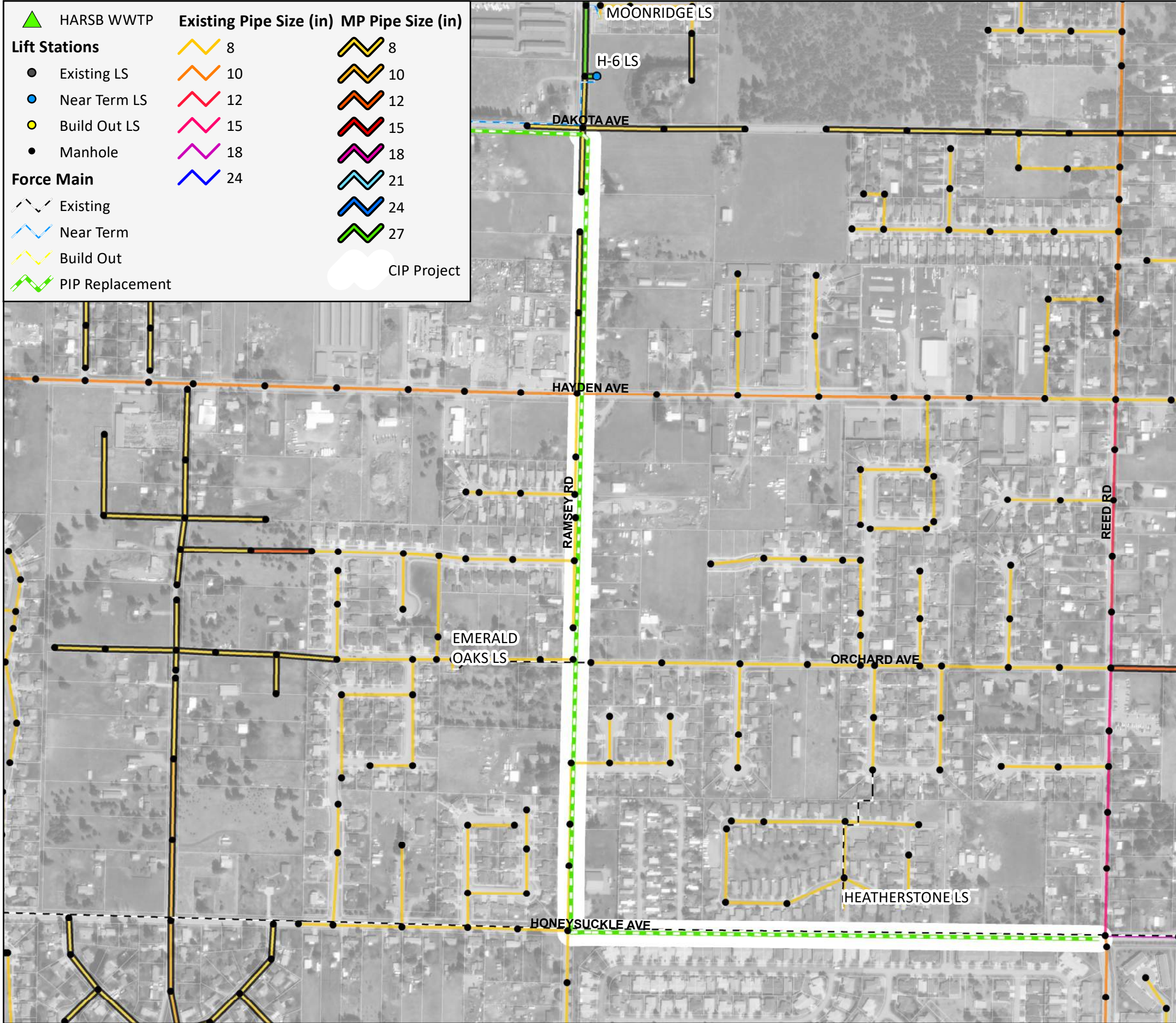
**Existing Pipe Size (in)**

- 8
- 10
- 12
- 15
- 18
- 24

**MP Pipe Size (in)**

- 8
- 10
- 12
- 15
- 18
- 21
- 24
- 27

CIP Project





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City of Hayden

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Figure F10

CIP 1.01.1  
Honeysuckle Avenue  
Upsize Phase I

CORE ISSUE:

The Honeysuckle Avenue gravity sewer line is nearing capacity. Projected future growth requires upsizing the gravity sewer to accomodate increased flows conveyed to the H-1 Lift Station.

RECOMMENDED SOLUTION:

The gravity sewer in Honeysuckle Avenue from Maple Street to the inlet of the H-1 Lift Station should be upsized to 15-inch pipe. Easement procurements may be required. This project is assumed to be constructed in coordination with the transportation project at the intersection of Honeysuckle Avenue and 4th Street. Surface repair costs within the transportation project boundary have been removed.

OPINION OF PROBABLE COST:

> 1,420 LF of 15-inch Gravity Sewer

\$194,000 (2020 Dollars)

PROJECT PRIORITY: Beyond 10 Years



0 80 160 Feet

PRINT DATE: 2/2/2021



Lift Stations

Existing LS

Near Term LS

Build Out LS

Manhole

Force Main

Existing

Near Term

Build Out

Existing Pipe Size (in)

MP Pipe Size (in)

8

10

12

15

18

24

8

10

12

15

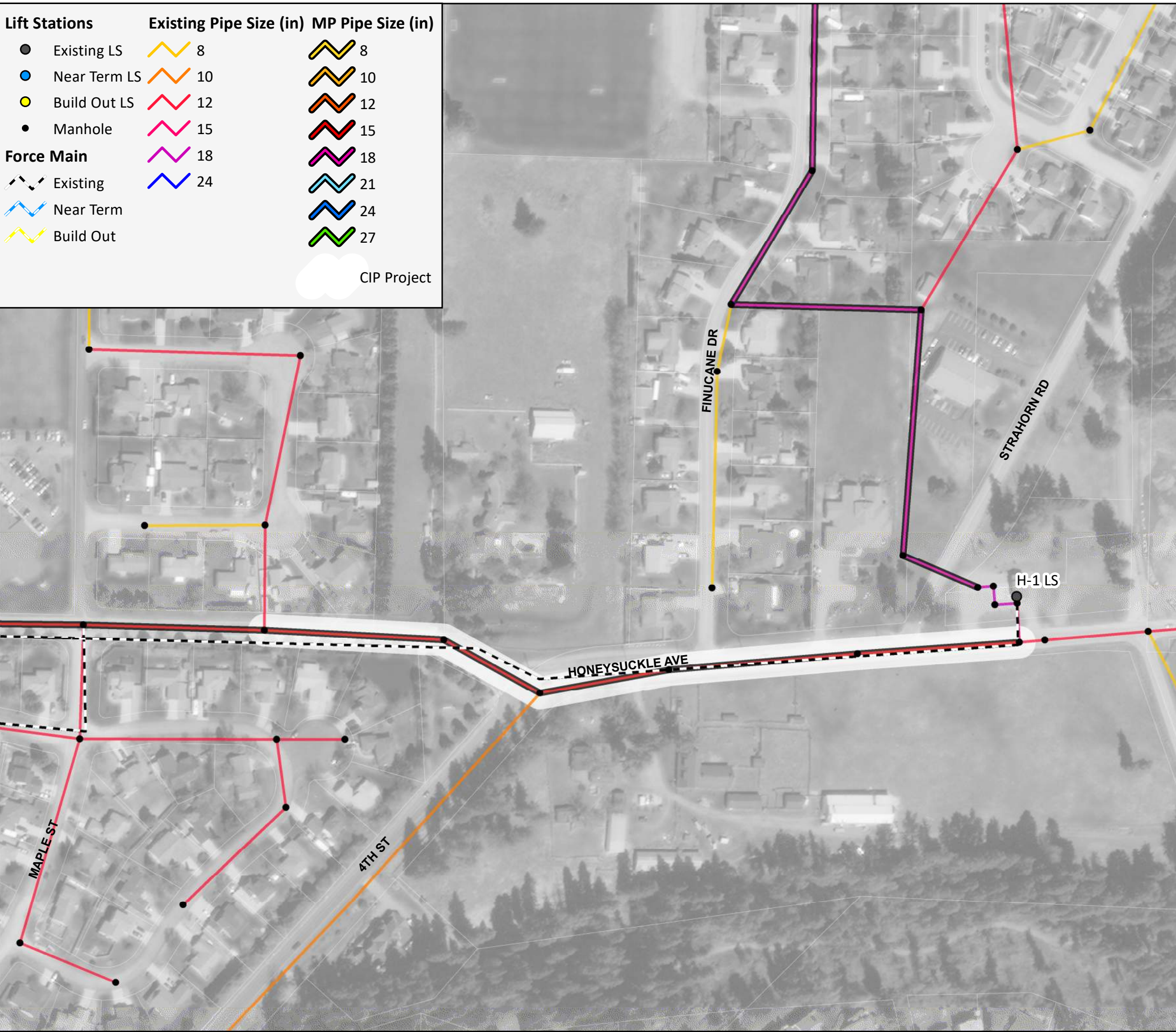
18

21

24

27

CIP Project





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**Lift Stations**

●

 Existing LS

●

 Near Term LS

●

 Build Out LS


●

 Riley Place Lift Station


●

 Manhole


**Force Main**




 Existing




 Near Term



 Build Out




 Riley Place Force Main




 Abandoned Force Main


**Existing Pipe Size (in)**




 8




 10




 12



 15




 18




 24


**MP Pipe Size (in)**




 8




 10




 12




 15




 18




 21



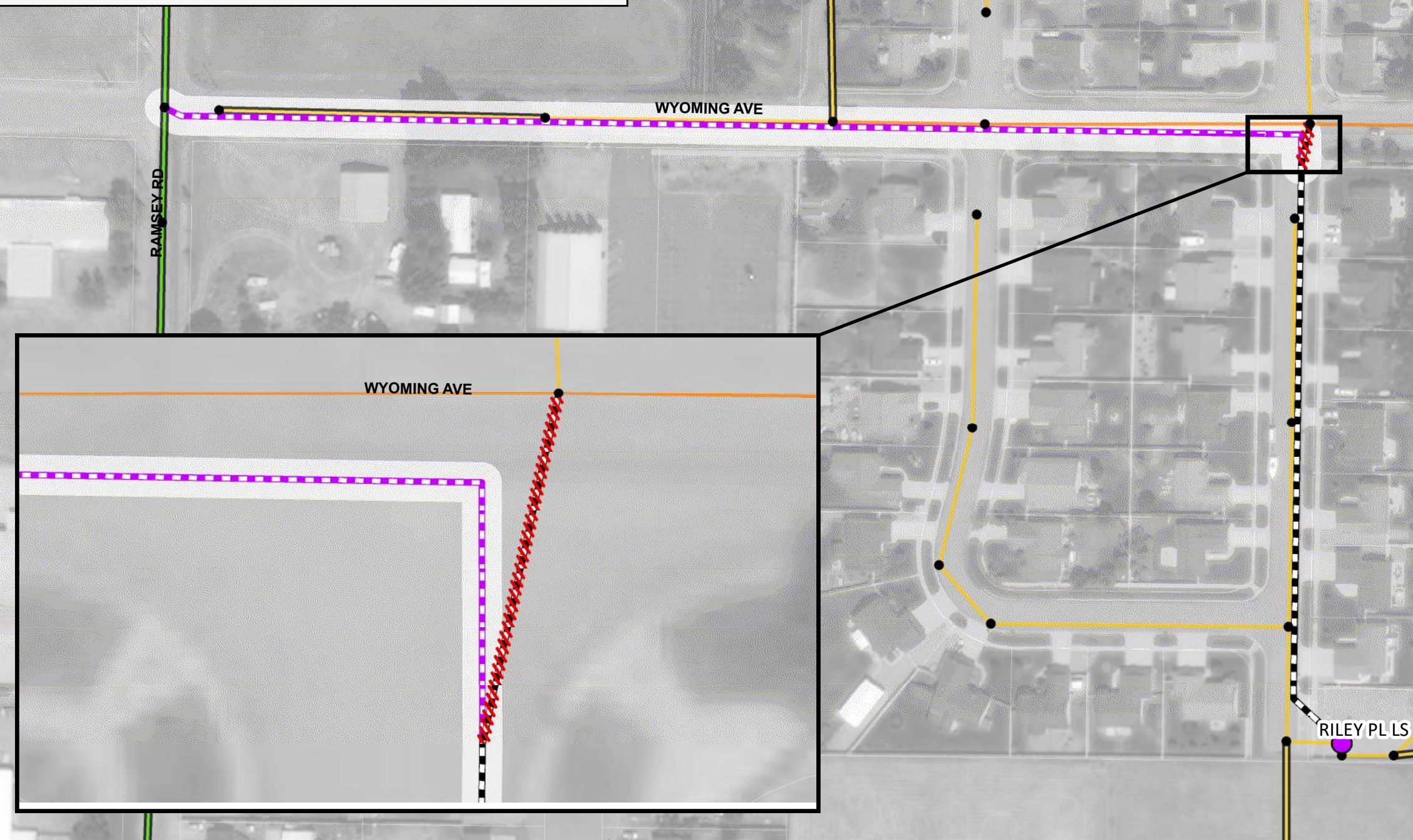
 24



 27



 CIP Project



# City of Hayden

## 2020 Collection System Master Plan Update

# Figure F11

## CIP 2.06.7

### Riley Place Force Main

#### CORE ISSUE:

The Reed Road gravity sewer line is nearing capacity. Serving further North requires the development of the H-6 Sewer Basin.

