

2017

Downtown Alley Enhancements

Mission Statement

Revitalize and Redeveloped the City Of Cheyenne Downtown Central Business District. Improve The Downtown Experience Adding To The Vitality, Excitement, Activity, Vibrancy, Diversity And Attractiveness Of Our Community.



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May 2017





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DDA plans to improve two downtown alleys

By Becky Orr
Wyoming Tribune Eagle

CHEYENNE—Employees at AVI, a local engineering firm, will start work on designs that will show how to improve two alleys in downtown Cheyenne.

The design work moved ahead when the Cheyenne Downtown Development Authority/Main Street approved a contract Thursday with the firm.

The contract is close to \$20,000, with money coming from the Cheyenne-Laramie County Economic Development Joint Powers Board. There was no debate among board members about the contract.

AVI is a contracting, planning, engineering and surveying company in Cheyenne, Bruce Perryman of AVI said. It will develop a modernization concept for the alleys from Pioneer to

At a glance

AVI, a Cheyenne engineering firm, will create designs to improve two downtown alleys through a contract with the Downtown Development Authority/Main Street.

Central avenues, he said.

"We want them safe and lit," he said Friday. The new designs will also make the alley areas more attractive and explore options for moving utilities.

The modernization concept should be done by mid-March, Perryman said.

Improving the alleys is a goal not only of DDA, but of a group of local economic development experts as well. This group includes the Greater Cheyenne Chamber of Commerce, Cheyenne LEADS, Visit Cheyenne

and DDA.

In February, that core group released a plan to improve downtown. The group wants to encourage more people to go downtown and regards the alley improvement as one way to make it happen.

A joint sixth-penny committee made up of leaders of the five municipalities in Laramie County has earmarked \$2.35 million worth of sales tax money to pay for downtown core projects, including alley renovations.

This joint committee will make its final sixth-penny project recommendations from Dec. 1-15.

Laramie County voters will decide whether to approve the list during an election on May 16.

Becky Orr is the Wyoming Tribune Eagle's business and health reporter. She can be reached at borr@wyomingnews.com or 307-633-3183. Follow her on Twitter at @WTEBecky.



Table of Contents

Acknowledgements..... 1
I. Project Description 2
II. Utilities 3
III. Site Enhancements 4
Cheyenne Alley Enhancements..... 5
IV. Drainage 9
V. Waste Management..... 9
VI. Cost Opinions..... 10
Carey – Capitol Estimate of Probable Costs..... 10
Capitol – Central Estimate of Probable Costs 13
Central – Warren Estimate of Probable Costs..... 16
Appendix A Core Area Alley..... 19
Appendix B Estimate..... 20
Table 1 - Cheyenne Alley Enhancement (Carey - Capitol) Estimate of Probable Costs 12
Table 2 - Cheyenne Alley Enhancement (Capitol - Central) Estimate of Probable Costs 15
Table 3 - Cheyenne Alley Enhancement (Central - Warren) Estimate of Probable Costs..... 18
Figure 1 - Alley Project Limits 17th Street – 16th 2
Figure 2 - Existing Utilities 3
Figure 3 - Mural..... 4
Figure 4 – Carey to Central Existing Utilities Diagram 5
Figure 5 - Central to Warren Existing Utilities Diagram 6
Figure 6 - Typical Alley Section..... 7
Figure 7 - View Looking East From Carey Ave. to Capitol Ave. 8
Figure 8 – Carey to Capitol Block #390 Alley 10
Figure 9 – Carey to Capitol Concept..... 11
Figure 10 – Capitol to Central Block #389 Alley..... 13
Figure 11 – Capitol to Central Concept 14
Figure 12 – Central to Warren Block #388 16
Figure 13 – Central to Warren - Concept..... 17



Downtown Alley Enhancements

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Acknowledgements

Alleyway Committee:



Amy Surdan, DDA Director 2016
Desiree Brothe, DDA Director 2017
Wally Erickaon, DDA Board Member
Alene West, DDA Board Member
Dale Steenbergen, DDA Board Member, Chamber Commerce
Jack Wyatt, DDA Board Member, BHE
Darren Rudloff,



Nathan Beauheim, City of Cheyenne Engineering Services Director
David Cole, City of Cheyenne



Anja Bendel, Cheyenne LEADS, Director of Business Development



I. PROJECT DESCRIPTION

The alley enhancement project outlines the potential for three (3) alleys between Carey Ave. and Warren Ave. to be enhanced. The intent of the project is to improve the overall pedestrian experience within the downtown core by providing a sense of safety, improved walkability, and establishing a sense of place within the downtown core while maintaining vehicular access for parking, deliveries and waste management services. In addition, the project outlines potential for improving high-speed internet service to the buildings along these three alleys by providing high-speed broadband service. The opportunity to underground the existing above grade utilities will also have a dramatic effect on the overall experience of the downtown core of Cheyenne.

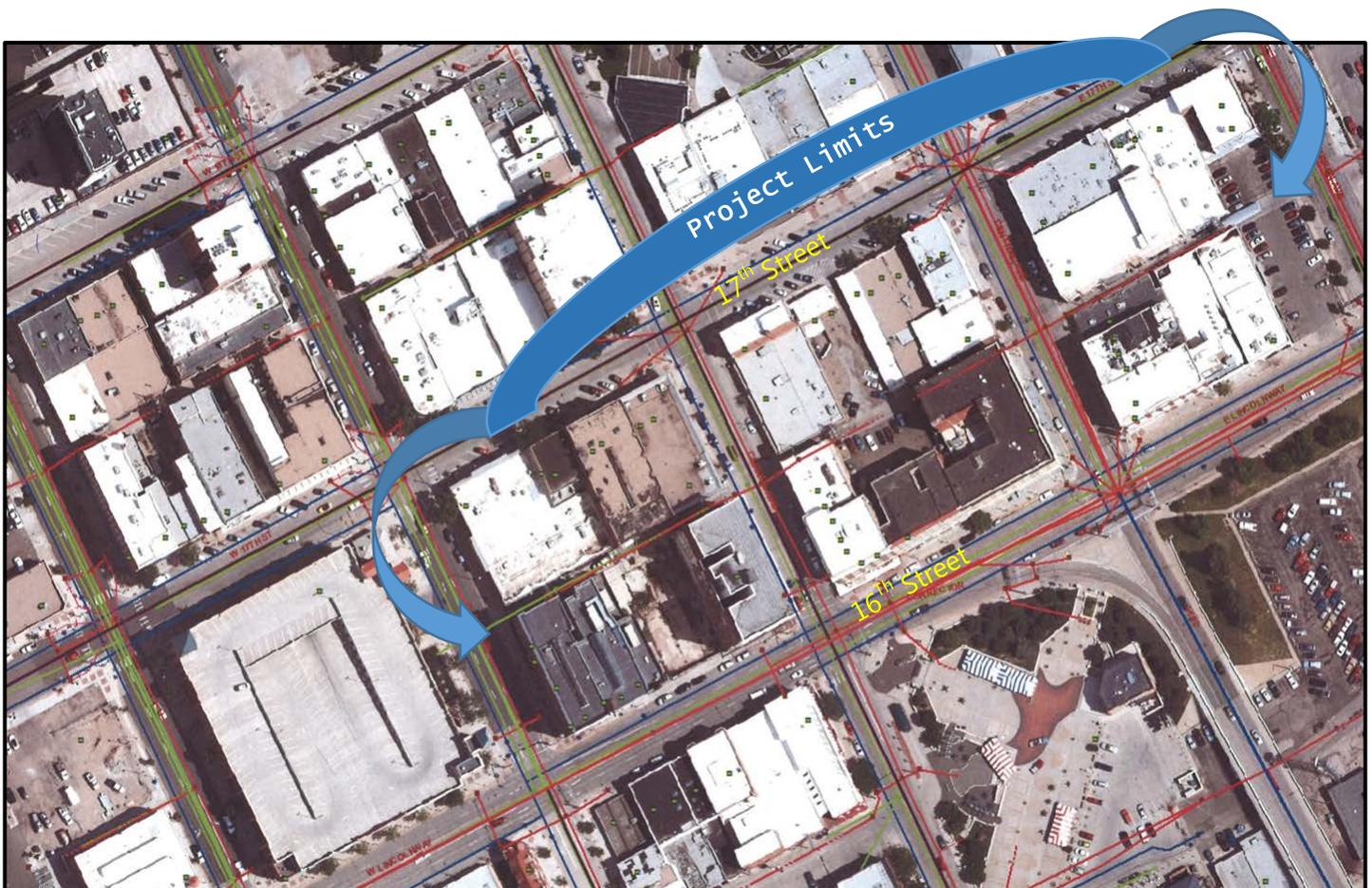


Figure 1 - Alley Project Limits 17th Street – 16th



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II. UTILITIES

Coordination with CenturyLink and Black Hills Energy has determined the potential for updating and installing underground utilities within the alleys. CenturyLink has identified the ability to upgrade the existing fiber system, with assistance from the adjacent private property owners to provide secondary conduits to the alley for connection points. It has also been determined that the possibility of installing Wi-Fi within the downtown core in coordination with the City and DDA. Black Hills Energy has studied the feasibility of the electrical system to be installed underground; Black Hills Energy would install the new primary lines and additional conduits, as well as two (2) new transformers per block. The electrical system project will require extensive coordination with the private property owners, and the City will need to determine code compliance of the existing electrical infrastructure. The design will utilize the existing trench drain and storm drainage system that was recently installed to capture the drainage within the alley right of way.



