



# Downtown/HINGE Infrastructure Plan

*Ralston, NE*



*May 2021*

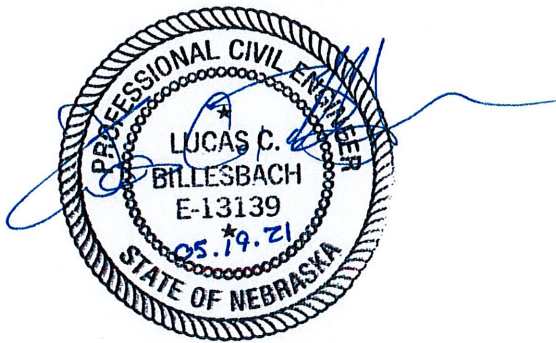
# ***City of Ralston, Nebraska 2021 Downtown/HINGE Infrastructure Plan***

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## 2021 DOWNTOWN/HINGE INFRASTRUCTURE PLAN CITY OF RALSTON, NEBRASKA

### 1 Introduction

In 2019, the City of Ralston, key stakeholders, and the general public undertook efforts to produce a refined vision for growth and development opportunities within the Downtown and Hinge area of Ralston. This area consists of the community's original downtown and a large industrial area between downtown and the 72<sup>nd</sup> Street corridor. These visioning efforts were led by a group of planning professionals and involved interactive design workshops which resulted in the *Ralston Downtown/Hinge Master Plan* adoption by the City in November 2019 and the *Ralston Downtown/Hinge Design Guidelines* adoption in January of 2020.

To facilitate the growth potential and development plans identified in Master Plan documents, the purpose of this planning document is to define the public infrastructure needs in a multi-phase capital planning tool to support build-out of the Downtown/Hinge area. The goal is to understand infrastructure needs and costs through the progression of improvements, promote an orderly construction of public infrastructure improvements, provide improved decision-making capabilities for City staff and officials, and create a framework to encourage private development.

### 2 Executive Summary

Downtown/Hinge infrastructure needs were grouped into four functional areas: (1) transportation, (2) storm/drainage, (3) sanitary, and (4) private utilities. Existing infrastructure data for each functional group was compiled and technical analysis was performed to highlight areas where improvements should be made to accommodate the Downtown/Hinge Master Plan.

#### 2.1 Transportation

The existing roadway infrastructure was assessed within the curb lines of each street section for the Downtown/Hinge area, to provide improvement scope and cost information for combining with the sidewalk and streetscape improvements being evaluated separately by HDR. The roadway infrastructure needs considered two additional factors for scope and cost purposes: (1) adjacent sidewalk elevation adjustment costs required for meeting the Americans with Disabilities Act (ADA) requirements, and (2) identifying budgetary costs for replacement of storm inlet and sewer improvements within the roadway footprint. A preliminary review of the 72<sup>nd</sup> and Main Street intersection was also performed for identification of potential long-term auxiliary lane adjustment needs, which can be found in the appendix.

#### 2.2 Storm/Drainage

A desktop analysis was performed to delineate the stormwater drainage basins of the Downtown/Hinge area, for the purpose of identifying significantly undersized storm sewer trunk lines needing replacement as development occurs. This review resulted by finding all trunk lines capable of conveying storm event flows with recurrence intervals of approximately 5 to 10 years, which generally complies with the latest guidance of the Omaha Regional Stormwater Design Manual (ORSDM). Therefore, stormwater capacity public infrastructure improvements are not anticipated as build out of the Downtown/Hinge area occurs given that each development follows all ORDSM requirements for no net increase in runoff from pre-development conditions.



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### 2.3 Sanitary Sewer

A survey of the existing sanitary manholes within the Downtown/Hinge area along with flow monitoring was used to determine sanitary sewer alignment, flow direction, capacity, and base flows of the existing system. Estimated sanitary flows from the Master Plan of proposed Downtown/Hinge area were then added to the demand of the existing system and recommendations were provided for upgrading, improving, modifying and/or expanding the system to accommodate the anticipated loads from the proposed development area.

### 2.4 Private Utilities

The Metropolitan Utilities District (MUD) currently supplies water to the City of Ralston. MUD staff provided a map of the existing water system in the Downtown/Hinge development that includes a 12-inch water main supplying water to the area. A preliminary analysis indicates that the existing main is capable of supplying water to the new development area. As development continues and fire flow demands are established, MUD can run an analyses to determine if their existing system is able meet all fire flow demands in proposed areas.

### 2.5 Project Costs and Location

Projects identified from each discipline are shown in **Figure 2-1: Summary Map of All Projects**. A more in-depth description of each project can be found in the subsections later in the report. A summary of cost estimates for each project are shown in **Table 2-1: Summary of Costs for All Projects**. 5-year and 10-year costs are included to accommodate extended project timelines. The costs identified are intended for project planning purposes, to provide budgetary estimates for programming and sequencing of improvements. As project priorities are established and more specific project details are defined, further cost reviews are recommended.

