



# EXECUTIVE SUMMARY

### About the Irondale Plan

The Irondale Neighborhood and Infrastructure Plan was undertaken in late 2017 with the goal of outlining the existing conditions and upgrades to the roadway, drainage, and utility networks.

The intent of the project is to create a vision for Irondale’s future. To that end, the plan process sought answers to key questions on what should remain and where changes and improvements could be made. Project steps included research and discussion of the neighborhood today and plans for the growth and development into the future. Four major topics include: roads, drainage, utilities and land use.

This plan prioritizes infrastructure needs to help guide growth and change in the neighborhood in the years to come. Planning for the needs of Irondale in advance will help make sure the right improvements happen in the right order to support the shared vision.

### The Executive Summary

The Executive Summary is set up as a high level preview of the full document. Details on each of the key sections and top recommendations can be found in this section.



The Irondale Neighborhood + Infrastructure Plan is made up of three major sections (below), with the Snapshot reports making up the Discover section in the written plan.



### Key Parts of the Irondale Plan:



## Commerce City History

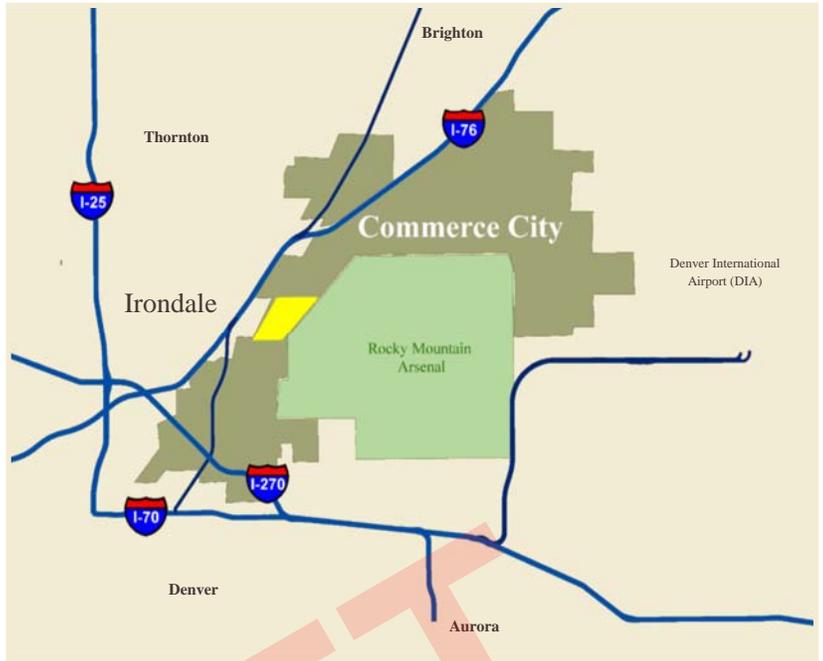
As the 1990's progressed and Commerce City began to grow more rapidly toward Denver International Airport (DIA) and E-470, the older neighborhoods of Commerce City were no longer the only focus for the City. Today the City is looking at historic neighborhoods like Irondale to address long standing concerns.

## The Irondale Neighborhood History

The neighborhood currently includes a mixture of residential properties, businesses, industrial centers and even agriculture. Change is already happening in Irondale as new development takes place, so it's important to plan for the future of the area in a thoughtful and collaborative way.

The Irondale Neighborhood is an older part of the larger Commerce City community. The initial development being an the Kibler Stove Works plant. According to the 2015 Historic Preservation Plan, the neighborhood was originally "planned as a factory town."

Over time residences were built in the neighborhood as additional industrial uses cropped up. The mixture of uses and timing of development has created a unique environment. Infrastructure is a major challenge as accommodating these uses with distinct interests is needed.





# POLICY RECOMMENDATIONS

## Recommended Policy Changes

Policies like codes and regulations are necessary to ensure even standards throughout the City. Some of the recommendations below look at the unique circumstances in Irondale to create flexibility in areas, plan for new types of redevelopment, and encourage the changes to occur.

Policy recommendations were developed through the research of existing items, concerns from residents about existing policies, consultation with staff, and plans for the future of Irondale. Each recommendation is tied back to the goals for the neighborhood and City Council goals document (2017).

Recommendations are laid out according to the image below, with policies numbered to allow for ease of use in future discussion and adoption.

**SUBJECT AREA**  
**Policy Recommendation**  
**Related Council Goal or Objective**  
Details & Rationale

DRAFT



**ANNEXATION INCENTIVES****A. Create an annexation incentives package.****Related Council Goal: #**

- Investigate what Commerce City's annexation process looks like.
- Identify barriers to annexation discussions (i.e. financial impacts).
- Typical annexation process: At the time of annexation, a zone district that generally matches the Comprehensive Plan designation is assigned. If uses are occurring on the site that are not consistent with the zone district, the use is grandfathered as a nonconforming use. The annexation agreement requires the subject property to be brought into compliance with City standards **once it redevelops, changes use or expands the nonconforming use.**
- **Action item:** *Create a non-conforming use brochure that clearly explains the concept to property owners. Enabling staff to use this type of tool will help in administering the concept consistently over time.*

**Possible Incentives:**

- Commerce City may want to offer financial incentives such as waiving filing fees for annexations located within Irondale. Other incentives could include: covering annexation mapping costs, filing costs, and budgeting for needed road improvements in Irondale.
- Commerce City could process a group annexation. Staff would conduct neighborhood outreach to evaluate interest in participating in a city-initiated group annexation. The City would facilitate the process and incur all costs of annexing the properties that elect to participate. Since the progress of annexations may be slow, the City may wish to identify a process by which coordinated annexations could take place annually over the next several years.
- Create standards to reduce the level of infrastructure requirements and costs for single-family residential. Allow individual property owners more time to connect to city water and sanitary sewer service (example: connection must be made within 5 years of the date of annexation, or alternatively when a threshold is met).
- The City may require that streets in annexing areas be brought up to existing City Standards at the property owner's expense. Allow more flexible public improvement requirements for property that continues a residential use, and/or create thresholds for when the property is expected to contribute towards public improvements.
- Tax abatement. Upon annexation, the property would not be required to pay the additional 3.16 city mills for a set number of years. Deferment of City sales and use tax is also an option.