Figure 2 - Existing Utilities



III. SITE ENHANCEMENTS

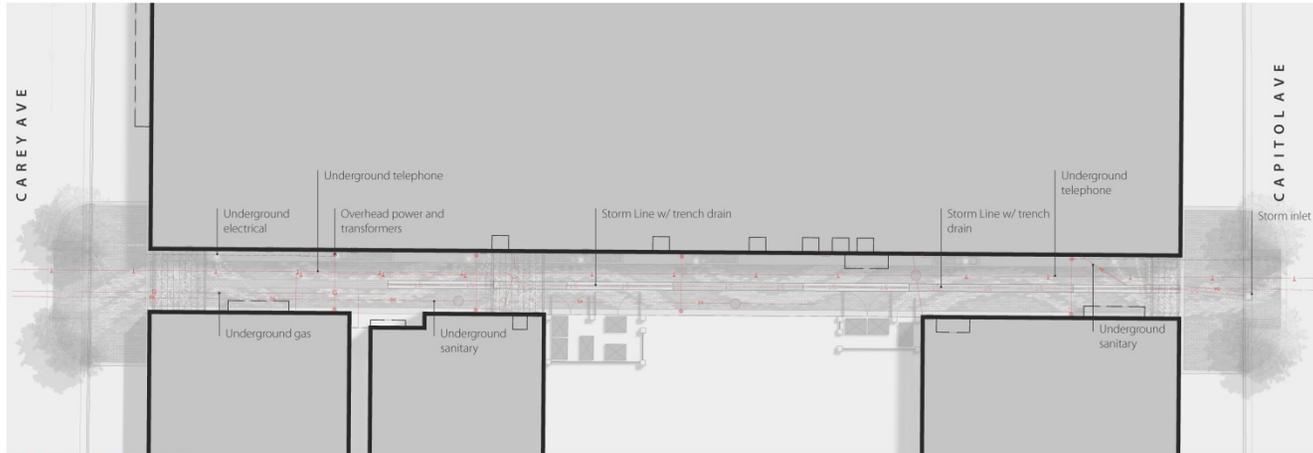
The proposed alley enhancements will include the installation of entrance bulb-outs with street tree planting beds, seat-walls to match the depot plaza walls, decorative pedestrian pole lights with hanging baskets, and Tivoli lights attached between the poles and buildings. These entry bulb-outs are intended to create a extension of the alley environment into streetscapes that create a welcoming entry into the alley and provide gathering area potential, as well as decreased pedestrian crossing distances at street mid-blocks. Wide concrete headers along building faces create a clean edge for paver installation and protect the building façade and foundation, while delineating vehicular travel zones. Concrete unit pavers within the alley right of way add pedestrian scale and texture create a mottled paving effect that masks staining and allow utility work to be completed without a long-term patchwork of cut and replaced concrete or asphalt. Irrigated planting areas will be installed along the north side of the alleys that provide a more pedestrian scale and inviting experience within the alleys. Gateway vine trellis systems will be installed to help establish destinations within the alleys promoting safety and walkability. Opportunities for murals exist throughout the alleys and walls will become more visible once the overhead utility infrastructure is relocated underground. The proposed site updates will allow for a unique pedestrian experience while improving the safety and visibility of the alleys within the downtown core.



Figure 3 - Mural



Cheyenne Alley Enhancements



Carey to Capitol



Capitol to Central

Cheyenne Alley Enhancements
Carey to Central Existing Utilities Diagram



Figure 4 – Carey to Central Existing Utilities Diagram



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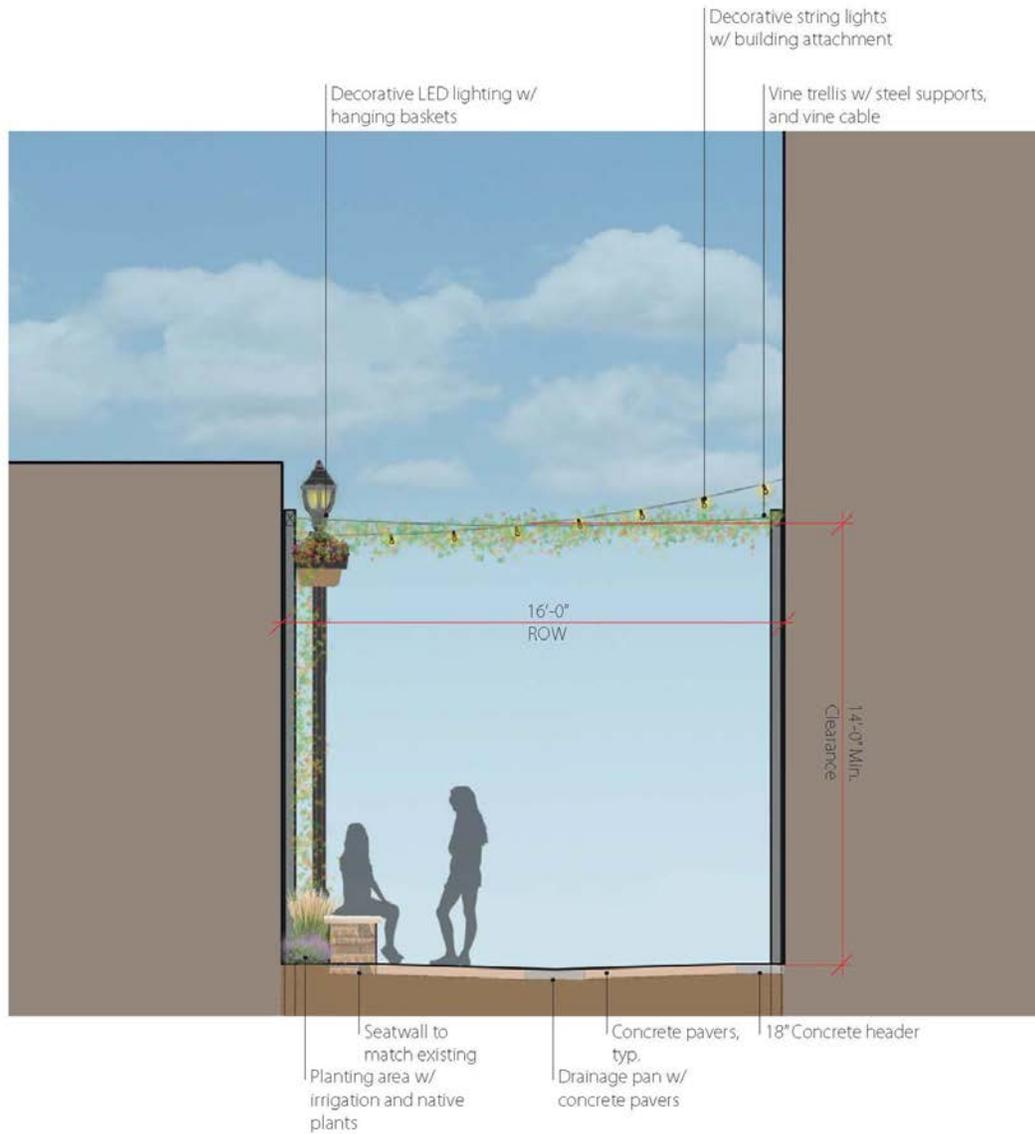
Cheyenne Alley Enhancements
Central to Warren Existing Utilities Diagram

