



CITY OF REDMOND

Community Development Department

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www.redmondoregon.gov

REDMOND URBAN AREA PLANNING COMMISSION

411 SW 9th Street-COUNCIL CHAMBERS Redmond, OR 97756 or

Monday, April 11th, 2022 6:30 pm

Oral comments can be provided in-person or virtually. For those who plan to provide oral comments virtually during the hearing, pre-register at PublicTestimony@redmondoregon.gov (must pre-register before 4:00 p.m. on April 11th)

Agenda

UAPC Members	
Teri Jansen, Chair	I. CALL TO ORDER / INTRODUCTIONS
Ron Osmundson, Vice-Chair	II. CITIZEN COMMENTS FOR ITEMS NOT ON THE AGENDA
Laura Garcia	III. APPROVAL OF MINUTES a. March 21, 2022
Heather DeWolf	IV. PUBLIC HEARING a. Cottages on Helmholtz (711-21-000281-PLNG and 711-21-000282-PLNG): Site and Design Review, and Partition. 2052 SW Helmholtz Way (Tax lot# 1513190000701) in Redmond, OR 97756
Norman Schultz	V. Next Meeting – April 18, 2022
Richard Bryant	VI. COMMISSION MEMBER COMMENTS
Joseph Zampko	VII. ADJOURN
Ex-Officio Vacancy	Please note that these documents are also available on the City's website www.redmondoregon.gov; click on City Government, hover on Commissions and Committees, click on Urban Area Planning Commission. You may also request a copy from City Records Office 923-7751 or email Kelly.morse@redmondoregon.gov The City of Redmond encourages all citizens to participate in its programs and activities. This meeting location is accessible to people with disabilities. Requests for accommodation may include sign language interpreter service, assistive listening devices, materials in an alternate format or any other accommodation. If any accommodations are needed, please contact the ADA Coordinator at 541-504-3036 or access@ci.redmond.or.us. Requests should be made as soon as possible, but at least 3 business days prior to the scheduled meeting. The City of Redmond does not discriminate on the basis of disability status in the admission or access to, or treatment, or employment in, its programs or activities.



DRAFT

CITY OF REDMOND
Community Development Department

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Redmond, OR 97756-2213

Phone **541-923-7724**
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www.redmondoregon.gov

REDMOND URBAN AREA PLANNING COMMISSION

Virtual Meeting

MINUTES

March 21, 2022

Commissioners Present: Chair Teri Jansen, Vice-Chair Ron Osmundson, Richard "Dick" Bryant, Heather DeWolf, Laura Garcia, Joseph Zampko (*absent: Norman Schultz*)

Youth Ex Officio: **Vacant**

City Staff: Kyle Roberts, *Interim Planning Director*; Megan Jacob, *Associate Planner*

Visitors: Karna Gustafson, *Central Oregon Builders Association*; Krisanna Clark-Endicott, *City Councilor*; Mike Reinemer

Media: None

(The 3 digits after a motion title show the number of commissioners voting in favor/opposed/abstaining.)

I. CALL TO ORDER – INTRODUCTIONS

Chair Jansen called the regular meeting of the Redmond Urban Area Planning Commission to order at 4:30 p.m., Monday, March 21, 2022, with a quorum present (5 of 7 commissioners). Commissioner Bryant arrived about 4:36 p.m., after approval of the minutes, increasing the quorum (6 of 7 commissioners).

II. APPROVAL OF MINUTES

A. February 28, 2022

Motion 1 (5/0/0): Commissioner Osmundson moved to approve the February 28, 2022, minutes as presented. Commissioner Garcia seconded the motion which passed unanimously.

III. MIDDLE HOUSING (HB 2001 and SB 458) DISCUSSION

Commissioner DeWolf reported contacting Ethan Stuckmayer (senior planner at the Oregon Department of Land Conservation and Development) today. Her concerns were primarily the maximum number of dwelling units allowed and the number of utility meters. She offered to forward her e-mail correspondence to City staff and asked that her information be shared with commissioners.

Commissioners discussed differences between House Bill 2001 and Senate Bill 458, developmental density, and site and design criteria to protect existing homeowners.

IV. COMMISSION MEMBER COMMENTS

Chair Jansen outlined the Planning Commission's role, meeting formats, and e-mail protocol and referenced resources commissioners could review on their own. She recommended commissioners read packets before meetings to familiarize themselves with the issues. She asked

about procedures for the joint City Council/Planning Commission meeting on April 5. Councilor Clark-Endicott encouraged commissioners to be open in their interactions with councilors, asking questions and giving feedback.

April 4 Planning Commission meeting: Vice-Chair Osmundson requested a hard copy of the packet. Chair Jansen asked Mr. Roberts to provide packets for all commissioners plus extra packets for visitors.

April 5 joint City Council/Planning Commission meeting: Commissioner Bryant requested a copy of the recording, since he didn't expect to attend in person. Councilor Clark-Endicott replied all Council meetings are recorded as part of the public record. Chair Jansen suggested staff provide a meeting link to Commissioner Bryant in case he wanted to attend online. Vice-Chair Osmundson asked about Council's dress code. Chair Jansen suggested "business casual."

Chair Jansen thanked commissioners for attending today's meeting. Going forward, she is looking forward to seeing everyone in person.

Upcoming Meetings

- April 4, 2022, 6:30 p.m. – in-person meeting (**1st** Monday)
- April 5, 2022, 6 p.m. – in-person (& online) meeting with City Council (1st Tuesday)

V. ADJOURN

With no further business, Chair Jansen adjourned the meeting at 5 p.m.

APPROVED by the Redmond Urban Area Planning Commission and SIGNED by me this _____ day of _____, 2022.

ATTEST:

Teri Jansen
Chair

Kyle Roberts
Interim Planning Director

**COTTAGES ON HELMHOLTZ: AN 89 UNIT DETACHED MULTI-FAMILY COMPLEX
DEVELOPMENT & TWO-LOT PARTITION**

HEARING DATE: April 11, 2022 at 6:30 PM in Redmond City Hall Council Chambers

HEARINGS BODY: Redmond Urban Area Planning Commission

FILE NUMBER: 711-21-000281-SP, 711-21-000282-RMP

FILE NAME: Cottages on Helmholtz

REQUEST: Approval of a Site and Design Review, and a Two-lot Partition on a 7.52-acre parcel

LOCATION: 2052 SW Helmholtz Way (Tax Lot #15130190000701) in Redmond, OR 97756

APPLICANT: LEDG Capital, LLC

PROPERTY OWNER: Jamie Garza

REVIEWING STAFF: Kyle Roberts, AICP, Interim Planning Director

RECOMMENDATION: Approval with Conditions

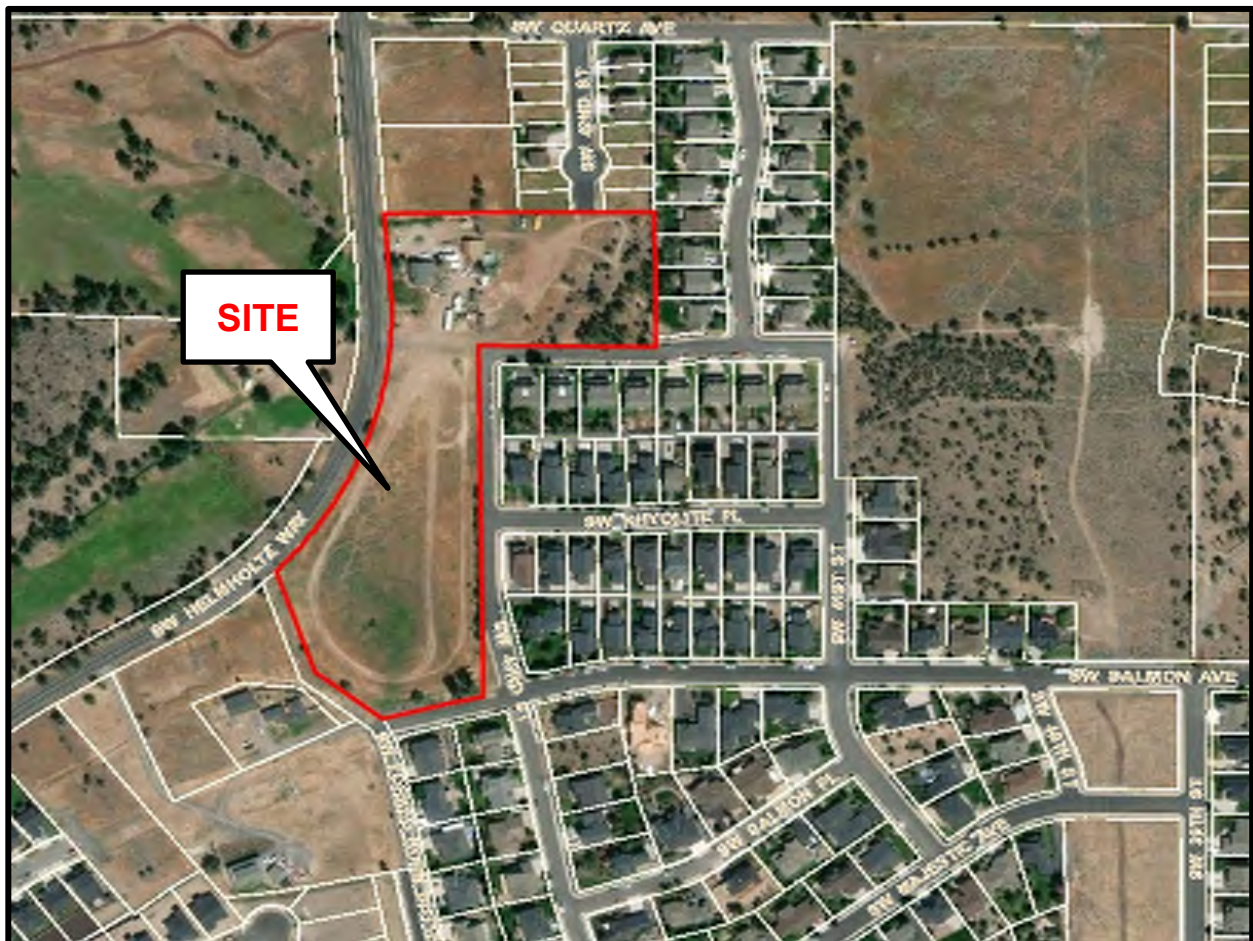


Figure 1 - Vicinity Map

I. BACKGROUND

Site Description:

The subject property is generally described as 2052 SW Helmholtz Way located in southwest Redmond; Tax Map and Lot #1513190000701. The property is located on the western edge of Redmond city limits and abuts existing and proposed residential development to the north, south, and east. Furthermore, the property is zoned General Residential (R-4) with a High Density Overlay Zone. It is 7.52 acres (327,571 square feet) in size and is the site of an existing single-family dwelling and several outbuildings, located in the northern section of the property. See area outlined in red in *Figure 1* on page 1.

Proposal:

In October, the applicant submitted applications for a site and design review of a 96-unit detached multi-family development; a two-lot partition; and a major variance for a reduction to the minimum side yard building separation requirements. The applicant revised plans in March and is seeking approval for a site and design review of an 89-unit detached multi-family development and a two-lot partition.

Proposed Lot 1, comprised of 96% of the project area, will be the site of 44 detached 2-bedroom units and 45 attached 2-bedroom units (15 buildings). This lot will also include the development's required open spaces, parking, and drive aisles. Proposed Lot 2 will be the site of the onsite management and maintenance buildings and additional parking. Direct access to the development will be provided via SW 42nd Street, SW Reindeer Avenue, SW 43rd Street, SW Salmon Avenue, and the intersection of SW Salmon Avenue and SW Forked Horn Butte Road.

The proposed development's density equates to approximately 14.5 units per net acre. All proposed units will be two stories in height. Thirty-one detached 2-bedroom units will be 1,200 square feet in total floor area; 13 detached 2-bedroom units will be 968 square feet in total floor area; and each attached 2-bedroom unit will be 1,200 square feet in

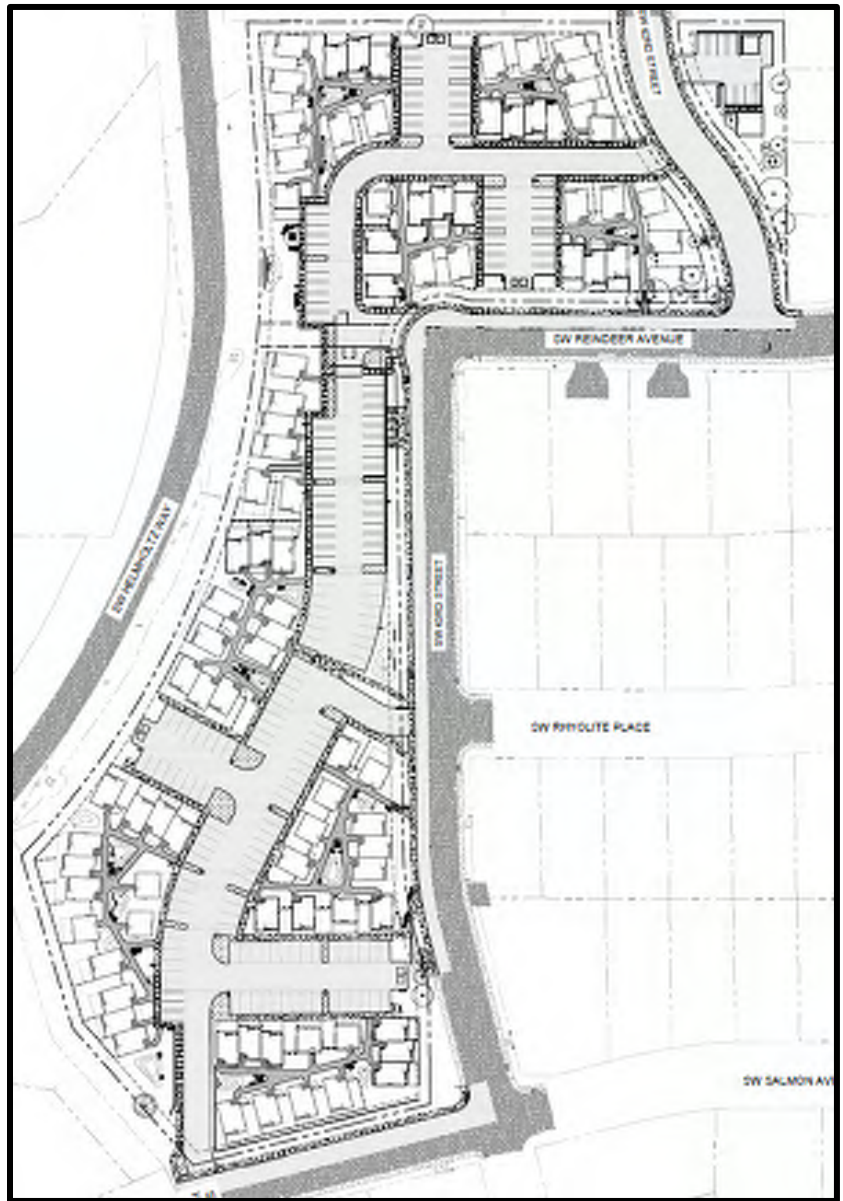


Figure 2 - Proposed project layout. LEDG Capital

total floor area. The applicant is proposing 195 off-street parking spaces and is proposing just over 31,000 square feet of recreation areas (11.8% of the project site).

Adjacent Zoning & Land Uses:

	Zoning	Land Use
North	General Residential (R-4)	Existing single-family dwellings, two-family dwellings, proposed cottage development, and future neighborhood residential development
East	General Residential (R-4)	Single-family dwellings and two-family dwellings – built-out residential neighborhood
South	Limited Residential (R-2) & General Residential (R-4)	Existing single-family dwellings and future neighborhood residential development
West	Urban Holding (UH-10)	Single-family dwelling & vacant, undeveloped land

Comments:

At the time of the completion of this staff report, numerous written public comments were received from the public by the Planning Department concerning this application during the comment period. These comments can be found in Exhibit D.

Exhibits:

Exhibit A – Revised Project Plans, March 18, 2022*
Exhibit B – Revised Applicant Burden of Proof, March 18, 2022
Exhibit C – City Department and Related Agency Comments
Exhibit D – Letters Received from the Public
Exhibit E – Transportation Impact Analysis

*Land Use Planning Set plans revised to provide greater clarity (cleaned up old linework) on April 4, 2022

Application Timeline:

The following items are included herein by reference in this land use decision and are located in the record for this matter and are on-file with the Community Development Department, Planning Division:

- Site & Design Review, Partition, and Variance applications and materials submitted by the applicant on October 25, 2021
- Application deemed complete on November 22, 2021
- City department and related agency request for comments routed on December 2, 2021
- Adjacent property owner notices mailed on December 2, 2021 and January 20, 2022
- Public Hearing Notice published in *The Redmond Spokesman* on February 2, 2022
- Public Hearing scheduled with the Planning Commission for February 14, 2022 – hearing cancelled due to on-site noticing requirement not met by applicant
- Applicant voluntarily held a virtual neighborhood meeting on March 7, 2022
- Adjacent property owner notices mailed on March 17, 2022
- Applicant submitted complete revised plans for Site & Design Review and Partition on March 19, 2022
- Public Hearing Notice published in *The Redmond Spokesman* on March 30, 2022
- Final action 120-day deadline (ORS 227.178) is April 11, 2022 (Applicant granted staff review period extension to April 11th on March 11th)

Applicable Criteria:

The following are the applicable sections from the City of Redmond Urban Area Comprehensive Plan, and the Redmond Development Code:

1. Redmond Urban Area Comprehensive Plan (if any policies and objectives are found to apply)
2. City of Redmond Development Code:

Article I – Zoning Standards

- Section 8.0065: Establishment of Zones and Districts
- Section 8.0135: Table A, Residential Zones, Uses Permitted
- Section 8.0140: Table B, Minimum Standards
- Section 8.0330: Exterior Lighting
- Section 8.0340: Fences
- Section 8.0500: Off-Street Parking
- Section 8.0505: Off-Street Parking and Loading
- Section 8.0510: Design and Improvement Standards for Parking Lots

Article II – Land Use Procedures

- Section 8.1305: Action on Land Use Action Applications

Article III – Land Division Standards

- Section 8.2005: Purpose
- Section 8.2010: Interpretation
- Section 8.2100: Procedure
- Section 8.2105: Scope of Regulation
- Section 8.2110: Minimum Standards
- Section 8.2400: Applicability of Regulations
- Section 8.2405: Filing Procedures and Requirements
- Section 8.2410: Requirements for Tentative Partition Approval
- Section 8.2415: Improvement Requirements
- Section 8.2700: Compliance Required
- Section 8.2705: Blocks, Lots and Parcels
- Section 8.2710: Streets
- Section 8.2715: Fundamental Design Elements
- Section 8.2720: Grading of Building Sites
- Section 8.2800: Improvement Procedures
- Section 8.2805: Improvements in Partitions
- Section 8.2810: Acceptance of Improvements
- Section 8.2815: Transportation Impact Analysis
- Section 8.2820: Access Management Standards
- Section 8.2825: Street Dedications

Article IV – Site and Design Review Standards

- Section 8.3035: Design Review Criteria

II. FINDINGS & CONCLUSIONS

Findings:

Redmond Development Code, Article I – Zoning Standards: Sections 8.0065, 8.0135, 8.0140, 8.0330, 8.0340, 8.0500, 8.0505, and 8.0510; Article II – Land Use Procedures: Section 8.1305; Article III – Land Division Standards: Sections 8.2005, 8.2010, 8.2100-2110, 8.2400-8.2415, 8.2700-8.2720, and 8.2800-8.2825; and Article IV – Site and Design Review Standards: Section 8.3035 set forth the procedure and standards for approval. Staff findings for all applicable standards are presented below.

ARTICLE I – ZONING STANDARDS > INTRODUCTORY PROVISIONS

RDC Sections 8.0065

8.0065 Establishment of Zones and Districts.

...
R-4 General Residential Zone. To provide high density residential neighborhoods with a mix of single-family residences, duplexes and some conditionally permitted multi-family residential development. Limited commercial uses such as offices are also conditionally permitted where compatible with surrounding development.

FINDING: The applicant is proposing an 89-unit multi-family development, more specifically a multi-family complex as defined in the Redmond Development Code as a building or group of buildings on a single lot containing a total of five or more dwelling units. Per Section 8.0135 below, multi-family complexes are an outright use in the high-density residential R-4 zone.

...
Higher Density Overlay Zone. Various areas within the city that permit density up to 30 units per net acre. The underlying base zone controls the land uses.

FINDING: City Ordinance 2017-12 established a Higher Density Overlay Zone over the subject property.

ARTICLE I – ZONING STANDARDS > RESIDENTIAL USE ZONES *RDC Sections 8.0135 and 8.0140*

8.0135 Table A, Residential Zones, Uses Permitted. The following uses are allowed outright or conditionally in each of the Residential zones as follows:

“O” means Permitted Outright
“C” means Permitted Conditionally
“N” means Not Allowed

LAND USE:	ZONE:					RESTRICTIONS AND REQUIREMENTS:
<i>Residential Uses:</i>	R-1	R-2	R-3	R-4	R-5	
Accessory Building:						
Sheds, shops, garages excluding railroad cars not in railroad right of way, and movable shipping containers or similar storage containers that are not classified as structures.*	O	O	O	O	O	Detached; includes greenhouse, workshops, potting sheds, and the like must be located within the property and not in the yard setback areas.
Guest House	O	O	O	O	O	No kitchen; uses main houses' sewer & water
Accessory Dwelling Unit / Accessory Suite	O	O	O	O	O	Uses main houses' sewer & water or individual City Services; may have kitchen
Accessory Use	O	O	O	O	O	Includes Home Occupations
Apartments						See Multi-Family Complex / Dwelling
Bed and Breakfast	C	C	C	C	C	
Boarding or Rooming House	N	N	C	O	O	
Cluster Development	O	O	O	O	O	
Cottage Development	O	O	O	O	O	
Condominium	O	O	O	O	O	Condo plats are State regulated
Duplex	O	O	O	O	O	
Duplex Lot	O	O	O	O	O	

Manufactured Home	O	O	O	O	O	See Single Family Dwelling
Manufactured Home Park	N	N	C	C	C	
Manufactured Home Subdivision	N	N	O	O	O	Subject to compliance w/ applicable ORS
Multi Family Complex (5 + units)	C	C	C	O	O	
Multi Family Dwelling (3 & 4 plex)	O	O	O	O	O	
Nursing, Convalescent, and Assisted Living Facility	N	N	C	C	C	More than 15 people
Planned Unit Development	N	N	C	C	C	
Residential Care Facility	N	N	C	C	O	Defined in and regulated by ORS
Residential Care Home	O	O	O	O	O	Defined in and regulated by ORS
Single Family Dwelling	O	O	O	O	O	
Townhouse	O	O	O	O	O	

FINDING: The applicant is proposing an 89-unit multi-family development, more specifically a multi-family complex as defined in the Redmond Development Code as a building or group of buildings on a single lot containing a total of five or more dwelling units. Multi-family complexes are an outright permitted use in the R-4 zone.

8.0140 Table B, Minimum Standards. The following minimum standards apply in each of the Residential zones as follows:

Zone:					
Standard:	R-1	R-2	R-3	R-4	R-5
Minimum Lot size - Square Feet					
Single Family	9,000	9,000	7,500	5,500	5,500
Duplex	NA	10,000	8,000	7,500	7,500
Duplex Lot			4,250	3,750	3,750
Townhouse			E	E	E
Multi-family Dwelling	NA	NA	NA	F	F
Multi-family Complex	NA	NA		F	F
Minimum Density/Gross Acre	4	4	5	10	15
Minimum Setback Distance – See C, F, and H below					
Front Façade, excluding garage which must be 20 feet back from property line	15	15	15	10	10
Interior Side	B 5/10	B 5/10	B 5/10	B 5/10	5
Street Side	15	15	15	15	15
Rear	20	20	20	20	5
Garage	20	20	20	20	20
Maximum Building Height ^F	32	32	32	40,E	40,E
Minimum Street Frontage					
Standard Street	50	50	50	50	50
Cul-de-sac	30	30	30	30	30
Flag Lot	20	20	20	20	20
Duplex lot (non flag or cul de sac)	N/A	N/A	25	25	25

Townhouse				E	E
A Interior side yards must provide a minimum of 5 feet on one side and 10 feet on the other side for single family and duplex residences. Where alley access is provided, both interior side yards may be reduced to 5'. Exceptions to this 10' setback are allowed (1) when the lot was created prior to the adoption of this standard (November 9, 2006); or (2) on cul de sac lots; or (3) on flag lots, or (4) parcels created by partition.					
B Does not include solar setbacks, which are calculated separately					
D Pursuant to the Townhouse Development Standards in Chapter 8, Article IV Site and Design Review Standards, Section 8.3035.4.f.2, Table A.					
E Does not apply to development standards for Multi-family Dwellings and Multi-family Complexes which are located in Chapter 8, Article IV, Site and Design Review Standards, Section 8.3035.4.E.2., Table A					
F. Street trees are required to be provided in accordance with Section 8.3035(5)(K)					
G. ADU Rear-Yard and Other Setbacks (Zones R-1 and R-2 – <i>no change to setbacks since the lot sizes are quite large.</i>)					
For all other zones:					
2 story ADUs – 20-foot rear yard setback;					
2 story ADU that abuts an alley – 10-foot rear yard setback (driveway, if proposed, must still be 20 feet deep)					
1 story ADU – 10-foot rear yard setback					
1 story ADU that abuts a 20-foot-wide alley – 5-foot rear yard setback (driveway must still be 20 feet deep)					
ADU abutting a street corner – maintain front yard setback – side may be 5 feet for either 1 or 2 stories (driveway must still be 20 feet deep) ADU cannot extend in front of the house or front yard setback.					
ADU on lot abutting a commercial/industrial property – 5-foot rear yard setback regardless of height.					
N/A = "not allowed"					

FINDING: As the proposed development is considered a multi-family complex (a building or group of buildings on a single lot containing a total of five or more dwelling units)¹, development standards found in Section 8.3035(4)(E)(2) apply to this project, per letter 'E' in the table above. These standards are addressed in Section 8.3035, Site & Design Review Criteria, of this staff report.

ARTICLE I – ZONING STANDARDS > SUPPLEMENTARY PROVISIONS

RDC Sections 8.0330 and 8.0340

8.0330 Exterior Lighting.

1. Purpose. The purpose of this code section is to allow residents, businesses, and public entities to adequately illuminate the outdoor areas on their property without adversely impacting the use of adjacent property and minimizing the impact on Redmond's dark skies.
2. Applicability. The provisions of this code section apply to all outdoor lighting, including security lighting in all zones, unless exempted under this code section. All outdoor lighting subject to this code section shall comply with these requirements. This includes, but is not limited to: new lighting, replacement or repair of existing nonconforming lighting, and any other lighting whether

¹ City of Redmond Development Code, page 6.

attached to structures, poles, the earth, or any other location that illuminates exterior areas of the property. It is the property owner's responsibility to ensure compliance with this code section, including lighting installed by a third party or prior property owner

3. Requirements for Lighting Regulated by this Code Section
 - A. All lighting shall be downcast and use a shielded fixture or other means to limit up lighting. The terms "downcast and shielded" mean that the fixture allows no light emission above a horizontal plane through the bottom of the fixture. See illustration A which illustrates downcast lighting and up lighting.
 - B. Lighting shall not shine into neighboring residences, or onto public streets.
 - C. Lighting in the canyon or within 25' of the canyon rim shall be submitted to and reviewed by the Community Development Director or Planning Commission prior to installation for compliance with this code section.

FINDING: The applicant has stated *"The intent with exterior site lighting is to compliment the architectural style. Site lighting is intended to be pole top mounted, dark sky compliant, and whenever feasible, low voltage. Parking area lighting shall be of a similar nature but mounted to higher poles w/ additional fixtures as need to cast a broader distribution of foot candles needed to meet code requirements. Fixtures in pedestrian areas shall make use of scaled pole heights and detailing to compliment the human scale."* The applicant's final exterior lighting furnishing will be reviewed for compliance during submittal of building permit.

8.0340 Fences. All fences constructed after the time of the adoption of this ordinance (Ord #2014-14, 07/22/2014) shall comply with the following standards. For the purpose of these standards fences refers to fences, lattice work, screens or walls (other than a retaining wall). The intent of these standards is to ensure that fencing contributes positively to the appearance of the community, and that the scale, location, and appearance of fencing does not adversely affect adjacent or nearby properties or public safety.

1. On all properties one (1) acre or less in size, in all Residential Zones (including residential uses in the C-2 Zone and in the Downtown Overlay District) and the Urban Holding Zone, all fences shall be developed to the following standards:
 - A. Fences abutting a local public street shall comply with the following:
 1. Fences in front yards, and in that portion of side yards extending from the front property line to the front façade of the dwelling, shall be a maximum of 3½ feet tall.
 2. On corner lots, only one front yard restriction is applied relative to the 3½ feet fence height restriction, in which case, the fence along the non-front yard designated side may be up to 6 feet tall from the front façade of the house back to the rear property line (see fence example in Figure 1).
 3. Fences in that portion of side yards extending from the front façade of the dwelling to the rear property line, and all rear yards, shall be a maximum of 8 feet tall.
 4. Fences located in side and rear yards shall incorporate architectural columns consisting of materials such as stone, brick, rock, wood or other similar products, at each property corner along the fence that abuts the street. (See: *Examples*). The columns shall be a minimum of 12" x 12" in size.
 5. Fences shall be constructed of wood, vinyl, chain link or wrought iron. Other types of fences may be approved by and at the discretion of the Community Development Director subject to compliance with the intent statement above.
 6. Fences in side or rear yards which abut an alley shall be allowed to be 8 feet in height. (Note: the Oregon State Building Code – as defined in State Statute –

- indicates that fences in excess of 7 feet in height require a building permit and may need to be professionally engineered).
7. Fences which encroach into the public right-of-way shall be treated as a nuisance and shall be subject to enforcement pursuant to Section 8.0805 of the City of Redmond Development Code.
 - B. Fences abutting a collector or arterial street shall comply with the following:
 1. In addition to the requirements for fences abutting a local street, fences located in side and rear yards that abut a collector or arterial public street shall in addition incorporate a minimum 5" wide square column every eight (8) feet along the fence with a cap added to the top of each column that is a minimum of a ½" larger in each direction and a minimum of 1" in height.
 - C. Fences not abutting a public street shall comply with the following:
 1. Fences located in the side or rear yards shall not exceed 8 feet in height. (Note: the Oregon State Building Code – as defined in State Statute – indicates that fences in excess of 7 feet in height require a building permit and may need to be professionally engineered).
 - D. No fence in any residential zone, except as exempted by Section 8.0340(5), shall be constructed with barbed wire, razor wire, or similar apparatus.
- ...
3. For any development undergoing land use review, any wood or vinyl fence bordering a street shall incorporate architectural elements in accordance with Section 8.0340(1)(A)(4) and/or (1)(B)(1) herein.
 4. All fences, regardless of zone or location, shall comply with the following requirements:
 - A. Fences fronting public streets shall provide one gate, opening, or other site access for emergency services use. For corner lots, only one opening along either the front or side yard frontage is required.
 - B. Fences shall not block the clear vision area and shall comply with the standards in RDC Section 8.0305.
 - C. Fences shall be constructed on private property, and shall not be located in public rights-of-way.
 - D. Fences shall be comprised of wood, vinyl, metal or other solid material that is able to be painted and/or maintained in structurally sound condition. All fences shall be maintained in a structurally sound condition and be free from exposed nails, screws, loose members, decaying materials or other similar conditions that can pose a hazard.

FINDING: The applicant's plans show fencing for each proposed residential unit's private yards. The proposed fencing is horizontal-slat, wood-screen fencing and will be no greater than 3.5 feet in height as measured from adjacent grade. Additionally, as shown on the applicant's plans, it appears that screen fencing will be used in the areas that units are adjacent to SW Helmholtz Way and SW Salmon Avenue. Fencing adjacent to SW Helmholtz Way shall incorporate a minimum 5" wide square column every eight (8) feet along the fence with a cap added to the top of each column that is a minimum of a ½" larger in each direction and a minimum of 1" in height.

ARTICLE I – ZONING STANDARDS > OFF-STREET PARKING & LOADING REQUIREMENTS

RDC Sections 8.0500-8.0510

8.0500 Off-Street Parking. Parking space requirements are based on the following standards according to the use (note: all required handicapped parking is included in the calculation derived parking standards within these charts). Manufacturing, warehousing, and other industrial uses may base the number of required parking spaces on the number of employees. When the number of employees is specified, persons counted shall be those working on the premises, including proprietors, during the largest shift at peak season.

Land Use	Standard: Unless Transportation Analysis supports other methods as approved by City Engineer
Residential	
All residential uses within the Downtown Overlay District	1 space per Dwelling Unit.
Apartments	2 sp / D.U.*; 1 sp / Mgr, 1 sp / 10 D.U.'s*
Bed and Breakfast	1 space per bedroom
Boarding House	1 space per bedroom
Caretaker, Watchman living on-site	2 spaces per dwelling unit
Cottage Developments	2 spaces per cottage
Guest Houses / Access. Dwellings	1 space per dwelling unit
Homeless Shelter	1 space per room, or 1 space per employee
Multi Family Complex (over 4 D.U.s)	2 sp / D.U.*; 1 sp / Mgr, 1 sp / 10 D.U.'s*
Multi Family Dwelling (incl. 3 & 4 plex)	2 sp / D.U.*
Res. Use other than Ground Floor	2 spaces per dwelling unit
Res. Use, Ground Floor < 25%	2 spaces per dwelling unit
Res. Care Facility (6 or more residents)	1 space per each 2 rooms
Res. Care Home (5 or less residents)	2 spaces
Single Family Dwelling	2 spaces per dwelling unit
Townhouse	2 spaces per dwelling unit
*Dwelling Unit	

FINDING: The proposed development is a multi-family complex that includes 89 dwelling units. Per this standard, this development will require 188 parking spaces [(2 spaces x 89 units) + (1 space for on-site management) + (1 space per 10 units)]. The applicant's plans show 195 spaces. This standard is met.

8.0505 Off-Street Parking and Loading. General provisions are as follows:

1. The provisions and maintenance of off-street parking and loading spaces is the continuing obligation of the property owner. Should the owner or occupant of any lot or building change the use to which the lot or building is sited, thereby increasing off-street parking or loading requirements, this section must then be complied with. Businesses within the Central Business District (C-2 zone) and Downtown Overlay District (DOD) shall be exempt from this provision if there is an existing building on the subject site that prevents the addition of on-site parking. Expansions of buildings in the C-2 and DOD zone must comply with this section.
2. Requirements for types of buildings and uses not specifically listed in these standards shall be determined by the Community Development Director or Hearings Body based upon the requirements for comparable uses listed.
3. In the event that several uses occupy a single structure or parcel of land, the total requirements for off-street parking shall be the sum of the net floor area requirements of the several uses computed separately.

FINDING: The proposed development will not have multiple uses; therefore, this standard is not applicable.

4. Owners of two or more uses, structures or parcels of land may agree to utilize jointly the same parking and loading spaces when the hours of operation do not overlap; provided that

satisfactory legal evidence is presented to the City in the form of deeds, leases or contracts to establish the joint use.

FINDING: The proposed development will not have multiple uses; therefore, this standard is not applicable.

5. Off-street parking spaces for dwellings shall be located on the same parcel with those dwellings, or written contract of agreement shall be provided to the City that expressly permits shared use of parking areas which are off site.

FINDING: As part of the proposed development, the applicant is proposing to create an additional lot. All but seven parking spaces will be located on proposed lot #1, the site of all dwellings. Proposed lot #2 will be under the same ownership as lot #1 with the seven parking spaces available to the entire multi-family complex development.

6. All required parking spaces shall be located not farther than 300 feet from the building or use they are required to serve, measured in a straight line from the building unless approved by the City Engineer.

FINDING: As shown on the applicant's plans, all proposed parking spaces are located no further than 300 feet from the use they are required to serve.

7. Required parking spaces shall be available for the parking of passenger automobiles of residents, customers, patrons and employees only, and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business or use.

FINDING: The Redmond Development Code parking space requirement for multi-family complexes is intended to provide for a reasonable number of parking spaces for onsite residences and guests' passenger automobiles. The applicant has stated that this standard will be enforced by the onsite property owner/management company.

8. In any zone, every building having a gross floor area of 10,000 square feet or more, which is to be occupied for manufacturing, storage, warehousing, goods display, retail sales, a hotel, a hospital, a mortuary, a laundry, dry cleaning establishment, or other uses similar requiring the receipt or distribution by vehicles or materials or merchandise, shall provide one off-street loading berth, plus one additional loading berth for each additional 20,000 square feet of gross floor area. Each loading berth shall be provided with paved access, driveways and surfacing in the same manner as for off-street parking, except that each space shall be 10 feet wide and 22 feet long with a height clearance of at least 14 feet. A sight-obscuring screen, berm, or landscaping shall conceal all loading areas from view from public streets or roads.
9. Interior loading docks, or loading areas or docks located inside buildings, shall be considered as being screened when securable by a powered overhead door that totally encloses the opening for vehicles being loaded / unloaded.
10. Loading and unloading of merchandise, equipment, etc. shall not be permitted from public streets or roads.

FINDING: Criterion 8, 9, and 10 above are not applicable.

11. On Street Parking Credits. The minimum requirement off-street parking spaces may be reduced by the number of on-street parking spaces that are allowed and constructed along the street frontage of the proposed development subject to approval by the City Engineer. On-street parking spaces counted toward meeting the parking requirements of a specific use may

not be used exclusively by that use but shall be available for general public use at all times. Signs or other actions that limit general public use of on-street spaces are prohibited.

FINDING: The applicant is not requesting on-street parking credits.

12. Common Parking Areas shall conform to city standards and shall be located within 220 feet of the land use.

FINDING: As shown on the applicant's plans, all proposed parking spaces are located no further than 220 feet from the use they are required to serve.

8.0510 Design and Improvement Standards for Parking Lots. The design and improvement standards for parking lots are:

1. Vehicle Parking Space Sizes and Bicycle Parking Requirements.
 - A. Each regular sized parking space or stall shall be governed by the requirements of Section 8.0515 and shall have a minimum width of 9 feet and a minimum length of 20 feet; must be individually accessible, paved, and shall be continuously maintained by the property owner.

FINDING: The applicant's plans demonstrate that parking spaces will be at least 9 feet in width, at least 20 feet in length, and individually accessible and paved.

- B. If desired by the applicant / owner, each compact parking space or stall shall be a minimum width of 8 feet and a minimum length of 18 feet.
 - C. A maximum of 30% compact spaces is permitted as required parking.

FINDING: The applicant is not proposing any compact parking spaces. The two criteria above do not apply.

- D. A securable parking space shall be provided for bicycles for each new commercial use. Credit for 1 vehicular parking space shall be given for each 5 bicycle parking spaces (up to 10 bicycle parking spaces / 2 vehicular parking spaces credit possible). However, parking lots containing fewer than 10 vehicular spaces are not eligible for credits, except in the **MUN and MUE** zone. Also, bicycle spaces shall not replace more than 20% of the required parking under any circumstance.

FINDING: The proposed project is not considered a commercial use. However, the applicant notes that there are 16 proposed bicycle racks throughout the development, totaling 32 securable bicycle parking spaces.

2. Except for parking in connection with single family or duplex dwellings, parking and loading areas adjacent to or within a residential zone or adjacent to any dwelling shall be screened with a sight-obscuring fence or planted screen of not less than three feet in height.

FINDING: The applicant's landscaping plans show that parking areas adjacent to or within a residential zone or adjacent to any dwelling will be screened with a sight-obscuring fence or planted screen of not less than three feet in height.

3. Parking spaces between pavement and landscaping shall be contained by a bumper rail or by a curb which is at least four inches high and which is set back a minimum of one and one-half feet from the property line.

FINDING: The applicant has stated the proposed parking will be separated from the landscaping with either a six-inch-high concrete curb, or a six-inch-high concrete sidewalk. The applicant's plans show all proposed parking spaces at least one and one-half feet from the property line.

4. Exterior Artificial lighting of any type shall not shine or create glare in any dwelling, property, or onto any public right of way.

FINDING: The applicant understands this standard and will comply with this standard. Furthermore, exterior lighting is address under Section 8.0330 of this staff report.

5. Access aisles shall be of sufficient width to permit easy turning and maneuvering. In no case shall access aisles be less than 20' in width. Any access aisle less than 24' in width shall provide "no parking / fire lane" striping or signage, or curbs painted red for "no parking". Further, any access aisle being used as backup room for parking spaces shall be no less than 24' wide.

FINDING: The applicant's plans show that all access aisles are at least 20 feet in width. Per this standard, any access aisle less than 24 feet in width must provide "no parking / fire lane" striping or signage, or curbs painted red for "no parking."

6. Except for dwellings not required to undergo land use review, groups of more than two parking spaces shall be so located and served by a driveway that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley unless approved by the City Engineer.

FINDING: The proposed project will not necessitate backing or maneuvering of vehicles into the street right-of-way.

7. Service drives to off-street parking areas and internal access aisles shall be designed and constructed both to facilitate the flow of traffic and to provide maximum safety for vehicles and pedestrians. Pedestrian pathways shall be clearly differentiated from vehicular drive aisles on site and may be required to be physically separated from vehicular drives or aisles to ensure pedestrian safety. The number of service drives shall be limited to the minimum that will accommodate anticipated traffic.

FINDING: The applicant's plans show pedestrian pathways throughout the development that connect to adjacent sidewalks of SW 42nd Street, SW Reindeer Avenue, SW 43rd Street, and SW Salmon Avenue. As noted by the applicant, these internal pedestrian pathways will be separated from driving surfaces by raised curb and proposed to be constructed with either concrete or pavers rather than asphalt, thus ensuring pedestrian safety. The applicant has proposed the minimum number of service drives needed to accommodate anticipated traffic.

8. Driveways shall have a minimum vision clearance area as described within RDC section 8.0305 and 8.0310, "Clear Vision areas".

FINDING: The applicant has denoted clear vision areas in all applicable locations as shown on the Site & Utility Plan. Furthermore, the applicant's landscaping plans illustrate that vegetation will not obstruct views in the clear vision areas.

9. The following standards shall apply to parking within industrial zones:
 - A. Parking shall not be allowed within 10 feet of a front yard property line or 5 feet of a side yard property line.

- B. Parking shall not be allowed on collectors or arterials when industrial zoning is contiguous to said street.

FINDING: The proposed project is not located within an industrial zone; therefore, this standard is not applicable.

ARTICLE II – LAND USE PROCEDURES > LAND USE ACTION
RDC Section 8.1305

8.1305 Action on Land Use Action Applications.

1. The Community Development Director or designee may decide upon a land use action application for other than a Comprehensive Plan amendment and zone change administratively either with prior notice, as prescribed under Section 8.1310, or without prior notice, as prescribed under Section 8.1315, or he may refer the application to the Hearings Body for hearing.

FINDING: Initial notices about the proposed project sent out to neighboring landowners in early December generated a lot of neighborhood interest. Therefore, staff made the decision to refer these project applications to the Redmond Urban Area Planning Commission for a public hearing and decision.

ARTICLE III – LAND DIVISION STANDARDS > INTRODUCTORY PROVISIONS
RDC Sections 8.2005 and 8.2010

8.2005 Purpose. In accordance with the provisions of Oregon Revised Statutes (ORS) Chapters 92 and 227, these standards set forth the minimum standards governing the approval of land development, including subdivisions and partitions, as necessary to carry out the Redmond Urban Area Comprehensive Plan and to promote the public health, safety and general welfare. The purposes of these provisions and regulations are to:

1. Encourage well planned subdivision and partition development to the end that good livable neighborhoods with all needed amenities and community facilities may be created.
2. Encourage development in harmony with the natural environment and within resource carrying capacities.
3. Safeguard the interest of the public, the developer and the future lot owner – the Community.
4. Improve land records and boundary monumentation.
5. Insure equitable processing of subdivision and partition plats, and accomplish to the greatest extent possible the goals and objectives of the Comprehensive Plan for the Redmond Urban Area.
6. Provide for orderly and efficient urban development and coordinate development with public facility and service plans and capabilities.
7. Promote and maximize the conservation of energy by preserving the option to utilize solar energy and to implement the Comprehensive Plan policies relating to solar energy by encouraging the design of new developments to protect future options to use solar energy by providing for and protecting solar access in the following ways:
 - A. By regulating the orientation of streets, lots, and parcels;
 - B. By the placement, height and bulk of buildings;
 - C. By the placement and growth of vegetation; and,
 - D. By preserving options for other alternative energy sources, such as wind, that may be available and necessary in the future.

8.2010 Interpretation. No person may subdivide or partition land within the City of Redmond except in accordance with ORS Chapter 92 and the provisions of these standards. The provisions of these standards shall be construed to affect the purposes set forth in Section 8.2005 of these standards. These provisions are declared to be the minimum requirements fulfilling such objectives, and, as deemed necessary through the land use review and decision process, the City may impose additional requirements to promote the health, safety and general welfare, and to carry out the Comprehensive Plan of the City. Where conditions set forth herein are less restrictive than comparative conditions imposed by any other provision of these standards, by provision of other applicable local ordinance, resolution or regulation, or by provision of state statute or administrative regulation, the more restrictive shall govern.

FINDING: The proposed partition is created to fulfill the conditions of these code sections.

ARTICLE III – LAND DIVISION STANDARDS > GENERAL PROVISIONS
RDC Sections 8.2100 – 8.2110

8.2100 Procedure. All subdivisions, partitions and other land use actions subject to the provisions of this Chapter shall be processed in accordance with Article 2, Land Use Procedures, of the City of Redmond Development Code.

FINDING: This application is being processed in accordance with Article II, Land Use Procedures as described in the body of this report.

8.2105 Scope of Regulation. Before a plat of any subdivision or partition may be recorded, the person proposing the subdivision or the partition, or an authorized agent or representative, shall make an application in writing to the Redmond Community Development Department for approval of the proposed subdivision or partition in accordance with the requirements and procedures established by these standards.

FINDING: This staff report accompanies the application for tentative partition approval.

8.2110 Minimum Standards. No proposed subdivision or partition shall be approved unless it complies with the density requirements of the Comprehensive Plan for Redmond, the applicable Zoning Standards, these standards, and ORS Chapter 92.

FINDING: These applicable standards are addressed in the body of this staff report.

ARTICLE III – LAND DIVISION STANDARDS > LAND PARTITIONING
RDC Sections 8.2400 – 8.2415

8.2400 Applicability of Regulations. All proposed land partitions within the City shall be approved by the City. Approval shall only be granted in accordance with the provisions of these standards. Provided, however, the Community Development Director or designate may refer any partition to the Hearings Body for a hearing and decision.

8.2405 Filing Procedures and Requirements.

1. Any person or an authorized agent or representative, proposing a land partitioning, shall prepare and submit three (3) copies of the documents hereinafter described, in accordance with the prescribed procedures, and the appropriate filing fee, to the Community Development Department.
2. The tentative plat or preliminary drawing shall include the following:

- A. A vicinity map locating the proposed partitioning in relation to adjacent subdivisions, roadways and adjoining land use and ownership patterns. The map must include names of all existing roadways shown therein.
- B. A plan of the proposed partitioning showing tract boundaries and dimensions, the area of each tract or parcel, locations of all easements, and the names, rights-of-way widths and improvement standards of existing roads.
- C. Names and addresses of the landowner, the applicant (if different), a mortgagee if applicable, the engineer or surveyor employed or to be employed to make necessary surveys and prepare the legal descriptions of each parcel to be created, and record owners of land contiguous to the proposed partition. If the application is filed by anyone other than the owner of record, a letter or other evidence of the owner's permission to file the application.
- D. A statement regarding contemplated water supply, sewage disposal, solid waste disposal, fire protection and access, etc.
- E. North point, scale and date of tentative plat preparation, and property identification by tax lot, section, township and range.
- F. Statement regarding past, present and intended use of the parcels to be created, or the use for which the parcels are to be offered.
- G. If a tract of land has water rights, the application shall be accompanied by a water rights division plan approved by the irrigation district or other water district holding the water rights, or when there is no such district, by the County Watermaster.
- H. Location of all existing buildings, canals, ditches, septic tanks and drain fields, wells and utility lines.
- I. Location of any topographical features which could impact the partition, such as canyons, bluffs, rock outcroppings, natural springs and flood plains.
- J. Location, width, name, curve ratio and approximate grade of all proposed rights-of-way.

FINDING: The applicant has provided a Tentative Plat, March 18, 2022 (Exhibit A). The applicant has provided enough information to show compliance with these standards.

8.2410 Requirements for Tentative Partition Approval.

- 1. No application for partitioning shall be approved unless the following requirements are met:
 - A. Proposal is in compliance with ORS Chapter 92, the Transportation System Plan (TSP) and applicable zoning.

FINDING: The proposal is in compliance with ORS Chapter 92, the Transportation System Plan (TSP) and applicable zoning. This standard is met.

- B. Proposal does not conflict with acquired public access easements within or adjacent to the partition.

FINDING: The Central Oregon Irrigation District's (COID) B Lateral Waste has an easement of 50 feet and traverses the subject property. The applicant shall contact COID for additional discussion and requirements for the quitclaim process.

- C. Each parcel is suited for the use intended or offered.

FINDING: The proposed parcels are suited for the use intended or offered. Ultimately, the need to create proposed parcel #2 is so that the existing SW 42nd Street can connect to SW Reindeer Avenue – a requirement of the proposed development. Furthermore, proposed parcel #2 will be under the same ownership as proposed parcel #1, site of the proposed multi-family complex development. Proposed

parcel #2 will be the site of onsite management and maintenance buildings and additional parking. This standard is met.

- D. The partition will not exceed the operational capacity of public facilities and services as identified in the city's Water and Wastewater Master Plan and the Transportation System Plan, which are required to serve the development, or a determination that sufficient capacity can be provided.

FINDING: The proposed partition will not exceed the operational capacity of public facilities and services as identified in the City's Water and Wastewater Master Plan and TSP. This standard is met.

- E. A water rights division plan has been approved by the applicable irrigation district.

FINDING: There are no existing water rights for the subject property, therefore, this standard is not applicable.

- F. The partition contributes to orderly development and land use patterns in the area. Orderly development and land use patterns in general is development that:
 - i. Is consistent with zoning district's density requirements;

FINDING: The proposed partition is needed to extend SW 42nd Street as part of the applicant's proposed multi-family complex development. Together, these land use applications will contribute to orderly development and land use patterns in the area as the proposed multi-family complex will comply with the R-4 zoning district's density requirements. Additionally, although a multi-family complex development, the majority of residential units will be detached.

- ii. Does not overtax supporting public facilities and services and logical extensions thereof;

FINDING: The proposed partition will not overtax supporting public facilities and services. The proposed partition will enable the extension of SW 42nd Street to connect SW Quartz Avenue to SW Reindeer Avenue. All adjacent streets will be brought up to City standards as a result of the proposed partition and development. The proposed development associated with the proposed partition will utilize existing streets and City Engineering has reviewed the applicant's Transportation Impact Analysis and concludes that the intersection of SW 39th Street/SW Reservoir Drive shall be studied as well as traffic volume estimates provided for the proposed right-angle eyebrow corner at SW Reindeer Avenue and SW 43rd Street.

- iii. Provides for continued maintenance of supporting facilities and services;

FINDING: The proposed partition will provide for continued maintenance of supporting facilities and services through the payment of system development charges at time of building permit.

- iv. Recognizes topographical limitations;

FINDING: The proposed partition does not have any topographical limitations.

- v. Is consistent with existing land use patterns and development;

FINDING: The proposed partition will result in a multi-family complex development adjacent to detached single-family and two-family developments, and an approved proposed cottage development.

The majority of the proposed multi-family development's structures will be detached and resemble a cottage-style development.

- vi. Does not foreclose future development opportunities on adjacent undeveloped or under-developed lands; and,

FINDING: The proposed partition will not foreclose future development opportunities on adjacent undeveloped or under-developed lands.

- vii. Is consistent with applicable Great Neighborhood Principles described in Section 8.0300 (3)(C)(13) and adopted Area Plans.

FINDING: This exact standard is more appropriately addressed later in this staff report under Section 8.3035(3)(D).

- G. Provides for the preservation of natural features and resources such as streams, lakes, natural vegetation, special terrain features.

FINDING: The subject property does not include significant natural features. There are a number of existing trees located primarily in the area of proposed parcel #2. The majority of these will need to be removed to accommodate infrastructure and development.

- 2. Access Management proposals comply with the standards set forth in Section 8.2460 - 2499.

FINDING: This standard is addressed later in this staff report under Section 8.2820.

- 3. The Hearings Body may approve an application for partitioning having the effect of creating more than three (3) parcels without subdividing provided that the partition complies with all applicable subdivision standards and criteria.

8.2415 Improvement Requirements.

- 1. In the approval of a land partition, the Community Development Director or Hearings Body shall consider the need for street and other improvements, and may require as a condition of approval any improvements that may be required for a subdivision under the provisions of these standards. All streets in partitions shall be dedicated to the public without reservation or restriction.
- 2. Private Alley Access. The Community Development Director or Hearings Body may require the applicant to improve a private alley access easement serving two or more parcels according to the adopted City of Redmond Public Works Standards and Specifications, as amended.
 - A. Such access easements shall include provisions for permanent, long-term maintenance, including maintenance measures to be employed; responsible parties; funding; design; timing; and, enforceability. These provisions shall be included as recorded Covenants, Conditions and Restrictions (CCR's) appurtenant to the affected properties.
- 3. The partitioner shall record the required (including but not limited to) land division agreement, public improvement agreement, shared access agreement or shared well agreement with the Deschutes County Clerk's office at the time of recording of the final partition plat.
- 4. Paved access is guaranteed to each parcel.
- 5. Each parcel within the City limits is to be connected to the City sewage system when reasonably available.
- 6. All required public utilities are available.

FINDING: The proposed parcel will have access to the required utilities. As shown on the proposed tentative partition plat, SW 42nd Street will bisect the existing lot, thus necessitating the creation of parcel #2. The extension of SW 42nd Street and associated 60-foot right-of-way will be dedicated to the public.

ARTICLE III – LAND DIVISION STANDARDS > DESIGN STANDARDS & IMPROVEMENTS
RDC Sections 8.2700 – 8.2720

8.2700 Compliance Required.

1. Any land division or development shall be in compliance with the design and improvement standards and requirements of this section, and all other applicable provisions, as set forth in this Chapter.

8.2705 Blocks, Lots and Parcels.

1. Blocks. The resulting or proposed length, width and shape of blocks shall take into account the requirements for adequate building lot sizes, street widths, access needs and topographical limitations.
 - A. No block shall be more than 660 feet in length between street center lines unless it is adjacent to an arterial street, or unless topography or the location of adjoining streets justifies an exception, and is so approved by the reviewing authority. In MUN, MUE and MULW zones, block lengths shall be an average of 330 feet, except where required to meet grid street or access management requirements.
 - B. The recommended minimum length of a block along an arterial street is 1,320 feet, except that along such blocks, a public right-of-way for pedestrian and bicycle access shall be dedicated at or nearest the mid-point of the block length as is practical. The right-of-way shall be a minimum of 10 feet wide, with an all weather surface a minimum of 5 feet wide, constructed and centered within the right-of-way.
 - C. A block shall have sufficient width to provide for 2 tiers of lots unless topography, the location of adjoining streets, or adjacency to an arterial street justifies an exception.
 - D. Where appropriate at approved cul-de-sacs, dead-end streets, or along blocks approved at more than the maximum block length standard, pedestrian and bicycle access corridors shall be required to be constructed between lots to minimize travel distance between subdivisions, parks, school, and collector or arterial streets. Access corridors shall be located to provide a reasonably direct connection between likely pedestrian destinations, and shall be consistent with the City of Redmond Bicycle Refinement Plan where applicable. A reasonably direct connection is a route which minimizes out of direction travel for people likely to use the connection considering terrain, safety and likely destination. The Community Development Director or Hearings Body may determine based on evidence in the record that construction of a separate access corridor is inappropriate or impractical. Such evidence may include but is not limited to:
 1. When the nature of abutting existing development makes construction of an access corridor impractical.
 2. When the access corridor would cross a natural area with significant natural habitat and construction would be incompatible with protection of natural values.
 3. When the access corridor would cross topography where slopes exceed 30% or where path grade would exceed 12% slope; or

4. When a cul-de-sac or dead-end street abuts rural resource land at the urban growth boundary. In industrial zones, this standard may be waived at the discretion of the Community Development Director or Hearings Body when it is determined that the City's grid street standards should not be applied to the industrial development.

FINDING: The proposed partition will not be creating blocks; therefore, these criteria are not applicable.

2. Lots and Parcels. The size, width, and orientation of newly created lots and parcels shall be appropriate for the location of the land division and for the type of development and use contemplated. Lots and parcels shall be generally rectangular in shape, and shall be consistent with the lot size provisions of the zoning standards and the density requirements as established in the City of Redmond Comprehensive Plan. Notwithstanding these requirements, the following exceptions may apply:
 - A. In areas beyond the City Limits where public sewer is not currently available, minimum lot and parcel sizes shall permit compliance with the requirements of the Department of Environmental Quality and County sanitarian, and shall be sufficient to permit adequate sewage disposal. Any problems posed by soil structure and water table as related to sewage disposal by septic tank shall be addressed and resolved in the applicant's initial plan.
 - B. Where property is zoned and planned for business or industrial use, other widths and areas may be permitted by the Community Development Director or Hearings Body. Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street service and parking facilities required by the type of use and development contemplated.
 - C. In steep terrain, increased lot or parcel sizes may be required to avoid excessive cuts, fills, and steep driveways.

FINDING: The proposed partition will be creating lots that are appropriate for the intended use contemplated and is a requirement in order to extend SW 42nd Street. Proposed parcel #2 will not be rectangular in shape due to the required alignment of the SW 42nd Street extension. The proposed partition is located in city limits, is not zoned or planned for business or industrial use, and does not contain steep terrain. This standard is met.

3. Frontage. Each newly created lot and parcel shall abut upon a public street other than an alley for at least 50 feet, except for lots fronting on the bulb of a cul-de-sac, then the minimum frontage shall be 30 feet. Flag lots shall have no less than 20' of street frontage measured at the property line. Lots created as part of a Planned Unit Development shall meet the same frontage requirements listed herein, except such frontage may be allowed along private streets. Vehicular access shall be provided as specified in Section 8.2820, Access Management Standards, of this Chapter, or as specified in Section 8.2705(6) below, for residential lots and parcels abutting collector and arterial streets. All lot and parcels shall be addressed from the primary public street frontage, not including alleys.

FINDING: Each proposed lot meets the frontage standards as they each abut a public street for at least 50 feet. This standard is met.

4. Side Lot or Parcel Lines. All side lot lines shall be at right angles to street lines or radial to curved streets wherever practical except as provided for in subsection (10) of this section.

FINDING: The proposed partition has been designed to ensure that side lot lines are right angles to street lines or radial to curved streets. This standard is met.

5. Through/Double Frontage Lots and Parcels. Through lots or parcels, and lots or parcels with double frontage shall be avoided whenever possible, including lots or parcels created adjacent to Collector and Arterial Streets, but not including alley frontage as described in Section 8.2705(6) below, except when they are necessary due to an irregular parent lot or parcel configuration, or are necessitated by topography or other unique circumstance.

FINDING: There are no double frontage lots proposed. This standard is not applicable.

6. Residential Lots and Parcels Abutting Collector and Arterial Streets. Lots and parcels created adjacent to Collector and Arterial streets shall be oriented so that the front elevation of the residential development faces the Collector or Arterial Street. Vehicular access shall be provided pursuant to Section 8.2820, Access Management Standards, of this Chapter. In instances where direct vehicular driveway access to lot or parcel from the Collector or Arterial street is not permissible, alley access shall be provided to the rear of the lot or parcel in accordance with the design standards included in Section 8.2710(3) of this Chapter.

FINDING: The proposed newly-created parcel #2 does not abut a collector or arterial street. This standard is not applicable.

7. Corner Lots and Parcels. Corner lots and parcels shall be 5 feet more in width than other lots and parcels and also shall have sufficient extra width to meet the additional side yard requirements of the zoning district in which they are located.

FINDING: None of the proposed parcels are considered corner lots. This standard is not applicable.

8. Special Building Setback Lines. If special building setback lines, in addition to those required by the applicable zoning, are to be established in a development, they shall be shown on the final plat of the development and included in the deed restrictions.

FINDING: No special building setback lines are needed, proposed, or required. This standard is not applicable.

9. Large Building Lots: Re-division. In the case where lots or parcels are of a size and shape that future redivision is possible, the Community Development Director or Hearings Body may require that the blocks be of a size and shape so that they may be redivided into building sites, and the development approval and site restrictions may require provision for the extension and opening of streets at intervals which will permit a subsequent redivision of any tract of land into lots or parcels of smaller sizes than originally platted, and in conformance with the density provisions established in the City of Redmond Comprehensive Plan for the existing or intended Zone. A plan indicating the ability for re-division according to these standards may be required as part of the initial land division process.

FINDING: The purpose of the proposed partition is to development a multi-family complex – numerous dwelling units located on one lot. Therefore, it is not anticipated that proposed parcel #1 will, or need to be, further divided. This standard is met.

10. Solar Access. As much solar access as feasible shall be provided each lot and parcel in every new subdivision or partition considering topography, development pattern, and existing vegetation. The boundary lines of lots and parcels, as far as feasible, shall be oriented to provide solar access at ground level at the southern building line of the adjoining lot to the north two hours before and after the solar zenith from September 22 to March 21. If it is not feasible to provide solar access to the southern building line the solar access, if feasible, shall be

provided at 10 feet above ground level at the southern boundary line two hours before and after the solar zenith from September 22 to March 21, and three hours before and after the solar zenith from March 22 to September 21. This solar access shall be protected by solar height restrictions on burdened properties for the benefit of lots receiving the solar access pursuant to Section 8.0370, of the City of Redmond Development Code, Solar Access Standards. If the solar access for any lot, either at the southern building line or at 10 feet above the southern building line, is not feasible, supporting information may be required with the application.

FINDING: The proposed partition is needed to develop a multi-family complex. Per Section 8.3035(4)(E)(2) of the Redmond Development Code, multi-family complexes are exempt from solar setback requirements.

11. Curvilinear Street and Block Design. Although a basic grid street design with minimum and maximum block lengths are requirements of this section, a curvilinear street/block design is encouraged for the purpose of adding interest to new subdivision development.

FINDING: The proposed partition will result in the extension of SW 42nd Street in a curvilinear fashion. This standard is met.

12. Flag Lots. A flag lot shall be considered as a “flag lot” if the pole of the flag lot is less than half the width of the average lot width. For flag lots, the following shall be required:
 - A. Flag poles shall be no less than 20’ wide.
 - B. Flag lot development, if allowed by the zone, is limited to one duplex or single family dwelling per lot. All zone regulations apply, including the minimum required lot size and setbacks unless setback reductions are allowed as described in (E).
 - C. Each flag lot shall contain a minimum 16’ wide paved driveway.
 - D. A flag lot is exempt from the 50 foot street frontage requirement; however a minimum of 20 feet of street frontage is required.
 - E. Front and/or rear yard setbacks may be reduced to no less than 10’ subject to review and approval by the Community Development Director. The orientation of any structure (determination of front) may be suggested by the property owner, and is subject to the review and approval of the Community Development Director or designate. The location(s) of all structures immediately adjacent to any flag lot shall be shown on a site plan (1) during planning review and during the act of creating any new flag lot, and (2) during a building permit review for any structure built on a flag lot.
 - F. No flag lot shall be partitioned or further divided.
 - G. The “pole” of the flag lot shall be no longer than 150’ measured from the street intersection to the beginning of the base of the flag.
 - H. The “pole” of the flag shall not be included in the minimum lot size calculation.
 - I. Flag lots shall be exempt from street tree requirements unless the street frontage portion of the flag lot is 30’ or greater.
 - J. Flag lots are prohibited along or abutting the Dry Canyon Rim.
 - K. Two off-street parking spaces shall be provided for each dwelling unit on a flag lot.

FINDING: No flag lots are proposed with this partition, therefore, these standards are not applicable.

8.2710 Streets.

1. General. Streets shall be in conformance with the City of Redmond Transportation System Plan (TSP) as specified herein.

- A. Except along Arterial Street, public streets shall be spaced a maximum of 660 feet between centerlines. The purpose is to provide a street grid pattern of through streets to facilitate traffic movement. Street designs shall conform to topography and other existing natural and man-made conditions. Illustrative examples of other conditions include the dry canyon, main COI canal, Highway 97, and the Burlington Northern Railroad tracks.
- B. All proposed streets, sidewalks, bike lanes and pedestrian pathways shall connect to other streets, sidewalks bike lanes and pedestrian pathways within a development and to existing and planned streets, sidewalks, bike lanes and pedestrian pathways outside the development. Such facilities shall serve existing and planned parks, schools or other public lands within a neighborhood.
- C. To the maximum extent possible, new local streets shall align and connect with existing local streets and collectors, and in certain special cases arterial streets. Cul-de-sac streets shall be permitted only where no feasible connection with an adjacent street exists, or if the local street connection would be to an arterial street and the function of the arterial street may be diminished as determined through the land use review process, or the block length would be less than that which is permitted by Section 8.2705(1)(B).
- D. Consideration should be given to alternative street designs other than required herein in the City's non-residential land use zones to allow for more effective developments. Such designs may be considered and approved during the subdivision or partition process without need for variance.
- E. All proposed or required streets and alleys shall comply with Section 8.2820 Access Management Standards, the Transportation System Plan, and with Local Street Connectivity Plans adopted as part of the transportation element of the Comprehensive Plan.

FINDING: The applicant will extend SW 42nd Street as part of this partition and development and will improve all abutting public streets to City standards. Extending SW 42nd Street and improving existing abutting to City standards will ensure conformance with the City of Redmond Transportation Plan.

- 2. Existing Streets. Whenever existing streets, adjacent to or within a tract, are of inadequate width to accommodate the increase in traffic expected from the land division or by the City's transportation policies as determined through a transportation impact analysis, additional right-of-way shall be provided at the time of the land division by the applicant. During consideration of the tentative plat for the subdivision or partition, the Hearings Body shall determine whether the improvements to existing streets, adjacent to or within the tract, are required. If so determined, such improvements shall be required as a condition of approval of the tentative plat. Improvements to adjacent streets shall be required where traffic on said streets shall be directly affected by the proposed subdivision. Notwithstanding these provisions, off-site improvements to streets not within or adjacent to the development may be required when impacts resulting from the development necessitate such improvements as demonstrated through a transportation impact analysis.

FINDING: Refer to condition of approval #13 for complete detail and requirements regarding needed improvements to the adjacent existing streets.

3. Minimum Right-of-Way (ROW) and Roadway Width. The street right-of-way and roadway surfacing widths shall be in conformance with the standards as specified in Table 1 below:

Table 1 - City of Redmond Right of Way and Roadway Design and Cross-Section Standards

Functional Class	Width (ft)		Right-of-Way	Travel Lanes	Sidewalks	Bike Lanes**	Parking**
	Pavement Standard	Pavement (minimum)					
Residential Alley	16 ft		20 ft	n/a	none	shared	none
Commercial Alley	20 ft		20 ft	n/a	none	shared	none
Local Residential*****	36 ft		60 ft	2***	5 ft	shared	both sides (unstriped)
	28 ft*		60 ft	2***	5 ft	shared	one side (unstriped)
	24 ft*		60 ft	2***	5 ft	shared	none
Local Industrial	40 ft	38 ft	60 ft	2***	5 ft	shared	optional (unstriped)
Industrial Collector	40 ft	38 ft	80 ft	2	5 ft	6 ft	none
Minor Collector	40 ft	36 ft****	60 ft	2	5 ft	shared	both sides (8 ft)
Major Collector	36-50 ft	36 ft****	80 ft	2	5 ft	6 ft	none
Minor Arterial (3-lane)	50 ft	48 ft	100 ft	3	7 ft	6 ft	none
Minor Arterial (5-lane)	74 ft	72 ft	100 ft	5	7 ft	6 ft	none

Notes:

*May be constructed only in conjunction with the creation of covenants, conditions and restrictions (CCR's) and the establishment of a homeowners association (HOA) for the development. The CCR's shall provide that the primary responsibility for parking enforcement shall be the HOA, with the City of Redmond also being acknowledged in the CCR's as a beneficiary for such parking enforcement as a violation of the land use decision and/or city code.

**In certain cases, bike lanes may be reduced to 5 ft, parking may be reduced to 7 ft, and travel lanes to 11 ft at the discretion of the City Engineer.

***Unstriped travel lanes

****36 ft in existing built-out areas

*****All streets less than 28 feet wide shall be no longer than 300 feet in length, unless such streets include at least one (1) parking bay per lot, located along each lot frontage for the entire length of such street, up to the maximum block length. Streets 300 feet or less in length shall not have any direct driveway access. In no case shall any street less than 28 feet wide intersect with any other street less than 28 feet wide.

FINDING: Refer to condition of approval #13 for complete detail and requirements regarding needed right-of-way and surfacing widths of proposed SW 42nd Street extension and improvements to the adjacent existing streets.

4. Future Extension of Streets. When necessary to give access to or permit a satisfactory future division of adjoining land, streets shall be extended to the boundary of the subdivision or partition and the resulting dead-end streets may be approved without a permanent turn around if they are 150 feet or less in length, although, an adequate temporary turn around to ensure emergency vehicle access must be provided if such streets are greater than 150 feet in length.

FINDING: Future extension of streets are not applicable to this proposed partition.

5. Collector and Arterial Street Access. Notwithstanding the provisions of Section 8.2705 of this Chapter, if a land division abuts or contains an existing or proposed collector or arterial street, the Community Development Director or Hearings Body may require other treatments, including but not limited to frontage roads, necessary for adequate protection of residential properties and to afford separation of through and local traffic. Provision may be made for emergency access. All frontage roads shall comply with the City of Redmond Transportation System Plan.

FINDING: Although proposed parcel #1 abuts collector (SW Salmon Avenue) and arterial (SW Helmholtz Way) streets, the proposed parcel will be developed as a multi-family complex on one lot and will have a single internal access for the development. This standard is met.

6. Streets Adjacent to Railroads, Freeways and Parkways. When the area to be subdivided or partitioned is residentially zoned and abuts a railroad, freeway, or parkway, a provision may be required for a street approximately parallel to and on each side of such right-of-way at a distance suitable for use of the land between the street and railroad, freeway or parkway. In the case of a railroad, there shall be a land strip of not less than 25 feet in width adjacent and along the railroad right-of-way for screen planting between the railroad right-of-way and residential property. If the intervening property between such parallel streets and a freeway or a parkway is less than 80 feet in width, such intervening property shall be dedicated to park or thoroughfare use. The intersections of such parallel streets, where they intersect with streets that cross a railroad, shall be determined with due consideration as cross streets of a minimum distance required for approach grades to a future grade separation and right-of-way widths of the cross street.

FINDING: The proposed partition does not contain streets adjacent to railroads, freeways or parkways; therefore, this standard is not applicable.

7. Continuation of Streets. Subdivision or partition streets which constitute the continuation of streets in contiguous territory shall be aligned so that their center lines coincide. Where straight line continuations are not possible, such center lines shall be continued as curves. These streets or the continuation of streets in contiguous territory may be required by the Community Development Director or Hearings Body where such continuation is necessary to maintain the function of the street or desirable in the surrounding area. Where solar orientation would not be possible if the street area continued, a new pattern may be started that is solar oriented.

FINDING: The proposed extension of SW 42nd Street will comply with this standard.

8. Lot Layout. Local residential streets should be oriented on an east/west axis to the greatest possible extent to insure solar access for lots within the subdivision or partition.

FINDING: The proposed partition will extend SW 42nd Street and must extend it south from its current location in order to connect to SW Reindeer Avenue. This standard is met.

9. Street Names. Except for extensions of existing streets, no street name shall be used which will duplicate or be confused with the name of an existing street in a nearby city or in the county. Street names and numbers shall conform to the established pattern in the City, including the continuation of street names across intersecting streets, and shall be subject to the approval of the Fire Department or the responsible agency.

FINDING: With exception of the proposed SW 42nd Street extension, no other new streets are being proposed as part of this partition.

10. Sidewalks. Sidewalks are required to be installed on both sides of a public street and in any special pedestrian way within the subdivision or partition except that in the case of collectors, arterials, special industrial districts or in steep terrain, the Hearings Body may approve a subdivision or partition without sidewalk if alternative pedestrian routes are available or provided by the developer. Sidewalks shall be required along routes to existing or future school and park sites.

FINDING: As outlined in condition of approval #13, sidewalks shall be installed on both sides of the SW 42nd Street extension and along the subject parcels' existing street frontages.

11. Bicycle Routes. If appropriate to the extension of a system of bicycle routes, existing or planned pursuant to the City of Redmond Bicycle Refinement Plan, the Community Development Director or the Hearings Body may require the installation of separate bicycle lanes within streets and/or separate bicycle paths.

FINDING: As stated in the applicant's transportation impact analysis, the cycling network is somewhat limited within this developing area as the roadway network system has not been fully developed. This proposed partition will not require installation of separate bicycle lanes within streets and/or separate bicycle paths.

12. Intersection Angles. Street intersections shall be as near right angles as possible except where topography or existing conditions requires a lesser angle, but in no case shall the acute angle be less than as permitted by the adopted City of Redmond Public Works Standards and Specifications.

FINDING: All proposed intersections are as near right angles as possible. This standard is met.

13. Alignment. Staggered street alignment shall whenever possible leave a minimum of 200 feet distance between the center line of the streets, but in no case be less than as permitted by Standards and Specifications.

FINDING: No staggered street alignments are being proposed as part of the proposed partition.

14. Narrow Streets. Local residential grid streets designed at widths less than 36 feet as described in Section 8.2710(3)(Table 1), shall be permitted when the subdivision design is found to be in compliance with the following:
 - A. Narrow streets may only be permitted for continuous full length blocks internal to a Subdivision or Planned Unit Development with street connections at both ends.
 - B. Lots adjoining the narrow streets shall be a minimum of 5000 square feet and have a street minimum 50 feet of frontage.
 - C. Sidewalks shall be separated from the curb by a landscape strip with street trees conforming with Public Works Standards and Specifications.
 - D. Curb cuts along the narrow street shall not be less than the minimum width required within the adopted City of Redmond Public Works Standards and Specifications.

FINDING: No narrow streets are being proposed as part of the proposed partition. The extension of SW 42nd Street will meet local grid street City standards, designed with a pavement width of 36 feet.

8.2715 Fundamental Design Elements.

1. Lighting. The subdivider or partitioner shall provide underground wiring to the City standards and a base for any proposed ornamental street lights at locations approved by the affected utility company.

FINDING: No street lighting is proposed or required with this proposed partition.

2. Multiple Access Points. Whenever possible, a minimum of two points of access to the subdivision or partition shall be provided to provide assured access for emergency vehicles and ease resident evacuation.

FINDING: The proposed parcel #1 will have four access points and the proposed parcel #2, 0.24-acres in size, will have one access point. This standard is met.

3. Water/Sewer. All subdivisions and partitions shall provide water and sewer lines constructed to City standards and specifications approved by the City Engineer. All lots or parcels shall be served from the City of Redmond water and sewer systems or by water and sewer systems acceptable to the City. Water and sewer mains and service lines shall be installed prior to the curbing and paving of new streets in all new subdivisions or partitions.

FINDING: Public water and sewer mains shall be extended in SW 42nd Street as proposed for service to each new parcel. The development will contain private interior water and sewer systems that connect to the public mains.

4. Underground Utilities. All permanent utility service and minor power transmission lines that are within or immediately adjacent to lots in a subdivision or parcels in a partition shall be provided from underground facilities unless otherwise approved by the CDD Director or Hearings Body. The subdivider or partitioner or developer shall be responsible for complying with requirements of this section and shall:
 - A. Obtain a permit from the Public Works Director or designee for placement for all underground utilities within the public right-of-way.
 - B. Make all necessary arrangements with the utility companies and other persons or corporations affected by the installation of such underground utilities and facilities in accordance with rules and regulations of the Public Utility Commission of the State of Oregon.
 - C. All underground utilities, water lines, sanitary sewer lines and storm drains installed in streets shall be constructed prior to the surfacing of such streets to the extent practicable, and water and sanitary sewer service lines shall be placed to such lengths as will negate the necessity for disturbing the street improvements when service connections are made.

FINDING: All necessary underground utilities will be installed underground consistent with City standards.

5. Preservation of Natural Features. Existing trees, vegetation and natural features (i.e. rock outcrops) add character to the development and shall be preserved to the greatest extent practicable. All trees over 8 inches d.b.h. shall be noted and shown on the tentative plat.

FINDING: As shown on the applicant's landscaping plan, a number of existing trees will be retained and for those that cannot be retained, replacement trees will be planted on-site.

6. Scenic Views. Significant views shall be taken into consideration during subdivision design. The establishment of view corridors, building envelopes, building height restrictions or similar methods shall be employed for the retention and protection of views from individual lots and from public spaces to the greatest degree practicable as determined through the land use review process. Such measures shall be shown on the final plat and included in deed restrictions.

FINDING: The proposal is a simple partition, creating an additional parcel of 0.24 acres in size. The creation of an additional parcel is needed in order to extend SW 42nd Street and will have no impact in terms of preserving scenic views.

7. Land for Public Purposes.

- A. If the City has an interest in acquiring a portion of a proposed development for a public purpose, it shall notify the property owner as soon as the City Council authorizes the transaction to proceed.
- B. Within a development, or adjacent to a development in contiguous property owned by the developer, a parcel of land of not more than 5% of the gross area of the development may be required to be set aside and dedicated to the public for parks and recreation purposes by the developer. The parcel of land, if required, shall be determined to be suitable for the park and/or recreation purpose(s) intended, and the city may require the development of the land for the park or recreation use intended or identified as a need within the community.
- C. In the event no such area is available that is found to be suitable for parks and/or recreation uses, the developer may be required, in lieu of setting aside land to pay to the appropriate parks and recreation agency a sum of money equal to the market value of the area required for dedication, plus the additional funds necessary for the development thereof if so required; if such is required, the money may only be utilized for capital improvements by the appropriate parks and recreation agency.
- D. The foregoing land and development or money dedication (if require) may be provided for in lieu of an equal value of systems development charge assessment for parks if so approved by the collecting agency in accordance with the applicable provisions of the system development charge ordinance. If the collecting agency will not permit the land or money dedication in lieu of an applicable systems development charge, then the land and development or money dedication shall not be required.
- E. If the nature and design, or approval, of a development is such that over 30% of the tract of land to be developed is dedicated to public uses such as streets, water or sewer system facilities and the like, then the requirements of this subsection shall be reduced so that the total obligation of the developer to the public does not exceed 30%.

FINDING: The subject property or a portion thereof, has not been identified as land for public use. This standard is not applicable.

8. Easements.

- A. Utility Easements. Easements shall be provided along property lines when necessary for the placement of underground utilities and to provide the subdivision or partition with electric power, communication facilities, street lighting, sewer lines, water lines, gas lines, or drainage. Such easements shall be labeled "Public Utility Easement" on the tentative and final plat; they shall be at least 12 feet in width and centered on lot lines where possible, unless determined otherwise by the City Engineer or designate. Excepting utility pole guylines easements along the rear of lots adjacent to unsubdivided land may be reduced to 10 feet in width, unless determined otherwise by the City Engineer or designate.

FINDING: City Engineering is requiring a 5-foot minimum width PUE along all street rights-of-way. The applicant shall ensure that "Public Utility Easement" is labeled for all PUEs on the tentative partition plat and final plat.

- B. Drainage. If a tract is traversed by a water course, such as a drainage way, channel or stream, there shall be provided a stormwater easement or drainage right-of-way conforming substantially with the lines of the water course or in such further width as will be adequate for the purpose. Streets or parkways parallel to major water courses and drainage ways may be required.

FINDING: There are no water courses on the subject property. This standard is not applicable.

8.2720 Grading of Building Sites. Grading of building sites shall conform to the following standards unless physical conditions demonstrate the propriety of other standards:

1. Cut slope ratios shall not exceed one foot vertically to one and one-half feet horizontally.
2. Fill slope ratios shall not exceed one foot vertically to two feet horizontally.
3. The composition of soil for fill and the characteristics of lots and parcels made useable by fill shall be suitable for the purpose intended.
4. When filling or grading is contemplated by the subdivider or partitioner, they shall submit plans showing existing and finished grades for the approval of the City Engineer. In reviewing these plans, the City Engineer shall consider the need for drainage and effect of filling an adjacent property. Grading shall be finished in such a manner as not to create steep banks or unsightly areas to adjacent property.
5. Any land that requires engineered fill shall be so noted on the plat. Design and placement of engineered fill shall be under the direction of a licensed professional engineer.

FINDING: The City Engineering Department has reviewed this application as it relates to grading and drainage. Grading and drainage are identified as a condition of approval for the project. The applicant can meet this standard by complying with said condition of approval.

ARTICLE III – LAND DIVISION STANDARDS > SUPPLEMENTARY PROVISIONS
RDC Sections 8.2800 – 8.2825

8.2800 Improvement Procedures. In addition to other requirements, public or private improvements to be installed by the applicant either as a requirement of these standards or other applicable regulations or at his own option, shall conform to the requirements of this article:

1. Plan Review and Approval. Improvement work shall not be commenced until plans thereof have been reviewed and approved by the Community Development Director or Hearings Body or a designated representative thereof. To the extent necessary for evaluation of a proposed development, such improvement plans may be required before approval of the tentative plat or preliminary map or drawing.
2. Public Improvements as Platted. Public improvements shall be designed, installed and constructed as platted and approved by the City Engineering Division, and plans shall be filed with the final plat at the time of recordation or upon completion.
3. Inspection. Improvements shall be constructed under the inspection and approval of a city Inspector. Expenses incurred thereby shall be borne by the applicant/owner. The inspector may require changes in sections and details of the improvements if unusual conditions arise during construction to warrant such changes.
4. As-Built Plans. A map showing the completed public improvements shall be filed with the Community Development Department upon completion of the improvements.

