

To access the Agenda and Backup Materials electronically, go to [www.gjcity.org](http://www.gjcity.org)



**CITY COUNCIL AGENDA  
WEDNESDAY, MAY 4, 2022  
250 NORTH 5<sup>TH</sup> STREET - AUDITORIUM  
[VIRTUAL MEETING](#) - [LIVE STREAMED](#)  
BROADCAST ON CABLE CHANNEL 191  
5:30 AM – REGULAR MEETING**

**Call to Order, Pledge of Allegiance, Moment of Silence**

**Proclamations**

Proclaiming the Week of May 1 - May 7, 2022 as Municipal Clerks Week in the City of Grand Junction

Proclaiming May 15 - May 21, 2022 as Police Week in the City of Grand Junction

**Appointments**

Election of Council President/Ex-Officio Mayor and Council President Pro Tem/Ex-Officio Mayor Pro Tem

**Citizen Comments**

*Individuals may comment regarding items scheduled on the Consent Agenda and items not specifically scheduled on the agenda. This time may be used to address City Council about items that were discussed at a previous City Council Workshop.*

*Citizens have four options for providing Citizen Comments: 1) in person during the meeting, 2) virtually during the meeting (registration required), 3) via phone by leaving a message at 970-244-1504 until noon on Wednesday, May 4, 2022 or 4) submitting comments [online](#) until noon on Wednesday, May 4, 2022 by completing this form. Please reference the agenda item and all comments will be forwarded to City Council.*

**City Manager Report**

**Council Reports**

## **CONSENT AGENDA**

*The Consent Agenda includes items that are considered routine and will be approved by a single motion. Items on the Consent Agenda will not be discussed by City Council, unless an item is removed for individual consideration.*

### **1. Approval of Minutes**

- a. Summary of the April 18, 2022 Workshop
- b. Minutes of the April 20, 2022 Regular Meeting

### **2. Set Public Hearings**

*All ordinances require two readings. The first reading is the introduction of an ordinance and generally not discussed by City Council. Those are listed in Section 2 of the agenda. The second reading of the ordinance is a Public Hearing where public comment is taken. Those are listed below.*

- a. Legislative
  - i. Introduction of an Ordinance to Reenact Ordinance No. 4833 Regarding Camping on Public Property/Public Places with the Elimination of the Sunset Clause and Setting a Public Hearing for May 18, 2022
- b. Quasi-judicial
  - i. Introduction of an Ordinance for Zoning Approximately 2.37 Acres from County RSF-4 (Residential Single Family - 4 du/ac) to R-5 (Residential - 5 du/ac) for the Twenty Eighty Broadway Annexation, Located at 2080 Broadway and Setting a Public Hearing for May 18, 2022

### **3. Procurements**

- a. 2022 Contract Street Maintenance - Seal Coat
- b. Construction Contract for Partial Reconstruction of South Rim Drive and Kansas Avenue
- c. Purchase Tow Behind Stump Grinder from Vermeer Sales in Grand Junction, Colorado

### **4. Resolutions**

- a. A Resolution Adopting the 4th and 5th Street Feasibility Study
- b. A Resolution Setting Fees for Cannabis Licensing

## **REGULAR AGENDA**

*If any item is removed from the Consent Agenda by City Council, it will be considered here.*

### **5. Public Hearings**

- a. Legislative
  - i. An Ordinance Amending Title 21 Chapter 4, Chapter 6, and Chapter 10 and Amending Title 27, Chapter 12 of the Grand Junction Municipal Code Regarding Use Standards and for Specific Buffering between Certain Schools and Rehabilitation Facilities, and Adopting Regulations for Signage of Cannabis Businesses, and Definitions for such Businesses

### **6. Agreements**

- a. Solar Farm Subscription with Pivot Energy

### **7. Non-Scheduled Citizens & Visitors**

*This is the opportunity for individuals to speak to City Council about items on tonight's agenda and time may be used to address City Council about items that were discussed at a previous City Council Workshop.*

### **8. Other Business**

### **9. Executive Session - City Hall Administration Conference Room**

- a. EXECUTIVE SESSION TO DISCUSS PERSONNEL MATTERS UNDER AND PURSUANT TO SECTION 24-6-402(4)(f)(I) C.R.S. OF THE OPEN MEETINGS LAW RELATIVE TO A CITY COUNCIL EMPLOYEE, SPECIFICALLY THE CITY MANAGER - THE CITY MANAGER HAS NOT REQUESTED DISCUSSION IN OPEN SESSION
- b. EXECUTIVE SESSION TO DISCUSS PERSONNEL MATTERS UNDER AND PURSUANT TO SECTION 24-6-402(4)(f)(I) C.R.S. OF THE OPEN MEETINGS LAW RELATIVE TO CITY A COUNCIL EMPLOYEE, SPECIFICALLY THE CITY ATTORNEY - THE CITY ATTORNEY HAS NOT REQUESTED DISCUSSION IN OPEN SESSION

**10. Conclusion of Executive Session and Adjournment of May 4, 2022 City Council Meeting - City Hall Administration Conference Room**

The Council will return to Open Session to conclude the Executive Session; the City Council will not be returning to Open Session in the City Council chambers. Adjournment of the May 4, 2022 City Council meeting will occur in the City Hall Administration Conference room.



*City of Grand Junction, State of Colorado*

# Proclamation

- Whereas,** the Office of the Municipal Clerk, a time honored and vital part of local government, exists throughout the world; and
- Whereas,** the Municipal Clerk is the oldest among public servants; and
- Whereas,** Municipal Clerks provide the professional link between the citizens, the local governing bodies, and agencies of government at other levels; and
- Whereas,** Municipal Clerks have pledged to be ever mindful of their neutrality and impartiality, rendering equal service to all; and
- Whereas,** Municipal Clerks serve as the information center on functions of local government and community; and
- Whereas,** Municipal Clerks continually strive to improve the administration of the affairs of the Office of the Municipal Clerk through participation in education programs, seminars, workshops and the annual meetings of their state, provincial, county, and international professional organizations; and
- Whereas,** it is most appropriate that we recognize the accomplishments of Municipal Clerks.

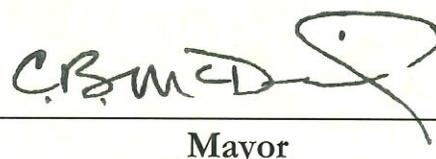
**NOW, THEREFORE,** I, C.B. McDaniel, by the power vested in me as Mayor of the City of Grand Junction, do hereby proclaim May 1 through May 7, 2022 as

## *“Municipal Clerks Week”*

and further extend appreciation to all Municipal Clerks for the vital services they perform and their exemplary dedication to the communities they represent.



IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the official Seal of the City of Grand Junction this 4<sup>th</sup> day of May 2022.



Mayor



*City of Grand Junction, State of Colorado*

# Proclamation

**Whereas,** there are more than 800,000 law enforcement officers serving in communities across the United States, including the dedicated members of our local law enforcement agencies, to include the Mesa County Sheriff's Office, the Grand Junction Police Department, the Palisade Police Department, the Fruita Police Department, Collbran Marshal's Office, De Beque Marshal's Office, and the Colorado State Patrol; and

**Whereas,** approximately 58,000 assaults against law enforcement officers are reported on average each year, resulting in more than 17,000 injuries; and

**Whereas,** since the first recorded death in 1786, more than 22,000 law enforcement officers in the United States have made the ultimate sacrifice and been killed in the line of duty, including five from local law enforcement agencies: Mesa County Sheriff Deputy Edward Innes was killed on September 27, 1906, during an inmate jail escape, Colorado State Patrol Sergeant Wesley Rosette was killed in a crash on January 31, 1951, Fruita Police Department Acting Chief Dan Dalley was killed in a motorcycle crash in June 2001, Deputy Derek Geer, of the Mesa County Sheriff's Office, died after being shot by an armed suspect in February of 2016, Most recently, Sergeant Wayne Weyler lost his battle to COVID-19 in December of 2021; and

**Whereas,** the names of these dedicated public servants are engraved on the walls of the National Law Enforcement Officers Memorial in Washington, D.C.; and

**Whereas,** 472 officers were killed in the line of duty in 2021, nine of whom were fallen Colorado heroes: Officer Gordon Beesley of the Arvada Police Department, Sergeant Eric Scherr of the Aurora Police Department, Officer Eric Talley of the Boulder Police Department, Deputy Sheriff James Herrera of the Denver Sheriff's Department, Deputy Sheriff Duke Trujillo of the Denver Sheriff's Department, Detective Joe Pollack of the Douglas County Sheriff's Office, Deputy Sheriff Clay Zachary Livingston of the Elbert County Sheriff's Office, Officer Ty Powell of the Windsor Police Department, and Sergeant Wayne Weyler of the Mesa County Sheriff's Office. Their names will be added to the National Law Enforcement Officers Memorial located in Washington, D.C., this year; and

**Whereas,** May 15 is designated as Peace Officers Memorial Day and the week of May 15 through May 21, 2022, is National Police Week.

**NOW, THEREFORE,** I, C.B. McDaniel, by the power vested in me as Mayor of the City of Grand Junction, do hereby proclaim May 15 - 21, 2022 as

## *"National Police Week"*

in the City of Grand Junction, and publicly salute the service of law enforcement officers in our community and in communities across the nation.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the official Seal of the City of Grand Junction this 4<sup>th</sup> day of May 2022.



Mayor



## Grand Junction City Council

### Regular Session

Item #

---

**Meeting Date:** May 4, 2022

**Presented By:** City Council

**Department:** City Manager's Office

**Submitted By:** John Shaver, City Attorney, and Laura Bauer, Interim City Clerk

---

### **Information**

#### **SUBJECT:**

Election of Council President/Ex-Officio Mayor and Council President Pro Tem/Ex-Officio Mayor Pro Tem

#### **RECOMMENDATION:**

Nominate and elect a Council President/Ex-Officio Mayor and a Council President Pro Tem/Ex-Officio Mayor Pro Tem.

#### **EXECUTIVE SUMMARY:**

The Charter sets forth the process for selecting a President of the Council and a President of the Council Pro Tem. Article V, Section 39 provides that during the first regular City Council Meeting in May of each year, a Council President/Ex-Officio Mayor and Council President Pro Tem/Ex-Officio Mayor Pro Tem are nominated and voted on to fulfill the obligations of those duties through April of the following year.

#### **BACKGROUND OR DETAILED INFORMATION:**

Article V (President of the Council), Section 39 (Term-Duties) of the Grand Junction Municipal Charter states that "each Council, at its first regular meeting and thereafter when a vacancy occurs, shall elect from its membership a president of the council. He shall serve for a term of one year and until his successor is elected and qualified. During such term he shall be a member of the council with the same right to speak and vote therein as any other member, but without the right of veto. He shall be recognized as the official head of the city for all ceremonial purposes, by the courts for the purpose of serving civil process, and by the governor for military purposes. In case of his absence or disability, his duties shall be performed by a president pro tempore, chosen by the council from among its own members."

Paragraph 39 specifies that the Council “elects” a president; historically, the Council has also elected a president *pro tempore* on the same date. The process for those elections has been the same for president and president *pro tempore* with the Council generally establishing the procedure with each election.

By law, secret ballots are not allowed. As such, all of the election proceedings, other than the City Clerk’s written tallies, are spoken. The City Clerk will report her tallies as part of the selection process and will keep those in her records. Of course, you may, during the process, ask for assistance from the City Clerk and/or City Attorney; Nominations and seconds are required; self-nominations are allowed. Typically, a short statement is made by each member making a nomination and by the nominee when accepting a nomination. A nominee may decline a nomination and withdraw her/his name either at the time of nomination or later (but preferably before being elected). The president of the council is chosen first but Council may order the process as a majority determines. After discussion, the sitting Mayor begins the process by announcing that the nominations are open and will be entertained. At the conclusion of the nominations and seconds, a motion to close nominations should be made, seconded and voted on before the voting begins.

It may be that there are multiple nominations and multiple rounds of voting. If that happens, the nominees with the highest number of votes (without achieving a majority of four) are advanced to subsequent rounds of voting. Typically, the Council has required at least three votes to advance, but in the event of two nominees receiving two votes, a “run-off” is held between those nominees with the highest number of votes advancing to a ballot with the nominee previously receiving 3 votes.

Votes from round to round are non-binding.

The same process is used for the president and president *pro tempore*.

With the exception of the law specifying no secret ballots, the Council may establish the selection process as a majority prefers.

**FISCAL IMPACT:**

N/A

**SUGGESTED MOTION:**

Nominations will be entertained by the President of the Council. Nominations that are seconded will be voted upon voice vote; no secret ballots are allowed. Detailed procedures are described above.

**Attachments**

None



## GRAND JUNCTION CITY COUNCIL WORKSHOP SUMMARY

April 18, 2022

**Meeting Convened:** 5:30 p.m. The meeting was held in person at the Fire Department Training Room, 625 Ute Avenue, and live streamed via GoToWebinar.

**City Councilmembers Present:** Councilmembers Randall Reitz, Dennis Simpson, Rick Taggart, Abe Herman, Anna Stout, and Mayor Chuck McDaniel

**City Councilmembers Absent:** Councilmember Phil Pe'a

**Staff present:** City Manager Greg Caton, City Attorney John Shaver, Interim City Clerk Laura Bauer, Deputy City Clerk Selestina Sandoval, and Parks and Recreation Director Ken Sherbenou,

---

### **1. Discussion Topics**

#### **a. Community Recreation Center Survey Discussion**

The Community Recreation Center Survey was conducted by The Social Research Center of Colorado Mesa University Professors Justin Gollob, Eliot Jennings, and Clay King, in partnership with Berwood Yost of the Center for Opinion Research at Franklin & Marshall College and City staff. Mr. Gollob attributed the success of the survey to the community messaging on the importance of the survey. Mr. Yost provided an overview of the process used to conduct the survey. He said most of the data collection took place in February of 2022 using multiple methods such as online, mailing and telephone. The group concluded there was an 80% cooperation rate and of the respondents, 59% support the City building an indoor recreation facility and 49% were favorable to using a 15% nicotine tax as a funding mechanism. The majority of those surveyed preferred one large facility versus multiple smaller facilities and the majority supported Matchett Park as the preferred location. In response to Council questions, funding the project would come from cannabis revenue as a base, and nicotine tax to supplement. Council expressed concern that if it isn't feasible to build at Matchett Park, and they build at Lincoln Park, there could be pushback from the community. Council was also concerned that in 2019 the community survey was favorable to constructing a center; however, the measure failed at the polls by 54%. City Manager Caton reminded Council that there were three tax issues on that ballot, which could have contributed to the failed measure. It was noted that this survey did not include questions regarding funding annual maintenance. There was discussion in support of using the Parks and Recreation Advisory Board in collaboration with a consultant and staff to work on various components of a community recreation center. City Council discussion also included when to refer the matter to the ballot.

**b. Orchard Mesa Pool**

Parks and Recreation Director Ken Sherbenou spoke on this topic. He informed Council that the pool is 38 years old and is jointly funded by the City, the county and the school district. Significant maintenance work is needed. Mesa County reduced their financial contribution this year; however, the school district made up the difference. The average number of users per day is 109; however, whether these users are City residents is not known. Council asked staff if they could delve deeper into who the users are city residents, Mesa County residents, visitors, etc. City Manager Caton suggested that Council may want to have a discussion with the county regarding their future funding commitments regarding the pool. Council discussed the pros and cons of converting the pool building into a multi-use facility, using reserves to move ahead with pool improvements now and bundling and bundling future building renovations with the community center question on a future ballot.

**2. City Council Communication**

There was no Council communication.

**3. Next Workshop Topics**

City Manager Caton reviewed upcoming topics

**4. Other Business**

There being no further business, the Workshop adjourned at 7:34 pm

**GRAND JUNCTION CITY COUNCIL  
MINUTES OF THE REGULAR MEETING**

**April 20, 2022**

**Call to Order, Pledge of Allegiance, Moment of Silence**

The City Council of the City of Grand Junction convened into regular session on the 20<sup>th</sup> day of April 2022 at 5:30 p.m. Those present were Councilmembers Abe Herman, Randall Reitz, Dennis Simpson, Anna Stout, Rick Taggart and Council President Chuck McDaniel. Councilmember Phillip Pe'a was absent.

Also present were City Manager Greg Caton, City Attorney John Shaver, Interim City Clerk Laura Bauer, Deputy City Clerk Selestina Sandoval, Fire Chief Ken Watkins, Principal Planner Kristen Ashbeck, Senior Planner Jace Hochwalt, Senior Planner Nicole Galehouse and Visit Grand Junction Director Elizabeth Fogarty.

Council President McDaniel called the meeting to order. Tope Student Kodi Kyle led those present in the Pledge of Allegiance, followed by a moment of silence.

**Presentations**

**Grand Junction Fire Department Accreditation**

Fire Chief Ken Watkins presented the plaque recognizing the Grand Junction Fire Department as an accredited agency with the Commission on Fire Accreditation International and said a few words regarding the accreditation process, timeline and merit. He introduced and thanked his team: Deputy Chief Chris Angermuller (Accreditation Manager), Community Risk Specialist Ellis Thompson-Ellis (Assistant Accreditation Manager and Data Specialist), and Communication Center Supervisor Shon Kiniston who also assisted in the process.

City Manager Caton praised the department for their efforts in obtaining the accreditation.

**Appointments**

**To the Parks and Recreation Advisory Board**

Councilmember Stout moved and Councilmember Taggart seconded to reappoint Lisa Whalin, Kyle Gardner, Austin Solko, and Cindy Enos-Martinez to the Parks and Recreation Advisory Board for three-year terms expiring June 2025. Motion carried by unanimous voice vote.

**Proclamations**

**Proclaiming April 23, 2022 as Arbor Day in the City of Grand Junction**

Council President McDaniel read the proclamation. Forestry Board Chair Susan Carter accepted the proclamation.

**Citizen Comments**

Bruce Lohmiller invited the public to speak at Citizen Comments, spoke regarding housing issues in the community and expressed concern regarding Fentanyl.

**City Manager Report**

City Manager Greg Caton outlined 2022 Spring Cleanup statistics.

**Council Reports**

Councilmember Reitz commended Spring Cleanup efforts by staff.

Councilmember Stout reported the legislative session is near its end and will report on outcomes at a future meeting.

Councilmember Taggart gave an update on the Grand Junction Regional Airport Authority.

Councilmember Herman gave an update on the Urban Trails Committee, invited the public to the Western Colorado Economic Summit and provided a Grand Junction Economic Partnership Executive Director search update.

**CONSENT AGENDA**

Councilmember Stout moved to adopt Consent Agenda items #1 - #3. Councilmember Herman seconded. Motion carried by unanimous voice vote.

**1. Approval of Minutes**

- a. Minutes of the March 16, 2022 Regular Meeting
- b. Minutes of the April 4, 2022 Special Meeting
- c. Minutes of the April 6, 2022 Regular Meeting

**2. Procurements**

- a. Contract for Professional Services for Document Scanning, Digitizing and Indexing
- b. Hogchute (aka Carson) Reservoir Dam Modifications Change Order No. 2

**3. Resolutions**

- a. A Resolution Vacating a Portion of a Public Storm Sewer Right-of-Way on the Campus of Grand Junction High School at 1400 N. 5<sup>th</sup> Street
- b. A Resolution Approving the Grand Junction City Council Audit Committee Charter and Appointing Anna Stout and Chuck McDaniel as the 2022-2023 Audit Committee

**REGULAR AGENDA****An Ordinance Vacating a Public Alley Right-of-Way, Located South of 245 and 333 South Avenue**

Anna Company, LLC requested vacation of an undeveloped east-west alley that lies south of 245 and the west portion of 333 South Avenue. The area to be vacated is a 10-foot wide and variable length strip of land, encompassing a total of 2,239 square feet. The vacation of the alley will eliminate the approximately one-foot encroachment of the building into a public right-of-way. The requested vacation conforms with the City's Comprehensive Plan and Circulation Plan.

Principal Planner Kristen Ashbeck presented this item.

The public hearing opened at 6:02 p.m.

There were no comments.

The public hearing closed at 6:02 p.m.

Councilmember Taggart moved and Councilmember Simpson seconded to adopt Ordinance No. 5067, an ordinance vacating a portion of public alley right-of-way south of 245 and 333 South Avenue on final passage and ordered final publication in pamphlet form. Motion carried unanimously by roll call vote.

**An Ordinance Rezoning One Parcel Totaling Approximately 2.46 Acres from PD (Planned Development) to C-1 (Light Commercial), Located at the Northeast Corner of Horizon Drive and 27 ½ Road**

Property owner Emanuel Epstein Revocable Trust requested the rezone of one parcel totaling approximately 2.46 acres from PD (Planned Development) to C-1 (Light Commercial) located at the northeast corner of Horizon Drive and 27 ½ Road. The requested C-1 zone district conforms with the Comprehensive Plan Land Use Map designation of Commercial.

Senior Planner Jace Hochwalt presented this item.

The public hearing opened at 6:12 p.m.

There were no comments.

The public hearing closed at 6:12 p.m.

Councilmember Reitz moved and Councilmember Simpson seconded to adopt Ordinance No. 5068, an ordinance rezoning approximately 2.46 acres from a PD (Planned Development) zone district to a C-1 (Light Commercial) zone district located at the northeast corner of Horizon Drive and 27 ½ Road on final passage and ordered final publication in pamphlet form. Motion carried by unanimous roll call vote.

**An Ordinance Rezoning 1.18 Acres from R-4 (Residential - 4 du/ac) to R-8 (Residential – 8 du/ac), Located at 702 25 Road**

Property owner Kent Slawson requested a rezone from R-4 (Residential - 4 du/ac) to R-8 (Residential – 8 du/ac) for 1.18-acres located at 702 25 Road in anticipation of future development. The R-8 zone district is consistent with the Comprehensive Plan Land Use Map designation of Residential Medium (5.5 – 8 du/ac).

Senior Planner Nicole Galehouse presented this item.

Council had questions regarding the zoning in surrounding areas.

The public hearing opened at 6:21 p.m.

There were no comments.

The public hearing closed at 6:21 p.m.

Councilmember Herman moved and Councilmember Stout seconded to adopt Ordinance No. 5069, an ordinance rezoning approximately 1.18 acres from an R-4 (Residential - 4 du/ac) zone district to a R-8 (Residential - 8 du/ac) zone district located

at 702 25 Road on final passage and ordered final publication in pamphlet form. Motion carried by unanimous roll call vote.

**A Resolution Adopting the Grand Junction Area Tourism Membership Program, Managed by Visit Grand Junction**

In 1996, the City Council authorized the expansion of the Visitor & Convention Bureau (now known as Visit Grand Junction (VGJ)) marketing programs to include lodging properties outside the Grand Junction City limits. The offering of those services has been reauthorized four times since the initial resolution, with the most recent reauthorization being October 2016 with the approval of Resolution No. 41-16.

In late 2021, the VGJ Board of Directors recommended that the marketing program be improved and expanded beyond lodging to include other tourism-related events and businesses. The proposed changes, marketing programs and services will be more inclusive and equitable. For lodging businesses outside the City of Grand Junction, there will be a membership fee of no less than \$350/year and they will be required to enter into a Membership Program Agreement. This fee helps to create an even balance with those in the City that collect and pay a lodging tax.

Visit Grand Junction Director Elizabeth Fogarty presented this item.

Council questioned if setting fees was within the scope of an advisory board, if in setting the fees, there isn't a conflict of interest between Board members and potential business competitors, and if the membership contracts were public record. City Attorney Shaver confirmed the contracts will be between the City and not Visit Grand Junction and will be subject to the Open Records Act. Ms. Fogarty informed Council that local businesses are excited for the launch of this program. Council commended the Board for the development of this program.

Councilmember Stout moved and Councilmember Herman seconded to adopt Resolution No. 35-22, a resolution adopting Visit Grand Junction's Grand Junction Area Tourism Membership Program, allowing Visit Grand Junction, on behalf of the City of Grand Junction, to enter into contracts for their marketing services with tourism-related businesses within Mesa County. Motion carried by unanimous voice vote.

**Non-Scheduled Citizens & Visitors**

Todd Anderson recommended Citizen Comments be moved right after the moment of silence.

**Other Business**

Councilmember Taggart requested an affordable housing item be put on a workshop

agenda to develop a program for residential and multi-housing projects to help provide more affordable housing options.

**Adjournment**

The meeting adjourned at 6:52 p.m.



---

Laura Bauer, MMC  
Interim City Clerk





## Grand Junction City Council

### Regular Session

Item #2.a.i.

---

**Meeting Date:** May 4, 2022

**Presented By:** John Shaver, City Attorney

**Department:** City Attorney

**Submitted By:** John P. Shaver, City Attorney

---

### **Information**

#### **SUBJECT:**

Introduction of an Ordinance to Reenact Ordinance No. 4833 Regarding Camping on Public Property/Public Places with the Elimination of the Sunset Clause and Setting a Public Hearing for May 18, 2022

#### **RECOMMENDATION:**

Approval and set a public hearing for May 18, 2022.

#### **EXECUTIVE SUMMARY:**

Ordinance No. 4833 regarding camping on public property/public places was enacted on April 17, 2019 and included a sunset provision requiring action by City Council within sixty days of the third anniversary of the adoption of the ordinance or the ordinance terms will expire in their entirety. This ordinance will amend Ordinance No. 4833 with the elimination of the sunset clause.

#### **BACKGROUND OR DETAILED INFORMATION:**

Ordinance No. 4833 was enacted by City Council on April 17, 2019, amending Chapters 12.04, 12.08, and 21.06 of the Grand Junction Municipal Code ("GJMC") and establishing laws that assist in maintaining the City in a clean, sanitary and accessible condition while adequately protecting the health, safety and public welfare of the community, and preserving, protecting and enhancing the natural resource of the Colorado and Gunnison Rivers ("Riverfront") for many recreational and other proper uses. Ordinance No. 4833 prohibits the use of public property for the purpose of maintaining a temporary place to live as the use of public areas, parks, streets and the Riverfront for camping purposes interferes with the rights of others to use those areas for the purpose for which they were intended.

Ordinance No. 4833 includes a sunset clause for which City Council shall consider the effectiveness of the ordinance at achieving its state purposes within sixty days of the third anniversary of the adoption of the ordinance. If no further action is taken by the City Council in reviewing the ordinance, the ordinance terms will expire.

The Grand Junction Police Department recommends reinstatement of the ordinance with the elimination of the sunset clause. Attached as support is a report completed by the Grand Junction Police Department.

**FISCAL IMPACT:**

This action has no direct fiscal impact.

**SUGGESTED MOTION:**

I move to introduce an ordinance to amend Ordinance No. 4833 regarding camping on public property/places with a finding of the satisfaction and the elimination of the sunset clause and set a public hearing for May 18, 2022.

**Attachments**

1. Grand Junction Police Dept Camping Report
2. Camping ordinance summary
3. ORD-Camping Reenact 042322

## Camping Ordinance Justification

In June of 2022, the Grand Junction Municipal ordinance created in 2019 is set to sunset (expire) if the city council does not take action to retain the ordinance. (Attachment A) In consideration, the following is justification from the Grand Junction Police Department which provides rationale for continuing this public health and safety ordinance.

The following will outline the particulars of the problems faced by the citizens of Grand Junction regarding illegal camping and while the community in whole understands and empathizes with the complexity of homelessness in America and in our community, they also understand that unregulated camping on private and public property poses significant burdens on many of our resources. Additionally, such activity can infringe upon the health and safety of everyone, including those living illegally in camps as well as residents and business owners who have property rights and of shared public land use rights.

In 2019, Colorado was found to be in the top 10 states experiencing the most homelessness and while Grand Junction may not have the rates of homelessness of Denver, there is a significant population of homeless and the chronically homeless impacting Grand Junction. While a majority of homeless individuals do not negatively impact the community, there are some who do. Clearly, the people of Grand Junction support efforts to help the homeless by providing resources to many organizations in the community who work to assist the homeless here. Residents and business alike support organizations dedicated to providing housing and subsistence to those experiencing homelessness here in the valley – these organizations include but are not limited to Catholic Outreach, KARIS, Pathway’s Village, Homeward Bound, and the Joseph Center. In essence, there are numerous service providers that provide lasting and positive benefits. Given the potential of de-regulation, this could create what equates to an enabling mechanism that most likely would increase the negative impacts of the illegal camping problem we already experience in the valley. For example, Austin, Texas, de-regulated camping and experienced increases in illegal camping and found not only an increase in camping, but a decrease of those in shelter as well. Austin also experienced increased problems such as crime and disorder among those living on the street. (Attachment D)

The Grand Junction Police Department is often tasked with addressing people experiencing homelessness when they are reported for trespassing or illegally camping by the general public, property owners or members of the business community. In many of these instances officers respond, evaluate the situation and ask those trespassing or illegally camping to leave and they gain compliance. In some of these situations the person(s) may leave, but they leave behind trash, accumulated property, clothing, and even human waste. These issues then become long term problems that can spread disease and even affect the environment through contamination of soils and the watershed. (Attachment E)

Along with environmental concerns, there are the real costs associated with illegal camping and trespass which include the monetary costs to clean up the discarded remnants and waste. These costs fall directly on property owners or, if on public lands, the taxpayers. Costs can run well into the thousands of dollars and some property owners have to contend with these costs multiple times when they experience repeated trespass camping incidents. In 2020 and 2021 the police

department spent over \$60,000 to cleanup illegal campsites in public areas. Attachment F includes photos taken by GJPD CRU officers in 2020 and 2021 of various illegal campsites which were cleaned. The photos also show how derelict motorhomes and camp trailers can also serve as illegal campsites and like a campsite, can contaminate the environment with grey water and discarded items such as fuel, batteries, mattresses or even oil that is dumped directly onto the land or into the storm drains and ultimately the Colorado River.

Derelict motorhomes used as housing in Seattle, WA became such a nuisance the state instituted a fee to pay for their remediation. Washington state found in Seattle that these motorhome campsites were a potential hazard to water quality from the dumping of grey water into the gutters, leaving trash, and other items that all flowed into water ways. The motorhomes themselves would be discarded and the costs of towing and destroying the campers is very costly, something we in Grand Junction have also discovered. (Attachment F)

The issues contained in the attachments regarding problems with camping sites in Seattle and Austin also exist in Grand Junction, they just have not been reported with any depth by local journalists. Photos of campsites throughout the City of Grand Junction are included in Attachment G. These campsites regularly accumulate trash, stolen property, and human waste as individuals continue to live in these sites and the problems grow exponentially. These sites create a public health hazard as it allows humans to live in substandard and unhealthy conditions, which are hazardous at best. Additionally, these situations harm the surrounding environment through trash accumulation and unmitigated human waste, which can lead to the spread of diseases and other harmful outcomes.

While many of the campsites consist of tents, tarps and bedding, most fill up quickly with scavenged and stolen property. This property is transported by bike carts, both homemade and salvaged, along with commandeered shopping carts from stores that do not have locking mechanisms on them that prevent their removal from parking lots. Currently, the only store with locking mechanisms are the City Markets. Many discovered camps include abandoned and destroyed shopping carts, but these stolen shopping carts can be found abandoned across the city, and local businesses have asked people be charged for having their carts illegally removed, but most do little to prevent the carts from being removed from their properties or even make attempts to locate and collect the carts removed from their properties. This fact contributes to the ease at which large amounts of property can accumulated at an illegal campsite in a very condensed amount of time.

While the police department responds to these trespassing and illegal camping complaints on a daily basis, several times a day in most cases, officers do not arrest or write a great number of summonses for those violations, but rather seek compliance through warnings and, when requested, by serving a notice that the person is banned from the particular private property who made that request. Some violators however refuse to cooperate and are issued a summons to appear in court at a later date, which usually encourages the person to then leave. From the time of the enactment of the no camping ordinance in 2019 through 2021, the Grand Junction Police Department has issued only 14 citations to individuals in 11 instances where it was necessary to use a citation to gain compliance. During that same time, no one has been physically arrested and booked into jail for illegal camping in Grand Junction. All camping charges from 2019 through 2021 show only summons arrests, which are written citations. (Attachment B)

The Grand Junction Police Department Community Resource Unit (CRU) monitors known areas for illegal camping and routinely post camps or provide those within a camp notices (Attachment B) that warn against illegal camping and trespass and that it may be a crime, but the notices also include a phone number to CRU offering assistance with resources. When officers can speak directly to people, they inquire about helping with benefits, which includes access to our Co-Responder program to help assess any potential mental health needs. The unit has been successful in helping connect homeless individuals to resources and in some cases they have been successful in getting housing, medical care, or even getting a homeless individual reunited with family, who in turn helped the individual re-establish family bonds and find housing and work.

Cities throughout Colorado have enacted a camping ban similar to Grand Junction in an effort to mitigate the effects of uncontrolled camping within city limits. The City of Aurora is currently enacting a camping ban similar to the ban in effect in Grand Junction. The City & County of Denver has had a camping ban in effect for some time to deal with their challenges with homelessness. (Attachment H) In fact in 2020, Denver's ordinance against camping was upheld as legal and Constitutional in Denver District Court (*City and County of Denver v. Burton*, 19CV34925), a decision that the Colorado Supreme Court refused to hear on certiorari. (Attachment I)

The Grand Junction Police Department believes it is necessary to continue the ordinance against camping on public property and its related ordinances as a way to prevent camps from forming as well as mitigating the hazardous effects of camps after they have formed. Without this ordinance, the City will not have the tools necessary to intervene and prevent the spread of these camps throughout the City. To allow these camps to exist and grow will only serve to harm the individuals that live in these camps, the environment around the camps, and the City as a whole. The Grand Junction Police Department requests that the Grand Junction City Council continue these ordinances permanently.

Attachment A

**12.04.080 Camping on public property without authorization prohibited.**

No person may camp in or upon any public property, nor any property owned by other governmental entities that have posted notice prohibiting camping, unless:

- (a) The person has the authorization of the owner of the property to camp at that location; or
- (b) An overnight use is specifically authorized by the issuance of a use permit in accordance with Parks Department regulations; or
- (c) Camping is otherwise specifically authorized by GJMC; or
- (d) The camper(s) is(are) on public property other than a sidewalk, street, parking strip, alleyway, lane, breezeway or public right-of-way, and there is no available overnight shelter; or
- (e) Camping is necessary after the formal declaration of an emergency in accordance with City Charter or a declaration of the Governor.

(Ord. 4833, 4-17-19)

**\*Code reviser's note** – Ordinance 4833, which adds this section, provides, “Sunset Clause. Within sixty days of the third anniversary of the adoption of this ordinance the City Council shall consider the effectiveness of the ordinance at achieving its stated purposes. Without further action by the City Council, the terms and provisions of this ordinance shall expire on the third anniversary of the effective date hereof without subsequent action by the City Council.”

**12.04.100 Removal, disposition and release of personal property.**

Upon removal of an encampment, all debris, including items having no reasonably apparent utility or monetary value and items in an unsanitary condition, may be immediately discarded. All other personal property shall be gathered, retained, and released, all in accordance with the reasonable notice being provided to the property owner. Unclaimed property may be disposed in accordance with GJMC 2.44.020 et seq.

(Ord. 4833, 4-17-19)

**\*Code reviser's note** – Ordinance 4833, which adds this section, provides, “Sunset Clause. Within sixty days of the third anniversary of the adoption of this ordinance the City Council shall consider the effectiveness of the ordinance at achieving its stated purposes. Without further action by the City Council, the terms and provisions of this ordinance shall expire on the third anniversary of the effective date hereof without subsequent action by the City Council.”

**12.04.110 Enforcement and mitigation.**

By enacting this title, it is neither the City's intent to criminalize homelessness nor violate a homeless person's constitutional rights. Likewise, the City does not propose to prohibit the ordinary use of the parks such as resting or sleeping in a park during normal park hours, picnicking on a blanket or using parks or other public property for lawful uses. Enforcement of this title shall be undertaken to avoid such results.

Upon conviction for a violation of this title, in addition to any other factors deemed appropriate by the prosecutor and the Court, the Court shall consider in mitigation whether or not the person immediately removed all personal property and litter, including, but not limited to, bottles, cans and garbage, from the encampment after being informed the camping was in violation of the law.

(Ord. 4833, 4-17-19)

**\*Code reviser's note** – Ordinance 4833, which adds this section, provides, "Sunset Clause. Within sixty days of the third anniversary of the adoption of this ordinance the City Council shall consider the effectiveness of the ordinance at achieving its stated purposes. Without further action by the City Council, the terms and provisions of this ordinance shall expire on the third anniversary of the effective date hereof without subsequent action by the City Council."

#### **12.04.120 Application to City property outside City limits.**

This title applies to public property owned by the City that is located outside the City's municipal limits.

(Ord. 4833, 4-17-19)

**\*Code reviser's note** – Ordinance 4833, which adds this section, provides, "Sunset Clause. Within sixty days of the third anniversary of the adoption of this ordinance the City Council shall consider the effectiveness of the ordinance at achieving its stated purposes. Without further action by the City Council, the terms and provisions of this ordinance shall expire on the third anniversary of the effective date hereof without subsequent action by the City Council."

## Attachment B

### Arrests 2019-2021

1. 19-70631 Wells Fargo 359 Main St. Gerald Coffey warned repeatedly –trash, food, other items all over.
2. 20-9889 Blue Heron RF Trl Jacob Daniels blocking the trail charged someone and was yelling. Officers found in a camp – profane with officers – open beds in shelter – Daniels failed to comply with officers had an established camp.
3. 20-43725 1220 N. 18<sup>th</sup> living out of camper – Columbus Holt 3 calls on subjects camping living on the side of residential street in the camper.
4. 20-44946 9<sup>th</sup> & Tracks – Tristen Bales/Brenda Goeff – Welfare check female yelling – mattress – camp set up Union Pacific property – long continuous history of Bales and Goeff involved in domestic violence and piling up lots of property where they camp.
5. 20-49769 Printers Wy/Hilaria Ave – Columbus Holt/Tera Hickerson – Previously warned 4 times by various officers not to camp in camper on public property.
6. 20-50554 462 Ute Ave – Gabriel Lopez/Amber Hoffman – Officer observed bedding and other items and contacted the duo in an area we receive a high number of complaints about homeless camping unlawfully. Hoffman has had multiple officer contacts for this type of issue.
7. 21-5157 Las Colonias Park 2735 Riverside Prkwy – James Bonati – In middle of park for several days with tent over a water hose bib, electrical outlets and had beer cans and other items outside of the tent. Bonati had previously been warned not to camp in the park and not to trespass after hours. Bonati admitted on date of citation he ignored the warning and continued to camp.
8. 21-6994 424 Pitkin Ave – Jose Orozco – Fire and PD responded to Witman Park where Orozco had a fire going in a bucket on a picnic table. There was a large amount of property scattered around (Orozco has been contacted numerous times while camping on public and private property and collected a large amount of trash and items from dumpsters in a short amount of time. 3 times a trash truck has had to be called to pick up the trash and items he piled up). On this call, as on others, Orozco was verbally non-compliant.
9. 21-9388 400 S. 3<sup>rd</sup> Street – Jose Orozco – warned prior at a location close by about illegally camping in public, re-contacted after a complaint from Catholic Outreach. Orozco accumulated a large amount of rubbish in a hut constructed of discard wood and other items all on an easement. He also had taken a city issued trash can from somewhere and was using that to transport more items to his campsite. Orozco at the time had been served 3 trespassing summons for trespass in a parking lot where he'd been camping just days before this contact.



10. 21-9627 2436 Hill Ave – Tera Hickerson – Hickerson was contacted 2 ½ hours earlier for a verbal argument while she was camping in a tent in the alley. Hickerson was warned and told to leave, she did not and had not cleaned up her camp.
11. 21-20529 Under Grand Avenue Bridge - Edward Kulowiyi/Cena Riggs – Riggs called 911 claiming Kulowiyi was trespassing in her tent, but officers found the two were dating and living in the tent for 3 months and they had a large amount of belongings accumulated.

Arrest Charge	Arrest Charge Statute	Arrest Charge Statute Description	Arrest Charge Statute Keyword	Arrest Date And Time	Arrest Number	Arrest 031	Arrest Type	Arrestee Global Subject	Case Number
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	12/09/2019					2019-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	08:42:00	45274	100	ITED	GERALD LLOYD COFFEY	00070631
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	02/20/2020					2020-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	16:49:00	46231	100	ITED	JACOB LEE DANIELS	00009089
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	08/19/2020					2020-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	16:25:00	48246	100	ITED	HOLT I COLUMBUS	00043725
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	08/24/2020					2020-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	22:06:00	48318	100	ITED	TRISTIN WILLIAM BALES	00044946
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	08/24/2020					2020-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	22:06:00	48317	100	ITED	BRENDA LEE GOFF	00044946
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	09/19/2020					2020-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	01:48:00	48576	100	ITED	MONROE HOLT	00049769
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	09/19/2020					2020-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	01:48:00	48575	100	ITED	TERA A HICKERSON	00049769
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	09/22/2020					2020-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	23:05:00	48610	100	ITED	AMBER LYNN HOFFMAN	00050554
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	01/30/2021					2021-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	11:03:00	50303	100	ITED	JAMES CHARLES BOHATI	00005157
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	02/10/2021					2021-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	06:45:00	50288	100	ITED	JOSE ALFREDO OROZCO	00006994
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	02/24/2021					2021-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	07:06:00	50435	100	ITED	JOSE ALFREDO OROZCO	00009388
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	02/25/2021					2021-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	09:14:00	50414	100	ITED	TERA A HICKERSON	00009627
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS						2021-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	04/27/2021	51357	100	ITED	DELICENA VAREEN RIGGS	00020529
		CAMPING ON PUBLIC PROPERTY WITHOUT AUTHORIZATION PROHIBITED	TRESPASS	04/27/2021					2021-
12.04.080	12.04.080	AUTHORIZATION PROHIBITED	TRESPASS	22:14:00	51356	100	ITED	KULOWIYI	00020529

14 citations (11 incidents), 9 males cited (2 twice), 5 females

Attachment C



Public Property  
**NOTICE!**

Camping is only allowed where a land use approval has been granted for a campground or on City property where a permit has been granted for such use.

**THESE ACTIVITIES ARE ILLEGAL AND WILL BE ENFORCED.**

**NOTICE** is hereby given that **ALL PERSONAL PROPERTY**, including tents, the contents of tents and campsites that are in the area after 8:00 A.M. on \_\_\_\_\_, will be assumed to be **ABANDONED** and will be **CONFISCATED, DISPOSED OF AND/OR DESTROYED.**

Any valuable items that are not removed prior to \_\_\_\_\_, will be booked in at the Grand Junction Police Department.

If you are in need of health care, food or shelter, you may contact any of the following resources for information on available services:

- Community Homeless Shelter, 2853 North Avenue, (970) 256-9424
- Rescue Mission, 550 South Avenue, (970) 243-2333
- Catholic Outreach, 245 S 1<sup>st</sup> Street, (970) 241-3658
- Outreach Day Center, 302 Pitkin Avenue, (970) 257-9062

If you have any questions, please contact the Grand Junction Police Department Community Resource Unit at the following telephone numbers:

Grand Junction Police Department  
Community Resource Unit, 555 Ute Avenue, 970-549-5331

Dated this \_\_\_\_ day of \_\_\_\_\_.

555 Ute Avenue, Grand Junction, CO 81501 P (970) 242-6727 F (970) 241-3658 WWW.gjcity.org

Grand Junction Police Dept

**Private Property**

*Your presence here  
may be criminal.*

**Remove your property  
and vacate this area.**

**Please contact the Community Resource  
Unit for assistance in connecting you  
with available resources.**

Community Resource Unit, 555 Ute Ave, Grand Junction  
CRO@gjcity.org 970-549-5331

Reference Number: \_\_\_\_\_

Grand Junction Police Dept

## No Trespassing

*Your presence here  
may be criminal.*

Remove your property  
and vacate this area.

Please contact the Community Resource  
Unit for assistance in connecting you  
with available resources.

Community Resource Unit, 555 Ute Ave, Grand Junction  
Phone: 970-549-5331 Email: CRO@gjcity.org

Reference Number: \_\_\_\_\_

Grand Junction Police Department

## Violation

*Living in a vehicle/ RV on a  
public street, in a parking lot or  
on a vacant lot is a code  
violation.*

Remove your vehicle/ RV  
and vacate this area.

Please contact the Community Resource  
Unit for assistance in connecting you  
with available resources.

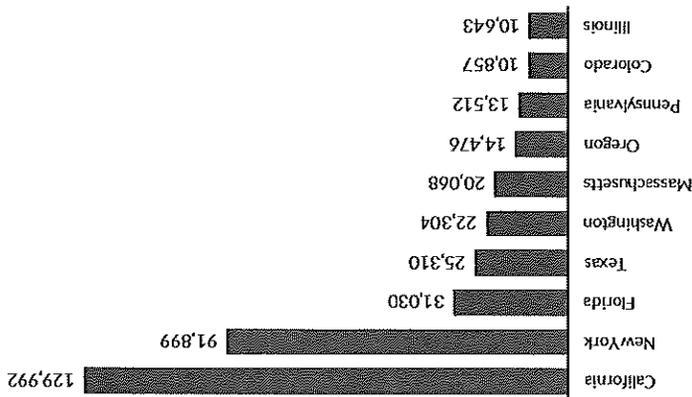
Community Resource Unit, 555 Ute Ave, Grand Junction  
Phone: 970-549-5331 Email: CRO@gjcity.org

Reference Number: \_\_\_\_\_

Attachment D

California is grappling with an enormous crisis, but it is not the only state struggling with increased rates of homelessness. According to data highlighted in the 2019 State of Homelessness report, the 10 states with the highest homelessness counts account for 55 percent of the homeless population:

States with the Largest Populations of People Experiencing Homelessness, 2019



Source: National Alliance to End Homelessness, *State of Homelessness* (Washington, DC: National Alliance to End Homelessness, 2019).  
URBAN INSTITUTE

([www.urban.org/urban-wire/homelessness-blame-game](http://www.urban.org/urban-wire/homelessness-blame-game))

*“What makes Austin different is that people here are willing to ask tough questions, go against the status quo, and hold their leaders accountable for solving the problems in their community. That political vigilance is as important now as ever.”*

- ❖ By 2020, homelessness in Austin increased by 30 percent, to over 2,500 people. The number of people on the streets increased by 50 percent, while the number of people in shelters dropped by 20 percent.
- ❖ Death, disease, violence, and disorder all increased.
- ❖ Data undeniably show that permissive camping laws lure needy individuals away from services and back out onto the streets.
- ❖ Austin’s own surveys show that 37% of homeless Austinites are from outside the city itself, presumably drawn to Austin’s unregulated streets.

(<https://ciceroinstitute.org/continuing-failed-policies-costs-lives-banning-street-camping-gets-people-the-help-they-need>)

## Who should pay to tow Washington's abandoned RVs? Owner fired up over fee

Before an abandoned RV disposal fee was implemented, private tow companies shouldered the cost of getting rid of abandoned and unsafe RVs.



Author: Vanessa Misciagna

Published: 11:45 AM PST February 25, 2020

Updated: 12:03 PM PST February 25, 2020

SEATTLE — Of all the fees Kelly Hatfield-Burmaz had to pay recently to renew her recreational vehicle tabs, one didn't quite sit right.

"We got the whopping \$6 for the Abandoned RV Disposal," she said as she pointed out the very last fee among the seven listed on her bill.

The Abandoned Vehicle Disposal fee has been in place since 2018, after it was signed into law.

If you have registered an RV or renewed your tabs, you've probably noticed it. The money collected from the fee goes right into a fund through the state treasury.

The fund is used for reimbursing tow truck companies and licensed dismantlers for the removal and dismantling of abandoned recreational vehicles. The RVs are usually broken down and unsanitary and were used for shelter.

In Substitute Senate Bill 6437, lawmakers stated that "Abandoned recreational vehicles continue to be a hazard to the health and safety of citizens, business owners, and the environment," and "adequate funding is necessary to resolve the problem."

Receipt in hand, Hatfield-Burmaz questioned the need for that funding to come out of her pocket.

"As a responsible taxpayer, I'm thinking, why are we being foot with the bill?" she said.

**RELATED: Sewage from RVs may be contaminating waterways, Seattle businesses warn**

In Ballard, Emily Gerke-Wade works at Big D Towing as the operations manger and serves as the administrative director of the Towing and Recovery Association of Washington.

She and her colleagues deal with the removal of abandoned RVs almost daily.

"As much as I understand the situation that people need a place to go, these RVs aren't the solution," she said.

Gerke-Wade said that before the fund was created, businesses like Big D would have to eat thousands of dollars of expenses for every RV they moved.

Between towing the RV, keeping it on the lot for 21 days, then paying a dismantler to break it down, costs could be in the ballpark of \$3,200. That also includes time and labor the company wouldn't get back.

With the fund, tow companies are able to file paperwork with the state to get a large chunk of that money returned, which can take about a month.

"Nothing is a perfect system, but it's a start and it's a way to start clearing some of these nuances and dilapidated vehicles once and for all," Gerke-Wade said.

Something the fund does not cover, according to Gerke-Wade, is the complete initial towing cost to bring it to the impound lot.

She says in this case, some is better than none, especially when this helps break the cycle of impounded RVs in disrepair being bought for cheap then taken right back out into the street.

"What often ended up happening is that these RVs just got recycled and put back on the street, sold to the highest bidder. Sometimes that was \$10," Gerke-Wade said.

**RELATED: Seattle partners with Ballard church to expand safe parking program**

As an RV owner herself, Gerke-Wade understands why people would be upset over the fee, but she feels like this was a problem that needed some sort of a solution.

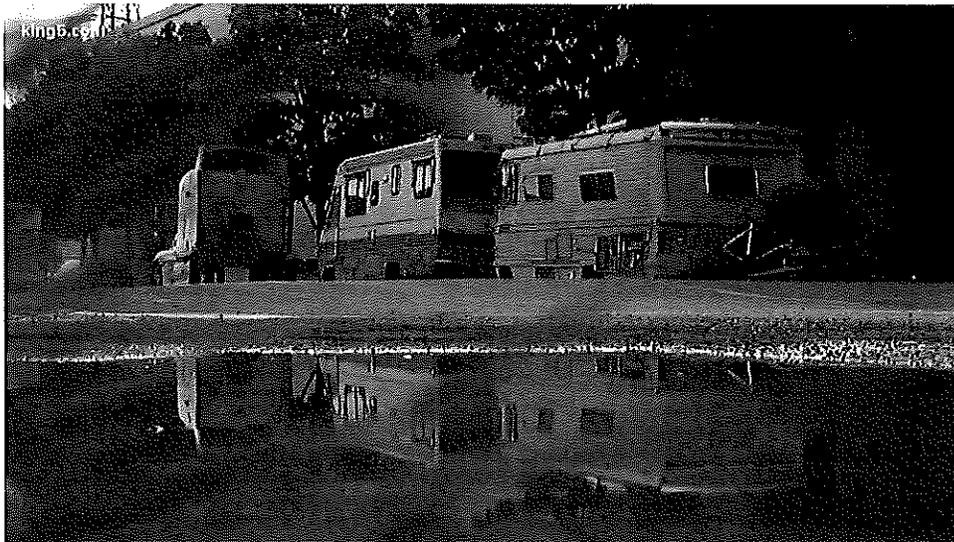
"This has given us an opportunity, at \$6 a pop per RV, for RV owners to be able to contribute. Not that we want to, but it is everyone's problem at this point," she said.

It's a fee to help shoulder the cost of a larger problem. However, that still does not mean RV owners like Hatfield-Burmaz don't have a problem with it.

"We pay a lot of taxes in the state already," she said. "It adds up."

**Sewage from RVs may be contaminating waterways, Seattle businesses warn**

Business owners in Ballard and SODO are raising concerns about raw sewage from RVs being pumped into storm drains, potentially contaminating local waterways.



Author: Ted Land

Published: 9:54 PM PDT October 24, 2019

Updated: 9:54 PM PDT October 24, 2019

SEATTLE — Business owners in Ballard and SODO are raising concerns about raw sewage from RVs being pumped into storm drains, potentially contaminating local waterways.

“We have numerous reports and I have firsthand witnessing of human waste being dumped directly into the drain,” said Erin Goodman, executive director of the SODO Business Improvement Area (BIA).

The SODO BIA and the Ballard Alliance worked with an environmental research company to test a storm drain earlier this year at 1st Street and Lander Street.

They say they found fecal coliform levels 300 times greater than the state water quality standard.

“One sample does not make a conclusive argument, but it is indicative that further study is needed,” Goodman said, noting that there is nowhere for people living in RVs to reliably pump their waste, besides storm drains.

The business groups outlined their concerns about RVs and sewage in a Seattle Times [opinion piece](#).

Seattle Public Utilities said it ran tests last year in SODO and found elevated fecal coliform levels were primarily due to incorrect private sewer connections, which were later repaired.

**RELATED: [Seattle cracks down on vagrant RVs and vehicles returning to city streets](#)**

"We appreciate the partnership of our local businesses and their continued advocacy for a healthy, clean environment. SPU will continue working with them and the Mayor's Office as we work to better understand this data and continue to expand our efforts to protect our waterways," SPU said in a statement.

SPU has an RV trash remediation pilot program, which removes garbage and solid waste from RV parking sites. SPU said it's working to mitigate wastewater pollution from RVs through a mobile RV pump-out pilot.

The business groups said in their opinion piece that "While the mayor's office has engaged productively, council members turn a blind eye to the issue, choosing instead to keep the status quo and continue to allow derelict RVs to remain parked on our neighborhood streets, threatening the safety of our waterways."

A spokesperson for the city council did not respond to a request for comment, Thursday evening.

### **RELATED: Seattle City Council moves to crackdown on RVs, those who rent them out**

#### **Seattle cracks down on vagrant RVs and vehicles returning to city streets**

In an effort to reduce the number of unsafe, inoperable vehicles in the city, Seattle is creating more strict guidelines as it cleans up public right of ways.



Author: KING Staff

Published: 1:01 PM PDT June 12, 2019

Updated: 10:54 PM PDT June 12, 2019

Seattle is making changes that could lead to more derelict vehicles being junked, rather than being re-sold and returning to city streets.

Mayor Jenny Durkan announced new steps Wednesday to stem the supply of "hazardous vehicles" by preventing their re-sale.



The city will apply additional criteria on whether a car or RV that has been towed meets the definition of a health hazard. In the event a vehicle is designated a hazard, it will be destroyed, instead of sold back at auction.

"We have an obligation to protect public health and ensure that our neighbors are not living in inhumane conditions. And we will hold accountable those who prey on vulnerable people for profit," Mayor Durkan said. "We will continue to work for holistic solutions and do more to connect people with services and housing – and we will continue to invest in the strategies we know have an impact, like our Navigation Team."

The mayor will also introduce legislation next week that updates the city's municipal code to fine landlords who rent vehicles in poor or inoperable conditions.

Dan Lehr, the owner of West Seattle Health Club, says an RV came barreling through his building last October.

"The building was on fire, an RV literally poking through the wall of our club, almost went completely into the pool," Lehr recalled. He says it took nearly three months and more than a half-million dollars to repair the pool and get his business fully running again.

According to Lehr, unsafe RVs are still parked across the street from his business.

"We are kind of at the mercy of the city. I mean, we are doing everything we can do within our legal rights," Lehr said.

He thinks the mayor's new rules for RVs will make it safer for him to do business.

"I don't think it is the ultimate solution. I think it is a multifaceted problem. But safety is job number one of city council and the Mayor, so that is a big step in the right direction," he said.

**RELATED: Amazon will donate \$8 million to housing, homeless nonprofits in HQ regions**

They are steps building on the RV Remediation Program established last year. During the pilot program, 173 vehicles were towed because they were inoperable, unsafe, or posed a threat to public health. But 60 of the 173 vehicles that were removed were re-sold, according to the city.

Seattle has long struggled with derelict RVs.

During the Ed Murray administration, three safe lots were proposed. After determining the costs of one, the city halted the program, instead creating "safe zones."

A new parking lot pilot program in South Seattle drew a crowd of concerned residents.

A one-night count of Seattle and King County's homeless in January found 11,199 people living on the streets and in shelters, which is an 8% percent drop from last year. Of those 11,199 people, 2,147 people were living in vehicles, which is a 36% drop from 2018.

**RELATED: Mayor Durkan to increase Seattle homeless camp removal, Navigation Team staffing**

**Seattle City Council moves to crackdown on RVs, those who rent them out**

The legislation would require people who own the RVs to also live in them. It also has language aimed at helping tenants find new, safer housing.



Author: Chris Daniels (KING 5)

Published: 3:28 PM PDT September 18, 2019

Updated: 2:51 PM PDT September 19, 2019

SEATTLE — The City of Seattle is attempting to corral the explosion of dilapidated recreational vehicles on city streets.

On Wednesday, Councilmember Sally Bagshaw submitted amended legislation to crack down on "RV Ranchers," who rent out space in the squalid conditions.

The legislation would require people who own the RVs to also live in them. It also has language aimed at helping tenants find new, safer housing.

It also defines the "extensively damaged motor vehicles" as having two or more of the following criteria: a broken window or windshield, and/or missing tires, inoperable, inadequate sanitation, infestation, garbage, leaking fluids, or poor indoor air quality.

**RELATED: Seattle City Council raises questions about mayor's plan to target 'predatory' RVs**

Victims of predatory 'RV Ranchers' will be entitled to receive relocation assistance.

The amendments come after original legislation was forwarded by Mayor Jenny Durkan's office to the council for approval.

Bagshaw acknowledged there is a proliferation of the vehicles across the city, and leaders are still trying to figure out a new approach for RV safe lots, which have been problematic or underused in the past.

Seattle reimbursed Lincoln Towing for disposal of 219 RVs between May of 2018 and July of 2019, according to Seattle Public Utilities spokesperson Sabrina Register.

Attachment F



## Environmental Damage and Homeless Camps

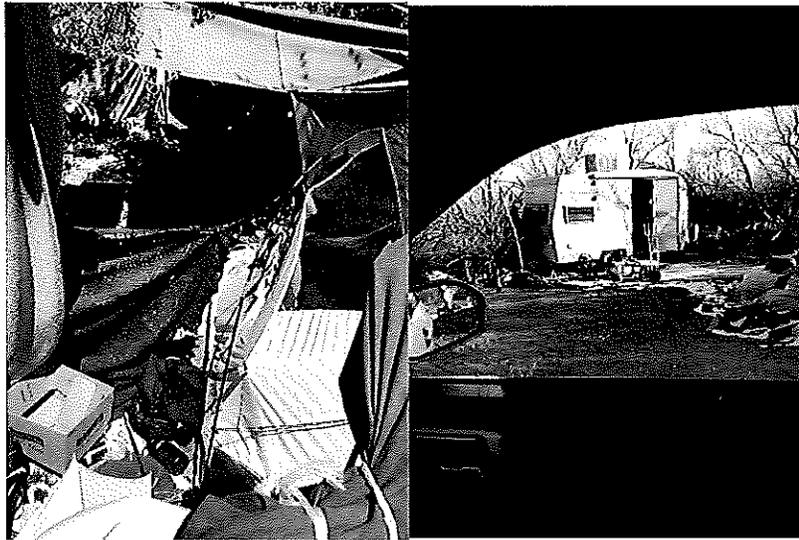
by Gordon Werner | April 2nd, 2019

### Project Description

TCA has been a leader in the effort to get Seattle elected officials to recognize and address the environmental impacts of homeless encampments in parks and green spaces. Those impacts include erosion, destruction of native vegetation, debris accumulation, water quality issues, habitat destruction, public health issues (including hypodermic needles and possibly *E. coli* fecal coliform bacterial contamination of the creek and its tributaries), and discouragement of public use of parks and green spaces. We've written several letters and emails since September 2017, and have spoken personally to one mayor and various City Council members, including on a tour of part of the Thornton Creek watershed. We recognize that everyone needs a place to live that is

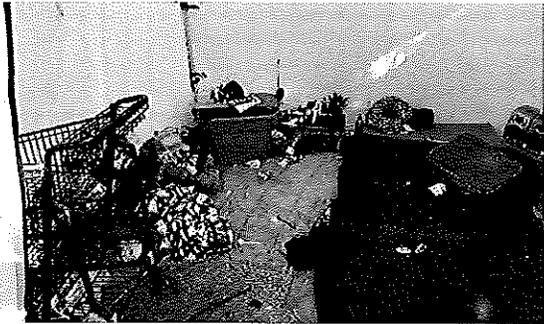
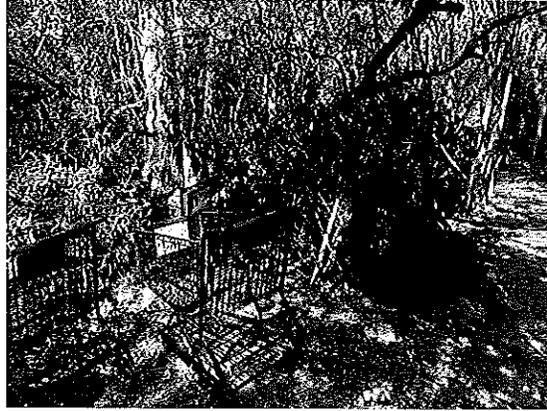
safe, clean and affordable, that homelessness and affordable housing are major issues in King County which will not be solved overnight, and that not all homeless individuals will avail themselves of shelter and other offered services. But we also desire universal recognition that sustainable living includes not just social and economic components but also an environmental one. Camping and littering in Seattle parks are prohibited under Seattle Municipal Code. We do not wish our many years of productive work to preserve and protect environmental values in the Thornton Creek watershed, in collaboration with City and County governments, to be undone by the sanction of environmentally-destructive practices. We want to see more timely response to unauthorized encampments in parks and green spaces, and will continue to work with all concerned organizations to develop constructive solutions.

Attachment G















## Attachment H

3/31/22, 2:53 PM

Denver, CO Code of Ordinances

### Sec. 38-86.2. - Unauthorized camping on public or private property prohibited.

- (a) It shall be unlawful for any person to camp upon any private property without the express written consent of the property owner or the owner's agent, and only in such locations where camping may be conducted in accordance with any other applicable city law.
- (b) It shall be unlawful for any person to camp upon any public property except in any location where camping has been expressly allowed by the officer or agency having the control, management and supervision of the public property in question.
- (c) No law enforcement officer shall issue a citation, make an arrest or otherwise enforce this section against any person unless:
  - (1) The officer orally requests or orders the person to refrain from the alleged violation of this section and, if the person fails to comply after receiving the oral request or order, the officer tenders a written request or order to the person warning that if the person fails to comply the person may be cited or arrested for a violation of this section; and
  - (2) The officer attempts to ascertain whether the person is in need of medical or human services assistance, including, but not limited, to mental health treatment, drug or alcohol rehabilitation, or homeless services assistance. If the officer determines that the person may be in need of medical or human services assistance, the officer shall make reasonable efforts to contact and obtain the assistance of a designated human service outreach worker, who in turn shall assess the needs of the person and, if warranted, direct the person to an appropriate provider of medical or human services assistance in lieu of the person being cited or arrested for a violation of this section. If the officer is unable to obtain the assistance of a human services outreach worker, if the human services outreach worker determines that the person is not in need of medical or human services assistance, or if the person refuses to cooperate with the direction of the human services outreach worker, the officer may proceed to cite or arrest the person for a violation of this section so long as the warnings required by paragraph (1) of this subsection have been previously given.
- (d) For purposes of this section:
  - (1) "Camp" means to reside or dwell temporarily in a place, with shelter. The term "shelter" includes, without limitation, any tent, tarpaulin, lean-to, sleeping bag, bedroll, blankets, or any form of cover or protection from the elements other than clothing. The term "reside or dwell" includes, without limitation, conducting such activities as eating, sleeping, or the storage of personal possessions.
  - (2) "Designated human service outreach worker" shall mean any person designated in writing by the manager of the Denver Department of Human Services or the department of housing stability to assist law enforcement officers as provided in subsection (c), regardless of whether the person is an employee of the department of human services.
  - (3) "Public property" means, by way of illustration, any street, alley, sidewalk, pedestrian or transit mall, bike path, greenway, or any other structure or area encompassed within the public right-of-way; any park, parkway, mountain park, or other recreation facility; or any other grounds, buildings, or other facilities owned or leased by the city or by any other public owner, regardless of whether such public property is vacant or occupied and actively used for any public purpose.

(Ord. No. 255-12, § 1, 5-14-12; Ord. No. 47-20, § 59, 3-16-20)

Attachment I

DISTRICT COURT, CITY AND COUNTY OF DENVER, STATE OF COLORADO 520 West Colfax, Room 135 Denver, Colorado 80204	DATE FILED: September 3, 2020 4:28 PM CASE NUMBER: 2019CV34925
THE CITY AND COUNTY OF DENVER, Plaintiff-Appellant,  v.  JERRY RODRICK BURTON, Defendant-Appellee.	▲ COURT USE ONLY ▲
	Case No.: 19CV34925  Courtroom: 4G
<b>ORDER ON APPEAL</b>	

THIS MATTER comes before the Court on Plaintiff-Appellant City and County of Denver’s (“City”) appeal from a ruling of the County Court that the City’s “camping ban” ordinance, D.R.M.C. § 38-86.2(b) (the “Ordinance”) is unconstitutional. The appeal has been fully briefed. Having reviewed the parties’ briefs, applicable case law, and the record below, the Court now finds and orders as follows.

**I. THE CASE BELOW**

Defendant was cited for violation of the Ordinance on April 29, 2019. Defendant pleaded not guilty and filed a motion to dismiss the citation. Defendant argued that the Ordinance violated the Eighth and Fourteenth Amendments of the United States Constitution and Article II, Section 20 of the Colorado Constitution both facially and as applied. (Court File “CF” p. 42.) The trial court held an extensive hearing on the motion to dismiss which spanned four days and included multiple witnesses and exhibits.

Following the hearing, the trial court issued its Order Concerning Motion to Dismiss. (CF pp. 1206-1216.) In its order, the trial court made the following findings of fact:

- Defendant was homeless when he was camping on public property. (CF pp. 1206-07.)
- Defendant was contacted by police and given the option of going to a homeless shelter. (CF. p. 1207.)

- Defendant received and offer of shelter, which he refused, and was subsequently cited for violation of the Ordinance. (Id.; CF p. 1211.)
- Defendant voluntarily took down his camp was therefore was not arrested. (CF. p. 1207.)
- Defendant, a homeless person, was not part of a suspect class because the Denver homeless population does not lack effective representation in the political process. (CF. p. 1210.)
- The City, in enforcing the Ordinance, was not motivated by a discriminatory purpose nor a desire to harm a “politically unpopular group” and thus there was no “animus” on the part of the City. (CF. p. 1211.)
- The City “has not had a custom, practice and policy of arresting, harassing and otherwise interfering with homeless people for engaging in basic activities of daily life.” (CF. p. 1212.)
- Defendant “was not arrested and was allowed to load his possessions on a flat bed [sic.] truck.” (Id.) The trial court thus concluded that Defendant was not placed in a position of danger as a result of the Ordinance’s enforcement. (Id.)
- There was insufficient evidence presented at the hearing to conclude that the Ordinance facially violated the Fourteenth Amendment’s right to bodily integrity. (Id.)
- There has been no shortage of homeless shelters in Denver since January 1, 2018, and the shelters operate at well below capacity on a nightly basis. (CF. p. 1214.)

Each of these findings has ample support in the record. Despite these findings, the trial court concluded that the Ordinance was facially unconstitutional under the Eighth Amendment of the U.S. Constitution based almost entirely on the reasoning in *Martin v. City of Boise*, 920 F.3d 584 (9th Cir. 2019). The trial court dismissed the case. The City now appeals that ruling.

## II. STANDARD OF REVIEW

Appeals from final judgment and decrees of the county courts are heard by the district court based on the record made in the county court. C.R.S. § 13-6-310(1). In acting as an appellate court, the function of a district court is the same whether the case originates in a municipal court of record or county court, namely, to either review the decision on the record,

remand the case for a new trial with instructions, or direct that a trial *de novo* be had before the district court. *People v. Anderson*, 392 P.2d 844, 845 (Colo. 1972).

The district court, when it elects to act in its appellate authority, cannot alter or depart from the county court's findings of fact in any way. *Bovard v. People*, 99 P.3d 585, 589 (Colo. 2004). Further, if a district court reviews the case based on the county court record, its review is limited to the sufficiency of the evidence. *Water, Waste & Land, Inc. v. Lanham*, 955 P.2d 997, 1002 (Colo. 1998). Consideration of the evidence presented to the lower court must be viewed in the light most favorable to that court's judgment. *Schempp v. Lucre Management Group, LLC.*, 75 P.3d 1157, 1161 (Colo. App. 2003). The interpretation of a statute is a question of law, and the appellate court is not bound by the trial court's interpretation. *Pac. Life & Annuity Co. v. Colo. Div. Of Ins.*, 140 P.3d 181, 183 (Colo. App. 2006).

### III. THE LEGAL FRAMEWORK

Defendant argues that the Ordinance is facially unconstitutional because it is overbroad and a violation of the Eighth Amendment's prohibition against cruel and unusual punishment. In short, Defendant argues that the Ordinance is directed at the homeless and designed essentially to eradicate them from the streets of Denver. Defendant further argues that the Ordinance is unconstitutional as applied to his specific circumstance (and the circumstances of other homeless individuals).

#### A. Facial Challenge

"A facial challenge to a legislative [act] is, of course, the most difficult challenge to mount successfully, since the challenger must establish that no set of circumstances exists under which the [act] would be valid." *United States v. Salerno*, 481 U.S. 739, 745 (1987). Under a facial challenge, a plaintiff must show, beyond a reasonable doubt, that a statute is unconstitutional in all its applications. *People v. Bondurant*, 296 P.3d 200 (Colo. App. 2012) citing *People v. Shell*, 148 P.3d 162, 172 (Colo.2006). If a statute is susceptible to alternate constructions, one of which is constitutional and the other of which is not, then the court is obligated to adopt the constitutional construction. *People v. Iannicelli*, 449 P.3d 387 (Colo 2019). Thus, if the Ordinance can be applied in a neutral manner in at least some circumstances, it is facially constitutional.

#### B. As Applied Challenge

In contrast to a facial challenge, "an as-applied challenge alleges that the statute is unconstitutional as to the specific circumstances under which a defendant acted." *People v. Ford*, 232 P.3d 260, 263 (Colo. App. 2009) citing *Sanger v. Dennis*, 148 P.3d 404, 410-11 (Colo. App. 2006). Here, the pertinent examination is how the Ordinance was enforced against Defendant. There is considerable scholarly debate as to whether there is a meaningful distinction between a facial and an as-applied challenge, and the two tests seem to blur the more one thinks about

them. *See e.g.*, Michael C. Dorf, *Facial Challenges to State and Federal Statutes*, 46 Stan L. Rev. 236 (1994). As will be seen, the trial court below seems to have conflated the two tests in reaching his decision that the Ordinance was facially unconstitutional.

#### IV. ANALYSIS

##### A. The Ordinance is Facially Constitutional

###### The Eighth Amendment

circumscribes the criminal process in three ways: First, it limits the kinds of punishment that can be imposed on those convicted of crimes; second, it proscribes punishment grossly disproportionate to the severity of the crime; and third, it imposes substantive limits on what can be made criminal and punished as such, *e. g.*, *Robinson v. California*, [370 U.S. 660 (1962).] We have recognized the last limitation as one to be applied sparingly.

*Ingraham v. Wright*, 430 U.S. 651, 667 (1977) (some internal citations omitted). Defendant argues that it is this third prohibition, the limitation on what can be criminalized, that applies here. Defendant maintains that the Ordinance unconstitutionally punishes his status as a homeless individual.

The Court is not persuaded for two reasons. First, the Ordinance is silent as to status. The Ordinance facially applies to anyone, homeless or not, who might decide to camp on public property within the City and County of Denver. Even if the Ordinance was passed expressly to drive homeless individuals away from the city, this does not matter for the purposes of analyzing its facial constitutionality. The trial court found that the Ordinance was facially neutral, and this Court agrees.

Second, the Ordinance does not criminalize status. It criminalizes an activity. That the activity is often engaged in by homeless individuals is beside the point. This is in contrast to the law at issue in *Robinson*, which outlawed drug addiction (as opposed to drug use). *Robinson v. California*, 370 U.S. 660, 666 (1962) (observing the law “is not one which punishes a person for the use of narcotics, . . . or for antisocial or disorderly behavior,” but rather one that punishes “status”). The Ordinance, on its face, is not directed to “homelessness.” Rather, it prohibits an activity often associated with homelessness, just like a law prohibiting drug possession prohibits an act often associated with addiction.

*Martin v. City of Boise*, 920 F.3d 584 (9th Cir. 2019) does not compel a contrary result. To the extent *Martin* analyzed the facial unconstitutionality of the ordinance at issue there (which is unclear), the holding was limited to those situations where there was no available shelter for the cited individuals. As discussed above, Defendant was offered shelter and refused it.

## B. The Ordinance is Constitutional as Applied to Defendant

In determining whether the Ordinance was unconstitutionally applied to Defendant, it is helpful to revisit the trial court's findings. (Citations for the following findings appear above and will not be repeated here.) Defendant was homeless when he was camping on public property. He was contacted by police and given the option of going to a homeless shelter. It was only after he refused shelter that he received a citation for violation of the Ordinance. In its enforcement of the Ordinance, the City was not motivated by a discriminatory purpose nor a desire to harm a "politically unpopular group," and thus there was no "animus" on the part of the City. The City does not have a custom and practice of arresting, harassing and otherwise interfering with homeless people for engaging in basic activities of daily life.

"A plaintiff bringing an 'as-applied' challenge contends that the statute would be unconstitutional under the circumstances in which the plaintiff has acted or proposes to act." *Sanger v. Dennis*, 148 P.3d 404, 410 (Colo. App. 2006). The circumstances under which Defendant was cited do not raise any constitutional infirmities based on the factual findings of the trial court, which enjoy ample record support. The record reflects that Defendant was not targeted based on his homeless status, and he was offered shelter which he refused. Only then was he cited.

*Martin v. City of Boise*, supra, actually is consistent with this result. *Martin* repeatedly emphasizes that its holding is limited to those situations where no alternative shelter is available.

We hold only that so long as there is a greater number of homeless individuals in a jurisdiction than the number of available beds in shelters, the jurisdiction cannot prosecute homeless individuals for "involuntarily sitting, lying, and sleeping in public. That is, as long as there is no option of sleeping indoors, the government cannot criminalize indigent, homeless people for sleeping outdoors, on public property, on the false premise they had a choice in the matter.

*Martin*, 920 F.3d at 671 (internal quote marks, brackets and citations omitted). In the instant case, to repeat, Defendant was offered shelter, which was available to him, and he refused it. Even if *Martin* is good law, its holding simply does not apply here.

## V. CONCLUSION

Defendant invites the Court to review the record below and find the Ordinance unconstitutional on numerous other grounds. The Court declines this invitation and limits its holding to the reasoning and grounds articulated by the trial court.



The trial court's order dismissing the case is REVERSED. This matter is REMANDED for trial on the merits.

ENTERED this 3d day of September, 2020.

BY THE COURT:

A handwritten signature in black ink, appearing to read "J. Eric Elliff". The signature is written in a cursive style with a large initial "J" and a long horizontal stroke.

J. Eric Elliff  
District Court Judge

The Grand Junction Police Department is tasked daily with addressing people experiencing homelessness when they receive calls concerning illegally camping (or trespass when on private property). In many of these instances officers respond, evaluate the situation and ask those illegally camping to leave and they gain compliance, but they very frequently, leave behind trash, accumulated property, clothing, and even human waste. These issues then become long term problems that can spread disease and even affect the environment through contamination of soils and the watershed. It also creates costs in the cleanup of the discarded waste. In the prior two years, 2020-2021, the Grand Junction Police Department incurred over \$60,000 in cleanup costs related to illegal campsites on public lands.

The effects of from illegal camping clearly impact public and private property, but while illegally camping on private property is usually a criminal trespass, it is not on public lands unless that land has established rules governing when they can be legally accessed. As a result, individuals camping in public alleys, roads, on sidewalks and on easements and rights of way can't be removed without the Grand Junction prohibition against camping without other laws being violated which would allow for the removal of those campers, such as creating a traffic hazard.

Since having the camping ban, the intent of the Grand Junction Police Department wasn't to write every violator, it was to utilize the ordinance in a prudent and judicious manner that would only result in citations for those who ignored police requests to leave the restricted areas. As a result, violations for the camping ban ordinance was only written to 14 individuals in 11 instances according the GJPD Records. Without this ordinance however, the police department would not have had any tool to address illegal camping in public areas beyond compliance with requests to leave. In a great many other situations where people are illegally camping, they are doing so on private property and thus, trespassing, which is a separate criminal violation that is not available in public areas such as rights of way, easements, and other public lands.

A new phenomenon in which the camping ban ordinance is essential is illegal RV camping. There is a growing problem of this and to address it, the camping ban is essential as these RV's are often in public areas, i.e. easements, rights of way and city streets. In these situations the camping ordinance is the only enforcement tool to address those who refuse to voluntarily vacate.

The ability to enforce the camping ban has been an integral piece in protecting public lands and the general public in Grand Junction from the negative consequences of illegal camps. Enforcement action only occurring when available shelter space is ignored, requests are ignored and the person(s) refuses other assistance in getting permeant housing, which is available from many organizations in the Grand Valley.

In 2020, Denver's ordinance against camping was upheld as legal and Constitutional in Denver District Court (*City and County of Denver v. Burton*, 19CV34925), a decision that the Colorado Supreme Court refused to hear on certiorari. Grand Junction's ordinance is in concert with that of Denver's.



**ORDINANCE NO. \_\_\_\_\_**

**AN ORDINANCE TO AMEND AND REENACT ORDINANCE 4833 REGARDING CAMPING ON PUBLIC PROPERTY/PUBLIC PLACES WITH THE ELIMINATION AND SATISFACTION OF THE SUNSET CLAUSE**

**RECITALS:**

On April 17, 2019, the City Council enacted Ordinance 4833. With Ordinance 4833 Chapters 12.04, 12.08, and 21.06 of the Grand Junction Municipal Code (“GJMC”) were amended to enact as law the provisions of Ordinance 4883 which when applied would assist in maintaining the City in a clean, sanitary and accessible condition while adequately protecting the health, safety and public welfare of the community, and preserving, protecting and enhancing the natural resource of the Colorado and Gunnison Rivers (“Riverfront”) for many recreational and other proper uses by addressing camping on public property/public places. Ordinance 4833, and the codification thereof in the GJMC, prohibits the use of public property/public places for the purpose of maintaining a temporary place to live as the use of public areas, parks, streets, and the Riverfront for camping purposes interferes with the rights of others to use those areas for the purposes for which they were intended.

As adopted, Ordinance 4833 included a Sunset Clause by which the City Council was to consider the effectiveness of the Ordinance at achieving its stated purposes. That review is to occur within sixty days of the third anniversary of the adoption of the Ordinance and if no further action is taken by City Council the Ordinance terms will expire.

Pursuant to Ordinance 4833 the Grand Junction Police Department has provided the City Council a report and based on that report, City Staff recommends amendment and reenactment of Ordinance 4833 regarding camping on public property/public places, with the specific amendment being a finding of satisfaction and the consequent elimination of the Sunset Clause.

**NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION THAT:**

Ordinance 4833 is hereby be amended and reenacted in full, with a finding of satisfaction of and the consequent elimination of the Sunset Clause in the Ordinance. All other provisions of the Ordinance and the codification thereof in the GJMC shall be unchanged.

Introduced on first reading the 4<sup>th</sup> day of May 2022 and ordered published in pamphlet form.

Adopted on second reading this \_\_\_\_\_ day of \_\_\_\_\_, 2022 and ordered published in pamphlet form.

---

C.B. McDaniel  
President of City Council

ATTEST:

---

Laura J. Bauer  
Interim City Clerk

DRAFT



## Grand Junction City Council

### Regular Session

Item #2.b.i.

---

**Meeting Date:** May 4, 2022  
**Presented By:** David Thornton, Principal Planner  
**Department:** Community Development  
**Submitted By:** David Thornton, Principal Planner

---

### **Information**

#### **SUBJECT:**

Introduction of an Ordinance for Zoning Approximately 2.37 Acres from County RSF-4 (Residential Single Family - 4 du/ac) to R-5 (Residential - 5 du/ac) for the Twenty Eighty Broadway Annexation, Located at 2080 Broadway and Setting a Public Hearing for May 18, 2022

#### **RECOMMENDATION:**

The Planning Commission heard this request at their April 26 meeting and voted (5-1) to recommend approval of the request.

#### **EXECUTIVE SUMMARY:**

The Applicant, Redlands Limited, is requesting a zone of annexation to R-5 (Residential 3 to 5.5 du/ac) for the Twenty Eighty Broadway Annexation. The approximately 2.37-acres consists of 1 parcel of land, located at 2080 Broadway. A portion of the subject property is undeveloped. The property is Annexable Development per the Persigo Agreement. The zone district of R-5 is consistent with the Residential Low (2 to 5.5 du/ac) Land Use category of the Comprehensive Plan and the City R-4 and R-5 zoning nearby. The request for annexation will be considered separately by City Council, but concurrently with the zoning amendment request.

#### **BACKGROUND OR DETAILED INFORMATION:**

##### **BACKGROUND**

##### **Annexation Request:**

The Applicant, Redlands Limited is requesting annexation of approximately 2.37 acres consisting of 1 parcel of land located at 2080 Broadway. There is no right-of-way included in the annexation. The subject property has an existing residence.

The property is Annexable Development per the Persigo Agreement. The Applicant is requesting annexation into the city limits. Annexation is being sought in anticipation of developing the northern portion of the property. The request for zoning will be considered separately by City Council, but concurrently with the annexation request and will be heard in a future Council action.

The schedule for the annexation and zoning is as follows:

- Referral of Petition (30 Day Notice), Introduction of a Proposed Ordinance, Exercising Land Use – April 6, 2022.
- Planning Commission considers Zone of Annexation – April 26, 2022.
- Introduction of a Proposed Ordinance on Zoning by City Council – May 4, 2022.
- Acceptance of Petition and Public Hearing on Annexation and Zoning by City Council – May 18, 2022.
- Effective date of Annexation and Zoning – June 19, 2022.

**Zone of Annexation Request:**

The Applicant is requesting a zone district of R-5 (Residential – 5 du/ac. The property is currently zoned in the County as RSF-4 (Residential Single Family 4 Dwellings per acre). The proposed zone district of R-5 is consistent with the Residential Low (2 to 5.5 du/ac) Land Use category of the Comprehensive Plan and city R-4 to the west and R-5 zoning to the east as well as adjacent Mesa County zoning of RSF-4 within the unincorporated area north of Broadway.

Historically, surrounding development in the County has been large lot residential with single family uses, but the area is seeing further development of properties in recent years, consisting of more dense development with lot sizes as small as 1/5 of an acre supporting R-5 densities. Zoning will be considered in a future action by City Council and requires review and recommendation by the Planning Commission.

The annexation area has sewer service and all other urban amenities to the property. It is located within Tier 2 on the Intensification and Growth Tiers Map of the Comprehensive Plan. The goal to “encourage infill and redevelopment to leverage existing infrastructure” supports the Applicant’s request of a zone of annexation of R-5.

The R-5 zoning establishes densities between 3 and 5.5 dwelling units per acre which will allow the property to also develop at densities like the other R-5 zoned properties that have been developed recently. The R-5 requested zoning implements the Comprehensive Plan’s Residential Low Land Use category.

The purpose of the R-5 (Residential – 5 du/ac) zone district is to provide for medium density detached and attached dwellings in areas where adequate public facilities and services are available. R-5 supports the Comprehensive Plan’s principles of concentrating urban growth. A mix of dwelling types is allowed in this district. This property is located within a sub-urban infill area of the community. The greater surrounding Redlands area both within the city limits and unincorporated Mesa County

are largely developed with homes on large properties that can be further developed supporting infill growth.

In addition to the R-5 zoning requested by the petitioner, the following zone districts would also be consistent with the proposed Comprehensive Plan designation of Residential Medium (5.5 to 12 du/ac).

- a. R-4 (Residential – 2-4 du/ac)
- b. CSR (Community Services and Recreation)

### **NOTIFICATION REQUIREMENTS**

A Neighborhood Meeting regarding the proposed Annexation and Zoning was held in-person on January 6, 2022, in accordance with Section 21.02.080 (e) of the Zoning and Development Code. The Applicant's representative and City staff were in attendance.

Notice was completed consistent with the provisions in Section 21.02.080 (g) of the City's Zoning and Development Code. The subject property was posted with an application sign on February 1, 2022. Mailed notice of the public hearings before Planning Commission and City Council in the form of notification cards was sent to surrounding property owners within 500 feet of the subject property on April 15, 2022. The notice of the Planning Commission public hearing was published April 19, 2022 in the Grand Junction Daily Sentinel.

### **ANALYSIS**

#### **Zone of Annexation Analysis**

The criteria for review are set forth in Section 21.02.140 (a) and includes that the City may rezone property if the proposed changes are consistent with the vision, goals and policies of the Comprehensive Plan and must meet one or more of the following rezone criteria as identified:

(1) Subsequent events have invalidated the original premises and findings; and/or The property owners have petitioned for annexation into the City limits and requested zoning of R-5 which is compatible with the Comprehensive Plan Land Use Map designation of Residential Low (2 to 5.5 du/ac). Since the Applicant's properties are currently in the County, the annexation of the property is a subsequent event that will invalidate one of these original premises, a county zoning designation. However, staff has found this to not be enough justification and finds this criterion has not been met.

(2) The character and/or condition of the area has changed such that the amendment is consistent with the Plan; and/or

The character or condition of the area is beginning to change with the further development of the area. Infill development along Peony Drive to the east has seen further subdivision of existing single family large lot residential. For example, the Peony Height Subdivision located 270 feet to the east and annexed and platted in 2013 created three lots of 0.22 and one lot of 0.21 acres, lot sizes that are found in a RSF-5



zone district. Staff finds that this criterion has been met.

(3) Public and community facilities are adequate to serve the type and scope of land use proposed; and/or

Existing public and community facilities and services are available in close proximity to and can be extended into the annexation area. These services are sufficient to serve land uses associated with the proposed R-5 zone district for this property, between 5 and 11 dwelling units at full buildout when developed. The Applicant has stated they will develop when they can connect to utilities being constructed by Monument Ridge Estates or other future development is stubbed to their property.

Water and sewer services are available to this property. This property is within the Ute Water District service area. A 12-inch water line runs along Broadway. The area can be served by Xcel Energy for electricity and natural gas.

The property is currently within the Persigo 201 Sewer Service Area. However, the property does not currently have a sewer connection. The property owner would be required to extend a sewer line and connect to the existing 8-inch sewer main that is located along Peony Drive or wait to connect to the future Monument Ridge Estates development that will stub sewer to this property. There is available capacity in the sewer collection system to accommodate future development of this property with 11 dwelling units. The maximum anticipated additional flow associated with 11 equivalent units (EQUs) is about 2800 gallons per day. The Persigo wastewater treatment plant has sufficient capacity to accommodate this development. The current capacity of the wastewater treatment plant is 12,500,000 gallons per day. The plant currently only receives approximately 8 million gallons per day. Therefore, the plant has ample capacity to accommodate this additional flow.

This property is in the Grand Junction Rural Fire Protection District and Redlands Sub-District, both served by the Grand Junction Fire Department through an intergovernmental agreement between the City and the rural fire district. With an estimated build out of 5-11 residential dwelling units, Fire Station 5 has the capacity to handle the increase in calls and meets National Fire Protection Association Standards for response time to this area.

To the east along Hwy 340 (Broadway) is Redlands Middle School and Broadway Elementary School. Walking distance to the east is the Monument Village Shopping Center with limited goods and services. Major shopping is available 3 ½ -miles away at Mesa Mall and the 24 Road area. Staff has found the public and community facilities are adequate to serve the type and scope of the residential land use proposed at the R-5 densities. Therefore, this criterion has been met.

(4) An inadequate supply of suitably designated land is available in the community, as defined by the presiding body, to accommodate the proposed land use; and/or

The subject property and surrounding area are designated on the Comprehensive Plan Land Use Map as Residential Low (2 to 5.5 du/ac). The proposed zoning designation of R-5 meets the intent of achieving the minimum and desired density for the property with

this request, to develop at the high end of the Residential low land use category. For properties already annexed into the City limits in the area, to the west are zoned R-4 and to the east zoned R-5

For unincorporated areas of the Redlands near this annexation and north of Broadway, Mesa County has zoned the majority of the area as RSF-4. Much of the surrounding area, including unincorporated Mesa County, is developed, except along the west side of this property where the proposed Monument Ridge Estates is proposed and the infill development opportunities along Peony Drive where large single family residential lots are numerous. The Land Use Map defines the immediate half mile area around the subject property north of Broadway as Residential Low and located in tier 2 of the Intensification and Growth Tiers Map and the area south of Broadway as Rural and located within Tier 3 (includes The Preserve Subdivision in unincorporated Mesa County). Staff finds that there is an adequate supply of R-4 (and County RSF-4) zoning in the area, but not enough R-5 zoning which also implements the Residential Low Land Use category. Therefore staff finds this criterion has been met.

(5) The community or area, as defined by the presiding body, will derive benefits from the proposed amendment.

Annexation and zoning of the properties will create additional land within the City limits for city growth and it helps fill in the patchwork of unincorporated and/or urban area that is adjacent to the City limits. The annexation is also consistent with the City and County 1998 Persigo Agreement. The requested zone district provides housing within a range of density that has been defined as urban densities in the 2020 One Grand Junction Comprehensive Plan and is consistent with the needs of the community. This principle is supported and encouraged by the Comprehensive Plan and furthers the plan's goal of promoting a diverse supply of housing types that meet the needs of all ages, abilities, and incomes identified in Plan Principle 5: Strong Neighborhoods and Housing Choice, Chapter 2 of the Comprehensive Plan. Therefore, Staff finds that this criterion has been met.

Section 21.02.160 (f) of the Grand Junction Zoning and Development Code provides that the zoning of an annexation area shall be consistent with the adopted Comprehensive Plan and the criteria set forth. Though the R-4 zone district as well the CSR zoning could be considered in a Residential Low Land Use area, the R-5 zone district is consistent with the recommendations of the Plan's Land Use Map, compatible with the surrounding neighborhood and provides for housing on a smaller residential lot, thereby providing more housing to the community.

### **Consistency with Comprehensive Plan**

Further, the zoning request is consistent with the following chapters, goals and principles of the Comprehensive Plan:

Chapter 2

Plan Principle 3: Responsible and Managed Growth

Goal: Support fiscally responsible growth and annexation policies that promote a

compact pattern of growth...and encourage the efficient use of land.

Goal: Encourage infill and redevelopment to leverage existing infrastructure.

#### Plan Principle 5: Strong Neighborhoods and Housing Choices

Goal: Promote more opportunities for housing choices that meet the needs of people of all ages, abilities, and incomes.

#### Chapter 3

Intensification and Tiered Growth Plan. Subject property is located within Tier 2 – In Tier 2, the City should promote the annexation of those parcels which are surrounded by, and or have direct adjacency to, the City limits of Grand Junction. Annexation and development of these parcels will provide development opportunities while minimizing the impact on infrastructure and City services.

Relationship to Existing Zoning. Requests to rezone properties should be considered based on the Implementing Zone Districts assigned to each Land Use Designation.

- Guide future zoning changes. Requests for zoning changes are required to implement the Comprehensive Plan.

#### **RECOMMENDATION AND FINDINGS OF FACT**

After reviewing the Twenty Eighty Broadway Zone of Annexation, ANX-2022-60 request for the property located at 2080 Broadway from County RSF-4 (Residential Single Family 4 Dwellings per acre) to R-5 (Residential – 5 du/ac), the following findings of facts have been made:

1. The request conforms with Section 21.02.140 of the Zoning and Development Code.
2. The request is consistent with the vision (intent), goals and policies of the Comprehensive Plan.

Therefore, Planning Commission recommended approval of the request.

#### **FISCAL IMPACT:**

This land use action does not have any direct fiscal impact. Subsequent actions such as future development and related construction may have direct fiscal impact depending on the type of use.

#### **SUGGESTED MOTION:**

I move to introduce an ordinance zoning the Twenty Eighty Broadway Annexation located at 2080 Broadway, Grand Junction, Colorado to R-5 (Residential 5 du/ac) zone district set a public hearing for May 18, 2022.

#### **Attachments**

1. Development Application
2. Annexation Schedule - Table - Twenty Eighty Broadway Annexation

3. 2080 Broadway Annexation Plat
4. Maps and Site Photo
5. ORD-Zoning 2080 Broadway 042522

## Development Application

We, the undersigned, being the owner's of the property adjacent to or situated in the City of Grand Junction, Mesa County, State of Colorado, as described herein do petition this:

Petition For:

Please fill in blanks below only for Zone of Annexation, Rezones, and Comprehensive Plan Amendments:

Existing Land Use Designation <input type="text" value="Residential Low"/>	Existing Zoning <input type="text" value="RSF-4"/>
Proposed Land Use Designation <input type="text" value="Residential"/>	Proposed Zoning <input type="text" value="R5"/>

Property Information

Site Location: <input type="text" value="2008 Broadway G.J., CO. 81507"/>	Site Acreage: <input type="text" value="2.36"/>
Site Tax No(s): <input type="text" value="2947-154-00-016"/>	Site Zoning: <input type="text" value="RSF-4"/>
Project Description: <input type="text" value="Annex this parcel into the City for possible future development of residential units"/>	

Property Owner Information

Name:

Street Address:

City/State/Zip:

Business Phone #:

E-Mail:

Fax #:

Contact Person:

Contact Phone #:

Applicant Information

Name:

Street Address:

City/State/Zip:

Business Phone #:

E-Mail:

Fax #:

Contact Person:

Contact Phone #:

Representative Information

Name:

Street Address:

City/State/Zip:

Business Phone #:

E-Mail:

Fax #:

Contact Person:

Contact Phone #:

**NOTE: Legal property owner is owner of record on date of submittal.**

We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal. that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application, and the review comments. We recognize that we or our representative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item may be dropped from the agenda and an additional fee may be charged to cover rescheduling expenses before it can again be placed on the agenda.

Signature of Person Completing the Application

Signature of Legal Property Owner

Date

Date

# Project Report

## Redlands Limited Annexation and Zoning

January 21, 2022

Prepared for:

Michael and Tammy Brislin

2080 Broadway

Grand Junction, CO 81507

For proposed

**Annexation and Zoning**



Prepared by Jeffery Fleming ~ Colorado Land Advisor

Redlands Limited Annexation and Zoning

# Project Report

This report is the property of  
Redlands Limited, a Colorado limited liability company, it's  
successors and assigns.

2021 Redlands Limited

Prepared by:

Jeffery Fleming, CNUa  
Colorado Land Advisor, Ltd.  
300 Main Street Suite 302  
Grand Junction, CO. 81501  
970.812.3288  
LandAdvisor@ColoradoLandAdvisor.com

As a professional urban planner much experience and research has gone into compiling information for this report. Information was collected from various sources and every attempt has been made to acknowledge the contributing sources. Any errors of omission are unintentional and should be brought to the attention of the author as soon as possible.

# Table of Contents

<b>Introduction and Summary</b>	<b>4</b>
<b>Site Analysis</b>	<b>5</b>
<b>Existing Land Use and Future Land Use</b>	<b>7</b>
<b>R5 Zoning</b>	<b>8</b>
<b>Surrounding Land Use</b>	<b>9</b>
<b>Annexed City Limits Map</b>	<b>10</b>
<b>Population and Density</b>	<b>11</b>
<b>Transportation and Emergency Services</b>	<b>12</b>
<b>Area Schools</b>	<b>13</b>
<b>Utility Services</b>	<b>14</b>
<b>Development Evaluation</b>	<b>15</b>
<b>Annexation and Zoning Criteria</b>	<b>16</b>



# Introduction and Summary

This General Project Report, documents, and accompanying drawings, is intended to provide an overview of the property and proposed development utilizing the Grand Junction's Planning process. The process is intended to gather initial input from review agencies prior to Annexation and Zoning.

The site selected for Redlands Limited consists of a single parcel of land that is 2.36 acres. The site is located at 2080 Broadway in Mesa County, Colorado. The parcel of land currently has a house, garage, and quonsut hut on it. The Mesa County Assessor has given the property the following parcel number: 2947-154-00-016.

This request is for the Annexation and Zoning of the lot. The existing house and structures would remain with possible development in the future of residential units.

The Redlands Limited property is currently a single family home with outbuildings. The North end of the property has been used for agricultural purposes, primarily for livestock.

This request is for annexation into the City of Grand Junction coupled with a zoning designation. This request is for a zoning designation of R-5. Future development would likely be in the 4+ DU/AC. Access to the lot would remain where it is until that future date when another application for development is approved.

No construction is being proposed with this application. Any construction would be proposed in a future development application. All utilities: water, gas, sewer, electric, etc. are adjacent, or on-site.

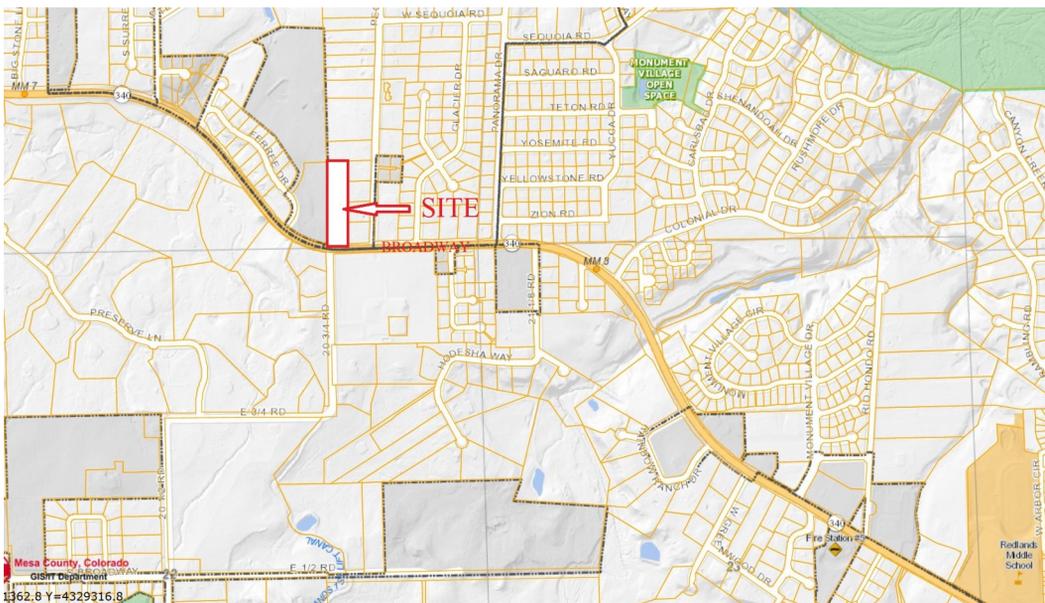
There are no known site conditions which would be impacted by this request. The site has no wetlands, no surface waters, no unusual topography as it has gentle slopes to the north. It is within the Persigo Agreement Boundary.

# Site Analysis

The purpose of this section is to identify the physical and technical characteristics of the property selected for the Redlands Limited Annexation and Zoning in relationship to the surrounding area. This section also evaluates the site assets and constraints.

The site under consideration is one parcel of land that is rectangular in shape. The parcel is partially developed land. Ground cover ranges between non-existent on the formerly cultivated areas, to native landscaping typically found in a high desert setting. Around the existing house the land is fully landscaped.

The site consists of one parcel of land that totals 2.63 acres. Located in Mesa County, Colorado. The longitude and latitude of the approximate center of the property is: Latitude = 39.0933158 Longitude = -108.6636227.



**Location Map**

# Site Analysis

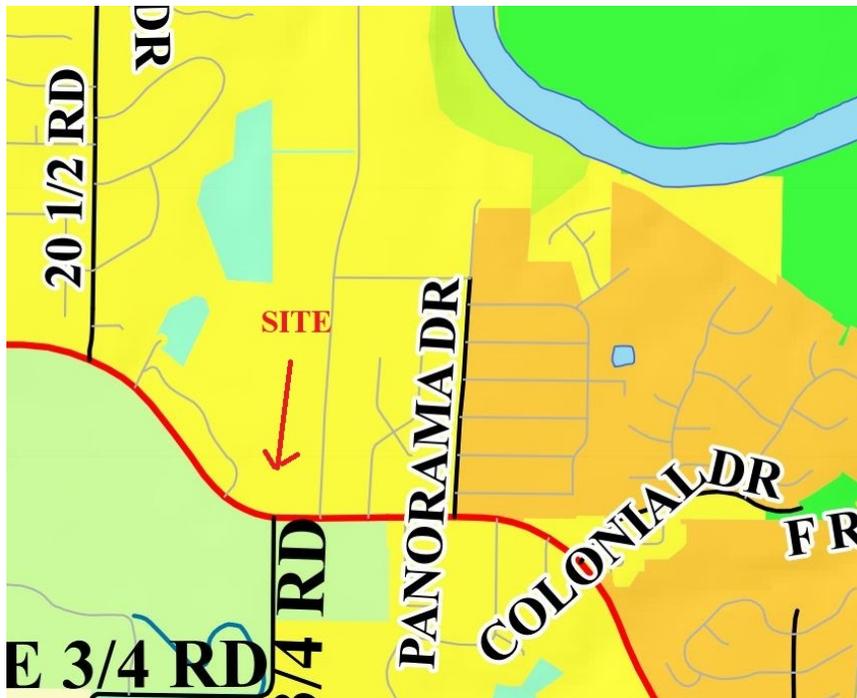
The subject property is within the Persigo Agreement Boundary, sometimes referred to as the 201 Boundary, a reference to the Colorado State Statute which governs such acts. The Future Land Use Map shows this area of the Redlands as being within the 201 and as such must be annexed and developed at urban type densities. The Redlands Limited Annexation and Zoning request will meet the criteria as set forth in the Zoning and Development Code. This Report details the character of the site and how it is suited to meet that criteria.

Recent growth within the Grand Valley has created a great deal of demand for developable lots within the city. Inventory continues to shrink and prices continue to rise as a result of this demand. Many people moving into the Valley are seeking to live in the Redlands area. This parcel is well suited for future development. Adjacent parcels have been, or are in the process of being developed. The proposed density would be compatible with those past and current developments' density.

# Existing Land Use & Future Land Use Zoning

The topography of the site consists of low slopes of about 1%. An elevation distance of 4,661 feet is the lowest point (North) and to 4,668 exists as the highest point (Southwest).

This request is to have the parcel zoned to R-5. The Primary Uses of the R-5 zone are likely to fit any future development proposal. On the Future Land Use Map the area parcels are designated as Residential Medium Low and Residential Medium to the East. Adjacent parcels are zoned R-4. A reproduction of part of the City's Future Land Use Map follows:



Future Land Use Map

# R-5 Zoning

This request is for the parcel to be zoned to an R5 zoning designation. The standards for this zone are:

Primary Uses of R-5 - Detached Single-Family, Two-Family Dwelling, Multifamily, Civic

Maximum Density 5.5 units/acre, Minimum Density 3 units/acre, Cluster Allowed

For the purpose of calculating density on parcels smaller than five acres, one-half of the land area of all adjoining rights-of-way may be included in the gross lot area.

## DENSITY AND DIMENSIONAL STANDARDS FOR : R-5 ZONE

DENSITY (units/ac.)	MIN. LOT SIZE	MIN. STREET FRONTAGE	MINIMUM SETBACKS			MAX. HEIGHT
			Street	Side	Rear	
Max. 5.5	Area: 4,000 ft (Single-Family)	20 feet	Street	Side	Rear	40 Feet
Min. 3	Width: 40 ft (Single-Family) 60 ft (Two-Family)		20/25ft.	5/3ft	15ft	

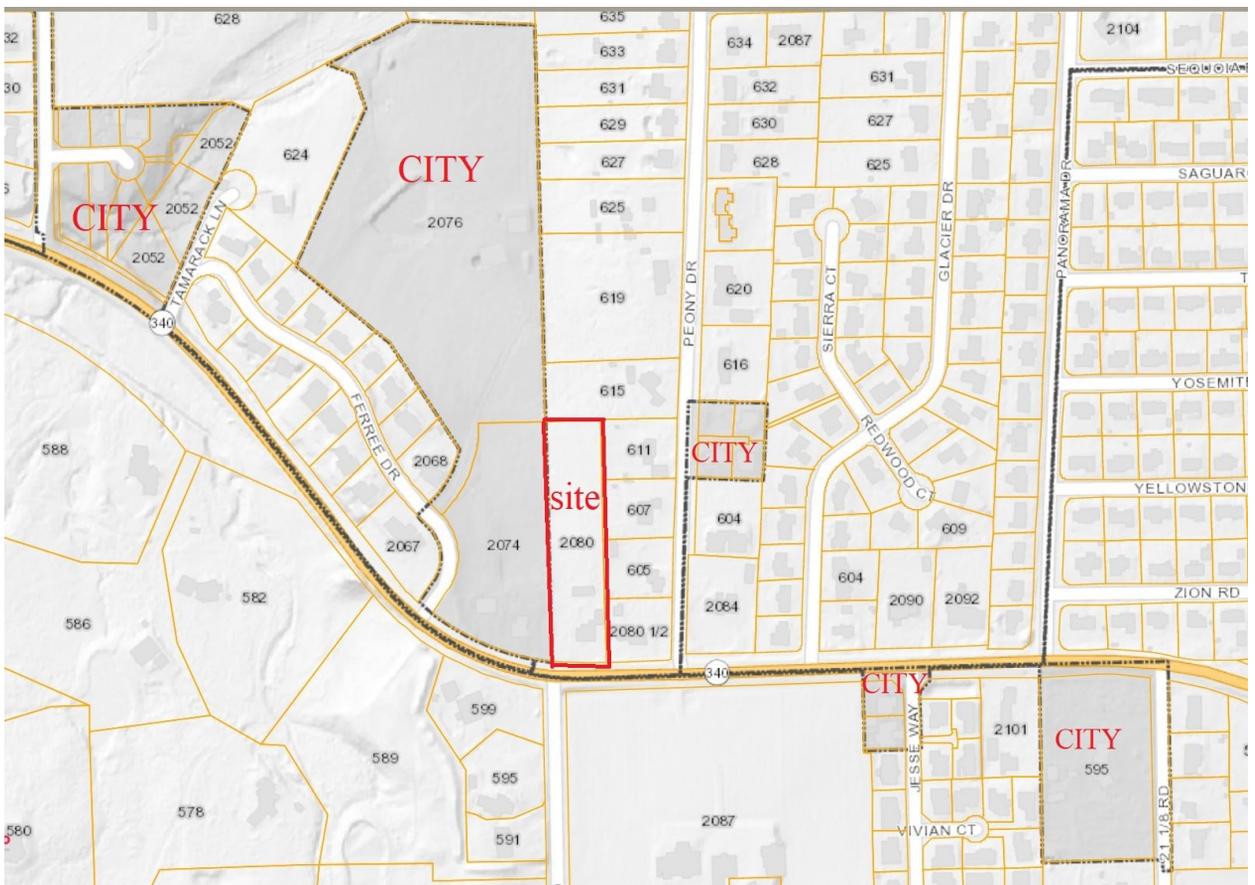
# Surrounding Land Use

The surrounding land uses in the vicinity of the subject property are considered to be “low to moderate” intensity. Surrounding Land Uses in the immediate vicinity of the subject property are depicted on the accompanying Surrounding Land Use Map that shows the configuration of the various properties in relationship to the subject site. The following chart describes the various land uses that adjoin the property:

<b>NORTHWEST</b>	<b>NORTH</b>	<b>NORHTEAST</b>
<b>Single Family Dwellings on Parcels &amp; Vacant</b>	<b>Single Family Dwellings on Parcels</b>	<b>Single Family Dwellings on Parcels</b>
<b>WEST</b>	<b>SITE</b>	<b>EAST</b>
<b>Single Family Dwellings on Large Parcels</b>		<b>Single Family Dwellings &amp; Duplex’s on Parcels</b>
<b>SOUTHWEST</b>	<b>SOUTH</b>	<b>SOUTHEAST</b>
<b>Single Family Dwellings on Rural and Estate Parcels</b>	<b>Two-Family Dwelling Single Family Dwelling on Parcels and Winery</b>	<b>Single Family Dwellings on Parcels</b>

# City Limits

The attached map shows the site in relationship with other properties which were previously annexed into the City of Grand Junction. These were largely driven by the Persigo Agreement.



# Population & Demogrphics

According to the Grand Junction Economic Partnership, the Grand Junction Area population is nearly 155,000. The following graphs depict Age distribution and household size within the valley. The Valley appears to be getting younger in smaller households.