Figure 5 - Central to Warren Existing Utilities Diagram



Downtown Alley Enhancements

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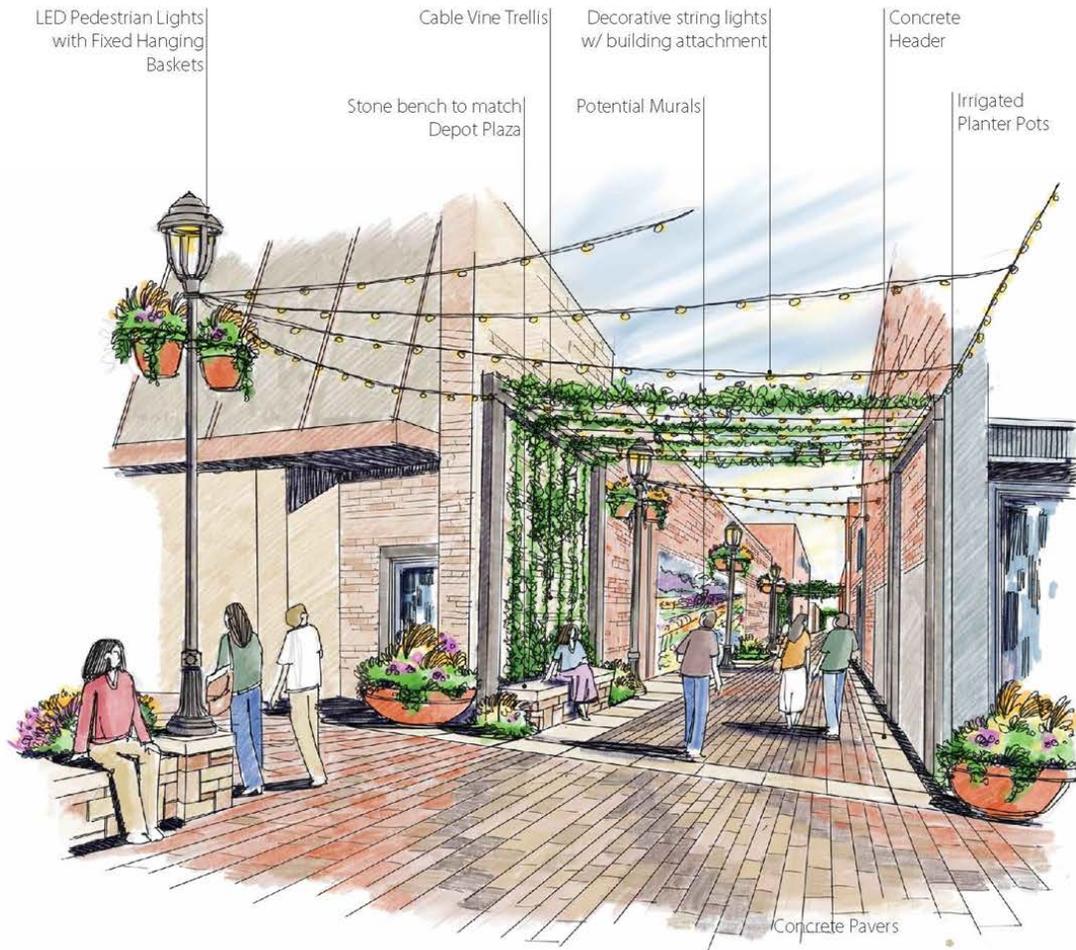
Cheyenne Alley Enhancements Typical Alley Section

Figure 6 - Typical Alley Section



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Cheyenne Alley Enhancements

View Looking East from Carey Ave. to Capitol Ave.

Figure 7 - View Looking East From Carey Ave. to Capitol Ave.



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IV. DRAINAGE

Existing slotted drains and drainage patterns are largely effective within the alleys and will continue to be utilized. An inverted crown cross section is proposed with a 2% maximum cross-slope and paver drain pans directing water to existing slot drains. Downspouts have been modified previously to tie into existing storm sewers and these will be maintained in the current condition.

V. WASTE MANAGEMENT

Consolidated trash enclosures are shown along improved alleys in order to remove dumpsters from the alley ROW, and reduce the number of necessary dumpsters through increased pickup frequency and shared use by all business owners, building owners and tenants on the alley block. This will require a cooperative agreement to be developed among these property owners and tenants to pay for waste management services according to individual required volumes.



VI. COST OPINIONS

Carey – Capitol Estimate of Probable Costs

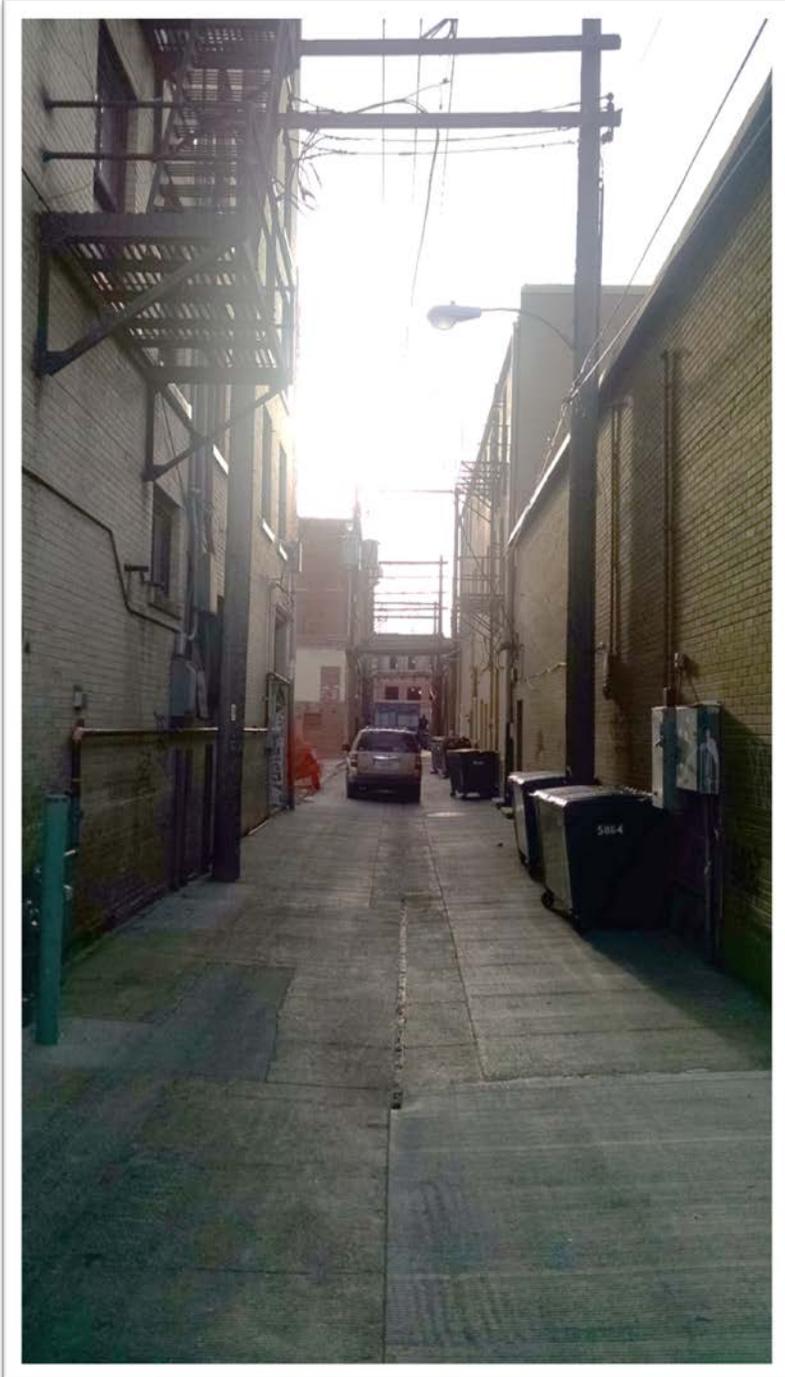
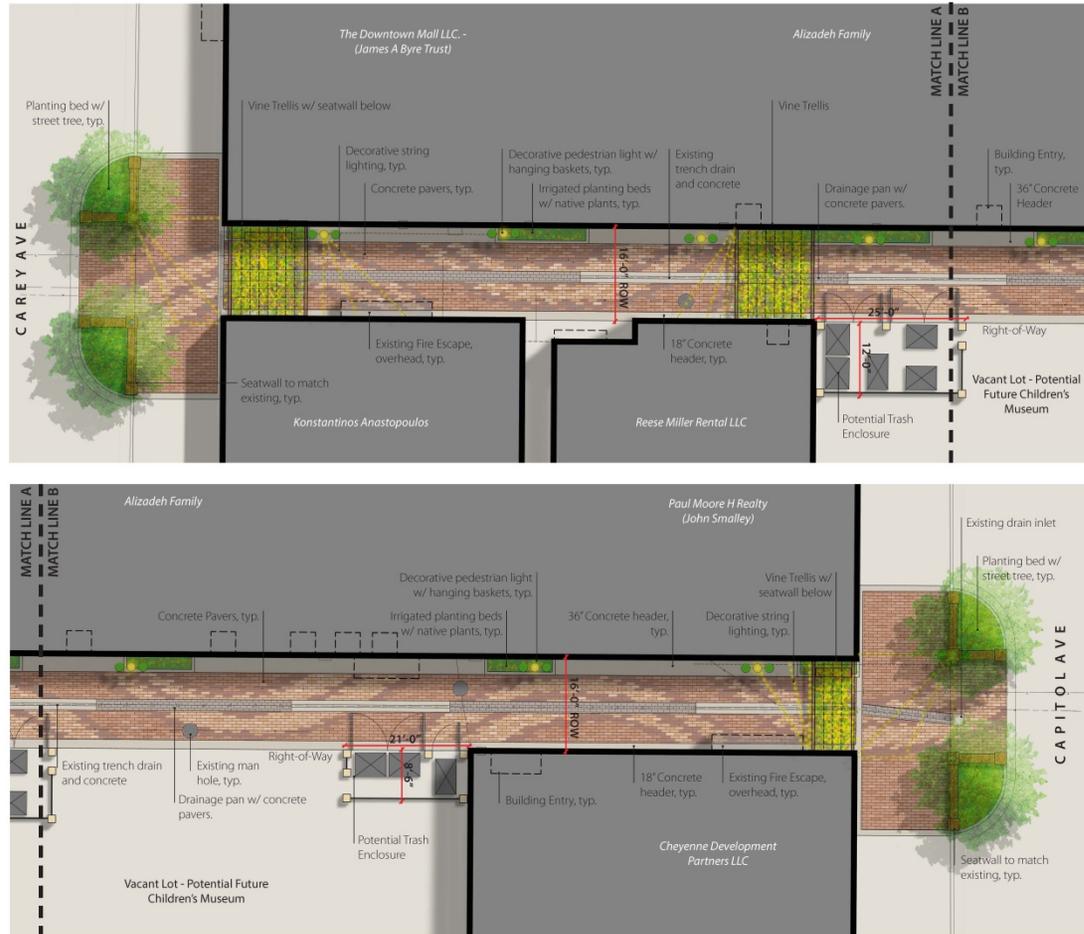