**GRANTS****A. Explore an EPA Brownfield Grant.****Related Council Goal: #**

The Irondale neighborhood's history of agriculture and industrial uses is positioned well to tell the story needed for a grant of this type and future federal budgets could impact the availability of funds under this program. Applications are typically due in November or December of each year and can take 40-60 hours to complete. Much of the required demographic information is already included in this plan. Note that these grants are becoming more and more competitive.

**INFRASTRUCTURE PLANNING****A. Identify regional versus neighborhood improvement funding allocations.****Related Council Goal: #**

Developing a plan for tackling the question of funding is necessary to moving forward with projects in Irondale. To start this process, improvements should be identified by necessity, parity with other improvements, and impacted parties. For example, widening and improving Rosemary within the Irondale neighborhood will serve residents and local businesses; however, it will also improve the commute and safety for through-travelers. Because the improvement has a direct benefit to the wider Commerce City and Adams County population, it would make sense some of the project funding for the project would come from outside the neighborhood. In another case, an improvement being done by a developer might also be an opportunity to complete a smaller neighborhood project at a reduced cost of construction. Funding options may include regional tax base, development requirements (i.e. impact fees), specialty taxes and levies, or TIF investment.

**ZONING****A. Consider an IGA with Adams County.****Related Council Goal: #**

- Create IGA between Commerce City and Adams County. The IGA would identify property located within Commerce City jurisdictional limits that likely will eventually become part of the City. In anticipation of future annexation, new development would be required to meet Commerce City standards as part of a larger annexation discussion.

**B. Consider creating and Industrial Transition zone district.****Related Council Goal: #**

- Establish a hybrid industrial Live/Work zone to enable and regulate live/work uses in Irondale. The introduction of a hybrid zone would help transition residential property to industrial, by allowing residential structures to be used for living quarters in support and accessory of the primary industrial use of the property. (This could also have tax/assessment implication).



### C. Provide protections for residents in the northeast corner from piecemeal zoning.

#### Related Council Goal: #

- Develop an Irondale-specific transition policy that does not allow “nibble away” rezoning with intermixed parcels of residential and industrial to occur. If someone wants to rezone to industrial they’d have to have a large enough parcel, or group of parcels, to adequately buffer any impacts to residential units.

### DEVELOPMENT REQUIREMENTS

#### A. Consider requirements for improvements as development occurs on a threshold basis.

#### Related Council Goal: #

##### Full Compliance:

- To assist with the issue of tailoring code compliance with minor site improvements, it may be desirable to have sites complete a site plan that illustrate full compliance at the outset of development activities. This would serve as the benchmark for where the property should ultimately end up. Establish a process by which the site improvements can be pro-rated to the level of investment taking place currently. You may wish to have an expiration date where the ultimate site plan will need to be revised to meet updated standards.
- New industrial development occurring on vacant property must be brought into full compliance with code requirements.
- Consider a suite of triggers that could apply to different circumstances. Total investment may be another factor to consider as a threshold to trigger code compliance.
- If the alterations to the site affect over \_\_\_% of the non-building area, the development must be brought into full compliance with code requirements.
- If a structure undergoes any alteration, expansion, or addition the value of which equals or exceeds 50% of the structure’s replacement value, the project must be brought into full compliance with code requirements.

##### Alternative Compliance:

- Property that does not meet the full compliance threshold can utilize a number of alternative compliance options that are meant to bring the property into further compliance with the code. (Streetscape improvements should be prioritized)

#### B. Consider fees to help pay for improvements.

#### Related Council Goal: #

Impact fees help pay for capital facilities by requiring each new residential or commercial project to pay its pro-rata share of the cost of new facilities required to serve an area.



**DRAINAGE****A. Create a policy for regional versus onsite drainage requirements.****Related Council Goal: #**

It is recommended that new development follow the current Commerce City Storm Drainage Design and Technical Criteria Manual, the Urban Storm Drainage Design and Technical Criteria Manual (USDCM) by the Urban Drainage and Flood Control District (UDFCD), and conform to existing drainage masterplans or studies. For this neighborhood, UDFCD has prepared the Irondale Gulch Outfall Systems Plan (OSP) that provides guidance and requirements for development within the Irondale neighborhood. The Irondale Gulch watershed currently does not have a drainage outfall to the South Platte River – the natural drainage has been cut-off by roads, railroads, and irrigation canals, leaving no path for stormwater to drain to the river. The OSP identifies 1) an outfall system to convey flows to the South Platte River, 2) regional detention ponds within Irondale, and 3) additional conveyance, detention, and retention improvements upstream of the neighborhood in the Rocky Mountain Arsenal National Wildlife Refuge (RMA).