**GRAND JUNCTION** economic PARTNERSHIP

[Move Here](#) [Grow Here](#) [Live Here](#) [About GJEP](#)

## People

The total population of Mesa County is 154,350. The median age is 38.96

154,350

Total Population

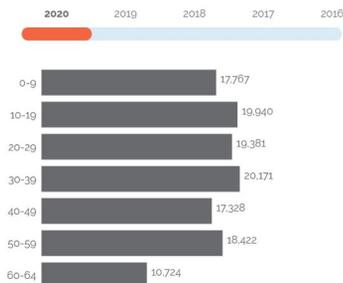


49.42%  
Male



50.58%  
Female

### Age Distribution

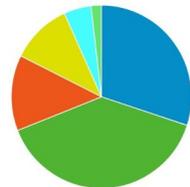


**GRAND JUNCTION** economic PARTNERSHIP

[Move Here](#) [Grow Here](#) [Live Here](#) [About GJEP](#)

## Size of Household

- 1 Person
- 2 Person
- 3 Person
- 4 Person
- 5 Person
- 6+ Person



	Total	%	Map
<b>Default</b>			
1 Person	19,247	29.70	<a href="#">map</a>
2 Person	24,979	38.55	<a href="#">map</a>
3 Person	8,552	13.20	<a href="#">map</a>
4 Person	6,982	10.77	<a href="#">map</a>
5 Person	3,127	4.83	<a href="#">map</a>
6+ Person	1,189	1.83	<a href="#">map</a>



# Transportation and Emergency Services

Developing the site is supported by existing transportation systems as well as emergency services. Access to the site is gained from Broadway, which connects to other major Redlands thoroughfares such as Redlands Parkway. Broadway is maintained by the state of Colorado. The roadway has curb, gutter, and sidewalk fronting the parcel. It is fully landscaped running along the side of the street. It is well maintained and is in good condition.

The property is located in : Fire Area “F” as established by the City of Grand Junction Fire Department. Firefighters can respond to emergencies from Fire Station No. 5 located at 2155 Broadway, which is one mile away from the project site.

The Grand Junction Fire Department currently employs approximately 100 full time employees and is one of the largest paid fire departments between Denver and Salt Lake City; the Grand Junction Fire Department has made numerous upgrades to its service including a new 911 Call Center.



## Station 5- 2155 Broadway

Established: 2004

Specialty: Confined Space/River Rescue

### Staffing:

- 1 Engine
- 1 Boat (cross staffed with Engine)
- 1 Water Tender (cross staffed with Engine)
- 1 Light Brush Engine(cross staffed with Engine)
- 1 Confined Space Trailer(cross staffed with Engine)

Other emergency services are available from the City of Grand Junction Police Department; the Uniform Patrol section was comprised of sworn officers, non-sworn police service technicians, sergeants and lieutenants. Collateral duties such as the Canine Program, SWAT, the Bike Office Program, and Forensic Investigations fall under the Uniform Patrol section. In all the Grand Junction Police Department has approximately 200 full time law enforcement employees.

# Area Schools

School District 51 recently redrew the lines for many schools in order to better balance the growth of students within their system. Schools designated to and around the project site are as follows:

Broadway Elementary School, which is located at 2248 Broadway.

Redlands Middle School, which is located at 2200 Broadway.

Grand Junction High School, which is located at 5<sup>th</sup> Street and Tiger Way

Colorado Mesa University, which is located at 1100 North Ave.

All the above-mentioned schools are in Grand Junction, CO.

## Broadway Elementary School



## Redlands Middle School



## Grand Junction High School



## Colorado Mesa University



# Utility Services

With growth, demands on utilities increases. The Redlands Limited site utilities are:

**DOMESTIC WATER** – The site is served by a publicly owned domestic water distribution system. Any future development would extend these services into each new dwelling from the water main owned and operated by Ute Water Conservation District. Fire protection would be addressed upon development of the site.

**SANITARY SEWER** – Redlands Limited is located within the 201/Persigo Boundary. Therefore, any new sewage connections would be made to that system via individual 4" lines.

**NATURAL GAS** – XCEL Energy has a main gas line in Broadway which would be used to provide any additional services needed.

**DRY UTILITIES** – Electric and communication lines are available along the front (South) of the property and will be extended into any future development. New lines would be underground on-site.

**CELLULAR TELEPHONE SERVICE** - All major cellular telephone companies provide coverage to the area. Phone reception for each of the carriers is available with signals ranging from good (AT&T) to very good (Verizon, Sprint and T-mobile).

**IRRIGATION WATER** – The existing irrigation water facilities currently servicing the property will continue to be utilized for the Redlands Limited property.

**DRAINAGE** – Historic drainage patterns have been addressed by the project engineer and will continue to discharge north into a future stormwater pond.

# Development Evaluation

**GENERAL** - The development of the subject property is a response to the existing, and future housing demands of the Grand Junction area as projected in the Redlands Area Plan as well as the 2020 Comprehensive Plan. The site is within the Persigo Agreement Boundary which requires annexation and connection to sanitary sewer.

This area of the Redlands is sought after for its location. It is less than 10 minutes from shopping at the Mesa Mall. Likewise it is 10 minutes to the downtown core. The site has nice views and is well suited for future development.

Any activity similar to the proposed development, no matter where it is located, will most likely create some impact to the surrounding community economically, socially and physically. The nature of the proposal and how it is handled and controlled can determine whether the impacts are positive or negative. By a logical evaluation of all aspects of the existing and proposed development, steps can be taken which insure that the ultimate affects by the proposal are beneficial to the community.

Evaluation of the request is accomplished by using criteria contained within the Zoning and Development Code for approval of Annexations and Zoning Criteria. The 2020 Comprehensive Plan Goals were also considered before making this Application. It is anticipated that the parcel and any future development will fit well within those goals.

The following response to each of the applicable criteria illustrates compliance:

# Responses to Criteria

## 21.02.160 Annexation.

- (a) **Purpose.** In accordance with State statutes, land may be annexed or de-annexed from the City as deemed appropriate by the City Council.
- (b) **Applicability.** Any lands to be added to or deleted from the corporate limits of the City shall comply with this section.
- (c) **Approval Criteria.** The application shall meet all applicable statutory and City administrative requirements. A complete copy of these requirements is available from the Public Works and Planning Department.
- (d) **Decision-Maker.**
  - (1) The Director shall make recommendations to City Council.
  - (2) City Council shall approve, conditionally approve or disapprove all applications for annexation or contraction of the municipal limits.
- (e) **Application and Review Procedures.** Application requirements and processing procedures shall comply with those described in applicable State statutes. A summary of these procedures is available from the Public Works and Planning Department.
- (f) **Zoning of Annexed Properties.** Land annexed to the City shall be zoned in accordance with GJMC 21.02.140 to a district that is consistent with the adopted Comprehensive Plan and the criteria set forth. Generally, future development should be at a density equal to or greater than the allowed density of the applicable County zoning district.

*This Application represents a formal request in writing and does give consent to Annexation and Zoning. All owners do consent to this Application. No part of the subject property's boundary is disputed. No right-of-way will be changed through this annexation.*

*This Application is intended to meet many of the Goals of the Comprehensive Plan as well as the requirements within the Zoning and Development Code which relate to this application.*

*There is adequate capacity in all systems to support this application including transportation, city services, schools and utilities. We respectfully request your approval of this Application.*

# Responses to Criteria

***(C) Correct a scrivener or clerical error such as lot numbers, acreage, street names and identification of adjacent recorded plats.***

*N/A*

***(3) Additional Approval Criteria. The Director will approve a Annexation and Zoning if the applicant demonstrates that:***

***(I) Any changes to existing easements or right-of-way have been completed in accordance with this code or otherwise allowed by law (additional easements or right-of-way may be dedicated);***

*N/A*

***(ii) The right-of-way shown on the Grand Valley Circulation Plan is not changed; and***

*It has been considered and it will not be affected by this Annexation and Zoning*

***(iii) If a new lot is being created, no portion of the property may have been the subject of a previous Annexation and Zoning creating a new lot within the preceding 10 years or a minor exemption subdivision (see subsection (o) of this section).***

*Previously considered and supported by City Planner and Development Engineer.*

**2080 BROADWAY ANNEXATION  
PETITION FOR ANNEXATION**

WE THE UNDERSIGNED do hereby petition the City Council of the City of Grand Junction, State of Colorado, to annex the following described parcel to the said City:

GENERAL LOCATION: 2080 Broadway, Grand Junction, CO. 81507

Tax ID # 2947-154-00-016

This foregoing description describes the parcel; the perimeter boundary description, for purposes of the Annexation Act, is shown on the attached "Perimeter Boundary Legal Description, 2080 Broadway Annexation."

As grounds therefore, the petitioner respectfully state that annexation to the City of Grand Junction, Colorado is both necessary and desirable and that the said territory is eligible for annexation in that the provisions of the Municipal Annexation Act of 1965, Sections 31-12-104 and 31-12-105 CRS 1973 have been met.

This petition is accompanied by four copies of a map or plat of the said territory, showing its boundary and its relation to established city limit lines, and said map is prepared upon a material suitable for filing.

Your petitioner further states that they are the owners of more than fifty percent of the area of such territory to be annexed, exclusive of streets and alleys; that the mailing address of the signer and the date of signature are set forth hereafter opposite the name of the signer, and that the legal description of the property owned by the signer of said petition is attached hereto.

WHEREFORE, these petitioners pray that this petition be accepted and that the said annexation be approved and accepted by ordinance. These petitioners by his/her/their signature(s) acknowledge, understand and agree that if any development application concerning the property which is the subject hereof is denied, discontinued or disapproved, in whole or in part, that the annexation of the property to the City of Grand Junction shall proceed. \_

Redlands Limited  
By: Michael Brislin

2080 Broadway Grand Junction, CO 81507  
Address

  
SIGNATURE

12-7-21  
DATE

( Annexation Petition.doc)

STATE OF COLORADO  
COUNTY OF MESA

SS

AFFIDAVIT

Michael Brislin, of lawful age, being first duly sworn, upon oath, deposes and says:

That he is the circulator of the forgoing petition: Redlands Limited, a Colorado limited liability company.

That each signature on the said petition is the signature of the person whose name it purports to be.

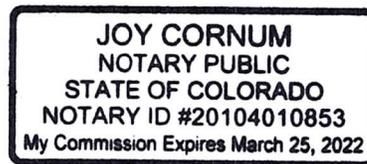
Subscribed and sworn to before me this 7<sup>th</sup> day of December, 2021.

Witness my hand and official seal.

Joy Cornum  
Notary Public

300 Main #302 GS, CO 81501  
Address

My commission expires: March 25, 2022





Beginning at a point that is South 89°30' East a distance of 97.2 feet from the Southwest corner of the SE1/4SE1/4, Section 15, Township 11 South, Range 101 West, 6th P.M., thence North 0°04' West a distance of 32.4 feet to the point of beginning, thence North 0°04' West a distance of 663.45 feet, thence North 89°56' East a distance of 154 feet, thence South 0°04' East a distance of 672.25 feet, thence South 89°37' West a distance of 56.8 feet, thence North 85°50' West a distance of 97.2 feet to the point of beginning;

TOGETHER WITH a tract or parcel of land of the State Department of Highways, Division of Highways, State of Colorado, Project No. S 0143(4) In the W1/2 of the SE1/4 of the SE1/4 of Section 15, Township 11 South, Range 101 West, of the Sixth Principal Meridian, in Mesa County, Colorado, said tract or parcel being more particularly described as follows:

All of the land North of the following described right of way fence:

Beginning at a point on the north right of way line of SH 340 (Oct. 1975), 40 feet left of the centerline of said SH 340, from which point the SE corner of Sec. 15 bears S88°03'E, a distance of 1,070.2 feet;

1. Thence S89°39'W, along said right of way fence, a distance of 56.8 feet;
2. Thence continuing along said right of way fence, along the arc of a curve to the right, having a radius of 676.7 feet, a distance of 97.3 feet (the chord of this arc bears N86°13'30"W a distance of 97.2 feet) all In Mesa County, Colorado.

County of Mesa, State of Colorado.

Causing this document to be delivered to the Secretary of State for filing shall constitute the affirmation or acknowledgment of each individual causing such delivery, under penalties of perjury, that the document is the individual's act and deed, or that the individual in good faith believes the document is the act and deed of the person on whose behalf the individual is causing the document to be delivered for filing, taken in conformity with the requirements of part 3 of article 90 of title 7, C.R.S., and, if applicable, the constituent documents, and the organic statutes, and that the individual in good faith believes the facts stated in the document are true and the document complies with the requirements of that Part, the constituent documents, and the organic statutes.

This perjury notice applies to each individual who causes this document to be delivered to the secretary of state, whether or not such individual is named in the document as one who has caused it to be delivered.

**Name(s) and address(es) of the individual(s) causing the document to be delivered for filing**

Michael Brislin  
2529 Woody Creek DR  
Grand Junction CO 81505  
US

# IMPROVEMENT SURVEY

SITUATED IN THE SE $\frac{1}{4}$  SE $\frac{1}{4}$  SECTION 15  
TOWNSHIP 11 SOUTH, RANGE 101 WEST OF THE 6TH P.M.  
COUNTY OF MESA, STATE OF COLORADO

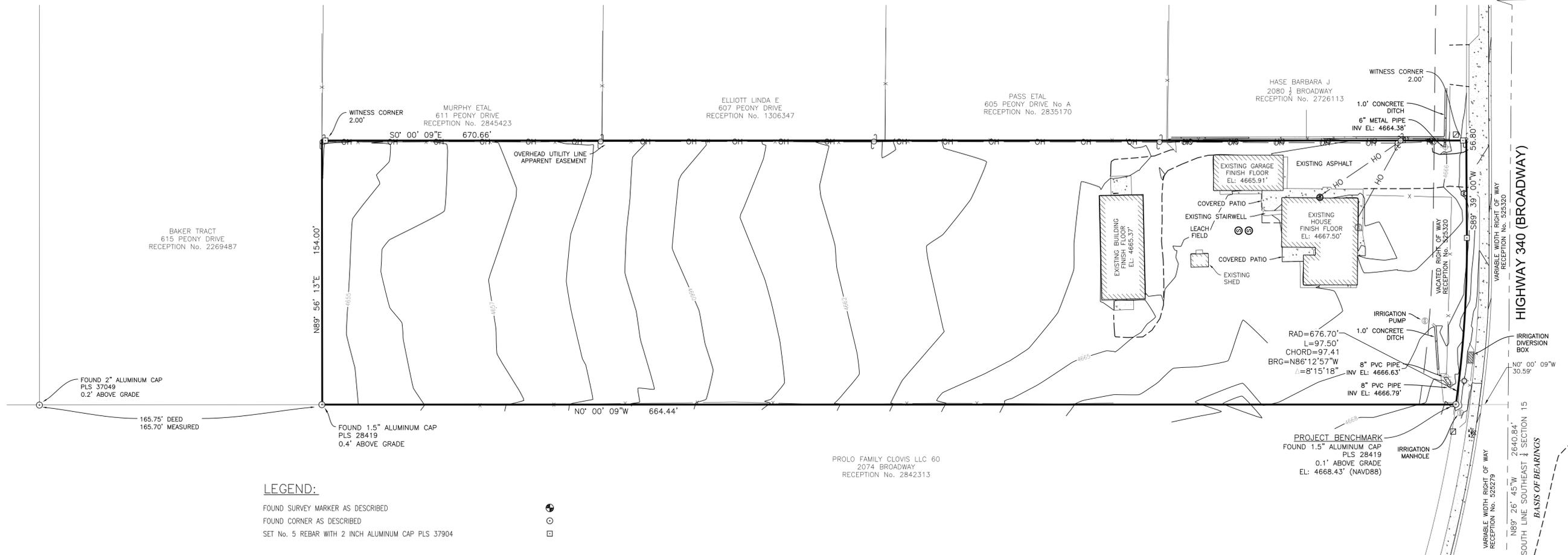


GRAPHIC SCALE:  
1"=30'



LINEAR UNITS ARE U.S. SURVEY FEET

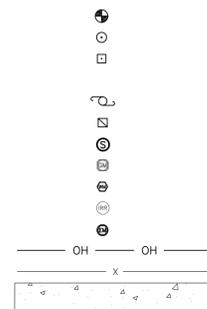
POINT OF COMMENCEMENT  
MCSM No. 235  
FOUND 2-1/2"  
BRASS CAP  
SOUTHEAST CORNER  
SECTION 15,  
T11S, R101W, 6TH PM



### LEGEND:

FOUND SURVEY MARKER AS DESCRIBED  
FOUND CORNER AS DESCRIBED  
SET No. 5 REBAR WITH 2 INCH ALUMINUM CAP PLS 37904

EXISTING UTILITY POLE  
EXISTING UTILITY PEDESTAL  
EXISTING SEPTIC LID  
EXISTING GAS METER  
EXISTING WATER METER  
EXISTING IRRIGATION FEATURE  
EXISTING ELECTRIC METER  
EXISTING OVERHEAD UTILITY LINE  
EXISTING FENCE LINE  
EXISTING CONCRETE



### LEGAL DESCRIPTION:

Beginning at a point that is South 89°30' East a distance of 97.2 feet from the Southwest corner of the SE $\frac{1}{4}$ SE $\frac{1}{4}$ , Section 15, Township 11 South, Range 101 West, 6th P.M., thence North 0°04' West a distance of 32.4 feet to the point of beginning, thence North 0°04' West a distance of 663.45 feet, thence North 89°56' East a distance of 154 feet, thence South 0°04' East a distance of 672.25 feet, thence South 89°37' West a distance of 56.8 feet, thence North 85°50' West a distance of 97.2 feet to the point of beginning; TOGETHER WITH a tract or parcel of land of the State Department of Highways, Division of Highways, State of Colorado, Project No. S 0143(4) in the W $\frac{1}{2}$  of the SE $\frac{1}{4}$  of the SE $\frac{1}{4}$  of Section 15, Township 11 South, Range 101 West, of the Sixth Principal Meridian, in Mesa County, Colorado, said tract or parcel being more particularly described as follows: All of the land North of the following described right of way fence: Beginning at a point on the north right of way line of SH 340 (Oct. 1975), 40 feet left of the centerline of said SH 340, from which point the SE corner of Sec. 15 bears S88°03'E, a distance of 1,070.2 feet;  
1. Thence S89°39'W, along said right of way fence, a distance of 56.8 feet;  
2. Thence continuing along said right of way fence, along the arc of a curve to the right, having a radius of 676.7 feet, a distance of 97.3 feet (the chord of this arc bears N86°13'30"W a distance of 97.2 feet) all in Mesa County, Colorado.  
County of Mesa, State of Colorado.

Said parcel contains 2.37 ACRES.

### NOTES

- OWNERSHIP, RECORDED RIGHTS-OF-WAY, AND EASEMENT INFORMATION WAS DONE USING A CURRENT TITLE POLICY PROVIDED BY FIDELITY NATIONAL TITLE COMPANY, POLICY NUMBER CO-FSTG-IMP-27306-1-21-F0721575.
- BEARINGS ARE BASED ON THE SOUTH LINE OF SE $\frac{1}{4}$  SECTION 15, TOWNSHIP 11 SOUTH, RANGE 101 WEST OF THE 6TH PRINCIPAL MERIDIAN. THE VALUE USED N89°26'45"W, WAS CALCULATED USING THE MESA COUNTY LOCAL COORDINATE SYSTEM. MESA COUNTY SURVEY MARKERS WERE FOUND AT THE EAST AND WEST ENDS OF SAID LINE AS SHOWN HEREON.
- ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.
- THIS SURVEY IS BASED ON THE DEED AS RECORDED AT RECEPTION NUMBER 3005225, OF THE MESA COUNTY RECORDS.

### SURVEYOR'S CERTIFICATION:

I, Patrick W. Click, a registered Professional Land Surveyor in the State of Colorado, do hereby certify that this Plat represents a field survey completed by me and / or under my direct supervision. Both conform to the standards of practice, statutes and laws of the State of Colorado to the best of my knowledge and belief. This statement is not a guaranty or warranty, either expressed or implied.

COLORADO REGISTERED LAND SURVEYOR PLS #37904

### ABBREVIATIONS:

N NORTH  
S SOUTH  
E EAST  
W WEST  
T TOWNSHIP  
R RANGE  
MCSM MESA COUNTY SURVEY MARKER  
ROW RIGHT OF WAY  
SIMS SURVEY INFORMATION MANAGEMENT SYSTEM  
PLS PROFESSIONAL LAND SURVEYOR  
No. NUMBER  
GPS GLOBAL POSITIONING SYSTEM  
ID IDENTIFICATION  
SQ SQUARE  
FT FEET  
AVE. AVENUE  
ST. STREET  
CT. COURT  
LN. LANE  
DR. DRIVE  
U.S. UNITED STATES  
L.C.E. LIMITED COMMON ELEMENT  
P.O.C. POINT OF COMMENCEMENT  
P.O.B. POINT OF BEGINNING

### CURVE LABEL ABBREVIATIONS:

RAD RADIUS  
L ARC LENGTH  
CHORD LONG CHORD DISTANCE  
BRG LONG CHORD BEARING  
 $\Delta$  CURVE CENTRAL ANGLE

LAND SURVEY DEPOSIT  
MESA COUNTY SURVEYORS OFFICE

DATE \_\_\_\_\_

DEPOSIT No. \_\_\_\_\_

### IMPROVEMENT SURVEY

FOR REDLANDS LIMITED  
SITUATED IN THE SE $\frac{1}{4}$  SE $\frac{1}{4}$  SECTION 15  
TOWNSHIP 11 SOUTH, RANGE 101 WEST OF THE 6TH P.M.  
COUNTY OF MESA, STATE OF COLORADO

JOB #: 2021-238 FIELD WORK: KM DRAWN BY: JW  
DATE: 01/05/22 DRAWING NAME: 2080 BROADWAY CHECKED BY: PC

**POLARIS SURVEYING**

PATRICK W. CLICK P.L.S.

3194 MESA AVE. #B  
GRAND JUNCTION, CO 81504  
PHONE (970)434-7038

# **Redlands Limited 2080 Broadway Neighborhood Meeting Minutes**

**Meeting Held on 1-6-22  
At 5:30 pm  
Two Rivers Winery**

The Redlands Limited neighborhood meeting was hosted at the Two Rivers Winery on January 6th 2022. The meeting was attended by 8 people. (Sign in sheet attached) Jeffery Fleming of Colorado Land Advisor hosted the meeting for Redlands Limited who is the owner and developer. Dave Thornton, Principal Planner for the City of Grand Junction attended, as did 4 neighbors.

Question: What type of houses will be built on the project? Jeffery responded by stating nothing had been fully decided but they would be similar to the ones in the area. Jeffery stated they may be single family or duplexes, with a total number of between 5 and 8 units.

Question: When will you start building the houses? A brief time line for the project was given noting it would likely be sometime in 2023.

Question: How wide is the easement along the East property line? The Site Plan was referenced to answer the question.

Question: Are you going to change the zoning? Mr Fleming stated the parcel is currently in the County and had a zoning of RSF4 for the property. The request is for R5 Zoning and the Use would remain residential.

Jeffery talked about how in the future development the driveway would likely be a shared driveway or private roadway. No construction would likely take place until the adjoining property to the west is approved by the City and developed.

Another neighbor gave some history of some irrigation water concerns. She wanted to make sure they would continue to get their irrigation water. Mr Fleming stated that the irrigation water would stay the same as it is now or be improved. The exact details of that would not be determined until an engineering design was completed with a future application for development. Currently this application is for Annexation and Zoning.

The attendees were thanked for coming out and reminded that they would receive a public hearing notice from the City, in the mail, in a few months. A couple of neighbors asked to take some of the maps presented at the meeting so they could better understand the project. Their request was granted. The meeting lasted approximately 45 minutes.







File No.: F0721575-396-7SB

**QUIT CLAIM DEED**

THIS DEED, Made this 22 day of October, 2021

between Michael Stephen Brislin and Tammy Renee Brislin

of the County of Mesa and State of COLORADO, Grantor(s)

and Redlands Limited

whose legal address is 2529 Woody Creek Drive Grand Junction, CO ~~81507~~ 81505

of the County of Mesa and State of COLORADO, Grantee(s)

WITNESSETH, That the grantor(s), for and in consideration of the sum of TEN AND NO/100 DOLLARS, (\$10.00), the receipt and sufficiency of which is hereby acknowledged, has remised, released, sold, and QUIT CLAIMED, and by these presents docs remise, release, sell and QUIT CLAIM unto the grantee(s), his heirs, successors and assigns, forever, all the right, title, interest, claim and demand which the grantor(s) has in and to the real property, together with improvements, if any, situate, lying and being in the County of Mesa and COLORADO, described as follows:

See Exhibit A attached hereto and made a part hereof.

also known by street and number as: 2080 Broadway Grand Junction, CO 81507-9711

TO HAVE AND TO HOLD the same, together with all and singular the appurtenances and privileges thereunto belonging, or in anywise thereunto appertaining, and all the estate, right, title, interest, and claim whatsoever, of the grantor(s), either in law or equity, to the only proper use, benefit and behalf of the grantee(s), his heirs and assigns forever.

The singular number shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders.

IN WITNESS WHEREOF, the grantor(s) has executed this deed on the date set forth above.

Michael Stephen Brislin

Tammy Renee Brislin

STATE OF COLORADO }  
COUNTY OF Mesa }SS:

The foregoing instrument was acknowledged before me this 22 day of October, 2021  
by Michael Stephen Brislin and Tammy Renee Brislin

Notary Public

Witness my hand and official seal.  
My Commission expires:

ELIZABETH SCHEER  
NOTARY PUBLIC  
STATE OF COLORADO  
NOTARY ID #20204033061  
My Commission Expires September 22, 2024

## TWENTY EIGHTY BROADWAY ANNEXATION SCHEDULE

<b>April 6, 2022</b>	Referral of Petition (30 Day Notice), Introduction of a Proposed Ordinance, Exercising Land Use
<b>April 26, 2022</b>	Planning Commission considers Zone of Annexation
<b>May 4, 2022</b>	Introduction of a Proposed Ordinance on Zoning by City Council
<b>May 18, 2022</b>	Acceptance of Petition and Public Hearing on Annexation and Zoning by City Council
<b>June 19, 2022</b>	Effective date of Annexation and Zoning

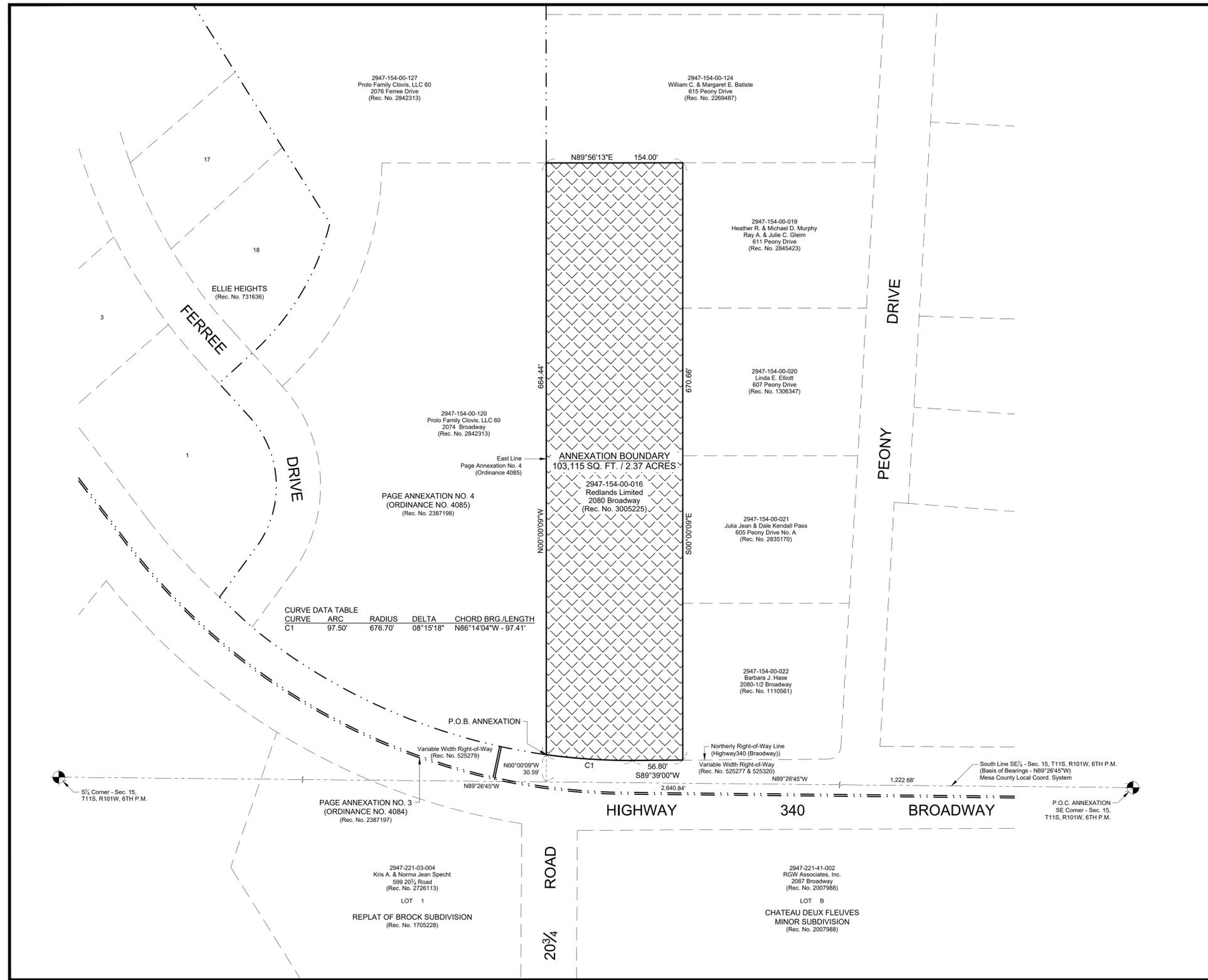
### ANNEXATION SUMMARY

<b>File Number:</b>		ANX-2022-60
<b>Location:</b>		2080 Broadway
<b>Tax ID Numbers:</b>		2947-154-00-016
<b># of Parcels:</b>		1
<b>Existing Population:</b>		2
<b># of Parcels (owner occupied):</b>		1
<b># of Dwelling Units:</b>		1
<b>Acres land annexed:</b>		2.37
<b>Developable Acres Remaining:</b>		2
<b>Right-of-way in Annexation:</b>		0
<b>Previous County Zoning:</b>		RSF-4
<b>Proposed City Zoning:</b>		R-5
<b>Current Land Use:</b>		Single Family
<b>Comprehensive Plan Land Use:</b>		Residential Low
<b>Values:</b>	<b>Assessed:</b>	\$26,500
	<b>Actual:</b>	\$370,590
<b>Address Ranges:</b>		2880 Broadway
<b>Special Districts:</b>	<b>Water:</b>	Ute
	<b>Sewer:</b>	City
	<b>Fire:</b>	GJ Rural (& GJ Rural Fire Redlands Sub)
	<b>Irrigation/Drainage:</b>	Redlands Water and Power
	<b>School:</b>	District 51
	<b>Pest:</b>	Grand River Mosquito District
	<b>Other:</b>	Colorado River Water Conservancy

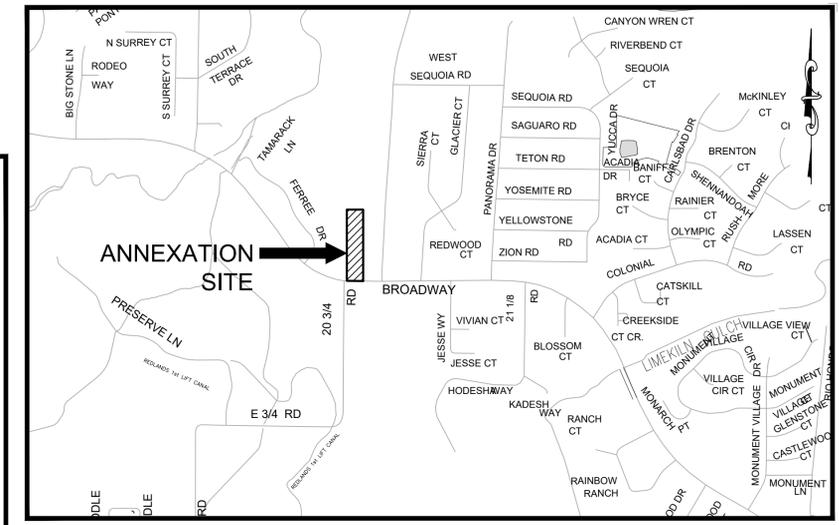


# TWENTY EIGHTY BROADWAY ANNEXATION

Located in the SE 1/4 SE 1/4 SECTION 15, TOWNSHIP 11 SOUTH, RANGE 101 WEST,  
6TH PRINCIPAL MERIDIAN, COUNTY OF MESA, STATE OF COLORADO



CURVE	ARC	RADIUS	DELTA	CHORD BRG./LENGTH
C1	97.50'	676.70'	08°15'18"	N86°14'04"W - 97.41'



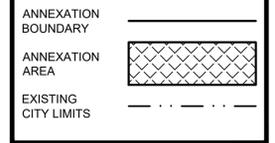
## SITE LOCATION MAP

SCALE: 1" = 800'

### LEGAL DESCRIPTION

A parcel of land as described in Reception Number 3005225, located in the Southeast Quarter of the Southeast Quarter (SE 1/4 SE 1/4) of Section 15, Township 11 South, Range 101 West of the 6th Principal Meridian, County of Mesa, State of Colorado and being more particularly described as follows:  
Commencing at the Southeast Corner of said Section 15 and assuming the South line of the Southeast Quarter of said Section 15 bears N89°26'45"W with all other bearings contained herein relative thereto; thence N89°26'45"W along said South line, a distance of 1,222.68 feet; thence N00°00'09"W, a distance of 30.59 feet to a point on the Northerly Right-of-Way line of Highway 340 as described in Reception Number 525320, said point also being a point on the East line of PAGE ANNEXATION NO. 4, Ordinance #085, Reception Number 2387198 and being the Point of Beginning;  
thence continuing N0°00'09"W along said East line of PAGE ANNEXATION NO. 4, a distance of 664.44 feet; thence N89°56'13"E, a distance of 154.00 feet; thence S00°00'09"E, a distance of 670.66 feet to said Northerly Right-of-Way line of Highway 340; thence S89°39'00"W, a distance of 56.80 feet to the beginning of a curve; thence Westerly, a distance of 97.50 feet along the curve concave to the North, having a radius of 676.70 feet, a central angle of 08°15'18" and a chord which bears N86°14'04"W, a distance of 97.41 feet distant to the Point of Beginning.  
Said parcel containing 103,115 Square Feet or 2.37 Acres more or less, as described.

### LEGEND



### SURVEY ABBREVIATIONS

P.O.C.	POINT OF COMMENCEMENT	Δ	SQ. FT.	SQUARE FEET
P.O.B.	POINT OF BEGINNING	RAD.	CENTRAL ANGLE	RADIUS
R.O.W.	RIGHT OF WAY	ARC	ARC LENGTH	CHORD LENGTH
SEC.	SECTION	CHD.	CHORD BEARING	BLOCK
TWP.	TOWNSHIP	BLK.	BLOCK	PLAT BOOK
RGE.	RANGE	BK.	BOOK	PG.
U.M.	UTE MERIDIAN	PG.	PAGE	HOR. DIST.
NO.	NUMBER			
REC.	RECEPTION			

### AREAS OF ANNEXATION

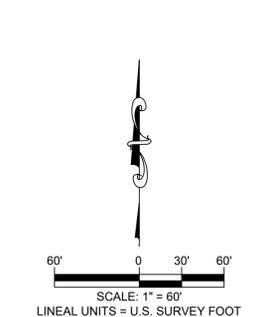
ANNEXATION PERIMETER	1,643.40 FT.
CONTIGUOUS PERIMETER	664.44 FT.
AREA IN SQUARE FEET	103,115 FT <sup>2</sup>
AREA IN ACRES	2.37
AREA WITHIN R.O.W.	0,000 FT <sup>2</sup>
	0.00 ACRES

### ORDINANCE NO.

XXXX

### EFFECTIVE DATE

APRIL XX, 2022



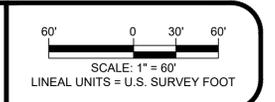
**NOTE:**  
THE DESCRIPTION(S) CONTAINED HEREIN HAVE BEEN DERIVED FROM SUBDIVISION PLAT, DEED DESCRIPTIONS & DEPOSIT SURVEYS AS THEY APPEAR IN THE OFFICE OF THE MESA COUNTY CLERK & RECORDER. THIS PLAT OF ANNEXATION DOES NOT CONSTITUTE A LEGAL BOUNDARY SURVEY, AND IS NOT INTENDED TO BE USED AS A MEANS OF ESTABLISHING OR VERIFYING PROPERTY BOUNDARY LINES.

**RENEE BETH PARENT**  
STATE OF COLORADO - P.L.S. NO. 38266  
FOR THE CITY OF GRAND JUNCTION  
333 WEST AVENUE - BLDG. C  
GRAND JUNCTION, CO. 81501

**THIS IS NOT A BOUNDARY SURVEY**

**NOTICE:**  
ACCORDING TO COLORADO LAW ANY LEGAL ACTION BASED UPON ANY DEFECT FOUND IN THIS SURVEY MUST COMMENCE WITHIN THREE (3) YEARS AFTER THE DISCOVERY OF SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT FOUND IN THIS SURVEY BE COMMENCED MORE THAN TEN (10) YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

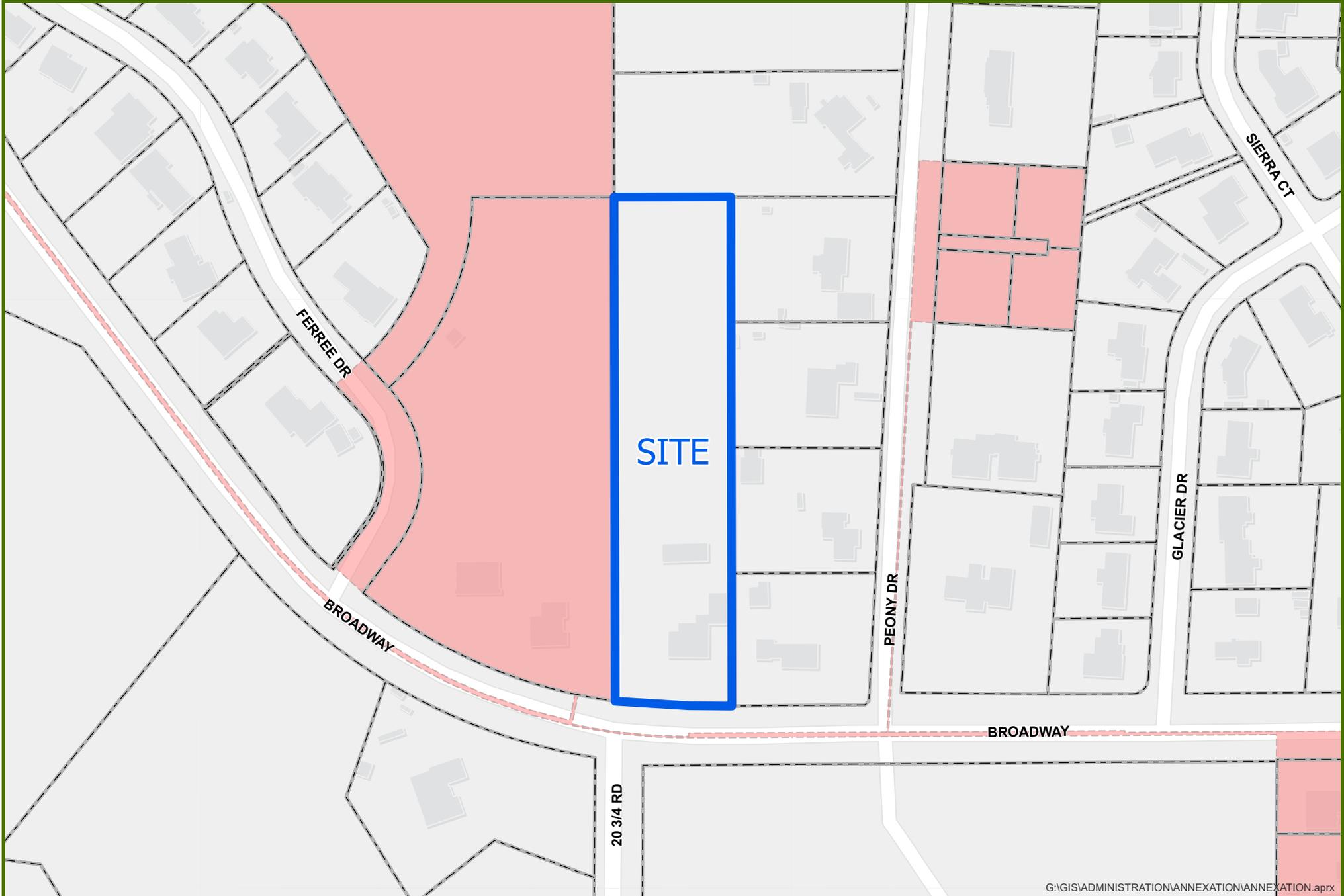
DRAWN BY: NCW DATE: 03/01/2022  
DESIGNED BY: RBP DATE: 03/01/2022  
CHECKED BY: CVW DATE: 03/04/2022  
APPROVED BY: RBP DATE: 03/04/2022



**PUBLIC WORKS ENGINEERING DIVISION**

**TWENTY EIGHTY BROADWAY ANNEXATION**  
Located in the SE 1/4 SE 1/4 SECTION 15, TOWNSHIP 11 SOUTH, RANGE 101 WEST,  
6TH PRINCIPAL MERIDIAN, COUNTY OF MESA, STATE OF COLORADO

# TWENTY EIGHTY BROADWAY ANNEXATION



G:\GIS\ADMINISTRATION\ANNEXATION\ANNEXATION.aprx



0 100 200 Feet



Annexation



City Limits

# TWENTY EIGHTY BROADWAY ANNEXATION



G:\GIS\ADMINISTRATION\ANNEXATION\ANNEXATION.aprx



0 100 200 Feet

 Annexation  City Limits

# TWENTY EIGHTY BROADWAY ANNEXATION - LAND USE



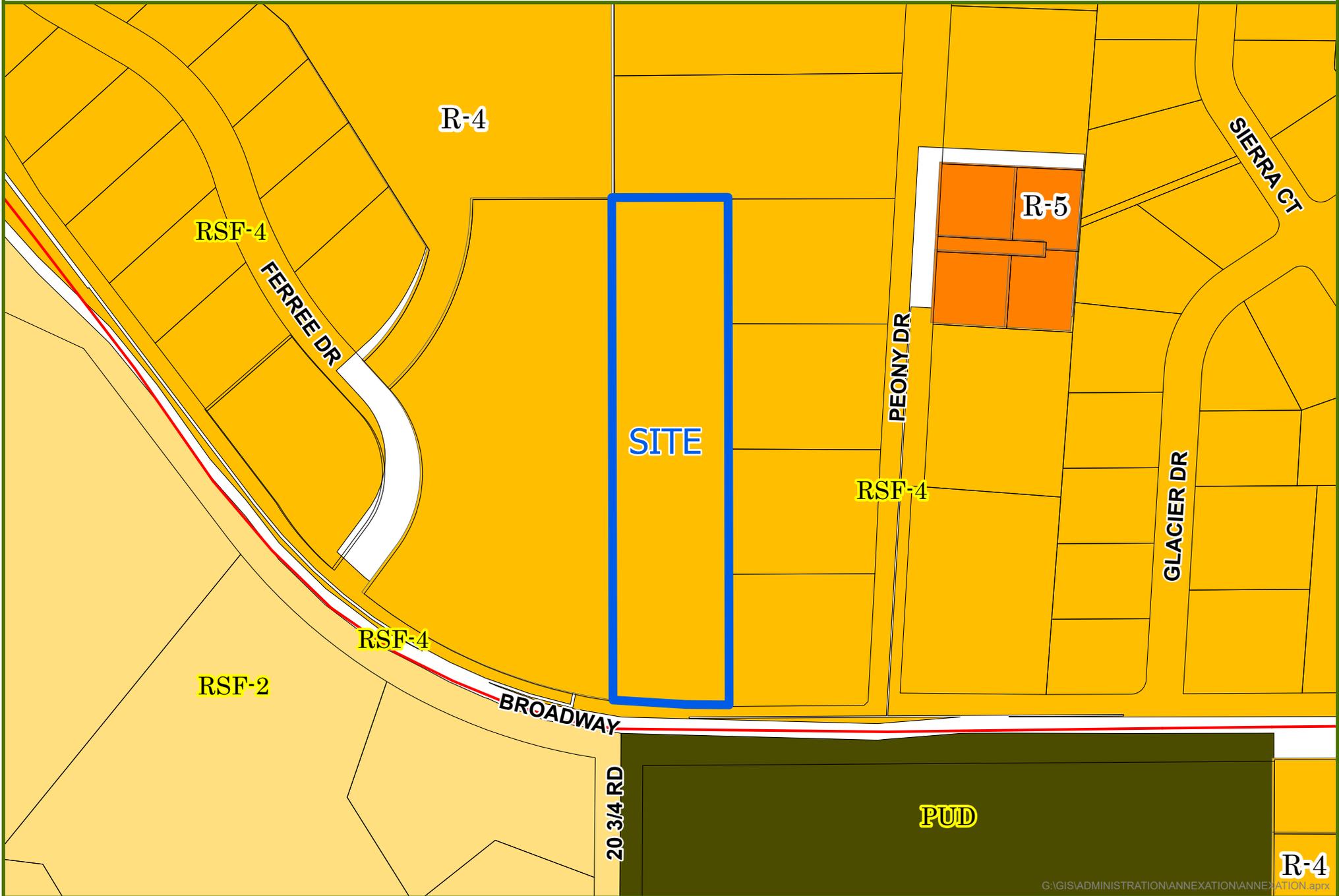
G:\GIS\ADMINISTRATION\ANNEXATION\ANNEXATION.aprx



0 100 200 Feet

 Annexation Boundary

# TWENTY EIGHTY BROADWAY ANNEXATION - ZONING



G:\GIS\ADMINISTRATION\ANNEXATION\ANNEXATION.aprx



0 100 200 Feet

 Annexation

City Zoning  
Packet Page 93

County Zoning

Date Created: 2/14/2022



R-4



**Looking North from Broadway (Hwy 340)**

**CITY OF GRAND JUNCTION, COLORADO**

**ORDINANCE NO. \_\_\_\_\_**

**AN ORDINANCE ZONING TWENTY EIGHTY BROADWAY ANNEXATION  
LOCATED AT 2080 BROADWAY, GRAND JUNCTION, COLORADO  
TO R-5 (RESIDENTIAL – 5 DU/AC) ZONE**

Recitals:

The property owner has petitioned to annex 2.37 acres into the City limits. The annexation is referred to as the “Twenty Eighty Broadway Annexation.”

After public notice and public hearing as required by the Grand Junction Zoning & Development Code, the Grand Junction Planning Commission recommended zoning the Twenty Eighty Broadway Annexation consisting of 2.37 acres from County RSF-4 (Residential Single Family 4 Dwellings per acre) to City R-5 (Residential – 5 du/ac) finding that both the R-5 zone district conforms with the designation of *Residential Low* as shown on the Land Use Map of the Comprehensive Plan, and that R-5 conforms with the Comprehensive Plan’s goals and policies and is generally compatible with land uses located in the surrounding area.

After public notice and public hearing, the Grand Junction City Council finds that the R-5 (Residential – 5 du/ac) zone district is in conformance with at least one of the stated criteria of Section 21.02.140 of the Grand Junction Zoning & Development Code for the parcel as designated.

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION THAT:**

The foregoing Recitals are adopted and incorporated and that THE TWENTY EIGHTY BROADWAY ANNEXATION, a 2.37-acre parcel of land in the City of Grand Junction, Mesa County, Colorado, with a perimeter boundary legal description as follows, is hereby zoned R-5 (Residential – 5 du/ac):

TWENTY EIGHTY BROADWAY ANNEXATION

A parcel of land as described in Reception Number 3005225, located in the Southeast Quarter of the Southeast Quarter (SE1/4 SE1/4) of Section 15, Township 11 South, Range 101 West of the 6<sup>th</sup> Principal Meridian, County of Mesa, State of Colorado and being more particularly described as follows:

Commencing at the Southeast Corner of said Section 15 and assuming the South line of the Southeast Quarter of said Section 15 bears N89°26’45”W with all other bearings contained

herein relative thereto; thence N89°26'45"W along said South line, a distance of 1,222.68 feet; thence N00°00'09"W, a distance of 30.59 feet to a point on the Northerly Right-of-Way line of Highway 340 as described in Reception Number 525320, said point also being a point on the East line of *PAGE ANNEXATION NO. 4, Ordinance 4085*, Reception Number 2387198 and being the Point of Beginning; thence continuing N0°00'09"W along said East line of *PAGE ANNEXATION NO. 4*, a distance of 664.44 feet; thence N89°56'13"E, a distance of 154.00 feet; thence S00°00'09"E, a distance of 670.66 feet to said Northerly Right-of-Way line of Highway 340; thence S89°39'00"W, a distance of 56.80 feet to the beginning of a curve; thence Westerly, a distance of 97.50 feet along the curve concave to the North, having a radius of 676.70 feet, a central angle of 08°15'18" and a chord which bears N86°14'04"W, a distance of 97.41 feet distant to the Point of Beginning.

Said parcel containing **103,115** Square Feet or **2.37** Acres more or less, as described, is zoned R-5 (Residential – 5 du/ac).

**INTRODUCED** on first reading this 4<sup>th</sup> day of May 2022 and ordered published in pamphlet form.

**ADOPTED** on second reading this \_\_\_\_\_ day of \_\_\_\_\_, 2022 and ordered published in pamphlet form.

\_\_\_\_\_  
C.B. McDaniel  
President of the Council

ATTEST:

\_\_\_\_\_  
Laura Bauer  
Interim City Clerk





## Grand Junction City Council

### Regular Session

Item #3.a.

---

**Meeting Date:** May 4, 2022  
**Presented By:** Trenton Prall, Public Works Director  
**Department:** Public Works - Streets  
**Submitted By:** Eric Rink, Project Engineer

---

#### **Information**

##### **SUBJECT:**

2022 Contract Street Maintenance - Seal Coat

##### **RECOMMENDATION:**

Authorize the City Purchasing Division to enter into a Contract with Andale Construction, Inc. of Wichita, KS for the 2022 Contract Street Maintenance - Seal Coat (High Density Mineral Bond) Project in the amount of \$518,865.00

##### **EXECUTIVE SUMMARY:**

This construction contract includes the application of a seal coat also known as High Density Mineral Bond (HA5) material on several existing residential streets as part of this year's annual street maintenance program. This contract with Andale Construction, Inc., if approved, will preserve the asphalt of approximately 21 lane miles of residential streets at various locations throughout the City. This contract includes a unique pavement preservation treatment that could not be included in other street maintenance contracts.

##### **BACKGROUND OR DETAILED INFORMATION:**

Roads throughout the City have been rated for condition and an asset management program is used to determine the road and the treatment list for the annual Streets Maintenance program. This contract consists of the application of a High Density Mineral Bond treatment to City streets with a proprietary material that is installed utilizing specialized equipment capable of a uniform application in a continuous motion with the ability to disperse mineral aggregate evenly throughout the application. This application will preserve the existing pavement condition and potentially extend the service life of the pavement for an additional 5 to 10 years.

This contract includes 150,921 square yards of High Density Mineral Bond treatment with associated mobilization and traffic control.

The street areas selected for this contract include:

2385 G Road	857 SY
29.5 Rd Area	18,882 SY
Autumn Glen Subdivison	8,732 SY
Brookfield North Filing 1	8,327 SY
Burdock Way Area	32,730 SY
Dodge St Area	25,236 SY
Enclave Subdivision Filing 1	6,544 SY
Fox Meadows	4,389 SY
Grand View Hollow	6,124 SY
Lookout Point	359 SY
McCary Point Estates aka Ridges Point	795 SY
Ridgewood Heights	5,597 SY
San Juan and Ozark Area	22,496 SY

Seasons Area CDS	4,168 SY
Siena View Filing 2	2,107 SY
Thunder Valley Filing I	3,578 SY

PCI ratings for the streets in these areas are generally 75 or higher. The treatment is applied to streets in generally good condition because the application of this material will not improve the existing condition but rather, will preserve and extend the existing condition for upwards of 5 to 10 years. A 5 year warranty is included with the application of the HA5 material on good condition asphalt.

A formal Invitation for Bids was issued via BidNet (an on-line site for government agencies to post solicitations), posted on the City's Purchasing website, sent to the Grand Junction Chamber of Commerce and the Western Colorado Contractors Association, and advertised in *The Daily Sentinel*. One company submitted a formal bid, which was found to be responsive and responsible in the following amount:

Firm	Location	Base Amount
Andale Construction, Inc.	Wichita, KS	\$518,865.00

This project is scheduled to begin in late June with an expected final completion date of late July.

Per Section 10.10 of the Purchasing Manual, all solicitation documents shall remain confidential until the Purchasing Division awards the contract.

**FISCAL IMPACT:**

The funding for this project is in the 2022 Adopted Budget in the Sales Tax Capital Improvement Fund's \$4.3 million Contract Street Maintenance Project. Also on this agenda is the contract for the partial reconstruction of Kansas Avenue (\$613,049) which is also funded within the Contract Street Maintenance Project.

**SUGGESTED MOTION:**

I move to authorize the City Purchasing Division to enter into a contract with Andale Construction, Inc. of Wichita, CO for the 2018 Contract Street Maintenance - High Density Mineral Bond Project in the amount of \$518,865.00.

**Attachments**

None



## Grand Junction City Council

### Regular Session

Item #3.b.

---

**Meeting Date:** May 4, 2022  
**Presented By:** Trenton Prall, Public Works Director  
**Department:** Public Works - Engineering  
**Submitted By:** Eric Rink, Project Engineer

---

### **Information**

#### **SUBJECT:**

Construction Contract for Partial Reconstruction of South Rim Drive and Kansas Avenue

#### **RECOMMENDATION:**

Authorize the City Purchasing Division to enter into a Contract with Mountain Valley Contracting, Inc. of Grand Junction, CO for the Partial Reconstruction of South Rim Drive and Kansas Avenue project in the amount of \$613,048.56.

#### **EXECUTIVE SUMMARY:**

South Rim Drive, Kansas Ave, and 5 associated cul-de-sacs are in a failed pavement condition. This project will remove the existing pavement, recondition base course, and pave a fresh asphalt surface. Drainage patterns will largely be maintained, but a slight crown will be added to the roadway to enhance water shedding.

#### **BACKGROUND OR DETAILED INFORMATION:**

The condition of City streets is rated on a periodic basis as part of the City's asset management program to determine annual maintenance treatments. Ideally, the City streets are maintained at a level that requires regular surface treatment and minimizes the amount of more costly reconstruction efforts. The section of South Rim Drive between Redlands Parkway and 23 Road, as well as the adjacent section of Kansas Avenue and connecting cul-de-sacs, have deteriorated beyond the point that surface treatment is appropriate, yet not quite in need of full reconstruction. As a result, this contract proposes a partial reconstruction that includes removal of asphalt, reconditioning of the existing base materials, and installing a new asphalt section on each of these streets. This partial reconstruction allows the City to reuse the existing road base materials and minimizes impacts to the shallow utilities in this area. The final

product will be equivalent to a new road section with a similar life expectancy.

This contract includes approximately 14,399 SY of asphalt mat removal, 14,349 SY of existing base course reconditioning, 40 SY of concrete gutter, 2,802 Tons of asphalt pavement, utility adjustments, and reset of landscaping.

A formal Invitation for Bids was issued via BidNet (an online site for government agencies to post solicitations), posted on the City's Purchasing website, sent to the Grand Junction Chamber of Commerce and the Western Colorado Contractors Association, and advertised in The Daily Sentinel. Four companies attended a mandatory pre-bid meeting and one company submitted a bid, which was found to be responsive and responsible in the following amount:

<b>Firm</b>	<b>Location</b>	<b>Bid Amount</b>
Mountain Valley Contracting, Inc.	Grand Junction, CO	\$613,048.56

It is believed that no other bids were received due to the limited amount of contractor availability. The bid received appears to be in line with unit prices for current market conditions and Mountain Valley Contracting, Inc. has successfully demonstrated that they are qualified for this type of work. This project is scheduled to begin in May with construction expected to take approximately one month.

Per Section 10.10 of the Purchasing Manual, all solicitation documents shall remain confidential until the Purchasing Division awards the contract.

**FISCAL IMPACT:**

The funding for this project is in the 2022 Adopted Budget in the Sales Tax Capital Improvement Fund's \$4.3 million Contract Street Maintenance Project. Also on this agenda is the contract for the application of seal coat (\$518,865) which is also funded within the Contract Street Maintenance Project.

**SUGGESTED MOTION:**

I move to authorize the City Purchasing Division to enter into a Contract with Mountain Valley Contracting, Inc. of Grand Junction, CO for the Partial Reconstruction of South Rim Drive and Kansas Avenue project in the amount of \$613,048.56.

**Attachments**

None



## Grand Junction City Council

### Regular Session

Item #3.c.

---

**Meeting Date:** May 4, 2022

**Presented By:** Jay Valentine, General Services Director

**Department:** General Services

**Submitted By:** Tim Barker

---

### **Information**

#### **SUBJECT:**

Purchase Tow Behind Stump Grinder from Vermeer Sales in Grand Junction, Colorado

#### **RECOMMENDATION:**

Staff recommends purchasing a tree-stump grinding machine in the amount of \$76,770.00 from Vermeer Sales in Grand Junction Colorado

#### **EXECUTIVE SUMMARY:**

Staff is requesting approval for the purchase of a tree-stump grinding machine in the amount of \$76,770.00 from Vermeer Sales. This purchase will replace a 15-year-old unit that has reached the end of its useful life. Although this purchase falls under the Council approval threshold of \$500,000, only one bid was received and in accordance with policy, which requires any purchase over \$50,000 in which there was only one bid was received, City Council approval is required.

#### **BACKGROUND OR DETAILED INFORMATION:**

10 companies downloaded the solicitation and only Vermeer responded. The Fleet Services division administers the equipment replacement program and vehicle operating budgets. This includes evaluation and determination of equipment replacement and preparation of specifications which ensure acquisition of effective equipment and asset management.

A formal Invitation for Bids was issued via BidNet (an on-line site for government agencies to post solicitations), posted on the City's Purchasing website, sent to the Grand Junction Chamber of Commerce and the Western Colorado Contractors Association, and advertised in The Daily Sentinel. One company submitted a formal

bid, which was found to be responsive and responsible in the following amount:

<b>Company</b>	<b>Location</b>	<b>Bid Amount</b>
Vermeer Sales & Service	Grand Junction, CO	\$76,770.00

Per Section 10.10 of the Purchasing Manual, all solicitation documents shall remain confidential until the Purchasing Division awards the contract.

**FISCAL IMPACT:**

Funds for this purchase are in the 2022 Adopted Budget in the Fleet Replacement Fund.

**SUGGESTED MOTION:**

I move to authorize the City Purchasing division to execute a purchase order to Vermeer Sales and service for the purchase of a trailer mount tree-stump grinder.

**Attachments**

None





**Grand Junction City Council**

**Workshop Session**

**Item #4.a.**

---

**Meeting Date:** May 4, 2022  
**Presented By:** Trent Prall  
**Department:** Public Works - Streets  
**Submitted By:** Trent Prall, Public Works Director

---

**Information**

**SUBJECT:**

A Resolution Adopting the 4th and 5th Street Feasibility Study

**EXECUTIVE SUMMARY:**

The Downtown Development Authority (DDA) hired the consulting engineering firm of Bohannon Huston to conduct a Feasibility Study on the One-Way to Two-Way Conversion of 4<sup>th</sup> and 5<sup>th</sup> Streets in conjunction with City staff. A technical team comprised of CDOT, City and County staff and a project advisory committee made up of various downtown business and residential interests met a few times and a public open house was held. Based on this outreach, project goals and priorities were developed as well as alternatives for both one-way "enhanced" and two-way configurations. The study proposes similar infrastructure for either the one-way "enhanced" and the two-way corridors, which will allow for phased implementation. The proposed resolution adopts the findings of the study.

**BACKGROUND OR DETAILED INFORMATION:**

In 1981, the Downtown Development Authority (DDA) identified the conversion of 4th and 5th Street from one-way to two-way as a goal in its original Plan of Development. In 2013, the City's Greater Downtown Plan also called for looking at the configuration of 4th and 5th Street. This was also confirmed again in the 2019 DDA Plan of Development and the City's updated Comprehensive Plan also identifies utilization of Complete Streets within the Downtown core.

In late 2020, the DDA hired the consulting engineering firm of Bohannon Huston of Englewood, Colorado to conduct a Feasibility Study on the One-Way to Two-Way Conversion of 4th and 5th Streets in coordination with City Staff.

Bohannon Huston is teamed with MaxGreen Transportation Engineers for the engineering and traffic analysis portion of the work and MIG for outreach and stakeholder coordination and some of the Urban Planning and Design/Economic Development elements of the proposed scope of work.

The study tasks included determining existing conditions with traffic counts and review of land use/demographics, future conditions forecast, and feasibility assessment. Conceptual plans were prepared that included visual renderings to help stakeholders envision potential changes. The feasibility assessment was based on an evaluation of traffic circulation, safety, accessibility, parking, economic viability along with bicycle, pedestrian, transit and the movement of freight. Analysis of pros/cons and public outreach are included along with the final feasibility.

A technical team and project advisory committee were both formed to help provide input and review findings. A public open house was held May 4, 2021 and a virtual outreach was held through the month of September, which included an online survey.

The study team published a project website (<https://project.bhinc.com/4th5thStudy>) with a dedicated page for an interactive map. The project website and interactive map allowed the public an ongoing opportunity to provide input while respecting pandemic conditions as well as allowing flexibility with busy schedules. This helped accommodate those that might not be able to attend the public meetings while still being able to capture their feedback and provided an anonymous platform for sharing input for those who may not feel comfortable speaking out through other means. A dedicated email address ([4th5thStudy@bhinc.com](mailto:4th5thStudy@bhinc.com)) was also available where the public can ask any questions or share comments throughout the duration of the study.

This was previously presented to the DDA on November 11 and City Council on November 15. It reviews the vision and goals that have been developed based on public outreach, study area priorities, input on street design elements, cross sections, outreach summary, traffic summary, and recommendations. The alternatives analysis matrix is attached separately for reference.

Goals developed for the project include:

1. Enhancing Safety
2. Improve Walkability and Bikeability
3. Activate Economic Development
4. Optimize Traffic Circulation

Traffic modeling indicates that 4th Street and 5th Street would operate at acceptable levels under either the one-way or two-way configurations. Additional traffic analysis will be completed to ensure the appropriate infrastructure, signals, and signs are integrated at the intersections during the design phase.

The study concluded that full build-out of the enhanced one-way OR the enhanced two-way will work. As the infrastructure is very similar for both alternatives, there is the

opportunity for phased implementation of improvements, remaining in the one-way configuration until such time as the conversion to two-way, if desired, is within reach from a budget standpoint. There is also an opportunity to pilot modifications with the one-way configuration to confirm changes of traffic patterns if the signals on both 4th Street and 5th Street between Grand and Ute Ave were removed and replaced with stop signs.

Next steps include developing plans for full implementation on both 4th and 5th Streets in 2022 utilizing "pop up" elements such as "safe hit" bollards, parking blocks, planters and simple restriping to create the intent of the corridor and allocate the space as defined in the study. This will allow for implementation this year at relatively low cost as well as enable the community to "test drive" the design. Once the concept is proven, then long-term improvements with the addition of permanent bulb-outs and pedestrian-level amenity zones can be permanently constructed in 2023 and 2024.

**FISCAL IMPACT:**

There is no fiscal impact related to the adoption of a resolution. Depending upon proposed solutions and DDA/Council support, projects have been budgeted and added to the City's capital improvement program. The City has \$700,000 budgeted in 2022, and \$750,000 in 2023 and 2024 in the ten-year capital plan for a total of \$2,200,000 to implement the recommendations of this study.

The project appears to be eligible for CDOT's Revitalizing Main Street grant program. This could bring an additional \$150,000 to the project. Applications are due June 1. Staff will request a resolution of support to apply for the grant at the May 18th Council meeting.

**SUGGESTED ACTION:**

I move to adopt Resolution No. 36-22, a resolution adopting the 4th-5th Street Feasibility Study.

**Attachments**

1. GJ4th5thFeasibilityStudy\_March22.2022.FINAL
2. GJ4th5thFeasibilityStudy\_March22.2022.Public Comments Received
3. Resolution - 4th-5th Feasibility Study - 202200504



GRAND JUNCTION

# 4<sup>TH</sup> & 5<sup>TH</sup> ST

FEASIBILITY STUDY



March 2022



# ACKNOWLEDGEMENTS

The following individuals and organizations contributed to the development of the *Grand Junction 4th & 5th St Feasibility Study*: Thank you to all for your continued input and support.

## **Study Leads**

Brandon Stam	Director, Downtown Development Authority (DDA)
Trenton Prall	Public Works Director, City of Grand Junction

## **Technical Team**

Kaity Clark	Region 3 - Grand Junction Resident Engineer, CDOT
Zane Znamenacek	Traffic and Safety Program Manager, CDOT
Mark Bunnell	Traffic Engineer, CDOT
David Goe	Community Engagement Manager, DDA
Eric Mocko	Transportation Engineer, City of Grand Junction
Greg Scott	Traffic, City of Grand Junction
Tamra Allen	Planning, City of Grand Junction
Greg LeBlanc	Senior Assistant to City Manager, City of Grand Junction
Dean Bressler	Senior Engineer, Mesa County RTPO
Andrew Gingrich	Transit Coordinator, Mesa County RTPO

## **Project Advisory Committee**

Jason Smith	Region 3 Program Manager, CDOT
Andrea Haitz	Planning Commission, City of Grand Junction
Josh Niernberg	DDA Board
Cole Hanson	DDA Board
Eli Gerson	Local Business Owner
Nina Parentice	Local Resident
Diana Rooney	Urban Trails Committee, City of Grand Junction
Heath Hillman	Local Neighborhood
Colin St. Clair	Local Neighborhood

## **Downtown Development Authority Board of Directors**

Doug Simons Jr.	Maria Rainsdon
Josh Niernberg	Libby Olson
Dan Meyer	Cole Hanson
Garrett Portra	Randall Reitz
Vance Wagner	

## **City of Grand Junction City Council**

Abe Herman	Dennis Simpson
Chuck McDaniel	Anna Stout
Phillip Pe'a	Rick Taggart -
Randall Reitz	

# TABLE OF CONTENTS

Acknowledgements..... i

**Chapter 1 – Setting the Stage .....1**

    Overview ..... 2

    Previous Planning Efforts ..... 6

    Public & Stakeholder Involvement..... 8

    Vision & Goals ..... 14

    Existing Conditions ..... 17

**Chapter 2 – Feasibility .....24**

    Priorities & Preferences ..... 25

    Proposed Alternatives..... 31

**Chapter 3 – Looking to the Future.....46**

    Recommendations ..... 47

**Appendix 1 – Maps & Outreach .....1**

    Study Maps ..... 2

    Outreach Materials ..... 11

    Alternatives Evaluation Matrix ..... 22

**Appendix 2 – Traffic Memo .....23**







GRAND JUNCTION

# 4<sup>TH</sup> & 5<sup>TH</sup> ST

FEASIBILITY STUDY



## Chapter 1 – Setting the Stage



# OVERVIEW

## Purpose

The **4th and 5th Street Feasibility Study** is being led by the Grand Junction Downtown Development Authority (DDA), in conjunction with the City of Grand Junction (City). The purpose of the feasibility study is to evaluate potential improvements along both corridors with the primary task being to evaluate whether to maintain the one-way traffic operations or transition to two-way travel along the parallel corridors.

*Ensuring a comprehensive look at any proposed modifications, the following key elements were considered for any and all alternatives:*

- **Safety**
- **Traffic Circulation**
- **Walkability**
- **Bicycle Facilities**
- **Parking**
- **Transit**
- **Land Use**
- **Economic Development**

## Study Area

The study area (Figure 1) includes both 4<sup>th</sup> Street and 5<sup>th</sup> Street from North Avenue (US Hwy 6) to the north and Pitkin Avenue (I-70B Eastbound) to the south. The 4<sup>th</sup> Street corridor is a one-way roadway that travels south, and 5<sup>th</sup> Street is a one-way roadway that travels north. The northern portion of the study area has a residential character, while the southern portion includes the downtown core that supports both local businesses and city and community services such as the library and chamber of commerce. There are also two parks within the area – Hawthorne Park located between Hill Avenue and Gunnison Avenue, and Whitman Park located between the one-way couplet I-70B business loop corridors (Westbound - Ute Avenue and Eastbound - Pitkin Avenue).

Although 4<sup>th</sup> and 5<sup>th</sup> Streets are owned and maintained by the City of Grand Junction, the northern and southern termini of the study area, North Avenue (US Hwy 6) and the Ute Avenue and Pitkin Avenue one-way couplet, are Colorado Department of Transportation (CDOT)-owned roadways.

Currently, there are limited transit facilities and bicycle facilities within the study area. The only bike lane is along 5th Street between Ouray Avenue and Belford Avenue.

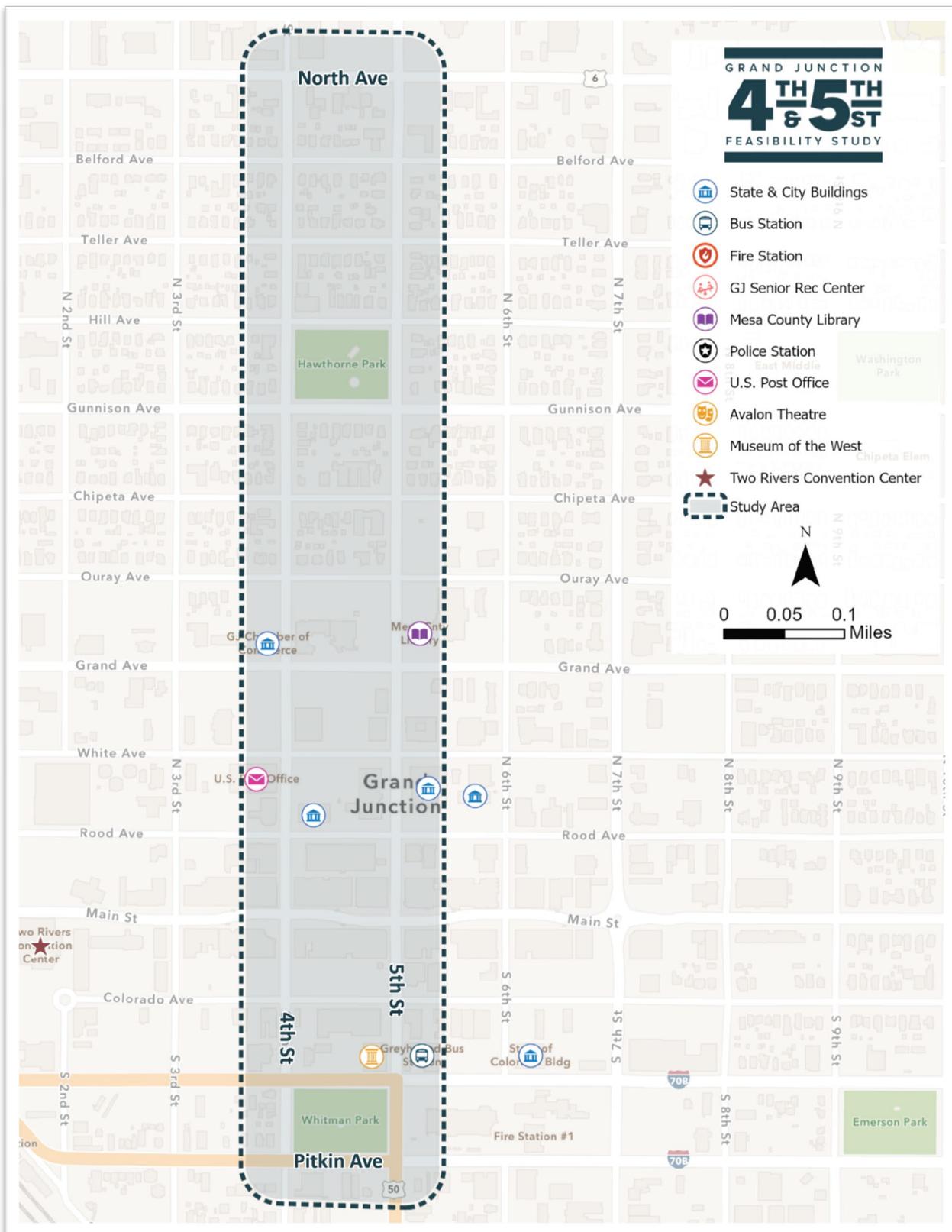


Figure 1: Study Area Map



*Figure 2: 4th St and Rood Ave - Looking North*



*Figure 3: 5th St Between North Ave and Belford Ave*

Early in the planning process, the study team leveraged best practice expertise to articulate a **Summary of Benefits** for both one-way and two-way roadway configurations. This summary (Figure 4) was utilized as a way of framing the conversation around the feasibility and tolerance for specific tradeoffs for each potential operational configuration of 4<sup>th</sup> Street and 5<sup>th</sup> Street.

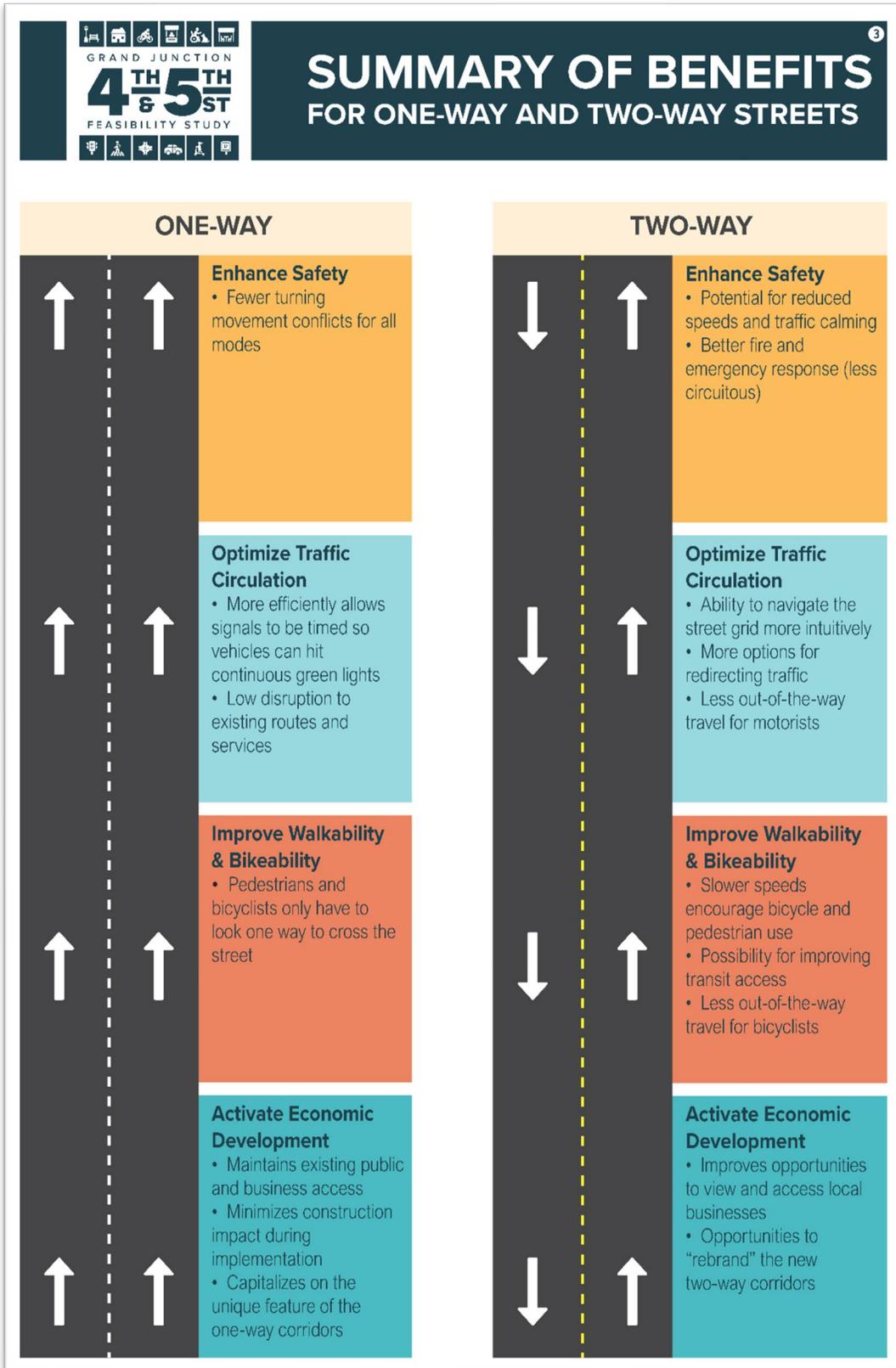


Figure 4: One-Way and Two-Way Benefits Summary

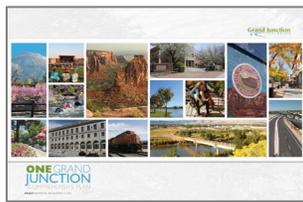


# PREVIOUS PLANNING EFFORTS

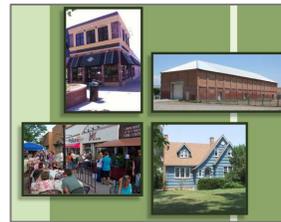
This study builds upon multiple previous planning efforts. In 1981, the Downtown Development Authority (DDA) identified the conversion of 4th and 5th Street from one-way to two-way as a goal in its original Plan of Development. In 2013, the City of Grand Junction's Greater Downtown Plan also called for looking at the configuration of 4th and 5th Street. This was again confirmed as a focus area in the 2019 DDA Plan of Development, and the City's updated Comprehensive Plan due to continued concerns around safety issues related to this corridor. Two of the plans with the most influence on this study are further highlighted below.



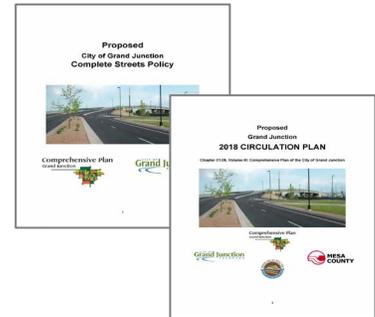
*"Convert 4th and 5th to two-way Streets" is listed as a priority strategy for connectivity.*



*The conversion of 4th and 5th Street from one-way to two-way was confirmed as a focus area due to continued concerns around safety issues.*



*The City's municipal code includes a policy within the Downtown District goals and policies to "Study alternatives for 4th and 5th Streets including returning these streets to the two-way grid system between Ute Avenue and North Avenue."*



*The City's Complete Streets Policy and the 2018 Circulation Plan provide additional guidance that will inform this study.*

## Vibrant Together – A Downtown Initiative (2019)

This Plan provides a unified vision for downtown, identifies projects to advance that vision, and brings local leaders together in pursuit of the vision. Goals outlined in the Plan focus on downtown development, connectivity, safety and comfort, and vibrancy. Specific to 4<sup>th</sup> Street and 5<sup>th</sup> Street, it identifies a wide variety of opportunities and challenges for the study area as a whole and the individual corridors respectively.

The following were recommended for the **study area** as a whole:

- Recommended **bump outs** at Colorado Ave, Main St, Rood Ave, White Ave, and Grand Ave.
  - Proposes a neighborhood bikeway on Ouray Ave, crossing through the two corridors
  - Proposes improved bike intersections along at Grand Ave, Ute Ave, and Pitkin Ave

Recommendations for **4<sup>th</sup> Street** include:

- Identifies that a crosswalk is needed at Grand Ave
- Proposes a bike lane

- Proposes a future event space at Colorado Ave

Recommendations for **5<sup>th</sup> Street** include:

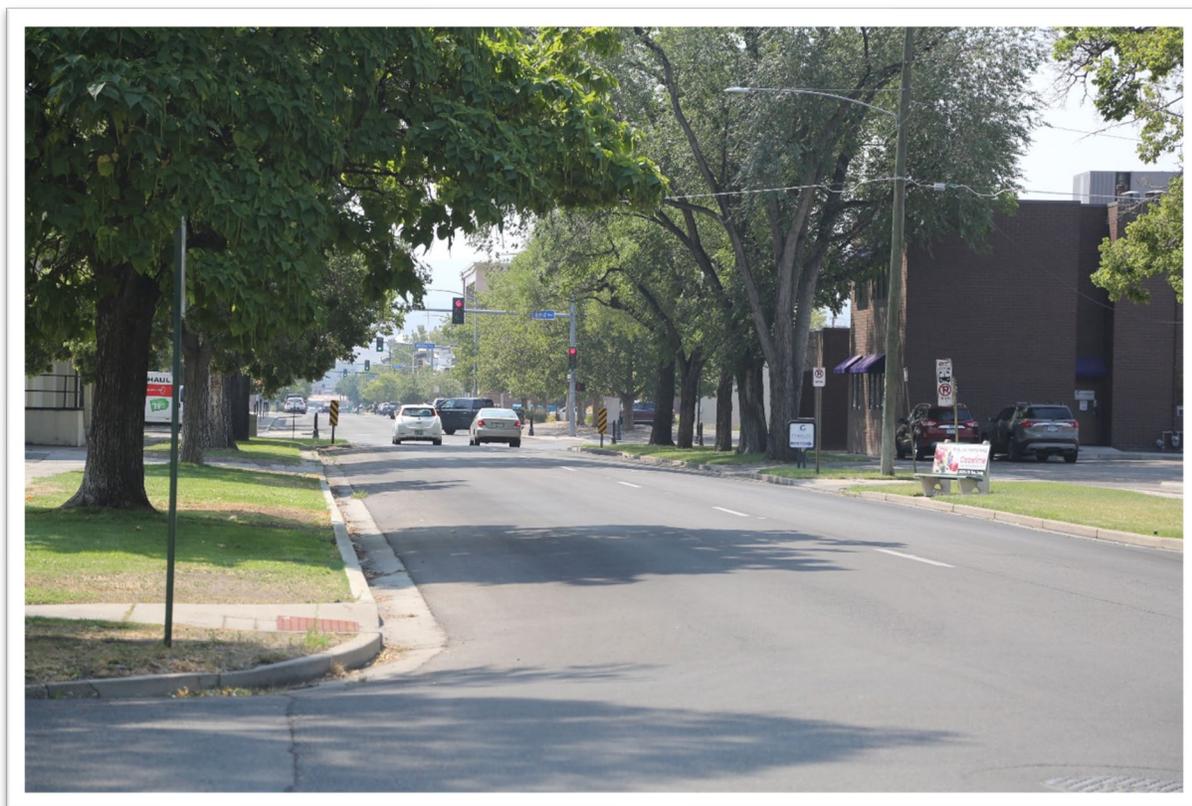
- Identifies Pitkin Ave as a dangerous intersection
- Identifies a new bump out at Grand Ave

## One Grand Junction Comprehensive Plan (2020)

---

The One Grand Junction Comprehensive Plan envisions an efficient and connected transportation system that enhances mobility for all modes. Several opportunities outlined to achieve this include narrowing travel lanes as much as possible; **encouraging the use of transit, biking, walking; and implementing complete streets approaches.**

The recommendation to work with CDOT to ensure the I-70B business loop, an important roadway that provides access to downtown, is a multi-modal facility and provides for comfortable connectivity was identified as a high priority in the near-term.



*Figure 5: 4<sup>th</sup> St and Ouray Ave – Looking South*



# PUBLIC & STAKEHOLDER INVOLVEMENT

## Engaging the Public

Public involvement was an essential component of this feasibility study. Given the pandemic conditions during the entire timeframe of this study process, a combination of both in-person and online virtual engagement methods were used to provide ample opportunities for the public to share their input throughout the full duration of the study.

Key methods of communication included a public meeting, project website, project email, online surveys, online interactive map, social media posts, and more.

Cumulatively, there were almost 500 public comments collected as a result of these engagement activities. A matrix of the comments is provided in the Appendix, while the contents of the comments were used to develop the overall recommendations.

Below is a summary of how the team engaged with the public throughout the study:

- **Public Open House** was held in-person on *May 4, 2021* at the Avalon Theatre in downtown Grand Junction.
- **Project Website** was developed and maintained throughout the study providing updates and input opportunities (<https://project.bhinc.com/4th5thStudy>).
- **Project email** was created allowing for ongoing input ([4th5thStudy@bhinc.com](mailto:4th5thStudy@bhinc.com)).
- **Online Survey** was made available to the public following the open house in *May of 2021* to collect feedback from those who may have been unable to attend or who may have felt more comfortable sharing their feedback through other means.
- **Interactive Map** was developed for the study area and made available on the project website inviting comments from the public and key stakeholders.



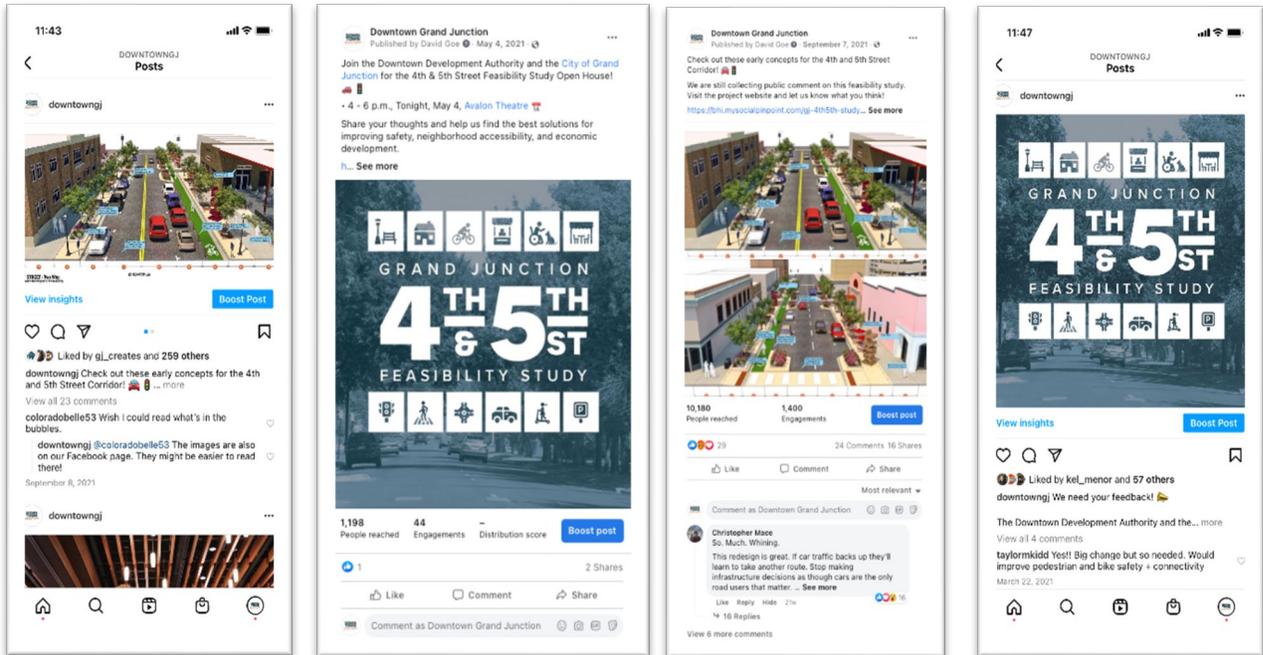


Figure 6: Social Media Posts

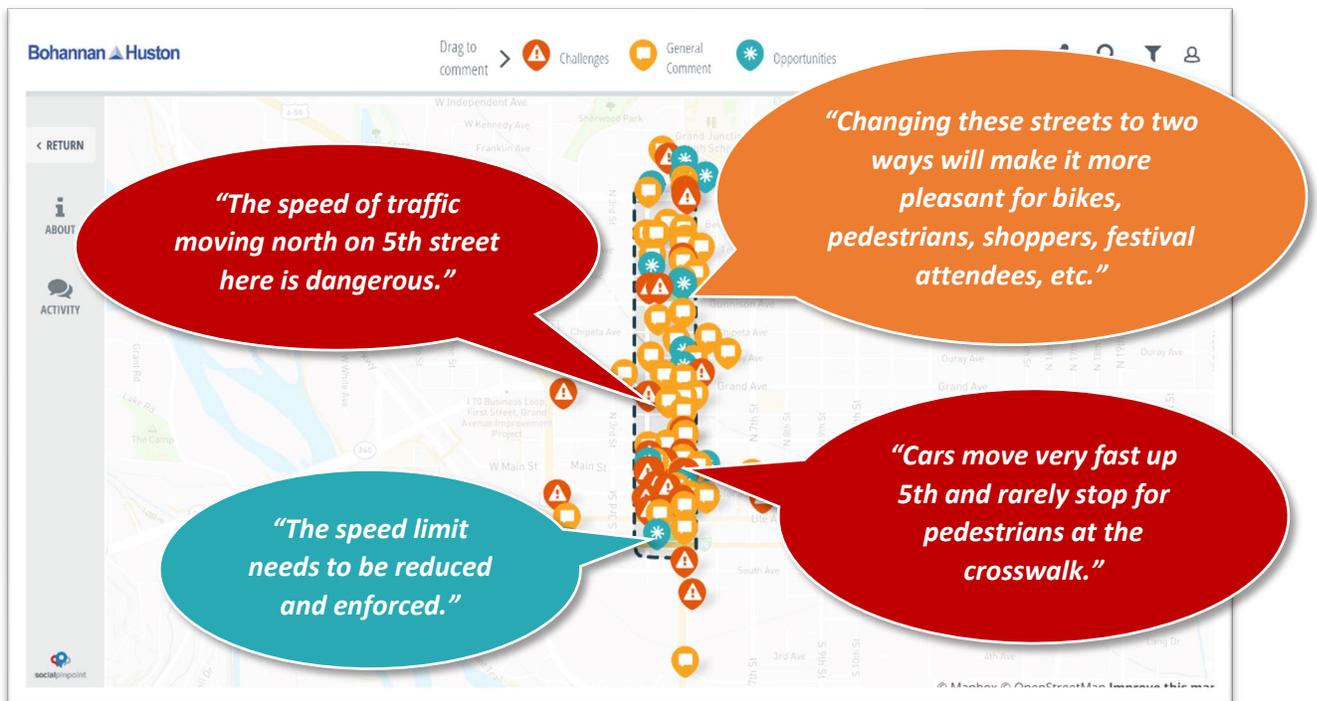


Figure 7: Online Interactive Map Screenshot and Example Comments from Users



- **Online Outreach Effort** was conducted through the month of *September 2021*, which included posting and distribution of resources such as the vision and goals, alternatives illustrated, a traffic analysis summary, and an additional online survey collecting more input.
- **Social Media** posts were ongoing throughout the study process encouraging engagement through the website, email, meeting attendance, and the online activities.

**GRAND JUNCTION**  
**4<sup>TH</sup> & 5<sup>TH</sup> ST**  
 FEASIBILITY STUDY

**GET INVOLVED IN THE PROCESS!**

**ABOUT THE PROJECT:** The purpose of this study is to determine the feasibility of converting **4th Street and 5th Street to two-way traffic**. The study is being led by the Grand Junction Downtown Development Authority, in conjunction with the City of Grand Junction.

Recommended solutions will focus on improved **neighborhood accessibility, walkability, bicycle facilities,** and **economic development opportunities,** while also optimizing **traffic circulation** within the area.

**WAYS TO PARTICIPATE:**  
**Project Website:** <http://project.bhinc.com/4th5thStudy>  
 Use an interactive map on the project website to share your ideas for the 4th/5th Street corridors.  
 » Check out the website for information about upcoming community engagement opportunities.

**Questions and Comments:**  
 Share questions or comments at any time by emailing [4th5thStudy@bhinc.com](mailto:4th5thStudy@bhinc.com) or calling (720) 587-2653.

**Timeline:**  
 PUBLIC MEETING #1  
 PUBLIC MEETING #2  
 Q1 | 2021 EXISTING CONDITIONS ANALYSIS → Q2 | 2021 FEASIBILITY ASSESSMENT → Q3 | 2021 RECOMMENDATIONS & REPORT → Future Project: IMPLEMENTATION / CONSTRUCTION

rediscover TOWN GRAND JUNCTION | CITY OF GRAND JUNCTION COLORADO | Bohannon & Huston

Figure 8 Public Involvement Flyer

## How Stakeholders Participated

The study team also held meetings with various stakeholder groups since the onset of the planning process to identify the vision and goals and overall preferences and priorities for the study area. These entities were also asked to help inform design elements for the proposed alternatives for 4<sup>th</sup> Street and 5<sup>th</sup> Street. There were three major stakeholder groups that supported this effort: Technical Team (TT), Project Advisory Committee (PAC), and Colorado Department of Transportation (CDOT). Key members are noted and appreciated on the acknowledgement page.

- The **Technical Team (TT)** met approximately five times throughout the duration of the study to help collect and review data, review alternatives, provide feedback based on technical expertise, and support recommendations from the study team. This team was comprised of City and County Staff representatives, intergovernmental partners from CDOT, and subject matter experts in the fields of traffic, transportation, mobility, and engineering.
- The **Project Advisory Committee (PAC)** attended three workshops during the study and were integral to supporting the development of vision and goals, providing input throughout the planning process, sharing resources, informing the alternatives and associated pros and cons for each, and disseminating important study information. This committee was comprised of local business owners and residents, community leaders, Downtown Development Authority Board and Planning Commission Members, and a representative from CDOT.
- Several additional meetings were held with CDOT representatives to address concerns along the northern and southern portions of the study area and to meaningfully incorporate CDOT improvements within the study area that are planned for the near future. Coordination with CDOT was ongoing and CDOT staff were members of the TT and PAC, as well.

GRAND JUNCTION  
**4<sup>TH</sup> & 5<sup>TH</sup> ST**  
FEASIBILITY STUDY

## ONLINE SURVEY

**ABOUT THE PROJECT:** The 4th Street and 5th Street Feasibility Study is being led by the Grand Junction Downtown Development Authority, in conjunction with the City of Grand Junction.

**Why?** The purpose of the feasibility study is to evaluate potential improvements along both corridors and within the Study Area, focused on the following:

- Safety
- Traffic Circulation
- Walkability
- Bicycle Facilities
- Parking
- Transit
- Land Use
- Economic Development

**Proposed alternatives** will include maintaining the one-way traffic operations as well as the potential of transitioning to two-way travel corridors.

**Take the Online Survey!**  
Visit the project website to take the online survey. Navigate to the link below or scan the QR code to the right with your phone.  
<http://project.bhinc.com/4th5thStudy>

On the website, you can also use the interactive map to share your ideas for the 4th/5th Street corridors.

Your participation is very valuable to the planning process! **Those who take the online survey will be entered to win a Downtown GJ gift card. Please complete the survey by Tuesday, May 11 for a chance to win.**

rediscover **POWERTOWN** GRAND JUNCTION  
CITY OF **Grand Junction** COLORADO

Bohannon & Huston  
M I C

Figure 9: Public Flyer for Online Survey

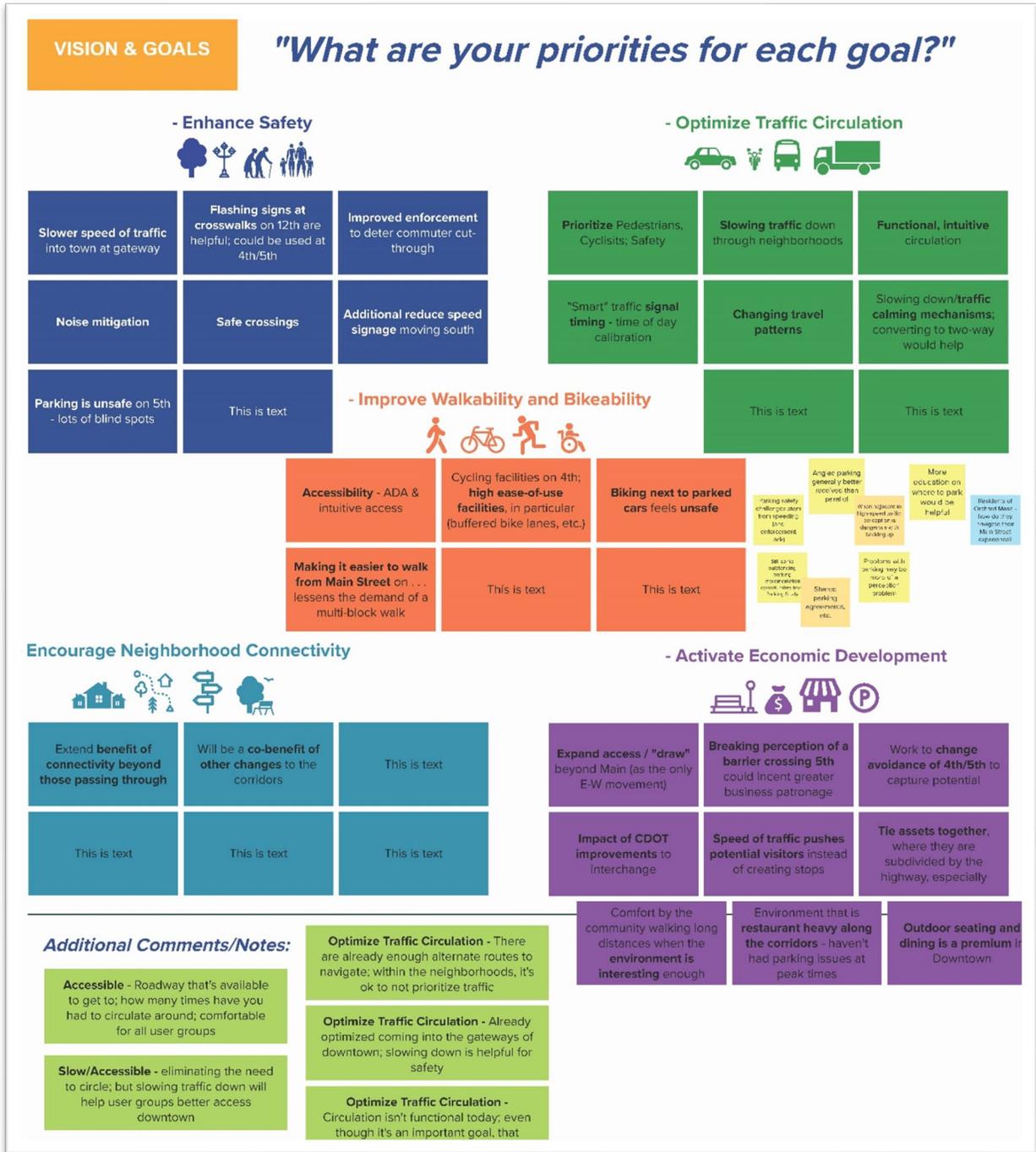


Figure 10: PAC Meeting Vision and Goals Workshop, March 3, 2021

## DDA Board and City Council

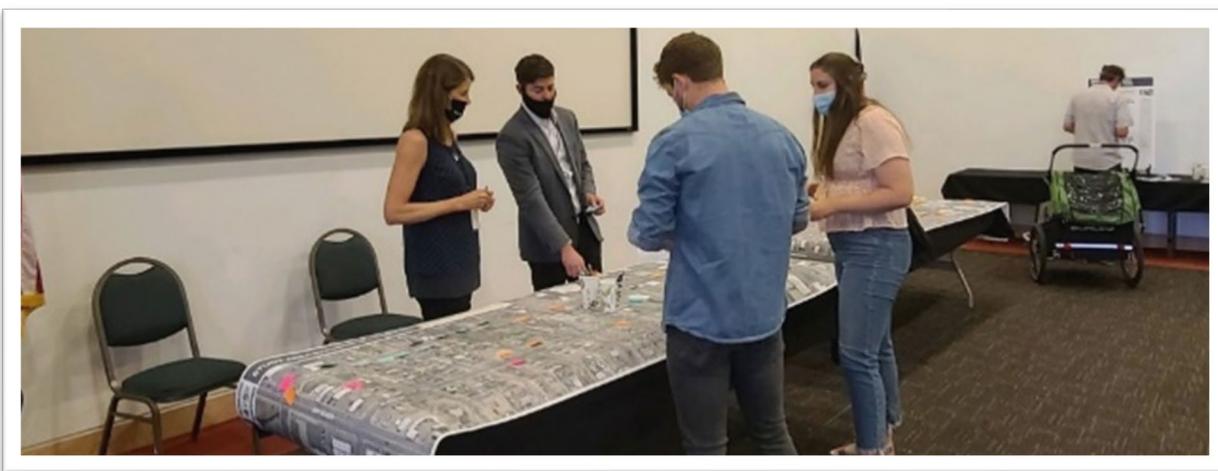
Throughout the study process, the team provided updates and received direction from the DDA Board and the City Council. With seven presentations total throughout 2021, there was complete transparency as alternatives were developed and recommendations were finalized. This ongoing support from the DDA Board and City Council was very helpful and appreciated, and these leadership presentations provided additional opportunities for the public to learn and ask questions about the study.

Members of the study team presented at the following meetings:

- City Council: June 28 and Nov 15, 2021
- DDA Board: March 25, May 13, Sept 23, and Nov 11, 2021
- DDA Board and City Council: August 12, 2021



*Figure 11: Project Website Welcome Page*



*Figure 12: Public Meeting, May 4, 2021*

# VISION & GOALS

The Vision & Goals for the study were developed through partnership with the PAC and based on a wealth of public engagement and input from previous planning efforts. A proposed set of Vision & Goals were then reinforced by input received from the public at the public open house.

All of the input on Vision and Goals was ultimately finalized to include four Vision Elements with a pair of Goals for each. The Goals established and shared below were then used to develop and evaluate all proposed alternatives throughout the remainder of the feasibility study process. They were readily available for the public and stakeholders to refer to when evaluating options and providing input, ensuring that the decisions made throughout the study aligned with the overall vision and overall goals for the study area.



Figure 13: PAC members on Vision and Goals



Figure 14: Final Vision and Goals Established for the Feasibility Study

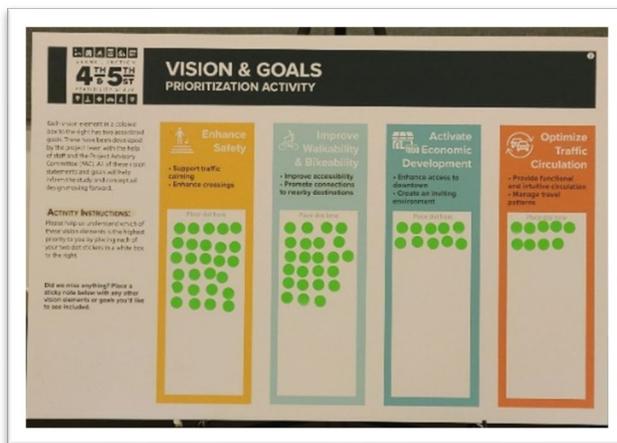


Figure 15: Vision and Goals Activity – Public Meeting May 2021

## Study Area Priorities

Study Area Priorities were also developed with the community to directly align with the Vision Elements. Working in tandem with the Vision and Goals, the Study Area Priorities were used throughout the process to evaluate the various design alternatives being tested for their feasibility. The Study Area Priorities, in particular, were based on feedback received during the Public Open House in May of 2021 and through an associated online survey.

STUDY AREA  
**PRIORITIES**

---

**ENHANCE SAFETY**

- Speeding
- Driver Inattention
- Crashes
- Wrong-Way Drivers
- Backing Out of Parking

**IMPROVE WALKABILITY & BIKEABILITY**

- Needs More and Safer Pedestrian Crossings
- Issues with Noncontinuous Bike Lane on 5th St
- More Bike Lanes are Desired
- Improve Access to Parks

**ACTIVATE ECONOMIC DEVELOPMENT**

- Improve Access to Businesses
- Expand Sidewalk for Seating Areas
- Draw More People into the Area
- Create Pedestrian-Friendly Places
- Incorporate Art and Landscaping into the Corridor
- Signage During Construction

**OPTIMIZE TRAFFIC CIRCULATION**

- Reduce Driver Confusion
- Increase the Amount of Signage
- Reduce Traffic Congestion
- Opportunities Exist to Re-Route Through Traffic

WHAT WE **HEARD**

Over 300 total comments were collected using a combination of an interactive map, project e-mail, public open house, and an online survey.



**“Enhance Safety” and “Improve Walkability and Bikeability” were the highest-ranked Vision Elements**

**Corridor users typically drive or walk when utilizing 4th and 5th Street**

walkable  
longevity  
multimodal  
connective

slow  
bike friendly  
pedestrian

accessible  
bikeable  
safe

efficient  
friendly  
vibrant  
pedestrian friendly  
energetic

**What are the top three elements that would make 4th & 5th Street more enjoyable?**

- 1. SLOWER SPEEDS**
- 2. IMPROVED CROSSINGS**
- 3. MORE CROSSING LOCATIONS**

**Enhance Safety** and **Improve Walkability and Bikeability** were the two most prioritized Vision Elements by the community. The top three recommended strategies that would make 4<sup>th</sup> Street and 5<sup>th</sup> Street more enjoyable included slower speeds, improved crossings, and more crossing locations.

Examples of major themes that emerged within each of the Study Area Priorities included speeding, improved access to parks, a desire for more bike lanes, expansion of the sidewalk for seating areas, and reduced driver confusion. A more detailed list of these themes is presented to the far left.



## Opportunities and Challenges

The study team, along with the PAC and TT, also brainstormed and shared ideas on opportunities and challenges for the two corridors. This information helped highlight traffic, land use, economic development, and safety considerations for this study. Results are summarized below and shared in Figure X.

The following was mentioned:

- Consider signal at 3<sup>rd</sup> Street for safe bicycle crossing
- Connect to existing bike routes
- Consider existing transit routes and connections
- Anticipate transit needs of future growth
- Respect the residential character on north end
- Improve safety at the alleyways
- Explore signage, striping, and signal modifications
- Improve connections to I-70B
- Enhance/Establish a gateway al to downtown along I-70B

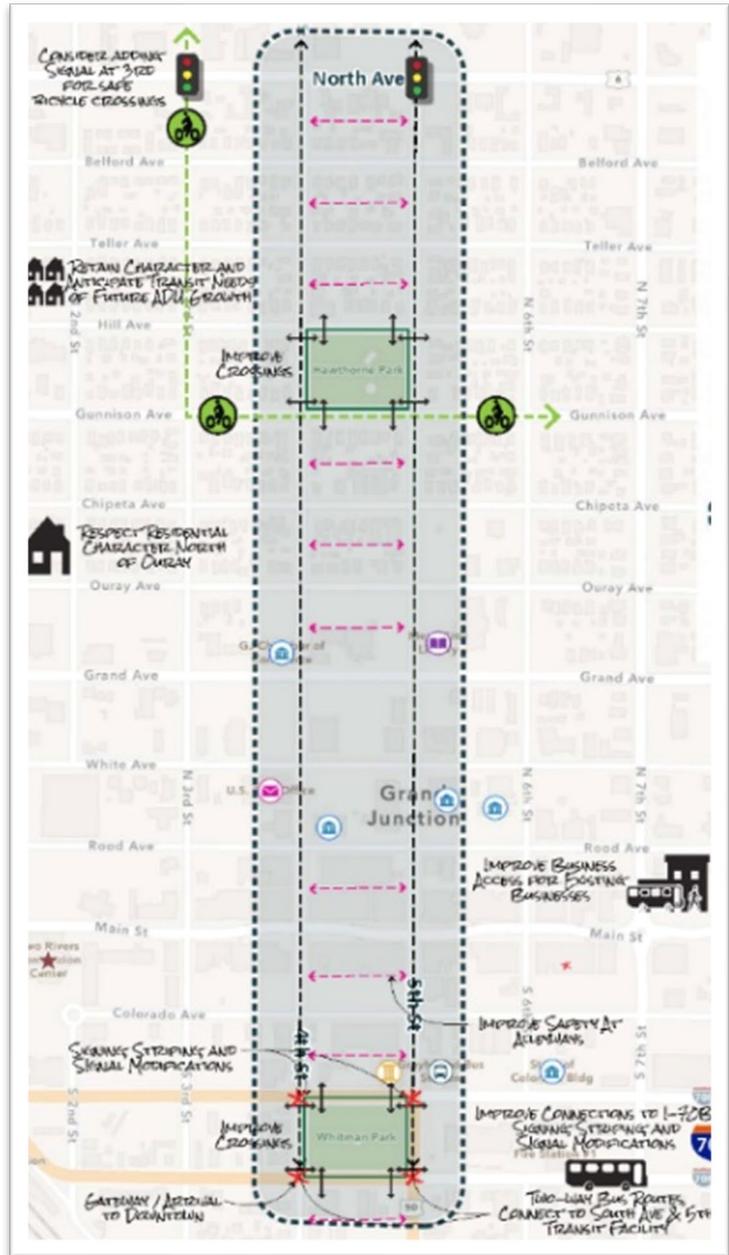


Figure 16: A Map of Opportunities/Challenges

# EXISTING CONDITIONS

The 4<sup>th</sup> Street and 5<sup>th</sup> Street corridors are one-way couplets located in downtown Grand Junction. Existing roadway cross-sections are presented following the narrative existing conditions assessment for each individual corridor below. Today, the environment on the 4<sup>th</sup> Street corridor is more pedestrian-friendly compared to 5<sup>th</sup> Street, where the design and overall landscape lends itself more to prioritizing vehicles over pedestrian comfort. In addition to the existing cross-sections, narrative and existing conditions photos, the Appendix of this study contains a set of existing conditions reference maps – including detailed data on existing and future Land Use, existing and proposed bike facilities, existing transit, and parking within the Study Area – that were used as a basis for developing the concept alternatives in the feasibility analysis component of this project.