FINDING: The applicant can meet these standards by complying with the conditions of approval.

8.2805 Improvements in Partitions. The same improvements may be required to be installed to serve each building site of a partition as are required of a subdivision.

8.2810 Acceptance of Improvements. Improvements shall be considered for acceptance after final inspection, after the improvements have been completed.

FINDING: Other than items which are already conditioned or proposed, no other public improvements are required as a part of this project. These standards are not applicable.

8.2815 Transportation Impact Analysis. It shall be the burden of the developer to evaluate transportation system impacts through studies prepared by a qualified registered professional engineer. When a transportation impact analysis is required it must demonstrate that the following standards are met:

1. The standard of measurement that will determine the acceptability of traffic flow on City streets will be a delay-based level of service as defined by the Highway Capacity Manual, Special Report 209, third Edition (2000 update or subsequent document updates) published by the Transportation Research Board. The determination of LOS shall be calculated by a methodology that is approved by the City Engineer. The acceptable standard of LOS for City streets shall be LOS E during the peak 15 minutes of the peak hours of the average weekday. A lesser standard shall be acceptable at unsignalized intersections with low volume minor street approaches if the volume-to-capacity ratio is less than 0.90 and the 95th percentile vehicle queue is less than four vehicles during the peak hour.
2. The Average Daily Traffic (ADT) volume of Local Street roadways within the City of Redmond shall be less than 1,200 vehicles per day (VPD). Developments which add vehicle trips to Local Streets with an ADT greater than 1,200 VPD may be asked to provide mitigation in the form of additional access to the site, when in the opinion of the City Engineer, the residential livability is degraded by excessive local street traffic volume.
3. New development that will cause degradation below those levels shall be required to provide mitigating transportation system improvements that will restore the LOS to the accepted standard, as is practical, as determined by the City Engineer and pursuant to the adopted City of Redmond Transportation System Plan. Where there are impacts to the State Highways, the City and ODOT shall work cooperatively to determine appropriate courses of action based on ODOT and City standards.
4. The following vehicle trip generation thresholds shall determine the level and scope of transportation analysis required for a new or expanded development. Trip ends shall be calculated as per the Institute of Transportation Engineers manual, Trip Generation, 8th edition (or subsequent document updates), or local trip generation studies prepared by a qualified registered professional engineer and approved by the City Engineer. The City Engineer shall determine when a TIA has satisfied the requirements of the development's impact analysis. The TIA shall bear the stamp and signature of a qualified registered professional Engineer with a license valid in the State of Oregon.
 - A. If a proposed development will generate 200 or more daily trip ends, or 20 or more p.m. peak hour trip ends, then a Transportation Impact Analysis (TIA) shall be required.
 - B. Projects that generate less than 200 daily or 20 p.m. peak hour trip ends may also be required to provide a Transportation Impact Analysis (TIA) when, in the opinion of the City Engineer or his/her designee, significant capacity and/or safety problem is caused, or adversely impacted by the development. The City Engineer or designee, shall determine the scope of this analysis.
 - C. A development may be required to provide a Trip Generation Report for developments which generate less than 200 daily or 20 p.m. peak hour vehicle trips.
5. The impact analysis area shall include at a minimum, the following intersections:
 - A. All site access intersections
 - B. Nearest intersecting collector or arterial street upstream and downstream of the development.
 - C. Any other collector or arterial street intersection that would experience an increase of 25 additional peak hour trips.

- D. Additional intersections requested by staff in the basis of anticipated impacts resulting from the development.
6. The analysis shall include the following study time frames:
 - A. Existing conditions.
 - B. Completion year of each significant phase of development.
 - C. Five year forecast beyond final phase
7. The following Tables are required in the TIA:
 - A. Trip Generation (including phase breakdown if applicable)
 - B. LOS Table (LOS for every analysis scenario at every study area intersection. Report LOS, delay, V/C ratio, 95% vehicle queue, and any additional pertinent analysis results)
8. The following Figures are required in the TIA:
 - A. Vicinity Map
 - B. Site or Tentative Plan Map
 - C. Background Traffic Volumes (all study intersections, all analysis years)
 - D. Trip Distribution and Assignment
 - E. Background + Site Generated Traffic Volumes (all study intersections, all analysis years)
9. Other Analysis Standards (as required by the study)
 - A. Signal Warrants shall be performed where applicable per the Manual on Uniform Traffic Control Devices, current edition.
 - B. Left Turn Lane Warrants shall be provided where applicable per ODOT criteria based on the Texas Transportation Institute (TTI) curves.
 - C. Right Turn Lane Warrants shall be provided where applicable per ODOT criteria.
 - D. The acceptability of sight distance at all study area intersections shall be determined per AASHTO (current edition) standards.
 - E. Traffic signal progression analysis may be required if a new signal is proposed. The City Engineer shall approve the method of traffic signal progression analysis.
 - F. Roadway improvements are to be based on the City of Redmond Standards and Specifications and ODOT design standards.

FINDING: The applicant submitted a Traffic Impact Analysis (TIA) conducted by Transight Consulting, LLC, dated October 12, 2021. The TIA has been reviewed by City Engineering and will require additional information as outlined in condition of approval #13.

8.2820 Access Management Standards. All land divisions shall be in compliance with the following standards.

1. Driveway spacing and corner clearance as follows:

<u>Roadway Classification</u>	<u>Minimum Access Driveway Spacing</u>	<u>Minimum Access Clearance to Corner</u>	<u>Intersection Spacing (Min.)</u>
Local Street	No restrictions	30 feet	165 feet
Minor Collector	50 feet	80 feet	330 feet
Major Collector	165 feet	165 feet	330 feet
Minor Arterial	330 feet	330 feet	¼ mile
Major Arterial	ODOT Stds	ODOT Stds	ODOT Stds

FINDING: Driveway spacing and corner clearance standards are met.

2. In all instances, access near an intersection shall be located beyond the influence of standing queues and opposing left turns sharing a continuous two-way left turn lane. This requirement may result in greater corner clearance or access spacing than the minimum distance indicated.

FINDING: Proposed accesses near intersections meet this standard.

3. Every lot or parcel shall be permitted an access. In the event that the access management standards cannot be achieved, shared access with adjacent property shall be explored and provided where available.

FINDING: Both proposed parcels will be permitted access to adjacent streets. This standard is met.

4. Access shall be taken from the lower order street or alley unless otherwise approved by Public Works and/or ODOT through the land use process.

FINDING: All accesses in the proposed partition are proposed to be taken from local residential streets as well as SW Salmon Avenue, a minor collector. This standard is met.

5. Unless adequate demonstration of site necessity, intersection safety and functionality is provided, through the land use review process, new lots and/or parcels will be limited to a single vehicular access.

FINDING: Proposed parcel #2 will have one vehicular access and proposed parcel #1 will require four accesses based upon the need of the proposed multi-family development.

6. The access management standards apply to new development, redevelopment, subdivision and partitioning of land.

FINDING: Access management standards apply to the proposed partition.

7. Corner clearance is measured from the edge of right-of-way to the nearest edge of access. Spacing is measured from centerline of access/intersection to centerline of access/intersection.

FINDING: The proposed parcels are designed to be able to meet access management standards for local streets and a minor collector street. This standard is met.

8. Adequate intersection sight distance and clear zone shall be maintained at all access/driveway locations per AASHTO standards (American Association of State Highway and Transportation Officials).

FINDING: This standard was addressed, and recommendations issued in the applicant's traffic impact analysis. These will be addressed at the time the final engineering plan is submitted.

9. Public Works may require supporting information, including but not limited to traffic count data, trip generation, trip distribution, Transportation Impact Analysis study, etc., in order to make a proper determination of access/driveway location.
10. Access within the North Redmond US 97 Interchange Area Management Plan (IAMP) shall also conform to the "North Redmond US 97 Interchange Area Management Plan (IAMP)" provision of Chapter 9 Transportation Element of the Comprehensive Plan Addendum and Policy 12 n of Chapter 14 of the Comprehensive Plan.

FINDING: The proposed partition is not within the IAMP. This standard is not applicable.

8.2825 Street Dedications. Any person desiring to create a street not part of a subdivision or partition shall make written application to the Community Development Department.

1. Application. Said application shall be accompanied by the required information and appropriate filing fee. In cases where such dedication would have the effect of creating a land division, the dedication shall be treated as a new subdivision or partition as applicable.
2. Minimum Design Standards. The minimum standards of design and improvements for the dedication of a street shall be in compliance with the City of Redmond Public Works Standards and Specifications and all other applicable street standards and regulations as specified in Section 8.2710.
3. Procedure.
 - A. Upon receipt of written application and appropriate filing fee for street dedication, the Community Development Director shall refer the proposal to the City Engineer or designee for review and recommendation.
 - B. The City Engineer shall report his findings and recommendations regarding the proposed dedication to the Community Development Director
 - C. Upon receipt by the Community Development Director of written findings and recommendations from the City Engineer, the proposal shall be submitted to the City Council for a public hearing.
 - D. The only notice required for a hearing under this section shall be by publication.
 - E. Following the hearing, the Council may accept or reject the proposed dedication.

FINDING: The applicant will not be creating streets that's not part of the proposed partition. This standard is not applicable.

ARTICLE IV – SITE AND DESIGN REVIEW STANDARDS > INTRODUCTORY PROVISIONS
RDC Section 8.3035

8.3035 Design Review Criteria. Prior to issuance of a building permit, the following applicable criteria shall be met.

1. Installation of Utilities. All new service lines and relocated transmission lines shall be placed underground. Existing overhead transmission lines or utility lines shall be relocated underground unless otherwise approved by the CDD Director, City Engineer, or Hearings Body.

FINDING: This is a standard condition of approval. The applicant can meet this standard by complying with the conditions of approval.

2. Right-of-Way Dedication & Public Improvements. Adequate right-of-way dedication and improvements to streets, alleys, sidewalks, bikeways and other public ways shall be provided by the Owner that conform to City of Redmond adopted Transportation Plan, Transportation Impact Analysis & Access Management Standards, Public Works Standards & Specification and the local service street policies, including the grid policy. In lieu of actual construction of improvements, the City may choose to accept financial payment, contribution, other approved security or agreement for the purpose of providing the needed improvements. The City may require that no building permit be issued until public improvements are completed; this shall be clearly identified (if applicable) within the Site Improvement Agreement.

FINDING: Refer to condition of approval #13 for requirements pertaining to right-of-way dedication and public improvements to streets, sidewalks, and other public ways.

3. Neighborhood Compatibility. This standard shall not apply to any development that requires a conditional use permit;
 - A. The proposal will be consistent with applicable zoning standards.

FINDING: The proposed development is a multi-family complex, an outright permitted use in R-4, that meets building height standards and can meet setback standards by complying with condition of approval #12. The proposed development has a density that equates to the maximum allowed in the R-4 zone for multi-family developments; however, the subject property has a Higher Density Overlay Zone and the proposed development does not exceed the maximum density permitted under this overlay zone.

- B. The location, size, design, and physical characteristics of the proposal (such as setbacks, height, position of structure on the site) will have minimal adverse impact on the livability or value of abutting properties.

FINDING: The proposed development meets the R-4 and Higher Density Overlay zoning standards in terms of permitted use, density, height, and setbacks (setbacks can be met by complying with condition of approval #12). The City is prohibited under ORS 197.307(4) from requiring the applicant or City to demonstrate that the proposal will have “minimal adverse impact on the livability or value of abutting properties.” This standard is not clear and objective.

- C. The project will not exceed the operational capacity of public facilities and which are required to serve the development unless the City Engineer determines that sufficient capacity can be provided. The capacity of public facilities and services shall be based primarily on the City’s Water and Wastewater Master Plan and the Transportation System Plan.

FINDING: The proposed development has been reviewed by City Engineering and has been determined that the development will not exceed the operational capacity of public facilities required to serve the development. City Engineering reviewed the applicant’s traffic impact analysis and has requested additional requirements as outlined in condition of approval #13.

- D. The proposal is consistent with the applicable Great Neighborhood Planning Principles described in Section 8.0300(3)(C)(13) and adopted Area Plans.

FINDING: Not all Great Neighborhood Principles are applicable to the proposed development as they are primarily geared toward development at a neighborhood scale. However, staff has found that the proposed development will contribute to a complete grid street network in the area by extending SW 42nd Street. Additionally, existing streets fronting the development will be improved to City standards. A mix of housing units (e.g., detached 2-bedroom units and attached 2 and 3-bedroom units) will be provided within the development. The proposed amount of open space is inadequate for the proposed number of units (refer to Section 8.3035(4)(E)(10) of this staff report). The proposed units within the development appear to have integrated architectural design elements. Given the location (on the edge of city limits) and the development’s lack of amenities, there does not appear to be a great diverse mix of activities.

4. Architectural Requirements.

- A. Architectural theme. A specific architectural theme is required for any structure that is a candidate for Site and Design review. The theme used shall be carried out completely in the design and not mixed with conflicting themes. The theme used shall be consistent with all buildings on the subject site.

FINDING: The applicant has stated:

[T]he proposal rethinks how single-family homes can be designed around the ideas of community and common spaces without forfeiting quality of interiors or access to parking and public sidewalks.

Each home provides ample natural light and high ceilings for residents.

The homes, in lieu of being sited off a private street, instead face toward a “neighborhood” cluster with shared common areas. Parking is distributed throughout the site to avoid long trips between homes and parking spaces. The emphasis is to use walkable spaces as centers of civic life.

The high roof lines, variation in paint color, large windows, and focus on landscaping give the development a consistent architectural style. Variation throughout in color, form, and orientation brings these qualities to the fore, while also avoiding repetition and monotony.

Staff finds that the proposed development has established a specific architectural theme as illustrated in the applicant’s architectural plans.

- B. False front design. A false front design of a building shall be avoided, except for the Downtown (C-2) Commercial District.

FINDING: A false front design is not proposed for the proposed buildings.

- C. Historical Buildings. Compliance with the preservation of historic buildings and sites pursuant to section 8.0855 and 8.0860 where applicable.

FINDING: No historical buildings exist on the subject property.

- D. Commercial and Industrial buildings.
 - 1. Building Orientation. The City may require the applicant to position buildings to have their architectural orientation toward the primary focal point on the site (typically the higher ordered street). However, the City may also require the applicant to orient the building in any position on the site if the perceived focal point is internal to the site. At no time shall unbroken spans of side or rear walls of buildings be visible from any street without architectural treatments and screening added. Orientation of the building shall consider compatibility with neighboring structures in terms of setbacks, height of building, architectural treatment, and entrances of neighboring buildings.
 - 2. Buildings shall comply with the City’s access policies regarding vehicle access and provide adequate pedestrian ways to safely navigate the parking areas and to connect to the public sidewalks. Adequate internal vehicle access shall be designed to minimize or eliminate vehicle/vehicle or vehicle/pedestrian conflicts.
 - 3. Commercial Drive-up windows and drive-throughs should be oriented away from the principle street.
 - 4. Industrial Building Basic Architecture. To avoid the effect of single, long or massive walls with no relation to human size, industrial buildings shall provide features of architectural interest for all street-facing facades.
 - ...

FINDING: No commercial or industrial buildings are being proposed. These standards are not applicable.

- E. **Multi-Family Dwellings and Complexes.** This section establishes a process for the review of multi-family dwelling and multi-family complexes development proposals in order to promote functional, safe, innovative and attractive development that is compatible with the natural and man-made environment. The intent is to promote compatible development, foster the attractiveness and functional utility of multi-family development, protect public and private investments in the area, and, raise the level of community expectations for the quality of its environment.
1. **Density Standards.** The following residential densities shall apply to multi-family dwellings and complexes:
 - a. **General Residential (R4) Zone** – A minimum of 4.0 units per acre and a maximum of 14.5 units per acre.
 - b. **High density residential (R5) Zone** – A minimum of 8.0 units per acre and a maximum of 17.4 units per acre.

FINDING: The proposed development's density equates to approximately 14.5 units per net acre (89 units / 6.1 net acres). While 14.5 units per net acre is the maximum allowed in R-4, the subject property has a High Density Overlay that permits up to 30 units per net acre. This standard is therefore met.

2. **Table A. Minimum Standards.** The following minimum standards apply in each of the Residential zones as follows.

Standard:	R-4	R-5
Minimum Setback Distance (A)		
Front	15	15
Side	15	15
Rear	20	15
Garage	20	20
Maximum Building Height	45	45
Off Street Parking		
Multi-Family Dwelling (3 & 4 D.U.'s)	2 sp. / D.U.	2 sp. / D.U.
Multi-Family Complex (over 4 D.U.'s)	2 sp. / D.U. + 1 sp. / 10 D.U.'s	2 sp. / D.U. + 1 sp. / 10 D.U.'s
Alternatives to the number of parking spaces required will be considered on a case by case basis and only with a Transportation Engineers analysis as approved by the City Engineer.		
(A) Multi-family dwellings and multi-family complexes are exempt from the solar setback requirements of Section 8.0370, except when the abutting property to the north is developed with a single-family dwelling.		

FINDING: The proposed structures are under 45 feet in height. After review of the applicant's site plan, it has been determined that the applicant has applied incorrect setbacks (setbacks found under Section 8.0140 were applied). This standard is not met.

3. **Building Orientation.** All buildings facing a public street right of way shall have a functional primary entrance oriented to each public street frontage, except for buildings fronting along and facing a Major Arterial street as designated on the City

of Redmond Transportation System Plan. Additional primary entrances, if provided, or, in cases where buildings are internal to the development and do not front on the public street right of way, shall be oriented to a private common area (common areas include private streets, courtyards, or open spaces). A hard-surfaced pedestrian sidewalk or pathway connecting the building entrances to the public streets right of way shall be provided.

FINDING: As shown on the applicant's plans, all buildings are designed in such a way that the front and rear facades have entries. That said, each unit will have functional entries from internal development or public streets and the units internal to the site have front doors that face private common areas. Additionally, hard-surfaced pedestrian pathways connect building entrances to public street right-of-way.

4. Building Form. The continuous horizontal distance (i.e., as measured from end-wall to end-wall) of individual buildings (including buildings with multiple dwelling units) shall not exceed 90 lineal feet, unless part of a Master Plan development which may permit a maximum length of 120 feet. In order to preclude large expanses of uninterrupted building surfaces, each floor of the building shall include at least three of the following features within every 30 lineal feet or portion thereof along all elevations of the structure:
 - a. Recess (e.g., deck, patio, courtyard, entrance or similar feature) that has a minimum depth of 4 feet;
 - b. Extension (e.g. floor area, deck, patio, entrance or similar feature) that projects a minimum of 2 feet and runs horizontally for a minimum length of 4 feet; and/or
 - c. Offsets or breaks in roof elevations of two feet or greater in height.
 - d. Offset or breaks in building façade elevations of 2 feet or greater in relief.

FINDING: The applicant has stated the following:

There is no continuous horizontal distance of 90 feet; breaks between individual buildings exist. Each individual building façade is 20' wide (Type A), 22' wide (Type B), or 58' wide (Type C). The 3-unit rowhouse (type C) breaks the facade every 20' with a recess. Variation in building orientation additionally avoids repetition.

The following features are included within every 30 linear feet:

- a. Recess (4' deep recessed porch on Type A and C facades)*
- b. Extension (4' projection of awning on Type B and C facades)*
- c. Breaks in roof elevations (no continuous roof line over 30' long along front, side, or rear facades)*
- d. Offset or breaks in building façade elevations of 5 feet in relief (Type C facades)*

Staff has reviewed the applicant's architectural plans and have found they provide adequate detail that demonstrate that this standard is met.

5. Detailed Architectural Features. All buildings shall provide detailed design along all elevations (e.g., front, rear and sides). Detailed design requires use of at least five of the following architectural features on all front and exterior side (corner lot) elevations and at least three of the following architectural features on all interior and rear yard elevations, at a minimum of every 30 lineal feet of horizontal wall. Architectural features shall be varied on the different building elevations. The standard applies to each full and partial building story.

- a. Dormers
- b. Gables
- c. Recessed entries
- d. Covered porch entries
- e. Cupolas or towers
- f. Pillars or posts
- g. Eaves (minimum 6-inch projection)
- h. Off-sets in building face or roof (minimum 16 inches)
- i. Window trim on all windows on the façade
- j. Bay or oriel windows
- k. Balconies
- l. Decorative patterns on exterior finishes (e.g., dramatic paint scheme, scales/shingles, wainscoting, ornamentation, and similar features)
- m. Decorative cornices and roof lines (e.g., for flat roofs)
- n. An alternative feature providing visual relief and detail, similar to option a-m above, may be approved through the development review process.

FINDING: The applicant has stated the following:

Houses include a combination of the following items on the primary facades (which face the courtyards) and the secondary facades (which face external all streets and parking areas):

1. Gables
2. Recessed entries
3. Covered porch entries
4. Offsets in building face (row houses)
5. Posts (at backyards, facing external streets)
6. Decorative patterns on exterior finishes

The layout of buildings in relation to one another eliminates long rows of houses with aligned, monotonous facades. Residents will never see more than four similar massings in a row, and façade treatment will vary in these instances (color and batten pattern). Window treatment variation will provide additional visual variation throughout.

Side elevations will include the following design elements:

1. Posts along fencing
2. Decorative patterns in exterior finishes
3. Eaves
4. Dramatic variation in window size

The composition and orientation of each house is laid out such that the houses are perceived as three dimensional buildings in the round. The side elevation is composed in coordination with the surrounding front and rear elevations.

Staff has reviewed the applicant's architectural plans and have found they provide adequate detail that demonstrate that this standard is met. While this standard is met, it should be noted that posts along fencing do not contribute to meeting this standard. Nonetheless, minus posts along fencing, the applicant has demonstrated that the front elevations will include five required detailed architectural features and the side and rear elevations will include three required features.

6. Exterior Finish. The exterior finish on all vertical surfaces shall be comprised primarily of materials such as masonry/wood lap siding, shingles, brick or stucco. The use of sheet metal, plywood, T1-11 siding, smooth face cinder block and other similar materials is not permitted except as minor accents. Textured cinder blocks are permitted on side and rear façades but shall not exceed 40% of the total exterior wall area of the ground/bottom floor.

FINDING: The applicant has stated the following:

Siding will be composed primarily of composite cement board and entry portals will consist of cedar cladding. Cement board will vary in color, and each building will have two tones, see Architectural package. There will be no use of plywood, cinder block or T1-11 siding. Roof is high pitched, and shall consist of standing seam metal, in two varieties of color.

Staff has reviewed the applicant's architectural plans and have found they provide adequate detail that demonstrate that this standard is met.

7. Building Alignment. There shall be no window to adjoining window alignment when adjacent buildings are less than 30 feet apart.

FINDING: The applicant has stated that windows do not align perpendicularly within 30 feet of each other, except for a select few areas where one building is turned away from the other, and that landscape design will help shield those views. The applicant will need to verify and demonstrate compliance with this standard at time of building permit review.

8. Trash Receptacles. A common trash enclosure shall be required and is subject to the following standards.
 - a. Trash enclosures shall be oriented away from adjacent residences and shall be screened by use of brick or stone walls.

FINDING: The applicant's plans do not demonstrate that the four trash enclosure locations will be screened by use of brick or stone walls. This standard is not met.

- b. Trash enclosures shall be accessible to trash pick-up vehicles and shall provide an unobstructed, straight on approach a minimum of 40 feet in length.

FINDING: The applicant's plans show that an unobstructed, straight on approach of greater than 40 feet in length will be provided for trash pick-up vehicles. This standard has been met.

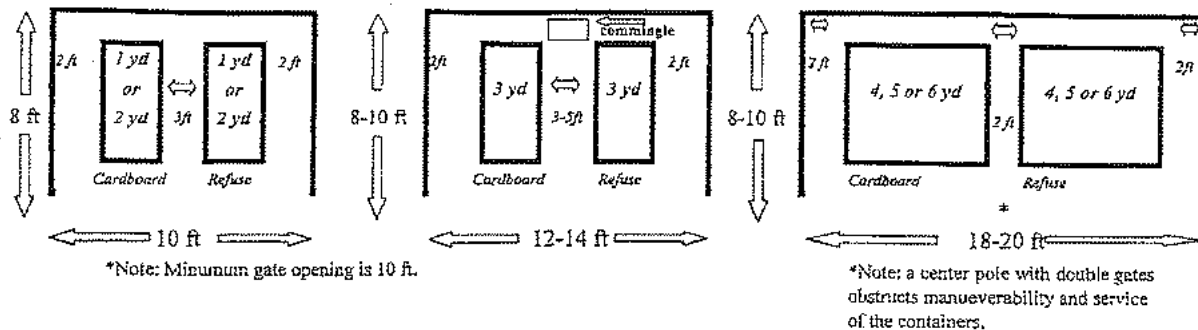
- c. Trash enclosures, a minimum of six-feet in height, shall be constructed of solid, durable and attractive walls, with solid screen doors and shall be visually consistent with project architecture. Gate opening shall be a minimum of 10 feet wide and shall not include a center pole or other obstruction preventing access to the enclosure. Gates must swing open 180 degrees and shall include a gate stop to hold it open.

FINDING: The applicant's plans do not demonstrate that this standard has been met.

- d. Enclosure areas shall contain sufficient space to accommodate both refuse disposal and recycling containers adequate to accommodate the degree of development. Disposal needs shall be calculated at 0.3 yards

per dwelling unit for refuse and 0.2 yards per dwelling unit for recycling. The following construction specifications shall be used as a guide for enclosure design based on the calculation requirements listed herein:

Construction Specifications for Enclosures



- a. The area standards for trash enclosures listed in subsection (d.) above shall be met unless documentation is submitted from the applicable trash collection company indicating that an alternative design will be adequate to accommodate the amount of refuse and recycling that is anticipated to be generated on an ordinary basis.

FINDING: The applicant has stated that a preliminary plan showing the design and locations of the proposed trash enclosures was submitted to Republic Services and that the waste and recycling company had agreed what's been proposed is sufficient for their service. However, the applicant has not submitted documentation from Republic Services and the plans submitted with this application do not provide sufficient detail to determine that this standard has been met. The applicant shall submit information demonstrating that this standard has been met.

9. Mechanical Equipment. External mechanical equipment, such as heating or cooling equipment, pumps or generators, that is located on the ground or on the roof of buildings, must be entirely screened from view at ground level by sight obscuring walls, fences, parapet or other similar means consistent with the overall architecture of the development. Landscaping is not an acceptable alternative for such screening as specified herein. Screening shall be compliant with all applicable codes.

FINDING: The applicant has stated that mechanical equipment will be placed between houses on the ground, screened by fencing to match the proposed backyard fencing.

10. Common Open Space. Common open space(s) shall be incorporated into the site plan for multi-family complexes as a primary design feature. A minimum of 15 percent of site area (inclusive of required setbacks but exclusive of dedicated street rights-of-way and land dedicated to other public uses like parks and schools), shall be provided as common open space and be suitable for a recreational play area, or group or community activities. However, in no case shall less than 3,000 square feet of common open space be provided. Such area shall be improved with grass, plantings, surfacing, equipment or buildings suitable for recreational use. The Hearings Body may require this area to be protected from streets, parking areas, or the like, by a fence or the equivalent. Sensitive lands and historic buildings or landmarks open to the public and designated by the

Comprehensive Plan may be counted toward meeting the common open space requirements. (Note: Relocated and rewritten from Section 8.3035(4)(E)(13))

In conjunction with the open space requirements, all multi-family complexes with 20 or more units shall provide two or more amenities for the residents as listed below. Such amenities shall be centrally located for a majority of the residents.

- a. Tot lot/play structure
- b. Community garden
- c. Picnic tables/barbecue areas
- d. Swimming pool
- e. Indoor recreation facility
- f. Sports courts (i.e. basketball, tennis, volleyball)
- g. Other active or passive recreation area that meets the intent of this standard as approved through the development review process.

FINDING: The applicant's plans show that 15% of the site (40,360 square feet) will be open space and proposed amenities will include shared courtyards, picnic tables, landscaped outdoor seating areas, and areas for passive recreation.

Given the proposed development's density, number of units, and location at the edge of city limits far from amenities (for example, the nearest park is Valleyview Park, a neighborhood park intended to serve residential areas up to ½ mile walking or biking distance, is 0.7 miles or 14 minute walk from the subject property; and, the nearest community park, American Legion, intended to serve residents within a 2-mile drive, walk, or bike ride from the site, is a 2.3-mile drive, walk, or bike ride away²), the applicant's proposal to include the development code's minimum amount of open space and amenities is inadequate. The applicant shall revise plans to include a greater amount of open space and amenities.

11. Private Open Space. Private open space shall be required for all multi-family dwellings and complexes based on the following standards:
 - a. Ground/bottom floor housing units shall have front or rear patios or decks at least 4 feet deep and measuring at least 48 square feet in area.
 - b. A minimum of 50% of all upper floor (second floor and above) housing units shall have balconies or porches at least 4 feet deep and measuring at least 48 square feet in area.
 - c. To the maximum extent possible, private open space areas shall be oriented toward common open space areas and away from adjacent single family residences, parking areas and driveways and trash enclosures.

FINDING: This standard is likely more relevant to traditional multi-family complexes with numerous units housed in multi-story structures. Given that this proposed development consists of two-story structures that contain at most three units per building, all units must have at least 48 square feet of private fenced yards. It appears, to the maximum extent possible, private open space areas are oriented away from parking areas.

12. Special Yards. In order to allow air circulation and light, the distance between buildings on the same lot shall be as follows:

² City of Redmond Citywide Park Master Plan, pages 17-18, 20.

- a. All front and rear walls, and all walls with a primary entrance shall be separated from all other walls on all other buildings on the same lot by a minimum of 20 feet.

FINDING: The applicant's plans show that all front and rear walls, and walls with a primary entrance are separated from all other walls on all other buildings by a minimum of 20 feet.

- b. The distance between side walls on buildings on the same lot shall be no less than 12 feet.

FINDING: The applicant's plans show that the distance between side walls on buildings are no less than 12 feet.

13. Special Fencing/Landscaping. A sight obscuring fence or evergreen hedge may be required by the Hearings Body when, in its judgment, such screening is necessary to preserve the values of nearby properties, protect the aesthetic character of the neighborhood or vicinity, and to provide security and privacy for occupants of the subject complex.

FINDING: Necessary to protect the aesthetic character of the vicinity, and to provide security and privacy for the occupants of the proposed multi-family complex, sight obscuring fencing or evergreen hedges shall be required along the development's northern, southern, and eastern boundaries.

14. Storage. All multifamily dwellings and complexes shall provide for storage of furniture, tools, equipment, building materials or supplies belonging to the occupants or management of the complex. Each dwelling unit shall have one assigned, securable storage area, a minimum 18 square feet, but shall be of a minimum size and dimension that is suitable to accommodate one bicycle of average size. Storage areas may be indoor, such as attached or detached garages, or within specific areas what are internal to each swelling unit. Storage areas may also be within outdoor structures such as within a separate storage building located on premises. The City may exempt or reduce the storage space requirement for "specialty housing", such as senior housing or for housing for long-term infirm care.

FINDING: The applicant's architectural plans show that each residential unit includes an internal storage area. However, only Unit Type B meets the minimum designated securable storage area of at least 18 square feet in size. This standard is not met.

15. Off-Street Parking. All off-street parking provisions addressed herein (including: number of spaces; loading areas; and, design and improvement standards) shall be provided in conformance with Section 8.0500 through 8.0515 of the City of Redmond Development Code. Multi-family dwellings and complexes shall comply with the City's access policies regarding vehicle access and provide adequate pedestrian ways to safely navigate the parking areas and to connect to the public sidewalks. Adequate internal vehicle access shall be designed to minimize or eliminate vehicle/vehicle or vehicle/pedestrian conflicts in off0street parking areas. If off-street parking areas are proposed to be placed between the primary building elevations and public streets, the application shall be subject to a public hearing pursuant to Article II – Land Use Procedures, Sections 8.1000 through 8.1720 of the City of Redmond Development Code. Parallel parking shall not be permitted

on any common or shared driveways or private drives less than 28 feet in width for parking on one side, or less than 36 feet in width for parking on two sides.

FINDING: Off-street parking is addressed earlier in this staff report under Sections 8.0500-8.0515. Additionally, no parallel parking is being proposed as part of this project.

16. Upper Floors. Third and fourth floors of multifamily dwellings and complexes constructed in residential zones along the perimeter of the side development shall occupy no more than 80% of the building footprint area (ground floor) when abutting a residential lot less than 20,000 square feet in area or any residential lot developed with a single family or duplex residential dwelling.

FINDING: All proposed structures are two stories. This standard is not applicable.

- F. Townhouse Design and Development Standards.

...

FINDING: The proposed development does not include townhouses. These standards are not applicable.

- G. Exterior Mechanical Equipment. These shall be screened so as not to be visible from public streets or residences.

FINDING: The applicant has stated that mechanical equipment will be placed between houses on the ground, screened by fencing to match the proposed backyard fencing.

- H. Building Design for Automotive Service Stations. The entrance to the service bays shall not be open to the street but shall be so designed to face the rear or interior side property line.

FINDING: No automotive service stations are proposed. This standard is not applicable.

- I. Retail, Office, Commercial and Mixed Use Buildings in the MUN and MUE zones.

...

FINDING: The proposed is not located in the MUN and MUE zones. These standards are not applicable.

5. Landscaping.

- A. Plant sizes. All required shrubs shall be at least 1-gallon size and all required trees 15-gallon size at time of planting, and no less than 1-1/2" caliper measured 3' above finished grade. Applicants must show evidence of paid contracts or commitments for landscaping work or other proof/evidence the work will be completed as required and on time.

FINDING: As shown on the applicant's landscaping plan, all proposed shrubs and trees meet or exceed the minimum plant size requirements.

- B. Vegetative cover. All required landscape areas shall be planted with shrubs, trees and or living ground cover to a minimum of 50% vegetative cover at the time of planting. The other 50% may be covered with non-vegetative (not bark) mulch.

FINDING: The applicant's landscaping plan indicates that all landscaped areas shall achieve a 50% minimum vegetative cover at the time of planting.

- C. Outdoor storage and service areas. Outdoor storage and service areas shall be screened or buffered from adjacent properties or from public rights of way with a minimum 3-foot-tall and wide landscape strip or site obscuring fencing unless otherwise approved when adjacent to a similar use or a use that does not require screening from the proposed use. Screening shall provide no less than 50% visual screening at time of planting or installation and shall be shown by detail or photo.

FINDING: The proposed development incorporates private, enclosed storage areas for each residential unit. No outdoor storage and service areas are being proposed.

- D. Areas between buildings and property lines adjacent to a street. Areas between buildings and property lines adjacent to a street shall be landscaped with trees and shrubs within a minimum 3-foot-wide landscape strip.

FINDING: The applicant has submitted a landscaping plan that illustrates a landscaping strip at least three feet in width that includes trees and shrubs between the proposed buildings and property lines adjacent to the streets.

- E. A parking or loading area. A parking or loading area shall be separated from any lot line adjacent to a roadway by a landscaped strip at least 10 feet in width, and any lot line by a landscaped strip at least 5 feet in width. Within the C-2, C-4, MUN, MUE, or Airport zone, street trees or other landscaping located within the public right-of-way may be provided and considered as landscaping on site. The City may make an exception of the five (5) foot landscaping strip requirements if the following criteria apply:
 - 1. The properties are adjacent to one another; and,
 - 2. The parking and back up areas are adjacent to a common lot line. If an exception is granted, an easement shall be recorded on the deed. If at any time the parking area is no longer shared, the parking area shall conform to the five (5) foot landscape strip requirements.

FINDING: The applicant's landscaping plan illustrates that there is a landscaped strip at least 10 feet in width along the lot lines adjacent to existing streets. This standard is met.

- F. Landscape areas abutting parking areas spaces, access aisles and loading zones. Landscape areas abutting parking spaces, access aisles and loading zones shall incorporate a sight obscuring landscape screen. The screen shall be at least 3 feet higher than the finished grade of the parking area, except in required clear vision areas where the clear vision requirements must be met. The screen height may be achieved by a combination of earth mounding and plant materials. Fences with or without slats may qualify for parking lot screening on interior, side or rear lot lines or when adjacent to an alley.

FINDING: The parking areas and property lines are abutted by landscaping. Shrubbery required for screening must be at least three feet higher than the finished grade of the parking area.

- G. Parking lot landscaping. In addition to meeting all other landscape requirements, at least ten (10%) percent of the total required landscaping for the site shall be planted within or immediately adjacent to the parking lot(s), plus a ratio of one tree per ten parking spaces shall be planted. This parking lot landscaping may be considered as meeting a portion of

the underlying zone's minimum landscape percentage requirements. Parking lots exceeding 20 spaces shall incorporate a portion of this required landscaping in interior islands not less than three feet in width.

FINDING: Staff has reviewed the applicant's landscaping plan and has found that the proposed parking lot landscaping exceeds this standard as the total provided parking lot landscape equates to 11% and 28 parking lot trees are proposed (minimum required would be 20 trees).

- H. Protection of Parking Lot Landscaping. Parking lot landscaping shall be protected by a curb or secured wheel guards at least 4" high with a minimum three-foot setback from the property line.

FINDING: Curb is proposed for the protection of site landscaping as shown on the site plan and is proposed to be constructed to City standards, at least four inches in height, and at least three feet from the property line. This standard is met.

- I. Preservation and Replacement of Trees. All existing trees having a six (6) inch trunk diameter 3' above grade or greater shall be preserved or replaced with fifteen gallon-sized trees at a 'one-to-one' ratio. Replacement trees shall have a minimum 1-1/2-inch trunk diameter measured at 3' above grade. This criteria shall be met in the submitted landscape plan.

FINDING: The applicant's landscaping plan indicates that 87 existing trees are being removed and the proposed development will include 126 replacement trees. This standard is met.

- J. Irrigation of plants and trees. Irrigation systems shall be required for all landscape areas and street trees except those designated for native vegetation. Type of irrigation system and approximate line location shall be shown on the site plan provided.

FINDING: The applicant's landscaping plans state a permanent underground irrigation system with high efficiency spray and or drip systems will be used. Approximate location of irrigation lines have not been provided. A complete irrigation plan will be submitted with the building permit application.

- K. Street trees. Street trees are required to be installed on all residential, commercial, and industrial lots fronting on public or private streets, including on lots already platted at the time of adoption of this ordinance (Ord. #2013-04, 05/14/2013), but not yet developed. Street trees shall be provided in accordance with the following requirements:
1. Street Tree Plan. A street tree plan shall be provided showing the location of street trees, the types and the installation sizes of the trees and the type of irrigation proposed.
 2. Timing of Improvements. All street tree(s) shall be installed prior to issuance of a Certificate of Occupancy for said construction. An exception to this shall be when it is not feasible to plant street trees due to cold weather, in which case a posting of a bond for the value of the tree shall be acceptable to ensure the tree is planted at the earliest feasible time as determined by the City.
 3. Number of Trees Required. The number of street trees planted on each lot is dependent upon the lot width per the table below:

Lot Width	Number of Street Trees Required
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Corner Lot	Tree requirements will be based on each street frontage length
50 feet and less	1
51-100 feet	2
101-150 feet	3
151 and more	One tree/40 feet of width fronting street

4. Spacing of Trees. Street trees shall be spaced in accordance with the table below:

Lot Width	Tree Spacing Requirements
50 feet and less	The street tree shall be planted as close as possible to the center of the lot frontage, unless there is a conflict with a driveway, in which case it should be located as close as possible to the center
50 feet and more	Small canopy and columnar shaped trees shall be planted no further than thirty (30) feet apart
	Medium and large canopy trees shall be planted no further than forty (40) feet apart
Downtown	Per Public Works Standards

An exception to the tree spacing requirements above include when planting a tree would conflict with existing trees, retaining walls, utilities, driveways, views or other similar physical barriers. In those cases, the Community Development Director or designee may approve alternative spacing.

FINDING: Staff has examined the applicant's landscaping plan and have found it complies with these standards.

5. Location of Trees. Street trees shall be planted within existing and proposed planting strips or in City approved sidewalk tree wells on streets without planting strips, unless an alternative street tree location is approved during the planning review process. The location of trees shall meet the following setback requirements:

Object Tree Must Be Setback From	Distance Street Tree Must Be Setback From Object
Curb or Sidewalk	3 feet (small and medium stature tree) and 3 feet (large stature tree); in no cases, shall the tree be more than 10 feet from the curb
Curb line of an intersection, stop/yield signs, and streetlights	25 feet
Adjacent Tree	20 feet
Fire Hydrants, utility poles and directional traffic signs	10 feet
Edge of a driveway	5 feet
Property lines	2 feet

6. Caliper Size. The minimum caliper size at planting shall be 1½ inches for single family residential and 1½ inches for commercial and industrial. If the required caliper is not available, the Community Development Director or designee may accept an alternative proposal that is comparable.
7. Approved Tree List. Types of street trees shall be selected from the City Arborist's approved list of trees.
8. Maintenance. Maintenance of street trees shall be in accordance with standards listed in Section 3.600 of the Redmond Code.
9. Utility Easements. All street trees shall be placed outside utility easements unless the utilities are in a protective conduit. If the existing planter strip contains such easements and is not wide enough to also accommodate street trees, the street tree location requirement in section 4 above may be adjusted by the Community Development Director or designee during the development review process.

FINDING: The proposed street trees meet the required caliper size and are trees chosen from the City's approved street tree list (the Accolade Elm listed on the applicant's landscaping plan is not on the City's approved street tree list). Based upon the submitted landscaping plan, it appears the proposed street trees meet the setback from objects requirement of this standard.

- L. Maintenance of landscaping. All landscaping shall be continuously maintained and replaced when necessary to maintain compliance with an approved landscape plan. For landscaping valued in excess of \$5,000, the City may require a maintenance bond.

FINDING: The applicant has responded that this requirement is understood. Continuously maintaining landscaping is an ongoing condition of approval.

6. Parking and Unloading Areas/Docks.
 - A. Off-Street Parking Areas. Parking areas shall be as near the public entrances to the structure served as possible.
 - B. Parking lot. The parking shall be dispersed around the building, emphasizing the importance of the building and accessibility to entrances. In the **MUN and MUE** zones, parking shall be located to the side, rear, or under the building or in a designed central parking lot.

FINDING: The location of proposed off-street parking is provided throughout the proposed development and is dispersed amongst all residential units. This standard is met.

- C. Truck loading areas or docks. Truck loading areas or docks, where delivery is done by semi truck with a specified loading dock, shall be located or screened from the street or from the major public entrance to the building. The Applicant shall identify the specific type(s) and size of delivery vehicles which will deliver and/or take goods to/from the building; the hours of delivery, the location of delivery doors and their dimensions. Truck loading areas or docks shall not inhibit circulation on-site or create access problems from adjacent streets.

FINDING: A separate truck loading area is not being proposed or needed for this proposed development. The applicant has stated that delivery vehicles will be standard size courier vehicles (e.g., mail vehicles) with deliveries occurring during acceptable standard hours. This standard is met.

7. General Site Criteria.
 - A. Grading and Drainage.

1. Grading on the site shall take place so there is no adverse affect on neighboring properties or public right-of-way. A grading plan may be required to assure that all drainage is retained on site.
2. All drainage shall be retained on site at all times. A drainage plan may be required that shows slope, method of drainage retention and disbursement of water on site at the discretion of the City Engineer.

FINDING: A preliminary grading and drainage plan has been submitted with this application and a detailed stormwater report will be submitted to City Engineering for approval as part of the construction documents.

- B. Clear Vision Standard. No obstructions greater than three and one half (3 ½) feet high, including any landscaping which will grow greater than three and one half (3 ½) feet high, with the exception of trees whose canopy heights are at all times greater than eight (8) feet, may be placed in a clear vision area as defined in Article I, "Supplementary Provisions".

FINDING: Per the applicant's landscaping plan, the clear vision standards have been met.

- C. Trash Collection Areas. Trash collection areas shall not be oriented towards building entrances or public streets other than alleys and shall be screened or enclosed with building material which is compatible with those used in the exterior of the building. Location(s) of all trash collection area(s) shall be reviewed and approved by the Community Development Department Director or designee.

FINDING: The applicant has not supplied sufficient information to demonstrate that the trash collection area standard has been met (refer to Section 8.3035(4)(E)(8) finding).

- D. Water and Sewer Service. Connection to the City's public water and sewer systems shall be required and shall comply with the current Public Works Standards & Specifications.

FINDING: This is a standard requirement and condition of approval. The applicant can meet this requirement by complying with the conditions of approval.

- E. Accessibility. At least one pedestrian pathway, which meets UBC accessibility requirements, shall be provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading and drop off zones, and public streets or sidewalks to an accessible entry. When more than one building or facility is located on a site, at least one accessible route shall be provided between accessible buildings and accessible site facilities. The accessible route shall be the most practical and direct route among accessible building entries, accessible site facilities and the accessible entry to the site. Walks paralleling vehicular ways shall be separated from vehicular ways by curbs, planted areas, railings, or other means between the pedestrian way and vehicular routes.

FINDING: Staff has reviewed the proposed site plan and found that the site provides for adequate, efficient, and safe pedestrian accessibility throughout the site and within the boundary of the site. This standard is met.

- F. Streetscape standards in the **MUN** zone. New retail, office, commercial and mixed-use development and major modifications (per RDC 8.3005-8.3010) within the MUN zone

shall provide one or more of the Category A pedestrian amenities listed below and all of the Category B amenities, as generally illustrated in the figure below. Pedestrian amenities may be provided within a planting strip or street furnishing zone, building frontage zone or plaza, as shown in the figure below. Use of the public right-of-way requires approval by the roadway authority.

...

FINDING: The subject property is not located in the MUN zone. These standards are not applicable.

8. Traffic Impact Analysis (TIA)

- A. The following vehicle trip generation thresholds shall determine the level and scope of transportation analysis required for a new or expanded development. Trip ends shall be calculated as per the current edition of the Institute of Transportation Engineers manual, Trip Generation, or local trip generation studies prepared by a qualified registered professional engineer and approved by the City Engineer. The City Engineer shall determine when a TIA has satisfied the requirements of the development's impact analysis. The TIA shall bear the stamp and signature of a qualified registered professional Engineer with a license valid in the State of Oregon.
 - 1. If a proposed development will generate 200 or more daily trip ends, or 20 or more p.m. peak hour trip ends, then a Transportation Impact Analysis (TIA) shall be required.
 - 2. Projects that generate less than 200 daily or 20 p.m. peak hour trip ends may also be required to provide a Transportation Impact Analysis (TIA) when, in the opinion of the City Engineer or his/her designee, significant capacity and/or safety problem is caused, or adversely impacted by the development. The City Engineer or designee, shall determine the scope of this analysis.
 - 3. A development may be required to provide a Trip Generation Report for developments which generate less than 200 daily or 20 p.m. peak hour vehicle trips.
- B. The impact analysis area shall include at a minimum, the following intersections:
 - 1. All site access intersections
 - 2. Nearest intersecting collector or arterial street upstream and downstream of the development.
 - 3. Any other collector or arterial street intersection that would experience an increase of 25 additional peak hour trips.
 - 4. Additional intersections requested by staff.
- C. The analysis shall include the following study time frames:
 - 1. Existing conditions.
 - 2. Completion year of each significant phase of development.
 - 3. Five year forecast beyond final phase.
- D. The following Tables are required in the TIA:
 - 1. Trip Generation (including phase breakdown if applicable)
 - 2. LOS Table (LOS for every analysis scenario at every study area intersection. Report LOS, delay, v/c ratio, 95% vehicle queue, and any additional pertinent analysis results)
- E. The following Figures are required in the TIA:
 - 1. Vicinity Map
 - 2. Site or Tentative Plan Map
 - 3. Background Traffic Volumes (all study intersections, all analysis years)
 - 4. Trip Distribution and Assignment

5. Background + Site Generated Traffic Volumes (all study intersections, all analysis years)
- F. Other Analysis Standards (as required by the study)
 1. Signal Warrants shall be performed where applicable per the Manual on Uniform Traffic Control Devices, current edition.
 2. Left Turn Lane Warrants shall be provided where applicable per ODOT criteria based on the Texas Transportation Institute (TTI) curves.
 3. Right Turn Lane Warrants shall be provided where applicable per ODOT criteria.
 4. The acceptability of sight distance at all study area intersections shall be determined per AASHTO (current edition) standards.
 5. Traffic signal progression analysis may be required if a new signal is proposed. The City Engineer shall approve the method of traffic signal progression analysis.
 6. Roadway improvements are to be based on the City of Redmond Standards and Specifications and ODOT design standards.

FINDING: The applicant submitted a Traffic Impact Analysis (TIA) conducted by Transight Consulting, LLC, dated October 12, 2021. The TIA has been reviewed by City Engineering and will require additional information as outlined in condition of approval #13.

9. City of Redmond Access Management Standards. All land use approvals shall comply with the following standards.
 - A. Driveway spacing and corner clearance as follows:

Roadway Classification	Minimum Access Driveway Spacing	Minimum Access Clearance Corner	Intersection Spacing
Local Street	No Restrictions	30 feet	165 feet
Minor Collector	80 feet	80 feet	330 feet
Major Collector	165 feet	165 feet	330 feet
Minor Arterial	330 feet	330 feet	¼ mile
Major Arterial	ODOT Stds	ODOT Stds	ODOT Stds

- B. In all instances, access near an intersection shall be located beyond the influence of standing queues and opposing left turns sharing a continuous two-way left turn lane. This requirement may result in greater corner clearance or access spacing than the minimum distance indicated.
- C. Every lot or parcel shall be permitted an access. In the event that the access management standards cannot be achieved, shared access with adjacent property shall be explored and provided where available.
- D. Access shall be taken from the lower order street or alley unless otherwise approved by Public Works and/or ODOT through the land use process.
- E. Unless adequate demonstration of site necessity, intersection safety and functionality, lots, parcels and/or developments will be limited to a single access as determined by Public Works through the land use process.
- F. The access management standards apply to new development, redevelopment, subdivision and partitioning of land.
- G. Corner clearance is measured from the edge of right-of-way to the nearest edge of access. Spacing is measured from centerline of access/ intersection to centerline of access/intersection.
- H. Adequate intersection sight distance and clear zone shall be maintained at all access/driveway locations per AASHTO standards (American Association of State Highway and Transportation Officials).

- I. Access/driveway locations may require alignment with existing driveways on the opposite side of the roadway as determined by Public Works.
- J. Public Works may require supporting information, including but not limited to traffic count data, trip generation, trip distribution, Transportation Impact Analysis study, etc., in order to make a proper determination of access/driveway location.
- K. Access within the North Redmond US 97 Interchange Area Management Plan (IAMP) shall also conform to the “North Redmond US 97 Interchange Area Management Plan (IAMP)” provisions of Chapter 9 Transportation Element of the Comprehensive Plan Addendum and Policy 12 n of Chapter 14 of the Comprehensive Plan. (Amended by City Ordinance 2007-09, effective June 8, 2007)

FINDING: These standards were addressed earlier in the staff report under Section 8.2820.

- 10. Transportation Impact Analysis. It shall be the burden of the developer to evaluate transportation system impacts through studies prepared by a qualified registered professional engineer. When a transportation impact analysis is required it must demonstrate that the following standards are met:
 - A. The standard of measurement that will determine the acceptability of traffic flow on City streets will be a delay-based level of service as defined by the Highway Capacity Manual, Special Report 209, Third Edition (2000 update or subsequent document updates) published by the Transportation Research Board. The determination of LOS shall be calculated by a methodology that is approved by the City Engineer. The acceptable standard of LOS for City streets shall be LOS E during the peak 15 minutes of the peak hour of the average weekday. A lesser standard shall be acceptable at unsignalized intersections with low volume minor street approaches if the volume-to-capacity ratio is less than 0.90 and the 95th percentile vehicle queue is less than four vehicles during the peak hour.
 - B. The Average Daily Traffic (ADT) volume of Local Street roadways within the City of Redmond shall be less than 1,200 vehicles per day (VPD). Developments which add vehicle trips to Local Streets with an ADT greater than 1,200 VPD may be asked to provide mitigation in the form of additional access to the site, when in the opinion of the City Engineer, the residential livability is degraded by excessive local street traffic volume.
 - C. New development that will cause degradation below those levels shall be required to provide mitigating transportation system improvements that will restore the LOS to the accepted standard, as is practical, as determined by the City Engineer. Where there are impacts to the State Highways, the City and ODOT shall work cooperatively to determine appropriate courses of action based on ODOT and City standards.

FINDING: The applicant submitted a Traffic Impact Analysis (TIA) conducted by Transight Consulting, LLC, dated October 12, 2021. The TIA has been reviewed by City Engineering and will require additional information as outlined in condition of approval #13.

III. RECOMMENDATION & CONDITIONS OF APPROVAL

Recommendation:

Based on the submitted plans, staff findings and conclusions, staff recommends the Planning Commission approve the Cottages on Helmholtz project (City Files 711-21-000281-SP, 711-21-000282-RMP), subject to the conditions of approval below.

Conditions of Approval:

The following conditions of approval shall be required:

1. Any substantial alteration to the approved plans, except as modified by the following conditions of approval, shall be subject to the standards and procedures in Section 8.1400 (*Modifications of Approval*) of the Redmond Development Code.
2. All land disturbed during construction shall be revegetated/landscaped immediately after construction is complete and dust created during construction shall be properly mitigated at all times, so as to not create significant impacts upon the neighboring properties.
3. Fencing adjacent to SW Helmholtz Way shall incorporate a minimum of 5 inch wide square column every 8 feet along the fence with a cap added to the top of each column that is a minimum of ½ inch larger in each direction and a minimum of 1 inch in height.
4. Any access aisle less than 24 feet in width must provide “no parking / fire lane” striping or signage, or curbs painted red for “no parking.”
5. The Central Oregon Irrigation District’s (COID) B Lateral Waste has an easement of 50 feet and traverses the subject property. The applicant shall contact COID for additional discussion and requirements for the quitclaim process.
6. The applicant shall submit for review and approval information demonstrating compliance with trash receptacle standards found in Section 8.3035(4)(E)(8).
7. The applicant shall revise plans to incorporate a greater amount of common open space and amenities. This standard is found under Section 8.3035(4)(E)(10). Revised plans must be submitted for review and approval.
8. Each dwelling unit shall have a minimum of 48 square feet of private fenced yards to comply with Section 8.3035(4)(E)(11).
9. Each dwelling unit shall have one assigned, securable storage area, a minimum of 18 square feet, but shall be of a minimum size and dimension that is suitable to accommodate one bicycle of average size. The applicant’s architectural plans will have to be revised, reviewed, and approved to show compliance with Section 8.3035(4)(E)(14).
10. Necessary to protect the aesthetic character of the adjacent neighborhoods, and to provide security and privacy for the occupants of the multi-family complex, sight-obscuring fencing or evergreen hedges shall be required along the development’s northern, southern, and eastern boundaries.
11. The parking areas and property lines are abutted by landscaping. Shrubbery required for screening must be at least 3 ½ feet higher than the finished grade of the parking area.
12. The applicant shall revise and resubmit for approval plans that meet the required setbacks found under Section 8.3035(4)(E)(2) or submit a variance application for review and approval.
13. Transportation: All public streets shall be designed, constructed and dedicated to current City of Redmond Standards & Specifications and Transportation System Plan (TSP) standards and extended to the limits of the project or each phase unless otherwise specified or approved. Street and right-of-way centerline shall match existing. Five (5) ft. minimum width public utility easement

(PUE) shall be dedicated along all street right-of-way per COR Standard Drawing 2-1. Street signage, lane striping, street lights and postal box installation shall be required. All street names shall be approved by Redmond Fire and Rescue and/or Deschutes County. Transportation SDC credits may be given for the cost of additional construction and dedication required for conformance to City arterial and collector street standards on eligible projects specified in the City's adopted Capital Improvement Plan. The proposed public street system complies with City grid street and TSP standards subject to the following: [COR Code 8.2240(1 & 4) 8.2320(2)(A), 8.2415(1), 8.2710(1, 2, 3 & 10) & 8.3035(2)] [CORPWSS Development Provisions 03]

A) **SW Helmholtz Way** - minor arterial street. A paved road and sixty (60) to eighty (80) ft. public right-of-way exist, no curb or sidewalk, along property frontage. Street frontage improvements conforming to full width City minor arterial street standards shall be required per COR Standard Drawing 2-1 with new pavement section, striping, curb on both sides, sidewalk on the east side and storm drainage along property frontage. Twenty (20) ft. right-of-way dedication shall be required for a total width of 50 ft. east of centerline along property frontage. However, SW Helmholtz Way is planned for reconstruction as a 3 to 5 lane City minor arterial street along property frontage per the current TSP. Therefore, at the discretion of the City Engineer, a cash contribution for the east half of Helmholtz Way at City local street standards may be provided in lieu of constructing street frontage improvements.

B) **SW Salmon Ave.** - minor collector street. A paved street and forty (40) ft. public right-of-way exist along property frontage. Street frontage improvements conforming to City minor collector street standards shall be required per COR Standard Drawing 2-1 and 2-3 with new pavement section to centerline, curb and sidewalk on the north side, storm drainage and twenty (20) ft. right-of-way dedication along property frontage and east to 43rd Street. New ADA/curb ramps may be required at 43rd Street.

C) **SW Reindeer Ave.** - local grid street. A paved street and forty (40) ft. public right-of-way exist east of 43rd St. along property frontage. The proposed right-angle eyebrow corner at 43rd St. shall have traffic volume estimates of less than five-hundred (500) average daily trips (ADT) per COR Std Dwg 2-5 as confirmed by the Transportation Impact Analysis (TIA). Otherwise, the City elbow/cul-de-sac standard shall be required per COR Std Dwg 2-4. Street improvements conforming to City local/cul-de-sac street standards shall be required per COR Standard Drawing 2-1, 2-3 and 2-4 and/or 2-5 with new pavement to centerline, curb and sidewalk on the north side, storm drainage, twenty (20) ft. public right-of-way dedication and fifty (50) ft. cul-de-sac radius right-of-way dedication.

D) **SW 43rd St.** - local grid street. A paved street and forty (40) ft. public right-of-way exist south of Reindeer Ave. along property frontage. Street frontage improvements conforming to City local grid street standards shall be required per COR Standard Drawing 2-1 and 2-3 with new pavement section to centerline, curb and sidewalk on the west side, storm drainage and twenty (20) ft. right-of-way dedication along property frontage.

E) **SW 42nd St.** - local street. A paved street and sixty (60) ft. right-of-way exist just north of subject property. Street improvements conforming to City local street standards shall be required per COR Standard Drawing 2-1 with new pavement, curb, sidewalk, storm drainage and sixty (60) ft. right-of-way dedication through subject property.

F) **SW Forked Horn Butte Rd.** - local street south of Salmon Avenue. A paved street, thirty (30) ft. public right-of-way and thirty (30) ft. wide City owned tax lot 15-13-19CA-99 exist south of Salmon Avenue. City owned tax lot 99 also extends north to Helmholtz Way but not as a public street. Proposed site access and driveway connection at the Forked Horn Butte Rd./Salmon Ave. intersection will require an access easement across tax lot 99 approved by the City and/or current adjacent property owner and shall be re-aligned directly opposite of and across from Forked Horn Butte Road.

G) **Street Storm Drainage:**

1) Stormwater drainage systems in the public right-of-way shall be subject to current City design standards. [COR Code 8.2825(2)] [CORPWSS Design Standards II(B)]

- 2) New drywells shall comply with City/DEQ pretreatment and City testing requirements. Drywell drain rock shall not extend under any street pavement section. *[COR Code 8.2825(2)] [CORPWSS Design Standards II(B)]*
- 3) The location of drywells or other UIC's within City streets shall not conflict with existing active private water wells, community water wells or existing/future municipal drinking water wells. Identify all existing water wells that are within 500 ft. or the two-year time of travel zone of subject properties. *[COR Code 8.2825(2)] [CORPWSS Design Standards II(B)]*

H) Street Trees:

- 1) No street trees within 50 ft. of a street intersection per COR Standard Drawing 2-27.
- 2) No trees within 10 ft. of domestic water service, fire service or public storm facilities.
- 3) Trees shall not conflict with street or stop sign/control device and pedestrian crossing/ADA ramp line of sight.
- 4) No trees within driveway clear vision areas or blocking public street lighting.
- 5) Street tree species shall be selected from Redmond Parks Division approved tree list.

I) Traffic Impacts: The "Cottages on Helmholtz Transportation Impact Analysis" (TIA) submitted by Transight Consulting LLC dated 10-12-21 has been reviewed for site plan approval per COR Code 8.0500, 8.0505(11) and 8.3035(8) and is subject to the following:

- 1) The Engineering Dept. does not support the request to allow on-street guest parking along the adjacent public streets due to the expected negative impact of overflow parking on the surrounding neighborhood and along Helmholtz Way.
- 2) The intersection of SW 39th St/Reservoir Dr. shall be studied.
- 3) Traffic volume estimates at the proposed right-angle eyebrow corner at Reindeer Ave and 43rd St. shall be provided.
- 4) No other mitigation will be required beyond Transportation SDC's.

J) Site Access:

- 1) Proposed driveway connection at the Forked Horn Butte Rd./Salmon Ave. intersection will require an access easement across tax lot 99 approved by the City and/or current adjacent property owner and shall be re-aligned directly opposite of and across from Forked Horn Butte Road. Otherwise, proposed site access is acceptable subject to City sight/stopping distance, clear vision and driveway construction standards. *[COR Code 8.0305, 8.3035(7)(B) & 8.3035(9)(H)] [CORPWSS Design Standards II(A)(3), Div. II (214) & Standard Drawings]*
- 2) New driveway connections shall be constructed per COR Standard Drawings 2-11 thru 2-14. Maximum residential driveway width = 27 feet. *[COR Code 3.300, 8.0305, 8.0510(6 & 7) 8.3035(7)(B) & 8.3035(9)] [CORPWSS Div. II (214)]*
- 3) Direct vehicular access to Helmholtz Way, a minor arterial street, and Salmon Ave., a minor collector street, shall not be permitted except for emergency vehicles with locked fire gate. *[COR Code 8.3035(9)(a, b & d)]*
- 4) Postal box installation shall be subject to US Postal Service standards and City Engineer approval. *[CORPWSS Design Standards (II)(A)(16)]*

14. Water: An eighteen (18) inch City water main exists in Helmholtz Way along property frontage. An eight (8) inch City water main exists in Salmon Ave., Reindeer Ave. and 43rd St along property frontage. An eight (8) inch City water main exists in 42nd St. just north of subject property.

- A) Connection to the City's public water system shall be required for each new multi-family parcel. *[COR Code 8.2240(5), 8.2510(2)(D), 8.2715(3) & 8.3035(7)(D)]*
- B) A public water main shall be extended in 42nd St. as proposed for service to each new parcel per City Public Facility Requirement and Water System Plan (WSP) standards. *[COR Code 8.2415(1) & 8.2715(3)] [CORPWSS Development Provisions 03]*
- C) Private Interior Water System - Cottage Lots: Any on-site water system serving interior cottage lots with no public right-of-way frontage including any fire hydrants shall be privately

owned and maintained. The private water system shall also be subject to Oregon Health Authority (OHA) review/approval. [COR Code 4.050(11), 8.2240(5) & 8.2715(3)] [CORPWSS Design Standards II(D)(1)(d)]

D) Separate domestic water service connections conforming to City standards and City Water Division backflow prevention device requirements shall be required for each new multi-family residential parcel. A single water master meter located at the property/right-of-way line shall be required for each parcel. A City approved backflow prevention device shall be installed at the point of delivery/property line behind the water meter per COR Standard Drawing 4-18 thru 4-21. [COR Code 4.200, 4.161, 8.2240(5), 8.2510(2)(D), 8.2715(3 & 4(C)) & Code 8.3035(7)(D)] [CORPWSS Design Standards II(D)(1)(d)]

E) Fire service/sprinkler and irrigation systems shall be subject to City backflow prevention requirements. A detector double check valve assembly (DCDA) shall be installed for the fire service at the property/right-of-way line per current COR Standard Drawing 4-22 or 4-23. The fire line shall be connected to the City main for each property and separate from the domestic service. [COR Code 8.3035(7)(D)] [CORPWSS Design Standards II(D)(1)(d)]

F) New fire hydrants located on-site shall be privately owned and maintained with City approved backflow prevention device located at the property/right-of-way line. [COR Code 8.3035(7)(D)] [CORPWSS Design Standards II(D)(1)(d)]

G) Abandonment of any existing water well, cistern or other private water facility located on subject property shall be in accordance with Oregon Water Resource Department regulations. Documentation shall be submitted to the City Wastewater Division. [CORPWSS Development Provisions 04.7.00 & 22(13)] [OAR 690-220]

15. Wastewater: The fifteen (15) inch City gravity sewer trunk Line 'D' per current City Wastewater System Master Plan (WSMP) and services exists in Helmholtz Way and Reindeer Ave. along property frontage and through subject property. An eight (8) inch City gravity sewer main exists in 43rd St. along property frontage between Reindeer Ave. and Rhyolite Place. An eight (8) inch City gravity sewer main exists in 42nd St. just north of subject property. An eight (8) inch City gravity sewer main exists in Salmon Ave. along property frontage with a public sewer lift station on south side of Salmon Avenue.

A) Connection to the City's public sewer system shall be required each new multi-family parcel. [COR Code 8.2415(5), 8.2510(2)(D), 8.2715(3) & 8.3035(7)(D)]

B) Proposed sewer main extension in 42nd St. shall provide a complete gravity connection to Parcel 2.

C) Private Interior Sanitary Sewer System - Cottage Lots: Any on-site common sanitary sewer system and serving interior cottage lots shall be privately owned and maintained. Any private common sewer system serving multiple lots shall also be subject to Oregon Department of Environmental Quality (DEQ) review/approval.

D) Separate sanitary sewer service connections conforming to City standards including City Wastewater Division pretreatment, monitoring and sampling requirements shall be required for each new multi-family residential parcel with cleanout located at the property/right-of-way line per COR Standard Drawing 3-2. A wastewater pretreatment/discharge survey shall be completed and submitted to the Wastewater Division for the industrial/commercial or institutional user of each new parcel. New sanitary sewer services may be installed upon future redevelopment or building permits. Any unused sanitary sewer service shall be abandoned and/or removed per City standards. [COR Code 4.337, 4.338(1), 8.2715(3 & 4(C)) & 8.3035(7)(D)] [CORPWSS Design Standards II(C)(3)]

E) Any existing sewage drill hole, septic tank or other private sewer facility located on subject property shall be permanently abandoned in accordance with Deschutes County and Oregon Dept. of Environmental Quality (DEQ) regulations. [COR Code 4.304(3)] [CORPWSS Development Provisions 04.7.00 & 22(13)]

16. Parcel/Site Grading and Drainage:

- A) All site drainage shall be maintained each parcel/site and shall not drain onto public streets, neighboring properties or irrigation canal laterals. Storm water runoff from private property shall not impact public right-of-way or easements unless otherwise approved by the Public Works Director or City Engineer. *[COR Code 8.3030 & 8.3035(7)(A)] [CORPWSS Development Provisions 23]*
- B) A comprehensive site grading and drainage plan with erosion/sediment control plan and drainage report shall be submitted for Engineering Department review and shall be subject to current City and Central Oregon Stormwater Manual (COSM) design, construction and testing standards. *[COR Code 8.2720 & 8.3025(2), 8.3030 & 8.3035(7)(A)] [CORPWSS Development Provisions 23] [CORPWSS Design Standards (II)(B)]*
- C) Proposed site drainage facilities and stormwater systems shall have capacity or shall be designed for a 50-year/24-hour storm event (2 inches) and have appropriate pretreatment per City standards. *[CORPWSS Design Standards (II)(B)]*
- D) Containment of the 100-year/24-hour storm event on-site and outfall shall be required. *[CORPWSS Development Provisions 23.2.00(5)]*
- E) New on-site private drywells and other underground injection control (UIC) systems not part of the public drainage system must be registered and approved and/or permitted by the Oregon Department of Environmental Quality (DEQ) prior to construction or building permit issuance. Contact DEQ UIC Program Coordinator at 503-229-5945. Send copy of completed UIC permit application to DEQ and City of Redmond, 3100 NW 19th Street, Redmond, OR, 97756.
- F) UIC locations for pavement area drainage shall not conflict with existing active City municipal, community or private water wells. UIC's serving paved areas may not be located within public or community wellhead protection areas or 500 ft. of existing irrigation or drinking water wells. The western portion of this site is located within 500 ft. of an existing adjacent water well. Private drywell/UIC systems within the wellhead protection area require general or individual UIC permit issuance from DEQ prior to construction plan approval. The location of any existing active water well within 500 ft. or 2-year time of travel of a proposed UIC shall be identified on the plans. *[CORPWSS Design Standards (II)(B)(g)] [OAR 340-044-0018]*
- G) New storm drain ponds, basins or swales shall include eighteen (18) inch filter layer of compost amended topsoil, 3:1 max. side slopes, inlets, surface treatment/landscaping, flood overflow point and erosion control. Geotextile filter fabric shall be required under any landscape rock or rip-rap.
- H) Erosion control such as rip-rap, drain rock or other energy dissipation will be necessary on inlet/outlet areas or pipes in storm swales and along conveyance swales.
- I) Trash enclosure storm drainage shall be isolated and pre-treated prior to connection to a storm facility. *[COSM 10.3.4]*
- J) Proposed on-site storm facilities may not be located within existing public right-of-way or easements and shall not impact existing public drainage facilities.

17. Construction Plans: Upon land use approval, a separate set of construction drawings may be submitted directly to the Engineering Department for design review and approval of all proposed and/or required public improvements, water/sewer service connections, site grading/drainage and utilities. *[COR Code 8.3025(2), 8.3030 & 8.3035(7)(A)] [CORPWSS Development Provisions 04 & 23]*

//////////////////// **END OF CONDITIONS** //////////////////////

Prepared by:
Kyle Roberts, AICP
Interim Planning Director



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- D



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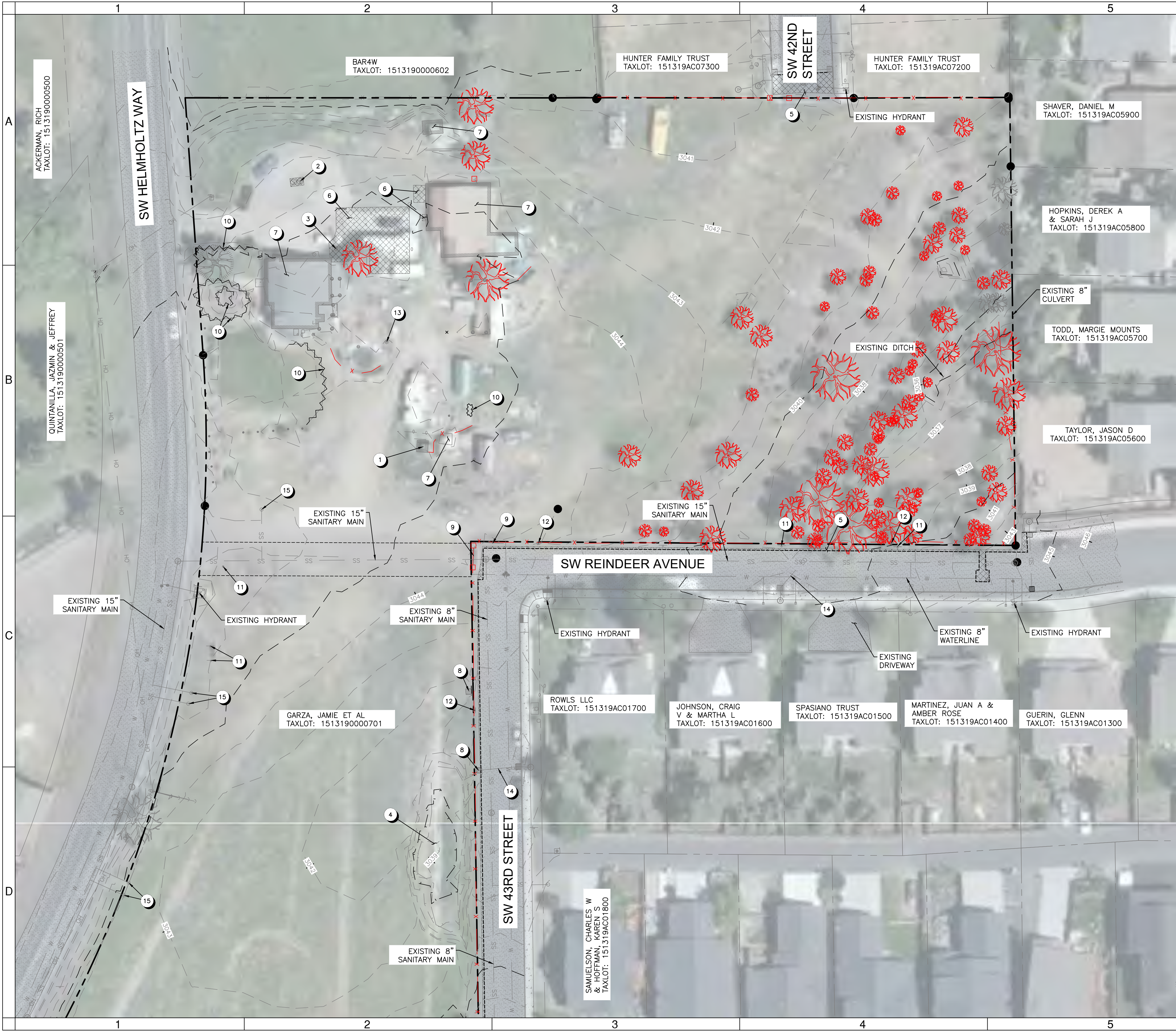


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LEGEND

- PROPERTY LINE
- EASEMENT LINE
- EXISTING MONUMENT
- MAJOR CONTOURS
- MINOR CONTOURS
- EXISTING WATER
- EXISTING STORM PIPE
- EXISTING SEWER
- EXISTING FENCE
- EXISTING FENCE TO BE REMOVED
- EXISTING HYDRANT
- EXISTING SEWER MANHOLE
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING CATCH BASIN
- EXISTING DRYWELL/SED MH
- EXISTING CATV/TEL PEDESTAL
- EXISTING POWER METER
- EXISTING LIGHT POLE
- EXISTING POWER POLE
- EXISTING SIGN
- EXISTING TREE/TREE STUMP
- EXISTING TREE/TREE STUMP TO BE REMOVED

DEMOLITION NOTES:

- 1 EXISTING WELL TO BE DECOMMISSIONED
- 2 EXISTING SEPTIC TANK TO BE DECOMMISSIONED
- 3 EXISTING CISTERN TO BE REMOVED
- 4 EXISTING SWALE TO BE REMOVED
- 5 EXISTING ASPHALT TO BE SAWCUT AND REMOVED
- 6 EXISTING CONCRETE TO BE REMOVED
- 7 EXISTING BUILDING TO BE REMOVED
- 8 EXISTING CATCH BASIN TO BE REMOVED
- 9 EXISTING BARRICADE TO BE REMOVED
- 10 EXISTING WALL TO BE REMOVED
- 11 EXISTING SIGN TO BE REMOVED
- 12 EXISTING UTILITY STUB TO BE REMOVED/RELOCATE
- 13 EXISTING LIGHT POLE TO BE REMOVED
- 14 EXISTING 8" STORM PIPE TO BE REMOVED
- 15 EXISTING 4" SEWER SERVICE TO BE REMOVED

COORDINATE SYSTEM:

THIS SURVEY UTILIZES A LOW DISTORTION PROJECTION (LDP) WHICH IS RELATIVE TO THE OREGON COORDINATE REFERENCE SYSTEM (OCRS) OF 1983 (2011). WITH RESPECT TO THE LOCAL LATITUDE AND GROUND ELEVATION, THE LDP COORDINATES DEFINE TRUE GROUND DISTANCES.

OREGON COORDINATE REFERENCE SYSTEM BEND REDMOND PRINEVILLE ZONE NORTH AMERICAN DATUM OF 1983 (2011) 2010.00 UNITS IN INTERNATIONAL FEET

EXISTING CONDITIONS & DEMO PLAN

SCALE: 1" = 30'



COTTAGES ON HELMHOLTZ
LEDG CAPITAL
EXISTING CONDITIONS & DEMOLITION PLAN
CITY OF REDMOND, DESCHUTES COUNTY, OREGON



REVISIONS:

1.	
2.	
3.	

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SUITE 105
BEND, OREGON 97702
(541) 635-3140
www.becomeng.com

BECON
CIVIL ENGINEERING
& LAND SURVEYING

DESIGNED BY: AKP	DATE: 4/4/2022
DRAWN BY: CLH	
SCALE: 1" = 30'	
FILE: 21088	

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH
ON ORIGINAL DRAWING

SHEET:	C2.0
	2 OF 8
FILE#	21088



LEGEND

- PROPERTY LINE
- EASEMENT LINE
- EXISTING MONUMENT
- MAJOR CONTOURS
- MINOR CONTOURS
- EXISTING WATER
- EXISTING STORM PIPE
- EXISTING SEWER
- EXISTING FENCE
- EXISTING FENCE TO BE REMOVED
- EXISTING HYDRANT
- EXISTING SEWER MANHOLE
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING CATCH BASIN
- EXISTING DRYWELL/SED MH
- EXISTING CATV/TEL PEDESTAL
- EXISTING POWER METER
- EXISTING LIGHT POLE
- EXISTING POWER POLE
- EXISTING SIGN
- EXISTING TREE/TREE STUMP
- EXISTING TREE/TREE STUMP TO BE REMOVED

DEMOLITION NOTES:

- EXISTING ASPHALT TO BE SAWCUT AND REMOVED
- EXISTING BARRICADE TO BE REMOVED
- EXISTING UTILITY STUB TO BE REMOVED/RELOCATE
- EXISTING 8" STORM PIPE TO BE REMOVED
- EXISTING 4" SEWER SERVICE TO BE REMOVED
- EXISTING CURB RAMP TO BE REMOVED

COORDINATE SYSTEM:

THIS SURVEY UTILIZES A LOW DISTORTION PROJECTION (LDP) WHICH IS RELATIVE TO THE OREGON COORDINATE REFERENCE SYSTEM (OCRS) OF 1983 (2011). WITH RESPECT TO THE LOCAL LATITUDE AND GROUND ELEVATION, THE LDP COORDINATES DEFINE TRUE GROUND DISTANCES.