Figure 8 – Carey to Capitol Block #390 Alley



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Cheyenne Alley Enhancements
Carey to Capitol - Concept

Figure 9 – Carey to Capitol Concept



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Table 1 - Cheyenne Alley Enhancement (Carey - Capitol) Estimate of Probable Costs

Cheyenne Alley Enhancement (Carey - Capitol)					
Estimate of Probable Costs					
Plan Date: April, 2017					
Prepared by: Russell + Mills Studios					
ITEM	UNIT	UNIT COST	QTY.	EXTENDED COST	NOTES
CONSTRUCTION					
Traffic Control	ALLOW	\$10,000.00	1	\$10,000	
Property Owner/Tenant	ALLOW	\$10,000.00	1	\$10,000	
Erosion Control	ALLOW	\$8,000.00	1	\$8,000	
		CATEGORY SUBTOTAL		\$28,000	
DEMOLITION					
Saw Cut	L.F.	\$1.50	650	\$975	
Misc. Demolition	ALLOW	\$8,000.00	1	\$8,000	
Remove Existing Concrete	S.F.	\$2.00	5,200	\$10,400	
Remove Existing Asphalt	S.F.	\$1.50	750	\$1,125	
Remove Curb/Gutter	L.F.	\$7.00	90	\$630	
		CATEGORY SUBTOTAL		\$21,130	
UTILITIES					
Alley Fiber Upgrade	ALLOW	\$135,000.00	1	\$135,000	
Black Hills Energy Upgrade	ALLOW	\$130,000.00	1	\$130,000	
Secondary Conduit and hookup Points	ALLOW	\$100,000.00	1	\$100,000	
Misc. Utility work	ALLOW	\$5,000.00	1	\$5,000	
		CATEGORY SUBTOTAL		\$370,000	
EARTHWORK					
Import Structural Fill	ALLOW	\$500.00	1	\$500	
Import Fill	ALLOW	\$500.00	1	\$500	
Cut, Fill, and Compact Onsite Material	ALLOW	\$1,500.00	1	\$1,500	
Export Excess Cut	ALLOW	\$500.00	1	\$500	
Import and place Topsoil	ALLOW	\$1,500.00	1	\$1,500	
		CATEGORY SUBTOTAL		\$4,500	
SITE LIGHTING AND ELECTRICAL					
Pole Footing	EA.	\$850.00	11	\$9,350	
Decorative String Lighting	L.F.	\$25.00	340	\$8,500	includes bldg. mount and cable
Decorative Pole	EA.	\$1,300.00	2	\$2,600	Decorative Pole, string light mount
Decorative Light Pole + Fixture	EA.	\$7,000.00	9	\$63,000	Poles w/ hanging baskets and string light mounts
Lighting Control Center	ALLOW	\$8,000.00	1	\$8,000	
		CATEGORY SUBTOTAL		\$91,450	
SITE WORK					
6" Concrete Landscape Curb	L.F.	\$20.00	105	\$2,100	
18" Concrete Header	L.F.	\$18.00	400	\$7,200	
36" Concrete Header	L.F.	\$25.00	245	\$6,125	
Curb and Gutter	L.F.	\$25.00	105	\$2,625	
Concrete Pavers	S.F.	\$20.00	4,225	\$84,500	
Pavement Subgrade Prep	CY	\$3.50	155	\$543	12" scarify, compact
Alley Painting	ALLOW	\$25,000.00	1	\$25,000	
Asphalt Patch	ALLOW	\$1,500.00	1	\$1,500	
Concrete Patch	ALLOW	\$1,500.00	1	\$1,500	
Seatwall Bench	L.F.	\$275.00	14	\$3,850	
Corner Seatwall - Match Existing	L.F.	\$275.00	90	\$24,750	Match Existing walls
		CATEGORY SUBTOTAL		\$159,693	
SITE FINISHINGS					
Trash Enclosure Gate	EA.	\$2,000.00	7	\$14,000	Slit gate w/ hinges, latches misc. attachments
Trash Enclosure Column	EA.	\$1,500.00	12	\$18,000	CMU Core, Brick Veneer and cap
Trash Enclosure Fencing	L.F.	\$275.00	55	\$15,125	stl fencing
Vine Trellis	EA.	\$2,500.00	3	\$7,500	
		CATEGORY SUBTOTAL		\$54,625	
LANDSCAPE					
Soil Prep - Compost and fertilizer as required	C.Y.	\$25.00	9	\$225	All planted areas - 6" depth
Cobble Mulch	C.Y.	\$45.00	5	\$225	3" depth
Deciduous Tree	EA.	\$350.00	4	\$1,400	2" caliper
Planting Beds	S.F.	\$6.00	465	\$2,790	Shrubs/Grasses/Perennials
		CATEGORY SUBTOTAL		\$4,640	
IRRIGATION					
Irrigation System	ALLOW	\$35,000.00	1	\$35,000	Full system including controller
		CATEGORY SUBTOTAL		\$35,000	
		SUBTOTAL		\$769,038	
		1.3% Surveying/potholing		\$9,997	
		8% A/E Design		\$61,523	
		0.7% Bidding		\$5,383	
		5% Design Contingency		\$38,452	
		15% Contractor Overhead Mobilization and Profits		\$115,356	
		10% Construction Management		\$76,904	
		TOTAL		\$1,076,653	



Downtown Alley Enhancements

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Capitol – Central Estimate of Probable Costs