Figure 2-1: Summary Map of All Projects

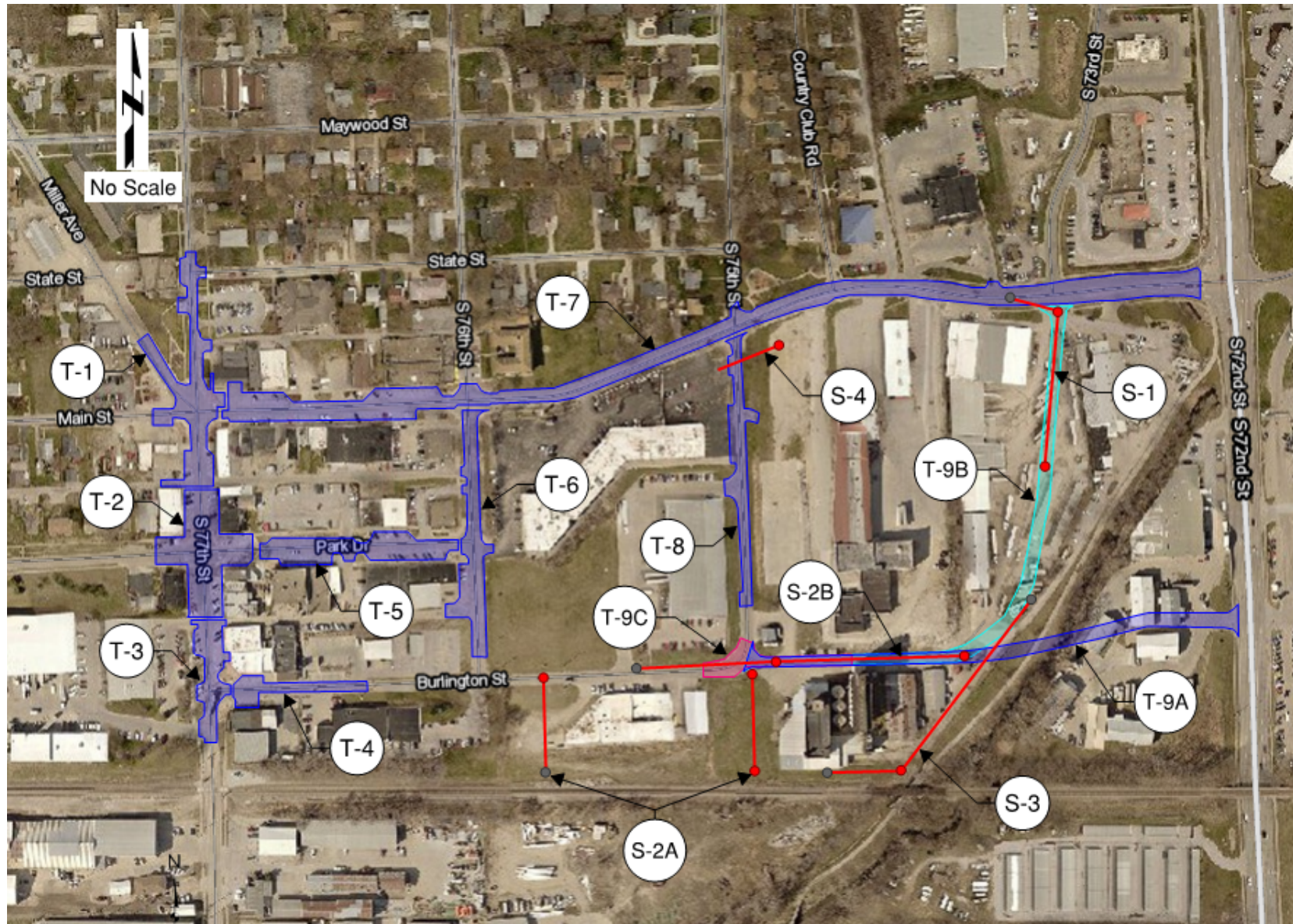


Table 2-1: Summary of Costs for All Projects

Conceptual Opinion of Probable Cost				
Map ID	Project Description	Current	5-yr*	10-yr*
	<b>Transportation</b>			
T-1	5 Pts Intersection (77th and Main Street)	\$325,000	\$395,000	\$481,000
T-2	77th and Park Drive	\$450,000	\$547,000	\$666,000
T-3	77th Street (South of Park Drive)	\$75,000	\$91,000	\$111,000
T-4	Burlington Street (E of 77th Street)	\$50,000	\$61,000	\$74,000
T-5	Park Drive (76th to 77th Street)	\$100,000	\$122,000	\$148,000
T-6	76th Street (Burlington to Main Street)	\$110,000	\$134,000	\$163,000
T-7	Main Street (77th to 72nd Street)	\$400,000	\$487,000	\$592,000
T-8	75th Street (South of Main Street)	\$550,000	\$669,000	\$814,000
T-9A	Burlington Street Roadway and Bridge to 72nd Street – Scenario A	\$4,500,000	\$5,475,000	\$6,661,000
T-9B	Extension to 73rd and Main Street – Scenario B	\$1,000,000	\$1,217,000	\$1,480,000
T-9C	75th Street Intersection to Granary Entrance – Scenario C	\$275,000	\$335,000	\$407,000
	<b>Sanitary Sewer</b>			
S-1	73rd Street Sanitary Sewer Relocation	\$156,000	\$190,000	\$231,000
S-2A	Burlington Street Sanitary Sewer Improvements – Scenario A	\$131,000	\$159,000	\$194,000
S-2B	Burlington Street Sanitary Sewer Improvements – Scenario B	\$212,000	\$258,000	\$314,000
S-3	United Seeds Sanitary Sewer Relocation	\$177,000	\$215,000	\$262,000
S-4	75th Street Sanitary Sewer Improvements	\$63,000	\$77,000	\$93,000
Total Construction Cost:		\$8,600,000	\$10,400,000	\$12,700,000
Design and Construction Admin Services:		\$1,500,000	\$1,900,000	\$2,300,000
<b>Total Project Cost:</b>		<b>\$10,100,000</b>	<b>\$12,300,000</b>	<b>\$15,000,000</b>

\*5 and 10 year cost estimates based on 4% price escalation per year

### 3 Public Infrastructure Functional Areas

In an effort to identify areas of public infrastructure that need improvement to support the Downtown/HINGE development, existing data was gathered for each functional area. An analysis of the condition, location, and ability to serve development was applied to existing infrastructure within each functional area. Public infrastructure that was deteriorating or otherwise unable to serve the Downtown/HINGE development was identified and grouped into projects.

#### 3.1 Transportation

##### 3.1.1 Supplemental Data Gathering

Two sources of roadway condition information were utilized for assessing the pavement infrastructure improvement needs: the (1) Ralston Paving Assessment report prepared by JEO Consulting in 2019 as a part of a citywide Capital Improvement Plan development, and (2) a site visit and field walk to observe current deterioration conditions throughout the street network.

##### 3.1.2 Project Identification

Roadway projects were delineated in segments of either complete intersection reconstructions or multiple-block reconstruction projects for the purpose of assigning costs only. The extent of individual projects should be evaluated as detailed design review commences and budget cycles are established. **Table 3-1: Roadway Improvements** describes all roadway improvements within the Downtown/Hinge area.

**Table 3-1: Roadway Improvements**

Map ID	Project Description	Summary of Improvements	Estimated Current Cost
T-1	5 Pts Intersection (77th and Main Street)	<ul style="list-style-type: none"> <li>20% Concrete Panel Replacement</li> <li>Pavement reconstruction for existing asphalt segment east of City Hall.</li> <li>ADA pedestrian ramp to meet elevation transition requirements at NE quadrant of intersection.</li> </ul>	\$325,000
T-2	77th and Park Drive	<ul style="list-style-type: none"> <li>Elevation adjustments throughout entire intersection, bringing elevation up by approximately 1 ft for ADA compliance of sidewalks within all quadrants of intersection.</li> <li>Complete reconstruction of intersection pavement.</li> <li>Replacement of two storm inlets and approximately 100 ft of storm sewer pipe.</li> </ul>	\$450,000
T-3	77th Street (South of Park Drive)	<ul style="list-style-type: none"> <li>20% Concrete Panel Replacement</li> </ul>	\$75,000
T-4	Burlington Street (from 77 <sup>th</sup> 150 ft East)	<ul style="list-style-type: none"> <li>20% Concrete Panel Replacement</li> </ul>	\$50,000



T-5	Park Drive (76th to 77th Street)	<ul style="list-style-type: none"> <li>• Mill and overlay existing concrete pavement.</li> <li>• 10% Concrete Panel Replacement</li> </ul>	\$100,000
T-6	76th Street (Burlington to Main Street)	<ul style="list-style-type: none"> <li>• Mill and overlay existing concrete pavement north of Park Avenue.</li> <li>• 10% Concrete Panel Replacement throughout.</li> </ul>	\$120,000
T-7	Main Street (77th to 72nd Street)	<ul style="list-style-type: none"> <li>• Mill and overlay existing concrete pavement.</li> <li>• 10% Concrete Panel Replacement</li> </ul>	\$400,000
T-8	75th Street (South of Main Street)	<ul style="list-style-type: none"> <li>• Complete reconstruction of existing asphalt roadway.</li> <li>• Includes storm sewer construction.</li> </ul>	\$550,000

Through meetings with City staff and Hinge development representatives, connectivity of Burlington Street to the east was noted as a key desire within the development. Three alternatives for roadway expansion were identified: (1) extension of Burlington Street eastward to connect to 72<sup>nd</sup> Street at the existing U Street intersection, (2) extension of Burlington Street northeasterly to the intersection of 73<sup>rd</sup> and Main Street, and (3) short-term connection to a south property access drive for the Granary located approximately 250 ft east of 75<sup>th</sup> Street. These alternatives are identified in **Table 3-2: Burlington Extension Alternatives**.