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EXISTING CONDITIONS & DEMO PLAN

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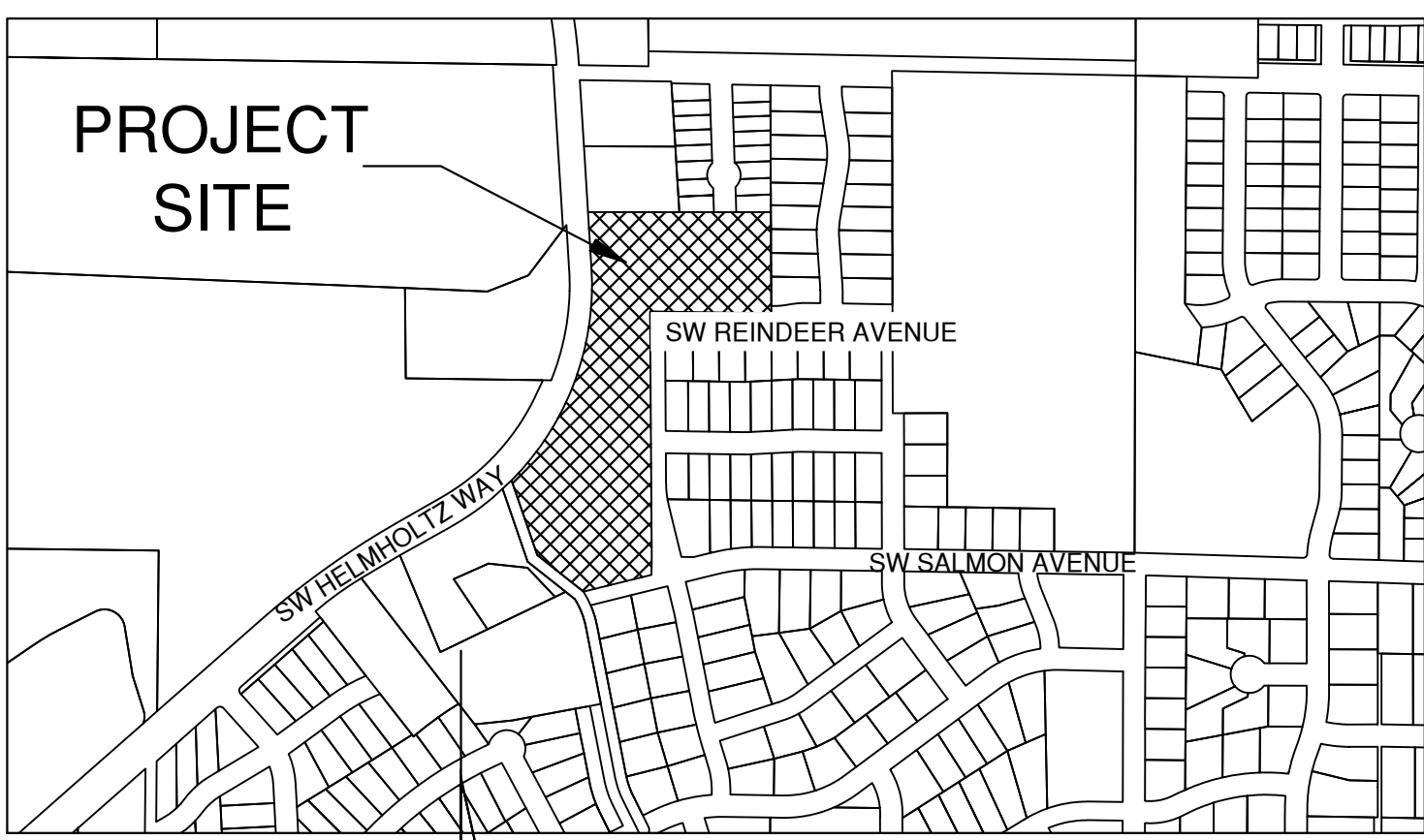
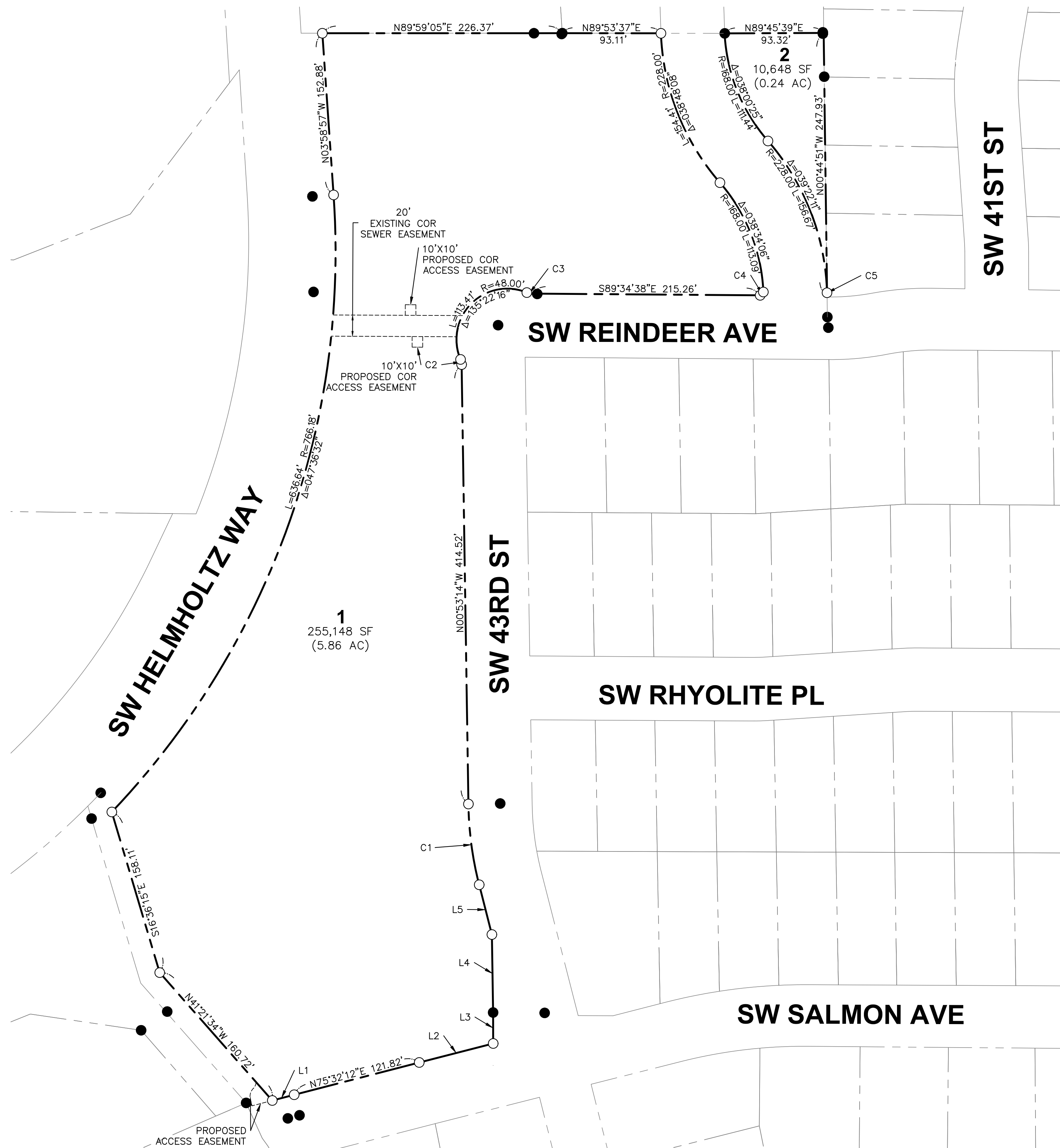
SHEET: C2.1

3 OF 8

FILE# 21088

COTTAGES ON HELMHOLTZ - TENTATIVE PARTITION PLAT

LOCATED IN THE S.E. 1/4 OF THE N.E. 1/4 SECTION 19 TOWNSHIP 15S RANGE 13E W.M. DESCHUTES COUNTY, OREGON.



VICINITY MAP
NOT TO SCALE

LEGEND:

EXISTING TAX LOTS	---
PROPOSED LOT LINE	---
EXISTING/PROPOSED EASEMENT	---
EXISTING MONUMENT	●
PROPOSED MONUMENT	○

PROJECT DATA:

EXISTING TAX LOT NUMBER:	1513190000701
CURRENT ZONING:	R4
EXISTING LOT AREA:	7.45 AC
PARCEL 1 PROPOSED AREA:	5.91 AC
PARCEL 2 PROPOSED AREA:	0.24 AC
ROW DEDICATION:	1.35 AC

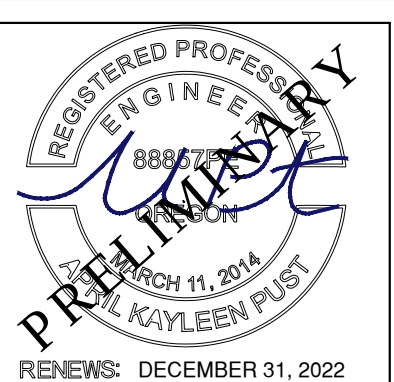
CURVE DATA

CURVE	LENGTH	RADIUS	DELTA
C1	77.02'	330.00'	13°22'21"
C2	5.00'	13.00'	22°01'50"
C3	5.00'	13.00'	22°01'50"
C4	4.86'	3.00'	92°48'15"
C5	0.34'	3.00'	6°26'04"

LINE DATA

LINE	LENGTH	BEARING
L1	21.38'	N75°17'15"E
L2	72.04'	N75°36'17"E
L3	29.23'	N00°07'27"W
L4	73.54'	N00°54'28"W
L5	48.47'	N14°17'35"W

TENTATIVE PARTITION PLAT
SCALE: 1"=60'



COTTAGES ON HELMHOLTZ
LEDG CAPITAL
TENTATIVE PARTITION PLAT
CITY OF REDMOND, DESCHUTES COUNTY, OREGON



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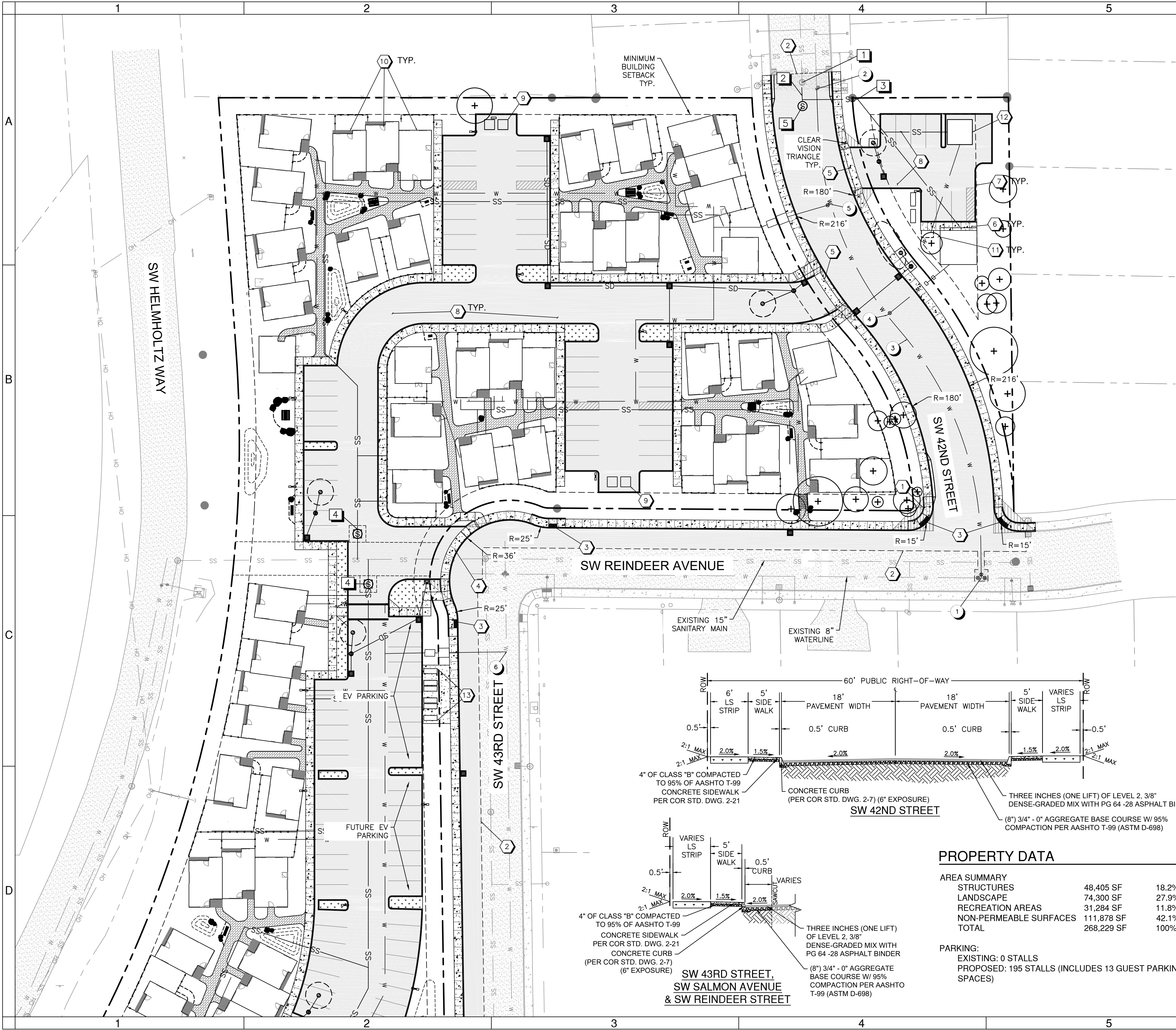
DESIGNED BY: AKP	DATE: 4/4/2022
DRAWN BY: CLH	
SCALE: 1" = 60'	
FILE: 21088	

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH
ON ORIGINAL DRAWING

SHEET: C3.0

4 OF 8

FILE# 21088



LEGEND

PROPOSED CONCRETE
PROPOSED ASPHALT
PROPOSED PAVERS
PROP/EX PROPERTY LINE
PROP/EX EASEMENT LINE
PROPOSED WATER
PROPOSED SEWER
PROPOSED CURB

SITE NOTES

1 INSTALL STREET NAME SW REINDEER AND STOP SIGN.
2 SAWCUT AND PATCH ASPHALT TO MATCH EXISTING THICKNESS (MINIMUM 8" AC ON 3" BASE).
3 CONSTRUCT PARALLEL CURB RAMP PER COR STD DWG 2-17.
4 CONSTRUCT DRIVEWAY APPROACH PER COR STD DWG 2-14.
5 CONSTRUCT DRIVEWAY APPROACH PER COR STD DWG 2-13
6 CONSTRUCT SIDEWALK PER COR STD DWG 2-21
7 CONSTRUCT CURB PER COR STD DWG 2-7
8 CONSTRUCT NEW 3" HMAC OVER 8" COMPACTED GRAVEL BASE FOR PARKING LOT.
9 PROPOSED TRASH ENCLOSURE, REFER TO ARCHITECTURE PLANS
10 PROPOSED COTTAGES, REFER TO ARCHITECTURE PLANS
11 PROPOSED BIKE PARKING, REFER TO ARCHITECTURE PLANS
12 PROPOSED MAINTENANCE BUILDING, REFER TO ARCHITECTURE PLANS
13 PROPOSED CLUSTER MAILBOXES, REFER TO ARCHITECTURE PLANS

SEWER NOTES

1 CORE INTO EXISTING 48" STANDARD SEWER MANHOLE.
2 INSTALL 8" SEWER MAIN PER COR STANDARD DWG 3-1.
3 INSTALL SEWER SERVICE LINE PER CITY STANDARD DETAIL 3-2.
4 INSTALL SEWER SAMPLING MANHOLE PER COR STANDARD DWG 3-7.
5 INSTALL 48" STANDARD SEWER MANHOLE PER CITY STANDARD DETAIL 3-3.

WATER NOTES

1 HOT TAP EXISTING 8" RESTRAINED D.I WATER MAIN IN SW REINDEER AVENUE AND INSTALL ONE 8" GATE VALVE. LOCATION AND ELEVATION ARE APPROXIMATE. CONTRACTOR SHALL POTHOLE AND VERIFY ELEVATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.
2 CONNECT TO EXISTING 8" D.I. WATER MAIN IN SW 42ND ST
3 INSTALL WATER MAIN PER COR STANDARD DWG 4-1.
4 INSTALL 2" WATER SERVICE LINE AND 2" WATER METER FOR DOMESTIC WATER SERVICE PER CITY STANDARD DETAILS 4-6 AND 4-18.
5 INSTALL 3" WATER SERVICE LINE AND 3" WATER METER FOR DOMESTIC WATER SERVICE PER CITY STANDARD DETAILS 4-7 AND 4-19 .
6 INSTALL 4" WATER SERVICE LINE AND 4" WATER METER FOR DOMESTIC WATER SERVICE PER CITY STANDARD DETAILS 4-8 AND 4-19 .

SEWER NOTES

1 CORE INTO EXISTING 48" STANDARD SEWER MANHOLE.
2 INSTALL 8" SEWER MAIN PER COR STANDARD DWG 3-1.
3 INSTALL SEWER SERVICE LINE PER CITY STANDARD DETAIL 3-2.
4 INSTALL SEWER SAMPLING MANHOLE PER COR STANDARD DWG 3-7.
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6 INSTALL 4" WATER SERVICE LINE AND 4" WATER METER FOR DOMESTIC WATER SERVICE PER CITY STANDARD DETAILS 4-8 AND 4-19 .

NOTE: ALL WATER MAIN BENDS, TEES, AND FITTINGS SHALL BE RESTRAINED PER EBAA IRON RESTRAINT LENGTH CALCULATOR.

SITE & UTILITY PLAN

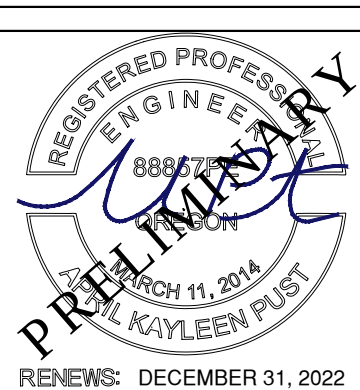
SCALE: 1" = 30'

PROPERTY DATA

AREA SUMMARY		
STRUCTURES	48,405 SF	18.2%
LANDSCAPE	74,300 SF	27.9%
RECREATION AREAS	31,284 SF	11.8%
NON-PERMEABLE SURFACES	111,878 SF	42.1%
TOTAL	268,229 SF	100%

PARKING:

EXISTING: 0 STALLS
PROPOSED: 195 STALLS (INCLUDES 13 GUEST PARKING SPACES)



**COTTAGES ON HELMHOLTZ
LEDG CAPITAL
SITE & UTILITY PLAN**



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SCALE: 1" = 30'
FILE: 21088
DATE: 4/4/2022

VERIFY SCALES

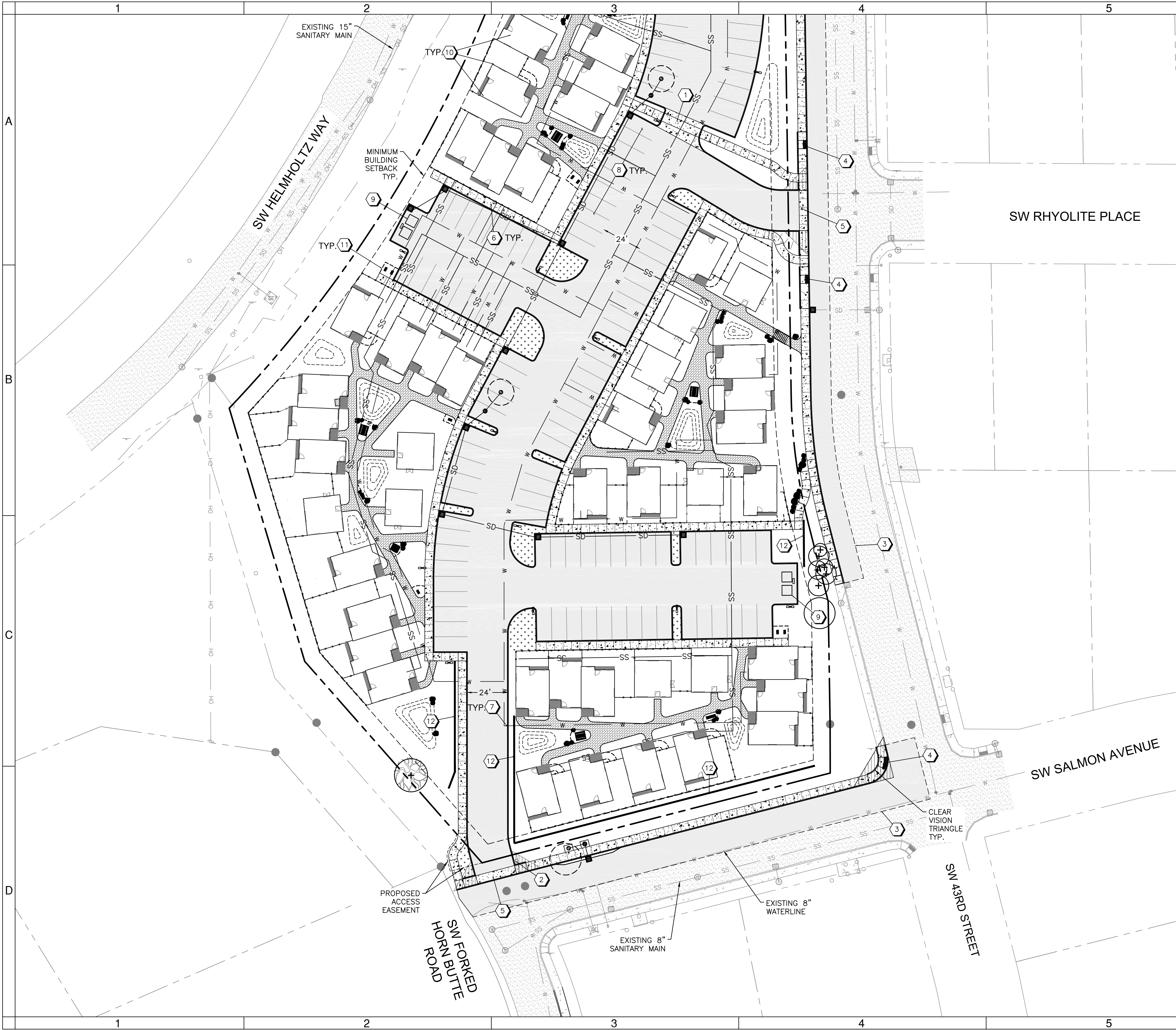
0 1"

BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: **C4.0**

5 OF 8

FILE# 21088



LEGEND

PROPOSED CONCRETE	
PROPOSED ASPHALT	
PROPOSED PAVERS	
PROP/EX PROPERTY LINE	
PROP/EX EASEMENT LINE	
PROPOSED WATER	
PROPOSED SEWER	
PROPOSED CURB	

- SITE NOTES**
- 1 PROPOSED PEDESTRIAN RAISED CROSSING
 - 2 INSTALL STREET NAME SW FORKED HORN BUTTE AND STOP SIGN.
 - 3 SAWCUT AND PATCH ASPHALT TO MATCH EXISTING THICKNESS (MINIMUM 8" AC ON 3" BASE).
 - 4 CONSTRUCT PARALLEL CURB RAMP PER COR STD DWG 2-17.
 - 5 CONSTRUCT DRIVEWAY APPROACH PER COR STD DWG 2-14.
 - 6 CONSTRUCT SIDEWALK PER COR STD DWG 2-21
 - 7 CONSTRUCT CURB PER COR STD DWG 2-7
 - 8 CONSTRUCT NEW 3" HMAC OVER 8" COMPACTED GRAVEL BASE FOR PARKING LOT.
 - 9 PROPOSED TRASH ENCLOSURE, REFER TO ARCHITECTURE PLANS
 - 10 PROPOSED COTTAGES, REFER TO ARCHITECTURE PLANS
 - 11 PROPOSED BIKE PARKING, REFER TO ARCHITECTURE PLANS
 - 12 PROPOSED RETAINING WALL, ~ 3.5' TALL

PROPERTY DATA

AREA SUMMARY		
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RECREATION AREAS	31,284 SF	11.8%
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SITE & UTILITY PLAN
SCALE: 1" = 30'

**COTTAGES ON HELMHOLTZ
LEDG CAPITAL**
SITE & UTILITY PLAN
CITY OF REDMOND, DESCHUTES COUNTY, OREGON

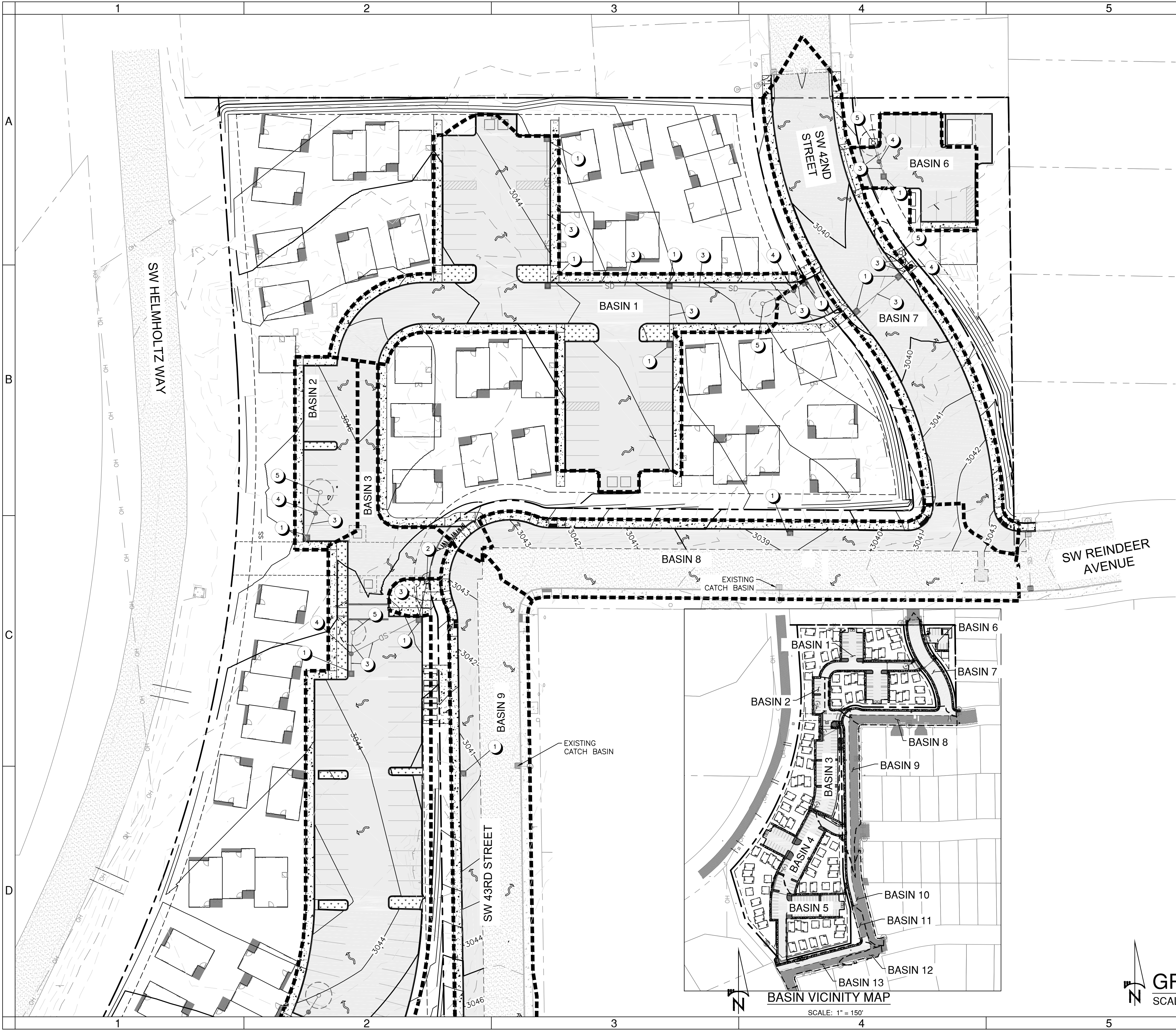
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VERIFY SCALES
0 1"
BAR EQUALS ONE INCH
ON ORIGINAL DRAWING

SHEET: C4.1
6 OF 8
FILE# 21088



LEGEND

PROPOSED MINOR CONTOUR ——— 3581 ———

PROPOSED MAJOR CONTOUR ——— 3580 ———

EXISTING MINOR CONTOUR - - - - - 3581 - - - - -

EXISTING MAJOR CONTOUR - - - - - 3580 - - - - -

PROPOSED STORM PIPE ——— SD ———

DRAINAGE BASIN LIMITS ——— Dashed Line ———

SURFACE FLOW ARROW ——— Arrow ———

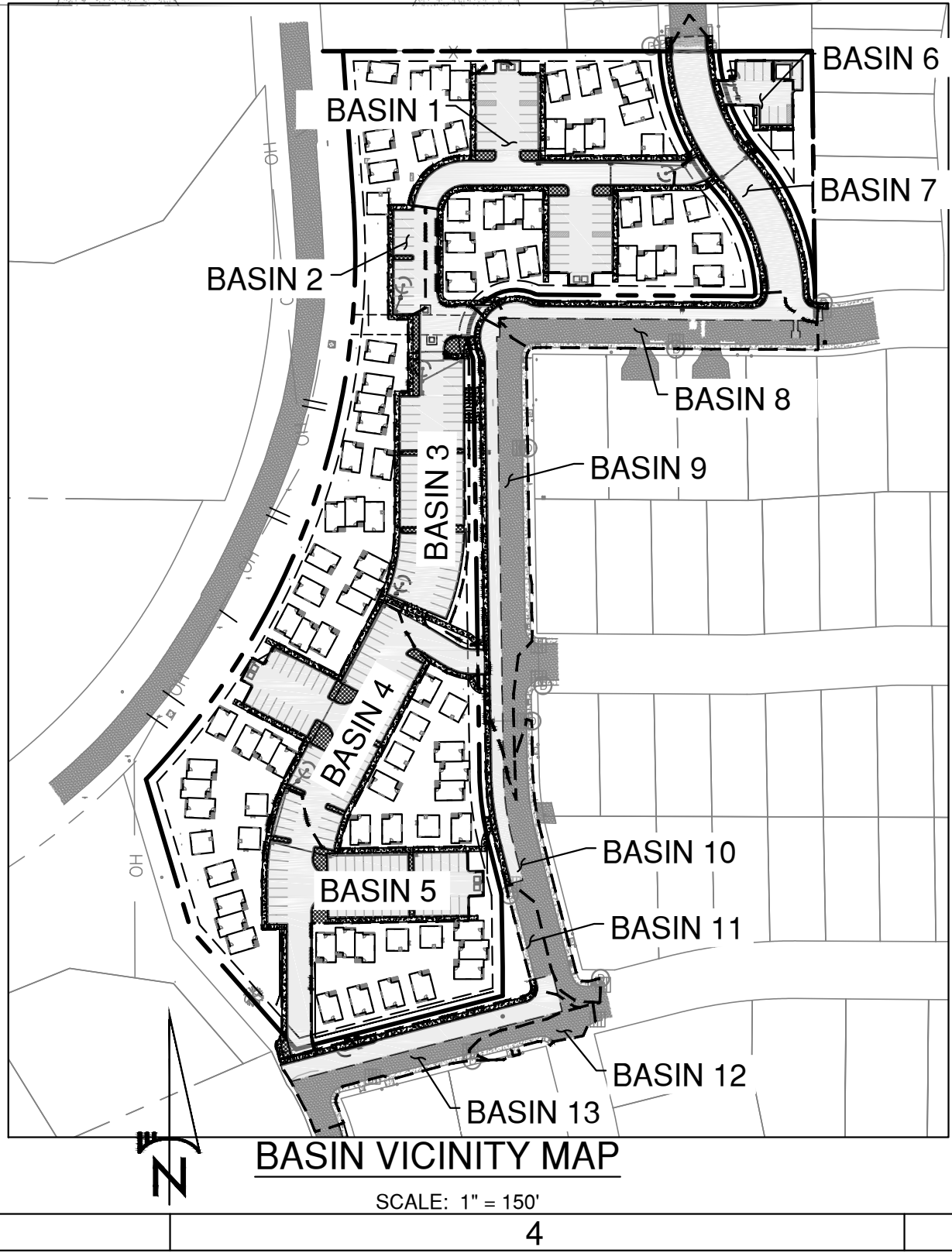
STORMWATER CALCULATIONS
6 MONTH = 0.7" / 50 YEAR = 2.0" / 100 YEAR = 2.2"

BASIN	BASIN AREA (SF/AC)
1	22,610/0.52
2	4,190/0.10
3	26,043/0.61
4	21,851/0.50
5	23,360/0.54
6	3,528/0.08
*7	14,205/0.33
*8	14,666/0.34
*9	18,451/0.42
*10	10,020/0.23
*11	2,765/0.06
*12	2,994/0.07
*13	12,575/0.29

NOTE:

- *BASINS WITHIN THE RIGHT-OF-WAY
- STORMWATER SYSTEM, INFILTRATION, AND TESTING TO BE DESIGNED PER COR AND COSM DESIGN STANDARDS.

- GRADING & DRAINAGE NOTES**
- 1 PROPOSED STANDARD CATCH BASIN PER COR STD DWG 5-4.
 - 2 PROPOSED CURB INLET PER COR STD DWG 5-5.
 - 3 PROPOSED 8" AWWA C900 PVC STORM PIPE
 - 4 PROPOSED SEDIMENTATION MANHOLE PER COR STD DWG 5-8
 - 5 PROPOSED STANDARD PRE-CAST DRYWELL PER COR STD DWG 5-2



GRADING & DRAINAGE PLAN
SCALE: 1" = 30'



COTTAGES ON HELMHOLTZ
LEDG CAPITAL
GRADING & DRAINAGE PLAN
CITY OF REDMOND, DESCHUTES COUNTY, OREGON



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SHEET: **C5.0**

7 OF 8

FILE# 21088



LEGEND

PROPOSED MINOR CONTOUR 3581

PROPOSED MAJOR CONTOUR 3580

EXISTING MINOR CONTOUR 3581

EXISTING MAJOR CONTOUR 3580

PROPOSED STORM PIPE SD

DRAINAGE BASIN LIMITS - - - - -

SURFACE FLOW ARROW ~~~~~

STORMWATER CALCULATIONS
6 MONTH = 0.7" / 50 YEAR = 2.0" / 100 YEAR = 2.2"

BASIN	BASIN AREA (SF/AC)
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 - 4 PROPOSED SEDIMENTATION MANHOLE PER COR STD DWG 5-8

GRADING & DRAINAGE PLAN
SCALE: 1" = 30'

COTTAGES ON HELMHOLTZ
LEDG CAPITAL
GRADING & DRAINAGE PLAN
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8 OF 8

FILE# 21088

NOTES:
SCHEMATIC DESIGN LEVEL FURNISHINGS ARE SHOWN FOR GENERAL DESIGN INTENT ONLY. FINAL FURNISHING SELECTIONS MAY DIFFER FROM THOSE SHOWN HERE AND SHALL BE PROVIDED WITH BUILDING PERMIT SUBMITTAL

Product sheet

FORUM bicycle rack

2584-904C

Designed by
Tore Borgersen, Michael Olofsson, Espen Voll

Forum bicycle rack is available in narrow and wide versions. It is sturdily built and provides good support for up to two bicycles.

150

100

150

150

Anchoring/assembly

Type C - Concreting

Primary material

Powder-coated aluminum

Aluminum profiles with powder coated surface. We provide a 15 year offshore guarantee for warranty on our products. Corrosion class CS-M.

Color

RAL 6034 - Pastel turquoise

Powder coated with Isolan topcoat for standard colors. Vestre offers more than 200 standard RAL classic colors at no extra charge.

Sustainability

Indicators

Global warming potential

kg CO2e

15.43

21.49

26.53

30.63

Certifications

ISO 9001

ISO 14001

ISO 45001

Warranty

• Lifetime warranty against rust

• 15 year warranty on powder coating

• 15 year warranty on wood

• Spare parts always available

Additional features on request

☐ Swivel

☐ Modular

☐ ADA

☐ USB

☐ LED

☐ HC

☒ Antigraff

☐ Water system

☐ Lifting hook

☐ Caster

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Product sheet

TOUR bicycle post

2886-900C

Designed by
Halvard Jakobsen

Tour bicycle post offers good support for two bicycles and can be supplied with a laser-cut design of your choice.

150

100

150

150

Anchoring/assembly

Type C - Concreting

Primary material

Hot-dip galvanized and powder-coated steel

The powder coating process was developed to satisfy the tough requirements of the Norwegian offshore industry. Corrosion class CS-M.

Color

RAL 6034 - Pastel turquoise

Powder coated with Isolan topcoat for standard colors. Vestre offers more than 200 standard RAL classic colors at no extra charge.

Sustainability

Indicators

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kg CO2e

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☐ HC

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☐ Water system

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☐ Caster

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Creating intimacy with surroundings

Contemporary, architectural designs connect multiple spaces.

With a visually attractive collection of products enabling a uniform modern architectural design across an entire campus setting, the contemporary design cues of the LuxeScape integrates elegantly into modern day urban architecture enhancing the pedestrian experience.

When appropriately scaled for the space, an intimacy is created between the LuxeScape collection and its surrounding environment. The LuxeScape is photometrically designed for pedestrian scale mounting heights, reducing glare for optimal visibility and superior uniform illumination.

4 COOPER LIGHTING SOLUTIONS LuxeScape Collection LED

A flexible design solution

The LuxeScape Collection is photometrically designed for pedestrian scale mounting heights, reducing glare for optimal visibility and superior uniform illumination. With a variety of mounting configurations, optic distributions and lumen packages, the LuxeScape Collection can be utilized for parking areas, on pedestrian pathways or exterior walls, and even within interior spaces.

10 COOPER LIGHTING SOLUTIONS LuxeScape Collection LED

BIKE RACK

NOTES:
SCHEMATIC DESIGN LEVEL FURNISHINGS ARE SHOWN FOR GENERAL DESIGN INTENT ONLY. FINAL FURNISHING SELECTIONS MAY DIFFER FROM THOSE SHOWN HERE AND SHALL BE PROVIDED WITH BUILDING PERMIT SUBMITTAL

Product sheet

CODE picnic table

2622-900

Designed by
Hong Ngo-Aandal, Johan Verde

Code picnic table is easily accessible to all, whether you're working on a table, chatting over a cup of coffee or just relaxing.

150

100

150

150

Anchoring/assembly

Free-standing/mounted to the ground

Primary material

Hot-dip galvanized and powder-coated steel

The powder coating process was developed to satisfy the tough requirements of the Norwegian offshore industry. Corrosion class CS-M.

Color

RAL 6034 - Pastel turquoise

Powder coated with Isolan topcoat for standard colors. Vestre offers more than 200 standard RAL classic colors at no extra charge.

Sustainability

Indicators

Global warming potential

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Additional features on request

☐ Swivel

☒ Modular

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☐ Water system

☐ Lifting hook

☐ Caster

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Product sheet

BERG picnic table

322-900

Designed by
Tore Borgersen, Michael Olofsson, Espen Voll

Berg picnic table is a reasonably priced, sociable table and bench combination that works anywhere in the city. It is also available in an extended version for wheelchair users.

150

100

150

150

Anchoring/assembly

Free-standing/mounted to the ground

Primary material

Hot-dip galvanized and powder-coated steel

The powder coating process was developed to satisfy the tough requirements of the Norwegian offshore industry. Corrosion class CS-M.

Color

RAL 6034 - Pastel turquoise

Powder coated with Isolan topcoat for standard colors. Vestre offers more than 200 standard RAL classic colors at no extra charge.

Sustainability

Indicators

Global warming potential

kg CO2e

15.43

21.49

26.53

30.63

Certifications

ISO 9001

ISO 14001

ISO 45001

Warranty

• Lifetime warranty against rust

• 15 year warranty on powder coating

• 15 year warranty on wood

• Spare parts always available

Additional features on request

☐ Swivel

☐ Modular

☐ ADA

☐ USB

☒ LED

☒ HC

☒ Antigraff

☐ Water system

☐ Lifting hook

☐ Caster

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POLE-TOP LIGHTS

NOTES:
SCHEMATIC DESIGN LEVEL FURNISHINGS ARE SHOWN FOR GENERAL DESIGN INTENT ONLY. FINAL FURNISHING SELECTIONS MAY DIFFER FROM THOSE SHOWN HERE AND SHALL BE PROVIDED WITH BUILDING PERMIT SUBMITTAL

Product sheet

BLOC seat

1506-900

Designed by
Atle Trell, Lars Tønne

Bloc seat is available with or without a backrest and armrests, and can be used on its own or joined in rows and back to back.

150

100

150

150

Anchoring/assembly

Free-standing/mounted to the ground

Primary material

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The powder coating process was developed to satisfy the tough requirements of the Norwegian offshore industry. Corrosion class CS-M.

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☐ Caster

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Product sheet

BLOC sun bench

1566-900

Designed by
Atle Trell, Lars Tønne

Bloc sun bench can be used on its own or joined in rows and back to back. It is also available with a short seat.

150

100

150

150

Anchoring/assembly

Free-standing/mounted to the ground

Primary material

Hot-dip galvanized and powder-coated steel

The powder coating process was developed to satisfy the tough requirements of the Norwegian offshore industry. Corrosion class CS-M.

Color

RAL 6034 - Pastel turquoise

Powder coated with Isolan topcoat for standard colors. Vestre offers more than 200 standard RAL classic colors at no extra charge.

Sustainability

Indicators

Global warming potential

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☐ Lifting hook

☐ Caster

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Product sheet

BLOC seat

1516-900

Designed by
Atle Trell, Lars Tønne

Bloc seat is available with or without a backrest and armrests, and can be used on its own or joined in rows and back to back.

150

100

150

150

Anchoring/assembly

Free-standing/mounted to the ground

Primary material

Hot-dip galvanized and powder-coated steel

The powder coating process was developed to satisfy the tough requirements of the Norwegian offshore industry. Corrosion class CS-M.

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PICNIC TABLES

4' HT WOOD SCREEN FENCE

SCALE: 1/2"= 1'-0"

BENCH SEATING

project

Helmholtz Multi-Family
2052 SW Helmholtz Way
Redmond, OR 97756
Tax Lot: 1513190000701

date 2021.10.04

sla project number 2145

agency project number

sheet description
SCHEMATIC SITE DETAILS
AND CUT SHEETS

sheet number

LS2.01

project phase

SCHEMATIC DESIGN

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— DOUBLE HOLLAND CONCRETE PAVER PATHWAYS - 4' MIN. WIDTH

APPROXIMATELY 50% (5-3) GALLON SIZE & 50% - (1) GALLON SIZE CONTAINER PLANTS

APPROXIMATELY 40% (1) GAL. @ 18" O.C. AND 60% (1) GAL. @ 30" O.C.

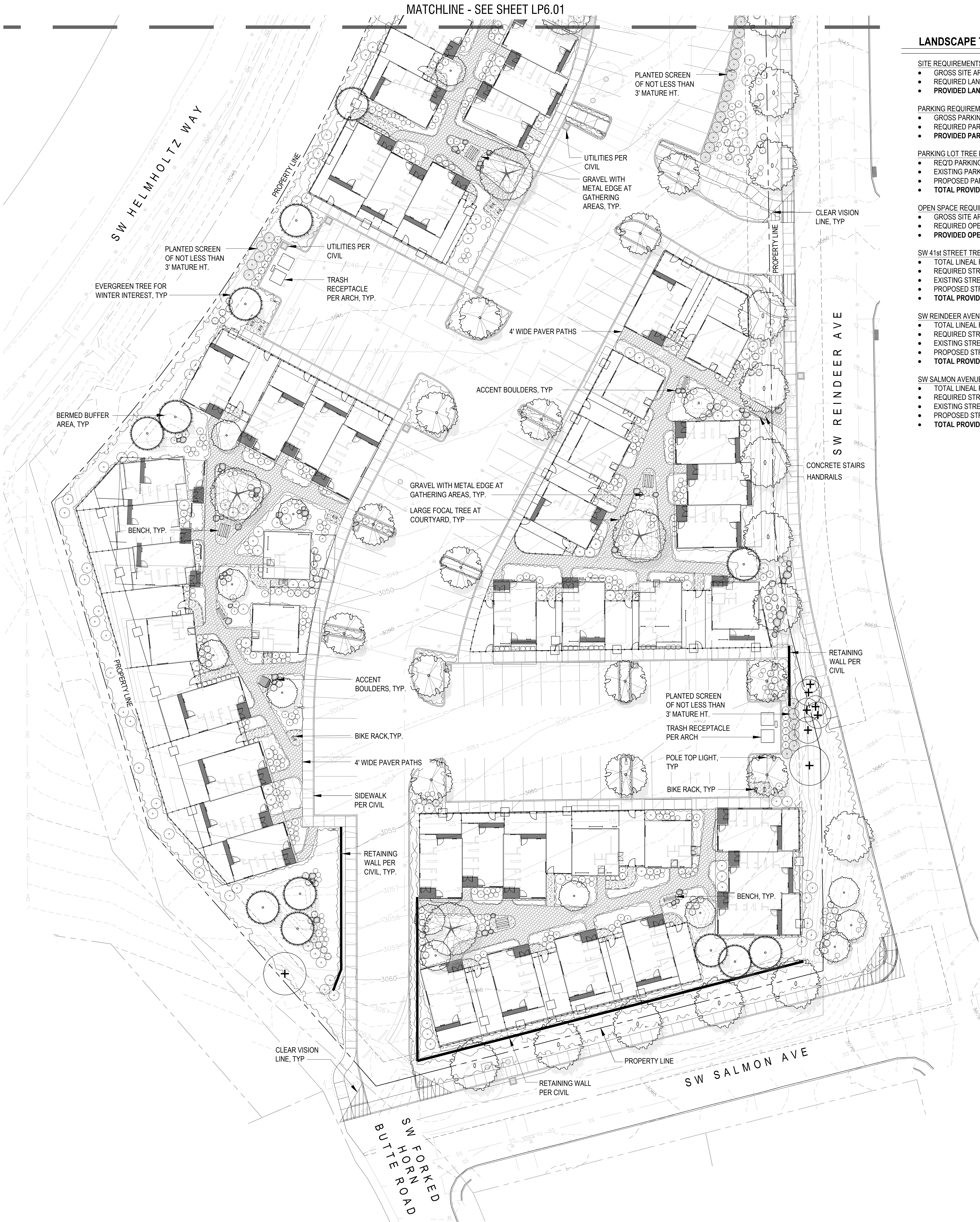
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2. REFER TO SPECIFICATIONS FOR SOIL PREPARATION AND PLANTING SUBMITTALS AND PROCEDURES.
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4. PLANTING SHALL OCCUR BETWEEN THE MONTHS OF APRIL AND OCTOBER. PLANTING DURING JULY AND AUGUST SHOULD BE AVOIDED IF POSSIBLE.
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6. ALL PLANTING AREAS SHALL RECEIVE A 2" THK TOP DRESSING OF DARK SHREDDED HEMLOCK BARK MULCH PER SPECIFICATIONS.
7. THIS PLAN IS SCHEMATIC IN NATURE AND INTENDED TO SHOW CODE COMPLIANCE. A COMPLETE LANDSCAPE & IRRIGATION PLAN WILL BE SUBMITTED WITH THE BUILDING PERMIT APPLICATION.
8. ALL LANDSCAPED AREAS SHALL ACHIEVE A 50% MIN. VEGETATIVE COVER AT THE TIME OF PLANTING.
9. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH A PERMANENT UNDERGROUND IRRIGATION SYSTEM. SHRUB AREAS SHALL BE IRRIGATED WITH A COMBINATION OF INLINE DRIP AND HIGH EFFICIENCY SPRAY. IRRIGATION SYSTEMS SHALL FULLY IRRIGATE PLANT MATERIAL, WHILE CONSIDERING PLANT MATERIAL SIZE, LOCATION, AND APPROPRIATE ZONES TO MAXIMIZE EFFICIENT WATER USAGE.
10. IRRIGATION CONTROLLER SHALL BE PROGRAMMABLE, EPA WATERSENSE SMART CONTROLLER WITH AUTO-ADJUST CAPABILITIES.

project phase

SCHEMATIC LAND USE SET

- TOTAL LINEAL FEET OF FRONTAGE: 200 LF
- REQUIRED STREET TREES @ 40 FT. ON CENTER: 05 TREES
- EXISTING STREET TREES TO REMAIN: 00 TREES
- PROPOSED STREET TREES: 05 TREES
- TOTAL PROVIDED STREET TREES: 05 TREES



LANDSCAPE TABULATIONS:

SITE REQUIREMENTS

- GROSS SITE AREA: 265,867 SF
- REQUIRED LANDSCAPE AREA: 15% (39,880 SF)
- PROVIDED LANDSCAPE AREA: 28% (74,300 SF)

PARKING REQUIREMENTS

- GROSS PARKING AND DRIVE AISLES AREA: 81,060 SF
- REQUIRED PARKING LOT LANDSCAPE: 10% (8,106 SF)
- PROVIDED PARKING LOT LANDSCAPE: 11% (8,917 SF)

PARKING LOT TREE REQUIREMENTS

- REQ'D PARKING LOT TREES @ 1 PER 10 STALLS: 20 TREES
- EXISTING PARKING LOT TREES TO REMAIN: 00 TREES
- PROPOSED PARKING LOT TREES: 28 TREES
- TOTAL PROVIDED PARKING LOT TREES: 28 TREES

OPEN SPACE REQUIREMENTS

- GROSS SITE AREA: 265,867 SF
- REQUIRED OPEN SPACE: 15% (39,880 SF)
- PROVIDED OPEN SPACE: 15% (40,360 SF)

SW 41st STREET TREE REQUIREMENTS

- TOTAL LINEAL FEET OF FRONTAGE: 540 LF
- REQUIRED STREET TREES @ 40 FT. ON CENTER: 14 TREES
- EXISTING STREET TREES TO REMAIN: 03 TREES
- PROPOSED STREET TREES: 11 TREES
- TOTAL PROVIDED STREET TREES: 14 TREES

SW REINDEER AVENUE TREE REQUIREMENTS

- TOTAL LINEAL FEET OF FRONTAGE: 960 LF
- REQUIRED STREET TREES @ 40 FT. ON CENTER: 24 TREES
- EXISTING STREET TREES TO REMAIN: 06 TREES
- PROPOSED STREET TREES: 18 TREES
- TOTAL PROVIDED STREET TREES: 24 TREES

SW SALMON AVENUE TREE REQUIREMENTS

- TOTAL LINEAL FEET OF FRONTAGE: 200 LF
- REQUIRED STREET TREES @ 40 FT. ON CENTER: 05 TREES
- EXISTING STREET TREES TO REMAIN: 00 TREES
- PROPOSED STREET TREES: 05 TREES
- TOTAL PROVIDED STREET TREES: 05 TREES

LANDSCAPE LEGEND

TREES	
SYMBOL	DESCRIPTION
	SPECIMEN CANOPY TREE (1-1/2" CAL.), SUCH AS: BETULA NIGRA (RIVER BIRCH) GINKGO BILOBA (MAIDENHAIR TREE) QUERCUS RUBRA (RED OAK) ULMUS 'MORTON' (ACCOLADE ELM)
	BROAD-CANOPY DECIDUOUS STREET TREE (2.5" CALIPER), SUCH AS: FRAXINUS OXYCARPA 'RAYWOOD' (RAYWOOD ASH) QUERCUS PALUSTRIS (PIN OAK) TILIA CORDATA 'LITTLE LEAF' (LITTLE LEAF LINDEN) ULMUS 'MORTON' (ACCOLADE ELM)
	DECIDUOUS PARKING LOT TREE (2.5" CALIPER), SUCH AS: CARPINUS BETULUS 'FASTIGIATA' (PYRAMIDAL EUROPEAN HORNBEAM) FRAXINUS PENNSYVANICA 'PATMORE' (PATMORE GREEN ASH) GLEDITSIA TRIACANTHOS 'SHADEMASTER' (SHADEMASTER HONEYLOCUST)
	ACCENT TREE (2" CAL. & MIN 15 GAL CONT.), SUCH AS: ACER PALMATUM VAR. DISSECTUM 'CRIMSON QUEEN' (CRIMSON QUEEN JAPANESE MAPLE) AMELANCHIER G. 'AUTUMN BRILLIANCE' (A. B. SERVICEBERRY) CRATAEGUS CRUS-GALLI VAR. INERMIS (COCKSPUR THORNLESS HAWTHORNE) MALUS 'PRAIRIE FIRE' (PRAIRIE FIRE CRABAPPLE)
	EVERGREEN CONIFER TREES (2" CAL. or 8-8' HT.), SUCH AS: JUNIPERUS SCOPULORUM 'MOONGLOW' (MOONGLOW JUNIPER) PICEA PUNGENS 'BABY BLUE EYES' (BABY BLUE EYES BLUE SPRUCE) PINUS STROBUS 'FASTIGIATA' (COLUMNAR EASTERN WHITE PINE) PINUS PARVIFLORA 'GLAUCA' (JAPANESE WHITE PINE)
	EXISTING TREE TO REMAIN
	EXISTING TREE TO BE REMOVED TYPICAL OF (87) TO BE REMOVED. ONE HUNDRED AND TWENTY SIX (126) PROPOSED TREES AS ON-SITE REPLACEMENTS
	1/4" CLEAN CRUSHED ANGULAR GRAVEL w/ METAL EDGE RESTRAINT
	DOUBLE HOLLAND CONCRETE PAVER PATHWAYS - 4' MIN. WIDTH

SHRUBS & GRASSES

LARGE SCREENING SHRUBS

APPROXIMATELY 15% - (15) GALLON SIZE & 85% - (5) GALLON SIZE CONTAINER PLANT

MEDIUM SIZE ORNAMENTAL GRASSES AND PERENNIALS

APPROXIMATELY 50% (5-3) GALLON SIZE & 50% - (1) GALLON SIZE CONTAINER PLANTS

SYMBOL	SIZE	BOTANICAL NAME	COMMON NAME
	3 GAL	BERBERIS THUNBERGII 'CONCORDE'	CONCORDE JAPANESE BARBERRY
	5 GAL	BUXUS 'GLENCOE'	CHICAGOLAND GREEN BOXWOOD
	3 GAL	CALAMAGROSTIS A. 'KARL FOERSTER'	FEATHER REED GRASS
	5 GAL	CORNUS SERICEA 'FARROW ARCTIC FIRE'	ARCTIC FIRE DOGWOOD
	1 GAL	DESCHAMPSIA CAESPITOSA	TUFTED HAIRGRASS
	5 GAL	FOTHERGILLA GARDENII	DWARF FOTHERGILLA
	1 GAL	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY
	1 GAL	HELICTOTRICHONS SEMPERVIRENS	BLUE OAT GRASS
	15 GAL	PHYSOCARPUS OPULIFOLIUS 'DIABLO'	DIABLO NINEBARK
	5 GAL	PICEA PUNGENS 'GLOBOSA'	DWARF GLOBE BLUE SPRUCE
	5 GAL	PINUS MUGO 'PUMILIO'	DWARF MUGO PINE
	5 GAL	ROSA WOODSII	WOOD'S ROSE
	5 GAL	SAMBUCUS RACEMOSA 'SMNSRD4'	LEMONY LACE ELDERBERRY
	5 GAL	SPIREA JAPONICA 'LIMEMOUND'	LIMEMOUND SPIREA
	5 GAL	SYMPHORICARPUS ALBUS	SNOWBERRY
	5 GAL	TAXUS x MEDIA 'DENSIFORMIS'	DENSE SPREADING YEW
	15 GAL	VIBURNUM TRILOBUM 'COMPACTUM'	DWARF CRANBERRY BUSH

GROUND COVER

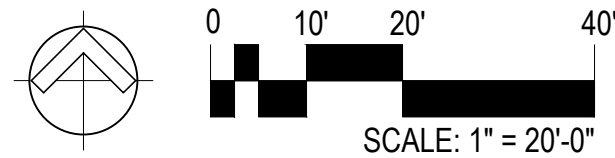
GROUND COVER PLANTING

APPROXIMATELY 40% (1) GAL. @ 18" O.C. AND 60% (1) GAL. @ 30" O.C.

SYMBOL	SIZE	BOTANICAL NAME	COMMON NAME	SPACING
	1 GAL	CAREX O. 'EVERGOLD'	EVERGOLD SEDGE	18" O.C.
	1 GAL	FESTUCA IDAHOENSIS	IDAHO FESCUE	24" O.C.
	1 GAL	LAMIUM MACULATUM 'PURPLE DRAGON'	PURPLE DRAGON LAMIMUM	30" O.C.
	1 GAL	SALVIA NEMOROSA 'CARADONNA'	CARADONNA SAGE	24" O.C.
	1 GAL	THYMUS PSEUDOLANUGINOSUS	WOOLLY THYME	24" O.C.
		EXISTING VEGETATION TO REMAIN		

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BECON, LLC

Civil Engineering and Land Surveying

549 SW Mill View Way, Suite 105 • Bend OR, 97702 • 541.633.3140 • beconeng.com

NEIGHBORHOOD COMPATIBILITY STATEMENT

Project: Cottages on Helmholtz

Project Address: 2052 SW Helmholtz Way

Date: October 6th, 2021

BECON Project #21088

To: City of Redmond
Planning and Community Development
411 SW 9th Street
Redmond, OR 97756

From: April Pust, PE

The proposed project meets the Neighborhood Compatibility Standards as follows:

- A. The proposal will be consistent with applicable zoning standards.

RESPONSE: This application is a standard multifamily (attached and detached) development that is an outright permitted use in the R-4 zone. The site meets development code standards as proposed.

- B. The location, size, design, and physical characteristics of the proposal (such as setbacks, height, position of structure on the site) will have minimal adverse impact on the livability or value of abutting properties.

RESPONSE: The proposed site plan meets development code standards for building height, location of structures and standard setbacks. A variance is requested for the separation between buildings due to the cottage-like nature and size of the proposed units.

- C. The project will not exceed the operational capacity of public facilities and which are required to serve the development unless the City Engineer determines that sufficient capacity can be provided. The capacity of public facilities and services shall be based primarily on the City's Water and Wastewater Master Plan and the Transportation System Plan.

RESPONSE: This proposed development does not exceed the operational capacity of public facilities, which was verified by City Engineering for water and sewer. A Traffic Impact Analysis is included with this application to address the transportation capacity.



- D. The proposal is consistent with the applicable Great Neighborhood Planning Principles described in Section 8.0300(3)(C)(13) and adopted Area Plans.

RESPONSE: The Great Neighborhood Principles are met with this project as follows:

- The site is designed to be consistent with the Multifamily Design Guidelines.
- The proposed project provides usable open space with amenities and landscaping throughout the site in addition to individual private yard areas.
- The architectural design elements provide distinct character.
- The proposed amenities allow for a diverse mix of activities, including walking, biking and recreating in the open space.
- The proposed open space area will be developed with common courtyards, paver walkways, picnic tables, benches, enhanced landscaping and decorative features.

A photograph of a rural landscape. In the foreground, there is a wooden fence and a large, tall tree. The middle ground shows a grassy field with several smaller trees and a white fence. In the background, there are more trees and a cloudy sky. The text is overlaid on the image.

HELMHOLTZ WAY DEVELOPMENT
LAND-USE RE-SUBMISSION

LEDG CAPITAL

MARCH 18 2022

HELMHOLTZ WAY DEVELOPMENT

CONTENTS

1 EXTERIOR MASSING RENDERINGS

2 PLANS
 EXTERIOR ELEVATIONS
 INTERIOR VISUALIZATIONS

3 VARIATION ANALYSIS
 FRONT FACADE DESIGN ANALYSIS
 ARCHITECTURAL FEATURE ANALYSIS
 TRASH RECEPTACLE ANALYSIS

HELMHOLTZ UNIT TYPOLOGIES

VISUALIZATION

OUTSIDE A TYPICAL CLUSTER



HELMHOLTZ UNIT TYPOLOGIES

VISUALIZATION

APPROACHING A SHARED COURTYARD



HELMHOLTZ UNIT TYPOLOGIES

VISUALIZATION

INSIDE A SHARED COURTYARD



HELMHOLTZ WAY DEVELOPMENT

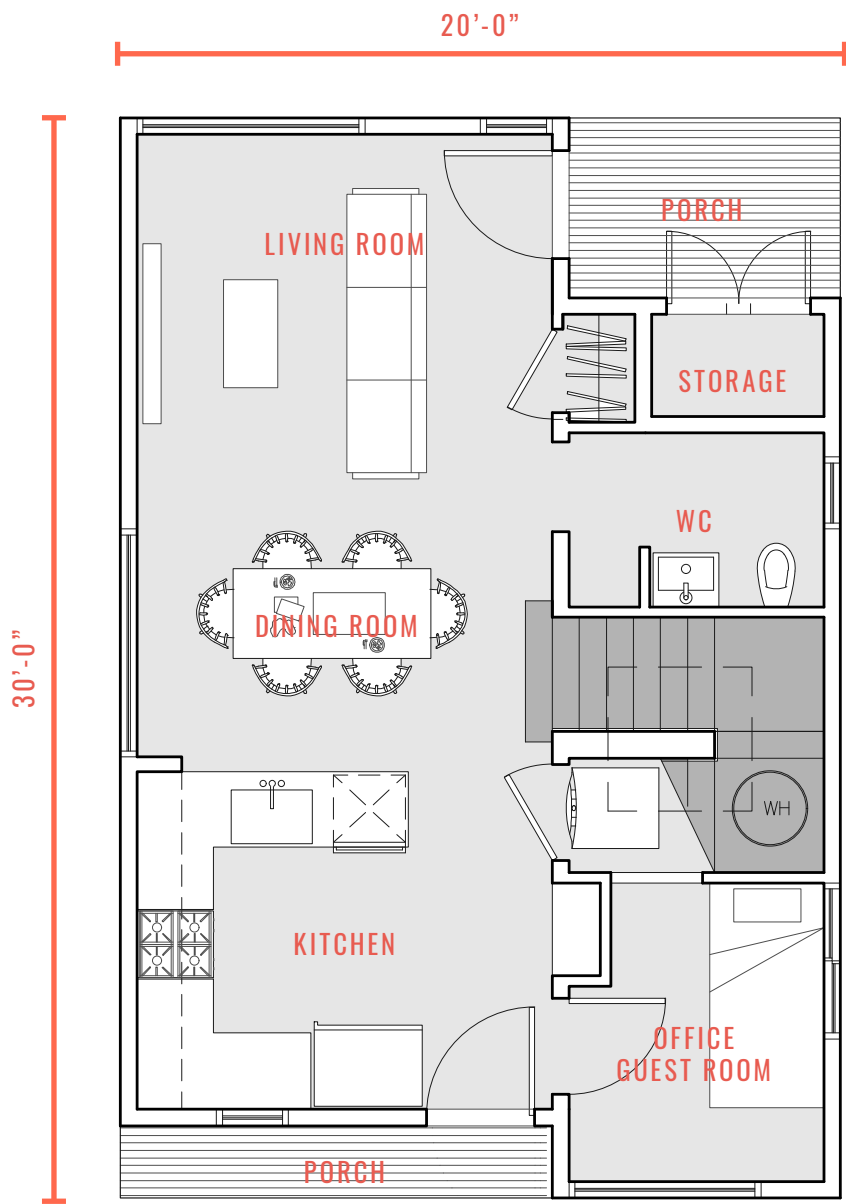
CONTENTS

- 1 EXTERIOR MASSING RENDERINGS
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ARCHITECTURAL FEATURE ANALYSIS
TRASH RECEPTACLE ANALYSIS

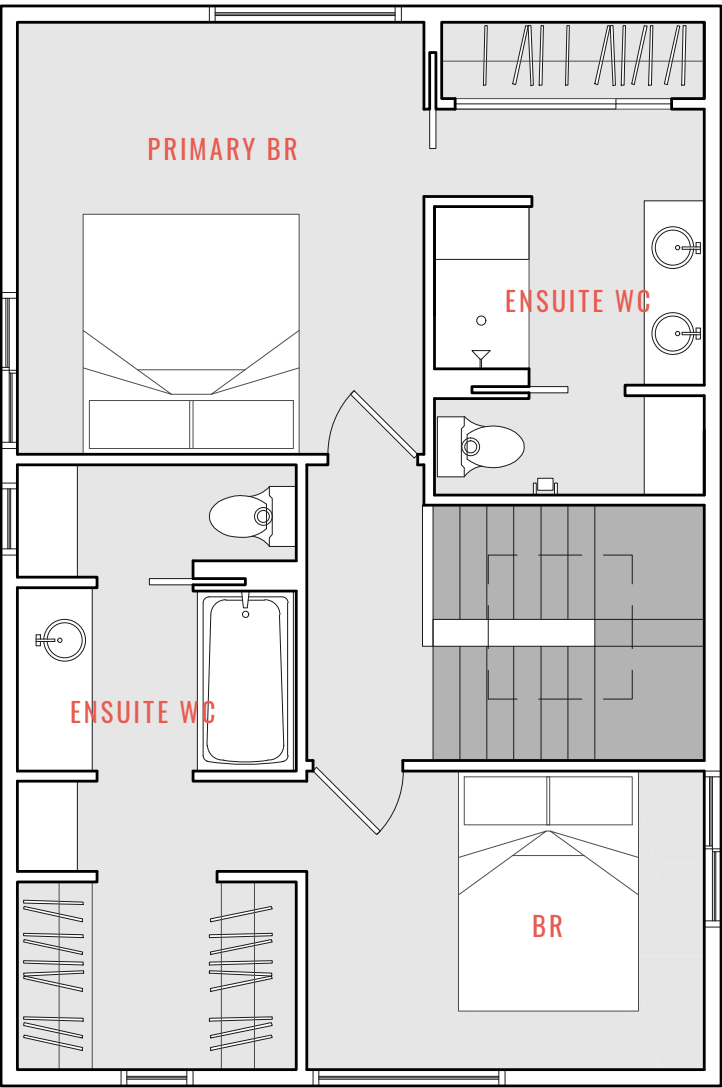
HELMHOLTZ UNIT TYPOLOGIES

HOUSING UNIT TYPE A1
PLAN

SCALE: 3/16" = 1'-0"



GROUND FLOOR



SECOND FLOOR

HELMHOLTZ UNIT TYPOLOGIES

HOUSING UNIT TYPE A1
ELEVATION

SCALE: 1/8" = 1'-0"

EXTERIOR FINISH

CEMENT BOARD
BOARD & BATTEN PATTERN
WITH LAP SIDING ALTERNATE

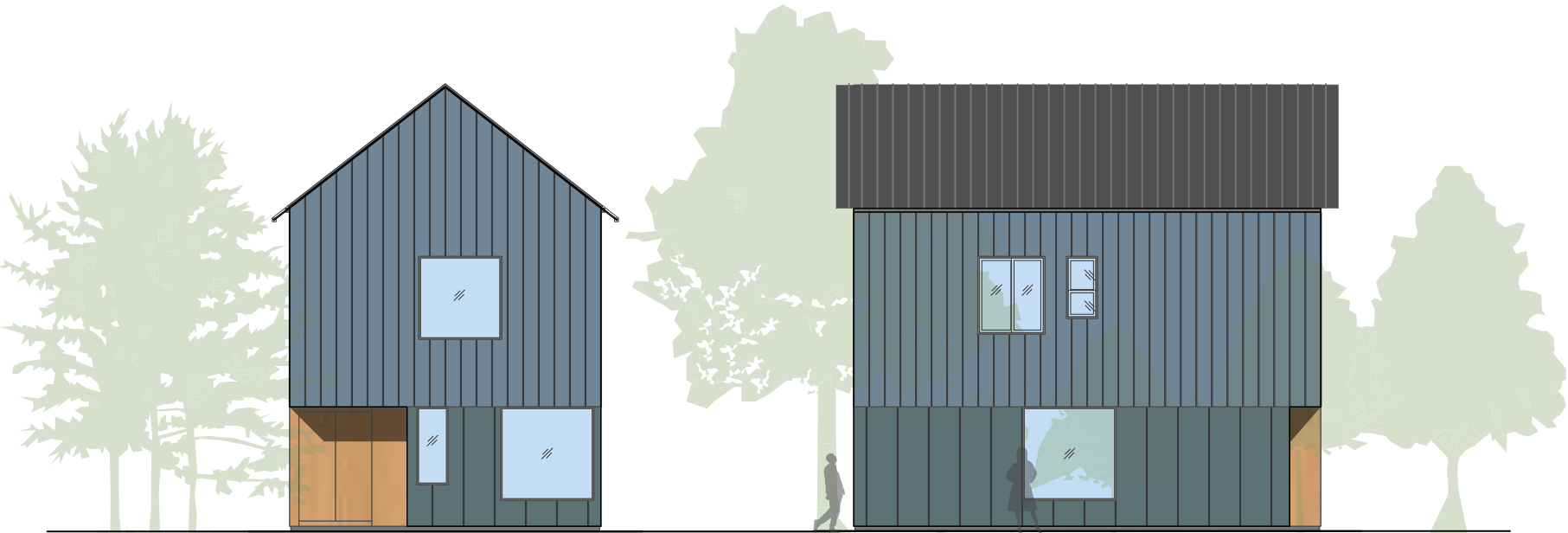
TONGUE AND GROOVE WOOD AT
RECESSED PORCH

FOUR COLORWAYS

- GREEN HUES
- BLUE HUES
- GOLD HUES
- GREY HUES

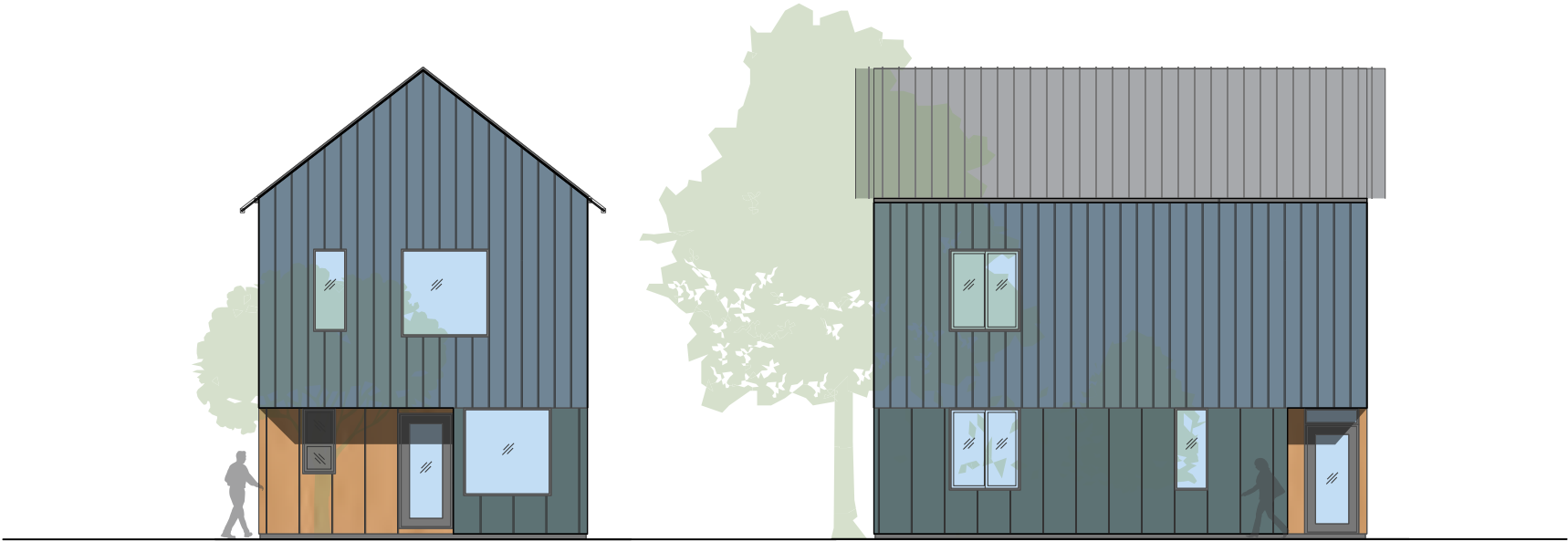


LAP SIDING ALTERNATE



FRONT ELEVATION

SIDE ELEVATION



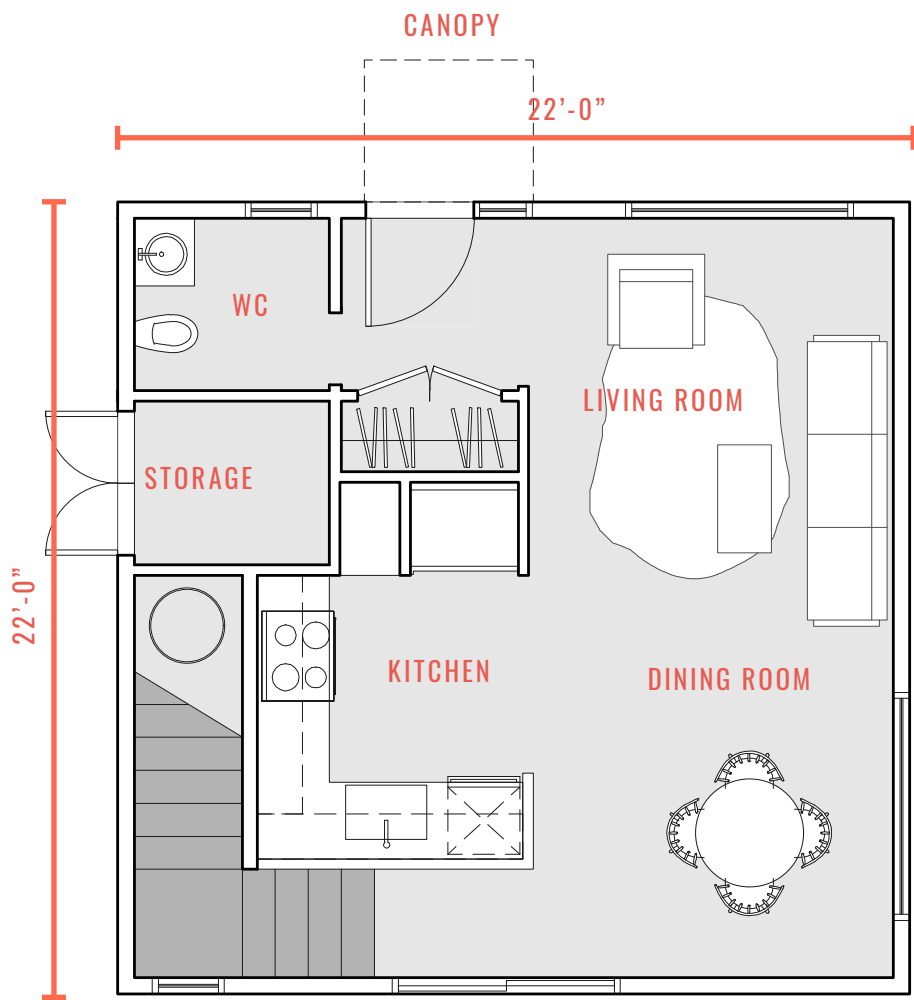
REAR ELEVATION

SIDE ELEVATION

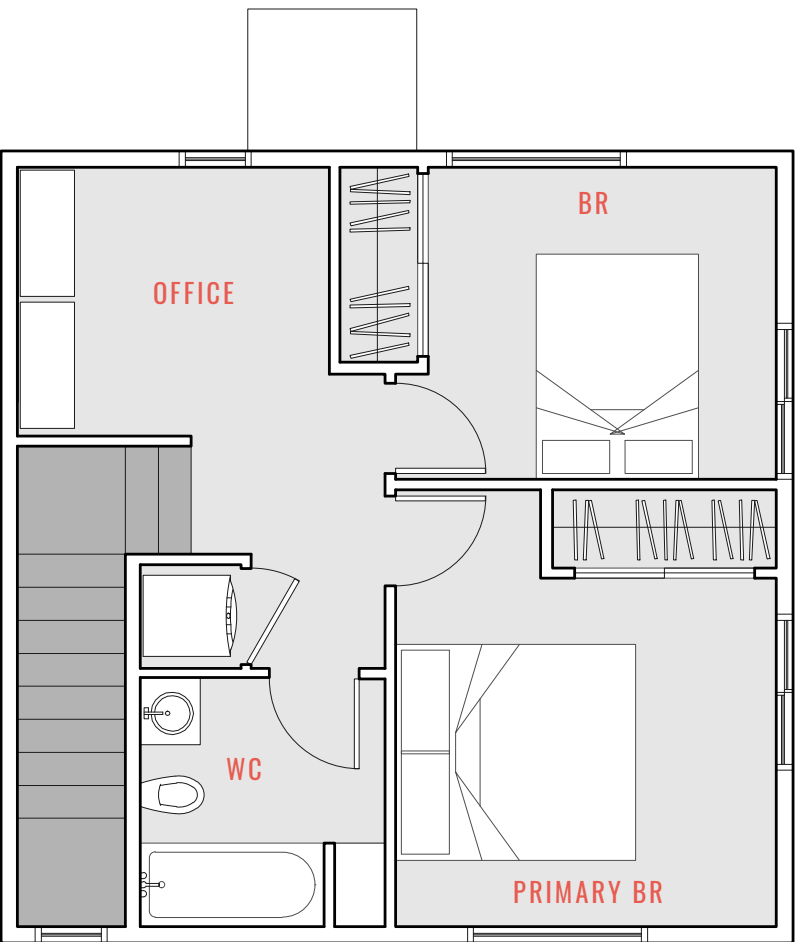
HELMHOLTZ UNIT TYPOLOGIES

HOUSING UNIT TYPE B1
PLAN

SCALE: 3/16" = 1'-0"



GROUND FLOOR



SECOND FLOOR

HELMHOLTZ UNIT TYPOLOGIES

HOUSING UNIT TYPE B1
ELEVATION

SCALE: 1/8" = 1'-0"

EXTERIOR FINISH

CEMENT BOARD
BOARD & BATTEN PATTERN
WITH LAP SIDING ALTERNATE

FOUR COLORWAYS

- GREEN HUES
- BLUE HUES
- GOLD HUES
- GREY HUES

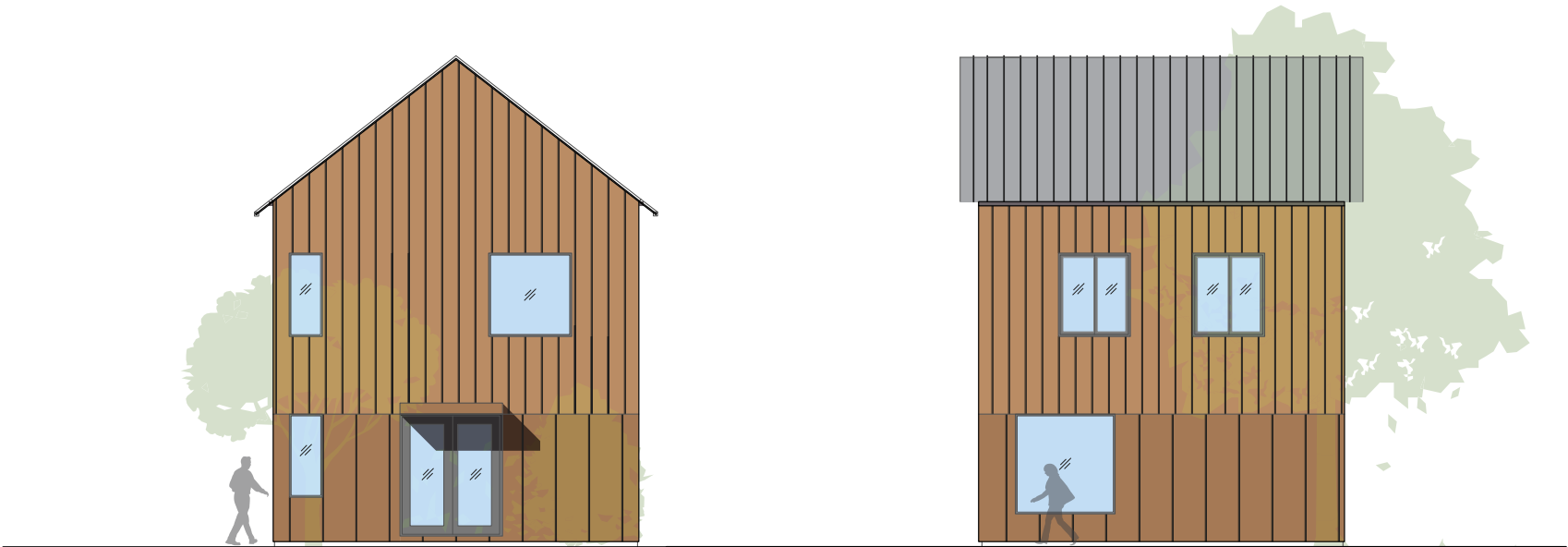


LAP SIDING ALTERNATE



FRONT ELEVATION

SIDE ELEVATION



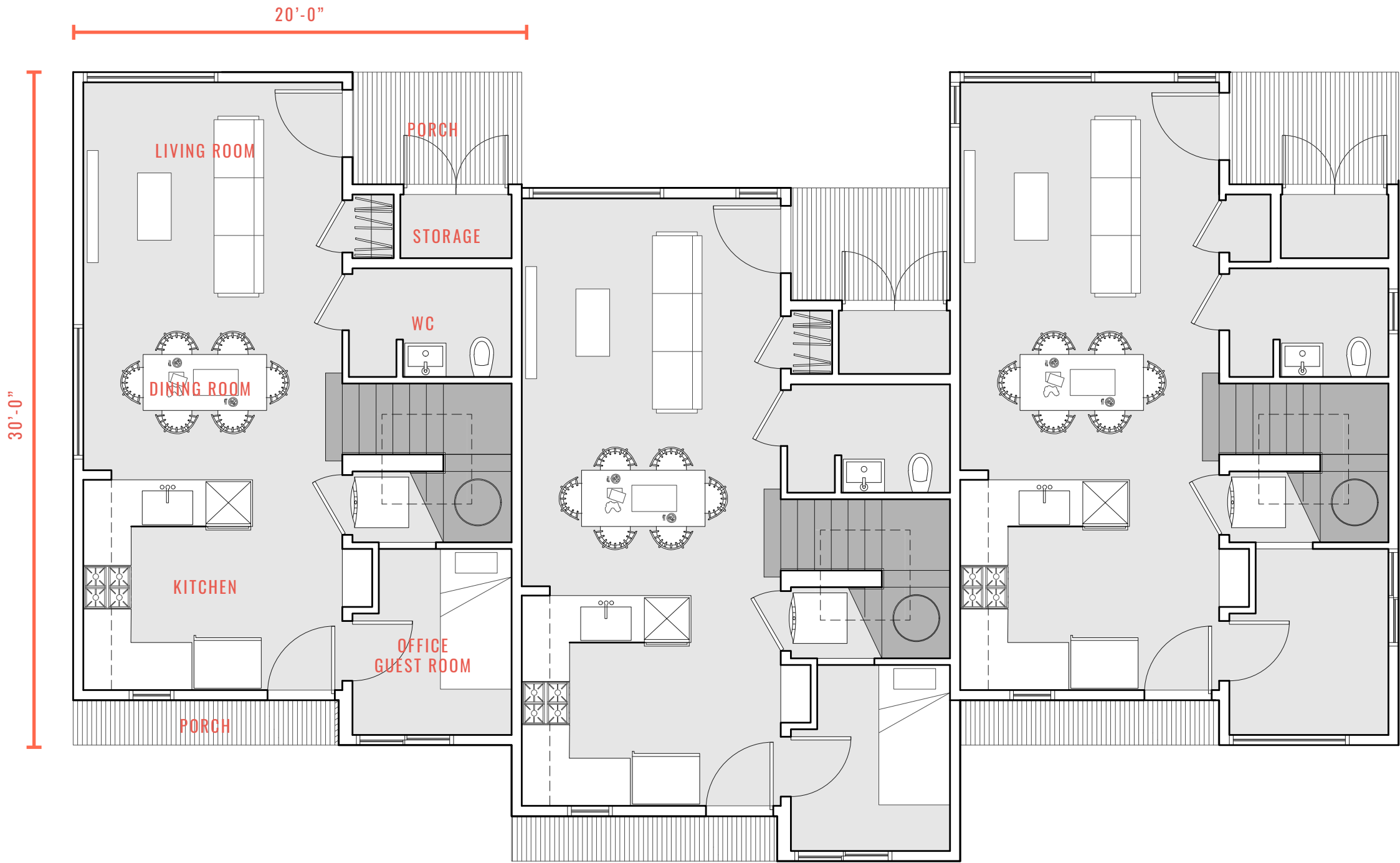
REAR ELEVATION

SIDE ELEVATION

HELMHOLTZ UNIT TYPOLOGIES

HOUSING UNIT TYPE C1
PLAN

SCALE: 3/16" = 1'-0"

