



**strata**  
NETWORKS

# Herriman City

FIBER NETWORK OVERVIEW

Presented by Bart Angus

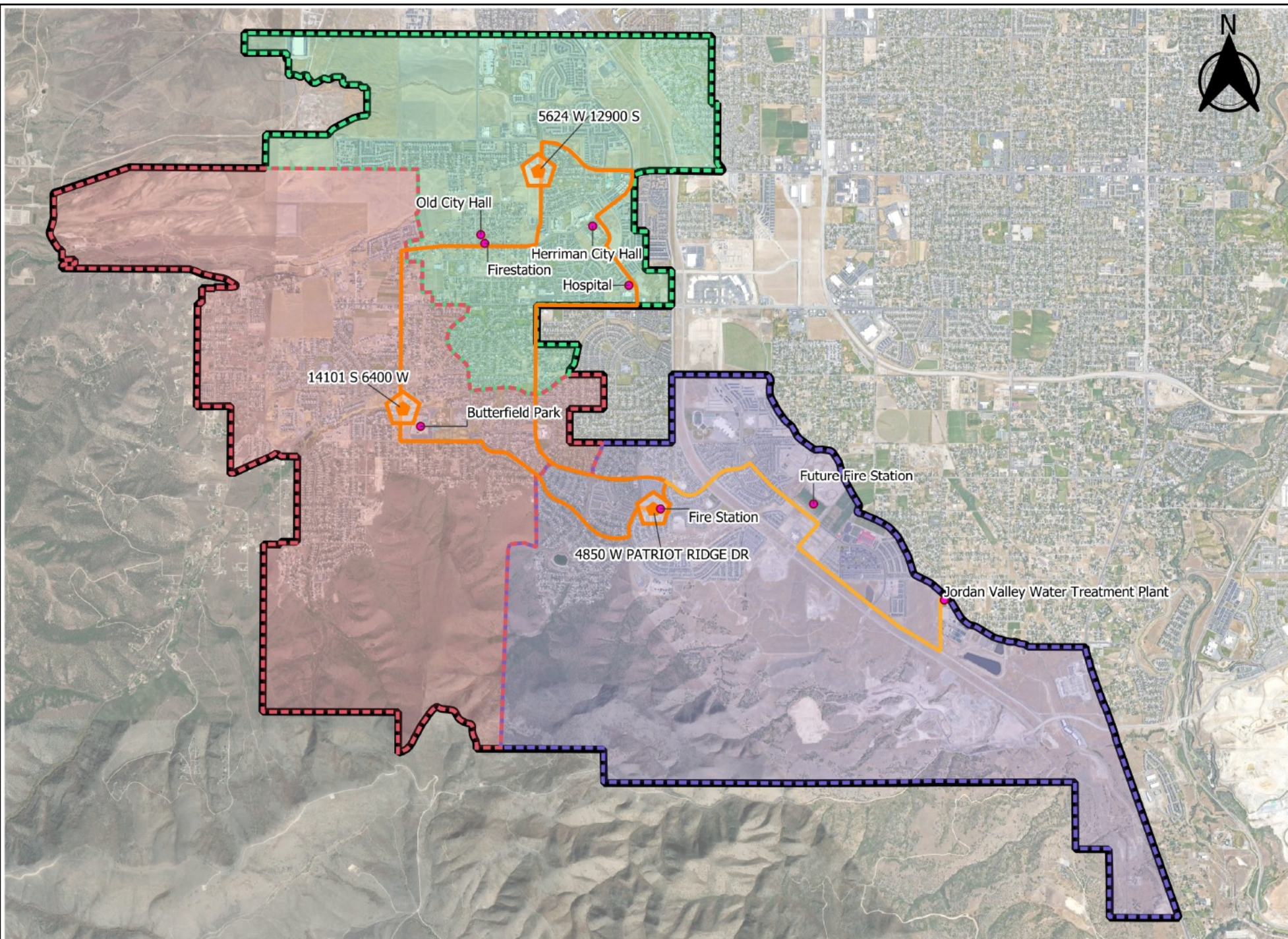
Strata Networks

# Preliminary Plans & Timelines

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**Legend**

- CRITICAL CITY OWNED FACILITIES
- ⬠ TELCOM SHELTERS
- ⬠ SHELTER 1
- ⬠ SHELTER 2
- ⬠ SHELTER 3
- NETWORK BACKBONE RING
- REDUNDANT ROUTE TO CRITICAL INFRASTRUCTURE
- HERRIMAN CITY BOUNDARY

