

Planning Commission Agenda

Regular Meeting

Tuesday September 12, 2023 at 1:15 p.m.

City Council Chambers-City Center South
1001 11th Ave, Greeley, CO 80631 Zoom

Webinar Link:

<https://greeleygov.zoom.us/j/86229590350>

NOTICE:

Planning Commission meetings are held on the 2nd and 4th Tuesdays of each month. Meetings are conducted in a hybrid format, with a Zoom webinar in addition to the in-person meeting in Council Chambers. Members of the public may participate in Planning Commission meetings in the manner that works best for them.

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Meetings are open to the public and can be attended in person by anyone.



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Comment in Real Time:



Join the Zoom webinar (link above). During the public hearing, members of the public may address the Commission.

Submit Written Comments:



Email comments about any item on the agenda to cd_admin_team@greeleygov.com



Written comments can be mailed or dropped off at the Planning office at 1100 10th Street, Greeley, CO 80631. Written comments received prior to or during the meeting will be read into the record in real time.

Meeting agendas and minutes are available on the City's meeting portal at [Greeleyco.municodemeetings.com/](https://greeleyco.municodemeetings.com/) For more information about this meeting or to request reasonable accommodations, contact the administrative team at 970-350-9780 or by email at cd_admin_team@greeleygov.com.

September 12, 2023 at 1:15 PM
1001 11th Avenue, City Center South, Greeley, CO 80631

Agenda

1. Call to Order
 2. Roll Call
 3. Approval of the Agenda
 4. Approval of the August 22, 2023 Planning Commission Meeting Minutes
-

EXPEDITED AGENDA

The following items are routine in nature, fully described in the accompanying reports, and therefore staff summary presentations will be suspended unless requested by the Commission or member of the public in attendance at the meeting.

5. A public hearing to consider a request for a Planned Unit Development for commercial, multi-family, single-family, and parks on approximately 170.573 acres located at the northwest corner of 10th Street at 83rd Avenue (PUD2022-0006).
 6. A public hearing to consider a Planned Unit Development (PUD) request to rezone approximately 4.23 acres located directly north of 7025 8th Street from R-H (Residential High Density) to PUD (Planned Unit Development). (PUD2023-0001).
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END OF EXPEDITED AGENDA

7. A public hearing to consider an application to rezone a property 11.083 ± acres in size from Residential Low Density (RL) to a Planned Unit Development (PUD). The PUD would allow various Residential and Institutional uses with specific zoning standards (PUD2022-0007).
8. A request from Crow Creek Construction, LLC, to rezone a 7.43 acre parcel from HA – Holding Agriculture to PUD – Planned Unit Development located North of W. 19th Street Road, east of 82nd Avenue (PUD2022-0008).
9. Staff Report
10. Adjournment

City of Greeley, Colorado
PLANNING COMMISSION PROCEEDINGS
August 22, 2023

1. Call to Order

Chair Yeater called the meeting to order at 1:15 PM.

2. Roll Call

The hearing clerk called the roll.

PRESENT

Chair Justin Yeater
Commissioner Louisa Andersen
Commissioner Briscoe
Commissioner Jeff Carlson
Commissioner Brian Franzen
Commissioner Larry Modlin
Commissioner Christian Schulte

3. Approval of Agenda

Chair Yeater asked if there were any changes or additions to the agenda. Brian McBroom (Community Development Director), shared that there was one minor change to be discussed after approval of the minutes.

After the minutes were approved, Chair Yeater returned approval of the agenda. Item number six of the agenda, (A Public Hearing to consider a Planned Unit Development (PUD) request to Rezone approximately 4.23 acres located directly north of 7025 8th Street from R-H to PUD). He asked Mr. McBroom to share details about the proposed change in the agenda.

Mr. McBroom shared that the request is for this item's Public Hearing to be opened and then continued to the next meeting and for the item to be moved up on the agenda to allow the applicant to not be required to stay for the remainder of the meeting.

Chair Yeater turned the matter back to the commission for a motion for continuance and asked if there was a specific date scheduled for the item to be continued on. Mr. McBroom shared that the item would be scheduled for the next scheduled meeting on September 12, 2023.

Commissioner Franzen motioned to open the public hearing and continue this item to the next board meeting on September 12, 2023. Commissioner Briscoe seconded the motion. Motion carried 7-0.

4. Approval of August 8, 2023, Minutes

Commissioner Andersen moved to approve the minutes dated August 8, 2023. Commissioner Briscoe seconded the motion. Motion carried 7-0.

5. Wake Annexation and Zoning:

- a. Public hearing for a proposal to annex Wake Annexation Number 1, a parcel totaling 61.613 acres. (ANX2022-0008; Wake Annexation).
- b. Public hearing for a proposal to annex Wake Annexation Number 2, a parcel totaling 45.409 acres. (ANX2022-0009; Wake Annexation).
- c. Public hearing for a proposal to annex Wake Annexation Number 3, a parcel totaling 13.075 acres. (ANX2022-0010; Wake Annexation)
- d. A public hearing for the Establishment of Zoning of 120.097 acres of newly annexed land to Holding Agriculture (HA).

Chair Yeater introduced the items as listed, sharing that they would be presented in the one presentation. Doug May (Planner III) began his presentation by sharing information on the request and background on the request. It is considered a serial annexation with 3 pieces of land totaling 120.097 acres. Mr. May shared that proposed annexation meets the criteria set by State Statute, the City Attorney's Office has determined the proposal meets the statutory requirements and that the City Council adopted a resolution to review the request on August 15, 2023 (also required by state statute).

For establishment of zoning, the request for zoning is to establish H-A (Holding Agriculture) Zone District (File No. ZON2023-0001). Per state statutes, establishment of zoning must take place within 90 days of the annexation. The property is located inside the Long-Range Expected Growth Area (LREGA) and the H-A zone district is generally intended to hold undeveloped and agricultural land. Mr. May shared a map, providing a visual of where the property is located and showing how it meets the criteria. He continued, using another map, from the Greeley Comprehensive Plan, showing the property is in the Open Lands and Natural Areas framework category. This category generally contains areas not suitable for urban development, such as floodplains, as in this case. The Comprehensive Cache la Poudre Greenway Guide recommends acquisition of riparian land along the Poudre River, and this request is part of that.

Regarding the Annexation Considerations, there are five criteria used to evaluate Annexation applications. Staff has found that the proposed annexation meets those criteria. 72 notice letters were sent out, signs posted in three locations on the property and staff has not received any email or phone calls at this point. Community Development recommends approval for the proposed Annexation.

Regarding the Establishment of Zoning Considerations, there are nine Criteria Used to Evaluate Rezoning applications and staff finds that the proposed Rezoning is consistent with the criteria as outlined in the packet. 72 notice letters were sent out, signs posted in three locations on the property and staff has not received any email or phone calls at this point. Community Development recommends approval for the proposed Establishment of Zoning.

Mr. May concluded his presentation, offering to answer any questions. Commissioner Andersen asked if the existing uses that are on the property now would be allowed to continue, specifically the equestrian use and Mr. May shared it would be allowed to continue. With no further questions for staff, Chair Yeater invited the applicant to speak if they wish.

The applicant, Adam Fraiser (Richmark Real Estate Partners), 5200 W. 20th Street, Greeley. He shared he did not have a presentation but was available to answer any questions. There were none.

Chair Yeater opened the Public Hearing at 1:25 p.m. Seeing none, Chair Yeater closed the Public Hearing at 1:25 p.m. and turned the items back to commission for action.

Commissioner Briscoe moved based on the application received and the preceding analysis, the Planning Commission finds that the proposed Wake Annexation #1, File number ANX2022-0008 meets the required Development Code criteria of Section 24-214.b.2.(a–e); and recommend approval of the Wake Annexation #1 to the City Council. Commissioner Modlin seconded the motion. Motion carried, 7-0

Commissioner Briscoe moved based on the application received and the preceding analysis, the Planning Commission finds that the proposed Wake Annexation #2, File number ANX2022-0009 meets the required Development Code criteria of Section 24-214.b.2.(a–e); and recommend approval of the Wake Annexation #2 to the City Council. Commissioner Modlin seconded the motion. Motion carried, 7-0

Commissioner Briscoe moved based on the application received and the preceding analysis, the Planning Commission finds that the proposed Wake Annexation #3, File number ANX2022-0010 meets the required Development Code criteria of Section 24-214.b.2.(a–e); and recommend approval of the Wake Annexation #3 to the City Council. Commissioner Modlin seconded the motion. Motion carried, 7-0

Commissioner Briscoe moved based on the application received and the preceding analysis, the Planning Commission finds that the proposed Wake Establishment of Zoning, File number ZON2023-0001 meets the required Development Code criteria of Section 24-204.b.(1-9); and recommend approval of the Wake Establishment of Zoning to the City Council. Commissioner Modlin seconded the motion. Motion carried, 7-0

6. A Public Hearing to consider a Planned Unit Development (PUD) request to rezone approximately 4.23 acres located directly north of 7025 8th Street from R-H (Residential High Density) to PUD (Planned Unit Development). (Project: PUD2023-0001)

Public Hearing opened and continued to the next scheduled meeting on September 12, 2023, as per motion in the approval of the agenda.

7. Staff Report

No Staff Report

8. Adjournment

With no further business before the Commission, Chair Yeater adjourned the meeting at 1:29 PM.

Justin Yeater, Chair

Don Threewitt, Interim Community Development Director

Planning Commission Agenda Summary

September 12, 2023

Key Staff Contact: Caleb Jackson, AICP | Interim Chief Planner, (970)350-9276

Title:

Public Hearing considering a Planned Unit Development request for commercial, multi-family, single-family, and parks on approximately 170.573 acres of recently annexed land located at the northwest corner of 10th Street at 83rd Avenue known as Schneider Farm PUD.

Summary:

The subject site was annexed on September 5, 2023, and must be zoned within 90 days of annexation. The applicant proposes to establish Planned Unit Development (PUD) zoning, known as the Schneider Farm PUD, on approximately 170.573 acres located at 975 83rd Avenue. The proposed Schneider Farm PUD includes six planning areas.

Planning Area 1, comprising approximately 30 acres at the northwest corner of the site, would allow single-family dwellings at a maximum density of five dwelling units per acre yielding up to 149 units. Planning Area 2, comprising approximately 62 acres in the north-central part of the site, would also allow single-family dwellings at a maximum density of five dwelling units per acre yielding up to 309 units. Planning Area 3, comprising approximately 21.6 acres at the northeast corner of the site, would accommodate parks and open space and is intended to satisfy park land dedication requirements for Schneider Farm.

Planning Area 4, comprising approximately 24.3 acres at the southwest corner of the site, would allow multi-family dwellings at a maximum density of 30 dwelling units per acre yielding up to 729 units. Planning Area 5, comprising approximately 17.8 acres at the southeast corner of the site, would allow commercial land uses with a maximum floor-area ratio of 0.5. Planning Area 6, comprising approximately 15 acres in the east-central part of the site, would allow multi-family dwellings at a maximum density of 20 dwelling units per acre yielding up to 299 units.

The proposed Planned Unit Development anticipates future dedication of right-of-way to extend 4th Street to the west and additional right-of-way for future improvements on 83rd Avenue. Other thoroughfares identified on the PUD include 86th Avenue, 89th Avenue, and 7th Street. Local streets would be planned with future preliminary subdivisions. Stormwater facilities are envisioned in Planning Areas 1 and 3-6. The applicant has worked with the Skyline Ditch, and is proposing to pipe and reroute the ditch through the site. The applicant is proposing to reroute the existing Bellvue water transmission line that traverses the site. The applicant has also provided conceptual plans for extension of non-potable, water, and sewer lines to serve the development.

The applicant proposes a network of trails and amenity spaces throughout the development. The applicant has also provided development standards that future development would be required to satisfy.

Motions:

Recommended (Approval)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council approval.

Alternative (Denial)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is not in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council denial.

Attachments:

Planning Commission Summary

Attachment A – Vicinity Map

Attachment B – Project Narrative

Attachment C – PUD Plan Set

Attachment D – Neighborhood Notification Boundary Map

Attachment E – Staff Slides

Attachment F – Traffic Impact Study

PLANNING COMMISSION SUMMARY

ITEM: Planned Unit Development request for commercial, multi-family, single-family, and parks on approximately 170.573 acres of recently annexed land located at the northwest corner of 10th Street at 83rd Avenue known as Schneider Farm PUD

FILE NUMBER: PUD2022-0006

PROJECT: Schneider Farm PUD

LOCATION: 975 83rd Avenue

APPLICANT: Union Colony West Investments, LLC

CASE PLANNER: Caleb Jackson, AICP | Interim Chief Planner

PLANNING COMMISSION HEARING DATE: September 12, 2023

PLANNING COMMISSION FUNCTION:

The Planning Commission shall consider the staff report, along with testimony and comments made by the applicant and the public and shall then make a recommendation to the City Council regarding the application in the form of a finding based on the review criteria in Section 24-205(c) and 24-204(b) of the Development Code.

EXECUTIVE SUMMARY

The City of Greeley is considering a Planned Unit Development request for commercial, multi-family, single-family, and parks on approximately 170.573 acres of recently annexed land located at the northwest corner of 10th Street at 83rd Avenue known as Schneider Farm PUD.

A. REQUEST

The applicant proposes to establish Planned Unit Development (PUD) zoning, known as the Schneider Farm PUD, on approximately 170.573 acres located at 975 83rd Avenue. The proposed Schneider Farm PUD includes six planning areas.

Planning Area 1, comprising approximately 30 acres at the northwest corner of the site, would allow single-family dwellings at a maximum density of five dwelling units per acre yielding up to 149 units. Planning Area 2, comprising approximately 62 acres in the north-central part of the site, would also allow single-family dwellings at a maximum density of five dwelling units per acre yielding up to 309 units. Planning Area 3, comprising approximately 21.6 acres at the northeast corner of the site, would accommodate parks and open space and is intended to satisfy park land dedication requirements for Schneider Farm.

Planning Area 4, comprising approximately 24.3 acres at the southwest corner of the site, would allow multi-family dwellings at a maximum density of 30 dwelling units per acre yielding up to 729 units. Planning Area 5, comprising approximately 17.8 acres at the southeast corner of the site, would allow commercial land uses with a maximum floor-area ratio of 0.5. Planning Area 6, comprising approximately 15 acres in the east-central part of the site, would allow multi-family dwellings at a maximum density of 20 dwelling units per acre yielding up to 299 units.

The proposed Planned Unit Development anticipates future dedication of right-of-way to extend 4th Street to the west and additional right-of-way for future improvements on 83rd Avenue. Other thoroughfares identified on the PUD include 86th Avenue, 89th Avenue, and 7th Street. Local streets would be planned with future preliminary subdivisions. Stormwater facilities are envisioned in Planning Areas 1 and 3-6. The applicant has worked with the Skyline Ditch, and is proposing to pipe and reroute the ditch through the site. The applicant is proposing to reroute the existing Bellvue water transmission line that traverses the site. The applicant has also provided conceptual plans for extension of non-potable, water, and sewer lines to serve the development.

The applicant proposes a network of trails and amenity spaces throughout the development. The applicant has also provided development standards that future development would be required to satisfy.

B. STAFF RECOMMENDATION

Approval

C. LOCATION

Abutting Zoning

North: A (Agricultural - County)

South: C-H (Commercial High Intensity)

R-H (Residential High Density)

East: R-L (Residential Low Density)

A (Agricultural - County)

West: PUD (Planned Unit Development)

Abutting Land Uses

North: Agriculture with single-family dwelling

South: Undeveloped and multi-family dwellings

East: Single-family dwelling, oil and gas extraction,
electrical substation, electric transmission lines

West: Farming

Site Characteristics:

The subject site is approximately 170.573 acres. The site is relatively flat, primarily sloping from the south to the north. The site is currently used for farming, with accessory residential uses and outbuildings.

D. BACKGROUND

The subject area comprises approximately 170.753 acres at the northwest corner of 10th Street at 83rd Avenue. The site was annexed by City Council on September 5, 2023. The property must

be zoned within 90 days of annexation. The applicant proposes Planned Unit Development (PUD) zoning for the site, known as Schneider Farm PUD. The applicant has submitted a preliminary subdivision, which is currently under staff review, which would require a public hearing in the future.

E. APPROVAL CRITERIA

Rezoning Review Criteria, Section 24-204(b):

1. The proposal is in accordance with the goals and objectives of the Comprehensive Plan and any other plan, policy or guidance adopted pursuant to that plan.

Staff Comment: The subject area is identified as a Mixed Use Neighborhood on the Land Use Guidance Map in the Imagine Greeley Comprehensive Plan. A Neighborhood Center is identified for the intersection of 10th Street at 83rd Avenue, and both of those thoroughfares are envisioned as Multi-Modal Corridors. The proposal supports the vision for a Mixed Use Neighborhood by providing a mixture of single-family, multi-family, and commercial development served by park land and trails within the neighborhood. The proposal supports the vision for a Neighborhood Center by providing an area for commercial uses at the intersection of 10th Street at 83rd Avenue, supported by adjacent areas for multi-family housing. The proposal supports the vision for Multi-Modal Corridors by providing areas for multi-family and commercial uses along these thoroughfares. Additionally, the following comprehensive plan goals support the subject application:

Objective EH-2.4 Land Use Promote land use decisions that support walkability and improve access to basic needs, such as neighborhood markets or grocery stores, parks and natural areas, as well as medical and personal services. Support access to goods and services that support health and wellness in all neighborhoods.

Objective EH-2.5 Walkability & Bikability Plan and design neighborhoods so that employment, schools, shopping, parks, transit stops, and other facilities are within a 10 minute safe walk of housing wherever feasible.

Objective EH-2.6 Built Environment Encourage the construction of built environments that support health and active living, such as mixed-use centers, corridors, and neighborhoods that support walkability, providing safe options for active transportation, and considering the safety and comfort of all users when designing streets, parks, and other public spaces.

Objective GC-2.4 Mixed-Use and Transit-Supportive Development Promote horizontal and vertical mixed-use development that integrates a variety of housing, commercial, employment, and recreational uses particularly in centers and along corridors identified on the Land Use Guidance map.

Objective GC-2.5 Neighborhood Centers Promote neighborhood centers—small-scale retail areas providing basic commercial goods and services—to locate within a walkable distance of residences, usually a quarter-mile or less.

The request complies with this criterion.

2. The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas.

Staff Comment: The intent of the Planned Unit Development is to provide a mixed use neighborhood that is compatible with the area. The proposal is consistent with other planned development in the vicinity.

The request complies with this criterion.

3. Whether the area changed or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area.

Staff Comment: The area continues to see sites planned for mixed use neighborhoods. It is in the public interest to establish zoning on the subject site that is consistent with the trend of planning mixed use neighborhoods in this area.

The request complies with this criterion.

4. Whether the existing zoning has been in place for a substantial time without development, and if this indicates the existing zoning is inappropriate given development trends in the vicinity.

Staff Comment: The site was recently annexed, eliminating the existing Weld County zoning designation on the site.

The criterion is not applicable.

5. The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces,

and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.

Staff Comment: The proposal allows a mix of uses and open spaces that are compatible with planned development in the area. The proposed primary streets and trails tie into plans for neighboring developments.

The request complies with this criterion.

6. The City or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.

Staff Comment: Existing services are present in the vicinity to support development of the site as proposed. The applicant will be responsible for extending services to their site upon development.

The request complies with this criterion.

7. The change will serve a community need, provide an amenity, or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.

Staff Comment: The site was recently annexed, eliminating the existing Weld County zoning designation on the site.

The criterion is not applicable.

8. Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design and engineering practices or are outweighed by broader public benefits to the surrounding community.

Staff Comment: Traffic impacts would be addressed with future improvements as outlined in the applicant's traffic impact study. No further negative impacts are anticipated.

The request complies with this criterion.

9. The recommendations of professional staff or advisory review bodies.

Staff Comment: Planning staff and the Administrative Review Team recommend approval.

The request complies with this criterion.

Planned Unit Development Review Criteria, Section 24-205(c):

- 1. The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards.**

The proposal allows a mix of uses to be incorporated into the area in a way that achieves greater consistency and more specificity than standard zones would allow.

The request complies with this criterion.

- 2. The benefits from any flexibility in the proposed plan:**

- (1) promote the general public health, safety and welfare of the community, and in particular, that of the areas immediately near or within the proposed project, and is not strictly to benefit the applicant or a single project;**
- (2) involves innovative concepts that were not anticipated by the development code; or**
- (3) apply to a unique or specific context in a manner that allows the project to better meet the intent or design objectives of the base zoning districts and standards.**

The proposed PUD provides flexibility to support development that is in-demand in the community. The proposal includes development standards that better-facilitate three-car garages while maintaining important architectural features and standards.

The request complies with this criterion.

- 3. The plan reflects generally accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan to the area.**

The request is consistent with planning and design principles and the Comprehensive Plan.

The request complies with this criterion.

- 4. The plan meets all of the review criteria for zoning map amendments in Section 24-204.**

The request complies with Section 24-204, Review Criteria for Rezoning as detailed above.

The request complies with this criterion.

F. PHYSICAL SITE CHARACTERISTICS

1. SUBDIVISION HISTORY

The subject property has not been subdivided. A preliminary subdivision application is under review with City staff, which would require Planning Commission approval subsequent to zoning.

2. HAZARDS

The subject site is not located within a FEMA-mapped floodplain and no steep slopes exist on the property. One plugged and abandoned oil well is located on the property.

3. WILDLIFE

A small area on the northern edge of the site is identified on the City of Greeley's Areas of Ecological Significance map as an area that could be moderately impacted by development. Upon site examination, no significant natural features requiring preservation for ecological purposes were identified.

4. FLOODPLAIN

The subject site is not in the floodway or floodplain as identified by Federal Emergency Management Administration (FEMA) flood data.

5. DRAINAGE AND EROSION

The existing drainage patterns are expected to continue to follow the existing lay of the land. Conceptual stormwater facilities are identified in the PUD and drainage patterns would be examined in greater detail through any future land use requests. Erosion and sediment control plans are required with development.

6. TRANSPORTATION

The subject site has frontage along 10th Street and 83rd Avenue. The PUD identifies 4th Street extending west across the northern edge of the site. The applicant has provided a Traffic Impact Study, identifying potential improvements needed to accommodate development of the site.

G. SERVICES

1. WATER

Water mains are present in the vicinity and the applicant would be responsible to install necessary extensions to serve development on the site.

2. SANITATION

Sewer mains are present in the vicinity and the applicant would be responsible to install necessary extensions to serve development on the site.

3. EMERGENCY SERVICES

The site is served by the Greeley Fire Department, with Station #7 being located approximately 1.5 miles east of the subject site. The site is also served by the Greeley Police Department.

4. PARKS AND OPEN SPACES

Park land dedication would be required with future residential development on the site. An area of the PUD is identified for future park land dedication.

5. SCHOOLS

The subject site is within the Weld RE-4 School District (Windsor-Severance). Land dedication or cash-in-lieu for schools would be required with future residential development on the site.

6. METROPOLITAN DISTRICT

No metropolitan district currently exists for the site.

H. NEIGHBORHOOD IMPACTS

1. VISUAL

No significant visual impacts are anticipated as a result of this application. Development of the site must comply with perimeter landscaping and architectural standards.

2. NOISE

No noise impacts are anticipated as a result of this application. Any noise created by future development is regulated by the Municipal Code.

I. PUBLIC NOTICE AND COMMENT

Using a 1000' buffer, notices to 39 surrounding property owners and current residents were mailed on August 28, 2023. Two signs were posted on the site on August 24, 2023. A notice was posted to the City of Greeley website on August 28, 2023. Staff has not received any comments from the public expressing objection or support of the application.

J. MINERAL ESTATE OWNER NOTIFICATION

The applicant satisfied the mineral owner notification requirements. No feedback from mineral owners has been received.

K. PLANNING COMMISSION RECOMMENDED MOTIONS

Recommended (Approval)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council approval.

Alternative (Denial)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is not in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council denial.

ATTACHMENTS

Attachment A – Vicinity Map

Attachment B – Project Narrative

Attachment C – PUD Plan Set

Attachment D – Neighborhood Notification Boundary Map

Attachment E – Staff Slides

Attachment F – Traffic Impact Study

VICINITY MAP





SCHNEIDER FARM

PUD Narrative Report

July 2023
Project 22-007

PREPARED FOR
Journey Homes, LLC
7251 West 20th Street, L-200
Greeley, Colorado 80634

PREPARED BY
LandOne Engineering
361 71st Avenue, Suite 100
Greeley, Colorado 80634

Schneider Farm PUD Narrative

I. Introduction

The following information is being submitted as a request for establishment of rezone into the City of Greeley. This information is also being submitted to set the tone for the proposed development. From the Developer's perspective, the goal for the annexation will be to:

- Bring out and address any stakeholder concerns
- Provide clarification of the major aspects of the development
- Obtain approval for the project from City staff and ensure an approval at City Council, so a preliminary and final plat documents can be created.

Overall, the Developer wishes to create a project that will meet their needs and be supported by the City, which will expedite the review and approval process of the final plans.

II. Owner

Union Colony West Investments, LLC
7251 West 20th Street, L-200
Greeley, Colorado 80634

III. Developer

Journey Homes, LLC
7251 West 20th Street, L-200
Greeley, Colorado 80634

IV. Location and Existing Conditions:

The proposed site is in unincorporated Weld County, Colorado on the north side of U.S. Highway 34 - Business (10th Street), south of the alignment of W. 4th Street (extended), west of 83rd Avenue, and east of 89th Avenue (extended). Refer to the annexation plat map for more detailed information. The existing property consists of farmed ground and is currently zoned Agriculture in Weld County. There is an existing irrigation ditch that runs from the middle of the northern property line to the southwest corner of the property. An existing oil and gas well is located on site in the southwestern quadrant and has been plugged and abandoned. The Bellvue Water Transmission waterline bisects the property from the northwest to the southeast. Roughly 440-feet from the eastern property line is an existing Suncor Petroleum transmission line that runs north to south.

V. Proposed Zoning

A Planned Unit Development, PUD, is the proposed zoning for this site. The PUD will consist of single family based upon Residential Low Density, multifamily based upon Residential High Density, and commercial uses based upon the Commercial High Density zone district. The estimated number of total number of residential dwelling units is approximately 1,524 with an estimated school-age population of 525 children.

The “Mixed Use” aspect to this PUD will allow for the project to meet the intent of the City’s vision for this area per the Comprehensive Plan. The surrounding area is a mix of PUDs, Residential Low/High Density, and Commercial Low/High Density.

VI. Conformance with the City’s Comprehensive Plan

Vision Statement: Greeley values and respects the diversity of its people, cultures, neighborhoods, and resources in a manner that creates and sustains a safe, unique, united, vibrant, and rewarding place in which to live, work, learn, grow, and play. The community promotes a healthy and diverse economy, and a high quality of life that is responsive to all its residents, businesses, and neighborhoods.

The Schneider Annexation will allow for a healthy and diverse development with unique housing options and a mix of commercial businesses that will promote a high quality of life for residents and businesses.

Economic Health and Diversification (ED)

ED-1: Promote a healthy, progressive, and competitive local economy.

This site and project will comply with regulations and business practices that promote a healthy economic climate by incorporating both residential and non-residential developments. Each space will contribute to the City’s tax base.

ED-2: Promote desired economic sectors and a diverse local economy.

By integrating a commercial lot within this site, the project will provide employment opportunities for the neighboring residential areas. The project will promote a diverse local economy by planning specific locations for businesses around the adjacent neighborhood.

Education, Health, and Human Services (EH)

EH-2: *Integrate healthy living into community planning and development.*

Internal sidewalks and mixed-use trails will support walkability throughout the site, specifically to the proposed businesses on the outskirts of the site. Mixed-use trail connections to adjacent developments will be added to promote movement.

EH-4: *Support and collaborate with the city’s school districts.*

The developer plans to work with the adjacent school districts to plan for transportation options through the proposed neighborhood. The proposed single family, multifamily, and commercial aspects to this site will not negatively impact the safety of students while attending school, travelling to and from school, and will not diminish the residential population.

Growth and City Form (GC)

GC-1: *Manage growth effectively.*

By incorporating multiple uses within one large site, this project will improve the quality of life for Greeley’s residents and will minimize the impacts on the natural environment by potential reduction in vehicle trips and creating opportunity for a walkable community. The proposed uses for this property will meet the City’s goals and objectives as laid out in the Imagine Greeley Comprehensive Plan. Open spaces and neighborhood parks will be interspersed throughout the site to allow all residents access to enjoy these amenities.

GC-2: Promote a balanced mix and distribution of land uses.

The project proposes both residential and non-residential sites, along with open space areas, which is in line with the City of Greeley's Long Range Expected Growth Area. Adding both commercial and residential sites will provide a good jobs/housing balance.

GC-6: Maintain and enhance the character and interconnectivity of Greeley's neighborhoods.

Both the commercial and residential portions of this site will contain a variety of attributes that contribute to a resident's day-to-day life. A variety of architectural features that are visually interesting and add to a cohesive identity will be incorporated into all spaces. The residential neighborhood will be planned to promote connectivity throughout the site and adjacent areas.

Infrastructure (IN)

IN-1: Ensure developed areas in Greeley are served by adequate public facilities and services.

Based on the maps provided within the Comprehensive Plan, this site will have adequate access to public facilities, including Fire Services, Park Facilities, Police Services, and public utilities. Transportation around and throughout the site will be provided.

IN-2: Ensure the design, construction, and appearance of City Infrastructure and facilities contributes to the character of the community.

Streets and Surface Facilities. Stormwater detention areas, open space, streets, and pedestrian corridors will be designed to contribute to the character of the community. The design of individual sites and planning areas will follow City regulations and standards.

Water connections will be brought to the site from the south side of 10th Street. Connections will be made to the 16-inch line at 86th Avenue and 10th Street and an additional 16-inch connection will be made at 89th Avenue and 10th Street in coordination with The Cache.

Non-potable water will be connected to the Boomerang non potable system and provisions will be made for The Cache to connect to this line in the future, with the location of the future connection to be made in close coordination with The Cache.

Sanitary Sewer will need to be extended south to CR 62 to the new trunk line being installed in 2022. Cost sharing of this line will likely be needed with the Cache development.

Natural Resources and Open Lands (NR)

NR-1: Protect, conserve, maintain, and improve the quality and quantity of water available to Greeley.

The ditch that runs through this site will be piped and rerouted but will be sustained and protected throughout construction and the life of the site. Non-potable water will be provided for irrigation for open spaces. The developer plans to cooperate with state and regional partners as well to manage water resources effectively and efficiently.

NR-2: Manage emissions, effluents, waste, and other sources of pollution that impact our quality of life and natural environment.

The design of each site will identify and promote acceptable noise levels, lighting levels, waste management, and outdoor odors. Detention ponds for the overall site will be provided to manage stormwater runoff and reduce the amount of sediment entering the surface waters.

Parks and Recreation (PR)

***PR-1:** Develop and maintain an interconnected system of parks, trails, and recreational facilities.*

A public neighborhood park and open spaces will be provided in the single-family planning area which is in alignment with the City's Parks, Trails, and Open Land plan (PTOL). Access to these open spaces and parks will be provided via trails, sidewalks and bike lanes. This will ensure that residents can access and enjoy nature near their homes.

***PR-2:** Ensure the City's system of parks, trails, and recreational facilities align with and support other community goals.*

Native vegetation, natural grasslands, and low water-use plants and landscaping will be used throughout the overall site. This will allow for the developer to ensure water conservation by irrigating efficiently. Vegetation and landscaping will be maintained through best management practices. Stormwater management will be provided with detention ponds.

Public Safety (PS)

***PS-3:** Develop and maintain a safe, aesthetically pleasing, and livable community.*

Public improvements, urban design, lighting, and other features will enhance the public's safety through the entire site. Efficient and straightforward signage and lighting will be provided for pedestrians and vehicles.

Transportation and Mobility (TM)

***TM-1:** Develop and maintain an accessible, integrated, safe, and efficient transportation system.*

The roadways will be designed to accommodate truck traffic while also providing safe pedestrian access to the commercial buildings. The transportation system will be safe and efficient for both pedestrians and vehicular traffic.

***TM-2:** Provide residents with a range of transportation choices and options.*

All rights-of-ways will fully integrate bicyclists, pedestrians, transit uses, commercial vehicles and trucks, emergency vehicles, and passenger vehicles. ADA compliance will be promoted in all public areas to allow for safe travel. Access to regional transit on the north side of the project as well as connection to the City's future regional trail on the east side of 83rd Ave will allow other modes of transportation besides traditional vehicles.

VII. Water Supply: Intent to include the property in the Northern Colorado Water Conservancy District

The property is currently located within the boundaries of the Northern Colorado Water Conservancy District and Sub-district. It is anticipated that the Property will be connected to City of Greeley Municipal water supply at a time agreed upon by the City of Greeley.

VIII. Ecological or land use conditions which may be hazardous

Ecological Areas

The City of Greeley's Ecological Sensitive Area Map indicates that there is an area on the north side of the site that has been identified as an area that could contain sensitive natural features. A field inspection of the site revealed that there do not appear to be any sensitive ecological areas, as the entire site is currently cultivated with corn and the Ecological Sensitive Area Map is in error.

Oil and Gas Operations

There is an existing oil and gas well in the southwest corner of the site. The well has been abandoned and plugged. Final layout of the development will be completed to maintain required setback for access to well. See Existing Conditions/Property & Topography Map.

The underground gas line that runs north to south, roughly 440 feet from the eastern property line, will remain in place within a 50-foot gas easement. See Existing Conditions/Property & Topography Map.

Dumps and Landfills

There are no known dumps or landfills on the site.

Underground Storage Tanks

There are no known underground storage tanks on site.

Steep Slopes

Generally, there are no steep slopes on the site. Slopes on the site generally range from 1 to 3 percent with some areas reaching 7 percent.

Wetlands

Per the National Wetlands Inventory system, the site does not have any riparian or wetlands identified.

Irrigation Ditches

The Skyline Ditch bisects the site. Ultimately, the ditch will be routed through the site via pipe. The Developer will relocate the ditch and is coordinating the design with the Skyline Ditch Company.

Bodies of Water and Flood Areas.

Per Flood Insurance Rate Map 08123C1512E, effective date January 20, 2016, the property is in Zone X. The property is not located within a floodplain.

There is a small area of High Hazard, as identified on Figure 4.6 of the Sharktooth Bluffs Stormwater Master Plan near the intersection of 83rd Avenue and 4th Street. This area will be addressed with the grading and storm drainage system of the proposed development.

IX. Rezoning Review Criteria (per City Code Sec. 24-204b)

1. *The proposal is in accordance with the goals and objectives of the Comprehensive Plan and another other plan, policy, or guidance adopted pursuant to that plan.*

This PUD proposal was prepared to meet or exceed the goals and objectives of the comprehensive plan, as shown in Part VI, above. Specific accessories to support the amenities will be addressed at the subdivision design stage.

2. *The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas.*

The proposal fulfills the intent of the Comprehensive Master Plan by providing connectivity and a diverse mix of single-family, multi-family, and commercial development to the area.

Whether the area changed or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area.

The project is currently in Weld County Zone A (Agricultural) and has been in this zone for quite some time. As the City of Greeley grows in the area, diverse land uses have appeared, ranging from open space to high-density commercial. The Developer envisions rezoning to provide diverse housing and commercial development to this quickly growing region. This project will serve to enhance this site and the surrounding areas by providing housing, parks and recreation, and other amenities to complete the objectives of the comprehensive plan.

3. *Whether the existing zoning has been in place for a substantial time without development and if this indicates the existing zoning is inappropriate given development trends in the vicinity.*

The existing zoning is inappropriate given the development trends in Greeley. PUD zoning will allow for a mixture of single-family, multi-family, and commercial development to meet the objectives of the comprehensive plan beyond the uses the current zoning will allow.

4. *The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces, and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.*

The proposed zoning will serve to enhance the surrounding area by providing commercial development along 10th street adjacent to multi-family and single-family development along with trail corridors and common open spaces to enhance economic growth of the city and meet the objectives of the comprehensive plan.

5. *The city or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.*

The improvements proposed in this PUD meet or exceed the criteria set forth by the development code. Consequently, the city will have the ability to provide services and facilities to serve the anticipated uses of the district.

6. *The change will serve a community need, provide an amenity, or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.*

The change in zoning from Agricultural Zoning to mixed-use PUD Zoning will allow the development to provide trails, parks, and other amenities and uses that cannot be provided in the current zoning.

7. *Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design, and engineering practices or are outweighed by broader public benefits to the surrounding community.*

The negative impacts of the development are mitigated by the benefits of the development to the community. Through sound engineering practices and thoughtful design, the project will provide amenities in compliance or exceeding the guidelines of the master and comprehensive plans. Additionally, Traffic impact studies have been completed and the infrastructure will be improved by the development to mitigate the negative impacts of the development.

8. *The recommendations of professional staff or advisory review bodies.*

In response to City Staff comments, adjustments and improvements have been made to this PUD proposal that will serve to enhance the various features of the development.

X. Planned Unit Development Review Criteria (per City Code, Sec. 24-205c)

1. *The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards.*

This planned unit development will allow for a comprehensive integration of the comprehensive plan beyond what can be accomplished under general zoning districts and development standards. The PUD will allow for a mixture of single-family housing, multi-family housing, commercial developments, and open space that will serve to enhance the larger community and meet or exceed the objectives of the comprehensive plan.

2. *The benefits from any flexibility in the proposed plan:*

- a. Promote the general public health, safety, and welfare of the community, in particular, that of the areas immediately near or within the proposed project, and is not strictly to benefit the applicant or a single project;*
- b. Involves the innovative concepts that were not anticipated by the development code;*
or
- c. Apply to a unique or specific context in a manner that allows the project to better meet the intent or design objectives of the base zoning districts and standards*
The benefits of the flexibility of proposed PUD allow the developer to integrate multiple uses beyond traditional zoning that will allow serve and improve the community by achieving the objectives.

This PUD proposes amenities such as public trails and community spaces incorporated into an overall design that promotes the public health, safety, and welfare of the community and the surrounding areas. These various features will be implemented flexibly and harmoniously as the design of each planning area progresses, allowing the development to meet or exceed the objectives of the comprehensive plan and the intent of the base zoning district while allowing for a variety of uses and amenities proximate to one another to provide services to the community.

3. *The plan reflects generally the accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan to the area.*

The plan was developed to meet or exceed Greeley's development criteria and to provide a flexible approach to achieving the objectives of the comprehensive plan in each of the categories as discussed in this narrative.

4. *The plan meets all of the review criteria for zoning map amendments in Section 24-204.*

Per the responses in Part X, above, the plan meets all of the review criteria for zoning map amendments in Section 24-204.

XI. Deviations from Code Standards

1. *Lot design standards deviate from the Suburban Frontage lot type shown in Table 24-5-7.*

The driveway width standard deviation from Table 24-5-7 meets the standard percentage but increases the total width by 3' to allow for full driveway width for homes with 3 car garages.

2. *Driveway width standards deviate from Section 24-503.b.2.*

The driveway width standard deviation from Table 24-5-7 meets the standard percentage but increases the total width by 3 feet to allow for full width for homes with 3 car garages while eliminating awkward vehicular turning movements during access and egress from the lot.

3. *Garage Design Standards deviate from Section 24-503.b.4.*

The amount of garage door is reduced from the typical code standard to reduce the amount of garage door on the front façade.

4. *Front Entry Design Standards deviate from Section 24-503.b.5.*

The PUD design standards include reducing the minimum porch size by 12 SF to allow for greater variation and flexibility between product types.

5. *Accessory Structure Standards deviate from Section 24-502.c.*

The deviation from code standards minimizes accessory structure height, restricts the height and type of accessory structures, and ensures that the accessory structure design will match the principal structure.

6. *Lot Standards deviate from the Residential Building Type and Lot Standards shown in Table 24-5-1.*

The garage setback in this PUD prevents vehicles parked on driveways from overhanging the sidewalk. The deviation from standard setbacks in Table 24-5-1 allows for a greater variance in street view and appeal. With the selection of proposed home designs, this PUD allows a varied look to the neighborhood instead of a row of homes that are all in a line at the standard front setback.

7. *Fence Standards deviate from Section 24-502.e.1.*

Fence standards enhance the appearance of the neighborhood by meeting Greeley's minimum criteria while restricting the design to ensure the fencing components will match the design of the neighborhood.

Sheet List Table	
Sheet Number	Sheet Title
1	Cover
2	Existing Conditions-Property and Topography
3	Existing Conditions-Oil & Gas Facilities
4	Master Development Plan-Project Boundary and Layout
5	Detail Plan-PA Development Standards
6	Detail Plan-Public Facilities and Commitments
7	Detail Plan-Typical SFD Front Elevations
8	Detail Plan-Parks, Trails and Open Space
9	Conceptual Sanitary Sewer Plan
10	Conceptual Potable Water Plan
11	Existing Drainage Basin Map
12	Proposed Drainage Basin Map
13	Conceptual Non-Potable Water Plan

Property Description

A parcel of land, situate in the Southeast Quarter (SE1/4) of Section Six (6) and the Southwest Quarter (SW1/4) of Section Five (5), Township Five North (T.5N.), Range Sixty-six West (R.66W.) of the Sixth Principal Meridian (6th P.M.), County of Weld, State of Colorado and being more particularly described as follows:

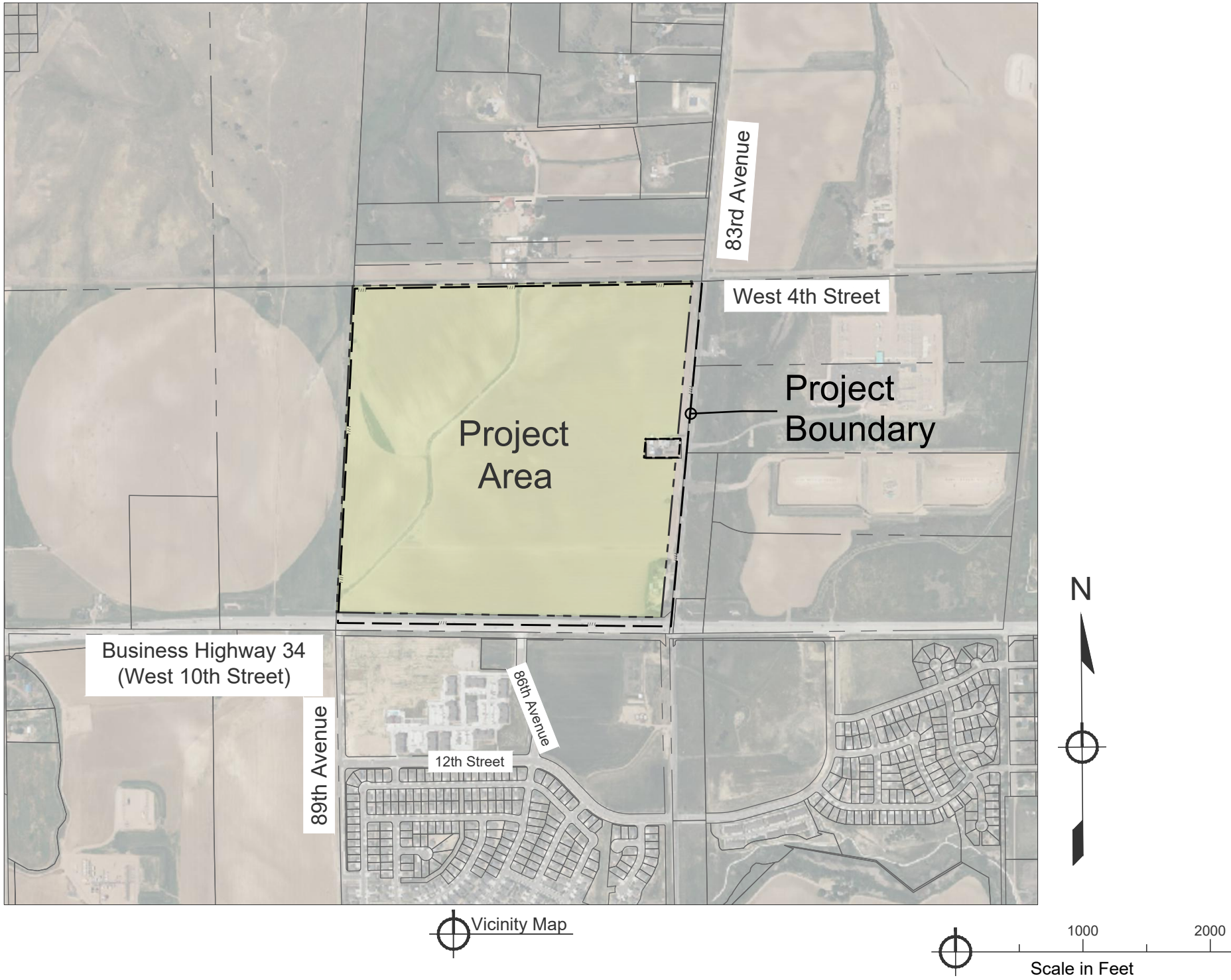
BEGINNING at the East Quarter Corner of said Section 6, monumented by a 2" steel pipe with a 2.5" aluminum cap stamped LS 11989, and assuming the East line of said SE1/4 as bearing North 05°10'08" East, being a Grid Bearing of the Colorado State Plane North Zone, North American Datum 1983/2011, a distance of 2,813.51 feet, monumented at the Southeast Corner by a #6 rebar with a 3.25" aluminum cap stamped LS 25381 and with and with all other bearings contained herein relative thereto;

THENCE North 88°44'22" East, along the North line of the SW1/4 of said Section 5, a distance of 30.19 feet to the East Right of Way (ROW) of 83rd Avenue;
THENCE South 05°10'08" West, along said East ROW, a distance of 1,406.77 feet to the Northwest corner of the Golden Triangle Third Annexation as recorded December 27, 1984 as Reception No. 1993145 of the records of the Weld Count Clerk & Recorder (WCCR) said corner being on the North line of the South Half of said SW1/4;
THENCE South 05°10'08" West, along the West line of said Reception No. 1993145, a distance of 1,366.76 feet to a point on the Northerly line of Golden Triangle First Annexation, as recorded November 1, 1984 as Reception No. 1987263 of the WCCR;
Thence along the North and West lines of said Reception No. 1987263 the following three courses:
THENCE South 89°11'34" West a distance of 33.85 feet;
THENCE North 89°22'51" West a distance of 2,649.61 feet to a point on the West line of said SE1/4, from whence the South Quarter Corner of Section 6 bears South 02°52'33" West a distance of 40.03;
THENCE North 02°52'33" East a distance of 2,696.59 feet to the Center Quarter Corner of Section 6;
THENCE North 89°09'59" East, along the North line of said SEW1/4, a distance of 2,767.00 feet to the POINT OF BEGINNING.

EXCEPTING THEREFROM:

COMMENCING at the East Quarter Corner of Section 6;
THENCE South 05°10'08" West, along the East line of said SE1/4, a distance of 1,406.77 feet to the South 1/16th Corner of Section 6;
THENCE South 89°52'38" West along the South line of the North Half of the SE1/4 a distance of 30.13 feet to the POINT OF BEGINNING;
THENCE South 89°52'38" West, continuing along said South line, a distance of 280.00 feet;
THENCE North 89°09'59" East, parallel with and 310.00 feet West of, as measured at right angles to, the East Line of said Southeast Quarter, a distance of 150.00 feet;
THENCE North 89°09'59" East, parallel with the North line of said Southeast Quarter, a distance of 280.34 feet to a point on the East ROW of 83rd Avenue;
THENCE South 05°10'08" West, along said East ROW, a distance of 153.49 feet to the POINT OF BEGINNING.

Said described parcel of land contains 7,430,140 Square Feet or 170.573 Acres, more or less (±).



PLANNED UNIT DEVELOPMENT CERTIFICATION BLOCK

THIS PLANNED UNIT DEVELOPMENT (PUD) HAS BEEN REVIEWED AND FOUND TO BE COMPLETE AND IN ACCORDANCE WITH THE CITY OF GREELEY DEVELOPMENT CODE REGULATIONS.

Union Colony West Investments, LLC

Larry Buckendorf, Authorized Agent

Signature: _____

Date: _____

CITY COUNCIL APPROVAL

Approved by the Greeley City Council on this _____ day of _____, 20____.

PLANNING COMMISSION RECOMMENDATION

Recommended / not recommended by the City of Greeley Planning Commission,

this _____ day of _____, 20____.

COMMUNITY DEVELOPMENT DIRECTOR

Director of Community Development _____ Date _____

INTENT STATEMENT

This document is for approval of the Planned Unit Development Standards for the Schneider Farm PUD.

Planned Unit Development Standard Notes

1. Approval of site construction plans by the City of Greeley shall be required (as applicable) prior to issuance of building permits.
2. Signage shown on this plan is for illustrative purposes only. A separate sign permit shall be submitted to the city for review and approval.
3. All existing and proposed utilities shall be installed underground.
4. No building permit shall be issued for the construction of a new building or structure unless the property has been platted in accordance with the City's Subdivision Regulations (Chapter 3).
5. All elevations shown on these plans are tied to NAVD 88 datum.

Contacts

Property Owner	Civil Engineer
Journey Homes, LLC	LandOne Engineering
Larry S. Buckendorf [Authorized Agent]	Daniel Hull
7251 W. 20th Street	361 71st Avenue, Suite 100
Greeley, CO 80634	Greeley, CO 80634
970-330-5480	970-632-2311

Schneider Farm Planned Unit Development

Southeast Quarter of Section 6, Township 5 North, Range 66 West of the 6th P.M.

City of Greeley, County of Weld, State of Colorado

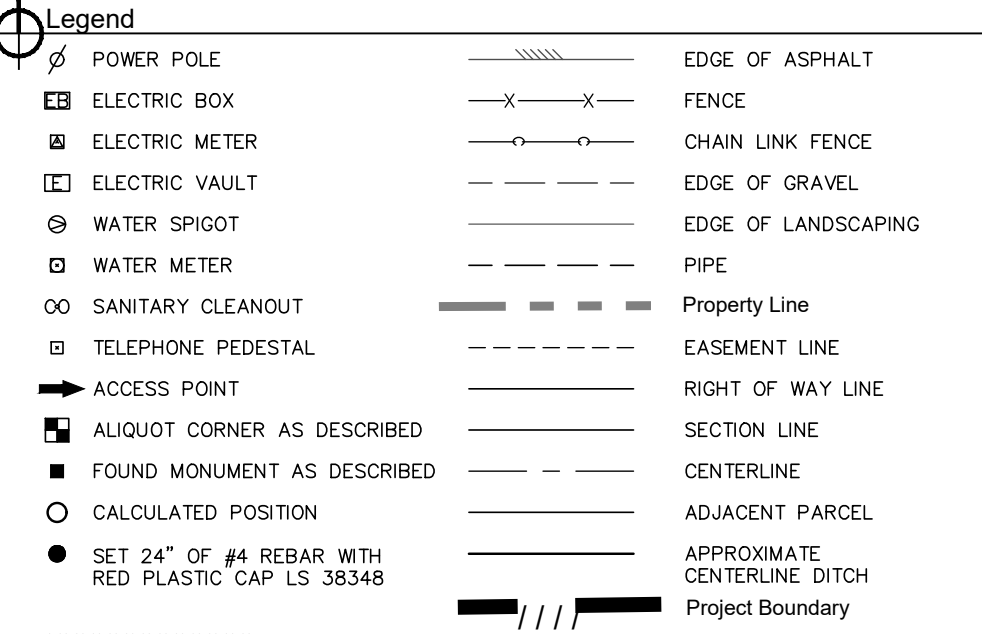
161.136 Acres Project Number: PUD2022-0006



Cover Sheet

August 11, 2023

Sheet 1 of 13



Floodplain
The PUD property is located in FIRM Panel 1512E, Map Number 08123C1512E Dated January 20, 2016. Current flood zone is Zone X.

Existing - To Be Removed
All existing structures are to be removed.

Oil and Gas Facilities - See Sheet 3
Wilkins #16-6 - 50' Setback
Plugged and Abandoned

Zoning
The subject site is currently in unincorporated Weld County, zoned A (Agricultural). The property is proposed for annexation with PUD (Planned Unit Development) zoning.

Notes
1. Property address: 975 83rd Avenue, Greeley, Colorado.
2. Benchmark: City of Greeley Benchmark No. 156608A. Elevation 4819.72 (NAVD 88 Vertical Datum)
3. Underground utility marking shown were provided by Primo Utility Locating Services, LLC
4. Location of ditch does not coincide with deeded courses recorded December 7, 1906 in Book 247, Page 483 of the records of the Weld County Clerk and Recorder. Deeded calls do not close to section line.
5. Location of Pipeline easement recorded January 25, 1906 in Book 228, Page 582 of the records of the Weld County Clerk and Recorder, is based upon field location and observations on May6, 2022.
6. Dimensions for the Right of Way easement in Book 1228 Page 252 are not given.
7. At the request of the client the location of gas well Wilken #15-6 was plotted based upon COGIS coordinates. The well was not located during the field work for this survey.

Reception Numbers

A Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Natural Gas Associates, a Colorado Partnership
Purpose: Pipeline
Recording Date: February 29, 1984
Recording No.: 1957541.

B Right of way, whether in fee or easement only, as set forth below:
Purpose: Lateral ditch
Recording Date: December 7, 1906
Recording No.: Book 247 at Page 483.

C Terms, conditions, provisions, agreements and obligations contained in the Contract and Grant of Easement as set forth below:
Recording Date: March 3, 1949
Recording No.: Book 1243 at Page 110.

D Terms, conditions, provisions, agreements and obligations contained in the Right of Way Contract as set forth below:
Recording Date: October 7, 1938
Recording No.: Book 1032 at Page 153.
Assignment and Assumption Agreement recorded November 21, 2005 at Reception No. 3341455 and Memorandum of Pipeline Location recorded September 29, 2010 at Reception No. 3721607 and Amendment to Right of Way Contracts recorded October 29, 2015 at Reception No. 4154206.

E Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: The City of Greeley, a municipal corporation
Purpose: Pipe line and ingress and egress for the purpose of constructing, maintaining and operating an underground pipe line
Recording Date: January 25, 1906
Recording No.: Book 228 at Page 582.

F Terms, conditions, provisions, agreements and obligations contained in the Valve Site Contract as set forth below:
Recording Date: December 29, 1994
Recording No.: 2420705.

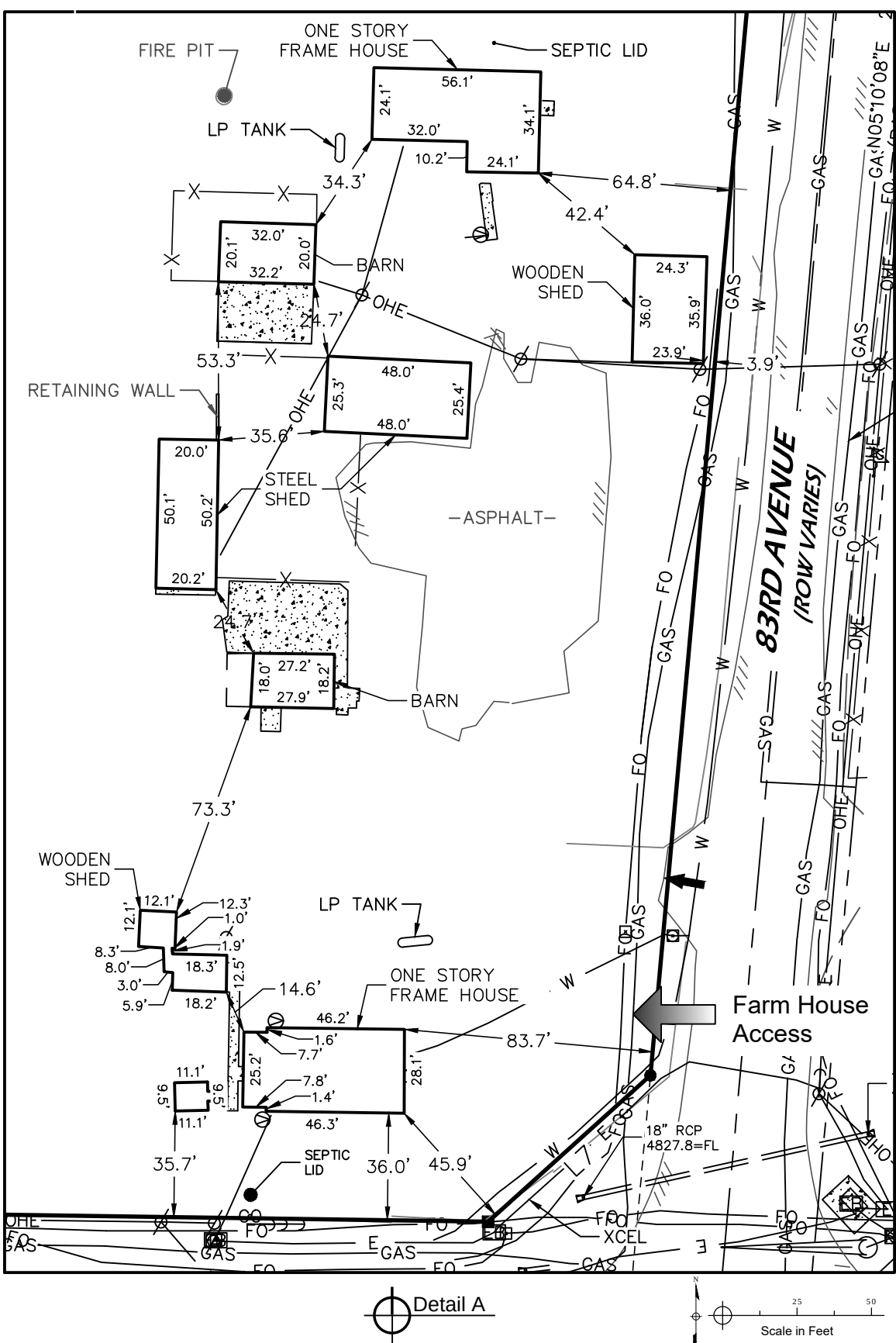
G Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Associated Natural Gas, Inc., a Colorado corporation
Purpose: Pipeline
Recording Date: December 29, 1994
Recording No.: 2420706.

H Terms, conditions, provisions, agreements and obligations contained in the Right of Way Contract as set forth below:
Recording Date: June 3, 1948
Recording No.: Book 1228 at Page 252.

I Right of way, whether in fee or easement only, as set forth below:
Purpose: Lateral ditch
Recording Date: December 7, 1906
Recording No.: Book 247 at Page 483.

J Right of way:
Granted to: Department of Transportation, State of Colorado
Purpose: 10th Street
Recording Date: Warranty Deed dated June 12, 2007 and recorded June 13, 2007
Recording No.: 3483138

K Not part of this project.



Property Description

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BEGINNING at the East Quarter Corner of said Section 6, monumented by a 2" steel pipe with a 2.5" aluminum cap stamped LS 11989, and assuming the East line of said SE1/4 as bearing North 05°10'08" East, being a Grid Bearing of the Colorado State Plane North Zone, North American Datum 1983/2011, a distance of 2,813.51 feet, monumented at the Southeast Corner by a #6 rebar with a 3.25" aluminum cap stamped LS 25381 and with and with all other bearings contained herein relative thereto;

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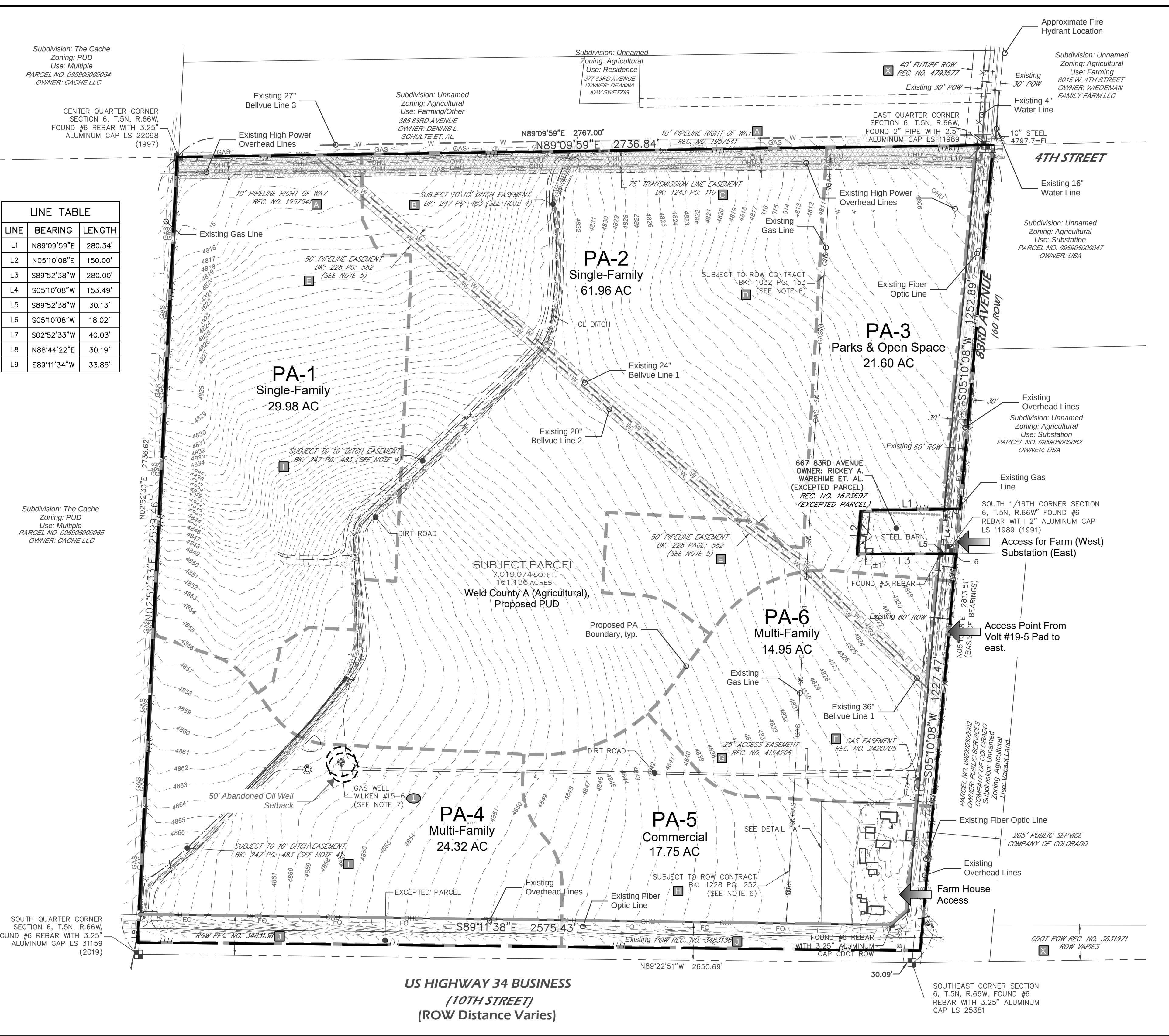
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Said described parcel of land contains 7,430,140 Square Feet or 170.573 Acres, more or less (±).

LINE TABLE		
LINE	BEARING	LENGTH
L1	N89°09'59"E	280.34'
L2	N05°10'08"E	150.00'
L3	S89°52'38"W	280.00'
L4	S05°10'08"W	153.49'
L5	S89°52'38"W	30.13'
L6	S05°10'08"W	18.02'
L7	S02°52'33"W	40.03'
L8	N88°44'22"E	30.19'
L9	S89°11'34"W	33.85'

Subdivision: The Cache
Zoning: PUD
Use: Multiple
PARCEL NO. 085906000064
OWNER: CACHE LLC

SOUTH QUARTER CORNER
SECTION 6, T.5N, R.66W,
FOUND #6 REBAR WITH 3.25"
ALUMINUM CAP LS 31159
(2019)



Subdivision: The Cache
Zoning: PUD
Use: Multiple
PARCEL NO. 085906000064
OWNER: CACHE LLC

CENTER QUARTER CORNER
SECTION 6, T.5N, R.66W,
FOUND #6 REBAR WITH 3.25"
ALUMINUM CAP LS 22098
(1997)

Subdivision: The Cache
Zoning: PUD
Use: Multiple
PARCEL NO. 085906000065
OWNER: CACHE LLC

SOUTH QUARTER CORNER
SECTION 6, T.5N, R.66W,
FOUND #6 REBAR WITH 3.25"
ALUMINUM CAP LS 31159
(2019)

Existing 27"
Bellvue Line 3

Existing High Power
Overhead Lines

Existing Gas Line

Existing 24"
Bellvue Line 1

Existing 20"
Bellvue Line 2

Existing 36"
Bellvue Line 1

Existing 36"
Bellvue Line 1

Existing 36"
Bellvue Line 1

Existing 36"
Bellvue Line 1

Existing 36"
Bellvue Line 1

Subdivision: Unnamed
Zoning: Agricultural
Use: Farming/Other
385 83RD AVENUE
OWNER: DENNIS L.
SCHULTE ET AL

Subdivision: Unnamed
Zoning: Agricultural
Use: Farming/Other
385 83RD AVENUE
OWNER: DENNIS L.
SCHULTE ET AL

Subdivision: Unnamed
Zoning: Agricultural
Use: Farming/Other
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Zoning: Agricultural
Use: Farming/Other
385 83RD AVENUE
OWNER: DENNIS L.
SCHULTE ET AL

Subdivision: Unnamed
Zoning: Agricultural
Use: Farming/Other
385 83RD AVENUE
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Subdivision: Unnamed
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OWNER: DENNIS L.
SCHULTE ET AL

Approval Certificate

Engineering
Planning
Owner

Initials/Date
Initials/Date
Initials/Date

Legend

Boundary

1000' Buffer per City Code Section 24-1102.c.5

Project Boundary

Oil and Gas Well

Oil and Gas Location 2A Boundary

Oil & Gas

1

Number of Well(s): 1 with 50' Setback

Location Name: Wilken-65N66W #6SWSE

Status: Plugged and Abandoned (PA)

2

Number of Well(s): 4

Location Name: South-65N66W #6SWENW

Status: Plugged and Abandoned (PA)

3

Number of Well(s): 1

Location Name: Franker-65N66W

Status: Plugged and Abandoned (PA)

4

Number of Well(s): 14 - Approximately 4 wells in buffer

Location Name: Volt #19-5 Pad

Status: Drilling (DG)

5

Number of Well(s): 1

Location Name: Moody J-65N66W /5SWSW

Status: Abandoned Location (AL)

6

Number of Well(s): 1

Location Name: Stephens-65N66W /7NENE

Status: Plugged and Abandoned (PA)

7

Number of Well(s): 1

Location Name: Stephens-65N66W /7NWNE

Status: Plugged and Abandoned (PA)

8

Number of Well(s): 1

Location Name: Franker-65N66W

Status: Plugged and Abandoned (PA)

-The data depicted on this sheet was generated from the COGCC Interactive Map. Date of data is only accurate to the date of the PUD document.

-Distances are approximate and generated from the GIS data provided by the COGCC Interactive Map.

1000' Buffer per City of Greeley
Code Section 24-1102.c.5

Approval Certificate	
Engineering	Initials/Date
Planning	Initials/Date
Owner	Initials/Date

LANDONE
engineering

Schneider Farm Planned Unit Development Existing Conditions-Oil and Gas Facilities
August 11, 2023
Sheet 3 of 13

Page 29 of 506

Site Summary					
Area	Use	Acres	Dwelling Units	Density/FAR	% of Acreage
PA-1	Single-Family	30.0	149	5.0	17.6%
PA-2	Single-Family	62.0	309	5.0	36.3%
PA-3	Parks & Open Space	21.6	0	0.0	12.7%
PA-4	Multi-Family	24.3	729	30.0	14.3%
PA-5	Commercial	17.8	---	0.5	10.4%
PA-6	Multi-Family	15.0	299	20.0	8.8%
TOTAL		170.6			100.0%

Property Description

A parcel of land, situate in the Southeast Quarter (SE1/4) of Section Six (6) and the Southwest Quarter (SW1/4) of Section Five (5), Township Five North (T.5N.), Range Sixty-six West (R.66W.) of the Sixth Principal Meridian (6th P.M.), County of Weld, State of Colorado and being more particularly described as follows:

BEGINNING at the East Quarter Corner of said Section 6, monumented by a 2" steel pipe with a 2.5" aluminum cap stamped LS 11989, and assuming the East line of said SE1/4 as bearing North 05°10'08" East, being a Grid Bearing of the Colorado State Plane North Zone, North American Datum 1983/2011, a distance of 2,813.51 feet, monumented at the Southeast Corner by a #6 rebar with a 3.25" aluminum cap stamped LS 25381 and with and with all other bearings contained herein relative thereto;

THENCE North 88°44'22" East, along the North line of the SW1/4 of said Section 5, a distance of 30.19 feet to the East Right of Way (ROW) of 83rd Avenue;

THENCE South 05°10'08" West, along said East ROW, a distance of 1,406.77 feet to the Northwest corner of the Golden Triangle Third Annexation as recorded December 27, 1984 as Reception No. 1993145 of the records of the Weld Count Clerk & Recorder (WCCR) said corner being on the North line of the South Half of said SW1/4;

THENCE South 05°10'08" West, along the West line of said Reception No. 1993145, a distance of 1,366.76 feet to a point on the Northerly line of Golden Triangle First Annexation, as recorded November 1, 1984 as Reception No. 1987263 of the WCCR;

THENCE along the North and West lines of said Reception No. 1987263 the following three courses:

THENCE South 89°11'34" West a distance of 33.85 feet;

THENCE North 89°22'51" West a distance of 2,648.61 feet to a point on the West line of said SE1/4, from whence the South Quarter Corner of Section 6 bears South 02°52'33" West a distance of 40.03;

THENCE North 02°52'33" East a distance of 2,696.59 feet to the Center Quarter Corner of Section 6;

THENCE North 89°09'59" East, along the North line of said SEW1/4, a distance of 2,767.00 feet to the POINT OF BEGINNING.

EXCEPTING THEREFROM:

COMMENCING at the East Quarter Corner of Section 6;

THENCE South 05°10'08" West, along the East line of said SE1/4, a distance of 1,406.77 feet to the South 1/16th Corner of Section 6;

THENCE South 89°52'38" West along the South line of the North Half of the SE1/4 a distance of 30.13 feet to the POINT OF BEGINNING;

THENCE South 89°52'38" West, continuing along said South line, a distance of 280.00 feet;

THENCE North 05°10'08" East, parallel with and 310.00 feet West of, as measured at right angles to, the East Line of said Southeast Quarter, a distance of 150.00 feet;

THENCE North 89°09'59" East, parallel with the North line of said Southeast Quarter, a distance of 280.34 feet to a point on the East ROW of 83rd Avenue;

THENCE South 05°10'08" West, along said East ROW, a distance of 153.49 feet to the POINT OF BEGINNING.

Said described parcel of land contains 7,430,140 Square Feet or 170.573 Acres, more or less (±).

Oil and Gas Facilities - See Sheet 3

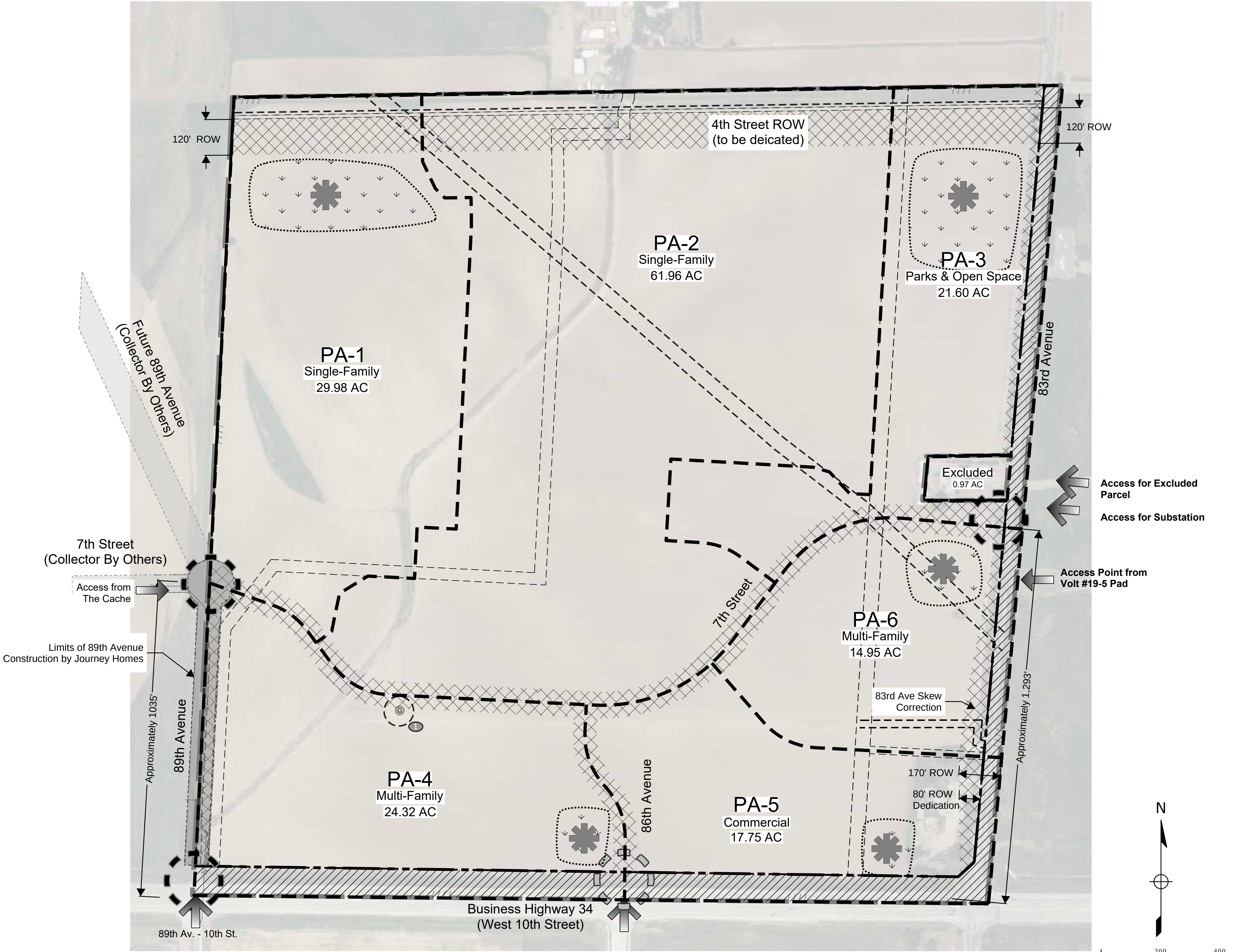
Wilkins #16-6 - 50' Setback
Plugged and Abandoned

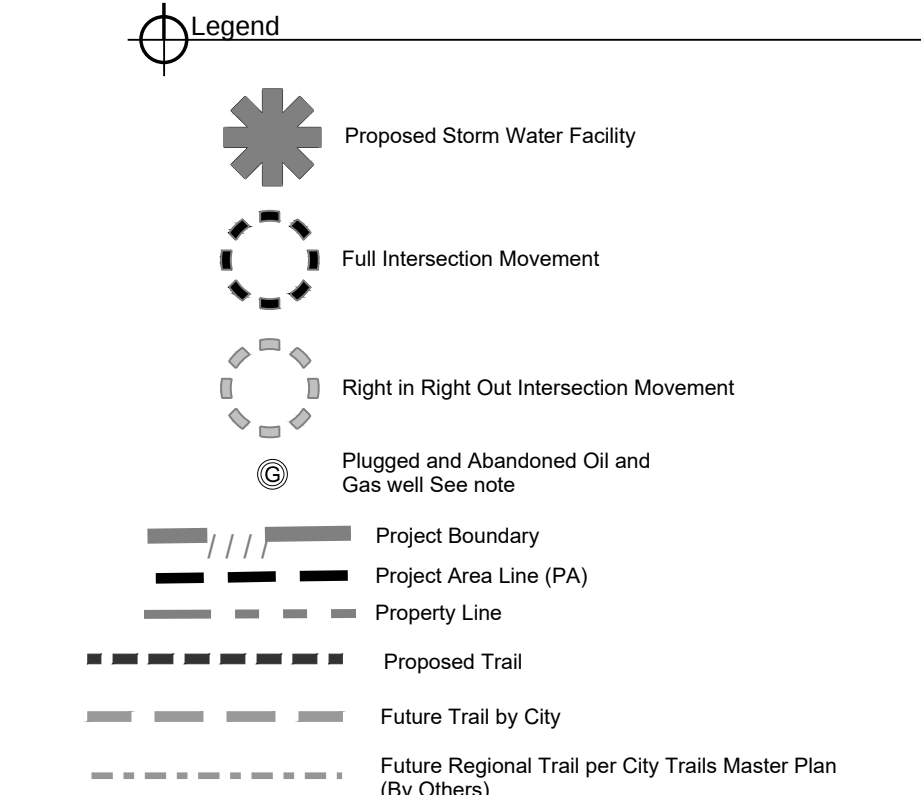
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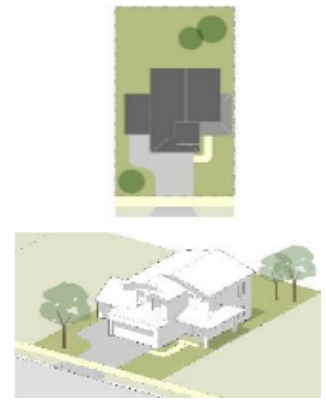
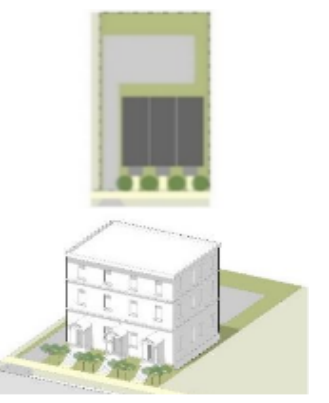
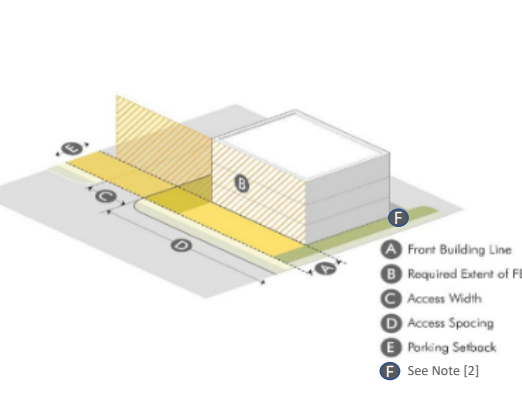
- Proposed Storm Water Facility
- Full Intersection Movement
- Right in Right Out Intersection Movement
- Plugged and Abandoned Oil and Gas well See note
- Project Boundary
- Project Area Line (PA)
- Property Line
- Existing Right-of-Way
- Proposed Right-of-Way

Notes

- This PUD proposes a mix of single-family and multi-family dwellings and is not subject to housing diversity requirements in the Greeley Development Code.
- The City of Greeley's Areas of Ecological Significance Map identifies a potential area of ecological significance at the north end of the subject site. Site analysis has determined that no areas of ecological significance are present on the subject site.

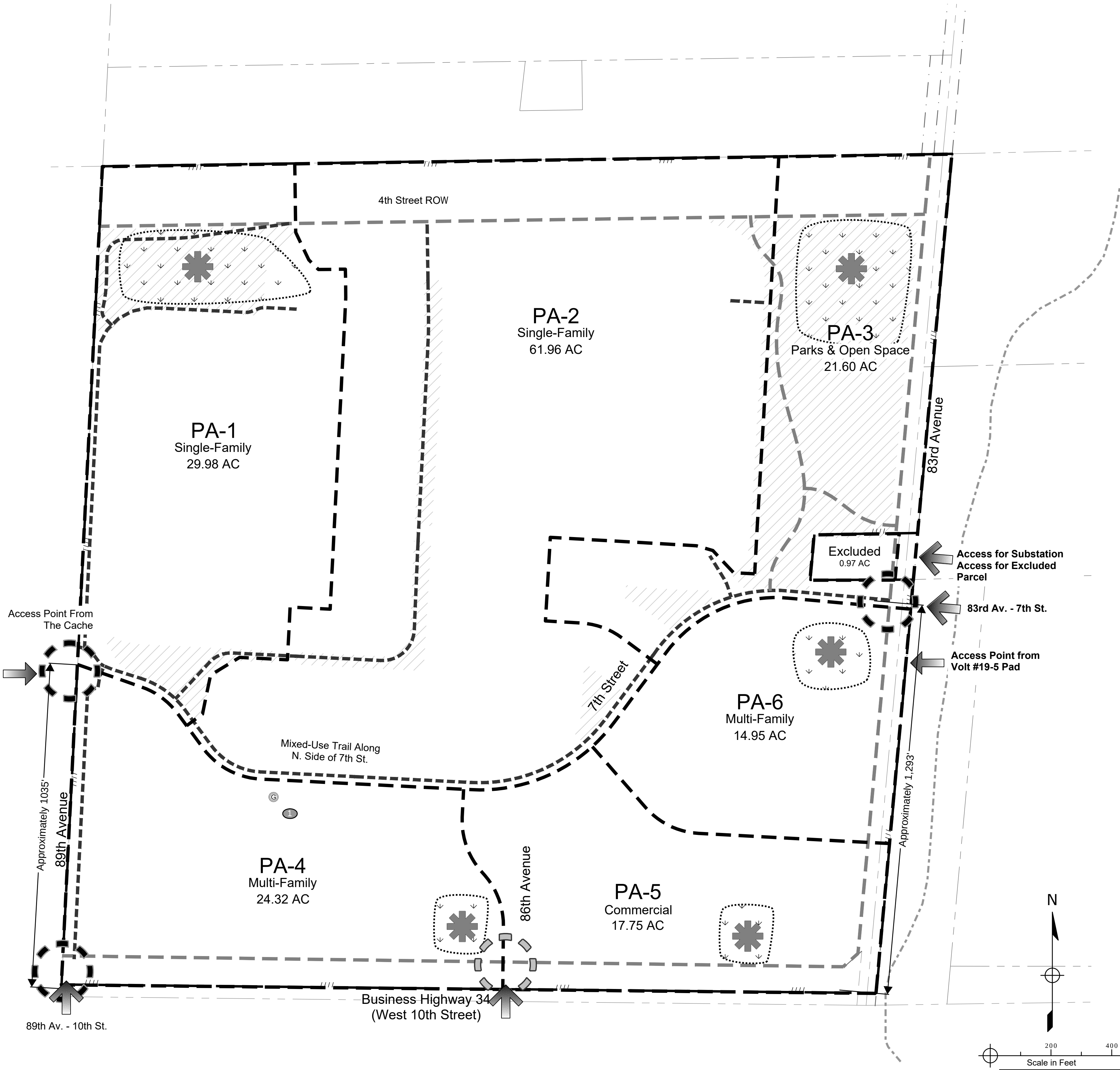


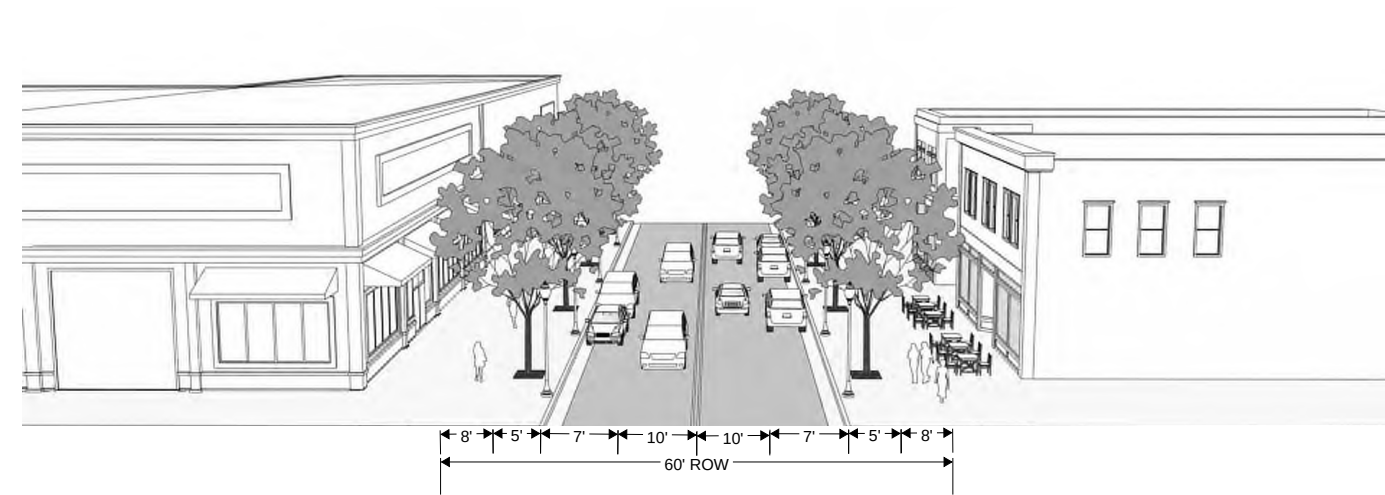


Frontage Types & Design Standards			
Frontage Element	Single-Family Residential Frontage	Multi-family Residential Frontage	Commercial Frontage
			
Application	PA-1 & PA-2 PA-5 PA-4 & PA-6		
Front Building Line	25' ± Required, See City of Greeley Development Code Section 24-503.5.5	10' - 20' Required, See City of Greeley Development Code Section 24-503.5.5	(A) FBL: Per COG Development Code Frontage C (B) Req'd Extent of FBL: Per COG Development Code Frontage C
Front Entry Feature	Targeted Sections - 50% of lot width, up to 30' maximum Cut-de-Sac and Eyebrow Sections - Up to 25% of lot width	15% of lot width, up to 27' maximum	(C) Access Width: Per COG Development Code Frontage C
Driveway Width	Targeted Sections - 50% of lot width, up to 30' maximum Cut-de-Sac and Eyebrow Sections - Up to 25% of lot width	15% of lot width, up to 27' maximum	(D) Access Spacing: Per COG Development Code Frontage C
Garage Limitations	65% of facade - no more than 12' in front of FBL	20% of facade - must be at or behind FBL: Up to 35% if stepped back 12' or more from FBL	(E) Parking Setback: Per COG Development Code Frontage C
Landscape [1]	50% minimum landscape, and 50% maximum hardscape	60% minimum hardscape, and 40% maximum hardscape	
[1] Required, default standard [2] Landscape Per COG Development Code (TBD at time of Subdivision)			

Development Standards	
DESCRIPTION	PROPOSED
PLANNING AREA – PA-1 and PA-2	
Permitted Uses	Uses allowed in the R-L Zoning District
Uses not allowed	Uses not allowed in the R-L Zoning District
Minimum lot area	5,500 SF
Minimum Lot Width	55'
Density	5 DU/AC
Building coverage	70% Max
Minimum House Size	1,200 SF
Drive, parking, and walks	600 SF
Driveway Width	Maximum of 50% of Lot Frontage, Not to exceed 30' - If lot is in cut-de-sac bulb, coverage may be a max of 75% of lot frontage
Open space	20% Minimum
Maximum lot coverage	80% Maximum
Parking	2 Off-Street Parking Spaces per Lot not including the garage area
Minimum setbacks	Front - 14' Garage Front - 20' Rear - 15' Side - 5' Corner Side - 15'
Residential Architectural Standards & Guidelines	1. Garage Design a. Up to 25% of the front façade can be garage door for a 2-car garage b. Up to 31% of the front façade can be garage door for a 3-car garage 2. Front Entry Features - The minimum size of a front porch shall be no less than 36 SF of surface including entryway. 3. Materials shall meet the requirements of Greeley Municipal Code Title 24-503.C.6 4. Buildings mix shall meet the requirements of Greeley Municipal Code Title 24-503.C.7
Accessory Structures	One Structure Per Lot 120 SF Footprint Max Maximum Structure Height - 8' to peak Shall Match Principal Building Architecture, Materials, and Colors
Accessory Structure Setbacks	6' from the Principal Structure
Encroachments	Shall meet City Code as Amended
Building height	30'
Sign Standards	Shall meet City Code as Amended
Fence Standards	All fencing must be installed on the property line between lots Finished side of fencing shall face adjacent property, or any public right-of-way, public space, or common areas Shall not Impede Drainage Patterns on any Lot Must Meet Sight Distance Requirements of Section 24-301.d.2 of the Greeley Municipal Code All fencing shall be 6' white vinyl with 4x4 posts and 2x4 top and bottom rails
Local Street Width	Shall be 32' from pavement curb line to pavement curb line with a 54' ROW Shall be 36' from pavement curb line to pavement curb line with a 60' ROW
Other	1. Lot design standards deviate from the Suburban Frontage lot type shown in Table 24-5-7 2. Driveway width standards deviate from Section 24-503.b.2. 3. Garage Design Standards deviate from Section 24-503.b.4. 4. Front Entry Design Standards deviate from Section 24-503.b.5. 5. Accessory Structure Standards deviate from Section 24-502.c. 6. Lot Standards deviate from the Residential Building Type and Lot Standards shown in Table 24-5-1. 7. Fence Standards deviate from Section 24-502.e.1.

Development Standards	
DESCRIPTION	PROPOSED
PLANNING AREA – PA-3	
Permitted Uses	Parks and Open Space
Non-Permitted Uses	All other uses not allowed under Zoning District Holding-Agriculture (H-A) or Conservation District (C-D) of City of Greeley Code unless specifically modified by this PUD
Minimum lot area	
Minimum Lot Width	
Building coverage	
Drive, parking, and walks	
Open space	
Parking	
Sign Standards	
Local Street Width	Shall be 30' from pavement curb line to pavement curb line with a 54' ROW Shall be 36' from pavement curb line to pavement curb line with a 60' ROW
Other	Not Applicable
Development Standards	
DESCRIPTION	PROPOSED
PLANNING AREA – PA-4 and PA-6	
Permitted Uses	Uses allowed in the R-H Zoning District
Uses not allowed	Uses not allowed in the R-H Zoning District
Minimum lot area	2 AC
Density	PA-4 - 30 DU/AC PA-6 - 20 DU/AC
Building coverage	Shall meet City Code as Amended
Drive, parking, and walks	Shall meet City Code as Amended
Open space	25% Minimum
Maximum lot coverage	75% Maximum
Parking	Shall meet City Code as Amended
Minimum setbacks	Front - 25', Rear - 20', Side -10', Corner Side - 10'
Accessory Structure Setbacks	Shall meet City Code as Amended
Encroachments	Shall meet City Code as Amended
Building height	40'
Sign Standards	Shall meet City Code as Amended
Other	1. Lot Standards deviate from the Residential Building Type and Lot Standards shown in Table 24-5-1.
Development Standards	
DESCRIPTION	PROPOSED
PLANNING AREA – PA-5	
Permitted Uses	Uses allowed in the C-H Zoning District of City of Greeley Code
Uses not allowed	Uses not allowed in the C-H Zoning District of City of Greeley Code unless specifically modified by this PUD
Minimum lot area	N/A
Building coverage	0.5 F.A.R.
Drive, parking, and walks	Shall meet City Code as Amended
Open space	20% Minimum
Maximum lot coverage	80% Maximum
Parking	Shall meet City Code as Amended
Minimum setbacks	25' from right-of-way and private access streets
Accessory Structure Setbacks	Shall meet City Code as Amended
Encroachments	Front - 14' Garage Front - 20' Rear - 15' Side - 5' Corner Side - 15'
Building height	60'
Sign Standards	Shall meet City Code as Amended
Other	Streets shall be 36' from pavement curb line to pavement curb line with a 60' ROW

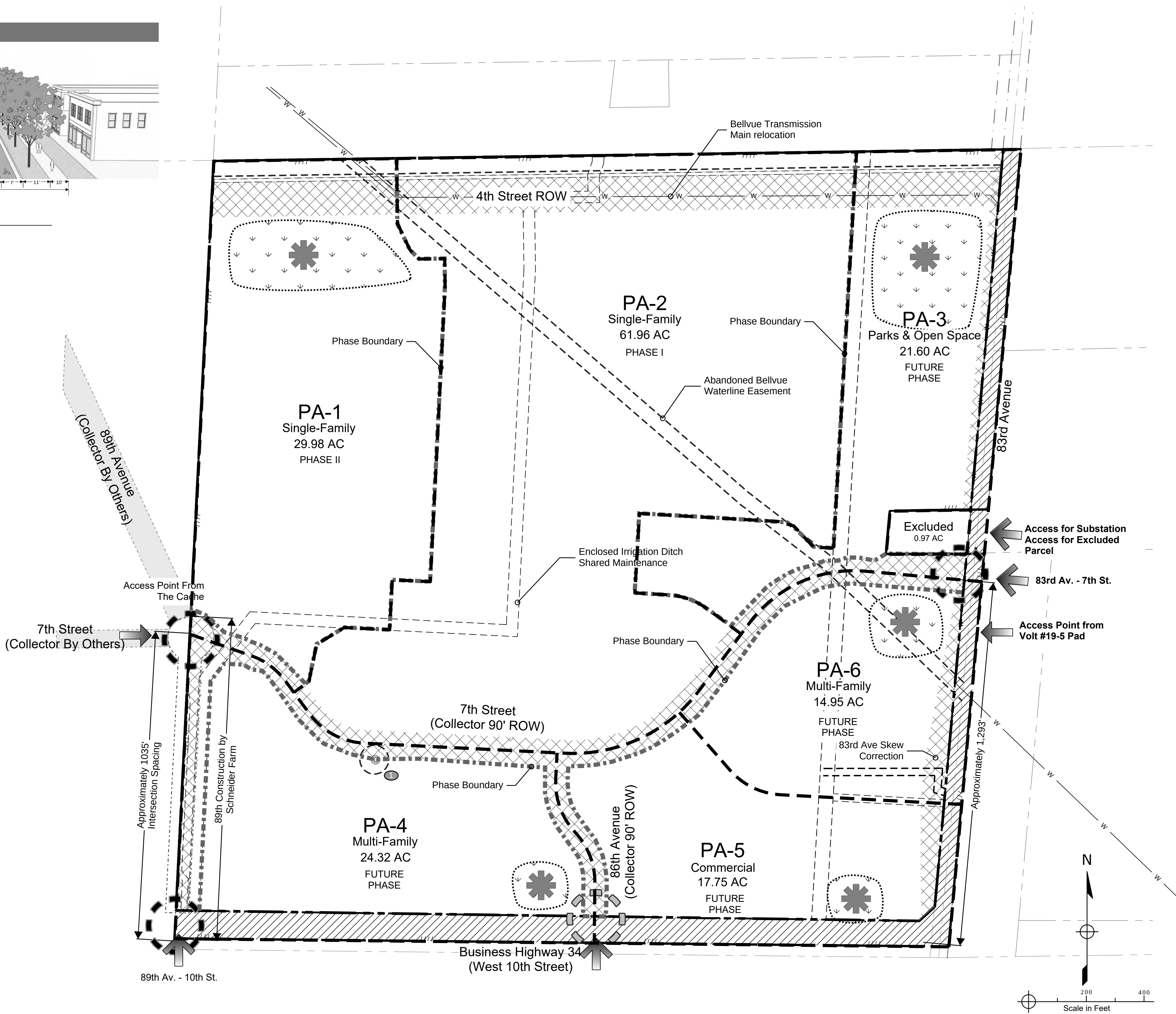
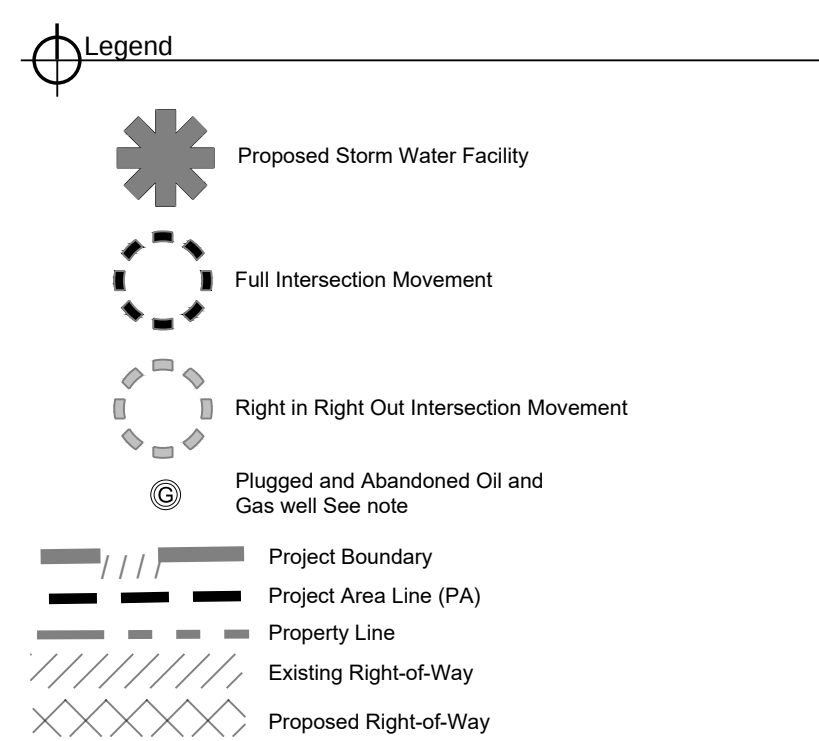
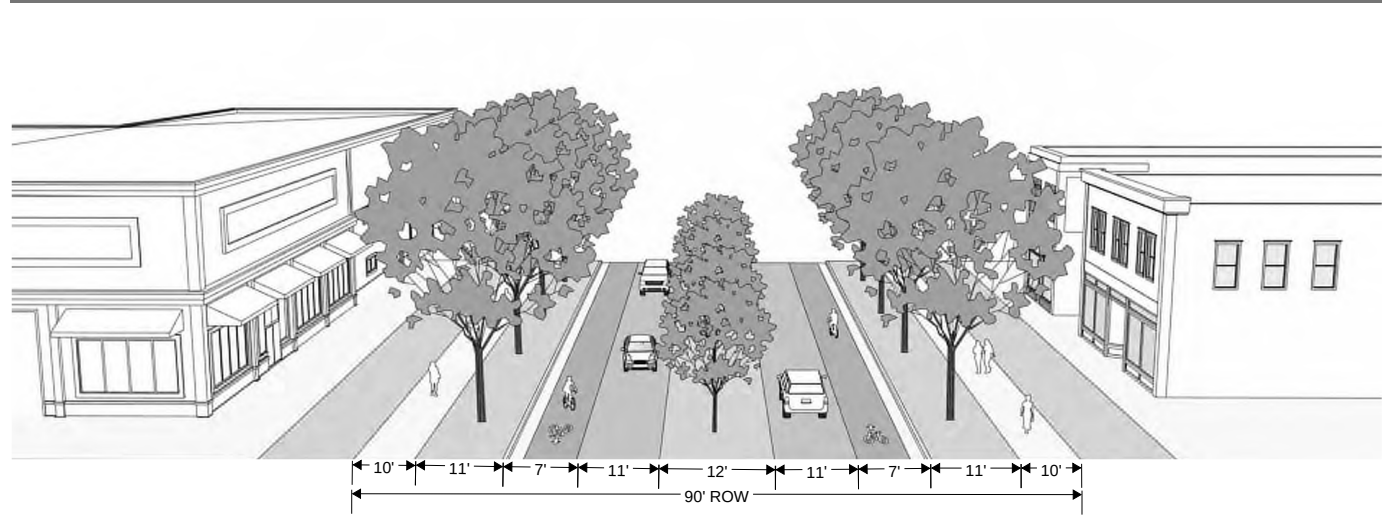




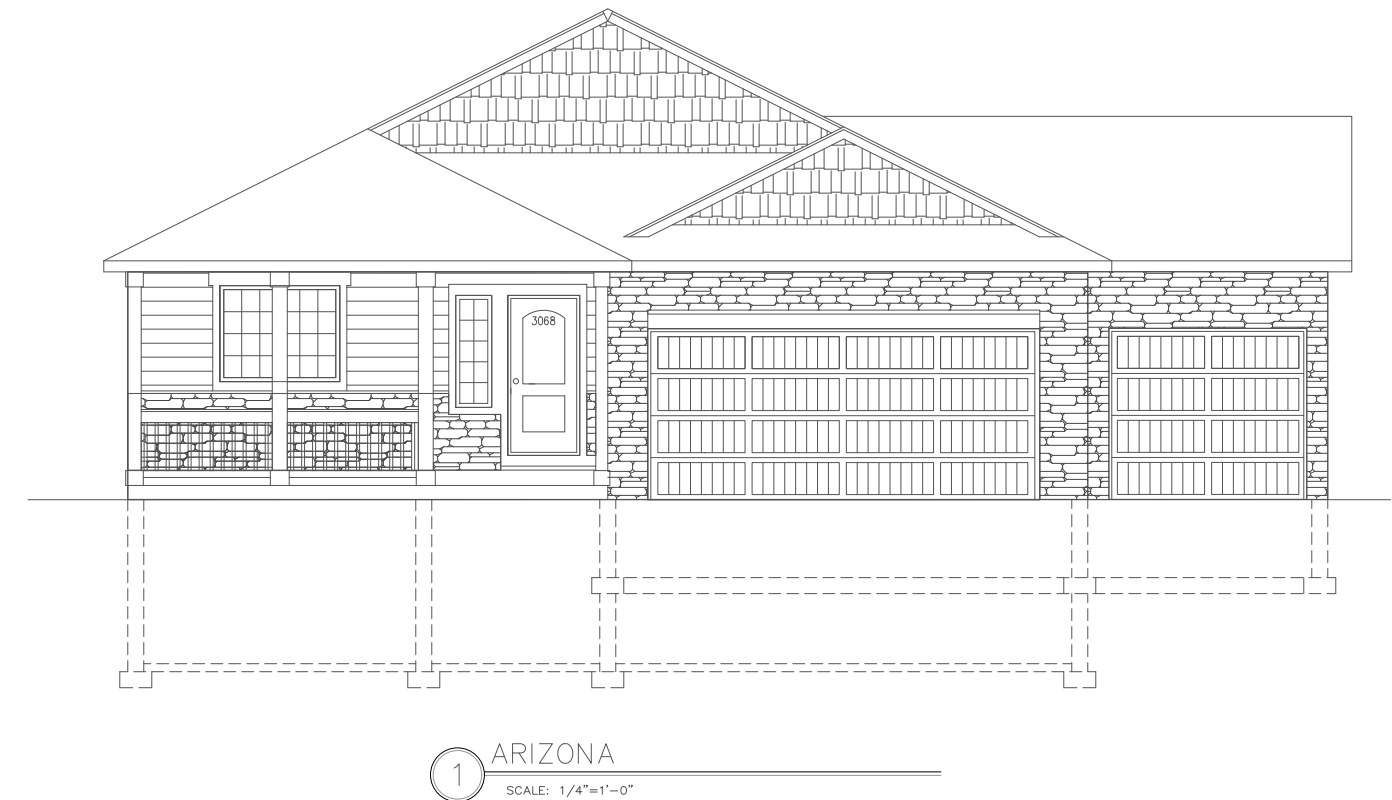
Commitments Matrix					
Improvement or Commitment	Plan Preparation & Approval	Construction Timing	Construction Responsibility	Maintenance Responsibility	Ownership
ROW Dedication	Final Plat	Phase 1	Developer	Not Applicable	City of Greeley
Collector Street Construction	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Detention Ponds	Construction Documents	Phase 1	Metropolitan District or Developer	Metropolitan District, Owners' Association, or Owner	Metropolitan District, Owners' Association, or Owner
Potable Water Transmission Piping, Fittings, and Valves	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Offsite Potable Water Transmission Piping, Fittings, and Valves	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Offsite Sanitary Sewer Main Piping and Manholes	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Offsite Non-Potable Water Transmission Piping, Fittings, and Valves	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Onsite Non-Potable Water Distribution Piping, Fittings, and Valves	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Irrigation Ditch Enclosure	Construction Documents	Phase 1	Metropolitan District or Developer	Ditch Company	Ditch Company
Local Street Construction	Construction Documents	With each Phase	Metropolitan District or Developer	City of Greeley	City of Greeley
Storm Drainage Piping, Inlets, and Manholes	Construction Documents	With each Phase	Metropolitan District or Developer	City of Greeley	City of Greeley
Sanitary Sewer Collection Piping and Manholes	Construction Documents	With each Phase	Metropolitan District or Developer	City of Greeley	City of Greeley
Potable Water Distribution Piping, Fittings, Valves, and Hydrants	Construction Documents	With each Phase	Metropolitan District or Developer	City of Greeley	City of Greeley
Multi-Use Trails and Associated Amenities	Construction Documents	With each Phase	Metropolitan District or Developer	Metropolitan District, Owners' Association, or Owner	Metropolitan District, Owners' Association, or Owner
Landscape Buffers and Common Open Spaces	Construction Documents	With each Phase	Metropolitan District or Developer	Metropolitan District, Owners' Association, or Owner	Metropolitan District, Owners' Association, or Owner
Neighborhood Park (10-acre minimum)	Construction Documents	Phase 1	City of Greeley	City of Greeley	City of Greeley

 **ROW Dedication Note**

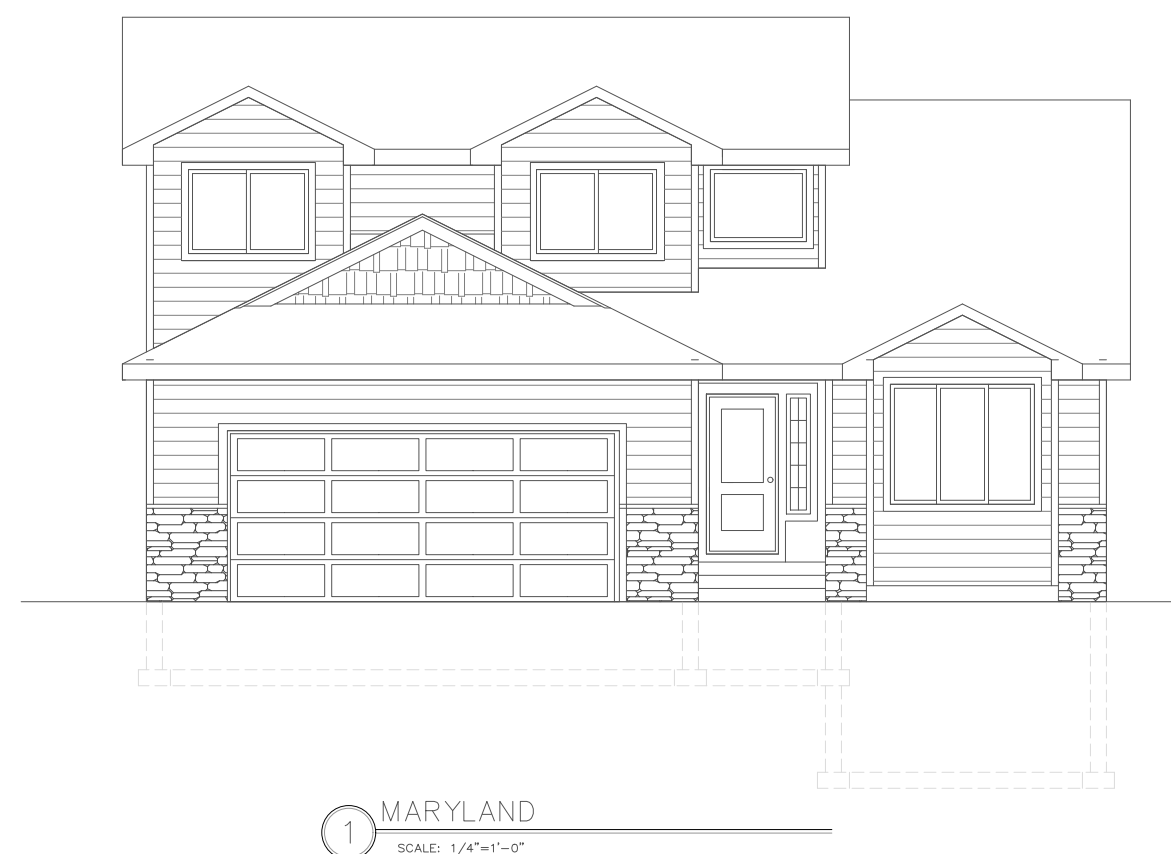
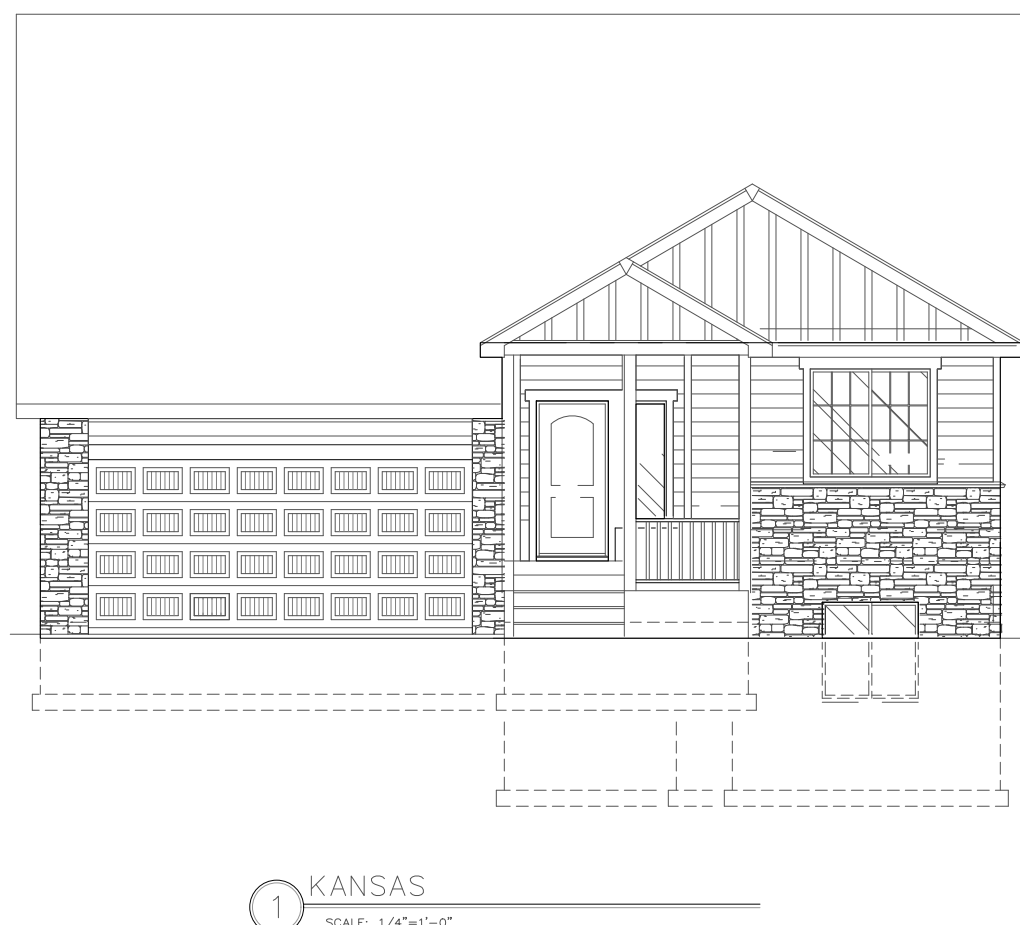
1. All ROW for 7th St, 89th Ave, 86th Ave, 83rd Ave, and 4th St will be dedicated with the subdivision plat, as well as, local roads within the single family subdivision area. West half of 89th will be dedicated by separate documents.



Skyline Ditch Company acknowledges acceptance and completeness of the Schneider Farm PUD. Accepted By: _____ Representative Date	Approval Certificate Engineering _____ Initials/Date Planning _____ Initials/Date Owner _____ Initials/Date
---	---



 Representative SFD Elevations - Wider Driveways
Scale: 1/8" = 1'



 Representative SFD Elevations - Standard Driveways
Scale: 1/8" = 1'

Approval Certificate	
Engineering	Initials/Date
Planning	Initials/Date
Owner	Initials/Date



Proposed Storm Water Facility



Future Trail Connection Point



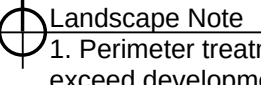
Proposed Trail



Future Trail

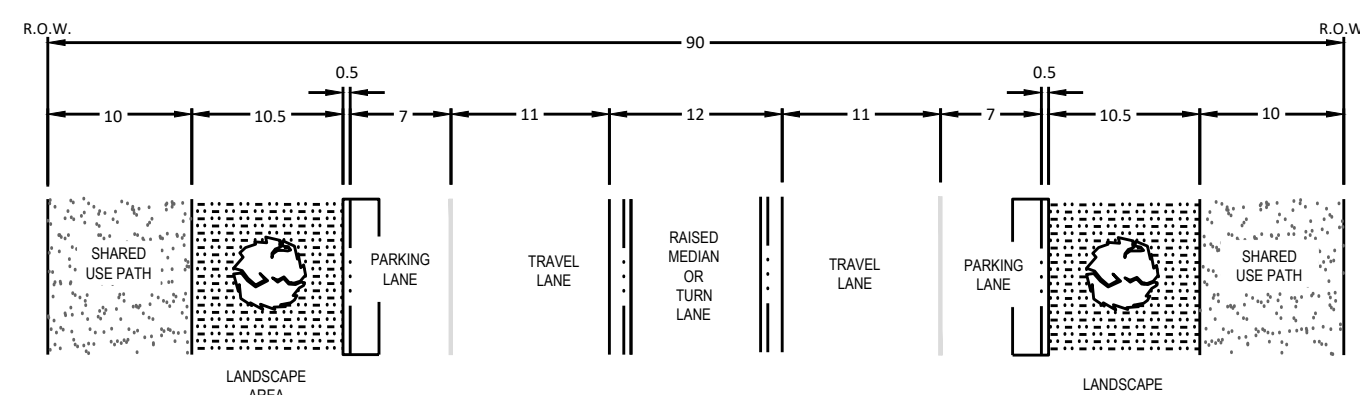
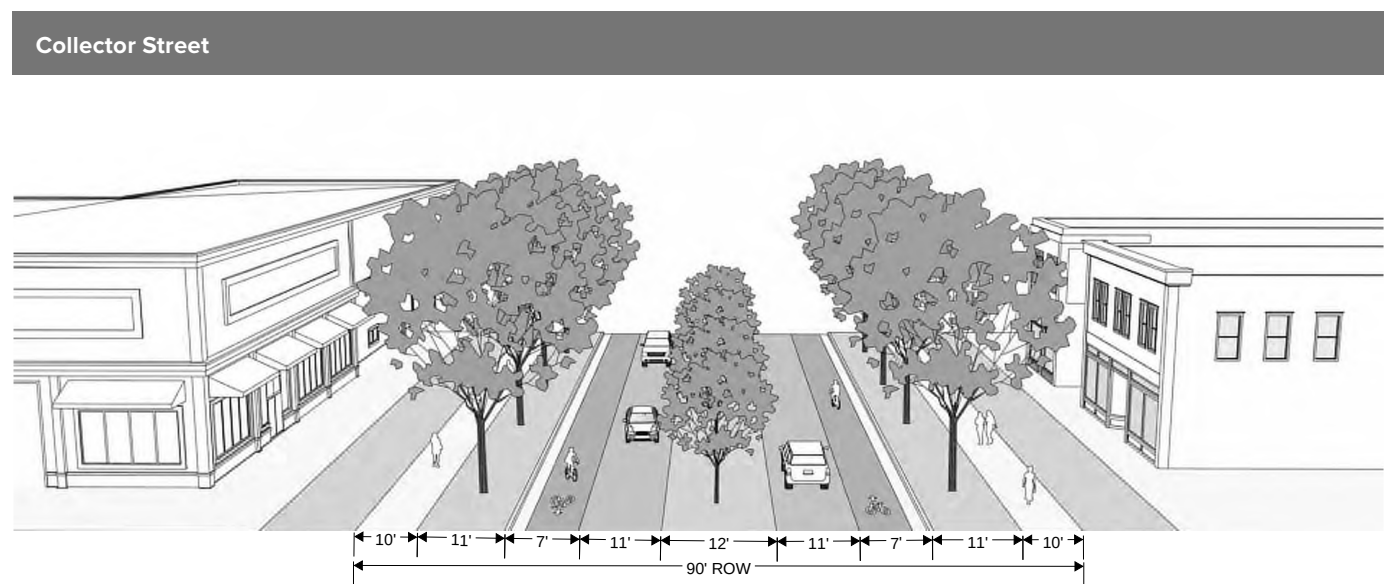
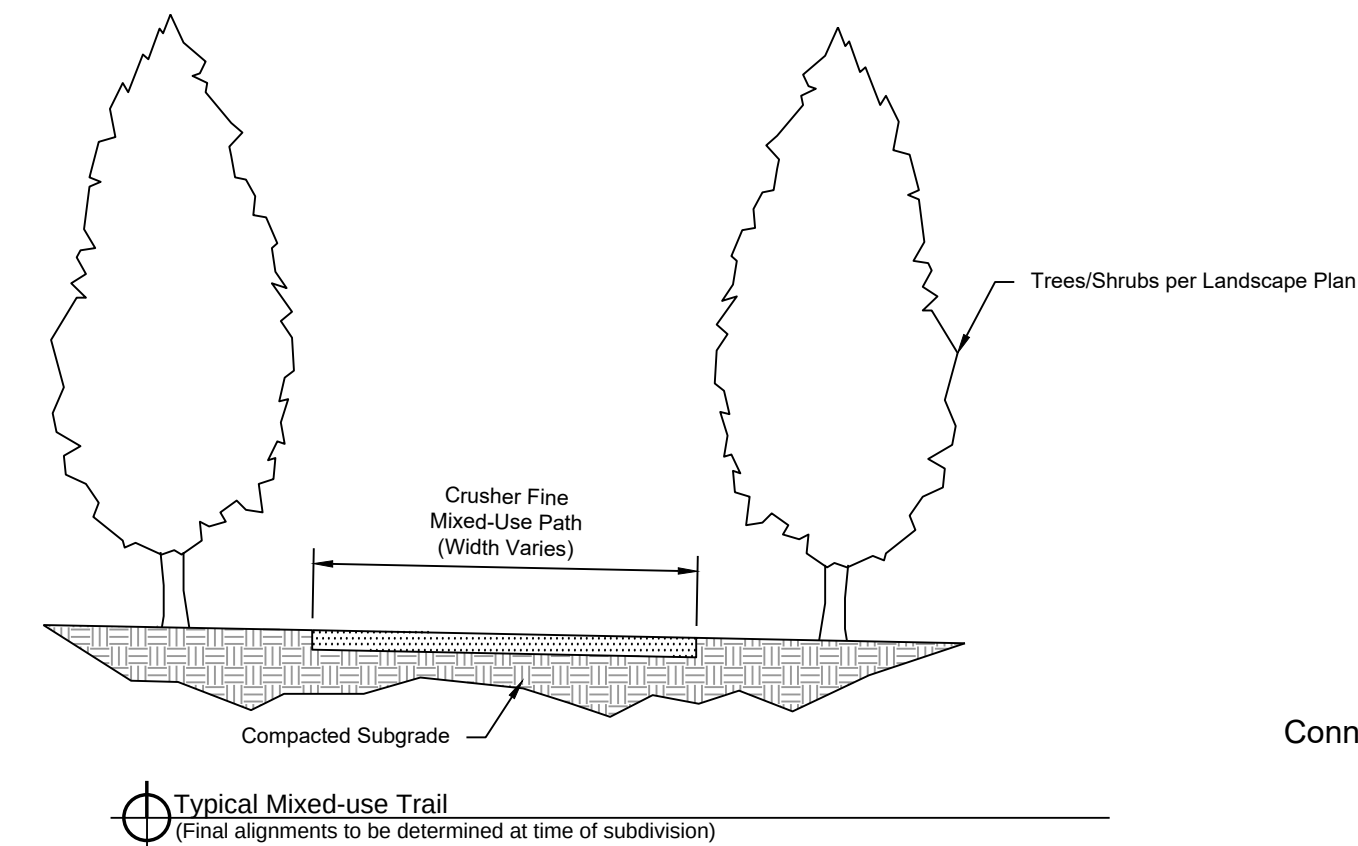


Future Regional Trail per City Trails Master Plan (By Others)



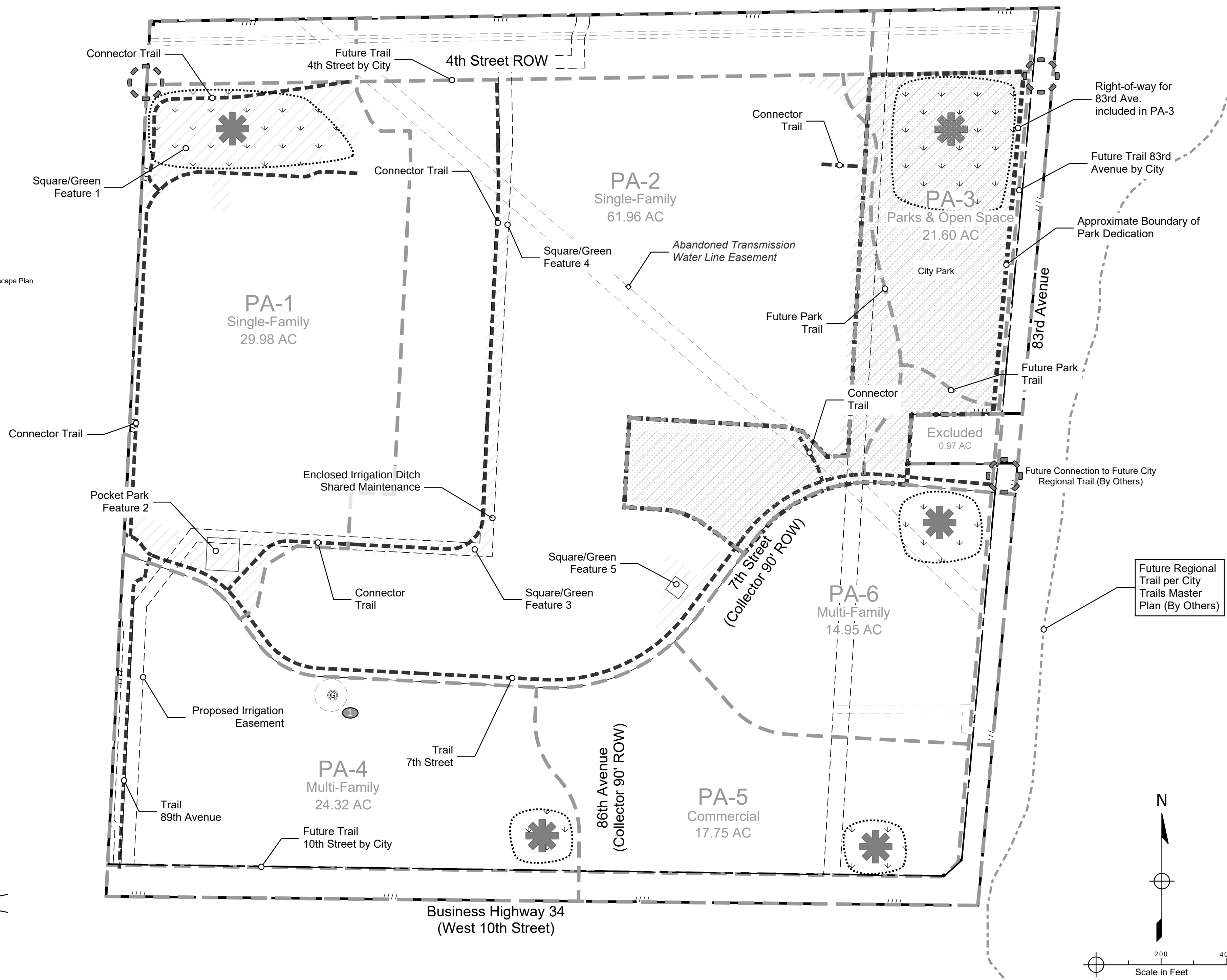
Landscape Note

1. Perimeter treatments will meet or exceed development code standards.



Collector Street Section
90' R.O.W.