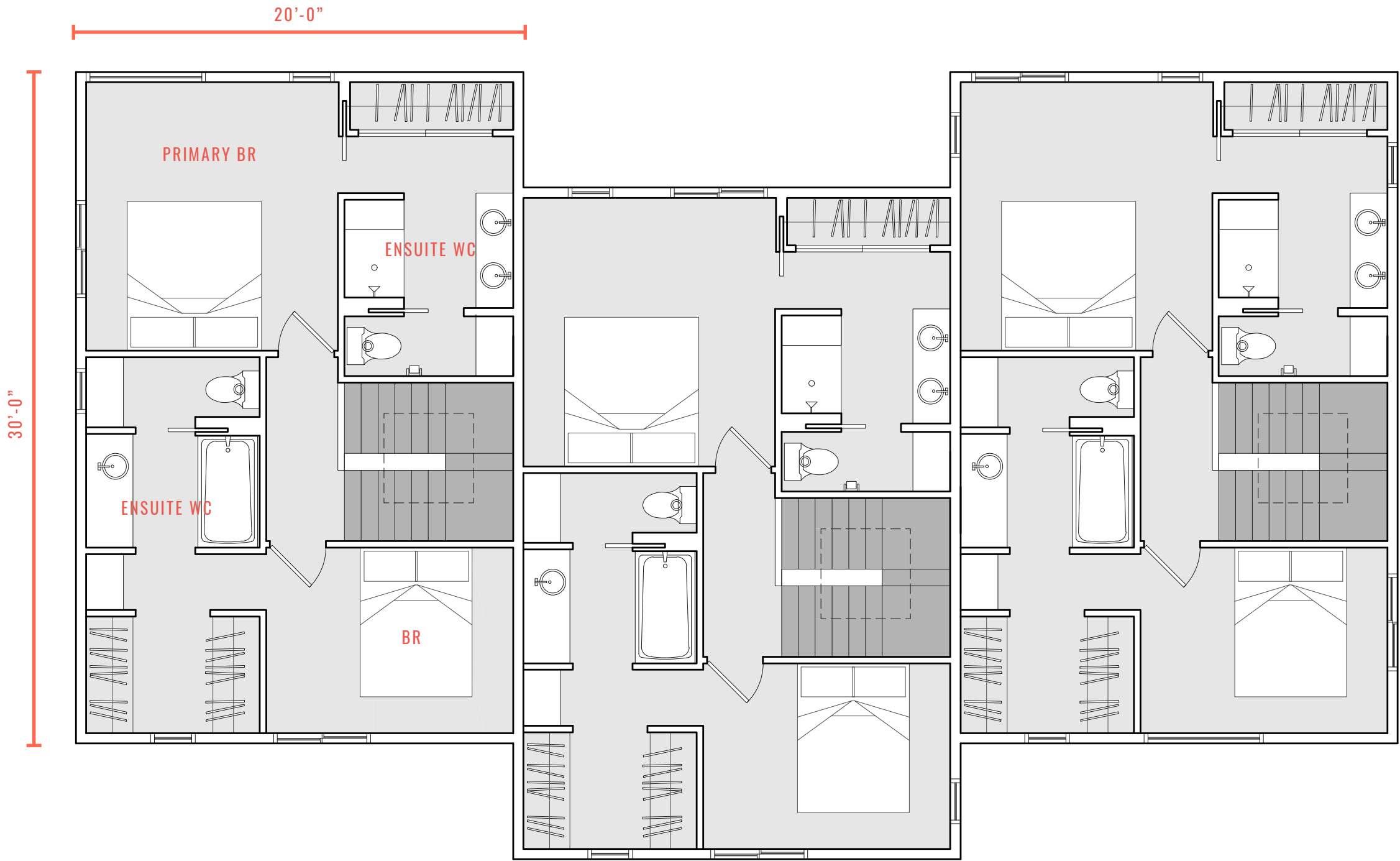


GROUND FLOOR

HELMHOLTZ UNIT TYPOLOGIES

HOUSING UNIT TYPE C1
PLAN

SCALE: 3/16" = 1'-0"



SECOND FLOOR

HELMHOLTZ UNIT TYPOLOGIES

HOUSING UNIT TYPE C1
ELEVATION

SCALE: 1/8" = 1'-0"

EXTERIOR FINISH

CEMENT BOARD
BOARD & BATTEN PATTERN
WITH LAP SIDING ALTERNATE

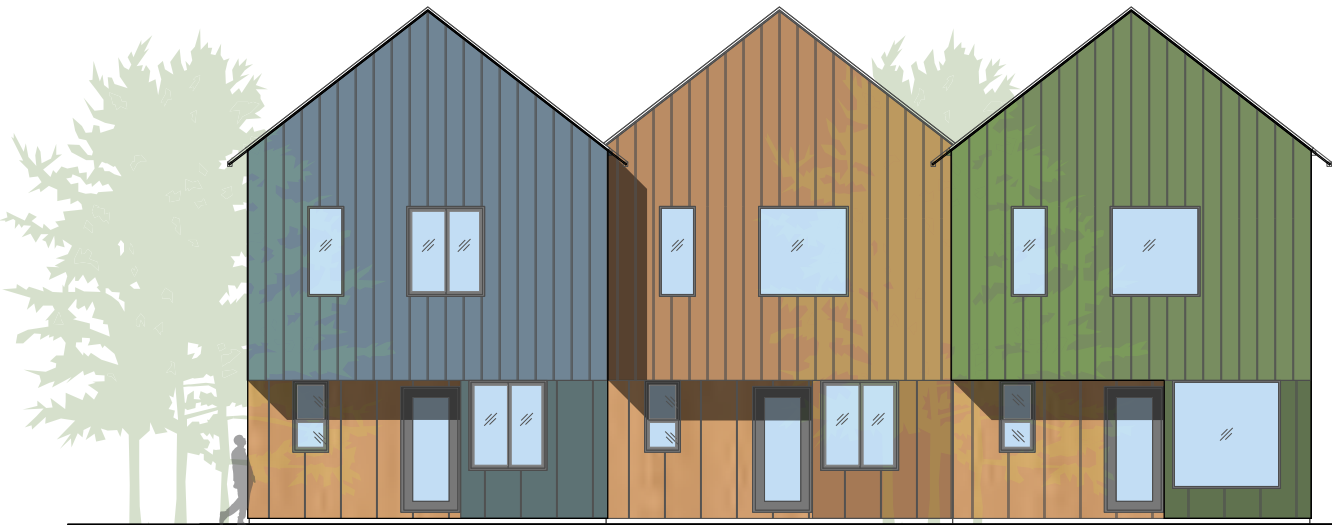
TONGUE AND GROOVE WOOD AT
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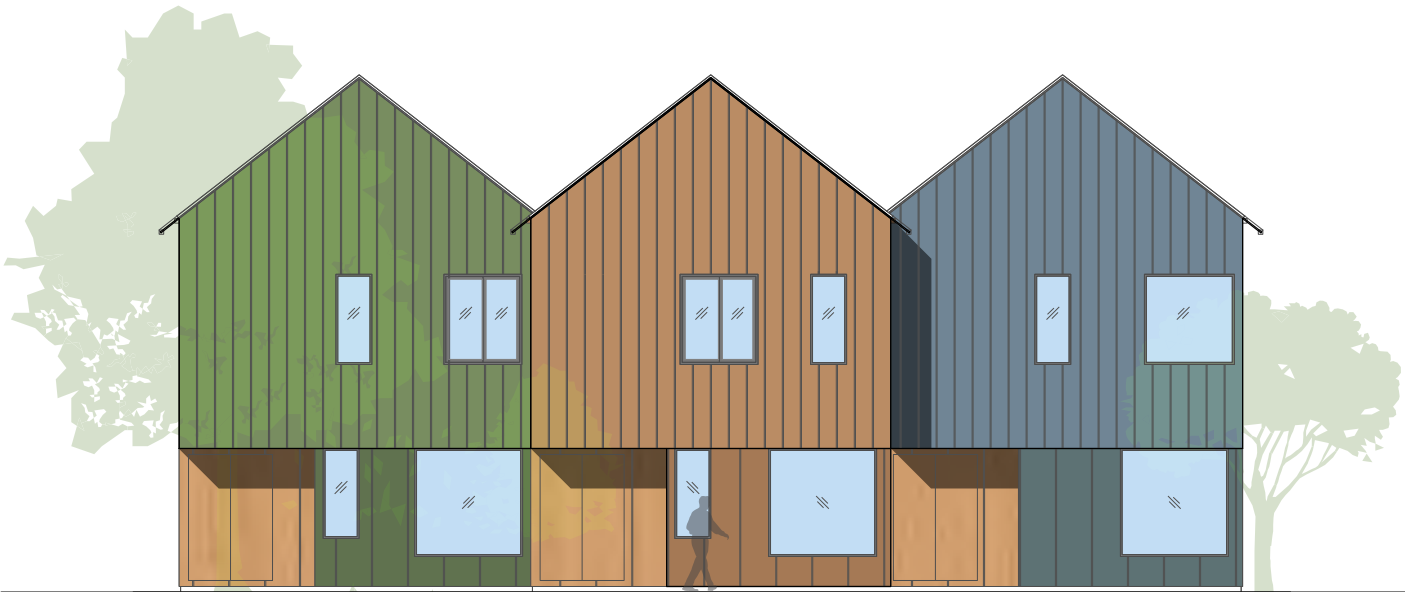
LAP SIDING ALTERNATE



FRONT ELEVATION



SIDE ELEVATION



REAR ELEVATION

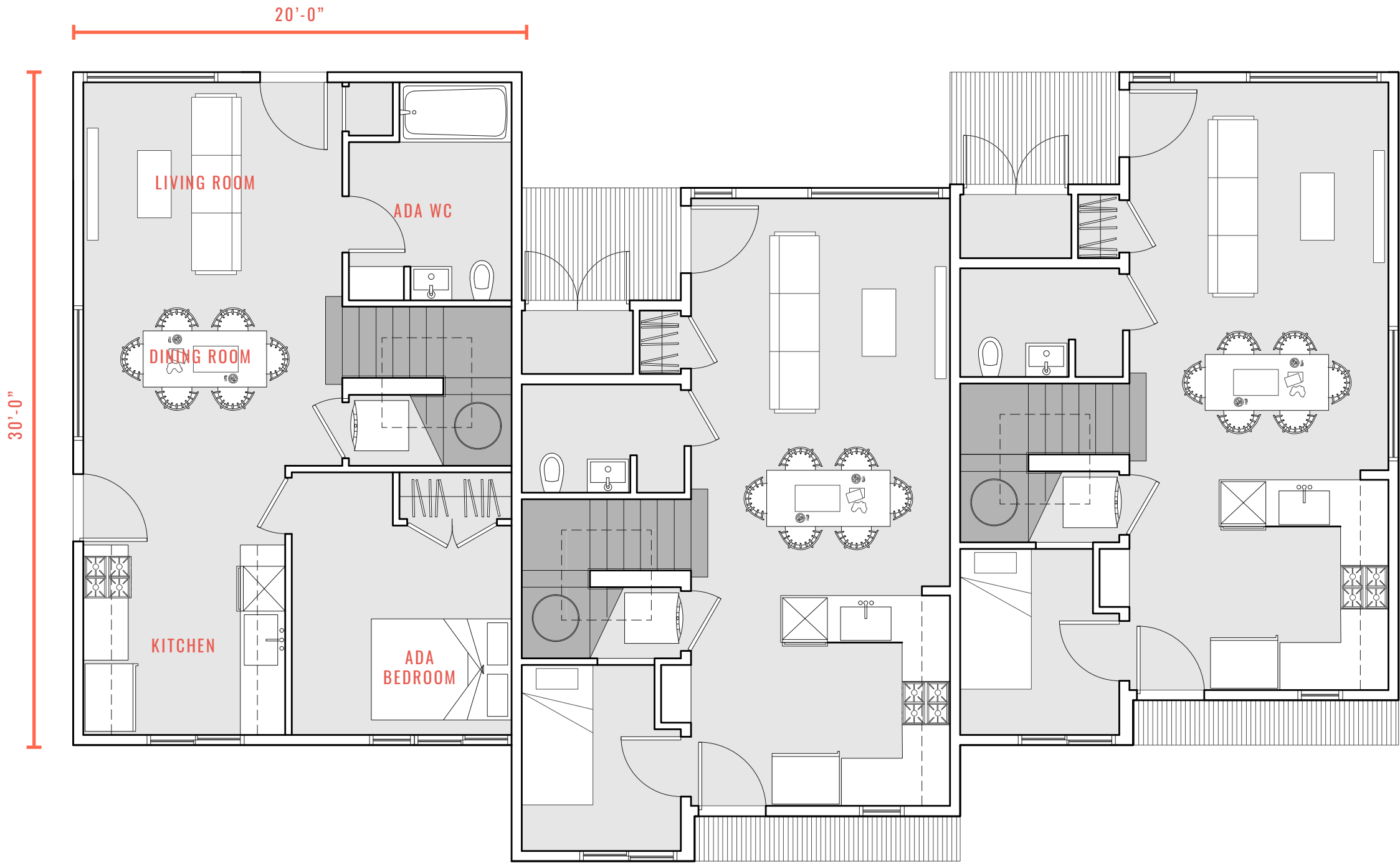


SIDE ELEVATION

HELMHOLTZ UNIT TYPOLOGIES

HOUSING UNIT TYPE C2 ADA
PLAN

SCALE: 3/16" = 1'-0"



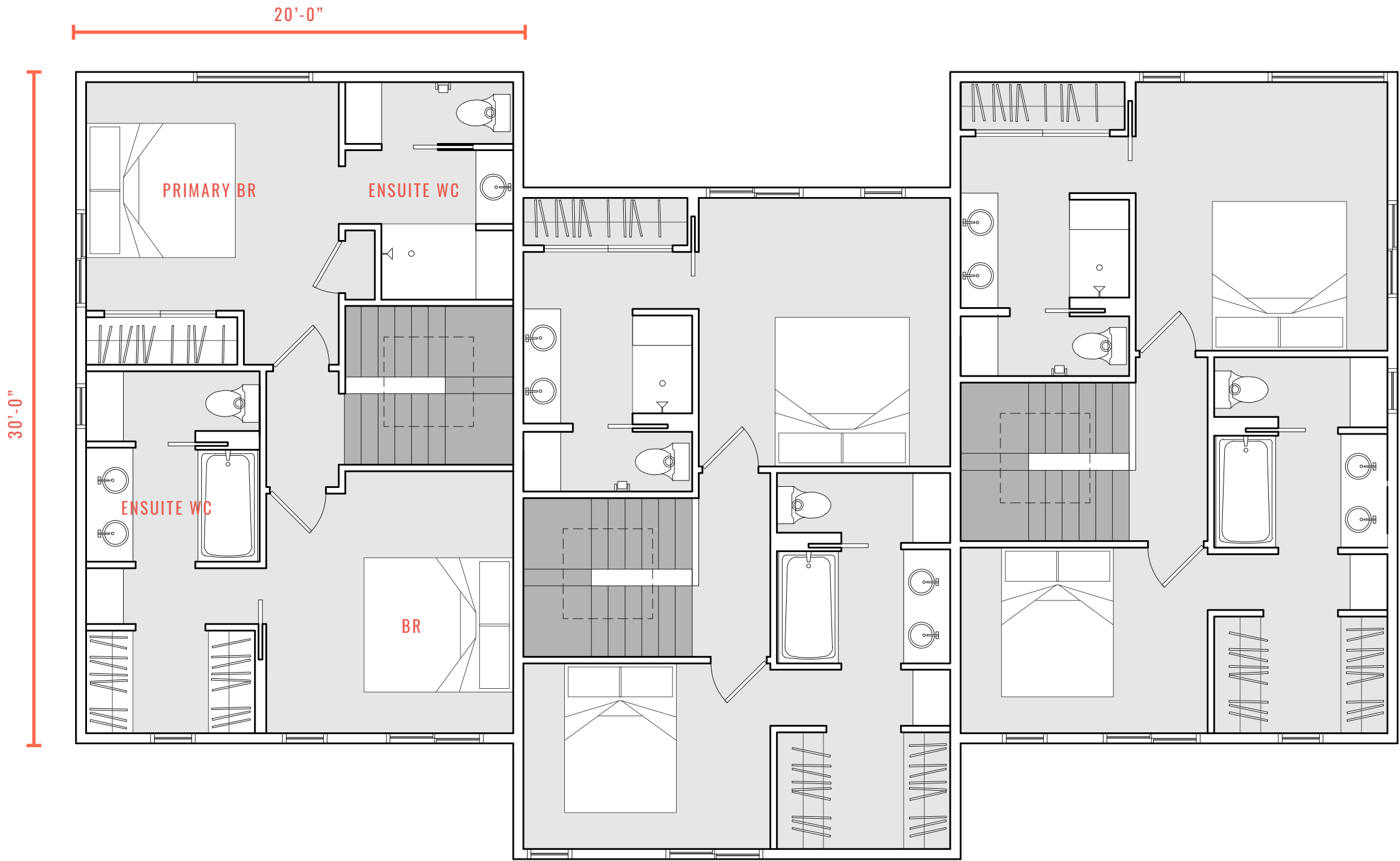
UNIT TYPE A
ADA ALTERNATE

GROUND FLOOR

HELMHOLTZ UNIT TYPOLOGIES

HOUSING UNIT TYPE C2 ADA
PLAN

SCALE: 3/16" = 1'-0"



UNIT TYPE A
ADA ALTERNATE

SECOND FLOOR

HELMHOLTZ UNIT TYPOLOGIES

HOUSING UNIT TYPE C2 ADA
ELEVATION

SCALE: 1/8" = 1'-0"

EXTERIOR FINISH

CEMENT BOARD
BOARD & BATTEN PATTERN
WITH LAP SIDING ALTERNATE

TONGUE AND GROOVE WOOD AT
RECESSED PORCH

FOUR COLORWAYS

- GREEN HUES
- BLUE HUES
- GOLD HUES
- GREY HUES

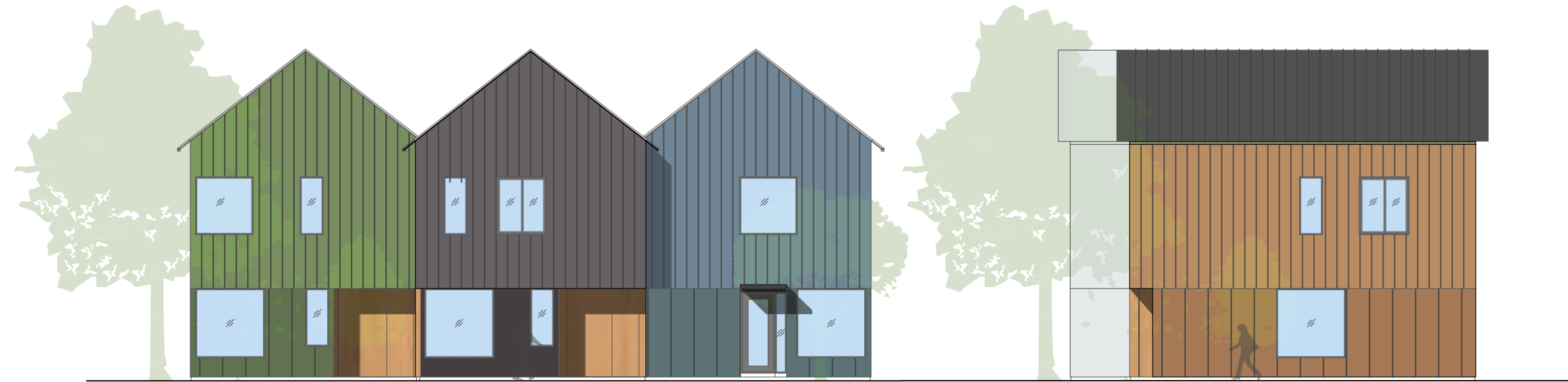


LAP SIDING ALTERNATE



FRONT ELEVATION

SIDE ELEVATION



REAR ELEVATION

SIDE ELEVATION

HELMHOLTZ UNIT TYPOLOGIES

INTERIOR VISUALIZATIONS



HELMHOLTZ WAY DEVELOPMENT

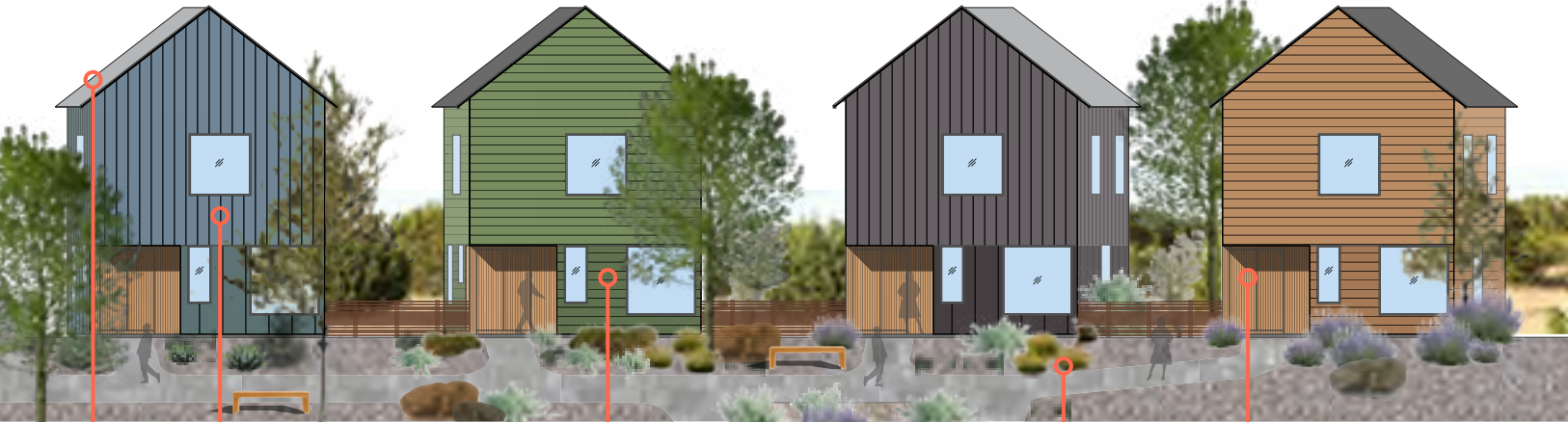
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- 3
- VARIATION ANALYSIS
FRONT FACADE DESIGN ANALYSIS
ARCHITECTURAL FEATURE ANALYSIS
TRASH RECEPTACLE ANALYSIS

HELMHOLTZ SITE PLAN

VARIATION ANALYSIS

SCALE: NTS



PAINT COLOR VARIATION
- BLUE HUES
- GREEN HUES
- GOLD HUES
- GREY HUES

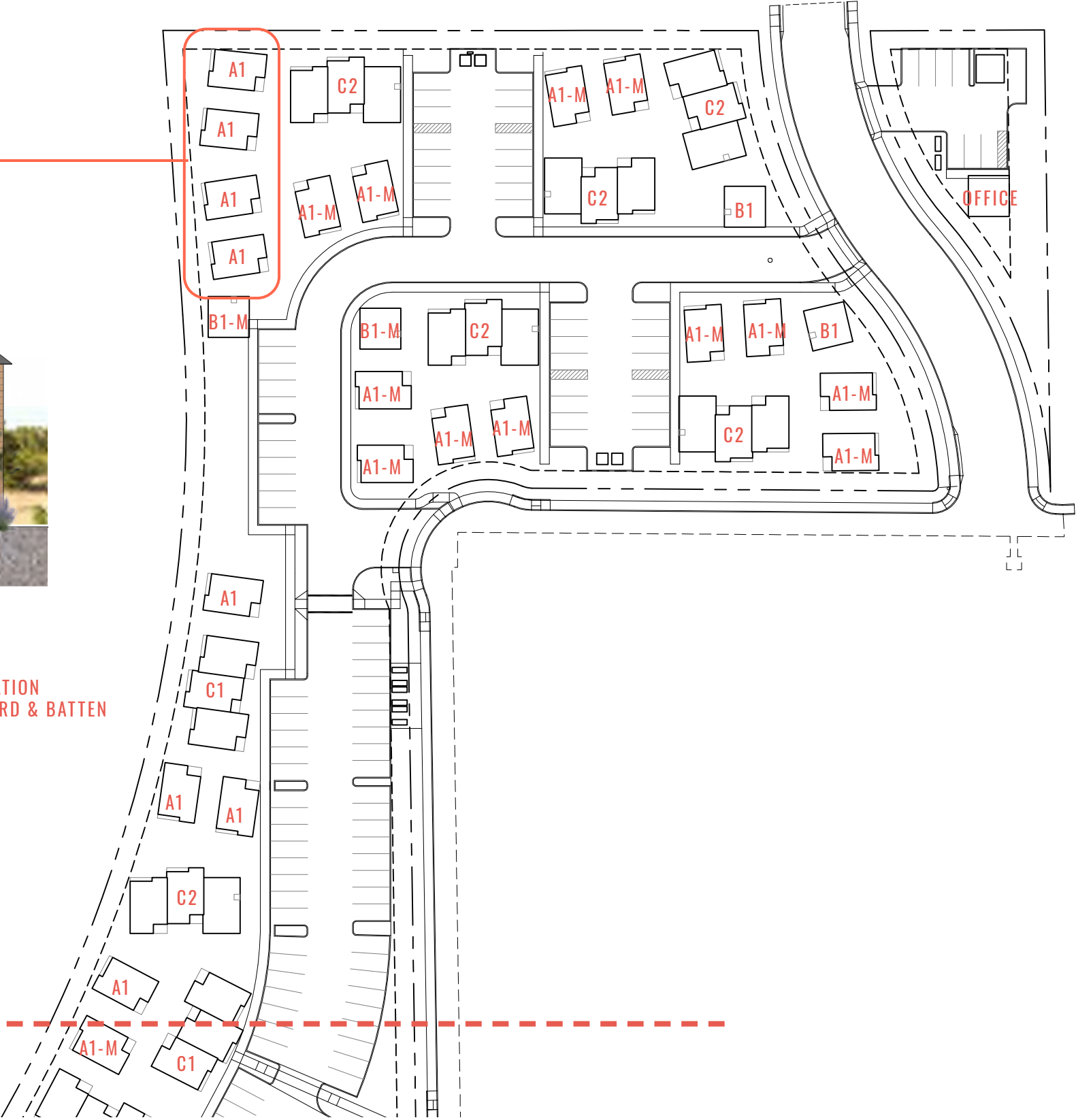
ROOF COLOR VARIATION
- METAL STANDING SEAM, DARK TINT
- METAL STANDING SEAM, LIGHT TINT

SIDING VARIATION
- VERTICAL BOARD & BATTEN
- LAP SIDING

LANDSCAPING VARIATION
- BOULDERS
- NATIVE GROUND COLOR
- LOW WATER-USE PLANTS
- ORNAMENTAL GRASSES
- FLOWERING PLANTS
- BROADLEAF TREES
- EVERGREEN TREES

MATERIAL VARIATION
- VERTICAL BOARD & BATTEN
- LAP SIDING

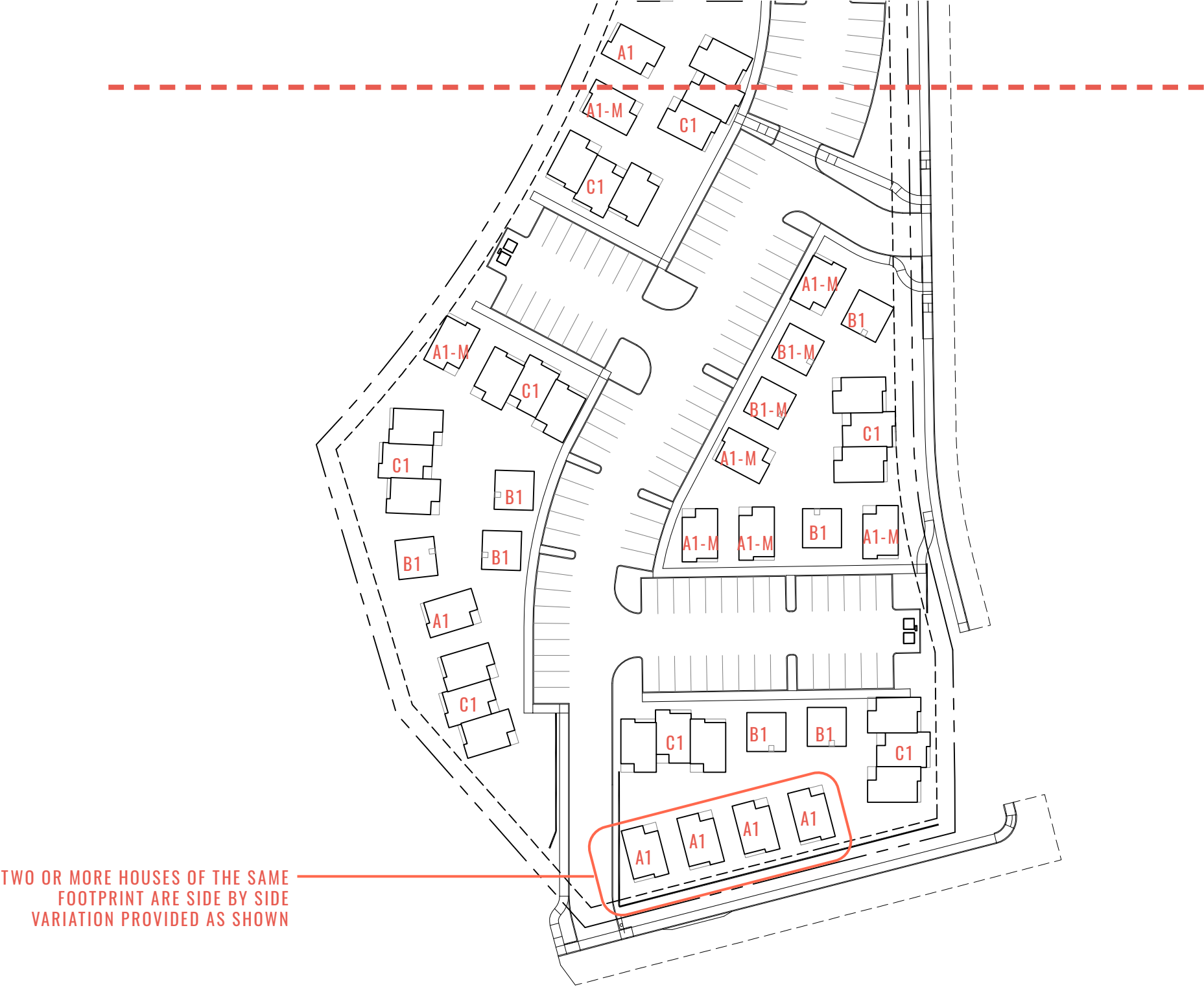
TWO OR MORE HOUSES OF THE SAME
FOOTPRINT ARE SIDE BY SIDE
VARIATION PROVIDED AS SHOWN



HELMHOLTZ SITE PLAN

VARIATION ANALYSIS

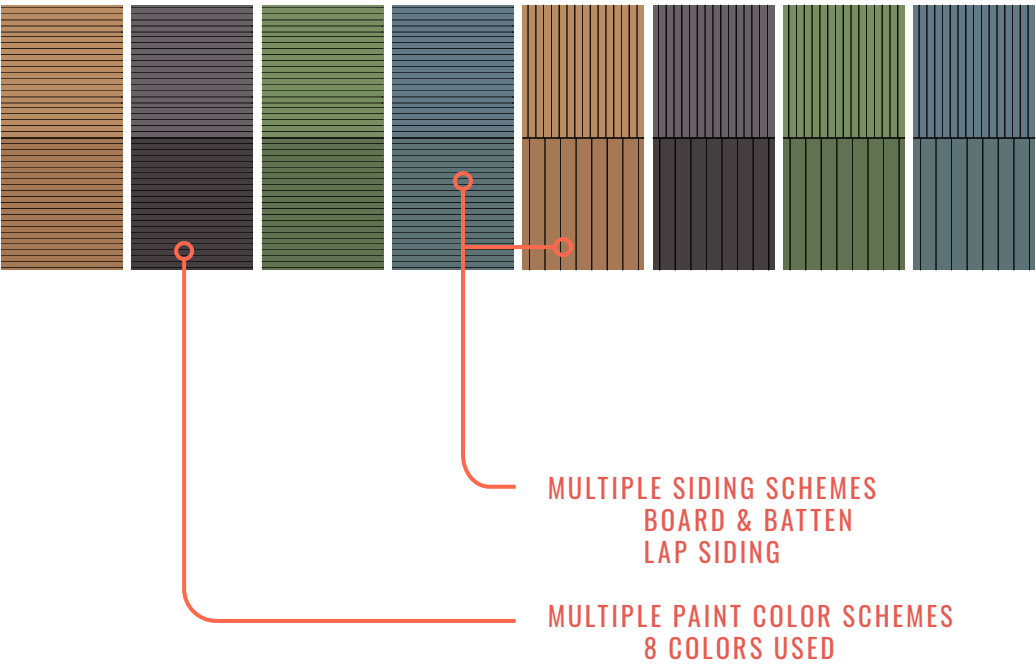
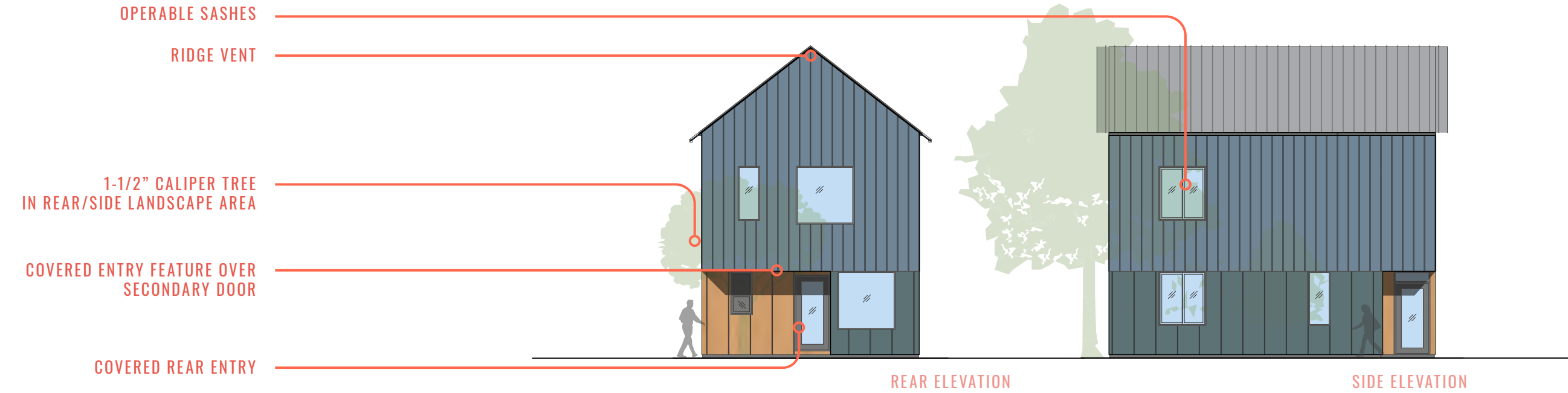
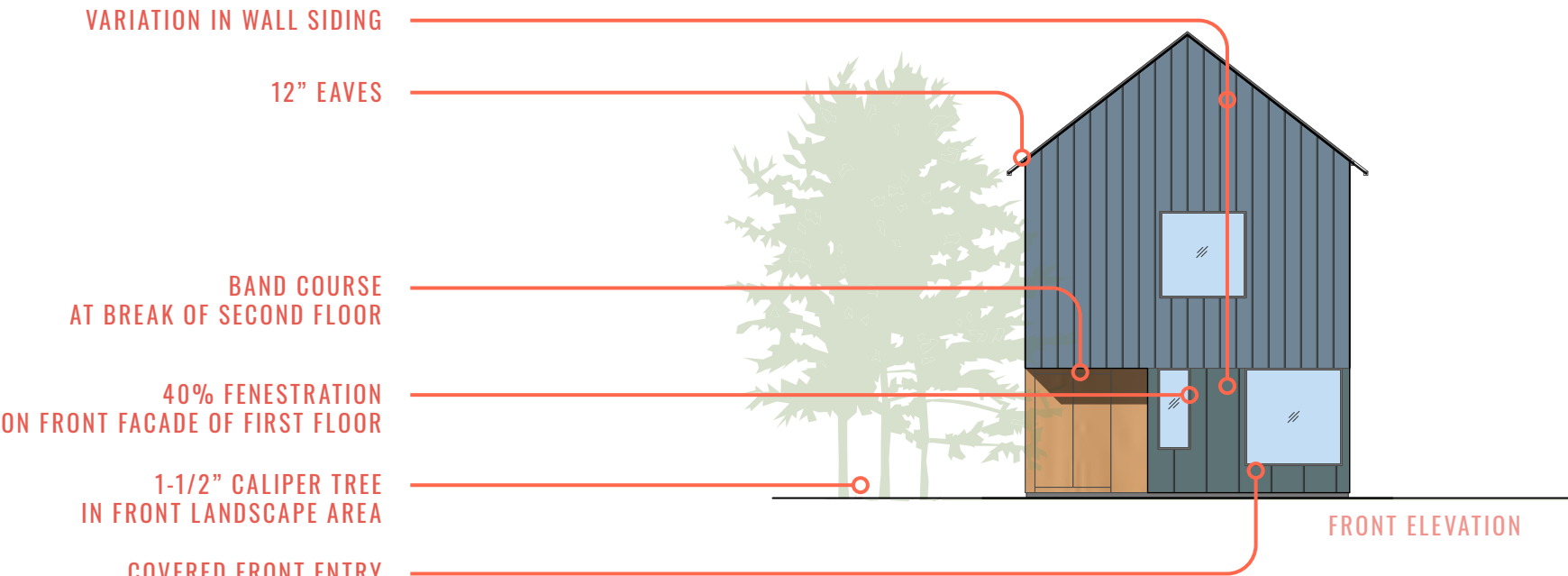
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HELMHOLTZ UNIT TYPOLOGIES

FRONT FACADE DESIGN ANALYSIS
TYPE A

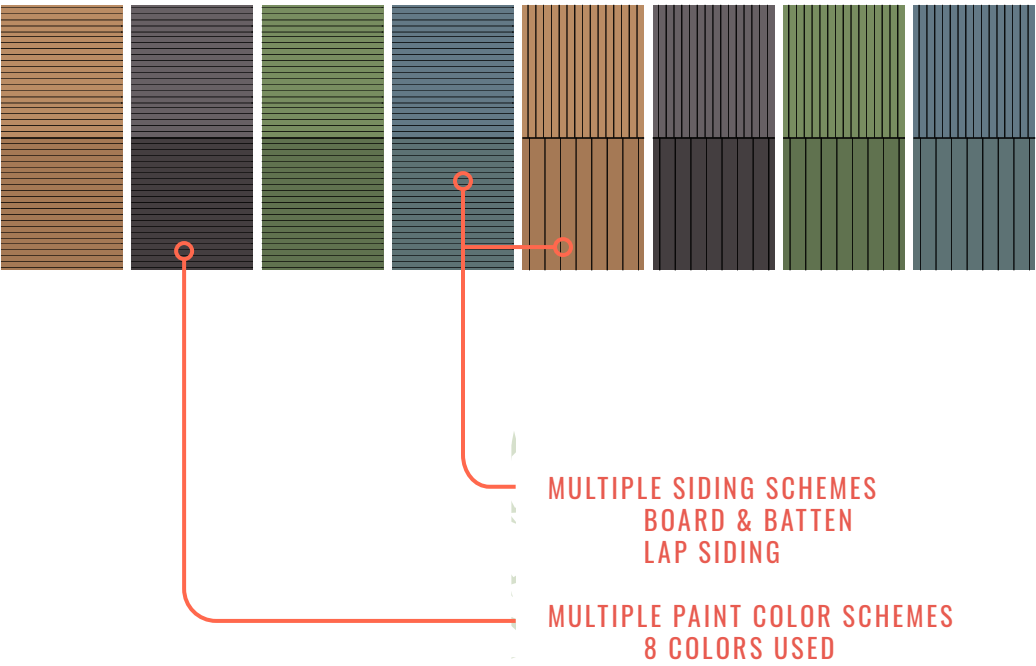
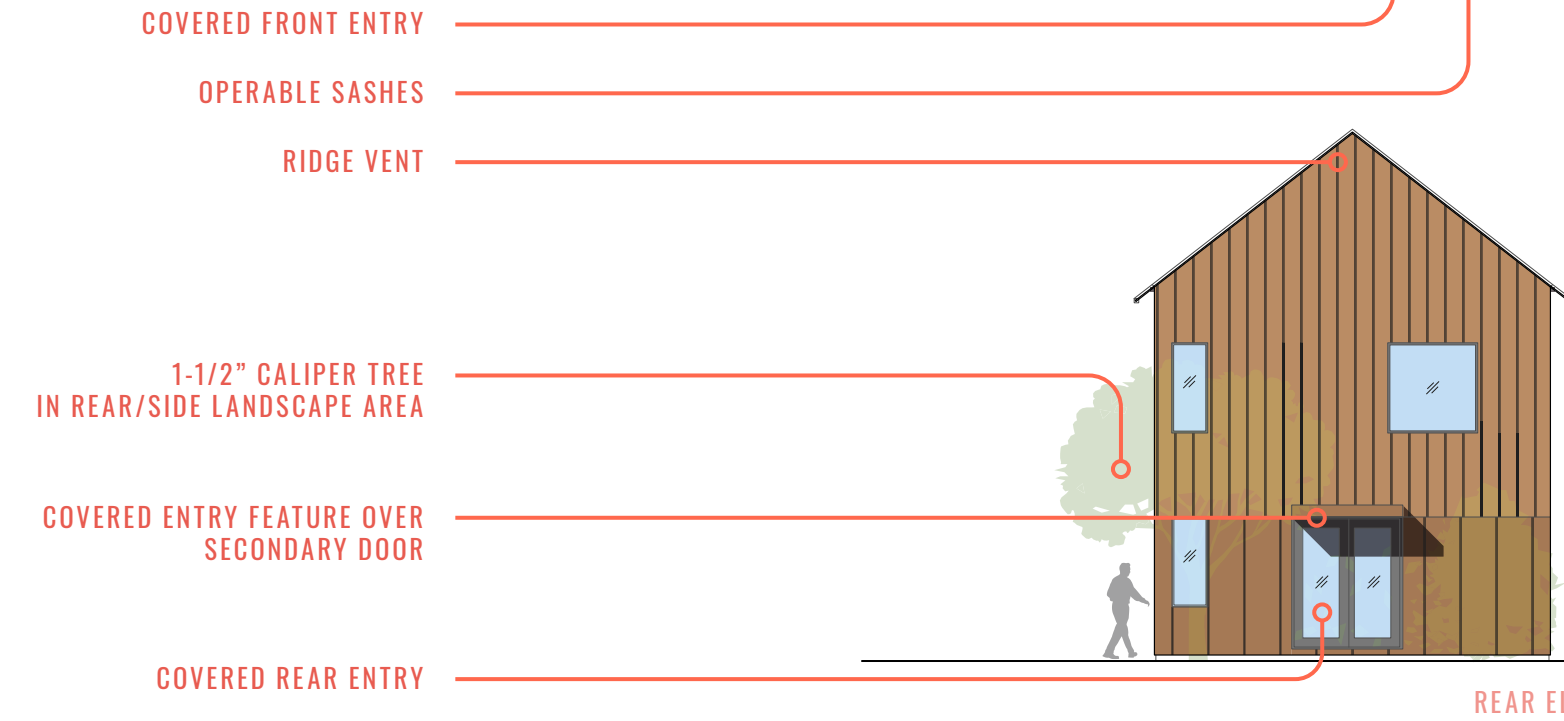
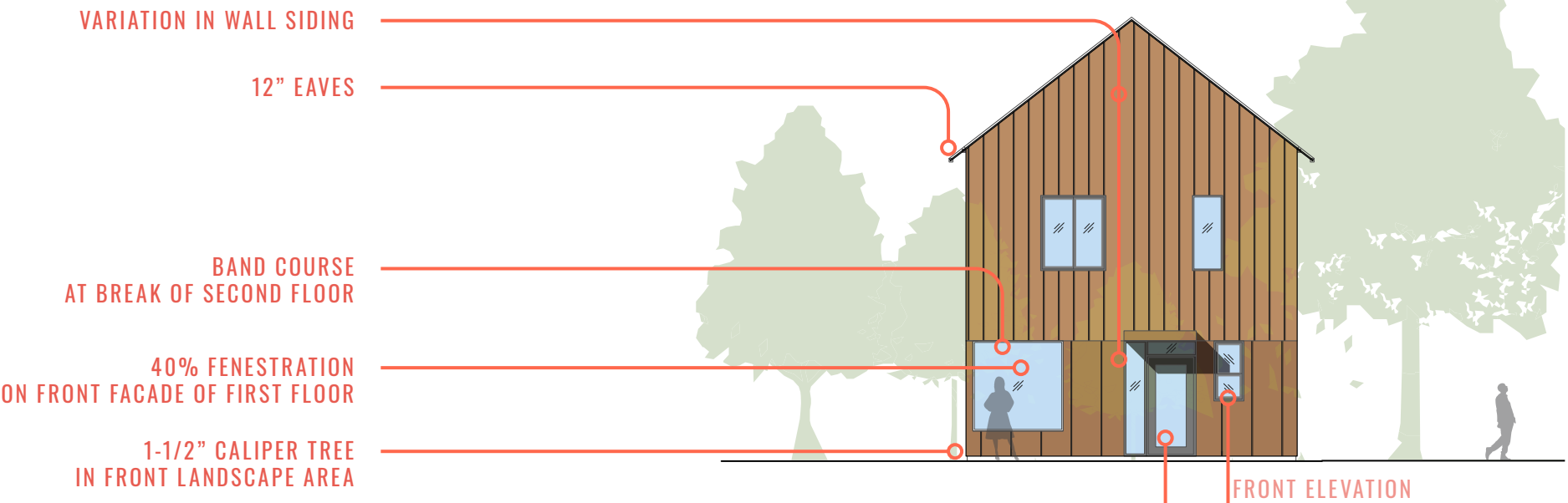
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HELMHOLTZ UNIT TYPOLOGIES

FRONT FACADE DESIGN ANALYSIS
TYPE B

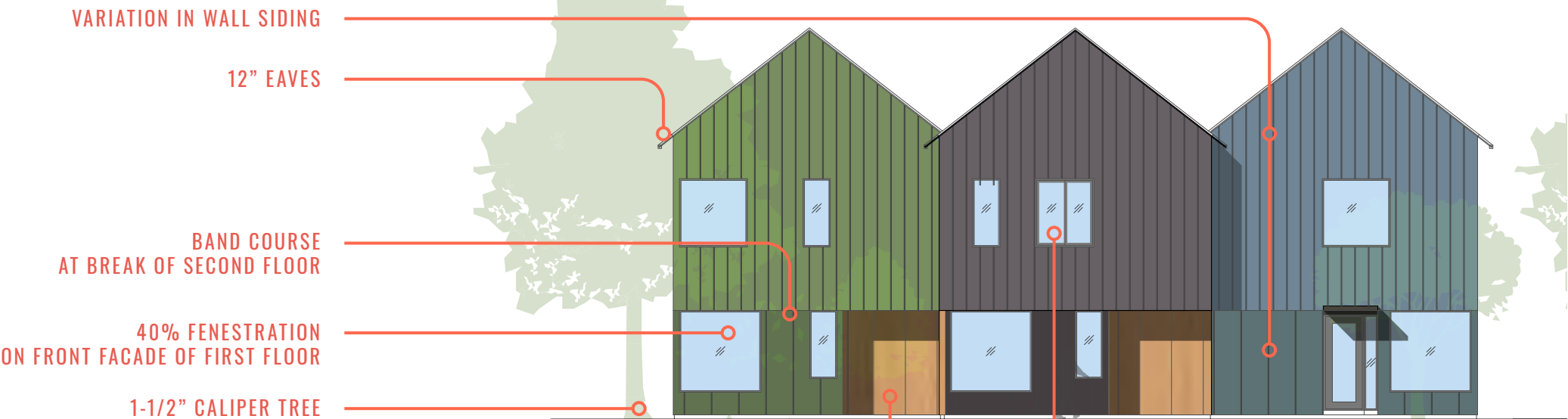
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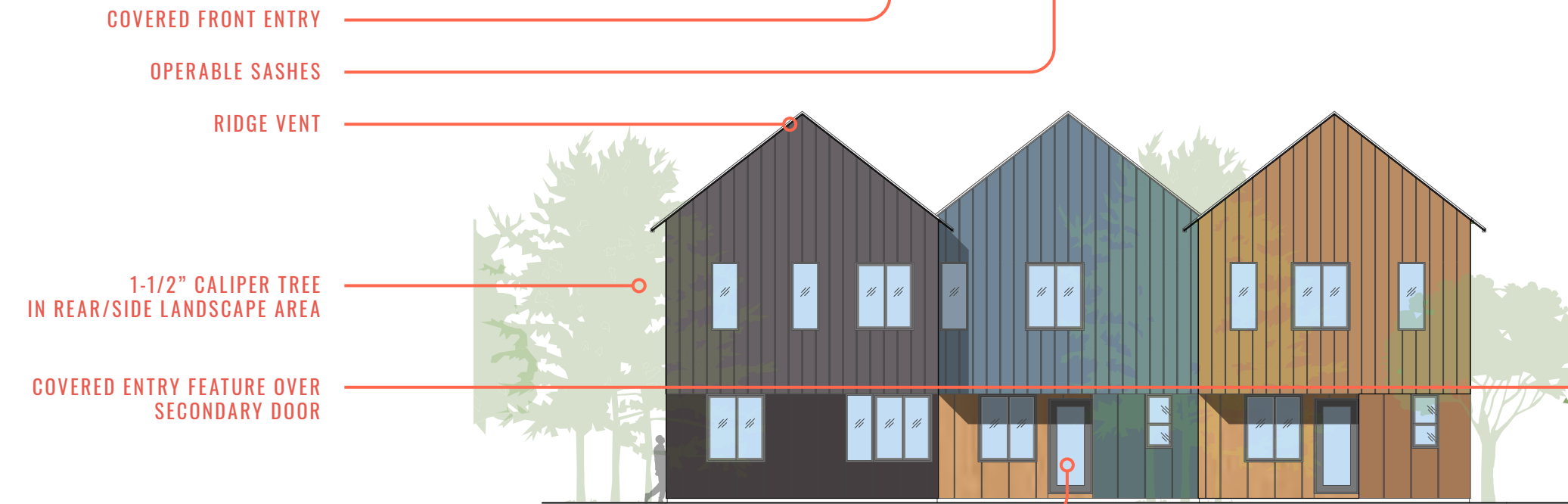
HELMHOLTZ UNIT TYPOLOGIES

FRONT FACADE DESIGN ANALYSIS
TYPE C

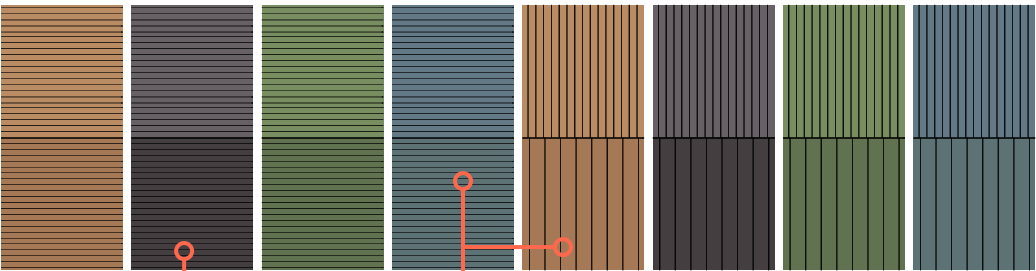
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FRONT ELEVATION



REAR ELEVATION



MULTIPLE SIDING SCHEMES
BOARD & BATTEN
LAP SIDING

MULTIPLE PAINT COLOR SCHEMES
8 COLORS USED



SIDE ELEVATION

HELMHOLTZ UNIT TYPOLOGIES

DETAILED ARCHITECTURAL FEATURE ANALYSIS
FRONT ELEVATIONS

SCALE: NTS



HELMHOLTZ UNIT TYPOLOGIES

DETAILED ARCHITECTURAL FEATURE ANALYSIS
REAR ELEVATIONS

SCALE: NTS



HELMHOLTZ UNIT TYPOLOGIES

DETAILED ARCHITECTURAL FEATURE ANALYSIS
SIDE / INTERIOR ELEVATIONS

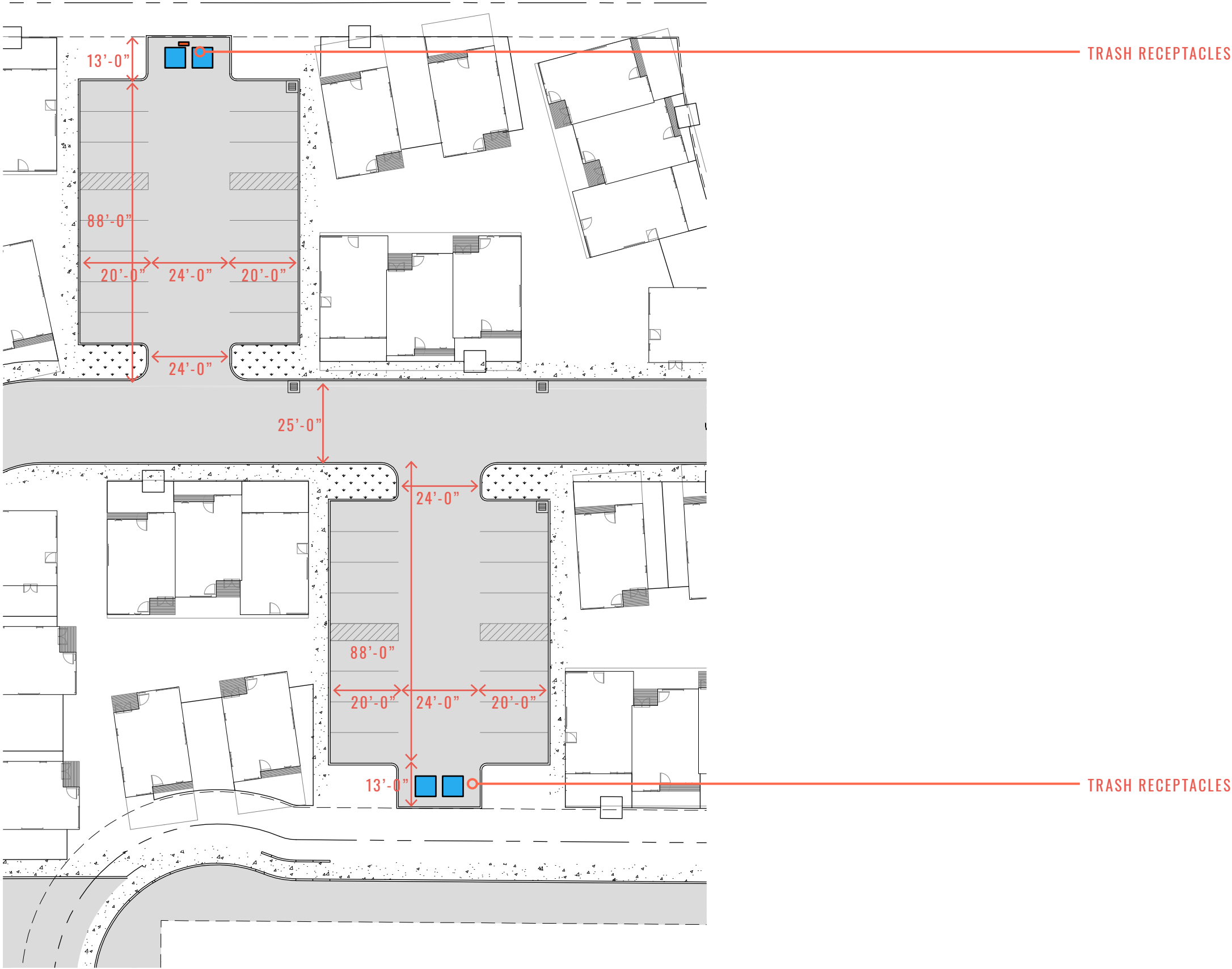
SCALE: NTS



HELMHOLTZ SITE PLAN

TRASH RECEPTACLE ANALYSIS
TYPICAL TRASH LOCATIONS

SCALE: 1" = 40'-0"







BECON, LLC

Civil Engineering and Land Surveying

549 SW Mill View Way, Suite 100 • Bend OR, 97702 • 541.633.3140

**Burden of Proof Statement
Site and Design Review and Partition Application
Cottages on Helmholtz**

Applicant: LEDG Capital, LLC
201 Wilshire Boulevard, 2nd Floor
Santa Monica, CA 90401

Owner: Jamie Garza
2052 Helmholtz Way
Redmond, Oregon 97756

Engineer: April Pust, PE
BECON Civil Engineering & Land Surveying
549 SW Mill View Way, Suite 100
Bend, OR 97702

Location: The subject property is located at 2052 Helmholtz Way. The property tax lot is 15130190000701.

Request: Site and Design Review approval for an 89 unit detached multifamily development in the R-4 Multifamily Zone. A two parcel partition is proposed to accommodate the extension of SW 42nd Street through the site.

I. Applicable Criteria, Standards, and Procedures:

City of Redmond Development Code – Article I – Zoning Standards

Residential Use Zones

- 8.0135 – Table A, Residential Zones - Uses Permitted
- 8.0140 – Table B, Minimum Standards
- 8.0141 – Architectural Design Standards for Single Family Dwellings, Duplexes, Tri-plexes and Four-plexes

Supplementary Provisions

- 8.0305 – Clear Vision Areas
- 8.0330 – Exterior Lighting
- 8.0340 – Fences
- 8.0350 – Design Standards for all Residential Structures Fronting both Public or Private Streets or Alleys
- 8.0370 – Building Setbacks for the Protection of Solar Access
- 8.0500 – Off-Street Parking
- 8.0505 – Off-Street Parking and Loading

- 8.0510 – Design and Improvement Standards for Parking Lots

City of Redmond Development Code – Article III – Land Division Standards

General Provisions and Partition Application Procedure

- Chapter 8, Article III 8.2400-8.2425 Land Partitioning

Design Standards and Improvements

- 8.2700 – Compliance Required
- 8.2705 – Blocks, Lots and Parcels
- 8.2710 – Streets
- 8.2715 – Fundamental Design Elements
- 8.2720 – Grading of Building Sites

Supplementary Provisions

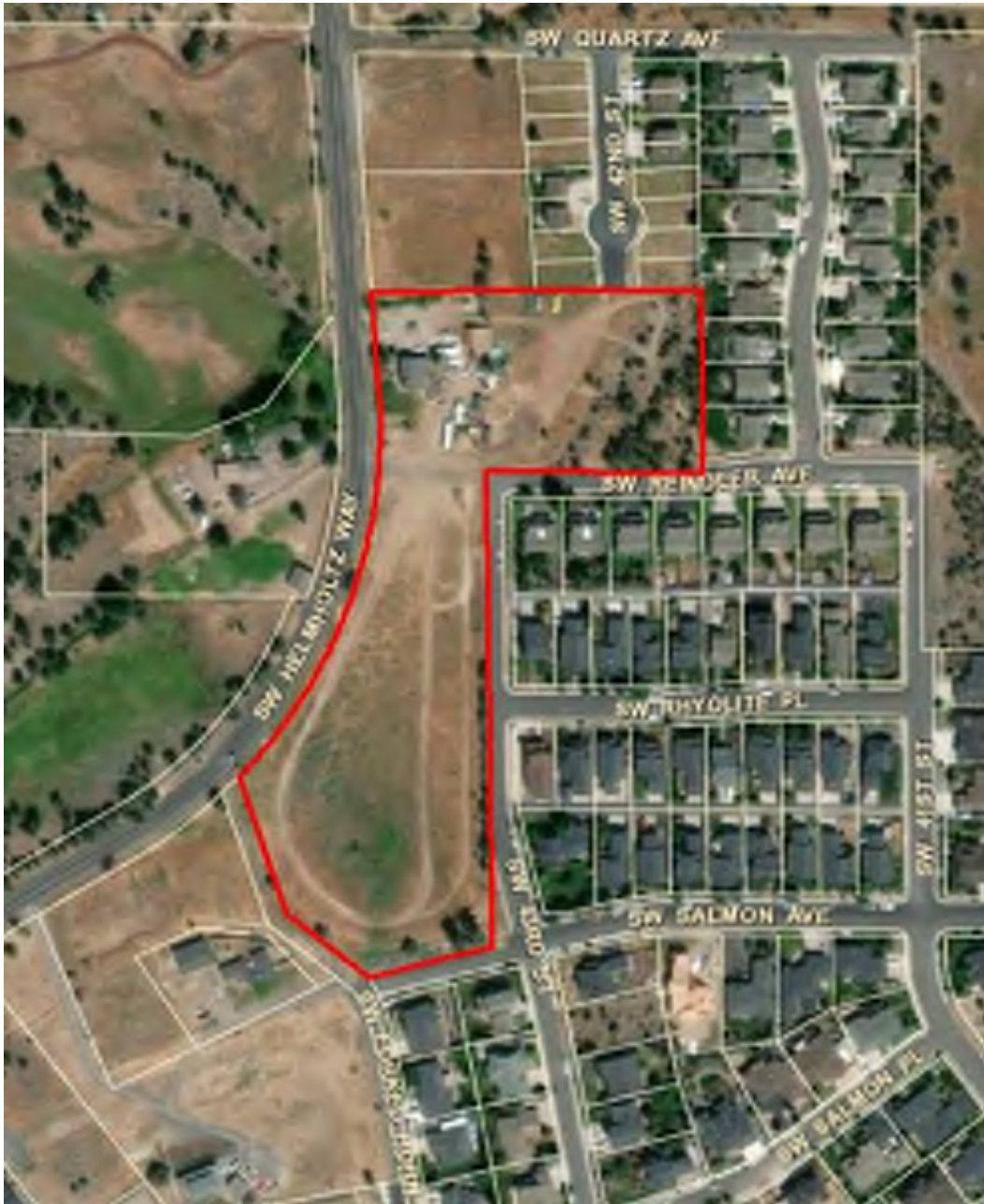
- 8.2800 – Improvement Procedures
- 8.2810 – Acceptance of Improvements
- 8.2815 - Transportation Impact Analysis
- 8.2820 – Access Management Standards
- 8.2825 – Street Dedications

City of Redmond Development Code – Article IV – Site and Design Review Standards

- 8.3030 – Special Studies, Investigations and Reports
- 8.3035 – Design Review Criteria

II. General Facts:

1. **LOCATION:** The subject property is located at 2052 Helmholtz Way (tax lot 1513190000701).



2. **EXISTING ZONING AND GENERAL PLAN DESIGNATIONS:** The property is zoned General Residential (R-4) on the Redmond Zoning Map and is designated General Residential (R-4) on the Redmond Comprehensive Plan Map.
3. **SITE DESCRIPTION & SURROUNDING USES:** The subject property is 7.52 acres in size and irregular in shape. The property has an existing home and outbuildings and is surrounded by properties in the R-4 and R-2 Zones.

4. **PROPOSAL:** The proposal is an 89 unit multi-family site plan comprised of 61 buildings that include all landscaping, parking, rights of way, access, water, and sewer facilities needed to serve the proposed use. This proposal also includes a two parcel partition.

5. **EXHIBITS:** In addition to this burden of proof statement, the applicant submits the following Exhibits in support of this proposal:

- Application Forms
- Title Report
- Traffic Impact Analysis
- Fire Flow Info
- Neighborhood Compatibility Statement
- Building Elevations
- Floor Plans
- Lighting Plans
- Engineering Plans
 - Cover Sheet
 - Existing Conditions & Demo Plan
 - Tentative Partition Plat
 - Site and Utility Plan
 - Grading and Drainage Plan
- Landscape Plans

III. Conformance with the Applicable Approval Criteria:

APPLICATION SUMMARY:

This application requests Site and Design Review for an 89 unit multifamily development in the R-4, General Residential Zone. The project site is also located in a high density overlay area, which allows for densities up to 30 units per acre.

R4 - General Residential Zone. To provide high density residential neighborhoods with a mix of single family residences, duplexes and some conditionally permitted multi-family residential development. Limited commercial uses such as offices are also conditionally permitted where compatible with surrounding development.

8.0135 Table A, Residential Zones, Uses Permitted. The following uses are outright permitted or conditional uses in each of the Residential zones as follows:

"O" means Permitted Outright

"C" means Permitted Conditionally

"N" means Not Allowed

LAND USE:	ZONE:					RESTRICTIONS AND REQUIREMENTS:
Residential Uses:	R-1	R-2	R-3	R-4	R-5	
Accessory Building: Sheds, shops, garages excluding railroad cars not in railroad right of way, and movable shipping containers or similar storage containers that are not classified as structures.*	O	O	O	O	O	Detached; includes greenhouse, workshops, potting sheds, and the like must be located within the property and not in the yard setback areas.
Guest House	O	O	O	O	O	No kitchen; uses main houses' sewer & water Uses main houses' sewer & water or individual City Services; may have kitchen
Accessory Dwelling Unit / Accessory Suite	O	O	O	O	O	
Accessory Use	O	O	O	O	O	Includes Home Occupations
Apartments						See Multi-Family Complex / Dwelling
Bed and Breakfast	C	C	C	C	C	
Boarding or Rooming House	N	N	C	O	O	
Cluster Development	O	O	O	O	O	
Cottage Development	O	O	O	O	O	
Condominium	O	O	O	O	O	Condo plats are State regulated
Duplex	O	O	O	O	O	
Duplex Lot	O	O	O	O	O	
Manufactured Home	O	O	O	O	O	See Single Family Dwelling
Manufactured Home Park	N	N	C	C	C	
Manufactured Home Subdivision	N	N	O	O	O	Subject to compliance w/ applicable ORS
Multi Family Complex (5 + units)	C	C	C	O	O	
Multi Family Dwelling (3 & 4 plex)	O	O	O	O	O	*In the R-3 zone tri-plexes are allowed on corner lots w/min. of 7,400 sq ft size.
Nursing, Convalescent, and Assisted Living Facility	N	N	C	C	C	More than 15 people
Planned Unit Development	N	N	C	C	C	
Residential Care Facility	N	N	C	C	O	Defined in and regulated by ORS
Residential Care Home	O	O	O	O	O	Defined in and regulated by ORS
Single Family Dwelling	O	O	O	O	O	
Townhouse	O	O	O	O	O	

Applicant Response: The proposal is an outright permitted use in the R-4 zone.

8.0140 Table B, Minimum Standards. The following minimum standards apply in each of the Residential zones as follows:

Zone:					
Standard:	R-1		R-3	R-4	R-5
Minimum Lot size - Square Feet					
Single Family	9,000	9,000	7,500	5,500	5,500
Duplex	NA	10,000	8,000	7,500	7,500
Duplex Lot			4,250	3,750	3,750
Townhouse			E	E	E
Multi-family Dwelling	NA	NA	NA	F	F
Multi-family Complex	NA	NA		F	F
Maximum Density/Gross Acre	4	4	5	10	15
Minimum Setback Distance – See C, F, and H below					
Front Façade, excluding garage which must be 20 feet back from property line	15	15	15	10	10
Interior Side	B 5/10	B 5/10	B 5/10	B 5/10	5
Street Side	15	15	15	15	15
Rear	20	20	20	20	5
Garage	20	20	20	20	20
Maximum Building Height _F	32	32	32	40,E	40,E
Minimum Street Frontage					
Standard Street	50	50	50	50	50
Cul-de-sac	30	30	30	30	30
Flag Lot	20	20	20	20	20
Duplex lot (non flag or cul de sac)	N/A	N/A	25	25	25
Townhouse				E	E
A Interior side yards must provide a minimum of 5 feet on one side and 10 feet on the other side for single family and duplex residences. Where alley access is provided, both interior side yards may be reduced to 5'. Exceptions to this 10' setback are allowed (1) when the lot was created prior to the adoption of this standard (November 9, 2006); or (2) on cul de sac lots; or (3) on flag lots, or (4) parcels created by partition.					
B Does not include solar setbacks, which are calculated separately					
D Pursuant to the Townhouse Development Standards in Chapter 8, Article IV Site and Design Review Standards, Section 8.3035.4.f.2, Table A.					
E Does not apply to development standards for Multi-family Dwellings and Multi-family Complexes which are located in Chapter 8, Article IV, Site and Design Review Standards, Section 8.3035.4.E.2., Table A					
F. Street trees are required to be provided in accordance with Section 8.3035(5)(K)					
G. ADU Rear-Yard and Other Setbacks (Zones R-1 and R-2 – <i>no change to setbacks since the lot sizes are quite large.</i>)					
For all other zones:					
2 story ADUs – 20-foot rear yard setback;					
2 story ADU that abuts an alley – 10-foot rear yard setback (driveway, if proposed, must still be 20 feet deep)					
1 story ADU – 10-foot rear yard setback					
1 story ADU that abuts a 20-foot-wide alley – 5-foot rear yard setback (driveway must still be 20 feet deep)					

ADU abutting a street corner – maintain front yard setback – side may be 5 feet for either 1 or 2 stories (driveway must still be 20 feet deep) ADU cannot extend in front of the house or front yard setback. ADU on lot abutting a commercial/industrial property – 5-foot rear yard setback regardless of height.
N/A = "not allowed"

Applicant Response: This proposal qualifies as Multi Family Complex. Site and design review standards will be addressed below. The proposal also qualifies as needed housing under ORS 197.303. Only clear and objective standards, conditions, and procedures may apply. ORS 197.307(4).

8.0141 Architectural Design Standards for Single Family Dwellings, Duplexes, Tri-plexes, and Four-plexes

1. Purpose. The purpose of these Architectural Design Standards is to promote and sustain:

- A. High quality development throughout a variety of housing choices;
- B. A diversity of individual styles that incorporate positive design characteristics throughout the City; and,
- C. Excellence in architectural design that:
 - 1. Enhances the visual environment and character of the community;
 - 2. Preserves and protects property values, as well as public and private infrastructure investment;
 - 3. Conveys a sense of balance, integrity and character among all neighborhoods throughout the City;
 - 4. Elevates the attractiveness and quality of life in Redmond; and

Applicant Response: The proposal incorporates innovative and attractive design that will enhance the area by incorporating natural features and balancing development pressures.

This criterion relates to the purpose of the standards and is not separate applicable criteria to the proposal.

2. Intent. The intent of the Architectural Design Standards is to:

- A. Maintain flexibility for a variety of architectural style to be developed throughout the City;
- B. Establish a basis for architectural character for each dwelling, regardless of architectural style;
- C. Continue to allow innovations in design that recognize newer technologies such as solar and wind power, telecommunications, and environmentally conscious construction methods; and,
- D. Promote quality design characteristics that will enhance the long-term desirability of the dwelling, neighborhood and community as an attractive place to live.

Applicant Response: The houses cumulatively establish an architectural language that is modern in its clean lines and pure forms, but also relates to the traditional bungalow forms of 20th century's American houses. The houses are at once contemporary and traditional. This flexibility will provide a contextual backdrop for the future construction of nearby homes and developments.

The site is being planned to include the future installation of electric car charging stations, as well as sustainable, and low maintenance xeriscaping (see Landscape narrative). Each home will allow for potential future installation of solar panels.

The proposal qualifies as needed housing under ORS 197.303. Only clear and objective standards, conditions, and procedures may apply. ORS 197.307(4).

3. Procedure. New single-family dwellings, duplexes, tri-plexes, and four-plexes shall be reviewed for conformance with the requirements listed in this Section, subject to the procedures outlined below:

A. Track 1. Clear and Objective Process. Conformance with Section 8.0141(5), below. An application demonstrating conformance with Section 8.0141(5) shall be submitted to the City. Conformance with the objective standards included in Section 8.0141(5) shall be shown on the architectural plans submitted with the building permit application and administered as part of the plan review process. These applications are reviewed administratively by the City.

Fast-track process: If an Architectural Master Plan application is submitted and approved, all requirements of this section must be met prior to occupancy.

Applicant Response: This development will follow the Track 1 approach, as the project conforms with the guidelines and requirements of the current development code.

B. Track 2. Discretionary Process. As an alternative to the Track 1 procedure above an application may be submitted to the City which demonstrates conformance with the Purpose and Intent of this Section as listed in Sections 8.0141(1) and (2), above. These applications are reviewed administratively by the City unless it is determined that a public hearing is necessary, in which case the application will be reviewed by the appropriate Hearings Body. The City may also approve other architectural designs or design elements not listed in this section, approve exceptions or uniquely identifiable house styles provided they comply with the intent of this section.

Applicant Response: This development will comply with the Track 1 process; therefore, this section is not applicable.

C. Design Review for Manufactured and Mobile Homes not within approved mobile home parks: Some manufactured homes and mobile homes may not be able to fully comply with the requirements below. In those cases the following features are required as part of a Track 2 process.

1. At least one covered porch;
2. Two exterior types of wall siding material on 3 sides;
3. Band courses on 3 sides; and 4. One additional tree.
4. Application and Approval Process. The applications for either a Track 1 or Track 2 review as specified in Sections 8.0141(3)(A) and (B) above, shall be submitted prior to or in conjunction with an application for a building permit.

Applicant Response: No manufactured homes are proposed with this project. This section is not applicable.

5. Architectural Design Standards. Although specific architectural styles are not mandated, single family dwellings, duplexes, triplexes, and fourplexes shall conform with the following objective standards:

A. Screening of Mechanical Equipment. All exterior ground mounted mechanical equipment located forward from the line of the front façade (living space and garage) of the building shall be screened from the street at the ground/eye level line of sight by use of landscaping materials such as shrubs and trees or fencing at least three (3) feet in height at installation. Solar power, wind power, and satellite dishes necessitating placement on walls or roofs for normal operation are exempt from this provision.

Applicant Response: Mechanical equipment is located between building units, still providing enough clearance access for installation and maintenance, but out of sight relative to the front and rear facades and public spaces.

B. Building Design.

1. Architectural Design. Duplicate or repetitive exterior home designs must be separated by at least one (1) lot/attached building of non-repetitive exterior design on either side of the home and not be directly across the street from one another. Home designs will not be considered repetitious if three out of five following differentiating criteria are used as listed in 2 through 7 below:

- a. Process. Builders of multiple homes on the same street shall submit a plat showing the house plan names and elevation designations ("A", "1", etc.) for adjacent homes. No photographs will be required. Homes by other builders may be denoted as "Home by Others".
- b. Process. Builders constructing individual units shall submit photos showing front elevations for units located on either side of the home directly across the street.

Applicant Response: The applicant has prepared a set of illustrations and renderings in the architectural package that visually illustrate the below. We are currently proposing that the following items are true throughout, with numbers 2b, 2c, 6, and 7 true where the same building type is side by side.

Variation of the following aspects will ensure a non-repetitive exterior design:

1. Building size and footprint (types A, B, and C)
2. Front Facade Wall Design variation
 - a. Window placement (A1, A1 Mirrored; B1, B1Mirrored; C1, C2)
 - b. Siding layout and design (Board and Batten in two patterns)
 - c. Color (one of 8 colors, or four color pairings)
3. Front door placement (Inside porch, and under awning)
4. Orientation (rotation of different elevations towards public streets)
5. Orientation (Variation in the angle of the houses creates differentiation in façade size, fenestration, and roof angle)
6. Material color schemes (two colors of standing seam roof)
7. Landscaping

2. Roof Design. Required Roof Design Elements:

- a. Pitched or sloping roof elements greater than 4:12;
- b. Eave of at least 12 inches;

Applicant Response: Pitched roofs are 5:6 (10:12) with 6 inch eaves. Roof drains are integrated into the roof profile.

3. Front Façade Wall Design. Ten (10) façade elements listed below shall be used on the front elevation. Use of T-111 exceeding 20% of all facades, combined, is not allowed.

a. 40% fenestration of the first story front façade.

b. Window trim or surround (casting) at least 3.5 inches wide that completely surrounds the window;

c. Band course, band molding, bellyband, belt course that runs the entire width of the front façade of relatively slight projection; and at the break of the second floor

(if one exists) and at the line made by the lower roofline at the gable end except when single wall panel systems are used;

d. Variation in wall siding, wall surface pattern or decorative materials if an area above the highest band course exists, it must contain a different siding material than the area below the band on the walls that front onto public spaces;

e. Recessed or covered front entry at least 20 square feet, with a minimum 4-foot depth measured from the front door. If columns are used, they must not be exposed dimensional lumber less than 6" x 6".

f. Windows with multi-paned sashes, operable sashes, or windows that are elliptical, round, arched, bay, semi-circular or similar design;

g. Shutters, as a matched pair for windows, either decorative, fixed or movable;

h. Balconies.

i. Garage doors, with or without windows, including patterning relief over the door surface;

j. Optional enhancements and substitutions:

1. Enclosed soffits;

2. 1 ½" caliper tree in front of landscape area, in addition to required street trees;

3. 1 ½" caliper tree in rear or side landscape area;

4. Covered entry feature over secondary doors, separate from eave;

5. Covered rear patio or porch;

6. Eave greater than 12 inches in depth, including extended soffit details;

7. Where gable ends are proposed, at least three (3) gable end elements such as windows, decorative vent cover, decorated verge boards, trusses, false beams, corbels, brackets, molding, rake, fascia, cornice return treatments, or other decorative elements in gable ends shall be used; and

8. Masonry accents

9. Paint color schemes, with a minimum of 2 colors used (example: Trim & Exterior Wall colors)

Applicant Response:

This development is unique in that both the 'front' and 'back' of the houses are treated as 'front' facades, in material, composition, and access. Courtyard-facing and street-facing facades have entrances and are visually appealing. Each building includes the following features:

1. 40% fenestration of the first story front façade.

a. Building Type A1 and A1 mirrored: 44%

b. Building Type B1 and B1 mirrored: 41%

c. Building Type C1: 41%

d. Building Type C2 ADA: 42%

2. Band course at the break of the second floor (with Board and Batten siding, and paint color)

3. Variation in wall siding (Recessed entrances are clad in a grooved wood material)

4. Recessed entry of 36 sq ft (Building types A and C only), and covered canopy of 16-sq ft (building type B and C (ADA))

5. Windows with operable sashes in kitchens and bedrooms

6. Enclosed, concealed soffit vents, and a ridge vent

7. Covered entry feature over secondary doors, separate from eave (covered porch with variation in siding in Type A and C1 units, Extended awning in type C2 ADA units)

8. Covered rear porch and rear entry (24 sq ft)

9. Paint color schemes (8 distinct colors and patterns)
10. Material color schemes (two colors of standing seam roof)
11. See landscaping narrative for responses related to trees and landscaping in rear and side of house
12. See landscaping narrative for responses related to trees and landscaping in front of house

Finally, these houses are each designed with a few guiding principles in mind. First and foremost, they are designed to meet the multifold needs of their residents. A tall first floor ceiling height, large windows for natural light, and an efficient floor plan are key to this goal. Additionally, they are placed in careful relation to other houses in the project. See architectural package for visual illustration of the above front wall elements.

4. Side Elevations facing public streets. Side elevations facing streets must include either window trim at least 3.5" in width, or full-lap siding. Façade facing streets are required to have at least 10 square feet of windows or doors.

Applicant Response: Side elevations facing public streets have full height board and batten style siding but no window trim (see above). All street-facing facades have at least 10 sq ft of windows or doors. Where lap siding is used, it covers the full façade.

5. Front Door. A front door that is visible from the public street frontage (front yard) and pedestrian connection between the front door and the public sidewalk is required. Front porches, including covered front porches, are highly encouraged.

Applicant Response: Front doors are visible. Building Type A, C1 and C2 have recessed front porches, and Type B and C2 ADA have an extended canopy. Landscaping design provides pedestrian connection between front door and public sidewalk.

6. Driveways and Garages.
 - a. A garage is required for each newly constructed dwelling unit and shall be of adequate size to accommodate a minimum of one vehicle and shall at a minimum meet the design requirements in Section 8.0500 through 8.0515 (Off Street Parking and Loading Requirements) of the City of Redmond Development Code. Tri-plexes and four-plexes may meet this standard by substituting garage or covered parking with uncovered, paved parking spot(s) per the design requirements in Section 8.0500 through 8.0515.
 - b. Driveway access to any street less than 28 feet wide shall be in conformance with Section 8.2710(3)(Table 1), of Article 3, the City of Redmond Land Division Code.
 - c. Driveways, whether accessed from a public or private street or alley, shall be of adequate size to accommodate a minimum of one vehicle, and shall at a minimum meet the design requirements in Section 8.0515 (Parking Table and Diagram) of the City of Redmond Development Code.
 - d. If a garage as required by subsection 8.0141(5)(B)(6)(a) above is converted to living or other space permissible by this Code, two off-street parking spaces shall be provided pursuant to Section 8.0500 through 8.0515 (Off Street Parking and Loading Requirements) of the City of Redmond Development Code.
 - e. Notwithstanding the applicable provisions of Sections 8.0500 through 8.0515 (Off Street Parking and Loading Requirements) of the City of Redmond Development Code, all required off street parking areas and driveways

constructed in conjunction with single family dwellings and duplexes may have alternative surfaces to concrete or asphalt and may include permeable surfaces to the extent they provide an all-weather surface sufficient for vehicular travel. Loose gravel, aggregate and similar surface treatments are not permitted for required parking spaces.