**Table 3-2: Burlington Extension Alternatives**

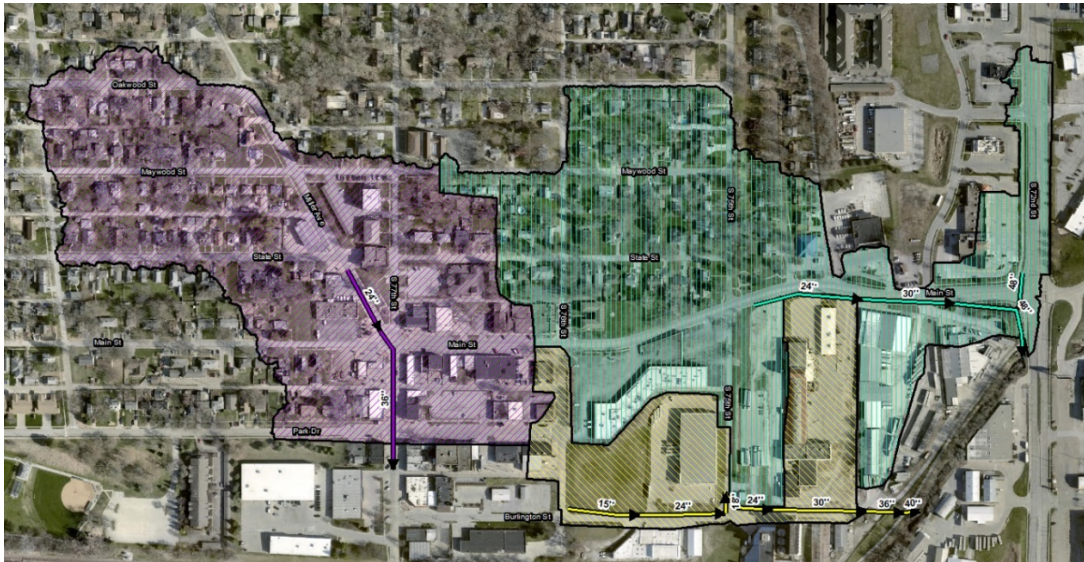
Map ID	Project Description	Summary of Improvements	Estimated Current Cost
T-9A	Burlington Street Roadway and Bridge to 72nd Street – Scenario A	<ul style="list-style-type: none"> <li>• 2-Lane bridge with sidewalk on both sides.</li> <li>• Roadway extension and sideroad improvements at intersection with 72<sup>nd</sup> Street.</li> </ul>	\$4.5M
T-9B	Extension to 73rd and Main Street – Scenario B	<ul style="list-style-type: none"> <li>• 2-Lane roadway construction (1,200 ft) from intersection of 75th and Burlington Street to 73rd and Main Street.</li> </ul>	\$1,000,000
T-9C	75th Street Intersection to Granary Entrance – Scenario C	<ul style="list-style-type: none"> <li>• Complete roadway reconstruction to proposed Granary entrance 250 ft east of 75th Street.</li> <li>• Realign curb line along south side of Burlington Street through 75th Street intersection.</li> </ul>	\$275,000

## 3.2 Storm/Drainage

### 3.2.1 Supplemental Data Gathering

Analysis of the storm sewer trunk lines was completed using the rational method to estimate peak flows and Manning's equation to estimate pipe full flow capacity. Contributing drainage areas were delineated based on 2016 LiDAR data while runoff coefficients were estimated based on aerial imagery. A minimum time of concentration of 5 minutes was used for each basin. Information on the existing storm sewer system was attained from the Storm Sewer GIS Mapping project completed by JEO in 2015. The analysis determined all trunk lines are currently sufficiently sized to convey the 5-Year storm event and most are capable of conveying the 10-Year storm event or higher. **Figure 3-1: Stormwater Basin and Trunk Sewer Analysis** outlines the stormwater basins and trunk sewers considered in the analysis.

**Figure 3-1: Stormwater Basin and Trunk Sewer Analysis**



### 3.2.2 Project Identification

No existing storm sewer system capacity improvements were identified within this study, provided future development and redevelopment within the Downtown/Hinge area follows the provisions of the Omaha Regional Stormwater Design Manual, as adopted within Chapter 16 of the City of Ralston Municipal Code. The objective of the stormwater requirements established in the Code allow for increases in the stormwater flow and potential sediment increases within the stormwater runoff, produced by increased development, to be controlled and reduced within the property being developed, rather than allowed to flow into the City's storm sewer system.

Site features adhering to these stormwater requirements include detention basins or storage features to limit post-development stormwater outflows to pre-development levels, and often include additional landscape features to increase the time required for stormwater to flow across the developed sites. While stormwater provisions to achieve water quality and flow control should be implemented for all sites, due to most properties within the Downtown/Hinge area being previously developed, significant stormwater storage capacity for increases in post-development flow are generally not anticipated.

### 3.3 Sanitary Sewer

#### 3.3.1 Supplemental Data Gathering

The City uses a GIS database to store information such as sanitary manhole depth, invert elevation, location, and upstream and downstream pipe size. A survey of approximately 50 manholes within the Downtown/Hinge area was conducted to catalogue invert elevations and pipe sizes. This data provided useful information in the technical analysis and was uploaded to the City's GIS database for future use. A map of the Downtown/Hinge sanitary system is included in the appendix.

Four flow meters were installed to record base flows and provide an estimate of the existing demand placed on the sanitary sewers surrounding the Downtown/Hinge area. Flow data was also acquired from the City of Omaha's permanent meter station that collects sanitary flows from all of Ralston. **Table 3-3: Flow Meter Data and Location** shows the location of the four meters and Omaha metering station along with the average and peak flows at each site.

**Table 3-3: Flow Meter Data and Location**

Manhole ID	Meter Location	Average Flow (GPD)*	Peak Flow** (GPD)
R7400002	77th and Main St.	11,000	40,700
JEO5	75th and State St.	120,000	444,000
R7590015	RR Tracks and Ralston Park	350,000	1,295,000
R7400032	72 <sup>nd</sup> Street-AAA Rentals	450,000	1,665,000
Meter Station	Builder's Supply	760,000	2,812,000

\*GPD = Gallons per day

\*\*A peak flow factor of 3.7 was determined based on the average peak flow factor used in the Hinge sanitary sewer proposed flows.

Using the pipe size and slope information collected from the survey, a capacity analysis of each segment of sanitary sewer (from manhole to manhole) was conducted using Omaha Design Standards. Due to the City's topography, most of the sanitary mains are laid at steep slopes which increases their capacity and allows them to convey more wastewater. The existing flows and peak flows for each segment were estimated based on land-use and flow data collected from the meter locations. Peak flows from the proposed Downtown/Hinge area were estimated based on land-use and then added to the demand experienced by the existing system. **Table 3-4: Anticipated Future Flows** presents estimated peak flows experienced by the pipe segments downstream of each manhole when additional flow from the Downtown/Hinge development is added to the system.

**Table 3-4: Anticipated Future Flows**

Manhole ID	Manhole Location	Future Peak Flow* (GPD)	Capacity of Segment (GPD)	Percent of Sewer Capacity**
R7400002	77th and Main St.	130,000	4,600,000	3%
JEO5	75th and State St.	775,000	3,400,000	23%
R7590015	RR Tracks and Ralston Park	1,295,000	8,200,000	16%
R7400032	72 <sup>nd</sup> Street-AAA Rentals	2,420,000	3,300,000	73%

\*A peak flow factor of 3.7 was determined based on the average peak flow factor used in the Hinge sanitary sewer proposed flows.

\*\*Percent of Sewer Capacity = Future Peak Flow in Segment / Capacity of Sewer Segment

A siphon analysis was conducted on the City's siphon structure located along the Ralston Trail west of 72<sup>nd</sup> Street and south of Main Street. The siphon contains two 10-inch and one 12-inch pipes (barrels) and has a total capacity of 6.0 million gallons per day (MGD). With the largest barrel out of service, the siphon has a firm capacity of 3.3 MGD, which matches the capacity of the 18-inch segment immediately upstream of the siphon. This analysis assumed that all barrels are clean and have been regularly maintained.

An analysis of the existing peak flows experienced by the sanitary sewers revealed that existing peak flows do not exceed more than 60% of any segment's capacity, with an average of only 29%. When future peak flows from the Downtown/Hinge area are added to the system, flows do not exceed more than 80% capacity with an average of 40%. The peak flow estimate assumes that every user in the system is experiencing peak flows simultaneously. This situation is highly unlikely and considered a conservative estimation.