#### RECOMMENDED SOLUTION:

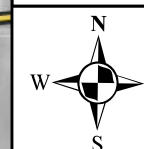
In an effort to relieve the Reed Road Line of future capacity issues, the Riley Place Force Main discharge should be re-routed into the future 24-inch gravity trunk line in Ramsey Road and flow to the future H-6 Lift Station. This allows for the abandonment of a portion of existing force main that flows into the H-2 Basin. Easement procurement may be required. Force main location within the roadway as shown on the map is approximate and should be addressed as a part of design.

#### OPINION OF PROBABLE COST:

> 1,176 LF of 4-inch Pressure Pipe

**\$136,000** (2020 Dollars)

**PROJECT PRIORITY:** 6 - 10 Years



0 55 110 Feet  
PRINT DATE: 2/2/2021





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City of Hayden

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Figure F12

CIP 2.06.8  
Ramsey Road Phase III

CORE ISSUE:

The Reed Road gravity sewer line is nearing capacity. Serving further North requires the development of the H-6 Sewer Basin.

RECOMMENDED SOLUTION:

21-inch and 24-inch gravity sewer pipe should be installed within the future Ramsey Road alignment from Lancaster Avenue and connect to the existing HURA 24-inch gravity trunk. Easement procurements may be required.

OPINION OF PROBABLE COST:

> 1,587 LF of 21-inch Gravity Sewer  
> 299 LF of 24-inch Gravity Sewer

\$502,000 (2020 Dollars)

PROJECT PRIORITY: 6 - 10 Years



0 110 220 Feet  
PRINT DATE: 2/2/2021



Lift Stations	Existing Pipe Size (in)	MP Pipe Size (in)
● Existing LS	8	8
● Near Term LS	10	10
● Build Out LS	12	12
● Manhole	15	15
	18	18
	24	21
		24
		27

Force Main

- Existing
- Near Term
- Build Out

CIP Project

LANCASTER RD

RAMSEY RD



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Figure F13  
CIP 2.01.2  
Finucane Drive Upsize

CORE ISSUE:

The H-1 gravity sewer trunk line is nearing capacity. Projected future growth requires upsizing the gravity sewer to accomate increased flows conveyed to the H-1 Lift Station.

RECOMMENDED SOLUTION:

The gravity sewer in Finucane Drive from Hayden Avenue to the 18-inch inlet pipe to the H-1 Lift Station should be upsized to 18-inch pipe. Easement procurements may be required. Alternate alignments to be considered during design. No cost opinion provided for alternate alignments.

OPINION OF PROBABLE COST:

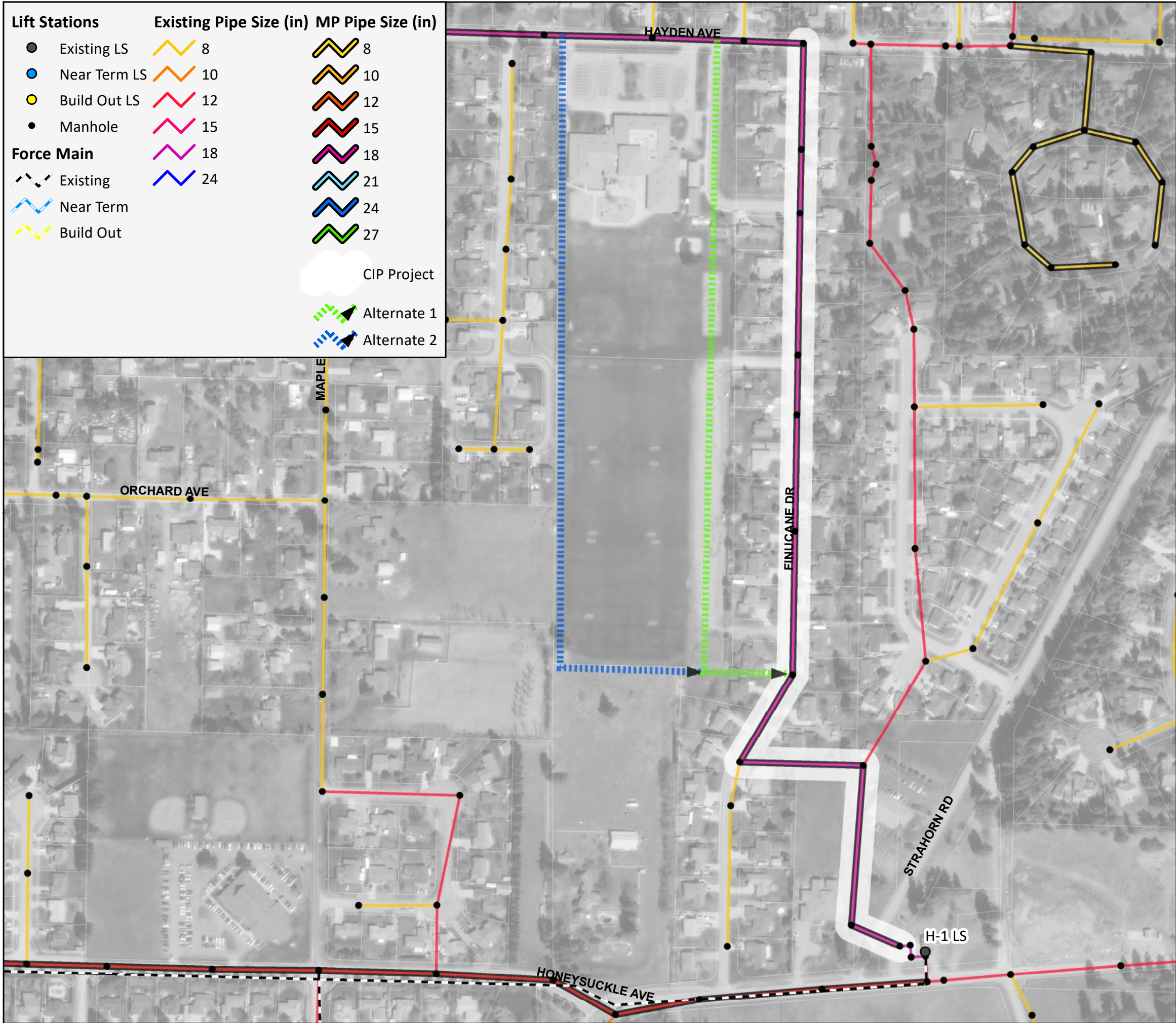
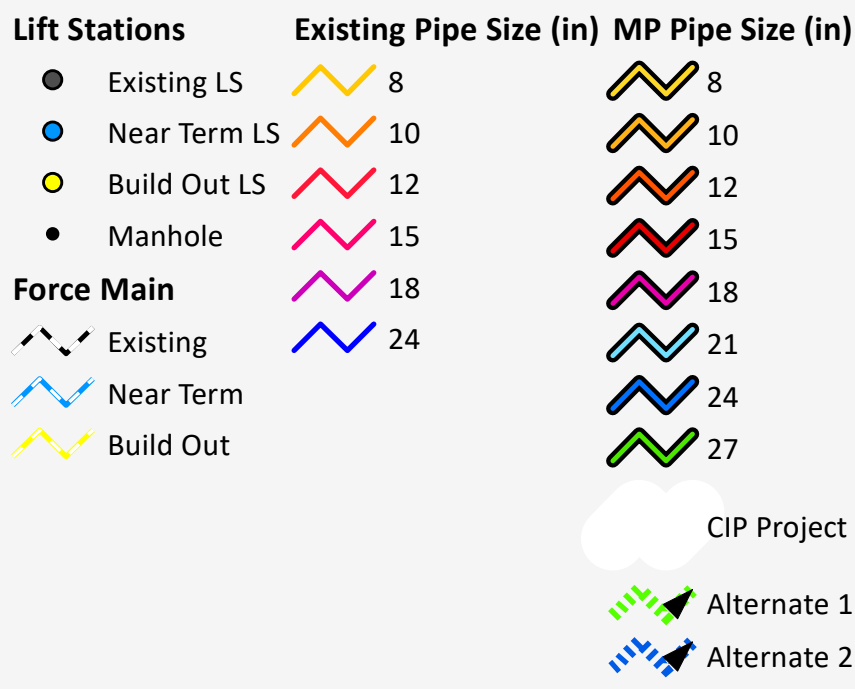
> 3,027 LF of 18-inch Gravity Sewer

\$769,000 (2020 Dollars)

PROJECT PRIORITY: 6 - 10 Years



0 120 240 Feet  
PRINT DATE: 2/2/2021





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2020 Collection System  
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Figure F14  
CIP 2.01.3  
Hayden Avenue Upsize

CORE ISSUE:

The H-1 gravity sewer trunk line is nearing capacity. Projected future growth requires upsizing the gravity sewer to accomate increased flows conveyed to the H-1 Lift Station.

RECOMMENDED SOLUTION:

The gravity sewer in Hayden Avenue to Finucane Drive should be upsized to 15-inch and 18-inch pipe. Easement procurements may be required.

OPINION OF PROBABLE COST:

