



AGENDA
CITY OF GLENWOOD SPRINGS
REGULAR CITY COUNCIL MEETING
MARCH 5, 2026
101 W. 8TH STREET
6:15 p.m.

The agenda is subject to *change, including the addition of items 24 hours in advance or the deletion of items at any time.*
The order and times of agenda items listed are approximate and intended as a guideline for the City Council.

ATTENTION: To ensure your written comments are included in the City Council packet, public comments must be received by 4 p.m. on the day before City Council meetings. Comments may be submitted to ryan.muse@coqs.us.
Written comments may be submitted after this deadline and will be shared via email to City Council but are not guaranteed to make it into the meeting packet. Submit comments at any time directly to City Council via email at citycouncil@coqs.us.

WORK SESSION

3:00	Workforce Housing for City Employees	Information/Discussion
3:45	Engineering Standards and Permit Fees	Information/Discussion
4:30	Fire/Emergency Management Service Department Update to Council	Information/Discussion
5:15	Break to Get Dinner	
5:30	Flock Camera Update	Information/Discussion
5:45	Curb Side Compost as an Option Through the Pay as You Throw Program (PAYT)	Information/Discussion

ZOOM INSTRUCTIONS

When: March 5, 2026 06:00 PM Mountain Time (US and Canada)
Join from PC, Mac, iPad, or Android: <https://us02web.zoom.us/j/89518006563?pwd=bN1o9Ay7siifoTZRcibo98RkTyrWUR.1>
Passcode:565937
Join via audio: +1 719 359 4580 US
Webinar ID: 895 1800 6563

REGULAR SESSION

1. Roll Call
2. Agenda Changes
3. Disclosure of Councilor Conflicts of Interest
4. Citizens Appearing Before Council (For Items Not on the Agenda—Comments Limited to 3 Minutes)
5. Council Announcements
6. Consent Agenda Discussion and/or Action
 - A. February 19, 2026 Council Minutes
 - B. Transportation Commission Reappointment
 - C. Workforce Housing Fund Advisory Board Reappointments
 - D. Award Request for Qualification (RFQ) 2026-03Q Underground Primary Cable
 - E. 2026 Intergovernmental Agreement for Mosquito Control
 - F. Ordinance 2026-05; Article 020.020.030 Adjust Victims and Witnesses Assistance and Law Enforcement (VALE) Board's Disbursement Limit. Second Reading

ACTIONS AND/OR PRESENTATIONS

- | | |
|---|--------------------------|
| 7. Resolution 2026-04; Supporting an Application for Down Payment Assistance Grant from the Division of Housing | Discussion and/or Action |
| 8. City Wide Project Update | Information/Discussion |
| 9. Master Service Agreement for South Bridge Construction Management | Discussion and/or Action |
| 10. Financial Policy for Speeding Violations | Discussion and/or Action |
| 11. Ordinance 2026-06; First Appropriation to the 2026 Budget. One Reading | Discussion and/or Action |
| 12. Council Comments | |
| 13. Report from City Administration | |
| A. City Manager | |
| B. City Attorney | |
| C. Correspondence Incoming/Outgoing | |
| 14. Social Event Announcement | Information |
| 15. Adjournment | |

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City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

- Agenda Item:** Workforce Housing for City Employees
- Action Requested:** Discussion around the possibility of the City entering an agreement for workforce housing.
- Department:** City Administration
- Presented By:** Steve Boyd
- Strategic Goals:** Provide Efficient and Responsive City Government
- Background Info:** Staff has identified demand for City subsidized housing as a valuable recruiting and retention tool, and has been evaluating various opportunities. The former Caravan Inn has been purchased by a credible local developer who is offering one of three buildings to larger employers in the area. The building the City is looking at has 15 converted hotel rooms that are being vacated by Roaring Fork Transportation Authority (RFTA) on May 1st. Members of our senior team have visited the facility and seen the available rooms. The footprint includes 12 studio, 1 one-bedroom and 2 two-bedroom units. These conversions are well-done and the rooms are comfortable.
- The landlords and property managers have good reputations in the area and are known to staff. Terms of the agreement would likely be that the City would agree to lease the block of 15 units on a one-year commitment. The flip book and table of available units are attached.
- Issues:** The City is behind some of our peers in providing affordable housing to our employees. We have reason to believe that these units would be valuable to some of our employees, and likely prospective employees. The intended use of these units would be relatively short-term with the goal of helping employees establish themselves in the community with some runway to find a longer-term solution, and we would probably prioritize first responders. Whether the City could use all 15 units is unknown at this time. In the event our demand is not sufficient to fill the units we would be able to offer them to other local government and non-profit employers in the area as sublets.
- Fiscal Impact:** The cost of a studio is \$1,900 per month, the one bedroom unit is \$2,100 and the two bedroom units are \$2,400 each. The total annual commitment to the City would be \$356,400 and would be offset by any rental amounts we pass through to employee residents. A simple spreadsheet is attached to this agenda item that is helpful in considering different rental subsidy amounts and vacancy rates. Put numbers in the cells highlighted in yellow to see various cost scenarios for the City.
- Funds would come from the City's affordable housing reserve, currently approximately \$500,000, so we could test the demand for at least a year or two without impacting other City budgets. The majority of this reserve comes from what was previously the City's Employee Home Ownership Program (EHOP) that was administered by Impact Development. This program is no longer being used, and the funds were returned to the City in 2025. Because these units would only be available to City employees (unless we choose to offer them elsewhere), 2C monies are not the preferred source of funds.
- Legal Review:** Legal will help review and negotiate the terms and conditions of the master lease agreement.
- Staff Recommendation:** Staff is not making a recommendation at this time other than for Council to consider this opportunity.



RESIDENCES on GRAND



WELCOME HOME TO RESIDENCES ON GRAND

Residences on Grand offers the best of both worlds, nestled in the heart of Glenwood Springs, Colorado. Our pet friendly community is moments from historic downtown, providing easy access to various shopping, dining, and entertainment options. We're also close to the Roaring Forks River and many other outdoor activities, giving you the perfect balance of urban convenience and mountain living.

Enjoy the practicality of bundled utilities and modern amenities at Residences on Grand. Our sleek studio and one bedroom apartment homes include all utilities and feature air conditioning, an all-electric kitchen, and Smart Home technology. As a resident, you will appreciate the comfort and innovation in every aspect of your home, providing you with a streamlined living experience.

Stay connected with community-wide high-speed Wi-Fi that allows you to work from home or stream movies with ease. The added convenience of our on-site laundry facilities makes taking care of your daily chores a breeze. Enrich your living experience at Residences on Grand.

COMMUNITY AMENITIES

- Access to Public Transportation
- Assigned Parking
- Cable Available
- Easy Access to Freeways
- Free Community-wide High-speed Wi-Fi
- Guest Parking
- Laundry Facilities
- On-call Maintenance
- On-site Maintenance
- Pet Friendly

APARTMENT AMENITIES

- Air Conditioning
- All Utilities Included
- All-electric Kitchen
- Built-in Microwave
- Mini Blinds
- Refrigerator
- Smart Home Features
- Stainless Steel Appliances
- Vinyl Flooring



STUDIO A | 1 BATH



270 SQUARE FEET



STUDIO B | 1 BATH



278 SQUARE FEET

STUDIO C | 1 BATH



285 SQUARE FEET



STUDIO D | 1 BATH



300 SQUARE FEET

A5 - 1 BED | 1 BATH



474 SQUARE FEET



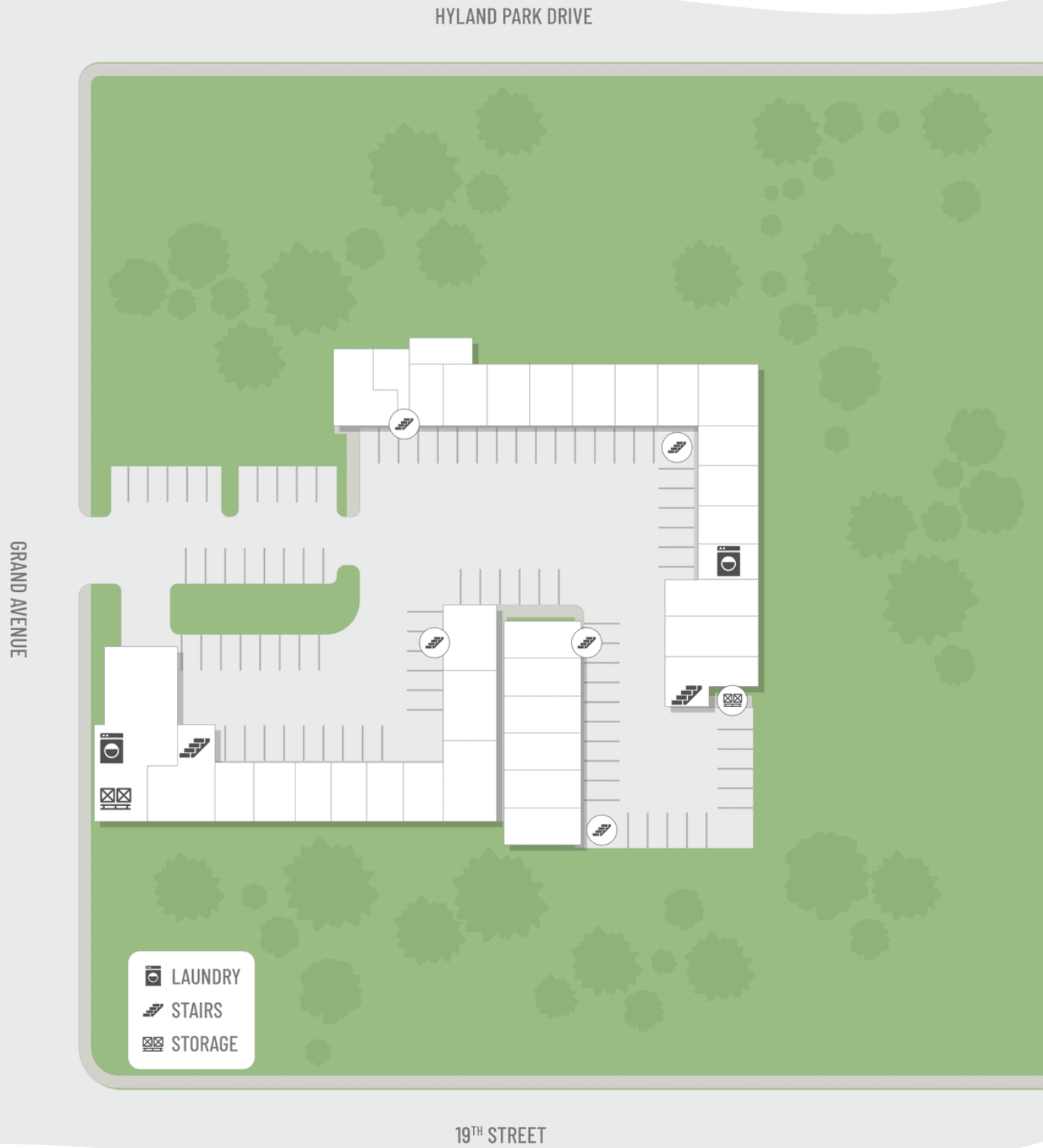
A6 - 1 BED | 1 BATH



543 SQUARE FEET



SITE MAP



GRIFFIS BLESSING

Founded in 1985, Griffis/Blessing, Inc., has earned the trust of family, private, and institutional investors for its performance as a leading real estate manager and advisor. We leverage cutting-edge technology alongside a wide range of tailored management services designed to maximize the value of our clients' assets. Our team, comprising some of the industry's finest leaders, provides turnkey real estate management solutions for diverse property situations.

Headquartered in Colorado Springs, with additional offices in Denver, Grand Junction, and Kansas, Griffis/Blessing specializes in Class A, B, and C communities. We currently manage over 95 apartment communities, totaling more than 11,000 units.

Since 1995, Griffis/Blessing has held the Accredited Management Organization (AMO[®]) designation from the Institute of Real Estate Management. This accreditation recognizes excellence among real estate management firms and is awarded only to those that demonstrate the highest levels of performance, experience, and financial stability, and have a Certified Property Manager (CPM[®]) in an executive role. Only six percent of management companies in the United States achieve AMO[®] status, making Griffis/Blessing the sole AMO[®] firm headquartered in Colorado Springs.

Throughout its history, Griffis/Blessing has been involved in nearly every facet of commercial and multifamily real estate. Initially focused on multifamily services, the firm has since expanded its expertise to encompass office, medical, retail, industrial, and corporate and government properties.

Residences On Grand

1826 Grand Ave, Glenwood Springs, CO

Units Available for Rent [updated 2/2/26]

building	unit #	DR	type	appx SF	Rent/Mo	Rent/Yr	available
B	128	FM	Studio 6	385	\$ 1,900	\$ 22,800	5/1/2026
B	129	FM	Studio 6	385	\$ 1,900	\$ 22,800	5/1/2026
B	130	FM	Studio 6	384	\$ 1,900	\$ 22,800	5/1/2026
B	131	FM	2	724	\$ 2,400	\$ 28,800	5/1/2026
B	132	FM	1	564	\$ 2,100	\$ 25,200	5/1/2026
B	226	FM	Studio 6	328	\$ 1,900	\$ 22,800	5/1/2026
B	227	FM	Studio 6	390	\$ 1,900	\$ 22,800	5/1/2026
B	228	FM	Studio 6	388	\$ 1,900	\$ 22,800	5/1/2026
B	229	FM	Studio 6	385	\$ 1,900	\$ 22,800	5/1/2026
B	230	FM	Studio 6	385	\$ 1,900	\$ 22,800	5/1/2026
B	231	DR	Studio 6	384	\$ 1,792	\$ 21,504	5/1/2026
B	232	DR	Studio 3	319	\$ 1,792	\$ 21,504	5/1/2026
B	233	FM	Studio C	327	\$ 1,900	\$ 22,800	5/1/2026
B	234	FM	Studio D	382	\$ 1,900	\$ 22,800	5/1/2026
B	235	FM	Studio D	382	\$ 1,900	\$ 22,800	5/1/2026

"Rent" is stated as Gross Rent and includes all utilities, wi-fi, trash, mailbox, parking.

NOTES:

- (1) one-year master lease term with government or quasi-government employer;**
- (2) employee to be qualified by employer;**
- (3) units are rented non-furnished;**
- (4) rent increases at 4% per year upon renewal;**

Residences on Grand

Number of Units	15	Resident Contribution	\$171,000
Number of Monthly Rents per Year	180	City Contribution	<u>\$171,000</u>
Vacancy Rate	0%	Total Annual Contribution	\$342,000
Monthly Rental per Unit	\$1,900		
Employee Paid Rent	\$950		
City Subsidized Rent	\$950		

**For simplicity this model assumes all units go for \$1,900. The one bedroom costs an additional \$200 per month, each of the two bedrooms are an additional \$500 per month.*

***Cells highlighted in yellow can be changed by the user.*



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

- Agenda Item:** Engineering Standards and Permit Fees
- Action Requested:** Staff will present proposed revisions to the standards and permits (including fees) and would like to receive feedback from council. Staff will take feedback and finalize changes to the documents and bring this back to council for final adoption in an even session.
- Department:** Engineering
- Presented By:** Ryan Gordon, ASHLEY DOSTAL, Matthew Langhorst
- Strategic Goals:** Provide Efficient and Responsive City Government
Preserve and Improve Infrastructure
Protect and Preserve our Quality of Life
Generate Sustainable Economic Development
Ensure Public Safety
- Background Info:** The Engineering Standards and Permit Fees govern how projects are planned and constructed within the city. The standards and permits need to be updated periodically to keep them current with industry standards and current conditions in the city. The Engineering Standards were updated in 2018 as a whole and the Stormwater chapter 4 was updated in 2024. The standards need to be reviewed by Engineering and Public Works and updated as needed to keep regulations and standards pu to based on current city needs. The majority of the revisions in the current standards update are cleaning up text issues, circular references or addressing out-dated information. Significant changes or revisions to the standards will be addressed as stand-alone reviews.
- Engineering permits (Right-of-way, grading, block party) were updated in 2018. The permits are outdated and the fees do not reflect the current time needed for staff for inspections and/or re-inspections. Additionally, the fee structure and criteria need to be modified to make construction in the city more straightforward.
- The draft permits and engineering standards have been attached for review prior to the work session.
- Issues:** None at this time.
- Fiscal Impact:** Revisions to the engineering standards does not have fiscal impacts. Revisions to the permit fees will have impacts to projects proposed within the city.
- Legal Review:** Legal will review revisions.
- Staff Recommendation:** NA

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CHAPTER 5 – TRANSPORTATION

5.1 GENERAL INFORMATION

5.1.1 GENERAL CONSIDERATIONS

The standards and guidelines established by this chapter are intended to represent the minimum standards for the design and construction of transportation facilities. The standards are intended to be applied by the City Engineer for conformance with City development regulations. The City Engineer may augment these construction standards with the latest editions of the following design documents (in order of preference):

- American Association of State Highway and Transportation Officials (AASHTO) - Policy on Geometric Design of Highways and Streets
- American Association of State Highway and Transportation Officials (AASHTO) - Guide for the Development of Bicycle Facilities
- American Association of State Highway and Transportation Officials (AASHTO) – Guide for Design of Pavement Structures
- American Association of State Highway and Transportation Officials (AASHTO) – Standard Specifications for Highway Bridges
- American Association of State Highway and Transportation Officials (AASHTO) – LRFD Bridge Design Specifications
- American Association of State Highway and Transportation Officials (AASHTO) – Guide Specifications for the Design of Pedestrian Bridges
- Colorado Department of Transportation - Roadway Design Guide
- Colorado Department of Transportation - Standard Plans – M&S Standards
- Colorado Department of Transportation - Standard Specifications for Road and Bridge Construction
- Colorado Department of Transportation – State Highway Access Code (SHAC)
- Federal Highway Administration (FHWA) - Manual on Uniform Traffic Control Devices (MUTCD)
- Transportation Commission of Colorado - Colorado Supplement to the Federal Manual on Uniform Traffic Control Devices
- The Institute of Transportation Engineers (ITE) - Traffic Engineering Handbook
- National Association of City Transportation Officials (NACTO) - Guidelines for Major Urban Street Design
- City of Glenwood Springs and State of Colorado Department of Transportation Access Control Plan

Obtaining copies of these publications shall be at the applicant's own expense.

The overall goal of this chapter is to encourage the uniform development of an integrated, fully accessible public transportation system that will facilitate present and future travel demand through a variety of transportation modes with minimal environmental impact to the community as a whole.

5.1.2 APPLICABLE SPECIFICATIONS

The following specifications shall be used in conjunction with this standard:

- A. Colorado Department of Transportation Standard Specifications for Highway and Bridge Construction, and applicable Standard Special Provisions.

5.1.3 DEFINITIONS AND TERMS

Access Control Plan: An agreement between the City and CDOT to control access points to Highway 82 (Grand Avenue/Glen Avenue) from I-70 Exit 116 to the southern City boundary. Upon new development or redevelopment that increases traffic from the proposed business by 20% or more, a CDOT Access Permit will be required. Please see City planning or engineering staff for more information.

Applicant: The person, party, firm or corporation who proposes to do the improved work.

Average Daily Traffic or (ADT): The total traffic during a given time period (in whole days), greater than one (1) day and less than one (1) year, divided by the number of days in that time period. To determine potential ADT for a local access City street, it will be assumed, for the purposes of the Chapter only, that each Single-Family Dwelling Unit will generate ten (10) traffic trips per day. Traffic generation for other uses will be in accordance with the current edition of the "Trip Generation", published by the Institute of Traffic Engineers, or other approved sources, and will include the traffic generated by the proposed development unless otherwise noted. Projects submitted to the City for review and approval will be considered to be proposed projects.

CDOT Standard Specifications: The current Standard Specifications for Road and Bridge Construction, as published by the Colorado Department of Transportation, and its amendments.

City: The City of Glenwood Springs, Colorado, the City Engineer, the Public Works Director or his/her designee.

City Engineer: The City of Glenwood Springs, the City Engineer or his/her designee.

Cul-De-Sac: A circular area symmetrical or offset about the centerline of a street.

Dwelling Unit: Any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and sanitation for not more than one family.

Emergency Vehicle Access (EV): means an all-weather drivable surface constructed and maintained in accordance with this Chapter, that provides emergency access between a public or private street and one hundred fifty (150) feet of all portions of an exterior wall of the first story of any structure requiring EV Access as measured by an approved route around the exterior of the building.

Engineer: A professional engineer currently licensed by the State of Colorado, retained by the Applicant, and acting on their behalf.

Functional Classification: is the process by which streets and highways are grouped into classes, or systems, according to the character of traffic service that they are intended to provide. There are three functional classifications: arterial, collector, and local roads. All streets and highways are grouped into one of these classes, depending on the character of the traffic (i.e., local or long distance) and the degree of land access that they allow. Refer to Section 5.2.2 for definitions of each functional classification.

Gravel Surface: Two inches of crushed surfacing top course per the current CDOT Standard Specifications.

Improved Street or Alley: A street that has been improved to full urban or suburban standard, including drainage, paving, sidewalk, and in most cases curb and gutter, as set forth in these standards. A alley that has been improved to full urban or suburban standard, including drainage and paving as set forth in these standards.

Land Surveyor: A professional land surveyor currently licensed by the State of Colorado, retained by the Applicant, and acting on their behalf.

Maintenance: The regular and continual preservation of a public facility, private street and appurtenant features within the easement in an “as new” condition.

Major Structure: Major structures are bridges and culverts with a total length of 20 feet or greater and retaining walls with both a total length greater than 100 feet and a maximum exposed height at any section of over 4 feet. The length is measured along the centerline of roadway for bridges and culverts, and along the top of the wall for retaining walls.

Planned Unit Development (PUD): A horizontal area within the exterior boundaries of the PUD, including any streets and required improvements, easements, reservations or dedications. The PUD provides for the opportunity to create self-contained residential neighborhoods with a pre-determined variety of housing choices and without following a standard system of public streets and lot design, with allowances for mixed use, residential and neighborhood commercial development that are not usually permitted in residential zones.

Private Street Easement: An easement or parcel which creates a legal source of access from a public street to an existing or proposed lot or lots of record or project, across other parcels of property.

Tract: Any parcel of land, lot, building site, or contiguous combination thereof devoted to or intended to be devoted to a principal use and any other uses customarily accessory thereto.

Unimproved Street, Roadway, or Alley: The right-of-way has been opened, the area is or could be traveled upon, but the maximum limit of improvement would consist of a gravel base roadway. This street most likely has not been graded to an established grade but generally follows the lay of the land. This street is not maintained by the City unless opened by the City.

Unopened Street or Alley: This term applies when right-of-way currently exists but no roadway improvements have been provided and travel within the right-of-way is prohibited by the fact that no clearing or grading has occurred.

5.2 PUBLIC STREETS

5.2.1 GENERAL

- A. The design of streets and roads shall depend upon their type and usage. The design elements of City streets shall conform to standards as set forth in this chapter.
- B. Street design must provide for the maximum loading conditions anticipated. The width and grade of the pavement must conform to specific standards set forth in this chapter for uniformity and safety. Typical sections for each of the various street classifications are shown in the Standard Plans included in the appendix to this chapter.
- C. Lot and block patterns shall allow for access onto a street from each lot. The use of an easement for principal access to a lot shall not be allowed. Permanent access easements may be permitted if recommended by City Staff and approved by the City Attorney.
- D. Alignment of principal arterials, minor arterials and collectors shall conform as nearly as possible with that shown in the Long Range Transportation Plan and the City of Glenwood Springs Comprehensive Plan.
- E. The layout of streets shall provide for the continuation of existing principal streets in adjoining subdivisions or of their proper projection when adjoining property is not subdivided. Access streets, which serve primarily to provide access to abutting property, shall be designed to discourage through traffic.
- F. Access points/driveways shall be in accordance with Section 5.2.10.
- G. It shall be the responsibility of the City Engineer to identify specific conditions for street improvements and/or right-of-way reservation required as a condition of development. All street improvements shall be consistent with these Standards, the Glenwood Springs Municipal Code and the Glenwood Springs Development Code.

5.2.2 FUNCTIONAL CLASSIFICATIONS

The City of Glenwood Springs has developed a Street Classification Map, indicating existing and proposed streets and their functional classifications. City streets are divided into principal arterials, minor arterials, commercial collectors, residential collectors, local streets and private roads in accordance with the regional transportation needs and the functional use that each serves. Refer to the following sections for further definitions. Function is the controlling element for classification and shall govern right-of-way width, road width, and road geometrics for the design classifications. New streets will be classified by the City Engineer.

A description of street design standards for each street classification follows. Refer to Table 5-7 in the next section for a summary of the street right-of-way standards. All elements listed are required unless specifically noted.

1. **Principal Arterials** provide for mobility through the City and for connecting the major activity centers within the City. Although principal arterials may provide access to commercial and residential properties where no other alternative is available, access is a secondary function.

Most Principal Arterials within Glenwood Springs are under the jurisdiction of the Colorado Department of Transportation. Although CDOT criteria will govern the specifications for these principal arterials, the City of Glenwood Springs requires the following specifications shown in Table 5-1 for Principal Arterials under City jurisdiction.

2. **Minor Arterials** augment the principal arterial system. They provide for mobility through the City and for connecting destinations on opposite sides of the City. Minor arterials may also provide access to properties, although the number of access points should be limited.
3. **Commercial Collectors** provide access to the primary commercial areas and gather traffic from various parts of the commercial areas and distribute it to the major street system. Different configurations with several on-street parking options are provided for residential and commercial areas.
4. **Neighborhood Collectors** provide access to neighborhood cores and gather traffic from various parts of the neighborhood and distribute it to the major street system. Different configurations with several on-street parking options are provided for residential and commercial areas.
5. **Local Streets** provide access to individual residential units and neighborhood commercial areas. Different configurations with several on-street parking options are provided for residential and commercial areas.
6. **Alleys** provide for accessibility and service to individual lots and businesses. They also serve as utility easements or corridors.
7. **Private Streets** are owned, controlled, and maintained by one or more property owners.

Table 5-1 Principal Arterial Specifications

Street Function:	Provide mobility for through traffic and connections between major activity centers
Connectivity:	Connects major activity centers and regional transportation nodes
Average Daily Traffic:	> 10,000 motor vehicle trips per day
Managed Speed:	25 mph–45 mph
Motor Vehicle Travel Lanes:	<ul style="list-style-type: none"> • 11’–12’ travel lanes • Number of lanes based on street capacity required
Bike Lanes:	<ul style="list-style-type: none"> • Separated multi-use path or paths are required • 10’ minimum width required for two-directional, 5’ minimum width required for single-direction travel • Separated paths shall be separated by a minimum 5’ wide landscaping buffer
Parking:	<ul style="list-style-type: none"> • On-street parking generally not provided on principal arterials • Parking may be provided as a traffic calming feature and to meet parking demand when principal arterials traverse a neighborhood with existing driveway accesses or commercial properties fronting the street
Curb and Gutter: (or Shoulders with Ditches)	<ul style="list-style-type: none"> • 6” vertical/barrier curb required. Gutter width as needed for drainage. Minimum 1.5’ gutter; <u>OR</u> • 4’ minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	As necessary
Buffer Strip	<ul style="list-style-type: none"> • 5’ landscaped strip required between sidewalk and vehicle travel lanes. • If arterial road serves a commercial area with on-street parking, then partially hardscaped planting strip is acceptable
Sidewalks and Min. Sidewalk Widths:	<p>Sidewalks required on both sides of street unless alternative bicycle and pedestrian facilities meeting these criteria are provided within the corridor</p> <ul style="list-style-type: none"> • 8 ft. width in commercial areas • 5 ft width in residential areas. 6 ft. width should be provided in high pedestrian volume areas with frequent two-way foot traffic <p>All sidewalks and intersections with vehicle lanes should meet ADA specifications.</p>
Driveways:	Minimize number of driveways. Use current CDOT or City code criteria
Center Median:	Center medians are encouraged and may be required to restrict turning movements
Min. Right-of-Way Width:	<p>75’ minimum width required</p> <ul style="list-style-type: none"> • Wider right-of-way required to accommodate parking, commercial sidewalks, shoulders and ditches
Minimum Grade	1.0%
Maximum Grade	6.0%

Table 5-2 Minor Arterial Specifications

Street Function:	Provide mobility for through traffic, access to significant destinations and, to a lesser extent, provide access to individual properties
Connectivity:	Collects traffic from collector streets and supplements the principal arterial system
Average Daily Traffic:	5,000 to 10,000 motor vehicle trips per day
Managed Speed:	25 mph–40 mph
Motor Vehicle Travel Lanes:	<ul style="list-style-type: none"> • 11’–12’ travel lanes • Number of lanes based on street capacity required
Bike Lanes:	<ul style="list-style-type: none"> • To be provided on both sides of the street, unless a separated multi-use path is provided. • 6’ width is preferred for one way travel. Lesser widths down to 4’ may be acceptable on existing streets with width constraints. • Bike symbol pavement markings are required
Parking:	<ul style="list-style-type: none"> • On-street parking generally not provided on minor arterials • Parking may be provided as a traffic calming feature and to meet parking demand when minor arterials traverse a neighborhood with existing driveway accesses or commercial properties fronting the street
Curb and Gutter: (or Shoulders with Ditches)	<ul style="list-style-type: none"> • 6” vertical/barrier curb required. Gutter width as needed for drainage. Minimum 1.5’ gutter; <u>OR</u> • 4’ minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	<p>As necessary to meet all uses</p> <ul style="list-style-type: none"> • Additional width to be provided to accommodate parking if necessary • Additional width may be provided if necessary for drainage • Narrower width may be provided for existing constrained streets where no bike path can be provided or where a separate parallel bike path exists
Buffer Strip	<ul style="list-style-type: none"> • 5’ landscaped strip required between sidewalk and vehicle travel lanes. • If arterial road serves a commercial area with on-street parking, then partially hardscaped planting strip is permitted
Sidewalks and Min. Sidewalk Widths:	<p>Sidewalks required on both sides of street unless alternative bicycle and pedestrian facilities meeting these criteria are provided within the corridor</p> <ul style="list-style-type: none"> • 8 ft. width in commercial areas • 5 ft width in residential areas. 6 ft. width should be provided in high pedestrian volume areas with frequent two-way foot traffic <p>All sidewalks and intersections with vehicle lanes should meet ADA specifications.</p>
Driveways:	Minimize number of driveways. Use current City code criteria
Center Median:	A landscaped center median may be required for access control, 4’ minimum width measured between back of curbs
Min. Right-of-Way Width:	<p>75’ minimum width required</p> <ul style="list-style-type: none"> • Wider right-of-way required to accommodate parking, commercial sidewalks, medians, shoulders and ditches
Minimum Grade Maximum Grade	<p>1.0%</p> <p>6.0%</p>

Table 5-3 Collector Specifications

Street Function:	Provide access in and out of the primary commercial areas
Connectivity:	Collects traffic from within commercial areas or residential areas and connects these areas with the major street network.
Average Daily Traffic:	1,500 to 5,000 motor vehicle trips per day
Managed Speed:	20 mph–25 mph
Motor Vehicle Travel Lanes:	<ul style="list-style-type: none"> • Two 10'–12' travel lanes
Bike Lanes:	<ul style="list-style-type: none"> • To be provided on both sides of the street • 6' width is preferred. Lesser widths down to 4' may be acceptable on existing streets with width constraints. • Bike symbol pavement markings required
Parking:	<ul style="list-style-type: none"> • One 8' lane for Parking One Side • Two 8' lanes for Parking Both Sides • Parking may be provided in 7' wide bays rather than a continuous on-street parking lane
Curb and Gutter: (or Shoulders with Ditches)	<ul style="list-style-type: none"> • 6" vertical/barrier curb required. Gutter width as needed for drainage. Minimum 1.5' gutter; <u>OR</u> • 4' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	<ul style="list-style-type: none"> • As necessary to accommodate all uses • Additional width may be provided in gutter if necessary for drainage • Narrower width may be provided for existing constrained streets where no bike path can be provided or where a separate parallel bike path exists
Buffer Strip	<ul style="list-style-type: none"> • 5' landscaped strip required between sidewalk and vehicle travel lanes. • If collector road serves a commercial area with on-street parking, then partially hardscaped planting strip is permitted
Sidewalks and Min. Sidewalk Widths:	<p>Sidewalks required on both sides of street</p> <ul style="list-style-type: none"> • 8 ft. width in commercial areas • 5 ft width in residential areas <p>All sidewalks and intersections with vehicle lanes should meet ADA specifications.</p>
Driveways:	Use standards in this section
Center Median:	A landscaped center median may be required for traffic calming
Min. Right-of-Way Width:	<p>80' minimum width required</p> <ul style="list-style-type: none"> • Wider right-of-way required to accommodate parking, commercial sidewalks, medians, shoulders and ditches
Minimum Grade	1.0%
Maximum Grade	8.0%

Table 5-4 Local Street Specifications

Street Function:	Provide access to individual residential units and commercial areas
Connectivity:	Connects to higher order streets
Average Daily Traffic:	1,500 or less motor vehicle trips per day
Managed Speed:	15 mph–25 mph
Motor Vehicle Travel Lanes:	10' to 11' travel lanes
Bike Lanes:	Generally not needed on low volume/low travel speed streets
Parking:	As required <ul style="list-style-type: none"> • One 8' lane for parking one side • Two 8' lanes for parking both sides. • Parking may be provided in 7' wide bays rather than a continuous on-street parking lane
Curb and Gutter: (or Shoulders with Ditches)	<ul style="list-style-type: none"> • If curb and gutter is used, it shall be 6" vertical/barrier curb. Gutter width as needed for drainage. Minimum 1.5' gutter; <u>OR</u> • If curb and gutter is not used, 2' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	<ul style="list-style-type: none"> • As necessary to accommodate all uses
Buffer Strip	<ul style="list-style-type: none"> • 5' landscaped strip required between sidewalk and vehicle travel lanes. • If local street serves a commercial area with on-street parking, then partially hardscaped planting strip is acceptable
Sidewalks and Min. Sidewalk Widths:	<p>Sidewalks required on both sides of street</p> <ul style="list-style-type: none"> • 8 ft. width in commercial areas • 5 ft width in residential areas. <p>All sidewalks and intersections with vehicle lanes should meet ADA specifications.</p>
Driveways:	Use standards in this section
Center Median:	None
Min. Right-of-Way Width:	75' minimum width required
Minimum Grade Maximum Grade	1.0% 10.0%

Table 5-5 Alley Specifications

Street Function:	Provide access to the rear of individual residential units and commercial areas
Connectivity:	Connects to higher order streets
Average Daily Traffic:	500 or less motor vehicle trips per day
Managed Speed:	10 mph
Motor Vehicle Travel Width:	20' minimum total width
Bike Lanes:	None
Parking:	None
Curb and Gutter:	Concrete pan at alley center, or cross sloped alley to pan or curb and gutter on one side.
Buffer Strip	None
Sidewalks and Min. Sidewalk Widths:	None
Driveways:	Use standards in this section
Center Median:	None
Min. Right-of-Way Width:	25'
Minimum Grade	1.0%
Maximum Grade	10.0%

Table 5-6 Private Street Specification

Street Function:	Provide access to individual residential units and commercial areas
Connectivity:	Connects to higher order streets
Average Daily Traffic:	NA
Managed Speed:	25 mph
Motor Vehicle Travel Lanes:	10' to 11' travel lanes
Bike Lanes:	Based on development negotiations
Parking:	Based on development negotiations
Curb and Gutter: (or Shoulders with Ditches)	<ul style="list-style-type: none"> • If curb and gutter is used, it shall be 6" vertical/barrier curb. Gutter width as needed for drainage. Minimum 1.5' gutter; <u>OR</u> • If curb and gutter is not used, 2' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Width:	23' minimum
Buffer Strip	Based on development negotiations
Sidewalks and Min. Sidewalk Widths:	<p>Sidewalks required on both sides of street</p> <ul style="list-style-type: none"> • 8 ft. width in commercial areas • 5 ft width in residential areas. <p>All sidewalks and intersections with vehicle lanes should meet ADA specifications.</p>
Driveways:	Use standards in this section
Center Median:	None
Min. Right-of-Way Width:	No right-of-way required
Minimum Grade Maximum Grade	1.0% 10.0%

5.2.3 STREET DESIGN STANDARDS

A. Goals

The City transportation system should encourage alternate mode use, especially walking and bicycling, by working toward a safe balance of all street users, including automobiles, trucks, bicycles and pedestrians.

B. Objectives

1. Standards should create safer routes for all modes.
2. Standards should optimize the use of the limited physical capacity of streets and balance street design so it does not favor motorized traffic.
3. Intermodal connections within the transportation system should be created, enhanced and improved.
4. Street design should enhance bicycle safety for its own sake and as a traffic calming measure.
5. Street design should enhance and improve the pedestrian safety and comfort and encourage non-motorized modes of travel.
6. Street design should provide safe, convenient and inviting access for transit users.
7. Standards should balance emergency service needs with other objectives.
8. Residential streets and street networks should be designed to discourage speeds above 25 mph.
9. Street standards should protect the local entity's infrastructure investment by establishing standardized design, materials, construction and repair criteria for all public improvements.
10. Standards should discourage parking on sidewalks.
11. Standards should enhance and beautify the streetscape and pedestrian environment by bringing landscaping closer to the street.
12. Standards should assure that drainage facilities do not create hazards for cyclists and pedestrians.
13. Standards should assure that bicycle, pedestrian and vehicular uses of streets are the primary uses thereof and that the streets are properly maintained during construction and repair work.
14. Standards should have streets designed to not be barriers to personal interaction.
15. Standards should be designed to minimize additional pavement in Glenwood Springs.

Table 5-7 Street Design Standards Summary

Design Criteria	Functional Classification				
	Principal Arterial	Minor Arterial	Commercial Collector	Neighborhood Collector	Local Street
Design Capacity VPD	> 10,000	5,000 - 10,000	1,500 – 5,000	1,500 – 5,000	< 1,500
Minimum R.O.W.	75'	75'	80'	80'	75'
Pavement Width, Flowline to Flowline	25' Min.	25' Min.	23' Min.	23' Min.	23' Min.
Driving Lanes	11'-12' 2 – 4 Lanes	11'-12' 2 – 4 Lanes	10'-12' 2 Lanes	10'-12' 2 Lanes	10'-11' 2 Lanes
Center Median	Preferred for Left Turns	As needed for Access Control	As needed for Traffic Calming	As needed for Traffic Calming	None
Parking	None	None	8' Lane(s) See Table 5-3	8' Lane(s) See Table 5-3	8' Lane(s) See Table 5-4
Shoulder Lanes	4' Min. w/out C&G	4' Min. w/out C&G	4' Min. w/out C&G	4' Min. w/out C&G	2' Min. w/out C&G
Bike Lanes	Not Required	2 at 6' (4' Min.)	2 at 6' (4' Min.)	2 at 6' (4' Min.)	Not Required
Curb Style	Vertical	Vertical	Vertical	Vertical	Vertical or Mountable
Gutter	18-inch	18-inch	18-inch	18-inch	18-inch
Multi-Use Path	10' or 5' See Table 5-1	10' or 5' See Table 5-2	Not Required	Not Required	Not Required
Sidewalk	5'-8' See Table 5-1	5'-8' See Table 5-2	8'	5'	5'-8' See Table 5-4
Landscape Buffer	5'	5'	See Table 5-3	5'	5'
Minimum Cross Slope	2.0%	2.0%	2.0%	2.0%	2.0%
Maximum Cross Slope	2.5%	2.5%	2.5%	2.5%	2.5%
Maximum Crown Line Cross Over	5.0%	5.0%	5.0%	5.0%	5.0%
Design Speed	45 MPH	40 MPH	25 MPH	25 MPH	25 MPH
Grade	1.0% Min. 6.0% Max.	1.0% Min. 6.0% Max.	1.0% Min. 8.0% Max.	1.0% Min. 8.0% Max.	1.0% Min. 10.0% Max.

Note: Refer to current AASHTO Policy on Geometric Design of Highways and Streets for roadway design values (e.g. vertical curve K values, minimum horizontal curve radii, etc.)

5.2.4 STREET GEOMETRIC DESIGN

A. Minimum Requirements

Except for State Highways, all City streets shall be designed in conformance with this section. The design standards outlined in this section are minimum design standards, and all new street design shall meet or exceed these standards. On streets designated as collector or arterial streets, the City Engineer may specify standards to be applied to street design that may exceed the minimum standards in this section based on functional need or to ensure safe and efficient operation of the street. Existing streets that are modified with development shall meet the minimum requirements herein, unless approved by the City Engineer.

B. Right-of-Way

Right-of-Way width is usually determined by the functional classification of a street with exceptions as noted in this chapter, or as allowed expressly by the City Engineer. The right-of-way width required for new streets shall comply with the requirements of Table 5-1 through Table 5-6; and shall include, without limitation, the following elements:

1. The paved roadway section including without limitation travel lanes, turning and speed change lanes transit lanes, bicycle lanes, and parking lanes;
2. Curbs and gutters or drainage swales;
3. Roadside and median landscaping areas;
4. Sidewalks and multi-use paths; and
5. Any necessary utility corridors.
6. Snow storage areas

Right-of-Way requirements may be increased if additional lanes, pockets for turning movements, transit lanes, bus loading zones, operational speed adjustments, bike lanes, utilities, schools, or other factors are required to be accommodated as determined by the City Engineer and CDOT.

C. Lane and Street Width

1. Street lanes shall meet the minimum width specifications shown in Table 5-1 through Table 5-6.
2. Street widths shall be measured from edge of lane to edge of lane (not including curb pan) on streets with concrete curb and gutter. Streets less than 24 feet wide may be required to be posted with "No Parking" restrictions due to the potential for restricting emergency vehicle access.

D. Horizontal Alignment

1. Extension to Property Line: All street sections shall be extended through the property to maintain connectivity, unless the street to be constructed has been approved by the City Engineer as a cul-de-sac or as a no outlet street.

2. Horizontal Curve: Street curvatures shall meet the specifications shown in the AASHTO Policy on Geometric Design of Highways and Streets.
3. Intersections and Street Spacing
 - a. Angles: To the greatest extent feasible, all streets and driveways shall intersect at right angles (90°), with no intersecting angles of less than 80° or greater than 100°.
 - b. Street Spacing for Signalized Intersections: Signalized intersections shall be spaced at half-mile intervals, although other locations may be approved by the City Engineer if adequate signal progression can be maintained.
 - c. Spacing for Non-Signalized Intersections: Spacing between adjacent intersecting streets, whether crossing or "T" should be as shown in Table 5-8.

Table 5-8 Spacing Between Adjacent Streets

Highest Classification Involved	Minimum Centerline Offset
Principal Arterial	500 feet
Minor Arterial	400 feet
Collector	300 feet
Local Street	150 feet
Alley	100 feet
Private Street	150 feet

- d. Corner Radii: The minimum property line corner and flowline radii at intersections shall meet or exceed the minimum radii specifications shown in Table 5-9. When different class streets intersect, the higher standard shall apply on offsets and curb radii. Street intersection with non-standard cross sections or not at ninety degree (90°) angles will require truck turning analysis for both the wheel base and the overhang path. The truck turning analysis shall be submitted to the City Engineer for review. Deviations require the approval of the City Engineer.

Table 5-9 Minimum Intersection Radii

Street Type	Minimum Flowline Radius
Alleys	15 feet
Private Roads	20 feet
Local Street	20 feet
Collectors	30 feet
Arterials	40 feet

- e. Traffic control will be as specified in the MUTCD or as modified by the City Engineer as a result of appropriate traffic engineering studies.
 - f. The use of offset intersections should be avoided wherever possible. Street intersections shall be laid out so as to intersect as nearly as possible at right angles. For reasons of traffic safety, a "T" intersection (three-legged) with minimum offsets preferable to a crossroad (four-legged) intersection for local access streets. For safe design, the following types of intersection features should be avoided:
 - Intersections with more than four intersecting streets.
 - Intersections adjacent to bridges and other permanent sight obstructions.
 - g. Pedestrian/Wheelchair ramps shall be provided on each quadrant of an intersection from which pedestrian movement is permitted. Ramps shall be designed in accordance with the CDOT standards or other design standards that meet the Americans with Disability Act (ADA).
 - h. Crosswalk markings will usually be installed at the following intersections:
 - At controlled intersections;
 - At any intersection located along a formally established "School Route".
 - At any intersection with a formalized bike/ pedestrian trail
 - By request, with the approval of the City Engineer.
 - i. Intersections should be designed to avoid the sheet flow of water across the intersection of all roadways classified as arterial or collector streets. Where practicable, runoff water should be carried under the intersection via catch basins and storm drains.
 - j. The right-of-way requirements for intersection approaches may be increased for such special intersection elements as raised median channelization, multiple left turn lanes, exclusive and/or "free" right turn lanes, turn lanes to accommodate large wheel base vehicles, bus turn outs, etc.
 - k. Where a traffic engineering study is required and the data supports the installation of traffic circles or roundabouts, they shall be designed in accordance with *Roundabouts: An Informational Guide (Second Edition)* NCHRP Report 672.
4. Road Width Transition Tapers: Where two street sections of different widths and same number of lanes are to be connected, a redirect taper is required between the outside traveled edge of the two sections. The length of the redirect taper shall be calculated in accordance with the Colorado Department of Transportation (CDOT) State Highway Access Code (SHAC) Table 4-9.
5. Left Turn Lanes
- a. Storage Length: Left turn lane storage length shall be determined based on traffic volumes using the Leisch nomographs provided in the ITE *Guidelines for Major Urban Street Design*. The left turn lane storage length shall not be less than 50 feet.

Where dual left turn lanes are provided, the lane storage length shall be based on at least 60 percent of the single lane storage length.

- b. Taper: Left turn lane tapers shall be calculated in accordance with the CDOT SHAC Table 4-6.
- 6. Speed Change Lanes: Speed change lanes required for transitional access to turning lanes shall be designed according to the design standards provided in Section 4-8 of the CDOT SHAC.
 - a. Speed Change Lane Tapers: It is recommended that bay tapers (asymmetrical reverse curves) be used for deceleration transition tapers and that straight transition tapers be used for acceleration transition tapers. The taper length shall be calculated using CDOT SHAC Table 4-6 and be designed in accordance with CDOT SHAC Section 4-8(5).
- 7. Redirect Tapers: Where it is necessary to redirect vehicles on the traveled way, redirect tapers shall be installed according to table 4-9 of the CDOT SHAC. Cul-de-sacs: Where allowed, cul-de-sacs shall have a minimum diameter of 96 feet, curb face to curb face, and a minimum right-of-way diameter of 115 feet, except for residential streets. Cul-de-sacs are prohibited on arterial and collector streets.

E. Vertical Alignment

- 1. Minimum Street Grade: All new street grades shall equal or exceed the minimum street grade of 1.0 percent.
- 2. Maximum Street Grade: All new street grades shall not exceed the maximum street grades shown in Table 5-10.

Table 5-10 Maximum Street Grades

Street Type	Maximum Street Grade
Principal and Minor Arterial	6%
Commercial and Neighborhood Collector	8%
Local Street, Alley, Private Street	10%
Driveway and Intersection Approach (Min. 50')	4%
Signalized Intersection Approach (Min. 50')	3%

- 3. Design Controls for Vertical Curves: Design control for sag and crest vertical curves shall meet the requirements in the current edition of the AASHTO Policy on Geometric Design of Highways and Streets.
- 4. Vertical Sight Distance: Minimum vertical curve sight distance shall equal or exceed the minimum values set by speed and grade in the current edition of the AASHTO Policy on Geometric Design of Highways and Streets. Greater vertical sight distance may be required by the City Engineer to ensure safe travel and street crossings for all

transportation modes.

F. Medians

The City Engineer may require raised medians or landscaped raised medians on arterial streets to restrict conflicting turning movements. Raised landscaped medians may also be required on collector streets for aesthetics or traffic calming reasons.

1. Median Widths: Medians shall be at least 4 feet wide, measured between back of curbs. If left turn lanes are installed in the median, the median width adjacent to the left turn storage lanes shall be 4 feet and the median width at the start of the left turn lane bay taper shall be at least 14 feet wide, measured between back of curbs. Median design widths shall conform to Table 5-11.

Table 5-11 Median Width Design Standards

Function	Minimum Width
Separation of Opposing Traffic	4 feet*
Pedestrian Refuge or Traffic Device Location	6 feet*
Left Turn Lane Median	12 feet

2. Landscaping in Medians: Landscaping in medians shall be designed to survive harsh roadway conditions and shall comply with the requirements of the City Municipal Code.

G. Vertical Clearance to Structures: Vertical clearance is measured from the high point within the entire roadway width to the lowest portion of the structure. If the undercrossing roadway or overcrossing structure may be widened in the future, adequate vertical clearance shall be provided to accommodate the future condition. The vertical clearance of structures shall be in conformance with the current edition of the AASHTO Policy on Geometric Design of Highways and Streets for the Functional Classification of the roadway. In no case shall the vertical clearance be less than 14 feet.

5.2.5 STREET FRONTAGE IMPROVEMENTS

- A. Street frontage in this Section indicates any part of a lot that is adjacent to a public or private street.
- B. All commercial and residential (including multi-family) developments, subdivisions and plats shall install street frontage improvements at the time of construction as required by City standards and Municipal Code. Such improvements, meeting the requirements of the City's Standards, or as approved in writing by the City Engineer, may include curb and gutter, sidewalk, storm drainage, lighting, traffic control devices and signals, utility relocation and/or undergrounding, street trees and street widening.

- C. All frontage improvements shall be made across the full frontage of the property and shall match the adjacent street improvements and install the required minimum street section. Offsite transitions (tapers) may be required to meet the existing the existing conditions.
- D. Exception: When the City determines that there are compelling reasons why all or some of the required improvements cannot be accomplished at the time of building construction, the City may allow, at its sole discretion, a recorded agreement which provides for these improvements be installed at a later date by the applicant. This may be accomplished by one of the following methods:
 1. The applicant provides a Performance Bond for 125% of the estimated cost to do the work,
 2. An assignment of savings is agreed upon, wherein the applicant deposits into a joint account an amount equal to the cost of the work,
 3. The applicant provides a cashier's check or an irrevocable letter of credit in the amount of the estimated cost to do the work.
 4. The applicant provides Payment in Lieu per the Municipal Code requirements.

5.2.6 TEMPORARY DEAD ENDS

Where a street is temporarily dead ended, an all-weather turn around shall be provided per the International Fire Code.

5.2.7 RIGHT OF WAY

All right-of-way shall be conveyed to the City on a recorded plat and by warranty deed.

5.2.8 NAMING AND ADDRESSES

Streets shall be numbered according to the American Society of Planning Officials (ASPO) Report Number 332, *Street Naming and Property Numbering Systems*, by Margaret A. Corwin and *Street Naming and Property Numbering for Small Cities* by Southwest Georgia Planning and Development Commission, Camilla Georgia. Names for new streets shall be submitted for approval during the platting process. Street numbers shall be included on each lot of the plat.

5.2.9 SIGNING

The developer is responsible for providing all construction traffic control signs, devices and flagging. The developer is also responsible for permanent traffic control devices, street signs and any other required signs. Traffic control signing and devices shall comply with the provisions as established in the most current edition of the FHWA *Manual on Uniform Traffic Control Devices (MUTCD)*. Street designation signs shall display street names, and be constructed in accordance with the most current MUTCD standard.

5.2.10 SITE ACCESS AND DRIVEWAYS

A. General

1. The terms “access”, “access point” and “driveway” are used interchangeably throughout this section.
2. All accesses and curb cuts proposed and constructed on City streets and alleys require a Right of Way permit.
3. All access aprons shall be constructed of concrete or asphalt, and shall be subject to the same testing and inspection requirements as curb, gutter, and sidewalk construction. Access aprons shall be constructed in accordance with the applicable Standard Detail (Tx.x) in the Appendix attached to this Chapter.
4. Access points at intersections shall be located as far as practical from the corner – see Access Spacing requirements in Table 5-12.
5. No access may be located so as to conflict with power poles, street lights, fire hydrants, or other above-ground public facilities.
6. Any development requiring access onto a state highway shall obtain a permit for such access in accordance with the Colorado State Highway Access Control Code before the issuance of a City permit. This provision applies to State Highway 6 and State Highway 82. On State Highway 82 (Grand Avenue/South Glen Avenue), the City and CDOT have implemented an Access Control Plan. A CDOT access permit may be required or updated for use.
7. Commercial and industrial driveways shall be designed so as to reduce the number and proximity of access points along public rights-of-way.
8. Residential driveways are limited to one curb cut.
9. Driveways to commercial or mixed use developments that are greater than 24' wide may require a median. See Table 5-11 for median standards.
10. Access onto any arterial or collector street, as designated in the City's Street Classification Map, shall be designed such that all vehicles enter and exit in forward drive
11. Driveways giving direct access onto arterials will be denied if alternate non-arterial access is available.

B. Location of Access

1. **Spacing:** Table 5-12 provides the required spacing of access points and curb cuts onto different street types. Minimum spacing from corners shall be measured from point of intersection of the street flow lines.

Table 5-12 Access Spacing Requirements

For Access Onto Street Classification	Minimum Spacing (measured from edge of access*)			
	Single Family Residential	Other Residential	Commercial	Industrial
Local Streets				
- from property line	15' ¹	15'	15'	15'
- from corner*	50' ¹	50'	50'	50'
- between accesses	30' ¹	30'	30'	30'
Collector Streets				
- from property line	15' ¹	15'	15'	15'
- from corner*	50' ¹ (1)	50'	50'	50'
- between accesses	30' ¹	30'	30'	30'
Arterial Streets				
- from property line	75' ¹²	75'	75'	75'
- from corner*	150' ¹²	150'	150'	150'
- between accesses	250' ¹²	250'	250'	250'

* City Street Classification can be found here <https://cogs.us/211/City-Maps>

Note 1: Permitted when no other access is available.

Note 2: For access onto SH-82, Access Points are set by the Access Control Plan

2. **Alignment:** Accesses shall intersect City streets at a right angle (90°), with no intersecting angles of less than 80° or greater than 100°. Accesses controlled by a center median or access island, shall either be aligned, or offset by at least 150 feet on

collectors, or at least 300 feet on arterials. Greater offsets may be required if left-turn storage lanes are required.

C. Sight Distance

All access points and curb cuts shall provide adequate sight distance as set forth in Section 5.2.11. Restriction of Turning Movements

D. Barrier Islands and Medians

Along streets designated as arterial, or, where required by the City's Access Control Plan, or where necessary for the safe and efficient movement of traffic, the City will require access points and curb cuts to be consolidated and to provide for only limited turning movements, as follows:

1. Access with Barrier Island - Left-Turn Restrictions ("Pork Chop"): Where restricted turning movements are required by the City, and where the abutting street does not have a median, a barrier island may be required.
 - a. Barrier island design shall be approved by the City Engineer.
 - b. Access drives around barrier islands shall be at least 12 feet wide, have a radius of at least 20 feet, and be designed to accommodate the largest vehicle using the access on a daily basis or at a minimum design to accommodate the City Fire Engine. The barrier island shall provide congruent curb ramps or cut through for sidewalks.

E. Traffic Control and Signage

All accesses shall be designed and constructed with appropriate traffic control and signage conforming to the MUTCD, and these Standards.

F. Auxiliary Turn Lanes

Auxiliary turn lanes shall be required on collectors or arterials when the design hour vehicles from the access will meet or exceed the standards in Section 4.8 of the Colorado State Highway Access Code. Design of speed change lanes shall conform with these Standards.

G. Access and Curb Cut Type

1. Driveway Ramp and Curb Cut: All new accesses and curb cuts shall be designed as driveway ramps and curb cuts, using the standard ramp driveway details provided in these Standards, except along streets where no curb and gutter exists.
2. Driveway Curb Return Radii: Radii for curb return accesses will be required by the City Engineer under the following conditions:
 - a. The access is located along an arterial or collector.
 - b. The access is designed to restrict turning movements, requiring the installation of an access island or center median.
 - c. The roadway has no curb and gutter.

- d. The access serves an industrial property, or provides for commercial deliveries, where large truck movements are required.
- e. The City Engineer determines that a radii access is necessary to ensure adequate traffic safety and operation.
- f. The access is for a new public street

H. Access and Curb Cut Width

Access and curb cut widths shall be consistent with Table 5-13. The width of each access shall be the minimum width that is necessary to serve the property and use. All access widths are measured from edge of pavement to edge of pavement (or curb to curb) at the throat of the driveway and are not inclusive of drive cut transitions or curb return radii.

I. Access and Curb Cut Grades

Access and curb cut grades shall be consistent with Table 5-13. The initial grade (G1) shall be a positive grade, beginning at the back of the sidewalk, the back of the driveway ramp or pan section, or the edge of the pavement (where no curb and gutter exists), and shall continue at least 10 feet beyond the right-of-way. The final grade (G2) may be positive or negative, depending on the access conditions. The maximum grade break (or change in slope) shall apply at all grade changes.

Table 5-13 Access Design Specifications

	Single Family Residential	Other Residential	Commercial	Industrial
Width				
- Minimum	10' ²	15' ²	15' ²	20' ²
- Maximum	20'	30'	40'	40'
- One-Way Lane	N/A	12'-18'	12'-20'	14'-24'
Curb Cut Radii				
- Minimum	5' ¹	15'	15'	20'
- Maximum	10'	30'	30'	40'
Access Grades				
Initial Grade (G1 to a point 10 feet beyond R.O.W.)				
- Minimum	(+) 2%	(+) 2%	(+) 2%	(+) 2%
- Maximum	(+) 8%	(+) 8%	(+) 6%	(+) 6%
Final Grade (G2)				
- Minimum	(±) 2%	(±) 2%	(±) 2%	(±) 2%
- Maximum	(±) 12%	(±) 10%	(±) 8%	(±) 8%
Max. Grade Break	(±) 8%	(±) 8%	(±) 8%	(±) 8%

Note:

1. Only applicable on arterial and collector streets.
2. Unless otherwise determined by the Fire Marshal.

J. Driveways

1. Vehicle Storage: Adequate driveway storage capacity for both inbound and outbound vehicles to facilitate safe, unobstructed, and efficient traffic circulation and movements from the adjacent roadway and within the development shall be provided, except for single-family or duplex residential driveways on local streets. Adequate driveway length will be subject to approval by the City Engineer
2. Internal Circulation: Developments requiring off-street parking facilities shall provide onsite vehicular circulation allowing access to all portions of the site without using the adjacent street system, unless a joint access or parking easement with one or more of the adjacent property owners has been dedicated.
3. Backing into the Right-of-Way Prohibited: Driveways shall be designed to contain all vehicle backing movements onsite, except for single family or duplex residential uses on

local streets. Triplex and Duplex residential uses may be considered in alleyways by City Engineer approval only.

4. Shared Driveways: Shared driveways are allowed and should be designed to meet the following criteria:
 - a. Adequate turnaround for vehicles is provided on both lots.
 - b. The driveway is properly engineered and constructed to mitigate any adverse drainage conditions and is appropriately surfaced for the type of development, usage, and zoning district.
 - c. The driveway must meet Table 5.13 other residential standards.
 - d. A public access easement, a minimum fifteen feet in width, for the benefit and use of all properties and property owners accessing the shared driveway has been dedicated and recorded to ensure legal access rights in perpetuity for each property served.
 - e. Driveway spacing in conformance with the requirements in Table 5-12 of these Standards; or on State Highway 82, meeting the requirements of the Access Control Plan.

5.2.11 STREET INTERSECTION SIGHT OBSTRUCTION

Providing adequate sight distance is critical in intersection design. Unobstructed views of the intersection area shall be provided for approaching motor vehicles, bicyclists, and pedestrians for safety and for appropriate reaction time. The primary concerns for location of a new access are the sight distance along the roadway (for vehicles turning into the access) and the sight distance for vehicles entering the highway from the access point. Excerpts from Tables 4-1 and 4-2 from the latest version of the CDOT State Highway Access Code (SHAC) are provided in Table 5-14 and Table 5-15 as the minimum design standards for horizontal sight distance.

Table 5-14 Sight Distance Along Highway

Posted Speed in MPH	25	30	35	40	45	50	55
Design Sight Distance (in feet)	150	200	250	325	400	475	550
Minimum Sight Distance (in feet)	150	200	225	275	325	400	450

Ref: CDOT [State Highway Access Code](#) Table 4-1

Adjustments due to grade (SHAC Table 4-4) shall be applied

Table 5-15 Entering Sight Distance (in feet)

Vehicle expected to enter or cross highway*	Posted Speed in MPH						
	25	30	35	40	45	50	55
Two Lane Roadway							
Passenger Cars, Pickup Trucks	250	300	350	400	450	500	550
Single Unit Trucks > 10,000 lb GVW	325	390	455	520	585	650	715
Multi-Unit Trucks	425	510	595	680	765	850	935

Four Lane Roadway							
Passenger Cars, Pickup Trucks	300	360	420	480	540	600	660
Single Unit Trucks > 10,000 lb GVW	375	450	525	600	675	750	825
Multi-Unit Trucks	500	600	700	800	900	1000	1100

Ref: CDOT State Highway Access Code Table 4-2

*Vehicles determination from SHAC Table 4-3

Adjustments due to grade (SHAC Table 4-4) shall be applied

- A. General. No sign, fence, hedge, shrub, tree or other natural growth or obstruction installed, set out or maintained which obstructs the view of motor vehicle operators at an intersection within the sight areas defined in this section. For the purpose of this standard, “intersection” shall include: the intersection of two public streets; the intersection of a commercial driveway with a public street; the intersection of a residential driveway with a public street; and the intersection of a private street with a public street.
- B. The sight area at an intersection defined. The area bounded by setback lines, or bounded by setback lines and the edge of the traveled lane. Setbacks for intersection types are as specified in the following paragraphs.

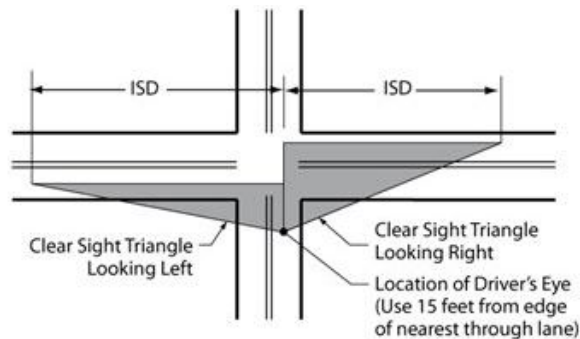


Figure 5–1 Intersection Sight Distance Triangles

- C. Sight Obstruction Height Limits. Sight obstruction, as defined in subsection D of this section, shall not be permitted above a line defined within AASHTO guidelines.
- D. Sight Obstruction Defined. Sight obstructions include, but are not limited to any object, sign, sign post, vegetation, mail box, mail box post, and fence which could obstruct a driver’s view. Exceptions to this definition include street lighting, regulatory, warning and guide signs.
- E. Other Sight Obstruction Standards. Where unusual conditions preclude the application of the foregoing provisions of this section in a reasonable manner, or where a special viewing problem exists, the traffic engineer will determine when an intersection view obstruction exists, based on the intent of this section. Every obstruction of the sort prohibited in this section hereafter installed or permitted to remain shall be deemed a violation of this chapter.

5.2.12 SURFACING STRUCTURAL REQUIREMENTS

Due to the varying nature of subgrade soils and the existence of collapsible soils in the City, a geotechnical design of all roadway sections is required for any proposed new street or alley. The

roadway structural section design including Hot Mix Asphalt (HMA) or Portland Cement Concrete Pavement (PCCP), Aggregate Base Course, Geotextile Fabric, and Subgrade Stabilization shall be prepared by a Professional Engineer Registered in the State of Colorado specializing in Geotechnical Engineering and based on site specific soil and groundwater conditions. The subgrade stabilization shall be designed and constructed so that the prepared subgrade surface will comply with all of the City's Specifications including compaction and proof-rolling, and shall also be designed to maintain the stabilized condition under all anticipated traffic loading and seasonal fluctuations of temperature and groundwater conditions. Full depth pavement section is not acceptable.

Concrete pavement may be required in areas where heavy truck traffic and busses warrant additional pavement design capacity.

5.2.13 STREET, ALLEY AND SIDEWALK CUTTING, TRENCHING AND PATCHING

A. General

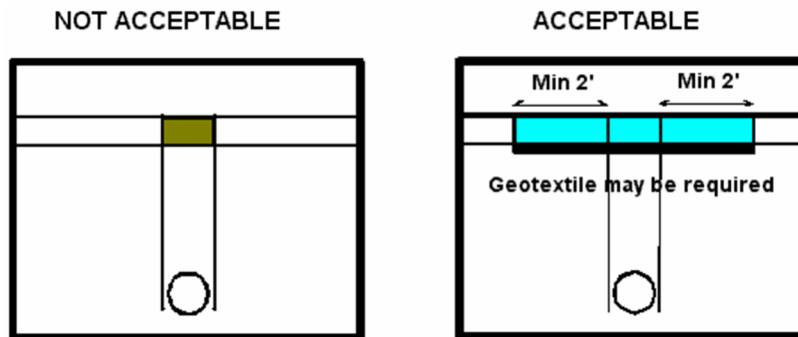
1. All work shall be done in an expedient manner. Use of fast-setting concrete and similar techniques are required unless the contractor or engineer documents in writing that the quality of repair will be compromised. Completion of the work, including replacement of pavement and cleanup, shall be accomplished within one (1) week after the repair work or activity involving the cut is done. This time frame may be adjusted if delays are due to inclement paving weather or other adverse conditions that may exist. However, delaying of the final patch or overlay work is allowable only with the City Engineer's written approval. The City Engineer may deem it necessary to complete the work within the one week time frame and not allow any time extension. If this occurs the contractor shall perform the necessary work as directed by the City Engineer or the work will be completed by the City either with its own personnel or via a secondary contractor billed out at three (3) times the rate of the cost of the city's work.
2. . Removal and replacement of work that does not meet these standards shall be completed within thirty (30) days of written notification of the deficiency unless deemed an emergency requiring immediate action. In the event the replacement work has not been completed, the City will take action upon the contractor's surety or bond to cover all related costs.
3. No metal tracked vehicles shall be allowed on asphalt or concrete.
4. Grading shall be done as necessary to prevent surface water from entering the excavation. Any water accumulation within the trench shall be promptly removed.
5. Surface drainage, driveways, fire hydrants, manholes, water valves, etc., near the work shall be unobstructed by the trenching operation when feasible.
6. In streets that are less than five (5) years old, the City reserves the right to deny any street excavation or require repairs that exceed the requirements set forth in these specifications.
7. All permanent pavement patches and repairs shall be made with "in-kind" materials. For example, concrete patches in concrete surfaces, asphalt patches in asphalt surfaces,

concrete pavement with asphalt overlay patches will be expected in permanent "overlaid" concrete streets, etc. In no case is there to be an asphalt patch in concrete streets or concrete patch in asphalt streets. Any repair not meeting these requirements will be removed and replaced by the contractor at his or her expense within the time frames mentioned above.

8. A temporary surface is required when the final surface is not immediately installed. The temporary surface installation and maintenance shall be the responsibility of the contractor or permittee until the permanent surface is completed and accepted. It shall be either a hot mix or cold mix paving material. Temporary surfaces shall be compacted, rolled smooth and sealed to prevent degradation of the repair and existing structures during the temporary period. If the contractor is unable to maintain a temporary patch for whatever reason, the City will complete repairs billed out at three (3) times the rate of the cost of the City's work at the expense of the contractor or permit applicant. Any exceptions to this requirement will be in writing and included by the City in the permit.

B. Contractor to have temporary patching in place within 24 hours of trench backfilling. Cutting in Improved Streets

1. In existing pavement, all excavations within thirty-six (36) inches of the edge of the asphalt shall require removal and replacement from the edge of asphalt to the excavation edge.
2. Concrete pavement, cross-pans, driveways, streets and alleys shall be removed to neatly sawed edges cut to full depth and cut in straight lines either parallel to the curb or perpendicular to the alignment of the sidewalk or curb. Any removal shall be done to the nearest joint.
3. The cuts in bituminous (asphalt) pavement shall be a minimum of two (2) feet on each side of the trench width required for excavation, and shall be re-sawcut to clean lines if trench failure or pavement damage has occurred.
4. In the case of older pavement where the likelihood of cracking and potholes next to the patch is greater, it will be required to extend the "shoulders" of the pavement beyond the two-foot minimum and reinforce this area with a geotextile.



5. "T" cutting is required for all repairs.

C. Trenching

1. All excavation, shoring, trenching and the like shall comply with OSHA's "Construction Industry Standards" as well as all applicable federal and state regulations.
2. Trenches shall be excavated along the lines and grades established and in no case shall be more than one hundred (100) feet in length, or be trenched or backfilled in non-continuous sections unless approved by the City Engineer. Failure by the contractor to comply with these requirements may result in an order to stop the excavation in progress until compliance has been achieved.
3. All excavated material shall be stockpiled in a manner that does not obstruct sidewalks, streets and driveways. No stockpiled materials shall be allowed on the asphalt surface or adjacent walkways. The work shall be done in a manner that will minimize interference with traffic and/or drainage of the street.
4. The contractor at the end of each day shall close all trenches and barricade all excavations and ditch lines, remove excess material from travel ways and thoroughly clean all streets, alleys and sidewalks affected by the excavation.
5. If it becomes necessary in the judgment of the City Engineer, all streets, alleys (if asphalt or concrete) and sidewalks shall be swept or washed. If the contractor cannot maintain a clean street/sidewalk work area, the City Engineer has the right to issue a stop work order on the project until the situation can be resolved.
6. Materials encountered during excavation such as rubbish, organic or frozen material, and any other material that is not satisfactory for use as backfill shall be removed from the site and disposed of daily by the contractor at his expense. Stones, concrete or asphalt chunks larger than six (6) inches shall be considered unsatisfactory backfill and removed by the contractor.