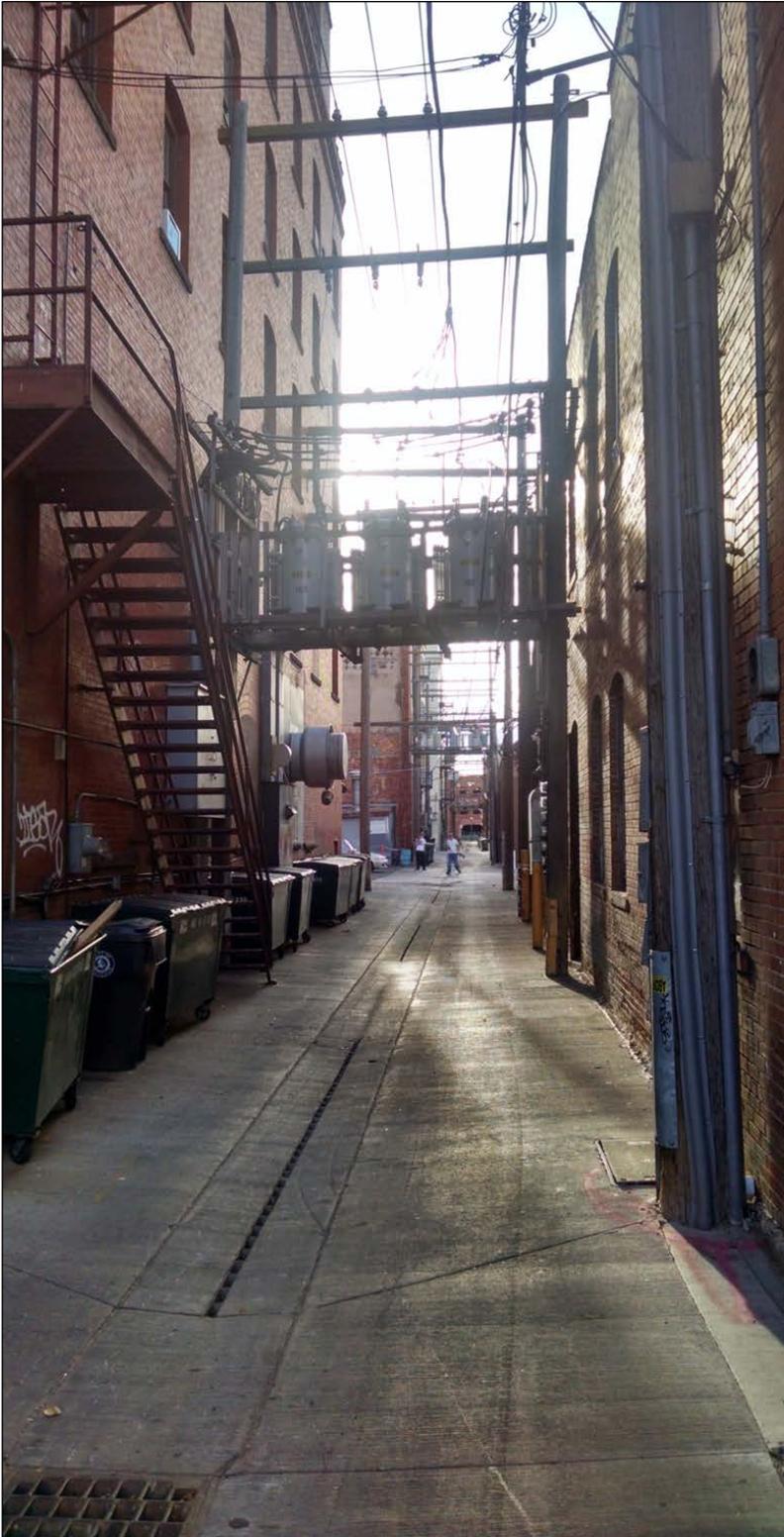
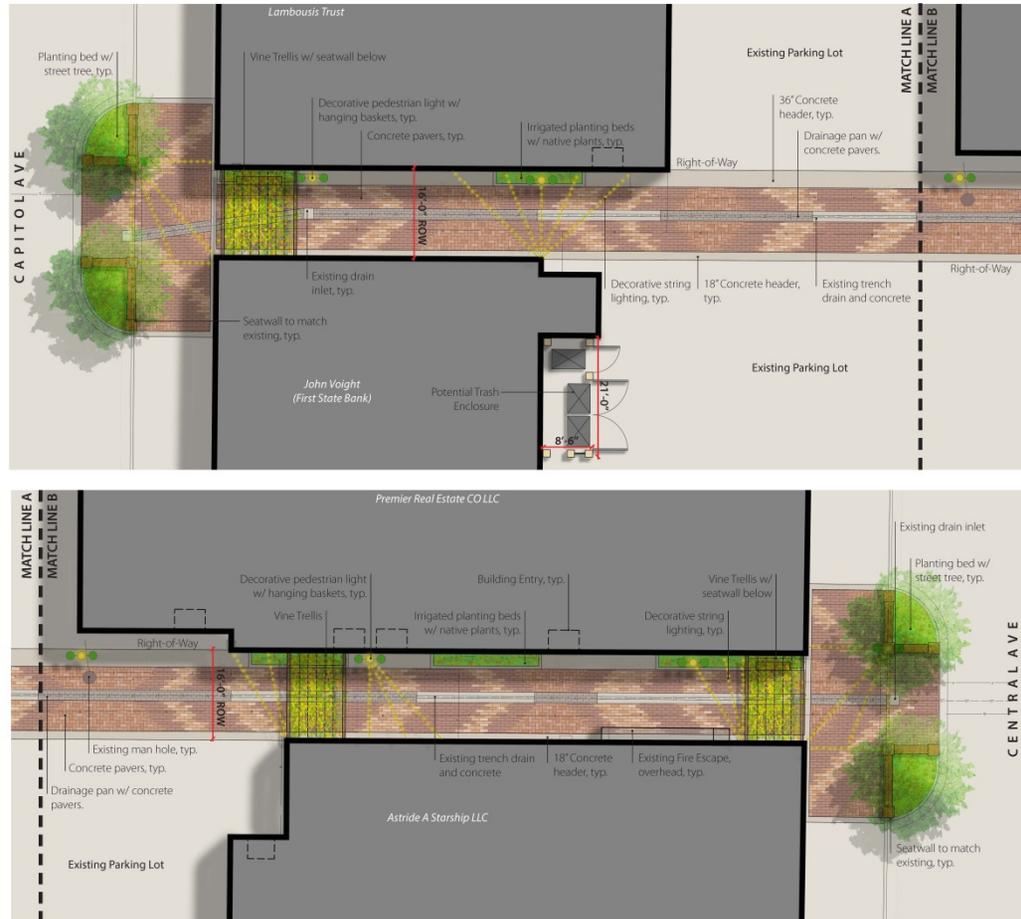


Figure 10 – Capitol to Central Block #389 Alley



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**Cheyenne Alley Enhancements
Capitol to Central - Concept**

Figure 11 – Capitol to Central Concept



Downtown Alley Enhancements

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Table 2 - Cheyenne Alley Enhancement (Capitol - Central) Estimate of Probable Costs

Cheyenne Alley Enhancement (Capitol - Central)					
Estimate of Probable Costs					
Plan Date: April, 2017					
Prepared by: Russell + Mills Studios					
ITEM	UNIT	UNIT COST	QTY.	EXTENDED COST	NOTES
CONSTRUCTION					
Traffic Control	ALLOW	\$10,000.00	1	\$10,000	
Property Owner/Tenant	ALLOW	\$10,000.00	1	\$10,000	
Erosion Control	ALLOW	\$8,000.00	1	\$8,000	
CATEGORY SUBTOTAL				\$28,000	
DEMOLITION					
Saw Cut	L.F.	\$1.50	450	\$675	
Misc. Demolition	ALLOW	\$8,000.00	1	\$8,000	
Remove Existing Concrete	S.F.	\$2.00	4,920	\$9,840	
Remove Existing Asphalt	S.F.	\$1.50	800	\$1,200	
Remove Curb/Gutter	L.F.	\$7.00	90	\$630	
CATEGORY SUBTOTAL				\$20,345	
UTILITIES					
Alley Fiber Upgrade	ALLOW	\$135,000.00	1	\$135,000	
Black Hills Energy Upgrade	ALLOW	\$130,000.00	1	\$130,000	
Secondary Conduit and hookup Points	ALLOW	\$100,000.00	1	\$100,000	
Misc. Utility work	ALLOW	\$5,000.00	1	\$5,000	
CATEGORY SUBTOTAL				\$370,000	
EARTHWORK					
Import Structural Fill	ALLOW	\$500.00	1	\$500	
Import Fill	ALLOW	\$500.00	1	\$500	
Cut, Fill, and Compact Onsite Material	ALLOW	\$1,500.00	1	\$1,500	
Export Excess Cut	ALLOW	\$500.00	1	\$500	
Import and place Topsoil	ALLOW	\$1,500.00	1	\$1,500	
CATEGORY SUBTOTAL				\$4,500	
SITE LIGHTING AND ELECTRICAL					
Pole Footing	EA.	\$850.00	9	\$7,650	
Decorative String Lighting	L.F.	\$25.00	410	\$10,250	includes bldg. mount and cable
Decorative Pole	EA.	\$1,300.00	2	\$2,600	Decorative Pole, string light mount
Decorative Light Pole + Fixture	EA.	\$7,000.00	7	\$49,000	Poles w/ hanging baskets and string light mounts
Lighting Control Center	ALLOW	\$8,000.00	1	\$8,000	
CATEGORY SUBTOTAL				\$77,500	
SITE WORK					
6" Concrete Landscape Curb	L.F.	\$20.00	105	\$2,100	
18" Concrete Header	L.F.	\$18.00	400	\$7,200	
36" Concrete Header	L.F.	\$25.00	260	\$6,500	
Curb and Gutter	L.F.	\$25.00	105	\$2,625	
Concrete Pavers	S.F.	\$20.00	4,125	\$82,500	
Pavement Subgrade Prep	CY	\$3.50	155	\$543	12" scarify, compact
Alley Painting	ALLOW	\$25,000.00	1	\$25,000	
Asphalt Patch	ALLOW	\$1,500.00	1	\$1,500	
Concrete Patch	ALLOW	\$1,500.00	1	\$1,500	
Seatwall Bench	L.F.	\$275.00	14	\$3,850	
Corner Seatwall - Match Existing	L.F.	\$275.00	90	\$24,750	Match Existing walls
CATEGORY SUBTOTAL				\$158,068	
SITE FINISHINGS					
Trash Enclosure Gate	EA.	\$2,000.00	3	\$6,000	Slit gate w/ hinges, latches misc. attachments
Trash Enclosure Column	EA.	\$1,500.00	6	\$9,000	CMU Core, Brick Veneer and cap
Trash Enclosure Fencing	L.F.	\$275.00	3	\$825	stl fencing
Vine Trellis	EA.	\$2,500.00	3	\$7,500	
CATEGORY SUBTOTAL				\$23,325	
LANDSCAPE					
Soil Prep - Compost and fertilizer as required	C.Y.	\$25.00	9	\$225	All planted areas - 6" depth
Cobble Mulch	C.Y.	\$45.00	5	\$225	3" depth
Deciduous Tree	EA.	\$350.00	4	\$1,400	2" caliper
Planting Beds	S.F.	\$6.00	465	\$2,790	Shrubs/Grasses/Perennials
CATEGORY SUBTOTAL				\$4,640	
IRRIGATION					
Irrigation System	ALLOW	\$35,000.00	1	\$35,000	Full system including controller
CATEGORY SUBTOTAL				\$35,000	
SUBTOTAL				\$721,378	
1.3% Surveying/potholing				\$9,378	
8% A/E Design				\$57,710	
0.7% Bidding				\$5,050	
5% Design Contingency				\$36,069	
15% Contractor Overhead Mobilization and Profits				\$108,207	
10% Construction Management				\$72,138	
TOTAL				\$1,009,929	