### 3.3.2 Project Identification

Improvement needs for the Downtown/Hinge sanitary system were based on the capacity analysis, location, and condition of existing sanitary mains. Four projects were identified using these criteria and a summary of the project description and conceptual opinion of cost are presented in **Table 2-1: Summary of Costs for All Projects**.



### 3.3.2.1 73<sup>rd</sup> Street Sanitary Sewer Relocation

This project proposes to relocate the existing 12-inch sanitary main that runs through the Chieftain Van Lines property underneath the buildings. The existing main is upstream from the siphon structure and has 590-feet of pipe with no manhole which makes it difficult for the City to clean. Maintaining this stretch of sewer is critical to the operation of the siphon downstream.

The existing sanitary sewer is proposed to be abandoned and re-routed to follow 73<sup>rd</sup> Street up to Main Street. **Figure 3-2: 73<sup>rd</sup> Street Sanitary Sewer Relocation** presents a schematic of this project.

**Figure 3-2: 73<sup>rd</sup> Street Sanitary Sewer Relocation**



### 3.3.2.2 Burlington Street Sanitary Sewer Improvements

The existing 6-inch and 8-inch sanitary sewer mains along Burlington Street are undersized and in need of improvement to service the new development in the area. This project proposes two alternatives to redirect sanitary flows from the manhole on 76<sup>th</sup> and Burlington Street to the existing trunk sewer. The most appropriate alternative should be selected after further development of the surrounding area is confirmed so that pavement replacement costs on Burlington Street can be minimized.

Alternative 1 proposes to abandon the existing 6-inch sanitary main east of 76<sup>th</sup> and Burlington and redirect flows from this segment south to the large diameter trunk sewer. A manhole on 75<sup>th</sup> and Burlington can be installed to serve new development on the TMS property.

Alternative 2 proposes to install a new sanitary main that starts at the 76<sup>th</sup> and Burlington manhole and follows Burlington Street east, connecting to the trunk sewer northeast of United Seeds. This alternative could provide sanitary service to the southern development area of the proposed Granary site and makes the most financial sense if the City/Developer plans to replace this stretch of Burlington Street. **Figure 3-3: Burlington Street Sanitary Sewer Improvements – Alternative 1** presents a schematic of Alternative 1 and **Figure 3-4: Burlington Street Sanitary Sewer Improvements – Alternative 2** shows a schematic of Alternative 2.

**Figure 3-3: Burlington Street Sanitary Sewer Improvements – Alternative 1**

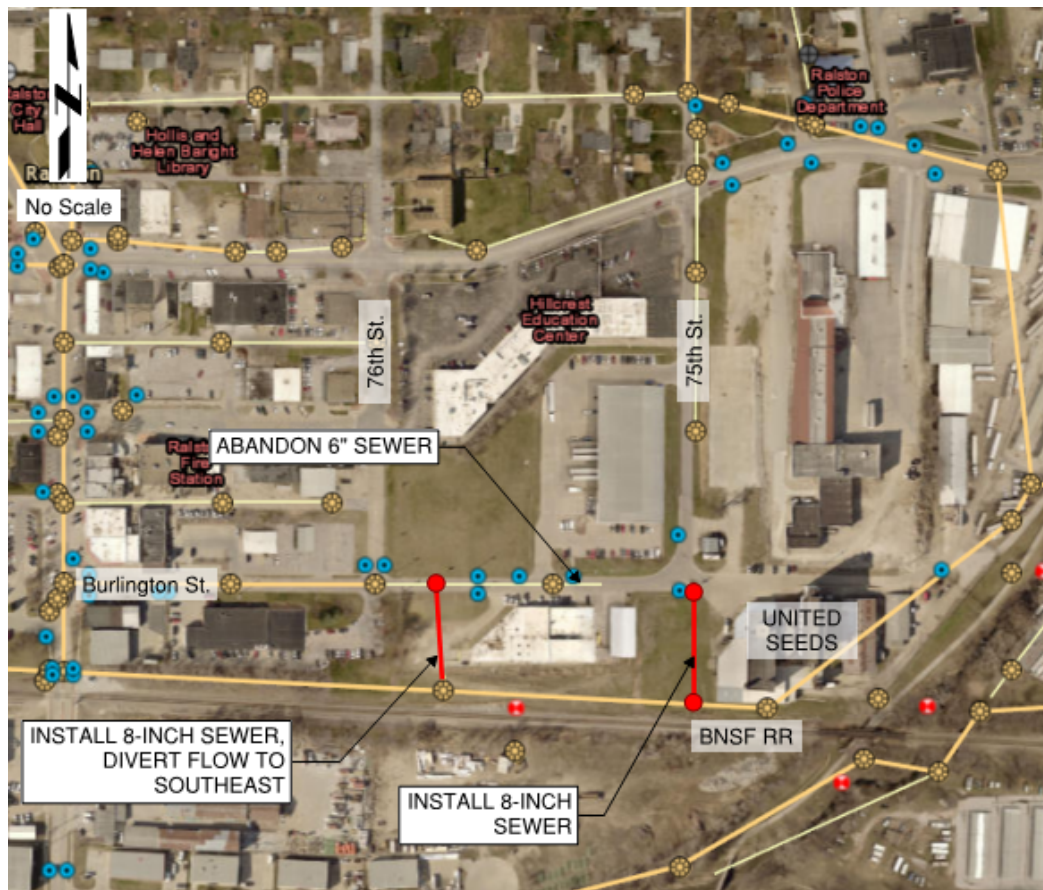
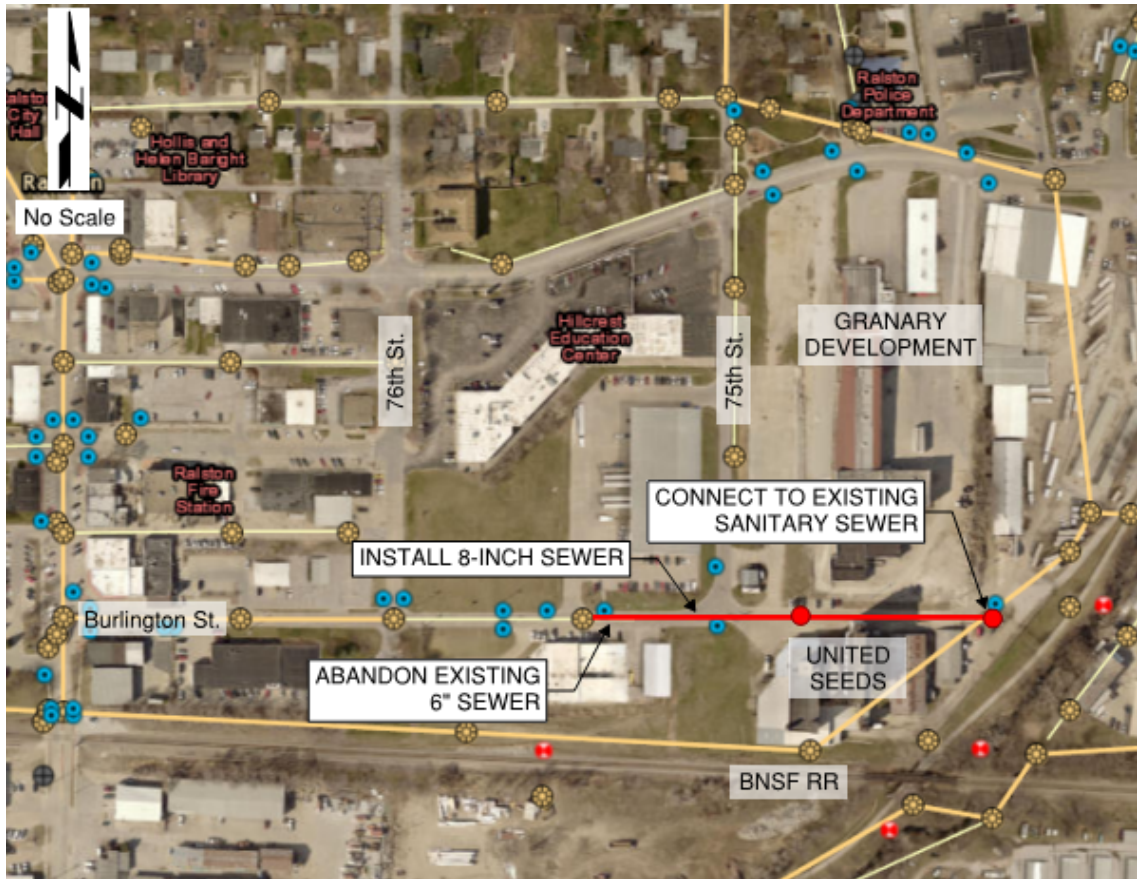