D. Backfill of All Trenches in Improved City Right of Way

1. Onsite testing shall be required for all backfill methods and reports provided to Engineering within one week of excavation completion and prior to final acceptance. Failure to provide documents may require removal and repair of cut.
2. A two year warranty period is required on all trenching work in the right of way. Backfill Materials
 - a. Aggregate backfill:

Aggregate backfill shall be CDOT Class 6 Structure Backfill (roadbase) meeting the specifications for this material within the CDOT specifications manual.

Backfill shall be placed in uniformly distributed layers and brought up equally on all sides of the structure or trench wall. Each layer shall not exceed 6" before compacting to the required density and before successive layers are placed.

Structure Backfill Class 6 (roadbase) shall be compacted to a density of not less than 95 percent of maximum density determined in accordance with AASHTO T 180.
 - b. Flowable Fill (Flow-fill)

Flow-fill is a self-leveling low strength concrete material composed of cement, fly ash, aggregates, water, chemical admixtures and/or cellular foam for air-entrainment. The amount of water shall be such that the flow-fill flows into place properly without excessive segregation. Flow-fill shall meet the requirements of CDOT Specification 206.02. Flow fill may be allowed in areas where expedited construction durations benefit the public or where unstable bank material make the use of backfill appropriate for safety concerns of the workers or surrounding facilities.

- c. Flow-fill shall be prohibited as a temporary or permanent street surface.. Flow-fill trenches may be left low in cases of steel plating for a temporary crossing of the trench area until the permanent surface can be installed. Limit one (1) week duration.
- d.
- e. When soft or unstable material or rock is encountered in the trench subgrade that will not uniformly support the pipe, such material shall be excavated to additional depths and backfilled as directed by a geotechnical engineer licensed in the State of Colorado.

E. Filling of Bore Holes, Vertical and Horizontal

- 3. For all bore holes, the limits of repair shall be identified in the permit. Bore holes shall be filled with flowable fill to prevent entry of moisture. Surface patching material used shall match the existing pavement section.
- 4. The completed job shall be flush with the surrounding pavement and have no indentations, pockets or recesses that may trap and hold water. The sealing of bore holes is the responsibility of the contractor or person making the bore.

F. Asphalt Surface Repair

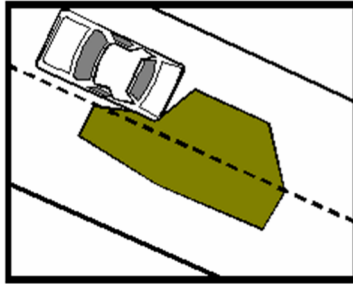
- 1. Trench restoration shall be by a patch or patch plus overlay as required by the City Engineer.
- 2. Any damage to the existing asphalt surface in the vicinity of the work shall be repaired at the expense of the contractor. Patching or mill and overlay may be required, at the discretion of the City.
- 3. The depth of asphalt patches in asphalt streets and alleyways shall be a minimum of 4 inches or the depth of the existing asphalt surface plus two (2) inches, whichever is greater. Hot mix asphalt shall be placed in accordance with CDOT Specification Sections 401 and 403, except that longitudinal joints between successive layers of asphalt shall be displaced laterally a minimum of 12 inches and asphalt over 2 inches thick shall be placed and compacted in equal lifts not to exceed 3 inches each.
- 4. For patches in asphalt, a tack coat shall be applied to all edges of the existing asphalt and all cold joints between curb and gutter before placing the new pavement in accordance with CDOT Specification Section 407. After placing the new asphalt, all seams (joints) between the new and existing pavements and curb and gutter shall be

sealed with an asphalt tack coat or rubberized crack seal material.

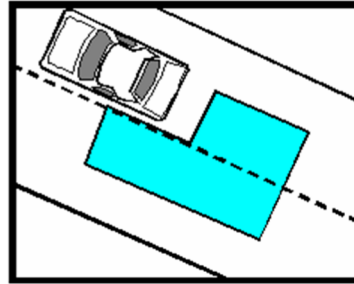
G. Asphalt Patching Standards

5. The asphalt patch area for street excavations that fall within the wheel path of the vehicular travel lane shall be increased in size to the center of the lane or adjacent lane. In no circumstance will the edge of a patch area be allowed to fall within the wheel path.
6. Existing pavements shall be removed to clean, straight lines parallel and perpendicular to the flow of traffic. Do not construct patches with angled sides and irregular shapes.

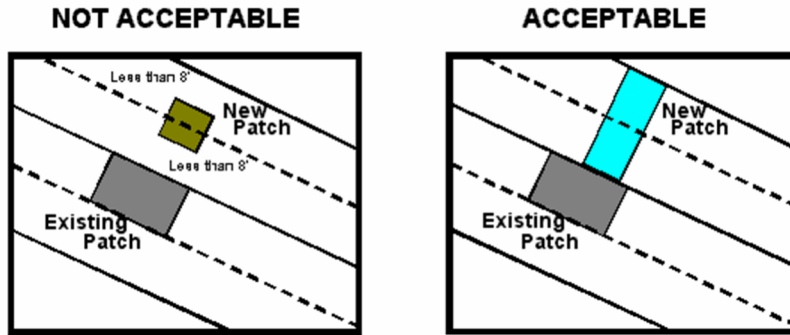
NOT ACCEPTABLE



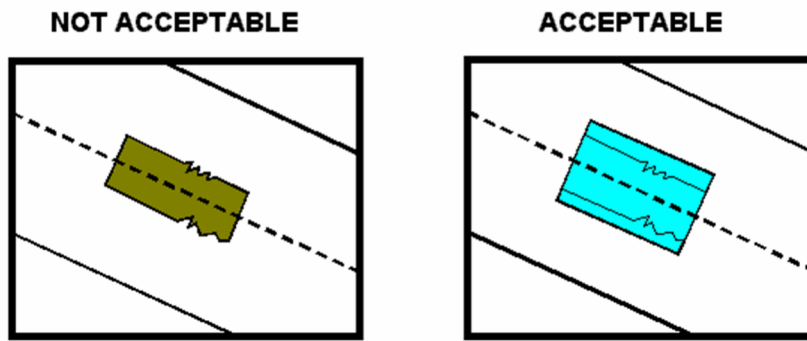
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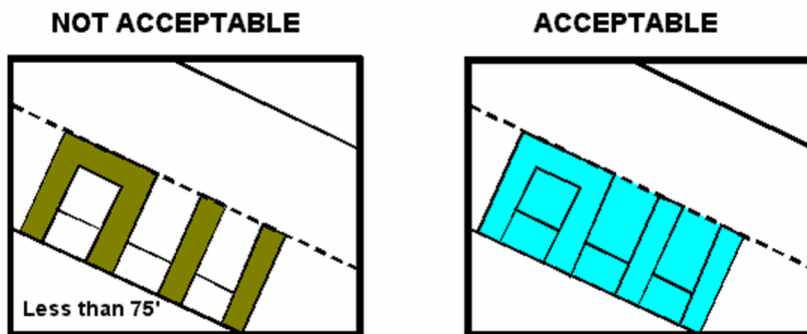
7. Do not "leave" strips of pavement less than one-half ($\frac{1}{2}$) a lane in width from the edge of the new patch to the edge of an existing patch or the lip of the gutter.



8. Asphalt and concrete pavements should be removed by saw cutting or milling.



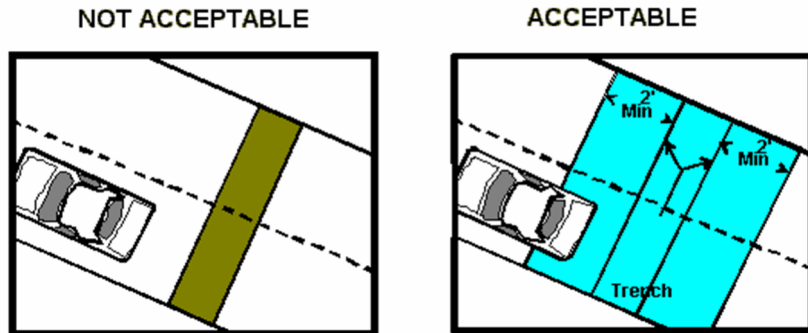
9. In the case of a series of patches or patches for service lines off a main trench, repair the pavement over the patches by milling and overlay when the spacing between the patches is less than twenty five (25) feet (in cases where the existing pavement is in poor condition and may require overlay within the next few years, this requirement may be modified or waived by the City Engineer).



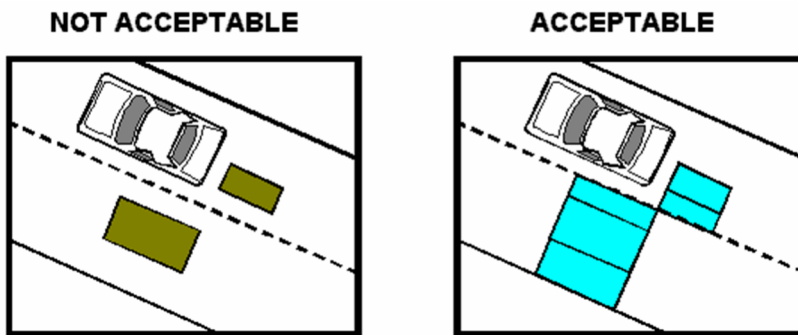
10. Street repairs should leave the pavement in a condition as good as, if not better than, the condition prior to the repairs.

11. In all cases the existing pavement condition shall be inspected by The City prior to the work. After completion of the work, The City will re-inspect the pavement condition to verify that the pavement has been maintained or improved.

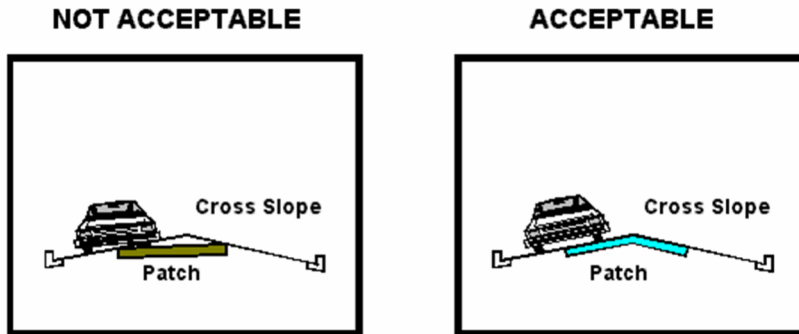
- f. In the case of major projects that involve excessive haul of materials or unusually heavy construction equipment or activity, nondestructive testing of the pavement condition before and after construction may be required.
12. All trenches cut in asphalt shall be overlaid across the entire street width for a distance of two (2) feet minimum on all sides of the trench.



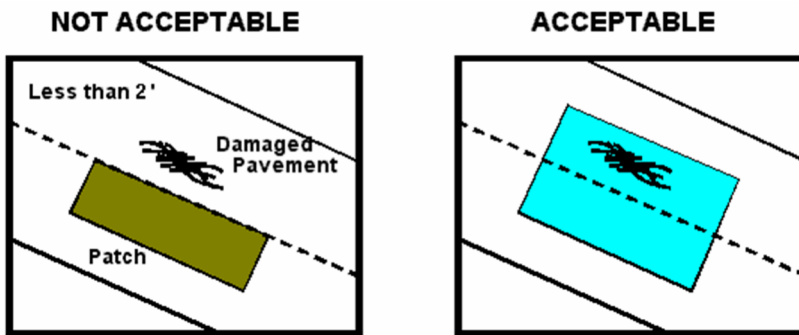
13. T-Patch (detail and description added here)



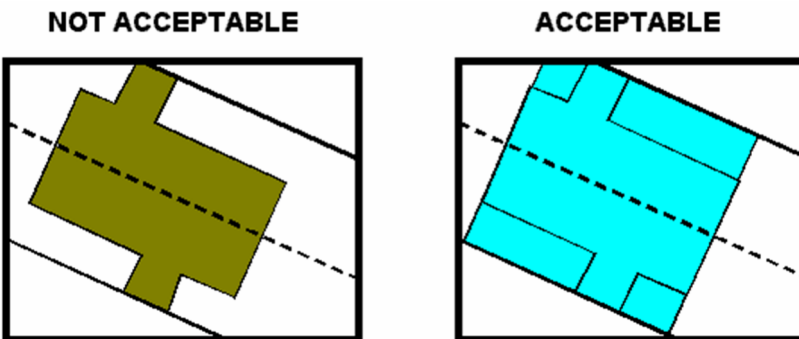
14. Patches should have a smooth longitudinal grade consistent with the existing roadway. Patches should also have a cross-slope or cross-section consistent with the design of the existing roadway.



15. When the proposed excavation falls within ten (10) feet of a section of failed pavement, the failed area shall be removed to sound pavement and patched. Scarring, gouging or other damaged pavement adjacent to a patch shall be removed and the pavement repaired.



16. Avoid frequent changes in width of patches. For future maintenance, this simplifies removal of adjacent pavement failures.

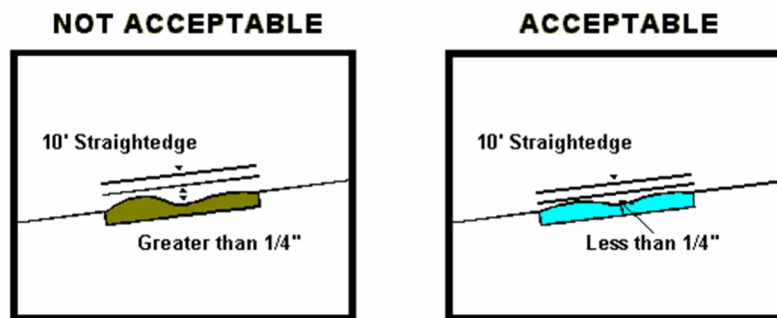


17. Consideration of pavement management issues may also identify opportunities for joint efforts between the utilities and the City. For example, suppose that the repair of a utility line requires an overlay on one-half ($\frac{1}{2}$) of a street, and that the condition of the remaining one-half ($\frac{1}{2}$) of the street might also warrant an overlay. We may decide at that point to overlay the entire street, with the City's street authority and the utility

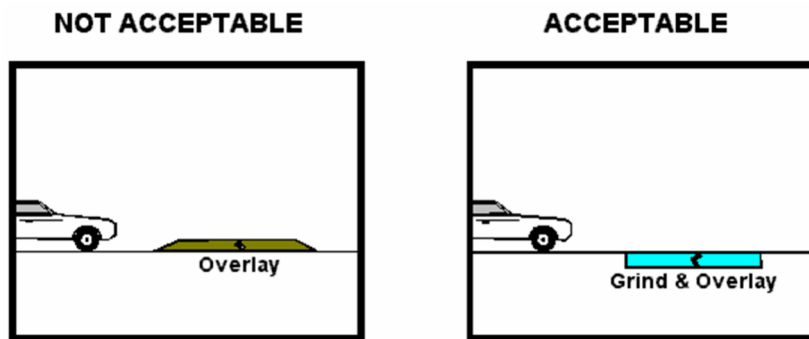
splitting the cost of the overlay. In such a case, the utility may be able to save the cost of grinding one-half (1/2) the street. The City's street authority will allocate a reasonable percentage of its annual overlay program to accommodate its share of these situations. This includes minor (two-to-three-block) maintenance projects and larger capital improvement projects (major water line extension). Coordination for these types of cooperative repairs should occur as far in advance of actual construction as possible.

H. Roadway Smoothness

1. Ensure that the transitions on and off of the repair are smooth. The patch itself must offer a smooth ride.
2. Surface tolerances for street repairs should meet the standard for new construction.



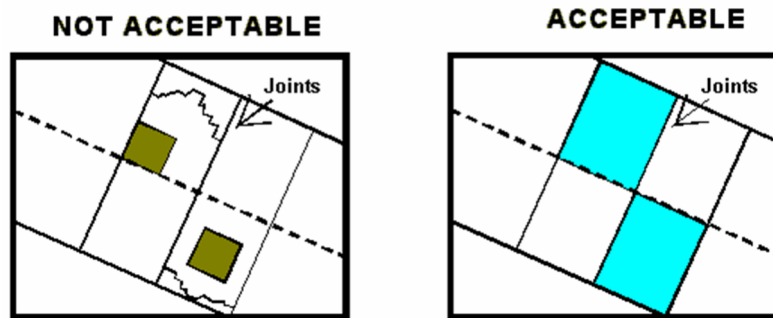
3. Overlays should be placed by first removing the existing pavement to the desired depth by milling, and then placing the pavement flush with the adjacent surfaces.



4. Unacceptable paving patches shall be corrected by removal and repaving of the patched area.
- I. EXCEPTIONS: There may be situations where the patching standards are considered inappropriate. This determination shall be made by the City Engineer.

J. Concrete Surface Repair

1. The concrete pavement shall be replaced to match existing depth and strength unless geotechnical recommendations state otherwise. All concrete construction shall be protected from vehicular traffic, including contractor vehicles, until the concrete has achieved eighty percent (80%) of its ultimate strength. Concrete shall be coated and sealed with a uniform application of membrane curing compound applied in accordance with manufacturer's recommendations. When ambient or surface temperatures are expected to fall below 45 degrees F during the next three days, special measures shall be taken to ensure subgrade materials are above 40 degrees prior to concrete placement and the concrete will not fall below 40 degrees until the concrete has attained a compressive strength of at least 2000 psi.
2. Where existing cracks or damage are adjacent to the area being repaired, the repair area shall include the cracked or damaged concrete. Pavement repairs shall include all areas of damage, including bore holes, pot holes and equipment and/or material scarring of the existing surface.
3. When repairing concrete, the removal perimeter shall be saw-cut and replacement concrete shall be doweled into the old concrete per CDOT M-Standard Plans.
4. Concrete joints shall be thoroughly cleaned of all foreign material then filled with a hot-poured elastic type joint filler conforming to M 173, ASTM D1190-80, ASTM D1751-83, D1752-84, D3405-78, D3406-78, D3407-78 or silicone sealants or others as approved by the City Engineer. Joint material shall be filled to the surface. Excess material shall be scraped off to provide a smooth riding surface.
5. In concrete pavements, remove sections to existing joints. In damaged concrete, the limits of removal should be determined in the field by the City Engineer, or representative.



K. Gravel Streets, Alleys, Roadway Shoulders and Subgrade for Sidewalks and Curb and Gutter

1. For all roadway sections (gravel roads, trench resurfacing or base course beneath new asphalt sections), roadway shoulders and sidewalk and curb and gutter subgrades, the contractor shall replace the surfacing or subgrade with gravel conforming to a CDOT Class 6 Aggregate Base Course (CDOT Specification 703.03).
2. Some streets may have been treated with a special surface treatment to control dust

and/or bind the aggregates together. In these cases, the contractor is responsible for replacing the existing surface treatment. Such surface treatments shall be of the same chemical composition as what existed prior to the excavation work. The City Engineer shall note on the permit the surface treatment that will be required.

3. When trenching within the roadway shoulder(s), the shoulder shall be restored to its original or better condition.

5.2.14 TESTING AND INSPECTION OF ALL WORK IN THE RIGHT OF WAY

- A. Testing and inspection is required and will be at the developer's or contractor's expense. Twenty-four (24) hours' notice is required for all inspections.
- B. All construction work within the public rights-of-way shall be subject to inspection by the City Engineer or representative, and certain types of work may have continuous inspection. It shall be the responsibility of the contractor to provide safe access for the inspector to perform the required inspections.
- C. The City Engineer may make or require other inspections of any work as deemed necessary to ascertain compliance with the provisions of these Standards or the Municipal Code. Any work performed without the required inspections shall be subject to removal and replacement at the contractor's expense, regardless of the quality of the work.

D. Testing frequencies

Following are the minimum number of tests required for each construction activity. These tests must be submitted to the City Engineer within two weeks of excavation and shall be electronically submitted as a PDF to the City.

1. Flow-fill: The Contractor shall sample and test the first three loads of Flow-fill for each placement and then once for every additional 50 cubic yards. Sampling and testing will be witnessed by the Engineer. Mix design must be submitted from the batching plant, and approved by the City Engineer.
2. Utility trench backfill (manufacturer's recommended utility bedding, then Class 6 Structural Backfill): Tests required for gravel placement may be increased if directed by the City Engineer. Proctors shall be determined prior to backfilling. The horizontal frequencies of density tests are as follows:
 - a. Utility mains: One (1) test per one hundred (100) linear feet per lift.
 - b. Service lines: One (1) test per each service per lift.
 - c. Manholes and valve boxes per each lift.
3. Concrete pavement, curbs, gutters and sidewalks: Testing to be conducted on the first truck and then once for every additional 50 cubic yards or portion thereof. Mix design must be submitted from the batching plant and approved by the City Engineer prior to placing concrete.
4. Asphalt pavement structure (new or replaced street sections and utility trenches):

- a. Asphalt content: One (1) test per five hundred (500) tons or fraction thereof of mix produced, minimum of one (1) test per job.
 - b. Gradation; aggregate: One (1) test per five hundred (500) tons or fraction thereof of mix produced, minimum of one (1) test per job.
 - c. In-place density: One (1) test per 1000 square feet when patch exceeds 100 square feet.
5. Class 6 Aggregate base course materials: Placement, shaping and compaction shall be in accordance with CDOT Specification Section 304. Compaction density and shaping will be verified at the following frequency:
- a. One (1) test per four hundred (400) lane feet.
 - b. No less than two (2) tests per excavation.

5.2.15 STAKING

- A. All surveying and staking shall be performed by a firm capable of performing such work. The surveyor directing such work shall be licensed by the State of Colorado.
- B. A pre-construction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to placement of materials.
- C. The minimum staking of streets shall be as follows:
 - 1. Stake centerline alignment every 25 feet (50 feet in tangent sections) with cuts and/or fills to subgrade.
 - 2. Stake top of base course at centerline and edge of pavement every 25 feet.
 - 3. Stake top back of curb at a consistent interval and offset for vertical and horizontal alignment.

5.2.16 PAVEMENT MARKING

- A. Street pavement marking shall be provided on all Arterial and Collector Streets and at the intersections of all Local Residential Streets with Arterial and Collector Streets. The streets classification map can be found [here](https://cogs.us/DocumentCenter/View/202/Street-s-Map-24x36-PDF---City-of-Glenwood-Springs-Grid-4MB?bidId=).(chrome-extension://efaidnbmnnnibpcajpcgiclfefindmkaj/https://cogs.us/DocumentCenter/View/202/Street s-Map-24x36-PDF---City-of-Glenwood-Springs-Grid-4MB?bidId=)
- B. The work shall be accomplished in accordance with the Manual of Uniform Traffic Control Devices for Streets and Highways (MUTCD), the Colorado Supplement and Section 627 of the CDOT, Standard Specifications for Road and Bridge Construction.
- C. Epoxy with glass beads
- D. Thermoplastic
- E. Water base

5.2.17 PHYSICAL TRAFFIC CALMING DEVICES

The following physical traffic calming devices, roundabouts, chicanes, and speedtables, may be considered for installation on non-arterial streets that are also non-emergency routes. The appropriate device depends on the roadway geometry, sight distance, and the traffic characteristics such as speed and volume. The City Engineer, in consultation with the City's Emergency Services, will determine whether a traffic calming device is appropriate for a specific location.

- A. Roundabouts- Used primarily to reduce collisions at intersections, roundabouts can also reduce speeding along residential street corridors and improve bicycle and pedestrian safety. In addition to these safety benefits, many circles can be landscaped, which can provide aesthetic enhancements to the street.
- B. Chicanes – A series of 2 or 3 curb bulbs, chicanes slow traffic by creating a narrow, winding section of roadway. Like traffic circles, many chicanes can be attractively landscaped. Since they result in the elimination of some parking, they are generally only installed where there is low demand for on-street parking.
- C. Speed Tables – Mounds that extend the full width of the street, speed tables can be effective at reducing speeds.

If calming devices are requested through the petition process, the City will perform a proper traffic analysis to determine whether an appropriate counter measure should be implemented.

The traffic calming petition can be found [here](#).

5.3 PRIVATE STREETS

5.3.1 GENERAL

A. Purpose

The purpose of these requirements is to standardize private street design elements and to assure, so far as practical, that the minimum requirements of the public are met. These requirements include safety, welfare, convenience, aesthetics, and economical maintenance. These Standards are intended to assist, but not to substitute for competent work by professional engineers. It is expected that the professional engineer will bring to each project the best skills and abilities to ensure that the project is designed correctly and accurately.

B. Private streets may be allowed provided that all of the following conditions are met:

1. Be permanently established by dedication as private roadway during platting process
2. Include provisions for future use by adjacent property owners when applicable,
3. Meet City minimum design standards described herein, except for right of way requirements and approved deviations
4. Be accessible at all times for emergency and public service vehicle use
5. Have recorded on the plat or other legal document a statement acknowledging that the City will not be responsible for roadway maintenance costs associated with use of the road by emergency vehicles and service vehicles, including parking enforcement

6. Not result in land-locking of present or future parcels nor obstruct public street circulation
7. Develop, approve and record covenants which provide for maintenance of the private street by the owner or homeowners association or other legal entity.
8. See Table 5.6 above.

C. Acceptance as Public Streets.

Acceptance of private streets as public streets will be considered only if the street(s) meet all applicable public street standards, including dedication of right-of-way, are deemed to have a benefit to the public street system and are accepted by the City Council.

5.3.2 STREET TYPES, GEOMETRICS AND DESIGN CRITERIA

A. Geometric and Design Criteria.

Individual streets within the development shall be constructed in their entirety to the highest applicable design criteria. Side street approaches shall constitute new streets for design purposes.

B. Utilities Location.

Appropriate utility easements shall be provided on the proposed project plat and recorded with the Garfield County Clerk and Recorder. Utility installation shall be the responsibility of the Applicant and shall not be installed above ground or in a manner or location that will interfere with the traveled surface and shoulder area. All work shall be coordinated with the appropriate City utility department. Utilities shall be designed and constructed in accordance with all City standards.

C. Owners to Maintain Streets -- Organization required to Guarantee Maintenance and Assessment of Costs.

All private streets subject to the terms of this Chapter shall be maintained by the owners of the property served by them and kept in good repair at all times. In order to insure the continued good repair, a declaration of covenant requiring maintenance of the private street shall be recorded with the Garfield County Clerk and Recorder's office concurrent with the recording of the subdivision or plat.

The declaration of covenants shall include the following terms:

1. The agreement for maintenance shall be enforceable by any property owner served by the street.
2. A means shall be established for assessing maintenance costs equitably to property owners served by the private street.
3. The declaration of covenants shall run with the land.
4. "Maintenance" shall include, but not be limited to, street surfacing, sidewalks, shoulders, gates, signs, storm drainage facilities, vegetation control and snow removal.

D. Cul-De-Sacs and Turnarounds

1. Shall be designed in accordance with International Fire Code requirements.
2. Cul-de-sacs shall be constructed if the street is not a through street. Cul-de-sacs or intersections must be provided at a minimum of one thousand five hundred (1,500) feet measured from centerline to centerline.
3. Parking shall be restricted in all cul-de-sacs and all turnarounds, as determined by the City Engineer.

E. Gates.

A building permit issued by the City is required when gates are installed across private streets. In order for the City to issue the building permit, the following requirements must be met:

1. Gates which serve ten (10) or more dwelling units shall have an Opticom activated opening system, or an equivalent and compatible system, which is approved by the Fire and Police Chief.
2. Gates shall have rapid-entry key capabilities (Knox box) for the Fire Department access, and access code shall be provided to the Fire Department.
3. All electrically-activated gates shall have default capabilities to the unlocked position.
4. The minimum clear width of a gate shall be compatible with the street required width.
5. Gates that might be obstructed by the accumulation of snow shall not be installed.
6. The City shall provide notice to the Fire Department of plans for a new gate. The applicant must have final approval of installed gate and function from the Fire Department prior to issuance of Certificate of Occupancy or substantial completion.
7. A turnaround shall be provided for vehicles that are not granted access through the gate. This turnaround must be outside the travel way.

F. Medians.

A street separated by a median shall have a minimum traveled surface width of ten (10) feet on each side of the median.

1. Fire hydrants shall be located on both sides of the street at a spacing acceptable to the fire department, but not within the median.

5.3.3 SIGNS

A. Speed Limit Signs.

If speed limit signs are desired by the Applicant or the property owners, they shall be approved by the City Engineer and be installed by the Applicant and maintained/enforced by the property owners.

B. Street Signs and Street Names

1. Streets shall be numbered according to ASPO Report Number 332, Street Naming and Property Numbering Systems, by Margaret A. Corwin and Street Naming and Property

Numbering for Small Cities by Southwest Georgia Planning and Development Commission, Camilla Georgia. Names for new streets shall be submitted for approval during the platting process. Street numbers shall be included on each lot of the plat.

2. Street name signs must conform to the MUTCD standards and shall be maintained by the property owners. If a sign is damaged or stolen the property owners shall replace the sign within seven calendar days of notification by the City or the City will replace and bill the property owners.
- C. Fire lanes shall be installed by the applicant and maintained by the property owner. Signs and striping locations shall be approved by the Fire Chief.
- D. Subdivision Signs/Monuments
1. Designed per City Municipal Code

5.3.4 COMPLIANCE

- A. Certification. All private streets shall be constructed by the Applicant and inspected by the Applicant's engineer who shall issue a letter of compliance to the Applicant with a copy to the City certifying:
1. The private street has been constructed in accordance with the City's design and standards.
 2. The street signs are in place and conform to the MUTCD standards.
 3. The storm drainage, if applicable, has been constructed in accordance with the Engineer's design.
 4. Bridges and structures have been designed and constructed in conformance with Section 5.6.

The compliance letter shall be stamped, signed, and dated by the applicant's engineer.

A set of as-built plans and inspection/testing reports must be submitted with the letter of compliance.

- B. Completion. All private streets must be completed and the letter of compliance submitted to the City or a financial guarantee must be submitted to the City in the amount of one hundred twenty-five (125) percent of the Engineer's cost estimate to complete the work. The street(s) within a plat, large lot, or long subdivision must be constructed prior to the final inspection and approval of occupancy of any structures constructed within the plat, except for model home permits as authorized by the City Engineer.

5.3.5 MAINTENANCE

- A. All private streets and sidewalks subject to the terms of this Section shall have a Street Maintenance Covenant recorded with the Garfield County Assessor's Office prior to or concurrent with the recording of the subdivision or plat.
- B. Private streets or easements existing, without a street maintenance covenant, prior to the effective date of this Chapter will be exempted from the Street Maintenance Covenant.

5.3.6 PRIVATE TO PUBLIC STREET DEDICATION

- A. The City has no obligation to accept any private street into the City street system for dedication or maintenance. It shall be the Applicant's responsibility to submit a preliminary site plan showing the street(s) proposed for dedication to the City and the Applicant must receive the City Council approval before proceeding with street construction or Right of Way dedication plans.
- B. Street construction plans prepared in accordance with the most recent version of these Standards and Guidelines shall be submitted for review and must be approved by the City Engineer before street construction activity commences.
- C. The Applicant must submit all necessary deeds, easements, etc., to the City for acceptance and recording by the Garfield County Clerk and Recorder's Office.
- D. Once the street has been dedicated to the City and accepted for maintenance, the street shall remain open for public use and may not be closed except by the City.
- E. It shall be the Applicant's responsibility to have the bridge and drainage structures inspected and load rated by a licensed Professional Engineer prior to City acceptance.
- F. All utility lines shall be inspected, cleaned and repaired if necessary prior to acceptance.

5.4 SIDEWALKS, CURB RAMPS, CURBS AND GUTTERS

5.4.1 GENERAL

- A. Sidewalks are required on both sides of the street for all street classifications, except arterials (alternate pedestrian facilities must be provided in the corridor) and alleys. See section 5.2 for standards. See the applicable Standard Detail Drawing(s) in the Appendix attached to this Chapter for more requirements.
- B. All streets constructed with curb, gutters, and sidewalks, shall have pedestrian/ADA ramps provided at street intersections and other pedestrian facility crossings. These ramps shall be constructed in accordance with CDOT Standards and Guidelines.
- C. Sidewalk construction may be required in conjunction with any new development or redevelopment of the existing structures, or plat or approval, or other land use permit.

5.4.2 DESIGN STANDARDS

Plans for the construction of sidewalks, curbs, gutters, and curb ramps are to be submitted as part of the street plans when applicable. The minimum widths for sidewalks are contained in Table 5-7. Because these are minimum standards, the City Engineer may modify the improvement to be installed based upon the conditions specific to the site.

5.4.3 SIDEWALK CONSTRUCTION

- A. Sidewalks shall be constructed per CDOT M&S Standard Plan M-609-1. Minimum sidewalk thickness shall be 4 inches and 6 inches at driveways.
- B. Concrete for sidewalks shall be CDOT Class D, or other approved air-entrained concrete.
- C. Form and subgrade inspection by the City is required before the sidewalk is poured.

- D. Monolithic pour of curb, gutter, and sidewalk will not be allowed.
- E. Expansion joints shall be placed every 50' along concrete sidewalk.
- F. Sidewalks shall be constructed of Portland Cement Concrete. Exceptions will be considered on a case-by-case basis at the discretion of the City Engineer.

5.4.4 CURB AND GUTTER

- A. A concrete curb and gutter shall be used for all street edges, unless otherwise approved by the City Engineer.
- B. All curbs and gutters shall be constructed per CDOT M&S Standard Plan M-609-1.
- C. Concrete for curbs and gutters shall be CDOT Class D, or other approved air-entrained concrete.
- D. When matching existing pavement grade, pavement shall be sawcut full depth, one foot from lip of pan, and milled 2" deep for an additional one foot. Exceptions to this may be approved by the City Engineer. See detail
- E. Joints shall be placed at all alley and driveway returns, structures, curb ramps per CDOT M&S Standard Plan M-609-1.
- F. Form and subgrade inspection by the City are required prior to pouring the curb and gutter.

5.4.5 CURB RAMPS

- A. All sidewalks shall be constructed to provide for curb ramps in accordance with State and Federal law.
- B. Detectable warning patterns shall be cast iron and shall be on the CDOT Approved Products List.
- C. Concrete for curb ramps shall be CDOT Class D, or other approved air-entrained concrete.
- D. Form and subgrade inspection by the City are required before the ramp is poured.
- E. Any variation due to site constraints shall comply with current ADA or PROWAG requirements.

5.5 SHARED-USE PATHS, BIKE LANES, AND TRAILS

5.5.1 GENERAL

Shared-use path and trail construction may be required in conjunction with any new development or redevelopment of an existing structure, or where traffic analysis or traffic planning indicates that substantial bicycle usage which would benefit from a shared-use path or trail.

5.5.2 DESIGN STANDARDS

All new construction shall conform to the standards for bicycle lane facilities outlined in this section, the "Guide for the Development of Bicycle Facilities" prepared by AASHTO.

- A. On-Street Bike Lanes - Streets without On-Street Parking

Bicycle lanes on new streets without on-street parking shall be at least 5 feet wide, measured from the edge of gutter pan.. On existing streets where on-street bike lanes are being added and available right-of-way or improvements space is restricted, the width of the bicycle lane may be reduced to a minimum of 4 feet wide.

B. On-Street Bike Lanes - Streets With On-Street Parking

Bicycle lanes on new streets with on-street parking shall be at least 5 feet wide, exclusive of the parking lane.

C. Off-Street Bike Paths or Trails

Off-street bike trails or paths shall be at least 10 feet wide and shall conform to the Guide for the Development of Bicycle Facilities. Where space is limited 8 feet may be accepted.

D. Bicycle Parking –reference Glenwood Springs Development Code Article 070.040.060(f)

E. Vertical Clearance to Structures

Vertical clearance is measured from the high point within the entire trail width to the lowest portion of the structure. If the undercrossing trail or overcrossing structure may be widened in the future, adequate vertical clearance shall be provided to accommodate the future condition. The vertical clearance of structures shall be in conformance with the AASHTO *Guide for the Development of Bicycle Facilities*.

5.5.3 SHARED USE PATH AND TRAIL CONSTRUCTION

A. Off-Street Bike Paths and Trails shall be constructed per CDOT M&S Standard Plan M-609-1. Minimum concrete thickness shall be 6 inches.

B. Bike paths and trails shall be CDOT Class D, or other approved air-entrained concrete.

C. Root barrier fabric shall be placed under bike path or trail prior to placing of the materials.

Form and subgrade inspection by the City is required before the sidewalk is poured.

5.6 BRIDGES AND STRUCTURES

5.6.1 GENERAL

This section applies to new bridge and drainage structures.

5.6.2 DESIGN STANDARDS

A. Existing Bridges

Existing vehicular bridge and drainage structures shall be capable of carrying a minimum design load of HS-20 per the AASHTO *Standard Specifications for Highway Bridges*.

B. New Bridges

New vehicular bridge and drainage structures shall be designed in accordance with the current AASHTO *LRFD Bridge Design Specifications*.

1. The Design and As-built Drawings for all new bridges shall be certified by a professional structural engineer.

2. Design and Rating calculation packages shall be provided by a professional structural engineer for all new bridge and drainage structures.
3. Additional information may be required from the Structural Engineer of Record for bridges that are included, or will be included in the National Bridge Inventory. Refer to CDOT for additional information.

C. Bridge Width

1. The clear width for all new bridges on streets with curbed approaches should be the same as the curb-to-curb width of the approaches.
2. For streets with shoulders and no curbs, the clear width of the bridge should be the same as the approach roadway width.
3. Sidewalks on the approaches should be carried across all new structures. There should be at least one sidewalk on all street bridges.

D. Bridge Railing

Any new and/or rehabilitated bridge shall be provided with crash-tested bridge rails that have been formally approved by FHWA. CDOT Type 7 and Type 10 bridge rails are examples of FHWA-approved railings.

E. Pedestrian Bridges

New pedestrian bridges shall be designed by a professional engineer in accordance with the current AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges.

5.7 SIGNALS, TRAFFIC CONTROL AND TRAFFIC CALMING

5.7.1 GENERAL

This work shall be the furnishing and installing of a complete and functional traffic control system consisting of controllers, signals, and appurtenances as required by the City Engineer.

- A. Temporary traffic control to ensure public safety during construction activities must be provided. A plan meeting the requirements of the Federal Highway Administration's Manual on Uniform Traffic Control Devices, must be developed, signed and stamped by a licensed Traffic Control Supervisor in the State of Colorado prior to starting construction activities that require traffic control.
- B. The developer is responsible for supplying and installing all necessary permanent traffic control devices such as but not limited to, street name signs, stop signs, speed limit signs, and channelization.
- C. Neighborhood traffic control devices such as speed humps, traffic circles, curb extensions, etc., are devices used to control vehicle speeds and cut-through traffic. Installation of these devices will be permitted by approval of the City Engineer.

5.7.2 DESIGN STANDARDS

- A. Signal systems shall be designed in accordance with NCHRP Report 812, Signal Timing Manual and materials and placement shall be in accordance with Section 614 in the CDOT S-Standard Plans, S-614-40, unless otherwise authorized by the City Engineer.
- B. All public signal design shall be prepared by an engineering firm capable of performing such work. The engineer shall be a licensed Professional Traffic Operations Engineer in the State of Colorado.

5.7.3 VEHICLE DETECTION

Video detection is the preferred equipment of new signal installations at traffic actuated signals. When allowed by the City Engineer, detection loops shall be designed in accordance with the NCHRP Report 812, Signal Timing Manual. Materials and placement shall be in accordance with Section 614 in the CDOT S-Standard Plans. Detection Loops shall be sawcut into pavement.

5.7.4 STAKING

See Section 5.2.15 for staking requirements. In addition, the minimum staking of signals shall be as follows:

1. Location, with cut or fill to center of all pole bases.
2. Location and elevation of each service disconnect.
3. Location of pull boxes.
4. Location of all corners of controller base.

5.7.5 TESTING

- A. All signals shall be subject to any necessary electrical inspections as well as requirements as set forth in the most recent edition of the NCHRP Report 812, Signal Timing Manual and the CDOT Specifications.
- B. A signal system shall not be approved or accepted by the City until the signal has performed correctly to the City's satisfaction for a 30 day "check-out" period as outlined below.
- C. Controller and cabinet testing may be required by CDOT and or the City of Glenwood Springs. All specifications and material samples shall be submitted to the City for review and approval prior to installation.

5.7.6 CHECK-OUT PROCEDURE

- A. The contractor shall call for an intersection check-out after completing the controller cabinet installation along with all other signal equipment complete with wiring connections. All parts and workmanship shall be warranted for two years from date of acceptance. A performance bond shall be obtained by the applicant for this purpose.
- B. New signals shall operate without any type of failure for a period of 30 days. The contractor shall have personnel available to respond to system failure within 6 hours during this 30 day period.
- C. Failure of any control equipment or hardware within the "check-out" period shall restart the 30 day period again.

5.8 ROADSIDE FEATURES

5.8.1 GENERAL

Miscellaneous features included herein shall be developed and constructed to encourage the uniform development and use of roadside features wherever possible and feasible.

5.8.2 SURVEY MONUMENTS

- A. All existing survey control monuments which are disturbed, lost, or destroyed shall be replaced with the proper monument as outlined below by a Professional Land Surveyor registered in the State of Colorado. All such work shall be at the expense of the responsible builder or developer and in accordance with State Law.
- B. Monument Locations. Survey monuments shall be set in accordance with Colorado Revised Statutes .Bus Stops
- A. Population density and system planning dictate the number and the placement of the Ride Glenwood Springs (RGS) bus stops and the Roaring Fork Transportation Authority (RFTA) bus

stops. The City and RFTA will determine the spacing and location of stops. In general, new service will not be initiated prior to the establishment of designated bus stops for an area.

- B. The City of Glenwood Springs and the Roaring Fork School District will determine the location of school bus stops in new developments using the general criteria that follows:
1. A school bus stop shall be required for each new residential subdivision or apartment complex where school children are to be boarding or un-boarding, unless it is determined that a new stop is not required due to adjacent facilities already existing that can serve the site.
 2. School bus stops shall be designed to complement the residential environment and provide a safe and convenient location and access for neighborhood children, including sidewalk access.
- C. The physical location of any bus stop shall be primarily determined by the following considerations:
- maximizing safety
 - operational efficiency
 - minimizing impacts to adjacent property and public right of way
- D. Bus pullouts may be required on all arterial and collector roads for safe bus berthing and to minimize impacts to traffic flow by buses stopping.
- E. All RGS and RFTA shall be identified with signage. This may include pavement marking and bus stop signs.
- F. Passenger shelters may be required for some bus stops. Such shelters shall be designed to RGS and or RFTA standards and the location shall be approved by the City Engineer and Transportation Engineer prior to installation.

5.8.3 MAILBOXES

- A. During construction, existing mailboxes shall be accessible for the delivery of mail or, if necessary, mail will be held at the local post office. The mailboxes shall be reinstalled at the original location or, if construction has made it impossible, to a location as approved by the U.S. Postal Service Post Master.
- B.
- C. Cluster boxes built to accommodate mail for more than 5 street addresses are not allowed in public right-of-way without the express written approval of the City Engineer. Requests to place these types of structures in the ROW must include site specific reason(s) why a standard US Postal Service-approved mailbox or mailbox cluster cannot be used.

5.8.4 GUARDRAILS

For the purposes of design and location, all guardrails along roadways shall conform to the criteria of the most recent versions of the CDOT M&S Standard Plans. Guardrails shall be installed by an approved guardrail contractor.

5.8.5 RETAINING WALLS

- A. Retaining walls in the public right of way over 4 feet in total height shall be designed by a Colorado licensed structural professional engineer and submitted to the City for approval.
- B.
- C. All walls over 4' in total height require a building permit.
- D. If a wall greater than 4 foot is constructed without approval, applicant will be responsible for supplying all above material and shall be charged for work without permit.

5.9 PARKING DESIGN

The following design standards of this Section shall be met for all public and private parking areas, except where the parking area is to serve a single-family or two-family dwelling unit. The number of parking spaces required is included in the Glenwood Springs Municipal Code Article 070.040.060.

- E. Parking Stall Design Standards: Parking stalls shall meet the following standards, based on stall type. Table 5-16 Standard Parking Dimension Standards

Parking Angle (degrees)	Curb Length C	Stall D	Aisle Width		Bay Width	
			One Way A1	Two Way A2	One Way B1	Two Way B2
90	9'	19'	24'	24'	62'	62'
60	9'	21'	18'	22'	60'	64'
45	9'	19.8'	13'	20'	52.6'	59.6'
30	9'	17.3'	12'	20'	45.6'	54.6'
0	22'	8'	12'	20'	20'	36'

Table 5-17 Compact Car Parking Dimension Standards

Parking Angle (degrees)	Stall Width C	Stall Depth D	Aisle Width		Bay Width	
			One Way A1	Two Way A2	One Way B1	Two Way B2
90	8'	15'	24'	24'	54'	54'
60	8'	17'	18'	22'	52'	56'
45	8'	16'	13'	20'	29'	36'
30	8'	14'	12'	20'	26'	34'
0	18'	8'	12'	20'	20'	28'

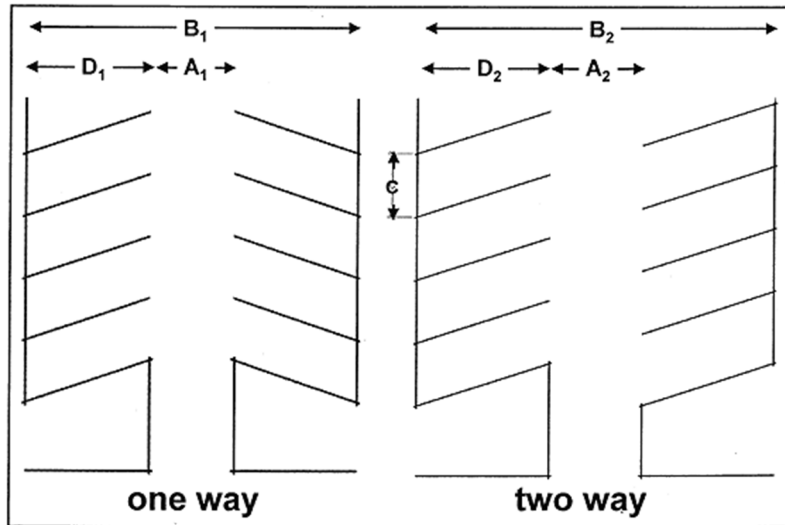


Figure 5-2 Parking Dimension Diagram

- F. Spaces shall be designated for compact vehicle parking by means of a permanent, raised identification sign.
- G. Outdoor parking areas shall not exceed eight percent (8%) of grade and shall be not less than one percent (2%) of grade. The cross slope of any parking or loading space shall not exceed five percent (5%) of grade.
- H. Accessible parking spaces shall be in accordance with the Americans with Disabilities Act. Accessible parking spaces are to be located to maximize convenience of access to the facility and minimize the need to cross the flow of vehicular traffic.

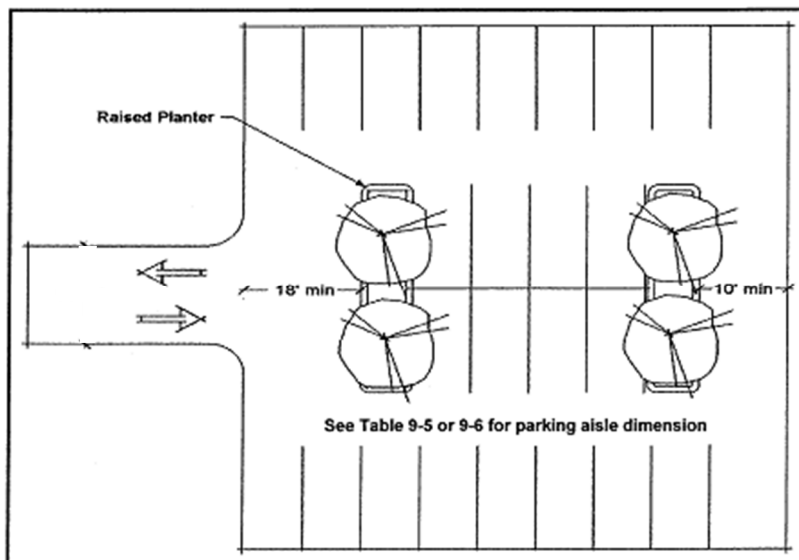


Figure 5-3 Drive Aisles

- I. For any drive-in or drive-through retail or service use, there shall be provided stacking space for vehicles waiting for service, which space is sufficient to prevent any such vehicles from

extending onto the public right-of-way at any time. A minimum of (4) such stacking spaces be provided for each such service bay, window or counter on the entrance side, and one (1) such space on the exit side where an exit is provided. Parking spaces required for such service bay uses may be counted among the required stacking spaces.

- J. Turnarounds are provided for dead-end parking bays.. Turnarounds must be identified with a sign or surface graphic and marked "no parking." The use of accessible parking spaces as the required turnaround is not permitted.

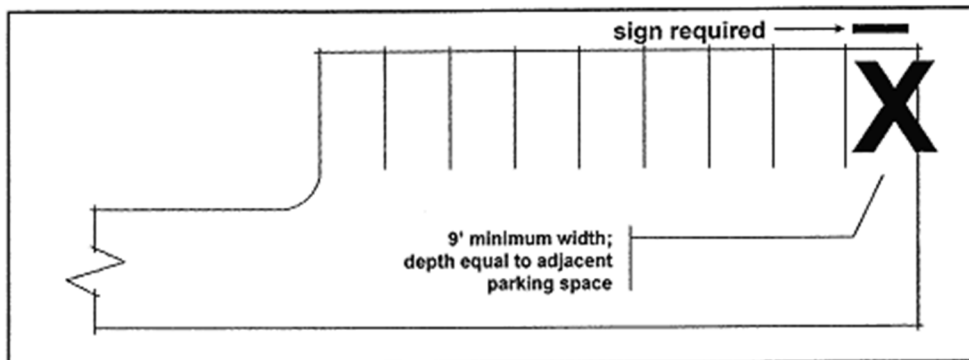


Figure 5-4 Parking Turnaround Spaces

- K. Parking Access:

1. No parking stall is located so as to block access by emergency vehicles.
2. Suitable curbs or barriers to protect public sidewalks and to prevent parking in areas where parking is not permitted shall be provided.

- L. Vehicle Overhang and Parking Area Walkway Design - Wheel or bumper guards must be located so that no part of a vehicle extends beyond a parking area boundary line, intrudes on a pedestrian way, or contacts any wall, fence, or planting. A vehicular overhang may, however, intrude into a private pedestrian way located on the perimeter of a parking lot if the pedestrian way is greater than six feet in width. Walkways shall have a minimum effective (exclusive of vehicle overhang) width of four (4) feet.

1. Walkways within the site shall connect areas or points of pedestrian origin and destination and shall not be located and aligned solely based on the outline of a parking lot configuration. The on-site pedestrian system must be designed to provide connections to major pedestrian and bicycle destinations such as parks, schools, trail connections, bicycle facilities and transit stops that are located either within the development or adjacent to the development. Walkways shall link street sidewalks with building entries through parking lots.
2. Where it is necessary for the primary pedestrian access to cross drive aisles or internal roadways, a pedestrian crossing shall be placed and shall emphasize and place priority on pedestrian access and safety. The material and layout of the pedestrian access shall

be continuous as it crosses the driveway with the break occurring in the continuity of the driveway paving. The pedestrian crossings must be well marked using pavement treatments, signs, striping, signals, lighting, traffic calming techniques, median refuge areas and landscaping.

- M. Parking Study: At the discretion of the City Engineer, a parking study may be required to demonstrate that adequate parking is provided either for parking provided per zoning requirements or in conjunction with a parking reduction request. The scope of a parking study may consist of analysis of any or all of the following factors: joint use of parking areas, peak parking demand for each land use, unusual parking demand based on type of land use, availability of nearby on-street parking, vicinity of high frequency transit, and Institute of Transportation Engineers Parking Generation estimates.
- N. Loading areas – reference Glenwood Springs Development Code Article 070.040.060.
- O. Garages and carports. Parking requirements may be met by garages and carports covering or enclosing spaces which comply with minimum space size provisions of these Standards. Minimum vertical clearance between driving surface and ceiling shall be seven (7) feet.
- P. Location of parking spaces – reference Glenwood Springs Development Code Article 070.040.060.

5.10 TRAFFIC IMPACT ANALYSIS STANDARDS

5.10.1 GENERAL CONSIDERATIONS

Reference Documents and Acronyms

Glenwood Springs Long Range Transportation Plan (2015-2035) (**LRTP**)

State Highway 82 Access Control Plan, CDOT (**ACP**)

State Highway 82 Corridor Optimization Plan, CDOT (**COP**)

Intermountain 2040 Regional Transportation Plan, CDOT (**IMTPR**)

State Highway Access Code, CDOT (**SHAC**)

Trip Generation Manual, Institute of Transportation Engineers (**ITE**)

Parking Generation Manual, (**ITE**)

Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way, US Access Board (**PROWAG**)

Glenwood Springs Comprehensive Safety Action Plan (**CSAP**)

5.10.2 TRAFFIC STUDY

Any development that ultimately accesses a CDOT Right of Way may be required to obtain a CDOT access permit. Traffic studies for single-family and duplex developments are not required by the City.

A. Traffic Assessment

A Traffic Assessment (TA) is required for any proposed development that is expected to generate less than 100 peak hour trips for commercial/industrial sites or less than 20 peak hour trips for residential sites. The City Engineer will require an applicant to submit a Traffic Assessment. The Assessment shall include a peak hour and daily trip generation study projection (compared to existing condition if site triggered change of use), proposed parking supply, an accessibility plan, and may require additional information as determined by the City Engineer.

B. Traffic Impact Study

1. A Traffic Impact Study (TIS) is required for any proposed development that is expected to generate 100 or more peak hour trips for commercial/industrial sites or 20 or more peak hour trips for residential sites to evaluate the overall impacts of the site on the transportation system.
2. For any site adjacent to State Highway 82 within the City Limits is governed by the SH 82 Access Control Plan. The ACP defines future access conditions along the corridor and can be amended only through a comprehensive study and consequent agreement by all parties (CDOT and the City) to approve the change. All applications for redevelopment along this corridor require review by CDOT and should adhere to state requirements, guidelines, and principles. For development along US 6 within the City Limits, excluding the section from Donegan Road to Laurel Street CDOT is also the

primary reviewer and studies should adhere to state requirements, guidelines, and principles.

C. Responsibilities for Traffic Impact Studies

The Applicant for development or redevelopment approval shall be responsible for assessing all traffic impacts associated with a proposed development, including impacts during construction. The City and/or the City and State will serve in a review and approval capacity.

D. Preparation and Certification

Traffic Assessments and Traffic Impact Studies shall be prepared by an Engineer registered in the state of Colorado with adequate experience and expertise in transportation planning and engineering. The Engineer shall be identified in the TA or TIS and shall stamp the final report.

E. Coordination with the City

Transportation consultants and Engineers preparing Traffic Assessments or Traffic Impact Studies shall discuss proposed development projects with the City Engineer prior to gathering data or initiating the study in a Pre-TIS Meeting. Issues to be discussed include, without limitation, the LRTP, definition of the study area, relevant subarea plans, collection of traffic data, methods for projecting build-out volumes, background traffic conditions, trip generation, trip reductions, directional distribution of traffic, trip assignment, transit considerations, and bicycle and pedestrian accessibility. These aspects of the Traffic Impact Study shall be approved by the City Engineer prior to study preparation.

F. Submittal

A Traffic Assessment and a Traffic Impact Study shall be prepared in conformance with the information required in the following section of these Standards.

5.10.3 TRAFFIC STUDY FORMAT

A. Study Requirements

The information provided in the Traffic Impact Study shall include the following sections as outlined below. The study shall be typed in electronic form and clearly identify the data and information in the appropriate sections. In addition, the study shall contain a table of contents, lists of figures, list of tables, and appendix that includes all data, calculations, and capacity worksheets necessary to document the analysis. The information provided in the Traffic Assessment shall only include sections B, C, J, K and L below.

B. Introduction

The Study shall provide an introduction with an overview and specific discussion of the project or development proposal.

C. Site Location and Zoning

The study shall include a vicinity map detailing the property location; a conceptual site plan reflecting the boundaries of the project or development, access points, pedestrian facilities; and

information detailing the designated zoning district, general terrain and physical features of the site and the surrounding area.

D. Study Area Boundaries

The study shall include the Study Area Boundaries as determined based on discussions with the City Engineer in the Pre-TIS meeting and include all roadways and transportation routes providing access to the site and the surrounding transportation system.

E. Existing Transportation System

The study shall describe and include roadway orientations, functional classifications and geometries, intersection geometries, and traffic controls, including without limitation signage and striping, speed limits, parking restrictions, sight distance, transit routes and stops, the presence of on- and off-street bicycle and pedestrian facilities, and any other related traffic operations information and improvements approved or planned by government agencies. For identified improvements scheduled by government agencies, include the nature of the improvements, extent, implementation schedule, and the agency or funding source responsible.

F. Existing and Projected Roadway and Intersection Traffic Volumes

1. The study shall include diagrams that map existing daily and peak hour traffic volumes, and each variation of projected traffic volumes, for all roadways and peak hour volumes including pedestrian and bicycle volumes at intersections within the study area. Also provide diagrams that map the existing intersection and roadway laneage and traffic control devices within the study area.
2. Existing traffic volumes shall be collected during a mid-week day (Tuesday – Thursday) preferably during the school year, unless the City Engineer agrees that the site is minimally affected by school traffic. Data collected for traffic studies shall include general traffic, pedestrian and bike traffic, transit and school vehicles, and heavy vehicle percentages. Peak hour factors established during the traffic counts shall be considered for use in the capacity analysis by approach. The existing counts shall be factored by the seasonal factors established at the CDOT Automatic Traffic Counter #000214 on the south end of SH 82, which will be provided by the City Engineer.
3. Traffic projections and forecasting methodology shall be discussed at the Pre-TIS Meeting and approved by the City Engineer. Traffic counts shall be scheduled with the City Engineer at least two days in advance of deploying traffic counters in the field.

G. Existing and Proposed Site Uses

The study shall include an identification of the existing (or previous) land use and proposed land use or the highest potential land use based on zoning and maximum trip generation where a specific use has not been determined. If rezoning is proposed, the study shall provide a comparison between the highest trip generation uses for the existing zoning and the highest trip generation uses for the proposed zoning. If actual trip generation volumes can be observed and documented from the existing site, these volumes shall be used over those estimated using *ITE Trip Generation* for comparative purposes.

H. Existing and Proposed Land Uses in the Study Area Boundaries.

The study shall document any vacant land or potential redevelopment that may result in a change in traffic volume conditions within the study area during each traffic scenario studied. Perform and provide trip generation on these parcels and include the trips generated from these parcels in the trip volume diagrams and level of service analyses for each appropriate traffic scenario studied. If available, information in approved Traffic Impact Analyses within the last two years may be used instead of performing trip generation on these parcels.

I. Trip Generation

Traffic estimates for the proposed project and potential developed or redeveloped properties in the study area shall be obtained by performing trip generation using the procedures outlined in the most current edition of Trip Generation Manual of the Institute of Transportation Engineers (ITE). If adequate Trip Generation Manual data is not available for a specific land use, the procedures used to estimate trip generation data shall be approved by the City Engineer. Include the following specific trip generation information:

1. **Summary Table:** List each proposed (or approved) land use that requires trip generation analysis, including the project and any developed or redeveloped land uses within the study area. For each trip generation summary include land use type, amount, size, intensity, average trip generation rates for total daily traffic and peak hour traffic entering and exiting the site (a.m., noon and/or p.m. peak hour traffic generation may be required), and the resultant total peak hour and daily trips generated for each time period and each land use.
2. **Calculations:** Calculation of projected trip generation for any land use, used to determine study area impacts, shall be based on the following:
 - a. Trip generation formulas (or rates, if formulas are not available) published in the most recent version of the Trip Generation Manual. Trip generation reports from other industry publications may be considered but are subject to the approval of the City Engineer.
 - b. A local trip generation study conducted within the last two years, following procedures outlined in the most recent version of the Trip Generation Manual, if no published rates are available and similar land uses can be studied.
 - c. Additional data or studies from other similar jurisdictions. Trip generation obtained in this fashion is subject to the review and approval of the City Engineer.
3. **Trip Generation Reductions:** Credit for any trip reductions is subject to review and approval in advance by the City Engineer. Anticipated trip reduction assumptions should be discussed and approved by the City Engineer at the Pre-TIS meeting. Trip reductions typically fall into one of two categories: those that reassign some portion of the trip generation from the surrounding roadway network (passerby and diverted trip reductions), and those that remove trips generated from the land use trip generation (internal and modal split reductions).

- a. Use of passerby and diverted trip reductions may be evaluated and considered in reducing the additional estimated total trip generation of a new land use. However, passerby and diverted trip reduction factors are not to be applied directly to reduce trip generation and turning movement volumes at driveways serving the studied land use. These factors are subject to the approval of the City Engineer.
- b. Internal trip reductions and modal split assumptions may reduce the total trip generation of a land use. These factors considered in the Traffic Study shall supply analytical support and detailed documentation to demonstrate how the estimates were derived and incorporated, and are subject to the approval of the City Engineer.

J. Trip Distribution, Trip Assignment, and Modal Split

Trip distribution and assignment of any generated traffic estimates shall be clearly summarized and illustrated for each access route entering and exiting the generating land use, using the study area transportation system and existing traffic splits as a basis. If applicable to the site, a modal split may be assumed to further reduce the vehicular trip generation of the site, and the resultant non-vehicular trips shall be documented in the study. Include the following specific trip distribution and assignment information:

1. **Trip Distribution:** The trip distribution for each site shall be identified and illustrated with a graphical figure detailing the percentages making each movement, at each access and intersection in the study area. The trip distribution shall be logically based upon factors such as the site's location within the City, existing traffic volume data in the study area, market analyses, applied census data, and/or professional engineering judgment. Trip distribution assumptions are subject to the approval of the City Engineer upon review of the existing traffic volumes.
2. **Trip Assignment:** Trip assignment shall be done by applying the trip generation totals for each scenario studied, to the trip distribution percentages developed. The trip assignment shall develop anticipated traffic volumes for each of the movements identified by the trip distribution and each of the scenarios identified in the analyses. The resulting traffic volumes shall be illustrated with graphical figures detailing the anticipated volumes making each movement, at each intersection in the study area, during each scenario studied.
3. **Modal Split:** The number of vehicular trips generated by the site may be reduced by a modal split assumption approved by the City Engineer. Modal splits account for trips made by a mode other than a car, i.e. transit, bicycle, or pedestrian trips. Modal splits are highly influenced by the site's use, surrounding topography, and its proximity to transit routes, connective sidewalks, and trails.

K. Existing and Projected Traffic Volumes

Traffic Volume Scenarios: Five traffic volume scenarios and three separate times of the day may be required to be included in a Traffic Impact Study analysis. The applicant shall meet with the City Engineer to determine the scenarios and time periods to be studied, prior to the development of the Traffic Impact Study. The potential scenarios and time periods include the following:

- a. Scenario 1 – Existing Conditions: An operational analysis of existing traffic conditions will be required in the Traffic Impact Study. Existing Conditions analysis should attempt to model traffic conditions at the time the traffic study is being prepared. Traffic counts that are older than the year the study is being prepared shall be factored up or adjusted to existing year volumes by a factor provided by the City Engineer.
 - b. Scenario 2 – Anticipated Project Completion Year Without Project Traffic: Include an analysis of the anticipated traffic conditions during the year the project is intended to be finished and traffic is generated. The analysis shall anticipate the increase in background traffic volumes and the generation of other related projects that are not present in the existing condition, but would likely be completed, and generating trips in this time period. The trip generation for the proposed project shall not be included in this scenario. If the project is intended to be completed the same year that the Traffic Study is being prepared, then this scenario is the same as Scenario 1 - Existing Conditions.
 - c. Scenario 3 – Anticipated Project Completion Year With Project Traffic: This scenario is the same as Scenario 2, except that the project volumes are assigned to the roadway network and included in the analyses.
 - d. Scenario 4 – Future Buildout Conditions Without Project Traffic: An analysis of the anticipated traffic conditions, using the projected buildout year defined as 20 years from the Existing Conditions scenario, based on the applicable CDOT 20-year growth factor. The analysis shall anticipate the increase in background traffic volumes and the generation of other related projects that are not present in the existing condition, but would likely be completed and generating trips in this scenario. The trip generation for the proposed project should not be included in this scenario.
 - e. Scenario 5 – Future Buildout Condition With Project Traffic: This scenario is the same as Scenario 4, except that the project volumes are assigned to the roadway network and included in the analyses.
4. **Traffic Volume Projections**: The traffic volume projections shall identify existing and projected daily traffic counts and peak hour turning movement counts for each access point, intersection and street identified in the traffic study area for each of the aforementioned scenarios required in the study.
 5. **Time Periods**: Each scenario may be required to look at three different time periods (the a.m., noon and p.m. peak hour conditions). The City Engineer will determine which time periods and scenarios are required for each Traffic Impact Study depending upon the project's size, location, types of land uses and other pertinent factors.
 6. **Raw Traffic Count Data**: Include all raw traffic-count data for average daily and peak hour conditions and traffic analysis worksheets in the appendices of the Traffic Impact Study for review and reference. Traffic analysis software output may be used for this part of the report.

NOTE: All total daily traffic counts must be actual machine counts for a 24-hour period,

not based on factored peak hour sampling. The latest available machine counts from the City, and other agencies, may be acceptable if they are not more than 2 years old. Use of CDOT seasonal factors to increase raw volumes to seasonal peaks may be applied in establishing the Existing Conditions volumes if determined necessary by the City Engineer prior to conducting the study.

L. Level of Service and Queuing Analysis

1. The City has adopted LOS D as the minimum acceptable level of service for all movements and approaches when evaluating intersection operations. However, we are aware that the LOS for many of the City's intersections with SH 82 is controlled by SH 82 signal timing. Project impacts that maintain LOS D or better for all intersections and street segments may not be required to provide LOS related traffic mitigation improvements. Improvements at SH 82 intersections shall be evaluated and may become part of a developer improvement agreement for implementation at the time the project is constructed, or potentially with partners in the future, dependent upon the traffic impact and responsibility.
2. LOS E and lower peak hour conditions require the implementation of one or more transportation management strategies consistent with the goals and objectives of the LRTP. A transportation management strategy plan required to address and mitigate these conditions may include travel demand management, land use intensity reduction, site design, layout and access modifications, parking reduction measures, or transportation infrastructure improvements.
3. The Traffic Impact Study shall provide LOS analyses for all study area intersections (signalized, roundabout controlled, and unsignalized) using methodologies outlined in the current Highway Capacity Manual or other nationally accepted methods. The analyses should be performed for Scenarios 1 through 5, described in Section 5.10.3(K), "Existing and Projected Traffic Volumes," and for each time period (a.m., noon and/or p.m. peaks) that is required in the Traffic Impact Study, unless otherwise required by the City Engineer.
4. Level of service analyses shall consider the appropriate infrastructure, lane usage, traffic control and any other pertinent factors for each scenario to be studied. Intersections with planned improvements, discussed in City planning documents, may have those improvements implemented in the level of service analyses.
5. Signalized intersection level of service analyses shall use the existing timing and phasing of the intersections for all scenarios. If the analyses are to deviate from existing timings or phasing, then a detailed signal progression analyses for the affected corridor shall also be provided.
6. The results of the level of service analyses for each scenario and each time period shall be summarized into one or more tables that illustrate the differences in level of service for each scenario. At a minimum, these tables shall list the level of service results for each intersection to include the level of service for each movement and approach and the total intersection level of service, as well as the appropriate delay values for each

movement and approach and the total intersection. These tables shall highlight any locations where the addition of project traffic has caused any approach of any intersection to fall below the LOS D standard for the City.

7. In addition to Level of Service, the 95th percentile queue lengths shall be calculated for all movements affected by project traffic. The 95th percentile queue lengths determined for Scenario 5 represent the future turn lane demand (needs) and should be utilized for design or extension of any turn lane.

M. Traffic Counts and Analysis Worksheets

The Study shall provide capacity analysis calculations based on the planning or operational analysis techniques contained in the current Highway Capacity Manual or subsequent highway capacity techniques established by the Federal Highway Administration, including the following:

1. **Raw Traffic Count Data:** Include all raw traffic count data for average daily, hourly Average Daily Traffic (ADT), and peak hour conditions and traffic capacity analysis output or worksheets in the appendices of the traffic study for reference. Computer programs and associated printouts may be used for this part of the report.
2. **Level of Service Analyses:** Include all level of service analyses performed for intersections. Traffic analysis software output may be used for this part of the report. If signal timing or phasing changes are proposed for traffic mitigation and the signal is currently part of a coordinated system, a progression analysis will be required to ensure that adequate progression is maintained or provided. All progression analysis and assumptions to be used shall be reviewed and approved by the City Engineer (generally with input from CDOT).