*The following maps are available in the Appendix of this document:*

- *Project Area Overview*
- *Current Land Use*
- *Future Land Use*
- *Downtown District*
- *Historic Assets*
- *Parking Facilities*
- *Pedestrian and Bicycle Facilities*
- *Transit Facilities*



*Figure 17: 5th St and Hill Ave – Looking North*





## 4<sup>th</sup> Street Corridor

Between Ute Avenue and Colorado Avenue along 4<sup>th</sup> Street, there are two travel lanes that vary in width, parallel and angled parking on each side, and generous sidewalks (ranging from approximately 11-15'). The section between Colorado Avenue and Rood Avenue includes two travel lanes that also vary in width with parallel parking located immediately adjacent to the travel lanes, and 10-foot sidewalks. The travel lanes in this area vary based on the parking angle. The inconsistent lane widths create a less predictable environment for users while the consistently generous sidewalk supports walkability.

Between Rood Avenue and White Avenue, the corridor has consistent travel lane widths, parking that varies in width (8.5-17.5'), and sidewalks that vary in width (6-15'). From Grand Avenue to Belford Avenue, there are two travel lanes, sidewalks with large buffers/tree lawns (14.5'), and no delineated parking. In these sections of 4<sup>th</sup> Street, the travel lanes are wider than necessary, and there are missed opportunities for bike accommodations and additional parking capacity.



*Figure 18: 4th St and Belford Ave – Looking South*

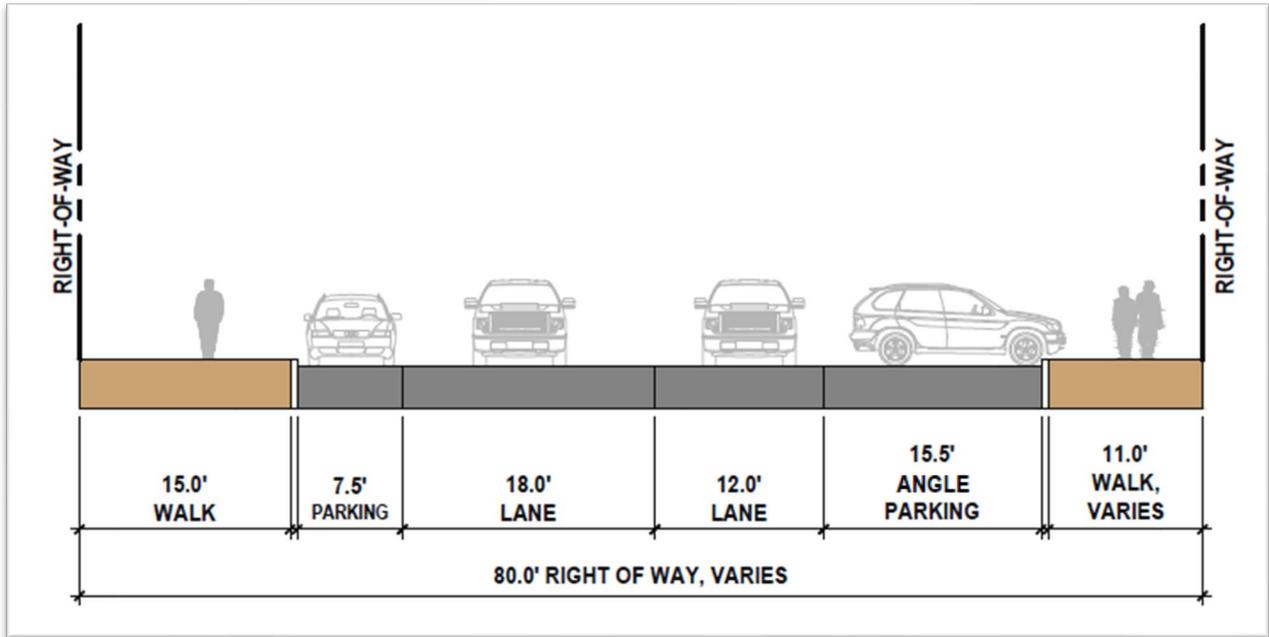


Figure 19: 4th St - Existing Cross-Sections Between Ute Ave & Colorado Ave

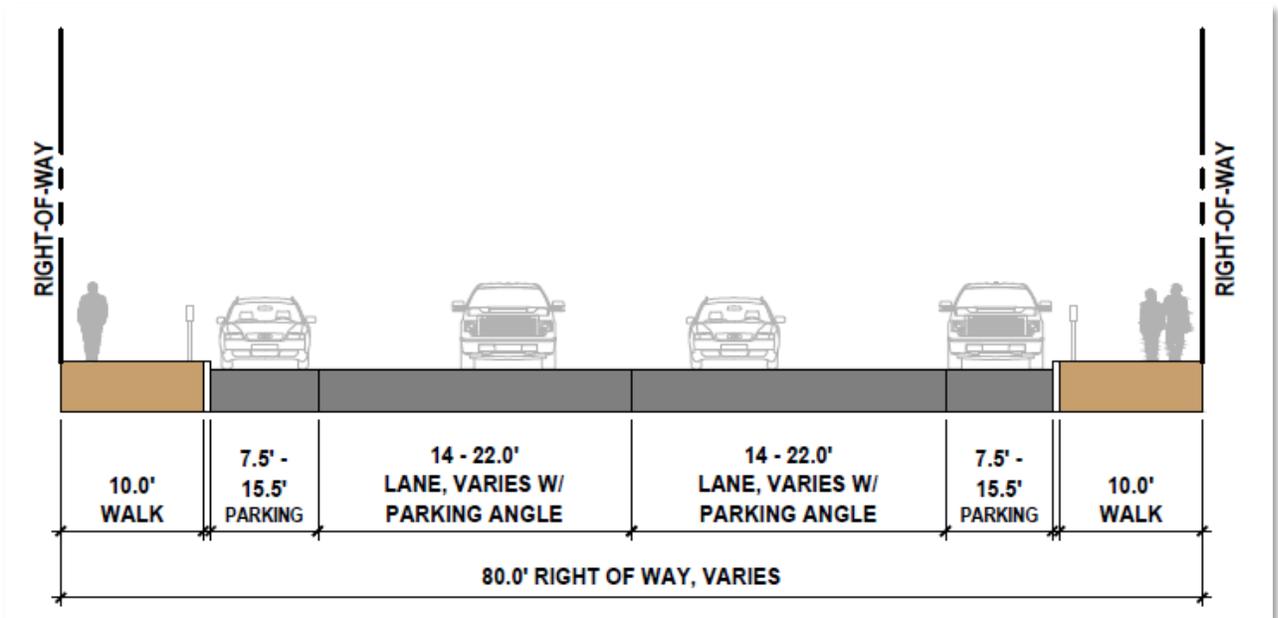


Figure 20: 4th St - Existing Cross-Sections Between Colorado Ave & Rood Ave



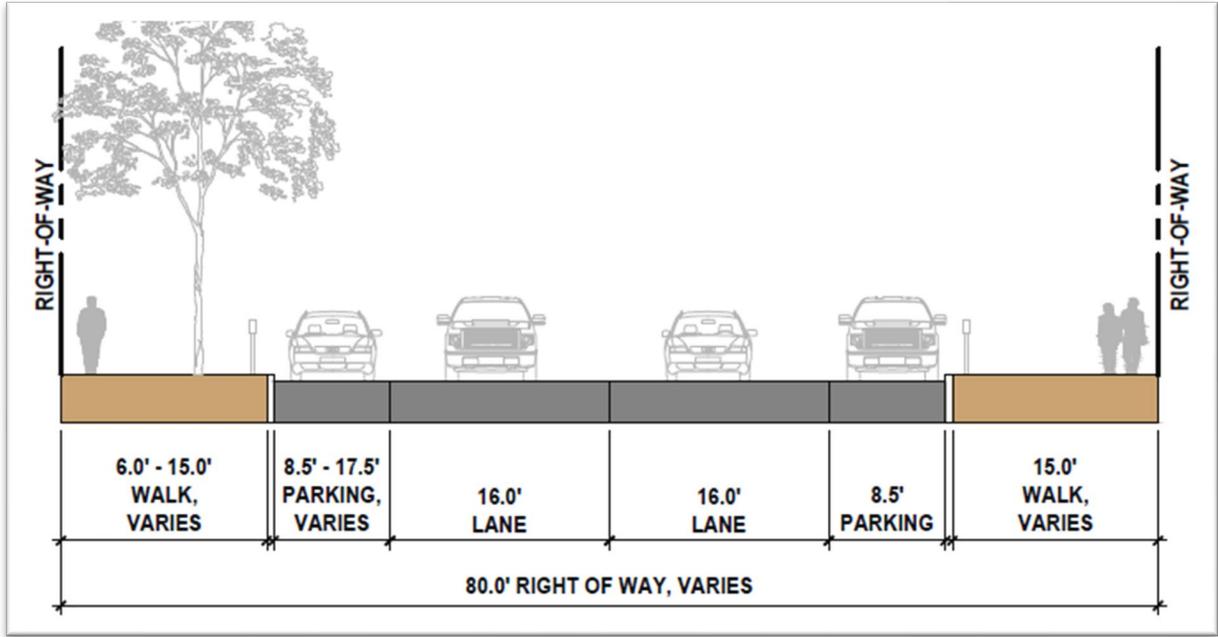


Figure 21: 4th St - Existing Cross-Sections Between Rood Ave & White Ave

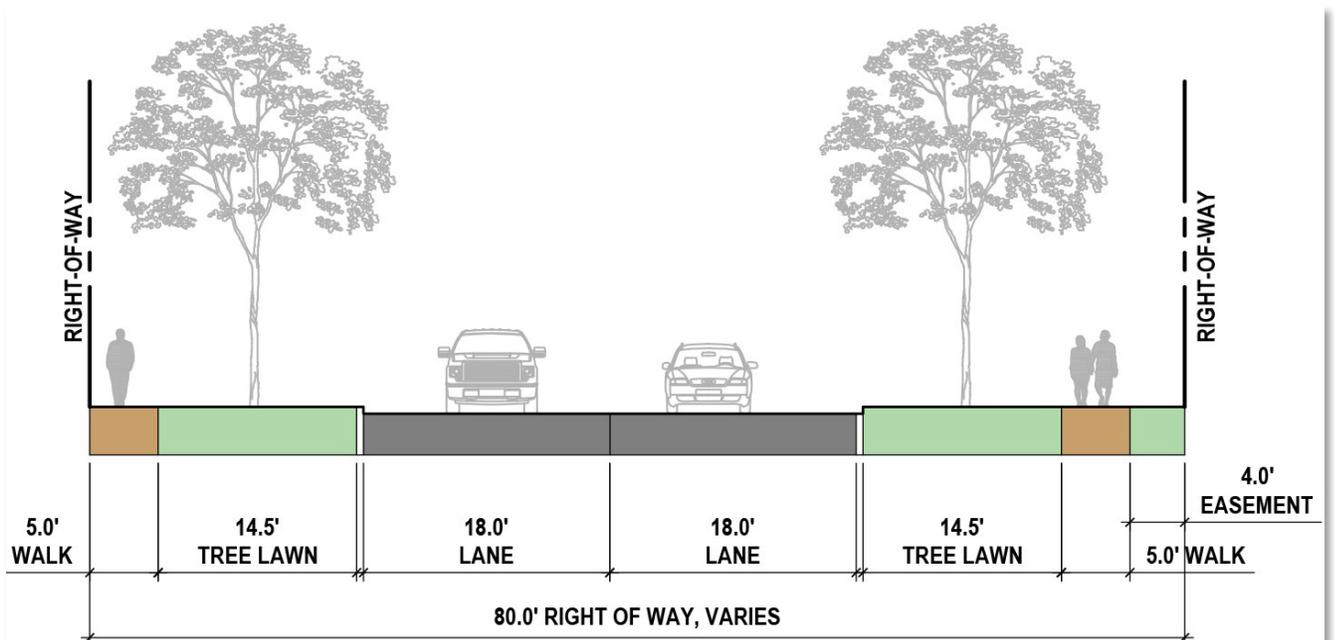


Figure 22: 4th St - Existing Cross-Sections Between Grand Ave & Belford Ave



## 5<sup>th</sup> Street Corridor

Between Ute Avenue and Colorado Avenue along 5<sup>th</sup> Street, there are two wide travel lanes, a combination of parallel and angled parking, and sidewalks. The sections between Colorado Avenue and Main Street and Main Street to Rood Avenue include two travel lanes, angled parking, and sidewalks. The sidewalk varies throughout this area. The wider lanes in this area create an environment that is more conducive to speeding. The inconsistency in the right-of-way allocation leads to a less predictable environment. Overall, the design throughout this area communicates a diminished priority for pedestrians, which creates a challenge for activating the sidewalk area. This challenge of activation inhibits the economic development potential of the downtown environment.

Between Rood Avenue and Grand Avenue, the corridor has two travel lanes, angled parking, and sidewalks that vary in width. The section from Grand Avenue to Belford Avenue includes two travel lanes, a bike lane (5.5') on the east side, parallel parking on the west side, and sidewalks with large buffers/tree lawns (14.5'). Similar to the southern end of the corridor, the northern end has the same right-of-way allocation inconsistency issues. The transition to the 'neighborhood' section north of Grand Avenue signals a shift of prioritization to other modes and users such as bicyclists. However, because this bike lane is not present throughout the entirety of the corridor, it creates connectivity issues for those traveling by bike.



*Figure 23: 5th St and Grand Ave – Looking North*

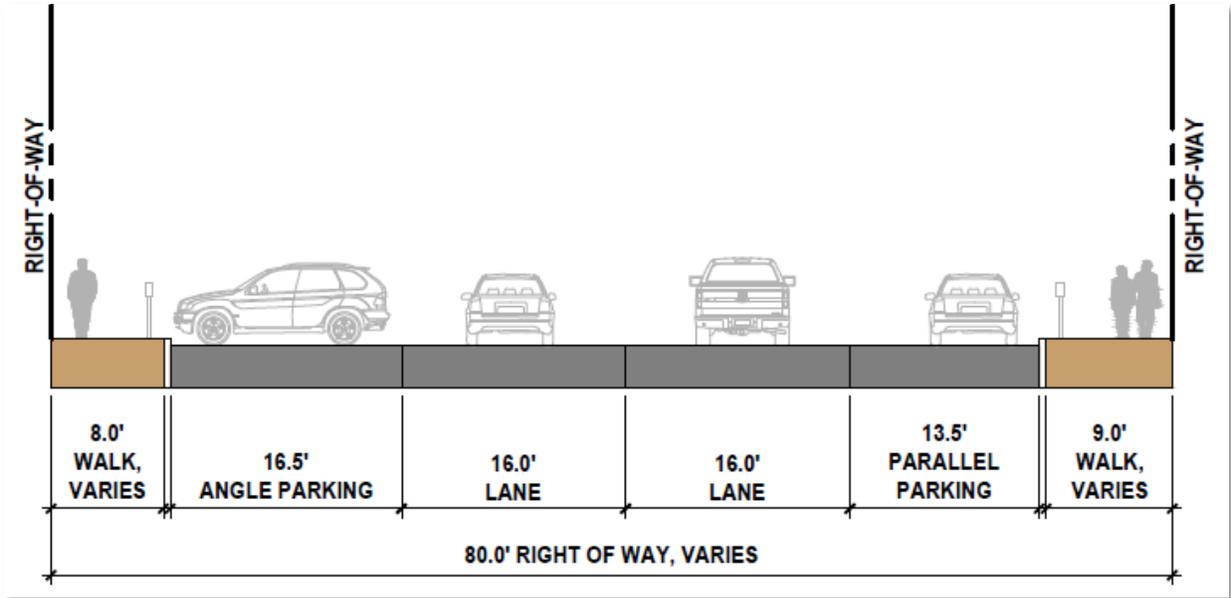


Figure 24: 5th St - Existing Cross-Sections Between Ute Ave & Colorado Ave

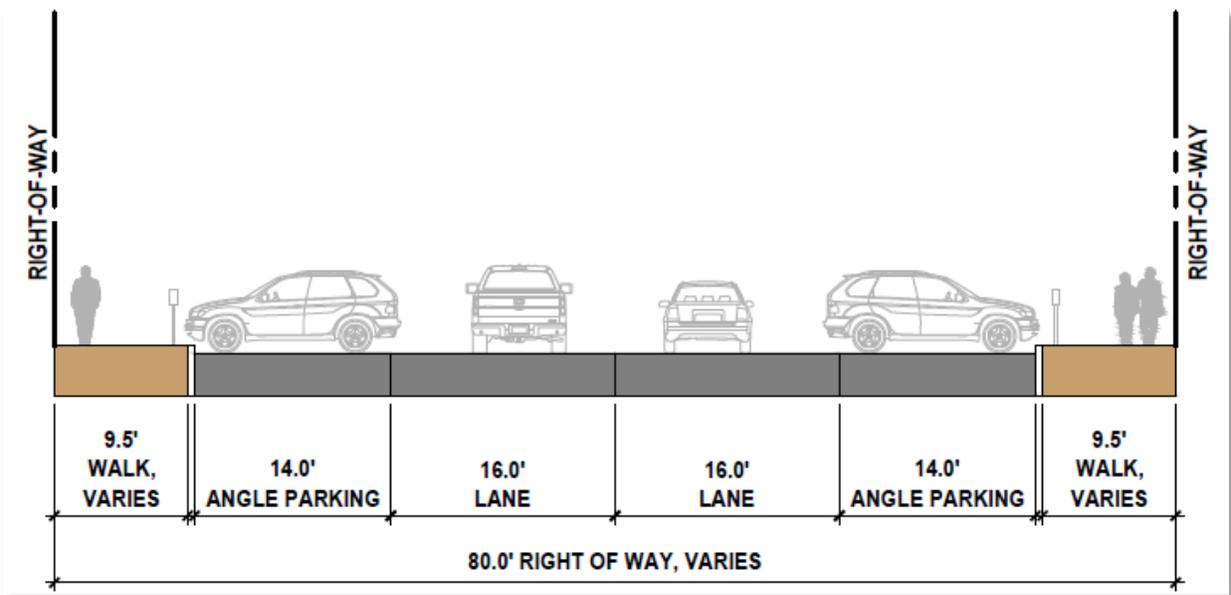


Figure 25: 5th St - Existing Cross-Sections Between Colorado Ave & Main St & Main St to Rood Ave

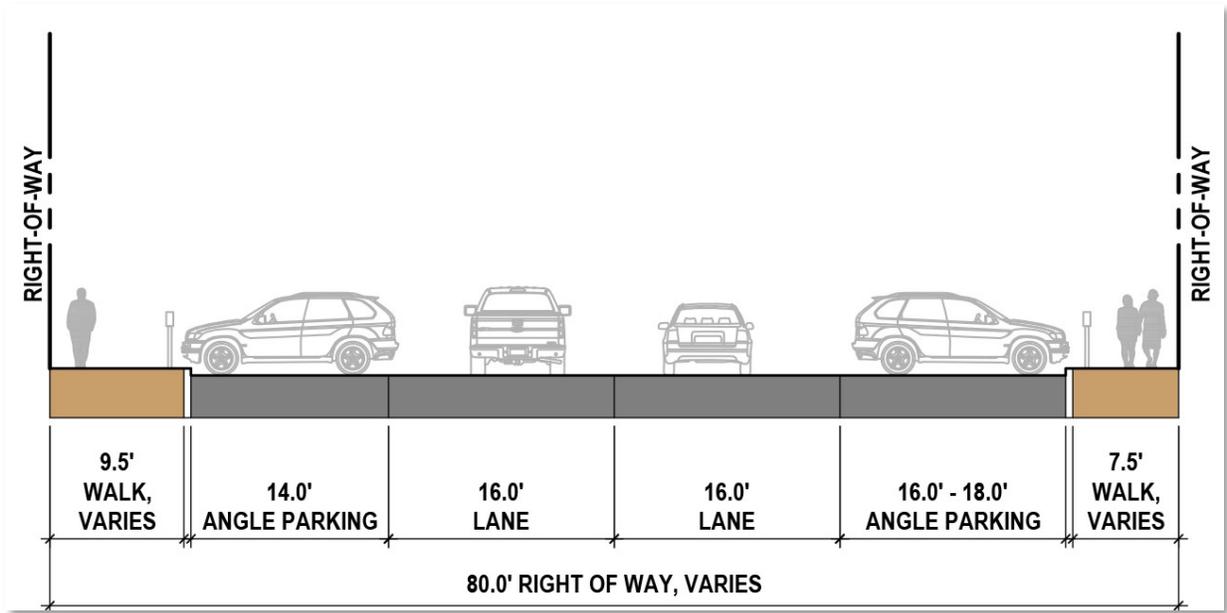


Figure 26: 5th St - Existing Cross-Sections Between Rood Ave & Grand Ave

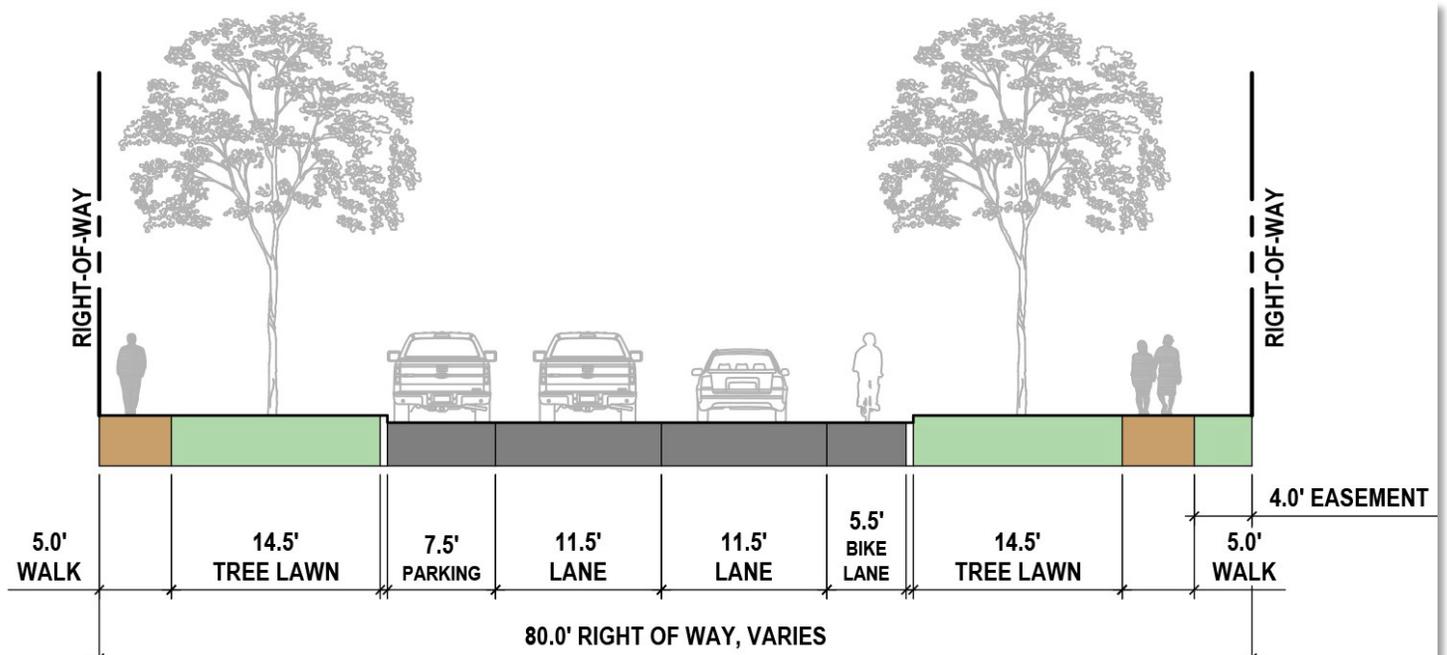


Figure 27: 5th St - Existing Cross-Sections Between Grand Ave & Belford Ave

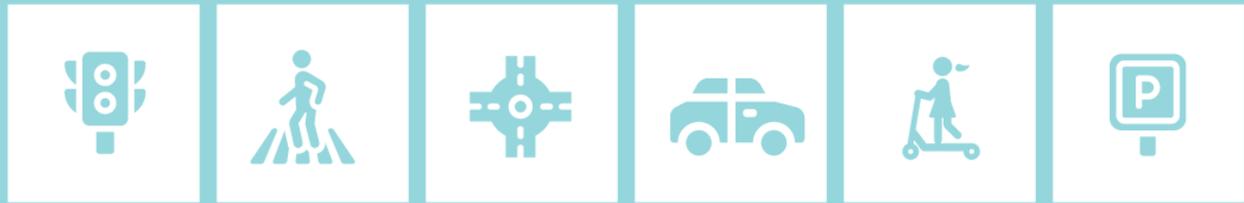




GRAND JUNCTION

# 4<sup>TH</sup> & 5<sup>TH</sup> ST

FEASIBILITY STUDY



## Chapter 2 – Feasibility

# PRIORITIES & PREFERENCES

In addition to the broader reach of public engagement that is outlined in Chapter 1 of this document, this study leveraged the expertise of its Technical Team (TT) and Project Advisory Committee (PAC) in developing the nuances of concept design alternatives in the Feasibility Assessment phase of the project.

As a foundation for developing concept alternatives, the TT and PAC were asked to rank various design elements based on whether they felt those elements achieved the study area priorities. These key stakeholders and subject matter experts had the opportunity to respond to questions using interactive polling activities about bicycle facility types and treatments, parking treatments, pedestrian realm treatments, and pedestrian amenities. A snapshot of these interactive activities are presented below, and while not used as absolute directives, they were used as key inputs to assessing the feasibility and tradeoffs associated with each of the proposed concept alternatives.



*Figure 28: 5th St and Gunnison Ave - Looking North*



*Figure 29: 5th St and Main - Looking Northeast*





## Bicycle Facilities



Figure 30: Polling results – PAC meeting on June 16, 2021

For bicycling, stakeholders reported protected bike lanes, parking protected bike lanes, and separated bike lanes as facilities that would achieve the study area priorities. A variety of parking facilities were then studied, with the proposed alternatives recommending parking protected bike lanes on both 4<sup>th</sup> Street and 5<sup>th</sup> Street.

## Parking Treatments



**Figure 31: Polling results - PAC meeting on June 16, 2021**

For parking treatments, stakeholders reported parallel parking as the preferred parking design that would achieve the study area priorities. While the existing conditions along 4<sup>th</sup> Street and 5<sup>th</sup> Street contain a variety of parallel and angled parking treatments, based upon the results of this study – including the input from the public and key stakeholders, the proposed alternatives recommend a consistent approach to parallel parking along both corridors.

## Pedestrian Realm/Public Space Treatments

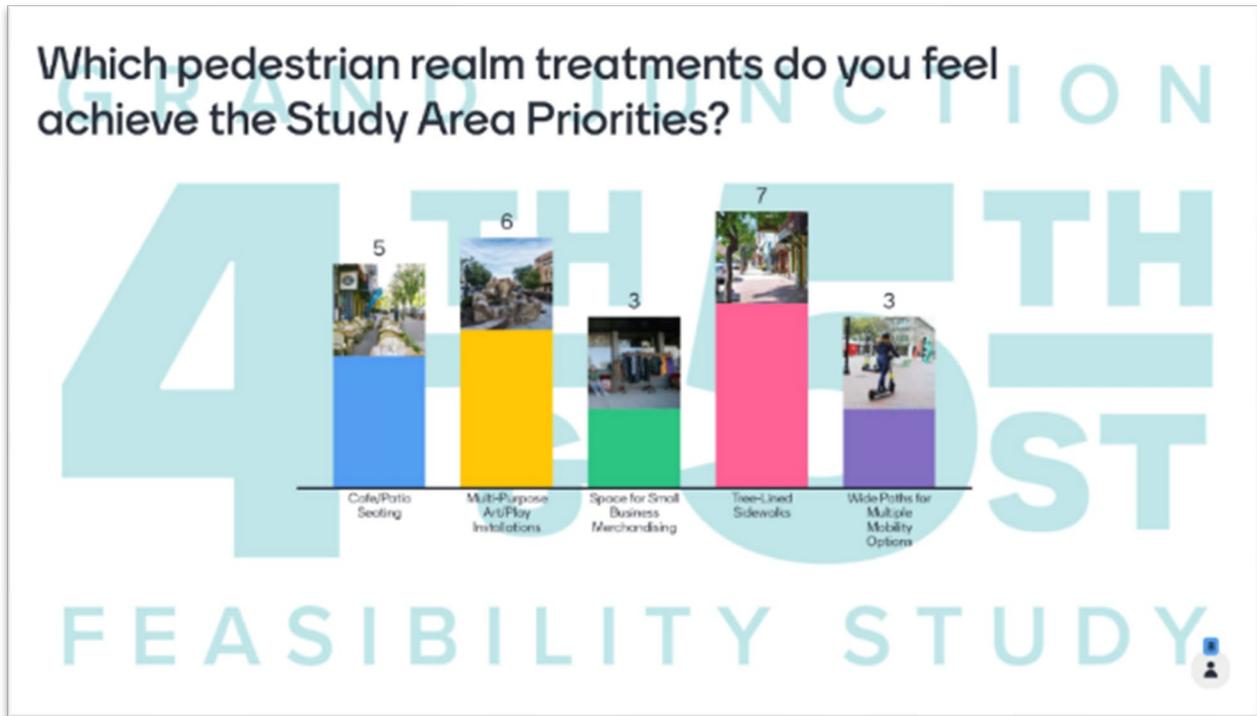
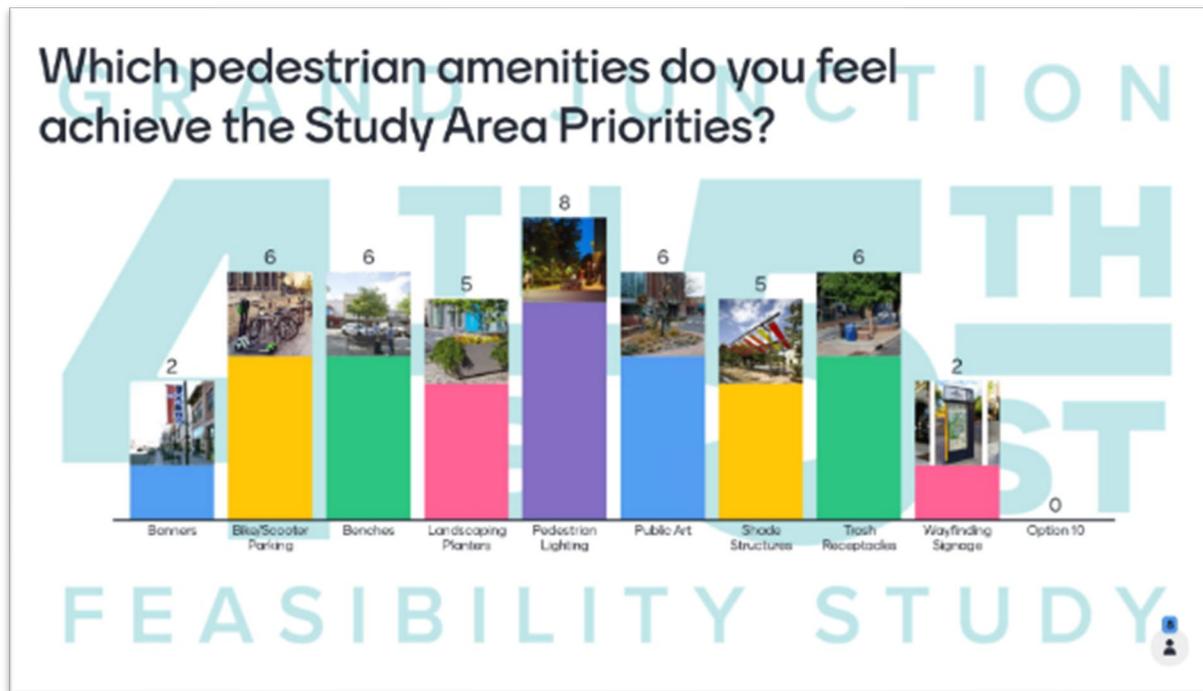


Figure 32: Polling results - PAC meeting on June 16, 2021

For pedestrian realm treatments, stakeholders reported tree-lined sidewalks, café/patio seating, and multi-purpose art/play installations as elements that would achieve the study area priorities. A variety of configurations were explored for pedestrian realm and public space treatments along both corridors, with the proposed alternatives recommending a continuous 8' amenity zone (in addition to a 9-foot sidewalk) along the downtown portions of 4<sup>th</sup> Street and 5<sup>th</sup> Street within the study area, which can be flexibly programmed with any of the priority treatments identified through this process.

## Pedestrian Amenities



*Figure 33: Polling results - PAC meeting on June 16, 2021*

For pedestrian amenities, stakeholders reported pedestrian lighting, trash receptacles, benches, landscaping planters, and public art as elements that would achieve the study area priorities. Similar to the approach for public realm treatments, within the proposed alternatives, many of these elements can be located within the flexible 8' amenity zone and/or can be included as a component of features such as bulb-outs.

## What is most important?

Reiterating what we heard from the public via the project website, polling results are shared below. Corridor users reported walking or driving as the most common use when traveling along the corridor and also indicated that slower speeds and improved crosswalks were most important along both 4<sup>th</sup> and 5<sup>th</sup> Street. These inputs were strongly considered when creating the proposed alternatives to ensure that both existing and future needs are being met.

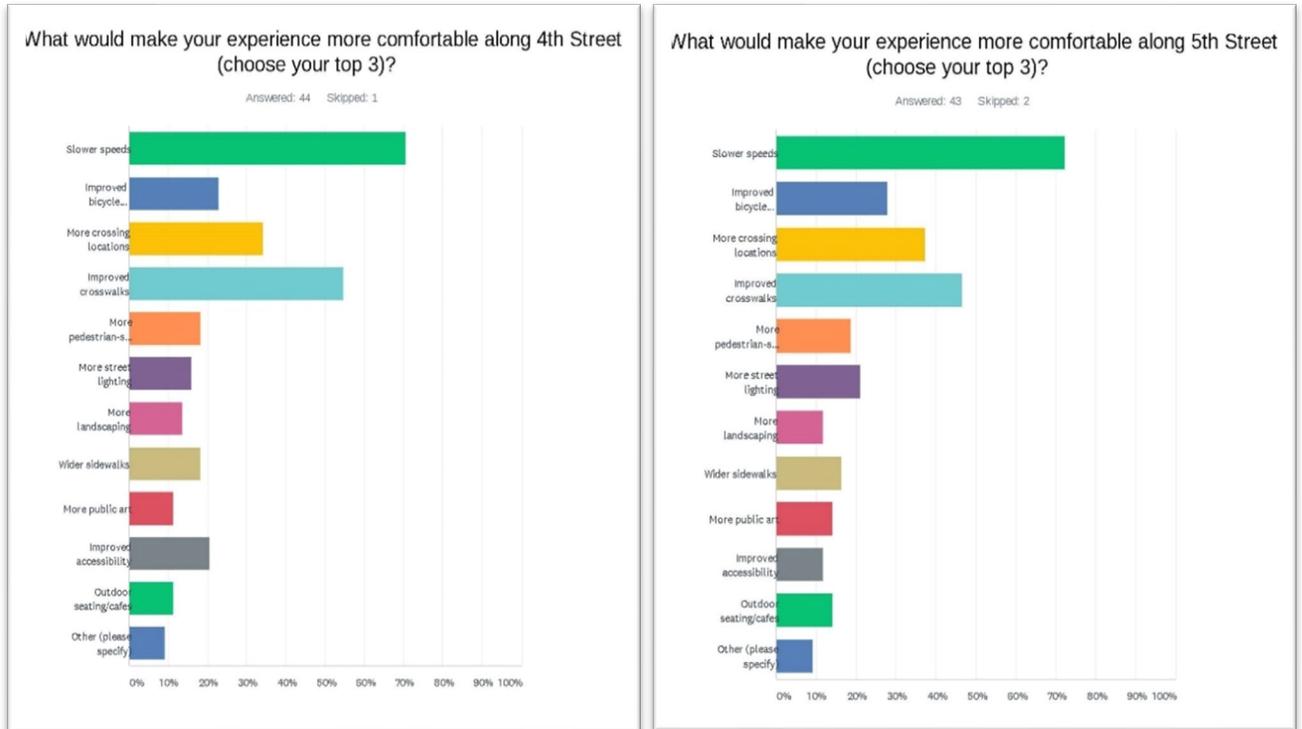


Figure 34: Polling Results via the Project Website

# PROPOSED ALTERNATIVES

## Development of Proposed Alternatives

Based on the collection of input received from the City Council, DDA Board, PAC, TT, and the public a set of proposed alternatives were created for 4<sup>th</sup> Street and 5<sup>th</sup> Street. The proposed alternatives seek to achieve both the vision and the goals set forth for this study - **enhance safety, improve walkability and bikeability, activate economic development, and optimize traffic circulation.**

Proposed alternatives for both 4<sup>th</sup> and 5<sup>th</sup> Street include the **Enhanced One-Way Alternative** and **Enhanced Two-Way Alternative**, with descriptions and associated visuals shown on the following pages. Details on existing conditions, for comparison purposes, are in Chapter 1.

The **Enhanced One-Way Alternative** represents the proposed future concept for 4<sup>th</sup> & 5<sup>th</sup> Street remaining as a one-way configuration with additional enhancements, including two travel lanes, consistent parallel parking, a parking-protected bike lane on one side of the street, and expanded sidewalks and amenity zones on both sides of the street.

Key Takeaways for Enhanced One-Way Alternative on 4 <sup>th</sup> and 5 <sup>th</sup> Street			
One-Way Vehicle Travel	Parallel Parking	Expanded Sidewalks	Bulbouts at Corners and Alleys
Narrowed Travel Lanes	Separated Bike Lanes	Amenity Zone (Landscaping, Art, Outdoor Seating, Other Amenities)	

The **Enhanced Two-Way Alternative** represents the proposed future concept for 4<sup>th</sup> & 5<sup>th</sup> Street converted to a two-way configuration with additional enhancements, including two travel lanes, consistent parallel parking, a parking-protected bike lane on one side of the street, and expanded sidewalks and amenity zones on both sides of the street.

Key Takeaways for Enhanced Two-Way Alternative on 4 <sup>th</sup> and 5 <sup>th</sup> Street			
Two-Way Vehicle Travel	Parallel Parking	Expanded Sidewalks	Bulbouts at Corners and Alleys
Narrowed Travel Lanes	Separated Bike Lanes	Amenity Zone (Landscaping, Art, Outdoor Seating, Other Amenities)	



While the portion of 4<sup>th</sup> Street and 5<sup>th</sup> Street south of Grand has a downtown character, the portion north of Grand Ave serves a more residential user base, and therefore a separate, yet congruous, alternative was developed for the northern portion of the corridors. Accordingly, each alternative is separated into two sections, presented north to south: North to Grand and Grand to Ute.

## Proposed Alternative: North to Grand (Residential)

Given the similar conditions for 4<sup>th</sup> and 5<sup>th</sup> Street between North and Grand, the following visuals represent the proposed alternatives for both corridors. During design there will be refinements to adequately address any unique features along each corridor.



*Figure 35: 4th Street at Belford – Looking South*

4<sup>th</sup> and 5<sup>th</sup> Street – Enhanced One-Way and Two-Way Alternatives

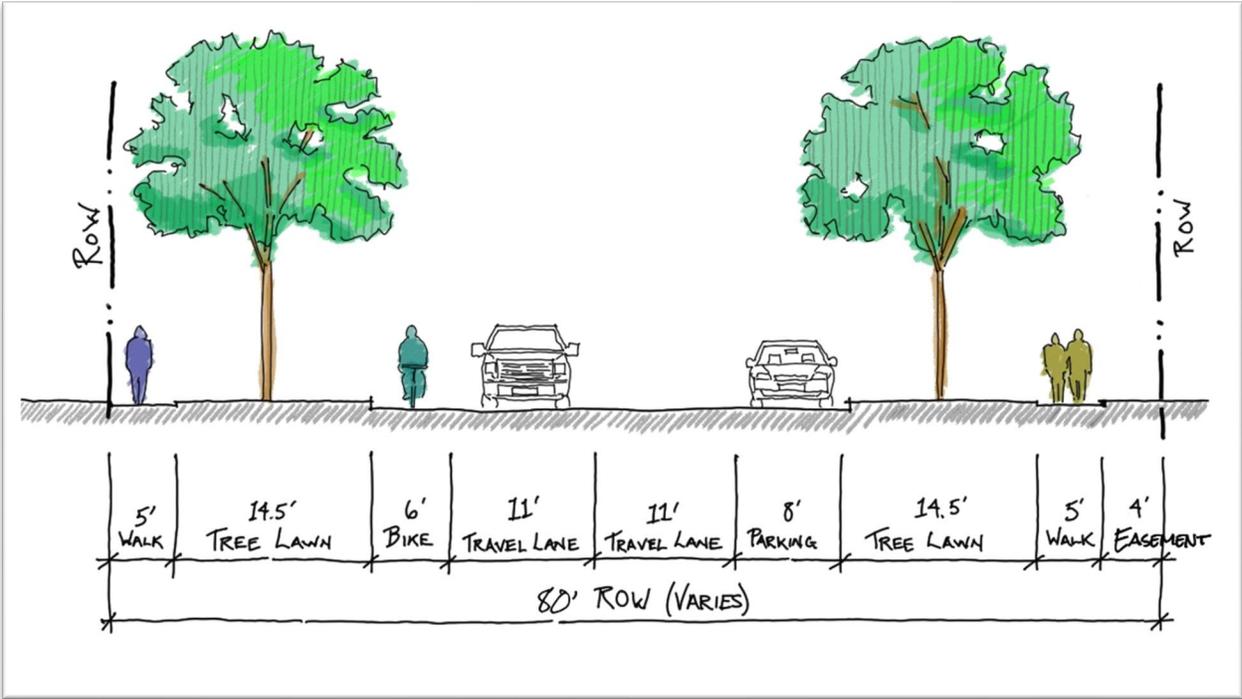


Figure 36: Enhanced One-Way/Two-Way Alternative - 4th St - North of Grand

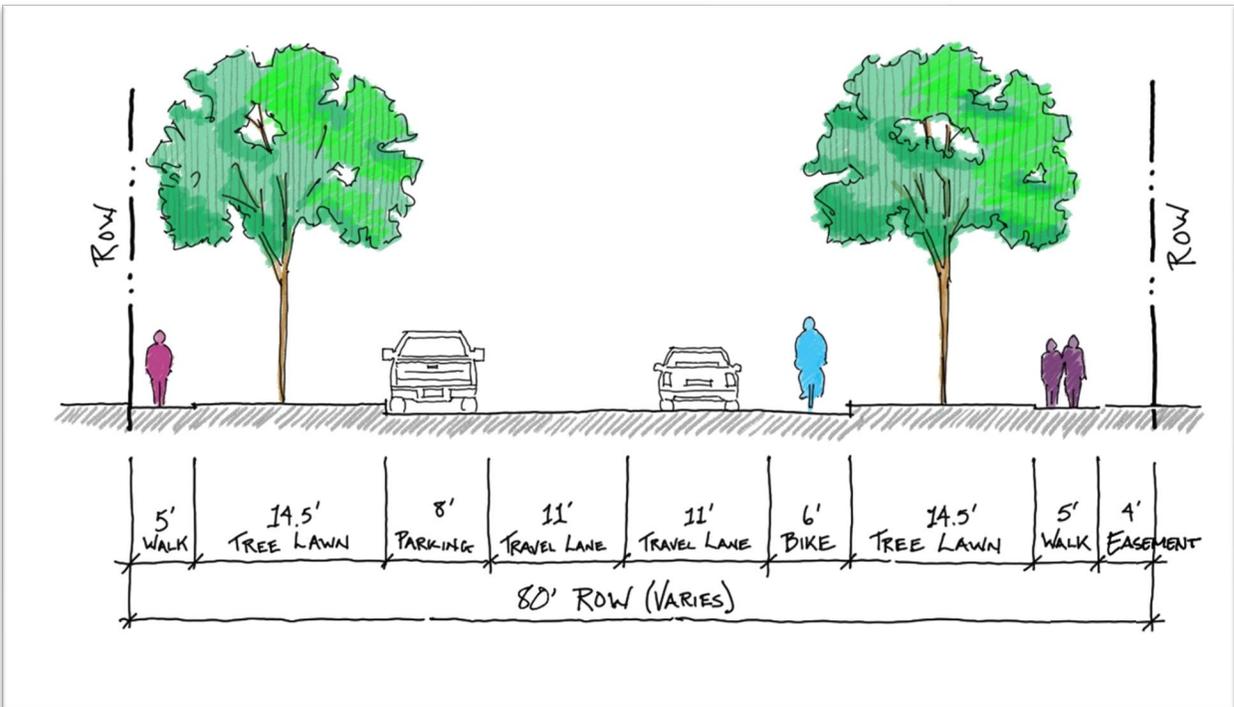


Figure 37: Enhanced One-Way/Two-Way Alternative - 5th St - North of Grand





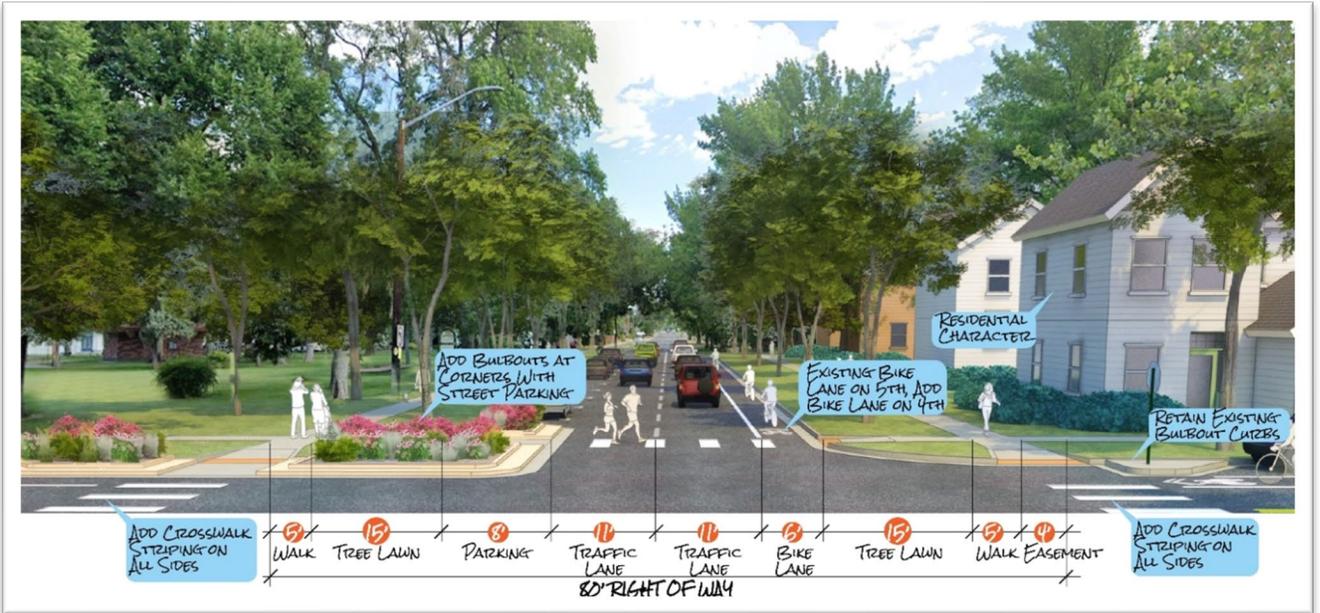


Figure 38: One-Way Residential Section - North of Grand Ave

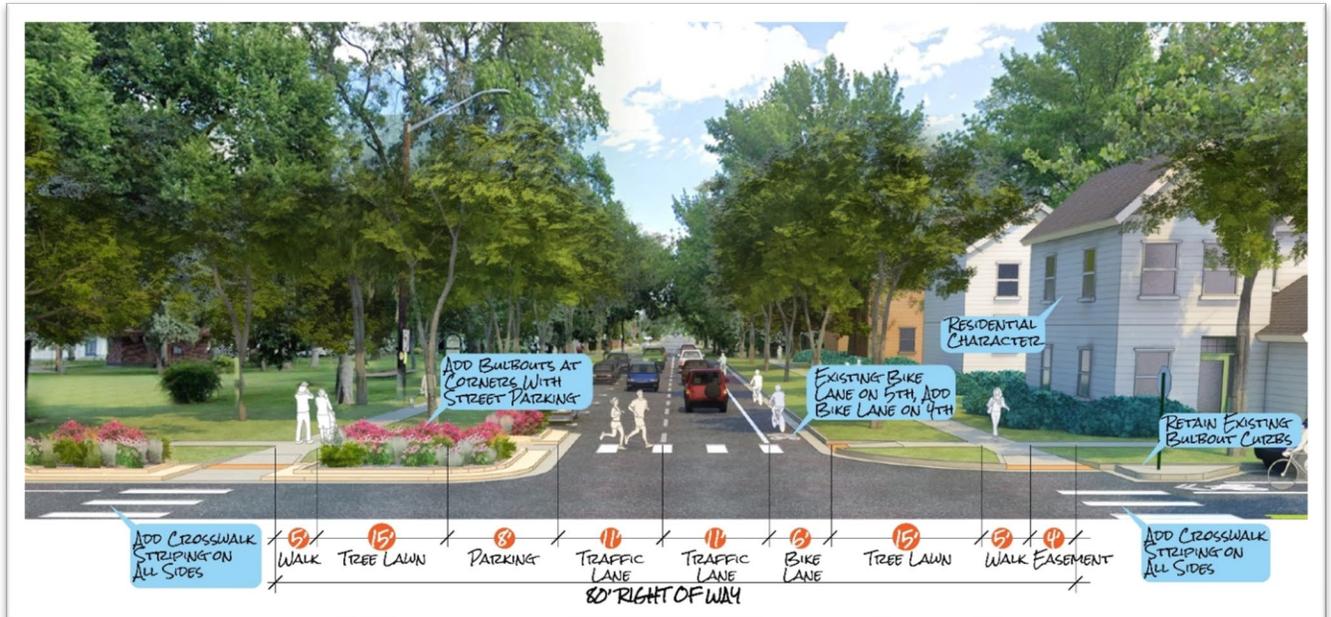


Figure 39: Two-Way Residential Section - North of Grand Ave

## Proposed Alternatives: Grand to Ute (Commercial)

The following graphics represent the proposed alternatives for the southern portion of both corridors from Grand to Ute. Since the directional traffic is the primary delineator, visually they look very similar, providing many of the same enhancements. At this time, they are conceptual and will be further refined during the design phase.

### 4<sup>th</sup> Street

Along 4<sup>th</sup> Street, both the Enhanced One-Way and the Enhanced Two-Way Alternative provide two travel lanes, parallel parking on both sides where space permits, a southbound directional bike lane, and additional space for pedestrian activities and public placemaking. The bike lane is painted entirely green in the following visuals but would potentially only be painted green at the conflict points with implementation.



*Figure 40: 4th St and Road Ave - Looking West*

### 4th Street – Enhanced One-Way Alternative

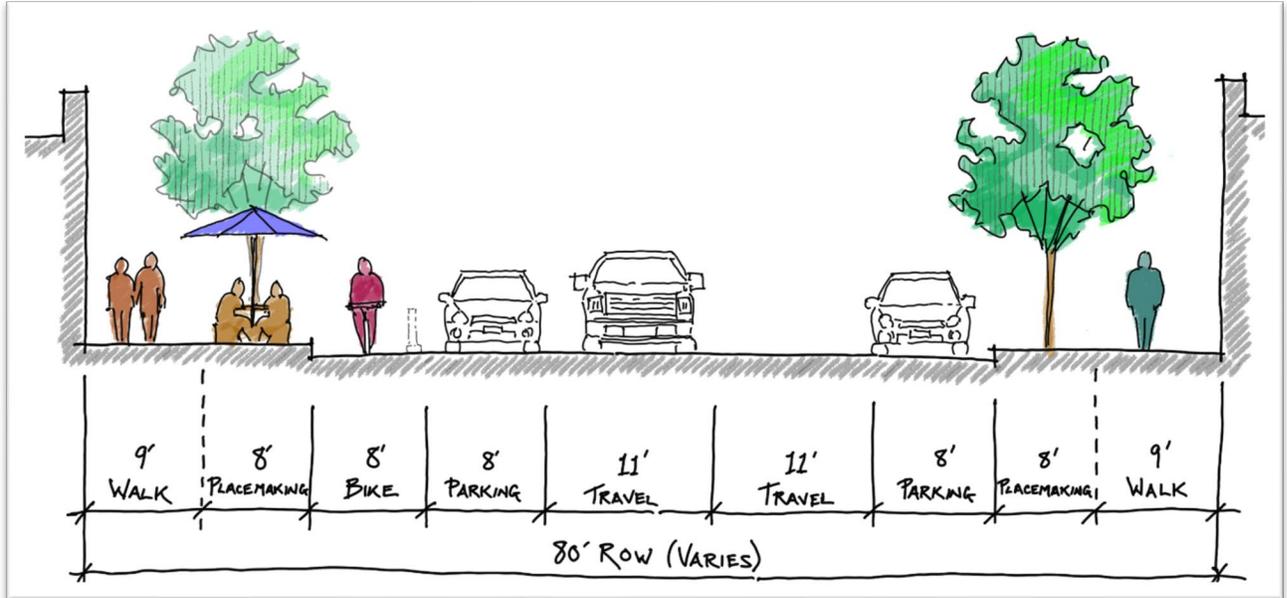


Figure 41: Enhanced One-Way Alternative - 4th St – Grand to Ute

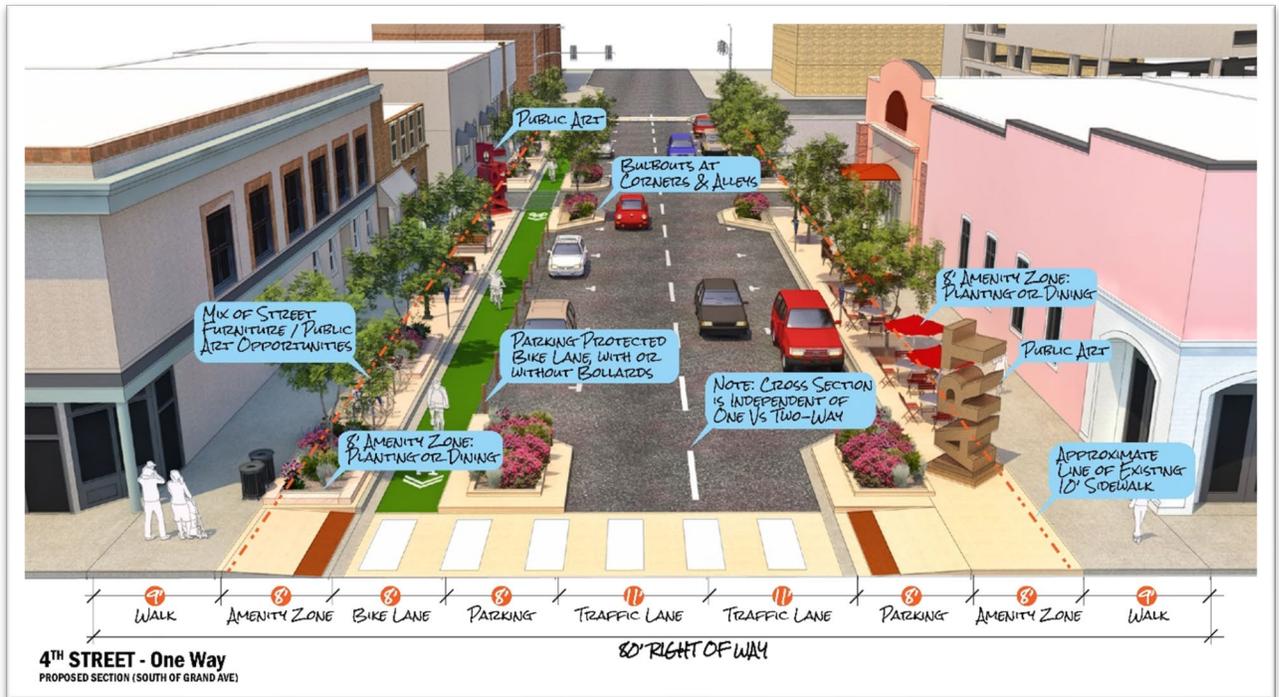


Figure 42: Proposed Section - One-Way - 4th St South of Grand Ave

### 4<sup>th</sup> Street – Enhanced Two-Way Alternative

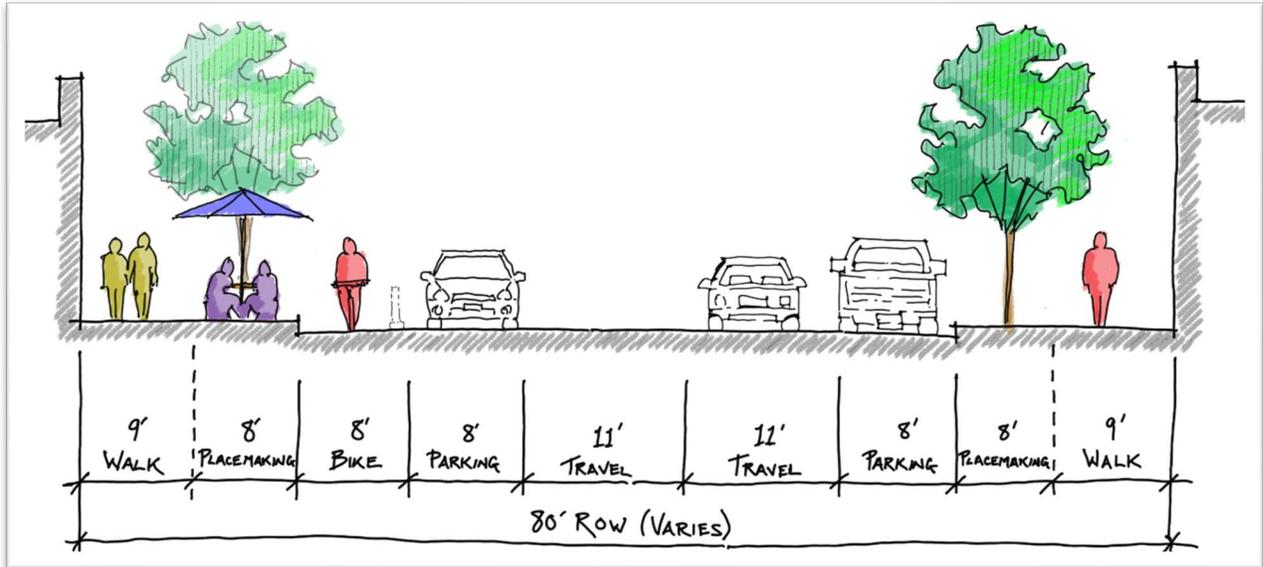


Figure 43: Enhanced Two-Way Alternative - 4th St – Grand to Ute

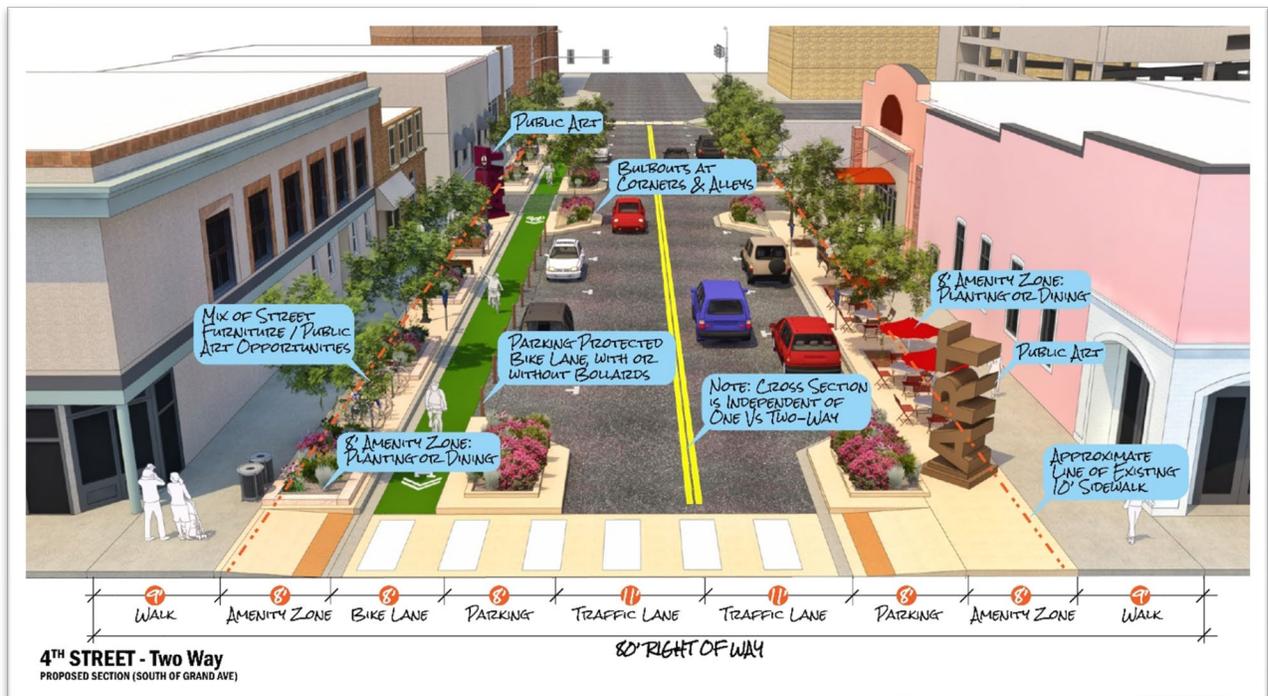


Figure 44: Proposed Section – Two-Way - 4th St - South of Grand Ave

## 5<sup>th</sup> Street

Along 5<sup>th</sup> Street, both the Enhanced One-Way and the Enhanced Two-Way Alternative provide two travel lanes, parallel parking on both sides where space permits, a northbound directional bike lane, and additional space for pedestrian activities and public placemaking. The bike lane is painted entirely green in the following visuals but would potentially only be painted green at the conflict points with implementation.



*Figure 45: 5th Street and Main St – Looking Northwest*

## 5th Street – Enhanced One-Way Alternative

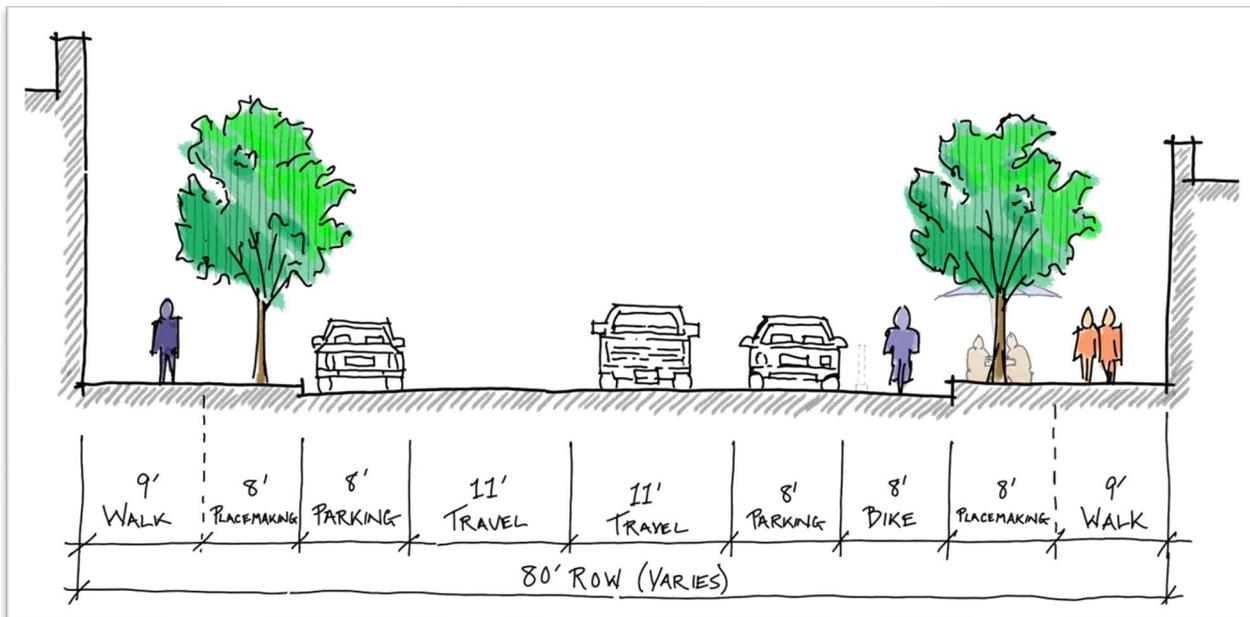


Figure 46: Enhanced One-Way Alternative - 5th St - Ute to Grand

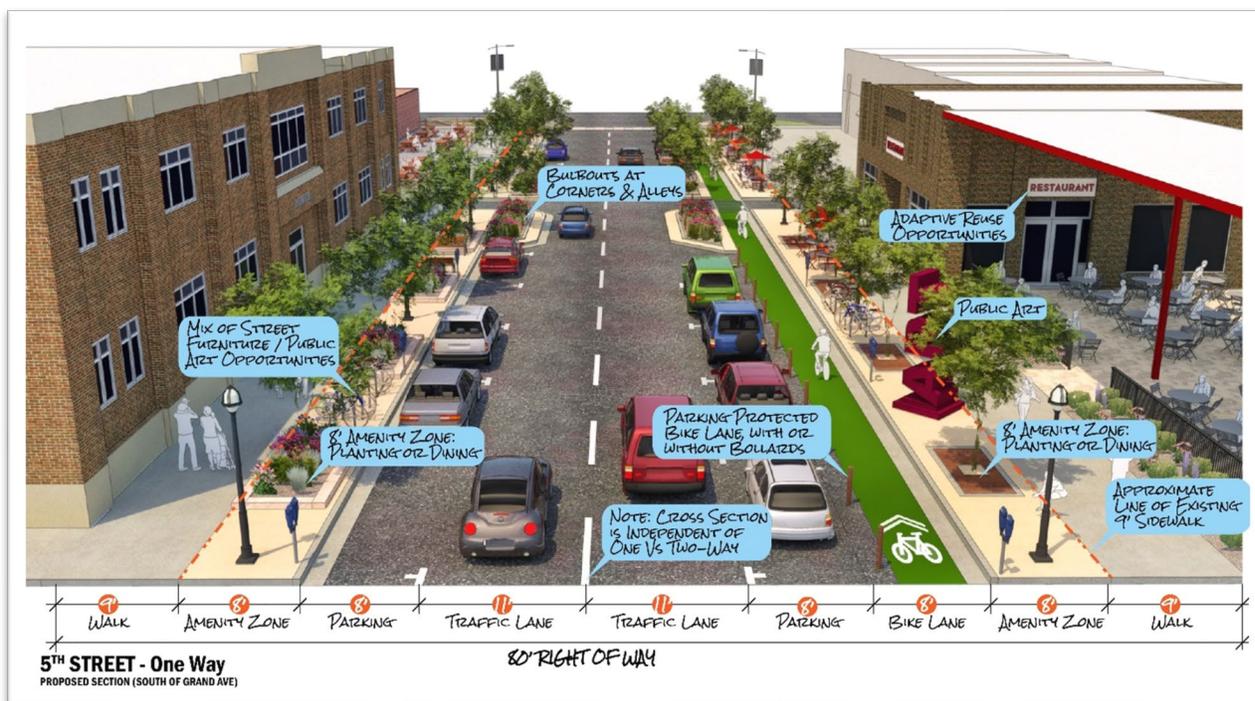


Figure 47: Enhanced One-Way Alternative - 5th St – Ute to Grand

## 5<sup>th</sup> Street – Enhanced Two-Way Alternative

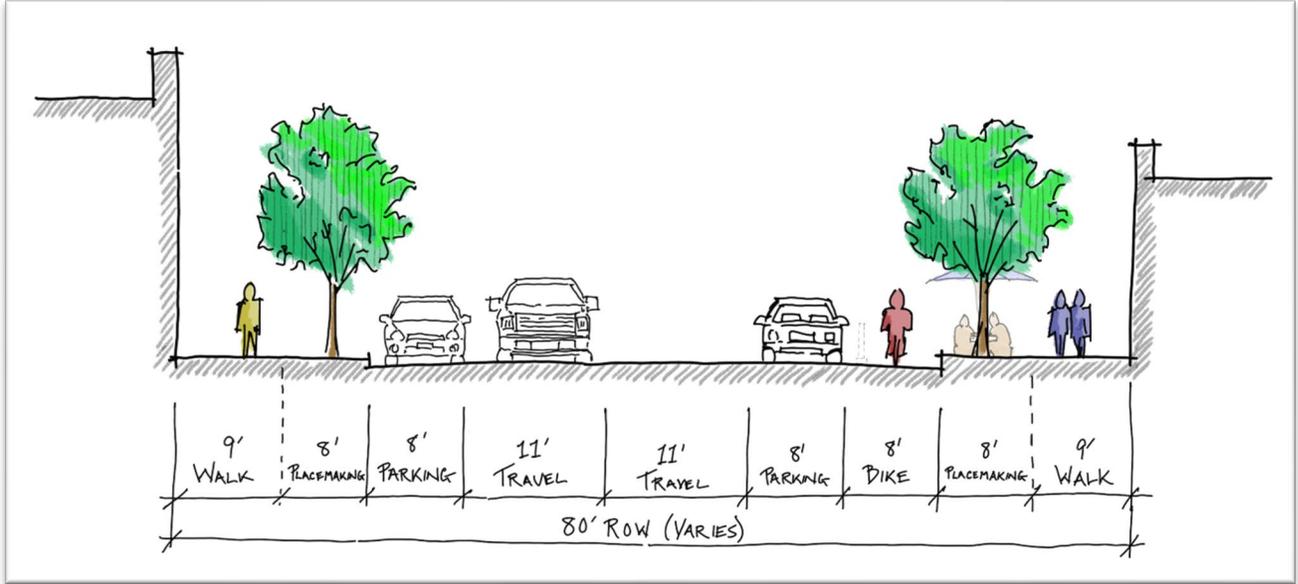


Figure 48: Enhanced Two-Way Alternative - 5th St - Ute to Grand

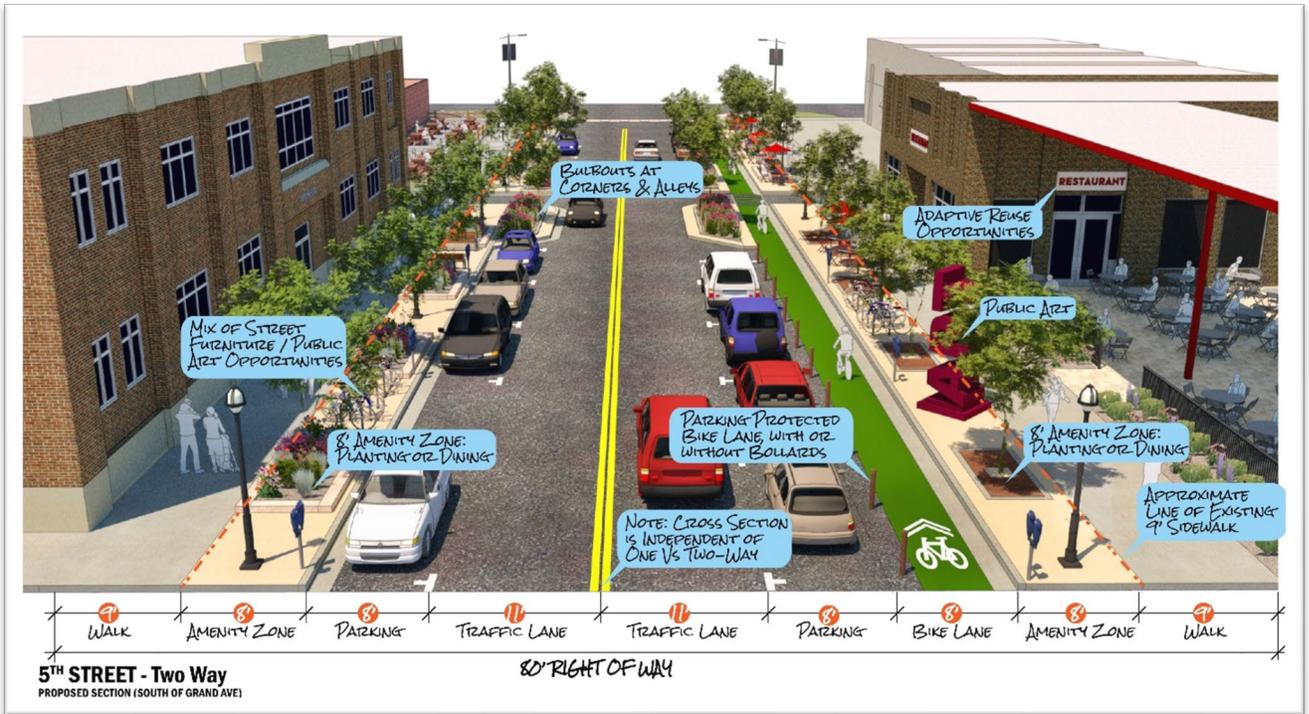


Figure 49: Enhanced Two-Way Alternative - 5th St – Ute to Grand

## Feedback on Proposed Alternatives

As part of the online outreach component of the project during the month of September in 2021, an online survey was made available to the public and key stakeholders. The survey asked about preferences for the alternatives and provided an opportunity to gather additional feedback. There were a total of 164 respondents and an overwhelming majority of participants reported being a corridor user or visitor. Most importantly, more than half of respondents reported that they agreed or strongly agreed that the Enhanced One-Way Alternative aligns with the Vision Elements and preferred this option over the Enhanced Two-Way Alternative. The input received is summarized below and helped to inform the overall recommendations for this study.

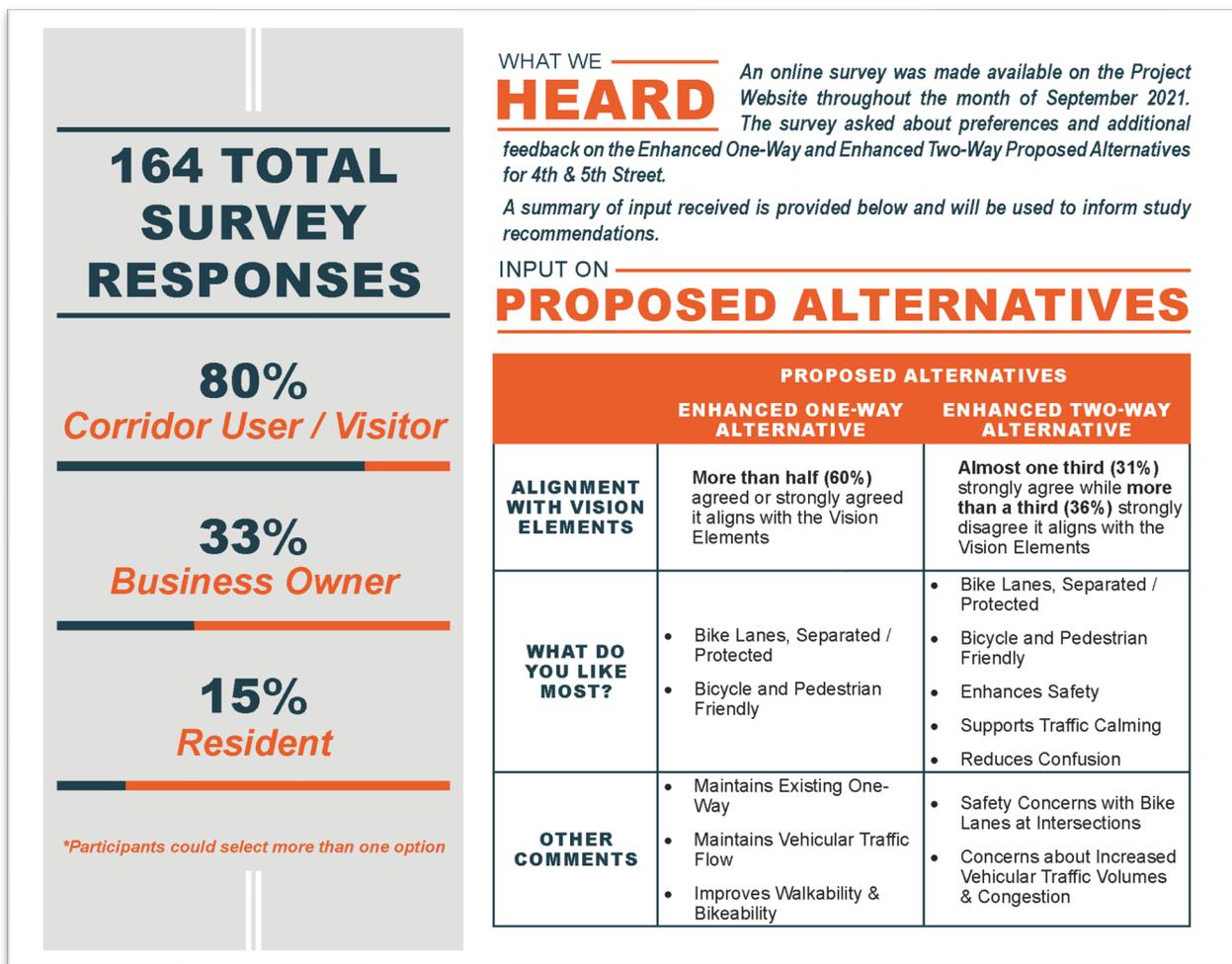


Figure 50: Online Survey Summary Shared with City Council and DDA Board



## Analysis of Proposed Alternatives

Following the public input on the proposed alternatives, members of the TT and PAC, as well as City staff and the consultant team, completed their own individual analysis of the Enhanced One-Way Alternative and Enhanced Two-Way Alternative, as compared to the Existing One-Way condition. Largely qualitative in nature yet based on both best practice design and expertise within the team, the analysis focused on a set of Vision-based Criteria (using the Vision Elements and Goals) and includes an evaluation score with associated notes for each. Average scores and combined evaluation notes are presented in the matrix below, with a full-sized view available in the Appendix.

GRAND JUNCTION 4TH & 5TH ST FEASIBILITY STUDY					
PROPOSED ALTERNATIVES ANALYSIS MATRIX					
	EXISTING ONE-WAY PAIR	ENHANCED ONE-WAY ALTERNATIVE		ENHANCED TWO-WAY ALTERNATIVE	
	EVALUATION SCORE	EVALUATION SCORE	EVALUATION NOTES	EVALUATION SCORE	EVALUATION NOTES
<b>VISION-BASED CRITERIA</b>					
<b>Enhance Safety</b>					
Reduce Speeds	*	***	Infrastructure modifications reduce speeds	****	Infrastructure modifications reduce speeds Increase in potential conflicts could further reduce speeds
Reduce Crashes	*	****	Lower speeds reduce crashes	****	Lower speeds reduce crashes Increase in potential conflicts could result in more crashes
<b>Optimize Traffic Circulation</b>					
Reduce Driver Confusion	*	***	Maintains current travel patterns for locals	****	Less long-term confusion for all travelers
Encourage Traffic Calming	*	***	Slower speeds and roadway design encourage traffic calming	****	Slower speeds, roadway design, and more potential conflicts encourage traffic calming
Promote Direct Local Connections	**	**	Requires some out of direction travel for local connections, although minimal Decrease in through traffic	***	Provides more direct local connections Decrease in through traffic
Support Corridor Truck Deliveries	***	***	May need designated loading zone and encourage use of alleys	**	May need designated loading zone and encourage use of alley May impact directional travel
Support Transit	***	****	Opportunity for improved bus stops	****	Opportunity for improved bus stops
<b>Improve Walkability &amp; Bikeability</b>					
Improve Crossings	*	****	Shorter crossing distances plus bulbouts Need to consider double threat from two one-way vehicles	****	Shorter crossing distances plus bulbouts, except at left-turn locations (2-3 intersections)
Provide/Improve Bicycle Facilities	*	****	Provides consistent bicycle facilities	****	Provides consistent bicycle facilities
Improve Sidewalks	**	****	Widens and enhances sidewalk area	****	Widens and enhances sidewalk area
<b>Activate Economic Development</b>					
Improve Business Access	**	***	Slower speeds improves business access	****	Slower speeds and more direct connections improve business access
Provide Opportunities For Amenities	**	****	Widened sidewalks allow for placemaking/landscaping opportunities	****	Widened sidewalks allow for placemaking/landscaping opportunities
Enhance Parking	**	****	Consistent, parallel parking with lower speeds will enhance parking and reduce quantity of spots	***	Consistent, parallel parking with lower speeds will enhance parking and reduce quantity of spots (even more with left-turns)
Preferency Costs			-		Higher cost due to modification to signals and signage

Figure 51: Alternatives Evaluation Matrix

Overall, the Enhanced One-Way Alternative and Enhanced Two-Way Alternative were determined to result in greater benefits than the Existing One-Way Pair, indicating that either would be better than the current conditions roadways. When comparing the level of benefits for the Enhanced One-Way Alternative to the Enhanced Two-Way Alternative, they generally level out.

The notable differences between the two directional scenarios are the improved opportunities for loading/unloading with the Enhanced One-Way Alternative and the greater level of opportunity for traffic calming with the Enhanced Two-Way Alternative.

Therefore, based upon community and stakeholder feedback, a set of concept design alternatives that achieved Vision Elements and Goals that were community driven, and a corresponding analysis of the proposed alternatives through the criteria of the same Vision and Goals, the study team can confirm the feasibility of either proposed alternative, with both achieving a comparable level of adherence to the community's stated vision.

## Traffic Analysis for Proposed Alternatives

In addition to the analysis performed against the Vision-based Criteria, several traffic analyses were completed throughout the study to determine how motor vehicle traffic might be affected by future growth while either maintaining the existing one-way configuration or making changes to the roadway configuration allowing for two-way travel along both 4<sup>th</sup> and 5<sup>th</sup> Street. This analysis also reveals potential impacts to motor vehicle travel for nearby and adjacent roadways. A summary of results is provided below, while the full traffic memo can be found in the Appendix.



Figure 52: 4th St and North Ave

With support from the Mesa County Regional Transportation Planning Office, both the one-way and two-way scenarios were evaluated using the 2045 Regional Travel Demand Model. Through this analysis, it was determined that both 4<sup>th</sup> and 5<sup>th</sup> Streets would operate at acceptable levels under either condition, resulting in a general level of delay on both streets with the reduction in travel lanes and addition of other bicycle and pedestrian elements. Although still acceptable in this urban setting, the Enhanced Two-Way Alternative has the potential to cause a greater delay at the intersections due to the increase in vehicular conflicts.

As a regional model, the results were also used to consider the potential impacts on nearby corridors. The proposed improvements would encourage some travelers to move to 1<sup>st</sup> and 7<sup>th</sup> Streets; however, the impact would be minimal and both 1<sup>st</sup> and 7<sup>th</sup> Streets have been shown to have the capacity to handle the slight increase in traffic.



Figure 53: Traffic Analysis Summary Shared on Project Website

As the alternatives were refined and the proposed Enhanced One-Way and Enhanced Two-Way Alternatives were developed, a more **detailed traffic analysis** was conducted on 4<sup>th</sup> and 5<sup>th</sup> Streets and the associated intersections. Results indicate acceptable Levels of Service under both scenarios, with both 2021 and 2045 traffic volumes.

Under the **Enhanced One-Way Alternative** similar operations are maintained, traffic speeds are reduced. Under the **Enhanced Two-Way Alternative** travel is transitioned to two-way on both streets, traffic speeds are reduced, no additional left-turn lanes are expected, and one additional signal may be needed at 4<sup>th</sup> Street / North Avenue. Under both alternatives, due to speed reduction, there is potential for signal removal at the following locations:

- 4<sup>th</sup> Street / White Avenue
- 4<sup>th</sup> and 5<sup>th</sup> Street / Rood Avenue
- 4<sup>th</sup> and 5<sup>th</sup> Street / Main Street

The overall traffic analysis results indicate that the addition of the corridor enhancements under either the one-way or two-way scenario, would ultimately slow down speeds, allow for bicycle facilities, and improve the crossing distance along both corridors. The preliminary results will be further considered by City traffic engineers as design and implementation move forward.

## Cost Considerations

---

Cost considerations for the proposed alternatives are dependent upon many things: materials, temporary or permanent infrastructure, reconstruction or overlay, signal modifications, landscaping, and more. Under the feasibility study, a range of preliminary cost estimates were developed allowing for a more phased implementation of improvements, as funds become available. All costs here were developed in 2021 and would need to be escalated for inflation at the time of implementation.

Cost estimates associated with the full build-out of the Enhanced One-Way and the Enhanced Two-Way Alternatives include complete roadway reconstruction, improved public spaces, and landscaping for the entire corridor. The primary cost increase for the Enhanced Two-Way Alternative is the expense associated with modifying appropriate traffic signals, signage and striping, and median islands totaling approximately \$1 Million.

- Full-Build Out and Roadway Reconstruction of Enhanced One-Way Alternative
  - \$16 Million
- Full Build Out and Roadway Reconstruction of Enhanced Two-Way Alternative
  - \$17 Million

Given this high price tag, a secondary cost estimate for the Enhanced One-Way Alternative, allowing for a phased implementation of the proposed improvements, was created. The initial phase includes fewer overall improvements such as only chip seal and patching, striping instead of curb relocation, and implementation of temporary pedestrian and public space elements.

- Phased Implementation of Enhanced One-Way Alternative
  - \$2.2 Million

The phased implementation cost estimate allows for options based on the available funds. The City can choose to make changes by the block or apply striping along the full corridor. The application of temporary infrastructure at the intersections provides opportunities to test out modifications and examine travel patterns before investing more funds in permanent features. Expensive elements like pavers and landscaping can also be added over time. Costs would need to be refined prior to design and construction but the preliminary costs established as part of the feasibility study provide guidelines for budgeting and decision-making for the proposed future improvements.





GRAND JUNCTION

# 4<sup>TH</sup> & 5<sup>TH</sup> ST

FEASIBILITY STUDY



## Chapter 3 – Looking to the Future



# RECOMMENDATIONS

This Study asserts the feasibility of both proposed configurations and acknowledges that either the Enhanced One-Way or the Enhanced Two-Way Alternative can successfully achieve the Vision, Goals and Study Area Priorities established at the outset of this project.

That said, and considering budgetary constraints, the lower cost **Enhanced One-Way Alternative is recommended**, at least as a “Phase 1”. Being confident and candid, the one-way scenario may serve the City of Grand Junction and its residents well for many years and not necessitate the evolution to a “Phase 2,” two-way configuration, but our alternative development process allows for that very transition should it be desired in the future. Proceeding with the one-way transition and integration of enhanced improvements at the initial phase allows for the downtown to benefit from a lower cost implementation in the short-term –demonstrating tangible progress toward several years of engagement by the community through other Plans – and sets the city up to evaluate the effects of these improvements and assess the need for others at a future date.

**The 4th and 5th Street Feasibility Study resulted in two recommended alternatives: Enhanced One-Way and Enhanced Two-Way.**

*Both the one-way and the two-way alternatives align with the Vision and Goals established by the public, they maintain acceptable traffic operations due to the overall speed reduction, and they provide more opportunities for bicycle and pedestrian access as well as economic development.*

**ENHANCED ONE-WAY ALTERNATIVE**

4TH ST - UTE TO GRAND (CONCEPT SKETCH)

5TH ST - UTE TO GRAND (CONCEPT SKETCH)

**ENHANCED TWO-WAY ALTERNATIVE**

4TH ST - UTE TO GRAND (CONCEPT SKETCH)

5TH ST - UTE TO GRAND (CONCEPT SKETCH)

**NEXT STEPS**

A phased approach to the Enhanced One-Way would produce more immediate results with available funds, provide an opportunity for pilot projects supporting future infrastructure modifications, and allow for assessment of traffic operations under the lower traffic speeds.

*The implementation of the Enhanced One-Way alternative does not preclude future consideration of the Enhanced Two-Way alternative.*

---

**VISION & GOALS**

- ENHANCE SAFETY**
- IMPROVE WALKABILITY & BIKEABILITY**
- ACTIVATE ECONOMIC DEVELOPMENT**
- OPTIMIZE TRAFFIC CIRCULATION**

*Full sets of renderings and other visuals available on the project website:  
<https://bhi.mysocialpinpoint.com/gj-4th5th-study>*

Figure 54: Summary of Recommendations

As the City of Grand Junction moves into the next steps of implementing changes to the 4<sup>th</sup> and 5<sup>th</sup> Street corridors, one of the distinctive benefits of the recommended design alternative for the one-way scenario is that the right-of-way allocation and roadway geometry has been designed in a manner that allows for implementation of the vision, while not precluding an evolution to the two-way scenario without significant investment. Importantly, all of the design alternatives considered how lower cost, short-term investment could be improved upon, rather than proving to ultimately be a redundant expense. Specifically, a transition from the one-way configuration to the two-way configuration could be achieved without replacement of curb and gutter infrastructure, and rather would be an investment in restriping, additional signage and potentially signalization.

## Implementation

---

Expounding on the recommendation to move forward the Enhanced One-Way Alternative for design and construction, refinements to the typical section were completed. The following layout figures provide a more detailed visual plan for the future of both corridors. You will note the elements previously shared in the proposed alternatives of Chapter 2, including wider sidewalks, directional bike lanes on each roadway, enhanced crosswalks including bulb-outs to improve pedestrian comfort, and parallel parking. However, in the layout figures, it becomes more tangible as tweaks are made to fit within right-of-way, access, and natural elements. All the while ensuring alignment with the goals established by the community – safety, walkability and bikeability, economic development, traffic operations – is maintained.

As refinements to the conceptual Enhanced One-Way Alternative were being considered, it was determined that the existing two-way travel would remain at the north end of both 4<sup>th</sup> and 5<sup>th</sup> Streets. This decision allowed a safer transition with North Avenue under the current operational conditions. Connectivity of the bicycle facilities were considered within the study area and to the north. Improved signage for the various travel modes will be integrated as part of the design, including green paint for conflict areas with bicycles and enhanced crosswalk elements where appropriate.

The preliminary traffic analysis suggested that some of the signalized intersections could be transitioned to stop control intersections. Instead of making this modification immediately, the City intends to analyze this recommendation and potentially do a pilot project to evaluate how well traffic flows under the various options.

## Layout of Enhanced One-Way Alternative

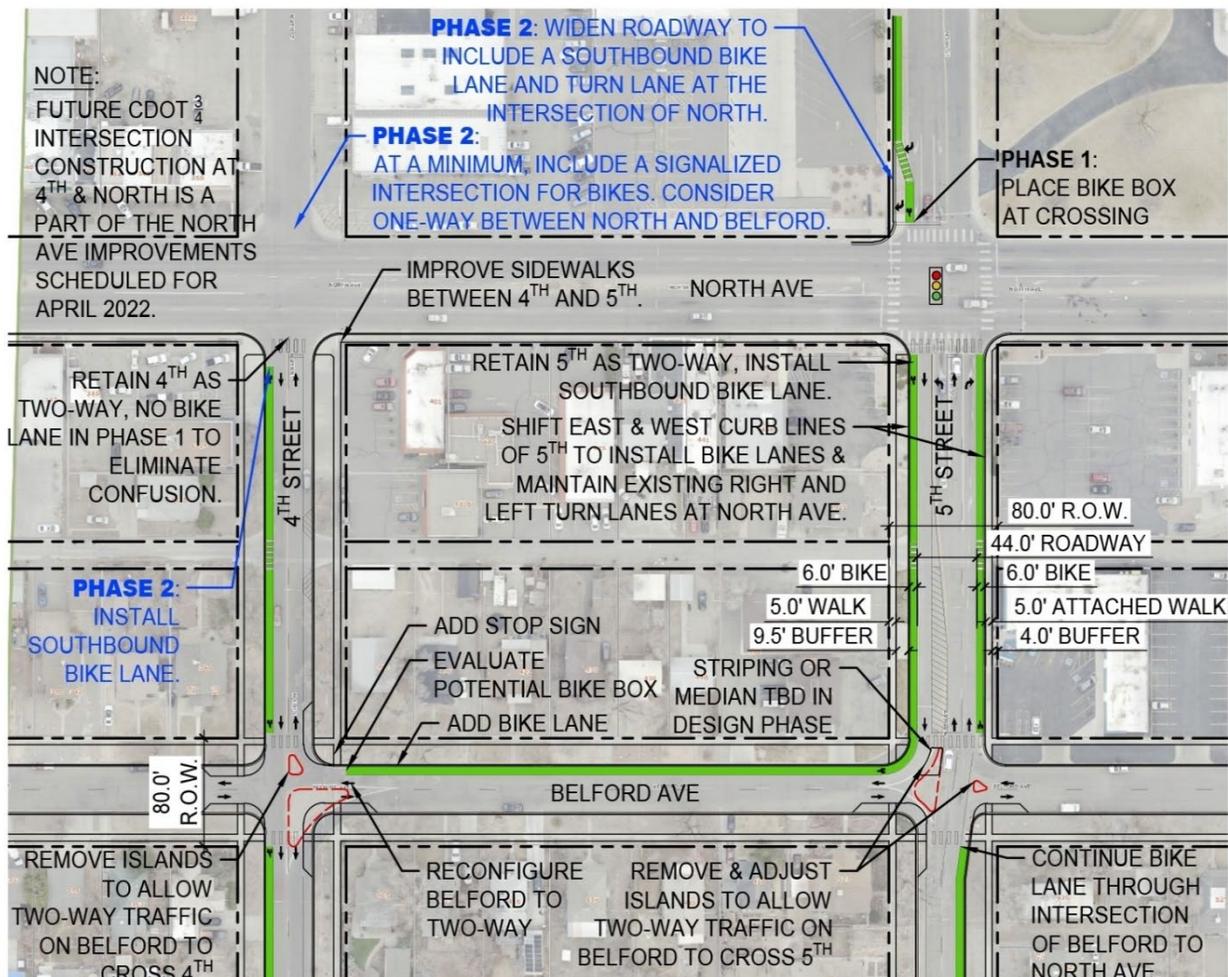
The layout figures below are just the beginning of an exciting step forward for the City of Grand Junction and the Downtown Development Authority. The implementation of the Enhanced One-Way Alternative creates a myriad of opportunities to change the experience for all users along 4<sup>th</sup> and 5<sup>th</sup> Street and truly activate economic development for years to come.

**LEGEND**

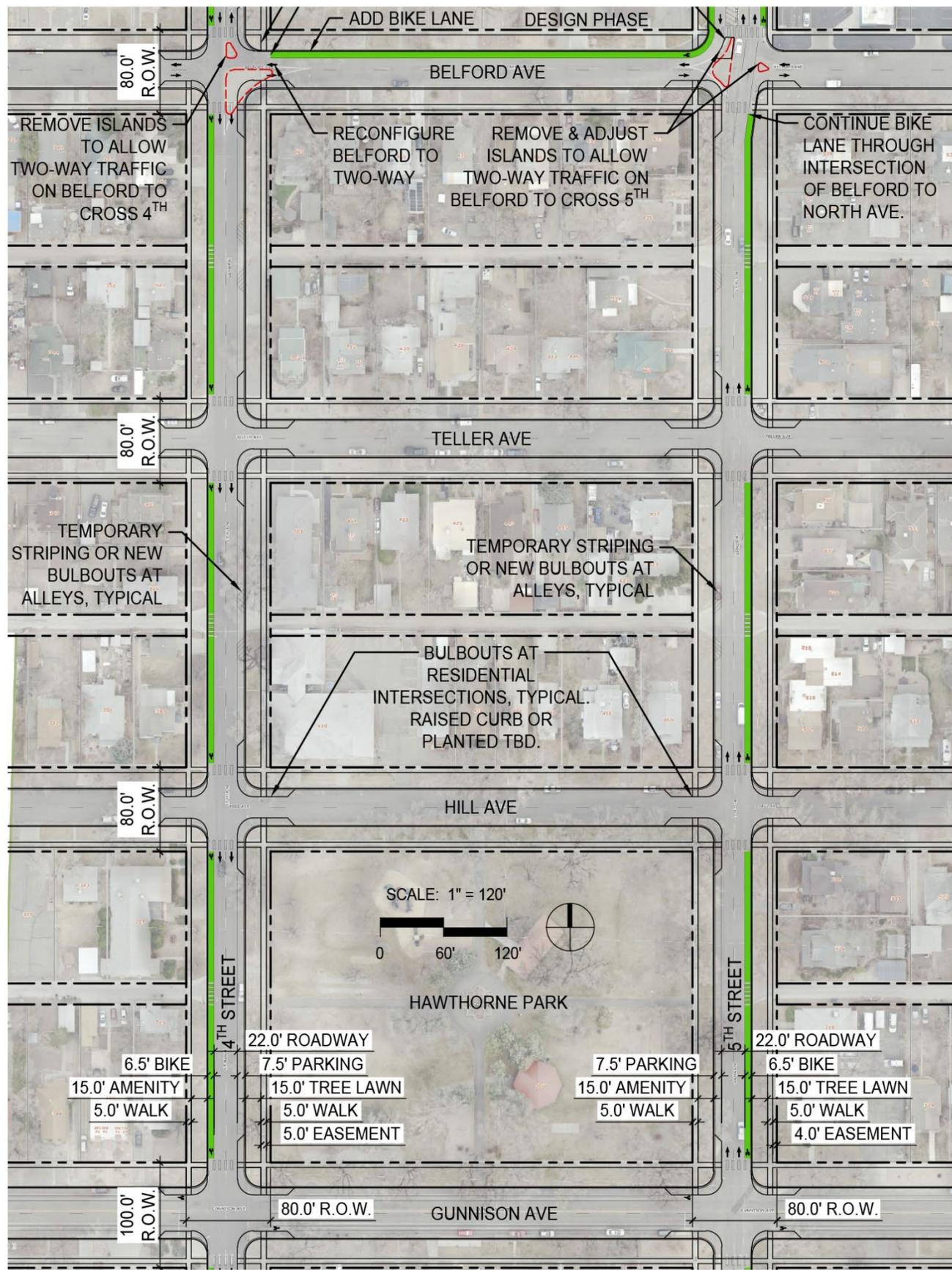
-  RIGHT-OF-WAY LINE
-  PROTECTED BICYCLE LANE
-  AMENITY ZONE (FURNITURE, LANDSCAPING, TREES, ETC.)
-  ROADWAY STRIPING
-  RAISED CURB AT INTERSECTIONS FOR PROTECTED BIKE LANE
-  EXISTING SIGNAL LOCATIONS

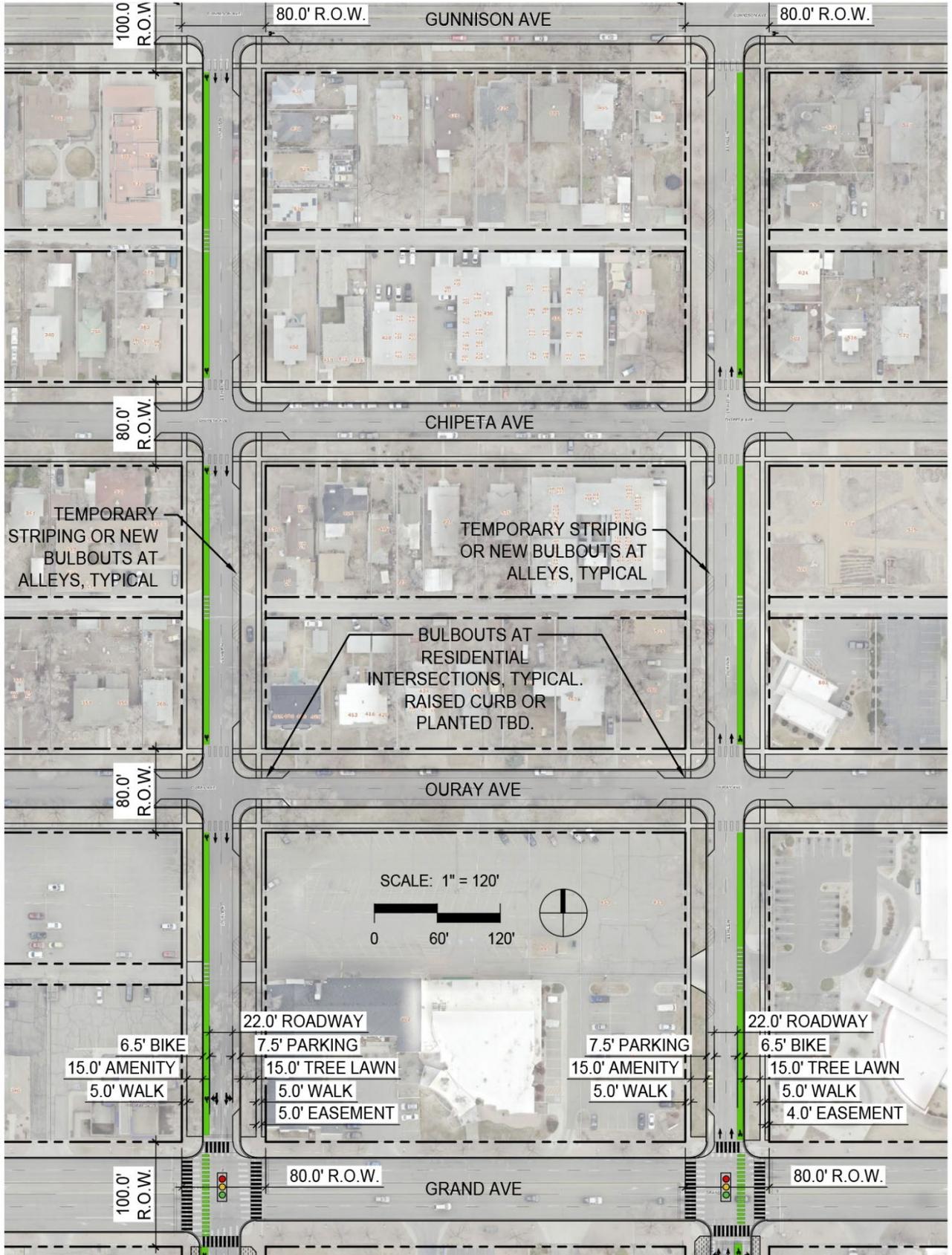
**NOTES:**

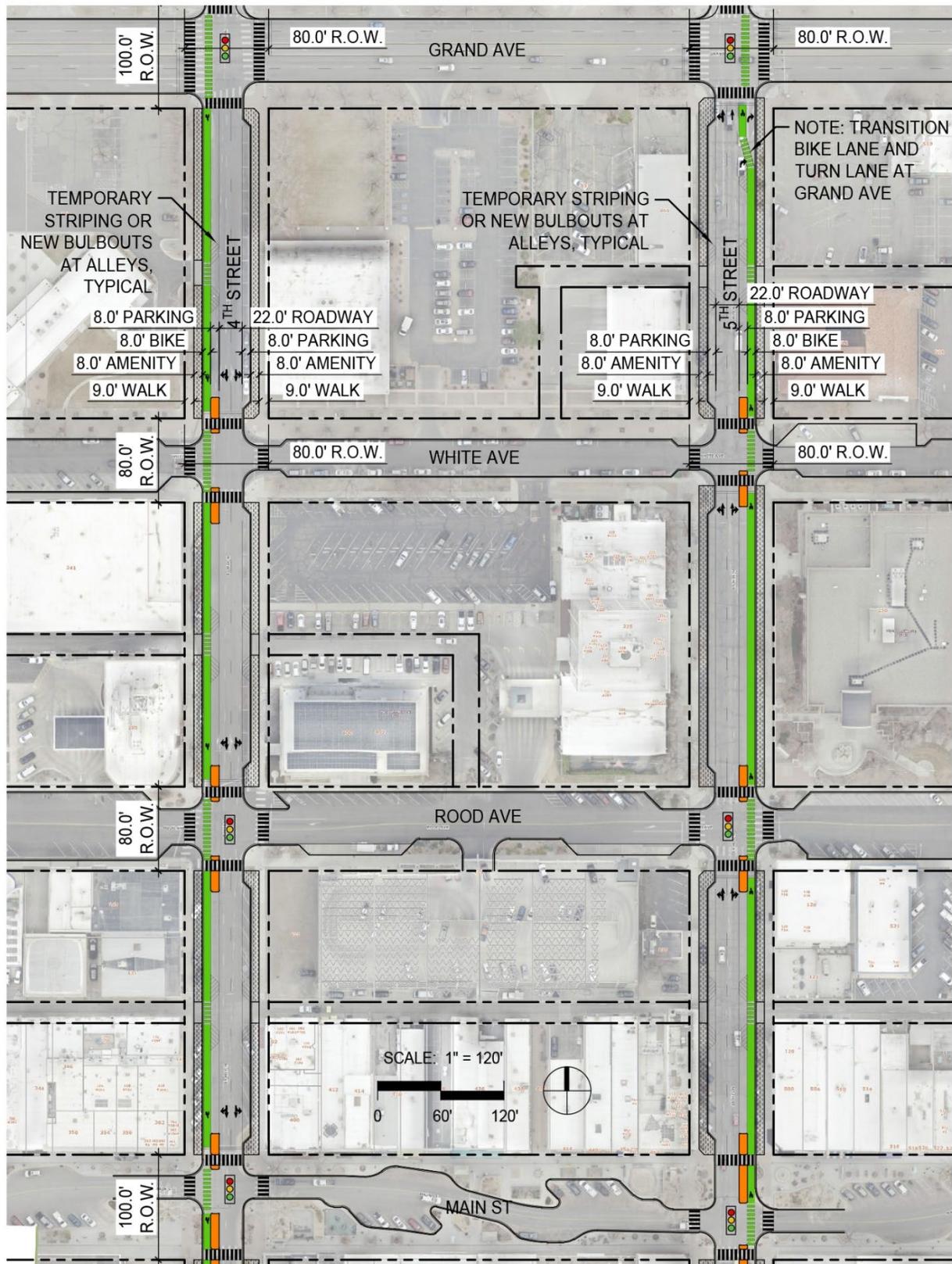
1. PRELIMINARY LAYOUT FOR STUDY PURPOSES ONLY.
2. ASSUMES EXISTING CURBLINE TO REMAIN FROM GRAND AVE TO BELFORD AVE.
3. ASSUMES CROSS STREET CONDITIONS TO REMAIN EXCEPT AT CORNER & BULBOUT TRANSITIONS AND AT BELFORD.
4. GREEN STRIPING FOR BICYCLE LANES IS SHOWN FOR GRAPHIC PURPOSES ONLY. INSTALLED APPLICATION WILL VARY.