Figure 3-4: Burlington Street Sanitary Sewer Improvements - Alternative 2





### 3.3.2.3 United Seeds Sanitary Sewer Relocation

According to City staff, the existing 12-inch trunk sewer on the east side of the Hinge development runs underneath the United Seeds building. It is recommended that City staff investigate this area to confirm that the sewer intersects this property as shown in the GIS database. This sewer main is upstream from the siphon structure and it is critical that maintenance staff is able to clean this pipe to keep the siphon operational. Additionally, maintenance on this pipe would be difficult since it is directly underneath an existing building.

This project proposes to abandon the existing main underneath United Seeds and install new sanitary sewer to flow east, then northeast following the Ralston Trail to connect to the upstream manhole. **Figure 3-5: United Seeds Sanitary Sewer Relocation** presents a schematic of the proposed project.

**Figure 3-5: United Seeds Sanitary Sewer Relocation**



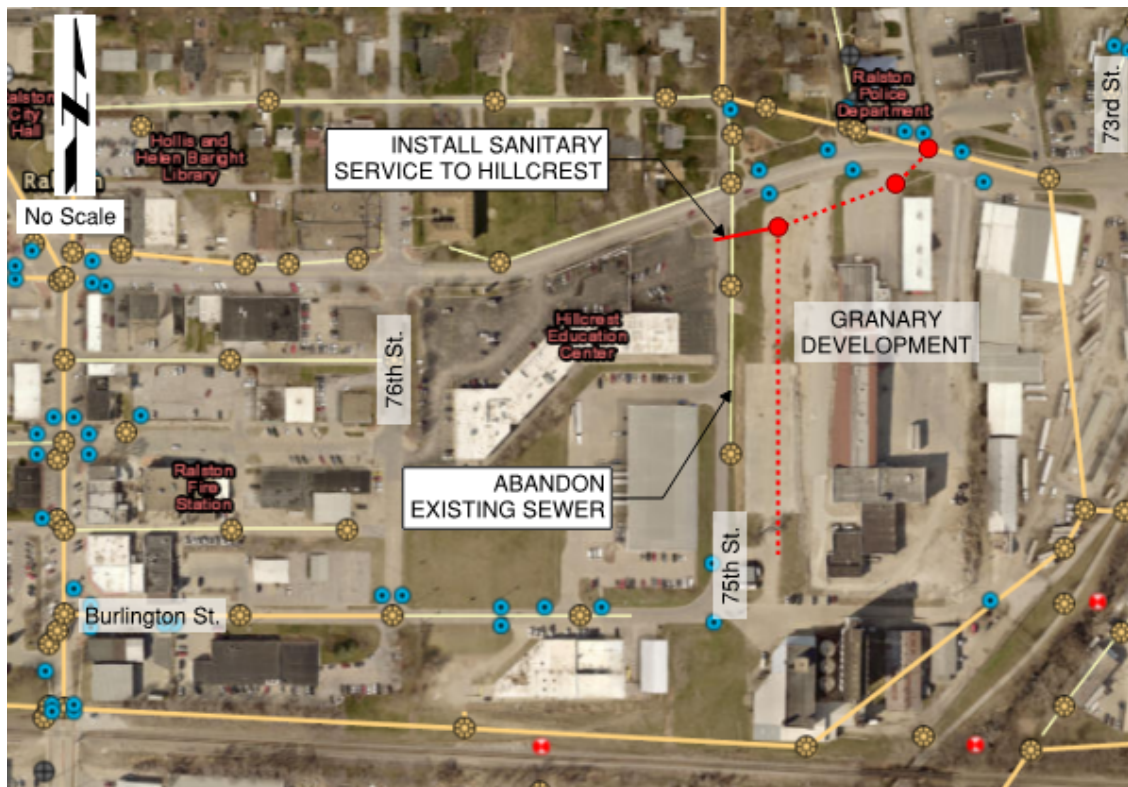


### 3.3.2.4 75<sup>th</sup> Street Sanitary Sewer Improvements

The existing 8-inch sanitary sewer on 75<sup>th</sup> Street in the Hinge area is shallow and will no longer serve the property to the east when the Granary project is complete. 75<sup>th</sup> Street is also planned to be restored as part of a transportation project in conjunction with the Granary development.

This project proposes to install a new sanitary service to the Hillcrest property while 75<sup>th</sup> Street is being reconstructed so that pavement replacement costs can be minimized. The service is proposed to connect to a new manhole on the southeast corner of 75<sup>th</sup> Street and Main Street that will route into the new sanitary sewer proposed in the Granary development. The existing sanitary sewer south of this service is proposed to be abandoned as part of this project. **Figure 3-6: 75<sup>th</sup> Street Sanitary Sewer Improvements** presents a schematic of the proposed project.

**Figure 3-6: 75<sup>th</sup> Street Sanitary Sewer Improvements**



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### 3.4 Private Utilities

Water is currently supplied to the City of Ralston through the Metropolitan Utilities District (MUD). A 12-inch ductile iron water main running along Main Street is the primary supply of water for the Downtown/Hinge development area. A preliminary review of the existing water system concluded that fire flows in the Downtown/Hinge area could be met with water supplied by the existing 12-inch main. Once building plans and fire flow demands are finalized, MUD is able to evaluate their existing system's ability to meet the proposed demands and determine if any improvements are needed.

Through conversations with MUD, it was stated that extensions of new water mains, relocations of existing water mains, and improvements to the system to increase capacity related to development would be entirely funded by the developer. The District does have funds available for replacing existing cast iron mains through MUD's *Infrastructure Replacement Program*, but currently no mains in the Hinge area are identified as a high priority. The 6-inch cast iron mains on Park Drive east of 77<sup>th</sup> Street were identified by the District as a section of potential risk that they could take a closer look at.

A water system map of the Downtown/Hinge area supplied by MUD is available in the appendix along with the water franchise agreement between Ralston and MUD.

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**THIS CONCLUDES THE  
2021 DOWNTOWN/HINGE INFRASTRUCTURE PLAN  
CITY OF RALSTON, NEBRASKA**

**APPENDIX**

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**Traffic Assessment Technical Memo**



April 28, 2021

Richard Hoppe, City Administrator  
City of Ralston, NE  
5500 South 77<sup>th</sup> Street  
Ralston, NE 68127

RE: 2021 Downtown/Hinge Infrastructure Plan  
Traffic Planning Assessment  
JEO Project Number 181714.06

Dear Mr. Hoppe:

To conduct traffic planning assessments for the main east entry/exit point to the new Hinge development (72<sup>nd</sup> and Main Street) traffic counts and forecasts were collected from both the Metropolitan Area Planning Agency (MAPA) and the City of Omaha's traffic count database. This count data was used to identify any potential auxiliary lane and other capacity improvements that may need to accompany site development.