N. Traffic Control, Roundabouts, and Traffic Signals

The Traffic Study shall discuss and analyze any traffic control measures that may be necessary to serve a proposed project or development. Any traffic control measures are to be evaluated based on the requirements established in the Manual on Uniform Traffic Control Devices (MUTCD) and by the City, and will be applied as necessary to ensure safe and efficient operation of the City's transportation system. The analysis shall demonstrate the need for traffic control measures considering the objectives and policies of the LRTP, CSAP, and alternative site designs in order to minimize or mitigate traffic impacts from the proposed project or development. The following traffic control measures are to be addressed:

1. **Regulatory Signage, Markings and Islands:** These traffic control measures shall be applied as necessary in conformance with the MUTCD and City standards and policies.
2. **Traffic Signals:** The installation of new traffic signals is discouraged by the City and all possible alternatives to signalization, including roundabouts, shall be evaluated before the installation of a new traffic signal will be considered. The need for new traffic signals will be based on warrants contained in the MUTCD and on City policies. In determining the location of a new signal, safety and community traffic circulation and progression will

be the primary considerations. If a traffic signal is suggested as part of a mitigation package, and the intersection lies within a series of coordinated traffic signals, then a progression analysis will be required to ensure that adequate progression may still be provided along the corridor. Generally, a spacing of one-half mile between all signalized intersections is to be maintained, to achieve optimum capacity and signal progression. Pedestrian and bicycle movements shall be considered in all cases and adequate pedestrian clearance is to be provided in the signal design and timing plan.

- 3. Intersection and Access Locations:** To provide flexibility and safety for the existing roadway system and to ensure optimum two-way signal progression, an approved traffic engineering analysis shall be made to properly locate all proposed intersections that may require signalization, and any accesses to the proposed development.

O. Transportation Demand Management Strategies

The study shall include an outline of transportation demand management (TDM) strategies to mitigate traffic impacts created by proposed development and implementable measures for promoting alternate modes of travel, including but not limited to the following:

- 1. Site Design:** Incorporate design features that facilitate walking, biking, and use of transit services to access a proposed development, including features such as transit shelters and benches, site amenities, bike racks, site design layouts to increase convenience of alternate modes and reduce multiple trips to and from the site, and direct connections to existing offsite pedestrian, bicycle, and transit systems.
- 2. Programs and Education:** Incorporate alternate modes programs, such as providing transit passes to employees and residents, van pooling to the site by a major employer, ride-sharing, parking pricing, and planned delivery services, and educational measures such, as promoting telecommuting, distributing transit schedules and trails maps, and providing an onsite transportation coordinator or plan to educate and assist residents, employees, and customers in using alternate modes.

P. Traffic Accident Analysis

When required, the Traffic Impact Study shall include accident analyses at one or more locations in the study area. The City Engineer shall specify whether such accident analyses are needed for each Traffic Study. Where required, estimates of increased or decreased accident potential shall be evaluated for the proposed project or development and appropriate safety related mitigation measures are to be included. Traffic accident data is available from the City of Glenwood Springs' Police Department or from the City Engineer.

Q. Recommendations

- 1.** The Traffic Study shall include a section in the report that provides any recommendations of the Engineer. These recommendations shall include the Engineer's recommended location, nature and extent of proposed transportation improvements associated with the project or development to ensure safe and efficient roadway operations and capacity, and compatibility with the City's transportation system

and the goals of the LRTP. Proposed TDM programs and the anticipated traffic reductions associated with each program shall be documented in the Recommendations.

2. These recommendations are to be supported with appropriate documentation and discussion of the technical analyses, assumptions and evaluations used to make the determinations and findings applied in the Traffic Impact Study. In the event that any Traffic Impact Study analyses or recommendations indicate unsatisfactory levels of service at any study area intersections, a further description of proposed improvements or mitigation measures to remedy deficiencies shall be included.
3. These proposed improvements or mitigation measures may include projects by the City, County, RFTA, or The Colorado Department of Transportation for which funds have been appropriated and obligated. These proposals may also include improvements to be funded and constructed by the applicant as part of project or development construction. Assumptions regarding future roads, widths and lane usages in any analyses are subject to the approval of the City Engineer.
4. In general, the recommendation section shall include:
 - a. Proposed and Recommended Improvements: Provide a detailed description and sketch of all proposed and recommended improvements. Include basic design details showing the length, width and other pertinent geometric features of any proposed improvements. Discuss whether these improvements are necessary because of development traffic or whether they would be necessary due to background traffic. Specify the approximate timing necessary for each improvement.
 - b. Level of Service Analysis at Critical Points: Provide another iteration of the LOS analyses that demonstrates the anticipated results of making recommended improvements, such as movement LOS, operational and safety conditions and conformance with the City's transportation system goals and the LRTP. In association with LOS analyses for recommended improvements, include a comparison of these results with the background LOS analyses without the proposed project or development. Where appropriate, this step is to be provided for both near term (year of project completion) and 20-year buildout scenarios.
 - c. Assessment of Site Access: Provide a detailed assessment of the site access point(s) at the intersection of the public street and along all proposed facilities to demonstrate adequate sight distance and accessibility requirements are provided for vehicles, bicyclists and pedestrians using the driveway and sidewalk facilities. Sight distance requirements are defined in 5.2.11.

R. Conclusion

Include a conclusion in the report that provides a clear and concise description of the study findings and recommendations, and serves as an executive summary.

S. Revisions to Traffic Study

1. Following City review, the City Engineer may require revisions to a traffic study based on

the following considerations:

- a. Completeness of the study,
- b. Thoroughness of the level of service, queuing, and impact analyses and evaluations,
- c. Compatibility of the study with the proposed access design, project or development plan and local transportation system,
- d. Compliance with local and state regulations and design standards, and
- e. An analysis of study deficiencies, errors, or conflicts.

APPENDIX – TRANSPORTATION STANDARD DRAWINGS

CITY STANDARD DRAWINGS	Filename
1. Arterial Roadway Typical Section	
2. Collector Roadway Typical Section	
3. Local Street Typical Section	
4. Alley Typical Section	
5. Private Street Typical Section	
6. Driveway Installation	
7. Driveway Installation Sidewalk Through Driveway	
8. Non-Curbed Street Driveway and Culvert	
9. Reserved	
10. Reserved	

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CHAPTER 5 – TRANSPORTATION

5.1 GENERAL INFORMATION

5.1.1 GENERAL CONSIDERATIONS

The standards and guidelines established by this chapter are intended to represent the minimum standards for the design and construction of transportation facilities. The standards are intended to be applied by the City Engineer for conformance with City development regulations. The City Engineer may augment these construction standards with the latest editions of the following design documents (in order of preference):

- American Association of State Highway and Transportation Officials (AASHTO) - [Policy on Geometric Design of Highways and Streets](#)
- American Association of State Highway and Transportation Officials (AASHTO) - [Guide for the Development of Bicycle Facilities](#)
- American Association of State Highway and Transportation Officials (AASHTO) – [Guide for Design of Pavement Structures](#)
- American Association of State Highway and Transportation Officials (AASHTO) – [Standard Specifications for Highway Bridges](#)
- American Association of State Highway and Transportation Officials (AASHTO) – [LRFD Bridge Design Specifications](#)
- American Association of State Highway and Transportation Officials (AASHTO) – [Guide Specifications for the Design of Pedestrian Bridges](#)
- Colorado Department of Transportation - [Roadway Design Guide](#)
- Colorado Department of Transportation - [Standard Plans – M&S Standards](#)
- Colorado Department of Transportation - [Standard Specifications for Road and Bridge Construction](#)
- Colorado Department of Transportation – [State Highway Access Code \(SHAC\)](#)
- Federal Highway Administration (FHWA) - [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)
- Transportation Commission of Colorado - [Colorado Supplement to the Federal Manual on Uniform Traffic Control Devices](#)
- The Institute of Transportation Engineers (ITE) - [Traffic Engineering Handbook](#)
- ~~The Institute of Transportation Engineers~~ [National Association of City Transportation Officials \(NACTO/ITE\) - Guidelines for Major Urban Street Design](#)
- City of Glenwood Springs and State of Colorado Department of Transportation Access Control Plan

Obtaining copies of these publications shall be at the applicant's own expense.

The overall goal of this chapter is to encourage the uniform development of an integrated, fully accessible public transportation system that will facilitate present and future travel demand through a variety of transportation modes with minimal environmental impact to the community as a whole.

5.1.2 APPLICABLE SPECIFICATIONS

The following specifications shall be used in conjunction with this standard:

- A. Colorado Department of Transportation Standard Specifications for Highway and Bridge Construction, and applicable Standard Special Provisions.

5.1.3 DEFINITIONS AND TERMS

Access Control Plan: An agreement between the City and CDOT to control access points to Highway 82 (Grand Avenue/Glen Avenue) from I-70 Exit 116 to the southern City boundary. Upon new development or redevelopment that increases traffic from the proposed business by 20% or more, a CDOT Access Permit will be required. Please see City planning or engineering staff for more information.

Applicant: The person, party, firm or corporation who proposes to do the improved work.

Average Daily Traffic or (ADT): The total traffic during a given time period (in whole days), greater than one (1) day and less than one (1) year, divided by the number of days in that time period. To determine potential ADT for a local access City street, it will be assumed, for the purposes of the Chapter only, that each Single-Family Dwelling Unit will generate ten (10) traffic trips per day. Traffic generation for other uses will be in accordance with the current edition of the "Trip Generation", published by the Institute of Traffic Engineers, or other approved sources, and will include the traffic generated by the proposed development unless otherwise noted. Projects submitted to the City for review and approval will be considered to be proposed projects.

CDOT Standard Specifications: The current Standard Specifications for Road and Bridge Construction, as published by the Colorado Department of Transportation, and its amendments.

City: The City of Glenwood Springs, Colorado, the City Engineer, the Public Works Director or his/her designee.

City Engineer: The City of Glenwood Springs, the City Engineer or his/her designee.

Cul-De-Sac: A circular area symmetrical or offset about the centerline of a street.

Dwelling Unit: Any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and sanitation for not more than one family.

Emergency Vehicle Access (EV): means an all-weather drivable surface constructed and maintained in accordance with this Chapter, that provides emergency access between a public or private street and one hundred fifty (150) feet of all portions of an exterior wall of the first story of any structure requiring EV Access as measured by an approved route around the exterior of the building.

Engineer: A professional engineer currently licensed by the State of Colorado, retained by the Applicant, and acting on their behalf.

Functional Classification: is the process by which streets and highways are grouped into classes, or systems, according to the character of traffic service that they are intended to provide. There are three functional classifications: arterial, collector, and local roads. All streets and highways are grouped into one of these classes, depending on the character of the traffic (i.e., local or long distance) and the degree of land access that they allow. Refer to Section 5.2.2 for definitions of each functional classification.

Gravel Surface: Two inches of crushed surfacing top course per the current CDOT Standard Specifications.

Improved Street or Alley: A street that has been improved to full urban or suburban standard, including drainage, paving, sidewalk, and in most cases curb and gutter, as set forth in these standards. A alley that has been improved to full urban or suburban standard, including drainage and paving as set forth in these standards.

Land Surveyor: A professional land surveyor currently licensed by the State of Colorado, retained by the Applicant, and acting on their behalf.

Maintenance: The regular and continual preservation of a public facility, private street and appurtenant features within the easement in an “as new” condition.

Major Structure: Major structures are bridges and culverts with a total length of 20 feet or greater and retaining walls with both a total length greater than 100 feet and a maximum exposed height at any section of over 4 feet. The length is measured along the centerline of roadway for bridges and culverts, and along the top of the wall for retaining walls.

Planned Unit Development (PUD): A horizontal area within the exterior boundaries of the PUD, including any streets and required improvements, easements, reservations or dedications. The PUD provides for the opportunity to create self-contained residential neighborhoods with a pre-determined variety of housing choices and without following a standard system of public streets and lot design, with allowances for mixed use, residential and neighborhood commercial development that are not usually permitted in residential zones.

Private Street Easement: An easement or parcel which creates a legal source of access from a public street to an existing or proposed lot or lots of record or project, across other parcels of property.

Tract: Any parcel of land, lot, building site, or contiguous combination thereof devoted to or intended to be devoted to a principal use and any other uses customarily accessory thereto.

Unimproved Street, Roadway, or Alley: The right-of-way has been opened, the area is or could be traveled upon, but the maximum limit of improvement would consist of a gravel base roadway. This street most likely has not been graded to an established grade but generally follows the lay of the land. This street is not maintained by the City unless opened by the City.

Unopened Street or Alley: This term applies when right-of-way currently exists but no roadway improvements have been provided and travel within the right-of-way is prohibited by the fact that no clearing or grading has occurred.

5.2 PUBLIC STREETS

5.2.1 GENERAL

- A. The design of streets and roads shall depend upon their type and usage. The design elements of City streets shall conform to standards as set forth in this chapter.
- B. Street design must provide for the maximum loading conditions anticipated. The width and grade of the pavement must conform to specific standards set forth in this chapter for uniformity and safety. Typical sections for each of the various street classifications are shown in the Standard Plans included in the appendix to this chapter.
- C. Lot and block patterns shall allow for access onto a street from each lot. The use of an easement for principal access to a lot shall not be allowed. Permanent access easements may be permitted if recommended by City Staff and approved by the City Attorney.
- D. Alignment of principal arterials, minor arterials and collectors shall conform as nearly as possible with that shown in the Long Range Transportation Plan and the City of Glenwood Springs Comprehensive Plan.
- E. The layout of streets shall provide for the continuation of existing principal streets in adjoining subdivisions or of their proper projection when adjoining property is not subdivided. Access streets, which serve primarily to provide access to abutting property, shall be designed to discourage through traffic.
- F. Access points/driveways shall be in accordance with Section 5.2.10.
- G. It shall be the responsibility of the City Engineer to identify specific conditions for street improvements and/or right-of-way reservation required as a condition of development. All street improvements shall be consistent with these Standards, the Glenwood Springs Municipal Code and the Glenwood Springs Development Code.

5.2.2 FUNCTIONAL CLASSIFICATIONS

The City of Glenwood Springs has developed a Street Classification Map, indicating existing and proposed streets and their functional classifications. City streets are divided into principal arterials, minor arterials, commercial collectors, residential collectors, local streets and private roads in accordance with the regional transportation needs and the functional use that each serves. Refer to the following sections for further definitions. Function is the controlling element for classification and shall govern right-of-way width, road width, and road geometrics for the design classifications. New streets will be classified by the City Engineer.

A description of street design standards for each street classification follows. Refer to Table 5-7 in the next section for a summary of the street right-of-way standards. All elements listed are required unless specifically noted.

1. **Principal Arterials** provide for mobility through the City and for connecting the major activity centers within the City. Although principal arterials may provide access to commercial and residential properties where no other alternative is available, access is a secondary function.

Most Principal Arterials within Glenwood Springs are under the jurisdiction of the Colorado Department of Transportation. Although CDOT criteria will govern the specifications for these principal arterials, the City of Glenwood Springs requires the following specifications shown in Table 5-1 for Principal Arterials under City jurisdiction.

2. **Minor Arterials** augment the principal arterial system. They provide for mobility through the City and for connecting destinations on opposite sides of the City. Minor arterials may also provide access to properties, although the number of access points should be limited.
3. **Commercial Collectors** provide access to the primary commercial areas and gather traffic from various parts of the commercial areas and distribute it to the major street system. Different configurations with several on-street parking options are provided for residential and commercial areas.
4. **Neighborhood Collectors** provide access to neighborhood cores and gather traffic from various parts of the neighborhood and distribute it to the major street system. Different configurations with several on-street parking options are provided for residential and commercial areas.
5. **Local Streets** provide access to individual residential units and neighborhood commercial areas. Different configurations with several on-street parking options are provided for residential and commercial areas.
6. **Alleys** provide for accessibility and service to individual lots and businesses. They also serve as utility easements or corridors.
7. **Private Streets** are owned, controlled, and maintained by one or more property owners.

Table 5-1 Principal Arterial Specifications

Street Function:	Provide mobility for through traffic and connections between major activity centers
Connectivity:	Connects major activity centers and regional transportation nodes
Average Daily Traffic:	> 10,000 motor vehicle trips per day
Managed Speed:	25 mph–45 mph
Motor Vehicle Travel Lanes:	<ul style="list-style-type: none"> • 11'–12' travel lanes • Number of lanes based on street capacity required
Bike Lanes:	<ul style="list-style-type: none"> • Separated multi-use path or paths are required • 10' minimum width required for two-directional, 5' minimum width required for single-direction travel. <u>exclusive of the gutter.</u> • Separated paths shall be separated by a minimum 5' wide landscaping buffer
Parking:	<ul style="list-style-type: none"> • On-street parking generally not provided on principal arterials • Parking may be provided as a traffic calming feature and to meet parking demand when principal arterials traverse a neighborhood with existing driveway accesses or commercial properties fronting the street
Curb and Gutter: (or Shoulders with Ditches)	<ul style="list-style-type: none"> • 6" vertical/barrier curb required. Gutter width as needed for drainage. Minimum 1.5' gutter; <u>OR</u> • 4' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	As necessary
Buffer Strip	<ul style="list-style-type: none"> • 5' landscaped strip required between sidewalk and vehicle travel lanes. • If arterial road serves a commercial area with on-street parking, then partially hardscaped planting strip is acceptable
Sidewalks and Min. Sidewalk Widths:	<p>Sidewalks required on both sides of street unless alternative bicycle and pedestrian facilities meeting these criteria are provided within the corridor</p> <ul style="list-style-type: none"> • 8 ft. width in commercial areas • 5 ft width in residential areas. 6 ft. width should be provided in high pedestrian volume areas with frequent two-way foot traffic <p>All sidewalks and intersections with vehicle lanes should meet ADA specifications.</p>
Driveways:	Minimize number of driveways. Use current CDOT or City code criteria
Center Median:	Center medians are encouraged and may be required to restrict turning movements
Min. Right-of-Way Width:	75' minimum width required <ul style="list-style-type: none"> • Wider right-of-way required to accommodate parking, commercial sidewalks, shoulders and ditches
Minimum Grade	1.0%
Maximum Grade	6.0%

Table 5-2 Minor Arterial Specifications

Street Function:	Provide mobility for through traffic, access to significant destinations and, to a lesser extent, provide access to individual properties
Connectivity:	Collects traffic from collector streets and supplements the principal arterial system
Average Daily Traffic:	5,000 to 10,000 motor vehicle trips per day
Managed Speed:	25 mph–40 mph
Motor Vehicle Travel Lanes:	<ul style="list-style-type: none"> • 11'–12' travel lanes • Number of lanes based on street capacity required
Bike Lanes:	<ul style="list-style-type: none"> • To be provided on both sides of the street, unless a separated multi-use path is provided. • 6' width is preferred for one way travel. Lesser widths down to 4' may be acceptable on existing streets with width constraints, <u>exclusive of the gutter</u>. • Bike symbol pavement markings are required
Parking:	<ul style="list-style-type: none"> • On-street parking generally not provided on minor arterials • Parking may be provided as a traffic calming feature and to meet parking demand when minor arterials traverse a neighborhood with existing driveway accesses or commercial properties fronting the street
Curb and Gutter: (or Shoulders with Ditches)	<ul style="list-style-type: none"> • 6" vertical/barrier curb required. Gutter width as needed for drainage. Minimum 1.5' gutter; <u>OR</u> • 4' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	<p>As necessary to meet all uses</p> <ul style="list-style-type: none"> • Additional width to be provided to accommodate parking if necessary • Additional width may be provided if necessary for drainage • Narrower width may be provided for existing constrained streets where no bike path can be provided or where a separate parallel bike path exists
Buffer Strip	<ul style="list-style-type: none"> • 5' landscaped strip required between sidewalk and vehicle travel lanes. • If arterial road serves a commercial area with on-street parking, then partially hardscaped planting strip is permitted
Sidewalks and Min. Sidewalk Widths:	<p>Sidewalks required on both sides of street unless alternative bicycle and pedestrian facilities meeting these criteria are provided within the corridor</p> <ul style="list-style-type: none"> • 8 ft. width in commercial areas • 5 ft width in residential areas. 6 ft. width should be provided in high pedestrian volume areas with frequent two-way foot traffic <p>All sidewalks and intersections with vehicle lanes should meet ADA specifications.</p>
Driveways:	Minimize number of driveways. Use current City code criteria
Center Median:	A landscaped center median may be required for access control, 4' minimum width measured between back of curbs
Min. Right-of-Way Width:	<p>75' minimum width required</p> <ul style="list-style-type: none"> • Wider right-of-way required to accommodate parking, commercial sidewalks, medians, shoulders and ditches
Minimum Grade	1.0%
Maximum Grade	6.0%

Table 5-3 Collector Specifications

Street Function:	Provide access in and out of the primary commercial areas
Connectivity:	Collects traffic from within commercial areas or residential areas and connects these areas with the major street network.
Average Daily Traffic:	1,500 to 5,000 motor vehicle trips per day
Managed Speed:	20 mph–25 mph
Motor Vehicle Travel Lanes:	<ul style="list-style-type: none"> Two 10'–12' travel lanes
Bike Lanes:	<ul style="list-style-type: none"> To be provided on both sides of the street 6' width is preferred. Lesser widths down to 4' may be acceptable on existing streets with width constraints, <u>exclusive of the gutter</u>. Bike symbol pavement markings required
Parking:	<ul style="list-style-type: none"> One 8' lane for Parking One Side Two 8' lanes for Parking Both Sides Parking may be provided in 7' wide bays rather than a continuous on-street parking lane
Curb and Gutter: (or Shoulders with Ditches)	<ul style="list-style-type: none"> 6" vertical/barrier curb required. Gutter width as needed for drainage. Minimum 1.5' gutter; <u>OR</u> 4' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	<ul style="list-style-type: none"> As necessary to accommodate all uses Additional width may be provided in gutter if necessary for drainage Narrower width may be provided for existing constrained streets where no bike path can be provided or where a separate parallel bike path exists
Buffer Strip	<ul style="list-style-type: none"> 5' landscaped strip required between sidewalk and vehicle travel lanes. If collector road serves a commercial area with on-street parking, then partially landscaped planting strip is permitted
Sidewalks and Min. Sidewalk Widths:	<p>Sidewalks required on both sides of street</p> <ul style="list-style-type: none"> 8 ft. width in commercial areas 5 ft width in residential areas <p>All sidewalks and intersections with vehicle lanes should meet ADA specifications.</p>
Driveways:	Use standards in this section
Center Median:	A landscaped center median may be required for traffic calming
Min. Right-of-Way Width:	<p>80' minimum width required</p> <ul style="list-style-type: none"> Wider right-of-way required to accommodate parking, commercial sidewalks, medians, shoulders and ditches
Minimum Grade	1.0%
Maximum Grade	8.0%

Table 5-4 Local Street Specifications

Street Function:	Provide access to individual residential units and commercial areas
Connectivity:	Connects to higher order streets
Average Daily Traffic:	1,500 or less motor vehicle trips per day
Managed Speed:	15 mph–25 mph
Motor Vehicle Travel Lanes:	10' to 11' travel lanes
Bike Lanes:	Generally not needed on low volume/low travel speed streets
Parking:	As required <ul style="list-style-type: none"> • One 8' lane for parking one side • Two 8' lanes for parking both sides. • Parking may be provided in 7' wide bays rather than a continuous on-street parking lane
Curb and Gutter: (or Shoulders with Ditches)	<ul style="list-style-type: none"> • If curb and gutter is used, it shall be 6" vertical/barrier curb. Gutter width as needed for drainage. Minimum 1.5' gutter; <u>OR</u> • If curb and gutter is not used, 2' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Curb Width:	<ul style="list-style-type: none"> • As necessary to accommodate all uses
Buffer Strip	<ul style="list-style-type: none"> • 5' landscaped strip required between sidewalk and vehicle travel lanes. • If local street serves a commercial area with on-street parking, then partially landscaped planting strip is acceptable
Sidewalks and Min. Sidewalk Widths:	<p>Sidewalks required on both sides of street</p> <ul style="list-style-type: none"> • 8 ft. width in commercial areas • 5 ft width in residential areas. <p>All sidewalks and intersections with vehicle lanes should meet ADA specifications.</p>
Driveways:	Use standards in this section
Center Median:	None
Min. Right-of-Way Width:	75' minimum width required
Minimum Grade	1.0%
Maximum Grade	10.0%

Table 5-5 Alley Specifications

Street Function:	Provide access to the rear of individual residential units and commercial areas
Connectivity:	Connects to higher order streets
Average Daily Traffic:	500 or less motor vehicle trips per day
Managed Speed:	10 mph
Motor Vehicle Travel Width:	20' minimum total width
Bike Lanes:	None
Parking:	None
Curb and Gutter:	Concrete pan at alley center, or cross sloped alley to pan or curb and gutter on one side.
Buffer Strip	None
Sidewalks and Min. Sidewalk Widths:	None
Driveways:	Use standards in this section
Center Median:	None
Min. Right-of-Way Width:	25'
Minimum Grade	1.0%
Maximum Grade	10.0%

Table 5-6 Private Street Specification

Street Function:	Provide access to individual residential units and commercial areas
Connectivity:	Connects to higher order streets
Average Daily Traffic:	NA
Managed Speed:	25 mph
Motor Vehicle Travel Lanes:	10' to 11' travel lanes
Bike Lanes:	Based on development negotiations
Parking:	Based on development negotiations
Curb and Gutter: (or Shoulders with Ditches)	<ul style="list-style-type: none"> • If curb and gutter is used, it shall be 6" vertical/barrier curb. Gutter width as needed for drainage. Minimum 1.5' gutter; <u>OR</u> • If curb and gutter is not used, 2' minimum shoulder width with adequate ditch sections designed in accordance with the Stormwater Standards
Curb-to-Width:	23' minimum
Buffer Strip	Based on development negotiations
Sidewalks and Min. Sidewalk Widths:	<p>Sidewalks required on both sides of street</p> <ul style="list-style-type: none"> • 8 ft. width in commercial areas • 5 ft width in residential areas. <p>All sidewalks and intersections with vehicle lanes should meet ADA specifications.</p>
Driveways:	Use standards in this section
Center Median:	None
Min. Right-of-Way Width:	No right-of-way required
Minimum Grade	1.0%
Maximum Grade	10.0%

5.2.3 STREET DESIGN STANDARDS

A. Goals

The City transportation system should encourage alternate mode use, especially walking and bicycling, by working toward a safe balance of all street users, including automobiles, trucks, bicycles and pedestrians.

B. Objectives

1. Standards should create safer routes for all modes.
2. Standards should optimize the use of the limited physical capacity of streets and balance street design so it does not favor motorized traffic.
3. Intermodal connections within the transportation system should be created, enhanced and improved.
4. Street design should enhance bicycle safety for its own sake and as a traffic calming measure.
5. Street design should enhance and improve the pedestrian safety and comfort and encourage non-motorized modes of travel.
6. Street design should provide safe, convenient and inviting access for transit users.
7. Standards should balance emergency service needs with other objectives.
8. Residential streets and street networks should be designed to discourage speeds above 25 mph.
9. Street standards should protect the local entity's infrastructure investment by establishing standardized design, materials, construction and repair criteria for all public improvements.
10. Standards should discourage parking on sidewalks.
11. Standards should enhance and beautify the streetscape and pedestrian environment by bringing landscaping closer to the street.
12. Standards should assure that drainage facilities do not create hazards for cyclists and pedestrians.
13. Standards should assure that bicycle, pedestrian and vehicular uses of streets are the primary uses thereof and that the streets are properly maintained during construction and repair work.
14. Standards should have streets designed to not be barriers to personal interaction.
15. Standards should be designed to minimize additional pavement in Glenwood Springs.

Table 5-7 Street Design Standards Summary

Design Criteria	Functional Classification				
	Principal Arterial	Minor Arterial	Commercial Collector	Neighborhood Collector	Local Street
Design Capacity VPD	> 10,000	5,000 - 10,000	1,500 – 5,000	1,500 – 5,000	< 1,500
Minimum R.O.W.	75'	75'	80'	80'	75'
Pavement Width, Flowline to Flowline	25' Min.	25' Min.	23' Min.	23' Min.	23' Min.
Driving Lanes	11'-12' 2 – 4 Lanes	11'-12' 2 – 4 Lanes	10'-12' 2 Lanes	10'-12' 2 Lanes	10'-11' 2 Lanes
Center Median	Preferred for Left Turns	As needed for Access Control	As needed for Traffic Calming	As needed for Traffic Calming	None
Parking	None	None	8' Lane(s) See Table 5-3	8' Lane(s) See Table 5-3	8' Lane(s) See Table 5-4
Shoulder Lanes	4' Min. w/out C&G	4' Min. w/out C&G	4' Min. w/out C&G	4' Min. w/out C&G	2' Min. w/out C&G
Bike Lanes	Not Required	2 at 6' (4' Min.)	2 at 6' (4' Min.)	2 at 6' (4' Min.)	Not Required
Curb Style	Vertical	Vertical	Vertical	Vertical	Vertical or Mountable
Gutter	18-inch	18-inch	18-inch	18-inch	18-inch
Multi-Use Path	10' or 5' See Table 5-1	10' or 5' See Table 5-2	Not Required	Not Required	Not Required
Sidewalk	5'-8' See Table 5-1	5'-8' See Table 5-2	8'	5'	5'-8' See Table 5-4
Landscape Buffer	5'	5'	See Table 5-3	5'	5'
Minimum Cross Slope	2.0%	2.0%	2.0%	2.0%	2.0%
Maximum Cross Slope	2.5%	2.5%	2.5%	2.5%	2.5%
Maximum Crown Line Cross Over	5.0%	5.0%	5.0%	5.0%	5.0%
Design Speed	45 MPH	40 MPH	25 MPH	25 MPH	25 MPH
Grade	1.0% Min. 6.0% Max.	1.0% Min. 6.0% Max.	1.0% Min. 8.0% Max.	1.0% Min. 8.0% Max.	1.0% Min. 10.0% Max.

Note: Refer to current AASHTO [Policy on Geometric Design of Highways and Streets](#) for roadway design values (e.g. vertical curve K values, minimum horizontal curve radii, etc.)

5.2.4 STREET GEOMETRIC DESIGN

A. Minimum Requirements

Except for State Highways, all City streets shall be designed in conformance with this section. The design standards outlined in this section are minimum design standards, and all new street design shall meet or exceed these standards. On streets designated as collector or arterial streets, the City Engineer may specify standards to be applied to street design that may exceed the minimum standards in this section based on functional need or to ensure safe and efficient operation of the street. Existing streets that are modified with development shall meet the minimum requirements herein, unless approved by the City Engineer.

B. Right-of-Way

Right-of-Way width is usually determined by the functional classification of a street with exceptions as noted in this chapter, or as allowed expressly by the City Engineer. The right-of-way width required for new streets shall comply with the requirements of Table 5-1 through Table 5-6; and shall include, without limitation, the following elements:

1. The paved roadway section including without limitation travel lanes, turning and speed change lanes transit lanes, bicycle lanes, and parking lanes;
2. Curbs and gutters or drainage swales;
3. Roadside and median landscaping areas;
4. Sidewalks and multi-use paths; and
5. Any necessary utility corridors.
6. Snow storage areas

Right-of-Way requirements may be increased if additional lanes, pockets for turning movements, transit lanes, bus loading zones, operational speed adjustments, bike lanes, utilities, schools, or other factors are required to be accommodated as determined by the City Engineer and CDOT.

C. Lane and Street Width

1. Street lanes shall meet the minimum width specifications shown in Table 5-1 through Table 5-6.
2. Street widths shall be measured from edge of lane to edge of lane (not including curb pan) on streets with concrete curb and gutter. Streets less than 24 feet wide may be required to be posted with "No Parking" restrictions due to the potential for restricting emergency vehicle access.

D. Horizontal Alignment

1. Extension to Property Line: All street sections shall be extended through the property to maintain connectivity, unless the street to be constructed has been approved by the City Engineer as a cul-de-sac or as a no outlet street.

2. Horizontal Curve: Street curvatures shall meet the specifications shown in the AASHTO Policy on Geometric Design of Highways and Streets.
3. Intersections and Street Spacing
 - a. Angles: To the greatest extent feasible, all streets and driveways shall intersect at right angles (90°), with no intersecting angles of less than 80° or greater than 100°.
 - b. Street Spacing for Signalized Intersections: Signalized intersections shall be spaced at half-mile intervals, although other locations may be approved by the City Engineer if adequate signal progression can be maintained.
 - c. Spacing for Non-Signalized Intersections: Spacing between adjacent intersecting streets, whether crossing or "T" should be as shown in Table 5-8.

Table 5-8 Spacing Between Adjacent Streets

Highest Classification Involved	Minimum Centerline Offset
Principal Arterial	500 feet
Minor Arterial	400 feet
Collector	300 feet
Local Street	150 feet
Alley	100 feet
Private Street	150 feet

- d. Corner Radii: The minimum property line corner and flowline radii at intersections shall meet or exceed the minimum radii specifications shown in Table 5-9. When different class streets intersect, the higher standard shall apply on offsets and curb radii. Street intersection with non-standard cross sections or not at ninety degree (90°) angles will require truck turning analysis for both the wheel base and the overhang path. The truck turning analysis shall be submitted to the City Engineer for review. Deviations require the approval of the City Engineer.

Table 5-9 Minimum Intersection Radii

Street Type	Minimum Flowline Radius
Alleys	15 feet
Private Roads	20 feet
Local Street	20 feet
Collectors	30 feet
Arterials	40 feet

- e. Traffic control will be as specified in the MUTCD or as modified by the City Engineer as a result of appropriate traffic engineering studies.
 - f. The use of offset intersections should be avoided wherever possible. Street intersections shall be laid out so as to intersect as nearly as possible at right angles. For reasons of traffic safety, a "T" intersection (three-legged) with minimum offsets preferable to a crossroad (four-legged) intersection for local access streets. For safe design, the following types of intersection features should be avoided:
 - Intersections with more than four intersecting streets.
 - Intersections adjacent to bridges and other permanent sight obstructions.
 - g. Pedestrian/Wheelchair ramps shall be provided on each quadrant of an intersection from which pedestrian movement is permitted. Ramps shall be designed in accordance with the CDOT standards or other design standards that meet the Americans with Disability Act (ADA).
 - h. Crosswalk markings will usually be installed at the following intersections:
 - At controlled intersections;
 - At any intersection located along a formally established "School Route".
 - At any intersection with a formalized bike/ pedestrian trail
 - By request, with the approval of the City Engineer.

Crosswalks shall be striped with high visibility, reflective Continental Style markings, with 2' wide crosswalk bars separated by 2' spaces. If the crosswalk is colored concrete, the crosswalk shall be striped with 1' wide transverse lines defining the limits of the crosswalk from the street or intersection. Minimum crosswalk width is 8', but the width should match the width of the connecting trail or sidewalk.
 - i. Intersections should be designed to avoid the sheet flow of water across the intersection of all roadways classified as arterial or collector streets. Where practicable, runoff water should be carried under the intersection via catch basins and storm drains.
 - j. The right-of-way requirements for intersection approaches may be increased for such special intersection elements as raised median channelization, multiple left turn lanes, exclusive and/or "free" right turn lanes, turn lanes to accommodate large wheel base vehicles, bus turn outs, etc.
 - k. Where a traffic engineering study is required and the data supports the installation of traffic circles or roundabouts, they shall be designed in accordance with *Roundabouts: An Informational Guide (Second Edition)* NCHRP Report 672.
4. Road Width Transition Tapers: Where two street sections of different widths and same number of lanes are to be connected, a redirect taper is required between the outside traveled edge of the two sections. The length of the redirect taper shall be calculated in accordance with the Colorado Department of Transportation (CDOT) State Highway

Access Code (SHAC) Table 4-9.

5. Left Turn Lanes

- a. Storage Length: Left turn lane storage length shall be determined based on traffic volumes using the Leisch nomographs provided in the ITE *Guidelines for Major Urban Street Design*. The left turn lane storage length shall not be less than 50 feet. Where dual left turn lanes are provided, the lane storage length shall be based on at least 60 percent of the single lane storage length.
- b. Taper: Left turn lane tapers shall be calculated in accordance with the CDOT SHAC Table 4-6.

6. Speed Change Lanes: Speed change lanes required for transitional access to turning lanes shall be designed according to the design standards provided in Section 4-8 of the CDOT SHAC.

- a. Speed Change Lane Tapers: It is recommended that bay tapers (asymmetrical reverse curves) be used for deceleration transition tapers and that straight transition tapers be used for acceleration transition tapers. The taper length shall be calculated using CDOT SHAC Table 4-6 and be designed in accordance with CDOT SHAC Section 4-8(5).

7. Redirect Tapers: Where it is necessary to redirect vehicles on the traveled way, redirect tapers shall be installed according to table 4–9 of the CDOT SHAC. Cul-de-sacs: Where allowed, cul-de-sacs shall have a minimum diameter of 96 feet, curb face to curb face, and a minimum right-of-way diameter of 115 feet, except for residential streets. Cul-de-sacs are prohibited on arterial and collector streets.

E. Vertical Alignment

- 1. Minimum Street Grade: All new street grades shall equal or exceed the minimum street grade of 1.0 percent.
- 2. Maximum Street Grade: All new street grades shall not exceed the maximum street grades shown in Table 5-10.

Table 5-10 Maximum Street Grades

Street Type	Maximum Street Grade
Principal and Minor Arterial	6%
Commercial and Neighborhood Collector	8%
Local Street, Alley, Private Street	10%
Driveway and Intersection Approach (Min. 50')	4%
Signalized Intersection Approach (Min. 50')	3%

- 3. Design Controls for Vertical Curves: Design control for sag and crest vertical curves shall meet the requirements in the current edition of the AASHTO Policy on Geometric

Design of Highways and Streets.

- 4. Vertical Sight Distance: Minimum vertical curve sight distance shall equal or exceed the minimum values set by speed and grade in the current edition of the AASHTO Policy on Geometric Design of Highways and Streets. Greater vertical sight distance may be required by the City Engineer to ensure safe travel and street crossings for all transportation modes.

F. Medians

The City Engineer may require raised medians or landscaped raised medians on arterial streets to restrict conflicting turning movements. Raised landscaped medians may also be required on collector streets for aesthetics or traffic calming reasons.

- 1. Median Widths: Medians shall be at least 4 feet wide, measured between back of curbs. If left turn lanes are installed in the median, the median width adjacent to the left turn storage lanes shall be 4 feet and the median width at the start of the left turn lane bay taper shall be at least 14 feet wide, measured between back of curbs. Median design widths shall conform to Table 5-11.

Table 5-11 Median Width Design Standards

Function	Minimum Width
Separation of Opposing Traffic	4 feet*
Pedestrian Refuge or Traffic Device Location	6 feet*
Left Turn Lane Median	12 feet

- 2. Landscaping in Medians: Landscaping in medians shall be designed to survive harsh roadway conditions and shall comply with the requirements of the City Municipal Code.

- G. Vertical Clearance to Structures: Vertical clearance is measured from the high point within the entire roadway width to the lowest portion of the structure. If the undercrossing roadway or overcrossing structure may be widened in the future, adequate vertical clearance shall be provided to accommodate the future condition. The vertical clearance of structures shall be in conformance with the current edition of the AASHTO Policy on Geometric Design of Highways and Streets for the Functional Classification of the roadway. In no case shall the vertical clearance be less than 14 feet.

5.2.5 STREET FRONTAGE IMPROVEMENTS

- A. Street frontage in this Section indicates any part of a lot that is adjacent to a public or private street.
- B. All commercial and residential (including multi-family) developments, subdivisions and plats shall install street frontage improvements at the time of construction as required by City

standards and Municipal Code. Such improvements, meeting the requirements of the City's Standards, or as approved in writing by the City Engineer, may include curb and gutter, sidewalk, storm drainage, lighting, traffic control devices and signals, utility relocation and/or undergrounding, street trees and street widening.

C. All frontage improvements shall be made across the full frontage of the property and shall match the adjacent street improvements and install the required minimum street section. Offsite transitions (tapers) may be required to meet the existing the existing conditions.

D. Exception: When the City determines that there are compelling reasons why all or some of the required improvements cannot be accomplished at the time of building construction, the City may allow, at its sole discretion, a recorded agreement which provides for these improvements be installed at a later date by the applicant. This may be accomplished by one of the following methods:

1. The applicant provides a Performance Bond for 125% of the estimated cost to do the work,
2. An assignment of savings is agreed upon, wherein the applicant deposits into a joint account an amount equal to the cost of the work,
3. The applicant provides a cashier's check or an irrevocable letter of credit in the amount of the estimated cost to do the work.
4. The applicant provides Payment in Lieu per the Municipal Code requirements.

Commented [MF1]: City to verify this section with City Attorney

5.2.6 TEMPORARY DEAD ENDS

Where a street is temporarily dead ended, an all-weather turn around shall be provided per the International Fire Code.

5.2.7 RIGHT OF WAY

All right-of-way shall be conveyed to the City on a recorded plat and by warranty deed.

5.2.8 NAMING AND ADDRESSES

Streets shall be numbered according to the American Society of Planning Officials (ASPO) Report Number 332, *Street Naming and Property Numbering Systems*, by Margaret A. Corwin and *Street Naming and Property Numbering for Small Cities* by Southwest Georgia Planning and Development Commission, Camilla Georgia. Names for new streets shall be submitted for approval during the platting process. Street numbers shall be included on each lot of the plat.

5.2.9 SIGNING

The developer is responsible for providing all construction traffic control signs, devices and flagging. The developer is also responsible for permanent traffic control devices, street signs and any other required signs. Traffic control signing and devices shall comply with the provisions as established in the most current edition of the FHWA *Manual on Uniform Traffic Control Devices (MUTCD)*. Street designation signs shall display street names, and be constructed in accordance with the most current MUTCD standard.

5.2.10 SITE ACCESS AND DRIVEWAYS

A. General

1. The terms “access”, “access point” and “driveway” are used interchangeably throughout this section.
- ~~2. All accesses and curb cuts shall be designed and constructed in compliance with these Standards.~~
- ~~3.2.~~ All accesses and curb cuts proposed and constructed on City streets and alleys require a Right of Way permit.
- ~~4.3.~~ ~~In curbed areas,~~ All access aprons shall be constructed of concrete or asphalt, and shall be subject to the same testing and inspection requirements as curb, gutter, and sidewalk construction. Access aprons shall be constructed in accordance with the applicable Standard Detail ~~(T.x)~~ Drawing(s) in the Appendix attached to this Chapter. ~~Use of exposed aggregate or other non-standard finish (including colors or dyes) within the public right-of-way shall only be permitted with written agreement of the City Engineer.~~
- ~~5. In areas without a curb, either an asphalt or concrete driveway apron is permitted. Access aprons shall be constructed in accordance with the applicable Standard Detail Drawing(s) in the Appendix attached to this Chapter.~~
- ~~6. Private access onto any arterial or collector street shall be designed to permit user vehicles to enter and exit in forward drive.~~
- ~~7. No access apron shall extend into the street further than the existing or proposed face of the curb.~~
- ~~8.4.~~ Access points at intersections shall be located as far as practical from the corner – see Access Spacing requirements in Table 5-12.
- ~~9.5.~~ No access may be located so as to conflict with power poles, street lights, fire hydrants, or other above-ground public facilities.
- ~~10. Culverts for access points are required when the street is not improved with curb and gutter. Refer to Chapter 4 for stormwater design requirements.~~
- ~~11.6.~~ ~~As provided by Section 43-2-147, C.R.S., as amended, any~~ Any development requiring access onto ~~or adjacent to~~ a state highway shall obtain a permit for such access in accordance with the Colorado State Highway Access Control Code before the issuance of a ~~development~~ City permit. ~~In the City of Glenwood Springs, this~~ This provision applies to State Highway 6 and State Highway 82. On State Highway 82 (Grand Avenue/South Glen Avenue), the City and CDOT have implemented an Access Control Plan. ~~Driveway location and proposed intersection control along this corridor are controlled by this document.~~ A CDOT access permit ~~will be~~ may be required or updated

for use.

7. Commercial and industrial driveways shall be designed so as to reduce the number and proximity of access points along public rights-of-way.

~~12.8.~~ Residential driveways are limited to one curb cut.

~~13.9.~~ ~~All~~ Driveways to commercial or mixed use developments that are greater than 24' wide ~~shall~~ ~~may~~ require a ~~provide~~ median ~~s~~ in conformance with ~~Table 5-14~~ See Table 5-11 for median standards.

10. ~~Private~~ Access onto any arterial or collector street, as designated in the City's Street Classification Map, shall be designed ~~to permit user vehicles to enter and exit in forward drive~~ such that all vehicles enter and exit in forward drive.

~~14.11.~~ Driveways giving direct access onto arterials will be denied if alternate non-arterial access is available.

~~B. Driveways on Arterial Streets: CDOT design standards for driveway location apply to SH6. The City's Access Control Plan sets the locations for driveways and access points along SH 82 within the City boundary. City Standards and Guidelines apply to arterial streets under City jurisdiction. In addition, the following shall apply:~~

- ~~1. Access to arterials streets within the City shall be limited to one driveway for each tract of property separately owned. Properties contiguous to each other and owned by the same person or entity are considered to be one tract.~~
- ~~2. Driveways giving direct access onto arterials may be denied if alternate non-arterial access is available.~~
- ~~3. Deviations from the arterial driveway standards require approval by the City Engineer.~~

C.B. Location of Access

1. **Spacing:** Table 5-12 provides the required spacing of access points and curb cuts onto different street types. Minimum spacing from corners shall be measured from point of intersection of the street flow lines. ~~Minimum spacing between accesses shall be measured at the property line. Shared access or minimum access spacing may be permitted with approval by the City Engineer.~~

Table 5-12 Access Spacing Requirements

For Access Onto Street Classification	Minimum Spacing (measured from edge of access*)			
	Single Family Residential	Other Residential	Commercial	Industrial
Local Streets				
- from property line	15' ¹	15'	15'	15'
- from corner*	50' ¹	50'	50'	50'
- between accesses	30' ¹	30'	30'	30'
Collector Streets				
- from property line	15' ¹ Note 4	15'	15'	15'
- from corner*	50' ¹ (Note 1)	50'	50'	50'
- between accesses	30' ¹ Note 4	30'	30'	30'
Arterial Streets				
- from property line	75' ^{1,2} Notes 1, 2	75'	75'	75'
- from corner*	150' ^{1,2} Notes 1, 2	150'	150'	150'
- between accesses	250' ^{1,2} Notes 1, 2	250'	250'	250'

* ~~Defined as the intersection of the two street flow lines~~ City Street Classification can be found here <https://cogs.us/211/City-Maps>

Note 1: Permitted when no other access is available.

Note 2: For access onto SH-82, Access Points are set by the Access Control Plan

2. **Alignment:** Accesses shall intersect City streets at a right angle (90°), with no intersecting angles of less than 80° or greater than 100°. Accesses controlled by a center median or access island, shall either be aligned, or offset by at least 150 feet on collectors, or at least 300 feet on arterials. Greater offsets may be required if left-turn storage lanes are required.
3. ~~Relocation of Existing Access Points and Curb Cuts: Relocation, alteration, or reconstruction of any existing access points and curb cuts shall meet the requirements of these Standards.~~

D.C. Sight Distance

All access points and curb cuts shall provide adequate sight distance as set forth in Section 5.2.11. Restriction of Turning Movements

E.D. Barrier Islands and Medians

Along streets designated as arterial, or, where required by the City's Access Control Plan, or where necessary for the safe and efficient movement of traffic, the City will require access points and curb cuts to be consolidated and to provide for only limited turning movements, as follows:

1. Access with Barrier Island - Left-Turn Restrictions ("Pork Chop"): Where restricted turning movements are required by the City, and where the abutting street does not have a median, a barrier island may be required.
 - a. ~~Barrier islands shall have a minimum area of 150 square feet, be bounded by vertical curb, and have an appropriate concrete center surface treatment, design shall approved~~ be approved by the City Engineer.
 - b. Access drives around barrier islands shall be at least 12 feet wide, have a radius of at least 20 feet, and be designed to accommodate the largest vehicle using the access on a daily basis ~~or at a minimum design to accommodate the City Fire Engine~~. The barrier island shall provide congruent curb ramps or cut through for sidewalks. ~~The minimum width of the island along the abutting roadway frontage shall be 30 feet for right in, right out only islands, and 15 feet for islands allowing right in, right out and left turning movements.~~
- ~~2. Access with Median Divider Barriers — Left-Turn Restrictions: Median barriers may be required where a median design can improve traffic circulation and safety, or overall site access. Where required, medians shall be at least 4 feet wide, and shall extend at least 25 feet beyond the edge of the access point.~~

F.E. Traffic Control and Signage

All accesses shall be designed and constructed with appropriate traffic control and signage conforming to the MUTCD, and these Standards.

G.F. Speed Change Auxiliary Turn Lanes

~~Speed change Auxiliary turn~~ lanes shall be required on collectors or arterials when the design hour vehicles from the access will meet or exceed the standards in Section 4.8 of the Colorado State Highway Access Code. Design of speed change lanes shall conform with these Standards.

H.G. Access and Curb Cut Type

1. Driveway Ramp and Curb Cut: All new accesses and curb cuts shall be designed as driveway ramps and curb cuts, using the standard ramp driveway details provided in these Standards, except along streets where no curb and gutter exists.
2. Driveway Curb Return Radii: Radii for curb return accesses will be required by the City Engineer under the following conditions:

a. The access is located along an arterial or collector.

~~b. Access volumes indicate a need for a radii curb return where the ADT for the proposed development exceeds 500 vehicles per day or where speed change lanes are required.~~

~~e-b.~~ The access is designed to restrict turning movements, requiring the installation of an access island or center median.

~~e-c.~~ The roadway has no curb and gutter.

~~e-d.~~ The access serves an industrial property, or provides for commercial deliveries, where large truck movements are required.

~~f-e.~~ The City Engineer determines that a radii access is necessary to ensure adequate traffic safety and operation.

~~g-f.~~ The access is for a new public street

~~I-H.~~ Access and Curb Cut Width

Access and curb cut widths shall be consistent with Table 5-13. The width of each access shall be the minimum width that is necessary to serve the property and use. All access widths are measured from edge of pavement to edge of pavement (or curb to curb) at the throat of the driveway ~~(or edge of the right-of-way)~~, and are not inclusive of drive cut transitions or curb return radii.

~~J.~~ Access and Curb Cut Radii

~~Access and curb cut radii shall meet the specifications shown in Table 5-13. All radii are measured from the flowline or from the edge of the pavement where no flowline exists.~~

~~K-I.~~ Access and Curb Cut Grades

Access and curb cut grades shall be consistent with Table 5-13. The initial grade (G1) shall be a positive grade, beginning at the back of the sidewalk, the back of the driveway ramp or pan section, or the edge of the pavement (where no curb and gutter exists), and shall continue at least 10 feet beyond the right-of-way. The final grade (G2) may be positive or negative, depending on the access conditions. The maximum grade break (or change in slope) shall apply at all grade changes.

Table 5-13 Access Design Specifications

	Single Family Residential	Other Residential	Commercial	Industrial
Width				
- Minimum	10' ²	15' ²	15' ²	20' ²
- Maximum	20'	35' ³⁰	35' ⁴⁰	35' ⁴⁰
- One-Way Lane	N/A	12'-18'	12'-20'	14'-24'
Curb Cut Radii				
- Minimum	N/A ⁵ ¹	15'	15'	20'
- Maximum	N/A ¹⁰	30'	30'	40'
Access Grades				
Initial Grade (G1 to a point 10 feet beyond R.O.W.)				
- Minimum	(+) 3 ² %	(+) 4 ² %	(+) 4 ² %	(+) 4 ² %
- Maximum	(+) 8%	(+) 6 ⁸ %	(+) 6%	(+) 6%
Final Grade (G2)				
- Minimum	(±) 3 ² %	(±) 4 ² %	(±) 4 ² %	(±) 4 ² %
- Maximum	(±) 12%	(±) 8 ¹⁰ %	(±) 8%	(±) 8%
Max. Grade Break	(±) 10 ⁸ %	(±) 6 ⁸ %	(±) 6 ⁸ %	(±) 6 ⁸ %

Note:

1. Only applicable on arterial and collector streets.
2. Unless otherwise determined by the Fire Marshal.

Driveways

1. Vehicle Storage: Adequate driveway storage capacity for both inbound and outbound vehicles to facilitate safe, unobstructed, and efficient traffic circulation and movements from the adjacent roadway and within the development shall be provided, except for single-family or duplex residential driveways on local streets. Adequate driveway length will be subject to approval by the City Engineer ~~and shall extend at least 10 feet beyond the right-of-way before accessing the first off-street parking space or parking lot aisle.~~
2. Internal Circulation: Developments requiring off-street parking facilities shall provide onsite vehicular circulation allowing access to all portions of the site without using the adjacent street system, unless a joint access or parking easement with one or more of the adjacent property owners has been dedicated-
3. Backing into the Right-of-Way Prohibited: Driveways shall be designed to contain all

vehicle backing movements onsite, except for single family or duplex residential uses on local streets. [Triplex and Duplex residential uses may be considered in alleyways by City Engineer approval only.](#)

4. Shared Driveways: Shared driveways are allowed and should be designed to meet the following criteria:
 - a. Adequate turnaround for vehicles is provided on both lots.
 - b. The driveway is properly engineered and constructed to mitigate any adverse drainage conditions and is appropriately surfaced for the type of development, usage, and zoning district.
 - c. The driveway ~~is at least 12 feet wide, and shall not exceed 35' in width, must meet Table 5.13 other residential standards.~~
 - d. A public access easement, a minimum fifteen feet in width, for the benefit and use of all properties and property owners accessing the shared driveway has been dedicated and recorded to ensure legal access rights in perpetuity for each property served.
 - e. Driveway spacing in conformance with the requirements in Table 5-12 of these Standards; or on State Highway 82, meeting the requirements of the Access Control Plan.

5.2.11 STREET INTERSECTION SIGHT OBSTRUCTION

Providing adequate sight distance is critical in ~~sound~~ intersection design. Unobstructed views of the intersection area shall be provided for approaching motor vehicles, bicyclists, and pedestrians for safety and for appropriate reaction time. The primary concerns for location of a new access are the sight distance along the roadway (for vehicles turning into the access) and the sight distance for vehicles entering the highway from the access point. Excerpts from Tables 4-1 and 4-2 from the latest version of the CDOT State Highway Access Code (SHAC) are provided in Table 5-14 and Table 5-15 as the minimum design standards for horizontal sight distance.

Table 5-14 Sight Distance Along Highway

Posted Speed in MPH	25	30	35	40	45	50	55
Design Sight Distance (in feet)	150	200	250	325	400	475	550
Minimum Sight Distance (in feet)	150	200	225	275	325	400	450

Ref: CDOT [State Highway Access Code](#) Table 4-1
Adjustments due to grade (SHAC Table 4-4) shall be applied

Table 5-15 Entering Sight Distance (in feet)

Vehicle expected to enter or cross highway*	Posted Speed in MPH						
	25	30	35	40	45	50	55
Two Lane Roadway							
Passenger Cars, Pickup Trucks	250	300	350	400	450	500	550
Single Unit Trucks > 10,000 lb GVW	325	390	455	520	585	650	715

Multi-Unit Trucks	425	510	595	680	765	850	935
Four Lane Roadway							
Passenger Cars, Pickup Trucks	300	360	420	480	540	600	660
Single Unit Trucks > 10,000 lb GVW	375	450	525	600	675	750	825
Multi-Unit Trucks	500	600	700	800	900	1000	1100

Ref: CDOT State Highway Access Code Table 4-2

*Vehicles determination from SHAC Table 4-3

Adjustments due to grade (SHAC Table 4-4) shall be applied

- A. General. No sign, fence, hedge, shrub, tree or other natural growth or obstruction installed, set out or maintained which obstructs the view of motor vehicle operators at an intersection within the sight areas defined in this section. For the purpose of this standard, "intersection" shall include: the intersection of two public streets; the intersection of a commercial driveway with a public street; the intersection of a residential driveway with a public street; and the intersection of a private street with a public street.
- B. The sight area at an intersection defined. The area bounded by setback lines, or bounded by setback lines and the edge of the traveled lane. Setbacks for intersection types are as specified in the following paragraphs.

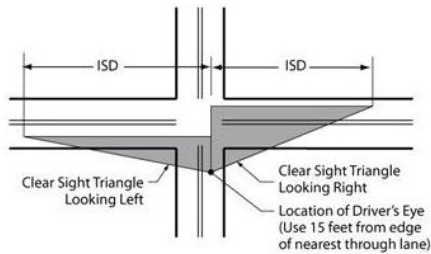


Figure 5-1 Intersection Sight Distance Triangles

- C. Sight Obstruction Height Limits. Sight obstruction, as defined in subsection D of this section, shall not be permitted above a line defined within AASHTO guidelines.
- D. Sight Obstruction Defined. Sight obstructions include, but are not limited to any object, sign, sign post, vegetation, mail box, mail box post, and fence which could obstruct a driver's view. Exceptions to this definition include street lighting, regulatory, warning and guide signs.
- E. Other Sight Obstruction Standards. Where unusual conditions preclude the application of the foregoing provisions of this section in a reasonable manner, or where a special viewing problem exists, the traffic engineer will determine when an intersection view obstruction exists, based on the intent of this section. Every obstruction of the sort prohibited in this section hereafter installed or permitted to remain shall be deemed a violation of this chapter.

5.2.12 SURFACING STRUCTURAL REQUIREMENTS

Due to the varying nature of subgrade soils and the existence of collapsible soils in the City, a geotechnical design of all roadway sections is required for any proposed new street or alley. The roadway structural section design including Hot Mix Asphalt (HMA) or Portland Cement Concrete Pavement (PCCP), Aggregate Base Course, Geotextile Fabric, and Subgrade Stabilization shall be prepared by a Professional Engineer Registered in the State of Colorado specializing in Geotechnical Engineering and based on site specific soil and groundwater conditions. The subgrade stabilization shall be designed and constructed so that the prepared subgrade surface will comply with all of the City's Specifications including compaction and proof-rolling, and shall also be designed to maintain the stabilized condition under all anticipated traffic loading and seasonal fluctuations of temperature and groundwater conditions. Full depth pavement section is not acceptable.

Concrete pavement may be required in areas where heavy truck traffic and busses warrant additional pavement design capacity.

5.2.13 STREET, ALLEY AND SIDEWALK CUTTING, TRENCHING AND PATCHING

A. General

1. All work shall be done in an expedient manner. Use of fast-setting concrete and similar techniques are required unless the contractor or engineer documents in writing that the quality of repair will be compromised. Completion of the work, including replacement of pavement and cleanup, shall be accomplished within one (1) week after the repair work or activity involving the cut is done. This time frame may be adjusted if delays are due to inclement paving weather or other adverse conditions that may exist. However, delaying of the final patch or overlay work is allowable only with the City Engineer's written approval. The City Engineer may deem it necessary to complete the work within the one week time frame and not allow any time extension. If this occurs the contractor shall perform the necessary work as directed by the City Engineer or the work will be completed by the City either with its own personnel or via a secondary contractor billed out at ~~two-three~~ (23) times the rate of the cost of the city's work.
2. ~~Removal and replacement of unsatisfactory work.~~ Removal and replacement of ~~unsatisfactory work that does not meet these standards~~ shall be completed within ~~fifteen~~ thirty (4530) days of written notification of the deficiency unless deemed an emergency requiring immediate action. In the event the replacement work has not been completed, the City will take action upon the contractor's surety or bond to cover all related costs.
- ~~3. The construction of any repair activity within the street or alley rights-of-way shall be accomplished by open cut, jacking, boring, tunneling or a combination of these methods as approved by the permit. The City Engineer shall approve any change from the approved permit.~~
- ~~4.3. No metal tracked vehicles shall be allowed on asphalt or concrete unless approved by the City Engineer.~~
- ~~5. Crossings under sidewalks or curbs may be made by tunneling only when approved by~~

~~the City Engineer. If the contractor elects to remove a portion of the sidewalk or curb, the applicable City standards shall be followed.~~

- ~~6.4.~~ Grading shall be done as necessary to prevent surface water from entering the excavation. Any water accumulation within the trench shall be promptly removed.
- ~~7.5.~~ Surface drainage, driveways, fire hydrants, manholes, water valves, etc., near the work shall be unobstructed by the trenching operation when feasible.
- ~~8.6.~~ In streets that are less than five (5) years old, the City reserves the right to deny any street excavation or require repairs that exceed the requirements set forth in these specifications.
- ~~9.7.~~ All permanent pavement patches and repairs shall be made with "in-kind" materials. For example, concrete patches in concrete surfaces, asphalt patches in asphalt surfaces, concrete pavement with asphalt overlay patches will be expected in permanent "overlaid" concrete streets, etc. In no case is there to be an asphalt patch in concrete streets or concrete patch in asphalt streets. Any repair not meeting these requirements will be removed and replaced by the contractor at his or her expense within the time frames mentioned above. Alley reconstructions will be evaluated on a case by case basis for acceptable replacement material, to be determined by City Engineer.
- ~~10.8.~~ A temporary surface is required when the final surface is not immediately installed. The temporary surface installation and maintenance shall be the responsibility of the contractor or permittee until the permanent surface is completed and accepted. It shall be either a hot mix or cold mix paving material. Temporary surfaces shall be compacted, rolled smooth and sealed to prevent degradation of the repair and existing structures during the temporary period. If the contractor is unable to maintain a temporary patch for whatever reason, the City will complete repairs billed out at two-three (23) times the rate of the cost of the City's work at the expense of the contractor or permit applicant. Any exceptions to this requirement will be in writing and included by the City in the permit.
- ~~11.~~ Traffic shall not be allowed to cross trench backfill for more than 24 hours without utilization of temporary patching measures stated above. Contractor to have temporary patching in place within 24 hours of trench backfilling.

Commented [AD2]: Add in steel plate detail/ standards if not found else where.

B. Cutting in Improved Streets

1. In existing pavement, all excavations within thirty-six (36) inches of the edge of the asphalt shall require removal and replacement from the edge of asphalt to the excavation edge.
2. Concrete pavement, cross-pans, driveways, streets and alleys shall be removed to neatly sawed edges cut to full depth and cut in straight lines either parallel to the curb or perpendicular to the alignment of the sidewalk or curb. Any removal shall be done to the nearest joint.
3. The cuts in bituminous (asphalt) pavement shall be a minimum of two (2) feet on each side of the trench width required for excavation, and shall be re-sawcut to clean lines if trench failure or pavement damage has occurred.

4. In the case of older pavement where the likelihood of cracking and potholes next to the patch is greater, it will be required to extend the "shoulders" of the pavement beyond the two-foot minimum and reinforce this area with a geotextile.



5. "T" cutting is required for all repairs.

Commented [AD3]: Add in the T-patch detail add to #3.

C. Trenching

1. All excavation, shoring, trenching and the like shall comply with OSHA's "Construction Industry Standards" as well as all applicable federal and state regulations.
2. Trenches shall be excavated along the lines and grades established and in no case shall be more than ~~two-one~~ hundred (200/100) feet in length, or be trenched or backfilled in non-continuous sections unless approved by the City Engineer. Failure by the contractor to comply with these requirements may result in an order to stop the excavation in progress until compliance has been achieved.
3. All excavated material shall be stockpiled in a manner ~~that does not endanger the work or workers and~~ that does not obstruct sidewalks, streets and driveways. No stockpiled materials shall be allowed on the asphalt surface or adjacent walkways. The work shall be done in a manner that will minimize interference with traffic and/or drainage of the street.
4. The contractor at the end of each day shall close all trenches and barricade all excavations and ditch lines, remove excess material from travel ways and thoroughly clean all streets, alleys and sidewalks affected by the excavation.
- 3-5. If it becomes necessary in the judgment of the City Engineer, all streets, alleys (if asphalt or concrete) and sidewalks shall be swept or washed. If the contractor cannot maintain a clean street/sidewalk work area, the City Engineer has the right to ~~shut down all work~~ ~~issue a stop work order~~ on the project until the situation can be resolved.
- 4-6. Materials encountered during excavation such as rubbish, organic or frozen material, and any other material that is not satisfactory for use as backfill ~~in the opinion of the City Engineer,~~ shall be removed from the site and disposed of daily by the contractor at his expense. Stones, concrete or asphalt chunks larger than six (6) inches ~~or frozen material~~ shall be considered unsatisfactory backfill and removed by the contractor.

Commented [AD4]: In chapter 1 add the stop work order definition

~~5.1. All excavation, shoring, trenching and the like shall comply with OSHA's "Construction Industry Standards" as well as all applicable federal and state regulations.~~

D. Backfill of All Trenches in Improved City Right of Way

1. Onsite testing shall be required for all backfill methods and reports provided to Engineering within ~~two~~ one weeks of excavation completion and prior to final acceptance. Failure to provide documents may require removal and repair of cut.

~~2. A two year warranty period is required on all trenching work in the right of way. Repair of failed trenches and permanent surfaces will be the responsibility of the party requiring/constructing the trench for two years after the construction.~~

~~3-2.~~ Backfill Materials

a. Aggregate backfill:

Aggregate backfill shall be CDOT Class 6 Structure Backfill (roadbase) meeting the specifications for this material within the CDOT specifications manual.

Backfill shall be placed in uniformly distributed layers and brought up equally on all sides of the structure or trench wall. Each layer shall not exceed 6" before compacting to the required density and before successive layers are placed. Structure Backfill Class 6 (roadbase) shall be compacted to a density of not less than 95 percent of maximum density determined in accordance with AASHTO T 180.

~~If the excavated trench material is determined by a geotechnical engineer to be suitable for backfill, the contractor may use the material from the top of pipe bedding plus one foot, to the bottom of subgrade. A letter of material acceptance from the geotechnical engineering will need to be provided. CDOT Class 1 structure backfill material may also be used from the top of pipe bedding plus one foot to bottom of roadbase section if geotechnical engineer will approve structural stability of the material and approved by the City Engineer. All trench backfill materials shall be compacted in 6 inch lifts to density of not less than 95 percent of maximum density determined in accordance with AASHTO T 180.~~

b. Flowable Fill (Flow-fill)

Flow-fill is a self-leveling low strength concrete material composed of cement, fly ash, aggregates, water, chemical admixtures and/or cellular foam for air-entrainment. The amount of water shall be such that the flow-fill flows into place properly without excessive segregation. Flow-fill shall meet the requirements of CDOT Specification 206.02. Flow fill may be allowed in areas where expedited construction durations benefit the public or where unstable bank material make the use of backfill appropriate for safety concerns of the workers or surrounding facilities.

c. Flow-fill shall be prohibited as a temporary or permanent street surface. ~~Trenches shall initially be backfilled to the level of the original surface. After the Flow fill has cured, the top surface of the Flow fill shall be removed and the temporary or permanent surface shall be placed.~~ Flow-fill trenches may be left low in cases of

Commented [AD5]: Change ROW permit to materials testing and match timeline.

steel plating for a temporary crossing of the trench area until the permanent surface can be installed. Limit one (1) week duration.

~~d. Concrete backfill shall not be prohibited within the public right of way.~~

~~e.d. Flash Fill shall not be used in lieu of Flow fill.~~

~~f.e. When soft or unstable material or rock is encountered in the trench subgrade that will not uniformly support the pipe, such material shall be excavated to additional depths and backfilled as directed by a geotechnical engineer licensed in the State of Colorado, and backfilled with CDOT Class 1 structure backfill material.~~

E. Filling of Bore Holes, Vertical and Horizontal

~~1. For openings less than or equal to six (6) inches in diameter, bore holes shall be filled with flowable fill to prevent entry of moisture. Surface patching material used shall match the existing pavement section.~~

~~2.3. For openings greater than six (6) inches in diameter, all bore holes, the limits of repair shall be identified in the permit. Bore holes shall be filled with flowable fill to prevent entry of moisture. Surface patching material used shall match the existing pavement section.~~

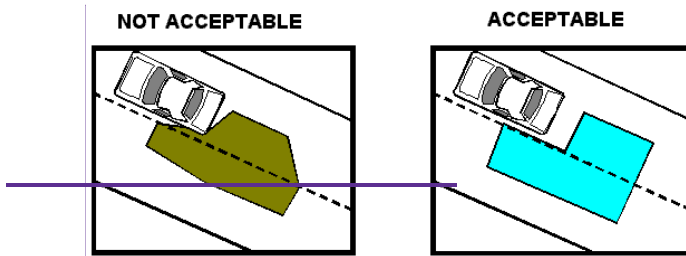
~~3.4. The completed job shall be flush with the surrounding pavement and have no indentations, pockets or recesses that may trap and hold water. The sealing of bore holes is the responsibility of the contractor or person making the bore.~~

F. Asphalt Surface Repair

1. Trench restoration shall be by a patch or patch plus overlay as required by the City Engineer.
2. Any damage to the existing asphalt surface in the vicinity of the work shall be repaired at the expense of the contractor, ~~including but not limited to gouges, scrapes, outrigger marks, backhoe bucket marks, etc.~~ Patching or mill and overlay may be required, at the discretion of the City.
3. The depth of asphalt patches in asphalt streets and alleyways shall be a minimum of 4 inches or the depth of the existing asphalt surface plus two (2) inches, whichever is greater. Hot mix asphalt shall be placed in accordance with CDOT Specification Sections 401 and 403, except that longitudinal joints between successive layers of asphalt ~~concrete~~ shall be displaced laterally a minimum of 12 inches and asphalt over 2 inches thick shall be placed and compacted in equal lifts not to exceed ~~2-3~~ inches each.
4. For patches in asphalt, a tack coat shall be applied to all edges of the existing asphalt ~~and~~; all cold joints between curb and gutter before placing the new pavement in accordance with CDOT Specification Section 407. After placing the new asphalt, all seams (joints) between the new and existing pavements and curb and gutter shall be sealed with an asphalt tack coat or rubberized crack seal material.