Downtown Alley Enhancements

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Central – Warren Estimate of Probable Costs

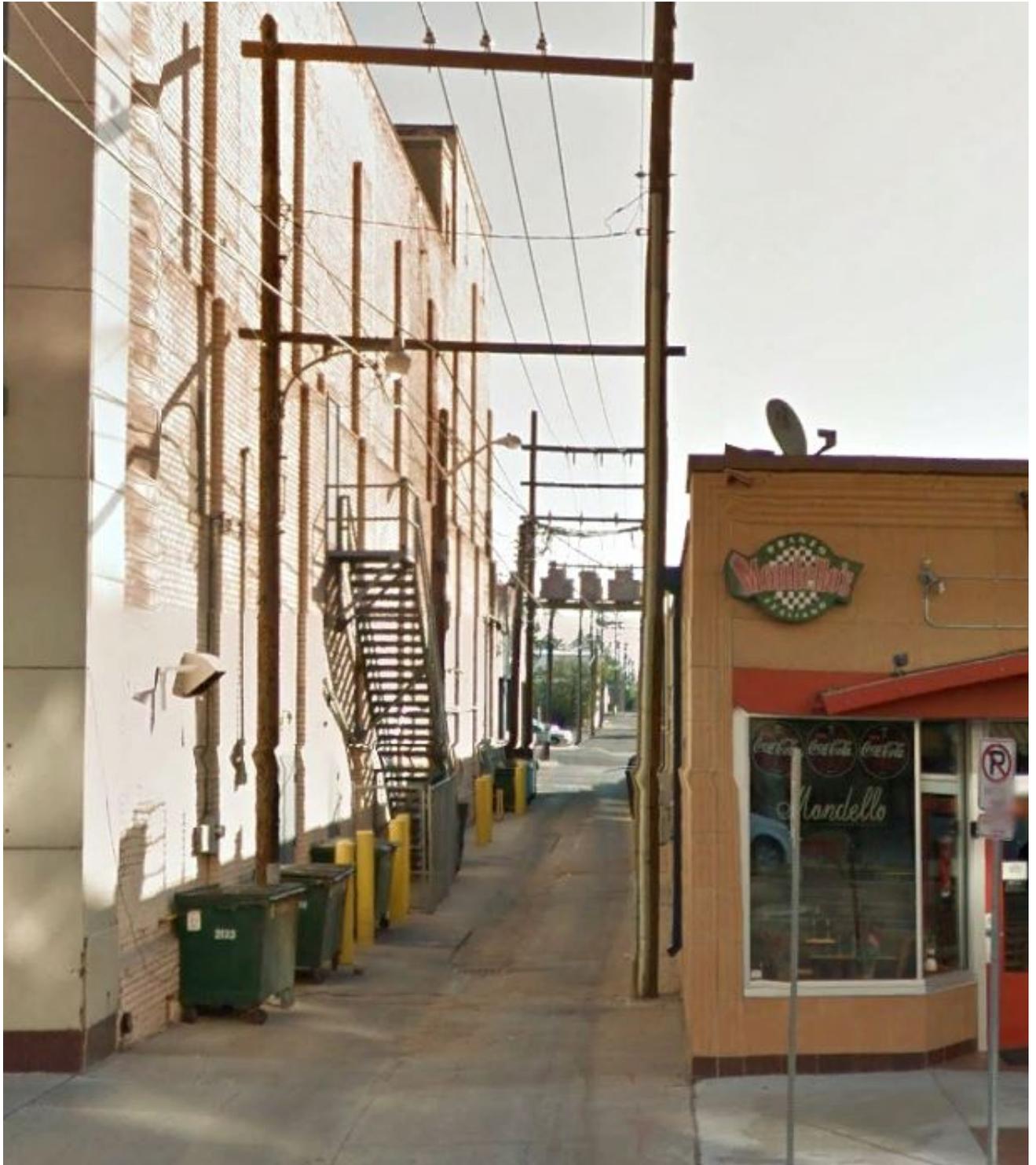


Figure 12 – Central to Warren Block #388



Downtown Alley Enhancements

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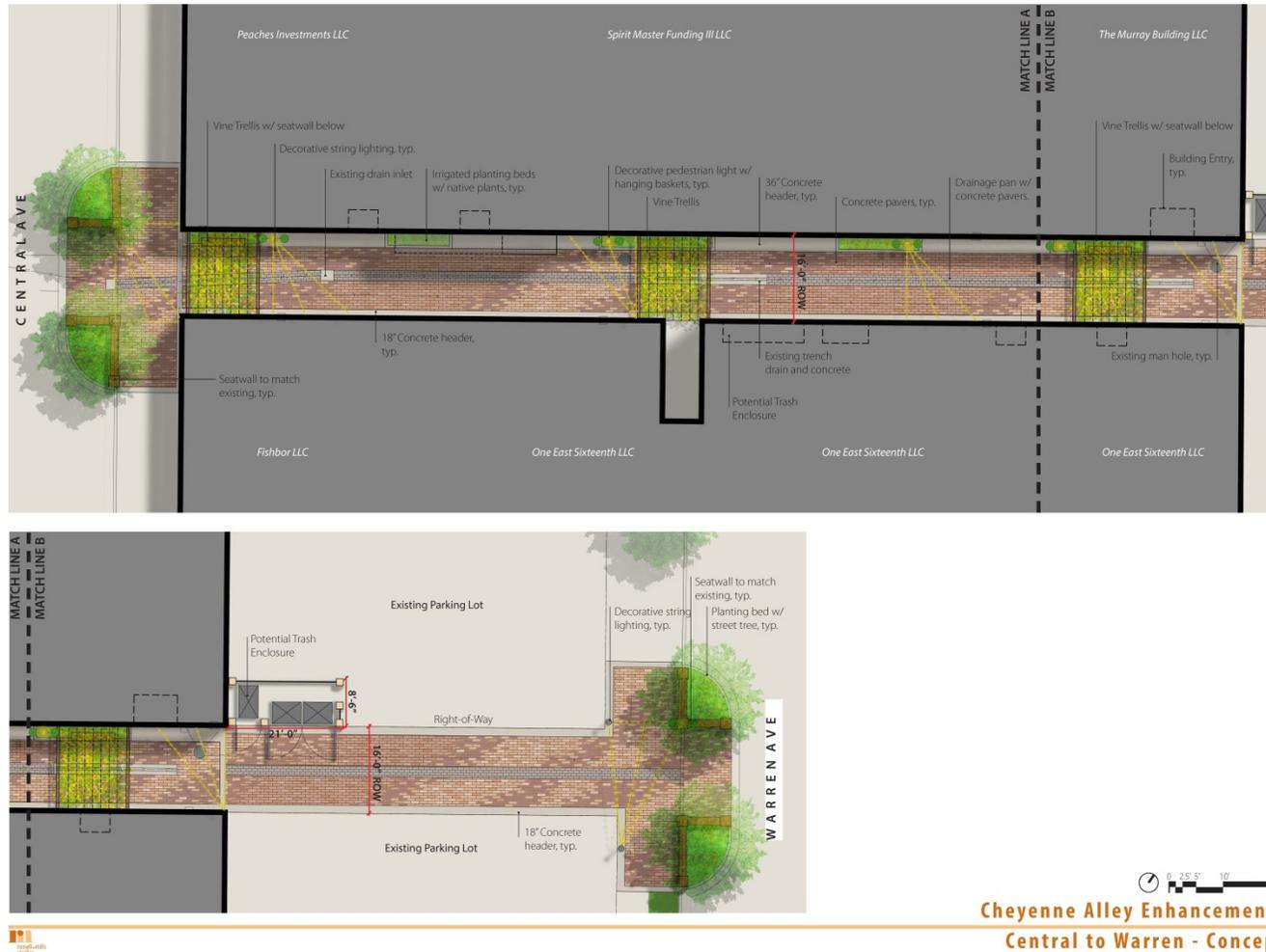