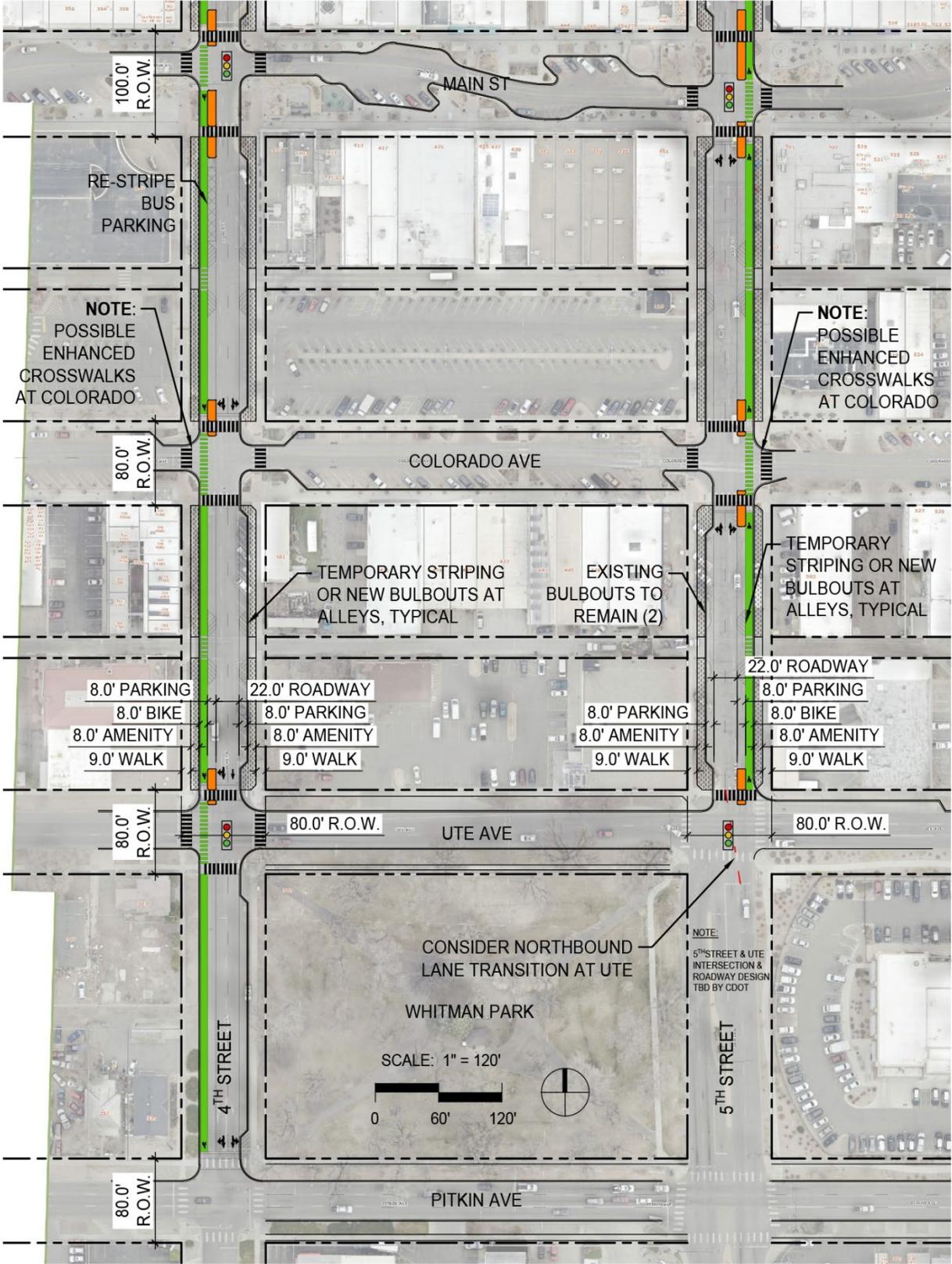
















GRAND JUNCTION

# 4<sup>TH</sup> & 5<sup>TH</sup> ST

FEASIBILITY STUDY

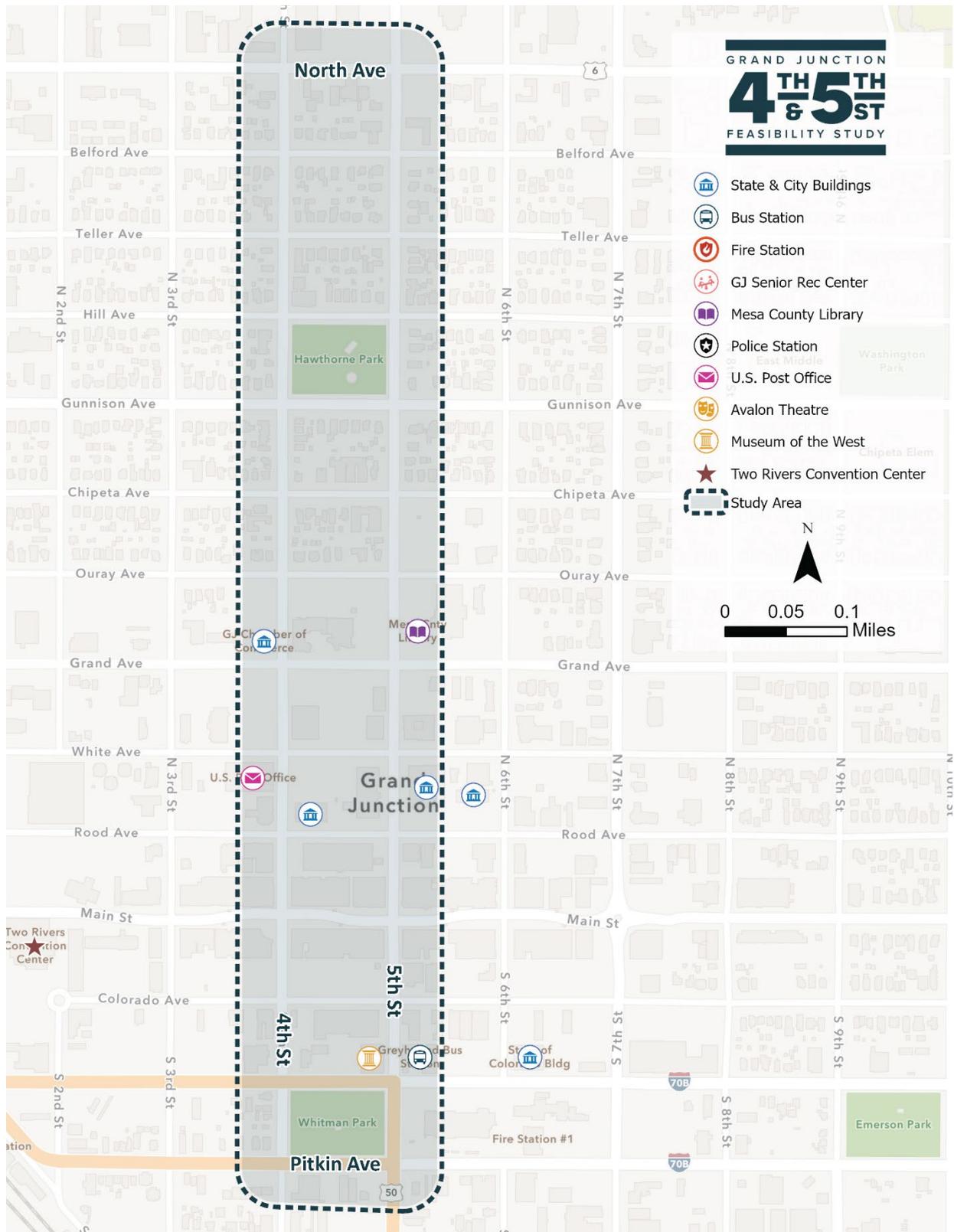


## Appendix 1 – Maps & Outreach

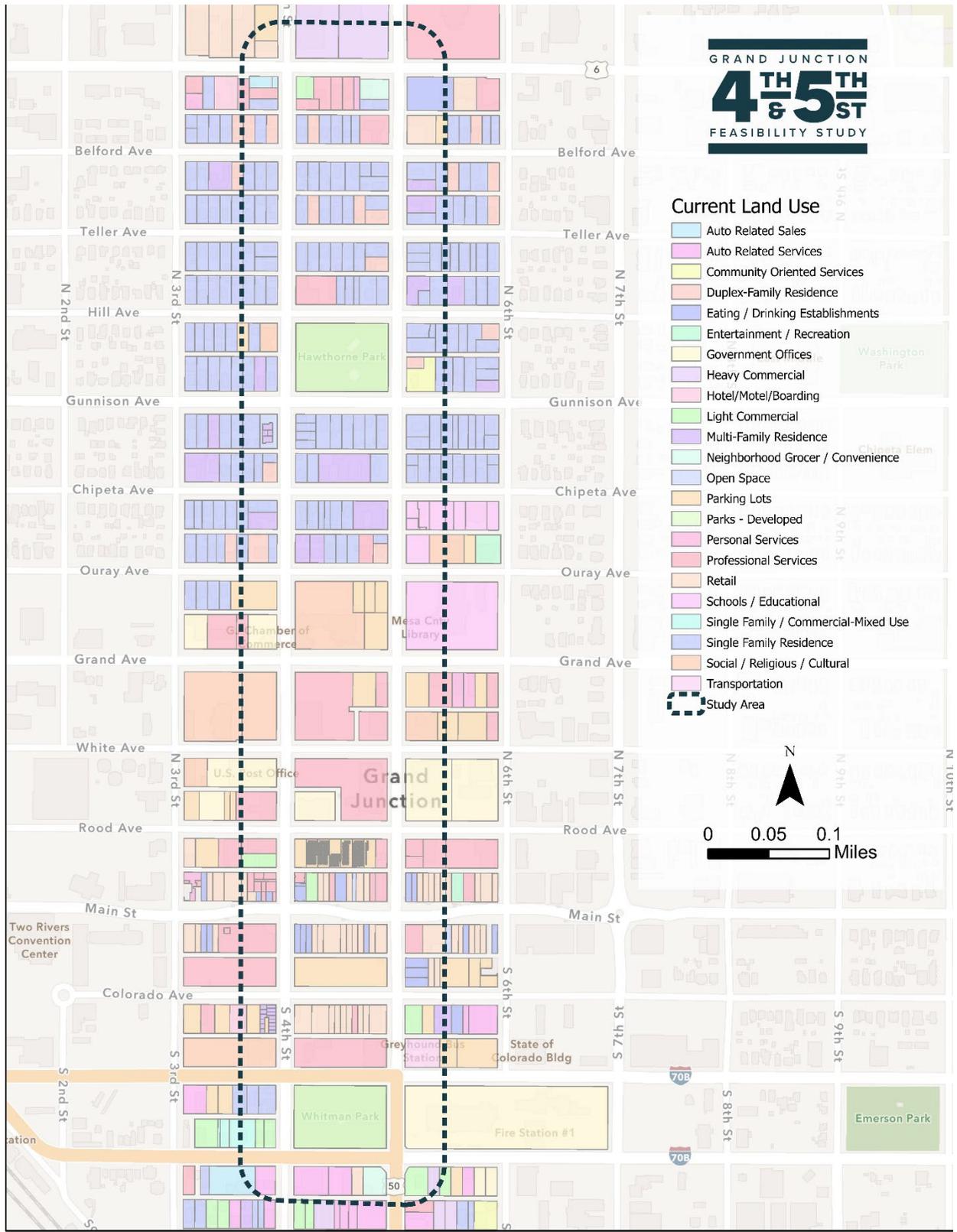
# STUDY MAPS

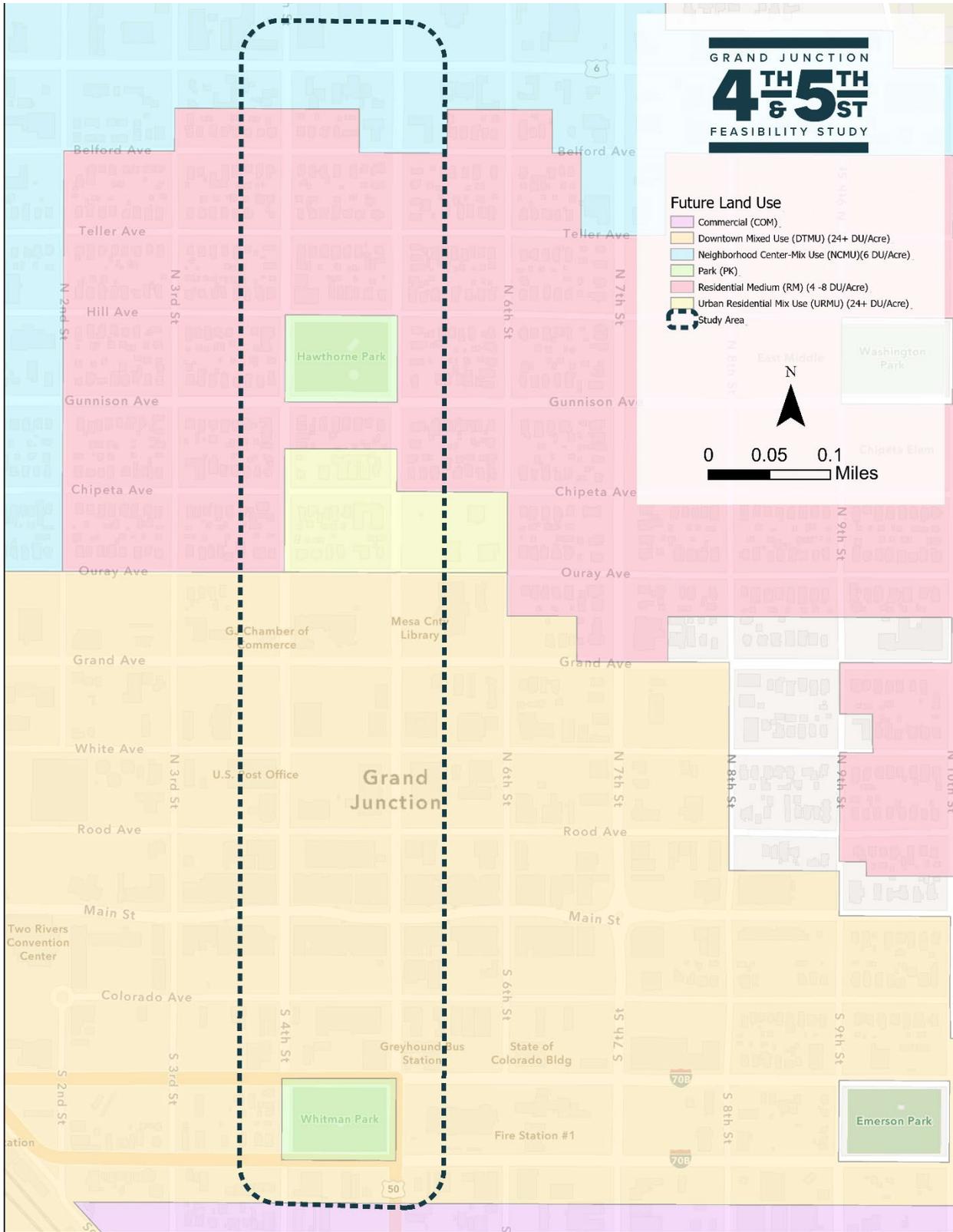
- Project Area Overview
- Current Land Use
- Future Land Use
- Downtown District
- Historic Assets
- Parking Facilities
- Pedestrian and Bicycle Facilities
- Transit Facilities

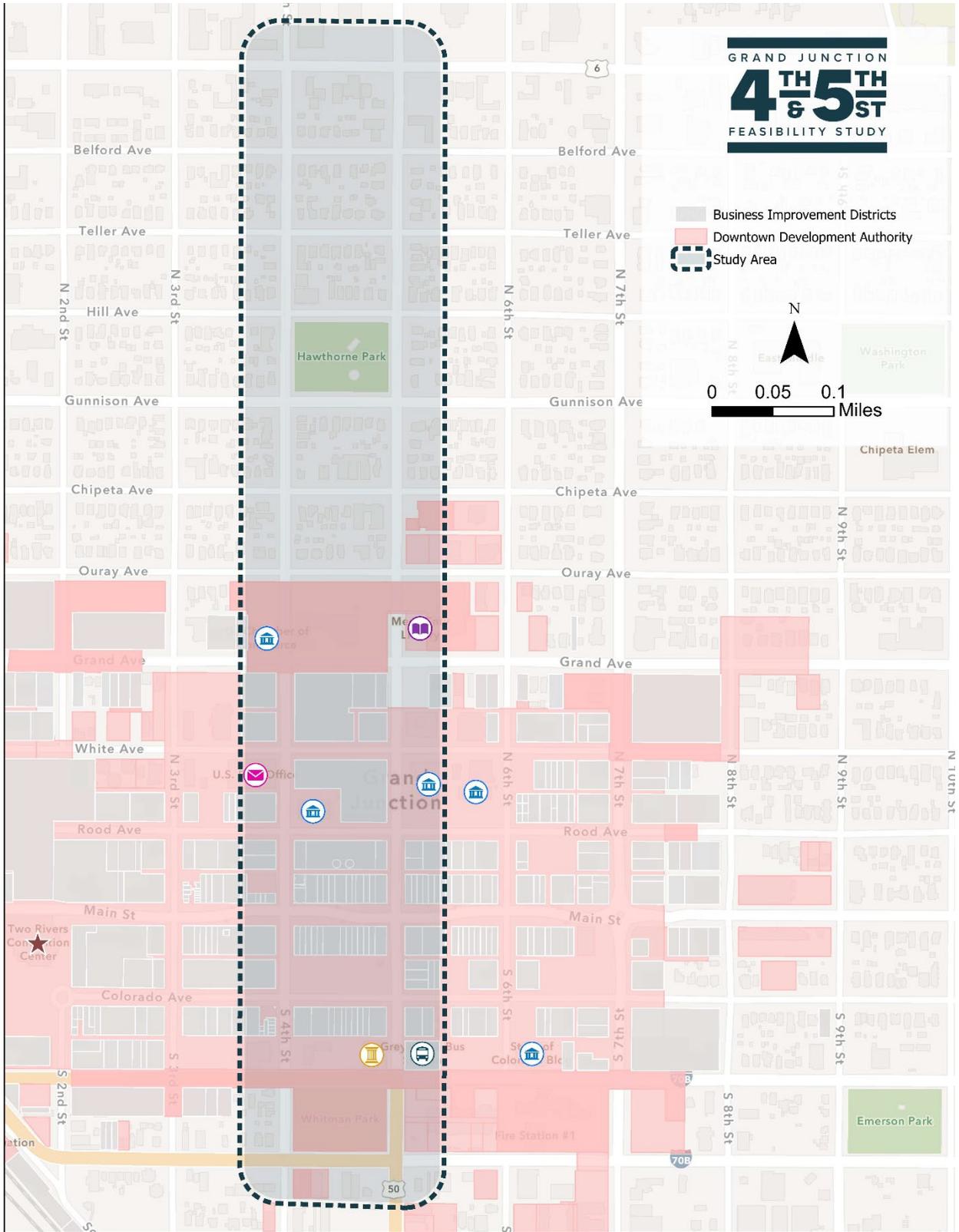


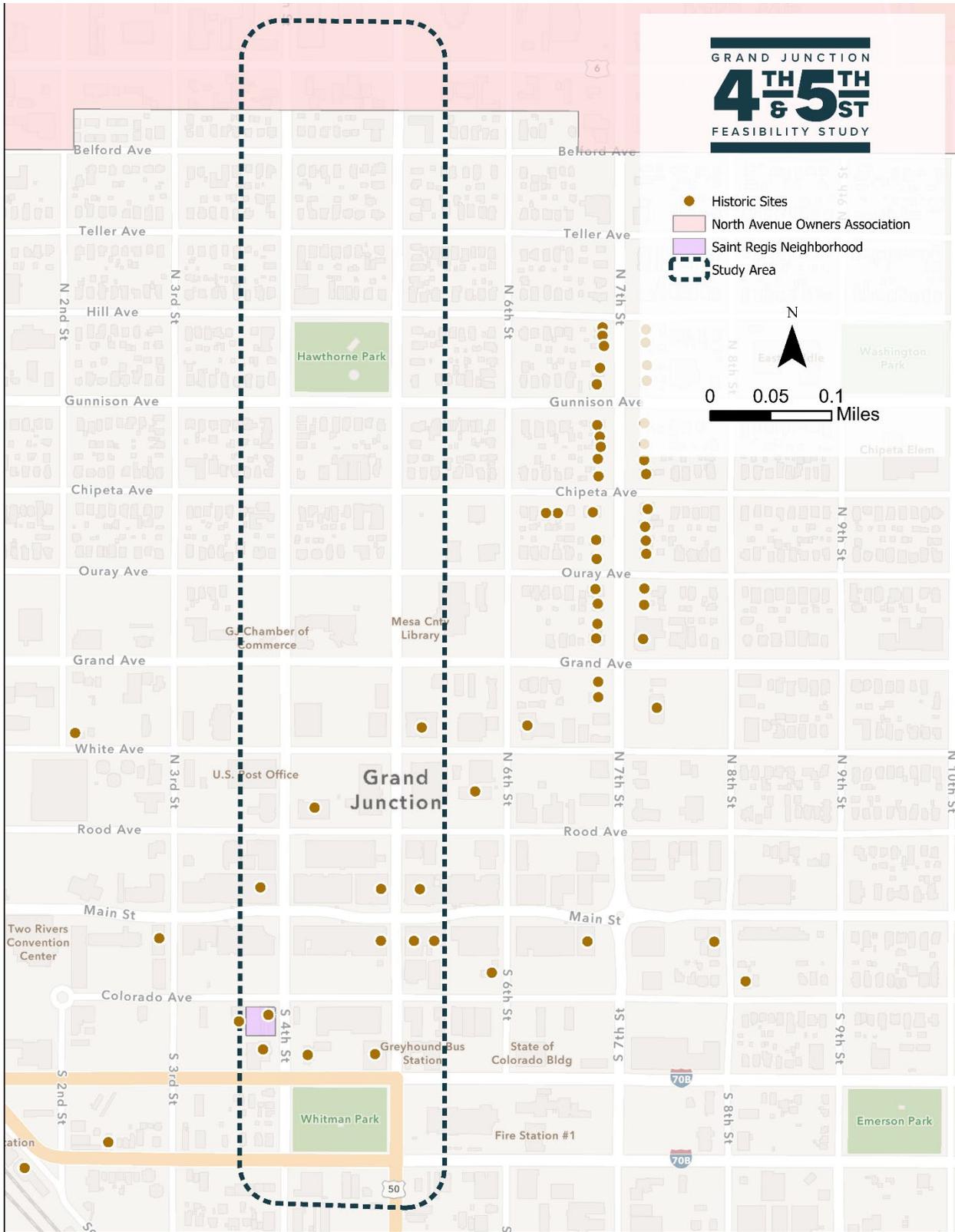


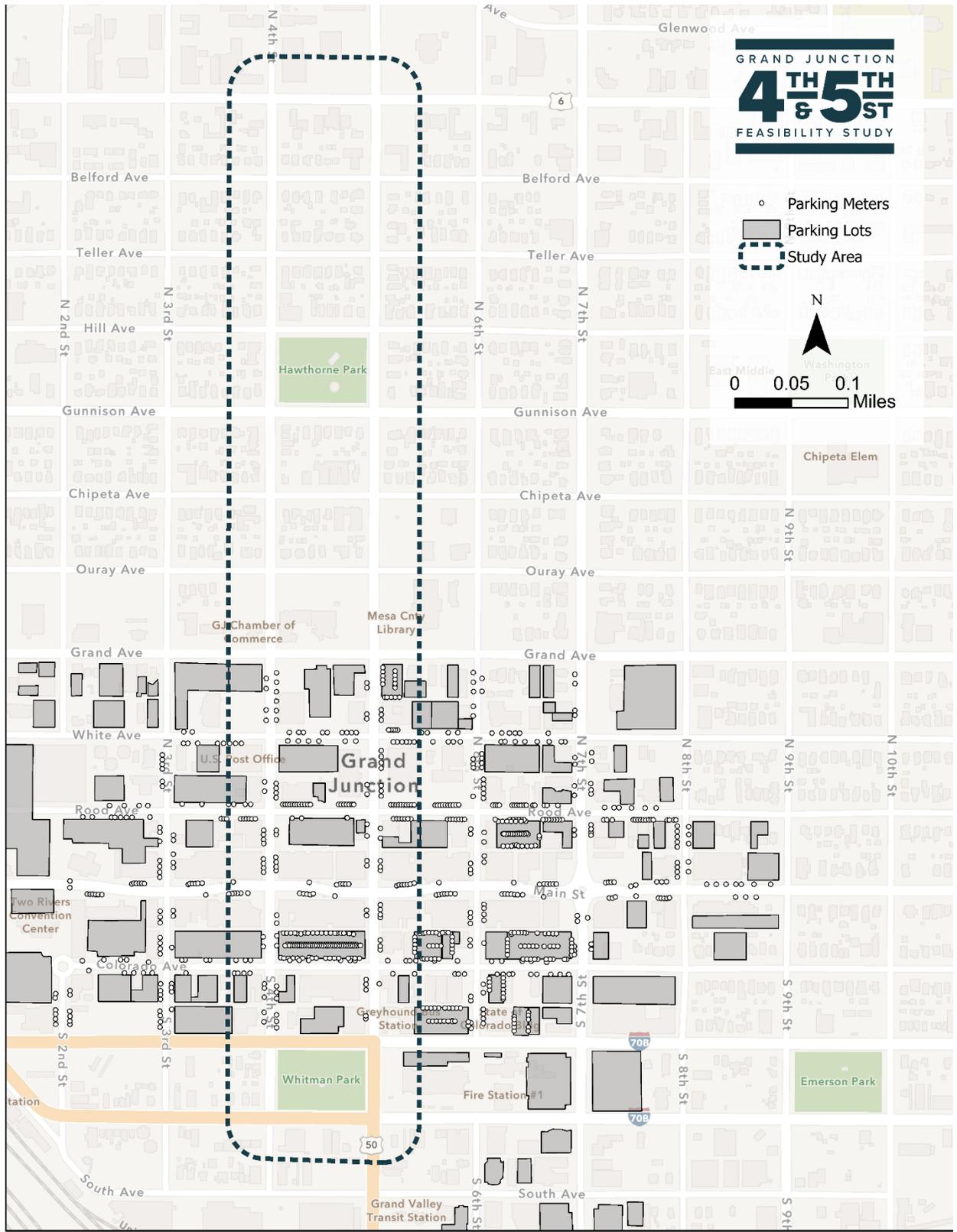


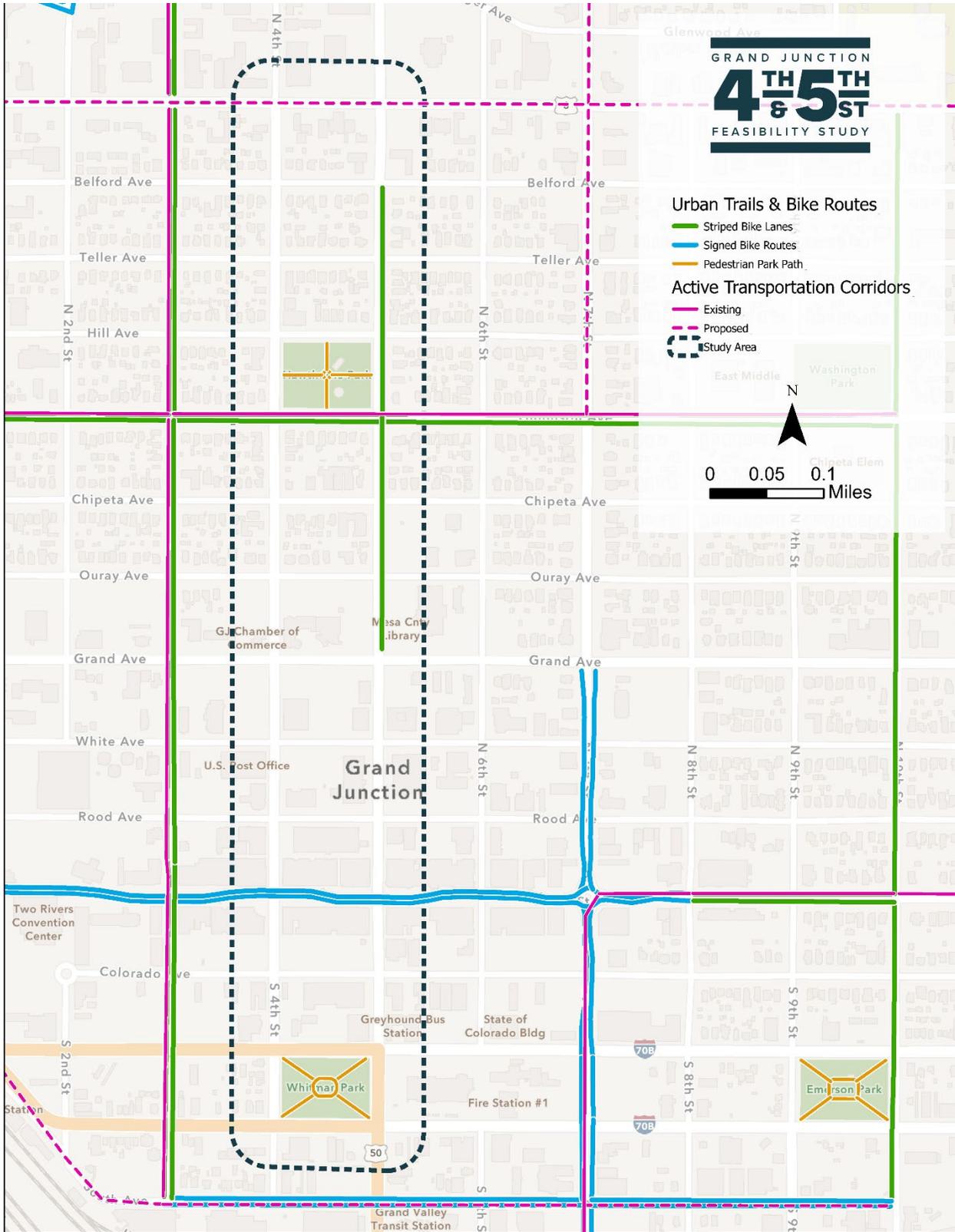


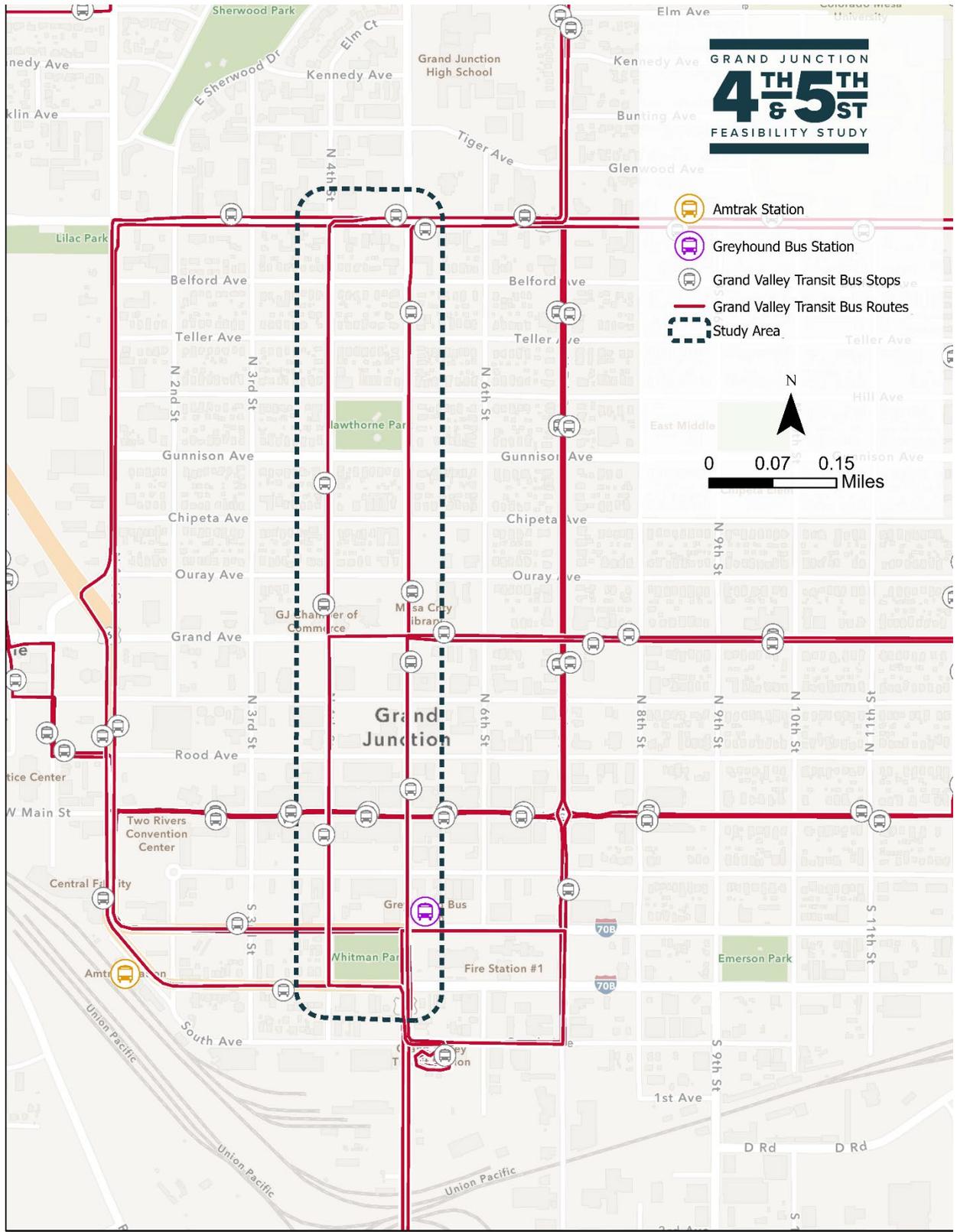












# OUTREACH MATERIALS

- Public Open House Materials
- Visuals from the Project Website







*Welcome!*  
**PUBLIC OPEN HOUSE FOR 4TH AND 5TH STREET FEASIBILITY STUDY**  
 Tuesday May 4, 2021 | 4:00 - 6:00pm

Welcome! Thank you for joining us at the Public Open House for the 4th and 5th Street Feasibility Study. We appreciate your input and will use the information you share to help inform study recommendations.

**We want to hear from you!**

While you are here, please visit the five stations to learn more about the study and participate in a variety of interactive activities:

- Station 1. Study Overview & Study Area**
- Station 2. Vision & Goals**
- Station 3. Summary of Benefits for One-Way and Two-Way Streets**
- Station 4. Study Area Interaction & Priorities**
- Station 5. Mapping Activity**

**Enter to Win!**

When you're done at today's open house, you can enter to win a gift card to Downtown GJ!

**DON'T FORGET TO CHECK OUT THE COMMENT SHEET ON THE BACK!**





GRAND JUNCTION  
**4<sup>TH</sup> & 5<sup>TH</sup> ST**  
FEASIBILITY STUDY

# STUDY OVERVIEW

1

**ABOUT THE STUDY:** The **4th Street and 5th Street Feasibility Study** is being led by the Grand Junction Downtown Development Authority, in conjunction with the City of Grand Junction.

**Why?** The purpose of the feasibility study is to evaluate potential improvements along both corridors and within the Study Area, focused on the following:

- Safety
- Traffic Circulation
- Walkability
- Bicycle Facilities
- Parking
- Transit
- Land Use
- Economic Development

**Proposed alternatives** will include maintaining the one-way traffic operations as well as the potential of transitioning to two-way travel corridors.

**WAYS TO PARTICIPATE:**

**Project Website:**

<http://project.bhinc.com/4th5thStudy>

Use the interactive map on the project website to share your ideas for the 4th/5th Street corridors. Check out the website for information about upcoming community engagement opportunities.

**Questions and Comments:**

Share questions or comments at any time by emailing [4th5thStudy@bhinc.com](mailto:4th5thStudy@bhinc.com) or calling (720) 587-2653.



**TIMELINE:**



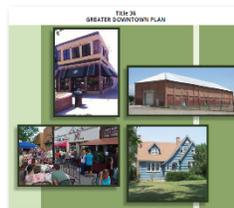
**PREVIOUS PLANNING WORK:** This study builds upon multiple previous planning efforts. In 1981, the Downtown Development Authority identified the conversion of 4th and 5th Street from one-way to two-way as a goal in its original Plan of Development. In 2013, the City of Grand Junction’s Greater Downtown Plan also called for looking at the configuration of 4th and 5th Street. This was again confirmed as a focus area in the 2019 DDA Plan of Development, and the City’s updated Comprehensive Plan due to continued concerns around safety issues related to this corridor.



“Convert 4th and 5th to Two-way Streets” is listed as a priority strategy for connectivity.



The conversion of 4th and 5th Street from one-way to two-way was confirmed as a focus area due to continued concerns around safety issues related to this corridor.



The City’s municipal code includes a policy within the Downtown District goals and policies to “Study alternatives for 4th and 5th Streets including returning these streets to the two-way grid system between Ute Avenue and North Avenue.”



The City’s Complete Streets Policy and the 2018 Circulation Plan provide additional guidance that will inform this study.



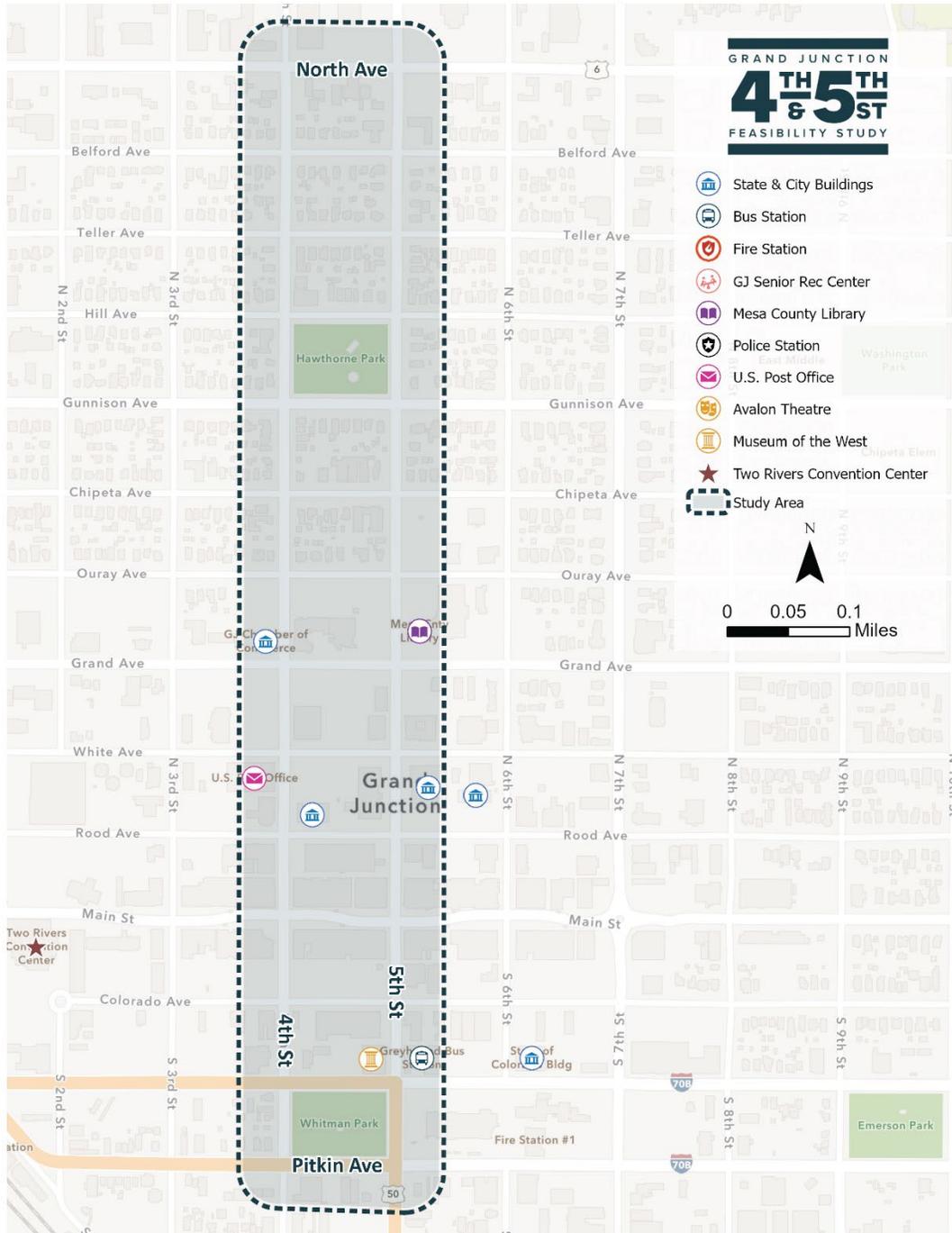


GRAND JUNCTION  
**4<sup>TH</sup> & 5<sup>TH</sup> ST**  
FEASIBILITY STUDY

# STUDY AREA MAP

1

The study area limits are from North Ave (US Hwy 6) to the north and Pitkin Ave (I-70B EB) to the south.



# VISION & GOALS PRIORITIZATION ACTIVITY

Each vision element in a colored box to the right has two associated goals. These have been developed by the project team with the help of staff and the Project Advisory Committee (PAC). All of these vision statements and goals will help inform the study and conceptual design moving forward.

**ACTIVITY INSTRUCTIONS:**

Please help us understand which of these vision elements is the highest priority to you by placing each of your two dot stickers in a white box to the right.

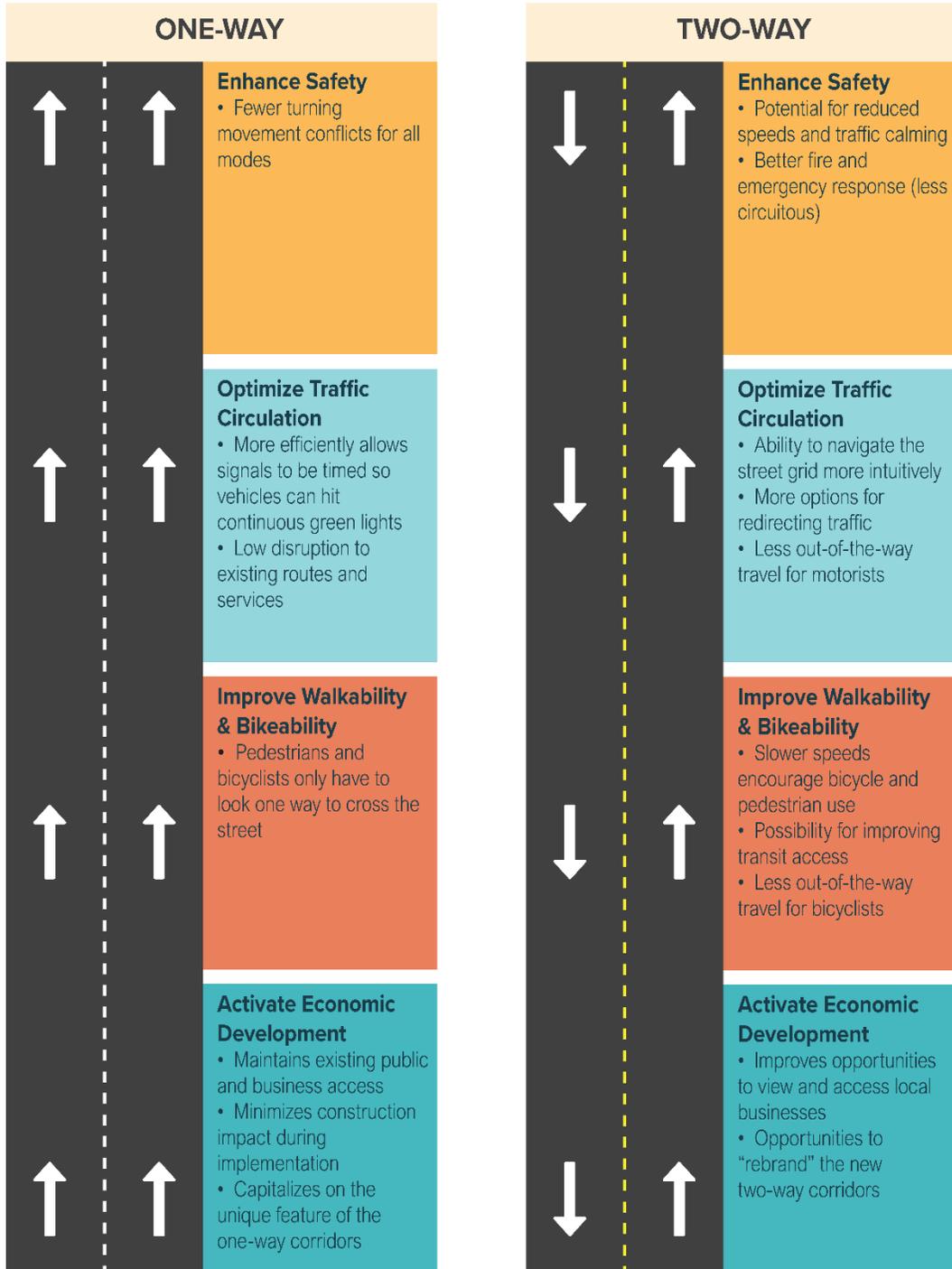
Did we miss anything? Place a sticky note below with any other vision elements or goals you'd like to see included.

<p><b>Enhance Safety</b></p> <ul style="list-style-type: none"> <li>• Support traffic calming</li> <li>• Enhance crossings</li> </ul> <p>Place dot here</p>	<p><b>Improve Walkability &amp; Bikeability</b></p> <ul style="list-style-type: none"> <li>• Improve accessibility</li> <li>• Promote connections to nearby destinations</li> </ul> <p>Place dot here</p>	<p><b>Activate Economic Development</b></p> <ul style="list-style-type: none"> <li>• Enhance access to downtown</li> <li>• Create an inviting environment</li> </ul> <p>Place dot here</p>	<p><b>Optimize Traffic Circulation</b></p> <ul style="list-style-type: none"> <li>• Provide functional and intuitive circulation</li> <li>• Manage travel patterns</li> </ul> <p>Place dot here</p>
---	---	--	---





# SUMMARY OF BENEFITS FOR ONE-WAY AND TWO-WAY STREETS





GRAND JUNCTION  
**4<sup>TH</sup> & 5<sup>TH</sup> ST**  
FEASIBILITY STUDY

# STUDY AREA INTERACTION

4

**How do you interact with 4th Street and 5th Street?**  
**ACTIVITY INSTRUCTIONS:** Place a dot or dots in the correct box below.



<p><b>Resident</b> in/near the Study Area</p>	<p><b>Business Owner</b> in/near the Study Area</p>
<p><b>Transit Rider</b> in/near the Study Area</p>	<p><b>Bicyclist</b> in/near the Study Area</p>
<p><b>Driver</b> in/near the Study Area</p>	<p><b>Pedestrian</b> in/near the Study Area</p>



Did we miss anything? Place a sticky note below to describe any other ways you interact with the study area.





GRAND JUNCTION  
**4<sup>TH</sup> & 5<sup>TH</sup> ST**  
 FEASIBILITY STUDY



# ONLINE SURVEY

**ABOUT THE PROJECT:** The 4th Street and 5th Street Feasibility Study is being led by the Grand Junction Downtown Development Authority, in conjunction with the City of Grand Junction.

**Why?** The purpose of the feasibility study is to evaluate potential improvements along both corridors and within the Study Area, focused on the following:

- Safety
- Traffic Circulation
- Walkability
- Bicycle Facilities
- Parking
- Transit
- Land Use
- Economic Development

**Proposed alternatives** will include maintaining the one-way traffic operations as well as the potential of transitioning to two-way travel corridors.



**Take the Online Survey!**

Visit the project website to take the online survey. Navigate to the link below or scan the QR code to the right with your phone.

<http://project.bhinc.com/4th5thStudy>



On the website, you can also use the interactive map to share your ideas for the 4th/5th Street corridors.

Your participation is very valuable to the planning process! **Those who take the online survey will be entered to win a Downtown GJ gift card. Please complete the survey by Tuesday, May 11 for a chance to win.**

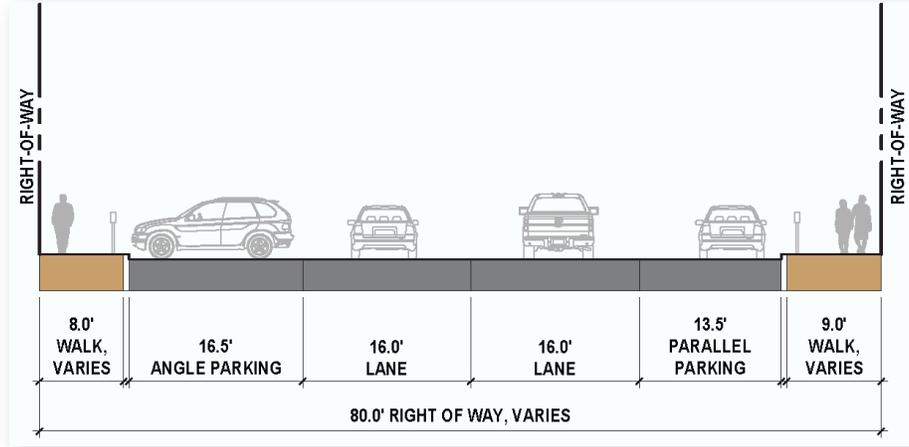




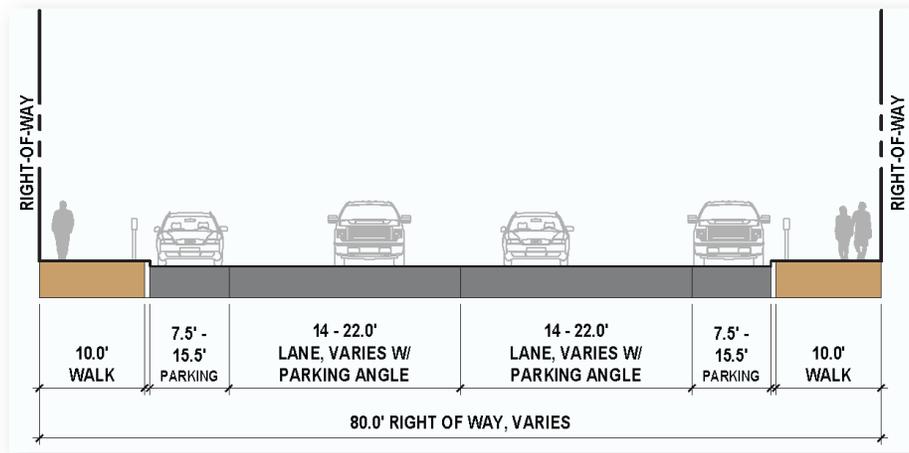
GRAND JUNCTION  
**4<sup>TH</sup> & 5<sup>TH</sup> ST**  
 FEASIBILITY STUDY

**EXISTING ONE-WAY PAIR  
 (LOOKING NORTH)**

**5th Street - Between Ute & Colorado**



**4th Street - Between Colorado & Rood**



**KEY ELEMENTS FOR 4TH & 5TH**

- One-Way Vehicle Travel
- Wide Travel Lanes
- Sidewalks with Landscaping
- Parallel & Diagonal Parking
- No Bike Facilities



Bohannon & Huston

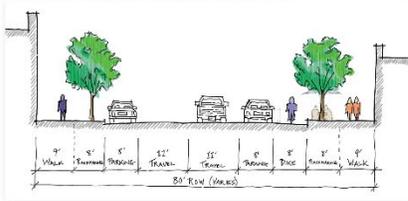


GRAND JUNCTION  
**4<sup>TH</sup> & 5<sup>TH</sup> ST**  
 FEASIBILITY STUDY

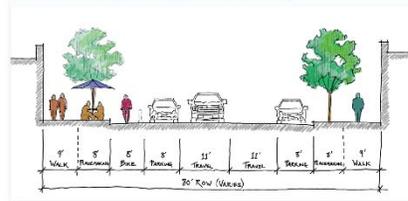


**ENHANCED ONE-WAY ALTERNATIVE**  
 (LOOKING NORTH)

5th Street - Ute to Grand (Concept Sketch)



4th Street - Ute to Grand (Concept Sketch)



5th Street - South of Grand (Concept Rendering)



4th Street - South of Grand (Concept Rendering)



**KEY ELEMENTS FOR 4TH & 5TH**



- One-Way Vehicle Travel
- Narrowed Travel Lanes

- Parallel Parking
- Separated Bike Lane

- Expanded Sidewalks
- Amenity Zone for Landscaping, Art, Outdoor Seating, & Other Amenities

- Bulbouts at Corners & Alleys

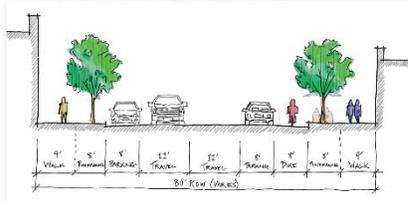


GRAND JUNCTION  
**4<sup>TH</sup> & 5<sup>TH</sup> ST**  
 FEASIBILITY STUDY

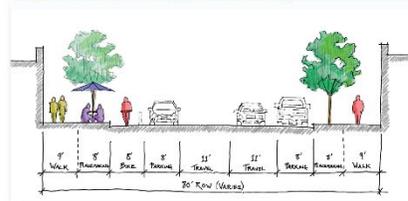


**ENHANCED TWO-WAY ALTERNATIVE**  
 (LOOKING NORTH)

5th Street - Ute to Grand (Concept Sketch)



4th Street - Ute to Grand (Concept Sketch)



5th Street - South of Grand (Concept Rendering)



4th Street - South of Grand (Concept Rendering)



**KEY ELEMENTS FOR 4TH & 5TH**



- Two-Way Vehicle Travel
- Narrowed Travel Lanes

- Parallel Parking
- Separated Bike Lane

- Expanded Sidewalks
- Amenity Zone for Landscaping, Art, Outdoor Seating, & Other Amenities

- Bulbouts at Corners & Alleys



# ALTERNATIVES EVALUATION MATRIX

- Proposed Alternatives Analysis Matrix Used to Evaluate the Two Directional Scenarios





GRAND JUNCTION  
**4<sup>TH</sup> & 5<sup>TH</sup> ST**  
FEASIBILITY STUDY

**PROPOSED ALTERNATIVES ANALYSIS MATRIX**

EXISTING ONE-WAY PAIR	EVALUATION SCORE	ENHANCED ONE-WAY ALTERNATIVE		ENHANCED TWO-WAY ALTERNATIVE	
		EVALUATION SCORE	EVALUATION NOTES	EVALUATION SCORE	EVALUATION NOTES
<b>VISION-BASED CRITERIA</b>					
<b>Enhance Safety</b>					
Reduce Speeds	*	***	Infrastructure modifications reduce speeds	****	Infrastructure modifications reduce speeds
Reduce Crashes	*	****	Lower speeds reduce crashes	***	Lower speeds reduce crashes
<b>Optimize Traffic Circulation</b>					
Reduce Driver Confusion	*	***	Maintains current travel patterns for locals	****	Less longterm confusion for all travelers
Encourage Traffic Calming	*	***	Slower speeds and roadway design encourage traffic calming	****	Slower speeds, roadway design, and more potential conflicts encourage traffic calming
Promote Direct Local Connections	**	**	Requires some out of direction travel for local connections, although minimal Decrease in through traffic	***	Provides more direct local connections Decrease in through traffic
Support Corridor Truck Deliveries	***	***	May need designated loading zone and encourage use of alleys	**	May need designated loading zone and encourage use of alleys May impact directional travel
Support Transit	***	****	Opportunity for improved bus stops	****	Opportunity for improved bus stops
<b>Improve Walkability &amp; Bikeability</b>					
Improve Crossings	*	****	Shorter crossing distances plus bulbouts Need to consider double threat from two one-way vehicles	****	Shorter crossing distances plus bulbouts, except at left-turn locations (2-3 intersections)
Provide/Improve Bicycle Facilities	*	****	Provides consistent bicycle facilities	****	Provides consistent bicycle facilities
Improve Sidewalks	**	****	Widens and enhances sidewalk area	****	Widens and enhances sidewalk area
<b>Activate Economic Development</b>					
Improve Business Access	**	***	Slower speeds improves business access	****	Slower speeds and more direct connections improve business access
Provide Opportunities For Amenities	**	****	Widened sidewalks allow for placemaking/landscaping opportunities	****	Widened sidewalks allow for placemaking/landscaping opportunities
Enhance Parking	**	****	Consistent, parallel parking with lower speeds will enhance parking and reduce quantity of spots	***	Consistent, parallel parking with lower speeds will enhance parking and reduce quantity of spots (even more with left-turns)
Preliminary Costs		\$		\$	Higher cost due to modification to signals and signage

**NOTE:** "Evaluation Score" represents a combined scoring from inputs by the Project Advisory Committee and Technical team 8/5 of August 12, 2021.

Lowest \*      Highest \*\*\*\*\*

It is a relational score representing how well each of the alternatives, as compared to the existing one-way pair, responds to the Vision-Based Criteria with \* indicating little to no benefit and \*\*\*\*\* indicating the most benefit.

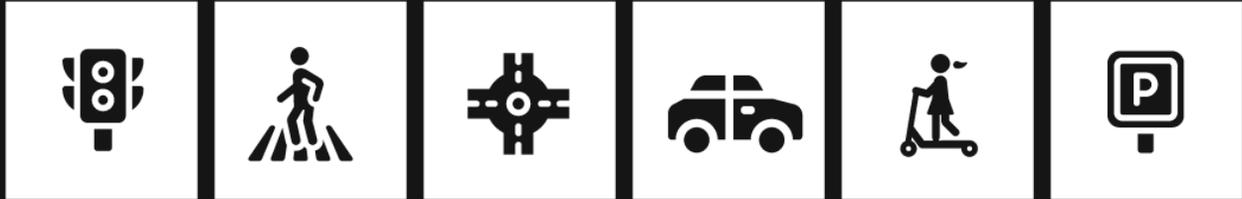




GRAND JUNCTION

# 4<sup>TH</sup> & 5<sup>TH</sup> ST

FEASIBILITY STUDY



## Appendix 2 – Traffic Memo



## MEMORANDUM

DATE: October 20, 2021  
TO: Denise Aten, Consultant Project Manager, BHI  
FROM: Karen Aspelin, PE, PTOE  
SUBJECT: Grand Junction 4<sup>th</sup> and 5<sup>th</sup> Street Conversion Study Traffic Analysis

---

The Grand Junction Downtown Development Authority is considering modifications to 4<sup>th</sup> Street and 5<sup>th</sup> Street between Pitkin Avenue and North Avenue that would make both streets two-way streets rather than the current one-way pair. This memo documents the existing traffic conditions and summarizes an analysis of how the proposed modifications would be expected to affect traffic now and in the future.

### Existing Traffic Conditions (One-Way Operations on 4<sup>th</sup> and 5<sup>th</sup>)

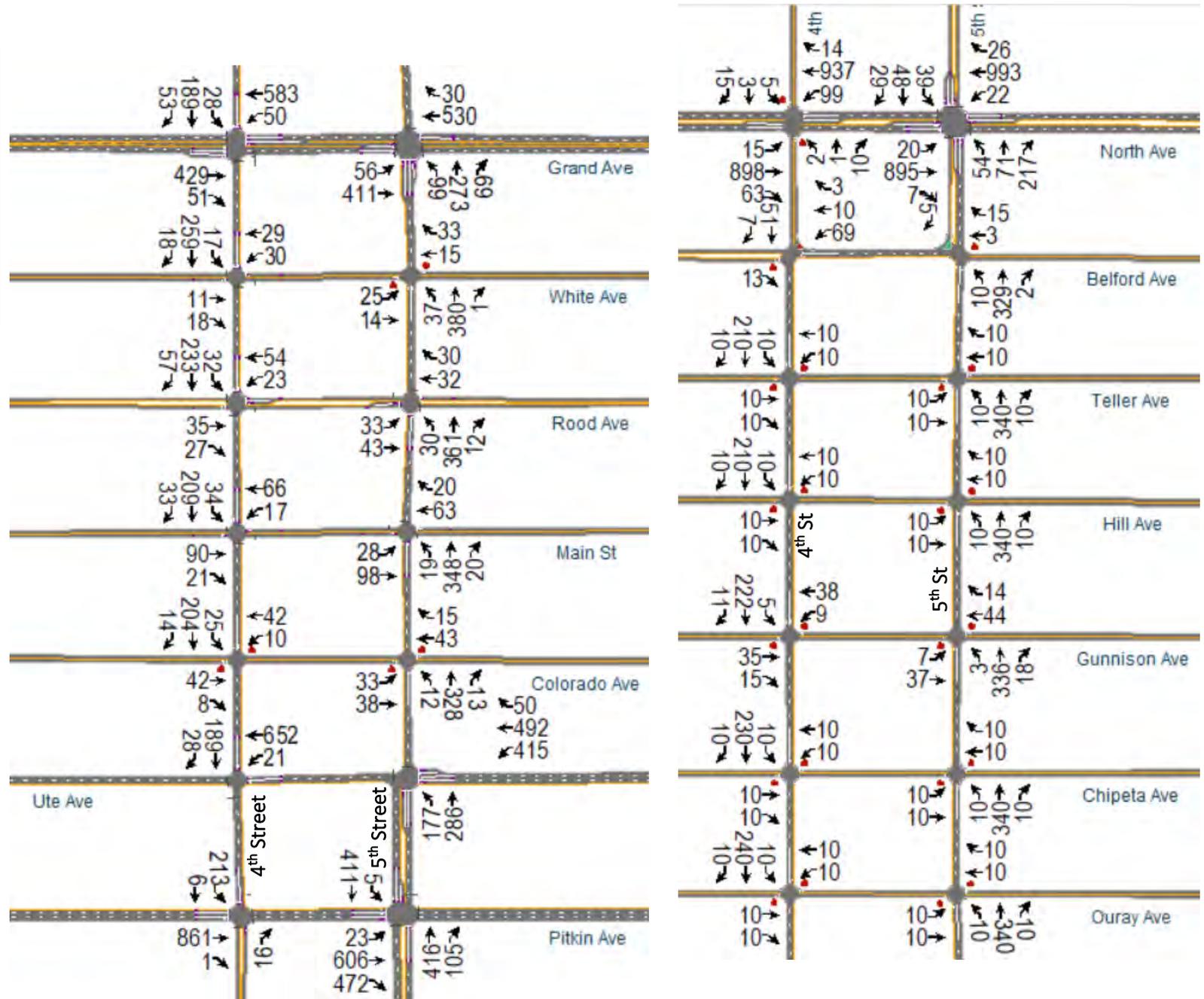
Traffic volumes were counted in the study area, which is shown in Figure 1, in February of 2021. It should be noted that turning movements were not counted at the minor intersections north of Grand Avenue, and for these a turning movement volume of 10 vehicles per hour (vph) per movement was assumed. The raw data are included as Appendix A and the PM peak hour turning movements, used for this analysis, are summarized in Figure 2.



Figure 1 – Study Area



Figure 2 – Existing PM Peak Hour Turning Movement Counts (February 2021)







Fourth and 5<sup>th</sup> streets currently operate as a one-way pair, with only northbound travel on 5<sup>th</sup> Street and only southbound travel on 4<sup>th</sup> Street between Ute Avenue and Belford Avenue. South of Ute Avenue 5<sup>th</sup> Street is two-way but 4<sup>th</sup> Street is one-way only southbound. North of Belford Avenue both streets are two-way. The existing traffic control is summarized here:

Control	4 <sup>th</sup> Street Intersection	5 <sup>th</sup> Street Intersection
Signalized	Pitkin, Ute, Main, Rood, White, Grand	Pitkin, Ute, Main, Rood, Grand, North
Stop on East-West Street Only	Colorado, Ouray, Chipeta, Gunnison, Hill, Teller, Belford	Colorado, White, Ouray, Chipeta, Gunnison, Hill, Teller, Belford
Stop on North-South Street Only	North	(none)

Existing traffic signal timing plans for the study intersections were provided by the City. An existing level of service analysis for the PM peak was performed for the study area intersections. The analysis used the *Highway Capacity Manual* module of the Synchro 10 software for level of service analysis. The results are summarized in Table 1, and all analysis worksheets are in Appendix B.

**Table 1. Existing PM Peak Hour Levels of Service<sup>1</sup> at the Study Intersections**

Cross Street	4 <sup>th</sup> Street		5 <sup>th</sup> Street	
	Overall LOS	Worst Approach LOS	Overall LOS	Worst Approach LOS
North Ave	(unsignalized)	E (SB approach)	B	C (NB and SB approaches)
Belford Ave	(unsignalized)	B	(unsignalized)	A
Teller Ave	(unsignalized)	B	(unsignalized)	B
Hill Ave	(unsignalized)	B	(unsignalized)	B
Gunnison Ave	(unsignalized)	B	(unsignalized)	B
Chipeta Ave	(unsignalized)	B	(unsignalized)	B
Ouray Ave	(unsignalized)	B	(unsignalized)	B
Grand Ave	B	C (EB and SB approaches)	C	C (WB and NB approaches)
White Ave	B	C (EB and WB approaches)	(unsignalized)	B
Rood Ave	C	C (EB and WB approaches)	C	C (EB and WB approaches)
Main St	B	C (SB approach)	B	C (WB approach)
Colorado Ave	(unsignalized)	B	(unsignalized)	B
Ute Ave	C	C (WB and SB approach)	B	C (WB approach)
Pitkin Ave	A	A	C	D (EB approach)

<sup>1</sup>Level of service shown for signalized intersection is overall level of service and worst approach level of service. Level of service shown for two-way stop control intersection is worst approach level of service (approach identified where LOS is C or worse).

The analysis showed that all movements in the PM peak hour are currently operating at acceptable levels of service (considered in this memo as a LOS D or better), with the exception of the southbound approach of the 4<sup>th</sup> Street/North Avenue intersection, which is unsignalized and operates at a LOS E.



A queueing analysis was done by using the SimTraffic 10 software to perform ten simulations of the peak hour. The queueing worksheets are included in Appendix C. The analysis looked for the following potential queueing issues:

- Queues extending back into the upstream intersection
- Queues spilling out of a turn lane and blocking the adjacent through lane
- Queues in a through lane blocking access to the adjacent turn lane in more than 10% of cycles
- Cycle failure – when a waiting queue is not completely dispersed during the cycle and continues to build over the peak period

These queueing issues were observed in the existing condition simulations:

- At 5th Street/Ute Avenue, the outside through lane westbound blocked entry to the westbound right-turn lane 8 of 36 cycles in the peak hour.
- At 5<sup>th</sup> Street/Pitkin Avenue, the inside through lane southbound blocked entry to the southbound left-turn lane 6 of 36 cycles in the peak hour.

## Existing Year Traffic Conditions with Two-Way Operations on 4<sup>th</sup> and 5<sup>th</sup>

The regional model output provided by the Grand Valley Metropolitan Planning Organization/Mesa County Regional Transportation Planning Office (MPO) shows that when 4th Street and 5th Street are both open to two-way traffic that of the total traffic volume those two streets carry, in general 4th Street carries about 40% of it, and 5th Street carries about 60% of it.

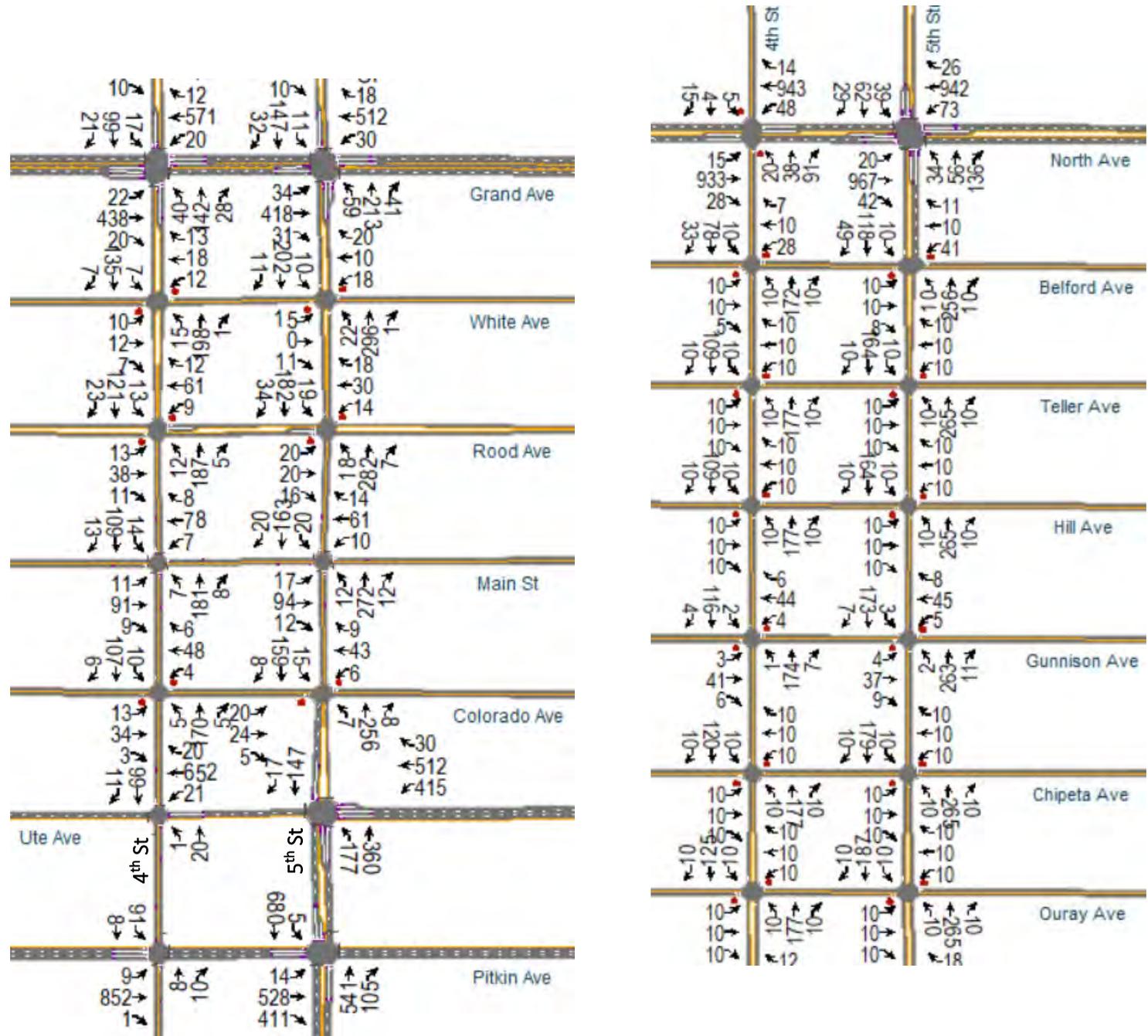
The regional model output also shows that when 4th Street and 5th Street are both open to two-way traffic, that some traffic from other streets (including 1st Street and 7th Street) gets diverted to them. Total traffic volumes on 4th Street and 5th Street grows by about 30% in the model when those streets were both made two-way.

Using this information, the total existing traffic counts on 4th Street and 5th Street were added up and then distributed: 40% to the intersections on 4th Street and 60% to the intersections on 5th Street. To account for the added traffic drawn from other streets in the PM peak, a factor of 1.3 was applied to the north-south through volumes on 4th Street and 5th Street. Figure 3 shows the estimated turning movement volumes for the study intersections for the two-way operations scenario in the current year.

A level of service analysis was again run for today's PM peak under two-way conditions. The same cycle length that is used now, 100 seconds, was assumed to be used. The results are summarized in Table 2, and all analysis worksheets are in Appendix B.



Figure 3 – Estimated Existing PM Peak Hour Volumes (Two-Way Conditions)





**Table 2. PM Peak Hour Levels of Service<sup>1</sup> at the Study Intersections – Existing Year, Two-Way Operations**

Cross Street	4 <sup>th</sup> Street		5 <sup>th</sup> Street	
	Overall LOS	Worst Approach LOS	Overall LOS	Worst Approach LOS
North Ave	(unsignalized)	F (NB and SB approaches)	B	D (NB approach)
Belford Ave	(unsignalized)	B	(unsignalized)	B
Teller Ave	(unsignalized)	B	(unsignalized)	B
Hill Ave	(unsignalized)	B	(unsignalized)	B
Gunnison Ave	(unsignalized)	B	(unsignalized)	B
Chipeta Ave	(unsignalized)	B	(unsignalized)	B
Ouray Ave	(unsignalized)	B	(unsignalized)	B
Grand Ave	B	C (NB and SB approaches)	B	C (NB and SB approaches)
White Ave <sup>2</sup>	(unsignalized)	B	(unsignalized)	B
Rood Ave <sup>2</sup>	(unsignalized)	B	(unsignalized)	B
Main St	C	D (EB and WB approaches)	B	D (EB and WB approaches)
Colorado Ave	(unsignalized)	B	(unsignalized)	B
Ute Ave	D	D (WB approach)	C	D (WB approach)
Pitkin Ave	C	D (EB approach)	C	D (EB approach)

<sup>1</sup>Level of service shown for signalized intersection is overall level of service and worst approach level of service. Level of service shown for two-way stop control intersection is worst approach level of service (approach identified where LOS is C or worse).

<sup>2</sup>The 4<sup>th</sup> Street/White Avenue and 4<sup>th</sup> Street/Rood Avenue intersections were assumed to be stop-controlled in the two-way scenario.

The analysis showed that all movements in the PM peak hour would be expected to operate at acceptable levels of service in the existing year under the two-way conditions with the exception of the northbound and southbound approaches of the 4<sup>th</sup> Street/North Avenue intersection, which is unsignalized and has side street movements operating at a LOS F.

The northern two blocks of the study area warrant further consideration if 4<sup>th</sup> and 5<sup>th</sup> streets are made two-way. Discussions with CDOT have revealed that they do not want to signalize the 4<sup>th</sup> Street/North Avenue intersection because of its proximity to the existing signal at 5<sup>th</sup> Street/North Avenue (North Avenue is US Highway 6). However, the travel demand model loads 4<sup>th</sup> Street and the unsignalized 4<sup>th</sup> Street/North Avenue intersection without regard to its type of control and shows, as was mentioned before, about 40% of the traffic in the 4<sup>th</sup> Street-5<sup>th</sup> Street corridor being carried by 4<sup>th</sup> Street. As demonstrated above, this volume would cause the side street movements of the 4<sup>th</sup> Street/North Avenue intersection to fail if it is not signalized. What would be more likely to happen is that northbound 4<sup>th</sup> Street traffic would find its way to the 5<sup>th</sup> Street/North Avenue intersection to use the signal there. This pattern could be encouraged by having northbound drivers on 4<sup>th</sup> Street take a right onto eastbound Belford Avenue, and then take a left onto northbound 5<sup>th</sup> Street to reach the signal. The configuration and traffic control at the 5<sup>th</sup> Street/Belford Avenue intersection would need to be modified to accommodate this new pattern.

These queuing issues were observed in the simulations of the existing year scenario with two-way operations:

- At 5<sup>th</sup> Street/Grand Avenue, the northbound through lane blocked entry to the northbound right-turn lane 9 of 36 cycles in the peak hour.
- At 5<sup>th</sup> Street/Ute Avenue, the outside through lane westbound blocked entry to the westbound right-turn lane 10 of 36 cycles in the peak hour.



- At 5<sup>th</sup> Street/Pitkin Avenue, the inside through lane southbound blocked entry to the southbound left-turn lane 6 of 36 cycles in the peak hour.

## Year 2045 Traffic Conditions with One-Way Operations on 4<sup>th</sup> and 5<sup>th</sup>

This study used a simplified method of determining the overall growth factor expected between the year 2021 and the forecast year 2045. Traffic model projections were provided by the MPO. A screenline was placed just south of Rood Avenue, and the daily traffic volumes on 1<sup>st</sup>, 4<sup>th</sup>, 5<sup>th</sup>, and 7<sup>th</sup> streets were summed at that location for the existing year and year 2045 scenario with the existing one-way pair and existing speed limits.

	Base Year ADTs	Year 2045 One-Way Pair, Existing Speed Limits ADTs
1 <sup>st</sup> Street	18,629	28,083
4 <sup>th</sup> Street	3,508	5,140
5 <sup>th</sup> Street	7,002	8,544
7 <sup>th</sup> Street	8,556	13,496
Totals	37,695	55,263

The growth observed between these two screenline ADTs is approximately 1.5. This factor was applied to all of the existing year 2021 turning movement counts to estimate future year conditions, which are shown in Figure 4.

A level of service analysis was again run for the projected year 2045 PM peak under the current one-way conditions. The same cycle length that is used now, 100 seconds, was assumed to be used. The results are summarized in Table 3, and all analysis worksheets are in Appendix B.

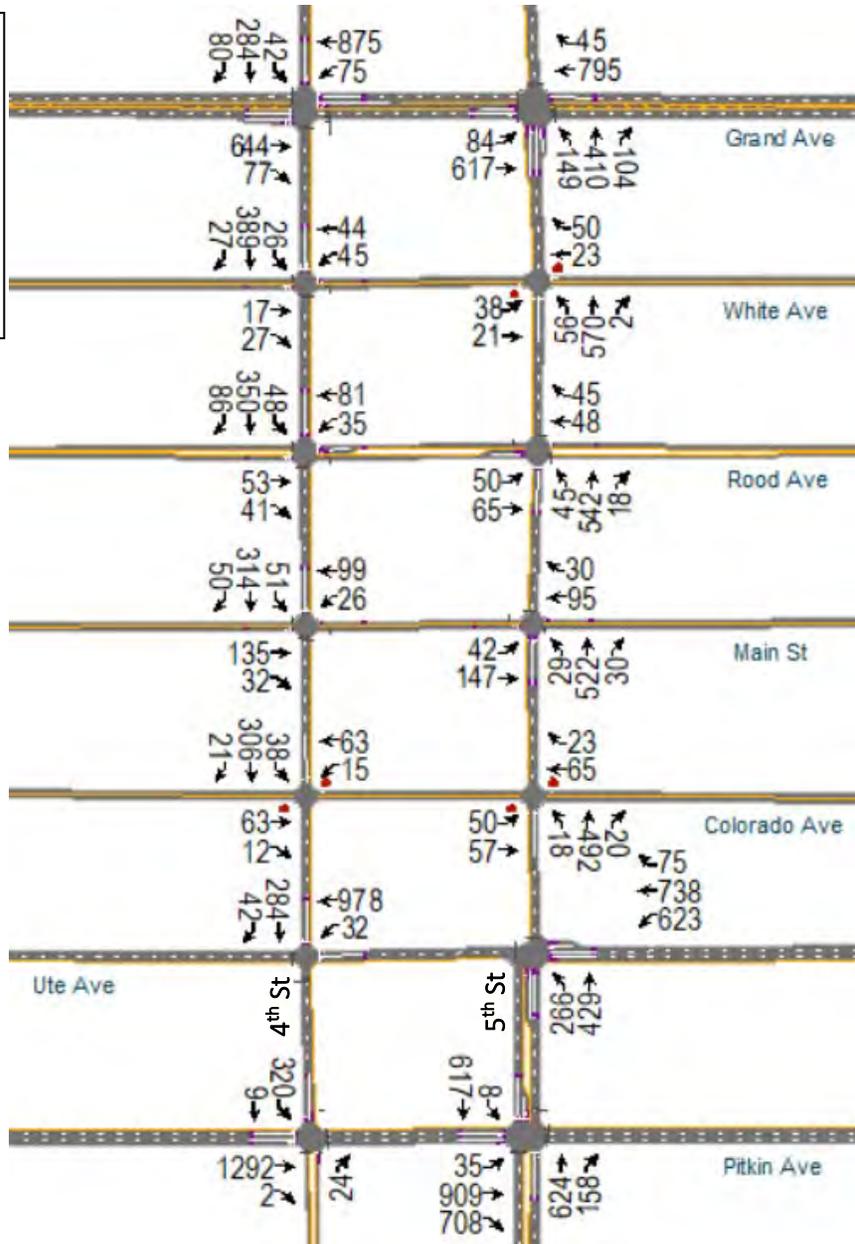
**Table 3. Forecast Year 2045 PM Peak Hour Levels of Service<sup>1</sup> with One-Way Operations**

Cross Street	4 <sup>th</sup> Street		5 <sup>th</sup> Street	
	Overall LOS	Worst Approach LOS	Overall LOS	Worst Approach LOS
North Ave	(unsignalized)	F (NB and SB approaches)	C	D (NB approach)
Belford Ave	(unsignalized)	B	(unsignalized)	B
Teller Ave	(unsignalized)	B	(unsignalized)	B
Hill Ave	(unsignalized)	B	(unsignalized)	B
Gunnison Ave	(unsignalized)	B	(unsignalized)	B
Chipeta Ave	(unsignalized)	B	(unsignalized)	B
Ouray Ave	(unsignalized)	B	(unsignalized)	B
Grand Ave	B	C (EB and SB approaches)	C	C (WB and NB approaches)
White Ave	B	C (EB and WB approaches)	(unsignalized)	B
Rood Ave	C	C (all approaches)	C	C (all approaches)
Main St	C	C (SB approach)	C	C (WB and NB approaches)
Colorado Ave	(unsignalized)	B	(unsignalized)	B
Ute Ave	C	C (WB and SB approaches)	B	B
Pitkin Ave	A	A	C	D (EB approach)

<sup>1</sup>Level of service shown for signalized intersection is overall level of service and worst approach level of service. Level of service shown for two-way stop control intersection is worst approach level of service (approach identified where LOS is C or worse).



Figure 4 –  
Estimated  
Year 2045 PM  
Peak Hour  
Volumes  
(One-Way)





The analysis showed that all movements in the forecast year 2045 PM peak hour, with the one-way pair, are expected to operate at acceptable levels of service with the exception of the northbound and southbound approaches of the 4<sup>th</sup> Street/North Avenue intersection, which is unsignalized and operates at a LOS F.

These queuing issues were observed in the simulations of the forecast year 2045 with the one-way pair:

- At 5th Street/North Avenue, the eastbound through lane blocked entry to the eastbound left-turn lane 5 of 36 cycles in the peak hour and the westbound through lane blocked entry to the westbound left-turn lane 7 of 36 cycles in the peak hour.
- At 5th Street/Grand Avenue, the northbound through lane blocked entry to the northbound right-turn lane 4 of 36 cycles in the peak hour.
- At 5th Street/Ute Avenue, the outside through lane westbound blocked entry to the westbound right-turn lane 7 of 36 cycles in the peak hour.
- At 5<sup>th</sup> Street/Pitkin Avenue, the inside through lane southbound blocked entry to the southbound left-turn lane 12 of 36 cycles in the peak hour.

## Year 2045 Traffic Conditions with Two-Way Operations on 4<sup>th</sup> and 5<sup>th</sup>

To estimate year 2045 traffic conditions under a scenario with two-way operations on 4<sup>th</sup> and 5<sup>th</sup> streets, the turning movements shown in Figure 3 were escalated by the future year growth factor of 1.5. These volumes are shown in Figure 5.

A level of service analysis was again run for the projected year 2045 PM peak under the proposed two-way conditions. The same cycle length that is used now, 100 seconds, was assumed to be used. The results are summarized in Table 4, and all analysis worksheets are in Appendix B.

**Table 4. Forecast Year 2045 PM Peak Hour Levels of Service<sup>1</sup> with Two-Way Operations**

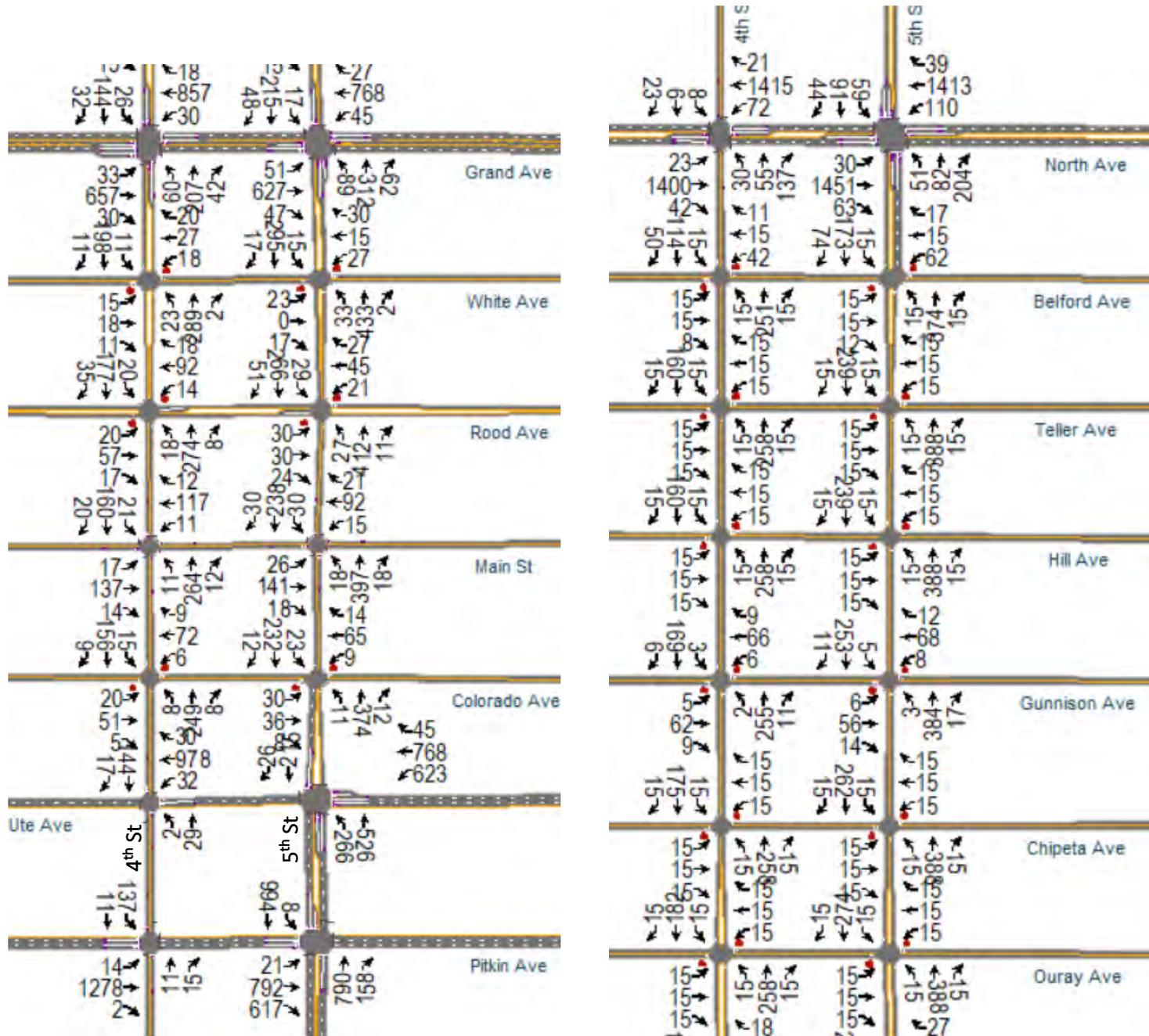
Cross Street	4 <sup>th</sup> Street		5 <sup>th</sup> Street	
	Overall LOS	Worst Approach LOS	Overall LOS	Worst Approach LOS
North Ave	(unsignalized)	F (NB and SB approaches)	C	D (NB approach)
Belford Ave	(unsignalized)	B	(unsignalized)	C
Teller Ave	(unsignalized)	B	(unsignalized)	C
Hill Ave	(unsignalized)	B	(unsignalized)	C
Gunnison Ave	(unsignalized)	B	(unsignalized)	C
Chipeta Ave	(unsignalized)	B	(unsignalized)	C
Ouray Ave	(unsignalized)	B	(unsignalized)	C
Grand Ave	B	D (NB approach)	B	C
White Ave <sup>2</sup>	(unsignalized)	B	(unsignalized)	C
Rood Ave <sup>2</sup>	(unsignalized)	C	(unsignalized)	C
Main St	C	D (EB and WB approaches)	B	D (EB and WB approaches)
Colorado Ave	(unsignalized)	B	(unsignalized)	C
Ute Ave	C	D (WB approach)	C	C
Pitkin Ave	C	C	C	D (EB approach)

<sup>1</sup>Level of service shown for signalized intersection is overall level of service and worst approach level of service. Level of service shown for two-way stop control intersection is worst approach level of service (approach identified where LOS is D or worse).

<sup>2</sup>The 4<sup>th</sup> Street/White Avenue and 4<sup>th</sup> Street/Rood Avenue intersections were assumed to be stop-controlled in the two-way scenario.



Figure 5 –  
Estimated Year  
2045 PM Peak  
Hour Volumes  
(Two-Way)







The analysis showed that all movements in the forecast year 2045 PM peak hour, in the two-way scenario, are expected to operate at acceptable levels of service with the exception of the northbound and southbound approaches of the 4<sup>th</sup> Street/North Avenue intersection, which is unsignalized and operates at a LOS F. As discussed earlier, the northern blocks of the study area would need to be examined more closely if the streets are both made two-way without signaling the intersection of 4<sup>th</sup> Street/North Avenue.

For the queueing analysis, the 2045 two-way scenario was simulated to show northbound 4<sup>th</sup> Street traffic that would have turned left or gone straight through at North Avenue diverting to 5<sup>th</sup> Street at Belford, to use the traffic signal at 5<sup>th</sup> Street/North Avenue. These queueing issues were observed in the simulations of the forecast year 2045 with two-way operations:

- At 5th Street/North Avenue, the eastbound through lane blocked entry to the eastbound left-turn lane 8 of 36 cycles in the peak hour and the westbound through lane blocked entry to the westbound left-turn lane 5 of 36 cycles in the peak hour.
- At 5th Street/Grand Avenue, the northbound through lane blocked entry to the northbound right-turn lane 11 of 36 cycles, and the southbound through/right turn lane blocked entry to the southbound left-turn lane in 4 of 36 cycles in the peak hour.
- At 4th Street/Grand Avenue, the northbound through lane blocked entry to the northbound right-turn lane 4 of 36 cycles in the peak hour.
- At 5th Street/Ute Avenue, the outside through lane westbound blocked entry to the westbound right-turn lane 14 of 36 cycles in the peak hour and the right-side northbound left turn lane blocked entrance into the left-side northbound left turn lane 8 of 36 cycles.
- At 5<sup>th</sup> Street/Pitkin Avenue, the inside through lane southbound blocked entry to the southbound left-turn lane 11 of 36 cycles in the peak hour.

## CDOT Facilities and Coordination

Several of the streets in the study area are CDOT facilities: North Avenue (US 6), and the segments of 5th Street (US 50), Ute Avenue (I-70B), and Pitkin Avenue (I-70B) around Whitman Park. Accordingly, coordination meetings were held to keep CDOT traffic engineering staff apprised of the study.

Meetings were held on February 8, 2021, and June 14, 2021. The purpose of the February meeting was to find out what CDOT's concerns would be regarding making any changes to the lane configurations on 4<sup>th</sup> Street and 5<sup>th</sup> Street. The June meeting was to discuss the output of the travel demand forecast models with staff from the MPO.

CDOT's concern was that the two-way alternative would significantly increase the delay and queueing at the signalized intersections. The existing one-way scenario allows the traffic signals to be coordinated to provide good progression on both 4<sup>th</sup> Street and 5<sup>th</sup> Street (i.e., a platoon of one-way traffic can arrive at the traffic signals as they turn green and not have to make many stops). The two-way scenario would not be able to provide the same progression and would increase the number of stops. City of Grand Junction staff voiced the same concern that two-way traffic would defeat the effort of traffic progression.

## Need for Left-turn Lanes

No changes in lane configuration were assumed with the one-way pair scenarios.

In the two-way scenario, the northbound approach geometry at 5<sup>th</sup> Street/Ute Avenue was assumed to be two left-turn lanes and a single through lane.



In the two-way scenario, the maximum left-turn volumes off of 4<sup>th</sup> or 5<sup>th</sup> Street at any of the unsignalized intersections is estimated to be 33 vph (northbound left from 5<sup>th</sup> Street onto White Avenue in the year 2045), or approximately one vehicle turning left every two minutes. This magnitude of left-turn volumes does not cause delay or queueing issues at the unsignalized intersections. Therefore, no left-turn lanes are recommended to be added to allow acceptable traffic operations.

## Signalization Changes

In the two-way scenarios, the signals were assumed to be removed at the 4th Street/White Avenue, 4th Street/Rood Avenue, and 5th Street/Rood Avenue intersections. This is because signal modifications (additional poles, mastarms, and heads) would be required to make these intersections work for two-way traffic operations, it is unlikely that these intersections meet any signal warrants, and the intersections operate acceptably without a signal.

Other intersections that may not warrant the signals they have now are 4th Street/Main Street and 5th Street/Main Street, regardless of whether the one-way or two-way scenario is in place.

CDOT has stated that they do not want to signalize the 4<sup>th</sup> Street/North Avenue intersection because of its proximity to the existing signal at 5<sup>th</sup> Street/North Avenue. However, if travel demand under the two-way scenario does put 40% of the 4<sup>th</sup> Street-5<sup>th</sup> Street corridor traffic on 4<sup>th</sup> Street, there will be a greater desire to travel through the 4<sup>th</sup> Street/North Avenue intersection. Rather than signalizing the 4<sup>th</sup> Street/North Avenue intersection, modifications should be considered to the configuration of the 4<sup>th</sup> Street – Belford Avenue – 5<sup>th</sup> Street path to allow 4<sup>th</sup> Street users to access the signal at 5<sup>th</sup> Street/North Avenue.

## Summary

- A traffic analysis was performed for four scenarios: 2021/One-Way, 2021/Two-Way, 2045/One-Way, 2045/Two-Way. The purpose of the traffic analysis was to estimate vehicle levels of service and queueing.
- The PM peak turning movement counts were developed by these methodologies:
  - 2021/One-Way – existing turning movement counts collected in February 2021
  - 2021/Two-Way – existing turning movement counts in the corridor were distributed 40% to 4<sup>th</sup> Street and 60% to 5<sup>th</sup> Street. A factor of 1.3 was then applied to account for traffic expected to divert from other streets (1<sup>st</sup> and 7<sup>th</sup> streets) due to the change in configuration.
  - 2045/One-Way – a growth factor of 1.5 was applied to the 2021/One-Way counts. This was based on a comparison of ADTs between the model output (“Year 2045 One-Way Pair, Existing Speed Limits”) and Base Year ADTs provided by Mesa County MPO.
  - 2045/Two-Way – a growth factor of 1.5 was applied to the 2021/Two-Way Volumes
- Levels of service were acceptable for all movements under all of the above scenarios with the exception of the unsignalized side street movements at 4<sup>th</sup> Street/North Avenue, which operate at LOS E or F due to lack of gaps.
- There were only minor queueing issues observed – in some locations there is blockage of the turn lanes by the adjacent through lane for a handful of cycles in the peak. No queue backup into the upstream intersection was ever observed.
- Turn lanes
  - No changes in lane configuration were assumed with the one-way pair scenarios.
  - In the two-way scenario, the northbound approach geometry at 5<sup>th</sup> Street/Ute Avenue was assumed to be two left-turn lanes and a single through lane.



- In the two-way scenario left-turn volumes off the north-south streets are low and they do not cause delay or queueing issues, so no additional left-turn lanes are recommended from a traffic operations standpoint.
- Signalization changes
  - In the two-way scenarios, the signals were assumed to be removed at the 4<sup>th</sup> Street/White Avenue, 4<sup>th</sup> Street/Rood Avenue, and 5<sup>th</sup> Street/Rood Avenue intersections. This is because signal modifications (additional poles, mastarms, and heads) would be required to make these intersections two-way, it is unlikely that these intersections meet any signal warrants, and the intersections operate acceptably without a signal.
  - Other intersections that may not warrant the signals they have now are 4<sup>th</sup> Street/Main Street and 5<sup>th</sup> Street/Main Street.
  - If 4<sup>th</sup> Street and 5<sup>th</sup> Street are converted to two-way facilities, modifications should be made in the north part of the study area to allow northbound 4<sup>th</sup> Street drivers to better access the traffic signal at 5<sup>th</sup> Street/North Avenue, because CDOT does not plan to signalize the 4<sup>th</sup> Street/North Avenue intersection.
- CDOT and City concerns
  - Both CDOT and City traffic signal staff have voiced concern that a conversion from one-way to two-way operations on 4<sup>th</sup> Street and 5<sup>th</sup> Street would defeat traffic progression on both streets.

Appendix A – Turning Movement Count Data

---



(303) 216-2439  
www.alltrafficdata.net

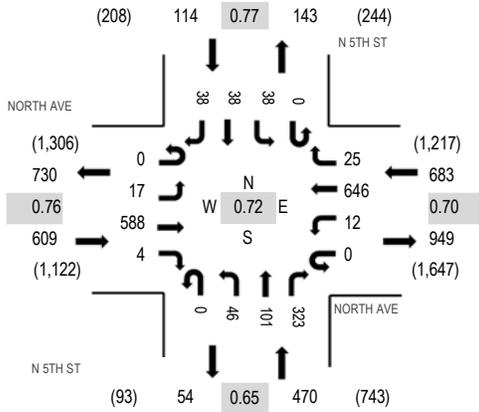
**Location:** 1 N 5TH ST & NORTH AVE AM

**Date:** Tuesday, February 16, 2021

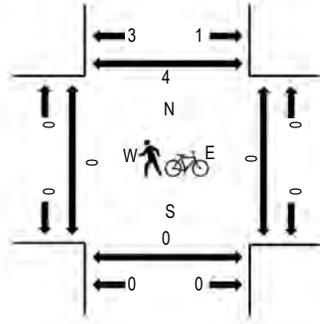
**Peak Hour:** 07:15 AM - 08:15 AM

**Peak 15-Minutes:** 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	NORTH AVE Eastbound				NORTH AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	3	78	1	0	4	79	10	0	2	11	38	0	17	2	12	257	1,765	0	0	0	0
7:15 AM	0	6	121	0	0	3	132	5	0	7	23	52	0	8	6	8	371	1,876	0	0	0	3
7:30 AM	0	5	150	0	0	2	161	5	0	12	32	89	0	11	8	13	488	1,836	0	0	0	1
7:45 AM	0	3	195	3	0	3	235	5	0	15	27	140	0	2	16	5	649	1,727	0	0	0	0
8:00 AM	0	3	122	1	0	4	118	10	0	12	19	42	0	17	8	12	368	1,525	0	0	0	0
8:15 AM	0	6	114	0	0	2	116	5	0	13	16	37	0	8	6	8	331		7	0	1	0
8:30 AM	0	5	130	0	0	2	136	5	0	14	15	43	0	11	5	13	379		2	0	0	2
8:45 AM	0	3	170	3	0	9	161	5	0	17	17	50	0	2	5	5	447		1	0	0	3
Count Total	0	34	1,080	8	0	29	1,138	50	0	92	160	491	0	76	56	76	3,290		10	0	1	9
Peak Hour	0	17	588	4	0	12	646	25	0	46	101	323	0	38	38	38	1,876		0	0	0	4



(303) 216-2439  
www.alltrafficdata.net

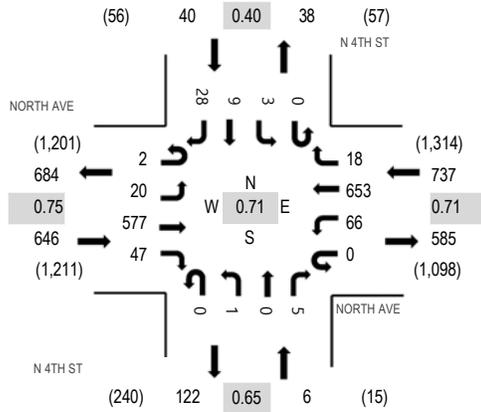
Location: 2 N 4TH ST & NORTH AVE AM

Date: Tuesday, February 16, 2021

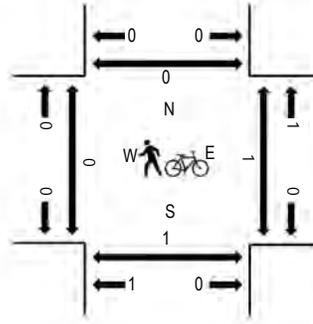
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	NORTH AVE Eastbound				NORTH AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	3	75	7	0	11	81	2	0	0	0	1	0	1	1	0	182	1,334	0	0	0	0
7:15 AM	1	7	119	7	0	16	136	3	0	0	0	1	0	2	2	0	294	1,429	0	0	1	0
7:30 AM	0	7	150	14	0	13	162	6	0	0	0	0	0	0	0	5	357	1,420	0	0	0	0
7:45 AM	1	5	193	17	0	17	236	7	0	0	0	0	0	1	6	18	501	1,379	0	0	0	0
8:00 AM	0	1	115	9	0	20	119	2	0	1	0	4	0	0	1	5	277	1,262	0	0	0	0
8:15 AM	0	0	119	18	0	14	124	3	0	2	1	1	0	0	0	3	285		0	2	0	0
8:30 AM	0	1	134	14	0	17	139	2	0	1	0	2	0	1	3	2	316		0	2	0	1
8:45 AM	0	5	178	11	0	22	160	2	0	0	0	1	0	0	0	5	384		0	0	0	0
Count Total	2	29	1,083	97	0	130	1,157	27	0	4	1	10	0	5	13	38	2,596		0	4	1	1
Peak Hour	2	20	577	47	0	66	653	18	0	1	0	5	0	3	9	28	1,429		0	0	1	0



(303) 216-2439  
www.alltrafficdata.net

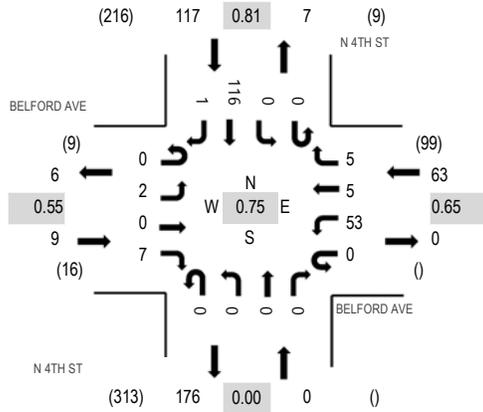
Location: 3 N 4TH ST & BELFORD AVE AM

Date: Tuesday, February 16, 2021

Peak Hour: 07:30 AM - 08:30 AM

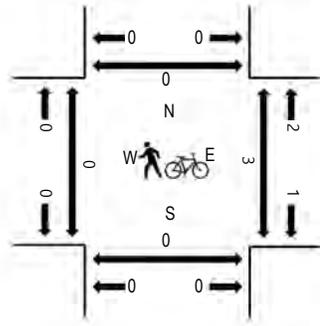
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



Note: Total study counts contained in parentheses.