A few assumptions were made when identifying these potential improvements. The first of these was estimating trip generation of the current industrial use and the Hinge development proposed to replace existing industrial use. The forecasted net gain in daily trips was then added to MAPA projections for all movements to and from the eastbound approach of Main Street at 72<sup>nd</sup> Street. Next, growth rates and adjustment factors were calculated for all intersection movements and applied to 2018 City of Omaha counts to estimate 2040 turning movement demands. These were then inputted into capacity analysis software to estimate lane geometry needs. It should be noted that 72<sup>nd</sup> Street was assumed to maintain two through lanes in each direction.

Based on forecasted capacity needs, the following mitigation measures are likely needed to maintain acceptable traffic operations (LOS D or better):

1. A second eastbound left-turn lane added when approximately a third of the City of Ralston Downtown-Hinge project is completed, and
2. An independent eastbound right turn lane is added when the project is fully complete.
3. The westbound approach will need to be reconstructed to maintain east-west through alignment as auxiliary lanes are added to the eastbound approach. Additionally, when this approach is reconstructed it is recommended that the approach length of the left-turn lane be increased to at least 100 feet as well as create a greater length of approach tangency to improve intersection sight distance.

Additionally, it is recommended that the first drive just west of the intersection eliminate full movement access allowing entering/exiting right turn movements only. This recommendation is due to the following:

1. Some peak hour queue lengths on the eastbound approach will likely extend beyond this driveway.
2. The lack of space between the first west access point and 72<sup>nd</sup> Street limits the length of a left-turn lane to the Hinge development and increases the likelihood of left-turn queues encroaching into the westbound through lane on Main Street.
3. When eastbound queues extend beyond the first driveway to the west, westbound left-turn maneuvers will be blocked and will extend into the westbound through lane with the potential to back up into the 72<sup>nd</sup> and Main Street intersection.
4. There are multiple options for vehicles exiting the Hinge site to go back to 72<sup>nd</sup> Street, including another access point immediately west as well as direct access to 72<sup>nd</sup> Street proposed for the U Street alignment to the south.

The goal of this effort was to identify potential long-term traffic needs from a planning perspective and not to provide final design recommendations. JEO has met with the City of Ralston and has shared the information contained herein as areas to continue to monitor to determine ultimate street and intersection geometry within the study area. It is understood that the Hinge development is evolving and final land-use types and intensities are not yet fully known. Therefore it is recommended that as more land-use details become known and construction phase timelines become more concrete within the Hinge development, a more detailed traffic impact study should be completed to refine lane geometry needs, intersection traffic control, auxiliary lane lengths, access locations, on-site circulation, and when specific improvements are warranted.

As always, JEO appreciates the opportunity to assist the City of Ralston. If you have any questions about the information included in this document please contact me at your convenience.

Sincerely,

Pat Byrd, PTOE, PE

Cc:

**Downtown/Hinge Sanitary Map**





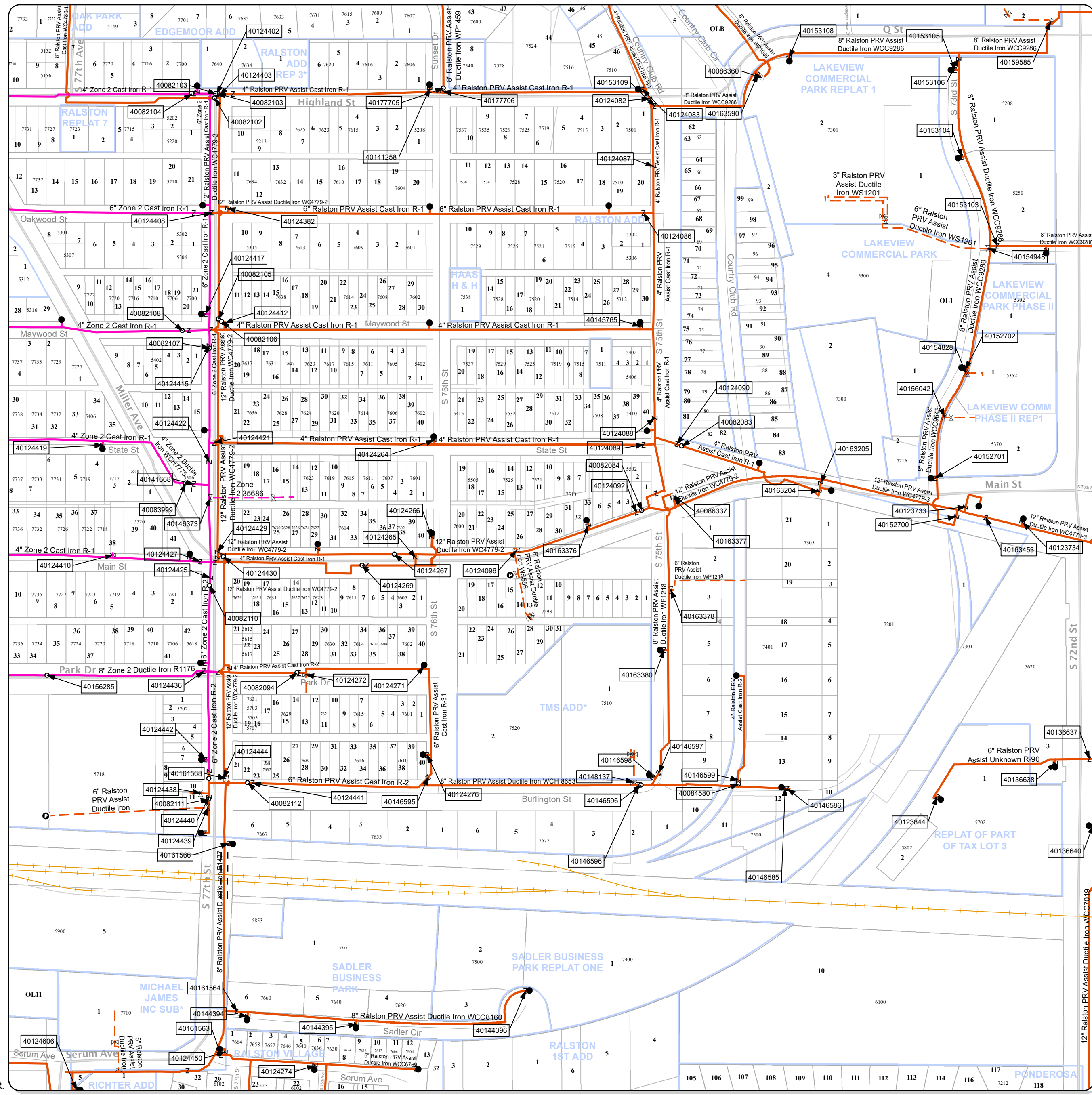


**MUD Downtown/Hinge Water Map**

NOTES

ZIP CODE - 68127  
 NE 1/4 SEC. 11, T. 14 N., R. 12 E.  
 SEWER BOUNDARY - R1  
 GEOCODE - MS21ED1

RATE JURISDICTION \_\_\_\_\_  
 SEWERS \_\_\_\_\_  
 TRASH \_\_\_\_\_  
 SPECIAL \_\_\_\_\_  
 NOTES \_\_\_\_\_



SEE PAGE 193D

SEE PAGE 193B

**LEGEND**

<b>Main</b>	<b>SystemValve</b>
— <all other values>	— <all other values>
— Bennington	— Right
— Millard	— Left
— Schneckloth	— Not Applicable
— Gibson Road	— Unknown
— Elkhorn PRV	<b>ReliefValve</b>
— Waterloo	○ Manual Air Tap
— Ralston PRV Assist	⊠ Automatic Air Release
— Platte West Transfer	⊠ Combo Air/Vac
— Zone 1	⊠ Vacuum
— Zone 2	⊠ Surge Tank
— Zone 3	⊠ Other
<b>Main (Raw/Sludge)</b>	⊠ Unknown
— Raw	<b>ControlValve</b>
— Sludge	⊠ Altitude
<b>Casing</b>	⊠ Check
— Casing	⊠ Pressure Reducing
<b>MajorServiceLine</b>	⊠ Pressure Sustaining
— <all other values>	⊠ Pressure Relief
— Bennington	⊠ Other
— Millard	⊠ Unknown
— Schneckloth	<b>Hydrant</b>
— Gibson Road	⊠ Flush
— Elkhorn PRV	⊠ Air
— Waterloo	⊠ Drain
— Ralston PRV Assist	⊠ Fire
— Platte West Transfer	<b>Tap</b>
— Zone 1	⊠ Pitot
— Zone 2	<b>Storage</b>
— Zone 3	⊠ Clear Well
<b>Freeways &amp; Highways</b>	⊠ Reservoir
— Freeway	⊠ Water Tower
— Highway	<b>Well</b>
<b>Major Roads</b>	⊠ Well
— Major Road	<b>Hydrant (Private)</b>
<b>Minor Roads</b>	⊠ Fire
— Minor Road	⊠ Flush
<b>Railroads</b>	⊠ MajorServiceValve
— Railroads	⊠ MajorServiceValve