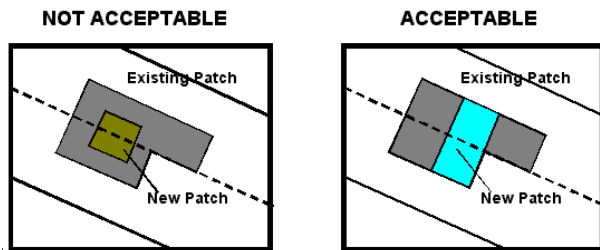
G. Asphalt Patching Standards

1. ~~Excavations and street repairs, even well-constructed street repairs, shorten a pavement's life. Several types of street distress, settlement, alligator cracking and potholes often show up around patches. Quality street repairs should reduce the occurrence of these types of distress.~~
2. ~~Weakening or destroying the existing pavement around an excavation with heavy construction equipment, stockpiling or delivery of materials, etc. When damage does occur, remove the damaged pavement, extending the limits of the street repair, before replacing the pavement.~~
- 3.5. The asphalt patch area for street excavations that fall within the wheel path of the vehicular travel lane shall be increased in size to the center of the lane or adjacent lane. In no circumstance will the edge of a patch area be allowed to fall within the wheel path.
- 4.6. Existing pavements shall be removed to clean, straight lines parallel and perpendicular to the flow of traffic. Do not construct patches with angled sides and irregular shapes.

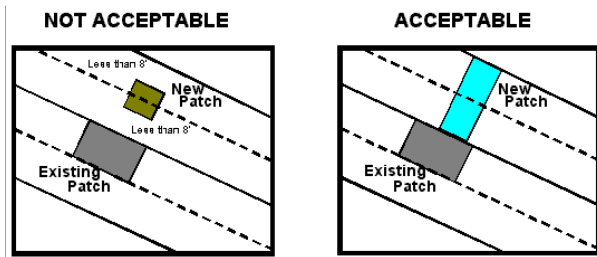


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5. ~~Avoid patches within existing patches. If this cannot be avoided, make the boundaries of the patches coincide.~~

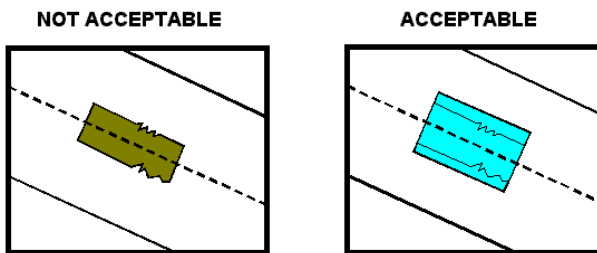


6-7. Do not "leave" strips of pavement less than one-half (½) a lane in width from the edge of the new patch to the edge of an existing patch or the lip of the gutter.

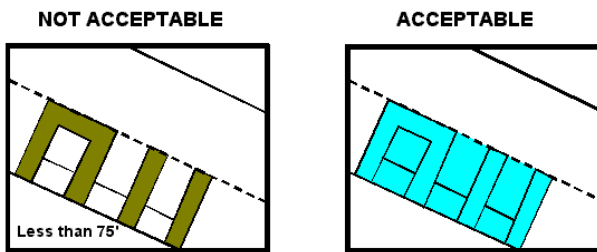


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7-8. Asphalt and concrete pavements should be removed by saw cutting or grinding/milling. Avoid breaking away the edges of the existing pavement or damaging the remaining pavement with heavy construction equipment.



8-9. In the case of a series of patches or patches for service lines off a main trench, repair the pavement over the patches by grinding/milling and overlay when the spacing between the patches is less than ~~seventy five (75)~~ twenty five (25) feet (in cases where the existing pavement is in poor condition and may require overlay within the next few years, this requirement may be modified or waived by the City Engineer).



9-10. Street repairs should leave ~~a~~ the pavement in a condition ~~at least~~ as good as, if not better than, the condition prior to the repairs.

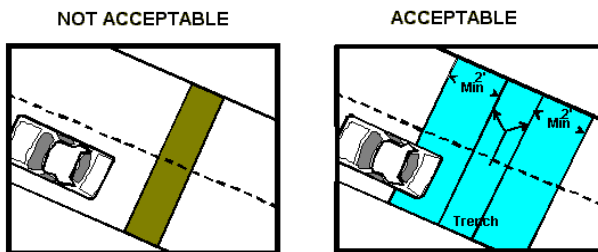
10-11. ~~In most cases, and particularly in the cases of extensive excavation and repairs, it is desirable to survey~~ In all cases the existing pavement condition shall be inspected by the

existing pavement condition with a representative of the City prior to the work. After completion of the work, ~~survey~~ The City will re-inspect the pavement condition again to verify that the pavement ~~condition~~ has been maintained or improved.

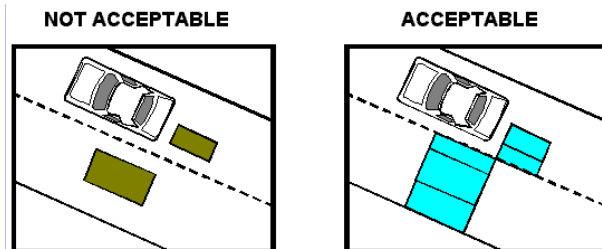
a. ~~In the case of minor repairs, these pavement surveys can be made by visual observation.~~

b.f. ~~However, in~~ the case of major projects that involve excessive haul of materials or unusually heavy construction equipment or activity, nondestructive testing of the pavement condition before and after construction ~~may be~~ is required.

11.12. All trenches cut in asphalt shall be overlaid across the entire street width for a distance of two (2) feet minimum on all sides of the trench.

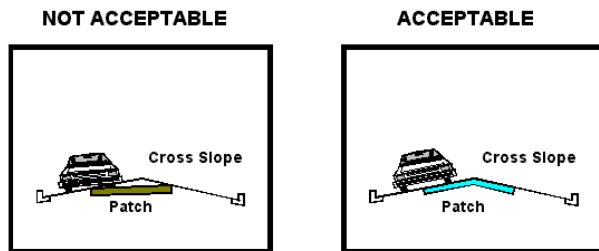


12.13. Do not allow the edges of patches to fall in existing wheel paths. The edges of patches parallel to the direction of traffic shall be limited to the boundaries of lanes or to the center line of travel lanes. T-Patch (detail and description added here)

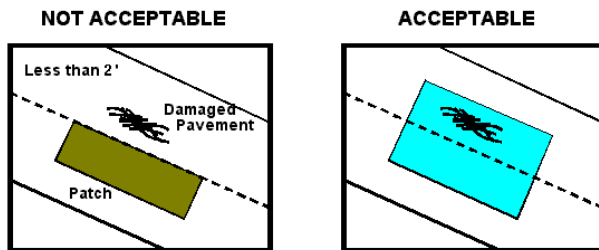


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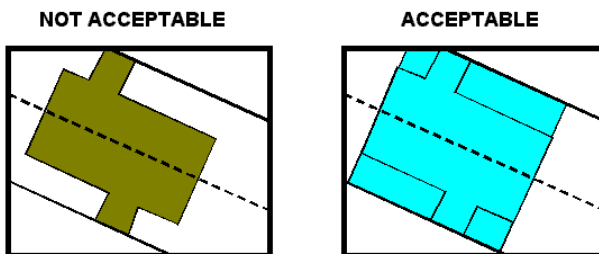
43.14. Patches should have a smooth longitudinal grade consistent with the existing roadway. Patches should also have a cross-slope or cross-section consistent with the design of the existing roadway.



44.15. When the proposed excavation falls within ten (10) feet of a section of failed pavement, the failed area shall be removed to sound pavement and patched. Scarring, gouging or other damaged pavement adjacent to a patch shall be removed and the pavement repaired.



45.16. Avoid frequent changes in width of patches. For future maintenance, this simplifies removal of adjacent pavement failures.



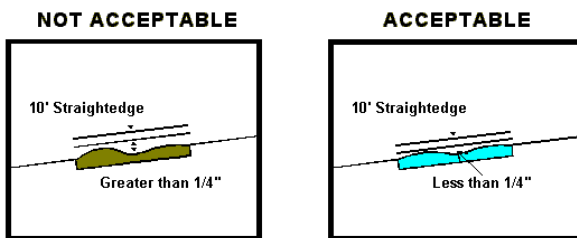
46.17. Consideration of pavement management issues may also identify opportunities for joint efforts between the utilities and the City. For example, suppose that the repair of a utility line requires an overlay on one-half (1/2) of a street, and that the condition of the remaining one-half (1/2) of the street might also warrant an overlay. We may decide at that point to overlay the entire street, with the City's street authority and the utility

splitting the cost of the overlay. In such a case, the utility may be able to save the cost of grinding one-half (½) the street. The City's street authority will allocate a reasonable percentage of its annual overlay program to accommodate its share of these situations. This includes minor (two-to-three-block) maintenance projects and larger capital improvement projects (major water line extension). Coordination for these types of cooperative repairs should occur as far in advance of actual construction as possible.

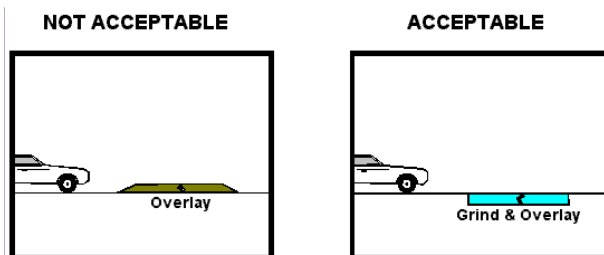
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H. Roadway Smoothness

1. Ensure that the transitions on and off of the repair are smooth. The patch itself must offer a smooth ride. ~~The joints must be located outside of the normal wheel path.~~
2. Surface tolerances for street repairs should meet the standard for new construction. ~~That is, the finished surface of the street repair, when tested with a ten-foot straightedge parallel to the center line or perpendicular across joints, will show variations measured from the testing face of the straightedge to the surface of the street repair which do not exceed one quarter (¼) inch.~~



3. Overlays should be placed by first removing the existing pavement to the desired depth by ~~grinding~~ milling, and then placing the pavement flush with the adjacent surfaces.



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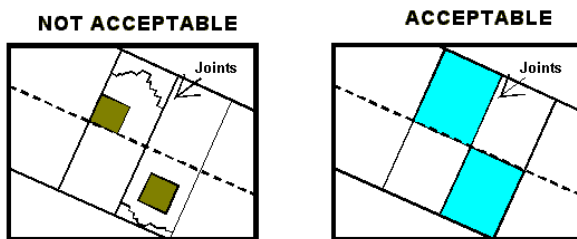
4. Unacceptable ~~(in the opinion of the City Engineer)~~ paving patches shall be corrected by removal and repaving of the patched area.
- I. EXCEPTIONS: There may be situations where the patching standards are considered inappropriate. This determination shall be made by the City Engineer.

J. Concrete Surface Repair

1. The concrete pavement shall be replaced ~~with four thousand (4,000) psi concrete to match the rebar layout, finish and thickness of the existing pavement, but not less than eight (8) inches thick to match existing depth and strength unless geotechnical recommendations state otherwise.~~ All concrete construction shall be protected from vehicular traffic, including contractor vehicles, until the concrete has achieved eighty percent (80%) of its ultimate strength. Concrete shall be coated and sealed with a uniform application of membrane curing compound applied in accordance with manufacturer's recommendations. When ambient or surface temperatures are expected to fall below 45 degrees F during the next three days, special measures shall be taken to ensure subgrade materials are above 40 degrees prior to concrete placement and the concrete will not fall below 40 degrees until the concrete has attained a compressive strength of at least 2000 psi.
2. Where existing cracks or damage are adjacent to the area being repaired, the repair area shall include the cracked or damaged concrete. Pavement repairs shall include all areas of damage, including bore holes, pot holes and equipment and/or material scarring of the existing surface.
3. When repairing concrete, the removal perimeter shall be saw-cut and replacement concrete shall be doweled into the old concrete per CDOT M-Standard Plans.
4. Concrete joints shall be thoroughly cleaned of all foreign material then filled with a hot-poured elastic type joint filler conforming to M 173, ASTM D1190-80, ASTM D1751-83, D1752-84, D3405-78, D3406-78, D3407-78 or silicone sealants or others as approved by the City Engineer. Joint material shall be filled to the surface. Excess material shall be scraped off to provide a smooth riding surface.
5. In concrete pavements, remove sections to existing joints. In damaged concrete, the limits of removal should be determined in the field by the City Engineer, or representative.

Commented [AD11]: Check with cdot specs

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K. Gravel Streets, Alleys, Roadway Shoulders and Subgrade for Sidewalks and Curb and Gutter

1. For all roadway sections (gravel roads, trench resurfacing or base course beneath new asphalt sections), roadway shoulders and sidewalk and curb and gutter subgrades, the contractor shall replace the surfacing or subgrade with gravel conforming to a CDOT Class 6 Aggregate Base Course (CDOT Specification 703.03). ~~For a gravel street trench,~~

~~the gravel replacement shall be one (1) inch greater in depth to that which originally existed, but not less than six (6) inches. For a gravel shoulder and sidewalk and curb and gutter subgrade, the gravel section shall match the original section, but not be less than four inches. All gravel sections shall be placed in uniformly distributed layers. Each layer shall not exceed 6" before compacting to the required density and before successive layers are placed. Each layer shall be compacted to a density of not less than 95 percent of maximum density determined in accordance with AASHTO T 180.~~

2. Some streets may have been treated with a special surface treatment to control dust and/or bind the aggregates together. In these cases, the contractor is responsible for replacing the existing surface treatment. Such surface treatments shall be of the same chemical composition as what existed prior to the excavation work. The City Engineer shall note on the permit the surface treatment that will be required.
3. When trenching within the roadway shoulder(s), the shoulder shall be restored to its original or better condition.

5.2.14 TESTING AND INSPECTION OF ALL WORK IN THE RIGHT OF WAY

- A. Testing and inspection is required and will be at the developer's or contractor's expense. Twenty-four (24) hours' notice is required for all inspections.
- B. All construction work within the public rights-of-way shall be subject to inspection by the City Engineer or representative, and certain types of work may have continuous inspection. It shall be the responsibility of the contractor to provide safe access for the inspector to perform the required inspections.
- C. The City Engineer may make or require other inspections of any work as deemed necessary to ascertain compliance with the provisions of these Standards or the Municipal Code. Any work performed without the required inspections shall be subject to removal and replacement at the contractor's expense, regardless of the quality of the work.
- D. Testing frequencies

Following are the minimum number of tests required for each construction activity. These tests must be submitted to the City Engineer within two weeks of excavation and shall be electronically submitted as a PDF to the City.

1. Flow-fill: The Contractor shall sample and test the first three loads of Flow-fill for each placement and then once for every additional 50 cubic yards. Sampling and testing will be witnessed by the Engineer. Mix design must be submitted from the batching plant, and approved by the City Engineer.
2. Utility trench backfill (manufacturer's recommended utility bedding, then Class ~~4-6~~ Structural Backfill): Tests required for gravel placement may be increased if directed by the City Engineer. Proctors shall be determined prior to backfilling. The horizontal frequencies of density tests are as follows:
 - a. Utility mains: One (1) test per one hundred (100) linear feet per lift.
 - b. Service lines: One (1) test per each service per lift.

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- c. Manholes and valve boxes per each lift.
- 3. Concrete pavement, curbs, gutters and sidewalks: Testing to be conducted on the first truck and then once for every additional 50 cubic yards or portion thereof. Mix design must be submitted from the batching plant and approved by the City Engineer prior to placing concrete.
- 4. Asphalt pavement structure (new or replaced street sections and utility trenches):
 - a. Asphalt content: One (1) test per five hundred (500) tons or fraction thereof of mix produced, minimum of one (1) test per job.
 - b. Gradation; aggregate: One (1) test per five hundred (500) tons or fraction thereof of mix produced, minimum of one (1) test per job.
 - c. In-place density: One (1) test per 1000 square feet when patch exceeds 100 square feet.
- 5. Class 6 Aggregate base course materials: Placement, shaping and compaction shall be in accordance with CDOT Specification Section 304. Compaction density and shaping will be verified at the following frequency:
 - a. One (1) test per four hundred (400) lane feet.
 - b. No less than two (2) tests per excavation.

5.2.15 STAKING

- A. All surveying and staking shall be performed by a firm capable of performing such work. The surveyor directing such work shall be licensed by the State of Colorado.
- B. A pre-construction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to placement of materials.
- C. The minimum staking of streets shall be as follows:
 - 1. Stake centerline alignment every 25 feet (50 feet in tangent sections) with cuts and/or fills to subgrade.
 - 2. Stake top of base course at centerline and edge of pavement every 25 feet.
 - 3. Stake top back of curb at a consistent interval and offset for vertical and horizontal alignment.

5.2.16 PAVEMENT MARKING

- A. Street pavement marking shall be provided on all Arterial and Collector Streets and at the intersections of all Local Residential Streets with Arterial and Collector Streets. The streets classification map can be found here. [chrome-extension://efaidnbmnnnibpcajpcgiclfefindmkaj/https://cogs.us/DocumentCenter/View/202/Street-s-Map-24x36-PDF---City-of-Glenwood-Springs-Grid-4MB?bidId=](https://cogs.us/DocumentCenter/View/202/Street-s-Map-24x36-PDF---City-of-Glenwood-Springs-Grid-4MB?bidId=)
- B. The work shall be accomplished in accordance with the Manual of Uniform Traffic Control Devices for Streets and Highways (MUTCD), the Colorado Supplement and Section 627 of the

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~~State Department of Highways, State of Colorado CDOT, Standard Specifications for Road and Bridge Construction.~~

~~C. Pavement Marking Materials shall be Epoxy with glass beads or Thermoplastic as directed by the City Engineer. Pavement Marking Materials shall be selected from CDOT's Approved Product List. Epoxy with glass beads~~

~~D. Thermoplastic Bike lanes shall be striped with high-contrast, white longitudinal markings 4" wide minimum, but 6" is preferred. Sharrows may be used for bike routes where not enough adequate width (less than 4') is available for an on-street bike lane.~~

~~C. Water base~~

Commented [AD15]: Add definitions

5.2.17 PHYSICAL TRAFFIC CALMING DEVICES

The following physical traffic calming devices, ~~roundabout traffic circles~~, chicanes, and speed ~~tables~~ humps, may be considered for installation on non-arterial streets that are also non-emergency routes. The appropriate device depends on the roadway geometry, sight distance, and the traffic characteristics such as speed and volume. The City Engineer, in consultation with the City's Emergency Services, will determine ~~whether or not~~ whether a traffic calming device is appropriate for a specific location.

A. ~~Roundabouts Traffic Circles~~ – Used primarily to reduce collisions at intersections, ~~roundabout traffic circles~~ can also reduce speeding along residential street corridors and improve bicycle and pedestrian safety. In addition to these safety benefits, many circles can be landscaped, which can provide aesthetic enhancements to the street.

B. Chicanes – A series of 2 or 3 curb bulbs, chicanes slow traffic by creating a narrow, winding section of roadway. Like traffic circles, many chicanes can be attractively landscaped. Since they result in the elimination of some parking, they are generally only installed where there is low demand for on-street parking.

~~C. Speed Humps Tables~~ – Mounds that extend the full width of the street, speed ~~humps tables~~ can be effective at reducing speeds. ~~They are generally only used when speeds are very high as they can divert traffic to adjacent streets.~~

~~If calming devices are requested through the petition process, the City will perform a proper traffic analysis to determine whether an appropriate counter measure should be implemented.~~

~~The traffic calming petition can be found [here](#).~~

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5.2.18 TRANSIT CONSIDERATIONS

~~Transit is a vital component of the overall transportation system in Glenwood Springs. Local transit and regional RFTA routes may change from year to year as RFTA and the City address service needs and adapt to changes in Glenwood Springs' street network. Construction of transit improvements is one method of reducing the impact a development may have on the local roadway network. All improvements should consider AASHTO and CDOT standards or guidance in facility design.~~

~~1. Arterial and Collector Roadways~~

~~If located along a local or regional transit line, a transit facility or transit stop improvement may need to be incorporated in overall site improvements. The need for transit improvements will be determined by the Transportation Manager and City Engineer. Minimum transit facility or stop design needs along a principal arterial may include:~~

- ~~• Tapers and platform area~~
- ~~• Sign post and sign~~
- ~~• Trash receptacle~~
- ~~• Bench and Shelter~~
- ~~• ADA facilities~~
- ~~• Bike rack~~

~~2. Bus Stops — see Section 5.9.5~~

5.3 PRIVATE STREETS

5.3.1 GENERAL

A. Purpose

The purpose of these requirements is to standardize private street design elements and to assure, so far as practical, that the minimum requirements of the public are met. These requirements include safety, welfare, convenience, aesthetics, and economical maintenance. These Standards are intended to assist, but not to substitute for competent work by professional engineers. It is expected that the professional engineer will bring to each project the best skills and abilities to ensure that the project is designed correctly and accurately.

A.B. Private streets may be allowed provided that all of the following conditions are met:

1. Be permanently established by dedication as private roadway during platting process
2. Include provisions for future use by adjacent property owners when applicable,
3. Meet City minimum design standards described herein, except for right of way requirements and approved deviations
4. Be accessible at all times for emergency and public service vehicle use
5. Have recorded on the plat or other legal document a statement acknowledging that the City will not be responsible for roadway maintenance costs associated with use of the road by emergency vehicles and service vehicles, including parking enforcement
6. Not result in land-locking of present or future parcels nor obstruct public street circulation
7. Develop, approve and record covenants which provide for maintenance of the private street by the owner or homeowners association or other legal entity.
8. See Table 5.6 above.

B.C. Acceptance as Public Streets.

Acceptance of private streets as public streets will be considered only if the street(s) meet all applicable public street standards, including dedication of right-of-way, are deemed to have a benefit to the public street system and are accepted by the City Council.

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C.A. Purpose

~~The purpose of these requirements is to standardize private street design elements and to assure, so far as practical, that the minimum requirements of the public are met. These requirements include safety, welfare, convenience, aesthetics, and economical maintenance. These Standards are intended to assist, but not to substitute for competent work by professional engineers. It is expected that the professional engineer will bring to each project the best skills and abilities to ensure that the project is designed correctly and accurately.~~

D. Applicability

~~These Standards shall apply to the review of all private street and easements proposals.~~

5.3.2 STREET TYPES, GEOMETRICS AND DESIGN CRITERIA

A. Geometric and Design Criteria.

~~All private streets shall meet the same design and construction standards as set forth in this Chapter.~~ Individual streets within the development shall be constructed in their entirety to the highest applicable design criteria. Side street approaches shall constitute new streets for design purposes.

B. Bridges and Structures.

~~See Section 5.6~~

C.B. Utilities Location.

Appropriate utility easements shall be provided on the proposed project plat and recorded with the Garfield County Clerk and Recorder. Utility installation shall be the responsibility of the Applicant and shall not be installed above ground or in a manner or location that will interfere with the traveled surface and shoulder area. All work shall be coordinated with the appropriate City utility department. Utilities shall be designed and constructed in accordance with all ~~standards within this document.~~ City standards.

D.C. Owners to Maintain Streets -- Organization required to Guarantee Maintenance and Assessment of Costs.

All private streets subject to the terms of this Chapter shall be maintained by the owners of the property served by them and kept in good repair at all times. In order to insure the continued good repair, a declaration of covenant requiring maintenance of the private street shall be recorded with the Garfield County Clerk and Recorder's office concurrent with the recording of the subdivision or plat.

The declaration of covenants shall include the following terms:

1. The agreement for maintenance shall be enforceable by any property owner served by the street.

2. A means shall be established for assessing maintenance costs equitably to property owners served by the private street.
3. The declaration of covenants shall run with the land.
4. "Maintenance" shall include, but not be limited to, street surfacing, sidewalks, shoulders, gates, signs, storm drainage facilities, vegetation control and snow removal.

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~~E. Storm Drainage Facilities. All storm drainage systems shall be designed by the Engineer in accordance with Chapter 4.~~

~~F.D. Cul-De-Sacs and Turnarounds~~~~Hammerheads~~

1. Shall be designed in accordance with International Fire Code requirements.
2. Cul-de-sacs shall ~~must~~ be constructed if the street is ~~accessed by lots on both sides of the street, not a through street. Cul-de-sacs or intersections must be provided at a minimum of one thousand five hundred (1,500) feet measured from centerline to centerline.~~
- 2-3. ~~Parking shall be restricted in all cul-de-sacs and all turnarounds, as determined by the City Engineer.~~

~~G.E. Gates.~~

A building permit issued by the City is required when gates are installed across private streets. In order for the City to issue the building permit, the following requirements must be met:

1. Gates which serve ten (10) or more dwelling units shall have an Opticom activated opening system, or an equivalent and compatible system, which is approved by the Fire Chief and ~~the~~ Police Chief.
2. Gates shall have rapid-entry key capabilities (Knox box) for the Fire Department access, and access code shall be provided to the Fire Department.
3. All electrically-activated gates shall have default capabilities to the unlocked position.
4. The minimum clear width of a gate shall be compatible with the street required width.
5. Gates that might be obstructed by the accumulation of snow shall not be installed.
6. The City shall provide notice to the Fire Department of plans for a new gate. The applicant must have final approval of installed gate and function from the Fire Department prior to issuance of Certificate of Occupancy or substantial completion.
- 6-7. A turnaround shall be provided for vehicles that are not granted access through the gate. This turnaround must be outside the travel way.

~~H.F. Medians.~~

A street separated by a median shall have a minimum traveled surface width of ten (10) feet on each side of the median.

1. Fire hydrants shall ~~must~~ be located on both sides of the street at a spacing acceptable to

the fire department, but not within the median.

~~I. Obstructions In/Adjacent to Easements/Private Street Tracts.~~

- ~~1. Obstructions, including but not limited to fences, retaining walls, power poles, utility boxes, telephone boxes, and/or landscaping materials, shall not be permitted within the easement nor be allowed in a manner or location that will interfere with the traveled surface and shoulder area.~~
- ~~2. Sight-obscuring objects must be located to provide entering sight distances as described in Section 5.2.11.~~

~~J. Turn Arounds.~~

~~Cul-de-sacs or intersections must be provided at a minimum of one thousand five hundred (1,500) feet measured from centerline to centerline.~~

5.3.3 SIGNS

A. Speed Limit Signs.

If speed limit signs are desired by the Applicant or the property owners, they shall be approved by the City Engineer and be installed by the Applicant and maintained/enforced by the property owners.

B. Street Signs and Street Names

1. Streets shall be numbered according to ASPO Report Number 332, Street Naming and Property Numbering Systems, by Margaret A. Corwin and Street Naming and Property Numbering for Small Cities by Southwest Georgia Planning and Development Commission, Camilla Georgia. Names for new streets shall be submitted for approval during the platting process. Street numbers shall be included on each lot of the plat.
2. Street name signs must conform to the MUTCD standards and shall be maintained by the property owners. If a sign is damaged or stolen the property owners shall replace the sign within seven calendar days of notification by the City or the City will replace and bill the property owners.

C. Fire lanes shall be installed by the applicant and maintained by the property owner. Signs and striping locations shall be approved by the Fire Chief.

D. Subdivision Signs/Monuments

1. Designed per City Municipal Code ~~and/or Glenwood Springs Development Code~~

5.3.4 COMPLIANCE

A. Certification. All private streets shall be constructed by the Applicant and inspected by the Applicant's engineer who shall issue a letter of compliance to the Applicant with a copy to the City certifying:

1. The private street has been constructed in accordance with the ~~Engineer's-City's~~ design and standards ~~established by this Chapter.~~

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2. The street signs are in place and conform to the MUTCD standards.
3. The storm drainage, if applicable, has been constructed in accordance with the Engineer's design.

~~4. The gate (if applicable) has been installed in conformance with Section 5.3.2.~~

~~5.4.~~ Bridges and ~~drainage~~ structures have been designed and constructed in conformance with Section 5.6.

The compliance letter shall be stamped, signed, and dated by the aApplicant's engineer, and shall be worded as follows:

~~"I have inspected the project and find that the private street, utilities, structures (if applicable) and storm drainage as constructed for this project conform to the terms and conditions of the submitted design and requirements of City's Private Street Standards and Guidelines, and that the appropriate street signs are in place."~~

A set of as-built plans and inspection/testing reports must be submitted with the letter of compliance.

- B. Completion. All private streets must be completed and the letter of compliance submitted to the City or a financial guarantee must be submitted to the City in the amount of one hundred twenty-five (125) percent of the Engineer's cost estimate to complete the work, ~~prior to plat approval~~. The street(s) within a plat, large lot, or long subdivision must be constructed prior to the final inspection and approval of occupancy of any structures constructed within the plat, except for model home permits as authorized by the City Engineer.

~~A note shall be placed on the face of the plat which states:~~

~~"No building permits will be issued on any lots in this plat (except for model home permits as authorized by the City Engineer) until the private street(s) and utilities have been constructed and a letter certifying their compliance to the Private Street and Emergency Vehicle Access Standards is on file with the City."~~

5.3.5 MAINTENANCE

- A. All private streets and sidewalks subject to the terms of this Section shall have a Street Maintenance Covenant recorded with the Garfield County Assessor's Office prior to or concurrent with the recording of the subdivision or plat.
- B. Private streets or easements existing, without a street maintenance covenant, prior to the effective date of this Chapter will be exempted from the Street Maintenance Covenant.

~~C. Any new private street shall conform to these Standards. Maintenance of the street shall include, but not be limited to, street surfacing, shoulders, gates, signs, storm drainage facilities, and vegetation control.~~

5.3.6 CONDITIONS OF RECORDING

- A. Prior to recording a plat, the Applicant shall dedicate private street and utility easements to the City.

~~B. If private street and utility easement widths are insufficient to allow dedication to the City, then a note will be placed on the face of the plat stating that "Future dedication of the private street to the City may require the dedication of additional right-of-way."~~

5.3-75.3.6 PRIVATE TO PUBLIC STREET DEDICATION

- A. The City has no obligation to accept any private street into the City street system for dedication or maintenance. It shall be the Applicant's responsibility to submit a preliminary site plan showing the street(s) proposed for dedication to the City and the Applicant must receive the City Council approval before proceeding with street construction or Right of Way dedication plans.
- B. Street construction plans prepared in accordance with the most recent version of these Standards and Guidelines shall be submitted for review and must be approved by the City Engineer before street construction activity commences.
- ~~C. All construction work must be completed to City Standards before the City will accept the street for dedication and maintenance.~~
- ~~D.C.~~ The Applicant must submit all necessary deeds, easements, etc., to the City for acceptance and recording by the Garfield County Clerk and Recorder's Office.
- ~~E.D.~~ Once the street has been dedicated to the City and accepted for maintenance, the street shall remain open for public use and may not be closed except by the City.
- ~~F. Right-of-way widths must conform to the requirements of the most recent version of these Standards.~~
- ~~G.E.~~ It shall be the Applicant's responsibility to have the bridge and drainage structures inspected and load rated by a licensed Professional Engineer prior to City acceptance.
- ~~H.F.~~ All utility lines shall be inspected, cleaned and repaired if necessary prior to acceptance.

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5.4 SIDEWALKS, CURB RAMPS, CURBS AND GUTTERS

5.4.1 GENERAL

- A. Sidewalks are required on both sides of the street for all street classifications, except arterials (alternate pedestrian facilities must be provided in the corridor) and alleys. See section 5.2 for standards. See the applicable Standard Detail Drawing(s) in the Appendix attached to this Chapter for more requirements.
- B. All streets constructed with curb, gutters, and sidewalks, shall have pedestrian/ADA ramps provided at street intersections and other pedestrian facility crossings. These ramps shall be constructed in accordance with CDOT Standards and Guidelines.
- C. Sidewalk construction ~~is may be~~ required in conjunction with any new development or redevelopment of the existing structures, or plat or approval, or other land use permit.

Commented [AD22]: Insert Details of sections in 5.2 and remove appendix notation

5.4.2 DESIGN STANDARDS

Plans for the construction of sidewalks, curbs, gutters, and curb ramps are to be submitted as part of the street plans when applicable. The minimum widths for sidewalks are contained in Table 5-7.

Because these are minimum standards, the City Engineer may modify the improvement to be installed based upon the conditions specific to the site.

5.4.3 SIDEWALK CONSTRUCTION

- A. Sidewalks shall be constructed per CDOT M&S Standard Plan M-609-1. Minimum sidewalk thickness shall be 4 inches and 6 inches at driveways-crossings.
- B. Concrete for sidewalks shall be CDOT Class BD, or other approved air-entrained concrete.
- ~~C. Root barrier fabric shall be placed under sidewalk prior to placing of the materials.~~
- ~~D.C.~~ Form and subgrade inspection by the City is required before the sidewalk is poured.
- ~~D.~~ Monolithic pour of curb, gutter, and sidewalk will not be allowed.
- E. Expansion joints shall be placed every 50' along concrete sidewalk.
- F. Sidewalks shall be constructed of Portland Cement Concrete. Exceptions will be considered on a case-by-case basis at the discretion of the City Engineer.

5.4.4 CURB AND GUTTER

- A. A concrete curb and gutter shall be used for all street edges, unless otherwise approved by the City Engineer.
- B. All curbs and gutters shall be constructed per CDOT M&S Standard Plan M-609-1.
- C. Concrete for curbs and gutters shall be CDOT Class BD, or other approved air-entrained concrete.
- D. When matching existing pavement grade, pavement shall be sawcut 2'—6" from face of curb full depth, one foot from lip of pan, and milled 2" deep for an additional one foot. Exceptions to this may be approved by the City Engineer. See detail
- E. Joints shall be placed at all alley and driveway returns, structures, curb ramps per CDOT M&S Standard Plan M-609-1.
- F. Form and subgrade inspection by the City are required prior to pouring the curb and gutter.

5.4.5 CURB RAMPS

- A. All sidewalks shall be constructed to provide for curb ramps in accordance with State and Federal law. Curb ramps and refuge islands shall be the same width as the crosswalk markings.
- B. Detectable warning patterns shall be cast iron and shall be on the CDOT Approved Products List.
- C. Concrete for curb ramps shall be CDOT Class BD, or other approved air-entrained concrete.
- D. Form and subgrade inspection by the City are required before the ramp is poured.
- E. Any variation due to site constraints shall comply with current ADA or PROWAG requirements.

~~5.4.6 TESTING AND STAKING~~

~~See Sections 5.2.14 and 5.2.15 for testing and staking requirements. Form and subgrade inspection by the City is required before pouring concrete for curb and gutter, sidewalks, driveways, and curb ramps. Forty eight (48) hours' notice is required for all inspections.~~

5.5 BIKEWAYS SHARED-USE PATHS, BIKE LANES, AND TRAILS

5.5.1 GENERAL

~~Bikeway Shared-use path~~ and trail construction may be required in conjunction with any new development or redevelopment of an existing structure, ~~or plat approval, or other land use permit when the need for such a bikeway or trail is indicated in the City of Glenwood Springs River Trails System Plan,~~ or where traffic analysis or traffic planning indicates that substantial bicycle usage which would benefit from a ~~designated bicycle facility~~ shared-use path or trail.

5.5.2 DESIGN STANDARDS

All new construction shall conform to the standards for bicycle lane facilities outlined in this section, the "Guide for the Development of Bicycle Facilities" prepared by AASHTO.

A. On-Street Bike Lanes - Streets without On-Street Parking

Bicycle lanes on new streets without on-street parking shall be at least 5 feet wide, measured from the edge of gutter pan, including the curb pan. On existing streets where on-street bike lanes are being added and available right-of-way or improvements space is restricted, the width of the bicycle lane may be reduced to a minimum of 4 feet wide.

B. On-Street Bike Lanes - Streets With On-Street Parking

Bicycle lanes on new streets with on-street parking shall be at least 5 feet wide, exclusive of the parking lane.

C. Off-Street Bike Paths or Trails

Off-street bike trails or paths shall be at least 10 feet wide and shall conform to the Guide for the Development of Bicycle Facilities. Where space is limited 8 feet may be accepted.

D. Bicycle Parking –reference Glenwood Springs Development Code Article 070.040.060(f)

Commented [AD23]: Add link to code

E. Vertical Clearance to Structures

Vertical clearance is measured from the high point within the entire trail width to the lowest portion of the structure. If the undercrossing trail or overcrossing structure may be widened in the future, adequate vertical clearance shall be provided to accommodate the future condition. The vertical clearance of structures shall be in conformance with the AASHTO *Guide for the Development of Bicycle Facilities*.

5.5.3 BIKEWAY SHARED USE PATH AND TRAIL CONSTRUCTION

A. Off-Street Bike Paths and Trails shall be constructed per CDOT M&S Standard Plan M-609-1. Minimum concrete thickness shall be 5-6 inches.

B. Bike paths and trails shall be CDOT Class B_D, or other approved air-entrained concrete.

C. Root barrier fabric shall be placed under bike path or trail prior to placing of the materials.

Form and subgrade inspection by the City is required before the sidewalk is poured.

D. Apply broom finish perpendicular to trail. Use ¼" sawcut joints cut 1-1/2" deep, minimum every 10' along the trail. Contraction joints shall be constructed every 50' along the trail.

5.6 BRIDGES AND STRUCTURES

5.6.1 GENERAL

This section applies to new bridge and drainage structures ~~in the public right of way and private bridge and drainage structures that may be dedicated to the city in the future.~~

5.6.2 DESIGN STANDARDS

A. Existing Bridges

Existing vehicular bridge and drainage structures shall be capable of carrying a minimum design load of HS-20 per the AASHTO Standard Specifications for Highway Bridges.

Commented [AD24]: Confirm the design loading

B. New Bridges

New vehicular bridge and drainage structures shall be designed in accordance with the current AASHTO *LRFD Bridge Design Specifications*.

1. The Design and As-built Drawings for all new bridges shall be certified by a professional structural engineer.
2. Design and Rating calculation packages shall be provided by a professional structural engineer for all new bridge and drainage structures ~~that are considered "Major Structures". The calculations shall be certified by a professional engineer.~~
3. Additional information may be required from the Structural Engineer of Record for bridges that are included, or will be included in the National Bridge Inventory. Refer to CDOT for additional information.

C. Bridge Width

1. The clear width for all new bridges on streets with curbed approaches should be the same as the curb-to-curb width of the approaches.
2. For streets with shoulders and no curbs, the clear width of the bridge should be the same as the approach roadway width.
3. Sidewalks on the approaches should be carried across all new structures. There should be at least one sidewalk on all street bridges.

D. Bridge Railing

Any new and/or rehabilitated bridge shall be provided with crash-tested bridge rails that have been formally approved by FHWA. CDOT Type 7 and Type 10 bridge rails are examples of FHWA-approved railings.

E. Pedestrian Bridges

New pedestrian bridges shall be designed by a professional engineer in accordance with the current AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges.

5.7 — STREET LIGHTING

5.7.1 — GENERAL

~~The Glenwood Springs Electric System is responsible for the installation and maintenance of street lights on public roadways within the city of Glenwood Springs and has the authority to approve new roadway street lights within the city limits. The City of Glenwood Springs Engineering department, Community Development department and the Glenwood Springs Electric department determine the required lighting illumination and uniformity levels. Street lighting designs shall conform to the guidelines as published by the Engineering Society of North America (IESNA), the Glenwood Springs Electric System Construction Standards and the Glenwood Springs Development Code Article 070.040.100.~~

5.8.5.7 SIGNALS, TRAFFIC CONTROL AND TRAFFIC CALMING

5.8-15.7.1 GENERAL

~~Signals shall be installed per the requirements set forth herein.~~ This work shall be the furnishing and installing of a complete and functional traffic control system consisting of controllers, signals, and appurtenances as required by the City Engineer.

- A. Temporary traffic control to ensure public safety during construction activities must be provided. A plan meeting the requirements of the Federal Highway Administration's Manual on Uniform Traffic Control Devices, must be developed, signed and stamped by a licensed Traffic Control Supervisor in the State of Colorado prior to starting construction activities that require traffic control.
- B. The developer is responsible for supplying and installing all necessary permanent traffic control devices such as but not limited to, street name signs, stop signs, speed limit signs, and channelization.
- C. Neighborhood traffic control devices such as speed humps, traffic circles, curb extensions, etc., are devices used to control vehicle speeds and cut-through traffic. Installation of these devices will be permitted ~~when the installation has met criteria established by~~ approval of the City Engineer.

5-8-25.7.2 DESIGN STANDARDS

- A. Signal systems shall be designed in accordance with -NCHRP Report 812, Signal Timing Manual and materials and placement shall be in accordance with Section 614 in the CDOT S-Standard Plans, S-614-40, unless otherwise authorized by the City Engineer.
- B. All public signal design shall be prepared by an engineering firm capable of performing such work. The engineer shall be a licensed Professional Traffic Operations Engineer in by the State of Colorado.

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5-8-35.7.3 VEHICLE DETECTION

Video detection is the preferred equipment of new signal installations at traffic actuated signals. When allowed by the City Engineer, detection loops shall be designed in accordance with the NCHRP Report 812, Signal Timing Manual. Materials and placement shall be in accordance with Section 614 in the CDOT S-Standard Plans, ~~S-614-43. Whenever possible, loops shall be pre-formed in crushed surfacing top course before paving.~~ Detection Loops shall be sawcut into pavement.

5-8-45.7.4 STAKING

See Section 5.2.15 for staking requirements. In addition, the minimum staking of signals shall be as follows:

1. Location, with cut or fill to center of all pole bases.
2. Location and elevation of each service disconnect.
3. Location of junction-pull boxes.
4. Location of all corners of controller base.

5-8-55.7.5 TESTING

- A. All signals shall be subject to any necessary electrical inspections as well as requirements as set forth in the most recent edition of the NCHRP Report 812, Signal Timing Manual and the CDOT Specifications.
- B. A signal system shall not be approved or accepted by the City until the signal has performed correctly to the City's satisfaction for a 30 day "check-out" period as outlined below.
- C. Controller and cabinet testing may be required by CDOT and or the City of Glenwood Springs. All specifications and material samples shall be submitted to the City for review and approval prior to installation.

5-8-65.7.6 CHECK-OUT PROCEDURE

- A. The contractor shall call for an intersection check-out after completing the controller cabinet installation along with all other signal equipment complete with wiring connections. All parts and workmanship shall be warranted for two years from date of acceptance. A performance bond shall be obtained by the applicant for this purpose.

- B. New signals shall operate without any type of failure for a period of 30 days. The contractor shall have personnel available to respond to system failure within 24-6 hours during this 30 day period.
- C. Failure of any control equipment or hardware within the "check-out" period shall restart the 30 day period again.

5.95.8 ROADSIDE FEATURES

5.9.15.8.1 GENERAL

Miscellaneous features included herein shall be developed and constructed to encourage the uniform development and use of roadside features wherever possible and feasible.

~~5.9.2 DESIGN STANDARDS~~

~~The design and placement of roadside features included herein shall adhere to the specific requirements as listed for each feature and the other standards contained in these Standards.~~

~~Testing and Staking~~

~~See Sections 5.2.14 and 5.2.15 for testing and staking requirements.~~

5.9.35.8.2 SURVEY MONUMENTS

- A. All existing survey control monuments which are disturbed, lost, or destroyed shall be replaced with the proper monument as outlined below by a Professional Land Surveyor registered in the State of Colorado. All such work shall be at the expense of the responsible builder or developer and in accordance with State Law.

~~B. Monument Locations. Survey monuments shall be set in accordance with Colorado Revised Statutes C.R.S. 38-51.~~

~~C.B. Bus Stops~~

- A. Population density and system planning dictate the number and the placement of the Ride Glenwood Springs (RGS) bus stops and the Roaring Fork Transportation Authority (RFTA) bus stops. The City and RFTA will determine the spacing and location of stops. In general, new service will not be initiated prior to the establishment of designated bus stops for an area.
- B. The City of Glenwood Springs and the Roaring Fork School District will determine the location of school bus stops in new developments using the general criteria that follows:
 1. A school bus stop shall be required for each new residential subdivision or apartment complex where school children are to be boarding or un-boarding, unless it is determined that a new stop is not required due to adjacent facilities already existing that can serve the site.
 2. School bus stops shall be designed to complement the residential environment and provide a safe and convenient location and access for neighborhood children, including sidewalk access.

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Commented [AD28]: Lee follow up

C. The physical location of any bus stop shall be primarily determined by the following considerations:

- maximizing safety
- operational efficiency
- minimizing impacts to adjacent property and public right of way designation on the City's Transit Operating Plan

D. Bus pullouts may be required on all arterial and collector roads for safe bus berthing and to minimize impacts to traffic flow by buses stopping. ~~Additionally, bus pull-outs may be required on local access roads if road geometrics dictate.~~

E. All RGS ~~and~~, RFTA ~~and school bus stops~~ shall be identified with signage/signage. This may include pavement marking and bus stop signs.

F. Passenger shelters may be required for some bus stops. Such shelters shall be designed to RGS and or RFTA standards and the location shall be approved by the City Engineer and Transportation ~~Manager~~ Engineer prior to installation.

5.9.45.8.3 MAILBOXES

A. During construction, existing mailboxes shall be accessible for the delivery of mail or, if necessary, ~~moved to a temporary location~~ mail will be held at the local post office. Temporary relocation shall be coordinated with the U.S. Postal Service. The mailboxes shall be reinstalled at the original location or, if construction has made it impossible, to a location as approved by the U.S. Postal Service Post Master.

B. ~~Sidewalk widening may be required to provide adequate passage.~~

C. ~~"Gang Cluster boxes"~~ built to accommodate mail for more than 5 street addresses are not allowed in public right-of-way without the express written approval of the City Engineer. Requests to place these types of structures in the ROW must include site specific reason(s) why a standard US Postal Service-approved mailbox or mailbox cluster cannot be used.

5.9.55.8.4 GUARDRAILS

For the purposes of design and location, all guardrails along roadways shall conform to the criteria of the most recent versions of the CDOT M&S Standard Plans. Guardrails shall be installed by an approved guardrail contractor.

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5.9.65.8.5 RETAINING WALLS

A. ~~Rock walls, segmental block walls and concrete~~ Retaining walls in the public right of way over 4 feet ~~high in total height~~ shall be designed by a Colorado licensed structural professional engineer and submitted to the City ~~Engineer~~ for approval.

B. ~~Geotechnical or structural inspections will be required to be performed during construction at the cost of the applicant.~~

C. All walls over 4' in total height require a building permit.

~~C.D.~~ If a wall greater than 4 foot is constructed without approval, applicant will be responsible for supplying all above material and shall be charged for work without permit.

5.105.9 PARKING DESIGN

The following design standards of this Section shall be met for all public and private parking areas, except where the parking area is to serve a single-family or two-family dwelling unit. The number of parking spaces required is included in the Glenwood Springs Municipal Development-Code Article 070.040.060.

~~Access ways for parking areas shall conform to these Standards.~~

~~D. Parking Stall Design Standards: Parking stalls shall meet the following standards, based on stall type. In all cases, the minimum maneuvering area to the rear of any parking stall shall be no less than twenty four feet. If the proposed use anticipates long term parking as the major parking demand, the city engineer may reduce those minimum parking stall sizes.~~

E. Table 5-16 Standard Parking Dimension Standards

Parking Angle (degrees)	Curb Length C	Stall D	Aisle Width		Bay Width	
			One Way	Two Way	One Way	Two Way
			A1	A2	B1	B2
90	9'	19'	24'	24'	62'	62'
60	<u>10.4'9"</u>	21'	18'	22'	60'	64'
45	<u>12.7'9"</u>	19.8'	13'	20'	52.6'	59.6'
30	<u>18'9"</u>	17.3'	12'	20'	45.6'	54.6'
0	<u>23'22"</u>	8'	12'	20'	20'	36'

Commented [AD30]: Update with correct image and confirm all dimensions

Table 5-17 Compact Car Parking Dimension Standards

Parking Angle (degrees)	Curb Length Stall Width C	Stall Depth D	Aisle Width		Bay Width	
			One Way	Two Way	One Way	Two Way
			A1	A2	B1	B2
90	<u>7.75'8"</u>	15'	24'	24'	54'	54'
60	<u>9.2'8"</u>	<u>17'17"</u>	18'	22'	52'	56'
45	<u>11.2'8"</u>	<u>16.1'16"</u>	13'	20'	<u>45.2'29"</u>	<u>52.2'36"</u>
30	<u>15.5'8"</u>	<u>14.3'14"</u>	12'	20'	<u>40.6'26"</u>	<u>48.6'34"</u>
0	<u>20'18"</u>	8'	12'	20'	<u>28'20"</u>	<u>36'28"</u>

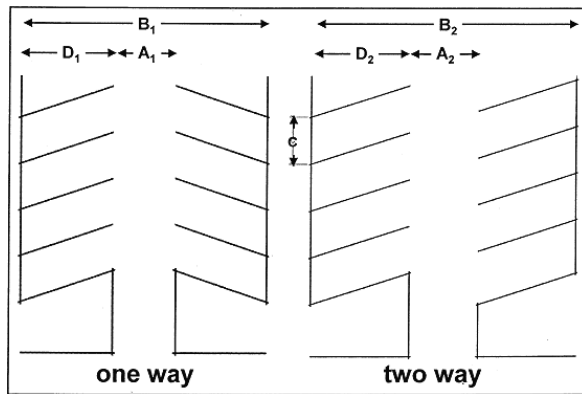


Figure 5-2 Parking Dimension Diagram

- F. ~~Size. Each off-street parking space shall cover an area not less than nine (9) feet wide and nineteen (19) feet long, except that up to twenty percent (20%) of the required number of off-street parking spaces may be compact car spaces at 7.75 feet wide and 15 feet long, provided the minimum number of required parking spaces are provided on-site. Spaces shall be designated for compact vehicle parking by means of a permanent, raised identification sign. All parallel parking spaces in the City right of way shall be a minimum of twenty two (22) feet in length.~~
- G. ~~Grade of parking use areas. Outdoor parking areas shall not exceed eight percent (8%) of grade and shall be not less than one percent (1%) of grade. The cross slope of any parking or loading space shall not exceed five percent (5%) of grade. The grade of access ways shall not exceed four percent (4%) within one hundred (100) feet of the intersection with a public right of way; or, where in the opinion of the City Engineer topographic conditions preclude maintaining four percent (4%) or less, the grade of the access way shall not exceed one percent (1%) within twenty five (25) feet of the public right of way.~~
- H. ~~Accessible Parking Stalls—Dimensional Standards. Accessible parking spaces shall be in accordance with the Americans with Disabilities Act. Accessible parking spaces are to be located to maximize convenience of access to the facility and minimize the need to cross the flow of vehicular traffic.~~
- I. ~~Internal Drive Aisles: Drive aisles shall have a minimum eighteen-foot width clearance for two-way traffic and a minimum ten-foot width clearance for one-way traffic unless the city engineer finds that the parking stalls to be served require a greater or lesser width. A physical separation or barrier, such as vertical curbs, may be required in order to separate parking areas from the travel lanes.~~

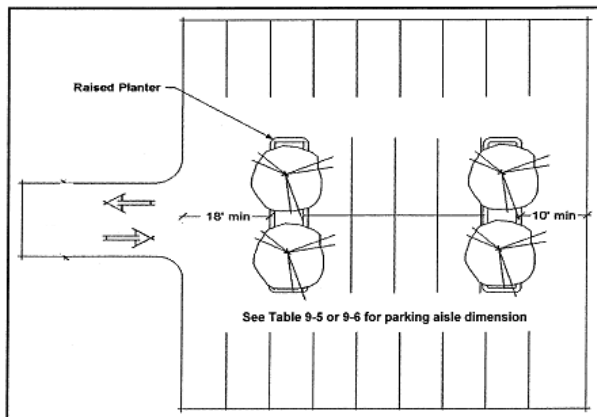


Figure 5-3 Drive Aisles

~~J.I. Stacking spaces.~~ For any drive-in or drive-through retail or service use, there shall be provided stacking space for vehicles waiting for service, which space is sufficient to prevent any such vehicles from extending onto the public right-of-way at any time. ~~In no case shall fewer than four.~~ A minimum of (4) such stacking spaces be provided for each such service bay, window or counter on the entrance side, and one (1) such space on the exit side where an exit is provided. Parking spaces required for such service bay uses may be counted among the required stacking spaces. ~~No bays designed to be entered from more than one (1) direction shall be permitted.~~

~~K.J.~~ Turnarounds are provided for dead-end parking bays ~~of eight stalls or more~~. Turnarounds must be identified with a sign or surface graphic and marked "no parking." The use of accessible parking spaces as the required turnaround is not permitted. ~~In dead-end parking bays with eight or more stalls, a turnaround space must be provided and properly marked.~~

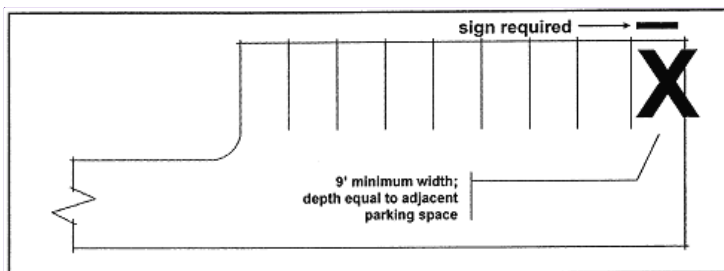


Figure 5-4 Parking Turnaround Spaces

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L-K. Parking Access:

1. No parking stall is located so as to block access by emergency vehicles.
2. Suitable curbs or barriers to protect public sidewalks and to prevent parking in areas where parking is not permitted shall be provided.

M-L. Vehicle Overhang and Parking Area Walkway Design - Wheel or bumper guards must be located so that no part of a vehicle extends beyond a parking area boundary line, intrudes on a pedestrian way, or contacts any wall, fence, or planting. A vehicular overhang may, however, intrude into a private pedestrian way located on the perimeter of a parking lot if the pedestrian way is greater than six feet in width. Walkways shall have a minimum effective (exclusive of vehicle overhang) width of four (4) feet.

1. Walkways within the site shall connect areas or points of pedestrian origin and destination and shall not be located and aligned solely based on the outline of a parking lot configuration. The on-site pedestrian system must be designed to provide connections to major pedestrian and bicycle destinations such as parks, schools, trail connections, bicycle facilities and transit stops that are located either within the development or adjacent to the development. Walkways shall link street sidewalks with building entries through parking lots.
2. Where it is necessary for the primary pedestrian access to cross drive aisles or internal roadways, a pedestrian crossing shall be placed and shall emphasize and place priority on pedestrian access and safety. The material and layout of the pedestrian access shall be continuous as it crosses the driveway with the break occurring in the continuity of the driveway paving. The pedestrian crossings must be well marked using pavement treatments, signs, striping, signals, lighting, traffic calming techniques, median refuge areas and landscaping.

N-M. Parking Study: At the discretion of the City Engineer, a parking study may be required to demonstrate that adequate parking is provided either for parking provided per zoning requirements or in conjunction with a parking reduction request. The scope of a parking study may consist of analysis of any or all of the following factors: joint use of parking areas, peak parking demand for each land use, unusual parking demand based on type of land use, availability of nearby on-street parking, vicinity of high frequency transit, and Institute of Transportation Engineers Parking Generation estimates.

O-N. Loading areas – reference Glenwood Springs Development Code Article 070.040.060.

P-O. Garages and carports. Parking requirements may be met by garages and carports covering or enclosing spaces which comply with minimum space size provisions of these Standards. Minimum vertical clearance between driving surface and ceiling shall be seven (7) feet.

Q-P. Location of parking spaces – reference Glenwood Springs Development Code Article 070.040.060.

5.11.5.10 TRAFFIC IMPACT ANALYSIS STANDARDS

5.11.5.10.1 GENERAL CONSIDERATIONS

Reference Documents and Acronyms

Glenwood Springs Long Range Transportation Plan (2015-2035) (**LRTP**)

State Highway 82 Access Control Plan, CDOT (**ACP**)

State Highway 82 Corridor Optimization Plan, CDOT (**COP**)

Intermountain 2040 Regional Transportation Plan, CDOT (**IMTPR**)

State Highway Access Code, CDOT (**SHAC**)

Trip Generation Manual, Institute of Transportation Engineers (**ITE**)

Parking Generation Manual, (ITE)

Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way, US Access Board (**PROWAG**)

Glenwood Springs Comprehensive Safety Action Plan (CSAP)

5.11.5.10.2 TRAFFIC STUDY

Any development that ultimately accesses a CDOT Right of Way may be required to obtain a CDOT access permit. Traffic studies for single-family and duplex developments are not required by the City.

A. Traffic Assessment

A Traffic Assessment (TA) is required for any proposed development that is expected to generate less than 100 peak hour trips for commercial/industrial sites or less than 20 peak hour trips for residential sites. The City Engineer will require an applicant to submit a Traffic Assessment, ~~in order to adequately assess the transportation impacts of any development proposal on the existing and planned transportation system.~~ The Assessment shall include a peak hour ~~and daily~~ trip generation study projection ~~(compared to existing condition if site triggered change of use),~~ proposed parking supply, an accessibility plan, and may require additional information as determined by the City Engineer. ~~Refer to 5.11.3 for requirement details.~~

B. Traffic Impact Study

1. A Traffic Impact Study (TIS) is required for any proposed development that is expected to generate 100 or more peak hour trips for commercial/industrial sites or 20 or more peak hour trips for residential sites to evaluate the overall impacts of the site on the transportation system. ~~Refer to 5.11.3 for requirement details.~~
2. For any site adjacent to State Highway 82 within the City Limits is governed by the SH 82 Access Control Plan. The ACP defines future access conditions along the corridor and can be amended only through a comprehensive study and consequent agreement by all parties (CDOT and the City) to approve the change. All applications for redevelopment along this corridor require review by CDOT and should adhere to state

requirements, guidelines, and principles. For development along US 6 within the City Limits, excluding the section from Donegan Road to Laurel Street CDOT is also the primary reviewer and studies should adhere to state requirements, guidelines, and principles.

C. Responsibilities for Traffic Impact Studies

The Applicant for development or redevelopment approval shall be responsible for assessing all traffic impacts associated with a proposed development, including impacts during construction. The City and/or the City and State will serve in a review and approval capacity.

D. Preparation and Certification

Traffic Assessments and Traffic Impact Studies shall be prepared by an Engineer registered in the state of Colorado with adequate experience and expertise in transportation planning and engineering. The Engineer shall be identified in the TA or TIS, and shall stamp the final report.

E. Coordination with the City

Transportation consultants and Engineers preparing Traffic Assessments or Traffic Impact Studies shall discuss proposed development projects with the City Engineer prior to gathering data or initiating the study in a (Pre-TIS Meeting). Issues to be discussed include, without limitation, the LRTP, definition of the study area, relevant subarea plans, collection of traffic data, methods for projecting build-out volumes, background traffic conditions, trip generation, trip reductions, directional distribution of traffic, ~~and~~ trip assignment, transit considerations, and bicycle and pedestrian accessibility. These aspects of the Traffic Impact Study shall be approved by the City Engineer prior to study preparation.

F. Submittal

A Traffic Assessment and a Traffic Impact Study shall be prepared in conformance with ~~and including~~ the information required in Section 5.11.3 of the following section of these Standards.

5.11.3.10.3 TRAFFIC STUDY FORMAT

A. Study Requirements

The information provided in the Traffic Impact Study shall include the following sections as outlined below. The study shall be typed in electronic form and bound, and clearly identify the data and information in the appropriate sections. In addition, the study shall contain a table of contents, lists of figures, list of tables, and appendix that includes all data, calculations, and capacity worksheets necessary to document the analysis. The information provided in the Traffic Assessment shall only include sections B, C, J, K and L below.

B. Introduction

The Study shall provide an introduction with an overview and specific discussion of the project or development proposal.

C. Site Location and Zoning

The study shall include a vicinity map detailing the property location; a conceptual site plan reflecting the boundaries of the project or development, access points, pedestrian facilities; and information detailing the designated zoning district, general terrain and physical features of the site and the surrounding area.

D. Study Area Boundaries

The study shall include the Study Area Boundaries as determined based on discussions with the City Engineer in the Pre-TIS meeting and include all roadways and transportation routes providing access to the site and the surrounding transportation system.

E. Existing Transportation System

The study shall describe and include roadway orientations, functional classifications and geometries, intersection geometries, and traffic controls, including without limitation signage and striping, speed limits, parking restrictions, sight distance, transit routes and stops, the presence of on- and off-street bicycle and pedestrian facilities, and any other related traffic operations information and improvements approved or planned by government agencies. For identified improvements scheduled by government agencies, include the nature of the improvements, extent, implementation schedule, and the agency or funding source responsible.

F. Existing and Projected Roadway and Intersection Traffic Volumes

1. The study shall include diagrams that map existing daily and peak hour traffic volumes, and each variation of projected traffic volumes, for all roadways and peak hour volumes including pedestrian and bicycle volumes and intersections within the study area. Also provide diagrams that map the existing intersection and roadway geometries-laneage and traffic control devices within the study area.
2. Existing traffic volumes shall be collected during a mid-week day (Tuesday – Thursday) preferably during the school year, unless the City Engineer agrees that the site is minimally affected by school traffic. Data collected for traffic studies shall include general traffic, pedestrian and bike traffic, transit and school vehicles, and heavy vehicle percentages. Peak hour factors established during the traffic counts shall be considered for use in the capacity analysis by approach. The existing counts shall be factored by the seasonal factors established at the CDOT Automatic Traffic Counter #000214 on the south end of SH 82, which will be provided by the City Engineer.
3. Traffic projections and forecasting methodology shall be discussed at the Pre-TIS Meeting and approved by the City Engineer. Traffic counts shall be scheduled with the City Engineer at least two days in advance of deploying traffic counters in the field.

G. Existing and Proposed Site Uses

The study shall include an identification of the existing (or previous) land use and proposed land use or the highest potential land use based on zoning and maximum trip generation where a specific use has not been determined. If rezoning is proposed, the study shall provide a comparison between the highest trip generation uses for the existing zoning and the highest trip generation uses for the proposed zoning. If actual trip generation volumes can be observed and documented from the existing site, these volumes shall be used over those estimated using *ITE Trip Generation* for comparative purposes.

H. Existing and Proposed Land Uses in the Study Area Boundaries.

The study shall document any vacant land or potential redevelopment that may result in a change in traffic volume conditions within the study area during each ~~time period~~ traffic scenario studied. Perform and provide trip generation on these parcels and include the trips generated from these parcels in the trip volume diagrams and level of service analyses for each appropriate ~~time period~~ traffic scenario studied. If available, information in approved Traffic Impact Analyses within the last two years may be used instead of performing trip generation on these parcels.

I.A. Transportation Demand Management Strategies

~~The study shall include an outline of transportation demand management (TDM) strategies to mitigate traffic impacts created by proposed development and implementable measures for promoting alternate modes of travel, including but not limited to the following:~~

~~1. **Site Design:** Incorporate design features that facilitate walking, biking, and use of transit services to access a proposed development, including features such as transit shelters and benches, site amenities, bike racks, site design layouts to increase convenience of alternate modes and reduce multiple trips to and from the site, and direct connections to existing off-site pedestrian, bicycle, and transit systems.~~

~~2.1. **Programs and Education:** Incorporate alternate modes programs, such as providing transit passes to employees and residents, van pooling to the site by a major employer, ride sharing, parking pricing, and planned delivery services, and educational measures such as promoting telecommuting, distributing transit schedules and trails maps, and providing an onsite transportation coordinator or plan to educate and assist residents, employees, and customers in using alternate modes.~~

Commented [MF32]: Discuss enforceability or ability to implement this requirement with the city.

J.I. Trip Generation

Traffic estimates for the proposed project and potential developed or redeveloped properties in the study area shall be obtained by performing trip generation using the procedures outlined in the most current edition of Trip Generation Manual of the Institute of Transportation Engineers (ITE). If adequate Trip Generation Manual data is not available for a specific land use, the procedures used to estimate trip generation data shall be approved by the City Engineer. Include the following specific trip generation information:

1. **Summary Table:** List each proposed (or approved) land use that requires trip generation analysis, including the project ~~plus and any~~ developed or redeveloped land uses within the study area. For each trip generation summary include land use type,

amount, size, intensity, average trip generation rates for total daily traffic and peak hour traffic entering and exiting the site (a.m., noon and/or p.m. peak hour traffic generation may be required), and the resultant total peak hour and daily trips generated for each time period and each land use.

2. **Calculations:** Calculation of projected trip generation for any land use, used to determine study area impacts, shall be based on the following:
 - a. Trip generation formulas (or rates, if formulas are not available) published in the most recent version of the Trip Generation Manual. Trip generation reports from other industry publications may be considered but are subject to the approval of the City Engineer.
 - b. A local trip generation study conducted within the last two years, following procedures outlined in the most recent version of the Trip Generation Manual, if no published rates are available and similar land uses can be studied.
 - c. Additional data or studies from other similar jurisdictions. Trip generation obtained in this fashion is subject to the review and approval of the City Engineer.
3. **Trip Generation Reductions:** Credit for any trip reductions is subject to review and approval in advance by the City Engineer. Anticipated trip reduction assumptions should be discussed and approved by the City Engineer prior to the preparation of at the Pre-TIS meeting the Traffic Study. Trip reductions typically fall into one of two categories: those that reassign some portion of the trip generation from the surrounding roadway network (passerby and diverted trip reductions), and those that remove trips generated from the land use trip generation (internal and modal split reductions).
 - a. Use of passerby and diverted trip reductions may be evaluated and considered in reducing the additional estimated total trip generation of a new land use. However, passerby and diverted trip reduction factors are not to be applied directly to reduce trip generation and turning movement volumes at driveways serving the studied land use. These factors are subject to the approval of the City Engineer.
 - b. Internal trip reductions and modal split assumptions may reduce the total trip generation of a land use. These factors considered in the Traffic Study shall supply analytical support and detailed documentation to demonstrate how the estimates were derived and incorporated, and are subject to the approval of the City Engineer.

K.J. Trip Distribution, Trip Assignment, and Modal Split

Trip distribution and assignment of any generated traffic estimates shall be clearly summarized and illustrated for each access route entering and exiting the generating land use, using the study area transportation system and existing traffic splits as a basis. If applicable to the site, a modal split may be assumed to further reduce the vehicular trip generation of the site, although and the resultant non-vehicular trips shall be documented in the study. Include the following specific trip distribution and assignment information:

1. **Trip Distribution:** The trip distribution for each site shall be identified and illustrated with a graphical figure detailing the percentages making each movement, at each access and

intersection in the study area. The trip distribution shall be logically based upon factors such as the site's location within the City, existing traffic volume data in the study area, market analyses, applied census data, and/or professional engineering judgment. Trip distribution assumptions are subject to the approval of the City Engineer upon review of the existing traffic volumes.

2. **Trip Assignment:** Trip assignment shall be done by applying the trip generation totals for each time period scenario studied, to the trip distribution percentages developed. The trip assignment shall develop anticipated traffic volumes for each of the movements identified by the trip distribution and each of the time period scenarios identified in the analyses. The resulting traffic volumes shall be illustrated with graphical figures detailing the anticipated volumes making each movement, at each intersection in the study area, during each time period scenario studied.
3. **Modal Split:** The number of vehicular trips generated by the site may be reduced by a modal split assumption approved by the City Engineer. Modal splits account for trips made by a mode other than a car, i.e. transit, bicycle, or pedestrian trips. Modal splits are highly influenced by the site's use, surrounding topography, and its proximity to transit routes, connective sidewalks, and trails.

L-K. Existing and Projected Traffic Volumes

Traffic Volume Scenarios: Five traffic volume scenarios and three separate times of the day may be required to be included in a Traffic Impact Study analysis. The applicant shall meet with the City Engineer to determine the scenarios and time periods to be studied, prior to the development of the Traffic Impact Study. The potential scenarios and time periods include the following:

- a. Scenario 1 – Existing Conditions: An operational analysis of existing traffic conditions will be required in the Traffic Impact Study. Existing Conditions analysis should attempt to model traffic conditions at the time the traffic study is being prepared. Traffic counts that are older than the year the study is being prepared shall be factored up or adjusted to existing year volumes by a factor provided by the City Engineer.
- b. Scenario 2 – Anticipated Project Completion Year Without Project Traffic: Include an analysis of the anticipated traffic conditions during the year the project is intended to be finished and traffic is generated. The analysis shall anticipate the increase in background traffic volumes and the generation of other related projects that are not present in the existing condition, but would likely be completed, and generating trips in this time period. The trip generation for the proposed project shall not be included in this scenario. If the project is intended to be completed the same year that the Traffic Study is being prepared, then this scenario is the same as Scenario 1 - Existing Conditions.
- c. Scenario 3 – Anticipated Project Completion Year With Project Traffic: This scenario is the same as Scenario 2, except that the project volumes are assigned to the roadway network and included in the analyses.