**Peak Hour - Pedestrians/Bicycles on Crosswalk**



**Traffic Counts**

Interval Start Time	BELFORD AVE Eastbound				BELFORD AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	19	0	22	160	0	0	0	0
7:15 AM	0	0	0	2	0	5	2	1	0	0	0	0	0	0	0	23	0	33	185	0	0	0	0
7:30 AM	0	0	0	1	0	13	1	0	0	0	0	0	0	0	0	27	0	42	189	0	0	0	0
7:45 AM	0	0	0	2	0	22	1	2	0	0	0	0	0	0	0	36	0	63	185	0	1	0	0
8:00 AM	0	2	0	3	0	12	3	3	0	0	0	0	0	0	0	24	0	47	171	0	0	0	0
8:15 AM	0	0	0	1	0	6	0	0	0	0	0	0	0	0	0	29	1	37	0	2	0	0	
8:30 AM	0	0	0	2	0	8	1	0	0	0	0	0	0	0	0	27	0	38	0	2	0	0	
8:45 AM	0	0	0	3	0	15	0	1	0	0	0	0	0	0	0	30	0	49	0	0	0	0	
Count Total	0	2	0	14	0	84	8	7	0	0	0	0	0	0	0	215	1	331	0	5	0	0	
Peak Hour	0	2	0	7	0	53	5	5	0	0	0	0	0	0	0	116	1	189	0	3	0	0	



(303) 216-2439  
www.alltrafficdata.net

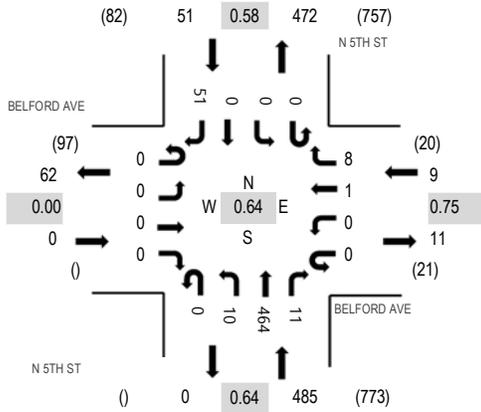
Location: 4 N 5TH ST & BELFORD AVE AM

Date: Tuesday, February 16, 2021

Peak Hour: 07:15 AM - 08:15 AM

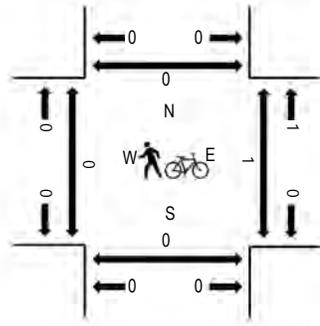
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	BELFORD AVE Eastbound				BELFORD AVE Westbound				N 5TH ST Northbound			N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings						
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru			Right	West	East	South	North		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	51	2	0	0	0	0	2	56	508	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	2	0	1	78	2	0	0	0	0	7	90	545	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	1	0	1	132	3	0	0	0	0	12	149	533	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	2	0	4	181	4	0	0	0	0	22	213	465	0	1	0	0
8:00 AM	0	0	0	0	0	0	1	3	0	4	73	2	0	0	0	0	10	93	367	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	5	0	0	65	3	0	0	0	0	5	78		0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	2	0	2	69	0	0	0	0	0	8	81		0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	4	0	1	89	5	0	0	0	0	16	115		0	0	0	0
Count Total	0	0	0	0	0	0	1	19	0	14	738	21	0	0	0	0	82	875		0	1	0	0	
Peak Hour	0	0	0	0	0	0	1	8	0	10	464	11	0	0	0	0	51	545		0	1	0	0	

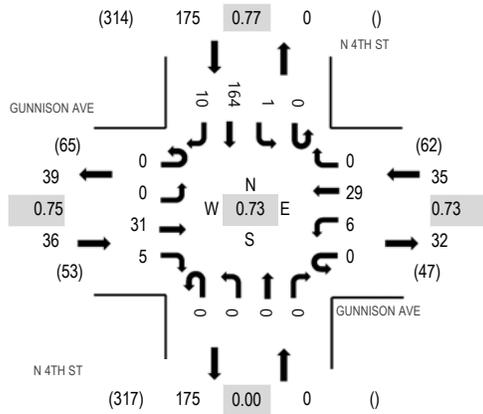




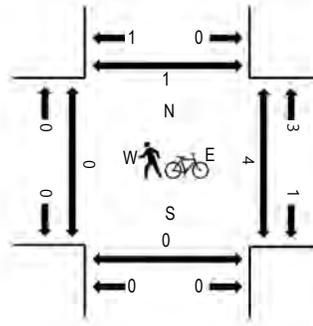
(303) 216-2439  
www.alltrafficdata.net

Location: 5 N 4TH ST & GUNNISON AVE AM  
Date: Tuesday, February 16, 2021  
Peak Hour: 07:45 AM - 08:45 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

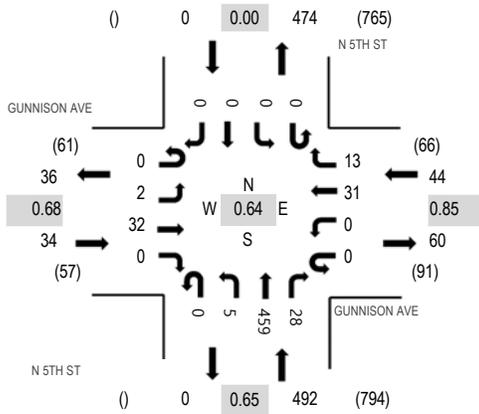
Interval Start Time	GUNNISON AVE Eastbound				GUNNISON AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	0	1	0	0	0	1	2	0	0	0	0	0	0	0	22	0	26	202	0	2	1	0
7:15 AM	0	0	1	0	0	0	1	6	0	0	0	0	0	0	0	28	0	36	236	0	0	0	0
7:30 AM	0	0	4	1	0	0	1	8	0	0	0	0	0	1	41	0	56	244	0	0	0	0	
7:45 AM	0	0	11	1	0	0	1	12	0	0	0	0	0	1	55	3	84	246	0	1	0	0	
8:00 AM	0	0	5	2	0	0	2	7	0	0	0	0	0	0	43	1	60	227	0	0	0	0	
8:15 AM	0	0	5	0	0	0	1	2	0	0	0	0	0	0	32	4	44		0	0	0	1	
8:30 AM	0	0	10	2	0	0	2	8	0	0	0	0	0	0	34	2	58		0	1	0	0	
8:45 AM	0	0	8	2	0	0	0	8	0	0	0	0	0	0	45	2	65		0	2	0	1	
Count Total	0	0	45	8	0	0	9	53	0	0	0	0	0	2	300	12	429		0	6	1	2	
Peak Hour	0	0	31	5	0	0	6	29	0	0	0	0	0	1	164	10	246		0	2	0	1	



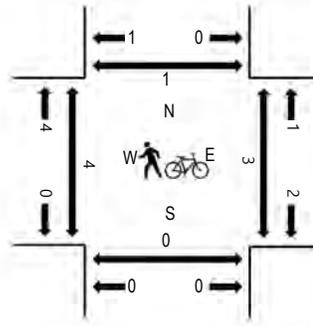
(303) 216-2439  
www.alltrafficdata.net

Location: 6 N 5TH ST & GUNNISON AVE AM  
Date: Tuesday, February 16, 2021  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

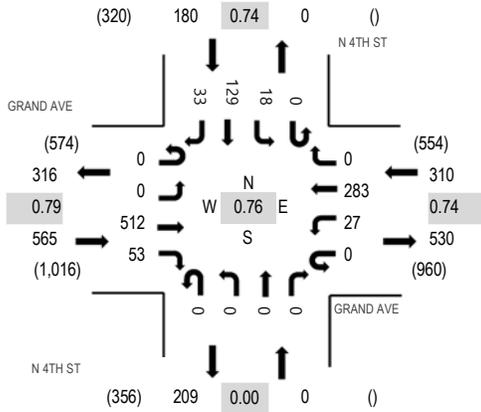
Interval Start Time	GUNNISON AVE Eastbound				GUNNISON AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	1	0	0	0	2	1	0	1	54	0	0	0	0	0	59	536	1	0	0	0
7:15 AM	0	1	0	0	0	0	2	0	0	3	78	5	0	0	0	0	89	569	0	0	0	0
7:30 AM	0	0	4	0	0	0	11	2	0	1	135	14	0	0	0	0	167	570	3	2	0	1
7:45 AM	0	1	14	0	0	0	8	5	0	4	182	7	0	0	0	0	221	492	1	0	0	0
8:00 AM	0	0	6	0	0	0	9	4	0	0	72	1	0	0	0	0	92	381	0	1	0	0
8:15 AM	0	1	8	0	0	0	3	2	0	0	70	6	0	0	0	0	90		0	0	0	0
8:30 AM	0	2	9	0	0	0	8	3	0	1	64	2	0	0	0	0	89		1	0	0	0
8:45 AM	0	1	9	0	0	0	6	0	0	2	87	5	0	0	0	0	110		0	0	0	1
Count Total	0	6	51	0	0	0	49	17	0	12	742	40	0	0	0	0	917		6	3	0	2
Peak Hour	0	2	32	0	0	0	31	13	0	5	459	28	0	0	0	0	570		4	3	0	1



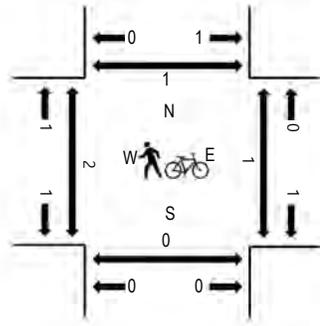
(303) 216-2439  
www.alltrafficdata.net

Location: 7 N 4TH ST & GRAND AVE AM  
Date: Tuesday, February 16, 2021  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	GRAND AVE Eastbound				GRAND AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	98	1	0	4	40	0	0	0	0	0	0	0	12	15	170	962	0	0	0	1
7:15 AM	0	0	98	6	0	5	48	0	0	0	0	0	0	0	20	7	184	1,015	0	0	0	1
7:30 AM	0	0	146	11	0	2	60	0	0	0	0	0	0	6	26	9	260	1,055	0	0	0	0
7:45 AM	0	0	162	17	0	12	96	0	0	0	0	0	0	3	46	12	348	1,010	2	1	0	0
8:00 AM	0	0	94	12	0	7	64	0	0	0	0	0	0	5	33	8	223	928	0	0	0	0
8:15 AM	0	0	110	13	0	6	63	0	0	0	0	0	0	4	24	4	224		0	0	0	1
8:30 AM	0	0	97	6	0	6	66	0	0	0	0	0	0	5	27	8	215		0	0	0	0
8:45 AM	0	0	129	16	0	9	66	0	0	0	0	0	0	3	35	8	266		1	2	1	0
Count Total	0	0	934	82	0	51	503	0	0	0	0	0	0	26	223	71	1,890		3	3	1	3
Peak Hour	0	0	512	53	0	27	283	0	0	0	0	0	0	18	129	33	1,055		2	1	0	1



(303) 216-2439  
www.alltrafficdata.net

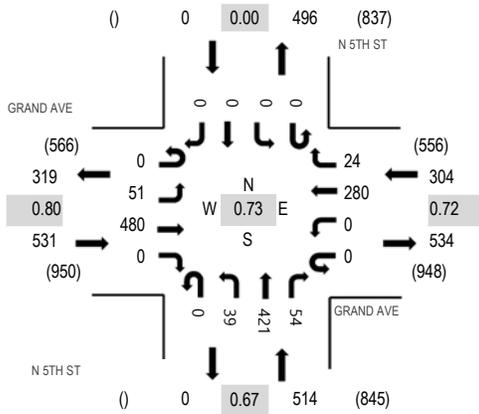
Location: 8 N 5TH ST & GRAND AVE AM

Date: Tuesday, February 16, 2021

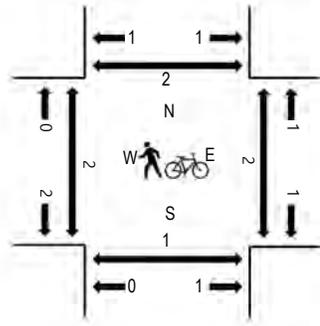
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

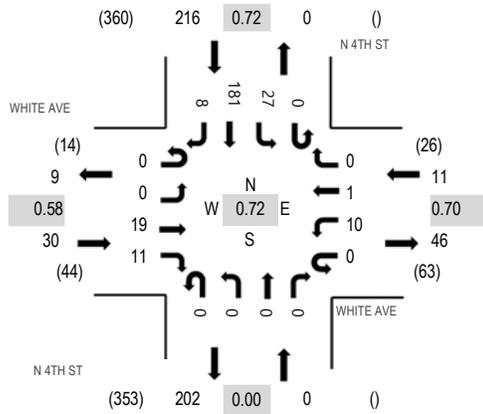
Interval Start Time	GRAND AVE Eastbound				GRAND AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	30	66	0	0	0	45	2	0	0	47	11	0	0	0	0	201	1,265	0	0	0	1
7:15 AM	0	10	89	0	0	0	49	3	0	4	70	10	0	0	0	0	235	1,318	1	0	0	0
7:30 AM	0	18	134	0	0	0	59	5	0	7	129	12	0	0	0	0	364	1,349	0	1	0	1
7:45 AM	0	21	144	0	0	0	96	11	0	14	161	18	0	0	0	0	465	1,234	1	1	0	0
8:00 AM	0	5	96	0	0	0	62	4	0	9	69	9	0	0	0	0	254	1,086	0	0	1	0
8:15 AM	0	7	106	0	0	0	63	4	0	9	62	15	0	0	0	0	266		0	0	0	1
8:30 AM	0	6	91	0	0	0	65	5	0	8	61	13	0	0	0	0	249		0	0	0	0
8:45 AM	0	9	118	0	0	0	70	13	0	6	85	16	0	0	0	0	317		0	1	0	0
Count Total	0	106	844	0	0	0	509	47	0	57	684	104	0	0	0	0	2,351		2	3	1	3
Peak Hour	0	51	480	0	0	0	280	24	0	39	421	54	0	0	0	0	1,349		1	2	1	2



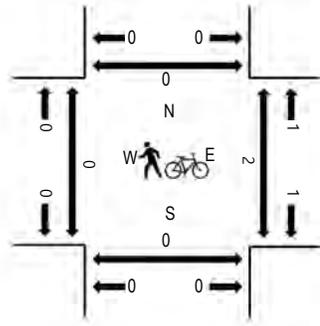
(303) 216-2439  
www.alltrafficdata.net

Location: 9 N 4TH ST & WHITE AVE  
Date: Tuesday, February 16, 2021  
Peak Hour: 07:45 AM - 08:45 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

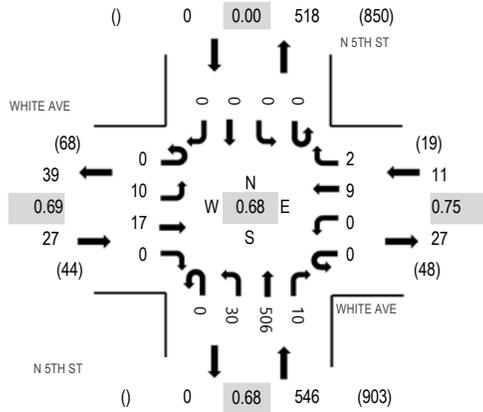
Interval Start Time	WHITE AVE Eastbound				WHITE AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	0	2	2	0	3	1	0	0	0	0	0	0	0	1	16	1	26	194	0	1	0	0
7:15 AM	0	0	0	1	0	5	0	0	0	0	0	0	0	3	26	0	35	237	0	1	1	0	
7:30 AM	0	0	1	1	0	1	1	0	0	0	0	0	0	3	36	1	44	256	0	0	1	0	
7:45 AM	0	0	8	5	0	1	0	0	0	0	0	0	0	11	63	1	89	257	0	1	0	0	
8:00 AM	0	0	7	3	0	2	1	0	0	0	0	0	0	10	43	3	69	236	0	0	0	0	
8:15 AM	0	0	2	2	0	5	0	0	0	0	0	0	0	3	41	1	54		0	1	0	0	
8:30 AM	0	0	2	1	0	2	0	0	0	0	0	0	0	3	34	3	45		0	0	0	0	
8:45 AM	0	0	2	5	0	3	1	0	0	0	0	0	0	5	52	0	68		0	2	4	1	
Count Total	0	0	24	20	0	22	4	0	0	0	0	0	0	39	311	10	430		0	6	6	1	
Peak Hour	0	0	19	11	0	10	1	0	0	0	0	0	0	27	181	8	257		0	2	0	0	



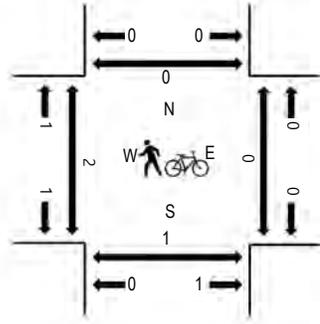
(303) 216-2439  
www.alltrafficdata.net

Location: 10 N 5TH ST & WHITE AVE AM  
Date: Tuesday, February 16, 2021  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

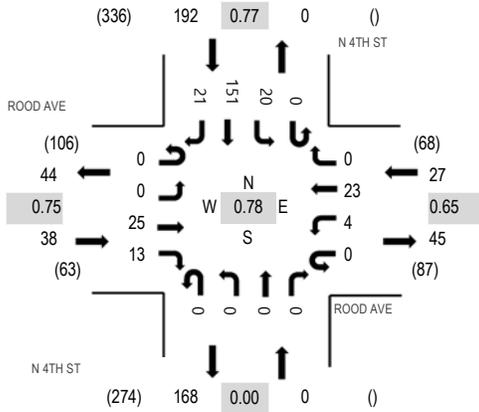
Interval Start Time	WHITE AVE Eastbound				WHITE AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	3	0	0	0	0	1	0	8	56	0	0	0	0	0	68	542	0	0	0	0
7:15 AM	0	0	1	0	0	0	2	0	0	6	86	3	0	0	0	0	98	577	0	0	0	0
7:30 AM	0	0	2	0	0	0	4	0	0	3	151	2	0	0	0	0	162	584	0	0	0	0
7:45 AM	0	5	6	0	0	0	2	0	0	7	190	4	0	0	0	0	214	518	0	0	0	0
8:00 AM	0	4	8	0	0	0	3	1	0	5	79	3	0	0	0	0	103	424	1	0	1	0
8:15 AM	0	1	1	0	0	0	0	1	0	15	86	1	0	0	0	0	105		0	0	0	0
8:30 AM	0	4	4	0	0	0	3	1	0	2	78	4	0	0	0	0	96		0	0	0	0
8:45 AM	0	2	3	0	0	0	1	0	0	7	104	3	0	0	0	0	120		1	0	0	0
Count Total	0	16	28	0	0	0	15	4	0	53	830	20	0	0	0	0	966		2	0	1	0
Peak Hour	0	10	17	0	0	0	9	2	0	30	506	10	0	0	0	0	584		1	0	1	0



(303) 216-2439  
www.alltrafficdata.net

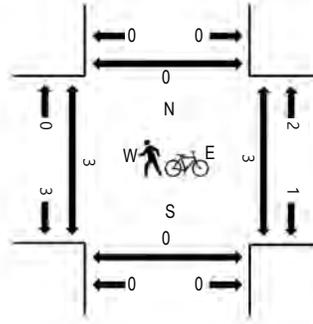
Location: 11 N 4TH ST & ROOD AVE AM  
Date: Tuesday, February 16, 2021  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



Note: Total study counts contained in parentheses.

**Peak Hour - Pedestrians/Bicycles on Crosswalk**



**Traffic Counts**

Interval Start Time	ROOD AVE Eastbound				ROOD AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	3	0	0	0	10	0	0	0	0	0	0	3	13	2	31	213	0	0	1	0
7:15 AM	0	0	5	0	0	1	14	0	0	0	0	0	0	3	21	5	49	245	2	1	0	0
7:30 AM	0	0	4	1	0	1	7	0	0	0	0	0	0	4	31	3	51	257	1	1	0	0
7:45 AM	0	0	8	6	0	1	5	0	0	0	0	0	0	6	53	3	82	257	2	2	0	0
8:00 AM	0	0	9	3	0	1	3	0	0	0	0	0	0	8	31	8	63	254	0	0	0	0
8:15 AM	0	0	4	3	0	1	8	0	0	0	0	0	0	2	36	7	61		0	0	0	0
8:30 AM	0	0	7	2	0	3	4	0	0	0	0	0	0	5	27	3	51		0	1	2	1
8:45 AM	0	0	7	1	0	2	7	0	0	0	0	0	0	9	36	17	79		1	2	0	0
Count Total	0	0	47	16	0	10	58	0	0	0	0	0	0	40	248	48	467		6	7	3	1
Peak Hour	0	0	25	13	0	4	23	0	0	0	0	0	0	20	151	21	257		3	3	0	0



(303) 216-2439  
www.alltrafficdata.net

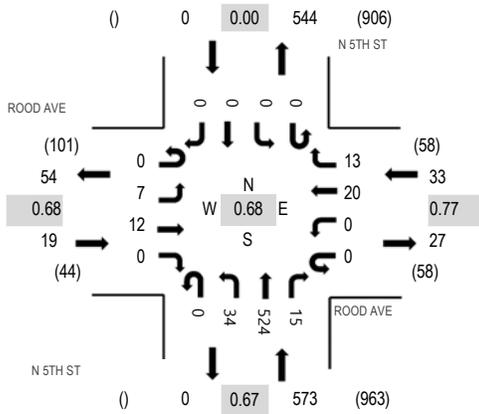
Location: 12 N 5TH ST & ROOD AVE AM

Date: Tuesday, February 16, 2021

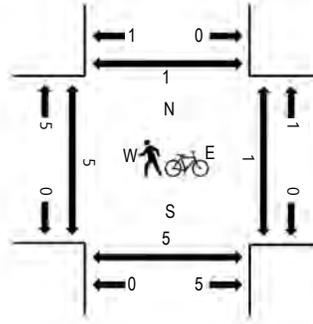
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	ROOD AVE Eastbound				ROOD AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	1	4	0	0	0	2	2	0	9	61	2	0	0	0	0	81	594	0	0	1	0
7:15 AM	0	1	0	0	0	0	2	2	0	9	94	4	0	0	0	0	112	619	1	1	0	0
7:30 AM	0	1	2	0	0	0	3	4	0	8	153	1	0	0	0	0	172	625	0	1	0	0
7:45 AM	0	3	2	0	0	0	6	5	0	11	193	9	0	0	0	0	229	557	3	0	2	0
8:00 AM	0	2	8	0	0	0	6	2	0	8	78	2	0	0	0	0	106	471	2	0	2	0
8:15 AM	0	1	0	0	0	0	5	2	0	7	100	3	0	0	0	0	118		0	0	1	0
8:30 AM	0	2	6	0	0	0	6	2	0	4	81	3	0	0	0	0	104		0	0	1	0
8:45 AM	0	5	6	0	0	0	5	4	0	10	107	6	0	0	0	0	143		1	3	2	0
Count Total	0	16	28	0	0	0	35	23	0	66	867	30	0	0	0	0	1,065		7	5	9	0
Peak Hour	0	7	12	0	0	0	20	13	0	34	524	15	0	0	0	0	625		5	1	5	0

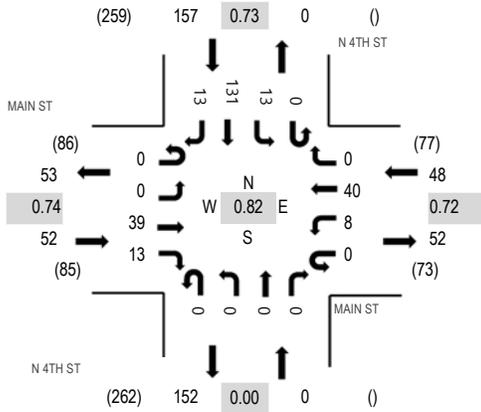




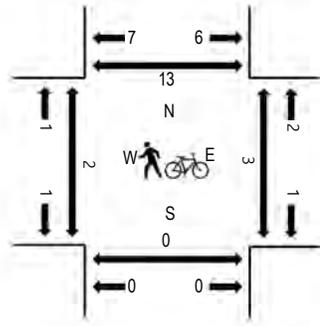
(303) 216-2439  
www.alltrafficdata.net

Location: 13 N 4TH ST & MAIN ST AM  
Date: Tuesday, February 16, 2021  
Peak Hour: 07:45 AM - 08:45 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	MAIN ST Eastbound				MAIN ST Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	5	0	0	0	1	4	0	0	0	0	0	0	12	3	25	175	2	0	0	0
7:15 AM	0	0	3	0	0	0	2	3	0	0	0	0	0	0	18	2	28	204	0	0	0	0
7:30 AM	0	0	2	3	0	0	2	5	0	0	0	0	0	0	31	1	44	242	0	1	0	3
7:45 AM	0	0	13	0	0	0	1	10	0	0	0	0	0	3	47	4	78	257	1	1	0	2
8:00 AM	0	0	10	4	0	0	2	8	0	0	0	0	0	1	28	1	54	246	0	0	0	7
8:15 AM	0	0	8	6	0	0	1	9	0	0	0	0	0	7	32	3	66		0	1	0	1
8:30 AM	0	0	8	3	0	0	4	13	0	0	0	0	0	2	24	5	59		1	1	0	3
8:45 AM	0	0	10	10	0	0	2	10	0	0	0	0	0	1	29	5	67		0	1	0	7
Count Total	0	0	59	26	0	0	15	62	0	0	0	0	0	14	221	24	421		4	5	0	23
Peak Hour	0	0	39	13	0	0	8	40	0	0	0	0	0	13	131	13	257		2	3	0	13



(303) 216-2439  
www.alltrafficdata.net

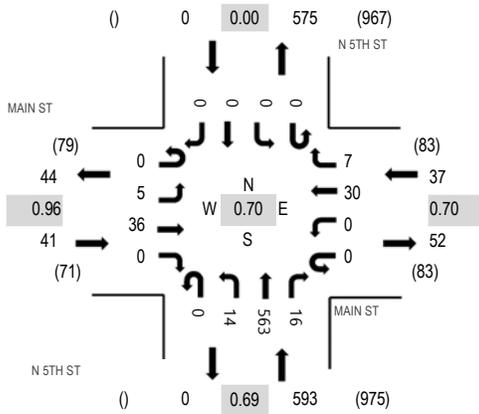
Location: 14 N 5TH ST & MAIN ST AM

Date: Tuesday, February 16, 2021

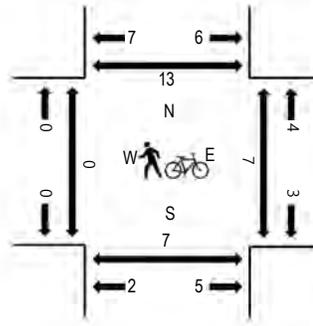
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	MAIN ST Eastbound				MAIN ST Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	1	3	0	0	0	2	0	0	0	3	71	2	0	0	0	0	82	617	0	0	1	0
7:15 AM	0	0	2	0	0	0	4	3	0	1	106	2	0	0	0	0	0	118	653	0	2	0	1
7:30 AM	0	0	2	0	0	0	5	1	0	3	162	5	0	0	0	0	0	178	671	0	1	2	1
7:45 AM	0	1	12	0	0	0	10	2	0	3	208	3	0	0	0	0	0	239	604	0	4	0	1
8:00 AM	0	1	12	0	0	0	7	3	0	2	87	6	0	0	0	0	0	118	512	0	1	2	7
8:15 AM	0	3	10	0	0	0	8	1	0	6	106	2	0	0	0	0	0	136		0	0	3	4
8:30 AM	0	1	10	0	0	0	13	4	0	1	81	1	0	0	0	0	0	111		0	1	1	5
8:45 AM	0	4	9	0	0	0	10	10	0	1	111	2	0	0	0	0	0	147		0	2	1	5
Count Total	0	11	60	0	0	0	59	24	0	20	932	23	0	0	0	0	0	1,129		0	11	10	24
Peak Hour	0	5	36	0	0	0	30	7	0	14	563	16	0	0	0	0	0	671		0	6	7	13

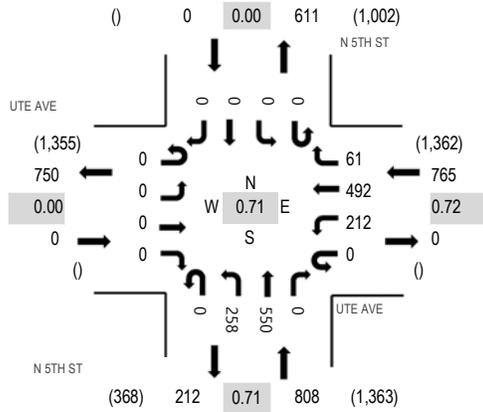




(303) 216-2439  
www.alltrafficdata.net

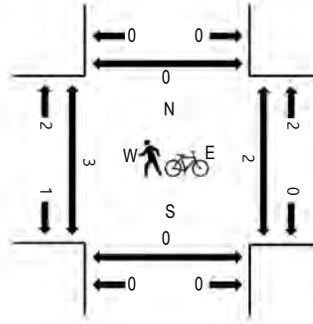
Location: 16 N 5TH ST & UTE AVE AM  
Date: Tuesday, February 16, 2021  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



Note: Total study counts contained in parentheses.

**Peak Hour - Pedestrians/Bicycles on Crosswalk**



**Traffic Counts**

Interval Start Time	UTE AVE Eastbound				UTE AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	19	80	11	0	26	67	0	0	0	0	0	203	1,435	0	0	0	0
7:15 AM	0	0	0	0	0	38	95	1	0	50	105	0	0	0	0	0	289	1,559	0	0	0	0
7:30 AM	0	0	0	0	0	47	100	10	0	62	168	0	0	0	0	0	387	1,573	2	1	0	0
7:45 AM	0	0	0	0	0	69	178	21	0	88	200	0	0	0	0	0	556	1,476	0	0	0	0
8:00 AM	0	0	0	0	0	54	115	11	0	66	81	0	0	0	0	0	327	1,290	0	1	0	0
8:15 AM	0	0	0	0	0	42	99	19	0	42	101	0	0	0	0	0	303		1	0	0	0
8:30 AM	0	0	0	0	0	46	115	5	0	47	77	0	0	0	0	0	290		1	1	0	0
8:45 AM	0	0	0	0	0	52	126	9	1	66	116	0	0	0	0	0	370		0	0	0	0
Count Total	0	0	0	0	0	367	908	87	1	447	915	0	0	0	0	0	2,725		4	3	0	0
Peak Hour	0	0	0	0	0	212	492	61	0	258	550	0	0	0	0	0	1,573		3	2	0	0



(303) 216-2439  
www.alltrafficdata.net

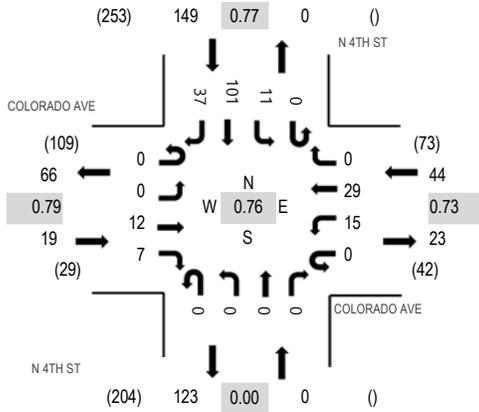
Location: 17 N 4TH ST & COLORADO AVE AM

Date: Tuesday, February 16, 2021

Peak Hour: 07:45 AM - 08:45 AM

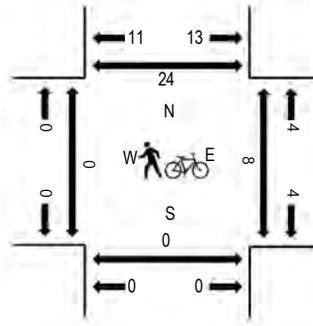
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	COLORADO AVE Eastbound				COLORADO AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	1	0	0	0	5	0	0	0	0	0	0	2	10	1	19	156	0	0	0	0
7:15 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	2	15	2	24	177	0	0	0	8
7:30 AM	0	0	0	0	0	0	8	0	0	0	0	0	0	2	30	3	43	210	3	0	0	6
7:45 AM	0	0	3	3	0	4	10	0	0	0	0	0	0	3	40	7	70	212	0	2	0	6
8:00 AM	0	0	2	1	0	1	6	0	0	0	0	0	0	2	22	6	40	199	0	2	0	3
8:15 AM	0	0	3	1	0	8	7	0	0	0	0	0	0	4	24	10	57		0	3	0	10
8:30 AM	0	0	4	2	0	2	6	0	0	0	0	0	0	2	15	14	45		0	1	0	5
8:45 AM	0	0	2	4	0	2	12	0	0	0	0	0	0	7	20	10	57		0	1	0	3
Count Total	0	0	18	11	0	17	56	0	0	0	0	0	0	24	176	53	355		3	9	0	41
Peak Hour	0	0	12	7	0	15	29	0	0	0	0	0	0	11	101	37	212		0	8	0	24

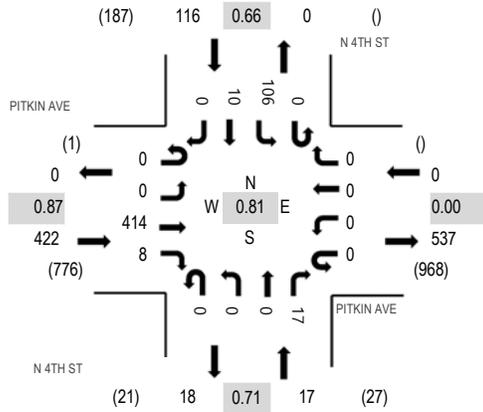




(303) 216-2439  
www.alltrafficdata.net

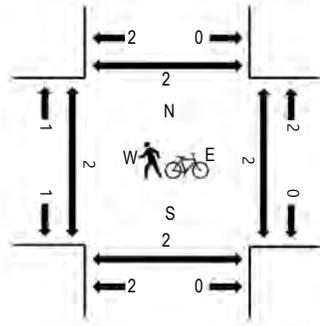
Location: 19 N 4TH ST & PITKIN AVE AM  
Date: Tuesday, February 16, 2021  
Peak Hour: 07:45 AM - 08:45 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



Note: Total study counts contained in parentheses.

**Peak Hour - Pedestrians/Bicycles on Crosswalk**



**Traffic Counts**

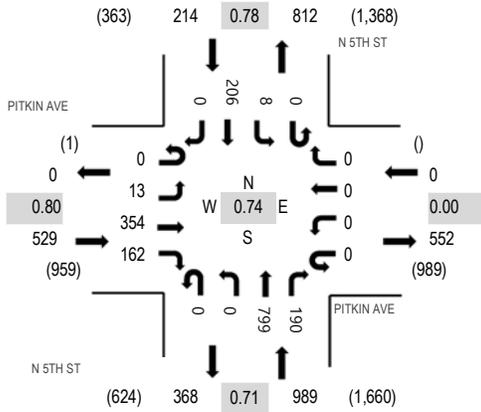
Interval Start Time	PITKIN AVE Eastbound				PITKIN AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings						
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North			
7:00 AM	0	0	64	0	0	0	0	0	0	0	0	0	1	0	8	0	0	0	0	73	466	0	0	0	2
7:15 AM	0	0	74	0	0	0	0	0	0	0	0	0	4	0	13	0	0	0	0	91	521	0	0	0	0
7:30 AM	0	0	103	0	0	0	0	0	0	0	0	2	0	25	1	0	0	0	131	553	0	1	1	1	
7:45 AM	0	0	120	1	0	0	0	0	0	0	0	4	0	43	3	0	0	0	171	555	0	1	0	1	
8:00 AM	0	0	96	0	0	0	0	0	0	0	0	6	0	23	3	0	0	0	128	524	0	0	2	0	
8:15 AM	0	0	94	2	0	0	0	0	0	0	0	3	0	22	2	0	0	0	123		1	1	0	1	
8:30 AM	0	0	104	5	0	0	0	0	0	0	0	4	0	18	2	0	0	0	133		1	0	0	0	
8:45 AM	0	0	113	0	0	0	0	0	0	0	0	3	0	21	2	1	0	0	140		2	0	2	1	
Count Total	0	0	768	8	0	0	0	0	0	0	0	27	0	173	13	1	0	0	990		4	3	5	6	
Peak Hour	0	0	414	8	0	0	0	0	0	0	0	17	0	106	10	0	0	0	555		2	2	2	2	



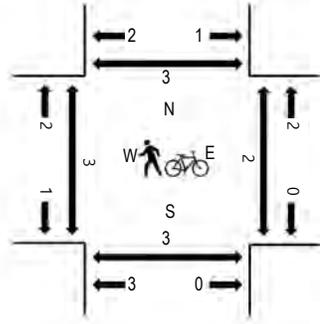
(303) 216-2439  
www.alltrafficdata.net

Location: 20 N 5TH ST & PITKIN AVE AM  
Date: Tuesday, February 16, 2021  
Peak Hour: 07:30 AM - 08:30 AM  
Peak 15-Minutes: 07:45 AM - 08:00 AM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	PITKIN AVE Eastbound				PITKIN AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	2	49	27	0	0	0	0	0	0	93	19	0	0	17	0	207	1,553	0	1	0	0
7:15 AM	0	2	71	17	0	0	0	0	0	0	153	33	0	2	35	1	314	1,711	0	0	0	0
7:30 AM	0	2	83	35	0	0	0	0	0	0	231	46	0	3	44	0	444	1,732	0	0	0	0
7:45 AM	0	4	119	45	0	0	0	0	0	0	286	65	0	0	69	0	588	1,614	1	0	0	2
8:00 AM	0	3	78	46	0	0	0	0	0	0	144	43	0	1	50	0	365	1,429	1	1	3	0
8:15 AM	0	4	74	36	0	0	0	0	0	0	138	36	0	4	43	0	335		0	1	0	1
8:30 AM	0	5	85	36	0	0	0	0	0	0	118	37	0	1	44	0	326		0	0	0	0
8:45 AM	0	7	97	32	0	0	0	0	0	0	176	42	0	1	48	0	403		0	1	0	1
Count Total	0	29	656	274	0	0	0	0	0	0	1,339	321	0	12	350	1	2,982		2	4	3	4
Peak Hour	0	13	354	162	0	0	0	0	0	0	799	190	0	8	206	0	1,732		2	2	3	3





(303) 216-2439  
www.alltrafficdata.net

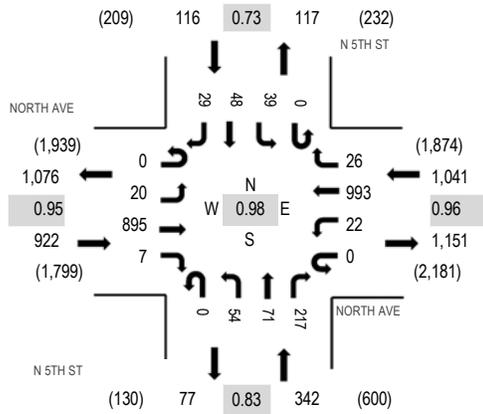
**Location:** 1 N 5TH ST & NORTH AVE PM

**Date:** Tuesday, February 16, 2021

**Peak Hour:** 04:15 PM - 05:15 PM

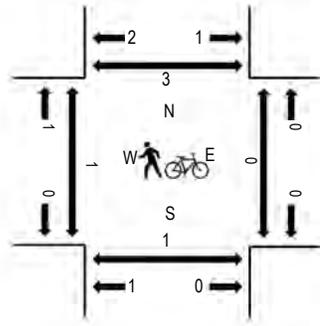
**Peak 15-Minutes:** 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



Note: Total study counts contained in parentheses.

**Peak Hour - Pedestrians/Bicycles on Crosswalk**



**Traffic Counts**

Interval Start Time	NORTH AVE Eastbound				NORTH AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	5	235	6	0	2	238	11	0	13	24	42	0	17	8	10	611	2,414	0	0	0	0
4:15 PM	0	7	225	1	0	8	238	5	0	12	17	62	0	8	7	6	596	2,421	0	0	0	2
4:30 PM	0	4	221	0	0	3	264	5	0	10	16	38	0	12	19	9	601	2,372	0	0	1	1
4:45 PM	0	4	231	0	0	6	260	5	0	10	12	62	0	2	9	5	606	2,262	0	0	0	0
5:00 PM	0	5	218	6	0	5	231	11	0	22	26	55	0	17	13	9	618	2,068	1	0	0	0
5:15 PM	0	7	236	1	0	8	208	5	0	12	17	33	0	8	5	7	547		0	0	0	0
5:30 PM	0	4	205	0	0	3	181	5	0	14	16	34	0	12	10	7	491		1	0	1	2
5:45 PM	0	4	174	0	0	6	161	5	0	9	12	32	0	2	4	3	412		0	0	1	3
Count Total	0	40	1,745	14	0	41	1,781	52	0	102	140	358	0	78	75	56	4,482		2	0	3	8
Peak Hour	0	20	895	7	0	22	993	26	0	54	71	217	0	39	48	29	2,421		1	0	1	3



(303) 216-2439  
www.alltrafficdata.net

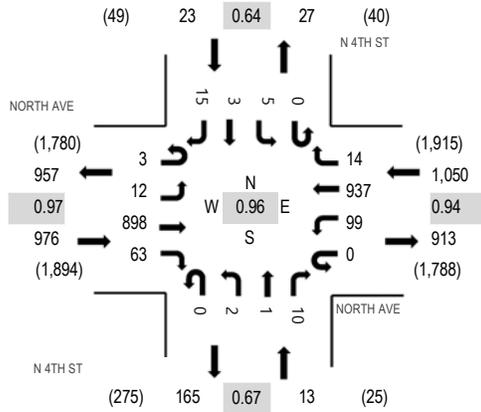
Location: 2 N 4TH ST & NORTH AVE PM

Date: Tuesday, February 16, 2021

Peak Hour: 04:15 PM - 05:15 PM

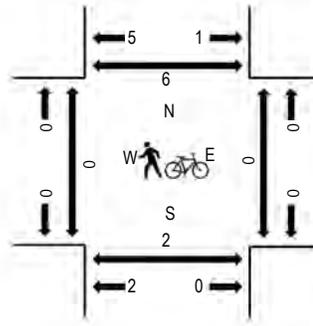
Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



Note: Total study counts contained in parentheses.

**Peak Hour - Pedestrians/Bicycles on Crosswalk**



**Traffic Counts**

Interval Start Time	NORTH AVE Eastbound				NORTH AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	2	2	233	15	0	15	226	1	0	0	0	3	0	2	0	4	503	2,026	0	0	0	1
4:15 PM	0	7	225	16	0	28	212	3	0	2	0	1	0	2	1	3	500	2,062	0	0	2	2
4:30 PM	0	2	216	9	0	21	242	1	0	0	1	3	0	3	1	2	501	2,062	0	0	0	1
4:45 PM	3	2	229	16	0	17	241	5	0	0	0	5	0	0	0	4	522	1,993	0	0	0	1
5:00 PM	0	1	228	22	0	33	242	5	0	0	0	1	0	0	1	6	539	1,857	0	0	0	0
5:15 PM	0	1	240	12	0	16	213	1	0	2	0	4	0	1	1	9	500		0	0	0	3
5:30 PM	0	2	206	9	0	17	189	3	0	0	0	1	0	0	1	4	432		0	0	0	0
5:45 PM	0	3	182	11	0	12	172	0	0	1	0	1	0	2	1	1	386		0	1	0	0
Count Total	5	20	1,759	110	0	159	1,737	19	0	5	1	19	0	10	6	33	3,883		0	1	2	8
Peak Hour	3	12	898	63	0	99	937	14	0	2	1	10	0	5	3	15	2,062		0	0	2	4



(303) 216-2439  
www.alltrafficdata.net

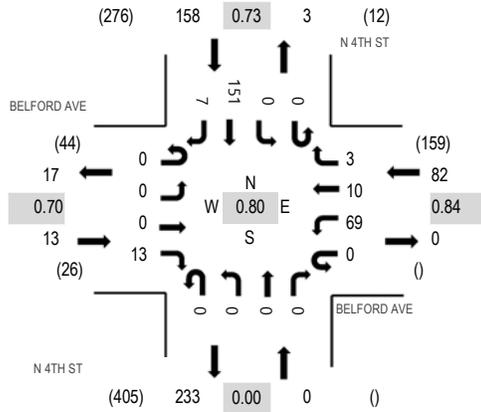
Location: 3 N 4TH ST & BELFORD AVE PM

Date: Tuesday, February 16, 2021

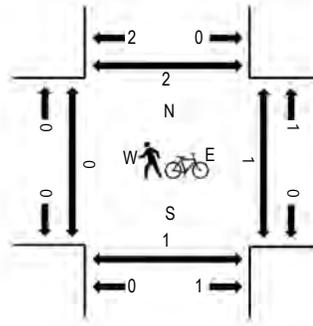
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	BELFORD AVE Eastbound				BELFORD AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	4	0	17	3	1	0	0	0	0	0	0	31	1	57	231	0	1	0	0
4:15 PM	0	0	0	4	0	14	2	2	0	0	0	0	0	0	43	4	69	253	0	0	0	0
4:30 PM	0	0	0	2	0	21	4	1	0	0	0	0	0	0	25	0	53	239	0	0	0	2
4:45 PM	0	0	0	2	0	16	2	0	0	0	0	0	0	0	31	1	52	239	0	1	0	0
5:00 PM	0	0	0	5	0	18	2	0	0	0	0	0	0	0	52	2	79	230	0	0	0	0
5:15 PM	0	1	0	2	0	15	5	3	0	0	0	0	0	0	25	4	55		0	0	0	0
5:30 PM	0	0	0	4	0	14	3	1	0	0	0	0	0	0	26	5	53		0	1	0	0
5:45 PM	0	0	0	2	0	8	4	3	0	0	0	0	0	0	24	2	43		0	1	0	0
Count Total	0	1	0	25	0	123	25	11	0	0	0	0	0	0	257	19	461		0	4	0	2
Peak Hour	0	0	0	13	0	69	10	3	0	0	0	0	0	0	151	7	253		0	1	0	2



(303) 216-2439  
www.alltrafficdata.net

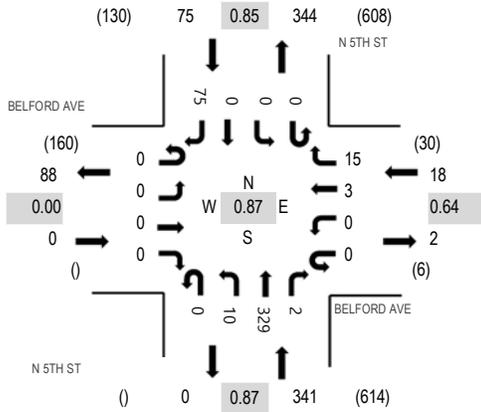
Location: 4 N 5TH ST & BELFORD AVE PM

Date: Tuesday, February 16, 2021

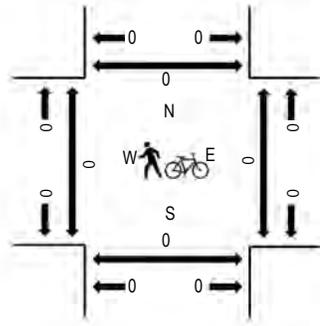
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	BELFORD AVE Eastbound				BELFORD AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	0	0	0	0	0	0	0	5	0	3	75	2	0	0	0	16	101	410	0	0	1	0
4:15 PM	0	0	0	0	0	0	2	5	0	2	88	1	0	0	0	0	16	114	434	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	3	0	4	62	0	0	0	0	0	22	92	405	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	2	0	2	84	0	0	0	0	0	15	103	397	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	5	0	2	95	1	0	0	0	0	22	125	364	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	1	0	4	63	1	0	0	0	0	15	85		0	0	0	0
5:30 PM	0	0	0	0	0	0	0	2	0	4	63	1	0	0	0	0	14	84		0	1	0	0
5:45 PM	0	0	0	0	0	0	1	2	0	4	53	0	0	0	0	0	10	70		0	0	0	0
Count Total	0	0	0	0	0	0	5	25	0	25	583	6	0	0	0	0	130	774		0	1	1	0
Peak Hour	0	0	0	0	0	0	3	15	0	10	329	2	0	0	0	0	75	434		0	0	0	0



(303) 216-2439  
www.alltrafficdata.net

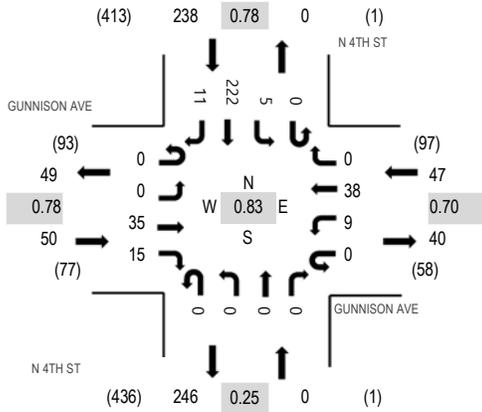
Location: 5 N 4TH ST & GUNNISON AVE PM

Date: Tuesday, February 16, 2021

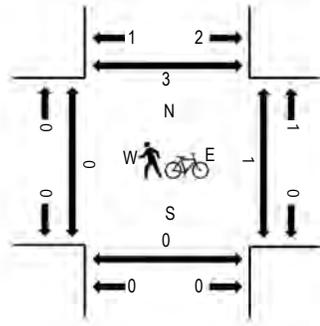
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	GUNNISON AVE Eastbound				GUNNISON AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	0	2	7	0	5	16	0	0	0	0	0	0	0	1	53	1	85	319	0	3	0	0
4:15 PM	0	0	5	4	0	3	11	0	0	0	0	0	0	2	53	4	82	335	0	0	0	0	
4:30 PM	0	0	7	7	0	2	12	0	0	0	0	0	0	1	48	1	78	309	0	1	0	0	
4:45 PM	0	0	10	1	0	2	8	0	0	0	0	0	0	0	49	4	74	294	0	0	0	2	
5:00 PM	0	0	13	3	0	2	7	0	0	0	0	0	0	2	72	2	101	269	0	0	0	1	
5:15 PM	0	0	3	0	0	3	7	0	0	0	1	0	0	0	40	2	56		0	0	0	3	
5:30 PM	0	0	7	3	0	1	8	0	0	0	0	0	0	0	41	3	63		0	0	0	3	
5:45 PM	0	0	3	2	0	4	6	0	0	0	0	0	0	2	31	1	49		0	3	0	0	
Count Total	0	0	50	27	0	22	75	0	0	0	1	0	0	8	387	18	588		0	7	0	9	
Peak Hour	0	0	35	15	0	9	38	0	0	0	0	0	0	5	222	11	335		0	1	0	3	





(303) 216-2439  
www.alltrafficdata.net

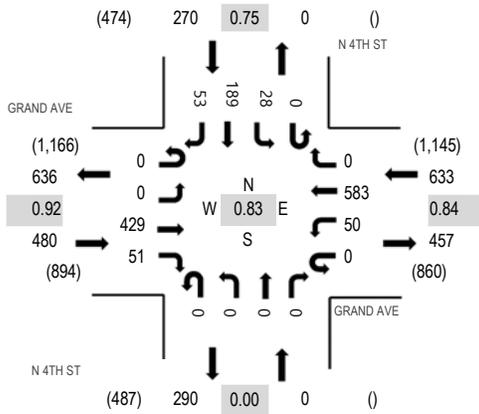
Location: 7 N 4TH ST & GRAND AVE PM

Date: Tuesday, February 16, 2021

Peak Hour: 04:15 PM - 05:15 PM

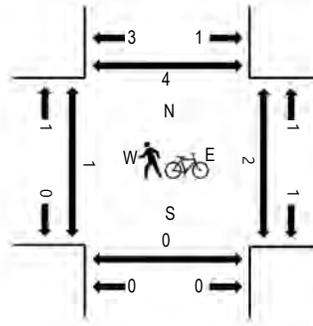
Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



Note: Total study counts contained in parentheses.

**Peak Hour - Pedestrians/Bicycles on Crosswalk**



**Traffic Counts**

Interval Start Time	GRAND AVE Eastbound				GRAND AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	122	8	0	15	141	0	0	0	0	0	0	4	53	14	357	1,325	0	1	0	0
4:15 PM	0	0	111	10	0	14	113	0	0	0	0	0	0	4	44	14	310	1,383	0	0	0	2
4:30 PM	0	0	107	16	0	13	139	0	0	0	0	0	0	5	40	11	331	1,360	0	0	0	0
4:45 PM	0	0	91	14	0	12	148	0	0	0	0	0	0	6	41	15	327	1,297	0	0	0	1
5:00 PM	0	0	120	11	0	11	183	0	0	0	0	0	0	13	64	13	415	1,188	1	1	0	0
5:15 PM	0	0	93	4	0	6	136	0	0	0	0	0	0	4	26	18	287		0	0	1	1
5:30 PM	0	0	101	5	0	4	110	0	0	0	0	0	0	4	31	13	268		0	3	0	0
5:45 PM	0	0	74	7	0	8	92	0	0	0	0	0	0	1	30	6	218		0	0	0	0
Count Total	0	0	819	75	0	83	1,062	0	0	0	0	0	0	41	329	104	2,513		1	5	1	4
Peak Hour	0	0	429	51	0	50	583	0	0	0	0	0	0	28	189	53	1,383		1	1	0	3



(303) 216-2439  
www.alltrafficdata.net

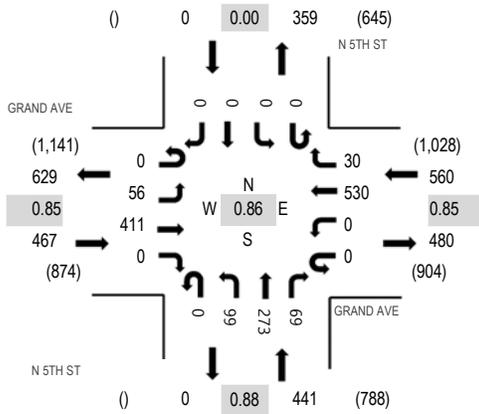
Location: 8 N 5TH ST & GRAND AVE PM

Date: Tuesday, February 16, 2021

Peak Hour: 04:15 PM - 05:15 PM

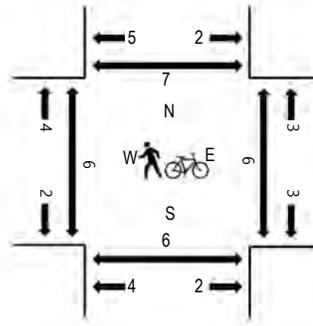
Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



Note: Total study counts contained in parentheses.

**Peak Hour - Pedestrians/Bicycles on Crosswalk**



**Traffic Counts**

Interval Start Time	GRAND AVE Eastbound				GRAND AVE Westbound				N 5TH ST Northbound			N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru			Right	West	East	South	North
4:00 PM	0	22	106	0	0	0	138	8	0	15	58	23	0	0	0	0	370	1,411	0	0	0	0
4:15 PM	0	16	105	0	0	0	110	11	0	20	79	17	0	0	0	0	358	1,468	0	0	0	2
4:30 PM	0	14	94	0	0	0	130	5	0	21	57	15	0	0	0	0	336	1,429	1	2	0	2
4:45 PM	0	13	88	0	0	0	135	4	0	22	66	19	0	0	0	0	347	1,381	3	1	2	1
5:00 PM	0	13	124	0	0	0	155	10	0	36	71	18	0	0	0	0	427	1,279	2	3	3	1
5:15 PM	0	11	88	0	0	0	117	5	0	28	50	20	0	0	0	0	319		0	2	0	1
5:30 PM	0	12	97	0	0	0	93	7	0	19	46	14	0	0	0	0	288		0	1	0	0
5:45 PM	0	6	65	0	0	0	97	3	0	5	58	11	0	0	0	0	245		2	0	0	0
Count Total	0	107	767	0	0	0	975	53	0	166	485	137	0	0	0	0	2,690		8	9	5	7
Peak Hour	0	56	411	0	0	0	530	30	0	99	273	69	0	0	0	0	1,468		6	6	5	6





(303) 216-2439  
www.alltrafficdata.net

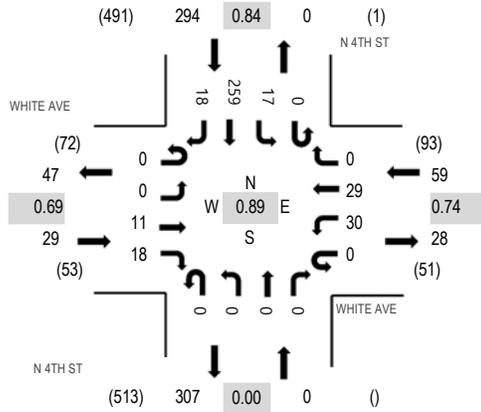
Location: 9 N 4TH ST & WHITE AVE

Date: Tuesday, February 16, 2021

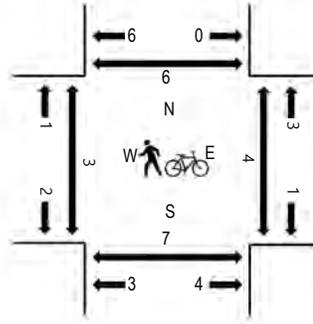
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	WHITE AVE Eastbound				WHITE AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	0	5	3	0	7	7	1	0	0	0	0	0	0	5	64	4	96	371	4	4	3	1
4:15 PM	0	0	1	3	0	7	5	0	0	0	0	0	0	0	2	62	8	88	382	0	2	2	1
4:30 PM	0	0	3	5	0	8	4	0	0	0	0	0	0	0	6	57	2	85	347	2	0	2	0
4:45 PM	0	0	5	7	0	7	13	0	0	0	0	0	0	0	5	61	4	102	315	1	1	2	2
5:00 PM	0	0	2	3	0	8	7	0	0	0	0	0	0	0	4	79	4	107	266	0	1	1	3
5:15 PM	0	0	6	2	0	3	6	0	0	0	0	0	0	0	1	34	1	53		0	1	0	0
5:30 PM	0	0	3	3	0	4	2	0	0	0	0	0	0	0	0	40	1	53		0	3	2	0
5:45 PM	0	0	1	1	0	4	0	0	0	0	0	0	0	0	2	41	4	53		0	0	0	2
Count Total	0	0	26	27	0	48	44	1	0	0	0	0	0	0	25	438	28	637		7	12	12	9
Peak Hour	0	0	11	18	0	30	29	0	0	0	0	0	0	0	17	259	18	382		3	4	7	6



(303) 216-2439  
www.alltrafficdata.net

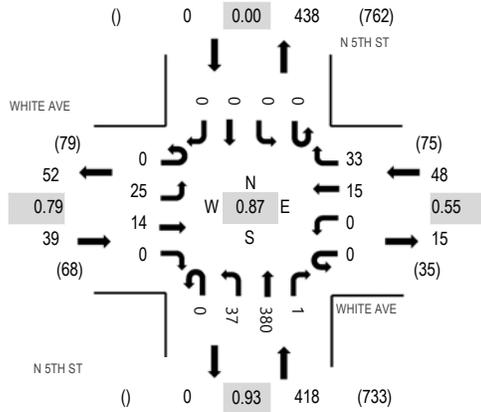
Location: 10 N 5TH ST & WHITE AVE PM

Date: Tuesday, February 16, 2021

Peak Hour: 04:15 PM - 05:15 PM

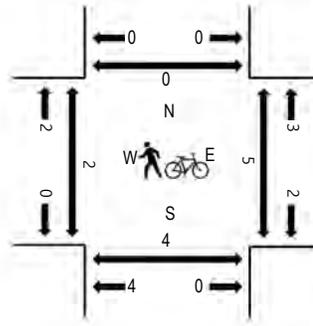
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

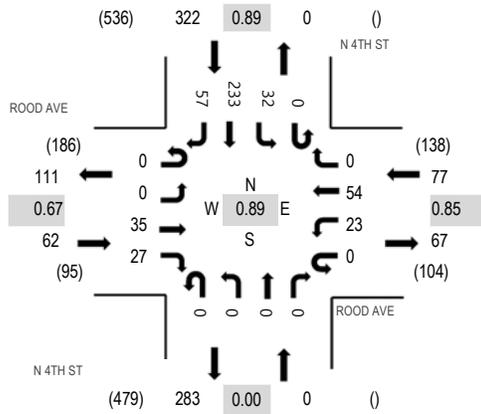
Interval Start Time	WHITE AVE Eastbound				WHITE AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings					
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North		
4:00 PM	0	3	4	0	0	0	0	7	5	0	8	79	0	0	0	0	0	0	106	466	0	0	1	0
4:15 PM	0	6	2	0	0	0	2	5	0	8	101	0	0	0	0	0	0	124	505	0	0	0	0	
4:30 PM	0	3	3	0	0	0	3	5	0	8	82	0	0	0	0	0	0	104	484	0	0	2	0	
4:45 PM	0	10	4	0	0	0	6	5	0	9	97	1	0	0	0	0	0	132	466	2	0	2	0	
5:00 PM	0	6	5	0	0	0	4	18	0	12	100	0	0	0	0	0	0	145	410	0	0	0	0	
5:15 PM	0	5	6	0	0	0	1	6	0	3	80	2	0	0	0	0	0	103		0	0	0	0	
5:30 PM	0	4	4	0	0	0	2	2	0	2	71	1	0	0	0	0	0	86		0	0	0	0	
5:45 PM	0	1	2	0	0	0	2	2	0	2	66	1	0	0	0	0	0	76		2	0	0	2	
Count Total	0	38	30	0	0	0	27	48	0	52	676	5	0	0	0	0	0	876		4	0	5	2	
Peak Hour	0	25	14	0	0	0	15	33	0	37	380	1	0	0	0	0	0	505		2	0	4	0	



(303) 216-2439  
www.alltrafficdata.net

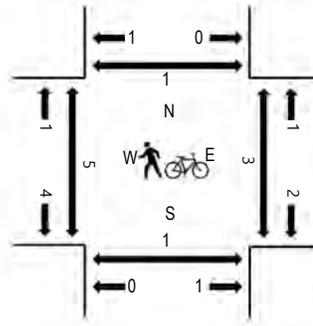
Location: 11 N 4TH ST & ROOD AVE PM  
Date: Tuesday, February 16, 2021  
Peak Hour: 04:15 PM - 05:15 PM  
Peak 15-Minutes: 04:45 PM - 05:00 PM

**Peak Hour - All Vehicles**



Note: Total study counts contained in parentheses.

**Peak Hour - Pedestrians/Bicycles on Crosswalk**



**Traffic Counts**

Interval Start Time	ROOD AVE Eastbound				ROOD AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	0	6	7	0	1	10	0	0	0	0	0	0	0	10	58	10	102	441	0	1	0	0
4:15 PM	0	0	7	5	0	6	14	0	0	0	0	0	0	13	53	13	111	461	2	1	0	1	
4:30 PM	0	0	12	5	0	3	7	0	0	0	0	0	0	5	51	15	98	417	0	1	1	0	
4:45 PM	0	0	13	12	0	6	17	0	0	0	0	0	0	6	60	16	130	389	2	0	0	0	
5:00 PM	0	0	3	5	0	8	16	0	0	0	0	0	0	8	69	13	122	328	1	1	0	0	
5:15 PM	0	0	5	3	0	5	14	0	0	0	0	0	0	2	29	9	67		2	1	1	1	
5:30 PM	0	0	3	2	0	4	12	0	0	0	0	0	0	3	43	3	70		1	5	1	0	
5:45 PM	0	0	5	2	0	1	14	0	0	0	0	0	0	3	41	3	69		1	0	1	2	
Count Total	0	0	54	41	0	34	104	0	0	0	0	0	0	50	404	82	769		9	10	4	4	
Peak Hour	0	0	35	27	0	23	54	0	0	0	0	0	0	32	233	57	461		5	3	1	1	



(303) 216-2439  
www.alltrafficdata.net

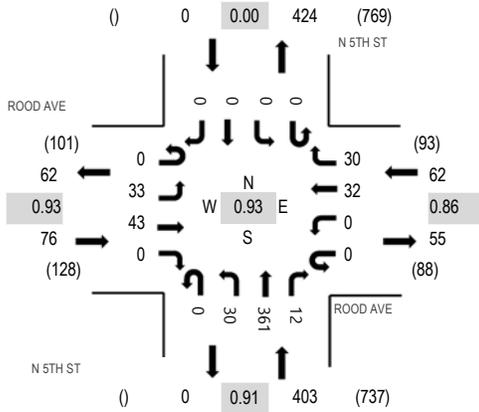
Location: 12 N 5TH ST & ROOD AVE PM

Date: Tuesday, February 16, 2021

Peak Hour: 04:15 PM - 05:15 PM

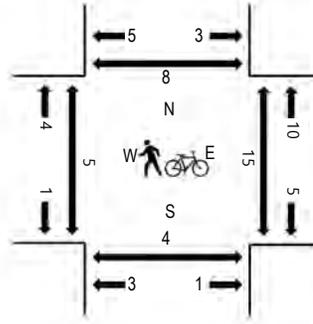
Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	ROOD AVE Eastbound				ROOD AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	7	11	0	0	0	5	3	0	4	79	4	0	0	0	0	113	514	3	2	1	1
4:15 PM	0	9	10	0	0	0	11	7	0	7	96	5	0	0	0	0	145	541	2	2	0	0
4:30 PM	0	7	14	0	0	0	4	10	0	10	74	2	0	0	0	0	121	520	2	2	1	0
4:45 PM	0	11	9	0	0	0	10	7	0	7	91	0	0	0	0	0	135	491	0	7	0	3
5:00 PM	0	6	10	0	0	0	7	6	0	6	100	5	0	0	0	0	140	444	1	4	2	5
5:15 PM	0	8	6	0	0	0	3	3	0	7	94	3	0	0	0	0	124		0	2	2	0
5:30 PM	0	6	1	0	0	0	6	4	0	4	67	4	0	0	0	0	92		0	1	2	0
5:45 PM	0	10	3	0	0	0	6	1	0	4	63	1	0	0	0	0	88		2	3	0	1
Count Total	0	64	64	0	0	0	52	41	0	49	664	24	0	0	0	0	958		10	23	8	10
Peak Hour	0	33	43	0	0	0	32	30	0	30	361	12	0	0	0	0	541		5	15	3	8



(303) 216-2439  
www.alltrafficdata.net

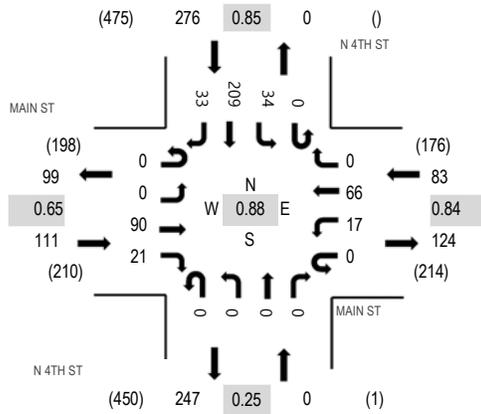
Location: 13 N 4TH ST & MAIN ST PM

Date: Tuesday, February 16, 2021

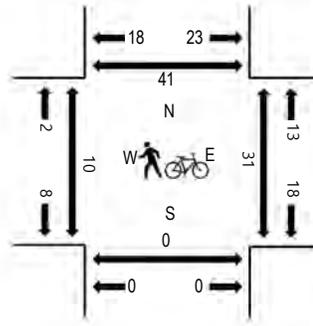
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	MAIN ST Eastbound				MAIN ST Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	22	7	0	5	24	0	0	0	0	0	0	5	55	6	124	461	7	6	0	6
4:15 PM	0	0	38	6	0	3	13	0	0	0	0	0	0	5	50	6	121	470	5	8	0	16
4:30 PM	0	0	12	9	0	1	19	0	0	0	0	0	0	9	44	3	97	430	3	7	0	7
4:45 PM	0	0	18	3	0	5	15	0	0	0	0	0	0	9	55	14	119	437	0	7	0	12
5:00 PM	0	0	22	3	0	8	19	0	0	0	0	0	0	11	60	10	133	401	2	8	0	6
5:15 PM	0	0	17	9	0	0	19	0	0	0	0	0	0	5	30	1	81		1	5	0	6
5:30 PM	0	0	22	7	0	5	17	0	0	1	0	0	0	3	41	8	104		3	4	0	1
5:45 PM	0	0	10	5	0	3	20	0	0	0	0	0	0	6	36	3	83		0	4	0	5
Count Total	0	0	161	49	0	30	146	0	0	1	0	0	0	53	371	51	862		21	49	0	59
Peak Hour	0	0	90	21	0	17	66	0	0	0	0	0	0	34	209	33	470		10	30	0	41



(303) 216-2439  
www.alltrafficdata.net

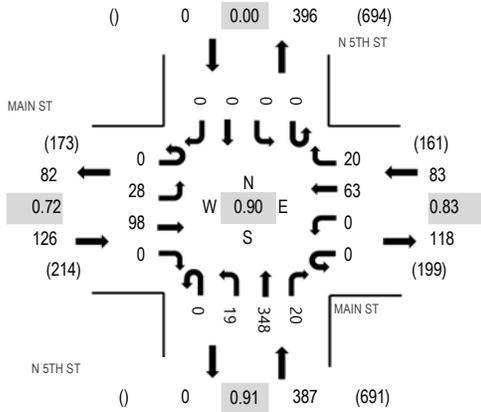
Location: 14 N 5TH ST & MAIN ST PM

Date: Tuesday, February 16, 2021

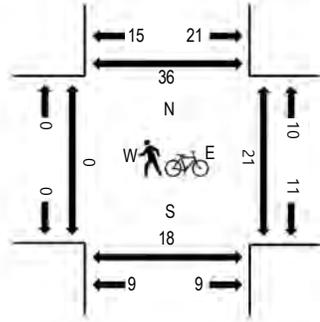
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	MAIN ST Eastbound				MAIN ST Westbound				N 5TH ST Northbound			N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru			Right	West	East	South	North
4:00 PM	0	0	24	0	0	0	21	1	0	6	84	1	0	0	0	0	137	567	0	12	7	9
4:15 PM	0	7	37	0	0	0	13	4	0	3	89	3	0	0	0	0	156	596	0	2	7	8
4:30 PM	0	7	16	0	0	0	17	6	0	2	78	1	0	0	0	0	127	553	0	9	9	10
4:45 PM	0	7	17	0	0	0	15	3	0	5	89	11	0	0	0	0	147	542	0	6	1	17
5:00 PM	0	7	28	0	0	0	18	7	0	9	92	5	0	0	0	0	166	499	0	4	1	1
5:15 PM	0	5	17	0	0	0	10	2	0	8	70	1	0	0	0	0	113		0	4	3	4
5:30 PM	0	7	18	0	0	0	18	5	0	7	58	3	0	0	0	0	116		0	5	2	4
5:45 PM	0	4	13	0	0	0	20	1	0	1	61	4	0	0	0	0	104		0	6	1	4
Count Total	0	44	170	0	0	0	132	29	0	41	621	29	0	0	0	0	1,066		0	48	31	57
Peak Hour	0	28	98	0	0	0	63	20	0	19	348	20	0	0	0	0	596		0	21	18	36



(303) 216-2439  
www.alltrafficdata.net

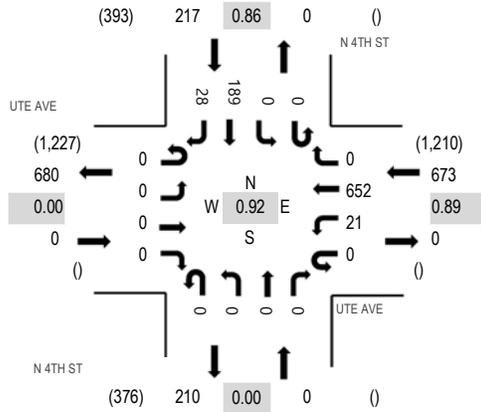
Location: 15 N 4TH ST & UTE AVE PM

Date: Tuesday, February 16, 2021

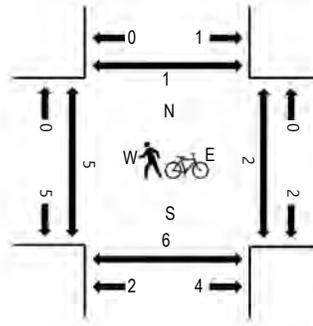
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	UTE AVE Eastbound				UTE AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	5	167	0	0	0	0	0	0	0	50	10	232	890	0	1	2	0
4:15 PM	0	0	0	0	0	7	140	0	0	0	0	0	0	0	45	5	197	877	1	0	0	0
4:30 PM	0	0	0	0	0	2	163	0	0	0	0	0	0	0	45	9	219	855	2	1	2	1
4:45 PM	0	0	0	0	0	7	182	0	0	0	0	0	0	0	49	4	242	819	2	0	2	0
5:00 PM	0	0	0	0	0	0	155	0	0	0	0	0	0	0	58	6	219	713	0	0	0	0
5:15 PM	0	0	0	0	0	3	138	0	0	0	0	0	0	0	29	5	175		0	0	0	0
5:30 PM	0	0	0	0	0	6	133	0	0	0	0	0	0	0	38	6	183		0	0	0	0
5:45 PM	0	0	0	0	0	3	99	0	0	0	0	0	0	0	29	5	136		1	0	1	0
Count Total	0	0	0	0	0	33	1,177	0	0	0	0	0	0	0	343	50	1,603		6	2	7	1
Peak Hour	0	0	0	0	0	21	652	0	0	0	0	0	0	0	189	28	890		5	2	6	1



(303) 216-2439  
www.alltrafficdata.net

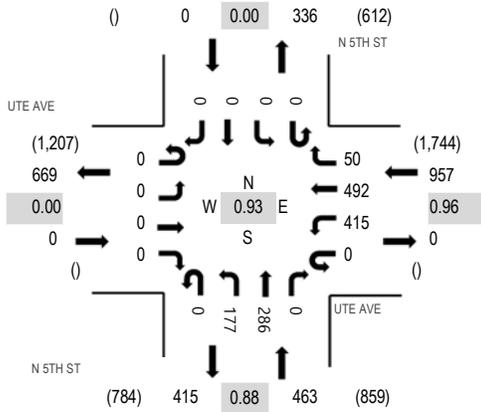
Location: 16 N 5TH ST & UTE AVE PM

Date: Tuesday, February 16, 2021

Peak Hour: 04:00 PM - 05:00 PM

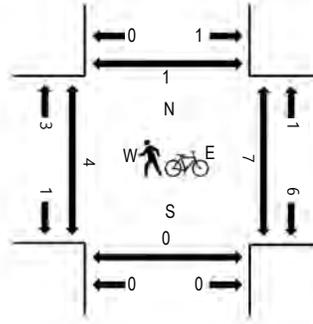
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	UTE AVE Eastbound				UTE AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	113	114	10	0	54	77	0	0	0	0	0	368	1,420	0	4	0	0
4:15 PM	0	0	0	0	0	98	107	11	0	38	78	0	0	0	0	0	332	1,410	0	1	0	0
4:30 PM	0	0	0	0	0	100	134	17	0	33	56	0	0	0	0	0	340	1,405	1	0	0	1
4:45 PM	0	0	0	0	0	104	137	12	0	52	75	0	0	0	0	0	380	1,332	1	1	0	0
5:00 PM	0	0	0	0	0	113	126	9	0	34	76	0	0	0	0	0	358	1,183	2	0	1	0
5:15 PM	0	0	0	0	0	118	92	9	0	47	61	0	0	0	0	0	327		0	1	0	0
5:30 PM	0	0	0	0	0	73	93	8	0	47	46	0	0	0	0	0	267		0	0	0	0
5:45 PM	0	0	0	0	0	65	72	9	0	27	58	0	0	0	0	0	231		0	0	1	1
Count Total	0	0	0	0	0	784	875	85	0	332	527	0	0	0	0	0	2,603		4	7	2	2
Peak Hour	0	0	0	0	0	415	492	50	0	177	286	0	0	0	0	0	1,420		2	6	0	1





(303) 216-2439  
www.alltrafficdata.net

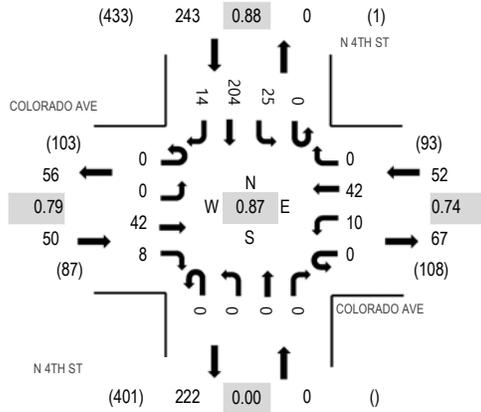
Location: 17 N 4TH ST & COLORADO AVE PM

Date: Tuesday, February 16, 2021

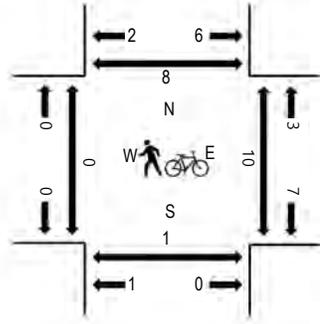
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	COLORADO AVE Eastbound				COLORADO AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	6	7	0	2	11	0	0	0	0	0	0	4	54	4	88	334	0	2	0	5
4:15 PM	0	0	8	2	0	4	14	0	0	0	0	0	0	10	47	3	88	345	0	2	0	1
4:30 PM	0	0	9	2	0	0	10	0	0	0	0	0	0	2	50	1	74	322	0	2	0	2
4:45 PM	0	0	9	2	0	2	10	0	0	0	0	0	0	7	50	4	84	311	0	1	0	5
5:00 PM	0	0	16	2	0	4	8	0	0	0	0	0	0	6	57	6	99	279	0	4	1	0
5:15 PM	0	0	13	4	0	3	7	0	0	0	0	0	0	3	29	6	65		0	3	0	0
5:30 PM	0	0	4	0	0	3	5	0	0	0	0	0	0	5	43	3	63		1	1	0	1
5:45 PM	0	0	3	0	0	3	6	1	0	0	0	0	0	3	31	5	52		0	2	0	2
Count Total	0	0	68	19	0	21	71	1	0	0	0	0	0	40	361	32	613		1	17	1	16
Peak Hour	0	0	42	8	0	10	42	0	0	0	0	0	0	25	204	14	345		0	9	1	8

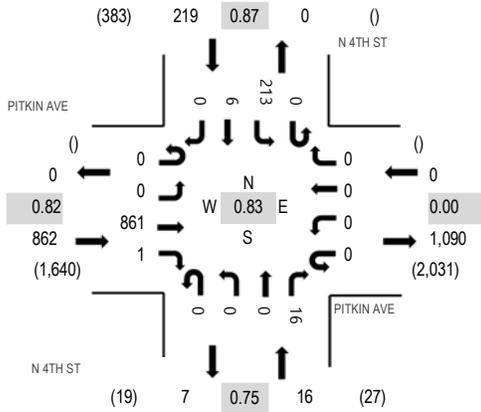




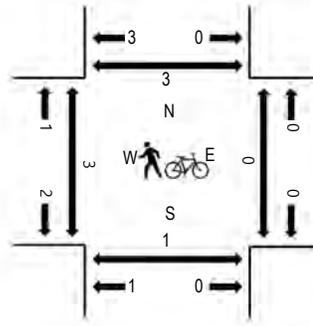
(303) 216-2439  
www.alltrafficdata.net

Location: 19 N 4TH ST & PITKIN AVE PM  
Date: Tuesday, February 16, 2021  
Peak Hour: 04:15 PM - 05:15 PM  
Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



**Peak Hour - Pedestrians/Bicycles on Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	PITKIN AVE Eastbound				PITKIN AVE Westbound				N 4TH ST Northbound				N 4TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	238	4	0	0	0	0	0	0	0	3	0	51	2	0	298	1,063	0	0	0	0
4:15 PM	0	0	210	0	0	0	0	0	0	0	0	1	0	55	3	0	269	1,097	0	0	0	0
4:30 PM	0	0	189	0	0	0	0	0	0	0	0	3	0	45	0	0	237	1,077	0	0	1	0
4:45 PM	0	0	200	0	0	0	0	0	0	0	0	6	0	50	3	0	259	1,060	2	0	0	1
5:00 PM	0	0	262	1	0	0	0	0	0	0	0	6	0	63	0	0	332	987	0	0	0	0
5:15 PM	0	0	212	1	0	0	0	0	0	0	0	3	0	32	1	0	249		0	0	1	0
5:30 PM	0	0	171	1	0	0	0	0	0	0	0	3	0	44	1	0	220		0	0	0	0
5:45 PM	0	0	150	1	0	0	0	0	0	0	0	2	0	32	1	0	186		0	0	0	0
Count Total	0	0	1,632	8	0	0	0	0	0	0	0	27	0	372	11	0	2,050		2	0	2	1
Peak Hour	0	0	861	1	0	0	0	0	0	0	0	16	0	213	6	0	1,097		2	0	1	1



(303) 216-2439  
www.alltrafficdata.net

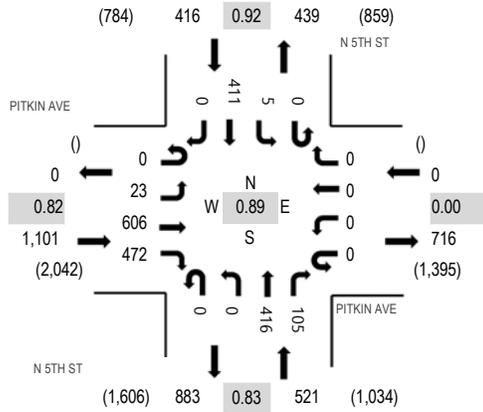
Location: 20 N 5TH ST & PITKIN AVE PM

Date: Tuesday, February 16, 2021

Peak Hour: 04:15 PM - 05:15 PM

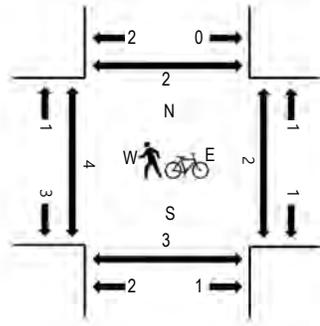
Peak 15-Minutes: 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**



Note: Total study counts contained in parentheses.

**Peak Hour - Pedestrians/Bicycles on Crosswalk**



**Traffic Counts**

Interval Start Time	PITKIN AVE Eastbound				PITKIN AVE Westbound				N 5TH ST Northbound				N 5TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	4	170	113	0	0	0	0	0	0	130	39	0	3	106	0	565	2,029	0	4	0	0
4:15 PM	0	4	158	111	0	0	0	0	0	0	110	39	0	2	97	0	521	2,038	1	1	1	0
4:30 PM	0	6	129	103	0	0	0	0	0	0	83	25	0	0	102	0	448	2,018	1	1	2	0
4:45 PM	0	7	134	113	0	0	0	0	0	0	120	18	0	1	102	0	495	1,981	0	0	0	0
5:00 PM	0	6	185	145	0	0	0	0	0	0	103	23	0	2	110	0	574	1,831	1	0	0	0
5:15 PM	0	8	159	88	0	0	0	0	0	0	100	27	0	4	115	0	501		0	1	0	0
5:30 PM	0	3	129	88	0	0	0	0	0	0	91	26	0	1	73	0	411		0	0	0	0
5:45 PM	0	5	99	75	0	0	0	0	0	0	79	21	0	1	65	0	345		2	2	0	0
Count Total	0	43	1,163	836	0	0	0	0	0	0	816	218	0	14	770	0	3,860		5	9	3	0
Peak Hour	0	23	606	472	0	0	0	0	0	0	416	105	0	5	411	0	2,038		3	2	3	0

Appendix B – Capacity Analysis Worksheets

---

HCM 6th Signalized Intersection Summary  
5: 5th Street & North Ave

Existing Conditions 2021  
10/09/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	895	7	22	993	26	54	71	217	39	48	29
Future Volume (veh/h)	20	895	7	22	993	26	54	71	217	39	48	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	20	895	7	22	993	26	54	71	217	39	48	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	329	1900	15	371	1867	49	366	319	270	316	303	257
Arrive On Green	0.02	0.52	0.52	0.02	0.52	0.52	0.05	0.17	0.17	0.04	0.16	0.16
Sat Flow, veh/h	1795	3642	28	1795	3566	93	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	20	440	462	22	499	520	54	71	217	39	48	29
Grp Sat Flow(s),veh/h/ln	1795	1791	1880	1795	1791	1868	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	0.4	11.3	11.3	0.4	13.4	13.4	1.8	2.4	9.5	1.3	1.6	1.1
Cycle Q Clear(g_c), s	0.4	11.3	11.3	0.4	13.4	13.4	1.8	2.4	9.5	1.3	1.6	1.1
Prop In Lane	1.00		0.02	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	329	934	981	371	938	978	366	319	270	316	303	257
V/C Ratio(X)	0.06	0.47	0.47	0.06	0.53	0.53	0.15	0.22	0.80	0.12	0.16	0.11
Avail Cap(c_a), veh/h	535	934	981	573	938	978	580	569	483	545	569	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.9	11.0	11.0	8.5	11.5	11.5	23.7	26.1	29.1	23.9	26.3	26.1
Incr Delay (d2), s/veh	0.1	1.7	1.6	0.1	2.2	2.1	0.2	0.3	5.5	0.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.4	4.6	0.1	5.2	5.4	0.7	1.1	3.9	0.5	0.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.0	12.7	12.7	8.6	13.6	13.5	23.8	26.5	34.6	24.1	26.6	26.3
LnGrp LOS	A	B	B	A	B	B	C	C	C	C	C	C
Approach Vol, veh/h		922			1041			342				116
Approach Delay, s/veh		12.6			13.5			31.2				25.7
Approach LOS		B			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	16.7	5.7	43.1	6.7	17.3	5.8	43.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	12.0	22.0	10.0	38.0	12.0	22.0	10.0	38.0				
Max Q Clear Time (g_c+I1), s	3.8	3.6	2.4	15.4	3.3	11.5	2.4	13.3				
Green Ext Time (p_c), s	0.0	0.2	0.0	7.1	0.0	0.8	0.0	6.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				16.2								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕		↵	↕			↕			↕	
Traffic Vol, veh/h	15	898	63	99	937	14	2	1	10	5	3	15
Future Vol, veh/h	15	898	63	99	937	14	2	1	10	5	3	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	898	63	99	937	14	2	1	10	5	3	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	951	0	0	961	0	0	1628	2109	481	1622	2133	476
Stage 1	-	-	-	-	-	-	960	960	-	1142	1142	-
Stage 2	-	-	-	-	-	-	668	1149	-	480	991	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	724	-	-	718	-	-	68	51	534	69	49	538
Stage 1	-	-	-	-	-	-	278	335	-	215	275	-
Stage 2	-	-	-	-	-	-	416	273	-	538	324	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	724	-	-	718	-	-	55	43	534	59	41	538
Mov Cap-2 Maneuver	-	-	-	-	-	-	55	43	-	59	41	-
Stage 1	-	-	-	-	-	-	272	328	-	210	237	-
Stage 2	-	-	-	-	-	-	344	235	-	515	317	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1	28.5	40.5
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	166	724	-	-	718	-	-	124
HCM Lane V/C Ratio	0.078	0.021	-	-	0.138	-	-	0.185
HCM Control Delay (s)	28.5	10.1	-	-	10.8	-	-	40.5
HCM Lane LOS	D	B	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.5	-	-	0.7

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↻			↻				↻
Traffic Vol, veh/h	0	0	0	0	3	15	10	329	2	0	0	75
Future Vol, veh/h	0	0	0	0	3	15	10	329	2	0	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	0	0	0	3	15	10	329	2	0	0	75

Major/Minor	Minor1		Major1		
Conflicting Flow All	-	350	166	0	0
Stage 1	-	350	-	-	-
Stage 2	-	0	-	-	-
Critical Hdwy	-	6.52	6.92	4.12	-
Critical Hdwy Stg 1	-	5.52	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	2.21	-
Pot Cap-1 Maneuver	0	575	852	-	-
Stage 1	0	634	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	0	852	-	-
Mov Cap-2 Maneuver	-	0	-	-	-
Stage 1	-	0	-	-	-
Stage 2	-	0	-	-	-

Approach	WB	NB
HCM Control Delay, s	9.3	
HCM LOS	A	

Minor Lane/Major Mvmt	NBL	NBT	NBRWBLn1
Capacity (veh/h)	-	-	852
HCM Lane V/C Ratio	-	-	0.021
HCM Control Delay (s)	-	-	9.3
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.1



Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↖	
Traffic Vol, veh/h	0	0	13	69	10	3	0	0	0	0	151	7
Future Vol, veh/h	0	0	13	69	10	3	0	0	0	0	151	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	0	13	69	10	3	0	0	0	0	151	7

Major/Minor	Minor2		Minor1			Major2		
Conflicting Flow All	-	-	155	161	158	-	-	0
Stage 1	-	-	-	0	0	-	-	-
Stage 2	-	-	-	161	158	-	-	-
Critical Hdwy	-	-	6.21	7.11	6.51	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.11	5.51	-	-	-
Follow-up Hdwy	-	-	3.309	3.509	4.009	-	-	-
Pot Cap-1 Maneuver	0	0	893	807	736	0	0	-
Stage 1	0	0	-	-	-	0	0	-
Stage 2	0	0	-	843	769	0	0	-
Platoon blocked, %								-
Mov Cap-1 Maneuver	-	-	893	795	736	-	-	-
Mov Cap-2 Maneuver	-	-	-	795	736	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	831	769	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	9.1		0
HCM LOS	A	-	

Minor Lane/Major Mvmt	EBLn1WBLn1WBLn2	SBT	SBR
Capacity (veh/h)	893 795	-	-
HCM Lane V/C Ratio	0.015 0.087	-	-
HCM Control Delay (s)	9.1 10	-	-
HCM Lane LOS	A B	-	-
HCM 95th %tile Q(veh)	0 0.3	-	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Future Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	0	0	10	10	10	340	10	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	195	370	-	-	365	175	0	0	0		
Stage 1	0	0	-	-	365	-	-	-	-		
Stage 2	195	370	-	-	0	-	-	-	-		
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-		
Pot Cap-1 Maneuver	749	560	0	0	564	841	-	-	-		
Stage 1	-	-	0	0	624	-	-	-	-		
Stage 2	791	621	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	730	560	-	-	564	841	-	-	-		
Mov Cap-2 Maneuver	730	560	-	-	564	-	-	-	-		
Stage 1	-	-	-	-	624	-	-	-	-		
Stage 2	769	621	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Control Delay, s	10.9		10.5				
HCM LOS	B		B				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	634	675
HCM Lane V/C Ratio	-	-	-	0.032	0.03
HCM Control Delay (s)	-	-	-	10.9	10.5
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.1	0.1

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	10	10	10	10	0	0	0	0	10	210	10
Future Vol, veh/h	0	10	10	10	10	0	0	0	0	10	210	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	10	10	10	10	0	0	0	0	10	210	10

Major/Minor	Minor2		Minor1			Major2		
Conflicting Flow All	-	235	110	130	240	-	-	0
Stage 1	-	235	-	0	0	-	-	-
Stage 2	-	0	-	130	240	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	-	4.12
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	-	2.21
Pot Cap-1 Maneuver	0	667	926	832	662	0	-	-
Stage 1	0	712	-	-	-	0	-	-
Stage 2	0	-	-	863	708	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	667	926	814	662	-	-	-
Mov Cap-2 Maneuver	-	667	-	814	662	-	-	-
Stage 1	-	712	-	-	-	-	-	-
Stage 2	-	-	-	842	708	-	-	-

Approach	EB		WB			SB		
HCM Control Delay, s	9.8		10.1					
HCM LOS	A		B					

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	775	730	-	-	-
HCM Lane V/C Ratio	0.026	0.027	-	-	-
HCM Control Delay (s)	9.8	10.1	-	-	-
HCM Lane LOS	A	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Future Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	0	0	10	10	10	340	10	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	195	370	-	-	365	175	0	0	0		
Stage 1	0	0	-	-	365	-	-	-	-		
Stage 2	195	370	-	-	0	-	-	-	-		
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-		
Pot Cap-1 Maneuver	749	560	0	0	564	841	-	-	-		
Stage 1	-	-	0	0	624	-	-	-	-		
Stage 2	791	621	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	730	560	-	-	564	841	-	-	-		
Mov Cap-2 Maneuver	730	560	-	-	564	-	-	-	-		
Stage 1	-	-	-	-	624	-	-	-	-		
Stage 2	769	621	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Control Delay, s	10.9		10.5				
HCM LOS	B		B				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	634	675
HCM Lane V/C Ratio	-	-	-	0.032	0.03
HCM Control Delay (s)	-	-	-	10.9	10.5
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.1	0.1

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	10	10	10	10	0	0	0	0	10	210	10
Future Vol, veh/h	0	10	10	10	10	0	0	0	0	10	210	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	10	10	10	10	0	0	0	0	10	210	10

Major/Minor	Minor2		Minor1				Major2			
Conflicting Flow All	-	235	110	130	240	-	-	0	0	0
Stage 1	-	235	-	0	0	-	-	-	-	-
Stage 2	-	0	-	130	240	-	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	-	2.21	-	-
Pot Cap-1 Maneuver	0	667	926	832	662	0	-	-	-	-
Stage 1	0	712	-	-	-	0	-	-	-	-
Stage 2	0	-	-	863	708	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	667	926	814	662	-	-	-	-	-
Mov Cap-2 Maneuver	-	667	-	814	662	-	-	-	-	-
Stage 1	-	712	-	-	-	-	-	-	-	-
Stage 2	-	-	-	842	708	-	-	-	-	-

Approach	EB		WB				SB		
HCM Control Delay, s	9.8		10.1						
HCM LOS	A		B						

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	775	730	-	-	-
HCM Lane V/C Ratio	0.026	0.027	-	-	-
HCM Control Delay (s)	9.8	10.1	-	-	-
HCM Lane LOS	A	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	7	37	0	0	44	14	3	336	18	0	0	0
Future Vol, veh/h	7	37	0	0	44	14	3	336	18	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	7	37	0	0	44	14	3	336	18	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	196	360	-	-	351	177	0	0	0		
Stage 1	0	0	-	-	351	-	-	-	-		
Stage 2	196	360	-	-	0	-	-	-	-		
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-		
Pot Cap-1 Maneuver	748	568	0	0	574	839	-	-	-		
Stage 1	-	-	0	0	633	-	-	-	-		
Stage 2	790	627	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	693	568	-	-	574	839	-	-	-		
Mov Cap-2 Maneuver	693	568	-	-	574	-	-	-	-		
Stage 1	-	-	-	-	633	-	-	-	-		
Stage 2	723	627	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Control Delay, s	11.7		11.4				
HCM LOS	B		B				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	585	621
HCM Lane V/C Ratio	-	-	-	0.075	0.093
HCM Control Delay (s)	-	-	-	11.7	11.4
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.3

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	35	15	9	38	0	0	0	0	5	222	11
Future Vol, veh/h	0	35	15	9	38	0	0	0	0	5	222	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	35	15	9	38	0	0	0	0	5	222	11

Major/Minor	Minor2		Minor1			Major2			
Conflicting Flow All	-	238	117	139	243	-	0	0	0
Stage 1	-	238	-	0	0	-	-	-	-
Stage 2	-	0	-	139	243	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	2.21	-	-
Pot Cap-1 Maneuver	0	664	916	820	660	0	-	-	-
Stage 1	0	710	-	-	-	0	-	-	-
Stage 2	0	-	-	853	706	0	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	-	664	916	774	660	-	-	-	-
Mov Cap-2 Maneuver	-	664	-	774	660	-	-	-	-
Stage 1	-	710	-	-	-	-	-	-	-
Stage 2	-	-	-	798	706	-	-	-	-

Approach	EB		WB			SB		
HCM Control Delay, s	10.3		10.7					
HCM LOS	B		B					

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	724	679	-	-	-
HCM Lane V/C Ratio	0.069	0.069	-	-	-
HCM Control Delay (s)	10.3	10.7	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	0.2	0.2	-	-	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Future Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	0	0	10	10	10	340	10	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	195	370	-	-	365	175	0	0	0		
Stage 1	0	0	-	-	365	-	-	-	-		
Stage 2	195	370	-	-	0	-	-	-	-		
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-		
Pot Cap-1 Maneuver	749	560	0	0	564	841	-	-	-		
Stage 1	-	-	0	0	624	-	-	-	-		
Stage 2	791	621	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	730	560	-	-	564	841	-	-	-		
Mov Cap-2 Maneuver	730	560	-	-	564	-	-	-	-		
Stage 1	-	-	-	-	624	-	-	-	-		
Stage 2	769	621	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Control Delay, s	10.9		10.5				
HCM LOS	B		B				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	634	675
HCM Lane V/C Ratio	-	-	-	0.032	0.03
HCM Control Delay (s)	-	-	-	10.9	10.5
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.1	0.1



Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	10	10	10	10	0	0	0	0	10	230	10
Future Vol, veh/h	0	10	10	10	10	0	0	0	0	10	230	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	10	10	10	10	0	0	0	0	10	230	10

Major/Minor	Minor2		Minor1				Major2			
Conflicting Flow All	-	255	120	140	260	-	-	0	0	0
Stage 1	-	255	-	0	0	-	-	-	-	-
Stage 2	-	0	-	140	260	-	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	-	2.21	-	-
Pot Cap-1 Maneuver	0	650	912	819	646	0	-	-	-	-
Stage 1	0	698	-	-	-	0	-	-	-	-
Stage 2	0	-	-	851	694	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	650	912	800	646	-	-	-	-	-
Mov Cap-2 Maneuver	-	650	-	800	646	-	-	-	-	-
Stage 1	-	698	-	-	-	-	-	-	-	-
Stage 2	-	-	-	830	694	-	-	-	-	-

Approach	EB		WB				SB		
HCM Control Delay, s	9.9		10.2						
HCM LOS	A		B						

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	759	715	-	-	-
HCM Lane V/C Ratio	0.026	0.028	-	-	-
HCM Control Delay (s)	9.9	10.2	-	-	-
HCM Lane LOS	A	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Future Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	0	0	10	10	10	340	10	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	195	370	-	-	365	175	0	0	0	
Stage 1	0	0	-	-	365	-	-	-	-	
Stage 2	195	370	-	-	0	-	-	-	-	
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-	
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-	
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-	
Pot Cap-1 Maneuver	749	560	0	0	564	841	-	-	-	
Stage 1	-	-	0	0	624	-	-	-	-	
Stage 2	791	621	0	0	-	-	-	-	-	
Platoon blocked, %								-	-	
Mov Cap-1 Maneuver	730	560	-	-	564	841	-	-	-	
Mov Cap-2 Maneuver	730	560	-	-	564	-	-	-	-	
Stage 1	-	-	-	-	624	-	-	-	-	
Stage 2	769	621	-	-	-	-	-	-	-	

Approach	EB		WB		NB	
HCM Control Delay, s	10.9		10.5			
HCM LOS	B		B			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	634	675
HCM Lane V/C Ratio	-	-	-	0.032	0.03
HCM Control Delay (s)	-	-	-	10.9	10.5
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.1	0.1

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	10	10	10	10	0	0	0	0	10	240	10
Future Vol, veh/h	0	10	10	10	10	0	0	0	0	10	240	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	10	10	10	10	0	0	0	0	10	240	10

Major/Minor	Minor2			Minor1			Major2			
Conflicting Flow All	-	265	125	145	270	-	-	0	0	0
Stage 1	-	265	-	0	0	-	-	-	-	-
Stage 2	-	0	-	145	270	-	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	-	2.21	-	-
Pot Cap-1 Maneuver	0	642	905	812	637	0	-	-	-	-
Stage 1	0	691	-	-	-	0	-	-	-	-
Stage 2	0	-	-	846	687	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	642	905	793	637	-	-	-	-	-
Mov Cap-2 Maneuver	-	642	-	793	637	-	-	-	-	-
Stage 1	-	691	-	-	-	-	-	-	-	-
Stage 2	-	-	-	825	687	-	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	9.9		10.2			
HCM LOS	A		B			

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	751	706	-	-	-
HCM Lane V/C Ratio	0.027	0.028	-	-	-
HCM Control Delay (s)	9.9	10.2	-	-	-
HCM Lane LOS	A	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	-

HCM 6th Signalized Intersection Summary  
 33: 5th Street & Grand Ave

Existing Conditions 2021  
 10/09/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				
Traffic Volume (veh/h)	56	411	0	0	530	30	99	273	69	0	0	0
Future Volume (veh/h)	56	411	0	0	530	30	99	273	69	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1885	1885	0	0	1885	1885	1885	1885	1885			
Adj Flow Rate, veh/h	56	411	0	0	530	30	99	273	69			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	1	1	0	0	1	1	1	1	1			
Cap, veh/h	413	1791	0	0	1449	82	718	1433	639			
Arrive On Green	0.04	0.50	0.00	0.00	0.42	0.42	0.13	0.13	0.13			
Sat Flow, veh/h	1795	3676	0	0	3541	195	1795	3582	1598			
Grp Volume(v), veh/h	56	411	0	0	275	285	99	273	69			
Grp Sat Flow(s),veh/h/ln	1795	1791	0	0	1791	1850	1795	1791	1598			
Q Serve(g_s), s	1.7	6.5	0.0	0.0	10.5	10.6	4.9	6.8	3.8			
Cycle Q Clear(g_c), s	1.7	6.5	0.0	0.0	10.5	10.6	4.9	6.8	3.8			
Prop In Lane	1.00		0.00	0.00		0.11	1.00		1.00			
Lane Grp Cap(c), veh/h	413	1791	0	0	753	778	718	1433	639			
V/C Ratio(X)	0.14	0.23	0.00	0.00	0.37	0.37	0.14	0.19	0.11			
Avail Cap(c_a), veh/h	530	1791	0	0	753	778	718	1433	639			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.97	0.97	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	14.8	14.1	0.0	0.0	19.8	19.8	28.2	29.0	27.7			
Incr Delay (d2), s/veh	0.2	0.3	0.0	0.0	1.4	1.3	0.4	0.3	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.7	2.6	0.0	0.0	4.6	4.7	2.2	3.1	1.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	14.4	0.0	0.0	21.2	21.2	28.6	29.3	28.0			
LnGrp LOS	B	B	A	A	C	C	C	C	C			
Approach Vol, veh/h		467			560			441				
Approach Delay, s/veh		14.5			21.2			28.9				
Approach LOS		B			C			C				
Timer - Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			7.9	47.1		45.0		55.0				
Change Period (Y+Rc), s			4.0	5.0		5.0		5.0				
Max Green Setting (Gmax), s			10.5	35.5		40.0		50.0				
Max Q Clear Time (g_c+I1), s			3.7	12.6		8.8		8.5				
Green Ext Time (p_c), s			0.1	3.5		2.3		3.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			21.4									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary  
34: 4th Street & Grand Ave

Existing Conditions 2021  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑						↔	
Traffic Volume (veh/h)	0	429	51	50	583	0	0	0	0	28	189	53
Future Volume (veh/h)	0	429	51	50	583	0	0	0	0	28	189	53
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1885	1885	1885
Adj Flow Rate, veh/h	0	429	51	50	583	0				28	189	53
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	1	1	1	1	0				1	1	1
Cap, veh/h	0	1397	623	588	2077	0				117	807	235
Arrive On Green	0.00	0.39	0.39	0.14	0.58	0.00				0.32	0.32	0.32
Sat Flow, veh/h	0	3676	1598	1795	3676	0				364	2521	734
Grp Volume(v), veh/h	0	429	51	50	583	0				143	0	127
Grp Sat Flow(s),veh/h/ln	0	1791	1598	1795	1791	0				1867	0	1753
Q Serve(g_s), s	0.0	8.3	2.0	0.0	8.2	0.0				5.7	0.0	5.3
Cycle Q Clear(g_c), s	0.0	8.3	2.0	0.0	8.2	0.0				5.7	0.0	5.3
Prop In Lane	0.00		1.00	1.00		0.00				0.20		0.42
Lane Grp Cap(c), veh/h	0	1397	623	588	2077	0				597	0	561
V/C Ratio(X)	0.00	0.31	0.08	0.09	0.28	0.00				0.24	0.00	0.23
Avail Cap(c_a), veh/h	0	1397	623	606	2077	0				597	0	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.1	19.2	17.4	10.5	0.0				25.0	0.0	24.9
Incr Delay (d2), s/veh	0.0	0.6	0.3	0.1	0.3	0.0				0.9	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	0.8	0.7	3.2	0.0				2.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.7	19.5	17.4	10.9	0.0				26.0	0.0	25.9
LnGrp LOS		A	C	B	B	A				C	A	C
Approach Vol, veh/h		480			633					270		
Approach Delay, s/veh		21.5			11.4					25.9		
Approach LOS		C			B					C		
Timer - Assigned Phs		2		4			7		8			
Phs Duration (G+Y+Rc), s		37.0		63.0			19.0		44.0			
Change Period (Y+Rc), s		5.0		5.0			5.0		* 5			
Max Green Setting (Gmax), s		32.0		58.0			15.0		* 39			
Max Q Clear Time (g_c+I1), s		7.7		10.2			2.0		10.3			
Green Ext Time (p_c), s		1.6		6.7			0.1		3.2			

Intersection Summary

HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	25	14	0	0	15	33	37	380	1	0	0	0
Future Vol, veh/h	25	14	0	0	15	33	37	380	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	25	14	0	0	15	33	37	380	1	0	0	0

Major/Minor	Minor2		Minor1		Major1				
Conflicting Flow All	272	455	-	-	455	191	0	0	0
Stage 1	0	0	-	-	455	-	-	-	-
Stage 2	272	455	-	-	0	-	-	-	-
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-
Pot Cap-1 Maneuver	662	502	0	0	502	821	-	-	-
Stage 1	-	-	0	0	570	-	-	-	-
Stage 2	713	570	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	621	502	-	-	502	821	-	-	-
Mov Cap-2 Maneuver	621	502	-	-	502	-	-	-	-
Stage 1	-	-	-	-	570	-	-	-	-
Stage 2	666	570	-	-	-	-	-	-	-

Approach	EB		WB		NB	
HCM Control Delay, s	11.8		10.7			
HCM LOS	B		B			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	572	685
HCM Lane V/C Ratio	-	-	-	0.068	0.07
HCM Control Delay (s)	-	-	-	11.8	10.7
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.2

HCM 6th Signalized Intersection Summary  
38: 4th Street & White Ave

Existing Conditions 2021  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Volume (veh/h)	0	11	18	30	29	0	0	0	0	17	259	18
Future Volume (veh/h)	0	11	18	30	29	0	0	0	0	17	259	18
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1885	1885	1885
Adj Flow Rate, veh/h	0	11	18	30	29	0				17	259	18
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	1	1	1	1	0				1	1	1
Cap, veh/h	0	193	316	282	257	0				124	1964	143
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.60	0.60	0.60
Sat Flow, veh/h	0	643	1053	760	856	0				206	3273	238
Grp Volume(v), veh/h	0	0	29	59	0	0				155	0	139
Grp Sat Flow(s),veh/h/ln	0	0	1696	1616	0	0				1875	0	1842
Q Serve(g_s), s	0.0	0.0	1.2	0.4	0.0	0.0				3.6	0.0	3.3
Cycle Q Clear(g_c), s	0.0	0.0	1.2	2.3	0.0	0.0				3.6	0.0	3.3
Prop In Lane	0.00		0.62	0.51		0.00				0.11		0.13
Lane Grp Cap(c), veh/h	0	0	509	539	0	0				1125	0	1105
V/C Ratio(X)	0.00	0.00	0.06	0.11	0.00	0.00				0.14	0.00	0.13
Avail Cap(c_a), veh/h	0	0	509	539	0	0				1125	0	1105
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	24.9	25.3	0.0	0.0				8.7	0.0	8.7
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.4	0.0	0.0				0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	1.1	0.0	0.0				1.5	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	25.1	25.7	0.0	0.0				9.0	0.0	8.9
LnGrp LOS	A	A	C	C	A	A				A	A	A
Approach Vol, veh/h		29			59						294	
Approach Delay, s/veh		25.1			25.7						8.9	
Approach LOS		C			C						A	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		65.0		35.0				35.0				
Change Period (Y+Rc), s		5.0		5.0				5.0				
Max Green Setting (Gmax), s		60.0		30.0				30.0				
Max Q Clear Time (g_c+I1), s		5.6		4.3				3.2				
Green Ext Time (p_c), s		1.9		0.2				0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
 41: 5th Street & Rood Ave

Existing Conditions 2021  
 10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	43	0	0	32	30	30	361	12	0	0	0
Future Volume (veh/h)	33	43	0	0	32	30	30	361	12	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1885	1885	0	0	1885	1885	1885	1885	1885			
Adj Flow Rate, veh/h	33	43	0	0	32	30	30	361	12			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	1	1	0	0	1	1	1	1	1			
Cap, veh/h	442	566	0	0	269	252	159	2012	70			
Arrive On Green	0.30	0.30	0.00	0.00	0.30	0.30	0.20	0.20	0.20			
Sat Flow, veh/h	1351	1885	0	0	895	839	266	3354	117			
Grp Volume(v), veh/h	33	43	0	0	0	62	211	0	192			
Grp Sat Flow(s),veh/h/ln	1351	1885	0	0	0	1734	1872	0	1864			
Q Serve(g_s), s	1.8	1.6	0.0	0.0	0.0	2.6	9.4	0.0	8.5			
Cycle Q Clear(g_c), s	4.4	1.6	0.0	0.0	0.0	2.6	9.4	0.0	8.5			
Prop In Lane	1.00		0.00	0.00		0.48	0.14		0.06			
Lane Grp Cap(c), veh/h	442	566	0	0	0	520	1123	0	1119			
V/C Ratio(X)	0.07	0.08	0.00	0.00	0.00	0.12	0.19	0.00	0.17			
Avail Cap(c_a), veh/h	442	566	0	0	0	520	1123	0	1119			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	27.0	25.1	0.0	0.0	0.0	25.4	19.8	0.0	19.5			
Incr Delay (d2), s/veh	0.3	0.3	0.0	0.0	0.0	0.5	0.4	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	0.8	0.0	0.0	0.0	1.1	4.5	0.0	4.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	25.3	0.0	0.0	0.0	25.9	20.2	0.0	19.8			
LnGrp LOS	C	C	A	A	A	C	C	A	B			
Approach Vol, veh/h		76			62			403				
Approach Delay, s/veh		26.2			25.9			20.0				
Approach LOS		C			C			B				
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				35.0		65.0		35.0				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+1), s				4.6		11.4		6.4				
Green Ext Time (p_c), s				0.3		2.5		0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				21.5								
HCM 6th LOS				C								



HCM 6th Signalized Intersection Summary  
42: 4th Street & Rood Ave

Existing Conditions 2021  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔						↕↕	
Traffic Volume (veh/h)	0	35	27	23	54	0	0	0	0	32	233	57
Future Volume (veh/h)	0	35	27	23	54	0	0	0	0	32	233	57
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1885	1885	1885
Adj Flow Rate, veh/h	0	35	27	23	54	0				32	233	57
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	1	1	1	1	0				1	1	1
Cap, veh/h	0	296	228	442	566	0				210	1570	400
Arrive On Green	0.00	0.30	0.30	0.10	0.10	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	987	761	1351	1885	0				349	2617	667
Grp Volume(v), veh/h	0	0	62	23	54	0				171	0	151
Grp Sat Flow(s),veh/h/ln	0	0	1748	1351	1885	0				1868	0	1765
Q Serve(g_s), s	0.0	0.0	2.6	1.6	2.6	0.0				7.6	0.0	7.1
Cycle Q Clear(g_c), s	0.0	0.0	2.6	4.1	2.6	0.0				7.6	0.0	7.1
Prop In Lane	0.00		0.44	1.00		0.00				0.19		0.38
Lane Grp Cap(c), veh/h	0	0	524	442	566	0				1121	0	1059
V/C Ratio(X)	0.00	0.00	0.12	0.05	0.10	0.00				0.15	0.00	0.14
Avail Cap(c_a), veh/h	0	0	524	442	566	0				1121	0	1059
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	25.4	34.6	32.7	0.0				19.1	0.0	18.9
Incr Delay (d2), s/veh	0.0	0.0	0.5	0.2	0.3	0.0				0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.1	0.5	1.2	0.0				3.5	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	25.9	34.8	33.0	0.0				19.4	0.0	19.2
LnGrp LOS	A	A	C	C	C	A				B	A	B
Approach Vol, veh/h		62			77						322	
Approach Delay, s/veh		25.9			33.6						19.3	
Approach LOS		C			C						B	
Timer - Assigned Phs		2		4					8			
Phs Duration (G+Y+Rc), s		65.0		35.0					35.0			
Change Period (Y+Rc), s		5.0		5.0					5.0			
Max Green Setting (Gmax), s		60.0		30.0					30.0			
Max Q Clear Time (g_c+11), s		9.6		6.1					4.6			
Green Ext Time (p_c), s		2.1		0.3					0.3			
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											22.5	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary  
45: 5th Street & Main St

Existing Conditions 2021  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Volume (veh/h)	28	98	0	0	63	20	19	348	20	0	0	0
Future Volume (veh/h)	28	98	0	0	63	20	19	348	20	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1885	1885	0	0	1885	1885	1885	1885	1885			
Adj Flow Rate, veh/h	28	98	0	0	63	20	19	348	20			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	1	1	0	0	1	1	1	1	1			
Cap, veh/h	133	439	0	0	411	131	105	2009	121			
Arrive On Green	0.60	0.60	0.00	0.00	0.30	0.30	0.20	0.20	0.20			
Sat Flow, veh/h	296	1465	0	0	1371	435	175	3349	202			
Grp Volume(v), veh/h	126	0	0	0	0	83	204	0	183			
Grp Sat Flow(s),veh/h/ln	1760	0	0	0	0	1807	1876	0	1849			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	3.4	9.0	0.0	8.2			
Cycle Q Clear(g_c), s	3.1	0.0	0.0	0.0	0.0	3.4	9.0	0.0	8.2			
Prop In Lane	0.22		0.00	0.00		0.24	0.09		0.11			
Lane Grp Cap(c), veh/h	572	0	0	0	0	542	1126	0	1109			
V/C Ratio(X)	0.22	0.00	0.00	0.00	0.00	0.15	0.18	0.00	0.17			
Avail Cap(c_a), veh/h	572	0	0	0	0	542	1126	0	1109			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	14.6	0.0	0.0	0.0	0.0	25.7	19.7	0.0	19.3			
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.0	0.0	0.6	0.4	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4	0.0	0.0	0.0	0.0	1.5	4.3	0.0	3.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	0.0	0.0	0.0	0.0	26.3	20.0	0.0	19.7			
LnGrp LOS	B	A	A	A	A	C	C	A	B			
Approach Vol, veh/h		126			83			387				
Approach Delay, s/veh		15.5			26.3			19.8				
Approach LOS		B			C			B				
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				35.0		65.0		35.0				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+1), s				5.4		11.0		5.1				
Green Ext Time (p_c), s				0.4		2.4		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				19.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
46: 4th Street & Main St