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**MUD/Ralston Water Franchise Agreement**



ORDINANCE NO. 988

CITY OF RALSTON, DOUGLAS COUNTY, NEBRASKA

WATER FRANCHISE

An Ordinance granting to Metropolitan Utilities District of Omaha, a municipal corporation and political subdivision of the State of Nebraska, its successors and assigns, the exclusive right and privilege to construct, operate and maintain a system of water works and water supply consisting of mains, pipes, hydrants and other appurtenances, in, upon, over, across and along streets, avenues, alleys, bridges and public places of the City of Ralston, Douglas County, Nebraska, for the transmission, distribution and sale of water for domestic, manufacturing, industrial, public and fire protection purposes in the City and elsewhere; prescribing the terms and conditions under which Metropolitan Utilities District of Omaha is to operate; prescribing the time when this ordinance shall be in full force and take effect, and repealing all previous Ordinances in conflict therewith.

BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF RALSTON, DOUGLAS COUNTY, NEBRASKA:

Section 1. FRANCHISE; GRANT; PERIOD; RIGHTS OF DISTRICT: In consideration of the benefits to be derived from the operation of a water supply and water distribution system in the City of Ralston, Nebraska ("City"), by the City and its inhabitants, there is hereby granted to Metropolitan Utilities District of Omaha, a municipal corporation and political subdivision of the State of Nebraska ("District"), its successors and assigns, the exclusive possession and control of the water system of the City now existing and the exclusive right, permission and authority to lay, install, maintain and operate a water distribution system, including all necessary appurtenances and structures therefor, and

including the existing water distribution system within the limits of the City as the same now exist or hereafter may be extended, for a period of twenty-five (25) years from and after the effective date of this Ordinance; and for this purpose there is further granted to District the right, permission and authority, during this period, to lay, install, maintain and operate, in, upon, over, across and along all of the streets, avenues, alleys, bridges and public places of the City, all mains, pipes, structures and appurtenances necessary or convenient for transmitting, transporting, distributing and supplying water for domestic, manufacturing, industrial, public and fire protection purposes and for the purpose of transmitting, transporting and conveying such water into, through or beyond the immediate limits of the City to other customers, cities or villages.

Section 2. MAINS, PIPES, INSTALLATION, RELAYING, RULES AS TO:

All mains, pipes, structures and appurtenances which shall be laid or installed under this grant shall, when construction is completed, be so located and laid as not to obstruct or interfere with any other pipes, drains, sewers, paving or other structures already installed, and all such mains, pipes and structures shall be laid in place under practices followed by the District within its own boundaries. The District shall, in performing any work in connection with its water distribution system, avoid, so far as may be practicable, interfering with the use of any street, alley or other highway, and where the paving or surface of the street is disturbed, District shall, at its own expense, replace such paving or surface of the streets, alleys, or other highways in as reasonably good a condition as existed before work was commenced.

In the event that a change in the grade or location of any street, alley or bridge within the City or other construction or repair work required by City requires the relocation or alteration of any portion of the water system of the District, either temporary or permanent, the District shall be reimbursed by City for the cost thereof. District shall obtain from City all required permits for street openings in connection with work on its water distribution system, but City shall waive any permit fees on such permits issued to District. In the event of emergency street openings, District shall obtain the permit as soon thereafter as

practicable.

Section 3. MAINS CONSTRUCTED, EXTENDED, WHEN: That District, its successors or assigns, shall make such reasonable extensions of its mains, from time to time, as may be required to furnish service to parties making application therefor, located within the corporate limits of the City; provided, that District's Rules and Regulations, duly adopted by its Board of Directors pursuant to the laws of Nebraska, which shall be filed with the City Clerk, shall, to the extent not inconsistent with applicable state law, govern the extension of mains, installation of services, meters and piping, and the use of water, except as may be otherwise agreed herein. Mains installed in platted subdivisions of City, whether installed by District or others, shall comply with District's specifications.

Section 4. RATE SCHEDULE: The rates to be charged for water service within the franchise area shall, during the term of this Water Franchise, be the same as those charged by District to customers of similar class of service within District boundaries.

In addition to the rate to be charged to consumers in the franchise area, there shall be added any amount which District is or may be required by City or state statute to pay to City on account of sales of water. As of the date of this franchise, Neb. Rev. Stat. § 14-2139 (1996 Cum. Supp.) requires payment to City in an amount equal to two percent (2%) of retail sales within the City and precludes City from levying a license, occupation or excise tax upon or from the District. City may levy such license, occupation or excise tax as may be allowed by future legislation, provided in the event of such levy or increase in levy District shall add to its customer billings the additional cost thereof.

In addition to the rate to be charged to consumers in the franchise area, there shall be added an amount equal to the amount that would be realized if the tax for fire protection purposes levied each tax year for the District within its own boundaries under Neb. Rev. Stat. § 14-2143 were applied to property within the City. Such sum shall be computed by multiplying the value of all taxable property, except intangible property, within the City, as shown by records of the Douglas County Assessor, which is used as the tax base for current levies of the

City, by the amount of the tax levy made for the District within its boundaries for such years for fire protection purposes.

Section 5. CONNECTION CHARGES: District shall be entitled to make charges for connections to service mains as follows:

(A) District shall not charge a connection charge for lots abutting other mains installed within the City at the date of this franchise, full cost of which has been paid by developers or has been or will be recovered by special assessment.

(B) For connections to mains and extensions of mains constructed within the City following the date of this franchise, District shall make such usual connection charges as are made throughout the remainder of its water system in its own boundaries, not exceeding the full cost of such construction.

Section 6. CANCELLATION OR FORFEITURE OF FRANCHISE: In the event that this Franchise is terminated by cancellation or forfeiture by the City and not the result of the voluntary sole action of the District or the result of agreement between City and District, District shall be entitled to reimbursement for its expenditures plus interest thereon remaining unamortized at the date of such termination, and which it shall have been entitled to include for amortization under the terms of this Franchise, together with any cost to the District of facilities within the corporate limits of the City but not within the District's boundaries, and costs to sever the City from the District's system outside the City.

Section 7. FIRE HYDRANTS: District shall endeavor to keep all fire hydrants within the City in good condition and repair, giving to such hydrants the same degree of care and maintenance it affords hydrants on the water system that District operates within its own boundaries. Subject to breakdown, mechanical failure, and other causes beyond its reasonable control, District will at all times maintain an adequate, constant and uninterrupted water supply to such hydrants. On any extensions of the water system within the corporate limits of City, District will install, or require to be installed, hydrants for fire protection at approximately the same intervals as hydrants previously installed



on service mains now in existence within the City. In the event City or any other person or entity within the City shall require hydrants to be placed upon service mains between the hydrants as now installed or at lesser intervals than hereby required, District will, if reasonably possible, install such additional hydrants, at the cost of the City or the person or entity requiring them. The City shall not be charged for any hydrant installations unless payment is first approved by City Council resolution.