- d. Scenario 4 – Future Buildout Conditions Without Project Traffic: An analysis of the anticipated traffic conditions ~~during buildout~~, using the projected buildout year defined as 20 years from the Existing Conditions scenario, based on the applicable CDOT 20-year growth factor. The analysis shall anticipate the increase in background traffic volumes and the generation of other related projects that are not present in the existing condition, but would likely be completed and generating trips in this ~~time period~~ scenario. The trip generation for the proposed project should not be included in this scenario.
 - e. Scenario 5 – Future Buildout Condition With Project Traffic: This scenario is the same as Scenario 4, except that the project volumes are assigned to the roadway network and included in the analyses.
4. **Traffic Volume Projections**: The traffic volume projections shall identify existing and projected daily traffic counts and peak hour turning movement counts for each access point, intersection and street identified in the traffic study area for each of the aforementioned scenarios required in the study.
 5. **Time Periods**: Each scenario may be required to look at three different time periods (the a.m., noon and p.m. peak hour conditions). The City Engineer will determine which time periods and scenarios are required for each Traffic Impact Study depending upon the project's size, location, types of land uses and other pertinent factors.
 6. **Raw Traffic Count Data**: Include all raw traffic-count data for average daily and peak hour conditions and traffic analysis worksheets in the appendices of the Traffic Impact Study for review and reference. ~~Computer programs and associated printouts~~ Traffic analysis software output may be used for this part of the report.

NOTE: All total daily traffic counts must be actual machine counts for a 24-hour period, not based on factored peak hour sampling. The latest available machine counts from the City, and other agencies, may be acceptable if they are not more than 2 years old. Use of CDOT seasonal factors to increase raw volumes to seasonal peaks may be applied in establishing the Existing Conditions volumes if determined necessary by the City Engineer prior to conducting the study.

M.L. Level of Service and Queuing Analysis

1. The City has adopted LOS D as the minimum acceptable level of service for all movements and approaches when evaluating intersection operations. However, we are aware that the LOS for many of the City's intersections with SH 82 is controlled by SH 82 signal timing. Project impacts that maintain LOS D or better for all intersections and street segments may not be required to provide LOS related traffic mitigation improvements. Improvements at SH 82 intersections shall be evaluated and may become part of a developer improvement agreement for implementation at the time the project is constructed, or potentially with partners in the future, dependent upon the traffic impact and responsibility.
2. LOS E and lower peak hour conditions require the implementation of one or more transportation management strategies consistent with the goals and objectives of the

L RTP. A transportation management strategy plan required to address and mitigate these conditions may include travel demand management, land use intensity reduction, site design, layout and access modifications, parking reduction measures, or transportation infrastructure improvements.

3. The Traffic Impact Study shall provide LOS analyses for all study area intersections (signalized, roundabout controlled, and unsignalized) using methodologies outlined in the current Highway Capacity Manual or other nationally accepted methods. The analyses should be performed for Scenarios 1 through 5, described in Section 5.10.35-10.35-11.3(LK), "Existing and Projected Traffic Volumes," and for each time period (a.m., noon and/or p.m. peaks) that is required in the Traffic Impact Study, unless otherwise required by the City Engineer.
4. Level of service analyses shall consider the appropriate infrastructure, lane usage, traffic control and any other pertinent factors for each scenario to be studied. Intersections with planned improvements, discussed in City planning documents, may have those improvements implemented in the level of service analyses.
5. Signalized intersection level of service analyses shall use the existing timing and phasing of the intersections for all scenarios. If the analyses are to deviate from existing timings or phasing, then a detailed signal progression analyses for the affected corridor shall also be provided.
6. The results of the level of service analyses for each scenario and each time period shall be summarized into one or more tables that illustrate the differences in level of service for each scenario. At a minimum, these tables shall list the level of service results for each intersection to include the level of service for each movement and approach and the total intersection level of service, as well as the appropriate delay values for each movement and approach and the total intersection. These tables shall highlight any locations where the addition of project traffic has caused any approach of any intersection to fall below the LOS D standard for the City.
7. In addition to Level of Service, the 95th percentile queue lengths shall be calculated for all movements affected by project traffic. The 95th percentile queue lengths determined for Scenario 5 represent the future turn lane demand (needs) and should be utilized for design or extension of ~~the any~~ turn lane.

N.M. Traffic Counts and Analysis Worksheets

The Study shall provide capacity analysis calculations based on the planning or operational analysis techniques contained in the current Highway Capacity Manual or subsequent highway capacity techniques established by the Federal Highway Administration, including the following:

1. **Raw Traffic Count Data:** Include all raw traffic count data for average daily, hourly Average Daily Traffic (ADT), and peak hour conditions and traffic capacity analysis output or worksheets in the appendices of the traffic study for reference. Computer programs and associated printouts may be used for this part of the report.

2. **Level of Service Analyses:** Include all level of service analyses performed for intersections. ~~Traffic analysis software output Computer capacity analysis programs and associated printouts~~ may be used for this part of the report. If signal timing or phasing changes are proposed for traffic mitigation and the signal is currently part of a coordinated system, a progression analysis will be required to ensure that adequate progression is maintained or provided. All progression analysis and assumptions to be used shall be reviewed and approved by the City Engineer (generally with input from CDOT).

Q.N. Traffic Control, Roundabouts, and Traffic Signals

The Traffic Study shall discuss and analyze any traffic control measures that may be necessary to serve a proposed project or development. Any traffic control measures are to be evaluated based on the requirements established in the Manual on Uniform Traffic Control Devices (MUTCD) and by the City, and will be applied as necessary to ensure safe and efficient operation of the City's transportation system. The analysis shall demonstrate the need for traffic control measures considering the objectives and policies of the LRTP, CSAP, and alternative site designs in order to minimize or mitigate traffic impacts from the proposed project or development. The following traffic control measures are to be addressed:

1. **Regulatory Signage, Markings and Islands:** These traffic control measures shall be applied as necessary in conformance with the MUTCD and City standards and policies.
2. **Traffic Signals:** The installation of new traffic signals is discouraged by the City and all possible alternatives to signalization, including roundabouts, shall be evaluated before the installation of a new traffic signal will be considered. The need for new traffic signals will be based on warrants contained in the MUTCD and on City policies. In determining the location of a new signal, safety and community traffic circulation and progression will be the primary considerations. If a traffic signal is suggested as part of a mitigation package, and the intersection lies within a series of coordinated traffic signals, then a progression analysis ~~may~~ will be required to ensure that adequate progression may still be provided along the corridor. Generally, a spacing of one-half mile between all signalized intersections is to be maintained, to achieve optimum capacity and signal progression. Pedestrian and bicycle movements shall be considered in all cases and adequate pedestrian clearance is to be provided in the signal design and timing plan.
3. **Intersection and Access Locations:** To provide flexibility and safety for the existing roadway system and to ensure optimum two-way signal progression, an approved traffic engineering analysis shall be made to properly locate all proposed intersections that may require signalization, and any accesses to the proposed development.

Q. Transportation Demand Management Strategies

The study shall include an outline of transportation demand management (TDM) strategies to mitigate traffic impacts created by proposed development and implementable measures for promoting alternate modes of travel, including but not limited to the following:

4. Site Design: Incorporate design features that facilitate walking, biking, and use of transit

services to access a proposed development, including features such as transit shelters and benches, site amenities, bike racks, site design layouts to increase convenience of alternate modes and reduce multiple trips to and from the site, and direct connections to existing offsite pedestrian, bicycle, and transit systems.

5. **Programs and Education:** Incorporate alternate modes programs, such as providing transit passes to employees and residents, van pooling to the site by a major employer, ride-sharing, parking pricing, and planned delivery services, and educational measures such, as promoting telecommuting, distributing transit schedules and trails maps, and providing an onsite transportation coordinator or plan to educate and assist residents, employees, and customers in using alternate modes.

Commented [MF33]: Discuss enforceability or ability to implement this requirement with the city.

P. Traffic Accident Analysis

When required, The Traffic Impact Study ~~may need to~~shall include accident analyses at one or more locations in the study area. The City Engineer shall specify whether such accident analyses are needed for each Traffic Study. Where required, estimates of increased or decreased accident potential shall be evaluated for the proposed project or development and appropriate safety related mitigation measures are to be included. Traffic accident data is available from the City of Glenwood Springs' Police Department or from the City Engineer.

Q. Recommendations

1. The Traffic Study shall include a section in the report that provides any recommendations of the Engineer. These recommendations shall include the Engineer's recommended location, nature and extent of proposed transportation improvements associated with the project or development to ensure safe and efficient roadway operations and capacity, and compatibility with the City's transportation system and the goals of the LRTP. Proposed TDM programs and the anticipated traffic reductions associated with each program shall be documented in the Recommendations.
2. These recommendations are to be supported with appropriate documentation and discussion of the technical analyses, assumptions and evaluations used to make the determinations and findings applied in the Traffic Impact Study. In the event that any Traffic Impact Study analyses or recommendations indicate unsatisfactory levels of service at any study area intersections, a further description of proposed improvements or mitigation measures to remedy deficiencies shall be included.
3. These proposed improvements or mitigation measures may include projects by the City, County, RFTA, or The Colorado Department of Transportation for which funds have been appropriated and obligated. These proposals may also include improvements to be funded and constructed by the applicant as part of project or development construction. Assumptions regarding future roads, widths and lane usages in any analyses are subject to the approval of the City Engineer.
4. In general, the recommendation section shall include:

- a. Proposed and Recommended Improvements: Provide a detailed description and sketch of all proposed and recommended improvements. Include basic design details showing the length, width and other pertinent geometric features of any proposed improvements. Discuss whether these improvements are necessary because of development traffic or whether they would be necessary due to background traffic. Specify the approximate timing necessary for each improvement.
- b. Level of Service Analysis at Critical Points: Provide another iteration of the LOS analyses that demonstrates the anticipated results of making recommended improvements, such as movement LOS, operational and safety conditions and conformance with the City's transportation system goals and the LRTP. In association with LOS analyses for recommended improvements, include a comparison of these results with the background LOS analyses without the proposed project or development. Where appropriate, this step is to be provided for both near term (year of project completion) and 20-year buildout scenarios.
- c. Assessment of Site Access: Provide a detailed assessment of the site access point(s) at the intersection of the public street and along all proposed facilities to demonstrate adequate sight distance and accessibility requirements are provided for vehicles, bicyclists and pedestrians using the driveway and sidewalk facilities. Sight distance requirements are defined in 5.2.11.

R. Conclusion

Include a conclusion in the report that provides a clear and concise description of the study findings and recommendations, and serves as an executive summary.

S. Revisions to Traffic Study

1. Following City review, the City Engineer may require revisions to a traffic study based on the following considerations:
 - a. Completeness of the study,
 - b. Thoroughness of the level of service, queuing, and impact analyses and evaluations,
 - c. Compatibility of the study with the proposed access design, project or development plan and local transportation system,
 - d. Compliance with local and state regulations and design standards, and
 - e. An analysis of study deficiencies, errors, or conflicts.

~~2. Revisions may also be required as a result of public process with surrounding neighborhoods and land uses or review by City Council or the Planning Commission. Additional details requiring traffic study revisions may include, but are not limited to, the following:~~

- ~~a. An enlarged study area,~~
- ~~b. Alternative trip generation scenarios,~~
- ~~c. Additional level of service analyses, and~~

~~d. Site planning and design issues.~~

5.12—DESIGN VARIANCES

~~A variance from the strict application of the requirements of the Engineering Design Standards may be granted by the City Council or Planning Commission, whichever body authorizes the development permit or subdivision agreement, where a finding is made that there exists on the property in question exceptional topographical, soil or other subsurface condition or other extraordinary conditions peculiar to the site, existing buildings or lot configuration such that strict application of the requirement of the regulation from which the variance is requested would result in peculiar and exceptional practical difficulties to or exceptional and undue hardship upon the applicant or owner of the property in question, and that the public good would be better served by granting of the variance. Such variance shall not be granted if the same would be detrimental to the public good or impair the intent and purposes of these Standards. Such design variance request shall be made and reviewed concurrently with the development plan submittal and review and, if granted shall be described and acknowledged in the development permit.~~

APPENDIX – TRANSPORTATION STANDARD DRAWINGS

CITY STANDARD DRAWINGS	Filename
1. Arterial Roadway Typical Section	
2. Collector Roadway Typical Section	
3. Local Street Typical Section	
4. Alley Typical Section	
5. Private Street Typical Section	
6. Driveway Installation	
7. Driveway Installation Sidewalk Through Driveway	
8. Non-Curbed Street Driveway and Culvert	
9. Reserved	
10. Reserved	



Chapter 2

Wastewater Collection Standards City of Glenwood Springs Engineering

Revised 2026

Chapter 2 Wastewater Collection Standards

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Chapter 2 Wastewater Collection Standards

I. Introduction

This chapter shall govern all new construction, reconstruction and rehabilitation of City of Glenwood Springs operated sewer. In addition, these standards and guidelines shall apply to all private developments within the city.

These Engineering Standards and Guidelines will also be cited in the text as the “Standards.”

II. Design Standards

The following codes and manuals shall be applicable when pertinent to the work, when specifically cited in these Standards, or when required. Refer to individual chapters for additional design standards.

- a. Rules and Regulations as adopted in the City of Glenwood Springs Municipal Code (Code)
- b. City of Glenwood Springs (City).
- c. American Water Works Association (AWWA).
- d. Colorado Department of Public Health and Environment (CDPHE).
- e. International Plumbing Code (IPC).
- f. International Building Code (IBC).
- g. Occupational Safety and Health Administration (OSHA).

III. Definitions and Terms

- a. **As-Built Drawing:** Plans that indicate the actual constructed condition as surveyed or noted by the contractor. As-Built Drawings will be required even if the system is private.
- b. **Private Sewer System:** This includes a sewer service or main for a building or development that is not maintained by the city. This shall include lift stations, pressurized systems, and gravity lines serving a development unless the system serves multiple developments and is approved for acceptance by the Public Works Director. The owner or homeowner’s association is responsible for the maintenance of the system from the building to the public main, including “broken in” connections to the main if an integrated WYE is not installed.
- c. **Public Sewer Main:** Portion of the system located within public right-of-way or easements, and which are operated and maintained by the city. The City’s responsibility includes the sewer main the integral sewer wye/factory tap.
- d. **Wastewater Systems:** Sewage facility and sewage derived from domestic, commercial, and industrial waste to which storm water and groundwater are not intentionally admitted.



2.1 GENERAL REQUIREMENTS

- A. Any extension/connection of the City's Wastewater System must be approved by the City and be in conformance with the Colorado Department of Public Health and Environment (CDPHE) regulations, and the CDPHE Recommended Standards for Wastewater Facilities (Design Criteria). (Reference Code: 080.030.010(a) – Connections to wastewater system/Requirement to Connect).
- B. Where there are conflicts or differences between these Standards and City ordinances, the more restrictive requirement shall apply **according to the determination of staff**.
- C. All sewer systems shall be designed as a gravity sewer whenever physically and/or economically feasible.
- D. All buildings located within the City and within four hundred (400) feet of any established wastewater line, which are used for residence or business purposes or in which people congregate or are employed, must be connected with the City wastewater system; and all plumbing fixtures in such buildings shall also be connected to the City's wastewater system. **Staff may override this requirement if it is not practical or feasible**. Where an established wastewater line is not so available, the building wastewater may be connected to a private disposal system in conformity with the design criteria and rules and regulations of CDPHE. All private disposal systems shall be approved by the County and reviewed by the City. (Reference Code: 070.040.030(a)(1) – Site Development and Improvement Standards/Purpose; 080.030.010(a) – Connections to wastewater system/Requirement to Connect)
- E. In designing and planning for any development, it is the developer's responsibility to see that adequate sewer systems are provided. The developer must show in the proposed plans how sewer facilities will be provided and whether the existing system will be adversely impacted. A detailed analysis of the existing and proposed system may be required. If adverse impacts are indicated, the city may require upgrading of the existing public wastewater system. Design of wastewater facilities shall be by a registered engineer in the State of Colorado and will be reviewed by the City for compliance with these Standards. (Reference Code: 080.030.010(a) – Connections to wastewater system/Requirement to Connect; 070.080.050(d)(2) – Relationship of Regulations to Other Requirements.
- F. Any person who wishes to connect onto the City's wastewater system must first make an application for such connection to the city, procure the necessary permits, and pay the necessary fees (tap fee, improvement fee, etc.) for such connection. Prior to discharge of any wastewater, all improvements must be completed, accepted by the city and approved, including granting of right-of-way or easements, and all applicable fees must be paid. (Reference Code: 060.020 – International Building Code: Section 109.2 Schedule of Permit Fees; 080.030.010(b) – Connections to wastewater system/City Permission Required; 080.060.040 – Amount of System Improvement Fee)
- G. No person shall abandon any private sewer service connection to the City's wastewater collection system without first obtaining the necessary permits and written authorization through the City. (Reference Code: 080.030.010(e) – Connections to wastewater system/Abandonment of connection)



- H. With the exception of private sewer services defined in these Standards, all wastewater lines constructed pursuant to these Standards shall be and become the sole and exclusive property of the City, as well as any and all easements and rights-of-way therefore; and all such persons paying for the same shall, upon request of the City, execute and deliver any and all necessary and proper deeds of conveyance, assignments or other documents which the City may desire to perfect such ownership by the City. (Reference Code: 080.030.020(d) – Line extensions/Ownership of Extension)
- I. The City’s W/WW Department staff shall be onsite to observe, inspect, and approve ANY work that may affect water or sewer mains, including private services and mains. (Reference Code: 080.030.020(b) – Line extensions/Installation)
- J. All work upon or in connection with any portion of the wastewater system of the City or any utilities which connect thereto shall be done by the City or by a qualified contractor that is specifically granted permission by the City. Such work shall be performed in conformity with the Design Criteria of the CDPHE, these Standards and the rules and regulations of the City. Such work shall be inspected and approved by the City. (Reference Code: 080.030.040 – Work Performed)
- K. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters. (Reference Code: 080.030.030(b)(10) Waste discharge regulations/Discharge of non-acceptable wastes into wastewater system prohibited; 060.040.020 (Amendment adding Ch. 11, Section 1104.3 to the IPC) Amendments to International Plumbing Code – Combining Storm and Sanitary Drainage)
- L. The City shall be given 72 hours’ notice prior to scheduling a diversion of flows in the wastewater system. Connections to existing sewer facilities where live flows exist shall be made only after consultation with and receipt of written permission from the City. No bypass of sewage to the surface will be allowed in the completion of this connection.
- M. During the construction of mains and services, the contractor shall cap, plug, or secure the ends of such lines whenever the project is shut down at the end of the day so that contaminants will not enter the lines.
- N. The City construction inspector shall be notified a **minimum of 72 hours in advance** of the time that a tap connection to an existing main or a service connection to an existing main is needed so that the wastewater division crew may be scheduled for the work. **Failure to provide 72-hour notice of inspection will cause an additional inspection fee to be charged.** The inspector shall be present at the time of the tap. All private sewer connections to existing public sewer mains and all taps to existing public mains shall be made by City personnel at the expense of the Contractor, unless the Contractor is specifically granted permission to perform the tap or service connection at the Contractor’s expense. At the time of notification, the customer must also notify the city of the requested sewer tap sizes. (Reference Code: 080.030.040 – Work Performed)
- O. Any extension or enlargement installed by someone other than the City shall be guaranteed for two years from the date of City acceptance. (Reference Code: 080.030.020(b) – Line extensions/Installation; 070.040.030(f)(2) – Site Development and Improvement)



Standards/Assurance and Acceptance of Public Improvements/Acceptance by City of Public Improvements)

- P. Utility Easements and rights-of-way shall be provided for installation and maintenance of City water and wastewater facilities (Reference Code: 070.040.030(e)(7) – Site Development and Improvement Standards/ Site Development and Improvement Standards/Underground Utilities).

2.2 REQUESTS FOR SEWER SERVICE AND REQUIRED PRE-CONSTRUCTION SUBMITTALS

The following section covers the required submittal material necessary for the City to review a sewer project to ensure that it conforms to these standards/regulations. This information is in addition to the requirements of Chapter 1.

- A. The following items shall be included on all plan drawings.
 - a. Show outline of water and sewer main and service lines. Show centerline of water and sewer line with appropriate ties to centerline of street or survey control lines, curbs, property lines or right-of-way lines and easement lines.
 - b. On each sheet of the plan, show a sufficient number of typical sections to give the relative location of surface and underground improvements with respect to proposed sewer main. Indicate size, type and other appurtenant data for all improvements.
 - c. Utilities, sewers, and storm drains.
 - d. Indicate the type, size and ownership of all existing utilities in streets or rights-of-way or rights-of-way in which the water and sewer lines are to be connected. Tie utilities, sewers, house connections, and storm drains to streets rights-of-way centerline or to street property line.
 - e. Indicate portions of existing utilities that are to be abandoned because of water and sewer construction.
 - f. Details: At intersections where tees, crosses, valves and concrete reaction blocks are to be provided, or at any other sections of the lines where a large number of fittings will be involved, show a large-scale view of the appurtenances with dimensions to each separate fitting.

2.3 DESIGN REVIEW POLICIES

- A. See Chapter 1, regarding design review policies.

2.4 AS-BUILT DRAWING SUBMITTAL

- A. In addition to the requirements of Chapter 1, the following wastewater collection specific information shall be included in the as-built drawings.
 - a. Pipe size and type details
 - b. Service tap locations



- c. Manhole elevations, rim elevations, and invert elevations
- d. All tees, service wyes, and other sewer line appurtenances either below ground or at the ground surface shall have reference measurements to at least three prominent above ground objects. All such measurements shall be recorded on the set of As-Built Drawings and shall be provided to the City after the completion of the project.

2.5 CONSTRUCTION WATER USAGE POLICY

All water used for construction purposes must be pre-approved by the City and users must follow the protocol outlined in the City’s Construction Water and Fire Hydrant Usage policy.

2.6 WASTE DISCHARGE REGULATIONS

- A. Waste Discharge Regulations are defined in Section 080.030.030 of the Code. Note the following:
 - a. It shall be unlawful for any person to place or cause to be placed any solids or insoluble matter of any kind or nature whatsoever within any wastewater line belonging to the City or any part thereof or within any connection thereto.
 - b. The discharge of nonacceptable wastes into the City wastewater system, whether directly or indirectly, is prohibited; and, where investigation reveals the presence in the system of nonacceptable wastes emanating from any lot, land, building or premises, the owner, lessor, renter or occupant of such lot, land, building or premises shall be required at his/her own expense to treat, neutralize or in other ways prepare the noxious substance therein to the satisfaction of the City in order to convert the same into acceptable wastes. Nonacceptable wastes are herein defined as follows:
 - i. Any liquid or vapor having a temperature higher than one hundred fifty (150) degrees Fahrenheit;
 - ii. Any water or waste having a five-day Biochemical Oxygen Demand which may contain more than five hundred (500) parts per million by weight as averaged during any twelve-hour period,
 - iii. Any gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquid, solid or gas;
 - iv. Any solid waste;
 - v. Any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch, manure, grit, brick, cement, onyx, carbide or any other solid or viscous substance capable of obstruction of the flow of the wastewater lines or other interference with the proper operation of the wastewater system;
 - vi. Any water or waste having a pH lower than six and one-half (6.5) or higher than nine (9), or having any other corrosive property capable of causing damage or hazard to structures, equipment or personnel of the wastewater system;



- vii. Any water or waste containing a toxic or poisonous substance in sufficient quantities to injure or interfere with the wastewater process, instituting a hazard to humans or animals or creating any hazard in the receiving water at the City's wastewater treatment facility;
 - viii. Any water or waste containing total suspended solids (TSS) of such character or quantity that unusual attention or expense is required to handle such materials at the City's wastewater treatment facility;
 - ix. Any noxious or malodorous gas or substance capable of creating a public nuisance
 - x. Any surface or ground water; or
 - xi. Any toxic or poisonous pollutant which causes an increase in the cost of operation and maintenance at the City's wastewater treatment facility. Upon violation of this Paragraph, in addition to all other remedies of the City, the City shall require the violator to pay the incremental fines as noted in Subsection (g). In the event the above-described nonacceptable wastes cannot be treated, neutralized or in other ways prepared to the satisfaction of the City Representative, the City Representative may order the building discharging such nonacceptable wastes disconnected from the City's wastewater system until such wastes can be eliminated, treated, neutralized or in other ways prepared to the satisfaction of the City Representative.
 - xii. Any water from storm drains, roof drains, window well drains, drainage collection systems, foundation drains, sumps, surface runoff, sub-surface drainage, or cooling processes.
 - xiii. Garage drains shall not be discharged into City's wastewater system prior to a sand oil separator or equivalent being installed.
- c. The city may order any building discharging such nonacceptable wastes as defined above disconnected from the City's wastewater system until such wastes can be eliminated, treated, neutralized or in other ways prepared to the satisfaction of the city.
 - d. Grease, oil and sand traps or other appurtenances shall be provided when, in the opinion of the City, they are necessary for the proper handling of any liquid waste containing grease in excessive amounts or any flammable waste, sand or other harmful ingredients. All traps shall be of a type and capacity approved by the City and shall be located as to be readily and easily accessible for cleaning and inspection. See dedicated section 2.16 for additional information about grease interceptors.
 - e. When required by the City, the owner of any property served by a private sewer service line carrying industrial waste or nonacceptable waste, as defined in this Section, shall install a suitable control manhole in the private sewer service line to facilitate observation and sampling of the waste by the City. Such manholes, when required, shall be accessible and safely located and shall be constructed in accordance with the plans approved by the City. The manholes shall be installed and maintained by the owner at their expense.



2.7 GRAVITY SEWER MAINS

A. General

- a. Sewer mains shall be sized for the ultimate development of the tributary area. New gravity sewer systems shall be designed on the basis of an average daily per capita flow of sewage of not less than 100 gallons per day plus wastewater flow from industrial plants and major institutional and commercial facilities unless water use data is available to better estimate the flow. The 100 gal/capita/day figure shall be used in conjunction with a peaking factor to cover normal infiltration. However, an additional allowance should be made where the conditions are unfavorable. If the new collection system is to serve an existing development, the likelihood of inflow and infiltration (I/I) contributions from existing service lines shall be evaluated and the wastewater facilities designed accordingly. Nothing shall preclude the City from requiring the installation of a larger sized main if the City determines that a larger size is needed to meet the requirements for future service. All additional costs for the enlargement shall be paid by the City (Reference Code: 080.030.020(c) – Line extensions/Service Line Connections or Enlargement of Use)
- b. Generally, gravity sewers shall be designed with straight alignment between manholes, however, curved alignment may be permitted when conditions warrant, upon special approval of the City.
- c. Cleanouts at the end of sewer mains will not be accepted as a substitute for a manhole.
- d. Sewer lines shall be designed to prevent damage from superimposed live, dead, and frost induced loads. Dead loads shall include at a minimum soil and potential groundwater. Where necessary, special bedding, haunching and initial backfill, concrete cradle or other special construction shall be used to withstand anticipated superimposed loading or loss of trench wall stability.
- e. A minimum of 4' of separation shall be provided when sanitary sewer is adjacent to dry utilities.

B. Pipe and Fittings

- a. Refer to Ch. 7 specification, Sanitary Sewer lines for comprehensive material requirements. Note the following:
 - i. The preferred material of sewer mains is gasketed SDR 35, **SDR 26** or C900 Polyvinyl Chloride (PVC) Pipe and fittings. Exceptions may be allowed by the city on a case-by-case basis, or when bury depths require. Certain areas of the city require locking pipe; staff will make the developer aware of these areas during development review.
- b. All pipe and services shall be installed with continuous marking tape, tracer wire, backwater valve, and tracer wire box when applicable.

C. Minimum Pipe Size

The minimum size for mains shall be an 8 inch inside diameter.



D. Depth of Bury

Gravity sewer mains will typically have a minimum depth of 5.5 feet. Actual depth will be determined by slope, flow, velocity, and elevation of existing system. Any mains deeper than 15' shall be reviewed and approved or denied by the Public Works Director.

E. Minimum Separation Distances from Pollution Sources or Dry Utilities

- a. Per current CDPHE Design Criteria, water mains shall be separated from pollution sources, as summarized below.
 - i. Parallel Installation of sewer mains with potable, reclaim, and irrigation (raw water) water pipelines shall be accomplished in a fashion to preclude contamination of the water facilities. The separation distance shall be measured edge to edge of the sewer main and the water pipeline. The sewer mains shall be located no less than 10 feet away from (i.e., between pipes, outside to outside) and 1.5 feet below the potable water pipeline. The sewer mains shall be located no less than 4 feet away from and 1.5 feet below the reclaim water pipeline of irrigation (raw water) pipeline.
 - ii. If the sewer main crosses under the water main but less than 1.5 feet of clear space will exist, the sewer main shall be installed in a pipe casing extending no less than the 10 feet each side of the water main centerline. The pipe casing shall be of watertight material with no joints. The casing pipe material may be steel, ductile iron, or PVC with suitable carrier pipe supports and casing pipe end seals. Alternatively, concrete encasement of the carrier pipe bells extending no less than 10 feet each side of the water main centerline may be used if approved by the city on a case-by-case basis.
 - iii. If the sewer main will cross above or over the water main, the sewer main shall be installed in a pipe casing extending no less than 10 feet each side of the water main centerline.
 - iv. If the minimum clearances cannot be satisfied, the city may consider alternative designs on a case-by-case basis. Any variances require written approval by City.
- b. Per the IPC, water and sewer service pipe shall be separated by 5 feet of undisturbed or compacted earth. Following exceptions apply:
 - i. The separation distance shall not apply where the bottom of water service pipe within 5 feet of the sewer service is a minimum of 12 inches above the top of the highest point of the sewer and the pipe materials conform to Table 702.3.
 - ii. Water service pipe is permitted to be located in the same trench with a sewer service, provided such sewer is constructed of materials listed in Table 702.2.
- c. The requirement for separation of sewer and water from all dry utilities shall be a minimum of 4 feet of horizontal distance.



F. Slopes

- a. All sewers shall be designed and constructed to give mean velocities of not less than 2.0 feet per second when flowing at 50% capacity based on Manning's Formula using a minimum "n" value of 0.013. The following minimum slopes apply:

Table 0-1 Sewer Line Pipe Slopes

Nominal Pipe Size (Inches)	Minimum % Slope (Feet / 100 Feet)
8	0.40% - (0.0040 ft/ft)
10	0.28% - (0.0028 ft/ft)
12	0.22% - (0.0022 ft/ft)
15	0.15% - (0.0015 ft/ft)
18	0.12% - (0.0012 ft/ft)
21	0.10% - (0.0010 ft/ft)
24	0.08% - (0.0008 ft/ft)
27	0.067% - (0.00067 ft/ft)
30	0.058% - (0.00058 ft/ft)
36	0.046% - (0.00046 ft/ft)

- b. Under special conditions, slopes slightly less than those required for the 2.0 feet per second velocity may be permitted by the City. Such decreased slopes will only be considered where the depth of flow will be 0.3 of the diameter or greater for design average flow. Whenever such decreased slopes are proposed, the design engineer shall furnish with the plans his computations of the depths of flow in such pipes at minimum, average, and daily or hourly rates of flow. Larger pipe size shall not be allowed to achieve lesser slopes.
- c. Sewers shall be laid with uniform slope between manholes. Uniform slope shall be checked by using a laser beam or lamping.
- d. Where sewer mains are laid on slopes of 6.0 percent or greater or where ground water may use the trench as a conduit, check dams may be required to be placed along the pipe. The design spacing shall be noted on the plans. Installation must be documented and As-Built Drawings with a certification from a licensed engineer shall be submitted prior to issuance of a Certificate of Occupancy.
- e. For sewer mains on a slope 12 percent or greater, the city will require mechanically restrained bells, joints and fittings. Based on soil types, the city may require restrained bells, joints and fittings on a case-by-case basis on any slope.
- f. Sewer mains on 20 percent slope or greater shall be anchored securely with concrete anchors, or other approved method. The anchors shall be designed and stamped by a



Colorado registered professional engineer. Installation must be documented and As-Built Drawings with certification from a licensed engineer shall be submitted prior to issuance of a Certificate of Occupancy. The spacing shall be as follows:

- i. 20% to 35%, not over 36 feet center to center spacing
- ii. 35% to 50%, not over 24 feet center to center spacing
- iii. 50% and over, not over 16 feet center to center spacing

G. Pipe Size Change

- a. Manholes shall be provided where pipe size changes occur.
- b. Where a smaller sewer main joins a larger one, the invert of the larger sewer should be lowered sufficiently to maintain the same energy gradient.

H. High Velocity Protection

Any sewer installation where velocities are proposed to be over 10 feet per second shall be reviewed **and approved or denied** on a case-by-case basis.

I. Drops

- a. Straight grades between invert out of last manhole and connection to existing manhole are preferred over drops. Care must be taken when designing steep grades or sweeps so as not to create a situation of excessive velocity or excavation. Grade changes associated with sweeps shall not be allowed, unless otherwise approved by the City.
- b. An outside drop connection shall be provided for a sewer entering a manhole at an elevation of 24 inches or more above the manhole invert. Where the difference in elevation between the incoming sewer and the manhole invert is less than 24 inches, the invert shall be filleted to prevent solids deposition in the manhole. **Outside drop connections shall be constructed per City Standard Drawings. Where the slope of the sewer main connecting to a drop connection exceeds 8.0 percent, a bend fitting shall be installed on the drop connection which most closely matches the angle made from the horizontal plane by the pipe.**
- c. An inside drop connection **may be considered by staff on a case-by-case basis.**

J. Bedding

Refer to Ch. 7 specification, Trenching, Backfilling, and Compaction for comprehensive pipe bedding requirements. Note the following:

- a. Pipeline bedding material shall be Class 6 aggregate base course. **Other materials may be considered by staff on a case-by-case basis.**
- b. Pipeline trench shall be backfilled entirely with Class 6 aggregate base course or CDOT approved flow-fill. **Other materials may be considered by staff on a case-by-case basis.**

K. Encasement

When sewer main encasements are required by the City, the encasement shall be made in accordance with Ch. 7 specifications.



- a. Concrete pipe encasements are not preferred. Exceptions may be allowed through an approval process by the City.
- ~~b. Flow fill will be allowed as an encasement material when the flow fill surrounds the entirety of the pipe by a minimum of 12".~~
- c. Pipe Segment (manhole to manhole) may be adjusted to C900 PVC to provide secondary containment for sewer mains provided that the pipe bell joints are encased in concrete 10 feet each side of a water crossing location or along substandard horizontal clearance from water.

L. Abandonment-in-Place

All pipes that are to be abandoned in place shall be grout filled. The ends shall be physically cut, **mechanical plug installed two linear feet into pipe**, and **pipe** capped with two linear feet of non-shrink grout.

M. Pipe Installation

Refer to Ch. 7 specification, Sanitary Sewer Lines for pipe installation requirements.

N. Testing

Refer to Ch. 7 specification, Sanitary Sewer Lines, for comprehensive pipe testing requirements. Note the following:

- a. Prior to acceptance of the project, the gravity sewer pipe shall be subject to a low-pressure air test in accordance with Ch. 7 specification Sanitary Sewer lines, section 3.09. The Contractor shall furnish all equipment and personnel for conducting the test under the observation of the City inspector. The testing equipment shall be subject to approval.
- b. All wyes, tees, and end of side sewer stubs shall be plugged with flexible joint caps, or acceptable alternatives and securely fastened to withstand the internal test pressures. Such plugs or caps shall be readily removable, and their removal shall provide a socket suitable for making flexible jointed lateral connection or extension.

O. Cleaning, Inspection, and Acceptance

- a. Prior to backfilling, all sewer lines and appurtenances shall be inspected and approved by the City. Approval shall not relieve the Contractor for correction of any deficiencies and/or failure as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City for the required inspections.
- b. Prior to acceptance, all sewer mains shall be high velocity jetted in conformance with Ch. 7 specifications, Sanitary Sewer lines, at the Contractor's expense. Hydrant flushing of lines is not an acceptable cleaning method.
- c. The Contractor shall televise the entire line as soon as the leakage and manhole tests are satisfactorily completed with the procedure outlined in the specifications. Any defects noted shall be repaired immediately. A copy of the video shall be provided to the City prior to acceptance of the project.
- d. **At completion of hard surfaces, the contractor may be required to retelevise the entire line. Any defects or materials within the pipe shall be immediately cleaned and repaired, to include manhole inspections.**



2.8 MANHOLES

A. Minimum Size

- a. Manholes shall be a minimum of 48" inside diameter. Minimum diameter shall be 60" where connecting mains are 18" or larger.
- b. Manhole diameter sizing shall be based upon the number of pipes entering and exiting the manhole, the ability to achieve transitions in the flow, adequate shelves, room for maintenance and television inspections, and maintain the strength of the manhole.
- c. Sewer manholes greater than 10' in depth shall have a minimum of a 60" diameter.

B. Spacing

Preferred manhole spacing is 250 feet or less but shall be no more than 300 feet. Spacing beyond this will be considered on a case-by-case basis.

C. Minimum Slope Through Manhole

Minimum slope through the manhole shall be 2/10th of one foot from the invert into the invert out. All manholes shall be channeled.

D. Castings

- a. Where lock-type castings are called for, the casting device shall be such that the cover may be readily released from the ring and all movable parts shall be made of non-corrosive materials and otherwise arranged to avoid possible binding.
- b. City will inspect and approve all manholes and manhole appurtenances.

E. Accessibility

All manholes shall be located so that they are accessible by maintenance vehicles and shall be no closer than 5 feet from any surface obstruction.

F. Materials

Refer to Ch. 7 specification, Sanitary Sewer lines for comprehensive material requirements. Note the following:

- a. Concrete Rings shall be precast concrete **or adjustable, traffic-grade, plastic rings/risers when applicable.**
- b. Precast concrete manhole bases are preferred. Cast-in-place bases with integrally cast-in water stops may be approved by the city on a case-by-case basis. The tops of the base shall be at least 12 inches above top of pipe.
- c. Manhole steps shall be steel reinforced copolymer polypropylene.
- d. Joints shall have a **double (rubber-neck or equivalent)** flexible seal. Joints shall also be grouted from the inside.
- e. Lift Holes shall be grouted from the outside and inside of the manhole.
- f. Grade Adjustment Rings shall be precast concrete



- g. Frame (manhole) rings shall be machine finished or ground-on seating surfaces so as to assure non-rocking fit in any position and interchangeability.
- h. Cover shall be grey iron stamped with "SEWER". Covers shall be machine finished or ground-on seating surfaces so as to assure non-rocking fit in any position and interchangeability.
- i. Exterior manhole coatings shall be with bituminous coating prior to delivery to the job site. **All exterior manhole connections shall be wrapped with a minimum 12-inch-wide ice and water shield or equivalent product.**
- j. Interior manhole coatings may be required on a case-by-case basis per water/wastewater department recommendations.

G. Manhole Installation

Refer to Ch. 7 specification, Sanitary Sewer lines, for comprehensive manhole installation requirements. Note the following:

a. Connections to Manholes

- i. Connection of manhole with pipe shall be made with flexible connector.
- ii. Extra care shall be taken by grouting or other means of sealing to assure positive watertight manholes around the inlet or outlet pipes.

b. Manhole Floor and Inverts

- i. Invert channels shall be smooth and semi-circular in shape, conforming to the inside of the incoming and outgoing sewer pipelines.
- ii. Changes in direction of flow shall be made with a smooth curve of as large a radius as the size of the manhole will permit.
- iii. Changes in size and grade of the channels shall be made gradually and evenly.
- iv. Where large differences in invert elevations exist, sloped flow channels shall be formed so the wastewater does not undergo a vertical drop.
- v. The invert channels may be formed directly in the concrete of the manhole base.
- vi. The floor of the manhole outside the channel shall be smooth and shall slope toward the channels.

c. Finish Grade and Adjustment

Manhole cover and frame shall be no less than 6 (six) inches, and a maximum of 8 (eight) inches. To bring the manhole cover to the correct elevation, the top section of each manhole shall be constructed of pre-cast concrete grade adjustment rings.

- i. Rings shall be not less than six inches (6") wide and furnished in heights to allow for two-inch (2") adjustments.
- ii. Grade adjustment with rings shall be eight inches (8") maximum and two inches (2") minimum.



- iii. All rings shall be grouted in place with 6000 psi non-shrink grout and **sealed with approved construction adhesive.**

d. Manhole Stubs

- i. Pipe stubs shall be a full stick of pipe with bell end and extend approximately 20' from the outside face of the manhole, **and/or approved on a case-by-case basis.**
- ii. Stubs shall be capped or plugged with manufactured fittings to form a watertight installation.
- iii. **The minimum connection to existing main shall be no less than 6 (six) feet.**

H. Manhole Testing

Refer to Ch. 7 specification, Sanitary Sewer lines, section 3.10, for comprehensive testing requirements. Note the following:

- a. Prior to acceptance of the project, the manholes shall be subject to a leakage test. The Contractor shall furnish all equipment and personnel for conducting the test under the observation of the City inspector. The testing equipment shall be subject to approval.
- b. **The city's preference is that a leak test shall** be conducted prior to backfilling around the manhole.

I. Manhole inspection Acceptance

Refer to Ch. 7 specification, Sanitary Sewer lines, for comprehensive testing requirements. Note the following:

- a. **All materials (manholes, pipe) shall be inspected by staff upon arrival to the construction site and will be either approved or denied at that time.**
- b. During the construction of the manholes, the Contractor shall, in accordance with good practice, ensure that no earth, sand, rocks or other foreign material exists on the joint surfaces during assembly of the section. **If such materials exist, they shall be cleaned up immediately.**
- c. Prior to backfilling, all manholes shall be inspected and approved by the City. Approval shall not relieve the Contractor for correction of any deficiencies and/or failure as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City for the required inspections.

2.9 SERVICE CONNECTIONS

A. Service Tap Installation Policy

- a. Only City W/WW Department staff may perform a tap into the City's water and sewer mains. In certain circumstances and only with pre-authorization the city may approve a qualified contractor to install the tap while under the City's direct supervision. (Reference Code: 080.030.040 – Work Performed).
- b. The customer is responsible for all costs incurred by the City for the installation of tap(s) for a private sewer service. (Reference Code: 080.030.010(c) – Connections to wastewater system/Tap Fee)



- c. The Contractor is responsible for all shoring or trenches. City crews will not enter a trench to perform inspection or install taps unless shoring is safe and meets OSHA requirements.

B. Depth of Bury

Private sewer services are recommended to follow same depth of bury requirements as gravity sewer mains.

C. Minimum Distances from Fittings and Services

The city requires a minimum of 5 feet between tap locations or any fittings along the sewer main line. If the minimum clearances cannot be satisfied, the city may consider alternative designs on a case-by-case basis.

D. Sewer Service Connection to Gravity Sewer Main

Refer to Ch. 7 specification, Sanitary Sewer Lines, for comprehensive requirements for sewer service connections. Note the following:

- a. Full body factory wyes required for all new sewer line construction.
- b. Material for connection to existing mains shall be approved by the City on a case-by-case basis. This is dependent on the condition and material of the existing main.
 - i. All taps to existing mains shall be concrete encased.
 - ii. Preferred connections include Fernco saddles or PVC saddle, to be approved by city sewer department staff.
- c. Taps shall not be allowed to protrude in the existing main.
- d. Sewer taps shall not be placed within a minimum of 3' from a manhole.
- e. All new sewer connections to the existing system shall be physically plugged until all tests have been completed and the City approves the removal of the plug.
- f. Connections between new sewer service and an existing main of the same size shall be accomplished by the installation of a new manhole on the City sewer main. Alternate designs will be considered by the city on a case-by-case basis.
- g. Sewer services shall not enter a manhole unless it meets section 2.12.4 (A)(6) noted above. Any existing sewer services entering an existing manhole shall be removed, grouted and relocated a minimum of 3' up stream or downstream of the existing manhole if service is being replaced.
- h. All connections between pipes of different materials shall be made with approved manufactured connectors.
- i. Tracer wire shall be installed for all sewer service connections. Tracer wire boxes and ground rods shall be installed when the wire cannot be brought to the surface or ties in with existing tracer wire that is already grounded.
- j. Backwater valves are required for all sanitary sewer services. Valves will be installed on private property, out of the ROW and will be maintained by the property owner, not the City. The city will be requiring backwater valves to be installed on existing services that are being replaced if the construction allows for the valve's installation. The city will supply the owner with a Spears Backwater Valve part number S475PAK or equivalent.



E. Sewer Tap Abandonment

- a. Any existing service tap that is no longer active or will not be used must be abandoned at the main. (Reference Code: 080.030.010(e) – Connections to wastewater system/Abandonment of Connection).
- b. A sewer stopper (or sewer plug) is a device, typically made of rubber and steel, inserted into a drain pipe to create a watertight, airtight seal. It is designed to block sewage backflow, stop sewer gases from entering a building, or isolate pipe sections for maintenance.
Key details:
 - I. **Types:** Common types include mechanical gripper/test plugs (tightened with a nut to expand against pipe walls) and inflatable plugs (filled with air to seal the pipe).
 - II. **Purpose:** Primarily used for preventing backups, stopping odors, and temporarily sealing sewer lines during repairs or to stop flow, sometimes in municipal contexts to restrict service.
 - III. **Construction:** Generally made of durable rubber to create a compression fit, often reinforced with steel.
- c. Installation of a replacement tap will not be allowed by the city until all existing service taps are properly abandoned.

F. Sewer Service Connection to Pressure Sewer Main

The design of any service connection to a pressure sewer main must be approved by the city and will be on a case-by-case basis. All designs/calculations shall be by a professional engineer registered in the State of Colorado.

G. Pressure Sewer Service Connection to Gravity Sewer Main

The design of any pressure service connection to a gravity sewer main must be approved by the city and will be on a case-by-case basis.

2.10 PRESSURE SEWER MAINS (FORCE MAINS)

The design of any pressure sewer main must be approved by the City on a case-by-case basis and be in conformance with CDPHE regulations. All designs/calculations shall be by a professional engineer registered in the State of Colorado.

2.11 LIFT STATIONS

The design of any lift station must be approved by the City on a case-by-case basis and be in conformance with CDPHE regulations and Design Criteria. All designs/calculations shall be by a professional engineer registered in the State of Colorado.



2.12 ON-SITE WASTEWATER TREATMENT SYSTEMS

The design of any on-site waste disposal systems must be approved by the City on a case-by-case basis and be in conformance with CDPHE regulations and Garfield County regulations. (Reference Code: 070.040.030(e)(3) – Site Development Improvement Standards/ Site Development Improvement Standards/Lot and Block Design; 070.040.030(f) – Site Development Improvement Standards/Assurance and Acceptance of Public Improvements)

2.13 GREASE, OIL AND SAND INTERCEPTORS

Refer to section 060.040.010 of the Code adopting the International Plumbing Code; IPC Ch. 10, Section 1003, Interceptors and Separators) summarized below:

- a. Because of the impact of grease, oil and sand on the City's lines and treatment plant, grease, oil and sand interceptors are required on establishments preparing or serving food or other establishments where grease, oil and sand may be introduced into the drainage or sewage system. A grease, oil, and sand interceptor is not required for individual dwelling units or for any private living quarters, except for garage floor drains. **Multi-family housing shall be reviewed on a case-by-case basis.**
- b. All grease, oil, and sand interceptors shall be new. The interceptor and its installation shall be in conformance with the latest edition of the International Plumbing Code (IPC).
- c. Plans shall be submitted to and approval obtained from the City prior to the installation of any grease, oil and sand interceptor.
- d. Each plumbing fixture or piece of equipment connected to a grease, oil and sand interceptor shall be provided with an approved type flow control or restricting device installed in a readily accessible and visible location in the tail piece or drain outlet of each such fixture. Flow control devices shall be so designed that the total flow through such device or devices shall at no time be greater than the rated capacity of the interceptor. No flow control device having adjustable or removable parts shall be approved.
- e. Each grease, oil and sand interceptor required by this section shall have an approved rate of flow which is not less than that given in the City's EQR schedule for the total number and size of fixtures connected thereto or discharging thereunto.
- f. Each grease, oil and sand interceptor shall be installed and connected so that it shall be at all times easily accessible for inspection, cleaning and removal of the intercepted grease. **New construction/remodels shall install interceptors on the exterior of the building and shall be reviewed on a case-by-case basis.**
- g. Interceptors shall be maintained in efficient operating conditions by periodic removal of the accumulated materials. No such collected material shall be introduced into any drainage piping, public or private sewer, and it shall be disposed of in an environmentally safe manner. Maintenance and inspection shall occur every 6 months or as required and the records shall be provided to the City.
- h. The City may require such tests as may be necessary to determine the collecting efficiency of the various types and kinds of interceptors to establish the rate of flow or other rating thereof. Such test requirements may be revised or modified from time to time as may be deemed necessary by the city.



- i. No interceptor shall be installed which does not comply in all respects with a type or model of each size approved and accepted by the City. Whenever it shall come to the attention of the City that any interceptor does not so comply, the City shall immediately suspend or revoke such approval.
- j. Sump pits require visible and audible alarm systems for grease and oil contamination.

2.14 EARTHWORK

A. Site Control and Safety

Contractor to provide safe and healthful working conditions on each operation at all times. Contractor shall comply with all provisions, regulations and recommendations issued pursuant to the Occupational Safety and Health Act, and the Construction Safety Act as amended, and with laws, rules and regulations of other authorities having jurisdiction, with regard to all matters relating to the safety and health of workers and the general public. Compliance with government requirements is mandated by law and considered only a minimum level of safety performance. Perform all work in accordance with best safe work practices recognized by the construction industry.

B. Traffic Control

Refer to Chapter 5, for traffic control requirements (Also reference Code: 060.130 – Miscellaneous Permits).

C. Trenching Operations

Refer to Ch. 7 specification, Trenching, Backfilling, and Compaction.

D. Protection of Existing Structures and Utilities

Contractor shall protect all existing structures, utilities and improvements not designated for removal and shall restore damages or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation.

E. Backfill and Compaction

Refer to Ch. 7 specification, Trenching, Backfilling, and Compaction.

F. Street Patching and Restoration

See Chapter 5 regarding patching and trench restoration (Also reference Code: 060.130 – Miscellaneous Permits).



APPENDIX – WASTEWATER COLLECTION STANDARD DRAWINGS

CITY STANDARD DRAWINGS		Filename
S01.	Standard Manhole Detail	
S02.	Drop Manhole Detail	
S03.	Concrete Encasement Detail	
S04.	Casing Detail	
S05.	Sewer Clean-Out	
S06.	Sewer Service Connection	





Chapter 3

Water Distribution Standards City of Glenwood Springs Engineering

Revised 2026

Chapter 3 Water Distribution Standards

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Chapter 3 Water Distribution Standards

I. Introduction

This chapter shall govern all new construction, reconstruction and rehabilitation of City of Glenwood Springs (City) operated water. In addition, these standards and guidelines shall apply to all private developments within the City.

These Engineering Standards and Guidelines will also be cited in the text as the “Standards.”

II. Design Standards

The following codes and manuals shall be applicable when pertinent to the work, when specifically cited in these Standards, or when required. Refer to individual chapters for additional design standards. The content of this manual shall be used in conjunction with the latest revisions of the following supplementary standards: [See appropriate websites](#)

- a. Rules and Regulations as adopted in the City of Glenwood Springs Municipal Code (Code).
- b. American Water Works Association (AWWA).
- c. Colorado Department of Public Health (CDPHE).
 - i. Regulation 11, Colorado Primary Drinking Water Regulations.
 - ii. Safe Drinking Water Program Policy DW-005, Design Criteria for Potable Water Systems.
 - iii. Safe Drinking Water Program Policy DW-007, Backflow Prevention and Cross-Connection Control.
 - iv. Colorado Cross-Connection Control Manual.
- d. National Fire Protection Association (NFPA).
- e. International Plumbing Code (IPC).
- f. International Building Code (IBC).
- g. International Residential Code (IRC).
- h. Occupational Safety and Health Administration (OSHA).
- i. City of Glenwood Springs Fire Department requirements.
- j. American Society for Testing and Materials (ASTM)
- k. American National Standards Institute (ANSI)
- l. National Sanitation Foundation (NSF)
- m. American Standards Association (ASA)
- n. Standard Methods for the Examination of Water and Wastewater
- o. United States Geological Survey (USGS)
- p. National Geodetic Vertical Datum (NGVD)



III. Definitions and Terms

- a. **Private Water System:** Portion of the water line beginning two feet outside the outer foundation wall of the structure to the discharge side of the curb stop valve. Portion of the system located where no easements are granted to the city or in the public right-of-way if permitted. It shall be the responsibility of the owner of the property to maintain the private water line from their building up to and including the connection to the discharge side of the City's curb stop valve. (Reference Code: 080.040.010(e) – Connections to Water System/Maintenance of Service Lines)
- b. **Public Water Main:** Portion of the system located within public right-of-way or easements which are operated and maintained by the city. The City's responsibility includes the water main and appurtenances to and including the curb stop valve. (Reference Code: 080.040.010(e) – Connections to Water System/Maintenance of Service Lines)
- c. **Backflow Tester:** A person who has been certified by the State of Colorado to test and maintain backflow devices (Reference Code: 060.030.020 – Amendments to the IRC, Additional Definitions; 060.040.020 – Amendments to the IPC, Additional Definitions).

3.1 GENERAL REQUIREMENTS

- A. The Water Design Standards establish minimum design standards for designing, permitting, furnishing, installing, and maintaining the City of Glenwood Spring's public water utility distribution system, including water transmission and storage facilities for domestic, fire protection, commercial and industrial, irrigation, and other uses.
- B. Any extension/connection of the Glenwood Springs Water System must be approved by the City and shall be made in accordance with the provisions of these Standards and the supplementary standards mentioned above. Where there are conflicts or differences between these Standards and other standards listed above, these Standards shall govern. (Reference Code: 080.040.010(a) – Connections to Water System/Requirement, 080.040.030 - Line Extensions)
- C. In designing and planning for any development, it is the developer's responsibility to see that adequate water for both domestic and fire protection use is attainable. The developer must demonstrate in the proposed plans how water will be provided, whether the existing system will be adversely impacted, how adequate water will be supplied at the required pressures in the event of a fire, and where water will be stored to provide for the development's water storage requirements. Design of water system infrastructure shall be by a registered engineer in the State of Colorado and will be reviewed by the City for compliance with these Standards.
- D. Any person who wishes to connect onto the City's water system must first make an application for such connection to the City, obtain necessary permits (Reference Code:), and pay the necessary fees (Reference Code: 080.040.010(c) – Connections to water system/Tap Fee; 080.040.010(b) - Connections to water system/City Permission; 080.060.040 - Amount of System Improvements Fees) for such connection.
- E. Prior to receiving water from the City's system, all improvements must be completed, accepted by the city and approved, including granting of right-of-way or easements, and all applicable fees must



be paid. (Reference Code: 080.010.020 - Application for Service; 080.040.010 - Connections to Water System)

- F. Easements for water mains and other facilities shall be provided in accordance with Chapter 1. (Reference Code: 070.040.030(e)(7)(c) – Site Development Standards/Site Development and Improvement Standards/Underground Utilities).
- G. No person shall abandon any water service connection to the City's water distribution system without first obtaining the necessary permits and written authorization through the City.
- H. With the exception of private water systems defined in these Standards, all water lines and fire hydrants constructed pursuant to these Standards shall be and become the sole and exclusive property of the City, as well as any and all easements and rights-of-way therefore; and all such persons paying for the same shall, upon request of the City, execute and deliver any and all necessary and proper deeds of conveyance, assignments or other documents which the City may desire to perfect such ownership by the City. (Reference Code: 080.040.010(e) Connections to water system/Maintenance of Service Lines; 080.040.030(a) – Line extensions/Construction of Waterlines and Appurtenances; 080.040.030(d) - Line extensions/Ownership of Extension)
- I. The City W/WW Department staff shall be onsite to observe, inspect, and approve ANY work that may affect water or sewer mains. (Reference Code: 080.040.030(a) - Line extensions/Construction of Waterlines and Appurtenances)
- J. All work upon or in connection with any portion of the water system of the City or any utilities which connect thereto shall be done by the City or by a qualified contractor that is specifically granted permission by the City. Such work shall be performed in conformity with the Design Criteria of the CDPHE, these Standards and the rules and regulations of the City. Such work shall be inspected and approved by the City. (Reference Code: 080.040.030(a) – Line extensions/Construction of Waterlines and Appurtenances.
- K. All water service connections to existing water mains and all taps to existing mains shall be made by City personnel at the expense of the Contractor, unless the Contractor is specifically granted permission to perform the tap or service connection at the Contractor's expense. If the Contractor is granted permission by the City to perform the tap, the City shall be present at the time of the tap to observe and inspect the work. (Reference Code: 080.040.030(a) – Line extensions/Construction of Waterlines and Appurtenances; 070.040.030(a)(1) Site Development and Improvement Standards/Purpose)
- L. The City shall be given 72 hours' notice prior to scheduling a shutdown of the water system. A Contractor that requests shutdown of the water system shall be responsible for providing a minimum of 48 hours advanced notification to all customers that may be affected by the shutdown.
- M. The City equipment including valves, curb stops, and hydrants shall be operated only by City employees.



- N. During the construction of mains and services, the Contractor shall cap, plug, or secure the ends of such lines whenever the project is shut down at the end of the day so that contaminants will not enter the lines.
- O. The City shall be notified a minimum of 72 hours in advance of the time that a tap connection to an existing main or a service connection to an existing main is needed so that the water division crew may be scheduled for the work. At the time of notification, the customer must also notify the City of the requested water tap sizes. Tap size shall not be larger than what is allowed by City EQR schedule as calculated by the Building Department. (Reference Code: 080.040.010(d) – Connections to water system/Service Connections)
- P. All lines shall be disinfected and tested by the Contractor, with a representative of the City present, in accordance with the standard specifications. De-chlorination, collection, and disposal of any water used for disinfection shall be the responsibility of the Contractor. Water shall only be discharged at a location approved by the City and in accordance with the City’s Wastewater Discharge **Regulations** (Reference Code: 080.030.030 – Wastewater Discharge **Regulations**).
- Q. No occupant or owner of any building or premises which obtains water from the City water system shall supply/re-sell water to other persons or families or to other premises. The water supply may be discontinued for any violation of this Section. (Reference Code: 080.040.050 – Customers not to Supply Water to Others).
- R. All public improvements require a 2-year warranty for acceptance. (Reference Code: 080.040.030(a) – Line extensions/Construction of Waterlines and Appurtenances; 070.040.030(f)(2) – Site Development and Improvement Standards/Assurance and Acceptance of Public Improvements/Acceptance by City of Public Improvements)
- S. When available, raw water should be utilized for irrigation and is required if a raw water connection is available within 400'. (Reference Code: 080.040.015 – Connections to Raw Water Irrigation System; 070.040.050(h)(2) – Landscaping, Screening, and Fencing/Installation and Maintenance/Irrigation System Design)

3.2 REQUESTS FOR WATER SERVICE AND REQUIRED PRE-CONSTRUCTION SUBMITTALS

- A. The following section covers the required submittal material required for the City to review a water project to ensure that it conforms to these standards/regulations. This information is in addition to the requirements of Chapter 1.
- B. Customers outside of the corporate limits of the City shall be subject to additional fees if the service is existing or **Water Service Agreement** requirements if they are seeking a new water service. (Reference Code: 080.040.030(c) – Line extensions/Restrictions on Extensions)
- C. The applicant shall provide documentation and proof that water and sewer taps have been obtained from appropriate utility district when the property will be served by a utility district other than the City. (Reference Code: 060.030.020 – Amendments to IRC; 060.020.020 – Amendments to IBC; **070.060.060(b)(3)(f)(4)**. – Preliminary Plat/Preliminary Plat Procedure/Review and Decision/Preliminary Plat Approval Criteria)



- D. The city requires the preparation of a water system analysis in order to assess the impacts and service demands of any project or development proposal connecting to the public water distribution system. The detailed analysis shall be prepared by an Engineer registered in the State of Colorado and include a technical report, preliminary plan, and connection and isolation plan as outlined in the following subsections.
- E. A technical report is required at the discretion of the Public Works Director. The technical report shall provide an overview of the proposed project or development, proposed water utility improvements, water service demands, system impact and feasibility, and basic design requirements, and include the following information:
 - a. Water demands should include estimated water demands based on projected land use/service type, number of equivalent residential units (EQRs), and water demand per EQR.
 - b. Apply peaking factors and summarize flows for each service type for the following conditions:
 - i. Peak-Hour (gallons-per-minute),
 - ii. Maximum-Day (gallons-per-minute),
 - iii. Average-Day (gallons-per-minute),
 - iv. Insurance Service Office (ISO) or International Building Code (IBC) Fire Flows (gallons-per-minute), and
 - v. Irrigation (gallons-per-minute).
 - c. Design Criteria: The technical criteria used for design shall be summarized for City review and comment. Minimum design requirements from **AWWA and CDPHE** should be met. It shall include, but not be limited to, the following:
 - i. Equivalent Residential Units (EQRs) (080.060.020 - Classification).
 - ii. Flow Types and Peaking Factors to Estimate Demands
 - iii. Water Storage Requirements
 - iv. Fire Volume, Equalization Volume, Emergency Volume, Total Water Storage Volume
 - v. Pipeline Maximum Velocity
 - vi. System Water Pressures
 - d. System Layout: Describe the proposed distribution system layout, including locations for connections with the existing water utility system.
 - e. Network Analysis: Include a distribution network analysis as performed through computer simulation or appropriate manual calculation, identifying any systems impacts based on proposed demands and providing design solutions to ensure perpetuation of future water system growth, maintain system pressures, and flow rates.
 - i. **If a computer hydraulic simulation is required, developer will coordinate with City consultant.**
 - f. Main Sizing: Indicate the required sizing of proposed distribution mains based on water demands and/or conveyance of fire flow, whichever condition requires the larger pipe.
 - g. Design Alternatives: Discuss alternative system layouts and methods of providing water service, including an evaluation of each alternative and reasons for selecting the recommended design.



- h. Water Storage: Discuss storage volume necessary to serve additional EQRs **and fire flow capacity**. Consider the development and if the volume will be provided through excess storage in City's existing storage tanks or in new water storage tank. Storage volume shall be calculated as directed in Sections below.
- i. Special Conditions: Identify any special conditions, such as the presence of corrosive soils, conflicts with other utilities, unusual installation depths or oversizing requirements, that require special provisions for improvements construction.

F. Preliminary Plan:

A preliminary plan shall be included in the utility report to provide a plan view and reference for the proposed improvements, and identify issues addressed in the report. The preliminary plan is to include the following:

- a. Preliminary Design: Illustrate proposed methods and alternatives for providing site water distribution and service.
- b. Property Boundaries: Reflect legal boundaries of the proposed project or development site, including existing and proposed property and lot lines, existing and proposed rights-of-way and utility easements, and boundaries of abutting properties.
- c. Topography: Include site topography at 2-foot interval contours, and the elevation and location of City-recognized benchmarks with reference to local, USGS and NGVD data.
- d. System Area: Define and delineate the system area included in the network analysis.
- e. Existing Utilities: Illustrate existing water utilities, including fire hydrants and valves, within 400 feet of the proposed development.
- f. Unusual Features: Identify unusual features, such as creeks, drainage facilities, railroads, and irrigation ditches, that might influence the location of underground utilities.
- g. Proposed System Layout: Illustrate the general layout of the proposed water distribution mains, storage tank, valves, and fire hydrant locations, including construction phasing.
- h. Storage Tank: Provide design information, if required, on proposed water storage tank such as height, diameter, materials of construction, elevations, proposed tank's elevation relative to existing tank's elevations, and enough details to ensure compliance with CDPHE's Design Criteria for Potable Water Systems Finished Water Storage.
- i. Booster Pump Stations: Provide design information, if required, on proposed water booster pump stations such as footprint, height, pump types, operating/design points, and equipment summary for all pumps, valves, piping, HVAC, electrical, controls, and telemetry equipment. Provide sufficient detail to ensure compliance with CDPHE's Design Criteria.
- j. Water Distribution Control Structures: Provide design information, if required, on proposed water control structures such as footprint, height, structure type, operating/design points, and equipment summary for all valves, piping, HVAC, electrical, controls, and telemetry equipment. Provide sufficient detail to ensure compliance with CDPHE's Design Criteria for Potable Water Systems Distribution System Piping and Appurtenances (Water Distribution Control Structure shall refer to a pressure regulating/reducing valve, air release, check valve, or pressure relief valve installed within a vault).



G. Connection and Isolation Plan:

A connection and isolation plan shall be provided in the utility report to identify proposed connection points with the existing water systems and design conditions for providing required system isolation for maintenance and flushing. The connection and isolation plan is to include the following:

- a. Valve Locations: Identify all valves necessary to isolate a point of connection for the proposed water system onto the existing system. Existing system valves should be inspected for location and accessibility.
- b. Thrust Restraint: Determine and include design and construction requirements for sufficient thrust restraint for existing water mains and valves at proposed connection points (“stub outs” and terminal extensions) to allow construction while the existing water system remains in service.
- c. System Isolation: Identify water main sections that can be isolated within the proposed and existing water systems that provide for emergency maintenance and identify discharge points for system flushing.
- d.

3.3 DESIGN REVIEW POLICIES

See Chapter 1, regarding design review policies.

3.4 AS-BUILT DRAWING SUBMITTAL

In addition to the requirements of Chapter 1, the following water distribution specific information shall be included on the **As-Built** Drawings

- a. Pipe size, **material type**, and **pipe profile**.
- b. Service tap locations (include public or private demarcation points).
- c. Fire hydrant locations.
- d. All valves, fittings, curb boxes, hydrants, storage tanks, and other waterline appurtenances either below ground or at the ground surface **shall be located via survey**. All such measurements shall be recorded on the set of **As-Built** drawings and shall be provided to the City after the completion of the project.

3.5 CONSTRUCTION WATER USE POLICY

All water used for construction purposes must be pre-approved by the City and users must follow the protocol outlined in the City’s Construction Water and Fire Hydrant Usage policy.

3.6 CROSS CONNECTION AND BACKFLOW PREVENTION

All water services must be properly protected from contamination or pollution by backflow due to cross connections from owner water systems. Reference Code 080.040.010(f) – Cross Connection



Requirements, of the City Municipal Code for comprehensive requirements.

Note the following:

- a. Testable backflow devices shall not be installed below grade. City may consider alternate installation approaches, on a case-by-case basis, subject to the installation meeting CDPHE regulations and Colorado Cross Connection Control Manual requirements. (Reference Code: 060.040.030 - International Plumbing Code Commentary)
- b. Hazard survey is required.
- c. Annual testing required by certified tester (Reference Code: 060.030.020 – Amendments to International Residential Code)
- d. Report records must be submitted to the **city on an annual basis. If reports are not submitted annually as required by CDPHE and the City, the City reserves the right to discontinue water service. Until the backflow report has been submitted.**
- e. Whenever the use of an antifreeze compound becomes necessary, propylene glycol is recommended. Other antifreeze compounds may be used after written approval by the City Water Department. The use of ethylene glycol is not permitted. In areas where the use of an approved antifreeze is necessary, a readily visible, durable sign shall be posted stating "ETHYLENE GLYCOL PROHIBITED." The sign shall be in letters not less than one (1) inch high on a contrasting background. (Reference Code: 060.040.020 – Amendments to International Plumbing Code (IPC) definitions)

3.7 WATER MAIN LINES

- A. All materials including pipe, fittings, valves and fire hydrants must conform to the latest standards issued by the American Society of Testing and Materials (ASTM), the American Water Works Association (AWWA), the American Standards Association (ASA) and **American National Standards Institute (ANSI) and National Sanitation Foundation (NSF)**, where such standards exist, and be acceptable to the City.
- B. Pipes or pipe fittings must not contain more than 0.25% lead. All products must comply with ANSI/NSF standards.
- C. Gaskets containing lead must not be used. Manufacturer approved transition joints must be used between dissimilar piping materials.
- D. All materials used for the rehabilitation of water mains must meet ANSI/NSF standards.
- E. Used materials will not be accepted.
- F. Packing and jointing materials used in the joints of pipe must meet the standards of AWWA and the City. Pipe having mechanical joints or slip-on joints with rubber gaskets is preferred.

Pipe and Fittings

- A. Refer to **Ch. 7** specification, Water Transmission and Distribution Lines for comprehensive material requirements. Note the following:



- a. The City's preferred material of water mains is **C900 Class DR18 minimum Polyvinyl Chloride (PVC) Pipe** , Class 52 Ductile Iron Pipe **may also be utilized in non-corrosive environments**. Exceptions may be allowed by the city on a case-by-case basis.
- b. All pipe and services shall be installed with continuous tracer wire and tape and tied back into the valve box, **fire hydrants** and curb stop.

Corrosion Protection

- a. All ductile iron pipe and fittings, **at a minimum**, shall be encased in polyethylene. The polyethylene encasement **shall** be installed in such a way that it **will** prevent contact between the pipe and the surrounding backfill and bedding material.
- b. **ductile iron pipe and fittings may be required to be epoxy-coated and utilize blue bolts at all fittings.**

Joint Restraint and Thrust Protection

- a. All tees, bends, plugs, hydrants, etc. must be provided with concrete reaction blocking and joint restraint.
- b. Joint restraint shall **be** the applicable style of megalug, (i.e. appropriate style for DIP or PVC).
- c. **Locking pipe may be required in certain locations within the city system for all wet utility installations.**

Minimum Pipe Size

- a. The minimum size for mains shall be an 8 inch inside diameter.
- b. The City shall be consulted as to the size of the water main. Larger size mains are required in specific areas. Nothing shall preclude the City from requiring the installation of a larger sized main in areas not addressed in the Plan, if the City determines that a larger size is needed to meet fire protection requirements or for future service.