Existing Conditions 2021  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↕↕	
Traffic Volume (veh/h)	0	90	21	17	66	0	0	0	0	34	209	33
Future Volume (veh/h)	0	90	21	17	66	0	0	0	0	34	209	33
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1885	1885	1885
Adj Flow Rate, veh/h	0	90	21	17	66	0				34	209	33
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	1	1	1	1	0				1	1	1
Cap, veh/h	0	643	150	170	636	0				207	1318	217
Arrive On Green	0.00	0.44	0.44	0.87	0.87	0.00				0.16	0.16	0.16
Sat Flow, veh/h	0	1478	345	290	1462	0				435	2775	456
Grp Volume(v), veh/h	0	0	111	83	0	0				146	0	130
Grp Sat Flow(s),veh/h/ln	0	0	1823	1752	0	0				1863	0	1803
Q Serve(g_s), s	0.0	0.0	3.7	0.0	0.0	0.0				6.8	0.0	6.2
Cycle Q Clear(g_c), s	0.0	0.0	3.7	0.6	0.0	0.0				6.8	0.0	6.2
Prop In Lane	0.00		0.19	0.20		0.00				0.23		0.25
Lane Grp Cap(c), veh/h	0	0	793	805	0	0				885	0	856
V/C Ratio(X)	0.00	0.00	0.14	0.10	0.00	0.00				0.16	0.00	0.15
Avail Cap(c_a), veh/h	0	0	793	805	0	0				885	0	856
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	17.0	3.7	0.0	0.0				25.0	0.0	24.8
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.3	0.0	0.0				0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.6	0.3	0.0	0.0				3.2	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	17.4	4.0	0.0	0.0				25.4	0.0	25.1
LnGrp LOS	A	A	B	A	A	A				C	A	C
Approach Vol, veh/h		111			83						276	
Approach Delay, s/veh		17.4			4.0						25.3	
Approach LOS		B			A						C	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		52.0		48.0				48.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		47.5		43.5				43.5				
Max Q Clear Time (g_c+I1), s		8.8		2.6				5.7				
Green Ext Time (p_c), s		1.7		0.5				0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				19.6								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	33	38	0	0	43	15	12	328	13	0	0	0
Future Vol, veh/h	33	38	0	0	43	15	12	328	13	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	33	38	0	0	43	15	12	328	13	0	0	0

Major/Minor	Minor2		Minor1		Major1		
Conflicting Flow All	210	365	-	-	359	171	0
Stage 1	0	0	-	-	359	-	-
Stage 2	210	365	-	-	0	-	-
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21
Pot Cap-1 Maneuver	731	564	0	0	568	846	-
Stage 1	-	-	0	0	628	-	-
Stage 2	775	624	0	0	-	-	-
Platoon blocked, %							-
Mov Cap-1 Maneuver	676	564	-	-	568	846	-
Mov Cap-2 Maneuver	676	564	-	-	568	-	-
Stage 1	-	-	-	-	628	-	-
Stage 2	709	624	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.7	11.4	
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	611	621
HCM Lane V/C Ratio	-	-	-	0.116	0.093
HCM Control Delay (s)	-	-	-	11.7	11.4
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.4	0.3

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	42	8	10	42	0	0	0	0	25	204	14
Future Vol, veh/h	0	42	8	10	42	0	0	0	0	25	204	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	42	8	10	42	0	0	0	0	25	204	14

Major/Minor	Minor2		Minor1			Major2			
Conflicting Flow All	-	261	109	173	268	-	0	0	0
Stage 1	-	261	-	0	0	-	-	-	-
Stage 2	-	0	-	173	268	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	2.21	-	-
Pot Cap-1 Maneuver	0	645	927	777	639	0	-	-	-
Stage 1	0	693	-	-	-	0	-	-	-
Stage 2	0	-	-	815	688	0	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	-	645	927	732	639	-	-	-	-
Mov Cap-2 Maneuver	-	645	-	732	639	-	-	-	-
Stage 1	-	693	-	-	-	-	-	-	-
Stage 2	-	-	-	759	688	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	10.7		11			
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	678	655	-	-	-
HCM Lane V/C Ratio	0.074	0.079	-	-	-
HCM Control Delay (s)	10.7	11	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	0.2	0.3	-	-	-

HCM 6th Signalized Intersection Summary  
53: 5th Street & Ute Ave

Existing Conditions 2021  
10/09/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	415	492	50	177	286	0	0	0	0
Future Volume (veh/h)	0	0	0	415	492	50	177	286	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				1885	1885	1885	1885	1885	0			
Adj Flow Rate, veh/h				302	650	50	177	286	0			
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %				1	1	1	1	1	0			
Cap, veh/h				790	1508	639	970	1791	0			
Arrive On Green				0.40	0.40	0.40	1.00	1.00	0.00			
Sat Flow, veh/h				1795	3770	1598	1795	3676	0			
Grp Volume(v), veh/h				302	650	50	177	286	0			
Grp Sat Flow(s),veh/h/ln				1795	1885	1598	1795	1791	0			
Q Serve(g_s), s				12.1	12.5	1.9	0.0	0.0	0.0			
Cycle Q Clear(g_c), s				12.1	12.5	1.9	0.0	0.0	0.0			
Prop In Lane				1.00		1.00	1.00		0.00			
Lane Grp Cap(c), veh/h				790	1508	639	970	1791	0			
V/C Ratio(X)				0.38	0.43	0.08	0.18	0.16	0.00			
Avail Cap(c_a), veh/h				790	1508	639	970	1791	0			
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00			
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				21.6	21.7	18.6	0.0	0.0	0.0			
Incr Delay (d2), s/veh				1.4	0.9	0.2	0.4	0.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				5.3	5.6	0.8	0.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.0	22.7	18.8	0.4	0.2	0.0			
LnGrp LOS				C	C	B	A	A	A			
Approach Vol, veh/h					1002			463				
Approach Delay, s/veh					22.6			0.3				
Approach LOS					C			A				
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				45.0		55.0						
Change Period (Y+Rc), s				5.0		5.0						
Max Green Setting (Gmax), s				40.0		50.0						
Max Q Clear Time (g_c+I1), s				14.5		2.0						
Green Ext Time (p_c), s				5.9		2.4						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				15.5								
HCM 6th LOS				B								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary  
54: 4th Street & Ute Ave

Existing Conditions 2021  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↑						↑↔	
Traffic Volume (veh/h)	0	0	0	21	652	0	0	0	0	0	189	28
Future Volume (veh/h)	0	0	0	21	652	0	0	0	0	0	189	28
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1885	1885	0				0	1885	1885
Adj Flow Rate, veh/h				21	652	0				0	189	28
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				1	1	0				0	1	1
Cap, veh/h				65	1722	0				0	1207	176
Arrive On Green				0.17	0.17	0.00				0.00	0.13	0.13
Sat Flow, veh/h				54	3530	0				0	3230	458
Grp Volume(v), veh/h				360	313	0				0	107	110
Grp Sat Flow(s),veh/h/ln				1868	1630	0				0	1791	1803
Q Serve(g_s), s				0.0	17.1	0.0				0.0	5.3	5.5
Cycle Q Clear(g_c), s				17.0	17.1	0.0				0.0	5.3	5.5
Prop In Lane				0.06		0.00				0.00		0.25
Lane Grp Cap(c), veh/h				972	815	0				0	690	694
V/C Ratio(X)				0.37	0.38	0.00				0.00	0.15	0.16
Avail Cap(c_a), veh/h				972	815	0				0	690	694
HCM Platoon Ratio				0.33	0.33	1.00				1.00	0.33	0.33
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				28.0	28.0	0.0				0.0	29.2	29.2
Incr Delay (d2), s/veh				1.1	1.4	0.0				0.0	0.5	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	7.7	0.0				0.0	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.1	29.4	0.0				0.0	29.6	29.7
LnGrp LOS				C	C	A				A	C	C
Approach Vol, veh/h					673						217	
Approach Delay, s/veh					29.2						29.7	
Approach LOS					C						C	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		44.0		56.0								
Change Period (Y+Rc), s		5.5		6.0								
Max Green Setting (Gmax), s		38.5		50.0								
Max Q Clear Time (g_c+I1), s		7.5		19.1								
Green Ext Time (p_c), s		1.3		4.6								
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											29.3	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary  
57: 5th Street & Pitkin Ave

Existing Conditions 2021  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔	↗					↕↕		↖	↕↕	
Traffic Volume (veh/h)	23	606	472	0	0	0	0	416	105	5	411	0
Future Volume (veh/h)	23	606	472	0	0	0	0	416	105	5	411	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	23	724	394				0	416	105	5	411	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1				0	1	1	1	1	0
Cap, veh/h	34	1115	487				0	1571	393	12	2167	0
Arrive On Green	0.10	0.10	0.10				0.00	0.55	0.55	0.01	0.61	0.00
Sat Flow, veh/h	111	3654	1598				0	2933	710	1795	3676	0
Grp Volume(v), veh/h	391	356	394				0	261	260	5	411	0
Grp Sat Flow(s),veh/h/ln	1880	1885	1598				0	1791	1757	1795	1791	0
Q Serve(g_s), s	20.1	18.1	24.1				0.0	7.6	7.8	0.3	5.1	0.0
Cycle Q Clear(g_c), s	20.1	18.1	24.1				0.0	7.6	7.8	0.3	5.1	0.0
Prop In Lane	0.06		1.00				0.00		0.40	1.00		0.00
Lane Grp Cap(c), veh/h	573	575	487				0	991	973	12	2167	0
V/C Ratio(X)	0.68	0.62	0.81				0.00	0.26	0.27	0.43	0.19	0.00
Avail Cap(c_a), veh/h	573	575	487				0	991	973	117	2167	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94				0.00	1.00	1.00	0.89	0.89	0.00
Uniform Delay (d), s/veh	40.3	39.4	42.1				0.0	11.7	11.7	49.5	8.8	0.0
Incr Delay (d2), s/veh	6.1	4.7	12.8				0.0	0.6	0.7	20.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	9.9	12.0				0.0	3.0	3.0	0.2	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	44.1	54.9				0.0	12.3	12.4	70.2	9.0	0.0
LnGrp LOS	D	D	D				A	B	B	E	A	A
Approach Vol, veh/h		1141						521			416	
Approach Delay, s/veh		48.6						12.3			9.7	
Approach LOS		D						B			A	
Timer - Assigned Phs		2		5	6		8					
Phs Duration (G+Y+Rc), s		65.0		5.1	59.9		35.0					
Change Period (Y+Rc), s		4.5		4.5	4.5		4.5					
Max Green Setting (Gmax), s		60.5		6.5	49.5		30.5					
Max Q Clear Time (g_c+I1), s		7.1		2.3	9.8		26.1					
Green Ext Time (p_c), s		2.9		0.0	3.4		2.4					

Intersection Summary

HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



HCM 6th Signalized Intersection Summary  
58: 4th Street & Pitkin Ave

Existing Conditions 2021  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑		↑	↑	
Traffic Volume (veh/h)	0	861	1	0	0	0	0	0	16	213	6	0
Future Volume (veh/h)	0	861	1	0	0	0	0	0	16	213	6	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No		No			No
Adj Sat Flow, veh/h/ln	0	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	0	861	1				0	0	16	217	0	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	1	1				0	1	1	1	1	0
Cap, veh/h	0	0	0				0	0	1438	2820	1697	0
Arrive On Green	0.00	0.00	0.00				0.00	0.00	0.90	0.90	0.00	0.00
Sat Flow, veh/h		0					0	0	1598	2817	1885	0
Grp Volume(v), veh/h		0.0					0	0	16	217	0	0
Grp Sat Flow(s),veh/h/ln							0	0	1598	1408	1885	0
Q Serve(g_s), s							0.0	0.0	0.1	0.4	0.0	0.0
Cycle Q Clear(g_c), s							0.0	0.0	0.1	0.5	0.0	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	0	1438	2820	1697	0
V/C Ratio(X)							0.00	0.00	0.01	0.08	0.00	0.00
Avail Cap(c_a), veh/h							0	0	1438	2820	1697	0
HCM Platoon Ratio							1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)							0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh							0.0	0.0	0.3	0.3	0.0	0.0
Incr Delay (d2), s/veh							0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	0.0	0.3	0.3	0.0	0.0
LnGrp LOS							A	A	A	A	A	A
Approach Vol, veh/h								16		217		
Approach Delay, s/veh								0.3		0.3		
Approach LOS								A		A		
Timer - Assigned Phs		2					6					
Phs Duration (G+Y+Rc), s		50.0					50.0					
Change Period (Y+Rc), s		5.0					5.0					
Max Green Setting (Gmax), s		45.0					45.0					
Max Q Clear Time (g_c+I1), s		2.5					2.1					
Green Ext Time (p_c), s		0.8					0.1					

Intersection Summary

HCM 6th Ctrl Delay	0.3
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
5: 5th Street & North Ave

2021 Two-Way  
10/09/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	967	42	73	942	26	34	43	136	39	48	29
Future Volume (veh/h)	20	967	42	73	942	26	34	43	136	39	48	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	20	967	42	73	942	26	34	56	136	39	62	29
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	397	1993	87	410	2129	59	267	217	184	262	223	189
Arrive On Green	0.02	0.57	0.57	0.05	0.60	0.60	0.03	0.12	0.12	0.04	0.12	0.12
Sat Flow, veh/h	1795	3497	152	1795	3560	98	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	20	495	514	73	474	494	34	56	136	39	62	29
Grp Sat Flow(s),veh/h/ln	1795	1791	1858	1795	1791	1867	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	0.4	13.0	13.0	1.3	11.4	11.4	1.3	2.1	6.5	1.5	2.4	1.3
Cycle Q Clear(g_c), s	0.4	13.0	13.0	1.3	11.4	11.4	1.3	2.1	6.5	1.5	2.4	1.3
Prop In Lane	1.00		0.08	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	397	1021	1059	410	1071	1117	267	217	184	262	223	189
V/C Ratio(X)	0.05	0.49	0.49	0.18	0.44	0.44	0.13	0.26	0.74	0.15	0.28	0.15
Avail Cap(c_a), veh/h	493	1021	1059	502	1071	1117	344	549	465	333	549	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.2	10.1	10.1	7.1	8.7	8.7	29.2	31.9	33.8	29.1	31.7	31.3
Incr Delay (d2), s/veh	0.1	1.6	1.6	0.2	1.3	1.3	0.2	0.6	5.7	0.3	0.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.0	5.1	0.4	4.2	4.4	0.6	1.0	2.7	0.6	1.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.2	11.7	11.7	7.3	10.0	9.9	29.4	32.5	39.5	29.3	32.4	31.6
LnGrp LOS	A	B	B	A	A	A	C	C	D	C	C	C
Approach Vol, veh/h		1029			1041			226			130	
Approach Delay, s/veh		11.6			9.8			36.3			31.3	
Approach LOS		B			A			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	14.3	5.8	52.2	6.9	14.1	8.0	50.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	6.0	23.0	6.0	47.0	6.0	23.0	8.0	45.0				
Max Q Clear Time (g_c+I1), s	3.3	4.4	2.4	13.4	3.5	8.5	3.3	15.0				
Green Ext Time (p_c), s	0.0	0.3	0.0	7.5	0.0	0.6	0.0	7.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				14.2								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	15.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕			↕	
Traffic Vol, veh/h	15	933	28	48	943	14	20	29	91	5	3	15
Future Vol, veh/h	15	933	28	48	943	14	20	29	91	5	3	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	933	28	48	943	14	20	38	91	5	4	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	957	0	0	961	0	0	1547	2030	481	1562	2037	479
Stage 1	-	-	-	-	-	-	977	977	-	1046	1046	-
Stage 2	-	-	-	-	-	-	570	1053	-	516	991	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	720	-	-	718	-	-	78	57	534	76	57	535
Stage 1	-	-	-	-	-	-	271	329	-	246	306	-
Stage 2	-	-	-	-	-	-	476	303	-	513	324	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	720	-	-	718	-	-	67	52	534	24	52	535
Mov Cap-2 Maneuver	-	-	-	-	-	-	67	52	-	24	52	-
Stage 1	-	-	-	-	-	-	265	322	-	241	285	-
Stage 2	-	-	-	-	-	-	426	283	-	368	317	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.5			207.8			71.5		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	125	720	-	-	718	-	-	77
HCM Lane V/C Ratio	1.19	0.021	-	-	0.067	-	-	0.31
HCM Control Delay (s)	207.8	10.1	-	-	10.4	-	-	71.5
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	9.1	0.1	-	-	0.2	-	-	1.2

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	8	41	10	11	10	197	10	10	91	49
Future Vol, veh/h	10	10	8	41	10	11	10	197	10	10	91	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	8	41	10	11	10	256	10	10	118	49

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	455	449	143	453	468	261	167	0	0	266	0	0
Stage 1	163	163	-	281	281	-	-	-	-	-	-	-
Stage 2	292	286	-	172	187	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	517	507	907	519	494	780	1417	-	-	1304	-	-
Stage 1	841	765	-	728	680	-	-	-	-	-	-	-
Stage 2	718	677	-	832	747	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	495	498	907	500	486	780	1417	-	-	1304	-	-
Mov Cap-2 Maneuver	495	498	-	500	486	-	-	-	-	-	-	-
Stage 1	834	758	-	722	675	-	-	-	-	-	-	-
Stage 2	692	672	-	806	740	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	12.7	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1417	-	-	570	531	1304	-	-
HCM Lane V/C Ratio	0.007	-	-	0.049	0.117	0.008	-	-
HCM Control Delay (s)	7.6	0	-	11.6	12.7	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0	-	-

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	5	28	10	7	10	132	10	10	60	33
Future Vol, veh/h	10	10	5	28	10	7	10	132	10	10	60	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	5	28	10	7	10	172	10	10	78	33

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	321	317	95	319	328	177	111	0	0	182	0	0
Stage 1	115	115	-	197	197	-	-	-	-	-	-	-
Stage 2	206	202	-	122	131	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	634	601	964	636	592	869	1485	-	-	1399	-	-
Stage 1	892	802	-	807	740	-	-	-	-	-	-	-
Stage 2	798	736	-	885	790	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	614	592	964	618	583	869	1485	-	-	1399	-	-
Mov Cap-2 Maneuver	614	592	-	618	583	-	-	-	-	-	-	-
Stage 1	886	796	-	801	735	-	-	-	-	-	-	-
Stage 2	775	731	-	862	784	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	11.1	0.4	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1485	-	-	652	638	1399	-
HCM Lane V/C Ratio	0.007	-	-	0.038	0.071	0.007	-
HCM Control Delay (s)	7.4	0	-	10.7	11.1	7.6	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	204	10	10	126	10
Future Vol, veh/h	10	10	10	10	10	10	10	204	10	10	126	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	10	10	10	10	10	265	10	10	164	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	489	484	169	489	484	270	174	0	0	275	0	0
Stage 1	189	189	-	290	290	-	-	-	-	-	-	-
Stage 2	300	295	-	199	194	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	491	484	878	491	484	771	1409	-	-	1294	-	-
Stage 1	815	746	-	720	674	-	-	-	-	-	-	-
Stage 2	711	671	-	805	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	471	476	878	471	476	771	1409	-	-	1294	-	-
Mov Cap-2 Maneuver	471	476	-	471	476	-	-	-	-	-	-	-
Stage 1	808	739	-	714	669	-	-	-	-	-	-	-
Stage 2	686	666	-	778	735	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	12	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1409	-	-	559	543	1294	-	-
HCM Lane V/C Ratio	0.007	-	-	0.054	0.055	0.008	-	-
HCM Control Delay (s)	7.6	0	-	11.8	12	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	136	10	10	84	10
Future Vol, veh/h	10	10	10	10	10	10	10	136	10	10	84	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	10	10	10	10	10	177	10	10	109	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	346	341	114	346	341	182	119	0	0	187	0	0
Stage 1	134	134	-	202	202	-	-	-	-	-	-	-
Stage 2	212	207	-	144	139	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	610	583	941	610	583	863	1475	-	-	1393	-	-
Stage 1	872	787	-	802	736	-	-	-	-	-	-	-
Stage 2	792	732	-	861	784	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	587	574	941	588	574	863	1475	-	-	1393	-	-
Mov Cap-2 Maneuver	587	574	-	588	574	-	-	-	-	-	-	-
Stage 1	865	781	-	796	730	-	-	-	-	-	-	-
Stage 2	766	726	-	834	778	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	10.8	0.4	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1475	-	-	665	652	1393	-
HCM Lane V/C Ratio	0.007	-	-	0.045	0.046	0.007	-
HCM Control Delay (s)	7.5	0	-	10.7	10.8	7.6	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	204	10	10	126	10
Future Vol, veh/h	10	10	10	10	10	10	10	204	10	10	126	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	10	10	10	10	10	265	10	10	164	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	489	484	169	489	484	270	174	0	0	275	0	0
Stage 1	189	189	-	290	290	-	-	-	-	-	-	-
Stage 2	300	295	-	199	194	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	491	484	878	491	484	771	1409	-	-	1294	-	-
Stage 1	815	746	-	720	674	-	-	-	-	-	-	-
Stage 2	711	671	-	805	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	471	476	878	471	476	771	1409	-	-	1294	-	-
Mov Cap-2 Maneuver	471	476	-	471	476	-	-	-	-	-	-	-
Stage 1	808	739	-	714	669	-	-	-	-	-	-	-
Stage 2	686	666	-	778	735	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	12	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1409	-	-	559	543	1294	-	-
HCM Lane V/C Ratio	0.007	-	-	0.054	0.055	0.008	-	-
HCM Control Delay (s)	7.6	0	-	11.8	12	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-



Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	136	10	10	84	10
Future Vol, veh/h	10	10	10	10	10	10	10	136	10	10	84	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	10	10	10	10	10	177	10	10	109	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	346	341	114	346	341	182	119	0	0	187	0	0
Stage 1	134	134	-	202	202	-	-	-	-	-	-	-
Stage 2	212	207	-	144	139	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	610	583	941	610	583	863	1475	-	-	1393	-	-
Stage 1	872	787	-	802	736	-	-	-	-	-	-	-
Stage 2	792	732	-	861	784	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	587	574	941	588	574	863	1475	-	-	1393	-	-
Mov Cap-2 Maneuver	587	574	-	588	574	-	-	-	-	-	-	-
Stage 1	865	781	-	796	730	-	-	-	-	-	-	-
Stage 2	766	726	-	834	778	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	10.8	0.4	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1475	-	-	665	652	1393	-
HCM Lane V/C Ratio	0.007	-	-	0.045	0.046	0.007	-
HCM Control Delay (s)	7.5	0	-	10.7	10.8	7.6	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	37	9	5	45	8	2	202	11	3	133	7
Future Vol, veh/h	4	37	9	5	45	8	2	202	11	3	133	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	4	37	9	5	45	8	2	263	11	3	173	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	482	461	177	479	459	269	180	0	0	274	0	0
Stage 1	183	183	-	273	273	-	-	-	-	-	-	-
Stage 2	299	278	-	206	186	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	496	499	869	499	500	772	1402	-	-	1295	-	-
Stage 1	821	750	-	735	686	-	-	-	-	-	-	-
Stage 2	712	682	-	798	748	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	455	497	869	464	498	772	1402	-	-	1295	-	-
Mov Cap-2 Maneuver	455	497	-	464	498	-	-	-	-	-	-	-
Stage 1	819	748	-	734	685	-	-	-	-	-	-	-
Stage 2	657	681	-	748	746	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.4		12.8		0.1		0.1	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1402	-	-	534	520	1295	-	-
HCM Lane V/C Ratio	0.001	-	-	0.094	0.112	0.002	-	-
HCM Control Delay (s)	7.6	0	-	12.4	12.8	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0	-	-

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	41	6	4	44	6	1	134	7	2	89	4
Future Vol, veh/h	3	41	6	4	44	6	1	134	7	2	89	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	3	41	6	4	44	6	1	174	7	2	116	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	327	305	118	326	304	178	120	0	0	181	0	0
Stage 1	122	122	-	180	180	-	-	-	-	-	-	-
Stage 2	205	183	-	146	124	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	628	610	937	629	611	868	1474	-	-	1400	-	-
Stage 1	885	797	-	824	752	-	-	-	-	-	-	-
Stage 2	799	750	-	859	795	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	588	608	937	591	609	868	1474	-	-	1400	-	-
Mov Cap-2 Maneuver	588	608	-	591	609	-	-	-	-	-	-	-
Stage 1	884	795	-	823	751	-	-	-	-	-	-	-
Stage 2	746	749	-	808	793	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.2		11.3		0		0.1	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1474	-	-	633	628	1400	-	-
HCM Lane V/C Ratio	0.001	-	-	0.079	0.086	0.001	-	-
HCM Control Delay (s)	7.4	0	-	11.2	11.3	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	204	10	10	138	10
Future Vol, veh/h	10	10	10	10	10	10	10	204	10	10	138	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	10	10	10	10	10	265	10	10	179	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	504	499	184	504	499	270	189	0	0	275	0	0
Stage 1	204	204	-	290	290	-	-	-	-	-	-	-
Stage 2	300	295	-	214	209	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	480	475	861	480	475	771	1391	-	-	1294	-	-
Stage 1	800	735	-	720	674	-	-	-	-	-	-	-
Stage 2	711	671	-	790	731	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	460	467	861	461	467	771	1391	-	-	1294	-	-
Mov Cap-2 Maneuver	460	467	-	461	467	-	-	-	-	-	-	-
Stage 1	794	728	-	714	669	-	-	-	-	-	-	-
Stage 2	686	666	-	763	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	12.1	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1391	-	-	548	535	1294	-
HCM Lane V/C Ratio	0.007	-	-	0.055	0.056	0.008	-
HCM Control Delay (s)	7.6	0	-	11.9	12.1	7.8	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	136	10	10	92	10
Future Vol, veh/h	10	10	10	10	10	10	10	136	10	10	92	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	10	10	10	10	10	177	10	10	120	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	357	352	125	357	352	182	130	0	0	187	0	0
Stage 1	145	145	-	202	202	-	-	-	-	-	-	-
Stage 2	212	207	-	155	150	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	600	574	928	600	574	863	1462	-	-	1393	-	-
Stage 1	860	779	-	802	736	-	-	-	-	-	-	-
Stage 2	792	732	-	850	775	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	578	565	928	578	565	863	1462	-	-	1393	-	-
Mov Cap-2 Maneuver	578	565	-	578	565	-	-	-	-	-	-	-
Stage 1	853	773	-	796	730	-	-	-	-	-	-	-
Stage 2	766	726	-	823	769	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	10.9	0.4	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1462	-	-	655	644	1393	-
HCM Lane V/C Ratio	0.007	-	-	0.046	0.047	0.007	-
HCM Control Delay (s)	7.5	0	-	10.8	10.9	7.6	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	204	10	10	144	10
Future Vol, veh/h	10	10	10	10	10	10	10	204	10	10	144	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	10	10	10	10	10	265	10	10	187	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	512	507	192	512	507	270	197	0	0	275	0	0
Stage 1	212	212	-	290	290	-	-	-	-	-	-	-
Stage 2	300	295	-	222	217	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	474	470	852	474	470	771	1382	-	-	1294	-	-
Stage 1	792	729	-	720	674	-	-	-	-	-	-	-
Stage 2	711	671	-	783	725	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	454	462	852	455	462	771	1382	-	-	1294	-	-
Mov Cap-2 Maneuver	454	462	-	455	462	-	-	-	-	-	-	-
Stage 1	785	722	-	714	668	-	-	-	-	-	-	-
Stage 2	685	665	-	756	718	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	12.2	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1382	-	-	541	530	1294	-	-
HCM Lane V/C Ratio	0.007	-	-	0.055	0.057	0.008	-	-
HCM Control Delay (s)	7.6	0	-	12	12.2	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	136	10	10	96	10
Future Vol, veh/h	10	10	10	10	10	10	10	136	10	10	96	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	10	10	10	10	10	10	177	10	10	125	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	362	357	130	362	357	182	135	0	0	187	0	0
Stage 1	150	150	-	202	202	-	-	-	-	-	-	-
Stage 2	212	207	-	160	155	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	596	571	922	596	571	863	1456	-	-	1393	-	-
Stage 1	855	775	-	802	736	-	-	-	-	-	-	-
Stage 2	792	732	-	845	771	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	574	562	922	575	562	863	1456	-	-	1393	-	-
Mov Cap-2 Maneuver	574	562	-	575	562	-	-	-	-	-	-	-
Stage 1	848	769	-	796	730	-	-	-	-	-	-	-
Stage 2	766	726	-	818	765	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	10.9	0.4	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1456	-	-	651	641	1393	-
HCM Lane V/C Ratio	0.007	-	-	0.046	0.047	0.007	-
HCM Control Delay (s)	7.5	0	-	10.8	10.9	7.6	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

HCM 6th Signalized Intersection Summary  
 33: 5th Street & Grand Ave

2021 Two-Way  
 10/09/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	418	31	30	512	18	59	164	41	11	113	32
Future Volume (veh/h)	34	418	31	30	512	18	59	164	41	11	113	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	34	418	31	30	512	18	59	213	41	11	147	32
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	448	1724	127	556	1800	63	465	735	623	398	585	127
Arrive On Green	1.00	1.00	1.00	0.51	0.51	0.51	0.13	0.13	0.13	0.39	0.39	0.39
Sat Flow, veh/h	880	3381	250	949	3530	124	1215	1885	1598	1135	1500	327
Grp Volume(v), veh/h	34	221	228	30	259	271	59	213	41	11	0	179
Grp Sat Flow(s),veh/h/ln	880	1791	1840	949	1791	1863	1215	1885	1598	1135	0	1826
Q Serve(g_s), s	0.7	0.0	0.0	1.6	8.3	8.3	4.4	10.2	2.3	0.7	0.0	6.6
Cycle Q Clear(g_c), s	9.0	0.0	0.0	1.6	8.3	8.3	11.0	10.2	2.3	10.9	0.0	6.6
Prop In Lane	1.00		0.14	1.00		0.07	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	448	913	939	556	913	950	465	735	623	398	0	712
V/C Ratio(X)	0.08	0.24	0.24	0.05	0.28	0.28	0.13	0.29	0.07	0.03	0.00	0.25
Avail Cap(c_a), veh/h	448	913	939	556	913	950	465	735	623	398	0	712
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.7	0.0	0.0	12.4	14.0	14.0	34.4	31.0	27.6	25.6	0.0	20.6
Incr Delay (d2), s/veh	0.3	0.6	0.6	0.0	0.2	0.2	0.6	1.0	0.2	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.2	0.3	3.3	3.4	1.5	5.3	0.9	0.2	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.1	0.6	0.6	12.4	14.2	14.2	35.0	32.0	27.8	25.7	0.0	21.5
LnGrp LOS	A	A	A	B	B	B	C	C	C	C	A	C
Approach Vol, veh/h		483			560			313			190	
Approach Delay, s/veh		0.6			14.1			32.0			21.7	
Approach LOS		A			B			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.0		56.0		44.0		56.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		39.0		51.0		39.0		51.0				
Max Q Clear Time (g_c+I1), s		12.9		10.3		13.0		11.0				
Green Ext Time (p_c), s		1.1		3.7		1.6		3.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				14.5								
HCM 6th LOS				B								



HCM 6th Signalized Intersection Summary  
 34: 4th Street & Grand Ave

2021 Two-Way  
 10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↗		↘	↗	
Traffic Volume (veh/h)	22	438	20	20	571	12	40	109	28	17	76	21
Future Volume (veh/h)	22	438	20	20	571	12	40	109	28	17	76	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	22	438	20	20	571	12	40	142	28	17	99	21
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	462	1970	879	531	1973	41	462	535	106	397	528	112
Arrive On Green	0.55	0.55	0.55	0.55	0.55	0.55	0.12	0.12	0.12	0.35	0.35	0.35
Sat Flow, veh/h	838	3582	1598	941	3587	75	1282	1529	302	1225	1508	320
Grp Volume(v), veh/h	22	438	20	20	285	298	40	0	170	17	0	120
Grp Sat Flow(s),veh/h/ln	838	1791	1598	941	1791	1872	1282	0	1831	1225	0	1828
Q Serve(g_s), s	1.4	6.3	0.6	1.1	8.5	8.5	2.8	0.0	8.5	1.0	0.0	4.6
Cycle Q Clear(g_c), s	10.0	6.3	0.6	7.4	8.5	8.5	7.4	0.0	8.5	9.5	0.0	4.6
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.16	1.00		0.17
Lane Grp Cap(c), veh/h	462	1970	879	531	985	1029	462	0	641	397	0	640
V/C Ratio(X)	0.05	0.22	0.02	0.04	0.29	0.29	0.09	0.00	0.27	0.04	0.00	0.19
Avail Cap(c_a), veh/h	462	1970	879	531	985	1029	462	0	641	397	0	640
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.7	11.5	10.3	13.4	12.0	12.0	34.1	0.0	32.5	27.4	0.0	22.6
Incr Delay (d2), s/veh	0.2	0.3	0.0	0.1	0.7	0.7	0.4	0.0	1.0	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.5	0.2	0.3	3.4	3.6	1.0	0.0	4.2	0.3	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	11.8	10.3	13.6	12.8	12.7	34.5	0.0	33.5	27.6	0.0	23.3
LnGrp LOS	B	B	B	B	B	B	C	A	C	C	A	C
Approach Vol, veh/h		480			603			210			137	
Approach Delay, s/veh		11.9			12.8			33.7			23.8	
Approach LOS		B			B			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.0		60.0		40.0		60.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		55.0		35.0		55.0				
Max Q Clear Time (g_c+11), s		11.5		10.5		10.5		12.0				
Green Ext Time (p_c), s		0.7		4.1		1.1		3.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											16.6	
HCM 6th LOS											B	

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	0	11	18	10	20	22	228	1	10	155	11
Future Vol, veh/h	15	0	11	18	10	20	22	228	1	10	155	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	0	11	18	10	20	22	296	1	10	202	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	584	569	208	574	574	297	213	0	0	297	0	0
Stage 1	228	228	-	341	341	-	-	-	-	-	-	-
Stage 2	356	341	-	233	233	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	425	433	835	431	430	745	1363	-	-	1270	-	-
Stage 1	777	717	-	676	640	-	-	-	-	-	-	-
Stage 2	664	640	-	772	714	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	397	421	835	416	418	745	1363	-	-	1270	-	-
Mov Cap-2 Maneuver	397	421	-	416	418	-	-	-	-	-	-	-
Stage 1	762	711	-	663	628	-	-	-	-	-	-	-
Stage 2	624	628	-	755	708	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	12.8	0.5	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1363	-	-	510	510	1270	-	-
HCM Lane V/C Ratio	0.016	-	-	0.051	0.094	0.008	-	-
HCM Control Delay (s)	7.7	0	-	12.4	12.8	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0	-	-

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	12	7	12	18	13	15	152	1	7	104	7
Future Vol, veh/h	10	12	7	12	18	13	15	152	1	7	104	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	10	12	7	12	18	13	15	198	1	7	135	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	397	382	139	391	385	199	142	0	0	199	0	0
Stage 1	153	153	-	229	229	-	-	-	-	-	-	-
Stage 2	244	229	-	162	156	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	565	553	912	570	550	845	1447	-	-	1379	-	-
Stage 1	852	773	-	776	717	-	-	-	-	-	-	-
Stage 2	762	717	-	842	770	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	535	543	912	548	540	845	1447	-	-	1379	-	-
Mov Cap-2 Maneuver	535	543	-	548	540	-	-	-	-	-	-	-
Stage 1	842	768	-	767	708	-	-	-	-	-	-	-
Stage 2	722	708	-	818	765	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	11.4	0.5	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1447	-	-	598	609	1379	-	-
HCM Lane V/C Ratio	0.01	-	-	0.048	0.071	0.005	-	-
HCM Control Delay (s)	7.5	0	-	11.3	11.4	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	20	16	14	30	18	18	217	7	19	140	34
Future Vol, veh/h	20	20	16	14	30	18	18	217	7	19	140	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	70	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	20	20	16	14	30	18	18	282	7	19	182	34

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	583	562	199	577	576	286	216	0	0	289	0	0
Stage 1	237	237	-	322	322	-	-	-	-	-	-	-
Stage 2	346	325	-	255	254	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	425	437	845	429	429	755	1360	-	-	1279	-	-
Stage 1	768	711	-	692	653	-	-	-	-	-	-	-
Stage 2	672	651	-	752	699	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	382	423	845	396	415	755	1360	-	-	1279	-	-
Mov Cap-2 Maneuver	382	423	-	396	415	-	-	-	-	-	-	-
Stage 1	756	699	-	681	643	-	-	-	-	-	-	-
Stage 2	615	641	-	704	687	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.1		13.8		0.5		0.6	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1360	-	-	382	544	472	1279	-	-
HCM Lane V/C Ratio	0.013	-	-	0.052	0.066	0.131	0.015	-	-
HCM Control Delay (s)	7.7	0	-	14.9	12.1	13.8	7.9	0	-
HCM Lane LOS	A	A	-	B	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0.5	0	-	-

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	13	38	11	9	61	12	12	144	5	13	93	23
Future Vol, veh/h	13	38	11	9	61	12	12	144	5	13	93	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	13	38	11	9	61	12	12	187	5	13	121	23

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	409	375	133	397	384	190	144	0	0	192	0	0
Stage 1	159	159	-	214	214	-	-	-	-	-	-	-
Stage 2	250	216	-	183	170	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	555	558	919	565	551	854	1445	-	-	1388	-	-
Stage 1	846	768	-	790	727	-	-	-	-	-	-	-
Stage 2	756	726	-	821	760	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	493	547	919	521	541	854	1445	-	-	1388	-	-
Mov Cap-2 Maneuver	493	547	-	521	541	-	-	-	-	-	-	-
Stage 1	838	760	-	783	720	-	-	-	-	-	-	-
Stage 2	676	719	-	763	752	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	12.2	0.4	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1445	-	-	575	521	576	1388	-	-
HCM Lane V/C Ratio	0.008	-	-	0.108	0.017	0.127	0.009	-	-
HCM Control Delay (s)	7.5	0	-	12	12	12.2	7.6	0	-
HCM Lane LOS	A	A	-	B	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	0.4	0	-	-

HCM 6th Signalized Intersection Summary  
45: 5th Street & Main St

2021 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	17	94	12	10	61	14	12	209	12	20	125	20
Future Volume (veh/h)	17	94	12	10	61	14	12	209	12	20	125	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	17	94	12	10	61	14	12	272	12	20	162	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	55	133	16	51	126	27	70	1423	61	149	1189	143
Arrive On Green	0.18	0.18	0.18	0.09	0.09	0.09	1.00	1.00	1.00	0.82	0.82	0.82
Sat Flow, veh/h	157	1472	176	115	1402	299	39	1736	75	134	1451	174
Grp Volume(v), veh/h	123	0	0	85	0	0	296	0	0	202	0	0
Grp Sat Flow(s),veh/h/ln	1805	0	0	1815	0	0	1850	0	0	1759	0	0
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.4	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0
Prop In Lane	0.14		0.10	0.12		0.16	0.04		0.04	0.10		0.10
Lane Grp Cap(c), veh/h	204	0	0	204	0	0	1554	0	0	1482	0	0
V/C Ratio(X)	0.60	0.00	0.00	0.42	0.00	0.00	0.19	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h	703	0	0	700	0	0	1554	0	0	1482	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.9	0.0	0.0	43.4	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0
Incr Delay (d2), s/veh	2.4	0.0	0.0	1.4	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	2.1	0.0	0.0	0.1	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	0.0	0.0	44.8	0.0	0.0	0.3	0.0	0.0	2.0	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		123			85			296			202	
Approach Delay, s/veh		42.3			44.8			0.3			2.0	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		86.5		13.5		86.5		13.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		53.5		37.5		53.5		37.5				
Max Q Clear Time (g_c+I1), s		4.2		6.4		2.0		8.4				
Green Ext Time (p_c), s		1.3		0.4		2.0		0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				13.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
46: 4th Street & Main St

2021 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	11	91	9	7	78	8	7	139	8	14	84	13
Future Volume (veh/h)	11	91	9	7	78	8	7	139	8	14	84	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	11	91	9	7	78	8	7	181	8	14	109	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	48	133	13	45	136	13	64	1444	63	158	1207	140
Arrive On Green	0.08	0.08	0.08	0.03	0.03	0.03	1.00	1.00	1.00	0.27	0.27	0.27
Sat Flow, veh/h	103	1579	148	69	1615	158	32	1748	76	143	1461	170
Grp Volume(v), veh/h	111	0	0	93	0	0	196	0	0	136	0	0
Grp Sat Flow(s),veh/h/ln	1830	0	0	1843	0	0	1856	0	0	1774	0	0
Q Serve(g_s), s	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0
Prop In Lane	0.10		0.08	0.08		0.09	0.04		0.04	0.10		0.10
Lane Grp Cap(c), veh/h	194	0	0	194	0	0	1570	0	0	1504	0	0
V/C Ratio(X)	0.57	0.00	0.00	0.48	0.00	0.00	0.12	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	784	0	0	788	0	0	1570	0	0	1504	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	0.93	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.6	0.0	0.0	46.9	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0
Incr Delay (d2), s/veh	2.7	0.0	0.0	1.7	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	2.4	0.0	0.0	0.1	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	0.0	0.0	48.6	0.0	0.0	0.2	0.0	0.0	8.4	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		111			93			196			136	
Approach Delay, s/veh		47.2			48.6			0.2			8.4	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		87.1		12.9		87.1		12.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		49.5		41.5		49.5		41.5				
Max Q Clear Time (g_c+1), s		7.5		6.9		2.0		7.8				
Green Ext Time (p_c), s		0.8		0.5		1.2		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				20.4								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	24	5	6	43	9	7	197	8	15	122	8
Future Vol, veh/h	20	24	5	6	43	9	7	197	8	15	122	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	20	24	5	6	43	9	7	256	8	15	159	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	493	471	163	482	471	260	167	0	0	264	0	0
Stage 1	193	193	-	274	274	-	-	-	-	-	-	-
Stage 2	300	278	-	208	197	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	488	492	884	496	492	781	1417	-	-	1306	-	-
Stage 1	811	743	-	734	685	-	-	-	-	-	-	-
Stage 2	711	682	-	796	740	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	443	483	884	468	483	781	1417	-	-	1306	-	-
Mov Cap-2 Maneuver	443	483	-	468	483	-	-	-	-	-	-	-
Stage 1	806	733	-	730	681	-	-	-	-	-	-	-
Stage 2	654	678	-	756	730	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.2		12.9		0.2		0.6	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1417	-	-	488	512	1306	-
HCM Lane V/C Ratio	0.005	-	-	0.1	0.113	0.011	-
HCM Control Delay (s)	7.6	0	-	13.2	12.9	7.8	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0	-



Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	34	3	4	48	6	5	131	5	10	82	6
Future Vol, veh/h	13	34	3	4	48	6	5	131	5	10	82	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	13	34	3	4	48	6	5	170	5	10	107	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	340	315	110	332	316	173	113	0	0	175	0	0
Stage 1	130	130	-	183	183	-	-	-	-	-	-	-
Stage 2	210	185	-	149	133	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	616	602	946	623	602	873	1483	-	-	1407	-	-
Stage 1	876	791	-	821	750	-	-	-	-	-	-	-
Stage 2	794	749	-	856	788	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	569	595	946	589	595	873	1483	-	-	1407	-	-
Mov Cap-2 Maneuver	569	595	-	589	595	-	-	-	-	-	-	-
Stage 1	872	785	-	818	747	-	-	-	-	-	-	-
Stage 2	735	746	-	810	782	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.5		11.5		0.2		0.6	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1483	-	-	601	615	1407	-
HCM Lane V/C Ratio	0.003	-	-	0.083	0.094	0.007	-
HCM Control Delay (s)	7.4	0	-	11.5	11.5	7.6	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-

HCM 6th Signalized Intersection Summary  
53: 5th Street & Ute Ave

2021 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕	↗	↙	↕			↕	↗
Traffic Volume (veh/h)	0	0	0	415	512	30	177	277	0	0	113	17
Future Volume (veh/h)	0	0	0	415	512	30	177	277	0	0	113	17
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h				309	660	30	177	360	0	0	147	17
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				1	1	1	1	1	0	0	1	1
Cap, veh/h				434	911	386	1214	1241	0	0	490	415
Arrive On Green				0.24	0.24	0.24	0.70	1.00	0.00	0.00	0.52	0.52
Sat Flow, veh/h				1795	3770	1598	3483	1885	0	0	1885	1598
Grp Volume(v), veh/h				309	660	30	177	360	0	0	147	17
Grp Sat Flow(s),veh/h/ln				1795	1885	1598	1742	1885	0	0	1885	1598
Q Serve(g_s), s				15.8	16.1	1.5	1.7	0.0	0.0	0.0	4.4	0.5
Cycle Q Clear(g_c), s				15.8	16.1	1.5	1.7	0.0	0.0	0.0	4.4	0.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				434	911	386	1214	1241	0	0	490	415
V/C Ratio(X)				0.71	0.72	0.08	0.15	0.29	0.00	0.00	0.30	0.04
Avail Cap(c_a), veh/h				790	1659	703	1214	1241	0	0	490	415
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	1.00	1.00	0.97	0.97	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				34.7	34.9	29.3	10.1	0.0	0.0	0.0	18.8	17.9
Incr Delay (d2), s/veh				2.2	1.1	0.1	0.1	0.6	0.0	0.0	1.6	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.1	7.4	0.6	0.7	0.2	0.0	0.0	2.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.9	36.0	29.4	10.2	0.6	0.0	0.0	20.4	18.1
LnGrp LOS				D	D	C	B	A	A	A	C	B
Approach Vol, veh/h					999			537			164	
Approach Delay, s/veh					36.1			3.7			20.1	
Approach LOS					D			A			C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	39.8	31.0		29.2		70.8						
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0						
Max Green Setting (Gmax), s	15.5	* 26		44.0		46.0						
Max Q Clear Time (g_c+I1), s	3.7	6.4		18.1		2.0						
Green Ext Time (p_c), s	0.4	0.7		6.1		2.4						

Intersection Summary

HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.  
\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
54: 4th Street & Ute Ave

2021 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Volume (veh/h)	0	0	0	21	652	20	1	15	0	0	76	11
Future Volume (veh/h)	0	0	0	21	652	20	1	15	0	0	76	11
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h				21	652	20	1	20	0	0	99	11
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				1	1	1	1	1	0	0	1	1
Cap, veh/h				28	908	29	65	1134	0	0	1037	115
Arrive On Green				0.09	0.09	0.09	0.62	0.62	0.00	0.00	1.00	1.00
Sat Flow, veh/h				108	3523	113	44	1821	0	0	1667	185
Grp Volume(v), veh/h				364	0	329	21	0	0	0	0	110
Grp Sat Flow(s),veh/h/ln				1880	0	1865	1865	0	0	0	0	1852
Q Serve(g_s), s				18.9	0.0	17.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				18.9	0.0	17.1	0.4	0.0	0.0	0.0	0.0	0.0
Prop In Lane				0.06		0.06	0.05		0.00	0.00		0.10
Lane Grp Cap(c), veh/h				484	0	480	1198	0	0	0	0	1152
V/C Ratio(X)				0.75	0.00	0.68	0.02	0.00	0.00	0.00	0.00	0.10
Avail Cap(c_a), veh/h				1053	0	1044	1198	0	0	0	0	1152
HCM Platoon Ratio				0.33	0.33	0.33	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				0.80	0.00	0.80	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				42.6	0.0	41.8	7.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				1.9	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.8	0.0	8.7	0.2	0.0	0.0	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.5	0.0	43.2	7.2	0.0	0.0	0.0	0.0	0.2
LnGrp LOS				D	A	D	A	A	A	A	A	A
Approach Vol, veh/h					693			21			110	
Approach Delay, s/veh					43.9			7.2			0.2	
Approach LOS					D			A			A	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		68.2		31.8		68.2						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		32.0		56.0		32.0						
Max Q Clear Time (g_c+I1), s		2.0		20.9		2.4						
Green Ext Time (p_c), s		0.6		4.8		0.1						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											37.1	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary  
57: 5th Street & Pitkin Ave

2021 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔	↗					↕↕		↖	↕↕	
Traffic Volume (veh/h)	14	528	411	0	0	0	0	416	105	5	523	0
Future Volume (veh/h)	14	528	411	0	0	0	0	416	105	5	523	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	14	626	346				0	541	105	5	680	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1				0	1	1	1	1	0
Cap, veh/h	23	1060	459				0	1864	360	498	2230	0
Arrive On Green	0.09	0.09	0.09				0.00	0.62	0.62	1.00	1.00	0.00
Sat Flow, veh/h	79	3688	1598				0	3087	579	791	3676	0
Grp Volume(v), veh/h	335	305	346				0	323	323	5	680	0
Grp Sat Flow(s),veh/h/ln	1881	1885	1598				0	1791	1781	791	1791	0
Q Serve(g_s), s	17.1	15.5	21.1				0.0	8.3	8.4	0.1	0.0	0.0
Cycle Q Clear(g_c), s	17.1	15.5	21.1				0.0	8.3	8.4	8.5	0.0	0.0
Prop In Lane	0.04		1.00				0.00		0.32	1.00		0.00
Lane Grp Cap(c), veh/h	541	542	459				0	1115	1109	498	2230	0
V/C Ratio(X)	0.62	0.56	0.75				0.00	0.29	0.29	0.01	0.30	0.00
Avail Cap(c_a), veh/h	931	933	791				0	1115	1109	498	2230	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.70	0.70	0.70				0.00	1.00	1.00	0.86	0.86	0.00
Uniform Delay (d), s/veh	40.0	39.3	41.8				0.0	8.7	8.7	0.6	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.6	1.8				0.0	0.7	0.7	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	7.9	9.2				0.0	3.2	3.2	0.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	39.9	43.6				0.0	9.3	9.4	0.6	0.3	0.0
LnGrp LOS	D	D	D				A	A	A	A	A	A
Approach Vol, veh/h		986						646			685	
Approach Delay, s/veh		41.5						9.4			0.3	
Approach LOS		D						A			A	
Timer - Assigned Phs		2					6	8				
Phs Duration (G+Y+Rc), s		66.8					66.8	33.2				
Change Period (Y+Rc), s		4.5					4.5	4.5				
Max Green Setting (Gmax), s		41.5					41.5	49.5				
Max Q Clear Time (g_c+1), s		10.5					10.4	23.1				
Green Ext Time (p_c), s		5.3					4.4	5.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			20.4									
HCM 6th LOS			C									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary  
58: 4th Street & Pitkin Ave

2021 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕↕↕						↕			↕		
Traffic Volume (veh/h)	9	852	1	0	0	0	0	6	10	91	6	0
Future Volume (veh/h)	9	852	1	0	0	0	0	6	10	91	6	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	9	852	1				0	8	10	91	8	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1				0	1	1	1	1	0
Cap, veh/h	13	1270	2				0	507	634	943	80	0
Arrive On Green	0.23	0.23	0.23				0.00	0.67	0.67	0.67	0.67	0.00
Sat Flow, veh/h	54	5422	7				0	762	952	1312	120	0
Grp Volume(v), veh/h	315	261	287				0	0	18	99	0	0
Grp Sat Flow(s),veh/h/ln	1882	1716	1884				0	0	1714	1433	0	0
Q Serve(g_s), s	15.4	13.7	13.7				0.0	0.0	0.4	2.3	0.0	0.0
Cycle Q Clear(g_c), s	15.4	13.7	13.7				0.0	0.0	0.4	2.6	0.0	0.0
Prop In Lane	0.03		0.00				0.00		0.56	0.92		0.00
Lane Grp Cap(c), veh/h	441	402	441				0	0	1141	1023	0	0
V/C Ratio(X)	0.71	0.65	0.65				0.00	0.00	0.02	0.10	0.00	0.00
Avail Cap(c_a), veh/h	998	909	999				0	0	1141	1023	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.2	34.6	34.6				0.0	0.0	5.6	6.0	0.0	0.0
Incr Delay (d2), s/veh	2.2	1.8	1.6				0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	5.8	6.4				0.0	0.0	0.1	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	36.4	36.2				0.0	0.0	5.7	6.2	0.0	0.0
LnGrp LOS	D	D	D				A	A	A	A	A	A
Approach Vol, veh/h	862						18			99		
Approach Delay, s/veh	36.7						5.7			6.2		
Approach LOS	D						A			A		
Timer - Assigned Phs	2						6			8		
Phs Duration (G+Y+Rc), s	71.6						71.6			28.4		
Change Period (Y+Rc), s	5.0						5.0			5.0		
Max Green Setting (Gmax), s	37.0						37.0			53.0		
Max Q Clear Time (g_c+1), s	4.6						2.4			17.4		
Green Ext Time (p_c), s	0.5						0.1			6.0		
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	33.0											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary  
5: 5th Street & North Ave

Forecast Year 2045  
(Existing Volumes x 1.5)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	895	7	22	993	26	54	71	217	39	48	29
Future Volume (veh/h)	20	895	7	22	993	26	54	71	217	39	48	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	30	1342	10	33	1490	39	81	106	326	58	72	44
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	187	1883	14	226	1849	48	399	418	354	319	403	341
Arrive On Green	0.03	0.52	0.52	0.03	0.52	0.52	0.05	0.22	0.22	0.04	0.21	0.21
Sat Flow, veh/h	1795	3644	27	1795	3566	93	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	30	659	693	33	747	782	81	106	326	58	72	44
Grp Sat Flow(s),veh/h/ln	1795	1791	1880	1795	1791	1868	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	0.7	26.7	26.7	0.8	32.7	32.9	3.3	4.4	18.9	2.4	3.0	2.1
Cycle Q Clear(g_c), s	0.7	26.7	26.7	0.8	32.7	32.9	3.3	4.4	18.9	2.4	3.0	2.1
Prop In Lane	1.00		0.01	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	925	971	226	929	969	399	418	354	319	403	341
V/C Ratio(X)	0.16	0.71	0.71	0.15	0.80	0.81	0.20	0.25	0.92	0.18	0.18	0.13
Avail Cap(c_a), veh/h	248	925	971	285	929	969	424	425	360	351	417	354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	17.5	17.5	14.0	18.9	18.9	27.0	30.4	36.1	27.3	30.5	30.2
Incr Delay (d2), s/veh	0.4	4.7	4.4	0.3	7.4	7.2	0.2	0.3	28.0	0.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	11.5	12.0	0.3	14.5	15.1	1.4	2.0	10.0	1.0	1.4	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	22.2	22.0	14.3	26.2	26.1	27.3	30.8	64.1	27.6	30.7	30.3
LnGrp LOS	B	C	C	B	C	C	C	C	E	C	C	C
Approach Vol, veh/h		1382			1562			513			174	
Approach Delay, s/veh		22.0			25.9			51.4			29.6	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	25.3	6.7	54.2	7.9	26.0	6.9	54.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	6.0	21.0	6.0	49.0	5.6	21.4	6.0	49.0				
Max Q Clear Time (g_c+I1), s	5.3	5.0	2.7	34.9	4.4	20.9	2.8	28.7				
Green Ext Time (p_c), s	0.0	0.4	0.0	9.0	0.0	0.1	0.0	9.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				28.2								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	9.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	15	898	63	99	937	14	2	1	10	5	3	15
Future Vol, veh/h	15	898	63	99	937	14	2	1	10	5	3	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	23	1347	95	149	1406	21	3	2	15	8	5	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1427	0	0	1442	0	0	2445	3166	721	2436	3203	714
Stage 1	-	-	-	-	-	-	1441	1441	-	1715	1715	-
Stage 2	-	-	-	-	-	-	1004	1725	-	721	1488	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	478	-	-	471	-	-	16	11	372	17	10	376
Stage 1	-	-	-	-	-	-	140	198	-	95	145	-
Stage 2	-	-	-	-	-	-	261	143	-	387	188	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	478	-	-	471	-	-	6	7	372	10	7	376
Mov Cap-2 Maneuver	-	-	-	-	-	-	6	7	-	10	7	-
Stage 1	-	-	-	-	-	-	133	188	-	90	99	-
Stage 2	-	-	-	-	-	-	160	98	-	351	179	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.5	\$ 310.6	\$ 580.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	26	478	-	-	471	-	-	24
HCM Lane V/C Ratio	0.75	0.047	-	-	0.315	-	-	1.438
HCM Control Delay (s)	\$ 310.6	12.9	-	-	16.1	-	-	\$ 580.1
HCM Lane LOS	F	B	-	-	C	-	-	F
HCM 95th %tile Q(veh)	2.3	0.1	-	-	1.3	-	-	4.3

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↶			↷				↶
Traffic Vol, veh/h	0	0	0	0	3	15	10	329	2	0	0	75
Future Vol, veh/h	0	0	0	0	3	15	10	329	2	0	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	0	0	0	5	23	15	494	3	0	0	113

Major/Minor	Minor1		Major1		
Conflicting Flow All	-	526	249	0	0
Stage 1	-	526	-	-	-
Stage 2	-	0	-	-	-
Critical Hdwy	-	6.52	6.92	4.12	-
Critical Hdwy Stg 1	-	5.52	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	2.21	-
Pot Cap-1 Maneuver	0	458	754	-	-
Stage 1	0	530	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	0	754	-	-
Mov Cap-2 Maneuver	-	0	-	-	-
Stage 1	-	0	-	-	-
Stage 2	-	0	-	-	-

Approach	WB	NB
HCM Control Delay, s	10	
HCM LOS	B	

Minor Lane/Major Mvmt	NBL	NBT	NBRWBLn1
Capacity (veh/h)	-	-	754
HCM Lane V/C Ratio	-	-	0.036
HCM Control Delay (s)	-	-	10
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1



Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↖	
Traffic Vol, veh/h	0	0	13	69	10	3	0	0	0	0	151	7
Future Vol, veh/h	0	0	13	69	10	3	0	0	0	0	151	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	0	20	104	15	5	0	0	0	0	227	11

Major/Minor	Minor2		Minor1			Major2		
Conflicting Flow All	-	-	233	243	238	-	-	0
Stage 1	-	-	-	0	0	-	-	-
Stage 2	-	-	-	243	238	-	-	-
Critical Hdwy	-	-	6.21	7.11	6.51	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.11	5.51	-	-	-
Follow-up Hdwy	-	-	3.309	3.509	4.009	-	-	-
Pot Cap-1 Maneuver	0	0	809	713	665	0	0	-
Stage 1	0	0	-	-	-	0	0	-
Stage 2	0	0	-	763	710	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	809	696	665	-	-	-
Mov Cap-2 Maneuver	-	-	-	696	665	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	745	710	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	9.6		0
HCM LOS	A	-	

Minor Lane/Major Mvmt	EBLn1	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	809	696	-	-	-
HCM Lane V/C Ratio	0.024	0.149	-	-	-
HCM Control Delay (s)	9.6	11.1	-	-	-
HCM Lane LOS	A	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0.5	-	-	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Future Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	0	0	15	15	15	510	15	0	0	0

Major/Minor	Minor2		Minor1		Major1		
Conflicting Flow All	293	555	-	-	548	263	0
Stage 1	0	0	-	-	548	-	-
Stage 2	293	555	-	-	0	-	-
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21
Pot Cap-1 Maneuver	639	441	0	0	445	739	-
Stage 1	-	-	0	0	518	-	-
Stage 2	694	514	0	0	-	-	-
Platoon blocked, %							-
Mov Cap-1 Maneuver	610	441	-	-	445	739	-
Mov Cap-2 Maneuver	610	441	-	-	445	-	-
Stage 1	-	-	-	-	518	-	-
Stage 2	660	514	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	12.5	11.9	
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	512	555
HCM Lane V/C Ratio	-	-	-	0.059	0.054
HCM Control Delay (s)	-	-	-	12.5	11.9
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.2

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	10	10	10	10	0	0	0	0	10	210	10
Future Vol, veh/h	0	10	10	10	10	0	0	0	0	10	210	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	15	15	15	15	0	0	0	0	15	315	15

Major/Minor	Minor2		Minor1				Major2			
Conflicting Flow All	-	353	165	195	360	-	-	0	0	0
Stage 1	-	353	-	0	0	-	-	-	-	-
Stage 2	-	0	-	195	360	-	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	-	2.21	-	-
Pot Cap-1 Maneuver	0	573	854	749	568	0	-	-	-	-
Stage 1	0	632	-	-	-	0	-	-	-	-
Stage 2	0	-	-	791	627	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	573	854	721	568	-	-	-	-	-
Mov Cap-2 Maneuver	-	573	-	721	568	-	-	-	-	-
Stage 1	-	632	-	-	-	-	-	-	-	-
Stage 2	-	-	-	759	627	-	-	-	-	-

Approach	EB		WB				SB		
HCM Control Delay, s	10.5		11						
HCM LOS	B		B						

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	686	635	-	-	-
HCM Lane V/C Ratio	0.044	0.047	-	-	-
HCM Control Delay (s)	10.5	11	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Future Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	0	0	15	15	15	510	15	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	293	555	-	-	548	263	0	0	0	
Stage 1	0	0	-	-	548	-	-	-	-	
Stage 2	293	555	-	-	0	-	-	-	-	
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-	
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-	
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-	
Pot Cap-1 Maneuver	639	441	0	0	445	739	-	-	-	
Stage 1	-	-	0	0	518	-	-	-	-	
Stage 2	694	514	0	0	-	-	-	-	-	
Platoon blocked, %								-	-	
Mov Cap-1 Maneuver	610	441	-	-	445	739	-	-	-	
Mov Cap-2 Maneuver	610	441	-	-	445	-	-	-	-	
Stage 1	-	-	-	-	518	-	-	-	-	
Stage 2	660	514	-	-	-	-	-	-	-	

Approach	EB		WB		NB	
HCM Control Delay, s	12.5		11.9			
HCM LOS	B		B			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	512	555
HCM Lane V/C Ratio	-	-	-	0.059	0.054
HCM Control Delay (s)	-	-	-	12.5	11.9
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.2

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	10	10	10	10	0	0	0	0	10	210	10
Future Vol, veh/h	0	10	10	10	10	0	0	0	0	10	210	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	15	15	15	15	0	0	0	0	15	315	15

Major/Minor	Minor2		Minor1			Major2			
Conflicting Flow All	-	353	165	195	360	-	0	0	0
Stage 1	-	353	-	0	0	-	-	-	-
Stage 2	-	0	-	195	360	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	2.21	-	-
Pot Cap-1 Maneuver	0	573	854	749	568	0	-	-	-
Stage 1	0	632	-	-	-	0	-	-	-
Stage 2	0	-	-	791	627	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	573	854	721	568	-	-	-	-
Mov Cap-2 Maneuver	-	573	-	721	568	-	-	-	-
Stage 1	-	632	-	-	-	-	-	-	-
Stage 2	-	-	-	759	627	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	10.5		11			
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	686	635	-	-	-
HCM Lane V/C Ratio	0.044	0.047	-	-	-
HCM Control Delay (s)	10.5	11	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	-

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	7	37	0	0	44	14	3	336	18	0	0	0
Future Vol, veh/h	7	37	0	0	44	14	3	336	18	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	11	56	0	0	66	21	5	504	27	0	0	0

Major/Minor	Minor2		Minor1		Major1					
Conflicting Flow All	295	541	-	-	528	266	0	0	0	
Stage 1	0	0	-	-	528	-	-	-	-	
Stage 2	295	541	-	-	0	-	-	-	-	
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-	
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-	
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-	
Pot Cap-1 Maneuver	637	449	0	0	456	735	-	-	-	
Stage 1	-	-	0	0	528	-	-	-	-	
Stage 2	692	521	0	0	-	-	-	-	-	
Platoon blocked, %								-	-	
Mov Cap-1 Maneuver	550	449	-	-	456	735	-	-	-	
Mov Cap-2 Maneuver	550	449	-	-	456	-	-	-	-	
Stage 1	-	-	-	-	528	-	-	-	-	
Stage 2	588	521	-	-	-	-	-	-	-	

Approach	EB		WB		NB	
HCM Control Delay, s	14.1		13.7			
HCM LOS	B		B			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WB Ln1
Capacity (veh/h)	-	-	-	463	502
HCM Lane V/C Ratio	-	-	-	0.143	0.173
HCM Control Delay (s)	-	-	-	14.1	13.7
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.5	0.6

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻						↻↻	
Traffic Vol, veh/h	0	35	15	9	38	0	0	0	0	5	222	11
Future Vol, veh/h	0	35	15	9	38	0	0	0	0	5	222	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	53	23	14	57	0	0	0	0	8	333	17

Major/Minor	Minor2			Minor1			Major2			
Conflicting Flow All	-	358	175	209	366	-	-	0	0	0
Stage 1	-	358	-	0	0	-	-	-	-	-
Stage 2	-	0	-	209	366	-	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	-	2.21	-	-
Pot Cap-1 Maneuver	0	569	841	733	563	0	-	-	-	-
Stage 1	0	629	-	-	-	0	-	-	-	-
Stage 2	0	-	-	776	624	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	569	841	663	563	-	-	-	-	-
Mov Cap-2 Maneuver	-	569	-	663	563	-	-	-	-	-
Stage 1	-	629	-	-	-	-	-	-	-	-
Stage 2	-	-	-	692	624	-	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	11.5		12.1			
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	630	580	-	-	-
HCM Lane V/C Ratio	0.119	0.122	-	-	-
HCM Control Delay (s)	11.5	12.1	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	0.4	0.4	-	-	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Future Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	0	0	15	15	15	510	15	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	293	555	-	-	548	263	0	0	0		
Stage 1	0	0	-	-	548	-	-	-	-		
Stage 2	293	555	-	-	0	-	-	-	-		
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-		
Pot Cap-1 Maneuver	639	441	0	0	445	739	-	-	-		
Stage 1	-	-	0	0	518	-	-	-	-		
Stage 2	694	514	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	610	441	-	-	445	739	-	-	-		
Mov Cap-2 Maneuver	610	441	-	-	445	-	-	-	-		
Stage 1	-	-	-	-	518	-	-	-	-		
Stage 2	660	514	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Control Delay, s	12.5		11.9				
HCM LOS	B		B				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	512	555
HCM Lane V/C Ratio	-	-	-	0.059	0.054
HCM Control Delay (s)	-	-	-	12.5	11.9
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.2



Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	10	10	10	10	0	0	0	0	10	230	10
Future Vol, veh/h	0	10	10	10	10	0	0	0	0	10	230	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	15	15	15	15	0	0	0	0	15	345	15

Major/Minor	Minor2		Minor1			Major2			
Conflicting Flow All	-	383	180	210	390	-	0	0	0
Stage 1	-	383	-	0	0	-	-	-	-
Stage 2	-	0	-	210	390	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	2.21	-	-
Pot Cap-1 Maneuver	0	551	835	731	546	0	-	-	-
Stage 1	0	613	-	-	-	0	-	-	-
Stage 2	0	-	-	775	609	0	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	-	551	835	703	546	-	-	-	-
Mov Cap-2 Maneuver	-	551	-	703	546	-	-	-	-
Stage 1	-	613	-	-	-	-	-	-	-
Stage 2	-	-	-	742	609	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	10.7		11.2			
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	664	615	-	-	-
HCM Lane V/C Ratio	0.045	0.049	-	-	-
HCM Control Delay (s)	10.7	11.2	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0.2	-	-	-

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Future Vol, veh/h	10	10	0	0	10	10	10	340	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	0	0	15	15	15	510	15	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	293	555	-	-	548	263	0	0	0		
Stage 1	0	0	-	-	548	-	-	-	-		
Stage 2	293	555	-	-	0	-	-	-	-		
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-		
Pot Cap-1 Maneuver	639	441	0	0	445	739	-	-	-		
Stage 1	-	-	0	0	518	-	-	-	-		
Stage 2	694	514	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	610	441	-	-	445	739	-	-	-		
Mov Cap-2 Maneuver	610	441	-	-	445	-	-	-	-		
Stage 1	-	-	-	-	518	-	-	-	-		
Stage 2	660	514	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Control Delay, s	12.5		11.9				
HCM LOS	B		B				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	512	555
HCM Lane V/C Ratio	-	-	-	0.059	0.054
HCM Control Delay (s)	-	-	-	12.5	11.9
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.2

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	10	10	10	10	0	0	0	0	10	240	10
Future Vol, veh/h	0	10	10	10	10	0	0	0	0	10	240	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	15	15	15	15	0	0	0	0	15	360	15

Major/Minor	Minor2		Minor1			Major2				
Conflicting Flow All	-	398	188	218	405	-	-	0	0	0
Stage 1	-	398	-	0	0	-	-	-	-	-
Stage 2	-	0	-	218	405	-	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	-	2.21	-	-
Pot Cap-1 Maneuver	0	541	825	722	536	0	-	-	-	-
Stage 1	0	604	-	-	-	0	-	-	-	-
Stage 2	0	-	-	767	599	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	541	825	694	536	-	-	-	-	-
Mov Cap-2 Maneuver	-	541	-	694	536	-	-	-	-	-
Stage 1	-	604	-	-	-	-	-	-	-	-
Stage 2	-	-	-	734	599	-	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	10.8		11.3			
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	653	605	-	-	-
HCM Lane V/C Ratio	0.046	0.05	-	-	-
HCM Control Delay (s)	10.8	11.3	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0.2	-	-	-

HCM 6th Signalized Intersection Summary  
 33: 5th Street & Grand Ave

Forecast Year 2045  
 (Existing Volumes x 1.5)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	411	0	0	530	30	99	273	69	0	0	0
Future Volume (veh/h)	56	411	0	0	530	30	99	273	69	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1885	1885	0	0	1885	1885	1885	1885	1885			
Adj Flow Rate, veh/h	84	616	0	0	795	45	148	410	104			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	1	1	0	0	1	1	1	1	1			
Cap, veh/h	311	1791	0	0	1430	81	718	1433	639			
Arrive On Green	0.05	0.50	0.00	0.00	0.41	0.41	0.13	0.13	0.13			
Sat Flow, veh/h	1795	3676	0	0	3540	195	1795	3582	1598			
Grp Volume(v), veh/h	84	616	0	0	413	427	148	410	104			
Grp Sat Flow(s),veh/h/ln	1795	1791	0	0	1791	1850	1795	1791	1598			
Q Serve(g_s), s	2.6	10.4	0.0	0.0	17.5	17.6	7.4	10.3	5.8			
Cycle Q Clear(g_c), s	2.6	10.4	0.0	0.0	17.5	17.6	7.4	10.3	5.8			
Prop In Lane	1.00		0.00	0.00		0.11	1.00		1.00			
Lane Grp Cap(c), veh/h	311	1791	0	0	743	768	718	1433	639			
V/C Ratio(X)	0.27	0.34	0.00	0.00	0.56	0.56	0.21	0.29	0.16			
Avail Cap(c_a), veh/h	418	1791	0	0	743	768	718	1433	639			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.91	0.91	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	16.4	15.1	0.0	0.0	22.3	22.3	29.2	30.5	28.5			
Incr Delay (d2), s/veh	0.6	0.5	0.0	0.0	3.0	2.9	0.6	0.5	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	4.2	0.0	0.0	7.8	8.0	3.4	4.9	2.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	15.6	0.0	0.0	25.2	25.2	29.9	31.0	29.1			
LnGrp LOS	B	B	A	A	C	C	C	C	C			
Approach Vol, veh/h		700			840			662				
Approach Delay, s/veh		15.7			25.2			30.5				
Approach LOS		B			C			C				
Timer - Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			8.5	46.5		45.0		55.0				
Change Period (Y+Rc), s			4.0	5.0		5.0		5.0				
Max Green Setting (Gmax), s			10.5	35.5		40.0		50.0				
Max Q Clear Time (g_c+I1), s			4.6	19.6		12.3		12.4				
Green Ext Time (p_c), s			0.1	4.9		3.5		4.8				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			23.8									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary  
 34: 4th Street & Grand Ave

Forecast Year 2045  
 (Existing Volumes x 1.5)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘	↑↑						↔	
Traffic Volume (veh/h)	0	429	51	50	583	0	0	0	0	28	189	53
Future Volume (veh/h)	0	429	51	50	583	0	0	0	0	28	189	53
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1885	1885	1885
Adj Flow Rate, veh/h	0	644	76	75	874	0				42	284	80
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	1	1	1	1	0				1	1	1
Cap, veh/h	0	1397	623	498	2077	0				116	805	237
Arrive On Green	0.00	0.39	0.39	0.14	0.58	0.00				0.32	0.32	0.32
Sat Flow, veh/h	0	3676	1598	1795	3676	0				362	2516	741
Grp Volume(v), veh/h	0	644	76	75	874	0				217	0	189
Grp Sat Flow(s),veh/h/ln	0	1791	1598	1795	1791	0				1867	0	1752
Q Serve(g_s), s	0.0	13.4	3.0	0.0	13.6	0.0				8.9	0.0	8.2
Cycle Q Clear(g_c), s	0.0	13.4	3.0	0.0	13.6	0.0				8.9	0.0	8.2
Prop In Lane	0.00		1.00	1.00		0.00				0.19		0.42
Lane Grp Cap(c), veh/h	0	1397	623	498	2077	0				597	0	561
V/C Ratio(X)	0.00	0.46	0.12	0.15	0.42	0.00				0.36	0.00	0.34
Avail Cap(c_a), veh/h	0	1397	623	516	2077	0				597	0	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.7	19.5	21.7	11.7	0.0				26.2	0.0	25.9
Incr Delay (d2), s/veh	0.0	1.1	0.4	0.1	0.6	0.0				1.7	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.7	1.2	1.2	5.2	0.0				4.2	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.8	19.9	21.8	12.3	0.0				27.9	0.0	27.5
LnGrp LOS		A	C	B	C	B	A			C	A	C
Approach Vol, veh/h		720			949					406		
Approach Delay, s/veh		23.4			13.0					27.7		
Approach LOS		C			B					C		
Timer - Assigned Phs		2		4		7		8				
Phs Duration (G+Y+Rc), s		37.0		63.0		19.0		44.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		* 5				
Max Green Setting (Gmax), s		32.0		58.0		15.0		* 39				
Max Q Clear Time (g_c+I1), s		10.9		15.6		2.0		15.4				
Green Ext Time (p_c), s		2.4		11.0		0.1		4.9				

Intersection Summary

HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	25	14	0	0	15	33	37	380	1	0	0	0
Future Vol, veh/h	25	14	0	0	15	33	37	380	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	38	21	0	0	23	50	56	570	2	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	409	684	-	-	683	286	0	0	0		
Stage 1	0	0	-	-	683	-	-	-	-		
Stage 2	409	684	-	-	0	-	-	-	-		
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-		
Pot Cap-1 Maneuver	529	372	0	0	372	714	-	-	-		
Stage 1	-	-	0	0	450	-	-	-	-		
Stage 2	593	449	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	470	372	-	-	372	714	-	-	-		
Mov Cap-2 Maneuver	470	372	-	-	372	-	-	-	-		
Stage 1	-	-	-	-	450	-	-	-	-		
Stage 2	524	449	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Control Delay, s	14.7		12.5				
HCM LOS	B		B				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	429	555
HCM Lane V/C Ratio	-	-	-	0.136	0.13
HCM Control Delay (s)	-	-	-	14.7	12.5
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.5	0.4

HCM 6th Signalized Intersection Summary  
 38: 4th Street & White Ave

Forecast Year 2045  
 (Existing Volumes x 1.5)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	11	18	30	29	0	0	0	0	17	259	18
Future Volume (veh/h)	0	11	18	30	29	0	0	0	0	17	259	18
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1885	1885	1885
Adj Flow Rate, veh/h	0	16	27	45	44	0				26	388	27
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	1	1	1	1	0				1	1	1
Cap, veh/h	0	189	319	279	257	0				126	1961	143
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.60	0.60	0.60
Sat Flow, veh/h	0	630	1064	750	856	0				210	3269	238
Grp Volume(v), veh/h	0	0	43	89	0	0				232	0	209
Grp Sat Flow(s),veh/h/ln	0	0	1694	1606	0	0				1875	0	1842
Q Serve(g_s), s	0.0	0.0	1.8	1.8	0.0	0.0				5.7	0.0	5.1
Cycle Q Clear(g_c), s	0.0	0.0	1.8	3.8	0.0	0.0				5.7	0.0	5.1
Prop In Lane	0.00		0.63	0.51		0.00				0.11		0.13
Lane Grp Cap(c), veh/h	0	0	508	536	0	0				1125	0	1105
V/C Ratio(X)	0.00	0.00	0.08	0.17	0.00	0.00				0.21	0.00	0.19
Avail Cap(c_a), veh/h	0	0	508	536	0	0				1125	0	1105
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	25.1	25.8	0.0	0.0				9.1	0.0	9.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.7	0.0	0.0				0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.8	1.6	0.0	0.0				2.3	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	25.5	26.4	0.0	0.0				9.5	0.0	9.4
LnGrp LOS	A	A	C	C	A	A				A	A	A
Approach Vol, veh/h		43			89							441
Approach Delay, s/veh		25.5			26.4							9.5
Approach LOS		C			C							A
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		65.0		35.0				35.0				
Change Period (Y+Rc), s		5.0		5.0				5.0				
Max Green Setting (Gmax), s		60.0		30.0				30.0				
Max Q Clear Time (g_c+I1), s		7.7		5.8				3.8				
Green Ext Time (p_c), s		2.9		0.4				0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			13.3									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary  
 41: 5th Street & Rood Ave

Forecast Year 2045  
 (Existing Volumes x 1.5)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	43	0	0	32	30	30	361	12	0	0	0
Future Volume (veh/h)	33	43	0	0	32	30	30	361	12	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1885	1885	0	0	1885	1885	1885	1885	1885			
Adj Flow Rate, veh/h	50	64	0	0	48	45	45	542	18			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	1	1	0	0	1	1	1	1	1			
Cap, veh/h	414	566	0	0	269	252	159	2012	70			
Arrive On Green	0.30	0.30	0.00	0.00	0.30	0.30	0.20	0.20	0.20			
Sat Flow, veh/h	1313	1885	0	0	895	839	265	3354	117			
Grp Volume(v), veh/h	50	64	0	0	0	93	317	0	288			
Grp Sat Flow(s),veh/h/ln	1313	1885	0	0	0	1734	1872	0	1864			
Q Serve(g_s), s	2.9	2.5	0.0	0.0	0.0	4.0	14.4	0.0	13.0			
Cycle Q Clear(g_c), s	6.9	2.5	0.0	0.0	0.0	4.0	14.4	0.0	13.0			
Prop In Lane	1.00		0.00	0.00		0.48	0.14		0.06			
Lane Grp Cap(c), veh/h	414	566	0	0	0	520	1123	0	1119			
V/C Ratio(X)	0.12	0.11	0.00	0.00	0.00	0.18	0.28	0.00	0.26			
Avail Cap(c_a), veh/h	414	566	0	0	0	520	1123	0	1119			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	28.4	25.4	0.0	0.0	0.0	25.9	21.8	0.0	21.3			
Incr Delay (d2), s/veh	0.6	0.4	0.0	0.0	0.0	0.8	0.6	0.0	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0	1.2	0.0	0.0	0.0	1.7	7.3	0.0	6.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	25.8	0.0	0.0	0.0	26.6	22.4	0.0	21.8			
LnGrp LOS	C	C	A	A	A	C	C	A	C			
Approach Vol, veh/h		114			93			605				
Approach Delay, s/veh		27.2			26.6			22.2				
Approach LOS		C			C			C				
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				35.0		65.0		35.0				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+1), s				6.0		16.4		8.9				
Green Ext Time (p_c), s				0.4		3.9		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			23.4									
HCM 6th LOS			C									



HCM 6th Signalized Intersection Summary  
42: 4th Street & Rood Ave

Forecast Year 2045  
(Existing Volumes x 1.5)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔						↕↕	
Traffic Volume (veh/h)	0	35	27	23	54	0	0	0	0	32	233	57
Future Volume (veh/h)	0	35	27	23	54	0	0	0	0	32	233	57
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1885	1885	1885
Adj Flow Rate, veh/h	0	52	40	34	81	0				48	350	86
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	1	1	1	1	0				1	1	1
Cap, veh/h	0	296	228	415	566	0				208	1567	404
Arrive On Green	0.00	0.30	0.30	0.10	0.10	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	988	760	1315	1885	0				347	2612	673
Grp Volume(v), veh/h	0	0	92	34	81	0				259	0	225
Grp Sat Flow(s),veh/h/ln	0	0	1748	1315	1885	0				1868	0	1764
Q Serve(g_s), s	0.0	0.0	3.9	2.4	3.9	0.0				11.6	0.0	10.7
Cycle Q Clear(g_c), s	0.0	0.0	3.9	6.3	3.9	0.0				11.6	0.0	10.7
Prop In Lane	0.00		0.43	1.00		0.00				0.19		0.38
Lane Grp Cap(c), veh/h	0	0	525	415	566	0				1121	0	1058
V/C Ratio(X)	0.00	0.00	0.18	0.08	0.14	0.00				0.23	0.00	0.21
Avail Cap(c_a), veh/h	0	0	525	415	566	0				1121	0	1058
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	25.9	36.2	33.3	0.0				20.7	0.0	20.3
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.4	0.5	0.0				0.5	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.7	0.8	1.9	0.0				5.9	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	26.6	36.5	33.8	0.0				21.2	0.0	20.8
LnGrp LOS	A	A	C	D	C	A				C	A	C
Approach Vol, veh/h		92			115						484	
Approach Delay, s/veh		26.6			34.6						21.0	
Approach LOS		C			C						C	
Timer - Assigned Phs		2		4					8			
Phs Duration (G+Y+Rc), s		65.0		35.0					35.0			
Change Period (Y+Rc), s		5.0		5.0					5.0			
Max Green Setting (Gmax), s		60.0		30.0					30.0			
Max Q Clear Time (g_c+1), s		13.6		8.3					5.9			
Green Ext Time (p_c), s		3.3		0.4					0.4			
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				24.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
45: 5th Street & Main St

Forecast Year 2045  
(Existing Volumes x 1.5)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Volume (veh/h)	28	98	0	0	63	20	19	348	20	0	0	0
Future Volume (veh/h)	28	98	0	0	63	20	19	348	20	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1885	1885	0	0	1885	1885	1885	1885	1885			
Adj Flow Rate, veh/h	42	147	0	0	94	30	28	522	30			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	1	1	0	0	1	1	1	1	1			
Cap, veh/h	132	436	0	0	411	131	103	2011	121			
Arrive On Green	0.60	0.60	0.00	0.00	0.30	0.30	0.20	0.20	0.20			
Sat Flow, veh/h	292	1453	0	0	1369	437	172	3351	202			
Grp Volume(v), veh/h	189	0	0	0	0	124	305	0	275			
Grp Sat Flow(s),veh/h/ln	1746	0	0	0	0	1807	1877	0	1849			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	5.2	13.8	0.0	12.5			
Cycle Q Clear(g_c), s	5.0	0.0	0.0	0.0	0.0	5.2	13.8	0.0	12.5			
Prop In Lane	0.22		0.00	0.00		0.24	0.09		0.11			
Lane Grp Cap(c), veh/h	568	0	0	0	0	542	1126	0	1109			
V/C Ratio(X)	0.33	0.00	0.00	0.00	0.00	0.23	0.27	0.00	0.25			
Avail Cap(c_a), veh/h	568	0	0	0	0	542	1126	0	1109			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	15.0	0.0	0.0	0.0	0.0	26.3	21.6	0.0	21.1			
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.0	0.0	1.0	0.6	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.0	0.0	2.3	7.0	0.0	6.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	0.0	0.0	0.0	27.3	22.2	0.0	21.6			
LnGrp LOS	B	A	A	A	A	C	C	A	C			
Approach Vol, veh/h		189			124			580				
Approach Delay, s/veh		16.6			27.3			21.9				
Approach LOS		B			C			C				
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				35.0		65.0		35.0				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+1), s				7.2		15.8		7.0				
Green Ext Time (p_c), s				0.6		3.8		1.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				21.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary  
46: 4th Street & Main St

Forecast Year 2045  
(Existing Volumes x 1.5)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↕↕	
Traffic Volume (veh/h)	0	90	21	17	66	0	0	0	0	34	209	33
Future Volume (veh/h)	0	90	21	17	66	0	0	0	0	34	209	33
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1885	1885	1885
Adj Flow Rate, veh/h	0	135	32	26	99	0				51	314	50
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %	0	1	1	1	1	0				1	1	1
Cap, veh/h	0	641	152	170	625	0				206	1317	219
Arrive On Green	0.00	0.44	0.44	0.87	0.87	0.00				0.16	0.16	0.16
Sat Flow, veh/h	0	1473	349	291	1438	0				433	2772	461
Grp Volume(v), veh/h	0	0	167	125	0	0				220	0	195
Grp Sat Flow(s),veh/h/ln	0	0	1822	1729	0	0				1864	0	1802
Q Serve(g_s), s	0.0	0.0	5.7	0.0	0.0	0.0				10.3	0.0	9.5
Cycle Q Clear(g_c), s	0.0	0.0	5.7	1.0	0.0	0.0				10.3	0.0	9.5
Prop In Lane	0.00		0.19	0.21		0.00				0.23		0.26
Lane Grp Cap(c), veh/h	0	0	793	796	0	0				885	0	856
V/C Ratio(X)	0.00	0.00	0.21	0.16	0.00	0.00				0.25	0.00	0.23
Avail Cap(c_a), veh/h	0	0	793	796	0	0				885	0	856
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	17.6	3.7	0.0	0.0				26.5	0.0	26.1
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.4	0.0	0.0				0.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.5	0.5	0.0	0.0				5.3	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	18.2	4.2	0.0	0.0				27.2	0.0	26.8
LnGrp LOS	A	A	B	A	A	A				C	A	C
Approach Vol, veh/h		167			125						415	
Approach Delay, s/veh		18.2			4.2						27.0	
Approach LOS		B			A						C	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		52.0		48.0				48.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		47.5		43.5				43.5				
Max Q Clear Time (g_c+1), s		12.3		3.0				7.7				
Green Ext Time (p_c), s		2.7		0.7				1.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											20.9	
HCM 6th LOS											C	

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔				
Traffic Vol, veh/h	33	38	0	0	43	15	12	328	13	0	0	0
Future Vol, veh/h	33	38	0	0	43	15	12	328	13	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	50	57	0	0	65	23	18	492	20	0	0	0

Major/Minor	Minor2		Minor1		Major1						
Conflicting Flow All	315	548	-	-	538	256	0	0	0		
Stage 1	0	0	-	-	538	-	-	-	-		
Stage 2	315	548	-	-	0	-	-	-	-		
Critical Hdwy	7.52	6.52	-	-	6.52	6.92	4.12	-	-		
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-		
Critical Hdwy Stg 2	6.52	5.52	-	-	-	-	-	-	-		
Follow-up Hdwy	3.51	4.01	-	-	4.01	3.31	2.21	-	-		
Pot Cap-1 Maneuver	617	445	0	0	450	746	-	-	-		
Stage 1	-	-	0	0	523	-	-	-	-		
Stage 2	673	518	0	0	-	-	-	-	-		
Platoon blocked, %								-	-		
Mov Cap-1 Maneuver	532	445	-	-	450	746	-	-	-		
Mov Cap-2 Maneuver	532	445	-	-	450	-	-	-	-		
Stage 1	-	-	-	-	523	-	-	-	-		
Stage 2	572	518	-	-	-	-	-	-	-		

Approach	EB		WB		NB		
HCM Control Delay, s	14.6		13.7				
HCM LOS	B		B				

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	482	501
HCM Lane V/C Ratio	-	-	-	0.221	0.174
HCM Control Delay (s)	-	-	-	14.6	13.7
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.8	0.6

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	42	8	10	42	0	0	0	0	25	204	14
Future Vol, veh/h	0	42	8	10	42	0	0	0	0	25	204	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	63	12	15	63	0	0	0	0	38	306	21

Major/Minor	Minor2		Minor1			Major2				
Conflicting Flow All	-	393	164	261	403	-	-	0	0	0
Stage 1	-	393	-	0	0	-	-	-	-	-
Stage 2	-	0	-	261	403	-	-	-	-	-
Critical Hdwy	-	6.52	6.92	7.52	6.52	-	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.52	-	-	-	-	-
Follow-up Hdwy	-	4.01	3.31	3.51	4.01	-	-	2.21	-	-
Pot Cap-1 Maneuver	0	544	855	673	537	0	-	-	-	-
Stage 1	0	607	-	-	-	0	-	-	-	-
Stage 2	0	-	-	724	601	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	544	855	604	537	-	-	-	-	-
Mov Cap-2 Maneuver	-	544	-	604	537	-	-	-	-	-
Stage 1	-	607	-	-	-	-	-	-	-	-
Stage 2	-	-	-	640	601	-	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	12.2		12.6			
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	578	549	-	-	-
HCM Lane V/C Ratio	0.13	0.142	-	-	-
HCM Control Delay (s)	12.2	12.6	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	0.4	0.5	-	-	-

HCM 6th Signalized Intersection Summary  
 53: 5th Street & Ute Ave

Forecast Year 2045  
 (Existing Volumes x 1.5)

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	415	492	50	177	286	0	0	0	0
Future Volume (veh/h)	0	0	0	415	492	50	177	286	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				1885	1885	1885	1885	1885	0			
Adj Flow Rate, veh/h				453	974	75	266	429	0			
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %				1	1	1	1	1	0			
Cap, veh/h				1059	2074	879	700	1254	0			
Arrive On Green				0.55	0.55	0.55	0.70	0.70	0.00			
Sat Flow, veh/h				1795	3770	1598	1795	3676	0			
Grp Volume(v), veh/h				453	974	75	266	429	0			
Grp Sat Flow(s),veh/h/ln				1795	1885	1598	1795	1791	0			
Q Serve(g_s), s				15.2	15.7	2.2	6.3	4.7	0.0			
Cycle Q Clear(g_c), s				15.2	15.7	2.2	6.3	4.7	0.0			
Prop In Lane				1.00		1.00	1.00		0.00			
Lane Grp Cap(c), veh/h				1059	2074	879	700	1254	0			
V/C Ratio(X)				0.43	0.47	0.09	0.38	0.34	0.00			
Avail Cap(c_a), veh/h				1059	2074	879	700	1254	0			
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00			
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				13.5	13.7	10.6	10.7	10.5	0.0			
Incr Delay (d2), s/veh				1.3	0.8	0.2	1.6	0.7	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				6.2	6.5	0.8	2.3	1.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.8	14.4	10.8	12.3	11.2	0.0			
LnGrp LOS				B	B	B	B	B	A			
Approach Vol, veh/h					1502			695				
Approach Delay, s/veh					14.4			11.6				
Approach LOS					B			B				
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				60.0		40.0						
Change Period (Y+Rc), s				5.0		5.0						
Max Green Setting (Gmax), s				55.0		35.0						
Max Q Clear Time (g_c+I1), s				17.7		8.3						
Green Ext Time (p_c), s				11.2		3.6						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				13.5								
HCM 6th LOS				B								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary  
54: 4th Street & Ute Ave

Forecast Year 2045  
(Existing Volumes x 1.5)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔						↔↔	
Traffic Volume (veh/h)	0	0	0	21	652	0	0	0	0	0	189	28
Future Volume (veh/h)	0	0	0	21	652	0	0	0	0	0	189	28
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1885	1885	0				0	1885	1885
Adj Flow Rate, veh/h				32	978	0				0	284	42
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				1	1	0				0	1	1
Cap, veh/h				71	1714	0				0	1207	177
Arrive On Green				0.17	0.17	0.00				0.00	0.13	0.13
Sat Flow, veh/h				65	3514	0				0	3229	459
Grp Volume(v), veh/h				540	470	0				0	161	165
Grp Sat Flow(s),veh/h/ln				1864	1630	0				0	1791	1803
Q Serve(g_s), s				6.3	26.6	0.0				0.0	8.1	8.2
Cycle Q Clear(g_c), s				26.5	26.6	0.0				0.0	8.1	8.2
Prop In Lane				0.06		0.00				0.00		0.25
Lane Grp Cap(c), veh/h				970	815	0				0	690	694
V/C Ratio(X)				0.56	0.58	0.00				0.00	0.23	0.24
Avail Cap(c_a), veh/h				970	815	0				0	690	694
HCM Platoon Ratio				0.33	0.33	1.00				1.00	0.33	0.33
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				31.9	32.0	0.0				0.0	30.4	30.4
Incr Delay (d2), s/veh				2.3	3.0	0.0				0.0	0.8	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				13.9	12.2	0.0				0.0	3.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.2	35.0	0.0				0.0	31.2	31.3
LnGrp LOS				C	C	A				A	C	C
Approach Vol, veh/h					1010						326	
Approach Delay, s/veh					34.6						31.2	
Approach LOS					C						C	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		44.0		56.0								
Change Period (Y+Rc), s		5.5		6.0								
Max Green Setting (Gmax), s		38.5		50.0								
Max Q Clear Time (g_c+I1), s		10.2		28.6								
Green Ext Time (p_c), s		2.0		6.9								
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay											33.7	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary  
57: 5th Street & Pitkin Ave

Forecast Year 2045  
(Existing Volumes x 1.5)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔	↔					↔↔		↔	↔↔	
Traffic Volume (veh/h)	23	606	472	0	0	0	0	416	105	5	411	0
Future Volume (veh/h)	23	606	472	0	0	0	0	416	105	5	411	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	34	1085	590				0	624	158	8	616	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1				0	1	1	1	1	0
Cap, veh/h	51	1700	743				0	1104	279	18	1594	0
Arrive On Green	0.15	0.15	0.15				0.00	0.39	0.39	0.01	0.44	0.00
Sat Flow, veh/h	109	3656	1598				0	2926	716	1795	3676	0
Grp Volume(v), veh/h	586	533	590				0	394	388	8	616	0
Grp Sat Flow(s),veh/h/ln	1880	1885	1598				0	1791	1756	1795	1791	0
Q Serve(g_s), s	29.4	26.4	35.6				0.0	17.2	17.3	0.4	11.5	0.0
Cycle Q Clear(g_c), s	29.4	26.4	35.6				0.0	17.2	17.3	0.4	11.5	0.0
Prop In Lane	0.06		1.00				0.00		0.41	1.00		0.00
Lane Grp Cap(c), veh/h	874	877	743				0	699	685	18	1594	0
V/C Ratio(X)	0.67	0.61	0.79				0.00	0.56	0.57	0.45	0.39	0.00
Avail Cap(c_a), veh/h	874	877	743				0	699	685	95	1594	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84				0.00	1.00	1.00	0.86	0.86	0.00
Uniform Delay (d), s/veh	35.1	33.8	37.7				0.0	23.9	23.9	49.2	18.6	0.0
Incr Delay (d2), s/veh	3.4	2.6	7.3				0.0	3.3	3.4	14.3	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.6	13.9	16.7				0.0	7.6	7.5	0.3	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	36.5	45.0				0.0	27.1	27.2	63.5	19.2	0.0
LnGrp LOS	D	D	D				A	C	C	E	B	A
Approach Vol, veh/h		1709						782			624	
Approach Delay, s/veh		40.1						27.2			19.8	
Approach LOS		D						C			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		49.0			5.5	43.5		51.0				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		44.5			5.3	34.7		46.5				
Max Q Clear Time (g_c+1), s		13.5			2.4	19.3		37.6				
Green Ext Time (p_c), s		4.4			0.0	4.3		5.9				

Intersection Summary

HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.