**HERRIMAN CITY  
PRELIMINARY  
SHELTER & FIBER  
BACKBONE PLAN**





SHELTER 1  
 CURRENT LOCATIONS: 8,607  
 10YR FUTURE LOCATIONS: 2,748  
 TOTAL: 11,355

5624 W.12900 S

14101 S 6400 W

4850 W PATRIOT RIDGE DR

SHELTER 3  
 CURRENT LOCATIONS: 6,378  
 10YR FUTURE LOCATIONS: 5,738  
 TOTAL: 12,116

SHELTER 2  
 CURRENT LOCATIONS: 4,575  
 10YR FUTURE LOCATIONS: 2,530  
 OLYMPIA HILLS DEVELOPMENT: 6,330  
 TOTAL: 13,435

Legend

- TELCOM SHELTERS
- SHELTER 1
- SHELTER 2
- SHELTER 3
- NETWORK BACKBONE RING
- REDUNDANT ROUTE TO CRITICAL INFRASTRUCTURE
- HERRIMAN CITY BOUNDARY
- 10YR PROJECTED GROWTH AREAS
- OLYMPIA DEVELOPMENT

1. (1) Shelter zone to accommodate up to 30,000 locations
2. Spare conduit may be placed to accommodate future growth areas.
3. 10yr future locations determined by interpolation of Herriman City water system master plan & future land use map.

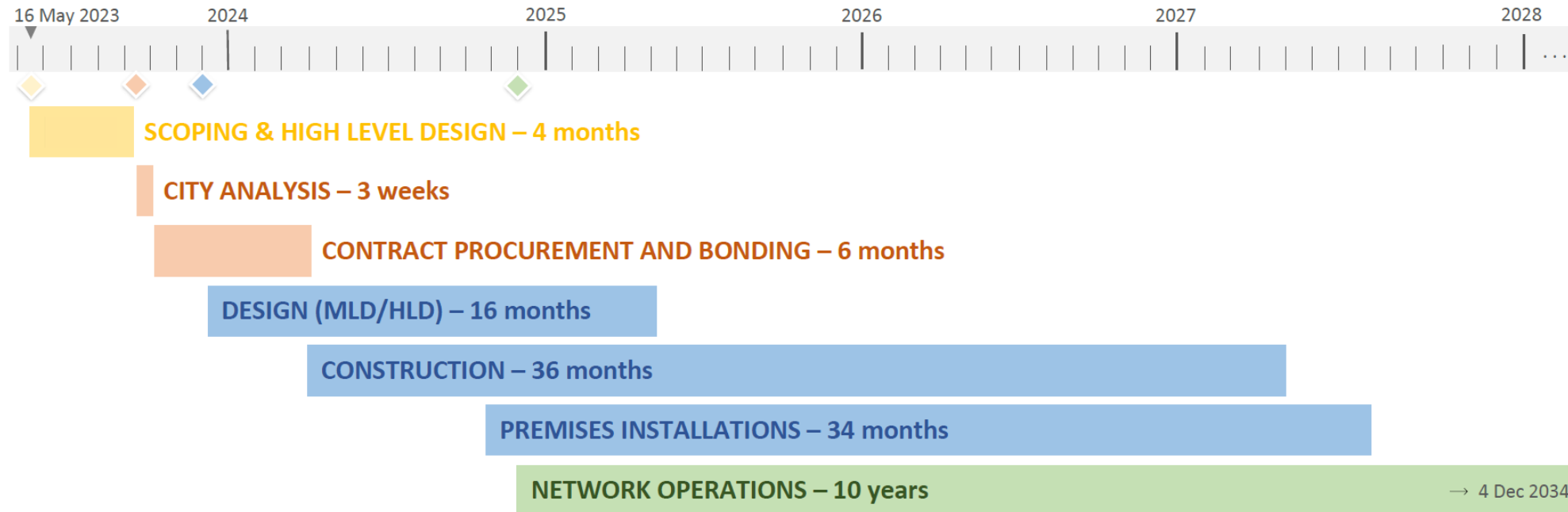
HERRIMAN CITY  
 FIBER PROJECTED  
 10YR GROWTH AREAS