7th Street: On-street parking, and multi-use trails
(Additional bike lanes on local streets at time of subdivision)



Future Regional Trail per City Trails Master Plan (By Others)

Approval Certificate	
Engineering	Initials/Date
Planning	Initials/Date
Owner	Initials/Date

Legend

4800

Major Contour

4801

Minor Contour

Boundary

SS

SS -

Proposed

SS

Per Cache Report

OS2.1

530

Cache Report Basin Revised by This Map

Number of Units

Sanitary Sewer Basin Boundary

1

Sanitary Sewer Design Point

Notes

1. Utility locations shown on this plan are schematic and will be adjusted with final design.

Table 7: Total Flow at Design Points

Design Point	Basin	Peak Flow (mgd)	Pipe Size (inches)	Peak Flow as Calculated by the Cache Report (mgd)
11.1	PA-2, PA-4, PA-5, PA-6, OS6	0.897	12	N/A
11.2	PA-1	0.084	8	N/A
11.3	PA-1, E1, E2, D1, C1, OS1	12.70	30	12.1

N

400

800

Scale: 1" = 400'

Approval Certificate

Engineering

Planning

Owner

Initials/Date

Initials/Date

Initials/Date

Schneider Farm Planned Unit Development

Conceptual Sanitary Sewer Plan

August 11, 2023

Sheet 9 of 13

Page 35 of 506

Legend

4800

Major Contour

4801

Minor Contour

Boundary

W

Proposed

W

Existing

Notes

1. Water distribution main locations shown on this plan are schematic and will be adjusted with final design.

Table 1: Single-Family Potable Water Demand

Pressure Zone	Density	Number of Units	Peak Hour Demand (gpm)
2	5 units/acre	296	563
3	5 units/acre	181	344
Total	5 units/acre	477	907

Table 2: Multi-Family Potable Water Demand

PA Area	Density	Area (Acres)	Number of Units	Peak Hour Demand (gpm)
PA-6	20 units/acre	15.23	305	335.5
PA-4	30 units/acre	24.83	745	819.5
Total	-	40.06	1050	1155

Table 3: Commercial Area Potable Water Demand

Building Area (1000 ft²)	Average Day Demand (gpm)	Peak Hour Demand (gpm)
119	16.67	71.43

N

Scale in Feet

400800

Approval Certificate

Engineering

Planning

Owner

Initials/Date

Initials/Date

Initials/Date

LANDONE

engineering

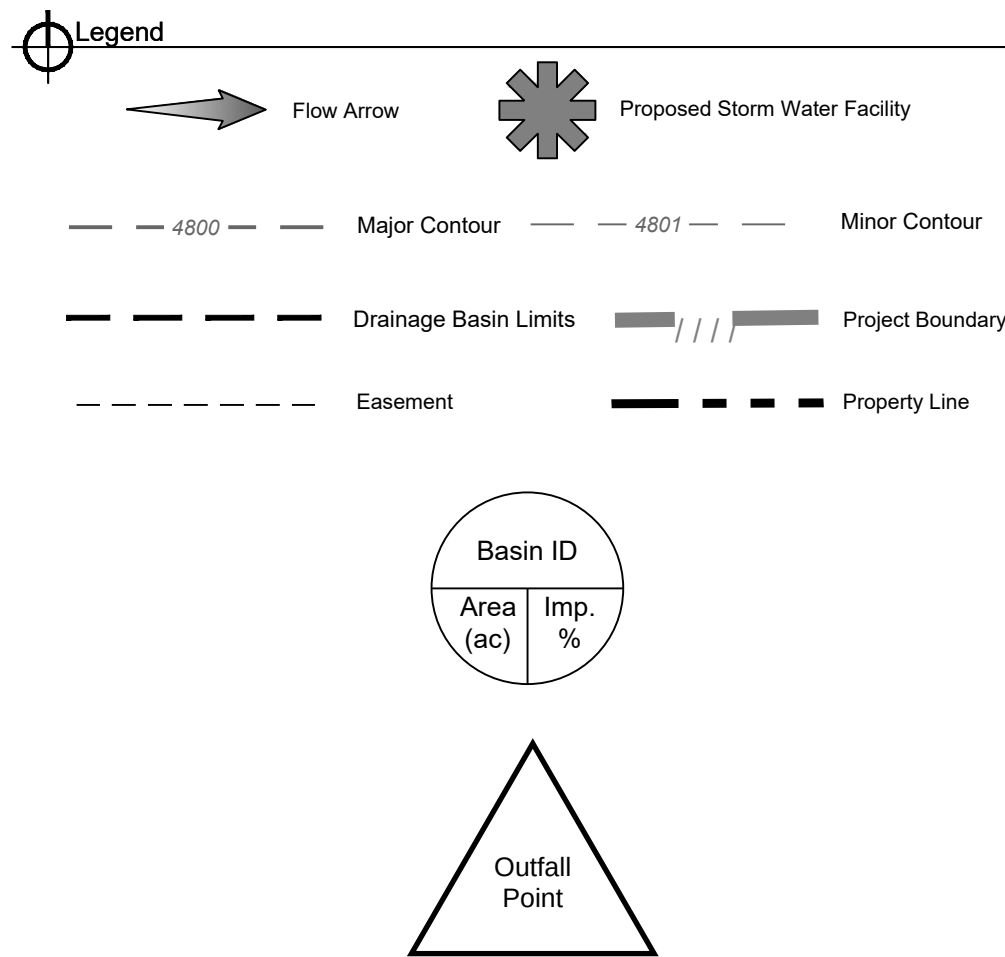
Schneider Farm Planned Unit Development

Conceptual Potable Water Plan

August 11, 2023

Sheet 10 of 13

Page 36 of 506



Existing Conditions Discharges				
Catchment	5-yr (CFS)	5-yr Unit (CFS/ac)	100-yr (CFS)	100-yr Unit (CFS/ac)
Ex1	4.91	0.104	75.06	1.586
Ex2	17.00	0.136	206.44	1.655

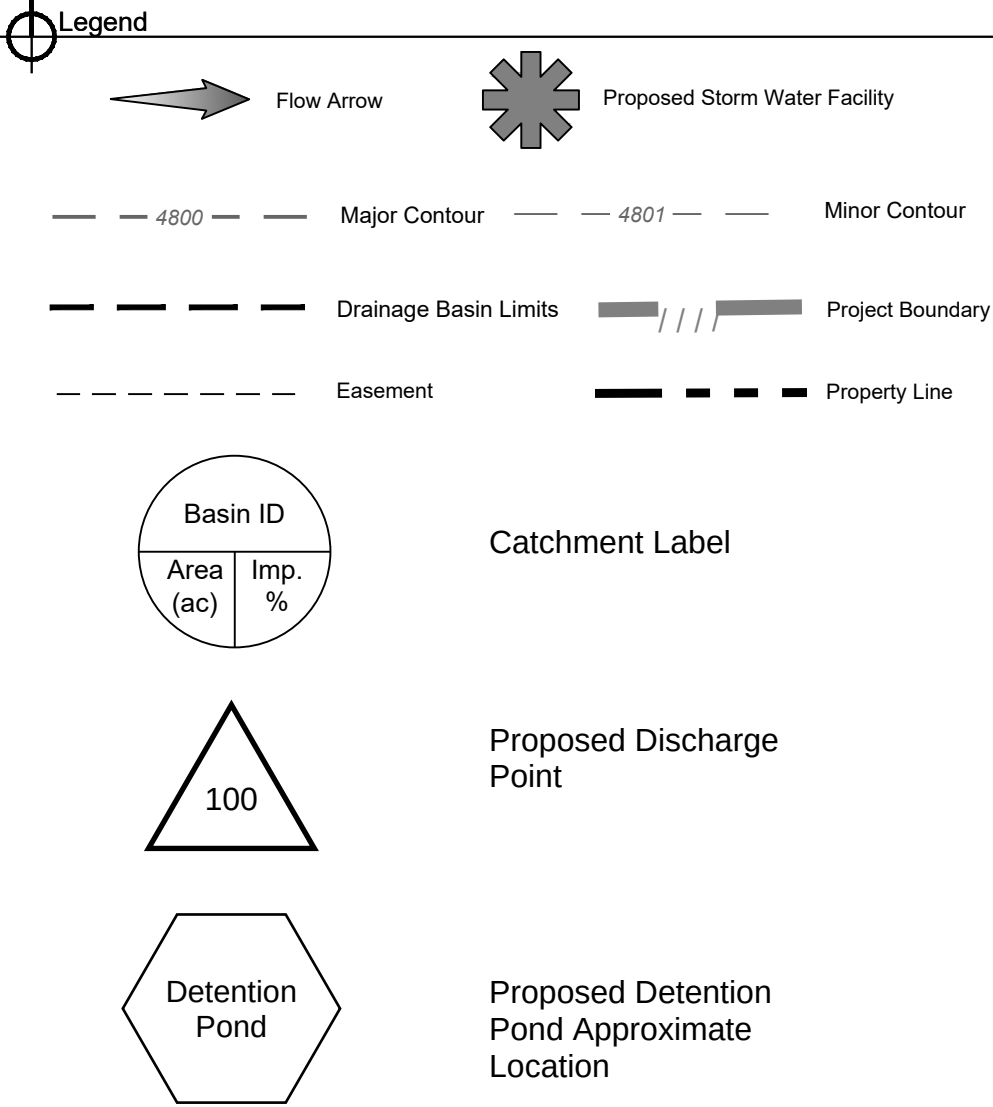


Approval Certificate

Engineering _____
Initials/Date _____

Planning _____
Initials/Date _____

Owner _____
Initials/Date _____



Proposed Conditions Peak Pond Inflows		
Pond	5-yr (CFS)	100-yr (CFS)
1	39.30	177.50
2	30.60	174.80
3	26.40	86.20
4	23.20	65.80
5	16.70	54.50

Conceptual Pond Summary						
Basin	Pond	Est. WQCV Required (ac-ft)	Peak 100-yr Inflow (cfs)	Peak Outflow (5-yr Existing, cfs)	Est. 100-yr Volume Required (ac-ft)	Est. 100-yr Drain Time (hr)
100	Pond 1	0.922	177.50	5.60	9.222	81
200	Pond 2	0.859	174.80	8.00	9.134	74
300	Pond 3	0.620	86.20	3.40	4.830	75
400	Pond 4	0.599	65.80	2.40	3.769	71
500	Pond 5	0.380	54.50	2.10	2.910	84



Approval Certificate

Engineering _____

Initials/Date _____

Planning _____

Initials/Date _____

Owner _____

Initials/Date _____

Legend

4800

Major Contour

4801

Minor Contour

Boundary

NPW

Proposed

NPW

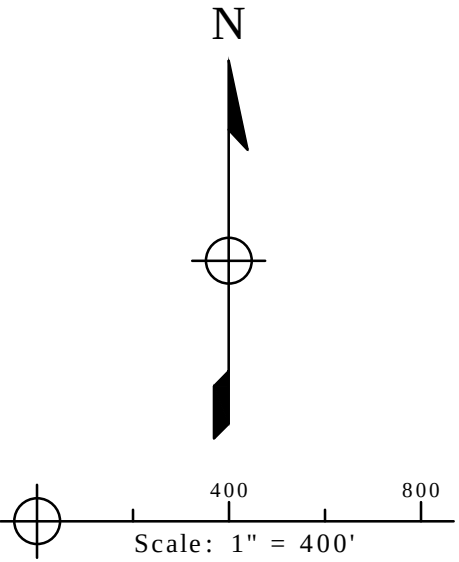
Existing

Notes

1. Utility locations shown on this plan are schematic and will be adjusted with final design.

Table: Non-Potable Water Demands

Land Use	Assumed Irrigated Open Space (%)	Total Area (acres)	Open Space Area (acres)	Daily Irrigation Application Rate (gpm)
Single-Family Open Space	20	95	19	610
Multi-Family Open Space	20	40	8	86
Commercial Open Space	20	18	3.6	77
Parks and Open Space	100	17	17	408
Total	20	170	47.6	1181



Approval Certificate

Engineering

Initials/Date

Planning

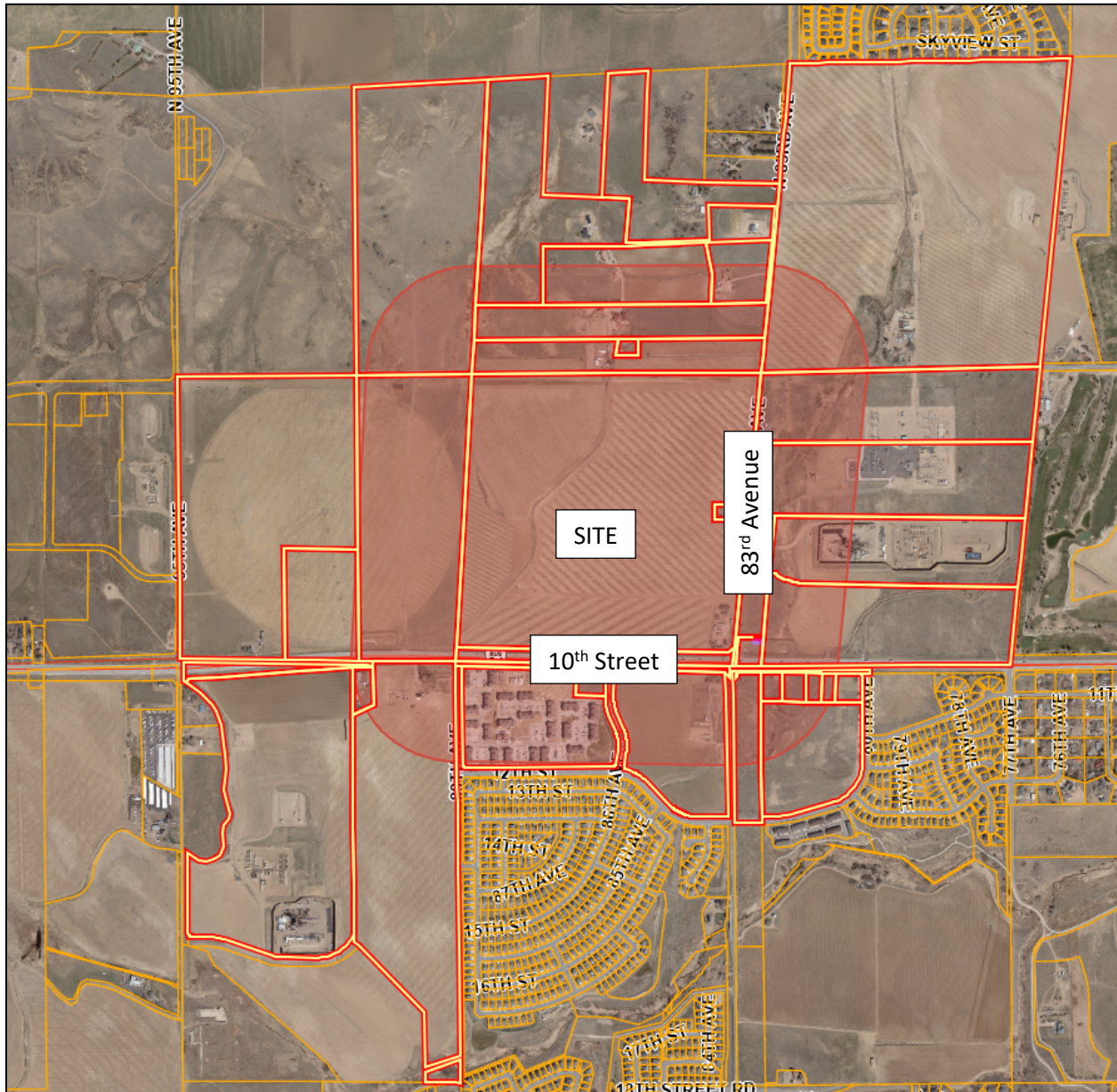
Initials/Date

Owner

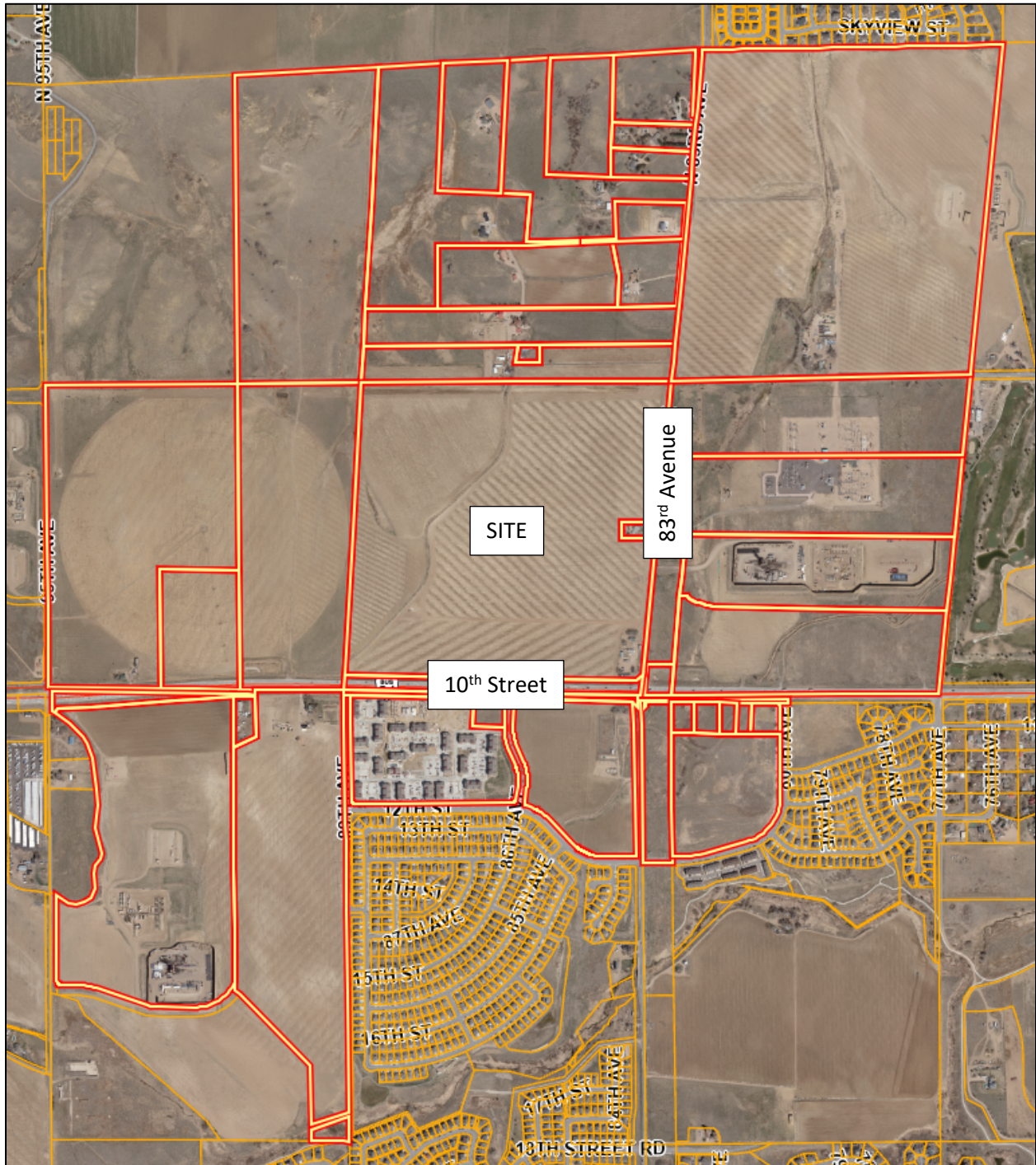
Initials/Date

NEIGHBORHOOD NOTIFICATION BOUNDARY MAP

The highlighted parcels were captured within a 1000' buffer (shown in red) from the project boundary.



Mailed notice was sent to the owners and current residents (if different than the owner) of the highlighted parcels.





Schneider Farm PUD PUD2022-0006

Planning Commission
September 12, 2023
Caleb Jackson, AICP | Interim Chief Planner

Request & Site Background

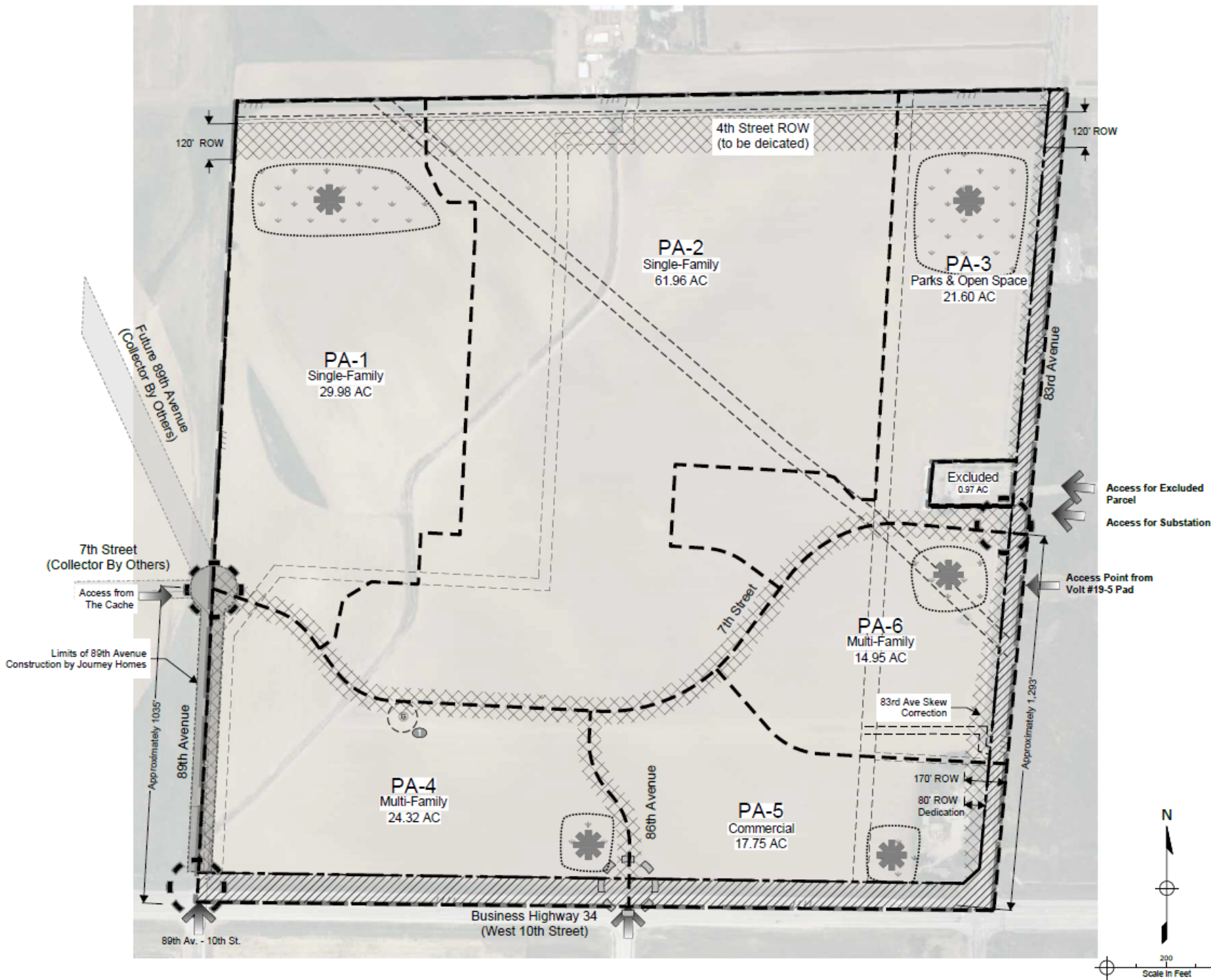
- Request:
 - Establish Schneider Farm PUD on 170.573 acres located at the northwest corner of 10th Street at 83rd Avenue
- Background:
 - Site annexed September 5, 2023
 - Zoning must be established within 90 days

Location

- NWC 10th St at 83rd Ave
- Surrounding Zoning and Land Uses:
 - North: A | Agriculture, single-family dwelling
 - East: A, R-L | Single-family dwelling, oil and gas extraction, electrical substation, electric transmission lines
 - South: C-H, R-H Undeveloped, multi-family dwellings
 - West: PUD | Farming



Schneider Farm PUD



Considerations

Approval Criteria

- Rezoning Criteria, 24-204(b)
Nine Criteria Used to Evaluate Rezoning Applications
- PUD Criteria, 24-205(c)
Four Criteria Used to Evaluate PUD Applications
- The proposal is consistent with the criteria as outlined in your Summary

Notification

- 39 notice letters (1000' buffer, owners and current residents)
- Two signs posted on the property
- Web notice
- Mineral notice
- No objection/support

Recommendation

- Complies with Sections 24-204(b) and 24-205(c)
- Staff recommends approval

Motions

Recommended (Approval)

- Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council approval.

Alternative (Denial)

- Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is not in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council denial.

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|--|
| 1) | <p>The proposal is in accordance with the goals and objectives of the Comprehensive Plan and any other plan, policy or guidance adopted pursuant to that plan.</p> <ul style="list-style-type: none"><i>Land Use Guidance Map – Mixed Use Neighborhood, Neighborhood Center, Multi-Modal Corridors</i><i>Objective EH-2.4 Land Use, support walkability to parks, goods, and services.</i><i>Objective EH-2.5 Walkability & Bikability, support walkability.</i><i>Objective EH-2.6 Built Environment, support mixed use development.</i><i>Objective GC-2.4 Mixed-Use and Transit-Supportive Development, support horizontal mixed use.</i><i>Objective GC-2.5 Neighborhood Centers, provide commercial goods and services within walking distance of residences.</i> |
| 2) | <p>The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas.</p> <ul style="list-style-type: none"><i>The intent of the Planned Unit Development is to provide a mixed use neighborhood that is compatible with the area. The proposal is consistent with other planned development in the vicinity.</i> |

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|--|
| 3) | Whether the area changed or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area. |
| | <ul style="list-style-type: none"><i>The area continues to see sites planned for mixed use neighborhoods. It is in the public interest to establish zoning on the subject site that is consistent with the trend of planning mixed use neighborhoods in this area.</i> |
| 4) | Whether the existing zoning has been in place for a substantial time without development, and if this indicates the existing zoning is inappropriate given development trends in the vicinity. |
| | <ul style="list-style-type: none"><i>N/A The site was recently annexed, eliminating the existing Weld County zoning designation on the site.</i> |

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|---|
| 5) | <p>The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces, and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.</p> |
| | <ul style="list-style-type: none"><i>The proposal allows a mix of uses and open spaces that are compatible with planned development in the area. The proposed primary streets and trails tie into plans for neighboring developments.</i> |
| 6) | <p>The City or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.</p> |
| | <ul style="list-style-type: none"><i>Existing services are present in the vicinity to support development of the site as proposed. The applicant will be responsible for extending services to their site upon development.</i> |

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|---|
| 7) | <p>The change will serve a community need, provide an amenity, or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.</p> <ul style="list-style-type: none"><i>N/A The site was recently annexed, eliminating the existing Weld County zoning designation on the site.</i> |
| 8) | <p>Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design and engineering practices or are outweighed by broader public benefits to the surrounding community.</p> <ul style="list-style-type: none"><i>Traffic impacts would be addressed with future improvements as outlined in the applicant's traffic impact study. No further negative impacts are anticipated.</i> |

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

9) **The recommendations of professional staff or advisory review bodies.**

- *Planning staff and the Administrative Review Team recommend approval.*

Planned Unit Development Review Criteria, Section 24-205(c)

1) **The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards.**

- *The proposal allows a mix of uses to be incorporated into the area in a way that achieves greater consistency and more specificity than standard zones would allow.*

Review Criteria



Planned Unit Development Review Criteria, Section 24-205(c)

- | | |
|----|--|
| 2) | <p>The benefits from any flexibility in the proposed plan:</p> <ul style="list-style-type: none">(1) promote the general public health, safety and welfare of the community, and in particular, that of the areas immediately near or within the proposed project, and is not strictly to benefit the applicant or a single project;(2) involves innovative concepts that were not anticipated by the development code; or(3) apply to a unique or specific context in a manner that allows the project to better meet the intent or design objectives of the base zoning districts and standards. |
| | <ul style="list-style-type: none"><i>The proposed PUD provides flexibility to support development that is in-demand in the community. The proposal includes development standards that better-facilitate three-car garages while maintaining important architectural features and standards.</i> |

Review Criteria



Planned Unit Development Review Criteria, Section 24-205(c)

- | | |
|----|---|
| 3) | The plan reflects generally accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan to the area. |
| | <i>• The request is consistent with planning and design principles and the Comprehensive Plan.</i> |
| 4) | The plan meets all of the review criteria for zoning map amendments in Section 24-204. |
| | <i>• The request complies with Section 24-204, Review Criteria for Rezoning as detailed above.</i> |

Sheet List Table	
Sheet Number	Sheet Title
1	Cover
2	Existing Conditions-Property and Topography
3	Existing Conditions-Oil & Gas Facilities
4	Master Development Plan-Project Boundary and Layout
5	Detail Plan-PA Development Standards
6	Detail Plan-Public Facilities and Commitments
7	Detail Plan-Typical SFD Front Elevations
8	Detail Plan-Parks, Trails and Open Space
9	Conceptual Sanitary Sewer Plan
10	Conceptual Potable Water Plan
11	Existing Drainage Basin Map
12	Proposed Drainage Basin Map
13	Conceptual Non-Potable Water Plan

- Planned Unit Development Standard Notes**
- Approval of site construction plans by the City of Greeley shall be required (as applicable) prior to issuance of building permits.
 - Signage shown on this plan is for illustrative purposes only. A separate sign permit shall be submitted to the city for review and approval.
 - All existing and proposed utilities shall be installed underground.
 - No building permit shall be issued for the construction of a new building or structure unless the property has been platted in accordance with the City's Subdivision Regulations (Chapter 3).
 - All elevations shown on these plans are tied to NAVD 88 datum.

Contacts	
Property Owner Joanny Nemes, LLC Larry S. Buckendorf [Authorized Agent] 7251 W. 20th Street Greeley, CO 80634 970-330-5480	Civil Engineer LandOne Engineering Daniel Hull 361 71st Avenue, Suite 100 Greeley, CO 80634 970-632-2311

Property Description

A parcel of land, situate in the Southwest Quarter (SE1/4) of Section Six (6) and the Southwest Quarter (SW1/4) of Section Five (5), Township Five North (T.5N.), Range Sixty-six West (R.66W.) of the Sixth Principal Meridian (6th P.M.), County of Weld, State of Colorado and being more particularly described as follows:

BEGINNING at the East Quarter Corner of said Section 6, monumented by a 2" steel pipe with a 2.5" aluminum cap stamped LS 11889, and assuming the East line of said SE1/4 as bearing North 05° 10'00" East, being a Grid Bearing of the Colorado State Plane North Zone, North American Datum 1983/2011, a distance of 2,913.51 feet, monumented at the Southwest Corner by a #6 rebar with a 3.25" aluminum cap stamped LS 25381 and with all other bearings contained herein relative thereto;

THENCE North 88° 44'22" East, along the North line of the SW1/4 of said Section 5, a distance of 30.19 feet to the East Right of Way (ROW) of 8th Avenue;

THENCE, South 05° 10'00" West, along said East ROW, a distance of 1,406.77 feet to the Northwest corner of the Golden Triangle Third Annexation as recorded December 27, 1984 as Reception No. 1993145 of the records of the Weld County Clerk & Recorder (WCC&R); said corner being on the North line of the South Half of said SW1/4;

THENCE, South 02° 10'00" West, along the West line of said Reception No. 1993145, a distance of 1,366.76 feet to a point on the Northerly line of Golden Triangle First Annexation, as recorded November 1, 1994 as Reception No. 1997293 of the WCC&R;

Thence along the North and West lines of said Reception No. 1997293 the following three courses:

THENCE, South 89° 17'34" West a distance of 53.85 feet;

THENCE North 89° 22'51" West a distance of 2,948.81 feet to a point on the West line of said SE1/4, from whence the South Quarter Corner of Section 6 bears South 02° 52'20" West a distance of 450.03;

THENCE North 02° 52'30" East a distance of 2,696.59 feet to the Center Quarter Corner of Section 6;

THENCE North 88° 09'59" East, along the North line of said SE1/4, a distance of 2,767.06 feet to the POINT OF BEGINNING.

EXCEPTING THEREFROM:

COMMENCING at the East Quarter Corner of Section 6;

THENCE, South 05° 10'00" West, along the East line of said SE1/4, a distance of 1,406.77 feet to the South 1/16th Corner of Section 6;

THENCE, South 89° 52'38" West, along the South line of the North Half of the SE1/4 a distance of 30.13 feet to the POINT OF BEGINNING;

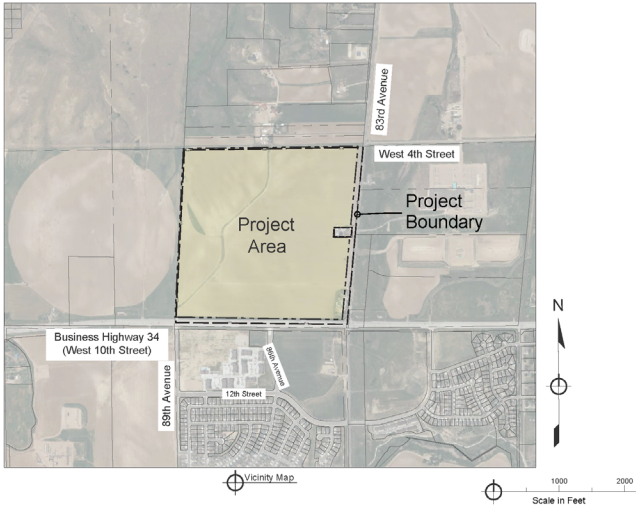
THENCE, South 89° 52'38" West, continuing along said South line, a distance of 280.00 feet;

THENCE North 05° 10'00" East, parallel with and 310.00 feet West of, as measured at right angles to the East Line of said Southeast Quarter, a distance of 180.00 feet;

THENCE North 89° 09'59" East, parallel with the North line of said Southeast Quarter, a distance of 280.34 feet to a point on the East ROW of 8th Avenue;

THENCE, South 06° 10'00" West, along said East ROW, a distance of 153.49 feet to the POINT OF BEGINNING.

Said described parcel of land contains 7,430,140 Square Feet or 170.573 Acres, more or less (a).



PLANNED UNIT DEVELOPMENT CERTIFICATION BLOCK

THIS PLANNED UNIT DEVELOPMENT (PUD) HAS BEEN REVIEWED AND FOUND TO BE COMPLETE AND IN ACCORDANCE WITH THE CITY OF GREELEY DEVELOPMENT CODE REGULATIONS.

Union Colony West Investments, LLC
Larry Buckendorf, Authorized Agent

Signature: _____
Date: _____

CITY COUNCIL APPROVAL
Approved by the Greeley City Council on this ____ day of _____, 20____

PLANNING COMMISSION RECOMMENDATION
Recommended / not recommended by the City of Greeley Planning Commission, this ____ day of _____, 20____

COMMUNITY DEVELOPMENT DIRECTOR
Director of Community Development _____ Date _____

INTENT STATEMENT
This document is for approval of the Planned Unit Development Standards for the Schneider Farm PUD.

Legend

POWER POLE
ELECTRIC BOX
ELECTRIC METER
ELECTRIC VAULT
WATER SPROUT
WATER METER
SANITARY CLEANTH
TELEPHONE PEDESTAL
ACCESS POINT
ALLOY CORNER AS DESCRIBED
FOUND MONUMENT AS DESCRIBED
CALCULATED POINT
SET 24" OF #4 REBAR WITH RED PLASTIC CAP LS 38348

EDGE OF ASPHALT
FENCE
CHAIN LINK FENCE
EDGE OF DRAINEL
EDGE OF LANDSCAPING
PIPE
PROPERTY LINE
EASEMENT LINE
RIGHT OF WAY LINE
SECTION LINE
CONVEYANCE
ADJACENT PARCEL
APPROXIMATE CENTERLINE DITCH
Project Boundary

75' Transmission Line Easement BK 1243 PG. 110
10' Pipeline Right-of-way Rec. No. 1067541
50' Pipeline Easement BK 228 PG. 982 (To be vacated at time of plat)

Floodplain
The PUD project is located in FIRM Panel 1512E, Map Number 081201512E Dated January 20, 2016. Current flood zone is Zone X.

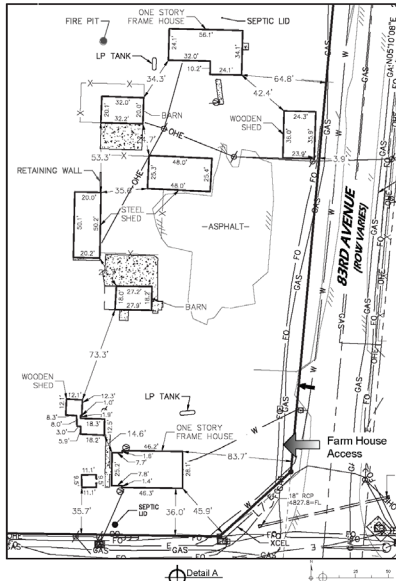
Existing - To Be Removed
All existing structures are to be removed.

Oil and Gas Facilities - See Sheet 3
Williams #15-6 - 50' Setback Plugged and Abandoned

Zoning
The subject site is currently in unincorporated Weld County, zoned A (Agricultural). The property is proposed for annexation with PUD (Planned Unit Development) zoning.

Notes
1. Property address: 876 83rd Avenue, Greeley, Colorado.
2. Benchmark: City of Greeley Benchmark No. 156068A, Elevation 4819.72 (NAVD 88 Vertical Datum).
3. Undergound utility marking shown were provided by Primo Utility Locating Services, LLC.
4. Location of ditch does not coincide with deeded courses recorded December 7, 1909 in Book 247, Page 483 of the records of the Weld County Clerk and Recorder. Deeded calls do not close to section line.
5. Location of Pipeline easement recorded January 25, 1909 in Book 228, Page 982 of the records of the Weld County Clerk and Recorder, is based upon field location and observations on May 6, 2022.
6. Dimensions for the Right of Way easement in Book 1228 Page 252 are not given.
7. As the request of the client the location of gas well Wilman #15-6 was plotted based on COGIS coordinates. The well was not located during the field work for this survey.

Reception Numbers
Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to Natural Gas Associates, a Colorado Partnership
Purpose: Pipeline
Recording Date: February 29, 1994
Recording No.: 1957541
Right of way, whether in fee or easement only, as set forth below:
Purpose: Lateral ditch
Recording Date: December 7, 1909
Recording No.: Book 247 at Page 483
Terms, conditions, provisions, agreements and obligations contained in the Contract and Grant of Easement as set forth below:
Recording Date: March 3, 1949
Recording No.: Book 1263 at Page 110
Terms, conditions, provisions, agreements and obligations contained in the Right of Way Contract as set forth below:
Recording Date: October 7, 1929
Recording No.: Book 1052 at Page 153
Assignment and Assumption Agreement recorded November 21, 2005 at Reception No. 3241652 and Memorandum of Pipeline Location recorded September 28, 2010 at Reception No. 3721607 and Amendment to Right of Way Contracts recorded October 29, 2015 at Reception No. 4154206
Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: The City of Greeley, a municipal corporation
Purpose: Pipe line and ingress and egress for the purpose of constructing, maintaining and operating an underground pipe line
Recording Date: January 25, 1909
Recording No.: Book 228 at Page 982
Terms, conditions, provisions, agreements and obligations contained in the Valve Site Contract as set forth below:
Recording Date: December 29, 1994
Recording No.: 2420705
Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Associated Natural Gas, Inc., a Colorado corporation
Purpose: Pipeline
Recording Date: December 29, 1994
Recording No.: 2420706
Terms, conditions, provisions, agreements and obligations contained in the Right of Way Contract as set forth below:
Recording Date: June 3, 1949
Recording No.: Book 1228 at Page 252
Right of way, whether in fee or easement only, as set forth below:
Purpose: Lateral ditch
Recording Date: December 7, 1909
Recording No.: Book 247 at Page 483
Right of way:
Granted to: Department of Transportation, State of Colorado
Purpose: 10th Street
Recording Date: Warranty Deed dated June 13, 2007 and recorded June 13, 2007
Recording No.: 3483158
Not part of this project.



Property Description

A parcel of land, situate in the Southeast Quarter (SE1/4) of Section Six (6) and the Southwest Quarter (SW1/4) of Section Five (5), Township Five North (7 S.), Range Sixty-six West (R. 66W.) of the Sixth Principal Meridian (6th P.M.), County of Weld, State of Colorado and being more particularly described as follows:

BEGINNING at the East Quarter Corner of said Section 6, monumented by a 2" steel pipe with a 2.5" aluminum cap stamped LS 11889, and assuming the East line of said SE1/4 as bearing North 05°10'00" East, being a Grid Bearing of the Colorado State Plane North Zone, North American Datum 1983/2011, a distance of 2,313.61 feet, monumented at the Southeast Corner by a 48" rebar with a 3.25" aluminum cap stamped LS 25381 and with and with all other bearings contained herein relative thereto;

THENCE North 89°44'22" East, along the North line of the SW1/4 of said Section 5, a distance of 30.19 feet to the East Right of Way (ROW) of 83rd Avenue;

THENCE South 05°10'00" West, along said East ROW, a distance of 1,406.77 feet to the Northwest corner of the Golden Triangle Third Annexation as recorded December 27, 1984 as recorded November 1, 1994 as Reception No. 1993145 of the records of the Weld County Clerk & Recorder (WCCR) said corner being on the North line of the South Half of said SW1/4;

THENCE South 05°10'00" West, along the West line of said Section 5, a distance of 1,366.76 feet to a point on the North line of Golden Triangle First Annexation, as recorded November 1, 1994 as Reception No. 1987263 of the WCCR;

THENCE along the North and West lines of said Reception No. 1987263 the following three courses:

THENCE South 89°11'34" West, a distance of 33.85 feet;

THENCE North 89°22'1" West, a distance of 2,438.61 feet to a point on the West line of said SE1/4, from whence the South Quarter Corner of Section 6 bears South 02°52'33" West a distance of 40.03;

THENCE North 02°52'33" East, a distance of 2,696.59 feet to the Center Quarter Corner of Section 6;

THENCE North 89°09'59" East, along the North line of said SE1/4, a distance of 2,767.00 feet to the POINT OF BEGINNING.

EXCEPTING THEREFROM:

COMMENCING at the East Quarter Corner of Section 6;

THENCE South 05°10'00" West, along the East line of said SE1/4, a distance of 1,406.77 feet to the South 1/16th Corner of Section 6;

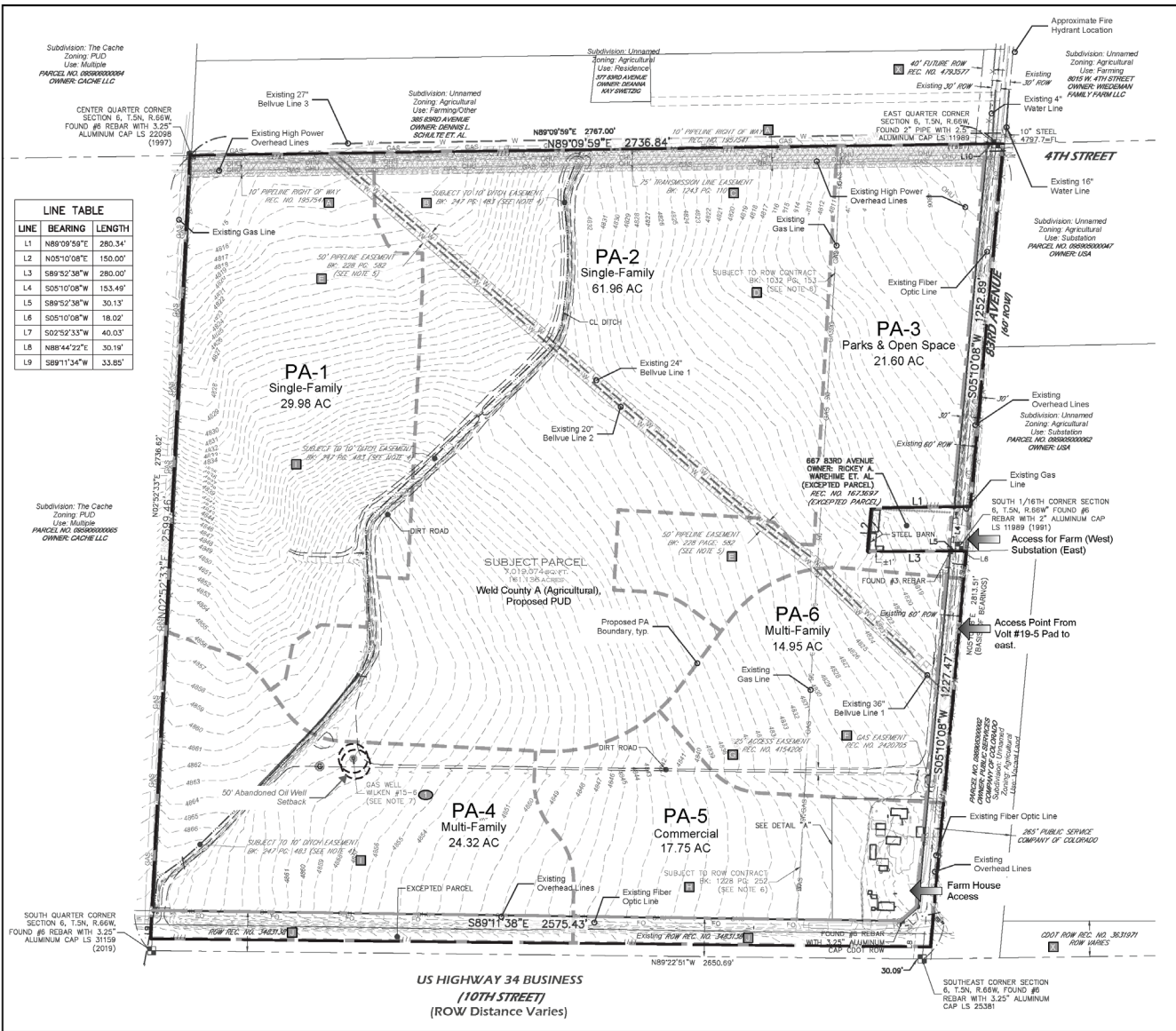
THENCE South 89°52'38" West along the South line of the North Half of the SE1/4, a distance of 30.13 feet to the POINT OF BEGINNING;

THENCE North 89°52'38" West, continuing along said South line, a distance of 280.00 feet, to the East line of said Southeast Quarter, a distance of 150.00 feet;

THENCE North 89°09'59" East, parallel with the North line of said Southeast Quarter, a distance of 280.04 feet to a point on the East ROW of 83rd Avenue;

THENCE South 05°10'00" West, along said East ROW, a distance of 153.49 feet to the POINT OF BEGINNING.

Said described parcel of land contains 7,430.140 Square Feet or 170.573 Acres, more or less (A).



Approval Certificate

Engineering	Initials/Date
Planning	Initials/Date
Owner	Initials/Date

Legend

Boundary

1000' Buffer per City Code Section 24-1102.c.5

Project Boundary

Oil & Gas

Number of Wells: 1 with 50' setback

Location Name: Wilken-65N6W /65W5E

Status: Plugged and Abandoned (PA)

Number of Wells: 4

Location Name: South-65N6W /65W10W

Status: Plugged and Abandoned (PA)

Number of Wells: 1

Location Name: Franker-65N6W

Status: Plugged and Abandoned (PA)

Number of Wells: 14 - Approximately 4 wells in buffer

Location Name: Vol 81S-5 Pad

Status: Drilling (DG)

Number of Wells: 1

Location Name: Moody J-65N6W /55W5W

Status: Abandoned Location (AL)

Number of Wells: 1

Location Name: Stephens-65N6W /7N1E

Status: Plugged and Abandoned (PA)

Number of Wells: 1

Location Name: Stephens-65N6W /7NWNE

Status: Plugged and Abandoned (PA)

Number of Wells: 1

Location Name: Franker-65N6W

Status: Plugged and Abandoned (PA)

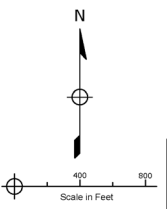
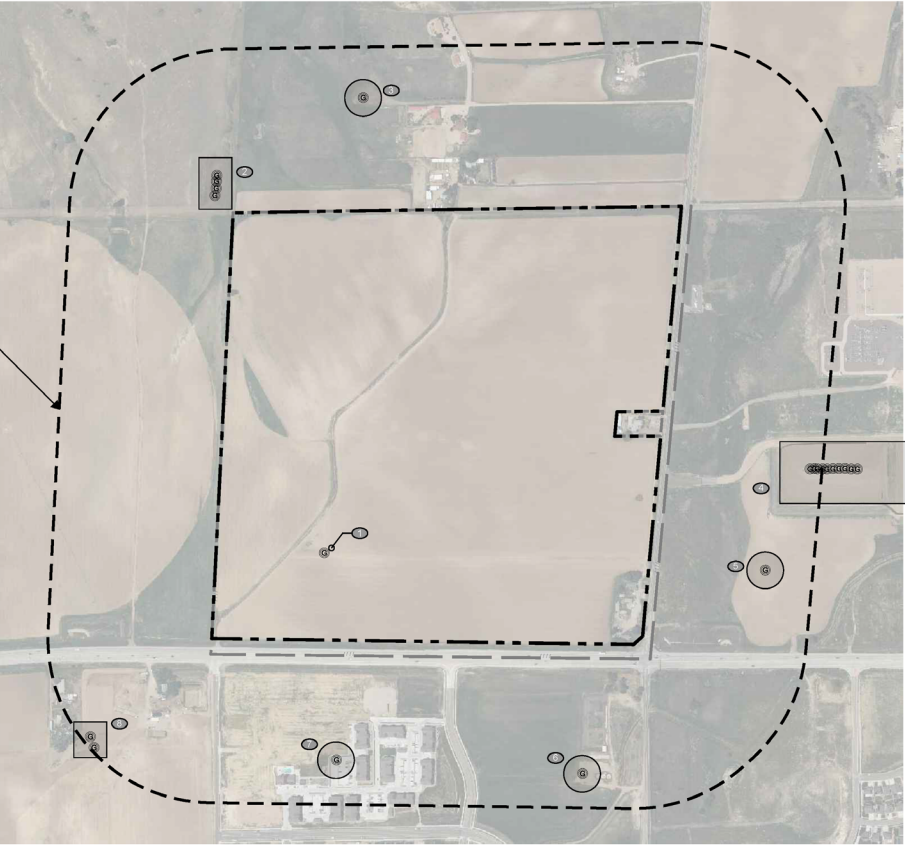
Oil and Gas Well

Oil and Gas Location 2A Boundary

The data depicted on this sheet was generated from the COGCC Interactive Map. Date of data is only accurate to the date of the PUD document.

Distances are approximate and generated from the GIS data provided by the COGCC Interactive Map.

1000' Buffer per City of Greeley
Code Section 24-1102.c.5



Approval Certificate	
Engineering	Initials/Date
Planning	Initials/Date
Owner	Initials/Date

Site Summary					
Area	Use	Acres	Dwelling Units	Density/FAR	% of Acreage
PA-1	Single-Family	30.0	149	5.0	17.6%
PA-2	Single-Family	62.0	309	5.0	36.3%
PA-3	Parks & Open Space	21.6	0	0.0	12.7%
PA-4	Multi-Family	24.3	729	30.0	14.3%
PA-5	Commercial	17.8	---	0.5	10.4%
PA-6	Multi-Family	15.0	299	20.0	8.8%
TOTAL		170.6			100.0%

Property Description

parcel of land, situate in the Southeast Quarter (SE1/4) of Section Six (6) and the Southwest Quarter (SW1/4) of Section Five (5), Township Five North (T5N), Range Sixty-six West (R66W) of the Sixth Principal Meridian (6th P.M.), County of Weld, State of Colorado and being more particularly described as follows:

BEGINNING at the East Quarter Corner of said Section 6, monumented by a 2" steel pipe with a 2" 57" aluminum cap stamped LS 11080, and assuming the East line of said SE1/4 as being North 02°42'00" East, being a Grid Bearing of the Colorado State Plane North Zone, North American Datum 1983/2011, a distance of 2,310.61 feet monumented at the Southeast Corner by a 4" rebar with a 2" 57" aluminum cap stamped LS 22811, and with and without all other bearings contained herein relative thereto;

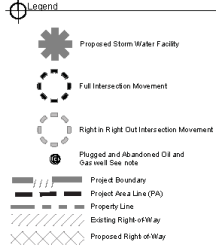
THENCE North 89°44'22" East, along the North line of the SW1/4 of said Section 5, a distance of 30.10 feet to the East Right of Way (ROW) of 83rd Avenue;
THENCE South 02°42'00" West, along said East ROW, a distance of 1,406.77 feet to the Northwest corner of the Golden Triangle Third Amendment as recorded December 27, 1994 as Reception No. 1992-145 of the records of the Weld County Clerk & Recorder (WCRCR) said corner being on the North line of the South Half of said SW1/4;
THENCE South 02°42'00" West, along the West line of said Reception No. 1992-145, a distance of 1,206.70 feet to a point on the Northern line of Golden Triangle Third Amendment, as recorded November 1, 1994 as Reception No. 1997-203 of the WCRCR;
THENCE along the North and West line of said Reception No. 1997-203 the following three courses:
THENCE South 86°11'34" West, a distance of 33.85 feet;
THENCE South 02°42'11" West, a distance of 2,948.01 feet to a point on the West line of said SE1/4, from whence the South Quarter Corner of Section 6 bears South 02°42'33" West a distance of 40.00;
THENCE North 02°42'33" East a distance of 2,606.09 feet to the Center Quarter Corner of Section 6;
THENCE North 89°46'59" East, along the North line of said SE1/4, a distance of 2,767.00 feet to the POINT OF BEGINNING.

EXCEPTING THEREFROM
COMMENCING at the East Quarter Corner of Section 5;
THENCE South 02°42'00" West, along the East line of said SE1/4, a distance of 1,406.77 feet to the South 1/8th Corner of Section 5;
THENCE South 86°42'38" West along the South line of the North Half of the SE1/4 a distance of 30.10 feet to the POINT OF BEGINNING;
THENCE South 86°42'38" West, continuing along said South line, a distance of 200.00 feet;
THENCE North 02°42'00" East, parallel with and 510.00 feet West of, as measured at right angles to, the East line of said Southeast Quarter, a distance of 150.00 feet;
THENCE North 89°46'59" East, parallel with the North line of said Southeast Quarter, a distance of 200.00 feet to a point on the East ROW of 83rd Avenue;
THENCE South 02°42'00" West, along said East ROW, a distance of 163.40 feet to the POINT OF BEGINNING.

Said described parcel of land contains 7,430,140 Square Feet or 170.573 Acres, more or less (±).

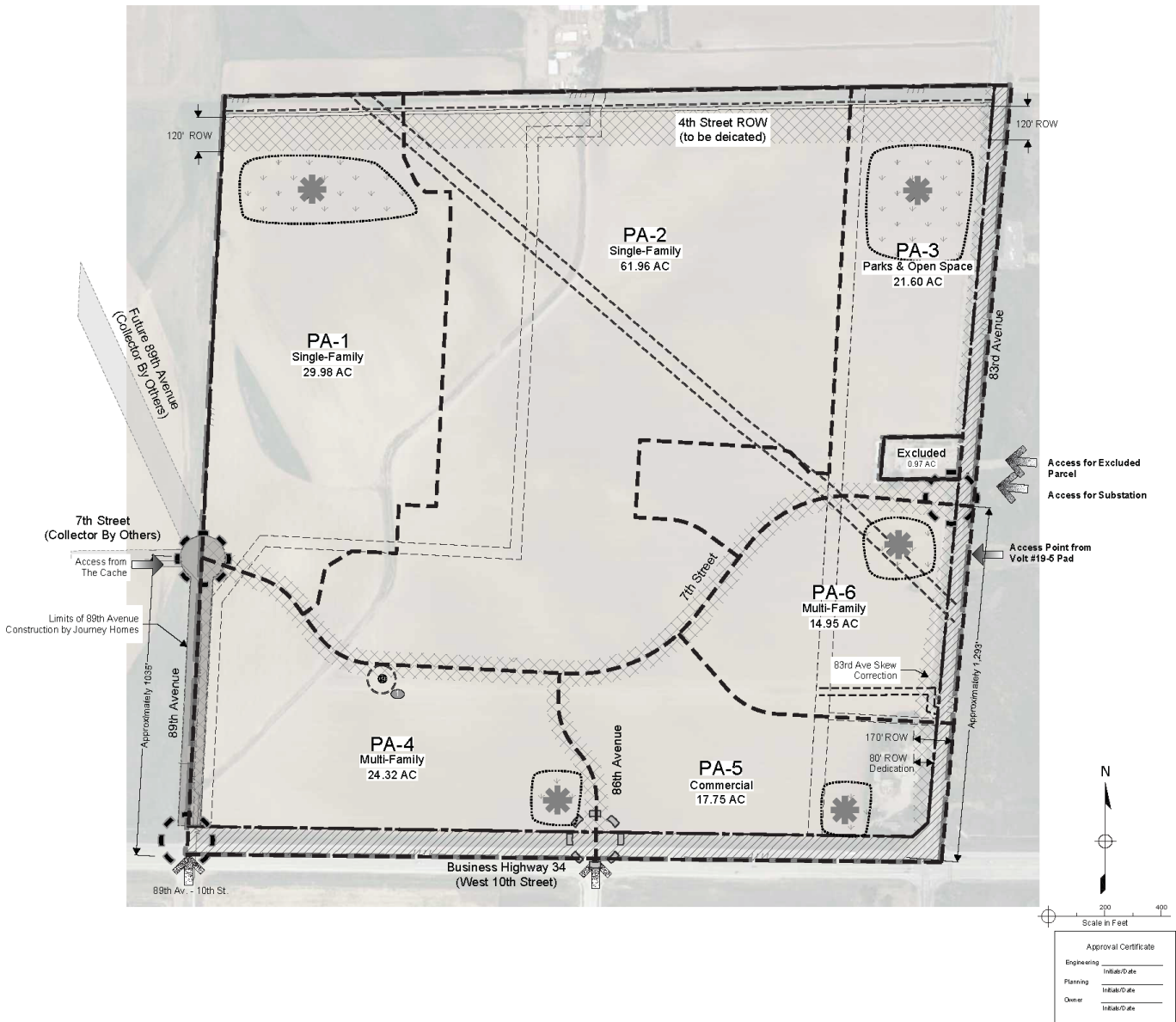
Oil and Gas Facilities - See Sheet 3

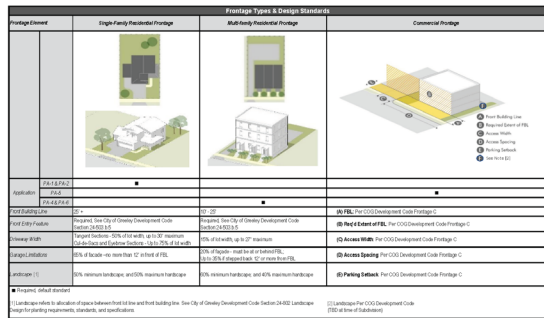
Wellhead #15-6 - 50 Setback
Plugged and Abandoned



Notes

- The PUD proposes a mix of single-family and multi-family dwellings and is not subject to housing density requirements in the Greeley Development Code.
- The City of Greeley's Area of Ecological Significance Map identifies a potential area of ecological significance at the north end of the subject site. The analysis has determined that no areas of ecological significance are present on the subject site.



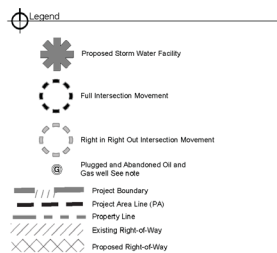
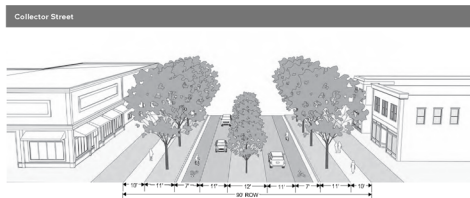


The map illustrates the proposed 83rd Avenue Corridor with six potential alignment alternatives (PA-1 to PA-6) and an excluded area. The map includes street names (4th Street ROW, 7th Street, 83rd Avenue, 86th Avenue, Business Highway 34), acreage for each alternative, and access points for a substation and an excluded parcel. A north arrow and scale bar are also present.

Alternative	Use	Acreage (AC)
PA-1	Single-Family	29.98
PA-2	Single-Family	61.96
PA-3	Parks & Open Space	21.60
PA-4	Multi-Family	24.32
PA-5	Commercial	17.75
PA-6	Multi-Family	14.95
Excluded	Excluded	0.97

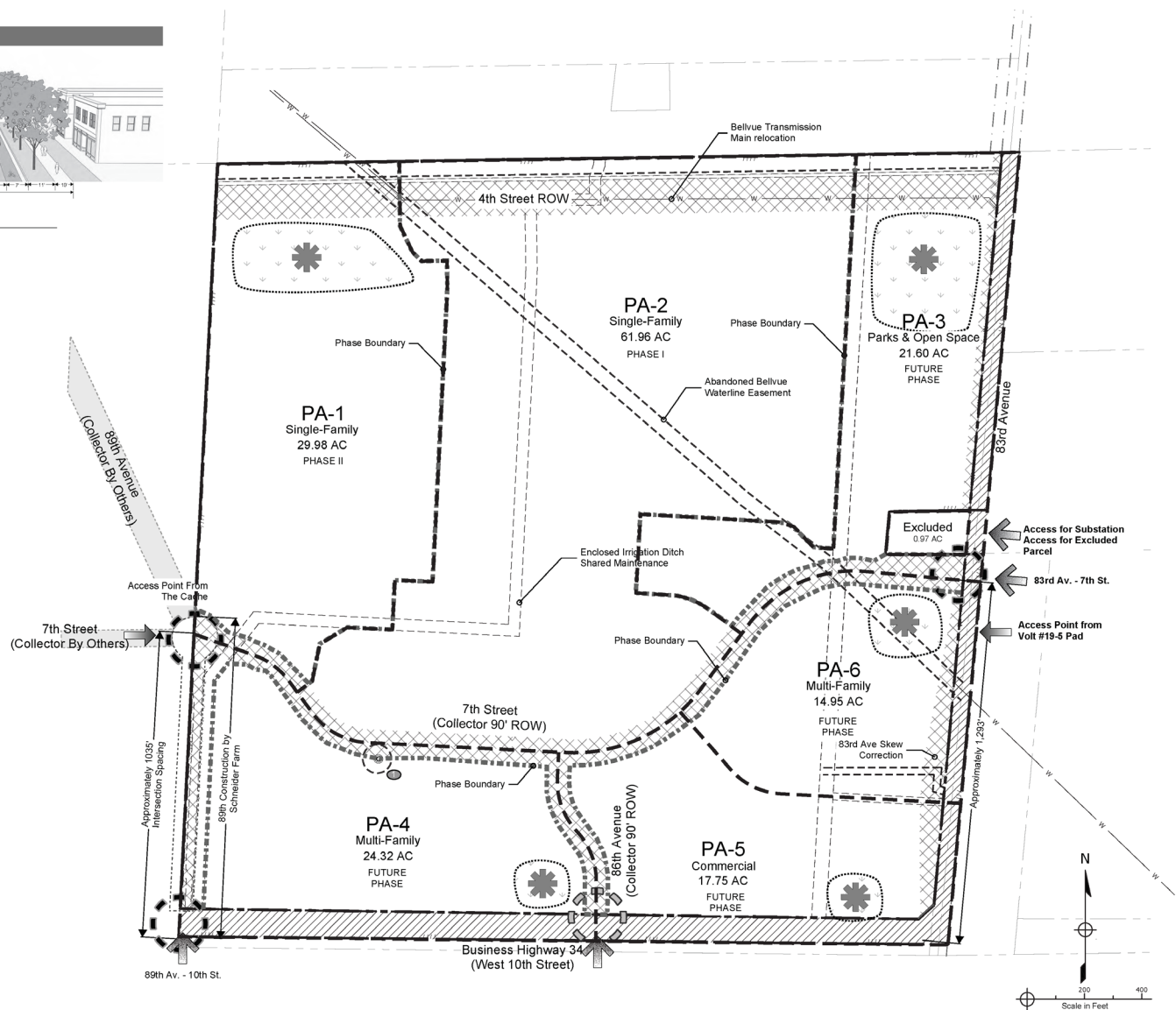
Other features include: 4th Street ROW, 7th Street, 83rd Avenue, 86th Avenue, Business Highway 34 (West 10th Street), 89th Av. - 10th St., 83rd Av. - 7th St., Access Point From The Cache, Access for Substation, Access for Excluded Parcel, Access Point from Volt #19-5 Pad, Mixed-Use Trail Along N. Side of 7th St., Approximately 1035', Approximately 1230', and a North Arrow with a scale of 0 to 400 feet.





Commitments Matrix					
Improvement or Commitment	Plan Preparation & Approval	Construction Timing	Construction Responsibility	Maintenance Responsibility	Ownership
ROW Dedication	Final Plat	Phase 1	Developer	Not Applicable	City of Greeley
Collector Street Construction	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Detention Ponds	Construction Documents	Phase 1	Metropolitan District or Developer	Metropolitan District, Owners' Association, or Owner	Metropolitan District, Owners' Association, or Owner
Potable Water Transmission Piping, Fittings, and Valves	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Offsite Potable Water Transmission Piping, Fittings, and Valves	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Offsite Sanitary Sewer Main Piping and Manholes	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Offsite Non-Potable Water Transmission Piping, Fittings, and Valves	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Onsite Non-Potable Water Distribution Piping, Fittings, and Valves	Construction Documents	Phase 1	Metropolitan District or Developer	City of Greeley	City of Greeley
Irrigation Ditch Enclosure	Construction Documents	Phase 1	Metropolitan District or Developer	Ditch Company	Ditch Company
Local Street Construction	Construction Documents	With each Phase	Metropolitan District or Developer	City of Greeley	City of Greeley
Storm Drainage Piping, Inlets, and Manholes	Construction Documents	With each Phase	Metropolitan District or Developer	City of Greeley	City of Greeley
Sanitary Sewer Collection Piping and Manholes	Construction Documents	With each Phase	Metropolitan District or Developer	City of Greeley	City of Greeley
Potable Water Distribution Piping, Fittings, Valves, and Hydrants	Construction Documents	With each Phase	Metropolitan District or Developer	City of Greeley	City of Greeley
Multi-Use Trails and Associated Amenities	Construction Documents	With each Phase	Metropolitan District or Developer	Metropolitan District, Owners' Association, or Owner	Metropolitan District, Owners' Association, or Owner
Landscape Buffers and Common Open Spaces	Construction Documents	With each Phase	Metropolitan District or Developer	Metropolitan District, Owners' Association, or Owner	Metropolitan District, Owners' Association, or Owner
Neighborhood Park (10-acre minimum)	Construction Documents	Phase 1	City of Greeley	City of Greeley	City of Greeley

ROW Dedication Note
 1. All ROW for 7th St, 89th Ave, 86th Ave, 83rd Ave, and 4th St will be dedicated with the subdivision plat, as well as, local roads within the single family subdivision area. West half of 88th will be dedicated by separate documents.

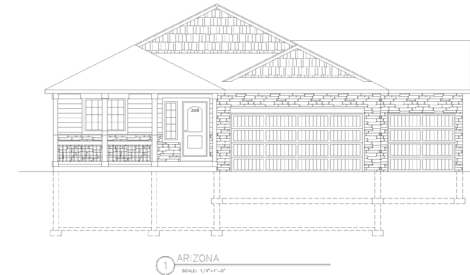


Approval Certificate

Engineering	Initials/Date
Planning	Initials/Date
Owner	Initials/Date

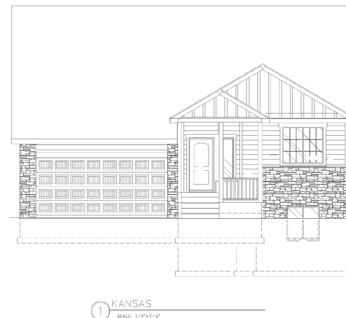
Accepted By: _____ Representative _____ Date _____

Skyline Ditch Company acknowledges acceptance and completeness of the Schneider Farm PUD.



Representative SFD Elevations - Wider Driveways

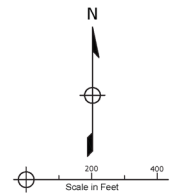
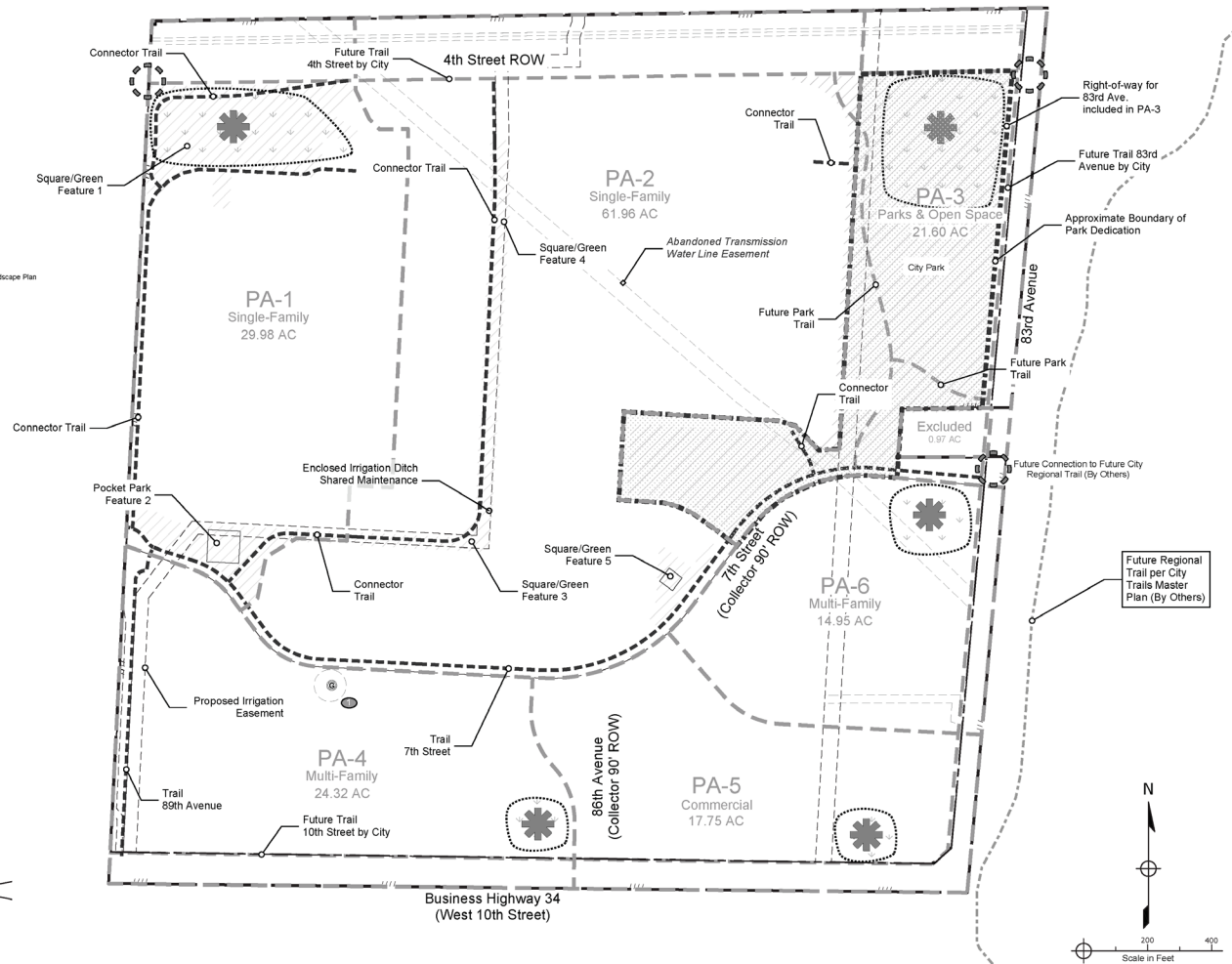
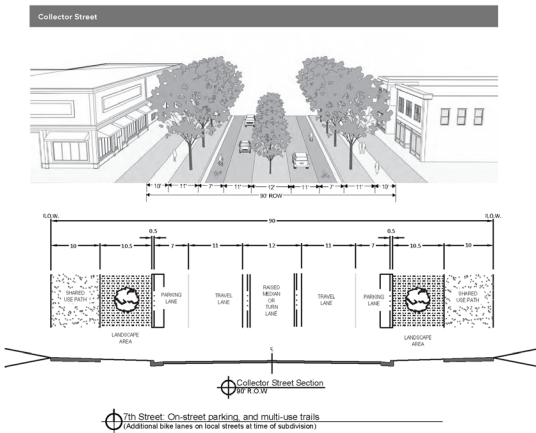
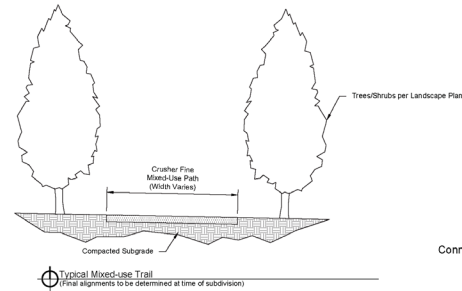
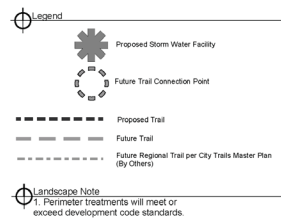
Scale: 1/8" = 1'



Representative SFD Elevations - Standard Driveways

Scale: 1/8" = 1'

Approval Certificate	
Engineering	Initials/Date
Planning	Initials/Date
Owner	Initials/Date



Approval Certificate	
Engineering	Initials/Date
Planning	Initials/Date
Owner	Initials/Date

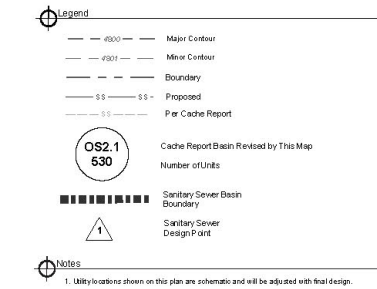
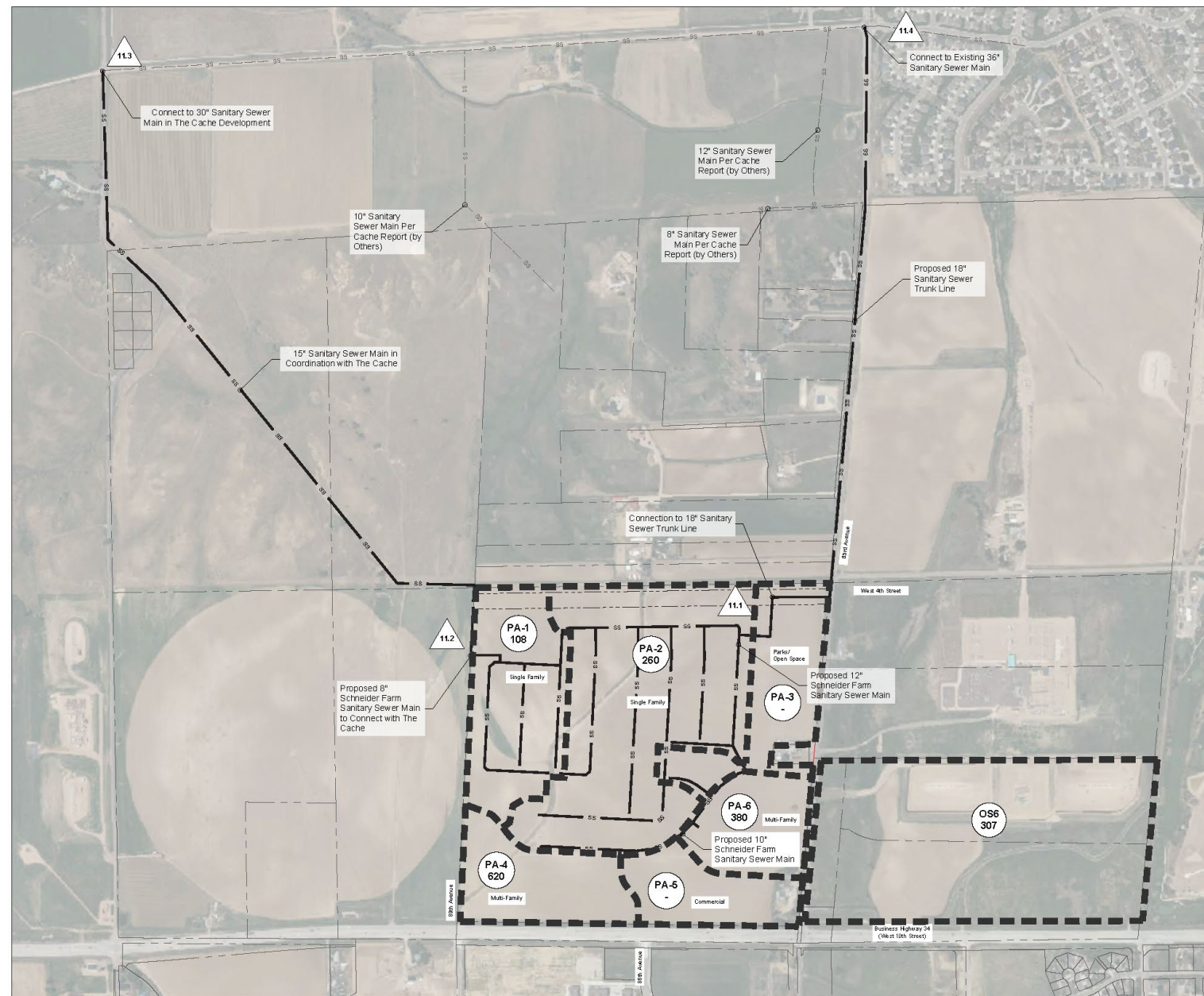
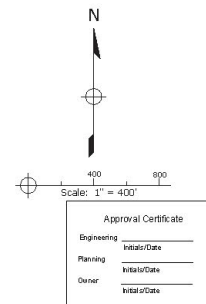
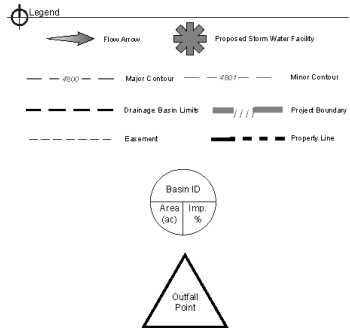


Table 7: Total Flow at Design Points

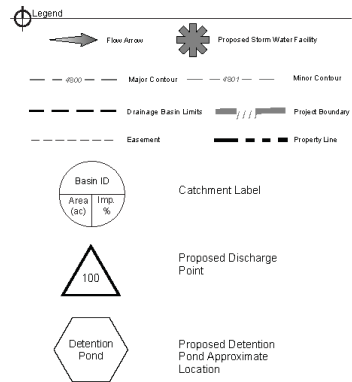
Design Point	Basin	Peak Flow (mgd)	Pipe Size (inches)	Peak Flow as Calculated by the Cache Report (mgd)
11.1	PA-2, PA-4, PA-5, PA-6, OS6	0.097	12	N/A
11.2	PA-1	0.084	8	N/A
11.3	PA-1, E1, E2, D1, C1, OS1	12.70	30	12.1





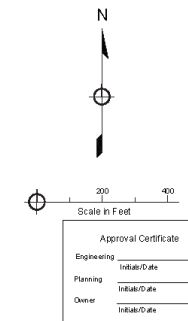
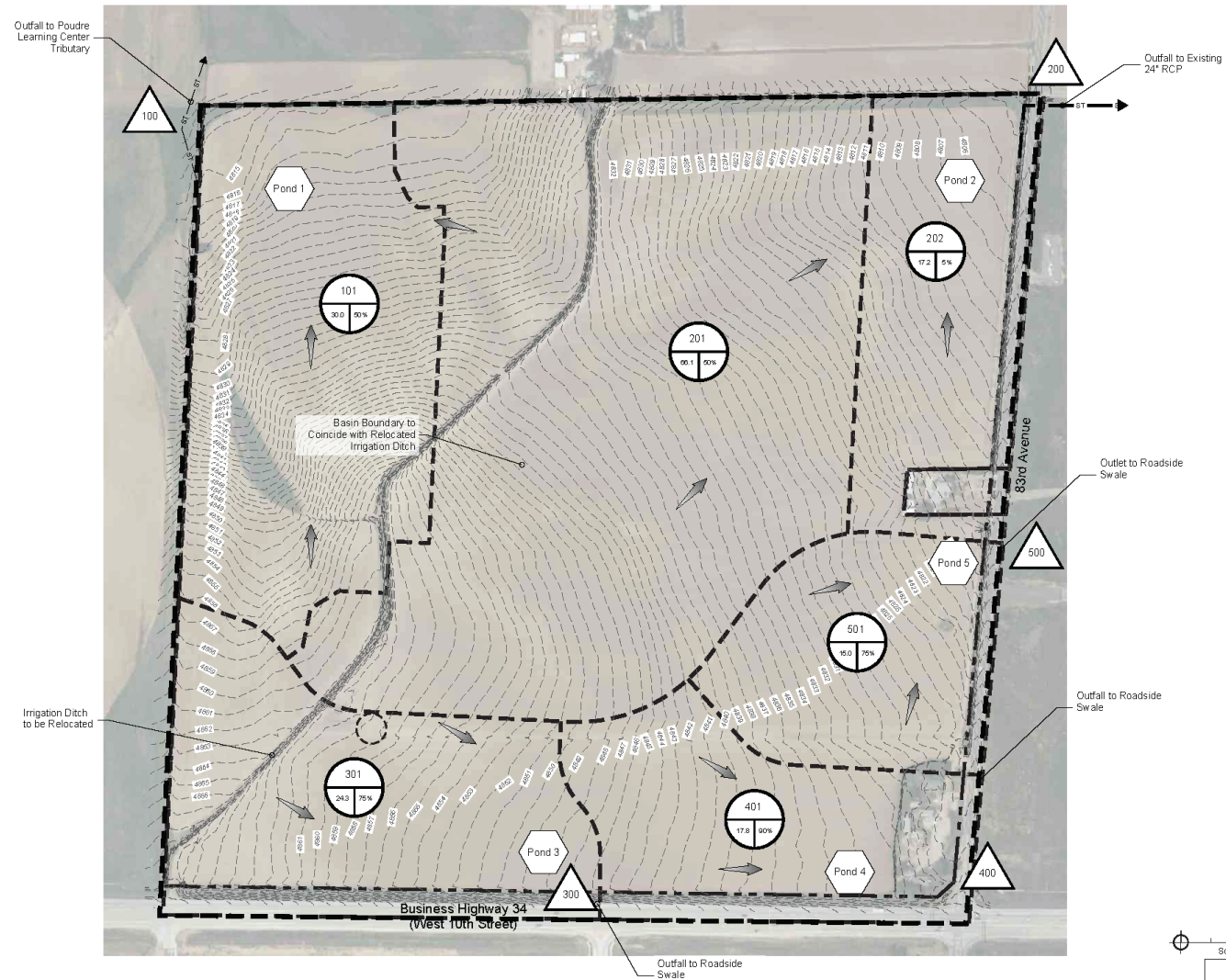
Existing Conditions Discharges				
Catchment	5-yr (CFS)	5-yr Unit (CFS/ac)	100-yr (CFS)	100-yr Unit (CFS/ac)
Ex1	4.91	0.104	75.56	1.556
Ex2	17.00	0.136	206.44	1.655

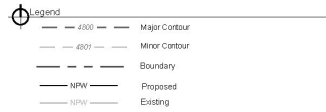




Proposed Conditions Peak Pond Inflows		
Pond	5-yr (CFS)	100-yr (CFS)
1	38.30	177.50
2	30.60	174.80
3	26.40	86.20
4	23.30	65.60
5	16.70	54.50

Conceptual Pond Summary					
Basin	Pond	Est. WQCV Required (ac-ft)	Peak 100-yr Inflow (cfs)	Peak Outflow (5-yr Existing, cfs)	Est. 100-yr Volume Required (ac-ft)
100	Pond 1	0.922	177.50	5.60	8.222
200	Pond 2	0.959	174.80	8.00	9.134
300	Pond 3	0.620	86.20	3.40	4.930
400	Pond 4	0.598	65.60	2.40	3.768
500	Pond 5	0.380	54.50	2.10	2.910



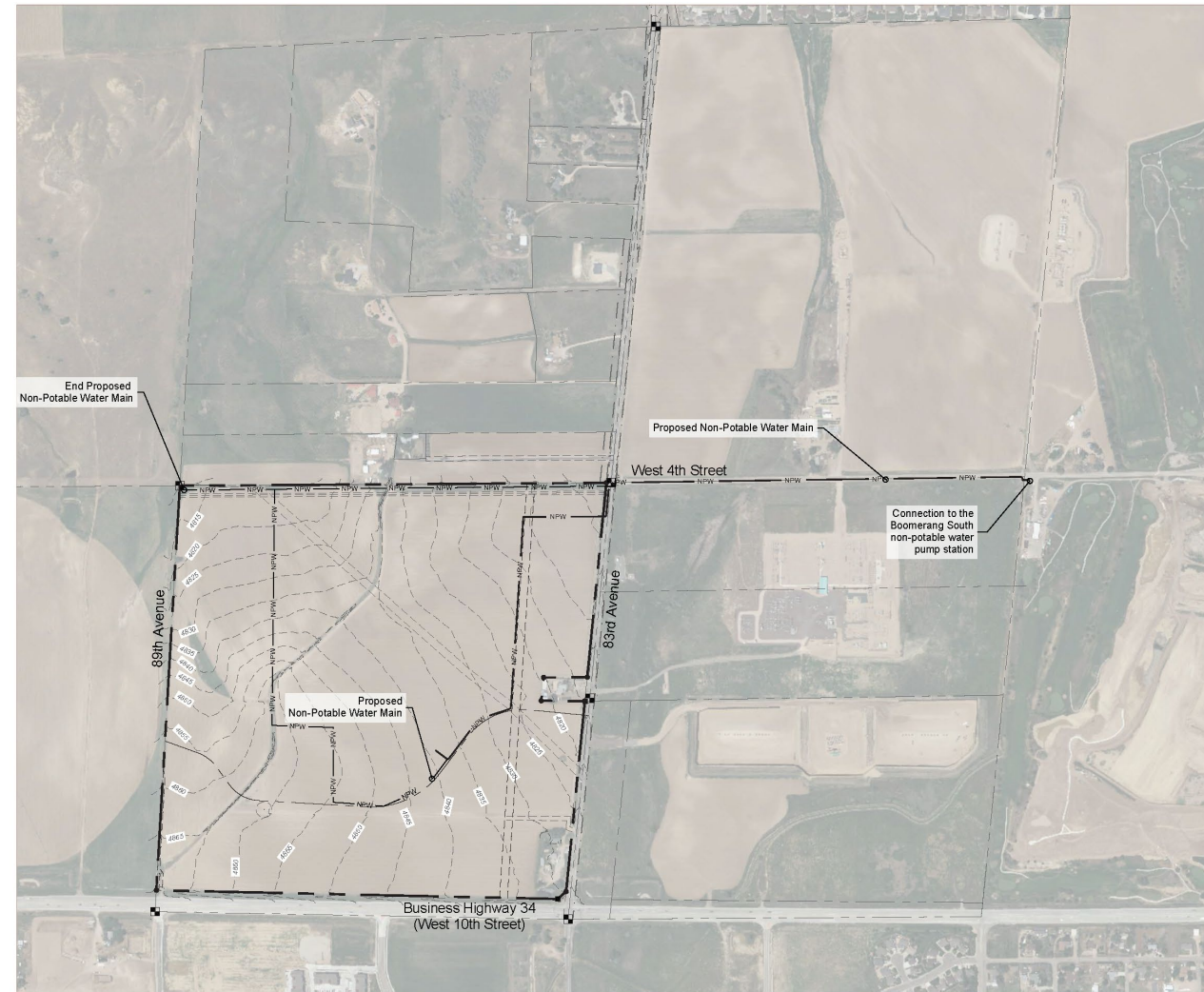


Notes

1. Utility locations shown on this plan are schematic and will be adjusted with final design.

Table: Non-Potable Water Demands

Land Use	Assumed Irrigated Open Space (%)	Total Area (acres)	Open Space Area (acres)	Daily Irrigation Application Rate (gpm)
Single-Family Open Space	20	95	19	610
Multi-Family Open Space	20	40	8	86
Commercial Open Space	20	18	3.6	77
Parks and Open Space	100	17	17	408
Total	20	170	47.6	1181



Schneider Farms

Northeast quadrant of 89th Avenue and W. 10th Street
Greeley, CO

Traffic Impact Study

KE Job #2022-076

Prepared for:

LandOne Engineering, LLC
361 71st Avenue, Suite 100
Greeley, CO 80634

Prepared by:



KELLAR ENGINEERING

skellar@kellarengineering.com

970.219.1602 phone



February 22, 2023

Sean K. Kellar, PE, PTOE

This document, together with the concepts and recommendations presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization from Kellar Engineering LLC shall be without liability to Kellar Engineering LLC.

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1.0 Introduction

The purpose of this Traffic Impact Study (TIS) is to identify project traffic generation characteristics, to identify potential traffic related impacts on the adjacent street system, and to develop mitigation measures required for identified traffic impacts. This TIS is for the Schneider Farms project located at the northeast quadrant of 89th Avenue and 10th Street in Greeley, CO. See Figure 1: Vicinity Map.

Kellar Engineering LLC (KE) has prepared the TIS to document the results of the project's anticipated traffic conditions in accordance with the City of Greeley's requirements and to identify projected impacts to the local and regional traffic system.

2.0 Existing Conditions and Roadway Network

The project site is located at the northeast quadrant of 89th Avenue and 10th Street in Greeley, CO. Access to the project site is proposed from the north side of the intersection of: 89th Avenue/10th Street, 86th Avenue/10th Street, and 83rd Avenue/10th Street. The north leg of 89th Avenue is a future 2-lane north-south major collector roadway. The north leg of 86th Avenue is a future north-south minor collector roadway. Also, 83rd Avenue is a 4-lane north-south major arterial. Additionally, 10th Street (US 34 Business) is an east-west 4-lane major arterial. The intersection of 83rd Avenue/10th Street is signalized with four-section signal heads facing the left-turn lanes. See Figure 2: Site Plan.

2.1 Existing Traffic Volumes

Existing peak hour traffic volume counts were conducted by All Traffic Data Services, Inc. using data collection cameras on Wednesday, August 31, 2022. The traffic counts were conducted to capture the peak hours of the adjacent street traffic. These turning movement counts are shown in Figure 3 with the count sheets provided in Appendix A.

Figure 1: Vicinity Map

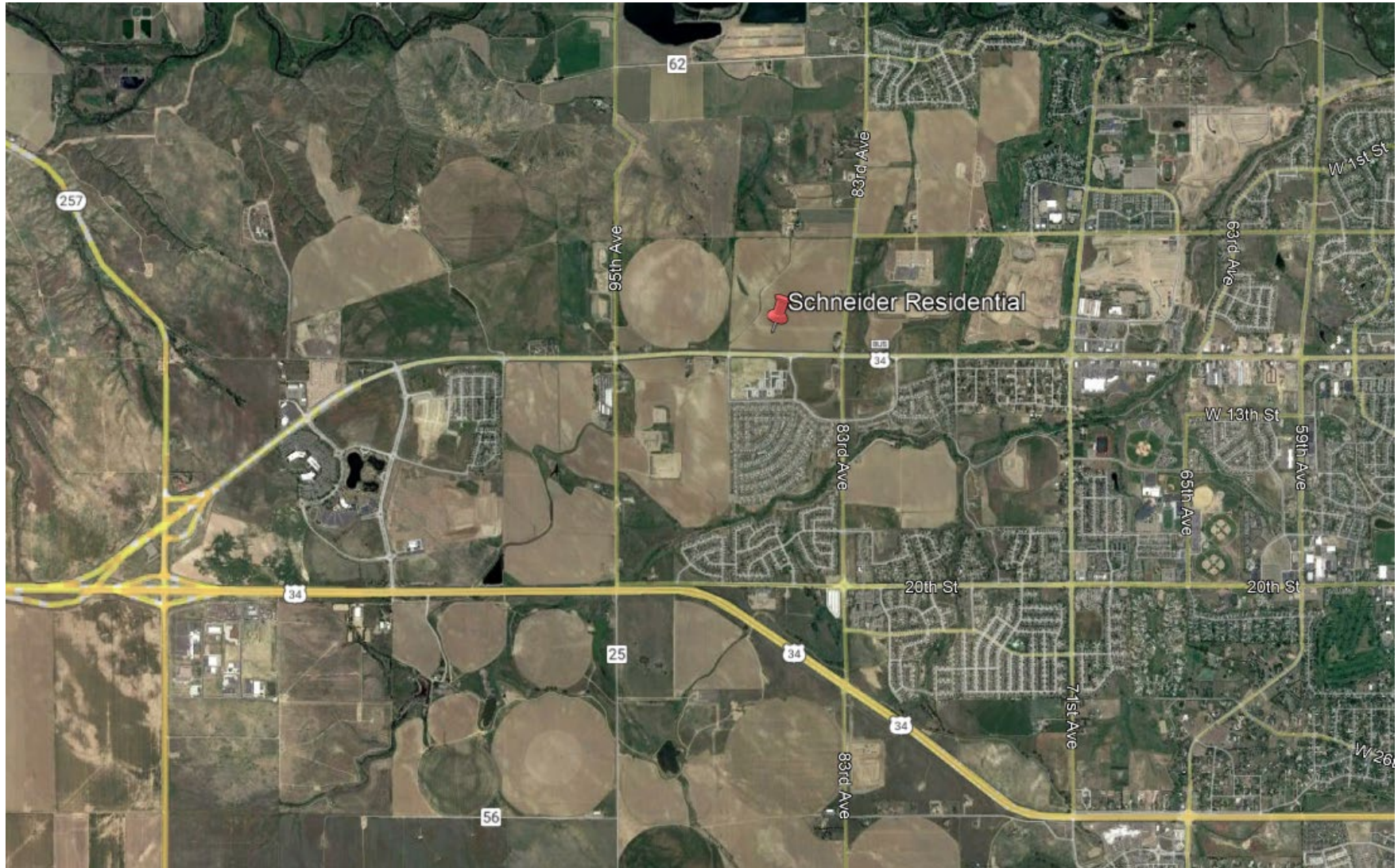


Figure 2: Site Plan



3.0 Proposed Development

The proposed development consists of a mix of: single-family, multi-family, and commercial land uses. See Table 1: Trip Generation and Figure 2: Site Plan

4.1 Trip Generation

Site generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Report* published by the Institute of Transportation Engineers (ITE). ITE has established trip generation rates in nationwide studies of similar land uses. For this study, KE used the *ITE 11th Edition Trip Generation Report* average trip rates. The proposed project is anticipated to generate approximately 20,919 daily weekday trips, 904 AM total peak hour trips, and 1,956 PM total peak hour trips. See Table 1: Trip Generation.

Additionally, the TIS has been updated to include the Cache Development as background traffic.

Table 1: Trip Generation (ITE Trip Generation, 10th Edition)

ITE Code	Land Use	Size	Average Daily Trips		AM Peak Hour Trips						PM Peak Hour Trips					
			Rate	Total	Rate	% In	In	% Out	Out	Total	Rate	% In	In	% Out	Out	Total
210	Single-Family (Detached)	610 DU	9.43	5,752	0.7	26%	111	74%	316	427	0.94	63%	361	37%	212	573
210	Single-Family (Detached)	26 DU	9.43	245	0.7	26%	5	74%	13	18	0.94	63%	15	37%	9	24
221	Multifamily (Mid-Rise)	450 DU	4.54	2,043	0.37	23%	38	77%	129	167	0.39	61%	107	39%	69	176
820	Commercial	348 KSF	37.01	12,879	0.84	62%	181	38%	111	292	3.40	48%	568	52%	615	1,183
Subtotal				20,919			335		569	904			1051		905	1956
Total				20,919			335		569	904			1051		905	1,956

DU = Dwelling Units
KSF = Thousand Square Feet

Figure 3: Recent Peak Hour Traffic

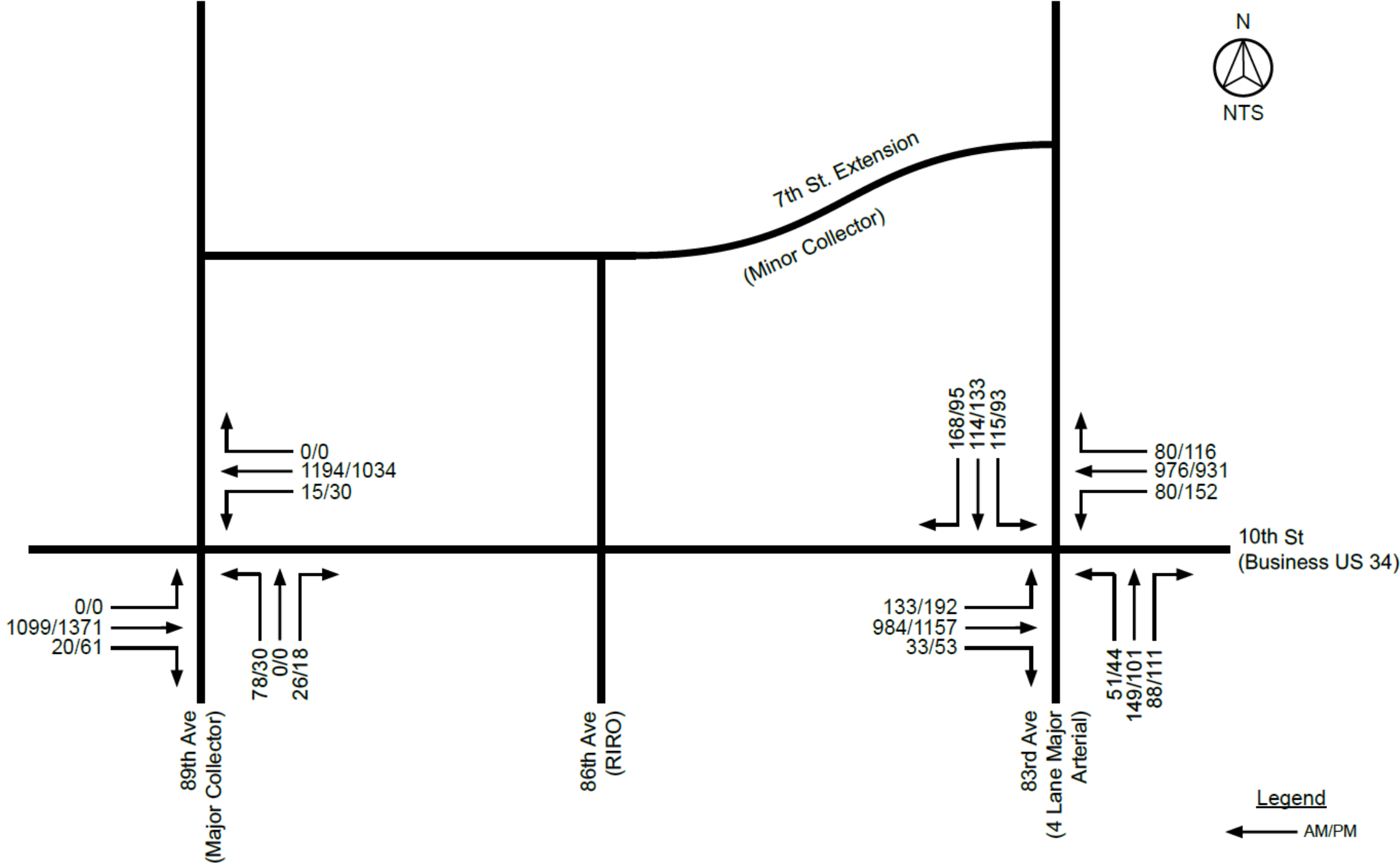


Figure 4: 2025 Background Traffic

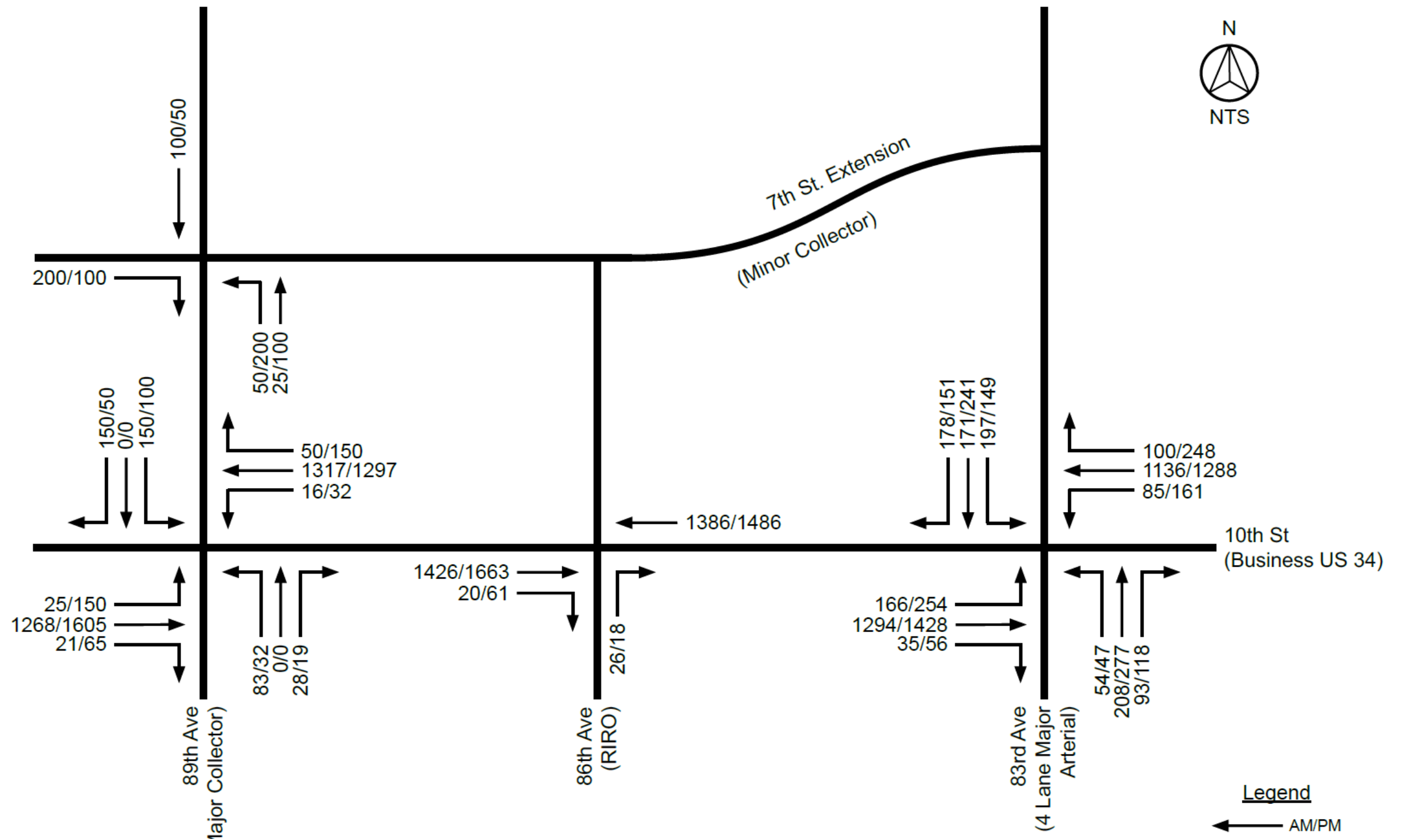


Figure 5: 2040 Background Traffic

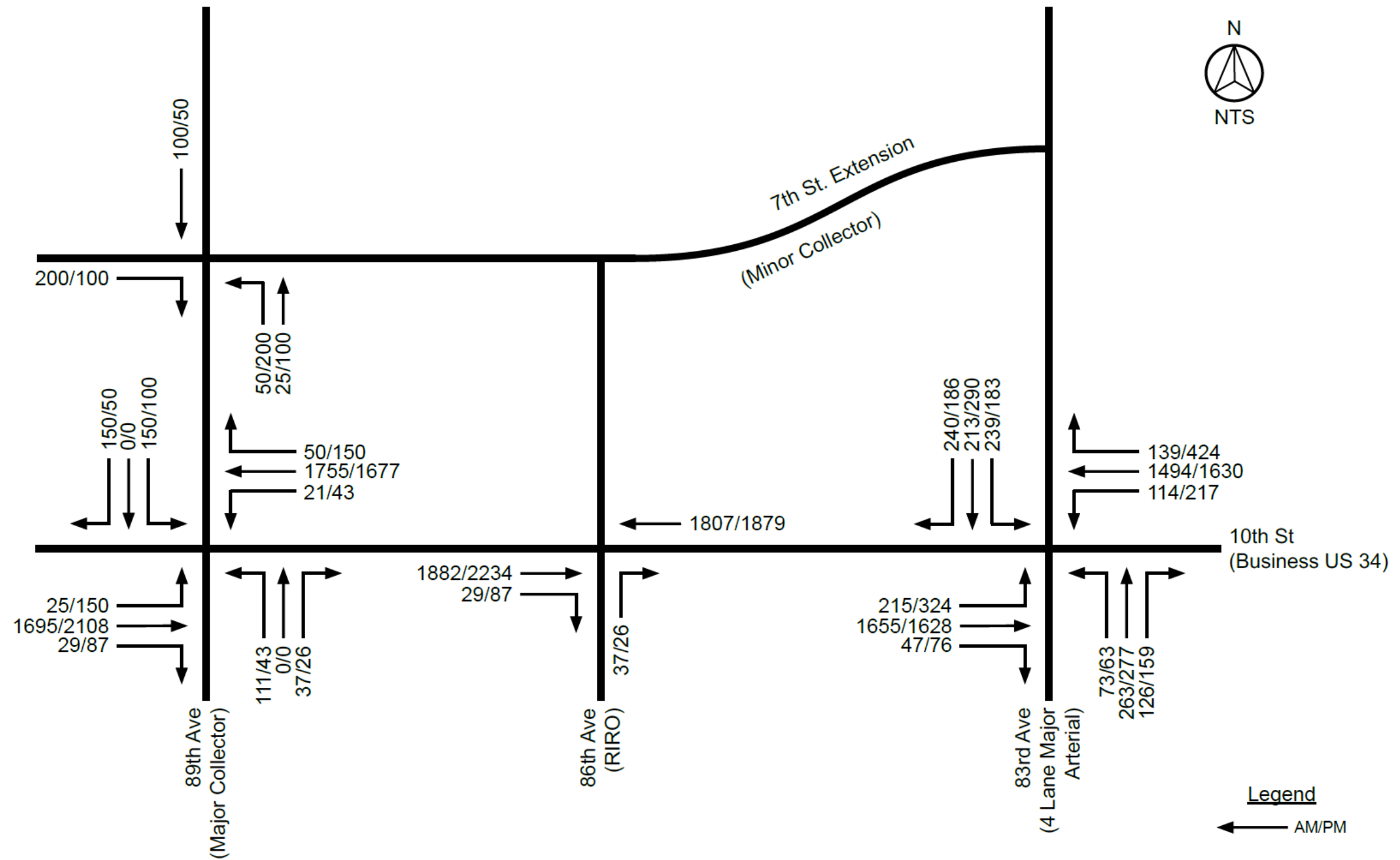


Figure 6: Trip Distribution

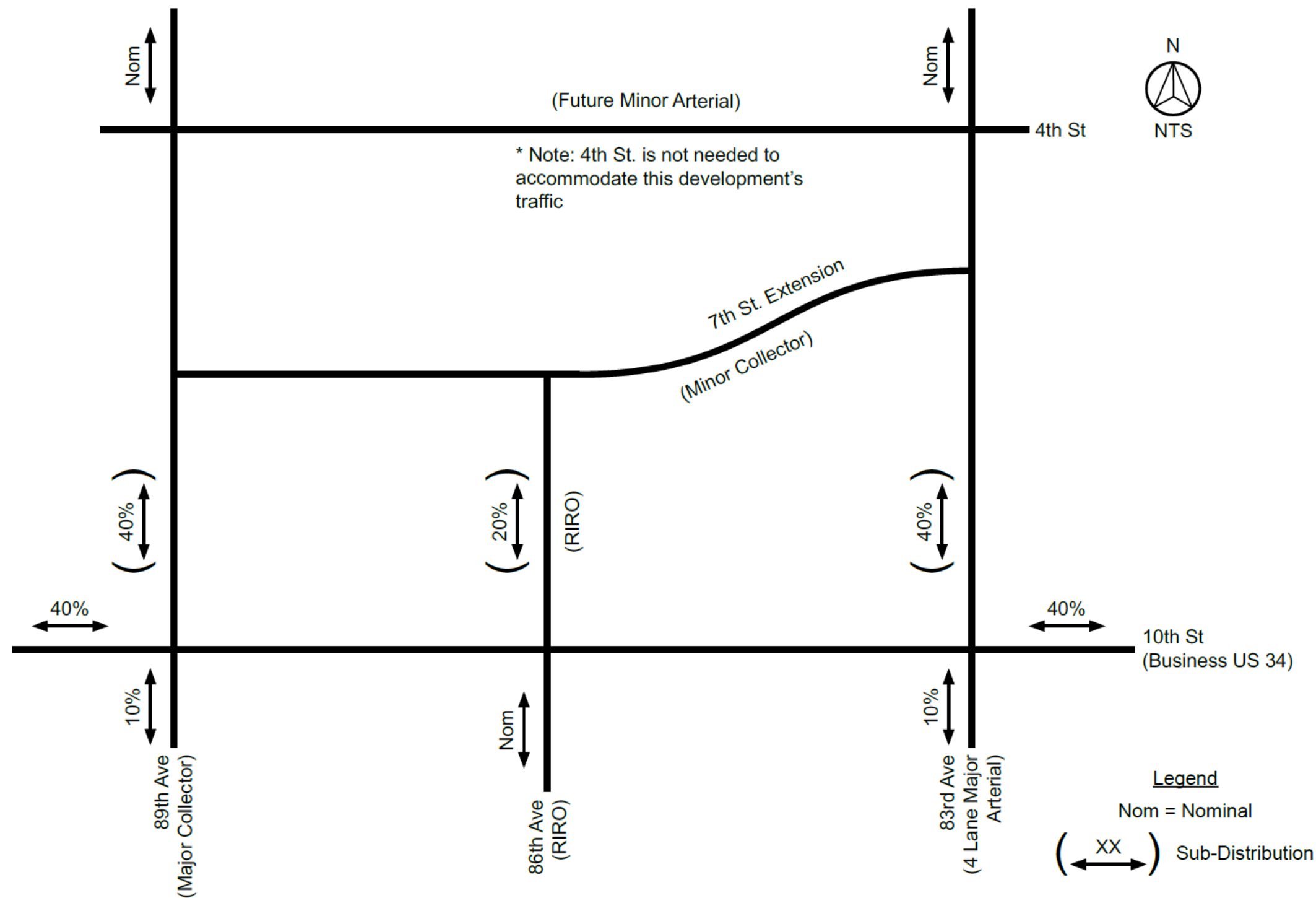


Figure 7: Site Generated Peak Hour Traffic

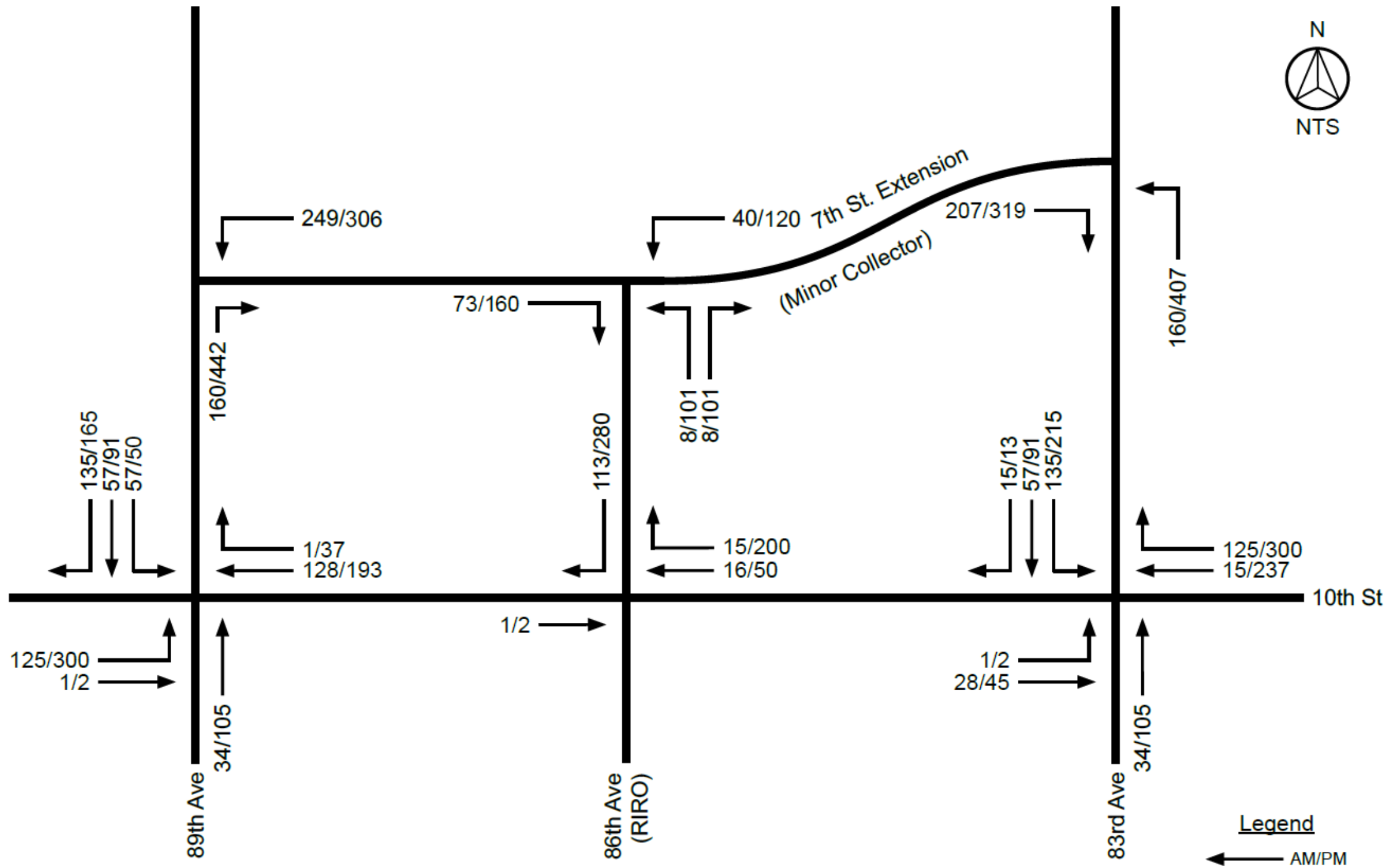


Figure 8: 2025 Short Range Total Traffic

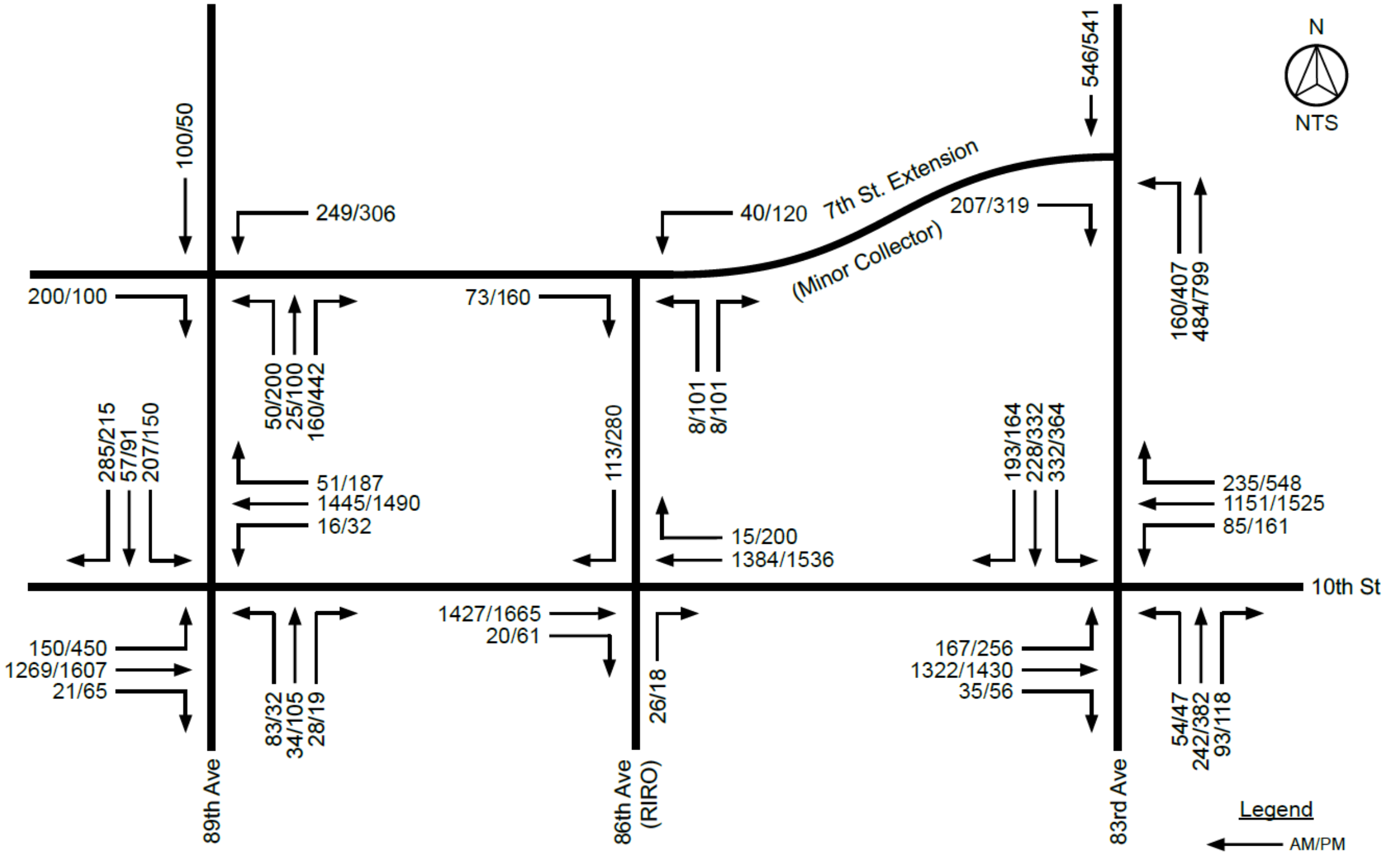


Figure 8: 2025 Short Range Total Traffic (continued...)

2025 Short Total AM Peak Hour

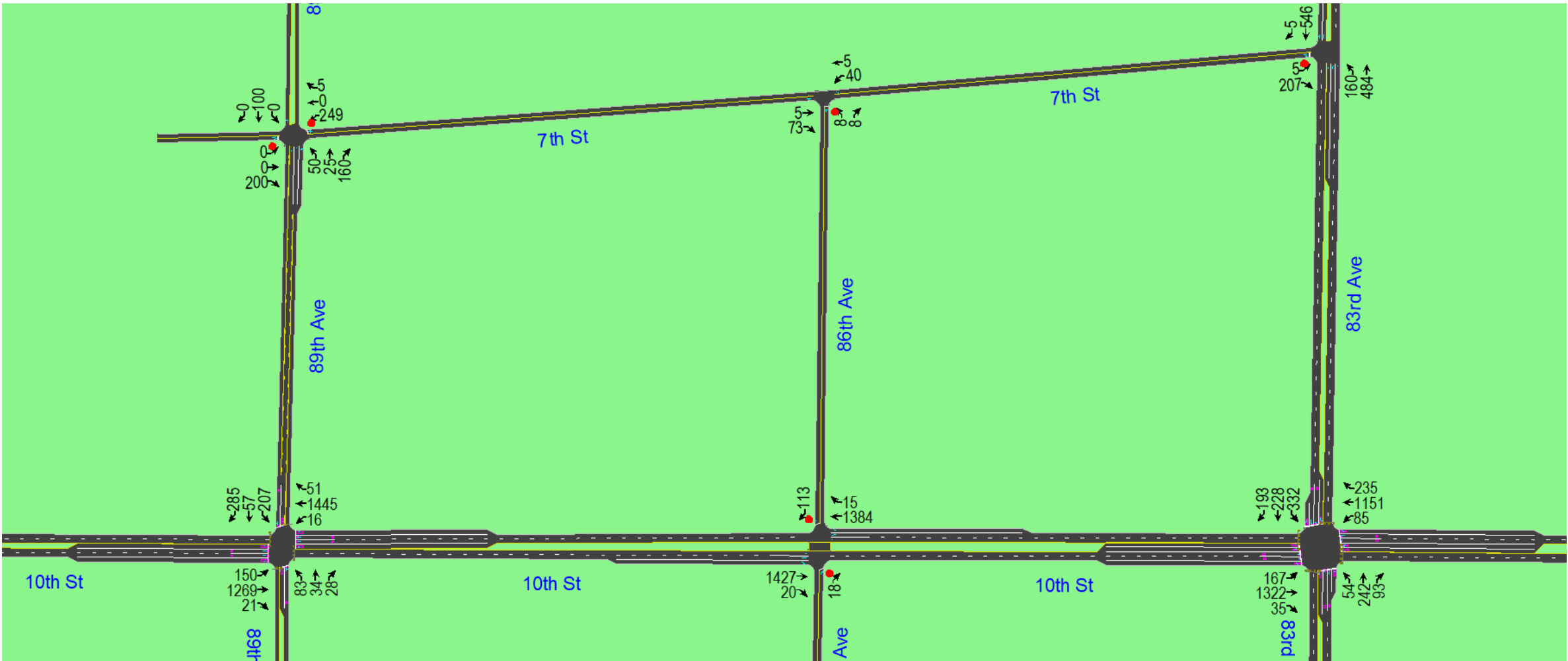


Figure 8: 2025 Short Range Total Traffic (continued...)

2025 Short Total PM Peak Hour



Figure 9: 2040 Long Range Total Traffic

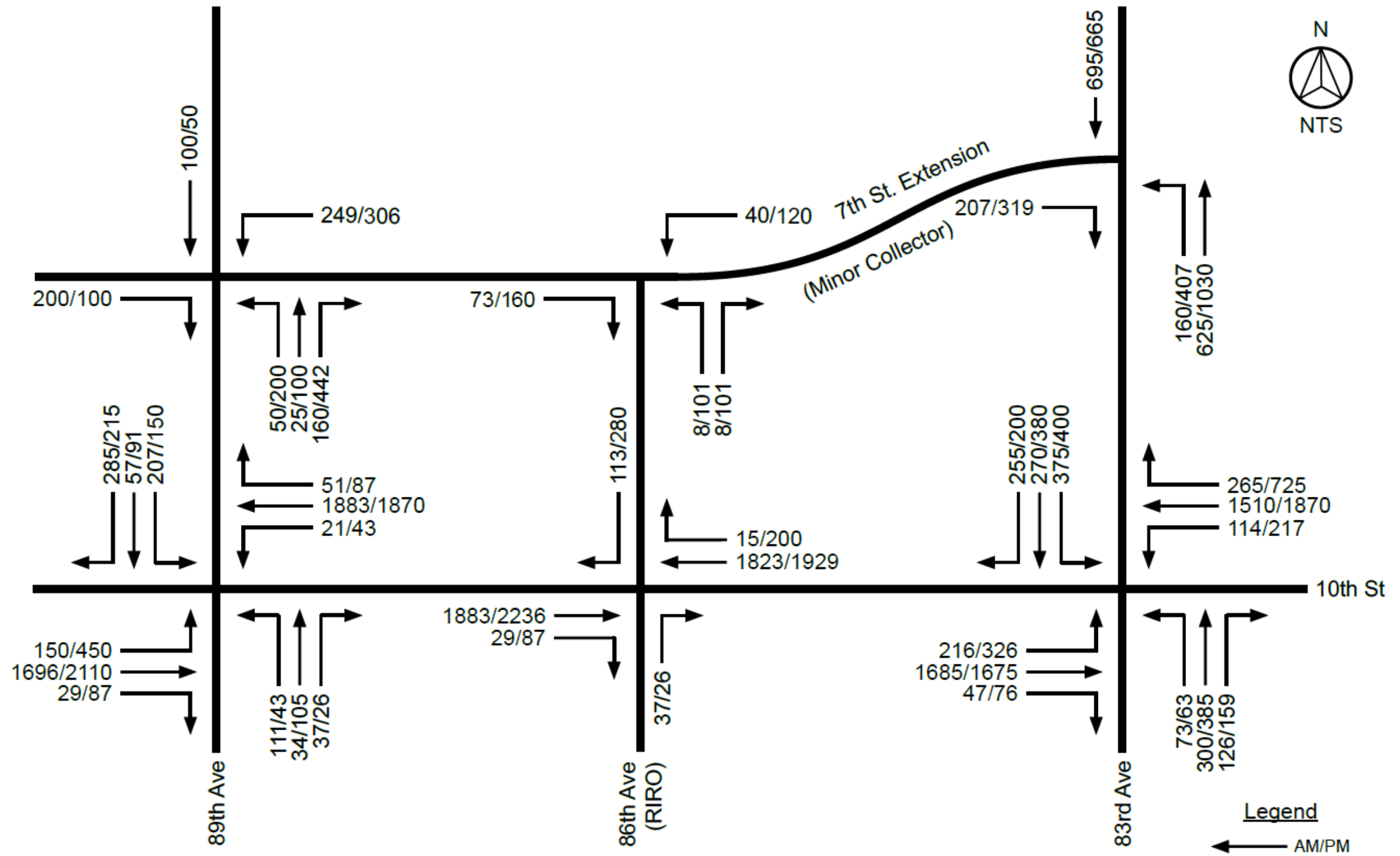


Figure 9: 2040 Long Range Total Traffic (continued...)

2040 Long Total AM Peak Hour

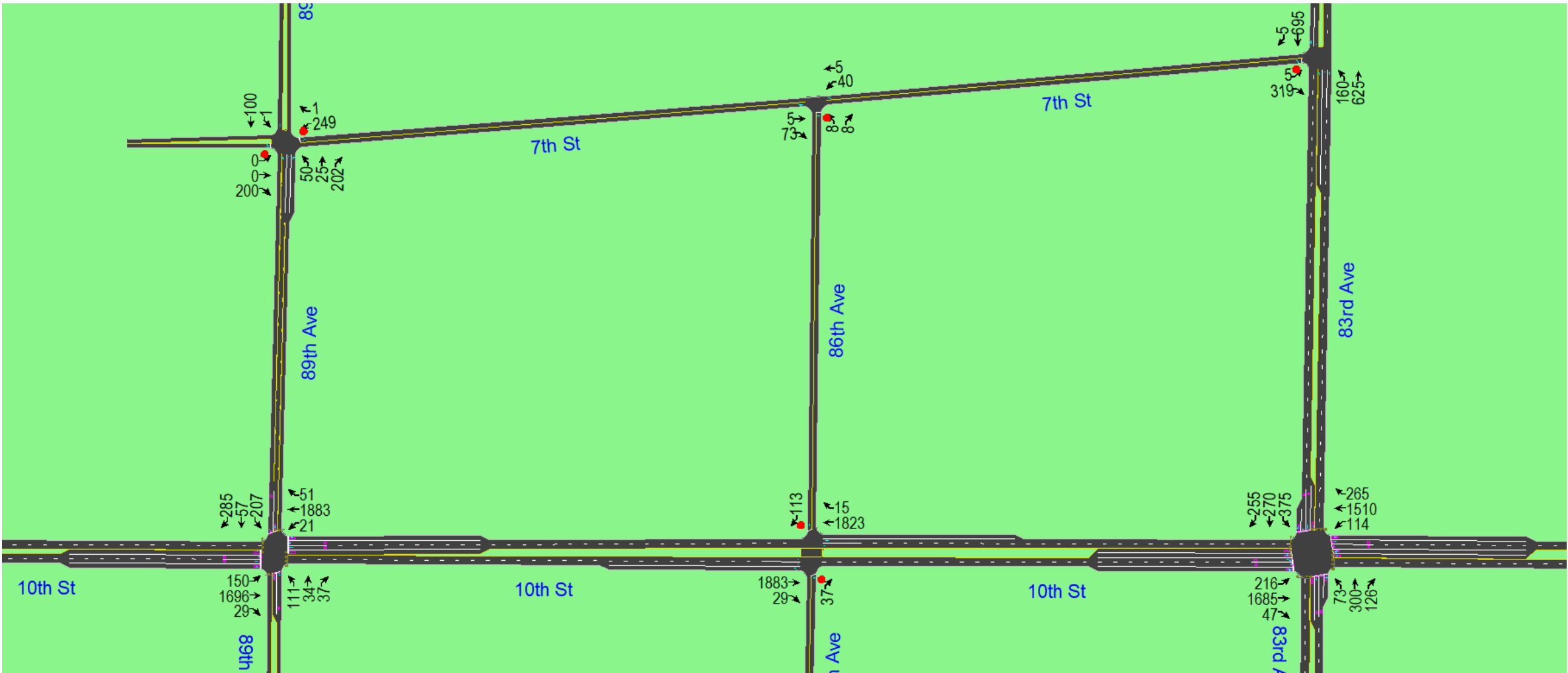
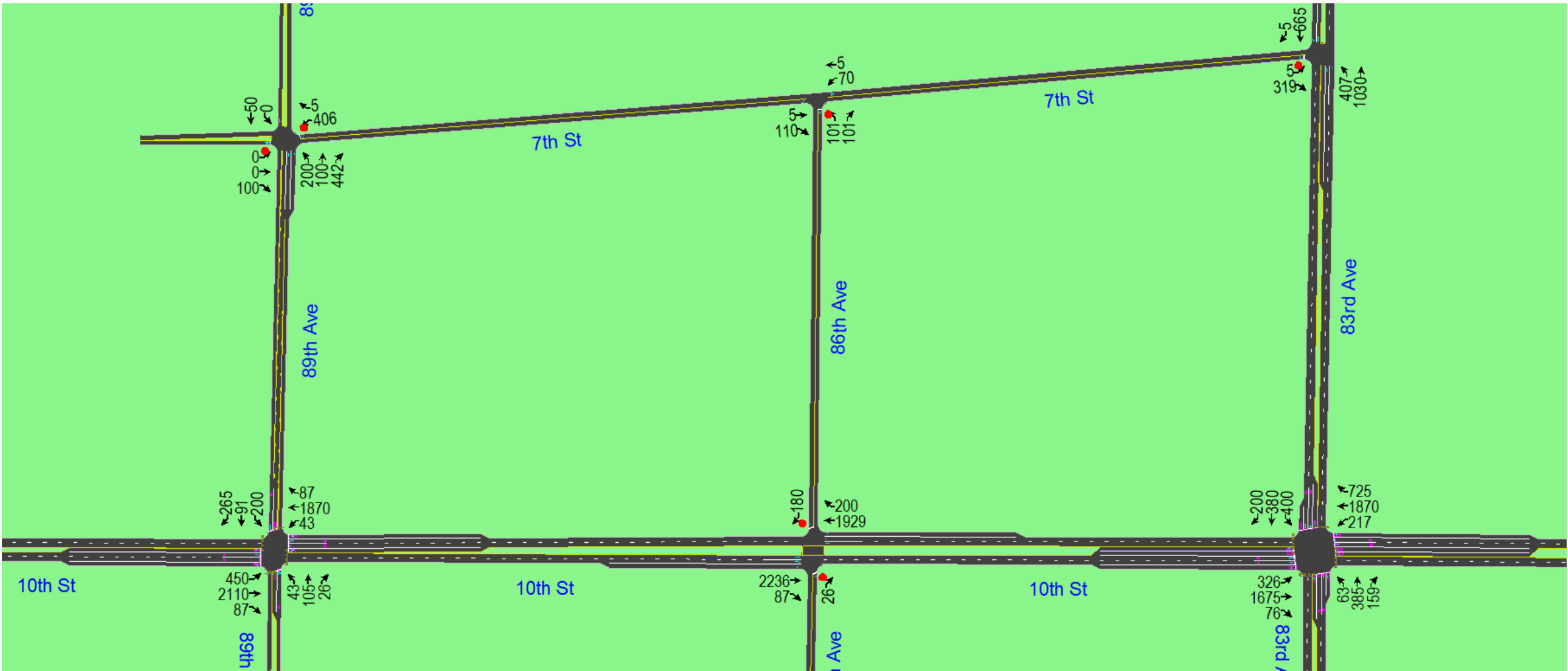


Figure 9: 2040 Long Range Total Traffic (continued...)

2040 Long Total PM Peak Hour



4.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns and volumes, anticipated surrounding development areas, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site generated traffic that approaches the site from a given direction and departs the site back to the original source. Figure 6 illustrates the trip distribution used for the project's analysis.

4.3 Traffic Assignment

Traffic assignment was obtained by applying the trip distributions to the estimated trip generation of the development. Figure 7 shows the site generated traffic assignment for the project.

4.4 Short Range Total Peak Hour Traffic

Site generated peak hour traffic volumes were added to the background traffic volumes to represent the estimated traffic conditions for the short range 2025 horizon. These background (2025) and short range (2025) total traffic volumes are shown in Figures 4 and 8. The short range analysis year 2025 includes the proposed development for this project plus a 2% increase in background traffic per the CDOT Online Transportation Information System (OTIS).

4.5 Long Range Total Peak Hour Traffic

Site generated peak hour traffic volumes were added to the background traffic volumes to represent the estimated traffic conditions for the long range 2040 horizon. These background (2040) and long range (2040) total traffic volumes are shown in Figures 5 and 9. The long range analysis year 2040 includes the proposed development for the project plus project plus a 2% increase in background traffic per the CDOT Online Transportation Information System (OTIS).

5.0 Traffic Operation Analysis

KE's analysis of traffic operations in the site vicinity was conducted to determine the capacity at the identified intersections. The acknowledged source for determining overall capacity is the latest edition of the Highway Capacity Manual (HCM).

5.1 Analysis Methodology

Capacity analysis results are listed in terms of level of service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. LOS ranges from an A (very little delay) to an F (long delays). A description of the level of service (LOS) for signalized and unsignalized intersections from the Highway Capacity Manual (HCM) are provided in Appendix B.

5.2 Intersection Operational Analysis

Operational analysis was performed for the short range 2025 horizon and the long range 2040 horizon. The calculations for this analysis are provided in Appendix F. Using the short range total traffic volumes, the project's study intersections are projected to operate acceptably. See Table 5.

Table 2: Recent Peak Hour Operations

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
83 rd Ave./10 th St. (Traffic Signal)	EB Left	C	C
	EB Thru	C	C
	EB Right	A	A
	EB Approach	C	C
	WB Left	B	C
	WB Thru	C	C
	WB Right	A	A
	WB Approach	C	C
	NB Left	C	C
	NB Thru	C	C
	NB Right	A	A
	NB Approach	C	C
	SB Left	C	C
	SB Thru	C	C
	SB Right	A	A
	SB Approach	B	C
	Overall	C	C

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
89 th Ave./10 th St.			
(Stop Control)	EB Thru	A	A
	EB Right	A	A
	EB Approach	A	A
	WB Left	B	B
	WB Thru	A	A
	WB Approach	A	A
	NB Left	F (362.9 sec)	F (239.8 sec)
	NB Right	B	B
	NB Approach	F (275.6 sec)	F (155.8 sec)

Table 3: 2025 Background Peak Hour Operations

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
83 rd Ave./10 th St. (Traffic Signal)	EB Left	C	C
	EB Thru	C	C
	EB Right	A	A
	EB Approach	C	C
	WB Left	B	C
	WB Thru	C	C
	WB Right	A	A
	WB Approach	C	C
	NB Left	C	C
	NB Thru	D	D
	NB Right	A	A
	NB Approach	C	C
	SB Left	C	C
	SB Thru	C	D
	SB Right	A	A
	SB Approach	B	C
	Overall	C	C

Table 3: 2025 Background Peak Hour Operations (continued...)

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
89 th Ave./10 th St. (With Traffic Signal)	EB Left	B	D
	EB Thru	C	C
	EB Right	A	A
	EB Approach	C	C
	WB Left	B	B
	WB Thru	D	C
	WB Right	A	A
	WB Approach	C	C
	NB Left	C	C
	NB Thru/Right	A	A
	NB Approach	B	B
	SB Left/Thru/Right	C	C
	SB Approach	C	C
	Overall	C	C

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
86 th Ave./10 th St. (Stop Control)	EB Thru	A	A
	EB Right	A	A
	EB Approach	A	A
	WB Thru	A	A
	WB Approach	A	A
	NB Right	C	C
	NB Approach	C	C

Table 4: 2040 Background Peak Hour Operations

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
83 rd Ave./10 th St. (Traffic Signal)	EB Left	E	F (83.8 sec)
	EB Thru	C	D
	EB Right	A	A
	EB Approach	D	D
	WB Left	E	E
	WB Thru	D	E
	WB Right	A	A
	WB Approach	D	D
	NB Left	C	C
	NB Thru	D	D
	NB Right	B	B
	NB Approach	C	C
	SB Left	E	D
	SB Thru	C	D
	SB Right	B	B
	SB Approach	D	C
	Overall	D	D

Table 4: 2040 Background Peak Hour Operations (continued...)

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
89 th Ave./10 th St. (With Traffic Signal)	EB Left	C	F (131.5 sec)
	EB Thru	C	E
	EB Right	A	A
	EB Approach	C	E
	WB Left	B	B
	WB Thru	C	C
	WB Right	A	A
	WB Approach	C	C
	NB Left	C	C
	NB Thru/Right	A	A
	NB Approach	C	C
	SB Left/Thru/Right	F (81.9 sec)	C
	SB Approach	F (81.9 sec)	C
	Overall	C	D

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
86 th Ave./10 th St. (Stop Control)	EB Thru	A	A
	EB Right	A	A
	EB Approach	A	A
	WB Thru	A	A
	WB Approach	A	A
	NB Right	C	D
	NB Approach	C	D

Table 5: 2025 Short Range Total Peak Hour Operations

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
83 rd Ave./10 th St. (Traffic Signal)	EB Left	D	F (95.4 sec)
	EB Thru	C	D
	EB Right	A	A
	EB Approach	D	D
	WB Left	E	F (88.7 sec)
	WB Thru	D	E
	WB Right	A	A
	WB Approach	C	D
	NB Left	C	C
	NB Thru	D	E
	NB Right	A	A
	NB Approach	C	D
	SB Left	D	F (94.9 sec)
	SB Thru	C	D
	SB Right	A	B
	SB Approach	C	E
	Overall	C	D

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
89 th Ave./10 th St. (With Traffic Signal)	EB Left	E	F (101.5 sec)
	EB Thru	C	C
	EB Right	A	A
	EB Approach	C	D
	WB Left	B	B
	WB Thru	D	E
	WB Right	A	A
	WB Approach	C	E
	NB Left	D	D
	NB Thru/Right	C	E
	NB Approach	C	E
	SB Left	C	E
	SB Thru/Right	C	F (82.8 sec)
	SB Approach	C	E
	Overall	C	D

Table 5: 2025 Short Range Total Peak Hour Operations (continued...)

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
86 th Ave./10 th St.			
(Stop Control)	EB Thru	A	A
	EB Right	A	A
	EB Approach	A	A
	WB Thru	A	A
	WB Approach	A	A
	NB Right	C	C
	NB Approach	C	C
	SB Right	B	C
	SB Approach	B	C

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
89 th Ave./7 th St.			
(Stop Control)	WB Left/Right	C	E
	WB Approach	C	E
	NB Thru	A	A
	NB Right	A	A
	NB Approach	A	A
	SB Left/Thru	A	A
	SB Approach	A	A

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
83 rd Ave./7 th St.			
(Stop Control)	EB Left/Right	B	C
	EB Approach	B	C
	NB Left	A	B
	NB Thru	A	A
	NB Approach	A	A
	SB Thru/Right	A	A
	SB Approach	A	A

Table 5: 2025 Short Range Total Peak Hour Operations (continued...)

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
86 th Ave./7 th St. (Stop Control)	EB Thru/Right	A	A
	EB Approach	A	A
	WB Left/Thru	A	A
	WB Approach	A	A
	NB Left/Right	A	B
	NB Approach	A	B

Table 6: 2040 Long Range Total Peak Hour Operations

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
83 rd Ave./10 th St. (Traffic Signal)	EB Left	F (94.7 sec)	F (127.2 sec)
	EB Thru	D	D
	EB Right	A	A
	EB Approach	E	E
	WB Left	F (102.1 sec)	F (113.5 sec)
	WB Thru	D	F (116.1 sec)
	WB Right	A	B
	WB Approach	D	F (90.8 sec)
	NB Left	C	D
	NB Thru	E	E
	NB Right	B	C
	NB Approach	D	E
	SB Left	F (86.4 sec)	F (159.6 sec)
	SB Thru	D	D
	SB Right	C	C
	SB Approach	D	F (88.5 sec)
	Overall	D	E

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
89 th Ave./10 th St. (With Traffic Signal)	EB Left	F (85.4 sec)	F (180.3 sec)
	EB Thru	C	D
	EB Right	A	A
	EB Approach	C	E
	WB Left	A	C
	WB Thru	E	F (126.7 sec)
	WB Right	A	A
	WB Approach	D	F (118.9 sec)
	NB Left	E	E
	NB Thru/Right	C	E
	NB Approach	D	E
	SB Left	D	E
	SB Thru/Right	E	F (84.5 sec)
	SB Approach	E	F (82.6 sec)
	Overall	D	F (89.4 sec)

Table 6: 2040 Long Range Total Peak Hour Operations (continued...)

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
86 th Ave./10 th St.			
(Stop Control)	EB Thru	A	A
	EB Right	A	A
	EB Approach	A	A
	WB Thru	A	A
	WB Approach	A	A
	NB Right	C	D
	NB Approach	C	D
	SB Right	B	B
	SB Approach	B	B

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
89 th Ave./7 th St.			
(Stop Control)	WB Left/Right	C	F (105.3 sec)
	WB Approach	C	F (105.3 sec)
	NB Thru	A	A
	NB Right	A	A
	NB Approach	A	A
	SB Left/Thru	A	A
	SB Approach	A	A

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
83 rd Ave./7 th St.			
(Stop Control)	EB Left/Right	C	E
	EB Approach	C	E
	NB Left	B	B
	NB Thru	A	A
	NB Approach	A	A
	SB Thru/Right	A	A
	SB Approach	A	A

Table 6: 2040 Long Range Total Peak Hour Operations (continued...)

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
86 th Ave./7 th St. (Stop Control)	EB Thru/Right	A	A
	EB Approach	A	A
	WB Left/Thru	A	A
	WB Approach	A	A
	NB Left/Right	A	B
	NB Approach	A	B

6.0 Findings:

Based upon the analysis in this study, the proposed Schneider Farms project at the northeast quadrant of 89th Avenue and 10th Street will be able to successfully meet the City of Greeley's requirements for traffic with the below improvements.

The findings of the TIS are summarized below:

- The proposed project is anticipated to generate approximately 20,919 daily weekday trips, 904 AM total peak hour trips, and 1,956 PM total peak hour trips.
- 4th Street is not needed to accommodate this development's traffic and this project can proceed with or without the construction of 4th Street.
- The intersection of 7th Street and 83rd Avenue is projected to operate at acceptable levels-of service (LOS) with stop-control for the minor street approach in the short range future.
- The existing roadways are sufficient to handle the proposed project's traffic (full development of the proposed project's traffic plus background traffic) for the Short Range Total future with the following improvements:
 - Westbound right-turn deceleration lane at the 89th Avenue and 10th Street intersection with 500' of min. storage length and a 222' min. bay taper.
 - Westbound acceleration lane at the 89th Avenue and 10th Street intersection with an acceleration length of 960' min. and a 222' min. taper.
 - The intersection of 86th Avenue and 10th Street should be turn-restricted to right-in/right-out (RIRO) only.
 - Westbound right-turn deceleration lane at 86th Avenue and 10th Street with 500' of min. storage length and a 222' min. bay taper.
 - Westbound acceleration lane at the 86th Avenue and 10th Street intersection with an acceleration length of 960' min.
 - The westbound acceleration lane at 86th Avenue and 10th Street can be combined with the westbound right-turn deceleration lane at 89th Avenue and 10th Street to remove the transition tapers with a continuous full-width acceleration/deceleration lane between 89th Avenue and 86th Avenue along the north side of 10th Street.
 - Additionally, the existing westbound acceleration lane at 83rd Avenue and 10th Street can be combined with the westbound right-turn deceleration lane at 86th Avenue and 10th Street to remove the transition tapers with a continuous full-width acceleration/deceleration lane between 86th Avenue and 83rd Avenue

along the north side of 10th Street.

- Dual eastbound left-turn lanes at the 83rd Avenue and 10th Street intersection with 500' min. of storage length per lane and a 222' min. transition taper.
- Northbound left-turn lane at the 7th Street and 83rd Avenue intersection with 300' of min. storage length and a 160' min. bay taper.
- Northbound right-turn lane at the 7th Street and 89th Avenue intersection with 150' of min. storage length and a 100' min. bay taper.
- The intersection of 89th Avenue and 10th Street is already experiencing delays for the northbound approach based upon the recent traffic counts. These level of service (LOS) delays will increase as background traffic increases. A traffic signal is projected to be warranted upon full project build-out in the future at the intersection of 89th Avenue and 10th Street. The justification for installation of a traffic signal at an intersection is based upon the warrants set forth in Chapter 4 of the MUTCD. The decision to install a traffic signal should be based upon actual traffic counts as traffic projections may not occur until the project is actually built-out later in the future. As such, the timing of the installation of this traffic signal should be based upon the City's jurisdictional authority. Due to the size of this project it will likely develop in phases. It is therefore recommended that future phases of this project submit traffic memos with recent traffic counts and a traffic signal warrant analysis based upon actual traffic counts to determine when this traffic signal meets MUTCD warrants in the future. Additionally, the traffic from the Cache Development has been added as background traffic to this study. As such, traffic projections are intentionally conservatively high. It is recommended that future adjacent developments be responsible for a proportionate share contribution towards the installation of this future traffic signal as determined appropriate by the City. This contribution could be based upon a % traffic = site generated traffic/long range background traffic at the intersection.
- The intersections of 89th Avenue/10th Street and 83rd Avenue/10th Street are projected to experience levels of service (LOS) delays upon full build-out of the Cache Development project + full build-out of the Schneider Development project. Both projects are very large projects that will not develop all at once and will likely develop in phases; as these projects will likely take a long time to reach full build-out. The background traffic may also not build-out completely before the Schneider Development project begins. It is therefore recommended to take a phased approach with future traffic studies. Future traffic memos with recent traffic counts for future phases for both of these developments is therefore recommended at the time of actual development.

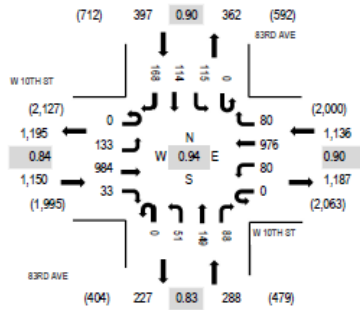
APPENDICES:

Appendix A: Traffic Counts



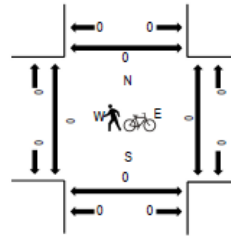
Location: 1 83RD AVE & W 10TH ST AM
 Date: Wednesday, August 31, 2022
 Peak Hour: 07:15 AM - 08:15 AM
 Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

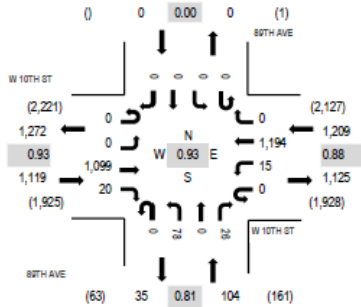
Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

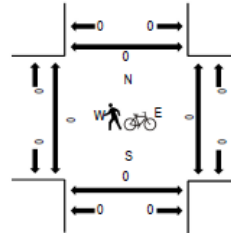
Interval Start Time	W 10TH ST Eastbound				W 10TH ST Westbound				83RD AVE Northbound				83RD AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	18	235	6	0	13	217	11	0	11	17	11	0	24	21	44	628	2,943	0	0	0	0
7:15 AM	0	35	228	4	0	13	281	23	0	20	31	23	0	26	27	49	760	2,971	0	0	0	0
7:30 AM	0	41	296	6	0	13	243	19	0	12	44	21	0	18	25	52	790	2,780	0	0	0	0
7:45 AM	0	34	243	11	0	30	229	21	0	12	41	34	0	44	24	42	765	2,536	0	0	0	0
8:00 AM	0	23	217	12	0	24	223	17	0	7	33	10	0	27	38	25	656	2,243	0	0	0	0
8:15 AM	0	23	167	4	0	25	193	15	0	10	34	7	0	24	28	39	569		0	0	0	0
8:30 AM	0	17	189	3	0	11	194	12	0	10	25	17	0	16	17	35	546		0	0	0	0
8:45 AM	0	19	157	7	0	20	143	10	0	6	29	14	0	15	22	30	472		0	0	0	0
Count Total	0	210	1,732	53	0	149	1,723	128	0	88	254	137	0	194	202	316	5,186		0	0	0	0
Peak Hour	0	133	984	33	0	80	976	80	0	51	149	88	0	115	114	168	2,971		0	0	0	0

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

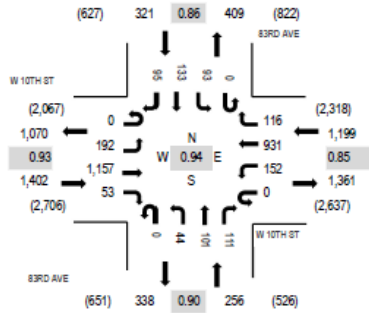
Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

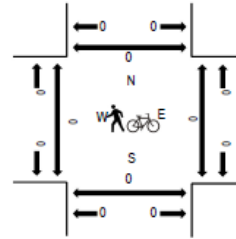
Interval Start Time	W 10TH ST Eastbound				W 10TH ST Westbound				89TH AVE Northbound				89TH AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	240	5	0	3	273	0	0	20	0	8	0	0	0	0	549	2,432	0	0	0	0
7:15 AM	0	0	289	5	0	4	315	0	0	24	0	2	0	0	0	0	639	2,383	0	0	0	0
7:30 AM	0	0	275	4	0	3	339	0	0	23	0	9	0	0	0	0	653	2,204	0	0	0	0
7:45 AM	0	0	295	6	0	5	267	0	0	11	0	7	0	0	0	0	591	2,000	0	0	0	0
8:00 AM	0	0	222	9	0	0	254	0	0	12	0	3	0	0	0	0	500	1,781	0	0	0	0
8:15 AM	0	0	199	4	0	5	234	1	0	9	0	8	0	0	0	0	460		0	0	0	0
8:30 AM	0	0	186	2	0	3	245	0	0	11	0	2	0	0	0	0	449		0	0	0	0
8:45 AM	0	0	180	4	0	1	175	0	0	9	0	3	0	0	0	0	372		0	0	0	0
Count Total	0	0	1,886	39	0	24	2,102	1	0	119	0	42	0	0	0	0	4,213		0	0	0	0
Peak Hour	0	0	1,099	20	0	15	1,194	0	0	78	0	26	0	0	0	0	2,432		0	0	0	0

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

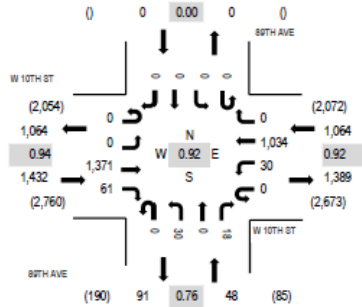
Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

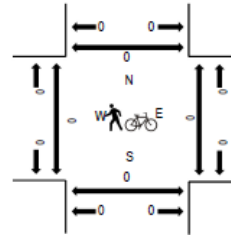
Interval Start Time	W 10TH ST Eastbound				W 10TH ST Westbound				83RD AVE Northbound				83RD AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	41	282	7	0	45	228	27	0	9	33	22	0	21	39	18	772	3,040	0	0	0	0
4:15 PM	0	43	271	14	0	33	219	19	0	9	40	22	0	28	44	28	770	3,104	0	0	0	0
4:30 PM	0	38	306	14	0	33	232	34	0	9	20	31	0	32	33	24	806	3,178	0	0	0	0
4:45 PM	0	58	248	10	0	28	185	21	0	12	29	23	0	20	30	28	692	3,076	0	0	0	0
5:00 PM	0	52	311	15	0	36	246	28	0	14	32	26	0	23	33	20	836	3,137	0	0	0	0
5:15 PM	0	44	292	14	0	55	268	33	0	9	20	31	0	18	37	23	844		0	0	0	0
5:30 PM	0	29	250	14	0	29	211	31	0	9	41	25	0	20	20	25	704		0	0	0	0
5:45 PM	0	49	297	7	0	31	220	26	0	4	34	22	0	16	30	17	753		0	0	0	0
Count Total	0	354	2,257	95	0	290	1,809	219	0	75	249	202	0	178	266	183	6,177		0	0	0	0
Peak Hour	0	192	1,157	53	0	152	931	116	0	44	101	111	0	93	133	95	3,178		0	0	0	0

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	W 10TH ST Eastbound				W 10TH ST Westbound				89TH AVE Northbound				89TH AVE 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	334	15	0	9	230	0	0	7	0	4	0	0	0	0	599	2,407	0	0	0	0
4:15 PM	0	0	312	16	0	12	264	0	0	2	0	4	0	0	0	0	610	2,499	0	0	0	0
4:30 PM	0	0	364	11	0	6	263	0	0	6	0	2	0	0	0	0	652	2,544	0	0	0	0
4:45 PM	0	0	313	13	0	5	203	0	0	10	0	2	0	0	0	0	546	2,456	0	0	0	0
5:00 PM	0	0	363	19	0	8	284	0	0	11	0	6	0	0	0	0	691	2,510	0	0	0	0
5:15 PM	0	0	331	18	0	11	284	0	0	3	0	8	0	0	0	0	655		0	0	0	0
5:30 PM	0	0	304	18	0	9	221	0	0	9	0	3	0	0	0	0	564		0	0	0	0
5:45 PM	0	0	320	9	0	11	252	0	0	5	0	3	0	0	0	0	600		0	0	0	0
Count Total	0	0	2,641	119	0	71	2,001	0	0	53	0	32	0	0	0	0	4,917		0	0	0	0
Peak Hour	0	0	1,371	61	0	30	1,034	0	0	30	0	18	0	0	0	0	2,544		0	0	0	0

Appendix B: Level of Service (LOS) Table

Level of Service Definitions

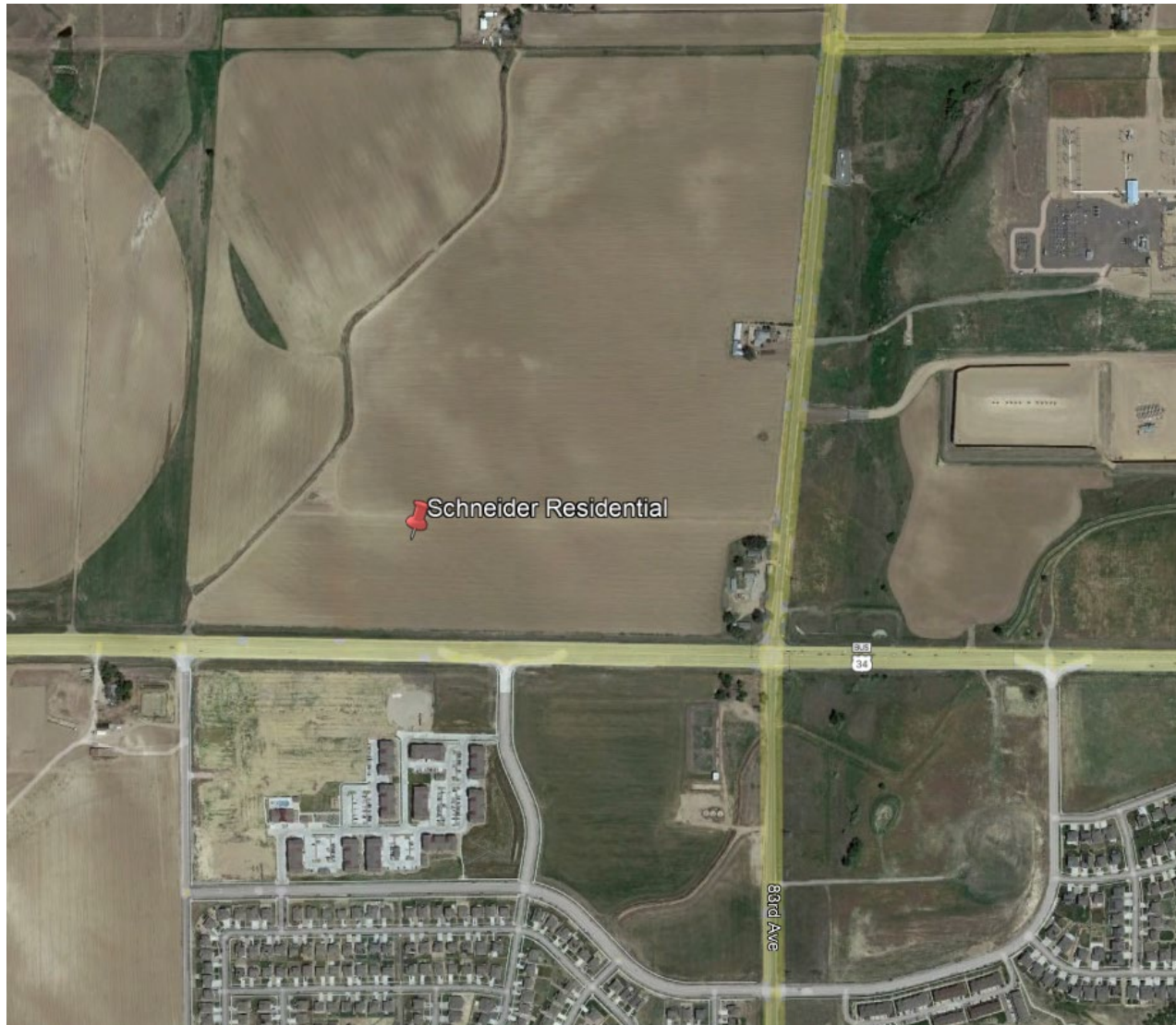
Level of Service	Signalized Intersection	Unsignalized Intersection
(LOS)	Average Total Delay	Average Total Delay
	(sec/veh)	(sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

City of Greeley Acceptable Level of Service Table:

Table 4. Acceptable Level of Service Standards

Intersection Component	Major Intersection ¹	Minor Intersection ²
Overall (City Limits)	LOS C	LOS C
Overall (LREGA) ³	LOS D	LOS C
Any Leg	LOS D	LOS E
Any Movement	LOS E	LOS F
¹ Includes all signalized and unsignalized arterial/arterial and arterial/major collector intersections. ² Includes all unsignalized intersections and high volume driveways. ³ Long Range Expected Growth Area *On State and US Highways overall LOS D is acceptable.		

Appendix C: Aerial Image



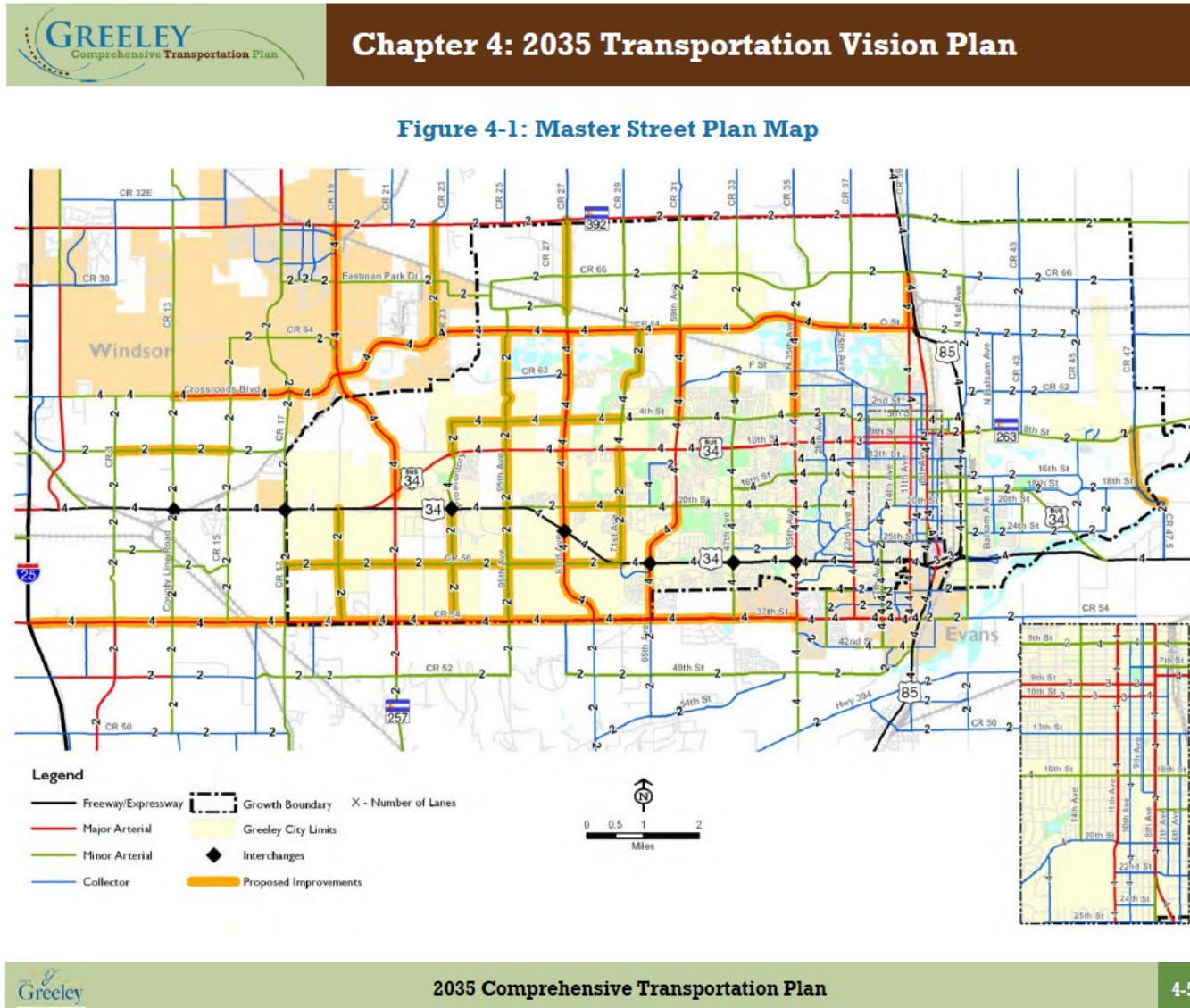
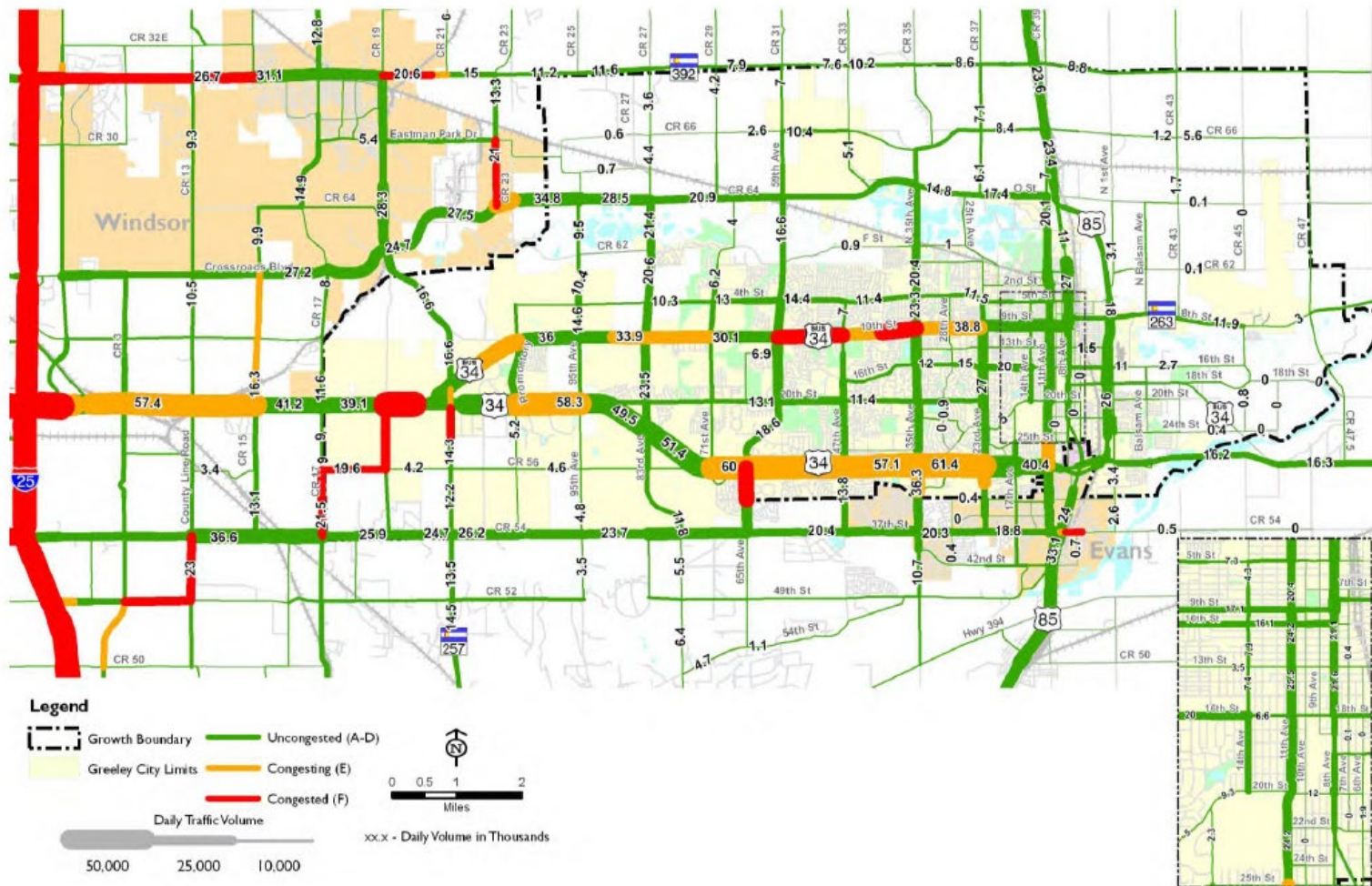


Figure 4-3: 2035 Forecast Daily Traffic Volumes



Appendix E: Traffic Signal Warrants

Summary of Warrants			
Spot Number:			
Major Street:	10th Street	Minor Street:	89th Ave
Intersection:	10th Street at 89th Ave		
City/Twp:	Greeley		
Date Performed:	9/15/2022	Performed By:	Sean Kellar, PE
Date Volumes Collected:	8/31/2022		
Warrant	Condition	Is Warrant Met	
Data Validation Error		NO	
WARRANT 1: Eight-Hour Vehicular Volume		NO	
	Condition A	NO	
	Condition B	NO	
	Condition A&B	N/A	
WARRANT 2: Four-Hour Vehicular Volume	(70%)	NO	
WARRANT 3: Peak-Hour Vehicular Volume	(70%)	YES	
	Condition A	NO	
	Condition B	YES	
WARRANT 4: Pedestrian Volume	(70%)	NO	
	Four Hour	N/A	
	Peak Hour	N/A	
	(Threshold)	HAWK	
	(Threshold)	RRFB	
WARRANT 5: School Crossing		NO	
WARRANT 6: Coordinated Signal System		NO	
WARRANT 7: Crash Experience		NO	
	Condition A	NO	
	Condition B	NO	
WARRANT 8: Roadway Network		NO	
WARRANT 9: Intersection Near a Grade Crossing		#N/A	
Issue to Be Addressed by Signalization:			

2025 Total Traffic Condition - Peak Hour Signal Warrant (Warranted):

Manual of Uniform Traffic Control Devices Worksheet for Signal Warrants (Section 4C) WARRANT 3 B(70%): Peak-Hour Vehicular Volume			
Spot Number:	0		
Intersection:	10th Street @ 89th Ave		
Date	9/15/2022	by	Sean Kellar, PE
3	: No. of Lanes on Major St.		
2	: No. of Lanes on Minor St.		
65	: Speed limit or 85th Percentile? (MPH)		
YES	: Is the intersection within an Isolated community?		
110000	: What is the population of the isolated community?		
How Many Hours Are Met			1
Is Warrant (70%) Met?			YES

10th Street and 89th Avenue

PM Peak Hour Coordinates: 3,831, 456

Signal Warranted for 2025 Short Range Total PM Peak Hour Traffic Condition

Appendix F: HCM Calculations (Synchro)

Recent AM Peak Hour
6: 83rd Ave & 10th St

Kellar Engineering LLC
09/15/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	984	33	80	976	80	51	149	88	115	114	168
Future Volume (vph)	133	984	33	80	976	80	51	149	88	115	114	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	110		50	110		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.095			0.145			0.677			0.520		
Satd. Flow (perm)	177	3539	1583	270	3539	1583	1261	1863	1583	969	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			115			164			164			183
Link Speed (mph)		65			65			40			40	
Link Distance (ft)		2708			1445			509			644	
Travel Time (s)		28.4			15.2			8.7			11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	145	1070	36	87	1061	87	55	162	96	125	124	183
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	1070	36	87	1061	87	55	162	96	125	124	183
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	16.4	51.2	51.2	11.2	46.0	46.0	9.6	25.6	25.6	12.0	28.0	28.0
Total Split (%)	16.4%	51.2%	51.2%	11.2%	46.0%	46.0%	9.6%	25.6%	25.6%	12.0%	28.0%	28.0%
Maximum Green (s)	11.9	46.7	46.7	6.7	41.5	41.5	5.1	21.1	21.1	7.5	23.5	23.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	50.5	42.2	42.2	43.2	36.7	36.7	33.2	27.0	27.0	38.2	31.1	31.1
Actuated g/C Ratio	0.50	0.42	0.42	0.43	0.37	0.37	0.33	0.27	0.27	0.38	0.31	0.31
v/c Ratio	0.58	0.72	0.05	0.40	0.82	0.13	0.12	0.32	0.18	0.29	0.21	0.30
Control Delay	24.8	26.9	0.1	17.5	34.2	0.4	22.4	33.8	1.2	23.6	30.2	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	26.9	0.1	17.5	34.2	0.4	22.4	33.8	1.2	23.6	30.2	6.2
LOS	C	C	A	B	C	A	C	C	A	C	C	A
Approach Delay		25.9			30.6			21.8			18.1	
Approach LOS		C			C			C			B	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 26.3

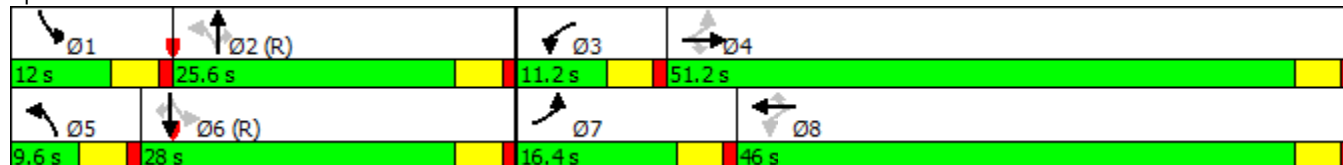
Intersection LOS: C

Intersection Capacity Utilization 63.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: 83rd Ave & 10th St



Intersection						
Int Delay, s/veh	11.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	1099	20	15	1194	78	26
Future Vol, veh/h	1099	20	15	1194	78	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	500	500	-	100	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1195	22	16	1298	85	28

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1217
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	569
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	569
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	275.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	61	445	-	-	569	-
HCM Lane V/C Ratio	1.39	0.064	-	-	0.029	-
HCM Control Delay (s)	\$ 362.9	13.6	-	-	11.5	-
HCM Lane LOS	F	B	-	-	B	-
HCM 95th %tile Q(veh)	7.3	0.2	-	-	0.1	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Recent PM Peak Hour
6: 83rd Ave & 10th St

Kellar Engineering LLC
09/15/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	192	1157	53	152	931	116	44	101	111	93	133	95
Future Volume (vph)	192	1157	53	152	931	116	44	101	111	93	133	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	110		50	110		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.129			0.101			0.665			0.628		
Satd. Flow (perm)	240	3539	1583	188	3539	1583	1239	1863	1583	1170	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			115			126			121			115
Link Speed (mph)		65			65			40			40	
Link Distance (ft)		2708			1445			509			644	
Travel Time (s)		28.4			15.2			8.7			11.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	209	1258	58	165	1012	126	48	110	121	101	145	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	209	1258	58	165	1012	126	48	110	121	101	145	103
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	20.0	49.0	49.0	16.0	45.0	45.0	9.6	25.0	25.0	10.0	25.4	25.4
Total Split (%)	20.0%	49.0%	49.0%	16.0%	45.0%	45.0%	9.6%	25.0%	25.0%	10.0%	25.4%	25.4%
Maximum Green (s)	15.5	44.5	44.5	11.5	40.5	40.5	5.1	20.5	20.5	5.5	20.9	20.9
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	53.3	41.6	41.6	49.9	39.8	39.8	30.6	25.9	25.9	32.5	28.7	28.7
Actuated g/C Ratio	0.53	0.42	0.42	0.50	0.40	0.40	0.31	0.26	0.26	0.32	0.29	0.29
v/c Ratio	0.68	0.86	0.08	0.65	0.72	0.18	0.12	0.23	0.24	0.24	0.27	0.19
Control Delay	25.6	33.0	0.3	29.9	28.5	4.1	25.1	34.0	7.7	26.5	32.8	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	33.0	0.3	29.9	28.5	4.1	25.1	34.0	7.7	26.5	32.8	6.2
LOS	C	C	A	C	C	A	C	C	A	C	C	A
Approach Delay		30.7			26.4			21.1			23.1	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 27.5

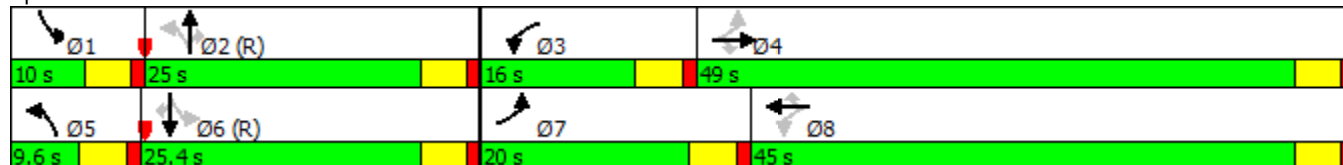
Intersection LOS: C

Intersection Capacity Utilization 66.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: 83rd Ave & 10th St



Intersection

Int Delay, s/veh 3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	1371	61	30	1034	30	18
Future Vol, veh/h	1371	61	30	1034	30	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	500	500	-	100	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1490	66	33	1124	33	20

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1556
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	421
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	421
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	155.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	40	357	-	-	421	-
HCM Lane V/C Ratio	0.815	0.055	-	-	0.077	-
HCM Control Delay (s)	239.8	15.7	-	-	14.3	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	3.1	0.2	-	-	0.3	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	166	1294	35	85	1136	100	54	208	93	197	171	178
Future Volume (vph)	166	1294	35	85	1136	100	54	208	93	197	171	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	110		50	110		50
Storage Lanes	2		1	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.637			0.484		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1187	3539	1583	902	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			164			164			189
Link Speed (mph)		65			65			40			40	
Link Distance (ft)		1306			1445			509			644	
Travel Time (s)		13.7			15.2			8.7			11.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	177	1377	37	90	1209	106	57	221	99	210	182	189
Shared Lane Traffic (%)												
Lane Group Flow (vph)	177	1377	37	90	1209	106	57	221	99	210	182	189
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8	2		2	6		6

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	13.0	51.0	51.0	10.0	48.0	48.0	9.6	24.0	24.0	15.0	29.4	29.4
Total Split (%)	13.0%	51.0%	51.0%	10.0%	48.0%	48.0%	9.6%	24.0%	24.0%	15.0%	29.4%	29.4%
Maximum Green (s)	8.5	46.5	46.5	5.5	43.5	43.5	5.1	19.5	19.5	10.5	24.9	24.9
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	8.3	45.9	45.9	5.5	41.1	41.1	27.7	22.2	22.2	37.1	29.1	29.1
Actuated g/C Ratio	0.08	0.46	0.46	0.06	0.41	0.41	0.28	0.22	0.22	0.37	0.29	0.29
v/c Ratio	0.62	0.85	0.05	0.48	0.83	0.14	0.16	0.28	0.21	0.49	0.18	0.32
Control Delay	51.4	31.9	0.1	54.7	32.0	1.0	23.8	34.7	1.8	28.1	29.1	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	31.9	0.1	54.7	32.0	1.0	23.8	34.7	1.8	28.1	29.1	6.1
LOS	D	C	A	D	C	A	C	C	A	C	C	A
Approach Delay		33.4			31.1			24.4			21.3	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 29.9

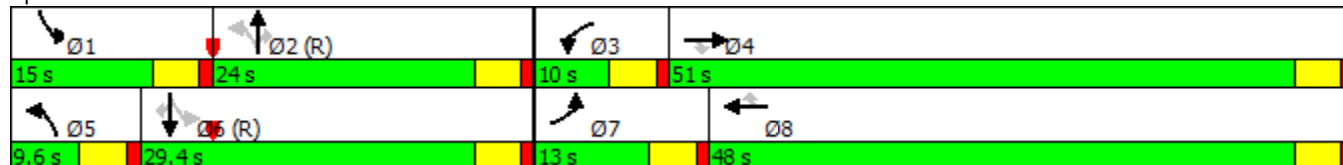
Intersection LOS: C

Intersection Capacity Utilization 71.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: 83rd Ave & 10th St



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	177	1377	37	90	1209	106	57	221	99	210	182	189
v/c Ratio	0.62	0.85	0.05	0.48	0.83	0.14	0.16	0.28	0.21	0.49	0.18	0.32
Control Delay	51.4	31.9	0.1	54.7	32.0	1.0	23.8	34.7	1.8	28.1	29.1	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	31.9	0.1	54.7	32.0	1.0	23.8	34.7	1.8	28.1	29.1	6.1
Queue Length 50th (ft)	61	232	0	29	339	0	24	64	0	98	48	0
Queue Length 95th (ft)	m81	423	m0	55	426	8	53	99	7	160	77	53
Internal Link Dist (ft)		1226			1365			429			564	
Turn Bay Length (ft)	500		500	500		500	110		50	110		50
Base Capacity (vph)	291	1645	823	188	1539	781	360	784	478	428	1030	594
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.84	0.04	0.48	0.79	0.14	0.16	0.28	0.21	0.49	0.18	0.32

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	1268	21	16	1317	50	83	0	28	150	0	150
Future Volume (vph)	25	1268	21	16	1317	50	83	0	28	150	0	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	100		0	100		0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850			0.932	
Flt Protected	0.950			0.950			0.950				0.976	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1583	0	0	1694	0
Flt Permitted	0.084			0.086			0.529				0.826	
Satd. Flow (perm)	156	3539	1583	160	3539	1583	985	1583	0	0	1434	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			115			115		155			65	
Link Speed (mph)		65			65			30			30	
Link Distance (ft)		1155			1402			562			536	
Travel Time (s)		12.1			14.7			12.8			12.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	27	1363	23	17	1416	54	89	0	30	161	0	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	1363	23	17	1416	54	89	30	0	0	322	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	9.5	52.0	52.0	9.5	52.0	52.0	9.6	29.0		9.5	28.9	
Total Split (%)	9.5%	52.0%	52.0%	9.5%	52.0%	52.0%	9.6%	29.0%		9.5%	28.9%	
Maximum Green (s)	5.0	47.5	47.5	5.0	47.5	47.5	5.1	24.5		5.0	24.4	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effect Green (s)	49.5	47.5	47.5	48.6	45.6	45.6	39.7	39.7			31.6	
Actuated g/C Ratio	0.50	0.48	0.48	0.49	0.46	0.46	0.40	0.40			0.32	
v/c Ratio	0.17	0.81	0.03	0.11	0.88	0.07	0.20	0.04			0.65	
Control Delay	12.4	27.0	0.0	16.1	35.7	2.9	23.1	0.1			33.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	12.4	27.0	0.0	16.1	35.7	2.9	23.1	0.1			33.5	
LOS	B	C	A	B	D	A	C	A			C	
Approach Delay		26.3			34.3			17.3			33.5	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 30.2

Intersection LOS: C

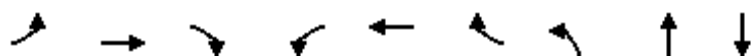
Intersection Capacity Utilization 68.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: 89th Ave & 10th St

									
Ø1	Ø2 (R)		Ø3	Ø4		Ø5	Ø6 (R)	Ø7	Ø8
9.5 s	29 s		9.5 s	52 s		9.6 s	28.9 s	9.5 s	52 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	27	1363	23	17	1416	54	89	30	322
v/c Ratio	0.17	0.81	0.03	0.11	0.88	0.07	0.20	0.04	0.65
Control Delay	12.4	27.0	0.0	16.1	35.7	2.9	23.1	0.1	33.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	27.0	0.0	16.1	35.7	2.9	23.1	0.1	33.5
Queue Length 50th (ft)	7	300	0	5	241	0	39	0	157
Queue Length 95th (ft)	19	471	0	m9	337	m4	75	0	#300
Internal Link Dist (ft)		1075			1322			482	456
Turn Bay Length (ft)	500		500	500		500	100		
Base Capacity (vph)	157	1748	840	158	1681	812	435	721	497
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.78	0.03	0.11	0.84	0.07	0.20	0.04	0.65

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Volume (veh/h)	1426	20	0	1386	0	26
Future Volume (Veh/h)	1426	20	0	1386	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1550	22	0	1507	0	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				1306		
pX, platoon unblocked					0.69	
vC, conflicting volume			1572		2304	775
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1572		1989	775
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	92
cM capacity (veh/h)			415		37	341
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	775	775	22	754	754	28
Volume Left	0	0	0	0	0	0
Volume Right	0	0	22	0	0	28
cSH	1700	1700	1700	1700	1700	341
Volume to Capacity	0.46	0.46	0.01	0.44	0.44	0.08
Queue Length 95th (ft)	0	0	0	0	0	7
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	16.5
Lane LOS						C
Approach Delay (s)	0.0			0.0		16.5
Approach LOS						C
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			49.4%		ICU Level of Service	A
Analysis Period (min)			15			

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	254	1428	56	161	1288	248	47	277	118	149	241	151
Future Volume (vph)	254	1428	56	161	1288	248	47	277	118	149	241	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	110		50	110		50
Storage Lanes	2		1	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.593			0.428		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1105	3539	1583	797	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			115			264			115			161
Link Speed (mph)		65			65			40			40	
Link Distance (ft)		1306			1445			509			644	
Travel Time (s)		13.7			15.2			8.7			11.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	270	1519	60	171	1370	264	50	295	126	159	256	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	270	1519	60	171	1370	264	50	295	126	159	256	161
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8	2		2	6		6

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	15.1	53.0	53.0	12.0	49.9	49.9	9.6	24.0	24.0	11.0	25.4	25.4
Total Split (%)	15.1%	53.0%	53.0%	12.0%	49.9%	49.9%	9.6%	24.0%	24.0%	11.0%	25.4%	25.4%
Maximum Green (s)	10.6	48.5	48.5	7.5	45.4	45.4	5.1	19.5	19.5	6.5	20.9	20.9
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	10.4	47.5	47.5	7.5	44.5	44.5	25.4	20.1	20.1	29.0	23.7	23.7
Actuated g/C Ratio	0.10	0.48	0.48	0.08	0.44	0.44	0.25	0.20	0.20	0.29	0.24	0.24
v/c Ratio	0.75	0.90	0.07	0.67	0.87	0.31	0.16	0.41	0.31	0.53	0.31	0.32
Control Delay	51.9	27.8	3.4	58.4	32.3	3.1	26.4	37.1	10.3	34.7	33.8	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.9	27.8	3.4	58.4	32.3	3.1	26.4	37.1	10.3	34.7	33.8	7.4
LOS	D	C	A	E	C	A	C	D	B	C	C	A
Approach Delay		30.5			30.5			28.8			26.7	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 29.9

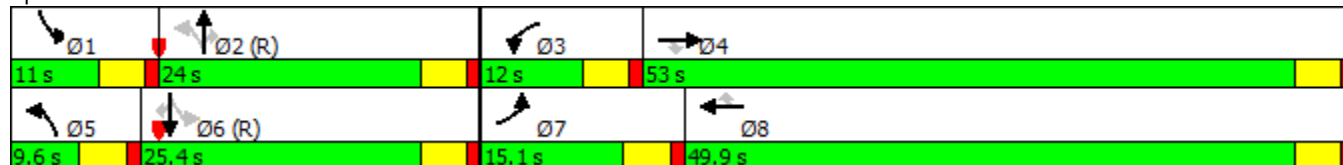
Intersection LOS: C

Intersection Capacity Utilization 75.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 6: 83rd Ave & 10th St



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	270	1519	60	171	1370	264	50	295	126	159	256	161
v/c Ratio	0.75	0.90	0.07	0.67	0.87	0.31	0.16	0.41	0.31	0.53	0.31	0.32
Control Delay	51.9	27.8	3.4	58.4	32.3	3.1	26.4	37.1	10.3	34.7	33.8	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.9	27.8	3.4	58.4	32.3	3.1	26.4	37.1	10.3	34.7	33.8	7.4
Queue Length 50th (ft)	93	304	0	55	397	0	23	87	6	77	73	0
Queue Length 95th (ft)	m107	m359	m2	#96	496	43	51	129	54	132	111	52
Internal Link Dist (ft)		1226			1365			429			564	
Turn Bay Length (ft)	500		500	500		500	110		50	110		50
Base Capacity (vph)	363	1716	826	257	1606	862	316	713	410	298	839	498
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.89	0.07	0.67	0.85	0.31	0.16	0.41	0.31	0.53	0.31	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

2025 Background PM Peak Hour
3: 89th Ave & 10th St

Kellar Engineering LLC

02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	1605	65	32	1297	150	32	0	19	100	0	50
Future Volume (vph)	150	1605	65	32	1297	150	32	0	19	100	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	100		0	100		0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850			0.955	
Flt Protected	0.950			0.950			0.950				0.968	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1583	0	0	1722	0
Flt Permitted	0.076			0.083			0.661				0.786	
Satd. Flow (perm)	142	3539	1583	155	3539	1583	1231	1583	0	0	1398	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			115			163		148			65	
Link Speed (mph)		65			65			30			30	
Link Distance (ft)		1155			1402			562			536	
Travel Time (s)		12.1			14.7			12.8			12.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	1745	71	35	1410	163	35	0	21	109	0	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	1745	71	35	1410	163	35	21	0	0	163	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	13.6	58.0	58.0	9.5	53.9	53.9	9.5	23.0		9.5	23.0	
Total Split (%)	13.6%	58.0%	58.0%	9.5%	53.9%	53.9%	9.5%	23.0%		9.5%	23.0%	
Maximum Green (s)	9.1	53.5	53.5	5.0	49.4	49.4	5.0	18.5		5.0	18.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effect Green (s)	59.7	54.2	54.2	51.6	46.6	46.6	31.1	31.1			25.4	
Actuated g/C Ratio	0.60	0.54	0.54	0.52	0.47	0.47	0.31	0.31			0.25	
v/c Ratio	0.71	0.91	0.08	0.22	0.86	0.20	0.09	0.04			0.40	
Control Delay	35.7	29.5	0.8	15.8	34.4	9.3	26.9	0.1			24.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	35.7	29.5	0.8	15.8	34.4	9.3	26.9	0.1			24.6	
LOS	D	C	A	B	C	A	C	A			C	
Approach Delay		28.9			31.4			16.9			24.6	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 29.6

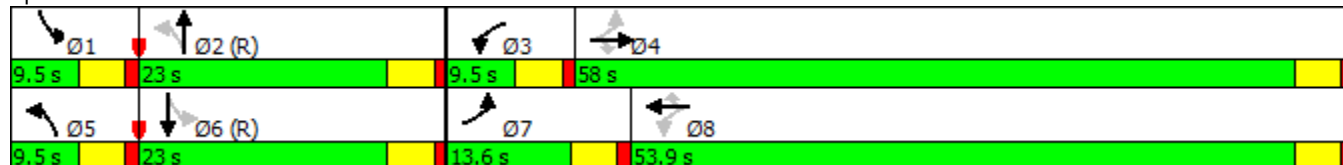
Intersection LOS: C

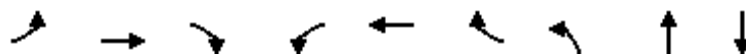
Intersection Capacity Utilization 75.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 3: 89th Ave & 10th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	163	1745	71	35	1410	163	35	21	163
v/c Ratio	0.71	0.91	0.08	0.22	0.86	0.20	0.09	0.04	0.40
Control Delay	35.7	29.5	0.8	15.8	34.4	9.3	26.9	0.1	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	29.5	0.8	15.8	34.4	9.3	26.9	0.1	24.6
Queue Length 50th (ft)	48	510	0	12	285	17	16	0	55
Queue Length 95th (ft)	#137	#697	7	m18	371	m39	40	0	122
Internal Link Dist (ft)		1075			1322			482	456
Turn Bay Length (ft)	500		500	500		500	100		
Base Capacity (vph)	233	1926	914	160	1748	864	411	594	403
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.91	0.08	0.22	0.81	0.19	0.09	0.04	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Volume (veh/h)	1663	61	0	1486	0	18
Future Volume (Veh/h)	1663	61	0	1486	0	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1808	66	0	1615	0	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				1306		
pX, platoon unblocked					0.63	
vC, conflicting volume			1874		2616	904
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1874		2393	904
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	93
cM capacity (veh/h)			317		18	280
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	904	904	66	808	808	20
Volume Left	0	0	0	0	0	0
Volume Right	0	0	66	0	0	20
cSH	1700	1700	1700	1700	1700	280
Volume to Capacity	0.53	0.53	0.04	0.47	0.47	0.07
Queue Length 95th (ft)	0	0	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	18.9
Lane LOS						C
Approach Delay (s)	0.0			0.0		18.9
Approach LOS						C
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			56.0%		ICU Level of Service	B
Analysis Period (min)			15			

2025 Short Range Total AM Peak Hour
6: 83rd Ave & 10th St

Kellar Engineering LLC
02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	1322	35	85	1151	235	54	242	93	332	228	193
Future Volume (vph)	167	1322	35	85	1151	235	54	242	93	332	228	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	110		50	110		50
Storage Lanes	2		1	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.598			0.428		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1114	3539	1583	797	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			255			164			192
Link Speed (mph)		65			65			40			40	
Link Distance (ft)		1306			1445			509			1289	
Travel Time (s)		13.7			15.2			8.7			22.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	182	1437	38	92	1251	255	59	263	101	361	248	210
Shared Lane Traffic (%)												
Lane Group Flow (vph)	182	1437	38	92	1251	255	59	263	101	361	248	210
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8	2		2	6		6

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	12.2	48.0	48.0	9.5	45.3	45.3	9.6	24.5	24.5	18.0	32.9	32.9
Total Split (%)	12.2%	48.0%	48.0%	9.5%	45.3%	45.3%	9.6%	24.5%	24.5%	18.0%	32.9%	32.9%
Maximum Green (s)	7.7	43.5	43.5	5.0	40.8	40.8	5.1	20.0	20.0	13.5	28.4	28.4
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	7.7	44.4	44.4	5.0	39.8	39.8	25.9	20.8	20.8	39.0	31.3	31.3
Actuated g/C Ratio	0.08	0.44	0.44	0.05	0.40	0.40	0.26	0.21	0.21	0.39	0.31	0.31
v/c Ratio	0.69	0.91	0.05	0.54	0.89	0.33	0.18	0.36	0.22	0.81	0.22	0.33
Control Delay	54.6	34.7	0.1	58.4	37.0	3.7	22.4	35.9	2.0	41.1	27.3	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	34.7	0.1	58.4	37.0	3.7	22.4	35.9	2.0	41.1	27.3	7.0
LOS	D	C	A	E	D	A	C	D	A	D	C	A
Approach Delay		36.1			32.9			25.9			28.2	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 32.6

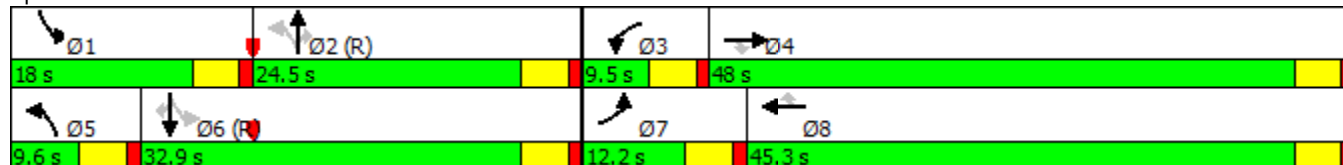
Intersection LOS: C

Intersection Capacity Utilization 80.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 6: 83rd Ave & 10th St



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	182	1437	38	92	1251	255	59	263	101	361	248	210
v/c Ratio	0.69	0.91	0.05	0.54	0.89	0.33	0.18	0.36	0.22	0.81	0.22	0.33
Control Delay	54.6	34.7	0.1	58.4	37.0	3.7	22.4	35.9	2.0	41.1	27.3	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	34.7	0.1	58.4	37.0	3.7	22.4	35.9	2.0	41.1	27.3	7.0
Queue Length 50th (ft)	61	265	0	29	376	0	24	76	0	176	64	8
Queue Length 95th (ft)	m89	#588	m0	56	472	47	51	115	8	#319	96	62
Internal Link Dist (ft)		1226			1365			429			1209	
Turn Bay Length (ft)	500		500	500		500	110		50	110		50
Base Capacity (vph)	264	1572	794	171	1443	796	323	734	458	444	1108	627
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.91	0.05	0.54	0.87	0.32	0.18	0.36	0.22	0.81	0.22	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

2025 Short Range Total AM Peak Hour
3: 89th Ave & 10th St

Kellar Engineering LLC

02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	1269	21	16	1445	51	83	34	28	207	57	285
Future Volume (vph)	150	1269	21	16	1445	51	83	34	28	207	57	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	100		0	100		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.933			0.875	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1738	0	1770	1630	0
Flt Permitted	0.074			0.110			0.215			0.611		
Satd. Flow (perm)	138	3539	1583	205	3539	1583	400	1738	0	1138	1630	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			115			115		30			133	
Link Speed (mph)		65			65			30			30	
Link Distance (ft)		1155			1402			562			1072	
Travel Time (s)		12.1			14.7			12.8			24.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	1379	23	17	1571	55	90	37	30	225	62	310
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	1379	23	17	1571	55	90	67	0	225	372	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	11.0	53.5	53.5	9.5	52.0	52.0	9.5	25.8		11.2	27.5	
Total Split (%)	11.0%	53.5%	53.5%	9.5%	52.0%	52.0%	9.5%	25.8%		11.2%	27.5%	
Maximum Green (s)	6.5	49.0	49.0	5.0	47.5	47.5	5.0	21.3		6.7	23.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effect Green (s)	56.9	54.3	54.3	52.1	47.1	47.1	26.5	21.3		30.6	25.3	
Actuated g/C Ratio	0.57	0.54	0.54	0.52	0.47	0.47	0.26	0.21		0.31	0.25	
v/c Ratio	0.89	0.72	0.03	0.09	0.94	0.07	0.51	0.17		0.57	0.73	
Control Delay	63.8	20.6	0.0	15.1	36.0	3.1	35.7	21.3		34.1	32.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	63.8	20.6	0.0	15.1	36.0	3.1	35.7	21.3		34.1	32.1	
LOS	E	C	A	B	D	A	D	C		C	C	
Approach Delay		24.8			34.6			29.6			32.9	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 30.3

Intersection LOS: C

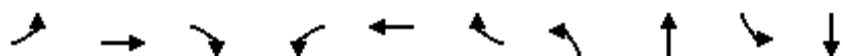
Intersection Capacity Utilization 88.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 3: 89th Ave & 10th St

							
Ø1	Ø2 (R)	Ø3	Ø4	Ø5	Ø6 (R)	Ø7	Ø8
11.2 s	25.8 s	9.5 s	53.5 s	9.5 s	27.5 s	11 s	52 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	163	1379	23	17	1571	55	90	67	225	372
v/c Ratio	0.89	0.72	0.03	0.09	0.94	0.07	0.51	0.17	0.57	0.73
Control Delay	63.8	20.6	0.0	15.1	36.0	3.1	35.7	21.3	34.1	32.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.8	20.6	0.0	15.1	36.0	3.1	35.7	21.3	34.1	32.1
Queue Length 50th (ft)	54	293	0	5	314	1	41	19	110	146
Queue Length 95th (ft)	#180	465	0	m9	#625	m5	78	55	177	#286
Internal Link Dist (ft)		1075			1322			482		992
Turn Bay Length (ft)	500		500	500		500	100		100	
Base Capacity (vph)	184	1922	912	184	1681	812	177	393	393	511
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.72	0.03	0.09	0.93	0.07	0.51	0.17	0.57	0.73

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

																	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR					
Lane Configurations																	
Traffic Volume (veh/h)	0	0	200	249	0	5	50	25	160	0	100	0					
Future Volume (Veh/h)	0	0	200	249	0	5	50	25	160	0	100	0					
Sign Control		Stop			Stop			Free			Free						
Grade		0%			0%			0%			0%						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92					
Hourly flow rate (vph)	0	0	217	271	0	5	54	27	174	0	109	0					
Pedestrians																	
Lane Width (ft)																	
Walking Speed (ft/s)																	
Percent Blockage																	
Right turn flare (veh)																	
Median type								TWLT			None						
Median storage veh)								2									
Upstream signal (ft)								1072									
pX, platoon unblocked																	
vC, conflicting volume	249	418	109	461	244	27	109			201							
vC1, stage 1 conf vol	109	109		135	135												
vC2, stage 2 conf vol	140	309		326	109												
vCu, unblocked vol	249	418	109	461	244	27	109			201							
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1							
tC, 2 stage (s)	6.1	5.5		6.1	5.5												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2							
p0 queue free %	100	100	77	41	100	100	96			100							
cM capacity (veh/h)	777	606	945	461	697	1048	1481			1371							
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1											
Volume Total	217	276	54	27	174	109											
Volume Left	0	271	54	0	0	0											
Volume Right	217	5	0	0	174	0											
cSH	945	465	1481	1700	1700	1371											
Volume to Capacity	0.23	0.59	0.04	0.02	0.10	0.00											
Queue Length 95th (ft)	22	94	3	0	0	0											
Control Delay (s)	9.9	23.4	7.5	0.0	0.0	0.0											
Lane LOS	A	C	A														
Approach Delay (s)	9.9	23.4	1.6				0.0										
Approach LOS	A	C															
Intersection Summary																	
Average Delay			10.5														
Intersection Capacity Utilization			45.9%	ICU Level of Service					A								
Analysis Period (min)			15														

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	207	160	484	546	5
Future Volume (Veh/h)	5	207	160	484	546	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	225	174	526	593	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				1289		
pX, platoon unblocked						
vC, conflicting volume	1206	299	598			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1206	299	598			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	68	82			
cM capacity (veh/h)	145	697	975			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	230	174	263	263	395	203
Volume Left	5	174	0	0	0	0
Volume Right	225	0	0	0	0	5
cSH	644	975	1700	1700	1700	1700
Volume to Capacity	0.36	0.18	0.15	0.15	0.23	0.12
Queue Length 95th (ft)	40	16	0	0	0	0
Control Delay (s)	13.7	9.5	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s)	13.7	2.4			0.0	
Approach LOS	B					
Intersection Summary						
Average Delay			3.1			
Intersection Capacity Utilization			47.2%		ICU Level of Service	A
Analysis Period (min)			15			

2025 Short Range Total AM Peak Hour
11: 86th Ave & 10th St

Kellar Engineering LLC
02/22/2023

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑	↗		↑↑	↗			↗			↗	
Traffic Volume (veh/h)	0	1427	20	0	1384	15	0	0	18	0	0	113	
Future Volume (Veh/h)	0	1427	20	0	1384	15	0	0	18	0	0	113	
Sign Control		Free			Free			Stop			Stop		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	1551	22	0	1504	16	0	0	20	0	0	123	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type	None			None									
Median storage veh													
Upstream signal (ft)	1306												
pX, platoon unblocked	0.67						0.67	0.67			0.67	0.67	0.67
vC, conflicting volume	1520				1573			2426	3071	776	2300	3077	752
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	778				1573			2138	3107	776	1948	3116	0
tC, single (s)	4.1				4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)													
tF (s)	2.2				2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100				100			100	100	94	100	100	83
cM capacity (veh/h)	556				415			15	8	340	24	7	722
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	776	776	22	752	752	16	20	123					
Volume Left	0	0	0	0	0	0	0	0					
Volume Right	0	0	22	0	0	16	20	123					
cSH	1700	1700	1700	1700	1700	1700	340	722					
Volume to Capacity	0.46	0.46	0.01	0.44	0.44	0.01	0.06	0.17					
Queue Length 95th (ft)	0	0	0	0	0	0	5	15					
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	16.2	11.0					
Lane LOS							C	B					
Approach Delay (s)	0.0				0.0			16.2	11.0				
Approach LOS							C	B					
Intersection Summary													
Average Delay	0.5												
Intersection Capacity Utilization	51.9%			ICU Level of Service					A				
Analysis Period (min)	15												

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	5	73	40	5	8	8
Future Volume (Veh/h)	5	73	40	5	8	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	79	43	5	9	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			84		136	44
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			84		136	44
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		99	99
cM capacity (veh/h)			1513		834	1025
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	84	48	18			
Volume Left	0	43	9			
Volume Right	79	0	9			
cSH	1700	1513	920			
Volume to Capacity	0.05	0.03	0.02			
Queue Length 95th (ft)	0	2	1			
Control Delay (s)	0.0	6.7	9.0			
Lane LOS		A	A			
Approach Delay (s)	0.0	6.7	9.0			
Approach LOS			A			
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization			19.1%	ICU Level of Service		A
Analysis Period (min)			15			

2025 Short Range Total PM Peak Hour
6: 83rd Ave & 10th St

Kellar Engineering LLC

02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	256	1430	56	161	1525	548	47	382	118	364	332	164
Future Volume (vph)	256	1430	56	161	1525	548	47	382	118	364	332	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	110		50	110		50
Storage Lanes	2		1	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.540			0.210		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1006	3539	1583	391	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			136			424			136			116
Link Speed (mph)		65			65			40			40	
Link Distance (ft)		1306			1445			509			1289	
Travel Time (s)		13.7			15.2			8.7			22.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	272	1521	60	171	1622	583	50	406	126	387	353	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	272	1521	60	171	1622	583	50	406	126	387	353	174
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8	2		2	6		6

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	14.6	61.0	61.0	11.6	58.0	58.0	9.8	23.1	23.1	24.3	37.6	37.6
Total Split (%)	12.2%	50.8%	50.8%	9.7%	48.3%	48.3%	8.2%	19.3%	19.3%	20.3%	31.3%	31.3%
Maximum Green (s)	10.1	56.5	56.5	7.1	53.5	53.5	5.3	18.6	18.6	19.8	33.1	33.1
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	10.1	56.5	56.5	7.1	53.5	53.5	23.9	18.6	18.6	42.9	35.1	35.1
Actuated g/C Ratio	0.08	0.47	0.47	0.06	0.45	0.45	0.20	0.16	0.16	0.36	0.29	0.29
v/c Ratio	0.94	0.91	0.07	0.84	1.03	0.62	0.21	0.74	0.35	1.05	0.34	0.32
Control Delay	95.4	39.2	0.2	88.7	63.5	9.5	29.5	57.5	9.1	94.9	35.2	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.4	39.2	0.2	88.7	63.5	9.5	29.5	57.5	9.1	94.9	35.2	14.3
LOS	F	D	A	F	E	A	C	E	A	F	D	B
Approach Delay		46.2			52.1			44.6			56.5	
Approach LOS		D			D			D			E	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 50.1

Intersection LOS: D

Intersection Capacity Utilization 95.2%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 6: 83rd Ave & 10th St

 Ø1	 Ø2 (R)	 Ø3	 Ø4
24.3 s	23.1 s	11.6 s	61 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
9.8 s	37.6 s	14.6 s	58 s

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	272	1521	60	171	1622	583	50	406	126	387	353	174
v/c Ratio	0.94	0.91	0.07	0.84	1.03	0.62	0.21	0.74	0.35	1.05	0.34	0.32
Control Delay	95.4	39.2	0.2	88.7	63.5	9.5	29.5	57.5	9.1	94.9	35.2	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.4	39.2	0.2	88.7	63.5	9.5	29.5	57.5	9.1	94.9	35.2	14.3
Queue Length 50th (ft)	109	560	0	69	~706	78	25	160	0	~265	115	34
Queue Length 95th (ft)	#194	#691	0	#131	#846	197	54	216	47	#464	160	94
Internal Link Dist (ft)		1226			1365			429			1209	
Turn Bay Length (ft)	500		500	500		500	110		50	110		50
Base Capacity (vph)	288	1666	817	203	1577	940	234	548	360	367	1034	544
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.91	0.07	0.84	1.03	0.62	0.21	0.74	0.35	1.05	0.34	0.32

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

2025 Short Range Total PM Peak Hour
3: 89th Ave & 10th St

Kellar Engineering LLC

02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	450	1607	65	32	1490	187	32	105	19	150	91	215
Future Volume (vph)	450	1607	65	32	1490	187	32	105	19	150	91	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	100		0	100		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.977			0.895	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1820	0	1770	1667	0
Flt Permitted	0.055			0.097			0.217			0.358		
Satd. Flow (perm)	102	3539	1583	181	3539	1583	404	1820	0	667	1667	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			203		5			68	
Link Speed (mph)		65			65			30			30	
Link Distance (ft)		1155			1402			562			1072	
Travel Time (s)		12.1			14.7			12.8			24.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	489	1747	71	35	1620	203	35	114	21	163	99	234
Shared Lane Traffic (%)												
Lane Group Flow (vph)	489	1747	71	35	1620	203	35	135	0	163	333	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	39.8	100.8	100.8	10.2	71.2	71.2	9.5	23.8		15.2	29.5	
Total Split (%)	26.5%	67.2%	67.2%	6.8%	47.5%	47.5%	6.3%	15.9%		10.1%	19.7%	
Maximum Green (s)	35.3	96.3	96.3	5.7	66.7	66.7	5.0	19.3		10.7	25.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effect Green (s)	106.5	98.3	98.3	72.4	66.7	66.7	24.3	19.3		34.5	26.9	
Actuated g/C Ratio	0.71	0.66	0.66	0.48	0.44	0.44	0.16	0.13		0.23	0.18	
v/c Ratio	1.05	0.75	0.07	0.24	1.03	0.25	0.32	0.57		0.70	0.94	
Control Delay	101.5	20.7	0.5	15.9	71.4	3.8	53.7	69.2		66.9	82.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	101.5	20.7	0.5	15.9	71.4	3.8	53.7	69.2		66.9	82.8	
LOS	F	C	A	B	E	A	D	E		E	F	
Approach Delay		37.2			62.9			66.0			77.6	
Approach LOS		D			E			E			E	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 52.3

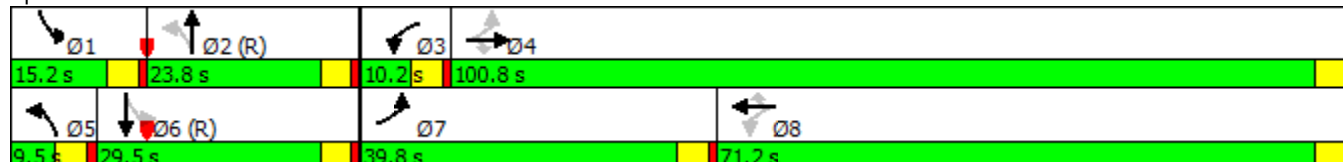
Intersection LOS: D

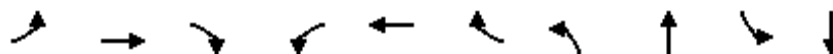
Intersection Capacity Utilization 103.3%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 3: 89th Ave & 10th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	489	1747	71	35	1620	203	35	135	163	333
v/c Ratio	1.05	0.75	0.07	0.24	1.03	0.25	0.32	0.57	0.70	0.94
Control Delay	101.5	20.7	0.5	15.9	71.4	3.8	53.7	69.2	66.9	82.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.5	20.7	0.5	15.9	71.4	3.8	53.7	69.2	66.9	82.8
Queue Length 50th (ft)	~471	601	0	9	~889	0	27	121	137	270
Queue Length 95th (ft)	#699	696	5	20	#1028	47	60	196	#218	#481
Internal Link Dist (ft)		1075			1322			482		992
Turn Bay Length (ft)	500		500	500		500	100		100	
Base Capacity (vph)	464	2320	1075	147	1573	816	110	238	232	354
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.75	0.07	0.24	1.03	0.25	0.32	0.57	0.70	0.94

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	100	306	0	0	200	100	442	0	50	0
Future Volume (Veh/h)	0	0	100	306	0	0	200	100	442	0	50	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	109	333	0	0	217	109	480	0	54	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage (veh)								2				
Upstream signal (ft)								1072				
pX, platoon unblocked												
vC, conflicting volume	597	1077	54	706	597	109	54			589		
vC1, stage 1 conf vol	54	54		543	543							
vC2, stage 2 conf vol	543	1023		163	54							
vCu, unblocked vol	597	1077	54	706	597	109	54			589		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	89	18	100	100	86			100		
cM capacity (veh/h)	439	262	1013	404	430	945	1551			986		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1						
Volume Total	109	333	217	109	480	54						
Volume Left	0	333	217	0	0	0						
Volume Right	109	0	0	0	480	0						
cSH	1013	404	1551	1700	1700	986						
Volume to Capacity	0.11	0.82	0.14	0.06	0.28	0.00						
Queue Length 95th (ft)	9	190	12	0	0	0						
Control Delay (s)	9.0	44.2	7.7	0.0	0.0	0.0						
Lane LOS	A	E	A									
Approach Delay (s)	9.0	44.2	2.1			0.0						
Approach LOS	A	E										
Intersection Summary												
Average Delay			13.3									
Intersection Capacity Utilization			48.0%		ICU Level of Service		A					
Analysis Period (min)			15									

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	319	407	799	541	5
Future Volume (Veh/h)	5	319	407	799	541	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	347	442	868	588	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				1289		
pX, platoon unblocked						
vC, conflicting volume	1908	296	593			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1908	296	593			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	85	50	55			
cM capacity (veh/h)	33	700	979			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	352	442	434	434	392	201
Volume Left	5	442	0	0	0	0
Volume Right	347	0	0	0	0	5
cSH	544	979	1700	1700	1700	1700
Volume to Capacity	0.65	0.45	0.26	0.26	0.23	0.12
Queue Length 95th (ft)	116	60	0	0	0	0
Control Delay (s)	23.0	11.7	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	23.0	3.9			0.0	
Approach LOS	C					
Intersection Summary						
Average Delay			5.9			
Intersection Capacity Utilization			67.7%		ICU Level of Service	C
Analysis Period (min)			15			

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑	↗		↑↑	↗			↗			↗	
Traffic Volume (veh/h)	0	1665	61	0	1536	200	0	0	18	0	0	280	
Future Volume (Veh/h)	0	1665	61	0	1536	200	0	0	18	0	0	280	
Sign Control		Free			Free			Stop			Stop		
Grade		0%			0%			0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	1810	66	0	1670	217	0	0	20	0	0	304	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type	None			None									
Median storage veh													
Upstream signal (ft)	1306												
pX, platoon unblocked	0.57						0.57	0.57			0.57	0.57	0.57
vC, conflicting volume	1887				1876			2949	3697	905	2595	3546	835
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	1050				1876			2911	4221	905	2290	3957	0
tC, single (s)	4.1				4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)													
tF (s)	2.2				2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100				100			100	100	93	100	100	51
cM capacity (veh/h)	376				316			2	1	279	11	2	619
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	905	905	66	835	835	217	20	304					
Volume Left	0	0	0	0	0	0	0	0					
Volume Right	0	0	66	0	0	217	20	304					
cSH	1700	1700	1700	1700	1700	1700	279	619					
Volume to Capacity	0.53	0.53	0.04	0.49	0.49	0.13	0.07	0.49					
Queue Length 95th (ft)	0	0	0	0	0	0	6	68					
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	18.9	16.3					
Lane LOS							C	C					
Approach Delay (s)	0.0				0.0			18.9	16.3				
Approach LOS							C	C					
Intersection Summary													
Average Delay	1.3												
Intersection Capacity Utilization	66.5%			ICU Level of Service					C				
Analysis Period (min)	15												

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	5	160	120	5	101	101
Future Volume (Veh/h)	5	160	120	5	101	101
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	174	130	5	110	110
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			179		357	92
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			179		357	92
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		81	89
cM capacity (veh/h)			1397		582	965
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	179	135	220			
Volume Left	0	130	110			
Volume Right	174	0	110			
cSH	1700	1397	726			
Volume to Capacity	0.11	0.09	0.30			
Queue Length 95th (ft)	0	8	32			
Control Delay (s)	0.0	7.6	12.1			
Lane LOS		A	B			
Approach Delay (s)	0.0	7.6	12.1			
Approach LOS			B			
Intersection Summary						
Average Delay			6.9			
Intersection Capacity Utilization			38.9%	ICU Level of Service		A
Analysis Period (min)			15			

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	215	1655	47	114	1494	139	73	263	126	239	213	240
Future Volume (vph)	215	1655	47	114	1494	139	73	263	126	239	213	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	110		50	110		50
Storage Lanes	2		1	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.610			0.424		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1136	3539	1583	790	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			115			148			115			157
Link Speed (mph)		65			65			40			40	
Link Distance (ft)		1306			1445			509			644	
Travel Time (s)		13.7			15.2			8.7			11.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	229	1761	50	121	1589	148	78	280	134	254	227	255
Shared Lane Traffic (%)												
Lane Group Flow (vph)	229	1761	50	121	1589	148	78	280	134	254	227	255
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8	2		2	6		6

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	12.2	55.3	55.3	9.5	52.6	52.6	9.6	23.4	23.4	11.8	25.6	25.6
Total Split (%)	12.2%	55.3%	55.3%	9.5%	52.6%	52.6%	9.6%	23.4%	23.4%	11.8%	25.6%	25.6%
Maximum Green (s)	7.7	50.8	50.8	5.0	48.1	48.1	5.1	18.9	18.9	7.3	21.1	21.1
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	7.7	50.8	50.8	5.0	48.1	48.1	24.0	18.9	18.9	28.9	23.0	23.0
Actuated g/C Ratio	0.08	0.51	0.51	0.05	0.48	0.48	0.24	0.19	0.19	0.29	0.23	0.23
v/c Ratio	0.87	0.98	0.06	0.71	0.93	0.18	0.26	0.42	0.34	0.85	0.28	0.53
Control Delay	64.8	32.9	2.0	69.6	36.1	3.0	28.2	38.0	11.8	57.3	33.7	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.8	32.9	2.0	69.6	36.1	3.0	28.2	38.0	11.8	57.3	33.7	18.2
LOS	E	C	A	E	D	A	C	D	B	E	C	B
Approach Delay		35.7			35.6			29.3			36.5	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 35.2

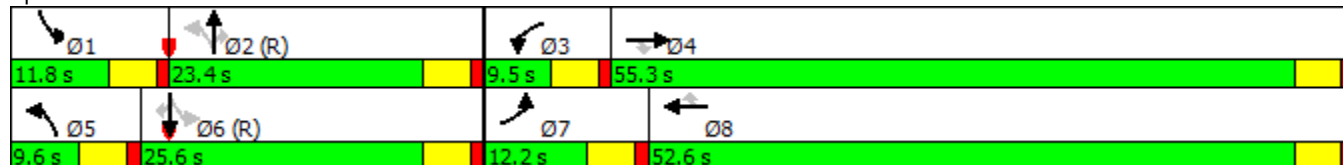
Intersection LOS: D

Intersection Capacity Utilization 85.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 6: 83rd Ave & 10th St



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	229	1761	50	121	1589	148	78	280	134	254	227	255
v/c Ratio	0.87	0.98	0.06	0.71	0.93	0.18	0.26	0.42	0.34	0.85	0.28	0.53
Control Delay	64.8	32.9	2.0	69.6	36.1	3.0	28.2	38.0	11.8	57.3	33.7	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.8	32.9	2.0	69.6	36.1	3.0	28.2	38.0	11.8	57.3	33.7	18.2
Queue Length 50th (ft)	80	278	0	40	483	0	36	83	10	130	64	53
Queue Length 95th (ft)	m92	m#718	m0	#83	#655	32	72	124	61	#265	99	134
Internal Link Dist (ft)		1226			1365			429			564	
Turn Bay Length (ft)	500		500	500		500	110		50	110		50
Base Capacity (vph)	264	1797	860	171	1702	838	304	668	392	299	814	484
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.98	0.06	0.71	0.93	0.18	0.26	0.42	0.34	0.85	0.28	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

2040 Background AM Peak Hour
3: 89th Ave & 10th St

Kellar Engineering LLC
02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1695	29	21	1755	50	111	0	37	150	0	150
Future Volume (vph)	0	1695	29	21	1755	50	111	0	37	150	0	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	100		0	100		0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850			0.932	
Flt Protected				0.950			0.950				0.976	
Satd. Flow (prot)	1863	3539	1583	1770	3539	1583	1770	1583	0	0	1694	0
Flt Permitted				0.064			0.500				0.821	
Satd. Flow (perm)	1863	3539	1583	119	3539	1583	931	1583	0	0	1425	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			115			115		126			65	
Link Speed (mph)		65			65			30			30	
Link Distance (ft)		1155			1402			562			536	
Travel Time (s)		12.1			14.7			12.8			12.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	1823	31	23	1887	54	119	0	40	161	0	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1823	31	23	1887	54	119	40	0	0	322	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	9.5	58.0	58.0	9.5	58.0	58.0	9.5	23.0		9.5	23.0	
Total Split (%)	9.5%	58.0%	58.0%	9.5%	58.0%	58.0%	9.5%	23.0%		9.5%	23.0%	
Maximum Green (s)	5.0	53.5	53.5	5.0	53.5	53.5	5.0	18.5		5.0	18.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effect Green (s)		58.2	58.2	62.0	62.0	62.0	29.0	29.0			19.2	
Actuated g/C Ratio		0.58	0.58	0.62	0.62	0.62	0.29	0.29			0.19	
v/c Ratio		0.89	0.03	0.15	0.86	0.05	0.38	0.07			0.99	
Control Delay		25.6	0.1	12.8	23.8	2.0	31.8	0.3			81.9	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay		25.6	0.1	12.8	23.8	2.0	31.8	0.3			81.9	
LOS		C	A	B	C	A	C	A			F	
Approach Delay		25.2			23.0			23.9			81.9	
Approach LOS		C			C			C			F	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 28.4

Intersection LOS: C

Intersection Capacity Utilization 80.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 3: 89th Ave & 10th St

								
Ø1	Ø2 (R)	Ø3	Ø4	Ø5	Ø6 (R)	Ø7	Ø8	
9.5 s	23 s	9.5 s	58 s	9.5 s	23 s	9.5 s	58 s	

								
Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	1823	31	23	1887	54	119	40	322
v/c Ratio	0.89	0.03	0.15	0.86	0.05	0.38	0.07	0.99
Control Delay	25.6	0.1	12.8	23.8	2.0	31.8	0.3	81.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	0.1	12.8	23.8	2.0	31.8	0.3	81.9
Queue Length 50th (ft)	426	0	7	393	0	59	0	~176
Queue Length 95th (ft)	#753	0	m10	m452	m1	106	0	#355
Internal Link Dist (ft)	1075			1322			482	456
Turn Bay Length (ft)		500	500		500	100		
Base Capacity (vph)	2059	968	156	2193	1024	315	548	325
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.03	0.15	0.86	0.05	0.38	0.07	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Volume (veh/h)	1882	29	0	1807	0	37
Future Volume (Veh/h)	1882	29	0	1807	0	37
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2046	32	0	1964	0	40
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				1306		
pX, platoon unblocked					0.55	
vC, conflicting volume			2078		3028	1023
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			2078		3051	1023
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	83
cM capacity (veh/h)			264		5	233
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	1023	1023	32	982	982	40
Volume Left	0	0	0	0	0	0
Volume Right	0	0	32	0	0	40
cSH	1700	1700	1700	1700	1700	233
Volume to Capacity	0.60	0.60	0.02	0.58	0.58	0.17
Queue Length 95th (ft)	0	0	0	0	0	15
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	23.6
Lane LOS						C
Approach Delay (s)	0.0			0.0		23.6
Approach LOS						C
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			62.0%		ICU Level of Service	B
Analysis Period (min)			15			

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	324	1628	76	217	1630	424	63	277	159	183	290	186
Future Volume (vph)	324	1628	76	217	1630	424	63	277	159	183	290	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	110		50	110		50
Storage Lanes	2		1	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.494			0.450		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	920	3539	1583	838	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			115			259			145			162
Link Speed (mph)		65			65			40			40	
Link Distance (ft)		1306			1445			509			644	
Travel Time (s)		13.7			15.2			8.7			11.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	345	1732	81	231	1734	451	67	295	169	195	309	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	345	1732	81	231	1734	451	67	295	169	195	309	198
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8	2		2	6		6

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	15.0	54.8	54.8	12.2	52.0	52.0	9.5	23.4	23.4	9.6	23.5	23.5
Total Split (%)	15.0%	54.8%	54.8%	12.2%	52.0%	52.0%	9.5%	23.4%	23.4%	9.6%	23.5%	23.5%
Maximum Green (s)	10.5	50.3	50.3	7.7	47.5	47.5	5.0	18.9	18.9	5.1	19.0	19.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	10.5	50.3	50.3	7.7	47.5	47.5	23.9	18.9	18.9	25.0	20.9	20.9
Actuated g/C Ratio	0.10	0.50	0.50	0.08	0.48	0.48	0.24	0.19	0.19	0.25	0.21	0.21
v/c Ratio	0.96	0.97	0.09	0.88	1.03	0.51	0.26	0.44	0.41	0.76	0.42	0.43
Control Delay	83.8	40.8	1.3	77.6	57.5	9.4	29.7	38.3	11.8	52.6	37.1	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.8	40.8	1.3	77.6	57.5	9.4	29.7	38.3	11.8	52.6	37.1	12.3
LOS	F	D	A	E	E	A	C	D	B	D	D	B
Approach Delay		46.2			50.5			28.8			34.4	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 45.0

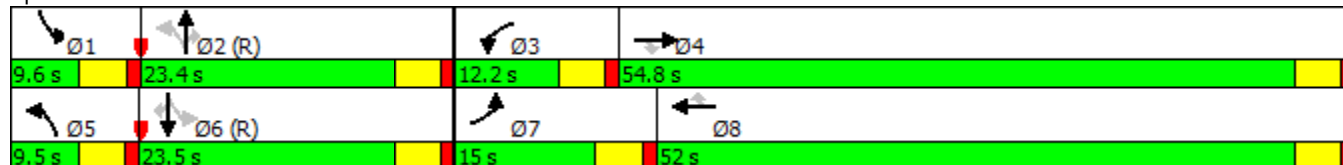
Intersection LOS: D

Intersection Capacity Utilization 87.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 6: 83rd Ave & 10th St



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	345	1732	81	231	1734	451	67	295	169	195	309	198
v/c Ratio	0.96	0.97	0.09	0.88	1.03	0.51	0.26	0.44	0.41	0.76	0.42	0.43
Control Delay	83.8	40.8	1.3	77.6	57.5	9.4	29.7	38.3	11.8	52.6	37.1	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.8	40.8	1.3	77.6	57.5	9.4	29.7	38.3	11.8	52.6	37.1	12.3
Queue Length 50th (ft)	114	542	0	76	~627	72	32	88	13	100	92	19
Queue Length 95th (ft)	#202	#729	12	#144	#765	157	65	130	69	#203	135	83
Internal Link Dist (ft)		1226			1365			429			564	
Turn Bay Length (ft)	500		500	500		500	110		50	110		50
Base Capacity (vph)	360	1780	853	264	1681	887	262	668	416	256	739	458
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.97	0.09	0.88	1.03	0.51	0.26	0.44	0.41	0.76	0.42	0.43

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

2040 Background PM Peak Hour
3: 89th Ave & 10th St

Kellar Engineering LLC

02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	2108	87	43	1677	150	43	0	26	100	0	50
Future Volume (vph)	150	2108	87	43	1677	150	43	0	26	100	0	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	100		0	100		0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.850			0.955	
Flt Protected	0.950			0.950			0.950				0.968	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1583	0	0	1722	0
Flt Permitted	0.061			0.062			0.663				0.782	
Satd. Flow (perm)	114	3539	1583	115	3539	1583	1235	1583	0	0	1391	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			163		112			60	
Link Speed (mph)		65			65			30			30	
Link Distance (ft)		1155			1402			562			536	
Travel Time (s)		12.1			14.7			12.8			12.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	2291	95	47	1823	163	47	0	28	109	0	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	2291	95	47	1823	163	47	28	0	0	163	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	9.5	68.0	68.0	9.5	68.0	68.0	9.5	23.0		9.5	23.0	
Total Split (%)	8.6%	61.8%	61.8%	8.6%	61.8%	61.8%	8.6%	20.9%		8.6%	20.9%	
Maximum Green (s)	5.0	63.5	63.5	5.0	63.5	63.5	5.0	18.5		5.0	18.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effect Green (s)	69.4	65.4	65.4	68.5	63.5	63.5	28.0	28.0			20.4	
Actuated g/C Ratio	0.63	0.59	0.59	0.62	0.58	0.58	0.25	0.25			0.19	
v/c Ratio	1.11	1.09	0.10	0.32	0.89	0.17	0.14	0.06			0.53	
Control Delay	131.5	72.6	2.0	12.6	27.4	2.0	32.7	0.2			33.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	131.5	72.6	2.0	12.6	27.4	2.0	32.7	0.2			33.4	
LOS	F	E	A	B	C	A	C	A			C	
Approach Delay		73.7			25.0			20.6			33.4	
Approach LOS		E			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay: 51.0

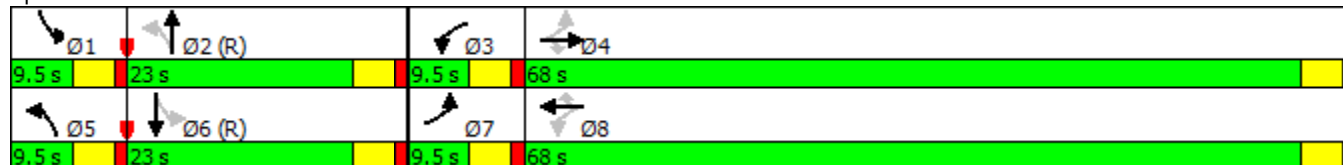
Intersection LOS: D

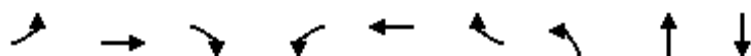
Intersection Capacity Utilization 89.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 3: 89th Ave & 10th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	163	2291	95	47	1823	163	47	28	163
v/c Ratio	1.11	1.09	0.10	0.32	0.89	0.17	0.14	0.06	0.53
Control Delay	131.5	72.6	2.0	12.6	27.4	2.0	32.7	0.2	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	131.5	72.6	2.0	12.6	27.4	2.0	32.7	0.2	33.4
Queue Length 50th (ft)	~83	~984	0	10	556	0	26	0	66
Queue Length 95th (ft)	#221	#1120	19	23	684	28	56	0	139
Internal Link Dist (ft)		1075			1322			482	456
Turn Bay Length (ft)	500		500	500		500	100		
Base Capacity (vph)	147	2103	983	146	2042	982	338	486	306
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.11	1.09	0.10	0.32	0.89	0.17	0.14	0.06	0.53

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Volume (veh/h)	2234	87	0	1879	0	26
Future Volume (Veh/h)	2234	87	0	1879	0	26
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2428	95	0	2042	0	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				1306		
pX, platoon unblocked					0.54	
vC, conflicting volume			2523		3449	1214
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			2523		3838	1214
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	84
cM capacity (veh/h)			176		1	174
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1
Volume Total	1214	1214	95	1021	1021	28
Volume Left	0	0	0	0	0	0
Volume Right	0	0	95	0	0	28
cSH	1700	1700	1700	1700	1700	174
Volume to Capacity	0.71	0.71	0.06	0.60	0.60	0.16
Queue Length 95th (ft)	0	0	0	0	0	14
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	29.7
Lane LOS						D
Approach Delay (s)	0.0			0.0		29.7
Approach LOS						D
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			71.8%		ICU Level of Service	C
Analysis Period (min)			15			

2040 Long Range Total AM Peak Hour
6: 83rd Ave & 10th St

Kellar Engineering LLC

02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	1685	47	114	1510	265	73	300	126	375	270	255
Future Volume (vph)	216	1685	47	114	1510	265	73	300	126	375	270	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	110		50	110		50
Storage Lanes	2		1	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.576			0.294		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	1073	3539	1583	548	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			126			282			126			136
Link Speed (mph)		65			65			40			40	
Link Distance (ft)		1306			1445			509			1289	
Travel Time (s)		13.7			15.2			8.7			22.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	230	1793	50	121	1606	282	78	319	134	399	287	271
Shared Lane Traffic (%)												
Lane Group Flow (vph)	230	1793	50	121	1606	282	78	319	134	399	287	271
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8	2		2	6		6

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	14.2	70.0	70.0	10.0	65.8	65.8	10.7	24.0	24.0	26.0	39.3	39.3
Total Split (%)	10.9%	53.8%	53.8%	7.7%	50.6%	50.6%	8.2%	18.5%	18.5%	20.0%	30.2%	30.2%
Maximum Green (s)	9.7	65.5	65.5	5.5	61.3	61.3	6.2	19.5	19.5	21.5	34.8	34.8
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	9.7	65.5	65.5	5.5	61.3	61.3	25.7	19.5	19.5	45.5	36.9	36.9
Actuated g/C Ratio	0.07	0.50	0.50	0.04	0.47	0.47	0.20	0.15	0.15	0.35	0.28	0.28
v/c Ratio	0.90	1.01	0.06	0.83	0.96	0.32	0.32	0.60	0.39	1.02	0.29	0.50
Control Delay	94.7	55.0	0.1	102.1	48.3	3.1	34.8	57.0	13.2	86.4	38.0	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.7	55.0	0.1	102.1	48.3	3.1	34.8	57.0	13.2	86.4	38.0	22.9
LOS	F	D	A	F	D	A	C	E	B	F	D	C
Approach Delay		58.1			45.2			42.7			53.9	
Approach LOS		E			D			D			D	

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 51.3

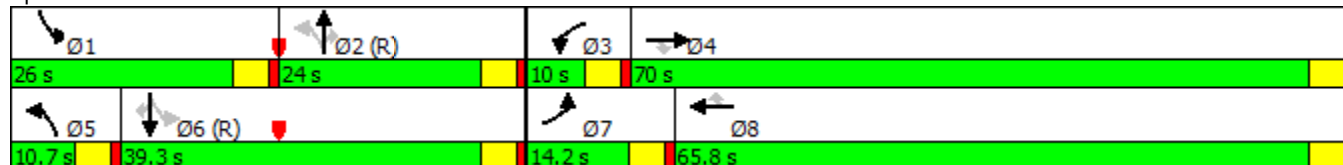
Intersection LOS: D

Intersection Capacity Utilization 94.8%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 6: 83rd Ave & 10th St



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	230	1793	50	121	1606	282	78	319	134	399	287	271
v/c Ratio	0.90	1.01	0.06	0.83	0.96	0.32	0.32	0.60	0.39	1.02	0.29	0.50
Control Delay	94.7	55.0	0.1	102.1	48.3	3.1	34.8	57.0	13.2	86.4	38.0	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.7	55.0	0.1	102.1	48.3	3.1	34.8	57.0	13.2	86.4	38.0	22.9
Queue Length 50th (ft)	101	~786	0	53	674	0	44	133	6	~287	102	94
Queue Length 95th (ft)	#177	#970	0	#109	#851	48	82	185	65	#465	143	185
Internal Link Dist (ft)		1226			1365			429			1209	
Turn Bay Length (ft)	500		500	500		500	110		50	110		50
Base Capacity (vph)	256	1783	860	145	1668	895	245	530	344	393	1005	547
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	1.01	0.06	0.83	0.96	0.32	0.32	0.60	0.39	1.02	0.29	0.50

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

2040 Long Range Total AM Peak Hour
3: 89th Ave & 10th St

Kellar Engineering LLC
02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	1696	29	21	1883	51	111	34	37	207	57	285
Future Volume (vph)	150	1696	29	21	1883	51	111	34	37	207	57	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	100		0	100		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.922			0.875	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1717	0	1770	1630	0
Flt Permitted	0.059			0.063			0.237			0.703		
Satd. Flow (perm)	110	3539	1583	117	3539	1583	441	1717	0	1310	1630	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			104		40			97	
Link Speed (mph)		65			65			30			30	
Link Distance (ft)		1155			1402			562			1072	
Travel Time (s)		12.1			14.7			12.8			24.4	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	161	1824	31	23	2025	55	119	37	40	223	61	306
Shared Lane Traffic (%)												
Lane Group Flow (vph)	161	1824	31	23	2025	55	119	77	0	223	367	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	11.0	66.7	66.7	9.5	65.2	65.2	9.6	24.1		9.7	24.2	
Total Split (%)	10.0%	60.6%	60.6%	8.6%	59.3%	59.3%	8.7%	21.9%		8.8%	22.0%	
Maximum Green (s)	6.5	62.2	62.2	5.0	60.7	60.7	5.1	19.6		5.2	19.7	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effect Green (s)	70.5	67.9	67.9	65.7	60.7	60.7	24.7	19.6		24.9	19.7	
Actuated g/C Ratio	0.64	0.62	0.62	0.60	0.55	0.55	0.22	0.18		0.23	0.18	
v/c Ratio	0.96	0.84	0.03	0.16	1.04	0.06	0.74	0.23		0.70	0.99	
Control Delay	85.4	22.1	0.1	9.4	56.1	0.3	62.4	23.0		50.0	78.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	85.4	22.1	0.1	9.4	56.1	0.3	62.4	23.0		50.0	78.2	
LOS	F	C	A	A	E	A	E	C		D	E	
Approach Delay		26.8			54.2			46.9			67.6	
Approach LOS		C			D			D			E	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 44.2

Intersection LOS: D

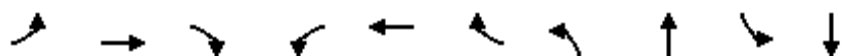
Intersection Capacity Utilization 102.1%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 3: 89th Ave & 10th St

								
Ø1	Ø2 (R)		Ø3	Ø4		Ø5	Ø6 (R)	Ø7
9.7 s	24.1 s		9.5 s	66.7 s		9.6 s	24.2 s	11 s
								65.2 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	161	1824	31	23	2025	55	119	77	223	367
v/c Ratio	0.96	0.84	0.03	0.16	1.04	0.06	0.74	0.23	0.70	0.99
Control Delay	85.4	22.1	0.1	9.4	56.1	0.3	62.4	23.0	50.0	78.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	22.1	0.1	9.4	56.1	0.3	62.4	23.0	50.0	78.2
Queue Length 50th (ft)	65	445	0	5	~812	0	66	22	133	199
Queue Length 95th (ft)	#203	#707	0	14	#951	3	#117	65	#217	#394
Internal Link Dist (ft)		1075			1322			482		992
Turn Bay Length (ft)	500		500	500		500	100		100	
Base Capacity (vph)	168	2184	1017	145	1952	920	160	338	318	371
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.84	0.03	0.16	1.04	0.06	0.74	0.23	0.70	0.99

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

2040 Long Range Total AM Peak Hour
9: 89th Ave & 7th St

Kellar Engineering LLC
02/22/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	200	249	0	1	50	25	202	1	100	0
Future Volume (Veh/h)	0	0	200	249	0	1	50	25	202	1	100	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	217	271	0	1	54	27	220	1	109	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh								2				
Upstream signal (ft)								1072				
pX, platoon unblocked												
vC, conflicting volume	247	466	109	463	246	27	109			247		
vC1, stage 1 conf vol	111	111		135	135							
vC2, stage 2 conf vol	136	355		328	111							
vCu, unblocked vol	247	466	109	463	246	27	109			247		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	77	41	100	100	96			100		
cM capacity (veh/h)	781	578	945	459	695	1048	1481			1319		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1						
Volume Total	217	272	54	27	220	110						
Volume Left	0	271	54	0	0	1						
Volume Right	217	1	0	0	220	0						
cSH	945	460	1481	1700	1700	1319						
Volume to Capacity	0.23	0.59	0.04	0.02	0.13	0.00						
Queue Length 95th (ft)	22	94	3	0	0	0						
Control Delay (s)	9.9	23.5	7.5	0.0	0.0	0.1						
Lane LOS	A	C	A			A						
Approach Delay (s)	9.9	23.5	1.3			0.1						
Approach LOS	A	C										
Intersection Summary												
Average Delay			10.0									
Intersection Capacity Utilization			Err%	ICU Level of Service				H				
Analysis Period (min)			15									

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	319	160	625	695	5
Future Volume (Veh/h)	5	319	160	625	695	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	347	174	679	755	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				1289		
pX, platoon unblocked	0.99					
vC, conflicting volume	1445	380	760			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1429	380	760			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	44	79			
cM capacity (veh/h)	99	618	848			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	352	174	340	340	503	257
Volume Left	5	174	0	0	0	0
Volume Right	347	0	0	0	0	5
cSH	575	848	1700	1700	1700	1700
Volume to Capacity	0.61	0.21	0.20	0.20	0.30	0.15
Queue Length 95th (ft)	103	19	0	0	0	0
Control Delay (s)	20.6	10.3	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	20.6	2.1			0.0	
Approach LOS	C					
Intersection Summary						
Average Delay			4.6			
Intersection Capacity Utilization			58.3%		ICU Level of Service	B
Analysis Period (min)			15			

														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↑↑	↑		↑↑	↑			↑			↑		
Traffic Volume (veh/h)	0	1883	29	0	1823	15	0	0	37	0	0	113		
Future Volume (Veh/h)	0	1883	29	0	1823	15	0	0	37	0	0	113		
Sign Control		Free			Free			Stop			Stop			
Grade		0%			0%			0%			0%			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93		
Hourly flow rate (vph)	0	2025	31	0	1960	16	0	0	40	0	0	122		
Pedestrians														
Lane Width (ft)														
Walking Speed (ft/s)														
Percent Blockage														
Right turn flare (veh)														
Median type	None			None										
Median storage veh														
Upstream signal (ft)	1306													
pX, platoon unblocked	0.55						0.55	0.55				0.55	0.55	0.55
vC, conflicting volume	1976				2056			3127	4001	1012	3012	4016	980	
vC1, stage 1 conf vol														
vC2, stage 2 conf vol														
vCu, unblocked vol	1141				2056			3231	4818	1012	3023	4845	0	
tC, single (s)	4.1				4.1			7.5	6.5	6.9	7.5	6.5	6.9	
tC, 2 stage (s)														
tF (s)	2.2				2.2			3.5	4.0	3.3	3.5	4.0	3.3	
p0 queue free %	100				100			100	100	83	100	100	80	
cM capacity (veh/h)	335				269			2	0	237	3	0	597	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1						
Volume Total	1012	1012	31	980	980	16	40	122						
Volume Left	0	0	0	0	0	0	0	0						
Volume Right	0	0	31	0	0	16	40	122						
cSH	1700	1700	1700	1700	1700	1700	237	597						
Volume to Capacity	0.60	0.60	0.02	0.58	0.58	0.01	0.17	0.20						
Queue Length 95th (ft)	0	0	0	0	0	0	15	19						
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	23.3	12.6						
Lane LOS							C	B						
Approach Delay (s)	0.0				0.0			23.3	12.6					
Approach LOS							C	B						
Intersection Summary														
Average Delay	0.6													
Intersection Capacity Utilization	64.1%			ICU Level of Service					C					
Analysis Period (min)	15													

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	5	73	40	5	8	8
Future Volume (Veh/h)	5	73	40	5	8	8
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	79	43	5	9	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			84		136	44
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			84		136	44
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		99	99
cM capacity (veh/h)			1513		834	1025
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	84	48	18			
Volume Left	0	43	9			
Volume Right	79	0	9			
cSH	1700	1513	920			
Volume to Capacity	0.05	0.03	0.02			
Queue Length 95th (ft)	0	2	1			
Control Delay (s)	0.0	6.7	9.0			
Lane LOS		A	A			
Approach Delay (s)	0.0	6.7	9.0			
Approach LOS			A			
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization			19.1%	ICU Level of Service		A
Analysis Period (min)			15			

2040 Long Range Total PM Peak Hour
6: 83rd Ave & 10th St

Kellar Engineering LLC

02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	326	1675	76	217	1870	725	63	385	159	400	380	200
Future Volume (vph)	326	1675	76	217	1870	725	63	385	159	400	380	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	110		50	110		50
Storage Lanes	2		1	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.514			0.160		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	957	3539	1583	298	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			447			109			98
Link Speed (mph)		65			65			40			40	
Link Distance (ft)		1306			1445			509			1289	
Travel Time (s)		13.7			15.2			8.7			22.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	347	1782	81	231	1989	771	67	410	169	426	404	213
Shared Lane Traffic (%)												
Lane Group Flow (vph)	347	1782	81	231	1989	771	67	410	169	426	404	213
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8	2		2	6		6

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	18.0	79.8	79.8	15.2	77.0	77.0	10.8	25.0	25.0	30.0	44.2	44.2
Total Split (%)	12.0%	53.2%	53.2%	10.1%	51.3%	51.3%	7.2%	16.7%	16.7%	20.0%	29.5%	29.5%
Maximum Green (s)	13.5	75.3	75.3	10.7	72.5	72.5	6.3	20.5	20.5	25.5	39.7	39.7
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	13.5	75.3	75.3	10.7	72.5	72.5	26.8	20.5	20.5	50.5	41.9	41.9
Actuated g/C Ratio	0.09	0.50	0.50	0.07	0.48	0.48	0.18	0.14	0.14	0.34	0.28	0.28
v/c Ratio	1.13	1.00	0.10	0.95	1.16	0.77	0.33	0.85	0.55	1.22	0.41	0.42
Control Delay	127.2	46.0	4.1	113.5	116.1	18.5	41.7	80.0	29.7	159.6	46.2	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.2	46.0	4.1	113.5	116.1	18.5	41.7	80.0	29.7	159.6	46.2	26.7
LOS	F	D	A	F	F	B	D	E	C	F	D	C
Approach Delay		57.2			90.8			62.8			88.5	
Approach LOS		E			F			E			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.22

Intersection Signal Delay: 77.0

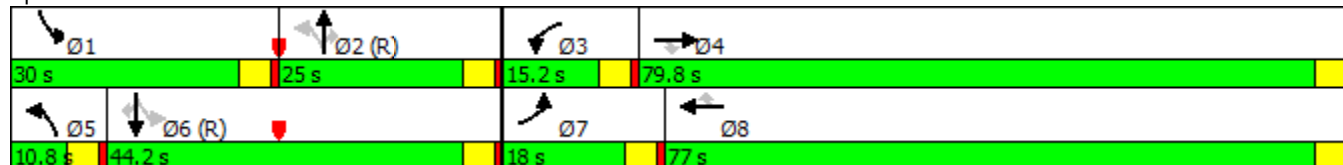
Intersection LOS: E

Intersection Capacity Utilization 108.8%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 6: 83rd Ave & 10th St



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	347	1782	81	231	1989	771	67	410	169	426	404	213
v/c Ratio	1.13	1.00	0.10	0.95	1.16	0.77	0.33	0.85	0.55	1.22	0.41	0.42
Control Delay	127.2	46.0	4.1	113.5	116.1	18.5	41.7	80.0	29.7	159.6	46.2	26.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.2	46.0	4.1	113.5	116.1	18.5	41.7	80.0	29.7	159.6	46.2	26.7
Queue Length 50th (ft)	~204	~797	2	118	~1210	277	45	209	53	~459	173	92
Queue Length 95th (ft)	m#208	m773	m3	#204	#1342	472	84	#292	135	#679	226	173
Internal Link Dist (ft)		1226			1365			429			1209	
Turn Bay Length (ft)	500		500	500		500	110		50	110		50
Base Capacity (vph)	308	1776	848	244	1710	996	205	483	310	350	987	512
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	1.00	0.10	0.95	1.16	0.77	0.33	0.85	0.55	1.22	0.41	0.42

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

2040 Long Range Total PM Peak Hour
3: 89th Ave & 10th St

Kellar Engineering LLC

02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	450	2110	87	43	1870	87	43	105	26	200	91	265
Future Volume (vph)	450	2110	87	43	1870	87	43	105	26	200	91	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		500	500		500	100		0	100		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.970			0.888	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1807	0	1770	1654	0
Flt Permitted	0.053			0.056			0.189			0.380		
Satd. Flow (perm)	99	3539	1583	104	3539	1583	352	1807	0	708	1654	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			142		7			86	
Link Speed (mph)		65			65			30			30	
Link Distance (ft)		1155			1402			562			1072	
Travel Time (s)		12.1			14.7			12.8			24.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	489	2293	95	47	2033	95	47	114	28	217	99	288
Shared Lane Traffic (%)												
Lane Group Flow (vph)	489	2293	95	47	2033	95	47	142	0	217	387	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lanes, Volumes, Timings
Sean Kellar, PE, PTOE

Synchro Report

2040 Long Range Total PM Peak Hour
3: 89th Ave & 10th St

Kellar Engineering LLC
02/22/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	33.0	98.5	98.5	9.5	75.0	75.0	9.5	26.6		15.4	32.5	
Total Split (%)	22.0%	65.7%	65.7%	6.3%	50.0%	50.0%	6.3%	17.7%		10.3%	21.7%	
Maximum Green (s)	28.5	94.0	94.0	5.0	70.5	70.5	5.0	22.1		10.9	28.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0			11.0	
Pedestrian Calls (#/hr)		0	0		0	0		0			0	
Act Effect Green (s)	103.5	95.9	95.9	75.5	70.5	70.5	27.1	22.1		37.5	29.9	
Actuated g/C Ratio	0.69	0.64	0.64	0.50	0.47	0.47	0.18	0.15		0.25	0.20	
v/c Ratio	1.27	1.01	0.09	0.44	1.22	0.12	0.43	0.52		0.85	0.97	
Control Delay	180.3	49.7	1.5	21.1	126.7	0.7	56.7	63.7		79.3	84.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	180.3	49.7	1.5	21.1	126.7	0.7	56.7	63.7		79.3	84.5	
LOS	F	D	A	C	F	A	E	E		E	F	
Approach Delay		70.3			118.9			62.0			82.6	
Approach LOS		E			F			E			F	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.27

Intersection Signal Delay: 89.4

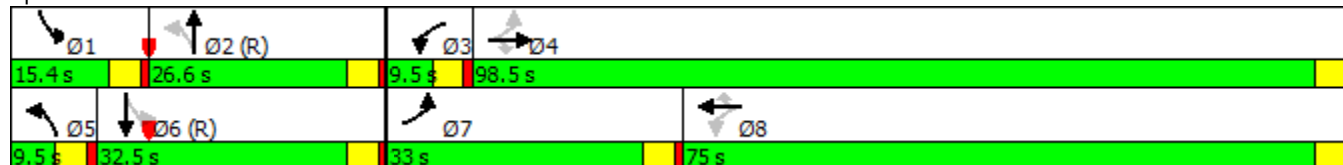
Intersection LOS: F

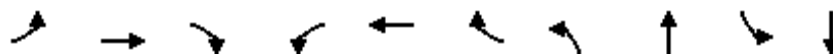
Intersection Capacity Utilization 116.9%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 3: 89th Ave & 10th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	489	2293	95	47	2033	95	47	142	217	387
v/c Ratio	1.27	1.01	0.09	0.44	1.22	0.12	0.43	0.52	0.85	0.97
Control Delay	180.3	49.7	1.5	21.1	126.7	0.7	56.7	63.7	79.3	84.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	180.3	49.7	1.5	21.1	126.7	0.7	56.7	63.7	79.3	84.5
Queue Length 50th (ft)	~552	~1264	0	12	~1266	2	36	124	183	~328
Queue Length 95th (ft)	#780	#1390	17	m13	m#1056	m2	72	199	#326	#542
Internal Link Dist (ft)		1075			1322			482		992
Turn Bay Length (ft)	500		500	500		500	100		100	
Base Capacity (vph)	385	2262	1051	107	1663	819	110	272	254	398
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.27	1.01	0.09	0.44	1.22	0.12	0.43	0.52	0.85	0.97

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	100	406	0	5	200	100	442	0	50	0
Future Volume (Veh/h)	0	0	100	406	0	5	200	100	442	0	50	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	109	441	0	5	217	109	480	0	54	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			None	
Median storage veh								2				
Upstream signal (ft)								1072				
pX, platoon unblocked												
vC, conflicting volume	602	1077	54	706	597	109	54			589		
vC1, stage 1 conf vol	54	54		543	543							
vC2, stage 2 conf vol	548	1023		163	54							
vCu, unblocked vol	602	1077	54	706	597	109	54			589		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	89	0	100	99	86			100		
cM capacity (veh/h)	434	262	1013	404	430	945	1551			986		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1						
Volume Total	109	446	217	109	480	54						
Volume Left	0	441	217	0	0	0						
Volume Right	109	5	0	0	480	0						
cSH	1013	407	1551	1700	1700	986						
Volume to Capacity	0.11	1.10	0.14	0.06	0.28	0.00						
Queue Length 95th (ft)	9	391	12	0	0	0						
Control Delay (s)	9.0	105.3	7.7	0.0	0.0	0.0						
Lane LOS	A	F	A									
Approach Delay (s)	9.0	105.3	2.1			0.0						
Approach LOS	A	F										
Intersection Summary												
Average Delay			35.1									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	319	407	1030	665	5
Future Volume (Veh/h)	5	319	407	1030	665	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	343	438	1108	715	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				1289		
pX, platoon unblocked	0.96					
vC, conflicting volume	2148	360	720			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2116	360	720			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	76	46	50			
cM capacity (veh/h)	21	637	877			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	348	438	554	554	477	243
Volume Left	5	438	0	0	0	0
Volume Right	343	0	0	0	0	5
cSH	448	877	1700	1700	1700	1700
Volume to Capacity	0.78	0.50	0.33	0.33	0.28	0.14
Queue Length 95th (ft)	169	71	0	0	0	0
Control Delay (s)	35.9	13.1	0.0	0.0	0.0	0.0
Lane LOS	E	B				
Approach Delay (s)	35.9	3.7			0.0	
Approach LOS	E					
Intersection Summary						
Average Delay			7.0			
Intersection Capacity Utilization			71.1%		ICU Level of Service	C
Analysis Period (min)			15			

														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		↑↑	↗		↑↑	↗			↗			↗		
Traffic Volume (veh/h)	0	2236	87	0	1929	200	0	0	26	0	0	180		
Future Volume (Veh/h)	0	2236	87	0	1929	200	0	0	26	0	0	180		
Sign Control		Free			Free			Stop			Stop			
Grade		0%			0%			0%			0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	0	2430	95	0	2097	217	0	0	28	0	0	196		
Pedestrians														
Lane Width (ft)														
Walking Speed (ft/s)														
Percent Blockage														
Right turn flare (veh)														
Median type	None			None										
Median storage veh														
Upstream signal (ft)	1306													
pX, platoon unblocked	0.52						0.52	0.52				0.52	0.52	0.52
vC, conflicting volume	2314				2525			3674	4744	1215	3340	4622	1048	
vC1, stage 1 conf vol														
vC2, stage 2 conf vol														
vCu, unblocked vol	1690				2525			4288	6330	1215	3649	6097	0	
tC, single (s)	4.1				4.1			7.5	6.5	6.9	7.5	6.5	6.9	
tC, 2 stage (s)														
tF (s)	2.2				2.2			3.5	4.0	3.3	3.5	4.0	3.3	
p0 queue free %	100				100			100	100	84	100	100	65	
cM capacity (veh/h)	196				175			0	0	173	1	0	568	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1						
Volume Total	1215	1215	95	1048	1048	217	28	196						
Volume Left	0	0	0	0	0	0	0	0						
Volume Right	0	0	95	0	0	217	28	196						
cSH	1700	1700	1700	1700	1700	1700	173	568						
Volume to Capacity	0.71	0.71	0.06	0.62	0.62	0.13	0.16	0.35						
Queue Length 95th (ft)	0	0	0	0	0	0	14	38						
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	29.7	14.6						
Lane LOS							D	B						
Approach Delay (s)	0.0				0.0			29.7	14.6					
Approach LOS							D	B						
Intersection Summary														
Average Delay	0.7													
Intersection Capacity Utilization	71.8%			ICU Level of Service					C					
Analysis Period (min)	15													

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	5	110	70	5	101	101
Future Volume (Veh/h)	5	110	70	5	101	101
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	120	76	5	110	110
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			125		222	65
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			125		222	65
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		85	89
cM capacity (veh/h)			1462		726	999
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	125	81	220			
Volume Left	0	76	110			
Volume Right	120	0	110			
cSH	1700	1462	841			
Volume to Capacity	0.07	0.05	0.26			
Queue Length 95th (ft)	0	4	26			
Control Delay (s)	0.0	7.2	10.8			
Lane LOS		A	B			
Approach Delay (s)	0.0	7.2	10.8			
Approach LOS			B			
Intersection Summary						
Average Delay			6.9			
Intersection Capacity Utilization			29.3%	ICU Level of Service		A
Analysis Period (min)			15			



Sean Kellar, PE, PTOE

Principal Engineer

Education

B.S., Civil Engineering, Arizona State University – Tempe, AZ

Registration

Colorado, Professional Engineer (PE)
Wyoming, Professional Engineer (PE)
Idaho, Professional Engineer (PE)
Arizona, Professional Engineer (PE)
Kansas, Professional Engineer (PE)
Missouri, Professional Engineer (PE)
Professional Traffic Operations Engineer (PTOE)

Professional Memberships

Institute of Transportation Engineers (ITE)

Industry Tenure

23 Years

Sean's wide range of expertise includes: transportation planning, traffic modeling roadway design, bike and pedestrian facilities, traffic impact studies, traffic signal warrant analysis, parking studies, corridor planning and access management. Sean's experience in both the private and public sectors; passion for safety and excellence; and strong communication and collaboration skills can bring great value to any project. Prior to starting Kellar Engineering, Sean was employed at the Missouri Department of Transportation (MoDOT) as the District Traffic Engineer for the Kansas City District. Sean also worked for the City of Loveland, CO for over 10 years as a Senior Civil Engineer supervising a division of transportation/traffic engineers. While at the City of Loveland, Sean managed several capital improvement projects, presented several projects to the City Council and Planning Commission in public hearings, and managed the revisions to the City's Street Standards. Sean is also proficient in Highway Capacity Software, Synchro, PT Vissim, Rodel, GIS, and AutoCAD.



WORK EXPERIENCE:

Kellar Engineering, Principal Engineer/President – January 2016 – Present

Missouri Department of Transportation, District Traffic Engineer, Kansas City District – June 2015 – January 2016

City of Loveland, Colorado, Senior Civil Engineer, Public Works Department – February 2005 – June 2015

Kirkham Michael Consulting Engineers, Project Manager - February 2004 – February 2005

Dibble and Associates Consulting Engineers, Project Engineer – August 1999 – February 2004



Planning Commission Agenda Summary

September 12, 2023

Key Staff Contact: Meghan Oren, Planner III

Title:

Boomerang Storage Planned Unit Development (PUD2023-0001)

Summary:

A public hearing to consider a Planned Unit Development (PUD) request to rezone approximately 4.23 acres located directly north of 7025 8th Street from R-H (Residential High Density) to PUD (Planned Unit Development). (PUD2023-0001).

Recommended Action:

Planning staff and the Administrative Review Team recommend approval.

Attachments:

1. PUD2023-0001_Boomerang Storage PUD Staff Report_PC FINAL
2. PUD2023-0001_Attachment A - Vicinity Map
3. PUD2023-0001_Attachment B - Project Narrative
4. PUD2023-0001_Attachment C - PUD Plan Set
5. PUD2023-0001_Attachment D - Neighborhood Notification Boundary Map
6. PUD2023-0001_Attachment E - PC Staff Presentation

PLANNING COMMISSION SUMMARY

ITEM: Rezone from R-H (Residential High Density) to PUD (Planned Unit Development)

FILE NUMBER: PUD2023-0001

PROJECT: Boomerang Storage PUD

LOCATION: 7025 8th Street

APPLICANT: Rob Stanley

CASE PLANNER: Meg Oren, Planner III

PLANNING COMMISSION HEARING DATE: August 22, 2023

PLANNING COMMISSION FUNCTION:

The Planning Commission shall consider the staff report, along with testimony and comments made by the applicant and the public and shall then make a recommendation to the City Council regarding the application in the form of a finding based on the review criteria in Section 24-205(c) and 24-204(b) of the Development Code.

EXECUTIVE SUMMARY

The City of Greeley is considering a request to rezone approximately 4.23 acres located on the parcel directly north of 7025 8th Street from R-H (Residential High Density) to PUD (Planned Unit Development).

A. REQUEST

The applicant proposes rezoning approximately 4.23 acres located on the parcel directly north of 7025 8th Street from R-H (Residential High Density) to PUD (Planned Unit Development).

The PUD would allow all uses listed as permitted and uses listed as Use by Special Review in C-H (Commercial High Intensity), in addition to outdoor RV/boat/vehicle storage. Development is proposed to follow Development Code standards for the C-H (Commercial High Intensity) zoning district to ensure that the site maintains adequate screening, buffering, landscaping, open space, and setbacks. Existing oil and gas wells have been plugged and abandoned. See Attachments A, B, and C for more information.

B. STAFF RECOMMENDATION

Approval

C. LOCATION

Abutting Zoning

North: R-H (Residential High Density)
South: C-H (Commercial High Intensity)
East: I-L (Industrial Low Intensity)
West: R-L (Residential Low Density)

Abutting Land Uses

North: Detention Pond
South: RV/Boat/Vehicle Storage and Indoor Storage
East: School (West Ridge Academy Charter School)
West: School (Tointon Academy)

Site Characteristics:

The site is currently vacant. There are existing oil and gas wells located on the northern half of the site, however they have been plugged and abandoned. There are no major topographical changes, and the site does not contain any major environmental areas of interest.

D. BACKGROUND

The site was originally a part of the Hewlett-Packard (H-P) Subdivision (S6-11; Recordation No. 38002237) and was established with the H-P Greeley Minor Subdivision – Seventh Replat (SUB2022-0021; Recordation No. 4875646) in January, 2023.

The applicant seeks to expand the existing business from the south of the site to allow for outdoor and indoor storage, which requires rezoning the site.

E. APPROVAL CRITERIA

Rezoning Review Criteria, Section 24-204(b):

- 1. The proposal is in accordance with the goals and objectives of the Comprehensive Plan and any other plan, policy or guidance adopted pursuant to that plan.**

Staff Comment: The subject area is identified as a Suburban Neighborhood on the Land Use Guidance Map in the Imagine Greeley Comprehensive Plan. The inclusion of indoor and outdoor storage supports the vision to include non-residential uses in appropriate locations within Suburban Neighborhoods. Additionally, the following comprehensive plan goals support the subject application:

Objective GC-1.2 Form of Growth Encourage a compact urban form over sprawl or leap-frog development.

Objective GC-4.3 Infill Compatibility Promote the use of site design and building architecture that is sympathetic to the surrounding area and enhances the desirable character and form of the neighborhood or area.

The request complies with this criterion.

2. The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas.

Staff Comment: The intent of the Planned Unit Development is to provide additional use of the property in ways that are compatible with the area. The proposed land uses provide opportunities for indoor and outdoor storage which are relatively low-impact and low-intensity uses.

The request complies with this criterion.

3. Whether the area changed or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area.

Staff Comment: The area continues to see infill sites developed with a mix of residential and nonresidential uses. Recent development includes educational institutions and a residential neighborhood, Northridge Trails.

The request complies with this criterion.

4. Whether the existing zoning has been in place for a substantial time without development, and if this indicates the existing zoning is inappropriate given development trends in the vicinity.

Staff Comment: The existing zoning was established in 2015 with the H-P Greeley Subdivision Third Replat (S2-15; Recordation No. 4092418), and significant areas of the site remain undeveloped.

The request complies with this criterion.

5. The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces, and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.

Staff Comment: The proposal is an extension of an established business directly south of the site. The indoor and outdoor storage company is wanting to expand

their operations. Design criteria within the PUD has been proposed to continue within the established parameters of City of Greeley development code.

The request complies with this criterion.

6. The City or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.

Staff Comment: Existing services are present in the vicinity to support development of the site as proposed.

The request complies with this criterion.

7. The change will serve a community need, provide an amenity, or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.

Staff Comment: The proposed Planned Unit Development would accommodate the community's need for indoor and outdoor storage. The proposed allowed use is not allowed under the existing zoning to this extent. The proposed zoning is more appropriate than the existing zoning to allow development of the site and to serve community needs.

The request complies with this criterion.

8. Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design and engineering practices or are outweighed by broader public benefits to the surrounding community.

Staff Comment: The only anticipated negative impact of the proposal would be visual, which will be mitigated by the landscape buffering standards established in the PUD.

The request complies with this criterion.

9. The recommendations of professional staff or advisory review bodies.

Staff Comment: Planning staff and the Administrative Review Team recommend approval.

The request complies with this criterion.

Planned Unit Development Review Criteria, Section 24-205(c):

- 1. The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards.**

The proposal allows nonresidential uses to be incorporated into the area in a way that achieves greater consistency and more specificity than standard zones would allow. The proposed uses are enumerated, and the proposal does not allow uses that could be incompatible with the area that would be allowed using standard zones.

The request complies with this criterion.

- 2. The benefits from any flexibility in the proposed plan:**
 - (1) promote the general public health, safety and welfare of the community, and in particular, that of the areas immediately near or within the proposed project, and is not strictly to benefit the applicant or a single project;**
 - (2) involves innovative concepts that were not anticipated by the development code; or**
 - (3) apply to a unique or specific context in a manner that allows the project to better meet the intent or design objectives of the base zoning districts and standards.**

The proposed development standards generally follow Development Code standards for C-H (Commercial High Intensity) areas with the inclusion of outdoor RV/boat/vehicle storage.

The request complies with this criterion.

- 3. The plan reflects generally accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan to the area.**

The request is consistent with planning and design principles and the Comprehensive Plan.

The request complies with this criterion.

- 4. The plan meets all the review criteria for zoning map amendments in Section 24-204.**

The request complies with Section 24-204, Review Criteria for Rezoning as detailed above.

The request complies with this criterion.

F. PHYSICAL SITE CHARACTERISTICS

1. SUBDIVISION HISTORY

The subject site is Lot 1A of H-P Greeley Minor Subdivision 7th Replat, recorded in 2023 (SUB2022-0021; Recordation No. 4875646). No additional land division is proposed at this time.

2. HAZARDS

A portion of the site is within 500 feet of the nearby abandoned and plugged oil and gas operation. Any development of the site must comply with setbacks from oil and gas operations.

3. WILDLIFE

No ecologically sensitive areas have been identified on the site. Colorado Parks and Wildlife did not provide comments impacting the application.

4. FLOODPLAIN

The property is not located within the 100-year floodplain or floodway, according to the adopted Federal Emergency Management Administration (FEMA) flood data.

5. DRAINAGE AND EROSION

Existing drainage facilities serve the site. Drainage and erosion would be further reviewed with future development of the site in concert with a Site Plan Review.

6. TRANSPORTATION

The site has adequate connectivity with an existing access from 71st Avenue. Additional traffic generation is expected to be minimal as there were 50 average daily trips and only four AM and PM trips.

G. SERVICES

1. WATER

Existing water infrastructure is present and adequate to serve the site.

2. SANITATION

Existing sewer infrastructure is present and adequate to serve the site.

4. EMERGENCY SERVICES

Existing emergency services are adequate to serve the site, including Fire Station #7, located approximately one-half mile away.

5. PARKS AND OPEN SPACES

Parkland dedication, or cash-in-lieu, may be required with any future residential subdivision.

6. SCHOOLS

The subject property is located within Greeley-Evans School District 6. Cash-in-lieu for school land dedication may be required with any future residential subdivision.

7. METROPOLITAN DISTRICT

The site is within the City Center West Metro District (MD1-14; Ordinance No. 58), adopted in 2016, and has a Development Concept Master Plan (DCMP). If approved, the PUD development standards will override the DCMP standards.

H. NEIGHBORHOOD IMPACTS

1. VISUAL

Maintaining a generous buffer from existing residential uses is anticipated to adequately address visual impacts.

2. NOISE

Significant noise impacts are not anticipated. Any noise created by future development is regulated by the Municipal Code.

I. PUBLIC NOTICE AND COMMENT

Public notices were completed as follows:

- Notice was placed on the City of Greeley's website on August 1, 2023.
- A sign was posted on the property on August 4, 2023.
- Notice was mailed to 108 property owners or current residents within 1,000 feet of the site on August 2, 2023.

No comments have been received.

J. MINERAL ESTATE OWNER NOTIFICATION

The applicant satisfied the mineral owner notification requirements. No feedback from mineral owners has been received.

K. PLANNING COMMISSION RECOMMENDED MOTIONS

Recommended (Approval)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council approval.

Alternative (Denial)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is not in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council denial.

ATTACHMENTS

Attachment A – Vicinity Map

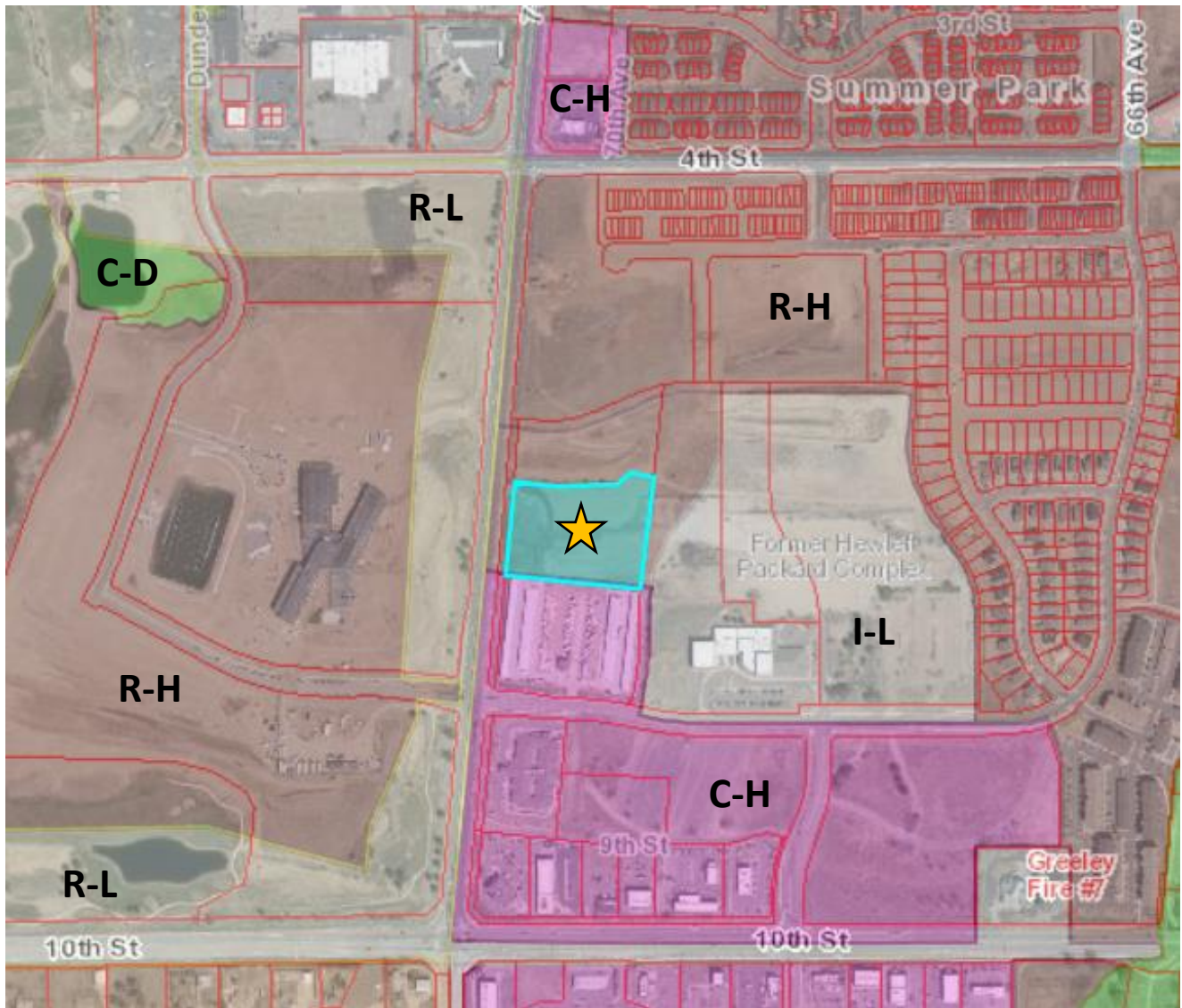
Attachment B – Project Narrative

Attachment C – PUD Plan Set

Attachment D – Neighborhood Notification Boundary Map

Attachment E – Staff Slides

Attachment A – Vicinity Map



Attachment B – Project Narrative

February 18, 2023

Planning & Zoning Department

1100 10th Street - 2nd Floor

Greeley, CO 80631

Re: Boomerang Storage PUD2023-0001 - Project Narrative

1. Project Background

The existing Boomerang Self-Storage business located at 7025 8th Street, is proposing to expand their facility to the northern vacant site legally described as Lot 1A, H-P Greeley Subdivision 5th Replat. The subject property is currently within the R-H (Residential High Density) zone district. The site is roughly 4.23 acres, comprised of a single lot. Oil and gas wells on the site have been plugged and abandoned.

The property owner is requesting to change the zoning for Lot 1A from RH to PUD based on direction received from the City. Lot 1A would provide additional outside storage for Boomerang Self Storage customers to store their boats, trailers, and RV/vehicles.

2. Review Criteria - 24-201

- **Applicant's vision and understanding of the market for the proposed project.** There is a significant market demand for this proposed project. The surrounding area has or is in development or construction of multi-family apartments/townhomes and single-family homes that do not allow RV parking (due to HOA or City of Greeley parking constraints, etc.), or the domicile has insufficient storage for the renter or owners' belongings.
- **Proposed uses.** The proposed use includes Boat/RV storage and self storage buildings. There is no general site layout, conceptual or anticipated design of buildings at this time.
- **How the project will fit in and contribute to the area and further the intent of the existing or proposed zoning district.** The project will be similar to the Boomerang Self Storage parcel to the south (which is zoned CH with a City of Greeley approved USR for outside boats/trailers/RV's storage), see the second bullet point. To the east the parcel is zoned IL.
- **Planning and infrastructure impacts, including timing, phasing, or the need for any technical studies or outside agency coordination and review.** We do not foresee any infrastructure impacts or any technical studies or outside agency coordination and review. We will need the

assistance of the City of Greeley Planning Department with the rezoning and granting of future permits, etc.

- **Any special public information and outreach or specific agency or department reviews are necessary.** We do not foresee the need for any special public information and outreach, or specific agency review is needed.
- **Opportunities to improve designs or coordinate the preliminary concepts with other private or public investments in the area.** None needed.

3. Consistency with the goals, policies, and strategies in the City's Comprehensive Plan.

The City's Comprehensive plan designates the general area as Mixed Use, there are residential land uses existing and under progress surrounding the property. A neighborhood center generally located at the western intersection is also outlined within the Comprehensive plan which are intended to provide commercial amenities that are compatible with residential land uses. The proposed PUD would allow for greater consistency and better implementation of the Comprehensive Plan by allowing the property owner to expand the Boomerang Storage site which is considered to be a less impactful commercial development in terms of noise and traffic, given its adjacency to future residential.

The PUD promotes a healthy, progressive, and competitive local economy. Providing services and products to the local area, one of the goals as set forth in Economic Health & Diversification (ED-1) of the Comprehensive Plan. Additionally, the PUD and proposed land use expand on the City's goal to provide growth and maintain City Form by providing a commercial node at an intersection near future residential subdivisions.

4. Compatibility with Surrounding Area.

Surrounding properties are within the C-H zoning as well as the I-L and R-H zoning. Land uses around the subject property appear to be commercial and public uses such as a school, while property immediately north is vacant. The proposed expansion of the Boomerang storage site is compatible with the surrounding land uses as it lends itself to a lower intensity commercial use on the corner of the 71st Avenue intersection.

- **North:** Property to the north is zoned R-H, future land uses appear to be a residential subdivision. An outlot roughly 3.1 acres is immediately adjacent to the subject PUD site to the north and is zoned R-H. The outlot will provide a buffer between the storage and future residential as it will contain drainage features and landscaping.
- **South:** Property to the south is zoned C-H and contains the existing Boomerang Storage facility, which will remain as-is.
- **East:** Properties to the east are zoned I-L which contain a school and the formerly HP industrial building.
- **West:** Bordering the site on the west is 71st Avenue, further west properties are zoned R-L and R-H. A golf course exists on the west side of 71st Avenue.

5. Review Criteria - 24-205.c

- **The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards.**

PUD zoning is a more appropriate zone district as the C-H zoning could not accommodate for the storage needs of the site.

- **The benefits from any flexibility in the proposed plan:**

The direction to pursue a PUD zone was recommended by City staff as a means to allow the storage needs. The PUD plan also provides substantial buffering between surrounding future residential land uses which add to the safety and welfare of the community.

- **The plan reflects generally accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan to the area.**

The PUD is in-line with the Comprehensive plan goals and objectives as it encourages a commercial node at this intersection to potentially serve future residential subdivisions in the immediate area.

- **The plan meets all of the review criteria for zoning map amendments in section 24-204 shown below.**

These have been outlined below.

6. Review Criteria - 24-204.b

- **The proposal is in accordance with the goals and objectives of the Comprehensive Plan and any other plan, policy or guidance adopted pursuant to that plan.**

The PUD is compatible with the vision of the Comprehensive Plan for this Mixed Use area and has been determined to be a more appropriate zone district as the C-H zoning could not accommodate for the storage needs of the site.

- **The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas.**

The PUD zoning can provide for higher standards that can accommodate a level of compatibility with the surround land uses in terms of buffering and landscaping.

- **Whether the area changed, or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area.**

The area appears to be developing in a manner that is consistent with the Comprehensive Plan, however, recent code amendments led to a change in direction and a suggestion to pursue PUD zoning as a more appropriate option.

- **Whether the existing zoning been in place for a substantial time without development, and if this indicates the existing zoning is inappropriate given development trends in the vicinity.**

The R-H zone appears to have been established in 2015, however the site has historically been used for Oil and Gas facilities and commercial uses. The area seems to be developing in a manner where the residential land uses are being developed further north and east while this corner is being preserved for commercial uses.

- **The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.**

The proposed PUD will allow for the expansion of the storage facility and will promote a thoughtful transition between the future residential subdivision.

- **The City or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.**

The ability to provide adequate services has been determined to be feasible for this project.

- **The change will serve a community need, provide an amenity or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.**

The PUD zoning has been determined to be the most appropriate zoning based on the needs of storage uses, the PUD will also allow for a larger buffer between adjacent sites.

- **Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design and engineering practices or are outweighed by broader public benefits to the surrounding community.**

The proposed land use and PUD zoning is appropriate as it is a less intense commercial use and will not cause negative impacts on surrounding land uses given the extensive buffering.

Please feel free to reach out with any questions,

Emily Tarantini

tarantini.emily@gmail.com

303-585-1055

BOOMERANG SELF STORAGE PLANNED UNIT DEVELOPMENT
PUD2023-0001

Lot 1A, H-P Greeley Minor Subdivision–Seventh Replat
Being a replat of Lot 1, HP Greeley Subdivision, Fifth Replat, and being a
Part of Southwest 1/4 of Section 4, Township 5 North, Range 66 W of the 6th P.M.
City of Greeley, County of Weld, State of Colorado
Totaling 4.23 Acres

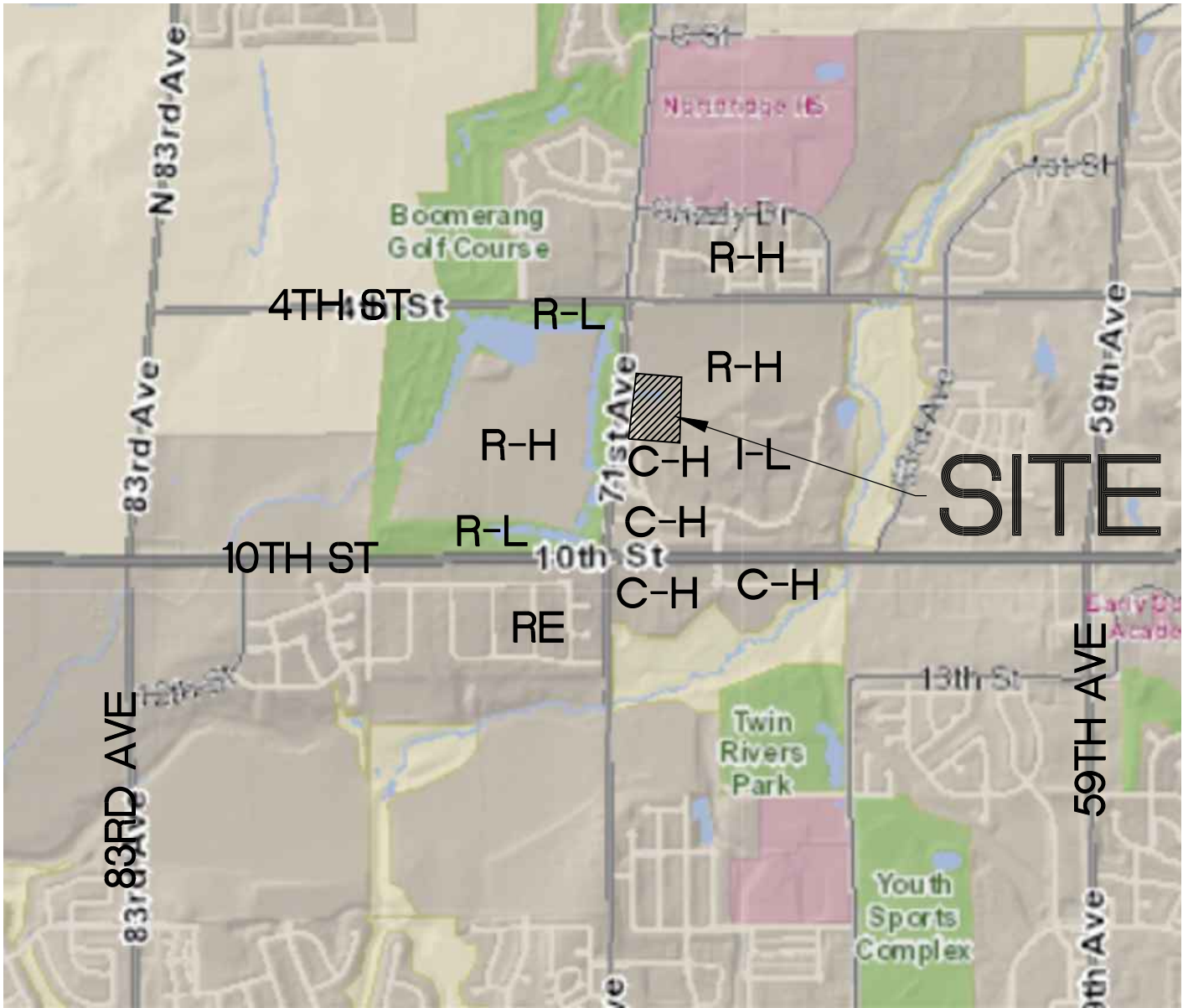
The purpose of the PUD zoning is to allow for the expansion
the Outdoor Storage area. The existing zoning on the property
is Residential **HIGH** Density **RH**

Zoning:

- 1. Development Standards to follow City of Greeley Standards for Commercial High zone district.
- 2. All uses listed as Permitted and Use by Special Review in the C-H (Commercial High Intensity) zoning district, in addition to outdoor RV/boat/vehicle storage, are allowed with a Site Plan Review.

General notes:

- 1. Approval of site construction plans by the City of Greeley shall be required (as applicable) prior to issuance of building permits.
- 2. All existing and proposed utilities shall be installed underground.
- 3. No building permit shall be issued for the construction of a new building or structure unless the property has been platted in accordance with the City's Subdivision Regulations (Chapter 3).
- 4. All elevations shown on these plans are tied to NAVD 88 datum.



Vicinity Map
N.T.S.

SITE SUMMARY			
AREA	USE	ACRES	% OF SITE
Lot 1A	All Permitted and Uses by Special Review in C-H and outdoor RV/boat/vehicle storage	4.23	100%
TOTALS		4.23	100%

INDEX	
C	COVER SHEET
1	EXISTING CONDITIONS MAP
2	MASTER DEVELOPMENT PLAN & GENERAL LAYOUT
3	SUITABILITY MAP
4	BOUNDARY MAP

CERTIFICATE OF OWNERSHIP

BOOMERANG SELF STORAGE LLC (ROB STANLEY Member) being the Owners of the Property described hereon
have planned this Property under the name of HP Lot 1 H-P Greeley Subdivision 5th Replat

1. All conditions, terms, and specifications designated or described on this document shall be binding upon the
Owner(s), their heirs,
successors and/or assigns.

In witness whereof, we have hereunto set our hand and seals this this day of , 20__.

ROB STANLEY

COMMUNITY DEVELOPMENT DIRECTOR:

Approved this day of ,2023, by the Community Development Director of the City of Greeley, Colorado.

Director of Community Development Date

PLANNING COMMISSION APPROVAL:

Approved by the City of Greeley Planning Commission on day of , 20__.

PLANNING COMMISSION

CITY COUNCIL APPROVAL:

Approved by the Greeley City Council on day of ,20__.

CITY COUNCIL

OWNER

BOOMERANG STORAGE LLC
7025 8th Street
Greeley, CO 80634
970-576-6189

LANDSCAPE ARCHITECT

Rob Molloy
980 Norway Maple Drive
Loveland, CO
970-988-5301

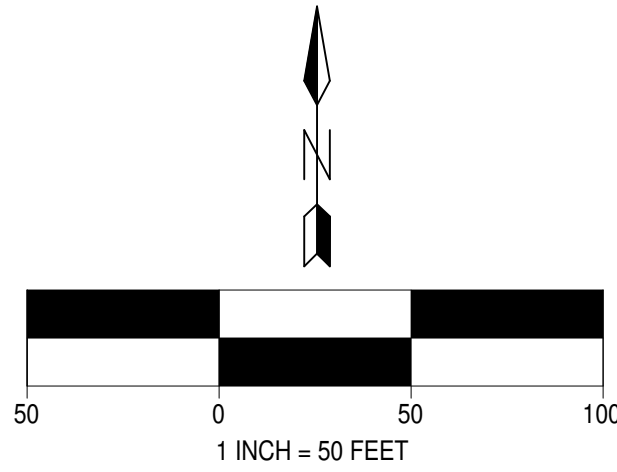
DRAWN FOR
BOOMERANG
STORAGE
P.O. BOX 83775
GREELEY CO 80638
PHONE 970-576-6189

CITY CENTER
WEST LP
400 E 168th Ave STE 500
GLENDALE, CO 80246

WERNERMAN ENGINEERING
AND LAND DEVELOPMENT LLC
P.O. BOX 105
LASALLE CO 80645
PHONE 970-599-2656

DRAWN BY
EJW
CHECKED BY
EJW
DATE
3/31/2023
SCALE
N.T.S.
PROJECT #
SHEET #
C

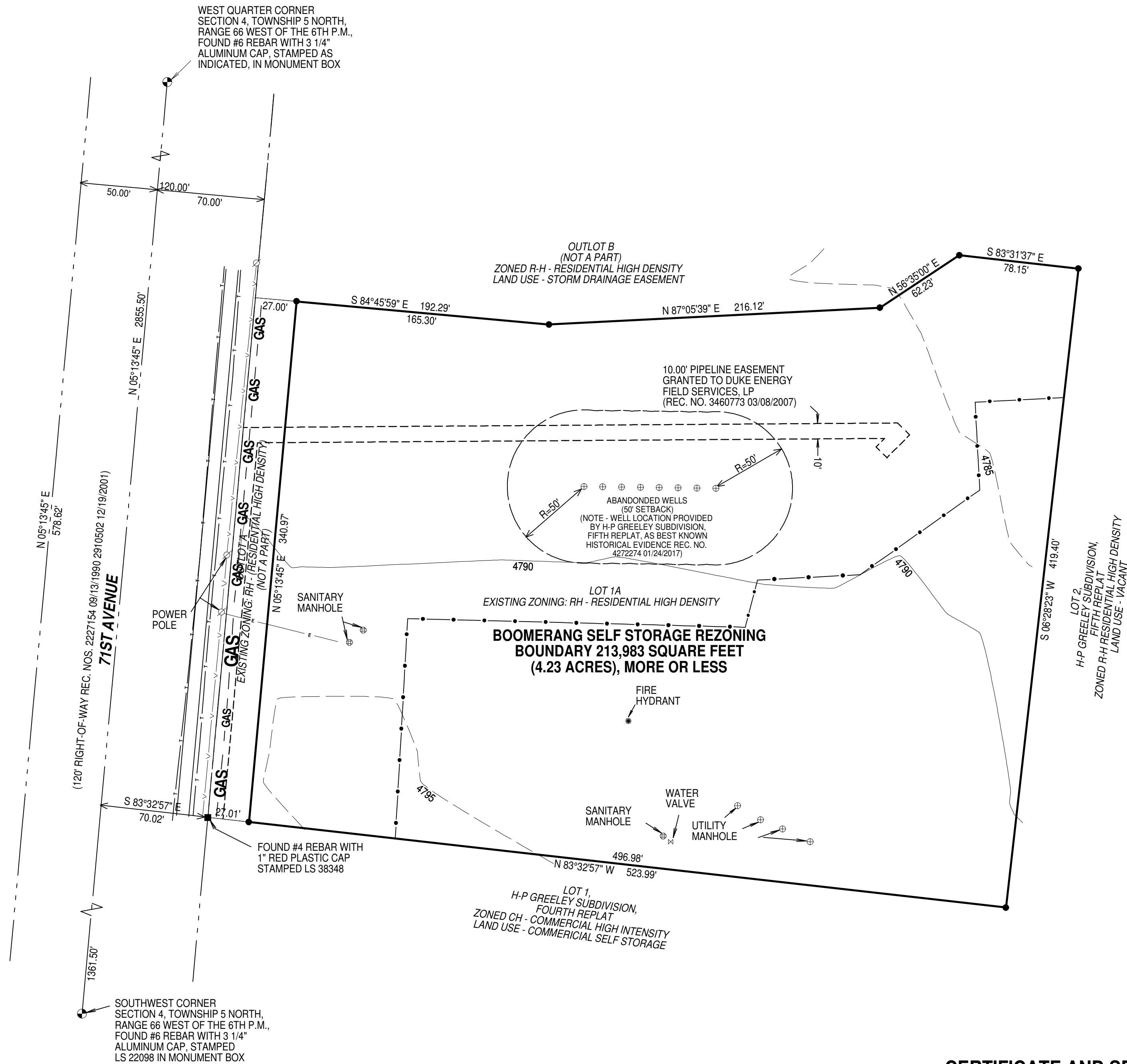
**BOOMERANG SELF STORAGE PLANNED UNIT DEVELOPMENT
EXISTING CONDITIONS AND SITE ANALYSIS MAP
LOT 1A, H-P GREELEY SUBDIVISION - SEVENTH REPLAT
BEING A PART OF THE SOUTHWEST QUARTER OF SECTION 4,
TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M.,
CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO
4.23 ACRES
PROJECT FILE NO. PUD2023-0001**



LEGEND

	ALIQUOT CORNER (AS DESCRIBED)
	FOUND MONUMENT (AS DESCRIBED)
	FOUND 24" #4 REBAR WITH 1" YELLOW PLASTIC CAP STAMPED THOMAS PLS 38353
	SUBJECT BOUNDARY
	RIGHT-OF-WAY
	EASEMENT
	GAS LINE
	BURIED ELECTRIC
	TELEPHONE/FIBER
	POWER LINE

NOTE: THIS SITE ANALYSIS MAP IS NOT A LAND SURVEY PLAT SHOULD NOT BE
CONSTRUED AS SUCH. THE SOLE PURPOSE OF THIS MAP IS TO DELINEATE THE
PUD REZONE BOUNDARY OF LOT 1A AND OUTLOT A, H-P MINOR SUBDIVISION
SEVENTH REPLAT



**CERTIFICATE AND SEAL OF THE
REGISTERED LAND SURVEYOR**

I, ROBERT D. THOMAS, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO
HEREBY CERTIFY THAT THIS PUD SITE ANALYSIS MAP WAS PREPARED BY ME, OR UNDER MY
PERSONAL SUPERVISION, AND THAT THIS PLAT IS AN ACCURATE REPRESENTATION THEREOF.
BASED UPON MY KNOWLEDGE, INFORMATION AND BELIEF, I FURTHER CERTIFY THAT THE
MAP COMPLY WITH ALL APPLICABLE RULES, REGULATIONS, AND LAWS OF THE STATE OF
COLORADO, STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND
PROFESSIONAL LAND SURVEYORS, AND THE CITY OF GREELEY, AND IS NOT A GUARANTY OR
WARRANTY, EITHER EXPRESS OR IMPLIED.

ROBERT D. THOMAS
COLORADO PROFESSIONAL LAND SURVEYOR #38353

DATE

BOOMERANG SELF STORAGE PLANNED UNIT DEVELOPMENT

PUD2023-0001

Lot 1A, H-P Greeley Minor Subdivision-Seventh Replat
Being a replat of Lot 1, HP Greeley Subdivision, Fifth Replat, and being a
Part of Southwest 1/4 of Section 4, Township 5 North, Range 66 W of the 6th P.M.
City of Greeley, County of Weld, State of Colorado
Totaling 4.23 Acres

SITE SUMMARY			
AREA	USE	ACRES	% OF SITE
Lot 1A	All Permitted and Uses by Special Review in C-H and outdoor RV/boat/vehicle storage	4.23	100%
TOTALS		4.23	100%

Development Standards	
DESCRIPTION	PROPOSED
PLANNING AREA	Lot 1A
Permitted Uses	All Permitted and Uses by Special Review in C-H and outdoor RV/boat/vehicle storage
Uses Not allowed	All uses and allowances not listed as permitted above, per the City of Greeley's Development Code and as amended
Min Lot Area	Per the City of Greeley's C-H Development Standards and as amended
Density	Per the City of Greeley's C-H Development Standards and as amended
Building Coverage	Per the City of Greeley's C-H Development Standards and as amended
Drive, Parking, and Walks	Per the City of Greeley's C-H Development Standards and as amended
Open Space/Landscaping	15% Max
Max Lot Coverage	Per the City of Greeley's C-H Development Standards and as amended
Parking	Per the City of Greeley's C-H Development Standards and as amended
Minimum Setbacks	Per the City of Greeley's C-H Development Standards and as amended
Accessory Structure Setbacks	Per the City of Greeley's C-H Development Standards and as amended
Encroachments	Per the City of Greeley's C-H Development Standards and as amended
Building Height	Per the City of Greeley's C-H Development Standards and as amended
Sign Standards	Per the City of Greeley's C-H Development Standards and as amended
Lighting	Lighting poles not to exceed 27'-6" in height, average foot candles not to exceed 3.1 & overspill limited to 0.5 fc at property line
Other	Gravel surface within the outdoor storage area permitted. Alternative landscape bufferyard to be a part of the Site Plan Review.

Commitments Matrix					
Improvement or Commitment	Plan Preparation & Approval	Construction Timing	Construction Responsibility	Maintenance Responsibility	Ownership
Outlot A	Dedicated with the H-P Greeley Minor Subdivision - 7th Replat	After issuance of Building Permit	CITY CENTER WEST, LP	CITY CENTER WEST, LP SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF SAID PROPERTY, UPON CONVEYANCE OF OUTLOT A TO THE CITY CENTER WEST COMMERCIAL METROPOLITAN DISTRICT, THE METROPOLITAN DISTRICT SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF SAID OUTLOT.	CITY CENTER WEST, LP

LEGAL DESCRIPTION

LOT 1A H-P GREELEY MINOR SUBDIVISION - SEVENTH REPLAT, BEING A PART OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M., CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 1A, AND CONSIDERING THE SOUTH LINE OF LOT 1A TO BEAR NORTH 83°32'57" WEST WITH ALL BEARINGS HEREIN RELATIVE THERETO;

THENCE NORTH 05°13'45" EAST ALONG THE WEST LINE OF SAID LOT 1A, A DISTANCE OF 340.97 FEET TO THE NORTHWEST CORNER OF SAID LOT 1A;

THENCE SOUTH 84°45'59" EAST ALONG THE NORTHERLY LINE OF SAID LOT 1A, A DISTANCE OF 165.30 FEET;

THENCE NORTH 87°05'39" EAST ALONG THE NORTHERLY LINE OF SAID LOT 1A, A DISTANCE OF 216.12 FEET;

THENCE NORTH 56°35'00" EAST ALONG THE NORTHERLY LINE OF SAID LOT 1A, A DISTANCE OF 62.23 FEET;

THENCE SOUTH 83°31'37" EAST LONG THE NORTHERLY LINE OF SAID LOT 1A, A DISTANCE OF 78.15 FEET TO THE NORTHEAST CORNER OF SAID LOT 1A;

THENCE SOUTH 06°28'23" WEST ALONG THE EASTERLY LINE OF SAID LOT 1A, A DISTANCE OF 419.40 FEET TO THE SOUTHEAST CORNER OF SAID LOT 1A;

THENCE NORTH 83°32'57" WEST ALONG THE SOUTHERLY LINE OF SAID LOT 1A, A DISTANCE OF 496.98 TO THE POINT OF BEGINNING.

THE PARCEL OF LAND DESCRIBED ABOVE CONTAINS 4.23 ACRES, MORE OR LESS.

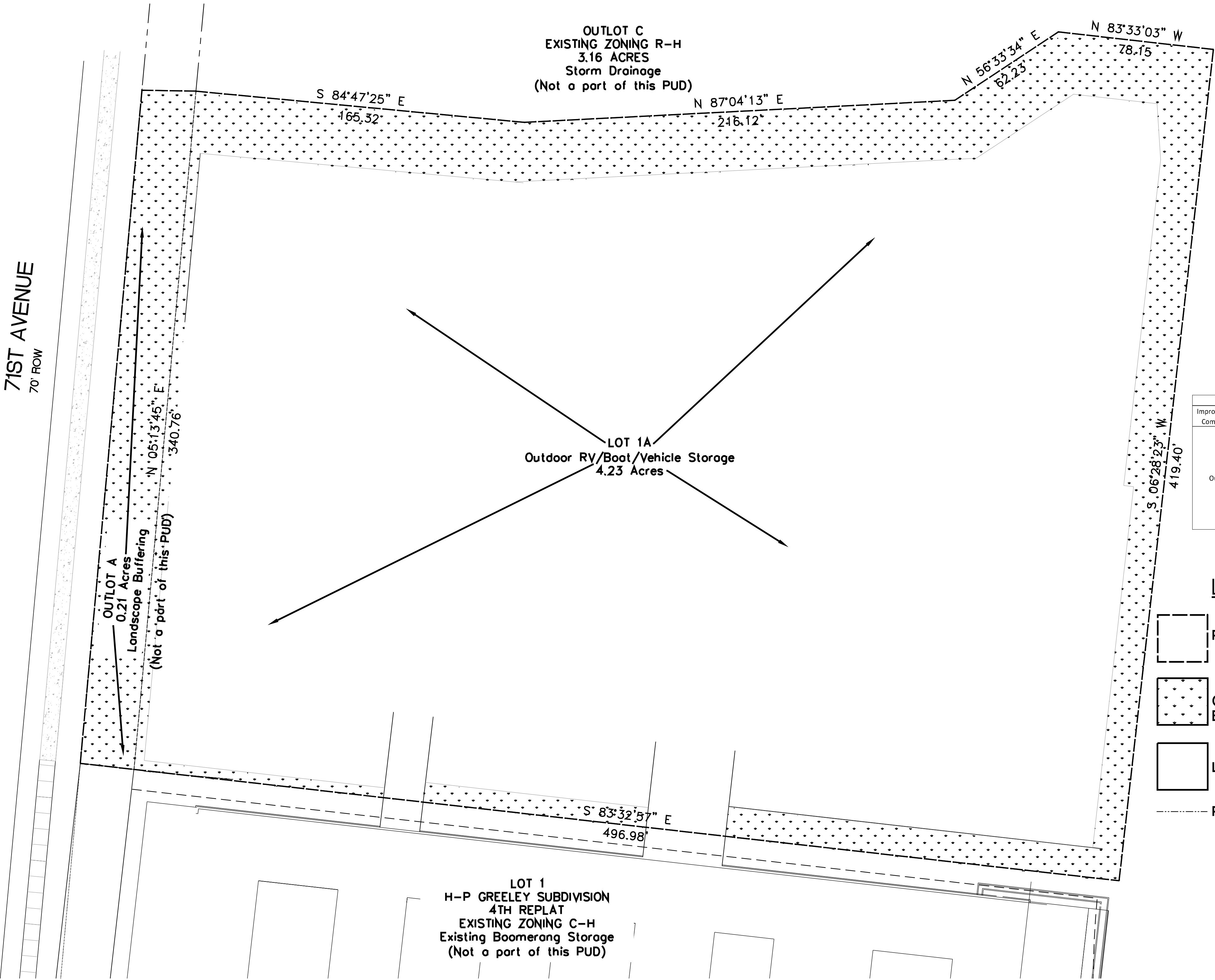
LEGEND

PUD BOUNDARY

OUTLOT A--LANDSCAPE BUFFER

LOT 1A: OUTDOOR STORAGE

PROPERTY LINE



MASTER DEVELOPMENT PLAN & GENERAL LAYOUT

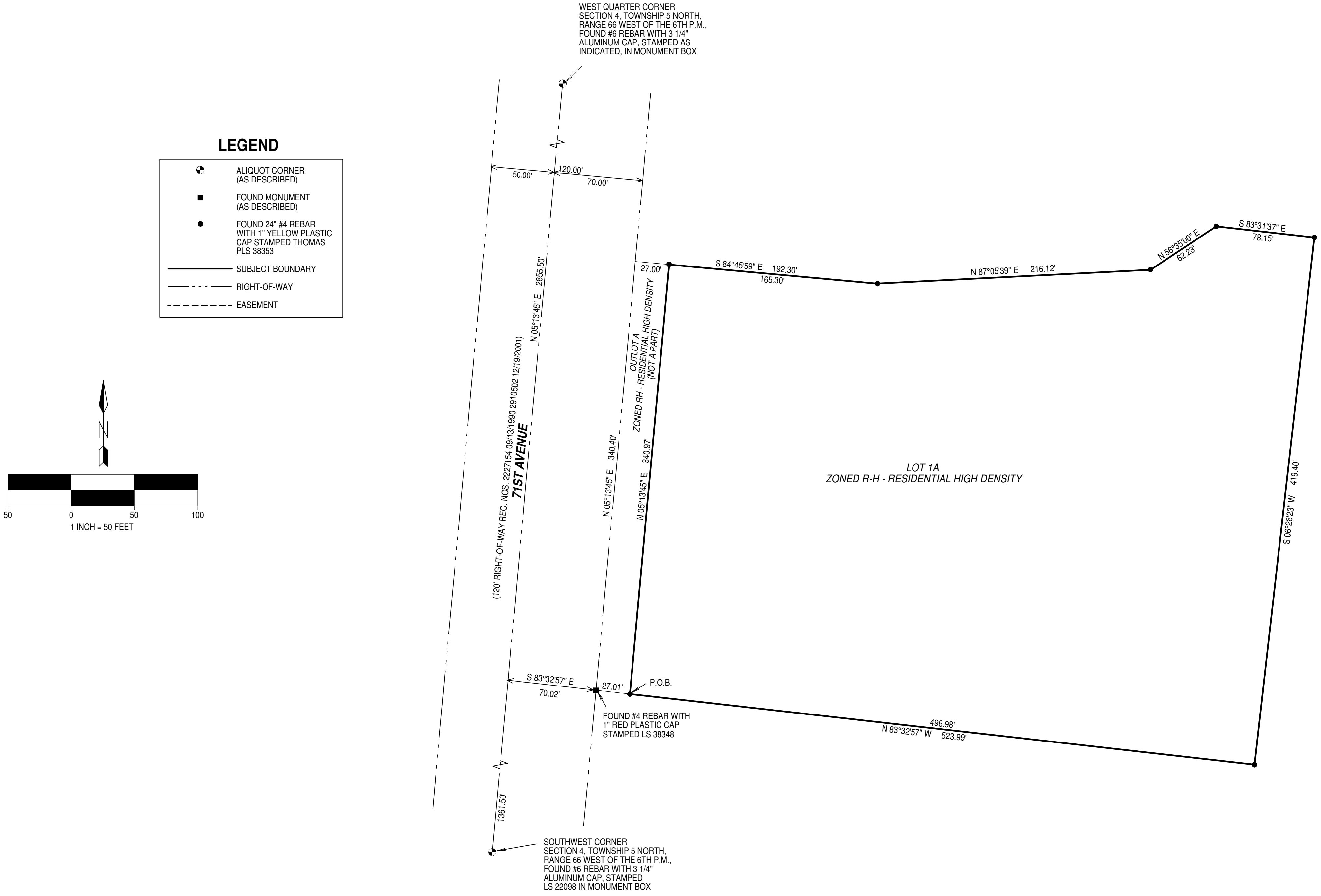
DRAWN FOR
BOOMERANG
STORAGE LLC
P.O. BOX 83775
GREELEY CO 80633
PHONE 970-576-6189

BOOMERANG
STORAGE LLC
7025 6TH ST
GREELEY CO 80634
PHONE 970-576-6189

WERNISMAN ENGINEERING
AND LAND DEVELOPMENT LLC
P.O. BOX 105
LASALLE CO 80645
PHONE 970-539-2656

DRAWN
EJW
CHECKED
DATE
3/31/2023
SCALE
1" = 40'
PROJECT #
SHEET
2

**BOOMERANG SELF STORAGE REZONING
ZONING SUITABILITY MAP**
LOT 1A, H-P GREELEY SUBDIVISION - SEVENTH REPLAT
**BEING A PART OF THE SOUTHWEST QUARTER OF SECTION 4,
TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M.,
CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO**
4.23 ACRES
PROJECT FILE NO. PUD2023-0001



LEGEND

- ALIQUOT CORNER
(AS DESCRIBED)
- FOUND MONUMENT
(AS DESCRIBED)
- FOUND 24" #4 REBAR
WITH 1" YELLOW PLASTIC
CAP STAMPED THOMAS
PLS 38353
- SUBJECT BOUNDARY
- RIGHT-OF-WAY
- EASEMENT

LEGAL DESCRIPTION REZONING BOUNDARY

LOT 1A H-P GREELEY MINOR SUBDIVISION - SEVENTH REPLAT, BEING A PART OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M., CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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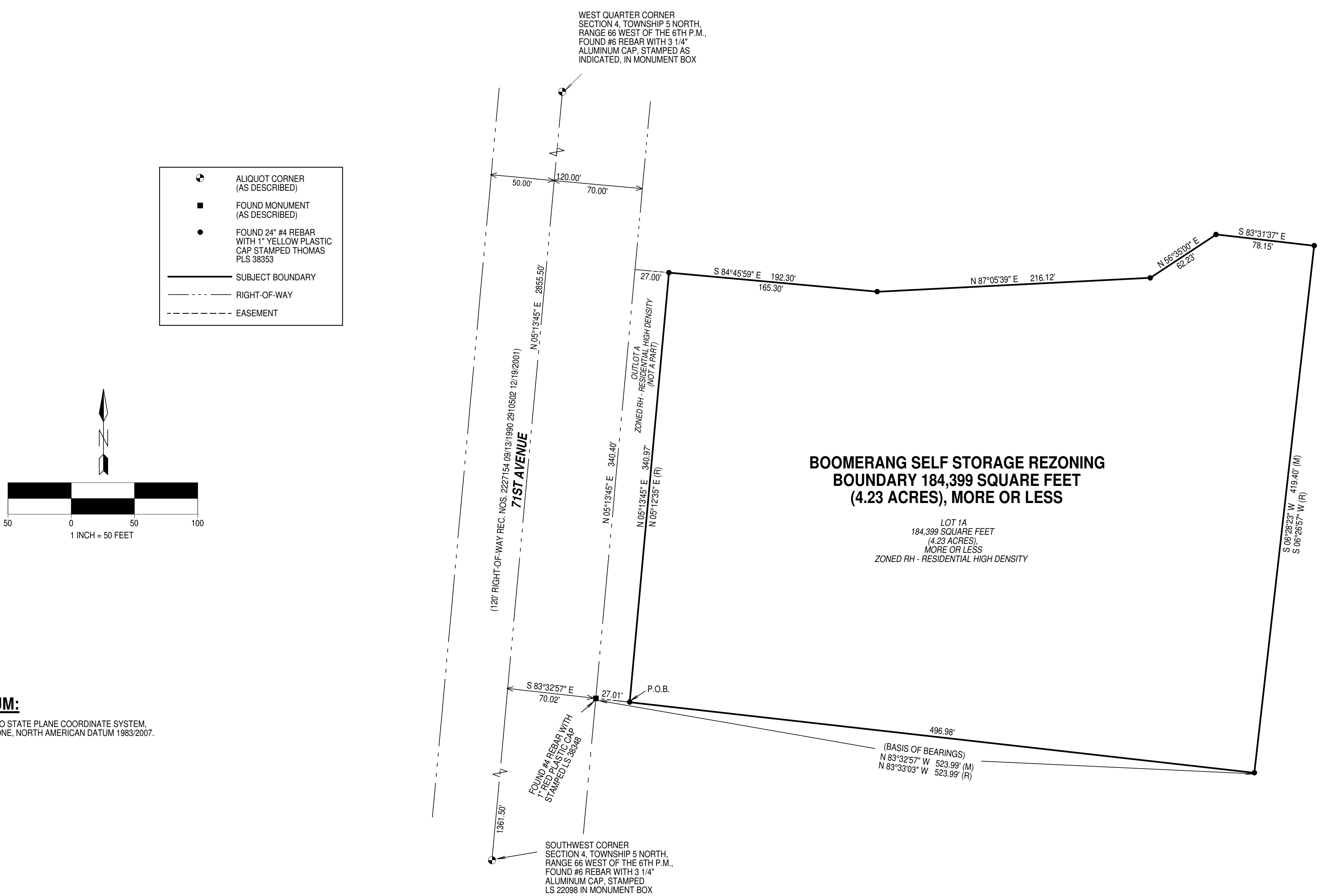
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THE PARCEL OF LAND DESCRIBED ABOVE CONTAINS 4.23 ACRES, MORE OR LESS.

ZONING SUMMARY

EXISTING ZONING:	PROPOSED ZONING:	AREA:
RH	PUD	213,983 SQ. FT. (4.91 ACRES)
TOTAL		100%

**BOOMERANG SELF STORAGE PLANNED UNIT DEVELOPMENT
PROJECT BOUNDARY MAP**
LOT 1A, H-P GREELEY SUBDIVISION - SEVENTH REPLAT
**BEING A PART OF THE SOUTHWEST QUARTER OF SECTION 4,
TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M.,
CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO**
4.23 ACRES
PROJECT FILE NO. PUD2023-0001



LEGAL DESRIPTION REZONING BOUNDARY

LOT 1A H-P GREELEY MINOR SUBDIVISION - SEVENTH REPLAT, BEING A PART OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M., CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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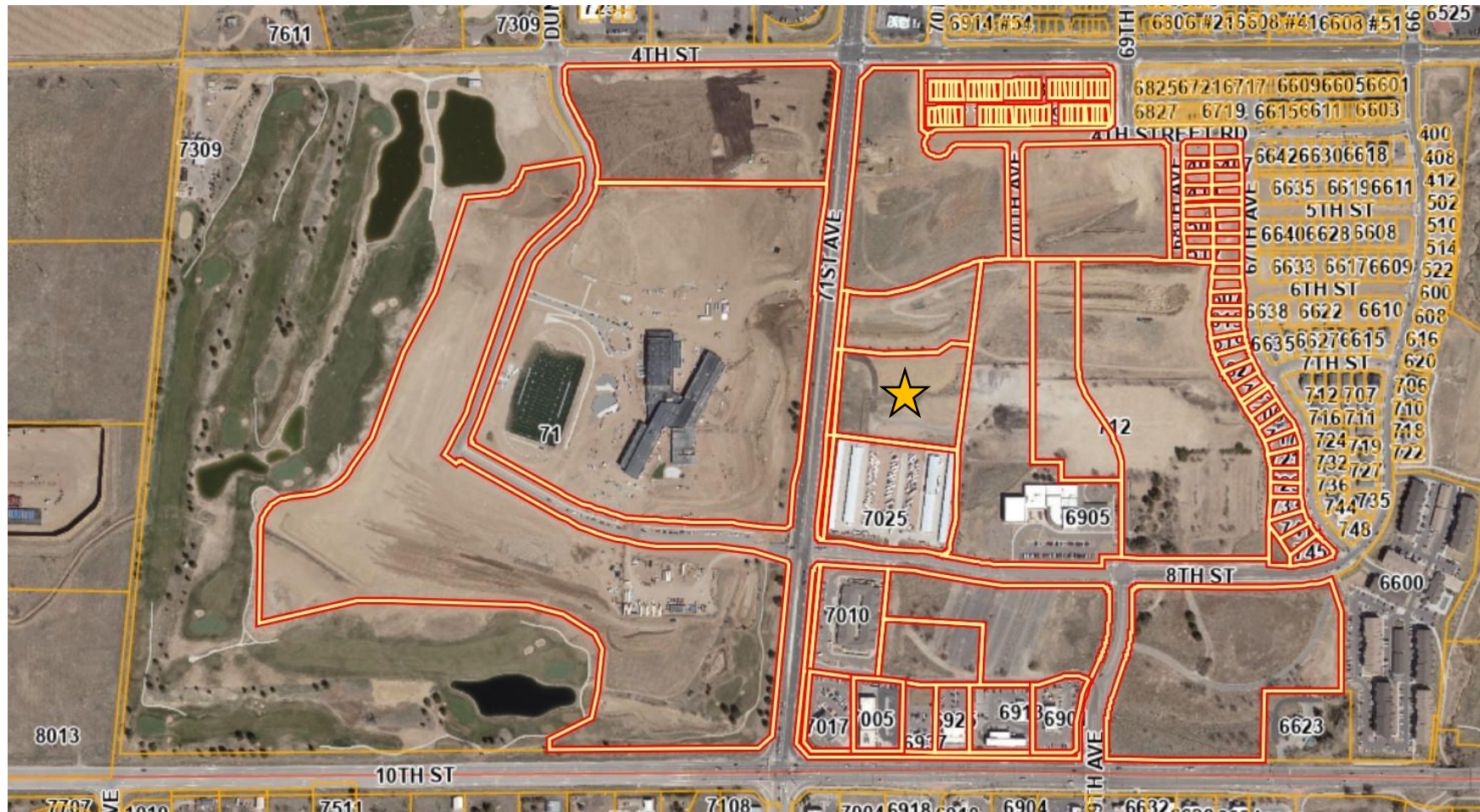
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THE PARCEL OF LAND DESCRIBED ABOVE CONTAINS 4.23 ACRES, MORE OR LESS.

DATUM:
COLORADO STATE PLANE COORDINATE SYSTEM,
NORTH ZONE, NORTH AMERICAN DATUM 1983/2007.

NOTE:
(M) DENOTES FIELD MEASURED BEARINGS AND DISTANCES
(R) DENOTES RECORDED BEARINGS AND DISTANCES PER THE PLAT
OF H-P GREELEY SUBDIVISION, FIFTH REPLAT, AS RECORDED
JANUARY 24, 2017 AT RECEPTION NO. 4272274, WELD COUNTY
RECORDS.

Attachment D – Neighborhood Notification Boundary Map





Boomerang Storage PUD

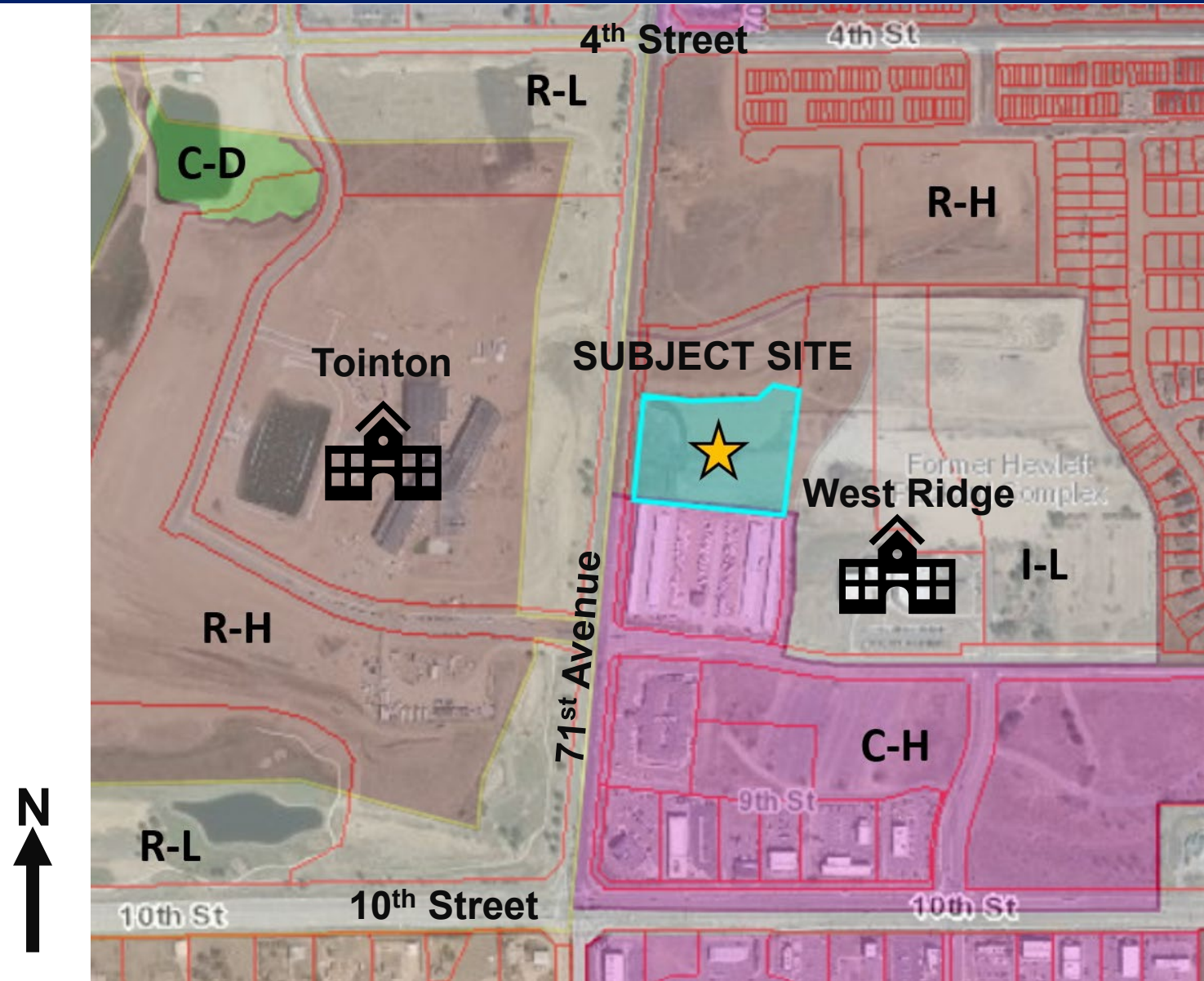
PUD2023-0001

Planning Commission
August 22, 2023
Meg Oren, Planner III

Request & Site Background

- Request:
 - Rezone 4.23 acres from R-H (Residential High Density) to PUD (Planned Unit Development)
- Background:
 - Hewlett-Packard Greeley Subdivision (2011)
 - Established today under H-P Greeley Minor Subdivision – 7th Replat (2023)

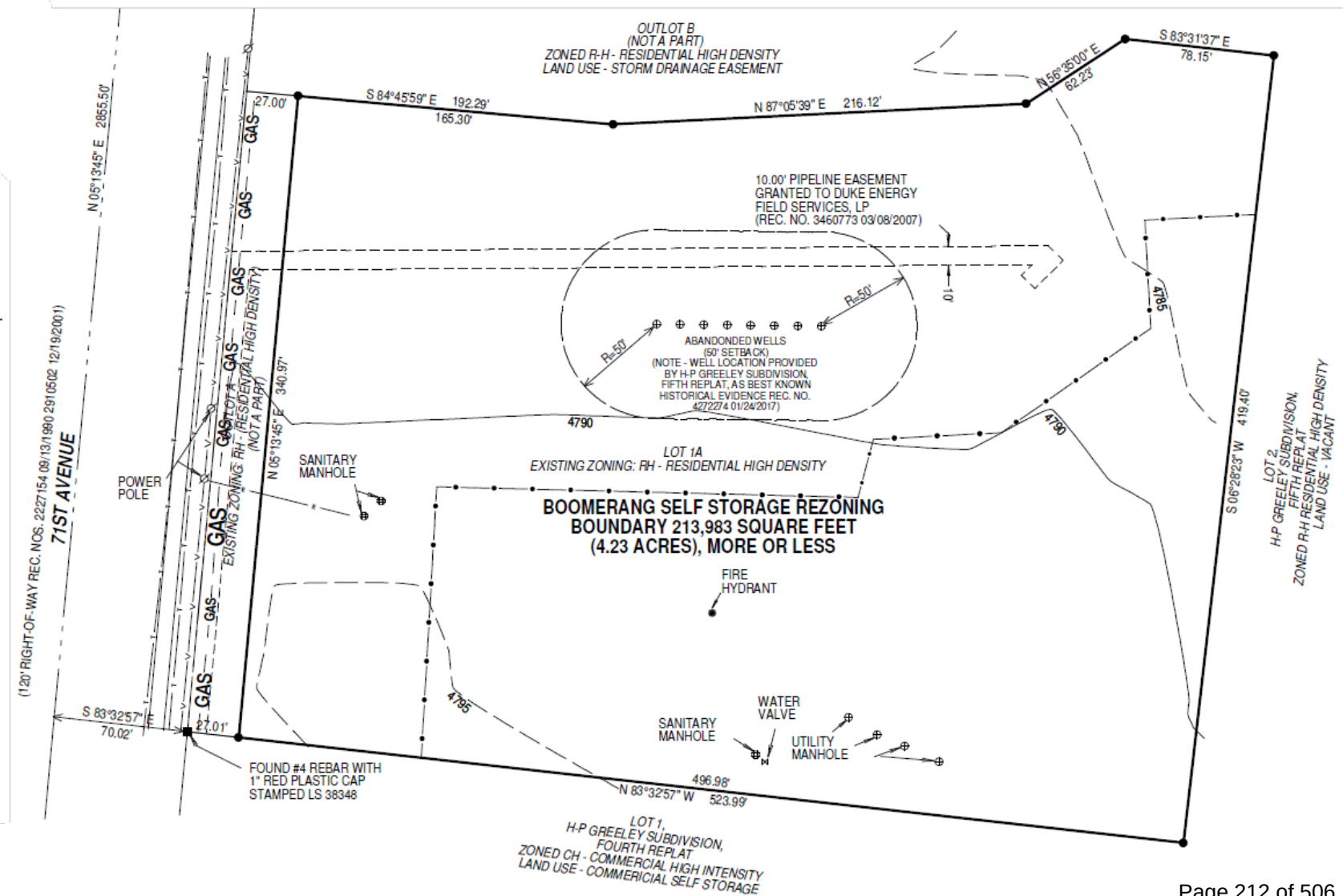
Location



Boomerang Storage PUD

SITE SUMMARY

AREA	USE	ACRES	% OF SITE
Lot 1A	All Permitted and Uses by Special Review in C-H and outdoor RV/boat/vehicle storage	4.23	100%
TOTALS		4.23	100%



Land Uses Comparison

Residential High Density

- Single-family Dwelling
- Multi-family Dwelling
- Mixed-use Dwelling
- Residential Care
- Child Care – Home Occupation
- Lodging/Short-term Rental
- Lodging/Bed & Breakfast

Planned Unit Development - Proposed

- Indoor & Outdoor Storage
 - RV/Boat/Vehicles
- Single-family Dwelling
- Multi-family Dwelling
- Automobile/Gas Station
- Food & Beverage
- Medical
- Recreation – Indoor/Outdoor
- Retail

Considerations

Approval Criteria

- ✓ Rezoning Criteria, 24-204(b)
- ✓ PUD Criteria, 24-205(c)

Notification

- 108 notice letters
- Signs posted on the property
- Web notice
- Mineral notice completed
- No objection/support

Recommendation

- Staff recommends approval of the Planned Unit Development and Rezone.

Recommended Motion



Rezoning Criteria, Section 24-204(b) & PUD Criteria, Section 24-205(c)

- Approval

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning from R-H (Residential High Density) Zone District to PUD (Planned Unit Development) **meets** the Development Code criteria, Section 24-204 and Section 24-205 and therefore, recommends **approval** of the Rezone and Planned Unit Development to the City Council.



Alternative Motion



Rezoning Criteria, Section 24-204(b) & PUD Criteria, Section 24-205(c)

- Denial

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning from R-H (Residential High Density) Zone District to PUD (Planned Unit Development) **does not meet** the Development Code criteria, Section 24-204 and Section 24-205 and therefore, recommends **denial** of the Rezone and Planned Unit Development to the City Council.

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|--|
| 1) | <p>The proposal is in accordance with the goals and objectives of the Comprehensive Plan and any other plan, policy or guidance adopted pursuant to that plan.</p> <ul style="list-style-type: none">• <i>Land Use Guidance Map – Suburban Neighborhood.</i>• <i>Objective GC-1.2 Form of Growth, compact urban form over sprawl or leap-frog development.</i>• <i>Objective GC-4.3 Infill Compatibility, compatible site design and building architecture.</i> |
| 2) | <p>The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas.</p> <ul style="list-style-type: none">• <i>The intent of the Planned Unit Development is to provide additional use of the property in ways that are compatible with the area. The proposed land uses provide opportunities for indoor and outdoor storage which are relatively low-impact and low-intensity uses.</i> |

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|--|
| 3) | Whether the area changed or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area. |
| | <ul style="list-style-type: none"><i>The area continues to see infill sites developed with a mix of residential and nonresidential uses. Recent development includes educational institutions and a residential neighborhood, Northridge Trails.</i> |
| 4) | Whether the existing zoning has been in place for a substantial time without development, and if this indicates the existing zoning is inappropriate given development trends in the vicinity. |
| | <ul style="list-style-type: none"><i>The existing zoning was established in 2015 with the H-P Greeley Subdivision Third Replat (S2-15; Recordation No. 4092418), and significant areas of the site remain undeveloped.</i> |

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|--|
| 5) | <p>The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces, and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.</p> |
| | <ul style="list-style-type: none"><i>The proposal is an extension of an established business directly south of the site. The indoor and outdoor storage company is wanting to expand their operations. Design criteria within the PUD has been proposed to continue within the established parameters of City of Greeley development code.</i> |
| 6) | <p>The City or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.</p> |
| | <ul style="list-style-type: none"><i>Existing services are present in the vicinity to support development of the site as proposed.</i> |

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|---|
| 7) | <p>The change will serve a community need, provide an amenity, or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.</p> |
| | <ul style="list-style-type: none"><i>The proposed Planned Unit Development would accommodate the community's need for indoor and outdoor storage. The proposed allowed use is not allowed under the existing zoning to this extent. The proposed zoning is more appropriate than the existing zoning to allow development of the site and to serve community needs.</i> |
| 8) | <p>Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design and engineering practices or are outweighed by broader public benefits to the surrounding community.</p> |
| | <ul style="list-style-type: none"><i>The only anticipated negative impact of the proposal would be visual, which will be mitigated by the landscape buffering standards established in the PUD.</i> |

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|--|
| 9) | The recommendations of professional staff or advisory review bodies. |
| | <ul style="list-style-type: none"><i>Staff and Planning Commission recommend approval.</i> |

Planned Unit Development Review Criteria, Section 24-205(c)

- | | |
|----|--|
| 1) | The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards. |
| | <ul style="list-style-type: none"><i>The proposal allows nonresidential uses to be incorporated into the area in a way that achieves greater consistency and more specificity than standard zones would allow. The proposed uses are enumerated, and the proposal does not allow uses that could be incompatible with the area that would be allowed using standard zones.</i> |

Review Criteria



Planned Unit Development Review Criteria, Section 24-205(c)

- | | |
|----|--|
| 2) | <p>The benefits from any flexibility in the proposed plan:</p> <ul style="list-style-type: none">(1) promote the general public health, safety and welfare of the community, and in particular, that of the areas immediately near or within the proposed project, and is not strictly to benefit the applicant or a single project;(2) involves innovative concepts that were not anticipated by the development code; or(3) apply to a unique or specific context in a manner that allows the project to better meet the intent or design objectives of the base zoning districts and standards. |
| | <ul style="list-style-type: none"><i>The proposed development standards generally follow Development Code standards for C-H (Commercial High Intensity) areas with the inclusion of outdoor RV/boat/vehicle storage.</i> |

Review Criteria



Planned Unit Development Review Criteria, Section 24-205(c)

- | | |
|----|---|
| 3) | The plan reflects generally accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan to the area. |
| | <i>• The request is consistent with planning and design principles and the Comprehensive Plan.</i> |
| 4) | The plan meets all the review criteria for zoning map amendments in Section 24-204. |
| | <i>• The request complies with Section 24-204, Review Criteria for Rezoning as detailed above.</i> |

Boomerang Storage PUD

Development Standards	
DESCRIPTION	PROPOSED
PLANNING AREA	Lot 1A
Permitted Uses	All Permitted and Uses by Special Review in C-H and outdoor RV/boat/vehicle storage
Uses Not allowed	All uses and allowances not listed as permitted above, per the City of Greeley's Development Code and as amended
Min Lot Area	Per the City of Greeley's C-H Development Standards and as amended
Density	Per the City of Greeley's C-H Development Standards and as amended
Building Coverage	Per the City of Greeley's C-H Development Standards and as amended
Drive, Parking, and Walks	Per the City of Greeley's C-H Development Standards and as amended
Open Space/Landscaping	15% Max
Max Lot Coverage	Per the City of Greeley's C-H Development Standards and as amended
Parking	Per the City of Greeley's C-H Development Standards and as amended
Minimum Setbacks	Per the City of Greeley's C-H Development Standards and as amended
Accessory Structure Setbacks	Per the City of Greeley's C-H Development Standards and as amended
Encroachments	Per the City of Greeley's C-H Development Standards and as amended
Building Height	Per the City of Greeley's C-H Development Standards and as amended
Sign Standards	Per the City of Greeley's C-H Development Standards and as amended
Lighting	Lighting poles not to exceed 27'-6" in height, average foot candles not to exceed 3.1 & overspill limited to 0.5 fc at property line
Other	Gravel surface within the outdoor storage area permitted. Alternative landscape bufferyard to be a part of the Site Plan Review.

PLANNING COMMISSION SUMMARY

ITEM: Rezone from R-L (Residential Low Density) to PUD (Planned Unit Development)

FILE NUMBER: PUD2022-0007

PROJECT: 1318 47th Avenue PUD

LOCATION: 1318 47th Avenue

APPLICANT: 1318 Bridgeforth Acquisitions LLC

CASE PLANNER: Jeffrey Woeber | Planner III

PLANNING COMMISSION HEARING DATE: September 12, 2023

PLANNING COMMISSION FUNCTION:

The Planning Commission shall consider the staff report, along with testimony and comments made by the applicant and the public and shall then make a recommendation to the City Council regarding the application in the form of a finding based on the review criteria in Section 24-205(c) and 24-204(b) of the Development Code.

EXECUTIVE SUMMARY

The City of Greeley is considering a request to rezone approximately 11.083 acres located at 1318 47th Avenue from R-L (Residential Low Density) to PUD (Planned Unit Development).

A. REQUEST

The applicant proposes rezoning approximately 11.08 acres located at 1318 47th Avenue from R-L (Residential Low Density) to PUD (Planned Unit Development).

The developable area of the project is approximately 10.5 acres (this is less than the 11.08 acres being rezoned due to the inclusion of right-of-way area for 47th Avenue). No further subdivision or separate ownership of units is proposed, although a Minor Subdivision will be necessary to legally establish the property. If the PUD receives City Council approval, review and approval of a Minor Subdivision and a Site Plan Review application would be required to move forward with the project.

The uses allowed by the proposed PUD are Residential Care, Group Home, Assisted Living, Senior Independent Living, Memory General, Institutional, and permitted uses in the R-H (Residential High Density) Zoning District including Single-Family, Two-Family, Row Houses, Multi-Family and Accessory Dwellings. The applicant proposes development standards that specify only single-story dwellings up to 21 feet in height are allowable along the perimeter of

the property adjacent to the existing residential subdivision to the east and south of the subject property. A two-story structure is allowable in the interior portion of the property. The Development Standards for the PUD do not allow Commercial or Industrial uses. Other Development Standards are in a table on page 6 of the attached PUD plan set.

B. STAFF RECOMMENDATION

Approval

C. LOCATION

Abutting Zoning

North: R-L (Residential Low Density)

South: PUD (Planned Unit Development) and R-M (Residential Medium Density)

East: PUD (Planned Unit Development)

West: R-L (Residential Low Density)

Abutting Land Uses

North: Country Club/Golf Course

South: Single-Family Dwellings

East: Single-Family Dwellings

West: Country Club/Golf Course

Site Characteristics:

The site is fairly open with no waterbodies or steep slopes. Native (unirrigated) grasses cover the majority of the site, with mature trees on portions of the property. The property contains one single-family residence that would be demolished prior to moving forward with the proposed development. 47th Avenue is a busy arterial that borders the property to the west. Currently there is one residential driveway access to the residence from 47th Avenue.

D. BACKGROUND

The 10.5± acre property is a “metes and bounds” parcel and has not been through a subdivision review and approval process. There is a single-family residence on the property, established in 1961 according to Weld County Assessor’s records. The property to the north, as well as to the west (across 47th Avenue) is the Greeley Country Club property and golf course. The Greeley Country Club was established in 1920. The existing single-family residential areas to the east and south of the subject property are within the Cambridge Glen Subdivision and PUD. The residences in this subdivision were constructed mostly in the mid/late 1990s.

E. APPROVAL CRITERIA

Rezoning Review Criteria, Section 24-204(b):

1. The proposal is in accordance with the goals and objectives of the Comprehensive Plan and any other plan, policy or guidance adopted pursuant to that plan.

Staff Comment: The subject property is identified as “Suburban Neighborhood” on the Land Use Guidance Map in the Imagine Greeley Comprehensive Plan. The PUD would allow residential development, which is the primary land use envisioned for Suburban Neighborhoods. Additionally, the following comprehensive plan goals support the subject application:

Objective GC-1.2 Form of Growth Encourage a compact urban form over sprawl or leap-frog development.

The development allowed by the proposed PUD would allow development of property within the interior of the City and would not be sprawl or leap-frog development. The request complies with this criterion.

The “Introduction and Perspective” for the Housing (HO) Section of the Plan’s Goals & Objectives Chapter begins, “This element focuses on encouraging the development of a diversity of housing options that adequately serve the needs of all Greeley residents.”

The PUD would allow Senior Independent Living, Residential Care and Assisted Living, as well as options for other residential uses and is consistent with the perspective above.

Objective HO-2.2 Rental Housing Foster the development of attractive, safe, and well-maintained rental properties for those who do not qualify for or desire to own property.

The PUD would provide options to develop rental properties that conform to the recommendations in this Objective. The request complies with this criterion.

The request complies with this criterion.
The applicant has provided an additional detailed overview of the proposal’s compliance with the Imagine Greeley Comprehensive Plan, see attached Project Narrative.

2. The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas.

Staff Comment: The intent of the proposed Planned Unit Development is to establish various types of residential uses, which are consistent with the surrounding area. The applicant proposes limiting the height of structures that are near the existing single-family residential uses. This approach takes the surrounding area into consideration in site design.

The request complies with this criterion.

3. Whether the area changed or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area.

Staff Comment: The 10.5± acre property and residence have existed for approximately 60 years. The residence was constructed in 1961 according to Weld County Assessor's records. The residential areas in the general vicinity of the subject property were developed mostly in the 1990s, which has been a major change to this area. It is in the public interest to rezone the property and encourage development.

The request complies with this criterion.

4. Whether the existing zoning has been in place for a substantial time without development, and if this indicates the existing zoning is inappropriate given development trends in the vicinity.

Staff Comment: The existing zoning has been in place for a substantial time without development (other than the one residence). The development in this general area has been residential, which is consistent with the proposed PUD.

The request complies with this criterion.

5. **The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces, and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.**

Staff Comment: The PUD's proposed uses and development standards specify percentage of open space, scale of buildings, and compatibility with other complementary uses. The required Site Plan Review to develop the site as proposed will ensure that design of streets is in character with existing/adjacent development in this area of Greeley.

The request complies with this criterion.

6. **The City or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.**

Staff Comment: Existing services are present in the vicinity to support development of the site as proposed.

The request complies with this criterion.

7. **The change will serve a community need, provide an amenity, or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.**

Staff Comment: The applicant intends to establish Senior Independent Living, Assisted Living and possibly other residential uses allowable in the R-H (Residential High Density) Zoning District, while limiting certain R-H Development Standards. This includes allowing only single-story structures to the east and south of the site, as well as significantly limiting the density that may be allowable were the property zoned R-H with no PUD. This development is not allowed under the current zoning, and the PUD is more appropriate than the current zoning.

The request complies with this criterion.

8. **Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design and engineering practices or are outweighed by broader public benefits to the surrounding community.**

Staff Comment: The development of the subject property as proposed by the PUD would have impacts to the surrounding area, primarily increased traffic and visual impacts. As mentioned above, the PUD requires single story structures along the east and south of the property, as well as

limitations on density, which will significantly reduce any impacts. The required Site Plan Review will ensure the site is developed under Greeley Development Code standards that ensure sound design and engineering practices. This will minimize traffic and drainage impacts.

The request complies with this criterion.

9. The recommendations of professional staff or advisory review bodies.

Staff Comment: Planning staff and the Administrative Review Team recommend approval.

The request complies with this criterion.

Planned Unit Development Review Criteria, Section 24-205(c):

1. The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards.

The proposed PUD allows specific R-H uses with Development Standards that allow specified uses and limited density. This provides for more specificity than applying a general zoning district such as R-H.

The request complies with this criterion.

2. The benefits from any flexibility in the proposed plan:

- (1) promote the general public health, safety and welfare of the community, and in particular, that of the areas immediately near or within the proposed project, and is not strictly to benefit the applicant or a single project;**
- (2) involves innovative concepts that were not anticipated by the development code; or**
- (3) apply to a unique or specific context in a manner that allows the project to better meet the intent or design objectives of the base zoning districts and standards.**

The proposal for allowing various senior and institutional related uses, as well as rental properties does promote the general health, safety and welfare of the community, filling an identified need in the City of Greeley overall. The limitation on height for structures near existing residences is innovative and is good planning practice. The proposal does apply to a specific context that can meet the intent of the R-H Zoning District, while providing for site specific design for this fairly unique property.

The request complies with this criterion.

3. The plan reflects generally accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan to the area.

The request is generally consistent with planning and design principles and the Comprehensive Plan.

The request complies with this criterion.

4. The plan meets all of the review criteria for zoning map amendments in Section 24-204.

The request complies with Section 24-204, Review Criteria for Rezoning as detailed above.

The request complies with this criterion.

F. PHYSICAL SITE CHARACTERISTICS

1. SUBDIVISION HISTORY

The property is a “metes and bounds” property that has not been through a subdivision process. Review and approval of a Minor Subdivision will be required to move forward with the project.

2. HAZARDS

There are no natural hazards or ecologically sensitive areas according to resources and maps reviewed by staff.

3. WILDLIFE

The site does not provide significant wildlife habitat and is not identified as an ecologically sensitive area, according to resources and maps reviewed by staff.

4. FLOODPLAIN

The property is not located within the 100-year floodplain or floodway, according to the adopted Federal Emergency Management Administration (FEMA) flood data.

5. DRAINAGE AND EROSION

Site drainage has been considered by Engineering staff. A drainage study/drainage plan will be required to be reviewed and approved with Site Plan review.

6. TRANSPORTATION

The applicant’s Commitment Matrix, on page 6 of the PUD document, commits to building a median in 47th Avenue as part of the development. The development will be

required to meet all City of Greeley criteria concerning roadway levels of service at the time of Site Plan Review. A Traffic Impact Study is attached.

G. SERVICES

1. WATER

Existing water infrastructure is present and adequate to serve the site. The potable water system will connect to an existing 8-inch stub on the northwest corner of the property which will be looped through the property and back to the southwest corner of the site to an 8-inch main that runs parallel to 47th Avenue in this area. Non-potable water will be required to provide irrigation water to the site if there are 2.0 acres or greater of irrigated landscape area. If during final design there is less than 2.0 acres of irrigated landscaping, then domestic water shall be used and a separate irrigation tap will be required.

2. SANITATION

Existing sewer infrastructure is present and adequate to serve the site. The conceptual hydraulic report proposes to discharge sanitary sewer flows from the entire property to the existing sanitary sewer stub on the southeast corner of the property. Downstream impacts to the public system were evaluated with and without the proposed site flows. Note that any necessary improvements to the public system will be determined at the time of Site Plan Review; the applicant has acknowledged the requirement for a fair-share contribution to a future Capital Improvement Project on page 6 (Statement of Commitments) of the proposed PUD, once development occurs.

3. EMERGENCY SERVICES

Existing emergency services are adequate to serve the site. Greeley Fire Station #7 is located at 662310th Street, with Greeley Fire Station #5 at 4701 47th Avenue, approximately 1.3 miles south of the site.

4. PARKS AND OPEN SPACES

Existing parks and open spaces are present in the area. No parks are proposed or required through this PUD process.

5. SCHOOLS

The subject property is located within Greeley-Evans School District 6. The proposed senior facilities would not involve school-age children.

6. METROPOLITAN DISTRICT

No metropolitan district is intended for the site.

H. NEIGHBORHOOD IMPACTS

1. VISUAL

The development allowed by this PUD does have Development Standards requiring single story structures along the east and south of the property which will significantly

reduce any impacts. Access and drainage improvements will be required to be constructed through Site Plan review, if the PUD is approved and the project moves forward. Code standards for appropriate buffer yards, setbacks and parking standards will be applied with review of a Site Plan Review application. Applying these standards will significantly reduce impacts to adjacent properties.

2. NOISE

Significant noise impacts are not anticipated.

I. PUBLIC NOTICE AND COMMENT

Public notices were completed as follows:

- A neighborhood meeting was held on April 20, 2023, with general discussion of the project, possible uses allowed, R-H zoning concerns, and density and traffic concerns.
- Notice was placed on the City of Greeley's website on August 28, 2023.
- A sign was posted on the property on August 23, 2023.
- There were 295 notices mailed to property owners or current residents on August 28, 2023. These were properties within 1000 feet of the outer boundary of the subject property.
- There have been ten emailed public comments received at this writing, with the majority received shortly after the neighborhood meeting last April and two more recently. The general focus of these comments are concerns with R-H Zoning uses such as the assisted living facilities and multi-family residential, as well as increased traffic, privacy concerns, and affecting property values.

J. MINERAL ESTATE OWNER NOTIFICATION

The applicant and their legal counsel determined the statutory requirement for mineral notices does not apply if no additional lots are being created, which is the case with this PUD. Staff concurs with this determination.

K. PLANNING COMMISSION RECOMMENDED MOTIONS

Recommended (Approval)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council approval.

Alternative (Denial)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is not in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council denial.

ATTACHMENTS

Attachment A – Vicinity Map

Attachment B – Project Narrative

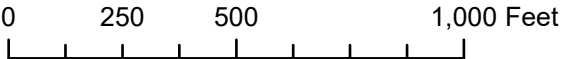
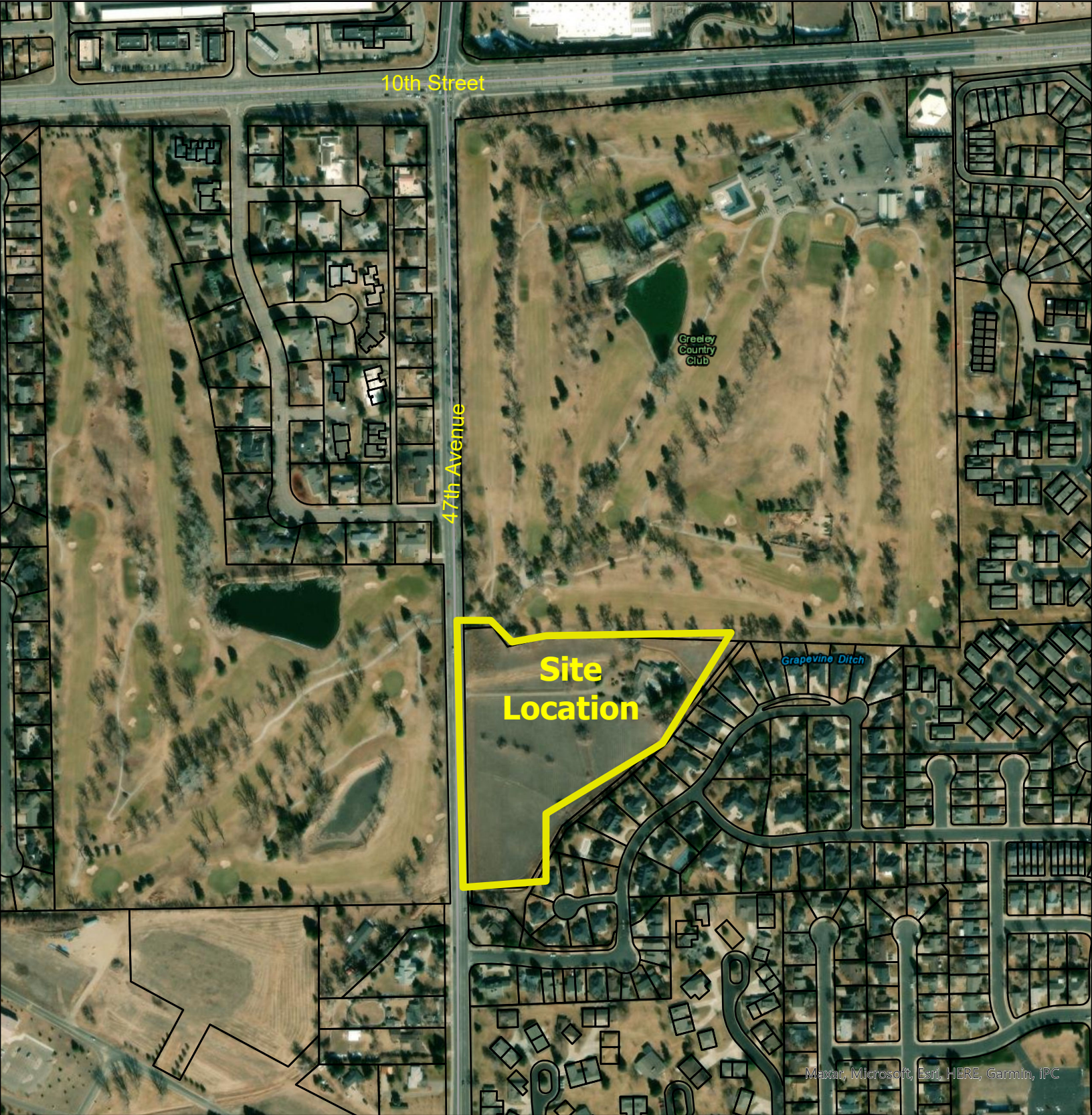
Attachment C – PUD Plan Set

Attachment D – Traffic Impact Study

Attachment E – Neighborhood Notification Boundary Map

Attachment F – Emailed Public Comments

Attachment G – Staff Slides



PROJECT INTENT NARRATIVE

INTRODUCTION

Size:

1318 47th Avenue project proposed at 1318 47th Avenue is intended to be approximately 200 residential units distributed over 10.5 acres, as proposed with the conceptual layout provided the building covers not less than 25% of the buildable area of the site. These residential units are supplemented by both indoor and outdoor amenities such as dining, lounges, activity spaces and fitness areas. Depending on the level of resident care, there are additional functions and offices throughout the plan.

Scale:

The buildings are intended to be one-and two-story massing, with stepping, undulation, and architectural interest. The one-story portions, seen in the Memory Care wing and the Duplex/Casitas are laid out along the Cambridge Glen subdivision adjacencies to mitigate visual impact and preserve sunlight and views for those neighbors.

Density:

The density of the project is intended to adhere to the City of Greeley Residential Development Code for R-H Zoning designation, and as amended.

Design:

The anticipated architectural character of the project uses residential-scale architectural details and familiar character to align with the residential and recreational character of adjacent buildings seen in the single-family homes and country club structures. The intent is to use materials and color palettes that center around wood, metal and shingles, with stone accents. Walking paths and sidewalks in soft surfaces are distributed around the site to encourage seniors to mingle and exercise. The landscaping design will be natural in character with a sensitivity to indigenous plant materials and methods.

Meeting the Intent or Design Objectives of review criteria found in section 24-204.b and 24-205.c of the Development Code:

Sec. 24-204.b Rezoning

b. Review Criteria

1. The proposal is in accordance with the goals and objectives of the Comprehensive Plan and any other plan, policy or guidance adopted pursuant to that plan.
2. The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas.

Response for b.1 and b.2: The proposed plan for the Residential project at 1318 47th Avenue meets the review criteria for zoning map amendments found in [Section 24-204. Rezoning](#) in the City of Greeley Development Code. It provides for review of a zoning change to reflect a change in policies with respect to future development.

The PUD is in accordance with the Comprehensive Plan through the following points:

- *The proposed PUD fulfills the intent of the zoning district R-H, where we proposed a mixture of permitted uses, along with Independent, Assisted Living, and Memory Care on site.*

- *The proposed uses are complementary to the adjacent and surrounding existing uses.*
- *The proposed plan enables development similar in scale, format, and size with the neighboring areas which make it a complementary and compatible plan. The layout of the streetscape, character of the building, use of the outdoor areas, and circulation through the site is complementary to adjacent uses.*
- *The City of Greeley and other agencies will be able to provide all the services and facilities necessary for the anticipated uses in this PUD.*
- *The proposed use will provide an amenity to the neighborhood by fulfilling a much-needed service of senior housing that would not be possible to achieve under the current zoning.*

The project is an infill location, being a great neighbor to both adjacent single family condo neighborhood and country club, being a lower-profile structure that houses a quiet use. This 10+-acre site housed a single-story homestead built in the early 60s that has sat somewhat neglected for many years; the community design is conscious of its location, grouping the two-story portion against the golf course edge, and placing one and two-story massing along the subdivision edge and 47th Avenue.

The anticipated architectural character of the project is to use residential-scale architectural details and familiar character to align with the residential and recreational character of adjacent buildings seen in the single-family homes and country club structures. The intent is to use materials and color palettes that center around wood, metal, asphalt shingles and accented with stone. Walking paths in the form of sidewalks and soft surfaces are distributed around the site to encourage seniors to exercise. The landscaping design will be sensitive to indigenous plant materials and methods.

3. Whether the area changed or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area.

This project will assist in filling services currently needed for the community's population and facilitate future economic growth potential. The development will create jobs for Greeley workers, service trades and other support teams needed to operate the facility at a high level of service. Residents of Greeley and Northern Colorado will receive all the continuing levels of care provided by this project, which will be a leader in emerging trends of physical and mental wellness, comfort, and security for housing.

4. Whether the existing zoning has been in place for a substantial time without development, and if this indicates the existing zoning is inappropriate given development trends in the vicinity.

For over 50 years, this 10+-acre site was home to a single-family home. It has fallen under neglect and is very outdated. It is not in keeping with the current massing, pattern and character of the adjacent neighborhood and its uses.

5. The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces, and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.

The concept site plan is established to maintain one-story uses along the Cambridge Glen subdivision to be subtle in transition and to provide common, quieter uses adjacent to similar single-family homes with a smaller footprint. The building increases to two-stories along the Greeley Country Club, allowing for many residential units to view the country club and golf course. Landscaping to the site will provide an ample buffer to the

adjacent neighborhood and 47th Ave. by locating building massing well outside the setbacks. The frontage along 47th Avenue was brought back to offer a more pastoral frontage to frame the grand entry.

The site is designed with extensive walkable areas, pathways, and areas where residents can exercise, visit their friends, and enjoy nature. The site is developed to bring nature into the site and engage the buildings. The building interfaces with formal courtyards for dining, quieter courtyards for restive lounging, and areas for outdoor activity ranging from pickleball, bocce, and resident gardening.

6. The City or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.

This project is a much-needed asset in the Greeley community to provide various levels of care in residential, memory care, assisted living and independent living resident needs.

7. The change will serve a community need, provide an amenity, or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.

The City of Greeley has recognized that it needs additional living communities, including, but not limited to: residential, independent living, assisted living and memory care to meet its present and future needs for their residents. This project is positioned to provide residents the latest trends in dining, physical and mental wellness, comfort, and security for residents. By locating this project among established residential and recreational neighbors, it is designed to complement these adjacent uses while thinking forward to meet demands.

8. Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design and engineering practices or are outweighed by broader public benefits to the surrounding community.

As mentioned above, the location of the buildings, their respective heights and scale at just two stories has been handled in a sensitive way. As the R-H zoning allows for 60' in height, the proposed development will be close to half of that height in just a 2-story mass. The casitas, located along 47th Avenue and the Cambridge Glen border, are all one-story in height. The setbacks are generous, exceeding what is required, particularly along the Cambridge Glen residential area.

9. The recommendation of professional staff or advisory review bodies.

1318 Bridgeforth Acquisitions LLC, the developer of this community, upholds strong and steady financial principles and is seeking potential sites in areas where facilities are needed assets in the community. Residents expectations are for a high quality of life, and the benefits of living in a thriving, financially stable city like Greeley are clear to them and their families. Northern Colorado, particularly Greeley, is an area poised for the future. It will have sustained growth with its population and housing demands increasing thus providing jobs and service careers.

24-205.c Planned Unit Development

c. Review Criteria

1. Generally. Review, recommendations, and decisions for new PUDs shall be based on the following criteria:

(a) The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards.

(b) The benefits from any flexibility in the proposed plan:

(1) Promote the general public health, safety and welfare of the community, and in particular, that of the areas immediately near or within the proposed project, and is not strictly to benefit the applicant or a single project;

(2) Involves innovative concepts that were not anticipated by the Development Code; or

(3) Apply to a unique or specific context in a manner that allows the project to better meet the intent or design objectives of the base zoning districts and standards.

Response to (b.1), (b.2), and (b.3): The site is adjacent to the Greeley Country Club, which is a great asset for a senior living campus. While not walkable for residents it does provide a pleasant open space with the buildings sited to take advantage of the views and setback for enough to be respectful of the golfers on the fairway and green and keep the building and residents from harm. The building provides setbacks and materials similar to a club house with great golf-course facing courtyards and outdoor areas so there is not a monotonous facade but a thoughtful transition from the site to the golf course. The existing irrigation ditch that ribbons through the southeastern border of the site and irrigates the golf course will be treated as an amenity, reminding residents of the site's farming history.

The residential campus includes a system paths and benches with low-height path lighting and directional signage. These site accessories are typical for such a campus, and will be designed and laid out in a way that establishes a well-proportioned streetscape against the one-and two-story buildings.

Because of the frail nature of the typical resident, the streetscape must meet accessible design standards and be maintained to mitigate any accidents by residents and visitors. Staff are on campus at all times, and residents can be monitored by staffmembers who are trained and know them by name, to make residents feel familiarized.

(c) The plan reflects generally accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan in the area.

(d) The plan meets all the review criteria for zoning map amendments in section 24-204.

Response to (1)c and (1)d: Please refer to responses above in the section 24-204.b Review Criteria outline.

2. Minor Amendments to the PUD. Minor amendments to PUDs may be approved by the Director, providing it meets all the criteria for the initial approval of the PUD, and is limited to the following:

(a) Any change in the number of housing units, change in lot sizes or dimensions, or increase in the land of non-residential uses is less than five percent.

Acknowledged.

(b) There is no decrease in the amount of open space or other reduction of amenities from the approved plan.

This PUD complies with R-H Standards.

(c) Any change in a building location is no more than ten percent of the approved distance to adjacent property lines.

We acknowledge this standard.

(d) Any change in the height or square footage of buildings is no more than ten percent of the approved measurements.

Acknowledged.

(e) Any change in a design standard meets the criteria for alternative compliance in section 24-204.

Acknowledged.

(f) Changes to the boundaries of any planning areas do not change the boundaries of the PUD, do not later the mix of uses by more than ten percent in land area or square footage, and otherwise reflect a similar land use plan.

Acknowledged.

(g) The proposed change is consistent with concept plans in the previously approved planned unit development.

Acknowledged.

(h) the development meets all the review criteria for site plans in section 24-207.

Acknowledged.

3. Major Amendments to the PUDs. Changes to previously approved PUDs that exceed allowances for minor amendments may be proposed for a portion of the area under the following criteria:

(a) The proposed change does not create potential impacts on other property in the PUD that are greater than would typically occur in similar zoning districts or contexts; and

Acknowledged.

(b) The process and criteria for the initial approval of a PUD are met.

Acknowledged.

1318 47TH AVENUE PLANNED UNIT DEVELOPMENT

SITUATED IN THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 11,
TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M.

CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO
1318 47TH AVENUE, GREELEY, COLORADO

PROJECT NUMBER: PUD2022-0007 (11.083 ACRES)



LOCATION MAP

INTENT STATEMENT

THE INTENT OF THE PUD IS TO ALLOW THE OPERATION OF A SENIOR CONTINUUM OF CARE OR A RESIDENTIAL SUBURBAN DESIGN ON LAND THAT HAS BEEN ECONOMICALLY UNDERUTILIZED FOR THE PAST 20 YEARS. THE DESIGN WILL RESPECT THE ADJACENT NEIGHBORS WITH LIMITED BUILDING HEIGHTS, PATHS, AND QUALITY LANDSCAPING. THE PROJECT WILL HAVE LOWER TRAFFIC IMPACT AND THE RESIDENTIAL USE IS QUIET AND SUBURBAN IN NATURE. IT COULD PROVIDE MUCH NEEDED SENIOR LIVING SPACE, INCREASED TAX REVENUES, JOBS FOR PROFESSIONAL CARE GIVERS, JOBS FOR MANAGEMENT, AND TRAINING OPPORTUNITIES FOR LOCAL UNIVERSITY AND COLLEGE STUDENTS. THE PUD IS INTENDED TO ALLOW FOR R-H ZONING USES IN ACCORDANCE WITH THE CITY OF GREELEY'S DEVELOPMENT CODE, SEE DEVELOPMENT STANDARDS ON SHEET 6 FOR ADDITIONAL REQUIREMENTS AND LIMITATIONS.

SHEET NUMBER	SHEET TITLE
1	COVER
2	EXISTING CONDITIONS MAP
3	MASTER DEVELOPEMENT PLAN AND GENERAL LAYOUT
4	DETAILED PLANS
5	DETAILS
6	STATEMENTS OF COMMITMENTS

LEGAL DESCRIPTION

REFERENCED FROM: FIDELITY NATIONAL TITLE INSURANCE COMPANY, A FLORIDA CORPORATION, FILE NUMBER 100--N0038557--020--JY, AMENDMENT NO. 2, DATED OCTOBER 31, 2022. THE DESCRIPTION IS SHOWN BELOW:

ALL THE LAND CONTAINED WITHIN TWO (2) DEEDS RECORDED ON OCTOBER 1, 1951 AS RECEPTION #1115211 AND JUNE 17, 1960 AS RECEPTION #1332327 SITUATED IN THE WEST HALF (W1/2) OF THE NORTHWEST QUARTER (NW1/4) OF SECTION ELEVEN (11), TOWNSHIP FIVE NORTH (T5N), RANGE SIXTY-SIX WEST (R66W), OF THE SIXTH PRINCIPAL MERIDIAN (6TH P.M.), CITY OF GREELEY, COUNTY OF WELD, AND THE STATE OF COLORADO. THE BOUNDARY LINE AGREEMENT CONTAINED IN A DOCUMENT RECORDED ON FEBRUARY 9, 1990 AS RECEPTION #2205006 CLARIFIES THE NORTH BOUNDARY LINE OF SAID PARCEL.

EXCEPTING THEREFROM A PARCEL OF LAND CONVEYED IN WARRANTY DEED RECORDED ON AUGUST 30, 1994 AS RECEPTION #2404645.

SAID PARCEL OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A PARCEL OF LAND TO BE USED AS A PLANNED UNIT DEVELOPMENT BEING SITUATED IN THE WEST HALF (W1/2) OF THE NORTHWEST QUARTER (NW1/4) OF SECTION ELEVEN (11), TOWNSHIP FIVE NORTH (T5N), RANGE SIXTY-SIX WEST (R66W), OF THE SIXTH PRINCIPAL MERIDIAN (6TH P.M.), CITY OF GREELEY, COUNTY OF WELD, AND THE STATE OF COLORADO MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SECTION ELEVEN (11), TOWNSHIP FIVE NORTH (T5N), RANGE SIXTY-SIX WEST (R66W), OF THE SIXTH PRINCIPAL MERIDIAN (6TH P.M.) AND ASSUMING THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 11 BEARS NORTH 00°29'18" WEST FOR A DISTANCE OF 2610.33 FEET, BEING MONUMENTED AT THE WEST QUARTER CORNER BY A #6 REBAR WITH A 3-1/4" ALUMINUM CAP STAMPED "LS 7242 - 1994" IN A RANGE BOX, AND AT THE NORTHWEST CORNER OF SAID SECTION 11 BY A #6 REBAR WITH A 3-1/4" ALUMINUM CAP STAMPED "LS 10855 - 1998" IN A RANGE BOX, AND WITH ALL BEARINGS HEREIN RELATIVE THERETO;

THENCE ON THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 11 NORTH 00°29'18" WEST FOR A DISTANCE OF 44.67 FEET TO THE POINT OF BEGINNING;

THENCE CONTINUING ON THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 11 NORTH 00°29'18" WEST FOR A DISTANCE OF 856.77 FEET; THENCE LEAVING THE SAID WEST LINE NORTH 89°30'42" EAST FOR A DISTANCE OF 50.00 FEET TO THE EAST RIGHT-OF-WAY OF 47TH AVENUE PER GRANT OF RIGHT-OF-WAY DOCUMENT RECORDED ON OCTOBER 15, 1991 AS RECEPTION NO. 2269430, SAID POINT ALSO BEING ON THE NORTH LINE OF A PARCEL DESCRIBED IN A DEED RECORDED ON JUNE 17, 1960 AS RECEPTION #1332327 OF THE WELD COUNTY RECORDS;

THENCE ON THE NORTH BOUNDARY LINE OF SAID DEED THE FOLLOWING SIX (6) COURSES;

1. THENCE NORTH 84°58'34" EAST FOR A DISTANCE OF 84.98 FEET;
2. THENCE SOUTH 35°10'14" EAST FOR A DISTANCE OF 80.96 FEET;
3. THENCE NORTH 76°42'08" EAST FOR A DISTANCE OF 161.92 FEET;
4. THENCE SOUTH 86°03'39" EAST FOR A DISTANCE OF 220.68 FEET;
5. THENCE SOUTH 88°10'49" EAST FOR A DISTANCE OF 382.28 FEET TO THE NORTH-WESTERLY CORNER OF THE CAMBRIDGE GLEN SUBDIVISION RECORDED ON JULY 18, 1995 AS RECEPTION #2447056;

THENCE ON THE WESTERLY BOUNDARY LINE OF THE SAID CAMBRIDGE GLEN SUBDIVISION FOR THE FOLLOWING FIVE (5) COURSES;

1. THENCE SOUTH 38°23'42" WEST FOR A DISTANCE OF 409.53 FEET.
2. THENCE SOUTH 47°55'52" WEST FOR A DISTANCE OF 174.21 FEET;
3. THENCE SOUTH 50°33'26" WEST FOR A DISTANCE OF 262.17 FEET;
4. THENCE SOUTH 30°04'38" WEST FOR A DISTANCE OF 232.42 FEET;
5. THENCE SOUTH 89°11'19" WEST FOR A DISTANCE OF 181.22 FEET TO THE EAST RIGHT-OF-WAY OF 47TH AVENUE;

THENCE SOUTH 89°30'42" WEST FOR A DISTANCE OF 50.00 FEET TO THE POINT OF BEGINNING.

SAID DESCRIBED PARCEL OF LAND CONTAINS A TOTAL OF 482,783 SQ. FT. OR 11.083 ACRES, MORE OR LESS, AND IS SUBJECT TO ANY EXISTING EASEMENTS AND RIGHTS OF WAYS OF RECORD OR AS NOW EXISTING ON SAID DESCRIBED PARCEL OF LAND.

PROJECT CONTROL

CONTROL POINT #39: 5/8" X 24" REBAR WITH A 1 1/4" ORANGE PLASTIC CAP, STAMPED: "CONTROL POINT"
N: 460492.443 LAT: 40°24'57.504467"N
E: 575080.281 LONG: 104°45'22.096083"W
EL: 4848.796

HORIZONTAL DATUM
NORTH AMERICAN DATUM OF 1983 (2011);
THIS PROJECT IS IN A CUSTOM LOW-DISTORTION PROJECTION, THE PARAMETERS OF THE PROJECTION ARE SHOWN BELOW:

PROJECTION TYPE: TRANSVERSE MERCATOR
LATITUDE AT ORIGIN: 40°15'00"N
CENTRAL MERIDIAN: 104°40'00"W
FALSE NORTING: 400000.000 USF
FALSE EASTING: 600000.000 USF
GRID SCALE FACTOR: 1.00024000266

VERTICAL DATUM
NORTH AMERICAN VERTICAL DATUM OF 1988,
ELEVATIONS ARE ESTABLISHED THROUGH GNSS MEASUREMENTS USING GEOID MODEL 18, AND THE GREELEY VERTICAL CONTROL NETWORK.

BENCHMARKS:
GREELEY BENCHMARK REFERENCE NO. 10, PUBLISHED EL=4796.89
GREELEY BENCHMARK REFERENCE NO. 22, PUBLISHED EL=4804.89

CONTACT LIST

OWNER/CLIENT	PILSNER DEVELOPMENT GROUP, LLC. JEFFERY MARTIN 280 DETROIT STREET DENVER, CO 80206
CIVIL ENGINEER/SURVEYOR	LAMP RYNEARSON TROY SPRAKER 4715 INNOVATION DRIVE TROY SPRAKER, PE OFFICE: 970-226-0342
ARCHITECT	HORD COPLAN MACHT LIZ PETERSON 1800 WAZEE STREET, SUITE 450 DENVER, CO 80202 303.222.0217 WWW.HCM2.COM

PLANNED UNIT DEVELOPMENT STANDARD NOTES

1. APPROVAL OF SITE CONSTRUCTION PLANS BY THE CITY OF GREELEY SHALL BE REQUIRED (AS APPLICABLE) PRIOR TO ISSUANCE OF BUILDING PERMITS.
2. SIGNAGE SHOWN ON THIS PLAN IS FOR ILLUSTRATIVE PURPOSES ONLY. A SEPARATE SIGN PERMIT SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL.
3. ALL EXISTING AND PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
4. NO BUILDING PERMIT SHALL BE ISSUED FOR THE CONSTRUCTION OF A NEW BUILDING OR STRUCTURE UNLESS THE PROPERTY HAS BEEN PLATTED IN ACCORDANCE WITH THE CITY'S SUBDIVISION REGULATIONS (CHAPTER 3).
5. ALL ELEVATIONS SHOWN ON THESE PLANS ARE TIED TO NAVD 88 DATUM.

PLANNED UNIT DEVELOPMENT CERTIFICATION BLOCK

THIS PLANNED UNIT DEVELOPMENT (PUD) HAS BEEN REVIEWED AND FOUND TO BE COMPLETE AND IN ACCORDANCE WITH THE CITY OF GREELEY DEVELOPMENT CODE REGULATIONS.

BRIDGEFORTH ACQUISITIONS LLC.

BY: _____
(SIGNATURE)

TITLE: _____

DATE: _____

CITY COUNCIL APPROVAL

APPROVED BY THE GREELEY CITY COUNCIL ON THIS _____ DAY OF _____, 20_____.

PLANNING COMMISSION RECOMMENDATION

RECOMMENDED / NOT RECOMMENDED BY THE CITY OF GREELEY PLANNING COMMISSION, THIS _____ DAY OF _____, 20_____.

COMMUNITY DEVELOPMENT DIRECTOR

BY: _____
(SIGNATURE)

DIRECTOR OF COMMUNITY DEVELOPMENT

DATE: _____

LAMP
RYNEARSON

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FORT COLLINS, COLORADO
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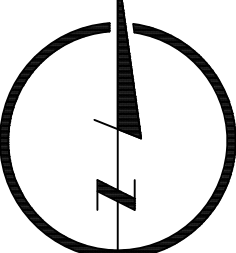
1318 47TH AVENUE
PLANNED UNIT DEVELOPMENT

SITUATED IN THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 11,
TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M.
CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO
1318 47TH AVENUE, GREELEY, COLORADO
PROJECT NUMBER: PUD2022-0007 (11.083 ACRES)

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NOT RELEASED FOR CONSTRUCTION

EXISTING CONDITIONS MAP

1318 47TH AVENUE PUD
GREELEY, COLORADO



ALL UTILITIES ARE SHOWN BASED ON THE INFORMATION AVAILABLE TO THE ENGINEER. THERE IS NO GUARANTEE ALL UTILITIES ARE SHOWN OR THAT THE LOCATION, DEPTH, AND SIZE OF EACH FACILITY IS CORRECT. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES AND SERVICE LINES PRIOR TO CONSTRUCTION.

Know what's below.
Call before you dig.

REVISIONS

SUB 1 - 2/7/2023

SUB 2 - 3/30/2023

SUB 3 - 6/30/2023

SUB 4 - 7/21/2023

SUB 5 - 8/21/2023

DESIGNER / DRAFTER

JPM

DATE

08/21/2023

PROJECT NUMBER

0222029

BOOK AND PAGE

SHEET

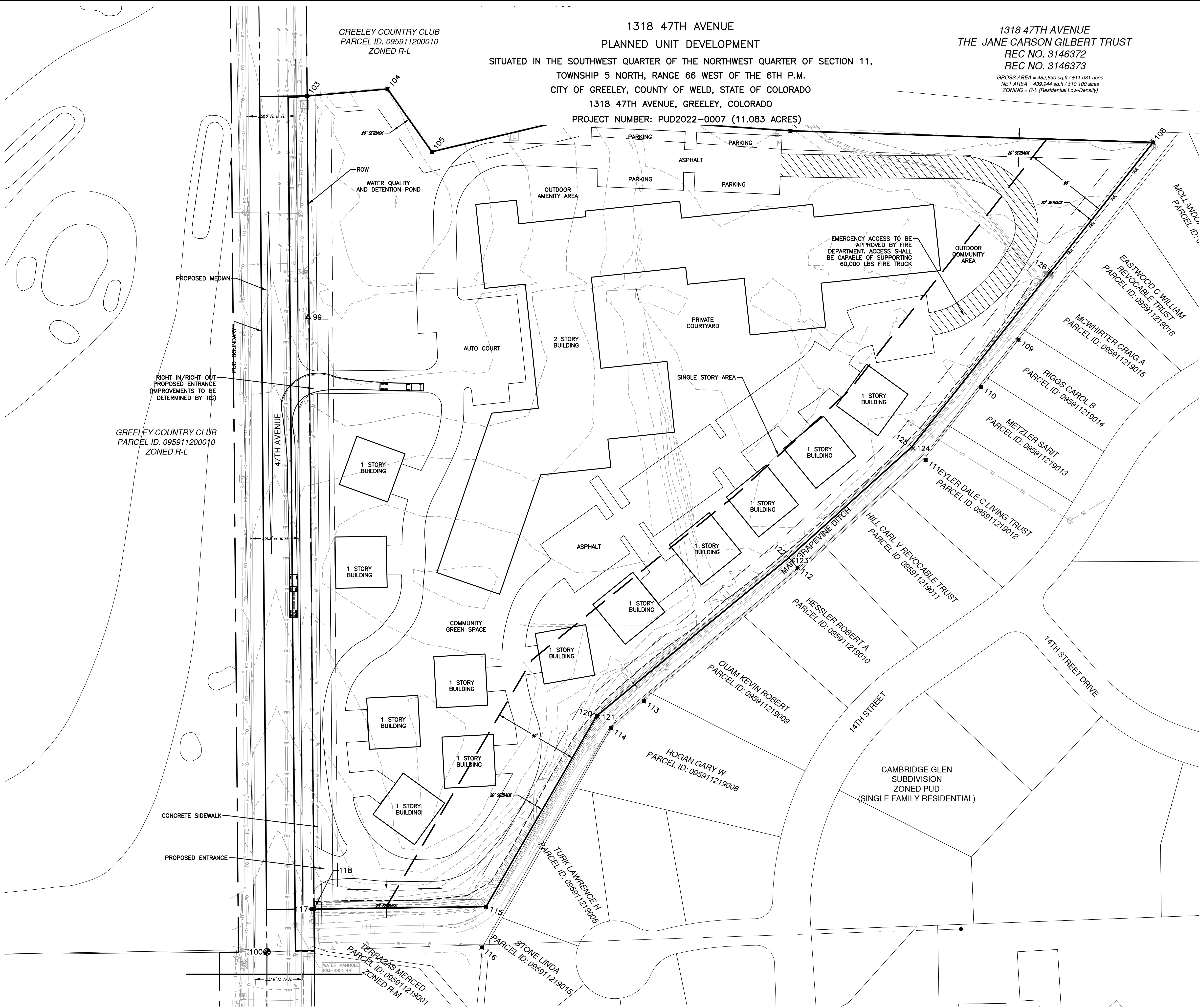
2 OF 6

SITE LEGEND:

- FO EXISTING FIBER OPTIC LINE
- W EXISTING WATER LINE
- E EXISTING ELECTRICAL LINE
- G EXISTING GAS LINE
- OHP EXISTING OVERHEAD POWER LINES
- X EXISTING FENCE
- 101 EXISTING CONTOUR
- RIGHT OF WAY
- PUD BOUNDARY

BASIS OF BEARING: AT THE WEST QUARTER CORNER OF SECTION ELEVEN (11), TOWNSHIP FIVE NORTH (15N), RANGE SIXTY-SIX WEST (R66W), OF THE SIXTH PRINCIPAL MERIDIAN (6TH P.M.), AND ASSUMING THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 11 BEARS NORTH 00°29'18" WEST FOR A DISTANCE OF 2610.33 FEET, BEING MONUMENTED AT THE WEST QUARTER CORNER BY A #6 REBAR WITH A 3-1/4" ALUMINUM CAP STAMPED 'LS 7242 - 1994' IN A RANGE BOX, AND AT THE NORTHWEST CORNER OF SAID SECTION 11 BY A #6 REBAR WITH A 3-1/4" ALUMINUM CAP STAMPED 'LS 10855 - 1998' IN A RANGE BOX, AND WITH ALL BEARINGS HEREIN RELATIVE THERETO.

U:\Engineering\0222029 - EBERT - Homebased\DRAWINGS\CONSTRUCTION - DRAWINGS\0222029-SITE-11.dwg, 8/21/2023, 8:50:04 AM, HEIDMAN REISHER, LAMP RYNEARSON



SITE SUMMARY					
	USE	ACRES	COMBINED TOTAL UNITS	DENSITY/FAR	% OF ACREAGE
PERMITTED USE	RESIDENTIAL HIGH (R-H) AND INDEPENDENT LIVING/ ASSISTED LIVING/ MEMORY CARE USES AND ALLOWANCES IN ACCORDANCE WITH THE CITY OF GREELEY'S DEVELOPMENT CODE, AND AS AMENDED	TOTAL ACRES 11.083	UP TO 200 UNITS	0.31 FAR	100%

SITE LEGEND:

- FO EXISTING FIBER OPTIC LINE
- W-W EXISTING WATER LINE
- E-E EXISTING ELECTRICAL LINE
- G-G EXISTING GAS LINE
- OHP EXISTING OVERHEAD POWER LINES
- X-X EXISTING FENCE
- G-G PROPOSED GAS LINE (APPROXIMATE LOCATION)
- W-W PROPOSED WATER LINE
- SS PROPOSED SANITARY SEWER LINE
- E-E PROPOSED ELECTRIC LINE (APPROXIMATE LOCATION)

NOTES:

- LAYOUT SHOWN IS FOR CONCEPT ONLY
- INTERNAL ACCESS ROAD SHALL BE IN ACCORDANCE TO THE CITY OF GREELEY DETAIL S-1, (LOCAL LOW VOLUME)

BASIS OF BEARING

COMMENCING AT THE WEST QUARTER CORNER OF SECTION ELEVEN (11), TOWNSHIP FIVE NORTH (15N), RANGE SIXTY-SIX WEST (R66W), OF THE SIXTH PRINCIPAL MERIDIAN (6TH P.M.) AND ASSUMING THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 11 BEARS NORTH 00°29'18" WEST FOR A DISTANCE OF 2610.33 FEET, BEING MONUMENTED AT THE WEST QUARTER CORNER BY A #6 REBAR WITH A 3-1/4" ALUMINUM CAP STAMPED "LS 7242 - 1994" IN A RANGE BOX, AND AT THE NORTHWEST CORNER OF SAID SECTION 11 BY A #6 REBAR WITH A 3-1/4" ALUMINUM CAP STAMPED "LS 10855 - 1998" IN A RANGE BOX, AND WITH ALL BEARINGS HEREIN RELATIVE THERETO;

PROJECT CONTROL

CONTROL POINT #99: 5/8" X 24" REBAR WITH A 1 1/4" ORANGE PLASTIC CAP, STAMPED: "CONTROL POINT"
N: 460492.443 LAT: 40°24'57.504467"N
E: 575080.281 LONG: 104°45'22.096083"W
EL: 4848.796

HORIZONTAL DATUM
NORTH AMERICAN DATUM OF 1983 (2011);

THIS PROJECT IS IN A CUSTOM LOW-DISTORTION PROJECTION, THE PARAMETERS OF THE PROJECTION ARE SHOWN BELOW:

PROJECTION TYPE: TRANSVERSE MERCATOR
LATITUDE AT ORIGIN: 40°15'00"N
CENTRAL MERIDIAN: 104°40'00"W
FALSE NORTHING: 400000.000 USFT
FALSE EASTING: 600000.000 USFT
GRID SCALE FACTOR: 1.0002400266

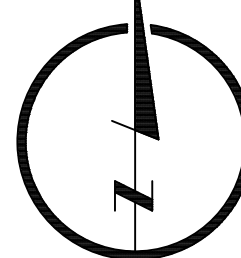
VERTICAL DATUM
NORTH AMERICAN VERTICAL DATUM OF 1988.
ELEVATIONS ARE ESTABLISHED THROUGH GNSS MEASUREMENTS USING GEOID MODEL 18, AND THE GREELEY VERTICAL CONTROL NETWORK.

BENCHMARKS:
GREELEY BENCHMARK REFERENCE NO. 10, PUBLISHED EL=4796.89
GREELEY BENCHMARK REFERENCE NO. 22, PUBLISHED EL=4804.89

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MASTER DEVELOPMENT PLAN AND GENERAL LAYOUT

1318 47TH AVENUE PUD
GREELEY, COLORADO



Know what's below.
Call before you dig.

REVISIONS

- SUB 1 - 2/7/2023
- SUB 2 - 3/30/2023
- SUB 3 - 6/30/2023
- SUB 4 - 7/21/2023
- SUB 5 - 8/21/2023

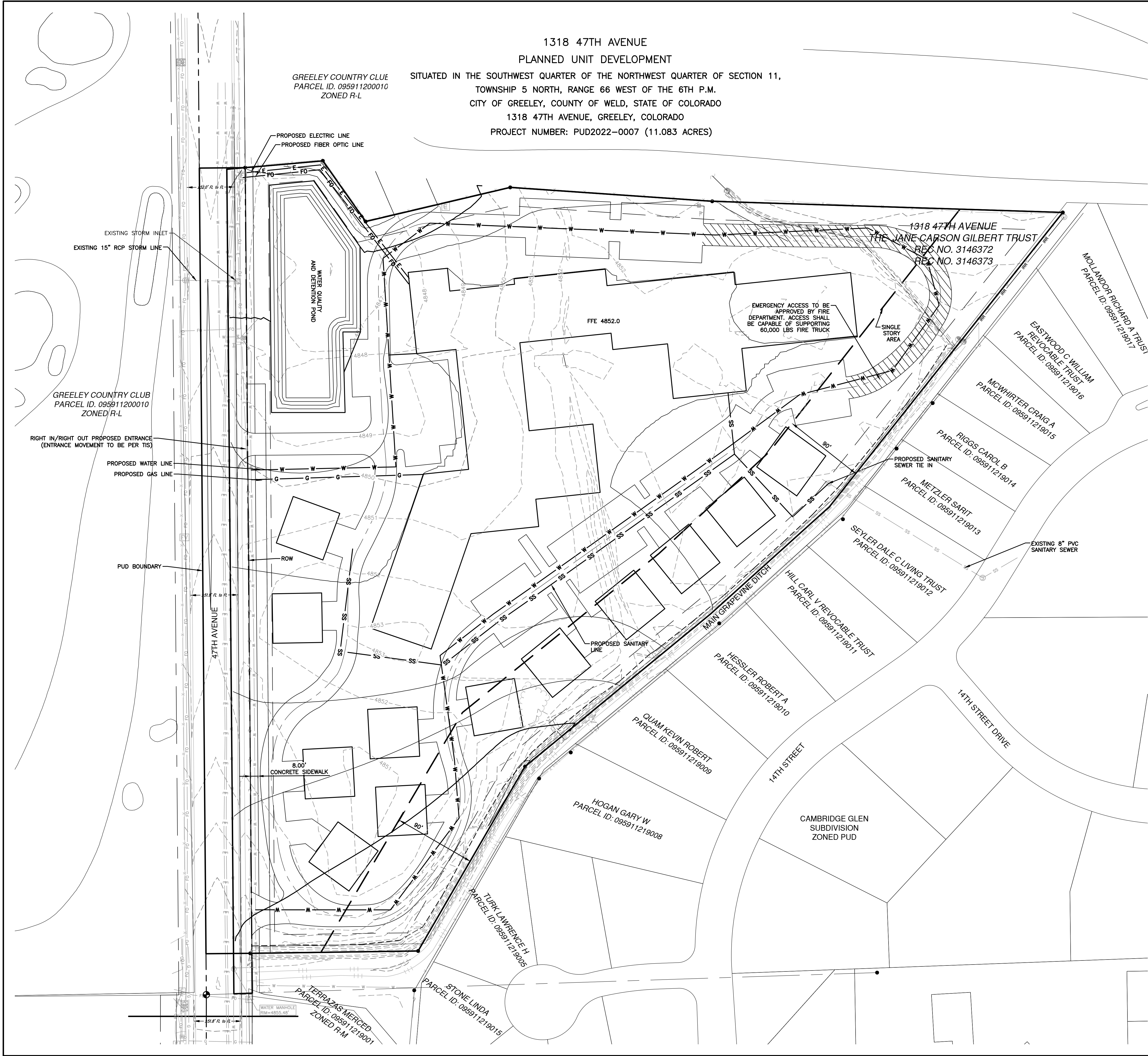
DESIGNER / DRAFTER

JPM
DATE
08/21/2023
PROJECT NUMBER
0222029
BOOK AND PAGE

SHEET

3 OF 6

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SITE LEGEND:

- FO ——— EXISTING FIBER OPTIC LINE
- W ——— EXISTING WATER LINE
- E ——— EXISTING ELECTRICAL LINE
- G ——— EXISTING GAS LINE
- GHP ——— EXISTING OVERHEAD POWER LINES
- X ——— EXISTING FENCE
- G ——— PROPOSED GAS LINE (APPROXIMATE LOCATION)
- W ——— PROPOSED WATER LINE
- SS ——— PROPOSED SANITARY SEWER LINE
- E ——— PROPOSED ELECTRIC LINE (APPROXIMATE LOCATION)
- FO ——— PROPOSED FIBER OPTIC LINE (APPROXIMATE LOCATION)
- 1101- EXISTING CONTOUR
- 1100- EXISTING CONTOUR

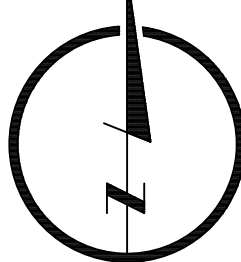
NOTES:

1. LAYOUT SHOWN IS FOR CONCEPT ONLY
2. FIRE HYDRANTS TO BE PROVIDED AS REQUIRED PER FIRE CODE
3. SEWER LINES SHALL BE SDR 35 PVC, GREEN IN COLOR.
4. WATER MAINS SHALL BE C900 PVC, BLUE IN COLOR.
5. 4. NON-POTABLE SHALL BE C900 PVC, PURPLE IN COLOR, IF REQUIRED.

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DETAILED PLANS

1318 47TH AVENUE PUD
GREELEY, COLORADO



Know what's below.
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REVISIONS

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SUB 2 - 3/30/2023
SUB 3 - 6/30/2023
SUB 4 - 7/21/2023
SUB 5 - 8/21/2023

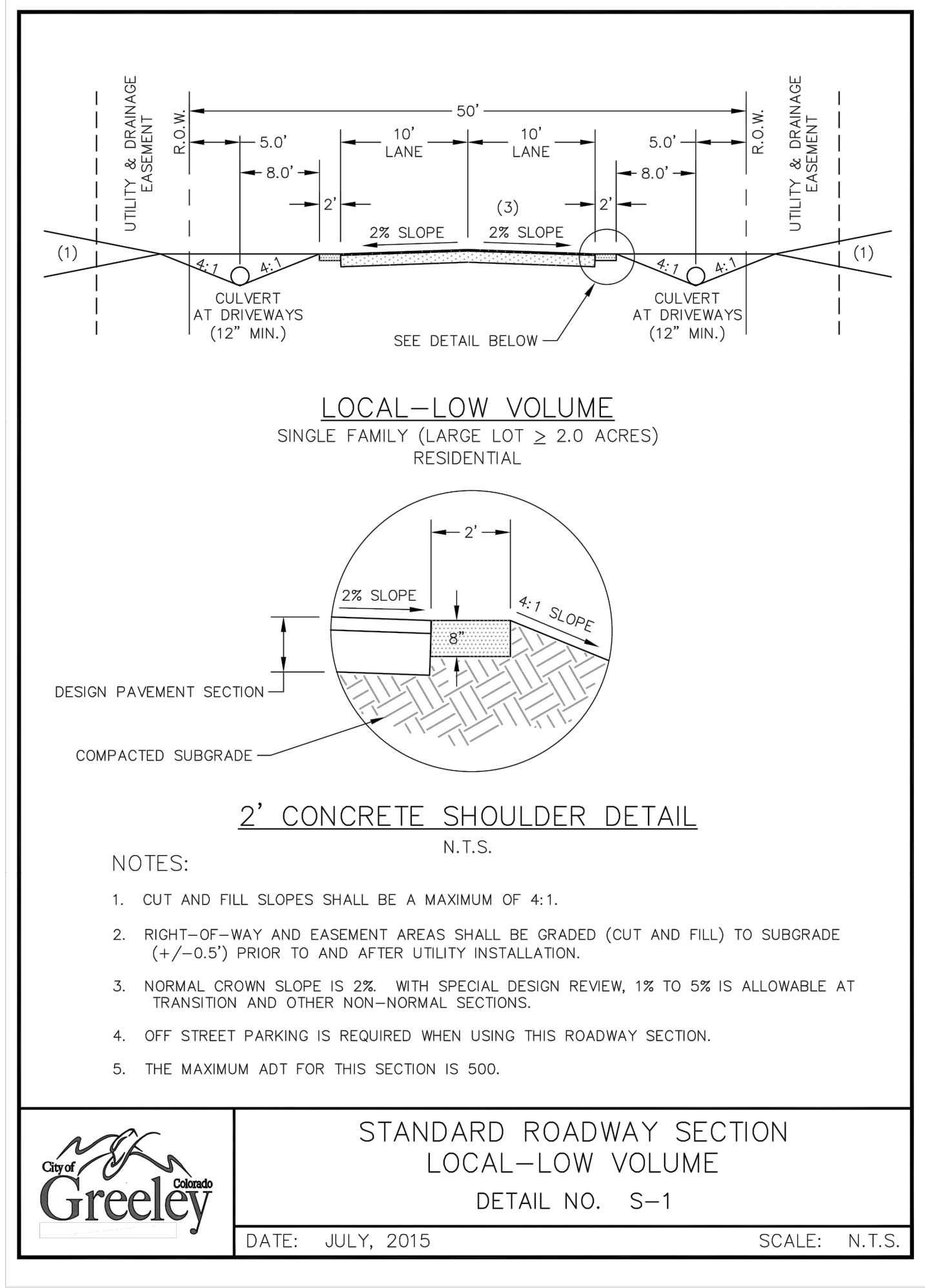
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JPM
DATE
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BOOK AND PAGE

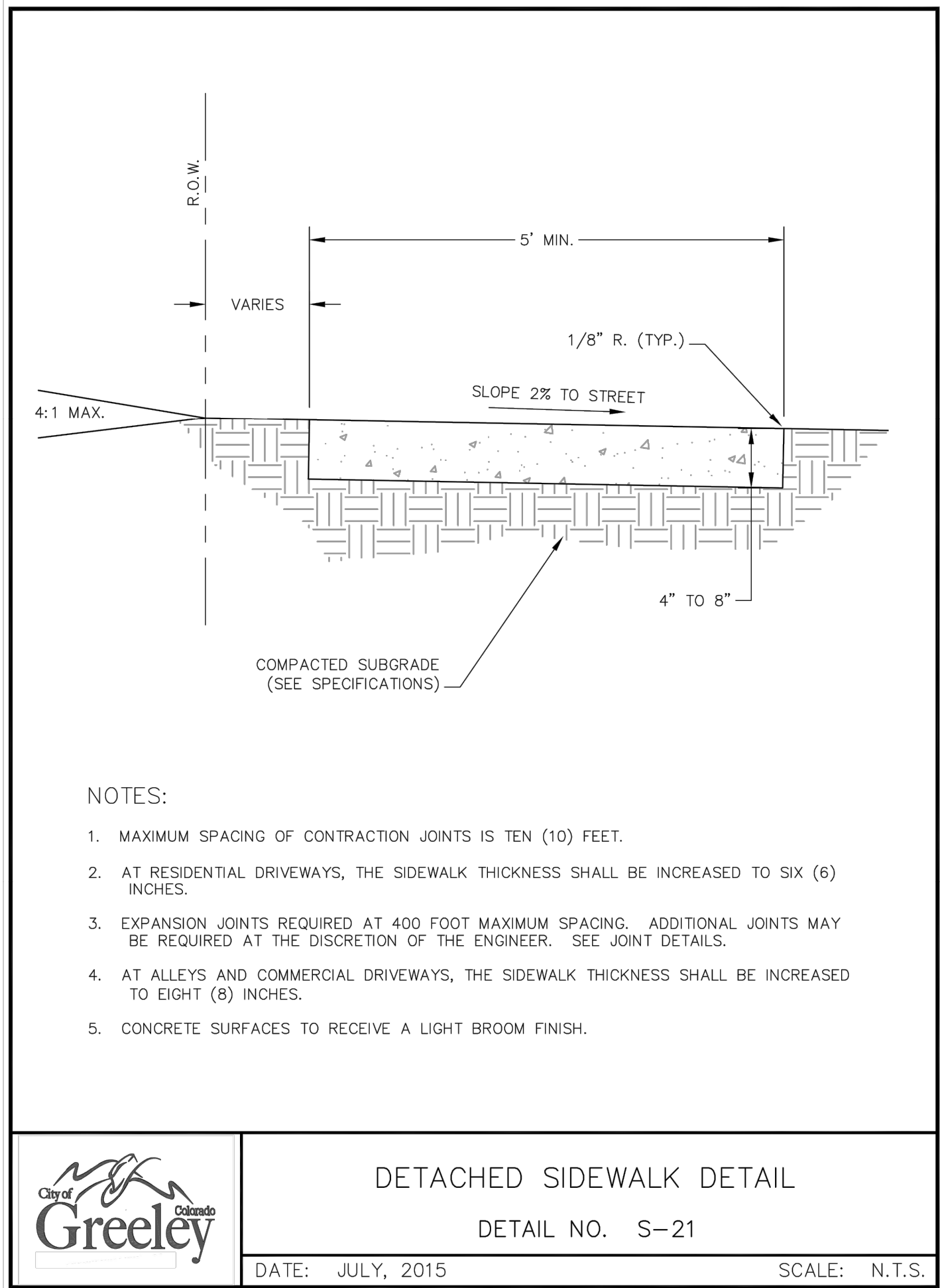
SHEET

4 OF 6

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1318 47TH AVENUE
PLANNED UNIT DEVELOPMENT
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CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO
1318 47TH AVENUE, GREELEY, COLORADO
PROJECT NUMBER: PUD2022-0007 (11.083 ACRES)

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DETAILS

1318 47TH AVENUE PUD
GREELEY, COLORADO

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ALL UTILITIES AND SERVICE
LINES PRIOR TO CONSTRUCTION.

REVISIONS

SUB 1	-	2/7/2023
SUB 2	-	3/30/2023
SUB 3	-	6/30/2023
SUB 4	-	7/27/2023
SUB 5	-	8/21/2023

DESIGNER / DRAFTER

JPM

DATE

08/21/2023

PROJECT NUMBER

0222029

BOOK AND PAGE

SHEET

5 OF 6

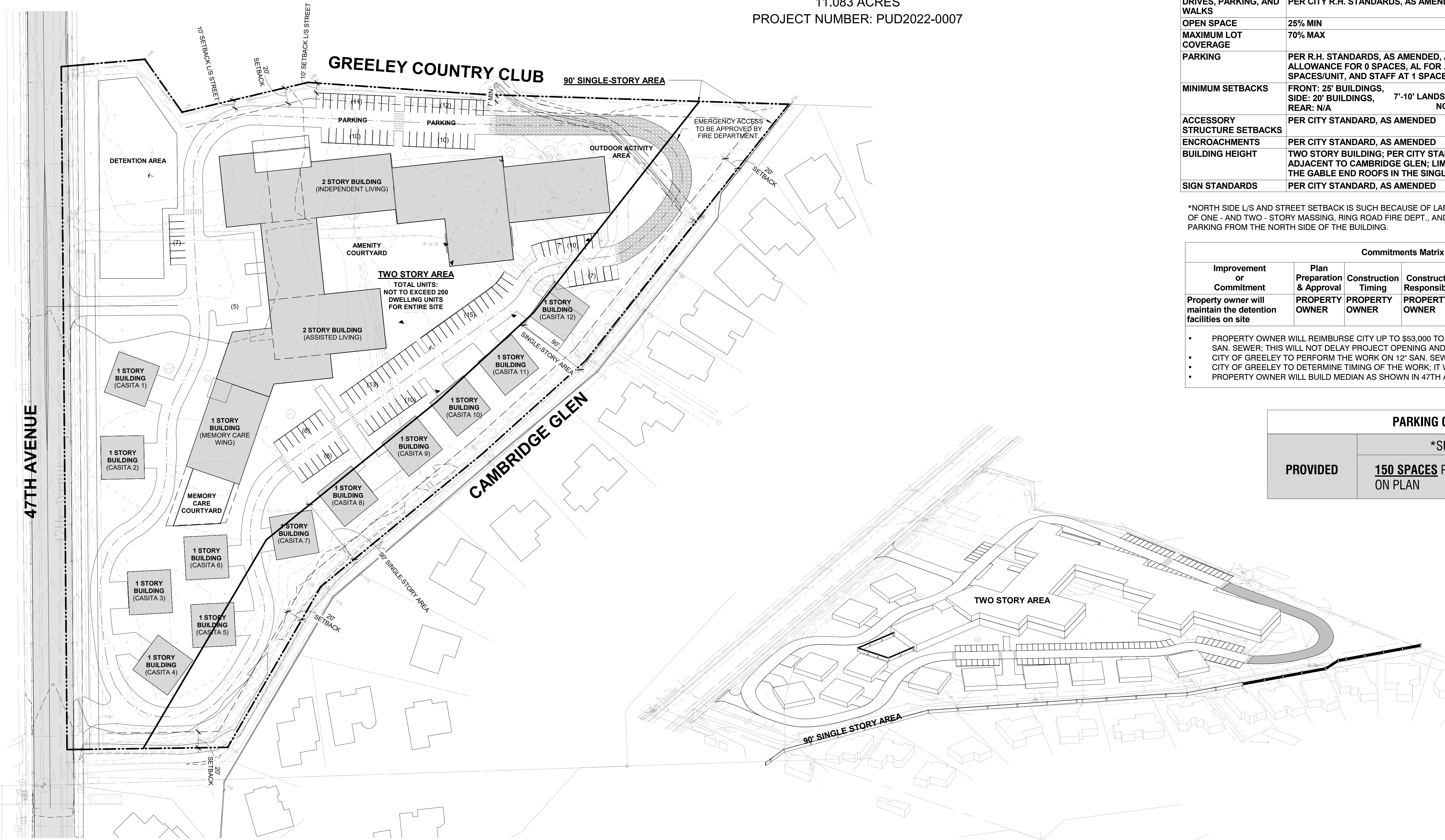
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CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO

1318 47TH AVENUE, GREELEY, COLORADO

11.083 ACRES

PROJECT NUMBER: PUD2022-0007



CONCEPTUAL SITE PLAN FOR AREA REFERENCES

SCALE: 1" = 60'

3D AXONOMETRIC

*LAYOUT SHOWN IS FOR CONCEPT ONLY

Development Standards	
DESCRIPTION	PROPOSED
PLANNING AREA	11.083 ACRES
PERMITTED USES	PER CITY R.H. STANDARDS, AS AMENDED, RESIDENTIAL CARE - GROUP HOME, ASSISTED LIVING, SENIOR INDEPENDANT LIVING, MEMORY GENERAL, INSTITUTIONAL, AND PERMITTED USES IN THE R.H. (RESIDENTIAL HIGH-DENSITY) ZONING DISTRICT FOR SINGLE-FAMILY, TWO-FAMILY, ROW HOUSES, MULTI-FAMILY AND ACCESSORY DWELLINGS.
USES NOT ALLOWED	COMMERCIAL/ INDUSTRIAL
MINIMUM LOT AREA	PER CITY R.H. STANDARDS, AS AMENDED
DENSITY	MAXIMUM TWENTY (20) DWELLING UNITS/ACRE
BUILDING COVERAGE	PER CITY R.H. STANDARDS, AS AMENDED
DRIVES, PARKING, AND WALKS	PER CITY R.H. STANDARDS, AS AMENDED
OPEN SPACE	25% MIN
MAXIMUM LOT COVERAGE	70% MAX
PARKING	PER R.H. STANDARDS, AS AMENDED, AND WITH EXCEPTION OF MEMORY CARE ALLOWANCE FOR 0 SPACES, AL FOR .70/SPACES PER UNIT, IL FOR 1.15 SPACES/UNIT, AND STAFF AT 1 SPACE/10 UNITS
MINIMUM SETBACKS	FRONT: 25' BUILDINGS, 7'-10' LANDSCAPE AT DRIVES AND PARKING AT SIDE: 20' BUILDINGS, NORTH SIDE (SEE PLANS)* REAR: N/A
ACCESSORY STRUCTURE SETBACKS	PER CITY STANDARD, AS AMENDED
ENCROACHMENTS	PER CITY STANDARD, AS AMENDED
BUILDING HEIGHT	TWO STORY BUILDING; PER CITY STANDARD, AS AMENDED - SINGLE STORY ADJACENT TO CAMBRIDGE GLEN; LIMIT ROOF HEIGHTS TO THE MID-LINE OF THE GABLE END ROOFS IN THE SINGLE STORY TO 21'.
SIGN STANDARDS	PER CITY STANDARD, AS AMENDED

*NORTH SIDE L/S AND STREET SETBACK IS SUCH BECAUSE OF LARGE FOOTPRINT DUE TO CONSIDERATION OF ONE - AND TWO - STORY MASSING, RING ROAD FIRE DEPT., AND FOR EASE OF SENIORS' ACCESS TO PARKING FROM THE NORTH SIDE OF THE BUILDING.

Commitments Matrix					
Improvement or Commitment	Plan Preparation & Approval	Construction Timing	Construction Responsibility	Maintenance Responsibility	Property Ownership
Property owner will maintain the detention facilities on site	PROPERTY OWNER	PROPERTY OWNER	PROPERTY OWNER	PROPERTY OWNER	PER PROPERTY DEED
- PROPERTY OWNER WILL REIMBURSE CITY UP TO \$53,000 TO A LARGER CIP FUND FOR UPGRADING 12" SAN. SEWER; THIS WILL NOT DELAY PROJECT OPENING AND WILL BE PAID AT BLDG. PERMIT. - CITY OF GREELEY TO PERFORM THE WORK ON 12" SAN. SEWER MAIN. - CITY OF GREELEY TO DETERMINE TIMING OF THE WORK; IT WILL NOT DELAY THE PROJECT. - PROPERTY OWNER WILL BUILD MEDIAN AS SHOWN IN 47TH AVENUE PRIOR TO PROJECT OPENING.					

PARKING COUNT	
PROVIDED	*SURFACE PARKING
	150 SPACES PER 152 UNITS AS SHOWN ON PLAN

hord | coplan | macht

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Denver, CO 80202

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STATEMENT OF COMMITMENTS

SHEET 6 OF 6

A1.06

PUD2022-0007

Memorandum

To: Brittany Hathaway, Development Review and Civil Inspection Manager

From: Jeff Vasquez
Matt Brown PE, PTOE

Date: November 4, 2022

Re: 1318 47th Ave, Greeley - Senior Living Facility
Traffic Impact Study

Stolfus & Associates has conducted a traffic analysis to determine the Level of Service that would result from adding a right in right out access point on 47th Avenue for the proposed Senior Living Facility located at 1318 47th Avenue. As currently envisioned, the facility will be a senior living community that provides assisted living, independent living, and memory care living as well as duplexes for separated independent living. Surface parking will be incorporated within the facility; 136 general spaces and an additional 24 spaces for the duplexes.

Traffic Generation

The Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition was used to estimate the number of vehicles that will result from the proposed senior living facility. ITE land uses 251 (Senior Adult Housing – Detached), 252 (Senior Adult Housing – Attached), and 254 (Assisted Living) were used to estimate trip generations.

In total, the development can be expected to generate 43 trips (19 inbound and 24 outbound) in the weekday a.m. peak hour, and 54 trips (27 inbound and 27 outbound) in the weekday p.m. peak hour. The total number of trips generated over the course of a typical weekday is estimated to be 628.

Land Use	ITE Code	Units	Beds	Trips Generated		
				Daily	AM Peak Hr (In / Out)	PM Peak Hr (In / Out)
Memory Care / Assisted Living	254	56	66*	172	8 / 5	6 / 11
Independent Living – Attached	252	80*	N/A	296	6 / 10	11 / 10
Independent Living - Detached	251	24*	N/A	160	5 / 9	10 / 6
Total		160		628	19 / 24	27 / 27

*Independent variable used to estimate trips generated

Given that access to the site is proposed as a right-in, right-out, the assignment of traffic volumes to the access was straightforward (for example, during the weekday a.m. peak hour, there would be 19 right turns into the site and 24 right turns out of the site).

Level of Service Analysis

Traffic operations using the vehicle counts and trip generations were evaluated using the Highway Capacity Manual, 6th Edition (HCM6) methods as applied in the Highway Capacity Software. The table below shows the traffic operation at the proposed stop-controlled intersection.

AM			PM		
Movement	LOS	V/C	Movement	LOS	V/C
WBR	A	0.03	WBR	B	0.05

The stop-controlled intersection at 47th Ave and the proposed Greeley Senior Living Facility is expected to operate at a LOS A in the AM peak and LOS B in the PM peak, indicating that the intersection will operate well with minimum delays.

Auxiliary Lane Analysis

The City of Greeley *Design Criteria and Construction Specifications* manual indicates that the need for deceleration lanes will be determined by a traffic impact study and the City Engineer.

Weld County provides auxiliary lane criteria in their *Weld County Engineering and Construction Criteria* manual that is based upon the Colorado Department of Transportation's *State Highway Access Code*. However, the County's criteria are for rural highways. The subject property is located within the City of Greeley in an urbanized environment.

For this reason, State Highway Access Code criteria for NR-B (non-rural arterial) highways was used to determine whether auxiliary lane warrants are met at the access. For NR-B highways, Section 311.4(b) of the Code states:

"A right turn lane with storage length plus taper is required for any access with a projected peak hour right ingress turning volume greater than 50 vph. If the posted speed is greater than 40 mph, a right turn deceleration lane and taper is required for any access with a projected peak hour right ingress turning volume greater than 25 vph."

As the posted speed limit along 47th Avenue is 40 mph, and the number of right-turning vehicles at the access is estimated to be less than 50 vph, a right-turn deceleration lane is not warranted.

Attachments

Attachments to this memorandum include existing traffic volume data and highway capacity worksheets.

Site Code: 1
Station ID: 1
47TH AVE N/O 16TH ST

Start Time	28-Sep-22 Wed	NB	SB							Total
12:00 AM		20	30							50
01:00		15	16							31
02:00		8	10							18
03:00		19	17							36
04:00		45	50							95
05:00		104	148							252
06:00		233	273							506
07:00		396	626							1022
08:00		379	570							949
09:00		350	494							844
10:00		438	599							1037
11:00		560	597							1157
12:00 PM		511	517							1028
01:00		468	517							985
02:00		556	561							1117
03:00		642	713							1355
04:00		626	595							1221
05:00		676	663							1339
06:00		454	488							942
07:00		411	309							720
08:00		299	213							512
09:00		185	135							320
10:00		89	70							159
11:00		50	31							81
Total		7534	8242							15776
Percent		47.8%	52.2%							
AM Peak	-	11:00	07:00	-	-	-	-	-	-	11:00
Vol.	-	560	626	-	-	-	-	-	-	1157
PM Peak	-	17:00	15:00	-	-	-	-	-	-	15:00
Vol.	-	676	713	-	-	-	-	-	-	1355
Grand Total		7534	8242							15776
Percent		47.8%	52.2%							
ADT		ADT 15,776	AADT 15,776							

HCS Two-Way Stop-Control Report

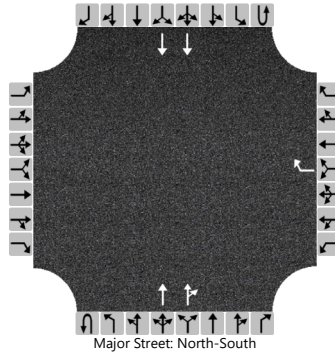
General Information

Analyst	
Agency/Co.	
Date Performed	10/18/2022
Analysis Year	2022
Time Analyzed	
Intersection Orientation	North-South
Project Description	

Site Information

Intersection	47th Ave and Greeley Country Club
Jurisdiction	
East/West Street	Greeley Country Club
North/South Street	47th Ave
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								24			411	19			684	
Percent Heavy Vehicles (%)								3								
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)								6.9								
Critical Headway (sec)								6.96								
Base Follow-Up Headway (sec)								3.3								
Follow-Up Headway (sec)								3.33								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								26								
Capacity, c (veh/h)								765								
v/c Ratio								0.03								
95% Queue Length, Q ₉₅ (veh)								0.1								
Control Delay (s/veh)								9.9								
Level of Service (LOS)								A								
Approach Delay (s/veh)					9.9											
Approach LOS					A											

HCS Two-Way Stop-Control Report

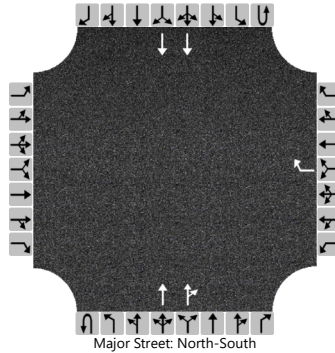
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Analyst	
Agency/Co.	
Date Performed	10/18/2022
Analysis Year	2022
Time Analyzed	PM
Intersection Orientation	North-South
Project Description	

Site Information

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Jurisdiction	
East/West Street	Greeley Country Club
North/South Street	47th Ave
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	2	0	0	0	2	0
Configuration								R			T	TR			T	
Volume (veh/h)								27			699	27			685	
Percent Heavy Vehicles (%)								3								
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					No											
Median Type Storage	Undivided															

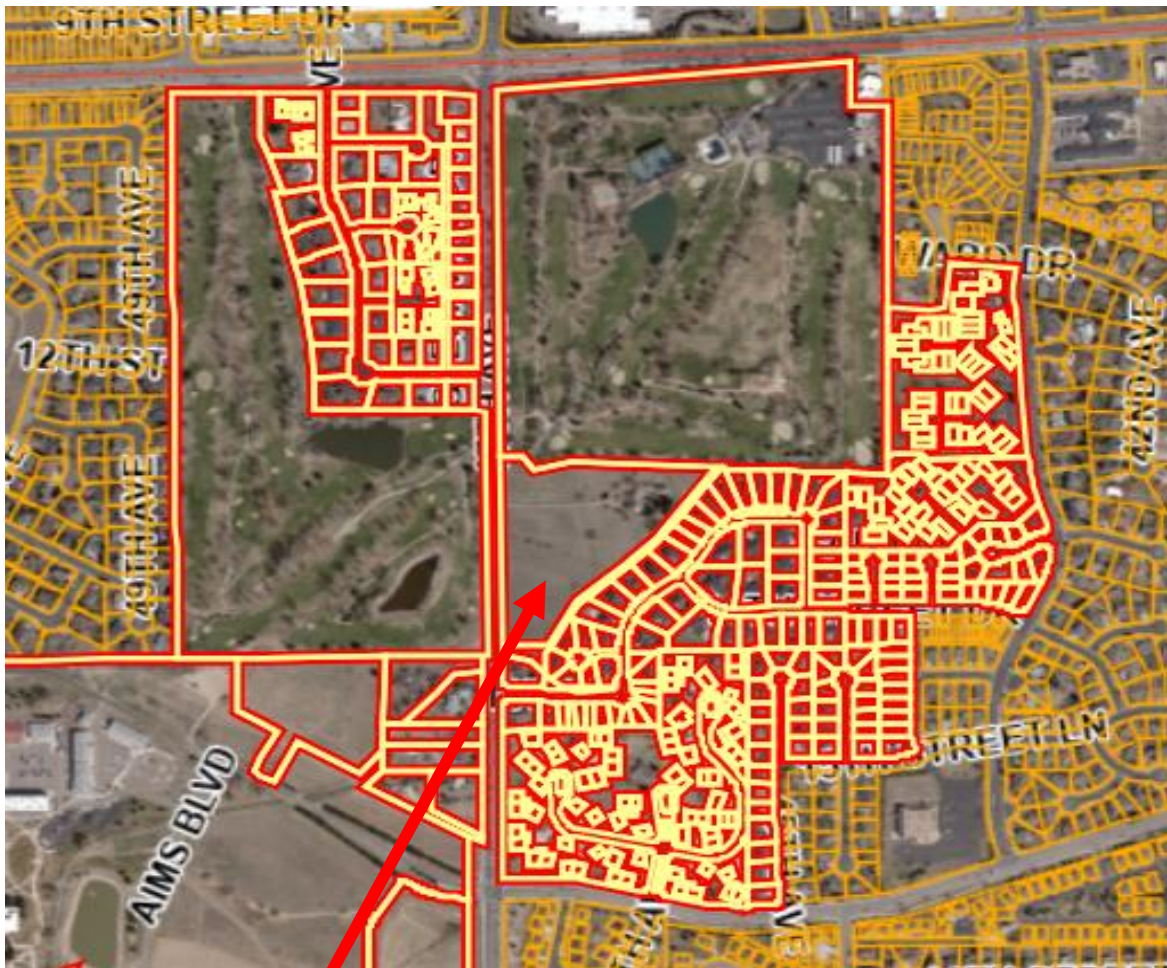
Critical and Follow-up Headways

Base Critical Headway (sec)								6.9								
Critical Headway (sec)								6.96								
Base Follow-Up Headway (sec)								3.3								
Follow-Up Headway (sec)								3.33								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								29								
Capacity, c (veh/h)								602								
v/c Ratio								0.05								
95% Queue Length, Q ₉₅ (veh)								0.2								
Control Delay (s/veh)								11.3								
Level of Service (LOS)								B								
Approach Delay (s/veh)					11.3											
Approach LOS					B											

PUD2022-0007 1318 47th Avenue, Neighborhood Notification Boundary Map



PUD
Site Location

From: [Lucille M. Mantelli](#)
To: [Caleb Jackson](#)
Subject: [EXTERNAL] 1318 - 47th Avenue PUD
Date: Sunday, April 23, 2023 10:29:12 AM

Caleb, the following are my comments regarding the PUD and rezoning request for the above mentioned property.

I believe that the "right in/right out" turning proposal is very reasonable. With the current traffic on 47th Avenue, that would be one way to try to avoid additional accidents that occur on that street. If this area does end up being zoned RH, I would think a new traffic study would be required.

I personally do not have any objections to the proposed development of a Senior Living Facility, however I do object to the RH zoning request. I am confused after the meeting that was held at the Country Club because I was of the understanding (and I am probably wrong) that the PUD would enable the appropriate zoning for such a facility and that RH was not required.

If RH is required, would the City be willing to develop a special zoning designation for such a facility if they don't already have one? With the need in Greeley, this might come up again in the future.

We really didn't see any landscaping plans, but perhaps the landscaping requirements could hide any areas such as trash collection/removal, deliveries, and to blend in with the current Country Club golf course landscaping.

I would encourage a mandatory public hearing and review of the City Council and would appreciate some type of notice when these meetings are scheduled.

Thanks, Caleb for your time and consideration.

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From: [Ginny Hogan](#)
To: [Caleb Jackson](#); [Thomas Gilbert](#)
Cc: garyhoganremax@gmail.com
Subject: [EXTERNAL] 1318 47th Ave Project
Date: Friday, April 21, 2023 10:11:07 AM
Attachments: [Outlook-iwfngpss.png](#)
Importance: High

Good morning gents,

I wanted to thank you for taking the time last evening to speak with us all. I am sure these meetings are always very unusual!

My name is Ginny Hogan, my husband Gary is attached to this email as well. Gary and I live in Cambridge Glen. We are the house with the pool along the concrete fence. Recently, Gary and I have invested a large amount of money into our backyard and remodel of our home. We both are real estate agents, and both know the market and how "things" affect the value of a home.

My husband made mention that we are not opposed to this site plan AS IS but like all others in the room, we have a very strong feeling that an approval of an R-H zone will have an adverse effect not only on the ability to build up higher than 2 stories, but also because currently, it has been stated that any changes more than 30% will allow it to go back to "us" for a meeting, which we feel is way too high of a percentage and a lot can go under the radar without our knowledge. What does that 30% mean? If they decide to add a third story, will that be a 30% change because of that AND capacity changes? What are the criteria for that 30% change? Are there things that could change under the radar and then I have people in a high rise looking into my backyard should this deal fall through? When we purchased this place, we knew this would be our home until retirement. We are the youngest couple in our neighborhood and still have young children (youngest being 5 years old). As I am sure you have heard, building an apartment complex or anything over one story could lower our value. If it won't lower our value, I would like hard proof that it will not affect our property value.

We respectfully request that it stay in the R-L and PUD as well as ANY changes, even if that percentage is anything changing over 1%, be brought back to the community.

We also heard that all this will be taken into consideration when the design comes into play. What is sad is Gary and I enjoy a view of the mountains from our home. Which adds value and this will take that away. We enjoy seeing stars at night, this will take it away because of the lights that are required for such a build, we enjoy the privacy, this will take it away. Privacy will be an issue that I believe can be resolved with required landscape. If they are taking my view of the mountains away, the least they can do is put in privacy hedges so that we have blockage from noise and lights. You cannot say there won't be noise.

I respectfully request that you make considerations of all that is in this email. I know your task is not an easy one but WE are the ones living in the community mostly affected.

I thank you for your time and consideration.

Ginny Hogan
Partner-Broker

5H Properties & Grand K LLC
4533 W 14th Street
Greeley, CO 80634
(970) 978-6574



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From: [David Kejr](#)
To: [Caleb Jackson](#)
Subject: [EXTERNAL] 1318 47th Avenue Planned Unit Development
Date: Friday, April 21, 2023 10:03:42 AM

Caleb,

Thank you for sharing planning process at Neighborhood meeting last night.

I do have concerns about project. We live at 1218 48th Avenue. First is traffic on 47th Avenue. It is already at capacity and even if you only add 27 vehicles an hour during busy time, it will be much busier. On top of that, if project grows by 30% as was stated last night, now you're talking 36 vehicles into an already busy street. I think traffic impact is way underestimated if project goes through.

A bigger concern I have is longer term. I see around town nice neighborhoods that used to be very desirable but with growth and sprawl, streets become so busy that the neighborhood then becomes undesirable.

Why not leave it open space or a park? I know with rezoning you increase property taxes to city and county. Money seems to be driving this forward from all sides.

It looks like the PUD is one step in the process to change zoning into R-H.

I strongly suggest you do not do that.

Thanks,

David Kejr

--

David kejr

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From: [Robert Kuznik](#)
To: [Caleb Jackson](#)
Cc: [Cambridge Glen Owners Association](#)
Subject: [EXTERNAL] 1318 47th Avenue PUD (PUD2022-0007)
Date: Friday, April 21, 2023 2:29:12 PM

Caleb.....thank you for the opportunity to comment further on the matter of PUD2022-0007.

As residents of Cambridge Glen, Joyce and I received notice and attended the Neighborhood Meeting on April 20. Upon reflection we wish to provide the following comments and ask that they be added to the meeting notes.

1.) Traffic.

~ The Project was described as permitting only right-hand turn movements in and out of the site. We think that is a good approach.

~ The Conceptual Plan displayed two points of ingress/egress for the Project: (1) A 'main entrance' at the approximate center of the Project's 47th Avenue frontage; and, (2) A 'service entrance' at the southern end of the 47th Ave. frontage. We suggest the following two additional adjustments for mitigating traffic issues:

(1) That the two entrances be combined into a single ingress/egress point at the approximate center of the 47th Ave. boundary.

(Comment: The Applicant offered that the number of service vehicles to the Project would be minimal, therefore restricting service vehicles to a single main entrance should not have a material adverse impact on the Project.)

(2) That the Project provide a deceleration lane and an acceleration lane along the entire length of the 47th Ave. frontage.

(Comment: A project of this nature will host a disproportionate number of vehicle trips by senior drivers, by non-emergent medical transport vehicles, and by fire/ambulance emergency response vehicles [all disproportionately high compared to other residential uses] . Although the traffic volumes of the Project may not warrant additional safety lanes, the senior drivers, medical transport vehicles, emergency vehicles, and the general driving public will all derive long-term benefit from the added safety afforded by a deceleration/acceleration lane along a substantial portion of the 47th Ave. frontage. Such a feature would also undoubtedly be noticed and appreciated by prospective residents and their family members. As a concession to the developer, perhaps the land area of these safety lanes could be included in Project's open space/density calculations since they otherwise would not be required.)

~ With regard to the majority of the concerns expressed at the Neighborhood Meeting regarding traffic, those concerns were largely unrelated to the Project and instead are a reflection of the level of frustration and concern about increasing traffic along major corridors of a growing community. Perhaps those concerns should be addressed as part

of a larger community survey/traffic mitigation study and remediation program brought to the neighborhood level throughout the community by City Staff.

2.) Mitigation Measures.

Overall, the applicant did a good job anticipating and mitigating impacts on the Cambridge Glen neighborhood. The following mitigation measures should be part of the conditions of the City's approval:

~ Onsite Parking. All parking should be buffered from adjacent single family homes by a structure.

~ Lighting. All exterior lighting within the Project should be directed downward without any 'spill-over effect' impacting neighboring residences.

~ Trash. (1) Solid waste area to be fully enclosed and screened from view. (2) Trash enclosures to be located in the center of the project no closer than <insert appropriate number> feet of any residence adjacent to the project. (3) Weekly waste and recycling collections to be limited to one each per week and occurring on the same day of the week between the hours of 7 AM and 4 PM from a single collection point within the project.

(Comment. From a solid waste perspective, this is a mixed use proposal in which the assisted living and memory care portions of the project would typically receive 'commercial-type' waste services at a centralized collection point while the twelve duplex residences would typically receive 'residential-type' collections utilizing individual carts/cans. If left unrestricted, waste collection services to the project could potentially occur 4 or more days each week. The restriction of just one waste collection service day per week could mean that the project may need to use industry standard stationary compactors (either bin-type or roll-off-type). This restriction would limit the solid waste collections to two visits per week (one for waste and one for recycling) and would place responsibility on the Project operator to either collect waste and recycling from the duplex residences as a maintenance operation or require the residents of those duplex dwellings to bring their waste and recycling to the central waste collection point.)

~ Landscaping. With the Greeley Country Club as a neighbor, the Project's landscape plan should tie seamlessly into the golf course to give the appearance of resort-style continuity.

~ Access Road. The emergency vehicle access road located at the northeastern portion of the Project should feature a physical restriction allowing only the passage of emergency vehicles.

3.) Zoning.

Zoning appears to be the Project's achilles heel. There seemed to be a consensus among meeting attendees that the proposed use was a good one but there was an underlying fear and mistrust that rezoning to R-H with a P.U.D. may give way to the neighbors potentially battling the land owner or successor developer in attempts to amend the L-H P.U.D. to build high density multi-family structures incompatible with the adjoining R-L uses (should this original applicant/developer not proceed with the Project). This concern could give rise to opposition to the Project

We think that a possible solution to this concern might be for the City to amend the Development Code in one of two ways:

(1) New Zone District. Amend its Development Code to add a new zoning district 'R-S — Residential Senior', intended for mixed use development of detached housing, attached housing, and group housing for independent living, assisted living and advanced care living (memory care) and used as a buffer use when adjacent to R-E, R-L, and R-M Districts.

(2) New R-L Special Review Use. Amend the Development Code to permit the following Special Uses in the R-L District, individually or in combination, by way of a Planned Unit Development application requiring approval of the Planning Commission and the City Council: (1) Residential Care— Group Home (up to 50 occupancy; 2-story limit); (2) Residential Care — Assisted Living (up to 100 occupancy; 2-story limit); (3) Two-Family Dwellings (single story only). *(Counts are suggestions based on this PUD application.)*

Although such an amendment might stretch the timeline somewhat, it also might enable the application to proceed more smoothly.

(Comment. It is generally acknowledged that there is currently a need for senior housing in Northern Colorado and that the need for senior housing will continue to grow far into the future. There may be a limited number of parcels in the community to which these alternative approaches are applicable, but higher sensitivities and standards may result from the City being the party initiating the solution rather than the motives of the developer being called into question. Creating a new Zone District or amending the Special Review Uses in the R-L Zone District may a better tool for protecting the integrity of neighborhoods than the R-H approach.)

4.) City Council Review.

We believe that this Project warrants a mandatory public hearing and review before the City Council.

Thank you for your consideration.

Respectfully submitted,

Bob Kuznik & Joyce Hirano-Kuznik

Bob Kuznik
303-434-4135 (cell)

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From: [Thomas Gilbert](#)
To: [Caleb Jackson](#)
Subject: FW: [EXTERNAL] RE: 1318 47th Ave PUD
Date: Monday, April 24, 2023 8:13:30 AM

FYI for the public record.

Thanks!

Thomas W. Gilbert, Jr., P.E.

Engineer III
Community Development | Engineering Development Review
1100 10th Street
Greeley, CO 80631
970-350-9278 | thomas.gilbert@greeleygov.com
www.greeleygov.com

From: Brian Bartels <brian@waltelcos.com>
Sent: Sunday, April 23, 2023 11:20 PM
To: Thomas Gilbert <Thomas.Gilbert@Greeleygov.com>
Subject: Re: [EXTERNAL] RE: 1318 47th Ave PUD

Thomas

Thanks for getting back to me. I am also going to check on the sewer stub from Cambridge Glen to the old Gilbert home. I built Cambridge Glen and my memory was that we only extended a 3/4 residential line to the house we did not extend the 8". I am going to get hold of Northern (previously KBN) and see if they can research the as builts.

I think the request for RH while talking about a PUD is causing a lot of confusion and from how I see the code they can develop their project under a PUD with out the need for the RH zoning. Also, I feel engineering wise a 30% cushion could cause real issues with water, sewer and storm.

Thanks,

Sent from my iPhone

On Apr 23, 2023, at 9:38 PM, Thomas Gilbert <Thomas.Gilbert@greeleygov.com> wrote:

Hi Brian,

I think that these items got discussed in the neighborhood meeting, but just to reiterate: I have asked the applicant many times and the potable water stub that the

th

applicant proposed to connect to is an 8" stub off of the 12" potable line in 47 avenue. It is located on the northwest corner of the site. As for reports, since this is a zoning case, the applicant brought in a conceptual hydraulic report. A final hydraulic report, based off of what is actually proposed, will be required at a future land use case and will need to meet all City of Greeley Criteria. I hope that this helps.

Have a great night!

Thomas W. Gilbert, Jr., P.E.

Engineer III

Community Development | Engineering Development Review

1100 10th Street

Greeley, CO 80631

970-350-9278 | thomas.gilbert@greeleygov.com

www.greeleygov.com

From: Brian Bartels <brian@waltelcos.com>

Sent: Thursday, April 20, 2023 8:47 AM

To: Thomas Gilbert <Thomas.Gilbert@Greeleygov.com>

Subject: RE: [EXTERNAL] RE: 1318 47th Ave PUD

Hey Tom one more question.

I developed Cambridge Glen many years ago and my recollection is that the line running to the old Gilbert home was only a 3/4 in residential stub. Has the applicant pot holed that line or verified the size. Also, in this application where what they are really asking for is RH zoning they would have to make the assumption at the highest density allowed for RH and I cannot imagine a 8" sewer main will handle that flow especially since the 8" in Cambridge Glen does not loop in connects to the Gilbert property and flows north around the north end of the subdivision, but does not connect back the main until it reaches the East gate.

Have they provided any engineering studies for utilities yet ?

Thanks,

Brian

From: Thomas Gilbert [mailto:Thomas.Gilbert@Greeleygov.com]

Sent: Wednesday, April 19, 2023 4:22 PM

To: Caleb Jackson; Brian Bartels

Subject: RE: [EXTERNAL] RE: 1318 47th Ave PUD

Hi Brian/Caleb,

This is Thomas Gilbert in Engineering Development Review. Here is the information

that I can offer:

1 – The City will require modeling and flow monitoring on the sanitary sewer system to ensure that infrastructure can support the proposed zoning. Here is the current comment that we have given the applicant:

Offsite sanitary sewer flows must be modeled prior to zoning approval. The 8" main must be surveyed up to its connection with a 12" interceptor. Flow monitoring data must be used to inform the sanitary sewer model. The minimum period for flow monitoring is 2 weeks and a storm event must be modeled on top of the existing peak flows. Include this with the next submittal.

2 – I haven't heard any proposals to pipe the ditch (since this is a Zoning(PUD) case that doesn't propose construction), but that might be a good question for the applicant at the Community meeting. As far as the detention pond, the drainage report is still conceptual but will be required to convey all stormwater runoff in accordance with City of Greeley Design Criteria and Construction Specifications.

I hope that this helps. Let me know if you have further questions.

Thanks!

Thomas W. Gilbert, Jr., P.E.

Engineer III

Community Development | Engineering Development Review

1100 10th Street

Greeley, CO 80631

970-350-9278 | thomas.gilbert@greeleygov.com

www.greeleygov.com

From: Caleb Jackson <Caleb.Jackson@Greeleygov.com>

Sent: Monday, April 17, 2023 10:43 AM

To: Brian Bartels <brian@waltelcos.com>; Thomas Gilbert <Thomas.Gilbert@Greeleygov.com>

Subject: RE: [EXTERNAL] RE: 1318 47th Ave PUD

Brian,

Thank you for this update. We look forward to collecting more feedback at the neighborhood meeting this week.

Thomas – Would you be able to respond to the first paragraph below regarding 1318 47th Ave PUD?

<image001.jpg>

Caleb Jackson, AICP

Planner III

Community Development Department | Planning and Zoning

1100 10th Street, 2nd Floor

970-350-9276 | caleb.jackson@greeleygov.com

Website: <https://greeleygov.com/>

From: Brian Bartels <brian@waltelcos.com>

Sent: Monday, April 17, 2023 9:45 AM

To: Caleb Jackson <Caleb.Jackson@Greeleygov.com>

Subject: [EXTERNAL] RE: 1318 47th Ave PUD

Good morning Caleb,

I have looked over the plans and I see they are planning on tying into the existing sewer in Cambridge Glen. When we extended the service to the Gilbert residence it was a residential service line only. Has this line been engineered to be able to handle another 150 residential units ? I don't recall being required to size the main line to accommodate any future uses. Also, are they wanting to put the ditch in pipe or leave it open ? I see the detention pond in the NW corner and am wondering where that flow is ultimately going. All of Cambridge Glens water flows out the east gate and ends up in the large channel along 16th street.

We had a Cambridge Glen board meeting yesterday and I think that for the most part, they like this layout and feel it is a good use for the property. When we got into the discussion of the actual request of the RH zoning, they are not in favor of a straight zoning to RH. They asked me why if this is the applicants intent to build this project, why the request is not just PUD. I explained that the RH would be a option if this project went away and they are clear they do not like the option of a straight RH zoning that gives them no input for a project here. They are very clear that the parcel will be developed but want to be part of the approval and I explained to them that would only happen in the PUD process.

Thanks,
Brian

From: Caleb Jackson [<mailto:Caleb.Jackson@Greeleygov.com>]

Sent: Thursday, April 13, 2023 1:17 PM

To: brian@waltelcos.com

Subject: 1318 47th Ave PUD

Brian,

Attached is the proposed PUD. They do provide a concept for a residential care facility, but as long as the development proposal follows the Development Standards on page 6, there would not be requirements for further public process. I hope that this helps!

<image002.jpg>

Caleb Jackson, AICP

Planner III

Community Development Department | Planning and Zoning

1100 10th Street, 2nd Floor

970-350-9276 | caleb.jackson@greeleygov.com

Website: <https://greeleygov.com/>

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I am a resident at 4519 14th Street, with my property directly adjacent to the proposed PUD at 1318 47th Ave. I have some thoughts and concerns I would like to share with you.

- I have lived in my home since 2004 and always anticipated the property to be developed. I believe a small scale senior housing project would be very appropriate. However I am very concerned about the R-H rezoning. If this particular project does not move forward what would stop a 5 story apartment complex being the next project?
- I do not understand the how an 8 inch sewer line will work for the additional use and still maintain its integrity for our homes?
- As demonstrated further down 47th Ave., at Lowes the right turn in/out only is not adhered to. Why would this idea work here? I do support the idea of the acceleration/deceleration lanes as proposed by a neighbor.
- I am concerned about the dumpster storage. I really do not want to sit on my patio and look at multiple dumpsters. Plus I do not understand how they will feed residents without delivery trucks accessing the project. And where will those deliveries be made?
- I am concerned about staff parking and shift changes. I would highly recommend that be placed next to the country club golf course on the northside of the property. An employee coming or going for an 11:00 pm shift with a loud truck or motorcycle would be difficult to sleep through for the homes along the property line.

I would like to be notified if this project moves forward and possible Planning Commission hearing on this project.

Thank you for your time and consideration of these items.

Carol Riggs

Caleb,

As residents of Cambridge Glen, we attended the neighborhood meeting April 20th, about the proposed development of the property located at 1318 47th Avenue (PUD2022-0007). We appreciate that you were there to share some insights as to the zoning process and city rules. After attending and having time to think about the plan that was shared, we have the following comments:

1. We are opposed to rezoning to R-H. We would request that this PUD be denied in its present form. We would prefer the applicant remove the request for R-H zoning and remove the language about a change of up to 30 percent without review. We would support a new PUD with these changes and the changes suggested below. If the current applicant should pull out of this proposed project, what would stop the current land-owner or another developer from building high density multi-family structures. These would be totally incompatible with the adjoining areas. Many are concerned with the impact on traffic on 47th Avenue with the current proposed project, we can't imagine what such a project would do.
2. The applicant is proposing two entrances with right in / right out only. We believe this is a good idea in theory but have concerns after watching other right in / right out areas in town. Unfortunately, many people do not obey these traffic rules. We also think some drivers that want to go South from the property would turn right, then immediately turn left into the Hilltop neighborhood, make a U-turn and turn South. We expect this would further frustrate the Hilltop residents. The applicant stated that the number of service vehicles to the project would be minimal, therefore one entrance should be sufficient. Perhaps having only one entrance near the center of the development with a deceleration lane and an acceleration lane along the length of the 47th Avenue frontage would be a better plan. Because this is a senior living project, maybe a city bus stop could be incorporated in these lanes to serve individuals that use public transportation, possibly including residents that do not drive.
3. Our home backs up to the project with open fencing so we are concerned about the noise and lights from the parking lot and property. We are also concerned about our views toward the property.
 - a. We would like all parking to be buffered from adjacent single-family homes by a single story structure.
 - b. All lighting should be directed downward to mitigate the effect on neighboring residences.
 - c. The solid waste area be located in the center of the project, enclosed and screened from view of any adjacent single-family homes with a limited number of trash pick-ups per week.
4. The emergency vehicle access road proposed would have a physical restriction so as to only allow its use by emergency vehicles. The developer made this statement twice at the neighborhood information meeting.
5. We are concerned about the capacity of and impact on our sewer system if a facility this large is connected to the sewer system serving our small residential neighborhood.

We are not opposed to development of the property or the prospect of a senior living facility next door to us. We do hope we will continue to have the opportunity to review plans, provide feedback and that our concerns and comments are considered.

Respectfully,

Denice and Craig McWhirter

4517 W 14th Street

Greeley CO 80634

970.356.3220

Denice315@gmail.com

From: criggs4935@aol.com
Sent: Friday, September 1, 2023 4:06 PM
To: Jeff Woeber
Subject: 1318 47th Ave.

You don't often get email from criggs4935@aol.com. Learn why this is important

Thank you for visiting with me on Thursday.

My written comments for the packet of materials is as follows:

The proposed site is to be used as a Senior Housing facility. The duplexes will be only 1 story built next to the existing homes in Cambridge Glen. In the interior portion of the property there will be a 2 story building. I can support this plan as long as the interior building is only 2 stories and not more.

If the PUD is approved no changes can be made, i.e. increase in the density.

I would like to have the employee parking be placed on the north side of the building. All of the Cambridge Glen homes bordering this proposal have bedrooms on the back side of their homes. Shift changes in the middle of the night would cause traffic starting and traveling outside bedroom windows. With this parking placement I can support this plan.

Thank you
Carol Riggs
4519 W. 14th Street
Greeley

From: David Kejr <dkejr53@gmail.com>
Sent: Monday, September 4, 2023 1:53 PM
To: Jeff Woeber
Subject: Project Name: 1318 47th Avenue PUD

You don't often get email from dkejr53@gmail.com. Learn why this is important

I live at 1218 48th Ave, Greeley, CO 80634. One of my concerns is increased traffic on 47th Avenue

when zoning is changed to PUD from the current RL zoning. 47th is at capacity now without the

increased traffic of a rezoning to PUD.

If property was left zoned RL and developed with a number of high end single family homes, property

tax base for city and county would be the same and would be a better fit for the neighborhoods around

property.

Rezoning to PUD so a commercial institution to be located in a residential neighborhood is of no benefit

to the neighborhood. Probably would even hurt home values near the institution and thus lower tax

base for city and county.

Everybody I know or talk to is against the rezoning and allowing a commercial institution into a residential neighborhood. Shouldn't the planning Commission and City Council be working more for the

neighborhood and people that live there and voted them into office instead of hoping to bring in a

commercial institution into a residential neighborhood.

Thank you, and I hope you make the right decision.

David Kejr



1318 47th Avenue PUD PUD2022-0007

Planning Commission
September 12, 2023
Jeffrey Woerber, AICP | Planner III

Request & Site Background

➤ Request:

- Rezone from R-L (Residential Low Density) to PUD (Planned Unit Development)

➤ Background:

- 10.5± acre parcel containing one residence, constructed in 1961

Location

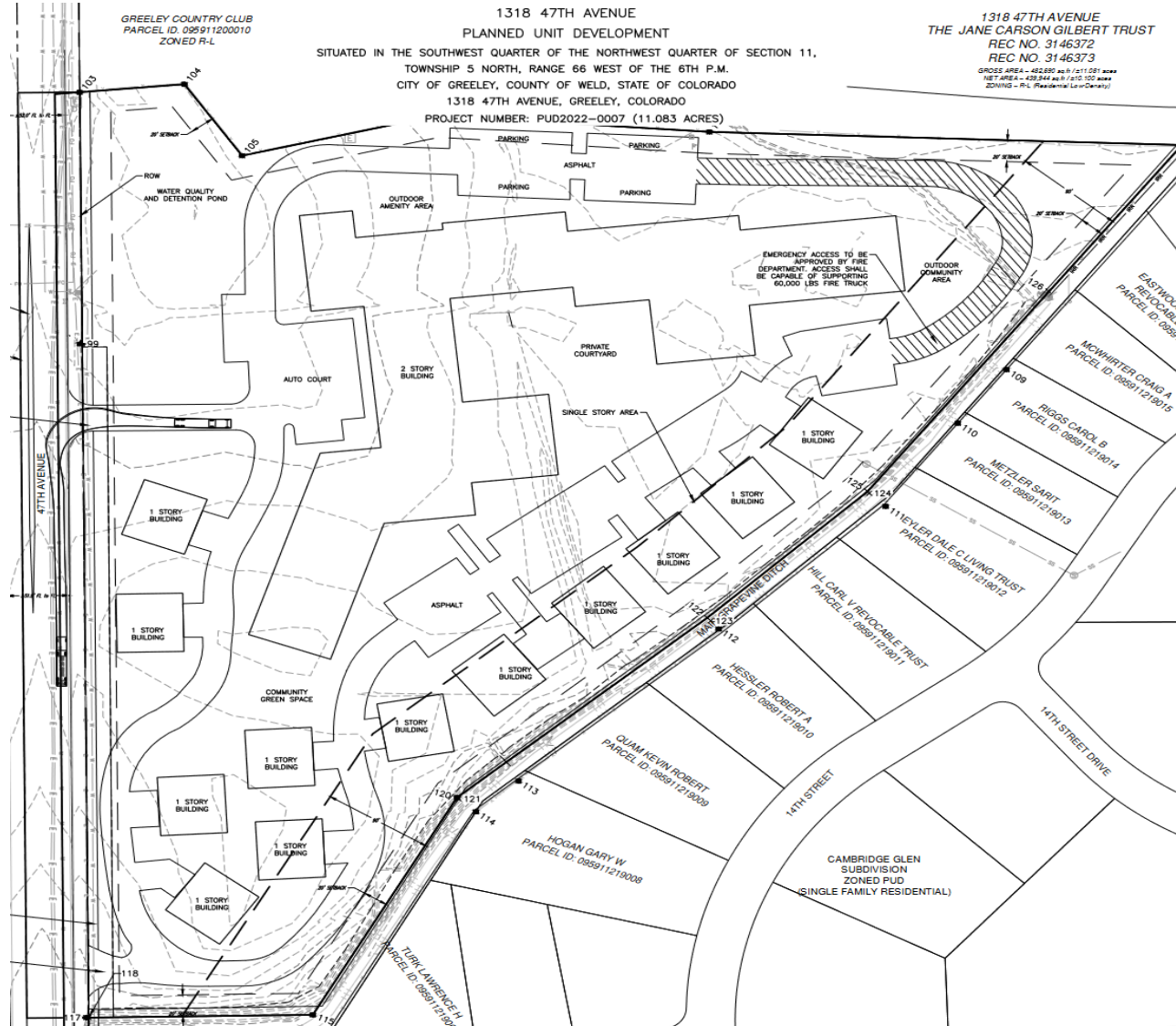


- 1318 47th Avenue
- Surrounding Zoning and Land Uses:
 - North: R-L | Country Club/Golf Course
 - East: PUD | Single-Family Residential
 - South: PUD, R-M | Single-Family Residential
 - West: R-L | Country Club/Golf Course

1318 47th Avenue PUD

Development Standards	
DESCRIPTION	PROPOSED
PLANNING AREA	11.083 ACRES
PERMITTED USES	PER CITY R.H. STANDARDS, AS AMENDED. RESIDENTIAL CARE - GROUP HOME, ASSISTED LIVING, SENIOR INDEPENDANT LIVING, MEMORY GENERAL, INSTITUTIONAL, AND PERMITTED USES IN THE R.H. (RESIDENTIAL HIGH-DENSITY) ZONING DISTRICT FOR SINGLE-FAMILY, TWO-FAMILY, ROW HOUSES, MULTI-FAMILY AND ACCESSORY DWELLINGS.
USES NOT ALLOWED	COMMERCIAL/ INDUSTRIAL
MINIMUM LOT AREA	PER CITY R.H. STANDARDS, AS AMENDED
DENSITY	MAXIMUM TWENTY (20) DWELLING UNIT S/ACRE
BUILDING COVERAGE	PER CITY R.H. STANDARDS, AS AMENDED
DRIVES, PARKING, AND WALKS	PER CITY R.H. STANDARDS, AS AMENDED
OPEN SPACE	25% MIN
MAXIMUM LOT COVERAGE	70% MAX
PARKING	PER R.H. STANDARDS, AS AMENDED, AND WITH EXCEPTION OF MEMORY CARE ALLOWANCE FOR 0 SPACES, AL FOR .70/SPACES PER UNIT, IL FOR 1.15 SPACES/UNIT, AND STAFF AT 1 SPACE/10 UNITS
MINIMUM SETBACKS	FRONT: 25' BUILDINGS, SIDE: 20' BUILDINGS, 7'-10' LANDSCAPE AT DRIVES AND PARKING AT REAR: N/A NORTH SIDE (SEE PLANS)*
ACCESSORY STRUCTURE SETBACKS	PER CITY STANDARD, AS AMENDED
ENCROACHMENTS	PER CITY STANDARD, AS AMENDED
BUILDING HEIGHT	TWO STORY BUILDING; PER CITY STANDARD, AS AMENDED - SINGLE STORY ADJACENT TO CAMBRIDGE GLEN; LIMIT ROOF HEIGHTS TO THE MID-LINE OF THE GABLE END ROOFS IN THE SINGLE STORY TO 21'.
SIGN STANDARDS	PER CITY STANDARD, AS AMENDED

1318 47th Avenue PUD



Comparison of Allowed Uses

R-H Residential High Density

- Residential Care – Group Home, Assisted Living, General, Institutional
- Single-family, Duplex
- Multi-Family
- Density up to 45 units/acre possible for “Apartment Complex, Large”

Proposed PUD

- Residential Care – Group Home, Assisted Living, General, Institutional
- Single-family, Duplex
- Multi-Family
- Density for all units limited to 20 units/acre

Considerations

Approval Criteria

- Rezoning Criteria, 24-204(b)
Nine Criteria Used to Evaluate Rezoning Applications
- PUD Criteria, 24-205(c)
Four Criteria Used to Evaluate PUD Applications
- The proposal is consistent with the criteria as outlined in your Summary

Notification

- Neighborhood meeting held on April 20, 2023 involved general discussion of the project, uses allowed, density and traffic concerns
- Mailed notification to within 1000 feet of property boundary
- 295 notice letters
- 10 emails received by staff, primarily concerned with R-H Zoning uses such as the assisted living facilities and multi-family residential density, as well as increased traffic, privacy concerns, and affecting property values
- Sign posted on the property
- Web notice

Recommendation

Recommendation

- Complies with Sections 24-204(b) and 24-205(c)
- Staff recommends approval

Motions

Recommended (Approval)

- Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council approval.

Alternative (Denial)

- Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning and Planned Unit Development is not in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council denial.

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

1) **The proposal is in accordance with the goals and objectives of the Comprehensive Plan and any other plan, policy or guidance adopted pursuant to that plan.**

- *Land Use Guidance Map – Suburban Neighborhood.*
- “Introduction and Perspective” for the Housing (HO) Section of the Plan’s Goals & Objectives Chapter begins, “This element focuses on encouraging the development of a diversity of housing options that adequately serve the needs of all Greeley residents.”
- *Objective GC-1.2 Form of Growth*, compact urban form over sprawl or leap-frog development.
- *Objective HO-2.2* Foster the development of attractive, safe, and well-maintained rental properties for those who do not qualify for or desire to own property.

2) **The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas.**

The intent of the proposed Planned Unit Development is to establish various types of residential uses, which are consistent with the surrounding area. The applicant proposes limiting the height of structures that are near the existing single-family residential uses. This approach takes the surrounding area into consideration in site design.

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

3) **Whether the area changed or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area.**

The 10.5± acre property and residence have existed for approximately 60 years. The residence was constructed in 1961 according to Weld County Assessor's records. The residential areas in the general vicinity of the subject property were developed mostly in the 1990s, which has been a major change to this area. It is in the public interest to rezone the property and encourage development.

4) **Whether the existing zoning has been in place for a substantial time without development, and if this indicates the existing zoning is inappropriate given development trends in the vicinity.**

The existing zoning has been in place for a substantial time without development (other than the one residence). The development in this general area has been residential, which is consistent with the proposed PUD.

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

5) **The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces, and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.**

The PUD's proposed uses and development standards specify percentage of open space, scale of buildings, and compatibility with other complementary uses. The required Site Plan Review to develop the site as proposed will ensure that design of streets is in character with existing/adjacent development in this area of Greeley.

6) **The City or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.**

Existing services are present in the vicinity to support development of the site as proposed.

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

7) **The change will serve a community need, provide an amenity, or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.**

The applicant intends to establish Senior Independent Living, Assisted Living and possibly other residential uses allowable in the R-H (Residential High Density) Zoning District, while limiting certain R-H Development Standards. This includes allowing only single-story structures to the east and south of the site, as well as significantly limiting the density that may be allowable were the property zoned R-H with no PUD. This development is not allowed under the current zoning, and the PUD is more appropriate than the current zoning.

8) **Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design and engineering practices or are outweighed by broader public benefits to the surrounding community.**

The development of the subject property as proposed by the PUD would have impacts to the surrounding area, primarily increased traffic and visual impacts. As mentioned above, the PUD requires single story structures along the east and south of the property, as well as limitations on density, which will significantly reduce any impacts. The required Site Plan Review will ensure the site is developed under Greeley

Review Criteria

Rezoning Review Criteria, Section 24-204(b)

- 9) **The recommendations of professional staff or advisory review bodies.**

Planning staff and the Administrative Review Team recommend approval.

Planned Unit Development Review Criteria, Section 24-205(c)

- 1) **The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards.**

The proposed PUD allows specific R-H uses with Development Standards that allow specified uses and limited density. This provides for more specificity than applying a general zoning district such as R-H.

Review Criteria



Planned Unit Development Review Criteria, Section 24-205(c)

- | | |
|----|--|
| 2) | <p>The benefits from any flexibility in the proposed plan:</p> <ul style="list-style-type: none">(1) promote the general public health, safety and welfare of the community, and in particular, that of the areas immediately near or within the proposed project, and is not strictly to benefit the applicant or a single project;(2) involves innovative concepts that were not anticipated by the development code; or(3) apply to a unique or specific context in a manner that allows the project to better meet the intent or design objectives of the base zoning districts and standards. |
| | <p>The proposal for allowing various senior and institutional related uses, as well as rental properties does promote the general health, safety and welfare of the community, filling an identified need in the City of Greeley overall. The limitation on height for structures near existing residences is innovative and is good planning practice. The proposal does apply to a specific context that can meet the intent of the R-H Zoning District, while providing for site specific design for this fairly unique property.</p> |

Review Criteria



Planned Unit Development Review Criteria, Section 24-205(c)

- | | |
|----|---|
| 3) | The plan reflects generally accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan to the area. |
| | <i>• The request is consistent with planning and design principles and the Comprehensive Plan.</i> |
| 4) | The plan meets all of the review criteria for zoning map amendments in Section 24-204. |
| | <i>• The request complies with Section 24-204, Review Criteria for Rezoning as detailed above.</i> |



SEPTEMBER 12, 2023

PLANNING COMMISSION HEARING

PLANNED UNIT DEVELOPMENT - 1318 47TH AVE, GREELEY, CO



SITE PLAN

SITE MASSING STUDY

PLANNING COMMISSION HEARING



BIRDS EYE (A)

SITE MASSING STUDY

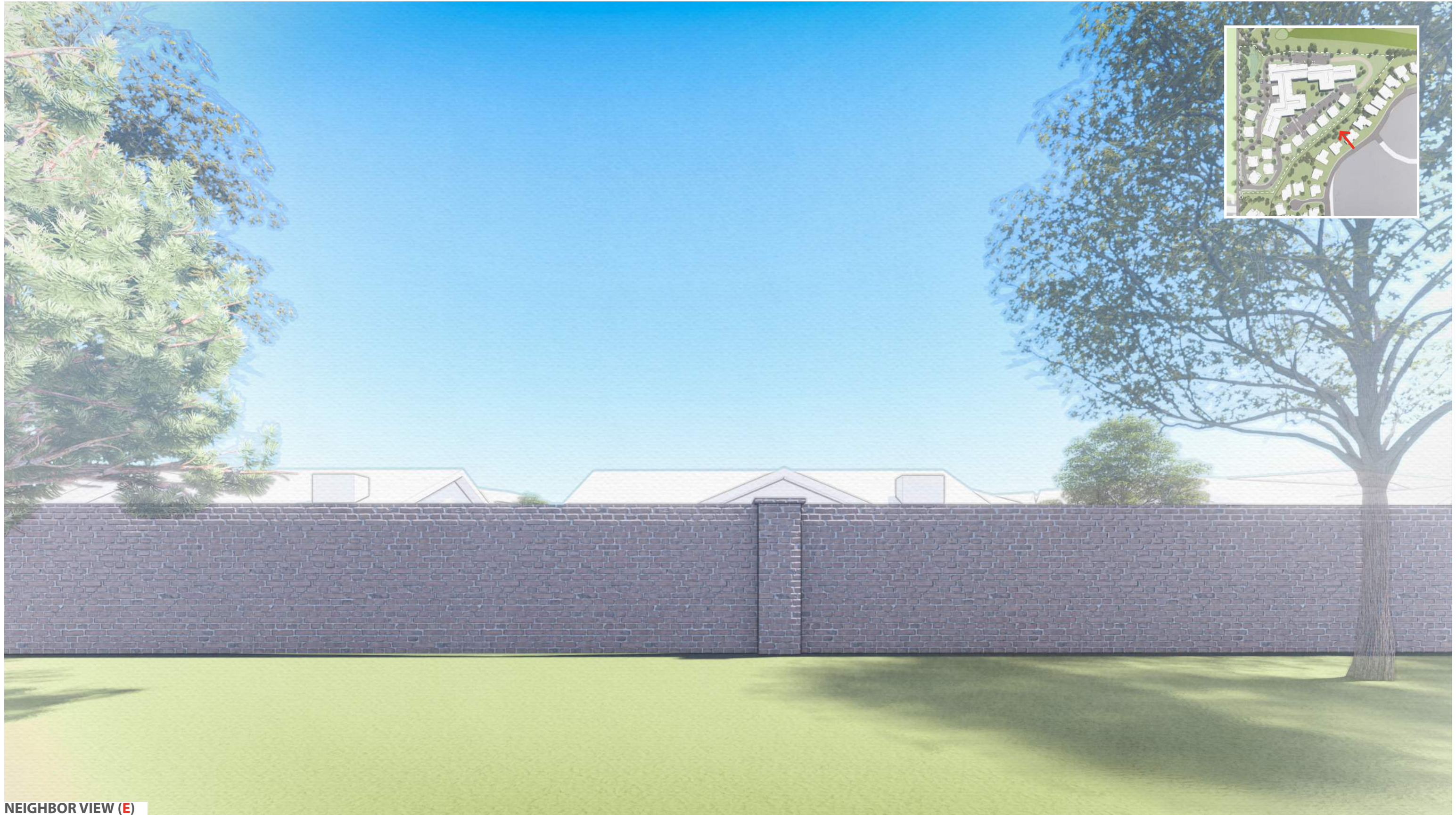
PLANNING COMMISSION HEARING



NEIGHBOR VIEW (D)

SITE MASSING STUDY

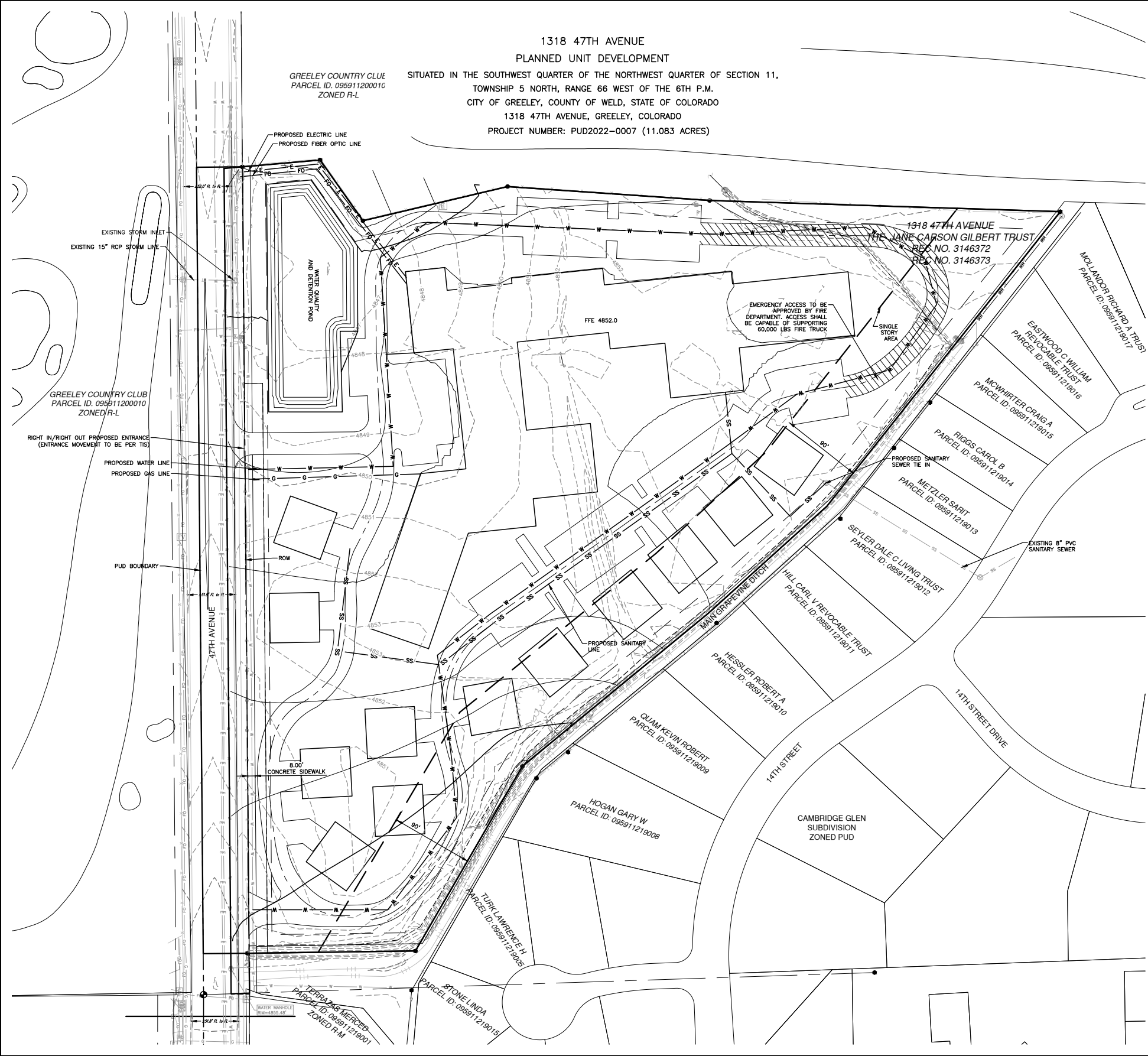
PLANNING COMMISSION HEARING



NEIGHBOR VIEW (E)

SITE MASSING STUDY

GREELEY SL | NEIGHBORHOOD MEETING



- SITE LEGEND:**
- FO EXISTING FIBER OPTIC LINE
 - W EXISTING WATER LINE
 - E EXISTING ELECTRICAL LINE
 - G EXISTING GAS LINE
 - OLP EXISTING OVERHEAD POWER LINES
 - X EXISTING FENCE
 - G PROPOSED GAS LINE (APPROXIMATE LOCATION)
 - W PROPOSED WATER LINE
 - SS PROPOSED SANITARY SEWER LINE
 - E PROPOSED ELECTRIC LINE (APPROXIMATE LOCATION)
 - FO PROPOSED FIBER OPTIC LINE (APPROXIMATE LOCATION)
 - 101' EXISTING CONTOUR
 - 100' EXISTING CONTOUR
 - 101' EXISTING CONTOUR
 - 100' EXISTING CONTOUR

- NOTES:**
- LAYOUT SHOWN IS FOR CONCEPT ONLY
 - FIRE HYDRANTS TO BE PROVIDED AS REQUIRED PER FIRE CODE
 - SEWER LINES SHALL BE SDR 35 PVC, GREEN IN COLOR.
 - WATER MAINS SHALL BE C900 PVC, BLUE IN COLOR.
 - NON-POTABLE SHALL BE C900 PVC, PURPLE IN COLOR, IF REQUIRED.

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9001 STATE LINE RD., STE. 200 (816)361.0440



NOT RELEASED FOR CONSTRUCTION

DETAILED PLANS

1318 47TH AVENUE PUD
GREELEY, COLORADO



Know what's below.
Call before you dig.

REVISIONS
SUB 1 - 2/7/2023
SUB 2 - 3/30/2023
SUB 3 - 6/30/2023
SUB 4 - 7/27/2023
SUB 5 - 8/21/2023

DESIGNER / DRAFTER
JPM
DATE
08/21/2023
PROJECT NUMBER
0222029
BOOK AND PAGE

SHEET

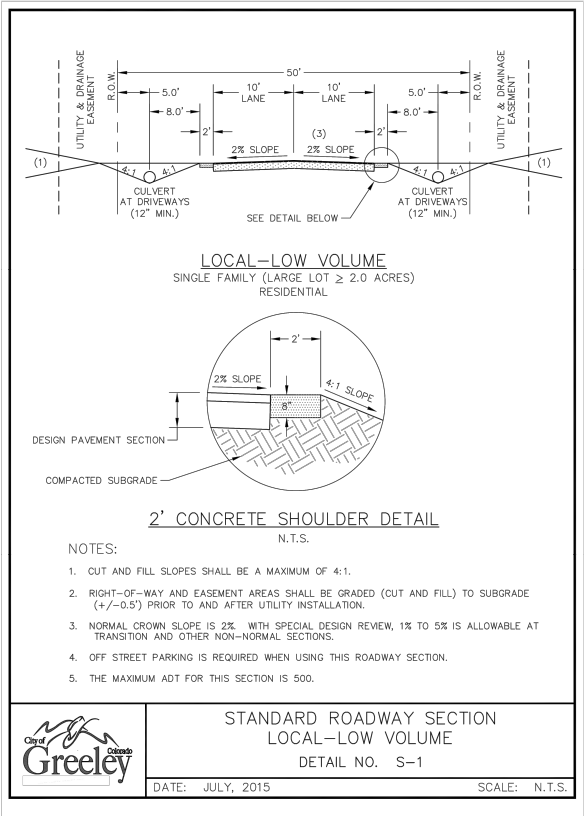
4 of 6

DETAILED PLANS

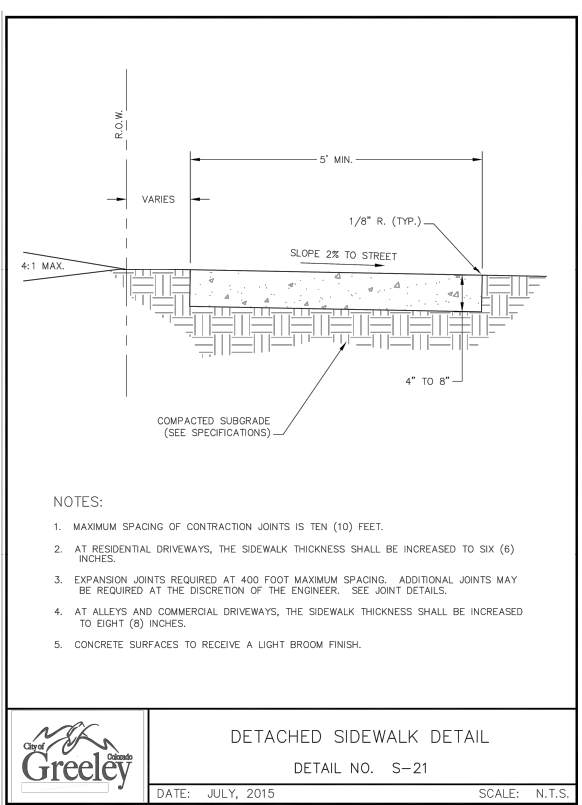
PLANNING COMMISSION HEARING

DETAILS

PLANNING COMMISSION HEARING



Page 137



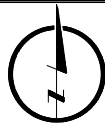
Page 182

1318 47TH AVENUE
PLANNED UNIT DEVELOPMENT
SITUATED IN THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 11,
TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M.
CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO
1318 47TH AVENUE, GREELEY, COLORADO
PROJECT NUMBER: PUD2022-0007 (11.083 ACRES)

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DETAILS

1318 47TH AVENUE PUD
GREELEY, COLORADO



ALL UTILITIES ARE SHOWN BASED ON THE INFORMATION PROVIDED TO THE ENGINEER. THERE IS NO GUARANTEE ALL UTILITIES ARE SHOWN OR THAT THE LOCATION, DEPTH, AND SIZE OF EACH FACILITY IS CORRECT. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES AND SERVICE LINES PRIOR TO CONSTRUCTION.

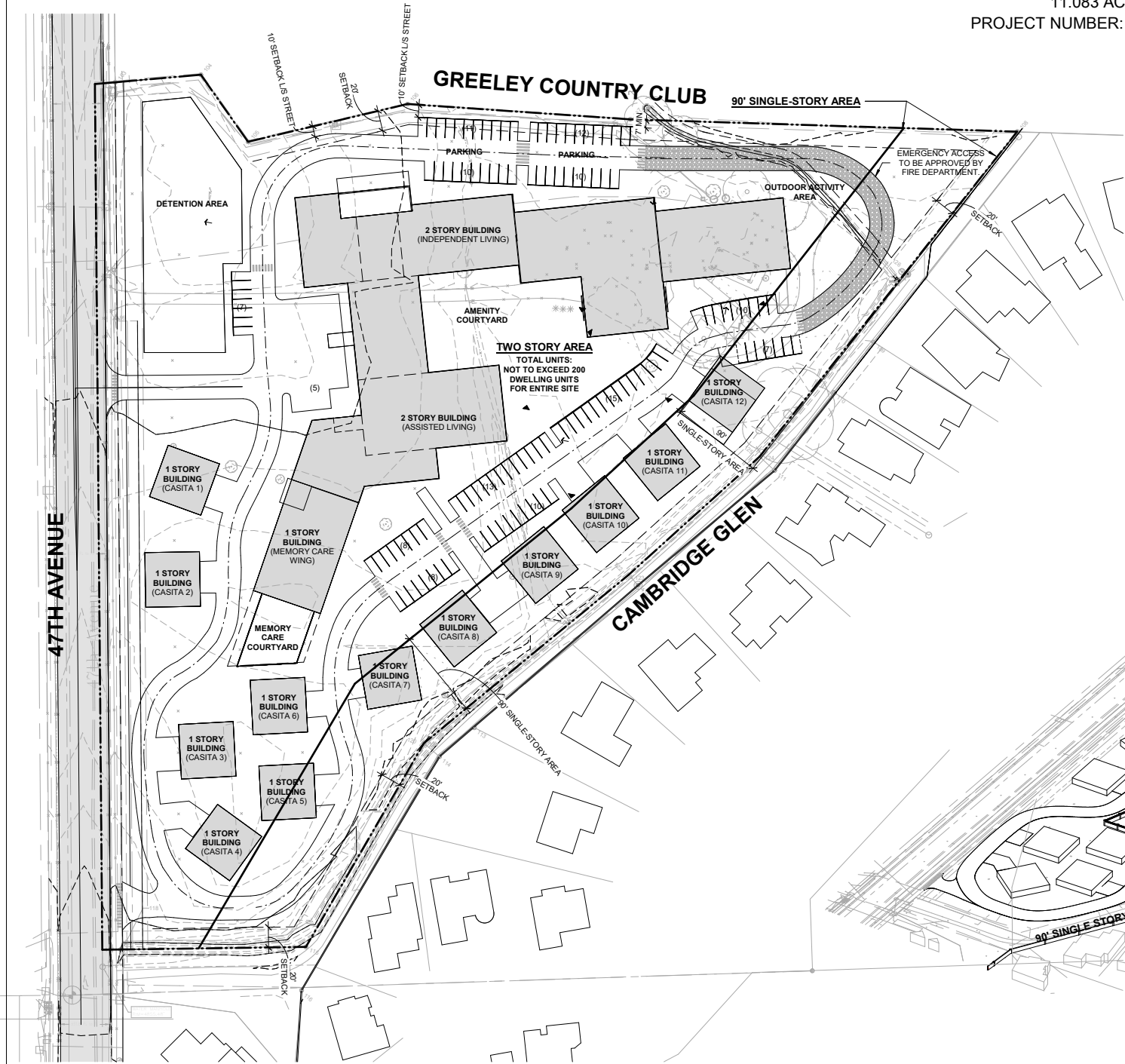
REVISIONS
SUB 1 - 2/7/2023
SUB 2 - 3/30/2023
SUB 3 - 6/30/2023
SUB 4 - 7/27/2023
SUB 5 - 8/21/2023

DESIGNER / DRAFTER
JPM
DATE
08/21/2023
PROJECT NUMBER
0222029
BOOK AND PAGE

SHEET

5 OF 6

1318 47TH AVENUE
PLANNED UNIT DEVELOPMENT
SITUATED IN THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 11,
TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN,
CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO
1318 47TH AVENUE, GREELEY, COLORADO
11.083 ACRES
PROJECT NUMBER: PUD2022-0007



CONCEPTUAL SITE PLAN FOR AREA REFERENCES

SCALE: 1" = 60'

3D AXONOMETRIC

*LAYOUT SHOWN IS FOR CONCEPT ONLY

Development Standards	
DESCRIPTION	PROPOSED
PLANNING AREA	11.083 ACRES
PERMITTED USES	PER CITY R.H. STANDARDS, AS AMENDED. RESIDENTIAL CARE - GROUP HOME, ASSISTED LIVING, SENIOR INDEPENDANT LIVING, MEMORY GENERAL, INSTITUTIONAL, AND PERMITTED USES IN THE R.H. (RESIDENTIAL HIGH-DENSITY) ZONING DISTRICT FOR SINGLE-FAMILY, TWO-FAMILY, ROW HOUSES, MULTI-FAMILY AND ACCESSORY DWELLINGS.
USES NOT ALLOWED	COMMERCIAL/ INDUSTRIAL
MINIMUM LOT AREA	PER CITY R.H. STANDARDS, AS AMENDED
DENSITY	MAXIMUM TWENTY (20) DWELLING UNITS/ACRE
BUILDING COVERAGE	PER CITY R.H. STANDARDS, AS AMENDED
DRIVES, PARKING, AND WALKS	PER CITY R.H. STANDARDS, AS AMENDED
OPEN SPACE	25% MIN
MAXIMUM LOT COVERAGE	70% MAX
PARKING	PER R.H. STANDARDS, AS AMENDED, AND WITH EXCEPTION OF MEMORY CARE ALLOWANCE FOR 0 SPACES, AL FOR .70/SPACES PER UNIT, IL FOR 1.15 SPACES/UNIT, AND STAFF AT 1 SPACE/10 UNITS
MINIMUM SETBACKS	FRONT: 25' BUILDINGS, 7'-10' LANDSCAPE AT DRIVES AND PARKING AT NORTH SIDE (SEE PLANS)* SIDE: 20' BUILDINGS, REAR: N/A
ACCESSORY STRUCTURE SETBACKS	PER CITY STANDARD, AS AMENDED
ENCROACHMENTS	PER CITY STANDARD, AS AMENDED
BUILDING HEIGHT	TWO STORY BUILDING; PER CITY STANDARD, AS AMENDED - SINGLE STORY ADJACENT TO CAMBRIDGE GLEN; LIMIT ROOF HEIGHTS TO THE MID-LINE OF THE GABLE END ROOFS IN THE SINGLE STORY TO 21'.
SIGN STANDARDS	PER CITY STANDARD, AS AMENDED

*NORTH SIDE L/S AND STREET SETBACK IS SUCH BECAUSE OF LARGE FOOTPRINT DUE TO CONSIDERATION OF ONE - AND TWO - STORY MASSING, RING ROAD FIRE DEPT., AND FOR EASE OF SENIORS' ACCESS TO PARKING FROM THE NORTH SIDE OF THE BUILDING.

Commitments Matrix					
Improvement or Commitment	Plan Preparation & Approval	Construction Timing	Construction Responsibility	Maintenance Responsibility	Property Ownership
Property owner will maintain the detention facilities on site	PROPERTY OWNER	PROPERTY OWNER	PROPERTY OWNER	PROPERTY OWNER	PER PROPERTY DEED
- PROPERTY OWNER WILL REIMBURSE CITY UP TO \$53,000 TO A LARGER CIP FUND FOR UPGRADING 12" SAN. SEWER; THIS WILL NOT DELAY PROJECT OPENING AND WILL BE PAID AT BLDG. PERMIT. - CITY OF GREELEY TO PERFORM THE WORK ON 12" SAN. SEWER MAIN. - CITY OF GREELEY TO DETERMINE TIMING OF THE WORK; IT WILL NOT DELAY THE PROJECT. - PROPERTY OWNER WILL BUILD MEDIAN AS SHOWN IN 47TH AVENUE PRIOR TO PROJECT OPENING.					

PARKING COUNT	
PROVIDED	*SURFACE PARKING
	150 SPACES PER 152 UNITS AS SHOWN ON PLAN

hord | coplan | macht

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Denver, CO 80202

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STATEMENT OF COMMITMENTS

SHEET 6 OF 6

A1.06

PUD

PLANNING COMMISSION HEARING

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9



Planning Commission Agenda Summary

September 12, 2023

Key Staff Contact: Douglas May, Planner III

Title:

A request from Crow Creek Construction, LLC, to re

Summary:

A request from Crow Creek Construction, LLC, to rezone a 7.43 acre parcel from HA – Holding Agriculture to PUD – Planned Unit Development located North of W. 19th Street Road, east of 82nd Avenue (PUD2022-0008).

Recommended Action:

Attachments:

1. Mountain Vist Multi Family PUD Staff Report
2. Attachment A Vicinity Map
3. Attachment B Applicant Narrative
4. Attachment C PUD Plan
5. Attachment D Traffic Study
6. Attachment E Neighborhood Meeting Summary
7. Attachment F Neighbor Comments
8. Attachment G Applicant response to petition
9. Attachment H Staff Presentation
10. Applicant Presentation

PLANNING COMMISSION SUMMARY

ITEMS: A PUD (Planned Unit Development) for multifamily development in the Mountain Vista Subdivision

FILE NUMBER: PUD2022-0008

PROJECT: Mountain Vista Multifamily PUD

LOCATION: North of W. 19th Street Road, east of 82nd Avenue.

APPLICANT: Crow Creek Construction, LLC

CASE PLANNER: Doug May, Planner III

PLANNING COMMISSION HEARING DATE: September 12, 2023

PLANNING COMMISSION FUNCTION:

The Planning Commission shall consider the staff report, along with testimony and comments made by the applicant and the public and shall then make a recommendation to the City Council regarding the application in the form of a finding based on the review criteria in Section 24-205(c) and 24-204(b) of the Development Code.

EXECUTIVE SUMMARY

The City of Greeley is considering a request from Crow Creek Construction, LLC, for a PUD on approximately 7.43 acres of property located North of W. 19th Street Road, east of 82nd Avenue (*see Attachment A – Vicinity Map*).

A. REQUEST

The applicant is requesting approval of a PUD Plan for a multifamily development, known as the Mountain Vista Multifamily PUD (*Attachment B – Applicant Narrative*).

B. STAFF RECOMMENDATION

Approval

C. LOCATION

Abutting Zoning:

North: C-L (Commercial Low Intensity, R-L, Residential Low Density)

South: R-L (Residential Low Density)

East: R-L (Residential Low Density)

West: C-L (Commercial Low Intensity)

Surrounding Land Uses:

North: Vacant land, stormwater detention
South: Single-family residential
East: Single-family residential
West: Commercial – professional offices

Site Characteristics:

The subject site is approximately 7.43 acres in size. The property has not been previously developed, aside from a plugged and abandoned oil and gas well. The site is currently vacant and slopes gently downward to the north.

D. BACKGROUND

The subject site was originally part of the North Poudre Fourth Annexation, which was approved and zoned as H-A (Holding Agriculture) in 1982. The property is currently zoned as H-A, which according to the Greeley Development Code is intended for properties which have been annexed into the City and is used as a “pre-development” district to either preserve open and rural lands and agriculture uses, or hold areas until more coordinated planning for infrastructure, land uses, and design can occur.

The applicant is requesting a rezone from H-A (Holding Agriculture) to PUD (Planned Unit Development) to allow for multifamily development consisting of 14 buildings, six of which are 6-unit buildings and 8 of which are 8-unit buildings, for a total of 100 dwelling units. The PUD consists of three planning areas. Planning Area 1 contains the east portion of the property, closest to the single-family neighborhood to the east and south, and contains all of the six unit buildings. The total area of Planning Area 1 is 3.61 acres and has a density of 9.97 dwelling units per acre. Planning Area 2 contains the western portion of the property. This Planning Area contains has all of the 8-unit buildings and one six-unit building and has a total area of 3.82 acres with a density of 16.75 units per acre. Planning Area 3 consists of 1.079 acres of the 18th Street Road right-of-way. The proposal also contains three neighborhood features (plaza, courtyard, or community garden). Two of the neighborhood features are proposed to be 3,200 square feet in size and one is proposed to be 5,000 square feet, for a total of 11,400 square feet (0.26 acres) of neighborhood features/usable open space. The Greeley Development Code requires at least 30% of the parcel be open space. The proposed PUD contains 46.7% open space. Each of the multifamily buildings are proposed to be two-stories tall. The 6-unit buildings are two-story on one end and one-story on the other. The multifamily buildings closest to the single-family neighborhood to the east and south are all 6-unit buildings. The applicant is proposing 50-foot setbacks from these buildings to the adjacent single-family neighborhood property lines, which contains a 35-foot-wide drainage easement along the east property line and enhanced landscaping and berms adjacent to the single-family neighborhood. The PUD proposal also contains a small maintenance building in the north end of the property. (*see Attachment C – PUD Plan*).

E. APPROVAL CRITERIA

Rezoning Review Criteria, Section 24-204(b):

- 1. The proposal is in accordance with the goals and objectives of the Comprehensive Plan and any other plan, policy or guidance adopted pursuant to that plan.**

Staff Comment: The subject area is identified as a Suburban Neighborhood on the Land Use Guidance Map in the Imagine Greeley Comprehensive Plan. The Plan specifies “while types of housing found in suburban neighborhoods is largely limited to single-family detached homes, there are opportunities to create a wider range of housing options”. Additionally, the following comprehensive plan goals support the subject application:

Objective HO-2.1 Diversity in New Development Encourage a variety of housing types, sizes, styles, and price-points of housing units within new residential projects or subdivisions.

Object HO-2.2 Rental Housing Foster the development of attractive, safe, and well-maintained rental properties for those who do not qualify for or desire to own their own property.

Objective GC-1.2 Form of Growth Encourage a compact urban form over sprawl or leap-frog development.

Objective GC-4.3 Infill Compatibility Promote the use of site design and building architecture that is sympathetic to the surrounding area and enhances the desirable character and form of the neighborhood or area.

The request complies with this criterion.

2. The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas.

Staff Comment: The intent of the Planned Unit Development is to provide additional use of the property in ways that are compatible with the area. The proposed land use provides opportunities for multifamily housing.

The request complies with this criterion.

3. Whether the area changed or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area.

Staff Comment: The area continues to see infill sites developed with a mix of residential and nonresidential uses. There are several commercial developments approved or under review as well as a detached multifamily project approximately ½ mile north including a drive-through coffee shop and gas station. Currently under review is a mixed-use development containing single-family, mixed-use multifamily, and townhomes, approximately ½ mile to the east.

The request complies with this criterion.

- 4. Whether the existing zoning has been in place for a substantial time without development, and if this indicates the existing zoning is inappropriate given development trends in the vicinity.**

Staff Comment: The existing H-A zoning was likely established in 1982 when the property was annexed and has remained undeveloped to this day. It is common for newly annexed properties to be zoned H-A until development is proposed. Over time, much of the surrounding area has been rezoned as development has occurred.

The request complies with this criterion.

- 5. The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces, and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.**

Staff Comment: The proposal allows for multifamily residential uses. The PUD allows for a cap on density as well as enhanced buffering from the single-family residential uses to the east and south, as compared to a straight re-zone to a zone district that allows multifamily residential uses.

The request complies with this criterion.

- 6. The City or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.**

Staff Comment: Existing services are present in the vicinity to support development of the site as proposed.

The request complies with this criterion.

- 7. The change will serve a community need, provide an amenity, or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.**

Staff Comment: The proposed Planned Unit Development would accommodate the community's need for housing. The Housing Needs Assessment prepared for the City of Greeley indicates that there is demand for 19,400 housing units over the next 20 years.

The request complies with this criterion.

- 8. Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design and engineering practices or are outweighed by broader public benefits to the surrounding community.**

Staff Comment: Anticipated impacts on surrounding properties, especially the single-family neighborhood to the east and south have been considered by the applicant by locating only the six-unit buildings adjacent to the single-family neighborhood and by increasing the setback from the required 25 feet to 50 feet as well as proposing additional landscaping and berming between the proposed development and the adjacent neighborhood.

The request complies with this criterion.

- 9. The recommendations of professional staff or advisory review bodies.**

Staff Comment: Planning staff and the Administrative Review Team recommend approval.

The request complies with this criterion.

Planned Unit Development Review Criteria, Section 24-205(c):

- 1. The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards.**

Staff Comment: The use of a PUD for this proposal is appropriate and helps to achieve the Comprehensive Plan's goals with more specificity than the general zoning district would allow. If the applicant were to propose a rezone from H-A to R-H (Residential High Density), then there could be no conditions put on the development to make it more compatible with the neighborhood, such as limiting density under what is allowed in the R-H district or enhancing setbacks and landscaping between adjoining land uses. The PUD plans for development in a more intentional manner.

The request complies with this criterion

- 2. The benefits from any flexibility in the proposed plan:**

- 1) Promote the general public health, safety and welfare of the community, and in particular, that of the areas immediately near or within the proposed project, and is not strictly to benefit the applicant or a single project;**
- 2) Involves innovative concepts that were not anticipated by the development code; or**
- 3) Apply to a unique or specific context in a manner that allows the project to better meet the intent or design objectives of the base zoning districts and standards.**

Staff Comment: The proposed development standards generally follow Development Code standards for R-H (Residential High Density). However, for this proposal there are limitations to density of dwelling units, building types and height, increased buffering to adjacent single-family uses, and allowed uses.

The request complies with this criterion.

3. The plan reflects generally accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan to the area.

Staff Comment: The request is consistent with planning and design principles and the Comprehensive Plan.

The request complies with this criterion.

4. The plan meets all of the review criteria for zoning map amendments in Section 24-204.

Staff Comment: The request complies with Section 24-204, Review Criteria for Rezoning as detailed above.

The request complies with this criterion.

F. PHYSICAL SITE CHARACTERISTICS

1. SUBDIVISION HISTORY

The subject site was originally part of the North Poudre Fourth Annexation, which was approved and zoned as H-A (Holding Agriculture) in 1982. Currently, this property is Tract 2 from the Mountain Vista Filing 3 subdivision, which was recorded in November of 2002. If the proposed PUD is approved, the applicant will need to be approved for a Minor Subdivision to turn Tract 2 into a buildable lot prior to Site Plan approval.

2. HAZARDS

A plugged and abandoned oil and gas facility impacts the subject site and a 50-foot setback from the abandoned well has been designated on the PUD plan to protect the surrounding development. Staff is unaware of any other hazards on the property.

3. WILDLIFE

The subject site is not located within an area of ecological significance.

4. FLOODPLAIN

The property is not located within any flood zones.

5. DRAINAGE AND EROSION

The property would be graded to drain in a similar manner to the existing conditions, with water generally flowing from southwest to northeast. Drainage and erosion would be further reviewed during the Site Plan Review phase of the project.

6. TRANSPORTATION

The subject site has frontage along 82nd Avenue to the west and 19th Street Road to the south. Additionally, 18th Street currently stubs at the northwest corner of the property and is proposed to be extended to the east. The site is proposed to have three points of access: one from 18th Street to the north, one from 82nd Avenue to the east and, and one from 19th Street Road to the south. Currently, the nearest Greeley-Evans Transit (GET) route is Route 1, which runs along 20th Street and 71st Avenue.

A traffic study (*see Attachment D - Traffic Study*) evaluating the short-term and long-term traffic impacts of the proposed project was submitted as part of the PUD application. Based on this analysis, the proposed multifamily development is expected to generate 716 trips a day at full buildout. It is anticipated that most of the site traffic would utilize 18th Street to 83rd Avenue for trips to and from the site. The City's Traffic Engineer reviewed the traffic study and did not have any concerns.

G. SERVICES

1. WATER

The City of Greeley provides water services to the area and is adequate to serve the site.

2. SANITATION

The City of Greeley provides sanitary services to the area and is adequate to serve the site.

3. EMERGENCY SERVICES

The property is served by the City of Greeley's Police and Fire Departments. Fire Station #7 is located along 10th Street, approximately 2.5 miles from the subject site, by road.

4. PARKS AND OPEN SPACES

No public parks or regional open space areas are proposed as part of this request. Cash-in-lieu for parkland dedication does apply to this project. The applicant will also be required to pay Park & Trail Development Fees.

5. SCHOOLS

No schools are proposed or located on the subject site. However, cash-in-lieu for schools will be required for the project during the Minor Subdivision phase. The Weld RE-4 School District is requesting \$1,304 per unit for multi-family developments.

H. NEIGHBORHOOD IMPACTS

1. VISUAL

The applicant has proposed enhanced landscaping and berms adjacent to the single-family neighborhood to the east and south, as well as 50-foot setbacks instead of the required 25-foot

setbacks. The applicant has also proposed to locate only the six-unit buildings adjacent to the single-family neighborhood, which are the smaller of the two proposed building types.

2. NOISE

Any potential noise created by future development would be regulated by the Municipal Code.

I. PUBLIC NOTICE AND COMMENT

Letters regarding the public hearing for the proposed PUD were mailed on August 25, 2023, to property owners within 1000 feet of the site, as well as all property owners in the neighborhood directly south and east of the proposal. A Notice sign was posted on the site on August 24, 2023. Public notice was also published on the City of Greeley website on August 28, 2023. A neighborhood meeting was held on June 13, 2023, which approximately 50 residents attended (*Attachment E – Neighborhood Meeting Summary*). Concerns raised at the meeting include adequate parking on-site, the effect the development will have on nearby property values, safety of development near plugged and abandoned oil and gas well, maintenance of the property, traffic on local streets, transient nature of apartment-dwellers. In addition to the neighborhood meeting staff has received a petition opposing the development with 299 signatures as of August 30, 2023. Staff has received letters from two property owners that raise concerns about potential spot-zoning, concerns with the proposal meeting the Imagine Greeley Comprehensive Plan, as well as similar concerns listed above.

J. MINERAL ESTATE OWNER NOTIFICATION

The applicant mailed the required notice regarding the initial public hearing for the proposed PUD to all mineral rights owners on August 9, 2023. Staff received no corresponding inquiries to date, August 30, 2023.

K. PLANNING COMMISSION RECOMMENDED MOTIONS

Recommended (Approval)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed Planned Unit Development is in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council approval.

Alternative (Denial)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed Planned Unit Development is not in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council denial.

ATTACHMENTS

Attachment A – Vicinity Map

Attachment B – Applicant Narrative

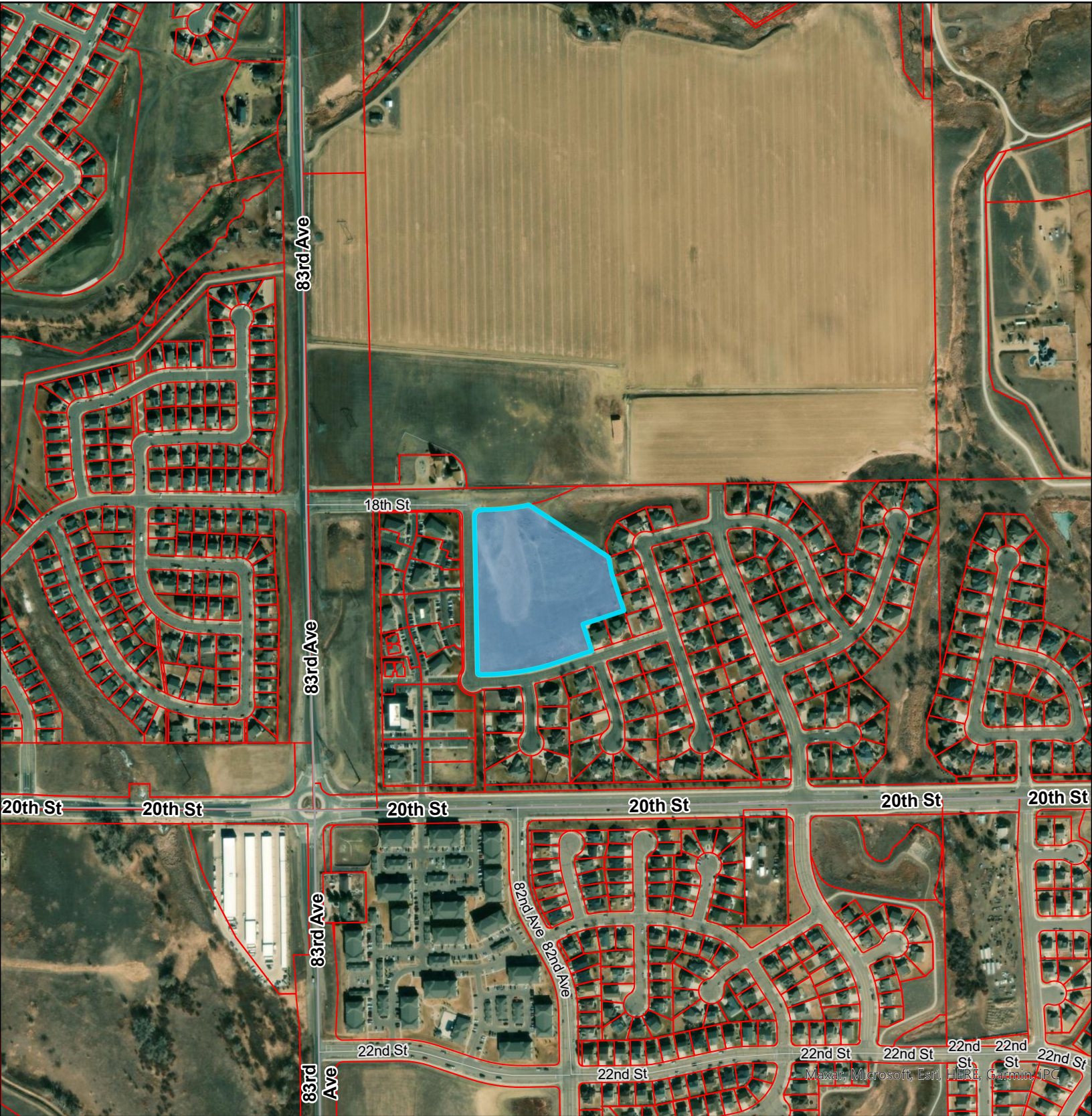
Attachment C – PUD Plan

Attachment D – Traffic Study

Attachment E – Neighborhood Meeting Summary

Attachment F – Neighbor Comments

Attachment G – Applicant Response to petition
Attachment H – Staff Presentation



Legend

-  Subject Site
-  Greeley Parcels



April 3, 2023

City of Greeley
Planning and Zoning
1100 10th Street – 2nd Floor
Greeley, CO 80631

Re: Mountain Vista Multifamily

Dear City of Greeley Staff,

The Mountain Vista Multifamily is located northeast of 82nd Avenue and 19th Street intersection. The legal description of the site is Being a Rezone of Tract 2, Mountain Vista-Filing 3 and Those Adjoining Half Right of Ways, Located in the Southeast Quarter of Section 8, Township 5 North, Range 66 West of the 6th Prime Meridian., City of Greeley, County of Weld, State of Colorado. **Figure 1** below highlights the site location.

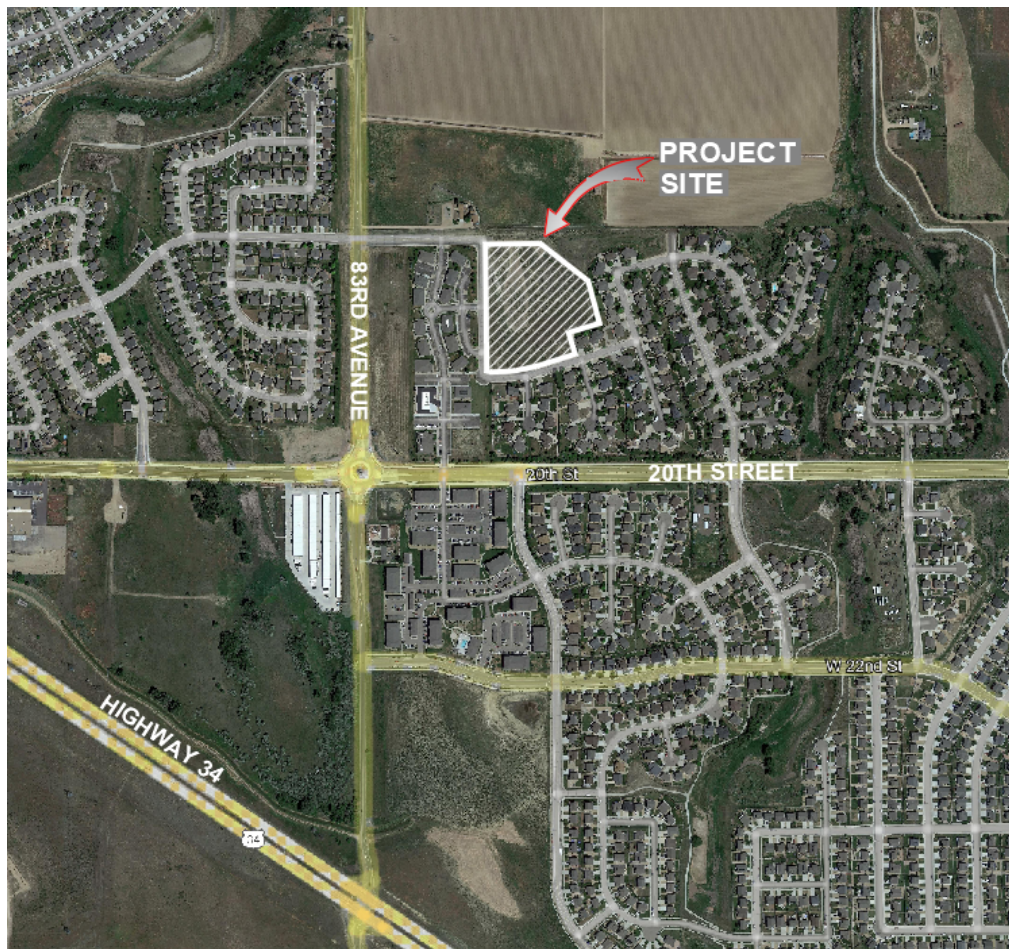


Figure 1: Outline of Mountain Vista Multifamily

The site is 8.51 acres and is currently zoned as Greeley “H-A” This application requests to rezone to Greeley “PUD”. The surrounding uses consist of commercial and single family residential. The surrounding property is zoned as Greeley “R-L” to the North, South and East. The property to the West is currently zoned as Greeley “C-L”.

The project consists of 14 multifamily buildings, 8 ~ 8-unit buildings and 6 ~ 6-unit buildings. In addition to the multifamily buildings the project will include required access and parking, landscaping, trail connectivity, and existing detention. Access to the site will be provided by two access roads from 82nd Avenue and from 18th Street Road. Additionally, Emergency Fire Access will be provided onto 19th Street Road. The site will be designed to the City of Greeley Standards. Utilities for the site will be provided by the City of Greeley.

Given the very limited amount of multi-family and predominate single-family housing options currently available in West Greeley, there is an inadequate variety of housing types to meet the needs of a diverse group of incomes. Rezoning to Greeley “PUD” would allow for a multi-family product and thus create a housing type that will be appealing to a wide variety of income types. This project will support and enhance Objective HO-2.1 of the Imagine Greeley Comprehensive Plan. (“IGCP”) By providing an additional housing type that is lacking in this area of Greeley. Additionally, this project will be an attractive, safe, and well maintained rental property for those who do not qualify for or desire to own property as outlined in HO-2.1 of the IGCP. In addition, the proposed project will provide a buffer between the C-L area to the west and R-L area to the East. Both areas are developed and finished with this small 8.51 Acre infill area.

Rezoning to Greeley “PUD” will allow the applicant to establish zoning standards that will account for existing residence concerns. It will also provide a better transition and buffer to the existing single-family development to the south and east adding to the very sparse amount of multifamily that currently exists within West Greeley.

If you have any questions concerning this project, please contact me at robbie@northernengineering.com or call me at 970-221-4158.

Sincerely,

NORTHERN ENGINEERING SERVICES, INC.



Robbie Lauer

Senior Project Manager

MOUNTAIN VISTA MULTIFAMILY PLANNED UNIT DEVELOPMENT
BEING A PLANNED UNIT DEVELOPMENT OF TRACT 2, MOUNTAIN VISTA-FILING 3 AND THOSE ADJOINING HALF RIGHT OF WAYS
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M.
CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO
8.51 ACRES (±)
PROJECT NUMBER: PUD2022-0008

OWNER DEDICATION STATEMENT

I, DS Investments, LLC, being the sole owner(s) in fee of...

A parcel of land for rezoning purposes and being Tract 2 of Mountain Vista-Filing 3 recorded November 13, 2002 as Reception No. 3005092 of the Records of Weld County, and those portions of 82nd Avenue, 18th Street, and 19th Street adjoining to said Tract 2, all situate within the Southwest Quarter (SW1/4) of Section Eight (8), Township Five North (T.5N.), Range Sixty-six West (R.66W.), of the Sixth Principal Meridian (6th P.M.), City of Greeley, County of Weld, State of Colorado, more particularly described as follows:

COMMENCING at the Westerly most Northwest corner of Tract 2, Mountain Vista-Filing 3 and assuming the Westerly line of said Tract 2 as bearing South 00° 33' 57" East a distance of 647.52 feet with all other bearings contained herein relative thereto:

The following Five (5) courses are along the Westerly and Southerly lines of said Tract 2, Mountain Vista-Filing 3:

THENCE South 00° 33' 57" East a distance of 647.52 feet to a Point of Curvature;

THENCE along the arc of a curve concave to the Northeast a distance of 15.71 feet, said curve has a radius of 10.00 feet, a delta of

90° 00' 00" and is subtended by a chord bearing South 45° 33' 57" East a distance of 14.14 feet to a Point of Tangency;

THENCE North 89° 26' 03" East a distance of 32.88 feet to a Point of Curvature;

THENCE along the arc of a curve concave to the Northwest a distance of 290.39 feet, said curve has a radius of 970.00 feet, a delta of

17° 09' 09" and is subtended by a chord bearing North 80° 51' 29" East a distance of 289.30 feet to a Point of Tangency;

THENCE North 72° 16' 54" East a distance of 155.47 feet to the Southerly most Southeast corner of Tract 2, Mountain Vista-Filing 3 monumented by a #5 rebar with an illegible 1.5" diameter cap and to the POINT OF BEGINNING.

THENCE South 17° 43' 06" East a distance of 30.00 feet to the centerline of 19th Street as depicted on the plat for said Mountain Vista-Filing 3:

The following Three (3) courses are along the centerline of said 19th Street:

THENCE South 72° 16' 54" West a distance of 155.47 feet to a Point of Curvature;

THENCE along the arc of a curve concave to the Northwest a distance of 299.37 feet, said curve has a radius of 1000.00 feet, a delta of

17° 09' 09" and is subtended by a chord bearing South 80° 51' 29" West a distance of 298.25 feet to a Point of Tangency;

THENCE South 89° 26' 03" West a distance of 72.88 feet to the centerline of 82nd Avenue as depicted on the plat of said Mountain Vista-Filing 3;

THENCE North 00° 33' 57" West along the centerline of said 82nd Avenue a distance of 762.59 feet to the centerline of 18th Street as depicted on the plat of Mountain Vista-Filing 3;

THENCE North 89° 29' 58" East along the centerline of said 18th Street a distance of 100.00 feet to a Point of Curvature;

THENCE along the arc of a curve concave to the Northwest a distance of 104.92 feet, said curve has a radius of 745.00 feet, a delta of

8° 04' 10" and is subtended by a chord bearing North 85° 27' 53" East a distance of 104.84 feet to the end point of the curve and to the intersection of the centerline of 18th Street and the Northwesterly prolongation of the Northeastly line of Tract 2, Mountain Vista-Filing 3;

THENCE South 56° 06' 06" East along the Northeastly line of said Tract 2 a distance of 461.18 feet to the Northwest corner of Lot 4, Block 2 as depicted on the plat for Mountain Vista-Filing 3;

The following Four (4) courses are along the Easterly and Southerly lines of said Tract 2, Mountain Vista-Filing 3:

THENCE South 10° 41' 50" East a distance of 72.17 feet;

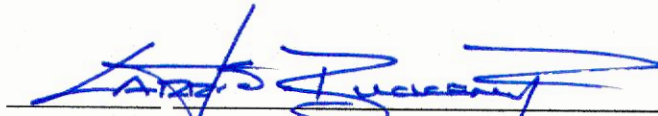
THENCE South 17° 43' 06" East a distance of 160.00 feet;

THENCE South 72° 16' 54" West a distance of 180.00 feet;

THENCE South 17° 43' 06" East a distance of 118.00 feet to the Southerly most Southeast corner of Tract 2, Mountain Vista-Filing 3 and to the POINT OF BEGINNING.

TOTAL REZONED AREA for Mountain Vista Multifamily Planned Unit Development is 370,623 sq. ft. or 8.51 acres, more or less (±).

...shown on the attached map as embraced within the heavy exterior lines thereon, has (have) subdivided the same into lots and blocks (or building envelopes) as shown on the attached map; and does (do) hereby set aside said portion of tract of land and designate the same MOUNTAIN VISTA MULTIFAMILY PLANNED UNIT DEVELOPMENT; and does (do) dedicate to the public, the streets and all easements over and across said lots (or building envelopes) at locations shown on said map; and does (do) further certify that the width of said streets, the dimensions of the lots and blocks (or building envelopes) and the names and numbers thereof are correctly designated upon said map.


Larry S. Buckendorf, Authorized Agent for DS Investments, LLC

7/21/23
Date

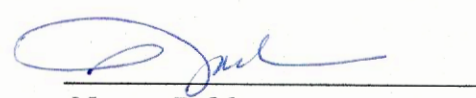
NOTARIAL CERTIFICATE

Witness my hand and seal this 21 day of July, 2023.

STATE OF COLORADO)
CITY OF GREELEY)
COUNTY OF WELD)

The foregoing instrument was acknowledged before me by Larry S. Buckendorf this 21 day of July, 2023.

My commission expires: 1-21-25


Notary Public

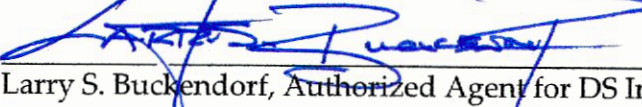
(SEAL)

LAIRA ZIEGLER
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19984000495
MY COMMISSION EXPIRES 01/21/2024

PLANNED UNIT DEVELOPMENT CERTIFICATION BLOCK

This Planned Unit Development (PUD) has been reviewed and found to be complete and in accordance with the City of Greeley Development Code Regulations.

DS Investments, LLC


Larry S. Buckendorf, Authorized Agent for DS Investments, LLC

7/21/23
Date

ATTEST:

Secretary/Treasurer _____

CITY COUNCIL APPROVAL

Approved by the Greeley City Council on this _____ day of _____, 20_____.

PLANNING COMMISSION RECOMMENDATION

Recommended / not recommended by the City of Greeley Planning Commission, this _____ day of _____, 20_____.

COMMUNITY DEVELOPMENT DIRECTOR

Director of Community Development _____

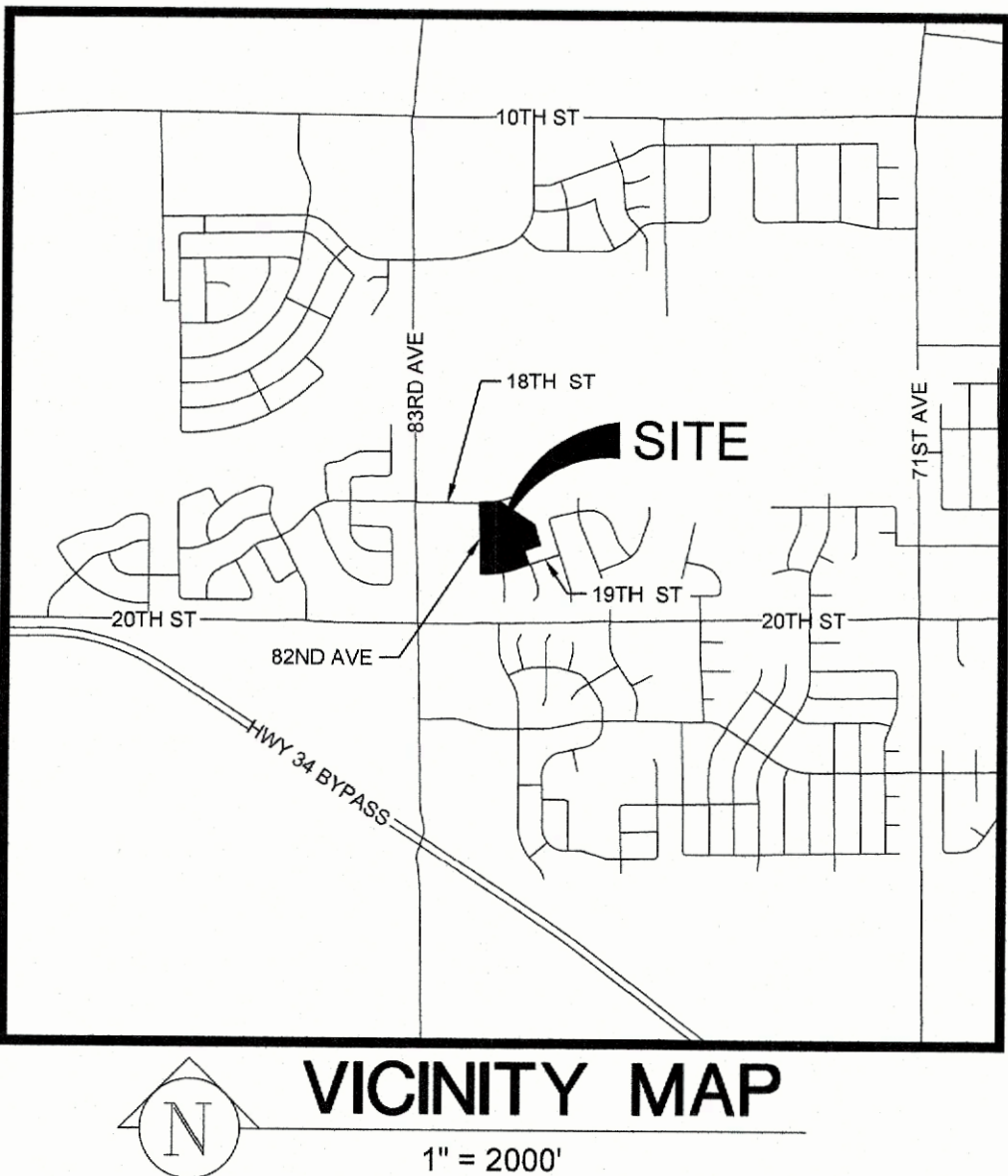
_____ Date

PLANNED UNIT DEVELOPMENT STANDARD NOTES:

- Approval of site construction plans by the City of Greeley shall be required (as applicable) prior to issuance of building permits.
- Signage shown on this plan is for illustrative purposes only. A separate sign permit shall be submitted to the city for review and approval.
- All existing and proposed utilities shall be installed underground.
- No building permit shall be issued for the construction of a new building or structure unless the property has been platted in accordance with the City's Subdivision Regulations (Chapter 3).
- All elevations shown on these plans are tied to NAVD 88 datum.

SURVEYOR NOTES:

- The word "State", "certify" or "certification" as shown and used hereon is an expression of professional opinion regarding the facts of the survey, and does not constitute a warranty or guaranty, expressed or implied. DORA Bylaws and Rules (4 CCR 730-1).
- Northern Engineering or the Professional Land Surveyor listed hereon, does not have the expertise to address mineral rights, and recommends the owner retain an expert to address these matters. Northern Engineering or the Professional Land Surveyor listed hereon assumes no responsibility for the mineral rights upon the subject property.
- For easements created by separate document and shown hereon refer to record document for specific terms.
- For all information regarding easements, right-of-way or title of record, Northern Engineering relied upon Order Number 459-H0674326-820-GRO, Amendment 2, dated July 11, 2023, prepared by Heritage Title Company.
- Not all documents listed in the title commitment are plottable or definable by their terms. All easements that are definable by their descriptions are shown hereon with sufficient data to establish their position. Owner, Client and others should refer to the title commitment and those documents listed therein for a true understanding of all rights of way, easements, encumbrances, interests and title of record concerning the subject property.
- The Surveyor has not physically located the underground utilities shown hereon. The underground utilities have been located from observed evidence and utility markings at the time of survey and the surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the location indicated, although he does state that they are located or scaled as accurately as possible from the information available. Additional Utility Lines may exist. The exact location of any underground utilities shown and the location of any additional utilities should be determined by contacting "one Call" for a utility locate. All Underground Utilities should be verified prior to any design and/or construction.
- The Professional opinion of the Surveyor is not a determination of law, nor a matter of fact.
- Adjacent property owner information per the Weld County Property Portal.
- Zoning information per the City of Greeley ORIGIN Property Facts Map Portal.
- Zoning Parcel descriptions are for reference purposes only. It is not the intent of the surveyor to create legal lots or subdivision as defined by the City of Fort Collins, the County of Larimer or State of Colorado. Zoning Parcel descriptions are not to be used in the transfer of real property or to replace deeded property descriptions.
- This Zoning Map is not a statutory monumented Land Survey as defined by the State of Colorado. Monuments shown hereon are for depicted reference purposes only.
- The location of that 30.0' Right of Way Easement to Snyder Oil Corporation as depicted hereon is approximate due to poor dedication geometry in Grant recorded on February 10, 1995 as Reception No. 2426230 of the Records of Weld County. Information was scaled via previous platting and aligned to known well locations.



SURVEYING CERTIFICATE

I, Robert C. Tessely, a Colorado Registered Professional Land Surveyor do hereby certify that I prepared this plat from an actual and accurate survey of this land, including all known existing rights-of-way and easements, that the corner monuments shown thereon were properly placed under my supervision, in accordance with the regulations of the State of Colorado, under my personal supervision and checking, and that it is true and correct to the best of my knowledge and belief.



Robert C. Tessely
Colorado Registered Professional Land Surveyor, No. 38470
For and on behalf of Northern Engineering Services, Inc.

INTENT STATEMENT

It is the intent of this Planned Unit Development Map to rezone the described area hereon and shown on the attached map as embraced within the heavy exterior lines thereon to City of Greeley zone "PUD."

DEVELOPER/APPLICANT

DS Investments, LLC
Larry S. Buckendorf, Authorized Agent
7251 W. 20th Street, L-200
Greeley, CO, 80634
(970)-352-7072

SITE ENGINEER

Northern Engineering Services, Inc.
Nick Haws, PE
301 North Howes Street, Suite 100
Fort Collins, Colorado 80521
(970) 221-4158

SURVEYOR

Northern Engineering Services, Inc.
Robert C. Tessely, PLS
301 North Howes Street, Suite 100
Fort Collins, Colorado 80521
(970) 221-4158

CALL UTILITY NOTIFICATION CENTER OF COLORADO



Know what's below.
Call before you dig.
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

UTILITY NOTE:
THE LOCATION OF UNDERGROUND UTILITIES AS SHOWN ARE BASED ON OBSERVED EVIDENCE AND UTILITY MARKINGS AT TIME OF SURVEY. ADDITIONAL UTILITY LINES MAY EXIST. THE EXACT LOCATION OF ANY UNDERGROUND UTILITIES SHOWN AND THE LOCATION OF ANY ADDITIONAL UNDERGROUND UTILITIES SHOULD BE DETERMINED BY CONTACTING "ONE CALL" FOR A UTILITY LOCATE.

Revisions:		By:	Date:
1)	Address First Round Comments	AML	3/14/23
2)	Address Second Round Comments	SPP	5/15/23
3)	Address Third Round Comments	SPP	6/26/23

NOTICE:
According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years after the date of the certificate shown hereon.

SECTION:
8
TOWNSHIP:
5 N
RANGE:
66 W of the 6th PM

NORTHERN
ENGINEERING
SURVEY | MUNICIPAL | LAND DEVELOPMENT
NORTHERNGENGINEERING.COM
FORT COLLINS | GREELEY 970.221.4158

DATE:
07/20/2023
SCALE:
N/A
CLIENT:
JOURNEY HOMES
DRAWN BY:
S. PAQUIN
REVIEWED BY:
R. TESSELY

MOUNTAIN VISTA MULTIFAMILY PLANNED UNIT DEVELOPMENT
MOUNTAIN VISTA MULTIFAMILY PUD
CITY OF GREELEY, STATE OF COLORADO

Sheet
1
Of 12 Sheets

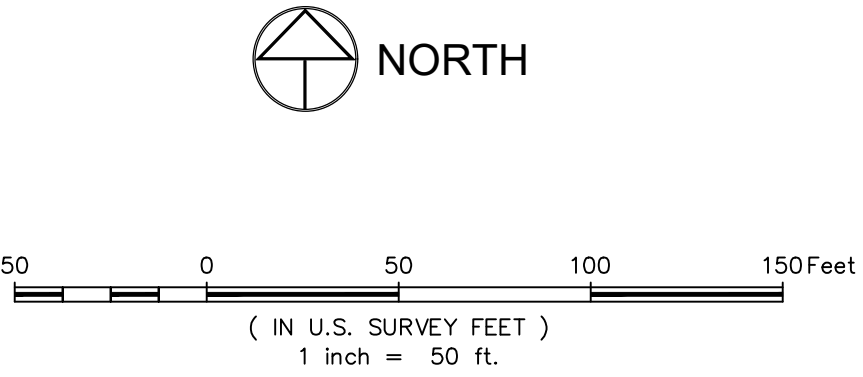
MOUNTAIN VISTA MULTIFAMILY PLANNED UNIT DEVELOPMENT

BEING A PLANNED UNIT DEVELOPMENT OF TRACT 2, MOUNTAIN VISTA-FILING 3 AND THOSE ADJOINING HALF RIGHT OF WAYS
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M.

CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO

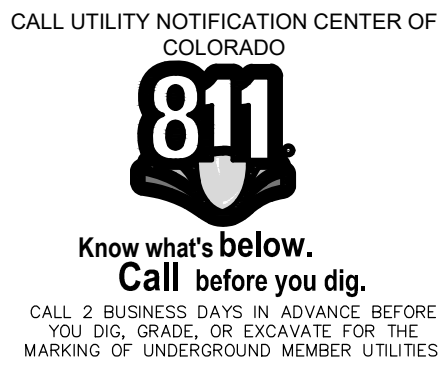
8.51 ACRES (±)

PROJECT NUMBER: PUD2022-0008



SYMBOL LEGEND	
	FLARED END SECTION
	FIRE HYDRANT
	FOUND PROPERTY MONUMENT
	WATER VALVE
	INLET GRATE
	LIGHT POLE
	MAILBOX
	SANITARY SEWER MAN HOLE
	STORM SEWER MAN HOLE
	GAS MARKER
	4' SQUARE POST
	HANDICAP RAMP
	DECIDUOUS SHRUB
	SIGN
	CONIFEROUS TREE
	DECIDUOUS TREE
	VERTICAL PIPE

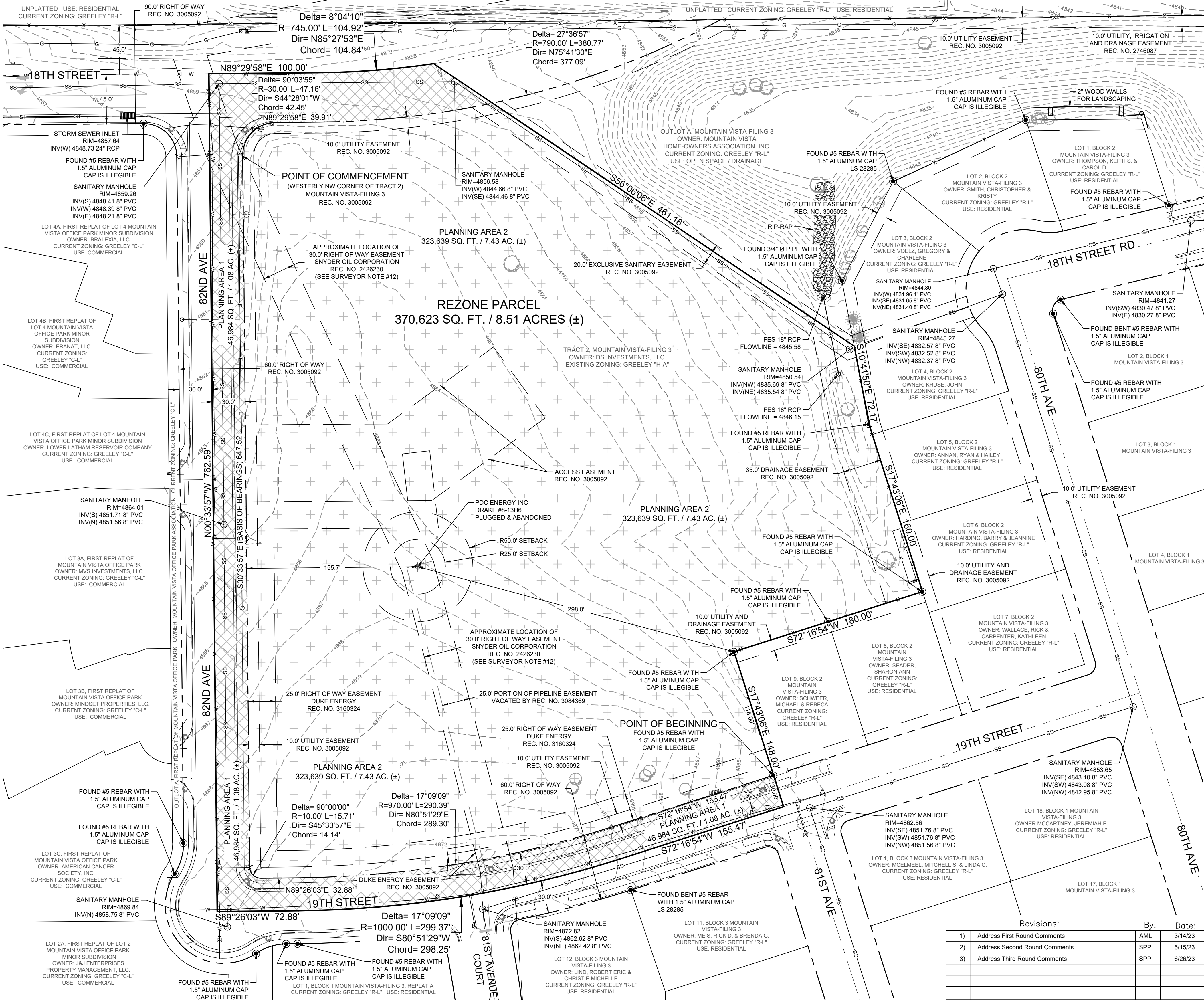
LINE LEGEND	
	BOUNDARY LINE
	RIGHT OF WAY LINE
	ROAD CENTERLINE
	PROPERTY LINE
	EASEMENT LINE
	VACATED EASEMENT LINE
	CURB AND GUTTER / PAN FLOWLINE
	FENCE
	BURIED ELECTRIC
	BURIED GAS
	WATER LINE
	SANITARY SEWER LINE
	STORM SEWER LINE
	EDGE OF ASPHALT
	ROAD STRIPING
	MAJOR CONTOUR
	MINOR CONTOUR



UTILITY NOTE:
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Robert C. Tesseley
Colorado Registered Professional Land Surveyor No. 38470
For and on behalf of Northern Engineering Services, Inc.



Revisions:		By:	Date:
1)	Address First Round Comments	AML	3/14/23
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SECTION:	8
TOWNSHIP:	5 N
RANGE:	66 W of the 6th PM

NORTHERN ENGINEERING
SURVEY | MUNICIPAL | LAND DEVELOPMENT
FORT COLLINS | GREELEY 970.221.4188 | NORTHERNENGINEERING.COM

DATE:	07/20/2023
SCALE:	1" = 50'
REVIEWED BY:	R. TESSELEY
DRAWN BY:	S. PAULIN

EXISTING CONDITIONS MAP
MOUNTAIN VISTA MULTIFAMILY PUD
CITY OF GREELEY, STATE OF COLORADO

MOUNTAIN VISTA MULTIFAMILY PLANNED UNIT DEVELOPMENT
BEING A PLANNED UNIT DEVELOPMENT OF TRACT 2, MOUNTAIN VISTA-FILING 3 AND THOSE ADJOINING HALF RIGHT OF WAYS
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M.
CITY OF GREELEY, COUNTY OF WELD, STATE OF COLORADO

8.51 ACRES (±)
PROJECT NUMBER: PUD2022-0008

DEVELOPMENT STANDARDS				
DESCRIPTION	PROPOSED			
	PLANNING AREA (PA-1)			
Permitted Uses	Public Access (i.e. public streets, sidewalks, emergency access, etc.), Utilities, Drainage			
PLANNING AREA (PA-2)				
Permitted Uses	Multifamily Dwellings, Assembly - Limited, Open Space & Common Areas, Utilities, Drainage, Private Access & Parking, Emergency Access			
Uses Not Allowed	Mobile/Manufactured Home & parks, Established Residential (all types), Industrial Uses - except Child Care Home, Assembly - Large, Cemeteries, Schools - Adult, Transportation (ALL), Utilities - Co-generation of Power Plants			
Density	16 Dwelling Units/Acre			
Minimum Lot Area	1.079 acres			
Site Area	Square Feet	Acres	Percent	
Building Coverage	60,050	1.379	18.6%	
Drive, Parking, and Walks	102,660	2.357	31.7%	
Open Space	160,928	3.694	49.7%	
Maximum Lot Coverage	323,638	7.430	100.0%	
Parking	Per City of Greeley Municipal Code Article 24 Chapter 7			
Minimum Setbacks	Front	25 feet		
	Rear	25 feet		
	Side	20 feet		
	Corner	20 feet		
Accessory Structure Setbacks	Front	25 feet		
	Rear	25 feet		
	Side	20 feet		
	Corner	20 feet		
Encroachments	1. Primary entrance features may encroach beyond the required front building line, as specified in section 24-503.b.			
	2. Structural projections such as bay windows, balconies, canopies, chimneys, eaves, cornices, open fire escapes, egress wells, or other non-foundational overhangs or projections may extend up to four feet from the foundation and encroach into the setback, but no closer than three feet from any lot line. This exception shall be limited to no more than 20 percent of the total area of a building elevation.			
	3. Unenclosed decks or patios at or below the first floor elevation may extend into the rear or side setback but no closer than five feet to any lot line. Where a roof is provided, it shall only be single story and shall remain unenclosed with at least 65 percent open and unobstructed on three sides.			
	4. Ground-mounted mechanical equipment, meters, and utility boxes accessory to the building may be located in the side or rear setback provided that it extends no more than six feet from the principal building, no closer than three feet to the lot line, and is screened from public right-of-way by structures or landscape. These limitations do not apply to any utility structures otherwise authorized to be located in easements or rights-of-way, subject to the design standards of those specific authorizations.			
	5. Any other accessory use or structure within the setback, not specified in section 24-502.c, shall have a setback of at least one-third its height from the property line.			
Building Height	Principal Structure	40 feet		
	Accessory Structure	20 feet		
Sign Standards	Per City of Greeley Municipal Code Article 24 Chapter 9			

ZONING DESCRIPTION:

A parcel of land for rezoning purposes and being Tract 2 of Mountain Vista-Filing 3 recorded November 13, 2002 as Reception No. 3005092 of the Records of Weld County, and those portions of 82nd Avenue, 18th Street, and 19th Street adjoining said Tract 2, all situate within the Southwest Quarter (SW1/4) of Section Eight (8), Township Five North (T.5N.), Range Sixty-six West (R.66W.), of the Sixth Principal Meridian (6th P.M.), City of Greeley, County of Weld, State of Colorado, more particularly described as follows:

COMMENCING at the Westerly most Northwest corner of Tract 2, Mountain Vista-Filing 3 and assuming the Westerly line of said Tract 2 as bearing South 00° 33' 57" East a distance of 647.52 feet with all other bearings contained herein relative thereto:

The following Five (5) courses are along the Westerly and Southerly lines of said Tract 2, Mountain Vista-Filing 3:

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THENCE along the arc of a curve concave to the Northeast a distance of 15.71 feet, said curve has a radius of 10.00 feet, a delta of 90° 00' 00" and is subtended by a chord bearing South 45° 33' 57" East a distance of 14.14 feet to a Point of Tangency;

THENCE North 89° 26' 03" East a distance of 32.88 feet to a Point of Curvature;

THENCE along the arc of a curve concave to the Northwest a distance of 290.39 feet, said curve has a radius of 970.00 feet, a delta of 17° 09' 09" and is subtended by a chord bearing North 80° 51' 29" East a distance of 289.30 feet to a Point of Tangency;

THENCE North 72° 16' 54" East a distance of 155.47 feet to the Southerly most Southeast corner of Tract 2, Mountain Vista-Filing 3 monumented by a #5 rebar with an illegible 1.5" diameter cap and to the POINT OF BEGINNING.

THENCE South 17° 43' 06" East a distance of 30.00 feet to the centerline of 19th Street as depicted on the plat for said Mountain Vista-Filing 3:

The following Three (3) courses are along the centerline of said 19th Street:

THENCE South 72° 16' 54" West a distance of 155.47 feet to a Point of Curvature;

THENCE along the arc of a curve concave to the Northwest a distance of 299.37 feet, said curve has a radius of 1000.00 feet, a delta of 17° 09' 09" and is subtended by a chord bearing South 80° 51' 29" West a distance of 298.25 feet to a Point of Tangency;

THENCE South 89° 26' 03" West a distance of 72.88 feet to the centerline of 82nd Avenue as depicted on the plat of said Mountain Vista-Filing 3;

THENCE North 00° 33' 57" West along the centerline of said 82nd Avenue a distance of 762.59 feet to the centerline of 18th Street as depicted on the plat of Mountain Vista-Filing 3;

THENCE North 89° 29' 58" East along the centerline of said 18th Street a distance of 100.00 feet to a Point of Curvature;

THENCE along the arc of a curve concave to the Northwest a distance of 104.92 feet, said curve has a radius of 4745.00 feet, a delta of 8° 04' 10" and is subtended by a chord bearing North 85° 27' 53" East a distance of 104.84 feet to the end point of the curve and to the intersection of the centerline of 18th Street and the Northwesterly prolongation of the Northeasterly line of Tract 2, Mountain Vista-Filing 3;

THENCE South 56° 06' 06" East along the Northeasterly line of said Tract 2 a distance of 461.18 feet to the Northwest corner of Lot 4, Block 2 as depicted on the plat for Mountain Vista-Filing 3;

The following Four (4) courses are along the Easterly and Southerly lines of said Tract 2, Mountain Vista-Filing 3:

THENCE South 10° 41' 50" East a distance of 72.17 feet;

THENCE South 17° 43' 06" East a distance of 160.00 feet;

THENCE South 72° 16' 54" West a distance of 180.00 feet;

THENCE South 17° 43' 06" East a distance of 118.00 feet to the Southerly most Southeast corner of Tract 2, Mountain Vista-Filing 3 and to the POINT OF BEGINNING.

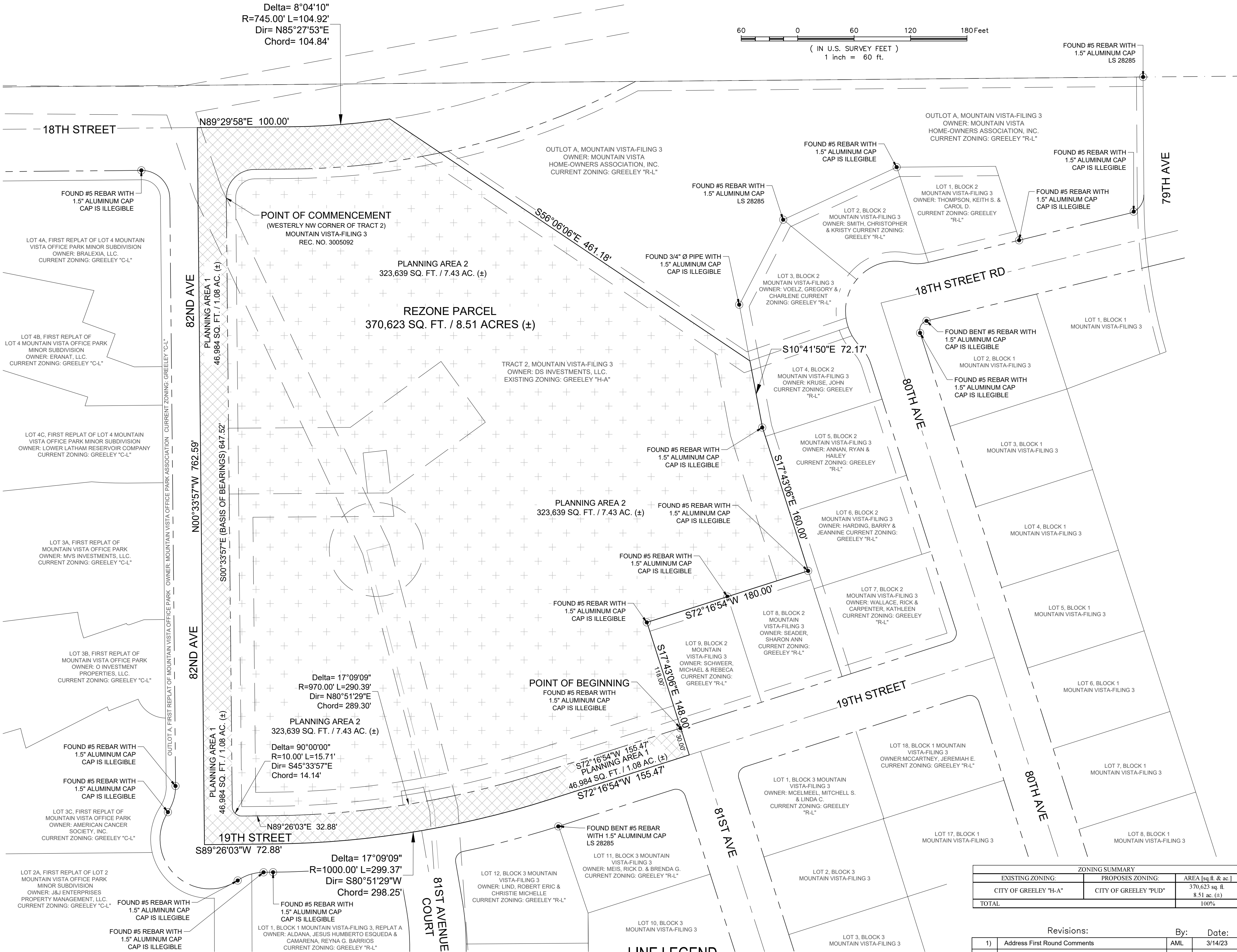
TOTAL REZONED AREA for the Mountain Vista Multifamily Planned Unit Development is 370,623 sq. ft. or 8.51 acres, more or less (±).

SURVEYING CERTIFICATE

I, Robert C. Tessely, a Colorado Registered Professional Land Surveyor do hereby state that this Rezone Description was prepared under my personal supervision and checking, and that it is true and correct to the best of my knowledge and belief.



Robert C. Tessely
Registered Professional Land Surveyor LS 38670
For and on behalf of Northern Engineering Services, Inc.



SITE SUMMARY							
AREA	USE	ACRES	DWELLING UNITS (D.U.)	DENSITY (D.U./ACRE)	NO. OF BUILDINGS	AVE. AREA OF BLDG (SQ. FT.)	% OF ACREAGE
PA-1	RIGHT-OF-WAY	1.079	0	0.00	0	0	12.7%
PA-2	MULTIFAMILY	7.430	100	13.46	14	4234	87.3%
Total		8.508	100	11.75	14		100.0%

LINE LEGEND

- SECTION LINE
- RIGHT OF WAY LINE
- BOUNDARY LINE
- PROPERTY LINE
- ROAD CENTERLINE
- EASEMENT LINE
- VACATED EASEMENT LINE

SYMBOL LEGEND

- FOUND PROPERTY MONUMENT

ZONING SUMMARY		
EXISTING ZONING	PROPOSED ZONING	AREA (sq. ft. & ac.)
CITY OF GREELEY "H-A"	CITY OF GREELEY "PUD"	370,623 sq. ft. 8.51 ac. (±)
TOTAL		100%

Revisions:		By:	Date:
1)	Address First Round Comments	AML	3/14/23
2)	Address Second Round Comments	SPP	5/15/23
3)	Address Third Round Comments	SPP	6/26/23

NOTICE:
According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years after the date of the certificate shown hereon.

SECTION:	TOWNSHIP:	RANGE:
8	5 N	66 W of the 6th PM

NORTHERN ENGINEERING
SURVEY | MUNICIPAL | LAND DEVELOPMENT
FORT COLLINS | GREELEY 970.221-4188 | NORTHERNENGINEERING.COM

PROJECT:	DATE:	SCALE:	REVIEWED BY:
1159-010	07/20/2023	1" = 60'	R. TESSELY
CLIENT:			DRAWN BY:
			S. PALUIN

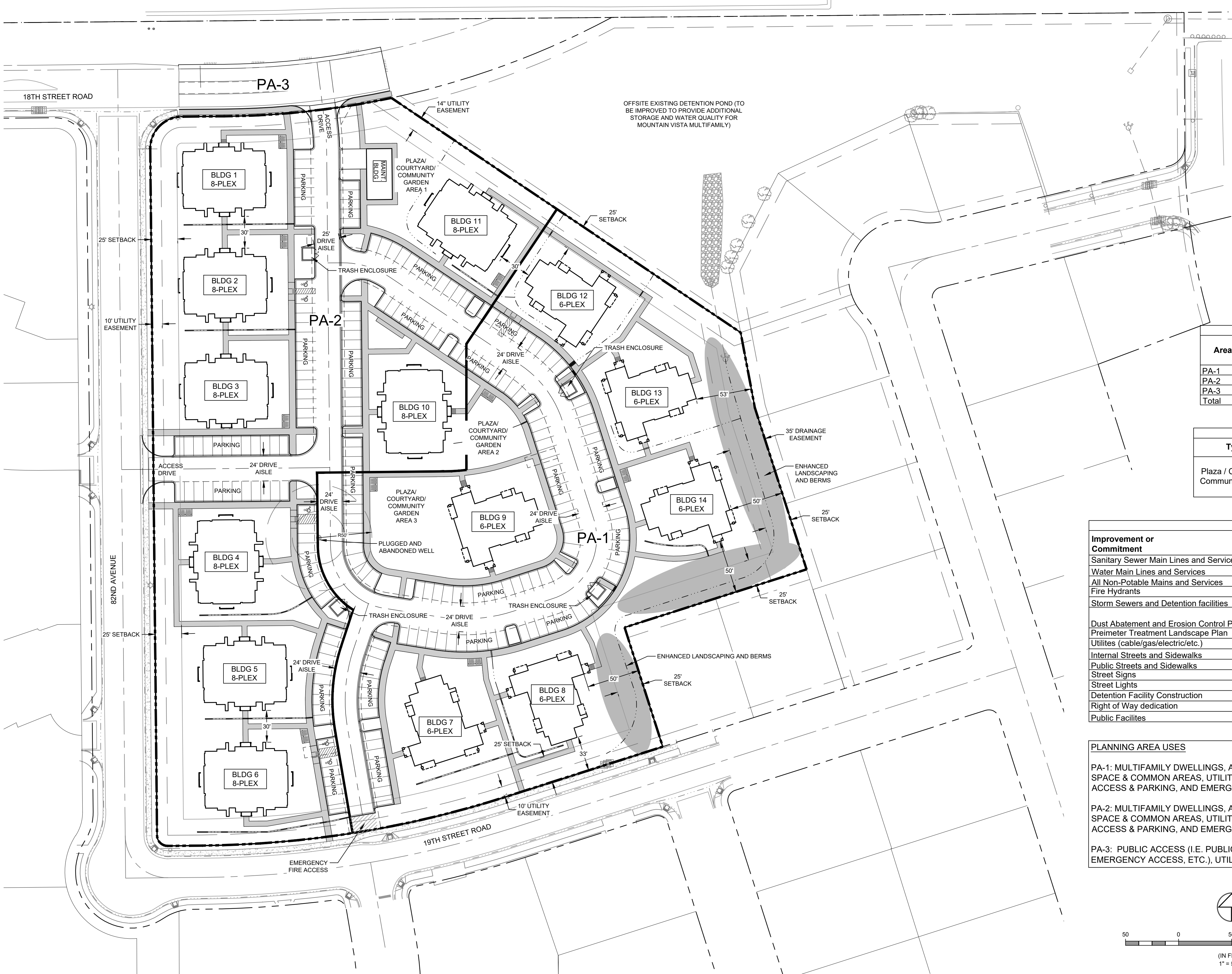
MASTER DEVELOPMENT PLAN & GENERAL LAYOUT
MOUNTAIN VISTA MULTIFAMILY PUD
CITY OF GREELEY, STATE OF COLORADO

MOUNTAIN VISTA MULTIFAMILY REZONE

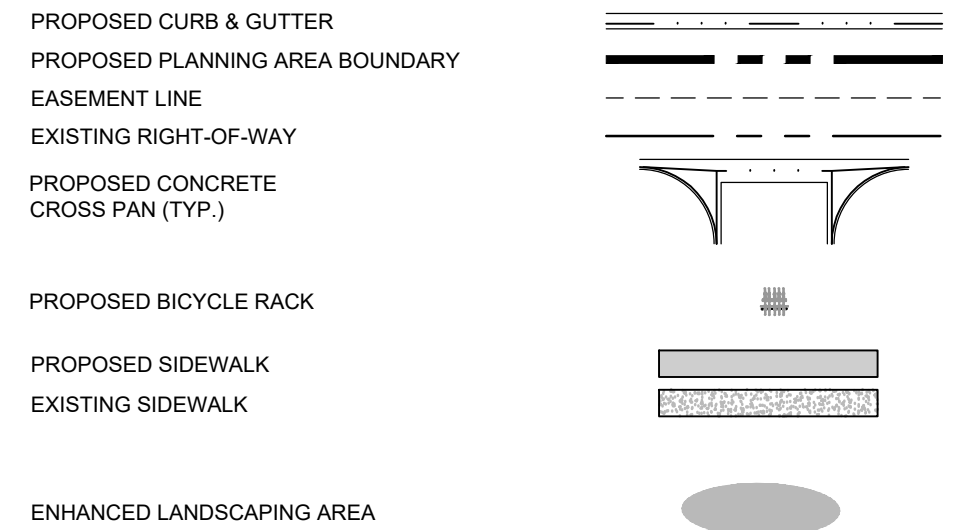
BEING A REZONE OF TRACT 2, MOUNTAIN VISTA-FILING 3 AND THOSE ADJOINING HALF RIGHT OF WAYS
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 5 NORTH, RANGE 66 WEST OF THE 6TH P.M. CITY OF
GREELEY, COUNTY OF WELD, STATE OF COLORADO

8.51 ACRES (±)

PROJECT NUMBER: PUD2022-0008



LEGEND:



NOTES:

- 1. PROJECT WILL BE CONSTRUCTED AS ONE OVERALL PHASE.
- 2. LANDSCAPING WILL BE PER CITY OF GREELEY LANDSCAPE STANDARDS AND CITY OF GREELEY DEVELOPMENT CODE.
- 3. SITE PLAN IS CONCEPTUAL AND DOES NOT REFLECT AN APPROVED SITE PLAN.
- 4. SITE PLAN IS WHAT IS INTENDED TO BE BUILT.

Site Summary								
Area	Use	Acres	Dwelling Units (D.U.)	Density (D.U./ACRE)	No. of Buildings	Ave. Area of Bldg (SQ. FT.)	FAR	% of Acreage
PA-1	MULTIFAMILY	3.610	36	9.97	6	3853	0.15	42.4%
PA-2	MULTIFAMILY	3.820	64	16.75	8	4519	0.22	44.9%
PA-3	RIGHT-OF-WAY	1.079	0	0.00	0	0	0.00	12.7%
Total		8.509	100	11.75	14			100.0%

Neighborhood Feature & Common Area Types				
Type	Required Size	Feature Points	Provided Size	Total Feature Points
Plaza / Courtyard / Community Garden	- 1K - 5K s.f. - At least 25 wide in all directions - Frontage on at least 1 public street OR connection to street by trail or pedestrian passage.	1	Area 1 - ± 3,200 s.f. Area 2 - ± 3,200 s.f. Area 3 - ± 5,000 s.f.	3

Commitment Matrix				
Improvement or Commitment	Plan Preparation & Approval	Construction Timing	Construction Responsibility	Maintenance Responsibility
Sanitary Sewer Main Lines and Services	Prior to Building Permit	1 Month	Contractor/Developer	City of Greeley
Water Main Lines and Services	Prior to Building Permit	1 Month	Contractor/Developer	City of Greeley
All Non-Potable Mains and Services	Prior to Building Permit	1 Month	Contractor/Developer	City of Greeley
Fire Hydrants	Prior to Building Permit	1 Month	Contractor/Developer	City of Greeley
Storm Sewers and Detention facilities	Prior to Building Permit	1 Month	Contractor/Developer	City of Greeley
Dust Abatement and Erosion Control Plan	Prior to Building Permit	6 Months	Contractor/Developer	Contractor/Developer
Perimeter Treatment Landscape Plan	Prior to Building Permit	1 Month	Contractor/Developer	HOA
Utilities (cable/gas/electric/etc.)	Prior to Building Permit	1 Month	Utility Provider	Utility Provider
Internal Streets and Sidewalks	Prior to Building Permit	1 Month	Contractor/Developer	HOA
Public Streets and Sidewalks	Prior to Building Permit	1 Month	Contractor/Developer	City of Greeley
Street Signs	Prior to Building Permit	1 Day	Contractor/Developer	HOA
Street Lights	Prior to Building Permit	1 Month	Contractor/Developer	City of Greeley
Detention Facility Construction	Prior to Building Permit	1 Month	Contractor/Developer	HOA
Right of Way dedication	Final Plat	n/a	Contractor/Developer	City of Greeley
Public Facilities	Prior to Building Permit	1 Month	Contractor/Developer	HOA

PLANNING AREA USES

PA-1: MULTIFAMILY DWELLINGS, ASSEMBLY - LIMITED, OPEN SPACE & COMMON AREAS, UTILITIES, DRAINAGE, PRIVATE ACCESS & PARKING, AND EMERGENCY ACCESS

PA-2: MULTIFAMILY DWELLINGS, ASSEMBLY - LIMITED, OPEN SPACE & COMMON AREAS, UTILITIES, DRAINAGE, PRIVATE ACCESS & PARKING, AND EMERGENCY ACCESS

PA-3: PUBLIC ACCESS (I.E. PUBLIC STREETS, SIDEWALKS, EMERGENCY ACCESS, ETC.), UTILITIES, AND DRAINAGE

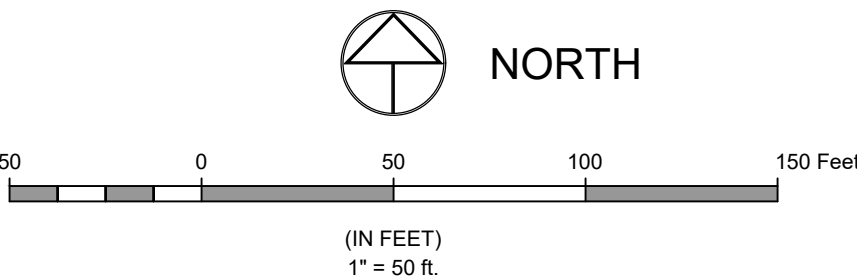
PARKING SUMMARY

6-PLEX = 6 BUILDINGS
8-PLEX = 8 BUILDINGS

100 DU X 2.0 SPACES = 200 SPACES

+GUEST 1 SPACE/10 SPACES = 20 SPACES

TOTAL PARKING SPACES REQUIRED = 220 SPACES
TOTAL PARKING SPACES PROVIDED = 228 SPACES



Revisions:		By:	Date:
1)	Address First Round Comments	ACP	03/14/23
2)	Address Second Round Comments	ACP	05/23/23
3)	Address Third Round Comments	ACP	06/26/23

NOTICE:
According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years after the date of the certificate shown hereon.

SECTION:
8
TOWNSHIP:
5 N
RANGE:
66 W of the 6th PM

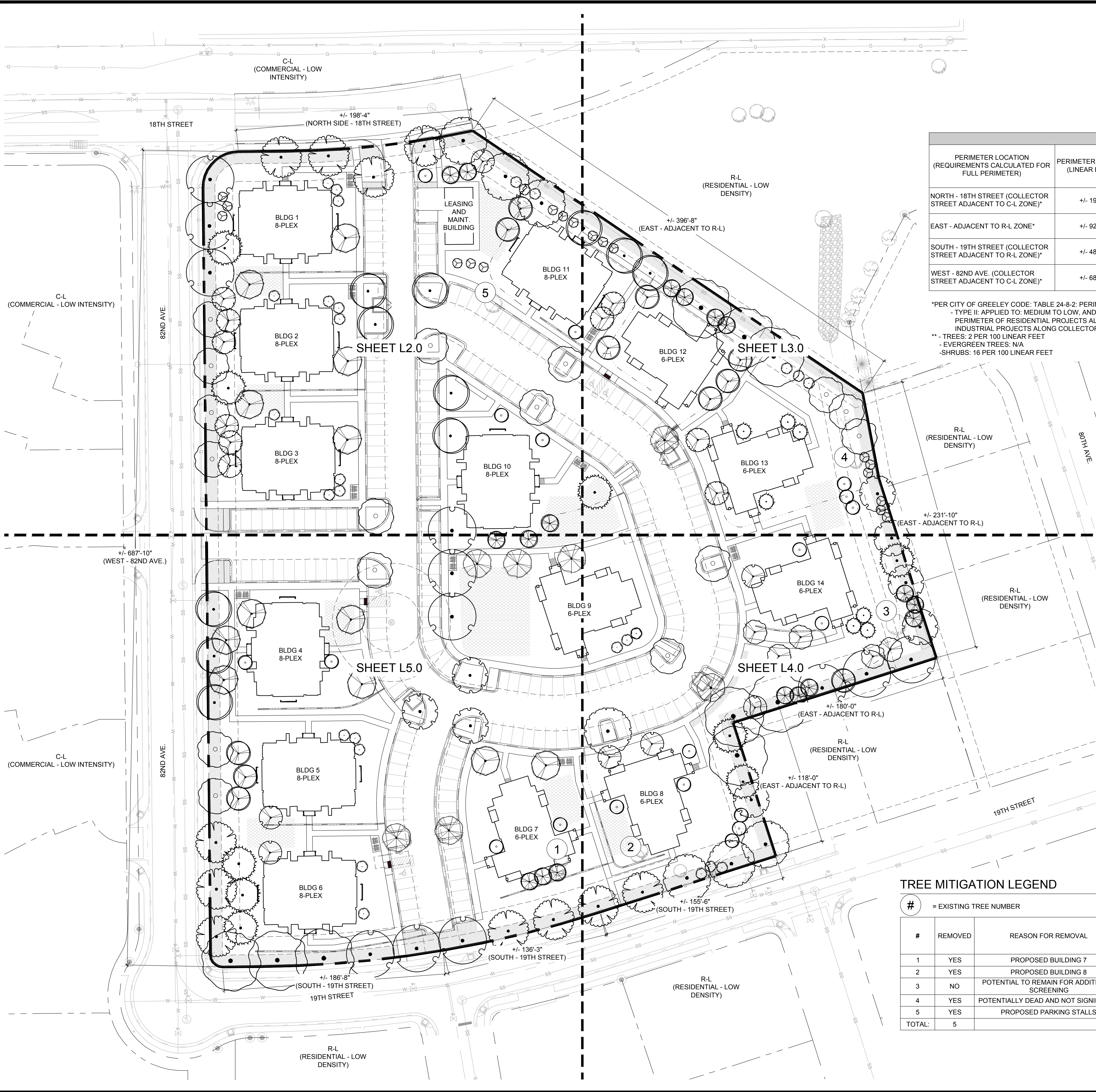
NORTHERN
ENGINEERING
SURVEY | MUNICIPAL | LAND DEVELOPMENT
FORT COLLINS | GREELEY 970.221.4188 NORTHERNENGINEERING.COM

DATE: 06/26/2023
SCALE: N/A
REVIEWED BY: R. TEESELY
DRAWN BY: A. POINCELOT

MOUNTAIN VISTA MULTIFAMILY PLANNED UNIT DEVELOPMENT
MOUNTAIN VISTA MULTIFAMILY PUD
CITY OF GREELEY, STATE OF COLORADO

Sheet
4
Of 12 Sheets

Plotted By: Alex Garver Layout: L1.0 CONCEPTUAL OVERALL LANDSCAPE PLAN Printed On: 7/17/2023 11:42 AM File Name: L1.0 OVERALL LANDSCAPE PLAN.dwg



REFERENCE NOTES SCHEDULE

SYMBOL	10 LANDSCAPE DEVELOPMENT DESCRIPTION
	TYPE II - 10' PERIMETER TREATMENT
	CONCEPTUAL OPEN SPACES AREAS

PERIMETER TREATMENT PLAN

PERIMETER LOCATION (REQUIREMENTS CALCULATED FOR FULL PERIMETER)	PERIMETER LENGTH (LINEAR FEET)	SHADE TREE OR ORNAMENTAL TREE		EVERGREEN TREE		SHRUBS	
		REQUIRED**	PROPOSED	REQUIRED**	PROPOSED	REQUIRED**	PROPOSED
NORTH - 18TH STREET (COLLECTOR STREET ADJACENT TO C-L ZONE)*	+/- 199'	4	4	N/A		32	
EAST - ADJACENT TO R-L ZONE*	+/- 927'	19	48	N/A	9	149	
SOUTH - 19TH STREET (COLLECTOR STREET ADJACENT TO R-L ZONE)*	+/- 480'	10	12	N/A	3	77	
WEST - 82ND AVE. (COLLECTOR STREET ADJACENT TO C-L ZONE)*	+/- 688'	14	15	N/A		111	

*PER CITY OF GREELEY CODE: TABLE 24-8-2: PERIMETER DESIGN REQUIREMENTS
- TYPE II: APPLIED TO: MEDIUM TO LOW, AND HIGH TO MEDIUM LAND USE TRANSITIONS.
PERIMETER OF RESIDENTIAL PROJECTS ALONG COLLECTOR STREETS, OR PERIMETER OF COMMERCIAL AND INDUSTRIAL PROJECTS ALONG COLLECTOR OR ARTERIAL STREETS
** - TREES: 2 PER 100 LINEAR FEET
- EVERGREEN TREES: N/A
- SHRUBS: 16 PER 100 LINEAR FEET

CONCEPTUAL TREE PLANTING LIST

CONCEPTUAL PERIMETER TREATMENT TREE
SHADE TREES:
-BUR OAK - QUERCUS MACROCARPA
-SKYLINE HONEYLOCUST - GLEDITSIA TRIACANTHOS V. INERMIS
-OHIO BUCKEYE - AESCULUS GLABRA
-HACKBERRY - CÉLTIS OCCIDENTALIS
-CATALPA - CATALPA SPECIOSA
-KENTUCKY COFFEETREE - GYMNOCLADUS DIOICUS

EVERGREEN TREES
- PICEA PUNGENS VAR.
- PINUS NIGRA VAR.
- PINUS PONDEROSA

ORNAMENTAL TREES
-CRIMSON SPIRE COLUMNAR OAK™ - QUERCUS ALBA X ROBUR
-RED BARRON CRABAPPLE - MALUS 'RED BARRON'
-THUNDERCHILD CRABAPPLE - MALUS 'SPRING SNOW'
-SPRING SNOW CRABAPPLE - MALUS 'THUNDERCHILD'
-THORNLESS COCKSPUR HAWTHORN - CRATAEGUS CRUS-GALLI INERMIS
-HOTWINGS TATARIAN MAPLE - ACER TATARICUM
-GREENSPIRE LINDEN - TILIA CORDATA
-SUCKER PUNCH CHOKECHERRY - PRUNUS X VIRGINIANA 'SUCKER PUNCH'

TREE MITIGATION LEGEND

= EXISTING TREE NUMBER

#	REMOVED	REASON FOR REMOVAL	DBH	MITIGATION REQUIREMENT
1	YES	PROPOSED BUILDING 7	<4"	0
2	YES	PROPOSED BUILDING 8	<4"	0
3	NO	POTENTIAL TO REMAIN FOR ADDITIONAL SCREENING	8"	0
4	YES	POTENTIALLY DEAD AND NOT SIGNIFICANT	<4"	0
5	YES	PROPOSED PARKING STALLS	<4"	0
TOTAL:	5			0

KEY MAP

MOUNTAIN VISTA MULTIFAMILY

PUD

GREELEY, CO
PREPARED BY:

LANDSCAPE ARCHITECTURE, LAND PLANNING
419 Canyon Ave. Suite 200 Fort Collins, CO 80521
phone 970.224.5828 fax 970.225.6507 www.ripleydesigninc.com

DEVELOPER/APPLICANT
DS INVESTMENTS, LLC.
LARRY S. BUCKENDORF
7251 W. 20 STREET, L-200
GREELEY, CO 80634
(970) 352-7072

SITE ENGINEER
AVANT CIVIL GROUP
ROBBIE LAURER
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FORT COLLINS, CO 80524
(970) 286-7995

SURVEYOR
NORTHERN ENGINEERING SERVICES, INC.
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LANDSCAPE ARCHITECT
RIPLEY DESIGN INC.
RUSS LEE
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FORT COLLINS, CO 80521
(970) 224-5828

NORTH
SCALE: 1"=40'-0"

ORIGINAL SIZE 24X36

ISSUED

No.	DESCRIPTION	DATE

REVISIONS

No.	DESCRIPTION	DATE

CONCEPTUAL OVERALL LANDSCAPE PLAN

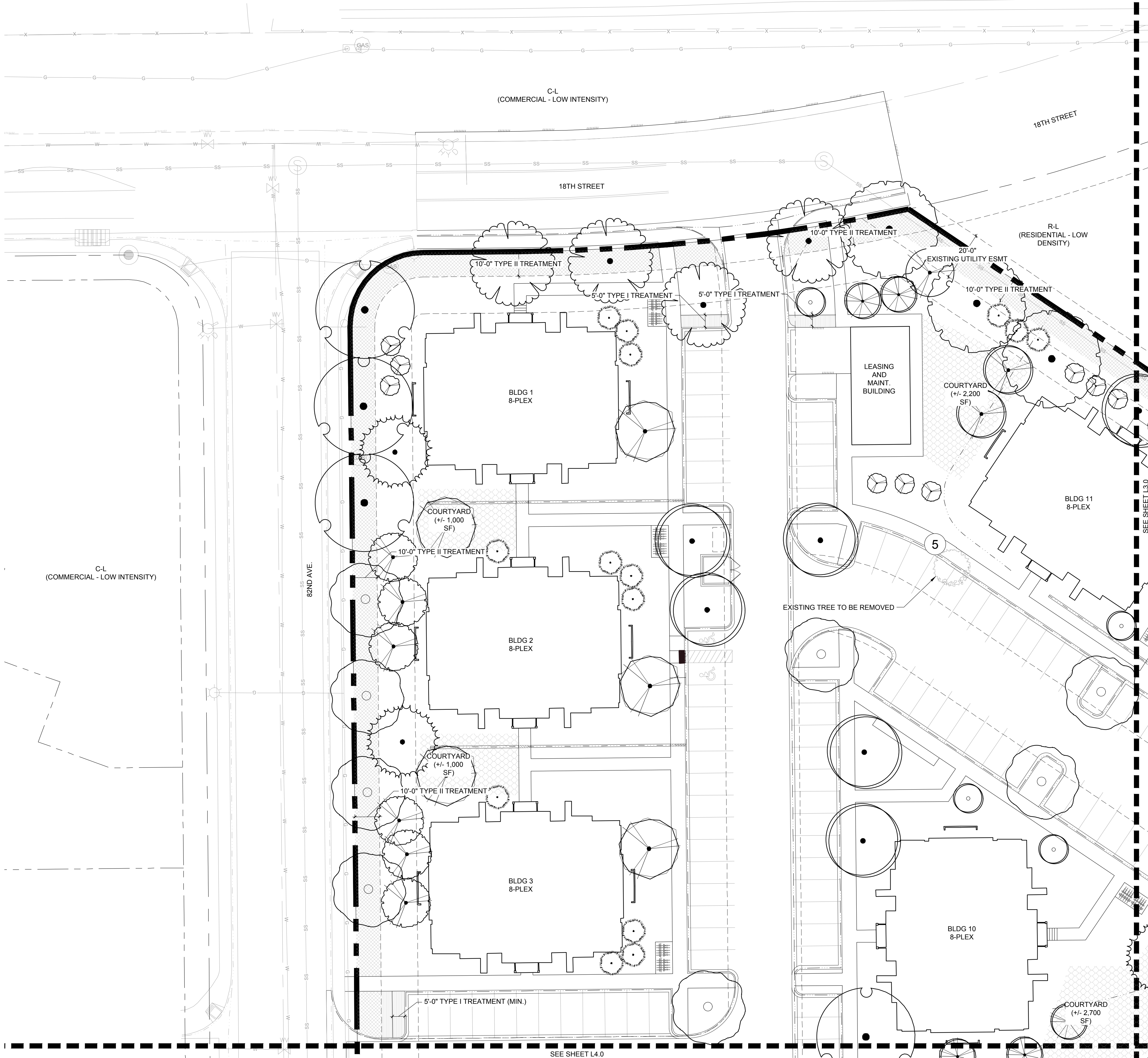
SEAL:

PROJECT No.: R23-006
DRAWN BY: AG
REVIEWED BY: RL
DRAWING NUMBER:

L1.0

5 of 12

Plotted By: Alex Garver Layout: L2.0 CONCEPTUAL LANDSCAPE ENLARGEMENT Printed On: 7/17/2023 11:42 AM File Name: L1.0 OVERALL LANDSCAPE PLAN.dwg



REFERENCE NOTES SCHEDULE

SYMBOL	10 LANDSCAPE DEVELOPMENT DESCRIPTION
	TYPE I - 5' PERIMTER TREATMENT: PARKING WITHIN 20' OF ROW
	TYPE II - 10' PERIMTER TREATMENT
	CONCEPTUAL OPEN SPACES AREAS

CONCEPTUAL PERIMETER TREE PLANTING LIST

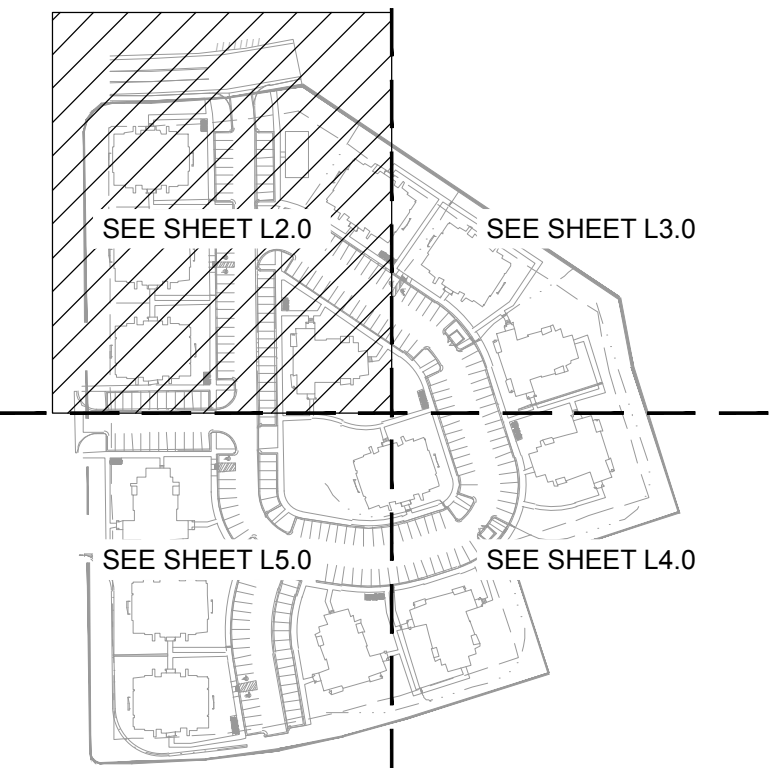
- CONCEPTUAL PERIMETER TREATMENT TREE
- SHADE TREES:
- BUR OAK – QUERCUS MACROCARPA
 - SKYLINE HONEYLOCUST –
 - GLEDTISIA TRIACANTHOS V. INERMIS
 - OHIO BUCKEYE – AESCULUS GLABRA
 - HACKBERRY – CELTIS OCCIDENTALIS
 - CATALPA – CATALPA SPECIOSA
 - KENTUCKY COFFEETREE – GYMNOCLADUS DIOICUS
- EVERGREEN TREES
- PICEA PUNGENS VAR.
 - PINUS NIGRA VAR.
 - PINUS PONDEROSA
- ORNAMENTAL TREES
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 - HOTWINGS TATARIAN MAPLE – ACER TATARICUM "
 - GREENSPIRE LINDEN" - TILIA CORDATA
 - SUCKER PUNCH CHOKECHERRY - PRUNUS X VIRGINIANA 'SUCKER PUNCH'

TREE MITIGATION LEGEND

= EXISTING TREE NUMBER

#	REMOVED	REASON FOR REMOVAL
1	YES	PROPOSED BUILDING 7
2	YES	PROPOSED BUILDING 8
3	NO	POTENTIAL TO REMAIN FOR ADDITIONAL SCREENING
4	YES	POTENTIALLY DEAD AND NOT SIGNIFICANT
5	YES	PROPOSED PARKING STALLS
TOTAL:	5	

KEY MAP



MOUNTAIN VISTA
MULTIFAMILY

PUD

GREELEY, CO
PREPARED BY:



DEVELOPER/APPLICANT

DS INVESTMENTS, LLC.
LARRY S. BUCKENDORF
7251 W. 20 STREET, L-200
GREELEY, CO 80634
(970) 352-7072

SITE ENGINEER

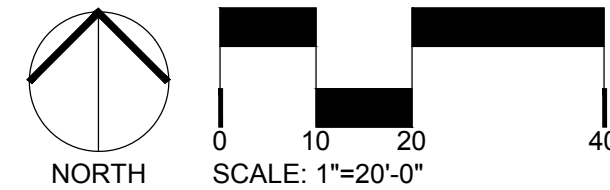
AVANT CIVIL GROUP
ROBBIE LAURER
1337 RIVERSIDE AVE, SUITE 2
FORT COLLINS, CO 80524
(970) 286-7995

SURVEYOR

NORTHERN ENGINEERING SERVICES, INC.
AARON LUND
301 N. HOWES STREET, SUITE 100
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(970) 221-4158

LANDSCAPE ARCHITECT

RIPLLEY DESIGN INC.
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FORT COLLINS, CO 80521
(970) 224-5828



ORIGINAL SIZE 24X36

ISSUED		
No.	DESCRIPTION	DATE
REVISIONS		
No.	DESCRIPTION	DATE

CONCEPTUAL
LANDSCAPE
ENLARGEMENT

SEAL:



PROJECT No.:	R23-006
DRAWN BY:	AG
REVIEWED BY:	RL
DRAWING NUMBER:	

L2.0

PUD

PREPARED BY

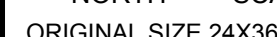


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[illegible][illegible]

SEAL:



DRAWING NUMBER _____

L3.0

7 of 12

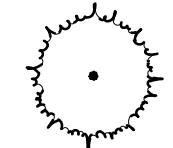
10 LANDSCAPE DEVELOPMENT	
SYMBOL	DESCRIPTION

	TYPE I - 5' PERIMTER TREATMENT: PARKING WITHIN 20' OF ROW
	TYPE II - 10' PERIMTER TREATMENT
	CONCEPTUAL OPEN SPACES AREAS

CONCEPTUAL PERIMETER TREATMENT TREE

SHADE TREES:

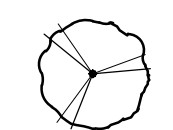
- BUR OAK – QUERCUS MACROCARPA
- SKYLINE HONEYLOCUST –
- GLEDTISIA TRIACANTHOS V. INERMIS
- OHIO BUCKEYE – AESCULUS GLABRA
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- KENTUCKY COFFEETREE – GYMNOCLADUS DIOICUS



EVERGREEN TREES

- PICEA PUNGENS VA

- PINUS NIGRA VAR.
- PINUS PONDEROSA



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-THUNDERCHILD CRABAPPLE - MALUS 'SPRING SNOW'

-SPRING SNOW CRABAPPLE- MALUS 'THUNDERCHILD'

HOTWINGS TATARIAN MARBLE: "ACER TATARICUM"

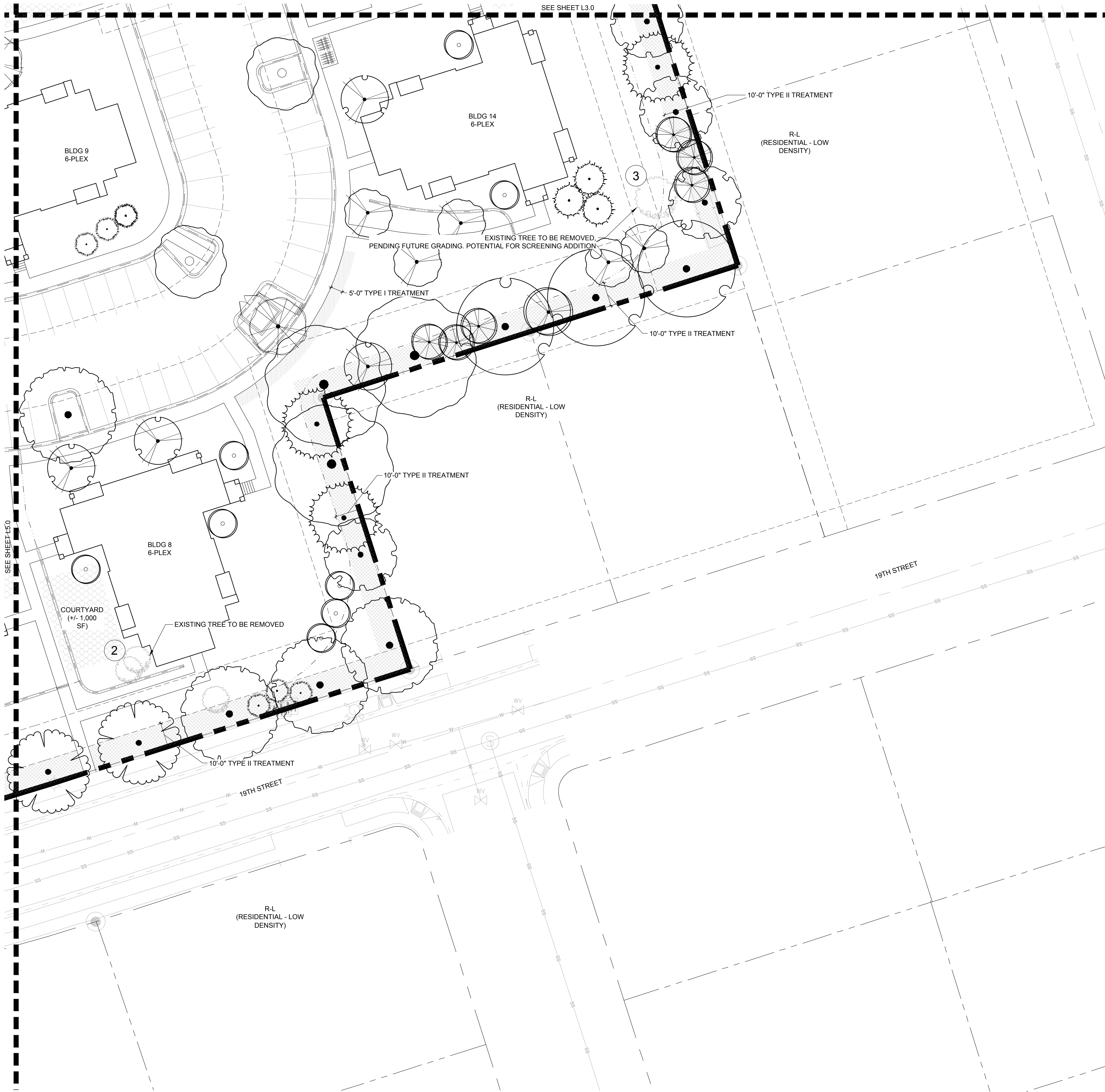
-GREENSPIRE LINDEN" - TILIA CORDATA

-SUCKER PUNCH CHOKECHERRY - PRUNUS X VIRGINIANA 'SUCKER PUNCH'

= EXISTING TREE NUMBER

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3	NO	POTENTIAL TO REMAIN FOR ADDITIONAL SCREENING
4	YES	POTENTIALLY DEAD AND NOT SIGNIFICANT
5	YES	PROPOSED PARKING STALLS
TOTAL:	5	

Plotted By: Alex Garver. Layout: L4.0 CONCEPTUAL LANDSCAPE ENLARGEMENT Printed On: 7/17/2023 11:43 AM File Name: L1.0 OVERALL LANDSCAPE PLAN.dwg



REFERENCE NOTES SCHEDULE

SYMBOL	10 LANDSCAPE DEVELOPMENT DESCRIPTION
[Symbol]	TYPE I - 5' PERIMTER TREATMENT: PARKING WITHIN 20' OF ROW
[Symbol]	TYPE II - 10' PERIMTER TREATMENT
[Symbol]	CONCEPTUAL OPEN SPACES AREAS

CONCEPTUAL PERIMETER TREE PLANTING LIST

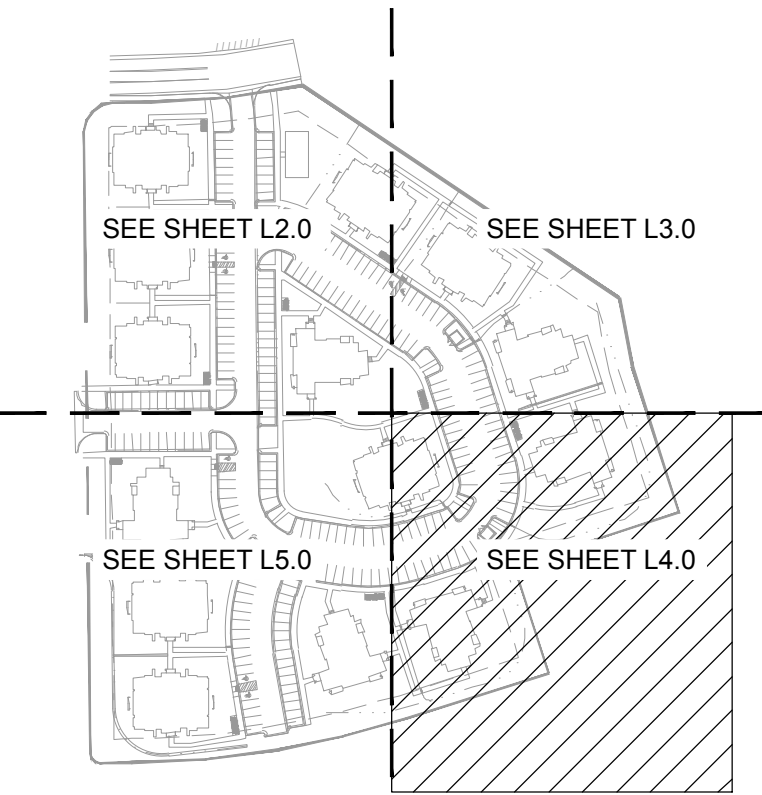
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5	YES	PROPOSED PARKING STALLS
TOTAL:	5	

KEY MAP



MOUNTAIN VISTA MULTIFAMILY

PUD

GREELEY, CO
PREPARED BY:



DEVELOPER/APPLICANT

DS INVESTMENTS, LLC
LARRY S. BUCKENDORF
7251 W. 20 STREET, L-200
GREELEY, CO 80634
(970) 352-7072

SITE ENGINEER

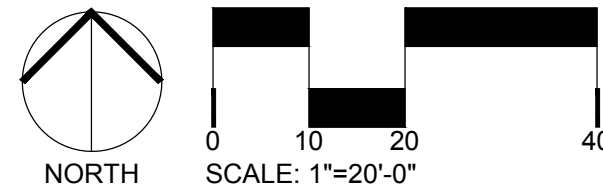
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SURVEYOR

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LANDSCAPE ARCHITECT

RIPLY DESIGN INC.
RUSS LEE
419 CANYON AVE. SUITE 200
FORT COLLINS, CO 80521
(970) 224-5828



ORIGINAL SIZE 24X36

ISSUED		
No.	DESCRIPTION	DATE
REVISIONS		
No.	DESCRIPTION	DATE

CONCEPTUAL LANDSCAPE ENLARGEMENT

SEAL:

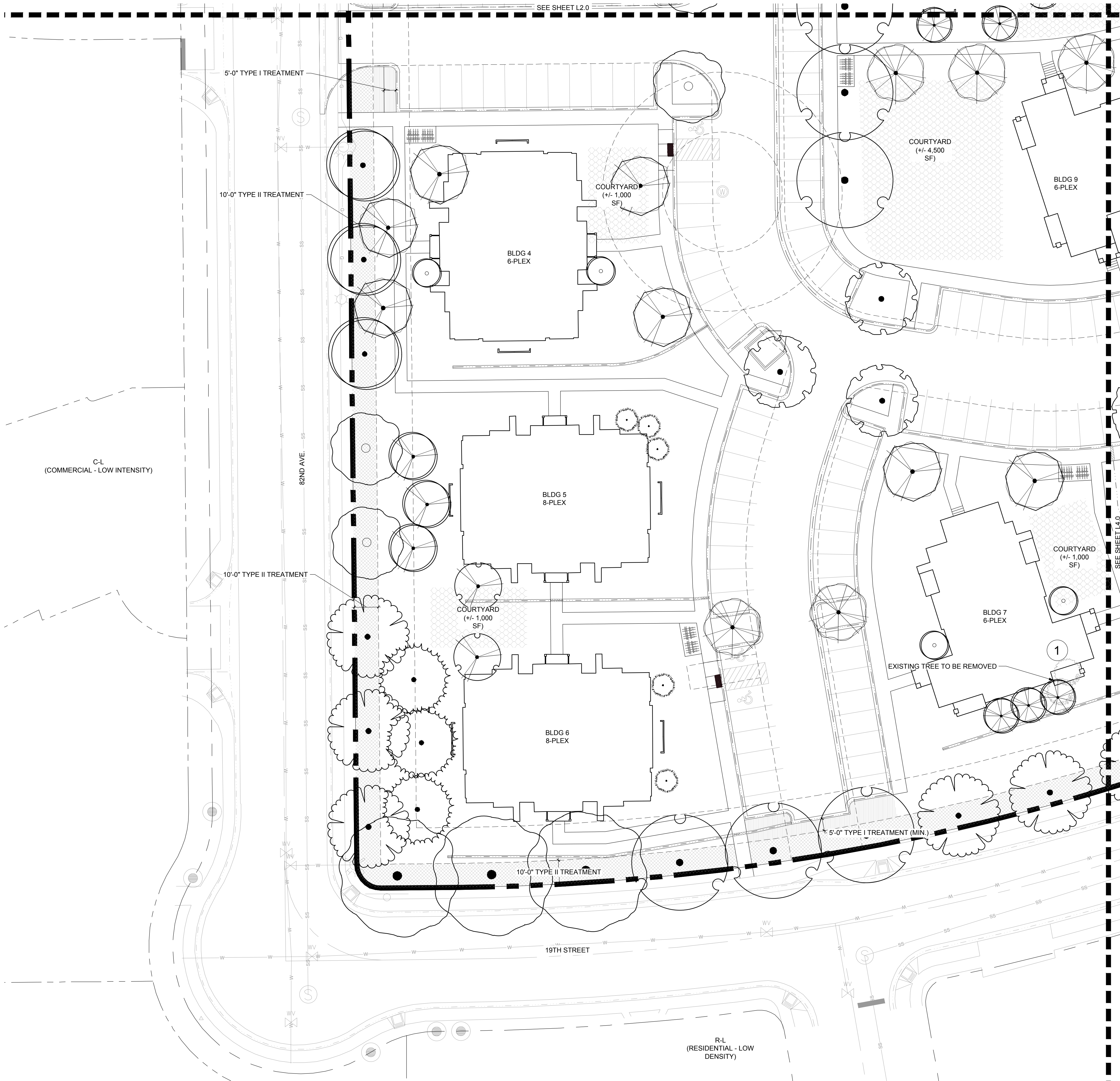


PROJECT No.:	R23-006
DRAWN BY:	AG
REVIEWED BY:	RL

DRAWING NUMBER:

L4.0

Plotted By: Alex Garver Layout: L5.0 CONCEPTUAL LANDSCAPE ENLARGEMENT Printed On: 7/17/2023 11:43 AM File Name: L1.0 OVERALL LANDSCAPE PLAN.dwg



REFERENCE NOTES SCHEDULE

SYMBOL	10 LANDSCAPE DEVELOPMENT DESCRIPTION
	TYPE I - 5' PERIMETER TREATMENT: PARKING WITHIN 20' OF ROW
	TYPE II - 10' PERIMETER TREATMENT
	CONCEPTUAL OPEN SPACES AREAS

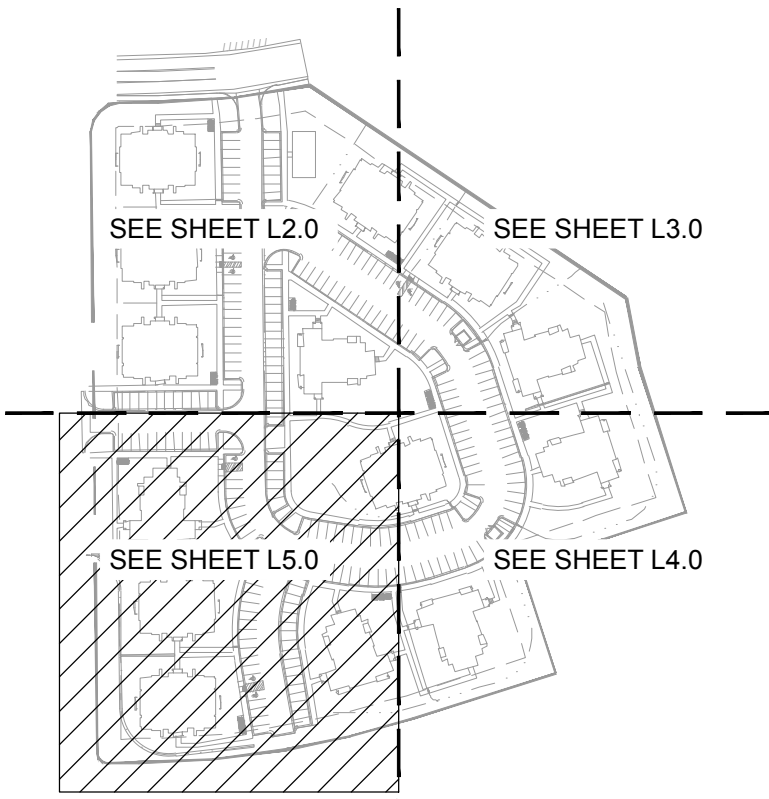
CONCEPTUAL PERIMETER TREE PLANTING LIST

- CONCEPTUAL PERIMETER TREATMENT TREE
- SHADE TREES:
- BUR OAK - QUERCUS MACROCARPA
 - SKYLINE HONEYLOCUST -
 - GLEDITSIA TRIACANTHOS V. INERMIS
 - OHIO BUCKEYE - AESCULUS GLABRA
 - HACKBERRY - CELTIS OCCIDENTALIS
 - CATALPA - CATALPA SPECIOSA
 - KENTUCKY COFFEETREE - GYMNOCLADUS DIOICUS
- EVERGREEN TREES
- PICEA PUNGENS VAR.
 - PINUS NIGRA VAR.
 - PINUS PONDEROSA
- ORNAMENTAL TREES
- CRIMSON SPIRE COLUMNAR OAK™ - QUERCUS ALBA X ROBUR
 - RED BARRON CRABAPPLE - MALUS 'RED BARRON'
 - THUNDERCHILD CRABAPPLE - MALUS 'SPRING SNOW'
 - SPRING SNOW CRABAPPLE - MALUS 'THUNDERCHILD'
 - THORNLESS COCKSPUR HAWTHORN - CRATAEGUS CRUS-GALLI INERMIS
 - HOTWINGS TATARIAN MAPLE - ACER 'TATARICUM'
 - GREENSPIRE LINDEN* - TILIA CORDATA
 - SUCKER PUNCH CHOKECHERRY - PRUNUS X VIRGINIANA 'SUCKER PUNCH'

TREE MITIGATION LEGEND

#	REMOVED	REASON FOR REMOVAL
1	YES	PROPOSED BUILDING 7
2	YES	PROPOSED BUILDING 8
3	NO	POTENTIAL TO REMAIN FOR ADDITIONAL SCREENING
4	YES	POTENTIALLY DEAD AND NOT SIGNIFICANT
5	YES	PROPOSED PARKING STALLS
TOTAL:	5	

KEY MAP



MOUNTAIN VISTA
MULTIFAMILY

PUD

GREELEY, CO
PREPARED BY:



DEVELOPER/APPLICANT

DS INVESTMENTS, LLC
LARRY S. BUCKENDORF
7251 W. 20 STREET, L-200
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SITE ENGINEER

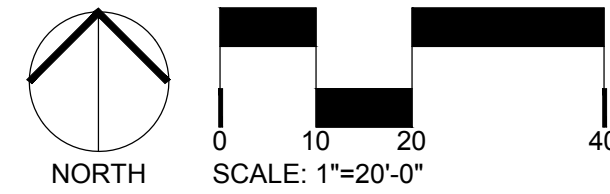
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(970) 224-5828



ORIGINAL SIZE 24X36

ISSUED		
No.	DESCRIPTION	DATE
REVISIONS		
No.	DESCRIPTION	DATE

CONCEPTUAL
LANDSCAPE
ENLARGEMENT

SEAL:

ENTITLEMENT
DRAWINGS
NOT FOR
CONSTRUCTION

PROJECT No.:	R23-006
DRAWN BY:	AG
REVIEWED BY:	RL

DRAWING NUMBER:

L5.0

G:\2023\23-36 Mountain Vista Elevation Edits\5
Revit\Mountain Vista 6-Plex.rvt

5/24/2023 10:20:19 AM



MATERIAL SCHEDULE			
FRONT:	STONE	472 sf	
	HARDIBOARD	799 sf	
BACK:	STONE	439 sf	
	HARDIBOARD	365 sf	
RIGHT:	STONE	411 sf	
	HARDIBOARD	677 sf	
LEFT:	STONE	436 sf	
	HARDIBOARD	654 sf	
TOTAL STONE		1758 sf	= 41%
TOTAL HARDIBD		+ 2495 sf	= 59%
TOTAL		4253 sf	= 100%

8 FRONT ELEVATION
1/8" = 1'-0"



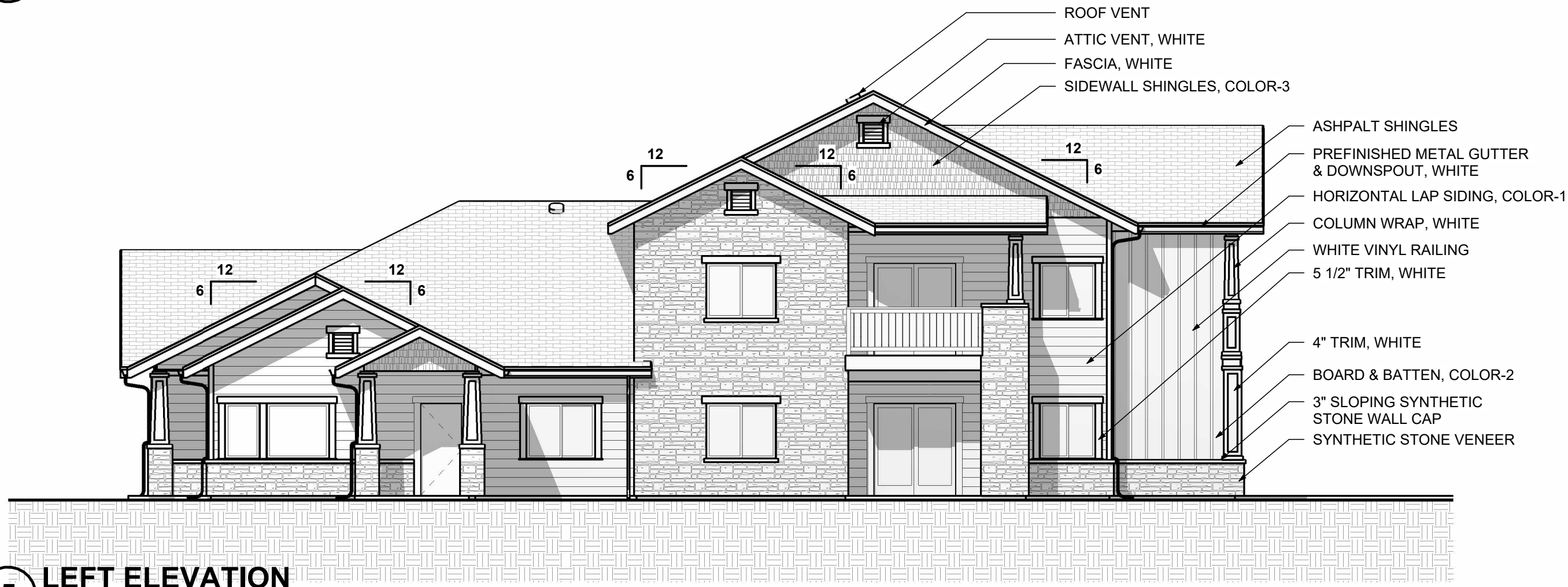
7 BACK ELEVATION
1/8" = 1'-0"



6 RIGHT ELEVATION
1/8" = 1'-0"



5 LEFT ELEVATION
1/8" = 1'-0"



PROJECT NUMBER: 2022-37

Mountain Vista 6-PLEX

WINDSOR, CO



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IN ASSOCIATION WITH:

SITE PLAN REVIEW

Issued		
No.	Description	Date
1	CONSTRUCTION SET	04-08-2022
2		
3		
4		
5		
6		
7		
8		
9		
10		

Revisions		
No.	Description	Date
1	RESPONSE TO PERMIT COMMENTS	01-09-2023
2		
3		

DRAWN BY: AG

CHECKED BY: AG

SEAL:

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CONCEPTUAL EXTERIOR ELEVATIONS

DRAWING NUMBER:

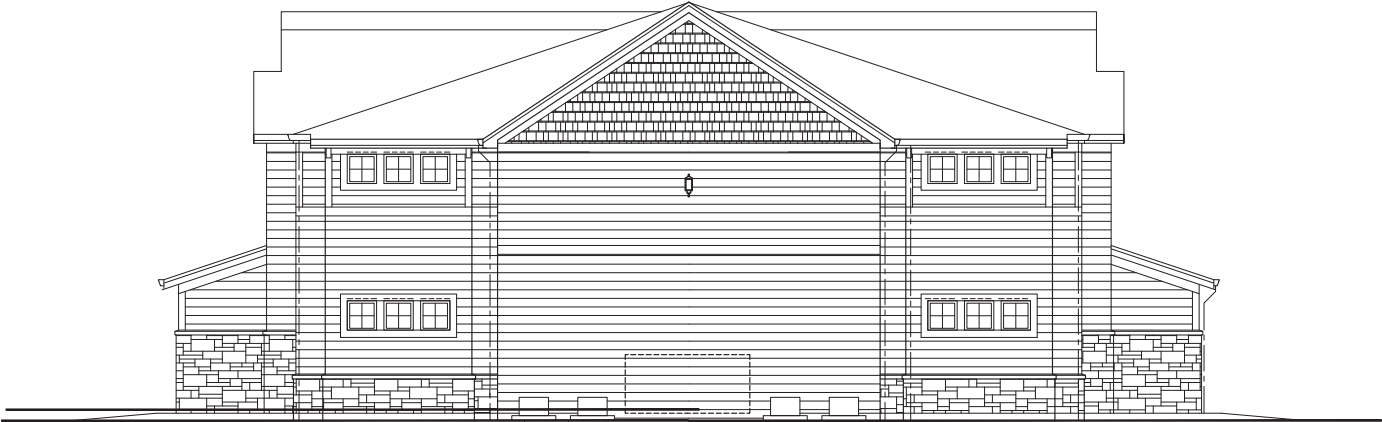
A3.1

10 of 12

CONCEPTUAL



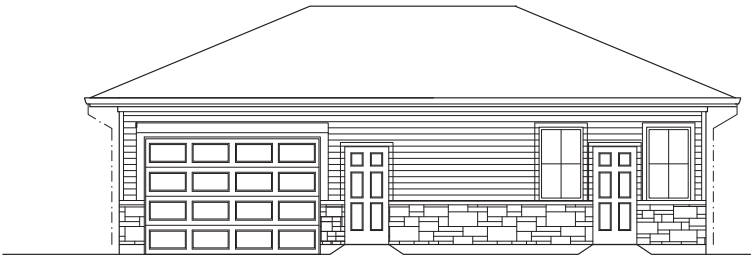
FRONT & REAR ELEVATION



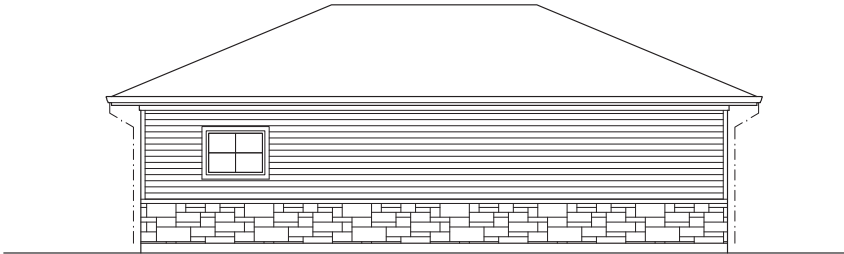
LEFT & RIGHT ELEVATION

CONCEPT	
MOUNTAIN VISTA MULTIFAMILY PUD 8-PLEX	
Title ELEVATIONS	
Sheet Number 11 of 12	

CONCEPTUAL



2 FRONT ELEVATION



2 BACK ELEVATION



3 LEFT & RIGHT ELEVATION

CONCEPT

MOUNTAIN VISTA MULTIFAMILY PUD
MAINTENANCE SHED

ELEVATIONS

12 of 12

MOUNTAIN VISTA MULTI-FAMILY
INTERMEDIATE TRANSPORTATION IMPACT STUDY

GREELEY, COLORADO

DECEMBER 2022

Prepared for:

Journey Homes & Crow Creek Construction
7251 West 20th Street, L-101B
Greeley, CO 80634

Prepared by:



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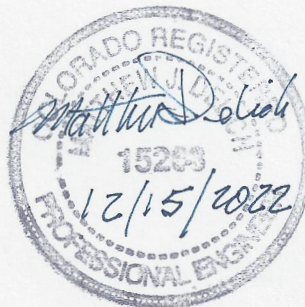


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- A. Base Assumptions Packet
- B. Peak Hour Traffic Counts
- C. Current Peak Hour Operation/Level of Service Descriptions
- D. Short Range (2030) Background Peak Hour Operation
- E. Short Range (2030) Total Peak Hour Operation
- F. Pedestrian Analysis

I. INTRODUCTION

This Intermediate Transportation Impact Study (TIS) addresses the capacity, geometric, and control requirements for the proposed Mountain Vista Multi-Family residential development. The proposed Mountain Vista Multi-Family site is located east of 83rd Avenue and south of 18th Street in Greeley, Colorado.

During the course of the analysis, numerous contacts were made with the project developer (Journey Homes & Crow Creek Construction), the project engineering consultant (Northern Engineering), and the City of Greeley. This study generally conforms to the format set forth in the Greeley TIS Guidelines. A scoping discussion was held with City of Greeley Transportation. The Base Assumptions Form and related information is provided in Appendix A. The study involved the following steps:

- Collect physical, traffic, and development data;
- Perform trip generation, trip distribution, and trip assignment;
- Determine peak hour traffic volumes;
- Conduct capacity and operational level of service analyses on key intersections;
- Analyze signal warrants;
- Conduct evaluation of pedestrian, bicycle, and transit modes of transportation.

The study intersections analyzed in this TIS are the 20th Street/83rd Avenue (major intersection), 83rd Avenue/18th Street (minor intersection), 18th Street/82nd Avenue (minor intersection), and the Site Access (minor intersections) intersections. In the Base Assumptions video meeting, it was agreed that the Mountain Vista Multi-Family site would connect to an extension of 18th Street east of 82nd Avenue.

II. EXISTING CONDITIONS

The location of the Mountain Vista Multi-Family development is shown in Figure 1. It is important that a thorough understanding of the existing conditions be presented.

Land Use

Land uses in the area are primarily residential. Figure 2 shows an aerial photograph showing existing nearby land uses. There are residential uses to the south, east, and west of the site. The center of Greeley lies to the east of the proposed Mountain Vista Multi-Family site.

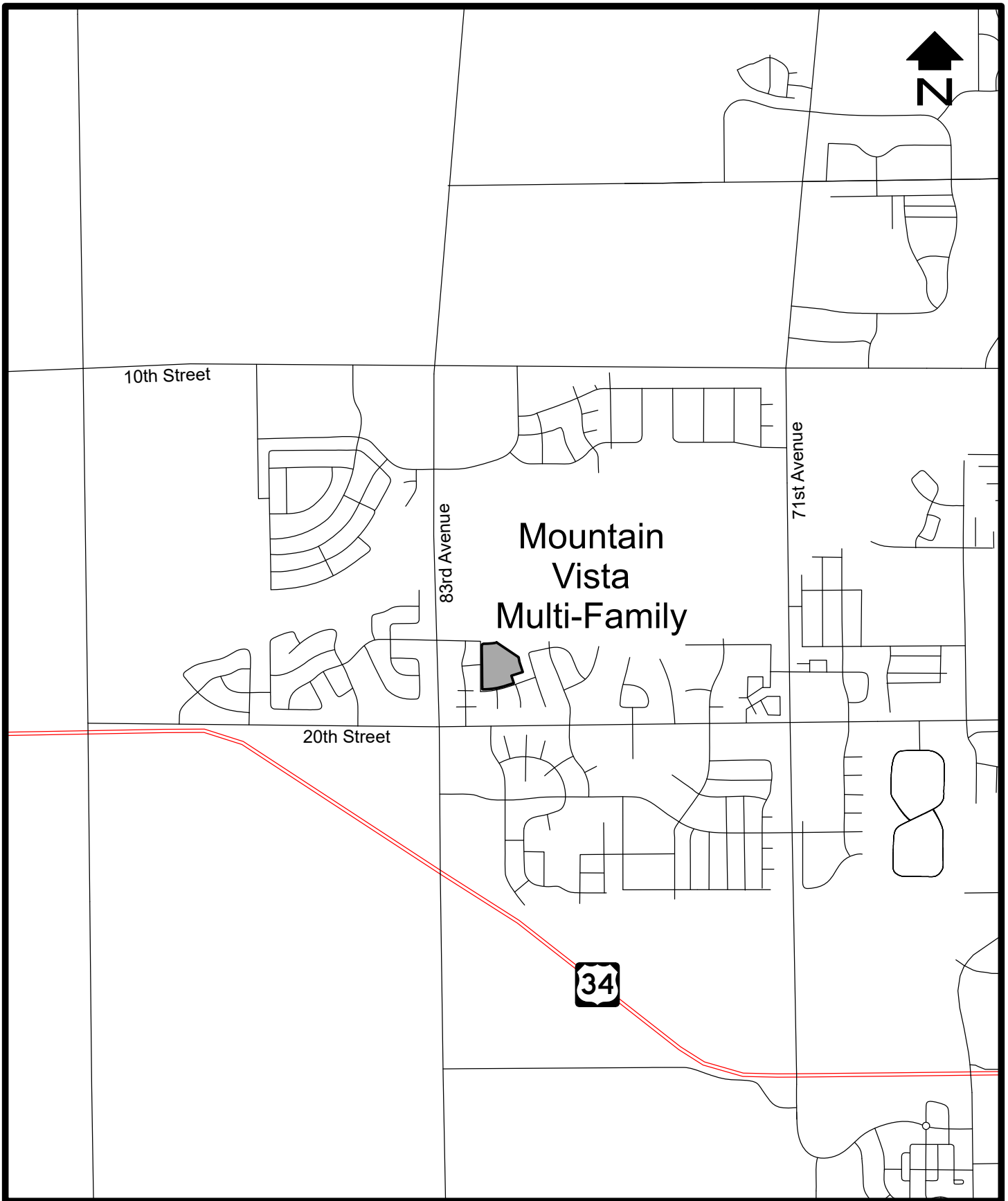
Streets

The primary streets in the area of the Mountain Vista Multi-Family site are 20th Street, 83rd Avenue, and 18th Street. The existing geometry at the 20th Street/83rd Avenue, 83rd Avenue/18th Street, 82nd Avenue/North Access, 82nd Avenue/South Access, and 19th Street/81st Avenue Court intersections is shown in Figure 3. Figure 3 also shows the nearby sidewalks and bicycle facilities. There are no transit routes in this area.

Twentieth Street is an east/west street classified as a minor arterial street on the Greeley Master Street Plan. Currently, east of 83rd Avenue, 20th Street has a four-lane cross section (plus center lane). West of 83rd Avenue, 20th Street has a two-lane cross section (plus center lane). The existing speed limit is 40 mph in this area. At the 20th Street/83rd Avenue roundabout intersection, 20th Street has two eastbound and westbound lanes approaching the roundabout. One of the westbound lanes is a right-turn bypass lane. There are two circulating lanes within the roundabout.

Eighty-third Avenue is a north/south street classified as a major arterial street on the Greeley Master Street Plan. North and south of 20th Street, 83rd Avenue has a two-lane cross section (no center lane) with left-turn deceleration lanes at some intersections. The existing speed limit on 83rd Avenue is 40 mph in this area. At the 20th Street/83rd Avenue roundabout intersection, 83rd Avenue has two northbound and southbound lanes approaching the roundabout. At the 83rd Avenue/18th Street intersection, 83rd Avenue has northbound and southbound left-turn lanes and one through lane in each direction. The 83rd Avenue/18th Street intersection has stop sign control on 18th Street.

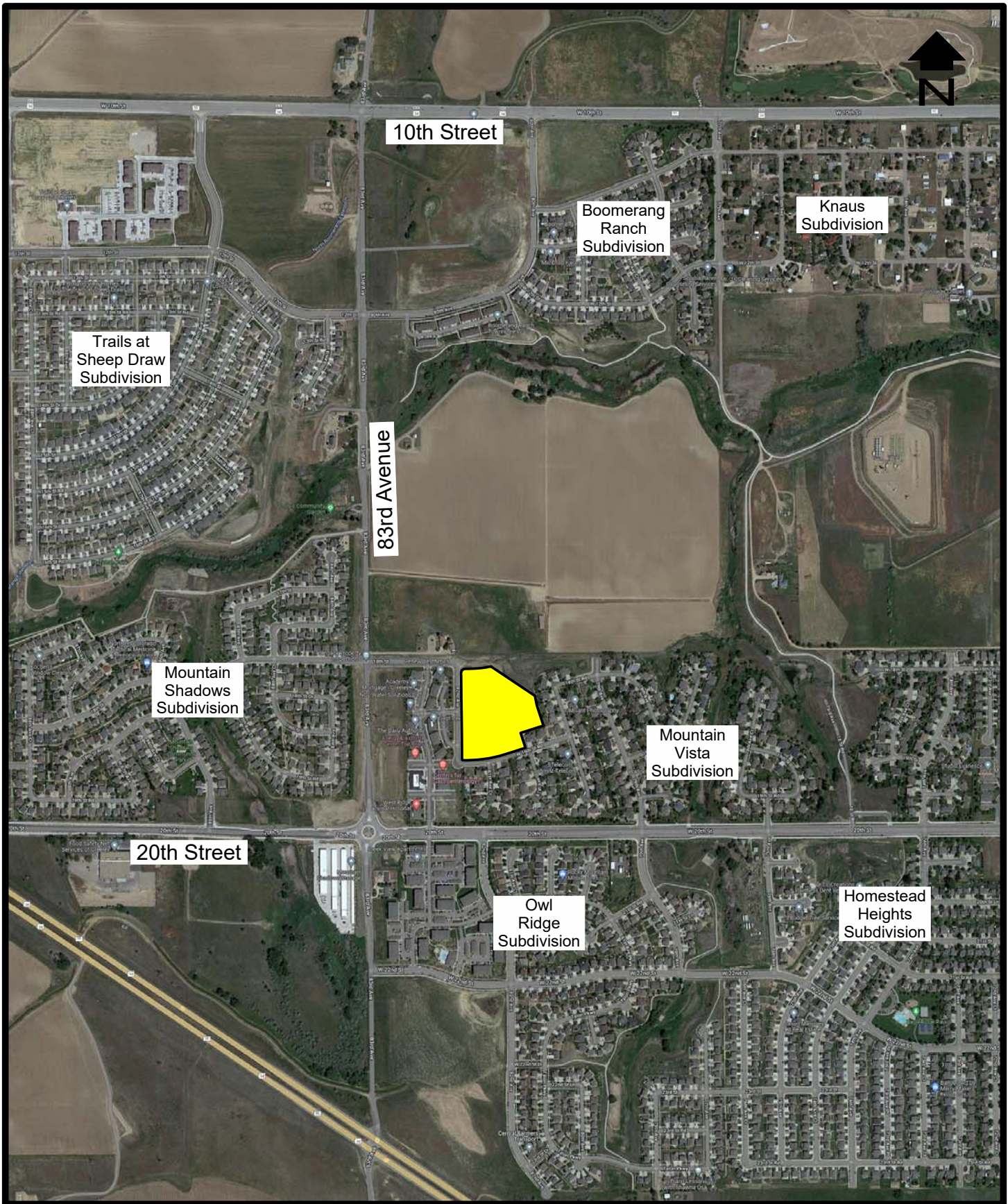
Eighteenth Street is an east/west street classified as a local street on the Greeley Master Street Plan. East of 83rd Avenue, 18th Street has a two-lane cross section. The existing speed limit on 18th Street is 25 mph. At the 83rd Avenue/18th Street intersection, 18th Street has eastbound and westbound left-turn lanes and combined eastbound and westbound through/right-turn lanes. Eighteenth Street currently terminates at 82nd Avenue.



SCALE: 1"=2000'

SITE LOCATION

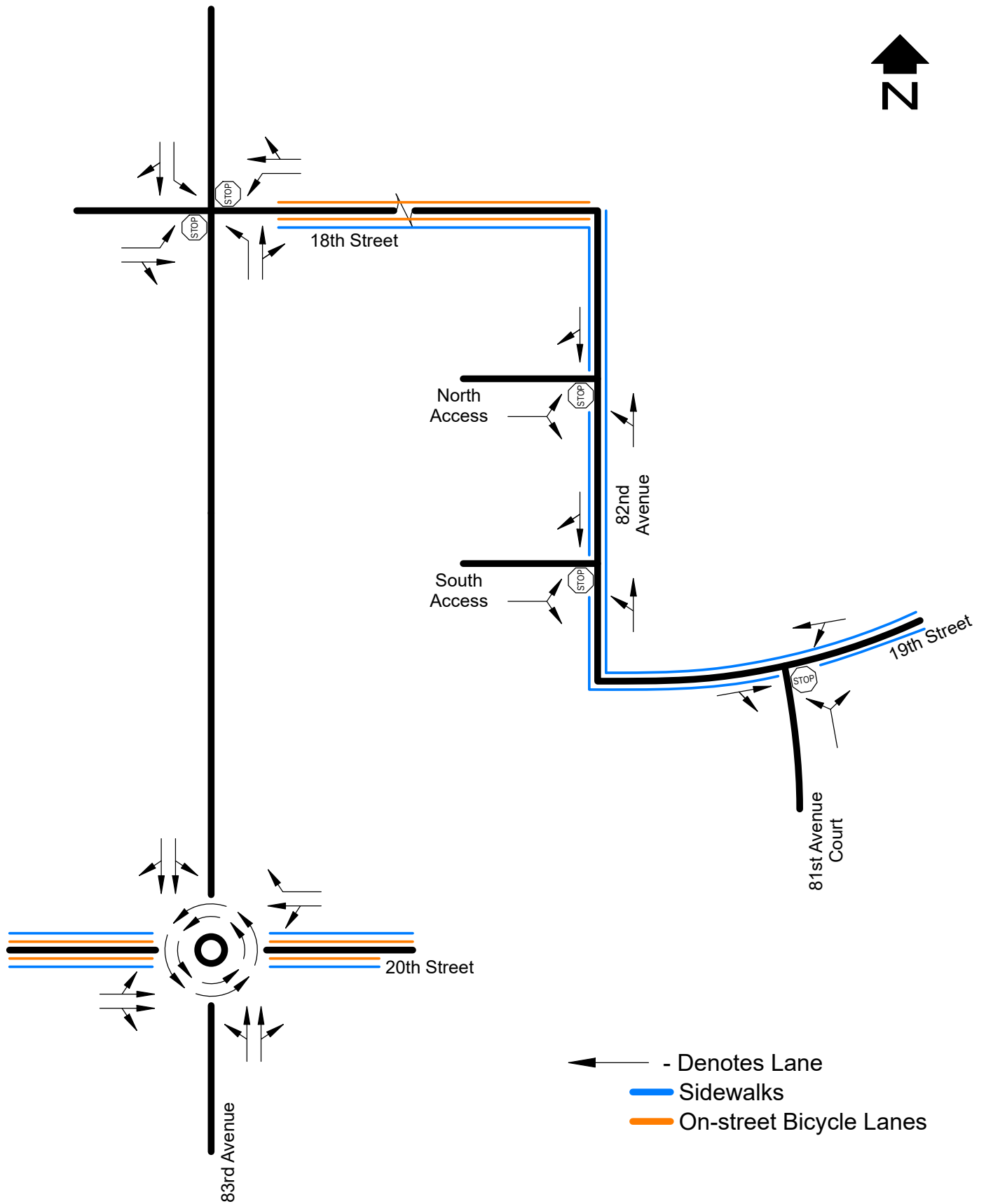
Figure 1



SCALE: 1"=1000'

LAND USES IN THE AREA

Figure 2



EXISTING INTERSECTION GEOMETRY

Figure 3

Existing Traffic

Recent morning and afternoon peak hour traffic volumes at the 20th Street/83rd Avenue, 83rd Avenue/18th Street, 82nd Avenue/North Access, 82nd Avenue/South Access, and 19th Street/81st Avenue Court intersections are shown in Figure 4. The counts at the key intersections were obtained in November and December 2022. Raw traffic count data is provided in Appendix B. Available daily traffic counts are also shown on Figure 4. Since the counts were performed on different days, the peak hour traffic volumes were averaged/balanced and are shown in Figure 5.

Existing Operation

The 20th Street/83rd Avenue, 83rd Avenue/18th Street, 82nd Avenue/North Access, 82nd Avenue/South Access, and 19th Street/81st Avenue Court intersections were evaluated using techniques provided in the Highway Capacity Manual, 6th Edition. Using the morning and afternoon peak hour traffic shown in Figure 5, the peak hour operation is shown in Table 1. Calculation forms are provided in Appendix C. A description of level of service for unsignalized intersections from the Highway Capacity Manual, 6th Edition and a table showing the Greeley Acceptable LOS Standards are also provided in Appendix C. Acceptable operation at major intersections within the city limits during the peak hours is defined as level of service C or better for the overall intersection, level of service D or better for any leg, and level of service E or better for any movement. At minor intersections, acceptable operation is level of service C or better for the overall intersection, level of service E or better for any leg, and level of service F or better for any movement. The key intersections are currently operating acceptably with existing control and geometry in the morning and afternoon peak hours.

Pedestrian Facilities

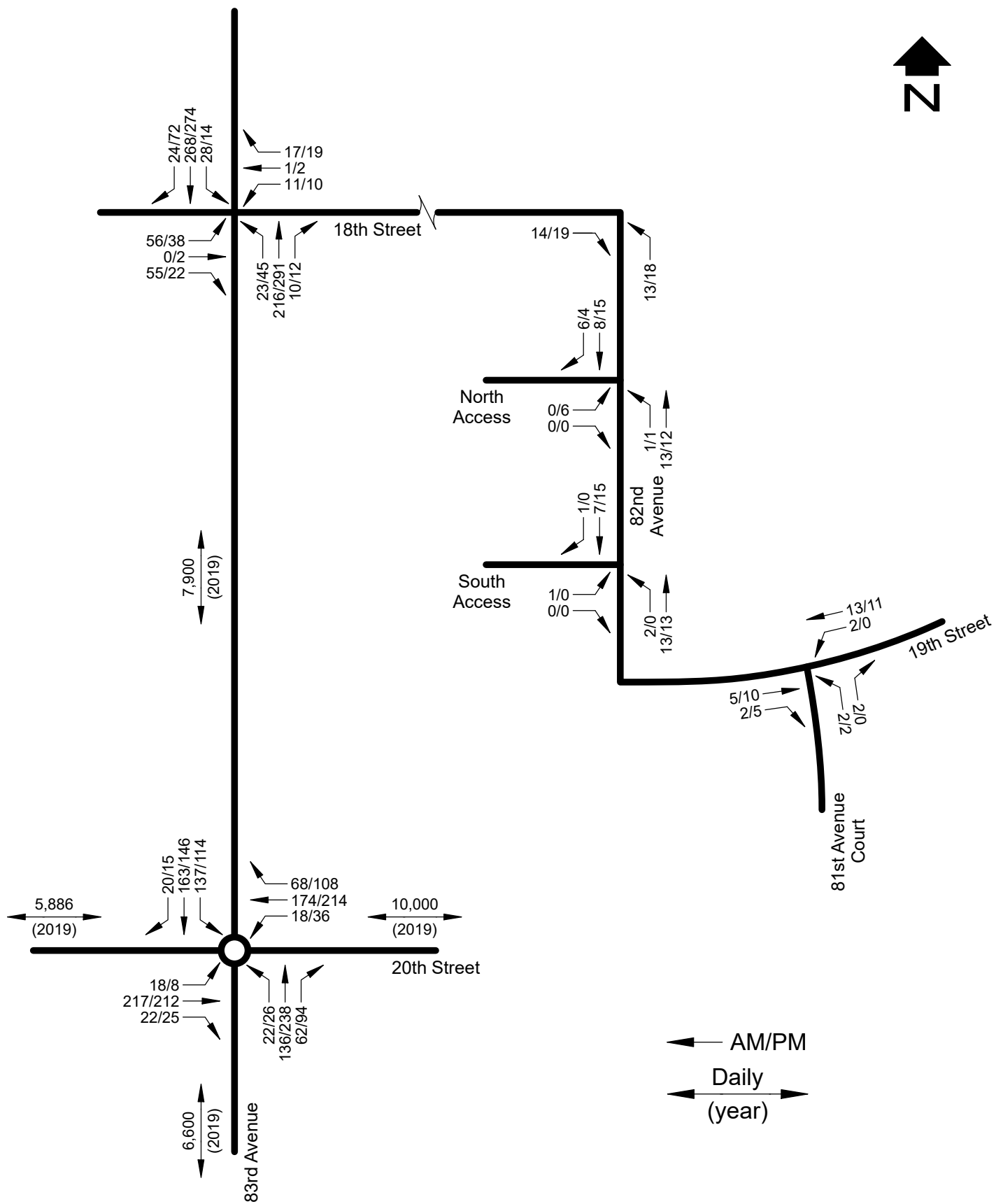
There are pedestrian facilities along both sides of 20th Street, 82nd Avenue, and 19th Street as shown on Figure 3. There are sidewalks along the south side of 18th Street. As future development occurs in the area, it is assumed that the future developments will build sidewalks to connect to adjacent streets in accordance with Greeley Standards.

Bicycle Facilities

There are bicycle lanes on 20th Street and on 18th Street, east of 83rd Avenue. There are no bicycle lanes along 83rd Avenue as shown on Figure 3.