The OSP divides Irondale into six drainage basins. Five of the basins include a conceptual regional detention pond while the sixth does not; it drains directly to the existing 88th Avenue storm sewer and roadside ditch drainage facilities. The 88th Avenue storm sewer infrastructure drains to a retention pond (no outlet) on the north side of 88th Ave, east of the Union Pacific railroad tracks. Because Irondale does not have a drainage outfall to the South Platte River, retention ponds will be required initially, ultimately to be converted to detention ponds once the downstream conveyance system is constructed. The retention volume requirement is the total drainage basin runoff from a 100 -year, 24-hour storm with no credit for infiltration. A recent development project (Intsel) within one of the drainage basins has amended the regional detention concept proposed in the OSP with a sub-regional retention/detention system to fit their site. Amending the regional detention concept in this way is not preferred by City staff for the neighborhood moving forward, and is therefore not recommended with this study. A discussion about the sub -regional concept is included for completeness.

The sub-regional concept adheres to the overall release rate outlined in the OSP for each drainage basin at a designated location, but provides the required retention/detention storage at multiple in -line ponds. This concept relieves the burden of providing regional detention from one downstream property. For this concept to work properly, the entire drainage basin area needs to be master planned so that flows from all contributing areas are evaluated. Additional retention/detention volume may need to be provided by future upstream ponds as development occurs within the drainage basin. Hydrologic routing between ponds also needs to be evaluated as development occurs.

This plan recommends the regional detention pond system as proposed in the OSP. A regional detention pond provides the retention/detention capacity required for runoff from the entire drainage basin. A regional detention basin may relieve each upstream developer from the having to dedicate space on his or her lot for detention/retention – leaving more land for the development. Each development will, however, need to provide conveyance from their property to the regional pond. Based on local drainage evaluation, on-site detention may prove to be cost effective in reducing the size of conveyance infrastructure needed to transport runoff to the regional facility. Regional detention basins often provide for a more efficient use of land area for the required volume requirements than site-specific detention basins.



Additionally, a regional detention pond places the responsibility for the maintenance of the pond on the City; helping to ensure that it is maintained and continues to function as designed. Detention basins on private land where maintenance is performed privately would rely on City code enforcement.

Five sites were identified in the OSP as potential locations for regional detention ponds. The OSP selected these sites because they were vacant at the time of the OSP and were located at or near the lowest point of each drainage basin. Consideration was not given in the OSP to current land ownership or development potential of the selected sites. This plan does not include a regional detention pond site analysis; these sites are shown in the plan exhibits because they were shown in the OSP. Any adequately sized parcel or group of parcels of land near the low point within each of the five basins, can be used for regional detention, given that the resulting pond can provide adequate storage capacity and meet the outfall criteria in the OSP.

This study also explored the possibility of placing regional detention ponds along the railroad cross - connect corridor. This option is attractive in that it provides the possibility of placing some regional ponds in land adjacent to the railroad – land that may be unattractive to prospective developers. This option may be viable for the drainage basins in the southern portion of the Irondale neighborhood, specifically drainage basins 955 and 951. However, in the event that the Union Pacific Railroad is amenable to this concept, it is likely they will not allow these ponds to be constructed until after the railroad cross-connect is constructed and the available excess land has been clearly identified.

The first priority in pursuing a regional detention pond system needs to be identifying and purchasing the land where each of the regional detention ponds will be constructed. Prior to development occurring, the pond must be built to the size required for the drainage basin. When development occurs, each developer would pay a development fee that would go to the City to recoup the cost of the regional pond. Due to the potential for varying sizes of development within Irondale, it is recommended that this fee be based on the developed lot size, relative to the drainage basin acreage. During the development review process, project runoff conveyance from the site to the regional detention basin needs to be considered. In many locations throughout Irondale there is no curb and gutter nor roadside ditches to adequately convey the runoff to the pond. It is critical to identify a conveyance path to the pond without impacting adjacent or downstream properties. Conveyance infrastructure would be the responsibility of the developer, but may be master planned in advance by the City.

The attached map depicts the drainage basins, conceptual detention basins, and the associated storage requirements as specified in the OSP for the Irondale neighborhood.

Until an outfall is constructed to the South Platte River, detention ponds will need to be constructed as retention ponds. During this interim period, retention ponds must be designed to provide infiltration to fully drain within the time frames mandated by Colorado Revised Statue 37 -92-602 (8). Infiltration cannot be considered in pond retention volume calculations, but must be considered to comply with State requirements. As mentioned above, retention basins should be designed contain the total basin runoff from a 100-year, 24-hour storm with no credit for infiltration. Ultimately, when the downstream outfall system is in place, water quality treatment must be provided by detention basins prior to discharge into the conveyance storm system to the river.