Section 8. WATER FOR MUNICIPAL USE: Prior to October 1, 1998, the terms of Section 7 of the prior water franchise agreement between City and District shall control City's use of water for municipal purposes. Commencing October 1, 1998, City, without cost, shall be entitled to use water for fire fighting, street flushing or sewer flushing performed by the City, all as set forth in the District's Water Rules and similarly provided to all municipalities within District boundaries.

Section 9. HYDRANT FEE: A hydrant fee in an amount sufficient to equal the sum which would be realized if the hydrant tax levied by the District within its own boundaries for each tax year were levied upon the property within the City shall be included in the rates to be charged for water service as set forth in Section 4. RATE SCHEDULE.

Section 10. SEWER USE FEE OPTION: If requested by City, District shall provide to City sewer use fee billing and collection services on the same basis as provided to municipalities within District boundaries.

Section 11. WRITTEN ACCEPTANCE OF FRANCHISE BY DISTRICT; EXTENSION: Within thirty (30) days after the passage of this Ordinance, District shall prepare and file a written acceptance of this Ordinance with the City Clerk. Failure of District to accept this Ordinance within this period of time shall be deemed a rejection by the District, and the rights and privileges herein granted shall, after the expiration of thirty (30) days, if not so accepted, absolutely cease and terminate, unless the period of time shall be extended by further Ordinance duly passed.

Section 12. NO WAIVER OF RESPECTIVE POWERS: Neither the grant herein made nor any of the provisions herein contained shall be construed as a waiver of City's right to supervise and control District in performance of its Franchise nor a waiver, reduction or limitation upon the right of powers and duties of District as prescribed by the laws of the State of Nebraska.

Section 13. WHEN OPERATIVE: This Ordinance shall take effect from and after passage, approval and publication as provided by law, but shall not vest any rights in District nor constitute a binding contract between City and District unless and until District shall have filed with City its written acceptance hereof, as prescribed in Section 11.

Section 14. REPEAL OR ORDINANCES IN CONFLICT: On the date that this Water Franchise shall become a binding contract between the City and District in accordance with Section 13 hereof, any Ordinance or Franchise in conflict herewith is hereby repealed.

PASSED AND APPROVED this 4th day of November, 1997.

CITY OF RALSTON, NEBRASKA

By: Michael Elly  
Acting Mayor

ATTEST:

Becky J. Harrison  
City Clerk

Acceptance of Water Franchise

This Water Franchise contained in Ordinance No. 988 of the City of Ralston, DOUGLAS County, Nebraska, is hereby accepted by the District as of this 5th day of November, 1997.

METROPOLITAN UTILITIES DISTRICT  
OF OMAHA, NEBRASKA

Approved as to form:  
Don H. Kraus  
Assistant General Counsel  
11-5-97

David P. ...  
General Manager

AGREEMENT

THIS AGREEMENT, made this 7 day of December, 1972, between the City of Ralston ("City") and Metropolitan Utilities District of Omaha ("District"), WITNESSETH:

WHEREAS, agreement has been heretofore reached between City and District that District shall be granted a franchise for the operation of a water distribution system within the City of Ralston with certain conditions relating thereto, which conditions need to be formalized;

NOW, THEREFORE, IT IS HEREBY AGREED AS FOLLOWS:

1. The franchise shall include a provision for the repayment to District, by amortization over a 15-year period at Six Per Cent (6%) annual interest, of the costs of connecting the distribution system within the City to the District water system and the minimum other changes necessary to bring adequate water service to the Ralston system and to bring that system into a condition adequate for fire protection purposes and reasonably comparable with the District standards for its own water system outside said City. This work and costs related thereto are estimated as follows:

*Cost Provisions*

<u>Item</u>	<u>Number</u>	<u>Cost</u>
Reinforcing Mains - 12" - Business District		\$ 72,000.00
Reinforcing Mains - 8" - Residential District		22,500.00
Valves - Locate	5	1,000.00
Valves - Repair	13	3,822.00
Obtain Ties	112	224.00
Air Taps - Install	15	5,250.00
Hydrants - Replace	6	3,960.00
Hydrants - Additional	2	3,000.00
Integrate Records - Drawings		1,050.00
Integrate Service Records		1,150.00
Locate Services and Stop Boxes		7,200.00
Connections to Metropolitan Utilities District System		11,582.00
Abandon Wells		1,750.00
Pressure-Reducing Stations		<u>27,600.00</u>
<b>Total</b>		<b>\$162,088.00</b>

Design  
2. The mains to be installed for fire protection purposes are a 12-inch main to be laid at a point at approximately 72nd and "Q" Streets west to 75th Street, thence south to Main Street, on Main Street from 75th to 76th Streets, and on 76th Street from Main Street to Burlington Street, and an 8-inch main to be laid in 79th Street from Highland to Park Drive.

Capital  
3. The amount to be amortized under the initial rates to be set in the franchise shall be One Hundred Sixty Two Thousand Dollars (\$162,000.00), which amount shall be adjusted at the end of the third year of operation to reflect actual costs incurred in accomplishing the work herein indicated.

Exp Long Infrastructure  
4. District intends to abandon the wells currently being operated by Ralston, and has included as costs the costs of cutting off these wells and plugging them. City shall be entitled to any salvage realized from the abandonment of these wells, and may either handle the details of the abandonment of the facilities and the disposal of them itself, or District will do so upon request, in writing, by City; provided, any salvage realized shall be paid over to District and credited against the amount to be amortized as hereinabove set forth. Real estate interests held in connection with such wells shall remain the property of the City, and may be disposed of or retained at City's option.

Ownership  
5. As of the effective date of the franchise to District, City does hereby relinquish to District any and all claims of right, duty, ownership, operation or control, or compensation, with respect to any of the water distribution facilities in areas outside the corporate limits of the City, and assigns to District any obligations and duties City may have with respect to water service in such areas, whether by contract or otherwise; provided, in the event Ralston annexes any territory within the area bounded by "L" Street, Harrison Street, 72nd Street and 84th Street, any portion of the water system lying in such areas shall be considered a part of the Ralston water system being operated by District under franchise.

6. City will cooperate in securing the dismissal, with prejudice, of the lawsuit designated as Docket 605, Number 46, Douglas County District Court, relating to water service in areas outside the City of Ralston.

7. In lieu of payments by the City to the District for fire protection purposes from tax funds of the City, District shall be entitled to recover, each year, through its water rates charged within the City, a sum equal to the sum which could be realized by taxation if the current water tax levied for fire protection purposes within the District were to be levied upon all the taxable property, except intangible property, within the City. For the year 1973, the levy within the District will be 7/10 mill, and it is estimated that District would realize approximately \$7,796.00 if such tax were levied upon the taxable valuation within the City of Ralston.

8. The cut-off date for transfer to District operation of all of the water distribution facilities now being operated by Ralston shall be December 1, 1972. All water meters which are at that time served by the water system of the City of Ralston shall be read on or about that date, either jointly by personnel of Ralston and District or by Ralston, at District's option, and physical possession of the waterworks and waterworks property then being operated as a part of the Ralston water system will be delivered to District on December 1, 1972. City shall render final billing to its customers for water used to date of reading on or about December 1, 1972, and shall make collection for such final billing. District will make normal collection efforts as against any of such accounts not paid by February 1, 1973, upon request by Ralston.

ATTEST:

J. P. Adams  
City Clerk

(CORPORATE SEAL)

ATTEST:

[Signature]

CITY OF RALSTON, NEBRASKA

By Joseph W. [Signature]  
Mayor

METROPOLITAN UTILITIES DISTRICT  
OF OMAHA

By [Signature]  
General Manager

FP  
Fees

Custody  
Transfer