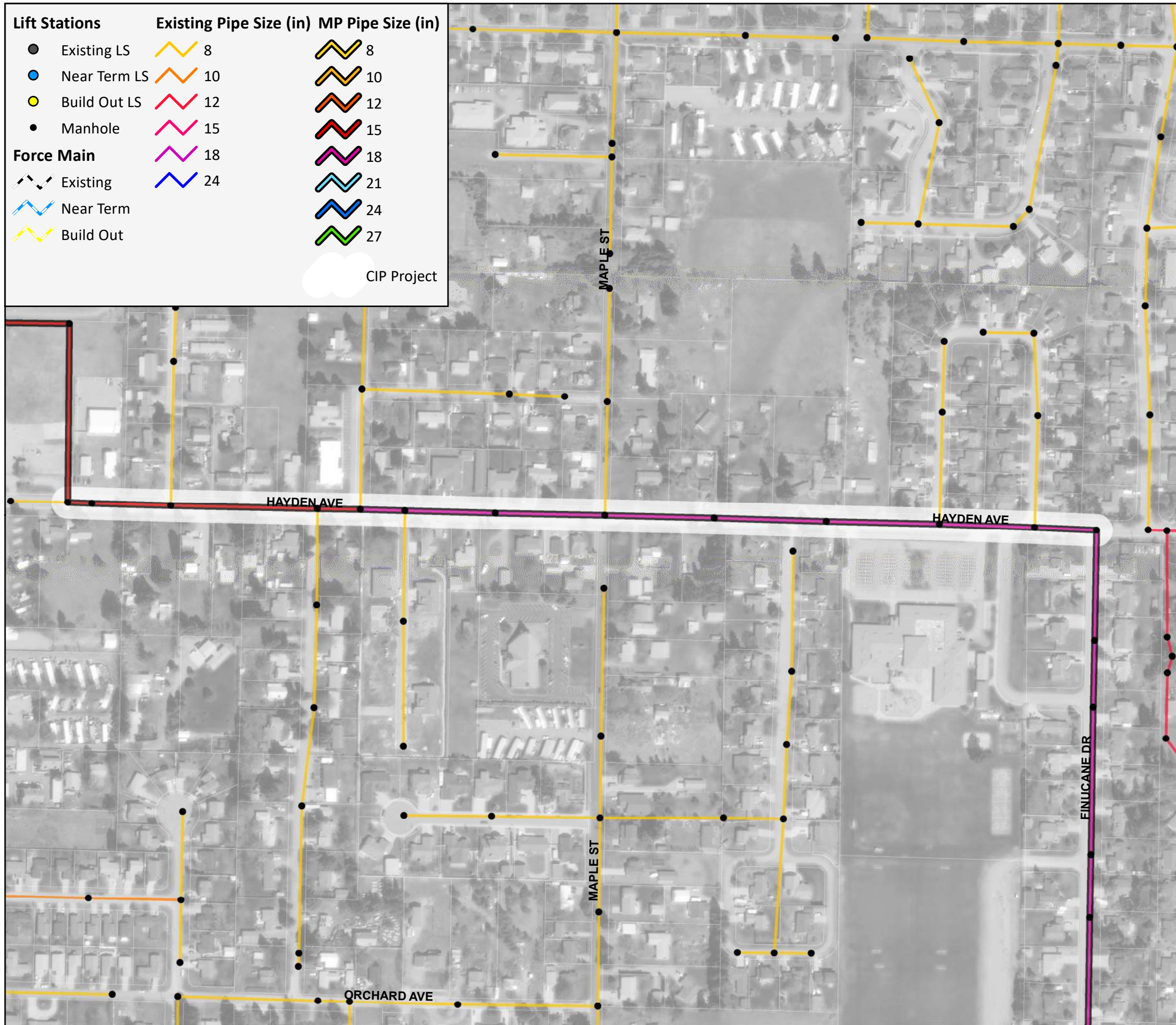
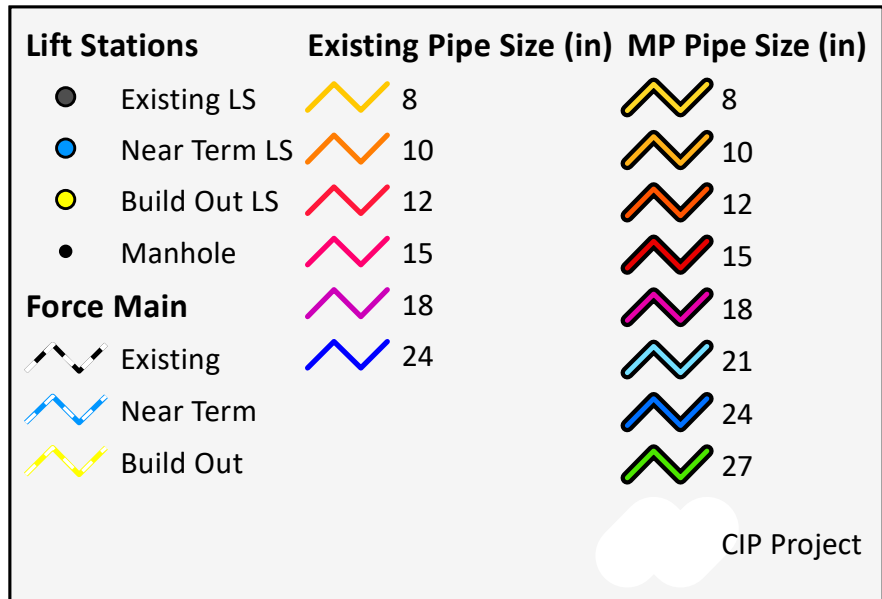
> 794 LF of 15-inch Gravity Sewer  
> 1,999 LF of 18-inch Gravity Sewer

\$892,000 (2020 Dollars)

PROJECT PRIORITY: 6 - 10 Years



0 115 230 Feet  
PRINT DATE: 2/2/2021





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City of Hayden

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Figure F15

CIP 2.01.4  
Government Way Upsize

CORE ISSUE:

The H-1 gravity sewer trunk line is nearing capacity. Projected future growth requires upsizing the gravity sewer to accomate increased flows conveyed to the H-1 Lift Station.

RECOMMENDED SOLUTION:

The gravity sewer in Government Way from Dakota Avenue to the connection at Hayden Avenue should be upsized to 15-inch pipe. Easement procurements may be required. Consider trenchless methods of replacement to be evaluated during design.

OPINION OF PROBABLE COST:

> 1,811 LF of 15-inch Gravity Sewer

\$380,000 (2020 Dollars)

PROJECT PRIORITY: 6 - 10 Years



0 65 130 Feet  
PRINT DATE: 2/2/2021



- Lift Stations

Existing LS

Near Term LS

Build Out LS

Manhole

Existing

Near Term

Build Out
- Existing Pipe Size (in)

8

10

12

15

18

24
- MP Pipe Size (in)

8

10

12

15

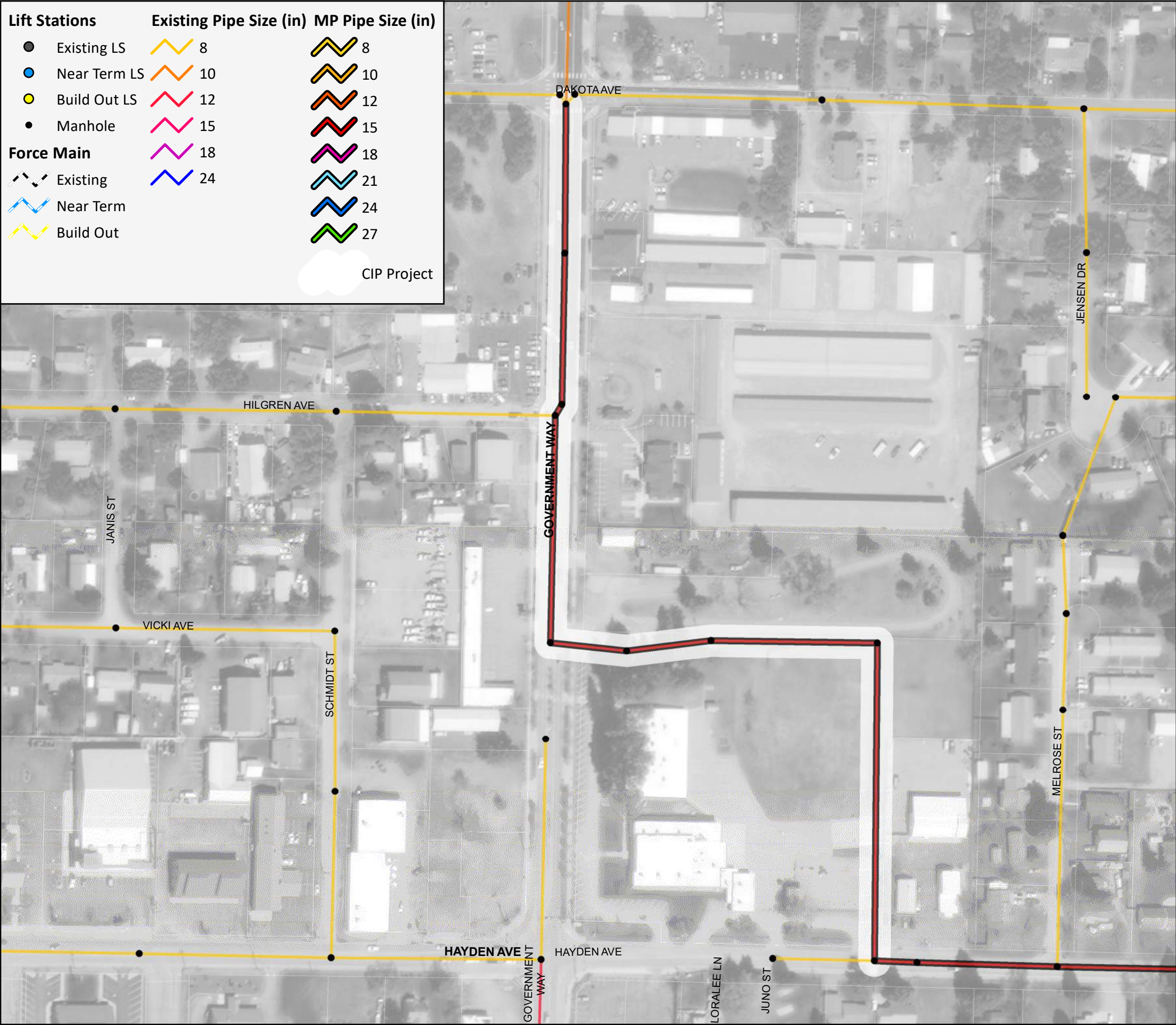
18

21

24

27


CIP Project





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**City of Hayden**  
2020 Collection System  
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## Figure F16

*CIP 2.07.1*  
**Hayden Avenue Gravity  
Phase I**

**CORE ISSUE:**

The Dakota Lift Station is to be eliminated in the future. In order to decommission the lift station, flow must be routed to the existing H-7 (Carrington Meadows) Lift Station.

**RECOMMENDED SOLUTION:**


Install 10-inch and 12-inch gravity sewer pipe from Atlas Road to connect to the existing 12-inch gravity sewer in Hayden Avenue. This is a developer driven gravity main, transportation improvements may move priority forward.

**OPINION OF PROBABLE COST:**


> 1,658 LF of 10-inch Gravity Sewer  
> 59 LF of 12-inch Gravity Sewer

**\$348,000** (2020 Dollars)

**PROJECT PRIORITY:** 6 - 10 Years



0 85 170 Feet  
PRINT DATE: 2/2/2021



**JUB**  
J-U-B ENGINEERS, INC.



CONCEPT INFORMATION FOR PLANNING PURPOSES ONLY. MUST BE ACCURATELY VERIFIED PRIOR TO DESIGN EFFORTS. SHARED TIER INFORMATION FROM RATHDRUM PRAIRIE WASTEWATER MASTER PLAN. TO BE ADDRESSED AS PART OF ANNEXATION



City of Hayden

2020 Collection System  
Master Plan Update

Figure F17

CIP 3.01.5  
Honeysuckle Avenue  
Upsize Phase II

CORE ISSUE:

The Honeysuckle Avenue gravity sewer line is nearing capacity. Projected future growth requires upsizing the gravity sewer to accomodate increased flows conveyed to the H-1 Lift Station.

RECOMMENDED SOLUTION:

The gravity sewer in Honeysuckle Avenue from Government Way to Maple Street should be upsized to 15-inch and 18-inch pipe. Easement procurements may be required.

OPINION OF PROBABLE COST:

> 998 LF of 12-inch Gravity Sewer  
> 1,333 LF of 15-inch Gravity Sewer

\$415,000 (2020 Dollars)

PROJECT PRIORITY: Beyond 10 Years



0 100 200 Feet  
PRINT DATE: 2/2/2021



Lift Stations

● Existing LS

● Near Term LS

● Build Out LS

● Manhole

Force Main

Existing

Near Term

Build Out

Existing Pipe Size (in)

8

10

12

15

18

24

MP Pipe Size (in)

8

10

12

15

18

21

24

27

CIP Project



CONCEPT INFORMATION FOR PLANNING PURPOSES ONLY. MUST BE ACCURATELY VERIFIED PRIOR TO DESIGN EFFORTS. SHARED TIER INFORMATION FROM RATHDRUM PRAIRIE WASTEWATER MASTER PLAN. TO BE ADDRESSED AS PART OF ANNEXATION



City of Hayden  
2020 Collection System  
Master Plan Update


Figure F18  
CIP 3.06.9  
Ramsey Phase IV  
North Ramsey Force Main

**CORE ISSUE:**  
The Reed Road gravity sewer line is nearing capacity. Serving further North requires the development of the H-6 Sewer Basin.

**RECOMMENDED SOLUTION:**  
The North Ramsey Force Main will run approximately 3,658 feet and discharge flow into the future gravity pipe in Lancaster Road to be constructed as Phase III. The force main has been sized to provide capacity for the build out system flows. Easement procurement may be required. Force main location within the roadway as shown on the map is approximate and should be addressed as a part of design. The future Huetter Bypass alignment is shown for planning purposes. Depth of forcemain should be evaluated in design to ensure sufficient coverage.