# Project Summary Timeline

## LEGEND

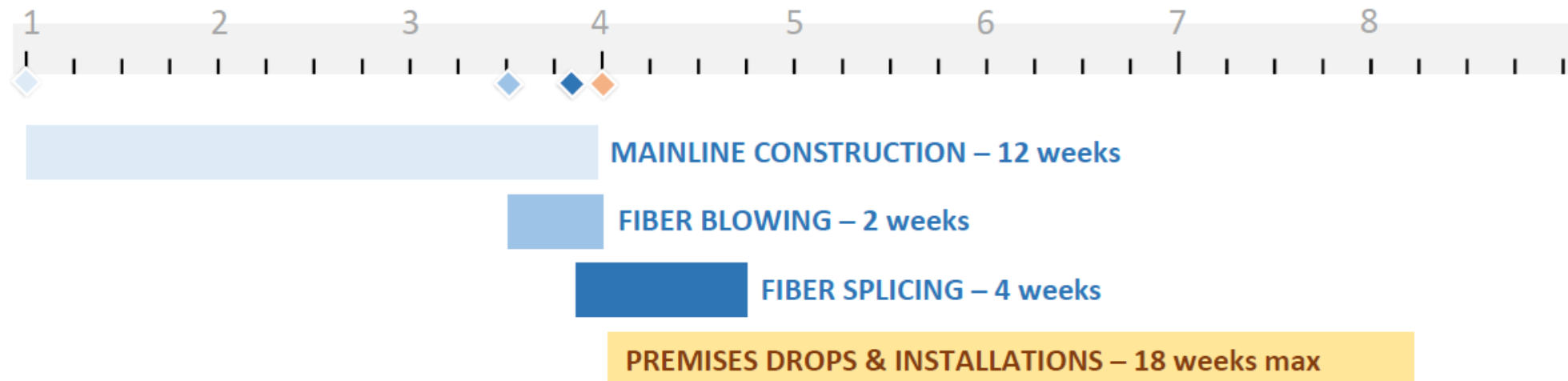
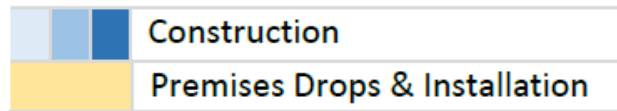
	Current High Level Design Agreement
	Analysis and Contract Procurement
	Future Design & Construction Agreement
	Future Network Operations Agreement