Depth of Bury

- a. The minimum earth cover over water transmission and distribution lines shall be 5.5 feet. A greater depth shall be provided to avoid excessive high points in the main or where it is necessary to clear existing structures or obstructions. Water service lines shall have the same minimum cover. The Contractor shall be responsible for constructing water mains and services such that the required minimum cover is maintained.

Minimum Separation Distances from Pollution Sources or dry utilities

- a. Per **current** CDPHE Design Criteria , water mains shall be separated from pollution sources, as **generally** summarized below:
 - i. Parallel Installation of potable water mains with interceptors and sewer mains, reclaim, and irrigation (raw water) pipelines shall be accomplished in a fashion to preclude contamination of the water facilities. The separation distance shall be measured edge to edge of the interceptor or sewer main and the water pipeline. The potable water mains shall



- be located no less than 10 feet away from (i.e., between pipes, outside to outside) the sewer main.
- ii. Water mains crossing sewer must be laid to provide a minimum vertical distance of 1.5 feet between the outside of the water main and the outside of the sewer. This is the case whether the water main is above or below the sewer with preference to the water main located above the sewer.
 - iii. At crossings, one full length of water pipe must be located so both joints will be as far from the sewer as possible. Special structural support for the water and sewer pipes may be required.
 - iv. Deviations to the horizontal separation distance are allowed, provided that the water main is laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer at an elevation that the bottom of the water main is at least 1.5 feet above the top of the gravity sewer.
 - v. If the interceptor or sewer main crosses over the water main but less than 1.5 feet of clear space will exist, either the sewer main or water pipe shall be installed in a pipe casing extending no less than 10 feet each side of the water main centerline. The pipe casing shall be of watertight material with no joints. The casing pipe material may be steel, ductile iron, or PVC with suitable carrier pipe supports and casing pipe end seals. Alternatively, reinforced concrete encasement of the carrier pipe extending no less than 10 feet each side of the water main centerline may be used.
 - vi. If the interceptor or sewer main will cross above or over the water main, the interceptor or sewer main shall be installed in a pipe casing extending no less than 10 feet each side of the water main centerline.
 - vii. If the minimum clearances cannot be satisfied, the City will consider alternative designs on a case-by-case basis.
- b. Water service pipe and the building sewer shall be separated by 5 feet of undisturbed or compacted earth (Reference IPC). Following exceptions apply:
 - i. The separation distance shall not apply where the bottom of water service pipe is a minimum of 12 inches above the top of the highest point of the sewer and the pipe materials conform to Table 702.3 in the IPC.
 - ii. Water service pipe is permitted to be located in the same trench with a building sewer, provided such sewer is constructed of materials listed in 702.2 in the IPC.
 - c. The requirement for separation of sewer and water from all other utilities shall be a minimum of 4 feet of horizontal distance.

Future Connections

- a. Isolation Valve Required: When future main extensions are provided for by “stub out” or terminal connections, the stub out or terminal main extension shall be valved so that only one valve must be closed when the future main is extended. The valve shall be restrained to the existing distribution main to allow closure of the stub out or terminal main section without creating a pressure separation of the valve from the in-service distribution main.



- b. Valve Restraint: Valve restraint may be ensured by the use of a direct swivel connector or adapter, or by providing a pipeline extension that can restrain the valve through frictional resistance. Where valve restraint through frictional resistance of extended pipeline sections is proposed, the Engineer shall determine the necessary pipe length required to provide adequate frictional resistance, subject to review and approval by the City.
- c. Thrust Restraint: Thrust restraint must be provided with concrete reaction blocking and joint restraint, i.e. Megalug or approved equal.
- d. Testing: When future connections are made, the entire main beyond the stub out or terminal main extension shall be flushed, chlorinated, and pressure tested.
- e. Service Taps Prohibited: No service taps shall be allowed on a stub out or on a terminal main beyond the isolation valve.
- f. A City standard 2" minimum blowoff assembly shall be installed on all permanent dead-end runs approved by the City, if fire hydrants are not located at the end. Wherever possible, the blowoff shall be installed in the street right-of-way, three feet from the curb and gutter. In no case shall the location be such that there is a possibility of back-siphonage into the distribution system. On water mains which will be extended in the future, the valve which operates the blowoff assembly shall be the same size as the main and provided with a concrete thrust block.

Bedding

- a. Refer to **Ch. 7** specification, Trenching, Backfilling, and Compaction, for comprehensive pipe bedding requirements. Note the following:
 - i. Pipeline bedding material shall be Class 6 aggregate base course.
 - ii. Pipeline trench shall be backfilled entirely with Class 6 aggregate base course, **or flow fill per engineering standards.**

Encasement

- a. When water main encasements are required or requested by the City, the encasement shall be made using pipe casing in accordance with **Ch. 7** specifications.
 - i. Concrete pipe encasements are not preferred. Exceptions may be allowed through City **Water** Department on a case-by-case basis.
 - ii. Mains to be installed inside casings shall be installed with self-restraining casing spacers. Casing spacers shall provide axial thrust restraint to prevent pipe deflection during and after installation.

Abandonment-in-Place

- a. All pipes that are to be abandoned in place shall be grout filled. The ends shall be physically cut and capped with two linear feet of non-shrink grout.
- b. All valves that are to be abandoned in place (on abandoned mainlines) shall have the top section of the valve box and valve box lid removed. The resulting cavity shall be backfilled with Class 6 aggregate base and compacted to 95%. Surface patching and restoration shall be in accordance with Chapter 5.
- c. **City shall verify valve operation/position prior to abandonment.**



Pipe Installation

- a. Refer to **Ch. 7** specification, Water Transmission and Distribution Lines, for additional pipe installation requirements.

Disinfection

- a. Refer to **Ch. 7** specification, Water Transmission and Distribution Lines, for disinfection requirements. Note the following:
 - i. The city prefers the tablet method for disinfection. Other methods may be allowed through the city on a case-by-case basis.
 - ii. The general disinfection procedure is as follows:
 - Disinfection performed using the concentration/time required in AWWA C651,
 - Collect high chlorine residual sample
 - Flush to background residual
 - Collect bacteriological sample
 - Let water sit undisturbed for minimum time per AWWA
 - Collect second bacteriological sample
 - iii. Bacteriological sampling must be performed by a Colorado-certified laboratory
 - iv. Contractor is responsible for all testing and record keeping. Contractor must certify in writing that all disinfection and required testing was performed. Test records must be submitted to the city.
- b. W/WW staff must be onsite to operate valves, observe high/**low** chlorine testing, flushing, bacteriological sampling
- c. Contractor is responsible for proper dechlorination and disposal of water used for flushing. If necessary, contractor will need to install a tap for flushing. Once finished, tap will need to be abandoned at main in accordance with these standards.

Pressure Testing

- a. Refer to **Ch. 7** specification, Water Transmission and Distribution Lines, for pressure testing requirements. Note the following:
 - i. Prior to the acceptance of the project, the water main pipe shall be flushed, subjected to a hydrostatic pressure test, and disinfected in accordance with specification, Water Transmission and Distribution Lines. The Contractor shall furnish all equipment and personnel for conducting the tests under the observation of the City inspector. The testing equipment shall be subject to approval.
 - ii. Tests shall be made after all connections have been made and the roadway section has been constructed to grade. The Contractor shall keep a record of the flushing and volume of water used from the City system in flushing and testing and shall provide the City Inspector with the report prior to acceptance of the main.
 - iii. A main shall not be tested until the lines have been flushed of chlorine. The contractor shall flush the pipelines by a means in accordance with good practice. The flushing shall be made through an open pipe end.



- iv. At no time shall chlorinated water from a new main be flushed into a body of fresh water. This is to include lakes, rivers, streams, drainage ways, and any and all other waters where fish or other water life can be expected.
- v. If connecting to an existing water main at an existing valve, the existing valve must be pressure tested to City standards prior to connection. If the existing valve is over 5 years old, a new valve must be installed. If an existing valve fails to pass the test, the Contractor shall make the necessary provisions to test the new line prior to connection to the existing system or install a new valve.
- vi. All equipment used for pressure testing must be properly disinfected before being connected to the system.
- vii. City needs to be onsite to observe the entirety of the pressure test.

Inspection and Acceptance

- a. Prior to backfilling, all water lines and appurtenances shall be inspected and approved by the City. Approval shall not relieve the Contractor for correction of any deficiencies and/or failure as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City for the required inspections.
- b. City will not accept the new line until records of the pressure testing and bacteriological tests are received.

3.8 VALVES

All materials including pipe, fittings, valves and fire hydrants must conform to the latest standards issued by the American Society of Testing and Materials (ASTM), the American Water Works Association (AWWA), the American Standards Association (ASA) and American National Standards Institute (ANSI) and National Sanitation Foundation (NSF), where such standards exist, and be acceptable to the City.

Materials

- a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for comprehensive material requirements. Note the following:
 - i. Gate valves shall be provided for sizes 4-inch through 10-inch.
 - ii. Butterfly valves shall be provided for sizes 12-inch and larger.
 - iii. Mud plugs required
 - iv. Valve boxes – see section 3.6.4 below

Minimum Spacing

- a. Valves shall be installed as necessary on water mains at the following locations:
 - i. Every intersection, all sides of tees/crosses, unless specified by city staff.
 - ii. No more than 600 feet of water main will be located between isolation valve zones (i.e., sections of main that may be taken out of service for maintenance activities). Staff may require additional valves depending on isolation requirements.



- iii. Where necessary to ensure that no more than three valves must be closed to isolate any section of a transmission/**distribution** main.
- iv. No more than two fire hydrants will be located between isolation valve zones.
- b. Valves shall not be placed in locations that may be subject to routine parking or storage and shall not be placed within public sidewalks, multi-use paths, or on-street bike lanes.
- c. Valves shall be located to provide maximum accessibility for emergency access.
- d. Valves outside of paved areas shall be marked with a flexible delineator marker post with a blue reflector, such as Carsonite markers.

Valve Boxes

- a. Valve boxes shall be centered and installed over each gate valve operator. Valve boxes shall be of such length as will be adapted, without full extension, to reach the ground surface above the pipe. The valve boxes shall be of cast iron, complete with cover, Buffalo type, two or three-piece, extension type with screw-on adjustment with #160 wide oval base to fit the valve to which it is to be used (Tyler 6850 Series). The cover shall have the word “water” cast on the top. All casting shall comply with country-of-origin marking laws. Boxes shall have 5-1/4 inch shafts. The minimum thickness of metal of the box shall be ¼ inch. Each valve box shall be fitted with a debris cap or plug, S. W. Services, or approval equal.
- b. Larger meter setters/box shall be approved by the **water department**.
- c. Valve boxes shall be centered on the valves. Earth fill shall be carefully tamped around the box, or to the undisturbed trench face if less than 4 feet.

Air Release Valves

The design of any air release valves/vaults must be approved by the city and will be on a case-by-case basis. All designs/calculations shall be by a professional engineer registered in the State of Colorado.

Pressure Reducing Valves

The design of any pressure reducing valves/vaults must be approved by the city, the City’s consultant engineer, and will be on a case-by-case basis. All designs/calculations shall be by a professional engineer registered in the State of Colorado.

Inspection and Acceptance

- a. Refer to **Ch. 7** specification, Water Transmission and Distribution Lines, for installation requirements. Note the following:
 - i. Prior to backfilling, all hydrants and appurtenances shall be inspected and approved by the City. Approval shall not relieve the Contractor for correction of any deficiencies and/or failure as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City for the required inspections.
 - ii.



3.9 FIRE HYDRANTS

Hydrant Lead Size

The minimum size hydrant lead/pipe connecting to a fire hydrant shall be 6-inches.

Easements

- a. All fire hydrants shall be installed within public rights-of-way or easements. Easements shall be a minimum of 15 feet square centered on the hydrant.
- b. Hydrant lead valve to have same easement requirements.
- c. Main line easements shall have 20' wide easement centered over pipe.

Placement and accessibility

- a. The placement of fire hydrants shall comply with the City's most recent adoption of the International Fire Code.
- b. Snow removal (060.090.020 – Hydrant Access)

Spacing

- a. Spacing must meet minimum requirements of **International Fire Code, Table C102.1. and the city fire marshal.**
- b. In a single-family residential area, there shall be no more than 500 feet of fire access distance between hydrants. No dwelling unit shall be over 250 feet of fire access distance from the nearest hydrant.
- c. In all other areas, there shall be no more than 350 feet of fire access distance between hydrants. No exterior portion of any building shall be over 175 feet of fire access distance from the nearest hydrant.

Restraint and Thrust Protection

- a. All hydrants must be provided with concrete reaction blocking and joint restraint.
 - i. Joint restraint shall be the applicable style of Megalug, (i.e. appropriate style for DIP or PVC).
 - ii. Rodding between the fire hydrant and tee **shall be determined on a case-by-case basis.**

Depth of Bury

Fire hydrants depth of bury shall be 5.5 feet minimum.

Hydrants on Private Services

City maintains ownership of hydrants and hydrant lead lines on private service lines up to and including hydrant lead valve.

Materials

- a. Refer to **Ch. 7** specification, Water Transmission and Distribution Lines, for comprehensive material requirements. Note the following:



- i. All fire hydrants for ordinary water works service shall be Mueller Super Centurion A423, or Kennedy K81D and conform to AWWA C 502.
- ii. Each fire hydrant assembly shall be equipped with an auxiliary shut-off valve located between the water main and the fire hydrant as shown on the drawings. The auxiliary valve size shall be 6 inches and is bolted directly to the tee. The branch piping from the main to the fire hydrant shall be 6-inch C900 or ductile iron pipe. (A MJ x swivel tee is allowed on branch.)

Pressure Testing

- a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for testing requirements. Note the following:
 - i. Hydrant shall be tested up against the hydrant lead valve.

Disinfection

Refer to previous sections above for disinfection requirements. Disinfection procedures for hydrants shall be the same as water mains.

Inspection and Acceptance

- a. Refer to Ch. 7 specification, Water Transmission and Distribution Lines, for comprehensive inspection requirements. Note the following:
 - i. Hydrants shall be bagged and marked out-of-service until accepted and approved by the City.
 - ii. Prior to backfilling, all hydrants and appurtenances shall be inspected and approved by the City. Approval shall not relieve the Contractor for correction of any deficiencies and/or failure as determined by subsequent testing and inspections. It shall be the Contractor's responsibility to notify the City for the required inspections.

3.10 SERVICE LINES

General

- a. Only City W/WW Department staff may install the water service line between the City’s main up to (and including) the curbstop shut-off valve. In certain circumstances—and only with pre-authorization—the city may approve a qualified contractor to install the service line and curb stop valve while under the City’s direct supervision (080.040.030(a) - Construction of Waterlines and Appurtenances).
- b. The customer is responsible for all costs incurred by the City for the installation of the service line between the water main up to (and including) the curbstop valve 080.040.010(e) - Maintenance of Service Lines.
- c. The water service connection made on the customer-side of the water curbstop valve must be inspected and approved by City staff before the new water service will be turned on.
- d. Curbstops are city ownership and may be operated only by city staff, unless preauthorization has been granted. Operations of curbstop shall be done during the Water Department’s regular hours of operation. Anything outside regular business hours shall be billed at an hourly rate.



Tap size

- a. The maximum size of a water service tap shall be based on the number of equivalent units (EQRs) established in Article 080.040.010 (d) - Service Connections.

Depth of Bury

Water services are recommended to follow same depth of bury requirements as water mains.

Service Tap Abandonment

- a. Any existing service tap that is no longer active or will not be used must be abandoned at the main. For ¾" to 2" services, the corporation stop and saddle must be removed and full circle repair clamp (12.5" width) must be installed. For services greater than 2", valve must be removed, and plug installed with thrust block, see section 3.5.4 for thrust block information.
- b. Installation of a replacement tap will not be allowed by the city until all existing service taps are properly abandoned. Alternate abandonment schedules may be allowed by the city on a case-by-case basis.

Minimum Distances from Fittings and Services

- a. The city requires a minimum of 5 feet between tap locations or any fittings along the water main line. If the minimum clearances cannot be satisfied, the city will consider alternative designs on a case-by-case basis.

Combined Fire/Domestic Services

- a. A combination fire sprinkler/domestic service line is allowed from the City's water distribution main if the following conditions are met:
 - i. All combination systems must follow NFPA 25 Standards.
 - ii. The combination line shall separate into a domestic service line (with meter) and a dedicated fire sprinkler line (without meter, but with Oriseal shutoff) **within the structure**.
 - iii. Fire systems shall be separate or separated from domestic systems in such a way that both systems can be operated and tested at their respective pressures.

Irrigation Services

- a. Irrigation service lines shall serve no more than one individual property, unless approved by the City under the provisions of a homeowner's association.
- b. Reference to Appendix – Water Distribution Standard Drawings for irrigation riser detail and preferred manufacturer materials.
- c. Contractors/Developers/Owners to consult Parks and Recreation department for irrigation clock specifics and requirements per location and accessibility. **The preferred** clock manufacturer is Rain Master.
- d. Main line irrigation to be Schedule 40 PVC piping sized appropriately for required system design.
- e. The preferred spray head manufacturer is Rain Bird.



Pressure Reduction Devices on Service Lines

If the water system pressure exceeds 80 psi, a pressure reducing valve must be installed downstream of the water meter (IPC).

Services 2-inch (2") and Smaller

- a. Refer to **Ch. 7** specification, Water Transmission and Distribution Lines, for comprehensive material requirements. Note the following:
 - i. Tapping saddle – Mueller/Smith Blair or approved equal, **with brass body, stainless steel straps and iron pipe thread.**
 - ii. Corpstop valve - Mueller/McDonald or approved equal; Iron pipe (IP) thread; Teflon Ball with 300 psi rating.
 - iii. Pipe Type –**Type K** Copper or Pure-core HDPE, or approved equal.
 - iv. Curbstop Valve – Mueller or approved equal, **with compression fittings.**
 - v. Valve Box - Mueller/McDonald or approved equal; 1 ½" Upper for ¾' & 1"; 2" Upper for 1 ½" & 2". **Residential style operating rod.**
 - vi. Identification and Marking – Tracer wire and tape shall be installed.

Services Larger than 2-inch (2")

- a. Refer to specification Water Transmission and Distribution Lines for complete requirements. Note the following:
 - i. Tap – MJ tee or hot tap (stainless steel tapping saddle)
 - ii. Gate valve – reference section 3.3
 - iii. Pipe Type –**C900** or ductile iron
 - iv. Valve Box – **See section 3.6.4 for specifications.**
 - v. Identification and Marking – Tracer wire and tape shall be installed.
 - vi. Restraint Systems - All tees, bends, plugs and hydrants must be provided with reaction blocking, tie rods or joints designed to prevent movement.

3.11 WATER METERS

General Requirements

- a. A City-approved water meter must be installed on any water service line. Requirements are defined in the Code 080.040.020 – Water meter equipment.
- b. Requests for water meters can be initiated by contacting the **city**. (Reference Code:**080.040.020(b)(2)– Water meter equipment/Installation, Ownership and Maintenance**)
- c. The meter must be installed in a location that can be accessed for inspection and future maintenance. **Existing meters that are inaccessible by city staff will be required or made**



accessible by owner. Failure to provide accessibility to the meter will potentially result in water shut-off by city staff.

- d. A schematic showing typical meter installation, including additional requirements for isolation valves, pressure reducing valves, and cross-connection devices will be provided by plumber for city review.
- e. The meter installation must be inspected and approved by City staff before the new water service will be turned on. (Reference Code: 080.040.020(b)(1) – Water meter equipment/Installation, Ownership and Maintenance).

3.12 EARTHWORK

Site Control and Safety

Contractor to provide safe and healthful working conditions on each operation at all times. Contractor shall comply with all provisions, regulations and recommendations issued pursuant to the Occupational Safety and Health Act, and the Construction Safety Act as amended, and with laws, rules and regulations of other authorities having jurisdiction, with regard to all matters relating to the safety and health of workers and the general public. Compliance with government requirements is mandated by law and considered only a minimum level of safety performance. Perform all work in accordance with best safe work practices recognized by the construction industry.

Traffic Control

Refer to Chapter 5 for traffic control requirements.

Trenching operations

Refer to Ch. 7 specification, Trenching, Backfilling and Compaction, for additional information.

Protection of existing structures and utilities

Contractor shall protect all existing structures, utilities and improvements not designated for removal and shall restore damages or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation.

Backfill and compaction

Refer to Ch. 7 specification, Trenching, Backfilling and Compaction, for additional information.

Street Patching and Restoration

See Chapter 5 regarding patching and trench restoration.



APPENDIX – WATER DISTRIBUTION STANDARD DRAWINGS

CITY STANDARD DRAWINGS	Filename
W01. Concrete Thrust Block Details	
W02. Concrete Thrust Block Details	
W03. Fire Hydrant Assembly	
W04. Gate Valve Detail	
W05. Gate Valve and Box Assembly	
W06. Water Pipe Insulation Detail	
W07. Polyethylene Wrap Detail	
W08. Water Service Connection Detail	
W09. Water Main Concrete Encasement Detail	
W10. Line Valves at Tees and Crosses	
W11 Vertical Bend Anchor Detail	
W12 Water Meter Pit	
W13 Trench Excavation and Backfill Detail	
W14 Irrigation Connection Detail	





City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

- Agenda Item:** Fire/Emergency Management Service Department Update to Council
- Action Requested:** Hear an update from the City Manager and Chief of Public Safety on department activities.
- Department:** City Administration
- Presented By:** Steve Boyd, Joseph Deras
- Strategic Goals:** Ensure Public Safety
- Background Info:** We are in the process of important department updates including our ISO rating and standard of cover evaluation. This is an update to Council on those activities and the department's efforts to control costs.
- Issues:**
Public Protection Classification (PPC) and ISO rating
ISO recently completed its analysis of our structural fire suppression delivery system and assigned a rating of 2/10. This is a strong rating that directly supports reduced insurance premiums for residents and businesses in our district. Key strengths of our system include strong water system capacity, emergency communications system and community risk reduction (code, public education efforts and risk reduction). Weaknesses or opportunities for improvement include a need for staffing improvements and additional ladder/service truck capacity. ISO assigned us a downward divergence factor meaning our score decreases for differences between Fire Department capacity and our exceptionally strong water supply. Additionally, nearly all of the Rural Fire Protection District earned a rating of 10, meaning structures are significant distance from stations and hydrants, indicating a need for increased department capacity. A summary memo from Chief of Public Safety Joseph Deras to me, the letter issued to the City from ISO, and the PPC Summary Report are attached.
- Standard of Cover
Fitch and Associates is in the final stages of completing their standard of cover evaluation of our department. Their initial reports indicate that we are likely to need two additional units, staffed with 5-7 firefighter paramedics. While we expect this staffing increase can be implemented in stages this indicates a significant increase in needed resources.
- Department equipment and staffing improvements
In the past two years our fire department has been able to source and put into service one ladder truck, one engine, an ambulance and a wildland rig needed to replace aging engines. We are still in need of additional assets that can reach multi-story buildings. For the past several years we have tried to identify and acquire land in the West Glenwood area on which to build a fire station to replace Station 1 which is nearly obsolete.
- The City and Rural Fire District added three additional firefighter/EMS positions in 2024 to improve coverage standards. We are currently staffed at two firefighters per asset, short of the National Fire Protection Association's (NFPA) recommended standard of four per engine. The department is facing growth in our rural district and increases in significant operating costs for personnel, benefits, insurance and technology. Dedicated revenues are insufficient to maintain the department in its current form, requiring a roughly \$1.5 million annual subsidy from the City's General Fund. We'd like Council to consider hiring Magellan to evaluate funding possibilities.
- Fiscal Impact:** The department is going to need to add staff capacity to maintain target response times and needed coverage. The proposal being discussed today is for \$24,000 and would be paid for from the Fire/EMS fund should we decide to move forward.

Legal Review: NA

Staff Recommendation: NA

MEMORANDUM

To: Steve Boyd, City Manager

From: Joseph Deras, Chief of Public Safety

Date: September 29, 2025

Subject: Summary of 2026 ISO Public Protection Classification (PPC) Evaluation

Steve,

Attached for your review are the official ISO 2026 Public Protection Classification (PPC) Letter and the full PPC Summary Report for Glenwood Springs. ISO has completed its comprehensive assessment of our community's structural fire suppression capabilities, including emergency communications, fire department operations, water supply, and community risk reduction programs.

Key Outcome

ISO has assigned Glenwood Springs a **PPC rating of Class 2/10**, effective January 1, 2026. Class 2 applies to properties within 5 road miles of a fire station **and** within 1,000 feet of a hydrant or recognized water supply; Class 10 applies to properties beyond 5 road miles of a fire station.

What This Means

A Class 2 rating places Glenwood Springs among the best-protected communities in the nation. We earned **83.03 points**, well within the Class 2 range (80–89.99). Key strengths include:

- Exceptional water supply performance (38.74/40).
- Highly capable 911 and dispatch systems (9.45/10).
- Strong fire department staffing, deployment, and training.

This high classification directly supports reduced insurance premiums for residents and businesses.

Estimated Insurance Savings for Homeowners

While ISO does not publish premium impacts, insurer filings nationwide show that homes in a Class 2 district typically pay 5%–15% less in fire-related premiums than similar homes in Class 4–5 communities.

For Glenwood Springs homeowners, with typical premiums of \$1,200–\$2,000 per year, this equates to an estimated \$60–\$300 annual savings per household. Actual impacts vary by insurer and wildfire-related underwriting. This is an estimate as insurance company rates can vary widely by circumstance.

City Limits vs. Rural Fire District Coverage

The ISO classification system does *not* differentiate based on city boundaries—it evaluates each property based on (1) distance to a fire station and (2) proximity to a hydrant or other approved water source.

Because of this, the rating applies differently inside and outside the city:

Inside City Limits (Municipal Water & Stations)

- Nearly all developed areas inside the city are within 5 road miles of a station and within 1,000 feet of a hydrant.
- These properties qualify for the Class 2 rating and therefore receive the full insurance benefit.

Rural Fire District / County Areas (Outside City)

- Many rural properties rely on wells, cisterns, or hauled water and may not be within 1,000 feet of a hydrant.
- Properties within 5 road miles of a fire station but without hydrant access fall into higher numbers, but in this survey ISO assigned the rural portion a Class 10 rating because those areas are beyond 5 road miles of a recognized station.
- Class 10 properties receive no insurance premium benefit from the City’s Class 2 rating.

Practical Impact

- Residents inside city limits see significant insurance advantages due to Class 2.
- Rural district residents typically pay higher premiums because their ISO classification defaults to Class 10 unless future infrastructure (stations, hydrants, or alternative water supplies) changes those conditions.

Next Steps

Staff will continue reviewing improvement opportunities identified in the ISO report, including ladder service capacity and alignment between fire department resources and the very strong water system. While achieving Class 1 is possible, doing so would require substantial investment with limited incremental insurance benefit beyond our already excellent Class 2 rating and is not recommended.

Please let me know if you have questions.

Respectfully submitted,

Joseph Deras

Chief of Public Safety



1000 Bishops Gate Blv. Ste 300
Mt. Laurel, NJ 08054-5404

t1.800.444.4554 Opt.2
f1.800.777.3929

September 29, 2025

Mr. Marco Dehm, Mayor
Glenwood Springs includes Glenwood Springs FD
101 W 8th St.
Glenwood Springs, Colorado, 81601

RE: Glenwood Springs Includes Glenwood Springs Fd, Garfield County, Colorado
Public Protection Classification: 02/10
Effective Date: January 01, 2026

Dear Mr. Marco Dehm,

We wish to thank you and Mr. Joseph Deras for your cooperation during our recent Public Protection Classification (PPC) survey. ISO has completed its analysis of the structural fire suppression delivery system provided in your community. The resulting classification is indicated above.

If you would like to know more about your community's PPC classification, or if you would like to learn about the potential effect of proposed changes to your fire suppression delivery system, please call us at the phone number listed below.

ISO's Public Protection Classification Program (PPC) plays an important role in the underwriting process at insurance companies. In fact, most U.S. insurers – including the largest ones – use PPC information as part of their decision-making when deciding what business to write, coverage's to offer or prices to charge for personal or commercial property insurance.

Each insurance company independently determines the premiums it charges its policyholders. The way an insurer uses ISO's information on public fire protection may depend on several things – the company's fire-loss experience, ratemaking methodology, underwriting guidelines, and its marketing strategy.

Through ongoing research and loss experience analysis, we identified additional differentiation in fire loss experience within our PPC program, which resulted in the revised classifications. We based the differing fire loss experience on the fire suppression capabilities of each community. The new classifications will improve the predictive value for insurers while benefiting both commercial and residential property owners. We've published the new classifications as "X" and "Y" — formerly the "9" and "8B" portion of the split classification, respectively. For example:

- A community currently graded as a split 6/9 classification will now be a split 6/6X classification; with the "6X" denoting what was formerly classified as "9."
- Similarly, a community currently graded as a split 6/8B classification will now be a split 6/6Y classification, the "6Y" denoting what was formerly classified as "8B."

- Communities graded with single “9” or “8B” classifications will remain intact.
- Properties over 5 road miles from a recognized fire station would receive a class 10.

PPC is important to communities and fire departments as well. Communities whose PPC improves may get lower insurance prices. PPC also provides fire departments with a valuable benchmark, and is used by many departments as a valuable tool when planning, budgeting and justifying fire protection improvements.

ISO appreciates the high level of cooperation extended by local officials during the entire PPC survey process. The community protection baseline information gathered by ISO is an essential foundation upon which determination of the relative level of fire protection is made using the Fire Suppression Rating Schedule.

The classification is a direct result of the information gathered, and is dependent on the resource levels devoted to fire protection in existence at the time of survey. Material changes in those resources that occur after the survey is completed may affect the classification. Although ISO maintains a pro-active process to keep baseline information as current as possible, in the event of changes please call us at 1-800-444-4554, option 2 to expedite the update activity.

ISO is the leading supplier of data and analytics for the property/casualty insurance industry. Most insurers use PPC classifications for underwriting and calculating premiums for residential, commercial and industrial properties. The PPC program is not intended to analyze all aspects of a comprehensive structural fire suppression delivery system program. It is not for purposes of determining compliance with any state or local law, nor is it for making loss prevention or life safety recommendations.

If you have any questions about your classification, please let us know.

Sincerely,

Alex Shubert

Alex Shubert
Manager -National Processing Center

cc: Mr. Joseph Deras, Chief, GLENWOOD SPRINGS FIRE DEPARTMENT

**Public Protection Classification
(PPC®)
Summary Report**

**Glenwood Springs includes Glenwood Springs
FD**

COLORADO

Prepared by

**Insurance Services Office, Inc.
1000 Bishops Gate Blvd., Ste. 300
P.O. Box 5404
Mt. Laurel, New Jersey 08054-5404
1-800-444-4554**

**Report Created September 2025
Effective JANUARY 1, 2026**

PPC is a registered trademark of Insurance Services Office, Inc.

Background Information

Introduction

ISO collects and evaluates information from communities in the United States on their structure fire suppression capabilities. The data is analyzed using our Fire Suppression Rating Schedule (FSRS) and then a Public Protection Classification (PPC®) grade is assigned to the community. The surveys are conducted whenever it appears that there is a possibility of a PPC change. As such, the PPC program provides important, up-to-date information about fire protection services throughout the country.

The FSRS recognizes fire protection features only as they relate to suppression of first alarm structure fires. In many communities, fire suppression may be only a small part of the fire department's overall responsibility. ISO recognizes the dynamic and comprehensive duties of a community's fire service, and understands the complex decisions a community must make in planning and delivering emergency services. However, in developing a community's PPC grade, only features related to reducing property losses from structural fires are evaluated. Multiple alarms, simultaneous incidents and life safety are not considered in this evaluation. The PPC program evaluates the fire protection for small to average size buildings. Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual PPC grade.

A community's investment in fire mitigation is a proven and reliable predictor of future fire losses. Statistical data on insurance losses bears out the relationship between excellent fire protection – as measured by the PPC program – and low fire losses. So, insurance companies use PPC information for marketing, underwriting, and to help establish fair premiums for homeowners and commercial fire insurance. In general, the price of fire insurance in a community with a good PPC grade is substantially lower than in a community with a poor PPC grade, assuming all other factors are equal.

ISO is an independent company that serves insurance companies, communities, fire departments, insurance regulators, and others by providing information about risk. ISO's expert staff collects information about municipal fire suppression efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data and assigns a PPC grade – a number from 1 to 10. Class 1 represents an exemplary fire suppression program, and Class 10 indicates that the area's fire suppression program does not meet ISO's minimum criteria.

ISO's PPC program evaluates communities according to a uniform set of criteria, incorporating nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association. A community's PPC grade depends on:

- **Needed Fire Flows**, which are representative building locations used to determine the theoretical amount of water necessary for fire suppression purposes.
- **Emergency Communications**, including emergency reporting, telecommunicators, and dispatching systems.
- **Fire Department**, including equipment, staffing, training, geographic distribution of fire companies, operational considerations, and community risk reduction.
- **Water Supply**, including inspection and flow testing of hydrants, alternative water supply operations, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires up to 3,500 gpm.

Data Collection and Analysis

ISO has evaluated and classified over 39,000 fire protection areas across the United States using its FSRS. A combination of meetings between trained ISO field representatives and the dispatch center coordinator, community fire official, and water superintendent is used in conjunction with a comprehensive questionnaire to collect the data necessary to determine the PPC grade. In order for a community to obtain a grade better than a Class 9, three elements of fire suppression features are reviewed. These three elements are Emergency Communications, Fire Department, and Water Supply.

A review of the **Emergency Communications** accounts for 10% of the total classification. This section is weighted at **10 points**, as follows:

- Emergency Reporting 3 points
- Telecommunicators 4 points
- Dispatch Circuits 3 points

A review of the **Fire Department** accounts for 50% of the total classification. ISO focuses on a fire department's first alarm response and initial attack to minimize potential loss. The fire department section is weighted at **50 points**, as follows:

- Engine Companies 6 points
- Reserve Pumpers 0.5 points
- Pump Capacity 3 points
- Ladder/Service Companies 4 points
- Reserve Ladder/Service Trucks 0.5 points
- Deployment Analysis 10 points
- Company Personnel 15 points
- Training 9 points
- Operational considerations 2 points
- Community Risk Reduction 5.5 points (in addition to the 50 points above)

A review of the **Water Supply** system accounts for 40% of the total classification. ISO reviews the water supply a community uses to determine the adequacy for fire suppression purposes. The water supply system is weighted at **40 points**, as follows:

- Credit for Supply System 30 points
- Hydrant Size, Type & Installation 3 points
- Inspection & Flow Testing of Hydrants 7 points

There is one additional factor considered in calculating the final score – **Divergence**.

Even the best fire department will be less than fully effective if it has an inadequate water supply. Similarly, even a superior water supply will be less than fully effective if the fire department lacks the equipment or personnel to use the water. The FSRs score is subject to modification by a divergence factor, which recognizes disparity between the effectiveness of the fire department and the water supply.

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

PPC Grade

The PPC grade assigned to the community will depend on the community's score on a 100-point scale:

PPC	Points
1	90.00 or more
2	80.00 to 89.99
3	70.00 to 79.99
4	60.00 to 69.99
5	50.00 to 59.99
6	40.00 to 49.99
7	30.00 to 39.99
8	20.00 to 29.99
9	10.00 to 19.99
10	0.00 to 9.99

The classification numbers are interpreted as follows:

- Class 1 through (and including) Class 8 represents a fire suppression system that includes an FSRs creditable dispatch center, fire department, and water supply.
- Class 8B is a special classification that recognizes a superior level of fire protection in otherwise Class 9 areas. It is designed to represent a fire protection delivery system that is superior except for a lack of a water supply system capable of the minimum FSRs fire flow criteria of 250 gpm for 2 hours.
- Class 9 is a fire suppression system that includes a creditable dispatch center, fire department but no FSRs creditable water supply.
- Class 10 does not meet minimum FSRs criteria for recognition, including areas that are beyond five road miles of a recognized fire station.

New PPC program changes effective July 1, 2014

We have revised the PPC program to capture the effects of enhanced fire protection capabilities that reduce fire loss and fire severity in Split Class 9 and Split Class 8B areas (as outlined below). This new structure benefits the fire service, community, and property owner.

New classifications

Through ongoing research and loss experience analysis, we identified additional differentiation in fire loss experience within our PPC program, which resulted in the revised classifications. We based the differing fire loss experience on the fire suppression capabilities of each community. The new PPC classes will improve the predictive value for insurers while benefiting both commercial and residential property owners. Here are the new classifications and what they mean.

Split classifications

When we develop a split classification for a community — for example 5/9 — the first number is the class that applies to properties within 5 road miles of the responding fire station and 1,000 feet of a creditable water supply, such as a fire hydrant, suction point, or dry hydrant. The second number is the class that applies to properties within 5 road miles of a fire station but beyond 1,000 feet of a creditable water supply. We have revised the classification to reflect more precisely the risk of loss in a community, replacing Class 9 and 8B in the second part of a split classification with revised designations.

What's changed with the new classifications?

We've published the new classifications as "X" and "Y" — formerly the "9" and "8B" portion of the split classification, respectively. For example:

- A community currently displayed as a split 6/9 classification will now be a split 6/6X classification; with the "6X" denoting what was formerly classified as "9".
- Similarly, a community currently graded as a split 6/8B classification will now be a split 6/6Y classification, the "6Y" denoting what was formerly classified as "8B".
- Communities graded with single "9" or "8B" classifications will remain intact.

Prior Classification	New Classification
1/9	1/1X
2/9	2/2X
3/9	3/3X
4/9	4/4X
5/9	5/5X
6/9	6/6X
7/9	7/7X
8/9	8/8X
9	9

Prior Classification	New Classification
1/8B	1/1Y
2/8B	2/2Y
3/8B	3/3Y
4/8B	4/4Y
5/8B	5/5Y
6/8B	6/6Y
7/8B	7/7Y
8/8B	8/8Y
8B	8B

What's changed?

As you can see, we're still maintaining split classes, but it's how we represent them to insurers that's changed. The new designations reflect a reduction in fire severity and loss and have the potential to reduce property insurance premiums.

Benefits of the revised split class designations

- To the fire service, the revised designations identify enhanced fire suppression capabilities used throughout the fire protection area
- To the community, the new classes reward a community's fire suppression efforts by showing a more reflective designation
- To the individual property owner, the revisions offer the potential for decreased property insurance premiums

New water class

Our data also shows that risks located more than 5 but less than 7 road miles from a responding fire station with a creditable water source within 1,000 feet had better loss experience than those farther than 5 road miles from a responding fire station with no creditable water source. We've introduced a new classification —10W — to recognize the reduced loss potential of such properties.

What's changed with Class 10W?

Class 10W is property-specific. Not all properties in the 5-to-7-mile area around the responding fire station will qualify. The difference between Class 10 and 10W is that the 10W-graded risk or property is within 1,000 feet of a creditable water supply. Creditable water supplies include fire protection systems using hauled water in any of the split classification areas.

What's the benefit of Class 10W?

10W gives credit to risks within 5 to 7 road miles of the responding fire station and within 1,000 feet of a creditable water supply. That's reflective of the potential for reduced property insurance premiums.

What does the fire chief have to do?

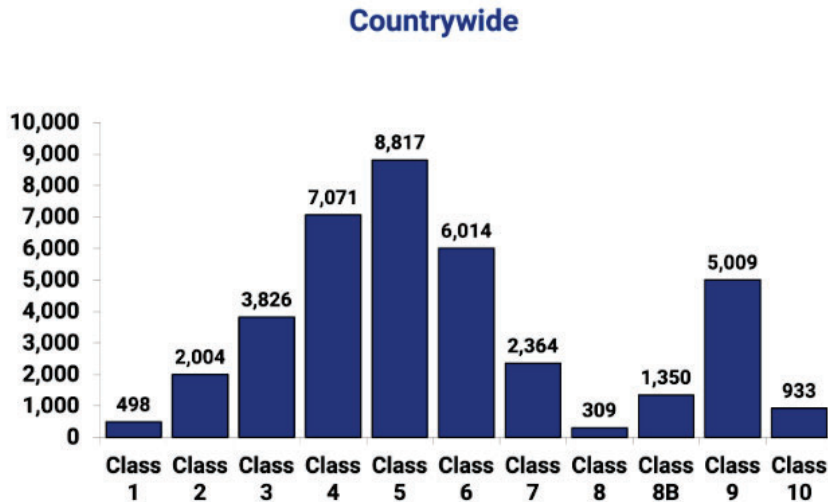
Fire chiefs don't have to do anything at all. The revised classifications went in place automatically effective July 1, 2014 (July 1, 2015 for Texas).

What if I have additional questions?

Feel free to contact ISO at 800.444.4554 or email us at PPC-Cust-Serv@iso.com.

Distribution of PPC Grades

The 2023 published countrywide distribution of communities by the PPC grade is as follows:



Assistance

The PPC program offers help to communities, fire departments, and other public officials as they plan for, budget, and justify improvements. ISO is also available to assist in the understanding of the details of this evaluation.

The PPC program representatives can be reached by telephone at (800) 444-4554. The technical specialists at this telephone number have access to the details of this evaluation and can effectively speak with you about your questions regarding the PPC program. What's more, we can be reached via the internet at www.isomitigation.com/talk/.

We also have a website dedicated to our Community Hazard Mitigation Classification programs at www.isomitigation.com. Here, fire chiefs, building code officials, community leaders and other interested citizens can access a wealth of data describing the criteria used in evaluating how cities and towns are protecting residents from fire and other natural hazards. This website will allow you to learn more about the PPC program. The website provides important background information, insights about the PPC grading processes and technical documents. ISO is also pleased to offer Fire Chiefs Online — a special, secured website with information and features that can help improve your PPC grade, including a list of the Needed Fire Flows for all the commercial occupancies ISO has on file for your community. Visitors to the site can download information, see statistical results and also contact ISO for assistance.

In addition, on-line access to the FSRs and its commentaries is available to registered customers for a fee. However, fire chiefs and community chief administrative officials are given access privileges to this information without charge.

To become a registered fire chief or community chief administrative official, register at www.isomitigation.com.

PPC Review

ISO concluded its review of the fire suppression features being provided for Glenwood Springs includes Glenwood Springs FD. The resulting community classification is **Class 02/10**.

If the classification is a single class, the classification applies to properties with a Needed Fire Flow of 3,500 gpm or less in the community. If the classification is a split class (e.g., 6/XX):

- The first class (e.g., “6” in a 6/XX) applies to properties within 5 road miles of a recognized fire station and within 1,000 feet of a fire hydrant or alternate water supply.
- The second class (XX or XY) applies to properties beyond 1,000 feet of a fire hydrant but within 5 road miles of a recognized fire station.
- Alternative Water Supply: The first class (e.g., “6” in a 6/10) applies to properties within 5 road miles of a recognized fire station with no hydrant distance requirement.
- Class 10 applies to properties over 5 road miles of a recognized fire station.
- Class 10W applies to properties within 5 to 7 road miles of a recognized fire station with a recognized water supply within 1,000 feet.
- Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual classification.

FSRS Feature	Earned Credit	Credit Available
Emergency Communications		
414. Credit for Emergency Reporting	3.00	3
422. Credit for Telecommunicators	3.90	4
432. Credit for Dispatch Circuits	2.55	3
440. Credit for Emergency Communications	9.45	10
Fire Department		
513. Credit for Engine Companies	5.47	6
523. Credit for Reserve Pumpers	0.38	0.50
532. Credit for Pump Capacity	3.00	3
549. Credit for Ladder Service	1.57	4
553. Credit for Reserve Ladder and Service Trucks	0.00	0.50
561. Credit for Deployment Analysis	6.85	10
571. Credit for Company Personnel	10.53	15
581. Credit for Training	5.68	9
730. Credit for Operational Considerations	2.00	2
590. Credit for Fire Department	35.48	50
Water Supply		
616. Credit for Supply System	29.57	30
621. Credit for Hydrants	2.97	3
631. Credit for Inspection and Flow Testing	6.20	7
640. Credit for Water Supply	38.74	40
Divergence	-5.18	--
1050. Community Risk Reduction	4.54	5.50
Total Credit	83.03	105.50

Emergency Communications

Ten percent of a community's overall score is based on how well the communications center receives and dispatches fire alarms. Our field representative evaluated:

- Communications facilities provided for the general public to report structure fires
- Enhanced 9-1-1 Telephone Service including wireless
- Computer-aided dispatch (CAD) facilities
- Alarm receipt and processing at the communication center
- Training and certification of telecommunicators
- Facilities used to dispatch fire department companies to reported structure fires

	Earned Credit	Credit Available
414. Credit Emergency Reporting	3.00	3
422. Credit for Telecommunicators	3.90	4
432. Credit for Dispatch Circuits	2.55	3
Item 440. Credit for Emergency Communications:	9.45	10

Item 414 - Credit for Emergency Reporting (3 points)

The first item reviewed is Item 414 "Credit for Emergency Reporting (CER)". This item reviews the emergency communication center facilities provided for the public to report fires including 911 systems (Basic or Enhanced), Wireless Phase I and Phase II, Voice over Internet Protocol, Computer Aided Dispatch and Geographic Information Systems for automatic vehicle location. ISO uses National Fire Protection Association (NFPA) 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems* as the reference for this section.

Item 410. Emergency Reporting (CER)	Earned Credit	Credit Available
<p>A./B. Basic 9-1-1, Enhanced 9-1-1 or No 9-1-1</p> <p>For maximum credit, there should be an Enhanced 9-1-1 system, Basic 9-1-1 and No 9-1-1 will receive partial credit.</p>	20.00	20
<p>1. E9-1-1 Wireless</p> <p>Wireless Phase I using Static ALI (automatic location identification) Functionality (10 points); Wireless Phase II using Dynamic ALI Functionality (15 points); Both available will be 25 points</p>	25.00	25
<p>2. E9-1-1 Voice over Internet Protocol (VoIP)</p> <p>Static VoIP using Static ALI Functionality (10 points); Nomadic VoIP using Dynamic ALI Functionality (15 points); Both available will be 25 points</p>	25.00	25
<p>3. Computer Aided Dispatch</p> <p>Basic CAD (5 points); CAD with Management Information System (5 points); CAD with Interoperability (5 points)</p>	15.00	15
<p>4. Geographic Information System (GIS/AVL)</p> <p>The PSAP uses a fully integrated CAD/GIS management system with automatic vehicle location (AVL) integrated with a CAD system providing dispatch assignments.</p> <p>The individual fire departments being dispatched <u>do not</u> need GIS/AVL capability to obtain this credit.</p>	15.00	15
<p>Review of Emergency Reporting total:</p>	100.00	100

Item 422- Credit for Telecommunicators (4 points)

The second item reviewed is Item 422 “Credit for Telecommunicators (TC)”. This item reviews the number of Telecommunicators on duty at the center to handle fire calls and other emergencies. All emergency calls including those calls that do not require fire department action are reviewed to determine the proper staffing to answer emergency calls and dispatch the appropriate emergency response. The 2013 Edition of NFPA 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems*, recommends that ninety-five percent of emergency calls shall be answered within 15 seconds and ninety-nine percent of emergency calls shall be answered within 40 seconds. In addition, NFPA recommends that eighty percent of emergency alarm processing shall be completed within 60 seconds and ninety-five percent of alarm processing shall be completed within 106 seconds of answering the call.

To receive full credit for operators on duty, ISO must review documentation to show that the communication center meets NFPA 1221 call answering and dispatch time performance measurement standards. This documentation may be in the form of performance statistics or other performance measurements compiled by the 9-1-1 software or other software programs that are currently in use such as Computer Aided Dispatch (CAD) or Management Information System (MIS).

Item 420. Telecommunicators (CTC)	Earned Credit	Credit Available
<p>A1. Alarm Receipt (AR)</p> <p>Receipt of alarms shall meet the requirements in accordance with the criteria of NFPA 1221</p>	20.00	20
<p>A2. Alarm Processing (AP)</p> <p>Processing of alarms shall meet the requirements in accordance with the criteria of NFPA 1221</p>	20.00	20
<p>B. Emergency Dispatch Protocols (EDP)</p> <p>Telecommunicators have emergency dispatch protocols (EDP) containing questions and a decision-support process to facilitate correct call categorization and prioritization.</p>	20.00	20
<p>C. Telecommunicator Training and Certification (TTC)</p> <p>Telecommunicators meet the qualification requirements referenced in NFPA 1061, <i>Standard for Professional Qualifications for Public Safety Telecommunicator</i>, and/or the Association of Public-Safety Communications Officials - International (APCO) <i>Project 33</i>. Telecommunicators are certified in the knowledge, skills, and abilities corresponding to their job functions.</p>	17.50	20
<p>D. Telecommunicator Continuing Education and Quality Assurance (TQA)</p> <p>Telecommunicators participate in continuing education and/or in-service training and quality-assurance programs as appropriate for their positions</p>	20.00	20
<p>Review of Telecommunicators total:</p>	97.50	100

Item 432 - Credit for Dispatch Circuits (3 points)

The third item reviewed is Item 432 “Credit for Dispatch Circuits (CDC)”. This item reviews the dispatch circuit facilities used to transmit alarms to fire department members. A “Dispatch Circuit” is defined in NFPA 1221 as “A circuit over which an alarm is transmitted from the communications center to an emergency response facility (ERF) or emergency response units (ERUs) to notify ERUs to respond to an emergency”. All fire departments (except single fire station departments with full-time firefighter personnel receiving alarms directly at the fire station) need adequate means of notifying all firefighter personnel of the location of reported structure fires. The dispatch circuit facilities should be in accordance with the general criteria of NFPA 1221. “Alarms” are defined in this Standard as “A signal or message from a person or device indicating the existence of an emergency or other situation that requires action by an emergency response agency”.

There are two different levels of dispatch circuit facilities provided for in the Standard – a primary dispatch circuit and a secondary dispatch circuit. In jurisdictions that receive 730 alarms or more per year (average of two alarms per 24-hour period), two separate and dedicated dispatch circuits, a primary and a secondary, are needed. In jurisdictions receiving fewer than 730 alarms per year, a second dedicated dispatch circuit is not needed. Dispatch circuit facilities installed but not used or tested (in accordance with the NFPA Standard) receive no credit.

The score for Credit for Dispatch Circuits (CDC) is influenced by monitoring for integrity of the primary dispatch circuit. There are up to 0.90 points available for this Item. Monitoring for integrity involves installing automatic systems that will detect faults and failures and send visual and audible indications to appropriate communications center (or dispatch center) personnel. ISO uses NFPA 1221 to guide the evaluation of this item. ISO's evaluation also includes a review of the communication system's emergency power supplies.

Item 432 “Credit for Dispatch Circuits (CDC)” = 2.55 points

Fire Department

Fifty percent of a community's overall score is based upon the fire department's structure fire suppression system. ISO's field representative evaluated:

- Engine and ladder/service vehicles including reserve apparatus
- Equipment carried
- Response to reported structure fires
- Deployment analysis of companies
- Available and/or responding firefighters
- Training

	Earned Credit	Credit Available
513. Credit for Engine Companies	5.47	6
523. Credit for Reserve Pumpers	0.38	0.5
532. Credit for Pumper Capacity	3.00	3
549. Credit for Ladder Service	1.57	4
553. Credit for Reserve Ladder and Service Trucks	0.00	0.5
561. Credit for Deployment Analysis	6.85	10
571. Credit for Company Personnel	10.53	15
581. Credit for Training	5.68	9
730. Credit for Operational Considerations	2.00	2
Item 590. Credit for Fire Department:	35.48	50

Basic Fire Flow

The Basic Fire Flow for the community is determined by the review of the Needed Fire Flows for selected buildings in the community. The fifth largest Needed Fire Flow is determined to be the Basic Fire Flow. The Basic Fire Flow has been determined to be 3500 gpm.

Item 513 - Credit for Engine Companies (6 points)

The first item reviewed is Item 513 "Credit for Engine Companies (CEC)". This item reviews the number of engine companies, their pump capacity, hose testing, pump testing and the equipment carried on the in-service pumpers. To be recognized, pumper apparatus must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* which include a minimum 250 gpm pump, an emergency warning system, a 300 gallon water tank, and hose. At least 1 apparatus must have a permanently mounted pump rated at 750 gpm or more at 150 psi.

The review of the number of needed pumpers considers the response distance to built-upon areas; the Basic Fire Flow; and the method of operation. Multiple alarms, simultaneous incidents, and life safety are not considered.

The greatest value of A, B, or C below is needed in the fire district to suppress fires in structures with a Needed Fire Flow of 3,500 gpm or less: **3 engine companies**

- a) **3 engine companies** to provide fire suppression services to areas to meet NFPA 1710 criteria or within 1½ miles.
- b) **3 engine companies** to support a Basic Fire Flow of 3500 gpm.
- c) **3 engine companies** based upon the fire department's method of operation to provide a minimum two engine response to all first alarm structure fires.

The FSRS recognizes that there are **3 engine companies** in service.

The FSRS also reviews Automatic Aid. Automatic Aid is considered in the review as assistance dispatched automatically by contractual agreement between two communities or fire districts. That differs from mutual aid or assistance arranged case by case. ISO will recognize an Automatic Aid plan under the following conditions:

- It must be prearranged for first alarm response according to a definite plan. It is preferable to have a written agreement, but ISO may recognize demonstrated performance.
- The aid must be dispatched to all reported structure fires on the initial alarm.
- The aid must be provided 24 hours a day, 365 days a year.

FSRS Item 512.D "Automatic Aid Engine Companies" responding on first alarm and meeting the needs of the city for basic fire flow and/or distribution of companies are factored based upon the value of the Automatic Aid plan (up to 1.00 can be used as the factor). The Automatic Aid factor is determined by a review of the Automatic Aid provider's communication facilities, how they receive alarms from the graded area, inter-department training between fire departments, and the fire ground communications capability between departments.

For each engine company, the credited Pump Capacity (PC), the Hose Carried (HC), the Equipment Carried (EC) all contribute to the calculation for the percent of credit the FSRS provides to that engine company.

Item 513 "Credit for Engine Companies (CEC)" = 5.47 points

Item 523 - Credit for Reserve Pumpers (0.50 points)

The item is Item 523 “Credit for Reserve Pumpers (CRP)”. This item reviews the number and adequacy of the pumpers and their equipment. The number of needed reserve pumpers is 1 for each 8 needed engine companies determined in Item 513, or any fraction thereof.

Item 523 “Credit for Reserve Pumpers (CRP)” = 0.38 points

Item 532 – Credit for Pumper Capacity (3 points)

The next item reviewed is Item 532 “Credit for Pumper Capacity (CPC)”. The total pump capacity available should be sufficient for the Basic Fire Flow of 3500 gpm. The maximum needed pump capacity credited is the Basic Fire Flow of the community.

Item 532 “Credit for Pumper Capacity (CPC)” = 3.00 points

Item 549 – Credit for Ladder Service (4 points)

The next item reviewed is Item 549 “Credit for Ladder Service (CLS)”. This item reviews the number of response areas within the city with 5 buildings that are 3 or more stories or 35 feet or more in height, or with 5 buildings that have a Needed Fire Flow greater than 3,500 gpm, or any combination of these criteria. The height of all buildings in the city, including those protected by automatic sprinklers, is considered when determining the number of needed ladder companies. Response areas not needing a ladder company should have a service company. Ladders, tools and equipment normally carried on ladder trucks are needed not only for ladder operations but also for forcible entry, ventilation, salvage, overhaul, lighting and utility control.

The number of ladder or service companies, the height of the aerial ladder, aerial ladder testing and the equipment carried on the in-service ladder trucks and service trucks is compared with the number of needed ladder trucks and service trucks and an FSRS equipment list. Ladder trucks must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* to be recognized.

The number of needed ladder-service trucks is dependent upon the number of buildings 3 stories or 35 feet or more in height, buildings with a Needed Fire Flow greater than 3,500 gpm, and the method of operation.

The FSRS recognizes that there are **1 ladder companies** in service. These companies are needed to provide fire suppression services to areas to meet NFPA 1710 criteria or within 2½ miles and the number of buildings with a Needed Fire Flow over 3,500 gpm or 3 stories or more in height, or the method of operation.

The FSRS recognizes that there are **0 service companies** in service.

Item 549 “Credit for Ladder Service (CLS)” = 1.57 points

Item 553 – Credit for Reserve Ladder and Service Trucks (0.50 points)

The next item reviewed is Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)”. This item considers the adequacy of ladder and service apparatus when one (or more in larger communities) of these apparatus are out of service. The number of needed reserve ladder and service trucks is 1 for each 8 needed ladder and service companies that were determined to be needed in Item 540, or any fraction thereof.

Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)” = 0.00 points

Item 561 – Deployment Analysis (10 points)

Next, Item 561 “Deployment Analysis (DA)” is reviewed. This Item examines the number and adequacy of existing engine and ladder-service companies to cover built-upon areas of the city.

To determine the Credit for Distribution, first the Existing Engine Company (EC) points and the Existing Engine Companies (EE) determined in Item 513 are considered along with Ladder Company Equipment (LCE) points, Service Company Equipment (SCE) points, Engine-Ladder Company Equipment (ELCE) points, and Engine-Service Company Equipment (ESCE) points determined in Item 549.

Secondly, as an alternative to determining the number of needed engine and ladder/service companies through the road-mile analysis, a fire protection area may use the results of a systematic performance evaluation. This type of evaluation analyzes computer-aided dispatch (CAD) history to demonstrate that, with its current deployment of companies, the fire department meets the time constraints for initial arriving engine and initial full alarm assignment in accordance with the general criteria of in NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*.

A determination is made of the percentage of built upon area within 1½ miles of a first-due engine company and within 2½ miles of a first-due ladder-service company.

Item 561 “Credit Deployment Analysis (DA)” = 6.85 points

Item 571 – Credit for Company Personnel (15 points)

Item 571 “Credit for Company Personnel (CCP)” reviews the average number of existing firefighters and company officers available to respond to reported first alarm structure fires in the city.

The on-duty strength is determined by the yearly average of total firefighters and company officers on-duty considering vacations, sick leave, holidays, “Kelley” days and other absences. When a fire department operates under a minimum staffing policy, this may be used in lieu of determining the yearly average of on-duty company personnel.

Firefighters on apparatus not credited under Items 513 and 549 that regularly respond to reported first alarms to aid engine, ladder, and service companies are included in this item as increasing the total company strength.

Firefighters staffing ambulances or other units serving the general public are credited if they participate in fire-fighting operations, the number depending upon the extent to which they are available and are used for response to first alarms of fire.

On-Call members are credited on the basis of the average number staffing apparatus on first alarms. Off-shift career firefighters and company officers responding on first alarms are considered on the same basis as on-call personnel. For personnel not normally at the fire station, the number of responding firefighters and company officers is divided by 3 to reflect the time needed to assemble at the fire scene and the reduced ability to act as a team due to the various arrival times at the fire location when compared to the personnel on-duty at the fire station during the receipt of an alarm.

The number of Public Safety Officers who are positioned in emergency vehicles within the jurisdiction boundaries may be credited based on availability to respond to first alarm structure fires. In recognition of this increased response capability the number of responding Public Safety Officers is divided by 2.

The average number of firefighters and company officers responding with those companies credited as Automatic Aid under Items 513 and 549 are considered for either on-duty or on-call company personnel as is appropriate. The actual number is calculated as the average number of company personnel responding multiplied by the value of AA Plan determined in Item 512.D.

The maximum creditable response of on-duty and on-call firefighters is 12, including company officers, for each existing engine and ladder company and 6 for each existing service company.

Chief Officers are not creditable except when more than one chief officer responds to alarms; then extra chief officers may be credited as firefighters if they perform company duties.

The FSRS recognizes **11.64 on-duty personnel** and an average of **4.00 on-call personnel** responding on first alarm structure fires.

Item 571 “Credit for Company Personnel (CCP)” = 10.53 points

Item 581 – Credit for Training (9 points)

Training	Earned Credit	Credit Available
<p>A. Facilities, and Use</p> <p>For maximum credit, each firefighter should receive 18 hours per year in structure fire related subjects as outlined in NFPA 1001.</p>	14.00	35
<p>B. Company Training</p> <p>For maximum credit, each firefighter should receive 16 hours per month in structure fire related subjects as outlined in NFPA 1001.</p>	11.77	25
<p>C. Classes for Officers</p> <p>For maximum credit, each officer should be certified in accordance with the general criteria of NFPA 1021. Additionally, each officer should receive 12 hours of continuing education on or off site.</p>	12.00	12
<p>D. New Driver and Operator Training</p> <p>For maximum credit, each new driver and operator should receive 60 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451.</p>	2.33	5
<p>E. Existing Driver and Operator Training</p> <p>For maximum credit, each existing driver and operator should receive 12 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451.</p>	5.00	5
<p>F. Training on Hazardous Materials</p> <p>For maximum credit, each firefighter should receive 6 hours of training for incidents involving hazardous materials in accordance with NFPA 472.</p>	1.00	1
<p>G. Recruit Training</p> <p>For maximum credit, each firefighter should receive 240 hours of structure fire related training in accordance with NFPA 1001 within the first year of employment or tenure.</p>	5.00	5
<p>H. Pre-Fire Planning Inspections</p> <p>For maximum credit, pre-fire planning inspections of each commercial, industrial, institutional, and other similar type building (all buildings except 1-4 family dwellings) should be made annually by company members. Records of inspections should include up-to date notes and sketches.</p>	12.00	12

Item 580 “Credit for Training (CT)” = 5.68 points

Item 730 – Operational Considerations (2 points)

Item 730 “Credit for Operational Considerations (COC)” evaluates fire department standard operating procedures and incident management systems for emergency operations involving structure fires.

Operational Considerations	Earned Credit	Credit Available
Standard Operating Procedures The department should have established SOPs for fire department general emergency operations	50	50
Incident Management Systems The department should use an established incident management system (IMS)	50	50
Operational Considerations total:	100	100

Item 730 “Credit for Operational Considerations (COC)” = 2.00 points

Water Supply

Forty percent of a community's overall score is based on the adequacy of the water supply system. The ISO field representative evaluated:

- the capability of the water distribution system to meet the Needed Fire Flows at selected locations up to 3,500 gpm.
- size, type and installation of fire hydrants.
- inspection and flow testing of fire hydrants.

	Earned Credit	Credit Available
616. Credit for Supply System	29.57	30
621. Credit for Hydrants	2.97	3
631. Credit for Inspection and Flow Testing	6.20	7
Item 640. Credit for Water Supply:	38.74	40

Item 616 – Credit for Supply System (30 points)

The first item reviewed is Item 616 “Credit for Supply System (CSS)”. This item reviews the rate of flow that can be credited at each of the Needed Fire Flow test locations considering the supply works capacity, the main capacity and the hydrant distribution. The lowest flow rate of these items is credited for each representative location. A water system capable of delivering 250 gpm or more for a period of two hours plus consumption at the maximum daily rate at the fire location is considered minimum in the ISO review.

Where there are 2 or more systems or services distributing water at the same location, credit is given on the basis of the joint protection provided by all systems and services available.

The supply works capacity is calculated for each representative Needed Fire Flow test location, considering a variety of water supply sources. These include public water supplies, emergency supplies (usually accessed from neighboring water systems), suction supplies (usually evidenced by dry hydrant installations near a river, lake or other body of water), and supplies developed by a fire department using large diameter hose or vehicles to shuttle water from a source of supply to a fire site. The result is expressed in gallons per minute (gpm).

The normal ability of the distribution system to deliver Needed Fire Flows at the selected building locations is reviewed. The results of a flow test at a representative test location will indicate the ability of the water mains (or fire department in the case of fire department supplies) to carry water to that location.

The hydrant distribution is reviewed within 1,000 feet of representative test locations measured as hose can be laid by apparatus.

For maximum credit, the Needed Fire Flows should be available at each location in the district. Needed Fire Flows of 2,500 gpm or less should be available for 2 hours; and Needed Fire Flows of 3,000 and 3,500 gpm should be obtainable for 3 hours.

Item 616 “Credit for Supply System (CSS)” = 29.57 points

Item 621 – Credit for Hydrants (3 points)

The second item reviewed is Item 621 “Credit for Hydrants (CH)”. This item reviews the number of fire hydrants of each type compared with the total number of hydrants.

There are a total of 715 hydrants in the graded area.

620. Hydrants, - Size, Type and Installation	Number of Hydrants
A. With a 6 -inch or larger branch and a pumper outlet with or without 2½ - inch outlets	707
B. With a 6 -inch or larger branch and no pumper outlet but two or more 2½ -inch outlets, or with a small foot valve, or with a small barrel	0
C./D. With only a 2½ -inch outlet or with less than a 6 -inch branch	8
E./F. Flush Type, Cistern, or Suction Point	0

Item 621 “Credit for Hydrants (CH)” = 2.97 points

Item 630 – Credit for Inspection and Flow Testing (7 points)

The third item reviewed is Item 630 “Credit for Inspection and Flow Testing (CIT)”. This item reviews the fire hydrant inspection frequency, and the completeness of the inspections. Inspection of hydrants should be in accordance with AWWA M-17, *Installation, Field Testing and Maintenance of Fire Hydrants*.

Frequency of Inspection (FI): Average interval between the 3 most recent inspections.

Frequency	Points
1 year	30
2 years	20
3 years	10
4 years	5
5 years or more	No Credit

Note: The points for inspection frequency are reduced by 10 points if the inspections are incomplete or do not include a flushing program. An additional reduction of 10 points are made if hydrants are not subjected to full system pressure during inspections. If the inspection of cisterns or suction points does not include actual drafting with a pumper, or back-flushing for dry hydrants, 20 points are deducted.

Total points for Inspections = 3.80 points

Frequency of Fire Flow Testing (FF): Average interval between the 3 most recent inspections.