## POLICY RECOMMENDATIONS

**Table 1 – Stormwater Detention Options**

Regional Detention	Sub-Regional Detention	On-Site Detention
<p><b>Description</b> Larger detention facility serving multiple developments and sites. Typically located near an outfall to a major drainage system. Often owned and maintained by a municipality, but may also be held by an HOA, business owner’s association, or metro district.</p>	<p><b>Description</b> Medium sized detention facility serving one large development or a portion of a drainage basin. Ownership would likely be held by developer, business owner’s association, or metro district.</p>	<p><b>Description</b> Smaller detention facilities located within new development sites. Detention pond would serve one site or lot only. Required on each new or redeveloped site. Owned and maintained by site owner.</p>
<p><b>Implementation</b> Recommend a neighborhood level <u>comprehensive drainage and planning study</u> to determine location and size of detention pond and upstream neighborhood drainage system. Regional detention would ideally be constructed before future development can proceed. Neighborhood drainage system should be built from downstream up. Sites that develop before regional detention would require on-site detention. Implementation process includes: study/planning, design, property acquisition, and construction. Portions of implementation may be done by the City or given to developers. ‘Fee-in-lieu’ may be an option to recover costs. A City policy would need to be developed.</p>	<p><b>Implementation</b> A <u>comprehensive drainage and planning study</u> at the drainage basin level would need to be performed. Design and constructed by developer</p>	<p><b>Implementation</b> Designed and constructed with site development by business owner or developer Needs to meet current City criteria and policy for this neighborhood.</p>
<p><b>Advantages</b> Most efficient use of space for detention Captures runoff from both new development and historic areas. Maintenance and inspection needs are focused on larger facility. Frees up space on individual sites for development uses. City has more control over design aspects. Final design and construction may be delegated to developer. Full implementation of regional detention and neighborhood drainage system would lessen off-site work for developers and may make sites more attractive for business owners.</p>	<p><b>Advantages</b> Allows flexibility for larger developers.</p>	<p><b>Advantages</b> Easiest to implement. Little to no offsite improvements required for developers. This may be a benefit for small business owners. The developer’s drainage study is limited to the site and contributing offsite flow areas. Drainage basin level drainage study is not necessary.</p>
<p><b>Disadvantages</b> Requires municipality or large developer to plan, design and construct the pond and drainage system. The City would need to take the lead on planning and design. Requires up-front capital investment. Conveyance of un-detained flows from sites to regional pond may require larger storm drain and/ or open channels. Timing is important - If neighborhood drainage and detention system is not constructed in advance, new developments would need to provide on-site detention and offsite drainage improvements.</p>	<p><b>Disadvantages</b> May not work in all circumstances Requires large developer to plan, design and construct the pond and drainage system.</p>	<p><b>Disadvantages</b> Does not address neighborhood level drainage issues. Stormwater detention is distributed at many locations. Land area on individual sites is lost for detention. Neighborhood level drainage system may never be constructed. Connection of future drainage system to existing ponds may be challenging. Needs resources to inspect and enforce maintenance. No assurances that detention areas will remain functional. City has less control over shape, depth, slope of detention pond and related safety hazards. Need clear City standards and guidance.</p>
<b>Recommended Detention Option (City Lead)</b>	<b>Fall-Back Policy Option (Developer Lead)</b>	<b>Status-Quo Detention Policy Option (Current Criteria)</b>





# CAPITAL IMPROVEMENTS

## Capital Improvements Overview

Capital improvement projects outlined in the following pages will begin making changes in Irondale to meet the future. This section is designed to lay out specific improvements to occur within the neighborhood.

Recommendations are divided into two major types: Quick Win and Long Haul. They are detailed also with regional versus local impacts to assist in funding source planning. Improvements may already be part of the existing goals and plans or may be newly added, as determined by community input, research of existing conditions, and consultation with staff and technical advisors.

The table below outlines what you will find on the following pages and how to use the data. Note, the number designated is not necessarily an indication of priority.

Note—A star \* next to the item letter or number indicates further discussion is available.

Council Goal No.	No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Local	Regional
Reference to the Commerce City Council Workplan	Reference Number	Specific facility in the neighborhood to be improved	Area containing or bounds of the improvements	Specific changes or upgrades to be undertaken	Total length of improvements	2018 dollars estimate for project completion	local benefit (X or blank)	Regional benefit (X or blank)

### What is a Quick Win?

*Shorter timeframe; Typically less expensive or already has allocated funding.*

Quick win projects are those that fall into the smaller, relatively lower expense category. These recommendations do not require as much time and effort to organize and fund as other projects. Depending on the agencies involved, there may be multiple quick wins accomplished in a single year. The bottom line on these projects is they are a great way to highlight visible and help get buy-in from residents and owners in the neighborhood.

ESTIMATED COST	
< \$1,000	\$
\$1,001—\$50,000	\$\$
\$50,001—\$200,000	\$\$\$
\$200,001—\$1 million	\$\$\$\$
> \$1 million	\$\$\$\$\$

### What is a Long Haul Project?

*Longer time horizon for completion; may not have designated funding sources and/or require additional collaboration to enact.*

These projects are going to take a little more work. Long Haul recommendations are medium to large projects that may include multiple properties, coordinating major improvements to utilities and rights of way. The return on investment and significant impact to the district will need to be highlighted to help the community understand the value of the investment.

## CAPITAL IMPROVEMENT RECOMMENDATIONS: QUICK WINS

Council Goal	No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Local	Regional
3.3	A	86th Ave.	Just west of Valentia Street	Remove tree adjacent to narrow pavement.	N/A	\$	X	
3.1	B	Wayfinding along Rosemary Street	88th to 80th	Wayfinding, specifically street name blades at intersections and southbound right turn to 80th Ave.	0.9	\$	X	X
3.1	C	Rosemary Street	88th to 80th	Monitor and enforce speeding with mobile signs	0.9	\$	X	
3.1	D	Quebec Street	86th to 80th	Monitor and enforce speeding with mobile signs	0.5	\$	X	
3.2	E	Xenia Street	87th to 88th	Street Lighting & School Bus Stop Pad	0.1	\$\$	X	
3.2	F	RTD Bus Stop along Rosemary Street	88th to 80th	Discuss adding an RTD transit stop within the Irondale Neighborhood	N/A	\$	X	
3.3	1	Culvert Modifications	SE corner of Pontiac St. and 84th Ave.	Add an inlet to existing culvert to eliminate hole at side of the road	N/A	\$	X	



**See CIP Map for all capital improvement recommendations**



**ROADS**

Council Goal	No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Local	Regional
3.3	G	88th Ave	Ulster Street to west of UPRR tracks, minimum; consider east of UPRR tracks to Yosemite Street	Increase capacity / widen to two lanes each direction at a minimum; investigate need for turn lanes; consider a Minor Arterial roadway street section	0.5	\$\$\$\$\$	X	X
3.3	H*	88th Ave	Crossing of UPRR	Grade-separated structure to replace this at-grade crossing <i>(See discussion on page 49).</i>	N/A	\$\$\$\$\$		X
3.3	I*	Rosemary Street	88th to 80th	Increase capacity / widen to two lanes north bound at a minimum; consider a Major Collector roadway street section <i>(See discussion on page 49).</i>	0.9	\$\$\$\$\$	X	X
3.1	J	Rosemary Street	81st to 86th	Conduct a traffic signal warrant study at Rosemary and 86th - consider existing fire station response time at this intersection	0.1	\$\$	X	X
	J			Conduct a traffic signal warrant study at Rosemary and 84th as development occurs and Intsel becomes fully operational		\$\$		
	J			Conduct a traffic signal warrant study at Rosemary and 81st as development occurs		\$\$		



**ROADS—CONTINUED**

Council Goal	No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Local	Regional
3.2	K	Rosemary Street	81st to 88th	Sidewalk & Street Lighting completed where not currently present.	0.8	\$\$\$	X	
	K			Relocate overhead utilities to underground.		\$\$\$	X	
	K			Install street furniture and lighting to reflect the history and character of the neighborhood.		\$\$\$	X	
3.3	L	86th Ave.	Verbena Street to Willow Street	Acquire ROW necessary and make roadway improvement for a two-lane roadway (one-lane in each direction), to provide additional east-west circulation.	0.1	\$\$\$	X	
3.3	M*	86th Ave.	Rosemary St. to Ulster St.	Construct a local access route for east-west fire department access. <i>(See discussion on page 51).</i>	0.3	\$\$	X	
3.3	N	Intersection Improvements at 80th Ave./ Quebec St./ Rosemary St.	Intersection	Study and implement intersection improvements. A roundabout would allow for left turns from 80th Ave. to Rosemary and Rosemary to 80th Ave.	0.1	\$\$\$\$\$	X	X



**ROADS—CONTINUED**

Council Goal	No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Local	Regional
3.3	O	Intersection Improvements at Ulster St. and 88th Ave.	Intersection	Ulster Street will continue to see more industrial traffic. Existing intersection is too narrow for large truck turning movements.	0.1	\$\$\$	X	X
	P	Intersection Improvements at Ulster St. and 88th Ave.	Intersection	Conduct a traffic signal warrant study at Ulster and 88th		\$	X	X
3.3	Q	Willow Street	88th Ave to 87th Ave	Pavement Resurfacing/ Maintenance	0.1	\$\$	X	
3.3	R	87th Ave	Willow St. to Xenthia St.	Pavement Resurfacing/ Maintenance	0.07	\$\$	X	
3.3	S*	84th Ave	Rosemary St. to Pontiac St.	Pavement Resurfacing/ Maintenance <i>(See Discussion on page 51).</i>	0.3	\$\$\$	X	
3.3	T	Oneida Street	Intersection at 80th Ave	Create an intersection rather than a drive approach at this street	0	\$\$	X	
3.3	U	Intersection Improvements at Oneida Street & 81st Ave.	Intersection	Create an intersection at this location to make access easier for consumers as well as for public safety such as Fire and Police Department	0.1	\$\$	X	
3.3	V	81st Place	Oneida St. to Quebec St.	Acquire ROW necessary and make roadway improvement for a two-lane roadway (one-lane in each direction), to provide additional east-west circulation.	0.2	\$\$\$\$	X	



## H—88<sup>th</sup> Ave/ Crossing of UPRR

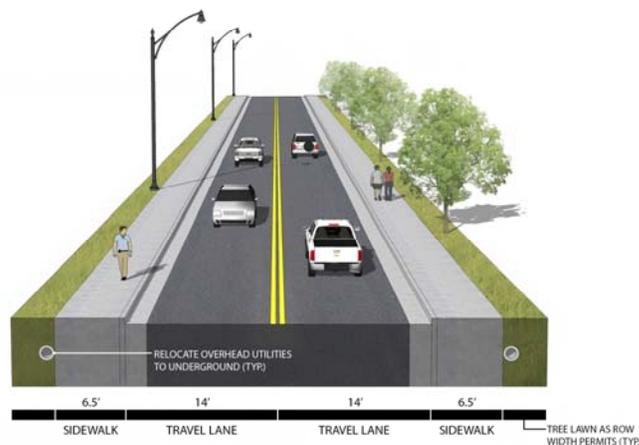
A grade-separated structure for the crossing of the UPRR tracks and 88<sup>th</sup> Avenue would provide less traffic interruption and reduce delays along not only 88<sup>th</sup> Avenue, but Rosemary Street as well as backups on 88<sup>th</sup> Avenue bring traffic on northbound Rosemary Street to a standstill.

There are two type of grade separated crossings. The first is an overpass, where 88<sup>th</sup> Avenue would go over the tracks. The Union Pacific Railroad requires that the overpass structure span their entire right-of-way such that no part of the structure is located within the right-of-way. Additionally, the Union Pacific Railroad requires a minimum vertical clearance of 23'-4" from the top of any existing *or future* track to the bottom of the overpass structure. The horizontal length required for the approach to a bridge crossing of that height is significant and would exceed the length between Quince Street and the RR crossing and come very near to, if not be longer than, the distance between the RR crossing and Rosemary Street. While an overpass crossing is possible in this location, further analysis would be required to come up with a feasible plan that would accommodate access to the industrial area at the northeast quadrant of the crossing as access to that area is extremely limited due to the O'Brian Canal. Additional consideration would need to be given to maintaining access to the developed property at the southwest quadrant of the crossing. If the overpass geometry should require it, Rosemary Street could be relocated further to the east, but would require purchase of the drive-in theater property to accommodate the roadway geometric modifications.

The second type of grade separated crossing is an underpass, where 88<sup>th</sup> Avenue would go under the tracks. Consideration to the feasibility of an underpass structure would need to be investigated. The proximity of the crossing to the O'Brian Canal and a pond in the northeast quadrant raises the concern for groundwater issues that would need to be investigated for both the structure design and constructability. An underpass will need to be approximately 20' lower than the tracks to allow for not only vehicle height requirements but also for subgrade between the tracks and the top of the structure. Another consideration is the constructability of the grade separated crossing. Given the volume of train traffic on this track, it is unlikely that the Union Pacific Railroad will allow the track to be closed during construction of the grade separated crossing. A shoe-fly track will need to be constructed that would allow the train traffic to by-pass the construction of the structure. This area is conducive to the construction of a shoe-fly track because of the vacant land adjacent to the east side of the tracks and the relatively flat terrain. Consideration will need to be given to the geometric track requirements, which are based on the speed of trains along this section of the track and their ability to negotiate the horizontal curves of the shoe-fly. It will need to be determined if there is adequate room for the construction of a shoe-fly as well as the room necessary to construct the structure. The proximity of an existing pond in the northeast quadrant is an additional consideration for constructability of the shoe-fly track.

## Local Street Section

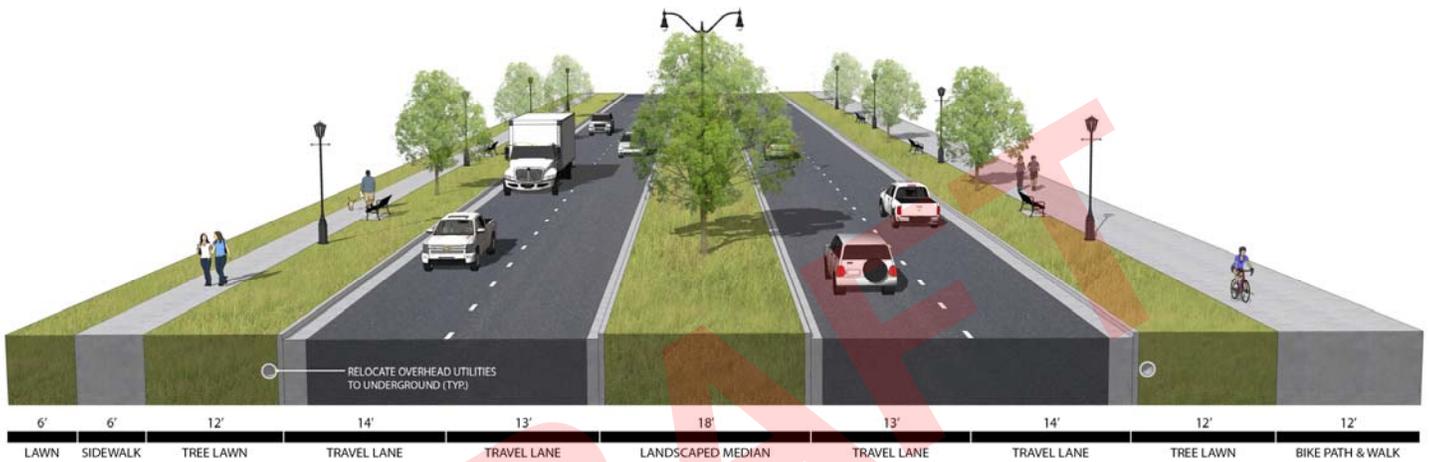
Providing for additional street sections with a constrained ROW within Irondale provide guidance as development occurs. The street section to the right shows a smaller ROW at 50', possibly less, depending on availability and constraints in the particular area. This section is appropriate for industrial traffic as well as standard vehicular and alternative transportation within the neighborhood.



**ROSEMARY STREET  
INDUSTRIAL/LOCAL CONSTRAINED ROW**

I—Rosemary Street Sections

Rosemary Street is classified as a Major Collector. The existing right-of-way width varies significantly between 80<sup>th</sup> and 88<sup>th</sup> Streets. Shown herein are two roadway cross sections, one with the standard 120' right-of-way width for a Major Collector, and one with a constrained right-of-way width of 80'. Both cross sections contain street furniture, street lighting and landscaping which compliment the history and character of the neighborhood. Existing overhead utility lines have been shown as buried utilities placed at the back of curb, under the tree lawn. See proposed sections below.



**ROSEMARY STREET  
MAJOR COLLECTOR - UNCONSTRAINED 120' ROW**



**ROSEMARY STREET  
MAJOR COLLECTOR - CONSTRAINED 80' ROW**

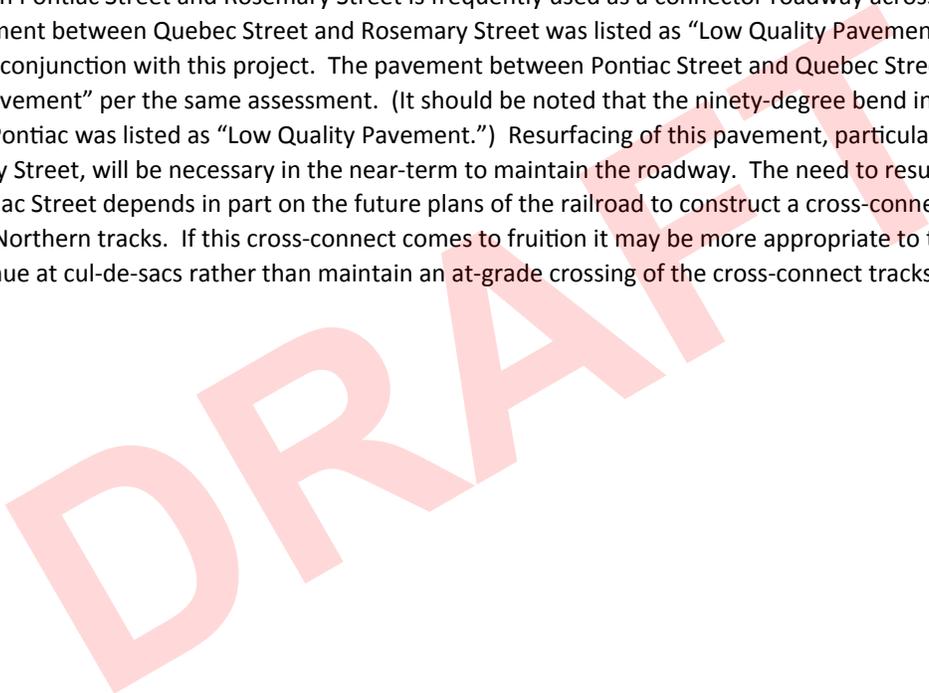


**M—86<sup>th</sup> Avenue from Rosemary St. to Ulster St.**

Current land use restricts the ability to create a public right-of-way for a roadway between Rosemary St. and Ulster St. at 86<sup>th</sup> Avenue. However, due to the railroad spur that will be constructed across 84<sup>th</sup> Avenue, it is important to consider the ability of emergency responders to get to the east side of Irondale should a train be blocking the tracks at the 84<sup>th</sup> Avenue at-grade crossing. Similarly, the Fire Department often struggles with being able to access Rosemary Street from their station at the corner of Rosemary and 84<sup>th</sup>, during peak traffic times. For these reasons, it is suggested that a semi-hard surface access roadway be constructed between Rosemary and Ulster, at 86<sup>th</sup> Avenue for emergency access. This surface could be constructed of gravel, if it were maintained, or of paving stones if regular maintenance can not be achieved.

**S—84<sup>th</sup> from Rosemary to Pontiac / RR necklace**

84<sup>th</sup> Avenue between Pontiac Street and Rosemary Street is frequently used as a connector roadway across the western portion of Irondale. The pavement between Quebec Street and Rosemary Street was listed as “Low Quality Pavement” per the October 2017 assessment done in conjunction with this project. The pavement between Pontiac Street and Quebec Street was listed as “Medium Quality Pavement” per the same assessment. (It should be noted that the ninety-degree bend in the road at the intersection of 84<sup>th</sup> and Pontiac was listed as “Low Quality Pavement.”) Resurfacing of this pavement, particularly between Quebec Street and Rosemary Street, will be necessary in the near-term to maintain the roadway. The need to resurface 84<sup>th</sup> between Quebec Street and Pontiac Street depends in part on the future plans of the railroad to construct a cross-connect between the UPRR and the Burlington-Northern tracks. If this cross-connect comes to fruition it may be more appropriate to terminate both Pontiac Street and 84<sup>th</sup> Avenue at cul-de-sacs rather than maintain an at-grade crossing of the cross-connect tracks.



**UTILITIES**

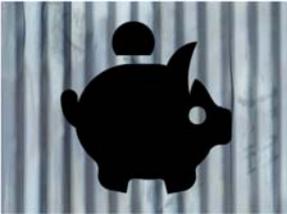
Council Goal	No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Local	Regional
	2	84th Ave water main casing pipe	RR Spur Crossing	Install sleeve for existing water main along 83rd Ave. Place empty conduit for future utility improvements		\$\$	X	
	3	Quebec St water and sewer casing pipe	RR Cross Connect Crossing,	Install sleeves for existing water and wastewater mains along Quebec St. Place empty conduit for future utility improvements		\$\$\$	X	
	4	Rosemary St. water and sewer casing pipe	RR Cross Connect Crossing	Install sleeves for existing water and wastewater mains along Rosemary St. Place empty conduit for future utility improvements		\$\$	X	
	5	84th Ave water and sewer casing pipe	RR Cross Connect Crossing	Install sleeves for existing water and wastewater mains along 84th Ave. Place empty conduit for future utility improvements		\$\$	X	
	6	83rd Ave water and sewer casing pipe	RR Cross Connect Crossing	Install sleeves for existing water and wastewater mains along 83rd Ave. Place empty conduit for future utility improvements		\$\$	X	
	7	83rd Ave water relocation, water casing pipe	RR Spur Crossing	Relocate 450 LF of existing water main and install sleeve for RR spur crossing. Place empty conduit for future utility improvements		\$\$\$	X	
	8	16" water transmission main	Quebec Street	SACWSD to install 16" transmission main along Quebec from 86th to 80th (tentative alignment)		\$\$\$\$	X	X
	9	Water transmission main	Quebec Pump Station to west side of UPRR tracks	SACWSD to install transmission main from Quebec Pump Station to the west side of the UPRR tracks.		\$\$\$\$	X	X