Applicant Response: The proposed development consists of detached multi-family units that will utilize a parking lot per 8.0500 Off-Street Parking

6. Landscaping. All lots on which new dwellings or duplexes are constructed which abut a public or private street, not including an alley, shall be landscaped between the corresponding façade of the structure and the edge of the street, for the entire length of the street frontage(s). A master template shall be used to denote the required interior or corner lot landscaping.

Applicant Response: The landscape requirements are covered in detail in Section 8.3035. See that section and the Landscape Plans for details on how this requirement has been met with the proposed development.

7. Fences. Fences constructed in conjunction with any dwelling (including fences constructed by the developer of a subdivision as perimeter fences) shall be in accordance with the applicable provisions of Section 8.0340 of the City of Redmond Development Code.

Applicant Response: This criteria is addressed in Section 8.0340 Fences.

3. Track 2 Process.

Application and Approval Process. The applications for a Track 2 review shall be submitted prior to or in conjunction with an application for a building permit. Building permits will not be issued until the design review action is completed and approved by the City. The application shall be submitted on a form prescribed by the City with an accompanying fee.

Applicant Response: This development will be following the Track 1 process as previously noted. The Track 2 process will not be applicable for this development – This section is not applicable.

8.0330 Exterior Lighting.

1. Purpose. The purpose of this code section is to allow residents, businesses, and public entities to adequately illuminate the outdoor areas on their property without adversely impacting the use of adjacent property and minimizing the impact on Redmond's dark skies.

2. Applicability. The provisions of this code section apply to all outdoor lighting, including security lighting in all zones, unless exempted under this code section. All outdoor lighting subject to this code section shall comply with these requirements. This includes, but is not limited to: new lighting, replacement or repair of existing nonconforming lighting, and any other lighting whether attached to structures, poles, the earth, or any other location that illuminates exterior areas of the property. It is the property owner's responsibility to ensure compliance with this code section, including lighting installed by a third party or prior property owner.

3. Requirements for Lighting Regulated by this Code Section

A. All lighting shall be downcast and use a shielded fixture or other means to limit up lighting. The terms "downcast and shielded" mean that the fixture allows no light emission above a horizontal plane through the bottom of the fixture. See illustration A which illustrates downcast lighting and up lighting.

B. Lighting shall not shine into neighboring residences, or onto public streets.

Applicant Response: The intent with exterior site lighting is to compliment the architectural style. Site lighting is intended to be pole top mounted, dark sky compliant, and whenever feasible, low voltage. Parking area lighting shall be of a similar nature but mounted to higher poles w/ additional fixtures as need to cast a broader distribution of foot candles needed to meet code requirements. Fixtures in pedestrian areas shall make use of scaled pole heights and detailing to compliment the human scale.

8.0340 Fences. All fences constructed after the time of the adoption of this ordinance (Ord #2014-14, 07/22/2014) shall comply with the following standards. For the purpose of these standards fences refers to fences, lattice work, screens or walls (other than a retaining wall). The intent of these standards is to ensure that fencing contributes positively to the appearance of the community, and that the scale, location, and appearance of fencing does not adversely affect adjacent or nearby properties or public safety.

1. On all properties one (1) acre or less in size, in all Residential Zones (including residential uses in the C-2 Zone and in the Downtown Overlay District) and the Urban Holding Zone, all fences shall be developed to the following standards:
 - A. Fences abutting a local public street shall comply with the following:
 1. Fences in front yards, and in that portion of side yards extending from the front property line to the front façade of the dwelling, shall be a maximum of 3½ feet tall.
 2. On corner lots, only one front yard restriction is applied relative to the 3½ feet fence height restriction, in which case, the fence along the non-front yard designated side may be up to 6 feet tall from the front façade of the house back to the rear property line (see fence example in Figure 1).
 3. Fences in that portion of side yards extending from the front façade of the dwelling to the rear property line, and all rear yards, shall be a maximum of 8 feet tall.
 4. Fences located in side and rear yards shall incorporate architectural columns consisting of materials such as stone, brick, rock, wood or other similar products, at each property corner along the fence that abuts the street. (See: *Examples*). The columns shall be a minimum of 12" x 12" in size.
 5. Fences shall be constructed of wood, vinyl or wrought iron. Chain link fences are not permitted. Other types of fences (allowed to the 8 foot height limit) may be approved by and at the discretion of the Community Development Director subject to compliance with the intent statement above.
 6. Fences in side or rear yards which abut an alley shall be allowed to be 8 feet in height. (Note: the Oregon State Building Code – as defined in State Statute – indicates that fences in excess of 6 feet in height require a building permit, and may need to be professionally engineered).
 7. Fences which encroach into the public right-of-way shall be treated as a nuisance and shall be subject to enforcement pursuant to Section 8.0805 of the City of Redmond Development Code.
 - B. Fences abutting a collector or arterial street shall comply with the following:
 1. In addition to the requirements for fences abutting a local street, fences located in side and rear yards that abut a collector or arterial public street shall in addition incorporate a minimum 5" wide square column every eight (8) feet along the fence with a cap added to the top of each column that is a minimum of a ½" larger in each direction and a minimum of 1" in height.
 - C. Fences not abutting a public street shall comply with the following:
 1. Fences located in the side or rear yards shall not exceed 8 feet in height. (Note: the Oregon State Building Code – as defined in State Statute – indicates that fences in excess of 6 feet in height require a building permit, and may need to be professionally engineered).
 - D. No fence in any residential zone, except as exempted by Section 8.0340(5), shall be constructed with barbed wire, razor wire, or similar apparatus.

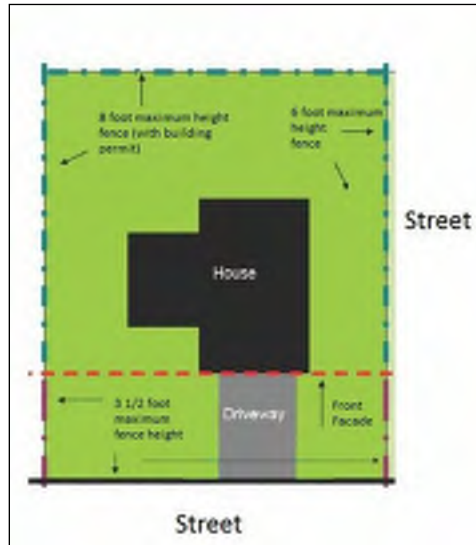


Figure 1 Corner Lot Fence Example

Applicant Response: The proposed onsite fencing is a horizontal-slat, wood-screen fence. The fence heights shall be no higher than 3-1/2 feet tall as measured from adjacent grade. Columns are not intended to be needed. The incorporation of stone columns shall be evaluated so as to no be off-balance with the mass & scale of fencing and pedestrian scale.

2. In all Commercial Zones (except for the C-2, Central Business District Zone and the Mixed Use Zones), the PF-Public Facility Zone, the Park Zone, and in any Industrial Zone, all fences shall be developed to the following standards:
 - A. The maximum height of a fence shall not exceed 8 feet. (Note: the International Building Code indicates that fences in excess of 6 feet in height require a building permit, and may need to be professionally engineered).

Applicant Response: This development is not within any Commercial Zones so this section is not applicable

3. For any development undergoing land use review, any wood or vinyl fence bordering a street shall incorporate architectural elements in accordance with Section 8.0340(1)(A)(4) and/or (1)(B)(1) herein.

Applicant Response: Fencing shall comply with incorporation of architectural elements as required.

4. All fences, regardless of zone or location, shall comply with the following requirements:
 - A. Fences fronting public streets shall provide one gate, opening, or other site access for emergency services use. For corner lots, only one opening along either the front or side yard frontage is required.

Applicant Response: Fencing gate shall be incorporated to provide access points as required. There are also ample areas where gaps between fencing allow for multiple points of entry for emergency services.

- B. Fences shall not block the clear vision area and shall comply with the standards in RDC Section 8.0305.
- C. Fences shall be constructed on private property and shall not be located in public rights-of-way.
- D. Fences shall be comprised of wood, vinyl, metal or other solid material that is able to be painted and/or maintained in structurally sound condition. All fences shall be maintained in a structurally sound condition and be free from exposed nails, screws, loose members, decaying materials or other similar conditions that can pose a hazard.

Applicant Response: All proposed fencing shall comply with items B, C, & D listed above.

5. The following fences shall be exempt from the standards set forth herein, except for the requirement to comply with the clear vision standards in the RDC Section 8.0305, as listed in Section 8.0340(4)(B) above:
- A. Any security fencing around a public or quasi-public utility or entity including the Airport perimeter.
 - B. Fences related to a park or school use including (but not necessarily limited to) tennis courts, driving ranges and ball fields.
 - C. Fences necessary for compliance with any documented Federal or State mandated requirements (i.e. Homeland Security requirements)
 - D. Any fence exempted under (5)(A and B) herein that is in excess of 20 feet in height shall require conditional use permit review and approval, and a public hearing.

Examples:



Applicant Response: This development does not meet these conditions or uses so this section is not applicable.

8.0350 Design Standards for all Residential Structures and Sites fronting both public or private streets and alleys.

- 1. The front doors and front facade of all primary dwelling units shall face a public or private street.
- 2. At least one yard facing a public or private street shall provide a gate, opening, or other access for emergency service use.
- 3. For all residential lots served by alleys and fronting a public or private street, addresses shall be clearly visible from the street rather than from the alley.

Applicant Response: The front and rear facades of each house type are designed to be visually appealing. House types A1, C1, and C2 provide a covered entry on both front and rear facades. House type C2 ADA provides as covered entry on the side façade. The houses' front facades face the community courtyards. The rear facades, which are similar to the front facades in fenestration, composition, material, and entry design each face the surrounding public streets and parking areas. Addresses are marked at front and rear entries. The intended result is that no part of the project feels like "the back".

8.0370 Building Setbacks for the Protection of Solar Access.

- 1. Purpose. The purpose of this Section is to provide as much solar access as feasible during the winter solar heating hours to existing or potential buildings by requiring all new structures to be constructed as far south on their lots as is necessary and feasible. This standard does not attempt

to keep the shadow of a structure from crossing a property line. Instead, it attempts to limit the height of the shadow at the northern property line of the lot on which a structure is located. Required distances determined under this standard may use the northern public Right of Way (ROW), including public alleys, to meet this standard.

2. Standards.

A. All new structure or addition to existing residential structures higher than the existing structure shall meet the following standards except as provided in 8.0370.3 those mentioned in (3) (b) below:

1. South Wall Protection Standard. The south wall protection standard is established in Appendix A-1 and Appendix A-2 or permitting software solar calculator, and all new structures or additions higher than the existing structure shall meet this standard if feasible. If it is not feasible due to physical constraints of the lot, including but not limited to rock outcroppings, septic systems, existing legal restrictions, or lot dimensions as determined by the City, then the structure or addition higher than the existing structure must be located as far to the south on the lot as feasible and must meet the standards set forth in 8.0370(2)(A)(1)(B) below.

A. South Roof Protection Standard. All new structures or residential addition higher than the existing structure shall meet the standard for south roof protection set forth in Appendix B-1 and Appendix B-2 or permitting software solar calculator. Distances determined by this standard follow these steps measuring the highest shade producing point, determining the slope of the subject lot, finding the required setback using the solar standard methods designed in this section to the nearest grade percentage divisible by 5, and drawing the solar setback on the site plan.

B. Exceptions. The south roof protection standard shall not apply only if the applicant establishes:

- i. that the structure cannot be located on the lot without violating the requirements contained in Appendix B-1 and Appendix B-2 or permitting software solar calculator;
- ii. that the structure is built with its highest point as far to the south as feasible;
- iii. that the structure have its highest point less than or equal to 16 feet in heights; and
- iv. that it is a permitted use or conditional use for the lot.

C. Exemptions:

- i. Property which is zoned commercial, mixed-use (MUN, MUE, MULW), public facility, fairgrounds, open space park reserve, or industrial shall be exempt from meeting the solar setback. That portion of residential property abutting commercial or industrial property shall be exempt from meeting the solar setback requirements.
- ii. All new residential lots, when approved through the subdivision, PUD or partition process, shall be exempt except when along the northern property line of the fully phased land division.
- iii. The City may exempt from the provisions of this Section any area in which it determines that solar uses are not feasible because the area is already substantially shaded due to heavy vegetation, defined as a cluster of four or more trees, steep north facing slopes, and any area or zone in which taller buildings are planned. It is not required the subject vegetation must be retained, only that it exists at the time of the building permit review with request for solar exemption. An applicant seeking an exemption under this provision shall provide a calculation and/or diagram illustrating that substantial shading as defined in this standard already occurs. The City shall exempt a structure from the provisions of this Section if the structure will shade only a protected area in which solar uses are not feasible because the protected area is already substantially shaded at the time a request for exemption is made and approved by the City. Notice of the proposed exemption shall be sent to the affected property owner(s) in accordance with Section 8.1105.
- iv. Multi-family dwellings and multi-family complexes are exempt from the solar setback requirements of this Section except when the abutting property to the north is developed with a single-family dwelling.

v. the City may exempt a structure from the provisions of this Section if the provisions set by this Section are not met, given landowners of the affected norther property or properties agree to exempt said structure from this Section. This exemption must come in the form of a notarized letter identifying the pertinent landowners of the beneficiary and aggrieved lots accept to exempt said structure from the provisions of this standard. This letter should be submitted at the time of the building permit application.

Applicant Response: Multi-family dwellings and multi-family complexes are exempt from the solar setback requirements of this Section except when the abutting property to the north is developed with a single-family dwelling. This standard does not apply.

8.0500 Off-Street Parking. Parking space requirements are based on the following standards according to the use (note: all required handicapped parking is included in the calculation derived parking standards within these charts). Manufacturing, warehousing, and other industrial uses may base the number of required parking spaces on the number of employees. When the number of employees is specified, persons counted shall be those working on the premises, including proprietors, during the largest shift at peak season.

Land Use	Standard
<i>Residential</i>	
All residential uses within the Downtown Overlay District	1 space per Dwelling Unit.
Apartments	2 sp / D.U.*; 1 sp / Mgr, 1 sp / 5 D.U.'s*
Bed and Breakfast	1 space per bedroom
Boarding House	1 space per bedroom
Caretaker, Watchman living on-site	2 spaces per dwelling unit
Cottage Developments	2 spaces per cottage
Guest Houses / Access. Dwellings	1 space per dwelling unit
Homeless Shelter	1 space per room, or 1 space per employee
Multi Family Complex (over 4 D.U.s)	2 sp / D.U.*; 1 sp / Mgr, 1 sp / 5 D.U.'s*
Multi Family Dwelling (incl. 3 & 4 plex)	2 sp / D.U.*
Res. Use other than Ground Floor	2 spaces per dwelling unit
Res. Use, Ground Floor < 25%	2 spaces per dwelling unit
Res. Care Facility (6 or more residents)	1 space per each 2 rooms
Res. Care Home (5 or less residents)	2 spaces
Single Family Dwelling	2 spaces per dwelling unit
Townhouse	2 spaces per dwelling unit
*Dwelling Unit	

Applicant Response: This development will follow the standards set forth in 8.3035 Design Review Criteria for Multi-Family Complexes regarding parking requirements. See applicant's comments following that section.

8.0505 Off-Street Parking and Loading. General provisions are as follows:

1. The provisions and maintenance of off-street parking and loading spaces is the continuing obligation of the property owner. Should the owner or occupant of any lot or building change the use to which the lot or building is sited, thereby increasing off-street parking or loading requirements, this section must then be complied with. Businesses within the Central Business District (C-2 zone) and Downtown Overlay District (DOD) shall be exempt from this provision if there is an existing building on the subject site that prevents the addition of on-site parking. Expansions of buildings in the C-2 and DOD zone must comply with this section.

Applicant Response: This section is advisory only.

2. Requirements for types of buildings and uses not specifically listed in these standards shall be determined by the Community Development Director or Hearings Body based upon the requirements for comparable uses listed.

Applicant Response: This section is advisory only.

3. In the event that several uses occupy a single structure or parcel of land, the total requirements for off-street parking shall be the sum of the net floor area requirements of the several uses computed separately.

Applicant Response: This development will not have multiple uses; therefore, this section is not applicable.

4. Owners of two or more uses, structures or parcels of land may agree to utilize jointly the same parking and loading spaces when the hours of operation do not overlap; provided that satisfactory legal evidence is presented to the City in the form of deeds, leases or contracts to establish the joint use.

Applicant Response: This development will not have multiple uses, structures or parcels; therefore, this section is not applicable.

5. Off-street parking spaces for dwellings shall be located on the same parcel with those dwellings, or written contract of agreement shall be provided to the City that expressly permits shared use of parking areas which are off site.

Applicant Response: All off-street parking for this development is located on the same tax parcel as the proposed dwellings, with the exception of the seven parking spaces on the office tax parcel. The two parcels will be part of the same development with common ownership/management; therefore the application complies with this section.

6. All required parking spaces shall be located not farther than 300 feet from the building or use they are required to serve, measured in a straight line from the building.

Applicant Response: All required parking is located no further than 150 feet from any building, therefore in compliance with this section.

7. Required parking spaces shall be available for the parking of passenger automobiles of residents, customers, patrons and employees only, and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business or use.

Applicant Response: All required parking will be dedicated as indicated above, and will be enforced by the onsite property owner/management company, and will comply with this section.

8. In any zone, every building having a gross floor area of 10,000 square feet or more, which is to be occupied for manufacturing, storage, warehousing, goods display, retail sales, a hotel, a hospital, a mortuary, a laundry, dry cleaning establishment, or other uses similar requiring the receipt or distribution by vehicles or materials or merchandise, shall provide one off-street loading berth, plus one additional loading berth for each additional 20,000 square feet of gross floor area. Each loading berth shall be provided with paved access, driveways and surfacing in the same manner as for off-street parking, except that each space shall be 10 feet wide and 22 feet long with a height clearance of at least 14 feet. A sight-obscuring screen, berm, or landscaping shall conceal all loading areas from view from public streets or roads.

Applicant Response: This section is not applicable.

9. Interior loading docks, or loading areas or docks located inside buildings, shall be considered as being screened when securable by a powered overhead door that totally encloses the opening for vehicles being loaded / unloaded.

Applicant Response: This section is not applicable.

10. Loading and unloading of merchandise, equipment, etc. shall not be permitted from public streets or roads.

Applicant Response: This section is not applicable.

11. On Street Parking Credits within the **MUN and MUE** zone. The minimum requirement off-street parking spaces may be reduced by the number of on-street parking spaces that are allowed and constructed along the street frontage of the proposed development. On-street parking spaces counted toward meeting the parking requirements of a specific use may not be used exclusively by that use, but shall be available for general public use at all times. Signs or other actions that limit general public use of on-street spaces are prohibited.

Applicant Response: This section is not applicable.

12. Common Parking Areas shall conform to city standards, and shall be located within 220 feet of the land use.

Applicant Response: All proposed parking complies with this section.

8.0510 Design and Improvement Standards for Parking Lots. The design and improvement standards for parking lots are:

1. Vehicle Parking Space Sizes and Bicycle Parking Requirements.
 - A. Each regular sized parking space or stall shall be governed by the requirements of Section 8.0515, and shall have a minimum width of 9 feet and a minimum length of 20 feet; must be individually accessible, paved, and shall be continuously maintained by the property owner.

Applicant Response: All regular size parking spaces comply with this section.

- B. If desired by the applicant / owner, each compact parking space or stall shall be a minimum width of 8 feet and a minimum length of 18 feet.

Applicant Response: There are no compact parking stalls proposed. This standard does not apply.

- C. A maximum of 20% compact spaces is permitted as required parking.

Applicant Response: There are no compact parking stalls proposed. This standard does not apply.

- D. A securable parking space shall be provided for bicycles for each new commercial use. Credit for 1 vehicular parking space shall be given for each 5 bicycle parking spaces (up to 10 bicycle parking spaces / 2 vehicular parking spaces credit possible). However, parking lots containing fewer than 10 vehicular spaces are not eligible for credits, except in the **MUN and MUE** zone. Also, bicycle spaces shall not replace more than 20% of the required parking under any circumstance.

Applicant Response: There is no commercial use proposed for this development, therefore, this section is not applicable. However, 16 bicycle racks throughout the development, totaling 32 securable bike parking spaces.

2. Except for parking in connection with single family or duplex dwellings, parking and loading areas adjacent to or within a residential zone or adjacent to any dwelling shall be screened with a sight-obscuring fence or planted screen of not less than three feet in height.

Applicant Response: No loading areas are proposed. The internal parking lot areas are proposed to be screened with landscaping in accordance with this standard.

3. Parking spaces between pavement and landscaping shall be contained by a bumper rail or by a curb which is at least four inches high and which is set back a minimum of one and one-half feet from the property line.

Applicant Response: The proposed parking will be separated from the landscaping with either a 6" high concrete curb, or a 6" high concrete sidewalk, therefore in compliance with this regulation.

4. Exterior Artificial lighting of any type shall not shine or create glare in any dwelling, property, or onto any public right of way.

Applicant Response: Applicant understands and will comply with this regulation.

5. Access aisles shall be of sufficient width to permit easy turning and maneuvering. In no case shall access aisles be less than 20' in width. Any access aisle less than 24' in width shall provide "no parking / fire lane" striping or signage, or curbs painted red for "no parking". Further, any access aisle being used as backup room for parking spaces shall be no less than 24' wide.

Applicant Response: Any access isles that are 20 feet in width shall provide "no parking / fire lane" striping or signs and will have curbs that are painted red. All parking spaces will have a clear 24-foot minimum width navigation area behind them.

6. Except for dwellings not required to undergo land use review, groups of more than two parking spaces shall be so located and served by a driveway that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley.

Applicant Response: There will be no backing or maneuvering of vehicles into the street right-of-way, in compliance with this section.

7. Service drives to off-street parking areas and internal access aisles shall be designed and constructed both to facilitate the flow of traffic and to provide maximum safety for vehicles and pedestrians. Pedestrian pathways shall be clearly differentiated from vehicular drive aisles on site and may be required to be physically separated from vehicular drives or aisles to ensure pedestrian safety. The number of service drives shall be limited to the minimum that will accommodate anticipated traffic.

Applicant Response: All site entrances and internal access aisles have been designed in accordance with this standard. Pedestrian pathways are separated from driving surfaces by raised curb and proposed to be constructed with either concrete or pavers, rather than asphalt. Additionally, the number of service drives are the minimum necessary to accommodate the anticipated traffic. See Site Plans and Traffic Impact Analysis for additional information.

8. Driveways shall have a minimum vision clearance area as described within RDC section 8.0305 and 8.0310, "Clear Vision areas".

Applicant Response: Applicant understands and will comply with this regulation. See Site & Utility Plan for clear vision triangle locations.

9. The following standards shall apply to parking within industrial zones:

- A. Parking shall not be allowed within 10 feet of a front yard property line or 5 feet of a side yard property line.
- B. Parking shall not be allowed on collectors or arterials when industrial zoning is contiguous to said street.

Applicant Response: This development is not within any industrial zone, thereby, this section is not applicable.

Land Division Standards

8.2100 Procedure.

All subdivisions, partitions and other land use actions subject to the provisions of this Chapter shall be processed in accordance with Article 2, Land Use Procedures, of the City of Redmond Development Code.

Applicant Response: This section is advisory only.

8.2105 Scope of Regulation

Before a plat of any subdivision or partition may be recorded, the person proposing the subdivision or the partition, or an authorized agent or representative, shall make an application in writing to the Redmond Community Development Department for approval of the proposed subdivision or partition in accordance with the requirements and procedures established by these standards.

Applicant Response: The applicant understands and will comply with this requirement.

8.2110 Minimum Standards

No proposed subdivision or partition shall be approved unless it complies with the density requirements of the Comprehensive Plan for Redmond, the applicable Zoning Standards, these standards, and ORS Chapter 92.

Applicant Response: The proposed subdivision meets the required criteria and applicable zoning standards.

8.2200 Pre-Application Meeting

Prior to submitting a tentative subdivision plat each applicant or their representative is required to meet with the Community Development Director or a designated staff member(s) to review the proposal.

Applicant Response: A pre-development meeting was held on April 6, 2021. The corresponding file number is 21-000066-PLNG(PD).

8.2230 Development Following Approval

Once a phased development plan is approved by the City, the plan shall be binding, upon both the City and the developer. The Hearings Body may attach conditions to any changes proposed that are deemed necessary to insure compliance with the Comprehensive Plan and implementing regulations. After five (5) years from the date of approval of the plan, the City may initiate a review of the plan for conformance with applicable City regulations. If necessary, the City may require changes in the plan to bring it into conformance with new applicable city regulations.

Applicant Response: This section is advisory only.

8.2235 Required Findings for Tentative Subdivision Approval

1. The Hearings Body shall approve no application for a subdivision unless the following requirements are met:

- A. Proposal is in compliance with ORS Chapter 92, the Comprehensive Plan, the Transportation System Plan (TSP), applicable zoning and the applicable Track in Section 8.2236.

- B. Proposal does not conflict with acquired public access easements within or adjacent to the subdivision.
- C. Each lot is suited for the use intended or offered.
- D. The subdivision will not exceed the operational capacity of public facilities and services as identified in the city's Water and Wastewater Master Plan and the Transportation System Plan, which are required to serve the development, or a determination that sufficient capacity can be provided.
- E. A water rights division plan has been approved by the applicable irrigation district.
- F. The subdivision contributes to orderly development and land use patterns in the area, and provides for the preservation of natural features and resources such as streams, lakes, natural vegetation, special terrain features.
- G. Access Management proposals comply with the standards set forth in Section 8.2820 and all other applicable standards.

Applicant Response: The above criteria has been met with the proposed application.

8.2240 Improvement Requirements (For Track 1 and Track 2 Subdivisions)

1. In the approval of a subdivision, the Community Development Director or Hearings Body shall consider the need for street and other improvements. All streets in new subdivisions, except for private streets, shall be dedicated to the public without reservation or restriction.

2. Private Alley Access. The Community Development Director or Hearings Body may require the applicant to improve a private alley access easement serving two or more lots according to the adopted City of Redmond Public Works Standards and Specifications, as amended.

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- 1. Such access easements shall include provisions for permanent, long-term maintenance, including: maintenance measures to be employees; responsible parties; funding; design; timing; and, enforceability. These provisions shall be included as recorded Covenants, Conditions and Restrictions (CCR's) appurtenant to the affected properties.

3. The subdivider shall record the required (including but not limited to) land division agreement, public improvement agreement, shared access agreement or shared well agreement, as may be applicable, with the Deschutes County Clerk's office at the time of recording of the final subdivision plat.

4. Paved access is guaranteed to each lot.

5. Each lot is to be connected to the City water and sewer system pursuant to Section 4.007 of the Code of the City of Redmond.

6. All required public utilities are available.

Applicant Response: The proposed lots will be accessed via private access drives and will have City services stubbed to them from the existing right-of-way. See Site & Utility Plan for details.

8.2245 Resubmission of Denied Tentative Subdivision Plats

1. A tentative plat that was previously denied for an area or tract of land shall be resubmitted in accordance with this Chapter, and shall be reviewed in the same manner as any other tentative plat.

Applicant Response: This section is advisory only.

8.2300 Submission of Final Plat

- 1. Filing Time Period Requirements. Notwithstanding the requirements included herein as amended, all final plats submitted for review and approval shall be subject to the final plat requirements of the City of Redmond Development Code in effect as of the date of the tentative plan approval. Except as provided for in Section 8.2305, the applicant shall prepare and submit

to the Community Development Department, a final plat that is in conformance with the tentative plat as approved, including all conditions of the land use decision. Within two (2) years of the approval date for the tentative plat for a subdivision, the applicant shall submit the final plat, a filing fee and any supplementary information required by these standards and the land use decision. If the applicant fails to proceed with the submission before the expiration of the two (2) year period following the approval of the tentative plat, the plan approval shall be void.

2. Extensions.

- A. If it appears the applicant will not be able to comply with the filing time requirements of these standards, applicant may submit a written application to the Community Development Director or designee requesting an extension of the filing time requirement. The application shall be filed no later than sixty (60) days prior to the date the two (2) year period expires. The extension request shall also be accompanied by the appropriate fee.
- B. If there is good cause, the Community Development Director or designee may grant the extension of up to six (6) months from the date of expiration. Good cause shall require a showing by the applicant that the delay is unavoidable and was not the result of the applicant's own actions. The applicant must also show he has made significant progress on the majority of conditions of the tentative plat.
- C. Any extension granted by the Community Development Director or designee may be conditioned by a requirement that the applicant provide appropriate guarantees that the requirements of these standards will be met.
- D. The applicant may appeal a decision of the Community Development Director or designee to the Hearings Body pursuant to Sections 8.1500 through 8.1560 of Article 2 of the City of Redmond Development Code, Land Use Procedures.
- E. Notice of the application for an extension shall be provided as prescribed in Section 8.1310 of Article 2 of the City of Redmond Development Code, Land Use Procedures

Applicant Response: The applicant understands the timelines and process associated with submitting a final partition plat.

8.2325 Improvement Agreement

1. The subdivider may, in lieu of completion of the required improvements and repair to existing streets and facilities, request the Community Development Director or designate to approve an agreement specifying the schedule by which the required improvements and repairs shall be completed. Provided, however, any schedule of improvements agreed to shall not exceed one (1) year from the date the final plat is recorded. The agreement shall also provide the following information:

- A. The repairs required and cost of the project.
- B. That, pursuant to the requirements of Section 8.2330 of this Chapter, the City may call upon the security filed to construct or complete the improvements and repairs if the schedule of improvements is not adhered to.
- C. That the City shall recover the full cost and expense of any work performed by the City to complete construction of the improvements and repairs including, but not limited to attorneys' and engineering fees.
- D. That a warranty bond for one (1) year shall be deposited with the City following acceptance of the improvements. Said bond shall be in the amount of ten (10) percent of the value of the improvements.
- E. Building permits will not be issued for any structure on any lot included within the subdivision plat until such time as all improvements are completed as specified in the agreement.

2. The Community Development Director or designate may reject an agreement authorized by this Section for any reason the Community Development Director or designate deems sufficient.

3. The subdivider shall record the required land division agreement or public improvement agreement with the Deschutes County Clerk's office at the time of recording of the final subdivision plat.

Applicant Response: The applicant will provide a warranty bond for public improvements, in accordance with this standard. If any improvements are not installed prior to final plat recording, the applicant understands that a separate agreement and performance bond must be provided.

8.2330 Bond or Cash Deposit

1. The subdivider shall file with any agreement specified in Section 8.2325, to assure his full and faithful performance thereof, one of the following:

- A. A surety bond executed by a surety company authorized to transact business in the State of Oregon in a form approved by the City Attorney.
- B. A cash deposit in a City account at an approved lending institution.

2. A bond or cash deposit, or any combination thereof, shall be for 120% of the cost of the improvements and repairs as determined by the City.

3. If the subdivider fails to carry out the provisions of the agreement, the City may call upon the bond or cash deposit to finance any cost or expenses resulting from said failure. In the alternative, the City may form a Local Improvement District or a Reimbursement District to lien the properties in accordance with the relevant provisions of Oregon State Law and the Redmond City Code. If the amount of the deposit or bond exceeds the cost and expense incurred by completing the improvements, the City shall release the remainder. If the amount of the deposit or bond is less than the cost and expense incurred by the City for the improvements and repairs, the subdivider shall be liable to the City for the difference.

Applicant Response: The applicant will provide a warranty bond for public improvements, in accordance with this standard. If any improvements are not installed prior to final plat recording, the applicant understands that a separate agreement and performance bond must be provided.

8.2335 Final Plat Approval

After the final plat has been checked and approved as provided in this article, and when all signatures appear thereon, except those of the Community Development Director, County Clerk and Board of County Commissioners, the Community Development Director shall certify the final plat and submit it to the Board of County Commissioners for final approval.

Applicant Response: The final partition plat will be routed for signatures, certified and recorded in accordance with this section.

8.2340 Recording of Plat

No plat shall have any force or effect and no title to any property shall pass until the final plat has been recorded.

Applicant Response: This section is advisory only.

Design Standards and Improvements

8.2700 Compliance Required.

1. Any land division or development shall be in compliance with the design and improvement standards and requirements of this section, and all other applicable provisions, as set forth in this Chapter.

Applicant Response: This section is advisory only.

8.2705 Blocks, Lots and Parcels

2. Lots and Parcels. The size, width, and orientation of newly created lots and parcels shall be appropriate for the location of the land division and for the type of development and use contemplated. Lots and parcels shall be generally rectangular in shape and shall be consistent with the lot size provisions of the zoning standards and the density requirements as established in the City of Redmond Comprehensive Plan. Notwithstanding these requirements, the following exceptions may apply:

- A. In areas beyond the City Limits where public sewer is not currently available, minimum lot and parcel sizes shall permit compliance with the requirements of the Department of Environmental Quality and shall be sufficient to permit adequate sewage disposal. Any problems posed by soil structure and water table as related to sewage disposal by septic tank shall be addressed and resolved in the applicant's initial plan.
- B. Where property is zoned and planned for business or industrial use, other widths and areas may be permitted by the Community Development Director or Hearings Body. Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street service and parking facilities required by the type of use and development contemplated.
- C. In steep terrain, increased lot or parcel sizes may be required to avoid excessive cuts, fills, and steep driveways.

Applicant Response: The proposed lots meet the size, width and orientation requirements of the development code and are consistent with the standards of the R-4 zone. There is no steep terrain and the development is not planned or zoned for business or industrial use.

8.2710 Streets

1. General. Streets shall be in conformance with the City of Redmond Transportation System Plan as specified herein.

- A. Except along Arterial Street, public streets shall be spaced a maximum of 660 feet between centerlines. The purpose is to provide a street grid pattern of through streets to facilitate traffic movement. Street designs shall conform to topography and other existing natural and man-made conditions. Illustrative examples of other conditions include the dry canyon, main COI canal, Highway 97, and the Burlington Northern Railroad tracks.
- B. All proposed streets, sidewalks, bike lanes and pedestrian pathways shall connect to other streets, sidewalks bike lanes and pedestrian pathways within a development and to existing and planned streets, sidewalks, bike lanes and pedestrian pathways outside the development. Such facilities shall serve existing and planned parks, schools or other public lands within a neighborhood.
- C. To the maximum extent possible, new local streets shall align and connect with existing local streets and collectors, and in certain special cases arterial streets. Cul-de-sac streets shall be permitted only where no feasible connection with an adjacent street exists, or if the local street connection would be to an arterial street and the function of the arterial street may be diminished as determined through the land use review process, or the block length would be less than that which is permitted by Section 8.2705(1)(B).
- D. Consideration should be given to alternative street designs other than required herein in the City's non-residential land use zones to allow for more effective developments. Such designs may be considered and approved during the subdivision or partition process without need for variance.
- E. All proposed or required streets and alleys shall comply with Section 8.2820 Access Management Standards, the Transportation System Plan, and with Local Street Connectivity Plans adopted as part of the transportation element of the Comprehensive Plan.

Applicant Response: The proposed development is in conformance with the criteria of this section. See Site Plans and Traffic Impact Analysis for detailed information.

2. Existing Streets. Whenever existing streets, adjacent to or within a tract, are of inadequate width to accommodate the increase in traffic expected from the land division or by the City's transportation policies as determined through a transportation impact analysis, additional right-of-way shall be provided at the time of the land division by the applicant. During consideration of the tentative plat for the subdivision or partition, the Hearings Body shall determine whether the improvements to existing streets, adjacent to or within the tract, are required. If so determined, such improvements shall be required as a condition of approval of the tentative plat. Improvements to adjacent streets shall be required where traffic on said streets shall be directly affected by the proposed subdivision. Notwithstanding these provisions, off-site improvements to streets not within or adjacent to the development maybe required when impacts resulting from the development necessitate such improvements as demonstrated through a transportation impact analysis.

Applicant Response: The project has frontage on SW Salmon Avenue, SW 43rd Street, SW Reindeer Avenue, SW Helmholtz Way and SW Forked Horn Butte Road.

Right-of-way dedications and frontage improvements are proposed on all existing streets that are not currently built to full City standard. However, the improvements to SW Helmholtz Way will be completed with a fee-in-lieu contribution to the City that is based on the proportionate share for the site and development.

See Site & Utility Plans and Traffic Impact Analysis for additional details.

3. Minimum Right-of-Way and Roadway Width. The street right-of-way and roadway surfacing widths shall be in conformance with the standards as specified in Table 1 below:

Table 1 - City of Redmond Right of Way and Roadway Design and Cross-Section Standards

Functional Class	Width (ft)		Right-of-Way	Travel Lanes	Sidewalks	Bike Lanes**	Parking**
	Pavement Standard	Pavement (minimum)					
Residential Alley	16 ft		20 ft	n/a	none	shared	none
Commercial Alley	20 ft		20 ft	n/a	none	shared	none
Local Residential*****	36 ft		60 ft	2***	5 ft	shared	both sides (unstriped)
	28 ft*		60 ft	2***	5 ft	shared	one side (unstriped)
	24 ft*		60 ft	2***	5 ft	shared	none
	40 ft	38 ft	60 ft	2***	5 ft	shared	optional (unstriped)
Local Industrial	40 ft	38 ft	60 ft	2	5 ft	6 ft	none
Industrial Collector	40 ft	36 ft****	60 ft	2	5 ft	shared	both sides (8 ft)
Minor Collector	36-50 ft	36 ft****	80 ft	2	5 ft	6 ft	none
Major Collector	50 ft	48 ft	100 ft	3	7 ft	6 ft	none
Minor Arterial (3-lane)	74 ft	72 ft	100 ft	5	7 ft	6 ft	none
Minor Arterial (5-lane)							

Applicant Response: All existing and proposed streets will be built to or brought up to current standards for minimum right-of-way and roadway width with the proposed development. All proposed street construction will be reviewed in more detail under a separate engineering submittal.

4. Future Extension of Streets. When necessary to give access to or permit a satisfactory future division of adjoining land, streets shall be extended to the boundary of the subdivision or partition and the resulting dead-end streets may be approved without a permanent turn around if they are 150 feet or less in length, although, an adequate temporary turn around to ensure emergency vehicle access must be provided if such streets are greater than 150 feet in length.

Applicant Response: The project will extend SW 42nd Street from its existing terminus to intersect with SW Reindeer Avenue. There are no other proposed public streets within the development that will dead end at adjacent properties. With four points of ingress/egress to proposed Parcel 1, there is adequate access for emergency vehicles.

5. Collector and Arterial Street Access. Notwithstanding the provisions of Section 8.2705 of this Chapter, if a land division abuts or contains an existing or proposed collector or arterial street, the

Community Development Director or Hearings Body may require other treatments, including but not limited to frontage roads, necessary for adequate protection of residential properties and to afford separation of through and local traffic. Provision may be made for emergency access. All frontage roads shall comply with the City of Redmond Transportation System Plan.

Applicant Response: The applicant understands and will comply with this criteria.

6. Streets Adjacent to Railroads, Freeways and Parkways. When the area to be subdivided or partitioned is residentially zoned and abuts a railroad, freeway, or parkway, a provision may be required for a street approximately parallel to and on each side of such right-of-way at a distance suitable for use of the land between the street and railroad, freeway or parkway. In the case of a railroad, there shall be a land strip of not less than 25 feet in width adjacent and along the railroad right-of-way for screen planting between the railroad right-of-way and residential property. If the intervening property between such parallel streets and a freeway or a parkway is less than 80 feet in width, such intervening property shall be dedicated to park or thoroughfare use. The intersections of such parallel streets, where they intersect with streets that cross a railroad, shall be determined with due consideration as cross streets of a minimum distance required for approach grades to a future grade separation and right-of-way widths of the cross street.

Applicant Response: The proposed development does not abut a railroad, freeway or parkway. This criteria does not apply.

7. Continuation of Streets. Subdivision or partition streets which constitute the continuation of streets in contiguous territory shall be aligned so that their center lines coincide. Where straight line continuations are not possible, such center lines shall be continued as curves. These streets or the continuation of streets in contiguous territory may be required by the Community Development Director or Hearings Body where such continuation is necessary to maintain the function of the street or desirable in the surrounding area. Where solar orientation would not be possible if the street area continued, a new pattern may be started that is solar oriented.

Applicant Response: The project will extend SW 42nd Street from its existing terminus to intersect with SW Reindeer Avenue. The extension is curved as discussed with Engineering prior to application.

8. Lot Layout. Local residential streets should be oriented on an east/west axis to the greatest possible extent to insure solar access for lots within the subdivision or partition.

Applicant Response: This criteria has been met.

9. Street Names. Except for extensions of existing streets, no street name shall be used which will duplicate or be confused with the name of an existing street in a nearby city or in the county. Street names and numbers shall conform to the established pattern in the City, including the continuation of street names across intersecting streets, and shall be subject to the approval of the Fire Department or the responsible agency.

Applicant Response: The project does not create any new streets that will be named. This criteria does not apply.

10. Sidewalks. Sidewalks are required to be installed on both sides of a public street and in any special pedestrian way within the subdivision or partition except that in the case of collectors, arterials, special industrial districts or in steep terrain, the Hearings Body may approve a subdivision or partition without sidewalk if alternative pedestrian routes are available or provided by the developer. Sidewalks shall be required along routes to existing or future school and park sites.

Applicant Response: Sidewalks are proposed along the ¼ and ½ street improvements for the adjacent rights-of-way as well as along both sides of the SW 42nd Street extension. A fee-in-lieu

contribution for SW Helmholtz Way will cover the future installation of sidewalks along the project frontage.

11. Bicycle Routes. If appropriate to the extension of a system of bicycle routes, existing or planned pursuant to the City of Redmond Bicycle Refinement Plan, the Community Development Director or the Hearings Body may require the installation of separate bicycle lanes within streets and/or separate bicycle paths.

Applicant Response: The existing pedestrian and cyclist network is somewhat limited within this developing area, as the roadway system has not been fully developed. However, the proposed project provides a link between several local streets, but there are missing connections along key corridors within the vicinity. See the Traffic Impact Analysis for additional information about the pedestrian and cyclist network.

12. Intersection Angles. Street intersections shall be as near right angles as possible except where topography or existing conditions requires a lesser angle, but in no case shall the acute angle be less than as permitted by the adopted City of Redmond Public Works Standards and Specifications.

Applicant Response: All proposed intersections are at right angles; therefore, this criteria has been met.

13. Alignment. Staggered street alignment shall whenever possible leave a minimum of 200 feet distance between the center line of the streets, but in no case be less than as permitted by Standards and Specifications.

Applicant Response: No staggered centerlines are proposed. This criteria does not apply.

14. Narrow Streets. Local residential grid streets designed at widths less than 36 feet as described in Section 8.2710(3)(Table 1), shall be permitted when the subdivision design is found to be in compliance with the following:

Applicant Response: All streets are proposed to meet the minimum standards and specifications. This criteria does not apply.

A. Narrow streets may only be permitted for continuous full length blocks internal to a Subdivision or Planned Unit Development with street connections at both ends.

B. Lots adjoining the narrow streets shall be a minimum of 5000 square feet and have a street minimum 50 feet of frontage.

C. Sidewalks shall be separated from the curb by a landscape strip with street trees conforming with Public Works Standards and Specifications.

D. Curb cuts along the narrow street shall not be less than the minimum width required within the adopted City of Redmond Public Works Standards and Specifications.

Applicant Response: The site has four proposed entrances for Parcel 1 and one proposed entrance for Parcel 2. All entrance driveways are sized per COR Standard Drawing 2-17. See Site Plans for additional details.

8.2715 Fundamental Design Elements

1. Lighting. The subdivider or partitioner shall provide underground wiring to the City standards and a base for any proposed ornamental streetlights at locations approved by the affected utility company.

Applicant Response: There are no streetlights proposed for this development, therefore, this section is not applicable. Onsite lighting is addressed in Section 8.0330 – Exterior Lighting and shown on the Landscape Plans.

2. Multiple Access Points. Whenever possible, a minimum of two points of access to the subdivision or partition shall be provided to provide assured access for emergency vehicles and ease resident evacuation.

Applicant Response: There are two proposed lots. Proposed Parcel 1 (5.86 acres) will have four access points. One on the extension of SW 42nd Street, one at the intersection of SW Reindeer Avenue and SW 43rd Street, one on SW 43rd Street and one on SW Salmon Avenue. Proposed Parcel 2 (0.24 acres) will have one access off of the proposed extension of SW 42nd Street. This parcel will contain the office, maintenance building and 7 parking stalls.

See planning drawings for additional detail.

3. Water/Sewer. All subdivisions and partitions shall provide water and sewer lines constructed to City standards and specifications approved by the City Engineer. All lots or parcels shall be served from the City of Redmond water and sewer systems or by water and sewer systems acceptable to the City. Water and sewer mains and service lines shall be installed prior to the curbing and paving of new streets in all new subdivisions or partitions.

Applicant Response: There are existing water and sewer mains in SW 42nd Street and a sewer main that extends down SW Reindeer to Helmholtz Way that will be utilized for this development. The water main in SW 42nd Street will be extended in the new section of 42nd Street to connect to the water main in SW Reindeer Avenue. Parcel 1 will contain a private sewer system that connects to the existing main that runs through the site to Helmholtz Way and Parcel 2 will take a sewer service from the main in SW 42nd Street.

See the Site & Utility Plans for more detail.

4. Underground Utilities. All permanent utility service and minor power transmission lines that are within or immediately adjacent to lots in a subdivision or parcels in a partition shall be provided from underground facilities unless otherwise approved by the CDD Director or Hearings Body. The subdivider or partitioner or developer shall be responsible for complying with requirements of this section and shall:
 - A. Obtain a permit from Public Works for placement for all underground utilities within the public right-of-way.
 - B. Make all necessary arrangements with the utility companies and other persons or corporations affected by the installation of such underground utilities and facilities in accordance with rules and regulations of the Public Utility Commission of the State of Oregon.
 - C. All underground utilities, water lines, sanitary sewer lines and storm drains installed in streets shall be constructed prior to the surfacing of such streets to the extent practicable, and water and sanitary sewer service lines shall be placed to such lengths as will negate the necessity for disturbing the street improvements when service connections are made.

Applicant Response: All proposed utilities will be installed underground consistent with City Standards, thereby complying with this section.

5. Preservation of Natural Features. Existing trees, vegetation and natural features (i.e. rock outcrops) add character to the development and shall be preserved to the greatest extent practicable. All trees over 8 inches d.b.h. shall be noted and shown on the tentative plat.

Applicant Response: The site contains no natural features. Existing trees over 8" d.b.h. are shown on the Existing Conditions and Demolition Plan and any trees over 8" d.b.h. that are to be retained are shown on the Site and Utility Plan.

6. Scenic Views. Significant views shall be taken into consideration during subdivision design. The establishment of view corridors, building envelopes, building height restrictions or similar methods shall be employed for the retention and protection of views from individual lots and from public spaces to the greatest degree practicable as determined through the land use review process. Such measures shall be shown on the final plat and included in the deed restrictions.

Applicant Response: This development has no significant view corridor. This standard does not apply.

7. Land for Public Purposes.
 - A. If the City has an interest in acquiring a portion of a proposed development for a public purpose, it shall notify the property owner as soon as the City Council authorizes the transaction to proceed.
 - B. Within a development, or adjacent to a development in contiguous property owned by the developer, a parcel of land of not more than 5% of the gross area of the development may be required to be set aside and dedicated to the public for parks and recreation purposes by the developer. The parcel of land, if required, shall be determined to be suitable for the park and/or recreation purpose(s) intended, and the city may require the development of the land for the park or recreation use intended or identified as a need within the community.
 - C. In the event no such area is available that is found to be suitable for parks and/or recreation uses, the developer may be required, in lieu of setting aside land to pay to the appropriate parks and recreation agency a sum of money equal to the market value of the area required for dedication, plus the additional funds necessary for the development thereof if so required; if such is required, the money may only be utilized for capital improvements by the appropriate parks and recreation agency.
 - D. The foregoing land and development or money dedication (if require) may be provided for in lieu of an equal value of systems development charge assessment for parks if so approved by the collecting agency in accordance with the applicable provisions of the system development charge ordinance. If the collecting agency will not permit the land or money dedication in lieu of an applicable systems development charge, then the land and development or money dedication shall not be required.
 - E. If the nature and design, or approval, of a development is such that over 30% of the tract of land to be developed is dedicated to public uses such as streets, water or sewer system facilities and the like, then the requirements of this subsection shall be reduced so that the total obligation of the developer to the public does not exceed 30%.

Applicant Response: No public land is proposed as part of this application.

8. Easements.
 - A. Utility Easements. Easements shall be provided along property lines when necessary for the placement of underground utilities and to provide the subdivision or partition with electric power, communication facilities, street lighting, sewer lines, water lines, gas lines, or drainage. Such easements shall be labeled "Public Utility Easement" on the tentative and final plat; they shall be at least 12 feet in width and centered on lot lines where possible, unless determined otherwise by the City Engineer or designate. Excepting utility pole guyline easements along the rear of lots adjacent to unsubdivided land may be reduced to 10 feet in width, unless determined otherwise by the City Engineer or designate.

Applicant Response: All Public Utility Easements will be labeled on the final documents.

- B. Drainage. If a tract is traversed by a water course, such as a drainage way, channel or stream, there shall be provided a stormwater easement or drainage right-of-way conforming substantially with the lines of the water course or in such further width as will be adequate for the purpose. Streets or parkways parallel to major water courses and drainage ways may be required.

Applicant Response: There are no existing drainage facilities on the development site. All stormwater runoff from the proposed improvements will be managed with sediment manholes and drywells. See the Grading and Drainage Plan for additional details and calculations.

8.2720 Grading of Building Sites

Grading of building sites shall conform to the following standards unless physical conditions demonstrate the propriety of other standards:

1. Slopes shall be less than or equal to 3 to 1 (horizontal to vertical) unless slope reinforcement and low maintenance surfaces are provided. Cut slopes as steep as 1 to 1 are permitted in native rock material if that material is suitable to stand at the slope without raveling. Toe of full slopes steeper than 3 to 1 and top of cut slope shall be no closer than 2 feet from the property line.
2. Structural engineering must be provided for retaining walls higher than four feet from the base of the footing to the top of the retaining portion of the wall and for retaining walls of any height that support a surcharge such as a structure, roadway or slope greater than 4 to 1.
3. Stormwater must be controlled in accordance with the City of Redmond Public Works Standards and Specifications to avoid erosion and impacts to adjacent property.
4. Cuts and fills greater than 5 feet from original ground to final grade should be avoided.
5. Foundations should be stepped or other measures used to minimize cuts and fills. Slopes steeper than 3:1 shall be landscaped, terraced, or receive other treatment to reduce the visual impact and minimize the need for maintenance.
6. Areas that require engineered fill to support structures, roadways or for other reasons shall be noted in the grading plan. Design and placement of engineered fill shall be under the direction of a licensed professional engineer. Fill material shall be tested and approved by the engineer prior to placement and tested with suitable methods after compaction. Fill in areas that do not support a structure shall be suitable with a minimum of voids and organic material.
7. The composition of soil for fill and the characteristics of lots and parcels made useable by fill shall be suitable for the purpose intended.
8. When filling or grading is contemplated by the subdivider or partitioner, they shall submit plans showing existing and finished grades for the approval of the City Engineer. In reviewing these plans, the City Engineer shall consider the need for drainage and effect of filling an adjacent property.
9. Grading shall be finished in such a manner as not to create steep banks or unsightly areas to adjacent property.
10. Any land that requires engineered fill shall be so noted on the plat. Design and placement of engineered fill shall be under the direction of a licensed professional engineer.

Applicant Response: The applicant will supply a final grading and drainage plan to the Engineering Department for review and approval within the development process.

Supplementary Provisions

8.2800 Improvement Procedures. In addition to other requirements, public or private improvements to be installed by the applicant either as a requirement of these standards or other applicable regulations or at his own option, shall conform to the requirements of this article:

1. Plan Review and Approval. Improvement work shall not be commenced until plans thereof have been reviewed and approved by the Community Development Director or Hearings Body or a designated representative thereof. To the extent necessary for evaluation of a proposed development, such improvement plans may be required before approval of the tentative plat or preliminary map or drawing.
2. Public Improvements as Platted. Public improvements shall be designed, installed and constructed as platted and approved by the City Engineering Division, and plans shall be filed with the final plat at the time of recordation or upon completion.
3. Inspection. Improvements shall be constructed under the inspection and approval of a city Inspector. Expenses incurred thereby shall be borne by the applicant/owner. The inspector may require changes in sections and details of the improvements if unusual conditions arise during construction to warrant such changes.
4. As-Built Plans. A map showing the completed public improvements shall be filed with the Community Development Department upon completion of the improvements.

Applicant Response: The applicant understands and will comply with the above standards and requirements.

8.2810 Acceptance of Improvements

Improvements shall be considered for acceptance after final inspection, after the improvements have been completed.

Applicant Response: This section is advisory only.

8.2815 Transportation Impact Analysis

It shall be the burden of the developer to evaluate transportation system impacts through studies prepared by a qualified registered professional engineer. When a transportation impact analysis is required it must demonstrate that the following standards are met:

1. The standard of measurement that will determine the acceptability of traffic flow on City streets will be a delay-based level of service as defined by the Highway Capacity Manual, Special Report 209, third Edition (2000 update or subsequent document updates) published by the Transportation Research Board. The determination of LOS shall be calculated by a methodology that is approved by the City Engineer. The acceptable standard of LOS for City streets shall be LOS E during the peak 15 minutes of the peak hours of the average weekday. A lesser standard shall be acceptable at unsignalized intersections with low volume minor street approaches if the volume-to-capacity ratio is less than 0.90 and the 95th percentile vehicle queue is less than four vehicles during the peak hour.
2. The Average Daily Traffic (ADT) volume of Local Street roadways within the City of Redmond shall be less than 1,200 vehicles per day (VPD). Developments which add vehicle trips to Local Streets with an ADT greater than 1,200 VPD may be asked to provide mitigation in the form of additional access to the site, when in the opinion of the City Engineer, the residential livability is degraded by excessive local street traffic volume.
3. New development that will cause degradation below those levels shall be required to provide mitigating transportation system improvements that will restore the LOS to the accepted standard, as is practical, as determined by the City Engineer and pursuant to the adopted City of Redmond Transportation System Plan. Where there are impacts to the State Highways, the City and ODOT shall work cooperatively to determine appropriate courses of action based on ODOT and City standards.

Applicant Response: A Traffic Impact Analysis has been prepared by Transight Consulting and is included with this application. The proposed development will generate less than 821 weekday daily trips and 76 weekday PM peak hour trips.

This report for the proposed Cottages on Helmholtz multifamily housing project shows that the continuation of the street network surrounding the site will support area build-out plans and provided much-needed street connectivity within the area. With the planned completion of Quartz Avenue the site complies with all City of Redmond transportation requirements. The following reflects key findings of the report:

- The site is planned to contain 89 units that are located within a combination of two-bedroom attached or detached units.
- The site layout provides improvements along SW Salmon Avenue, SW 43rd Street, SW Reindeer Avenue, and SW 42nd Street, improving these bordering streets to City standards. Fee in-lieu payments will be provided for improvements to SW Helmholtz Way so that this project can be completed as part of a broader corridor project.
- Trip generation estimates show that the site will generate less than 821 weekday daily trips, and less than 76 trips during the weekday p.m. peak hour. These trips are primarily destined east toward the core area services.
- The overall safety review shows that clear sight lines are available at each of the new connections/roadway extensions. There were two intersections that experienced a crash rate above ODOT's 90th percentile for similar locations:
 - o SW 35th Street/SW Obsidian Avenue: The City of Redmond plans to convert this intersection to all-way stop-control which is expected to resolve the issues noted.
 - o SW 35th Street/SW Salmon Avenue: Only a single crash was reported at this low-volume intersection and the cited crash cause (vision obscuration) was not present during field review. No mitigation is recommended.
- All of the intersections within the study area operate acceptably today, in the future without the proposed development, and in the future with the proposed Cottages. Even five-years beyond site build-out all of the study area intersections operate acceptably.
- Left-turn lanes are warranted in the southbound direction along the SW Helmholtz Way corridor at all major intersections (SW Obsidian Avenue, SW Quartz Avenue, and SW 45th Street). The City has identified this corridor as a future three-lane section that will support these new turn lanes. The project is providing a payment to the City for frontage improvements along SW Helmholtz Way to bring the facility into compliance with the identified cross-section.
- There are no locations within the study area that meet signal warrants or right-turn deceleration lane warrants.
- Frontage improvements are proposed surrounding the site, bringing all of the adjacent streets into compliance with City standards. A fee in-lieu payment is proposed for the SW Helmholtz Way corridor to allow these improvements to occur as part of a broader improvement project.
- All of the private site accesses will be constructed with concrete driveway aprons to discern between the private and public street systems.
- Stop signs will be installed on all minor approaches to clearly designate right-of-way.
- The project will contribute toward the City of Redmond's overall transportation needs through payment of Transportation SDC fees. These fees account for the regional impacts to the City's major street (and highway) system.

8.2820 Access Management Standards

All land divisions shall be in compliance with the following standards.

1. Driveway spacing and corner clearance as follows:

<u>Roadway Classification</u>	<u>Minimum Access Driveway Spacing</u>	<u>Minimum Access Clearance to Corner</u>	<u>Intersection Spacing (Min.)</u>
Local Street	No restrictions	30 feet	165 feet
Minor Collector	50 feet	80 feet	330 feet
Major Collector	165 feet	165 feet	330 feet
Minor Arterial	330 feet	330 feet	¼ mile
Major Arterial	ODOT Stds	ODOT Stds	ODOT Stds

2. In all

instances, access near an intersection shall be located beyond the influence of standing queues and opposing left turns sharing a continuous two-way left turn lane. This requirement may result in greater corner clearance or access spacing than the minimum distance indicated.

3. Every lot or parcel shall be permitted an access. In the event that the access management standards cannot be achieved, shared access with adjacent property shall be explored and provided where available.

4. Access shall be taken from the lower order street or alley unless otherwise approved by Public Works and/or ODOT through the land use process.

5. Unless adequate demonstration of site necessity, intersection safety and functionality is provided, through the land use review process, new lots and/or parcels will be limited to a single vehicular access.

2. The access management standards apply to new development, redevelopment, subdivision and partitioning of land.

3. Corner clearance is measured from the edge of right-of-way to the nearest edge of access. Spacing is measured from centerline of access/intersection to centerline of access/intersection.

4. Adequate intersection sight distance and clear zone shall be maintained at all access/driveway locations per AASHTO standards (American Association of State Highway and Transportation Officials).

5. Public Works may require supporting information, including but not limited to traffic count data, trip generation, trip distribution, Transportation Impact Analysis study, etc., in order to make a proper determination of access/driveway location.

Applicant Response: The extension of SW 42nd Street, which has a local street designation, will be constructed with this project. All driveway spacing, corner clearances and public works standards are proposed to be met and will be reviewed in detail under a separate engineering application.

Design Review Criteria

8.3030 Special Studies, Investigations and Reports.

Special studies, investigations and reports may be required to ensure that the proposed development of a particular site does not adversely affect the surrounding community, does not create hazardous conditions for persons or improvements on the site. These may include traffic impact studies impact of contaminated soils, soil conditions, flooding of waters and excessive storm water runoff, tree preservation, and other concerns of the development's impact on adjacent properties or public facilities.

1. A traffic generation statement prepared by a licensed Professional Engineer may be required at the time of application submittal at the discretion of the City Engineer or designate.

Applicant Response: A Traffic Impact Analysis has been completed and is addressed further in this report in the “Design Review Criteria” section, under Section 8.3035.10.

8.3035 Design Review Criteria. Prior to issuance of a building permit, the following applicable criteria shall be met.

Right-of-Way Dedication & Public Improvements. Adequate right-of-way dedication and improvements to streets, alleys, sidewalks, bikeways and other public ways shall be provided by the Owner that conform to City of Redmond adopted Transportation Plan, Transportation Impact Analysis & Access Management Standards, Public Works Standards & Specification and the local service street policies, including the grid policy. In lieu of actual construction of improvements, the City may choose to accept financial payment, contribution, other approved security or agreement for the purpose of providing the needed improvements. The City may require that no building permit be issued until public improvements are completed; this shall be clearly identified (if applicable) within the Site Improvement Agreement.

Applicant Response: All new services will be installed underground and will comply with this section

1. Neighborhood Compatibility. This standard shall not apply to any development that requires a conditional use permit;
 - A. The proposal will be consistent with applicable zoning standards.
 - B. The location, size, design, and physical characteristics of the proposal (such as setbacks, height, position of structure on the site) will have minimal adverse impact on the livability or value of abutting properties.
 - C. The project will not exceed the operational capacity of public facilities and which are required to serve the development unless the City Engineer determines that sufficient capacity can be provided. The capacity of public facilities and services shall be based primarily on the City’s Water and Wastewater Master Plan and the Transportation System Plan.
 - D. The proposal is consistent with the applicable Great Neighborhood Planning Principles described in Section 8.0300(3)(C)(13) and adopted Area Plans.

Applicant Response: A neighborhood compatibility statement has been included with this application; therefore, this standard has been met.

4. Architectural Requirements.

- A. Architectural theme. A specific architectural theme is required for any structure that is a candidate for Site and Design review. The theme used shall be carried out completely in the design and not mixed with conflicting themes. The theme used shall be consistent with all buildings on the subject site.

Applicant Response: The proposal qualifies as a needed housing project under ORS 197.303, and, under ORS 197.307(4), only clear and objective criteria and standards may be applied. Determining whether themes are conflicting is not clear and objective. That said, the proposal rethinks how single-family homes can be designed around the ideas of community and common spaces without forfeiting quality of interiors or access to parking and public sidewalks.

Each home provides ample natural light and high ceilings for residents.

The homes, in lieu of being sited off a private street, instead face toward a “neighborhood” cluster with shared common areas. Parking is distributed throughout the site to avoid long trips between homes and parking spaces. The emphasis is to use walkable spaces as centers of civic life.

The high roof lines, variation in paint color, large windows, and focus on landscaping give the development a consistent architectural style. Variation throughout in color, form, and orientation brings

these qualities to the fore, while also avoiding repetition and monotony.

- B. False front design. A false front design of a building shall be avoided, except for the Downtown (C-2) Commercial District.

Applicant Response: No false fronts are proposed. This standard is not applicable.

- C. Historical Buildings. Compliance with the preservation of historic buildings and sites pursuant to section 8.0855 and 8.0860 where applicable.

Applicant Response: This development has no Historical Buildings, therefore this section not applicable

- D. Commercial and Industrial buildings.
 - 1. Building Orientation. The City may require the applicant to position buildings to have their architectural orientation toward the primary focal point on the site (typically the higher ordered street). However, the City may also require the applicant to orient the building in any position on the site if the perceived focal point is internal to the site. At no time shall unbroken spans of side or rear walls of buildings be visible from any street without architectural treatments and screening added. Orientation of the building shall consider compatibility with neighboring structures in terms of setbacks, height of building, architectural treatment, and entrances of neighboring buildings.
 - 2. Buildings shall comply with the City's access policies regarding vehicle access and provide adequate pedestrian ways to safely navigate the parking areas and to connect to the public sidewalks. Adequate internal vehicle access shall be designed to minimize or eliminate vehicle/vehicle or vehicle/pedestrian conflicts.
 - 3. Commercial Drive-up windows and drive-throughs should be oriented away from the principle street.
 - 4. Industrial Building Basic Architecture. To avoid the effect of single, long or massive walls with no relation to human size, industrial buildings shall provide features of architectural interest for all street-facing facades.
 - a. Defined Building Entrance and Orientation. At least one entrance (not including emergency exit) of any building shall be oriented toward the street. A primary building entrance shall be clearly defined and recessed or framed by a sheltering element such as an awning, canopy or portico.
 - b. Street-facing facades shall include a change of material (such as a wainscot or similar architectural features) along the façade(s).
 - c. Awnings, canopies or structural overhangs of at least 3 feet in depth shall be provided over doors and windows along the primary street-facing façade. This requirement does not apply to roll up doors.

Applicant Response: No Commercial or Industrial buildings are being proposed, therefore this section not applicable.

- A. Multi-Family Dwellings and Complexes. This section establishes a process for the review of multi-family dwelling and multi-family complexes development proposals in order to promote functional, safe, innovative and attractive development that is compatible with the natural and man-made environment. The intent is to promote compatible development, foster the attractiveness and functional utility of multi-family development, protect public and private investments in the area, and, raise the level of community expectations for the quality of its environment.
 - 1. Density Standards. The following residential densities shall apply to multi-family dwellings and complexes:

- a. General Residential (R4) Zone – A minimum of 4.0 units per acre and a maximum of 14.5 units per acre.
- b. High density residential (R5) Zone – A minimum of 8.0 units per acre and a maximum of 17.4 units per acre.

2. Table A. Minimum Standards. The following minimum standards apply in each of the Residential zones as follows.

Standard:	R-4	R-5
Minimum Setback Distance (A)		
Front	15	15
Side	15	15
Rear	20	15
Garage	20	20
Maximum Building Height	50	50
Off Street Parking		
Multi-Family Dwelling (3 & 4 D.U.'s)	2 sp. / D.U.	2 sp. / D.U.
Multi-Family Complex (over 4 D.U.'s)	2 sp. / D.U. + 1 sp. / 10 D.U.'s	2 sp. / D.U. + 1 sp. / 10 D.U.'s
Alternatives to the number of parking spaces required will be considered on a case by case basis and only with a Transportation Engineers analysis as approved by the City Engineer.		
(A) Multi-family dwellings and multi-family complexes are exempt from the solar setback requirements of Section 8.0370, except when the abutting property to the north is developed with a single-family dwelling.		

Applicant Response: The standards listed above will be the criteria used for this development and all buildings meet the required setbacks.

1. Building Orientation. All buildings facing a public street right of way shall have a functional primary entrance oriented to each public street frontage, except for buildings fronting along and facing a Major Arterial street as designated on the City of Redmond Transportation System Plan. Additional primary entrances, if provided, or, in cases where buildings are internal to the development and do not front on the public street right of way, shall be oriented to a private common area (common areas include private streets, courtyards, or open spaces). A hard-surfaced pedestrian sidewalk or pathway connecting the building entrances to the public streets right of way shall be provided.

Applicant Response: All buildings are designed in such a way where front and rear facades have entries; as such from internal or public streets, each home will have functional entries. Additionally, where the buildings are internal to the site, front doors face private common areas as noted. See Landscape Plan for hard-surfaced pedestrian pathway details.

2. Building Form. The continuous horizontal distance (i.e., as measured from end-wall to end-wall) of individual buildings (including buildings with multiple dwelling units) shall not exceed 90 lineal feet, unless part of a Master Plan development which may permit a maximum length of 120 feet. In order to preclude large expanses of uninterrupted building surfaces, each floor of the building shall include at least three of the following features within every 30 lineal feet or portion thereof along all elevations of the structure:
 - a. Recess (e.g., deck, patio, courtyard, entrance or similar feature) that has a minimum depth of 4 feet;

- b. Extension (e.g. floor area, deck, patio, entrance or similar feature) that projects a minimum of 2 feet and runs horizontally for a minimum length of 4 feet; and/or
- c. Offsets or breaks in roof elevations of two feet or greater in height.
- d. Offset or breaks in building façade elevations of 2 feet or greater in relief.

Applicant Response: There is no continuous horizontal distance of 90 feet; breaks between individual buildings exist. Each individual building façade is 20' wide (Type A), 22' wide (Type B), or 58' wide (Type C). The 3-unit rowhouse (type C) breaks the facade every 20' with a recess. Variation in building orientation additionally avoids repetition.

The following features are included within every 30 linear feet:

- a. Recess (4' deep recessed porch on Type A and C facades)
 - b. Extension (4' projection of awning on Type B and C facades)
 - c. Breaks in roof elevations (no continuous roof line over 30' long along front, side, or rear facades)
 - d. Offset or breaks in building façade elevations of 5 feet in relief (Type C facades)
1. Detailed Architectural Features. All buildings shall provide detailed design along all elevations (e.g., front, rear and sides). Detailed design requires use of at least five of the following architectural features on all front and exterior side (corner lot) elevations and at least three of the following architectural features on all interior and rear yard elevations, at a minimum of every 30 linear feet of horizontal wall. Architectural features shall be varied on the different building elevations. The standard applies to each full and partial building story.
- a. Dormers
 - b. Gables
 - c. Recessed entries
 - d. Covered porch entries
 - e. Cupolas or towers
 - f. Pillars or posts
 - g. Eaves (minimum 6-inch projection)
 - h. Off-sets in building face or roof (minimum 16 inches)
 - i. Window trim on all windows on the façade
 - j. Bay or oriel windows
 - k. Balconies
 - l. Decorative patterns on exterior finishes (e.g., dramatic paint scheme, scales/shingles, wainscoting, ornamentation, and similar features)
 - m. Decorative cornices and roof lines (e.g., for flat roofs)
 - n. An alternative feature providing visual relief and detail, similar to option a-m above, may be approved through the development review process.

Applicant Response: Houses include a combination of the following items on the primary facades (which face the courtyards) and the secondary facades (which face external all streets and parking areas):

- 1. Gables
- 2. Recessed entries
- 3. Covered porch entries
- 4. Offsets in building face (row houses)
- 5. Posts (at backyards, facing external streets)
- 6. Decorative patterns on exterior finishes

The layout of buildings in relation to one another eliminates long rows of houses with aligned, monotonous facades. Residents will never see more than four similar massings in a row, and façade

treatment will vary in these instances (color and batten pattern). Window treatment variation will provide additional visual variation throughout.

Side elevations will include the following design elements:

1. Posts along fencing
2. Decorative patterns in exterior finishes
3. Eaves
4. Dramatic variation in window size

The composition and orientation of each house is laid out such that the houses are perceived as three dimensional buildings in the round. The side elevation is composed in coordination with the surrounding front and rear elevations.

1. Exterior Finish. The exterior finish on all vertical surfaces shall be comprised primarily of materials such as masonry/wood lap siding, shingles, brick or stucco. The use of sheet metal, plywood, T1-11 siding, smooth face cinder block and other similar materials is not permitted except as minor accents. Textured cinder blocks are permitted on side and rear façades but shall not exceed 40% of the total exterior wall area of the ground/bottom floor.

Applicant Response: Siding will be composed primarily of composite cement board and entry portals will consist of cedar cladding. Cement board will vary in color, and each building will have two tones, see Architectural package. There will be no use of plywood, cinder block or T1-11 siding. Roof is high pitched, and shall consist of standing seam metal, in two varieties of color.

2. Building Alignment. There shall be no window to adjoining window alignment when adjacent buildings are less than 30 feet apart.

Applicant Response: Windows do not align perpendicularly within 30' of each other, excepting a select few areas where one building is turned away from the other. Landscape design will help shield these views.

3. Trash Receptacles. A common trash enclosure shall be required and is subject to the following standards.
 - a. Trash enclosures shall be oriented away from adjacent residences and shall be screened by use of brick or stone walls.

Applicant Response: Trash collection areas are distributed among four collection sites, oriented away from adjacent residences and screened with a stone wall.

- b. Trash enclosures shall be accessible to trash pick-up vehicles and shall provide an unobstructed, straight on approach a minimum of 40 feet in length.

Applicant Response: Placement of trash collection allows a minimum 40' straight approach for pick-up vehicles.

- c. Trash enclosures, a minimum of six-feet in height, shall be constructed of solid, durable and attractive walls, with solid screen doors and shall be visually consistent with project architecture. Gate opening shall be a minimum of 10 feet wide and shall not include a center pole or other obstruction preventing access to the enclosure. Gates must swing open 180 degrees and shall include a gate stop to hold it open.

Applicant Response: Trash enclosures will be attractive and of the same aesthetic language as the houses themselves, while allowing adequate access and screening.

- d. Enclosure areas shall contain sufficient space to accommodate both refuse disposal and recycling containers adequate to accommodate the degree of development. Disposal needs shall be calculated at 0.3 yards per dwelling unit for refuse and 0.2 yards per dwelling unit for recycling. The following construction specifications shall be used as a guide for enclosure design based on the calculation requirements listed herein:

Applicant Response:

Trash requirements for 97 houses are:

29.1 yards of refuse

19.4 yards of recycling

Trash pickup provided is:

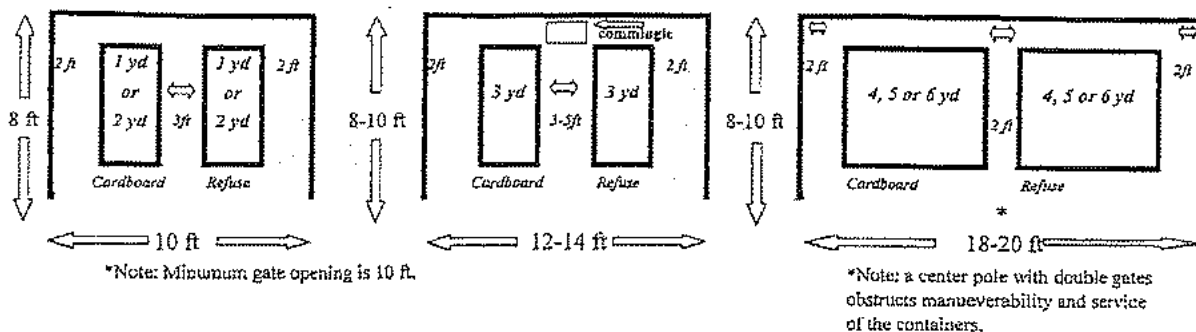
24 yards refuse

24 yards recycling

Distributed between four locations

The difference in trash requirements will be met through more frequent collections of refuse and recycling.

Construction Specifications for Enclosures



- e. The area standards for trash enclosures listed in subsection (d.) above shall be met unless documentation is submitted from the applicable trash collection company indicating that an alternative design will be adequate to accommodate the amount of refuse and recycling that is anticipated to be generated on a ordinary basis.

Applicant Response: A preliminary plan showing the current design and locations of the proposed trash enclosures was submitted to Republic Services, the waste and recycling facility that will be under contract with this project. After review, Republic Services has agreed that all requirements for location and size of the enclosure are sufficient for their service.

3. **Mechanical Equipment.** External mechanical equipment, such as heating or cooling equipment, pumps or generators, that is located on the ground or on the roof of buildings, must be entirely screened from view at ground level by sight obscuring walls, fences, parapet or other similar means consistent with the overall architecture of the development. Landscaping is not an acceptable alternative for such screening as specified herein. Screening shall be compliant with all applicable codes.

Applicant Response: Mechanical equipment to be placed between houses on the ground, screened by fencing to match backyard fencing.

4. Common Open Space. Common open space(s) shall be incorporated into the site plan for multi-family complexes as a primary design feature. A minimum of 15 percent of site area (inclusive of required setbacks but exclusive of dedicated street rights-of-way and land dedicated to other public uses like parks and schools), shall be provided as common open space and be suitable for a recreational play area, or group or community activities. However, in no case shall less than 3,000 square feet of common open space be provided. Such area shall be improved with grass, plantings, surfacing, equipment or buildings suitable for recreational use. The Hearings Body may require this area to be protected from streets, parking areas, or the like, by a fence or the equivalent. Sensitive lands and historic buildings or landmarks open to the public and designated by the Comprehensive Plan may be counted toward meeting the common open space requirements.

Applicant Response: The proposed development meets the minimum 15% common open space landscaping requirements. Please see Landscape Plan legend and calculations for additional notes and information.

In conjunction with the open space requirements, all multi-family complexes with 20 or more units shall provide one or more amenities for the residents as listed below. Such amenities shall be centrally located for a majority of the residents.

- a. Tot lot/play structure
- b. Community garden
- c. Picnic tables/barbecue areas
- d. Swimming pool
- e. Indoor recreation facility
- f. Sports courts (i.e. basketball, tennis, volleyball)
- g. Other active or passive recreation area that meets the intent of this standard as approved through the development review process.

Applicant Response: The development meets this code section by providing more than one amenity to residents. Amenities to include shared courtyards, picnic tables, landscaped outdoor seating areas, and areas for passive recreation. Please see Landscape Plan legend for additional notes and information.

5. Private Open Space. Private open space shall be required for all multi-family dwellings and complexes based on the following standards:
 - a. Ground/bottom floor housing units shall have front or rear patios or decks at least 4 feet deep and measuring at least 48 square feet in area.

Applicant Response: The development incorporates areas of private space for each residential unit with fenced rear yards and entry patios (refer to architectural drawings). The private fenced yards exceed 48 square feet in area.

- b. A minimum of 50% of all upper floor (second floor and above) housing units shall have balconies or porches at least 4 feet deep and measuring at least 48 square feet in area.

Applicant Response: See architectural drawings for information and detailing of patios, balconies, and porches. In lieu of second floor balconies, the development incorporates areas of private space for each residential unit with fenced rear yards and entry patios (refer to architectural drawings). The proposed units are more similar to single family residences than traditional multi-family (apartment) units.

- c. To the maximum extent possible, private open space areas shall be oriented toward common open space areas and away from adjacent single family residences, parking areas and driveways and trash enclosures.

Applicant Response: The development shall satisfy code section requirement by orienting private open space areas toward common open spaces to the greatest extent possible. Please see also plan legend for additional notes and information.

6. Special Yards. In order to allow air circulation and light, the distance between buildings on the same lot shall be as follows:
 - a. All front and rear walls, and all walls with a primary entrance shall be separated from all other walls on all other buildings on the same lot by a minimum of 20 feet.

Applicant Response: See architectural and civil drawings for information and detailed layout of buildings and building spacing and alignment to meet distances.

- b. The distance between sidewalls on buildings on the same lot shall be no less than 12 feet.

Applicant Response: All individual buildings shall be no less than 12' apart or more.

7. Special Fencing/Landscaping. A sight obscuring fence or evergreen hedge may be required by the Hearings Body when, in its judgment, such screening is necessary to preserve the values of nearby properties, protect the aesthetic character of the neighborhood or vicinity, and to provide security and privacy for occupants of the subject complex.

Applicant Response: Facades that face the surrounding developments will feature attractive 4-foot tall fences, as well as facades that meet front facade design standards. Additionally, trees will be used to screen parking and to provide shade.

8. Storage. All multifamily dwellings and complexes shall provide for storage of furniture, tools, equipment, building materials or supplies belonging to the occupants or management of the complex. Each dwelling unit shall have one assigned, securable storage area, a minimum 18 square feet, but shall be of a minimum size and dimension that is suitable to accommodate one bicycle of average size. Storage areas may be indoor, such as attached or detached garages, or within specific areas what are internal to each swelling unit. Storage areas may also be within outdoor structures such as within a separate storage building located on premises. The City may exempt or reduce the storage space requirement for "specialty housing", such as senior housing or for housing for long-term infirm care.

Applicant Response: Each house plan includes a securable first floor storage area, accessed from outside, that can house at least one bicycle, with the exception of the six ADA-accessible units. These units have 80 more square feet of occupiable conditioned space on the first floor than other plan types.

9. Off-Street Parking. All off-street parking provisions addressed herein (including: number of spaces; loading areas; and, design and improvement standards) shall be provided in conformance with Section 8.0500 through 8.0515 of the City of Redmond Development Code. Multi-family dwellings and complexes shall comply with the City's access policies regarding vehicle access and provide adequate pedestrian ways to safely navigate the parking areas and to connect to the public

sidewalks. Adequate internal vehicle access shall be designed to minimize or eliminate vehicle/vehicle or vehicle/pedestrian conflicts in off street parking areas. If off-street parking areas are proposed to be placed between the primary building elevations and public streets, the application shall be subject to a public hearing pursuant to Article II – Land Use Procedures, Sections 8.1000 through 8.1720 of the City of Redmond Development Code. Parallel parking shall not be permitted on any common or shared driveways or private drives less than 28 feet in width for parking on one side, or less than 36 feet in width for parking on two sides.

Applicant Response: The requirement for apartments includes two parking stalls per dwelling unit, one additional space for the building manager, and 1 guest space for every 10 dwelling units, unless an alternate plan is presented and approved by the City Engineer. With 89 rentable units planned this requires 178 tenant stalls and 10 guest parking stalls, for a total of 188 stalls. The proposed site plan includes 195 parking stalls which satisfies this criteria.

Additionally, while the City does not include on-street parking stalls within their counts, a substantial on-street parking supply is available within the public right-of-way and the project site is located within a well isolated area of the City.

10. Upper Floors. Third and fourth floors of multifamily dwellings and complexes constructed in residential zones along the perimeter of the side development shall occupy no more than 80% of the building footprint area (ground floor) when abutting a residential lot less than 20,000 square feet in area or any residential lot developed with a single family or duplex residential dwelling.

Applicant Response: The proposed units are two stories. This standard does not apply.

5. Landscaping.

- A. Plant sizes. All required shrubs shall be at least 1 gallon size and all required trees 15 gallon size at time of planting, and no less than 1-1/2" caliper measured 3' above finished grade. Applicants must show evidence of paid contracts or commitments for landscaping work or other proof/evidence the work will be completed as required and on time.

Applicant Response: The development incorporates shrubs and trees that meet or exceed the minimum plant size requirements. Please see Landscape Plan legend for additional notes and information.

- B. Vegetative cover. All required landscape areas shall be planted with shrubs, trees and or living ground cover to a minimum of 50% vegetative cover at the time of planting. The other 50% may be covered with non-vegetative (not bark) mulch.

Applicant Response: The development exceeds the 50% living groundcover requirements. Please see Landscape Plan and calculations for additional notes and information.