Frequency	Points
5 years	40
6 years	30
7 years	20
8 years	10
9 years	5
10 years or more	No Credit

Total points for Fire Flow Testing = 2.40 points

Item 631 “Credit for Inspection and Fire Flow Testing (CIT)” = 6.20 points

Divergence = -5.18

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

Community Risk Reduction

	Earned Credit	Credit Available
1025. Credit for Fire Prevention and Code Enforcement (CPCE)	1.75	2.2
1033. Credit for Public Fire Safety Education (CFSE)	1.69	2.2
1044. Credit for Fire Investigation Programs (CIP)	1.10	1.1
Item 1050. Credit for Community Risk Reduction	4.54	5.50

Item 1025 – Credit for Fire Prevention Code Adoption and Enforcement (2.2 points)	Earned Credit	Credit Available
Fire Prevention Code Regulations (PCR) Evaluation of fire prevention code regulations in effect.	10.00	10
Fire Prevention Staffing (PS) Evaluation of staffing for fire prevention activities.	7.65	8
Fire Prevention Certification and Training (PCT) Evaluation of the certification and training of fire prevention code enforcement personnel.	1.25	6
Fire Prevention Programs (PCP) Evaluation of fire prevention programs.	12.99	16
Review of Fire Prevention Code and Enforcement (CPCE) subtotal:	31.89	40

Item 1033 – Credit for Public Fire Safety Education (2.2 points)	Earned Credit	Credit Available
Public Fire Safety Educators Qualifications and Training (FSQT) Evaluation of public fire safety education personnel training and qualification as specified by the authority having jurisdiction.	5.00	10
Public Fire Safety Education Programs (FSP) Evaluation of programs for public fire safety education.	25.75	30
Review of Public Safety Education Programs (CFSE) subtotal:	30.75	40

Item 1044 – Credit for Fire Investigation Programs (1.1 points)	Earned Credit	Credit Available
Fire Investigation Organization and Staffing (IOS) Evaluation of organization and staffing for fire investigations.	8.00	8
Fire Investigator Certification and Training (IQT) Evaluation of fire investigator certification and training.	6.00	6
Use of National Fire Incident Reporting System (IRS) Evaluation of the use of the National Fire Incident Reporting System (NFIRS) for the 3 years before the evaluation.	6.00	6
Review of Fire Investigation Programs (CIP) subtotal:	20.00	20

Summary of PPC Review
for
Glenwood Springs includes Glenwood Springs FD

FSRS Item	Earned Credit	Credit Available
Emergency Communications		
414. Credit for Emergency Reporting	3.00	3
422. Credit for Telecommunicators	3.90	4
432. Credit for Dispatch Circuits	2.55	3
440. Credit for Emergency Communications	9.45	10
Fire Department		
513. Credit for Engine Companies	5.47	6
523. Credit for Reserve Pumpers	0.38	0.5
532. Credit for Pumper Capacity	3.00	3
549. Credit for Ladder Service	1.57	4
553. Credit for Reserve Ladder and Service Trucks	0.00	0.5
561. Credit for Deployment Analysis	6.85	10
571. Credit for Company Personnel	10.53	15
581. Credit for Training	5.68	9
730. Credit for Operational Considerations	2.00	2
590. Credit for Fire Department	35.48	50
Water Supply		
616. Credit for Supply System	29.57	30
621. Credit for Hydrants	2.97	3
631. Credit for Inspection and Flow Testing	6.20	7
640. Credit for Water Supply	38.74	40
Divergence	-5.18	--
1050. Community Risk Reduction	4.54	5.50
Total Credit	83.03	105.5

Final Community Classification = 02/10

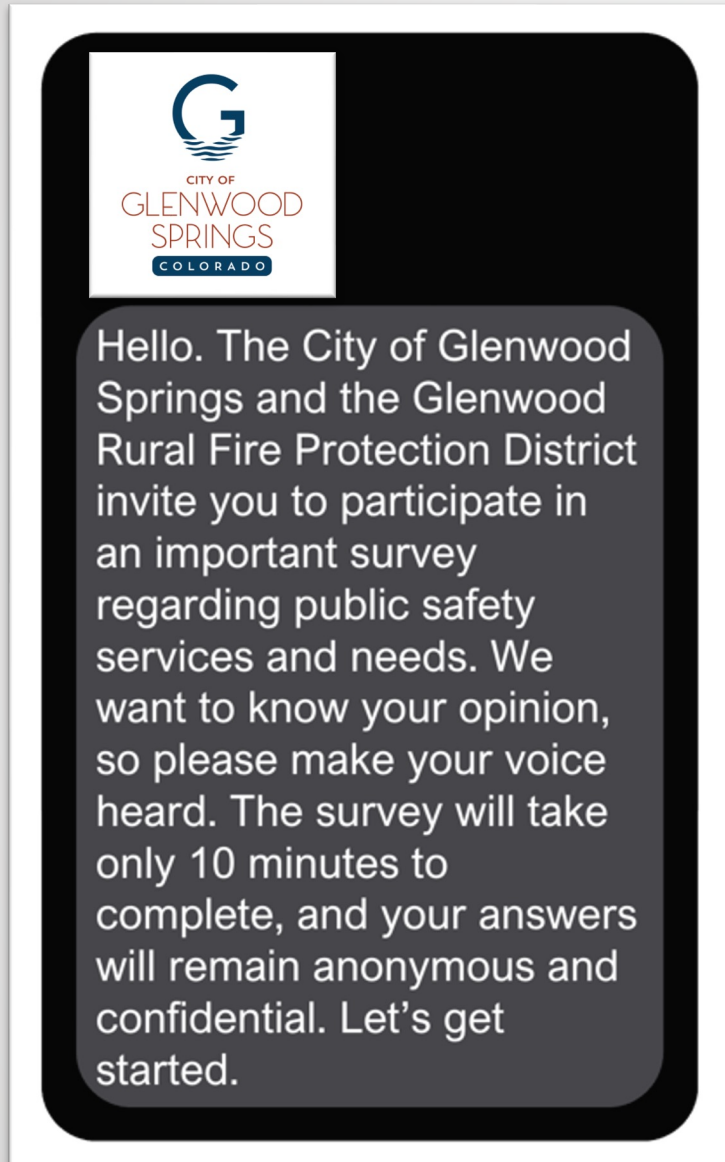


Magellan Strategies Methodology Presentation for the City of Glenwood Springs

March 2026



Methodology



MMS Text Message Invitations-

- Welcoming
- Inviting Voters to Participate in Online Survey, Unique Link
- Random Sample of Voters

Other Collection Methods-

- Newsletters
- Glenwood Springs Website
- Social Media Pages

City of Glenwood Springs

Voter Registration & Past Turnout Demographics

Sex	Registration		2025		2024		2023		2022		2021	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Female	3,407	49.8%	1,388	53.9%	2,545	51.9%	1,243	52.5%	2,105	51.7%	1,406	52.5%
Male	3,435	50.2%	1,186	46.1%	2,363	48.1%	1,124	47.5%	1,967	48.3%	1,273	47.5%
Total	6,842	100.0%	2,574	100.0%	4,908	100.0%	2,367	100.0%	4,071	100.0%	2,678	100.0%

Age Group	Registration		2025		2024		2023		2022		2021	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
18-34	2,098	30.7%	278	10.8%	1,151	23.5%	266	11.2%	790	19.4%	353	13.2%
35-44	1,309	19.1%	492	19.1%	960	19.6%	391	16.5%	726	17.8%	439	16.4%
45-54	965	14.1%	400	15.5%	740	15.1%	362	15.3%	672	16.5%	422	15.8%
55-64	886	12.9%	404	15.7%	745	15.2%	416	17.6%	715	17.6%	506	18.9%
65+	1,584	23.2%	1,000	38.9%	1,312	26.7%	932	39.4%	1,168	28.7%	958	35.8%
Total	6,842	100.0%	2,574	100.0%	4,908	100.0%	2,367	100.0%	4,071	100.0%	2,678	100.0%

Party	Registration		2025		2024		2023		2022		2021	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Unaffiliated	3,849	56.3%	1,314	51.0%	2,571	52.4%	1,149	48.5%	1,959	48.1%	1,136	42.4%
Democrat	1,770	25.9%	787	30.6%	1,410	28.7%	744	31.4%	1,288	31.6%	956	35.7%
Republican	1,055	15.4%	430	16.7%	834	17.0%	458	19.3%	762	18.7%	563	21.0%
Libertarian	58	0.8%	11	0.4%	36	0.7%	13	0.5%	40	1.0%	15	0.6%
Other	110	1.6%	32	1.2%	57	1.2%	3	0.1%	22	0.5%	8	0.3%
Total	6,842	100.0%	2,574	100.0%	4,908	100.0%	2,367	100.0%	4,071	100.0%	2,678	100.0%

Glenwood Springs Rural Fire Protection District Voter Registration & Past Turnout Demographics

Glenwood Springs Rural Fire Protection District Magellan Strategies Voter Registration and Past Election Turnout Report

Sex	Registration		2025		2024		2023		2022		2021	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Female	1,312	48.9%	616	52.7%	1,060	50.5%	568	51.3%	888	50.2%	600	51.2%
Male	1,370	51.1%	554	47.3%	1,040	49.5%	540	48.7%	882	49.8%	573	48.8%
Total	2,681	100.0%	1,169	100.0%	2,100	100.0%	1,107	100.0%	1,770	100.0%	1,172	100.0%

Age Group	Registration		2025		2024		2023		2022		2021	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
18-34	624	23.3%	88	7.5%	375	17.9%	99	8.9%	241	13.6%	119	10.2%
35-44	483	18.0%	195	16.7%	373	17.8%	158	14.3%	324	18.3%	179	15.3%
45-54	414	15.4%	182	15.6%	322	15.3%	151	13.6%	255	14.4%	155	13.2%
55-64	421	15.7%	211	18.0%	394	18.8%	229	20.7%	380	21.5%	297	25.3%
65+	739	27.6%	493	42.2%	636	30.3%	470	42.5%	570	32.2%	422	36.0%
Total	2,681	100.0%	1,169	100.0%	2,100	100.0%	1,107	100.0%	1,770	100.0%	1,172	100.0%

Party	Registration		2025		2024		2023		2022		2021	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Unaffiliated	1,422	53.0%	568	48.6%	1,056	50.3%	522	47.2%	836	47.2%	494	42.2%
Democrat	566	21.1%	286	24.5%	473	22.5%	268	24.2%	413	23.3%	304	25.9%
Republican	648	24.2%	300	25.7%	541	25.8%	307	27.7%	502	28.4%	361	30.8%
Libertarian	18	0.7%	5	0.4%	13	0.6%	8	0.7%	13	0.7%	8	0.7%
Other	27	1.0%	10	0.9%	17	0.8%	2	0.2%	6	0.3%	5	0.4%
Total	2,681	100.0%	1,169	100.0%	2,100	100.0%	1,107	100.0%	1,770	100.0%	1,172	100.0%

Survey Flow



- Initial Benchmark Questions-
 - Approval of City, Fire Department
 - Opinion Fiscal Responsibility of City
 - Opinion on Financial Resources
- Uninformed Ballot Test
- Information Questions
 - What the funding would go towards?
 - Why is Glenwood Springs looking for additional funding?
- Informed Ballot Test
- Demographics

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David Flaherty | Courtney Sievers

Ryan Winger





City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

Agenda Item: Flock Camera Update

Action Requested: NA

Department: City Administration

Presented By: Karl Hanlon

Strategic Goals: Ensure Public Safety

Background Info: See attached memo

Issues:

Fiscal Impact:

Legal Review:

Staff Recommendation:

DATE: February 27, 2026
TO: Glenwood Springs Mayor and Council
FROM: Karl J. Hanlon, City Attorney
RE: Flock Safety Contract Status Update and State Legislation Update

At the February 5, 2026 City Council meeting the City Council directed that we negotiate updated terms to the Flock Safety contract to more clearly address Council and citizens' concerns regarding privacy and data sharing. Since that time, Senate Bill 26-070 was introduced at the state legislative session regarding regulation of Flock Safety and similar data systems.

Senate Bill 26-070 would impose new regulations regarding the use and retainage of historical location data. This data is defined as any information which can track a person or vehicle's location over time. Attached are both the bill text as introduced, several amendments made in the Judiciary Committee and the bill summary provided by the legislature. In short, it requires that such data only be retained for a four-day period, may only be shared outside of the agency owning the data in response to a judicial warrant, and provides for the deletion of the data at the end of the four-day period unless there is a judicial order or ongoing criminal investigation.

Many of these proposed changes are consistent with the policy implemented by the City Manager regarding Flock Safety cameras on February 11, 2026. However, rather than amend the current Flock Safety contract multiple times in response to the legislation if it is passed, we are suggesting monitoring the legislation and holding off on contract amendments. The City will need to evaluate not only proposed contract amendments but whether the current Flock Safety contract continues to have value for the Glenwood Springs Police Department if Senate Bill 26-070 passes. The Senate bill has moved from the Judiciary Committee to the Appropriations Committee for consideration. We would anticipate it going to the full Senate for consideration in the next two to three weeks and then move on to the house for consideration after that.

Accordingly, we have not provided proposed contract amendments at this time. We would encourage Council and the public to read through the proposed state legislation and provide testimony to the legislature if you so choose.

Mail to:

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201 14th Street
Suite 200
Glenwood Springs, CO 81602

Aspen
0133 Prospector Road
Suite 4102-J
Aspen, CO 81611

Basalt
200 Basalt Center
Suite 200
Basalt, CO 81621

Ridgway
565 Sherman Street
Suite 6
Ridgway, CO 81432

Second Regular Session
Seventy-fifth General Assembly
STATE OF COLORADO

INTRODUCED

LLS NO. 26-0400.01 Owen Hatch x2698

SENATE BILL 26-070

SENATE SPONSORSHIP

Amabile and Zamora Wilson, Gonzales J., Hinrichsen, Marchman, Wallace

HOUSE SPONSORSHIP

Zokaie and Nguyen, Brown, Camacho, Garcia, Lieder, Martinez, McCormick, Smith, Titone, Velasco

Senate Committees
Judiciary

House Committees

A BILL FOR AN ACT

101 CONCERNING PROHIBITING A GOVERNMENT ENTITY FROM ACCESSING
102 A DATABASE THAT STORES HISTORICAL LOCATION
103 INFORMATION.

Bill Summary

(Note: This summary applies to this bill as introduced and does not reflect any amendments that may be subsequently adopted. If this bill passes third reading in the house of introduction, a bill summary that applies to the reengrossed version of this bill will be available at <http://leg.colorado.gov>.)

The bill prohibits a government entity from accessing a database that reveals an individual's or a vehicle's historical location information, subject to certain exceptions. The bill prohibits a government entity from sharing historical location information with third parties or government agencies outside their jurisdiction, subject to certain exceptions, and

Shading denotes HOUSE amendment. Double underlining denotes SENATE amendment.
Capital letters or bold & italic numbers indicate new material to be added to existing law.
Dashes through the words or numbers indicate deletions from existing law.

makes historical location information not a public record for the purposes of the "Colorado Open Records Act".

The bill requires a government entity that collects historical location information to adopt a policy to maintain compliance with the provisions of the regulatory scheme.

An enforcement action is created for the attorney general to enforce the provisions of the bill. Historical location information obtained in violation of the prohibitions of the bill are inadmissible in trial.

1 *Be it enacted by the General Assembly of the State of Colorado:*

2 **SECTION 1. Short title.** The short title of this act is the
3 "Protecting Everyone from Excessive Police Surveillance (PEEPS) Act"
4 or "PEEPS Act".

5 **SECTION 2. Legislative declaration - legislative intent.**

6 (1) The general assembly finds and declares that:

7 (a) Technological advances and the growth of commercial data
8 systems have enabled the routine collection, aggregation, storage, and
9 sale of historical location information relating to individuals and vehicles,
10 including information derived from cameras, license plate readers,
11 cellular networks, and other technologies;

12 (b) Historical location information is highly sensitive in nature
13 and, when accessed over time, can reveal detailed and personal
14 information about an individual's movements, associations, habits, and
15 daily activities;

16 (c) Government access to historical location information through
17 privately or publicly maintained databases, rather than through direct
18 observation or narrowly targeted collection, presents unique risks of
19 overbroad surveillance and may occur outside traditional legal processes
20 and safeguards;

21 (d) The availability of commercial and third-party databases

1 containing historical location information has created pathways for
2 government entities to obtain such information without a warrant, court
3 order, or clearly articulated statutory authority;

4 (e) Sharing of historical location information with third parties or
5 with government agencies outside a government entity's jurisdiction,
6 absent clear limits and accountability measures, increases the risk of
7 misuse, unauthorized secondary use, and erosion of public trust;

8 (f) Establishing clear statutory guardrails governing when and
9 how government entities may access, use, and share historical location
10 information promotes transparency, accountability, and consistent
11 application of privacy protections across jurisdictions; and

12 (g) The general assembly recognizes the essential role of
13 government entities, including law enforcement and emergency service
14 providers, in protecting public safety, and acknowledges that limited and
15 clearly defined exceptions are necessary to allow appropriate access to
16 historical location information in specific circumstances.

17 (2) It is the general assembly's intent to regulate government
18 access to databases containing historical location information; to restrict
19 the sharing of such information, except in narrow, well-defined
20 circumstances; to require oversight, record keeping, and compliance
21 policies when historical location information is collected; and to ensure
22 meaningful remedies and enforcement for violations of these protections.

23 **SECTION 3.** In Colorado Revised Statutes, **add** 16-3-313 as
24 follows:

25 **16-3-313. Prohibition on access to a historical location**
26 **information database - individual or vehicle - evidence inadmissible**
27 **in court - definitions.**

1 (1) AS USED IN THIS SECTION, UNLESS THE CONTEXT OTHERWISE
2 REQUIRES:

3 (a) "ACCESS" MEANS VIEWING, QUERYING, RETRIEVING, COPYING,
4 TRANSMITTING, ANALYZING, OR OTHERWISE USING A DATABASE AS
5 DEFINED IN THIS SECTION, WHETHER MANUALLY OR AUTOMATICALLY.

6 (b) "COLLECT" MEANS USING TECHNOLOGY TO RECORD
7 INFORMATION ABOUT AN INDIVIDUAL'S OR VEHICLE'S PHYSICAL LOCATIONS
8 OR MOVEMENTS.

9 (c) "DATABASE" MEANS A PHYSICAL OR DIGITAL INFORMATION
10 STORAGE SYSTEM, WHETHER PUBLICLY OR PRIVATELY OWNED, THAT
11 CONTAINS PHOTOS, VIDEOS, LICENSE PLATE DATA, FACIAL RECOGNITION
12 DATA, CELL SITE LOCATION DATA, OR ANY COMBINATION OF THESE.

13 (d) "GOVERNMENT ENTITY" HAS THE MEANING SET FORTH IN
14 SECTION 16-3-303.5.

15 (e) "GOVERNMENT OFFICIAL" MEANS ANY OFFICER, EMPLOYEE,
16 AGENT, CONTRACTOR, OR REPRESENTATIVE OF A GOVERNMENT ENTITY.

17 (f) (I) "HISTORICAL LOCATION INFORMATION" MEANS
18 INFORMATION THAT, WHEN ACCESSED, REVEALS THE LOCATIONS OF AN
19 INDIVIDUAL OR VEHICLE MORE THAN TWENTY-FOUR HOURS PRIOR TO THE
20 DATE OF THE ACCESS.

21 (II) "HISTORICAL LOCATION INFORMATION" DOES NOT INCLUDE
22 VIDEO OR IMAGE RECORDINGS GENERATED BY CAMERAS IN
23 GOVERNMENT-OWNED BUILDINGS OR DASHBOARD CAMERAS AND
24 BODY-WORN CAMERAS OWNED AND OPERATED BY A GOVERNMENT ENTITY,
25 REGARDLESS OF WHETHER THE CAMERA TRANSMITS, STORES, OR BACKS UP
26 A RECORDING TO A LOCAL OR CENTRALIZED STORAGE SYSTEM, SO LONG
27 AS:

1 (A) THE RECORDING IS NOT INDEXED, SEARCHABLE, OR ANALYZED
2 BY A UNIQUE IDENTIFIER, INCLUDING AN IDENTIFIER TIED TO A VEHICLE OR
3 INDIVIDUAL, SUCH AS A BIOMETRIC IDENTIFIER, BUT NOT INCLUDING AN
4 IDENTIFIER FOR THE INDIVIDUAL OR VEHICLE CARRYING THE CAMERA OR
5 AN IDENTIFIER CONNECTING THE RECORDING TO A PARTICULAR CASE OR
6 INCIDENT NUMBER, FOR THE PURPOSE OF TRACKING OR RECONSTRUCTING
7 AN INDIVIDUAL'S OR VEHICLE'S HISTORICAL LOCATION INFORMATION; AND

8 (B) ACCESS TO THE RECORDING DOES NOT REVEAL AN
9 INDIVIDUAL'S OR VEHICLE'S HISTORICAL LOCATION INFORMATION
10 THROUGH A DATABASE QUERY OR SIMILAR SEARCH PROCESS.

11 (g) "SUPERVISOR" MEANS A GOVERNMENT OFFICIAL WHO
12 POSSESSES THE AUTHORITY TO DIRECT AND DISCIPLINE ONE OR MORE
13 GOVERNMENT OFFICIALS WITHIN A GOVERNMENT ENTITY.

14 (h) "WARRANT" HAS THE MEANING SET FORTH IN THIS ARTICLE 3.
15 "WARRANT" DOES NOT MEAN A SUBPOENA.

16 (2) A GOVERNMENT OFFICIAL SHALL NOT ACCESS A DATABASE
17 THAT REVEALS HISTORICAL LOCATION INFORMATION, EXCEPT:

18 (a) WHEN THE GOVERNMENT OFFICIAL HAS OBTAINED A VALID
19 JUDICIAL WARRANT ISSUED PURSUANT TO THIS PART 3 TO ACCESS THE
20 DATABASE;

21 (b) WHEN AN INDIVIDUAL GIVES EXPRESS CONSENT TO THEIR
22 SPECIFIC HISTORICAL LOCATION INFORMATION BEING REVEALED TO A
23 SPECIFIC GOVERNMENT OFFICIAL OR ENTITY, SO LONG AS THE CONSENT
24 DOES NOT ALLOW THE GOVERNMENT OFFICIAL OR ENTITY TO ACCESS THE
25 HISTORICAL LOCATION INFORMATION OF AN INDIVIDUAL WHO HAS NOT
26 CONSENTED;

27 (c) WHEN THE REGISTERED OWNER OF A VEHICLE REPORTS THE

1 VEHICLE LOST OR STOLEN AND VOLUNTARILY CONSENTS TO THE VEHICLE'S
2 HISTORICAL LOCATION INFORMATION BEING SEARCHED;

3 (d) WHEN EXIGENT CIRCUMSTANCES MAKE OBTAINING A WARRANT
4 IMPRACTICAL BEFORE THE EXIGENCY EXPIRES; OR

5 (e) WHEN A GOVERNMENT OFFICIAL IS CARRYING OUT ANY OF THE
6 FOLLOWING PURPOSES AND USES THE HISTORICAL LOCATION INFORMATION
7 SOLELY FOR THE PURPOSE OF:

8 (I) TOLL COLLECTION AND ENFORCEMENT, AUTHORIZED PURSUANT
9 TO SECTION 43-4-808;

10 (II) TRAFFIC ENFORCEMENT, AUTHORIZED PURSUANT TO SECTION
11 42-4-110.5;

12 (III) PARKING ENFORCEMENT; OR

13 (IV) INFORMATION SECURITY AS NECESSARY TO IMPLEMENT THE
14 REQUIREMENTS OF SUBSECTION (3) OF THIS SECTION.

15 (3) (a) A GOVERNMENT OFFICIAL OR ENTITY THAT COLLECTS
16 HISTORICAL LOCATION INFORMATION SHALL NOT SHARE IT OUTSIDE THE
17 OFFICIAL'S OR ENTITY'S JURISDICTION, EXCEPT FOR A REASON SET FORTH
18 IN SUBSECTION (2) OF THIS SECTION OR PURSUANT TO A VALID COURT
19 ORDER.

20 (b) (I) A GOVERNMENT OFFICIAL OR ENTITY THAT COLLECTS
21 HISTORICAL LOCATION INFORMATION SHALL NOT SELL OR CONVEY IT TO
22 A PRIVATE, NONGOVERNMENTAL THIRD PARTY FOR ANY REASON,
23 WHETHER AS A MARKET TRANSACTION, A RESPONSE TO A PUBLIC RECORDS
24 REQUEST, OR OTHERWISE, EXCEPT TO THE LIMITED EXTENT NECESSARY
25 FOR A NONGOVERNMENTAL THIRD PARTY VENDOR, ACTING SOLELY AS A
26 SERVICE PROVIDER TO THE GOVERNMENT OFFICIAL OR ENTITY, TO
27 TEMPORARILY ACCESS THE HISTORICAL LOCATION INFORMATION FOR THE

1 SOLE PURPOSE OF DIAGNOSING, REPAIRING, OR CONDUCTING
2 MAINTENANCE ON A TECHNICAL MALFUNCTION OR SOFTWARE DEFECT IN
3 THE SYSTEM USED TO COLLECT THE HISTORICAL LOCATION INFORMATION.

4 (II) ACCESS BY A NONGOVERNMENTAL THIRD PARTY VENDOR TO
5 HISTORICAL LOCATION INFORMATION SHALL:

6 (A) BE LIMITED IN SCOPE AND DURATION TO THE MINIMUM EXTENT
7 NECESSARY TO RESOLVE THE IDENTIFIED MALFUNCTION OR DEFECT;

8 (B) PROHIBIT THE VENDOR FROM RETAINING, COPYING,
9 AGGREGATING, ANALYZING, OR USING THE HISTORICAL LOCATION
10 INFORMATION FOR ANY PURPOSE OTHER THAN RESOLVING THE
11 MALFUNCTION OR DEFECT;

12 (C) PROHIBIT THE VENDOR FROM DISCLOSING THE HISTORICAL
13 LOCATION INFORMATION TO ANY OTHER INDIVIDUAL OR ENTITY, UNLESS
14 THE INDIVIDUAL OR ENTITY IS REQUIRED FOR ASSISTANCE IN RESOLVING
15 THE MALFUNCTION OR DEFECT; AND

16 (D) REQUIRE THE VENDOR TO DELETE OR OTHERWISE RELINQUISH
17 ACCESS TO THE HISTORICAL LOCATION INFORMATION IMMEDIATELY UPON
18 RESOLUTION OF THE MALFUNCTION OR DEFECT.

19 (c) A GOVERNMENT OFFICIAL OR ENTITY THAT COLLECTS
20 HISTORICAL LOCATION INFORMATION SHALL ADOPT A POLICY FOR
21 COMPLIANCE WITH THIS SECTION THAT ENSURES:

22 (I) THE SECURITY AND ACCESS REGULATIONS OF THIS SECTION ARE
23 ADHERED TO;

24 (II) THAT HISTORICAL LOCATION INFORMATION IS ENCRYPTED OR
25 OTHERWISE RENDERED UNREADABLE TO AN UNAUTHORIZED USER USING
26 METHODOLOGY OR TECHNOLOGY GENERALLY ACCEPTED IN THE FIELD OF
27 INFORMATION SECURITY;

1 (III) THAT A GOVERNMENT OFFICIAL DOES NOT ACCESS A
2 DATABASE CONTAINING HISTORICAL LOCATION INFORMATION, ABSENT A
3 SHOWING TO A SUPERVISOR, AND, WITH WRITTEN APPROVAL FROM THE
4 SUPERVISOR, THAT THE ACCESS COMPLIES WITH SUBSECTION (2) OF THIS
5 SECTION;

6 (IV) A RECORD IS CREATED AND MAINTAINED EACH TIME
7 HISTORICAL LOCATION INFORMATION IS ACCESSED. THE RECORD MUST
8 INCLUDE:

9 (A) THE IDENTITY OF THE GOVERNMENT OFFICIAL AND ENTITY
10 SEEKING ACCESS;

11 (B) THE SPECIFIC PURPOSE FOR WHICH ACCESS WAS SOUGHT;

12 (C) THE APPLICABLE EXCEPTION AS LISTED IN SUBSECTION (2) OF
13 THIS SECTION AND THE SPECIFIC FACTUAL BASIS FOR THE SUPERVISOR
14 BELIEVING THE EXCEPTION WAS APPLICABLE;

15 (D) THE SUPERVISOR'S WRITTEN APPROVAL THAT GRANTED
16 ACCESS;

17 (E) THE FULL DESCRIPTION OF THE HISTORICAL LOCATION
18 INFORMATION ACCESSED; AND

19 (F) REDACTIONS FOR LICENSE PLATE NUMBERS, FACIAL IMAGES, OR
20 OTHER PERSONALLY IDENTIFIABLE INFORMATION;

21 (V) THAT THE RECORDS REQUIRED PURSUANT TO SUBSECTION
22 (3)(c)(IV) OF THIS SECTION ARE AUDITED BY ONE OR MORE SUPERVISORS
23 AT LEAST EVERY NINETY DAYS TO ENSURE COMPLIANCE WITH THIS
24 SECTION. THE GOVERNMENT OFFICIAL OR ENTITY SHALL CREATE A
25 WRITTEN STANDARDIZED POLICY OR PRACTICE FOR AN AUDIT THAT
26 REQUIRES, AT MINIMUM:

27 (A) VERIFICATION THAT ALL INFORMATION REQUIRED PURSUANT

1 TO SUBSECTION (3)(c)(IV) OF THIS SECTION HAS BEEN PROVIDED;

2 (B) VERIFICATION THAT THE SPECIFIC PURPOSE FOR WHICH ACCESS
3 WAS SOUGHT COMPLIES WITH THIS SECTION;

4 (C) VERIFICATION THAT THE SCOPE OF THE HISTORICAL LOCATION
5 INFORMATION ACCESSED COMPLIES WITH THIS SECTION; AND

6 (D) THAT IN THE EVENT THE AUDITOR OR AUDITORS DETERMINE OR
7 HAVE REASON TO BELIEVE THAT A GOVERNMENT OFFICIAL OR ENTITY HAS
8 VIOLATED ANY PROVISION OF THIS SECTION, FURTHER INVESTIGATION OF
9 THE ACTUAL OR SUSPECTED VIOLATION;

10 (VI) THE CREATION AND MAINTENANCE OF AN ANNUAL REPORT
11 THAT BOTH COMPILES AND SUMMARIZES THE RECORDS DESCRIBED IN
12 SUBSECTION (3)(c)(IV) OF THIS SECTION. THE REPORT MUST BE MADE
13 AVAILABLE BY JUNE 30 OF EACH YEAR TO THE PUBLIC. THE ANNUAL
14 REPORT MUST INCLUDE THE NUMBER AND TYPE OF TECHNOLOGY DEVICES
15 HELD BY A GOVERNMENT ENTITY THAT CAN COLLECT AN INDIVIDUAL'S OR
16 VEHICLE'S PHYSICAL LOCATION OR MOVEMENTS, AND THE LOCATION
17 WHERE THE DEVICES ARE DEPLOYED.

18 (VII) THAT ALL GOVERNMENT OFFICIALS WHOSE DUTIES INCLUDE
19 ACCESSING A DATABASE THAT CONTAINS HISTORICAL LOCATION
20 INFORMATION COMPLETE TRAINING ON HOW TO COMPLY WITH THIS
21 SECTION AND THE COMPLIANCE POLICY ADOPTED PURSUANT TO THIS
22 SECTION. THE TRAINING MUST NOT BE CREATED OR ADMINISTRATED BY A
23 PRIVATE ENTITY WHOSE BUSINESS INVOLVES COLLECTING HISTORICAL
24 LOCATION INFORMATION.

25 (d) (I) EXCEPT AS PROVIDED IN SUBSECTION (3)(d)(II) OF THIS
26 SECTION, A GOVERNMENT OFFICIAL OR ENTITY THAT COLLECTS
27 HISTORICAL LOCATION INFORMATION SHALL NOT RETAIN THE

1 INFORMATION FOR MORE THAN FOUR DAYS AFTER THE DATE THE
2 INFORMATION IS COLLECTED.

3 (II) HISTORICAL LOCATION INFORMATION THAT WAS ACCESSED IN
4 COMPLIANCE WITH SUBSECTION (2) OF THIS SECTION MAY ONLY BE
5 RETAINED FOR FIVE DAYS OR MORE IF:

6 (A) A VALID JUDICIAL WARRANT OR VALID COURT ORDER
7 EXPRESSLY AUTHORIZES THE GOVERNMENT OFFICIAL OR ENTITY TO RETAIN
8 THE HISTORICAL LOCATION INFORMATION FOR A PERIOD OF FIVE DAYS OR
9 LONGER; OR

10 (B) THE INFORMATION IS NECESSARY TO PRESERVE EVIDENCE IN
11 AN ACTIVE CRIMINAL INVESTIGATION OR OTHER LEGAL PROCEEDING AND
12 THE SUPERVISOR OF THE INVESTIGATION MAKES A WRITTEN
13 DETERMINATION, BASED ON SPECIFIC AND ARTICULABLE FACTS, THAT
14 RETAINING THE HISTORICAL LOCATION INFORMATION FOR FIVE DAYS OR
15 MORE IS REQUIRED; OR

16 (C) AN INDIVIDUAL GIVES EXPRESS CONSENT TO THEIR SPECIFIC
17 HISTORICAL LOCATION INFORMATION BEING REVEALED TO A SPECIFIC
18 GOVERNMENT OFFICIAL OR ENTITY AND CONSENTS TO THEIR HISTORICAL
19 LOCATION INFORMATION BEING KEPT FOR FIVE DAYS OR MORE, SO LONG AS
20 THE CONSENT DOES NOT ALLOW THE GOVERNMENT OFFICIAL OR ENTITY TO
21 ACCESS THE HISTORICAL LOCATION INFORMATION OF AN INDIVIDUAL WHO
22 HAS NOT CONSENTED.

23 (III) UPON EXPIRATION OF THE APPLICABLE RETENTION PERIOD
24 DESCRIBED IN THIS SUBSECTION (3)(d), THE GOVERNMENT OFFICIAL OR
25 ENTITY SHALL PERMANENTLY DESTROY THE HISTORICAL LOCATION
26 INFORMATION AND ANY COPIES OF THE INFORMATION IN A MANNER THAT
27 RENDERS THE INFORMATION UNRECOVERABLE.

1 (IV) THE COMPLIANCE POLICY REQUIRED PURSUANT TO
2 SUBSECTION (3)(c) OF THIS SECTION MUST INCLUDE PROCEDURES TO
3 ENSURE TIMELY DESTRUCTION OF THE HISTORICAL LOCATION
4 INFORMATION REQUIRED PURSUANT TO THIS SUBSECTION (3)(d) AND
5 VERIFICATION OF DESTRUCTION.

6 (4) (a) HISTORICAL LOCATION INFORMATION ACCESSED IN
7 VIOLATION OF THIS SECTION IS NOT ADMISSIBLE AS EVIDENCE IN ANY
8 CRIMINAL OR CIVIL PROCEEDING OR ANY OTHER JUDICIAL, QUASI-JUDICIAL,
9 OR ADMINISTRATIVE HEARING OR PROCEEDING.

10 (b) A GOVERNMENT ENTITY SHALL HAVE A WRITTEN, MANDATORY
11 DISCIPLINARY POLICY THAT INCLUDES PROVISIONS FOR SUSPENDING OR
12 REVOKING A GOVERNMENT OFFICIAL'S ACCESS TO ANY DATABASE THAT
13 INCLUDES HISTORICAL LOCATION INFORMATION WHEN THE GOVERNMENT
14 OFFICIAL VIOLATES ANY PROVISION OF THIS SECTION. A GOVERNMENT
15 ENTITY SHALL NOT DEVIATE FROM ITS WRITTEN DISCIPLINARY POLICY
16 AFTER A FINDING THAT A GOVERNMENT OFFICIAL VIOLATED A PROVISION
17 OF THIS SECTION.

18 (5) A POLITICAL SUBDIVISION OF THE STATE SHALL NOT ADOPT A
19 LAW OR POLICY THAT ALLOWS GOVERNMENT OFFICIALS OR ENTITIES TO
20 ACCESS HISTORICAL LOCATION INFORMATION IN A MANNER LESS
21 RESTRICTIVE THAN PROVIDED IN THIS SECTION.

22 (6) FOR PURPOSES OF THIS SECTION, A SUBPOENA IS NOT A VALID
23 COURT ORDER.

24 **SECTION 4.** In Colorado Revised Statutes, 24-72-202, **amend**
25 (6)(b)(XVII) and (6)(b)(XVIII); and **add** (6)(b)(XIX) as follows:

26 **24-72-202. Definitions.**

27 As used in this part 2, unless the context otherwise requires:

1 (6) (b) "Public records" does not include:

2 (XVII) A complaint of harassment or discrimination, as described
3 in section 22-1-143, that is unsubstantiated and all records related to the
4 unsubstantiated complaint, including records of an investigation into the
5 complaint; or

6 (XVIII) Jail assessments conducted pursuant to section 30-10-530
7 (5)(d) or 24-31-118; OR

8 (XIX) HISTORICAL LOCATION INFORMATION, AS DEFINED IN
9 SECTION 16-3-313 (1).

10 **SECTION 5. Act subject to petition - effective date -**
11 **applicability.** (1) This act takes effect at 12:01 a.m. on the day following
12 the expiration of the ninety-day period after final adjournment of the
13 general assembly (August 12, 2026, if adjournment sine die is on May 13,
14 2026); except that, if a referendum petition is filed pursuant to section 1
15 (3) of article V of the state constitution against this act or an item, section,
16 or part of this act within such period, then the act, item, section, or part
17 will not take effect unless approved by the people at the general election
18 to be held in November 2026 and, in such case, will take effect on the
19 date of the official declaration of the vote thereon by the governor.

20 (2) This act applies to violations on or after the applicable
21 effective date of this act.



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

Agenda Item: Curb Side Compost as an Option Through the Pay as You Throw Program (PAYT)

Action Requested: Discussion on the idea of adding Composting as an option to the PAYT program.

Department: Public Works

Presented By: Elizabeth Mauro, Matthew Langhorst

Strategic Goals: Provide Efficient and Responsive City Government
Preserve and Improve Infrastructure

Background Info: The city implemented a pay as you throw (PAYT) trash and recycling program in 2023. This program was always looked at as the base model of a PAYT program for the city, with other options that could be discussed in the future as potential add-ons for residents to consider. This composting add-on would be optional. Staff is here to discuss the idea of putting out a request for proposal (RFP), with multiple levels of customer participation associated with it, to the haulers in the area to see what kind of pricing could be had with a bulk curbside program. If pricing looks to be reasonable, staff would choose a hauler and add the compost option to the website and be able to bill this service through the PAYT program on people's water/trash billings. Moving forward with an RFP does not commit the city to providing this service, but gives us the option to move forward if the pricing and service are beneficial to the city.

Issues: None at this time.

Fiscal Impact: This program would pay for itself and the administration of the program.

Legal Review: None at this time.

Staff Recommendation: Staff is recommending we consider putting out an RFP to explore our options.



**Request for Proposal 2026-xxx
City of Glenwood Springs Residential Organics Collection**

**Buyer:
City of Glenwood Procurement Department
101 West 8th St / Glenwood Springs, CO 81601 / ryan.muse@cogs.us**



RFP2026 City of Glenwood Springs Residential Organics Collection

Section I: Introduction

The City of Glenwood Springs uses the Rocky Mountain E-Purchasing System (“BidNet”) to post solicitations and any supporting or additional information, including Addenda, Bid Sheets and awards. Proposals must be submitted prior to close on BidNet. The City of Glenwood cannot accept a response that did not come through the right channel on time. All documents and information are available at www.bidnetdirect.com/cityofglenwoodsprings. If you require additional information regarding BidNet call Vendor Support at 800-835-4603 anytime Monday-Friday from 6:00 am to 6:00 pm Mountain Time.

Project Summary

Section II: Timeline

a. **Proposal Timeline.**

TIMELINE	DATE	TIME
Pre-Proposal Teams Meeting	MARCH 24TH	10:00 a.m.
Questions and Clarifications Due	MARCH 31ST	5:00 p.m.
Question Addendum Released	APRIL 7TH	5:00 p.m.
Request for Proposals (RFP) Due www.bidnetdirect.com/cityofglenwoodsprings	APRIL 30TH	5:00 p.m.
Target Award Date (Subject to Change)	JULY 7TH	6:00 p.m.

The pre-proposal Teams meeting will begin at 10am and will only be available on the Teams meeting link. This meeting is not mandatory but recommended. A recording of the meeting will be placed on BidNet as an addendum.

Microsoft Teams meeting

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 297 279 204 019

Passcode: 6b9T2L



RFP2026 City of Glenwood Springs Residential Organics Collection

Section III: Instructions to Submitters

- a. The City of Glenwood Springs endeavors to provide a uniform distribution of information and conduct a fair selection process. We ask that you please follow these instructions carefully. Any submittal that does not meet the requirements set forth in this document and any addenda will not be presented the Selection Committee.
- b. We ask that you do not contact any member of staff directly with questions or comments about the RFP other than Ryan Muse, City Clerk. Any attempts to contact City personnel other than the Clerk will result in disqualification. Please send questions to bidresponse@cogs.us and they will be answered as addendums on the BidNet site.
- c. Please upload your submittal to BidNet in one single PDF file.
- d. Questions regarding this RFP should not be submitted to BidNet, but submitted to bidresponse@cogs.us
- e. All addenda issued by The City of Glenwood Springs will be placed on the BidNet site prior to the time that proposals are received and shall be considered part of the RFP. It shall be the Bidder's responsibility to view all documents posted at BidNet. The City may issue several addenda during the process as needed for clarification.
- f. BidNet will automatically stop allowing uploads at the date and time of closing. Sometimes the process takes a few minutes so please upload your proposal well ahead of the closing time. The City of Glenwood cannot see who or how many responses have been submitted to BidNet prior to the closing date so we are unable to confirm receipt. However, you may assume your upload was successful if BidNet accepts the document.
- g. The City of Glenwood Springs makes no guarantee that an award will be made as a result of this RFP and reserves the right to accept or reject any or all proposals, waive any formalities or technical inconsistencies, or delete any item/requirements from this RFP or resulting contract when deemed to be in the City's best interest.
- h. The Bidder shall purchase and maintain at its own insurance which is at least as broad, and with limits at least as great as outlined in Section V: If your proposal is successful and a contract awarded, a compliant certificate of insurance will be required with all endorsements at that time.
- i. Representations made within the proposal will be binding on Bidder. Failure to comply with the requirements contained in this RFP will result in the rejection of your proposal.
- j. Bidder recognizes and understands that any costs incurred by the Bidder from submitting a response to this RFP are the responsibility of the bidder.

Section IV: Project Goals and Objectives

The City is seeking proposals for residential curbside organics hauling within Glenwood Springs.



RFP2026 City of Glenwood Springs Residential Organics Collection

The service, if approved by council, would be offered through the city’s existing Pay As You Throw (PAYT) trash and recycling enterprise fund for existing customers as an optional add-on to their service. To be billed on their water/waste water billing each month.. The contracted hauler would bill the city monthly based on a per-household rate and the city will bill the individual customers.

The service will include weekly pickup of one 5-gallon spin-top bucket of residential organic waste and up to one additional 15-gallon kraft paper bag of yard waste. Materials to be collected will include: all food waste, compostable packaging, paper products, small plant materials/yard trimmings that are less than 6” length and smaller than 2” diameter. Contaminated containers will be photographed, labeled with an ‘oops-tag’, and not serviced; the photos of not-serviced bins will be emailed to the city for follow-up with the customer by city staff.

The organics collection containers will be 5-gallon spin-top buckets that are labeled “Food Waste Only” and are provided by the hauler. Containers damaged or lost by the customer may be replaced with a charge for the new container. Containers that are damaged or lost by the hauler or break due to normal use will be replaced by the hauler at no additional cost to the customer or city. Any container damaged by wildlife will be considered damaged by the customer and can be charged for.

The collected organics will be hauled to a permitted Class II or III composting facility that accepts food waste and compostable packaging.

Haulers responding to this RFP should include the table below to state monthly per-household rate billed to the city for the service. The city does not have data on how many existing customers would be interested in this service, so the table below allows for changes in fee based on how many customers apply within the first year of this program. Contract rate would be negotiated in following years based on customer uptake and changing costs to provide the service. This per-household rate should include all administrative fees and capital costs to provide the service.

Number of households participating:	Amount charged per household per month:
200-400	
401-600	
601-1000	
1001-1500	
1501-2500	
Other rates:	Cost per item:
Charge to replace bucket damaged or lost by customer	



RFP2026 City of Glenwood Springs Residential Organics Collection

Section V: Insurance Requirements

General Liability

Policy form:	Occurrence
Policy Aggregate	\$ 2,000,000
Products/completed operations aggregate	2,000,000
Each occurrence limit	1,000,000
Personal & advertising injury limit	1,000,000
Products/completed operations	
Defense in excess of limits	
Per location / per job aggregate limit	
Blanket contractual	
Independent contractors	
Primary & non-contributory	
Show Waiver of Subrogation in favor of the City	
All locations / operations (if not, show city job/location specifically)	
Name the City as "Additional Insured"	

Automobile Liability:

Combined single limit:.....	\$ 1,000,000
Any auto	(or Hired & Non-owned, if you own no vehicles)
Show Waiver of Subrogation in favor of the City	
Primary & non-contributory	
Auto pollution liability	(IF you carry any hazardous cargo)
(If the Vendor is providing repairs to City vehicles on the Vendor's property, the Vendor shall possess Garage Liability Insurance, covering premises, auto and completed operations)	
Name the City as "Additional Insured"	

Pollution Liability:

Policy form:	Occurrence
(if not, claims-made retro date must predate our contract or date of service)	
Per claim or occurrence limit:.....	\$ 1,000,000
Blanket contractual	
Primary & non-contributory	
Show Waiver of Subrogation in favor of the City	Per location / per job aggregate limit
Defense in excess of limits	
Designated Location or Operation must e shown as per your contract for the City	
Name the City as "Additional Insured"	

Umbrella:

Policy form:	Occurrence - Umbrella
Each occurrence or claim limit:	\$ 1,000,000
Excess commercial general liability	
Excess Products/completed operations	



RFP2026 City of Glenwood Springs Residential Organics Collection

Show Waiver of Subrogation in our favor
 Excess automobile liability
 Excess professional liability (if you provide professional services)
 Excess pollution liability (if any pollution exposure exists)
 Excess employer's liability
 Blanket contractual
 Per location / per job aggregate limit
 Defense in excess of limits
 Primary & non-contributory
 All locations / operations (if not, designate specific project or location)
 Name the City as Additional Insured including Products/Completed Operations

Workers' Compensation:

Workers Compensation benefits:	per Colorado Statute
Employers liability – limit per accident	\$ 100,000
Employers liability – limit per disease	100,000
Employers liability – disease aggregate	500,000

All owners/officers who will be on City property or job site must be covered
 Show Waiver of Subrogation in favor of the City
 Coverage must apply to workers in Colorado

Insurance companies providing the coverage's specified above must be authorized to do business under the laws of the State of Colorado and must be rated no less than "A-" by A.M. Best Company. Issuance of a contract is contingent upon verification of all required coverage.

Section VI: Selection Criteria

In evaluating Proposals, the City shall consider the qualifications of the Submitters, whether or not the Proposals comply with the prescribed requirements, and unit prices if requested in the Proposal forms. The City may consider the qualifications and experience of sub-contractors/consultants and other persons and organizations within the Proposals proposed for those portions of the work. The identity of sub-contractors/consultant and other persons and organizations must be submitted as specified in the Supplementary Conditions. The City is looking to award the project to the firm offering the best value. Price is a consideration but not the only one.

The City may conduct such investigations as it deems necessary to establish the responsibility, qualifications, and financial ability of the Proposers, proposed sub-contractors and other persons and organizations to do the Work in accordance with the Contract Documents to the City's satisfaction within the prescribed time. The City reserves the right to reject the Proposal of any firm that does not pass any such evaluation to the City's satisfaction.

Section VII: RFP Terms & Conditions

Schedule



RFP2026 City of Glenwood Springs Residential Organics Collection

The contractor shall submit a schedule showing the timing in which the contractor proposes to carry on the work including the estimated number of working days elapsed, when the critical parts are to begin, and the estimated number of calendar days required to complete the critical parts. Said schedule shall be subject to the approval of the city. Should the city be of the opinion that any schedule of operation as submitted is inadequate to secure the completion of the work in the time agreed upon or otherwise not in accordance with the specifications or the work is being inadequately or improperly prosecuted in any respect, the City may ask that the contractor submit a new schedule.

Discussions/Negotiations

The City of Glenwood Springs reserves the right to contact any Bidder for clarification of information submitted and to conduct discussions with Bidders, to accept or not accept revisions of Proposals, and to negotiate any point in the proposal or the subsequent contract at the sole discretion of the City's Chief Operating Officer. Due to budget restrictions, this project may not be awarded in full to the selected contractor.

Indemnification

If any litigation from any claims, disputes or other matters in question arising out of or relating to this agreement, or the breach thereof, the successful party in the litigation shall be entitled to reasonable legal expenses as part of any judgment.

Performance Bond

The successful contractor may be required to provide a performance bond equal to 100% of the contract amount. If required, the performance bond shall remain in full force and effect through the guarantee period.

Proprietary Information

It is understood that the City is a public institution and, as such, is subject to the Colorado Open Records Act, CRS §§ 24-72-101 et. seq. ("CORA"). Any information uploaded to BidNet or otherwise submitted will become a public record and subject to inspection following the final selection of a bidder and the award of a contract. Bid tabulations and results will be posted to BidNet. Except as otherwise agreed prior to the award or finalization of any vendor transaction, the City shall provide upon request by any third party all information pertaining to such transaction which must be disclosed pursuant to CORA, and the City's obligations under CORA supersede its obligations under any agreement, contract, purchase order or negotiated transaction. If you object to the disclosure of any confidential or privileged information as such is defined in CORA, any such pages must be marked confidential and submitted as outlined herein. If you fail to mark the documents confidential and fail to include the explanation, any objection to the release of any information will be deemed waived by the City. Please note that your objection will be considered but is not binding on the City. The City is required to make a determination under CORA, and may only withhold documents that are confidential under the law. If the City releases documents marked as confidential in compliance with CORA, the Bidder waives any claims for liability or damages. To avoid disclosure of trade secrets, privileged information, or confidential commercial, financial, geological, or geophysical data ("Confidential Information"), the Bidder must clearly mark all Confidential Information as such and provide a written, detailed justification with its proposal of the protected nature of the Confidential Information under CORA. This justification must address, at a minimum, the specific competitive harm that may result from any disclosure, the intrinsic value



RFP2026 City of Glenwood Springs Residential Organics Collection

of the Confidential Information to the Bidder, and any safeguards used to protect the Confidential Information from disclosure. By submitting a proposal, the firm agrees to hold the City harmless from any claim arising from the release of Confidential Information not clearly marked as such by the Bidder or lacking written, detailed justification as supported by CORA.

Section VII: Warranties, Representations and Acknowledgements of Bidder

- a. Bidder acknowledges and agrees that (1) this RFP is a solicitation for proposal and is not a contract or an offer to contract and (2) the submission of a proposal by Bidder in response to this RFP will not create a contract between the City of Glenwood and Bidder.
- b. Bidder offers and agrees to furnish to the City of Glenwood with the products and/or services described in its proposal, at the prices quoted in the proposal, and to comply with all terms, conditions, and requirements set forth in the RFP documents and contained herein.
- c. Bidder represents and warrants that (1) Bidder is a reputable company regularly engaged in providing products and/or services necessary to meet the terms, conditions, and requirements of the RFP; (2) Bidder has the necessary experience, knowledge, abilities, skills, and resources to satisfactorily perform the terms, conditions and requirements of the RFP; (3) Bidder is aware of, is fully informed about, and is in full compliance with all applicable federal, state, and local laws, rules, regulations, and ordinances; (4) Bidder understands the requirements and specifications set forth in this RFP and the terms and conditions set forth; and (5) all statements, information, and representations prepared and submitted in response to this RFP are current, complete, true, and accurate. Bidder acknowledges that the City of Glenwood will rely on such statements, information, and representations in selecting the successful Bidder. If selected by the City the Bidder will notify the City immediately of any material change in any matters with regard to which Bidder has made a statement or representation or provided information.
- d. Bidder agrees to be in compliance with all federal laws and regulations pertaining to Equal Employment Opportunities and Affirmative Action.



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

Agenda Item: February 19, 2026 Council Minutes

Action Requested: February 19, 2026 City Council Minutes

Department: City Clerk

Presented By:

Strategic Goals: Provide Efficient and Responsive City Government

Background Info:

Issues:

Fiscal Impact:

Legal Review:

Staff Recommendation:



MINUTES
CITY OF GLENWOOD SPRINGS
CITY COUNCIL MEETING
FEBRUARY 19, 2026
6:15 PM

Note: Official meeting minutes are located on the City website via YouTube video at the following link: <https://www.youtube.com/user/GlenwoodSprings1885/videos>. The times in agenda items indicate approximately where the item can be found on the YouTube video timeline.

REGULAR SESSION

Item 1. 4:23 Roll Call

Present: Councilor Smith, Councilor Schachter, Councilor Weimer, Mayor Dehm, Mayor Pro Tem Zalinski, Councilor Schmahl, and Councilor Townsley.

Staff Present: Also present were City Manager Steve Boyd, City Clerk Ryan Muse, City Attorney Karl Hanlon, Deputy Chief of Police John Hassel, Director of Economic and Community Development Trent Hyatt, Director of Operations Tim Bergman, Housing Development Manager/Planner Watkins Fulk-Gray, Public Works Director Matt Langhorst, Fire Marshal Robin Pitt, Building Official Victor Meraz Superintendent of Strategic Initiatives Steve Frederick and Parks and Recreation Director Rod Tarullo.

Item 2. 4:52 Agenda Changes

4:55 Mayor Pro Tem Zalinski, seconded by Councilor Townsley, moved to remove item e: Resolution 2026-04; Supporting Application for Down Payment Assistance Grant from the Division of Housing from the Consent Agenda.

5:16 The motion passed unanimously

Item 3. 5:22 Disclosure of Any Councilor Conflicts of Interest

There were none.

Item 4. 5:29 Citizens Appearing Before Council and Council Response (for items not on the agenda - comments limited to 3 minutes)

Glenwood Springs resident Ashley Stahl made comments on the ICE detention center on Midland.

Non-resident Mae Gray made comments about the ICE detention center on Midland.

City Attorney Karl Hanlon, Mayor Pro Tem Zalinski, and Councilor Smith responded.

Item 5. 13:55 Council Announcements

Mayor Pro Tem Zalinski made announcements regarding the airport.

Councilor Smith made announcements regarding the Transportation Commission and RFTA.

Item 6. 18:11 Consent Agenda

**Mayor Pro Tem Zalinski moved to approve the consent agenda as written.
Councilor Smith seconded the motion.**

Councilor Smith and Mayor Pro Tem Zalinski made comments.

20:16 The motion passed unanimously.

Item 7. 20:22 Planning File 05-26 ROWENC-000106-2025 Right-of-Way Encroachment License 315 8th Street

Director of Economic and Community Development Trent Hyatt, and David Burns, architect of record on the project, presented on the item.

Mayor Pro Tem Zalinski, Councilor Weimer, Councilor Townsley, Councilor Schachter, Councilor Schmahl, and Councilor Smith asked questions.

Mayor Dehm opened the item for public comment.

There were none.

Mayor Dehm closed the public portion.

38:19 Mayor Pro Tem Zalinski, seconded by Councilor Schachter, moved to approve Planning File 05-26 ROWENC-000106-2025 Right-of-Way Encroachment License 315 8th Street based on findings and conditions.

39:13 The motion passed unanimously.

Item 8. 39:24 Special Events Challenges

Superintendent of Strategic Initiatives Steve Frederick and Parks and Recreation Director Rod Tarullo presented on the item.

Councilor Smith, Councilor Schmahl, Mayor Pro Tem Zalinski, Councilor Townsley, Councilor Schachter, Councilor Weimer, and Mayor Dehm asked questions and made comments.

Item 9. 1:18:07 Ordinance 2026-04; Planning File COMDEV 000015-2026, Colorado Wildfire Resiliency Code (First Reading)

Fire Marshal Robin Pitt, Director of Economic and Community Development Trent Hyatt, and Building Official Victor Meraz presented on the item.

Councilor Townsley, Councilor Schmahl, and Councilor Smith, asked questions and made comments.

Mayor Dehm opened the item for public comment.

There were none.

Mayor Dehm closed the public portion.

1:46:46 Councilor Schachter, seconded by Mayor Pro Tem Zalinski, moved to approve Ordinance 2026-04; Planning File COMDEV 000015-2026, Colorado Wildfire Resiliency Code

Mayor Pro Tem Zalinski and Councilor Schmahl made comments.

1:48:43 The motion passed unanimously.

Item 10. 1:49:09 Ordinance 2026-05; Article 020.020.030 Adjust Victims and Witnesses Assistance and Law Enforcement (VALE) Board's Disbursement Limit

City Clerk Ryan Muse opened the item.

Councilor Schmahl and Councilor Weimer asked questions.

Mayor Dehm opened the item for public comment.

There were none.

Mayor Dehm closed the public portion.

1:51:39 Mayor Pro Tem Zalinski moved, seconded by Councilor Townsley, to approve Ordinance 2026-05; Article 020.020.030 Adjust Victims and Witnesses Assistance and Law Enforcement (VALE) Board's Disbursement Limit from 500 to 1000.

Mayor Pro Tem Zalinski and Councilor Schmahl made comments.

1:53:25 The motion passed unanimously.

Item 11. 1:54:20 97 County Owned Lots Within the City Boundary Available for Purchase

Public Works Director Matt Langhorst presented the item.

Councilor Smith, Councilor Schmahl, Councilor Weimer, Councilor Schachter, and Mayor Dehm asked questions and made comments.

Mayor Dehm opened the item for public comment.

There were none.

Mayor Dehm closed the public portion.

2:12:09 Mayor Pro Tem Zalinski, seconded by Councilor Schachter, moved to authorize Matt Langhorst to begin negotiations for acquisition to the purchase of the 97 county-owned lots within the city boundary at a price of \$500 per lot.

2:13:06 The motion passed 5:2 with Councilor Townsley and Councilor Weimer voting against.

Item 12. 2:13:40 Council Comments

Councilor Smith made comments in appreciation of staff for the public information put out about cameras. He also made comments about parking in cul-de-sacs, and about yesterday's events at the middle school.

Mayor Dehm made a comment about unlocking doors to council chambers during meetings.

Item 13. 2:17:47 Report from City Administration

There was none.

Item 14. 2:18:06 Social Event Announcement

Tonight's social event will take place at El Tapatio following the Council meeting.

Item 15. 2:18:12 Adjournment

Mayor Pro Tem Zalinski moved to adjourn. Councilor Weimer seconded, and the motion passed unanimously.



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

Agenda Item: Transportation Commission Reappointment

Action Requested: Transportation Commission Reappointment

Department: City Clerk

Presented By:

Strategic Goals: Provide Efficient and Responsive City Government
Preserve and Improve Infrastructure
Protect and Preserve our Quality of Life

Background Info: **Councilor Smith Recommendation**

Councilor Smith interviewed Adam Decker and both he and Councilor Townsley recommend reappointing him to a 3-year term to expire in March 2029.

Composition of the Transportation Commission;

Eight (8) citizens, at least six (6) who are residents of the City; one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business within the City; and one (1) youth who is in the ninth—twelfth grade in the City and who shall serve a one-year term.

Powers and Duties of the Transportation Commission;

- (1) To investigate, study and report to the City Council any and all matters concerning transportation issues which directly affect the City.
- (2) To investigate, study and report to the City Council on other intergovernmental committees, boards or commissions working on transportation issues in the Tri-County (Pitkin, Garfield and Eagle) area.
- (3) To meet with the City Council on an annual basis to identify which transportation issues require priority attention.
- (4) To investigate, study and report to the City Council on grants, donations and other forms of funding to assist in meeting the transportation needs of the City.
- (5) To perform functions concerning oversight of transportation issues or functions as delegated by the City Council.
- (6) To appoint subcommittees as necessary to carry out the foregoing functions subject to the approval of the City Council.

Issues: NA

Fiscal Impact: NA

Legal Review: NA

Staff Recommendation: Staff recommends reappointment.

Print

Transportation Commission Application - Submission #3671

Date Submitted: 2/25/2026

Transportation Commission Application

City of Glenwood Springs
101 W. 8th St.
Glenwood Springs, CO 81601

Ryan Gordon City Engineer
ryan.gordon@cogs.us
970-384-6413



Thank you for your interest in serving your community. Please answer all questions on this application.

Membership Qualifications*

You must qualify with one of the options below to be eligible to serve on the Transportation Commission. Please select the option that applies to you.

- Resident of Glenwood Springs within city limits
- Resident outside of Glenwood Springs city limit, but within the 81601 zip code
- Owner of real property or a business within Glenwood Springs city limits
- Youth resident (under the age of 18) within the 81601 zip code or attending school within city limits.

Please select today's date*

2/25/2026

Personal Information

First Name*

Adam

Last Name*

Decker

Occupation*

Insurance Agent

Home Address*

[Redacted]

City* Glenwood Springs	State* Colorado	Zip Code* 81601-2740
----------------------------------	---------------------------	--------------------------------

Mobile Phone Number* [REDACTED]	Email Address* [REDACTED]
---	-------------------------------------

Home Phone Number [REDACTED]	Work Phone Number [REDACTED]
--	--

Mailing Address (If different than home address)
[REDACTED]

City Glenwood Springs	State Colorado	Zip Code 81601-2740
---------------------------------	--------------------------	-------------------------------

Personal and Professional Interests

Why are you interested in serving on the Transportation Commission?*

Serving on this commission is a way for me to contribute to the well being of our community.

What do you view as the role of a Transportation Commission member?*

To make recommendations for city council.

Are you familiar with any Glenwood Springs past transit/transportation studies?*

Yes. MOVE study, TDM

Do you have any particular areas of interest or a particular perspective relating to transit or transportation in Glenwood Springs?*

Safety of motorists, cyclists and pedestrians are my main focus and interest.

Can you separate yourself from your personal opinions and represent the City's goals, policies, plans, and the Glenwood Springs Municipal Code in an equitable fashion?*

Yes.

Can you describe an experience making a decision that made people unhappy?*

As a business owner, decisions that are best for the business may not sit well with every employee.


Transportation Commission members generally meet the first Tuesday of each month at 7:30 AM. Special meetings may occur during the month, such as an evening work session with City Council. In addition to meetings, there are monthly packet materials to review in preparation for the meetings. Do you have any existing time commitments that will hamper your ability to serve?*

No

What experience do you have working with people on a board, commission, or committee?*

Previously served on this commission, previous Kiwanis Board Member, current Elks Lodge Board of Director, current Tourism Management Board member.

Have you previously served on the Transportation Commission?*

Yes 


Reappointment Applicants

These questions only required for reappointment applicants.

Why do you think you should be reappointed?

I enjoy contributing to this commission and feel as though I bring an interesting and unique perspective to the group.

Have you served two full successive terms on the Transportation Commission?*

No 

Powers and Duties of the Transportation Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code; (i) Powers and Duties of Transportation Commission)

The powers and duties of the Transportation Commission shall be:

1. To investigate, study and report to the City Council any and all matters concerning transportation issues which directly affect the City.
2. To investigate, study and report to the City Council on other intergovernmental committees, boards or commissions working on transportation issues in the Tri-County (Pitkin, Garfield and Eagle) area.
3. To meet with the City Council on an annual basis to identify which transportation issues require priority attention.
4. To investigate, study and report to the City Council on grants, donations and other forms of funding to assist in meeting the transportation needs of the City.
5. To perform functions concerning oversight of transportation issues or functions as delegated by the City Council.
6. To appoint subcommittees as necessary to carry out the foregoing functions subject to the approval of the City Council.

Appointment, Removal, Term, and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

1. February:

Planning and Zoning Commission;
Finance Advisory Board;
Tourism Management Board;
Building Board of Appeals.

2. March:

Transportation Commission;
Arts and Culture Board;
Parks and Recreation Commission;
Airport Board;
River Commission.

3. April:

Local Liquor Licensing Authority;
Victim's Witnesses Assistance and Law Enforcement Board;
Historic Preservation Commission;
Workforce Housing Fund Advisory Board;
Glenwood Springs Housing Commission.

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. Unless it is deemed vital by the City Council that an appointed member of a board or commission be retained in office, no Board member shall serve more than two (2) full successive terms on the same board or commission. An individual may serve multiple non-successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)

to Glenwood Springs City Council

from Steven Smith, David Townsley

February 26, 2026

Transportation Commission re-applicant, recommendation

Adam Decker, current member

Councilor Smith met with Adam Decker and is pleased to report that Adam would like to be appointed for another term on the Transportation Commission.

During his service on the commission, first as an alternate and for the past year as a regular member, Adam has brought creative ideas, thoughtful comments, and astute field observations to the commission's work. He has a unique ability to think beyond standard formats and assumptions, suggesting approaches different from those taken in the past.

He is a local home and automobile insurance agent, thus bringing insight to transportation, housing, and family needs.

In addition, Adam's personal style—amiable, courteous, engaging, yet very practical and straightforward—contributes a nice tone to the commission's discussions. He is a good listener who waits until he has his thoughts aligned and his idea well crafted before speaking.

Councilors Smith and Townsley have conferred, based on the interview and on Adam's work on the commission so far, to arrive at our recommendation.

We strongly recommend Adam Decker for reappointment for a full term as a regular member of the Transportation Commission, to March 2029.

Thank you.



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

Agenda Item: Workforce Housing Fund Advisory Board Reappointments

Action Requested: Reappoint Matt Spidell and Ben West to the Workforce Housing Advisory Board for a 3-year term to expire in April 2029.
Appoint Giovanna Kennedy and Will Silverstone to the Workforce Housing Advisory Board for a 3-year term to expire in April 2029.
Reappoint regular member Genesis Ramos for a 3-year alternate term to expire in April 2029.
Appoint Laura Barton for a 3-year alternate term to expire in April 2029.

Department: City Clerk

Presented By:

Strategic Goals: Provide Efficient and Responsive City Government

Background Info: **Council's Recommendation:**
Councilor Schachter and Councilor Smith recommend:
Reappointing both Matt Spidell and Ben West to the Workforce Housing Advisory Board for a 3-year term to expire in April 2029.
Appointing Giovanna Kennedy and Will Silverstone to the Workforce Housing Advisory Board for a 3-year term to expire in April 2029.
Reappointing regular member Genesis Ramos for a 3-year alternate term to expire in April 2029.
Appointing Laura Barton for a 3-year alternate term to expire in April 2029.

There are only two spots open to board members who meet the criteria of being a Garfield County resident who resides outside of Glenwood Springs City Limits. Carolyn Meadowcroft, whose term expires in 2027, and Will Silverstone, if appointed, will be these two members. With the addition of Laura Barton as an alternate, who also meets this criteria, she is only eligible to be a voting member if she is replacing Will Silverstone or Carolyn Meadowcroft.

This board was established in August 2023. These members are up for renewal for an adjusted term to align with the term schedule as defined in Title 020 of the Glenwood Springs Municipal Code.

Composition of the Workforce Housing Fund Housing Board

(as defined in Title 020 of the Glenwood Springs Municipal Code):
Eight citizens, at least five who are residents of the City and two who may reside outside the City but within Garfield County. One membership position is available to a high school student.
Membership should include people of diverse backgrounds, both in professional and lived experiences. The board's membership should be inclusive and representative of the demographics, needs, and lived experiences of the City's population.
Powers and Duties of the Workforce Housing Fund Advisory Board
(as defined in Title 020 of the Glenwood Springs Municipal Code);

The powers and duties of the Workforce Housing Fund Advisory Board shall be:

To advise City Council on the creation of workforce housing programs using 2C funds.
To evaluate and make recommendations regarding eligibility of projects for 2C funds and if funding is within the approved housing plan.
To ensure and advise City Council regarding whether funding is being used as intended.
Evaluate projects for 2C funding within the approved housing plan.
To make recommendations within parameters of established housing programs.
To report on expended funds and program metrics to City Council on a twice-yearly basis, which report shall be made public.

Issues: NA

Fiscal Impact: NA

Legal Review: NA

Staff Recommendation: Staff recommends appointments.

To Glenwood Springs City Council

from Sumner Schachter, Steven Smith

February 26, 2026

Workforce Housing Advisory Board/Housing Commission applicants, recommendations

Councilors Schachter and Smith variously have had productive interviews with several applicants offering service on the housing board/commission. Two current members have applied for re-appointment for an additional term. Two other candidates are recommended for new appointments as regular members, one candidate is recommended as alternate member, and one current member is recommended for change to alternate member.

Matt Spidell, current member

Matt is enthused to serve again on the board, where he has effectively and efficiently led the group as chair.

He is a local employer who brings the very helpful perspective of local workers' housing needs. He also consistently presses new ideas for extending and increasing the creativity of the city's approach to housing.

During the interview, he offered helpful suggestions for attracting additional members/talent to the board.

We strongly recommend Matt Spidell for re-appointment as regular member of the Workforce Housing Fund Advisory Board/Housing Commission, for a term through April 2029.

Ben West, current member

Ben has applied to serve again on the board, to which he consistently brings a calm, thoughtful, creative approach to discussions.

A successful and progressive manager and developer of housing projects in the area, he also adds helpful perspective from that experience and from his interaction with financial and construction partners.

During the interview, he offered helpful ideas for extending the financial effectiveness of the city's housing work, especially regarding use of the 2C funds—an approach particularly important right now, when those funds are deeply committed.

We strongly recommend Ben West for re-appointment as regular member of the Workforce Housing Advisory Board/Housing Commission, for a term through April 2029.

Giovanna Kennedy, new applicant

Giovanna brings a wealth of experience in first-hand housing work, as a local real estate broker, with special professional attention to marketing affordable housing units, along with relevant volunteer work in broader community contexts.

She has lived in Glenwood Springs fifteen years, working as a hospitality manager and, more recently as noted, in real estate.

She is a board member for the local Latino Business Advisory Council and for the Shining Stars Foundation, thus gaining a diversity of direct experience with local businesses, employers, and families.

Giovanna previously served on the city Housing Commission, during the period when that body developed creative initiatives regarding accessory dwelling unit (ADU) policy and generally expanded approaches to increase housing affordability.

She therefore has experience and skills in both of the primary sets of duties now assigned to the newly combined board/commission—housing finance and innovation, plus zoning and regulatory policy related to housing.

We strongly recommend Giovanna Kennedy for appointment as a regular member of the Workforce Housing Fund Advisory Board/Housing Commission, for a term through April 2029.

Will Silverstone, new applicant

Will has extensive professional experience specifically in the realm of affordable, sustainable housing. His work is focused mostly out of state, but during our interview he described several new housing innovations that may well prove useful here.

His work primarily is with municipalities on financial aspects of their housing programs, particularly focused on increasing housing opportunities for middle-income households.

He has managed diverse efforts in housing development (in-fill, redevelopment, and from-scratch) and in direct housing management, mostly focused on diversifying rental opportunities that foster long-term residency.

We strongly recommend Will Silverstone for appointment as a regular, non-resident, member of the Workforce Housing Fund Advisory Board/Housing Commission, for a term to April 2029.

Genesis Ramos, current member

Genesis has served on the workforce housing board since 2023, with distinction and creativity.

She brings to that service professional experience with a local organization directly assisting local residents improve their access to affordable housing.

To accommodate the time Genesis currently is spending toward advanced college degree in community service, she has asked to shift her city housing assignment to an alternate position.

We strongly recommend Genesis Ramos for continuing service on the Workforce Housing Fund Advisory Board/Housing Commission, as a resident alternate member.

Laura Barton, new applicant

Laura brings a wide variety of housing experience and community engagement. She has owned and rehabilitated rental housing, has managed services in senior living centers, and has worked in the insurance sector.

She has attended several meetings of the workforce housing board, gaining insights to that initiative and offering ideas for its expansion. She is enthused to participate in efforts to improve housing access and affordability here.

We recommend Laura Barton for appointment as a non-resident alternate member of the Workforce Housing Fund Advisory Board/Housing Commission.

If the city council concurs with these recommendations, the housing board/commission will enjoy a significant expansion of its membership and skills, with one additional regular-member spot still available. We will keep recruiting.

Thank you.

Print

Workforce Housing Fund Advisory Board Application - Submission #3648

Date Submitted: 2/9/2026

Workforce Housing Fund Advisory Board Application

City of Glenwood Springs
101 W. 8th St.
Glenwood Springs, CO 81601

Watkins Fulk-Gray; Senior Planner
watkins.fulkgray@cogs.us
970-384-6428



Thank you for your interest in serving your community. Please answer all questions on this application.

Membership Qualifications*

You must qualify with one of the options below to be eligible to serve on the Workforce Housing Fund Board. Please select the option that applies to you.

- Resident of Glenwood Springs within city limits.
- Resident outside of Glenwood Springs city limits, but within Garfield County.
- Youth resident (under the age of 18) within the 81601 zip code or attending school within city limits.