**DRAINAGE**

Council Goal	No.	Facility	Limits	Improvements	Length (miles)	Estimated Cost	Local	Regional
	11	Ulster St drainage improvements	Ulster St, midway between 84th & 83rd Ave	Drainage improvements at low point in street to convey runoff from street to existing detention pond at SW corner of Ulster & 84th.		\$\$\$	X	
	12	Roslyn St drainage improvements	Roslyn just south of 86th Ave	Regrade Street or construct drainage improvements to convey runoff north to 86th Ave		\$\$\$	X	
	13	86th Ave. drainage improvements	86th between Verbena and Willow St	Address drainage with roadway improvements to deal with ponding water at low points on either side of existing barricade.		\$\$\$	X	
	UDFCD—OSP	Reach 1 - Storm Sewer system	Off-site: 88th Avenue from South Platte River to I-76.	Outfall to South Platte River, 4,600 LF of 10' x 3' RCBC (box culvert), I-76 trenchless crossing: three 48-inch dia RCP, roadway grading on 88th Ave near Bull Seep.		\$\$\$\$\$		X
		Reach 2 - Storm Sewer system	88th Avenue between I-76 and SH 2.	O'Brian Canal trenchless crossing, UPRR trenchless crossing, SH 2 & BNSF trenchless crossing		\$\$\$\$\$		X
		Reach 2 - Regional Detention/Retention Basins and pipes/channels to convey runoff to basins.	Irondale	5 regional detention/retention basins within the Irondale neighborhood., along with conveyance infrastructure. Locations shown on the OSP are conceptual. Actual detention basin design and location to be determined during development process or through master planning effort led by the City.		\$\$\$\$\$	X	X
		Reach 3 - Storm Sewer conveyance system	Off-site: SH 2 between 88th Ave and 80th Ave	Engineered channel along the east side of SH 2 in RMA		\$\$\$\$\$	X	X
		Reach 4 - Upstream detention/retention in Rocky Mountain Arsenal	Off-site: RMA - Irondale Gulch, Tributary A, Tributary B	Detention / retention facilities in RMA		\$\$\$\$\$	X	X





# FUNDING CONSIDERATIONS

## Paying for Improvements

Infrastructure improvements funding is a major consideration to setting up goals and timelines for the Irondale neighborhood. While some improvements may occur with private investment as a result of development requirements, others will require public coordination and investment. This page outlines a few of the different options for funding the improvements within the district shown in the previous CIP section.

### Capital Improvement Preservation Plan (CIPP)

The CIPP is a 5-year plan for improvements in Commerce City. The most recent approved projects were voted on in 2013 with funding provided by a 1 percent sales and use tax increase. Projects include construction, operations, and maintenance of new parks, recreation, and road projects. Irondale projects may be considered with the next cycle.

### Taxes & Levies

Using targeted tax revenues for improvements can assist in those larger ticket items. The key to using these funds lies in the ability to clearly communicate the benefit of the project to the voting public. Alternatively, setting up a district where funds are generated and spent can also fund improvements, but may take a longer time since fewer are paying into it.

*Example: Special Improvement District (SID)*

### Urban Renewal Authority (URA) &/or Tax Increment Financing (TIF)

Urban Renewal Authorities are granted abilities for special funding over a 25-year time horizon, with separate districts within or up to the City limits. If an URA were set up the Irondale neighborhood could be set up as a district to help incentivize new development hurdles like high costs of infrastructure upgrades to or on a site.

### Development-Driven

As development occurs, funds can be generated based on scale or impacts to infrastructure. These funds can be used to repay infrastructure costs for improvements already in place (i.e. a City-funded detention basin) or pay for future improvements like upgrades to an intersection. Regardless of the ways funds will be used, the establishment or addition of impact fees needs to be proven to be tied directly to costs and impacts.

*Example: Impact Fees*

### Grant Assistance

Depending on the type of project, physical location and constraints, and demographics of an area, grants or no interest loan programs can help with big items. Grant and loan programs can also be helpful for individuals or companies trying to fund specific improvements in their buildings or properties.

*Examples: CDGB (Community Development Block Grant (CDBG); Congestion Mitigation and Air Quality Improvement Program Grants; BUILD Discretionary Grant (Formerly known as TIGER)*





# FUTURE LAND USE

## Future Land Uses Development

The mix of existing land uses, including on individual properties, was a major consideration for the development of this part of the plan. As industrial uses continue expand and new uses established in the neighborhood, concerns with impacts and conflict between less intense uses will only grow. In addition, a major discussion point on the heavier industrial uses with outdoor storage along major roadways and sightlines. For those reasons, a step down of intensity from residential uses and the main transportation corridors was incorporated into the future land use plan.

Two main types of industrial uses are identified on the map.

The higher intensity—General Industrial—would allow for I1 or I2 in current zoning code. A lower intensity category—Small-Scale Industrial—is set up to allow for the uses that would be a lesser impact to existing residences, or commercial and service-oriented businesses in the neighborhood. The smaller scale category may be cottage industrial uses with limited impacts, and avoid outdoor storage areas impacting visual lines in the neighborhood or from adjacent areas.

Commercial and industrial uses may be mixed along the Rosemary and 80th corridor, with lighter or service-oriented industrial uses being the preferred type. Current neighborhood businesses should be encouraged to remain where possible to serve the neighborhood and surrounding area. These businesses would also encourage more destination trips, as opposed to the large amount pass through commuter traffic Irondale currently sees.

The residential uses from the previous plan were grouped into two smaller neighborhood areas, the northeast and the south. During meetings on this plan, the major discussion on the south pocket residents centered more on how they should plan for the future and which types of investment in property make sense. This area is also impacted by the by the purchase of some residential properties recently purchased by the Union Pacific Rail Road (UPRR). In the Northeast pocket a mixture of opinions on the future were expressed. Some properties have been rezoned to industrial to facilitate sales, while other long-term residents choose to stay. The map shows the northeast pocket remaining, at a smaller scale, accounting for the zone changes that have already taken place. The southern pocket would be phased out over time as owners chose to transition to a mix of primary industrial or commercial uses.

### Land Use Plan

Future Land Use Plans were developed through input from the public, consideration of existing uses and facilities, non-conforming uses, development pressures, and existing future plans for the area.



See  
**Future Land Use Map**  
on Page #