**OPINION OF PROBABLE COST:**  
  
> 3,658 LF of 10-inch Pressure Pipe  
  
**\$354,000** (2020 Dollars)


**PROJECT PRIORITY:** Beyond 10 Years




0155310

Feet

PRINT DATE: 2/2/2021



J-U-B ENGINEERS, INC.

 Future Huetter Bypass

**Lift Stations**


● Existing LS


● Near Term LS


● Build Out LS


● N Ramsey Lift Station


● Manhole


 8


 10


 12


 15


 18


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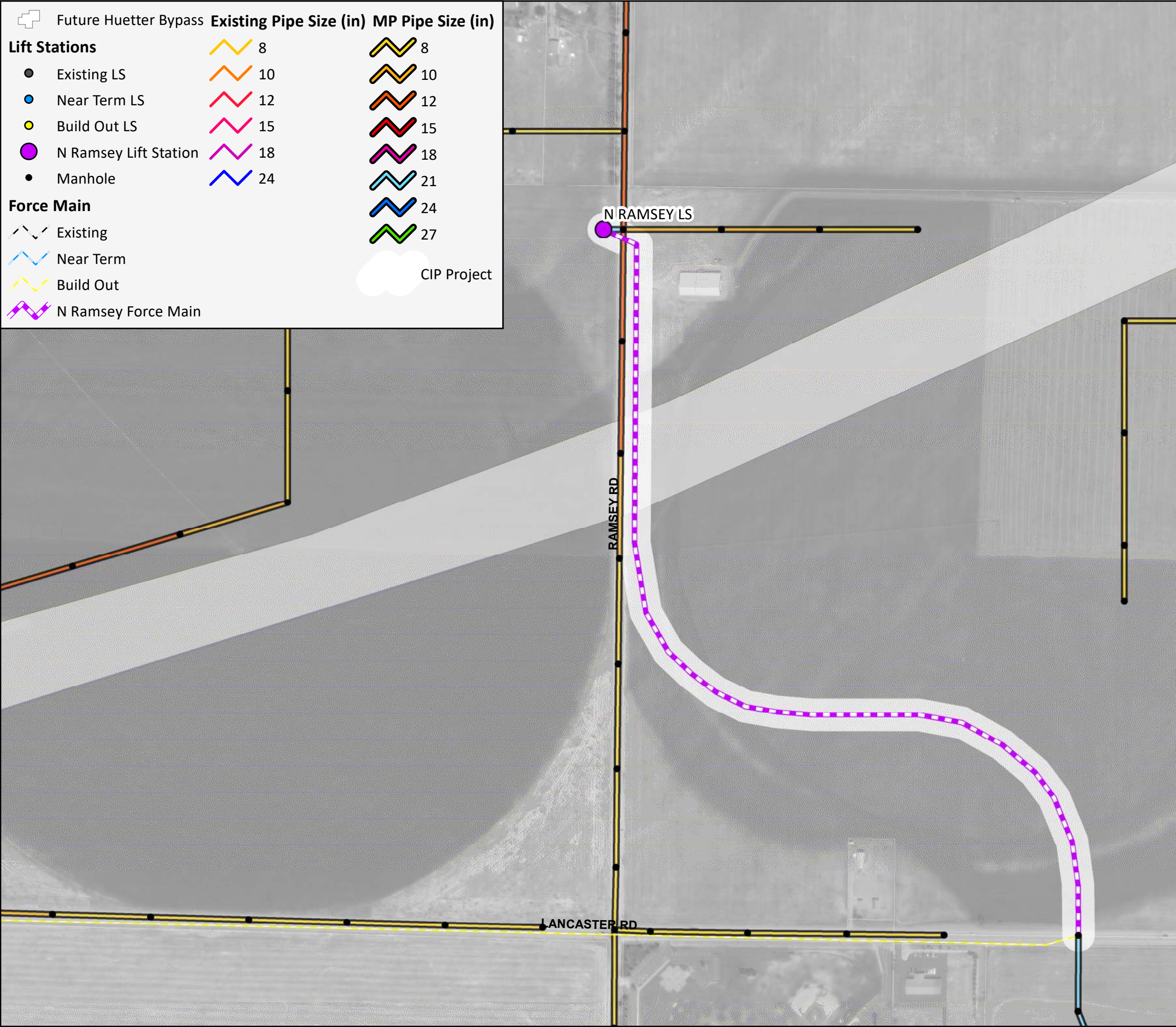
 CIP Project

 Existing

 Near Term

 Build Out

 N Ramsey Force Main





CONCEPT INFORMATION FOR PLANNING PURPOSES ONLY. MUST BE ACCURATELY VERIFIED PRIOR TO DESIGN EFFORTS. SHARED TIER INFORMATION FROM RATHDRUM PRAIRIE WASTEWATER MASTER PLAN. TO BE ADDRESSED AS PART OF ANNEXATION



City of Hayden

2020 Collection System  
Master Plan Update

Figure F19

CIP 3.07.3

Hayden Avenue Gravity  
Phase II

CORE ISSUE:

The Dakota Lift Station is to be eliminated in the future. In order to decommission the lift station, flow must be routed to the existing H-7 (Carrington Meadows) Lift Station.

RECOMMENDED SOLUTION:

Install 8-inch and 10-inch gravity sewer pipe in Hayden Avenue West of Atlas Road and connect to the future 10-inch gravity sewer to be constructed as Phase I.

OPINION OF PROBABLE COST:

> 864 LF of 8-inch Gravity Sewer  
> 681 LF of 10-inch Gravity Sewer

\$373,000 (2020 Dollars)

PROJECT PRIORITY: Beyond 10 Years



0 85 170 Feet  
PRINT DATE: 2/2/2021



Lift Stations

● Existing LS

● Near Term LS

● Build Out LS

● Manhole

Existing

Near Term

Build Out

15-inch PIP

Existing Pipe Size (in)

MP Pipe Size (in)

8

10

12

15

18

24

8

10

12

15

18

21

24

27

CIP Project





CONCEPT INFORMATION FOR PLANNING PURPOSES ONLY. MUST BE ACCURATELY VERIFIED PRIOR TO DESIGN EFFORTS. SHARED TIER INFORMATION FROM RATHDRUM PRAIRIE WASTEWATER MASTER PLAN. TO BE ADDRESSED AS PART OF ANNEXATION



City of Hayden  
2020 Collection System  
Master Plan Update

Figure F20  
CIP 3.07.4  
Dakota Lift Station  
Decomission and Gravity

CORE ISSUE:

The Dakota Lift Station is to be eliminated in the future. In order to decomission the lift station, flow must be routed to the existing H-7 (Carrington Meadows) Lift Station.

RECOMMENDED SOLUTION:

Install 10-inch gravity sewer pipe from the gravity sewer in Dakota Avenue, and connect to the future gravity sewer in Hayden Avenue to be constructed as Phase II of the Hayden Avenue gravity sewer. Easement procurements may be required. Alternate alignments to be considered during design. No cost opinion provided for alternate alignments.

OPINION OF PROBABLE COST:

> 1,325 LF of 10-inch Gravity Sewer

\$136,000 (2020 Dollars)

PROJECT PRIORITY: Beyond 10 Years



0 105 210 Feet  
PRINT DATE: 2/2/2021



Lift Stations

Existing LS

Near Term LS

Build Out LS

Dakota Lift Station

Decomissioned Lift Station

Manhole

Existing Pipe Size (in)

MP Pipe Size (in)