Please select today's date*

2/9/2026

Personal Information

First Name*

Benjamin

Last Name*

West

Occupation*

Realtor

Home Address*

[Redacted]

City*

Glenwood Springs

State*

CO

Zip Code*

81601

Mobile Phone Number*

[REDACTED]

[REDACTED]

Home Phone Number

Work Phone Number

Mailing Address (If different than home address)

City

Glenwood Springs

State

CO

Zip Code

81601

Personal and Professional Interests

What experience do you have with the housing market or affordable housing, either personally or professionally, that would make you a good member of this Board?*

I am currently serving on the board

Have you previously served in any policy advisory capacity relative to housing? If so, state your role.*

I did P&Z for COGS prior

Have you worked for an organization or business that provides or develops housing for its employees? Please explain.*

Yes, I work in housing

Have you experienced housing instability in your adult life? If so, please explain how that shaped your outlook?*

No

What experience do you have working with people on a board, commission, or committee?*

I have served on various board

Are you part of an underrepresented group in the Glenwood Springs area? If so, please explain.*

No


What do you see as the housing needs in Glenwood Springs?*

We need more housing, specifically affordable but all types would help


Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion?*

Yes

Are you able to attend the monthly meeting of the Board held on the second Tuesday of each month at 4:15 p.m.?*

Yes 

Have you previously served on the Workforce Housing Fund Advisory Board?*

Yes 


Reappointment Applicants

These questions only required for reappointment applicants.

Why do you think you should be reappointed?

I know the role

Have you served two full successive terms on the Workforce Housing Advisory Fund Board?

No 

Powers and Duties of the Workforce Housing Fund Advisory Board

(as defined in Title 020 of the Glenwood Springs Municipal Code) Powers and duties of the Workforce Housing Fund Advisory Board.

The powers and duties of the Workforce Housing Advisory Board shall be:

1. To advise City Council on the creation of workforce housing programs using 2C funds
2. To evaluate and make recommendations regarding eligibility of projects for 2C funds and if funding is within the approved housing plan.
3. To ensure and advise City Council regarding whether funding is being used as intended.
4. Evaluate projects for 2C funding within the approved housing plan
5. To make recommendations within parameters of established housing programs
6. To report on expended funds and program metrics to City Council on a twice-yearly basis, which report shall be made public.

Appointment, Removal, Term, and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

1. February:

Planning and Zoning Commission;
Finance Advisory Board;
Tourism Management Board;
Building Board of Appeals.

2. March:

Transportation Commission;
Arts and Culture Board;
Parks and Recreation Commission;
Airport Board;
River Commission.

3. April:

Local Liquor Licensing Authority;
Victim's Witnesses Assistance and Law Enforcement Board;
Historic Preservation Commission;
Workforce Housing Fund Advisory Board;
Glenwood Springs Housing Commission.

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. Unless it is deemed vital by the City Council that an appointed member of a board or commission be retained in office, no Board member shall serve more than two (2) full successive terms on the same board or commission. An individual may serve multiple non-successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)

Print

Workforce Housing Fund Advisory Board Application - Submission #3650

Date Submitted: 2/10/2026

Workforce Housing Fund Advisory Board Application

City of Glenwood Springs
101 W. 8th St.
Glenwood Springs, CO 81601

Watkins Fulk-Gray; Senior Planner
watkins.fulkgray@cogs.us
970-384-6428



Thank you for your interest in serving your community. Please answer all questions on this application.

Membership Qualifications*

You must qualify with one of the options below to be eligible to serve on the Workforce Housing Fund Board. Please select the option that applies to you.

- Resident of Glenwood Springs within city limits.
- Resident outside of Glenwood Springs city limits, but within Garfield County.
- Youth resident (under the age of 18) within the 81601 zip code or attending school within city limits.

Please select today's date*

2/10/2026

Personal Information

First Name*

Matt

Last Name*

Spidell

Occupation*

Self Emp.

Home Address*

[Redacted]

City*

GLENWOOD SPRINGS

State*

CO

Zip Code*

81601

Mobile Phone Number*

[REDACTED]

Email Address*

[REDACTED]

Home Phone Number

[Empty field]

Work Phone Number

[Empty field]

Mailing Address (If different than home address)

[REDACTED]

City

GLENWOOD SPRINGS

State

CO

Zip Code

81601

Personal and Professional Interests

What experience do you have with the housing market or affordable housing, either personally or professionally, that would make you a good member of this Board?*

Existing Member

Have you previously served in any policy advisory capacity relative to housing? If so, state your role.*

Existing Member

Have you worked for an organization or business that provides or develops housing for its employees? Please explain.*

Existing Member

Have you experienced housing instability in your adult life? If so, please explain how that shaped your outlook?*

Yes, employees leaving

What experience do you have working with people on a board, commission, or committee?*

Existing Member

Are you part of an underrepresented group in the Glenwood Springs area? If so, please explain.*

No


What do you see as the housing needs in Glenwood Springs?*

More options


Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion?*

Yes

Are you able to attend the monthly meeting of the Board held on the second Tuesday of each month at 4:15 p.m.?*

Yes 

Have you previously served on the Workforce Housing Fund Advisory Board?*

Yes 


Reappointment Applicants

These questions only required for reappointment applicants.

Why do you think you should be reappointed?

Existing track record

Have you served two full successive terms on the Workforce Housing Advisory Fund Board?

No 

Powers and Duties of the Workforce Housing Fund Advisory Board

(as defined in Title 020 of the Glenwood Springs Municipal Code) Powers and duties of the Workforce Housing Fund Advisory Board.

The powers and duties of the Workforce Housing Advisory Board shall be:

1. To advise City Council on the creation of workforce housing programs using 2C funds
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3. To ensure and advise City Council regarding whether funding is being used as intended.
4. Evaluate projects for 2C funding within the approved housing plan
5. To make recommendations within parameters of established housing programs
6. To report on expended funds and program metrics to City Council on a twice-yearly basis, which report shall be made public.

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Building Board of Appeals.

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Transportation Commission;
Arts and Culture Board;
Parks and Recreation Commission;
Airport Board;
River Commission.

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Local Liquor Licensing Authority;
Victim's Witnesses Assistance and Law Enforcement Board;
Historic Preservation Commission;
Workforce Housing Fund Advisory Board;
Glenwood Springs Housing Commission.

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. Unless it is deemed vital by the City Council that an appointed member of a board or commission be retained in office, no Board member shall serve more than two (2) full successive terms on the same board or commission. An individual may serve multiple non-successive terms on the same board or commission.

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(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)

Ryan M. Muse

From: noreply@civicplus.com
Sent: Thursday, February 19, 2026 1:50 PM
To: Volunteer; Watkins Fulk-Gray
Subject: Online Form Submittal: Workforce Housing Fund Advisory Board Application

Workforce Housing Fund Advisory Board Application

Workforce Housing Fund Advisory Board Application

City of Glenwood Springs
101 W. 8th St.
Glenwood Springs, CO 81601

Watkins Fulk-Gray; Senior Planner
watkins.fulkgray@cogs.us
970-384-6428

Thank you for your interest in serving your community. Please answer all questions on this application.

Membership Resident of Glenwood Springs within city limits.
Qualifications

Please select today's 2/19/2026
date

(Section Break)

Personal Information

First Name Giovanna
Last Name Kennedy
Occupation Real Estate Broker
Home Address [REDACTED]
City Glenwood Springs
State CO
Zip Code 81601
Mobile Phone Number [REDACTED]

Email Address giovannaokennedy@gmail.com

Home Phone Number *Field not completed.*

Work Phone Number *Field not completed.*

Mailing Address (If different than home address) [REDACTED]

City [REDACTED]

State [REDACTED]

Zip Code [REDACTED]

(Section Break)

Personal and Professional Interests

What experience do you have with the housing market or affordable housing, either personally or professionally, that would make you a good member of this Board? As a Real Estate Broker, representing one of the largest affordable housing projects in Glenwood Springs, I experience what first-time home buyers are struggling with to make homeownership a reality

Have you previously served in any policy advisory capacity relative to housing? If so, state your role. GWS Housing Commission

Have you worked for an organization or business that provides or develops housing for its employees? Please explain. No. However, I represent Habitat for Humanity on the sale of the Carter Condominiums in GWS

Have you experienced housing instability in your adult life? If so, please explain how that shaped your outlook? No

What experience do you have working with people on a board, commission, or committee?

CURRENT
2026 WindWalkers Equine Assisted Learning and Therapy Center Board Treasurer
2024 Glenwood Springs Chamber Board Member
2023 Glenwood Chamber Hispanic Business Advisory Council Chair

PAST
2024 WindWalkers Equine Assisted Learning and Therapy Center Board Member
2023 Colorado Association of Realtors Diversity & Inclusion Committee Member
2021 - 2024 -- St Stephen Catholic School - School Past Chair Board Member
2022 - 2024 -- City of Glenwood Springs Housing Commission Board Member
2016 - 2023 -- St Stephen Catholic School - Fundraiser Gala Event Founder & Chair
2016-2021 -- St Stephen Catholic School - PTA Board Chair & Fundraising Chair
2017-2020 -- Shining Stars Foundation - Day of Rosé Fundraising Event Committee Member
2014 -2017 -- Shining Stars Foundation - Wine, Women & Shoes Fundraiser Committee Member

Are you part of an underrepresented group in the Glenwood Springs area? If so, please explain.

Hispanic

What do you see as the housing needs in Glenwood Springs?

Glenwood Springs has been experiencing a housing shortage for years. The low supply has created a higher demand, which causes higher prices in the market. This has created an affordability issue across different income levels. All of this translates to workforce instability as people find themselves moving farther away from their employment place in GWS.

Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion?

Yes

Are you able to attend the monthly meeting of the Board held on the second Tuesday of each month at 4:15 p.m.?

Yes

Have you previously served on the Workforce Housing Fund Advisory Board?

No

(Section Break)

Reappointment Applicants

These questions only required for reappointment applicants.

Why do you think you should be reappointed? *Field not completed.*

Have you served two full successive terms on the Workforce Housing Advisory Fund Board? *Field not completed.*

(Section Break)

Powers and Duties of the Workforce Housing Fund Advisory Board

(as defined in Title 020 of the Glenwood Springs Municipal Code) Powers and duties of the Workforce Housing Fund Advisory Board.

The powers and duties of the Workforce Housing Advisory Board shall be:

1. To advise City Council on the creation of workforce housing programs using 2C funds
2. To evaluate and make recommendations regarding eligibility of projects for 2C funds and if funding is within the approved housing plan.
3. To ensure and advise City Council regarding whether funding is being used as intended.
4. Evaluate projects for 2C funding within the approved housing plan
5. To make recommendations within parameters of established housing programs
6. To report on expended funds and program metrics to City Council on a twice-yearly basis, which report shall be made public.

(Section Break)

Ryan M. Muse

From: noreply@civicplus.com
Sent: Monday, February 16, 2026 8:47 PM
To: Volunteer; Kevin Rayes
Subject: Online Form Submittal: Workforce Housing Fund Advisory Board Application

Workforce Housing Fund Advisory Board Application

Workforce Housing Fund Advisory Board Application

City of Glenwood Springs
101 W. 8th St.
Glenwood Springs, CO 81601

Watkins Fulk-Gray; Senior Planner
watkins.fulkgray@cogs.us
970-384-6428

Thank you for your interest in serving your community. Please answer all questions on this application.

Membership Qualifications Resident outside of Glenwood Springs city limits, but within Garfield County.

Please select today's date 2/16/2026

(Section Break)

Personal Information

First Name Will

Last Name Silverstone

Occupation Finance


Home Address 

City 

State Colorado

Zip Code 

Mobile Phone Number 

Email Address 

Home Phone Number *Field not completed.*

Work Phone Number *Field not completed.*

Mailing Address (If different than home address) *Field not completed.*

City *Field not completed.*

State *Field not completed.*

Zip Code *Field not completed.*

(Section Break)

Personal and Professional Interests

What experience do you have with the housing market or affordable housing, either personally or professionally, that would make you a good member of this Board? I have 7 years with Catalyst Housing group sourcing municipal bond financing for affordable housing projects, in addition to asset management experience with said projects.

Have you previously served in any policy advisory capacity relative to housing? If so, state your role. No

Have you worked for an organization or business that provides or develops housing for its employees? Please explain. No

Have you experienced housing instability in your adult life? If so, please explain how that shaped your outlook? No

What experience do you have working with people on a board, commission, or committee? I have served on internal committees and cross functional teams with the apartment investment and management company I worked for in the past. I work well across different areas of expertise.

Are you part of an underrepresented group in the Glenwood Springs area? If so, please explain. No

What do you see as the housing needs in Glenwood Springs? More thoughtfully developed and converted rental product that stabilizes rent levels and inflation to ensure affordability for the long term for our essential workforce.

Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? My personal opinions are informed by my professional experience and what my firm has been able to deliver in affordable housing solutions in my career. It is rooted in economic reasoning and data driven approaches that I attempt to keep apolitical. While I would always represent the interests of the City in view of this board and tailor my contributions to that end, it's unrealistic to say I can separate all personal opinions with regards to a very personal subject such as housing where my professional opinion intersects.

Are you able to attend the monthly meeting of the Board held on the second Tuesday of each month at 4:15 p.m.? Yes

Have you previously served on the Workforce Housing Fund Advisory Board? No

(Section Break)

Reappointment Applicants

These questions only required for reappointment applicants.

Why do you think you should be reappointed? *Field not completed.*

Ryan M. Muse

From: noreply@civicplus.com
Sent: Wednesday, February 11, 2026 2:12 PM
To: Volunteer; Kevin Rayes
Subject: Online Form Submittal: Workforce Housing Fund Advisory Board Application

Workforce Housing Fund Advisory Board Application

Workforce Housing Fund Advisory Board Application

City of Glenwood Springs
101 W. 8th St.
Glenwood Springs, CO 81601

Watkins Fulk-Gray; Senior Planner
watkins.fulkgray@cogs.us
970-384-6428

Thank you for your interest in serving your community. Please answer all questions on this application.

Membership Qualifications Resident outside of Glenwood Springs city limits, but within Garfield County.


Please select today's date 2/11/2026


(Section Break)

Personal Information

First Name Laura D.

Last Name Barton

Occupation Housing Specialist 

Home Address 

City 

State CO

Zip Code 

Mobile Phone Number 

Email Address [REDACTED]

Home Phone Number [REDACTED]

Work Phone Number *Field not completed.*

Mailing Address (If different than home address)

City [REDACTED]

State CO

Zip Code [REDACTED]

(Section Break)

Personal and Professional Interests

What experience do you have with the housing market or affordable housing, either personally or professionally, that would make you a good member of this Board?

I first engaged with affordable housing programs as a recipient from 1992 to 1995, gaining an early understanding of the stability that accessible housing creates for individuals and families. From 2007 to 2020, I owned and managed two single-family rental homes in Oregon, partnering with the Northeast Oregon Housing Authority to provide safe, quality housing at attainable rates.

In 2024 in Glenwood Springs, CO, I served as Assistant Community Manager and later Interim Manager for a multi-unit Section 8/LIHTC community supporting seniors, individuals with disabilities, and low-income residents. I subsequently broadened my perspective within market-rate and 100% AMI housing environments, and I am preparing to step into a Housing Coordinator role with Health Solutions West.

Experiencing housing from the vantage points of resident, housing provider, and housing professional enables me to approach this work with both operational awareness and genuine empathy. I understand the balance required to support residents while advancing sustainable housing solutions, and I am committed to contributing practical insight, collaborative leadership, and community-minded decision-making in service to the Board's mission.

Have you previously served in any policy advisory capacity

While I have not served in a role exclusively dedicated to housing policy, I have contributed in several advisory and fundraising capacities that directly intersect with housing needs.

relative to housing? If so, state your role.

I have supported substance abuse recovery and survivor programs through fundraising efforts, many of which included housing-related components. As a board member for veterans' services, I participated in discussions that included housing oversight and resource considerations. Additionally, my fundraising work has often involved securing emergency funding for temporary housing assistance.

While living in the Pacific Northwest, as a long-standing Rotarian, I also served on several Rotary boards that prioritized funding strategies for individuals and families facing urgent housing challenges. These experiences strengthened my understanding of the collaborative and resource-driven approach required to support housing stability within a community.

Have you worked for an organization or business that provides or develops housing for its employees? Please explain.

Yes. I have both worked and lived in employer-provided housing environments, giving me firsthand insight into the role workforce housing plays in supporting recruitment, retention, and overall employee well-being.

Earlier in my career, I lived and worked on-site at several remote ranches and resort properties where housing was provided as part of employment. These experiences highlighted how essential reliable housing is within areas where the local housing market cannot readily support the workforce.

I also lived and worked aboard a 255-foot passenger vessel and later on a 45-foot fishing vessel, each offering employer-provided accommodations. These roles further reinforced my understanding of how thoughtfully structured housing can strengthen operational stability while fostering a cohesive community for employees.

Together, these experiences allow me to appreciate workforce housing not only as a benefit, but as a strategic component of a resilient and sustainable organization.

Have you experienced housing instability in your adult life? If so, please explain how that shaped your outlook?

Yes. Experiencing periods of housing instability in my adult life, and ultimately achieving long-term stability, shaped both my perspective and my commitment to housing-centered solutions.

That experience deepened my understanding of the social determinants of health and the complex pathways involved in recovery, resilience, and reintegration into a stable, contributory life. It also strengthened my awareness of how essential safe, consistent, and affordable housing is to an

individual's well-being and ability to thrive.

As a result, I approach housing work with both empathy and practicality, recognizing the importance of thoughtful systems, supportive resources, and community collaboration in fostering lasting stability.

What experience do you have working with people on a board, commission, or committee?

I bring extensive board, committee, and collaborative leadership experience through my longstanding involvement with Rotary, nonprofit organizations, and community initiatives.

As an active Rotarian, I have served on multiple committees dedicated to community service, fundraising, and outreach. This work required thoughtful collaboration, shared accountability, and the ability to align diverse perspectives around common goals. I have also partnered with nonprofit organizations to support fundraising initiatives and develop community awareness programs and events.

Additionally, I was a founding board member of the Western Slope Veterans Coalition, where I helped establish the organization's board structure, support outreach efforts, and assist with activities and fundraising. Contributing at the formation stage strengthened my understanding of governance, organizational development, and mission-focused leadership.

Together, these experiences have prepared me to engage productively in board environments, contribute to sound decision-making, and help advance initiatives that create meaningful and lasting community impact.

Are you part of an underrepresented group in the Glenwood Springs area? If so, please explain.

No. While I do not identify as part of an underrepresented group within the Glenwood Springs area, I bring a strong commitment to inclusive, community-informed decision-making. My personal and professional experiences across diverse housing environments have strengthened my ability to listen thoughtfully, consider varied perspectives, and support solutions that serve the broader community.

What do you see as the housing needs in Glenwood Springs?

Glenwood Springs continues to face housing pressures common to growing mountain communities, with affordability and availability remaining central challenges as demand outpaces supply. Supporting housing options that serve a broad spectrum of the workforce is essential to sustaining a vibrant and economically resilient community.

Strengthening community awareness of available programs and improving coordination across housing organizations can

further reduce barriers and expand access. Clear, efficient application processes also play an important role in helping residents successfully navigate housing opportunities.

I welcome the opportunity to contribute to collaborative, forward-looking strategies that advance sustainable housing solutions and support the long-term vitality of Glenwood Springs.

Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion?

Yes. Throughout my professional and community roles, I have consistently approached service with a non-partisan mindset grounded in fairness, accountability, and respect for established policy.

I understand the importance of setting aside personal viewpoints in order to represent the City's goals, plans, and Municipal Code with integrity. My decision-making style is thoughtful, balanced, and informed by both objective evaluation and creative problem-solving — particularly important as communities explore new and expanded approaches to strengthening housing.

I am committed to listening carefully, considering diverse perspectives, and contributing to equitable, forward-thinking outcomes that support the City's vision while remaining responsive to evolving community needs.

Are you able to attend the monthly meeting of the Board held on the second Tuesday of each month at 4:15 p.m.?

Yes

Have you previously served on the Workforce Housing Fund Advisory Board?

No

(Section Break)

Reappointment Applicants

These questions only required for reappointment applicants.

Why do you think you should be reappointed?

Field not completed.

Ryan M. Muse

From: noreply@civicplus.com
Sent: Tuesday, March 3, 2026 4:37 PM
To: Volunteer; Watkins Fulk-Gray
Subject: Online Form Submittal: Workforce Housing Fund Advisory Board Application

Workforce Housing Fund Advisory Board Application

Workforce Housing Fund Advisory Board Application

City of Glenwood Springs
101 W. 8th St.
Glenwood Springs, CO 81601

Watkins Fulk-Gray; Senior Planner
watkins.fulkgray@cogs.us
970-384-6428

Thank you for your interest in serving your community. Please answer all questions on this application.

Membership Qualifications Resident outside of Glenwood Springs city limits, but within Garfield County.

Please select today's date 3/3/2026

(Section Break)

Personal Information

First Name Genesis
Last Name Ramos
Occupation Staff Accountant
Home Address [REDACTED]
City [REDACTED]
State CO
Zip Code [REDACTED]
Mobile Phone Number [REDACTED]

Email Address

[REDACTED]

Home Phone Number

Field not completed.

Work Phone Number

Field not completed.

Mailing Address (If different than home address)

Field not completed.

City

Field not completed.

State

Field not completed.

Zip Code

Field not completed.

(Section Break)

Personal and Professional Interests

What experience do you have with the housing market or affordable housing, either personally or professionally, that would make you a good member of this Board?

I work at a non-profit where I have helped families connect to housing resources in the community, where I have had the experience of learning from different programs and resources available to understand the housing market and rentals.

Have you previously served in any policy advisory capacity relative to housing? If so, state your role.

No, nothing aside WHFAB.

Have you worked for an organization or business that provides or develops housing for its employees? Please explain.

No.

[REDACTED]

Have you experienced housing instability in your adult life? If so, please explain how that shaped your outlook?

No.

[REDACTED]

[REDACTED]

What experience do you have working with people on a board, commission, or committee? I was part of this board when the 2C tax passed, and I have also been part of the finance committee for Ascendigo, and a member of the State of Play research from the Aspen Institute.

Are you part of an underrepresented group in the Glenwood Springs area? If so, please explain. No.

What do you see as the housing needs in Glenwood Springs? The housing needs in Glenwood Springs have changed drastically since I was a resident of the city. I have noticed the population increase, but unfortunately, there is not enough housing to support this growth, and there is also a lack of affordability for local employees and residents who have been forced to relocate.

Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? Yes.

Are you able to attend the monthly meeting of the Board held on the second Tuesday of each month at 4:15 p.m.? Yes

Have you previously served on the Workforce Housing Fund Advisory Board? Yes

(Section Break)

Reappointment Applicants

These questions only required for reappointment applicants.

Why do you think you should be reappointed? I believe my expertise can help this board achieve its mission while also bringing diversity to the group.

Have you served two full No
successive terms on the
Workforce Housing
Advisory Fund Board?

(Section Break)

Powers and Duties of the Workforce Housing Fund Advisory Board

(as defined in Title 020 of the Glenwood Springs Municipal Code) Powers and duties of the Workforce Housing Fund Advisory Board.

The powers and duties of the Workforce Housing Advisory Board shall be:

1. To advise City Council on the creation of workforce housing programs using 2C funds
2. To evaluate and make recommendations regarding eligibility of projects for 2C funds and if funding is within the approved housing plan.
3. To ensure and advise City Council regarding whether funding is being used as intended.
4. Evaluate projects for 2C funding within the approved housing plan
5. To make recommendations within parameters of established housing programs
6. To report on expended funds and program metrics to City Council on a twice-yearly basis, which report shall be made public.

(Section Break)

Appointment, Removal, Term, and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

1. February:
Planning and Zoning Commission;
Finance Advisory Board;
Tourism Management Board;
Building Board of Appeals.
2. March:
Transportation Commission;
Arts and Culture Board;
Parks and Recreation Commission;



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

Agenda Item: Award Request for Qualification (RFQ) 2026-03Q Underground Primary Cable

Action Requested: Council Approval to Award Request for Qualification (RFQ) 2026-03Q Underground Primary Cable to Wesco.

Department: Public Works

Presented By: Matthew Langhorst

Strategic Goals: Preserve and Improve Infrastructure

Background Info: Staff is purchasing cable to restock material used to replace old lines around town. These types of items are budgeted in the Maintenance & Repair budget, that item has budget of \$50,000 for overhead line repairs and \$75,000 for Underground Line Repairs. This \$37,380 purchase will come from the \$75,000 underground budget. We are not selecting the lower bidder for this project due to the 14-week lead time. We are placing some of this material into stock, but we have projects in line that we want to start immediately. The second low bid has the material in stock and will ship immediately.

Issues: None at this time.

Fiscal Impact: These items were budgeted for in 2026.

Legal Review: None at time time.

Staff Recommendation: Staff is Recommending City Council Approve Award Request for Qualification (RFQ) 2026-03Q Underground Primary Cable to Wesco for \$37,380.02.

Glenwood Springs Electric System

Material Bid Worksheet

			JJMPOWER LLC JOE DAVIS		ALAMEX INC YAMA FEHIM ABEDI		PULSEMAC SOLUTIONS BRANDON GUTIERREZ		WESCO BILL GLOVER	
Qty.	Description of Material	I.B.M.#	@ Price	Price	@ Price	Price	@ Price	Price	@ Price	Price
7,500	4/0 UNDERGROUND PRIMARY CABLE		6.66	49,938.75	6.950	52,125.00	7.47	55,976.25	4.76	37,380.02
FT			30 WEEKS		16 - 18 WEEKS		LEAD TIME NOT LISTED		STOCK - 2/27/26	
			TOTAL	\$49,938.75	TOTAL	\$52,125.00	TOTAL	\$55,976.25	TOTAL	\$37,380.02
			EXCEPTIONS LISTED						7848 FT QUOTED	

			WESTERN UNITED VAUGHN JANDER		IRBY ROBERT RIVERS		NEXGEN METALS, INC HOJUN SUNG		MVA POWER INC MARC HADID	
Qty.	Description of Material	I.B.M.#	@ Price	Price	@ Price	Price	@ Price	Price	@ Price	Price
7,500	4/0 UNDERGROUND PRIMARY CABLE		6.09	45,675.00	9.58	71,865.00	4.29	35,392.50	10.10	75,750.00
FT			STOCK		2 WEEKS		14 WEEKS		LEAD TIME NOT LISTED	
			TOTAL	\$45,675.00	TOTAL	\$71,865.00	TOTAL	\$35,392.50	TOTAL	\$75,750.00
							8,250 FT QUOTED			

2/26/2026



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

- Agenda Item:** 2026 Intergovernmental Agreement for Mosquito Control
- Action Requested:** Request for approval of the 2026 Intergovernmental Agreement for Mosquito Control.
- Department:** Parks & Recreation
- Presented By:** Rod Tarullo
- Strategic Goals:** Ensure Public Safety
- Background Info:** Each year there is an Intergovernmental Agreement created between Garfield County and its municipalities for mosquito control and education programs to aid in the control of mosquito species responsible for the spread of West Nile Virus.
- Issues:** None.
- Fiscal Impact:** The City of Glenwood Springs is responsible for a payment of \$7,000 to Garfield County for its portion of the program. The funds are budgeted in the Parks department of the General Fund in professional services (01154-51710).
- Legal Review:** Legal has reviewed the agreement.
- Staff Recommendation:** Staff recommends approval of the 2026 Intergovernmental Agreement for Mosquito Control.

INTERGOVERNMENTAL AGREEMENT FOR MOSQUITO CONTROL – 2026

THE PARTIES to this Intergovernmental Agreement for Mosquito Control (“IGA”) are the **BOARD OF COUNTY COMMISSIONERS OF GARFIELD COUNTY, STATE OF COLORADO**, (hereinafter referred to as “County”); the **CITY OF GLENWOOD SPRINGS, STATE OF COLORADO**, (hereinafter referred to as “Glenwood”); the **TOWN OF CARBONDALE, STATE OF COLORADO**, (hereinafter referred to as “Carbondale”); the **CITY OF RIFLE, STATE OF COLORADO**, (hereinafter referred to as “Rifle”); the **TOWN OF SILT, STATE OF COLORADO**, (hereinafter referred to as “Silt”); the **TOWN OF NEW CASTLE, STATE OF COLORADO**, (hereinafter referred to as “New Castle”); and the **TOWN OF PARACHUTE, STATE OF COLORADO**, (hereinafter referred to as “Parachute”).

WHEREAS, the parties to this IGA are authorized by Section 29-1-201, *et seq.*, C.R.S., as amended, to provide for joint funding and cooperation to provide services and functions which each is otherwise lawfully authorized to provide; and

WHEREAS, the parties to this IGA desire to cooperate in funding and making available a County-wide mosquito control and education program; and

WHEREAS, a coordinated effort by the County and the municipalities within the County will permit a more effective mosquito control and education program and specifically will aid control of the mosquito species responsible for the spread of West Nile Virus.

NOW, THEREFORE, in mutual consideration of the premises and the covenants and promises set forth below, the parties to this IGA agree as follows:

1. **PROJECT.** The Project that is the subject of this IGA is a comprehensive integrated larval and adult mosquito control program, on public and private property throughout Garfield County that will be designed specifically for Garfield County and the municipalities by an independent contractor. The Project will provide surveillance, identifying mosquito breeding habitats and areas with high numbers of mosquito larvae and adults, with an emphasis on Culex mosquitoes. Surveillance will include the use of GIS mapping technology. The Project will include the use of chemical pesticides for adult and larval mosquito control in a manner safe to citizens, the environment and pets. Chemical applications will only be done when the elected officials of each pertinent jurisdiction, or their designated staff member, determine that mosquito levels have reached a threshold that poses a public health risk. Each jurisdiction is responsible for working with the Contractor to ensure that their jurisdiction is in compliance with the Federal Clean Water Act and the Colorado Discharge Permit System as administered by the Colorado Department of Public Health and Environment. The independent contractor will also provide community outreach and public education.

2. **PROJECT COSTS.** The cost for the entire Project that is the subject of this IGA shall not exceed Two Hundred Twenty-One Thousand Four Hundred Fifty Dollars and No Cents (\$221,450.00), with each town and city contributing the amounts set forth below for a total contribution of Sixty-Seven Thousand Seven Hundred Twenty Dollars and No Cents (\$67,720.00)

of the Project Cost. The remainder will be contributed by the County for the thirty-four (34) square miles of service area outside of the municipalities.

3. COUNTY RESPONSIBILITIES. The County shall be the coordinating entity and the contracting and fiscal authority for the Project. The County's responsibilities shall include the creation of the Request For Proposals ("RFP"), management of the RFP process, selection of the contractor and management of the contract. The County shall pay an amount not to exceed One Hundred Fifty-Three Thousand Seven Hundred Thirty Dollars and No Cents (\$153,730.00) of the total Project Cost of Two Hundred Twenty-One Thousand Four Hundred Fifty Dollars and No Cents (\$221,450.00), unless emergency services are required.

4. GLENWOOD SPRINGS RESPONSIBILITIES: Glenwood Springs shall be responsible for payment to the County of \$7,000.00.

5. CARBONDALE RESPONSIBILITIES: Carbondale shall be responsible for payment to the County of \$9,270.00.

6. RIFLE RESPONSIBILITIES: Rifle shall be responsible for payment to the County of \$25,340.00.

7. SILT RESPONSIBILITIES: Silt shall be responsible for payment to the County of \$6,800.00.

8. NEW CASTLE RESPONSIBILITIES: New Castle shall be responsible for payment to the County of \$7,670.00.

9. PARACHUTE RESPONSIBILITIES: Parachute shall be responsible for payment to the County of \$11,640.00.

10. PARTY RESPONSIBILITIES: All parties to this IGA shall cooperate with and assist the independent contractor chosen by the County to perform the work of the Project.

11. REMEDIES. If any of the cities or towns, identified in Paragraphs 4 through 9 above, fails to perform their payment obligation(s), the County may assume responsibility for the defaulting payment(s), and all other obligations of this IGA shall remain in full force and effect.

12. CONTRACT AWARD. The contract anticipated to define the Scope of Work needed for the Project shall be awarded by Garfield County pursuant to the terms of its Procurement Manual. The Notice to Proceed may be awarded prior to the payment obligations of the municipalities and towns being met.

13. INDEMNIFICATION. The parties acknowledge each is subject to the constitutional prohibitions against indemnification in Colo. Const. art XI, § 1. Neither can indemnify the other.

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3. COUNTY RESPONSIBILITIES. The County shall be the coordinating entity and the contracting and fiscal authority for the Project. The County's responsibilities shall include the creation of the Request For Proposals ("RFP"), management of the RFP process, selection of the contractor and management of the contract. The County shall pay an amount not to exceed One Hundred Forty-Nine Thousand Two Hundred Fifty Dollars and No Cents (\$149,250.00) of the total Project Cost of Two Hundred Fifteen Thousand Dollars and No Cents (\$215,000.00), unless emergency services are required.

4. GLENWOOD SPRINGS RESPONSIBILITIES: Glenwood Springs shall be responsible for payment to the County of \$7,000.00.

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12. CONTRACT AWARD. The contract anticipated to define the Scope of Work needed for the Project shall be awarded by Garfield County pursuant to the terms of its Procurement Manual. The Notice to Proceed may be awarded prior to the payment obligations of the municipalities and towns being met.

13. INDEMNIFICATION. The parties acknowledge each is subject to the constitutional prohibitions against indemnification in Colo. Const. art XI, § 1. Neither can indemnify the other.

Nothing herein shall be interpreted as a waiver of governmental immunity to which each party would otherwise be entitled under Section 24-10-101, *et seq.*, C.R.S., as amended.

14. APPROPRIATION. This IGA is contingent upon appropriation and budgeting for the costs required for the Project. Should any party fail to appropriate or have available sufficient funds to pay for the costs of its obligations set forth herein, this IGA shall be considered of no force or effect, except to the extent that the County has assumed the obligations of another party, as set forth herein. This IGA is not intended to, nor does it create a multi-year fiscal obligation as defined by Section 20, Article X of the Constitution of the State of Colorado.

15. EFFECTIVE DATE. This IGA shall be effective January 1, 2026 through December 31, 2026, no matter the date of execution.

16. AMENDMENT. This IGA may be amended by the parties solely through a written agreement signed by each.

17. FACSIMILES AND COUNTERPARTS. This IGA may be signed in counterparts, and facsimile signatures may be substituted for original signatures.

18. GOVERNING LAW. The laws of the State of Colorado shall govern the validity, performance and enforcement of this IGA. Venue for any action instituted pursuant to this IGA shall lie in Garfield County, Colorado.

19. AUTHORITY. Each person signing this IGA represents and warrants that said person is fully authorized to enter into and execute this IGA and to bind the party represented to the terms and conditions hereof.

20. NOTICE. All notices required under this IGA shall be in writing and shall be hand delivered or sent by registered or certified mail, return receipt requested, postage prepaid to the addresses of the parties set forth below. Notice addresses may be changed without amendment to this IGA.

Notice to County:

Board of County Commissioners
Attn: County Manager
108 8th Street, Suite 101
Glenwood Springs, CO 81601
Phone: (970) 945-5004
Fax: (970) 945-7785

Notice to Glenwood:

City of Glenwood Springs
Attn: City Manager
101 W. 8th St.
Glenwood Springs, CO 81601
Phone: 384-6400

Notice to Carbondale: Town of Carbondale
 Attn: Town Manager
 511 Colorado Avenue
 Carbondale, CO 81623
 Phone: (970) 963-2733
 Fax: (970) 963-9140

Notice to Rifle: City of Rifle
 Attn: City Manager
 202 Railroad Avenue
 P.O. Box 1908
 Rifle, CO 81650
 Phone: (970) 625-2121

Notice to Silt: Town of Silt
 Attn: Town Administrator
 231 N. 7th St., Box 70
 Silt, CO 81652
 Phone: (970) 876-2353

Notice to New Castle: Town of New Castle
 Attn: Town Administrator
 450 W. Main
 P.O. Box 90
 New Castle, CO 81647
 Phone: (970) 984-2311

Notice to Parachute: Town of Parachute
 Attn: Town Administrator
 222 Grand Valley Way
 Box 100
 Parachute, CO 81635
 Phone: (970) 285-7630

REMAINDER OF THIS PAGE LEFT BLANK INTENTIONALLY

ATTEST:

Clerk to the Board

**BOARD OF COUNTY
COMMISSIONERS
OF GARFIELD COUNTY,
COLORADO**

By: _____
Chairman

Dated: _____

ATTEST:

City Clerk

**CITY OF GLENWOOD SPRINGS,
STATE OF COLORADO**

By: _____
Mayor

Dated: _____

ATTEST:

Town Clerk

**TOWN OF CARBONDALE
STATE OF COLORADO**

By: _____
Mayor

Dated: _____

ATTEST:

City Clerk

**CITY OF RIFLE
STATE OF COLORADO**

By: _____
Mayor

Dated: _____

ATTEST:

Town Clerk

**TOWN OF SILT
STATE OF COLORADO**

By: _____
Mayor

Dated: _____

ATTEST:

**TOWN OF NEW CASTLE
STATE OF COLORADO**

Town Clerk

By: _____
Mayor

Dated: _____

ATTEST:

**TOWN OF PARACHUTE
STATE OF COLORADO**

Town Clerk

By: _____
Mayor

Dated: _____

T:\Vegetation Management\IGAs - Intergovernmental\MOSQUITO IGA\2026-IGA Mosquitos.doc



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

Agenda Item: Ordinance 2026-05; Article 020.020.030 Adjust Victims and Witnesses Assistance and Law Enforcement (VALE) Board's Disbursement Limit. Second Reading

Action Requested: The Victim's and Witnesses Assistance and Law Enforcement (VALE) Board has requested that the City increase their disbursement limit from \$500 to \$1,000.

Department: City Clerk

Presented By: Ryan Muse

Strategic Goals: Provide Efficient and Responsive City Government
Protect and Preserve our Quality of Life

Background Info: Under Article 020.020.030(h)(5)(g) the VALE board currently has the authority to disperse funds not to exceed \$500 for victims' recovery of property damage. VALE gets 25% of a fine imposed on a municipal ordinance, including the model traffic code, on each Municipal Court action resulting in a conviction, plea of guilty or no contest or in a deferred judgment and sentence, which municipal ordinance violation is charged pursuant to City ordinances.

Issues: None

Fiscal Impact: None

Legal Review: Legal drafted the Ordinance.

Staff Recommendation: Staff recommends that Council pass Ordinance 2026-05 on second reading.

ORDINANCE NO. 05

Series of 2026

AN ORDINANCE OF THE CITY OF GLENWOOD SPRINGS, COLORADO, AMENDING SUBSECTION 020.020.030(h)(5)g. OF THE GLENWOOD SPRINGS MUNICIPAL CODE REGARDING DISBURSEMENT OF FUNDS BY THE VICTIM'S AND WITNESSES ASSISTANCE AND LAW ENFORCEMENT BOARD.

WHEREAS, the City of Glenwood Springs (“Glenwood Springs” or the “City”) is a home-rule municipality organized under Article XX of the Colorado Constitution and with the authority of the Glenwood Springs Home Rule Charter; and

WHEREAS, City Staff has recommended amending subsection 020.020.030(h)(5)g as set forth in Section 2 of this Ordinance; and

WHEREAS, the City Council finds and declares that the Code amendment set forth in below is proper and necessary to advance the public health, safety, and welfare of the City’s residents.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, ORDAINS:

Section 1. **Recitals.** The foregoing recitals are incorporated herein as if set forth in full.

Section 2. **Amendments.** Subsection 020.020.030(h)(5)g. is hereby amended as follows with double underlined text added and ~~strikethrough~~ text deleted:

020.020.030 - Powers and duties of boards and commissions

* * * *

(h) *Powers and duties of the Victim's and Witnesses Assistance and Law Enforcement Board.*

* * * *

(5) Disbursement of funds by the Board on behalf of the victim's and witnesses assistance services may be used for the following purposes:

* * * *

g. Losses resulting from property damage, including repair or replacement of property damaged as a result of crime or payment of the deductible amount on a residential insurance policy in an amount not to exceed five hundred one thousand dollars (~~\$500.00~~ \$1,000.00). Victims' recovery due to property damage shall not exceed five hundred one thousand dollars (~~\$500.00~~ \$1,000.00) for any crime, but in no case

shall a loss be compensable if the aggregate property damages are less than twenty-five dollars (\$25.00).

* * * *

INTRODUCED, READ, PASSED, AND ORDERED PUBLISHED BY TITLE ONLY THIS 19TH DAY OF FEBRUARY 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

Marco Dehm, Mayor

ATTEST:

Ryan Muse, City Clerk

INTRODUCED, READ ON SECOND READING, PASSED AND ORDERED PUBLISHED BY TITLE ONLY TO BE EFFECTIVE IMMEDIATELY THIS ___ DAY OF _____ 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

Marco Dehm, Mayor

ATTEST:

Ryan Muse, City Clerk



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

- Agenda Item:** Resolution 2026-04; Supporting an Application for Down Payment Assistance Grant from the Division of Housing
- Action Requested:** Approval of the attached resolution supporting the City's newest down payment assistance grant.
- Department:** Economic and Community Development
- Presented By:** Watkins Fulk-Gray
- Strategic Goals:** Protect and Preserve our Quality of Life
Provide Efficient and Responsive City Government
- Background Info:** The City received a \$360,000 grant from the State Division of Housing in 2025 for a down payment assistance program. This grant required no matching funds from the City and is mostly spent. The average down payment assistance for the four completed loans was \$76,875.
- Issues:** The Workforce Housing Fund Advisory Board (WHFAB) recommends requesting \$615,000 in this grant cycle, which would be enough to fund eight more down payment assistance grants at the average amount of the first four in 2025. Down payment assistance is part of WHFAB's implementation plan and is noted as a potential tool in the 2023 Strategic Housing Plan Update. Four Glenwood residents became homeowners in 2025 through the City's current down payment assistance grant from the Division of Housing.
- Fiscal Impact:** If successful, the down payment assistance grant will require the City to front the money at closings, but the State will refund all down payment assistance payments when they meet guideline requirements.
- Legal Review:** Legal has reviewed the attached resolution.
- Staff Recommendation:** Approve the attached resolution that will be part of the City's grant application.

RESOLUTION 2026 - 04

A RESOLUTION OF THE CITY COUNCIL OF GLENWOOD SPRINGS, COLORADO, SUPPORTING A GRANT APPLICATION FOR A DOWN PAYMENT ASSISTANCE PROGRAM FOR AFFORDABLE HOMEOWNERSHIP, AND THE ACCEPTANCE AND APPROPRIATION OF ANY GRANT FUNDS AWARDED

WHEREAS, the City of Glenwood Springs is a political subdivision of the State of Colorado, and has a Prop 123 baseline and commitment accepted by the Department of Local Affairs (DOLA), and therefore, an eligible applicant for a grant awarded by the Down Payment Assistance Program (DPA); and

WHEREAS, the City of Glenwood Springs intends to submit a Grant Application for the Glenwood Springs Down Payment Assistance Program requesting a total award of \$615,000 over two years; and

WHEREAS, the City Council strongly supports the need to build affordable housing in Glenwood Springs; and

WHEREAS, the City of Glenwood Springs has seen strong support for its existing down payment assistance program.

NOW, THEREFORE, IT IS RESOLVED BY THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, THAT:

Section 1. The above recitals are hereby incorporated as findings by the City.

Section 2. The City strongly supports the DOLA DPA Grant application.

Section 3. The City Council of the City of Glenwood Springs will authorize the expenditure of funds necessary to meet the terms and obligations of any grant awarded pursuant to a Grant Agreement with DOLA.

Section 4. If a grant is awarded, the City Council of the City of Glenwood Springs hereby authorizes the Mayor or Mayor Pro Tem to sign a Grant Agreement with DOLA.

INTRODUCED, READ, AND PASSED THIS ___ DAY OF FEBRUARY 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

Marco Dehm, Mayor

ATTEST:

Ryan Muse, City Clerk



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

Agenda Item: City Wide Project Update

Action Requested: None at this time.

Department: Engineering

Presented By: Ryan Gordon, Matthew Langhorst

Strategic Goals: Provide Efficient and Responsive City Government
Preserve and Improve Infrastructure
Protect and Preserve our Quality of Life
Ensure Public Safety

Background Info: Staff will provide council with an update on upcoming construction projects and upcoming designs:

- 19th Street Project - In Design, RFP in 2-3 Weeks.
- US6 Trail Construction Start Date.
- Coach Miller Construction Start Date.
- US 6&24 Waterline Extension Construction Start
- Pump Station #1 - Traver Trail - Out to Bid
- Pump Station #3 - Cardiff Tank - Under Design
- Cowdin Lift Station - Moved to Veltus Park Lift Station Design. Working Through Property Discussions on Cowdin Project.
- West 1st Street to Village Inn Water Line and Sewer Project - Under Design, need to work through easement issues.
- Grizzly Creek Pipe Repair Project (RFP) - Request for Proposal being Completed Next Week and out to Bid.
- Mel Rey Pressure Vault - Project to Occur Mid to End of June.
- Mitchell Creek Substation Redesign is in Process - RFP Anticipated to go out in 2-3 Weeks.
- Cardnell Substation Tie #3 Conduit Project - In design with Midland Bridge Water Crossing Project - RFP Bid Mid Summer.
- Bulk AMI Water Meter Project - Meters Have Been Purchases, Working With Contractor for Installing Start Date.

Staff will provide a map for discussion during the meeting.

Issues: None at this time.

Fiscal Impact: Projects have been budgeted for 2026.

Legal Review: None at this time.

Staff Recommendation: None at this time.



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

- Agenda Item:** Master Service Agreement for South Bridge Construction Management
- Action Requested:**
- Department:** Engineering
- Presented By:** Ryan Gordon
- Strategic Goals:** Provide Efficient and Responsive City Government
Preserve and Improve Infrastructure
Protect and Preserve our Quality of Life
Generate Sustainable Economic Development
Ensure Public Safety
- Background Info:** The RFQ for Construction Management and Testing services was awarded at the February 5 council meeting. The RFQ did not have a specific scope and fee associated with it. Staff has worked with the awarded consultant to develop a scope of work and a fee schedule to assist the city with pre-construction services.
- Issues:** The city and the consultant have developed a set of tasks for pre-construction activities for South Bridge. These tasks have been scoped to address specific items and are broad enough to capture unknowns that might arise. Staff is comfortable that the scope presented is adequate and will cover the pre-construction needs. The fees associated with each task were developed to cover those unknowns and are therefore generally conservative.
- Fiscal Impact:** The cost of the proposal is \$106,060. Staff will work with the consultant on each task to limit effort to exactly what is required to keep costs in-line. Please note that the ordinance on this evening's budget amendment will appropriate the funds to pay for this proposal.
- Legal Review:** Legal has reviewed the contract.
- Staff Recommendation:** Staff recommends approval of the MSA and pre-construction scope of work.

AGREEMENT FOR PROFESSIONAL SERVICES

This AGREEMENT FOR PROFESSIONAL SERVICES is made this ____ day of March 2026 between the CITY OF GLENWOOD SPRINGS, a home rule municipality under the laws of the State of Colorado ("City"), and RockSol Consulting Group ("Contractor").

WITNESSETH:

In consideration of the mutual covenants and agreements herein contained, the parties hereto agree as follows:

1. Scope of Agreement. Contractor agrees to provide the City with services as described on **Exhibit A** attached hereto and incorporated herein. The services being provided under this Contract include pre-construction consulting and project management for the South Bridge Project.
2. Consideration. Compensation for any services provided under this Contract require a specific written and approved Task Order that sets forth the scope of each task, the maximum amount to be billed for such task, and the time for completion of each task. Contractor shall provide a bill for approval and payment on a monthly basis until completion of the services or as set forth in each separate Task Order. Each bill shall contain a statement of the time that the Contractor's employees spent on the Project since the previous bill, a brief description of the services provided by each such employee, and an itemization of direct expenses actually incurred. Upon reasonable advance request, the City may inspect and copy Contractor's documentation of time and expenses.
3. Term. This Agreement shall be effective as of its full execution by both parties and shall continue until all Task Orders are completed, or unless earlier terminated pursuant to this Agreement. Contractor represents, covenants, and agrees that it will not undertake any obligations or make any commitments that will limit or prevent timely completion of this Agreement.
4. Agreement Subject to Appropriations. It is expressly understood and agreed that the City's performance of this Agreement is subject to appropriations being made by the City Council of the City of Glenwood Springs. In the event City Council fails to make or maintain sufficient appropriations to pay any costs incurred under this Agreement, the Agreement shall be terminated immediately.
5. Independent Contractor. Contractor is providing services independently and is not an employee of the City. Contractor shall not be entitled to any benefits provided to City employees. Contractor understands the difference in status between an independent contractor and an employee and acknowledges and stipulates that Contractor is neither eligible nor entitled to statutory or legal benefits or provisions of labor codes or other such similar statutes. The parties further agree that the City shall not withhold from Contractor unemployment insurance, social security or any other withholdings. Contractor agrees to be responsible for all such payments required by law.

- 5.1. Contractor acknowledges and agrees that it is not entitled to unemployment
- 5.2. insurance benefits unless unemployment compensation are provided by Contractor or some other entity. Contractor also acknowledges and agrees to report all payments received from the City on his federal and state income tax returns and is obligated to pay any and all resulting federal and state income tax obligations. Contractor will indemnify the City for any such payments required but not paid.
- 5.3. b. Contractor acknowledges and agrees that it is not covered by the City's workers' compensation coverage and is not entitled to workers' compensation benefits. The City will be held harmless, and Contractor will indemnify the City for any liability arising out of or caused by Contractor's business and/or persons engaged in operations covered by this Agreement.
- 5.4. c. In making and performing this contract, Contractor acts and at all times shall act as an independent contractor and shall maintain operations that are separate and distinct from the City. Nothing contained in this Agreement shall be construed or applied as to create or imply the relationship of partners, joint adventurers, or of employer or employee between the parties hereto.
6. Employees and Subcontractors. The providing of professional services required under Section 1 of this Agreement shall be the responsibility of the Contractor. Contractor may employ or subcontract with additional persons to assist in the performance of this Agreement. Supervision and payment of any such persons shall be the sole and exclusive responsibility of Contractor.
7. Standard of Care. The standard of care applicable to Contractor's services will be the same degree of care, skill, and diligence employed by professionals performing the same or similar services. In case of any conflict between the interests of the City and any other entity, the Contractor shall fully and immediately disclose the issue to the City and shall take no action contrary to the City's interests.
8. Indemnification. Contractor hereby covenants and agrees to indemnify, save, and hold harmless the City, its officers, employees, from any and all liability, loss, costs, charges, obligations, expenses, attorneys' fees, litigation, judgments, damages, and claims arising from or out of any negligent act or omission or other tortious conduct of Contractor, its officers, employees, or agents in the performance or nonperformance of its obligations under this Agreement.
9. Responsibilities. Contractor shall be responsible for all damages to persons or property caused by the Contractor, its agents, employees or sub-contractors, to the extent caused by its negligent acts, errors and omissions hereunder.
10. Insurance. Contractor agrees to provide proof of general liability insurance to the City, which names the City as an additional insured thereunder, with appropriate endorsements and with single limit liability coverage of at least One Million Dollars (\$1,000,000.00) and proof of professional liability insurance coverage of at least One Million Dollars

(\$1,000,000.00) for each claim and aggregate limit. Contractor shall maintain this insurance for the term of this Agreement.

- 10.1. Insurance coverage requirements specified in this Agreement shall in no way lessen or limit the liability of the Contractor under the terms of Contractor's indemnification obligation. Contractor shall obtain, at its own expense, any additional insurance that it deems necessary for the City's protection.
- 10.2. It is understood and agreed, for the benefit of the City, that the following additional considerations shall apply to all coverage specified herein:
 - 10.2.1. All coverage provided herein shall be primary and any insurance maintained by the City shall be considered excess.
 - 10.2.2. The City shall have the right to verify or confirm, at any time, all coverage, information or representations contained herein, and the insured and its undersigned agent shall promptly and fully cooperate in any such audit the City may elect to undertake.
 - 10.2.3. Advice of renewal is required.
- 10.3. It is understood and agreed that should any policy issued hereunder be cancelled or non-renewed before the expiration date thereof, or sustain a material change in coverage adverse to the City, the issuing company or its authorized agent shall give notice to the City in accordance with policy provisions.
11. Governmental Immunity. Nothing herein shall be interpreted as a waiver of governmental immunity, to which the City would otherwise be entitled under §24-10-101, et seq., C.R.S., as amended.
12. Termination. If at any time the City is dissatisfied with the services of Contractor for any reason whatsoever, the City may terminate this Agreement effective immediately upon the delivery of written notice to Contractor. In the event of any such termination, the City shall pay Contractor for services rendered to the date of termination. In the event of such termination, Contractor shall promptly deliver to the City all drawings, computer programs, computer input and output, plans, photographic images, analyses, tests, maps, surveys, and written materials of any kind generated in the performance of its services under this Agreement up to and including the date of termination.
13. Agreement Administration and Notice. For purposes of administering this Agreement Ryan Gordon, City Engineer will represent the City in carrying out the purposes and intent of this Agreement. Any notices required to be given pursuant to this Agreement shall be delivered as follows:

To the City:

City Manager
City of Glenwood Springs
101 West 8th Street
Glenwood Springs, CO 81601

CONTRACTOR:
ROCKSOL CONSULTING GROUP INC.

By: _____

Name: _____

Title: _____

DRAFT

February 23, 2026

City of Glenwood Springs
Engineering Department
Glenwood Springs, CO 81601

Attention: Ryan Gordon

Subject: Proposed Scope of Work for South Bridge Preconstruction Services – TASK ORDER #1
(CDOT Project #HPP M535-003 / PC #15864)

Dear Mr. Gordon:

RockSol Consulting Group, Inc. is grateful for the opportunity to submit this Scope of Work to assist the City with Preconstruction Services and Support leading up to construction bidding of the South Bridge project. Our staff and team members bring extensive experience with the tasks outlined in the Scope of Work.

PROJECT DESCRIPTION

The City of Glenwood Springs is requesting a scope and fee to provide preconstruction services under RockSol's South Bridge Construction Management and Materials Testing Contract. These services are intended to help the City prepare the project Plans and Specifications for construction bidding. We understand that this project is funded by both the City and federal funds administered through CDOT.

PROPOSED SCOPE OF WORK

Through discussions with City staff, RockSol is prepared to offer the following services under this Task Order #1:

Project Management

Project management tasks include routine miscellaneous meetings, reporting, coordination and billing.

Plans and Specifications Review

Our Team will conduct a high level review the plans, specifications and cost estimate for errors, omissions and clarity, focusing on major items and to gain familiarity with the project's features.

Independent Cost Estimate Review

The team will vet quantities and unit prices and adjust as necessary to match the local conditions and labor market conditions. This will allow the City to get a better understanding of anticipated construction costs.

Value Engineering

By getting a better understanding of the plans and the complexities of this project, our team will serve as another set of eyes that can look for areas of cost savings.

Constructability of Structures

Our structures and bridge construction experts will review the plans and specifications to help the City determine the best approach to the bridge pier construction and access. Options currently being considered include accessing the site via the west side and crossing the river; or coming in from the east side through the Holy Cross yard and construction a temporary road through sensitive wetlands. We will review each option and consider other options. We will communicate with the City so that the Environmental Assessment documents can be finalized and permits can be applied for with the Army Corps of Engineers and Colorado Parks and Wildlife.

Contractor/Colorado Contractors Association Outreach

The team will communicate with the Colorado Contractors Association and leverage our contacts within the heavy civil/structures construction industry. This will generate interest in the project and thus better pricing for the City. The CCA can also help drive constructability reviews with interested contractors.

TEAM

The proposed project team for this phase consists of:

- Bob Yost, Project Manager
- Steve Olson, Project Engineer
- Jake Livermore, Assistant Project Engineer
- Mike Fowler, Structures
- Chris Offe, Structures
- Allan Hayes, Structures
- Other personnel As Needed

It is anticipated that the City Engineer, Ryan Gorden or other assigned staff will coordinate with Bob or Steve in a timely manner to ensure the requested services can be completed efficiently and effectively to meet the City's construction advertisement goals. Bob will remain in close contact with the City Engineer throughout this preconstruction phase to make sure the project progresses smoothly and efficiently.

SCHEDULE

RockSol anticipates our work to begin as soon as Notice to Proceed is received on this Task Order. We understand the current goal is to advertise the project at the end of June 2026, therefore putting the tasks associated with this task order to take place between mid-March 2026 through June 2026. It is understood that unforeseen circumstances could extend the tasks associated with this phase.

FEE ESTIMATE

RockSol has prepared and attached a fee estimate for the services identified for this project.

Please note that Construction Bidding/Advertisement Assistance and Construction Management/Materials Testing Services are not included in this Task Order and will be completed under the same Contract with future Task Orders.

If you have any questions pertaining to this proposal, please contact Bob Yost via phone at 970.331.4000 or via email at yost@rocksol.com. Thank you for the opportunity to provide the scope and fee estimate for this phase of the City of Glenwood Springs South Bridge project.

Respectfully submitted,

Bob Yost, P.E.
Senior Transportation Engineer



Saeid Saeb, P.E.
President

Attachments:
RockSol Fee Estimate

RockSol Consulting Group, Inc.

12076 Grant St, Thornton, CO 80241 Ph 303.962.9300 Fax 303.962.9350 Web www.rocksol.com

Packet Page 332

PROJECT WORK HOUR SUMMARY: TASK ORDER #1 - PRECONSTRUCTION SERVICES

Project Code/Number:	15864	Estimated Task Order Start Date:	3//2026
Project Location:	City of Glenwood Springs - South Bridge	Estimated Task Order End Date:	6/30/2026
Contract Type (Specific Rate of Pay or Cost plus Fixed Fee):	Specific Rate/NTE	Date Prepared:	2/24/2026

1A. SPECIFIC RATE OF PAY

EMPLOYEE NAME	EMPLOYEE CLASSIFICATION	DIRECT SALARY COST/HOUR (a)	INDIRECT COST (%) (b)	FEE (%) (c)	MULTIPLIER ¹ (d)	SPECIFIC RATE ² \$/HOUR (e)
Bob Yost	Project Manager					\$256.17
Steve Olson	Project Engineer					\$256.17
Jake Livermore (SGM)	Asst Project Engineer					\$187.00
Mike Fowler (SGM)	Structures					\$259.00
Chris Offe	Structures					\$202.41
Allan Hayes	Structures					\$197.64
Lisa Moore	Admin					\$116.43
Lisa Francis	Admin					\$116.43
Other (Yeh)	Geotech/Walls/Misc					\$175.00

1B. LABOR COSTS

EMPLOYEE NAME	EMPLOYEE CLASSIFICATION	SPECIFIC RATE \$/HOUR	ESTIMATED WORK-HOURS	ESTIMATED COST PER EMPLOYEE
Bob Yost	Project Manager	\$256.17	20	\$5,123.40
Steve Olson	Project Engineer	\$256.17	138	\$35,351.46
Jake Livermore (SGM)	Asst Project Engineer	\$187.00	80	\$14,960.00
Mike Fowler (SGM)	Structures	\$259.00	80	\$20,720.00
Chris Offe	Structures	\$202.41	80	\$16,192.80
Allan Hayes	Structures	\$197.64	32	\$6,324.48
Lisa Moore	Admin	\$116.43	8	\$931.44
Lisa Francis	Admin	\$116.43	8	\$931.44
Other (Yeh)	Geotech/Walls/Misc	\$200.00	24	\$4,800.00
Subtotal Labor:			470	\$105,335.02

2A. MISCELLANEOUS COSTS

TYPE	QUANTITY	UNITS	RATE	AMOUNT
Mileage (All Staff)	1000	per mile	\$0.73	\$725.00
Per Diem		per day	\$92.00	
Lodging (Nightly-April-Oct)		per day	\$162.00	
Outside Services		lump sum		
Subtotal Misc Costs				\$725.00

ESTIMATED TOTAL COST:			\$106,060.02
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**City of Glenwood Springs - South Bridge
Work Hour Estimate**

Estimate of Schedule

		2026-27	
		Weeks	Working Days*
A	Precon (Mar 1, 2026-June 30, 2026)	0	0
B	Construction: (Sept 1, 2026 to Oct 31, 2028) 30 weeks/year	0	0
C	Post Construction 6wks	0	0

*Assumes 5 working days per week (no holidays excluded- will use those for Sat hours/padding)

Estimate of Labor Hours - Task Order #1 Preconstruction Services

PROJECT TASK	Labor (Hours)						
	Project Manager (Bob Yost)	Project Engineer (Steve Olson)	APE (Jake)	Structures Expert (Mike Fowler)	Structures Expert (Chris Offe)	Structures Expert (Allan Hayes)	Other
Pre-Construction Tasks							
Project Management	20	10					
Plan/Specifications/Estimate Review		40	40	20	20	16	
Estimate Reviw							
Value Engineering		40	40				
Constructability of Structures		24		60	60	16	
For EA Document							
For Army Corps/CPW							
Contractor/CCA Outreach		24					
Construction Bidding Assistance							
TOTAL:	20	138	80	80	80	32	24

Total Hours
454



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

- Agenda Item:** Financial Policy for Speeding Violations
- Action Requested:** Approval of speed camera financial policy.
- Department:** City Administration
- Presented By:** Steve Boyd
- Strategic Goals:** Ensure Public Safety
- Background Info:** Recently implemented speed cameras generate revenue for the City. State law gives a municipality broad discretion in spending. Best practice, however, is to have a policy that invests the revenues first to cover the cost of the program, and then to transportation and public safety. This policy defines the allowable expenditures of the program.
- Issues:** None at this time.
- Fiscal Impact:** This policy will not change City revenues or expenditures, but it will limit our ability to spend these funds by defining allowable expenditures. To date no funds other than the cost of the program have been spent. The budget amendment ordinance on this evening's agenda appropriates the funds we expect to spend this year.
- Legal Review:** Legal has reviewed the policy.
- Staff Recommendation:** Staff recommends approval of the speed camera financial policy.



Policy for Collection and Use of Revenues Generated by the City of Glenwood Springs Automated Vehicle Identification System (AVIS) for Speeding Violations

Policy Owner	Yvette Gustad, Finance Director
Policy Approver	Steve Boyd, City Manager
Effective Date	March 6, 2026
Next Review Date	March 4, 2027

Policy in Brief

The city uses speed cameras to prevent speeding, protect other drivers and pedestrians, in line with our community's Vision Zero goals and Colorado State Law. Any revenue generated will first go to covering the operational costs of the system. After costs are covered, revenue will be used for other public safety and transportation expenditures.

Purpose

The City of Glenwood Springs has implemented automated speed enforcement cameras in response to resident requests to improve roadway safety, reduce speeding, and support responsible transportation management. While Colorado law provides municipalities with discretion in how collected fees may be used, the City is choosing to adopt a more focused and transparent approach.

This policy establishes that all revenue generated from automated speed enforcement will be used exclusively to support traffic safety, transportation improvements, and public safety initiatives that benefit the community.



Guiding Principles

1. **Promote Public Safety:** Funds will be directed toward projects and programs that reduce traffic-related incidents, enhance mobility, and improve safety for drivers, pedestrians, and cyclists.
2. **Transparency:** All spending will be documented through the City's annual budget process and subject to the City's annual independent audit.
3. **Public Accountability:** Residents will have access to the City's adopted budget and annual audit report, ensuring full visibility into how funds are allocated and spent.

Allowable Uses of Revenue

Revenue from automated speed enforcement is guided by state law and may only be used for projects and programs that directly support traffic, transportation, and public safety. Examples include:

Cost of Program Administration

- Maintenance and operation of the system.
- Personnel dedicated to program monitoring, administration and compliance.

Traffic & Transportation Improvements

- Roadway safety enhancements such as crosswalk upgrades, signage, and pavement markings.
- Traffic calming measures (e.g., speed humps, curb extensions, pedestrian refuge islands, rapid flashing beacons, wayfinding signage, striping, etc.)
- Intersection improvements, including signal timing updates, signal maintenance and visibility enhancements.
- Sidewalk and trail improvements that increase safe mobility for vehicles, pedestrians and cyclists.
- Cost of engineering and survey to designing safety and maintenance enhancements.
- Street lighting improvements or additions in areas with safety concerns.



- Capital projects and expenditures aimed at reducing roadway accidents and improving safety.

Public Safety Initiatives

- Police and fire/emergency medical services (EMS) department supplies, materials and equipment that support traffic enforcement or emergency response.
- Training for officers related to traffic safety, accident investigation, or public safety operations.
- Public education campaigns on safe driving, pedestrian awareness, school-zone safety and other risk reduction.

Technology & Infrastructure

- Data systems that support traffic analysis, safety planning or emergency response.
- Communications infrastructure and systems that enhance public safety or traffic management.



Prohibited Uses of Revenue

To maintain public trust and ensure funds are used in accordance with state law, and in alignment with the intent of this program, automated speed enforcement revenue will not be used for:

- General government operations unrelated to public safety.
- Non-transportation capital projects (e.g., parks, recreation facilities, administrative buildings).
- Special entertainment events.
- Any expenditure not reasonably connected to improving traffic safety, transportation infrastructure or public safety.

Oversight and Reporting

- All expenditures will be incorporated into the City's annual budget and adopted by City Council in a public process.
- Spending will be reviewed as part of the City's annual independent audit.
- Residents will have access to the adopted budget, audit report, and any supplemental financial reporting related to AVIS revenue.
- The City may publish periodic updates summarizing how funds have been used to support safety and transportation improvements.

Policy Review

This policy may be reviewed and updated periodically to ensure it continues to reflect community priorities, legal requirements, and best practices in public safety and transportation management.



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

Agenda Item: Ordinance 2026-06; First Appropriation to the 2026 Budget. One Reading

Action Requested: Ordinance approval.

Department: Finance

Presented By: Yvette Gustad

Strategic Goals: Provide Efficient and Responsive City Government
Generate Sustainable Economic Development
Protect and Preserve our Quality of Life

Background Info: The City recently implemented speed enforcement cameras that generate revenue and expenses for the City. This budget amendment appropriates funds to spend within the City's Policy for Collection and Use of Revenues Generated by the City of Glenwood Springs Automated Vehicle Identification System (AVIS) for Speeding Violations.

Issues: NA

Fiscal Impact: Please see the itemized Exhibit A attached.

Legal Review: Legal drafted the Ordinance.

Staff Recommendation: Staff recommends approval.

ORDINANCE NO. 06

Series of 2026

**AN ORDINANCE OF THE CITY OF GLENWOOD SPRINGS,
COLORADO, AMENDING THE 2026 APPROPRIATION ORDINANCE
TO REFLECT CARRYOVERS FROM THE 2025 BUDGET,
REALLOCATION OF FUNDS, AND EXPENDITURES APPROVED
AFTER SUBMISSION OF THE 2026 BUDGET.**

INTRODUCED, READ, PASSED, AND ORDERED PUBLISHED BY TITLE ONLY
THIS 5TH DAY OF MARCH 2026.

CITY OF GLENWOOD SPRINGS, COLORADO

ATTEST:

Marco Dehm, Mayor

Ryan Muse, City Clerk

Exhibit A

Ordinance 2026-06 Budget Amendment #1 - Speed Cameras and Southbridge

Fund	Org	Object	Increase	Decrease	Decription	Account
<u>General Fund</u>						
<i>Revenue</i>						
01	0120050	42450	\$1,371,000		Traffic Camera Revenue	Traffic Safety
<i>Expenditures</i>						
01	01155	51110	\$192,673		Code Enforcement, 25% traffic engineer, 75% traffic officer	Regular Employees
01	01155	51210	\$63,408		Code Enforcement, 25% traffic engineer, 75% traffic officer	Health Insurance
01	01155	51220	\$674		Code Enforcement, 25% traffic engineer, 75% traffic officer	Long Term Disability
01	01155	51230	\$238		Code Enforcement, 25% traffic engineer, 75% traffic officer	Basic Life Insurance
01	01155	51240	\$3,445		Code Enforcement, 25% traffic engineer, 75% traffic officer	Death and Disability
01	01155	51250	\$4,750		Code Enforcement, 25% traffic engineer, 75% traffic officer	FICA Contributions
01	01155	51260	\$13,500		Code Enforcement, 25% traffic engineer, 75% traffic officer	Retirement Contributions
01	01155	51265	\$12,080		Code Enforcement, 25% traffic engineer, 75% traffic officer	Police/Fire Retirement
01	01155	51270	\$386		Code Enforcement, 25% traffic engineer, 75% traffic officer	Unemployment
01	01155	51280	\$150		Code Enforcement, 25% traffic engineer, 75% traffic officer	Workers Compensation
01	01155	51610	\$135,000		DACRA Speed Cameras, Municipal Judge	Supplies
01	01155	51710	\$433,000		DACRA Administration Fee	Professional Services
01	01155	51810	\$175,000		Safety Maintenance and Repairs	Maintenance and Repair
<u>A&I Fund</u>						
33	3330	60000	\$110,000		Preconstruction	Projects - Southbridge
33	3330	60000	\$2,000,000		Right of Way Acquisition	Projects - Southbridge



City Council
STAFF REPORT
City of Glenwood Springs
March 5, 2026

Agenda Item: Social Event Announcement

Action Requested: Council will announce the location of their social event to take place immediately following the meeting.

Department: City Clerk

Presented By:

Strategic Goals: Provide Efficient and Responsive City Government

Background Info:

Issues:

Fiscal Impact:

Legal Review:

Staff Recommendation: