

DEPARTMENT	PRESENTED BY	DATE
Planning	Kristi Jefferson - Senior Planner	December 6, 2022

### ITEM

Ordinance 2022-21 – Second reading and Public Hearing for the 505 Oak Street Major Impact Review application for a Planned Development Overlay and Major Subdivision of the property located at 505 Oak Street.

### BACKGROUND

The applicant, Dreamers and Doers LLC, submitted a Major Impact Review application for a Planned Development Overlay and Major Subdivision of the 2.09 acre parcel located at 505 Oak Street. The applicant's representatives are Kent Townsend and John Diesslin. The property is zoned Commercial (C-1) and Highway 291 Established Commercial Overlay.





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#### The requests are:

A. Major Impact Review approval of a Planned Development Overlay for the following deviations to the Dimensional Standards:

**Maximum density** - The maximum density allowed in the C-1 zone district for this 2.09 acre parcel is 32 units (91,201 s.f. /2,800=32 units). Because the Inclusionary Housing is provided within the development the density allowance is increased to 37 units (91,201 s.f. /2,450=37 units). The applicant is requesting for up to 44 units of density making the request an approximate 19% increase in density of (44-37=7 (7/37=18.9%).

• The inclusionary housing requirement is 7.3 deed restricted units for the requested 44 units.

The applicants have stated that the intent is to deed restrict six (6) of the apartment rental units and two (2) for-sale units to meet the inclusionary housing requirement of 16.7% which satisfies the requirement.

**Minimum lot frontage** – All of the proposed lots will front a private road and not on a public street as required by Code. The site plans show the Private Road alignment with Chilcott Street which will not be an extension of the public street but a HOA maintained private road/public access within the development.

<u>The Highway 291 Established Commercial Overlay</u> - Multi-family dwelling units (four (4) units or greater) require conditional use approval. The applicants are requesting the apartments be allowed as a use by right.

<u>Minimum lot size</u> - Reduced minimum lot size for the proposed multi-family lots 11-17. The minimum lot size requirement in the C-1 zone district is 5,063 square feet. The proposed lots range from 3,176 square feet to 4,207 square feet.

It appears all other dimensional and parking requirements can be met by the development.

**B.** Approval of a Major Subdivision to subdivide the above described property into 18 residential lots.



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The 505 Oak Street property adjoins the Spectrum Cable Company on the north and the Arkansas River Mobile Estates on the east. There are a few commercial uses across the street from the property. The City recently purchased and annexed the property that adjoins the south side of the property and in the near future the new Fire Station will be constructed. Currently, there is one single-family residence (to be removed) and the remaining parcel is undeveloped.

The applicant is requesting deviations from Table 16-F Schedule of Dimensional Standards to be allowed zero public street frontage for the proposed lots to front a private drive, a 19% increase in density and reduced minimum lots size for Lots 11-17.

The private road is shown on the plat as an out-lot. This is not considered an "out-lot" but a private road. The plat will need to be updated to remove "out-lot" and have the private road named.

A Conceptual Review Meeting with the Planning Commission and City Council occurred on December 20, 2021. At the work session the applicant was showing 10 duplex lots and one (1) large lot to accommodate the apartment units. The deed restricted units need to be on individual lots in order for the applicant to sell or rent the remainder of the units.

The current request is for approval of ten (10) duplex lots with 10 for-sale units and eight (8) lots for the 34 apartment rental units. Proposed Lots 9 & 10 will have the deed restricted duplex and Lot 18 will have the 6 deed restricted affordable rental units.

The Planning Commission reviewed the Major Impact Review and Major Subdivision applications and held a public hearing on October 11, 2022.

### A. PROPOSED PLANNED DEVELOPMENT

A Planned Development is an overlay which allows flexibility in the underlying zoning district standards to "...permit the application of more innovative site planning and design concepts than may be possible under the application of standard zone districts."

The applicant is requesting Planned Development approval to allow deviations from Table 16-F Schedule of Dimensional Standards to be allowed zero public street frontage for all of the proposed lots to front a private drive, a 19% increase in density and reduced minimum lots size for Lots 11-18 All other dimensional standards are anticipated to be met.



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#### THE CITY OF SALIDA COMPREHENSIVE PLAN:

Generally zoning should be consistent with the community's comprehensive plan. The following Policies, Actions and Principles apply to the proposal:

**Policy LU&G-I.2:** Infill and redevelopment should be encouraged and will advance the objectives of this plan.

The 2.09 acre property has a single-family residence (to be removed) with the remaining parcel undeveloped. Approval of the planned development overlay would offer greater opportunity for infill rather than the mostly vacant lot.

<u>Action LU&G-I.2a</u>: Encourage projects to use maximum density allowances to make the best use of the available infrastructure.

The proposed project is requesting a 19% increase in the allowed residential density.

<u>Action LU&G-I.2c:</u> Focus new development in the Salida area within the Municipal Services Area to ensure adequate provision of services and limit sprawl development around the city. The site is within the MSA.

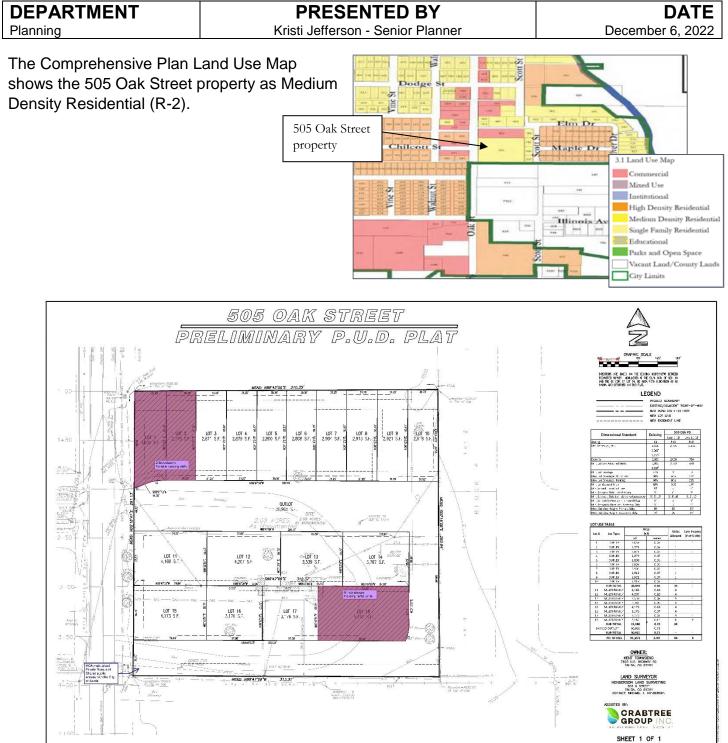
**Policy H-I.1:** Provide a mix of housing types and densities throughout the city to address a variety of incomes and lifestyles.

The majority of housing types in this specific area are single-family homes and mobile homes within the mobile home park on the east side of this parcel. With the proposal the applicant will have a variety of housing types providing rental housing for occupants meeting the 80%-100% AMI and two for-sale units to occupants meeting the average of 140% AMI.

**Policy H-II.1:** Promote new development projects that contain a variety of housing, including affordable units. See above.

<u>Action H-II.3.d:</u> When affordable housing units are provided, ensure the city has a mechanism or partner organization to keep track of and enforce the deed restrictions or land ownership arrangements to ensure the housing remains attainable in the long-term for low and moderate income residents. The Chaffee County Housing Authority will be charged with qualifying residents for the deed restricted units, and enforce the standards.







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### PLANNED DEVELOPMENT EVALUATION CRITERIA:

Section 16-7-40 (b) of the City of Salida Land Use and Development Code states "the PD Development Plan shall meet the following criteria...unless the applicant can demonstrate that one or more of them is not applicable or that another practical solution has been otherwise achieved." The applicant's requests and staff's comments are listed below.

(1) <u>Minimum dimensional standards</u>. In addition to the request to eliminate the public street

frontage requirement, the applicants are also requesting to increase the density 19% and reduce the required minimum lot size for Lots 11-17.

The requested deviations will not impact the property's ability to provide adequate access and fire protection, to ensure proper ventilation, light and air between buildings and should be compatible with other developments in the area.

Disconsional Standard	Eviating	505 Oak PD		
Dimensional Standard	Existing	Lots 1-10	Lots 11-18	
Zoning	C1	PUD	PUD	
Min. lot size (sq. ft.)	5,625	2,775	3,175	
	5,063 <sup>6</sup>			
	3,750 <sup>7</sup>			
Density	2,800	2,000	750	
Min. Lot Size Attached Units	2,800	2,770	640	
	2,520 <sup>6</sup>			
Min. Lot Frontage	37.5	0	0	
Max. Lot Coverage: Structures	60%	60%	60%	
Max. Lot Coverage: Parking	60%	60%	60%	
Min. Landscaped Area	10%	10%	10%	
Min. Seback: Front Lot Line	10'	5'	5'	
Min. Setback: Side - Lot-Primary	5'	0'	0'	
Min. Setback: Side Lot - detached accessory	3', 5', 10'	3', 5', 10'	3', 5', 10'	
Min. Setbakck: Rear Lot - Principal Bldg	5'	5'	5'	
Min. Setbakck: Rear Lot - Accesory Bldg	5'	5'	5'	
Max. Building Height: Primary Bldg.	35'	35'	35'	
Max. Building Height: Accessory Bldg.	25'	25'	25'	

(2) <u>Trails.</u> The closest trail near the 505 Oak Street property is along Scott Street. The applicants have agreed to provide public access on the southeast corner of the property for a connection to the Scott Street trail.

(3) <u>Ownership and Maintenance.</u> The developers will have a homeowners association to maintain the private drive and utilities within the development.

(4) <u>Water and Sewer</u>. The developer shall provide municipal water and sewer facilities within the PD as required by the City.

The applicants have provided improvement plans that include designs for private HOA maintained water and sewer services to serve the interior of the site. The plans have been reviewed by the Public Works Director and the City Engineers JVA, their comments are attached to the staff report.



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(5) <u>Residential Density</u>. The maximum density allowed in the C-1 zone district for this 2.09 acre parcel is 32 units (91,201 s.f. /2,800=3 units). Because the Inclusionary Housing is provided within the development the density allowance is increased to 37 units (91,201 s.f. /2,450=37 units). The applicants are requesting for up to 44 units of density making the request approximately a 19% increase in density. In this case the increased density is being requested to be able to provide the 2 for-sale and 6 rental deed restricted housing units. This criterion is satisfied.

(6) <u>Relationship to the Subdivision Regulations</u>. The provisions of these regulations concerning a Planned Development will not eliminate or replace the requirements applicable to the subdivision of land or air space, as defined in state statutes and the ordinances and regulations of the City. The applicant submitted an 18 lot major subdivision to be reviewed concurrent with this planned development application. This criterion is satisfied.

(7) <u>Improvement Standards</u>. The PD may deviate from the Design Standards described in Article VIII of this Chapter, including specifications for the width and surfacing of streets, public ways, public utility rights-of-way, curbs and other standards, only if the reasons for such deviations are well documented and are necessary for realizing the purposes described in the objectives of development.

The only deviation the applicant is requesting from in Article VIII is to be allowed a private HOA maintained road to meet the lot frontage requirement and to provide access for all of the lots created with the subdivision.

(8) <u>Maximum height.</u> The applicant is not requesting a deviation to maximum height standards. This criterion is not applicable.

(9) <u>Gross Building Floor Area.</u> There are no uses proposed other than residential. This criterion is not applicable.

(10) <u>Permitted Uses.</u> In the Hwy 291 Established Commercial Overlay multi-family dwelling units (four (4) units or greater) require conditional use approval. The applicants are requesting the apartments be allowed as a use by right.

(11) <u>Transportation design</u>. The development provides direct access to Oak Street, a collector street, which is designed to support the anticipated additional traffic generated by the proposed



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number of units. The Fire and Public Works Departments have no concerns regarding the private road within the development. This criterion is satisfied.

- In February the applicants submitted an application to CDOT for their access to Highway 291 and have not received a response. Staff has also submitted the agency review and have not received a response from CDOT.
- Staff has added a condition that CDOT access permit must be approved by CDOT and submitted to staff prior to recording the Planned Development and Subdivision Plat.

(12) <u>Development Standards</u>. As mentioned above, the applicant is requesting deviation from the requirement to have frontage onto a public street and is proposing to have the individual lots take access from the proposed private drive.

(13) <u>Energy Efficient Design</u>. The construction of new buildings will be required to meet the energy standards of the building codes.

(14) <u>Variety in Housing Types.</u> The applicants are proposing a major subdivision of 18 lots and will be constructing 5 duplex buildings resulting in 10 for-sale residential units (2 will be deed restricted) and 34 apartment rental units (6 will be deed restricted) on the remaining 8 lots.

(15) <u>Fiscal Impacts.</u> The private drive and utilities are to be maintained by the homeowners association. The City will provide police and fire protection and serve the project with water and sewer through public mains. Water and sewer system development fees will help offset long term costs of expanding those systems. The fees for Fair Contributions for Public School Sites will be required per residential unit to help offset impacts on the school district, and open space fees will be required for each unit.

(16) <u>Higher levels of amenities.</u> There are no private or public parks or recreational areas proposed within the planned development but the applicant has agreed to provide trail access from the southeast corner of the property to the public trail on Scott Street.

(17) <u>Physical Conditions or Constraints.</u> The size of the lot, depth of the lot, existing private drive access, and the standard requirement for frontage on a public street are the primary physical conditions or constraints that would warrant a departure from the standard regulation requirements.



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(18) <u>Adjacent and nearby developments.</u> Staff has not found that there are any detrimental effects on the neighborhood.

### EVALUATION STANDARDS FOR MINOR PLANNED DEVELOPMENTS

Section 16-7-40(d) states that "In addition to the above evaluation standards in Subsection (a) of this Section that apply to all PD applications, the following standards or requirements shall govern the application of a minor planned development and shall be utilized by the Planning Commission and the City Council in evaluating any minor PD plan:

- (1) Staging of Development: There shall be no staging of development in a minor PD.
  - > No phases are proposed with this development.

(2) Types of Uses: A minimum of 25% of the floor area of the project is recommended for non-residential, commercial uses.

> The applicants are not proposing any non-residential uses.

(3) Public Places. Public gathering places should be provided to reinforce community identity and support civic engagement.

> There are no public gathering places proposed in the development.

(4) Economic Opportunity: The PD provides a unique economic opportunity or provides a service, industry, or housing type that will benefit the City and would not be possible under the existing zone districts or dimensional standards of the City.

Given the size of this parcel it is challenging to have additional density because the standards for street frontage. This PD will allow the applicant to create additional lots for up to 44 residential units on the 18 proposed lots and provide 8 units of deed restricted inclusionary housing. This would be done by eliminating the requirement for public street frontage, and allowing access to each lot via a private road.

(5) Open Space: A Minor PD is not required to provide a dedication of open space on the site, however, it is required that any PD contribute to meeting the goals for open space through a negotiated fee-in-lieu of open space or other contribution.



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No open space is dedicated or required through this development with the exception of the Scott Street trail access on the southeast corner of the property. The applicants acknowledge the required open space fees-in-lieu will be paid at the time of building permit submittal for each residential unit.

#### **B. MAJOR SUBDIVISION PLAT REVIEW**

A major subdivision requires a recommendation from the Planning Commission and final approval by the City Council. The applicants are requesting that the Planning Commission recommend approval of the 18-lot residential subdivision, along with a private road to be commonly-owned by the homeowners association. The proposed subdivision must comply with the following standards:

- 1. <u>Comprehensive Plan.</u> The proposed subdivision is consistent with the Comprehensive Plan, which promotes diverse residential housing (including affordable for-sale and rental units) and access to nearby trails and schools. Staff finds that the development is compatible with surrounding land uses and will not create unreasonable adverse effects on neighboring properties.
- Zone District Standards. The applicants are requesting exemptions from the public street frontage, minimum lot size, density and the multi-family units be allowed as a use by right in the Highway 291 Overlay. Deviations to such standards have been requested through the concurrent Planned Development application.
  - The proposed subdivision and development of the lots will comply with the underlying C-1 zone district and the Highway 291 Overlay requirement.
  - The 10 duplex lots range from 2,775 s.f. to 3,059 s.f. and the applicant intends to construct duplexes on the property line with shared walls that must be verified by a licensed surveyor prior to certificate of occupancy. With the remaining 8 lots the applicant is proposing to build 34 apartment rental units.
  - The landscape plan that was submitted with the application does not meet the requirements of Sec. 16-8-90(b) of the Land Use Code. An updated landscape plan meeting Land Use Code Sec. 16-8-90(b) must be submitted prior to building permit submittal for any units within the development.
- 3. <u>Improvements.</u> The proposed subdivision shall be provided with improvements which comply with 16-2-60 and landscaping which complies with Section 16-8-90 of this Chapter.



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a. Streets. Existing and proposed streets shall be suitable and adequate to carry anticipated traffic within and in the vicinity of the proposed subdivision.

- The existing streets are adequate to carry anticipated traffic generated by future development of this subdivision. The private road is adequate for the proposed 18 lots.
- Normally sidewalks would be required along the Oak Street frontage but the Public Works Director is requiring fees in lieu of improvements. This section of Oak Street is part of the Highway 291 Streetscape project slated to begin within the next couple of years.
- Per David Lady It has been discussed that the developer provide fees in lieu of improvements to the ROW which would include a sidewalk and driveway apron. The 291 sidewalk/storm/apron will be constructed with the local agency CDOT project. The developer will provide a temporary asphalt driveway to tie into existing 291. It was discussed that the developer should anticipate the sidewalk at asphalt driveway to be ~4 to 6" above the existing edge of asphalt along SH-291.
- b. Utilities. Existing and proposed utility services shall be suitable and adequate to meet the needs of the proposed subdivision.
  - The applicants are proposing to connect to the water main in Chilcott Street and loop it through the private road to serve the proposed lots. The Public Works Director requires the water to be looped to Scott Street via an existing utility easement.
  - The applicants will connect to the sewer main that is located within the easement along the east side of the 505 Oak Street property.
- c. Phases. No phases are proposed with this development.
- 4. <u>Natural Features.</u> Staff is unaware of any extraordinary natural features on the site.
- 5. <u>Floodplains</u>. This property does not reside in the floodplain. This standard does not apply.



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- 6. <u>Noise Reduction</u>. This property borders State Highway 291 which is known as Oak Street and is a two-lane highway. The speed and noise level are not the same as standard highway. The applicants are showing trees and landscaping along the Highway 291 frontage which should help with the reduction of noise.
- 7. <u>Future Streets.</u> As discussed in the report for the PD, a future private road is planned off of Oak Street which will align with but not extend Chilcott Street. There is no need for a public street connection within this property. The proposed private drive will provide access to the property and on the east side of the property public access will be provided for the City Fire Department property. All other required access and utility easements are provided through this development.
- 8. <u>Parks, Trails and Open Space.</u> No public open space dedication is proposed nor desired within this development with the exception of the Scott Street Trail connection. The applicants have agreed to provide public access on the southeast corner of the property for a connection to the trail on Scott Street. The applicants will be required to pay a fee-in-lieu for open space at the time of building permit submittal for each residential unit constructed on the property.
- 9. <u>Common Recreation Facilities.</u> This development does not include any common recreation facilities.
- 10. <u>Lots and Blocks.</u> The size, shape, and orientation of the lots are appropriate to the design and location of proposed subdivision and type of development contemplated. This standard is met.
- 11. <u>Architecture</u>. The following architectural standard is intended to prevent monotonous streetscapes and office consumers a wider choice of housing styles. To avoid uniformity and lack of variety in design among housing units within the subdivision, no residential façade elevation shall be repeated more than once every five (5) lots on the same side of the street (e.g., the first and fifth lots in a row may contain the same façade elevation, but the second, third and fourth lots must contain some different faced elevations). No residential elevation shall be repeated directly across the street from the same façade elevation. Mirror images of the same residential façade shall not count as two (2) distinctly different facades. In unusual circumstances, the Planning Commission may grant a petition seeking waiver of the requirement. Such an exception may be granted if the petitioner demonstrates that the proposed plan uses repetition for an architectural purpose, such as allusion to historical repetition that would not create a monotonous streetscape of the type this standard seeks to prevent.



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Land Use Code Sec. 16-5-50(d)(4) State Highway 291 Corridor Overlay - Architectural Standards for Established Commercial. With new construction, including an addition, two (2) or more materials must be used for exterior materials within the 291 CO, excluding roofing and structural materials. Exposed tilt-up concrete is prohibited, and metal shall not exceed twenty-five percent (25%) of the surface area of exterior materials, excluding roofs. Specifically exempt from the requirement of using two (2) or more materials are single-family residences, duplex family residences and the accessory structures for single-family and duplex family development.

- The proposed development must meet LUC Sec 16-5-50(d)(4).
- The applicants are aware of the architectural standards requirement and are proposing that the apartment buildings on Lots 11-18 be similar in form to the Tailwinds apartment buildings in Poncha Springs.
- As a plat note, staff recommends the following condition:
  - The development must provide a diversity in architectural elements such as roof types and pitches, differentiated front entries and exterior materials (excludes different color) At time of building permit submittals, the applicant shall provide elevations of any and all existing homes (or homes under construction) along the same side of the street and (if applicable) the home(s) directly across the street, to ensure that the subdivision architectural standards will be met.



TAILWINDS APARTMENTS -PONCHA SPRINGS





#### **DEPARTMENT** Planning

**PRESENTED BY** Kristi Jefferson - Senior Planner DATE December 6, 2022

- To meet the architectural standards for the duplexes, the applicants are proposing varied architectural details similar to the duplex units built in the Tailwinds Subdivision in Poncha Springs and the triplex built at 401-405 Wood Avenue.
- The applicants submitted photos of examples of different architectural elements that are proposed to be used within the Planned Development.





12. <u>Codes.</u> The subdivision will comply with all applicable City building, fire and safety codes for the proposed development.



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13. <u>Inclusionary Housing</u>. Land Use Code Sec. 16-13-20 - Any application brought under planned development and major subdivision sections of this code are required to include at least sixteen and seven tenths (16.7) percent of the total number of residential dwelling units as affordable dwelling units, pursuant to requirements set forth in Article XIII.

- The applicants have stated that their intent is to deed restrict six (6) of the apartment rental units and one of the duplexes with two (2) residential for-sale units to meet the inclusionary housing requirement of 16.7%. The inclusionary housing requirement is 7.3 deed restricted units for the requested 44 units. The applicants are satisfying the Inclusionary Housing requirement with the proposed dedication.
- Staff has added conditions of approval for the timing of the construction of the required Inclusionary Housing units.

### **RESPONSE FROM REFERRAL DEPARTMENTS AND AGENCIES:**

**Salida Fire Department:** Kathy Rohrich, Assistant Fire Chief responded "Fire has no concerns at this time."

Salida School District: No response received

<u>Salida Utilities:</u> Renee Thonhoff, Staff Accountant stated "505 Oak Street currently has one  $\frac{3}{4}$ " commercial water tap valued at \$8,512.00 and  $\frac{3}{4}$ " meter valued at \$352. Development would require per unit system development fees to be paid."

<u>Atmos Energy</u>: Mark Cristelli, Atmos Energy's comments are attached to the end of the staff report.

**<u>Salida Public Works Department:</u>** Public Works Director, David Lady's comments are attached to the end of the staff report.

**JVA Engineering Consultants:** JVA's full review and comments are attached to the end of the staff report.

**<u>Xcel Energy</u>**: Sterling Waugh submitted Xcel Energy's comments after the Planning Commission meeting and are attached to the staff report.



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### **RECOMMENDED FINDINGS:**

- 1. This application is consistent with the purposes and objectives of planned developments stated in Section 16-7-10 and because it meets the criteria of Section 16-7-40, with the conditions herein.
- 2. This application meets the requirements of a Major Impact Review and, with the conditions herein, meets the subdivision review standards of Section 16-6-120.

### STAFF RECOMMENDATIONS

### A. PROPOSED PLANNED DEVELOPMENT

Staff recommends Council approve the 505 Oak Planned Development application with the following conditions:

#### **Conditions for the Planned Development:**

- A certificate of occupancy must be issued for the required two (2) forsale Inclusionary Housing units prior to issuance of certificate of occupancy of the 7th market rate for-sale unit.
- A certificate of occupancy must be issued for the six (6) inclusionary housing rental units on Lot 18 prior to certificate of occupancy of the fourth (4th) apartment building.

DUPLEX UNITS:			
Market Rate Unit	Deed Restricted Unit		
Running Total	Running Total	The latest	R units can be C.O.'ed:
1		1st	Market Rate
2		2nd	Market Rate
3		3 rd	Market Rate
4		4th	Market Rate
5		5th	Market Rate
6		6th	Market Rate
	1	7th	Deed Restricted at 120%
	2	8th	Deed Restricted at 160%
7		9th	Market Rate
8		10th	Market Rate

3. The applicant must meet the requirements of the Public Works Director and City Engineering Consultants prior to Council approval of the Subdivision Improvement and Inclusionary Housing Agreement.



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- 4. An updated landscape plan meeting Land Use Code Sec. 16-8-90(b) must be submitted prior to building permit submittal for any units within the development.
- 5. CDOT access permit must be approved by CDOT and submitted to staff prior to recording the Planned Development and Subdivision plats.

#### Conditions for the Major Subdivision:

- 1. The subdivision plat meeting Land Use Code Sec. 16-6-110 with all of the required certificates must be submitted for review prior to printing the mylars.
- 2. The following plat notes must be added to the Major Subdivision Plat prior to recording the subdivision:
  - a. As required under Section 16.6.140 of the Salida Municipal Code, a payment in lieu of land dedication for Fair Contributions for Public School Sites shall be paid by prior to issuance of a building permit for any new residence constructed.
  - b. As required under Section 16-6-120(8), Parks, Trails and Open Space of the Salida Municipal Code, a fee in lieu shall be provided for open space prior to the issuance of a building permit for any new residence constructed. The applicants have agreed to provide public access on the southeast corner of the property for a connection to the trail on Scott Street. The trails public access must be shown on the plat.
  - c. As required under Section 16-6-120(11), No residential façade elevation shall be repeated more than once every five (5) lots on the same side of the street. The development must provide a diversity in architectural elements such as roof types and pitches, differentiated front entries and exterior materials (excludes different color) At time of building permit submittals, the applicant shall provide elevations of any and all existing homes (or homes under construction) along the same side of the street and (if applicable) the home(s) directly across the street, to ensure that the subdivision architectural standards will be met. The developer shall add architectural elements on windows and doors for the apartments to break up the façade elevation.
- 3. A name for the private road be added to the plat and "out-lot" removed.



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- 4. Prior to issuance of any Certificate of Occupancy for units within the subdivision the applicant shall pay a fee in lieu of providing the Oak Street Streetscape improvements in an amount determined by the Public Works Director. Or, or upon further approval by the City, complete the improvements as designed as part of the Oak Street Improvement Plans.
- 5. The applicant must meet the requirements of the Public Works Director and City Engineering Consultants prior to Council approval of the Subdivision Improvement and Inclusionary Housing Agreement.
- 6. Prior to recordation of the subdivision plat, developer shall enter into a Subdivision Improvement and Inclusionary Housing agreement that guarantees the construction of the public improvements that are required for the project and that Article XIII Inclusionary Housing of the Land Use Code requirements are met.
- 7. The City Attorney shall propose language about the appropriate share of inclusionary housing HOA unit dues and assessments so as to unencumber the deed restricted buildings to the extent permissible by law.
- 8. The developer agrees to work with the City regarding the joint access easement along the south side of the property.
- 9. The developer voluntarily agrees to add language to the Subdivision Improvement and Inclusionary Housing agreement that lots 11 through 18 remain rental buildings or must go before the Planning Commission for approval to condominiumize any of buildings in the future.

### PLANNING COMMISSION RECOMMENDATION

A public hearing with the Planning Commission was held October 11, 2022 and the Commission recommended Council approve the proposed 505 Oak Street Planned Development and Major Subdivision with staffs recommended conditions, amending Conditions 2. (a) & (b) and added condition numbers 7, 8 and 9.

### SUGGESTED MOTION

A council person should make the motion to "approve Ordinance 2022-21 on second reading", followed by a second and a roll call vote.



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Attachments: Planning Commission minutes October 11, 2022 Ordinance 2022-21 Proof of Publication Agency review comments Planned Development Plat 505 Oak Street Major Subdivision PD Application Materials Traffic study Email from Jerry Raski

\*\*The updated civil engineer drawings and drainage report are included as part of the permanent record and are available from the Community Development Department upon request.

#### CITY OF SALIDA, COLORADO ORDINANCE NO. 21 SERIES OF 2022

#### AN ORDINANCE OF THE CITY COUNCIL FOR THE CITY OF SALIDA, COLORADO APPROVING THE 505 OAK STREET MAJOR IMPACT REVIEW FOR A PLANNED DEVELOPMENT OVERLAY AND MAJOR SUBDIVISION OF THE 2.09 ACRE PARCEL LOCATED AT 505 OAK STREET

**WHEREAS**, the City of Salida Planning Commission conducted a public hearing on the Major Impact Review Application request on October 11, 2022 for a Planned Development Overlay and Major Subdivision for the property located at 505 Oak Street and forwarded to the City Council its recommendation that the subject property be approved, with conditions, as a Planned Development Overlay pursuant to the attached 505 Oak Street Planned Development Plat (Exhibit A); and

**WHEREAS**, the City of Salida Planning Commission reviewed and recommended approval, with conditions, the 505 Oak Street Major Subdivision an eighteen (18) lot subdivision within the planned development overlay, illustrated on Exhibit B; and

**WHEREAS**, the project is consistent with the purpose, conditions and evaluation standards for planned development districts; and

**WHEREAS**, the proposal for the subject property is consistent with the policies and goals of the City's land use regulations and Comprehensive Plan, and will advance the public interest and welfare; and

**WHEREAS,** after the positive recommendation was forwarded to the City Council, a public hearing was held by the Salida City Council on December 06, 2022.

#### NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SALIDA, COLORADO, THAT:

#### Section One

That the entirety of the property comprising the 505 Oak Street Planned Development, to wit, the 2.09 acres is hereby zoned Commercial (C-1) with a Planned Development Overlay as shown on the 505 Oak Street Planned Development plat and Major Subdivision attached to this ordinance as Exhibit A and Exhibit B.

#### Section Two

Upon this approval by the City Council, the 505 Oak Street Planned Development Overlay shall be considered a site specific development plan and granted a vested property right. The City Council is approving the vested property right subject to the terms and conditions contained in the development plan and this ordinance and failure to abide by such terms and conditions may, at the option of the City Council, after a public hearing, result in the forfeiture of vested property rights.

#### **Section Three**

Upon this approval by the City Council, the applicant shall submit a final Mylar of Exhibit A and Exhibit B; and incorporating the following conditions of approval for the Mayor's signature and recordation.

#### **Conditions for the Planned Development:**

- 1. A certificate of occupancy must be issued for the required two (2) for-sale Inclusionary Housing units prior to issuance of certificate of occupancy of the 7th market rate for-sale unit.
- 2. A certificate of occupancy must be issued for the six (6) inclusionary housing rental units on Lot 18 prior to certificate of occupancy of the fourth (4th) apartment building.
- 3. The applicant must meet the requirements of the Public Works Director and City Engineering Consultants prior to Council approval of the Subdivision Improvement and Inclusionary Housing Agreement.
- 4. An updated landscape plan meeting Land Use Code Sec. 16-8-90(b) must be submitted prior to building permit submittal for any units within the development.
- 5. CDOT access permit must be approved by CDOT and submitted to staff prior to recording the Planned Development and Subdivision plats.

#### **Conditions for the Major Subdivision:**

- 1. The subdivision plat meeting Land Use Code Sec. 16-6-110 with all of the required certificates must be submitted for review prior to printing the mylars.
- 2. The following plat notes must be added to the Major Subdivision Plat prior to recording the subdivision:

a. As required under Section 16.6.140 of the Salida Municipal Code, a payment in lieu of land dedication for Fair Contributions for Public School Sites shall be paid by prior to issuance of a building permit for any new residence constructed.

b. As required under Section 16-6-120(8), Parks, Trails and Open Space of the Salida Municipal Code, a fee in lieu shall be provided for open space prior to the issuance of a building permit for any new residence constructed. The applicants have agreed to provide public access on the southeast corner of the property for a connection to the trail on Scott Street. The trails public access must be shown on the plat.

c. As required under Section 16-6-120(11), No residential façade elevation shall be repeated more than once every five (5) lots on the same side of the street. The development must provide a diversity in architectural elements such as roof types and pitches, differentiated front entries and exterior materials (excludes different color) At time of building permit submittals, the applicant shall provide elevations of any and all existing homes (or homes under construction) along the same side of the street and (if applicable) the home(s) directly across the street, to ensure that the subdivision architectural standards will be met. The developer shall add architectural elements on windows and doors for the apartments to break up the façade elevation.

- 3. A name for the private road be added to the plat and "out-lot" removed.
- 4. Prior to issuance of any Certificate of Occupancy for units within the subdivision the applicant shall pay a fee in lieu of providing the Oak Street Streetscape improvements in an amount determined by the Public Works Director. Or, or upon further approval by the City, complete the improvements as designed as part of the Oak Street Improvement Plans.
- 5. The applicant must meet the requirements of the Public Works Director and City Engineering Consultants prior to Council approval of the Subdivision Improvement and Inclusionary Housing Agreement.
- 6. Prior to recordation of the subdivision plat, developer shall enter into a Subdivision Improvement and Inclusionary Housing agreement that guarantees the construction of the public improvements that are required for the project and that Article XIII Inclusionary Housing of the Land Use Code requirements are met.
- 7. The City Attorney shall propose language about the appropriate share of inclusionary housing HOA unit dues and assessments so as to unencumber the deed restricted buildings.
- 8. The developer agrees to work with the City regarding the joint access easement along the south side of the property.
- 9. The developer voluntarily agrees to add language to the Subdivision Improvement and Inclusionary Housing agreement that lots 11 through 18 remain rental buildings or must go before the Planning Commission for approval to condominiumize any of buildings in the future.

#### Section Four

The City Clerk is hereby directed to undertake the following actions upon the adoption of this Ordinance:

1. Publish this Ordinance in a newspaper of general circulation in the City of Salida.

2. Following recording of the Mylar, the Clerk shall promptly amend the official city zoning district map to incorporate and reflect the planned development overlay of the subject property. Vertical metal baluster

#### Section Five

This Ordinance shall not have any effect on existing litigation and shall not operate as an abatement of any action or proceeding now pending under or by virtue of any ordinance repealed or amended as herein provided, and the same shall be construed and concluded under such prior ordinances.

#### Section Six

The provisions of this Ordinance are severable and the invalidity of any section, phrase, clause or portion of the Ordinance as determined by a court of competent jurisdiction shall not affect the validity or effectiveness of the remainder of the Ordinance.

INTRODUCED ON FIRST READING on this \_\_ day of \_\_\_\_\_, 2022, ADOPTED and ORDERED PUBLISHED IN FULL in a newspaper of general circulation by the City Council on this \_\_\_\_ day of \_\_\_\_\_, 2022, and set for second reading and public hearing on the \_\_ day of \_\_\_\_\_, 2022.

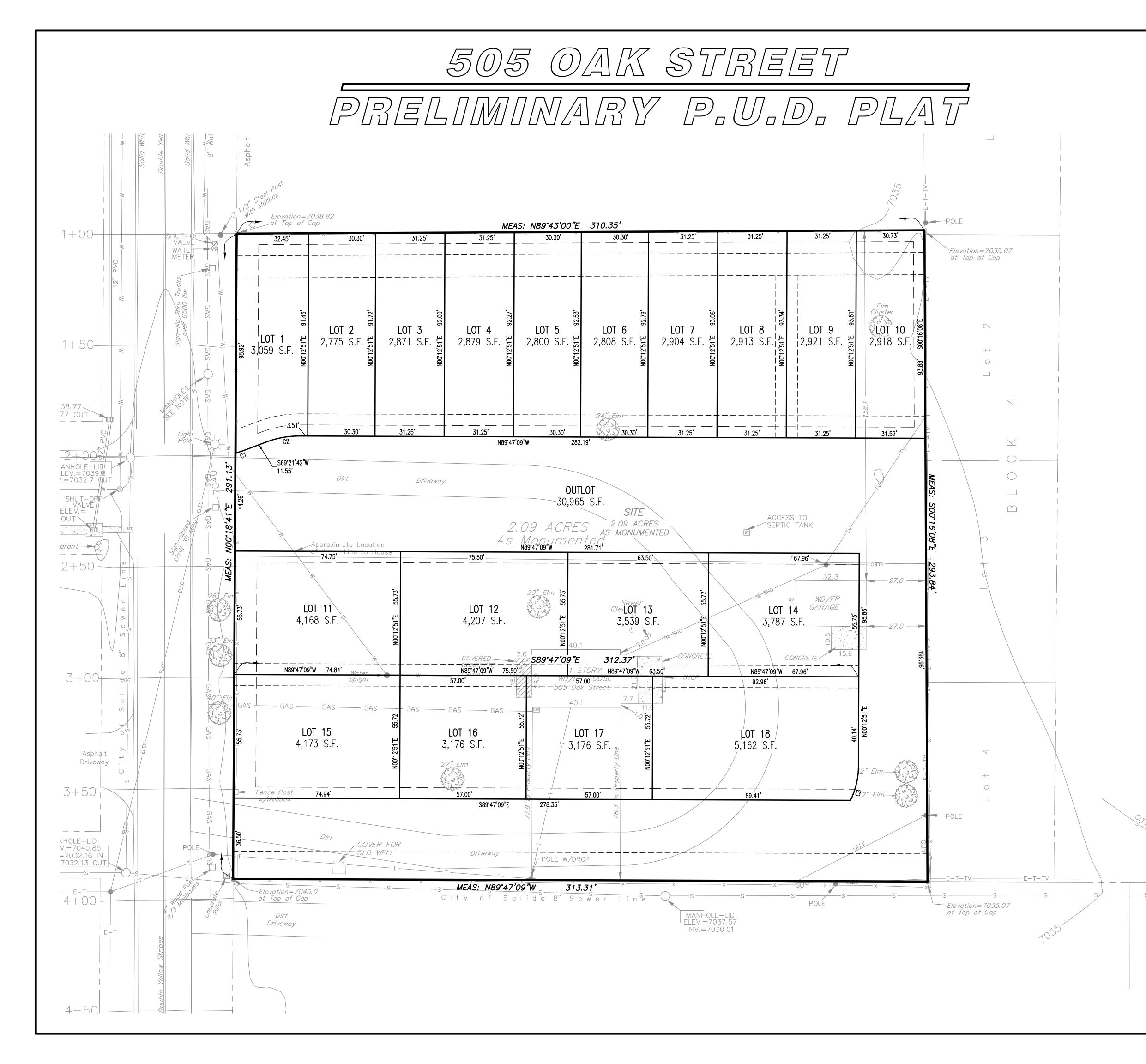
INTRODUCED ON SECOND READING FINALLY ADOPTED and ORDERED PUBLISHED BY TITLE ONLY, by the City Council on this \_\_\_\_\_ day of \_\_\_\_\_\_, 2022.

City of Salida

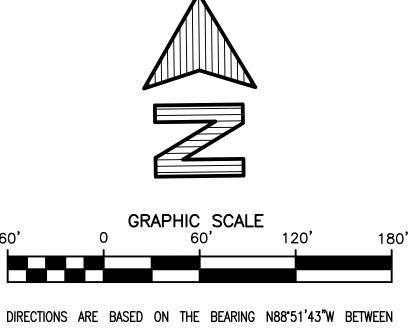
Mayor Dan Shore

ATTEST:

City Clerk/Deputy City Clerk



# EXHIBIT A



DIRECTIONS ARE BASED ON THE BEARING N88'51'43'W BETWEEN RECOVERED SURVEY MONUMENTS AT THE E1/4 COR. OF SEC. 10 AND THE SE COR. OF LOT 16, DE ANZA VISTA SUBDIVISON AS AS SHOWN AND DESCRIBED ON THIS PLAT.

### LEGEND

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_				_	_		_	_				
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—	—	—	—	—	—		·		—	—	—	

PROJECT BOUNDARY EXISTING/ADJACENT RIGHT-OF-WAY NEW ROAD RIGHT-OF-WAY NEW LOT LINE

Dimensional Standard	<b>E</b> viation	505 Oak PD			
Dimensional Standard	Existing	Lots 1-10	Lots 11-18		
Zoning	C1	PUD	PUD		
Min. lot size (sq. ft.)	5,625	2,775	3,175		
	5,063 <sup>6</sup>				
	3,750 <sup>7</sup>				
Density	2,800	2,000	750		
Min. Lot Size Attached Units	2,800	2,770	640		
	2,520 <sup>6</sup>				
Min. Lot Frontage	37.5	0	0		
Max. Lot Coverage: Structures	60%	60%	60%		
Max. Lot Coverage: Parking	60%	60%	60%		
Min. Landscaped Area	10%	10%	10%		
Min. Seback: Front Lot Line	10'	5'	5'		
Min. Setback: Side - Lot-Primary	5'	0'	0'		
Min. Setback: Side Lot - detached accessory	3', 5', 10'	3', 5', 10'	3', 5', 10'		
Min. Setbakck: Rear Lot - Principal Bldg	5'	5'	5'		
Min. Setbakck: Rear Lot - Accesory Bldg	5'	5'	5'		
Max. Building Height: Primary Bldg.	35'	35'	35'		
Max. Building Height: Accessory Bldg.	25'	25'	25'		

### LOT USE TABLE

— MANHC

ELEV.= INV. 8"

Lot #	Lot Type		rea s.f)	Units — Allowed	Low Income
		s.f.	acres	Allowed	(# of Units)
1	DUPLEX	3,059	0.07	1	1
2	DUPLEX	2,775	0.06	1	1
3	DUPLEX	2,871	0.07	1	-
4	DUPLEX	2,879	0.07	1	-
5	DUPLEX	2,800	0.06	1	-
6	DUPLEX	2,808	0.06	1	-
7	DUPLEX	2,904	0.07	1	-
8	DUPLEX	2,913	0.07	1	-
9	DUPLEX	2,921	0.07	1	-
10	DUPLEX	2,918	0.07	1	-
	SUB-TOTAL	28,848	0.66	10	-
11	MULTI-FAMILY	4,168	0.10	4	-
12	MULTI-FAMILY	4,207	0.10	4	-
13	MULTI-FAMILY	3,539	0.08	4	-
14	MULTI-FAMILY	3,787	0.09	4	-
15	MULTI-FAMILY	4,173	0.10	4	-
16	MULTI-FAMILY	3,176	0.07	4	-
17	MULTI-FAMILY	3,176	0.07	4	-
18	MULTI-FAMILY	5,162	0.12	6	6
	SUB-TOTAL	31,388	0.72	34	-
SHAF	RED OUTLOT	30,965	0.71	-	_
	SUB-TOTAL	30,965	0.71	-	-
	PD TOTALS	91,201	2.09	44	8

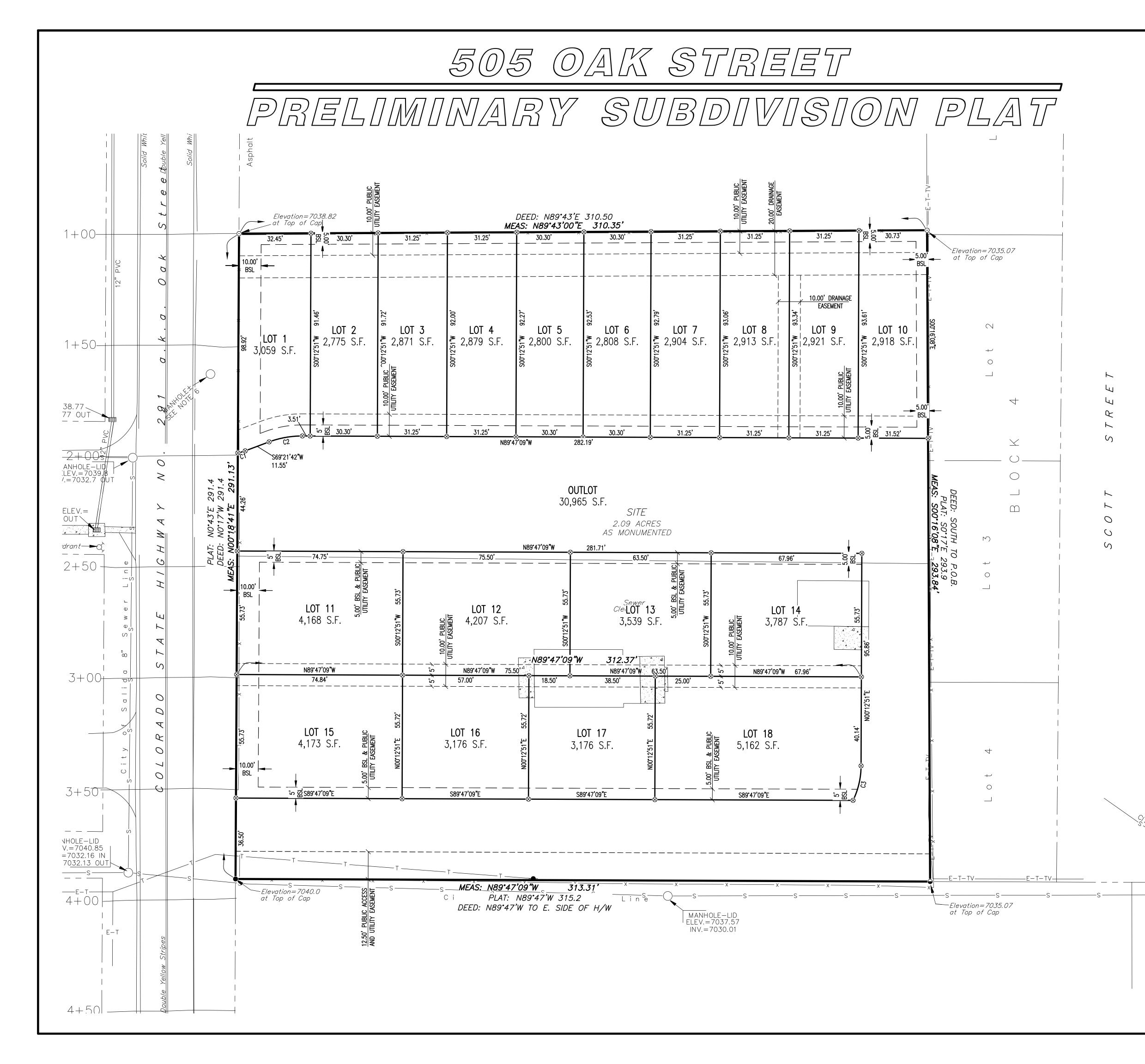
### OWNER:

KENT TOWNSEND 7625 U.S. HIGHWAY 50 SALIDA, CO 81201

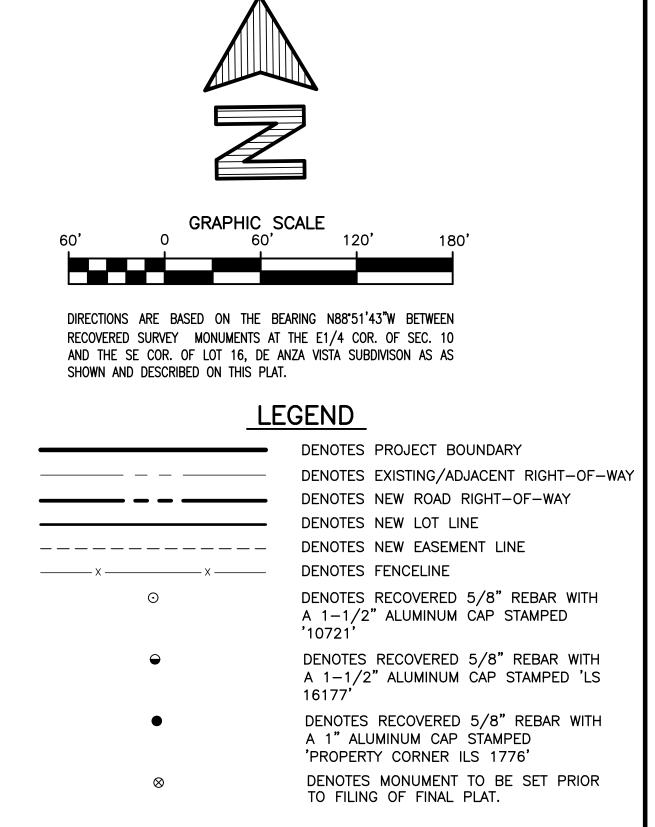
LAND SURVEYOR HENDERSON LAND SURVEYING 203 G STREET SALIDA, CO 81201 CONTACT: MICHAEL K. HENDERSON

ASSISTED BY: CRABTREE GROUP INC. ENGINEERING SMART GROWTH<sup>M</sup>





### EXHIBIT B



CURVE TABLE								
CURVE #	RADIUS	DELTA	LENGTH	CHROD	CHORD BRNG			
C1	19.00	010°25'17"	3.46	3.45	S74 <b>°</b> 34'20"W			
C2	43.04	020•22'55"	15.31	15.23	S80°01'06"W			
C3	36.00	025•39'35"	16.12	15.99	N13°02'39"E			

### PLAT NOTES:

—— MANHC

| ELEV.=

INV. 8"

- ALL LOTS SHALL BE SHALL BE SUBJECT TO A DECLARATION OF COVENANTS AND HOME OWNERS ASSOCIATION (H.O.A) AS SET FORTH IN RECEPTION NO. \_\_\_\_\_\_ OF THE CHAFFEE COUNTY RECORDS.
- OUTLOT AND COMMON FACILITIES, INCLUDEING PARKING, DRAINAGE, SIDEWALKS, AND LANDSCAPING, SHALL BE OWNED BY THE 505 OAK STREET HOMEOWNERS' ASSOCIATION, WHO SHALL BE RESPONSIBLE FOR ALL REQUIRED REPLACEMNT AND MAINTENANCE COST OF THE INFRASTRUCTURE.
- 3. OUTLOT SHALL SERVE AS AN EXCLUSIVE DRAIANGE AND UTILITY EASEMENT FOR THE LOTS SHOWN HERON.

### OWNER:

KENT TOWNSEND 7625 U.S. HIGHWAY 50 SALIDA, CO 81201



203 G STREET SALIDA, CO 81201 CONTACT: MICHAEL K. HENDERSON

ASSISTED BY: CRABTREE GROUP INC. ENGINEERING SMART GROWTH<sup>M</sup>

### SHEET 1 OF 1

#### PUBLIC NOTICE

#### NOTICE OF PUBLIC HEARINGS BEFORE THE CITY OF SALIDA CITY COUNCIL CONCERNING A MAJOR IMPACT REVIEW APPLICATION

TO ALL MEMBERS OF THE PUBLIC AND INTERESTED PERSONS: PLEASE TAKE NOTICE: that on December 6, 2022 at or about the hour of 6:00 p.m., a public hearing will be conducted by the City of Salida City Council at City Council Chambers, 448 East First Street, Suite 190, Salida, Colorado and online at the following link: https://attendee.gotowebinar.com/ register/6382995264411204366

The applicants 505 Oak St. LLC, represented by Kent Townsend, have submitted a major impact review application for the property located at 505 Oak Street. The property is located in the Commercial (C-1) zone district and the Highway 291 Established Commercial Overlay. The applicants are requesting approval of a Planned Development Overlay and Major Subdivision. The requests include:

A. Approval of a Planned Development Overlay to allow a subdivision with lots fronting off of a private road, to increase allowed density by 19% and reduced minimum lot size for the proposed multifamily lots 11-17.

B. Approval of a Major Subdivision to subdivide the 2.09 acre property into 18 residential lots with a HOA owned and managed private road.

The Planning Commission has recommended approval of the application, with conditions. Interested persons are encouraged to attend the public hearing. Further information on the application may be obtained from the Community Development Department, (719) 530-2626.

\*Please note that it is inappropriate to personally contact individual City Councilors or Planning Commissioners, outside of the public hearing, while an application is pending. Such contact is considered ex parte communication and will have to be disclosed as part of the public hearings on the matter. If you have any questions/ comments, you should email or write a letter to staff, or present your concerns at the public meeting via the above GoToWebinar link so your comments can be made part of the record.

Published in The Mountain Mail November 18, 2022



#### PLANNING DEPARTMENT PROJECT REVIEW TRANSMITTAL FORM

ATTENTION:	DATE:August 22, 2022	
<ul> <li>Salida Public Works</li> <li>Salida Fire Chief</li> <li>Salida Police Chief</li> <li>Salida Finance Department</li> <li>U.S. Postal Service</li> <li>U.S. Forest Service</li> <li>CO Dept. of Transportation</li> <li>City Consulting Engineer</li> <li>City Attorney</li> <li>Centurylink Communications</li> </ul>	<ul> <li>Xcel Energy</li> <li>Charter Communications</li> <li>Chaffee Co. Planning</li> <li>Army Corps of Engineers</li> <li>Division of Wildlife</li> <li>Town of Poncha Springs</li> <li>Chaffee Co. Building Official</li> <li>Historic Preservation Commission</li> <li>School District R-32-J</li> <li>Atmos Energy</li> <li>Other:</li> </ul>	
APPLICANT: 505 Oak Street, LLC (Kent Townsend	d) PHONE: <u>719-530-1088</u>	
EMAIL:kent@kenttownsend.com		
PROPERTY LOCATION:		
PROJECT DESCRIPTION: Major Impact Review for a Planned Development Overlay and Major Subdivision		
TENTATIVE MEETING DATES: Planning Commission City Council Board of Adjustment Board of Appeals TRANSMITTAL INCLUDES: Application Form/Cover Letter Vicinity Map Site Plan Plat	09/26/22 @ 6:00 P.M. (Tentatively) @ P.M. @ P.M. @ P.M.	
NOTE: $\Lambda$ written response, even if only to advise that y		
REPLY: NO CONCERNS AT THIS T	TIME.	
RESPONSE NEEDED BY: September 12, 2022	RECEIVED:	
PLANNING STAFF: Kristi Jefferson		
City of Salida 448 E. First Street, Ste. 112, Salida, CO 81201 719-530-2626, Kristi,jefferson@cityofsalida.com		

From:	Renee Thonhoff
То:	Kristi Jefferson
Cc:	Doug Bess; Kathy Rohrich; Russ Johnson; David Lady
Subject:	Re: 505 Oak Street Planned Development and Major Subdivision
Date:	Friday, August 26, 2022 7:53:40 AM
Attachments:	image003.png

505 Oak Street currently has one 3/4" commercial water tap valued at \$8,512, 3/4" meter valued at \$352. Development would require per unit system development fees to be paid.

Renee M. Thonhoff M.B.A. Staff Accountant City of Salida 448 East First Street, Suite 112 Salida , Colorado 81201 719.530.2622 phone 719.539.5271 fax Renee.Thonhoff@cityofsalida.com

Easy ways to pay your utility bill: auto pay with a checking account, phone payments 833.892.0176, or pay online please register at <u>https://www.municipalonlinepayments.com/salidaco</u> or download our iOS or Android app <u>MyCivic Utilities</u>. where you can now set up auto pay!

Sender and receiver should be mindful that all my incoming and outgoing emails may be subject to the Colorado Open Records Act, § 24-72-100.1, et seq.

On Tue, Aug 23, 2022 at 11:57 AM Kristi Jefferson <<u>kristi.jefferson@cityofsalida.com</u>> wrote:

Attached is the agency review for the 505 Oak Street Planned Development and Major Subdivision applications. Please let me know if you have any concerns with the PD or Subdivision requests.

Kristi Jefferson

Senior Planner

From: Diesel Post [mailto:diesel.post@cityofsalida.com]
Sent: Monday, September 19, 2022 12:44 PM
To: Kristi Jefferson <kristi.jefferson@cityofsalida.com>
Subject: Re: Agency Review

Based on the Plat, I would concur. Definitely want to ensure access to the trail.

Mike 'Diesel' Post Director of Parks and Recreation City of Salida 719-966-9378

On Fri, Sep 16, 2022 at 4:23 PM Kristi Jefferson <<u>kristi.jefferson@cityofsalida.com</u>> wrote:

Diesel,

I completely forgot to include you when I emailed out the agency review for the 505 Oak Street Planned Development and Major Subdivision. This is a fairly small (2.09 acre) parcel that they are proposing 44 units on so there isn't much room for open space. The applicant has agreed to provide a public access on the southeast corner of the property for a connection to the trail on Scott Street but we are going to recommend collecting fees in lieu of providing open space.

Thank you,

Kristi Jefferson Senior Planner City of Salida 448 E. First Street Suite 112 Salida, CO 81201 (719) 530-2626



Sender and receiver should be mindful that all my incoming and outgoing emails may be subject to the Colorado Open Records Act, § 24-72-100.1, et seq.

<u>ristelli, Mark</u>
risti Jefferson
iggins, Dan
E: [EXT] 505 Oak Street Planned Development
iday, September 9, 2022 10:23:57 AM
nage001.png

#### Kristi,

I have reviewed the plan set for the planned development at 505 Oak St, Salida, CO. My comments are as follows:

- I did not see anything in the notes concerning utility easements. I do notice the 5' front lot easements on all lots. I assume (hopefully accurately) that the area marked "Outlot" contains utility easement? If so, that should give sufficient room for all utilities. If not accurate, I see no way for all utilities to successfully install within a 5' easement. This may sound ridiculous to presume, however it is important to get written confirmation that the Outlot contains utility easement. If it states such in the paperwork, I apologize in advance for missing it in the documents.
- 2. Assuming (again hopefully accurately) that the Outlot contains utility easement, what are the developer's thoughts of natural gas lines being buried under asphalt? Will it be acceptable to cut asphalt in order to install service lines? Or will it be expected to have natural gas stubbed into each structure (finished or not) prior to paving? If the latter is correct, I will defer to Atmos Ops Supervisor in the area to comment on the feasibility of that request.
- 3. Is natural gas being considered to be part of this planned development, or is this review merely procedural as part of the planned development approval process?

I will leave it to Dan Higgins, Atmos Ops Supervisor, to submit additional comments if he so chooses to do so.

Regards, Mark Mark Cristelli Project Specialist Atmos Energy Corporation Colorado/Kansas Division 105 McCormick Parkway Canon City, CO 81212 Cell: 719-429-8977 mark.cristelli@atmosenergy.com

Natural Gas: Safe, Clean, Economical, Ecologically friendly, Abundant and Dependable. In short, natural gas is the REAL green energy solution.

#The Blue Flame = The Green Solution

From:	Waugh, Sterling S
To:	Kristi Jefferson
Cc:	Moffett, Christopher B
Subject:	RE: 505 Oak Street Planned Development and Major Subdivision
Date:	Wednesday, October 12, 2022 4:25:49 PM
Attachments:	image001.png image002.png

Hello Kristi,

Thanks for letting us be a little late to the game. Please let me know if you have any questions.

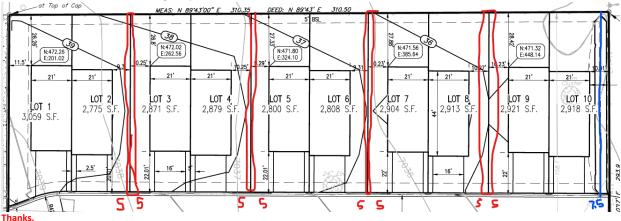
Lot 10 east property line, due to the existing OH utilities, Xcel would like a 7.5' easement on the east property line, below in blue.

I may have missed this but just in case, Outlot also be a utility easement.

10' front lot easements and any property line that is adjacent to a road.

5' rear lot easements on all rear lots

Lots 11-18 5' side lot easements. For side easements see below for lot 1-10



Customer to relocate or remove existing utility lines into easements at their cost.

#### Sterling S Waugh C:719-717-0041 Mon-Thurs 7-5:30

BLUE BOOK LINK BELOW

#### BLUE BOOK LINK BELOW

https://www.xcelenergy.com/staticfiles/xe-responsive/Admin/Managed Documents & PDFs/Xcel-Energy-Standard-For-Electric-Installation-and-Use.pdf

#### APPLICATION REQUEST

Building and Remodeling | Partner Resources | Xcel Energy

From: Kristi Jefferson <kristi.jefferson@cityofsalida.com>

Sent: Tuesday, August 23, 2022 12:01 PM

To: 'Higgins, Dan W' <Daniel.Higgins@atmosenergy.com>; Waugh, Sterling S <Sterling.S.Waugh@xcelenergy.com>; Moffett, Christopher B <Christopher.B.Moffett@xcelenergy.com>; Mark.Cristelli@atmosenergy.com; 'Blackburn, David' <dblackburn@salidaschools.org>
Subject: 505 Oak Street Planned Development and Major Subdivision

#### EXTERNAL - STOP & THINK before opening links and attachments.

Attached is the agency review for the 505 Oak Street Planned Development and Major Subdivision applications. Please let me know if you have any concerns with the PD or Subdivision requests.

Kristi Jefferson Senior Planner City of Salida 448 E. First Street Suite 112 Salida, CO 81201 (719) 530-2626 From:David LadyTo:"Kristi Jefferson"; "Mark G. Rocheleau"Subject:RE: 505 Oak StreetDate:Monday, November 7, 2022 2:00:18 PMAttachments:image002.png

The water connection notes need to be modified due to our mapping and understanding of our public adjacent mains being incorrect. Tracy is working on revising that and I don't expect it to affect Mark's review. Other than that, I don't have any additional concerns.



David Lady Director of Public Works

david.lady@cityofsalida.com P: 719-539-6257 | C: 719-239-0048 340 W. Hwy 291, Salida, CO 81201 cityofsalida.com

From: Kristi Jefferson [mailto:kristi.jefferson@cityofsalida.com]
Sent: Tuesday, November 1, 2022 3:13 PM
To: 'Mark G. Rocheleau' <mrocheleau@jvajva.com>; 'David Lady' <david.lady@cityofsalida.com>
Subject: FW: 505 Oak Street

Mark and David,

Below is the dropbox link for the 505 Oak Street PD and Major Subdivision updated civil plans. If you are unable to open it let me know and I will figure out a way to forward the file.

Kristi Jefferson Senior Planner City of Salida 448 E. First Street Suite 112 Salida, CO 81201 (719) 530-2626



Sender and receiver should be mindful that all my incoming and outgoing emails may be subject to the Colorado Open Records Act, § 24-72-100.1, et seq.

From: Tracy Vandaveer [mailto:tvandaveer@crabtreegroupinc.com]
Sent: Tuesday, November 1, 2022 2:58 PM
To: Kristi Jefferson (kristi.jefferson@cityofsalida.com) <kristi.jefferson@cityofsalida.com>

From:	David Lady
To:	"Kristi Jefferson"; "Mark G. Rocheleau"
Subject:	RE: 505 Oak Street Planned Dev.
Date:	Thursday, September 1, 2022 9:18:57 AM
Attachments:	image001.png

I'd recommend proceeding with conditions.

My requested conditions. Move FH 3+72 to end of the stub to the south (on prior review comments) Connect water main loop to Scott Street via existing utility easement One water/sewer service per lot Provide plan updates per engineering review prior to Final Plat approvals

David Lady, P.E., Director of Public Works 340 W. Hwy 291 Salida, CO 81201 719-539-6257 <u>david.lady@cityofsalida.com</u>

From: Kristi Jefferson [mailto:kristi.jefferson@cityofsalida.com]
Sent: Thursday, September 1, 2022 9:00 AM
To: 'David Lady' <david.lady@cityofsalida.com>; 'Mark G. Rocheleau' <mrocheleau@jvajva.com>
Subject: 505 Oak Street Planned Dev.

David and Mark,

Attached are the updated civils for the 505 Oak Planned Development (the civils are in 2 separate emails because the file was too big to email). Mark, please look through the materials and let me know if Tracy has submitted everything you were requesting. I will be on vacation after tomorrow and need to get the public noticing ready today if you deem the civils complete.

Thank you,

Kristi Jefferson Senior Planner City of Salida 448 E. First Street Suite 112 Salida, CO 81201 (719) 530-2626

From:	David Lady
То:	"Mark G. Rocheleau"; "Kristi Jefferson"; "Kevin E. Vecchiarelli"
Subject:	RE: 505 Oak LLC - Planned Development civil plans
Date:	Monday, June 27, 2022 10:09:53 AM
Attachments:	image001.png
	image002.png

Mark,

A couple of items to note:

- It has been discussed that they shall provide fees in lieu of improvements to the ROW which would include a sidewalk and driveway apron. Please have them submit quantities for this. The 291 sidewalk/storm/apron would be constructed with the local agency CDOT project. The developer will provide a temporary asphalt driveway to tie into existing 291. It was discussed that the developer should anticipate the sidewalk at asphalt driveway to be ~4 to 6" above the existing edge of asphalt along SH-291.
- 2) I do not yet have a final set of plans for the tie-in grade of the driveway or roadway improvements in general. They are in progress and should be available soon. Ultimately, the 291 plans are intended to capture the drainage that has historically been conveyed onto the lot. I haven't discussed this with their engineer but I would think their site plan should allow for surface conveyance across their site. I would also suggest that as much as possible, if not all, be routed to where ever they are planning detention so that at least the smaller storm events can be captured. There is not an easy for feasible solution to re-route this along 291 until that project happens.
- 3) We did discuss that the water shall be connected and looped on 291 which appears to be shown on SH-5. However, it will need stubbed out to the south (Fire Station lot) in the south east corner where the dumpsters are shown. The hydrant at 3+72 should be on the dead end on the south side of the driveway near STAT 4+18. This will ultimately need to be coordinated with the 291 plans but it should be safe to have it ~8 ft off property line which will put it in the future parkway between curb and sidewalk. The valves shown along 291 may also need shifted to avoid the future c&g.

I will request a .dwg from our engineer to coordinate the driveways, C&G, and s/w locations on 291.

Please let me know if you have any questions.

David Lady, P.E., Director of Public Works 340 W. Hwy 291 Salida, CO 81201 719-539-6257 david.lady@cityofsalida.com

From: Mark G. Rocheleau [mailto:mrocheleau@jvajva.com]
Sent: Monday, June 27, 2022 9:31 AM
To: Kristi Jefferson <kristi.jefferson@cityofsalida.com>; Kevin E. Vecchiarelli
<kvecchiarelli@jvajva.com>



# MEMO

To: City of Salida Development Services, Attn: Kristi Jefferson From: Tracy Vandaveer CC: Mark Rocheleau, Kent Townsend, John Diesslin Date: November 1, 2022 Re: 505 Oak Street Development Application

We have received your comments on the 505 Oak Street development application, dated September 9, 2022. Below, we have repeated your original comment with a response on how it was addressed following:

1. We assume that all other reviewing agencies have had opportunity to comment and any required changes to the plans that come from these comments will be made.

#### Response: Noted.

2. Plat documents need to clearly address ownership and maintenance of all improvements, public utilities, and accesses, include common elements and outlots.

# **RESPONSE:** Plat notes addressing Ownership and maintenance have been added to the Subdivision Plat.

- 3. The following conditions need to be met prior to recommendation to planning commission:
  - a. Easements:
    - i. All building elements (foundation elements [including footings], eaves/soffits, other architectural elements) are forbidden from within a utility. Revise as required.

Response: Noted.

ii. Stormwater easements required for common storm drainage infrastructure and conveyances, including underground detention systems. Provide minimum 10-foot wide drainage easement to paved surface for future maintenance purposes.

**RESPONSE:** The requested easements are shown on the Subdivision Plat.



September 9, 2022

JVA, Incorporated P.O. Box 1860 47 Cooper Creek Way Suite 328 Winter Park, CO 80482 970.722.7677 info@jvajva.com

www.jvajva.com

Kristi Jefferson, Senior Planner City of Salida 448 East 1st Street Salida, Colorado 80201 Via email: Kristi.jefferson@cityofsalida.com

RE: 505 Oak Street Major Impact Review and Planned Development Engineering Comments JVA Job# 3121.17c

Dear Kristi:

JVA Inc. has reviewed the 505 Oak Street Major Impact Review and Planned Development application submitted through email dated September 9, 2022 for conformance with the City of Salida Code of Ordinances (Code), and City of Salida Design and Construction Standards. Upon review, we are providing conditions that need to be met prior to recommendation of planning commission. Additionally, we have provided comments for informational purposes to consider on engineering plans for future Subdivision Improvement Agreement (SIA) review and approval.

- 1. We assume that all other reviewing agencies have had opportunity to comment and any required changes to the plans that come from these comments will be made.
- 2. Plat documents need to clearly address ownership and maintenance of all improvements, public utilities, and accesses, include common elements and outlots.
- 3. The following conditions need to be met prior to recommendation to planning commission:
  - a. Easements:
    - i. All building elements (foundation elements [including footings], eaves/soffits, other architectural elements) are forbidden from within a utility. Revise as required.
    - ii. Stormwater easements required for common storm drainage infrastructure and conveyances, including underground detention systems. Provide minimum 10-foot wide drainage easement to paved surface for future maintenance purposes.
    - iii. Private utilities such as gas, electricity and communications will be required to be in a utility easement or outlot
  - b. Utilities:
    - i. Provide plan and profiles, with crossings, of public water and sewer sewer mains
    - ii. Per previous comment, the fire hydrant located at STA 3+72 shall be shifted south to be at the water main cap near STA 4+18. Coordinate final location with public works and fire department
    - iii. Coordinate with Public Works to ensure that water main valves within Highway 291 are not in conflict with future street improvements
    - iv. Provide landscape irrigation water meter with supporting calculations confirming water meter size or confirm that irrigation will be provided separately for each lot.

- v. The 505 Oak Street PUD Written Description states that a fire hydrant is to be provided at the northeast corner of the site how does not appear on the Utility Plan. Provide as required
- vi. Clarify note 49 on sheet number 4 in regards to dual meter. Plans show single meter
- c. Provide information for fee in lieu ROW improvement quantities and pricing
- d. Emergency Services: Provide confirmation from fire department emergency vehicular turning movements through site, and fire protection improvements
- e. Drainage Report and layout Drainage Map.
  - i. Revise Drainage Basin DA-1 to provide accurate time of concentration calculations. Staff does not agree with 300-feet of overland flow since the majority of DA-1 is conveyed through channelized flow.
  - ii. Drainage Basin DA-2 shall have channelized flow time of concentration
  - iii. Provide curb and gutter calculations confirming major storm even capacity
  - iv. Provide calculations that 12" ADS N12 pipe and inlets have capacity to flow major storm peak flows.
    - 1. In the event of clogging of 18" Area Drain, provide analysis of overflow path to stormwater to underground detention system.
  - v. Provide information in drainage report in regards to overflow path design considerations.
  - vi. MHFD spreadsheet detention volume does not match ADS design details. Revise as necessary for conformance.
  - vii. Provide clarification on Detention Basin Outlet Structure Design worksheet in regards to orifice designs, and how this does not impact major storm capacity to underground detention system.
  - viii. Provide clarification within conclusion of comment stating that peak flows will reduce. Post-development peak flows are higher than pre-development stormwater flows.
  - ix. Infiltration testing shall be completed at approximate depth of drainage rock to ensure ADS Stormtech system can infiltrate detention and water quality volumes within Colorado Water Law time requirements. Provide infiltration test results and calculations confirmed full infiltration of detained stormwater.
  - x. Detail operation and maintenance information for underground detention areas
- f. Drainage and Grading:
  - i. Underground Stormwater Detention
    - 1. Grading plans and ADS Stormtech elevations do not concur with each other. ADS design elevations should match with Grading Plan elevations. Ensure that ADS system has appropriate cover
    - 2. Clarify drainage basin nomenclature elevations as invert elevations are not provided on Drainage Plan.
  - ii. Provide information along property line of tie in elevations, specifically along north and east property lines
    - 1. Curb and gutter along east property line appears higher than existing elevations



- iii. Trees should not be placed in underground stormwater detention, revise plans as necessary
- iv. Clarify intent with curb terminus along east property line. Stormwater calculations show this going to the underground detention system, however a curb height of zero is shown. Point discharges offsite will not be permitted.
  - 1. Per previous comment stormwater point discharges offsite will not be acceptable
- v. Per previous comment, additional information should be provided of how emergency overflow stormwater will leave 505 Oak Street property and continue to Scott Street.
  - 1. Drainage Easements may be required if development conveys onsite generated stormwater through neighboring sites
- vi. Northeast Stormwater Control Method:
  - 1. Provide information within plans and drainage report of dirt swale intent
- g. Provide landscape islands per Section 16-8-90 (d)
- 4. Prior to SIA review and approval, the following comments will be required to be addressed / clarified.
  - a. CDOT Access and Utility Permits
  - b. Water minimum bury depth is 5-feet. Revise details for consistency across plans
  - c. Provide information on how existing utilities servicing 505 Oak Street will be capped, demolished, abandoned, etc.
  - d. Provide information to cap and abandon existing concrete headwall across from Chilcott Street within ROW
  - e. Record with City an Operation and Maintenance Plan for the storm facilities, including storm infiltration systems.
- 5. The following contains informational comments for consideration
  - a. Persistent to CDPHE General Permit for Stormwater Discharges Associated with Construction Activity", all projects involving an earth disturbance of 1-acre or more require a Stormwater Management Plan (SWMP). The applicant must develop a SWMP prior to the commencement of any construction activity.
- 6. Applicant should provide responses to comments to accompany future submittals.
- 7. Applicant may be subject to additional comments upon future review of future submittals.

We look forward to verifying the above comments in a future submittal. Please feel free to reach out to us if you have any comments or questions.

Sincerely, JVA, INCORPORATED

By:

Mark G. Rocheleau, P.E., CFM Senior Project Engineer



The above comments may not reflect all changes required to meet City of Salida municipal ordinances, and design and construction standards. The plan and document review by the City of Salida does not necessarily include confirmation of design calculations, project approach or every project design element. Therefore, authorization from the City of Salida to proceed with construction of the project does not constitute unconditional acceptance or approval of the submitted plans or documents, particularly if specific aspects are later discovered to not be in compliance with the City of Salida municipal ordinances, and design and construction standards in effect at the time such authorization was granted. The responsibility for compliance with the City of Salida municipal ordinances, and design and their engineer's consultants. Neither the City of Salida nor JVA, Inc, accept responsibility for the project design and/or construction of this development nor any other design consideration or standard utilized in the project.

iii. Private utilities such as gas, electricity and communications will be required to be in a utility easement or outlot

#### **Response:** Easements have been provided on the Subdivision Plat.

- b. Utilities:
  - i. Provide plan and profiles, with crossings, of public water and sewer sewer mains

#### **RESPONSE:** Construction plans have been revised to include plan and profile drawings.

ii. Per previous comment, the fire hydrant located at STA 3+72 shall be shifted south to be at the water main cap near STA 4+18. Coordinate final location with public works and fire department

#### **RESPONSE:** Fire Hydrant has been moved as requested.

iii. Coordinate with Public Works to ensure that water main valves within Highway 291 are not in conflict with future street improvements

#### **Response:** Valve locations will be coordinated with Public Works.

iv. Provide landscape irrigation water meter with supporting calculations confirming water meter size or confirm that irrigation will be provided separately for each lot.

#### **RESPONSE:** Irrigation meter has been added

v. The 505 Oak Street PUD Written Description states that a fire hydrant is to be provided at the northeast corner of the site how does not appear on the Utility Plan. Provide as required

#### **RESPONSE:** Referenced fire hydrant is located on Water Line B, Sta. 3+92.85

vi. Clarify note 49 on sheet number 4 in regards to dual meter. Plans show single meter

#### **RESPONSE:** Note has been revised to reference City of Salida Standard Detail

c. Provide information for fee in lieu ROW improvement quantities and pricing

## **Response:** Attached is the" Opinion of Probable Cost" for the improvements within the Highway

d. Emergency Services: Provide confirmation from fire department emergency vehicular turning movements through site, and fire protection improvements

**RESPONSE:** Email from the Fire Chief is attached.

- e. Drainage Report and layout Drainage Map.
  - i. Revise Drainage Basin DA-1 to provide accurate time of concentration calculations. Staff does not agree with 300-feet of overland flow since the majority of DA-1 is conveyed through channelized flow.

**RESPONSE:** Overland flow lengths have been revised.

ii. Drainage Basin DA-2 shall have channelized flow time of concentration

**Response:** Flow type has been revised.

iii. Provide curb and gutter calculations confirming major storm even capacity

**RESPONSE:** Calculations for curb and gutter flow capacities have been added.

iv. Provide calculations that 12" ADS N12 pipe and inlets have capacity to flow major storm peak flows.

**RESPONSE:** Requested information has been added to the Drainage Report.

1. In the event of clogging of 18" Area Drain, provide analysis of overflow path to stormwater to underground detention system.

**RESPONSE:** Requested Analysis has been added to the Drainage Report.

v. Provide information in drainage report in regards to overflow path design considerations.

**RESPONSE:** Requested Analysis has been added to the Drainage Report

vi. MHFD spreadsheet detention volume does not match ADS design details. Revise as necessary for conformance.

#### **Response:** Design Volumes have been updated.

vii. Provide clarification on Detention Basin Outlet Structure Design worksheet in regards to orifice designs, and how this does not impact major storm capacity to underground detention system.

## **Response:** Outflow is via overflow of the swale, which acts as a long weir, dispersing flows.

viii. Provide clarification within conclusion of comment stating that peak flows will reduce. Post-development peak flows are higher than pre-development stormwater flows.

#### **RESPONSE:** Has been revised in the drainage report

ix. Infiltration testing shall be completed at approximate depth of drainage rock to ensure ADS Stormtech system can infiltrate detention and water quality volumes within Colorado Water Law time requirements. Provide infiltration test results and calculations confirmed full infiltration of detained stormwater.

# **RESPONSE:** Infiltration tests were conducted by Cesare Inc. on 11/1/2022. Soil was presoaked the day before, with water for the test being added via a garden hose, with a measured output of 5 gallons per minute. Cesare was not able to get the water to rise in the pipe, therefore minimum percolations rate was reported as 5 gallons per minute.

x. Detail operation and maintenance information for underground detention areas

**RESPONSE:** Operations and Maintenance Plan has been attached.

- f. Drainage and Grading:
  - i. Underground Stormwater Detention
    - 1. Grading plans and ADS Stormtech elevations do not concur with each other. ADS design elevations should match with Grading Plan elevations. Ensure that ADS system has appropriate cover

**RESPONSE:** Elevations on ADS Plans have been updated. The surface will be graded from the back of curb to property line where higher than existing ground.

2. Clarify drainage basin nomenclature elevations as invert elevations are not provided on Drainage Plan.

**Response:** Drainage Plan has been revised

ii. Provide information along property line of tie in elevations, specifically along north and east property lines

#### **RESPONSE:** Tie elevations have been added to the plan at the property line

1. Curb and gutter along east property line appears higher than existing elevations

**RESPONSE:** The back of curb height varies from 0" to 6"above the existing ground to provide enough grade for the curb to drain. Finished ground will slop from the back of curb to existing grade at the property line.

iii. Trees should not be placed in underground stormwater detention, revise plans as necessary

**RESPONSE:** Trees have been removed from the detention area.

iv. Clarify intent with curb terminus along east property line. Stormwater calculations show this going to the underground detention system, however a curb height of zero is shown. Point discharges offsite will not be permitted.

**RESPONSE:** O" curb height at the north end of the easterly curb is an artifact left from previous submittal. the error and has been corrected. The O" curb height at the south end of the easterly curb is due to the transition at the end of the curb, which prevents damage if a vehicle strikes the curb.

1. Per previous comment stormwater point discharges offsite will not be acceptable

**Response:** A swale along the easterly and northeasterly boundaries was added to disperse flows in an overflow event.

v. Per previous comment, additional information should be provided of how emergency overflow stormwater will leave 505 Oak Street property and continue to Scott Street.

## **RESPONSE:** If an overflow event should occur, stormwater would collect in the shallow swale in the northeast corner of the site. Since the elevation along the boundary in the northeast corner is flat, the overflow would be dispersed.

- 1. Drainage Easements may be required if development conveys onsite generated stormwater through neighboring sites
- **RESPONSE:** The applicants are pursuing a defined easement with the adjoining properties to the north and northeast of the site, and believe that they will be able to come to an agreement with those property owners. However, per Colorado Law, the exists a "Natural Easement" which allows the water to continue to Scott Street. The legal principles of a "Natural Easement" are explained in USDCM; Volume 1, section 1.2. Additionally, this principle has been upheld the Colorado Courts, most recently in Bittersweet Farms, Inc. v. Zimbelman, 976P.2d 326 (1998).
  - vi. Northeast Stormwater Control Method:
    - 1. Provide information within plans and drainage report of dirt swale intent

**RESPONSE:** Note has been added to the drawings and explained in the drainage report.

g. Provide landscape islands per Section 16-8-90 (d)

**RESPONSE:** Landscape islands have been provided at the ends of the parking.

4. Prior to SIA review and approval, the following comments will be required to be addressed

/ clarified.

a. CDOT Access and Utility Permits

## **Response:** Applicant has applied for the Access Permit and is awaiting a response from CDOT.

b. Water minimum bury depth is 5-feet. Revise details for consistency across plans

#### **Response:** Details have been revised

c. Provide information on how existing utilities servicing 505 Oak Street will be capped, demolished, abandoned, etc.

#### **RESPONSE**: Utilities will be capped at the main with service lines abandoned in place.

d. Provide information to cap and abandon existing concrete headwall across from Chilcott Street within ROW

## **RESPONSE:** Referenced Concrete headwall is within the CDOT right of way and therefore should be incorporated into the highway improvement project.

e. Record with City an Operation and Maintenance Plan for the storm facilities, including storm infiltration systems.

## **Response:** Applicant will draft an Operation and Maintenance Plan for recordation with the City.

- 5. The following contains informational comments for consideration
  - a. Persistent to CDPHE General Permit for Stormwater Discharges Associated with Construction Activity", all projects involving an earth disturbance of 1-acre or more require a Stormwater Management Plan (SWMP). The applicant must develop a SWMP prior to the commencement of any construction activity.

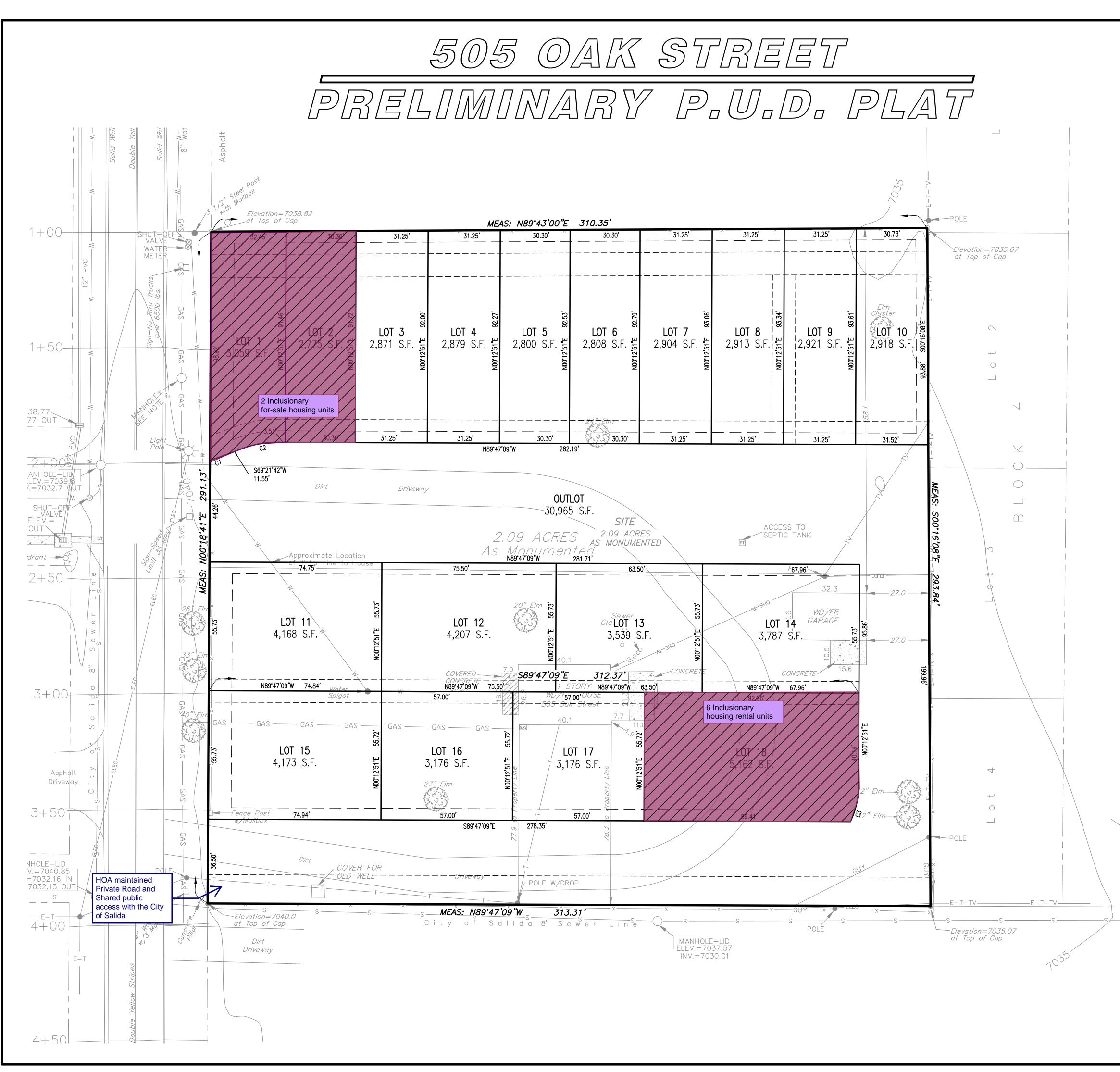
## **Response:** The Applicant is aware of the requirements to obtain a stormwater permit prior to construction and intends to do so.

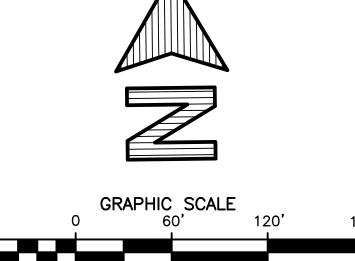
6. Applicant should provide responses to comments to accompany future submittals.

#### **Response:** These are the requested responses.

7. Applicant may be subject to additional comments upon future review of future submittals.

**Responses:** Noted.





DIRECTIONS ARE BASED ON THE BEARING N88°51'43"W BETWEEN RECOVERED SURVEY MONUMENTS AT THE E1/4 COR. OF SEC. 10 AND THE SE COR. OF LOT 16, DE ANZA VISTA SUBDIVISON AS AS SHOWN AND DESCRIBED ON THIS PLAT.

## LEGEND

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PROJECT BOUNDARY EXISTING/ADJACENT RIGHT-OF-WAY NEW ROAD RIGHT-OF-WAY NEW LOT LINE

NEW EASEMENT LINE

Dimensional Standard	Evicting	505 Oak PD		
Dimensional Standard	Existing	Lots 1-10	Lots 11-18	
Zoning	C1	PUD	PUD	
Min. lot size (sq. ft.)	5,625	2,775	3,175	
	5,063 <sup>6</sup>			
	3,750 <sup>7</sup>			
Density	2,800	2,000	750	
Min. Lot Size Attached Units	2,800	2,770	640	
	2,520 <sup>6</sup>			
Min. Lot Frontage	37.5	0	0	
Max. Lot Coverage: Structures	60%	60%	60%	
Max. Lot Coverage: Parking	60%	60%	60%	
Min. Landscaped Area	10%	10%	10%	
Min. Seback: Front Lot Line	10'	5'	5'	
Min. Setback: Side - Lot-Primary	5'	0'	0'	
Min. Setback: Side Lot - detached accessory	3', 5', 10'	3', 5', 10'	3', 5', 10'	
Min. Setbakck: Rear Lot - Principal Bldg	5'	5'	5'	
Min. Setbakck: Rear Lot - Accesory Bldg	5'	5'	5'	
Max. Building Height: Primary Bldg.	35'	35'	35'	
Max. Building Height: Accessory Bldg.	25'	25' 25'		

#### LOT USE TABLE

Lot #	Lot Type		rea 5.f)	Units	Low Income	
	ĺ	s.f.	acres	- Allowed	(# of Units)	
1	DUPLEX	3,059	0.07	1	1	
2	DUPLEX	2,775	0.06	1	1	
3	DUPLEX	2,871	0.07	1	-	
4	DUPLEX	2,879	0.07	1	-	
5	DUPLEX	2,800	0.06	1	-	
6	DUPLEX	2,808	0.06	1	-	
7	DUPLEX	2,904	0.07	1	-	
8	DUPLEX	2,913	0.07	1	-	
9	DUPLEX	2,921	0.07	1	-	
10	DUPLEX	2,918	0.07	1	-	
	SUB-TOTAL	28,848	0.66	10	-	
11	MULTI-FAMILY	4,168	0.10	4	-	
12	MULTI-FAMILY	4,207	0.10	4	-	
13	MULTI-FAMILY	3,539	0.08	4	-	
14	MULTI-FAMILY	3,787	0.09	4	-	
15	MULTI-FAMILY	4,173	0.10	4	-	
16	MULTI-FAMILY	3,176	0.07	4	-	
17	MULTI-FAMILY	3,176	0.07	4	-	
18	MULTI-FAMILY	5,162	0.12	6	6	
	SUB-TOTAL	31,388	0.72	34	-	
SHAF	RED OUTLOT	30,965	0.71	-	-	
	SUB-TOTAL	30,965	0.71	-	-	
	PD TOTALS	91,201	2.09	44	8	

#### **OWNER:**

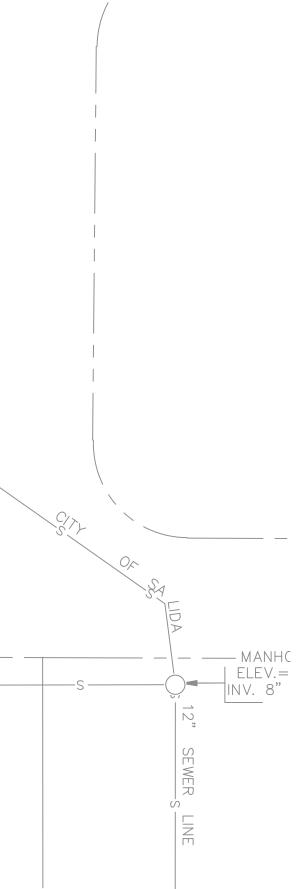
KENT TOWNSEND 7625 U.S. HIGHWAY 50 SALIDA, CO 81201

LAND SURVEYOR HENDERSON LAND SURVEYING 203 G STREET SALIDA, CO 81201 CONTACT: MICHAEL K. HENDERSON



007 OAK STREET PUD\CAD\MODELS\22007 PLAT MODEL.DWG 11/2/2022 3:37:59





SHEET 1 OF 1

V/ODAV	Salida, CO 81201 719-530-2626 Fax: 719-539-5271 il: planning@cityofsalida.com
1. TYPE OF APPLICATION (Check-off as appro	opriate)
<ul> <li>Annexation</li> <li>Pre-Annexation Agreement</li> <li>Appeal Application (Interpretation)</li> <li>Certificate of Approval</li> <li>Creative Sign Permit</li> <li>Historic Landmark/District</li> <li>License to Encroach</li> <li>Text Amendment to Land Use Code</li> <li>Watershed Protection Permit</li> <li>Conditional Use</li> </ul>	<ul> <li>Administrative Review: (Type)</li></ul>
2. GENERAL DATA (To be completed by the ap	pplicant)
Mailing Address: 7625 Kury	505 OAK STLLL
Mailing Address: 7625 Kury Telephone Number: 719 530 088 Email Address: Kenie Kenie Address: Power of Attorney/ Authorized Representative: (Provide a letter authorizing agent to represent you, i	FAX: 
Mailing Address: 7625 Kuy Telephone Number: 719 530 088 Email Address: Kenie Kenii Townse Power of Attorney/ Authorized Representative: (Provide a letter authorizing agent to represent you, is telephone number, and FAX)	FAX: 
Mailing Address: 7625 Kury Telephone Number: 719 530 088 Email Address: Kente Kentonse Power of Attorney/ Authorized Representative: (Provide a letter authorizing agent to represent you, i	FAX: include representative's name, street and mailing address,
Mailing Address: 7625 Kuy Telephone Number: 719 530 1088 Email Address: Kente Kent Townse Power of Attorney/ Authorized Representative: (Provide a letter authorizing agent to represent you, i telephone number, and FAX) B. Site Data	FAX: include representative's name, street and mailing address,
Mailing Address: 7625 Kuy Telephone Number: 719 530 088 Email Address: Kenie Kenii Townse Power of Attorney/ Authorized Representative: (Provide a letter authorizing agent to represent you, is telephone number, and FAX) B. Site Data Name of Development: 505 0	FAX: 
Mailing Address:       7623       Kuy         Telephone Number:       719       530       088         Email Address:       Kemile       Kemile       088         Email Address:       Kemile       Kemile       088         Power of Attorney/ Authorized Representative:       (Provide a letter authorizing agent to represent you, it telephone number, and FAX)         B. Site Data       Name of Development:       505       06         Street Address:       505       06       Kemile         Legal Description:       Lot       Block       Subdivi         Disclosure of Ownership:       List all owners' names, mortgal	FAX:
Mailing Address:       7623       Xuy         Telephone Number:       719       530       088         Email Address:       Kenil Address       088         Power of Attorney/ Authorized Representative:	FAX:
Mailing Address:       7625       Kuy         Telephone Number:       719       530       088         Email Address:       Kenil       Kenil       088         Power of Attorney/ Authorized Representative:	FAX:

#### 505 Oak Street PUD Written Description

The 505 Oak Street PUD proposes to create 18 lots non a 2.09 Acre Parcel of land in the C1 Zone district. Lots 1-10 are intended to be Duplex lots, and a total of 34 multifamily units will be constructed on Lots 11-18. Access, multi-family parking, and utilities for the development will be located in an Outlot, which will be shared by the entire development.

Access to the site will be gained from Oak Street (Highway 291), with the south access lane being shared between the proposed development and the new Fire department building, with is expected to be constructed on the lot south of the site.

There is an existing water main at the northwest corner of the property. To provide water service for the development, this main will be extended south within the Oak Street (Highway 291) right-of-way along the entire property frontage. To service the development, an 8" water main will be looped through the Outlot, with service connections being provided to each building. Fire hydrants will be located near the southwest and northeast corners of the site to provide fire protection for the site.

An existing sewer main runs along the southern boundary of the site. A manhole will be inserted into the main near the southeast corner of the site, with an 8" sewer main extending through the site to provide service.

The access road and parking will be paved, with concrete sidewalks around the perimeter of the multi-family lots to provide for pedestrian circulation. A concrete sidewalk will also be installed along the entire Oak Street frontage. This will encourage the future connection of neighboring properties, thereby expanding pedestrian access in the area.

#### City Of SUBMITTAL REQUIREMENTS 448 East First Street, Suite 112 Salida, CO 81201

Phone: 719-530-2626 Fax: 719-539-5271 Email: planning@cityofsalida.com

An application is meant to highlight the requirements and procedures of the Land Use Code. With any development application, it is the responsibility of the applicant to read, understand, and follow <u>all</u> of the provisions of the Land Use Code.

#### 1. PROCEDURE (Section 16-3-80)

<u>A. Development Process (City Code Section 16-3-50)</u> Any application for approval of a development permit shall include a written list of information which shall constitute the applicant's development plan, which shall be that information necessary to determine whether the proposed development complies with this Code. The development plan shall include the following, as further specified for each level of review on the pre-application checklist:

- 1. Pre-Application Conference (Limited Impact and Major Impact Review Applications)
- 2. Submit Application
- 4. Staff Review. Staff report or decision forwarded to the applicant (Administrative review)
- 5. Public Notice
- 6. Public Hearing with Planning Commission (Limited Impact and Major Impact Review Applications)
- 7. Public Notice
- 8. Hearing Conducted by City Council (Major Impact Review)

#### **B. Application Contents** (City Code Section (16-3-50)

- 1. A General Development Agreement completed.
- ∑ 2. A copy of a current survey or the duly approved and recorded subdivision plat covering the subject lots where the proposal is for development on previously subdivided or platted lots;
- X 3. A brief written description of the proposed development signed by the applicant;
- 4. Special Fee and Cost Reimbursement Agreement completed.

#### X 5. Public Notice.

- a) List. A list shall be submitted by the applicant to the city of adjoining property owners' names and addresses. A property owner is considered adjoining if it is within 175 feet of the subject property. The list shall be created using the current Chaffee County tax records.
- b) Postage Paid Envelopes. Each name on the list shall be written on a postage-paid envelope. Postage is required for up to one ounce. Return Address shall be: City of Salida, 448 E. First Street, Suite 112, Salida, CO 81201.
- c) Applicant is responsible for posting the property and submittal of proof of posting the public notice.

#### **X** 7. Developments involving construction shall provide the following information:

(i) A development plan map, at a scale of one (1) inch equals fifty (50) feet or larger with title, date, north arrow and scale on a minimum sheet size of eight and one-half  $(8^{1}/_{2})$  inches by eleven (11) inches, which depicts the area within the boundaries of the subject lot, including:

a. The locations of existing and proposed land uses, the number of dwelling units and the square footage of building space devoted to each use;

b. The location and dimensions, including building heights, of all existing and proposed Buildings or structures and setbacks from lot lines or building envelopes where exact dimensions are not available;

- c. Parking spaces;
- d. Utility distribution systems, utility lines, and utility easements;
- e. Drainage improvements and drainage easements;
- f. Roads, alleys, curbs, curb cuts and other access improvements;
- g. Any other improvements;
- h. Any proposed reservations or dedications of public right-of-way, easements or other public lands, and
- i. Existing topography and any proposed changes in topography, using five-foot contour intervals or ten-foot contour intervals in rugged topography.
  - (ii) 24" x 36" paper prints certified by a licensed engineer and drawn to meet City specifications to depict the following:
    - a. Utility plans for water, sanitary sewer, storm sewer, electric, gas and telephone lines;
    - b. Plans and profiles for sanitary and storm sewers; and
    - c. Profiles for municipal water lines; and
    - d. Street plans and profiles.

(iii) Developments in the major impact review procedure shall provide a development plan map on paper prints of twenty-four (24) inches by thirty-six (36) inches, with north arrow and scale, and with title and date in lower right corner, at a scale of one (1) inch equals fifty (50) feet or larger which depicts the area within the boundaries of the subject lots and including those items in Section 16-3-40(a) (3).

<sup>8.</sup> Any request for zoning action, including review criteria for a requested conditional use (Sec. 16-4-190) or zoning variance (Sec. 16-4-180);

9. Any subdivision request including a plat meeting the requirements of Section 16-6-110;

 $\times$  10. Any other information which the Administrator determines is necessary to determine whether the proposed development complies with this Code, including but not limited to the following:

(i) A tabular summary of the development proposal, which identifies the total proposed development area in acres, with a breakdown of the percentages and amounts devoted to specific land uses; total number and type of proposed residential units; total number of square feet of proposed nonresidential space; number of proposed lots; and sufficient information to demonstrate that the plat conforms with all applicable dimensional standards and off-street parking requirements.

(ii) A description of those soil characteristics of the site which would have a significant influence on the proposed use of the land, with supporting soil maps, soil logs and classifications sufficient to enable evaluation of soil suitability for development purposes. Data furnished by the USDA Natural Resource Conservation Service or a licensed engineer shall be used. The data shall include the shrink/swell potential of the soils, the groundwater levels and the resulting foundation requirements. Additional data may be required by the City if deemed to be warranted due to unusual site conditions.

(iii) A report on the geologic characteristics of the area, including any potential natural or manmade hazards which would have a significant influence on the proposed use of the land, including but not limited to hazards from steep or unstable slopes, rockfall, faults, ground subsidence or radiation, a determination of what effect such factors would have, and proposed corrective or protective measures.

(iv) Engineering specifications for any improvements.

(v) A plan for erosion and sediment control, stabilization and revegetation.

(vi) A traffic analysis prepared by a qualified expert, including projections of traffic volumes to be generated by the development and traffic flow patterns, to determine the impacts of a proposed development on surrounding City streets and to evaluate the need for road improvements to be made.

(vii) A storm drainage analysis consisting of the following:

(a) A layout map (which may be combined with the topographic map) showing the method of moving storm sewer water through the subdivision shall be provided. The map shall also show runoff concentrations in acres of drainage area on each street entering each intersection. Flow arrows shall clearly show the complete runoff flow pattern at each intersection. The location, size and grades of culverts, drain inlets and storm drainage sewers shall be shown, as applicable.

(b) The applicant shall demonstrate the adequacy of drainage outlets by plan, crosssection and/or notes and explain how diverted stormwater will be handled after it leaves the subdivision. Details for ditches and culverts shall be submitted, as applicable.

(c) The projected quantity of stormwater entering the subdivision naturally from areas outside of subdivision and the quantities of flow at each pickup point shall be calculated.

(viii) Evidence of adequate water supply and sanitary sewer service - Data addressing the population planned to occupy the proposed subdivision and future development phases and other developments that may need to be served by extensions of the proposed water supply and sewage disposal systems. The resulting domestic, irrigation and fire flow demands shall be expressed in terms of

Major and Limited Impact Review

gallons of water needed on an average day and at peak time, and the resulting amounts of sewage to be treated shall be expressed in gallons per day.

(ix) An analysis shall be submitted addressing how water for domestic use and for fire flows is to be provided, along with the collection and treatment of sewage generated by the property to be subdivided.

(x) A statement shall be submitted addressing the quantity, quality and availability of any water that is attached to the land.

(xi) A preliminary estimate of the cost of all required public improvements, tentative development schedule (with development phases identified), proposed or existing covenants and proposed maintenance and performance guarantees. The applicant shall submit, at least in summary or outline form, any agreements as may be required by Section 16-2-70, relating to improvements and dedications.

(xii) If intending to use solar design in the development, include a description of the steps that have been taken to protect and enhance the use of solar energy in the proposed subdivision. This shall include how the streets and lots have been laid out and how the buildings will be sited to enhance solar energy usage.

(xiii) If applicable, a report shall be submitted identifying the location of the one-hundred-year floodplain and the drainage ways near or affecting the property being subdivided. If any portion of a one-hundred-year floodplain is located on the property, the applicant shall also identify the floodway and floodway fringe area. The applicant shall also describe the steps that will be taken to ensure that development locating in the floodway fringe area is accomplished in a manner which meets Federal Insurance Administration standards.

(xiv) If applicable, a report shall be submitted on the location of wetlands, as defined by the U.S. Army Corp of Engineers, on or affecting the property being subdivided. The report shall outline the development techniques planned to ensure compliance with federal, state and local regulations.

(xv) A landscape plan, meeting the specifications of Section 16-8-90.

(xvi) If applicable, a description of how the proposal will comply with the standards of any of the overlays.

(xvii) A site plan for parks, trails and/or open space meeting the requirements of Section 16-6-110 below. If an alternate site dedication or fee in lieu of dedication is proposed, detailed information about the proposal shall be submitted.

(xviii) All development and subdivision naming shall be subject to approval by the City. No development or subdivision name shall be used which will duplicate or be confused with the name of any existing street or development in the City or the County;

X 11. An access permit from the Colorado Department of Transportation; and Application has been submitted but permit has not been received.

 $<sup>\</sup>mathbf{x}$  12. A plan for locations and specifications of street lights, signs and traffic control devices.

#### 2. REVIEW STANDARDS (If necessary, attach additional sheets)

The application for Limited or Major Impact Review shall comply with the following standards.

1. Consistency with Comprehensive Plan. The use shall be consistent with the City's Comprehensive Plan.

The proposed development provides a mix of housing types and affordable housing units in compliance with the Comprehensive Plan

2. Conformance to Code. The use shall conform to all other applicable provisions of this Land Use Code, including, but not limited to:

a. Zoning District Standards. The purpose of the zone district in which it is located, the dimensional standards of that zone district, and any standards applicable to the particular use, all as specified in Article 5, Use and Dimensional Standards.
 The site is currently Zoned C1. in this Zone, Duplex and residential dwellings with up to 4 units are allowed with an Administrative Review.

b. Site Development Standards. The parking, landscaping, sign and improvements standards. The site standards, parking, and landscaping are shown in the engineering drawing.

**3.** Use Appropriate and Compatible. The use shall be appropriate to its proposed location and be compatible with the character of neighboring uses, or enhance the mixture of complementary uses and activities in the immediate vicinity.

The existing site is unoccupied but has historically been used for residential dwelling. The area around the site is a mixture of commercial and residential uses. The proposed design will enhance the area by creating high quality housing and landscaping on a currently unmaintained site.

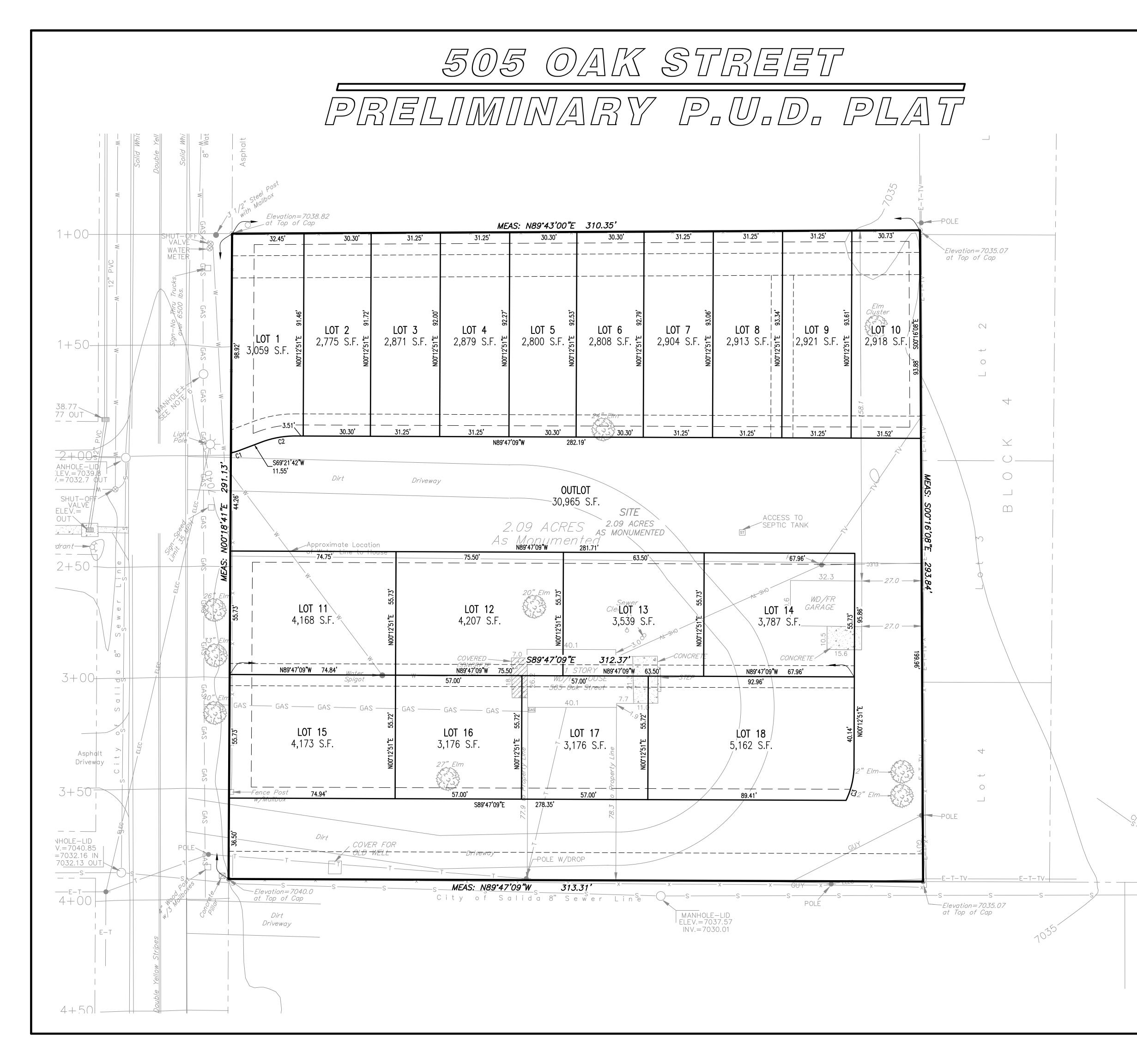
4. Nuisance. The operating characteristics of the use shall not create a nuisance and the impacts of the use on surrounding properties shall be minimized with respect to noise, odors, vibrations, glare, and similar conditions.

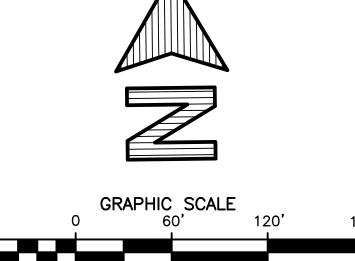
The site use will be residential and is not expected to generate nuisance noise, odor, vibrations, or glare.

5. Facilities. There shall be adequate public facilities in place to serve the proposed use, or the applicant shall propose necessary improvements to address service deficiencies which the use would cause. Public infrastructure is being extended through the site to provide the required services.

6. Environment. The use shall not cause significant deterioration to water resources, wetlands, wildlife habitat, scenic characteristics, or other natural features. As applicable, the proposed use shall mitigate its adverse impacts on the environment.

The existing site is unmaintained. Devleopment of the site will enhance the overall environmental conditions by providing ground cover that reduces soil migration from the site during wind and storm runoff events.





DIRECTIONS ARE BASED ON THE BEARING N88°51'43"W BETWEEN RECOVERED SURVEY MONUMENTS AT THE E1/4 COR. OF SEC. 10 AND THE SE COR. OF LOT 16, DE ANZA VISTA SUBDIVISON AS AS SHOWN AND DESCRIBED ON THIS PLAT.

## LEGEND

-		

PROJECT BOUNDARY EXISTING/ADJACENT RIGHT-OF-WAY NEW ROAD RIGHT-OF-WAY NEW LOT LINE

Dimensional Standard	Eviating	505 Oak PD		
Dimensional Standard	Existing	Lots 1-10	Lots 11-18	
Zoning	C1	PUD	PUD	
Min. lot size (sq. ft.)	5,625	2,775	3,175	
	5,063 <sup>6</sup>			
	3,750 <sup>7</sup>			
Density	2,800	2,000	750	
Min. Lot Size Attached Units	2,800	2,770	640	
	2,520 <sup>6</sup>			
Min. Lot Frontage	37.5	0	0	
Max. Lot Coverage: Structures	60%	60%	60%	
Max. Lot Coverage: Parking	60%	60%	60%	
Min. Landscaped Area	10%	10%	10%	
Min. Seback: Front Lot Line	10'	5'	5'	
Min. Setback: Side - Lot-Primary	5'	0'	0'	
Min. Setback: Side Lot - detached accessory	3', 5', 10'	3', 5', 10'	3', 5', 10'	
Min. Setbakck: Rear Lot - Principal Bldg	5'	5'	5'	
Min. Setbakck: Rear Lot - Accesory Bldg	5'	5'	5'	
Max. Building Height: Primary Bldg.	35'	35'	35'	
Max. Building Height: Accessory Bldg.	25'	25'	25'	

#### LOT USE TABLE

Lot #	Lot Type		rea 5.f)	Units — Allowed		
	l í	s.f.	acres	Allowed	(# of Units)	
1	DUPLEX	3,059	0.07	1	1	
2	DUPLEX	2,775	0.06	1	1	
3	DUPLEX	2,871	0.07	1	-	
4	DUPLEX	2,879	0.07	1	-	
5	DUPLEX	2,800	0.06	1	-	
6	DUPLEX	2,808	0.06	1	-	
7	DUPLEX	2,904	0.07	1	-	
8	DUPLEX	2,913	0.07	1	-	
9	DUPLEX	2,921	0.07	1	-	
10	DUPLEX	2,918	0.07	1	-	
	SUB-TOTAL	28,848	0.66	10	-	
11	MULTI-FAMILY	4,168	0.10	4	-	
12	MULTI-FAMILY	4,207	0.10	4	-	
13	MULTI-FAMILY	3,539	0.08	4	-	
14	MULTI-FAMILY	3,787	0.09	4	-	
15	MULTI-FAMILY	4,173	0.10	4	-	
16	MULTI-FAMILY	3,176	0.07	4	-	
17	MULTI-FAMILY	3,176	0.07	4	-	
18	MULTI-FAMILY	5,162	0.12	6	6	
	SUB-TOTAL	31,388	0.72	34	-	
SHAF	RED OUTLOT	30,965	0.71	-	-	
	SUB-TOTAL	30,965	0.71	-	-	
	PD TOTALS	91,201	2.09	44	8	

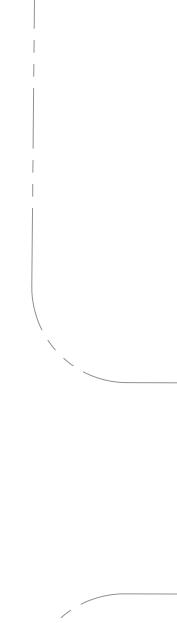
#### **OWNER:**

KENT TOWNSEND 7625 U.S. HIGHWAY 50 SALIDA, CO 81201

LAND SURVEYOR HENDERSON LAND SURVEYING 203 G STREET SALIDA, CO 81201 CONTACT: MICHAEL K. HENDERSON

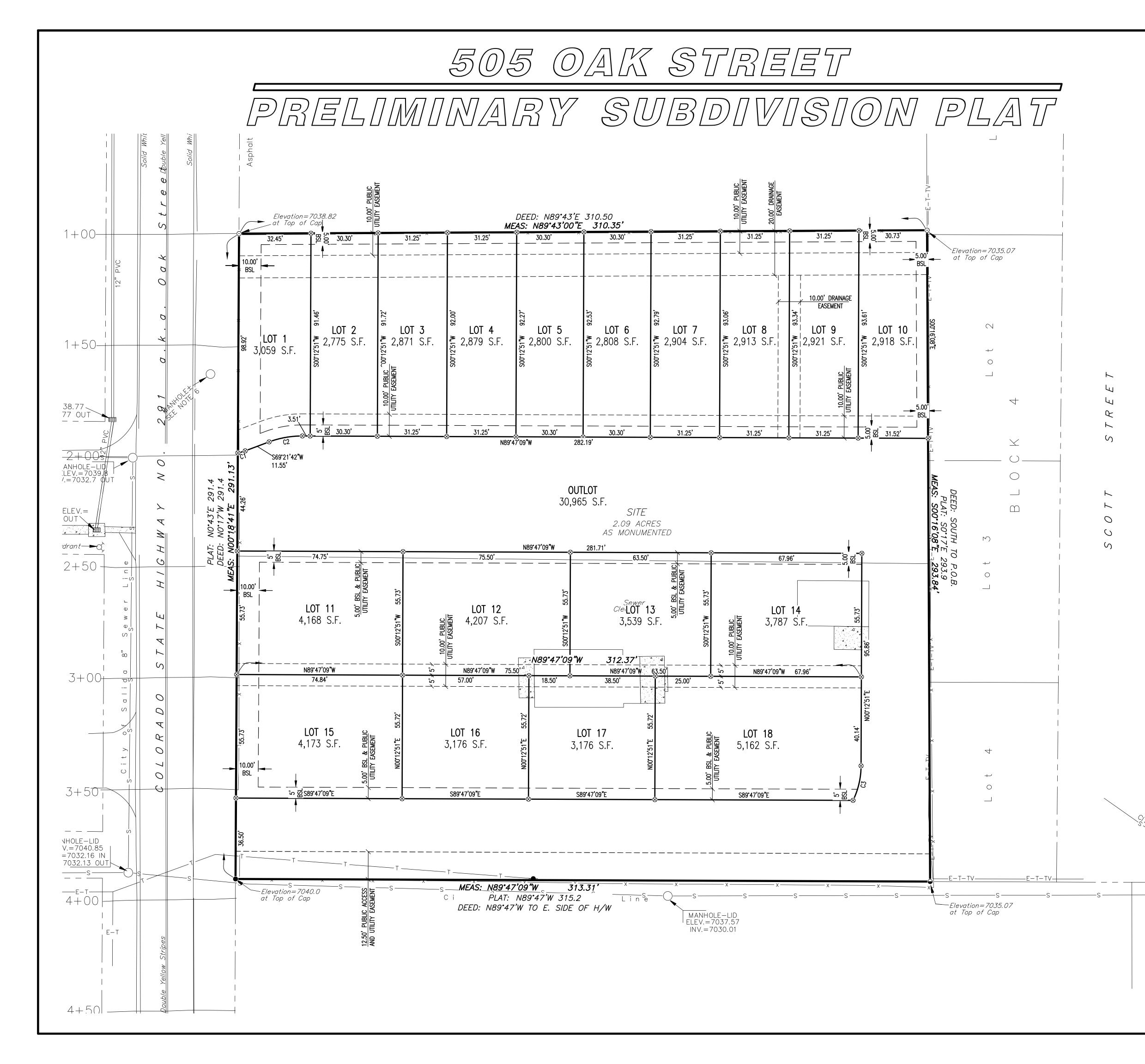


## SHEET 1 OF 1



— MANHC

ELEV.= INV. 8"



GRAPHIC SCALE DIRECTIONS ARE BASED ON THE BEARING N88'51'43"W BETWEEN RECOVERED SURVEY MONUMENTS AT THE E1/4 COR. OF SEC. 10 AND THE SE COR. OF LOT 16, DE ANZA VISTA SUBDIVISON AS AS SHOWN AND DESCRIBED ON THIS PLAT. LEGEND DENOTES PROJECT BOUNDARY DENOTES EXISTING/ADJACENT RIGHT-OF-WAY DENOTES NEW ROAD RIGHT-OF-WAY DENOTES NEW LOT LINE DENOTES NEW EASEMENT LINE \_\_\_\_\_ DENOTES FENCELINE — X ——— DENOTES RECOVERED 5/8" REBAR WITH  $\odot$ A 1-1/2" ALUMINUM CAP STAMPED '10721' DENOTES RECOVERED 5/8" REBAR WITH A 1-1/2" ALUMINUM CAP STAMPED 'LS 16177' DENOTES RECOVERED 5/8" REBAR WITH A 1" ALUMINUM CAP STAMPED 'PROPERTY CORNER ILS 1776'

> DENOTES MONUMENT TO BE SET PRIOR TO FILING OF FINAL PLAT.

CURVE TABLE					
CURVE #	RADIUS	DELTA	LENGTH	CHROD	CHORD BRNG
C1	19.00	010°25'17"	3.46	3.45	S74 <b>°</b> 34'20"W
C2	43.04	020•22'55"	15.31	15.23	S80°01'06"W
C3	36.00	025•39'35"	16.12	15.99	N13°02'39"E

#### PLAT NOTES:

—— MANHC

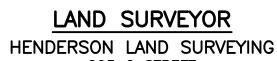
| ELEV.=

INV. 8"

- ALL LOTS SHALL BE SHALL BE SUBJECT TO A DECLARATION OF COVENANTS AND HOME OWNERS ASSOCIATION (H.O.A) AS SET FORTH IN RECEPTION NO. \_\_\_\_\_\_ OF THE CHAFFEE COUNTY RECORDS.
- 2. OUTLOT AND COMMON FACILITIES, INCLUDEING PARKING, DRAINAGE, SIDEWALKS, AND LANDSCAPING, SHALL BE OWNED BY THE 505 OAK STREET HOMEOWNERS' ASSOCIATION, WHO SHALL BE RESPONSIBLE FOR ALL REQUIRED REPLACEMNT AND MAINTENANCE COST OF THE INFRASTRUCTURE.
- 3. OUTLOT SHALL SERVE AS AN EXCLUSIVE DRAIANGE AND UTILITY EASEMENT FOR THE LOTS SHOWN HERON.

## OWNER:

KENT TOWNSEND 7625 U.S. HIGHWAY 50 SALIDA, CO 81201



203 G STREET SALIDA, CO 81201 CONTACT: MICHAEL K. HENDERSON

ASSISTED BY: CRABTREE GROUP INC. ENGINEERING SMART GROWTH<sup>M</sup>

## SHEET 1 OF 1

Traffic Impact Study

## 505 Oak Street Salida, Colorado

Prepared for:

Crabtree Group, Inc.

Kimley » Horn

#### 505 Oak Street

Salida, Colorado

#### Prepared for Crabtree Group, Inc.

325 D. Street P.O. Box 924 Salida, Colorado 81201

Prepared by Kimley-Horn and Associates, Inc. 4582 South Ulster Street Suite 1500 Denver, Colorado 80237 (303) 228-2300



August 2022

This document, together with the concepts and designs 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 and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

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#### **1.0 EXECUTIVE SUMMARY**

The 505 Oak Street project is proposed to be located on the east side of the Chilcott Street and Oak Street (SH-291) intersection in Salida, Colorado. This development is proposed to include 34 apartment units and 10 duplex units. It is expected that the 505 Oak Street project will be completed in the next several years. Therefore, analysis was conducted for the 2025 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study in accordance with the City of Salida and State of Colorado Department of Transportation (CDOT) standards and requirements:

- Chilcott Street & Oak Street (SH-291) (#1)
- Rainbow Blvd (US-50) & Oak Street (SH-291) (#2)

In addition, the proposed full movement access along Oak Street (SH-291) (#3) was evaluated.

Regional access to 505 Oak Street will be provided by US-50, US-285 and State Highway 291 (SH-291). Primary access will be provided by Rainbow Boulevard (US-50) and Oak Street (SH-291). Direct access will be provided by a proposed full movement access to be constructed as the east leg of the Chilcott Street and Oak Street (SH-291) (#1) intersection and a new full movement access to be located on the east side of Oak Street (SH-291) approximately 165 feet to the south of the Chilcott Street and Oak Street (SH-291) (#1) intersection, measured center to center.

The 505 Oak Street project is expected to generate approximately 302 weekday daily trips, with 19 of these trips occurring during the morning peak hour and 23 of these trips occurring during the afternoon peak hour.

Based on the analysis presented in this report, Kimley-Horn believes the 505 Oak Street project will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

- The threshold for requiring an access permit along Colorado Department of Transportation (CDOT) roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent or when an access is proposed to be improved or constructed. Based on traffic projections, the addition of project traffic on the east leg of the Chilcott Street/Oak Street (SH-291) (#1) intersection is anticipated to increase existing traffic by more than 20 percent. Therefore, an access permit is anticipated to be required for this access. In addition, with construction of the South Access (#3), an access permit at this access is anticipated to be required. Of note, the addition of project traffic to the Rainbow Boulevard (US-50) and Oak Street (SH-291) (#2) intersection is not anticipated to increase the existing access traffic volumes by more than 20 percent, with the largest anticipated percent increase on the north leg on Oak Street (SH-291) during the morning peak hour with 1.7 percent (6/363 vehicles).
- Two full movement accesses are proposed on the east side of Oak Street (SH-291). The North Access is proposed to be constructed to align with the west leg of the Chilcott Street and Oak Street (SH-291) (#1) intersection, while the South Access (#3) is proposed to be located about 165 feet south of this intersection, measured center to center. It is recommended that R1-1 "STOP" signs be installed on the exiting westbound approach for vehicles exiting the development at both of these accesses. Turning movements into the North Access (#1) in the northbound and southbound direction are recommended to be provided from the shared left/through/right turn lane. Turning movements into the South Access (#3) in the northbound and southbound left/right turn lanes are recommended to be provided at each access for vehicles exiting the development.
- Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the City of Salida, CDOT, and the Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition.

#### 2.0 INTRODUCTION

Kimley-Horn and Associates, Inc. has prepared this report to document the results of a Traffic Impact Study for the 505 Oak Street project proposed to be located on the east side of the Chilcott Street and Oak Street (SH-291) intersection in Salida, Colorado. A vicinity map illustrating the 505 Oak Street development location is shown in **Figure 1**. 505 Oak Street is proposed to include 34 apartment units and 10 duplex units. A conceptual site plan is attached in **Appendix E**. It is expected that 505 Oak Street will be completed in the next several years; therefore, analysis was conducted for the 2025 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study in accordance with the City of Salida and State of Colorado Department of Transportation (CDOT) standards and requirements:

- Chilcott Street & Oak Street (SH-291) (#1)
- Rainbow Blvd (US-50) & Oak Street (SH-291) (#2)

In addition, the proposed full movement access along Oak Street (SH-291) (#3) was evaluated.

Regional access to 505 Oak Street will be provided by US-50, US-285 and State Highway 291 (SH-291). Primary access will be provided by Rainbow Boulevard (US-50) and Oak Street (SH-291). Direct access will be provided by a proposed full movement access to be constructed as the east leg of the Chilcott Street and Oak Street (SH-291) (#1) intersection and a new full movement access to be located on the east side of Oak Street (SH-291) approximately 165 feet to the south of the Chilcott Street and Oak Street (SH-291) (#1) intersection, measured center to center.

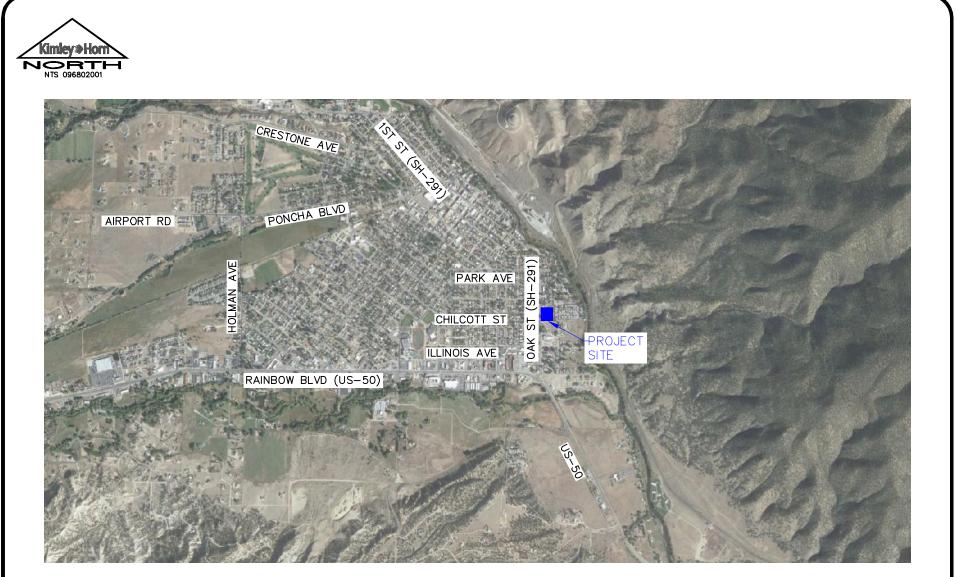


FIGURE 1 505 OAK STREET SALIDA, COLORADO VICINITY MAP



#### 3.1 Existing Study Area

The existing site is comprised of a single family home. Generally surrounding the area are additional single-family homes. Directly to the north and to the west of the site are some commercial uses.

#### 3.2 Existing Roadway Network

US-50 is also known as Rainbow Boulevard within the City of Salida. Rainbow Boulevard (US-50) is mainly an east/west roadway and provides two through lanes in each direction and a twoway left turn lane within the study area. In this area, the posted speed limit is 45 miles per hour. This roadway is categorized as an NR-A (Non-Rural Principal Highway) facility by the State of Colorado Department of Transportation (CDOT).

Oak Street (SH-291) extends north/south and provides one through lane in each direction. The posted speed limit in this area is 35 miles per hour. This roadway is categorized by CDOT as an NR-C (Non-Rural Arterial) facility.

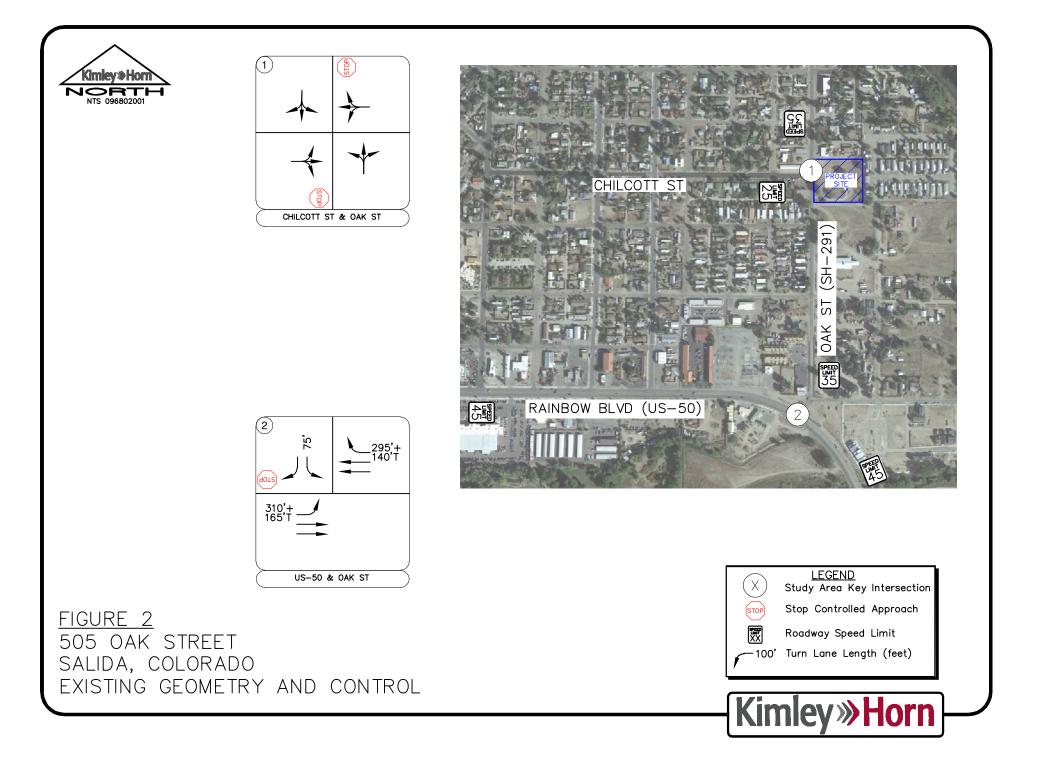
Chilcott Street extends east/west and provides one through lane in each direction. The posted speed limit along this roadway is 25 miles per hour.

The unsignalized intersection of Chilcott Street and Oak Street (SH-291) (#1) operates with stop control on the eastbound and westbound Chilcott Street approaches. Each of the four approaches to this intersection provide shared left/through/right turning movements in a single lane. Of note, the east leg of this intersection, while present, is a driveway entrance to the existing single family home which occupies the project site.

The unsignalized 'T'-intersection of Rainbow Boulevard (US-50) and Oak Street (SH-291) (#2) operates with stop control on the southbound Oak Street (SH-291) approach. The southbound Oak Street (SH-291) approach provides a left turn lane and a right turn lane. The eastbound Rainbow Boulevard (US-50) approach provides a left turn lane and two through lanes. The westbound Rainbow Boulevard (US-50) approach provides two through lanes and a right turn lane. It is known that the City of Salida and CDOT have been working together to develop plans for improvements to this intersection and several alternatives have been proposed, however, it

has been noted that construction is not imminent. It is anticipated that CDOT will be preparing detailed plans and performing the analysis of each scenario at this intersection.

The intersection lane configuration and control for the study area intersections are shown in **Figure 2**.

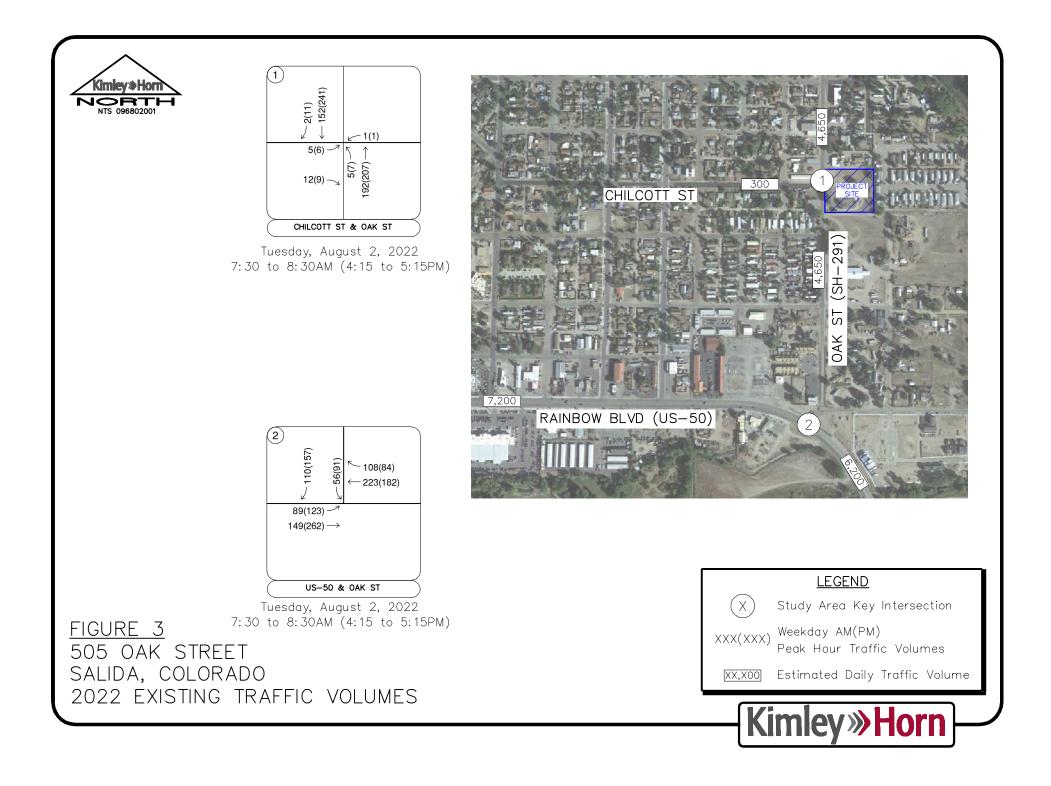


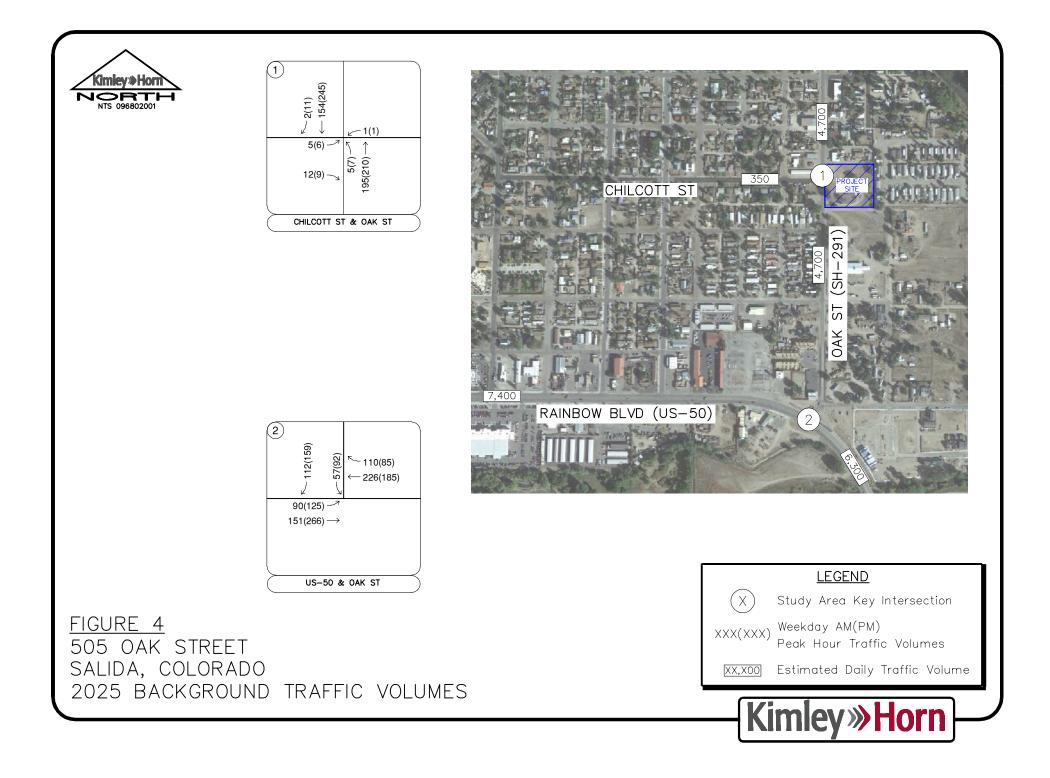
#### **3.3 Existing Traffic Volumes**

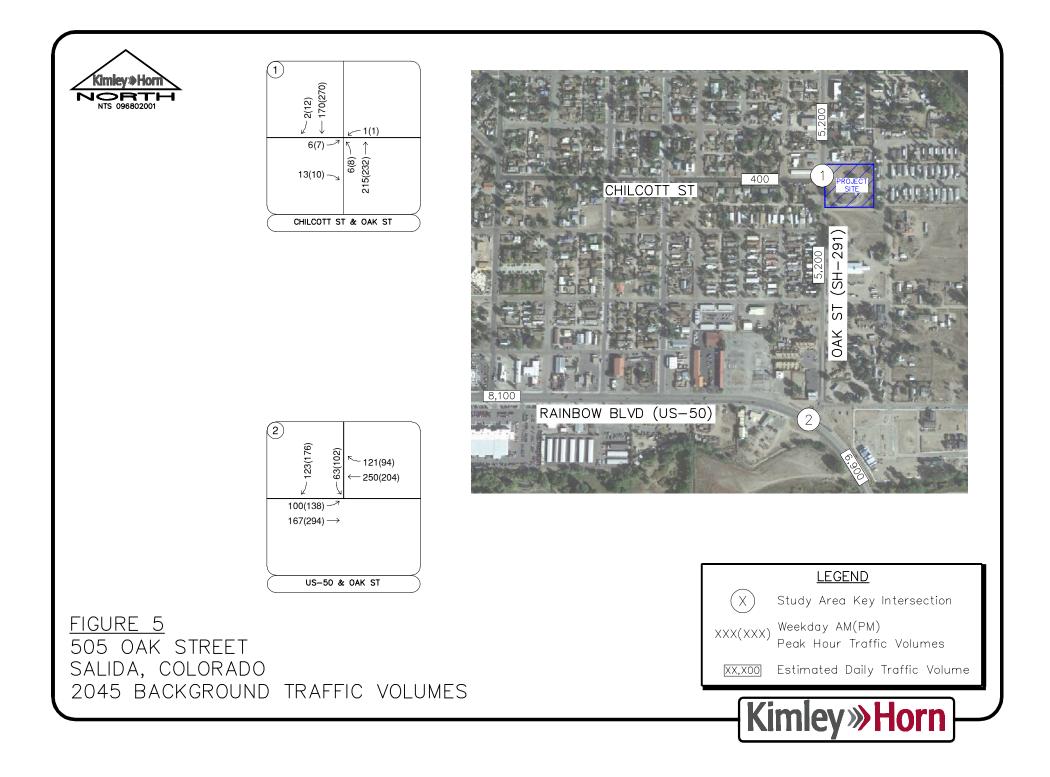
Existing turning movement counts were conducted at the study intersections on Tuesday, August 2, 2022 during the weekday morning and afternoon peak hours. The counts were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on this count date. The existing intersection traffic volumes are shown in **Figure 3** with count sheets provided in **Appendix A**.

#### 3.4 Unspecified Development Traffic Growth

According to information provided on the website for the Colorado Department of Transportation (CDOT), the 20-year growth factor along Oak Street (SH-291) and Rainbow Boulevard (US-50) in the vicinity of the site is between 1.08 and 1.09. This 20-year growth factor equates to an average annual growth rate of 0.40 percent. Traffic information from the CDOT Online Transportation Information System (OTIS) website is included in **Appendix B**. To be conservative, an annual growth rate of 0.50 percent was used to estimate near term 2025 and long term 2045 traffic volume projections at the key intersections. Background traffic volumes for 2025 and 2045 are shown in **Figures 4** and **5**, respectively.







#### 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 Manual*<sup>1</sup> published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report average rates that apply to Single-Family Attached Housing (ITE Land Use Code 215) and Multifamily Low-Rise Housing (ITE Land Use Code 220) for traffic associated with the development.

The 505 Oak Street project is expected to generate approximately 302 weekday daily trips, with 19 of these trips occurring during the morning peak hour and 23 of these trips occurring during the afternoon peak hour. Calculations were based on the procedure and information provided in the ITE *Trip Generation Manual, 11<sup>th</sup> Edition – Volume 1: User's Guide and Handbook,* 2021. **Table 1** summarizes the estimated trip generation for the 505 Oak Street. The trip generation worksheets are included in **Appendix C**.

			Weekda	kday Vehicle Trips					
Land Use and Size	Daily	AM	l Peak H	our	PM	Peak Ho	our		
	Daily	In	Out	Total	In	Out	Total		
Single-Family Attached Housing (ITE 215) – 10 Dwelling Units	72	1	4	5	3	3	6		
Multifamily Low-Rise Housing (ITE 220) – 34 Dwelling Units	230	3	11	14	11	6	17		
Total Project Trips	302	4	15	19	14	9	23		

Table 1 – 505 Oak Street Traffic Generation

<sup>&</sup>lt;sup>1</sup> Institute of Transportation Engineers, *Trip Generation Manual*, Eleventh Edition, Washington DC, 2021.

#### **4.2 Trip Distribution**

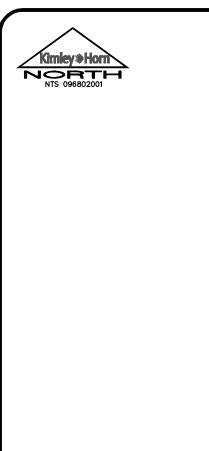
Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic (employment, school, and attraction) information, and the proposed access system for the project. The directional distribution 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. The project trip distribution for the proposed development is illustrated in **Figure 6**.

#### 4.3 Traffic Assignment

505 Oak Street project traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Traffic assignment is shown in **Figure 7**.

#### 4.4 Total (Background Plus Project) Traffic

Site traffic volumes were added to the background volumes to represent estimated traffic conditions for the short-term 2025 buildout horizon and long-term 2045 twenty-year planning horizon. These total traffic volumes for the study area are illustrated for the 2025 and 2045 horizon years in **Figures 8** and **9**, respectively.



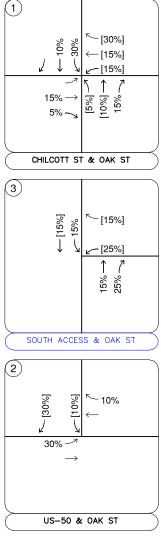
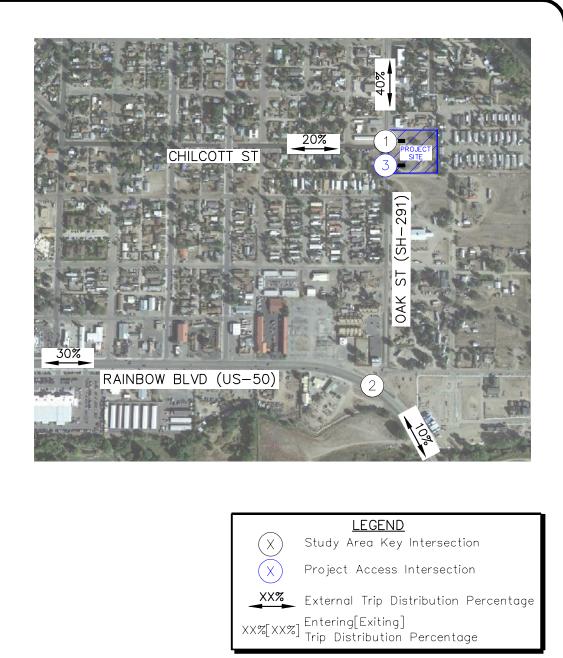
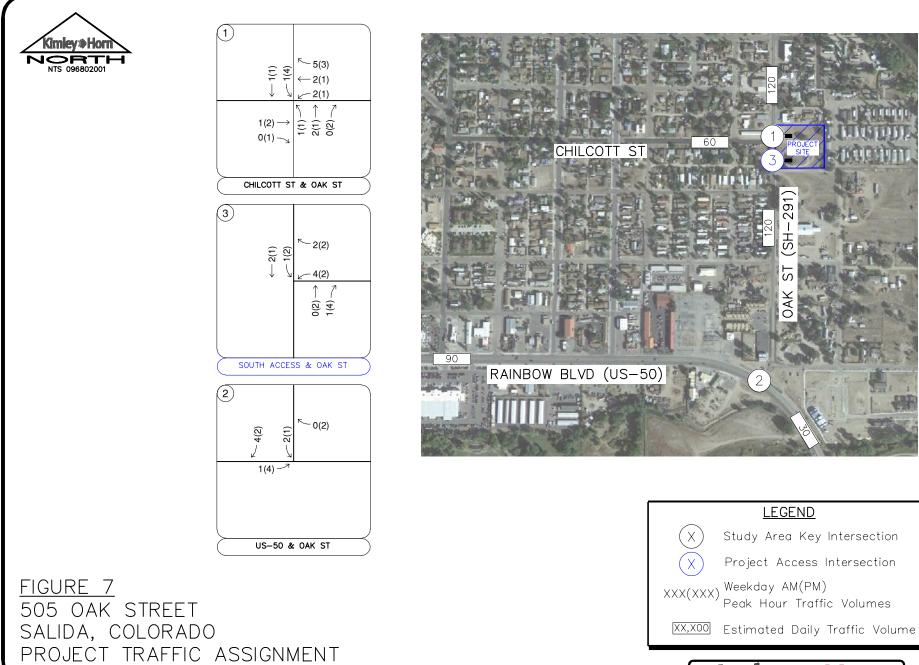


FIGURE 6 505 OAK STREET SALIDA, COLORADO PROJECT TRIP DISTRIBUTION











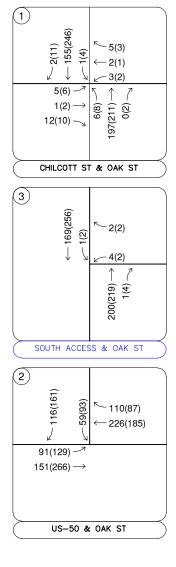


FIGURE 8 505 OAK STREET SALIDA, COLORADO 2025 TOTAL TRAFFIC VOLUMES







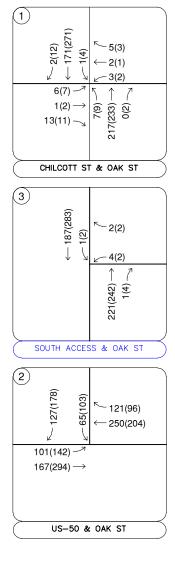


FIGURE 9 505 OAK STREET SALIDA, COLORADO 2045 TOTAL TRAFFIC VOLUMES



Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2025 and 2045 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the current edition of the *Highway Capacity Manual (HCM)*<sup>2</sup>.

#### 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. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways in this study area, standard traffic engineering practice recommends overall intersection LOS D and movement/approach LOS E as the minimum desirable thresholds for acceptable operations. **Table 2** shows the definition of level of service for unsignalized intersections.

Level of Unsignalized Intersection Service (sec/veh)			
A	≤ 10		
В	> 10 and ≤ 15		
С	> 15 and ≤ 25		
D	> 25 and ≤ 35		
E	> 35 and ≤ 50		
F	> 50		

 Table 2 – Level of Service Definitions

Definitions provided from the Highway Capacity Manual, Sixth Edition, Transportation Research Board, 2016.

Study area intersections were analyzed based on average total delay analysis for unsignalized intersections. Under the unsignalized analysis, the LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS for a two-way stop-controlled intersection is not defined for the intersection as a whole.

<sup>&</sup>lt;sup>2</sup> Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

#### **5.2 Key Intersection Operational Analysis**

Calculations for the operational level of service at the key intersections for the study area are provided in **Appendix D**. The existing year analysis is based on the lane geometry and intersection control shown in **Figure 2**. Existing peak hour factors were utilized in the existing, 2025, and 2045 horizon analysis years. Synchro traffic analysis software was used to analyze the unsignalized key intersections for HCM level of service.

#### Chilcott Street and Oak Street (SH-291) (#1)

The intersection of Chilcott Street and Oak Street (SH-291) (#1) is unsignalized with stop control on the eastbound and westbound approaches. The intersection movements operate acceptably at LOS B or better during both peak hours under existing conditions. With project traffic, all movements are anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 3** provides the results of the LOS analysis conducted at this intersection.

	AM Peal	k Hour	PM Peal	k Hour
Scenario	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2022 Existing				
Northbound Left	7.6	А	7.8	А
Eastbound Approach	10.0	В	11.0	В
Westbound Approach	11.8	В	12.7	В
2025 Background				
Northbound Left	7.6	А	7.8	А
Eastbound Approach	10.0	В	11.0	В
Westbound Approach	11.8	В	12.8	В
2025 Background Plus Project				
Northbound Left	7.6	А	7.8	А
Eastbound Approach	10.2	В	11.3	В
Westbound Approach	10.8	В	11.3	В
Southbound Left	7.7	А	7.7	А
2045 Background				
Northbound Left	7.7	А	7.9	А
Eastbound Approach	10.3	В	11.5	В
Westbound Approach	12.3	В	13.5	В
2045 Background Plus Project				
Northbound Left	7.7	А	7.9	А
Eastbound Approach	10.5	В	11.8	В
Westbound Approach	11.1	В	11.7	В
Southbound Left	7.8	А	7.8	А

Table 3 – Chilcott Street & Oak Street (SH-291) (#1) LOS Results

#### Rainbow Boulevard (US-50) and Oak Street (SH-291) (#2)

The intersection of Rainbow Boulevard (US-50) and Oak Street (SH-291) (#2) is unsignalized with stop control on the southbound Oak Street (SH-291) approach. The intersection movements operate acceptably at LOS B or better during both peak hours under existing conditions. With project traffic, all movements are anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. It is known that the City of Salida and CDOT have been working together to develop plans for improvements to this intersection and several alternatives have been proposed, however, it has been noted that construction is not imminent. The possible improvements being shared have included a future south leg with signal control, a five-legged roundabout incorporating CR-105 as the fifth leg, and a couplet four-legged roundabout. It is anticipated that CDOT will be preparing detailed plans and performing the analysis of each scenario at this intersection. **Table 4** provides the results of the LOS analysis conducted at this intersection.

	AM Peal	k Hour	PM Peak Hour	
Scenario	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2022 Existing				
Eastbound Left	8.4	А	8.2	А
Southbound Left	12.7	В	14.2	В
Southbound Right	9.6	А	9.7	А
2025 Background				
Eastbound Left	8.4	А	8.2	А
Southbound Left	12.7	В	14.3	В
Southbound Right	9.7	А	9.7	Α
2025 Background Plus Project				
Eastbound Left	8.4	А	8.2	А
Southbound Left	12.8	В	14.5	В
Southbound Right	9.7	А	9.7	А
2045 Background				
Eastbound Left	8.6	А	8.3	А
Southbound Left	13.4	В	15.5	С
Southbound Right	9.8	А	9.9	А
2045 Background Plus Project				
Eastbound Left	8.6	А	8.3	А
Southbound Left	13.5	В	15.6	С
Southbound Right	9.9	А	9.9	А

Table 4 – Rainbow Boulevard (US-50) & Oak Street (SH-291) (#2) LOS Results

#### **Project Accesses**

With completion of the 505 Oak Street project, two full movement accesses are proposed on the east side of Oak Street (SH-291). The North Access is proposed to be constructed to align with the west leg of the Chilcott Street and Oak Street (SH-291) (#1) intersection, while the South Access (#3) is proposed to be located about 165 feet south of this intersection, measured center to center. It is recommended that R1-1 "STOP" signs be installed on the exiting westbound approach for vehicles exiting the development at each of these accesses. **Table 5** provides the results of the level of service for the South Access (#3)—the results for the North Access (#1) were included previously in the Chilcott Street and Oak Street (SH-291) (#1) results in **Table 3**. As shown in **Table 5**, the South Access intersection along Oak Street (SH-291) (#3) is anticipated to have all movements operating with acceptable LOS B or better during the peak hours in both the buildout year 2025 and the 2045 long term horizons.

		2025	Total		2045 Total			
Intersection	AM Peak Hour		PM Pea	k Hour	AM Peak Hour		PM Peak Hour	
Intersection	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS
South Access (#3)								
Westbound Approach	10.5	В	10.8	В	10.8	В	11.1	В
Southbound Left	7.7	А	7.7	Α	7.7	Α	7.8	Α

Table 5 – 505 Oak Street South Access (#3) Level of Service Results

#### 5.3 CDOT Turn Bay Length Analysis

The threshold for requiring an access permit along Colorado Department of Transportation (CDOT) roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent or when an access is proposed to be improved or constructed. Based on traffic projections, the addition of project traffic on the east leg of the Chilcott Street/Oak Street (SH-291) (#1) intersection is anticipated to increase existing traffic by more than 20 percent. Therefore, an access permit is anticipated to be required for this access. In addition, with construction of the South Access (#3), an access permit at this access is anticipated to be required. Of note, the addition of project traffic to the Rainbow Boulevard (US-50) and Oak Street (SH-291) (#2) intersection is not anticipated to increase the existing access traffic volumes by more than 20 percent, with the largest anticipated percent increase on the north leg on Oak Street (SH-291) during the morning peak hour with 1.7 percent (6/363 vehicles).

Oak Street (SH-291) is categorized as an NR-C roadway with a 35 mile per hour (mph) speed limit in the study area, as such turn lanes requirements are to be designed per the State Highway Access Code (SHAC). According to the State Highway Access Code for category Non-Rural Arterial (NR-C) roadways with a posted speed of 40 mph or less, the turn lane warrants are as follows:

- A left turn deceleration lane and taper is required for any access with a projected peak hour ingress turning volume greater than 25 vehicles per hour (vph).
- A right turn deceleration lane and taper is required for any access with a projected peak hour ingress turning volume greater than 50 vph.

Based on the 2025 traffic volume projections, turn lane requirements at the project access intersections along Oak Street (SH-291) are as follows:

#### Chilcott Street & Oak Street (SH-291) (#1)

- A southbound left turn lane <u>is not</u> warranted and does not exist at the Chilcott Street and Oak Street (SH-291) (#1) intersection based on projected 2025 background plus project traffic volumes being 4 vehicles during the peak hour and the threshold being 25 vph.
- A northbound right turn lane <u>is not</u> warranted and does not exist at the Chilcott Street and Oak Street (SH-291) (#1) intersection based on projected 2025 background plus project traffic volumes being 2 vehicles during the peak hour and the threshold being 50 vph.

#### South Access & Oak Street (SH-291) (#3)

- A southbound left turn lane <u>is not</u> warranted and does not exist at the South Access and Oak Street (SH-291) (#3) intersection based on projected 2025 background plus project traffic volumes being 2 vehicles during the peak hour and the threshold being 25 vph.
- A northbound right turn lane <u>is not</u> warranted and does not exist at the South Access and Oak Street (SH-291) (#3) intersection based on projected 2025 background plus project traffic volumes being 4 vehicles during the peak hour and the threshold being 50 vph.

#### 5.4 Vehicle Queuing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95<sup>th</sup> percentile queue lengths. Results are shown in the following **Table 6** with calculations provided within the level of service operational sheets of **Appendix D** for the unsignalized intersections.

Intersection Turn Lane	Existing Turn Lane Length (feet)	2025 Calculated Queue (feet)	2025 Recommended Length (feet)	2045 Calculated Queue (feet)	2045 Recommended Length (feet)
US-50 & Oak Street (#2)					
Eastbound Left	310'+165'T	25'	310'+165'T	25'	310'+165'T
Westbound Right	295'+140'T	0'	295'+140'T	0'	295'+140'T
Southbound Left	75'	25'	75'	25'	75'
Southbound Right	С	25'	С	25'	С

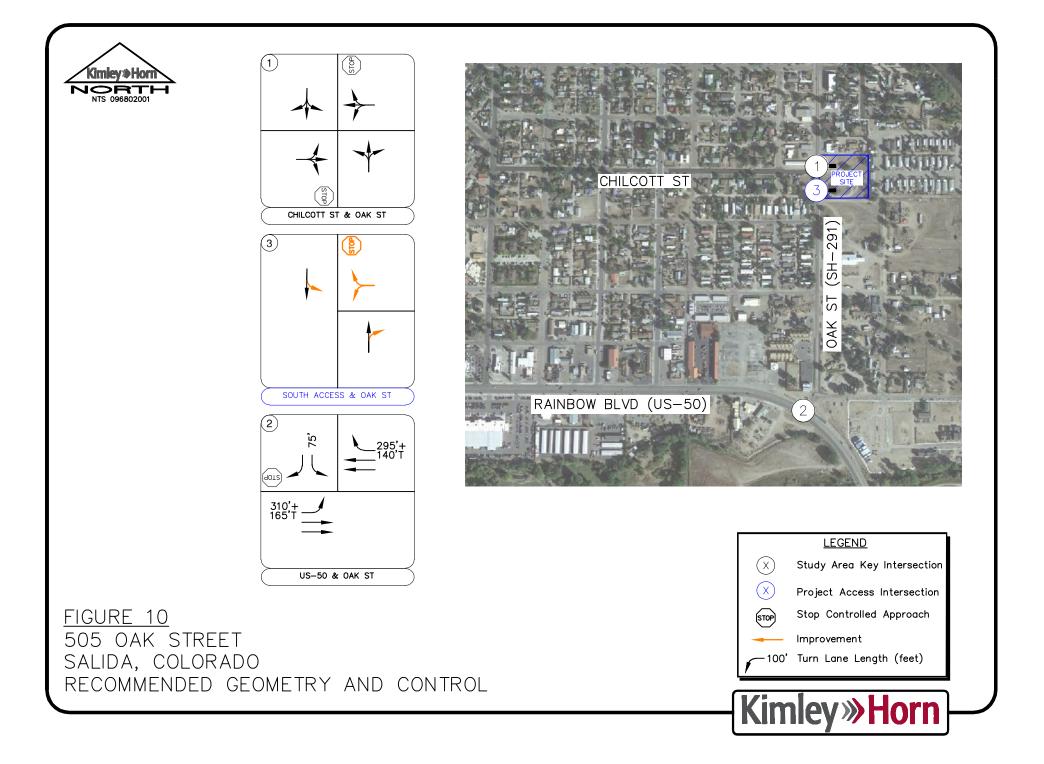
Table 6 – Turn	Lane Queuing	Analysis	Results
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T = Taper Length; C = Continuous

As shown in **Table 6**, all vehicle queues are anticipated to remain within the existing turn lane lengths through 2045. Therefore, no improvements or modifications to these turn lane lengths are anticipated to be needed at this intersection based on the addition of project traffic and this queuing analysis. As noted previously, it is known that the City of Salida and CDOT have been working together to develop plans for improvements to this intersection and several alternatives have been proposed, however, it has been noted that construction is not imminent.

#### **5.5 Improvement Summary**

Based on the results of the intersection operational and vehicle queuing analysis, the key intersection recommended improvements and control are shown in **Figure 10**.



#### 6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes the 505 Oak Street project will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

- The threshold for requiring an access permit along Colorado Department of Transportation (CDOT) roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent or when an access is proposed to be improved or constructed. Based on traffic projections, the addition of project traffic on the east leg of the Chilcott Street/Oak Street (SH-291) (#1) intersection is anticipated to increase existing traffic by more than 20 percent. Therefore, an access permit is anticipated to be required for this access. In addition, with construction of the South Access (#3), an access permit at this access is anticipated to be required. Of note, the addition of project traffic to the Rainbow Boulevard (US-50) and Oak Street (SH-291) (#2) intersection is not anticipated to increase the existing access traffic volumes by more than 20 percent, with the largest anticipated percent increase on the north leg on Oak Street (SH-291) during the morning peak hour with 1.7 percent (6/363 vehicles).
- Two full movement accesses are proposed on the east side of Oak Street (SH-291). The North Access is proposed to be constructed to align with the west leg of the Chilcott Street and Oak Street (SH-291) (#1) intersection, while the South Access (#3) is proposed to be located about 165 feet south of this intersection, measured center to center. It is recommended that R1-1 "STOP" signs be installed on the exiting westbound approach for vehicles exiting the development at each of these accesses. Turning movements into the North Access (#1) in the northbound and southbound direction are recommended to be provided from the shared left/through/right turn lane. Turning movements into the South Access (#3) in the northbound and southbound directions are recommended to be provided at each access for vehicles exiting through lane. Shared westbound left/right turn lanes are recommended to be provided at each access for vehicles exiting the development.
- Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the City of Salida, CDOT, and the Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition.

## **APPENDICES**



### Transportation Impact Study Methodology Form

Prior to starting a traffic impact study, a Methodology Form must be submitted for review and signed by the Region 5 Access Engineer. It shall be included as part of the study.

CONTACT INFORMATION			
Consultant:	Name: Curtis Rowe / Kimley-Horn and Associates, Inc.		
	Telephone: (303) 228 -2304		
	Email: <u>curtis.rowe@kimley-horn.com</u>		
Developer/Owner Name: Crabtree Group, Inc.			

PROJECT INFORMATION	PROJECT INFORMATION				
Project Name	505 Oak Street				
Project Location	505 Oak Street, Salida CO 81201				
Project Description (Attached proposed site plan)	Redevelopment of existing 2.09 acre single-family home property; proposed to have 34 apartment units and 10 duplex units				
State Highway	US-50, SH-291				
County	Chaffee				
Mile Post	SH-291, MP 0.38				
Posted Speed Limit	35				

TIS ASSUMPTIONS					
Study Years	Current Year:2022 Buildout Yea		ar:2025	Long Term Year:2045	
Traffic Assessment Level (Provide justification)	full traffic impact study				
Study Intersections	1.Chilcott St & Oak St (SH-	291)	) 6.		
	2.US-50 & Oak St (SH-291)           3.Project access on Oak St (SH-291)		7.		
			8.		
	4.		9.		
	5.		10.		
Future Growth Rate	OTIS0.40%  Regional		TDM	🗌 Other	
easonal Adjustment Factor N/A					



### COLORADO

Department of Transportation

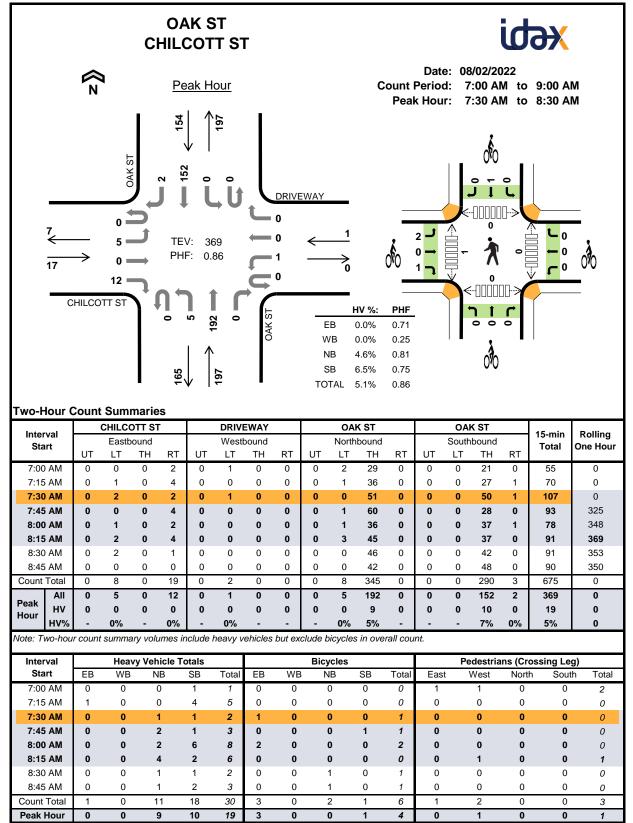
Region **5** 

ASSUMPTIONS CONTINUED					
Project Trip Distribution (State assumptions and attach sketch that shows individual movements.)	See attached. Assumed: 30% from west leg of US-50/Oak St, 10% from east leg of JS-50/Oak St, 20% from Chilcott St, 40% from north leg of Chilcott St/Oak St				
Trip Reduction Percentage	Internal Capture:	N/A		Pass By:	N/A
	Multi-Modal:	N/A		Other:	N/A
Study Time Periods	AM (7-9)		<b>P</b> M (4-6)		🗌 Weekday
(Check all that apply)	🗌 SAT (Midday)		Other		
Existing and Proposed ITE Trip Generation Land Use	For 10 duplex units: 215 Single-Family Attached For 34 apartment units: 220 Multifamily Low-Rise Trip Generation sheets attached				
Analysis Methods (Check all that apply)	Synchro       or       HCS         (isolated intersections only)       SimTraffic or       Other         (closely spaced intersections or when known/expected queuing issue)			aced intersections or when	
	Signal Warrants			🗌 Pedestri	an/Transit/Bicycle
	Safety/Sight Dist	ance		Queuing	and Storage
	🗌 Other				
Notes and Other Assumptions					
Crash Data	CDOT will perform a crash data analysis for the highway in the vicinity of the proposed access and provide to the consultant. As a part of the study consultant shall recommend mitigation measures for any identified safety issues.				
Simulation Input Files	Consultant to provid the study.	de comput	ter files used 1	for analysis w	rith a signed and sealed copy of

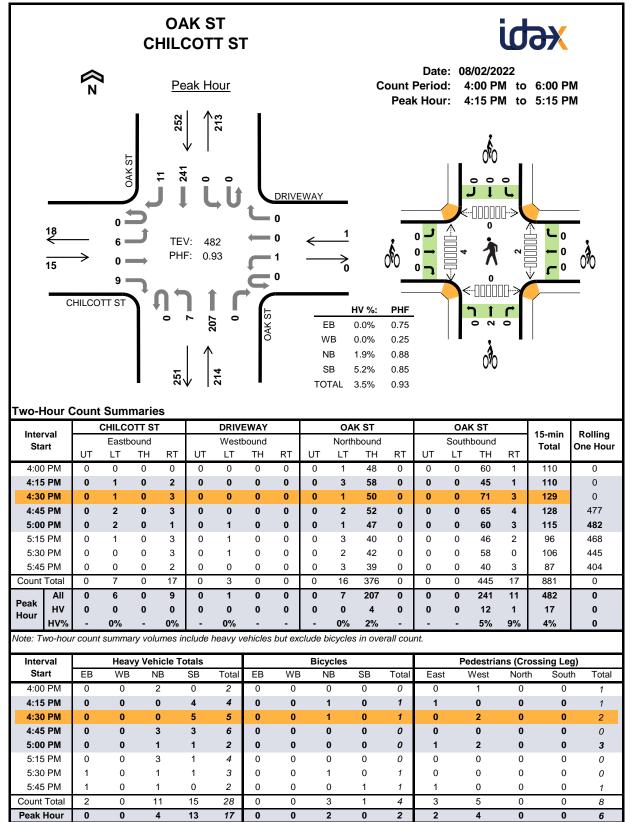
CDOT INTERNAL USE ONL	CDOT INTERNAL USE ONLY				
Review Comments					
Revise and Resubmit					
Engineer Signature/Date	Approved				

## **APPENDIX A**

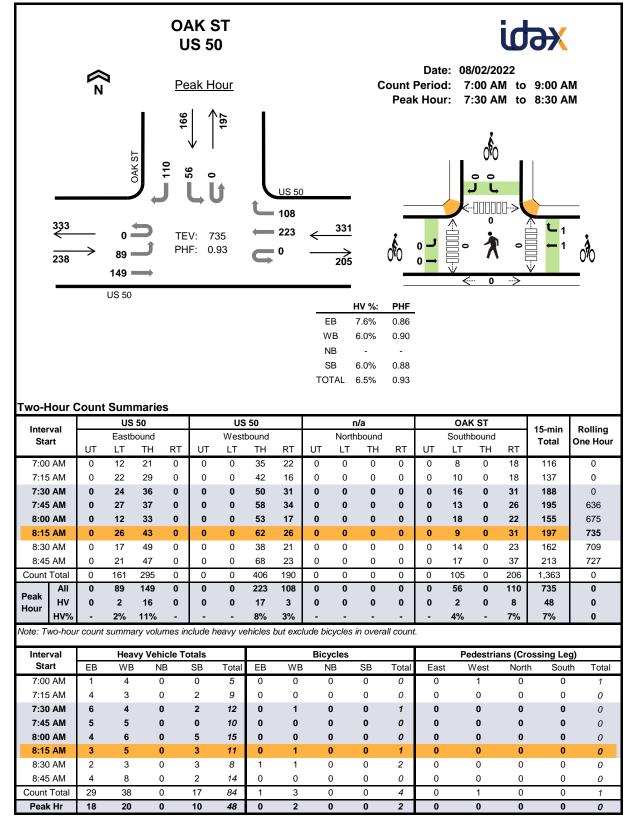
**Intersection Count Sheets** 



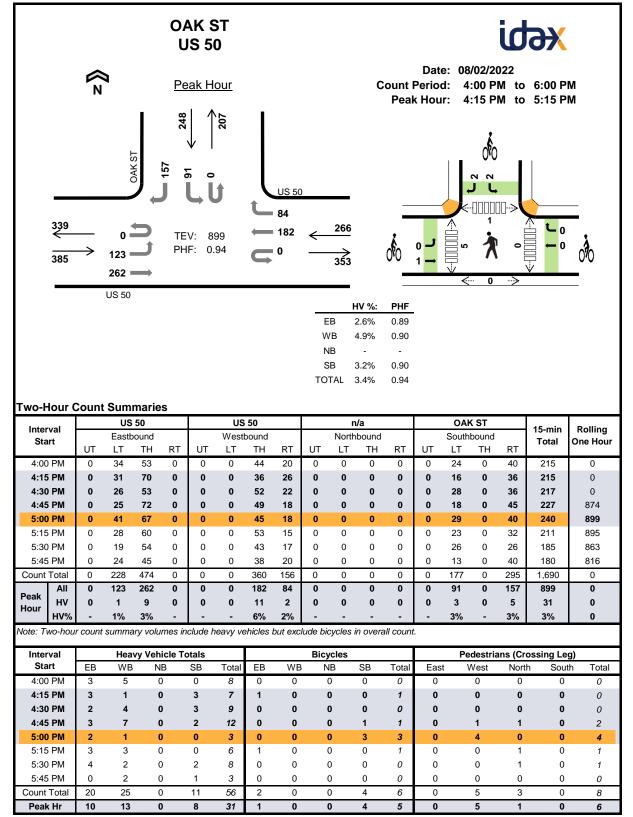
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7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	5	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	11
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	8	18
8:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	6	19
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	19
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	19
Count Total	0	1	0	0	0	0	0	0	0	0	11	0	0	0	18	0	30	0
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4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	17
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	17
5:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	17
5:30 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	3	15
5:45 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2	11
Count Total	0	0	0	2	0	0	0	0	0	0	11	0	0	0	14	1	28	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	4	0	0	0	12	1	17	0
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7:00 AM	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	5	0
7:15 AM	0	2	2	0	0	0	3	0	0	0	0	0	0	0	0	2	9	0
7:30 AM	0	1	5	0	0	0	4	0	0	0	0	0	0	1	0	1	12	0
7:45 AM	0	0	5	0	0	0	4	1	0	0	0	0	0	0	0	0	10	36
8:00 AM	0	0	4	0	0	0	6	0	0	0	0	0	0	1	0	4	15	46
8:15 AM	0	1	2	0	0	0	3	2	0	0	0	0	0	0	0	3	11	48
8:30 AM	0	0	2	0	0	0	2	1	0	0	0	0	0	2	0	1	8	44
8:45 AM	0	1	3	0	0	0	8	0	0	0	0	0	0	1	0	1	14	48
Count Total	0	5	24	0	0	0	34	4	0	0	0	0	0	5	0	12	84	0
Peak Hour	0	2	16	0	0	0	17	3	0	0	0	0	0	2	0	8	48	0
Interval			50 bound				50 bound				<b>/a</b> bound				K ST bound		15-min	Rolling
Start	LT		H	RT	LT		H	RT	LT			RT	LT			RT	Total	One Hou
7:00 AM	0		) )	0	0		) )	0	0		0	0	0		) )	0	0	0
7:15 AM	0	(	C	0	0	(	C	0	0		0	0	0	(	C	0	0	0
7:30 AM	0	(	D	0	0		1	0	0		0	0	0		D	0	1	0
7:45 AM	0	(	D	0	0		D	0	0		0	0	0	(	D	0	0	1
8:00 AM	0	(	D	0	0	(	D	0	0		0	0	0	(	D	0	0	1
8:15 AM	0	(	D	0	0		D	1	0		0	0	0	(	D	0	1	2
8:30 AM	1	(	C	0	0	(	D	1	0		0	0	0	(	C	0	2	3
8:45 AM	0	(	C	0	0	(	D	0	0		0	0	0	(	C	0	0	3
Count Total	1	(	C	0	0		1	2	0		0	0	0	(	C	0	4	0
Count Total			0	0	0		1	1	0		0	0	0		0	0	2	0



		US	50			US	<b>5</b> 50			n	/a			OAI	K ST			
Interval Start		East	ound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Start	UT	LT	ΤН	RT	UT	LT	ΤН	RT	UT	LT	ΤН	RT	UT	LT	ΤН	RT	TOLAI	
4:00 PM	0	0	3	0	0	0	3	2	0	0	0	0	0	0	0	0	8	0
4:15 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	1	0	2	7	0
4:30 PM	0	0	2	0	0	0	4	0	0	0	0	0	0	2	0	1	9	0
4:45 PM	0	1	2	0	0	0	5	2	0	0	0	0	0	0	0	2	12	36
5:00 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	31
5:15 PM	0	0	3	0	0	0	2	1	0	0	0	0	0	0	0	0	6	30
5:30 PM	0	0	4	0	0	0	1	1	0	0	0	0	0	0	0	2	8	29
5:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	3	20
Count Total	0	1	19	0	0	0	18	7	0	0	0	0	0	3	0	8	56	0
Peak Hour	0	1	9	0	0	0	11	2	0	0	0	0	0	3	0	5	31	0
Interval			50 bound				50 bound				<b>/a</b> bound			-	K ST		15-min	Rolling
Start	LT		'H	RT	LT		н ТН	RT	LT		'H	RT	LT			RT	Total	One Hou
4:00 PM	0		)	0	0		0	0	0		0	0	0		0	0	0	0
4:15 PM	0		- 1	0	0		0	0	0		0	0	0		0	0	1	0
4:30 PM	0	(	D	0	0		0	0	0		0	0	0		0	0	0	0
4:45 PM	0	(	D	0	0		0	0	0		D	0	1		0	0	1	2
5:00 PM	0		D	0	0		0	0	0		0	0	1		0	2	3	5
5:15 PM	0		1	0	0		0	0	0		0	0	0		0	0	1	5
5:30 PM	0	(	C	0	0		0	0	0		0	0	0		0	0	0	5
5:45 PM	0	(	C	0	0		0	0	0		D	0	0		0	0	0	4
Count Total	0	:	2	0	0		0	0	0		0	0	2		0	2	6	0
			1	0	0		0	0	0		0	0	2		0	2	5	0

## **APPENDIX B**

**Future Traffic Projections** 

ROUTE	REFPT	ENDREFPT	AADT	AADTYR	OFFPKTRK	YR20FACTOR	GROWTHRATE	DHV	LOCATION
291A	0	0.865	4100	2021	4.5	1.08	0.39%	11.5	ON SH 291 OAK ST N/O SH 50 SALIDA
050A	222.198	222.399	8400	2021	7.0	1.08	0.39%	11.5	ON SH 50 W/O SH 291 OAK ST SALIDA
050A	222.399	233.62	6200	2021	6.9	1.09	0.43%	11.0	ON SH 50 SE/O SH 291 OAK ST SALIDA
					Average	1.08	0.40%		

## **APPENDIX C**

Trip Generation Worksheets

# Kimley »Horn

Designed by T.	eneration for Single-Family A	Attached Housing August 10, 2022	Job No. 096802001 Sheet No. 1 of 1
TRIP GENERATION	MANUAL TECHNIQUES		
ITE Trip Generation	Manual 11th Edition, Averag	e Rate Equations	
Land Use Code - Sin	gle-Family Attached Housin	g (215)	
Independent Variable	e - Dwelling Units (X)		
X = 10 T = Average Ve	hicle Trip Ends		
Peak Hour of Adjac	ent Street Traffic, One Hou	ur Between 7 and 9 a.m.	(200 Series Page 239)
Average Weekday (T) = 0.48(X) (T) = 0.48 *	(10.0)	Directional Distribution: T = 5 Avera 1 entering	age Vehicle Trip Ends
		1 + 4	= 5
Peak Hour of Adjac	ent Street Traffic, One Hou	ur Between 4 and 6 p.m.	(200 Series Page 240)
Average Weekday (T) = 0.57 (X) (T) = 0.57 *	(10.0)	Directional Distribution: T = 6 Avera 3 entering	age Vehicle Trip Ends
		3 + 3	= 6
<u>Weekday (200 Serie</u>	es Page 238)		
Average Weekday (T) = 7.20 (X) (T) = 7.20 *	(10.0)	Directional Distribution: T = 72 Avera 36 entering	50% ent. 50% exit. age Vehicle Trip Ends 36 exiting
		36 + 36	= 72

# Kimley »Horn

Project 505 Oa Subject Trip G Designed by T Checked by	eneration for Multifamily Hous	sing (Low-Rise) August 10, 2022	Job No. 096802001 Sheet No. 1 of 1
TRIP GENERATION	MANUAL TECHNIQUES		
ITE Trip Generation	Manual 11th Edition, Average	e Rate Equations	
Land Use Code - Mu	Itifamily Housing (Low-Rise)	(220)	
Independent Variable	e - Dwelling Units (X)		
X = 34 T = Average Ve	ehicle Trip Ends		
Peak Hour of Adjac	ent Street Traffic, One Hou	r Between 7 and 9 a.m. (	200 Series Page 255)
Average Weekday (T) = 0.40 (X) (T) = 0.40 *	(34.0)		age Vehicle Trip Ends 11 exiting
<u>Peak Hour of Adjac</u>	ent Street Traffic, One Hou	-	= 14 (200 Series Page 256)
Average Weekday (T) = 0.51(X) (T) = 0.51 *	(34.0)	Directional Distribution: T = 17 Avera 11 entering 11 + 6	age Vehicle Trip Ends 6 exiting
Weekday (200 Serie	es Page 254)	-	
Average Weekday (T) = 6.74 (X) (T) = 6.74 *	(34.0)		50% entering, 50% exiting age Vehicle Trip Ends 115 exiting = 230

## APPENDIX D

Intersection Analysis Worksheets

0.6

#### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		\$			÷			\$			÷		
Traffic Vol, veh/h	5	0	12	1	0	0	5	192	0	0	152	2	
Future Vol, veh/h	5	0	12	1	0	0	5	192	0	0	152	2	
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										
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86	
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	6	6	6	
Mvmt Flow	6	0	14	1	0	0	6	223	0	0	177	2	

Major/Minor	Minor2			Vinor1			Major1			N	lajor2			
Conflicting Flow All	413	413	178	420	414	223	179	0	)	0	223	0	0	
Stage 1	178	178	-	235	235	-	-	-		-	-	-	-	
Stage 2	235	235	-	185	179	-	-	-		-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.15	-	•	-	4.16	-	-	
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	2.245	-		-	2.254	-	-	
Pot Cap-1 Maneuver	549	529	865	544	529	817	1379	-	•	-	1323	-	-	
Stage 1	824	752	-	768	710	-	-	-		-	-	-	-	
Stage 2	768	710	-	817	751	-	-	-	•	-	-	-	-	
Platoon blocked, %								-		-		-	-	
Mov Cap-1 Maneuver	547	526	865	533	526	817	1379	-		-	1323	-	-	
Mov Cap-2 Maneuver	547	526	-	533	526	-	-	-	•	-	-	-	-	
Stage 1	820	752	-	764	706	-	-	-	•	-	-	-	-	
Stage 2	764	706	-	804	751	-	-	-		-	-	-	-	

Approach	EB	WB	NB	SB	
HCM Control Delay, s	10	11.8	0.2	0	
HCM LOS	В	В			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1379	-	-	739	533	1323	-	-
HCM Lane V/C Ratio	0.004	-	-	0.027	0.002	-	-	-
HCM Control Delay (s)	7.6	0	-	10	11.8	0	-	-
HCM Lane LOS	А	А	-	В	В	Α	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

0.5

#### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		\$			÷			÷			÷		
Traffic Vol, veh/h	6	0	9	1	0	0	7	207	0	0	241	11	
Future Vol, veh/h	6	0	9	1	0	0	7	207	0	0	241	11	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None										
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5	
Mvmt Flow	6	0	10	1	0	0	8	223	0	0	259	12	

Major/Minor	Minor2			Vinor1			Vajor1			Major2			
Conflicting Flow All	504	504	265	509	510	223	271	0	0	223	0	0	
Stage 1	265	265	-	239	239	-	-	-	-	-	-	-	
Stage 2	239	239	-	270	271	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.15	-	-	
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	-	-	2.245	-	-	
Pot Cap-1 Maneuver	478	470	774	475	467	817	1292	-	-	1328	-	-	
Stage 1	740	689	-	764	708	-	-	-	-	-	-	-	
Stage 2	764	708	-	736	685	-	-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	476	467	774	466	464	817	1292	-	-	1328	-	-	
Mov Cap-2 Maneuver	476	467	-	466	464	-	-	-	-	-	-	-	
Stage 1	735	689	-	759	703	-	-	-	-	-	-	-	
Stage 2	759	703	-	727	685	-	-	-	-	-	-	-	
Annroach	FR			W/R			NR			SR			

1	Approach	EB	WB	NB	SB	
ł	HCM Control Delay, s	11	12.7	0.3	0	
	HCM LOS	В	В			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1\	WBLn1	SBL	SBT	SBR	
Capacity (veh/h)	1292	-	-	619	466	1328	-	-	
HCM Lane V/C Ratio	0.006	-	-	0.026	0.002	-	-	-	
HCM Control Delay (s)	7.8	0	-	11	12.7	0	-	-	
HCM Lane LOS	А	А	-	В	В	А	-	-	
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-	

0.6

#### Intersection

Int Delay, s/veh

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		\$			÷			\$			÷		
Traffic Vol, veh/h	5	0	12	1	0	0	5	195	0	0	154	2	
Future Vol, veh/h	5	0	12	1	0	0	5	195	0	0	154	2	
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										
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86	
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	6	6	6	
Mvmt Flow	6	0	14	1	0	0	6	227	0	0	179	2	

Major/Minor	Minor2		[	Vinor1			Vajor1		Ν	lajor2				
Conflicting Flow All	419	419	180	426	420	227	181	0	0	227	0	0		
Stage 1	180	180	-	239	239	-	-	-	-	-	-	-		
Stage 2	239	239	-	187	181	-	-	-	-	-	-	-		
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.15	-	-	4.16	-	-		
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	2.245	-	-	2.254	-	-		
Pot Cap-1 Maneuver	544	525	863	539	525	812	1376	-	-	1318	-	-		
Stage 1	822	750	-	764	708	-	-	-	-	-	-	-		
Stage 2	764	708	-	815	750	-	-	-	-	-	-	-		
Platoon blocked, %								-	-		-	-		
Mov Cap-1 Maneuver	542	522	863	528	522	812	1376	-	-	1318	-	-		
Mov Cap-2 Maneuver	542	522	-	528	522	-	-	-	-	-	-	-		
Stage 1	818	750	-	760	704	-	-	-	-	-	-	-		
Stage 2	760	704	-	802	750	-	-	-	-	-	-	-		

Approach	EB	WB	NB	SB	
HCM Control Delay, s	10	11.8	0.2	0	
HCM LOS	В	В			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1V	VBLn1	SBL	SBT	SBR
Capacity (veh/h)	1376	-	-	735	528	1318	-	-
HCM Lane V/C Ratio	0.004	-	-	0.027	0.002	-	-	-
HCM Control Delay (s)	7.6	0	-	10	11.8	0	-	-
HCM Lane LOS	А	А	-	В	В	Α	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

# Intersection

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR				
Lane Configurations		¢			\$			÷			÷					
Traffic Vol, veh/h	6	0	9	1	0	0	7	210	0	0	245	11				
Future Vol, veh/h	6	0	9	1	0	0	7	210	0	0	245	11				
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0				
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free				
RT Channelized	-	-	None													
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-				
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-				
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-				
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93				
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5				
Mvmt Flow	6	0	10	1	0	0	8	226	0	0	263	12				

Major/Minor	Minor2			Minor1			Major1		Ν	/lajor2			
Conflicting Flow All	511	511	269	516	517	226	275	0	0	226	0	0	
Stage 1	269	269	-	242	242	-	-	-	-	-	-	-	
Stage 2	242	242	-	274	275	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.15	-	-	
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	-	-	2.245	-	-	
Pot Cap-1 Maneuver	473	466	770	470	462	813	1288	-	-	1325	-	-	
Stage 1	737	687	-	762	705	-	-	-	-	-	-	-	
Stage 2	762	705	-	732	683	-	-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	471	463	770	462	459	813	1288	-	-	1325	-	-	
Mov Cap-2 Maneuver	471	463	-	462	459	-	-	-	-	-	-	-	
Stage 1	732	687	-	757	700	-	-	-	-	-	-	-	
Stage 2	757	700	-	723	683	-	-	-	-	-	-	-	
Annroach	FR			\//R			NR			SB			

Approach	EB	WB	NB	SB	
HCM Control Delay, s	11	12.8	0.3	0	
HCM LOS	В	В			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1\	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1288	-	-	614	462	1325	-	-
HCM Lane V/C Ratio	0.006	-	-	0.026	0.002	-	-	-
HCM Control Delay (s)	7.8	0	-	11	12.8	0	-	-
HCM Lane LOS	А	А	-	В	В	Α	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

# Intersection

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		\$			÷			\$			÷		
Traffic Vol, veh/h	5	1	12	3	2	5	6	197	0	1	155	2	
Future Vol, veh/h	5	1	12	3	2	5	6	197	0	1	155	2	
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										
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage,	# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86	
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	6	6	6	
Mvmt Flow	6	1	14	3	2	6	7	229	0	1	180	2	

Major/Minor	Minor2			Vinor1			Vajor1		Ν	lajor2			
Conflicting Flow All	430	426	181	434	427	229	182	0	0	229	0	0	
Stage 1	183	183	-	243	243	-	-	-	-	-	-	-	
Stage 2	247	243	-	191	184	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.15	-	-	4.16	-	-	
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	2.245	-	-	2.254	-	-	
Pot Cap-1 Maneuver	535	520	862	532	520	810	1375	-	-	1316	-	-	
Stage 1	819	748	-	761	705	-	-	-	-	-	-	-	
Stage 2	757	705	-	811	747	-	-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	526	516	862	520	516	810	1375	-	-	1316	-	-	
Mov Cap-2 Maneuver	526	516	-	520	516	-	-	-	-	-	-	-	
Stage 1	814	747	-	756	701	-	-	-	-	-	-	-	
Stage 2	745	701	-	796	746	-	-	-	-	-	-	-	

Approach	EB	WB	NB	SB	
HCM Control Delay, s	10.2	10.8	0.2	0	
HCM LOS	В	В			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	VBLn1	SBL	SBT	SBR
Capacity (veh/h)	1375	-	-	710	632	1316	-	-
HCM Lane V/C Ratio	0.005	-	-	0.029	0.018	0.001	-	-
HCM Control Delay (s)	7.6	0	-	10.2	10.8	7.7	0	-
HCM Lane LOS	А	А	-	В	В	А	А	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

# Intersection

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		\$			÷			\$			÷		
Traffic Vol, veh/h	6	2	10	2	1	3	8	211	2	4	246	11	
Future Vol, veh/h	6	2	10	2	1	3	8	211	2	4	246	11	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None										
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5	
Mvmt Flow	6	2	11	2	1	3	9	227	2	4	265	12	

Major/Minor	Minor2		[	Vinor1			Vajor1			Major2			
Conflicting Flow All	527	526	271	532	531	228	277	0	0	229	0	0	
Stage 1	279	279	-	246	246	-	-	-	-	-	-	-	
Stage 2	248	247	-	286	285	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.15	-	-	
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	-	-	2.245	-	-	
Pot Cap-1 Maneuver	462	457	768	458	454	811	1286	-	-	1322	-	-	
Stage 1	728	680	-	758	703	-	-	-	-	-	-	-	
Stage 2	756	702	-	721	676	-	-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	455	452	768	446	449	811	1286	-	-	1322	-	-	
Mov Cap-2 Maneuver	455	452	-	446	449	-	-	-	-	-	-	-	
Stage 1	722	677	-	752	697	-	-	-	-	-	-	-	
Stage 2	746	696	-	706	673	-	-	-	-	-	-	-	
Approach	EB			WB			NB			SB			

Approach	FR	WB	NB	SB	
HCM Control Delay, s	11.3	11.3	0.3	0.1	
HCM LOS	В	В			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1286	-	-	588	576	1322	-	-
HCM Lane V/C Ratio	0.007	-	-	0.033	0.011	0.003	-	-
HCM Control Delay (s)	7.8	0	-	11.3	11.3	7.7	0	-
HCM Lane LOS	А	А	-	В	В	А	А	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

# Intersection

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
Traffic Vol, veh/h	6	0	13	1	0	0	6	215	0	0	170	2	
Future Vol, veh/h	6	0	13	1	0	0	6	215	0	0	170	2	
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										
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86	
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	6	6	6	
Mvmt Flow	7	0	15	1	0	0	7	250	0	0	198	2	

Major/Minor	Minor2			Minor1			Major1			Ма	jor2			
Conflicting Flow All	463	463	199	471	464	250	200	0	0	)	250	0	0	
Stage 1	199	199	-	264	264	-	-	-	-	•	-	-	-	
Stage 2	264	264	-	207	200	-	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.15	-	-	- 4	1.16	-	-	
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	2.245	-	-	· 2.	254	-	-	
Pot Cap-1 Maneuver	509	496	842	503	495	789	1354	-	-	• 1	293	-	-	
Stage 1	803	736	-	741	690	-	-	-	-		-	-	-	
Stage 2	741	690	-	795	736	-	-	-	-	-	-	-	-	
Platoon blocked, %								-	-			-	-	
Mov Cap-1 Maneuver	506	493	842	492	492	789	1354	-	-	• 1	293	-	-	
Mov Cap-2 Maneuver	506	493	-	492	492	-	-	-	-		-	-	-	
Stage 1	798	736	-	737	686	-	-	-	-	-	-	-	-	
Stage 2	737	686	-	781	736	-	-	-	-		-	-	-	
Approach	FR			W/R			NR				SB			

Approach	EB	WB	NB	SB	
HCM Control Delay, s	10.3	12.3	0.2	0	Ī
HCM LOS	В	В			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1354	-	-	696	492	1293	-	-
HCM Lane V/C Ratio	0.005	-	-	0.032	0.002	-	-	-
HCM Control Delay (s)	7.7	0	-	10.3	12.3	0	-	-
HCM Lane LOS	А	А	-	В	В	Α	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

# Intersection

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		\$			\$			\$			\$		
Traffic Vol, veh/h	7	0	10	1	0	0	8	232	0	0	270	12	
Future Vol, veh/h	7	0	10	1	0	0	8	232	0	0	270	12	
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										
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5	
Mvmt Flow	8	0	11	1	0	0	9	249	0	0	290	13	

Major/Minor	Minor2		ļ	Minor1			Major1		Ν	lajor2			
Conflicting Flow All	564	564	297	569	570	249	303	0	0	249	0	0	
Stage 1	297	297	-	267	267	-	-	-	-	-	-	-	
Stage 2	267	267	-	302	303	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.15	-	-	
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	-	-	2.245	-	-	
Pot Cap-1 Maneuver	436	435	742	433	431	790	1258	-	-	1299	-	-	
Stage 1	712	668	-	738	688	-	-	-	-	-	-	-	
Stage 2	738	688	-	707	664	-	-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	433	432	742	424	428	790	1258	-	-	1299	-	-	
Mov Cap-2 Maneuver	433	432	-	424	428	-	-	-	-	-	-	-	
Stage 1	706	668	-	732	682	-	-	-	-	-	-	-	
Stage 2	732	682	-	697	664	-	-	-	-	-	-	-	
Approach	EB			WB			NB			SB			
Stage 1 Stage 2 Platoon blocked, % Mov Cap-1 Maneuver Mov Cap-2 Maneuver Stage 1 Stage 2	712 738 433 433 706 732	668 688 432 432 668	- - 742 -	738 707 424 424 732 697	688 664 428 428 682	- - 790 -	- 1258 - -	- - - - - -		- - 1299 - - -	- - - - -		

rippioucii		WD	ND	50	
HCM Control Delay, s	11.5	13.5	0.3	0	
HCM LOS	В	В			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	VBLn1	SBL	SBT	SBR	
Capacity (veh/h)	1258	-	-	573	424	1299	-	-	
HCM Lane V/C Ratio	0.007	-	-	0.032	0.003	-	-	-	
HCM Control Delay (s)	7.9	0	-	11.5	13.5	0	-	-	
HCM Lane LOS	А	А	-	В	В	Α	-	-	
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-	

# Intersection

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		\$			÷			\$			÷		
Traffic Vol, veh/h	6	1	13	3	2	5	7	217	0	1	171	2	
Future Vol, veh/h	6	1	13	3	2	5	7	217	0	1	171	2	
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										
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86	
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	6	6	6	
Mvmt Flow	7	1	15	3	2	6	8	252	0	1	199	2	

Major/Minor	Minor2			Minor1			Major1			Ν	lajor2			
Conflicting Flow All	474	470	200	478	471	252	201	C	)	0	252	0	0	
Stage 1	202	202	-	268	268	-	-	-		-	-	-	-	
Stage 2	272	268	-	210	203	-	-	-		-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.15	-		-	4.16	-	-	
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	2.245	-		-	2.254	-	-	
Pot Cap-1 Maneuver	501	492	841	498	491	787	1353	-		-	1290	-	-	
Stage 1	800	734	-	738	687	-	-	-		-	-	-	-	
Stage 2	734	687	-	792	733	-	-	-		-	-	-	-	
Platoon blocked, %								-		-		-	-	
Mov Cap-1 Maneuver	492	488	841	485	487	787	1353	-		-	1290	-	-	
Mov Cap-2 Maneuver	492	488	-	485	487	-	-	-		-	-	-	-	
Stage 1	794	733	-	733	682	-	-	-		-	-	-	-	
Stage 2	721	682	-	776	732	-	-	-		-	-	-	-	
Annroach	FR			W/R			NR				SR			

Approach	EB	WB	NB	SB	
HCM Control Delay, s	10.5	11.1	0.2	0	
HCM LOS	В	В			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1\	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1353	-	-	673	601	1290	-	-
HCM Lane V/C Ratio	0.006	-	-	0.035	0.019	0.001	-	-
HCM Control Delay (s)	7.7	0	-	10.5	11.1	7.8	0	-
HCM Lane LOS	А	А	-	В	В	А	А	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

# Intersection

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		\$			÷			\$			÷		
Traffic Vol, veh/h	7	2	11	2	1	3	9	233	2	4	271	12	
Future Vol, veh/h	7	2	11	2	1	3	9	233	2	4	271	12	
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										
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage,	,# -	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5	
Mvmt Flow	8	2	12	2	1	3	10	251	2	4	291	13	

Major/Minor	Minor2			Minor1			Major1			Μ	lajor2			
Conflicting Flow All	580	579	298	585	584	252	304	0	(	)	253	0	0	
Stage 1	306	306	-	272	272	-	-	-		-	-	-	-	
Stage 2	274	273	-	313	312	-	-	-		-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-		-	4.15	-	-	
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	2.245	-	-	
Pot Cap-1 Maneuver	426	426	741	422	423	787	1257	-		-	1295	-	-	
Stage 1	704	662	-	734	685	-	-	-		-	-	-	-	
Stage 2	732	684	-	698	658	-	-	-		-	-	-	-	
Platoon blocked, %								-		-		-	-	
Mov Cap-1 Maneuver	419	420	741	410	418	787	1257	-		-	1295	-	-	
Mov Cap-2 Maneuver	419	420	-	410	418	-	-	-		-	-	-	-	
Stage 1	698	659	-	727	679	-	-	-		-	-	-	-	
Stage 2	721	678	-	682	655	-	-	-		-	-	-	-	
Approach	FR			W/R			NR				SB			

Approach	EB	WB	NB	SB	
HCM Control Delay, s	11.8	11.7	0.3	0.1	
HCM LOS	В	В			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1257	-	-	551	541	1295	-	-
HCM Lane V/C Ratio	0.008	-	-	0.039	0.012	0.003	-	-
HCM Control Delay (s)	7.9	0	-	11.8	11.7	7.8	0	-
HCM Lane LOS	А	А	-	В	В	А	А	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Int Delay, s/veh	3.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	٦	11	- 11	1	٦	1
Traffic Vol, veh/h	89	149	223	108	56	110
Future Vol, veh/h	89	149	223	108	56	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	325	-	-	300	75	0
Veh in Median Storage	,# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	8	6	6	6	6
Mvmt Flow	96	160	240	116	60	118

Major1	М	ajor2	Ν	linor2	
356	0	-	0	512	120
-	-	-	-	240	-
-	-	-	-	272	-
4.26	-	-	-	6.92	7.02
-	-	-	-	5.92	-
-	-	-	-	5.92	-
2.28	-	-	-	3.56	3.36
1157	-	-	-	482	896
-	-	-	-	766	-
-	-	-	-	737	-
	-	-	-		
r 1157	-	-	-	442	896
r -	-	-	-	530	-
-	-	-	-	702	-
-	-	-	-	737	-
EB		WB		SB	
		0		10.6	
				В	
	356 - 4.26 - 2.28 1157 - - r 1157 r - -	356 0  4.26 -  2.28 - 1157 -  r 1157 - r      	356 0 -  4.26 -  2.28 - 1157 -  r 1157 - r - 157 -       	356       0       -       0         -       -       -       -         4.26       -       -       -         -       -       -       -         2.28       -       -       -         1157       -       -       -         -       -       -       -         r       1157       -       -         -       -       -       -         r       1157       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         -       -       -       -         <	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2
Capacity (veh/h)	1157	-	-	- 530	896
HCM Lane V/C Ratio	0.083	-	-	- 0.114	0.132
HCM Control Delay (s)	8.4	-	-	- 12.7	9.6
HCM Lane LOS	А	-	-	- B	А
HCM 95th %tile Q(veh)	0.3	-	-	- 0.4	0.5

Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	<u>۲</u>	- 11	- 11	1	ሻ	1
Traffic Vol, veh/h	123	262	182	84	91	157
Future Vol, veh/h	123	262	182	84	91	157
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	325	-	-	300	75	0
Veh in Median Storage	,# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	5	5	3	3
Mvmt Flow	131	279	194	89	97	167

Major/Minor	Major1	Ма	jor2	N	linor2	
Conflicting Flow All	283	0	-	0	596	97
Stage 1	-	-	-	-	194	-
Stage 2	-	-	-	-	402	-
Critical Hdwy	4.16	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	1269	-	-	-	433	937
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	641	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1269	-	-	-	388	937
Mov Cap-2 Maneuver	r -	-	-	-	487	-
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	641	-
Approach	EB		WB		SB	
	0 (		0		44.4	

Approach	FR	WB	SB
HCM Control Delay, s	2.6	0	11.4
HCM LOS			В

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2
Capacity (veh/h)	1269	-	-	- 487	937
HCM Lane V/C Ratio	0.103	-	-	- 0.199	0.178
HCM Control Delay (s)	8.2	-	-	- 14.2	9.7
HCM Lane LOS	А	-	-	- B	А
HCM 95th %tile Q(veh)	0.3	-	-	- 0.7	0.6

Int Delay, s/veh	3.4						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	٦	<b>^</b>	- 11	1	٦	1	
Traffic Vol, veh/h	90	151	226	110	57	112	2
Future Vol, veh/h	90	151	226	110	57	112	-
Conflicting Peds, #/hr	0	0	0	0	0	0	)
Sign Control	Free	Free	Free	Free	Stop	Stop	)
RT Channelized	-	None	-	None	-	None	ļ
Storage Length	325	-	-	300	75	0	)
Veh in Median Storage,	,# -	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	93	93	93	93	93	93	5
Heavy Vehicles, %	8	8	6	6	6	6	)
Mvmt Flow	97	162	243	118	61	120	)