Existing

Near Term

Build Out

15-inch PIP

Abandoned Force Main

Alternate 1

Alternate 2

8

10

12

15

18

24

8

10

12

15

18

21

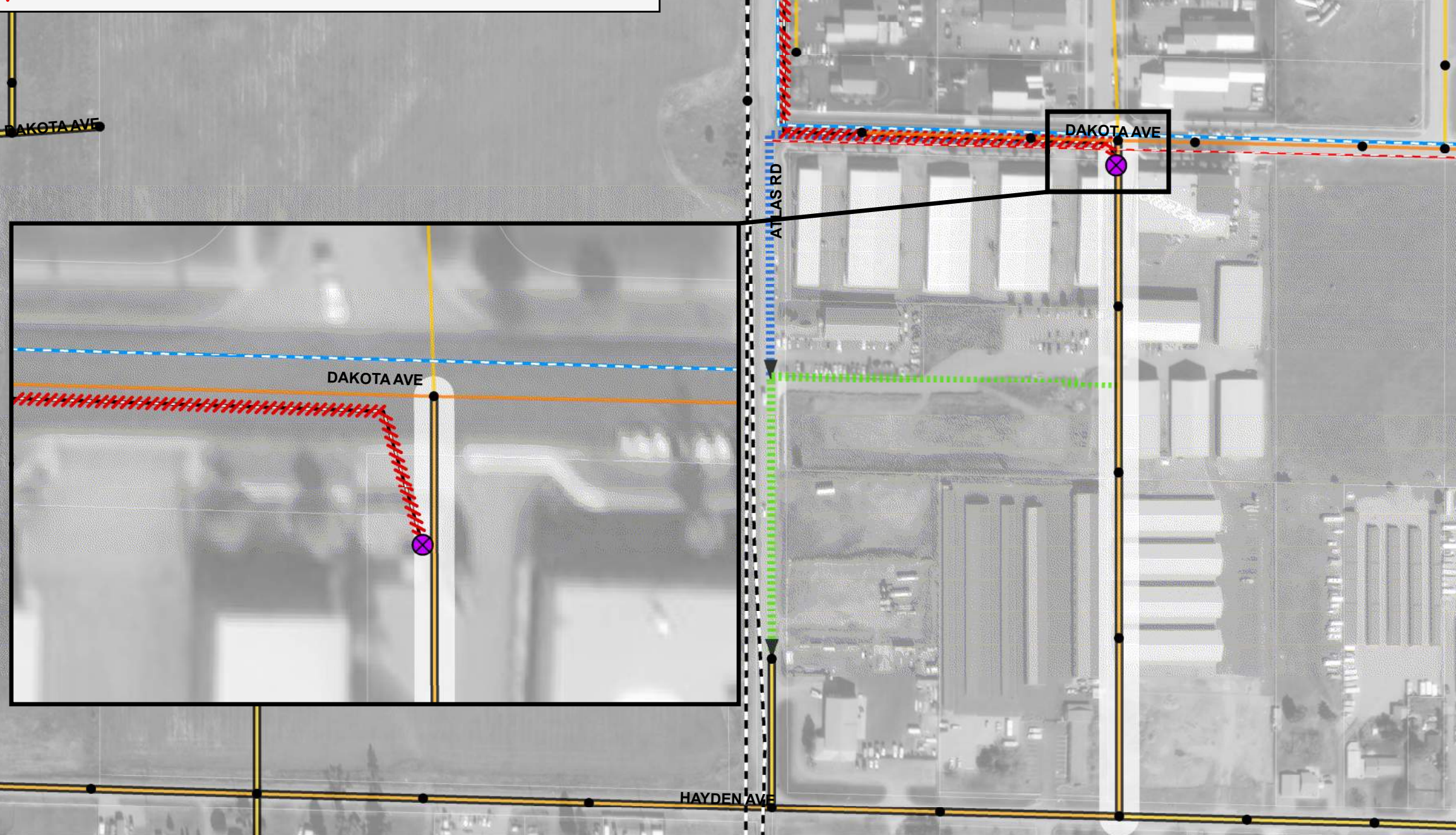
24

27

CIP Project

Alternate 1


Alternate 2





PROJECT NUMBER	PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION SUBTOTAL	CONTINGENCY <sup>1</sup>	CONSTRUCTION PLUS CONTINGENCY	PLANNING, ENGINEERING, & ADMINISTRATION COSTS <sup>2</sup>	TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup>
HIGH PRIORITY PROJECTS (CONSTRUCTION BEGINS IN 0 TO 5 YEARS)							
1.06.1	<a href="#">Ramsey Phase 1</a>	Ramsey Road Phase I - Wyoming Ave. to N. Reed Rd. Gravity	\$1,182,000	\$236,000	\$1,418,000	\$284,000	\$1,702,000
1.06.2	<a href="#">Ramsey Phase 2</a>	Ramsey Road Phase II - H-6 Lift Station to Wyoming Ave. Gravity	\$1,093,000	\$219,000	\$1,312,000	\$262,000	\$1,574,000
1.06.3	<a href="#">H-6 LS</a>	H-6 Lift Station	\$1,680,000	\$336,000	\$2,016,000	\$403,000	\$2,419,000
1.06.4	<a href="#">H-6 FM</a>	H-6 Force Main	\$3,813,000	\$763,000	\$4,576,000	\$915,000	\$5,491,000
1.06.5	<a href="#">Moonridge FM</a>	Moonridge Lift Station to H-6	\$13,000	\$3,000	\$16,000	\$3,000	\$19,000
1.06.6	<a href="#">Lacey Gravity</a>	Lacey Gravity Sewer from Krest Ct. to Hwy 95	\$90,000	\$18,000	\$108,000	\$22,000	\$130,000
1.02.1	<a href="#">H-2 Piping Improvements</a>	H-2 Lift Station and Piping Improvements	\$33,000	\$7,000	\$40,000	\$8,000	\$48,000
1.02.2	<a href="#">HARSB Honeysuckle FM P1</a>	HARSB Honeysuckle Force Main Replacement Phase I - H-1 Lift Station to HWY 95	\$1,250,000	\$250,000	\$1,500,000	\$300,000	\$1,800,000
1.02.3	<a href="#">HARSB Honeysuckle FM P2</a>	HARSB Honeysuckle Force Main Replacement Phase II - Reed Road to Dakota Avenue	\$1,729,000	\$346,000	\$2,075,000	\$415,000	\$2,490,000
1.01.1	<a href="#">Honeysuckle Ave. Upsize Phase 1</a>	Honeysuckle Avenue Gravity Sewer Upsize Phase I	\$135,000	\$27,000	\$162,000	\$32,000	\$194,000
MEDIUM PRIORITY PROJECTS (CONSTRUCTION BEGINS IN 6 TO 10 YEARS)							
2.06.7	<a href="#">Riley FM</a>	Riley Place Lift Station to H-6	\$94,000	\$19,000	\$113,000	\$23,000	\$136,000
2.06.8	<a href="#">Ramsey Phase 3</a>	Ramsey Road Phase III - Buckles Rd. to Lancaster Ave. Gravity	\$348,000	\$70,000	\$418,000	\$84,000	\$502,000
2.01.2	<a href="#">Finucane Dr Upsize</a>	Finucane Drive Gravity Sewer Upsize	\$534,000	\$107,000	\$641,000	\$128,000	\$769,000
2.01.3	<a href="#">Hayden Ave. Upsize</a>	Hayden Avenue Gravity Sewer Upsize	\$619,000	\$124,000	\$743,000	\$128,000	\$892,000
2.01.4	<a href="#">Government Way Upsize</a>	Government Way Gravity Sewer Upsize	\$264,000	\$53,000	\$317,000	\$63,000	\$380,000
2.07.1	<a href="#">Hayden Phase 1</a>	Hayden Avenue Phase I - Gravity Sewer from Carrington Meadows to Atlas Road	\$242,000	\$48,000	\$290,000	\$58,000	\$348,000
2.07.2	<a href="#">H-7 LS Upsize</a>	H-7 (Carrington Meadows) Lift Station Upsize	\$351,000	\$70,000	\$421,000	\$84,000	\$505,000
LOW PRIORITY PROJECTS (BEYOND 10 YEARS)							
3.01.5	<a href="#">Honeysuckle Ave. Upsize Phase 2</a>	Honeysuckle Avenue Gravity Sewer Upsize Phase II	\$288,000	\$58,000	\$346,000	\$69,000	\$415,000
3.01.6	<a href="#">H-1 Lift Station Pump Upsize</a>	H-1 Lift Station Pump Replacement for Future Capacity	\$341,000	\$68,000	\$409,000	\$82,000	\$491,000
3.06.9	<a href="#">Ramsey Phase 4</a>	Ramsey Road Phase IV - Lancaster Ave. to N. Ramsey Lift Station Force Main	\$246,000	\$49,000	\$295,000	\$59,000	\$354,000
3.07.3	<a href="#">Hayden Phase 2</a>	Hayden Avenue Phase II - Gravity Sewer from Atlas Rd to Dakota	\$259,000	\$52,000	\$311,000	\$62,000	\$373,000
3.07.4	<a href="#">Dakota Elimination</a>	Dakota Elimination Gravity Sewer	\$94,000	\$19,000	\$113,000	\$23,000	\$136,000
<p>1. Estimated at 20% of construction subtotal.</p> <p>2. Planning, Engineering, &amp; Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&amp;M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency</p> <p>3. Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.</p>							





JUB

J-U-B ENGINEERS, INC.

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:

City of Hayden Collection System  
Master Plan Update

DATE:

16-Nov-20

DESCRIPTION:

Ramsey Road Phase I - Wyoming Ave. to N. Reed Rd. Gravity

PROJECT NAME:

RAMSEY P1

PROJECT NUMBER:

1.06.1

J-U-B PROJ. NO.:

20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 54,000
2.06.8	Construction Traffic Control			5.0%	\$ 54,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.01	8" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	354	LF	\$ 7	\$ 2,406
	Trench Excav./Backfill for 8-12 ft deep Sewer	354	LF	\$ 12	\$ 4,245
4.02	10" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	408	LF	\$ 11	\$ 4,369
	Trench Excav./Backfill for 18-22 ft deep Sewer	223	LF	\$ 33	\$ 7,359
	Trench Excav./Backfill for >22 ft deep Sewer	185	LF	\$ 111	\$ 20,564
4.08	27" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	4,692	LF	\$ 72	\$ 337,842
	Trench Excav./Backfill for 12-18 ft deep Sewer	1,442	LF	\$ 55	\$ 79,334
	Trench Excav./Backfill for 18-22 ft deep Sewer	2,554	LF	\$ 71	\$ 181,366
	Trench Excav./Backfill for >22 ft deep Sewer	695	LF	\$ 148	\$ 102,914
4.09	Bedding - 8"	354	LF	\$ 3	\$ 1,061
4.10	Bedding - 10" - 15"	408	LF	\$ 6	\$ 2,450
4.11	Bedding - 18" - 27"	4,692	LF	\$ 10	\$ 46,923
5.00	Surface Repair				
5.05	Asphalt - Full Street width per City Standards (Required for 20' - 30' Depth Sewer) 4	408	LF	\$ 125	\$ 51,034
6.00	Manholes				
6.01	48" Manholes, 4-10 ft.	1	EA	\$ 5,000	\$ 5,000
6.03	48" Manholes, 16-32 ft.	1	EA	\$ 7,000	\$ 7,000
7.00	Project Specific Considerations				
7.03	72" Manholes, 16-32 ft	19	EA	\$ 11,000	\$ 209,000
8.00	Miscellaneous Other				
8.02	Bonding and Insurance		0	1.0%	\$ 11,000
ESTIMATED CONSTRUCTION SUBTOTAL					\$ 1,182,000
Contingency <sup>1</sup>					\$ 236,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 284,000
TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup>					\$ 1,702,000

<sup>1</sup> Estimated at 20% of construction subtotal.

<sup>2</sup> Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

<sup>3</sup> Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

<sup>4</sup> Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade

<sup>5</sup> This project is intended to be constructed immediately in advance of the Ramsey Road Transportation Project. Surface repair within the project boundaries is removed or reduced and assumed to be completed as a part of the following project.





# ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

**PROJECT:** City of Hayden Collection System  
Master Plan Update  
**DATE:** 16-Nov-20

**DESCRIPTION:** Ramsey Road Phase II - H-6 Lift Station to Wyoming Ave. Gravity

**PROJECT NAME:** RAMSEY P2

**PROJECT NUMBER:** 1.06.2

J-U-B PROJ. NO.: 20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 50,000
2.06.8	Construction Traffic Control			5.0%	\$ 50,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.01	8" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	574	LF	\$ 7	\$ 3,901
	Trench Excav./Backfill for 8-12 ft deep Sewer	574	LF	\$ 12	\$ 6,884
4.08	27" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	3,720	LF	\$ 72	\$ 267,808
	Trench Excav./Backfill for 12-18 ft deep Sewer	2,800	LF	\$ 55	\$ 154,000
	Trench Excav./Backfill for 18-22 ft deep Sewer	920	LF	\$ 71	\$ 65,289
4.09	Bedding - 8"	574	LF	\$ 3	\$ 1,721
4.11	Bedding - 18" - 27"	3,720	LF	\$ 10	\$ 37,196
5.00	Surface Repair				
5.03	Asphalt - Trench Patch width per City Standards (Required for 4-16' Depth Sewer) 4	974	LF	\$ 44	\$ 42,841
5.04	Asphalt - 1/2 Street width per City Standards (Required for 16-20' Depth Sewer) 4	3,320	LF	\$ 70	\$ 232,369
6.00	Manholes				
6.01	48" Manholes, 4-10 ft.	2	EA	\$ 5,000	\$ 10,000
7.00	Project Specific Considerations				
7.03	72" Manholes, 16-32 ft	11	EA	\$ 11,000	\$ 121,000
8.00	Miscellaneous Other				
8.01	Bypass Pumping	0		5.0%	\$ 41,000
8.02	Bonding and Insurance	0		1.0%	\$ 9,000

**ESTIMATED CONSTRUCTION SUBTOTAL** \$ **1,093,000**

Contingency <sup>1</sup> \$ **219,000**

Planning, Engineering, & Administrative Costs <sup>2</sup> \$ **262,000**

**TOTAL PROBABLE COST IN 2020 DOLLARS** <sup>3</sup> \$ **1,574,000**

<sup>1</sup> Estimated at 20% of construction subtotal.


<sup>2</sup> Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

<sup>3</sup> Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

<sup>4</sup> Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade

<sup>5</sup> Surface repair is assumed to return the disturbed road to the original condition.



 J-U-B ENGINEERS, INC.		ENGINEER'S OPINION OF PROBABLE COST			
		7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787			
PROJECT:	City of Hayden Collection System Master Plan Update	DATE:		16-Nov-20	
DESCRIPTION:	H-6 Lift Station				
PROJECT NAME:	H-6 LS				
PROJECT NUMBER:	1.06.3				
		J-U-B PROJ. NO.:		20-19-042 (001-008)	
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
ITEM No.	Description	Est. Quant.	Unit	Unit Price	Total Price
2.06.7	Mobilization			5.0%	\$ 52,000
2.06.8	Construction Traffic Control			0.0%	\$ -
2.01.1	Triplex Submersible Lift Station				
2.01.2	Wet Pit				
2.01.3	Excavation and Backfill	1	LS	\$30,000	\$30,000
2.07.1	Concrete				
	Slab	5	CY	\$600	\$3,000
3.06.9	Elevated Slab	3	CY	\$1,200	\$4,000
3.07.2	Walls	29	CY	\$1,000	\$28,500
3.07.3	Grout fillet	1	LS	\$5,000	\$5,000
	Cover and Access Hatch	1	EA	\$10,000	\$10,000
3.02	Valve Vault				
	Excavation and Backfill	1	LS	\$0	\$0
	Concrete				
	Slab	5	CY	\$600	\$2,500
	Elevated Slab	3	CY	\$1,200	\$4,000
	Walls	6	CY	\$1,000	\$6,000
	Cover and Access Hatch	1	EA	\$6,000	\$6,000
3.03	Overflow Basin (96,000 gallons required for 30 minutes of overflow volume at peak flow)				
	Excavation and Backfill	1	LS	\$75,000	\$75,000
	Concrete				
	Slab	67	CY	\$600	\$40,500
	Elevated Slab	62	CY	\$1,200	\$74,000
	Walls	54	CY	\$1,000	\$54,000
	Internal Pier Supports (4)	1	LS	\$4,363	\$4,500
	Grout Floor	1	LS	\$5,000	\$5,000
	Cover and Access Hatch	1	LS	\$10,000	\$10,000
	Sluice Gate and Wall Penetrations for flow transfer	1	LS	\$7,500	\$7,500
3.04	Control Building				
	Building	300	SF	\$250	\$75,000
	Building Foundation	11	CY	\$600	\$6,667
3.05	Site Piping				
	Water Service and RPBA	1	LS	\$10,000	\$10,000
	Wet Pit and Valve Vault Piping and appurtenances	1	LS	\$100,000	\$100,000
	Flow Meter, vault and piping	1	LS	\$75,000	\$75,000
	FM Onsite Piping and Fittings	250	LF	\$200	\$50,000
	FM Drain Assembly	1	LS	\$10,000	\$10,000
	27" Gravity Sewer	250	LF	\$150	\$37,500
3.06	Equipment				
	Pumps - 3 total	3	EA	\$75,000	\$225,000
	Installation and Mark-up			25%	\$56,300
	Odor Control	1	LS	\$20,000	\$20,000
	Installation and Mark-up			25%	\$5,000
3.07	Project Specific Considerations				
	Land - 1/2 Acre Site	1	LS	\$120,000	\$120,000
	Gravel Access Road	100	LF	\$28	\$2,800
3.08	Additional Elements (estimated % of above)				
	Site Civil (Final Grading, Landscaping, Fencing, etc)			5.0%	\$58,000
	Electrical and Instrumentation			35.0%	\$407,000
ESTIMATED CONSTRUCTION SUBTOTAL				\$	1,680,000
Contingency <sup>1</sup>				\$	336,000
Planning, Engineering, & Administrative Costs <sup>2</sup>				\$	403,000
TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup>				\$	2,419,000

<sup>1</sup> Estimated at 20% of construction subtotal.

<sup>2</sup> Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

<sup>3</sup> Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

<sup>4</sup> Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade





# ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

**PROJECT:** City of Hayden Collection System Master Plan Update **DATE:** 16-Nov-20

**DESCRIPTION:** H-6 Force Main  
**PROJECT NAME:** H-6 FORCE MAIN  
**PROJECT NUMBER:** 1.06.4

J-U-B PROJ. NO.: 20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 173,000
2.06.8	Construction Traffic Control			5.0%	\$ 173,000
2.01.1	Pressure Sewer Pipe				
3.04	10" Pressure Sewer Pipe				
	Pipe, fittings, valves, air vac assemblies (excavation, bedding, backfill not included)	7,706	LF	\$ 37	\$ 282,271
3.07	16" Pressure Sewer Pipe				
	Pipe, fittings, valves, air vac assemblies (excavation, bedding, backfill not included)	7,706	LF	\$ 80	\$ 619,023
	Trench Excav./Backfill for 4-8 ft deep Sewer	7,706	LF	\$ 22	\$ 169,532
3.08	PIP Replacement				
	18" Pressure Sewer Pipe				
	Pipe, fittings, valves, air vac assemblies (excavation, bedding, backfill not included)	7,494	LF	\$ 168	\$ 1,259,067
	Trench Excav./Backfill for 4-8 ft deep Sewer	7,494	LF	\$ 29	\$ 217,326
3.12	Bedding - 10" - 14"	7,706	LF	\$ 6	\$ 46,236
3.13	Bedding - 16" - 24"	15,200	LF	\$ 10	\$ 152,000
4.00	Gravity Sewer Pipe				
5.00	Surface Repair				
5.04	Asphalt - 1/2 Street width per City Standards (Required for 16-20' Depth Sewer) 4	7,494	LF	\$ 70	\$ 524,580
6.00	Manholes				
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 164,000
8.02	Bonding and Insurance		0	1.0%	\$ 33,000
ESTIMATED CONSTRUCTION SUBTOTAL					\$ 3,813,000
Contingency <sup>1</sup>					\$ 763,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 915,000
TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup>					\$ 5,491,000

<sup>1</sup> Estimated at 20% of construction subtotal.

<sup>2</sup> Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

<sup>3</sup> Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

<sup>4</sup> Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade

<sup>5</sup> The 15-inch PIP is located in the same roadway and is to be replaced in coordination with HARSB as a part of this project.





## ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

<b>PROJECT:</b>	City of Hayden Collection System Master Plan Update	<b>DATE:</b>	16-Nov-20
<b>DESCRIPTION:</b>	Moonridge Lift Station to H-6		
<b>PROJECT NAME:</b>	MOONRIDGE FORCE MAIN		
<b>PROJECT NUMBER:</b>	1.06.5		

J-U-B PROJ. NO.: 20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 1,000
2.06.8	Construction Traffic Control			5.0%	\$ 1,000
2.01.1	Pressure Sewer Pipe				
2.01.2	4" Pressure Sewer Pipe				
2.01.3	Pipe, fittings, valves, air vac assemblies (excavation, bedding, backfill not included)	108	LF	\$ 12	\$ 1,290
2.07.1	Trench Excav./Backfill for 4-8 ft deep Sewer	108	LF	\$ 10	\$ 1,078
3.11	Bedding - 4" - 8"	108	LF	\$ 3	\$ 323
4.00	Gravity Sewer Pipe				
5.00	Surface Repair				
5.04	Asphalt - 1/2 Street width per City Standards (Required for 16-20' Depth Sewer) 4	108	LF	\$ 70	\$ 7,543
6.00	Manholes				
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping	0		5.0%	\$ 1,000
<b>ESTIMATED CONSTRUCTION SUBTOTAL</b>					<b>\$ 13,000</b>
Contingency <sup>1</sup>					\$ 3,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 3,000
<b>TOTAL PROBABLE COST IN 2020 DOLLARS<sup>3</sup></b>					<b>\$ 19,000</b>


<sup>1</sup> Estimated at 20% of construction subtotal.

<sup>2</sup> Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

<sup>3</sup> Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

<sup>4</sup> Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade



 <b>JUB</b> J-U-B ENGINEERS, INC.		<b>ENGINEER'S OPINION OF PROBABLE COST</b>			
<b>PROJECT:</b> City of Hayden Collection System Master Plan Update		7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787 <b>DATE:</b> 16-Nov-20			
<b>DESCRIPTION:</b> Lacey Gravity Sewer from Krest Ct. to Hwy 95 <b>PROJECT NAME:</b> LACEY_GRAV <b>PROJECT NUMBER:</b> 1.06.6		J-U-B PROJ. NO.: 20-19-042 (001-008)			
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 4,000
2.06.8	Construction Traffic Control			5.0%	\$ 4,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.01	8" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	660	LF	\$ 7	\$ 4,488
	Trench Excav./Backfill for 8-12 ft deep Sewer	460	LF	\$ 12	\$ 5,520
	Trench Excav./Backfill for 12-18 ft deep Sewer	200	LF	\$ 15	\$ 3,000
4.09	Bedding - 8"	660	LF	\$ 3	\$ 1,980
5.00	Surface Repair				
5.04	Asphalt - 1/2 Street width per City Standards (Required for 16-20' Depth Sewer) 4	660	LF	\$ 70	\$ 46,200
6.00	Manholes				
6.01	48" Manholes, 4-10 ft.	2	EA	\$ 5,000	\$ 10,000
6.02	48" Manholes, 10-16 ft.	1	EA	\$ 5,500	\$ 5,500
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 4,000
8.02	Bonding and Insurance		0	1.0%	\$ 1,000
ESTIMATED CONSTRUCTION SUBTOTAL				\$	90,000
Contingency <sup>1</sup>				\$	18,000
Planning, Engineering, & Administrative Costs <sup>2</sup>				\$	22,000
<b>TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup></b>				<b>\$</b>	<b>130,000</b>


1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade



<div><div>J-U-B ENGINEERS, INC.</div></div>		ENGINEER'S OPINION OF PROBABLE COST			
		7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787			
PROJECT:	City of Hayden Collection System Master Plan Update			DATE:	16-Nov-20
DESCRIPTION:	H-2 Lift Station and Piping Improvements				
PROJECT NAME:	H-2 LS Improvements				
PROJECT NUMBER:	1.02.1				
		J-U-B PROJ. NO.:		20-19-042 (001-008)	
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
ITEM No.	Description	Est. Quant.	Unit	Unit Price	Total Price
2.06.7	Mobilization			5.0%	\$ 1,000
2.06.8	Construction Traffic Control			10.0%	\$ 2,000
2.01.1	Existing Lift Station Improvements				
2.01.2	Site Piping				
2.01.3	LS Manhole Modifications	1	LS	\$10,000	\$10,000
2.07.1	Influent Gravity Sewer Piping	1	LS	\$10,000	\$10,000
3.06.9	Project Specific Considerations				
3.07.2	Surface Improvements	1	LS	\$10,000	\$10,000
3.07.3					
3.08	Additional Elements (estimated % of above)				
	Site Civil (Final Grading, Landscaping, Fencing, etc)			0.0%	\$0
	Electrical and Instrumentation			0.0%	\$0
ESTIMATED CONSTRUCTION SUBTOTAL				\$	33,000
Contingency <sup>1</sup>				\$	7,000
Planning, Engineering, & Administrative Costs <sup>2</sup>				\$	8,000
TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup>				\$	48,000

1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade





# ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

**PROJECT:** City of Hayden Collection System Master Plan Update **DATE:** 16-Nov-20

**DESCRIPTION:** HARSB Honeysuckle Force Main Replacement Phase I - H-1 Lift Station to HWY 95

**PROJECT NAME:** HONEYSUCKLE FM P1

**PROJECT NUMBER:** 1.02.2

J-U-B PROJ. NO.: 20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 57,000
2.06.8	Construction Traffic Control			5.0%	\$ 57,000
2.01.1	Pressure Sewer Pipe				
3.08	18" Pressure Sewer Pipe				
	Pipe, fittings, valves, air vac assemblies (excavation, bedding, backfill not included)	4,730	LF	\$ 122	\$ 578,857
	Trench Excav./Backfill for 4-8 ft deep Sewer	4,730	LF	\$ 24	\$ 113,520
3.13	Bedding - 16" - 24"	4,730	LF	\$ 10	\$ 47,300
4.00	Gravity Sewer Pipe				
5.00	Surface Repair				
5.04	Asphalt - 1/2 Street width per City Standards (Required for 16-20' Depth Sewer) 4	4,730	LF	\$ 70	\$ 331,100
6.00	Manholes				
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 54,000
8.02	Bonding and Insurance		0	1.0%	\$ 11,000
ESTIMATED CONSTRUCTION SUBTOTAL					\$ 1,250,000
Contingency <sup>1</sup>					\$ 250,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 300,000
<b>TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup></b>					<b>\$ 1,800,000</b>

<sup>1</sup> Estimated at 20% of construction subtotal.

<sup>2</sup> Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

<sup>3</sup> Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

<sup>4</sup> Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade





# ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

**PROJECT:** City of Hayden Collection System Master Plan Update **DATE:** 16-Nov-20

**DESCRIPTION:** HARSB Honeysuckle Force Main Replacement Phase II - Reed Road to Dakota Avenue

**PROJECT NAME:** HONEYSUCKLE FM P2

**PROJECT NUMBER:** 1.02.3

J-U-B PROJ. NO.: 20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 79,000
2.06.8	Construction Traffic Control			5.0%	\$ 79,000
2.01.1	Pressure Sewer Pipe				
3.08	18" Pressure Sewer Pipe				
	Pipe, fittings, valves, air vac assemblies (excavation, bedding, backfill not included)	6,547	LF	\$ 122	\$ 801,222
	Trench Excav./Backfill for 4-8 ft deep Sewer	6,547	LF	\$ 24	\$ 157,128
3.13	Bedding - 16" - 24"	6,547	LF	\$ 10	\$ 65,470
4.00	Gravity Sewer Pipe				
5.00	Surface Repair				
5.04	Asphalt - 1/2 Street width per City Standards (Required for 16-20' Depth Sewer) 4	6,547	LF	\$ 70	\$ 458,290
6.00	Manholes				
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 74,000
8.02	Bonding and Insurance		0	1.0%	\$ 15,000
ESTIMATED CONSTRUCTION SUBTOTAL					\$ 1,729,000
Contingency <sup>1</sup>					\$ 346,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 415,000
<b>TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup></b>					<b>\$ 2,490,000</b>


<sup>1</sup> Estimated at 20% of construction subtotal.

<sup>2</sup> Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

<sup>3</sup> Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

<sup>4</sup> Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade





JUB

J-U-B ENGINEERS, INC.

ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

PROJECT: City of Hayden Collection System

DATE: 16-Nov-20

DESCRIPTION: Honeysuckle Avenue Gravity Sewer Upsize Phase I

PROJECT NAME: HONEYSUCKLE\_UPSIZE\_P1

PROJECT NUMBER: 1.01.1

		J-U-B PROJ. NO.:		20-19-042 (001-008)	
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 6,000
2.06.8	Construction Traffic Control			5.0%	\$ 6,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.04	15" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	1,420	LF	\$ 23	\$ 32,528
	Trench Excav./Backfill for 8-12 ft deep Sewer	331	LF	\$ 24	\$ 7,942
	Trench Excav./Backfill for 12-18 ft deep Sewer	1,090	LF	\$ 30	\$ 32,686
4.10	Bedding - 10" - 15"	1,420	LF	\$ 6	\$ 8,523
5.00	Surface Repair				
6.00	Manholes				
6.02	48" Manholes, 10-16 ft.	5	EA	\$ 5,500	\$ 27,500
6.03	48" Manholes, 16-32 ft.	1	EA	\$ 7,000	\$ 7,000
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 6,000
8.02	Bonding and Insurance		0	1.0%	\$ 1,000
ESTIMATED CONSTRUCTION SUBTOTAL					\$ 135,000
Contingency <sup>1</sup>					\$ 27,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 32,000
TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup>					\$ 194,000

1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade

5 This project is intended to be constructed immediately in advance of the Honeysuckle and 4th Street Round About Transortation Project. Surface repair within the project boundaries is removed or reduced and assumed to be completed as a part of the following project.





## ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

<b>PROJECT:</b>	City of Hayden Collection System Master Plan Update	<b>DATE:</b>	16-Nov-20
<b>DESCRIPTION:</b>	Riley Place Lift Station to H-6		
<b>PROJECT NAME:</b>	RILEY FORCE MAIN		
<b>PROJECT NUMBER:</b>	2.06.7		

J-U-B PROJ. NO.: 20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 4,000
2.06.8	Construction Traffic Control			5.0%	\$ 4,000
2.01.1	Pressure Sewer Pipe				
2.01.2	4" Pressure Sewer Pipe				
2.01.3	Pipe, fittings, valves, air vac assemblies (excavation, bedding, backfill not included)	1,176	LF	\$ 12	\$ 14,077
2.07.1	Trench Excav./Backfill for 4-8 ft deep Sewer	1,176	LF	\$ 10	\$ 11,760
3.11	Bedding - 4" - 8"	1,176	LF	\$ 3	\$ 3,528
4.00	Gravity Sewer Pipe				
5.00	Surface Repair				
5.03	Asphalt - Trench Patch width per City Standards (Required for 4-16' Depth Sewer) 4	1,176	LF	\$ 44	\$ 51,746
6.00	Manholes				
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 4,000
8.02	Bonding and Insurance		0	1.0%	\$ 1,000
<b>ESTIMATED CONSTRUCTION SUBTOTAL</b>					<b>\$ 94,000</b>
Contingency <sup>1</sup>					\$ 19,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 23,000
<b>TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup></b>					<b>\$ 136,000</b>

1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade





# ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

**PROJECT:** City of Hayden Collection System Master Plan Update **DATE:** 16-Nov-20

**DESCRIPTION:** Ramsey Road Phase III - Buckles Rd. to Lancaster Ave. Gravity

**PROJECT NAME:** RAMSEY P3

**PROJECT NUMBER:** 2.06.8

J-U-B PROJ. NO.:

20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 16,000
2.06.8	Construction Traffic Control			5.0%	\$ 16,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.06	21" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	1,587	LF	\$ 74	\$ 117,416
	Trench Excav./Backfill for 8-12 ft deep Sewer	576	LF	\$ 35	\$ 20,155
	Trench Excav./Backfill for 12-18 ft deep Sewer	1,011	LF	\$ 45	\$ 45,488
4.07	24" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	299	LF	\$ 67	\$ 20,017
	Trench Excav./Backfill for 12-18 ft deep Sewer	299	LF	\$ 50	\$ 14,938
4.11	Bedding - 18" - 27"	1,885	LF	\$ 10	\$ 18,855
5.00	Surface Repair				
5.01	Natural Ground	1,885	LF	\$ 15	\$ 28,282
6.00	Manholes				
6.01	48" Manholes, 4-10 ft.	1	EA	\$ 5,000	\$ 5,000
6.02	48" Manholes, 10-16 ft.	5	EA	\$ 5,500	\$ 27,500
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 15,000
8.02	Bonding and Insurance		0	1.0%	\$ 3,000

ESTIMATED CONSTRUCTION SUBTOTAL \$ 348,000

Contingency <sup>1</sup> \$ 70,000

Planning, Engineering, & Administrative Costs <sup>2</sup> \$ 84,000

**TOTAL PROBABLE COST IN 2020 DOLLARS<sup>3</sup> \$ 502,000**


<sup>1</sup> Estimated at 20% of construction subtotal.

<sup>2</sup> Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

<sup>3</sup> Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

<sup>4</sup> Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade



 <b>JUB</b> J-U-B ENGINEERS, INC.		ENGINEER'S OPINION OF PROBABLE COST			
		7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787			
<b>PROJECT:</b> City of Hayden Collection System Master Plan Update		<b>DATE:</b> 16-Nov-20			
<b>DESCRIPTION:</b> Finucane Drive Gravity Sewer Upsize					
<b>PROJECT NAME:</b> FINUCANE_DR_UPSIZE					
<b>PROJECT NUMBER:</b> 2.01.2					
		J-U-B PROJ. NO.: 20-19-042 (001-008)			
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 24,000
2.06.8	Construction Traffic Control			5.0%	\$ 24,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.05	18" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	3,027	LF	\$ 37	\$ 111,982
	Trench Excav./Backfill for 8-12 ft deep Sewer	1,040	LF	\$ 30	\$ 31,202
	Trench Excav./Backfill for 12-18 ft deep Sewer	1,837	LF	\$ 40	\$ 73,480
	Trench Excav./Backfill for 18-22 ft deep Sewer	149	LF	\$ 56	\$ 8,370
4.11	Bedding - 18" - 27"	3,027	LF	\$ 10	\$ 30,265
5.00	Surface Repair				
5.03	Asphalt - Trench Patch width per City Standards (Required for 4-16' Depth Sewer) 4	2,577	LF	\$ 44	\$ 113,406
5.04	Asphalt - 1/2 Street width per City Standards (Required for 16-20' Depth Sewer) 4	449	LF	\$ 70	\$ 31,440
6.00	Manholes				
6.02	48" Manholes, 10-16 ft.	8	EA	\$ 5,500	\$ 44,000
6.03	48" Manholes, 16-32 ft.	2	EA	\$ 7,000	\$ 14,000
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 23,000
8.02	Bonding and Insurance		0	1.0%	\$ 5,000
<b>ESTIMATED CONSTRUCTION SUBTOTAL</b>					<b>\$ 534,000</b>
Contingency <sup>1</sup>					\$ 107,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 128,000
<b>TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup></b>					<b>\$ 769,000</b>

1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade





# ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

**PROJECT:** City of Hayden Collection System Master Plan Update **DATE:** 16-Nov-20

**DESCRIPTION:** Hayden Avenue Gravity Sewer Upsize

**PROJECT NAME:** HAYDEN\_AVE\_UPSIZE

**PROJECT NUMBER:** 2.01.3

J-U-B PROJ. NO.: 20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 28,000
2.06.8	Construction Traffic Control			5.0%	\$ 28,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.04	15" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	794	LF	\$ 23	\$ 18,192
	Trench Excav./Backfill for 12-18 ft deep Sewer	794	LF	\$ 30	\$ 23,832
4.05	18" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	1,999	LF	\$ 37	\$ 73,980
	Trench Excav./Backfill for 12-18 ft deep Sewer	839	LF	\$ 40	\$ 33,560
	Trench Excav./Backfill for 18-22 ft deep Sewer	863	LF	\$ 56	\$ 48,329
	Trench Excav./Backfill for >22 ft deep Sewer	297	LF	\$ 133	\$ 39,561
4.10	Bedding - 10" - 15"	794	LF	\$ 6	\$ 4,766
4.11	Bedding - 18" - 27"	1,999	LF	\$ 10	\$ 19,995
5.00	Surface Repair				
5.03	Asphalt - Trench Patch width per City Standards (Required for 4-16' Depth Sewer) 4	916	LF	\$ 44	\$ 40,286
5.04	Asphalt - 1/2 Street width per City Standards (Required for 16-20' Depth Sewer) 4	1,581	LF	\$ 70	\$ 110,658
5.05	Asphalt - Full Street width per City Standards (Required for 20' - 30' Depth Sewer) 4	297	LF	\$ 125	\$ 37,181
6.00	Manholes				
6.02	48" Manholes, 10-16 ft.	7	EA	\$ 5,500	\$ 38,500
6.03	48" Manholes, 16-32 ft.	6	EA	\$ 7,000	\$ 42,000
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping	0		5.0%	\$ 27,000
8.02	Bonding and Insurance	0		1.0%	\$ 5,000
<b>ESTIMATED CONSTRUCTION SUBTOTAL</b>					<b>\$ 619,000</b>
Contingency <sup>1</sup>					<b>\$ 124,000</b>
Planning, Engineering, & Administrative Costs <sup>2</sup>					<b>\$ 149,000</b>
<b>TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup></b>					<b>\$ 892,000</b>


1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade



 <b>JUB</b> J-U-B ENGINEERS, INC.		<b>ENGINEER'S OPINION OF PROBABLE COST</b>			
<b>PROJECT:</b> City of Hayden Collection System Master Plan Update		7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787 <b>DATE:</b> 16-Nov-20			
<b>DESCRIPTION:</b> Government Way Gravity Sewer Upsize <b>PROJECT NAME:</b> GOV_WAY_UPSIZE <b>PROJECT NUMBER:</b> 2.01.4					
		J-U-B PROJ. NO.: 20-19-042 (001-008)			
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 12,000
2.06.8	Construction Traffic Control			5.0%	\$ 12,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.04	15" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	1,811	LF	\$ 23	\$ 41,472
	Trench Excav./Backfill for 8-12 ft deep Sewer	478	LF	\$ 24	\$ 11,481
	Trench Excav./Backfill for 12-18 ft deep Sewer	1,333	LF	\$ 30	\$ 39,980
4.10	Bedding - 10" - 15"	1,811	LF	\$ 6	\$ 10,866
5.00	Surface Repair				
5.03	Asphalt - Trench Patch width per City Standards (Required for 4-16' Depth Sewer) 4	1,811	LF	\$ 44	\$ 79,685
6.00	Manholes				
6.02	48" Manholes, 10-16 ft.	8	EA	\$ 5,500	\$ 44,000
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 11,000
8.02	Bonding and Insurance		0	1.0%	\$ 2,000
<b>ESTIMATED CONSTRUCTION SUBTOTAL</b>				<b>\$</b>	<b>264,000</b>
Contingency <sup>1</sup>				<b>\$</b>	<b>53,000</b>
Planning, Engineering, & Administrative Costs <sup>2</sup>				<b>\$</b>	<b>63,000</b>
<b>TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup></b>				<b>\$</b>	<b>380,000</b>

1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade





# ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

<b>PROJECT:</b>	City of Hayden Collection System Master Plan Update	<b>DATE:</b>	16-Nov-20
<b>DESCRIPTION:</b>	Hayden Avenue Phase I - Gravity Sewer from Carrington Meadows to Atlas Road		
<b>PROJECT NAME:</b>	HAYDEN_AVE_GRAV1		
<b>PROJECT NUMBER:</b>	2.07.1		

J-U-B PROJ. NO.: 20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 11,000
2.06.8	Construction Traffic Control			5.0%	\$ 11,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.02	10" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	1,658	LF	\$ 11	\$ 17,741
	Trench Excav./Backfill for 12-18 ft deep Sewer	1,300	LF	\$ 18	\$ 22,750
	Trench Excav./Backfill for 18-22 ft deep Sewer	358	LF	\$ 33	\$ 11,815
4.03	12" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	59	LF	\$ 15	\$ 915
	Trench Excav./Backfill for 18-22 ft deep Sewer	59	LF	\$ 36	\$ 2,139
4.10	Bedding - 10" - 15"	1,717	LF	\$ 6	\$ 10,305
5.00	Surface Repair				
5.03	Asphalt - Trench Patch width per City Standards (Required for 4-16' Depth Sewer) 4	325	LF	\$ 44	\$ 14,300
5.04	Asphalt - 1/2 Street width per City Standards (Required for 16-20' Depth Sewer) 4	1,333	LF	\$ 70	\$ 93,312
5.05	Asphalt - Full Street width per City Standards (Required for 20' - 30' Depth Sewer) 4	59	LF	\$ 125	\$ 7,426
6.00	Manholes				
6.02	48" Manholes, 10-16 ft.	3	EA	\$ 5,500	\$ 16,500
6.03	48" Manholes, 16-32 ft.	3	EA	\$ 7,000	\$ 21,000
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.02	Bonding and Insurance	0		1.0%	\$ 2,000
ESTIMATED CONSTRUCTION SUBTOTAL					\$ 242,000
Contingency <sup>1</sup>					\$ 48,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 58,000
TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup>					\$ 348,000


1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade





J-U-B ENGINEERS, INC.

ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

PROJECT:

City of Hayden Collection System  
Master Plan Update

DATE:

16-Nov-20

DESCRIPTION:

H-7 (Carrington Meadows) Lift Station Upsize

PROJECT NAME:

H-7 LS

PROJECT NUMBER:

2.07.2

J-U-B PROJ. NO.:

20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
ITEM No.	Description	Est. Quant.	Unit	Unit Price	Total Price
2.06.7	Mobilization			5.0%	\$ 6,000
2.06.8	Construction Traffic Control			0.0%	\$ -
2.01.1	Duplex Submersible Lift Station Pump Replacement for Capacity Increase				
3.06	Equipment				
	Pumps - 2 total	2	EA	\$50,000	\$100,000
	Installation and Mark-up			25%	\$25,000
3.07	Overflow for upsize (approx 7,500 gallons)	1	LS	\$25,000	\$25,000
3.08	Additional Elements (estimated % of above)				
	Generator - 100 KW	1	EA	\$100,000	\$100,000
	Larger Service (Approx. 200 amp)	1	EA	\$10,000	\$10,000
	ATS	1	EA	\$25,000	\$25,000
	Multismart Control Panel or keep existing multismary with remote VFDs	1	EA	\$50,000	\$50,000
	Misc. Electrical and Instrumentation	1	EA	\$10,000	\$10,000
ESTIMATED CONSTRUCTION SUBTOTAL				\$	351,000
Contingency <sup>1</sup>				\$	70,000
Planning, Engineering, & Administrative Costs <sup>2</sup>				\$	84,000
TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup>				\$	505,000


1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade



<div><div>J-U-B ENGINEERS, INC.</div></div>		ENGINEER'S OPINION OF PROBABLE COST			
		7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787			
PROJECT:		City of Hayden Collection System Master Plan Update		DATE: 16-Nov-20	
DESCRIPTION:		H-1 Lift Station Pump Replacement for Future Capacity			
PROJECT NAME:		HONEYSUCKLE_UPSIZE_P2			
PROJECT NUMBER:		3.01.5			
		J-U-B PROJ. NO.:		20-19-042 (001-008)	
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 13,000
2.06.8	Construction Traffic Control			5.0%	\$ 13,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.03	12" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	998	LF	\$ 15	\$ 15,374
	Trench Excav./Backfill for 8-12 ft deep Sewer	998	LF	\$ 15	\$ 14,974
4.04	15" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	1,333	LF	\$ 23	\$ 30,518
	Trench Excav./Backfill for 4-8 ft deep Sewer	699	LF	\$ 20	\$ 13,972
	Trench Excav./Backfill for 8-12 ft deep Sewer	634	LF	\$ 24	\$ 15,217
4.10	Bedding - 10" - 15"	2,331	LF	\$ 6	\$ 13,986
5.00	Surface Repair				
5.03	Asphalt - Trench Patch width per City Standards (Required for 4-16' Depth Sewer) 4	2,331	LF	\$ 44	\$ 102,562
6.00	Manholes				
6.01	48" Manholes, 4-10 ft.	5	EA	\$ 5,000	\$ 25,000
6.02	48" Manholes, 10-16 ft.	3	EA	\$ 5,500	\$ 16,500
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 12,000
8.02	Bonding and Insurance		0	1.0%	\$ 2,000
ESTIMATED CONSTRUCTION SUBTOTAL					\$ 288,000
Contingency <sup>1</sup>					\$ 58,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 69,000
TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup>					\$ 415,000


1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade



 <div>J-U-B ENGINEERS, INC.</div>		ENGINEER'S OPINION OF PROBABLE COST			
		7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787			
PROJECT:		City of Hayden Collection System Master Plan Update		DATE: 16-Nov-20	
DESCRIPTION:		H-1 Lift Station Pump Replacement for Future Capacity			
PROJECT NAME:		H-1 Lift Station Pump Upsize			
PROJECT NUMBER:		3.01.6			
		J-U-B PROJ. NO.:		20-19-042 (001-008)	
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
ITEM No.	Description	Est. Quant.	Unit	Unit Price	Total Price
2.06.7	Mobilization			5.0%	\$ 12,000
2.06.8	Construction Traffic Control			0.0%	\$ -
2.01.1	Triplex Submersible Lift Station Pump Replacement for Capacity Increase				
3.06	Equipment	3	EA		
	Pumps - 3 total			\$65,000	\$195,000
	Installation and Mark-up			25%	\$48,800
3.08	Additional Elements (estimated % of above)				
	Electrical and Instrumentation			35.0%	\$85,000
ESTIMATED CONSTRUCTION SUBTOTAL				\$	341,000
Contingency <sup>1</sup>				\$	68,000
Planning, Engineering, & Administrative Costs <sup>2</sup>				\$	82,000
TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup>				\$	491,000

1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade





## ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

<b>PROJECT:</b>	City of Hayden Collection System Master Plan Update	<b>DATE:</b>	16-Nov-20
<b>DESCRIPTION:</b>	Ramsey Road Phase IV - Lancaster Ave. to N. Ramsey Lift Station Force Main		
<b>PROJECT NAME:</b>	N RAMSEY FORCE MAIN		
<b>PROJECT NUMBER:</b>	3.06.9		

J-U-B PROJ. NO.: 20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 11,000
2.06.8	Construction Traffic Control			5.0%	\$ 11,000
2.01.1	Pressure Sewer Pipe				
3.04	10" Pressure Sewer Pipe				
	Pipe, fittings, valves, air vac assemblies (excavation, bedding, backfill not included)	3,658	LF	\$ 37	\$ 134,007
3.12	Bedding - 10" - 14"	3,658	LF	\$ 6	\$ 21,950
4.00	Gravity Sewer Pipe				
5.00	Surface Repair				
5.01	Natural Ground	3,658	LF	\$ 15	\$ 54,876
6.00	Manholes				
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 11,000
8.02	Bonding and Insurance		0	1.0%	\$ 2,000
<b>ESTIMATED CONSTRUCTION SUBTOTAL</b>					<b>\$ 246,000</b>
Contingency <sup>1</sup>					\$ 49,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 59,000
<b>TOTAL PROBABLE COST IN 2020 DOLLARS<sup>3</sup></b>					<b>\$ 354,000</b>

<sup>1</sup> Estimated at 20% of construction subtotal.

<sup>2</sup> Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

<sup>3</sup> Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

<sup>4</sup> Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade



## ENGINEER'S OPINION OF PROBABLE COST

7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787

<b>PROJECT:</b>	City of Hayden Collection System Master Plan Update	<b>DATE:</b>	16-Nov-20
<b>DESCRIPTION:</b>	Hayden Avenue Phase II - Gravity Sewer from Atlas Rd to Dakota		
<b>PROJECT NAME:</b>	HAYDEN_AVE_GRAV2		
<b>PROJECT NUMBER:</b>	3.07.3		

J-U-B PROJ. NO.: 20-19-042 (001-008)

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 12,000
2.06.8	Construction Traffic Control			5.0%	\$ 12,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.01	8" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	864	LF	\$ 7	\$ 5,877
	Trench Excav./Backfill for 8-12 ft deep Sewer	864	LF	\$ 12	\$ 10,372
4.02	10" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	681	LF	\$ 11	\$ 7,284
	Trench Excav./Backfill for 18-22 ft deep Sewer	330	LF	\$ 33	\$ 10,890
	Trench Excav./Backfill for >22 ft deep Sewer	351	LF	\$ 111	\$ 38,936
4.09	Bedding - 8"	864	LF	\$ 3	\$ 2,593
4.10	Bedding - 10" - 15"	681	LF	\$ 6	\$ 4,085
5.00	Surface Repair				
5.03	Asphalt - Trench Patch width per City Standards (Required for 4-16' Depth Sewer) 4	864	LF	\$ 44	\$ 38,029
5.05	Asphalt - Full Street width per City Standards (Required for 20' - 30' Depth Sewer) 4	681	LF	\$ 125	\$ 85,096
6.00	Manholes				
6.01	48" Manholes, 4-10 ft.	2	EA	\$ 5,000	\$ 10,000
6.02	48" Manholes, 10-16 ft.	1	EA	\$ 5,500	\$ 5,500
6.03	48" Manholes, 16-32 ft.	2	EA	\$ 7,000	\$ 14,000
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.02	Bonding and Insurance		0	1.0%	\$ 2,000
<b>ESTIMATED CONSTRUCTION SUBTOTAL</b>					<b>\$ 259,000</b>
Contingency <sup>1</sup>					\$ 52,000
Planning, Engineering, & Administrative Costs <sup>2</sup>					\$ 62,000
<b>TOTAL PROBABLE COST IN 2020 DOLLARS<sup>3</sup></b>					<b>\$ 373,000</b>


<sup>1</sup> Estimated at 20% of construction subtotal.

<sup>2</sup> Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

<sup>3</sup> Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

<sup>4</sup> Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade



 <b>JUB</b> J-U-B ENGINEERS, INC.		<b>ENGINEER'S OPINION OF PROBABLE COST</b>			
<b>PROJECT:</b> City of Hayden Collection System Master Plan Update		7825 Meadowlark Way, Coeur d'Alene, ID 83815 / 208.762.8787 <b>DATE:</b> 16-Nov-20			
<b>DESCRIPTION:</b> Dakota Elimination Gravity Sewer <b>PROJECT NAME:</b> DAKOTA_ELIM_GRAV <b>PROJECT NUMBER:</b> 3.07.4					
		J-U-B PROJ. NO.: 20-19-042 (001-008)			
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QTY	UNIT	UNIT PRICE	TOTAL COST
2.06.7	Mobilization			5.0%	\$ 4,000
2.06.8	Construction Traffic Control			5.0%	\$ 4,000
2.01.1	Pressure Sewer Pipe				
4.00	Gravity Sewer Pipe				
4.02	10" PVC Gravity Sewer Pipe				
	Pipe Cost (excavation, bedding, backfill not included)	1,325	LF	\$ 11	\$ 14,177
	Trench Excav./Backfill for 8-12 ft deep Sewer	325	LF	\$ 14	\$ 4,550
	Trench Excav./Backfill for 12-18 ft deep Sewer	1,000	LF	\$ 18	\$ 17,500
4.10	Bedding - 10" - 15"	1,325	LF	\$ 6	\$ 7,950
5.00	Surface Repair				
5.01	Natural Ground	1,325	LF	\$ 15	\$ 19,875
6.00	Manholes				
6.02	48" Manholes, 10-16 ft.	3	EA	\$ 5,500	\$ 16,500
7.00	Project Specific Considerations				
8.00	Miscellaneous Other				
8.01	Bypass Pumping		0	5.0%	\$ 4,000
8.02	Bonding and Insurance		0	1.0%	\$ 1,000
<b>ESTIMATED CONSTRUCTION SUBTOTAL</b>				<b>\$</b>	<b>94,000</b>
Contingency <sup>1</sup>				<b>\$</b>	<b>19,000</b>
Planning, Engineering, & Administrative Costs <sup>2</sup>				<b>\$</b>	<b>23,000</b>
<b>TOTAL PROBABLE COST IN 2020 DOLLARS <sup>3</sup></b>				<b>\$</b>	<b>136,000</b>

1 Estimated at 20% of construction subtotal.

2 Planning, Engineering, & Administrative costs include: Geotechnical Evaluations, Design, Survey, Construction Management, O&M Manuals, Record Drawings, and Administration. Estimated at 20% of construction subtotal, including contingency

3 Costs are in 2020 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes. No easement acquisition or legal costs are included.

4 Asphalt Surface Repair varies with respect to the City Typical Roadway Section of 4" Asphalt on 4" of 3/4-inch Crushed Aggregate, on 12" of Subgrade