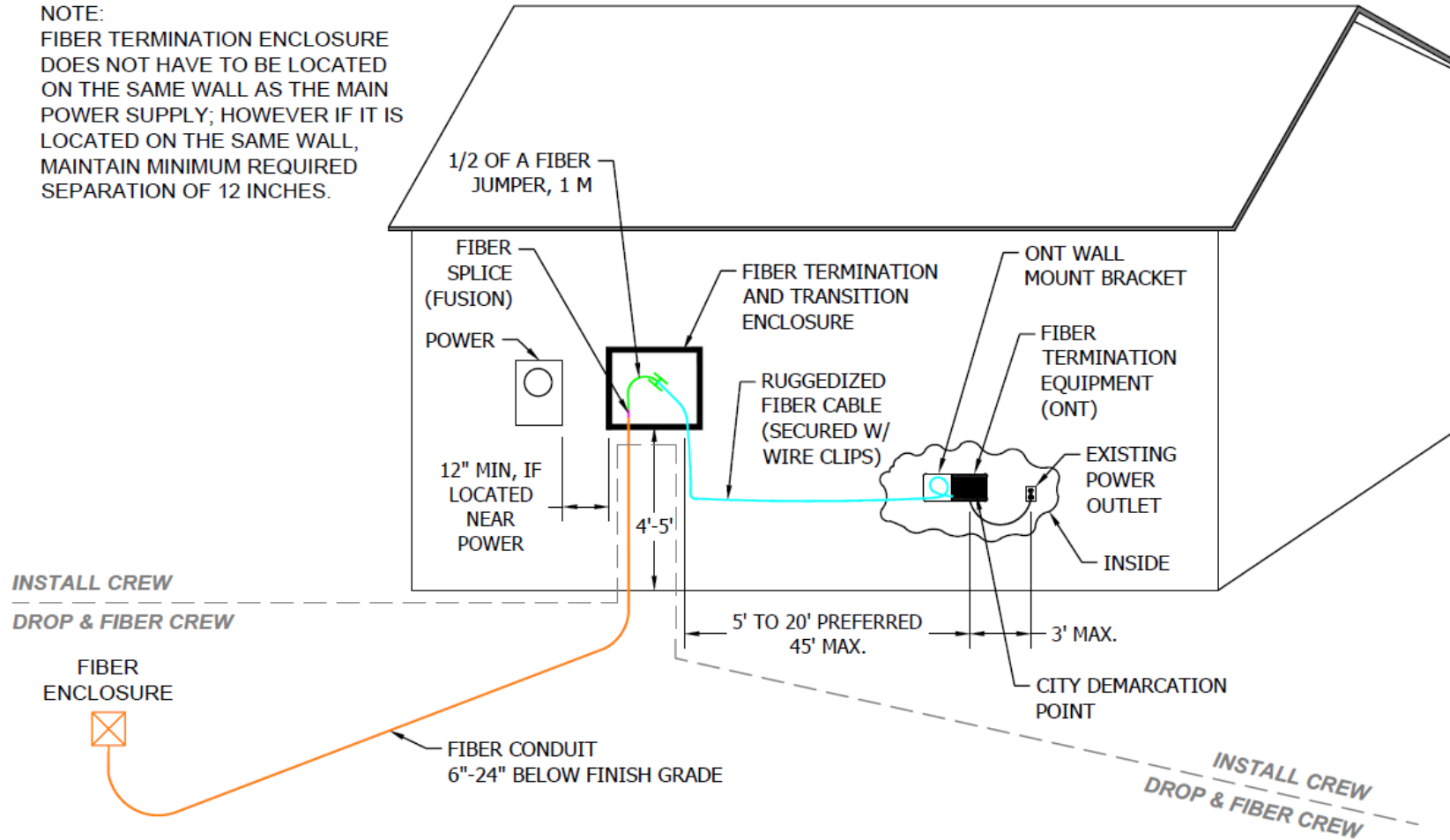
# Typical Fiber Distribution Area Build Schedule

## LEGEND



# Single Residence FTTH Indoor Installation

NOTE:  
FIBER TERMINATION ENCLOSURE DOES NOT HAVE TO BE LOCATED ON THE SAME WALL AS THE MAIN POWER SUPPLY; HOWEVER IF IT IS LOCATED ON THE SAME WALL, MAINTAIN MINIMUM REQUIRED SEPARATION OF 12 INCHES.



FTTH STANDARD INDOOR INSTALL - SINGLE RESIDENCE

HERRIMAN CITY FIBER





# Cost Modeling

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# Herriman Cost Modeling

## Buried Construction Option A

### CONSTRUCTION METHODOLOGY



### ASSUMPTIONS

<b>Utility Fees</b> Residential - \$15 Business - \$30	<b>Opt-Out Percentage</b> 5%	<b>Bond Term &amp; Interest</b> Years - 30 Interest - 5%	<b>Retail Rates &amp; Rate Mix</b> 1 Gbps - \$75 250 Mbps - \$65 50/50 mix of 1 Gbps & 250 Mbps
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## Buried Construction Option B

### CONSTRUCTION METHODOLOGY



### ASSUMPTIONS

<b>Utility Fees</b> Residential - \$15 Business - \$30	<b>Opt-Out Percentage</b> 5%	<b>Bond Term &amp; Interest</b> Years - 30 Interest - 8%	<b>Retail Rates &amp; Rate Mix</b> 1 Gbps - \$85 250 Mbps - \$75 50/50 mix of 1 Gbps & 250 Mbps
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### Utility Fiber Infrastructure Model

Estimated Initial Fiber-Optic Network Infrastructure Cost	\$71,253,013.00
Bond Term (Years)	30
Bond Interest Rate	5%
Estimated Monthly Bond Payment for Infrastructure (Year 4)	\$416,613.41
Estimated Monthly Utility Fee Revenue (Year 4)	\$289,161.00
Minimum # of Subscribers for Estimated Monthly Bond Payment	9441
Minimum Take Rate for Estimated Monthly Bond Payment	47%