Major/Minor	Major1	Ма	ajor2	N	linor2	
Conflicting Flow All	361	0	-	0	518	122
Stage 1	-	-	-	-	243	-
Stage 2	-	-	-	-	275	-
Critical Hdwy	4.26	-	-	-	6.92	7.02
Critical Hdwy Stg 1	-	-	-	-	5.92	-
Critical Hdwy Stg 2	-	-	-	-	5.92	-
Follow-up Hdwy	2.28	-	-	-	3.56	3.36
Pot Cap-1 Maneuver	1152	-	-	-	477	894
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	735	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1152	-	-	-	437	894
Mov Cap-2 Maneuver	-	-	-	-	526	-
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	735	-
Approach	EB		WB		SB	
HCM Control Delay, s	3.1		0		10.7	

i i o i i o o i i i o o i a j i o	0	° °		
HCM LOS			В	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2
Capacity (veh/h)	1152	-	-	- 526	894
HCM Lane V/C Ratio	0.084	-	-	- 0.117	0.135
HCM Control Delay (s)	8.4	-	-	- 12.7	9.7
HCM Lane LOS	А	-	-	- B	А
HCM 95th %tile Q(veh)	0.3	-	-	- 0.4	0.5

Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	٦	<b>^</b>	- 11	1	٦	1
Traffic Vol, veh/h	125	266	185	85	92	159
Future Vol, veh/h	125	266	185	85	92	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	325	-	-	300	75	0
Veh in Median Storage,	# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	5	5	3	3
Mvmt Flow	133	283	197	90	98	169

Major/Minor	Major1	Ма	ijor2	Ν	linor2			
Conflicting Flow All	287	0	-	0	605	99		
Stage 1	-	-	-	-	197	-		
Stage 2	-	-	-	-	408	-		
Critical Hdwy	4.16	-	-	-	6.86	6.96		
Critical Hdwy Stg 1	-	-	-	-	5.86	-		
Critical Hdwy Stg 2	-	-	-	-	5.86	-		
Follow-up Hdwy	2.23	-	-	-	3.53	3.33		
Pot Cap-1 Maneuver	1265	-	-	-	427	934		
Stage 1	-	-	-	-	814	-		
Stage 2	-	-	-	-	637	-		
Platoon blocked, %		-	-	-				
Mov Cap-1 Maneuver		-	-	-	382	934		
Mov Cap-2 Maneuver	r -	-	-	-	483	-		
Stage 1	-	-	-	-	729	-		
Stage 2	-	-	-	-	637	-		
Approach	EB		WB		SB			
HCM Control Delay, s	s 2.6		0		11.4			
HCM LOS					В			

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2
Capacity (veh/h)	1265	-	-	- 483	934
HCM Lane V/C Ratio	0.105	-	-	- 0.203	0.181
HCM Control Delay (s)	8.2	-	-	- 14.3	9.7
HCM Lane LOS	А	-	-	- B	А
HCM 95th %tile Q(veh)	0.4	-	-	- 0.8	0.7

Int Delay, s/veh	3.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	<u>۲</u>	<b>^</b>	- 11	1	<u> </u>	1
Traffic Vol, veh/h	91	151	226	110	59	116
Future Vol, veh/h	91	151	226	110	59	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	325	-	-	300	75	0
Veh in Median Storage,	# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	8	6	6	6	6
Mvmt Flow	98	162	243	118	63	125

Major/Minor	Major1	Ма	jor2	Ν	linor2						
Conflicting Flow All	361	0	_	0	520	122					
Stage 1	-	-	-	-	243	-					
Stage 2	-	-	-	-	277	-					
Critical Hdwy	4.26	-	-	-	6.92	7.02					
Critical Hdwy Stg 1	-	-	-	-	5.92	-					
Critical Hdwy Stg 2	-	-	-	-	5.92	-					
Follow-up Hdwy	2.28	-	-	-	3.56	3.36					
Pot Cap-1 Maneuver	1152	-	-	-	476	894					
Stage 1	-	-	-	-	763	-					
Stage 2	-	-	-	-	733	-					
Platoon blocked, %		-	-	-							
Mov Cap-1 Maneuver		-	-	-	436	894					
Mov Cap-2 Maneuver	-	-	-	-	525	-					
Stage 1	-	-	-	-	698	-					
Stage 2	-	-	-	-	733	-					
Approach	EB		WB		SB						
HCM Control Delay, s	3.2		0		10.7						
HCM LOS					В						

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1 S	SBLn2
Capacity (veh/h)	1152	-	-	- 525	894
HCM Lane V/C Ratio	0.085	-	-	- 0.121	0.14
HCM Control Delay (s)	8.4	-	-	- 12.8	9.7
HCM Lane LOS	А	-	-	- B	А
HCM 95th %tile Q(veh)	0.3	-	-	- 0.4	0.5

Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	٦	<b>^</b>	- 11	1	٦	1
Traffic Vol, veh/h	129	266	185	87	93	161
Future Vol, veh/h	129	266	185	87	93	161
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	325	-	-	300	75	0
Veh in Median Storage,	# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	5	5	3	3
Mvmt Flow	137	283	197	93	99	171

Major/Minor	Major1	Ma	ajor2	Ν	1inor2	
Conflicting Flow All	290	0	-	0	613	99
Stage 1	-	-	-	-	197	-
Stage 2	-	-	-	-	416	-
Critical Hdwy	4.16	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	1261	-	-	-	422	934
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	631	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver		-	-	-	376	934
Mov Cap-2 Maneuver	· -	-	-	-	478	-
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	631	-
Approach	EB		WB		SB	
HCM Control Delay,	s 2.7		0		11.5	

TOW CONTON Delay, 3	2.1	0	11.5
HCM LOS			В

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2
Capacity (veh/h)	1261	-	-	- 478	934
HCM Lane V/C Ratio	0.109	-	-	- 0.207	0.183
HCM Control Delay (s)	8.2	-	-	- 14.5	9.7
HCM Lane LOS	А	-	-	- B	А
HCM 95th %tile Q(veh)	0.4	-	-	- 0.8	0.7

Int Delay, s/veh	3.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	٦,	<b>^</b>	- 11	1	٦	1
Traffic Vol, veh/h	100	167	250	121	63	123
Future Vol, veh/h	100	167	250	121	63	123
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	325	-	-	300	75	0
Veh in Median Storage,	# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	8	6	6	6	6
Mvmt Flow	108	180	269	130	68	132

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2
Capacity (veh/h)	1114	-	-	- 494	876
HCM Lane V/C Ratio	0.097	-	-	- 0.137	0.151
HCM Control Delay (s)	8.6	-	-	- 13.4	9.8
HCM Lane LOS	А	-	-	- B	A
HCM 95th %tile Q(veh)	0.3	-	-	- 0.5	0.5

Int Delay, s/veh	4.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	٦	<b>^</b>	- 11	1	٦	1
Traffic Vol, veh/h	138	294	204	94	102	176
Future Vol, veh/h	138	294	204	94	102	176
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	325	-	-	300	75	0
Veh in Median Storage	,# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	5	5	3	3
Mvmt Flow	147	313	217	100	109	187

Major/Minor	Major1	Ма	ajor2	Ν	linor2		
Conflicting Flow All	317	0	-	0	668	109	
Stage 1	-	-	-	-	217	-	
Stage 2	-	-	-	-	451	-	
Critical Hdwy	4.16	-	-	-	6.86	6.96	
Critical Hdwy Stg 1	-	-	-	-	5.86	-	
Critical Hdwy Stg 2	-	-	-	-	5.86	-	
Follow-up Hdwy	2.23	-	-	-	3.53	3.33	
Pot Cap-1 Maneuver	1233	-	-	-	389	921	
Stage 1	-	-	-	-	795	-	
Stage 2	-	-	-	-	606	-	
Platoon blocked, %		-	-	-			
Mov Cap-1 Maneuver		-	-	-	343	921	
Mov Cap-2 Maneuver	-	-	-	-	451	-	
Stage 1	-	-	-	-	700	-	
Stage 2	-	-	-	-	606	-	
Approach	EB		WB		SB		
HCM Control Delay, s			0		12		
HCM LOS			·		B		

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SB	SLn1	SBLn2
Capacity (veh/h)	1233	-	-	-	451	921
HCM Lane V/C Ratio	0.119	-	-	- 0.	.241	0.203
HCM Control Delay (s)	8.3	-	-	- `	15.5	9.9
HCM Lane LOS	А	-	-	-	С	Α
HCM 95th %tile Q(veh)	0.4	-	-	-	0.9	0.8

#### Intersection Int Delay, s/veh 3.6 EBL WBR SBR Movement EBT WBT SBL Lane Configurations ٦ **↑**↑ ħħ ۴ ٦ ۴ Traffic Vol, veh/h 101 250 167 121 65 127 Future Vol, veh/h 101 167 250 121 65 127 Conflicting Peds, #/hr 0 0 0 0 0 0 Stop Sign Control Free Stop Free Free Free RT Channelized None -None -None -Storage Length 325 300 75 --0 Veh in Median Storage, # -0 0 -0 -Grade, % 0 0 0 ---Peak Hour Factor 93 93 93 93 93 93 Heavy Vehicles, % 8 8 6 6 6 6 Mvmt Flow 109 180 269 130 70 137

Major/Minor	Major1	Ν	lajor2	N	Minor2				
Conflicting Flow All	399	0	-	0	577	135			
Stage 1	-	-	-	-	269	-			
Stage 2	-	-	-	-	308	-			
Critical Hdwy	4.26	-	-	-	6.92	7.02			
Critical Hdwy Stg 1	-	-	-	-	5.92	-			
Critical Hdwy Stg 2	-	-	-	-	5.92	-			
Follow-up Hdwy	2.28	-	-	-	3.56	3.36			
Pot Cap-1 Maneuver		-	-	-	438	876			
Stage 1	-	-	-	-	740	-			
Stage 2	-	-	-	-	707	-			
Platoon blocked, %	. 1114	-	-	-	205	07/			
Mov Cap-1 Maneuve		-	-	-		876			
Mov Cap-2 Maneuve	er -	-	-	-	493	-			
Stage 1	-	-	-	-	667 707	-			
Stage 2	-	-	-	-	/0/	-			
Approach	EB		WB		SB				
HCM Control Delay,	s 3.2		0		11.1				
HCM LOS					В				
Minor Lane/Major Mv	/mt	EBL	EBT	WBT	WBR S	SBLn1 S	BLn2		
Capacity (veh/h)		1114	-	-	-	493	876		
HCM Lane V/C Ratio	)	0.097	-	-	-	0.142			
HCM Control Delay (		8.6	-	-	-	13.5	9.9		

-

-

В

0.5

А

0.6

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0.3

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HCM Lane LOS

HCM 95th %tile Q(veh)

Int Delay, s/veh	4.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	٦	<b>^</b>	- 11	1	٦	1
Traffic Vol, veh/h	142	294	204	96	103	178
Future Vol, veh/h	142	294	204	96	103	178
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	325	-	-	300	75	0
Veh in Median Storage	,# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	5	5	3	3
Mvmt Flow	151	313	217	102	110	189

Major/Minor	Major1	Ма	jor2	Ν	linor2	
Conflicting Flow All	319	0	-	0	676	109
Stage 1	-	-	-	-	217	-
Stage 2	-	-	-	-	459	-
Critical Hdwy	4.16	-	-	-	6.86	6.96
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	2.23	-	-	-	3.53	3.33
Pot Cap-1 Maneuver	1231	-	-	-	385	921
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	600	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1231	-	-	-	338	921
Mov Cap-2 Maneuver	r -	-	-	-	447	-
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	600	-
Approach	EB		WB		SB	
					50	

Арргоаст	ED	WD	SD
HCM Control Delay, s	2.7	0	12
HCM LOS			В

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2
Capacity (veh/h)	1231	-	-	- 447	921
HCM Lane V/C Ratio	0.123	-	-	- 0.245	0.206
HCM Control Delay (s)	8.3	-	-	- 15.6	9.9
HCM Lane LOS	А	-	-	- C	А
HCM 95th %tile Q(veh)	0.4	-	-	- 1	0.8

Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		4			<del>ب</del> ا
Traffic Vol, veh/h	4	2	200	1	1	169
Future Vol, veh/h	4	2	200	1	1	169
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	2	217	1	1	184

Major/Minor	Minor1	N	1ajor1	Ν	/lajor2						
Conflicting Flow All	404	218	0	0	218	0					
Stage 1	218	-	-	-	-	-					
Stage 2	186	-	-	-	-	-					
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	603	822	-	-	1352	-					
Stage 1	818	-	-	-	-	-					
Stage 2	846	-	-	-	-	-					
Platoon blocked, %			-	-		-					
Mov Cap-1 Maneuve		822	-	-	1352	-					
Mov Cap-2 Maneuve	r 602	-	-	-	-	-					
Stage 1	818	-	-	-	-	-					
Stage 2	845	-	-	-	-	-					
Approach	WB		NB		SB			l			

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	В		

Minor Lane/Major Mvmt	NBT	NBRW	/BLn1	SBL	SBT	
Capacity (veh/h)	-	-	661	1352	-	
HCM Lane V/C Ratio	-	-	0.01	0.001	-	
HCM Control Delay (s)	-	-	10.5	7.7	0	
HCM Lane LOS	-	-	В	Α	А	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Int Delay, s/veh	0.1						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	۰¥		4			र्स	
Traffic Vol, veh/h	2	2	219	4	2	256	,
Future Vol, veh/h	2	2	219	4	2	256	,
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	92	92	92	92	92	92	1
Heavy Vehicles, %	2	2	2	2	2	2	)
Mvmt Flow	2	2	238	4	2	278	5

Major/Minor	Minor1	Μ	lajor1	N	lajor2						
Conflicting Flow All	522	240	0	0	242	0					
Stage 1	240	-	-	-	-	-					
Stage 2	282	-	-	-	-	-					
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	-	- 1	2.218	-					
Pot Cap-1 Maneuver	515	799	-	-	1324	-					
Stage 1	800	-	-	-	-	-					
Stage 2	766	-	-	-	-	-					
Platoon blocked, %			-	-		-					
Mov Cap-1 Maneuver		799	-	-	1324	-					
Mov Cap-2 Maneuver	514	-	-	-	-	-					
Stage 1	800	-	-	-	-	-					
Stage 2	764	-	-	-	-	-					
Approach	WB		NB		SB						

Approach	WB	NB	SB	
HCM Control Delay, s	10.8	0	0.1	
HCM LOS	В			

Minor Lane/Major Mvmt	NBT	NBRW	'BLn1	SBL	SBT	
Capacity (veh/h)	-	-	626	1324	-	
HCM Lane V/C Ratio	-	-	0.007	0.002	-	
HCM Control Delay (s)	-	-	10.8	7.7	0	
HCM Lane LOS	-	-	В	А	А	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	۰¥		4			÷.
Traffic Vol, veh/h	4	2	221	1	1	187
Future Vol, veh/h	4	2	221	1	1	187
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	2	240	1	1	203

Major/Minor	Minor1	N	lajor1	Ν	/lajor2	
Conflicting Flow All	446	241	0	0	241	0
Stage 1	241	-	-	-	-	-
Stage 2	205	-	-	-	-	-
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	570	798	-	-	1326	-
Stage 1	799	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	569	798	-	-	1326	-
Mov Cap-2 Maneuver	569	-	-	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Approach	WB		NB		SB	
	10.0					

Approach	WB	NB	SB	
HCM Control Delay, s	10.8	0	0	
HCM LOS	В			

Minor Lane/Major Mvmt	NBT	NBRW	/BLn1	SBL	SBT	
Capacity (veh/h)	-	-	629	1326	-	
HCM Lane V/C Ratio	-	-	0.01	0.001	-	
HCM Control Delay (s)	-	-	10.8	7.7	0	
HCM Lane LOS	-	-	В	Α	А	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		4			÷.
Traffic Vol, veh/h	2	2	242	4	2	283
Future Vol, veh/h	2	2	242	4	2	283
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	263	4	2	308

Major/Minor	Minor1	Μ	lajor1	Μ	lajor2	
Conflicting Flow All	577	265	0	0	267	0
Stage 1	265	-	-	-	-	-
Stage 2	312	-	-	-	-	-
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	2.218	-
Pot Cap-1 Maneuver	478	774	-	-	1297	-
Stage 1	779	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	477	774	-	-	1297	-
Mov Cap-2 Maneuver	477	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Approach	WB		NB		SB	

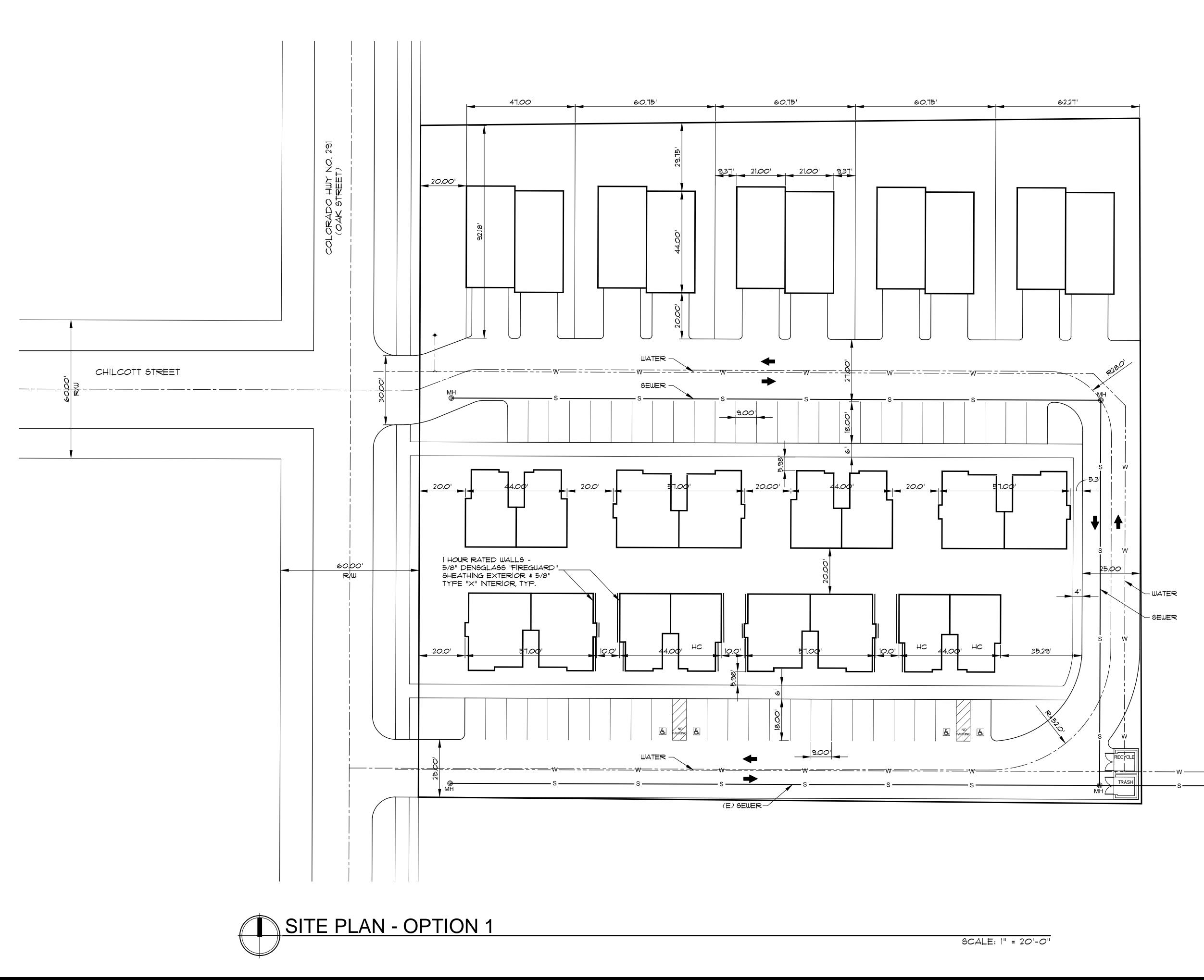
Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0.1
HCM LOS	В		

Minor Lane/Major Mvmt	NBT	NBRV	/BLn1	SBL	SBT	
Capacity (veh/h)	-	-	590	1297	-	
HCM Lane V/C Ratio	-	-	0.007	0.002	-	
HCM Control Delay (s)	-	-	11.1	7.8	0	
HCM Lane LOS	-	-	В	Α	А	
HCM 95th %tile Q(veh)	-	-	0	0	-	

# APPENDIX E

Conceptual Site Plan

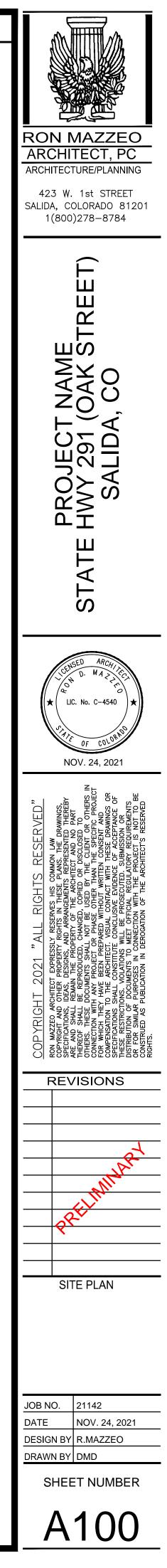
Kimley-Horn and Associates, Inc. 096802001 – 505 Oak Street



# SITE PLAN NOTES

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, GRADES, AND OTHER SITE CONDITIONS PRIOR TO COMMENCING WORK. IF ANY DISCREPANCY EXIST, HE SHALL NOTIFY THE ARCHITECT IMMEDIATELY.

- CONTRACTOR MAY ADJUST PLACEMENT OF RESIDENCE IF NECESSARY AS LONG AS ALL MINIMUM SETBACKS ARE OBSERVED. (WITH OWNERS APPROVAL)
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE GENERAL CONTRACTOR SHALL CONTACT UTILITY COMPANIES TO FIELD LOCATE ALL UTILITIES. LOCATIONS OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. UTILITIES SHOWN DO NOT NECESSARILY REPRESENT ALL UTILITIES WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION.
- ALL NEW UTILITIES ARE TO BE BURIED UNDERGROUND, USE COMMON TRENCH WHERE APPLICABLE,
- BUILDING ORIENTATION AND LOCATION TO BE VERIFIED ON SITE BY ARCHITECT AND OWNER BEFORE CONSTRUCTION. GENERAL CONTRACTOR IS RESPONSIBLE FOR FINAL SURVEYED PLACEMENT OF BUILDING ON SITE.
- SLOPE FINISH GRADE AWAY FROM BUILDING 1/2" PER FOOT MINIMUM.
- FENCE AND PROTECT ALL LANDSCAPING (TREES, GROUND VEGETATION, ETC.) AROUND CONSTRUCTION SITE. REPLACE LANDSCAPING IF DAMAGED DURING CONSTRUCTION.
- SELECTIVE THINNING OF LANDSCAPING (TREES, GROUND VEGETATION, ETC.) TO BE DECIDED BY OWNER.
- ALL SITE PLAN INFORMATION PROVIDED BY OWNER SHALL BE CONSIDERED VERIFIED AS ACCURATE BY OWNER. ARCHITECT TAKES NO RESPONSIBILITY SHOULD THAT INFORMATION BE INACCURATE.
- 0. GENERAL CONTRACTOR SHALL PROVIDE DRAINAGE SWALES TO ACCOMMODATE EXISTING NATURAL DRAINAGE AS WELL AS ANY DRAINAGE INCREASE CREATED BY NEW GRADE CHANGES.
- GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS: STUMPS, SLASH, CONCRETE, ASPHALT, ETC. FROM SITE PRIOR TO LANDSCAPE WORK.
- DETERMING DRIVEWAY LOCATIONS & GRADES ARE NOT THE RESPONSIBILITY OF THE ARCHITECT
- ANY ADDITIONAL WORK AS REQUIRED BY LOCAL AND STATE CODES AND REGULATIONS, SUCH AS FIRE MITIGATION, SUBDIVISION COVENANTS REGULATIONS, ETC. SHALL BE COMPLETED BY GENERAL CONTRACTOR
- THE SITE NEEDS TO BE GRADED TO THE ELEVATIONS SHOWN. GENERAL CONTRACTOR MUST ADD OR DISPOSE OF EXCESS EARTH, AS NECESSARY.
- GENERAL CONTRACTOR MUST VERIFY SOIL COMPACTION REQUIREMENTS FROM SOILS ENGINEER, PRIOR TO BACKFILLING.
- . ANY SURVEY MONUMENT WITHIN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A REGISTERED CIVIL ENGINEER OR A LICENSED LAND SURVEYOR.
- ANY UTILITIES REQUIRING RELOCATION SHALL BE THE RESPONSIBILITY AND AT THE EXPENSE OF THE CONTRACTOR
- GRADE DIFFERENTIALS MAY REQUIRE SUPPORT BY AN ENGINEERED & APPROVED RETAINING WALL.
- FINAL STAKING OF HOUSE TO BE VERIFIED WITH ARCHITECT.



Kristi,

I'm writing about two developments the City of Salida is planning on State Highway 291 (also know as Oak street) near mile marker 0.20. The two developments are a high density housing development of 44 units at 505 Oak street and a new City of Salida fire station at 611 Oak adjacent to the 505 Oak street development.

I have three concerns:

**1.)** The developer is asking to put 44 units on 505 Oak street. The 44 units are planned to have one single access to SH 291 by a future, private road.

I'm not a traffic engineer, but an ITE trip generation calculation for this intersection would be: 44 units of single family homes creating 421 daily trips. 10% will be peak hour trips, 42 peak hour trips total. 63% will be entering the development from Hwy 291 (26 trips) and 37% will be leaving the development onto Hwy 291 (16 trips).

This significant increase in peak hour trips on Hwy 291 might necessitate the installation of a left hand turn lane and/or right hand merge lane.

The developer, Dreamers and Doers LLC, say they applied for a Highway access permit in February, but have not received one. Nevertheless, the City of Salida is preparing to pass ordinance 2022-21 to approve this development.

**2.)** The City of Salida is also planning to develop a new City of Salida Fire Station south of, and adjacent to, the 505 Oak Street development. The Fire Station will have 11 bays for emergency vehicles and is over 20,000 square feet in size. Access to the fire station parking lot will be from SH 291. The parking lot access road is directly adjacent to the planned development at 505 Oak street.

The SH 291 access for the Oak street development and the SH 291 access for the fire station road are only 110 feet apart. Two busy SH 291 access points only 110 feet apart will cause traffic issues.

**3.)** A Salida Middle School at 627 Oak Street is just south of these two planned developments on Hwy 291. There is school traffic and the road is posted as a school zone.

I'm concerned that the Salida Middle School at 627 Oak, along with the new Salida fire station at 611 Oak and the new high density development at 505 Oak will considerably slow traffic on SH 291 during peak hours.

I'd like to ask the City of Salida postpone the approval of these developments until traffic studies can be performed and highway access permits can be granted.

Jerry Raski Salida, CO

From:	Kristi Jefferson
To:	"Jerry Raski"
Subject:	RE: Traffic concerns over Oak street developments.
Date:	Monday, November 28, 2022 11:57:04 AM
Attachments:	image003.png
	image006.png

Jerry,

I am currently working on the 505 Planned Development and Subdivision which is scheduled for public hearing before the City Council on December 6th and you are more than welcome to come to the meeting to voice your concerns. I will include your email of your concerns in the packet materials for the Council to consider but I wanted to clarify a couple of things. The 505 Oak Street project will have two accesses off of Oak Street and the access on the south side of the property will be a shared access with the Fire Department. The applicants have submitted an engineered traffic study which shows a total of 302 daily trips as shown in the table below.

	Weekday Vehicle Trips								
Land Use and Size	Daily	AM Peak Hour			PM Peak Hour				
		In	Out	Total	In	Out	Total		
Single-Family Attached Housing (ITE 215) – 10 Dwelling Units	72	1	4	5	3	3	6		
Multifamily Low-Rise Housing (ITE 220) – 34 Dwelling Units	230	3	11	14	11	6	17		
Total Project Trips	302	4	15	19	14	9	23		

#### Table 1 – 505 Oak Street Traffic Generation

#### Thank you,

Kristi Jefferson Senior Planner City of Salida 448 E. First Street Suite 112 Salida, CO 81201 (719) 530-2626



Sender and receiver should be mindful that all my incoming and outgoing emails may be subject to the Colorado Open Records Act, § 24-72-100.1, et seq.

From: Jerry Raski [mailto:j.raski@gmail.com] Sent: Monday, November 28, 2022 10:33 AM To: kristi.jefferson@cityofsalida.com Subject: Traffic concerns over Oak street developments.

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