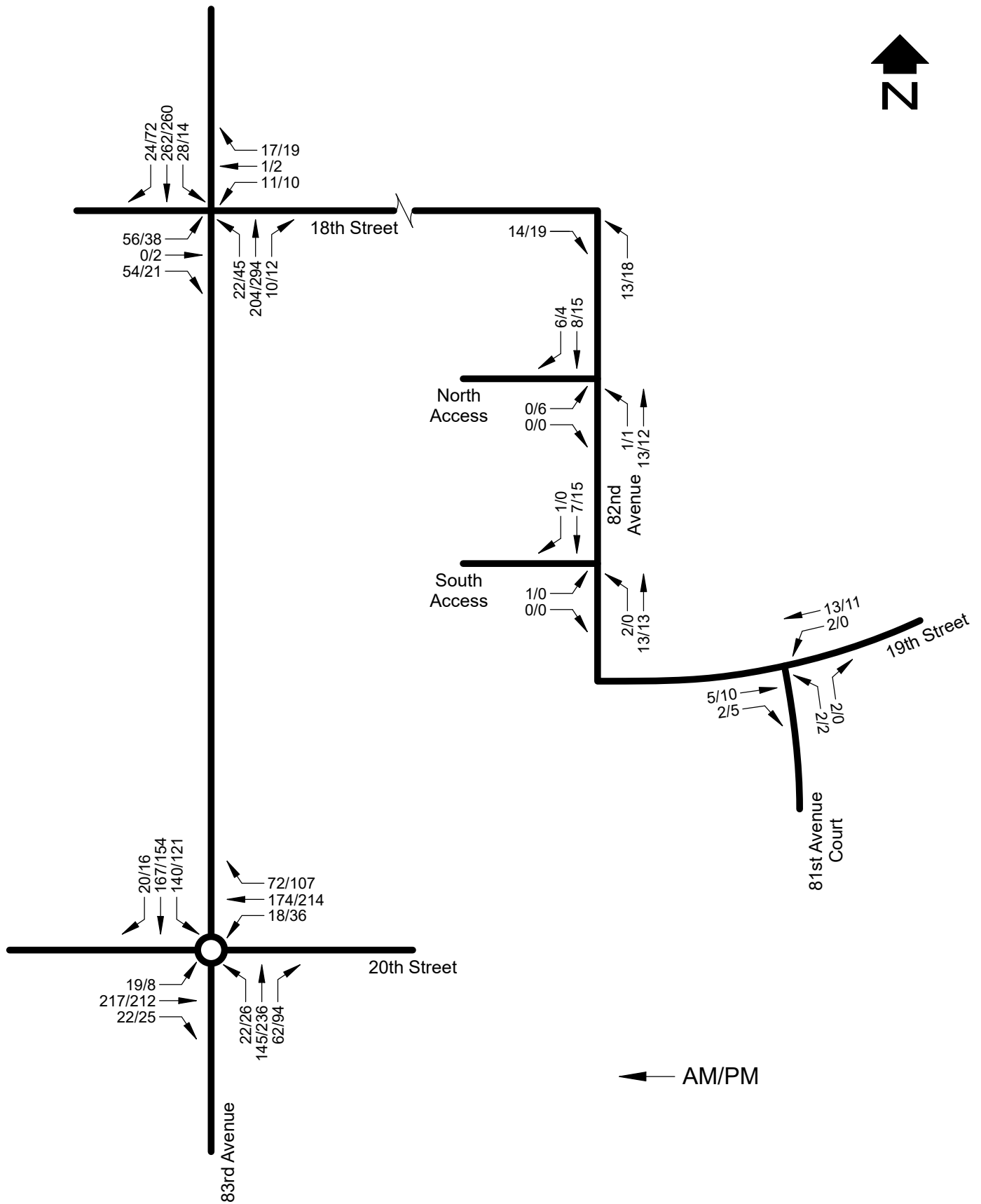
Transit Facilities

Currently, the nearest Greeley-Evans Transit (GET) route is Route 1, which runs along 20th Street and 71st Avenue.



RECENT DAILY AND PEAK HOUR TRAFFIC

Figure 4



AVERAGED/BALANCED RECENT PEAK HOUR TRAFFIC

Figure 5

TABLE 1 Current Peak Hour Operation			
Intersection	Movement	Level of Service	
		AM	PM
20 th Street/83 rd Avenue (roundabout) (major intersection)	EB LT/T	A	A
	EB T/RT	A	A
	EB APPROACH	A	A
	WB LT/T	A	A
	WB RT	A	A
	WB APPROACH	A	A
	NB LT/T	A	A
	NB T/RT	A	A
	NB APPROACH	A	A
	SB LT/T	A	A
	SB RT	A	A
	SB APPROACH	A	A
	OVERALL	A	A
83 rd Avenue/18 th Street (stop sign) (minor intersection)	EB LT	C	C
	EB T/RT	B	B
	EB APPROACH	B	C
	WB LT	C	C
	WB T/RT	A	B
	WB APPROACH	B	B
	NB LT	A	A
	SB LT	A	A
	OVERALL	A	A
82 nd Avenue/North Access (stop sign) (minor intersection)	EB LT/RT	A	A
	NB LT/T	A	A
	OVERALL	A	A
82 nd Avenue/South Access (stop sign) (minor intersection)	EB LT/RT	A	A
	NB LT/T	A	A
	OVERALL	A	A
19 th Street/81 st Avenue Court (stop sign) (minor intersection)	NB LT/RT	A	A
	WB LT/T	A	A
	OVERALL	A	A

III. PROPOSED DEVELOPMENT

The Mountain Vista Multi-Family site is proposed as a multi-family (apartments) residential development with 100 dwelling units. The Mountain Vista Multi-Family site is located east of 83rd Avenue and south of 18th Street in Greeley. Figure 6 shows a site plan of the Mountain Vista Multi-Family site. The short range (2030) future includes development of the Mountain Vista Multi-Family site and an appropriate increase in background traffic due to normal growth and other potential developments in the area. The site plan shows that the Mountain Vista Multi-Family site will have access to/from 82nd Avenue via a full-movement access that lines up with the north access for the office development on the west side of 82nd Avenue. Eighteenth Street will be extended to the east along the site frontage providing a second site access. The Mountain Vista Multi-Family site will have emergency only access to/from 19th Street via a full-movement access that lines up with the 81st Avenue Court. The analyzed intersections were agreed to in the scoping of this TIS.

Trip Generation

Trip generation is important in considering the impact of a development, such as this, upon the existing and proposed street system. A compilation of trip generation information contained in Trip Generation, 11th Edition, ITE was used to estimate trips that would be generated by the proposed/expected use at this site. A trip is defined as a one-way vehicle movement from origin to destination. Multifamily Housing (Low-Rise) (Code 220) was used as the land use. Table 2 shows the expected trip generation on a daily and peak hour basis. Full development of the Mountain Vista Multi-Family site will generate approximately 716 daily trip ends, 54 morning peak hour trip ends, and 64 afternoon peak hour trip ends.

TABLE 2 Trip Generation												
Code	Use	Size	AWDTE		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	In	Rate	Out	Rate	In	Rate	Out
220	Multifamily Housing (low rise)	100 DU	EQ	716	EQ	13	EQ	41	EQ	40	EQ	24

Trip Distribution

The assigned trip distribution for Mountain Vista Multi-Family site was estimated using the existing/future travel patterns, land uses in the area, consideration of trip attractions/productions in the area, and engineering judgment. Figure 7 shows the trip distribution for the short range (2030) future. The trip distribution was agreed to by City staff.

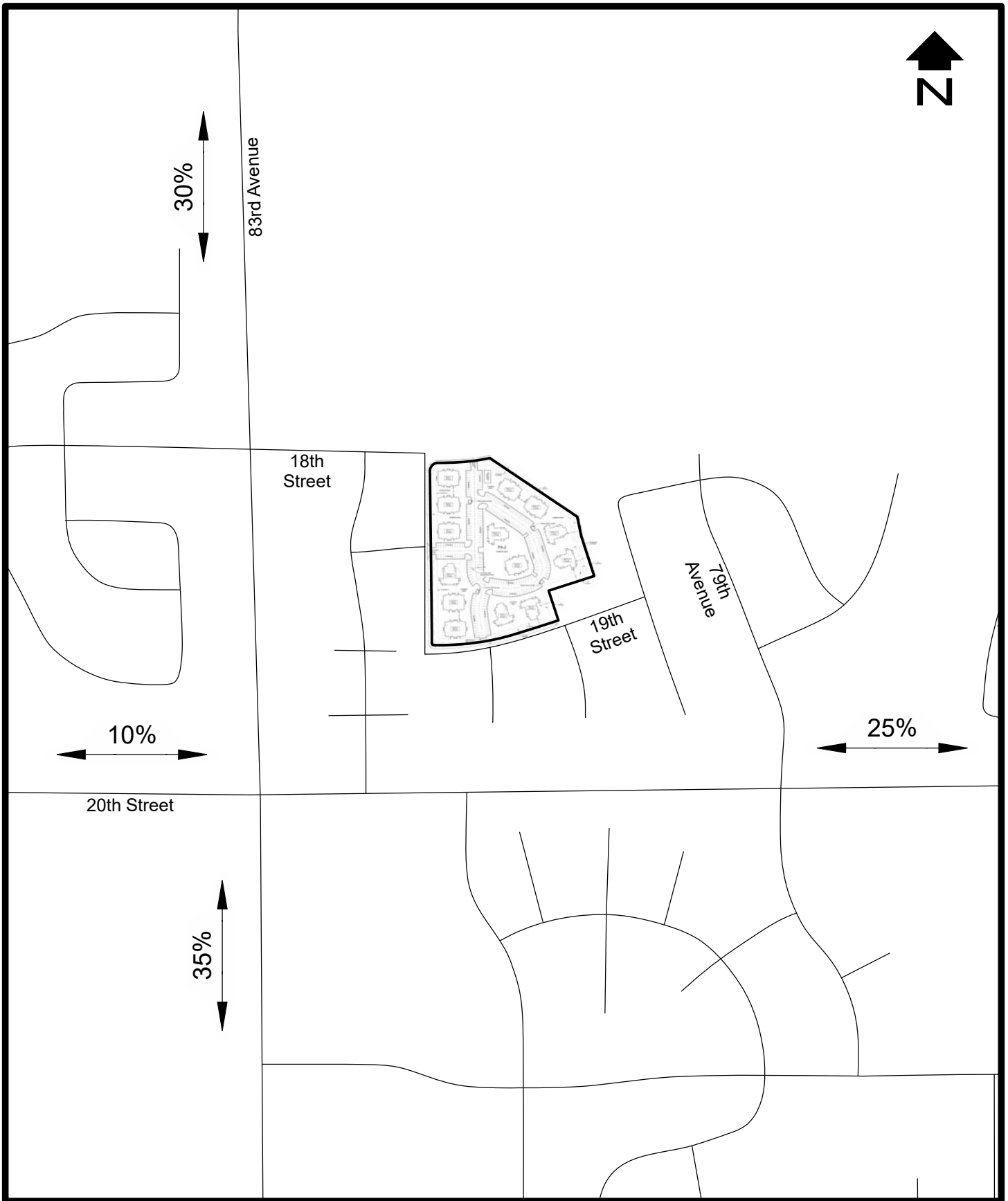


SCALE: 1"=100'



SITE PLAN

Figure 6



SCALE: 1"=500'

TRIP DISTRIBUTION

Figure 7

Background Traffic Projections

Figure 8 shows the short range (2030) background traffic projections. Background traffic projections for the short range (2030) future horizon was calculated by increasing the through traffic volumes by approximately two percent per year.

Trip Assignment/Total Traffic

Trip assignment is how the generated and distributed trips are expected to be loaded on the street system. The assigned trips are the resultant of the trip distribution process. A small amount of site traffic with destinations to/from the east on 20th Street may use the residential neighborhood streets to access the 20th Street/79th Avenue intersection. However, since both site accesses are on the northern portions of the site, and due to the circuitous nature of the route and that the streets are classified as local streets, the majority of drivers will take a more direct route using 18th Street to 83rd Avenue to 20th Street. Figure 9 shows the site generated morning and afternoon peak hour traffic at the key intersections. Figure 10 shows the short range (2030) total (site plus background) traffic projections at the key intersections.

Signal Warrants

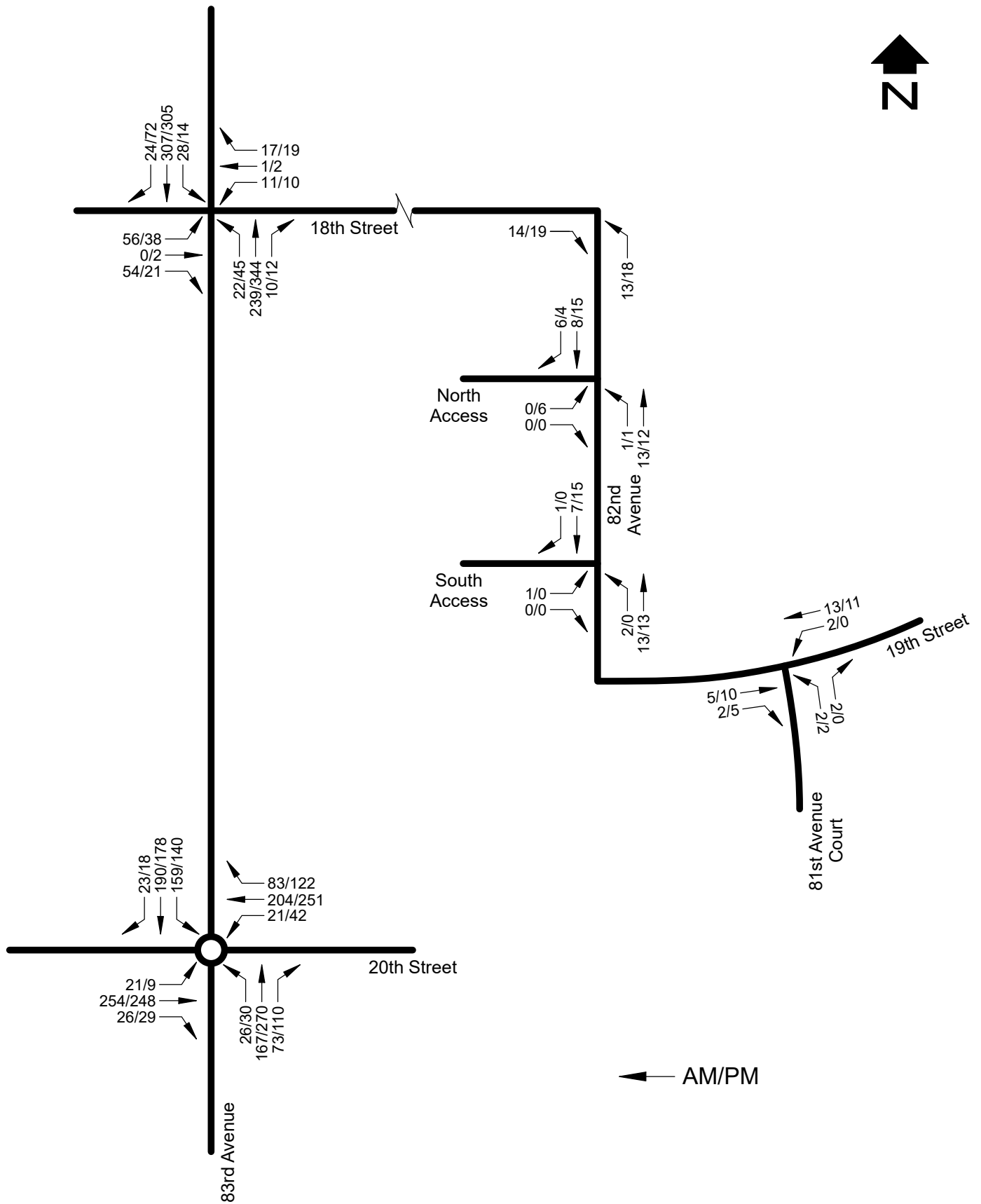
As a matter of policy, traffic signals are not installed at any location unless warrants are met according to the Manual on Uniform Traffic Control Devices. The 20th Street/83rd Avenue intersection is has roundabout control. The 83rd Avenue/18th Street stop sign controlled intersection does not meet the signal spacing requirements nor will the minor street volume criteria to warrant signalization. Therefore, that intersection will not be signalized.

Geometry

Figure 11 shows a schematic of the short range (2030) intersection geometry. The geometry at the 20th Street/83rd Avenue and 83rd Avenue/18th Street intersections will be the same as it exists today in the short range (2030) future. There is/will be on-street parking on 82nd Avenue. It is recommended that parking not be allowed within 50 feet of the site access driveways.

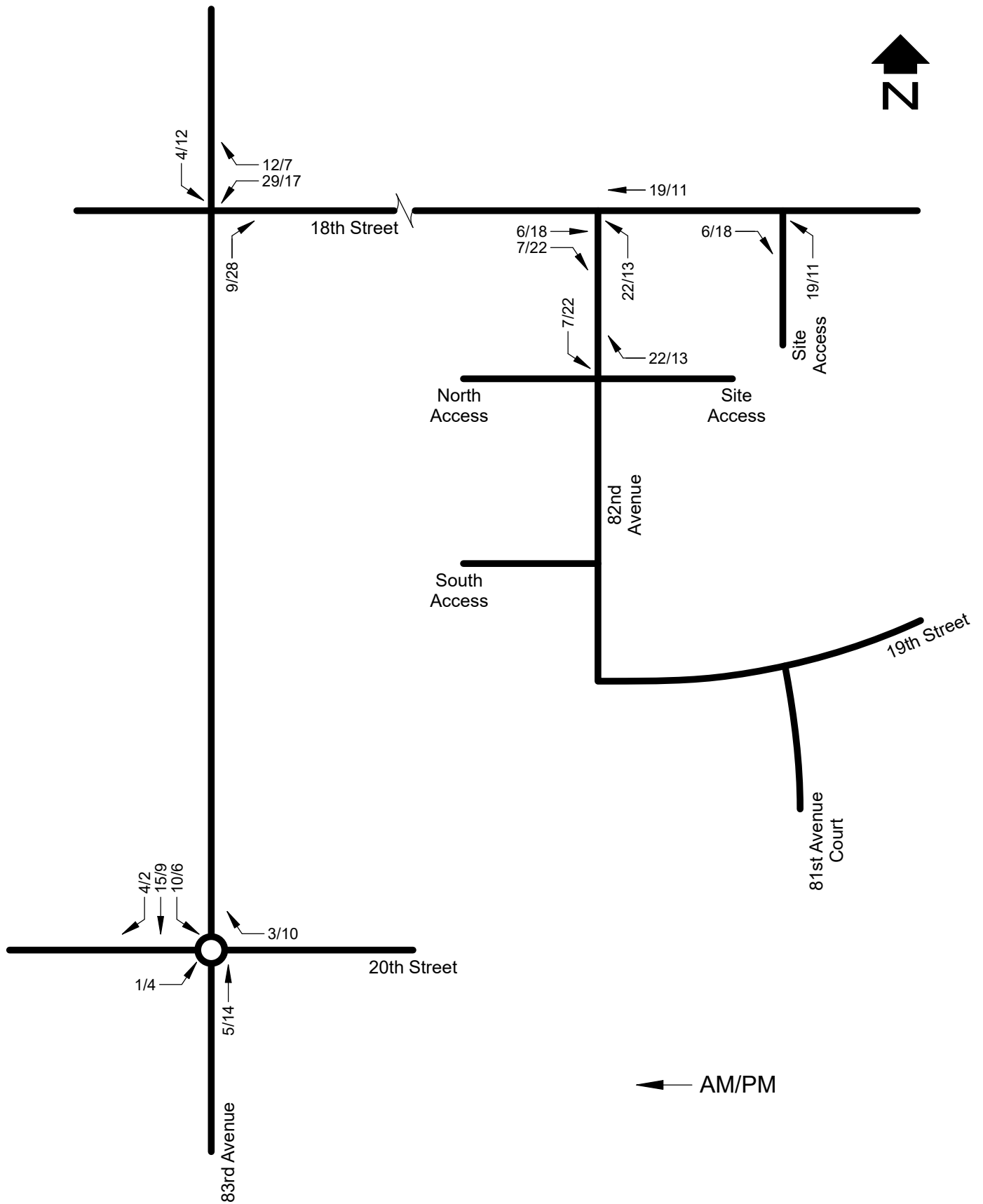
Operation Analysis

Operation analyses were performed at the 20th Street/83rd Avenue, 83rd Avenue/18th Street, 18th Street/82nd Avenue, 82nd Avenue/North Access-Site Access, 82nd Avenue/South Access, and 19th Street/81st Avenue Court intersections. The operations analyses were conducted for the short range future, reflecting a year 2030 condition.



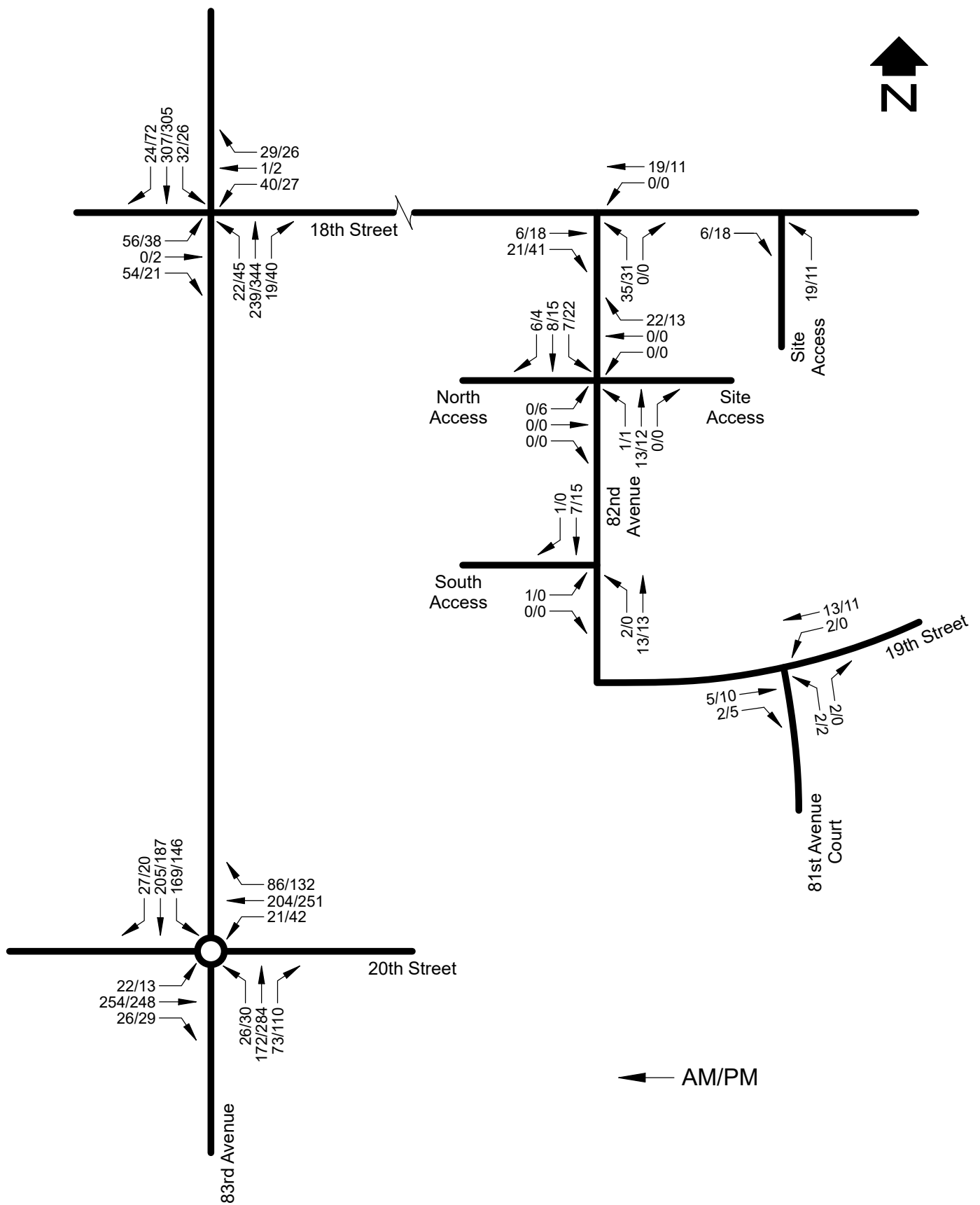
SHORT RANGE (2030) BACKGROUND PEAK HOUR TRAFFIC

Figure 8



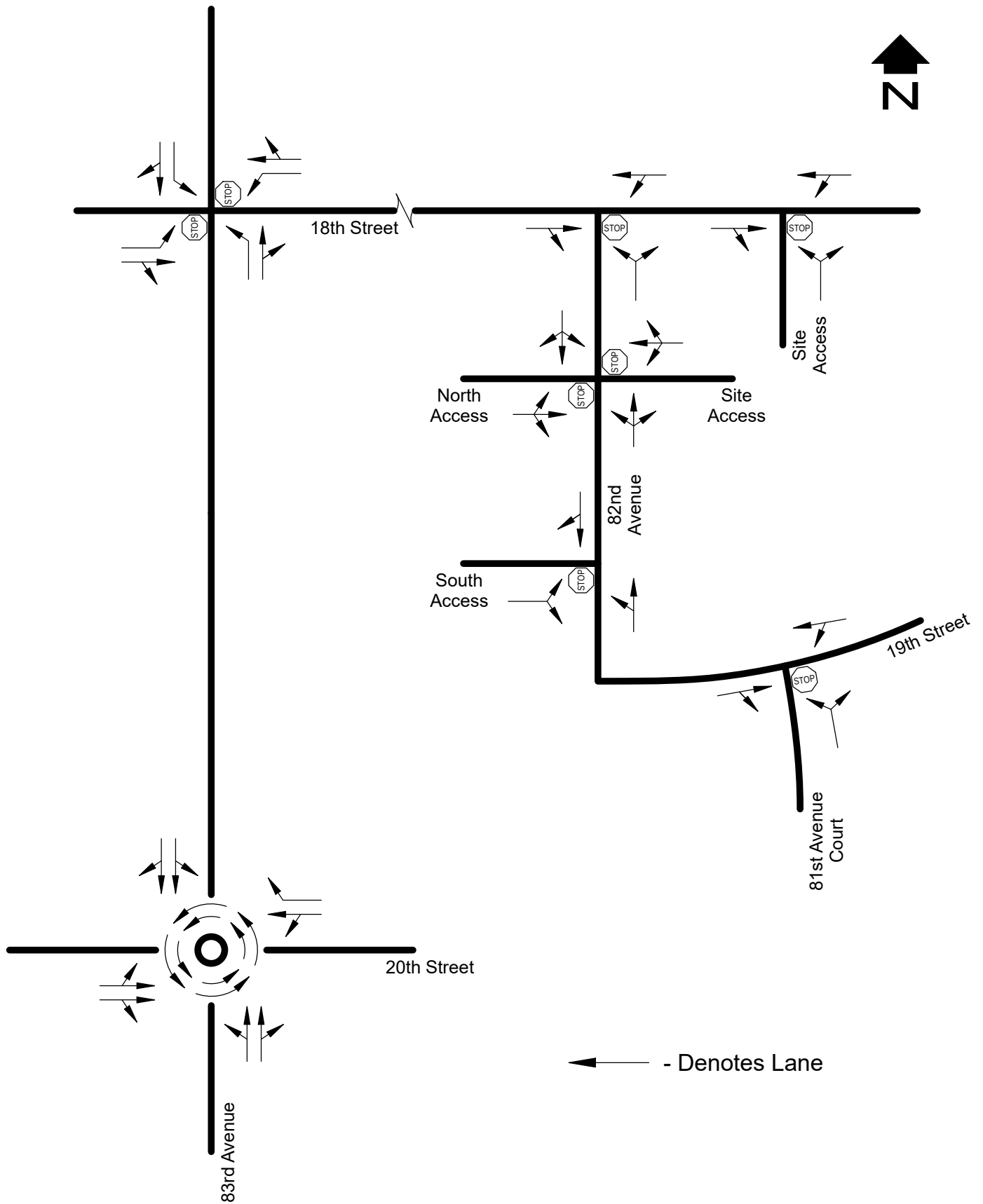
SITE GENERATED PEAK HOUR TRAFFIC

Figure 9



SHORT RANGE (2030) TOTAL PEAK HOUR TRAFFIC

Figure 10



SHORT RANGE (2030) GEOMETRY

Figure 11

Using the short range (2030) background peak hour traffic volumes (Figure 8), the 20th Street/83rd Avenue, 83rd Avenue/18th Street, 82nd Avenue/North Access, 82nd Avenue/South Access, and 19th Street/81st Avenue Court intersections operate as indicated in Table 3. Calculation forms for these analyses are provided in Appendix D. The key intersections meet the Greeley level of service standards in the peak hours.

Using the short range (2030) total peak hour traffic volumes (Figure 10), the 20th Street/83rd Avenue, 83rd Avenue/18th Street, 18th Street/82nd Avenue, 82nd Avenue/North Access-Site Access, 82nd Avenue/South Access, and 19th Street/81st Avenue Court intersections operate as indicated in Table 4. Calculation forms for these analyses are provided in Appendix E. The key intersections meet the Greeley level of service standards in the peak hours.

Pedestrian/Bicycle Facilities

There will be pedestrian facilities (sidewalks/paths) within the Mountain Vista Multi-Family site. These facilities will provide safe pedestrian areas within Mountain Vista Multi-Family site and will connect to the existing sidewalk system. Currently, there are pedestrian facilities along both sides of 20th Street, 82nd Avenue, and 19th Street as shown on Figure 3. There are sidewalks along the south side of 18th Street. Appendix F shows a map of the area that is within 1320 feet of the Mountain Vista Multi-Family site. Appendix F also contains the Greeley Pedestrian Analysis Form.

There are bicycle lanes on 20th Street and on 18th Street, east of 83rd Avenue. There are no bicycle lanes along 83rd Avenue. Bicyclists share the road with vehicles or use the existing sidewalks for travel.

TABLE 3 Short Range (2030) Background Peak Hour Operation			
Intersection	Movement	Level of Service	
		AM	PM
20 th Street/83 rd Avenue (roundabout) (major intersection)	EB LT/T	A	A
	EB T/RT	A	A
	EB APPROACH	A	A
	WB LT/T	A	A
	WB RT	A	A
	WB APPROACH	A	A
	NB LT/T	A	A
	NB T/RT	A	A
	NB APPROACH	A	A
	SB LT/T	A	A
	SB RT	A	A
	SB APPROACH	A	A
	OVERALL	A	A
83 rd Avenue/18 th Street (stop sign) (minor intersection)	EB LT	C	C
	EB T/RT	B	B
	EB APPROACH	B	C
	WB LT	C	C
	WB T/RT	B	B
	WB APPROACH	B	C
	NB LT	A	A
	SB LT	A	A
	OVERALL	A	A
82 nd Avenue/North Access (stop sign) (minor intersection)	EB LT/RT	A	A
	NB LT/T	A	A
	OVERALL	A	A
82 nd Avenue/South Access (stop sign) (minor intersection)	EB LT/RT	A	A
	NB LT/T	A	A
	OVERALL	A	A
19 th Street/81 st Avenue Court (stop sign) (minor intersection)	NB LT/RT	A	A
	WB LT/T	A	A
	OVERALL	A	A

TABLE 4 Short Range (2030) Total Peak Hour Operation			
Intersection	Movement	Level of Service	
		AM	PM
20 th Street/83 rd Avenue (roundabout) (major intersection)	EB LT/T	A	A
	EB T/RT	A	A
	EB APPROACH	A	A
	WB LT/T	A	A
	WB RT	A	A
	WB APPROACH	A	A
	NB LT/T	A	A
	NB T/RT	A	A
	NB APPROACH	A	A
	SB LT/T	A	A
	SB RT	A	A
	SB APPROACH	A	A
	OVERALL	A	A
83 rd Avenue/18 th Street (stop sign) (minor intersection)	EB LT	C	D
	EB T/RT	B	B
	EB APPROACH	C	C
	WB LT	C	D
	WB T/RT	B	B
	WB APPROACH	C	C
	NB LT	A	A
	SB LT	A	A
	OVERALL	A	A
18 th Street/82 nd Avenue (stop sign) (minor intersection)	NB LT/RT	A	A
	WB LT/T	A	A
	OVERALL	A	A
82 nd Avenue/North Access-Site Access (stop sign) (minor intersection)	EB LT/T/RT	A	A
	WB LT/T/RT	A	A
	NB LT/T/RT	A	A
	SB LT/T/RT	A	A
	OVERALL	A	A
82 nd Avenue/South Access (stop sign) (minor intersection)	EB LT/RT	A	A
	NB LT/T	A	A
	OVERALL	A	A
19 th Street/81 st Avenue Court (stop sign) (minor intersection)	NB LT/RT	A	A
	WB LT/T	A	A
	OVERALL	A	A

IV. CONCLUSIONS

This study assessed the impacts of the Mountain Vista Multi-Family development on the street system in the vicinity of the proposed development in the short range (2030) future. As a result of this analysis, the following is concluded:

- The Mountain Vista Multi-Family development is feasible from a traffic engineering standpoint. Full development of the Mountain Vista Multi-Family site will generate approximately 716 daily trip ends, 54 morning peak hour trip ends, and 64 afternoon peak hour trip ends.
- Currently, the 20th Street/83rd Avenue, 83rd Avenue/18th Street, 82nd Avenue/North Access, 82nd Avenue/South Access, and 19th Street/81st Avenue Court intersections operate acceptably with existing control and geometry.
- None of the stop sign controlled intersections will meet peak hour signal warrants or signal spacing criteria.
- In the short range (2030) future, given development of the Mountain Vista Multi-Family site and an increase in background traffic, the 20th Street/83rd Avenue, 83rd Avenue/18th Street, 18th Street/82nd Avenue, 82nd Avenue/North Access-Site Access, 82nd Avenue/South Access, and 19th Street/81st Avenue Court intersections will meet the Greeley level of service standards with the existing geometry and control at the 20th Street/83rd Avenue and 83rd Avenue/18th Street intersections.
- The short range (2030) geometry is shown in Figure 11. The geometry at the 20th Street/83rd Avenue and 83rd Avenue/18th Street intersections will be the same as it exists today in the short range (2030) future. It is recommended that parking not be allowed within 50 feet of the site access driveways.

APPENDIX A

Base Assumptions Form

** ASSUME BUILT BY 2025. PLUS 5 YEARS

Traffic Engineer: DELICH ASSOCIATES

Local Entity Staff: _____

2271 BAF

SUMMARY	
6-plex = 6 BUILDINGS	} 100 D.U.
8-plex = 8 BUILDINGS	
100 DU X 2.0 SPACES =	200 SPACES
4-GUEST 1 SPACE/10 SPACES =	20 SPACES
TOTAL PARKING SPACES REQUIRED = 220 SPACES	
TOTAL PARKING SPACES PROVIDED = 253 SPACES	



MOUNTAIN VISTA MULTIFAMILY
GREELEY, CO
CONCEPT PLAN
FIGURE

TRIP GENERATION (T.G., 11th EDITION)

DWELLING UNITS - MULTIFAMILY HOUSING
(Low-Rise) CODE 220

DAILY $T = 6.41x + 75.31 = 716$ TE
 $R^2 = 0.86$

AM $T = 0.31x + 22.85 = 54$ TE
 $R^2 = 0.79$

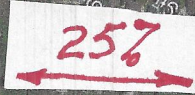
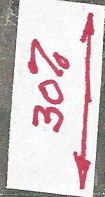
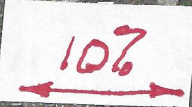
IN (24%) - 13
OUT (76%) - 41

PM $T = 0.43x + 20.55 = 64$ TE
 $R^2 = 0.84$

IN (63%) - 40
OUT (37%) - 24

Mountain Vista MF

Legend



SITE

TRIP DISTRIBUTION

APPENDIX B

DELICH ASSOCIATES
2272 GLEN HAVEN DRIVE
LOVELAND, CO 80538
Phone: (970) 669-2061

TABULAR SUMMARY OF VEHICLE COUNTS

Date: 11/30/2022

Observer: Vickie

Day: Wednesday

Jurisdiction: Greeley

Intersection: 20th Street/83rd Avenue

R = right turn
S = straight
L = left turn

Time Begins	Northbound: 83rd Avenue				Southbound: 83rd Avenue				Total north/south	Eastbound: 20th Street				Westbound: 20th Street				Total east/west	Total All
	L	S	R	Total	L	S	R	Total		L	S	R	Total	L	S	R	Total		
7:00	4	33	8	45	23	34	5	62	107	0	32	7	39	9	44	10	63	102	209
7:15	3	22	8	33	33	55	8	96	129	7	50	7	64	1	46	24	71	135	264
7:30	7	43	24	74	35	46	3	84	158	3	42	7	52	10	41	13	64	116	274
7:45	9	42	21	72	44	33	4	81	153	4	74	5	83	4	41	17	62	145	298
8:00	3	29	9	41	25	29	5	59	100	4	51	3	58	3	46	14	63	121	221
8:15	1	28	10	39	15	28	4	47	86	0	39	4	43	10	30	21	61	104	190
8:30	5	28	6	39	20	21	1	42	81	2	35	1	38	6	28	9	43	81	162
8:45	2	14	14	30	14	31	2	47	77	4	36	5	45	4	30	11	45	90	167

7:15-8:15	22	136	62	220	137	163	20	320	540	18	217	22	257	18	174	68	260	517	1057
PHF	0.61	0.79	0.65	0.74	0.78	0.74	0.63	0.83	0.85	0.64	0.73	0.79	0.77	0.45	0.95	0.71	0.92	0.89	0.89

4:00	2	52	12	66	11	26	6	43	109	4	52	6	62	16	79	35	130	192	301
4:15	5	45	18	68	22	38	3	63	131	1	55	2	58	19	57	27	103	161	292
4:30	9	47	16	72	23	43	1	67	139	1	45	3	49	18	38	21	77	126	265
4:45	9	58	25	92	23	44	6	73	165	1	49	5	55	7	37	19	63	118	283
5:00	5	42	18	65	17	41	3	61	126	4	50	9	63	11	54	31	96	159	285
5:15	6	74	29	109	33	36	4	73	182	2	54	7	63	11	77	32	120	183	365
5:30	6	64	22	92	41	25	2	68	160	1	59	4	64	7	46	26	79	143	303
5:45	5	42	21	68	19	26	1	46	114	2	44	2	48	4	33	35	72	120	234

4:45-5:45	26	238	94	358	114	146	15	275	633	8	212	25	245	36	214	108	358	603	1236
PHF	0.72	0.8	0.81	0.82	0.7	0.83	0.63	0.94	0.87	0.5	0.9	0.69	0.96	0.82	0.69	0.84	0.75	0.82	0.85

DELICH ASSOCIATES
2272 GLEN HAVEN DRIVE
LOVELAND, CO 80538
Phone: (970) 669-2061

TABULAR SUMMARY OF VEHICLE COUNTS

Date: 12/1/2022

Observer: Vickie

Day: Thursday

Jurisdiction: Greeley

Intersection: 83rd Avenue/18th Street

R = right turn
S = straight
L = left turn

Time Begins	Northbound: 83rd Avenue				Southbound: 83rd Avenue				Total north/south	Eastbound: 18th Street				Westbound: 18th Street				Total east/west	Total All
	L	S	R	Total	L	S	R	Total		L	S	R	Total	L	S	R	Total		
7:00	3	38	1	42	2	61	2	65	107	5	0	9	14	1	0	3	4	18	125
7:15	2	49	1	52	5	68	3	76	128	11	0	20	31	2	0	4	6	37	165
7:30	5	50	2	57	2	83	4	89	146	14	0	18	32	2	0	3	5	37	183
7:45	8	61	5	74	13	72	4	89	163	11	0	10	21	4	0	4	8	29	192
8:00	8	56	2	66	8	45	13	66	132	20	0	7	27	3	1	6	10	37	169
8:15	5	35	3	43	5	46	9	60	103	11	0	2	13	2	0	3	5	18	121
8:30	4	34	1	39	5	48	8	61	100	9	0	5	14	1	0	2	3	17	117
8:45	5	34	3	42	9	41	7	57	99	2	0	5	7	0	0	4	4	11	110

7:15-8:15	23	216	10	249	28	268	24	320	569	56	0	55	111	11	1	17	29	140	709
PHF	0.72	0.89	0.5	0.84	0.54	0.81	0.46	0.9	0.87	0.7	n/a	0.69	0.87	0.69	0.25	0.71	0.73	0.95	0.92

4:00	14	73	8	95	7	65	23	95	190	6	0	6	12	3	0	5	8	20	210
4:15	12	71	3	86	5	69	18	92	178	11	0	5	16	1	1	3	5	21	199
4:30	8	78	0	86	4	68	16	88	174	7	2	5	14	1	1	5	7	21	195
4:45	10	60	6	76	3	62	9	74	150	10	0	8	18	5	0	7	12	30	180
5:00	15	82	3	100	2	75	29	106	206	10	0	4	14	3	0	4	7	21	227
5:15	11	64	1	76	5	54	15	74	150	13	0	4	17	0	0	4	4	21	171
5:30	10	56	1	67	1	57	10	68	135	9	0	8	17	2	1	10	13	30	165
5:45	4	57	1	62	5	43	8	56	118	6	0	1	7	6	0	4	10	17	135

4:15-5:15	45	291	12	348	14	274	72	360	708	38	2	22	62	10	2	19	31	93	801
PHF	0.75	0.89	0.5	0.87	0.7	0.91	0.62	0.85	0.86	0.86	0.25	0.69	0.86	0.5	0.5	0.68	0.65	0.78	0.88

DELICH ASSOCIATES
2272 GLEN HAVEN DRIVE
LOVELAND, CO 80538
Phone: (970) 669-2061

TABULAR SUMMARY OF VEHICLE COUNTS

Date: 11/29/2022

Observer: Vickie

Day: Tuesday

Jurisdiction: Greeley

Intersection: 82nd Avenue/North Access

R = right turn
S = straight
L = left turn

Time Begins	Northbound: 82nd Avenue				Southbound: 82nd Avenue				Total north/south	Eastbound: North Access				Westbound:				Total east/west	Total All
	L	S	R	Total	L	S	R	Total		L	S	R	Total	L	S	R	Total		
7:00	0	4		4		0	1	1	5	0		0	0				0	0	5
7:15	0	4		4		0	3	3	7	0		0	0				0	0	7
7:30	0	2		2		1	1	2	4	0		0	0				0	0	4
7:45	0	3		3		2	2	4	7	0		0	0				0	0	7
8:00	1	4		5		2	0	2	7	0		0	0				0	0	7
8:15	0	4		4		3	3	6	10	0		0	0				0	0	10
8:30	0	1		1		2	1	3	4	2		0	2				0	2	6
8:45	0	2		2		2	1	3	5	2		0	2				0	2	7

7:30-8:30	1	13	0	14	0	8	6	14	28	0	0	0	0	0	0	0	0	0	28
PHF	0.25	0.81	n/a	0.7	n/a	0.67	0.5	0.58	0.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.7

4:00	0	2		2		1	1	2	4	0		0	0				0	0	4
4:15	0	3		3		3	3	6	9	3		0	3				0	3	12
4:30	1	2		3		7	0	7	10	3		0	3				0	3	13
4:45	0	5		5		4	0	4	9	0		0	0				0	0	9
5:00	0	0		0		0	0	0	0	2		2	4				0	4	4
5:15	0	0		0		6	3	9	9	0		0	0				0	0	9
5:30	0	3		3		3	2	5	8	1		0	1				0	1	9
5:45	0	3		3		1	0	1	4	2		0	2				0	2	6

4:00-5:00	1	12	0	13	0	15	4	19	32	6	0	0	6	0	0	0	0	6	38
PHF	0.25	0.6	n/a	0.65	n/a	0.54	0.33	0.68	0.8	0.5	n/a	n/a	0.5	n/a	n/a	n/a	n/a	0.5	0.73

DELICH ASSOCIATES
2272 GLEN HAVEN DRIVE
LOVELAND, CO 80538
Phone: (970) 669-2061

TABULAR SUMMARY OF VEHICLE COUNTS

Date: 11/29/2022

Observer: Vickie

Day: Tuesday

Jurisdiction: Greeley

Intersection: 82nd Avenue/South Access

R = right turn
S = straight
L = left turn

Time Begins	Northbound: 82nd Avenue				Southbound: 82nd Avenue				Total north/south	Eastbound: South Access				Westbound:				Total east/west	Total All
	L	S	R	Total	L	S	R	Total		L	S	R	Total	L	S	R	Total		
7:00	0	4		4		0	0	0	4	0		0	0				0	0	4
7:15	0	4		4		0	0	0	4	0		0	0				0	0	4
7:30	0	2		2		1	0	1	3	0		0	0				0	0	3
7:45	1	3		4		2	0	2	6	0		0	0				0	0	6
8:00	0	4		4		1	1	2	6	1		0	1				0	1	7
8:15	1	4		5		3	0	3	8	0		0	0				0	0	8
8:30	0	1		1		1	1	2	3	0		0	0				0	0	3
8:45	0	2		2		2	0	2	4	0		0	0				0	0	4

7:30-8:30	2	13	0	15	0	7	1	8	23	1	0	0	1	0	0	0	0	1	24
PHF	0.5	0.81	n/a	0.75	n/a	0.58	0.25	0.67	0.72	0.25	n/a	n/a	0.25	n/a	n/a	n/a	n/a	0.25	0.75

4:00	0	2		2		1	0	1	3	0		0	0				0	0	3
4:15	0	3		3		3	0	3	6	0		0	0				0	0	6
4:30	0	3		3		7	0	7	10	0		0	0				0	0	10
4:45	0	5		5		4	0	4	9	0		0	0				0	0	9
5:00	0	0		0		2	0	2	2	0		0	0				0	0	2
5:15	0	0		0		6	0	6	6	0		0	0				0	0	6
5:30	0	2		2		3	0	3	5	1		0	1				0	1	6
5:45	0	3		3		1	0	1	4	0		0	0				0	0	4

4:00-5:00	0	13	0	13	0	15	0	15	28	0	0	0	0	0	0	0	0	0	28
PHF	n/a	0.65	n/a	0.65	n/a	0.54	n/a	0.54	0.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.7

DELICH ASSOCIATES
2272 GLEN HAVEN DRIVE
LOVELAND, CO 80538
Phone: (970) 669-2061

TABULAR SUMMARY OF VEHICLE COUNTS

Date: 11/29/2022

Observer: Vickie

Day: Tuesday

Jurisdiction: Greeley

Intersection: 81st Avenue Court/19th Street

R = right turn
S = straight
L = left turn

Time Begins	Northbound: 81st Avenue Ct.				Southbound:				Total north/south	Eastbound: 19th Street				Westbound: 19th Street				Total east/west	Total All
	L	S	R	Total	L	S	R	Total		L	S	R	Total	L	S	R	Total		
7:00	1		0	1				0	1		0	0	0	0	3		3	3	4
7:15	0		0	0				0	0		0	0	0	0	4		4	4	4
7:30	0		1	1				0	1		1	0	1	1	2		3	4	5
7:45	0		1	1				0	1		1	1	2	0	4		4	6	7
8:00	1		0	1				0	1		0	1	1	0	3		3	4	5
8:15	1		0	1				0	1		3	0	3	1	4		5	8	9
8:30	0		0	0				0	0		1	0	1	0	1		1	2	2
8:45	0		0	0				0	0		2	0	2	0	2		2	4	4

7:30-8:30	2	0	2	4	0	0	0	0	4	0	5	2	7	2	13	0	15	22	26
PHF	0.5	n/a	0.5	1	n/a	n/a	n/a	n/a	1	n/a	0.42	0.5	0.58	0.5	0.81	n/a	0.75	0.69	0.72

4:00	1		0	1				0	1		0	1	1	0	1		1	2	3
4:15	1		0	1				0	1		2	1	3	0	2		2	5	6
4:30	0		0	0				0	0		5	2	7	0	3		3	10	10
4:45	0		0	0				0	0		3	1	4	0	5		5	9	9
5:00	0		1	1				0	1		2	0	2	0	0		0	2	3
5:15	0		0	0				0	0		6	0	6	1	0		1	7	7
5:30	0		1	1				0	1		0	3	3	1	2		3	6	7
5:45	0		0	0				0	0		0	1	1	0	3		3	4	4

4:00-5:00	2	0	0	2	0	0	0	0	2	0	10	5	15	0	11	0	11	26	28
PHF	0.5	n/a	n/a	0.5	n/a	n/a	n/a	n/a	0.5	n/a	0.5	0.63	0.54	n/a	0.55	n/a	0.55	0.65	0.7

APPENDIX C

HCM 6th Roundabout
3: 20th Street & 83rd Avenue

Recent AM

Intersection

Intersection Delay, s/veh

4.7

Intersection LOS

A

Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	290		297		258		367	
Demand Flow Rate, veh/h	296		303		263		374	
Vehicles Circulating, veh/h	372		212		430		245	
Vehicles Exiting, veh/h	247		480		237		187	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	5.1		3.4		5.7		4.8	
Approach LOS	A		A		A		A	
Lane	Left	Right	Left	Bypass	Left	Right	Left	Right
Designated Moves	LT	TR	LT	R	LT	R	LT	TR
Assumed Moves	LT	TR	LT	R	LT	R	LT	TR
RT Channelized				Free				
Lane Util	0.470	0.530	1.000		0.730	0.270	0.471	0.529
Follow-Up Headway, s	2.667	2.535	2.535		2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.328	83	4.645	4.328	4.645	4.328
Entry Flow, veh/h	139	157	220	1938	192	71	176	198
Cap Entry Lane, veh/h	959	1035	1186	0.980	909	985	1077	1153
Entry HV Adj Factor	0.981	0.979	0.982	81	0.978	0.986	0.981	0.983
Flow Entry, veh/h	136	154	216	1900	188	70	173	195
Cap Entry, veh/h	940	1014	1165	0.043	889	971	1057	1134
V/C Ratio	0.145	0.152	0.186	0.0	0.211	0.072	0.163	0.172
Control Delay, s/veh	5.2	4.9	4.7	A	6.2	4.4	4.9	4.7
LOS	A	A	A	0	A	A	A	A
95th %tile Queue, veh	1	1	1		1	0	1	1

Lanes and Geometrics
3: 20th Street & 83rd Avenue

Recent AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		100	0		0	0		0	0		200
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.987				0.850		0.959			0.991	
Flt Protected		0.996			0.995			0.995			0.979	
Satd. Flow (prot)	0	3479	0	0	1853	1583	0	3377	0	0	3434	0
Flt Permitted		0.996			0.995			0.995			0.979	
Satd. Flow (perm)	0	3479	0	0	1853	1583	0	3377	0	0	3434	0
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		1243			1693			576			1292	
Travel Time (s)		21.2			28.9			9.8			22.0	
Intersection Summary												
Area Type:	Other											

HCM 6th Roundabout
3: 20th Street & 83rd Avenue

Recent PM

Intersection

Intersection Delay, s/veh
Intersection LOS

5.4
A

Approach	EB	WB	NB	SB
Entry Lanes	2	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	287	420	420	342
Demand Flow Rate, veh/h	293	429	429	349
Vehicles Circulating, veh/h	373	325	408	332
Vehicles Exiting, veh/h	308	512	258	293
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.1	4.3	6.9	5.1
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Bypass	Left	Right	Left	Right
Designated Moves	LT	TR	LT	R	LT	R	LT	TR
Assumed Moves	LT	TR	LT	R	LT	R	LT	TR
RT Channelized				Free				
Lane Util	0.471	0.529	1.000		0.737	0.263	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.535		2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.328	129	4.645	4.328	4.645	4.328
Entry Flow, veh/h	138	155	300	1938	316	113	164	185
Cap Entry Lane, veh/h	958	1034	1077	0.980	927	1004	995	1071
Entry HV Adj Factor	0.978	0.981	0.980	126	0.979	0.982	0.981	0.981
Flow Entry, veh/h	135	152	294	1900	309	111	161	181
Cap Entry, veh/h	936	1015	1056	0.066	908	986	976	1050
V/C Ratio	0.144	0.150	0.278	0.0	0.341	0.113	0.165	0.173
Control Delay, s/veh	5.2	4.9	6.1	A	7.7	4.7	5.2	5.0
LOS	A	A	A	0	A	A	A	A
95th %tile Queue, veh	1	1	1		2	0	1	1

Lanes and Geometrics
3: 20th Street & 83rd Avenue

Recent PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		100	0		0	0		0	0		200
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.985				0.850		0.960			0.992	
Flt Protected		0.998			0.993			0.996			0.980	
Satd. Flow (prot)	0	3479	0	0	1850	1583	0	3384	0	0	3441	0
Flt Permitted		0.998			0.993			0.996			0.980	
Satd. Flow (perm)	0	3479	0	0	1850	1583	0	3384	0	0	3441	0
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		1243			1693			576			1292	
Travel Time (s)		21.2			28.9			9.8			22.0	
Intersection Summary												
Area Type:	Other											

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	56	0	54	11	1	17	22	204	10	28	262	24
Future Vol, veh/h	56	0	54	11	1	17	22	204	10	28	262	24
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	100	-	-	300	-	-	115	-	-	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	0	59	12	1	18	24	222	11	30	285	26

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	643	639	298	664	647	228	311	0	0	233	0	0
Stage 1	358	358	-	276	276	-	-	-	-	-	-	-
Stage 2	285	281	-	388	371	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	386	394	741	374	390	811	1249	-	-	1335	-	-
Stage 1	660	628	-	730	682	-	-	-	-	-	-	-
Stage 2	722	678	-	636	620	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	364	378	741	334	374	811	1249	-	-	1335	-	-
Mov Cap-2 Maneuver	364	378	-	334	374	-	-	-	-	-	-	-
Stage 1	647	614	-	716	669	-	-	-	-	-	-	-
Stage 2	691	665	-	572	606	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.7		12.2		0.7		0.7	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1249	-	-	364	741	334	762	1335	-	-
HCM Lane V/C Ratio	0.019	-	-	0.167	0.079	0.036	0.026	0.023	-	-
HCM Control Delay (s)	7.9	-	-	16.9	10.3	16.2	9.8	7.8	-	-
HCM Lane LOS	A	-	-	C	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0.1	0.1	0.1	-	-

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	38	2	21	10	2	19	45	294	12	14	260	72
Future Vol, veh/h	38	2	21	10	2	19	45	294	12	14	260	72
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	100	-	-	300	-	-	115	-	-	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	2	24	11	2	22	51	334	14	16	295	82

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	823	818	336	824	852	341	377	0	0	348	0	0
Stage 1	368	368	-	443	443	-	-	-	-	-	-	-
Stage 2	455	450	-	381	409	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	292	311	706	292	297	701	1181	-	-	1211	-	-
Stage 1	652	621	-	594	576	-	-	-	-	-	-	-
Stage 2	585	572	-	641	596	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	269	294	706	269	281	701	1181	-	-	1211	-	-
Mov Cap-2 Maneuver	269	294	-	269	281	-	-	-	-	-	-	-
Stage 1	624	613	-	568	551	-	-	-	-	-	-	-
Stage 2	540	547	-	609	588	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	13.6	1	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1181	-	-	269	629	269	614	1211	-	-
HCM Lane V/C Ratio	0.043	-	-	0.161	0.042	0.042	0.039	0.013	-	-
HCM Control Delay (s)	8.2	-	-	20.9	11	19	11.1	8	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.1	0.1	0.1	0	-	-

HCM 6th TWSC
13: 82nd Avenue & North Access

Recent AM

Intersection

Int Delay, s/veh 0.3

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	0	0	1	13	8	6
Future Vol, veh/h	0	0	1	13	8	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1	15	9	7

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	30	13	16	0	-	0
Stage 1	13	-	-	-	-	-
Stage 2	17	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	984	1067	1602	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	1006	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	983	1067	1602	-	-	-
Mov Cap-2 Maneuver	983	-	-	-	-	-
Stage 1	1009	-	-	-	-	-
Stage 2	1006	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	0	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	1602	-	-	-	-
HCM Lane V/C Ratio	0.001	-	-	-	-
HCM Control Delay (s)	7.2	0	0	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

HCM 6th TWSC
13: 82nd Avenue & North Access

Recent PM

Intersection

Int Delay, s/veh 1.6

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	6	0	1	12	15	4
Future Vol, veh/h	6	0	1	12	15	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	0	1	14	18	5

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	37	21	23	0	-	0
Stage 1	21	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	975	1056	1592	-	-	-
Stage 1	1002	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	974	1056	1592	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	8.7	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	1592	-	974	-	-
HCM Lane V/C Ratio	0.001	-	0.007	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
15: 82nd Avenue & South Access

Recent AM

Intersection

Int Delay, s/veh 1

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	1	0	2	13	7	1
Future Vol, veh/h	1	0	2	13	7	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	2	15	8	1

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	28	9	9	0	-	0
Stage 1	9	-	-	-	-	-
Stage 2	19	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	987	1073	1611	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	1004	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1073	1611	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1013	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	8.7	1	0
HCM LOS	A		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	1611	-	986	-	-
HCM Lane V/C Ratio	0.001	-	0.001	-	-
HCM Control Delay (s)	7.2	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
15: 82nd Avenue & South Access

Recent PM

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 0 0 0 13 15 0

Future Vol, veh/h 0 0 0 13 15 0

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 85 85 85 85 85 85

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 0 15 18 0

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 33 18 18 0 - 0

Stage 1 18 - - - - -

Stage 2 15 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 980 1061 1599 - - -

Stage 1 1005 - - - - -

Stage 2 1008 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 980 1061 1599 - - -

Mov Cap-2 Maneuver 980 - - - - -

Stage 1 1005 - - - - -

Stage 2 1008 - - - - -

Approach EB NB SB

HCM Control Delay, s 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1599 - - - -

HCM Lane V/C Ratio - - - - -

HCM Control Delay (s) 0 - 0 - -

HCM Lane LOS A - A - -

HCM 95th %tile Q(veh) 0 - - - -

HCM 6th TWSC
11: 81st Avenue Court & 19th Street

Recent AM

Intersection

Int Delay, s/veh 1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	2	2	13	2	2
Future Vol, veh/h	5	2	2	13	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	2	2	15	2	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	8
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1612
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1612
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1030	-	-	1612	-
HCM Lane V/C Ratio	0.005	-	-	0.001	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
11: 81st Avenue Court & 19th Street

Recent PM

Intersection

Int Delay, s/veh 0.6

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations						
Traffic Vol, veh/h	10	5	0	11	2	0
Future Vol, veh/h	10	5	0	11	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	6	0	13	2	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	18	0	28	15
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	13	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1599	-	987	1065
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1010	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1599	-	987	1065
Mov Cap-2 Maneuver	-	-	-	-	987	-
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1010	-

Approach EB WB NB

HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	987	-	-	1599	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	8.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

UNSIGNALIZED INTERSECTIONS

Level-of-Service	Average Total Delay sec/veh
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Table 4. Acceptable Level of Service Standards

Intersection Component	Major Intersection ¹	Minor Intersection ²
Overall (City Limits)	LOS C	LOS C
Overall (LREGA) ³	LOS D	LOS C
Any Leg	LOS D	LOS E
Any Movement	LOS E	LOS F
¹ Includes all signalized and unsignalized arterial/arterial and arterial/major collector intersections. ² Includes all unsignalized intersections and high volume driveways. ³ Long Range Expected Growth Area *On State and US Highways overall LOS D is acceptable.		

APPENDIX D

HCM 6th Roundabout
3: 20th Street & 83rd Avenue

Short Bkgrd AM

Intersection

Intersection Delay, s/veh	5.3							
Intersection LOS	A							
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	338		346		299		418	
Demand Flow Rate, veh/h	345		353		306		427	
Vehicles Circulating, veh/h	424		246		498		288	
Vehicles Exiting, veh/h	291		558		271		216	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	5.6		3.8		6.5		5.3	
Approach LOS	A		A		A		A	
Lane	Left	Right	Left	Bypass	Left	Right	Left	Right
Designated Moves	LT	TR	LT	R	LT	R	LT	TR
Assumed Moves	LT	TR	LT	R	LT	R	LT	TR
RT Channelized				Free				
Lane Util	0.470	0.530	1.000		0.725	0.275	0.471	0.529
Follow-Up Headway, s	2.667	2.535	2.535		2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.328	95	4.645	4.328	4.645	4.328
Entry Flow, veh/h	162	183	258	1938	222	84	201	226
Cap Entry Lane, veh/h	914	990	1152	0.980	854	930	1036	1112
Entry HV Adj Factor	0.981	0.980	0.982	93	0.979	0.976	0.977	0.980
Flow Entry, veh/h	159	179	253	1900	217	82	196	221
Cap Entry, veh/h	897	970	1132	0.049	835	908	1012	1089
V/C Ratio	0.177	0.185	0.224	0.0	0.260	0.090	0.194	0.203
Control Delay, s/veh	5.8	5.5	5.2	A	7.1	4.8	5.4	5.2
LOS	A	A	A	0	A	A	A	A
95th %tile Queue, veh	1	1	1		1	0	1	1

Lanes and Geometrics
3: 20th Street & 83rd Avenue

Short Bkgrd AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		100	0		0	0		0	0		200
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.987				0.850		0.959			0.991	
Flt Protected		0.996			0.995			0.995			0.979	
Satd. Flow (prot)	0	3479	0	0	1853	1583	0	3377	0	0	3434	0
Flt Permitted		0.996			0.995			0.995			0.979	
Satd. Flow (perm)	0	3479	0	0	1853	1583	0	3377	0	0	3434	0
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		1243			1693			576			1292	
Travel Time (s)		21.2			28.9			9.8			22.0	
Intersection Summary												
Area Type:	Other											

HCM 6th Roundabout
3: 20th Street & 83rd Avenue

Short Bkgrd PM

Intersection

Intersection Delay, s/veh

6.2

Intersection LOS

A

Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	337		488		482		395	
Demand Flow Rate, veh/h	344		498		492		402	
Vehicles Circulating, veh/h	431		371		477		387	
Vehicles Exiting, veh/h	358		598		298		335	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	5.6		5.0		8.2		5.7	
Approach LOS	A		A		A		A	
Lane	Left	Right	Left	Bypass	Left	Right	Left	Right
Designated Moves	LT	TR	LT	R	LT	R	LT	TR
Assumed Moves	LT	TR	LT	R	LT	R	LT	TR
RT Channelized				Free				
Lane Util	0.471	0.529	1.000		0.732	0.268	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.535		2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.328	147	4.645	4.328	4.645	4.328
Entry Flow, veh/h	162	182	351	1938	360	132	189	213
Cap Entry Lane, veh/h	908	984	1036	0.980	870	947	946	1022
Entry HV Adj Factor	0.978	0.982	0.980	144	0.980	0.977	0.982	0.982
Flow Entry, veh/h	158	179	344	1900	353	129	186	209
Cap Entry, veh/h	888	967	1016	0.076	853	925	928	1004
V/C Ratio	0.178	0.185	0.339	0.0	0.414	0.139	0.200	0.208
Control Delay, s/veh	5.8	5.5	7.0	A	9.2	5.2	5.8	5.6
LOS	A	A	A	0	A	A	A	A
95th %tile Queue, veh	1	1	2		2	0	1	1

Lanes and Geometrics
3: 20th Street & 83rd Avenue

Short Bkgrd PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		100	0		0	0		0	0		200
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.985				0.850		0.960			0.992	
Flt Protected		0.998			0.993			0.996			0.980	
Satd. Flow (prot)	0	3479	0	0	1850	1583	0	3384	0	0	3441	0
Flt Permitted		0.998			0.993			0.996			0.980	
Satd. Flow (perm)	0	3479	0	0	1850	1583	0	3384	0	0	3441	0
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		1243			1693			576			1292	
Travel Time (s)		21.2			28.9			9.8			22.0	
Intersection Summary												
Area Type:	Other											

HCM 6th TWSC
6: 83rd Avenue & 18th Street

Short Bkgrd AM

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	56	0	54	11	1	17	22	239	10	28	307	24
Future Vol, veh/h	56	0	54	11	1	17	22	239	10	28	307	24
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	100	-	-	300	-	-	115	-	-	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	0	59	12	1	18	24	260	11	30	334	26

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	730	726	347	751	734	266	360	0	0	271	0	0
Stage 1	407	407	-	314	314	-	-	-	-	-	-	-
Stage 2	323	319	-	437	420	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	338	351	696	327	347	773	1199	-	-	1292	-	-
Stage 1	621	597	-	697	656	-	-	-	-	-	-	-
Stage 2	689	653	-	598	589	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	318	336	696	290	332	773	1199	-	-	1292	-	-
Mov Cap-2 Maneuver	318	336	-	290	332	-	-	-	-	-	-	-
Stage 1	609	583	-	683	643	-	-	-	-	-	-	-
Stage 2	658	640	-	535	575	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.9	13.1	0.7	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1199	-	-	318	696	290	720	1292	-	-
HCM Lane V/C Ratio	0.02	-	-	0.191	0.084	0.041	0.027	0.024	-	-
HCM Control Delay (s)	8.1	-	-	19	10.6	17.9	10.1	7.9	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.3	0.1	0.1	0.1	-	-

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	38	2	21	10	2	19	45	344	12	14	305	72
Future Vol, veh/h	38	2	21	10	2	19	45	344	12	14	305	72
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	100	-	-	300	-	-	115	-	-	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	2	24	11	2	22	51	391	14	16	347	82

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	932	927	388	933	961	398	429	0	0	405	0	0
Stage 1	420	420	-	500	500	-	-	-	-	-	-	-
Stage 2	512	507	-	433	461	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	247	268	660	246	256	652	1130	-	-	1154	-	-
Stage 1	611	589	-	553	543	-	-	-	-	-	-	-
Stage 2	545	539	-	601	565	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	226	252	660	225	241	652	1130	-	-	1154	-	-
Mov Cap-2 Maneuver	226	252	-	225	241	-	-	-	-	-	-	-
Stage 1	584	581	-	528	519	-	-	-	-	-	-	-
Stage 2	501	515	-	569	557	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	19.7		15		0.9		0.3	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1130	-	-	226	579	225	561	1154	-	-
HCM Lane V/C Ratio	0.045	-	-	0.191	0.045	0.051	0.043	0.014	-	-
HCM Control Delay (s)	8.3	-	-	24.7	11.5	21.8	11.7	8.2	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.1	0.2	0.1	0	-	-

HCM 6th TWSC
13: 82nd Avenue & North Access

Short Bkgrd AM

Intersection

Int Delay, s/veh 0.3

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 0 0 1 13 8 6

Future Vol, veh/h 0 0 1 13 8 6

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 85 85 85 85 85 85

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 1 15 9 7

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 30 13 16 0 - 0

Stage 1 13 - - - - -

Stage 2 17 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 984 1067 1602 - - -

Stage 1 1010 - - - - -

Stage 2 1006 - - - - -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver 983 1067 1602 - - -

Mov Cap-2 Maneuver 983 - - - - -

Stage 1 1009 - - - - -

Stage 2 1006 - - - - -

Approach EB NB SB

HCM Control Delay, s 0 0.5 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1602 - - - -

HCM Lane V/C Ratio 0.001 - - - -

HCM Control Delay (s) 7.2 0 0 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - - - -

HCM 6th TWSC
13: 82nd Avenue & North Access

Short Bkgrd PM

Intersection

Int Delay, s/veh 1.6

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	6	0	1	12	15	4
Future Vol, veh/h	6	0	1	12	15	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	0	1	14	18	5

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	37	21	23	0	-	0
Stage 1	21	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	975	1056	1592	-	-	-
Stage 1	1002	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	974	1056	1592	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	8.7	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	1592	-	974	-	-
HCM Lane V/C Ratio	0.001	-	0.007	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
15: 82nd Avenue & South Access

Short Bkgrd AM

Intersection

Int Delay, s/veh 1

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	1	0	2	13	7	1
Future Vol, veh/h	1	0	2	13	7	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	2	15	8	1

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	28	9	9	0	-	0
Stage 1	9	-	-	-	-	-
Stage 2	19	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	987	1073	1611	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	1004	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1073	1611	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1013	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	8.7	1	0
HCM LOS	A		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	1611	-	986	-	-
HCM Lane V/C Ratio	0.001	-	0.001	-	-
HCM Control Delay (s)	7.2	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

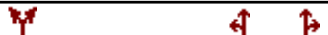
HCM 6th TWSC
15: 82nd Avenue & South Access

Short Bkgrd PM

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 0 0 0 13 15 0

Future Vol, veh/h 0 0 0 13 15 0

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 85 85 85 85 85 85

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 0 15 18 0

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 33 18 18 0 - 0

Stage 1 18 - - - - -

Stage 2 15 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 980 1061 1599 - - -

Stage 1 1005 - - - - -

Stage 2 1008 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 980 1061 1599 - - -

Mov Cap-2 Maneuver 980 - - - - -

Stage 1 1005 - - - - -

Stage 2 1008 - - - - -

Approach EB NB SB

HCM Control Delay, s 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1599 - - - -

HCM Lane V/C Ratio - - - - -

HCM Control Delay (s) 0 - 0 - -

HCM Lane LOS A - A - -

HCM 95th %tile Q(veh) 0 - - - -

Intersection

Int Delay, s/veh 1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	2	2	13	2	2
Future Vol, veh/h	5	2	2	13	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	2	2	15	2	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	8
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1612
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1612
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1030	-	-	1612	-
HCM Lane V/C Ratio	0.005	-	-	0.001	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 0.6

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations						
Traffic Vol, veh/h	10	5	0	11	2	0
Future Vol, veh/h	10	5	0	11	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	6	0	13	2	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	18	0	28	15
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	13	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1599	-	987	1065
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1010	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1599	-	987	1065
Mov Cap-2 Maneuver	-	-	-	-	987	-
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1010	-

Approach EB WB NB

HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	987	-	-	1599	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	8.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

APPENDIX E

HCM 6th Roundabout
3: 20th Street & 83rd Avenue

Short Total AM

Intersection

Intersection Delay, s/veh 5.4
Intersection LOS A

Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	339		350		304		450	
Demand Flow Rate, veh/h	347		357		311		460	
Vehicles Circulating, veh/h	453		252		510		288	
Vehicles Exiting, veh/h	295		569		289		222	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	5.8		3.8		6.6		5.4	
Approach LOS	A		A		A		A	
Lane	Left	Right	Left	Bypass	Left	Right	Left	Right
Designated Moves	LT	TR	LT	R	LT	R	LT	TR
Assumed Moves	LT	TR	LT	R	LT	R	LT	TR
RT Channelized				Free				
Lane Util	0.470	0.530	1.000		0.730	0.270	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.535		2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.328	99	4.645	4.328	4.645	4.328
Entry Flow, veh/h	163	184	258	1938	227	84	216	244
Cap Entry Lane, veh/h	890	966	1146	0.980	844	921	1036	1112
Entry HV Adj Factor	0.978	0.977	0.982	97	0.979	0.976	0.980	0.978
Flow Entry, veh/h	159	180	253	1900	222	82	212	239
Cap Entry, veh/h	871	944	1126	0.051	826	899	1015	1088
V/C Ratio	0.183	0.190	0.225	0.0	0.269	0.091	0.209	0.219
Control Delay, s/veh	6.0	5.7	5.2	A	7.3	4.9	5.5	5.3
LOS	A	A	A	0	A	A	A	A
95th %tile Queue, veh	1	1	1		1	0	1	1

Lanes and Geometrics
3: 20th Street & 83rd Avenue

Short Total AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		100	0		0	0		0	0		200
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.987				0.850		0.960			0.990	
Flt Protected		0.996			0.995			0.995			0.979	
Satd. Flow (prot)	0	3479	0	0	1853	1583	0	3381	0	0	3430	0
Flt Permitted		0.996			0.995			0.995			0.979	
Satd. Flow (perm)	0	3479	0	0	1853	1583	0	3381	0	0	3430	0
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		1243			1693			576			1292	
Travel Time (s)		21.2			28.9			9.8			22.0	
Intersection Summary												
Area Type:	Other											

HCM 6th Roundabout
3: 20th Street & 83rd Avenue

Short Total PM

Intersection

Intersection Delay, s/veh 6.4
Intersection LOS A

Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		2		2	
Adj Approach Flow, veh/h	341		499		498		416	
Demand Flow Rate, veh/h	348		509		509		423	
Vehicles Circulating, veh/h	449		392		488		387	
Vehicles Exiting, veh/h	361		605		309		356	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	5.8		5.0		8.6		5.8	
Approach LOS	A		A		A		A	
Lane	Left	Right	Left	Bypass	Left	Right	Left	Right
Designated Moves	LT	TR	LT	R	LT	R	LT	TR
Assumed Moves	LT	TR	LT	R	LT	R	LT	TR
RT Channelized				Free				
Lane Util	0.471	0.529	1.000		0.741	0.259	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.535		2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.328	158	4.645	4.328	4.645	4.328
Entry Flow, veh/h	164	184	351	1938	377	132	199	224
Cap Entry Lane, veh/h	893	970	1018	0.980	862	938	946	1022
Entry HV Adj Factor	0.978	0.983	0.980	155	0.980	0.977	0.982	0.983
Flow Entry, veh/h	160	181	344	1900	369	129	195	220
Cap Entry, veh/h	873	953	998	0.082	844	917	928	1005
V/C Ratio	0.184	0.190	0.345	0.0	0.438	0.141	0.210	0.219
Control Delay, s/veh	6.0	5.6	7.2	A	9.7	5.3	6.0	5.7
LOS	A	A	A	0	A	A	A	A
95th %tile Queue, veh	1	1	2		2	0	1	1

Lanes and Geometrics
3: 20th Street & 83rd Avenue

Short Total PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		100	0		0	0		0	0		200
Storage Lanes	0		1	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.985				0.850		0.961			0.991	
Flt Protected		0.998			0.993			0.996			0.980	
Satd. Flow (prot)	0	3479	0	0	1850	1583	0	3388	0	0	3437	0
Flt Permitted		0.998			0.993			0.996			0.980	
Satd. Flow (perm)	0	3479	0	0	1850	1583	0	3388	0	0	3437	0
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		1243			1693			576			1292	
Travel Time (s)		21.2			28.9			9.8			22.0	
Intersection Summary												
Area Type:	Other											

HCM 6th TWSC
6: 83rd Avenue & 18th Street

Short Total AM

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	56	0	54	40	1	29	22	239	19	32	307	24
Future Vol, veh/h	56	0	54	40	1	29	22	239	19	32	307	24
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	100	-	-	300	-	-	115	-	-	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	0	59	43	1	32	24	260	21	35	334	26

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	752	746	347	766	749	271	360	0	0	281	0	0
Stage 1	417	417	-	319	319	-	-	-	-	-	-	-
Stage 2	335	329	-	447	430	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	327	342	696	320	341	768	1199	-	-	1282	-	-
Stage 1	613	591	-	693	653	-	-	-	-	-	-	-
Stage 2	679	646	-	591	583	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	301	326	696	283	325	768	1199	-	-	1282	-	-
Mov Cap-2 Maneuver	301	326	-	283	325	-	-	-	-	-	-	-
Stage 1	601	575	-	679	640	-	-	-	-	-	-	-
Stage 2	637	633	-	526	567	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.4		15.8		0.6		0.7	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1199	-	-	301	696	283	735	1282	-	-
HCM Lane V/C Ratio	0.02	-	-	0.202	0.084	0.154	0.044	0.027	-	-
HCM Control Delay (s)	8.1	-	-	20	10.6	20	10.1	7.9	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.3	0.5	0.1	0.1	-	-

HCM 6th TWSC
6: 83rd Avenue & 18th Street

Short Total PM

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	38	2	21	27	2	26	45	344	40	26	305	72
Future Vol, veh/h	38	2	21	27	2	26	45	344	40	26	305	72
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	100	-	-	300	-	-	115	-	-	105	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	2	24	31	2	30	51	391	45	30	347	82

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	980	986	388	977	1005	414	429	0	0	436	0	0
Stage 1	448	448	-	516	516	-	-	-	-	-	-	-
Stage 2	532	538	-	461	489	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	229	248	660	230	241	638	1130	-	-	1124	-	-
Stage 1	590	573	-	542	534	-	-	-	-	-	-	-
Stage 2	531	522	-	581	549	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	205	230	660	208	224	638	1130	-	-	1124	-	-
Mov Cap-2 Maneuver	205	230	-	208	224	-	-	-	-	-	-	-
Stage 1	563	558	-	518	510	-	-	-	-	-	-	-
Stage 2	481	499	-	543	534	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.3		18.4		0.9		0.5	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1130	-	-	205	568	208	564	1124	-	-
HCM Lane V/C Ratio	0.045	-	-	0.211	0.046	0.148	0.056	0.026	-	-
HCM Control Delay (s)	8.3	-	-	27.2	11.6	25.3	11.8	8.3	-	-
HCM Lane LOS	A	-	-	D	B	D	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.1	0.5	0.2	0.1	-	-

HCM 6th TWSC
8: 82nd Avenue & 18th Street

Short Total AM

Intersection

Int Delay, s/veh 3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	21	0	19	35	0
Future Vol, veh/h	6	21	0	19	35	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	25	0	22	41	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	32
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1580
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1580
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	969	-	-	1580	-
HCM Lane V/C Ratio	0.042	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
8: 82nd Avenue & 18th Street

Short Total PM

Intersection

Int Delay, s/veh 2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	18	41	0	11	31	0
Future Vol, veh/h	18	41	0	11	31	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	48	0	13	36	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	69
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1532
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1532
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	949	-	-	1532	-
HCM Lane V/C Ratio	0.038	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
13: 82nd Avenue & North Access/Site Access

Short Total AM

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	22	1	13	0	7	8	6
Future Vol, veh/h	0	0	0	0	0	22	1	13	0	7	8	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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	26	1	15	0	8	9	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	59	46	13	46	49	15	16	0	0	15	0	0
Stage 1	29	29	-	17	17	-	-	-	-	-	-	-
Stage 2	30	17	-	29	32	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	937	846	1067	955	843	1065	1602	-	-	1603	-	-
Stage 1	988	871	-	1002	881	-	-	-	-	-	-	-
Stage 2	987	881	-	988	868	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	910	841	1067	950	838	1065	1602	-	-	1603	-	-
Mov Cap-2 Maneuver	910	841	-	950	838	-	-	-	-	-	-	-
Stage 1	987	867	-	1001	880	-	-	-	-	-	-	-
Stage 2	962	880	-	983	864	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.5	0.5	2.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1602	-	-	-	1065	1603	-
HCM Lane V/C Ratio	0.001	-	-	-	0.024	0.005	-
HCM Control Delay (s)	7.2	0	-	0	8.5	7.3	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

HCM 6th TWSC
13: 82nd Avenue & North Access/Site Access

Short Total PM

Intersection

Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	6	0	0	0	0	13	1	12	0	22	15	4
Future Vol, veh/h	6	0	0	0	0	13	1	12	0	22	15	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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	0	0	0	15	1	14	0	26	18	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	97	89	21	89	91	14	23	0	0	14	0	0
Stage 1	73	73	-	16	16	-	-	-	-	-	-	-
Stage 2	24	16	-	73	75	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	885	801	1056	896	799	1066	1592	-	-	1604	-	-
Stage 1	937	834	-	1004	882	-	-	-	-	-	-	-
Stage 2	994	882	-	937	833	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	861	787	1056	884	785	1066	1592	-	-	1604	-	-
Mov Cap-2 Maneuver	861	787	-	884	785	-	-	-	-	-	-	-
Stage 1	936	821	-	1003	881	-	-	-	-	-	-	-
Stage 2	979	881	-	922	820	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.2			8.4			0.6			3.9		
HCM LOS	A			A								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1592	-	-	861 1066	1604	-	-
HCM Lane V/C Ratio	0.001	-	-	0.008 0.014	0.016	-	-
HCM Control Delay (s)	7.3	0	-	9.2 8.4	7.3	0	-
HCM Lane LOS	A	A	-	A A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0	0	-	-

HCM 6th TWSC
15: 82nd Avenue & South Access

Short Total AM

Intersection

Int Delay, s/veh 1

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	1	0	2	13	7	1
Future Vol, veh/h	1	0	2	13	7	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	2	15	8	1

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	28	9	9	0	-	0
Stage 1	9	-	-	-	-	-
Stage 2	19	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	987	1073	1611	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	1004	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1073	1611	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1013	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	8.7	1	0
HCM LOS	A		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	1611	-	986	-	-
HCM Lane V/C Ratio	0.001	-	0.001	-	-
HCM Control Delay (s)	7.2	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
15: 82nd Avenue & South Access

Short Total PM

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 0 0 0 13 15 0

Future Vol, veh/h 0 0 0 13 15 0

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 85 85 85 85 85 85

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 0 0 0 15 18 0

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 33 18 18 0 - 0

Stage 1 18 - - - - -

Stage 2 15 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 980 1061 1599 - - -

Stage 1 1005 - - - - -

Stage 2 1008 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 980 1061 1599 - - -

Mov Cap-2 Maneuver 980 - - - - -

Stage 1 1005 - - - - -

Stage 2 1008 - - - - -

Approach EB NB SB

HCM Control Delay, s 0 0 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1599 - - - -

HCM Lane V/C Ratio - - - - -

HCM Control Delay (s) 0 - 0 - -

HCM Lane LOS A - A - -

HCM 95th %tile Q(veh) 0 - - - -

HCM 6th TWSC
11: 81st Avenue Court & 19th Street

Short Total AM

Intersection

Int Delay, s/veh 1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	2	2	13	2	2
Future Vol, veh/h	5	2	2	13	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	2	2	15	2	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	8
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1612
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1612
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1030	-	-	1612	-
HCM Lane V/C Ratio	0.005	-	-	0.001	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
11: 81st Avenue Court & 19th Street

Short Total PM

Intersection

Int Delay, s/veh 0.6

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations						
Traffic Vol, veh/h	10	5	0	11	2	0
Future Vol, veh/h	10	5	0	11	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	6	0	13	2	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	18	0	28	15
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	13	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1599	-	987	1065
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1010	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1599	-	987	1065
Mov Cap-2 Maneuver	-	-	-	-	987	-
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1010	-

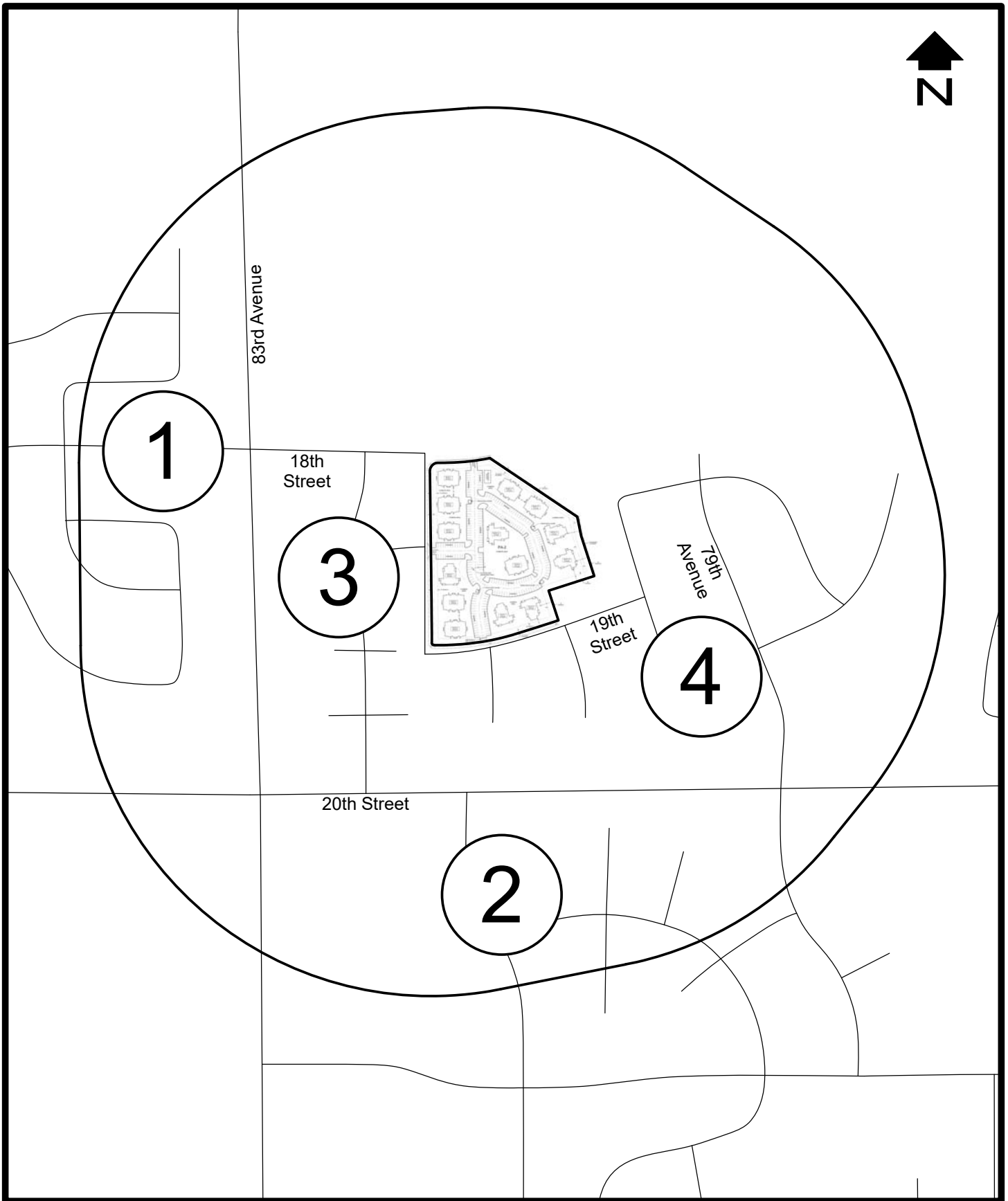
Approach EB WB NB

HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	987	-	-	1599	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	8.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

APPENDIX F



SCALE: 1"=500'

PEDESTRIAN INFLUENCE AREA

Transportation Impact Study

Pedestrian Analysis Form

INSTRUCTIONS: Identify the pedestrian destinations within 1320' (1.5 miles for schools) of the project boundary in the spaces below. The pedestrian analysis for the facility/corridor linking these destinations to the project site will be based on the directness, continuity, types of street crossings, walkway surface condition, visual interest/amenity, and security of the selected route(s).

	Name	Distance from Project
Recreation		
Residential	1) Mountain Shadows 2) Owl Ridge 4) Owl Ridge	2) approx. 1080' 2) approx. 1000' 4) approx. 700'
Institution (school, church, etc.)		
Office/Business	3) Mountain Vista Office Park	3) approx. 150'
Commercial		
Industrial		
Other		

Mountain Vista MF Neighborhood meeting

June 13, 2023

Morgan Kidder of Journey Homes gave an overview of the project on behalf of the owner.

- Areas above and beyond city standards include
 - Setbacks 50ft from property line
 - Additional trees adjacent to homes 35 including Evergreen trees

Questions and comments from neighbors: (Bold are captured responses provided)

What will zoning be? **Planned Unit Development**

Where are access points? **82nd Avenue & 18th Street**

How many Units? **100**

Who manages property? **Not determined at this time, but will be local professional management company.**

Will 18th St & 82nd Ave be stop sign controlled? **Yes. Traffic study showed level of service that would not require a signal or other improvements.**

What is the number of parking stalls? **Don't know at this time since plan is conceptual, but will meet city code.**

Well caped Correctly? **Yes. State inspected**

Ratio of 1 and 2 Bedrooms in each unit?

How will project affect water pressure and other dry utilities? **Water & Sewer study is being done and will be reviewed and approved by city.**

Will there be parking on 19th street? **There currently is room for on street parking.**

Did we look at the traffic to the East through the existing neighborhood. **Yes the Traffic engineer and city discussed it and didn't require anything further.**

The average price of house is \$600,000 & high density apartments don't make sense.

What is the consideration to support Windsor schools? **1 time fee paid by district and set by district.**

When was traffic counts done? **Fall 2022 during week and did account for school traffic and school buses.**

Why apartments not something else?

What is the consideration for missing middle homes?

Who owns the property? **Mountain Vista Apartments, LLC**

What can neighborhoods do to prove a point and get what they want?

When will Planning Commission be? **Not yet been set.** Will they get notice? **Yes, 2 weeks**

Mountain Vista MF Neighborhood meeting

June 13, 2023

What examples of changes were made to a project after neighbor meeting on other projects? **Severance project had changes.**

Have we looked at home values after MF is developed?

Did developer consider swapping land somewhere else due to impact to neighborhood?

How will developer improve pond since they don't own?

How will police patrol with extra people speeding in area? **Developer pays impact fee per unit to city to help with additional impacts from development.**

- 20th street is a problem now and Police can't get a handle on it.

When people purchased their home, they thought that it would be a park or commercial project.

All homes are custom.

What will developer pay to police to help patrol? **Are not sure from memory what Police Impact Fee is.**

Has single family senior homes been a consideration?

What is the well setback. **It is 50ft from capped well, 350' from existing facilities?**

How many units will be low income? **Unsure what is considered low income.**

What will rent be? Has not been determined yet. **Will be market driven.**

People were told it would be a park when they bought.

People are talking about moving due to project.

Why not more offices like to the southwest?

What prevents the project from getting bigger? **PUD restricts size and number of units.**

Can cars be marked with tags in apartment area to prevent from parking on city streets.

Do we consider the number of visitor parking requirements? **City response an additional 10% is required.**

Concern for maintenance of rentals prefer ownership type project of project.

What is the difference between 6&8 plex? **Used picture boards to show and explain layouts of buildings.**

Neighbors maybe willing to buy property.

Who is the owner who will be at the Planning Commission meeting?

Mountain Vista MF Neighborhood meeting

June 13, 2023

Questions to city staff

Do they ever do studies after a project to review project and what its impacts are? **City said no**

Is there a master plan as growth occurs to 10th street? Per **Comp plan but no zoning for every parcel.**

Does city look at so many people, then build a park? **Yes, use park fees.**

Where will kids play?

How many apartments does city need?

Will the city read the 11-page petition?

Where does park impact fee go?

Will there be another public meeting/ hearing be held- **City said no**

Someone was told the well is leaking. **State inspected oil and gas company plugging of well.**

Can property owners in Mountain Vista put gates on city streets? **No, roads would have to then be private and maintained by property owners.**

Why traffic study doesn't require a signal? **Meets level of service criteria.**

Who did traffic study and was it by a third party, and can they get a copy Mountain Vista and Creekview? **Was done by a third party and met city criteria. Contact city staff and can get a copy of both traffic studies**

Does traffic study look at larger city traffic miles away? **Does look at localized future traffic volumes and impacts.**

How many more public meetings? **2 more: Planning Commission and City Council**

Doesn't feel like the project meets Comp plan.

Can they/neighbors have another neighborhood meeting? **City said only if there was substantial changes that impacted the neighborhood.**

How many PC members? **7**

Is city supportive of what is being proposed? **City responded the project is still under review**

Can project be appealed beyond city council? **Yes, District Court**

MOUNTAIN VISTA MULTIFAMILY NEIGHBORHOOD MEETING

June 13, 2023

Greeley Family Funplex

[illegible]

MOUNTAIN VISTA MULTIFAMILY NEIGHBORHOOD MEETING

June 13, 2023

Greeley Family Funplex

[illegible]

Regina Holzmeister
 1907 81st Avenue
 Greeley, CO 80634
 (970) 939-8574

August 23, 2023

City of Greeley Code Compliance
 1100 10th Street
 Greeley, CO 80631
 970-350-9833

BACKGROUND

On February 22, 2023, Mountain Vista's H.O.A. notified residents in Mountain Vista community of an application proposal to rezone Parcel #095908321011, Section 8, Township 5 North, Range 66 West. This Company's request is to change the Open Land west of 82nd Avenue between 18th and 19th Streets from its current designation of Holding Agriculture (HA) Residential Low density (R-L) to Planned Unit Development (PUD) Residential high density (R-H). The company's purpose is to develop approximately 14 buildings comprised of six- and eight-unit structures under the name [Mountain Vista West Apartments LLC](#). (Figure A) within our rural and quiet Mountain Vista, single-home [subdivision FG#3, tract 2](#).

POSITION STATEMENT

As a proud, teacher, a Navy Veteran, and an active volunteer in Colorado Girls Scouts, and Greeley's Government Commission Services for Human Relations, I respectfully request for Greeley's City Council to deny the application to rezone Parcel #095908321011, section 8, township 5 north, range 66 west. The applicant's request to rezone does not comply with several goals listed in the City of Greeley's Comprehensive Plan, Land Use Policies, Development Code, Greeley Police Department (GPD) Strategic Plan, Greeley's Water Efficiency Plan, and many others.

Definition:

Violation – *City of Greeley's encroachment of its established comprehensive plan, laws, policies, and codes. To approve zoning change from HA/R-L to PUD/R-H for the purpose of concentrated multi-family units, and the City of Greeley's Official's pursuit for economic growth.*

CITY OF GREELEY’S OBLIGATION AND PROMISE TO CURRENT RESIDENTS

Contents:

Reinforced text from Greeley’s Comprehensive Plan (GCP), Growth Framework, Action Plan, Greeley, Colorado Municipal Code, and other related city plans:

1. City Violations of GCP and Code/Policies:
 - Economic Health & Diversification (ED)
 - Education, Health, & Human Services (EH)
 - Growth & City Form (GC)
 - Historic & Cultural Resources (HC)
 - Housing (HO)
 - Infrastructure (IN)
 - Natural Resources & Open Lands (NR)
 - Parks & Recreation (PR)
 - Public Safety (PS)
 - Transportation & Mobility (TM)
2. Summary
3. Figures

The above contents are guided by the following Comprehensive Plan’s Core Values:

1. Excellence in Actions, Attitude, & Leadership
2. Proactive, Progressive, & Balanced Economic Development
3. Safe, Healthy & Inclusive Community
4. Sustainable Patterns of Growth & Development
5. Responsible Stewardship of Natural Resources & the Environment
6. Distinctive Character & Outstanding Recreational & Cultural Amenities
7. High-Quality Infrastructure & Services
8. World-Class Water Resources & Management
9. Rich History & Diversity of People, Customs, Culture, and Ideas
10. Thriving, Connected, & Inclusive Neighborhoods in All the City
11. Premier Educational System & Commitment to Life-Long Learning
12. Public/Private Cooperation to Achieve & Maintain Exceptional Community Benefits

1. Violations Upon Rezoning Approval:

- **CRS § 3123-207** (pg. 8)

A local government's comprehensive plan "shall be made with the general purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the municipality and its environs which will... best promote health, safety, morals, order, convenience, prosperity, and general welfare... including among other things, adequate provision for light and air, the promotion of healthful and convenient distribution of population, the promotion of good civic design and arrangement, wise conservation, and the adequate provision of public utilities and other public requirements."

and

- **IMP NR-2.3** (pg. 151)

Update, as appropriate, Development Code standards to limit impacts caused by errant light on adjacent properties and rights-of-way (such as requirements for downward directed lighting) and create standard illumination levels for various types of development.

Inference:

- Greeley's Comprehension Plan emphasizes on building and restructuring downtown Greeley. The plan calls for repurposing old buildings for low-income, multi-family units.
- To "best promote health, safety, morals, order, convenience, prosperity, and general welfare" is to listen to the cries of current residents in the community. Mountain Vista West Apartments LLC. will cause unsafe conditions while stripping Mountain Vista residents the right to prosperity and general welfare.
- This build is not a "coordinated, adjusted and harmonious development of the municipality and its environs". Mountain Vista residents purchased homes in West Greeley to distance themselves from overcrowding and multi-housing projects of East Greeley. We chose to settle in a safe environment of a rural, quiet, and spacious community--not harboring apartment buildings directly inside our neighborhood.
- For "adequate provision(s) for light and air", rezoning will have an adverse effect by increasing littering, light, sound, and air pollution.
- "The promotion of healthful and convenient distribution of population", the location will cause an inconvenient flood of traffic due to immediately adjacent business park, residential homes, townhomes, and apartment neighborhoods (**Figure B**).
- "Promotion of good civic design and arrangement", the design arrangement will alter the character and reputation of our homes and provide an unsafe neighborhood with traffic cutting through the residential neighborhood. The number of vehicles increase should the renter run a business from his/her/their apartment.
- "Wise conservation, and the adequate provision of public utilities and other public requirements, "are not meeting population demand. Greeley's Chief of Police admitted in September 2022 that

his department is unable to provide adequate services to residents because of the dramatic population increase.

- Moreover, renters are not as water conscious as homeowners, and may prove to be a challenge to [City of Greeley Water Master Plans](#):

2021 Water Demands			
Customer Type	Average Number of Accounts Billed	Water Use (gallons)	Gallon Distribution per Account.
Residential	23,202	2,870,282,000	123,708.39 gal/Acct
Multi-family	2,221	1,013,071,000	456,132.82 gal/Acct
Population Difference	20,981	1,857,211,000	Residence use 332,424.43 gal. less

- Corruption and poor building management can easily occur with private owners. Therefore, "state policymakers can follow the lead of Tennessee, which explicitly prevents localities from adopting inclusionary zoning requirements. State and local policymakers should address poverty directly rather than handing off the responsibility to developers" (Furth and Hamilton. July 25, 2022. [Housing Reform in the States: A Menu of Options for 2023](#)).
- Also refer to **EH-3.7** Funding for Services, and **HO-1** Housing Strategy sections of this document.
- Please remember the Guiding Principles of [Sec. 22-2-10](#).

- **OBJECTIVE: EDUCATION, HEALTH, & HUMAN SERVICES (EH)**

- **EH-2.6 Built Environment** (pg. 33)

Encourage the construction of built environments that support health and active living... that support walkability, providing safe options for active transportation, and considering the safety and comfort of all users....

Inference:

- Rezoning for the purpose of Mountain Vista West Apartments LLC., will cause surrounding residents to become less active. Residents of all ages will no longer be safe because of the invasion of neighborhood traffic.
 - Proper signage and road markings are not existent within the neighborhood to ensure residents' safety.
 - Rezoning will not support health and active living. The noise, smell, cars entering and exiting the neighborhood, loitering, littering, and strange renters consistently coming and going will be an inconvenience to all residents within the neighborhood.
 - Renters of the rezoned area will not have safe options for active transportation other than a vehicle (**Figures B.1-B.5**).

- **EH-3.4 Early Intervention** (pg. 34)

Prioritize and direct resources to those programs that assist residents with early intervention and prevention that address issues before they develop into significant and costlier individual, family, and/or community issues.

and

- **IMP PS-3.4** (pg. 162)

Evaluate the Development Code for opportunities to incorporate design standards or best practices for discouraging or preventing crime or criminal activity, such as CPTED (crime prevention through environmental design).

Inference:

- City and/or builder's responsibility to prioritize direct resources that assist residents with early intervention and prevention include: 1. increase employed Police Officers, 2. increase employed health care officials, 3. Increase amount of groceries stocked in stores—current population is not accommodated, 4. pet waste pickup stations, 5. traffic calming measures for neighborhood streets, 6. improve walkability for students, 7. create bike lanes, 8. redirect city bus route near new zoning area, 9. divert trash from entering residential neighborhood, 10. prohibit those with relations to the rezoned area from parking by single-home residents, 11. prohibit street parking that prevents emergency vehicles and school buses to enter, and 12. create a barrier to limit noise and light pollution—especially afterhours.
- Mountain Vista does not require fences to secure family backyards. Rezoning would significantly become a financial burden to individuals, families, and/or the HOA of Mountain Vista: 1. family investment fence backyard, 2. extra home/vehicle security, and 3. the neighborhood's extra efforts to calm traffic and loitering within the residential area.
- Property damage from loitering, apartment-renters, and wind-blown trash will also cause a financial burden.
- The value and status of our low-density, medium income homes will decline; also becoming costlier to families, individuals, and the neighborhood. The city may consider adopting Arizona's [Property Ownership Fairness Act](#) that "requires municipalities to compensate landowners when a new land use restriction lowers their property's value.... The act places citizens and cities on more equal footing before the law, without changing any existing regulation" (Furth and Hamilton. July 25, 2022. [Housing Reform in the States: A Menu of Options for 2023](#)).

- **EH-4.3** Land Use and Zoning Changes (pg. 36)

Discourage land use changes, zoning changes, and/or new developments that will negatively impact the safety of students while attending school, travelling to and from a school, or diminish residential population in areas that are served by a neighborhood school.

Inference:

- The increase of traffic from temporary renters will negatively impact the safety of students: 1. strange renters coming and going, 2. increase of motorists cutting through residential neighborhood to save time and avoid traffic; higher speeds and blockage on roads designed for lower traffic volumes. This creates dangerous conditions for students within the neighborhood as well as adjacent neighborhoods.

- Surrounding population is purging itself because of this rezoning request. The lack of safety, security, and inconvenience the proposal imposes is encouraging Mountain Vista's residents, served by a neighborhood school, to sell their homes (**Figure C**).
-

- **EH-4.4** Safe Routes to School (pg. 36)

Support ways for students to safely travel to and from school along well-planned and improved routes, and, as necessary, with the support of school crossing guards. Ensure that new residential developments incorporate facilities and/or design elements that support safe walking and bicycle routes for students....

and

- **IMP TM-2.6** (pg. 164)

Evaluate the feasibility of requiring subdivision applications to include, where applicable, a "Safe Routes to School" plan which clearly shows intended pedestrian and bicycle routes to nearby schools.

Inference:

- 18th St., 82nd Ave., and 83rd Ave. will require support for "students to safely travel to and from school along well-planned and improved routes" with the possibility of school crossing guards at the crossroads of 18th St. and 82nd Ave. as well as 82nd and 83rd Avenues (GPD currently has ten crossing guards in Weld County and five substitutes-**2022 GPD Annual Report**).
 - The new residential development will require "design elements that support safe walking and bicycle routes for students".
-

- **EH-2.4** Land Use (pg. 33)

Promote land use decisions that support walkability and improve access to basic needs....

Inference:

- A change in land use will risk walkability and access to basic needs of Mountain Vista residents. The placement of proposed apartments will delay Mountain Vista residents on the west side of the neighborhood from accessing main roads leading to basic needs.
-

- **OBJECTIVE: GROWTH & CITY FORM (GC)** (pg. 41)

Neighborhoods improvements will also be prioritized to enhance design, and reinforce unique physical elements, character, and identity.

Inference:

- Mountain Vista's neighborhood improvements will be neglected.
- This neighborhood's unique physical elements, character, and identity will no longer hold a reputation of a safe, quiet, rural, medium/high income residential neighborhood.
- This neighborhood's design will be jeopardized. The project's surge in traffic, type of building, and obstruction to the view of open spaces will not enhance the neighborhood design.

- **IMP GC-3.2 (pg.138)**

Update the City's design standards to require new development to offer unique physical elements or improvements that contribute to the area's character and identity including:

- *Distinct site elements or architecture;*
- *Historic or cultural resources;*
- *Amenities such as views, open space, water courses, varied topography, or connectivity to existing or new trails; or*
- *A central gathering place for residents of the neighborhood or subdivision.*

Inference:

- Rezoning will not offer unique physical elements or improvements to the area's character and identity:
 - Multiple low-income multi-family units currently surround the named plot, while more are noted on the approved list of projects by the Zoning and Planning Committee.
 - Site elements is mainly characterized by seniors and settled families with low-density and low-profile housing.
 - Amenities are limited. A new development will not attribute, nor benefit from this plot.
 - A central gathering place for residents in this neighborhood is non-existent. A new development will not attribute, nor benefit from this plot.
-

- **IMP GC-4.1 (pg. 139)**

Assess and amend as needed to Development Code and other City regulations related to infill development and redevelopment to protect the existing neighborhood areas. Regulations (or lack thereof) that address, among other issues:

- *Site design and building massing's and forms that are compatible with or complimentary of the surrounding neighborhood.*
- *Mitigation of any compatibility issues (such as parking, noise, hours of operation) that could arise from non- residential land uses/developments.*
- *Transitions between higher-intensity development and lower-intensity development (particularly single-family neighborhoods)*

and

- **IMP NR-2.10 (pg. 152)**

Monitor traffic-related noise levels throughout the community to establish baseline standards and evaluate noise 'hot spots' to ascertain mitigation or management alternatives to address noise pollution from transportation activity.

Inference:

- To best serve and protect Mountain Vista and surrounding neighborhoods, rezoning will not be granted.
- Building masses such as Mountain Vista West Apartments LLC. will not be compatible or complimentary with the surrounding neighborhood.

- To best serve and protect Mountain Vista and surrounding neighborhoods, rezoning will not be granted.
 - A transition from Low-Density Residential to High-Density Residential will cause a substantial distress on students, working residents, access to basic needs, and children at play.
 - This specific zoning change will also cause distress on the attached active agricultural plot, civil services, and city funds.
 - Per [HUD Planning Guide](#), provisions of public transportation services are required to improve access to schools, jobs, training opportunities, and housing/community services for minority families including those with children, seniors, and disabilities. This area/neighborhood would need adjustments to meet such requirements.
 - [Sec. 24-207](#) Site Plan: “The plan reduces the exposure and adverse impact of more intense activities or components of the site or building on the streetscape and on adjacent properties”. In fact, the plan on this plot will encourage the opposite.
-

- **IMP GC-6.4** (pg. 141)

Review and update Development Code standards related to the redevelopment of land lease or manufactured home communities to promote... a stable neighborhood setting.

Inference:

- Should a stable neighborhood setting remain within Mountain Vista, then rezoning for rental multi-family units will not secure this action plan.
 - Renters are not “forever” residents. Renters are temporary. Renters change very often and does not present a “stable neighborhood setting”.
 - Mountain Vista Neighborhood residents enjoy knowing who their neighbors are, as this is a secure foundation for safety and security.
-

- **GC-1.1** Growth Management (pg. 42)

Manage growth to maintain or improve quality of life for Greeley’s residents, minimize impacts on the natural environment, and protect or enhance natural features and other resources.

Inference:

- Greeley’s growth is poorly managed: 1. [crime rate data](#), 2. overpopulated schools, and 3. non-existent city improvements to accommodate swollen traffic and population—decreasing the quality of life for Greeley residents, 4. “Demands in many areas continually exceed resources available” ([Weld County 2023 Financial Plan](#)).
 - West Greeley’s environment is calm with the sense of safety for students and seniors. The police department rarely patrols the neighborhoods, and residents must call the city to preform regular maintenance obligations on this side of town, i.e., weed growth control, dead animal pick up, large objects in the road, snow removal, patrolling, etc.). Rezoning within Mountain Vista Neighborhood will cause an elemental impact on the natural environment, and put strain on the limited city resources, this neighborhood currently has.
-

- **IMP HO-1.3** (pg. 146)

Following the development of a comprehensive housing strategy (see Objective HO-2.1), assess the need to increase staff capacity and/or resources to implement the strategy's recommended actions. Increase capacity as needed.

and

- **IMP PS-2.2** (pg. 161)

Regularly evaluate staffing levels within the Greeley Fire Department and Police Department to ensure adequate staff levels needed to ensure public safety, particularly as Greeley's population grows.

Inference:

- [Weld County 2023 Financial Budget](#) claims an increase to accommodate new housing strategies yet failed to make noticeable differences to increase staff and/or resource capacity:
- Public Safety: 2022=22.9%; 2023=22.10% for a total of 0.1% increase.
- Health: 2022=3.9%; down to 3.54% for 2023
- Contingency: 2022=2.7%; down to 2.27% for 2023
- Culture and Recreation: 2022=0.3%; down to 0.27% for 2023

Methods and theories are mentioned, yet the City has not secured or acted upon the needs of this immediate area for rezoning.

- **GC-1.7** Regional Collaboration (pg. 43)

Develop intergovernmental agreements with near-by jurisdictions to:

- *Provide cost effective municipal services.*
- *To address other issues or trends that may be impediments to the effective management of Greeley's growth.*
- *Maintain and/or improve the quality and safety of existing units.*
- *Encourage the preservation of existing affordable units.*

Inference:

- Has this building company collaborated with nearby cities regarding residential protection, and emergency services to alleviate wait-time of these additional renters?
- Is Windsor County school district aware of the students this proposal will add to its overflowing classrooms (also required in section **EH-4.1** Impacts of New Development)?
- Improvement to the quality and safety of existing units around this structure will be required, specifically in this community. **Temporary** renters jeopardize children's safety and gives them road access allowing them to roam freely, without accountability, in backyards that are not fenced in.
- Weld County claims a "commitment to excellence and efficiency" to taxpayers, yet input is rarely used to "allow the Board of County Commissioners" to make tough decisions with maximizing "the value of the tax dollars" to implement programs.
- The GCP is supposed to include affordable housing for the average-wage-income earner (who are also struggling) -- veterans, school professors, seniors, etc., as well as med/high-income-earners

such as, doctors, lawyers, county officials, and so on. We reside in Mountain Vista. As homeowners striving to meet our own monthly financial obligations, Mountain Vista Apartments LLC. will cause us to lose thousands of invested monies encouraging a neighborhood purge (refer to **HO-1** Housing Strategy sections within this document).

- Low-income housing and units are supported by city funds. City funds is collected from taxpayers, where the brunt city financial support come from property owners who do not welcome this zone change. Property owners are the backbone to [Greeley's 2023 Financial Plan](#), holding a whopping **54.3%** (an increase of \$92,493,445.00 from 2022). Tax payers of Mountain Vista would like you to use our money for improving city functions and operations before taking on more responsibility.
-

- **GC-3.1** Community Character (pg. 45)

Work with residents, businesses, and property owners to define and identify desirable characteristics of their neighborhoods or areas of the city to create neighborhood and special area plans. Reflect the community's character through the design of new developments, streetscapes, public art, landscaping, and related features.

Inference:

- The Building Company of the listed plot held a required meeting to “hear” resident’s concerns yet provided zero answers and little interest in the possibility of different options more suitable for our neighborhood.
 - We understand that our dream of a neighborhood playground and a student/community gathering area will never come true. We realistically offered alternatives to an apartment building such as, patio homes, retirement homes, retirement units, assisted living, and single level-connected units of which would be more appropriate for our immediate area.
 - The Comprehension Plan called for a **variety** of multi-family homes. Considering the concentration of apartments, townhomes, and attached housing units within walking distance of the purchased plot (and the many more apartments currently on the agenda), exploring Mountain Vista residents’ suggestions would best reflect this neighborhood’s character, landscaping, and related features. In addition, it will reduce infrastructure duplication and better reflect Greeley’s City Comprehensive Plan; should rezoning be granted (also refer to **HO-1** Housing Strategy section within this document).
 - According to the U.S. Department of Housing and Urban Development, all federal and city housing programs shall include individuals with Disabilities “so that they can have full enjoyment of their homes and participate in and receive the benefits of housing programs”.
-

- **GC-4.4** Sub-Area and Redevelopment Plans (pg. 46)

Implement, update, or develop sub-area plans or redevelopment plans for neighborhoods, corridors, or other parts of the city where revitalization and redevelopment is desired. Ensure such plans provide targeted guidance, based on community input, for where and how redevelopment and/or infill development should occur in those areas.

Inference:

- The city's poor communication and promotion of housing surveys that are restricted to social networks failed to collect accurate community input on the above plans. The city should invest time notifying all populations by placing banners at major department and food stores, lawn signs by neighborhood entrances, flyers at schools, and marquee at businesses. Many cities utilize these methods.
- Downtown Greeley's revitalization plan was agreed upon. However, west Greeley residents, such as the Mountain Vista neighborhood, desire to remain rural and have easy access to necessities.
- A door-to-door survey in, Mountain Vista, Sheep Draw, Owl Ridge, and other communities nearby will provide an opposite statistic for "growth" than what was previously and poorly collected.
- A variety of family units are encouraged. However, multi-use units for low-income families rather than seniors seem to be the city's only priority. Those paying high taxes will grow tired of paying for services we are not able to access in an unsafe town.
- Also refer to [Weld County, Colorado-Character and County Code/Chapter 22-Comprehensive Plan/Appendix 22-B-Subarea Planning Guide](#).
- **For a realistic integration** of mixed housing within Mountain Vista Neighborhood, please review recent studies from [US EPA: Smart Growth: Creating Great Neighborhoods: Density In Your Community: Lessons Learned: Design for Density](#). Which also recommends a smart planning tool called, [Affordable Housing Design Advisor](#).
- [Community Based Alternatives for Individuals With Disabilities](#)
Executive Order 13217, issued on June 18, 2001, requires federal agencies to evaluate their policies and programs to determine if any can be revised or modified to improve the availability of community-based living arrangements for persons with disabilities.

- **GC-6.2 Neighborhood Connectivity** (pg. 48)
Promote design standards and practices that improve connectivity for all modes between neighborhoods and adjacent neighborhoods, centers, corridors, and areas.
and
- **Street Pattern and Mobility** (pg. 100)
Streets in established neighborhoods are primarily curvilinear and, in many cases, are not well-connected.... their street networks and the prevalence of low-density development may make service unfeasible.

Inference:

- Connectivity for all modes between neighborhoods and adjacent neighborhoods would become congested. Vehicles will cut-through Mountain Vista neighborhood to access W. 20th Street. Commuters will seek a short-cut by heading west on 19th Street, turning left onto 80th Avenue, right onto 79th Avenue, to finally reach W. 20th Street.
- The above streets are the only two exits from the west side of the neighborhood. This building structure will violate **TM-1.3 Streetscape Design**, **TM-1.8 Functional Classifications**, **TM-1.13 Street Patterns**, and **TM-3.4 Balance Impacts**.

- Commuters are currently frustrated with long wait-times at the traffic light on 83rd Avenue and 10th St. As traffic presently stockpiles, drivers wait 2 stoplights before crossing or making a left/right turn on 10th St. The named roads are destroyed. There is not an efficient flow of traffic.
- The ability to turn right or left onto 83rd Avenue will become dangerous. Poor road construction and the inability to adapt to a flood of vehicles will cause impatient drivers to make dangerous, impulsive decisions at the stop sign of a busy street.
- Many construction/company trucks often use the above route from Highway 34. Also contributing to traffic build up on 83rd Ave. Rezoning will increase accidents and endanger students should drivers begin to wait for three or more traffic lights at 10th St.
- Starbucks at Boomerang Ranch, (SPR2022-0049) South of 10th Street and East of 83rd Avenue with city planner Darrell Gesick, will exacerbate the situation at the above-mentioned crossroads. Therefore, rezoning for R-H /PUD will ignore “long-range plans for the surrounding area [and] negatively impact considering the permanence of the proposed use, the permanence of existing uses in the area, and any changes in character occurring in the area (Development Code [Sec. 24-206](#)).
- All traffic efforts will add strain on [GPD’s Strategic Plan](#) to “address aggressive and discourteous driving behavior that contributes heavily to increased accident statistics.”
- Per the [Zoning Permit For Manufactured Home/Structures \(Zpmh\) Procedural Guide](#), an access must be available to provide safe ingress and egress to a public street/road, where all accesses shall be in accordance with the access requirements set forth in the Weld County Code. As stated in **TM-1.3** Streetscape Design of this document, commuters of all modes will not have direct alternatives to destinations to avoid congestion without endangering our residential neighborhood.
- [Sec.24-207](#)-Site Plan: Rezoning will not provide a “safe access and internal circulation considering the site, the block and other surrounding connections, and appropriately balances vehicle, bicycle and pedestrian needs for the context”.

○ **GC-6.3** Neighborhood Character (pg. 48)

Maintain, enhance, and protect the character of established neighborhoods while recognizing the need or established neighborhoods to evolve to meet community needs.

Inference:

- Mountain Vista is an established neighborhood. Rezoning for the purpose of an apartment building on the mentioned plot will not maintain, enhance, or protect the character of our neighborhood for the many reasons stated. Rezoning will eliminate the community’s ability to evolve or to meet a more profitable need.
- Residents of Mountain Vista recognizes community “needs”. Therefore, residents of the neighborhood offered a reasonable compromise for the plot in our neighborhood as mentioned above in section **GC-3.1** *Community Character* of this document.
- Development Code **Sec. 24-206** emphasizes the ability of the Counsel to “ensure the use is appropriate in [this] specific location” to meet community needs consistent with the GCP “in terms of operating characteristics such as, hours of operation, visible and audible impacts, traffic patterns, intensity of use, and other potential impacts on adjacent property. The cumulative

impact of a concentration of similar existing uses may be considered as part of the impact of a particular use.”

- **GC-6.8** Neighborhood Plans (pg. 49)

Work in collaboration with residents to develop neighborhood plans which complement the goals and objectives of this Comprehensive Plan where additional policy guidance or implementation strategies are needed. In addition, neighborhood plans should address issues related to:

- *Location and access to health and human services*
- *Desired land uses and intensity/density of development.*
- *Neighborhood character, transitions to adjacent neighborhoods and areas, and compatibility of new development*
- *Parks, schools, public gathering spaces, and other neighborhood amenities*
- *Transportation and mobility for a range of modes (i.e., pedestrians, bicyclists, automobiles, etc.).*

Neighborhood plans should include goals and objectives (or similar), as well as a list of implementation actions or strategies the city and/or neighborhood will complete in order to implement the neighborhood plan.

Inference:

- Access to health and human services will prove more difficult for neighborhood residents and adjacent neighborhoods because of swollen roads cluttered with foreign traffic, parked traffic, and poor traffic control. Nor is a safe alternative mode of transportation available, such as walking or biking, due to the absence of sidewalks, bike lanes, and direct routes/trails.
- This neighborhood’s desired land use and intensity/density of development wish to remain low-density/traffic.
- The proposed development is not compatible with the neighborhood or its character. It does not provide fluent transitions to adjacent neighborhoods and areas.
- Rezoning does not meet the neighborhood’s objective to become healthy and active. Rezoning will steal the opportunity to add a neighborhood park, gathering area, or a neighborhood student meet-group that does not require a vehicle or to have children cross busy roads to reach (creating more parks and trails is also part of the City of Greeley’s Comprehensive Plan).
- All modes of mobility within this area is threatened because of zero alternative options to access an arterial road besides violating **GC-6.2** Neighborhood Connectivity where vehicles would “cut through” Mountain Vista neighborhood endangering everyone within.

- **OBJECTIVE: INFRASTRUCTURE (IN)**

- **IN-1** (pg. 148)

Ensure developed areas in Greeley are served by adequate public facilities and services.

and

- **IMP PR-1.6** (pg. 159)

Review subdivision requirements and the Development Code to ensure that new development is required to provide quality streetscape improvements and connections to parks and trails.

Inference:

- [Greeley's 2023 Financial Plan](#), states several shortcomings within public staffing services. Solutions offered by the department includes recruitment advertising and wage adjustments. The availability of tax-dollar services should be prioritized in accordance to the current population before approving rezoning changes that allow high-density residential areas to invade neighborhoods such as Mountain Vista West Apartments LLC.
 - "Charges for Services are up \$1,267,957, mostly due to growth and inflationary trends" (2023 Financial Plan).
 - "Fines from traffic enforcement are down an additional \$35,000 from 2022 due to less traffic enforcement resulting from SB 20-217" which would not be an issue should the GPD have additional staff (2023 Financial Plan).
 - The [U.S. EPA](#) stated, a healthy neighborhood preparing for mixed use family units also means "civic buildings such as recreation centers, bandstands, or a library, or to ensure that an elementary school is within a 15-minute walk of each household. It may also mean parks throughout the area, so that every home is within a 2- to 3-minute walk of a small park." Mountain Vista does not accommodate any of these features, which may become a FISCAL BUREN to the CITY.
-

- **IN-1.5** Police Service (Greeley Police Department [GPD]) (pg. 63)
Adequacy for police service shall be determined according to call response times relevant to the proposed development location. City analysis of police service demand generated by the proposed development and existing capacity will be required to make a final adequacy determination.

Inference:

- The GPD's attention is concentrated on downtown Greeley, leaving West Greeley vulnerable. Yet Chief recognizes "a growing population, de-criminalization of certain crimes, and an increasing number of state and federal prison parolees being released to the area will continue to pose challenges for the future and we must prepare to address those variables" ([GPD Strategic Plan](#)).
 - As stated in September of 2022 during a community Question and Answer session, Chief admitted his department does not currently hold adequate police services to meet today's population, nevertheless an increase.
-

- **IN-1.11** Costs of Infrastructure Expansion (pg. 64)
Ensure the extension of infrastructure, services, and public facilities in a manner that does not create fiscal burdens for the city or existing residents.

Inference:

- Fiscal burdens for the City include: 1. hiring additional civil service staff to meet City's obligation to maintain resident's health and safety, 2. installing traffic safety equipment within the

neighborhood's area crossroads for students: (a) 83rd Ave. & 18th St., (b) 83rd Ave. & 10th St., (c) round-a-bout on 83rd Ave. & 20th St., and (d) 83rd Ave. & Route 34, 3. widen streets for suitable turning lanes to adapt to traffic for housing residents, new build renters, and businesses located on 82nd Ave. & 18th St., 4. construct bike lanes for students & commuters, 5. install city sidewalks for students & commuters, 6. paint road markings & install traffic signs to direct congestion, 7. snow removal, 8. create a city bus stop near new build & redirect city bus route (new build should not interfere with housing residence or take "routes within [our] established neighborhoods", and 9. Also refer to **IN-1.12** Infrastructure Operations.

- Fiscal burdens to the residents: 1. methods to slow traffic within the neighborhood (speed bumps, signs, etc.), 2. methods to discourage loitering within the neighborhood, 3. individual costs in the attempt to minimize noise and light, 4. additional lawn treatment due to pet defecation damage to avoid HOA Fees, and 5. individual costs to enclose unfenced backyards and to add home security.

-
- **IN-1.12** Infrastructure Operations (pg. 64)

Ensure that City infrastructure is safe, well-managed, and efficiently operated.

Inference:

- A safe City infrastructure plan is not in affect. The city government's job is to "provide a continuous stream of funding" to a "safe city" initiative. This includes safety equipment, surveillance, government employees, technology agencies, and organizations to maintain the city's "dedicated" security equipment throughout ([Safe Cities White Paper](#)). The city currently has cameras on stoplights to perceive safety. This is one impractical act since it is not well-managed or efficiently operated. Nor does it protect Mountain Vista Housing residents if rezoning is approved.
- Infrastructure systems "tend to be capital intensive and high-cost investments and are vital to a country's economic development and prosperity. " Almost everyone would agree that transportation facilities and facilities to manage water and wastewater are infrastructure. Many respondents did not include housing or recreational facilities... because those are largely privately provided" (Miller, Tracy. [Infrastructure: How to Define it and Why the Definition Matters](#). July 12, 2021).

-
- **IMP IN-2.2** (pg. 149)

Evaluate, and update as needed, existing design guidelines for infrastructure and public facilities to ensure aesthetics and considerations for the visual or quality of life impacts on surrounding neighborhoods are considered.

Inference:

- Rezoning for the intended purpose will violate Development Code [Sec. 24-504\(d\)](#). The scale of the building will not compliment or transition well into Mountain Vista Residential community. This building will overpower our neighborhood's features, streets, and open spaces.

- The right to aesthetic and considerations for the visual impacts of neighborhoods nearby will be disregarded. Mountain Vista Community will be an oxymoron to the fact that residents will no longer enjoy its mountainous view and “natural features *for their aesthetic and ecological value, including groves of trees, prairie, streams, unusual and attractive topography, and similar natural landscape features*” as described in [Sec. 24-506](#).
 - The negative impact on resident’s quality-of-life would grossly violate our residential rights and more. Rezoning for a similarly targeted group will not be of value in this area or for the City, overall. It will solely benefit the owner.
-

- **OBJECTIVE: NATURAL RESOURCES & OPEN LANDS (NR)**

- **NR-2.2 Outdoor Odors** (pg. 69)
Support ongoing efforts to identify, track, manage, and reduce offensive outdoor odors.

Inference:

- Rezoning this plot of land will not reduce offensive outdoor odors:
 - vehicle pollution
 - pet waste
 - public waste management
 - sewage
 - tobacco and marijuana smoking
-

- **NR-2.3 Noise Levels** (pg. 69)
Promote acceptable noise levels throughout the community.
and
- **IMP NR-2.1** (pg. 151)
Identify and employ methods to minimize and mitigate noise impacts generated from existing and planned traffic corridors, transit operations, and other capital improvements.
and
- **IMP NR-2.2** (pg. 151)
Minimize the exposure to excessive and disturbing noise through the enforcement of daytime and nighttime noise ordinances, as well as through assertive traffic enforcement actions.

Inference:

- Rezoning will not promote acceptable noise levels throughout the community and will disrupt the peace during the daytime and nighttime hours:
 - loud vehicles
 - foreign vehicles using neighborhood streets.
 - loud music and gatherings
 - pets (barking, cat fights)
 - increased activity (sirens, trash pickup, etc.)
 - off hours firework/firecracker use

- illegal modifications to vehicle mufflers without legal recourse (**Sec. 16-58**).
-

- **NR-3.1** Protect Natural Features and Viewsheds (pg. 70)

Ensure that important natural features and viewsheds are protected or enhanced as development occurs.

Inference:

- Rezoning this plot will harm crops harvested by the [Weidman and Schoenhaar](#) families with land zoned as Agricultural attached to the plot in question. Littering, pets, pollution, loitering, and construction all contribute to the farmer's challenges to grow crops.
 - This unit will also block the only open-view west Mountain Vista neighborhood currently values. Also refer to **NR-3.2** Public Open Lands.
-

- **NR-3.2** Public Open Lands (pg. 70)

Secure and protect meaningful public open lands areas within and near to the city in order to provide visual relief from the urban landscape, preserve "food sheds" and important vistas, and/or retain separation from other communities.

and

- **IMP NR-3.8** (pg. 154)

Identify and secure a range of funding sources and other financial mechanisms that will enable the implementation of the Open Lands and Natural Areas program and community separator concept in a way that balances individual property interests while securing important visual and natural areas for public enjoyment and/or protection of habitat and other environmentally sensitive areas.

Inference:

- Should rezoning commence, this area will not find visual relief from urban landscape. The city has plans to build additional apartment buildings adjacent to this plot, near the soon-to-be Starbucks within the Boomerang Ranch Retail Center currently in action. Rezoning, and the City's quest to urbanize all surrounding areas will deprive Mountain Vista residents the view of the distant sky and Rocky Mountains.
 - Security and preservation of "food sheds", such as the lot located a hairline away from the land in question, will struggle from adequate sunlight and air quality. Rezoning will guarantee windblown trash, cigarette butts, pet waste, and loitering onto agricultural land.
 - Also refer to **NR-3.1** Protect Natural Features and Viewsheds.
-

- **Parks & Open Lands** (pg. 95)

Access to parks and open lands is an important aspect of Greeley residents' quality of life.... the Land Use Guidance Map and community building blocks support both the protection of open lands

within the community and at its peripheries (as community separators) and support the preservation and interconnection of open lands within larger developments and subdivisions.

Inference:

- Rezoning from AG/R-L to PUD/R-H will eliminate Mountain Vista Resident's community separator within a larger development. The current land contributes to immediate resident's quality of life because it acts as a community separator from Mountain Vista Business Park and heavy traffic.
- A reasonable alternative that is often dismissed may be Residential Care for assisted living. **SEC 24-404** Specific Use Standards. Located on a collector street, this type of mix-use housing would serve as a smooth transition between neighborhoods, easily meet all residential design standards, and ensure site compatibility "with the neighborhood in terms of scale and intensity of activity". This plot may remain R-L while the private owners collect capital and meet Greeley's Comprehensive Plan and equal housing requirements. A smaller and calmer build will maintain Mountain Vista's character while preserving the neighborhood's peripheries, and "interconnection of open lands within larger developments and subdivisions".

- **OBJECTIVE: PUBLIC SAFETY (PS)**

- **PS-2.2** Police Services (pg. 79)

Sustain the most visible element of police protection through patrol officers and beats. Develop measurable thresholds that estimate when additional resources will be needed to sustain the community's expected future level of service.

Inference:

- [GPD Strategic Plan](#) declared an imbalance between the police department and population ratio, "with Greeley's anticipated increase in population, the necessity for additional personnel will need to be evaluated and balanced with a fiscally responsible, and strategic approach to agency growth."
 - The GPD Strategic Plan does not have a measurable or definitive plan for additional resources to sustain the community's future level of service anticipated; only a plan to strategically place limited, tired officers already employed by the department with an adjustment to overtime pay.

- **PS-2.8** Maintaining Service with Growth (pg.80)

Identify City needs for funding and development related to safety through the Capital Improvements Plan in order to maintain and keep pace with growth and redevelopment. Periodically review fees to assure they keep pace with the actual costs of serving new development.

Inference:

- [Weld County Capital Improvement Projects/Plan \(CIP\)](#) does not identify City needs for funding and development related to safety for maintaining and keeping pace with growth and the costs of serving a new development by rezoning this land.
 - The two CIP listed to date include Weld County Road 66/41 Intersection Improvements and Weld County Road 72/33 Roundabout. Both located in a non-urban and non-urgent locations.

- **PS-3.5 Safe Built Environment (pg. 81)**

Support development patterns that foster constructive interactions with others to promote the opportunity for neighbors and businesses to mutually support common neighborhood interests such as hazard and crime prevention.

Inference:

- Rezoning for PUD R-H will not foster constructive interactions to promote the opportunity for this neighborhood to mutually support common interests:
 - hazard prevention is not possible with dangers and health risks this development presents.
 - crime prevention is not realistic. Temporary renters often change, not taking pride in their short-term residence or the neighborhoods surrounding them. This encourages a false sense of classification privileges. In turn, single-residential homes will be targeted based on homeowner's advanced planning and hard work.

- **PS-3.6 Public Perceptions (pg. 81)**

Increase a positive public perception of Greeley as a safe place to live, work, and play; and deter opportunities for minimal and undesirable actions.

Inference:

Do not work toward the PERCEPTION of Greeley being a safe place; instead, make it a safe place to live.

- Greeley Police Department requires funding to catch up with Greeley's overpopulation and crime rate.
- Improve access to housing for ALL income-levels, ages, and physical abilities—not just multi-family, low-income, and homelessness. For instance, the average retired resident is struggling with rent as well as those with disabilities.
- Greeley Police Department requires funding to catch up with Greeley's overpopulation and crime rate.
- Improve access to housing for ALL income-levels, ages, and physical abilities—not just multi-family, low-income, and homelessness. For instance, the average retired resident is struggling with rent as well as those with disabilities (Zoning and Site Selection-Local government policies that limit or exclude housing facilities for persons with disabilities - [HUD Planning Guide](#)).
- Also, as an average income-earning family—who carefully planned our life—we are ignored of our wellbeing and safety. We want a quiet and safe place for our families. When we purchased our home, we were happy to be on the lower-dense side of town. The city did not propose plans to urbanize the above plot of land. Otherwise, homeowners like me would not have spent our life savings to settled here ([Appendix E](#)).

- **OBJECTIVE: TRANSPORTATION & MOBILITY (TM)**

- **TM-1.3 Streetscape Design (pg. 84)**

Develop attractive, safe, accessible, and efficient public rights-of-way, including roadways and sidewalks. The design of such rights-of-way should vary depending on the modes accommodated, the surrounding land uses, and the character of the area or neighborhood through which it passes.

Inference:

- The [EPA](#) recommends a good street and transit connection throughout an area, preventing car use for every errand and every trip to school or work and facing unavoidable congestion every day. However:
 - Rezoning will not provide a possibility for a complete street network that would help reduce congestion allowing drivers, bicyclists, and pedestrians to go around traffic or to take more direct routes to their destinations.
 - At each intersection, a person should have options to turn onto a different street and choose a different route or continue along the way. This plot does not provide his roadway connection.
-

- **TM-1.8** Functional Classifications (pg. 86)

Maintain a roadway system that encourages the use of arterial streets for cross-town and regional traffic...and discourages the use of local streets for through-traffic.

and

- **IMP TM-1.1** (pg. 163)

Revise, as appropriate, traffic design standards to match actual experience with various land use types.

Inference:

- This plot is not capable to maintain a roadway system that encourages the use of arterial streets for cross-town and regional traffic due to the long path the residents in the proposed apartment building would have to take to reach 20th Street. Changing zoning for this plot will encourage residents to Vehicles will cut-through Mountain Vista neighborhood to access E. 20th Street. Commuters will seek a short-cut by heading west on 19th Street, turning left onto 80th Avenue, right onto 79th Avenue, to finally reach west 20th Street.
 - Please refer to this document's sections **IN-1.11** Costs of Infrastructure Expansion, **GC-6.2** Neighborhood Connectivity, **EH-4.4** Safe Routes to School, **EH-4.3** Land Use and Zoning Changes, **EH-3.4** Early Intervention.
-

- **TM-1.4** Traffic Calming (pg. 85)

Support the use of traffic calming methods that prevent accidents and improve safety for all users.

and

- **TM-1.11** System Construction and Maintenance (pg. 86)

Support and expand ongoing programs related to roadway construction and maintenance. Ensure that new growth does not negatively impact the City's ability to maintain the transportation system or create a fiscal burden for the city.

and

- o **IMP TM-1.2** (pg.163)

Develop standards which control volume and speed on local streets through pro-active traffic calming strategies.

Inference:

- o To allow cargo trucks to deliver supplies in a timely manner by continuing the truck route through 83rd Avenue, the fiscal burden to the city will include proper traffic control at 83rd Ave. and 18th Street.
- o The city must ensure safe routes to schools by investing in, sidewalks, bikeways, trails, alternative routes, traffic control, and crosswalks on 83rd Ave. from 20th St to 10th St.
- o To secure school bus schedules, the city may employ crossing guards, expand roadways, and build a turning lane into Mountain Vista Business Park.

- o **TM-1.13** Street Patterns (pg. 86)

Promote street and pathway patterns and configurations that foster interconnectivity between subdivisions and commercial development in order to move all users in direct routes and limit extraneous travel on collector and arterial streets.

and

- o **TM-3.4** Balance Impacts (pg. 88)

Support land use proposals that seek to balance, mitigate, and distribute transportation impacts in order to maintain or improve current levels of mobility.

Inference:

- o Construction on this plot of land will limit or close off roads 19th and 18th street. This will cause residents to take a long detour through Mountain Vista neighborhood for an extra 5+ minute drive to reach 83rd Avenue—encouraging extraneous travel on collector and arterial streets.
- o The best way to create a complete street network and support new transportation choices is to “use a modified street grid network, ensure access to different modes of transportation (car, bus, train, and walking or biking routes) and build inviting sidewalks. The street network needs to accommodate both cars and people with many routes to their destinations. The streets and sidewalks should connect all neighboring areas with compatible uses, particularly adjacent residential areas. The network should have short blocks (some suggest 600 feet maximum), which will make it easier for both people and cars to navigate the area. The streets should primarily meet in three or four-way intersections to allow people and cars to go around congestion. Cul-de-sacs should be avoided because they limit people’s options to travel around congested areas and impede the connections between neighborhoods. The network should include a complete sidewalk along the local streets. It should be passable, without people having to go around hedges or highways to continue on the path. It should also have limited driveway cuts. Ideally, a planting strip should be placed along the street, creating a buffer for pedestrians and the opportunity to plant trees, whose canopy would provide shade” (EPA).

- **TM-3.2** Supportive Development (pg. 88)
Ensure that all proposed development projects demonstrate the ability to accommodate pedestrian and bicycle travel.
 and
- **IMP TM-1.3** (pg. 162)
Review Development Code standards to evaluate and update parking requirements for various zoning districts to ensure that excessive parking areas are not created, and attractive parking lot design is required.
 and
- **Sec. 24-702. - Access and circulation.**
Where connections from sidewalks in the public streetscapes or internal access streets is not practical or is too remote, sites shall provide pedestrian connections to any of the above areas or amenities on adjacent sites. Connections directly to adjacent sites shall be made in any case where the connections by sidewalks on public streets or through access ways result in pedestrian routes greater than 300 feet.

Inference:

- Rezoning shall include crosswalk markings, pedestrian signs, bike lanes, and a sidewalk along the north side of 18th Street. As well as school bus stop signs, traffic slowing methods, and crossing guards.
- Vehicle parking will overflow into Mountain Vista Residential community where residents abide by strict HOA policies and pay high HOA fees and property tax.
- Renting families with 3+ vehicles will park on 19th Street, 82nd Avenue, 18th Street, and 83rd Ave. creating visual blind spots for all types of travelers.

2. SUMMARY:

Rezoning Parcel #095908321011, section 8, township 5 north, range 66 west in the name of Greeley's Comprehensive Plan challenges resident's rights. As a resident, I have a right to decide how my tax money is spent, how my quality of life is measured, and to purchase a home near land zoned as AG/R-L, away from urban congestion. At the time of our purchase, the city did not have documented plans to rezone the named land above for context manipulation to carry out capitalistic goals.

As I thoroughly clarified above, rezoning this plot will violate many policies, codes, and rights. The parcel presented for PUD/R-L is not in an ideal location. Approving this request will cause community separation between housing residents and renters of the new build—the opposite of GCP's purpose of "community". Therefore, an approval will grossly disobey Sec. 24-205-Planned Unit Development where "a PUD shall include sufficient area to implement planning concepts that generate broader public benefits that can only be gained from flexible application of the standards, and not simply be used to justify deviations for single projects or on a site-specific basis".

Moreover, many apartment, townhomes, and connecting units are located within this parcel's immediate area. The city has plans to build additional apartments within walking distance in Boomerang Ranch. This plot can easily achieve the GCP with its current R-L zoning designation. The owner may explore several other R-L housing options, parks and recreation, or health and safety needs within the GCP that would keep Mountain Vista Residential Community safe, healthy, and active.

Most studies associate economic and single-home value benefits from having mix-use housing near established communities. However, within those same studies, it was emphasized that the structure's strategical placement would determine the true value of a neighborhood.

My family and I (4 members) respectfully request for the proposal to rezone Parcel #095908321011, section 8, township 5 north, range 66 west to be **denied** ([Executive Order 13217](#)).

Very Respectfully,



Regina Holzmeister

Parcel #095908321011, Section 8, Township 5 North, Range 66 West
Rezoning request = Mountain Vista West Apartments LLC.

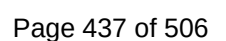


FIGURE B.2

Nearest Hospital for Regular Treatment

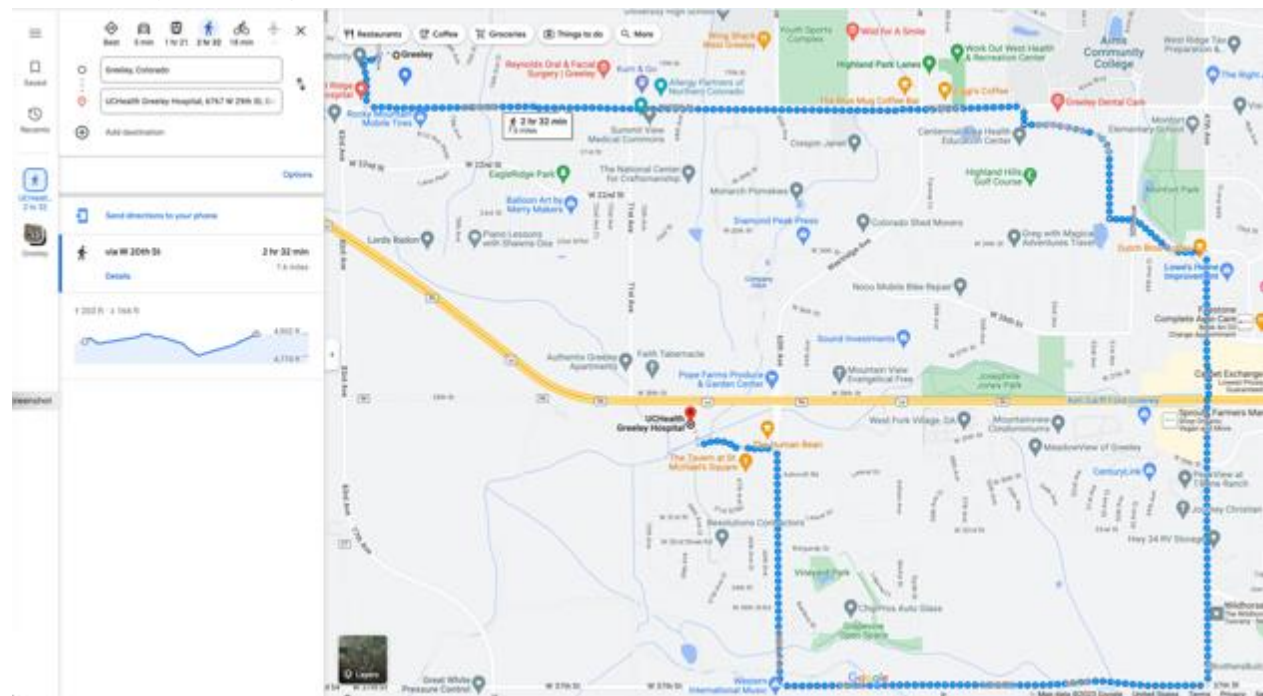


FIGURE B.3

Nearest Grocery Store

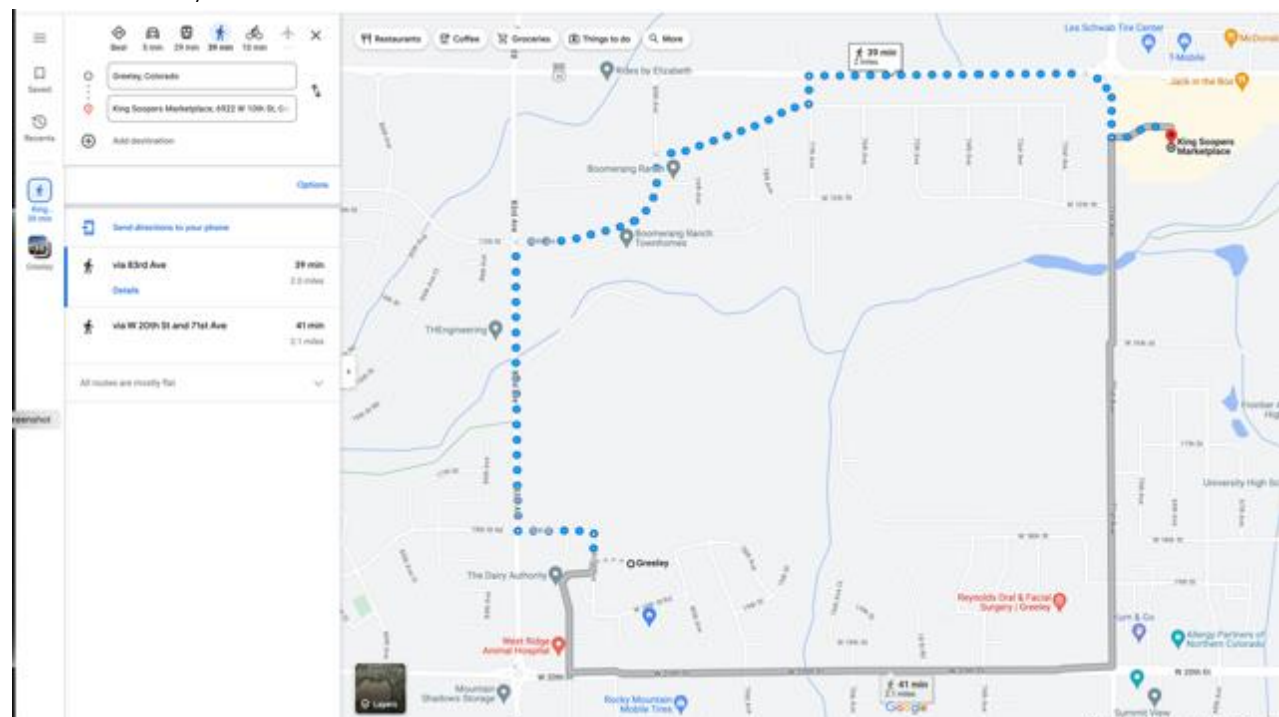


FIGURE B.4

Nearest Library

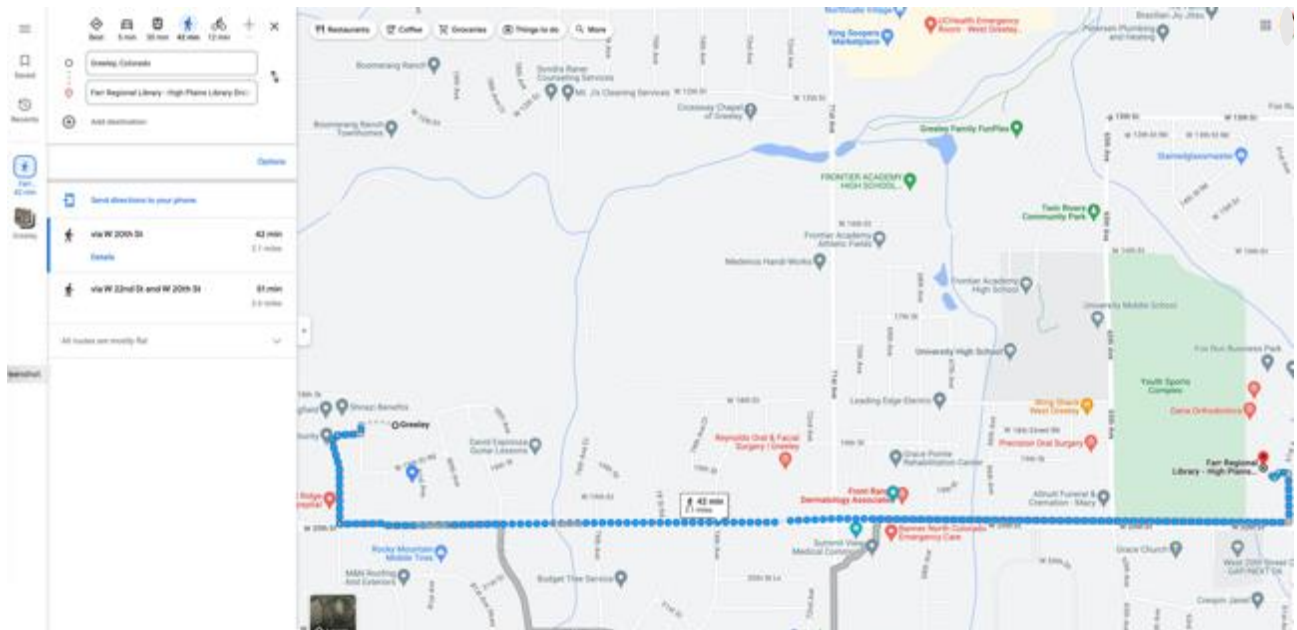


FIGURE B.5

Nearest Park that is NOT Funded by HOA/Renter Fees

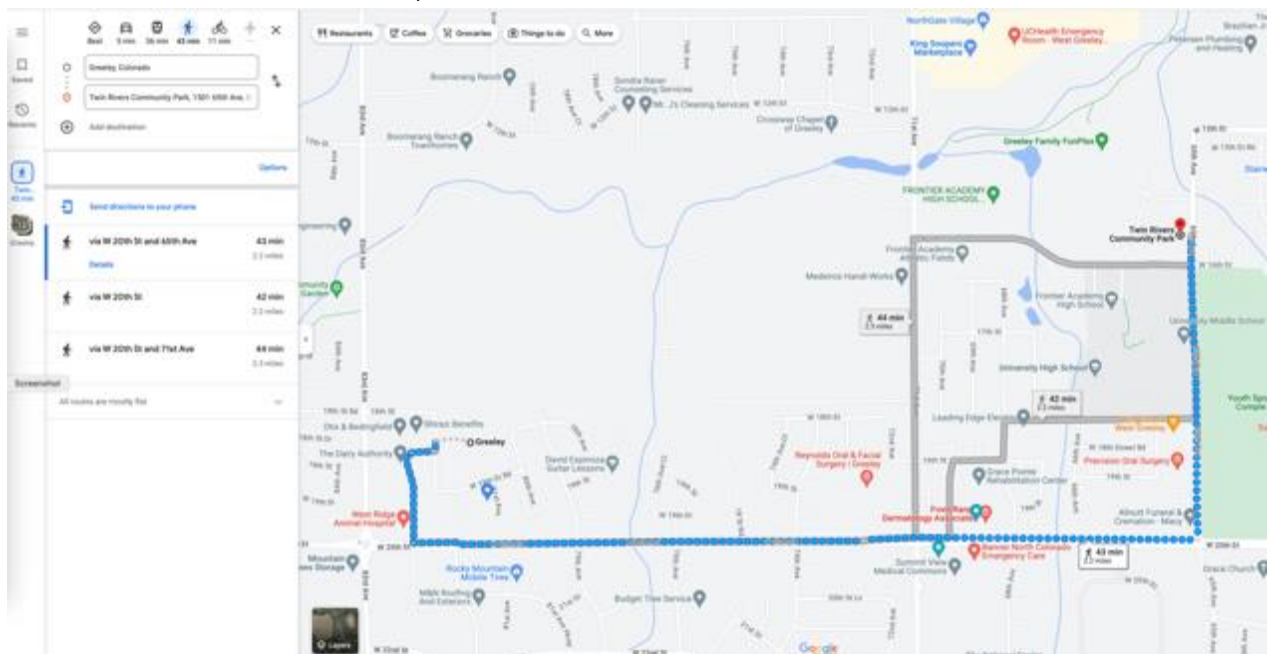
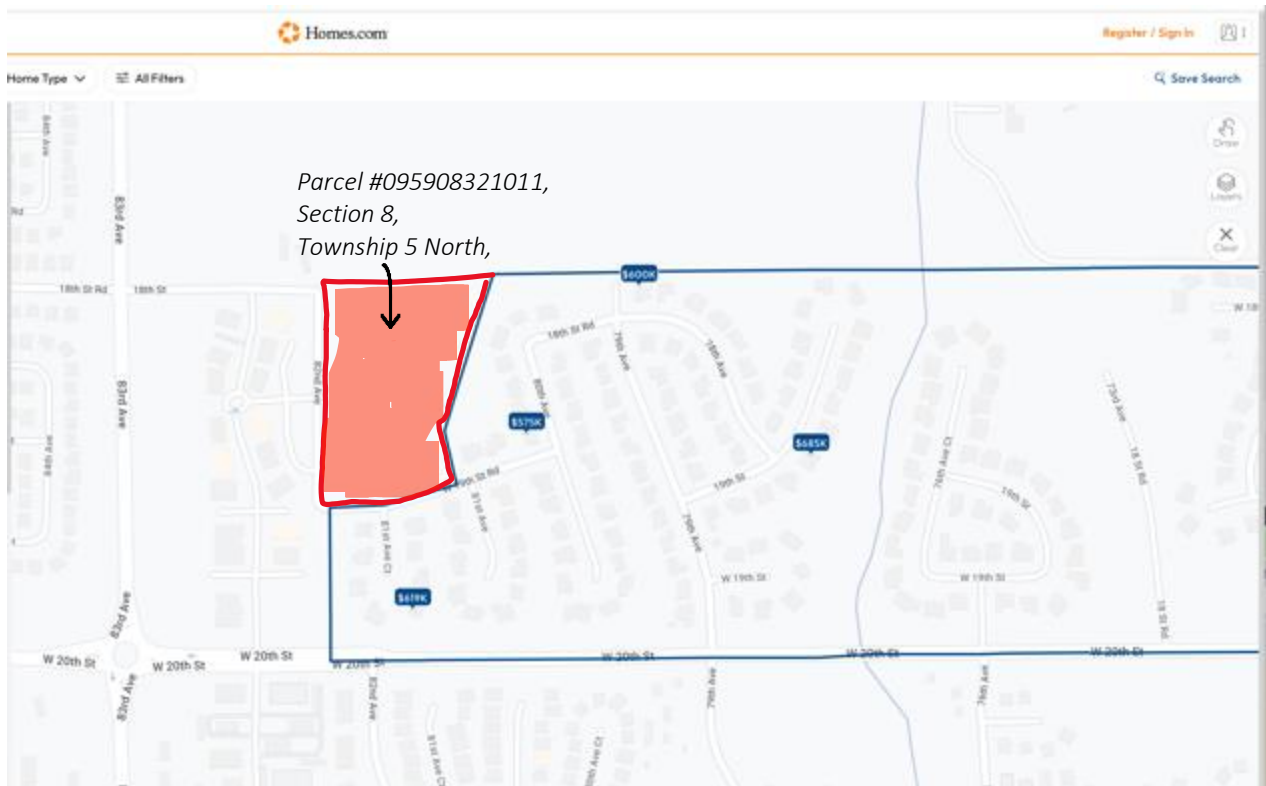


FIGURE C

Mountain Vista Homes for Sale (as of August 4, 2023)



Please refer to City Building Codes to research further graphic clarifications.

[END]

Doug May

From: David Harrold
Sent: Monday, August 21, 2023 3:49 PM
To: brynne@gantlawoffice.com
Cc: Doug May
Subject: RE: Date for Public Hearing - Mountain Vista Multifamily

Good afternoon Brynne,

Thank you for reaching out about the detention pond. To clarify, the authorization to discharge additional stormwater flows to the pond in question is required at the time of site plan review (SPR). We are currently working with the applicant on this land use case, SPR2023-0027, and have not seen any authorization form be submitted. It is on our list of items required prior to City acceptance of the project.

Let me know if you have any other questions.

Thanks,



David Harrold, P.E.
Engineer II
Community Development | Engineering Development Review
1100 10th Street, #203
Greeley, CO 80631
P: 970-336-4175 | david.harrold@greeleygov.com
greeleygov.com

From: Doug May <Doug.May@Greeleygov.com>
Sent: Monday, August 21, 2023 8:45 AM
To: David Harrold <David.Harrold@Greeleygov.com>
Subject: FW: Date for Public Hearing - Mountain Vista Multifamily

Hey David,

Can you answer her question regarding the drainage? I will respond about the hearing date.

Thanks,



Doug May

Planner III

Community Development | Planning

1100 10th Street

Greeley, CO 80631

970-350-9784 | doug.may@greeleygov.com

<http://greeleygov.com/>

From: Brynne Gant <brynne@gantlawoffice.com>

Sent: Monday, August 21, 2023 8:16 AM

To: planning <planning@greeleygov.com>; Josh Olhava <Josh.Olhava@greeleygov.com>; Doug May <Doug.May@greeleygov.com>; Don Threewitt <Don.Threewitt@greeleygov.com>

Cc: remley2@COMCAST.NET

Subject: Date for Public Hearing - Mountain Vista Multifamily

You don't often get email from brynne@gantlawoffice.com. [Learn why this is important](#)

Good morning,

I apologize for copying all of you in this email, but I wasn't sure who would be best to direct this question to. I see on eTRaKiT that the Mountain Vista Multifamily project is scheduled for public hearing, but it is not yet showing on the planning website. Do we have a date for this hearing yet?

Also, in the 2nd Round Review letter dated May 12, 2023, you stated that approval from the HOA for the development to drain to the HOA's pond would need to be "in-hand" as part of the application process. In the developer's response, they stated they were in contact with Becky Stewart regarding this. To our knowledge, the HOA has never provided approval for the drainage, and Becky Stewart has not worked for the HOA for quite some time. Can you confirm whether Planning ever received any purported HOA approval details from the developer in any resubmission? I do not see one, but wanted to double check.

Thank you,

--

Brynne Gant

Gant Law, LLC

8213 W. 20th St., Ste G

Greeley, CO 80634

Phone: (970) 368-3684

www.gantlawoffice.com



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Doug May

From: JOHN KRUSE <NUGGETS28@msn.com>
Sent: Friday, September 1, 2023 9:51 AM
To: Doug May
Subject: PUD2022-0008 Mountain Vista Multi-family PUD

You don't often get email from nuggets28@msn.com. [Learn why this is important](#)

Good morning,

I am sending this e-mail in response to case number PUD2022-0008, the Mountain Vista Multi-family PUD.

I had our house built at 1811 80th Avenue over 15 years ago. We chose that location, as at the time, the area currently looking to be developed was a natural gas site. We built there thinking it would always be vacant, knowing that was not ever going to be the case long term. I only thought that the land behind us would either be homes similar to what is in the neighborhood or even commercial, as what is further west, off of 83rd Avenue. Never once did I think that apartments would be built back there. With that being said, I do have the following comments, concerns, and questions:

1. Traffic in the neighborhood increased exponentially when 20th street was expanded. While this was temporary, if apartments go up, this will also increase the level of traffic going through our neighborhood, but not on a temporary basis. During this same time that 20th street was expanded, unreported crime increased in our neighborhood, via theft.
2. Having only one exit out of the proposed apartment area is not enough. With 14 buildings and a minimum of 6 apartments per building, at 1.5 cars per average household, this is 126 cars going out one way.
3. Why does the City of Greeley only permit or approve "like" buildings in the area. As mentioned before, there are residential homes at probably an average market rate of \$600,000 in the area and very nice commercial properties in the same area, now the City of Greeley wants to approve apartments in this area? What will this do to property values in the area, in which we just seen our property taxes go up, only to have them devalued by apartments going in behind us.
4. Is the City of Greeley's plan for affordable housing to just build apartments? When I look at the most current Residential Projects posted on the City of Greeley's website, all I pretty much see is apartments going up.
5. Where is the infrastructure going to be for West Greeley? 83rd Avenue is not equipped to handle additional traffic coming from all the new apartments going in on the west and east side of 83rd avenue. Why has 83rd Avenue not been expanded? Why is the City of Greeley not encouraging developers to build restaurants.
6. Will the City of Greeley limit the number of apartments being built in Greeley? There are apartments recently being built in Promontory, on the southwest side of 10th and 83rd, more apartments being built on the southeast side of 10th and 83rd, apartments being built on the northwest side of 71st and HWY 34,

southeast side of 20th street and 83rd Avenue, southwest side of HWY 34 and 17th Ave. Currently, we are a Tree City. I am concerned that soon, we will be considered Apartment City.

7. What is the current vacancy rate of apartments now?

Thank you for your time.

John Kruse

Doug May

From: Stephen Cantin <scantin212@gmail.com>
Sent: Friday, September 1, 2023 7:28 AM
To: Doug May
Subject: Case # PUD2022-0008

You don't often get email from scantin212@gmail.com. [Learn why this is important](#)

Mr. May,

I am writing to express concern with the proposal to rezone the property location located north of W. 19th St Rd/ east of 82nd Ave. I understand the need for multi-family residences as Greeley is growing. However, I believe other options should be explored before erecting massive apartments complexes that will create issues to existing residents who live in the neighborhood.

There are very little options to enter the third filling of Mountain Vista. The first is 79th Ave. The second, is 18th St Rd. This is going to create an influx of traffic related concerns that will be difficult if not impossible to manage. There are countless children, mine included that play in the streets and on sidewalks within the neighborhood. This will make safe passage for kids riding bikes, playing ball, and operating lemonade stands unsafe.

When we purchased our home in 2016 it was expressed from our agent that the area would remain as is. We decided to set our roots in this neighborhood so our children could have a place to play and be safe from the hustle of modern day distracted drivers. If we had anticipated a large corporation would be allowed to rezone an area to create residences for thousands, we would not have moved to the Mountain Vista neighborhood.

I'm pleading to you and the city to consider alternatives to this rezone request. I don't want to have to move my family to another community to ensure their safety.

This area in question is without modern conveniences, such as parks or playgrounds. These would make the area remain safe for our children to play while providing the area with much needed conveniences other parts of the community are already enjoying.

I thank you for your time and strongly support ANY other option in place of large apartment complexes being erected in the Mountain Vista neighborhood.

Thanks,

Stephen Cantin

Doug May

From: Marty Neibauer <coachmarty17@gmail.com>
Sent: Friday, September 1, 2023 6:19 PM
To: Doug May
Subject: Mountain Vista PUD Hearing 12Sept2023

You don't often get email from coachmarty17@gmail.com. [Learn why this is important](#)

Good Afternoon,

I am a resident of the Mountain Vista Subdivision in the 81st Ave Ct cul de sac that will be one of the most impacted by this project. Obviously, I am asking as a resident not to allow the rezoning from HA to PUD to go through. Residential low density seems much more appropriate for this site to maintain the style and character of the established neighborhood as the Greeley Master Plan suggests.

The idea of allowing some rich developer to place a random apartment complex right smack in the middle of our established higher end neighborhood seems absolutely absurd to me for a number of reasons. I would argue that Greeley is already overbuilt and over building apartments right now. There are huge complexes across from AIMS and at the Mall under construction. Another large complex off US-34 and 71st, another new project near Promontory. There are recently completed projects and under construction projects by Center Place Shopping Center. I also see there is a meeting on the same day for the PUD development of the 170 acres off 83rd and 10th near another recently completed giant apartment complex west of 83rd avenue.

Where are the houses? If all we build in Greeley are apartments we will always be considered the lesser step child of Windsor, Loveland, Fort Collins, Severance, Tinmouth and so forth where they are building houses. Don't we want people to establish roots in Greeley where they can become permanent residents and community members....not temporary residents? If all we build is apartments, the people who rent them will eventually leave Greeley when and if they can afford to and buy a house in one of the aforementioned communities.

If all we have is apartment complexes there is no opportunity for young families to start to develop inter-generational wealth and work their way up the property ladder in Greeley. They have to go somewhere else to do that. If we keep plopping apartments in the middle of established neighborhoods those people will leave too and take their money with them. There are already many residents in Mountain Vista putting their homes up for sale due to this proposal. This is not good for Greeley, it is a money grab for developers.

In the case of those other complexes, at least the location sort of makes sense. They are at least near a college, near a shopping mall or retail center, located on a major intersection, or with Promontory, near Loveland / Fort Collins where perhaps the residents work. In the case of the Mountain Vista PUD Proposal none of these criteria exist. It is right in the middle of an established subdivision with inadequate infrastructure and traffic capacity to support a 100 unit complex. This proposal flies in the face of the Greeley Master plan for maintaining the integrity and character of neighborhoods.

I'm sure you will find that most of the residents are okay with something reasonable being built there that matches the style and character of the existing neighborhood. Build houses, build patio homes, build something the residents can purchase and become invested members of our Mountain Vista community. Or use the "in lieu of" money the city got during the first phases of Mountain Vista Subdivision to build a park, as many of the older residents of our neighborhood were promised by this same developer. But for God's sake please say "NO" to the PUD rezoning and say "YES" to the tax paying residents of Mountain Vista.

For the record, I did not receive the informational flyer about the meeting until Wednesday, August 30th. Although it is dated August 24th, the envelope is postmarked August 28th. That is not a lot of time for residents to prepare and submit written comments.

I read in the rules that those who attend the community meeting will have the opportunity to speak. Please confirm that this is correct as I intend to take a day off of work to be at the meeting.

Sincerely,

Marty Neibauer
1910 81st Ave Ct
Greeley CO 80634



970-368-5687 | ADMIN@GANTLAWOFFICE.COM | 8213 W 20 ST STE G, GREELEY CO 80634

June 12, 2023

Via US Mail and Email

Greeley City
Planning & Zoning Commission
1100 10th St., 2nd Floor
Greeley, CO 80631
planning@greeleygov.com

Re: *Petition to Deny Proposed Rezoning – “Mountain Vista Multifamily”*

Tract 2, Mountain Vista Filing 3
SE ¼ Section 8, Township 5 N, Range 66
Parcel #095908321011

Dear Commission,

This firm represents Brynne and Jared Gant as residents of the Mountain Vista HOA at 1816 80th Avenue in regard to the above-referenced matter. **With us in objecting to the proposed development join those 261 persons and businesses whose names are attached.** Together, we will be referenced in this petition as “the residents.”

The purpose of this petition is to request that the Commission disapprove the PUD application with proposed rezoning of the above-referenced parcel, in its current state (“the proposal”), as the proposal violates the Imagine Greeley Comprehensive Plan (“IGCP”) and Colorado’s common law against so-called “spot-zoning.” In addition, the residents request that Journey Homes/Northern Engineering (“Northern”) be required to complete an unbiased, third-party traffic analysis and submit the same with any modified proposal.

The residents note that if a modified proposal is submitted with a request to rezone to R-L or C-L, with a true emphasis on the IGCP’s objectives of maintaining the character of higher-end neighborhoods, ensuring safety for students and residents, creating retail Centers or similar, it is likely the residents will not object, as such a request is much more likely to enhance the IGCP and the wellbeing of the residents.

Introduction

On or about April 3, 2023, Journey Homes/Northern Engineering submitted a PUD application with this Commission. That application was not provided to the residents in full, but from what was provided, the residents note that Northern claims that there is a “very limited amount of multi-family” housing in West Greeley—despite the fact that they themselves (or their parent companies) already own at least 1,374 high-density dwelling units in the immediate vicinity. *See Figure B*, below.

On account of their claim that such dwelling units are somehow missing, Northern requests to essentially rezone the subject parcel from H-A all the way to R-H, incorporating 100 dwelling units on the roughly 8-acre parcel that is near-completely surrounded by already-established R-L housing—with no direct access to any major highway. In essence, Northern is requesting this Commission approve a change to the character of

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the neighborhood and the rerouting of approximately 200 vehicles¹ for the 100 units through the surrounding neighborhood where children are often out playing basketball, riding bikes, and the like.

The application goes on to include several bare generalities about how the proposal would supposedly comply with the IGCP and provide adequate traffic considerations, but the proposal fails to provide any specific explanations, traffic evaluations, or the like. For instance, the proposal claims to enhance Objective HO-2.1 of the IGCP, but that Objective contemplates encouraging *a variety* of housing types within new residential projects and subdivisions, and to ensure that Greeley has “neighborhoods and/or development sites available and attractive to its desired workforce, *including higher-end housing*.” Objective HO 2.1 does not contemplate or support a complete change of character for an existing neighborhood whose residents had a legal right to rely on the existing zoning when they purchased their homes. *See, e.g., Clark v. City of Boulder*, 362 P.2d 160, 162 (Colo. 1961).

In the end, what purports to be a declaration enhancing the IGCP is just a request to spot-zone a relatively small parcel in an already-established, high-end neighborhood in order to increase Northern’s economic growth whilst supplying even more of the high-density units that, by definition, *do not* serve the “Missing Middle” of Greeley or the IGCP’s emphasis on maintaining the character of established communities, creating community Centers, and ensuring neighborhoods are safe for children, elderly residents, and all those who had a right to rely on the zoning as it stood when they purchased their property.

Review of Applicable Standards for PUD Applications

Applications for PUD must comply with C.R.S. § 24-67-104 by providing interested parties procedural due process. Before approval may be given, the Commission must make findings that the proposal is in not only in conformity with the IGCP but actually increases consistency with it. G.M.C. §24-204. So-called “spot-zoning” applies where a zoning amendment is sought for mere economic gain to the owner of a comparatively small area. Such zoning amendments are prohibited under the common law of Colorado. *See, e.g., Clark v. City of Boulder*, 362 P.2d 160, 160-162 (Colo. 1961) (internal citations omitted).

The purpose of a PUD should be to allow for flexibility on a *large-scale* and *highly complex* project that requires flexibility in order to take in the broader context in which it lies. G.M.C. §24-205 (2021) (emphasis added). A PUD must include sufficient area to implement planning concepts that generate broader public benefits that can only be gained from flexible application of the standards; *it may not simply be used to justify deviations for single projects or on a site-specific basis*. *Id.* (emphasis added). Every PUD application must fully comply with G.M.C. §24-205(b). In addition, a PUD application is a type of rezoning and so must comply with the procedures outlined in G.M.C. §24-204. *Id.* at (d).

A PUD request must also include a plan that reflects *greater consistency* with the IGCP; that *better meets* the intent and design objectives of the zoning districts and standards, and that promotes the “*general public health, safety and welfare of the community*, and in particular, that of the areas immediately near or within the proposed project, *and is not strictly to benefit the applicant or a single project*.” G.M.C. §24-205(c) (emphasis added). **We, the residents, believe that the proposal fails to meet these strictures.**

¹ US DOT and FHA Highway Statistics Series indicates an average of 1.96 vehicles per household in Colorado, and Greeley tends to be above average on vehicle ownership and usage.

The IGCP Objectives

As you all know, in 2018, Greeley adopted the IGCP as its fifth master plan since the original in 1869. The IGCP provides the framework for public growth and development in Greeley. The IGCP's overview on administration notes that private residents are necessary contributors to its administration. *IGCP p. 14*. The IGCP Vision Statement includes an emphasis on creating neighborhoods that sustain a safe and rewarding place for residents to live and for children to play. *Id.* at p. 24.

The IGCP Objectives are broken down into several sections, none of which are supported by Northern's current proposal, but could be with a modified proposal that is truly based on a desire for innovative development rather than dollars.

1. Economic Health & Diversification

The Economic Health & Diversification section, for instance, includes Objectives to streamline the regulatory framework (such as was done with the one-step PUD application process) but **“without compromising the welfare of the public.”** *IGCP at p. 32*. ED-1.5 specifically encourages the start-up and growth of small businesses. Several of the residents own small businesses that would be negatively affected by the proposal. For instance, both Gant Law, LLC and JMGant Photography are run from the R-L neighborhood as well as the C-L business park for which traffic and parking would be greatly impacted.

Objective ED-1.6 encourages a climate of innovation that will benefit the community. In 2021, the Community Development Department presented information to this Commission and the City Council regarding the “Missing Middle,” of housing in Greeley. Their subsequent adoption of changes to the Development Code included encouraging innovative ways to provide housing options for a variety of income levels. This Development Code update will be discussed further in the sections below, but notably high-density multi-family dwellings and apartments **are not** included among the innovative “Missing Middle” housing types and do not serve the population who were the focus of that presentation.

2. Education, Health, & Human Services; Transportation & Mobility

The Education, Health, and Human Services section and the Transportation and Mobility section of the IGCP include several Objectives for the health and safety of students, children, and other residents, that would be harmed by the proposal in its current state.

Objective of EH-4.3, for instance, is to “[d]iscourage land use changes, zoning changes, and/or new developments that will negatively impact the safety of students...travelling to and from a school...” Objective EH-4.4 encourages supporting “ways for students to safely travel to and from school along well-planned and improved routes,” and ensuring “that new residential developments incorporate facilities and/or design elements that support safe walking and bicycle routes for students...”

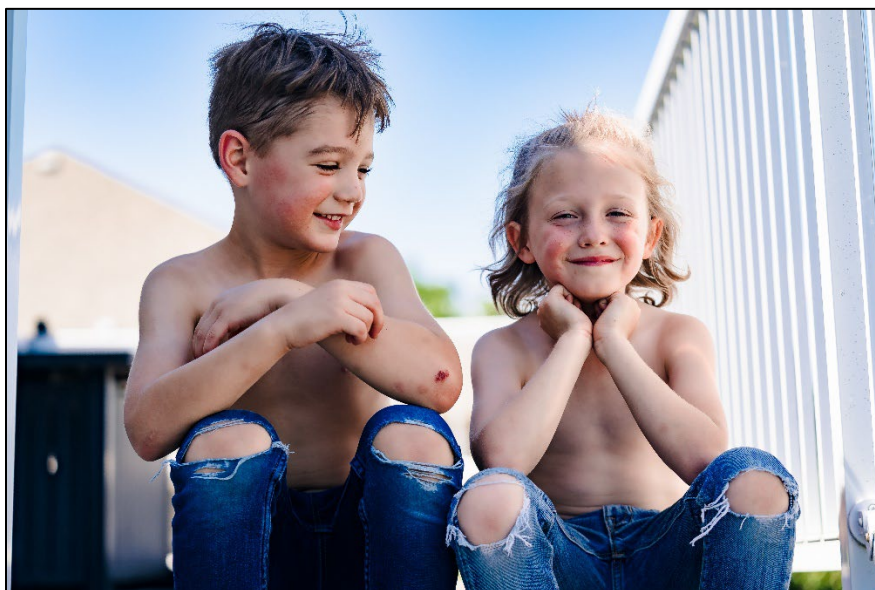
There are three Windsor School District bus stops on the exact streets for which traffic to the 100 units would be rerouted if the proposal is approved.

Greeley residents drive more miles per day than those in surrounding counties along the Front Range. *IGCP* at p. 91. Objective TM-1.2 is meant to ensure that there are adequate and safe ways for pedestrians to walk in our communities and neighborhoods and TM-1.3 is meant to produce safe and accessible rights-of-way that

accommodate the character of the surrounding area and any neighborhood through which a right-of-way passes. TM-1.13 seeks to encourage traffic to move in direct paths and limit extraneous travel.

If the proposal is approved, there is a high likelihood that many of the occupants in the units would be commuting to work at the exact time that our neighborhood students, many of them elementary aged, are attempting to navigate to their bus stops and whilst our residents are walking, jogging, and the like.

Further, Objective EH-2.3 encourages active and healthy lifestyles. As this commission likely knows, it is enormously difficult to get children to play outside in the current culture of all-things-screens. This is our son, Peter Gant (right) and his best friend, Carter Kingman (left).



They are next-door neighbors who have a relationship not unlike Scott Smalls and Benjamin Rodriguez in The Sandlot. These boys often play baseball, basketball, and other games in front of their homes—1816 and 1820 80th Avenue, respectively. **This will no longer be safe or possible if the proposal is approved as is.** If the proposal is approved, they, and other children just like them who already find it difficult to get outside will be further discouraged from an active lifestyle by both the reality of their environment and the grownups who want to keep them safe.

The proposal includes 100 dwelling units in a small, 8-acre parcel that is tucked into our already-developed neighborhood with no direct access to any major roads. Essentially, the proposal would reroute 100 dwelling-units worth of traffic around a blind corner (from 79th Avenue around to 18th Street Road) and straight into the place where these boys are usually out playing on 80th Avenue. Other areas, such as the 3rd Filing's mailboxes (a favorite area for children to navigate to and from) and the HOA's open space west of Filing 3 will be affected as well.

In or around 2015 and then again in or around 2019, Greeley rerouted traffic from 20th street through the neighborhood in much the same way as will be required if the proposal here is approved. When that happened, the activity level of children in the neighborhood suffered greatly. We dealt daily with the inability to safely allow our children to play, as the re-routed drivers sped around the corners and headed through the neighborhood.

Additional EH Objectives regarding land use, walkability, and bikability would also be negatively impacted, as Northern has not adequately explained how those of us who walk, run, jog, cycle, walk our pets, and navigate to nearby areas would be able to continue doing so safely and adequately in the face of the massive development.

And as Northern likely well knows (since a parent company developed several of the R-L homes in the neighborhood), several of the homes here were specifically developed with the elderly in mind and include amenities for that population such as main-floor master bedrooms and laundry. Northern has not adequately provided for Objective EH-3.9 in this regard.

3. Growth & City Form

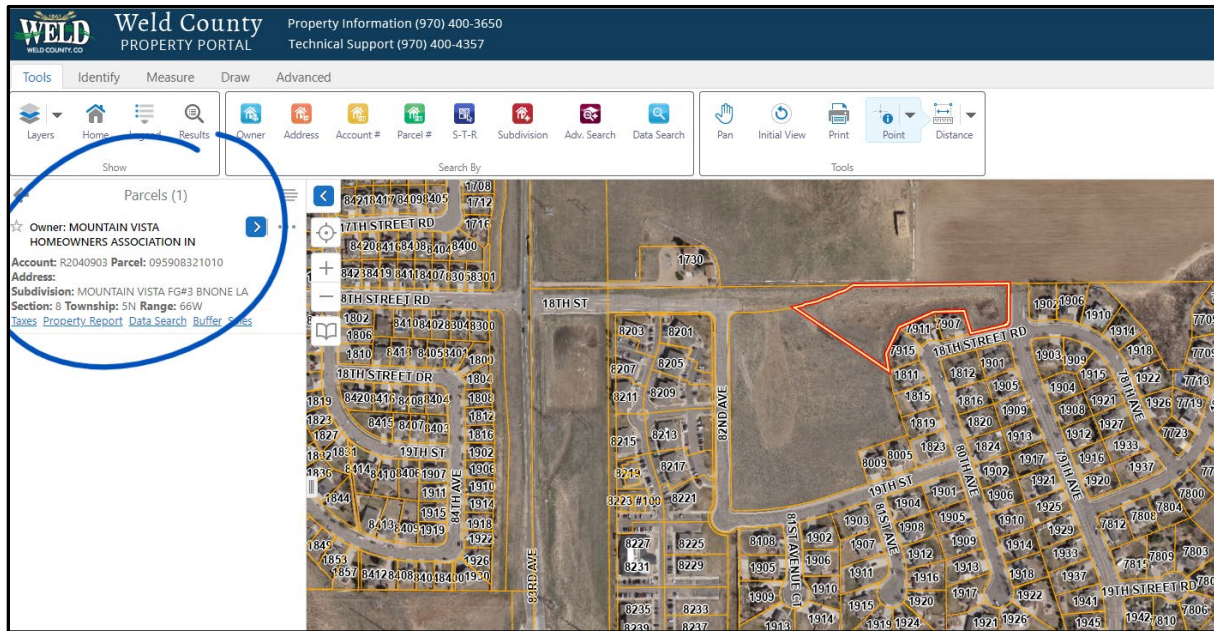
The Growth and City Form section of the IGCP begins by recognizing that Greeley's population growth has expanded (often westward) into a more dispersed population, away from many day-to-day services such as retail areas and parks. *IGCP* at p. 49. Since 2012, Greeley's growth has mostly included multi-family housing units. *Id.* Additional growth is expected, and mixed-use areas are desirable (*id.*), but not in the way the proposal would have it. The goal is to provide enhanced quality of life for the neighborhood residents (GC-1.1) and increased access to things such as retail and parks (*IGCP* at 49) **without** compromising the character of existing neighborhoods (*id.*).

GC-1.1, specifically seeks to “[m]anage growth to maintain or improve quality of life for Greeley’s residents, minimize impacts on the natural environment, and protect or enhance natural features and other resources.” As explained in the Education, Health & Human Services section, above, much like in 2015 and 2019 when traffic was rerouted through the neighborhood, with this proposal, the lives of many of the residents, including those who have signed this petition, would neither be enhanced nor even maintained; they would be negatively impacted.

Objective GC-1.3 requires new development to be restricted to APFA areas. Northern’s proposal includes another broad, general statement about their being adequate utilities. Importantly, Northern also claims in their proposal (sheet 4) that they will improve the offsite existing retention pond—**which is owned by the Mountain Vista HOA**. See *Figure A*, below.

Figure A

Ownership of Parcel Northeast of Proposal



Northern states specifically that they want to “improve” this HOA-owned parcel in order to “provide additional storage and water quality” for their 100 units. Implicitly, Northern knows that the water supply is insufficient for its planned development, and they have failed to explain how the area (that is not owned by them) would be “improved.”

Property owners have a right to rely on existing zoning regulations when purchasing their property and when there has been no material change in the character of the neighborhood which may require re-zoning in the public interest. *See, e.g., Clark v. City of Boulder* at 162 (Colo. 1961).

Several of our residents purchased their abutting property under the then-existing Comprehensive Plan with an assurance of the zoning then in place. Further, since the Mountain Vista HOA owns that land, they purchased with the right to rely on that property continuing to back to the beautiful open space behind these residents’ homes. There are foxes, toads, rabbits, and fireflies that live in that area. How is Northern planning to “improve” this HOA-owned parcel whilst additionally complying with the law that ensures residents a right to the zoning regulations in place at their purchase and that complies with the need to protect natural resources as outlined in GC-1.1? They have not provided sufficient information.

Additional Objectives (e.g., GC-2.4, GC-2.5, and GC-6.1), support building Centers and connection to retail as well as a variety of housing types around those Centers. Here is where Northern had a true opportunity to enhance the IGCP rather than requesting to spot-zone yet another large-scale high-density housing unit. The area just west of the proposed development is already zoned C-L but does not have the types of amenities to create a true Center. The closest retail (a single gas station) to this part of the neighborhood (Mountain Vista 3rd Filing) is over one mile away. Northern is claiming that their proposal enhances the IGCP by providing more of what they claim is a “very limited amount of multi-family” housing in west Greeley. But they are well aware of the fact that this particular type of multi-family housing is abundant here. They know this because the lion’s share of such housing—1,374 of the 1,662 units within

recently built within about a half mile of the proposed development—were developed by them or their parent companies as shown in Figure B, below.

Figure B
 Annotated Map of Nearby High-Density Units

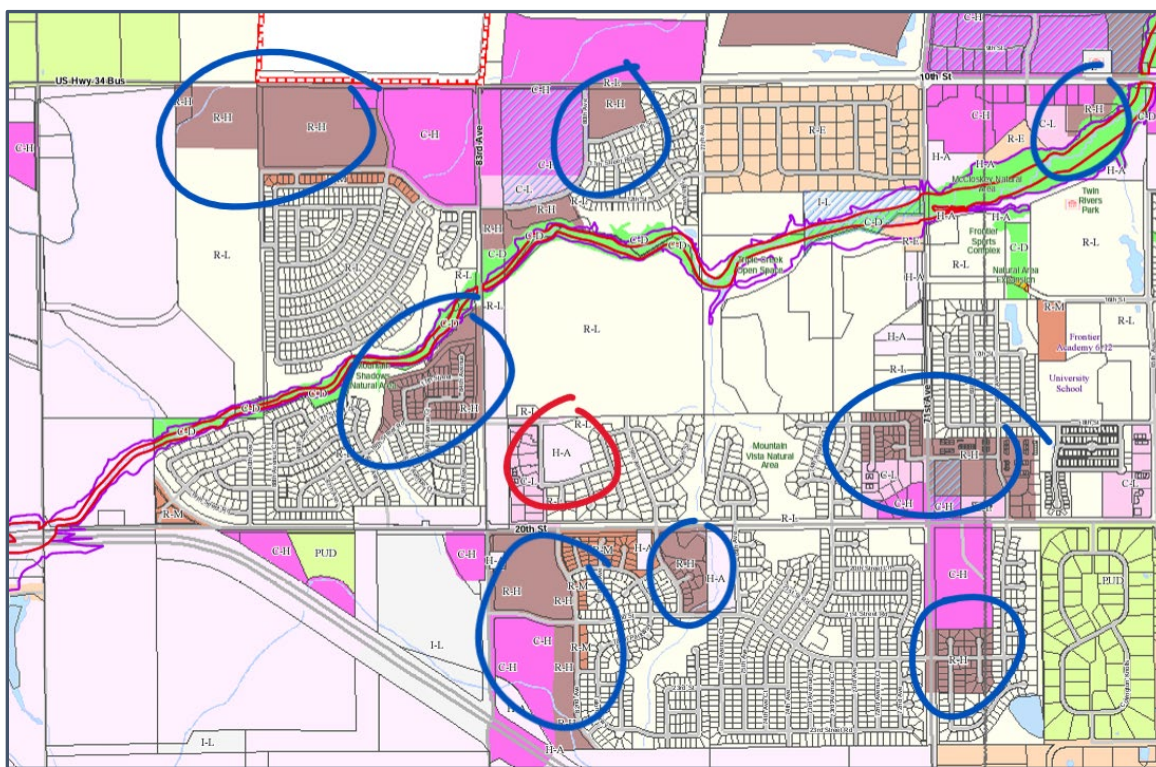


In addition, Northern should be well aware that, per the February 2023 Residential Construction report, there are already approximately 3,800 multi-family units being readied in west Greeley (1,278 in design or fully-approved and 2,530 under construction).

Where are the downstairs apartments, duplexes, row houses, patio homes, garden apartments, townhouses, and other types of Missing Middle housing proposed by the Community Development Department? Where are the retail Centers encouraged by the IGCP? Developers like Northern are not interested in truly serving the Missing Middle or the residents of Greeley, as they know they can make more cash on high-density housing, of which there is plenty, as shown again in Figure C, below.

Figure C

Additional R-H Units



This spot-zoning tactic is prohibited under the common law of Colorado. *See, e.g., Clark v. City of Boulder* at 160-162 (Colo. 1961) (internal citations omitted). Spot-zoning is the act of singling out a small area for special treatment in a manner that does not further the comprehensive plan. *Id.* at 162. When the surrounding areas are zoned differently, and the proposed use is likely to result in economic gain for the developer above enhancement of the comprehensive plan, that is a tell-tale sign that the request is one of spot-zoning. *Id.* An argument that no other use would suffice is not a sufficient rebuttal to this reality. *Id.*

Here, this is exactly what Northern is requesting. The land could be developed into C-L to further the area's use as a Center, it could maintain the character of the high-end neighborhood by being developed as further R-L, or it could even be developed into higher-end medium density residential such as patio homes or town homes, which would further the Missing Middle. None of those requests have been made by Northern. Rather, they seek only to fit as many units as they think they can get away with into the small, R-L-surrounded space—for their own economic growth.

4. Housing

The Housing Objectives are not furthered by Northern’s proposal. This section of the IGCP focuses on increasing diversity of housing for all Greeley residents. Notably, Greeley’s increase in multi-family housing, like that proposed in Northern’s application, ***has not*** changed the general mix of housing types offered in Greeley. *IGCP* at p. 65.

Objective HO-1.1 provides for an overarching housing strategy which includes three main things:

- (1) **preventing an over-concentration** of affordable housing in specific areas;
- (2) **encouraging a range of creative housing options;** and
- (3) **maintaining the quality of existing low-cost units.**

Another Housing Objective: HO-2.1, which Northern specifically references (but does not fully quote) in their application, encourages, again **a variety of housing types, sizes, styles, and price-points** of housing units **within new residential projects or subdivisions**, as well as the following:

- (4) Ensure that Greeley has neighborhoods and/or development sites available and attractive to its desired workforce, **including higher-end housing for executives and other high-paid workers.**

Northern's proposal accomplishes none of four these objectives:

First, Northern already has a high concentration of low-income units within the area (as shown on Figures B and C).

Second, Northern does not foster creativity or a variety of housing types. In fact, Northern said it best themselves in an August 2020 BizWest interview: **"What [our builders] do well is build the same houses. Over and over and over."** See 2020 Bravo! Entrepreneur – Weld County; Bizwest Aug. 2020; Kadlub, L. (<https://bizwest.com/2020/08/01/jeff-demask-and-larry-buckendorf-journey-homes/#>).

As mentioned above, in 2021 the Community Development Department presented their updates to the Development Code which included an emphasis on providing a variety of housing options for a variety of income levels. As part of their presentation, they included a video update and documentation regarding the Missing Middle. See <https://youtu.be/RqQARqCmeRE>.

The video update specifically addresses the fact that apartments/high-density dwelling units are not the type of variety they meant and **do not** meet the needs of the Missing Middle. A better option would be a development of cottages/smaller R-L houses, row houses, accessory dwelling units, or multi-unit homes such as duplexes which "can fit in nicely with single-family neighborhoods."

Third, Northern has not maintained their current units. Upon information from several of the residents and cross-reference to online reviews, Northern does a very poor job of maintenance and has even been prohibited from developing in two nearby municipalities due to the low-quality of their high-density dwelling construction.

Finally, with regard to providing higher-end housing for executives and other high-paid workers, Mountain Vista HOA currently houses several doctors, lawyers, military leaders, entrepreneurs, managers, and other high-level executives. Several of these residents have moved just since finding out about Northern's application.

Another Housing Objective—HO-1.6—would focus on housing for our elderly residents. As stated in the EH section above, several of the residents belong to our elderly community specifically on account of the initial build of houses here which catered to that population. Objective HO-1.6, if met, would cater to keeping the character of the neighborhood in line with that initial design, but nothing in Northern's application supports Objective HO-1.6.

Northern is seeking to develop yet another high-density, multi-family parcel, as indicated by the name of subsidiary LLC they created for this purpose: “Mountain Vista West **Apartments**, LLC.”

They aren’t asking to build a development that maintains the current, higher-end character of the neighborhood. They aren’t asking to build a retail Center, or a development that caters to the Missing Middle, the elderly, or special needs communities. **They are asking to build more of what they do best: the same thing over and over and over.**

5. Infrastructure

Greeley’s growth is causing strain on its current water treatment plants. This strain is being met by growth in infrastructure, but the rate of growth is not sufficient to meet the increased water demands that so many high-density units are creating and seek to continue creating.

Northern’s proposal claims broadly that there will be adequate utilities, including water, but does not provide sufficient explanation on how this will be achieved (other than to say they will “improve” the land owned by the Mountain Vista HOA). The addition of pets alone, together with their waste, for the 100 units will strain the wastewater treatment in Greeley. Accordingly, Objective IN-1.1 would be hampered by the proposal.

Similarly, the proposal fails to adequately address Objectives IN-1.3 (fire service), IN-1.4 (park facilities), IN 1.5 (police service), and several others.

6. Natural Resources & Open Lands; Parks & Recreation

Finally, we, the residents, understand and appreciate that not all open spaces, undeveloped land, and related resources can remain forever, and not all resources are protected. Still, we wish to illustrate for you the effects on each of us personally of the change that has taken place in our surroundings and environment over the past few years in our neighborhood.

Figure B shows the high-density developments that have taken place in recent years in this immediate area (almost all of which belong to Northern or a parent company) (and Figure C shows additional R-H just a bit farther). Just a handful of years ago, these were open fields, grasses, home to many plants and animals. Our homes were quiet, traffic was slow, natural areas abounded. We had all manner of wildlife that we could see from our decks and patios.

As these high-density units have developed, there are no more toads, almost no more foxes and squirrels, rabbits have decreased tremendously along with all manner of flora and fauna. The city has maintained (and improved) the open space off of 20th street between the Mountain Vista 1st and 2nd Filings, but there is no direct access to that area for much of Mountain Vista, including the 3rd Filing and any direct access would require acquisition of a portion of the vast, open parcel (owned by the Wiedeman family) to the north.

Air quality has diminished. Water treatment has been strained. Noise levels have increased dramatically along with light pollution. Here in the Mountain Vista 3rd Filing, there are still fireflies. They live in the



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HOA-owned parcel northwest of the proposed development (the parcel Northern states they will “improve.”). We do not believe they will survive the development.

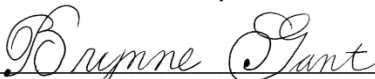
Several of the NE Objectives, such as NE-3.5, and the PR Objectives, such as PR-1.1, will be hampered by the proposal. We are already losing the character of the land we purchased. A rezoning to PUD/R-H will take what little we have left.

Request

We, the residents of Mountain Vista HOA, therefore are requesting that you disapprove the Northern PUD application in its current state as nothing more than a “spot-zoning” request claiming, without supporting documentation or convincing explanation, to be an enhancement to the IGCP.

We request that any modified proposal include a full, unbiased, third-party traffic evaluation and that any modified proposal really, truly take into account the IGCP’s emphasis on maintaining the character of higher-end neighborhoods, on safety for students and pedestrians, on incorporation of Centers and retail services within neighborhoods, on the need for a variety of housing options (not just more apartments and high-density dwellings) as well as amenities for the elderly and special needs communities, and a need for reasonable infrastructure and water supplies as well as preservation of natural spaces.

Sincerely,


Brynne Gant | #46642


Jared M. Gant

Enc. Signatures of 261 additional residents who join in objecting to the proposal



Open land east of 82nd Avenue between 18th and 19th Streets

[illegible]

Open land east of 82nd Avenue between 18th and 19th Streets

Name	Address	Signature/Date
Susan Harvey	30 Alles Dr	Susan Harvey - 3-13-2023
Karen Giebler	1947 17 th Ave.	Karen Giebler 3-13-23
Virginia Hxtell	1703 Glen Meadows Dr.	Virginia Hxtell 3-13-23
Nancy Leone	1910 Montview Dr.	Nancy Leone 3/18/23
Mary E. Ryan	1925 Islermere Blvd.	Mary E. Ryan 3/13/23
Rosamund Bergman Jeremy Oldham	145 59 th Avenue 1903 78 th Ave.	Rosamund Bergman Jeremy Oldham 3-13-2023
Jill Baldwin	1903 78th Ave	Jill Baldwin 6/11/23
Grant Cobb	1914 78th Ave.	Grant Cobb Greeley CO 6/11/23
Joyce Doreen	1922 78 th Ave	Joyce Doreen Greeley Co. 6/11/23
Ken Sun	1922 78 th Ave	Ken Sun Greeley 6/11/23
Allyson Slater SA	1921 78th Ave	Allyson Slater SA 6/11/23
Brooke Smith	1921 78th Ave	Brooke Smith 6/11/23
Marilyn J. Orth	1926 78 th Ave	Marilyn J. Orth 6/11/23
Rick Fleen	7808 79 th	Rick Fleen 6/11/23
Brad Birleff	1909 79 th Ave.	Brad Birleff 6-11-23

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Open land east of 82nd Avenue between 18th and 19th Streets

[illegible]

Open land east of 82nd Avenue between 18th and 19th Streets

[illegible]

Open land east of 82nd Avenue between 18th and 19th Streets

Name	Address	Signature/Date
Robin McIntire	1906 80 th Ave. 80634	Robin McIntire 2/6/23
MARK M ^{McINTIRE}	1906 80 th Ave ^{Greeley, CO} 80634	Mark M McIntire 2/6/23
Dylan McIntire	7904 W 12 th St 80634	Dylan McIntire 3/7/23
Desirae Bates	7104 W. 12 th St. 80634	Desirae Bates 3/7/23
Shelley Paddock	2021 clubhouse Dr, Greeley 80634	Shelley Paddock 3/8/23
Carol Brink	1902 80 th Ave Greeley 80634	Carol Brink 3/8/23
Kelley Millman	112 51 st Ave Greeley 80634	Kelley Millman 3/10/23
Tom Millman	112 51 st Ave Greeley 80634	Tom Millman 3/10/23
CHANCE SPRINGFIELD	1622 WESTVIEW RD, GREELEY 80634	Chance Springfield 3/10/23
Reena Dhakal	2021 81 st Ave Ct.	Reena Dhakal 4/1/2023
Jaclyn McKinnon	2013 81st Ave Ct	J. McKinnon 4/1/2023
David Englund	2005 81 st Ave Ct	David Englund 4/1/23
DAVID ENGLUND	2005 81 st Ave. ^{GREELEY CO} CT. 80634	David Englund
Patricia Vargas	2023 81st Ave Greeley	Patricia Vargas
Erin Joseph	2011 81st Ave Greeley	Erin Joseph
Jeanne Vincelaurito	2003 81st Ave Greeley CO	Jeanne Vincelaurito
Robert McIntire	2018 81 st Ave. Greeley	Robert McIntire
Reyna Barriso	8108 19th St Greeley	Reyna Barriso
Jesus Esquivel	8108 19th St Greeley	Jesus Esquivel
Mirna Camacho	8108 19th St Greeley	Mirna Camacho

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Open land east of 82nd Avenue between 18th and 19th Streets

DALE HALL WARD 4

Name	Address	Signature/Date
Liz Schueller	10302 19 th St Greeley CO 80634	Elizabeth Schueller 2/22/23
Kelly Sanderford	709 River View Dr Greeley CO	Kelly Sanderford
C. Brian Freeman	719 51 st Ave Greeley CO	C. Brian Freeman
Khoi Le	1912 7 th Ave Ct.	Khoi Le
Jaime Carver	1732 Fairacre Rd Greeley CO	Jaime Carver
Robert Vickerman	6600 W. 2 nd St HUGS Greeley	Robert Vickerman
Paul & Andre	452-N Wyndham St Greeley	Paul & Andre
Abbey L Baeza	6201 W. 21 st Street Greeley	Abbey Baeza
Mitch McElmree	1904 81 st Ave Greeley	Mitch McElmree
Amy Patterson	1908 81 st Ave Greeley	Amy Patterson
Marc Patterson	1908 81 st Ave Greeley	Marc Patterson
Julie Tomori	1912 81 st Ave Greeley	Julie Tomori
Sana Tomori	1912 81 st Ave Greeley	Sana Tomori
Jin Heussen	1919 81 st Ave Greeley	Jin Heussen
Gerald Spriggs	1915 81 st Ave Greeley	Gerald Spriggs
Jack	1911 81 st AVE GREELEY CO	Jack
MATT HOLZMEISTER	1907 81 st AVE GREELEY CO	Matt Holzmeister
Gina Holzmeister	1907 81 st Ave Greeley CO 80634	Gina Holzmeister 970-939-8574
Clyde Anderson	1906 81 st Ave Greeley CO 80634	Clyde R Anderson
Sally J Anderson	1906 81 st Ave Ct Greeley CO 80634	Sally J Anderson
Martin Neibauer	1910 81 st Ave Ct Greeley CO 80634	Martin Neibauer
Manuel Lisa	1913 81 st Ave Ct.	Manuel Lisa
Gary Bolland	1915 81 st Ave Ct.	Gary Bolland
BARRY HANWICK	1819 80 th AVE	B. Hanwick
JENNINE HANWICK	" " "	Jennine Hanwick

Open land east of 82nd Avenue between 18th and 19th Streets

Name	Address	Signature/Date
MARY L AFORE	7724 W 19 th Ave	Mary L Afore
Becky Suele	7716 19 th St	Becky Suele
Brenda Spink	7705 19 th St	Brenda Spink
Bob Hurlins	7505 19 th St	Bob Hurlins
Gordon L Grimes	7601 19 th Street Rd	Gordon L Grimes
Mary E Grimes	7601 19 th Street Rd	Mary E Grimes
DONNA DIRLEFF	1909 79 th AVE	Donna Dirleff
Michelle Andreassen	7405 18 th St	Michelle Andreassen
Matthew Tempelman	7405 18 th St	Matthew Tempelman
Deborah G Mason	7704 19 th St.	Deborah G Mason
Tracy Wilson	1908 79 th Ave	Tracy Wilson
Danielle Wilson	1908 79 th Ave	Danielle Wilson
Richard Linn	7803 19 th St Rd	Richard Linn
Robert L. Thompson	7413 18 th Street	Robert L. Thompson
Ana J. Haro	1824 80 th Ave.	Ana J. Haro
Kiki Haro	1824 80 th Ave	Kiki Haro
Diane Paden	1926 78 th Ave	Diane Paden
Nancy Steele	1908 76 th Ave Ct	Nancy K Steele
Edwight Stolt	1908 76 th Ave Ct	Edwight Stolt
Wendy Forsyth	7525 14 th St	Wendy Forsyth
Pickey Harris	7525 14 th St	Pickey Harris
Jana Frielev	1909 76 Ave Ct	Jana Frielev
Glenn Frielev	1909 76 Ave Ct	Glenn Frielev
Todd A. Clark	1901 74 th Ave	Todd A. Clark 3/13/23
Jana Clark	1901 74 th Ave	Jana Clark 3/13/23

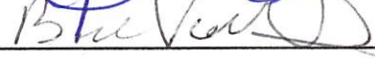
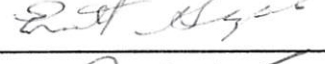
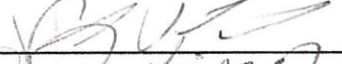
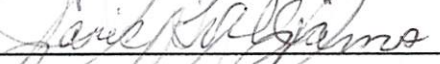
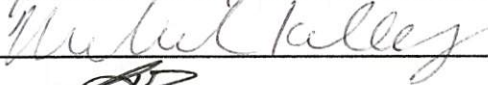
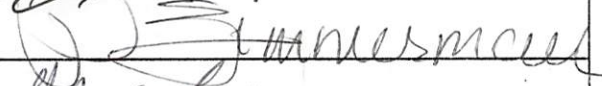
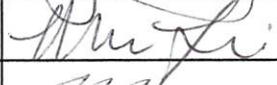
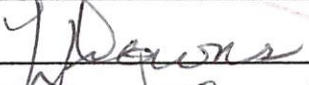
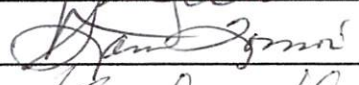
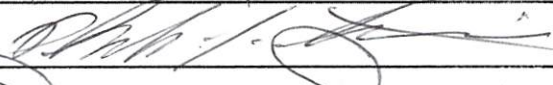
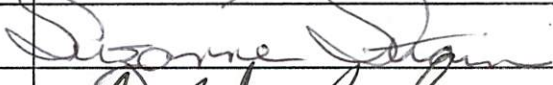
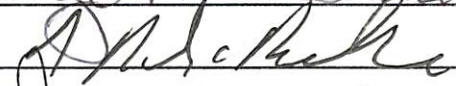
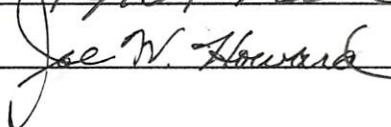
Open land east of 82nd Avenue between 18th and 19th Streets

Name	Address	Signature/Date
Sandy Cosner	1909 81 st Ave Ct.	A. Cosner 3/8/23
Dirk Cosner	" "	DD Cosner 3-8-23
Jesus Esquivel	8108 19 th St	Jesus Esquivel 3-08-23
Reyna Barrios	8118 19 th St	Reyna Barrios 3-8/23
Sam Porter	1901 79 th Ave	Sam Porter 3/8/23
Andrea Kangel	1913 79 th Ave	Andrea Kangel 3/8/23
Russy Youde	1917 79 th H Ave	Russy Youde 3/8/23
Bill Youde	1917 79 th H Ave	Bill Youde 3/8/23
Janis Mitchell	1916 79 th Ave	Janis Mitchell
Tracy Wilson	1908 79 th Ave	Tracy Wilson
Heather McKee	7806 19 th St. Rd.	Heather McKee
Chris McKee	7806 19 th St. Rd.	Chris McKee
Karen McKee	7806 19 th St Rd.	Karen McKee
Brant Lukaszik	7800 19 th St	Brant Lukaszik 3-11-23
Barbara Karbs	7720 W. 19 th Street	Barbara Karbs
Jennifer Karbs	7720 19 th St.	Jennifer Karbs
Jerry Karbs	7720 19 th St.	Jerry Karbs
Karen Burns	1925 76 th Ave CT	Karen Burns 31 MAR 23
Stephen Cantin	7712 19 th St.	Stephen Cantin
Kristy Smith	7911 18 th St. Rd	Kristy Smith
Kandy Wolf	1929 79 th Ave	Kandy Wolf
Mary Lynn Thompson	7413 18 th St	Mary Lynn Thompson
Robert Mattei	1730 83 rd Ave	Robert Mattei 3/13/23
Jan Oetken	7709 19 th St	Jan Oetken
Kristen Deestman	1904 79 th Ave.	Kristen Deestman 3/13/23

Open land east of 82nd Avenue between 18th and 19th Streets

[illegible]

1 West
Open land east of 82nd Avenue between 18th and 19th Streets

Name	Address	Signature/Date
Francisco Valencia	1915 78 th AVE	
Guillermina Valencia	1915 78 th AVE	
Brenda A. Valencia	1915 78 th AVE	
Janell Lambrecht	1927 78 th Ave	
Scott Forkner	1900 76 th Ave CT	
Everett Gonzales	1929 - 76 th Ave CT	
VAN UNDERWOOD	1933 76 th Ave CT	
Janis Williams	2632 W Buena Vista Dr	
RICHARD REID	7605 19 th ST. RD	
Melinda Kelly	7515 19 th ST RD	
Art Chavez	1922 80 th Ave	
Dani Zimmerman	1917 80 th Ave	
Monica Lira	1913 81 st Ave CT	
Maria Acosta	1913 81 st Ave CT	
Lisa Downs	1916 81 st Ave	
Sam Tomoi	1912 81 st Ave	
Kurt Keady	1911 81 st Ave	
PHILIP STRAIN	1926 80 th AVE.	
Suzanne Strain	1926 80 th AVE.	
J. Paul Sorelle	1912 79 th Ave	
Joe Howard	7809 W 19 th ST. RD.	

[illegible]

Name	Address	Signature/Date
Earl P Miller	7429 W 18 th St Greeley	Earl P Miller 06/09/23
Josh & Ruth Ortiz	7425 W 18 th St Greeley	Josh & Ruth Ortiz 06/09/23
Dale Locton	7417 18 th St Greeley	Dale Locton 06/09/23
Robert L. Thompson	7413 18 th St Greeley	Robert L. Thompson 06/09/23
Marilynn Thompson	7413 18 th St Greeley	Marilynn Thompson 06/09/23
Dianne Gibson	7315 18 th St Greeley	Dianne Gibson 6/9/23
Jane Plant	7303 18 th St Greeley	Jane Plant 6-9-23
Don Plant	7303 18 th St Greeley	Don Plant 6-9-23
BOB MILLER	7229 18 th St Greeley	Bob Miller 6/9/23
Steve Otye	7224 18 th St Greeley	Steve Otye 6-9-23
Arlene Otto	7225 18 th St Greeley	Arlene Otto 6-9-23
Linda Sandstrom	7221 18 th St Greeley	Linda Sandstrom 6/9/23
Jack Jernigan	7217 18 th St Greeley	Jack Jernigan 6/9/23
Jane G. Adams	7209 18 th St. Greeley	Jane G. Adams 6/9/23
Don Burrough	1800 74 th Ave CT Greeley	Don Burrough 6/9/23
Elizabeth Burrough	1800 74 th Ave CT	Elizabeth Burrough 6-9-23
Daniel Plant	7418 W 18 th St	Daniel Plant 6-9-23
Jenny Plant	7418 W 18 th St	Jenny Plant 6-9-23
Jerry McCarty	7409 18 th St	Jerry McCarty 6/10/23
Matt Temperado	7405 18 th St	Matt Temperado 6/10/23
Michelle Anderson	7405 18 th St	Michelle Anderson 6/10/23
Rick Berner	7401 18 th St	Rick Berner 6/10/23
STEVEN M MURREN	1808 74 th AVE	Steven M Murren 6-10-2023
DENISE M MURREN	1808 74 th AVE	Denise M Murren 6/10/2023
Ronald Strobel	1816 74 th AVE	Ronald Strobel

Open land east of 82nd Avenue between 18th and 19th Streets

Name	Address	Signature/Date
Jared Gant	1816 80th Ave Greeley, CO 80634	Jared Gant
Byrnie Gant	1816 80th Ave. Greeley, CO 80634	Byrnie Gant
John Kourse	1811 80th Ave	John Kourse
Phyllis Odair	1811 80th Ave	Phyllis Odair
Shirley Odair	1811 80th Ave	Shirley Odair
Jason Rath	1812 80th Ave	Jason Rath
Ronald Rath	1812 80th Ave	Ronald Rath
Ryan Annan	1815 80th Ave	Ryan Annan
Hailey Annan	1815 80th Ave.	Hailey Annan
Kaylyn Kingman	1820 80th Ave	Kaylyn Kingman
Henry Schmitz	1905 80th Ave	Henry Schmitz
Jill Schmitz	1905 80th Ave.	Jill Schmitz
ISAAC BAEZA	6201 W 21st ST	Isaac Baeza
Doyle M Dick	1941 79th Avenue	Doyle M. Dick
Jim L. Sisson	1942 79th Ave	Jim L. Sisson
Steve Larson	1945 79th AVE	Steve Larson
Cody Remley	1713 67th Ave	Cody Remley
Megan Remley	1713 67th Ave	Megan Remley
Jason Taylor	1914 80th Ave	Jason Taylor
Kari Taylor	1914 80th Ave	Kari Taylor
Sherald Brink	1902 81st Ave	Sherald Brink
Chris Lind	1902 81st Ave Ct	Chris Lind
Eric Lind	1902 81st Ave Ct	Eric Lind
Robert Lind	1912 81st Ave Ct	Robert Lind



August 29, 2023

Doug May
Planner III
City of Greeley
Community Development Department
1100 10th Street
Greeley, CO 80634

RE: Mountain Vista Subdivision
Neighborhood Letter

Our response to the Gant Law Letter dated June 12, 2023, is as follows:

Greeley Comprehensive Plan

The Mountain Vista Multifamily Project ("MVMF") does not conflict with the Imagine Greeley Comprehensive Plan ("IGCP"). Conversely, MVMF supports many of the IGCP's goals and objectives as outlined below:

MVMF is not spot zoning and complies with the City's master plan and current zoning restrictions. The proposed land use supports good land use planning by transitional zoning from a lower density, single family to the proposed higher density, multifamily creating a density transition and buffer from the existing commercial zoning. Lower densities are being proposed adjacent to the existing homes at 9.97 DU/ac and transitioning to 16.75 DU/ac adjacent to the commercial area on the west side of the proposed project meeting IGCP's density goals.

MVMF supports walking distance in the adjacent commercial/office park thus meeting several more IGCP objectives.

EH 2.5 Walkability and EH 3.1 Access to Services. Increased density and population in this area will encourage desired high use commercial uses such as restaurants and retail on other nearby tracts of land that are zoned for commercial use.

GC 2.4 Mixed-Use and Transit Supportive – MVMF creates an additional housing opportunity for the overall area. The proposed product will be smaller six and eight unit apartments that are two stories and similar height as adjacent homes and businesses.

HO1.1 Housing Strategy – MVMF creates an affordable housing option for this area. The product will be a smaller multifamily structure with lower density compared to other apartment projects nearby of higher densities.

HO 2.2 Rental Housing – MVMF will provide attractive, well maintained properties for those desiring rent in west Greeley who may not be able to qualify for purchase of a home in this area.

MVMF is $\frac{3}{4}$ of a mile from Highway 34 providing housing for those commuting from Greeley, and near future planned transit along Highway 34.

The PUD zoning provides project specifics and assurance for the neighborhood of architecture and density versus a straight zoned plan.

Adding more of the same single family housing does not create the diversity and housing options that are detailed in multiple sections of the IGCP.

The higher density will make it easier for school buses to pick up more students at one stop versus scattered through out a subdivision.

The project provides ADA units to support the elderly and disabled population providing a more affordable option to live in west Greeley and be part of an established neighborhood with commercial services available such as veterinary, medical and services.

Building retail on this property is not practical for high impact commercial development. The existing commercial/office uses to the west along 83rd Avenue is still not built out after 20 years. There is proposed retail zoning a short distance to the south at 83rd Avenue and 22nd Street as well as several parcels at 10th Street and 83rd Avenue for higher use commercial.

City staff has not indicated in four review submittals that the proposed land use or zoning is not appropriate for this property.

Infrastructure

The project is accessing existing city water and sanitary mains that abut the site and have adequate capacity which has been verified by City infrastructure staff.

The existing stormwater detention pond was designed for future development of multifamily as part of the original Mountain Vista 3rd Filing subdivision and has capacity for development without any changes to the volume.

The existing road network has been analyzed by a third party traffic engineer as well as City staff and all roads have adequate capacity for the proposed project.

The property is zoned Holding Agriculture. It is presumptive to assume neighbors expected the zoning would remain and the land remain undeveloped. The HA zoning was a result of an oil and gas well existing at the time of development in 2002. The well was plugged and abandoned in 2022.

MVMF provides a dog park for pet owners to allow their animals to run and control dog waste.

Traffic

The traffic analysis was performed by a third party licensed professional traffic operations engineer. This traffic study was reviewed by the City and approved since it met criteria for traffic analysis including capacity and safety of all nearby roads.

Traffic will be routed to 83rd Avenue and not through a circuitous route to the east through the subdivision. It is 3,000 feet and four turns to go through the existing subdivision to the east compared to 1,000 feet and one turn to 83rd Avenue to the west. Minimal traffic impact to the subdivision

Access points were deliberately placed on 82nd Avenue near the office park as well as on the north side on 18th St adjacent to the existing field to encourage traffic flow away from the existing homes.

There are adjacent transportation facilities such as sidewalks which have adequate capacity for all residents in this area to safely move and enjoy the neighborhood and connect to the commercial/office park and 20th Street.

Summary

MVMF project represents a well-founded transitional zoning strategy that aligns harmoniously with IGCP and has undergone a meticulous third-party traffic analysis. In an earnest effort to address neighborhood concerns regarding traffic, MVMF has collaborated closely with the City, incorporating their guidance to introduce curb extensions along 82nd Avenue. This innovative feature serves the dual purpose of narrowing the road, thereby slowing vehicular traffic, and enhancing pedestrian safety for those crossing 82nd Avenue to access nearby offices and businesses. Furthermore, a raised crosswalk is slated for installation on 19th Street, a measure aimed at not only reducing vehicle speed but also ensuring the safety of pedestrians, including individuals of all ages, as they navigate the neighborhood.

Importantly, the MVMF project promises to augment housing diversity within the Mountain Vista Subdivision, which is currently predominantly characterized by single-family detached residences. By introducing two new types of multifamily housing options, this development addresses a crucial need for housing variety in the neighborhood, particularly between arterial roads such as 10th Street and 20th Street, which can at times create barriers between neighborhoods. In addition to diversifying housing options, the proposed project also has an array of over a half-dozen amenities designed to enhance the quality of life for its tenants. Moreover, it aims to expand the availability of affordable housing, thereby accommodating elderly and disabled residents who might not otherwise have the opportunity to reside in this part of the city.

Ultimately, the MVMF project aligns seamlessly with the overarching goals of the ICGP. By offering housing alternatives beyond the traditional single-family model, MVMF contributes to the enrichment and diversification of the community, rendering it more appealing for individuals seeking an attractive environment in which to live, work, and recreate.

Sincerely,


Joel Hemesath



Mount Vista Multifamily PUD2022-0008

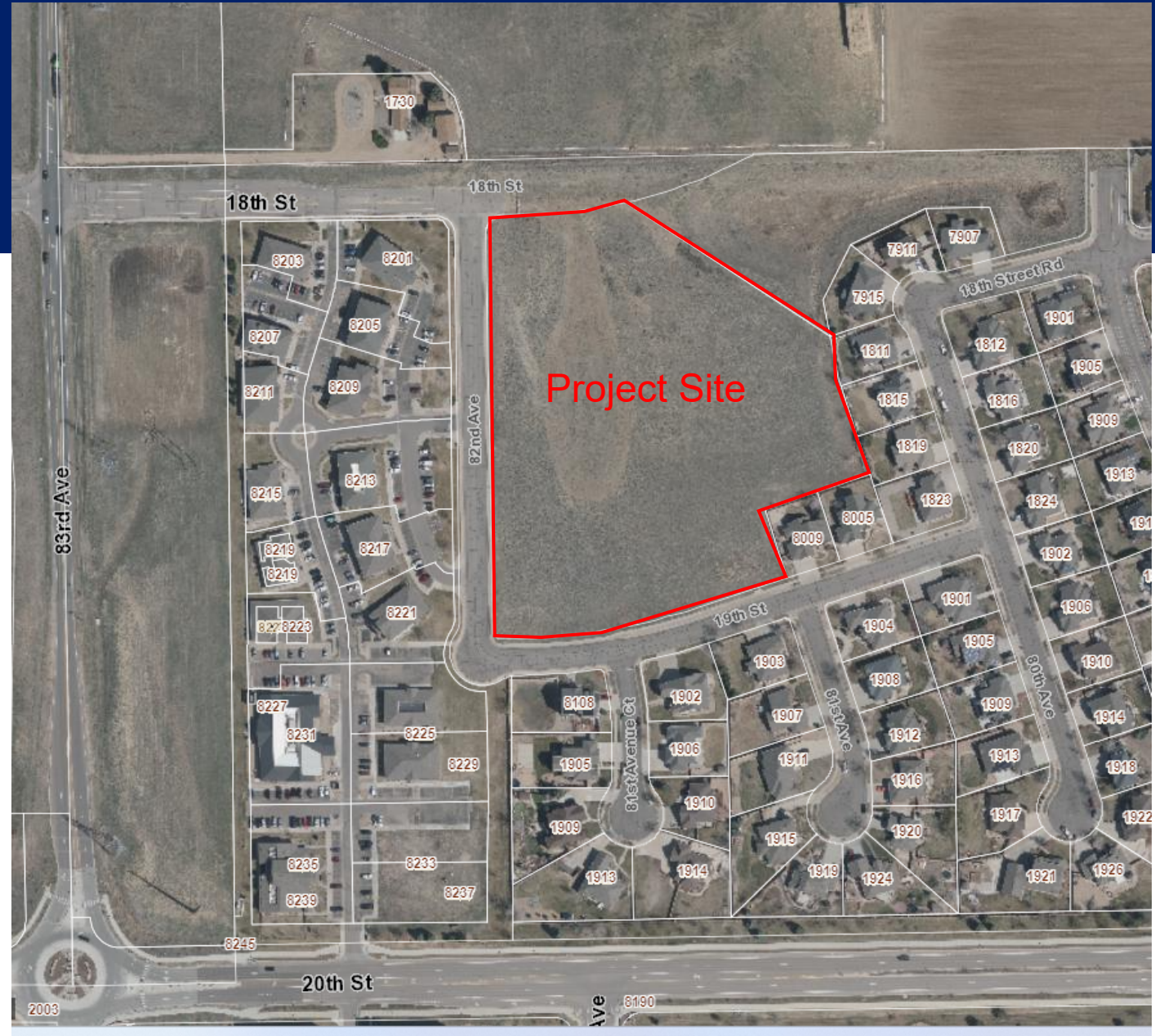
Planning Commission
September 12, 2023
Doug May | Planner III

Request & Site Background

- Request:
 - Rezone 7.43 acres from H-A (Holding Agriculture) to PUD (Planned Unit Development)
- Background:
 - Site annexed and zoned in 1982
 - Tract 2 of the Mountain Vista Filing 3 Subdivision (2002)

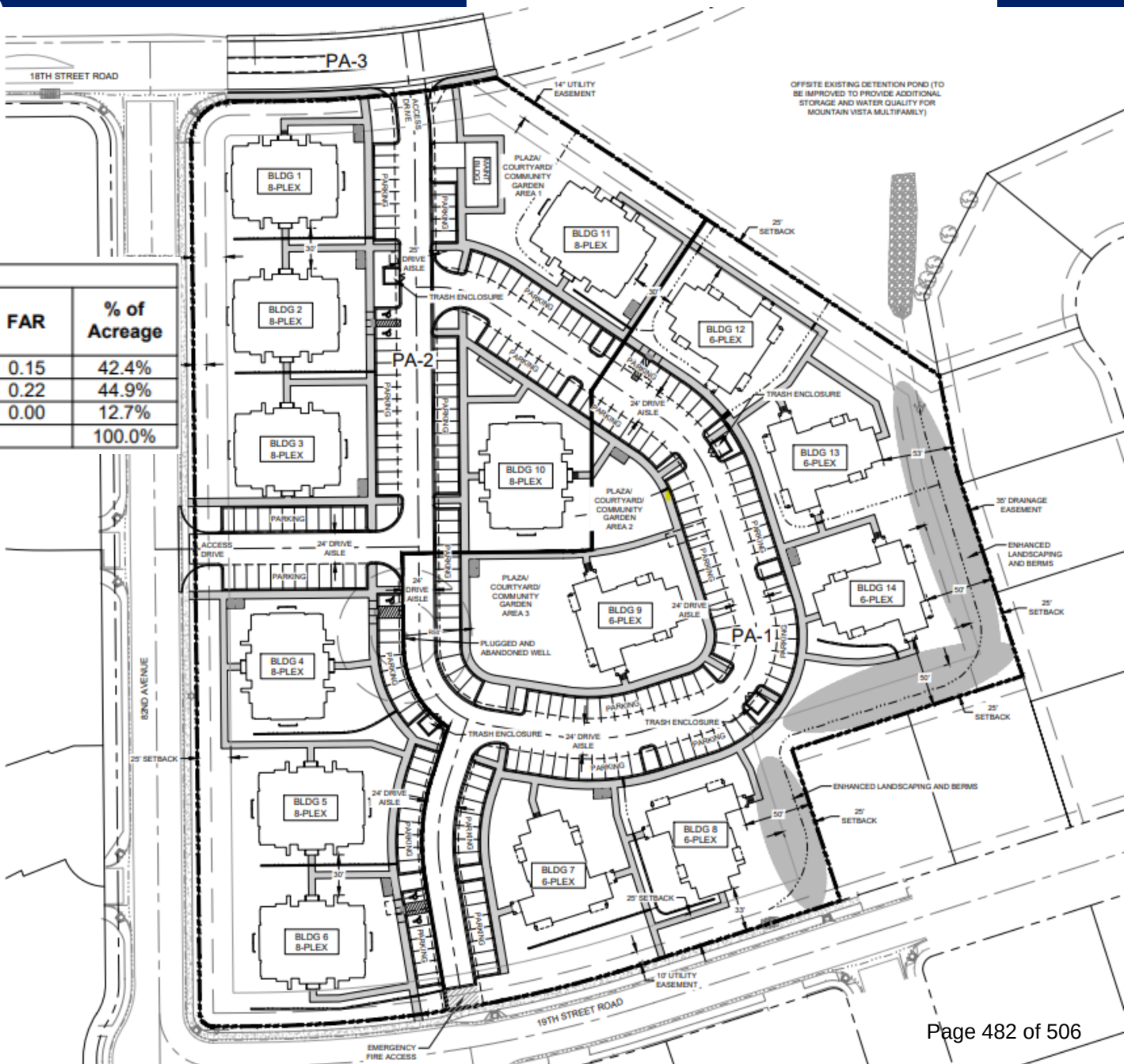
Location

- East of 82nd Ave, north of 20th Street
- Surrounding Zoning and Land Uses:
 - North: C-L (Commercial Low Intensity, R-L, Residential Low Density), Vacant land, stormwater detention
 - South: R-L (Residential Low Density), single-family residential
 - East: R-L (Residential Low Density), single-family residential
 - West: C-L (Commercial Low Intensity), professional office



Mountain Vista PUD

Site Summary								
Area	Use	Acres	Dwelling Units (D.U.)	Density (D.U./ACRE)	No. of Buildings	Ave. Area of Bldg (SQ. FT.)	FAR	% of Acreage
PA-1	MULTIFAMILY	3.610	36	9.97	6	3853	0.15	42.4%
PA-2	MULTIFAMILY	3.820	64	16.75	8	4519	0.22	44.9%
PA-3	RIGHT-OF-WAY	1.079	0	0.00	0	0	0.00	12.7%
Total		8.509	100	11.75	14			100.0%



Considerations

Approval Criteria

- Rezoning Criteria, 24-204(b)
Nine Criteria Used to Evaluate Rezoning Applications
- PUD Criteria, 24-205(c)
Four Criteria Used to Evaluate PUD Applications
- The proposal is consistent with the criteria as outlined in your Summary

Notification

- 350 notice letters
- Signs posted on the property
- Web notice
- Mineral notice completed
- Neighborhood meeting held on June 12, 2023
 - 50 attendees
- 5 neighbor comments and a petition with 299 signatures in opposition

Recommendation

- Community Development recommends approval

Recommended Motions

Recommended (Approval)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed Planned Unit Development is in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council approval.

Alternative (Denial)

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed Planned Unit Development is not in compliance with Sections 24-204(b) and 24-205(c) of the Development Code and therefore recommends City Council denial.

Review Criteria

Rezoning Review Criteria, Section 24-204(b)

1)	The proposal is in accordance with the goals and objectives of the Comprehensive Plan and any other plan, policy or guidance adopted pursuant to that plan. <i>Land Use Guidance Map – Suburban Neighborhood.</i> <i>Objective HO-2.1 Diversity in New Development</i> <i>Object HO-2.2 Rental Housing</i> <i>Objective GC-1.2 Form of Growth</i> <i>Objective GC-4.3 Infill Compatibility</i>
2)	The proposal can fulfill the intent of the zoning district considering the relationship to surrounding areas. <i>The intent of the Planned Unit Development is to provide additional use of the property in ways that are compatible with the area. The proposed land use provides opportunities for multifamily housing.</i>

Review Criteria



Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|---|
| 3) | <p>Whether the area changed or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area.</p> <ul style="list-style-type: none"><i>The area continues to see infill sites developed with a mix of residential and nonresidential uses. There are several commercial developments approved or under review as well as a detached multifamily project approximately ½ mile north including a drive-through coffee shop and gas station. Currently under review is a mixed-use development containing single-family, mixed-use multifamily, and townhomes, approximately ½ mile to the east.</i> |
| 4) | <p>Whether the existing zoning has been in place for a substantial time without development, and if this indicates the existing zoning is inappropriate given development trends in the vicinity.</p> <ul style="list-style-type: none"><i>The existing H-A zoning was likely established in 1982 when the property was annexed and has remained undeveloped to this day. It is common for newly annexed properties to be zoned H-A until development is proposed. Over time, much of the surrounding area has been rezoned as development has occurred.</i> |

Review Criteria

Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|--|
| 5) | <p>The proposed zoning will enable development in character with existing or anticipated development in the area considering the design of streets, civic spaces, and other open space; the pattern, scale and format of buildings and sites; and the compatibility and transitions with other complimentary uses and development.</p> |
| | <ul style="list-style-type: none"> <i>The proposal allows for multifamily residential uses. The PUD allows for a cap on density as well as enhanced buffering from the single-family residential uses to the east and south, as compared to a straight re-zone to a zone district that allows multifamily residential uses.</i> |
| 6) | <p>The City or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.</p> |
| | <ul style="list-style-type: none"> <i>Existing services are present in the vicinity to support development of the site as proposed.</i> |

Review Criteria

Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|---|
| 7) | <p>The change will serve a community need, provide an amenity, or accommodate development that is not possible under the current zoning or that was not anticipated at the time of the initial zoning of the property, making the proposed zoning more appropriate than the current zoning.</p> |
| | <ul style="list-style-type: none"> <i>The proposed Planned Unit Development would accommodate the community's need for housing. The Housing Needs Assessment prepared for the City of Greeley indicates that there is demand for 19,400 housing units over the next 20 years.</i> |
| 8) | <p>Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design and engineering practices or are outweighed by broader public benefits to the surrounding community.</p> |
| | <ul style="list-style-type: none"> <i>Anticipated impacts on surrounding properties, especially the single-family neighborhood to the east and south have been considered by the applicant by locating only the six-unit buildings adjacent to the single-family neighborhood and by increasing the setback from the required 25 feet to 50 feet as well as proposing additional landscaping and berming between the proposed development and the adjacent neighborhood.</i> |

Review Criteria

Rezoning Review Criteria, Section 24-204(b)

- | | |
|----|--|
| 9) | The recommendations of professional staff or advisory review bodies. |
| | <ul style="list-style-type: none"> <i>Planning staff and the Administrative Review Team recommend approval.</i> |

Planned Unit Development Review Criteria, Section 24-205(c)

- | | |
|----|---|
| 1) | The plan reflects greater consistency with or more specificity in implementing the Comprehensive Plan than what could be accomplished under application of general zoning districts and development standards. |
| | <ul style="list-style-type: none"> <i>The use of a PUD for this proposal is appropriate and helps to achieve the Comprehensive Plan's goals with more specificity than the general zoning district would allow. If the applicant were to propose a rezone from H-A to R-H (Residential High Density), then there could be no conditions put on the development to make it more compatible with the neighborhood, such as limiting density under what is allowed in the R-H district or enhancing setbacks and landscaping between adjoining land uses. The PUD plans for development in a more intentional manner.</i> |

Review Criteria

Planned Unit Development Review Criteria, Section 24-205(c)

- | | |
|----|--|
| 2) | <p>The benefits from any flexibility in the proposed plan:</p> <ul style="list-style-type: none">(1) promote the general public health, safety and welfare of the community, and in particular, that of the areas immediately near or within the proposed project, and is not strictly to benefit the applicant or a single project;(2) involves innovative concepts that were not anticipated by the development code; or(3) apply to a unique or specific context in a manner that allows the project to better meet the intent or design objectives of the base zoning districts and standards. |
| | <ul style="list-style-type: none"><i>The proposed development standards generally follow Development Code standards for R-H (Residential High Density). However, for this proposal there are limitations to density of dwelling units, building types and height, increased buffering to adjacent single-family uses, and allowed uses.</i> |

Review Criteria

Planned Unit Development Review Criteria, Section 24-205(c)

- | | |
|----|---|
| 3) | The plan reflects generally accepted and sound planning and urban design principles with respect to applying the goals and objectives of the Comprehensive Plan to the area. |
| | <i>• The request is consistent with planning and design principles and the Comprehensive Plan.</i> |
| 4) | The plan meets all of the review criteria for zoning map amendments in Section 24-204. |
| | <i>• The request complies with Section 24-204, Review Criteria for Rezoning as detailed above.</i> |



Mountain Vista Multifamily

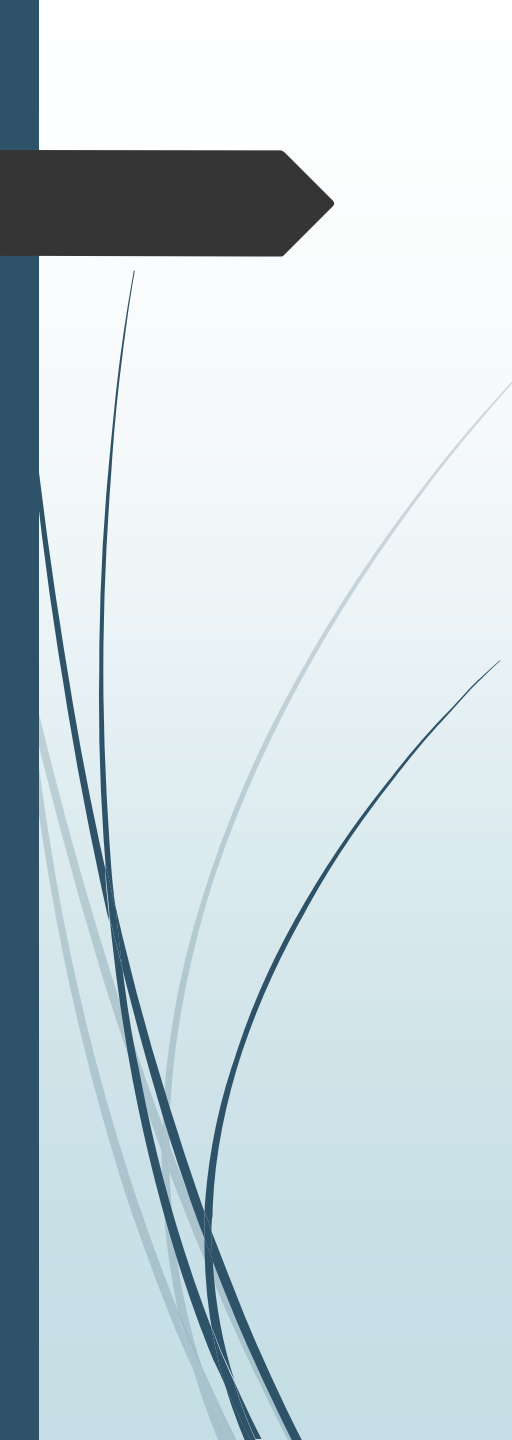
Planned Unit Development

Planning Commission September 12, 2023



Overall Site Plan





Site Statistics

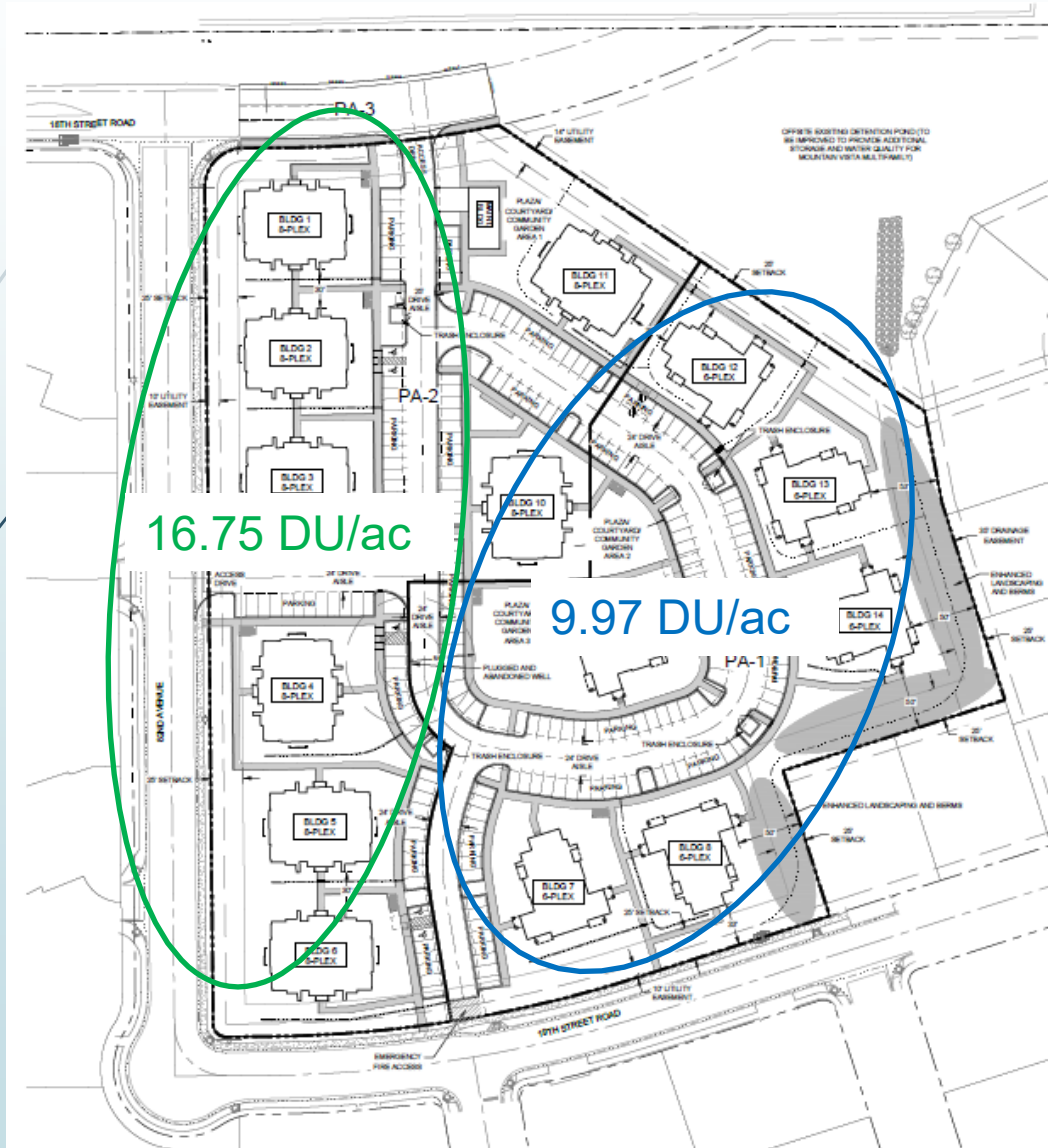
- ◆ 7.43 ac site
- ◆ 100 Units
- ◆ 14 Buildings: Six 6-Plexes; Eight 8-Plexes
- ◆ Office/Maintenance Building
- ◆ Provided additional setback of 50' vs 25' near existing homes
 - ◆ 100% increase in setback requirement
- ◆ Enhanced Landscape buffers adjacent to existing homes
 - ◆ Adding 39 additional trees above minimum requirements
- ◆ Project will be built in within a 1 year period
 - ◆ Minimum nuisance to surrounding neighborhood



Utility & Streets Connections

- ◇ Potable Water – Connections in 82nd Ave, 19th St & 18th St
- ◇ Nonpotable – Main to be constructed in 18th St
- ◇ Sanitary Sewer – Connection to existing sanitary sewer main on east side of property
- ◇ Stormwater – Existing detention pond has adequate capacity
- ◇ Streets – Public roads exist on west and south sides
 - ◇ Extension of 18th St (collector) along frontage of north side
 - ◇ Traffic Calming added to 19th St & 82nd Ave

Site Density

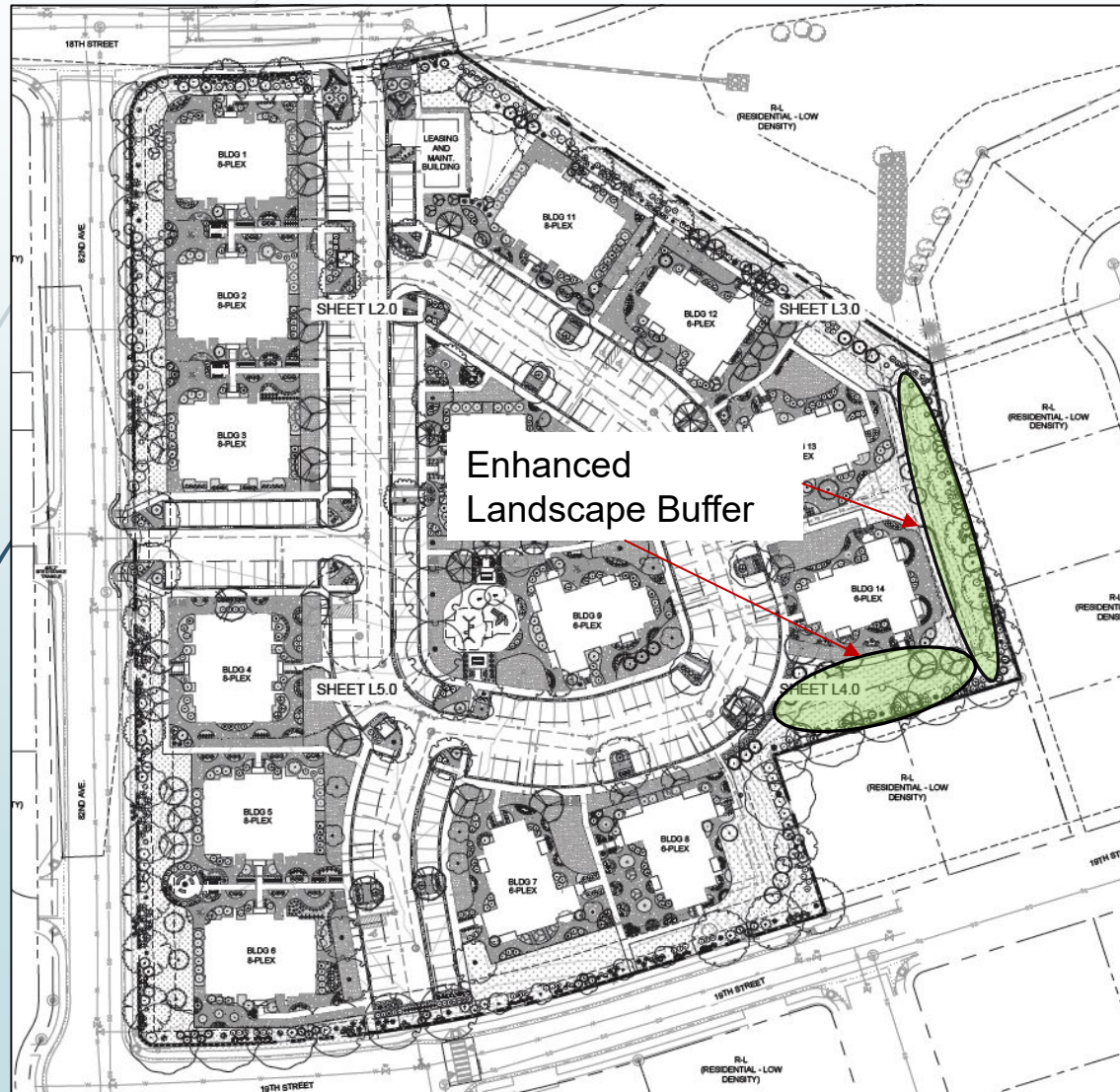


Total Site Density 11.75 DU/ac

Positioned buildings with lower density adjacent to existing homes

Area adjacent to existing neighborhood meets Comp Plan Suburban Neighborhood density of under 10 DU/ac

Site Landscaping



10 Additional Evergreens on east boundary

29 Additional Trees on east boundary

8 Plex



6 Plex



8 Plex & Single Family Homes



Site Amenities



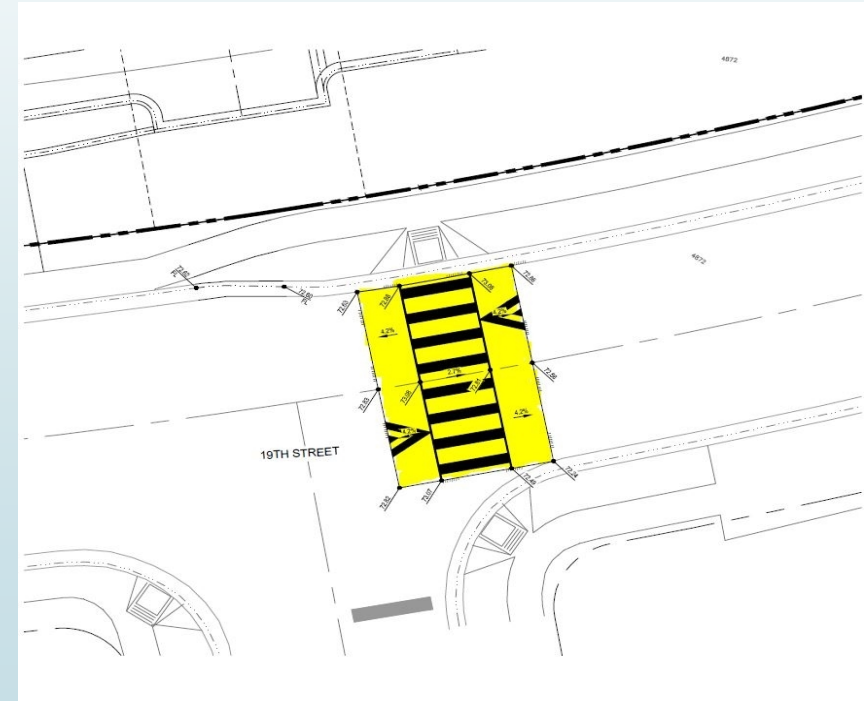
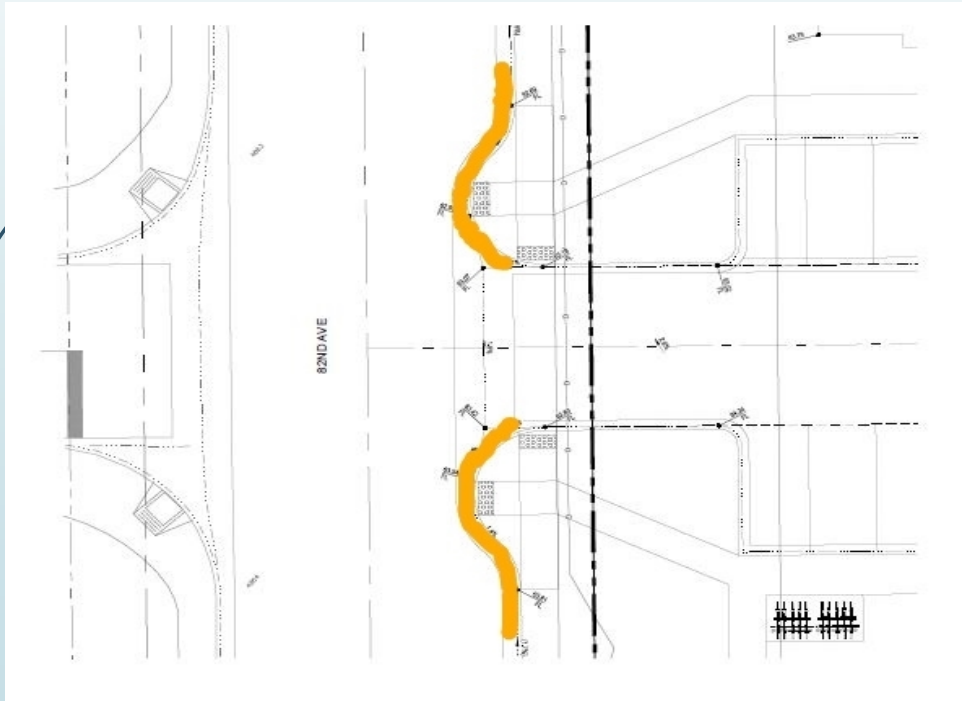
Parking

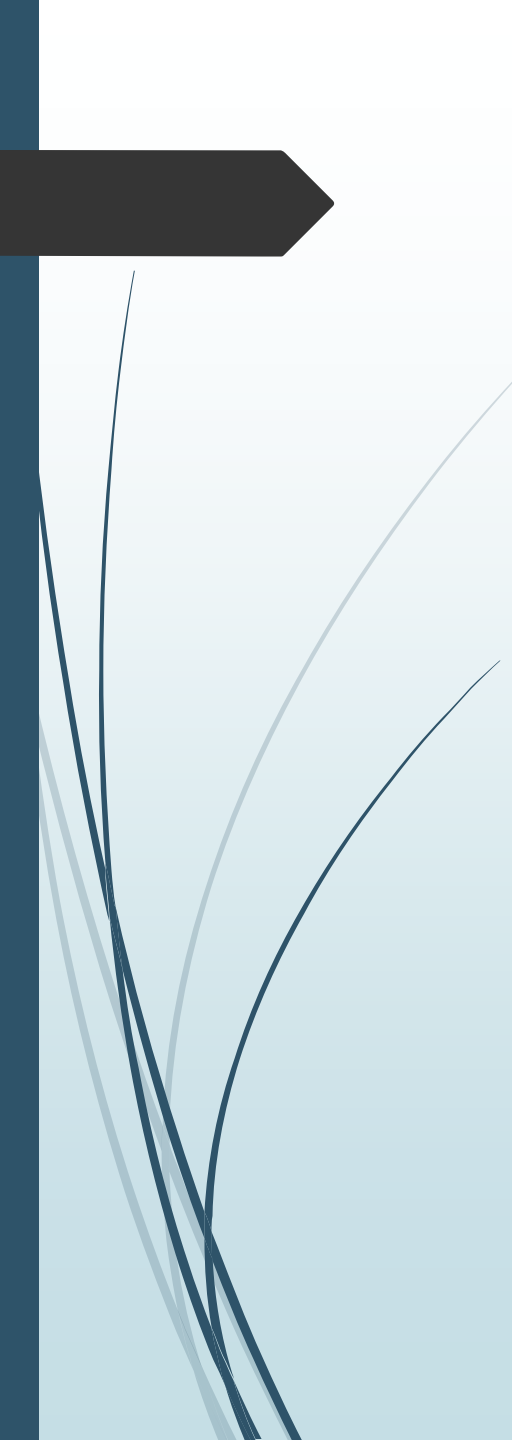
- ❖ 169 spaces required for tenants
- ❖ 17 guest parking required
- ❖ Total spaces required 186
- ❖ Spaces provided 228 onsite
 - ❖ 45 Spaces above requirement
- ❖ No parking allowed west side 82nd Ave
- ❖ Parking allowed on east side of 82nd Ave



Traffic Calming

- ◇ Adding bump outs on 82nd Ave entrance
- ◇ Adding raised crosswalk on 19th St & 81st Ave Ct





Staff Report Conditions

- ❖ The proposed Rezone is consistent with the Greeley Comprehensive Plan.
- ❖ The Rezone is in compliance with the applicable City Codes, Regulations, and Requirements.
- ❖ The Rezone will meet the needs of the community by providing diverse multifamily housing, and is consistent with practical and prudent transitional land use planning practices.
- ❖ The Developer will work with City staff to receive approvals on all engineering and technical documents prior to proceeding to site plan approval.



Thank You