- C. Outdoor storage and service areas. Outdoor storage and service areas shall be screened or buffered from adjacent properties or from public rights of way with a minimum 3 foot tall and wide landscape strip or site obscuring fencing unless otherwise approved when adjacent to a similar use or a use that does not require screening from the proposed use. Screening shall provide no less than 50% visual screening at time of planting or installation and shall be shown by detail or photo.

Applicant Response: The development incorporates private, enclosed storage areas for each residential unit (refer to architectural drawings). This screening requirement is not applicable.

- D. Areas between buildings and property lines adjacent to a street. Areas between buildings and property lines adjacent to a street shall be landscaped with trees and shrubs within a minimum 3 foot wide

landscape strip.

Applicant Response: The development incorporates ample landscaped areas and buffer areas that exceed the 3-foot-wide minimum requirements.

- E. A parking or loading area. A parking or loading area shall be separated from any lot line adjacent to a roadway by a landscaped strip at least 10 feet in width, and any lot line by a landscaped strip at least 5 feet in width. Within the C-2, C-4, MUN, MUE, or Airport zone, street trees or other landscaping located within the public right-of-way may be provided and considered as landscaping on site. Required landscape strips may be reduced to 3 feet in the C-2, C-4, MUN, MUE, and Airport zone if the strip is densely planted with trees, shrubs and living ground cover to a minimum of 90% vegetative cover at time of planting. The Community Development Director may make an exception of the five (5) foot landscaping strip requirements if the following criteria apply:

1. The properties are adjacent to one another; and,
2. The parking and back up areas are adjacent to a common lot line. If an exception is granted, an easement shall be recorded on the deed. If at any time the parking area is no longer shared, the parking area shall conform to the five (5) foot landscape strip requirements.

Applicant Response: The development separates all parking and loading areas near a lot line adjacent to a street with landscaped strips that exceed the minimum requirements.

- F. Landscape areas abutting parking areas spaces, access aisles and loading zones. Landscape areas abutting parking spaces, access aisles and loading zones shall incorporate a sight obscuring landscape screen. The screen shall be at least 3 feet higher than the finished grade of the parking area, except in required clear vision areas where the clear vision requirements must be met. The screen height may be achieved by a combination of earth mounding and plant materials. Fences with or without slats may qualify for parking lot screening on interior, side or rear lot lines or when adjacent to an alley.

Applicant Response: The landscape areas that abut vehicular zones shall incorporate landscape buffers and screening from parking lots and adjacent streets and use areas as described in this code section.

- G. Parking lot landscaping. In addition to meeting all other landscape requirements, at least ten (10%) percent of the total required landscaping for the site shall be planted within or immediately adjacent to the parking lot(s), plus a ratio of one tree per ten parking spaces shall be planted. This parking lot landscaping may be considered as meeting a portion of the underlying zone's minimum landscape percentage requirements. Parking lots exceeding 20 spaces shall incorporate a portion of this required landscaping in interior islands not less than three feet in width.

Applicant Response: The development exceeds the 10% parking lot landscaping requirements. Please see Landscape Plans and calculations for additional notes and information.

- H. Protection of Parking Lot Landscaping. Parking lot landscaping shall be protected by a curb or secured wheel guards at least 4" high with a minimum three foot setback from the property line.

Applicant Response: All parking areas, landscape islands and drive aisles are protected by concrete curb. See Civil Engineering Plans for additional information and details.

- I. Preservation and Replacement of Trees. All existing trees having a six (6) inch trunk diameter 3' above grade or greater shall be preserved or replaced with fifteen gallon-sized trees at a 'one-to-one' ratio. Replacement trees shall have a minimum 1-1/2 inch trunk diameter measured at 3' above grade. This criteria shall be met in the submitted landscape plan.

Applicant Response: The development exceeds the mitigation requirements for trees to be removed. All proposed trees shall meet or exceed the minimum 15-gallon (1-1/2" DBH caliper) requirements. Please see Landscape Plans and calculations for additional notes and information.

- J. Irrigation of plants and trees. Irrigation systems shall be required for all landscape areas and street trees except those designated for native vegetation. Type of irrigation system and approximate line location shall be shown on the site plan provided.

Applicant Response: The development shall incorporate a permanent underground irrigation system with high efficiency spray and or drip systems to meet code section requirements. Please see Landscape Plan legend and calculations for additional notes and information.

- A. Street trees. Street trees are required to be installed on all residential, commercial, and industrial lots fronting on public or private streets, including on lots already platted at the time of adoption of this ordinance (Ord. #2013-04, 05/14/2013), but not yet developed. Street trees shall be provided in accordance with the following requirements:

1. Street Tree Plan. A street tree plan shall be provided showing the location of street trees, the types and the installation sizes of the trees and the type of irrigation proposed.
2. Timing of Improvements. All street tree(s) shall be installed prior to issuance of a Certificate of Occupancy for said construction. An exception to this shall be when it is not feasible to plant street trees due to cold weather, in which case a posting of a bond for the value of the tree shall be acceptable to ensure the tree is planted at the earliest feasible time.
3. Number of Trees Required. The number of street trees planted on each lot is dependent upon the lot width per the table below:

Lot Width	Number of Street Trees Required
50 feet and less	1
51-100 feet	2
101-150 feet	3
151 and more	One tree/40 feet of width fronting street

Applicant Response: The proposed street trees shall meet code section spacing, size, and species requirements. Street tree planting design has been incorporated into the overall schematic landscape plan. Planting shall occur in a schedule as necessary to achieve certificate of occupancy. Please see also Landscape Plans and calculations for additional notes and information.

4. Spacing of Trees. Street trees shall be spaced in accordance with the table below:

Lot Width	Tree Spacing Requirements
50 feet and less	The street tree shall be planted as close as possible to the center of the lot frontage, unless there is a conflict with a driveway, in which case it should be located as close as possible to the center
50 feet and more	Small canopy and columnar shaped trees shall be planted no further than thirty (30) feet apart
	Medium and large canopy trees shall be planted no further than forty (40) feet apart
Downtown	Per Public Works Standards

An exception to the tree spacing requirements above include: when planting a tree would conflict with existing trees, retaining walls, utilities, driveways, views or other similar physical barriers. In those cases, the Community Development Director or designee may approve alternative spacing.

Applicant Response: The street trees shall meet code section spacing, size, and species requirements. Please see Landscape Plan legend and calculations for additional notes and information.

5. Location of Trees. Street trees shall be planted within existing and proposed planting strips or in City approved sidewalk tree wells on streets without planting strips, unless an alternative street tree location is approved during the planning review process. The location of trees shall meet the following setback requirements:

Object Tree Must Be Setback From	Distance Street Tree Must Be Setback From Object
Curb or Sidewalk	3 feet (small and medium stature tree) and 3 feet (large stature tree); in no cases, shall the tree be more than 10 feet from the curb
Curb line of an intersection, stop/yield signs, and street lights	25 feet
Adjacent Tree	20 feet
Fire Hydrants, underground utilities, utility poles and directional traffic signs	10 feet
Edge of a driveway	5 feet
Property lines	2 feet

Applicant Response: Where feasible, the street trees shall be planted in proposed planting strips while meeting required distances and setbacks from utilities. Further design coordination between civil engineering utility plans and landscape planting tree locations shall occur and be on-going throughout the construction documentation process. Please see Landscape Plan legend and calculations for additional notes and information.

6. Caliper Size. The minimum caliper size at planting shall be 1½ inches for single family residential and 1½ inches for commercial and industrial. If the required caliper is not available, the Community Development Director or designee may accept an alternative proposal that is comparable.

Applicant Response: All proposed trees shall meet or exceed the minimum 15-gallon (1-1/2" DBH caliper) requirements. Please see Landscape Plans and calculations for additional notes and information.

7. Approved Tree List. Types of street trees shall be selected from the City Arborist's approved list of trees.

Applicant Response: All proposed trees shall be selected from arborist's approved list of trees or shall be confirmed by the City Arborist as meeting the City's requirements.

8. Maintenance. Maintenance of street trees shall be in accordance with standards listed in Section 3.600 of the Redmond Code.

Applicant Response: The property will be managed to maintain the health and beauty of the landscape. Maintenance of street trees for the first 90 days shall be under the contractual prevue of the landscape contractor. Maintenance beyond that point shall be the responsibility of the owner and shall be in

accordance with this section of the code.

9. Utility Easements. All street trees shall be placed outside utility easements unless the utilities are in a conduit for maintenance. If the existing planter strip contains such easements and is not wide enough to also accommodate street trees, the street tree location requirement in section 4 above may be adjusted by the Community Development Director or designee during the development review process.

Applicant Response: Street trees are located outside utility easements or conduits will be installed if conflicts occur. All proposed trees shall be placed outside utility easements. Further design coordination between civil engineering utility plans and landscape planting tree locations shall occur and be on-going throughout the construction documentation process. Please see Landscape Plans and calculations for additional notes and information.

3. Maintenance of landscaping. All landscaping shall be continuously maintained and replaced when necessary to maintain compliance with an approved landscape plan. For landscaping in excess of \$5,000, the City may require a maintenance bond.

Applicant Response: The developer agrees to remain in compliance with this section. Maintenance of landscaping for the first 90 days shall be under the contractual prevue of the landscape contractor. Landscaping shall be maintained beyond that initial 90-day period by the owner or owner's representative. It is understood that the city may require a maintenance bond.

6. Parking and Unloading Areas/Docks.
 - A. Off-Street Parking Areas. Parking areas shall be as near the public entrances to the structure served as possible.

Applicant Response: Off-street parking is provided throughout the development and dispersed amongst all units. See Site and Utility Plan for details on compliance with this section.

- B. Parking lot. The parking shall be dispersed around the building, emphasizing the importance of the building and accessibility to entrances. In the **MUN and MUE** zones, parking shall be located to the side, rear, or under the building or in a designed central parking lot.

Applicant Response: Off-street parking is provided throughout the development and dispersed amongst all units. See Site and Utility Plan for details on compliance with this section.

- C. Truck loading areas or docks. Truck loading areas or docks, where delivery is done by semi truck with a specified loading dock, shall be located or screened from the street or from the major public entrance to the building. The Applicant shall identify the specific type(s) and size of delivery vehicles which will deliver and/or take goods to/from the building; the hours of delivery, the location of delivery doors and their dimensions. Truck loading areas or docks shall not inhibit circulation on-site or create access problems from adjacent streets.

Applicant Response: Delivery vehicles will be standard size courier vehicles (FedEX type). Delivery hours will be the acceptable standard hours, Monday through Saturday.

7. General Site Criteria.
 - A. Grading and Drainage.
 1. Grading on the site shall take place so there is no adverse affect on neighboring properties or public right-of-way. A grading plan may be required to assure that all drainage is retained on site.
 2. All drainage shall be retained on site at all times. A drainage plan may be required

that shows slope, method of drainage retention and disbursement of water on site at the discretion of the City Engineer.

Applicant Response: All proposed drainage will remain on-site to the extent possible. A Preliminary Grading and Drainage Plan is included with this application and a detailed Stormwater Report will be submitted to City Engineering for approval as part of the construction documents.

- B. Clear Vision Standard. No obstructions greater than three and one half (3 ½) feet high, including any landscaping which will grow greater than three and one half (3 ½) feet high, with the exception of trees whose canopy heights are at all times greater than eight (8) feet, may be placed in a clear vision area as defined in Article I, "Supplementary Provisions".

Applicant Response: All clear vision areas will be free of obstructions greater than 3 ½ feet, in accordance with this standard.

- C. Trash Collection Areas. Trash collection areas shall not be oriented towards building entrances or public streets other than alleys and shall be screened or enclosed with building material, which is compatible with those used in the exterior of the building. Location(s) of all trash collection area(s) shall be reviewed and approved by the Fire Marshal or designate.

Applicant Response: All trash collection areas are shown on the Site and Utility Plan.

- D. Water and Sewer Service. Connection to the City's public water and sewer systems shall be required and shall comply with the current Public Works Standards & Specifications.

Applicant Response: Understood, and the attached site plan reflects compliance.

- E. Accessibility. At least one pedestrian pathway, which meets UBC accessibility requirements, shall be provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading and drop off zones, and public streets or sidewalks to an accessible entry. When more than one building or facility is located on a site, at least one accessible route shall be provided between accessible buildings and accessible site facilities. The accessible route shall be the most practical and direct route among accessible building entries, accessible site facilities and the accessible entry to the site. Walks paralleling vehicular ways shall be separated from vehicular ways by curbs, planted areas, railings, or other means between the pedestrian way and vehicular routes.

Applicant Response: Pedestrian pathways meeting accessibility requirements are provided throughout the proposed development. See Grading and Drainage and Landscape Plans for details on compliance with this section.

- F. Streetscape standards in the **MUN** zone. New retail, office, commercial and mixed use development and major modifications (per RDC 8.3005-8.3010) within the MUN zone shall provide one or more of the Category A pedestrian amenities listed below and all of the Category B amenities, as generally illustrated in the figure below. Pedestrian amenities may be provided within a planting strip or street furnishing zone, building frontage zone or plaza, as shown in the figure below. Use of the public right-of-way requires approval by the roadway authority.

Category A:

1. A plaza, courtyard, square or extra-wide sidewalk next to the building entrance

- (minimum width of 8 feet);
- 2. Sitting space (i.e., dining area, benches, garden wall or ledges between the building entrance and sidewalk) with a minimum of 16 inches in height and 30 inches in width;
- 3. Public art that incorporates seating (e.g., fountain, sculpture).

Category B:

- 1. Building canopy, awning, pergola, or similar weather protection (minimum projection of 4 feet over a sidewalk or other pedestrian space).
- 2. Street trees, as specified in RDC Section 8.3035(5)(k), in grates.
- 3. One trash receptacle per building, for buildings wider than 40 feet at street/sidewalk frontage.
- 4. One pedestrian scale light fixture per building.
- 5. Parking areas shall be located behind buildings, below buildings, or to the sides of buildings.
- 6. Neighborhood-scale signs, as specified in RDC 8.4110 and 8.4165.

Applicant Response: This development is within the R-4 zoning district. This section does not apply to this application.

8. Traffic Impact Analysis (TIA)

- A. The following vehicle trip generation thresholds shall determine the level and scope of transportation analysis required for a new or expanded development. Trip ends shall be calculated as per the current edition of the Institute of Transportation Engineers manual, Trip Generation, or local trip generation studies prepared by a qualified registered professional engineer and approved by the City Engineer. The City Engineer shall determine when a TIA has satisfied the requirements of the development's impact analysis. The TIA shall bear the stamp and signature of a qualified registered professional Engineer with a license valid in the State of Oregon.
 - 1. If a proposed development will generate 200 or more daily trip ends, or 20 or more p.m. peak hour trip ends, then a Transportation Impact Analysis (TIA) shall be required.
 - 2. Projects that generate less than 200 daily or 20 p.m. peak hour trip ends may also be required to provide a Transportation Impact Analysis (TIA) when, in the opinion of the City Engineer or his/her designee, significant capacity and/or safety problem is caused, or adversely impacted by the development. The City Engineer or designee, shall determine the scope of this analysis.
 - 3. A development may be required to provide a Trip Generation Report for developments which generate less than 200 daily or 20 p.m. peak hour vehicle trips.
- B. The impact analysis area shall include at a minimum, the following intersections:
 - 1. All site access intersections
 - 2. Nearest intersecting collector or arterial street upstream and downstream of the development.
 - 3. Any other collector or arterial street intersection that would experience an increase of 25 additional peak hour trips.
 - 4. Additional intersections requested by staff.
- C. The analysis shall include the following study time frames:
 - 1. Existing conditions.
 - 2. Completion year of each significant phase of development.
 - 3. Five year forecast beyond final phase.
- D. The following Tables are required in the TIA:
 - 1. Trip Generation (including phase breakdown if applicable)
 - 2. LOS Table (LOS for every analysis scenario at every study area intersection. Report LOS, delay, v/c ratio, 95% vehicle queue, and any additional pertinent

- analysis results)
- E. The following Figures are required in the TIA:
 - 1. Vicinity Map
 - 2. Site or Tentative Plan Map
 - 3. Background Traffic Volumes (all study intersections, all analysis years)
 - 4. Trip Distribution and Assignment
 - 5. Background + Site Generated Traffic Volumes (all study intersections, all analysis years)
 - F. Other Analysis Standards (as required by the study)
 - 1. Signal Warrants shall be performed where applicable per the Manual on Uniform Traffic Control Devices, current edition.
 - 2. Left Turn Lane Warrants shall be provided where applicable per ODOT criteria based on the Texas Transportation Institute (TTI) curves.
 - 3. Right Turn Lane Warrants shall be provided where applicable per ODOT criteria.
 - 4. The acceptability of sight distance at all study area intersections shall be determined per AASHTO (current edition) standards.
 - 5. Traffic signal progression analysis may be required if a new signal is proposed. The City Engineer shall approve the method of traffic signal progression analysis.
 - 6. Roadway improvements are to be based on the City of Redmond Standards and Specifications and ODOT design standards.

Applicant Response: A Traffic Impact Analysis prepared by Transight Consulting, LLC is included with this submittal. A summary of the findings is provided in Section 8.3035.10.

- 9. City of Redmond Access Management Standards. All land use approvals shall comply with the following standards.
 - A. Driveway spacing and corner clearance as follows:

Roadway Classification	Minimum Access Driveway Spacing	Minimum Access Clearance Corner	Intersection Spacing
Local Street	No Restrictions	30 feet	165 feet
Minor Collector	80 feet	80 feet	330 feet
Major Collector	165 feet	165 feet	330 feet
Minor Arterial	330 feet	330 feet	¼ mile
Major Arterial	ODOT Stds	ODOT Stds	ODOT Stds

- B. In all instances, access near an intersection shall be located beyond the influence of standing queues and opposing left turns sharing a continuous two-way left turn lane. This requirement may result in greater corner clearance or access spacing than the minimum distance indicated.

Applicant Response: Please see the Traffic Impact Analysis, prepared by Transight Consulting, LLC, which addresses this section.

- C. Every lot or parcel shall be permitted an access. In the event that the access management standards cannot be achieved, shared access with adjacent property shall be explored and provided where available.

Applicant Response: Access will be available throughout the site

- D. Access shall be taken from the lower order street or alley unless otherwise approved by Public Works and/or ODOT through the land use process.

Applicant Response: All access is taken from the lower order street and therefore complies with this section.

- E. Unless adequate demonstration of site necessity, intersection safety and functionality, lots, parcels and/or developments will be limited to a single access as determined by Public Works through the land use process.

Applicant Response: Singular vehicle access is proposed. This standard is met.

- F. The access management standards apply to new development, redevelopment, subdivision and partitioning of land.

Applicant Response: This standard is advisory.

- G. Corner clearance is measured from the edge of right-of-way to the nearest edge of access. Spacing is measured from centerline of access/ intersection to centerline of access/intersection.

Applicant Response: This standard is advisory.

- H. Adequate intersection sight distance and clear zone shall be maintained at all access/driveway locations per AASHTO standards (American Association of State Highway and Transportation Officials).

Applicant Response: This standard is addressed within the Traffic Analysis and will show compliance.

- I. Access/driveway locations may require alignment with existing driveways on the opposite side of the roadway as determined by Public Works.
- J. Public Works may require supporting information, including but not limited to traffic count data, trip generation, trip distribution, Transportation Impact Analysis study, etc., in order to make a proper determination of access/driveway location.

Applicant Response: The Traffic Analysis being submitted with this application shows compliance.

- K. Access within the North Redmond US 97 Interchange Area Management Plan (IAMP) shall also conform to the "North Redmond US 97 Interchange Area Management Plan (IAMP)" provisions of Chapter 9 Transportation Element of the Comprehensive Plan Addendum and Policy 12 n of Chapter 14 of the Comprehensive Plan. (Amended by City Ordinance 2007-09, effective June 8, 2007)

Applicant Response: This section does not apply.

- 10. Transportation Impact Analysis. It shall be the burden of the developer to evaluate transportation system impacts through studies prepared by a qualified registered professional engineer. When a transportation impact analysis is required it must demonstrate that the following standards are met:

- A. The standard of measurement that will determine the acceptability of traffic flow on City streets will be a delay-based level of service as defined by the Highway Capacity Manual, Special Report 209, Third Edition (2000 update or subsequent document updates) published by the Transportation Research Board. The determination of LOS shall be calculated by a methodology that is approved by the City Engineer. The acceptable standard of LOS for City streets shall be LOS E during the peak 15 minutes of the peak hour of the average weekday. A lesser standard shall be acceptable at unsignalized intersections with low volume minor street approaches if the volume-to-capacity ratio is less than 0.90 and the 95th percentile vehicle queue is less than four vehicles during the

- peak hour.
- B. The Average Daily Traffic (ADT) volume of Local Street roadways within the City of Redmond shall be less than 1,200 vehicles per day (VPD). Developments which add vehicle trips to Local Streets with an ADT greater than 1,200 VPD may be asked to provide mitigation in the form of additional access to the site, when in the opinion of the City Engineer, the residential livability is degraded by excessive local street traffic volume.
 - C. New development that will cause degradation below those levels shall be required to provide mitigating transportation system improvements that will restore the LOS to the accepted standard, as is practical, as determined by the City Engineer. Where there are impacts to the State Highways, the City and ODOT shall work cooperatively to determine appropriate courses of action based on ODOT and City standards.

Applicant Response: A Traffic Impact Analysis has been prepared by Transight Consulting and is included with this application. The traffic analysis was performed for a proposed unit count of 98 units, which has since been reduced to 89 units.

The proposed 89 unit development will generate less than 821 weekday daily trips and less than 76 weekday PM peak hour trips. This report for the proposed Cottages on Helmholtz multifamily housing project shows that the continuation of the street network surrounding the site will support area build-out plans and provided much-needed street connectivity within the area. With the planned completion of Quartz Avenue the site complies with all City of Redmond transportation requirements. The following reflects key findings of the report:

- The site is planned to contain 89 units that are located within a combination of two-bedroom attached or detached units.
- The site layout provides improvements along SW Salmon Avenue, SW 43rd Street, SW Reindeer Avenue, and SW 42nd Street, improving these bordering streets to City standards. Fee in-lieu payments will be provided for improvements to SW Helmholtz Way so that this project can be completed as part of a broader corridor project.
- Trip generation estimates show that the site will generate about 821 weekday daily trips, including 76 trips during the weekday p.m. peak hour. These trips are primarily destined east toward the core area services.
- The overall safety review shows that clear sight lines are available at each of the new connections/roadway extensions. There were two intersections that experienced a crash rate above ODOT's 90th percentile for similar locations:
 - o SW 35th Street/SW Obsidian Avenue: The City of Redmond plans to convert this intersection to all-way stop-control which is expected to resolve the issues noted.
 - o SW 35th Street/SW Salmon Avenue: Only a single crash was reported at this low-volume intersection and the cited crash cause (vision obscuration) was not present during field review. No mitigation is recommended.
- All of the intersections within the study area operate acceptably today, in the future without the proposed development, and in the future with the proposed Cottages. Even five-years beyond site build-out all of the study area intersections operate acceptably.
- Left-turn lanes are warranted in the southbound direction along the SW Helmholtz Way corridor at all major intersections (SW Obsidian Avenue, SW Quartz Avenue, and SW 45th Street). The City has identified this corridor as a future three-lane section that will support these new turn lanes. The project is providing a payment to the City for frontage improvements along SW Helmholtz Way to bring the facility into compliance with the identified cross-section.

- There are no locations within the study area that meet signal warrants or right-turn deceleration lane warrants.
- Frontage improvements are proposed surrounding the site, bringing all of the adjacent streets into compliance with City standards. A fee in-lieu payment is proposed for the SW Helmholtz Way corridor to allow these improvements to occur as part of a broader improvement project.
- All of the private site accesses will be constructed with concrete driveway aprons to discern between the private and public street systems.
- Stop signs will be installed on all minor approaches to clearly designate right-of-way.
- The project will contribute toward the City of Redmond's overall transportation needs through payment of Transportation SDC fees. These fees account for the regional impacts to the City's major street (and highway) system.

IV. Summary and Conclusion

The preceding sections document that the proposed partition and site plan conform to the applicable zoning and land division standards of the Redmond Development Code. Because the proposal conforms to all applicable criteria and standards, the applicant requests that the City approve the land use applications as proposed.

From: [Leslie Brent C \(BPA\) - TERR-REDMOND](#)
To: [Kyle Roberts](#)
Cc: [Sarah Vowell](#)
Subject: RE: REVIEW: 711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP), 711-21-000283-PLNG (V) | Cottages on Helmholtz
Date: Thursday, December 02, 2021 3:14:52 PM
Attachments: [image002.png](#)
[image003.png](#)

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thank you for reaching out to the U.S. Department of Energy, Bonneville Power Administration (BPA). Based on the attached plans it does not appear that there will be an encroachment on a BPA right-of-way.

Please be aware that applications must be submitted for any proposed use within a BPA right-of-way. The application can be found at the following link:

https://www.bpa.gov/PublicInvolvement/LandsCommunity/RealProperty/Application_for_use_of_BPA_Right_of_Way.pdf

Kind Regards,

Brent Leslie

Realty Specialist
 Bonneville Power Administration | Department of Energy
 Real Property Field Services | TERR-REDMOND
 3655 SW Highland Ave
 Redmond, OR 97756
 Office: 541-516-3257
 Mobile: 541-316-9731
bcleslie@bpa.gov

[Landowner Use and Safety Information](#)

<https://www.bpa.gov/PublicInvolvement/LandsCommunity/Pages/default.aspx>



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From: Sarah Vowell <sarah.vowell@redmondoregon.gov>
Sent: Thursday, December 2, 2021 9:18 AM
To: David Pilling <David.Pilling@redmondoregon.gov>; Bill Duerden <Bill.Duerden@redmondoregon.gov>; Travis Robbins <travis.robbs@redmondoregon.gov>; Wade Gibson <Wade.gibson@redmondfireandrescue.org>; Aaron Yuma <aaron.yuma@redmondoregon.gov>; Andrea Breault <abreault@coic.org>; Kelley O'Rourke <landuse@coid.org>; Rohde, Kevin <krohde@cec.coop>; Shoemaker, Deanna L (BPA) - TERR-ALVEY <dlschoemaker@bpa.gov>; Leslie, Brent C (BPA) - TERR-REDMOND <bcleslie@bpa.gov>; Treadway, Ian (PacifiCorp) <Ian.Treadway@pacifiCorp.com>; Fleming, Keven (PacifiCorp) <Keven.Fleming@PacifiCorp.com>; donna.herman@cngc.com; Burkus, Albert <ABurkus@republicservices.com>; robert.watters@centurylink.com; sosanna.mchugh@tdstelecom.com; credelings@lsnetworks.net; Harsh, Scott D - Redmond, OR <scott.d.harsh@usps.gov>; Devin Lewis <devin.lewis@redmondoregon.gov>; Valerie Taylor <valerie.taylor@redmondoregon.gov>; Katharine Colvin <katharine.colvin@redmondoregon.gov>
Cc: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Subject: [EXTERNAL] REVIEW: 711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP), 711-21-000283-PLNG (V) | Cottages on Helmholtz

Hello all,

The corrected routing is attached, the record numbers were one digit off as this is for 281-PLNG, 282-PLNG and 283-PLNG.

Thank you,

Sarah

Dear Reviewer(s),

The Redmond Planning Division has received an application that is ready for your review. Please see the routing letter and attachments for the project below:

Project #/ Name:	711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP), 711-21-000283-PLNG (V) Cottages on Helmholtz
Applicant/Owner:	LEDG Capital LLC / Jamie Garza Et Al
Request:	Site and Design proposal for 98 cottage units with an office and associate site improvements. Two lot partition.
Location:	2052 SW Helmholtz Way Redmond, OR 97756
Tax Lot Number(s):	1513190000701
Applicable Criteria:	Redmond Code, Chapter 8 Developmental Regulations, Article I – Zoning Standards; Article II – Land Use Procedures; Article III – Land Division Standards, Land Partitioning; and Article IV – Site and Design Review Standards
Staff Contact:	Kyle Roberts – 541.923.7758 or kyle.roberts@redmondoregon.gov

Please email comments by **December 16th, 2021** and any questions to the Senior Planner, Kyle Roberts (cc'd in email).

We look forward to your comments.

From: [Kelley O'Rourke](#)
To: [Kyle Roberts](#)
Subject: FW: REVIEW: 711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP), 711-21-000283-PLNG (V) | Cottages on Helmholtz
Date: Friday, December 3, 2021 11:12:44 AM
Attachments: [image001.png](#)

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December 3, 2021

Sent Via Email Only

Re: 711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP), 711-21-000283-PLNG (V) | Cottages on Helmholtz/ Tax lot: 1513190000701 (2052 SW Helmholtz Way)

Please be advised that Central Oregon Irrigation District (COID) has reviewed the provided application information of the above referenced project. The subject property is located at 2052 SW Helmholtz Way in Redmond, Oregon. The applicant requests Site and Design proposal for 98 cottage units with an office and associate site improvements. Two lot partition.

Listed below are COIDs initial comments to the provided preliminary plans. All development affecting irrigation facilities shall be in accordance with COID's Development Handbook and/or as otherwise approved by the District.

- Tax lot: 1513190000701 has no COID water rights.
- The B Lateral Waste has an easement of 50-feet and traverse the subject property. Please contact COID for additional discussion and requirements for the quitclaim process.

Our comments are based on the information provided, which we understand to be preliminary nature at this time. Our comments are subject to change and additional requirements may be made as site planning progresses and additional information becomes available. Please provide updated documents to COID for review as they become available.

Central Oregon Irrigation District

From: Sarah Vowell <sarah.vowell@redmondoregon.gov>
Sent: Thursday, December 2, 2021 9:18 AM
To: David Pilling <David.Pilling@redmondoregon.gov>; Bill Duerden <Bill.Duerden@redmondoregon.gov>; Travis Robbins <travis.robbs@redmondoregon.gov>; Wade Gibson <Wade.gibson@redmondofireandrescue.org>; Aaron Yuma <aaron.yuma@redmondoregon.gov>; Andrea Breault <abreault@coic.org>; Kelley O'Rourke <landuse@coic.org>; Rohde, Kevin <krohde@cec.coop>; Shoemaker, Deanna L (CONTR) - TERR-REDMOND <dlschoemaker@bpa.gov>; Brent Leslie BPA <bcleslie@bpa.gov>; Treadway, Ian (PacifiCorp) <Ian.Treadway@pacificorp.com>; Fleming, Keven (PacifiCorp) <Keven.Fleming@PacifiCorp.com>; donna.herman@cngc.com; Burkus, Albert <ABurkus@republicservices.com>; robert.watters@centurylink.com; sosanna.mchugh@tdstelecom.com; credelings@lsnetworks.net; Harsh, Scott D - Redmond, OR <scott.d.harsh@usps.gov>; Devin Lewis <devin.lewis@redmondoregon.gov>; Valerie Taylor <valerie.taylor@redmondoregon.gov>; Katharine Colvin <katharine.colvin@redmondoregon.gov>
Cc: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Subject: REVIEW: 711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP), 711-21-000283-PLNG (V) | Cottages on Helmholtz

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Thank you,

Sarah

Dear Reviewer(s),

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Project #/ Name:	711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP), 711-21-000283-PLNG (V) Cottages on Helmholtz
Applicant/Owner:	LEDG Capital LLC / Jamie Garza Et Al
Request:	Site and Design proposal for 98 cottage units with an office and associate site improvements. Two lot partition.
Location:	2052 SW Helmholtz Way Redmond, OR 97756
Tax Lot Number(s):	1513190000701
Applicable Criteria:	Redmond Code, Chapter 8 Developmental Regulations, Article I – Zoning Standards; Article II – Land Use Procedures; Article III – Land Division Standards, Land Partitioning; and Article IV – Site and Design Review Standards
Staff Contact:	Kyle Roberts – 541.923.7758 or kyle.roberts@redmondoregon.gov

Please email comments by **December 16th, 2021** and any questions to the Senior Planner, Kyle Roberts (cc'd in email).

We look forward to your comments.

Thank you,



Sarah Vowell | City of Redmond
Planning Permit Coordinator

phone 541.504.3044 | 541.604.9890
email sarah.vowell@redmondoregon.gov
address 411 SW 9th Street, Suite 213 Redmond, Oregon 97756



CITY OF REDMOND
Engineering Department

243 East Antler Avenue, Suite 100
Redmond, OR 97756-0100

(541) 504-2002
Fax: (541) 548-0253
www.redmondoregon.gov

TO: KYLE ROBERTS, *Community Development Department*

FROM: DAVID PILLING, *Engineering Department*

DATE: December 27, 2021

SUBJECT: **711-21-000281-PLNG-SP & 282PLNG-RMP: 98-Unit Cottages on Helmholtz Apartment Complex**
LEDG Capital LLC/Jamie Garza/BECON Civil Engineering & Land Surveying
Tax Lot 15-13-19-701

Subject property located southeast of SW Helmholtz Way, north of Salmon Ave. and west of 41st street. 2052 SW Helmholtz Way. The Engineering Department provides the following recommendations based on the submitted site plan set dated 10-13-21 per Redmond Development (COR) Code Section 8.0305, 8.0500, 8.0505(11), 8.0510(6 & 7), 8.2000-2835 and 8.3000-3050 and City of Redmond Public Works Standards and Specifications (CORPWSS):

Please note that subject property and proposed development are subject to the “Sewer Line D Reimbursement District” per Redmond Resolutions 2007-11 and 2017-12.

1. Transportation: All public streets shall be designed, constructed and dedicated to current City of Redmond Standards & Specifications and Transportation System Plan (TSP) standards and extended to the limits of the project or each phase unless otherwise specified or approved. Street and right-of-way centerline shall match existing. Five (5) ft. minimum width public utility easement (PUE) shall be dedicated along all street right-of-way per COR Standard Drawing 2-1. Street signage, lane striping, street lights and postal box installation shall be required. All street names shall be approved by Redmond Fire and Rescue and/or Deschutes County. Transportation SDC credits may be given for the cost of additional construction and dedication required for conformance to City arterial and collector street standards on eligible projects specified in the City's adopted Capital Improvement Plan. The proposed public street system complies with City grid street and TSP standards subject to the following: [COR Code 8.2240(1 & 4) 8.2320(2)(A), 8.2415(1), 8.2710(1, 2, 3 & 10) & 8.3035(2)] [CORPWSS Development Provisions 03]

A) **SW Helmholtz Way** - minor arterial street. A paved road and sixty (60) to eighty (80) ft. public right-of-way exist, no curb or sidewalk, along property frontage. Street frontage improvements conforming to full width City minor arterial street standards shall be required per COR Standard Drawing 2-1 with new pavement section, striping, curb on both sides, sidewalk on the east side and storm drainage along property frontage. Twenty (20) ft. right-of-way dedication shall be required for a total width of 50 ft. east of centerline along property frontage. However, SW Helmholtz Way is planned for reconstruction as a 3 to 5 lane City minor arterial street along property frontage per the current TSP. Therefore, at the discretion of the City Engineer, a cash contribution for the east half of Helmholtz Way at City local street standards may be provided in lieu of constructing street frontage improvements.

B) **SW Salmon Ave.** - minor collector street. A paved street and forty (40) ft. public right-of-way exist along property frontage. Street frontage improvements conforming to City minor collector street standards shall be required per COR Standard Drawing 2-1 and 2-3 with new pavement section to centerline, curb and sidewalk on the north side, storm drainage and twenty (20) ft. right-of-way dedication along property frontage and east to 43rd Street. New ADA/curb ramps may be required at 43rd Street.

C) **SW Reindeer Ave.** - local grid street. A paved street and forty (40) ft. public right-of-way exist east of 43rd St. along property frontage. The proposed right-angle eyebrow corner at 43rd St. shall have traffic volume estimates of less than five-hundred (500) average daily trips (ADT) per COR Std Dwg 2-5 as confirmed by the Transportation Impact Analysis (TIA). Otherwise, the City elbow/cul-de-sac standard shall be required per COR Std Dwg 2-4. Street improvements conforming to City local/cul-de-sac street standards shall be required per COR Standard Drawing 2-1, 2-3 and 2-4 and/or 2-5 with new pavement to centerline, curb and sidewalk on the north side, storm drainage, twenty (20) ft. public right-of-way dedication and fifty (50) ft. cul-de-sac radius right-of-way dedication.

D) **SW 43rd St.** - local grid street. A paved street and forty (40) ft. public right-of-way exist south of Reindeer Ave. along property frontage. Street frontage improvements conforming to City local grid street standards shall be required per COR Standard Drawing 2-1 and 2-3 with new pavement section to centerline, curb and sidewalk on the west side, storm drainage and twenty (20) ft. right-of-way dedication along property frontage.

E) **SW 42nd St.** - local street. A paved street and sixty (60) ft. right-of-way exist just north of subject property. Street improvements conforming to City local street standards shall be required per COR Standard Drawing 2-1 with new pavement, curb, sidewalk, storm drainage and sixty (60) ft. right-of-way dedication through subject property.

F) **SW Forked Horn Butte Rd.** - local street south of Salmon Avenue. A paved street, thirty (30) ft. public right-of-way and thirty (30) ft. wide City owned tax lot 15-13-19CA-99 exist south of Salmon Avenue. City owned tax lot 99 also extends north to Helmholtz Way but not as a public street. Proposed site access and driveway connection at the Forked Horn Butte Rd./Salmon Ave. intersection will require an access easement across tax lot 99 approved by the City and/or current adjacent property owner and shall be re-aligned directly opposite of and across from Forked Horn Butte Road.

G) Street Storm Drainage:

- 1) Stormwater drainage systems in the public right-of-way shall be subject to current City design standards. [COR Code 8.2825(2)] [CORPWSS Design Standards II(B)]
- 2) New drywells shall comply with City/DEQ pretreatment and City testing requirements. Drywell drain rock shall not extend under any street pavement section. [COR Code 8.2825(2)] [CORPWSS Design Standards II(B)]
- 3) The location of drywells or other UIC's within City streets shall not conflict with existing active private water wells, community water wells or existing/future municipal drinking water wells. Identify all existing water wells that are within 500 ft. or the two-year time of travel zone of subject properties. [COR Code 8.2825(2)] [CORPWSS Design Standards II(B)]

H) Street Trees:

- 1) No street trees within 50 ft. of a street intersection per COR Standard Drawing 2-27.
- 2) No trees within 10 ft. of domestic water service, fire service or public storm facilities.
- 3) Trees shall not conflict with street or stop sign/control device and pedestrian crossing/ADA ramp line of sight.
- 4) No trees within driveway clear vision areas or blocking public street lighting.
- 5) Street tree species shall be selected from Redmond Parks Division approved tree list.

I) Traffic Impacts: The "Cottages on Helmholtz Transportation Impact Analysis" (TIA) submitted by Transight Consulting LLC dated 10-12-21 has been reviewed for site plan approval per COR Code 8.0500, 8.0505(11) and 8.3035(8) and is subject to the following:

- 1) The Engineering Dept. does not support the request to allow on-street guest parking along the adjacent public streets due to the expected negative impact of overflow parking on the surrounding neighborhood and along Helmholtz Way.
- 2) The intersection of SW 39th St/Reservoir Dr. shall be studied.
- 3) Traffic volume estimates at the proposed right-angle eyebrow corner at Reindeer Ave and 43rd St. shall be provided.
- 4) No other mitigation will be required beyond Transportation SDC's.

J) Parking Variance: Any required parking variance must be supported by a parking analysis prepared by a registered professional engineer and approved by the City Engineer. A parking variance that is dependent upon or utilizes the public street system for vehicular parking is generally not supported by the City Engineer, Engineering or Public Works due the negative impact on clear vision and sight distance areas, overflow parking in the surrounding neighborhood and street maintenance/sweeping/snow plowing. [COR Code 8.0500 & 8.0505(11)]

K) Site Access:

- 1) Proposed driveway connection at the Forked Horn Butte Rd./Salmon Ave. intersection will require an access easement across tax lot 99 approved by the City and/or current adjacent property owner and shall be re-aligned directly opposite of and across from Forked Horn Butte Road. Otherwise, proposed site access is acceptable subject to City sight/stopping distance, clear vision and driveway construction standards. [COR Code 8.0305, 8.3035(7)(B) & 8.3035(9)(H)] [CORPWSS Design Standards II(A)(3), Div. II (214) & Standard Drawings]
- 2) New driveway connections shall be constructed per COR Standard Drawings 2-11 thru 2-14. Maximum residential driveway width = 27 feet. [COR Code 3.300, 8.0305, 8.0510(6 & 7) 8.3035(7)(B) & 8.3035(9)] [CORPWSS Div. II (214)]
- 3) Direct vehicular access to Helmholtz Way, a minor arterial street, and Salmon Ave., a minor collector street, shall not be permitted except for emergency vehicles with locked fire gate. [COR Code 8.3035(9)(a, b & d)]
- 4) Postal box installation shall be subject to US Postal Service standards and City Engineer approval. [CORPWSS Design Standards II(A)(16)]

2. Water: An eighteen (18) inch City water main exists in Helmholtz Way along property frontage. An eight (8) inch City water main exists in Salmon Ave., Reindeer Ave. and 43rd St along property frontage. An eight (8) inch City water main exists in 42nd St. just north of subject property.

A) Connection to the City's public water system shall be required for each new multi-family parcel. [COR Code 8.2240(5), 8.2510(2)(D), 8.2715(3) & 8.3035(7)(D)]

B) A public water main shall be extended in 42nd St. as proposed for service to each new parcel per City Public Facility Requirement and Water System Plan (WSP) standards. [COR Code 8.2415(1) & 8.2715(3)] [CORPWSS Development Provisions 03]

C) Private Interior Water System - Cottage Lots: Any on-site water system serving interior cottage lots with no public right-of-way frontage including any fire hydrants shall be privately owned and maintained. The private water system shall also be subject to Oregon Health Authority (OHA) review/approval. [COR Code 4.050(11), 8.2240(5) & 8.2715(3)] [CORPWSS Design Standards II(D)(1)(d)]

D) Separate domestic water service connections conforming to City standards and City Water Division backflow prevention device requirements shall be required for each new multi-family residential parcel. A single water master meter located at the property/right-of-way line shall be required for each parcel. A City approved backflow prevention device shall be installed at the point of delivery/property line behind the water meter per COR Standard Drawing 4-18 thru 4-21. [COR Code 4.200, 4.161, 8.2240(5), 8.2510(2)(D), 8.2715(3 & 4(C)) & Code 8.3035(7)(D)] [CORPWSS Design Standards II(D)(1)(d)]

E) Fire service/sprinkler and irrigation systems shall be subject to City backflow prevention requirements. A detector double check valve assembly (DCDA) shall be installed for the fire service at the property/right-of-way line per current COR Standard Drawing 4-22 or 4-23. The fire line shall be connected to the City main for each property and separate from the domestic service. [COR Code 8.3035(7)(D)] [CORPWSS Design Standards II(D)(1)(d)]

F) New fire hydrants located on-site shall be privately owned and maintained with City approved backflow prevention device located at the property/right-of-way line. [COR Code 8.3035(7)(D)] [CORPWSS Design Standards II(D)(1)(d)]

G) Abandonment of any existing water well, cistern or other private water facility located on subject property shall be in accordance with Oregon Water Resource Department regulations. Documentation shall be submitted to the City Wastewater Division. [CORPWSS Development Provisions 04.7.00 & 22(13)] [OAR 690-220]

3. Wastewater: The fifteen (15) inch City gravity sewer trunk Line 'D' per current City Wastewater System Master Plan (WSMP) and services exists in Helmholtz Way and Reindeer Ave. along property frontage and through subject property. An eight (8) inch City gravity sewer main exists in 43rd St. along property frontage between Reindeer Ave. and Rhyolite Place. An eight (8) inch City gravity sewer main exists in 42nd St. just north of subject property. An eight (8) inch City gravity sewer main exists in Salmon Ave. along property frontage with a public sewer lift station on south side of Salmon Avenue.

A) Connection to the City's public sewer system shall be required each new multi-family parcel. [COR Code 8.2415(5), 8.2510(2)(D), 8.2715(3) & 8.3035(7)(D)]

B) Proposed sewer main extension in 42nd St. shall provide a complete gravity connection to Parcel 2.

C) Private Interior Sanitary Sewer System - Cottage Lots: Any on-site common sanitary sewer system and serving interior cottage lots shall be privately owned and maintained. Any private common sewer system serving multiple lots shall also be subject to Oregon Department of Environmental Quality (DEQ) review/approval.

D) Separate sanitary sewer service connections conforming to City standards including City Wastewater Division pretreatment, monitoring and sampling requirements shall be required for each new multi-family residential parcel with cleanout located at the property/right-of-way line per COR Standard Drawing 3-2. A wastewater pretreatment/discharge survey shall be completed and submitted to the Wastewater Division for the industrial/commercial or institutional user of each new parcel. New sanitary sewer services may be installed upon future redevelopment or building permits. Any unused sanitary sewer service shall be abandoned and/or removed per City standards. [COR Code 4.337, 4.338(1), 8.2715(3 & 4(C)) & 8.3035(7)(D)] [CORPWSS Design Standards II(C)(3)]

E) Any existing sewage drill hole, septic tank or other private sewer facility located on subject property shall be permanently abandoned in accordance with Deschutes County and Oregon Dept. of Environmental Quality (DEQ) regulations. [COR Code 4.304(3)] [CORPWSS Development Provisions 04.7.00 & 22(13)]

4. Parcel/Site Grading and Drainage:

A) All site drainage shall be maintained each parcel/site and shall not drain onto public streets, neighboring properties or irrigation canal laterals. Storm water runoff from private property shall not impact public right-of-way or easements unless otherwise approved by the Public Works Director or City Engineer. [COR Code 8.3030 & 8.3035(7)(A)] [CORPWSS Development Provisions 23]

B) A comprehensive site grading and drainage plan with erosion/sediment control plan and drainage report shall be submitted for Engineering Department review and shall be subject to current City and Central Oregon Stormwater Manual (COSM) design, construction and testing standards. [COR Code 8.2720 & 8.3025(2), 8.3030 & 8.3035(7)(A)] [CORPWSS Development Provisions 23] [CORPWSS Design Standards II(B)]

C) Proposed site drainage facilities and stormwater systems shall have capacity or shall be designed for a 50-year/24-hour storm event (2 inches) and have appropriate pretreatment per City standards. [CORPWSS Design Standards II(B)]

D) Containment of the 100-year/24-hour storm event on-site and outfall shall be required. [CORPWSS Development Provisions 23.2.00(5)]

E) New on-site private drywells and other underground injection control (UIC) systems not part of the public drainage system must be registered and approved and/or permitted by the Oregon Department of Environmental Quality (DEQ) prior to construction or building permit issuance. Contact DEQ UIC Program Coordinator at 503-229-5945. Send copy of completed UIC permit application to DEQ and City of Redmond, 3100 NW 19th Street, Redmond, OR, 97756.

F) UIC locations for pavement area drainage shall not conflict with existing active City municipal, community or private water wells. UIC's serving paved areas may not be located within public or community wellhead protection areas or 500 ft. of existing irrigation or drinking water wells. The western portion of this site is located within 500 ft. of an existing adjacent water well. Private drywell/UIC systems within the wellhead protection area require general or individual UIC permit issuance from DEQ prior to construction plan approval. The location of any existing active water well within 500 ft. or 2-year time of travel of a proposed UIC shall be identified on the plans. [CORPWSS Design Standards II(B)(g)] [OAR 340-044-0018]

G) New storm drain ponds, basins or swales shall include eighteen (18) inch filter layer of compost amended topsoil, 3:1 max. side slopes, inlets, surface treatment/landscaping, flood overflow point and erosion control. Geotextile filter fabric shall be required under any landscape rock or rip-rap.

H) Erosion control such as rip-rap, drain rock or other energy dissipation will be necessary on inlet/outlet areas or pipes in storm swales and along conveyance swales.

I) Trash enclosure storm drainage shall be isolated and pre-treated prior to connection to a storm facility. *[COSM 10.3.4]*

J) Proposed on-site storm facilities may not be located within existing public right-of-way or easements and shall not impact existing public drainage facilities.

5. Construction Plans: Upon land use approval, a separate set of construction drawings may be submitted directly to the Engineering Department for design review and approval of all proposed and/or required public improvements, water/sewer service connections, site grading/drainage and utilities. *[COR Code 8.3025(2), 8.3030 & 8.3035(7)(A)] [CORPWSS Development Provisions 04 & 23]*

From: [Sarah Vowell](#)
To: [Kyle Roberts](#)
Subject: FW: REVIEW: 711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP), 711-21-000283-PLNG (V) | Cottages on Helmholtz
Date: Thursday, December 02, 2021 10:18:49 AM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

From: Katharine Colvin <katharine.colvin@redmondoregon.gov>
Sent: Thursday, December 02, 2021 9:33 AM
To: Sarah Vowell <sarah.vowell@redmondoregon.gov>
Subject: RE: REVIEW: 711-21-000280-PLNG (SP), 711-21-000281-PLNG (RMP), 711-21-000282-PLNG (V) | Cottages on Helmholtz

Finance department: Sewer line D Reimbursement District and the extension owing on this parcel.

Thanks.



Katharine Colvin | City of Redmond
Billing and Collections Specialist

Office hours M-F 8AM-4PM

phone 541.923.7716
email katharine.colvin@redmondoregon.gov

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From: Sarah Vowell <sarah.vowell@redmondoregon.gov>
Sent: Thursday, December 2, 2021 9:10 AM
To: David Pilling <David.Pilling@redmondoregon.gov>; Bill Duerden



REDMOND FIRE & RESCUE

341 NW Dogwood Avenue, Redmond, OR 97756

Phone: (541) 504-5000 Fax: (541) 526-1254

www.redmondfireandrescue.org

January 5, 2022

Kyle Roberts
Senior Planner
City of Redmond
411 SW 9th street
Redmond, OR 97756

Re: Cottages on Helmholtz
Tax Lot ID: 15130190000701

Dear Kyle,

Thank you for the opportunity to review the proposed site plan surrounding the above-named development project. These notes are provided in regard to the plans received **12/02/2021**. There may be more or less requirements needed based upon the final project design, however, Redmond Fire & Rescue will endorse this proposal predicated on the following criteria and conditions of approval.

FIRE APPARATUS ACCESS:

1. **FIRE APPARATUS ACCESS ROAD DISTANCE FROM BUILDINGS AND FACILITIES:** Access roads shall be within 150 feet of all portions of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building or facility. An approved turnaround is required if the remaining distance to an approved intersecting roadway, as measured along the fire apparatus access road, is greater than 150 feet. (OFC 503.1.1)

Requirement met.

2. **ADDITIONAL ACCESS ROADS – ONE- OR TWO-FAMILY RESIDENTIAL DEVELOPMENTS:** Developments of one- or two-family dwellings, where the number of dwelling units exceeds 30, shall be provided with separate and approved fire apparatus access roads and shall meet the requirements of Section D104.3.
Exception: Where there are more than 30 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with section 903.3.1.1, 903.3.1.2, or 903.3.1.3 of the International Fire Code, access from two directions shall not be required. (OFC D107)

3. **MULTIPLE ACCESS ROADS SEPARATION:** Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the area to be served (as identified by the Fire Marshal), measured in a straight line between accesses. (OFC D104.3)
4. **FIRE APPARATUS ACCESS ROAD WIDTH AND VERTICAL CLEARANCE:** Fire apparatus access roads shall have an unobstructed driving surface width of not less than 20 feet (26 feet adjacent to fire hydrants (OFC D103.1)) and an unobstructed vertical clearance of not less than 13 feet 6 inches. (OFC 503.2.1)
5. **NO PARKING SIGNS:** Where fire apparatus roadways are not of sufficient width to accommodate parked vehicles and 20 feet of unobstructed driving surface, “No Parking” signs shall be installed on one or both sides of the roadway and in turnarounds as needed. Signs shall read “NO PARKING - FIRE LANE” and shall be installed with a clear space above grade level of 7 feet. Signs shall be 12 inches wide by 18 inches high and shall have red letters on a white reflective background. (OFC D103.6)
6. **NO PARKING:** Parking on emergency access roads shall be as follows (OFC D103.6.1-2):
 1. 20-26 feet road width – no parking on either side of roadway
 2. 26-32 feet road width – parking is allowed on one side
 3. Greater than 32 feet road width – parking is not restricted

No parking areas marked on attached plans.
7. **PAINTED CURBS:** Where required, fire apparatus access roadway curbs shall be painted red (or as approved) and marked “NO PARKING FIRE LANE” at 25-foot intervals. Lettering shall have a stroke of not less than one inch wide by six inches high. Lettering shall be white on red background (or as approved). (OFC 503.3)
8. **FIRE APPARATUS ACCESS ROADS WITH FIRE HYDRANTS:** Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet and shall extend 20 feet before and after the point of the hydrant. (OFC D103.1)
9. **SURFACE AND LOAD CAPACITIES:** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced as to provide all-weather driving capabilities. (OFC 503.2.3)
10. **TURNING RADIUS:** The inside turning radius and outside turning radius shall not be less than 30 feet and 50 feet respectively, measured from the same center point. (OFC 503.2.4 & D103.3)
11. **ACCESS ROAD GRADE:** Fire apparatus access roadway grades shall not exceed 10%.
12. **ANGLE OF APPROACH/GRADE FOR TURNAROUNDS:** Turnarounds shall be as flat as possible and have a maximum of 5% grade with the exception of crowning for water run-off. (OFC 503.2.7 & D103.2)
13. **ANGLE OF APPROACH/GRADE FOR INTERSECTIONS:** Intersections shall be level (maximum 5%) with the exception of crowning for water run-off. (OFC 503.2.7 & D103.2)

14. **AERIAL APPARATUS OPERATING GRADES:** Portions of aerial apparatus roads that will be used for aerial operations shall be as flat as possible. Front to rear and side to side maximum slope shall not exceed 10%.
15. **GATES:** Gates securing fire apparatus roads shall comply with all of the following (OFC D103.5, and 503.6):
 1. Minimum unobstructed width shall be not less than 20 feet (or the required roadway surface width).
 2. Gates serving three or less single-family dwellings shall be a minimum of 12 feet in width.
 3. Gates shall be set back at minimum of 30 feet from the intersecting roadway or as approved.
 4. Electric gates shall be equipped with a means for operation by fire department personnel
 5. Electric automatic gates shall comply with ASTM F 2200 and UL 325.
16. **ACCESS DURING CONSTRUCTION:** Approved fire apparatus access roadways shall be installed and operational prior to any combustible construction or storage of combustible materials on the site. Temporary address signage shall also be provided during construction. (OFC 3309 and 3310.1)
17. **TRAFFIC CALMING DEVICES:** Shall be prohibited on fire access routes unless approved by the Fire Marshal. (OFC 503.4.1)

Access requirements have been met on plans.

FIREFIGHTING WATER SUPPLIES:

18. **FIREFIGHTING WATER SUPPLY FOR INDIVIDUAL ONE- AND TWO-FAMILY DWELLINGS:** The minimum available fire flow for one and two-family dwellings served by a municipal water supply shall be 1,000 gallons per minute. If the structure(s) is (are) 3,600 square feet or larger, the required fire flow shall be determined according to OFC Appendix B. (OFC B105.2)
19. **FIRE FLOW WATER AVAILABILITY:** Applicants shall provide documentation of a fire hydrant flow test or flow test modeling of water availability from the local water purveyor if the project includes a new structure or increase in the floor area of an existing structure. Tests shall be conducted from a fire hydrant within 400 feet for commercial projects, or 600 feet for residential development. Flow tests will be accepted if they were performed within 5 years as long as no adverse modifications have been made to the supply system. Water availability information may not be required to be submitted for every project. (OFC Appendix B)

FIRE HYDRANTS:

20. **FIRE HYDRANTS – ONE- AND TWO-FAMILY DWELLINGS & ACCESSORY STRUCTURES:** Where the most remote portion of a structure is more than 600 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the structure(s), on-site fire hydrants and mains shall be provided. (OFC 507.5.1)

21. **FIRE HYDRANT NUMBER AND DISTRIBUTION:** The minimum number and distribution of fire hydrants available to a building shall not be less than that listed in Table C 105.1. (OFC Appendix C)
22. **FIRE HYDRANT(S) PLACEMENT:** (OFC C104)
- Existing hydrants in the area may be used to meet the required number of hydrants as approved. Hydrants that are up to 600 feet away from the nearest point of a subject building that is protected with fire sprinklers may contribute to the required number of hydrants. (OFC 507.5.1)
 - Hydrants that are separated from the subject building by railroad tracks shall not contribute to the required number of hydrants unless approved by the Fire Marshal.
 - Hydrants that are separated from the subject building by divided highways or freeways shall not contribute to the required number of hydrants. Heavily traveled collector streets may be considered when approved by the Fire Marshal.
 - Hydrants that are accessible only by a bridge shall be acceptable to contribute to the required number of hydrants only if approved by the Fire Marshal.
- Please clearly show hydrants on plans.**
23. **PRIVATE FIRE HYDRANT IDENTIFICATION:** Private fire hydrants shall be painted red in color. (OFC 507)
24. **FIRE HYDRANT DISTANCE FROM AN ACCESS ROAD:** Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway unless approved by the Fire Marshal. (OFC C102.1)
25. **REFLECTIVE HYDRANT MARKERS:** Fire hydrant locations shall be identified by the installation of blue reflective markers. They shall be located adjacent and to the side of the center line of the access roadway that the fire hydrant is located on. In the case that there is no center line, then assume a center line and place the reflectors accordingly. (OFC 507)
26. **PHYSICAL PROTECTION:** Where fire hydrants are subject to impact by a motor vehicle, guard posts, bollards or other approved means of protection shall be provided. (OFC 507.5.6 & OFC 312)
27. **CLEAR SPACE AROUND FIRE HYDRANTS:** A 3-foot clear space shall be provided around the circumference of fire hydrants. (OFC 507.5.5)

BUILDING ACCESS AND FIRE SERVICE FEATURES

28. **KNOX BOX:** A Knox Box, padlock, or Knox key switch for gate access may be required. See Appendix A (using the link provided below) for further information and detail on required installations. Order via www.redmondfireandrescue.org or contact Redmond Fire & Rescue for assistance and instructions regarding installation and placement. (OFC 506.1)
29. **PREMISES IDENTIFICATION:** New and existing buildings shall have approved address numbers; building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property, including monument

signs. These numbers shall contrast with their background. Numbers shall be a minimum of 4 inches high with a minimum stroke width of 1/2 inch. (OFC 505.1)

If you have questions or need further clarification or would like to discuss any alternate methods and/or materials, please feel free to contact me at **541-504-5016**.

Sincerely,

Wade Gibson

Deputy Fire Marshal

wade.gibson@redmondfireandrescue.org

From: [Sarah Vowell](#)
To: [Kyle Roberts](#)
Subject: FW: REVIEW: 711-21-000280-PLNG (SP), 711-21-000281-PLNG (RMP), 711-21-000282-PLNG (V) | Cottages on Helmholtz
Date: Thursday, December 02, 2021 2:47:41 PM
Attachments: [image002.png](#)
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[image005.png](#)
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From: Devin Lewis <devin.lewis@redmondoregon.gov>
Sent: Thursday, December 02, 2021 2:35 PM
To: Sarah Vowell <sarah.vowell@redmondoregon.gov>
Subject: RE: REVIEW: 711-21-000280-PLNG (SP), 711-21-000281-PLNG (RMP), 711-21-000282-PLNG (V) | Cottages on Helmholtz

PD has no comment...Thx, Devin

"If you show interest in, respect for, and kindness toward people, it will always be the right thing to do." Bud Lewis

Devin Lewis

Captain | Redmond Police Department

phone 541.504.3424

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From: Sarah Vowell <sarah.vowell@redmondoregon.gov>
Sent: Thursday, December 2, 2021 9:10 AM
To: David Pilling <David.Pilling@redmondoregon.gov>; Bill Duerden <Bill.Duerden@redmondoregon.gov>; Travis Robbins <travis.robbs@redmondoregon.gov>; Wade Gibson <Wade.gibson@redmondfireandrescue.org>; Aaron Yuma <aaron.yuma@redmondoregon.gov>; Andrea Breault <abreault@coic.org>; Kelley O'Rourke <landuse@coid.org>; Rohde, Kevin <krohde@cec.coop>; Shoemaker, Deanna L (CONTR) - TERR-REDMOND <dlshoemaker@bpa.gov>; Brent Leslie BPA <bcleslie@bpa.gov>; Treadway, Ian (PacifiCorp) <Ian.Treadway@pacificorp.com>; Fleming, Keven (PacifiCorp)

From: [Jerry Boysen](#)
To: [Kyle Roberts](#)
Cc: [George Endicott](#)
Subject: 98 Units
Date: Thursday, December 16, 2021 10:56:01 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear sir - please be advised that I just heard about the proposal to build a 98 unit "cottages" style development on SW 43rd street here in Redmond. This is not fitting in with the neighbor design nor does it appear that appropriate transportation issues have been adequately addressed. Please be advised that I am very much in disavore of this proposal.

--

Jerry Boysen
4153 SW Salmon Pl, Redmond, OR 97756

From: [James Campbell](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Thursday, December 16, 2021 9:38:51 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kyle Roberts, Senior Planner,
Community development Department,

As a close neighbor to the proposed new development called "Cottages on Helmholtz," I hereby raise a few issues for consideration.

--[if !supportLists]-->1. <!--[endif]-->**Timing.** Even though the letter sent to those of us most impacted by this development was dated and post-marked on December 2, it arrived to our homes much later than that. We, who live in the neighborhood, need more time to research, consider the impact, and respond.

--[if !supportLists]-->2. <!--[endif]-->**Diversity.** As a citizen who sees the need for lower cost housing, I appreciate any effort to provide it. However, it is generally accepted in today's real estate market that new developments should provide a diversity of housing options. Cottages on Helmholtz seems to be very monolithic, offering only one type of housing.

--[if !supportLists]-->3. <!--[endif]-->**Density.** The tract of land is small for the proposed number of homes.

--[if !supportLists]-->4. <!--[endif]-->**Access.** The few proposed entry points to the neighborhood open directly onto our residential, already over-crowded, 25mph streets. These are streets often crossed and walked (legally) by the many children and seniors in our neighborhood. This proposed development definitely needs access points on Helmholtz.

Thanks for hearing my concerns. Please inform me, with more notice please, of future meetings, deadlines, etc. concerning this development.

Sincerely,

Barry Campbell

2323 sw 43rd st

Redmond, OR 97756

541-604-5628

Barrycampbell4pastors@hotmail.com

Ginger Demaris

2338 SW Forked Horn Butte Rd
Redmond, Oregon 97756

RECEIVED

JAN 10 2022

8 January 2022

Initial: _____

Kyle Roberts

City of Redmond
Community Development Department
Redmond, Oregon 97756

Dear Mr Roberts,

I am writing to you with my concerns regarding the Cottage development on Helmholtz Rd.

This development will impact my personal property in the extreme as my home is located on the corner of SW Forked Horn Butte Rd. and SW Salmon which will become a three way stop. Traffic volume will greatly increase with 98 new homes plus school buses and general road maintenance, sanitary pick up and all other neighborhood activities.

I am concerned about the impact on Redmond's aquifer considering how much water 98 homes will require. 98 new water systems, 98 lawns to water, 98 showers running, 98 toilets to flush, 98 new trees and shrubs and so on. Also the close association of the Thornburg development and the water concerns arising from that. As a crow flies these developments are very close and may need to draw water from the same source.

Where will parking be provided for 98 new homes? Will parking be allowed along SW Salmon or SW 43rd St? Most households have two cars and parking can be a problem if residents need to park in nearby streets.

Are the Helmholtz Cottages going to be owned by the residents or rentals? Pride of ownership comes into question if these are rentals and brings in loss of surrounding neighborhood property values.

98 Cottages is a huge impact for a small nearly rural area to absorb and will destroy the quiet peaceful neighborhoods people desire to maintain.

All my concerns add up to questioning if all these issues have been thoroughly evaluated and if the council will take extra time to consider everyone's input and be flexible in your decisions.

Sincerely,

Ginger Demaris

From: [JEFF DENNING](#)
To: [Kyle Roberts](#)
Subject: 2052 SW Helmholtz Way
Date: Sunday, December 12, 2021 3:42:53 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Roberts:

I am writing in regard to the proposed housing development at 2052 SW Helmholtz Way.

I live in one of the immediate neighborhoods surrounding the above location and have questions about the planned development.

I recently spoke with Pamela Thomas: Permits Coordinator, City of Redmond. She stated the plan is for 98 "Cottage style" homes. She also stated it was NOT low-income housing and was planned as a "55 and up community." Several of my neighbors have been receiving information which states the development is being planned as a low-income, 2 story rental complex. Instead of joining the local rumor-mill, I wanted to reach out to you personally and get as much info as I can about what the actual plan is for the proposed development. Most importantly, is it in fact going to be a low-income housing development?

I would greatly appreciate your assistance and any information you can provide.

Thank you for your time and take care.

Most Cordially,

Jeff Denning

Redmond, Oregon

Mr. Roberts and members of the City,

We are Gary and Margie Lampella. We live at 2341 SW 43rd Street. We have proudly lived here for two years. When we purchased our home in September of 2019 we were looking for a clean, safe and solid neighborhood. We were so thrilled to find our home in Majestic Ridge and believed our home would hold its value. We have not been disappointed in our decision.

Two days ago we were made aware of the possible plan to build "Cottages on Helmholtz". This is concerning and disappointing to us. It just doesn't seem like the city was being upfront and honest with the neighborhood it will most definitely have a negative effect on.. It is very frustrating and leaves all of us with questions.. Why did you only notify a handful of people? It will directly effect our property values as well as safety. We are two houses away from the property you are considering. It would have been appropriate and reasonable to notify everyone living within a mile. Thankfully one neighbor who did receive the letter shared it with us. If they had been out of town none of us would have ever been informed until you had moved on with your decision. We expected more transparency out of our city planning and government.

You have such a short window to respond, December 15 or 16. It is making us believe you are trying to sneak this through. You show lack of respect and consideration for one of the most highly regarded neighborhoods in Redmond. I don't think you would be happy if this situation happened in your neighborhood and you suddenly had property values drop, increased crime and trashy houses next to your dream home. We are requesting you postpone the meeting on this until February 2022. It is only fair that we have an opportunity to inform everyone this will have a negative effect on. We are having to spend our time informing people which in fact should be your job.

We have heard there is \$35 fee to file an appeal. Once again, it doesn't seem right but we will pay the fee.

We would appreciate being notified on any updates regarding this unfortunate situation.

Thank you for your time.

Gary and Margie Lampella

From: [John Hilt](#)
To: [Kyle Roberts](#)
Subject: Helmholtz Affordable Housing Cottages
Date: Monday, December 13, 2021 5:06:19 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Roberts,

I hope this letter finds you well. I am writing in regard to the "Helmholtz Affordable Housing Cottages" that has been proposed to the HCDC. My name is John Hilt and my wife, Katie Hilt, and I purchased the property at 2348 SW 43rd Street in Redmond in 2015. We did not know much about Redmond when we moved here, but we are extremely grateful we had the opportunity to purchase our house because the neighbors and the experience have been better than what we could have imagined. We have 2 children who have also enjoyed the experience of growing up in our safe, quiet neighborhood with minimal traffic.

First, I am disappointed that we have not received notification of the proposed development and only those who "own property which either abuts this property or is within 100 feet" received this notification when it clearly would affect the entire surrounding neighborhoods. Our property is only 2 houses away from the proposed property with direct line of site. I am thankful that a neighbor brought this to our attention so that we might have a chance to input our opinions and feedback on this proposal. It feels like this proposal is trying to be pushed through without feedback from property owners in the area that could be impacted, which is disgraceful if true. Hopefully, this process can be delayed so everyone who could be possibly impacted to have their questions answered, voice their concerns, and possibly provide alternative solutions.

Second, I completely understand that low-income housing is a must in growing cities like Redmond, but location should be of the utmost concern when planning. The current location to add 98 "cottages" with no garages or access to Helmholtz is not ideal for anybody except the developer. There are multiple issues with this decision, but I'll only name a few of the more important ones:

1. Traffic. As mentioned previously, this property does not have access to Helmholtz, which means adding 100+ vehicles traveling through our neighborhoods, which were not designed to handle that much traffic. The infrastructure is just not adequate and will definitely decrease the safety of the area.
2. Crime. With a dramatic increase in population density, comes with an increase in crime rate. We choose this area of Redmond because of the safety and relatively low crime rate. That will unfortunately change if this development is allowed to happen.
3. Property Value. The property value of the surrounding neighborhoods, which are on the higher end in Redmond, will definitely be affected in a negative way.
4. Parking. The "cottages" do not have any garages so surrounding neighborhoods would likely absorb the overflow parking and clutter will start to gather because of no storage options.
5. Noise...
6. General feel of the neighborhood...

I could continue, but for the sake of the length of this letter, I'll stop as I'm sure you have heard from some of my neighbors as well.

I just want to make clear my adamant disapproval of the proposed development, because it will not only negatively affect the already established surrounding neighborhoods, but also the whole city of Redmond. As I mentioned before, low-income housing is a must need to improve the community, but this is not an appropriate location!

I look forward to hearing a response from you regarding this matter and the future actions taken.

Thank you for your time,

John Hilt
johnhilt@gmail.com
(206) 817-0915

From: [Tyler Lampella](#)
To: [Kyle Roberts](#)
Cc: [George Endicott](#); [Jay Patrick](#); [Rebecca Batzel](#); [Krisanna Endicott](#); [Clifford Evelyn](#); [Ed Fitch](#); [Shannon Wedding](#)
Subject: Helmholtz Affordable Housing Cottages
Date: Sunday, December 12, 2021 3:11:11 PM
Attachments: [Helmholtz Cottages Cover Letter.pdf](#)

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Roberts and members of the City,

My name is Tyler Lampella, and my wife and 2 boys live @ 2356 SW 43rd St. My wife was born and raised here and we returned as a family in 2016 and we are our proud of our city.

I am writing with 3 concerns:

- Helmholtz Affordable Housing Cottages
- Lack of notice to the whole neighborhood on the real impact
- December 16th or 15th?

Helmholtz Affordable Housing Cottages

It has come to my attention that there is a proposed development near my home defined in a [Sept 15, 2021 HCDC](#) meeting as the "Helmholtz Affordable Housing Cottages." I don't often review minutes from city meetings; however, a neighbor presented the attached letter they received Dec 2 from the City of Redmond regarding the development and I immediately explored.

I want to express myself clearly: my family and I are adamantly opposed to this development.

We bought this house in 2016 because of its location and separation from lower income housing.

It is beyond me, or any of my neighbors' comprehension, why the HCDC would recommend for approval a "high density" apartment complex adjacent to one the more expensive neighborhoods in Redmond. We are further confused by the consideration of it being section 8 housing. To this there is a total disregard for the existing neighborhood, the families, and safety.

Nowhere in the minutes from the Sept 15 meeting do I see concerns for the neighborhood and the existing tax paying property owners.

What I do see as reported in the minutes:

He answered questions from the committee regarding the potential rent amounts, transportation and parking availability for tenants, the applicability of the affordability covenant, basis for rent adjustments Section 8 subsidies, and management of the property.

Here are just some of the items the HCDC and the City need to consider:

- Impact on property values - They will go down because of all of the below
- Impact on traffic - The streets are already too fast. We have kids and pets, add 100 more cars going back and forth all day...
- Impact on crime - It is easy to see crime rates increase in areas with high density apartments
- Noise
- Clutter - There are no garages
- General feel of the neighborhood

I can probably go on, but I am hoping I am clear that my dismay that the city is even considering, let alone far enough where there is extensive planning done.

One neighbor said we would need to file a \$35 appeal in order to be heard... While I think the fee is silly, show me where and how I will do it.

Lack of notice to the whole neighborhood on the real impact

My house is 281 feet from the corner of the proposed development and a clear line of site to the property.

The notice states those received indicated they "own property which either abuts this property or is within 100 feet".

My question is, and not rhetorical, **how is that the standard?** Why are we not getting feedback from the hundreds of homes that will be impacted by this development?

This lack of communication seems entirely dismissive of the neighborhood impact and has the *appearance* that it is being shoved through without real property owner feedback. Again the appearance and echoed by concerned neighbors - Redmond does not want to know the opinion of those impacted because the outcry will be overwhelming. If this is the case, it is certainly unbecoming of our great city.

Do the right thing and put your existing community first!

I would suggest that the City move the date till after the new year and send letters to everyone within 1/2 mile including the new Hayden homes development. Why? Because these people will have unfortunate traffic of people using their streets to access Helmholtz, and additionally, impacts on crime and property values. I will go further - **Why would you not?**

December 16th or 15th?

I ask, because I can originally see there was a HCDC meeting scheduled for the 16th. That meeting is now the 15th. If the now Dec 15th is to discuss this development then the community needs to be informed of the change and any complaint submitted on the 16th needs to be considered.

Thank you for your time on this matter and I look forward to feedback on action items and answers to my questions.

Sincerely,

Tyler Lampella
tylampella@gmail.com

2356 SW 43rd ST
(541) 905-6624

From: larsonshawna62@gmail.com
To: [Kyle Roberts](#)
Subject: Proposed Development at 2260-2270 SW 43rd St, Redmond
Date: Thursday, December 16, 2021 7:43:56 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

One of my neighbors sent me information about a proposed 98 unit development called The Cottages on Helmholtz - Project#711-21-000281-PLNG (SP), #711-21-000282-PLNG(RMP), 711-21-000283-PLNG(V).

Although I do not have a property that abuts, or is within 100 feet of this proposed development, I have some concerns about potential thru-traffic impacts from this proposed project within my neighborhood (Emerald View Estates).

The proposal refers to this as the Cottages on Helmholtz. Is access to this development from SW Helmholtz Way? If not, it would appear that access would have to be from SW 43rd Street/SW Salmon Ave and SW 42nd Street. Unless there is a plan to connect Quartz Avenue to Helmholtz, the 98 units would have to route through residential streets to backtrack either to 45th Street to get to Helmholtz, take Salmon Ave to SW 39th Street to get to SW Reservoir Drive, or take Salmon Ave to 38th Street, to SW Quartz to access 35th Street. It seems like there would be a lot of traffic added to streets that were intended for local use. Is there a traffic study being done in association with this project?

This lot (2052 SW Helmholtz Way) is currently zoned R4 (General Residential). Is this being modified to a commercial density? 98 units on 7.5 acres is definitely higher density.

I'm not against development. I just have some questions about this project and am hoping that there will be a public meeting or some way that we can find out more about this project and have some input.

Thank you for any information you can provide.

Shawna Larson
4487 SW Salmon Place
Redmond, OR 97756
Phone (602) 614-7903
larsonshawna62@gmail.com

From: [Roger Mathus](#)
To: [Kyle Roberts](#)
Cc: [George Endicott](#)
Subject: Helmholtz Section 8 Development
Date: Monday, December 13, 2021 1:34:50 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Live on Majestic Ave and was not aware of this proposed land action that is close by. Concerned about traffic flow and how this development would be managed. I assume rental. The posting I saw in neighbor forum indicated no access from Helmholtz. This would mean access would be via adjoining neighborhood streets????? That is not desirable. There needs to be more information and more time for response. Is there detailed map of proposed development????

Will there be a public hearing on this proposal? When? Where? Why not broader notification?

Best Regards,

Roger Mathus

Following from neighbor forum.

Alert!!! Are you aware of a proposed 98 unit Section 8 development in your neighborhood? I was not until this morning, but it is something you should be aware of. If you live in Majestic Ridge, Juniper Hills, Emerald View Estates (new Hayden homes), or anywhere along the western side of SW Salmon AVE this development of almost 100 low income cottages will likely impact you. This project, as planned does not have immediate access to Helmholtz so your neighborhoods will absorb that traffic, not to mention all of the other conditions of adding 98 high density housing units will do to your neighborhood and home values. The City of Redmond has sent a letter to adjacent property owners for comment, but I have concerns that the rest of the neighborhood has not had a voice. I live less than 300 feet from the property and I did not get the letter in the mail. If this doesn't sound like what you want in our neighborhood you must take action now! Time is of the essence! Act by December 16th but preferably sooner. Don't sit on this!!! 1. Email or call the city - kyle.roberts@redmondoregon.gov or any City Council member 2. Let your neighbors know - most of us have been in the dark! 3. Share or create a new post I have attached the letter and my own crude drawing of the location (the property lines are likely not perfect). Please review the letter and follow the instructions in it to voice your concern and do so by Dec 16! Don't be passive here and hope someone else will do it. Let your opinion be known - otherwise we will live with the consequence of inaction. See more...

[2260-2270 Southwest 43rd Street, Redmond, OR](#)

Posted in
General to
Cascade View Estates
Be the first to react
Like

From: [Ellen Michaels Michael Ficher](#)
To: [Kyle Roberts](#)
Subject: CONCERNED HOMEOWNERS NEAR PROPOSED COTTAGES ON HELMHOLTZ
Date: Thursday, December 16, 2021 8:33:29 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Kyle,

Most likely, this isn't the first email you are receiving from SW Redmond residents regarding a proposed development in our area.

As homeowners in a development near the proposed Cottages on Helmholtz project, we have questions regarding the project scope, intended purpose and concerns over the lack of notification to the homeowners in communities that are not immediately adjacent to the project but who may still be negatively impacted by the construction and habitation of 98 high density units.

Additionally, we have concerns regarding the impact this proposed development will generate on traffic on Helmholtz and on the surface streets through adjacent communities.

There's an impression from the community chatter that failure to be open, informative, and forthcoming about the project suggests that the City and the developer were and are concerned with its reception and, thus, were trying to quietly push the project through with minimal public input and review.

We like facts over assumptions and would like to obtain clear information regarding the project.

We have heard the 98 unit development's intended use ranges from Section 8 rental units to low income units to an over 55 community. What we can see on a Site Utility Plan appears to be a multi-family development designed for high density, with no greenspaces, no garages, limited parking spaces with reliance upon three existing streets to absorb a substantial increase in traffic.

If the cottages do not have garages, the visible 90 spaces in the available Site Utility Plan are not adequate to address the needs of the residents of 98 units. That translates into on-street parking to handle the overflow.

And, an invitation to traffic and access issues to not only that community but also to the adjacent established single family residence communities.

For a prime example of traffic impact issues, look at The Outlook at Pilot Butte in Bend. While the 205 units built in 2016 are consistent with the surrounding community of apartments and townhouses, the access roads to the complex, absent additional traffic mitigating measures, are woefully inadequate to handle the increased traffic from the addition of 300 residents and their vehicles. Navigation in that area is difficult and, occasionally, dangerous. Imagine that situation near this proposed development which will negatively impact home values in the adjacent communities.

We fear a similar fate and its impact await the neighboring communities if suitable planning and prudent public input are not considered for this project.

Here are a few of our questions:

- Are these Cottages for sale or rent?
- What is the current zoning for that area?
- What is the plan for parking?
- How will additional traffic be managed?
- Was a transportation impact study conducted to ensure an adequate level of street connections to serve the new community?

We respectfully request an email with all available project proposal information that we can review.

Please feel free to add our email to distribution lists for upcoming meetings. Local chatter is there is an upcoming meeting in February.

Thank you, Kyle. We appreciate you taking the time to provide the development documents. Separately, we appreciate the work you do for our City.

Regards,

Ellen Michaels and Michael Ficher

From: nmueggenburg@gmail.com
To: [Kyle Roberts](#)
Cc: anniemueggenburg@gmail.com
Subject: Cottages on Helmholtz
Date: Monday, December 13, 2021 11:05:17 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Roberts,

I hope this email finds you well, and I'm reaching out in regards to the project name *711-21-000282-PLNG (RMP)* –and all associated applications.

A neighbor of ours brought this application to our attention with a certain level of concern. I am personally not terribly familiar with zoning permits and am hoping you can help explain the process/plans in layman's terms.

The letter from the City of Redmond that I have a copy of advises that Chapter 8 Developmental Regulations are applicable, but when looking at the Redmond Code that is a nearly 350 page document I am not sure which part it means. In the letter I have it only states that the request is: *Site and Design Proposal for 98 cottages units with an office and associate site improvements. Two lot partition.*

My neighbor mentioned that the plan is to build Section 8 Housing, which is low-income, government subsidized housing. Is this correct or is my neighbor confusing this with the 350 page Chapter 8 Development Regulations? I do not see Section 8 mentioned in the letter, only Chapter 8. I am assuming they are two very different things. If its Section 8, what is the likelihood of Section 8 to be approved? What steps can I take to oppose such approval?

Please understand, this would pose a significant change to the community dynamics in SW Redmond we've come to call home. This will certainly negatively impact important aspects of our quality of life such as traffic, crime-rate, and types of businesses that it attract. Simultaneously this will not be providing Section 8 Housing residents with the closeness to work or infrastructure which I believe is at the core of its intent.

I appreciate your time and I am looking forward to hearing from you.

Best regards,
Nils Mueggenburg

2533 SW 43rd Ct
Redmond, OR 97756
+1 (314) 757 6142

From: [Craig Nelson](#)
To: [Kyle Roberts](#); [Linda Nelson](#); tylampella@gmail.com
Subject: Section 8 Housing - Hemholtz / Salmon
Date: Monday, December 13, 2021 12:06:13 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Roberts,

I am writing in protest, and to some degree, deception in the project to put 98 section housing units within blocks of my house.

You have received several emails, now that we know about it, from neighbors that are unhappy - more traffic, crime, etc in a quiet neighborhood that we just moved into last November 2020.

We are close enough to be impacted yet, no notification because we are farther than 100 feet away - ridiculous, the entire area should be notified.

Also, I do a lot of work with local governments, in fact the police department is a customer. December Council meetings tend to be times when things are pushed through since many people are gone, on vacation, etc.

I would ask you and City Council reconsider this - notify the appropriate people, hold the meeting in February, and listen to those that will be impacted.

I am all for growth - but it needs to be well thought out, shared with the residents, and executed in a safe thoughtful way. This does not pass the sniff test.

Thanks for your consideration.

Craig and Linda Nelson

[Sent from Yahoo Mail for iPad](#)

From: [Esther Richards](#)
To: [Kyle Roberts](#)
Subject: Affordable cottages proposal at 2052 SW Helmholtz
Date: Sunday, December 12, 2021 10:55:16 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Roberts,

Our names are Steve and Esther Richards, we were both born and raised here in Oregon and SW Washington, and are proud to call Redmond home. We purchased the property at 2334 SW 43rd St. one year ago and are currently in the process of building our dream home. We are just ONE home away from the proposed 2052 SW Helmholtz low income/section 8 development, in direct view of the property, and according to the city; far enough away they didn't feel it necessary to notify us. How is 100 feet away an appropriate distance to notify residents of something that will completely alter their home value, safety, environment, and way of living? My best estimate is the city notified 15-20 residents of this proposed land use, a disgraceful effort if you ask me. Thankfully we had a neighbor who cared enough to speak up.

We have worked hard to get to this point in our lives, as have the hundreds of other proud property owners in this close knit community. We planned on this being our forever home, sadly now I want to leave it due to the reckless planning and development the city is planning. While we knew Helmholtz would change over time, we always imagined it would be with more beautiful homes, not high-density low income housing. This is one of the nicest neighborhoods in Redmond and with one decision the city is prepared to cheapen the pride of ownership we have and allow one of the few upscale areas in the city to decline.

This property was never designed for high density housing, it was originally zoned general R4 and at some point was granted a "special overlay." There are multiple issues with the proposed land use, and "affordable Helmholtz cottages" but I will name just a few.

- 1) Access to this neighborhood is not on Helmholtz, it will all be directly routed through our quiet and safe streets
- 2) Parking will be an issue and as residents of the new neighborhood have more cars than their allowed spots, they will park on our streets and in front of our homes
- 3) Crime is known to increase in high density areas. We were thrilled to live someplace we felt we could leave our door unlocked if wanted and neighbors will look out for each other, sadly that feeling would be gone if this development happens
- 4) These cottages have no garages, where will these families store their belongings without the excess becoming an eye sore?
- 5) Mr Perloe with LEDG capitol, the developer, says this will be good for Redmond. From what we can tell he is not a local, how would he know what is good for our city? I wonder if he lived next to this property if he'd feel the same? How about yourself?
- 6) Our property values will be negatively impacted, and if it evolves as other low income neighborhoods, it will only worsen over time
- 7) Is the city not required to post proposed land use signs on the property itself so all have an opportunity to see, not just the selected few?
- 8) This property in general should never have been granted high density housing approval, it only takes one look at the surrounding properties to know this was an inappropriate and careless decision

I could go on, but I think you understand our concerns.

If the plan was to quietly try and pass this under our noses, you almost succeeded. Shame on the city, the complete disregard of our opinions shows they aren't concerned about the existing community members, only how many more people we can put in all the empty spots. I don't believe for one minute there is a single homeowner in this area that would be onboard with this proposed development nor any in the future that would allow high-density housing. I would also like to believe this is not the model the City of Redmond has planned, if so, we have made a poor decision settling here. If it wasn't already clear, we adamantly disagree with the proposed land use and any

future development that includes high- density housing. As a property owner directly affected and in disagreement, I would expect to be notified of any changes and/or updates with regards to this proposal, please let me know the best method of obtaining this information.

Sincerely,
Steve and Esther Richards
360-600-0530
360-600-0428

Sent from my iPhone

Charles W. Samuelson
Karen S. Hoffman
4293 SW Rhyolite Place
Redmond, Oregon 97756

RECEIVED

DEC 13 2021

Initial: _____

December 13, 2021

Community Development Department
City of Redmond
Attention: Kyle Roberts, Senior Planner
411 SW 9th Street
Redmond, Oregon 97756

Subject: 711-21000281-PLNG (SP), 711-21-00282-PLNG (RMP), 711-21-000283-PLNG (V) |
Cottages on Helmholtz

Dear Mr. Roberts:

This letter is our written comments regarding the Project Number/Name identified above and as requested in your December 2, 2021, letter to property owners abutting the property proposed for development. We relied on the Becon Engineering, LLC. Burden of Proof Application, the Arch Land Use Submittal Package, the Civil Site and Partition Plans, and the Landscape Plan to prepare our comments.

Overview

We recommend the application as submitted be disapproved based on the lack of the required onsite two parking spaces per housing unit resulting in reliance on overflow parking on the adjacent residential streets. Inadequate onsite space for the required parking is a result of a combination of the planned number of 97 housing units and the shape of the available 7.52 acres. While the number of units on acres is within the city's density standards, the ability to fit 97 units on this site while meeting other standards, including parking spaces, is dependent on approvals from the City Engineer and of a major variance, specifically, reduction of the required 12 feet between units to six feet. The rationale provided by the developer for a major variance does not meet the criteria established in City of Redmond Development Code – Article I – Zoning Standards 8.2830 Variances (discussion expanded below).

Similarly, the flaws in the logic supporting the developer's request of the City Engineer to approve fewer than required onsite parking spaces in favor of relying on off-site parking on adjacent residential streets is discussed in detail below.

Variance for Reduced Distance Between Units

The Applicant Response on page 35 of the Burden of Proof states in part, "The requested variance allows for better clustering of the proposed units... as well as a more efficient parking layout...." There is no explanation of how 'better clustering' warrants being characterized as a special condition for a major variance as required in 8.2830 A. If this variance were to be granted it may result in a more efficient parking layout but the efficiency of the layout does not offset the inadequacy of available space which remains insufficient to meet the requirement of

two spaces per unit plus one per ten dwellings for guests. Granting this variance would have the cascading result of a need for and a reliance on adjacent on-street neighborhood parking to achieve the two-space plus guest spaces requirement. Relying on adjacent on-street parking violates 8,2830 C. in that there would be an adverse impact on the surrounding properties (more under City Engineer Approval for Reduced Parking On-site below).

This Applicant Response concludes, "The reduced spacing between the proposed houses also allows for the development to include individual yard areas for each unit, which is a unique amenity for multi-family developments." The logic of reducing space between units resulting in the creation of the ability to fence in individual unit yards is not intuitively obvious. It seems logical that the amount of available yard space for fencing would be greater with a 12 foot rather than a six-foot separation of units. Based on the provided drawings it appears reducing the spacing actually reduces the size of most if not all yards.

The importance of rejecting the request for this major variance is that by doing so it stops the cascading effects that result in relying on off-site, on street parking in the adjacent neighborhood which is the crux of our objections to this development as proposed.

City Engineer Approval for Reduced Parking On-site

The lack of an adequate number of off-street parking spaces is addressed in detail in the Burden of Proof, page 44. In the Applicant Response on that page the computations provided by the developer establish that 97 units require 194 spaces plus ten more based on one guest space for every 10 dwelling units for a total of 204 parking spaces. At this point the response states, "While the City does not include on-street parking stalls within their counts, a substantial on-street parking supply is available within public right-of-way and is intended for temporary guest use." Their following paragraph establishes that adjacent on-street neighborhood parking would accommodate approximately 50 vehicles. Their calculation and conclusion are further bolstered in the final paragraph using data from the ITE Parking Generation Manual, 5th Edition and, after factoring in peak parking demand hours and an 85th percentile parking rate, ends with the observation that "... (the required) parking ratio is easily exceeded with the proposed design that provides 1.99 stalls per unit on-site, or closer to 2.5 stalls per unit including the adjacent on-street parking along the local residential streets."

The fact the City has chosen to not include on-street stalls in computing available parking spaces as part of the requirement for 2 spaces per unit suggests a desire to constrain the direct impact of multi-family developments to the land on which the development resides and not the surrounding neighborhoods. This seems particularly desirable when the development in question is adjacent to established, predominately one-family house neighborhoods dating to the early 2000s and before. Of the 24 tax lots adjacent to the proposed development, 16 have single family units, five have duplexes, and three are undeveloped lots. The latter are on the north boundary of the property. Of these 24 tax lots two are LLC owned and three are owned by trusts of which two are undeveloped lots and one is a duplex. This is an established single family unit neighborhood to which the developer is applying the ITE Parking Manual to justify its request. At best the Manual provides decision criteria in the absence of additional information. The City has Redmond-specific additional information from which it developed the two spaces per unit standard.

To further support our recommendation of denying the request for variance and for City Engineer approval as outlined above, in the Burden of Proof on page 18 paragraph 7 of Section 8.050 - Off-Street Parking it states in part, "Required parking spaces shall be available for parking of passenger automobiles of residents (and by inference their guests)... and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business or use." The Applicant Response to this requirement is, "All required parking will be dedicated as indicated above, and will be enforced by the onsite property owner/management company, and will comply with this section." If adjacent neighborhood on-street parking is included to achieve the required number of spaces, whether for residents or their guests, this requirement cannot be enforced on public streets by the property owner/management company and goes unresolved unless it becomes a law enforcement issue. The owner/management company may claim responsibility to enforce this requirement, but it will not have the authority.

Summary

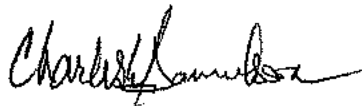
The reality of city parking, whether downtown or in a residential neighborhood at the edge of the city limits, is that people will park as close to their homes as possible. The shape of the land of the proposed development does not lend itself to convenient parking for residents in the north end of the development, the units north of Reindeer Avenue. For those 39 units there are 40 spaces. The distribution of parking spaces for the units south of Rhyolite is much better with 40 units having about 80 spaces and the strip of 18 units connecting north and south has about 64 spaces. While the aggregate number of spaces is close to the requirement, their distribution strongly suggests that a majority of residents and their guests will seek closer, more convenient parking when the weather is bad, when they have groceries/packages/children/the elderly, or at the end of a long day or night at work. Reality will drive many of them to the closer parking available on the adjacent neighborhood streets. This is the nature of residential living and it will occur regardless of how requests for variances or exceptions are resolved.

Conclusion

It is not prudent to exacerbate this reality by granting variances and exceptions to the standards and requirements that have been established to allow for and appropriately manage residential growth while retaining the character and livability of established neighborhoods. To this end the developer should be required to plan and build within the constraints of the land they purchase and of Redmond's Development Codes.

Thank you for your consideration of our observations, comments, and recommendations.

Sincerely,



Charles Samuelson



Karen Hoffman

From: Bill Samuelson
To: Kyle Roberts
Subject: Re: Your December 2 Letter to Property owners - Cottages of Helmholtz
Date: Sunday, January 23, 2022 8:08:45 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kyle – this email is an update to our response after reviewing the revised proposal. After our meeting on December 13th we reviewed the developer's original documentation in more depth and have reached a better understanding of their proposal and the impacts on us individually and on the adjacent existing neighborhood. We also reviewed in detail the revised Burden of Proof and supporting plans and diagrams submitted after the City Engineer rejected their request for a waiver regarding their parking plan. Considering the developer's minuscule change in the revision, our overall conclusion is that there is at best a corresponding minuscule improvement on the impacts to us and to the neighborhood. Our supporting conclusions are listed below. Each numbered conclusion is referenced to a lettered paragraph(s) that explains how and why we developed the conclusion.

Our original objections focused primarily on the obvious weakness of the proposed parking solutions with only a brief mention of the overall impact on the character and livability of our established neighborhood. Our more detailed review suggests that the negative impacts are much more ingrained in the design of the project than we initially recognized. The proposed development should fit as closely as possible to the identity and livability of our existing neighborhood with a minimum of detracting from the intrinsic and financial values of the residents. This proposal does not do that. Therefore, we remain opposed to the approval of the proposed development.

SUPPORTING CONCLUSIONS

1. The request for a major variance regarding distances between structures is not justified to the special condition standard of 8.2830. (Explanation at Paragraph A)
2. The size, shape, and location of the available land does not lend itself to supporting 96 units and meeting all the codes and standards, especially those that pertain to mitigating impacts on our existing neighborhood. (Paragraph B)
3. The revised proposal deleted the request for credit by counting neighborhood street parking but the fact remains that the proposed plan will result in significant use of neighborhood public streets for parking. (Paragraphs C and D)
4. Increased traffic will adversely impact the neighborhood. (Paragraphs E and F)
5. Recreational activities, especially anything that needs a play area or for group or community activities, will most likely require travel outside the project. (Paragraph G)
6. The proposed project is not a fit for the intrinsic value that drives the identity and livability of an existing neighborhood. (Paragraph H)

EXPLANATIONS

A. The request for a major variance regarding distances between structures is not justified to the special condition standard of 8.2830. The justification offered is a feel-good assertion of better clustering and an unexplained result in closer structures somehow creating more space for fenced yards. The only conclusion I can draw is that closer structures result in more structures being placed on the available property.

B. The size, shape, and location of the available land does not lend itself to supporting 96 units and meeting all the codes and standards, especially those that pertain to mitigating impacts on our existing neighborhood. The 96 units and all parking and open spaces are to be located on 5.86 acres shaped like a reverse number '7' with the widest portions located at the top and bottom linked by a comparatively narrow section. For comparison, approximately the same number of dwelling units in the adjacent neighborhood requires an area enclosed by the streets Forked Horn Butte Road, Majestic Avenue, 41st Street to Quartz Ave, Reindeer, and 43rd Street. While our neighborhood is odd shaped, the shape does not significantly constrain where units are placed. At our neighborhood's narrowest (41st Street north of Reindeer) it is almost twice as wide as the narrowest part of the connecting section of the reverse '7' shaped proposal. In our neighborhood that's roughly 99 dwelling units located on approximately three times the area proposed for the 96 units. The reality is that doubling the population of the established neighborhood but only increasing the living space by one third will have a dramatic impact on the existing character and livability of the established neighborhood.

C. The revised proposal deleted the request for credit by counting neighborhood street parking but the fact remains that the proposed development will result in significant use of neighborhood public streets for parking. The revised proposal removed one planned dwelling unit and added what appears on the new Site and Utility Plan to be five additional parking spaces. While the overall total number of parking spaces is increased, this does not improve where they are in relationship to the residences who will use them, especially the units north of Reindeer. By my count there are 38 dwelling units with 43 adjacent parking spaces. In the approximately 270 feet south from the corner of structure 24-A1-M there are roughly an additional 20 parking spaces of which 10 are labeled as EV Parking and two others at this distance are part of the 'Future EV Parking.' The required standard may be met using the computation of two paved parking spaces for each dwelling unit plus ten for guests, but the utility of the spaces appears to have been ignored.

D. This point is further demonstrated by the two clusters bordering Reindeer, a total of 17 dwelling units, that share a parking lot with only 16 parking spaces two or four of which are ADA reserved. From these clusters the proposed sidewalks to parking spaces lead only to those 16 spaces. Three of the units are closer to spaces to their rear and through their yards but those spaces are fed by sidewalks from other units. It's interesting to note that from one cluster there is a sidewalk leading to Reindeer which, intentional or not, will facilitate the use of parking on Reindeer and 43rd to ease the lack of provided parking spaces.

E. Our reviews and research also expanded our understanding of the impact on the character and livability on our existing neighborhood. The better we understood the proposed development the more we realized the negative impacts that will result. Some of these are livability and quality of life that will change as the character of our neighborhood is changed by the project. The impact of adding to an existing neighborhood 96 units with potentially upwards of 192 adults and an unknown number of children is significant regardless of any other factors. The fact that these units are compressed into a small area (less than 6 acres) and where there are no services or amenities located anywhere nearby, exacerbates this reality. The fact residents will have to travel every time they want or need any type of service or amenity is acknowledged by the developer on page 44 with the statement that, "The proposed site is located within a well isolated area of the city." From this well isolated area the most direct routes to the closest services and amenities are through our existing neighborhood.

F. The traffic impact analysis summarized on page 33 and repeated on page 53 references trip generation estimates of 821 weekday daily trips and that these trips are primarily destined east toward the core area of services. What is omitted is that every trip east is through our existing neighborhood. While an additional 821 daily trips may not exceed the city's threshold for acceptable Average Daily Traffic volume on our neighborhood streets, it will impact the existing neighborhood. Any need for services or amenities will have to be satisfied using neighborhood streets.

G. The 8.3035 requirement for recreational amenities in a development with more than 20 units lists seven acceptable options from which to choose that, "...shall be centrally located for a majority of the residents." The developer proposes on page 42 and according to the Landscaping Plan to meet this requirement with placement of six or seven single picnic tables (one of the options) and maybe five single benches scattered around the property. This does not meet the requirement stated above or the standard of, "A minimum of 15 percent of site area ... shall be provided as common open space and be suitable for a recreational play area, or group or community activities." According to the Landscaping Plan, there is more than 15% open space. However, most of the space between units that is referenced as the common courtyard shows as paved on the Landscaping Plan. Within the proposal there is no indication of dedicated or even adequate recreational or play areas for toddlers, small children, or young teens. Recreational activities beyond sitting at a picnic table or a bench, especially anything that needs a play area or for group or community activities, will most likely require travel outside the project.

H. Section 8.0141 addresses Architectural Design Standards and specifically mentions that one purpose is to promote and sustain designs that preserve and protect property values, as well as public and private infrastructure investments. It would seem desirable for a city to also want to preserve and protect the property values of its residents by exercising an appropriate level of discretion in addition to the architectural design of a project. The intrinsic value that drives the identity and livability of any neighborhood is largely dependent on the consistencies from house to house, street to street. At the higher end this is managed by zoning laws. The property in question is zoned for high density development, which, given its distance from services and amenities is a questionable choice but still a fact. Although the zoning allows for high density housing, the city should ensure that if high density housing is built, it fits as closely as possible to the identity and livability of our existing neighborhood with a minimum detracting from the intrinsic and financial values of the residents. This proposal does not do that.

I apologize for the length of this. I can send it as a pdf attachment if that would help. Please let me know if I need to clarify anything or if you have questions. Also, Karen and I are available if there is a reason or value to another meeting.

Regards,

Bill

From: [Darlene Shrum](#)
To: [Kyle Roberts](#)
Subject: Section 8 Development
Date: Monday, December 13, 2021 3:08:51 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I live on SW 43rd St. and it appears that all traffic from this large rental development will be funneled up my street and Forked Horn Butte which is adjacent to me. Both these streets dead end onto Majestic Ave which means all traffic will either turn left and wind through the streets of Majestic Ridge to Reservoir where they can then go SW to access Hemholtz or the traffic will turn right and wind through the streets of a new development before accessing Hemholtz. There has to be a better and safer alternative. Darlene Shrum

Sent from my iPad

From: [kimberly sumetz](#)
To: [Kyle Roberts](#)
Subject: Proposed Helmholtz development
Date: Wednesday, December 15, 2021 8:15:57 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello, I am writing this email to you in regards to the proposed development between sw 43rd st and Helmholtz. I live off of Forked Horn Butte Rd, and am surprised and angry that we were not notified of the proposed building of a development that is 2 blocks from our residence. We had to hear about it from word of mouth, instead of from the city who should have notified us. I would like you to know that we are vehemently against this new development! Not only would it lower the value of our house, and all the houses in the neighborhood, it would dramatically increase traffic on our street because of the new development not having access to Helmholtz rd. We do NOT want this development to happen. We will be attending the public hearing to oppose this new development and to have our voices heard. Again, it was very underhanded to only mention this new development to 5 houses, and not to everyone in the surrounding neighborhood, especially those of us that are going to be directly effected by this proposal.

Forked Horn Butte resident

[Sent from Yahoo Mail on Android](#)

From: [Margie Todd](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Wednesday, December 08, 2021 4:35:36 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello, I received a letter notifying me of the application to build 98 cottages on the site at 2052 Helmholtz. Obviously, my property at 2075 SW 41st St abuts this property.

I am trying to find out more information. I could not make sense of the map sent with the letter.

I originally thought there was a meeting, but after re-reading the letter, I don't think so.

Are these homes? Cottages, is that the new way of saying Apartments?

How can I get more information?

Thank you,

Margie Todd

From: [Anna Phelps](#)
To: [Kyle Roberts](#)
Cc: [Esther Richards](#)
Subject: Adamantly opposed to proposed "Helmholtz Cottages"
Date: Saturday, February 5, 2022 8:45:31 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Kyle,

My name is Anna and my husband and I have been residents of Central Oregon for over 20 years. Just last year we were thrilled to find that my sister and her husband were able to move closer to us and fulfill their dream of building a home just off of Helmholtz and Salmon. They are just a few months away from completing the project and as two incredibly hard-working people they will finally have a home that they worked so hard for as a Medical Assistant and Sales Professional.

You can imagine the disappointment when we found they had not been notified of what appears to be a property value wrecking project just over a block below their home. My husband is in land development so we tried to view the proposal from an objective lens but unfortunately I see no benefit here. To have an investor and builder who comes into our community from outside of Oregon, grabs a piece of land and tries to push through this development with no insight into how local families will be impacted is not only heartbreaking but also infuriating.

Traffic routing right in front of my sisters new home (have I mentioned they have a son who utilizes hearing devices for sound as he was born deaf so now their low traffic street becomes a traffic thoroughfare with over 90 units), street parking in front of their home, lack of storage leading to accumulation of items in front of the new "cottages" which, as we all know, aren't the quaint abodes one might expect from the name but rather multi family units with limited parking and communal garbage receptacles. Not the vision for "cottages" as described and certainly not a development I assume those in the planning department would want placed right next to their home.

We will be attending the meeting on the 14th as well. We will be sharing our views and thoughts with as many local friends as possible. Please keep development of Redmond with those who live here. This is an amazing place we all are fortunate to call home and there are plenty of people who would happily purchase that land and continue building in a way that honors all. We are in support of affordable housing, and let's all work together to ensure we do it in a way that promotes community rather than divide.

Please reach out with any questions.

Anna and Jeff Phelps
Annaphelps@gmail.com
541.749.0248

From: [Glenn Means](#)
To: [Kyle Roberts](#)
Subject: Low income cottages off Helmholtz and SW Forked Horn Butte Rd. Redmond, Or (Tax Lot #1513190000701)
Date: Sunday, February 06, 2022 1:50:17 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I emailed you and you emailed me back on 12-13-21 regarding this development. You said then that letters would be sent out 20 days before a planned meeting regarding this issue. I was just told that there is a meeting on Monday 2-14-22. I guess you didn't want too many people to know about it. My wife and I are completely against a low income development that would be at the end of our street. (we live on SW Forked Horn Butte Rd). I understand there is a need for low income housing but not right in our neighborhood. We retired here sixteen years ago to be in quiet well kept area and away from crime. Just the overflow parking on mine and adjacent streets will be a problem. Many of the people that rent these so called cottages will also have their friends living with them (no matter what they are not supposed to do). Once again we do not want this development right next to where we live. I don't know if you are aware of how upset my whole neighborhood is regarding the plan to build these low income units right here, but I'm sure you will.

Glenn & Linda Means
2414 SW Forked Horn Butte Rd
Redmond, Oregon 97756
541 548-1910
glmeans@bendbroadband.com

Sent from [Mail](#) for Windows

From: [ANNA MORROW](#)
To: [Kyle Roberts](#)
Subject: Helmholtz development
Date: Sunday, February 06, 2022 2:06:01 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr Robert's,

It has come to our attention that you are proposing to build a low income housing area very near our home in SW Redmond. We are writing to you to let you know our ardent disapproval with this decision.

The SW area is the best area in all of Redmond for a reason. We specifically chose this area for the quality of life we have enjoyed for the last 8 years and for the lack of family dwellings here.

We love children but we are in a different phase of life and did not wish to live with kids coming and going, riding bikes, cars and play time. Nor did we want a major traffic zone on our beautiful view lots that we pay dearly for.

In addition, our area is very calm and serene and a perfect escape after a busy work week. Everyone comments how serene and lovely our neighborhood is. A low cost housing development would completely alter our lifestyle here. We understand the need for affordable housing in CO but feel it needs to be in a different area. Redmond is a very large mass of land. You do not need to put low income housing right smack dab in the center of the best area in all of Redmond.

We feel that the highest taxed home owners in Redmond should have a say as to what we will and won't allow in our chosen neighborhoods.

This large proposed building site would bring an immense amount of traffic with no route of escape. The impact to our quiet neighborhood would be dramatically altered forever... plus lower our house values.

Please reconsider the area in which you are considering building in.

We do not want it here in our area!!!

Thank you,

Bill and Anna Morrow

Sent from my iPhone

From: [Erika Boehlert](#)
To: [Kyle Roberts](#)
Subject: cottages on Helmholtz
Date: Sunday, February 6, 2022 4:55:52 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Roberts,

It has been brought to my attention that the City of Redmond is proposing to build affordable housing cottages on 7.5 acres at the North end of Majestic Ridge on Helmholtz. I am vehemently opposed to this development. I live in the adjacent Hayden Homes neighborhood and am greatly concerned about the impact that this development would have on the traffic and safety of our community. I have worked incredibly hard to afford a home in an area in which I feel comfortable raising my family and I feel as though this is being taken away from me. I understand the need for affordable housing, but I believe there are better suited locations.

Thank you,
Erika Boehlert

From: [Barbara Russell](#)
To: [Kyle Roberts](#)
Subject: Helmholtz new homes
Date: Sunday, February 6, 2022 5:12:41 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I totally opposed the new 98 cottages/apartments unit that is proposed on SW Hemlock, off salmon street in Redmond. Traffic is already a disaster in that area, especially trying to cross Hwy 126 in the mornings and evenings. There already is a considerable amount of car/truck traffic on any given day. My other concern is water! We are in a drought, and it does not look like it will change anytime soon. I know of 3 residences in the immediate area whose wells have dried up. I do not think we can support and condone more building in SW Redmond, with the traffic issue as well as our water problem. I would totally support a building moratorium for the next 10 years. No more housing!

Barb Russell
3545 SW Valleyview Dr
Redmond

From: [Lori Kallberg](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Sunday, February 6, 2022 5:14:32 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Kyle,

Here are my concerns regarding this new application.

1. Who got to vote on what properties are high density? Were we notified in 2017 for this property to be zone change? Or was that just the prerogative of city and owner of that said property?
2. In looking over the plan, the lack of parking doesn't seem fair. Shouldn't each home have at least 2 spots per unit WITHIN their developement so as not to impose impact on abutting neighbors?
3. There has to be major traffic implication with 96 units. If the city doesn't think so....then why don't they allow them direct access to Helmholtz. Why burden the original neighborhood to deal with excess cars, trucks, vans, etc.
4. I did not notice any green spaces? Where do the kids play, the dogs poop, etc?
5. Garbage enclosures....have you seen the ones on the corner of S. Canal and Salmon? Because they are rental units....there are constant old mattresses, broken chairs, old TV's, etc overflowing that section. No one wants to look at that. How would this be addressed?
6. What is workforce wages? My neighborse work or are retired. Would they be consider work force? Is this just a PC way to say low income?
7. Are there any HOA's? Such as old appliances out on decks? There just seems to be no pride of ownership when it's all rentals.
8. I don't want to see more light polution. But with all those parking units, there wil have to be much lighting just for safety. How do they preserve night skys?
9. Where is the landscaping? Will it surround the property such as Hayden Homes does?
10. Our quiet neighborhood I think will change into a Gresham, apprtment filled, high crime. Will they have an onsite security with their maintainance? Or will Redmond Police be streached to monitor it and just absorb it with their already taxed schedules?
11. It looks like there are 5 Units directly across from my 1 house. These must be jammed together to get that many in the same space as my 1 home. Is this ideal?
12. The corner of Rhyolite and their enterance will become a thourowfair. Not my idea of quiet community.
13. What happens with the corner of Highland and Helmholtz. Accidents there all the time. Now add in 100 or so more cars along with the new home by the new high school.
14. I ask that at least the parking request has to be amended. Deleting on cottage seems to be a bandaid on raftboat. Won't make a dent in the outcome.

Thank you.

DeLori (Lori) Kallberg

541-410-2119

4292 S. W. Rhyolite Place

From: [lonvb22](#)
To: [Kyle Roberts](#)
Subject: STRONGLY Opposed to "COTTAGES ON HELMHOLTZ"
Date: Sunday, February 06, 2022 7:02:43 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Kyle,

Thank you for the opportunity to provide my input on the proposed "Cottages on Helmholtz."

I know your time is valuable and limited, so I will be as succinct as possible.

I was completely shocked and honestly angered that those of us living in what I will call the "area of direct impact" were not notified of this massive project that would fundamentally change our neighborhood if it were approved as presented.

My bottom line: **I am 100% opposed to the plan as proposed.** I am 100% in support of low-income housing options, but my opposition to this specific project lies in the following reasons:

- 1) This absolutely does not fit in with one of the most desirable neighborhoods in Redmond. Majestic Ridge and its immediately surrounding neighborhoods are single-family homes and this needs to stay consistent on this specific plot of land.
- 2) Keep Majestic Ridge the gem of Redmond that it is by ensuring that anything developed on this plot of land has a) single-family dwellings, b) a driveway and garage, and c) a private yard. This can certainly be done on a scale that makes the homes more affordable
- 3) No access to Helmholtz. Any development made on this plot of land needs immediate ingress/egress from/to Helmholtz. Routing traffic into existing neighborhoods is simply not okay. Most of us chose to build/buy in this neighborhood because of the peacefulness of it. The project as proposed absolutely takes that away from us.
- 4) Traffic in existing neighborhoods. My wife and I bought and built in Majestic Ridge for its views and quiet setting. Our tranquil setting would be directly and negatively impacted by the massive increase in traffic on SW 43rd St.
- 5) Parking. There is simply not enough of it in the proposed plan. Bottom line, too many units on too small of a space means cars parked all over the streets.
- 6) If the goal of this project is to provide low-income housing then it needs to be located closer to critical services and stores, where access to public transportation is more readily available

I fully realize and support that something will be built on this land. I would humbly propose the following items be mandatory requirements of any proposed land use before the city approves it:

- 1) The number of units must be reduced so that the density of the homes matches the surrounding areas
- 2) Immediate access to Helmholtz for the development
- 3) Again, all homes be single-family dwellings with a driveway, garage, and yard space

Thank you again for your time and for your service to our community. As a teacher in Redmond for 19 years, I fully understand what it means to be a public servant and I appreciate all that you do to keep our amazing city and neighborhoods just that, amazing places to live.

Anthony J. Brown
Majestic Ridge Resident

From: [Kilah Atkinson](#)
To: [Kyle Roberts](#)
Subject: Cottages on Hemholtz development
Date: Sunday, February 06, 2022 7:40:20 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle. My name is Kilah Atkinson. My husband, Raun, and I live on 39th Street in SW Redmond with our twin 8 year olds. It was brought to our attention that the city is considering a new development in our neighborhood and we wanted to share our concerns.

One of our biggest concerns was learning that this development will not have access to Hemholtz. Because of this, our street will be directly impacted by the increased traffic as it is the main street to get from Salmon to Reservoir. Our family has observed vehicles speeding on our street too often already, such that we are already nervous about the safety of our children when they play in our front yard. With the estimated 96-98 "cottages" added to the neighborhood and the numerous vehicles associated with each multifamily home, the traffic on our streets would almost certainly get much worse.

We do not want to come across like we are just saying "not in my backyard." In fact, we believe Redmond, and all of Central Oregon for that matter, needs additional housing options. We are just concerned that the impacts this new development might have, especially if it doesn't have access to Hemholtz.

We hope the city takes this concern seriously and considers the impact the current proposal would have on our neighborhood. The drastic change this very likely would impose on this neighborhood and its many children.

Thank you for your time and consideration.

Have a great day!

Kilah and Raun Atkinson

From: [Teresa Brown](#)
To: [Kyle Roberts](#)
Subject: Opposition to the Cottages on Hemholtz
Date: Sunday, February 06, 2022 9:30:05 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Kyle,

Like many of my neighbors, I was completely blindsided today when I learned about the plan for the Cottages on Helmholtz.

My husband and I live just one block away from where the proposed low-income housing project is. This project would dramatically increase the traffic on our street, seriously degrading the tranquility of the neighborhood that drew us to build here just six years ago, as well as reducing the value of our home. With such a high potential for serious negative impacts we would have expected to be notified about such a project, yet we have never been notified of this by the city of Redmond. How is it that something that is so out of place (our neighborhood and those around us are single-family dwellings) and so impactful could be proposed without notifying **all** of the people directly affected in the surrounding areas? We understand that the city notified people within a couple of hundred feet, but what about the rest of us? **Everyone** who stands to see a direct and negative impact from the traffic alone should be notified by the City of Redmond and given an opportunity to have their voices heard. This includes, but is certainly not limited to, people along SW Reindeer Ave, SW Forked Horn Butte, SW 41St, SW 43rd St, SW 4th St, SW Salmon Ave, SW Salmon PL, SW Majestic Ave, and more.

Lastly, the location for the low-income housing just doesn't make sense. Besides not matching the makeup of the surrounding neighborhoods, the proposed location is not within walking distance of any services, stores, medical facilities, etc. nor is it close to public transit. We fully support the need for low-income housing in Redmond, but this location just doesn't make sense for the reasons listed and more. There are so many more locations that are closer to the places listed above that would be a much better fit.

So, in closing, I am asking for three things:

- 1) Pause the whole thing until at least everyone mentioned above (by street) gets notified and has a fair opportunity to weigh in on this proposal.
- 2) Listen to and respect the will of the people who live in the vicinity; we are very upset with this proposal and **expect the city to not approve it**; certainly not as proposed at least.
- 3) Ensure that whatever project gets approved on that land matches the surrounding areas; specifically single-family homes with driveways, garages, and yard spaces. These home sites could be smaller and achieve many of the same goals of providing people with lower-income options, while still maintaining Majestic Ridge and its surrounding neighborhoods as the finest of Redmond and among the best in all of Central Oregon.

Thank you for your time.

Teresa Brown
Majestic Ridge Resident

From: [Anita Fowler](#)
To: [Kyle Roberts](#)
Subject: Helmholtz Section 8 Housing
Date: Sunday, February 06, 2022 8:57:24 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Mr Roberts,

I'm writing to say I just heard about the proposed low income, section 8 housing project. I am writing to ask you to consider the people that live in this area already, who chose it for it's serenity and curb appeal. This project would most certainly increase traffic substantially through residential streets. It would lower the overall home values of residents like myself who pay a lot to live here in Southwest. It would place us in a depreciated state overall. I'm not even certain how or why section 8 housing would even be considered in such a desirable area of Redmond. I couldn't even afford land off of Helmholtz, so I'm not certain how this area ever came into play. I feel this is not right or considerate to the residents who pay high taxes to live here. We've already had cookie-cutter Hayden Homes build and more land purchased to build more. We also have "apartment row" off of 35th and now off Canal as well here in SW which already creates devaluation of the areas homes, many of them custom homes. Now you want section 8 housing as well. Where does it end for the need of overcrowding and the devaluation of property. We even have a homeless shelter smack downtown now. This is not how Redmond residents want to live. I dread having the influx of the traffic, the decreased home value and paying even more taxes to accommodate this venture. There is always an alternative to build in outlying or new areas, instead of already established areas. We have Police Officers, Sheriffs and even a Mayor that live here up on the hill. I strongly oppose this idea and ask for your reconsideration on the matter.

Thank you,
Anita Fowler

Sent from my T-Mobile 4G LTE Device
Get [Outlook for Android](#)

Sent from my T-Mobile 4G LTE Device
Get [Outlook for Android](#)

From: [Byron Hadley](#)
To: [Kyle Roberts](#)
Subject: Opposition to Cottages on Helmholtz from nearby homeowner
Date: Sunday, February 06, 2022 8:56:19 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle. I've had some time (but not as much as I would like) to review the materials and ponder the significance of the proposed development "Cottages on Helmholtz" (hereinafter "Cottages"). I've devoted enough thought to this situation that I have confirmed that I and my family are opposed to this development.

Our home is only about 3 houses down from the proposed Cottages. We do intend to appear at the February 14 meeting. Especially since we may not be able to speak for a variety of reasons, please consider these written comments. In doing so, please also realize that these concerns by me and other neighborhood residents cannot possibly be exhaustive given the limited amount of notice we have had of this development and upcoming hearing. In other words, there would undoubtedly be additional important considerations that we could collectively provide if only we had been allowed more time (or given more time if the development was postponed for additional research).

I appreciate the City of Redmond letter dated January 20, 2022, that notified us of the February 14 hearing. Unfortunately, even that letter was too little, too late in terms of proper notice. We did not physically have the notice in hand until January 30 when we retrieved it from our mailbox. That was the first inkling we had of any proposed plan for that nearby property. I have since learned that, of course, discussions and planning for the Cottages had been occurring long before that notice. Yet, at no point prior to the January 20 letter did the City or the developer provide reasonable notice of the plans to residents like myself. Even if the City and developer technically abided by basic notification requirements (which does not seem likely), as a practical matter residents like myself were still deprived of sufficient notice to weigh in on the issues. We were not notified early in the development phases, when public comments would have been most helpful. Now, there is not enough time for people like me who (like most other people) have the competing demands of a job, family, and daily living. Given those competing demands, neighbors like us simply don't have time in less than one month to perform the necessary historical review and proper investigative inquiry to be satisfied that our families and neighborhood won't be adversely affected, and that the public interest will be appropriately served.

The notice that the City and developer has provided so far is demonstrably unreasonable. Initially, only homes within 100 foot were notified. We apparently only received notification because notification was later expanded, to homes within 250 feet. Even that basic notification was not sufficient given the much, much wider impact to the surrounding neighborhoods beyond 250 feet.

It is also not surprising given that, until prompted by notice of the proposed Cottages, we also did not know about the development nearby at 4300 SW Quartz Ave. To the extent that the City received few (if any) public comments on that project, please understand that was due to a lack of notice, not a lack of interest or the absence of useful counter-information and arguments. (Regarding the Quartz Ave project, and as an aside, do you have any information about why that property is now for sale?)

Getting back to the issue at end, even a very limited review shows that the proposed Cottages will not mesh with the style, tone, expected growth patterns, and normal usages (utilities and otherwise), expected of the surrounding neighborhoods. Please just look at the CCRs for the surrounding neighborhoods, and see how widely the proposed Cottages diverge from the styles and intended development contained in those CCRs.

As just one of many concerns, why is traffic from the proposed Cottages not going to be funneled to and through Helmholtz? Why should the existing, surrounding neighborhoods bear the burden of the traffic necessarily resulting from ingress and egress? This is just one concern that is meant to be illustrative, and not exhaustive.

Why shouldn't the City allow additional housing, but require that it be a neighborhood of homes with garages and other basics like the surrounding neighborhoods? To the extent that the City is concerned about making housing affordable, why would the City support discriminating against poorer (and therefore more vulnerable) residents by allowing them to be deprived of garages and appropriate living space, when the City would not have allowed such building practices in even more expensive neighborhoods (like when our home was built)? In other words, although arguments for approval of the Cottages might be cloaked in the idea of benefiting lower income residents, it is actually a thinly veiled way of taking advantage of those future residents by depriving them of housing consistent with the theme and style of the surrounding neighborhood. We are not opposed to development of the land, but it should be done in such a way that it respects both the future residents and the surrounding neighborhood.

With no garages associated with the proposed Cottages, residents of and visitors to the proposed cottages will undoubtedly park in nearby streets, including in front of our house (which is again, just several houses away). Why should my family and our guests have to fight for parking in front of our very own home? What enforcement mechanisms (if any) are the City prepared to use to make sure that parking is preserved for current, established residents in the surrounding neighborhoods?

Please, please do not allow this proposed Cottages development to go forward. Its design is a disservice to both the current neighborhoods and future residents whom we would otherwise like to welcome into our community.

Sincerely,

Byron Hadley
503-851-4290

From: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Sent: Monday, January 31, 2022 12:24 PM
To: Byron Hadley <oregonlaw@msn.com>
Subject: RE: Cottages on Helmholtz, how can I obtain more information? (2 of 2)

No problem. Don't hesitate to reach out if you have any questions. Have a great week!

Kyle Roberts, AICP | City of Redmond
Interim Planning Director

phone 541.923.7758
cell 541.233.8180
email kyle.roberts@redmondoregon.gov

411 SW 9th Street Redmond, Oregon 97756
Online at WWW.REDMONDOREGON.GOV

From: Byron Hadley <oregonlaw@msn.com>
Sent: Monday, January 31, 2022 12:23
To: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Subject: Re: Cottages on Helmholtz, how can I obtain more information? (2 of 2)

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Received! Thank you very much. I really appreciate your quick responses, and hope you have a great week!

Byron

From: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Sent: Monday, January 31, 2022 7:50 AM
To: Byron Hadley <oregonlaw@msn.com>
Subject: RE: Cottages on Helmholtz, how can I obtain more information? (2 of 2)

See additional plans attached.

Kyle Roberts, AICP | City of Redmond
Interim Planning Director

phone 541.923.7758
cell 541.233.8180
email kyle.roberts@redmondoregon.gov

411 SW 9th Street Redmond, Oregon 97756
Online at WWW.REDMONDOREGON.GOV

From: Byron Hadley <oregonlaw@msn.com>
Sent: Sunday, January 30, 2022 22:31
To: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Subject: Cottages on Helmholtz, how can I obtain more information?

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I just received the City's letter about a hearing on February 14, 2022 at 4:30pm, regarding the "Cottages on Helmholtz." Thank you for the attached diagrams, but the print is WAY too small for my aging eyes to read. Also, I can't seem to find more information about the proposed project on your website.

Could you please: (1) send me a digital version of the diagrams and information you included with the letter, so that I can zoom in to read the material on my computer as needed, and; (2) email me (or let me know where I can download) any additional information about the proposed projects?

I do not live near Redmond at this point, so it is not possible for me to come physically review the available documents. I am hoping that electronic versions are available so that there are no copy costs.

Thank you for your patience and help with these requests.

Byron Hadley
503-851-4290

From: [Tim Hartman](#)
To: [Kyle Roberts](#)
Subject: Helmholtz Cottages development
Date: Sunday, February 06, 2022 8:10:05 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi,

We received your notice on our door of the proposed development off of Helmholtz. We too are opposed to the development and feel it is not the proper location for the applied use. Workforce housing rentals and low-income housing needs to be located near amenities, allowing use of public transportation, sidewalks, and bike paths to provide ease of access to basic needs and places of employment. Near farmland and the most expensive tracts of housing at the current edge of Redmond is not the ideal location for this use.

Thanks,
Tim & Kari Hartman

From: [DAN LINDA JACKSON](#)
To: [Kyle Roberts](#)
Subject: Opposition to Suggested Land use for 2052 SW Helmholtz Way, Redmond, OR 97756 (Tax Lot #1513190000701)
Date: Sunday, February 06, 2022 6:41:46 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Kyle,

We are very concerned about the proposed housing development planned for 2052 SW Helmholtz Way. This land should be zoned for single family dwellings, as this is what is currently located next to this piece of property, on all sides. Also, the surrounding homes are nicer homes, not low income housing. The current proposal could potentially 1) increase traffic, 2) decrease community safety, 3) lower current property values, 4) create parking issues in the adjoining neighborhood, and reduce the overall desirability currently enjoyed by the current home owners in this area.

We want to go on record, as being opposed to the present proposal being considered for this parcel of land.

Thank you for your help in achieving the goal to get this parcel properly zoned.

Sincerely,

Dan & Linda Jackson
4167 SW Majestic Ave.
Redmond, OR 97756

Sent from [Mail](#) for Windows

From: [Christine Jaeggli](#)
To: [Kyle Roberts](#)
Subject: Helmholtz cottages
Date: Sunday, February 06, 2022 6:10:29 PM

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I am highly opposed to the construction of 96 additional homes in that area. The traffic has been increasing at an astonishing rate since I have moved here. I bought my house in Redmond five years ago, because I loved the small neighborhood feel. I loved being able to walk the streets and there was no traffic. The quiet streets aren't so quiet anymore and this will only increase the traffic, and what about when they are racing to get out of the neighborhood to get to work on time? If you can let me know of any good that will come of this development, please let me know

Chris Jaeggli

Sent from my iPad

From: [Rob James](#)
To: [Kyle Roberts](#)
Subject: Helmholtz Affordable Housing Cottages
Date: Sunday, February 06, 2022 8:12:42 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Roberts,

As homeowners in the new Hayden Homes development, Emerald View Estates, my wife and I strongly object to this new multi-family development for 96 cottages/apartments proposed to be built in our backyard. We bought here 2-1/2 years ago, hoping to be able to retire in the next several years.

We are extremely concerned that this high density housing will create a lot more traffic through our quiet neighborhood. We also have strict CC&R requirements to keep our neighborhood clean and appealing. But high density housing in our backyard will destroy the look and feel of our neighborhood. These types of cottages/apartments are built with very limited storage space, so excess property inevitably piles up on porches, in backyards, and sometimes even in front yards. Once this becomes a problem, property values will start to drop. They are also typically built with insufficient parking, which means residents will be forced to park on the neighboring streets and adding a lot of congestion there.

Most importantly of all, we are concerned about the high potential for increased crime in our neighborhood. High density housing almost always comes with an increase in crime and at a cost to safety and quality of life for those in the surrounding neighborhoods. This will become a much less desirable place to live.

Please put a halt to this proposed development.

Sincerely,

Robert and Dannette James

From: [Tammy Phillips](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz Project #/711-21-000281-PLNG (SP) etc.
Date: Sunday, February 06, 2022 10:54:26 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Kyle Roberts,

I am e-mailing you in regards to the Cottages on Helmholtz Project#/711-21-000281-PLNG (SP), 711-21-000282-PLNG(RMP), 711-21-000283-PLNG (V)| Cottages on Helmholtz.

My name is Tammy Phillips and I live at 4204 SW Salmon Ave. in Redmond Oregon. My house is located one house up from the intersection of 43rd st and Salmon Ave. SW. I am very concerned about this project the city is considering approving. From looking over some of the plans my concerns are the following:

1. ACCESS. There is no direct access off of Helmholtz. That is a huge concern for me because, that means the traffic will be going on Salmon avenue and 43rd st respectively. My nice quiet neighborhood street is going to be turned into a high volume traffic nightmare. Salmon avenue was never intended to be a major feeder street. The number of times cars will be going up and down the streets will have increased by over 820 trips.
2. TRAFFIC. The number of cars going in and out of the Helmholtz Cottages via SW Salmon Ave. and 43rd st will increase traffic significantly.
3. PARKING: The plan calls for two parking spaces per unit but it also says there will be plenty of off-site parking. Fifty to fifty one cars worth. That means my neighborhood and myself will have cars parked up and down the streets in front of our houses.
4. ZONING: It is my understanding that this was zoned R-4 Residential. Which I am ok with. I'm not sure of when or how the high density overlay was applied to this property since it was zoned R-4. Who changes and approves these? I am not ok with the high density overlay.
5. CITY METHOD OF INFORMING NEIGHBORS: I have a real concern about the lack of communication the city uses with only informing neighbors within 100 feet of the property of changes, hearings, zoning. There is not even a sign up informing about the hearing. I live kitty corner and one house up from the land and received no notice of any of this. It doesn't appear that the city wants to be very transparent when it only informs people within 100 feet of the stated property. This will impact whole neighborhoods with the increase in traffic because of lack of access to the proposed site and the number of cottages they want to pack into this area.

I am strongly opposed to this project 711-21-000281-PLNG (SP), 711-21-000282-PLNG PLN (RMP), 711-21-000283-PLNG (V) Cottages on Helmholtz because of the concerns stated above.

Sincerely,
Tammy Phillips

From: [KELLIE POWER](#)
To: [Kyle Roberts](#)
Subject: "Cottages on Helmholtz"/Opposed - 2052 Sw Helmholtz development
Date: Sunday, February 06, 2022 6:49:47 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kyle,

I am writing you in regard to the potential development known as the "Cottages on Helmholtz" and concerns I have not only about the development, but also the way in which the neighborhood was notified.

It was brought to my attention in late November/early December that a new development would be going in down the street from our home. Unfortunately, I was advised of this via a select few of my neighbors who had received letters from the city since they are within 100 feet of the development site. Upon hearing this, my husband reached out to the city planning office and was told that indeed a new development was going in, and it would be a "55 and older" community. Shortly after we spoke with the city planning office, we were informed (again by neighbors and not the city) that the development would actually be a "96-98 unit workforce housing/Section 8-low-income housing" development. I have just learned (via my neighbors AGAIN) that another round of letters was sent within the last couple of weeks to homes within 250 feet of the development site. This new development will have a direct effect on the neighborhoods within a two-mile radius of its location. I find it disconcerting that only a few select neighbors to this potential development were notified, as well as the fact the city planner's office was less than forthcoming as to what this development actually is. Based on this, I get the impression you already knew this neighborhood was not going to be happy about this new development.

As far as the development itself, our household is strongly opposed to it. We have lived in the Juniper Hill/Majestic Ridge Subdivision for 13 years. During this time, we have seen our neighborhood grow with beautiful new custom homes and single-family subdivisions. All who live here take great pride in ownership and have a sense of safety and well-being within our neighborhood. It is a quiet area with minimal traffic and a true sense of community among neighbors.

We bought our home knowing the property at 2052 Sw Helmholtz would eventually be developed. We, like many of our neighbors, had hoped the property would be developed into single family homes which would match the character of current homes in the neighborhood. We hoped whoever developed the property would take into consideration our views, our quiet streets and our sense of privacy, as Hayden Homes did with their expansion of the Summit Crest and Emerald View Estates neighborhoods. We would like to think that adding a 98-unit workforce housing development to our neighborhood won't affect our quality of life here, but in reality, it will.

Considering the fact there will be no access from Helmholtz to this development, our streets will see a significant increase in traffic. If you figure each unit has 1 vehicle associated, that's 98 additional vehicles traveling our streets each day. To take it a step further if each unit has 2 vehicles associated that's potentially an additional 196 vehicles. It may not seem like a lot, but for a neighborhood such as this it is a massive increase in potential accidents and speeding in a residential area. There is also the issue of visitor parking for this development as well as vehicle storage which could potentially be on our streets.

Historically, as we see at other multi-family developments throughout our city, the instances of crime increase significantly in neighborhoods bordered by low-income housing. I can say this honestly as I worked in public safety for almost 20 years, these types of high-density housing developments invite negative behavior. By adding an additional 98 units on a 7.5-acre lot, I guarantee crime will go up in our area and our sense of security and community will diminish. This is not something we or our neighbors would like to see happen in our peaceful neighborhood.

I understand the need for affordable housing in Redmond. It is a problem that is plaguing our entire county. I don't

agree that adding 98 "cottages" to the property at 2052 Sw Helmholtz is an adequate solution to this issue. The property itself is on the fringes of the city and there are no resources readily available such as public transportation, grocery stores within walking distance, etc. I realize the property has been designated for this type of development however, based on neighborhood growth over the last 5 years, I would hope the city would reconsider using this property as a single-family home development with residences that tie in with the surrounding neighborhood. By doing so, this would help the area maintain the sense of community and security we have all worked so hard to achieve.

Thank you for your time,

Kellie Power-Denning

From: [Sharon Sharon](#)
To: [Kyle Roberts](#)
Subject: Comments OPPOSING Cottages on Hemholtz
Date: Sunday, February 06, 2022 6:33:55 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kyle,

I own a home in Redmond Oregon at 4233 SW Salmon Ave. We received a letter from you regarding a proposal for a 96 unit multifamily development at 2052 SW Hemholtz Way.

Our home is separated from this proposed complex by only TWO HOMES.

Please explain why there is no road access off of SW Hemholtz? I thought the physical address had to have an access to the actual street listed as the address. Isn't this true? This access alone would reduce traffic through the neighborhoods significantly.

How would you feel if you lived in this neighborhood? If your children could no longer play near the street because traffic has increased exponentially? Or if you work from home like so many of us do anymore, no longer peaceful, with interruptions from street noise, foot traffic, and strange cars parked in front of your house used as "overflow parking"? Please put yourself in our shoes.

The homes in this neighborhood range in value from \$500,000 to over \$900,000 at this time. The impact to our property values would be significant.

The increased traffic (estimated over 821 cars per day), noise, street parking, crime, vandalism, litter, and most of all, lower property values, are all my reasons to be wholeheartedly OPPOSED TO THIS DEVELOPMENT. This is so wrong!

Please deny this proposed development and their major variance request, and allow only single family homes that are comparable to the others in the neighborhood. Thank you for your consideration.

From a concerned home owner,
Sharon Hadley

From: climbingscott@comcast.net
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz 711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP), 711-21-000283-PLNG (V)
Date: Monday, February 07, 2022 2:14:04 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Kyle Roberts:

My name is Scott Phillips and live at 4204 SW Salmon Ave, Redmond. I am located very near the Helmholtz Cottages that are under consideration of approval at 43rd and Salmon.

I have some discussion points about the project that I'd like to express with great concern:

Notification of the neighborhood: The initial letters from the City of Redmond were sent to homes that were only 100 feet from the subject property. This only included about 20 homes. The most recent letters were sent to homes within 250 feet (and I still didn't get a letter). I find that inadequate notification of a project that will affect three different neighborhood developments and more than 150 homes.

High Density Overlay: I am unfamiliar with the process of how a High-Density Overlay is applied to a section of property. This section of Redmond is not a good fit for such a designation and the overlay should be reconsidered for this property.

Housing Type: The neighborhoods surrounding the proposed development are mostly owner-occupied housing except for a few duplexes and rental houses dispersed throughout the area. This area is not the right place for low-income rental units such as these. Despite what an out of state development firm professes. I would much rather see a local developer build single-family, owner-occupied housing in that area.

Building Design: I'm not an architect or a structural engineer but the design of the buildings seems to be susceptible to snow load damage between the connected cottages. They are also going to be prone to wind damage and driving rain with 2" eaves around the perimeter of the buildings. I'm not convinced that the building design was done by someone who knows Central Oregon weather. Lastly, the design of the buildings does not match the architectural design of the surrounding neighborhoods.

Storage: One thing all the homes that are in the surrounding neighborhoods provide are garages and adequate driveway parking for vehicles and storage for personal belongings. According to the "Design Submission" dated 10-6-2021, the cottages have no garages and no storage for personal belongings except for very small, fenced areas for each dwelling. Without proper management there is potential for dilapidated vehicles in their parking lots and our streets and overflow from the fenced areas. This would become a blight on the adjoining neighborhoods.

Parking: The number of parking spaces for the development is inadequate. There should be a minimum of one parking space per bedroom. That would bring the parking requirements to 270 spaces to meet demand of future demographics of the occupants. Yes, even low-income families have several cars in their household. They may not be able to afford their own house, but they spend their money on more cars with an abundant amount of used car dealerships out there and low costs to purchase them.

Traffic: The infrastructure around the Helmholtz Cottages is inadequate to support the increased flow of traffic that the developer calculates in their documentation. My guess is that they low-balled the figures, and you can add at least 50% more to the numbers, conservatively. Salmon Ave is not set up to handle another 800-1200 trips per day. The intersection at Salmon and 37th already sees many people running those stop signs (as discussed with neighbors near the intersection) and then the jog at 36th St is too busy now. Not to mention the curves on Salmon east of 36th. The entire length of Salmon will become a serious safety concern.

Property Values: My neighbors and I have invested a lot of money, time and sweat equity in the homes we live in around here. Some of us would like to call them our "forever" home. Many are seriously considering moving if these cottages are approved, which is unfortunate. These cottages will not help with our property values and the equity we have in them. We have a lot of "Pride of Ownership" in our homes around here.

Conclusion: I will end this letter with a few bullet points:

- I feel that the City of Redmond is trying to pass this development without due process of adequately informing all interested individuals.
- An out-of-town developer does not know what is best for a community. I believe that they are just trying to get a foothold into a new state that they haven't built in yet. I'm sure that money is the main driver here, not community involvement.
- The main theme of the development does not fit the area in which it is proposed. Dwelling ownership, building design and property development design all do not fit the surrounding neighborhoods or Central Oregon, for that matter.
- The land should be changed to single-family, owner-occupied dwellings with codes upheld for garages in the design. Preferably built by a local builder that has a stake in Central Oregon and has a reputation to uphold.
- Lastly, I am adamantly against the approval of the Helmholtz Cottages as proposed by LEDG Capital, LLC. The City of Redmond should not approve the development.

Sincerely,

Scott Phillips

Cell: 458-256-8904

E-Mail: climbingscott@comcast.net

From: [RON MCCOY](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Monday, February 07, 2022 6:06:36 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle,

Thank you for the work you do on behalf of our community.

The purpose of this email is to register a no vote for the building project "Cottages on Helmholtz". With the proposed location at the North end of Majestic Ridge, it would cause extreme pressure on neighborhood traffic, and parking - resulting in public safety issues for our residents.

Please deny the permits necessary to build this type of facility at this location.

Thanks again,

Ron & Rickie McCoy

From: [Annie Lampella](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Monday, February 07, 2022 7:09:58 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I wanted to express my concerns with the proposed "Cottages on Helmholtz" development.

1. Traffic - To have a high density development of 96 units in such a small area will yield a tremendous amount of traffic. There is no outlet to Helmholtz so all of our side streets will absorb the traffic. I'm sure the 800 cars a day the developer estimated is on the low side given that most people in a high density development have more than one family and at least 2-3 vehicles per family. The streets in our neighborhood are busy enough with cars already speeding by. Even if there were an outlet to Helmholtz, we would still get a large amount of traffic through the neighborhood as it's the fastest way to get to the South end of town.
2. Parking - I'm not sure why the developer thinks there is plenty of street parking. There is not! Our streets are very narrow and would not accommodate cars lining both sides of the streets.
3. Home Value - Any proposed development is supposed to match the existing neighborhood in order to preserve home value. This is what our city code reads. Having a high density development, especially affordable housing, in one of the nicest neighborhoods in Redmond will drive down home value.

I grew up in Redmond. My grandparents have been here since the 1940s - going on 80 years now. We decided to raise our family here because we love the community. When I moved back after college, I was impressed by the growth and the infrastructure that was built while I was away. I loved to see that Redmond was finally meeting its potential. I understand that there is a need for affordable housing but this proposed development is in the wrong location. Nothing about this project makes sense. Redmond still has plenty of room for growth. **I urge the city to reject this proposal!**

Thank you for your time.
Annie Lampella (Mayfield)
2356 SW 43rd St
Redmond OR

February 5, 2022

Dear Kyle Roberts,

We are writing to express our concerns about the development of the cottages off Helmholtz Road and our opposition to existing plans. As it currently exists, Southwest 42nd Street is a cul-de-sac and was intended to be a cul-de-sac based on all previous city planning. It was one of the driving factors in our decision to live on this street. The development, as currently proposed, is unworkable as it appears to use SW 42nd Street as one of the primary outlets of the development.

We have concerns that turning our street into a through-street would drive a lot of traffic through our neighborhood. This poses many noise and safety concerns for those of us on 42nd street and the surrounding area. There are multiple families on our street whose children enjoy playing in the cul-de-sac without worry of traffic, but turning this into a through street would negatively impact the current quiet and safety of our community.

Furthermore, plans for the cottages do not appear to have adequate parking spaces which we believe will lead the residents and their visitors to find additional parking along the surrounding streets such as our own. Construction has already begun on the 16-home development immediately to the north of the

cottages, to the west of 42nd Street which is likely to cause an influx of traffic in our neighborhood, we are concerned to learn that our street may now also be impacted also by even more traffic created by these 96 homes proposed along Helmholtz.

The outlets proposed in the current plans do not support a 96 home community, introduce increased volume of traffic to our community, and also fail to consider a direct outlet to Helmholtz. For these reasons, we request a redesign of this development. Helmholtz Road is currently the only outlet for the existing lot. If this existing outlet is not sufficient enough to support the plans for the cottages, we suggest that either 1) the City of Redmond take measures to make Helmholtz a safer road that can support the increased volume of traffic or 2) the developer considers a plan that includes lower density housing better suited for this area. We do not support the current proposal of traffic being routed through our neighborhood and oppose the current plans.

Sincerely,

The Homeowners and Residents of Southwest 42nd Street

Patrick & Dakota Bigos

Paige & Zach Thomack

Thomas Rice

Vanessa Wendler

From: [Lisa Stunkel](#)
To: [Kyle Roberts](#)
Subject: Development on Helmholtz!
Date: Monday, February 07, 2022 7:50:14 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Roberts,

I'm writing you today to voice our disapproval of the new development proposed on Helmholtz. Although, we are not opposed to offering affordable housing, this location is not appropriate for several reasons!

The biggest concern is diverting traffic onto residential streets where we are already seeing a huge increase in traffic. Another important reason is making sure a development in this location maintains the beautiful character of the neighborhood. It saddens me to see Redmond sell their soul and grow irresponsibly.

Listen to your residents and do the right thing and rethink what you put in this location!

Regards,

Lisa Stunkel

Sent from my iPhone

February 7, 2022

City of Redmond, Oregon
Attn: Kyle Roberts, City Planning

To All Whom It Concern:

We submit this e-mail letter to the City of Redmond on February 7, 2022. We are owners and reside in our home on SW Salmon Avenue, quite close to the proposed Cottage complex.

We oppose development of the Subject proposal for a number of reasons. Furthermore, noted is the fact that the City of Redmond notified only persons living within a minuscule 250 feet of the proposed development is an unreasoned, unreasonable, inconsiderate and ludicrously short-sighted action of the City.

It gives the appearance that the City has no thought or concern of how far-reaching the incredibly adverse impacts of such a development would be to the existing extensive single-family high value residential home communities that abut and extend for several blocks from various sides of the proposed development.

We briefly enumerate some but not all of our reasons of opposition to the location of this development:

1. The routes and impacts of vehicular access/egress of the complex has not been adequately assessed, nor adequately provided for. City residents have not been informed of any possible viable options to consider or to provide comment or input regarding this very serious matter. As proposed, there would be no safe nor even reasonably safe access/egress to the Cottage complex's 96-98 housing units site.

As presently designed with no vehicular access into the complex from Helmholtz, the majority of heavily increased traffic to access the complex would be via SW Salmon Avenue, and possibly by two other streets of like-type presently quiet and reasoned safe-trafficked residential neighborhoods of single-family high value homes.

Even if vehicle access into the complex directly from Helmholtz were to be provided, such access would not notably decrease neither the extent of Cottage traffic use of nor the adverse impacts along SW Salmon Avenue. Because the bulk of the city's commercial businesses and public schools are due east of the complex, Helmholtz is substantially removed, remote, thus a far less desirable route to access the city businesses, services, parks, and other amenities. There are no public transportation services that service this area of SW Redmond; a factor which would be an expected but unfulfilled need for Cottage occupants.

The affected stretch of residential SW Salmon Avenue (at minimum, any of the Avenue located west of the junction of SW 35th Street) was never designed nor constructed to handle such a huge increase of traffic volume and traffic noise that would be unquestionably caused and inevitably occur by both/during (a) the extensive construction traffic during the complex's development, and (b) the resultant negative hugely increased Cottage-created constant vehicular travel and affiliated noise pollution through these affected neighborhoods.

Furthermore, safe access/egress to the Cottage complex is additionally complicated and exasperated by the required negotiation of the already hazardous sharp (one house lot long) "S" turn of SW Salmon Avenue of an already windy street beginning west from its junction with SW 35th Street.

2. The affected segment of SW Salmon Avenue is a posted 25 MPH speed limit through several blocks of residential single-family high value homes. Based on fact of present traffic behaviors, the 25 MPH limit would be exceeded; not adhered to by the majority of the Cottage's traffic, due to the very nature of the Avenue's segment being straight (and of a substantial downhill grade east-to-west for several blocks) directly to the Cottages' site. Substantially increased unsafe traffic speeds would result, as would affiliated increased unsafe traffic hazards for accessing/egressing residential driveways along these several blocks of the Avenue.

If the Cottage complex is developed, the huge increase of SW Salmon Avenue traffic would further exacerbate the already unsafe speeds that occur in our neighborhood. Additionally, and of no small consequence, there would be a huge increased flow of highly disruptive traffic-affiliated noise that would disproportionately and exponentially result, and would be excessively highly

disruptive to residents of our presently reasoned substantially quiet residential neighborhood.

3. The very nature of the type of housing of the complex – designed, built and intended more so as rental properties and to be more so affordable for Section 8 low-income occupants (as stated in a HCDC Sept 15 meeting in Redmond) — will inevitably result in adverse devaluation of adjoining existing single-family high value homes. Our home would be affected, which we do not want to happen. We purchased in this area of SW Redmond largely because of the type of residential housing present and of more of the same new adjoining homes built in our area since we located in Redmond three ago.

4. The design of the complex certainly does not provide adequate parking for the expected sum number of vehicles owned by the sum of the complex's residents. If the architects applied some "standard " when designing the Cottage, that standard is insufficient and misleading. There is no excuse for such inadequate accommodation. There is no doubt that an overflow of numerous vehicles will be parking on streets of nearby single-family type residences. An undesired occurrence and added element adversely affecting abutting homes' values.

5. The complex's architectural design unsuccessfully attempts to convey adequate visual screening of the Cottage from outside of it with fence structure. Unsuccessful because the abutting neighborhood views of the Cottage are directly uphill from the complex's low elevation orientation to them. Another devaluating element of adjacent neighborhoods.

6. Historically, high density housing such as the Cottage complex – being accommodating to low-income occupants or not --brings with it an increase of property crimes and other undesirable behaviors. We do not want this to occur within our neighborhood, nor to our residence. This, too, is an unfortunate reality that devalues adjacent neighborhoods.

We acknowledge the need in Redmond for more such housing as the Cottage would provide. However, the location of this proposed complex is not at all conducive to well-conceived or thought out city planning. Such housing needs to be established closer to our city services, schools, and businesses whereby these entities are more so easily and safely accessed, where public transportation services for them can be readily and safely provided, and just as important, in

locations which do not create undue adverse impacts to adjacent single-family housing communities of high value homes and their residents.

We note that the principle architect firm of the proposed Cottage complex is headquartered in the far eastern U.S. (Brooklyn, NY). That firm most likely has no pride of ownership or interest in the people or the amenities that constitute our delightful town. They simply see an opportunity to make monetary gain from afar, none which reflects or result in thoughtfully executed smart city planning, nor does its interest in Redmond benefit or better the desired livelihood for all of us proud and thankful residents of our rural Oregon community. We the people of our community are far more thoughtful and caring of our Redmond than is that detached firm with its solely monetary and self-serving desires and pursuits.

We trust you and the City of Redmond will seriously acknowledge and thoughtfully consider our shared views on this subject.

Robert and Elizabeth Alward
Residents of Redmond, OR
541-212-1962

(If additional contact information is needed, please request.)

From: [james.baty](#)
To: [Kyle Roberts](#)
Subject: "Mixed income work force housing community"
Date: Monday, February 07, 2022 10:25:26 AM

Solicitation

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle-

I am one of the few residents that received the original notification about this project. I understand that there was a requirement that notification was only required to be sent out to residents within 100 feet of the project, but as you can see from the response, that appears to have been woefully inadequate. I believe that because of the magnitude of the project, all residents of the Majestic Ridge neighborhood, including the Mayor, should have been notified of said project. I think you would agree that more transparency is better than less.

When my wife and I purchased this house in September of 2020, we knew that said parcel would eventually be developed and assumed, incorrectly, that the city would keep the continuity of the neighborhood intact and build single-family homes. If we would have known that a low income housing project, "cottages" is the term that is being bandied about, was to go there, WE WOULD NOT HAVE PURCHASED A HOME HERE. In fact, if the project does go through, we are planning on moving.

At this point, I am sure you are well versed in the many salient counter points to this project and therefore, I will not dwell on them here. What you don't know is that on February 5th, 2021 a masked individual tried to break into our home, while we were sleeping, at 4:30 am. I believe that these so-called "cottages" will merely add to these kinds of incidents, NOT diminish them.

If the project goes through, at the very minimum, because there are no garages for these "cottages", you can be guaranteed that there will be a significant increase in the number of vehicle prowls.

Additionally, this is my written notice that I and my spouse, Mary Jo Murtagh, wish to participate in the 2/14/22 meeting.

Please confirm receipt of this email.

Thank-you in advance,

James P. Baty
2322 SE 43rd St.
Redmond, OR
503-307-6015

From: [Lael Buntjer](#)
To: [Kyle Roberts](#)
Subject: Opposed to plan developement
Date: Monday, February 07, 2022 9:45:26 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I'm writing to oppose the proposed multi-family dwelling through the neighborhood of Majestic Ridge.

Summit Crest 13 year owner,
Lael Buntjer

From: [Craig Nelson](#)
To: [Kyle Roberts](#); [Linda Nelson](#)
Subject: Fw: Mixed income workforce housing - Hemholtz / Salmon
Date: Monday, February 07, 2022 7:52:37 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Kyle,

A couple of things.

1. I never received the letter you noted below. I am at 2413 SW 43rd with a direct impact of this project.
2. I want to speak on the 14th - not sure why I need to call that out before, my experience is you can sign up to speak at City meetings but please take this as my notice.
3. I am very concerned with a couple of areas - 1). Parking - there is a note of 51 spots on the local streets - this will bring crime, possibly abandoned vehicles, additional traffic, possibly take parking from my guests that may visit, etc. and 2). Use of Salmon, 43rd, and Forked Horn Butte as access along with Courts. This will bring, based on applicants estimate (and probably conservative) 821 "trips" per day - imagine this increase of traffic in your neighborhood or even better, the Mayor's neighborhood.
4. Inevitable development of the land - I understand the need to grow and support it. But this impacts our neighborhood to the negative - points noted above - and if I had known this was coming in we would NEVER have bought this house in November 2020. Single family homes would be understandable - and bring more revenues I believe, to the City. My understanding is the applicant is asking for reduced application fees, reduced taxes, etc. I am supportive of single family homes similar to those now on majestic ridge and around it.

So, it seems like this needs much more consideration - including a review of lack of garages, lack of access from Hemholtz, the impact on the surrounding neighborhood - by the City, not the applicant.

We have a group of concerned citizens that will be pushing back on this project - we are all agree with growth but do not support this project in anyway.

Please acknowledge this email and my ability to talk at the Feb 14th planning meeting.

Thanks Kyle.

[Sent from Yahoo Mail for iPad](#)

Begin forwarded message:

On Tuesday, December 14, 2021, 10:24 AM, Kyle Roberts <kyle.roberts@redmondoregon.gov> wrote:

Hello Mr. & Mrs. Nelson,

Thank you for your interest and comments. Please note that the proposal is not Section 8 housing. The applicant has stated it will be mixed income workforce housing community.

Due to the amount of neighborhood interest this project proposal has generated, staff will be scheduling a hearing with the Planning Commission. We are tentatively looking at Monday, February 7th for the hearing. Letters will be sent out 20 days prior to the hearing. Additionally, notice will be published in the Redmond Spokesman 10 days prior to the hearing. A staff report, findings, and recommendation will be available at least 7 days prior to the hearing.

Kyle Roberts, AICP | City of Redmond

Senior Planner

phone 541.923.7758

cell 541.233.8180

email kyle.roberts@redmondoregon.gov

411 SW 9th Street Redmond, Oregon 97756

Online at WWW.REDMONDOREGON.GOV

From: Craig Nelson <c_nelson17@yahoo.com>

Sent: Monday, December 13, 2021 0:04

To: Kyle Roberts <kyle.roberts@redmondoregon.gov>; Linda Nelson <l_nelson17@yahoo.com>; tylampella@gmail.com

Subject: Section 8 Housing - Hemholtz / Salmon

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Roberts,

I am writing in protest, and to some degree, deception in the project to put 98 section housing units within blocks of my house.

You have received several emails, now that we know about it, from neighbors that are unhappy - more traffic, crime, etc in a quiet neighborhood that we just moved into last November 2020.

We are close enough to be impacted yet, no notification because we are farther than 100 feet away - ridiculous, the entire area should be notified.

Also, I do a lot of work with local governments, in fact the police department is a customer. December Council meetings tend to be times when things are pushed through since many people are gone, on vacation, etc.

I would ask you and City Council reconsider this - notify the appropriate people, hold the meeting in February, and listen to those that will be impacted.

I am all for growth - but it needs to be well thought out, shared with the residents, and executed in a safe thoughtful way. This does not pass the sniff test.

Thanks for your consideration.

Craig and Linda Nelson

[Sent from Yahoo Mail for iPad](#)

From: [Nicole Cravinho](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Monday, February 07, 2022 11:11:30 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi,

I was made aware of the proposal for “cottages on Helmholtz” and as a nearby homeowner I am writing to you today to share that I am against this. I live off of Salmon Ave and with no access to the proposed cottages from Helmholtz this will dramatically increase traffic in my neighborhood. It is not right to force the people living in these cottages to cut through our neighborhood. I think there are other options for this type of affordable housing and this is not the location for it. It also appears that adequate parking will not be available forcing those living there to park on the street and most likely in front of our homes. This type of housing will dramatically decrease the value of numerous homes if it is built in this location and I am strongly against it.

Thank you,
Nicole Cravinho

From: [Darlene Shrum](#)
To: [Kyle Roberts](#)
Subject: Section 8 development
Date: Monday, February 07, 2022 10:37:09 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

As a long time owner and resident on SW 43rd St. I strongly object to the cottage development that appears to be a done deal by you and the city before a scheduled hearing as promised. I am familiar with this type of development and the increased traffic and crime it brings and can't believe the city of Redmond would allow this type of development to destroy a settled neighborhood which up to now has been an asset to the city. Darlene Shrum

Sent from my iPad

From: [Terri Dill-Simpson](#)
To: [Kyle Roberts](#)
Subject: I just found out about this project
Date: Monday, February 07, 2022 8:36:57 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I live in the Tetherow Crossing neighborhood. I travel Hemholtz at least 4 x a week. It is a narrow very rural road. Lots of wildlife crossing. My opposition to this project is not ONLY the impact on my neighborhood, but the issue of transportation for the residents of the proposed project. There is very little to NO public transportation for the residents of Redmond.

Agreed there needs to be affordable housing for Redmond to support increase of base line workers. Our town can't grow or thrive without these very important section of our population. In planning that, transportation to and from their place of work HAS to be planned. Parking at their residence, bus service , path of travel etc...

Hemholtz is seemingly the out ward boundary to rural Redmond. To place multi-family dwellings 5.+ miles outside of town seems irresponsible to city planning.

Thank you for consideration!

TerriDill-Simpson

Sent from my iPhone

From: [Esther Richards](#)
To: [Kyle Roberts](#)
Subject: Proposed "Cottages on Helmholtz"
Date: Monday, February 07, 2022 11:54:33 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Mr. Roberts,

Our names are Steve and Esther Richards, we were both born and raised here in Oregon and SW Washington, and are proud to call Redmond home. We purchased the property at 2334 SW 43rd St. a little over one year ago and are currently in the process of building our dream home. We are just ONE home away from the proposed 2052 SW Helmholtz development, in direct view of the property, and according to the city; far enough away they didn't feel it necessary to notify us until a few concerned neighbors spoke up. Still, the ~60 homes notified a couple weeks ago is a small when compared to the number it will impact.

We have worked hard to get to this point in our lives, as have the hundreds of other proud property owners in this close knit community . We planned on this being our forever home, sadly if this or any other similar development goes through, we will likely move in. While we knew this property would be development over time, we always imagined it would be with more homes such as those found in Majestic Ridge or the newer adjacent Hayden Homes development; not high-density housing as proposed now. This is one of the nicest neighborhoods in Redmond and with one decision the city is prepared to cheapen the pride of ownership we have and allow one of the few upscale areas in the city to decline.

There are multiple issues with the proposed land use, and "Affordable Helmholtz Cottages" but I will name just a few:

- 1) Access to this neighborhood is not on Helmholtz, it will all be directly routed through our quiet and safe streets.
- 2) Parking will be an issue and as residents of the new neighborhood have more cars than their allowed spots. The developers themselves said "there is plenty of offsite street parking," that offsite street parking is directly in front of my house.
- 3) Crime is known to increase in high density areas. We were thrilled to live someplace we felt we could leave our door unlocked if wanted and neighbors will look out for each other, sadly that feeling would be gone if this development happens.
- 4) These cottages have no garages only small storage areas. Where will these families store their belongings without the excess becoming an eye sore?
- 5) LEDG capitol/developer, says this will be good for Redmond. From what we can tell they are not local, how would he know what is good for our city?
- 6) Our property values will be negatively impacted, and if it evolves as other high density neighborhoods, the impact will only worsen over time.
- 7) Traffic. The developers themselves said this development will cause 821 trips per day. Our quiet little neighborhood is not prepared or equipped to handle this amount of traffic nor is it safe for the existing residents.

We feel the city has quietly tried to push this development through which shows a complete disregard of our opinions and the enormous impact this will have on existing community members. I don't believe for one minute there is a single homeowner in this area that would be onboard with this proposed development nor any in the future that would allow high-density housing. I would also like to believe this is not the model the City of Redmond has planned, if so, we have made a poor decision settling here. If it wasn't already clear, we adamantly oppose this

planned land use and any future development that includes high- density housing.

We will be present for the February 14th virtual meeting and plan to speak.

Sincerely,
Steve and Esther Richards
360-600-0530
360-600-0428

Sent from my iPhone

From: [Kevin Fitzpatrick](#)
To: [Kyle Roberts](#)
Subject: Re: Cottages on Helmholtz (2 of 2)
Date: Monday, February 07, 2022 11:45:11 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle,

I have looked over the information and am opposed to this development for several reasons.

- 1) the project is too large for the area and should have more parking and half as many units.
- 2) with no access to Helmholtz this puts a lot of burden on the existing side streets that are already busy.
- 3) I wouldn't be as opposed if this project was smaller and only had access on Helmholtz as the way it's laid out there will be a lot of overflow parking onto the side streets and with the alley streets directly to the east this will put a lot of impact on existing parking that's already full at times.

Please consider my remarks in your report to the Planning Commission.

Sincerely,

Kevin B Fitzpatrick

Sent from my iPhone

> On Dec 13, 2021, at 7:49 AM, Kyle Roberts <kyle.roberts@redmondoregon.gov> wrote:

>

>

>

> Kyle Roberts, AICP | City of Redmond

> Senior Planner

>

> phone 541.923.7758

> cell 541.233.8180

> email kyle.roberts@redmondoregon.gov

>

> 411 SW 9th Street Redmond, Oregon 97756

> Online at WWW.REDMONDOREGON.GOV

>

> -----Original Message-----

> From: Kyle Roberts

> Sent: Monday, December 13, 2021 9:48

> To: Kevin Fitzpatrick <kbfitzpat54@me.com>

> Subject: RE: Cottages on Helmholtz (1 of 2)

>

> Hello Kevin,

>

> Thanks for reaching out. Please find attached the applicant's burden of proof narrative, landscaping plans, and site plans. Correct -- there will be no access onto Helmholtz.

>

> Due to the amount of neighborhood interest this project proposal has generated, staff will be scheduling a hearing with the Planning Commission in early February.

>

> Let me know if you have further questions.

>

> Kyle Roberts, AICP | City of Redmond

> Senior Planner

>

> phone 541.923.7758

> cell 541.233.8180

> email kyle.roberts@redmondoregon.gov

>

> 411 SW 9th Street Redmond, Oregon 97756

> Online at WWW.REDMONDOREGON.GOV

>

> -----Original Message-----

> From: Kevin Fitzpatrick <kbfitzpat54@me.com>

> Sent: Sunday, December 12, 2021 21:09

> To: Kyle Roberts <kyle.roberts@redmondoregon.gov>

> Subject: Cottages on Helmholtz

>

> [EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

>

> Kyle,

>

> I understand there has been an application submitted for development close to me, would you sent me a plot map that has been submitted and any other pertinent information.

> I understand that there would be no access onto Helmholtz, is this correct?

>

> Thank you

>

> Kevin B Fitzpatrick

>

> Sent from my iPhone

From: [Brent Goold](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Monday, February 07, 2022 11:54:01 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning,

I am writing to express my opposition to the Cottages on Helmholtz. As a homeowner that lives at 4152 SW Salmon Ave I have concerns over the increased traffic, noise, parking and impact on property values. I lived in a neighborhood in Corvallis where the developer of an adjacent subdivision stated the traffic increase would be minimal through our residential neighborhood. This was entirely false after the street was opened. The street in front of our home had a substantial increase in traffic throughout the day with vehicles speeding uphill exactly like Salmon Ave. I am concerned about the increase in construction traffic that will have a negative impact on the street. I have watched several streets be ruined by construction traffic and when the developer is gone the street is still ruined and not repaired; I am concerned about the increased code 3 traffic this development will cause. As a 25 year firemedic for the City of Corvallis I responded to a very similar development routinely. The proposed development will have much higher usage of emergency services (police and fire) than the surrounding neighborhood which means sirens and fast moving fire apparatus and police on our neighborhood streets. There will also be an increase in crime in this area in general based on this development; Having moved from Redmond in the 1990's to Corvallis, I lived in a city that had large amounts of multifamily housing added in neighborhoods that were not designed for them. This caused parking problems throughout these neighborhoods. Having read the proposal I see that multiple parking spaces can be removed if bike parking is provided and there is no garage parking. This will have a negative impact on the homes within a 1.5 block radius of this development. There will be increased commercial (workers who live there) parking in the surrounding streets due to the ban on parking of commercial vehicles inside the development. Again, having lived in a nice Palisch neighborhood when a large multifamily development was added across the street, the homeowners that lived there could no longer find parking in front of their own homes. This had a big effect on the resale of these homes because of the constant hassle with guest parking; I feel the property values of the surrounding homes will be negatively affected, and it doesn't seem fair to the property owners who made the biggest investment of their lives in an upscale neighborhood. I would have no opposition to a comparable neighborhood being built on the property in question.

Best Regards,
Brent Goold
541-760-1266

From: [Ken Greiner](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Monday, February 07, 2022 9:51:52 AM
Importance: High

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

We desperately need an OUTLET ONTO HELMHOLTZ before we add any new housing in our area. The congestion and traffic is horrific, at best. There are lots of walkers and children in our neighborhoods and I fear for our safety. I don't want to see someone get hurt or killed before something is done.