HCM 6th Signalized Intersection Summary  
58: 4th Street & Pitkin Ave

Forecast Year 2045  
(Existing Volumes x 1.5)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑		↑	↑	
Traffic Volume (veh/h)	0	861	1	0	0	0	0	0	16	213	6	0
Future Volume (veh/h)	0	861	1	0	0	0	0	0	16	213	6	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No		No			
Adj Sat Flow, veh/h/ln	0	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	0	1292	2				0	0	24	326	0	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	1	1				0	1	1	1	1	0
Cap, veh/h	0	0	0				0	0	1438	2800	1697	0
Arrive On Green	0.00	0.00	0.00				0.00	0.00	0.90	0.90	0.00	0.00
Sat Flow, veh/h		0					0	0	1598	2796	1885	0
Grp Volume(v), veh/h		0.0					0	0	24	326	0	0
Grp Sat Flow(s),veh/h/ln							0	0	1598	1398	1885	0
Q Serve(g_s), s							0.0	0.0	0.1	0.7	0.0	0.0
Cycle Q Clear(g_c), s							0.0	0.0	0.1	0.7	0.0	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	0	1438	2800	1697	0
V/C Ratio(X)							0.00	0.00	0.02	0.12	0.00	0.00
Avail Cap(c_a), veh/h							0	0	1438	2800	1697	0
HCM Platoon Ratio							1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)							0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh							0.0	0.0	0.3	0.3	0.0	0.0
Incr Delay (d2), s/veh							0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	0.0	0.3	0.4	0.0	0.0
LnGrp LOS							A	A	A	A	A	A
Approach Vol, veh/h								24		326		
Approach Delay, s/veh								0.3		0.4		
Approach LOS								A		A		
Timer - Assigned Phs		2						6				
Phs Duration (G+Y+Rc), s		50.0						50.0				
Change Period (Y+Rc), s		5.0						5.0				
Max Green Setting (Gmax), s		45.0						45.0				
Max Q Clear Time (g_c+I1), s		2.7						2.1				
Green Ext Time (p_c), s		1.2						0.1				

Intersection Summary

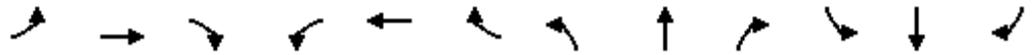
HCM 6th Ctrl Delay	0.4
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
5: 5th Street & North Ave

2045 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	967	42	73	942	26	34	43	136	39	48	29
Future Volume (veh/h)	20	967	42	73	942	26	34	43	136	39	48	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	30	1450	63	110	1413	39	51	82	204	58	91	44
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	242	1937	84	255	2052	57	293	288	244	282	292	248
Arrive On Green	0.03	0.55	0.55	0.05	0.58	0.58	0.04	0.15	0.15	0.04	0.16	0.16
Sat Flow, veh/h	1795	3497	152	1795	3560	98	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	30	741	772	110	710	742	51	82	204	58	91	44
Grp Sat Flow(s),veh/h/ln	1795	1791	1858	1795	1791	1868	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	0.6	28.4	28.7	2.3	25.1	25.2	2.1	3.5	11.2	2.4	3.9	2.2
Cycle Q Clear(g_c), s	0.6	28.4	28.7	2.3	25.1	25.2	2.1	3.5	11.2	2.4	3.9	2.2
Prop In Lane	1.00		0.08	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	992	1029	255	1032	1076	293	288	244	282	292	248
V/C Ratio(X)	0.12	0.75	0.75	0.43	0.69	0.69	0.17	0.29	0.84	0.21	0.31	0.18
Avail Cap(c_a), veh/h	309	992	1029	301	1032	1076	333	405	343	317	405	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	15.3	15.4	14.1	13.4	13.4	30.4	33.9	37.2	30.3	33.9	33.1
Incr Delay (d2), s/veh	0.2	5.1	5.0	1.1	3.7	3.6	0.3	0.5	11.9	0.4	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	11.9	12.4	0.9	10.2	10.6	0.9	1.6	5.1	1.1	1.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	20.5	20.4	15.3	17.2	17.1	30.7	34.4	49.0	30.7	34.5	33.5
LnGrp LOS	B	C	C	B	B	B	C	C	D	C	C	C
Approach Vol, veh/h		1543			1562			337				193
Approach Delay, s/veh		20.3			17.0			42.7				33.1
Approach LOS		C			B			D				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	19.0	6.6	57.0	7.8	18.8	8.7	55.0				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	5.6	19.4	6.0	51.0	5.6	19.4	7.0	50.0				
Max Q Clear Time (g_c+I1), s	4.1	5.9	2.6	27.2	4.4	13.2	4.3	30.7				
Green Ext Time (p_c), s	0.0	0.4	0.0	11.7	0.0	0.6	0.1	11.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				21.6								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	276.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	15	933	28	48	943	14	20	29	91	5	3	15
Future Vol, veh/h	15	933	28	48	943	14	20	29	91	5	3	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	23	1400	42	72	1415	21	30	55	137	8	6	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1436	0	0	1442	0	0	2322	3047	721	2344	3058	718
Stage 1	-	-	-	-	-	-	1467	1467	-	1570	1570	-
Stage 2	-	-	-	-	-	-	855	1580	-	774	1488	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	474	-	-	471	-	-	~ 20	~ 13	372	20	12	374
Stage 1	-	-	-	-	-	-	135	192	-	117	171	-
Stage 2	-	-	-	-	-	-	321	169	-	360	188	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	474	-	-	471	-	-	~ 9	~ 10	372	-	10	374
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 9	~ 10	-	-	10	-
Stage 1	-	-	-	-	-	-	128	183	-	111	145	-
Stage 2	-	-	-	-	-	-	246	143	-	152	179	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.7	\$ 4021.2	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	24	474	-	-	471	-	-	-
HCM Lane V/C Ratio	9.233	0.047	-	-	0.153	-	-	-
HCM Control Delay (s)	\$ 4021.2	13	-	-	14	-	-	-
HCM Lane LOS	F	B	-	-	B	-	-	-
HCM 95th %tile Q(veh)	27.7	0.1	-	-	0.5	-	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	8	41	10	11	10	197	10	10	91	49
Future Vol, veh/h	10	10	8	41	10	11	10	197	10	10	91	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	12	62	15	17	15	374	15	15	173	74

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	668	659	210	666	689	382	247	0	0	389	0	0
Stage 1	240	240	-	412	412	-	-	-	-	-	-	-
Stage 2	428	419	-	254	277	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	373	385	833	374	370	667	1325	-	-	1175	-	-
Stage 1	766	709	-	619	596	-	-	-	-	-	-	-
Stage 2	607	592	-	753	683	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	345	374	833	350	359	667	1325	-	-	1175	-	-
Mov Cap-2 Maneuver	345	374	-	350	359	-	-	-	-	-	-	-
Stage 1	755	698	-	610	588	-	-	-	-	-	-	-
Stage 2	569	584	-	715	673	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.3	17.3	0.3	0.5
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1325	-	-	429	384	1175	-
HCM Lane V/C Ratio	0.011	-	-	0.098	0.242	0.013	-
HCM Control Delay (s)	7.7	0	-	14.3	17.3	8.1	0
HCM Lane LOS	A	A	-	B	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	0.9	0	-

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	5	28	10	7	10	132	10	10	60	33
Future Vol, veh/h	10	10	5	28	10	7	10	132	10	10	60	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	8	42	15	11	15	251	15	15	114	50

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	471	465	139	470	483	259	164	0	0	266	0	0
Stage 1	169	169	-	289	289	-	-	-	-	-	-	-
Stage 2	302	296	-	181	194	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	505	496	912	505	485	782	1421	-	-	1304	-	-
Stage 1	835	761	-	721	675	-	-	-	-	-	-	-
Stage 2	709	670	-	823	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	477	484	912	480	473	782	1421	-	-	1304	-	-
Mov Cap-2 Maneuver	477	484	-	480	473	-	-	-	-	-	-	-
Stage 1	825	751	-	712	667	-	-	-	-	-	-	-
Stage 2	676	662	-	790	732	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	13.2	0.4	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1421	-	-	531	509	1304	-
HCM Lane V/C Ratio	0.011	-	-	0.071	0.133	0.012	-
HCM Control Delay (s)	7.6	0	-	12.3	13.2	7.8	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0.5	0	-

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	204	10	10	126	10
Future Vol, veh/h	10	10	10	10	10	10	10	204	10	10	126	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	15	15	15	15	15	388	15	15	239	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	718	710	247	718	710	396	254	0	0	403	0	0
Stage 1	277	277	-	426	426	-	-	-	-	-	-	-
Stage 2	441	433	-	292	284	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	345	360	794	345	360	656	1317	-	-	1161	-	-
Stage 1	732	683	-	608	588	-	-	-	-	-	-	-
Stage 2	597	583	-	718	678	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	319	349	794	320	349	656	1317	-	-	1161	-	-
Mov Cap-2 Maneuver	319	349	-	320	349	-	-	-	-	-	-	-
Stage 1	721	673	-	599	579	-	-	-	-	-	-	-
Stage 2	560	574	-	678	668	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	15.2	0.3	0.5
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1317	-	-	413	399	1161	-	-
HCM Lane V/C Ratio	0.011	-	-	0.109	0.113	0.013	-	-
HCM Control Delay (s)	7.8	0	-	14.8	15.2	8.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.4	0	-	-

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	136	10	10	84	10
Future Vol, veh/h	10	10	10	10	10	10	10	136	10	10	84	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	15	15	15	15	15	258	15	15	160	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	509	501	168	509	501	266	175	0	0	273	0	0
Stage 1	198	198	-	296	296	-	-	-	-	-	-	-
Stage 2	311	303	-	213	205	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	476	474	879	476	474	775	1407	-	-	1296	-	-
Stage 1	806	739	-	715	670	-	-	-	-	-	-	-
Stage 2	702	665	-	791	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	446	462	879	447	462	775	1407	-	-	1296	-	-
Mov Cap-2 Maneuver	446	462	-	447	462	-	-	-	-	-	-	-
Stage 1	796	729	-	706	661	-	-	-	-	-	-	-
Stage 2	664	656	-	752	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	12.5	0.4	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1407	-	-	541	527	1296	-	-
HCM Lane V/C Ratio	0.011	-	-	0.083	0.085	0.012	-	-
HCM Control Delay (s)	7.6	0	-	12.3	12.5	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	204	10	10	126	10
Future Vol, veh/h	10	10	10	10	10	10	10	204	10	10	126	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	15	15	15	15	15	388	15	15	239	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	718	710	247	718	710	396	254	0	0	403	0	0
Stage 1	277	277	-	426	426	-	-	-	-	-	-	-
Stage 2	441	433	-	292	284	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	345	360	794	345	360	656	1317	-	-	1161	-	-
Stage 1	732	683	-	608	588	-	-	-	-	-	-	-
Stage 2	597	583	-	718	678	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	319	349	794	320	349	656	1317	-	-	1161	-	-
Mov Cap-2 Maneuver	319	349	-	320	349	-	-	-	-	-	-	-
Stage 1	721	673	-	599	579	-	-	-	-	-	-	-
Stage 2	560	574	-	678	668	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	15.2	0.3	0.5
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1317	-	-	413	399	1161	-	-
HCM Lane V/C Ratio	0.011	-	-	0.109	0.113	0.013	-	-
HCM Control Delay (s)	7.8	0	-	14.8	15.2	8.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.4	0	-	-



Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	136	10	10	84	10
Future Vol, veh/h	10	10	10	10	10	10	10	136	10	10	84	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	15	15	15	15	15	258	15	15	160	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	509	501	168	509	501	266	175	0	0	273	0	0
Stage 1	198	198	-	296	296	-	-	-	-	-	-	-
Stage 2	311	303	-	213	205	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	476	474	879	476	474	775	1407	-	-	1296	-	-
Stage 1	806	739	-	715	670	-	-	-	-	-	-	-
Stage 2	702	665	-	791	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	446	462	879	447	462	775	1407	-	-	1296	-	-
Mov Cap-2 Maneuver	446	462	-	447	462	-	-	-	-	-	-	-
Stage 1	796	729	-	706	661	-	-	-	-	-	-	-
Stage 2	664	656	-	752	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	12.5	0.4	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1407	-	-	541	527	1296	-	-
HCM Lane V/C Ratio	0.011	-	-	0.083	0.085	0.012	-	-
HCM Control Delay (s)	7.6	0	-	12.3	12.5	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	37	9	5	45	8	2	202	11	3	133	7
Future Vol, veh/h	4	37	9	5	45	8	2	202	11	3	133	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	6	56	14	8	68	12	3	384	17	5	253	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	708	676	259	703	673	393	264	0	0	401	0	0
Stage 1	269	269	-	399	399	-	-	-	-	-	-	-
Stage 2	439	407	-	304	274	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	351	376	782	354	378	658	1306	-	-	1163	-	-
Stage 1	739	688	-	629	604	-	-	-	-	-	-	-
Stage 2	599	599	-	708	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	295	373	782	306	375	658	1306	-	-	1163	-	-
Mov Cap-2 Maneuver	295	373	-	306	375	-	-	-	-	-	-	-
Stage 1	737	685	-	627	602	-	-	-	-	-	-	-
Stage 2	521	597	-	636	682	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16	16.8	0.1	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1306	-	-	402	391	1163	-
HCM Lane V/C Ratio	0.002	-	-	0.187	0.223	0.004	-
HCM Control Delay (s)	7.8	0	-	16	16.8	8.1	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.7	0.8	0	-

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	41	6	4	44	6	1	134	7	2	89	4
Future Vol, veh/h	3	41	6	4	44	6	1	134	7	2	89	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	5	62	9	6	66	9	2	255	11	3	169	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	480	448	172	479	446	261	175	0	0	266	0	0
Stage 1	178	178	-	265	265	-	-	-	-	-	-	-
Stage 2	302	270	-	214	181	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	498	507	874	499	509	780	1407	-	-	1304	-	-
Stage 1	826	754	-	742	691	-	-	-	-	-	-	-
Stage 2	709	688	-	790	752	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	441	504	874	446	506	780	1407	-	-	1304	-	-
Mov Cap-2 Maneuver	441	504	-	446	506	-	-	-	-	-	-	-
Stage 1	824	752	-	741	690	-	-	-	-	-	-	-
Stage 2	633	687	-	716	750	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13		13.2		0		0.1	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1407	-	-	526	521	1304	-	-
HCM Lane V/C Ratio	0.001	-	-	0.143	0.155	0.002	-	-
HCM Control Delay (s)	7.6	0	-	13	13.2	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.5	0	-	-

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	204	10	10	138	10
Future Vol, veh/h	10	10	10	10	10	10	10	204	10	10	138	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	15	15	15	15	15	388	15	15	262	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	741	733	270	741	733	396	277	0	0	403	0	0
Stage 1	300	300	-	426	426	-	-	-	-	-	-	-
Stage 2	441	433	-	315	307	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	333	349	771	333	349	656	1292	-	-	1161	-	-
Stage 1	711	667	-	608	588	-	-	-	-	-	-	-
Stage 2	597	583	-	698	663	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	307	339	771	308	339	656	1292	-	-	1161	-	-
Mov Cap-2 Maneuver	307	339	-	308	339	-	-	-	-	-	-	-
Stage 1	700	657	-	599	579	-	-	-	-	-	-	-
Stage 2	560	574	-	659	653	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.1		15.5		0.3		0.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1292	-	-	400	389	1161	-	-
HCM Lane V/C Ratio	0.012	-	-	0.113	0.116	0.013	-	-
HCM Control Delay (s)	7.8	0	-	15.1	15.5	8.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.4	0	-	-

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	136	10	10	92	10
Future Vol, veh/h	10	10	10	10	10	10	10	136	10	10	92	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	15	15	15	15	15	258	15	15	175	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	524	516	183	524	516	266	190	0	0	273	0	0
Stage 1	213	213	-	296	296	-	-	-	-	-	-	-
Stage 2	311	303	-	228	220	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	465	464	862	465	464	775	1390	-	-	1296	-	-
Stage 1	791	728	-	715	670	-	-	-	-	-	-	-
Stage 2	702	665	-	777	723	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	436	452	862	437	452	775	1390	-	-	1296	-	-
Mov Cap-2 Maneuver	436	452	-	437	452	-	-	-	-	-	-	-
Stage 1	781	719	-	706	661	-	-	-	-	-	-	-
Stage 2	664	656	-	738	714	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.4		12.6		0.4		0.6	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1390	-	-	529	518	1296	-	-
HCM Lane V/C Ratio	0.011	-	-	0.085	0.087	0.012	-	-
HCM Control Delay (s)	7.6	0	-	12.4	12.6	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	204	10	10	144	10
Future Vol, veh/h	10	10	10	10	10	10	10	204	10	10	144	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	15	15	15	15	15	388	15	15	274	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	753	745	282	753	745	396	289	0	0	403	0	0
Stage 1	312	312	-	426	426	-	-	-	-	-	-	-
Stage 2	441	433	-	327	319	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	327	344	759	327	344	656	1279	-	-	1161	-	-
Stage 1	701	659	-	608	588	-	-	-	-	-	-	-
Stage 2	597	583	-	688	655	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	301	334	759	302	334	656	1279	-	-	1161	-	-
Mov Cap-2 Maneuver	301	334	-	302	334	-	-	-	-	-	-	-
Stage 1	690	649	-	599	579	-	-	-	-	-	-	-
Stage 2	560	574	-	649	645	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.3	15.6	0.3	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1279	-	-	393	383	1161	-
HCM Lane V/C Ratio	0.012	-	-	0.115	0.117	0.013	-
HCM Control Delay (s)	7.8	0	-	15.3	15.6	8.1	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.4	0.4	0	-

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	10	10	10	10	10	10	136	10	10	96	10
Future Vol, veh/h	10	10	10	10	10	10	10	136	10	10	96	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	15	15	15	15	15	15	258	15	15	182	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	531	523	190	531	523	266	197	0	0	273	0	0
Stage 1	220	220	-	296	296	-	-	-	-	-	-	-
Stage 2	311	303	-	235	227	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	460	460	854	460	460	775	1382	-	-	1296	-	-
Stage 1	785	723	-	715	670	-	-	-	-	-	-	-
Stage 2	702	665	-	770	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	431	448	854	432	448	775	1382	-	-	1296	-	-
Mov Cap-2 Maneuver	431	448	-	432	448	-	-	-	-	-	-	-
Stage 1	775	714	-	706	661	-	-	-	-	-	-	-
Stage 2	664	656	-	731	709	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.5		12.7		0.4		0.6	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1382	-	-	524	514	1296	-	-
HCM Lane V/C Ratio	0.011	-	-	0.086	0.088	0.012	-	-
HCM Control Delay (s)	7.6	0	-	12.5	12.7	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

HCM 6th Signalized Intersection Summary  
 33: 5th Street & Grand Ave

2045 Two-Way  
 10/09/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	418	31	30	512	18	59	164	41	11	113	32
Future Volume (veh/h)	34	418	31	30	512	18	59	164	41	11	113	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	51	627	46	45	768	27	88	312	62	16	215	48
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	312	1658	121	445	1730	61	422	773	655	335	612	137
Arrive On Green	0.98	0.98	0.98	0.49	0.49	0.49	0.14	0.14	0.14	0.41	0.41	0.41
Sat Flow, veh/h	688	3384	248	771	3530	124	1125	1885	1598	1016	1492	333
Grp Volume(v), veh/h	51	332	341	45	390	405	88	312	62	16	0	263
Grp Sat Flow(s),veh/h/ln	688	1791	1841	771	1791	1863	1125	1885	1598	1016	0	1825
Q Serve(g_s), s	2.6	0.6	0.6	3.2	14.2	14.2	7.2	15.1	3.4	1.2	0.0	9.9
Cycle Q Clear(g_c), s	16.8	0.6	0.6	3.8	14.2	14.2	17.1	15.1	3.4	16.3	0.0	9.9
Prop In Lane	1.00		0.13	1.00		0.07	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	312	878	902	445	878	913	422	773	655	335	0	748
V/C Ratio(X)	0.16	0.38	0.38	0.10	0.44	0.44	0.21	0.40	0.09	0.05	0.00	0.35
Avail Cap(c_a), veh/h	312	878	902	445	878	913	422	773	655	335	0	748
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.2	0.5	0.5	14.1	16.6	16.6	37.5	32.1	27.0	27.9	0.0	20.3
Incr Delay (d2), s/veh	1.1	1.2	1.2	0.1	0.4	0.3	1.1	1.6	0.3	0.3	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.4	0.4	0.6	5.7	5.9	2.3	7.9	1.4	0.3	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.3	1.7	1.7	14.2	17.0	17.0	38.6	33.6	27.3	28.2	0.0	21.6
LnGrp LOS	A	A	A	B	B	B	D	C	C	C	A	C
Approach Vol, veh/h		724			840			462			279	
Approach Delay, s/veh		1.9			16.8			33.7			22.0	
Approach LOS		A			B			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.0		54.0		46.0		54.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		41.0		49.0		41.0		49.0				
Max Q Clear Time (g_c+I1), s		18.3		16.2		19.1		18.8				
Green Ext Time (p_c), s		1.6		6.1		2.4		5.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				16.1								
HCM 6th LOS				B								



HCM 6th Signalized Intersection Summary  
 34: 4th Street & Grand Ave

2045 Two-Way  
 10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	438	20	20	571	12	40	109	28	17	76	21
Future Volume (veh/h)	22	438	20	20	571	12	40	109	28	17	76	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	33	657	30	30	856	18	60	207	42	26	144	32
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	333	1970	879	414	1973	41	455	532	108	327	523	116
Arrive On Green	0.55	0.55	0.55	0.55	0.55	0.55	0.12	0.12	0.12	0.70	0.70	0.70
Sat Flow, veh/h	639	3582	1598	761	3587	75	1218	1521	309	1140	1494	332
Grp Volume(v), veh/h	33	657	30	30	427	447	60	0	249	26	0	176
Grp Sat Flow(s),veh/h/ln	639	1791	1598	761	1791	1872	1218	0	1830	1140	0	1825
Q Serve(g_s), s	3.2	10.1	0.9	2.3	14.1	14.1	4.5	0.0	12.6	1.3	0.0	3.6
Cycle Q Clear(g_c), s	17.3	10.1	0.9	12.4	14.1	14.1	8.1	0.0	12.6	13.9	0.0	3.6
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.17	1.00		0.18
Lane Grp Cap(c), veh/h	333	1970	879	414	985	1029	455	0	640	327	0	639
V/C Ratio(X)	0.10	0.33	0.03	0.07	0.43	0.43	0.13	0.00	0.39	0.08	0.00	0.28
Avail Cap(c_a), veh/h	333	1970	879	414	985	1029	455	0	640	327	0	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	12.4	10.3	15.8	13.3	13.3	33.9	0.0	34.3	15.5	0.0	10.3
Incr Delay (d2), s/veh	0.6	0.5	0.1	0.3	1.3	1.2	0.6	0.0	1.8	0.5	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.0	0.3	0.4	5.7	6.0	1.5	0.0	6.5	0.3	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	12.9	10.4	16.1	14.6	14.5	34.5	0.0	36.1	16.0	0.0	11.4
LnGrp LOS	B	B	B	B	B	B	C	A	D	B	A	B
Approach Vol, veh/h		720			904			309			202	
Approach Delay, s/veh		13.0			14.6			35.8			11.9	
Approach LOS		B			B			D			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.0		60.0		40.0		60.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		55.0		35.0		55.0				
Max Q Clear Time (g_c+1), s		15.9		16.1		14.6		19.3				
Green Ext Time (p_c), s		1.0		6.9		1.6		5.7				

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	0	11	18	10	20	22	228	1	10	155	11
Future Vol, veh/h	15	0	11	18	10	20	22	228	1	10	155	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	23	0	17	27	15	30	33	433	2	15	295	17

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	857	835	304	842	842	434	312	0	0	435	0	0
Stage 1	334	334	-	500	500	-	-	-	-	-	-	-
Stage 2	523	501	-	342	342	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	279	305	738	285	302	624	1254	-	-	1130	-	-
Stage 1	682	645	-	555	545	-	-	-	-	-	-	-
Stage 2	539	544	-	675	640	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	245	290	738	268	287	624	1254	-	-	1130	-	-
Mov Cap-2 Maneuver	245	290	-	268	287	-	-	-	-	-	-	-
Stage 1	658	635	-	536	526	-	-	-	-	-	-	-
Stage 2	481	525	-	649	630	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.9	17.6	0.6	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1254	-	-	342	358	1130	-
HCM Lane V/C Ratio	0.026	-	-	0.114	0.201	0.013	-
HCM Control Delay (s)	7.9	0	-	16.9	17.6	8.2	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.7	0	-

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	12	7	12	18	13	15	152	1	7	104	7
Future Vol, veh/h	10	12	7	12	18	13	15	152	1	7	104	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	15	18	11	18	27	20	23	289	2	11	198	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	586	563	204	576	567	290	209	0	0	291	0	0
Stage 1	226	226	-	336	336	-	-	-	-	-	-	-
Stage 2	360	337	-	240	231	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	423	437	839	430	434	752	1368	-	-	1276	-	-
Stage 1	779	719	-	680	644	-	-	-	-	-	-	-
Stage 2	660	643	-	766	715	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	383	424	839	402	421	752	1368	-	-	1276	-	-
Mov Cap-2 Maneuver	383	424	-	402	421	-	-	-	-	-	-	-
Stage 1	763	712	-	666	631	-	-	-	-	-	-	-
Stage 2	603	630	-	730	708	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	13.7	0.6	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1368	-	-	462	478	1276	-
HCM Lane V/C Ratio	0.016	-	-	0.094	0.135	0.008	-
HCM Control Delay (s)	7.7	0	-	13.6	13.7	7.8	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.5	0	-

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	20	16	14	30	18	18	217	7	19	140	34
Future Vol, veh/h	20	20	16	14	30	18	18	217	7	19	140	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	70	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	30	30	24	21	45	27	27	412	11	29	266	51

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	858	827	292	849	847	418	317	0	0	423	0	0
Stage 1	350	350	-	472	472	-	-	-	-	-	-	-
Stage 2	508	477	-	377	375	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	278	308	750	282	300	637	1249	-	-	1142	-	-
Stage 1	669	635	-	574	561	-	-	-	-	-	-	-
Stage 2	549	558	-	647	619	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	224	290	750	240	283	637	1249	-	-	1142	-	-
Mov Cap-2 Maneuver	224	290	-	240	283	-	-	-	-	-	-	-
Stage 1	650	615	-	558	545	-	-	-	-	-	-	-
Stage 2	469	542	-	577	600	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.3	20.7	0.5	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1249	-	-	224	399	322	1142	-	-
HCM Lane V/C Ratio	0.022	-	-	0.134	0.135	0.289	0.025	-	-
HCM Control Delay (s)	7.9	0	-	23.5	15.4	20.7	8.2	0	-
HCM Lane LOS	A	A	-	C	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.5	1.2	0.1	-	-

Intersection												
Int Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	13	38	11	9	61	12	12	144	5	13	93	23
Future Vol, veh/h	13	38	11	9	61	12	12	144	5	13	93	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	65	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	20	57	17	14	92	18	18	274	8	20	177	35

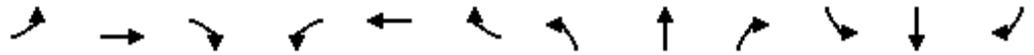
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	604	553	195	586	566	278	212	0	0	282	0	0
Stage 1	235	235	-	314	314	-	-	-	-	-	-	-
Stage 2	369	318	-	272	252	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	412	442	849	423	435	763	1364	-	-	1286	-	-
Stage 1	770	712	-	699	658	-	-	-	-	-	-	-
Stage 2	653	655	-	736	700	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	326	427	849	363	420	763	1364	-	-	1286	-	-
Mov Cap-2 Maneuver	326	427	-	363	420	-	-	-	-	-	-	-
Stage 1	758	699	-	688	647	-	-	-	-	-	-	-
Stage 2	539	645	-	651	687	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	15.4	0.5	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1364	-	-	437	363	454	1286	-	-
HCM Lane V/C Ratio	0.013	-	-	0.213	0.037	0.241	0.015	-	-
HCM Control Delay (s)	7.7	0	-	15.5	15.3	15.4	7.8	0	-
HCM Lane LOS	A	A	-	C	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.1	0.9	0	-	-

HCM 6th Signalized Intersection Summary  
 45: 5th Street & Main St

2045 Two-Way  
 10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	17	94	12	10	61	14	12	209	12	20	125	20
Future Volume (veh/h)	17	94	12	10	61	14	12	209	12	20	125	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	26	141	18	15	92	21	18	397	18	30	238	30
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	62	183	22	55	175	37	69	1356	60	144	1118	137
Arrive On Green	0.25	0.25	0.25	0.13	0.13	0.13	1.00	1.00	1.00	0.78	0.78	0.78
Sat Flow, veh/h	166	1462	175	117	1403	298	40	1728	77	133	1424	174
Grp Volume(v), veh/h	185	0	0	128	0	0	433	0	0	298	0	0
Grp Sat Flow(s),veh/h/ln	1804	0	0	1818	0	0	1844	0	0	1731	0	0
Q Serve(g_s), s	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.6	0.0	0.0	6.6	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0
Prop In Lane	0.14		0.10	0.12		0.16	0.04		0.04	0.10		0.10
Lane Grp Cap(c), veh/h	267	0	0	267	0	0	1485	0	0	1399	0	0
V/C Ratio(X)	0.69	0.00	0.00	0.48	0.00	0.00	0.29	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	597	0	0	596	0	0	1485	0	0	1399	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	36.3	0.0	0.0	41.2	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0	1.3	0.0	0.0	0.5	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	0.0	3.0	0.0	0.0	0.2	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	0.0	0.0	42.5	0.0	0.0	0.5	0.0	0.0	3.1	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		185			128			433				298
Approach Delay, s/veh		38.7			42.5			0.5				3.1
Approach LOS		D			D			A				A
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		83.0		17.0		83.0		17.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		59.5		31.5		59.5		31.5				
Max Q Clear Time (g_c+I1), s		6.1		8.6		2.0		11.6				
Green Ext Time (p_c), s		2.1		0.6		3.1		1.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				13.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
46: 4th Street & Main St

2045 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	11	91	9	7	78	8	7	139	8	14	84	13
Future Volume (veh/h)	11	91	9	7	78	8	7	139	8	14	84	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	16	136	14	10	117	12	10	264	12	21	160	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	51	183	18	46	189	19	61	1386	62	153	1141	139
Arrive On Green	0.12	0.12	0.12	0.08	0.08	0.08	1.00	1.00	1.00	0.26	0.26	0.26
Sat Flow, veh/h	100	1575	154	65	1621	159	30	1746	78	142	1438	175
Grp Volume(v), veh/h	166	0	0	139	0	0	286	0	0	201	0	0
Grp Sat Flow(s),veh/h/ln	1830	0	0	1845	0	0	1854	0	0	1755	0	0
Q Serve(g_s), s	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	8.7	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0
Prop In Lane	0.10		0.08	0.07		0.09	0.03		0.04	0.10		0.10
Lane Grp Cap(c), veh/h	253	0	0	253	0	0	1509	0	0	1432	0	0
V/C Ratio(X)	0.66	0.00	0.00	0.55	0.00	0.00	0.19	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h	712	0	0	717	0	0	1509	0	0	1432	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	0.88	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.9	0.0	0.0	44.1	0.0	0.0	0.0	0.0	0.0	10.7	0.0	0.0
Incr Delay (d2), s/veh	2.9	0.0	0.0	1.6	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	0.0	3.5	0.0	0.0	0.1	0.0	0.0	3.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	0.0	0.0	45.7	0.0	0.0	0.3	0.0	0.0	10.9	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	B	A	A
Approach Vol, veh/h		166			139			286			201	
Approach Delay, s/veh		45.8			45.7			0.3			10.9	
Approach LOS		D			D			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		83.9		16.1		83.9		16.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		53.5		37.5		53.5		37.5				
Max Q Clear Time (g_c+1), s		10.3		9.3		2.0		10.7				
Green Ext Time (p_c), s		1.3		0.8		1.9		0.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					20.5							
HCM 6th LOS					C							

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	24	5	6	43	9	7	197	8	15	122	8
Future Vol, veh/h	20	24	5	6	43	9	7	197	8	15	122	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	30	36	8	9	65	14	11	374	12	23	232	12

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	726	692	238	708	692	380	244	0	0	386	0	0
Stage 1	284	284	-	402	402	-	-	-	-	-	-	-
Stage 2	442	408	-	306	290	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	341	369	803	351	369	669	1328	-	-	1178	-	-
Stage 1	725	678	-	627	602	-	-	-	-	-	-	-
Stage 2	596	598	-	706	674	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	280	356	803	313	356	669	1328	-	-	1178	-	-
Mov Cap-2 Maneuver	280	356	-	313	356	-	-	-	-	-	-	-
Stage 1	717	662	-	620	595	-	-	-	-	-	-	-
Stage 2	515	591	-	646	658	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18.6		17.3		0.2		0.7	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1328	-	-	338	378	1178	-	-
HCM Lane V/C Ratio	0.008	-	-	0.217	0.23	0.019	-	-
HCM Control Delay (s)	7.7	0	-	18.6	17.3	8.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.9	0.1	-	-



Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	34	3	4	48	6	5	131	5	10	82	6
Future Vol, veh/h	13	34	3	4	48	6	5	131	5	10	82	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	20	51	5	6	72	9	8	249	8	15	156	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	501	464	161	488	464	253	165	0	0	257	0	0
Stage 1	191	191	-	269	269	-	-	-	-	-	-	-
Stage 2	310	273	-	219	195	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	482	497	887	492	497	788	1419	-	-	1314	-	-
Stage 1	813	744	-	739	688	-	-	-	-	-	-	-
Stage 2	702	686	-	786	741	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	416	487	887	443	487	788	1419	-	-	1314	-	-
Mov Cap-2 Maneuver	416	487	-	443	487	-	-	-	-	-	-	-
Stage 1	807	734	-	734	683	-	-	-	-	-	-	-
Stage 2	616	681	-	718	731	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.9	13.6	0.2	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1419	-	-	479	503	1314	-
HCM Lane V/C Ratio	0.005	-	-	0.157	0.173	0.011	-
HCM Control Delay (s)	7.5	0	-	13.9	13.6	7.8	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.6	0.6	0	-

HCM 6th Signalized Intersection Summary  
53: 5th Street & Ute Ave

2045 Two-Way  
10/09/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	415	512	30	177	277	0	0	113	17
Future Volume (veh/h)	0	0	0	415	512	30	177	277	0	0	113	17
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h				463	990	45	266	526	0	0	215	26
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				1	1	1	1	1	0	0	1	1
Cap, veh/h				617	1295	549	824	1049	0	0	509	431
Arrive On Green				0.34	0.34	0.34	0.47	1.00	0.00	0.00	0.54	0.54
Sat Flow, veh/h				1795	3770	1598	3483	1885	0	0	1885	1598
Grp Volume(v), veh/h				463	990	45	266	526	0	0	215	26
Grp Sat Flow(s),veh/h/ln				1795	1885	1598	1742	1885	0	0	1885	1598
Q Serve(g_s), s				22.8	23.4	1.9	4.8	0.0	0.0	0.0	6.8	0.8
Cycle Q Clear(g_c), s				22.8	23.4	1.9	4.8	0.0	0.0	0.0	6.8	0.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				617	1295	549	824	1049	0	0	509	431
V/C Ratio(X)				0.75	0.76	0.08	0.32	0.50	0.00	0.00	0.42	0.06
Avail Cap(c_a), veh/h				808	1697	719	824	1049	0	0	509	431
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	1.00	1.00	0.82	0.82	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				29.0	29.2	22.2	21.4	0.0	0.0	0.0	18.4	17.0
Incr Delay (d2), s/veh				2.8	1.5	0.1	0.2	1.4	0.0	0.0	2.6	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.1	10.6	0.7	1.8	0.4	0.0	0.0	2.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				31.9	30.8	22.2	21.6	1.4	0.0	0.0	20.9	17.2
LnGrp LOS				C	C	C	C	A	A	A	C	B
Approach Vol, veh/h					1498			792			241	
Approach Delay, s/veh					30.8			8.2			20.5	
Approach LOS					C			A			C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	28.6	32.0		39.4		60.6						
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0						
Max Green Setting (Gmax), s	13.5	* 27		45.0		45.0						
Max Q Clear Time (g_c+I1), s	6.8	8.8		25.4		2.0						
Green Ext Time (p_c), s	0.5	1.2		9.0		3.9						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				22.8								
HCM 6th LOS				C								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary  
54: 4th Street & Ute Ave

2045 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Traffic Volume (veh/h)	0	0	0	21	652	20	1	15	0	0	76	11
Future Volume (veh/h)	0	0	0	21	652	20	1	15	0	0	76	11
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1885	1885	1885	1885	1885	0	0	1885	1885
Adj Flow Rate, veh/h				32	978	30	2	28	0	0	144	16
Peak Hour Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %				1	1	1	1	1	0	0	1	1
Cap, veh/h				42	1338	43	71	892	0	0	833	93
Arrive On Green				0.13	0.13	0.13	0.50	0.50	0.00	0.00	1.00	1.00
Sat Flow, veh/h				110	3521	113	66	1785	0	0	1667	185
Grp Volume(v), veh/h				547	0	493	30	0	0	0	0	160
Grp Sat Flow(s),veh/h/ln				1880	0	1865	1851	0	0	0	0	1852
Q Serve(g_s), s				28.1	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				28.1	0.0	25.4	0.8	0.0	0.0	0.0	0.0	0.0
Prop In Lane				0.06		0.06	0.07		0.00	0.00		0.10
Lane Grp Cap(c), veh/h				715	0	709	964	0	0	0	0	926
V/C Ratio(X)				0.76	0.00	0.70	0.03	0.00	0.00	0.00	0.00	0.17
Avail Cap(c_a), veh/h				1090	0	1082	964	0	0	0	0	926
HCM Platoon Ratio				0.33	0.33	0.33	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				0.70	0.00	0.70	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				39.4	0.0	38.2	12.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				1.2	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				14.4	0.0	12.8	0.4	0.0	0.0	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.6	0.0	39.1	12.8	0.0	0.0	0.0	0.0	0.4
LnGrp LOS				D	A	D	B	A	A	A	A	A
Approach Vol, veh/h					1040			30				160
Approach Delay, s/veh					39.9			12.8				0.4
Approach LOS					D			B				A
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		56.0		44.0		56.0						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		30.0		58.0		30.0						
Max Q Clear Time (g_c+I1), s		2.0		30.1		2.8						
Green Ext Time (p_c), s		0.9		7.9		0.1						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay												34.1
HCM 6th LOS												C

HCM 6th Signalized Intersection Summary  
57: 5th Street & Pitkin Ave

2045 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔	↗					↕↕		↖	↕↕	
Traffic Volume (veh/h)	14	528	411	0	0	0	0	416	105	5	523	0
Future Volume (veh/h)	14	528	411	0	0	0	0	416	105	5	523	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	21	940	518				0	790	158	8	994	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1				0	1	1	1	1	0
Cap, veh/h	32	1495	648				0	1501	300	266	1807	0
Arrive On Green	0.13	0.13	0.13				0.00	0.50	0.50	1.00	1.00	0.00
Sat Flow, veh/h	79	3688	1598				0	3068	595	596	3676	0
Grp Volume(v), veh/h	503	458	518				0	476	472	8	994	0
Grp Sat Flow(s),veh/h/ln	1881	1885	1598				0	1791	1778	596	1791	0
Q Serve(g_s), s	25.4	22.9	31.5				0.0	17.9	17.9	0.5	0.0	0.0
Cycle Q Clear(g_c), s	25.4	22.9	31.5				0.0	17.9	17.9	18.4	0.0	0.0
Prop In Lane	0.04		1.00				0.00		0.33	1.00		0.00
Lane Grp Cap(c), veh/h	763	764	648				0	904	897	266	1807	0
V/C Ratio(X)	0.66	0.60	0.80				0.00	0.53	0.53	0.03	0.55	0.00
Avail Cap(c_a), veh/h	894	895	759				0	904	897	266	1807	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.70	0.70	0.70				0.00	1.00	1.00	0.78	0.78	0.00
Uniform Delay (d), s/veh	36.7	35.7	39.4				0.0	16.7	16.7	3.3	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.6	3.7				0.0	2.2	2.2	0.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	11.6	14.1				0.0	7.6	7.5	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	36.2	43.1				0.0	18.9	18.9	3.4	0.9	0.0
LnGrp LOS	D	D	D				A	B	B	A	A	A
Approach Vol, veh/h		1479						948			1002	
Approach Delay, s/veh		39.2						18.9			1.0	
Approach LOS		D						B			A	
Timer - Assigned Phs		2					6	8				
Phs Duration (G+Y+Rc), s		55.0					55.0	45.0				
Change Period (Y+Rc), s		4.5					4.5	4.5				
Max Green Setting (Gmax), s		43.5					43.5	47.5				
Max Q Clear Time (g_c+I1), s		20.4					19.9	33.5				
Green Ext Time (p_c), s		7.8					6.7	7.1				

Intersection Summary

HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
58: 4th Street & Pitkin Ave

2045 Two-Way  
10/09/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕↕↕						↕			↕		
Traffic Volume (veh/h)	9	852	1	0	0	0	0	6	10	91	6	0
Future Volume (veh/h)	9	852	1	0	0	0	0	6	10	91	6	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1885	1885	0
Adj Flow Rate, veh/h	14	1278	2				0	11	15	136	11	0
Peak Hour Factor	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1	1	1				0	1	1	1	1	0
Cap, veh/h	19	1850	3				0	403	550	796	62	0
Arrive On Green	0.34	0.34	0.34				0.00	0.56	0.56	0.56	0.56	0.00
Sat Flow, veh/h	56	5417	9				0	723	985	1301	111	0
Grp Volume(v), veh/h	472	392	430				0	0	26	147	0	0
Grp Sat Flow(s),veh/h/ln	1882	1716	1884				0	0	1708	1411	0	0
Q Serve(g_s), s	22.1	19.5	19.5				0.0	0.0	0.7	4.9	0.0	0.0
Cycle Q Clear(g_c), s	22.1	19.5	19.5				0.0	0.0	0.7	5.6	0.0	0.0
Prop In Lane	0.03		0.00				0.00		0.58	0.93		0.00
Lane Grp Cap(c), veh/h	643	586	643				0	0	954	857	0	0
V/C Ratio(X)	0.73	0.67	0.67				0.00	0.00	0.03	0.17	0.00	0.00
Avail Cap(c_a), veh/h	1035	944	1036				0	0	954	857	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.00	1.00	0.99	0.00	0.00
Uniform Delay (d), s/veh	28.9	28.1	28.1				0.0	0.0	9.9	11.1	0.0	0.0
Incr Delay (d2), s/veh	1.7	1.3	1.2				0.0	0.0	0.1	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.0	8.8				0.0	0.0	0.3	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	29.4	29.3				0.0	0.0	10.0	11.5	0.0	0.0
LnGrp LOS	C	C	C				A	A	A	B	A	A
Approach Vol, veh/h	1294						26			147		
Approach Delay, s/veh	29.8						10.0			11.5		
Approach LOS	C						A			B		
Timer - Assigned Phs	2						6			8		
Phs Duration (G+Y+Rc), s	60.8						60.8			39.2		
Change Period (Y+Rc), s	5.0						5.0			5.0		
Max Green Setting (Gmax), s	35.0						35.0			55.0		
Max Q Clear Time (g_c+I1), s	7.6						2.7			24.1		
Green Ext Time (p_c), s	0.8						0.1			10.1		
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	27.6											
HCM 6th LOS	C											

Appendix C – Queueing Analysis Worksheets

---

Intersection: 4: 4th St/4th Street & South Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	24	9	35	38
Average Queue (ft)	2	0	18	20
95th Queue (ft)	13	6	43	45
Link Distance (ft)	752	387	207	273
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: 5th Street & North Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	83	191	173	69	236	207	85	104	136	60	76	58
Average Queue (ft)	14	99	86	15	125	91	32	44	64	25	30	19
95th Queue (ft)	51	164	154	48	202	180	69	85	110	55	65	48
Link Distance (ft)		386	386		972	972		299	299		607	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	125			125			85			75		75
Storage Blk Time (%)		3			5		0	1		0	1	0
Queuing Penalty (veh)		1			1		0	1		0	1	0

Intersection: 6: 4th Street & North Ave

Movement	EB	EB	EB	WB	NB	SB
Directions Served	L	T	TR	L	LTR	LTR
Maximum Queue (ft)	35	5	13	81	42	51
Average Queue (ft)	8	0	1	37	12	16
95th Queue (ft)	30	5	8	69	38	44
Link Distance (ft)		973	973		305	613
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100			100		
Storage Blk Time (%)				0		
Queuing Penalty (veh)				0		

Intersection: 9: 5th Street & Belford Ave

Movement	WB
Directions Served	TR
Maximum Queue (ft)	38
Average Queue (ft)	14
95th Queue (ft)	39
Link Distance (ft)	939
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: 4th Street & Belford Ave

Movement	EB	WB	WB
Directions Served	R	L	TR
Maximum Queue (ft)	31	57	33
Average Queue (ft)	8	23	7
95th Queue (ft)	30	42	28
Link Distance (ft)	940	407	407
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: 5th Street & Teller Ave

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	34	35
Average Queue (ft)	14	16
95th Queue (ft)	40	42
Link Distance (ft)	426	942
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		



Intersection: 14: 4th Street & Teller Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	38	33
Average Queue (ft)	15	16
95th Queue (ft)	41	42
Link Distance (ft)	941	426
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: 5th Street & Hill Ave

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	38	40
Average Queue (ft)	14	17
95th Queue (ft)	40	43
Link Distance (ft)	425	954
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: 4th Street & Hill Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	36	31
Average Queue (ft)	14	15
95th Queue (ft)	40	40
Link Distance (ft)	934	425
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 21: 5th Street & Gunnison Ave

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	51	52
Average Queue (ft)	25	27
95th Queue (ft)	49	50
Link Distance (ft)	423	955
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 22: 4th Street & Gunnison Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	50	40
Average Queue (ft)	26	24
95th Queue (ft)	48	46
Link Distance (ft)	946	423
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 25: 5th Street & Chipeta Ave

Movement	EB	WB	NB
Directions Served	LT	TR	LT
Maximum Queue (ft)	31	43	5
Average Queue (ft)	15	16	0
95th Queue (ft)	40	42	5
Link Distance (ft)	421	946	289
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 26: 4th Street & Chipeta Ave

Movement	EB	WB	SB
Directions Served	TR	LT	LT
Maximum Queue (ft)	36	34	3
Average Queue (ft)	15	15	0
95th Queue (ft)	41	41	3
Link Distance (ft)	947	421	338
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 29: 5th Street & Ouray Ave

Movement	EB	WB	NB
Directions Served	LT	TR	LT
Maximum Queue (ft)	38	39	3
Average Queue (ft)	16	16	0
95th Queue (ft)	42	41	3
Link Distance (ft)	420	953	314
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 30: 4th Street & Ouray Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	36	33
Average Queue (ft)	15	14
95th Queue (ft)	41	40
Link Distance (ft)	961	420
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 33: 5th Street & Grand Ave

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	T	TR	L	T	T	R
Maximum Queue (ft)	76	98	88	211	185	78	70	71	65
Average Queue (ft)	27	48	37	120	81	25	27	30	18
95th Queue (ft)	59	86	82	189	164	62	61	64	53
Link Distance (ft)		424	424	956	956		301	301	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	75	NA-TWLTL				100			50
Storage Blk Time (%)	0	5			0	0	5	0	
Queuing Penalty (veh)	1	3			0	0	4	0	

Intersection: 34: 4th Street & Grand Ave

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	T	R	L	T	T	LT	TR
Maximum Queue (ft)	181	144	67	64	72	75	130	152
Average Queue (ft)	92	43	16	23	35	30	59	69
95th Queue (ft)	153	105	46	54	64	68	106	124
Link Distance (ft)	962	962			424	424	319	319
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			100	150				
Storage Blk Time (%)		0	0					
Queuing Penalty (veh)		0	0					

Intersection: 37: 5th Street & White Ave

Movement	EB	WB	NB	NB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	51	48	3	6
Average Queue (ft)	24	25	0	0
95th Queue (ft)	48	48	3	5
Link Distance (ft)	437	960	300	300
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: 4th Street & White Ave

Movement	EB	WB	SB	SB
Directions Served	TR	LT	LT	TR
Maximum Queue (ft)	47	90	117	140
Average Queue (ft)	18	32	58	74
95th Queue (ft)	46	73	102	125
Link Distance (ft)	944	437	293	293
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 41: 5th Street & Rood Ave

Movement	EB	EB	WB	NB	NB
Directions Served	L	T	TR	LT	TR
Maximum Queue (ft)	72	76	72	66	69
Average Queue (ft)	21	22	30	25	19
95th Queue (ft)	55	59	63	60	54
Link Distance (ft)		440	971	305	305
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	70				
Storage Blk Time (%)	1	1			
Queuing Penalty (veh)	0	0			

Intersection: 42: 4th Street & Rood Ave

Movement	EB	WB	WB	SB	SB
Directions Served	TR	L	T	LT	TR
Maximum Queue (ft)	89	55	82	59	64
Average Queue (ft)	33	14	26	20	19
95th Queue (ft)	74	43	66	52	51
Link Distance (ft)	1007		440	297	297
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		65			
Storage Blk Time (%)		0	1		
Queuing Penalty (veh)		0	0		

Intersection: 45: 5th Street & Main St

Movement	EB	WB	NB	NB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	134	115	158	144
Average Queue (ft)	59	48	85	77
95th Queue (ft)	110	96	140	131
Link Distance (ft)	429	967	311	311
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 46: 4th Street & Main St

Movement	EB	WB	SB	SB
Directions Served	TR	LT	LT	TR
Maximum Queue (ft)	118	59	119	143
Average Queue (ft)	48	14	50	71
95th Queue (ft)	99	45	98	126
Link Distance (ft)	900	429	309	309
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 49: 5th Street & Colorado Ave

Movement	EB	WB	NB	NB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	57	52	3	4
Average Queue (ft)	30	29	0	0
95th Queue (ft)	51	49	3	3
Link Distance (ft)	430	972	263	263
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 50: 4th Street & Colorado Ave

Movement	EB	WB	SB
Directions Served	TR	LT	LT
Maximum Queue (ft)	54	46	10
Average Queue (ft)	27	27	0
95th Queue (ft)	49	47	6
Link Distance (ft)	940	430	306
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: 5th Street & Ute Ave

Movement	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T
Maximum Queue (ft)	236	263	237	74	78	74	54
Average Queue (ft)	144	171	122	28	29	24	13
95th Queue (ft)	213	235	211	73	67	58	41
Link Distance (ft)	971	971	971			320	320
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				50	100		
Storage Blk Time (%)			22	0	0	0	
Queuing Penalty (veh)			11	1	0	0	

Intersection: 54: 4th Street & Ute Ave

Movement	WB	WB	SB	SB
Directions Served	LT	T	T	TR
Maximum Queue (ft)	116	125	101	146
Average Queue (ft)	63	62	35	72
95th Queue (ft)	101	107	80	127
Link Distance (ft)	387	387	287	287
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 57: 5th Street & Pitkin Ave

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	TR	R	T	TR	L	T	T
Maximum Queue (ft)	281	286	211	168	146	61	201	198
Average Queue (ft)	185	190	131	83	53	8	120	117
95th Queue (ft)	252	257	194	145	108	36	183	177
Link Distance (ft)	379	379	379	279	279		320	320
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)						50		
Storage Blk Time (%)						0	16	
Queuing Penalty (veh)						0	1	

Intersection: 58: 4th Street & Pitkin Ave

Movement	EB	EB	EB	NB	SB	SB
Directions Served	T	T	TR	R	L	LT
Maximum Queue (ft)	230	236	206	31	33	53
Average Queue (ft)	144	146	86	7	7	15
95th Queue (ft)	214	215	187	28	28	43
Link Distance (ft)	943	943	943	273	323	323
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 61: 5th Street & South Ave

Movement	EB	WB	SB
Directions Served	R	R	L
Maximum Queue (ft)	35	33	35
Average Queue (ft)	8	7	6
95th Queue (ft)	30	29	27
Link Distance (ft)	387	965	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			75
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 25
----------------------------------



Intersection: 5: 5th Street & North Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	55	192	187	118	190	165	63	99	118	73	98	66
Average Queue (ft)	13	108	102	35	103	75	25	37	51	29	39	17
95th Queue (ft)	39	178	174	77	168	141	56	78	93	63	83	49
Link Distance (ft)		386	386		972	972		312	312		607	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	125			125			85			75		75
Storage Blk Time (%)		4		0	3		0	1		1	3	0
Queuing Penalty (veh)		1		0	2		0	0		1	2	0

Intersection: 6: 4th Street & North Ave

Movement	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	39	2	50	6	4	220	49
Average Queue (ft)	9	0	24	0	0	82	18
95th Queue (ft)	32	2	50	4	3	170	46
Link Distance (ft)		973		386	386	311	613
Upstream Blk Time (%)							0
Queuing Penalty (veh)							0
Storage Bay Dist (ft)	100		100				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 9: 5th Street & Belford Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	41	59	39	35
Average Queue (ft)	18	28	3	2
95th Queue (ft)	44	50	21	17
Link Distance (ft)	397	937	290	312
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: 4th Street & Belford Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	47	44	26	38
Average Queue (ft)	17	25	1	3
95th Queue (ft)	44	47	13	18
Link Distance (ft)	953	397	294	311
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: 5th Street & Teller Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	40	42	49	34
Average Queue (ft)	19	20	3	2
95th Queue (ft)	44	45	22	15
Link Distance (ft)	402	954	295	290
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 14: 4th Street & Teller Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	47	42	34	25
Average Queue (ft)	21	20	2	2
95th Queue (ft)	47	45	15	14
Link Distance (ft)	953	402	293	294
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: 5th Street & Hill Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	44	42	35	33
Average Queue (ft)	20	20	2	2
95th Queue (ft)	45	45	18	16
Link Distance (ft)	401	966	332	295
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 18: 4th Street & Hill Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	46	40	24	24
Average Queue (ft)	20	20	1	1
95th Queue (ft)	45	45	11	11
Link Distance (ft)	946	401	333	293
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 21: 5th Street & Gunnison Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	54	58	12	22
Average Queue (ft)	26	29	0	1
95th Queue (ft)	48	50	6	12
Link Distance (ft)	399	967	337	332
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 22: 4th Street & Gunnison Ave

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	52	40	19
Average Queue (ft)	26	26	1
95th Queue (ft)	48	46	8
Link Distance (ft)	958	399	333
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 25: 5th Street & Chipeta Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	42	44	25	38
Average Queue (ft)	20	20	2	4
95th Queue (ft)	45	46	18	21
Link Distance (ft)	396	958	288	337
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 26: 4th Street & Chipeta Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	40	35	12	24
Average Queue (ft)	19	18	1	1
95th Queue (ft)	45	43	7	12
Link Distance (ft)	958	396	287	338
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 29: 5th Street & Ouray Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	48	44	30	45
Average Queue (ft)	20	21	2	3
95th Queue (ft)	47	45	14	24
Link Distance (ft)	384	959	314	288
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: 4th Street & Ouray Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	38	36	27	34
Average Queue (ft)	20	17	2	2
95th Queue (ft)	45	43	13	15
Link Distance (ft)	967	384	319	287
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 33: 5th Street & Grand Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	58	59	69	124	185	154	124	240	75	74	174
Average Queue (ft)	20	21	23	24	99	58	46	115	28	10	80
95th Queue (ft)	51	51	58	75	162	125	109	208	77	42	145
Link Distance (ft)		393	393		969	969		300			314
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	75			100			100		50	100	
Storage Blk Time (%)	0	0			7		1	25	0		7
Queuing Penalty (veh)	0	0			2		1	25	1		1

Intersection: 34: 4th Street & Grand Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	84	165	135	63	42	112	116	102	162	66	142
Average Queue (ft)	17	92	52	8	10	60	61	24	63	14	57
95th Queue (ft)	56	149	108	36	34	99	106	64	125	47	111
Link Distance (ft)		968	968			393	393		294		319
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			100	100			100		100	
Storage Blk Time (%)		6	1	0		1		0	3		2
Queuing Penalty (veh)		1	0	0		0		0	1		0

Intersection: 37: 5th Street & White Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	40	63	49	46
Average Queue (ft)	20	26	4	3
95th Queue (ft)	45	52	23	22
Link Distance (ft)	401	972	299	300
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: 4th Street & White Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	49	42	31	26
Average Queue (ft)	21	24	2	2
95th Queue (ft)	46	47	16	13
Link Distance (ft)	950	401	296	294
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 41: 5th Street & Rood Ave

Movement	EB	EB	WB	NB	SB
Directions Served	L	TR	LTR	LTR	LTR
Maximum Queue (ft)	38	46	62	49	39
Average Queue (ft)	16	23	30	4	5
95th Queue (ft)	41	47	53	26	24
Link Distance (ft)		416	983	305	299
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	70				
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 42: 4th Street & Rood Ave

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	TR	LTR	LTR
Maximum Queue (ft)	55	30	55	37	36
Average Queue (ft)	28	6	31	2	3
95th Queue (ft)	49	26	48	17	21
Link Distance (ft)	1018		416	309	296
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		65			
Storage Blk Time (%)			0		
Queuing Penalty (veh)			0		

Intersection: 45: 5th Street & Main St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	171	149	97	86
Average Queue (ft)	86	58	28	24
95th Queue (ft)	151	111	75	63
Link Distance (ft)	405	979	311	305
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 46: 4th Street & Main St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	145	146	85	64
Average Queue (ft)	55	63	32	20
95th Queue (ft)	108	118	71	54
Link Distance (ft)	912	405	306	309
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 49: 5th Street & Colorado Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	52	59	55	45
Average Queue (ft)	24	29	4	5
95th Queue (ft)	44	51	27	28
Link Distance (ft)	391	983	263	311
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 50: 4th Street & Colorado Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	52	50	9	29
Average Queue (ft)	27	28	0	2
95th Queue (ft)	50	48	6	14
Link Distance (ft)	952	391	286	306
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				



Intersection: 53: 5th Street & Ute Ave

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	LT	T	R	L	L	T	T	R
Maximum Queue (ft)	278	283	240	75	123	161	202	137	24
Average Queue (ft)	164	184	137	21	40	80	57	52	5
95th Queue (ft)	249	258	228	66	102	138	143	108	19
Link Distance (ft)	977	977	977			318	318	263	263
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)				50	100				
Storage Blk Time (%)			29	0	0	4			
Queuing Penalty (veh)			9	1	0	4			

Intersection: 54: 4th Street & Ute Ave

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	378	379	42	84
Average Queue (ft)	176	194	7	26
95th Queue (ft)	344	357	29	70
Link Distance (ft)	379	379	324	286
Upstream Blk Time (%)	0	1		
Queuing Penalty (veh)	2	3		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 57: 5th Street & Pitkin Ave

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	TR	R	T	TR	L	T	T
Maximum Queue (ft)	382	394	362	206	287	54	274	269
Average Queue (ft)	144	146	102	55	119	4	130	129
95th Queue (ft)	342	349	280	140	240	25	243	240
Link Distance (ft)	385	385	385	441	441		318	318
Upstream Blk Time (%)	0	0	0		0		0	0
Queuing Penalty (veh)	1	1	0		0		0	0
Storage Bay Dist (ft)						50		
Storage Blk Time (%)						0	18	
Queuing Penalty (veh)						1	1	

---

Intersection: 58: 4th Street & Pitkin Ave

---

Movement	EB	EB	EB	NB	SB
Directions Served	LT	T	TR	TR	LT
Maximum Queue (ft)	313	301	248	32	89
Average Queue (ft)	184	177	119	5	29
95th Queue (ft)	273	259	226	25	70
Link Distance (ft)	948	948	948	442	324
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

---

Network Summary

---

Network wide Queuing Penalty: 62

---

Intersection: 5: 5th Street & North Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	139	304	309	149	371	348	108	158	241	92	146	90
Average Queue (ft)	26	173	169	30	216	186	51	61	119	40	49	30
95th Queue (ft)	84	270	273	99	332	309	98	122	205	78	105	69
Link Distance (ft)		386	386		972	972		299	299		607	
Upstream Blk Time (%)		0	0						0			
Queuing Penalty (veh)		0	0						0			
Storage Bay Dist (ft)	125			125			85			75		75
Storage Blk Time (%)		13			19		2	4		2	5	0
Queuing Penalty (veh)		4			6		2	3		2	5	1

Intersection: 6: 4th Street & North Ave

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	53	5	34	123	220	166	77	138
Average Queue (ft)	14	0	5	68	19	12	21	47
95th Queue (ft)	44	4	22	117	122	104	63	110
Link Distance (ft)		973	973		386	386	305	613
Upstream Blk Time (%)						0		
Queuing Penalty (veh)						0		
Storage Bay Dist (ft)	100			100				
Storage Blk Time (%)	0			7				
Queuing Penalty (veh)	0			49				

Intersection: 9: 5th Street & Belford Ave

Movement	WB	NB
Directions Served	TR	TR
Maximum Queue (ft)	38	8
Average Queue (ft)	19	0
95th Queue (ft)	43	7
Link Distance (ft)	939	289
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: 4th Street & Belford Ave

Movement	EB	WB	WB
Directions Served	R	L	TR
Maximum Queue (ft)	32	70	30
Average Queue (ft)	14	29	11
95th Queue (ft)	36	53	33
Link Distance (ft)	940	407	407
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: 5th Street & Teller Ave

Movement	EB	WB	NB
Directions Served	LT	TR	TR
Maximum Queue (ft)	40	42	2
Average Queue (ft)	19	20	0
95th Queue (ft)	45	45	2
Link Distance (ft)	426	942	295
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: 4th Street & Teller Ave

Movement	EB	WB	SB
Directions Served	TR	LT	LT
Maximum Queue (ft)	45	38	3
Average Queue (ft)	18	18	0
95th Queue (ft)	44	44	3
Link Distance (ft)	941	426	286
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: 5th Street & Hill Ave

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	44	43
Average Queue (ft)	20	21
95th Queue (ft)	46	45
Link Distance (ft)	425	954
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: 4th Street & Hill Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	50	40
Average Queue (ft)	21	19
95th Queue (ft)	48	45
Link Distance (ft)	934	425
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 21: 5th Street & Gunnison Ave

Movement	EB	WB	NB	NB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	66	70	7	6
Average Queue (ft)	31	35	0	0
95th Queue (ft)	54	59	6	3
Link Distance (ft)	423	955	337	337
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 22: 4th Street & Gunnison Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	63	54
Average Queue (ft)	32	30
95th Queue (ft)	54	51
Link Distance (ft)	946	423
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 25: 5th Street & Chipeta Ave

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	42	44
Average Queue (ft)	19	20
95th Queue (ft)	45	45
Link Distance (ft)	421	946
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: 4th Street & Chipeta Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	38	42
Average Queue (ft)	19	19
95th Queue (ft)	44	45
Link Distance (ft)	947	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 29: 5th Street & Ouray Ave

Movement	EB	WB	NB
Directions Served	LT	TR	LT
Maximum Queue (ft)	41	44	3
Average Queue (ft)	19	19	0
95th Queue (ft)	44	44	3
Link Distance (ft)	420	953	314
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 30: 4th Street & Ouray Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	42	48
Average Queue (ft)	19	20
95th Queue (ft)	44	46
Link Distance (ft)	961	420
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 33: 5th Street & Grand Ave

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	T	TR	L	T	T	R
Maximum Queue (ft)	91	132	122	293	264	110	108	116	74
Average Queue (ft)	41	62	54	181	147	45	43	49	27
95th Queue (ft)	79	111	110	262	240	91	85	92	68
Link Distance (ft)		424	424	956	956		301	301	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	75					100			50
Storage Blk Time (%)	2	9				2	0	12	1
Queuing Penalty (veh)	6	8				3	0	13	1

Intersection: 34: 4th Street & Grand Ave

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	T	R	L	T	T	LT	TR
Maximum Queue (ft)	232	196	122	83	97	110	169	198
Average Queue (ft)	138	89	33	31	47	48	90	107
95th Queue (ft)	210	174	88	67	82	93	149	173
Link Distance (ft)	962	962			424	424	319	319
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			100	150				
Storage Blk Time (%)		4	0					
Queuing Penalty (veh)		3	0					

Intersection: 37: 5th Street & White Ave

Movement	EB	WB	NB
Directions Served	LT	TR	LT
Maximum Queue (ft)	67	66	3
Average Queue (ft)	30	32	0
95th Queue (ft)	57	56	5
Link Distance (ft)	437	960	300
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 38: 4th Street & White Ave

Movement	EB	WB	SB	SB
Directions Served	TR	LT	LT	TR
Maximum Queue (ft)	65	108	174	185
Average Queue (ft)	24	46	92	108
95th Queue (ft)	58	93	150	167
Link Distance (ft)	944	437	293	293
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				



Intersection: 41: 5th Street & Rood Ave

Movement	EB	EB	WB	NB	NB
Directions Served	L	T	TR	LT	TR
Maximum Queue (ft)	81	110	112	83	78
Average Queue (ft)	31	39	43	35	28
95th Queue (ft)	72	88	88	72	65
Link Distance (ft)		440	971	305	305
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	70				
Storage Blk Time (%)	2	3			
Queuing Penalty (veh)	1	2			

Intersection: 42: 4th Street & Rood Ave

Movement	EB	WB	WB	SB	SB
Directions Served	TR	L	T	LT	TR
Maximum Queue (ft)	115	83	111	65	75
Average Queue (ft)	46	25	43	23	27
95th Queue (ft)	93	67	91	57	63
Link Distance (ft)	1007		440	297	297
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		65			
Storage Blk Time (%)		1	4		
Queuing Penalty (veh)		1	1		

Intersection: 45: 5th Street & Main St

Movement	EB	WB	NB	NB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	191	143	218	216
Average Queue (ft)	86	66	125	124
95th Queue (ft)	152	121	195	194
Link Distance (ft)	429	967	311	311
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 46: 4th Street & Main St

Movement	EB	WB	SB	SB
Directions Served	TR	LT	LT	TR
Maximum Queue (ft)	146	91	170	202
Average Queue (ft)	68	27	84	109
95th Queue (ft)	125	67	152	176
Link Distance (ft)	900	429	309	309
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 49: 5th Street & Colorado Ave

Movement	EB	WB	NB	NB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	78	82	8	5
Average Queue (ft)	39	37	0	0
95th Queue (ft)	65	64	6	3
Link Distance (ft)	430	972	263	263
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 50: 4th Street & Colorado Ave

Movement	EB	WB	SB
Directions Served	TR	LT	LT
Maximum Queue (ft)	63	68	6
Average Queue (ft)	34	33	0
95th Queue (ft)	56	53	5
Link Distance (ft)	940	430	306
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 53: 5th Street & Ute Ave

Movement	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	LT	T	R	L	T	T
Maximum Queue (ft)	270	278	246	75	117	112	74
Average Queue (ft)	165	185	142	31	53	38	24
95th Queue (ft)	238	258	231	80	103	80	60
Link Distance (ft)	971	971	971			320	320
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				50	100		
Storage Blk Time (%)			20	0	2	0	
Queuing Penalty (veh)			15	2	5	1	

Intersection: 54: 4th Street & Ute Ave

Movement	WB	WB	SB	SB
Directions Served	LT	T	T	TR
Maximum Queue (ft)	239	240	144	192
Average Queue (ft)	131	141	60	102
95th Queue (ft)	211	222	117	162
Link Distance (ft)	387	387	287	287
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 57: 5th Street & Pitkin Ave

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	TR	R	T	TR	L	T	T
Maximum Queue (ft)	381	386	360	299	244	70	294	287
Average Queue (ft)	268	277	221	178	129	11	189	180
95th Queue (ft)	358	366	308	268	224	42	267	260
Link Distance (ft)	378	378	378	513	513		320	320
Upstream Blk Time (%)	0	0	0				0	0
Queuing Penalty (veh)	2	2	0				0	0
Storage Bay Dist (ft)						50		
Storage Blk Time (%)						1	34	
Queuing Penalty (veh)						4	3	

Intersection: 58: 4th Street & Pitkin Ave

Movement	EB	EB	EB	NB	SB	SB
Directions Served	T	T	TR	R	L	LT
Maximum Queue (ft)	315	338	272	42	46	75
Average Queue (ft)	211	213	160	12	12	26
95th Queue (ft)	291	293	257	37	39	60
Link Distance (ft)	943	943	943	490	323	323
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 144

Intersection: 5: 5th Street & North Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	T	R
Maximum Queue (ft)	141	370	366	149	350	327	109	202	166	92	150	88
Average Queue (ft)	28	227	227	71	196	174	61	89	83	40	60	27
95th Queue (ft)	96	344	345	146	311	285	114	161	140	80	118	65
Link Distance (ft)		386	386		972	972		312	312		607	
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	1									
Storage Bay Dist (ft)	125			125			85			75		75
Storage Blk Time (%)		21		0	15		3	9		2	7	0
Queuing Penalty (veh)		6		3	16		4	7		3	8	0

Intersection: 6: 4th Street & North Ave

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	47	20	37	78	10	4	110	92
Average Queue (ft)	14	1	2	36	0	0	51	34
95th Queue (ft)	41	15	18	69	6	3	87	79
Link Distance (ft)		973	973		386	386	311	613
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100			100				
Storage Blk Time (%)		0		0				
Queuing Penalty (veh)		0		2				

Intersection: 9: 5th Street & Belford Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	96	84	57	71
Average Queue (ft)	44	37	6	7
95th Queue (ft)	77	65	33	38
Link Distance (ft)	397	937	290	312
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: 4th Street & Belford Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	42	57	39	44
Average Queue (ft)	22	30	3	5
95th Queue (ft)	47	49	20	26
Link Distance (ft)	953	397	294	311
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: 5th Street & Teller Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	52	59	52	63
Average Queue (ft)	24	29	5	7
95th Queue (ft)	49	53	27	35
Link Distance (ft)	402	954	295	290
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 14: 4th Street & Teller Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	54	42	42	38
Average Queue (ft)	25	25	3	3
95th Queue (ft)	49	46	20	20
Link Distance (ft)	953	402	293	294
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: 5th Street & Hill Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	50	50	51	63
Average Queue (ft)	25	25	5	6
95th Queue (ft)	49	48	27	33
Link Distance (ft)	401	966	332	295
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 18: 4th Street & Hill Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	51	44	51	38
Average Queue (ft)	23	25	3	4
95th Queue (ft)	48	47	20	22
Link Distance (ft)	946	401	333	293
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 21: 5th Street & Gunnison Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	62	69	5	42
Average Queue (ft)	32	36	0	2
95th Queue (ft)	55	60	4	18
Link Distance (ft)	399	967	337	332
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 22: 4th Street & Gunnison Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	64	58	7	8
Average Queue (ft)	32	32	0	0
95th Queue (ft)	54	51	4	5
Link Distance (ft)	958	399	338	333
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 25: 5th Street & Chipeta Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	60	58	66	55
Average Queue (ft)	26	27	7	6
95th Queue (ft)	52	52	39	32
Link Distance (ft)	396	958	288	337
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 26: 4th Street & Chipeta Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	53	50	46	44
Average Queue (ft)	27	24	3	4
95th Queue (ft)	49	47	24	23
Link Distance (ft)	958	396	287	338
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				



Intersection: 29: 5th Street & Ouray Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	57	56	55	53
Average Queue (ft)	26	26	6	6
95th Queue (ft)	51	50	33	31
Link Distance (ft)	384	959	314	288
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: 4th Street & Ouray Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	53	48	57	41
Average Queue (ft)	26	24	5	4
95th Queue (ft)	48	48	30	22
Link Distance (ft)	967	384	319	287
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 33: 5th Street & Grand Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	80	82	100	124	255	224	125	303	75	116	242
Average Queue (ft)	34	35	41	41	156	121	62	152	30	19	109
95th Queue (ft)	72	68	82	111	232	202	127	273	81	64	196
Link Distance (ft)		393	393		969	969		300			314
Upstream Blk Time (%)								0			0
Queuing Penalty (veh)								2			0
Storage Bay Dist (ft)	75			100			100		50	100	
Storage Blk Time (%)	2	1		0	20		1	30	0	0	12
Queuing Penalty (veh)	5	1		1	9		3	45	1	0	2

NA-TWLTL

Intersection: 34: 4th Street & Grand Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	102	207	194	90	61	136	150	124	221	107	181
Average Queue (ft)	24	124	87	16	18	74	82	43	103	24	84
95th Queue (ft)	72	191	162	58	49	119	133	105	186	67	153
Link Distance (ft)		968	968			393	393		294		319
Upstream Blk Time (%)									0		
Queuing Penalty (veh)									0		
Storage Bay Dist (ft)	100			100	100			100		100	
Storage Blk Time (%)	0	13	4	0		3		0	10	0	7
Queuing Penalty (veh)	0	4	1	0		1		0	6	0	2

NA-TWLTL

Intersection: 37: 5th Street & White Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	57	72	97	68
Average Queue (ft)	25	33	15	7
95th Queue (ft)	51	59	59	35
Link Distance (ft)	401	972	299	300
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 38: 4th Street & White Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	60	63	57	54
Average Queue (ft)	26	30	6	4
95th Queue (ft)	55	55	33	27
Link Distance (ft)	950	401	296	294
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 41: 5th Street & Rood Ave

Movement	EB	EB	WB	NB	SB
Directions Served	L	TR	LTR	LTR	LTR
Maximum Queue (ft)	41	55	81	67	76
Average Queue (ft)	21	29	40	8	11
95th Queue (ft)	46	49	66	38	45
Link Distance (ft)		416	983	305	299
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	70				
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			

Intersection: 42: 4th Street & Rood Ave

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	TR	LTR	LTR
Maximum Queue (ft)	71	31	79	72	68
Average Queue (ft)	38	11	39	7	7
95th Queue (ft)	64	34	63	39	36
Link Distance (ft)	1018		416	309	296
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		65			
Storage Blk Time (%)			1		
Queuing Penalty (veh)			0		

Intersection: 45: 5th Street & Main St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	232	155	116	102
Average Queue (ft)	120	75	37	42
95th Queue (ft)	201	134	86	87
Link Distance (ft)	405	979	311	305
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 46: 4th Street & Main St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	157	172	134	113
Average Queue (ft)	78	82	56	36
95th Queue (ft)	135	148	113	82
Link Distance (ft)	912	405	306	309
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 49: 5th Street & Colorado Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	64	80	59	96
Average Queue (ft)	30	37	5	14
95th Queue (ft)	55	65	33	55
Link Distance (ft)	391	983	263	311
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 50: 4th Street & Colorado Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	58	58	31	36
Average Queue (ft)	31	32	2	3
95th Queue (ft)	54	51	15	21
Link Distance (ft)	952	391	286	306
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 53: 5th Street & Ute Ave

Movement	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	LT	T	R	L	L	T	T	R
Maximum Queue (ft)	320	431	341	75	125	306	273	178	41
Average Queue (ft)	210	253	210	28	90	149	102	82	8
95th Queue (ft)	295	358	305	80	155	267	201	149	27
Link Distance (ft)	977	977	977			318	318	263	263
Upstream Blk Time (%)						1	0		
Queuing Penalty (veh)						3	1		
Storage Bay Dist (ft)				50	100				
Storage Blk Time (%)			40	1	5	23			
Queuing Penalty (veh)			18	3	6	31			

Intersection: 54: 4th Street & Ute Ave

Movement	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	404	402	74	147
Average Queue (ft)	242	250	16	55
95th Queue (ft)	475	476	53	119
Link Distance (ft)	379	379	324	286
Upstream Blk Time (%)	7	8		
Queuing Penalty (veh)	38	41		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 57: 5th Street & Pitkin Ave

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	LT	TR	R	T	TR	L	T	T
Maximum Queue (ft)	329	351	319	428	452	61	332	332
Average Queue (ft)	100	112	88	183	283	9	221	217
95th Queue (ft)	215	229	197	384	462	37	321	318
Link Distance (ft)	385	385	385	441	441		318	318
Upstream Blk Time (%)	0	0	0	1	2		1	1
Queuing Penalty (veh)	1	1	0	0	0		2	2
Storage Bay Dist (ft)						50		
Storage Blk Time (%)						0	30	
Queuing Penalty (veh)						1	2	

---

Intersection: 58: 4th Street & Pitkin Ave

---

Movement	EB	EB	EB	NB	SB
Directions Served	LT	T	TR	TR	LT
Maximum Queue (ft)	336	339	293	52	170
Average Queue (ft)	216	216	159	12	67
95th Queue (ft)	314	309	271	39	136
Link Distance (ft)	948	948	948	442	324
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

---

Network Summary

---

Network wide Queuing Penalty: 285

---



GRAND JUNCTION

# 4<sup>TH</sup> & 5<sup>TH</sup> ST

FEASIBILITY STUDY



**Public Comments Received**

**March 2022**

# PUBLIC COMMENTS RECEIVED

## 4<sup>TH</sup> STREET





All Comments for 4th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
Traffic moving south on 4th at the Colorado Intersection frequently stops when they have the right of way.	<b>Optimize Traffic Circulation</b>	<b>Enhance Safety</b>		Interactive Map
Also and sort of related, I like the quirky fun jog in the road you have to make when accessing 4th street heading south from North Ave. Its always a nice drive or bike thru this neighborhood on the one ways.	<b>Improve Walkability and Bikeability</b>	<b>Optimize Traffic Circulation</b>	<b>Other</b>	Interactive Map
My only issue is the intersection of 4th and Pitkin: Can't the city put up a sign or two telling people that it is PERMISSIBLE to make a left turn on red from 4th to Pitkin...And from BOTH LANES!!!  I have seen too many drivers who will sit there for the full cycle of the light when there is nobody coming on Pitkin. Then when I give a courtesy beep, they usually give the single finger salute.	<b>Optimize Traffic Circulation</b>			Email
It would be easier and cheaper to just re-route 4th St through the park and connect it straight into Hwy50.	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Interactive Map
I am in favor of converting 4th Street to two way traffic on the condition that on-street parking on 4th St. is eliminated from North Ave. to at least Grand Ave. and bike lanes are added to each direction.  With continued on-street parking and two way traffic this could turn out to be one of the most dangerous streets in the city for bicyclists and pedestrians.	<b>Other</b>	<b>Improve Walkability and Bikeability</b>	<b>Activate Economic Development</b>	Interactive Map
We have had two of our cars hit by traffic when parked on 4th with one being totaled. We stopped parking there	<b>Enhance Safety</b>	<b>Activate Economic Development</b>		Email
Drivers and Bicyclists are only hesitating or totally ignoring the stop signs on the corner of 4th and Ouray	<b>Improve Walkability and Bikeability</b>	<b>Optimize Traffic Circulation</b>		Email
The church has a food pick up in their back parking lot on the second Monday of the month. The crazy actions of drivers during that time has been worrisome	<b>Enhance Safety</b>			Email





All Comments for 4th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
Once a day we witness a vehicle going the wrong way on 4th from Ute or the alley in between Colorado and Ute heading heading North	<b>Enhance Safety</b>			Interactive Map
At least once every other week the speed of traffic heading south on 4th causes an accident at ute and 4th.  With the volume of traffic on 4th and construction dump trucks speeding toward the dump it is dangerous for pedestrians.  It is difficult to pull out of parking spots between Colorado and Ute because of the speed of cars heading south on 4th.  There is a DAYCARE in between Colorado and Ute off 4th in which parents are dropping off kids throughout the day off 4th with cars speeding by	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
I will welcome any improvement to wrong way drivers along 4th Street.	<b>Enhance Safety</b>			Interactive Map
I would like to see a pedestrian crosswalk here (4th & Colorado) similar to the ones on 12th Street by the college. It needs to be "Flashing" signal indicating that a pedestrian has the right of way and cars must stop to allow a safe crossing.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
Slowing the traffic as it turns left off of Bedford onto 4th Street is very important. I live on the corner of 4th and Teller Ave. Drivers speed through that corner like it is a raceway, making it difficult to turn onto 4th Street from Teller Ave or from the alley. I can't see around corners, can you?	<b>Enhance Safety</b>			Email

All Comments for 4th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
Please do not put a traffic light at Bedford and 4th. Add a 4 way stop, or some speed bumps. Enforce the speed limit. The speed limit should be quite slow on Belford and all the way to Hall on 4th Street, say 15-20 mph. Keep in mind this is a residential area, and traffic lights and 4 way stops will increase noise by requiring full stops, followed by a rush of backed up cars.	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Email
4th & Belford Ave - people don't drive the right way here	<b>Enhance Safety</b>			Public Open House (5/4/21)
Need arrows for the direction of lanes	<b>Enhance Safety</b>			Public Open House (5/4/21)
Have more times motorists stop	<b>Enhance Safety</b>			Public Open House (5/4/21)
Posted speed limit on road	<b>Enhance Safety</b>			Public Open House (5/4/21)
Post more speed limit signs	<b>Enhance Safety</b>			Public Open House (5/4/21)
4th & Grand Ave - very unfriendly to cross	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Public Open House (5/4/21)
4th & Grand Ave - ped signal is not actuated by pedestrian	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
4th & Ute - driver confusion getting to Hwy 50	<b>Optimize Traffic Circulation</b>	<b>Enhance Safety</b>		Public Open House (5/4/21)
4th & Pitkin - how would 4th St transition onto Pitkin?	<b>Optimize Traffic Circulation</b>			Public Open House (5/4/21)
Add buffered bike lanes	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
4th & Teller Ave - School District admin building; community visits at times	<b>Other</b>			Public Open House (5/4/21)
4th & Hill - slower speeds may encourage more park use, add to enjoyment	<b>Enhance Safety</b>			Public Open House (5/4/21)





All Comments for 4th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
Add stop lights on 4th St between North Ave & Grand	<b>Optimize Traffic Circulation</b>			Public Open House (5/4/21)
4th & Gunnison - school access; flashing lights and raised crossings	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>		Public Open House (5/4/21)
4th & Pitkin - traffic accidents	<b>Enhance Safety</b>			Public Open House (5/4/21)
Between Grand and Pitkin, create a more park-like setting, like Main Street, where traffic is slowed and cars and bikes share the road. Between Grand and North, prioritize buffered bike lanes over on-street parking. Use planters to separate bike lanes from traffic and to make the street more attractive.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Survey #1 (5/11/21)
In my time living and operating businesses in Grand Junction, have yet to observe enforcement of the speed limit and to prevent reckless driving.	<b>Enhance Safety</b>			Survey #1 (5/11/21)
If the two way plan does not go through, then more One Way signs are needed. I live and work in that corridor and see vehicles going the wrong direction regularly.	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Survey #1 (5/11/21)
This isn't a pedestrian or bicycle friendly area.	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)
5th Street is the preferred bicycle route due to the signalized intersection at North Ave. If 5th Street is created as a bicycle corridor, then 4th Street would not be important in this regard and priorities other than bikeability can take precedence. If, though, 5th Street is not designed to prioritize bicycling, then 4th Street will be important for this purpose.	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)
Upper and lower 4th Street are like two entirely different environments. They need to be considered independently. Any area near Whitman park needs to be a serious consideration for safety and code enforcement. The only County Museum is near by with inadequate entrances and exits and parking.	<b>Enhance Safety</b>			Survey #1 (5/11/21)



All Comments for 4th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
I believe more stop signs/stop lights need to be added to the 4th Street corridor to slow the flow of traffic. My employer is on 4th Street and I have seen at least 10-20 accidents every year on the corners of 4th and Main, 4th and Colorado, and 4th and Ute. Additionally, the lights need to be re-programmed on 4th street so as to avoid them all lining up to be green at the same time. The lights are currently timed such that they are green from Grand until Ute at the same time. This causes vehicles to drive much faster than the speed limit, causing accidents. There need to be more/better pedestrian crossings on 4th Street, the implementation of the push light crossings used on 12th Street would greatly improve the walking traffic in the downtown area.	<b>Optimize Traffic Circulation</b>	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>	Survey #1 (5/11/21)
I think if 5th street is two way, traffic will increase on 5th and decrease on 4th.	<b>Other</b>			Survey #1 (5/11/21)
Help the downtowners keep their streets free from traffic heading to and from downtown to prevent more noise and more vehicle and motor cycle activity. Please funnel keep 4th and 5th one way. Beef up 1st, 7th and 12th for easy access to and from downtown.	<b>Other</b>			Survey #1 (5/11/21)
Do not change the current one way corridors to two way corridors. Grand Junctionites as well as visitors from Moab, Montrose, Delta, Rifle, Glenwood, Aspen etc are used to the one way corridors. Dont change something that isnt broken.	<b>Other</b>			Survey #1 (5/11/21)
I think that the current one way streets work well to increase safety and traffic flow. To make the streets two way would negatively impact safety when backing out of parking spaces.	<b>Enhance Safety</b>			Survey #1 (5/11/21)
It is 100% normal for metropolitan cities to have one way roads, how many tens of thousands of dollars have you wasted pondering such an asinine solution to your problem?	<b>Other</b>			Survey #1 (5/11/21)



All Comments for 4th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
Overall, traffic over time is going to get worse. Grand Junction is embracing ADU's (Additional Dwelling Units) on properties in the downtown area. More people = more traffic. I am in favor of one way corridors, although you can come up with ways to slow the speeds. 2 way streets on 4th & 5th will constrict traffic and we may be sorry in the long run	<b>Enhance Safety</b>			Survey #1 (5/11/21)
traffic control onto the streets that feed or exit 4th in neighborhood	<b>Optimize Traffic Circulation</b>			Survey #1 (5/11/21)
Please be as creative as possible with the plans and changes--ie look at other progressive cities and what they have done.	<b>Other</b>			Survey #1 (5/11/21)
Just make it easier	<b>Other</b>			Survey #1 (5/11/21)
I would like to see a number of accidents, type and severity that have happened on these two streets for the past 2 decades!	<b>Enhance Safety</b>			Survey #1 (5/11/21)
This proposal does not enhance safety. The primary traffic in the downtown area is along Main Street where pedestrians walk and always will be. It is MUCH easier to walk across 4th and 5th streets if they are one way. If you make 4th and 5th two-way streets, pedestrians will have to look both ways to cross them. How does that make anyone safer? Also, with one-way streets, you don't have to wait for the stoplights to turn green to cross them. Once the traffic passes one way, it's then easy and safe to cross even on a red light. With two-way traffic, most pedestrians will have to wait for the stoplight to turn green before they walk and this does not help the pedestrian walking flow. This is one of those proposals where you just kind of wonder "Why fix what ain't broken??" In fact, you should consider making 3rd and 6th one-way streets instead as your proposal. This is what most functioning downtowns do with their streets to increase traffic and pedestrian flow.	<b>Enhance Safety</b>	<b>Other</b>		Survey #1 (5/11/21)



All Comments for 4th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
This should be left as a one way road; better signage will help with drivers going the wrong way. The one way roads allow for better traffic flow, it is only a block apart so there isn't an issue getting off and going to the other road when driving. To make Downtown safer and more pedestrian friendly look at slowing traffic sooner, before the 5th St. bridge; patrol the area and issue citations; Make crosswalks safer and wider, flashing lights (ea-CMU). As Grand Junction grows consider bridged walkways going over the traffic with plants and flowers to enhance the appearance.	<b>Optimize Traffic Circulation</b>	<b>Improve Walkability and Bikeability</b>	<b>Other</b>	Survey #1 (5/11/21)
I know a few people who have accidentally drove up the one ways, the wrong way before. Making them 2 ways would eliminate the extreme safety concern of accidentally going the wrong way on a one way street. More street lighting is definitely a must as well. Walking around these area's at night feels dangerous if your not wearing bright reflectively gear, like a flagger. And not everyone has the ability to be all lit up while walking around. Safer crosswalks. And more of them would just be great over all.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Survey #1 (5/11/21)
All for it! Thank you	<b>Other</b>			Survey #1 (5/11/21)
the double turn lane from 4th to pitkin is awful. People constantly turn into the wrong lane and almost hit those of us that turn into the proper lane.	<b>Enhance Safety</b>			Survey #1 (5/11/21)

# PUBLIC COMMENTS RECEIVED

## 5<sup>TH</sup> STREET







All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
It will certainly make crossing 5th street at Colorado or Main much safer as it will reduce the raceway speeds of northbound traffic. And it will aid parking on 5th and hopefully make backing out of the angled parking safer.	<b>Enhance Safety</b>	<b>Activate Economic Development</b>		Email
The speed of traffic moving north on 5th street here is dangerous. I've seen cars going past Roasted and Tacoparty at easily 50 mph.	<b>Enhance Safety</b>			Online Interactive Map
Reduce the crossing distance on 5th and Colorado. Possibly incorporate more art or landscaping	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>	<b>Activate Economic Development</b>	Online Interactive Map
Add a designated bike lane on 5th street	<b>Improve Walkability and Bikeability</b>			Online Interactive Map
Changing 5th street to 2 way traffic will just make this a cut thru for heavy traffic between North Ave and 5th street bridge/ 50. It will destroy the quality of life in downtown neighborhoods and parks along 5th street. Its a horrible idea to make 5th street a 2 way road.	<b>Optimize Traffic Circulation</b>	<b>Encourage Neighborhood Connectivity</b>	<b>Other</b>	Online Interactive Map
Same with turning right from Pitkin to 5th St/Highway 50 South: A lot of people don't watch the light with the green right arrow and only look at the overhead lights. Some simple signage could go a long way to educate the illiterate drivers.	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Email
I've seen many car accidents here. Two way slower traffic would be welcome. Also better access to the library.	<b>Enhance Safety</b>			Online Interactive Map
Add a designated bike lane on 5th street.	<b>Improve Walkability and Bikeability</b>			Online Interactive Map
Eliminating the one-way streets on 4th and 5th will just mean everyone takes 5th. Traffic in the area is already congested enough. Grand Junction is already having growing pains. Don't make the traffic problems worse.	<b>Optimize Traffic Circulation</b>			Online Interactive Map



All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
<p>I am in favor of converting 5th Street to two way traffic on the condition that on-street parking on is eliminated from North Ave. to at least Grand Ave. and bike lanes are added to each direction.</p> <p>There also needs to be a dedicated through going bike lane to the left of the right turn lane and to the right of the through going travel lane at both Grand Avenue and North Avenue along with dashed lines in the bike/car conflict zone.</p>	<b>Activate Economic Development</b>	<b>Improve Walkability and Bikeability</b>		Online Interactive Map
<p>I personally like the one-way streets. But my comment is focused on the bike lane on fifth Street as you approach North Ave. The bike lane abruptly ends. If you're redoing these streets with bike lanes please continue the bike lanes into the intersections...Bike lanes that abruptly end into a narrow vehicle lane with no warning to motorists or bikers are dangerous.</p>	<b>Other</b>	<b>Improve Walkability and Bikeability</b>		Online Interactive Map
<p>We own a business in this block (5th between Rood and Main) and access to future from the alley is very dangerous. Making it a two way would lessen the danger associated with making a blind right turn onto 5th. Other allies in the area have similar issues.</p>	<b>Enhance Safety</b>			Online Interactive Map
<p>During the day at the intersection of 5th and main, at any average red light there are 2-3 cars in both lanes waiting on the light. My concern is that if 5th is turned into a 2 way street is that traffic during busy hours will be backed up twice as far, with the possibility of being backed up to colorado and causing a host of other traffic problems. 5th street is a major ingress to the city as it is fed by hwy 50. If you are absolutely determined to proceed with this plan, perhaps a 3 lane situation would be best. Two lanes going north and one going south. This would keep all traffic problem at a minimum and still give you the 2 way access you seem to desire. This would also keep people from avoiding downtown due to traffic problems</p>	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Email



All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
I can see traffic heading north on 5th St from the 5th St. bridge. As they come down the north side of the bridge vehicles, if they hit the traffic light at Pitkin on a green light, really start picking up speed so that they can make it through the signal light at Ute, Pitkin, Main, Rood and beyond. All of these lights are "timed" and regular traffic people know this. Speeding on 5th is a big problem. I've seen large commercial trucks going through 5th and Main at a higher, than I believe, at a high rate of speed putting pedestrians at risk.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Email
I've seen many times where vehicles in the right lane of travel on 5th St. turn across in front on vehicles in the left lane to turn west on Main St. Close accidents.	<b>Enhance Safety</b>			Email
Vehicles that are going eastbound on Main and turning right onto 5th St. have a blind corner and cannot see pedestrians crossing on the north side crosswalk. That crosswalk concerns me as people crossing do not see traffic coming.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Email
Now, further up 5th St, I have seen so many vehicles that are eastbound on Rood make a wrong turn and turn south onto 5th St in the wrong direction. I have on many occasions to go out and do traffic control to stop traffic for safety reasons so there would not be a accident. I've even see police officers dealing with wrong way drivers.	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Email
5th St is a very unsafe way of travel for vehicle traffic. I feel that ONLY delivery vehicles to local business's should be allowed on that street. Other commercial vehicles should be rerouted for the safety of pedestrians. 5th and Main should be evaluated for the safety of all.	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>	<b>Improve Walkability and Bikeability</b>	Email
I urge the city to make 5th St a two way street and and to make it safer for our out of town visitors as well as the locals who spend so much time enjoying our beautiful downtown.	<b>Enhance Safety</b>	<b>Other</b>		Email
5th street makes a great through cycling street to get from downtown across Grand and up to the gold route on Orchard ave, and is a better road to cross North Ave Future design could enable this to be more heavily used connection into downtown.	<b>Improve Walkability and Bikeability</b>			Interactive Map



All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
While one ways always have the possibility of someone going the wrong way, this intersection (where people are leaving the library on 5th between Grand and Ouray) is particularly dangerous. Over the years, I have seen at least five people turn the wrong way on the one-way (maybe because they are thinking about their books and are less familiar with the neighborhood and naturally head towards the throughway Grand).	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Interactive Map
Making 5th two way would increase traffic on it substantially unless significant traffic calming efforts were made (why would drivers jog over to 4th unless forced to?). And if traffic calming efforts prevented that, traffic would be diverted to 7th and 1st. Heavier traffic on 7th would impact the residential areas between Pitkin and North. Heavier traffic on 1st would have a (lesser but still significant) effect to on the residential neighborhoods north of Orchard.	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Interactive Map
If 5th becomes two way, will north and south bike lanes be installed on 5th from Colorado to North Ave?	<b>Improve Walkability and Bikeability</b>			Interactive Map
5th street seems to be the preferred route for people heading north to get to 7th street. This can work in this manner, but driver behavior should be modified via traffic calming. This pattern likely helps reduce traffic on 7th from Main to North Ave, so I am in favor of maintaining the current pattern as it reduces 7th through the downtown section	<b>Enhance Safety</b>			Interactive Map
I visit this park often but crossing 5th street as a pedestrian is often challenging. I think this would only become more difficult as a two way street. Whether the streets are kept one way or changed to two way, I think this would be a good area for speed bumps (such as on 1st street between Orchard and Patterson) and crosswalks that feature a median and/or crossing lights. People drive way too fast here, especially considering the number of pedestrians using this park.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map



All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
5th & US Hwy 6 - Adding well marked, effective, and safe cycling facilities along this north/south route would provide a much needed connection. This would serve many including the high school and St Mary's Hospital from the downtown neighborhoods as well as provide safe and effective access to downtown. Given the terrible bike safety at 5th and North and no way for cyclists to trigger the light, myself and many others choose to cross at 6th and North. Improvements at this area would be much appreciated!	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>		Interactive Map
5th & US Hwy 6 -this is a scary place to have young kids. drivers are moving fast and not aware of children going to this awesome park. would greatly appreciate 2 way, slowing, and crosswalks!	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
5th & Colorado - This is a very important intersection for ped safety, may new developments have activated this area (bars, coffee shop, restaurants). It's becoming a focal point of downtown. Traffic from highway 50 needs to transition to a downtown context far in advance of reaching this intersection.	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>	<b>Activate Economic Development</b>	Interactive Map
5th between US Hwy 6 & Belford - This is a really bad place for cyclists, especially going straight north to the high school. The bike lane just ends and then the street swerves, so you have to either clog up the right turn lane (which is heavily used by cars turning east onto North Ave) or cross over to the lane going straight well before the intersection. Every time I get to this location on a bike I pray to God that there aren't any cars behind me.	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>		Interactive Map
We are directly affected by everything that happens on 5th street. There are no houses on the other side of the street from us, so, we see it all, the good, the bad, and the strange. At least once a day we see someone driving the wrong way on the one way. We have all, almost been run down by drivers doing 60mph in a 25. We all get the, bars closed, diesel pickup drag racing, wake up call at 2 am. We are the intersection where everyone hits the gas before Gunison Ave. If it's not going to be a one way, maybe we can put in a	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Email



All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
cross walk and stop sign at Gunison so our kids can get across to the park?				
Why worry about the speed coming in to the new 2 lane 5th street . You can slow the 45 mph from UnawEEP to 40 mph--to the 35 mph on 5th.Drivers are used to coming into 5th street at top speed of 45mph, which is too fast anyway.	<b>Enhance Safety</b>			Email
I am in favor of anything that will slow traffic on 5th St between Grand St and North St. There presently are no stop signs or traffic lights on this stretch and traffic in regularly is 10-15 MPH over the 30 MPH speed limit. This poses serious safety issues on the corridor, which is frequented by students walking to GJHS, pedestrians using Hawthorne Park, and cyclists. Possibilities to calm traffic may be adding stop signs or small roundabouts, speed bumps, 2-way traffic, or a small boulevard.	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>	<b>Improve Walkability and Bikeability</b>	Interactive Map
Traffic shouldn't be slowed down as it already flows very poorly on 5th street. The speed limit is already ridiculously low at 35 mph. History has shown any changes the city of Grand Junction makes to streets always impact them negatively. Past examples include the back in parking debacle on 7th street and the horrible round-a-bout that doesn't meet D.O.T. standards at 7th and main.	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Interactive Map
5th & Gunnison is a busy intersection and may be an opportunity to add some sort of traffic control that would both slow traffic between Grand and North and improve pedestrian access to Hawthorn Park.	<b>Optimize Traffic Circulation</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map



All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
<p>There are 2 stop lights from 50 going north on 5th before the coffee shop. Seems if you want slower traffic the GJPD needs to enforce the speed limit.</p> <p>Two way traffic is more dangerous than one way. This will create dozens of left turn into oncoming traffic hazards in the downtown area unless a dozen roundabouts are installed. I dont see that as a good option for the amount of N&amp;SB traffic in the area. I also dont think theres enough room for them in most intersections.</p>	<b>Enhance Safety</b>			Interactive Map
<p>I commute along 4th and 5th street every day via bicycle. The bike lane along 5th street is regularly filled with debris and there is a dangerous point near 5th and Belford when the bike lane ends and the road constricts. It feels unsafe to merge back into traffic traveling at 35-40mph.</p>	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>		Interactive Map
<p>Cars move very fast up 5th and rarely stop for pedestrians at the crosswalk. It's also extremely hard to drive across the intersection on 5th and Colorado since the street parking obscures the view of incoming traffic. Adding two way traffic seems like it would add even more hazards than the ones already present. The light at 5th and main also gets very congested even with the two lanes. This would back up traffic past Colorado ave, which would then block pedestrians and cars trying to cross</p>	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Interactive Map
<p>This intersection (5th &amp; Gunnison) is a busy mix of fast traffic, bikes and pedestrians. It would be useful to have a light-up pedestrian walkway here and on 4th for access to the park</p>	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
<p>Cars are moving too fast through this area (5th &amp; Colorado) and we need speed reduction strategies here. I've also seen many cars going the wrong way on the one-way street.</p>	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Interactive Map
<p>5th &amp; North Ave - trucks race and screech to stop</p>	<b>Enhance Safety</b>			Public Open House (5/4/21)
<p>5th &amp; Belford Ave - difficult for bikes to go east</p>	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)

All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
5th & Belford Ave - people go through the parking lot at the corner to by pass the intersection; this should be fixed even if nothing else happens	<b>Enhance Safety</b>			Public Open House (5/4/21)
Keep bike lanes	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
5th & Gunnison Ave - school crossing at this intersection?	<b>Enhance Safety</b>			Public Open House (5/4/21)
Hill & Gunnison Ave near and along 5th - lot's of pedestrians crossing	<b>Improve Walkability and Bikeability</b>	<b>Improve Walkability and Bikeability</b>		Public Open House (5/4/21)
5th & Gunnison Ave - high accident location; people don't stop	<b>Enhance Safety</b>			Public Open House (5/4/21)
5th & Gunnison Ave - add a stop light	<b>Enhance Safety</b>			Public Open House (5/4/21)
5th & Gunnison Ave - uncontrolled marked crosswalk	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Public Open House (5/4/21)
5th & Grand Ave - very pedestrian unfriendly	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
Enforce the speed limits	<b>Enhance Safety</b>			Public Open House (5/4/21)
Prioritize the mobility of people	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
5th & Rood Ave - enforce the speed limits	<b>Enhance Safety</b>			Public Open House (5/4/21)
Bike safety	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
5th & Main - better signage	<b>Other</b>			Public Open House (5/4/21)
5th & Main - artwork on corners of Main St block views; artwork is great! But not on the corners. Trees also block views.	<b>Enhance Safety</b>	<b>Activate Economic Development</b>		Public Open House (5/4/21)







All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
5th & Colorado - lot's of pedestrian activity here	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>		Public Open House (5/4/21)
5th between Colorado & Ute - diagonal parking doesn't work any longer	<b>Activate Economic Development</b>			Public Open House (5/4/21)
High speeds coming off the 5th St bridge	<b>Enhance Safety</b>			Public Open House (5/4/21)
More posted speed limit signs	<b>Enhance Safety</b>			Public Open House (5/4/21)
Main highway moves traffic north on 5th; where would this way begin?	<b>Optimize Traffic Circulation</b>			Public Open House (5/4/21)
5th & Ute - reduce speed earlier	<b>Enhance Safety</b>			Public Open House (5/4/21)
5th between Colorado & Ute - consider raised crosswalk across 5th	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
5th & Ute - inconvenient and confusing Hwy 50 access	<b>Optimize Traffic Circulation</b>			Public Open House (5/4/21)
5th & Pitkin - lower speed limit on southside of RR bridge	<b>Enhance Safety</b>			Public Open House (5/4/21)
5th & North Ave - this needs a bike detector; no light change if no car present	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
5th & Colorado Ave - the parking lot is used as a turn around	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Public Open House (5/4/21)
5th & Colorado Ave - confusing intersection	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Public Open House (5/4/21)
Preference is to keep as is	<b>Other</b>			Public Open House (5/4/21)
5th & Teller Ave - raised crossings?	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>		Public Open House (5/4/21)
Opposition to two-way; 26 left turns	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Public Open House (5/4/21)

All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
5th & Grand Ave - crossing Grand is problematic	<b>Enhance Safety</b>			Public Open House (5/4/21)
Difficult to back out of diagonal parking spaces due to speed of vehicles	<b>Enhance Safety</b>			Public Open House (5/4/21)
5th & Rood Ave - wrong way conflicts	<b>Enhance Safety</b>			Public Open House (5/4/21)
Crossing 5th conflicts	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Public Open House (5/4/21)
Possible to re-route trucks?	<b>Enhance Safety</b>			Public Open House (5/4/21)
5th & Main St - Larry's spot	<b>Other</b>			Public Open House (5/4/21)
5th & Main - outside lane turn conflicts	<b>Enhance Safety</b>			Public Open House (5/4/21)
5th St "raceway"	<b>Enhance Safety</b>			Public Open House (5/4/21)
Important bicycle connectivity	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
Bike to north Pitkin	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
5th & Colorado Ave - pick up trucks stick into traffic when parking	<b>Enhance Safety</b>			Public Open House (5/4/21)
Is there an alternative route to reduce traffic on 5th?	<b>Optimize Traffic Circulation</b>			Public Open House (5/4/21)
High speed / light timing off 5th bridge	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Public Open House (5/4/21)
Close both sides to parking and add protected bike lanes. Use of bollards will have several benefits: protect cyclists from motorized traffic, narrow the driving lanes to help slow traffic, and provide safer crossings for pedestrians.	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)





All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
Have yet to experience law enforcement to prevent speeding and reckless driving and otherwise using 4th and 5th Streets as raceways.	<b>Enhance Safety</b>			Survey #1 (5/11/21)
We need a southbound bike lane! More and better crossings to Hawthorne Park.	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)
Options for north-south travel by bicycle between Orchard Ave. and downtown Grand Junction are very limited. In the distant past, 10th Street extended to Orchard Ave. however college expansion eliminated this route. The City has done a great job on 1st Street, but the poorly thought out changes the CDOT is making to the intersection of 1st Street and Grand Avenue will greatly limit that route's usefulness and appeal for bicyclists. Any viable north-south bike route needs to have a signalized intersection at North Avenue, which leaves 5th Street as the only viable option. In order to be a safe, desirable bicycle corridor, 5th Street needs to be designed similar to how the City recently designed 1st Street between Orchard Ave. and North Ave: three lanes, buffered bike lanes, and NO on-street parking (on-street parking is a killer for bike routes due to the danger of getting "doored"). If 5th Street is not designed to safe bicycle corridor (e.g. if on-street parking is allowed), then the City would simply not have any safe, practical north-south routes into downtown. That would be a major black mark for a city that is currently designated as a 'bicycle friendly city'.	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)
Needs more law enforcement especially along the Hwy 50 portion	<b>Enhance Safety</b>			Survey #1 (5/11/21)
There seems to be an attitude that is very noticeable from the bicyclists who have an entitlement idea that they have privileges that are greater than motorists. Side by side riding is their greatest error. They need to get given tickets for impeding traffic and causing hazards.	<b>Enhance Safety</b>			Survey #1 (5/11/21)
All of the implementations suggested for the 4th Street also pertain to the 5th Street corridor as I believe these two street share the same problems of speeding traffic, high	<b>Enhance Safety</b>			Survey #1 (5/11/21)



All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
amounts of traffic accidents, and inaccessibility and/or poor crosswalk conditions for pedestrians.				
Please keep 5th one way. We who live downtown do not want two way traffic funneling loud coal burners, loud sport cars and motorcycles on our streets. Beef up 1st, 7th and 12th streets to funnel traffic to and from downtown. Please.	<b>Other</b>			Survey #1 (5/11/21)
Again its a Asinine to even be thinking about making 4th and 5th two way streets. In an aging community how many traffic accidents do you think you will create by changing direction of traffic on roads that people have driven on one way for 40,50, even 60 years...	<b>Other</b>			Survey #1 (5/11/21)
I ride my bike in the area a lot. If I don't feel comfortable riding on 5th,,,, I just move over to 6th. Real simple. Don't give bikes more priorities than cars	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)
It isn't just about 5th or 4th for that matter. How they exist affects the whole historic downtown residential neighborhood which GJ should strive to preserve for history, etc.	<b>Other</b>			Survey #1 (5/11/21)
Please be as creative as possible--look at other more progressive cities and use successful examples.	<b>Other</b>			Survey #1 (5/11/21)
I would like to see better bike lanes. However, I like 5th Street the way it is mostly.	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)
Leave this a One-Way Road. The issue for the DDA should be making walking safer with patrols, better sidewalks, and better/safer crosswalks.	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)



All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
<p>I am thinking of two monolith sculptures on both sides of the road somewhere near the museum and greyhound station or at the intersection of 5th and Colorado. Imagine a gateway-like structure to drive through that embodies the natural rocks of our wild land. Coupled with a painted design on the road that acts as both a visual cue to slow (maybe use reds, oranges, yellows) and also a yearly community engagement piece. Much like the current road mural that was painted at the fourway of 5th and Colorado, this can be repainted every year by anyone willing from the community. We could link it to a festival of sorts and use a paint by number method to complete. On top of all this I am dreaming of the idea to incorporate a lighting system that creates a lateral barrier, or connection between one monolith to the next, across the road that again acts as a visual cue to slow while not creating any physical structure spanning the road. The idea is to mimic the sun between these two monoliths. Maybe they are even on a track and rise/fall with the days and night. Hopefully this is making sense, a lot to take in.</p> <p>The Reno biggest little city is a good example of a, both sides of the road, drive through feature. However the aesthetic and subject would be way different. I have included a quick sketch that illustrated the idea better. Thinking of smooth rock features for both a minimal look and to deter climbing on. Also placing rugged plant life around to again deter climbing. This entire concept is acting as both a traffic slow but also a gateway from land to urban.</p> <p>Outside of scope</p>	<p><b>Other</b></p>			<p>Survey #1 (5/11/21)</p>



All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
<p>One way on 5th street greatly supports traffic flow coming from Orchard Mesa off of the 5th street bridge. Traffic from 7th street supports the access onto Ute to turn south onto the highway at 5th street. One way in and one way out is an accessible traffic flow to points south and north.</p> <p>It is WAY premature to be talking about redesigning traffic flow downtown while the construction is happening at the intersection of 1st and Grand. At minimum, traffic flow should be studied one year after first and Grand are finished and opened. This should draw traffic away from downtown.</p> <p>Bike traffic into downtown could be channeled by trail signs and clear street marking onto other streets such as 3rd and 6th to promote bicycle use on less travelled streets.</p> <p>Police presence to monitor speeding and red light running, as well as failure to yield, would do a great bit on managing safety downtown.</p>	<p><b>Optimize Traffic Circulation</b></p>	<p><b>Improve Walkability and Bikeability</b></p>	<p><b>Other</b></p>	<p>Email</p>
<p>However 5th Street in particular is a hindrance to all of this as people are “flying” in at 50-60 mph. This is not an exaggeration. The posted speed limit just before the bridge is 45. Yet people are easily coming off that bridge at extremely high speeds. Even if they get stopped at a red light they still are in that speed mode. There is only one small speed sign at 25 by old bus building. No one sees it or heeds it. I think there needs to be multiple signage starting at base of bridge by the first light. Repeated at 2nd light with added speed bumps. These can be the broad rounded type, enough to get the message to sink in that this is a busy area with restaurants and pedestrians and one of the best small town downtown areas. Put in a pedestrian walk way at 5th and Colorado with the flashing light like those near University and on Horizon. It is a State law to stop for pedestrians but that intersection shows nothing to remind people of this fact.</p> <p>Speeding in this city is one of its biggest most egregious problems!</p>	<p><b>Enhance Safety</b></p>	<p><b>Improve Walkability and Bikeability</b></p>		<p>Email</p>

All Comments for 5th Street				
Comment	Theme 1	Theme 2	Theme 3	Method
<p>I drive these roads almost daily and people are speeding on both with no enforcement at all.</p> <p>You need LARGE signage on 5th street bridge about reduced speed ahead and ENFORCE it cops giving tickets. Put in speed bumps after 2nd light by Museum. Enforce laws! I like general plan but downtown needs more parking and handicapped parking!</p>	<p><b>Enhance Safety</b></p>	<p><b>Activate Economic Development</b></p>		<p>Email</p>



# PUBLIC COMMENTS RECEIVED

## STUDY AREA







All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
This is a great and timely idea. It will make Main Street and Colorado Ave. more pedestrian friendly, boosting those areas for dining, etc. How about marked or segregated bike lanes too!	<b>Improve Walkability and Bikeability</b>	<b>Activate Economic Development</b>		Email
1 way is pretty nice. why are you wanting to change it?	<b>Other</b>			Interactive Map
Just leave it the way it is, it been like this for year's!	<b>Other</b>			Interactive Map
Instead of changing traffic flows on 4th and 5th streets and destroying the quality of life downtown. Please connect N 12th street with the bike lanes and sidewalks, add a gated crossing to S 12th all the way to Riverside Parkway. And build out a new Amtrak Station and transportation hub alongside the crossing. Lets improve and connect the cit . Add some more high rise buildings with balcony views. And count me in to purchase.	<b>Other</b>			Interactive Map
Keep it one way and add a bike lane	<b>Improve Walkability and Bikeability</b>	<b>Other</b>		Interactive Map
Keep 4th and 5th the way they are (one way). It's bad enough going past the main post office on the one way street with people criss-crossing the 2 lanes at the last minute or stopping in the traffic lane to wait for an open parking space in front of the PO.	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Email
I am a property owner on the corner of Fifth and Main , and I do support you two way traffic proposal. Please consider closing Main St , make it a walking biking, park for all the events downtown! A little stream rambling around to represent 2 rivers.	<b>Other</b>			Email
I think 4th and 5th streets need to be changed to two way lanes. It is very inconvenient to have to use one way streets and it makes it easier for people to speed. It will take some getting use to but it would definitely be worth it. Businesses and residential would be easier accessed if you could go both directions on both streets. Not to mention the countless times I have seen people who are not familiar with 4th and 5th streets, going the wrong way.	<b>Enhance Safety</b>	<b>Activate Economic Development</b>		Email



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
Make safer bike/pedestrian crossing for GJ residents who live north of North Ave to access downtown by walking or biking.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
Slowing traffic and making it better/safer for peds and bikes should be a priority. I would like to see one lane each direction with bike lanes and a center turn lane.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
I like 4th and 5th as 1-way streets - both as a driver and as a cyclist. Whatever you decide, please make sure there are bike lanes going both directions. Bikes need to have a way to cross North Avenue with a light. Preferably Grand, too.	<b>Other</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
7th and Colorado either needs a 4-way stop, a traffic signal or a roundabout.	<b>Other</b>			Interactive Map
This intersection needs a traffic light just as exists at intersections with both Main and Rood	<b>Other</b>	<b>Optimize Traffic Circulation</b>		Interactive Map
This "death curve" (US 50 & 1st) needs to be made less sharp.	<b>Other</b>	<b>Enhance Safety</b>		Interactive Map
A two-way 5th St instantly becomes the straightest most direct route through downtown to a Hwy50 as opposed to 4th which requires a left and then right turn. To handle the increased traffic flow 5th Street will need two lanes each way plus a center turn lane for a total of 5 lanes. This means all of the street side parking, bulb-outs, planters, etc will need to be removed. That will be expensive. Maybe instead just re-route 4th to go through Whitman Park and connect directly to Hwy50 at Pitkin.	<b>Other</b>			Interactive Map
Definitely need to connect 12th Street over the tracks to Riverside Parkway.	<b>Other</b>			Interactive Map
Seems like any conversation about this stretch connecting to Ute and Pitkin needs to go in concert with conversations about what CDOT has planned for the 50.	<b>Other</b>	<b>Optimize Traffic Circulation</b>		Interactive Map



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
<p>Changing these streets to two ways will make it more pleasant for bikes, pedestrians, shoppers, festival attendees, etc. by slowing traffic.</p> <p>It would hopefully change traffic patterns to move commuters to more commute friendly roads (Pitken, Ute, Riverside Parkway).</p> <p>It would make for safer parking at businesses like Ramblin and improve the outdoor atmosphere.</p> <p>It would hopefully minimize the number of accidents caused or almost caused by people turning the wrong way on the one ways.</p>	<b>Optimize Traffic Circulation</b>	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>	Interactive Map
<p>From a livability and pedestrian/bike perspective, I think whatever option would lower traffic speeds would be ideal. One ways move traffic, but also increase traffic speed which makes it worse for everyone else. Supporting active mobility should be a priority in this part of town.</p>	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
<p>Don't fix something that's not broken. 4th and 5th street work just fine as one ways. Quit wasting tax money and spend it on what's actually for maintaining the roads. There are so many potholes around town it's beginning to look like Denver.</p>	<b>Other</b>			Interactive Map
<p>Need to mark Grand Ave on map. And Pinks BBQ is long gone.</p>	<b>Other</b>			Interactive Map
<p>I would prefer to keep 4th and 5th as they are. They are effective at traffic flow, and if a visitor misses a turn they are just one block away from the option to turn around.</p> <p>I personally have lived or worked in larger downtown areas and one way streets are common and expected.</p>	<b>Other</b>	<b>Optimize Traffic Circulation</b>		Interactive Map
<p>Close Main Street to vehicle traffic between 3rd and 7th and make a pedestrian mall, still allowing cross traffic on 4th, 5th and 6th.</p> <p>Move the seating areas off the sidewalk to where the parking stalls and pullouts are. This would make the sidewalks more pedestrian friendly. The street can be for bikes. To make up for the lost two hour free parking open up more free parking on the adjacent cross streets and the public lots on Colorado Ave.</p>	<b>Activate Economic Development</b>	<b>Improve Walkability and Bikeability</b>	<b>Optimize Traffic Circulation</b>	Interactive Map



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
I applaud the goal to increase the walkability/biking in GJ but this project seems misguided. Downtown is already the most pedestrian and bike-friendly neighborhood of GJ. Most GJ residents do not live downtown!! Why are there 0 efforts to make other neighborhoods more walkable, or to improve bike/ped connectivity between neighborhoods? By ending this proposed project at North Ave, you clearly show that this is not your priority. North Ave is a death trap for pedestrians and bikers.	<b>Other</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
Better pedestrian/bike crossings on North Ave. How will people reach the "improved" 4th and 5th ave bike/ped areas? Drive downtown with their bikes and park? Improve biking connectivity on all roads for all GJ residents.	<b>Improve Walkability and Bikeability</b>			Interactive Map
Use Lincoln Park to create and connect bike lines that connect the University and neighborhoods north of North Ave with downtown Grand Junction.	<b>Improve Walkability and Bikeability</b>			Interactive Map
I live downtown in between 4th and 5th. These 2 streets serve as a drag strip through the neighborhood and effectively cut off the 400 block from the rest of the downtown blocks. I would suggest 4th and 5th to be more like 3rd with intermittent stop signs and bike lanes on both sides. 7th street is already set up to handle 2 way, multi lane traffic and increased capacity. I would suggest diverting traffic to 7th which then continues to access north to Horizon drive.	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Interactive Map
As part of feasibility, look into speed bumps along 4th and 5th to slow traffic. Same as there are on N.1st St. between Orchard Ave. & F Road.	<b>Enhance Safety</b>			Interactive Map



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
<p>One Way Streets in downtown Grand Junction see accidents almost daily.</p> <p>I'm fine with them personally - I wish folks could use them better - but there seems to be accidents and issues daily.</p> <p>The southern end of town especially at 4th, 5th, Ute, Pitkin and Colorado Ave. seem the most problematic.</p> <p>The streets need to use the obvious "one-way" signs instead of the "do-not-turn-that-way" signs, or be made "normal streets."</p>	<p><b>Enhance Safety</b></p>			Email
<p>Something notably missing from the 5th and 4th streets are reflective and repeating wrong way signs. Converting the roads to two way would not have a bigger impact on safety than making strides to alert drivers of mistaken turns before it becomes a problem, especially at night and especially at light-controlled intersections.</p> <p>Crossing the streets on foot is safer on one-way roads because crossing 5th on the south side of each 5th street intersection or crossing 4th street on the north side of each 4th street intersection requires the pedestrian to only concern themselves with traffic from a single direction. No turners need to be attended to, and no one from the other side of the street. This means that my children who live one street-crossing from Hawthorne Park had the freedom to cross the street more safely younger than they could cross streets at 6th.</p> <p>The safety of the one-way streets is one of the reasons we chose to live where we live in the downtown area.</p> <p>If the question of whether signage would work is posited, I submit as an example the "stop ahead" signage posted prior to the stop signs on 6th street at Gunnison. These were added shortly after we bought our house after our neighborhood suggested it, and accidents reduced at that corner from what seemed like weekly to closer to twice a year. Signage works and provides security for pedestrians and drivers alike, and the one-way streets provide a safe boundary around a popular community</p>	<p><b>Enhance Safety</b></p>			Email



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
<p>park for young children and their families. As someone who uses 4th Street and 5th Street daily, I would not find the convenience worth the sacrifice of the safety.</p>				
<p>People already speed up 5th and down 4th making it harder to pull out of a parking spot or pull in. Now we only have to worry about traffic coming from one direction. With the change you will have to worry about both directions and I am sure there will be a lot of accidents caused by this being a main two way artery. There is a reason it is a one way and should stay that way. It is safer and more convenient for traffic and pedestrians.</p>	<p><b>Enhance Safety</b></p>			<p>Interactive Map</p>



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
There is a concern that people will choose 5th as a north and south route more frequently than they do now. 4th would also be made into a two way street, so traffic would travel south on it as well. There are many means to slow traffic through this corridor. Increased stop signs/stop lights. There are none of those between North and Grand on either street. The goal of this project is to make this area safer for bicyclists and pedestrians.	<b>Improve Walkability and Bikeability</b>	<b>Optimize Traffic Circulation</b>		Interactive Map
We believe these two streets are unique and add charm to our downtown area. We would vote for keeping them both as one-way streets. The lights on both streets are timed to change as you drive down the street, which is appealing and helps with traffic flow. These streets work well as they are, please leave them alone. The cost to convert them must certainly not be worth the effort. One simply has to drive around a block to go the opposite direction, which hardly seems like a hardship.	<b>Other</b>	<b>Optimize Traffic Circulation</b>		Email
As for being pedestrian friendly, we fail to see how anyone could say that crossing a one-way street isn't better than crossing at an intersection with traffic flowing both ways. Walkability on a one-way way street feels safer and more appealing than two-way traffic.	<b>Improve Walkability and Bikeability</b>	<b>Other</b>		Email
No stop light at 5th and Gunnison	<b>Optimize Traffic Circulation</b>			Phone Call
Check out the stop sign placement and heights along these corridors, often the signs have poor sight distance. If one-way orientation is kept, suggest adding one-way signs at key public buildings to remind drivers	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Interactive Map
the nature of 4th and 5th change (business to residential) about at grand ave / the library. how can these two sections of these roads change in form, function, and character much as the character of the areas change?	<b>Activate Economic Development</b>	<b>Other</b>		Interactive Map
Is there any way to keep 4th and 5th low traffic streets? It would seem that having 1st and 7th streets be the arterials would make sense?	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Interactive Map



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
Crossing with children at any corner of the park is a harrowing experience. No crosswalk, high speed traffic across two lanes, and a wide three lane width street all lead to challenges. Please add crosswalks, curb extensions, and signage at all four corners of the park!	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
So much right of way wasted on vehicles - what opportunities can be made of all this space?	<b>Other</b>			Interactive Map
Coming down the bridge traffic goes very fast. The environment quickly transitions from highway to a downtown environment. Starting at the end of the bridge there needs it needs to be obvious to drivers that they are about to enter a different environment. No matter if they take Ute/Pitkin or proceed to downtown traffic should be slowed down and responsive to more access points, pedestrians, cyclists, buses, etc.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
Sharing an experience: I tried to ride home (hawthorne park neighborhood) while I dropped off my car for an oil change at Scottys. I learned that these businesses suffer from difficult access via car but poorer access via bicycle. 3rd st. is like playing frogger, 5th street (50) is like russian roulette. reducing the isolation of this section between pitkin and south could improve this district's vitality.	<b>Improve Walkability and Bikeability</b>	<b>Activate Economic Development</b>		Interactive Map
The sheer amount of accidents that this would cause should be reason enough not to convert these roads. If you have to circle the block to get somewhere that's what you do. It's not difficult. Adding pedestrian crossing if needed could be beneficial, and a decent bike lane. Converting the roads to two way traffic seems like a unnecessary waste of money. Invest that money elsewhere in the community. Rec center for GJ anyone..?	<b>Other</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
Our neighbourhood is a great one and we have worked very hard to clean it up, making 4th and 5th into two way streets, will slow down traffic and draw more family's to the community garden, the library, and hawthorn park. Or we can keep dumping highway 50 into a residential street and it can keep looking like an underpass. Thank you for your time.	<b>Enhance Safety</b>	<b>Activate Economic Development</b>	<b>Other</b>	Email





All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
<p>I think changing from One Way to Two Way on these streets is a horrible idea. They currently function perfectly. Changes like these and the proposed parking lot conversion to event space are things that will drive me away from downtown.</p> <p>Your article cites speed and wrong way drivers as major reasons for changes. You are trying to fix a human error problem with a mechanical solution. I suggest you have a professional do a root cause analysis with a serious tool such as TapRoot (if you come up with more than one root cause you're not done. You keep going until there's only one as the rest are casual factors, not the root cause). Also the first steps prior to changing the street should be education (better signage) and enforcement of the existing speed limit. Is the current speed limit to high? I'm not sure but don't think so.</p>	<b>Enhance Safety</b>	<b>Other</b>		Email
<p>SPEED LIMITS , or the lack of any control thereof. This project will not succeed without a concerned effort by authorities to CONTROL and enforce safe traffic flow at all times. It is well known that you can drive any speed you want to in this town. Just try and take a leisurely drive around and see for yourself.</p> <p>You could always spend a couple billion dollars and build 15 roundabouts. That might solve something. Contact CDOT and work something out. They have lots of money to waste too !</p>	<b>Enhance Safety</b>	<b>Other</b>		Email
<p>I am opposed to two way traffic on these two streets. They are the only way to get across town with coordinated stop lights. All of the other lights are on random timers, and I don't believe controlling traffic means stopping it at random times. Traffic is not necessarily under control when it is stopped. If this is the only option we are presented with, lets just close off 4th and 5th streets from Ute to White so that the coffee drinkers can enjoy the streets at their leisure. If we are having a speeding problem on these streets, lets increase the police presence where it is occurring.</p>	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Email

All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
Fourth and fifth should remain one way, best way to make 5th safer coming in off hwy 50. do not allow parking on 5th st. keep visibility clear for cars coming so they can see people walking and wanting to cross the street. Get rid of all parking meters downtown let all parking be free. Make Main street a one way and make Rood one way in the opposite direction.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>	<b>Other</b>	Email
Please leave it alone. Peds only need to worry about traffic flow in one direction. Traffic is simplified in one direction also.	<b>Improve Walkability and Bikeability</b>	<b>Optimize Traffic Circulation</b>	<b>Other</b>	Email
This must be a discussion in coordination with CDOT. Since they are so hung up on using a 2008 study to justify actions in 2021, it seems we could all benefit from updating our traffic data of today.	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Interactive Map
One problem regarding the Greyhound Bus station and its proximity to Whitman Park is that unsavory looking people hit up pedestrians for money when they walk along Colorado Avenue. I have had that happen several times myself and I feel like I needed to be carrying something for personal defense.	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>	<b>Other</b>	Interactive Map
Try to leave the City Market and go south--I double dog dare you!	<b>Other</b>			Interactive Map
A no vote for 2 way traffic. Pedestrians need only concern themselves with one set of oncoming cars while crossing. Two way makes crossing more difficult. Also, where are the studies that show two way traffic slows cars down? And where is the study that shows the increase in traffic and noise with two way? Please do not make changes that funnel traffic through these residential areas. We want to keep it calm as possible; it is a matter of quality of life for downtown residents.	<b>Improve Walkability and Bikeability</b>	<b>Optimize Traffic Circulation</b>	<b>Other</b>	Interactive Map
Take a jack hammer and get rid of the "calmers." Cutting a street capacity by 33% isn't having a calming effect on anyone and they look awful.	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Interactive Map
One way? Two way? Which is it? Oh, it's both at the same time. I see.....	<b>Other</b>			Interactive Map
Why make it simple when it could be complicated?!	<b>Other</b>			Interactive Map





All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
Whether traffic remains one-way or switches to two-way on 4th and 5th, both of these streets need mechanisms in place to slow traffic, increase walkability and increase bike-ability. If continuous bike lanes were added (north on 5th all the way to North Ave), bump outs were added near each intersection, and crosswalks with lights (similar to 12th on CMU campus) were added at least to the 4 corners of Hawthorne Park and at Colorado/5th and Colorado 4th corners, this would be an improvement.	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>		Interactive Map
Fix the death curve by widening Pitkin and making it two-way with five lanes. Have that be I-70B. Then make Ute also two-way but with three lanes and disconnect it from I-70B at either end. Create a loop up 2nd Street following Ute to 13th Street and back down to Pitkin.	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Interactive Map
What in the world happened here (Hall Ave & 28 Rd)?! It is a simple "T" intersection. Another shining example of how not to do it!  Outside of scope	<b>Other</b>			Interactive Map
Somebody please help this intersection (White Ave & 1st St), there is no excuse for this travesty which has been in national news for being among the most dangerous intersections in the U.S. It is much more dangerous than either forth or fifth streets combined. The obvious simple solution is to block 1st street access northbound and make everyone access 1st street Northbound an alternate way, but for what ever reason that hasn't happened.  Outside of scope	<b>Other</b>			Interactive Map
Purchase a 99 cent compass. Take a piece of graph paper and draw this area to scale. Position the point of the compass roughly a block or so to the North East of the curve. Use the compass to create a proper curve in place of the disaster that is there now using a small section of the circumference of a plotted circle.  Outside of scope	<b>Other</b>			Interactive Map



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
No more suggestions about round-a-bouts! The one a block north of this intersection (7th & Colorado) is good enough argument for the City of Grand Junction never being allowed to butcher another intersection again!  Outside of scope	<b>Other</b>			Interactive Map
Practice ground for stunt jumping - Welling Ave & 1st St  Outside of scope	<b>Other</b>			Interactive Map
This area (near Pearl St & North Ave) is very rough, proceed with caution. It could be rented out to suspension manufacturing companies as a testing area for new off-road springs and dampers.  Outside of scope	<b>Other</b>			Interactive Map
In the past 5 years at least one car turning the wrong way daily. This recently included a UPS truck, to get to the alley. ( I believe he made the choice to do so.)	<b>Optimize Traffic Circulation</b>			Email
Progression of excessive speeding	<b>Enhance Safety</b>			Email
Increased traffic numbers	<b>Optimize Traffic Circulation</b>			Email
Ouray is also seeing increased traffic over the last number of years  Outside of scope	<b>Other</b>			Email
Traffic that builds up at peak times creates, at least, a length of two blocks of waiting vehicles	<b>Optimize Traffic Circulation</b>			Email
Changing to two-way traffic will only change the occasional wrong way driving. That I see out my windows	<b>Optimize Traffic Circulation</b>			Email



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
<p>Cost wise and cost savings, I suggest the use of intersection arrows on the tar, showing the direction of traffic in each lane of the one-way streets.</p> <p>Rather than starting with a complete change, place the arrows and speed limit on the road. It seems few people are reading the signs on the side of the road now days.</p> <p>They would most likely be needed during a change to two-way traffic as well in addition to changing traffic light configuration.</p>	<b>Optimize Traffic Circulation</b>			Email
<p>The addition of stop signs every two blocks like on the other streets on either side of 4th and 5th as either a one-way or two-way street. People choose the one-ways because it is a nonstop length of road which is not monitored and allows them to choose to speed.</p>	<b>Enhance Safety</b>			Email
<p>An increase in the Police budget to provide a presence to ticket those who are choosing to break the speed limit. Speeding is occurring all day long and is worse at night. This is also becoming common throughout the valley</p>	<b>Enhance Safety</b>			Email
<p>Drivers seem to disregard or lack understand that a cross walk, with people at them, have the right away. Therefore, pedestrian crossing lights would also be needed.</p> <p>Though I have to say the street semi fours for pedestrian crossing are not being obeyed by drivers either. I have a friend who works with sight impaired people and has had some very frightening experiences on 7th and Gunnison.</p>	<b>Improve Walkability and Bikeability</b>	<b>Other</b>		Email
<p>Drivers seem to be unaware of their surroundings and traffic rules. Pedestrians are not following traffic rules and walk against lights. Changing to two traffic will not solve the real challenges with drivers.</p>	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>	<b>Other</b>	Email
<p>I feel the proposal to turn 4th &amp; 5th Streets into two way streets is not a good idea</p>	<b>Other</b>			Email



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
One way streets route traffic much faster than two way streets. 4th and 5th Streets are major traffic corridors for locals commuting to work and need to route traffic quickly especially during rush hour. Making these streets two ways will only increase traffic congestion (and frustration) in this area, especially since there is not enough room to create new turn lanes. Making a left turn on these streets would further increase traffic congestion. When traffic is highly congested, people (especially locals) will not want to come to the downtown corridor. Downtown won't be a "destination" - it will be something to avoid.	<b>Optimize Traffic Circulation</b>			Email
One thing that would seem to help the issues outlined in the Sentinel's article would be to slow traffic down coming from the south into the downtown corridor much sooner. As it is now, the speed limit is 45 mph (starting near the Fairgrounds) and then abruptly changes near Pitkin to 35 mph, with no advance warning. As you come down the bridge over the railroad yard, there's a sign at the end of the bridge announcing the speed change. If traffic were slowed down to 35 mph before crossing the river, then further dropping to 30 mph before Pitkin (possibly at the beginning of the railroad overpass), many of the speed issues could be solved. Also, there needs to be more prominent and abundant signage about speed limit changes and crosswalks (and that pedestrians have the ROW). As it is now, I don't believe there are any signs on 4th or 5th regarding pedestrian crosswalks. Flashing lights/signs would also help. If people were more aware of them, they would be more watchful.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Email
I live on 6th and Gunnison. Some of us locals call Gunnison a freeway. Have you done traffic counts? Cars race up and down from early AM to late evening to get to and from 4th and 5th and the lights at 7th and Gunnison. This includes heavy truck traffic of all types, city trucks in volume, and mostly non-neighborhood vehicles trying to cut time off their commutes.	<b>Optimize Traffic Circulation</b>			Email



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
Many junky vehicles without proper exhaust also cause much noise pollution in the neighborhood. You can't sit on your porch and visit with others or talk on the phone the traffic noise is so bad. It is difficult to watch tv with your screen door open. You can hear the traffic noise with your doors and windows closed. People obviously do not view this as a residential neighborhood.	<b>Other</b>			Email
The city should be trying to keep the residents on Gunnison and neighboring streets who pay good taxes because they have fixed up and maintain older homes which add to the character of downtown Grand Junction.	<b>Activate Economic Development</b>			Email
The traffic has also added to the continuation of trashy rentals because the high demand for this area and the lack of ordinances or enforcement of many, allows slumlords to view this as an easy area to take advantage of which is discouraging to the permanent residents who have and continue to invest in the neighborhood.	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Email
I previously lived in Denver when that city evaluated the removal of one way streets in the Washington Park area and returned several to two-way traffic. It was so positive for the neighborhood. It got people and children out using the streets and easier to cross 2 ways and drove up home values and the desire to buy and improve many neighborhood homes.	<b>Improve Walkability and Bikeability</b>	<b>Activate Economic Development</b>		Email
I will also point out the intersection of 6th and Gunnison has had numerous car accidents and many more near misses. The volume and speed of cars on Gunnison and the lack of visibility on that corner is the cause. Several of the corners have had nicely established flower beds on the corner curb space which is lovely to view but makes traffic have to practically be out in the traffic lanes to see if it is safe to cross Gunnison and the number of cars that park close to the intersection also block the views. The stop signs are set back quite a ways on 6th and some folks only do soft stops which aggravates the whole situation.	<b>Enhance Safety</b>	<b>Other</b>		Email
Out of scope				



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
If you don't want to change the street flow then maybe reducing and enforcing the speed limits in this neighborhood would help. Downtown GJ has to be more than the business district to be healthy. The older homes on the surrounding streets are a major asset that should be valued. A healthy neighborhood will have families out walking and utilizing downtown businesses, the wonderful library, the senior center, parks, etc. which all make for quality of life to keep and expand downtown quality housing.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>	<b>Activate Economic Development</b>	Email
Both 4th and 5th have become speedways and are not safe for our children and neighbors walking in the area. I am not sure if creating 2 way traffic can change this behavior, but it is worth a try. Any type of traffic calming and access to better biking routes would be helpful. Safety and the enjoyment of our parks and neighborhoods are so important.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
I think that one way streets are a good idea in this area and should be kept as-is. I would welcome improved bike and pedestrian features, however.	<b>Improve Walkability and Bikeability</b>	<b>Other</b>		Interactive Map
There should be pedestrian friendly methods for crossing 4th and 5th at Gunnison and Hill for access to Hawthorn Park.	<b>Improve Walkability and Bikeability</b>			Interactive Map
I envision overall traffic reduction on 4th St. and increased traffic on 5th as traffic that is presently funneled to southbound 4th remains on 5th St. ie GJHS students and busses.	<b>Optimize Traffic Circulation</b>			Interactive Map
I'm very concerned about Northbound traffic from Orchard Mesa dumping into 1 lane as it reaches Pitkin/Ute.	<b>Optimize Traffic Circulation</b>	<b>Enhance Safety</b>		Interactive Map
Making this a 2-Way Traffic Flow is going to increase accidents and confusion. The only way a 2-Way Traffic would work is you would need to put islands in between the lanes, indicating a 2-Way Street. Street isn't wide enough to do that. You also need better directional signage. The One Way Signs are not easily seen, that is why drivers continue to go the wrong way. It's going to be a waste of money to change this. Leave it a One Way and spend money on better way finding and directional signage.	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>	<b>Other</b>	Interactive Map





All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
The speed limit needs to be reduced and enforced. This can easily be done with proper signage. Enforcing might be another issue. Is it feasible to have officers handing out tickets? I would like to see Speed Bumps placed strategically along with flashing signs indicating reduced speed ahead. The speed bumps would be something similar to the cobblestone bumps on 1st. Street between Orchard and Patterson. They look nice, but functional.	<b>Enhance Safety</b>			Interactive Map
Alleyways are not for pedestrians. Alleys are for trucks making deliveries to businesses. Many businesses receive shipments daily. For safety reasons, I would not have an entrance/exit to my business from the back as I cannot see who's entering from the back. I have a clear view of who's coming and going from the front. Once you upgrade a building, you must put in an egress door in case there is a fire. The back area is a private production are and not open to the public. A total waste of money.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Interactive Map
I favor the return of forth and fifth streets to two-way traffic for the entire length, from Pitkin to North Ave. The one-way roads on 4th and 5th destroyed the neighborhoods through which they ran. Restoring those streets to two-way traffic will hopefully bring those neighborhoods a more quiet, relaxed feel than currently existing and encourage more pride in the properties located along those routes. Two-way traffic with one lane in each direction would also allow for bike lanes on both sides	<b>Improve Walkability and Bikeability</b>	<b>Other</b>		Interactive Map
This is a bad idea -- again. What is really needed is better law enforcement along there. Speeders. Red light runners. Bicyclists. Violations abound!	<b>Enhance Safety</b>			Email
I want both streets to remain one way. The flow of traffic toward and away from downtown works well.	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Email
I never see excessive slow traffic or backups on 4th or 5th streets. The traffic pattern works. It's tricky to figure out what to do. Be thoughtful and listen to the residents who live along these corridors.	<b>Optimize Traffic Circulation</b>			Email



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
Changing the one way streets to two way streets - - - just check the traffic. Both of the streets are busy and the best way to go from east to west or west to east. The traffic volume calls for 2 lanes each way the way it has been for a lot of years.	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Email
I would like 4th and 5th to remain one way	<b>Other</b>			Email
If vehicles are driving over the posted speed limit going northbound on 5th street, it's a law enforcement issue and violators should be ticketed. Changing the street from one way traffic to two way is not going to correct the problem for business owners or pedestrians trying to cross the street. A change to two way traffic would decrease the safety for pedestrians, as they would have to look for traffic coming from both directions, not just one direction. Trying to funnel the same amount of traffic from two lanes down to one is only going to cause congestion problems and road rage issues. Anyone who has lived here any amount of time knows that speeding is an issue on all the main streets and parkways, and it's only going to get worse as more people live and visit the area. Enforcing speed limits is the only way to address the issue. I'm not against critically thought out change that doesn't create more problems than it fixes, but I don't think this proposed change it going to fix the problem stated.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>	<b>Other</b>	Email
I really believe that the one way streets downtown slow down traffic and protect local neighborhoods. These are high values for our community, so please consider them diligently.	<b>Enhance Safety</b>	<b>Other</b>		Email
Just read the existing comments submitted on the website/map concerning the changes to this area Have you invited/INSISTED the GJPD come to this meeting ? Seems to me that they need to hear about their poor civic duty in this area, and the City as a whole. I sincerely hope the meeting is productive.	<b>Enhance Safety</b>	<b>Other</b>		Email
Have you invited/INSISTED the GJPD come to this meeting ? Seems to me that they need to hear about their poor civic duty in this area, and the City as a whole.	<b>Enhance Safety</b>			Email



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
First of all, I strongly support the conversion of both 4th and 5th to two-way streets, with continued parking (angled if possible on both sides) and enhanced facilities for ped crossings and cyclists. As currently configured, both streets have become high-speed, dangerous routes that favor cars over people. And my observation is that the cost of this unsafe condition comes with little benefit for drivers. The differences in travel time between Pitkin/Ute and North Avenue on 4th or 5th, compared to say 7th, 9th, or 12th, which are 2-way, is negligible. I also think that having one-way streets in the heart of downtown is confusing for the many visitors and tourists, as they are unfamiliar with our street patterns making it difficult to drive around downtown. It is also more dangerous as they may be unprepared to deal with the high speeds of vehicles passing through on some streets (4th/5th) while other streets have low rates of traffic speed.	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>	<b>Other</b>	Email
Finally, it would be helpful to know when the streets were first converted to one-way, and why. There is an underlying general opposition to change in this community, even if for good reasons, and some context and background may be helpful. I suspect that the reasons for originally going to one-way may no longer be relevant, and are counter to our current plans and vision for downtown and the surrounding neighborhoods.	<b>Other</b>			Email
Traffic is too fast and loud on 4th & 5th	<b>Enhance Safety</b>			Public Open House (5/4/21)
Wide "speed hump type" raised walkways with pedestrian signals would help people cross	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
Little school kids cross regularly Chipeta Elementary School and East Middle School - they need a safe way to cross. We have them on 12th for college students, why not for small children?	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
Please no four way stops or stoplights (or flashing stop signs) on Gunnison	<b>Optimize Traffic Circulation</b>			Public Open House (5/4/21)



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
The stop sign on Gunnison (by Red Cross) is too high. The bottom of the stop sign 94" from concrete - it's supposed to be 7'. Drivers not in a high raised truck or commercial delivery truck / semi can't see it	<b>Enhance Safety</b>			Public Open House (5/4/21)
The curbs (the stop signs moved onto Gunnison on little bump outs are basically invisible at night - maybe some reflectors and paint slashes so drivers wishing to turn right don't run into them.	<b>Enhance Safety</b>			Public Open House (5/4/21)
We're aware of the need to change these streets for all the reasons you've noted. We also see the foot traffic of people coming through from the bus station or the soup kitchen to the bus stop and we'd like to add a compassionate nudge to include them in this plan.	<b>Other</b>			Public Open House (5/4/21)
Yes to more bikes, kids, families, walking people!	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
Yes to increased safety for seniors walking AND in cars!	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
Yes ton including the entire corridor as part of downtown (we would be thrilled!)	<b>Other</b>			Public Open House (5/4/21)
We would love increased clear signage to help businesses thrive during construction	<b>Activate Economic Development</b>			Public Open House (5/4/21)
Monday through Friday 7:30am to 8:00am, tremendous number of vehicles come into town from Whitewater, Orchard Mesa. Speeding is huge and vehicles trying to turn on Grand Mesa Avenue, Santa Clara, and from 5th Street (heading south) with students/children being taken to school. North bound traffic does not slow down. Parents take huge risks. I have stopped on Santa Clara at US 6 & 50 and counted 50 cars and trucks coming through the light. I cannot stress enough the number of vehicles utilizing this route to go through downtown.	<b>Enhance Safety</b>			Public Open House (5/4/21)

All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
I feel the lesser of the two would be to keep 4th & 5th Streets one way. If two-way, I think the traffic would back on the 5th Street bridge.	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Public Open House (5/4/21)
Bike lanes important on 4th & 5th	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
Hawthorne Park - consider a RRFBs around the park	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Public Open House (5/4/21)
Hawthorne Park - "lit" crosswalk signs around park	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>		Public Open House (5/4/21)
Keep one way	<b>Other</b>			Public Open House (5/4/21)
How would we use the post office going north?	<b>Optimize Traffic Circulation</b>	<b>Other</b>		Public Open House (5/4/21)
Alternative ways to spread out traffic	<b>Optimize Traffic Circulation</b>			Public Open House (5/4/21)
Improve bike and ped safety	<b>Improve Walkability and Bikeability</b>			Public Open House (5/4/21)
Slow and quiet traffic	<b>Other</b>			Public Open House (5/4/21)
Safety and user friendliness	<b>Enhance Safety</b>			Public Open House (5/4/21)
Pedestrians and bike riders need to follow the rules	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>		Public Open House (5/4/21)
Improve parking on Colorado	<b>Other</b>			Public Open House (5/4/21)





All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
What is signal strategy?	<b>Optimize Traffic Circulation</b>			Public Open House (5/4/21)
More stop lights at 4th & 5th; leave them one way	<b>Enhance Safety</b>	<b>Other</b>		Public Open House (5/4/21)
This should be a slow planned project; use the dollars available - wisely; let it work for most people not for a few	<b>Other</b>			Public Open House (5/4/21)
Be very strategic about changes	<b>Other</b>			Public Open House (5/4/21)
Main St - walking only? Outside of scope	<b>Improve Walkability and Bikeability</b>	<b>Other</b>		Public Open House (5/4/21)
1st & 7th as alternative through ways	<b>Other</b>			Public Open House (5/4/21)
In favor of two-way	<b>Other</b>			Public Open House (5/4/21)
7th St two-way is much more friendly	<b>Other</b>			Public Open House (5/4/21)
Two-way!	<b>Other</b>			Public Open House (5/4/21)
Balance traffic and neighborhood walkability	<b>Optimize Traffic Circulation</b>	<b>Improve Walkability and Bikeability</b>		Public Open House (5/4/21)
1st St improvements as success	<b>Other</b>			Public Open House (5/4/21)
Want a nice experience from Colorado to Rood from 4th to 6th St	<b>Activate Economic Development</b>	<b>Other</b>		Public Open House (5/4/21)



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
Improve crossing safety to park	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>		Public Open House (5/4/21)
Concerns with parallel parking	<b>Activate Economic Development</b>			Public Open House (5/4/21)
Visibility concerns with landscape lights at 7th	<b>Enhance Safety</b>	<b>Other</b>		Public Open House (5/4/21)
Walk areas in alleys are foolish; where do delivery trucks deliver? Trash dumpsters; smoke breaks  Outside of scope	<b>Other</b>			Public Open House (5/4/21)
This project affects the whole town not just downtown	<b>Other</b>			Public Open House (5/4/21)
Block Main St to traffic - 4th to 6th - walking only; leave streets one way  Outside of scope	<b>Other</b>			Public Open House (5/4/21)
Increase the number of people walking or riding bikes to downtown, relative to those driving.	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)
Consistent aggressive law enforcement to discourage speeding on both 4th and 5th Streets. Law enforcement providing active feedback hardware to inform drivers of their speed. There are more than a few drivers on both streets that are out of control scofflaws and use these roads as a raceway.	<b>Enhance Safety</b>			Survey #1 (5/11/21)
Noise and pollution caused by increased traffic for residents living directly on this corridor.	<b>Other</b>			Survey #1 (5/11/21)
Noise and pollution from more traffic for the residents living in this corridor.	<b>Other</b>			Survey #1 (5/11/21)
It isn't directly mentioned above, so I would like to mention that there isn't a safe bicycle crossing of North or Grand Avenues west of 10th St. This creates a huge barrier to accessing Downtown from the north.	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
Establishing 5th Street as the safest and preferred north-south bicycle corridor in Grand Junction.	<b>Enhance Safety</b>			Survey #1 (5/11/21)
Plan the width of the new streets to accommodate the necessary delivery trucks to the downtown businesses so they don't drive over new sidewalks and landscaping.	<b>Optimize Traffic Circulation</b>			Survey #1 (5/11/21)
More inviting entry to our beautiful downtown	<b>Activate Economic Development</b>			Survey #1 (5/11/21)
Reduction of traffic accidents on busy street corners such as 4th and Colorado, 5th and Colorado, 4th and Ute, 4th and Pitkin, 5th and Pitkin, 4th and Grand, and 5th and Grand.	<b>Enhance Safety</b>			Survey #1 (5/11/21)
Keep 4th and 5th one way streets. Funnel traffic to qnd from downtown around residential areas like Hawthorne Park. Keep the neighborhood feel by not increasing traffic and noise. Drivers coming from other areas are not vested in our neighborhood and will drive their coal burners, loud motor cycles, and small cars with super up mufflers by our homes.	<b>Other</b>			Survey #1 (5/11/21)
To improve the overall quality of the area by considering environmentally conscious sustainable designs. Namely, increasing the number of trees and vegetation in general (i.e. green streets ). This has been proven in global scientific studies to reduce ambient street noise, lower the adjacent temperature, increase pedestrian safety by having a road buffer, and help manage storm water runoff.	<b>Activate Economic Development</b>			Survey #1 (5/11/21)
difficulty of pulling out from parking with two way traffic.	<b>Enhance Safety</b>			Survey #1 (5/11/21)
Just slow down the traffic with enforcement. Right now you only have to worry about traffic coming from one direction when pulling out or walking across the street. It will be harder to pull out of side streets and parking spaces with traffic coming from both sides. At least as a one way there will be gaps between traffic from the stop lights.	<b>Enhance Safety</b>			Survey #1 (5/11/21)
Promote preservation of the historical downtown residential neighborhood and quality of life for its residents who live surrounded by these streets	<b>Activate Economic Development</b>			Survey #1 (5/11/21)
prevent traffic going the wrong way which may fall under safety as well as SLOWING traffic down	<b>Enhance Safety</b>			Survey #1 (5/11/21)





All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
Protect positive cohesive neighborhood patterns.	<b>Other</b>			Survey #1 (5/11/21)
Slow down traffic considerably and potentially convert to single lane one way with additional parking between Ute-grand	<b>Enhance Safety</b>			Survey #1 (5/11/21)
So that drivers don't go the wrong way!	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Survey #1 (5/11/21)
The following is an exert from an unpublished letter to the gjds: "Originally 7th Street was gentrified, as well as several blocks on Gunnison. These look like test areas of development that were never followed through for any other parts of the city. Today the Main Street has become a bit of a wayside amusement without any real connection to the rest of the city. Say what you may about traffic plowing along 5th Street, speeds are exacerbated by kinks and bumps and narrowness that belies it being a major artery. Speed bumps, anyone?" Then it goes on to say that 50 years ago or more 5th and Main was the hub of the community.... it then questions where it is today... then infers that 5th and Main should remain the hub via 5th Street improvements... Two way, with a roundabout at North Avenue? Thanks, Fred Stewart, GJ	<b>Enhance Safety</b>			Survey #1 (5/11/21)
I am totally against any changes to the existing way 4th and 5th street work right now!	<b>Other</b>			Survey #1 (5/11/21)
easy pass thru for vehicular traffic not going to downtown Grand Junction.	<b>Optimize Traffic Circulation</b>			Survey #1 (5/11/21)
I think this change would also create a positive environment downtown and residential areas. People will feel safer and more willing to walk and bike which is beneficial to a positive vibe	<b>Other</b>			Survey #1 (5/11/21)
Making it safe for students to walk to school.	<b>Enhance Safety</b>			Survey #1 (5/11/21)
Adding a protected or enhanced bike lane (protected is obviously preferred)	<b>Improve Walkability and Bikeability</b>			Survey #1 (5/11/21)
Please please please keep this a one way. It's already so busy from 7:45-8, and making it one lane would make traffic and circulation so much worse.	<b>Other</b>			Survey #1 (5/11/21)



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
I personally like the one ways as a cyclist, but either way, if any changes take place, please include bike lanes on 5th that extend thru the intersection of North Ave. currently the bike lane on 5th abruptly ends and bikes are forced into an extremely narrow lane with a vehicle - and both don't fit! WE WANT BIKE LANES THAT GO THRU INTERSECTIONS AND LIGHTS THAT ARE TRIGGERED BY CYCLISTS, NOT JUST CARS.	<b>Improve Walkability and Bikeability</b>			Interactive Map
<p>I would just like everyone to remember that our efficiency of moving traffic north/south through town has greatly diminished over the years as traffic has increased dramatically. When I started driving in the '80s, 12th street was 4 lanes from Ute to north of Patterson, without the crosswalks interrupting flow between North and Orchard. A few years ago we lost 4 lanes on 1st Street between Grand and North, which if my memory serves me correctly, was 4 lanes from Grand to Patterson at one time. The redesign of the 1st and Grand intersection will do little to affect (potentially hamper) North/South traffic efficiency. Also, 4th and 5th have been narrowed to 2 lanes when both of them were 3 lanes between Grand and North, as well as other places like 5th still has 3 lanes intermittently through Downtown.</p> <p>I firmly believe that keeping 4th and 5th One Way is in our best interest to help move through traffic more effectively through the core of downtown, as well as eliminate the accidents that WILL DEFINITELY HAPPEN due to the confusion of drivers/pedestrians/cyclists who have been crossing these roads for decades as One Ways.</p> <p>I propose elevated crosswalks along 12th street for college pedestrian traffic, maybe a couple around the downtown area on all 4 One Ways (Pitkin, Ute, 4th, 5th), protected bike lanes throughout town, a bike sharing service throughout the city, and maybe some speed humps on 4th &amp; 5th between North and Grand to slow traffic, and continuation of the timing system in place for decades of the lights on 4th</p>	<b>Optimize Traffic Circulation</b>	<b>Improve Walkability and Bikeability</b>	<b>Other</b>	Email



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
& 5th through downtown to manage traffic speed.				
I'm just not sure that changing these to two-way streets is the best move. It will be dangerous for so long for those who are so used to them being one way. What do you do where 5th street becomes 50 as it goes over the river? How does that work? Add better signage, pedestrian and bike lanes/areas, and actually have police catching speeders. That seems much better/easier to me.	<b>Enhance Safety</b>	<b>Improve Walkability and Bikeability</b>	<b>Other</b>	Interactive Map
Keep one way traffic, but let's save \$\$\$\$\$. Why not use speed bumps and roundabouts on the perimeter of downtown to slow traffic in downtown area if that's the primary concern.	<b>Enhance Safety</b>	<b>Other</b>		Interactive Map



All Comments for Study Area				
Comment	Theme 1	Theme 2	Theme 3	Method
We should keep 4th & 5th one way streets - they direct traffic fine and have for many years. Putting in bike lanes I can understand and of course additional parking is always good downtown - but we don't need to spend more tax \$ on trees for this area or on any other "extras" which only take more care which again means more ongoing tax \$ spent.	<b>Improve Walkability and Bikeability</b>	<b>Activate Economic Development</b>	<b>Other</b>	Interactive Map
There is a lack of continuity between Main St and Colorado Avenue leading to visually less foot, bicycle, and vehicle traffic. Creating slower, two way traffic, PROTECTED bike lanes (safe for all ages and abilities), and wider, more pleasant sidewalks will help create a safer and more cohesive downtown area. It's always felt like Colorado Ave and Main St have been completely separated, and this is a chance to remedy that.	<b>Improve Walkability and Bikeability</b>	<b>Enhance Safety</b>	<b>Other</b>	Interactive Map
Street parking blocks the view of traffic for right hand turns out of the alley onto fifth. Also pedestrians and cyclists traveling along fifth are difficult to see when making a right hand turn.	<b>Enhance Safety</b>	<b>Optimize Traffic Circulation</b>		Interactive Map
I think GJ downtown is one of the very best aspects of the city. The best restaurants in the entire city are in the downtown area. Visitors to the valley do go to downtown. Many locals shop there as well. I'm not a Mall person although those big box stores do have their place in a population such as GJ. I think that people moving into the valley are here for not only the outdoor recreation opportunities, but also for the small town feel and downtown provides that relief from big city traffic and strip malls. It has a charm and slower pace that people want.	<b>Activate Economic Development</b>			Email



**CITY OF GRAND JUNCTION, COLORADO**

**RESOLUTION NO. \_\_\_\_\_-21**

**A RESOLUTION ADOPTING THE 4<sup>TH</sup>-5<sup>TH</sup> STREET FEASIBILITY STUDY**

Recitals

In 1981, the Downtown Development Authority (DDA) identified the conversion of 4th and 5th Street from one-way to two-way as a goal in its original Plan of Development. In 2013, the City's Greater Downtown Plan also called for looking at the configuration of 4th and 5th Street. This was also confirmed again in the 2019 DDA Plan of Development and the City's updated Comprehensive Plan also identifies utilization of Complete Streets within the Downtown core.

In late 2020, the DDA hired the consulting engineering firm of Bohannon Huston of Englewood, Colorado to conduct a Feasibility Study on the One-Way to Two-Way Conversion of 4th and 5th Streets in coordination with City Staff.

Goals developed for the project included Enhancing Safety, Improving Walkability and Bikeability, Activating Economic Development, Optimizing Traffic Circulation

Traffic modeling indicates that 4th Street and 5th Street would operate at acceptable levels under either the one-way or two-way configurations. Additional traffic analysis will be completed to ensure the appropriate infrastructure, signals, and signs are integrated at the intersections during the design phase.

The study concluded that full build-out of the enhanced one-way OR the enhanced two-way will work. As the infrastructure is very similar for both alternatives, there is the opportunity for phased implementation of improvements, remaining in the one-way configuration until such time as the conversion to two way, if desired, is within reach from a budget standpoint. There is also an opportunity to pilot modifications with the one-way configuration to confirm changes of traffic patterns if the signals on both 4th Street and 5th Street between Grand and Ute Ave were removed and replaced with stop signs.

City staff will continue to work with the Downtown Development Authority and other key stakeholders on the development of the final design and implementation of the study recommendations.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION THAT:**

The 4<sup>TH</sup> and 5<sup>th</sup> Street Feasibility Study, in the form of the document attached hereto, is hereby adopted as the policy of the City and shall be implemented as provided herein.

**PASSED AND APPROVED** this 4th day of May, 2022.

---

C.B. McDaniel  
President of the City Council

ATTEST:

---

Laura Bauer  
City Clerk

DRAFT



**Grand Junction City Council**

**Regular Session**

**Item #4.b.**

---

**Meeting Date:** May 4, 2022  
**Presented By:** John Shaver, City Attorney  
**Department:** City Attorney  
**Submitted By:** John Shaver, City Attorney

---

**Information**

**SUBJECT:**

A Resolution Setting Fees for Cannabis Licensing

**RECOMMENDATION:**

Staff recommends approval of this resolution.

**EXECUTIVE SUMMARY:**

This resolution sets certain fees referred to in Title 5 Chapter 13 of the Grand Junction Code of Ordinances pertaining to regulated cannabis business licenses.

**BACKGROUND OR DETAILED INFORMATION:**

City Council adopted Ordinance 5064 on April 8, 2022, which included certain marijuana, also known as cannabis, uses, licenses and regulations. Ordinance 5064 specifies that City Council shall set and establish fees by resolution that offset the costs of licensing, inspection, administration, and enforcement of cannabis businesses. With this resolution, staff recommends setting of application, license, renewal, change of corporate structure, zoning verification and fire consultant fees.

All fees are nonrefundable with the exception of the licensing fee if the applicant is not selected in the randomized selection process.

**FISCAL IMPACT:**

The estimated revenue to be generated from the initial round of applications based on a range of 20 to 40 applications (\$2,500 each) is \$50,000 to \$100,000. The revenue generated from the initial licensing phase is based on 10 licenses at \$5,000 each for \$50,000. These revenues will be accounted for in the Cannabis Sales Tax Fund.



**SUGGESTED MOTION:**

I move to adopt Resolution No. 37-22, a resolution setting various fees and charges relating to Title 5 Chapter 13 of the Grand Junction Municipal Code of ordinances pertaining to regulatory cannabis business licenses.

**Attachments**

1. Citizen Comment - Resolution Setting Fees for Cannabis Licensing
2. RES-Cannabis Fees 042522

**From:** [cityclerk](#)  
**To:** [Debbie Kemp](#); [Selestina Sandoval](#); [Janet Harrell](#); [Kerry Graves](#); [Laura Bauer](#)  
**Subject:** FW: Resolution Setting Fees for Cannabis Licensing- Comment,  
**Date:** Tuesday, May 3, 2022 3:13:33 PM  
**Attachments:** [image001.png](#)

---

**From:** Council <council@gjcity.org>  
**Sent:** Tuesday, May 3, 2022 3:13:29 PM (UTC-07:00) Mountain Time (US & Canada)  
**To:** Abe Herman <abeh@gjcity.org>; Anna Stout <annas@gjcity.org>; Belinda White <belindaw@gjcity.org>; Chuck McDaniel <chuckmc@gjcity.org>; Council <council@gjcity.org>; Dennis Simpson <denniss@gjcity.org>; Greg Caton <gregc@gjcity.org>; John Shaver <johns@gjcity.org>; Phillip Pe'a <phillip@gjcity.org>; Randall Reitz <randallr@gjcity.org>; Rick Taggart <ricket@gjcity.org>; cityclerk <cityclerk@gjcity.org>  
**Subject:** FW: Resolution Setting Fees for Cannabis Licensing- Comment,

*FYI: Hello Councilmembers, the message below from Mitch Yater, regarding the above-mentioned, was left on Council's email this afternoon:*

*Belinda White  
Administrative Specialist*

*(970) 244-1508*



---

**From:** Mitchell Yater <mfyater@gmail.com>  
**Sent:** Tuesday, May 3, 2022 12:27 PM  
**To:** Council <council@gjcity.org>  
**Subject:** Resolution Setting Fees for Cannabis Licensing- Comment,

**\*\* - EXTERNAL SENDER. Only open links and attachments from known senders. DO NOT provide sensitive information. Check email for threats per risk training. - \*\***

Hello,

I've been reviewing the documents for the upcoming resolution regarding the fee schedule for the cannabis license application process.

It appears to me that the application fee (\$2,500) and the license fee (\$5,000), will both be due at the time of application submission. With the licensing fee being refundable if not drawn in the random drawing.

This seems like a substantial amount of funds to tie up in what amounts to a gamble. Would it be

possible to require only the application fee of \$2,500 for the initial application, and then require payment of the Licensing fee upon winning a license in the randomization process. I fear it will be difficult to tie up \$7,500 during the deliberation process. This would be very helpful to my efforts if possible.

Also, to be clear, the licensing fee of \$2500 is non refundable if the application is not selected in the randomization process?

Many thanks,  
-Mitch Yater

**RESOLUTION NO. \_\_\_\_\_**

**A RESOLUTION ESTABLISHING VARIOUS FEES AND CHARGES RELATING TO TITLE 5 CHAPTER 13 OF THE GRAND JUNCTION MUNICIPAL CODE PERTAINING TO CANNABIS BUSINESS LICENSES**

**Recitals.**

Fees charged by the City for various licenses, permits and programs are set by resolution of City Council. With this Resolution the City Council establishes, sets, and determines the fees related and referred to in Title 5, Chapter 13 of the Grand Junction Municipal Code pertaining to regulated cannabis business licenses.

The City Council have been duly advised and having considered the fees proposed in this Resolution does establish, set, and determine the same and make the fees as provided in the Resolution applicable to regulated cannabis business license applications/licenses.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GRAND JUNCTION, COLORADO:**

1. The foregoing Recitals are adopted, and the fees are established with the understanding that the fees shall be paid to compensate the City for some of the costs incurred by it in the reviewing and processing of applications, including the costs of publication, hearing, administration, inspection and enforcement of regulated cannabis business applications and licenses.
2. The fees shown in Exhibit A (“Fees”) are hereby approved and adopted. The Fees shall apply upon adoption of this Resolution and will remain in effect until amended by subsequent resolution of the City Council.
3. The Regulated Cannabis Business Application Fee (“Application Fee”) shall be nonrefundable. The Regulated Cannabis Business License Fee License Fee (“License Fee”) is refundable and shall be refunded by the City if an Applicant for a Regulated Cannabis Business is not selected in the randomized license selection process.

PASSED AND ADOPTED this 4th day of May 2022.

\_\_\_\_\_  
President of City Council

ATTEST:

\_\_\_\_\_  
Laura J. Bauer  
Interim City Clerk

**Exhibit A**

Cannabis Business Application and License Fees

Regulated Cannabis Business Application Fee	\$2,500
Regulated Cannabis Business License Fee	\$5,000

Other License Fees

Annual Renewal Fee	\$2,500 application fee plus \$5,000 license fee
Change of Corporate Structure Fee	\$2,500 application fee plus \$5,000 license fee

Administrative Fees

Zoning Verification Per Address	\$100
Fire Consultation Fee (This Fee is and shall be in addition to other GJFD review fees, permit(s) fees and costs and charges as applicable)	\$100

All Fees are nonrefundable unless otherwise provided in Ordinance No. 5064.



## Grand Junction City Council

### Regular Session

Item #5.a.i.

---

**Meeting Date:** May 4, 2022

**Presented By:** John Shaver, City Attorney, Nicole Galehouse, Senior Planner

**Department:** City Attorney

**Submitted By:** Staff Cannabis Team

---

### **Information**

#### **SUBJECT:**

An Ordinance Amending Title 21 Chapter 4, Chapter 6, and Chapter 10 and Amending Title 27, Chapter 12 of the Grand Junction Municipal Code Regarding Use Standards and for Specific Buffering between Certain Schools and Rehabilitation Facilities, and Adopting Regulations for Signage of Cannabis Businesses, and Definitions for such Businesses

#### **RECOMMENDATION:**

The Planning Commission heard this request at their April 12, 2022 meeting and voted (6-1) to recommend adoption of the Ordinance.

#### **EXECUTIVE SUMMARY:**

The voters approved referred measures 2A and 2B at the City election on April 6, 2021. The approval of those measures provides the City Council an opportunity to allow for and regulate Marijuana "Cannabis" businesses and to establish tax rates and regulations for the retail cannabis industry in Grand Junction.

The City Council met on July 13, 2020, November 30, 2020, December 17, 2020, January 4, 2021, January 20, 2021, March 1, 2021, May 3, 2021, June 7, 2021, July 19, 2021, July 21, 2021, September 20, 2021, November 1, 2021, January 10, 2022, February 14, 2022, and March 14, 2022, to discuss and provide direction regarding the regulation of Cannabis (Marijuana) Retail Sales within the City of Grand Junction. The proposed ordinances are the product of these extensive discussions and the culmination of the City's effort to create a system for regulating cannabis retail sales businesses that protect the health, safety and welfare of the community while creating a fair and equitable process to select qualified operators of up to ten retail sales locations. The first reading of the proposed ordinance occurred on March 16, 2022. This ordinance amends certain sections of the Zoning and Development Code (Title 21 and

Title 27) of which the Planning Commission is required to review and provide a recommendation therein. The Planning Commission heard the item at their April 12, 2022 meeting.

**BACKGROUND OR DETAILED INFORMATION:**

Based upon direction received from the City Council at and during previous meetings and workshops and having reviewed ordinances from across Colorado as a baseline, staff has prepared three ordinances that work collectively to regulate cannabis retail sales. The Ordinance regulating Cannabis Uses, Licenses and Regulations (Ordinance No. 5064) and the ordinance creating a Retail Cannabis Sales and Use Tax and an Excise Tax (Ordinance No. 5065) were adopted by City Council on April 6, 2022.

This ordinance amends Title 21, including Chapter 4, Chapter 6 and Chapter 10, includes proposed changes to the use table, location specific limitations (Horizon Drive BID and Downtown), buffering from specific land uses, and signage regulations. The ordinance also amends Title 27, Chapter 12 pertaining to signage regulations within the Horizon Drive Overlay. Clerical issues were edited from the March 14<sup>th</sup> version as directed in that workshop. Additional clerical and clarification but non- substantive edits have been made since the March 16<sup>th</sup> first reading included in the attached redline and clean versions for consideration.

**FISCAL IMPACT:**

This action has no direct fiscal impact.

**SUGGESTED MOTION:**

I move to (adopt/deny) Ordinance No. 5070, an ordinance amending Title 27, Chapter 12 of the Grand Junction Municipal Code regarding use standards and for specific buffering between certain schools, and rehabilitation facilities, and adopting regulations for signage of cannabis businesses, and definitions for such businesses upon final passage and order final publication in pamphlet form.

**Attachments**

1. Public Comment-A.Walsh
2. Public Comment-D.Baird
3. Public Comment-J.Bonin
4. Public Comment-T.Bradley
5. Public Comment - Liz Zukowski
6. Public Comment - Renee Grossman
7. ORD-ZDC Cannabis -04.06.2022 REDLINE - 042122
8. ORD-ZDC Cannabis -04.06.2022 CLEAN - 042122

## Tamra Allen

---

**From:** comdev  
**Sent:** Monday, March 14, 2022 5:28 PM  
**To:** Tamra Allen; Jace Hochwalt  
**Subject:** FW: For tonights cannabis workshop  
**Attachments:** GJ Mj licensing memo March.docx.pdf

From comdev email.

Pat

*Pat Dunlap*

Planning Technician  
City of Grand Junction - Community Development  
250 N 5th St, Grand Junction, CO 81501-2628  
patd@gjcity.org; (970) 256-4030; (970) 256-4031 fax  
Office hours: M-F, 8:00 AM - 5:00 PM

---

**From:** Samantha Walsh <samantha@tetrapublicaffairs.com>  
**Sent:** Monday, March 14, 2022 16:03  
**To:** comdev <comdev@gjcity.org>; cityclerk <cityclerk@gjcity.org>; Abe Herman <abeh@gjcity.org>; Anna Stout <annas@gjcity.org>; Chuck McDaniel <chuckmc@gjcity.org>; Randall Reitz <randallr@gjcity.org>; Dennis Simpson <denniss@gjcity.org>; Rick Taggart <rictt@gjcity.org>; Phillip Pe'a <phillipp@gjcity.org>  
**Subject:** For tonights cannabis workshop

**\*\* - EXTERNAL SENDER. Only open links and attachments from known senders. DO NOT provide sensitive information. Check email for threats per risk training. - \*\***

Please include the following comment in tonight's workshop regarding base criteria and relevant experience with previous lottery systems. Thank you

Grand Junction City Council and Staff  
250 N 5<sup>th</sup> Street  
Grand Junction, CO 81501

March 14, 2022

### **Re: Grand Junction Marijuana Licensing Ordinance**

First, I'd like to acknowledge all the hard work Council has put into this ordinance. My firm has been working with various stakeholders and staff to participate in the process since the City began holding public listening sessions last summer. While we understand the direction Council is taking the ordinance, we remain greatly concerned with a lottery system being hastily thrown together. The lottery system that tends to be taken advantage of and "gamed" by well capitalized cannabis conglomerates or unscrupulous entities with no experience in the cannabis industry. It may feel like the path of least resistance, but history has demonstrated that lottery systems end up costing more and taking more time to implement than a traditional merit based system.



Adams County, for example, moved forward in 2020 to license cannabis hospitality businesses and found that applicants would recruit relatives and friends to submit applications for the lottery. They did this as a way to collect several “tickets” on behalf of people with no vested interest in the industry who were acting as a placeholder or “owner” in name only. To date, none of the 5 lottery winners have opened their businesses for operation because of conflicts around trying to transfer ownership. In Broomfield, another city that went down the lottery path, there have been 2 lawsuits that have severely delayed licensing and therefore denied much needed tax revenue to the city. And unfortunately, the social equity applicant in Broomfield was shut out completely.

While we still believe a merit based approach is the quickest way to evaluate quality applicants and ensure the fastest approval track for businesses to open and the City to collect revenue, we want to work with the City to ensure that the process moving forward can do that as well - to the greatest extent possible.

## Mandatory Lottery Entry Criteria

We encourage Council to set a higher bar for entry into the lottery, guarantee that the highest quality applicants enter the lottery, and ensure that only those who are dedicated to maintaining a long-term relationship in the community will win the privilege of a license. The following are 5 criteria that were identified by Council as priorities, and it is standard practice that a plan for each be provided prior to the issuance of a license, or in this case, a lottery entrance.

**Experience in the Cannabis Industry** - Ability to demonstrate, through a business plan and management experience, the applicant’s ability to operate and develop a business in a highly regulated industry with a cumulative demonstrated experience of at least three (3) years. This would include:

- 
- 
- Applicant should be badged as an owner by the MED before submitting their application in the lottery.
- This will prevent gamesmanship of loading the lottery with false parties, insincere applications, and those looking to transfer or sell the license.
- 
- 
- 
- Executive summary of Applicant’s business plan demonstrates excellent familiarity with the relevant rules, regulations, and financial structure of the regulated cannabis industry in Colorado.
- 
- 
- 
- Attestation that Applicant has employed at least 10 employees badged under MED.
- 

**Detailed Business Plan** – Applicant provides a business plan of overall quality and detail to indicate that the business will achieve operational stability and comply with best practices and regulations concerning employment and prevention of crime and nuisance. The business plan must include the following:

- 
- 
- Provide a reasonable estimate of costs related to build out and startup
- 
- 
- 
- Proof that a facility has been secured and that the location meets zoning requirements
- 
- 
- 
- Proof of a plan/access to technology to facilitate ordering, tracking and ID/age purchase verification.
- 
-



- 
- Applicant must not be prohibited from becoming a licensee for any reason identified by State law
- or regulation
- 

**Financial Viability** – Applicant provides a feasible financial plan and demonstrates control of at least \$500,000 in cash and cash equivalents available for deployment to fund business development and operations.

**Community Impact and Benefit** – Applicant submits a plan that demonstrates meaningful and substantial commitment through financial donation, service, or similar to programs, services and organizations that address Social Determinants of Health as defined by the CDC. These include economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context. Plan must include letters of support from non-profits or community members partnered with the applicant in developing the community plan.

We believe these criteria are essential to meeting Council's goals of an efficient and fair licensing procurements while also ensuring that the utmost integrity is obtained from both applicants and the process.

--

*Samantha Walsh*

Founder

*(c) 303.618.6504*



[www.tetrapublicaffairs.com](http://www.tetrapublicaffairs.com)

## Tamra Allen

---

**From:** comdev  
**Sent:** Monday, March 14, 2022 5:27 PM  
**To:** Tamra Allen; Jace Hochwalt  
**Subject:** FW: 3-14-22 Council Meeting

From comdev email.

Pat

*Pat Dunlap*

Planning Technician  
City of Grand Junction - Community Development  
250 N 5th St, Grand Junction, CO 81501-2628  
patd@gjcity.org; (970) 256-4030; (970) 256-4031 fax  
Office hours: M-F, 8:00 AM - 5:00 PM

---

**From:** Dwayne Baird <admin@jandjinc.net>  
**Sent:** Monday, March 14, 2022 13:59  
**To:** Abe Herman <abeh@gjcity.org>; Chuck McDaniel <chuckmc@gjcity.org>; Phillip Pe'a <phillipp@gjcity.org>; Randall Reitz <randallr@gjcity.org>; Dennis Simpson <denniss@gjcity.org>; Anna Stout <annas@gjcity.org>; Rick Taggart <rickt@gjcity.org>  
**Cc:** comdev <comdev@gjcity.org>  
**Subject:** 3-14-22 Council Meeting

**\*\* - EXTERNAL SENDER. Only open links and attachments from known senders. DO NOT provide sensitive information. Check email for threats per risk training. - \*\***

Dear Councilmen and Council Women,

After reviewing the proposed marijuana application requirements, I would like to ask about the cannabis business license proposed operating plan. First page, item 3. What is the reasoning behind requiring a fire suppression system? I don't see anything in the proposed ordinance that alludes to a fire suppression system other than following the international and local fire code. According to the fire sprinkler requirements on your website, retail locations above 12,000 sq. ft. require a sprinkler system but not less than 12,000 sq. ft.

Is it your intention to require a fire suppression system for all cannabis retail stores? This places an undue burden on prospective applicants who have already invested a great deal of money into their locations. A cannabis dispensary is a retail outlet, nothing more. Do you require all retail establishments in Grand Junction regardless of size to install a fire suppression system? Not according to the fire code, so why single out cannabis dispensaries? Fire suppression systems are incredibly expensive and unnecessary in small to medium size retail outlets. This undue burden will further hinder your potential applicant pool. To give you an example, the Town of Dolores Colorado implemented a fire suppression system requirement. Once the many several potential applicants were informed of this decision most decided not to go thru with the application. The Town of Dolores began accepting applications in January of 2021, anticipating a lottery drawing due to the interest shown initially. All but one applicant has withdrawn from the Town of Dolores.

A fire suppression system is expensive and time consuming. We estimate our proposed location will cost upwards of \$200,000 and a minimum of 6-9 months to complete installation. Us and other applicants already have invested a great deal of money into our proposed locations. We continue to invest while the council figures out what system they want to use to decide on the 10 applicants. The more requirements like this you impose the greater chance there will be that no smaller cannabis retailers can afford to business in Grand Junction.

I urge you to reconsider the fire suppression system requirement. Stick to the existing fire code and do not place extra financial and time burdens on cannabis retailers simply because we sell cannabis. At the end of the day, we sell a product at a retail establishment. We are no different than your local liquor store, other than the fact that we are already highly regulated and highly taxed.

Thank you for your time.

Dwayne Baird  
(970) 946-8537

**J and J Enterprises, Inc | JWJ Inc.**

Business Development | Licensing Specialist | I.T. Admin

## Tamra Allen

---

**From:** comdev  
**Sent:** Monday, March 14, 2022 5:28 PM  
**To:** Tamra Allen; Jace Hochwalt  
**Subject:** FW: 3-14-22 Council Workshop

From comdev email.

Pat

*Pat Dunlap*

Planning Technician  
City of Grand Junction - Community Development  
250 N 5th St, Grand Junction, CO 81501-2628  
patd@gjcity.org; (970) 256-4030; (970) 256-4031 fax  
Office hours: M-F, 8:00 AM - 5:00 PM

---

**From:** Jeremy Bonin <jbonin@jandjinc.net>  
**Sent:** Monday, March 14, 2022 16:58  
**To:** Abe Herman <abeh@gjcity.org>; Chuck McDaniel <chuckmc@gjcity.org>; Phillip Pe'a <phillipp@gjcity.org>; Randall Reitz <randallr@gjcity.org>; Dennis Simpson <denniss@gjcity.org>; Anna Stout <annas@gjcity.org>; Rick Taggart <rickt@gjcity.org>  
**Cc:** comdev <comdev@gjcity.org>  
**Subject:** 3-14-22 Council Workshop

**\*\* - EXTERNAL SENDER. Only open links and attachments from known senders. DO NOT provide sensitive information. Check email for threats per risk training. - \*\***

Dear Council members,

Upon review of the cannabis application requirements being proposed tonight, I would like to address the operating plan draft. One of the requirements being asked of all licenses is a required fire suppression system. I have attended nearly every meeting and been involved in the councils' discussions regarding retail cannabis in Grand Junction since early last year and this is the first I've heard about a fire suppression system requirement for all license types.

A fire suppression system should not be a requirement for a small to medium sized retail establishment.

I can't find any information in the draft ordinance requiring this system. The proposed ordinance simply states that the establishment follow all local and international fire codes. I've spoken with the local fire inspection office and been assured that normal retail establishments in Grand Junction aren't required to install such a system.

Most retail cannabis establishments are going to be well under 12,000 sq. ft. (which is the size requirement) and will not be storing any hazardous materials, other than lighters. There is no logical reason behind such a

requirement. Retail cannabis establishments have fewer flammable items than a typical clothing boutique let alone a liquor store.

Fire suppression systems are incredibly expensive and time consuming to install. They can easily cost hundreds of thousands of dollars and since they require multiple inspections and certifications, they usually take 6 months or more to be completed. Cannabis retailers are just that, retailers. We aren't production facilities, we don't have tens of thousands of square feet, and we don't store hazardous chemicals nor are we engaging in any volatile processes. I implore you to stick with the language currently in the draft ordinance and to only require what is already in the existing local and international fire code. Please do not place this undue burden on new businesses starting in Grand Junction. Following the ordinance as previously written and requiring businesses to follow the local and international fire code will be plenty of protection for the City of Grand Junction.

As to the merit-based system versus lottery-based system. I and many others have spoken many times to the advantages of a merit-based system. If you continue with the existing cap rather than let the free market dictate how many cannabis retailers can be in operation, a merit-based system will ensure that you, the city council, get the highest quality operators in the industry. This is a very challenging industry to be in. Cannabis was approved by voters to get tax dollars into your community. Inexperience or even bad operators can and will delay the opening of retail stores. We've seen several communities go thru a time-consuming lottery process only to be delayed a year or more before stores can open. These delays will cost the city the tax dollars it needs to fund the Parks, Recreation and Open Space plan. You have little control over a lottery, open yourself to litigation, and will cause even further delays. The fairest way to move forward, is to correct the mistake of putting an arbitrary cap on the number of cannabis stores that can open.

I believe it was council woman Stout that said it best. "It is not the council's job to decide how many retailers should open, it is the councils' job to regulate the industry that the voters approved."

If you do continue with this arbitrary cap, please remember why the council overwhelmingly supported the merit-based system originally. The intent is to keep bad and inexperienced operators out so that the tax dollars can quickly flow to the City of Grand Junction.

Thank you for your time.

Jeremy Bonin

## Tamra Allen

---

**From:** comdev  
**Sent:** Monday, March 14, 2022 8:24 AM  
**To:** Tamra Allen; Jace Hochwalt  
**Subject:** FW: Public Comment for marijuana ordinance  
**Attachments:** Grand Junction Ordinance Comments.pdf

From comdev email.

Pat

*Pat Dunlap*

Planning Technician  
City of Grand Junction - Community Development  
250 N 5th St, Grand Junction, CO 81501-2628  
patd@gjcity.org; (970) 256-4030; (970) 256-4031 fax  
Office hours: M-F, 8:00 AM - 5:00 PM

---

**From:** Truman Bradley <truman@marijuanaindustrygroup.org>  
**Sent:** Friday, March 11, 2022 11:46  
**To:** Council <council@gjcity.org>; citymanager <citymanager@gjcity.org>; John Shaver <johns@gjcity.org>; comdev <comdev@gjcity.org>  
**Subject:** Public Comment for marijuana ordinance

**\*\* - EXTERNAL SENDER. Only open links and attachments from known senders. DO NOT provide sensitive information. Check email for threats per risk training. - \*\***

Good afternoon Council Members, Attorney Shaver, and Manager Caton,

My name is Truman Bradley. I serve as the Executive Director of the Marijuana Industry Group (MIG), the trade association for licensed Colorado cannabis businesses. MIG partners with lawmakers, regulators, community groups, and stakeholders to make sure that Colorado continues to be thoughtful and safe as we regulate marijuana. *Thank you for your diligence and conviction as you create a marijuana regulatory model that is right for Grand Junction.* As you prepare for your workshop on Monday, please see MIG's feedback on the [redline marijuana draft ordinance on your website](#).

Truman Bradley  
Executive Director



(303) 588-2297  
Truman@MarijuanaIndustryGroup.org



**From:** Liz Zukowski <[elisabeth.zukowski@nativerootsdispensary.com](mailto:elisabeth.zukowski@nativerootsdispensary.com)>  
**Sent:** Thursday, April 14, 2022 12:17  
**To:** Council <[council@gjcity.org](mailto:council@gjcity.org)>; comdev <[comdev@gjcity.org](mailto:comdev@gjcity.org)>  
**Subject:** MJ Application Administrative Requests

**\*\* - EXTERNAL SENDER. Only open links and attachments from known senders. DO NOT provide sensitive information. Check email for threats per risk training. - \*\***

Good afternoon Grand Junction Council and Director Allen,

Congratulations on passing the retail marijuana sales and marijuana sales tax ordinances! Our industry is so glad to see this come to fruition for the Grand Junction community.

Our company's primary licensing employee has a few practical administrative requests for the application based on experience writing and submitting applications to various municipalities across the state, including Broomfield, Winter Park, Longmont, and Aurora.

We have reviewed the available forms online and are extremely grateful these are already available for applicants, especially the workflow narrative, application checklist, and security diagram checklist.

Requests:

- 
- 
- Pose very specific questions and identify the level of detail to be included
- - 
  - 
  - Example of a poorly worded application question: "Explain your security plan"
  -
- 
- 
- Provide references to the ordinance sections/lines that pertain to each required item in the application
- 
- 
- 
- Set parameters around the length of answers (page limit, word count, etc.)
- 
- 
- 
- 
- Since the ordinance grants the Licensing Authority the discretion to require additional materials for consideration,

- we ask that any request for additional information not be considered a “strike” against the applicant.
- 

These requests relate to the practicality of completing the application. Sharing as much detail with applicants about what the City wants to see in applications will cut down on questions from applicants and limit staff interruptions during the review period.

Additionally, setting parameters around the length of answers ensures the City is receiving the most vital information necessary to make a determination of license suitability and application completeness. Without these sorts of guidelines in place, the City may receive applications that are 200+ pages in length with duplicative information.

Thank you for listening to our suggestions. We believe if these requests are implemented, it will lead to a more efficient, effective, and equitable application and selection process.

If you'd like further details about any of the above requests, please don't hesitate to reach out.

Sincerely,  
Liz

**Liz Zukowski** (she/her/hers)  
*Policy & Public Affairs Manager*  
C: 281-455-9755



[www.nativerootscannabis.com](http://www.nativerootscannabis.com)

**From:** [Agenda](#)  
**To:** [Selestina Sandoval](#); [Janet Harrell](#); [Debbie Kemp](#); [Laura Bauer](#); [Kerry Graves](#)  
**Subject:** FW: Few Comments for Tonight  
**Date:** Wednesday, May 4, 2022 1:34:26 PM  
**Attachments:** [image001.png](#)  
[image003.png](#)

---

---

**From:** Tamra Allen <tamraa@gjcity.org>  
**Sent:** Wednesday, May 4, 2022 7:34:22 PM (UTC+00:00) Monrovia, Reykjavik  
**To:** Agenda <agenda@gjcity.org>; Nicole Galehouse <nicoleg@gjcity.org>  
**Subject:** Fwd: Few Comments for Tonight

Please add these to the record for tonight's hearing

Sent from my Verizon, Samsung Galaxy smartphone  
Get [Outlook for Android](#)

---

**From:** Renee Grossman <renee@plumcompanies.com>  
**Sent:** Wednesday, May 4, 2022 11:00:57 AM  
**To:** Council <council@gjcity.org>  
**Cc:** Tamra Allen <tamraa@gjcity.org>; John Shaver <johns@gjcity.org>; LisaMarie Pinder <lisamariep@havacompanies.com>  
**Subject:** Few Comments for Tonight

**\*\* - EXTERNAL SENDER. Only open links and attachments from known senders. DO NOT provide sensitive information. Check email for threats per risk training. - \*\***

Mayor, Council Members and Staff,

I'm sure you are pleased that this process is almost completed. I understand, appreciate and respect why you chose to conduct a lottery instead of a merit system. I still fear there will be litigation that disrupts the process but hopefully not. I am eager to see the application materials that you create. As you think about what should be in the application, I would encourage you to have some requirements that provide assurances that those who apply and enter the lottery have the ability and capital to open stores and not just tie up licenses and block capable and competent operators.

Some requirements you may want to consider are listed below. I've chosen to write these as reps and warranties because that seems to make the most sense to me. If the applicant is unable to rep to any of these, you could deem the application incomplete and not eligible for the lottery. And if the applicant lies and you determine the rep is untrue, it would enable you to revoke the license if they don't have the money to open and not leave it tied up for 6 months or a year. I'm not an attorney, so I would defer to John's opinion and language should you chose to adopt any of these or similar reps.

- Applicant reps that it has minimum liquid capital of \$250,000 or more
- Applicant reps that it has no outstanding tax obligations to the State of Colorado or any local municipality in which it operates a marijuana license
- Applicant reps that it is not under investigation or subject to regulatory infractions with the State of CO or any local municipality in which it operates a marijuana license
- Applicant reps that it does not have any open or threatened litigation related to its operation of a cannabis license
- Applicant reps that it or any of its owners or lenders are not persons prohibited from owning a marijuana license – alternatively, you can require all owners or at least Controlling Beneficial Owners have already received suitability from the MED

I would also encourage you to reconsider the weighted lottery thereby giving you some control over the outcome to ensure you get good operators who will generate the most revenue for you. This could be done with simple things that I don't think conflict with your adopted ordinances, such as:

- Rate the properties/locations based on suitability for the use A, B, C. This could be based on the location, the parking, the conformance with uses in the area, etc. Typical land use considerations. Then perhaps give more balls for more suitable locations. I bring this up specifically because I believe that once you see the applications, you will see a lot of locations that are less suitable for the use. Perhaps they are closer to residential or do not have adequate parking, which could cause customers to go to other towns if shopping is too challenging in Grand Junction.
- Ask for business plans and operating plans and rate them. Once you see the applications, it will be very clear to you the difference among applicants and who will be best suited and generate the most tax revenues for your city.

Last, I would make the application fee higher and non-refundable. Thank you for your consideration of my comments.

P.S. Check out our new store in Cedaredge that opened last week!

Regards,

Renée



**RENÉE S. GROSSMAN**

President & CEO

C: [212-851-6448](tel:212-851-6448) | E: [renee@havacompanies.com](mailto:renee@havacompanies.com)

[HAVAGARDENS.COM](http://HAVAGARDENS.COM) | [AKTACREATIONS.COM](http://AKTACREATIONS.COM) | [HIGHQROCKIES.COM](http://HIGHQROCKIES.COM)

This email message is for the exclusive use of the intended recipient(s) and may contain confidential, privileged and non-disclosable information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply email immediately and destroy any and all copies of the message.





40 On February 6, 2013, City Council approved Resolution 07-13 adopting marijuana  
41 policies for the City and restrictions for persons or entities from applying to function, do  
42 business, or hold itself out as a marijuana facility, business, or operation of any sort in the  
43 City limits. -Later that same year, City Council adopted Ordinance 4599 which prohibited  
44 the operation of marijuana cultivation facilities, marijuana product manufacturing facilities,  
45 marijuana testing facilities, and retail marijuana stores. Ordinance 4599 also amended  
46 Sections in Title 5, Article 15 of the ~~Grand Junction Municipal Code~~ that prohibit certain  
47 uses relating to marijuana.

48 In late 2015, the City, Mesa County and Colorado Mesa University, by and through the  
49 efforts of the Grand Junction Economic Partnership (GJEP), were successful in  
50 establishing the *Colorado Jumpstart* business development program. One business  
51 which was awarded the first *Jumpstart* incentive planned to develop a laboratory and  
52 deploy its advanced analytical processes for genetic research and its ability to mark/trace  
53 chemical properties of agricultural products, one of which was cannabis. In October 2016,  
54 City Council passed Ordinance 4722 which amended Ordinance 4599 and Section  
55 21.04.010 of the ~~Grand Junction Municipal Code~~ to allow cannabis marijuana testing  
56 facilities in the City.

57 On January 20, 2021 the City Council approved Resolution 09-21, the adoption of which  
58 referred a ballot question to the regular municipal election on April 6, 2021 to repeal  
59 Referred Measure A contingent on and subject to voter approval of taxation of marijuana  
60 cannabis businesses. A majority of the votes cast at the election were in favor of repealing  
61 the moratorium on marijuana cannabis businesses and in favor of taxation of cannabis  
62 businesses.

63 City Council has decided to allow certain regulated retail cannabis businesses within the  
64 City. City Council has requested that staff prepare an ordinance to repeal the prohibition  
65 of cannabis businesses from the ~~Grand Junction Municipal Code~~ and to include rules and  
66 regulations for licensing and operating retail cannabis businesses.

67 City staff and community members, including the Cannabis Working Group, have  
68 researched, reviewed, and discussed various approaches to taxation, permitting and  
69 regulation of regulated retail cannabis within the City. Regulations for cannabis uses have  
70 been established at the state level with the adoption and implementation of the Colorado  
71 Marijuana Code in the Colorado Revised Statutes (C.R.S. 44-10-101, *et. seq.*); however,  
72 regulation of regulated retail marijuana uses at the state level alone are inadequate to  
73 address the impacts on the City of regulated cannabis, making it appropriate for the City  
74 to regulate the impacts of regulated retail cannabis uses.

75 The City has a valid interest in regulating zoning and other impacts of cannabis  
76 businesses in a manner that is consistent with constitutional and statutory standards. The  
77 City Council desires to facilitate the provision of quality regulated retail cannabis in a safe  
78 manner while protecting existing uses within the City. Regulation of the manner of  
79 operation and location of regulated retail cannabis uses is necessary to protect the health,

80 safety and welfare of both the public and the customers. The proposed ordinance is  
81 intended to allow certain regulated cannabis businesses that will have a minimal impact  
82 and where potential negative impacts are minimized.

83 This proposed ordinance amends the City's Code to permit cannabis businesses in the  
84 specific zone districts where general indoor retail sales are permitted and provides for  
85 buffering from specific land uses including, certain schools and specific rehabilitation  
86 facilities. This ordinance also includes regulations for signage and definitions for cannabis  
87 businesses.

88 After public notice and public hearing as required by the Grand Junction Zoning and  
89 Development Code, the Grand Junction Planning Commission recommended approval  
90 of the proposed amendments.

91 After public notice and public hearing, the Grand Junction City Council finds that the  
92 amendments to allow certain retail-regulated cannabis businesses by and through the  
93 uses and the Use Table, are responsive to the community's desires and otherwise  
94 advance and protect the public health, safety and welfare of the City and its residents.

95 **NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF**  
96 **GRAND JUNCTION THAT THE FOLLOWING SECTIONS OF THE GRAND JUNCTION**  
97 **MUNICIPAL CODE INCLUDING TITLE 21: ZONING AND DEVELOPMENT CODE AND**  
98 **TITLE 27: HORIZON DRIVE DISTRICT OVERLAY ZONE DISTRICT STANDARDS ARE**  
99 **AMENDED AS FOLLOWS (new text additions underlined and deletions marked with**  
100 **strike-through notations):**

101 21.04.010 (d) Prohibited Uses. .

102 ~~Marijuana related business, whether retail, commercial, industrial or agricultural, except~~  
103 ~~marijuana testing facility(ies) are prohibited in all zone districts in accordance with~~  
104 ~~Chapter 5.15 GJMC. Marijuana testing facility(ies) is (are) allowed in the zone districts~~  
105 ~~shown.~~

106  
107 ~~Marijuana testing facilities shall be categorized as/under the "industrial services,~~  
108 ~~contractors and trade shops, oil and gas support operations without hazardous materials"~~  
109 ~~category of the use zone matrix as "research, testing, and laboratory facilities — indoors~~  
110 ~~(including marijuana testing facilities)" as allowed uses in B-2, C-1, C-2, MU, BP, IO, I-1~~  
111 ~~and 1-2 zone districts.~~

112

113

114

115

116

117  
118  
119  
120

21.04.010 Use Table.

Key: A = Allowed, C = Conditional, Blank Cell = Not Permitted																								
Use Category	Principal Use	R-R	R-E	R-1	R-2	R-4	R-5	R-8	R-12	R-16	R-24	R-O	B-1	B-2	C-1	C-2	CSR	M-U	BP	I-O	I-1	I-2	M X-	Std.
Retail Sales and Services	Marijuana Related Business																							Ch 6-15
Retail Sales and Service	Regulatedtail Cannabis Store												A	A	A	A		A	A				A	Ch. 21.04.030(w)

121  
122  
123  
124

21.04.030 Use-specific standards.

(w) Retail Regulated Cannabis Stores.

125  
126  
127  
128  
129  
130

(1) Applicability. These regulations apply to all Regulatedtail Cannabis Stores in the City in addition to the other provisions in the GJMC pertaining to cannabis stores, including but not limited to, GJMC Chapters 5.13 and 5.14.

131  
132

(2) Zoning.

133  
134  
135

(i) It is unlawful for a Regulatedtail Cannabis Store to operate in a building which contains a Dwelling Unit that is occupied or unoccupied.

136  
137  
138

(ii) There shall be no more than two Regulatedtail Cannabis Stores operating within the boundaries of the Horizon Drive Business Improvement District, as may be amended.

139  
140  
141  
142  
143  
144

(iii) There shall be no Rregulated Ccannabis Storesbusinesses located on the ground floor of any buildings in the Downtown Grand Junction area defined as Main Street bounded by the west intersection line of First Street and bounded by the east by the centerline of 7th Street.

145

(3) Buffering.

146

(i) No Regulatedtail Cannabis Stores shall be located:



- 147 (A) Within 1000 feet of any private or public elementary, middle, junior  
 148 high, or high school.  
 149
- 150 (B) Within 1000 feet of Colorado Mesa University (Main Campus) and  
 151 Western Colorado Community College.  
 152
- 153 (C) Within 500 feet of any services for prevention, treatment or recovery  
 154 from substance use and mental health concerns, as licensed by the  
 155 Colorado Department of Human Services, Office of Behavioral  
 156 Health (OBH).  
 157
- 158 (ii) Buffering Distance Computation. The buffering distance shall be computed  
 159 by direct measurement from the nearest property line of the land use to the  
 160 nearest portion of the building or unit in which the ~~regulated~~retail cannabis  
 161 is to be sold, using a route of direct pedestrian access, measured as a  
 162 person would walk safely and properly, without trespassing ~~or, without~~  
 163 utilizing alleys, following stripping or parking patterns or on-site designated  
 164 pedestrian routes, with right angles at crossings and with the observance of  
 165 traffic regulations and traffic signals.  
 166

167 21.06.070 Sign Regulation

168  
 169 (j) Regulated Cannabis Business Cannabis Retail Store Signage and Advertising.

- 170
- 171 (1) All signs and advertising for ~~Regulated~~ Cannabis Stores shall comply with  
 172 all applicable provisions of the Colorado Marijuana Code, any regulations  
 173 adopted pursuant thereto, the provisions of this Chapter and of Title 5, Chapter  
 174 13 of the Municipal CodeChapter 6, and the City's ordinances and regulations  
 175 regarding signs and advertising.  
 176
- 177 (2) No sign shall use the terms "pharmacy", "pharmacist", "pharmaceutical", "rx",  
 178 or any other similar variation of such terms as its corporate, business, or "doing  
 179 business as" name, so as to prevent a reasonable person from concluding such  
 180 business is involved in the practice of pharmacy, as regulated by  
 181 Pharmaceuticals and Pharmacists, C.R.S. Article 22 of Chapter 12.  
 182 Additionally, no ~~Regulated~~ Cannabis Stores may use any of the above terms  
 183 or any similar variation thereof in any of its signs, placards, promotional, or  
 184 advertising materials. Additionally, no signs that mimic or allude to pharmacy  
 185 or medical related symbols, including but not limited to medical style crosses  
 186 regardless of proportions or colors, shall be used or displayed in nonmedical  
 187 retail-Regulated Cannabis Stores.  
 188

189 (3) No sign shall include advertising material that is misleading, deceptive or false  
190 or that, as evidenced by the content of the advertising material or by the  
191 medium or the manner in which the advertising material is disseminated, is  
192 designed to appeal to persons under 21 ~~eighteen (18)~~ years of age.

193  
194 (4) Maximum Sign Dimensions:

195  
196 (i) For properties that lie within an existing overlay district regulated by Title  
197 22, Title 24, Title 25, Title 26, or Title 27 the specific regulations within the  
198 overlay shall apply.

199  
200 (ii) For all other properties within the City, only flush wall mounted signs or  
201 monument signs shall be allowed. -Maximum sign allowances shall be  
202 calculated according to the provisions of this Chapter and subject to the  
203 following limitations:

204  
205 (A) Maximum Height: 20 feet; and,

206  
207 (B) Maximum Area: -150 square feet per sign face.

208  
209 (5) Signs and Advertising not requiring a permit include:

210  
211 (i) Sign-wavers or other natural persons standing in the public. No ~~Retail~~  
212 Regulated Cannabis Stores shall advertise with sign-wavers or other  
213 natural persons within the buffering distances from specified land uses as  
214 provided in (w)-(3)(ia) above.

215  
216 (ii) Any advertisement contained within a newspaper, magazine, or other  
217 periodical of general circulation within the City or on the internet, which may  
218 include coupons.

219  
220 (iii) Any non-consumable merchandise or accessories.

221  
222 (iv) A booth at an adult event or job fair where the only items distributed are  
223 company or educational materials and no other items are distributed,  
224 shown or sold.

225  
226 (v) Business cards within the business or handed directly to an individual who  
227 is over the age of 21.

228  
229 (vi) Showing a government-issued verification of age or military status, or  
230 registration for a charitable event, or similar item the showing of which,  
231 without providing a separate printing to the business, entitles the holder to  
232 a discount for a particular product or service.

233  
234  
235  
236  
237  
238  
239  
240  
241  
242  
243  
244  
245  
246  
247  
248  
249  
250  
251  
252  
253  
254  
255  
256  
257  
258  
259  
260  
261  
262  
263  
264  
265  
266  
267  
268  
269  
270  
271  
272  
273  
274

(vii) Company materials and educational materials distributed inside the cannabis business.

27.12.040 Signage.

(b) Freestanding signs shall comply with the following requirements:

(8) Maximum sign dimensions shall not exceed the following:

(i) For any regulated cannabis business, the maximum sign dimensions shall not exceed the following:

- (A) 20 ~~twenty~~ feet in height; and,
- (B) 75 ~~seventy-five~~ square feet.

21.10.020 Terms defined.

Cannabis ~~T~~esting ~~F~~acility(ies) is an entity licensed to analyze and certify safety and potency of cannabis.

Medical Cannabis Store is an entity licensed ~~and~~ co-located with a retail cannabis store that sells medical cannabis to registered patients or primary caregivers as defined in Section 14 of Article XVIII of the Colorado constitution, but is not a primary caregiver.

~~Regulated~~ ~~tail~~ ~~C~~eannabis ~~C~~ultivation ~~F~~acility is an entity licensed to cultivate, prepare, and package cannabis and sell cannabis to retail cannabis stores, to cannabis product manufacturing facilities, and to other cannabis cultivation facilities, but not to consumers.

~~Regulated~~ ~~tail~~ ~~C~~eannabis ~~H~~ospitality and ~~S~~ales ~~B~~usiness is a facility that cannot be mobile, that is licensed to permit the consumption of only the retail cannabis or retail cannabis products it has sold pursuant to the provisions of an enacted, initiated, or referred ordinance or resolution of the local jurisdiction in which the licensee operates.

~~Regulated~~ ~~tail~~ ~~C~~eannabis ~~P~~roducts ~~M~~anufacturing ~~F~~acility is an entity licensed to purchase cannabis; manufacture, prepare, and package cannabis products; and sell cannabis and cannabis products to other cannabis product manufacturing facilities and to retail cannabis stores, but not to consumers.

275 Regulatedtail Ccannabis Ttransporter Bbusiness is an entity or person that is licensed to  
276 transport retail cannabis and retail cannabis products from one regulatedtail cannabis  
277 business to another regulatedtail cannabis business and to temporarily store the  
278 transported regulatedtail cannabis and regulatedtail cannabis products at its licensed  
279 premises but is not authorized to sell regulatedtail cannabis or regulatedtail cannabis  
280 products under any circumstances.

281  
282 Regulatedtail Ccannabis Sstore is an entity licensed to purchase regulated cannabis from  
283 Regulated Ccannabis Ceultivation Ffacilities and to sell regulated cannabis to consumers  
284 and Regulatedretail Ccannabis Ttesting Ffacilities that are licensed to analyze and certify  
285 the safety and potency of cannabis.

286  
287 All other provisions of Title 21 Chapter 4, Chapter 6, and Chapter 10 and Title 27 Chapter  
288 12.12 shall remain in full force and effect.

289  
290 Introduced on first reading the \_\_\_\_\_ day of \_\_\_\_\_,  
291 2022 and ordered published in pamphlet form.

292  
293 Adopted on second reading this \_\_\_\_ day of \_\_\_\_\_ 2022 and ordered published in  
294 pamphlet form.

295  
296  
297  
298  
299 ATTEST: \_\_\_\_\_  
300 C.B. McDaniel  
301 President of City Council

302  
303 \_\_\_\_\_  
304 Laura J. Bauer, MMC  
305 Interim City Clerk

306



40 On February 6, 2013, City Council approved Resolution 07-13 adopting marijuana  
41 policies for the City and restrictions for persons or entities from applying to function, do  
42 business, or hold itself out as a marijuana facility, business, or operation of any sort in the  
43 City limits. Later that same year, City Council adopted Ordinance 4599 which prohibited  
44 the operation of marijuana cultivation facilities, marijuana product manufacturing facilities,  
45 marijuana testing facilities, and retail marijuana stores. Ordinance 4599 also amended  
46 Sections in Title 5, Article 15 of the GJMC that prohibit certain uses relating to marijuana.

47 In late 2015, the City, Mesa County and Colorado Mesa University, by and through the  
48 efforts of the Grand Junction Economic Partnership (GJEP), were successful in  
49 establishing the *Colorado Jumpstart* business development program. One business  
50 which was awarded the first *Jumpstart* incentive planned to develop a laboratory and  
51 deploy its advanced analytical processes for genetic research and its ability to mark/trace  
52 chemical properties of agricultural products, one of which was cannabis. In October 2016,  
53 City Council passed Ordinance 4722 which amended Ordinance 4599 and Section  
54 21.04.010 of the GJMC to allow marijuana testing facilities in the City.

55 On January 20, 2021, the City Council approved Resolution 09-21, the adoption of which  
56 referred a ballot question to the regular municipal election on April 6, 2021 to repeal  
57 Referred Measure A contingent on and subject to voter approval of taxation of marijuana  
58 businesses. A majority of the votes cast at the election were in favor of repealing the  
59 moratorium on marijuana businesses and in favor of taxation of cannabis businesses.

60 City Council has decided to allow certain regulated cannabis businesses within the City.  
61 City Council has requested that staff prepare an ordinance to repeal the prohibition of  
62 cannabis businesses from the GJMC and to include rules and regulations for licensing  
63 and operating retail cannabis businesses.

64 City staff and community members, including the Cannabis Working Group, have  
65 researched, reviewed, and discussed various approaches to taxation, permitting and  
66 regulation of regulated cannabis within the City. Regulations for cannabis uses have been  
67 established at the state level with the adoption and implementation of the Colorado  
68 Marijuana Code in the Colorado Revised Statutes (C.R.S. 44-10-101, *et. seq.*); however,  
69 regulation of regulated marijuana uses at the state level alone are inadequate to address  
70 the impacts on the City of regulated cannabis, making it appropriate for the City to regulate  
71 the impacts of regulated cannabis uses.

72 The City has a valid interest in regulating zoning and other impacts of cannabis  
73 businesses in a manner that is consistent with constitutional and statutory standards. The  
74 City Council desires to facilitate the provision of quality regulated cannabis in a safe  
75 manner while protecting existing uses within the City. Regulation of the manner of  
76 operation and location of regulated cannabis uses is necessary to protect the health,  
77 safety and welfare of both the public and the customers. The proposed ordinance is  
78 intended to allow certain regulated cannabis businesses that will have a minimal impact  
79 and where potential negative impacts are minimized.

80 This proposed ordinance amends the City’s Code to permit cannabis businesses in the  
 81 specific zone districts where general indoor retail sales are permitted and provides for  
 82 buffering from specific land uses including, certain schools and specific rehabilitation  
 83 facilities. This ordinance also includes regulations for signage and definitions for cannabis  
 84 businesses.

85 After public notice and public hearing as required by the Grand Junction Zoning and  
 86 Development Code, the Grand Junction Planning Commission recommended approval  
 87 of the proposed amendments.

88 After public notice and public hearing, the Grand Junction City Council finds that the  
 89 amendments to allow certain regulated cannabis businesses by and through the uses  
 90 and the Use Table, are responsive to the community’s desires and otherwise advance  
 91 and protect the public health, safety and welfare of the City and its residents.

92 **NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF**  
 93 **GRAND JUNCTION THAT THE FOLLOWING SECTIONS OF THE GRAND JUNCTION**  
 94 **MUNICIPAL CODE INCLUDING TITLE 21: ZONING AND DEVELOPMENT CODE AND**  
 95 **TITLE 27: HORIZON DRIVE DISTRICT OVERLAY ZONE DISTRICT STANDARDS ARE**  
 96 **AMENDED AS FOLLOWS (new text additions underlined and deletions marked with**  
 97 **strike-through notations):**

98 21.04.010 (d) Prohibited Uses.

99 ~~Marijuana related business, whether retail, commercial, industrial or agricultural, except~~  
 100 ~~marijuana testing facility(ies) are prohibited in all zone districts in accordance with~~  
 101 ~~Chapter 5.15 GJMC. Marijuana testing facility(ies) is (are) allowed in the zone districts~~  
 102 ~~shown.~~

103  
 104 ~~Marijuana testing facilities shall be categorized as/under the “industrial services,~~  
 105 ~~contractors and trade shops, oil and gas support operations without hazardous materials”~~  
 106 ~~category of the use zone matrix as “research, testing, and laboratory facilities – indoors~~  
 107 ~~(including marijuana testing facilities)” as allowed uses in B-2, C-1, C-2, MU, BP, IO, I-1~~  
 108 ~~and 1-2 zone districts.~~

109  
 110 21.04.010 Use Table.

Key: A = Allowed, C = Conditional, Blank Cell = Not Permitted																								
Use Category	Principal Use	R-R	R-E	R-1	R-2	R-4	R-5	R-8	R-12	R-16	R-24	R-O	B-1	B-2	C-1	C-2	CSR	M-U	BP	I-O	I-1	I-2	M X-	Std.
Retail Sales and Services	Marijuana Related Business																							Ch 6-15





149 (ii) Buffering Distance Computation. The buffering distance shall be computed  
150 by direct measurement from the nearest property line of the land use to the  
151 nearest portion of the building or unit in which the regulated cannabis is to  
152 be sold, using a route of direct pedestrian access, measured as a person  
153 would walk safely and properly, without trespassing or utilizing alleys,  
154 following stripping or parking patterns or on-site designated pedestrian  
155 routes, with right angles at crossings and with the observance of traffic  
156 regulations and traffic signals.  
157

158 21.06.070 Sign Regulation

159  
160 (j) Regulated Cannabis Business Signage and Advertising.

161  
162 (1) All signs and advertising for Regulated Cannabis Stores shall comply with all  
163 applicable provisions of the Colorado Marijuana Code, any regulations adopted  
164 pursuant thereto, the provisions of this Chapter and of Title 5, Chapter 13 of  
165 the Municipal Code, and the City’s ordinances and regulations regarding signs  
166 and advertising.

167  
168 (2) No sign shall use the terms “pharmacy”, “pharmacist”, “pharmaceutical”, “rx”,  
169 or any other similar variation of such terms as its corporate, business, or “doing  
170 business as” name, so as to prevent a reasonable person from concluding such  
171 business is involved in the practice of pharmacy, as regulated by  
172 Pharmaceuticals and Pharmacists, C.R.S. Article 22 of Chapter 12.  
173 Additionally, no Regulated Cannabis Stores may use any of the above terms  
174 or any similar variation thereof in any of its signs, placards, promotional, or  
175 advertising materials. Additionally, no signs that mimic or allude to pharmacy  
176 or medical related symbols, including but not limited to medical style crosses  
177 regardless of proportions or colors, shall be used or displayed in nonmedical  
178 Regulated Cannabis Stores.

179  
180 (3) No sign shall include advertising material that is misleading, deceptive or false  
181 or that, as evidenced by the content of the advertising material or by the  
182 medium or the manner in which the advertising material is disseminated, is  
183 designed to appeal to persons under 21 years of age.

184  
185 (4) Maximum Sign Dimensions:

186  
187 (i) For properties that lie within an existing overlay district regulated by Title  
188 22, Title 24, Title 25, Title 26, or Title 27 the specific regulations within the  
189 overlay shall apply.

190

191 (ii) For all other properties within the City, only flush wall mounted signs or  
192 monument signs shall be allowed. Maximum sign allowances shall be  
193 calculated according to the provisions of this Chapter and subject to the  
194 following limitations:

195  
196 (A) Maximum Height: 20 feet; and,

197  
198 (B) Maximum Area: 150 square feet per sign face.

199  
200 (5) Signs and Advertising not requiring a permit include:

201  
202 (i) Sign-wavers or other natural persons standing in the public. No Regulated  
203 Cannabis Stores shall advertise with sign-wavers or other natural persons  
204 within the buffering distances from specified land uses as provided in  
205 (w)(3)(i) above.

206  
207 (ii) Any advertisement contained within a newspaper, magazine, or other  
208 periodical of general circulation within the City or on the internet, which may  
209 include coupons.

210  
211 (iii) Any non-consumable merchandise or accessories.

212  
213 (iv) A booth at an adult event or job fair where the only items distributed are  
214 company or educational materials and no other items are distributed,  
215 shown or sold.

216  
217 (v) Business cards within the business or handed directly to an individual who  
218 is over the age of 21.

219  
220 (vi) Showing a government-issued verification of age or military status, or  
221 registration for a charitable event, or similar item the showing of which,  
222 without providing a separate printing to the business, entitles the holder to  
223 a discount for a particular product or service.

224  
225 (vii) Company materials and educational materials distributed inside the  
226 cannabis business.

227  
228  
229 27.12.040 Signage.

230 (b) Freestanding signs shall comply with the following requirements:

231  
232 (8) Maximum sign dimensions shall not exceed the following:

233  
234 (i) For any regulated cannabis business, the maximum sign dimensions  
235 shall not exceed the following:

- 236  
237 (A) 20 ~~twenty~~ feet in height; and,  
238  
239 (B) 75 ~~seventy-five~~ square feet.  
240

241 21.10.020 Terms defined.

242  
243 Cannabis Testing Facility(ies) is an entity licensed to analyze and certify safety and  
244 potency of cannabis.

245  
246 Medical Cannabis Store is an entity licensed and co-located with a retail cannabis store  
247 that sells medical cannabis to registered patients or primary caregivers as defined in  
248 Section 14 of Article XVIII of the Colorado constitution, but is not a primary caregiver.

249  
250 Regulated Cannabis Cultivation Facility is an entity licensed to cultivate, prepare, and  
251 package cannabis and sell cannabis to retail cannabis stores, to cannabis product  
252 manufacturing facilities, and to other cannabis cultivation facilities, but not to consumer.

253  
254 Regulated Cannabis Hospitality and Sales Business is a facility that cannot be mobile,  
255 that is licensed to permit the consumption of only the retail cannabis or retail cannabis  
256 products it has sold pursuant to the provisions of an enacted, initiated, or referred  
257 ordinance or resolution of the local jurisdiction in which the licensee operates.

258  
259 Regulated Cannabis Products Manufacturing Facility is an entity licensed to purchase  
260 cannabis; manufacture, prepare, and package cannabis products; and sell cannabis and  
261 cannabis products to other cannabis product manufacturing facilities and to retail  
262 cannabis stores, but not to consumers.

263  
264 Regulated Cannabis Transporter Business is an entity or person that is licensed to  
265 transport retail cannabis and retail cannabis products from one regulated cannabis  
266 business to another regulated cannabis business and to temporarily store the transported  
267 regulated cannabis and regulated cannabis products at its licensed premises but is not  
268 authorized to sell regulated cannabis or regulated cannabis products under any  
269 circumstances.

270  
271 Regulated Cannabis Store is an entity licensed to purchase regulated cannabis from  
272 Regulated Cannabis Cultivation Facilities and to sell regulated cannabis to consumers  
273 and Regulated Cannabis Testing Facilities that are licensed to analyze and certify the  
274 safety and potency of cannabis.

275  
276 All other provisions of Title 21 Chapter 4, Chapter 6, and Chapter 10 and Title 27 Chapter  
277 12.12 shall remain in full force and effect.  
278

279 Introduced on first reading the \_\_\_\_\_ day of \_\_\_\_\_,  
280 2022 and ordered published in pamphlet form.

281  
282 Adopted on second reading this \_\_\_\_ day of \_\_\_\_\_ 2022 and ordered published in  
283 pamphlet form.

284  
285

286  
287

288 ATTEST:

289  
290

291

292 \_\_\_\_\_  
293 Laura J. Bauer, MMC  
294 Interim City Clerk

295

295

\_\_\_\_\_  
C.B. McDaniel  
President of City Council

DRAFT



**Grand Junction City Council**

**Regular Session**

**Item #6.a.**

---

**Meeting Date:** May 4, 2022  
**Presented By:** Jay Valentine, General Services Director  
**Department:** General Services  
**Submitted By:** Jay Valentine

---

**Information**

**SUBJECT:**

Solar Farm Subscription with Pivot Energy

**RECOMMENDATION:**

Staff recommends authorizing the City Manager to enter into a Solar Subscription with Pivot Energy, LLC

**EXECUTIVE SUMMARY:**

Pivot Energy is developing a solar garden project on land they leased from the City located at 2940 D 1/4 Rd. The land lease was approved by City Council at the November 3, 2021 City Council meeting. Pivot Energy is proposing that the City of Grand Junction subscribe to 311 kWh of the power produced that will serve a variety of City electrical meters that include administrative, operational, and recreational facilities.

The City would be required to sign a 10-year contract, subject to annual appropriations, with Pivot Energy for the purchase of this energy.

**BACKGROUND OR DETAILED INFORMATION:**

In 2012, Xcel Energy released its Solar Rewards Community Program to provide incentives to stimulate the development of community solar gardens in its service territory. A community solar garden operates at a centralized location, generating energy that is sold directly to Xcel via an energy procurement agreement. Each kWh produced generates a "virtual net metering" credit and a renewable energy certificate. Subscribers to the solar garden purchase power from the solar provider and receive a credit from Xcel on their monthly utility statement. Subscribers to a solar garden are allowed to take up to 40% of the power produced, and must enter into a 20-year lease. 5% of any garden must be allocated to low-income subscribers. The proposed solar

garden is proposed to be located on the City property at 2940 D 1/4 Rd. This property is directly adjacent to the first Community Solar Garden developed in Mesa County, located on School District owned property at D 1/4 Road and 29 Road to which the City is a 23% subscriber of the 2 MW system.

The City of Grand Junction is already a subscriber to three separate Solar Gardens, located in Grand Junction, Cameo and Rifle. The performance of the Solar Gardens varies based on time of year, cloud coverage, and other environmental variables. In 2020, the total generation of the three separate Solar Gardens was 2,385,547 Kwh and in 2021 the total generation was 2,432,900. Across the 65 facilities that the city provides electricity, the total annual usage is over 16,000,000 Kwh. The annual production from the three Solar Gardens accounts for 15% of the annual consumption across all the City's facilities.

As the cost of electricity continues to trend upwards, Solar Gardens have become a viable option for organizations to offset costs year over year. As the City continues to grow to match the population and economic growth of Grand Junction, additional Solar Gardens will help to offset the cost of providing services to the citizens of Grand Junction.

**FISCAL IMPACT:**

This Community Solar Garden opportunity will save the City approximately \$186,000 over the 20-year period. The payment to Pivot Energy in year 1 is approximately \$38,285 and assumes a 1.35% subscription price increase annually. The average credit to the City from Xcel is approximately \$43,996 in year 1 and assumes a 2.00% annual rate increase.

**SUGGESTED MOTION:**

I move to (approve/deny) the request to authorize the City Manager to enter into a Community Solar Garden Subscription Agreement with Pivot Energy.

**Attachments**

1. City of GJ Community Solar Proposal



**November 18, 2021**



**Pivot  
Energy**

**Community Solar Proposal for City of Grand Junction**

**Prepared for:**

City of Grand Junction

**Prepared by:**

Pivot Energy  
Matthew Brenn  
mbrenn@pivotenergy.  
net  
(970) 631-7977

## Company Overview

---

Pivot Energy was founded in 2009 in St. Louis, Missouri but has relocated to Denver, Colorado in 2015. We are a turnkey developer of commercial and industrial solar energy projects in the United States. Pivot has quietly become a national leader for commercial and industrial solar projects, with hundreds of successful projects completed for small, mid-sized and Fortune 500 companies, as well as for nonprofit, government and military organizations. In 2016, we added a community solar division to our company and hired several experienced community solar developers that have helped pioneer the solar garden business model.

Pivot has experience in building all types of solar PV projects, including rooftop, ground-mount, carport, and other design types. Our development team works in conjunction with our EPC team to plan a project for success from the beginning.

Pivot is headquartered Denver, CO with additional offices in St. Louis, MO and Chicago, IL. We maintain a strong staff of NABCEP certified personnel. All field personnel are OSHA certified, and participate in an extensive ongoing Quality Assurance (QA) program. We also offer a variety of monitoring and maintenance plans to suit our client needs.

As a Clean Energy Services provider, Pivot is your single source for community solar, construction management, land development, energy storage, solar subscription services, and demand response strategies. We also offer project financing, with a focus on PACE financing, PPAs and leases.

## Community Solar

---

Community solar is an easy option for customers who are considering the benefits of going solar. Serviced by Pivot Energy through your utility provider, community solar allows both residential and commercial customers to subscribe to an off-site solar garden and get credited directly on your electric utility bill for your portion of the solar electricity production each month.

For each kilowatt-hour produced and delivered on your behalf by the solar garden, you will be credited at the bill credit rate applicable to each registered meter and Pivot Energy will charge the community solar subscription rate as seen below. The difference between the credit and the Pivot Energy charge is your cost savings by choosing community solar.







## Community Solar for City of Grand Junction

**311 kWdc  
Capacity**

**\$0.061 / kWh  
1.35% / Year**

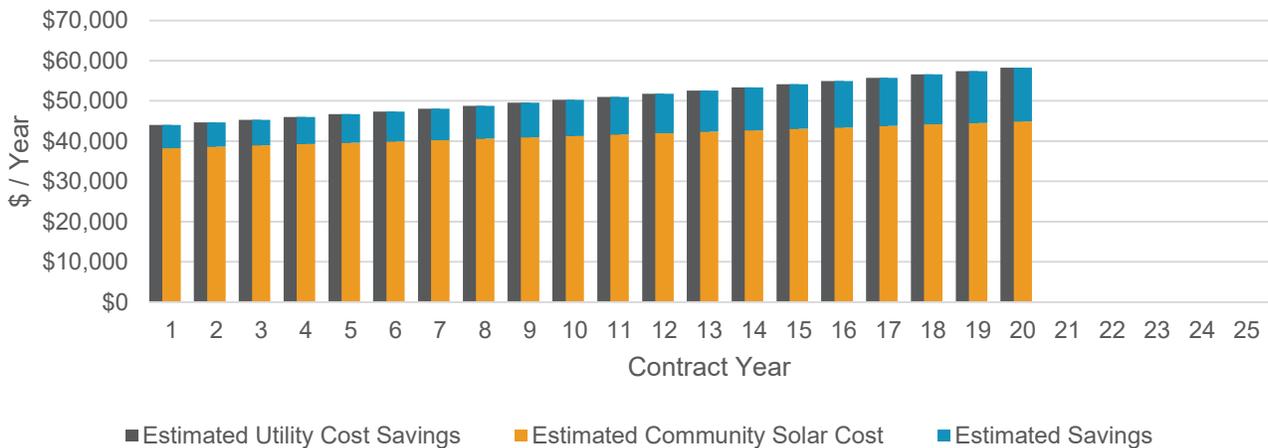
**\$186,100  
Estimated Savings**

The graph below provides a snapshot of the rate plan proposed with a Pivot Energy community solar subscription. The amounts shown below are dependent on the contracted capacity, annual increase of utility credit rates, future applicable meter types, and estimated performance of the community solar garden.

20 Year Summary		
	Community Solar	Utility Credit *
Rate (\$ / kWh)	(\$0.06100)	\$0.0701
Escalator	1.35%	2.00%
Term Average Rate	(\$0.06934)	\$0.08488
Est Term Total	(\$830,258)	\$1,016,358
Est Term Savings	\$186,100	

\* Utility Rates are based on blended credit values. Utility Escalators are based on estimates.

Estimated Utility Cost, Community Solar Payments, and Savings



## Previous Clients

---



## Professional Credentials

---



Pivot has one of the highest ratio of NABCEP certified personnel on staff, nationally, amongst our peer companies. NABCEP certification is considered the “gold standard” for the Solar PV industry.



Pivot is a member in good standing with the premier Solar industry association. Pivot has adopted the Association’s Ethics Policy.



Pivot has licensed professional engineers on staff.



Pivot is a true Triple Bottom Line company, and is proud to be a certified B Corporation, measuring results not only by profitability, but equally by metrics that quantify benefits to people (employees, community) and planet (sustainable operations).

Contract Year	Est. Community Solar Production Share	Est. Utility Energy Rate*	Est. Utility Cost Savings	Community Solar Rate	Est Community Solar Cost	Est. Savings
1	627,624	\$0.07010	\$43,996	\$0.06100	\$38,285	\$5,711
2	624,486	\$0.07150	\$44,652	\$0.06182	\$38,608	\$6,044
3	621,363	\$0.07293	\$45,317	\$0.06266	\$38,933	\$6,384
4	618,257	\$0.07439	\$45,993	\$0.06350	\$39,262	\$6,731
5	615,165	\$0.07588	\$46,678	\$0.06436	\$39,593	\$7,085
6	612,090	\$0.07740	\$47,373	\$0.06523	\$39,927	\$7,447
7	609,029	\$0.07894	\$48,079	\$0.06611	\$40,263	\$7,816
8	605,984	\$0.08052	\$48,796	\$0.06700	\$40,603	\$8,193
9	602,954	\$0.08213	\$49,523	\$0.06791	\$40,945	\$8,577
10	599,939	\$0.08378	\$50,261	\$0.06882	\$41,291	\$8,970
11	596,940	\$0.08545	\$51,009	\$0.06975	\$41,639	\$9,371
12	593,955	\$0.08716	\$51,769	\$0.07070	\$41,990	\$9,780
13	590,985	\$0.08890	\$52,541	\$0.07165	\$42,344	\$10,197
14	588,030	\$0.09068	\$53,324	\$0.07262	\$42,701	\$10,623
15	585,090	\$0.09250	\$54,118	\$0.07360	\$43,061	\$11,057
16	582,165	\$0.09435	\$54,925	\$0.07459	\$43,424	\$11,500
17	579,254	\$0.09623	\$55,743	\$0.07560	\$43,790	\$11,953
18	576,357	\$0.09816	\$56,573	\$0.07662	\$44,160	\$12,414
19	573,476	\$0.10012	\$57,416	\$0.07765	\$44,532	\$12,884
20	570,608	\$0.10212	\$58,272	\$0.07870	\$44,908	\$13,364

\* Year 1 "Est. Utility Energy Rate" of \$0.06457 according to Xcel Energy published rate update on Nov 15, 2021. Effective Jan 1, 20.

Usage Inputs				CSG		
Total				627,624 kWh		311.165 kWdc
Account Number	Premise Number	Address	Rate Class	Estimated Annual Usage (kWh)	Est. CSG Production	CSG Share
53-00130017630	300000346	586 25 1/2 RD PUMP/LITES	C	24,200 kWh	2,017 kWh / kW	11.998 kWdc
53-00130017823	300001223	2057 Broadway	C	10,334 kWh	2,017 kWh / kW	5.123 kWdc
53-00130017903	300001811	1201 North Ave.	C	6,429 kWh	2,017 kWh / kW	3.187 kWdc
53-00130020179	300049124	372 Ridges Blvd. A	C	10,477 kWh	2,017 kWh / kW	5.194 kWdc
53-0013001891-5	300087779	Lincoln Park Shop	C	14,496 kWh	2,017 kWh / kW	7.187 kWdc
53-00130019029	300092472	440 Main St. DDA BREEZ	C	3,400 kWh	2,017 kWh / kW	1.686 kWdc
53-00130001907-4	300100613	2899 Beechwood St. pump	C	3,907 kWh	2,017 kWh / kW	1.937 kWdc
53-0013001917-6	3001070701	327 27 3/8 Rd.	C	20,882 kWh	2,017 kWh / kW	10.353 kWdc
53-00130019245	300109222	Whitman Park	C	7,773 kWh	2,017 kWh / kW	3.854 kWdc
53-00130019369	300130148	Lincoln Park Office	C	21,761 kWh	2,017 kWh / kW	10.789 kWdc
53-0013001942-7	300137072	675 W. Colorado Ave.	C	17,200 kWh	2,017 kWh / kW	8.528 kWdc
53-00130019610	300157468	550 Ouray Ave.	C	17,611 kWh	2,017 kWh / kW	8.731 kWdc
53-00130019698	300161220	1301 E. Sherwood Dr. Restroom	C	18,188 kWh	2,017 kWh / kW	9.017 kWdc
53-1001171	300168868	2748 Cheyenne Dr.	C	5,176 kWh	2,017 kWh / kW	2.566 kWdc
53-0013002000-0	300183817	1827 N. 26th St. Rest	C	16,177 kWh	2,017 kWh / kW	8.020 kWdc
53-0013001990-5	300687830	159 Main St. Elec.	C	4,040 kWh	2,017 kWh / kW	2.003 kWdc
53-0012210350-3	300700508	261 Ute. Ave.	C	4,689 kWh	2,017 kWh / kW	2.325 kWdc
53-00129955223	301467050	333 West Ave.	C	12,309 kWh	2,017 kWh / kW	6.103 kWdc
53-00130023036	301617103	333 West Ave. E	C	34,429 kWh	2,017 kWh / kW	17.069 kWdc
53-0013002799-4	304024406	244 3/4 26 2/4 Rd.	C	15,690 kWh	2,017 kWh / kW	7.779 kWdc
53-0013002038-4	304087118	743 3/4 Horizon Dr. Landscape	C	25,602 kWh	2,017 kWh / kW	12.693 kWdc
53-00129955096	304128449	2549 Riverside Pkwy	C	6,173 kWh	2,017 kWh / kW	3.060 kWdc
53-0013002097-5	304168816	135 S. 7th st. E. Hol lite	C	8,315 kWh	2,017 kWh / kW	4.122 kWdc
53-0013002102-3	304173694	2549 Riverside Pkwy water pump	C	79,164 kWh	2,017 kWh / kW	39.248 kWdc
53-0013002122-7	304199623	2620 Legacy Way	C	13,772 kWh	2,017 kWh / kW	6.828 kWdc
53-0013002146-5	304234766	400 Gunnison Ave. Restroom	C	19,484 kWh	2,017 kWh / kW	9.660 kWdc
53-00126793505	304289927	400 23 Rd. B	C	22,659 kWh	2,017 kWh / kW	11.234 kWdc
53-0013002277-3	304314233	2502 1/4 Highway 6 and 50 Traffic	C	4,567 kWh	2,017 kWh / kW	2.264 kWdc
53-0013002284-2	304372169	1240 Gunnison Ave. Tennis Cou	C	9,820 kWh	2,017 kWh / kW	4.869 kWdc
53-00130022897	304481398	715 Struthers Ave.	C	21,192 kWh	2,017 kWh / kW	10.507 kWdc
53-00113835225	304599591	2755 B 1/2 Rd.	C	8,841 kWh	2,017 kWh / kW	4.383 kWdc
53-00114119344	304604517	1120 3/4 N. 16th St.	C	21,557 kWh	2,017 kWh / kW	10.688 kWdc
53-00119565402	304699483	99 North Ave.	C	6,820 kWh	2,017 kWh / kW	3.381 kWdc
53-0012294662-6	304762919	709 1/2 Horizon Dr. ped. Xing	C	5,209 kWh	2,017 kWh / kW	2.583 kWdc
53-0012406127-7	304781287	1461 Riverfront Dr. PP-1	C	40,649 kWh	2,017 kWh / kW	20.153 kWdc
53-0012406128-8	304781288	1251 Riverfront Dr. PP-2	C	30,375 kWh	2,017 kWh / kW	15.059 kWdc
53-0012758457-1	30484112	2735 Riverfront Dr. PP-4	C	13,824 kWh	2,017 kWh / kW	6.854 kWdc
53-0012774081-1	304849901	2599 3/4 Dos Rios Dr. Lighting	C	14,226 kWh	2,017 kWh / kW	7.053 kWdc
53-00128440683	304861741	601 3/4 Fairview Ave. Site Light	C	6,207 kWh	2,017 kWh / kW	3.077 kWdc