Figure 13 – Central to Warren - Concept



Downtown Alley Enhancements

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Table 3 - Cheyenne Alley Enhancement (Central - Warren) Estimate of Probable Costs

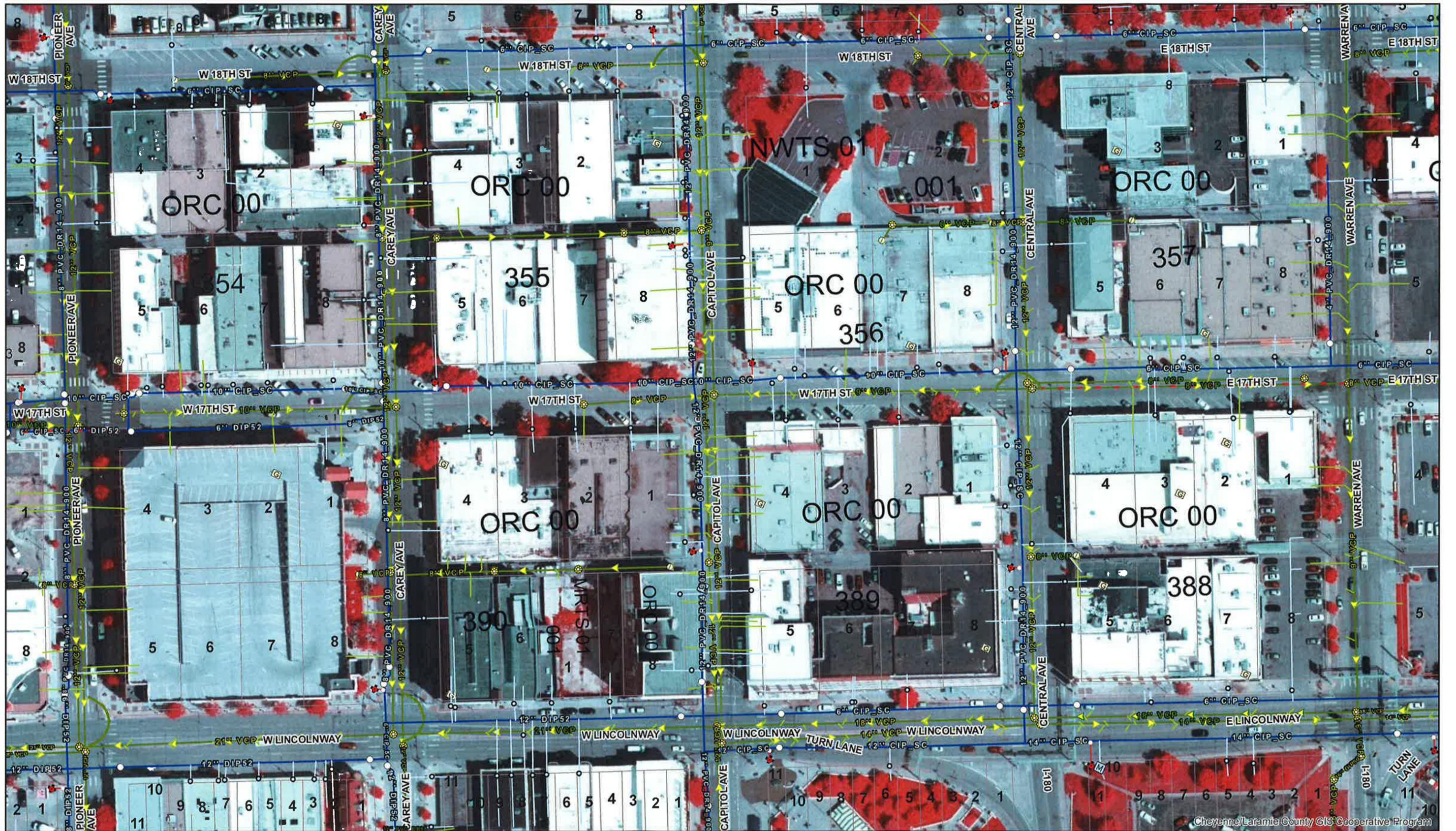
Cheyenne Alley Enhancement (Central - Warren)					
Estimate of Probable Costs					
Plan Date: April, 2017					
Prepared by: Russell + Mills Studios					
ITEM	UNIT	UNIT	QTY.	EXTENDED	NOTES
CONSTRUCTION					
Traffic Control	ALLOW	\$10,000.00	1	\$10,000	
Property Owner/Tenant Coordination/Communication	ALLOW	\$10,000.00	1	\$10,000	
Erosion Control	ALLOW	\$8,000.00	1	\$8,000	
		CATEGORY SUBTOTAL		\$28,000	
DEMOLITION					
Saw Cut	L.F.	\$1.50	400	\$600	
Misc. Demolition	ALLOW	\$8,000.00	1	\$8,000	
Remove Existing Concrete	S.F.	\$2.00	3,456	\$6,912	
Remove Existing Asphalt	S.F.	\$1.50	780	\$1,170	
Remove Curb/Gutter	L.F.	\$7.00	90	\$630	
		CATEGORY SUBTOTAL		\$17,312	
UTILITIES					
Alley Fiber Upgrade	ALLOW	\$135,000.00	1	\$135,000	
Black Hills Energy Upgrade	ALLOW	\$130,000.00	1	\$130,000	
Secondary Conduit and hookup Points	ALLOW	\$100,000.00	1	\$100,000	
Misc. Utility work	ALLOW	\$5,000.00	1	\$5,000	
		CATEGORY SUBTOTAL		\$370,000	
EARTHWORK					
Import Structural Fill	ALLOW	\$500.00	1	\$500	
Import Fill	ALLOW	\$500.00	1	\$500	
Cut, Fill, and Compact Onsite Material	ALLOW	\$1,500.00	1	\$1,500	
Export Excess Cut	ALLOW	\$500.00	1	\$500	
Import and place Topsoil	ALLOW	\$1,500.00	1	\$1,500	
		CATEGORY SUBTOTAL		\$4,500	
SITE LIGHTING AND ELECTRICAL					
Pole Footing	EA.	\$850.00	9	\$7,650	
Decorative String Lighting	L.F.	\$25.00	375	\$9,375	includes bldg. mount and cable
Decorative Pole	EA.	\$1,300.00	3	\$3,900	Decorative Pole, string light mount
Decorative Light Pole + Fixture	EA.	\$7,000.00	6	\$42,000	Poles w/ hanging baskets and string light mounts
Lighting Control Center	ALLOW	\$8,000.00	1	\$8,000	
		CATEGORY SUBTOTAL		\$70,925	
SITE WORK					
6" Concrete Landscape Curb	L.F.	\$20.00	90	\$1,800	
18" Concrete Header	L.F.	\$18.00	465	\$8,370	
36" Concrete Header	L.F.	\$25.00	190	\$4,750	
Curb and Gutter	L.F.	\$25.00	105	\$2,625	
Concrete Pavers	S.F.	\$20.00	4,250	\$85,000	
Pavement Subgrade Prep	CY	\$3.50	158	\$553	12" scarify, compact
Alley Painting	ALLOW	\$25,000.00	1	\$25,000	
Asphalt Patch	ALLOW	\$1,500.00	1	\$1,500	
Concrete Patch	ALLOW	\$1,500.00	1	\$1,500	
Seatwall Bench	L.F.	\$275.00	16	\$4,400	
Corner Seatwall - Match Existing	L.F.	\$275.00	90	\$24,750	Match Existing walls
		CATEGORY SUBTOTAL		\$160,248	
SITE FUNISHINGS					
Trash Enclosure Gate	EA.	\$2,000.00	3	\$6,000	Slit gate w/ hinges, latches misc. attachments
Trash Enclosure Column	EA.	\$1,500.00	6	\$9,000	CMU Core, Brick Veneer and cap
Trash Enclosure Fencing	L.F.	\$275.00	3	\$825	stl fencing
Vine Trellis	EA.	\$2,500.00	3	\$7,500	
		CATEGORY SUBTOTAL		\$23,325	
LANDSCAPE					
Soil Prep - Compost and fertilizer as required	C.Y.	\$25.00	9	\$225	All planted areas - 6" depth
Cobble Mulch	C.Y.	\$45.00	5	\$225	3" depth
Deciduous Tree	EA.	\$350.00	4	\$1,400	2" caliper
Planting Beds	S.F.	\$6.00	465	\$2,790	Shrubs/Grasses/Perennials
		CATEGORY SUBTOTAL		\$4,640	
IRRIGATION					
Irrigation System	ALLOW	\$35,000.00	1	\$35,000	Full system including controller
		CATEGORY SUBTOTAL		\$35,000	
			SUBTOTAL	\$713,950	
		1.3%		\$9,281	
		8% A/E Design		\$57,116	
		0.7% Bidding		\$4,998	
		5% Design Contingency		\$35,698	
		15% Contractor Overhead Mobilization and Profits		\$107,093	
		10% Construction		\$71,395	
			TOTAL	\$999,530	



Downtown Alley Enhancements

AVI Professional Corporation

Appendix A Core Area Alley



Coordinate System: NAD 1983 StatePlane Wyoming East FIPS 4901 Feet
 Projection: Transverse Mercator
 Datum: North American 1983
 False Easting: 656,166.6667
 False Northing: 0.0000
 Central Meridian: -105.1667
 Scale Factor: 0.9999
 Latitude Of Origin: 40.5000
 Units: Foot US



Date: 12/17/2015

17TH STREET (PIONEER TO WARREN)

THIS MAP IS MADE POSSIBLE THROUGH THE CHEYENNE AND LARAMIE COUNTY COOPERATIVE GIS (CLCCGIS) PROGRAM AND IS FOR DISPLAY PURPOSES ONLY. THE CLCCGIS INVOKES ITS SOVEREIGN AND GOVERNMENTAL IMMUNITY ALLOWING ACCESS TO OR USE OF THIS DATA, MAKES NO WARRANTIES AS TO THE VALIDITY, AND ASSUMES NO LIABILITY ASSOCIATED WITH THE USE OR MISUSE OF THIS INFORMATION.



Downtown Alley Enhancements

AVI Professional Corporation

Appendix B Estimate

Alley modernization project

Jan 11, 2017 meeting minutes

Century link, Mtg. with Bob Bates:

Fiber Possibility: Completed review of the company fiber system in the downtown area. Fiber line in Warren, Capital and Central. Some lines are stubbed into alleys and end at old Manholes. Most of downtown area is serviced with old copper system that has limited data transmitting capacity. Fiber lines would be unlimited. Bob to provide a cost to upgrade system that was prepared up last year. Private property owners would have to provide secondary conduit to alley for connection points. Can run joint trench with BHE. Need 3' bury depth for new conduits. Need space for gear in pocket easements with transformers.

Wi-Fi Possibility: Can be set up installed with current infrastructure very quickly. Need request from DDA or City to provide service. Will need to figure out best location for alley coverage. The optimum location may provide a larger coverage area for downtown and plaza users if planned out properly. Depot clock tower was one location, Top of Hynds building or top of Plains Hotel. Monthly charges would need to be considered and dependent on data transporting capacity 100 meg might be best size for multiple users accessing the system at same time. Mr. Dave Johnson with Century link would be best person to contact concerning a PR project and company assistance for reduced or no monthly rate.

Century Link Cost estimate to upgrade from copper to fiber system is attached and in 2016 was estimated at \$270,000.

Assumptions included a trench would be provided by others, no surface removal, no surface restoration, 2ndary connection to alley by private, etc.

Black Hills Energy Mtg.

Marc, Bob B, and Dustin meet with Bruce and Craig to review and discuss their cost estimate and design for the electrical system underground for the Alleys. Their estimate is for two blocks only. One bore across Central would be required and is included. Conduit already installed on Capital Ave. BHE approach was based on saw cutting concrete pavement and removing a 24" strip to allow the new primary lines and conduits to be installed to new pocket easements, two per block to house the transformers. Secondary lines to private property can run back down trench. Appears to be about 8 private feed points per block with half falling on the opposite side of the alley and thus requires crossing below the slotted drain. Their price does include slurry backfill. Coordination with existing building owners to get there systems revised to receive new feed will be extensive. City code may require a complete wiring upgrade and thus increased cost to property owner. City will need to determine if there is any leeway on code compliance. BHE estimates about 30 days per block for installation of their new system. Old system to remain until all work is installed and completed, then work on demo of old system and pole removal. Would allow other contractor (City) to remove pavement and dig trench.

Can expect to have two gas service crossing on one block.

Need to maintain 10' separation from existing transformer with any new improvements. Other companies running on BHE poles and would need to be rerouted as well. (CATV, Fire Alarms, Comm, etc)

Items of concern:

Amount of time required to coordinate with all impacted landowners, utility providers and business,
Who pays the cost to upgrade 2ndary service to meet code requirements?

Construction phasing. One alley (May to July) by July 15; 2nd alley August to October

BHE cost estimate for both alleys is \$255,600

2ndary conduit and effort to reconnect to hookup points is \$100k per block



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February 22, 2016

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This estimate is Black Hills Energy's costs to install new underground electric facilities and remove the current overhead electric facilities in the alley between W. Lincolnway & W. 17th Street from Central Avenue to Carey Avenue. This estimate is contingent on the Project Assumptions outline below and is subject to change.

Project Assumptions:

- There is a detailed master plan to determine the location of all existing underground structures and facilities in the right of way. With the master plan a cleared route is provided for Black Hills Energy to install the new electrical facilities.
- With the master plan all other parties have been contacted and agree to the scope and timing of the project. This includes, but is not limited to, the City of Cheyenne, BOPU, Charter, and Century Link.
- A study has been completed to ensure the structural integrity of surrounding buildings and Black Hills Energy will not be held liable for any damages to these structures or buildings as a result of excavating to install the new electric facilities.
- A study has been completed to ensure no environmental issues are present in the right of way and Black Hills Energy will not be held liable for any environmental issues that are a result of excavating to install the new electric facilities.
- Black Hills Energy is granted the required "pocket easements" for placement of pad mounted electrical transformers and connection cabinets. These pocket easements must allow easy access to the electric facilities and meet the requirements of the NESC code. Black Hills Energy will provide the protective barriers to prevent vehicle damage to these facilities, but decorative fencing is not included in the estimate and would have to be agreed upon by Black Hills Energy.

- This estimate is for Black Hills Energy facilities only and DOES NOT include all the costs associated with updating each of the electric services in these alleys. This could include significant upgrades to customer owned secondary, metering cabinets, and electrical systems. All electrical services would be required to be up to code and have been inspected by the City before electric service would be restored.
- Schedules and timelines would be agreed upon by all parties. This includes construction timelines, blocking access to alleys during construction, and outages to transition services over to the new underground feed.
- This estimate is subject to change as the scope of the project changes or new information becomes available.

Estimate:

Install new underground electric facilities and remove the current overhead electric facilities in the alley between W. Lincolnway & W. 17th Street from Central Avenue to Carey Avenue.

Total Estimated Cost: \$255,380.88

Estimate Details:

Install new underground electric facilities and remove the current overhead electric facilities in the alley between W. Lincolnway & W. 17th Street from Central Avenue to Carey Avenue.

Install:

- (1,022') 4/0 AL 15kV Kerite Conductor
- (597') Conduit, 4" PVC SCH40
- (103') Conduit, 4" PE
- (2) 300 kVA 13.2Grd/7.62kV 3Ph Padmount Transformers
- (2) 500 kVA 13.2Grd/7.62kV 3Ph Padmount Transformers
- (4) 3Ph fiberglass transformer bases
- (3) Cutouts, 100A 27kV Poly
- (3) Arresters, 10kV
- (1) Primary Riser
- (2) Anchors
- (2) Down Guys

Remove:

- Reck out and remove all existing poles, transformers, equipment, and conductor.

Labor: \$43,431.65

Materials/Other Services: \$211,949.23

Total: \$255,380.88

Disclaimer: This estimate contains confidential or privileged information and is for the addressee only. No further distribution or dissemination is authorized.



This project assumes that excavation will be joint use with Black Hills Energy and Charter Communications and that the trench will be provided by others. This portion of the Downtown Core Project is only for the alley between 16th and 17th, from Central Ave to Carey Ave. The remaining alleys in the Downtown Core area are not included in this estimate.

Project Details and Assumptions:

- Removal of all pavement, concrete, asphalt, etc, to be completed by the others.
- Trench to be provided by others.
- Restoration or alleyway by others.
- Buried placement, utilizing pedestals. Old structure, manholes, and cables to be replaced with new facilities, and old cables abandoned in place.
- New pedestals will be located next to power company cabinets, in a pocket/utility easement.
- This project will allow all business owners to have access to fiber optic cables via a 3" conduit to be placed by each building owner via bullet 7.
- Each building owner will be required to place a 3" conduit, from the existing/new demark location to the new pedestal location in the pocket easement.
- New structure to be placed in the alley by CenturyLink would be 4-4" conduit minimum. This will need to connect to existing structure/cables at both ends of the project. These connections are to be completed by the placement of a new manhole.
- New copper/fiber cables to be pulled in new structure, and all existing services transferred to new cables.
- Alley closures are to be anticipated during the construction period.

Timeline and Cost:

- This project is expected to take at least one full construction season.
- Total estimated cost to the project = \$269,335.18.