### Utility Fiber Infrastructure Model

Estimated Initial Fiber-Optic Network Infrastructure Cost	\$71,253,013.00
Bond Term (Years)	30
Bond Interest Rate	8%
Estimated Monthly Bond Payment for Infrastructure (Year 4)	\$595,253.61
Estimated Monthly Utility Fee Revenue (Year 4)	\$289,161.00
Minimum # of Subscribers for Estimated Monthly Bond Payment	13025
Minimum Take Rate for Estimated Monthly Bond Payment	65%



# Herriman Cost Modeling

## Microtrenching Construction Option A

### CONSTRUCTION METHODOLOGY



### ASSUMPTIONS

<b>Utility Fees</b> Residential - <b>\$15</b> Business - <b>\$30</b>	<b>Opt-Out Percentage</b> <b>5%</b>	<b>Bond Term &amp; Interest</b> Years - <b>30</b> Interest - <b>5%</b>	<b>Retail Rates &amp; Rate Mix</b> 1 Gbps - <b>\$75</b> 250 Mbps - <b>\$65</b> 50/50 mix of 1 Gbps & 250 Mbps
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## Microtrenching Construction Option B

### CONSTRUCTION METHODOLOGY



### ASSUMPTIONS

<b>Utility Fees</b> Residential - <b>\$15</b> Business - <b>\$30</b>	<b>Opt-Out Percentage</b> <b>5%</b>	<b>Bond Term &amp; Interest</b> Years - <b>30</b> Interest - <b>8%</b>	<b>Retail Rates &amp; Rate Mix</b> 1 Gbps - <b>\$85</b> 250 Mbps - <b>\$75</b> 50/50 mix of 1 Gbps & 250 Mbps
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### Utility Fiber Infrastructure Model

Estimated Initial Fiber-Optic Network Infrastructure Cost	\$60,323,809.00
Bond Term (Years)	30
Bond Interest Rate	5%
Estimated Monthly Bond Payment for Infrastructure (Year 4)	\$352,710.81
Estimated Monthly Utility Fee Revenue (Year 4)	\$289,161.00
Minimum # of Subscribers for Estimated Monthly Bond Payment	4707
Minimum Take Rate for Estimated Monthly Bond Payment	24%

### Utility Fiber Infrastructure Model

Estimated Initial Fiber-Optic Network Infrastructure Cost	\$60,323,809.00
Bond Term (Years)	30
Bond Interest Rate	8%
Estimated Monthly Bond Payment for Infrastructure (Year 4)	\$503,950.13
Estimated Monthly Utility Fee Revenue (Year 4)	\$289,161.00
Minimum # of Subscribers for Estimated Monthly Bond Payment	9140
Minimum Take Rate for Estimated Monthly Bond Payment	46%

The background of the image is a photograph of a fiber optic network construction site, featuring a dense array of fiber optic cables plugged into a patch panel. The entire image is overlaid with a semi-transparent red filter. A large, faint, repeating hexagonal pattern is visible in the background, centered on the left side. The text 'Fiber Network Construction' is written in a clean, white, sans-serif font, positioned on the right side of the image. A thin white horizontal line is placed directly beneath the text.

# Fiber Network Construction

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# Microtrenching

Microtrenching offers significant benefits over traditional excavation methods by minimizing disruption and decreasing construction timelines. Using a diamond-tipped large circular saw to cut a narrow trench, the conduit is installed in the bottom of the trench, backfilled with a concrete/flowable fill mix, and then sealed.







# Directional Boring

Directional boring is a trenchless technique used to install underground utilities like pipes, conduits, and cables. This method involves using a surface-launched drilling rig to create a shallow arc or radius along a designated underground route. Unlike traditional cut and cover methods, directional boring causes minimal disruption to the surface and offers significant environmental benefits. It's particularly useful when conventional trenching or excavation isn't feasible or when the goal is to minimize surface disturbance.





# Fiber Shelters

A fiber shelter is a structure designed to house critical fiber-optic electronics and equipment. This hut provides a secure and controlled environment to safeguard and maintain the optimal performance of sensitive fiber components. By regulating temperature, humidity, and other environmental factors, the fiber shelter ensures the longevity and reliability of the equipment, thereby contributing to the seamless functioning of modern communication networks and technologies.



Thank You



**strata**  
NETWORKS