Thank you for taking our streets into consideration.

Sincerely,
Sue Greiner

From: [Tracey Hubbard](#)
To: [Kyle Roberts](#)
Subject: Objection to proposed development North end of Majestic Ridge on Helmholtz
Date: Monday, February 07, 2022 12:04:50 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thank you for bringing to my attention the proposed plans for development of 7.5+ acres of land at the north end of Majestic Ridge and Helmholtz.

Firstly, I would like to make it very clear that I was never notified of any proposal, so was unable to voice any opinions. This alone would appear to be deliberate and misleading.

The major objections I have include:

NO access from Helmholtz : This will increase traffic through the neighbourhood. These neighbourhoods were not designed for traffic to be zipping through for access to Helmholtz. So further thoughts need to be addressed to rectify this situation.

Lack of parking spaces will have an impact as adjacent roads will become off-site parking . There are no rules or regulations to prevent cars being parked on the streets, and outside our houses.

There is no access to public transport from this end of town.

People choose to live in this local neighbourhood for reasons such as safe and peaceful as well as beautiful surroundings with views. Whilst I fully understand that the 7.5 acres will eventually be sold and built on it should be within keeping of its local surroundings.

Tracey Hubbard
Local Resident

From: [JENNifer N](#)
To: [Kyle Roberts](#)
Subject: Helmholtz
Date: Monday, February 07, 2022 11:59:10 AM

* Spoofing Indicators *

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I oppose to the housing trying to be put in at helmholtz. The city is not ready for this

Sent from my iPhone

From: [Linda Nelson](#)
To: [Craig Nelson](#)
Cc: [Kyle Roberts](#)
Subject: Re: Mixed income workforce housing - Hemholtz / Salmon
Date: Monday, February 07, 2022 8:01:24 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Kyle,

I share the concerns in this email as well as the concerns in Speak up Redmond and I want to take my three minutes to speak on the Zoom call. Please acknowledge my ability to do so.

Linda Nelson

On Feb 7, 2022, at 8:52 AM, Craig Nelson <c_nelson17@yahoo.com> wrote:

Good morning Kyle,

A couple of things.

1. I never received the letter you noted below. I am at 2413 SW 43rd with a direct impact of this project.
2. I want to speak on the 14th - not sure why I need to call that out before, my experience is you can sign up to speak at City meetings but please take this as my notice.
3. I am very concerned with a couple of areas - 1). Parking - there is a note of 51 spots on the local streets - this will bring crime, possibly abandoned vehicles, additional traffic, possibly take parking from my guests that may visit, etc. and 2). Use of Salmon, 43rd, and Forked Horn Butte as access along with Courts. This will bring, based on applicants estimate (and probably conservative) 821 "trips" per day - imagine this increase of traffic in your neighborhood or even better, the Mayor's neighborhood.
4. Inevitable development of the land - I understand the need to grow and support it. But this impacts our neighborhood to the negative - points noted above - and if I had known this was coming in we would NEVER have bought this house in November 2020. Single family homes would be understandable - and bring more revenues I believe, to the City. My understanding is the applicant is asking for reduced application fees, reduced taxes, etc. I am supportive of single family homes similar to those now on majestic ridge and around it.

So, it seems like this needs much more consideration - including a review of lack of garages, lack of access from Hemholtz, the impact on the surrounding neighborhood - by the City, not the applicant.

We have a group of concerned citizens that will be pushing back on this project - we all agree with growth but do not support this project in anyway.

Please acknowledge this email and my ability to talk at the Feb 14th planning meeting.

Thanks Kyle.

[Sent from Yahoo Mail for iPad](#)

Begin forwarded message:

On Tuesday, December 14, 2021, 10:24 AM, Kyle Roberts <kyle.roberts@redmondoregon.gov> wrote:

Hello Mr. & Mrs. Nelson,

Thank you for your interest and comments. Please note that the proposal is not Section 8 housing. The applicant has stated it will be mixed income workforce housing community.

Due to the amount of neighborhood interest this project proposal has generated, staff will be scheduling a hearing with the Planning Commission. We are tentatively looking at Monday, February 7th for the hearing. Letters will be sent out 20 days prior to the hearing. Additionally, notice will be published in the Redmond Spokesman 10 days prior to the hearing. A staff report, findings, and recommendation will be available at least 7 days prior to the hearing.

Kyle Roberts, AICP | City of Redmond

Senior Planner

phone 541.923.7758

cell 541.233.8180

email kyle.roberts@redmondoregon.gov

411 SW 9th Street Redmond, Oregon 97756

Online at WWW.REDMONDOREGON.GOV

From: Craig Nelson <c_nelson17@yahoo.com>

Sent: Monday, December 13, 2021 0:04

To: Kyle Roberts <kyle.roberts@redmondoregon.gov>; Linda Nelson <l_nelson17@yahoo.com>; tylampella@gmail.com

Subject: Section 8 Housing - Hemholtz / Salmon

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Roberts,

I am writing in protest, and to some degree, deception in the project to put 98 section housing units within blocks of my house.

You have received several emails, now that we know about it, from neighbors that are unhappy - more traffic, crime, etc in a quiet neighborhood that we just moved into last November 2020.

We are close enough to be impacted yet, no notification because we are farther than 100 feet away - ridiculous, the entire area should be notified.

Also, I do a lot of work with local governments, in fact the police department is a customer. December Council meetings tend to be times when things are pushed through since many people are gone, on vacation, etc.

I would ask you and City Council reconsider this - notify the appropriate people, hold the meeting in February, and listen to those that will be impacted.

I am all for growth - but it needs to be well thought out, shared with the residents, and executed in a safe thoughtful way. This does not pass the sniff test.

Thanks for your consideration.

Craig and Linda Nelson

[Sent from Yahoo Mail for iPad](#)

From: [Christine Martinez](#)
To: [Kyle Roberts](#)
Subject: Stop the "Cottages on Helmholtz" Project!
Date: Monday, February 07, 2022 8:56:38 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning,

I am a homeowner here on Helmholtz just around the corner from where "Cottages on Helmholtz" are to be build. As a homeowner we chose this neighborhood for its community, safety, and quietness.

We, as well as many, were never notified of this project when it directly effects our streets and our community. This area is a quiet, single-family home area and it makes absolutely no sense building "cottages", apartments, or anything else other than single-family homes in the proposed area for this project.

We have been made aware that this will also be Section 8 Housing. Growing up in section 8 housing, I know first hand that this area is not the area for this to be built. There are no stores within walking distance, no transit areas close by, or other resources for low income family.

This would NEGATIVELY impact our community, safety of our families, and the area that we pride ourselves to be homeowners in.

We are coming together as a community to ask you to please rethink this project and not just fill up another open plot of land. I can't even fathom how the city came to this determination that this was the best spot for the "Cottages on Helmholtz," but I think it needs to be reassessed and looked at a different angle as to what would be the best location for renters that will occupy this housing. It's not in the middle of our neighborhood.

Please listen to the community and preserve this area that we love and call home. Thank you!

Very respectfully,
Christine Reischauer

From: [mechams](#)
To: [Kyle Roberts](#)
Cc: [katherine.mecham](#)
Subject: Objection to Majestic Construction
Date: Monday, February 07, 2022 2:50:41 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Roberts,

My wife and I are opposed to multi-family homes in our neighborhood.

Two years ago we built our new home in Emerald View Estates and are disappointed that plans are proceeding to build homes other than single-family. From our understanding the contractor is from Seattle, WA. They should build in their own city. Our neighborhood does not need the increased traffic and vehicles parked on our streets.

We object and respectfully ask you and the zoning commission reconsider.

Thank you for your time.

Sincerely,

James and Katherine Mecham
4468 SW Majestic Ave.
Redmond

From: [Traci Medeiros](#)
To: [Kyle Roberts](#)
Subject: 96-98 Cottages on Helmholtz
Date: Monday, February 07, 2022 8:59:41 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Kyle Roberts,

I was recently notified by a neighbor that the City of Redmond and HCDC has a proposed use of land 7.5+ acres at the North end of Majestic Ridge on Helmholtz. To our surprise, my husband and myself were not notified by the city even though this development would truly impact us as well. To only notify homes within 150' is sneaky and very disrespectful to the taxpayers in your community. We chose this location for it's beauty, the quiet neighborhood and the care that each home owner takes in their property.

It shows that the city is being sneaky, you know the impact it will have on our community, so if you can sneak it by without anyone knowing better for you, but what about us. Do you live in this neighborhood? How would you feel about this and your family? You all know this will lower our property value...When we lived in Beaverton we were impacted as well with high density housing. No parking so the people would park in our neighborhood and walk to where they were visiting.

We have a friend that works with lower income housing and the issues he sees daily, is terrible. Cars that don't run in their parking lot, drug action and police visits daily. This is not for our community. What you will be doing is bringing crime and issues to our established neighborhoods.

We recognize that there is a need for low income housing. It seems strange that you would wish to put these families far from needed service. If they are truly low income they may not even have a vehicle or one "that works" and how will they access those services? There is no bus or transit that takes place out there. 96-98 proposed homes will impact our community severely. You will not provide enough parking for them so it will creep out into our neighborhoods. The fact that you are not giving even this development direct access to Helmholtz and going through our neighborhoods only makes for more traffic and unsafe for the children that our out playing in the neighborhood. I don't feel this is the best use of this property and the city is not being respectful to the established community that is there and what would be best for us as well.

Will the City of Redmond lower our property taxes when this happens or when we sell our home to get out of a city that does not support the taxpayers and the investments we have put into our homes? Will they make up the difference that this will cause a decrease in the value of our homes? I doubt not.

We are notifying our community and we will be attending this meeting. I would like to have time to speak as this is the first we have heard of it.

Regards,

Traci Medeiros

Sent from my iPad

From: smiller45@bendbroadband.com
To: [Kyle Roberts](#)
Subject: Please reconsider the location of "Cottages on Helmholtz"
Date: Monday, February 07, 2022 7:59:13 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

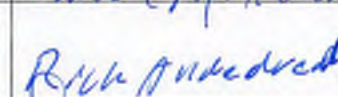
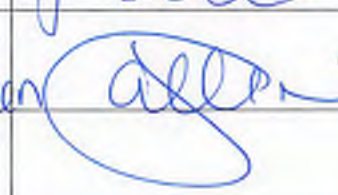
I live on Majestic Avenue and am definitely opposed to the multifamily housing at the north end of Majestic Ridge. With no outlet on Helmholtz, the extra traffic and parking on the street will be detrimental to existing homes. This rush for development will turn us into the next "Bend", quite unlivable due to the traffic and over development. Please do NOT approve this new development in its current proposed location.

Sara Miller
4057 SW Majestic Ave
Redmond
smiller45@bendbroadband.com

By signing below, I am stating that I/we adamantly disagree with the proposed land use titled, "Cottages on Helmholtz" do not want the City of Redmond to approve said development. Furthermore, I would like to be updated and informed of any and all proposed land use plans for this property now and in the future.

NAME	Signature	Address	# in household	Email
Brian Clarkson		4553 SW Salmon Ave	2	brian@milsmwest.com
Traci Medeiros		4459 SW Salmon Ave	2	medeirosita@gmail.com
Nicole Cravinho		4449 SW Salmon Ave	5	nicolecravinh@gmail.com
Tim Gaurer		2370 SW HELMHOLTZ WAY	4	TEGAUHERE@AOL.NET
Christine Olson		2413 SW 45th St.	2	chrisb7olson@gmail.com
Caleb Neff		2503 SW 45th St	3	csneff1@gmail.com
Erika Boehlert		2525 SW 45th St	4	erika.boehlert@gmail.com
JEREMY FRANKS		2547 SW 45th St	6	JEREMY FRANKS @GMAIL.COM
Cristo Jimenez		4801 SW Majestic Ave	6	Cristo.D.J@gmail.com
Juan Vais		4498 SW Salmon Pl	3	Juan.Vais@yahoo.com
Bryan Schiller		4479 S.W. SALMON PL.	2	bryan@threecracksbrewing.com

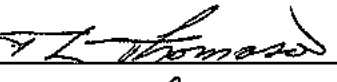
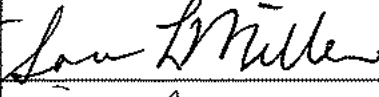
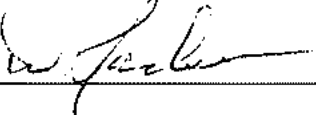
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NAME	Signature	Address	# in household	Email
Dennis & Jan Harford		4452 SW Salmon Pl. 4428 SW Salmon Pl	2	dennis@jansproduce.com
Nelson Essington				
Derrick Sackman		4416 SW Salmon Pl	6	derrick.and.lucy@gmail.com
Roger Morse		4404 SW Salmon Pl.	1	RMorse@RWM investigations.com
Vanda Mikelcick		4419 SW Salmon Pl.	3	mikelcick@outlook.com
Rich Mikelcick		4431 SW Salmon Pl	2	FishRich@me.com
Lori Schiller		4479 SW Salmon Pl	2	lori.schiller16@live.com
Cat Phillips		2416 SW 43rd Pl	1	trink.phillips@gmail.com
Greta Carroll		2428 SW 43rd Pl	1	gretacarroll@ gmail.com
Jason & Jen Allen		2440 SW 43rd Pl	3	allenx4@outlook.com

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NAME	Signature	Address	# in household	Email
Tammy Phillips	Tammy Phillips	4204 SW Salmon Ave	2	TPhillips2000@gmail.com
Scott Phillips	[Signature]	4204 SW Salmon Ave	2	climbingcott @comcast.net
Brent Gould	BRENT GOULD	4152 SW Salmon Ave	3	brentilane.gould @gmail.com
Yvonne Gould	Jill Gould	4152 SW Salmon Ave	3	"
Annette Osmond	Annette Osmond	2305 SW 41 st St.	2	
Tom Osmond	Tom Osmond	2305 SW 41 st St	2	
Pat Pileggi	[Signature]	2314 SW 39 th	5	Pileggi73@hotmail
Benny Cutright	[Signature]	2251 SW 36 th St	3	cooler8ter@gmail.com
HALEY SAAW	[Signature]	2315 SW 37 th St	3	shawhij@outlook.com
Ellis Lay	Ellis Lay	4091 SW Salmon Ave.	2	skipgump@gmail.com
Mike Lindsey	[Signature]	4105 SW Salmon Ave	4	mike oregonrenovations.com

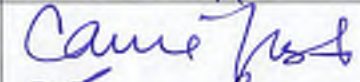
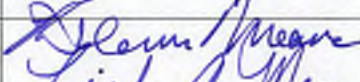
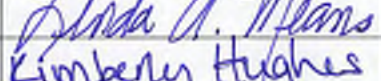
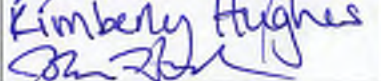
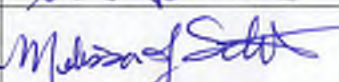
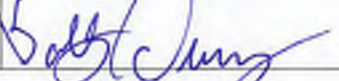
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NAME	Signature	Address	# in household	Email
ANNA MORROW		3944 SW. Timber Ave.	2	Abmorrow@msn.ca
Camille Risdal		4038 SW Summit Ave	2	camillegibson@gmail.com
Ed Tomlin		4052 SW Summit Ave	2	eltomlin@hotmail.com
Rebecca Cutsforth		4010 SW majestic Ave	2	becca@bendable
TEEL THOMAS		4022 SW MAJESTIC AVE	2	
Sara L. Miller		4057 SW majestic ave	1	smiller45@bendbroadband.com
DAN JACKSON		4167 SW majestic ave	5	DANANDLINDAJACKSON@msn.com

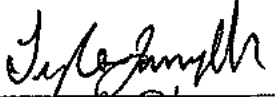
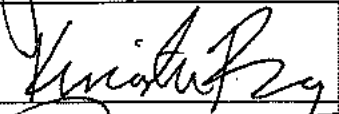
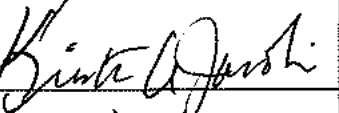
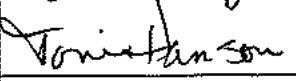
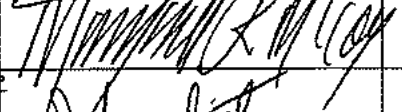
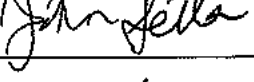
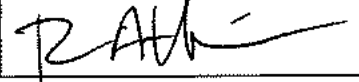
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NAME	Signature	Address	# in household	Email
Ed Danielson	Edwin H. Danielson	4278 SW Rhyolite	2	Kldanielson@gmail.com
Karen L. Danielson	Karen L. Danielson	" " "	2	Kldanielson5713@gmail.com
LORI KALLBERG	Lori Kallberg	4292 SW Rhyolite Pl	1	CKALLBERG@msd.com
Karen Hoffmann	Karen Hoffmann	4293 SW Rhyolite Pl	2	karen@hoffmannof.com
Tracy Namitz	Jacy Namitz	4256 SW Rhyolite Pl	1	tgbrewster@gmail.com
Leon Miller	Leon Miller	2272 SW 41	2	leonmiller@outlook.com
FRANK GRAMM	Frank Gramm	2072 SW 41st	2	FSGTheDragon@gmail.com
Derek Hopkins	Derek Hopkins	2053 SW 41st Redmond, OR 97756	5	dhopkins@basissolutionscan.com
Maurisa Fisher	Maurisa Fisher	2260 SW 43rd St.	4	maurisa.fisher@yahoo.com
Dan Fisher	Dan Fisher	" "	4	DFisher09@gmail.com
Nancy Fisher	Nancy Fisher	3753 SW Badger Ave Apt 104 Redmond, OR 97756	3	Nfisher09@gmail.com

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NAME	Signature	Address	# in household	Email
Gary Lampella Margie Lampella		2341 SW 43rd Street Redmond, OR 97756	#2	glampella@yahoo.com frskycne50@yahoo.com
Stacy & Karen Crawford		2346 SW Forked Horn Butte Redmond, OR 97756	4	gidgetkhce@gmail.com
Amanda Helie		2382 SW Helmholtz Way Redmond, OR 97756	7	heliesix@yahoo.com
Carrie Frost		2362 SW Forked Horn Butte Rd	4	Carrieberrybeth@gmail.com
GLENN MEANS LINDA MEANS	 	2414 SW FORKED HORN BUTTE RD. REDMOND, OR 97756	2	GLMEANS@ BENDBROADBAND.COM
Kim Hughes John Hughes	 	2436 SW Forked Horn Butte Rd Redmond OR 97756	3	Ksumetz@yahoo.com
Melissa Schlieue		4378 SW majestic Ave Redmond, OR 97756	4	melissaschlieue@gmail.com
Nils Muysgens		2555 SW 43rd Ct Redmond, OR 97756	2	nmusgens@gmail.com
Renee Gorman Ryan + Tallie Belitz	 	2546 SW 43rd Ct Redmond OR 97756 2538 SW 43rd Ct Redmond OR 97756	4 3	reneeg@bendbroadband.com tallie@bendbroadband.com
Katherine Swanson		4412 SW MAJESTIC AVE 97756	2	Perkatschwarz@gmail.com

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NAME	Signature	Address	# in household	Email
Ty + ANNIE Lampella		2356 SW 43rd St	4	tylampella@gmail.com
John Hilt		2248 SW 43rd St.	4	johnhilt@gmail.com
Kristen Ramirez		4144 SW Salmon Pl	5	Kristenramirez68@gmail.com
Jerald E. Boyson		4153 SW Salmon Pl	3	jerry.boyson@gmail.com
KRISTI A. JACOBIE		4137 SW Salmon Pl	2	KJACOBIE1@yahoo.com
Toni Hansen		4137 SW Salmon Pl	2	thanson1mft@gmail.com
Johnny & Tere Curtis		4122 SW Salmon Pl.	2	TERE CURTIS7@gmail.com
Aaron Hiny		2346 SW 41st	4	oheny1@gmail.com
Margaret McCoy		2328 SW 39th	2	turtlesaps4@hotmail.com
JOHN SEITZER John Seitzer		2344 SW 39th	2	Johnseitzer@hotmail.com
Rain Atkinson		2408 SW 39th St.	4	rainatkinson@yahoocom

From: [Rob Brown](#)
To: [Kyle Roberts](#)
Subject: Helmholtz Cottages
Date: Monday, February 07, 2022 9:18:31 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kyle,

I intend to use my allotted time to speak at the hearing on Feb. 14th.

My major concerns are as follow -

Access
Traffic
Parking
Property Value
Safety

In general, I am interested to hear how the city can support this project at this location.

Rob Brown
2357 SW 43RD St.
971-724-1182

From: [Rob Hubbard](#)
To: [Kyle Roberts](#)
Subject: Objection - New Development proposal North End Majestic Ridge Helmholtz
Date: Monday, February 07, 2022 11:17:47 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Sir,

I am writing to you with concern and dismay that the proposal of a new development for 7.5 acres is being proposed for the North end of Majestic Ridge. This matter has just been brought to my attention and given any development affects at least a 2 mile radius it is very disappointing that notice has not been provided such that all the local community can be involved and mostly informed. While Redmond continues to expand at an alarming rate, the house building seems to be moving at an even greater pace. My own motivation for moving to this area was that Redmond would not become 'Bend Diego ' or 'Bend angeles' as some more locals refer to it.

I understand this development is for low income housing which as a town we have already successfully put in places opposite to Safeway, on 6th street and they are positive for the community. I however fail to see why we would place more low income housing on the edge of town near existing and planned homes and more with a high degree of occupants in a small area. I note a lack of access in terms of traffic and would propose two things;

1/ Direct Access be given via a traffic circle to Helmholtz. This achieves two important things, a slowing of traffic on Helmholtz and access for traffic to filter in and out of the new development and surrounding area.

2/ Reduce the density of the Development to ease parking congestion and the overall impact to the local area.

I am not negative on the housing, simply the density and access needs to be looked into more clearly based on the overall impact to the area and seeing the plethora of more homes being built by Haden homes in the same area. There are no existing shops/stores in close proximity unlike where the low cost housing is close to town affords those residents easier access to facilities such as doctors/hospitals. When low cost homes are put in place in general towns end up paying large sums of money for ancillary services to support these, so the closer to the main infrastructure the better for potential long term costs and well being of the residents themselves.

My thanks for listening and allowing me to raise my initial concerns.

Address - 4471 SW Majestic Avenue, Redmond Oregon, 97756

--

Phone 408-206-2208
Regards
Rob Hubbard

From: [Andrew Reischauer](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Monday, February 07, 2022 9:13:26 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning,

I recently received a notice (unfortunately not by the city) that a proposal to develop a 96 unit multi-family housing at 2052 SW Helmholtz Way, Redmond was in the works. After review of the proposal I have very legitimate concerns of the impact such a development will undoubtedly have on our immediate single-family, quiet neighborhoods. Let me first be clear by stating I am not opposed to developing this type of housing option, however, there are other more suitable options throughout the city of Redmond and immediate outlying areas. I retired from the military and moved away from an area which contained housing similar to what is being proposed. We wanted to pursue a quieter, safer, and slower pace of life for our family. This is the main reason we purchased a home off Helmholtz Avenue. I have bear witness to the issues such multi-family housing units present. Our current way of living and pride in our community DOES NOT support this. We do not want more vehicle traffic in our area. Obviously this poses greater risk to children and adults alike. I'm willing to bet not much thought has been given to transportation needs of the families who will reside in these new units. We're assuming they will have adequate transportation to their respective jobs when likely (based on experience) this isn't and more than likely will not be the case.

We are also concerned with the future value of our home. It is an investment towards a financially secure future. Such a development would have a potential negative impact on that. I'm not willing to sit back and be quiet about this and take that risk. Again, we chose our current location based on several positive factors. Building the multi-family units would affect each of them.

The location to build does not fit into our way of life. I say "our" way of life as I speak not only as one voice but for everyone in our community. How would you feel if you lived here and this was being proposed? Would you not have the same concerns? There ARE better options for a location. It needs to be located in an area that will allow the residents better access to work, food, and essentials. The city of Redmond can and will identify a location better suited for the future inhabitants of these multi-family units.

Thank you for taking the time to hear our concerns. Please as the Senior Planner consider how this will affect each of us who live in the immediate area of this proposed development. It WILL create future hardships both personally and financially as a collective community.

Regards,

Andrew Reischauer
USN RET
619-370-1921

From: [Laurie Richmond](#)
To: [Kyle Roberts](#)
Subject: Re: Cottages on Helmholtz
Date: Monday, February 07, 2022 7:55:20 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Roberts,

I am in opposition to the proposed land use called Cottages on Helmholtz.

This will cause serious traffic issues for our neighborhood. The parking overflow of this many multi-family houses will flow to my street.

I believe building this development will drive the value of my home down. It should be re-evaluated to match the character of the surrounding neighborhood with single family owned homes.

Above all, I can't believe that the City of Redmond only notified the homes within 250 ft of the development, like that is all that would be affected by this project. Not right and sneaky. I look forward to attending the virtual meeting.

Laurie Richmond
4167 SW Salmon Ave, Redmond, OR 97756

On Mon, Feb 7, 2022 at 7:24 AM Laurie Richmond <lrichmond319@gmail.com> wrote:
Thank you!

On Mon, Feb 7, 2022 at 6:28 AM Kyle Roberts <kyle.roberts@redmondoregon.gov> wrote:

Hello,

The hearing will be held Monday, February 14th at 4:30 PM virtually. The agenda, login instructions to the meeting, and staff report will be posted to the Planning Commission website later today:

<https://www.redmondoregon.gov/government/commissions-committees/redmond-urban-area-planning-commission-ruapc/meetings-and-agendas>

Kyle Roberts, AICP | City of Redmond

Interim Planning Director

phone 541.923.7758
cell 541.233.8180
email kyle.roberts@redmondoregon.gov

411 SW 9th Street Redmond, Oregon 97756
Online at WWW.REDMONDOREGON.GOV

From: Laurie Richmond <lrichmond319@gmail.com>
Sent: Saturday, February 05, 2022 21:36
To: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Subject: Re: Cottages on Helmholtz

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi again. Will this be discussed at the meeting in the 14th?

On Mon, Jan 3, 2022 at 7:41 AM Kyle Roberts <kyle.roberts@redmondoregon.gov> wrote:

Hello Ms. Richmond,

Thank you for reaching out.

Due to the amount of neighborhood interest this project proposal has generated, staff will be scheduling a hearing with the Planning Commission. We are tentatively looking at Monday, February 7th for the hearing. Letters will be sent out 20 days prior to the hearing. Additionally, notice will be published in the Redmond Spokesman 10 days prior to the hearing. A staff report, findings, and recommendation will be available at least 7 days prior to the hearing.

Kyle Roberts, AICP | City of Redmond

Senior Planner

phone 541.923.7758
cell 541.233.8180
email kyle.roberts@redmondoregon.gov

[411 SW 9th](#) Street Redmond, Oregon 97756
Online at WWW.REDMONDOREGON.GOV

From: Laurie Richmond <lrichmond319@gmail.com>
Sent: Friday, December 31, 2021 11:25
To: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Subject: Cottages on Helmholtz

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle,

I live near this new proposed development. Will there be an opportunity/hearing for the community to weigh in on this? I know the original deadline for comments was Dec 16, 2021. Has that changed?

thank you,

Laurie Richmond

[4167 SW Salmon Ave, Redmond, OR 97756](#)

From: [Tyler Lampella](#)
To: [George Endicott](#); [Jay Patrick](#); [Rebecca Batzel@redmondoregon.gov](mailto:Rebecca.Batzel@redmondoregon.gov); [Krisanna Endicott](#); [Clifford Evelyn](#); [Ed Fitch](#); [Shannon Wedding](#); [Keith Witcosky](#); [John Roberts](#); [Kyle Roberts](#)
Subject: Petition - Cottages on Helmholtz
Date: Monday, February 07, 2022 11:35:42 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr Mayor, City Council, City Manager, & Planning Department,

I am attaching an informal petition gathered in a 3 hour period, yesterday, February 6. The signatures represent households that account for at least 227 people living in this neighborhood, and represent 82 households. It was a beautiful Sunday and many people were not home, but those that answered the door very regularly signed. Those that did not, wanted to do some research or did not feel they had the agency to sign (renters) etc, but agreed with the points specified.

The goal of the petition was to ensure the City is aware of the growing opposition and I ask that it is included in any materials being reviewed for this development. Furthermore, please know this petition is the tip of the iceberg and certainly not exhaustive. Just under 200 doors yesterday, with about 50% answering and one person shut the door in our face, our numbers suggest about 85% signed that opened.

This petition, along with enormous outcry, and inundation Kyle is getting in emails is more than enough to turn this project away, cancel next week's meeting and find a development that matches our neighborhood and protects our streets from traffic. I understand that this property, as it is shaped, does not provide a safe way onto Helmholtz, which is common sense would use if safe. So if this is the case and traffic must flow through our neighborhoods, development should be done with a density that does not make our streets less safe. **I ask that you strongly consider the above and let's work together to find a solution where everyone wins. Nothing about that request feels unreasonable.**

A couple of other points I am concerned about. I have seen emails from City staff, along with conversations with Mr. Endicott (thank you for the call btw) that suggest we are wrong about the proposed use, specifically, regarding low-income. Low income is not an element that is creating this opposition. It is the density, traffic and parking. Within those elements, arise other things, safety, noise, home values, etc. I make this point because there are too many people in too small of an area. With that said, it is concerning that there is every indication this is exactly that - low income, but we are being told differently, even hearing we are "purposely misinforming". **This becomes a giant trust issue.** The fact that [LEDG met with the HCDC suggests that and the minutes confirm that](#). If one is to dig deeper, every project this developer does is related to low income housing. The point I am making is, please show me where I am wrong. If you are asking me to take the developer's word for it, then we have plenty and you do too.

Lastly, City Code, specifically 8.1335 (2) regarding "Notice of Hearing".

Posted Notice.

- A. Notice of a hearing should be posted by the applicant on the property for twenty (20) days prior to the hearing. Such notice should where practicable, be visible from an adjacent street.
- B. At least twenty (20) days prior to any initial hearing, the applicant shall provide an affidavit attesting to the fact that notice has been posted as recommended by this section.

There is not any notice that is posted. The applicant has not done A, and I am assuming, with that has not done B either. Not a great start and already skipping a required action to a public hearing.

I am more than willing to discuss anything regarding this project, if valuable, either via phone or in person.

Sincerely,

Ty Lampella

(541) 905-6624

From: [Keely Thompson](#)
To: [Kyle Roberts](#)
Subject: 711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP), 711-21-000283-PLNG (V) | Cottages on Helmholtz
Date: Monday, February 07, 2022 8:36:59 AM

Solicitation

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kyle,

We live at 2462 SW 43rd Pl, Redmond. Our backyard abuts Forked Horn Butte Rd and our side yard abuts Magestic.

Last night we received a copy of information from the City concerning the Cottages on Helmholtz and were completely surprised that a development of this nature could be moving forward without adequate community/neighborhood notification and input. The information was taped to the side of our house, apparently by a neighbor.

We will be impacted by this development. We're extremely concerned about the traffic impacts, overflow parking, neighborhood safety, and property value degradation. Magestic has already become a speedway for too many vehicles trying to find a way out of the neighborhoods quickly. We moved here to get away from this type of situation, and our neighborhood rules do not allow for street parking.

Also, why is there no access off of Helmholtz?

Bottom line - we should have been notified, and the Emerald View Estates Neighborhood Assn. should have been notified.

We are opposed to this development and want our opposition to be included in the project's records.

Dan & Keely Thompson
2462 SW 43rd Pl.
Redmond, OR 97756
503-341-2084

Please confirm receipt of this opposition to the project.

Thank you -

From: [Anita Fowler](#)
To: [Kyle Roberts](#)
Subject: Section 8 Housing
Date: Tuesday, February 08, 2022 8:23:52 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Mr Roberts,

I'm writing to say I just heard about the proposed low income, section 8 housing project. I am writing to ask you to consider the people that live in this area already, who chose it for it's serenity and curb appeal. This project would most certainly increase traffic substantially through residential streets. It would lower the overall home values of residents like myself who pay a lot to live here in Southwest. It would place us in a depreciated state overall. I'm not even certain how or why section 8 housing would even be considered in such a desirable area of Redmond. I couldn't even afford land off of Helmholtz, so I'm not certain how this area ever came into play. I feel this is not right or considerate to the residents who pay high taxes to live here. We've already had cookie-cutter Hayden Homes built and more land purchased to build more. We also have "apartment row" off of 35th and now off Canal as well here in SW which already creates devaluation of the areas homes, many of them custom homes. Now you want section 8 housing as well. Where does it end for the need of overcrowding and the devaluation of property. We even have a homeless shelter smack downtown now. This is not how Redmond residents want to live. I dread having the influx of the traffic, the decreased home value and paying even more taxes to accommodate this venture. There is always an alternative to build in outlying or new areas, instead of already established areas. We have Police Officers, Sheriffs and even a Mayor that live here up on the hill. I strongly oppose this idea and ask for your reconsideration on the matter.

Thank you,
Anita Fowler

Sent from my T-Mobile 4G LTE Device
Get [Outlook for Android](#)

Sent from my T-Mobile 4G LTE Device
Get [Outlook for Android](#)

From: carol.a@bendbroadband.com
To: [Kyle Roberts](#)
Subject: Helmholtz Cottages opposition
Date: Thursday, February 10, 2022 9:37:31 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Helmholtz Cottages opposition.

Dear Kyle,

I have read the material that I could find on the Helmholtz Cottages.

I am a residence on Salmon Place and will be impacted by this development, especially with traffic.

In 2020 I handpicked my lot and build a home here because it was very quiet with no real traffic outside of current residents.

We have a ton of kids playing in the streets with their scooters, bikes, game balls etc.. because this is a quiet neighborhood.

We also have a majority of seniors/retirees that live in this neighborhood.. they are frequent walkers with their dogs.

I read the city study about the amount of traffic that will be coming through our neighborhoods and strongly oppose

Helmholtz Cottage construction without their own access from Helmholtz directly.

Our neighborhood should not be impacted with traffic that is not our own. I also understand we will be impacted with street parking from this development.

Estimates from the developers themselves are 821 trips per day on our streets.. This is absolutely unacceptable.

Clearly the developers know as well as the city of Redmond that this will derogate the adjoining neighborhoods.

I moved to Redmond from Bend as I saw what the city planners were doing to Bend.. **Please do not let this happen in Redmond..**

Keep our neighborhoods Family Friendly.

Sincerely,

Carol Armstrong, Broker

Windermere Central Oregon Real Estate

In the Beautiful Old Mill District

807 SW Industrial Way

Bend, OR 97702

CELL (541) 419-8758 OFFICE (541) 388-0404

Email: c.armstrong@windermere.com

www.carol.windermerecentraloregon.com

Licensed in the State of Oregon



From: [Cody Gmail](#)
To: [Kyle Roberts](#)
Subject: Development off Helmholtz
Date: Wednesday, February 09, 2022 7:44:23 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I am writing you to show I am opposed to the new housing development off Helmholtz. I live in the Summit Crest Development. I do not think the city has done a good job of informing the neighborhood. I feel like the city is trying to sneak this in. First holding a meeting with little notice and only to a few neighbors. Now holding the meeting on Valentines. I do not like the fact their will be additional traffic flow into our neighborhood and how that will impact our already congested neighborhood. I know everyone I talked to opposes this. I think the development might be better suited near the city center where the residents would have access to the jobs and public transit nearby.

Cody Blanco
Redmond, OR.

From: [Jerry Boysen](#)
To: [George Endicott](#); [Jay Patrick](#); [Ed Fitch](#); [Shannon Wedding](#); [Krisanna Endicott](#); [Clifford Evelyn](#); [Cat Zwicker](#)
Cc: [Sally Miller](#); [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Sunday, March 06, 2022 11:33:09 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello –

My name is Jerry Boysen and I live in Majestic Ridge in Redmond, Oregon, along with my wife. We bought this property in 2005 for \$175,000 and stayed with it even when its value was close to nothing. In 2015 we finally were able to build our dream house on this property.

The reason we invested in Redmond and not Bend was in great part due to the open feel and large property parcels that were available. We loved the quietness of the area. Today this is threatened. My wife and I, as well as my neighbors, are very concerned about the proposed high-density development called “Cottages on Helmholtz”. Obviously cramming 96 units onto 7.5 acres of land isn’t in keeping with the look, feel, nor atmosphere of the existing neighborhood.

I could go on and on about the increase of traffic in the neighborhood, the decline of safety for the children in the neighborhood, and the loss of value for all property in the region. But I won’t as these matters should be very clear to anyone reviewing this proposal. Instead, I will ask “What happened to trust?” Majestic Ridge is one of the most desirable neighborhoods in Redmond. When we built and moved here, we trusted that the neighborhood would retain it’s “Country feel” and spaciousness. We trusted that the city would value keeping an upscale neighborhood to draw in top level professionals and citizens. This proposal does not fit in with these trusts.

The potential developer knew that this concept would be opposed by the local residents. Their first letter of intent to develop went out to only homeowners within 100 ft. of the proposed development. Because of this absurd effort, that generated great ridicule from the community, a second letter of intent was sent out to homeowners.....this time to homeowners within 250 ft. of the proposed development. 250 feet hardly touches all who would be negatively impacted by this effort. This failure to adequately inform and involve the local neighborhood clearly demonstrates a complete lack of respect for the existing homeowners and a clear indication of the deceptive nature of this developer.

While it may be said that I am a “Not in my backyard” I do fully recognize the need for affordable housing. I happen to have an adult child who works full time here in town but had to move back in with us because he cannot afford to pay the high cost of rent in our community. I get it. But there are a lot of other areas in our town where a high-density development could be comfortably built without sacrificing the good aspects of existing neighborhoods.

I am hoping this communication does not fall on deaf ears and that there is enough integrity left in our city government to see that a few dollars paid into the city funds by this development will not be worth the high cost to its existing citizens.

With Great Respect,

Jerald E. Boysen
4153 SW Salmon Place
Redmond, Oregon 97766

From: [Tere Curtis](#)
To: [Kyle Roberts](#)
Subject: "Cottages on Helmholtz"
Date: Monday, February 07, 2022 8:42:46 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kyle,

The word cottages denotes single dwelling homes but it is our understanding that in fact these will be multi family rentals. We are opposed to this type of housing in our quaint neighborhood. We have owned our home for nearly nine years and have watched this neighborhood grow rapidly but the new homes have been individual home owners. This is what we want to preserve. Please reconsider this development for single family home ownership.

Respectfully

Johnny & Tere Curtis

SW Salmon Pl

Sent from my iPad

From: [REBECCA CUTSFORTH](#)
To: [Kyle Roberts](#)
Subject: Helmholtz Affordable Housing Cottages
Date: Monday, February 14, 2022 9:05:58 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Kyle, As a majestic ridge homeowner I am writing to you to let you know that myself and my husband are against the proposed development of the Helmholtz Affordable Housing Cottages. We live on majestic avenue and have already seen the impact of added traffic thru our neighborhoods since the Hayden homes have been added. Where this housing project is located it is landlocked. With no access to Helmholtz this will add a great number of traffic to our neighborhood. Also this project is totally out of place in this nice neighborhood. Why destroy this neighborhood by adding low income housing to this area. Furthermore with this project it will effect our home values. Why would you do this, it will hurt the homeowners who live in this neighborhood. I have been proud of the planning of our beautiful town, but it is now in danger of becoming a place of low income housing to supply Bend. We are a separate town from Bend Oregon and we should be developed differently to keep our city the nice place it has been. As we all know this type of housing development will increase crime, increase traffic, increase danger to our children and animals with the traffic. Please re-evaluate this project. A nice housing development that does not bring in 96 units and hundreds of cars would be welcome. Sorry but this has been bad planning.

Sincerely,
Monte and Rebecca Cutsforth

From: [Brian Hefter](#)
To: [Kyle Roberts](#)
Subject: Housing Development North End of Majestic Ridge on Helmholtz
Date: Tuesday, February 08, 2022 2:50:55 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Roberts,

It has come to my attention that you are planning to build a housing development on Majestic Ridge on Helmholtz. It would seem unreasonable to build this development without direct access to Helmholtz. This would create an unacceptable traffic load through the local community. The existing traffic situation is a growing danger for local residents (45th St. is extremely icy in winter and we've already had accidents.) We routinely see speeding and reckless driving, and lots of truck and construction traffic, and the noise and danger to pedestrians with additional traffic flow would be a disaster. For this reason I am against going forward with this project.

I urge you to reconsider the location for this development. I believe we need affordable housing for residents in this growing community. However, I am convinced there are better alternatives to building in the proposed area that would be a "win-win" for all involved.

We are looking forward to hearing from you soon.

Yours sincerely,

Brian Hefter, and my wife, Chris Olson

From: [Hello Kyle](#),
To: [Kyle Roberts](#)
Subject: Speak Up Redmond
Date: Tuesday, February 08, 2022 4:31:54 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Kyle,

My name is Raven Hollister. I am writing in behalf of my boyfriend, Jesse Grover. Here is his message below:

To the City of Redmond,

A concerned Resident:

I have received a notice of a development @ 2052 SW Helmholtz Way Redmond, OR 97756.

My name is Jesse Grover, I have lived in the neighborhood for 15 years. This plan will negatively affect my property value and my way of life due to increased traffic and safety for my family. I ask you to please put a stop to this project. I beg you. I plead you. To put a stop to this project. If continued, why wouldn't this project have access to Helmholt?

I am hoping we can use that area to build a park for kids in our neighborhood. It will improve our property value, it will encourage kids activities, attract a safe gathering space, to create health and community wellness and not to mention, it will give free family activity and so many other good things.

Forgive me for my language but why do we have to change our way of life for losers like this people that will just ruin this community of ours?

We appreciate you and everything that you do for our community.

Thank you.

Warmly,
Jesse Grover/ Raven Hollister

Sent from [Mail](#) for Windows

From: [Susan Huebner](#)
To: [Kyle Roberts](#)
Subject: NO to low income housing
Date: Tuesday, February 08, 2022 6:37:58 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Please don't allow this to happen. We need more infrastructure in Redmond like parks, schools, etc. Not more housing.

From: [Tyler Lampella](#)
To: [John Roberts](#); [Kyle Roberts](#)
Cc: [Keith Wilcosky](#); [Jay Patrick](#); [Ed Fitch](#); [Shannon Wedding](#); [Clifford Evelyn](#); [George Endicott](#); [Krisanna Endicott](#)
Subject: Thank you, Density, SW Forked Horn Butte Dr
Date: Thursday, February 10, 2022 12:25:31 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

First off, I will speak for more than myself that we truly appreciate your "findings" regarding the variances and density of the proposed development on Helmholtz. And while those findings are grounded in code, much of our sentiment is shared and appreciated.

What I would like to express is regarding Density and Access. While I in no way speak for everyone, I know I echo many neighbor's views, that much of the opposition disappears if we can get the development to a **reasonable density** and **connect to Helmholtz**.

When you look at many of the new developments in our community: Dry Canyon Village & Obsidian Trails have densities significantly lower than the proposed and also do an excellent job of including pocket parks and other green space for kids. To be fair, it feels unreasonable to ask for near similar densities, with back of the napkin math looking like 7 and 6 units / acre respectively (including the roads), **however some significant compromise there would go a long way**. 96 units on a small lot feels like the decision is 100% ROI driven and does not meet the developer espoused "Good for Redmond."

Access (traffic) is the largest echoed concern out of everyone and where our continued opposition will fall. While I know the City engineer found that these streets can handle the traffic, it will without question have a negative impact on them. Since the Hayden homes development to the SW, Forked Horn Butte and 43rd street have had an increase in traffic and at higher speeds. This proposed development will significantly increase this, not to mention Salmon, Majestic and 45th St.

With all of that said, there seems to be a very reasonable option in SW Forked Horn Butte connecting to Helmholtz. The City already owns the lot and has the easement and it also appears to meet most of the other requirements for a street connecting to a Minor Arterial. The one exception might be the minimum 1/4 mile intersection requirement, but we are within a few hundred feet of meeting it.

We were also informed by a neighbor (Helie) 2382 SW Helmholtz Way, that if they wanted to subdivide and add more lots to their property that the City said they would need to complete Forked Horn Butte to Helmholtz.... if true, it seems like an obligatory ask of LEDG and would enable additional taxable lots to the south as well.

I hope you will find that while we are outspoken and organized, we are not unreasonable. We fully understand the need for development and we are not out to obstruct. It is my hope that while the developer is regathering his intentions that we can require these and move forward.

Ty Lampella

February 11, 2022

Dear City of Redmond:

I am writing to highlight the urgent need for substantial workforce housing in the City of Redmond. While local leaders continue to discuss these matters, as the owner of RAM Landscape and Irrigation, the biggest issue I have is finding quality employees who are able to afford to live in town. Even before the pandemic, Redmond and Central Oregon were in the midst of a housing crisis.

As you are well aware, the expected population growth of Redmond over the next 20 years is over 50%. The local Redmond business community has heard time and time again that community members and leaders were seeking solutions to the workforce housing crisis that has plagued our ability to operate our business in an efficient manner. With this in mind, we enthusiastically endorse the Cottages on Helmholtz project. This project will provide 97 rental homes, 73 of which will be restricted to renters at or below 80% AMI. This will make a meaningful dent in our community's housing crisis and is exactly the type of project we desperately need.

As is often the case when housing developments are proposed, you are likely to hear from NIMBY (Not In My Back Yard), BANANA (Build Absolutely Nothing Anywhere Near Anybody), and CAVE (Citizens Against Virtually Everything) protestors. While these groups may be loud, they do not speak for our community at large. We encourage you to carefully review the proposed project. It is thoughtful, well-designed, and responsibly addresses the critical shortage in attainable housing that is holding back Redmond's civic and economic growth.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eddie Landeros', with a stylized flourish at the end.

Eddie Landeros, Owner

RAM Landscape and Irrigation, LLC

From: Roger Mathus
To: Kyle Roberts
Subject: Fwd: Helmholtz Cottages
Date: Thursday, February 10, 2022 6:57:34 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Begin forwarded message:

From: Roger Mathus <rogerm@gol.com>
Subject: Helmholtz Cottages
Date: February 10, 2022 at 12:42:10 PM PST
To: kyle.roberts@redmondoregon.gov

I found the Feb 14 hearing packet on the Redmond website. It includes the 65 page staff findings report. I note that it also includes citizen objection E-Mails and letters. My communication sent on the Monday, morning Feb 7 does not appear to have been included. WHY NOT INCLUDED - it was sent before NOON on the day due. It includes new information.

It would appear that with very wide opposition, the plan for a video meeting will not be satisfactory.

Best Regards,

Roger Mathus

Begin forwarded message:

From: Roger Mathus <rogerm@gol.com>
Subject: Effect of Affordable Housing Studies
Date: February 7, 2022 at 10:15:42 AM PST
To: kyle.roberts@redmondoregon.gov

Note that over 50 units may have negative impact and that for profit projects more of a problem than public housing. The latter finding may be related to better vetting by public owned facilities.

Talked to George Endicott yesterday (my next door neighbor) and he indicated that there are plans to open another street through to Helmholtz. If that is Quartz Ave, it may relieve some traffic concerns if the main access is at the North end of project - not Salmon and Forked Horn Butte Rd.

Concerned that it appears that the property will be subdivided to include two parcels to be sold to different owners. one 2 acre (18 unit) section already listed on Zillow with photographs of land prep reparations already underway and referencing "approved plans". What is the purpose of citizen hearing if owner thinks project already approved???? Is the hearing meaningless and just to satisfy state requirements?

The applicant seems to be not very experienced and has recently been purchasing existing apartment developments in the name of "affordable housing" as a buzz word while leasing for profit at market rates.

It would appear that the applicant may have funding concerns as they are selling two parcels of the proposed project. This also could lead to management concerns?

Other concerns are lack of parking, lack of storage and garages in plans. The very large project on 35 St. seems to have these amenities covered.

Impact of this project extends beyond 250 feet and is in one of the better areas of Redmond. I understand the minimum legal requirement for notification of land use, but Redmond should do better.

Roger

Below is link to studies in several cities.

<http://www.mhponline.org/files/AffordableHousingImpact-CommunitiesandHouseholds.pdf>

From: Gretchen McAbery
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Monday, February 14, 2022 5:12:41 PM

Spam

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle,

My name is Gretchen McAbery. My husband (Patrick "Pat") and I purchased a home on SW 41st last September for ourselves and our two adult children who are attending college and working in the Bend / Redmond area. Our backyard backs up directly to the Helmholtz Cottage proposed site. Please, please add us to the list of contacts for this issue. Pat's email address is patmcabery@gmail.com <<mailto:patmcabery@gmail.com>> .

I had joined the meeting tonight, but obviously, the agenda changed. So, I will simply put in our two cents directly to you via this email.

While we understand that people should be allowed to do, within reason, what they would like with their property, we do not want to see a large number of lower cost dwellings with reduced easements built in our backyard or rather backed up to it. We feel that the plan for adding a bunch of cottages to the neighborhood along with the reduced easements takes away a lot of the security and peacefulness which drew us to this home and quiet neighborhood in the first place. We just feel it would not be a good fit for the area.

Please keep us abreast of any new developments and any upcoming meetings discussing this proposal. Thank you very much.

Sincerely,
Gretchen McAbery (Pat, Emma and Griffin McAbery, too)

From: [John Roberts](#)
To: [Kyle Roberts](#)
Subject: FW: Helmholtz Affordable Housing
Date: Tuesday, March 08, 2022 1:44:28 PM

From: Ed Fitch <Ed.Fitch@redmondoregon.gov>
Sent: Tuesday, March 8, 2022 1:33 PM
To: John Roberts <john.roberts@redmondoregon.gov>
Cc: Keith Leitz <Keith.Leitz@redmondoregon.gov>
Subject: Fw: Helmholtz Affordable Housing

From: Barbara Russell <barbfishing@gmail.com>
Sent: Tuesday, March 8, 2022 10:34 AM
To: Ed Fitch <Ed.Fitch@redmondoregon.gov>
Subject: Helmholtz Affordable Housing

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Regarding the above proposal - I am against the plan for a couple of reasons:

My main concern is the water shortage we are having in Central Oregon. Wells are drying up all over, and last I heard there was a six month wait list to get a new well drilled. I believe a building moratorium would be more appropriate at this time, Instead of adding more stress to our water supply. It doesn't look like it's going to get any better soon, and I believe a building moratorium would let things even out, not only with the water situation, but the infrastructure for Redmond.

Traffic would become a nightmare in the Majestic Ridge housing area, adding a lot more traffic in a residential area. Cars already race down the streets, and more cars would be unsafe for children!

Barbara Russell
3545 SW Valleyview Dr
Redmond

From: [sandra.seefeldt](#)
To: [Kyle Roberts](#)
Subject: 2052 SW Hemholtz Way - proposed development
Date: Monday, February 07, 2022 6:52:51 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Re: Tax Lot # 1513190000701

As residents on SW Salmon Pl, we want to register our complaint regarding the proposed development.

First, traffic access to the development needs to include access via Hemholtz and not just through the existing neighborhood streets.
Second, there is not adequate onsite parking. It will result in street parking that further impedes traffic and is dangerous.

Sincerely,

Steve and Sandra Seefeldt
4109 SW Salmon Pl

From: [Garry Wilson](#)
To: [Kyle Roberts](#)
Subject: Fwd: Cottages on Helmholtz
Date: Wednesday, February 16, 2022 12:20:29 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I am sending this message again. Please let me know if you get it.

----- Forwarded message -----

From: **Garry Wilson** <garrywilson1898@gmail.com>
Date: Mon, Feb 14, 2022 at 11:35 AM
Subject: Cottages on Helmholtz
To: <kyle.roberts@redmondoregon.gov>

I am a retired Builder/Developer who lives in Majestic Ridge. I have developed a number of Multifamily/Condo Projects as well as Single Family Homes. I was surprised to learn that you were considering approval of a large high density project without proper consideration of the traffic issues. I have often had to pay for or improve arterials to accommodate access to higher density projects. It is a violation of basic planning principles to permit primary or exclusive access to higher density projects through low density quiet single family neighborhoods. The only reason the comprehensive plan calls for Multi-Family zoning for this property is because of its access to an arterial like Helmholtz. It is a violation of the intent of the comprehensive plan to deny access to Helmholtz. There is a reason why nearly all higher density projects have relatively easy access to an arterial. There may need to be improvement made to Helmholtz to accommodate safe access. This possibly includes things like a lower speed limit and left turn lanes similar to the intersection of 35th and Highland. From the point of view of the occupants of the new project, access to Helmholtz makes their commute to work much more direct whether to the industrial area east of Hwy 97, Bend, Prineville, or Sisters. Access for Emergency vehicles is much faster from Helmholtz and evacuation in the event of a large fire is much safer. The very reason for arterials is to provide for the efficient and safe movement of traffic. Either access to Helmholtz is accommodated or the property must be down zoned to low density single family. The reason that I have not responded earlier was that we were not properly informed since notification was not sent to all those homeowners who would be impacted by the excessive traffic created by this project.

Garry and Diane Wilson
4104 SW Salmon Place
Redmond, OR 97756

From: [John Roberts](#)
To: [Kyle Roberts](#)
Subject: FW: Helmholtz Cottages Strong Opposition
Date: Saturday, April 2, 2022 8:14:21 AM

And another one for the record.

From: Ed Fitch <Ed.Fitch@redmondoregon.gov>
Sent: Friday, April 1, 2022 1:09 PM
To: John Roberts <john.roberts@redmondoregon.gov>
Subject: Fw: Helmholtz Cottages Strong Opposition

From: carol.a@bendbroadband.com <carol.a@bendbroadband.com>
Sent: Friday, April 1, 2022 11:50 AM
To: Carol A. <carol.a@bendbroadband.com>
Subject: Helmholtz Cottages Strong Opposition

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Opposition to Affordable Cottages on Helmholtz

I am absolutely opposed to allowing Cottage affordable housing in and around the neighborhoods of Majestic Ridge, Emerald View Estates and Summit. I personally left the Bend area and custom built my home on Salmon Place to escape the density, traffic and parking issues that has plagued and ruined Bend. We love the feel of openness and farm land and strongly object to the density, traffic and noise that will affect our community. In speaking several time with Kyle Roberts with the city, he has indicated that Salmon Ave potential in the future will go through our neighborhood so the cottages have access to 45th place and Helmholtz. This will destroy our neighborhood.

My suggest is to move affordable housing and these tiny homes to the east side of Hwy 97 where they will fit into the where the average to lower end housing already exists.

It is imperative that you as elected officials do all you can to protect and preserve several of the more upscale neighborhoods of Redmond.

Please consider the preservation and character of Redmond as a wonderful place to live ... don't allow and start the precedence of letting Redmond become another Bend.

Sincerely,
Carol Armstrong
541-419-8758
Carol.a@bendbroadband.com
Emerald View Estates owner and real estate agent.

From: [Jerry Boysen](#)
To: [Kyle Roberts](#)
Cc: [Pamala Boysen](#); [Scott Phillips](#); [perkatschwarz@gmail.com](#); [Tyler Lampella](#)
Subject: 711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP) | Cottages on Helmholtz
Date: Sunday, April 3, 2022 11:01:28 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

My name is Jerry Boysen and I live in Majestic Ridge in Redmond, Oregon, along with my wife. We bought this property in 2005 for \$175,000 and stayed with it even when its value was close to nothing. In 2015 we finally were able to build our dream house on this property.

The reason we invested in Redmond and not Bend was in great part due to the open feel and large property parcels that were available. We loved the quietness of the area. Today this is threatened. My wife and I, as well as my neighbors, are very concerned about the proposed high-density development called "Cottages on Helmholtz". Obviously cramming 96 or so units onto 7.5 acres of land isn't in keeping with the look, feel, nor atmosphere of the existing neighborhood.

During our time here in Majestic Ridge we have witnessed a dramatic change to the "typical" resident. The area has changed significantly from a "retirement" community to a young family community. There are now many children walking to and from school bus stops every day.

I could go on and on about the increase of traffic in the neighborhood, the decline of safety for the children in the neighborhood, and the loss of value for all property in the region. But I won't as these matters should be very clear to anyone reviewing this proposal.

Instead, I will ask "What happened to trust?" Majestic Ridge is one of the most desirable neighborhoods in Redmond. When we built and moved here, we trusted that the neighborhood would retain its "Country feel" and spaciousness. We trusted that the city would value keeping an upscale neighborhood to draw in top level professionals and citizens. **This proposal does not fit in with these trusts.**

The potential developer knew that this concept would be opposed by the local residents. Their first letter of intent to develop went out to only homeowners within 100 ft. of the proposed development. Because of this absurd effort, that generated great ridicule from the community, a second letter of intent was sent out to homeowners.....this time to homeowners within 250 ft. of the proposed development. 250 feet hardly touches all who would be negatively impacted by this effort. This failure to adequately inform and involve the local neighborhood clearly demonstrates a complete lack of respect for the existing homeowners and a clear indication of the deceptive nature of this developer.

While it may be said that I am a "Not in my backyard" I do fully recognize the need for affordable housing. I happen to have an adult child who works full time here in town but had to move back in with us because he cannot afford to pay the high cost of rent in our community. I get it. But there are a lot of other areas in our town where a high-density development could be comfortably built without sacrificing the good aspects of existing neighborhoods.

There are no retail services within walking or even biking distance to this area - a concept that goes with this type of development.

Where is the water coming from for this development? Wells are already drying up and drillers are needing to go an additional 20 feet or more to find water.

This is an odd shaped parcel of land.....not like the other areas being considered for high density development. Rather than trying to squeeze in a lot of people, why not provide existing residents of the area with a long promised community park? This would be an ideal location for a park with many opportunities for athletic fields using synthetic turf to mitigate water concerns soccer, softball, and lacrosse tournaments draw a good deal of money into the community for hospitality needs. Food trucks could also serve the events and garner great taxable income.

I am hoping this communication does not fall on deaf ears and that there is enough integrity left in our city government to see that a few dollars paid into the city funds by this development will not be worth the high cost to its existing citizens.

Respectfully --
Jerry Boysen
4153 SW Salmon Place
Redmond, Oregon

From: [Mike Fisher](#)
To: [Kyle Roberts](#)
Cc: [Ellen Michaels](#)
Subject: Cottages on Helmholtz - Public comment
Date: Monday, April 04, 2022 12:02:25 PM

No Association

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle,

REFERENCE

Project #/ Name: 711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP) | Cottages on Helmholtz
Applicant/Owner: LEDG Capital LLC / Jamie Garza Et Al
Request: Site and Design proposal for an 89-unit detached multi-family development and a two-lot partition
Location: 2052 SW Helmholtz Way Redmond, OR 97756
Tax Lot Number(s): 1513190000701

With the median price for a home in Bend at \$740,000 (Beacon Appraisal Group, February 2022) and in Redmond at \$487,000 (Beacon Appraisal Group, February 2022), affordable housing is a critical need in Central Oregon. While the **Cottages on Helmholtz** seeks to address this need with 89 proposed subsidized housing units, the location is not the best for this type of project and the design and density is inconsistent with the surrounding area.

AREAS OF CONCERN

- **DESIGN:** The proposed box-style design with limited natural landscaping submitted in the **Helmholtz Way Development Design Submission** document (pages 15-19) offers a striking and jarring contrast with the custom designed homes in the Majestic Ridge and Summit Creek communities. A design profile more consistent with the footprint (e.g., The Eddy in Bend) of the surrounding communities will not only offer a more consistent visual blend but will assuage concern regarding an impact on nearby housing values. From [Impact of Affordable Housing on Families and Communities](#): "Numerous studies show that affordable housing has a neutral or positive effect on surrounding property values – more likely beneficial when it is **attractively designed**, well maintained, replacing blighted properties and located in **strong, mixed use communities**." This proposed development fails to meet either of these critical criteria to mitigate the potential impact to nearby housing values.
- **TRAFFIC:** Without direct access to Helmholtz, the residents of the 89 units will employ nearby local streets to access other areas of Redmond and Central Oregon. With the increasing number of cars on residential streets seeking access to Highway 20 and other east/west routes plus Helmholtz and other north/south highways, safety and traffic concerns would be heightened in these areas with increased potential for accidents and pedestrian/vehicle collisions. Access to Helmholtz from any new development in the proposed property is critical to minimizing potential points of conflict.
- **PARKING:** Although the project meets current city code (89 units, 195 parking spaces), the developer's application indicates "there is plenty of off-site parking, enough for 50-51 cars," strongly suggesting that the developer feels the 195 parking spaces are not adequate to meet the projected demand from the units. To expect the surrounding residential community to absorb the projected additional cars as on-street parking in front of their homes appears to place an unfair and unexpected burden on these residents. Any new project in this area must inclusively address its projected parking needs to minimize impact to surrounding communities.
- **PEDESTRIAN AND CYCLIST ACCESS:** From the Traffic Impact Analysis dated October 12, 2021: "The existing pedestrian and cyclist network is somewhat limited within this developing area, as the roadway system has not been fully developed. The subject property provides a link between several local streets, but there are missing connections along key corridors within the vicinity. Currently there are no pedestrian or cyclist facilities along the SW Helmholtz Way corridor, and with the missing sections of SW Quartz Avenue this also omits key connections." Any new development should embrace pedestrian and cycle infrastructure support as a way to reduce vehicular trips, mitigate environmental impact, promote community health and support the transition of Redmond to a progressive, multi-modal friendly city.
- **ACCESS:** Generally, affordable housing succeeds best when placed near services such as grocery, medical, restaurant, postal, library, schools and entertainment, and employers, where ready access via walking, biking or short car trips are options. One of the challenges of living in Majestic Ridge and Summit Creek is the lack of services within the community. More trips, particularly with gas prices at \$4.50 per gallon, strains household budgets. Combined with traffic concerns noted above, this exasperates potential safety concerns. From [Impact of Affordable Housing on Families and Communities](#): "Living in communities with high quality public transportation, or in well-designed and walkable transit-oriented developments, can lead to a range of health benefits. These include: reduced vehicle crash injuries, reduced exposure to pollution, increased physical activity, improved mental health, **reduced financial burdens and increased access to essential goods and services**." The proposed project fails to meet this criteria.
- **LACK OF GARAGES AND STORAGE.** The absence of garages and storage units promotes the potential for the unsightly placement of items on patios, balconies and unit entrances. The surrounding communities have homeowner's associations with regulations strictly guiding the presentation and maintenance. Will the Cottages on Helmholtz have regulations governing presentation to maintain consistency with the surrounding communities?
- **FINANCIAL ACCOMMODATIONS.** In the minutes from the Housing and Community Development Committee virtual meeting on September 15, 2021, "LEDG's ask for a potential waiver of SDC's (system development charges) be considered for the 50 percent and 80 percent AMI units in addition to determining how to set up the property tax to be coterminous with affordability." The two requested accommodations portend that the project will not contribute fully to the cost of expanding infrastructure capacity to serve the new customers or help support police, fire protection, education and other public services with the city and its taxpayers subsidizing those costs. This appears to inequitably distribute the costs to the remaining taxpayers of the city and county.
- **NOTIFICATION.** The first notification was sent to residents within 100 feet of the development. That number was low. After an outcry, notification was sent to residents within 250 feet of the proposed development. That was 62. With a proposed multi-use, highly dense development abutting a community of houses tendering a likely significant impact, the minimal notifications suggest that the city and the developer were trying to quietly and quickly push through approvals before the nearby and wider community learned of the project and had a chance to respond. That choice does not instill confidence that the city has the best interests of its citizens in focus and that the city and the developer harbored concerns about the reception of the development.

We need affordable housing in Redmond. However, affordable housing can better serve its residents and the local community by being located in or near downtown Redmond with ready access to services and employers and major east/west and north/south corridors, and designed to promote vibrant, inclusive communities.

The Helmholtz property can best be served by a multi-unit housing project that aesthetically complements the surrounding community, provides direct access to Helmholtz to discourage trips through residential areas, covers basic infrastructure and expanded services costs, and realistically

addresses parking inventory. Let's get the right project--the current proposed Cottages on Helmholtz does not meet this criteria--in this area to continue to smartly grow Redmond!

Thanks for listening and for your consideration!

--

Mike Ficher

2893 SW 50th Street

Redmond, OR 97756

mikeficher@gmail.com

mikeficher.com

From: [Jesse Grover](#)
To: [Kyle Roberts](#)
Subject: Re: Cottages on Helmholtz Public Hearing Notice
Date: Saturday, March 19, 2022 7:38:48 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Who approved this horrible plan in the first place? Do you even live in Redmond?

No access to Helmholtz from the development? Not a great idea to attach a bunch of shitty no income having losers to the best neighborhood in Redmond....

Wow, looks like the idiots have officially taken over at every level of our government.

Tell the mayor to kiss my ass if this goes down!!!

On Sat, Mar 19, 2022 at 7:01 PM Raven Hollister <ravenhollister79@gmail.com> wrote:

Sent from my iPhone

Begin forwarded message:

From: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Date: March 17, 2022 at 4:15:57 PM PDT
Subject: Cottages on Helmholtz Public Hearing Notice

Hello,

Notice is hereby given that a public hearing for the application below will be heard by the Planning Commission on Monday, **April 11th, 2022 at 6:30 pm** in the City Council Chambers at the Redmond City Hall located at 411 SW 9th Street, Redmond, OR.

Project #/ Name:	711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP) Cottages on Helmholtz
Applicant/Owner:	LEDG Capital LLC / Jamie Garza Et Al
Request:	Site and Design proposal for an 89-unit detached multi-family development and a two-lot partition
Location:	2052 SW Helmholtz Way Redmond, OR 97756
Tax Lot Number(s):	1513190000701
Applicable Criteria:	Redmond Code, Chapter 8 Developmental Regulations, Article I – Zoning Standards; Article II – Land Use Procedures; Article III – Land Division Standards, Land Partitioning; and Article IV – Site and Design Review Standards
Staff Contact:	Kyle Roberts – 541.923.7758 or kyle.roberts@redmondoregon.gov

Questions, concerns or requests for plans can be directed to the staff person listed above. You are invited to submit written comments to the staff contact on or before 12 PM on April 4th, 2022.

Any interested person may appear at the hearing and give testimony. Failure to raise an issue in person at a hearing or in writing precludes appeal by that person the Land Use Board of Appeals (LUBA) and that failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue precludes appeal to LUBA based on that issue. A copy of the application, all documents and evidence relied upon the applicant and applicable criteria are available for inspection at no cost and copies will be provided at a reasonable cost. A copy of the staff report will be available for review at no cost seven (7) days prior to the hearing and copies provided at a reasonable cost. The City of Redmond does not discriminate on the basis of disability status in the admission or access to, or treatment, or employment in its programs or activities.

Kyle Roberts, AICP | City of Redmond

Interim Planning Director

phone 541.923.7758
cell 541.233.8180
email kyle.roberts@redmondoregon.gov

411 SW 9th Street Redmond, Oregon 97756

WWW.REDMONDOREGON.GOV

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From: [Byron Hadley](#)
To: [Kyle Roberts](#)
Subject: Opposition to Cottages on Helmholtz from nearby homeowner - Byron Hadley
Date: Thursday, March 31, 2022 7:55:05 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle. I have received notice of the upcoming hearing on April 11 regarding the proposed "Cottages on Helmholtz," but the letter from the City did not provide information about a remote appearance, such as by phone, WebEx, Zoom, etc. Is any remote attendance option being provided? If so, could you please provide the connection information?

Regarding the merits of the proposed cottages, please accept the following as my written comments on the project:

I've had some time to review the materials and ponder the significance of the proposed development "Cottages on Helmholtz" (hereinafter "Cottages"). I've devoted enough thought to this situation that I have confirmed that I and my family are opposed to this development.

Our home is only about 3 houses down from the proposed Cottages. Even a very limited review shows that the proposed Cottages will not mesh with the style, tone, expected growth patterns, and normal usages (utilities and otherwise), expected of the surrounding neighborhoods. Please just look at the CCRs for the surrounding neighborhoods, and see how widely the proposed Cottages diverge from the styles and intended development contained in those CCRs.

As just one of many concerns, why is traffic from the proposed Cottages not going to be funneled to and through Helmholtz? Why should the existing, surrounding neighborhoods bear the burden of the traffic necessarily resulting from ingress and egress when Helmholtz is so near as a traffic connection point? This is just one concern that is meant to be illustrative, and not exhaustive. Indeed, isn't it somewhat insulting to refer to this project as Cottages on "Helmholtz" when the current plan would not even connect that development to the street for which it is named?

The volume of traffic that will necessarily flow into the surrounding neighborhood without a connection to Helmholtz is concerning, offensive, and even dangerous. Statistics will necessarily show an increased risk to children, pets, and neighborhood residents in general from a higher volume of traffic associated with Cottage residents. This is particularly true when, as far as I know, there is no nearby mass transit option to connect Cottage residents with Redmond proper, and especially without a direct connection to Helmholtz, so that Cottage residents will necessarily be using private vehicles for transportation.

Furthermore, why shouldn't the City allow additional housing, but require that it be a neighborhood of homes with garages and other basics like the surrounding neighborhoods? To the extent that the City is concerned about making housing affordable, why would the City support discriminating against poorer (and therefore more vulnerable) residents by allowing them to be deprived of garages and appropriate living space, when the City would not have allowed such building practices in even more expensive neighborhoods (like when our home was built)? In other words, although arguments for approval of the Cottages might be cloaked in the idea of benefiting lower income residents, it is actually a thinly veiled way of taking advantage of those future residents by depriving them of housing consistent with the theme and style of the surrounding neighborhood. We are not opposed to development of the land, but it should be done in such a way that it respects both the future residents and the surrounding neighborhood.

With no garages associated with the proposed Cottages, residents of and visitors to the proposed cottages will undoubtedly park in nearby streets, including in front of our house (which is again, just several houses away). Why should my family and our guests have to fight for parking in front of our very own home? What enforcement mechanisms (if any) are the City prepared to use to make sure that parking is preserved for current, established residents in the surrounding neighborhoods?

Please, please do not allow this proposed Cottages development to go forward. Its current design is a disservice to both the current neighborhoods and future residents whom we would otherwise like to welcome into our community.

Sincerely,

Byron Hadley
503-851-4290

From: [Rob Hubbard](#)
To: [Kyle Roberts](#)
Cc: [George Endicott](#)
Subject: Deschutes 40 Acre new village vs. 2052 SW Helmholtz Way Redmond, OR 97756
Date: Friday, March 18, 2022 12:13:43 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle,

I am writing to further my objections to the planned housing development for low income families on Helmholtz. Given the recent announcements from Deschutes county which is very positive, there is clearly going to be ample and well thought out areas for low income families to live in close proximity to the town and its facilities vs cramming in a maximum number of units in a very small area. This will not be good for those residents in the short and long term. Therefore I would respectfully ask the Redmond team to re-consider this proposal given the changed situation. We have already provided great facilities near Safeway and other areas closer to town for low income families. Having a well thought out and planned area seems far more in keeping with Redmond than what appears to be a less than ideal location with little room for expansion and a developer perusing to take advantage of the revived HFA's on offer from the current administration..The go big or go home comes to mind here, the new 40 Acres for mixed housing can be a bigger tax win for the Redmond town than pushing this development into a small unsuitable place.

Reference;

[HFA's](#)

[New 40 Acres for Redmond](#)

Phone 408-206-2208
Regards
Rob Hubbard

From: JENnifer N
To: Kyle Roberts
Subject: Re: Cottages on Helmholtz Public Hearing Notice
Date: Friday, March 18, 2022 10:49:53 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[2022-3.16 Helmholtz Site Plan Exhibit\[100\].pdf](#)

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The map shows a bunch of housing squeezed into a small space. Can our schools keep up with the families that will reside in these 89 units? Can our health clinics provide care for everyone without patients waiting weeks to be seen? Where will these kids play to burn off energy? What view will they have to relax to? Packing a ton of people into? I am not opposed to housing being built but I am opposed to the kind of housing being built. Please use this location to build homes with yards for kids and dogs to play in. Please do not destroy the community of Redmond by over populating it. We like our bike trails, views, the stars and knowing our neighbors. People are moving from bend to Redmond because Bend is being destroyed. Can we please have one nice location that doesn't make us feel like houses / walls are enclosing in on us?
Sent from my iPhone

On Mar 17, 2022, at 4:16 PM, Kyle Roberts <kyle.roberts@redmondoregon.gov> wrote:

Hello,

Notice is hereby given that a public hearing for the application below will be heard by the Planning Commission on Monday, **April 11th, 2022 at 6:30 pm** in the City Council Chambers at the Redmond City Hall located at 411 SW 9th Street, Redmond, OR.

Project #/ Name:	711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP) Cottages on Helmholtz
Applicant/Owner:	LEDG Capital LLC / Jamie Garza Et Al
Request:	Site and Design proposal for an 89-unit detached multi-family development and a two-lot partition
Location:	2052 SW Helmholtz Way Redmond, OR 97756
Tax Lot Number(s):	1513190000701
Applicable Criteria:	Redmond Code, Chapter 8 Developmental Regulations, Article I – Zoning Standards; Article II – Land Use Procedures; Article III – Land Division Standards, Land Partitioning; and Article IV – Site and Design Review Standards
Staff Contact:	Kyle Roberts – 541.923.7758 or kyle.roberts@redmondoregon.gov

Questions, concerns or requests for plans can be directed to the staff person listed above. You are invited to submit written comments to the staff contact on or before 12 PM on April 4th, 2022.

Any interested person may appear at the hearing and give testimony. Failure to raise an issue in person at a hearing or in writing precludes appeal by that person the Land Use Board of Appeals (LUBA) and that failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue precludes appeal to LUBA based on that issue. A copy of the application, all documents and evidence relied upon the applicant and applicable criteria are available for inspection at no cost and copies will be provided at a reasonable cost. A copy of the staff report will be available for review at no cost seven (7) days prior to the hearing and copies provided at a reasonable cost. The City of Redmond does not discriminate on the basis of disability status in the admission or access to, or treatment, or employment in its programs or activities.



Kyle Roberts, AICP | City of Redmond
Interim Planning Director

phone 541.923.7758
cell 541.233.8180
email kyle.roberts@redmondoregon.gov

411 SW 9th Street Redmond, Oregon 97756



WWW.REDMONDOREGON.GOV

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From: [LH](#)
To: [Kyle Roberts](#)
Subject: Cottages at Helmholtz Way
Date: Friday, April 01, 2022 2:26:21 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Mr. Roberts,

Please do not approve the plans for Cottages on Helmholtz or the tiny home development project at 2382 SW Helmholtz way.

There is no Helmholtz Way access planned for the development. That means more cars will be traveling through my neighborhood, which is a potential hazard to my kids. In addition, the builder won't be building adequate parking, which means my neighborhood will be used for overflow parking of cars, trucks and recreational vehicles for these folks.

I have been paying my taxes faithfully and doing my part to keep up my neighborhood. These proposed developments will not add value to my neighborhood.

Thank you,
Lori

From: [Roger Mathus](#)
To: [Kyle Roberts](#)
Subject: Fwd: Cottages on Helmholtz Public Hearing Notice
Date: Monday, March 28, 2022 4:42:04 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Based upon expected interest, it does not appear that the council Chambers will provide enough space for concerned citizens. In the past, I recall, that meetings have been held at Fairgrounds large meeting room when large attendance is expected. Over 300 people have signed a petition and there were over 50 ZOOM attendees at the LEDG Capital meeting conducted earlier this month.

As you previously pointed out, many of the concerns are outside the scope of the City Planning Department. Beyond code compliance. For this reason, it would be beneficial for City Council, City manager, City Attorney and Mayor to be present.

LEDG Capital LLC business plans are questionable as well as their resources and experience. It appears that they mainly buy up old apartment complexes in large inner cities and operate as largely as Section 8 subsidized housing.

In the LEDG ZOOM call, they indicated that they are now planning "Cottages on Helmholtz" as "luxury housing with the expectation of \$ 2k/mo and up to \$3k/mo. for each unit. This means that the unit renter would need an income of \$ 70k/yr-80k/yr to qualify. There is concern that they would rent on rent sharing basis with up to 6 unrelated occupants. This would mean even more cars, traffic and parking shortage. LEDH had no response for this concern.

The units, as designed, do not appear to offer space and amenities generally associated with "luxury housing". Traffic and overflow parking to adjoining neighborhood also questionable.

This business plan is not "affordable housing" as normally defined as as originally pitched. Also, it would appear that location near city center with easy access to transportation, offices and shopping would be more appropriate.

In the meeting, it was also disclosed by LEDG that they are only an investor looking for return on investment. They do not manage their projects but rather contract out to property management. They were also not clear as to what their tenant guidelines would be nor how they would be enforced.

There needs to be a city review of the business plan and viability and a report made available.

The LEDG Capital ZOOM meeting seems to serve to make attendees leave meeting aware of even more concerns. For this reason, interest in April meeting will likely be high.

Kindly acknowledge receipt of this communication.

Best Regards,

Roger Mathus

Begin forwarded message:

From: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Subject: Cottages on Helmholtz Public Hearing Notice
Date: March 17, 2022 at 4:15:52 PM PDT

Hello,

Notice is hereby given that a public hearing for the application below will be heard by the Planning Commission on Monday, **April 11th, 2022 at 6:30 pm** in the City Council Chambers at the Redmond City Hall located at 411 SW 9th Street, Redmond, OR.

Project #/ Name:	711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP) Cottages on Helmholtz
Applicant/Owner:	LEDG Capital LLC / Jamie Garza Et Al
Request:	Site and Design proposal for an 89-unit detached multi-family development and a two-lot partition
Location:	2052 SW Helmholtz Way Redmond, OR 97756
Tax Lot Number(s):	1513190000701
Applicable Criteria:	Redmond Code, Chapter 8 Developmental Regulations, Article I – Zoning Standards; Article II – Land Use Procedures; Article III – Land Division Standards, Land Partitioning; and Article IV – Site and Design Review Standards
Staff Contact:	Kyle Roberts – 541.923.7758 or kyle.roberts@redmondoregon.gov

Questions, concerns or requests for plans can be directed to the staff person listed above. You are invited to submit written comments to the staff contact on or before 12 PM on April 4th, 2022.

Any interested person may appear at the hearing and give testimony. Failure to raise an issue in person at a hearing or in writing precludes appeal by that person the Land Use Board of Appeals (LUBA) and that failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue precludes appeal to LUBA based on that issue. A copy of the application, all documents and evidence relied upon the applicant and applicable criteria are available for inspection at no cost and copies will be provided at a reasonable cost. A copy of the staff report will be available for review at no cost seven (7) days prior to the hearing and copies provided at a reasonable cost. The City of Redmond does not discriminate on the basis of disability status in the admission or access to, or treatment, or employment in its programs or activities.



Kyle Roberts, AICP | City of Redmond
Interim Planning Director

phone 541.923.7758
cell 541.233.8180
email kyle.roberts@redmondoregon.gov

411 SW 9th Street Redmond, Oregon 97756



WWW.REDMONDOREGON.GOV

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Messages to and from this email address may be subject to Oregon Public Records Law.

From: Ellen Michaels
To: Kyle Roberts
Subject: COTTAGES AT HELMHOLTZ | COMMENTS & QUESTIONS FOR 4-11-22 MEETING
Date: Monday, April 04, 2022 11:52:35 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Kyle,

I am a homeowner in a community adjacent to the proposed Cottages at Helmholtz multi-family development.

Following are my questions and comments for the April 11, 2022 meeting. Please confirm receipt of this via return email.

COMMENTS

There is no denying there is a housing shortage at all income levels in Central Oregon. There is no denying that low to moderately low income housing is needed. However, the location of housing that supports low to moderately low income residents must actually support the residents of the housing community itself and the City in which it is located without:

- Negatively impacting adjacent established residential communities with increased traffic,
- Increased noise,
- On-street parking in residential communities not designed to support it,
- Light pollution from the addition of parking lot lighting in a single family residential areas,
- Truncated design couched as "modern"
- Lack of transparency under the guise of "doing good"
- Failing to think about long term day to day management and impacts,
- Failing to invest in the City and surrounding communities by paying property taxes that support schools, roads and City services.

Low to moderately low income multifamily residents prosper and contribute to their communities when housing is placed in pedestrian and bike friendly corridors near stores, schools, restaurants, pharmacies, medical offices and most importantly, public transportation.

The City of Redmond does not have infrastructure in place to provide the most basic of public transportation anywhere in Redmond. *Low income individuals may choose to forgo the cost of a vehicle in order to stay sheltered and feed their families so how are they supposed to access services that are miles away?* There is no transportation from the proposed location on Helmholtz to the nearest grocery store which tends to be higher priced than the Wal-Mart Super Center in North Redmond, accessible only by car. There are no bike lanes from Helmholtz to Highland Avenue or through the surrounding residential communities which have steep hills. It is not likely anyone would chance that long walk or ride during normal weather let alone during winter cold and snow.

The City of Redmond needs to review other developer plans for this lot that contribute to the surrounding community and to the tax base that benefits all City residents.

Low to moderately low income housing benefits everyone when it is done with and when it is done with long term planning and foresight.

The City of Redmond should not approve this project just because it can. It has all the makings of a develop, lease up and sell in a year plan.

PROPERTY TAX EXEMPTIONS

Ledg Capital requested a property tax exemption and waiver of system development charges during the September 15, 2021 Housing and Community Development meeting. Ledg Capital is developing land with no intention of contributing to the area by paying property taxes while taking advantage of the tax exemptions.

- *Why does the City expect the surrounding homeowners and property owners to continue to pay ever increasing county property taxes, increased water, sewer and garbage bills while this developer is not contributing revenue to the community?*
- *How long does Ledg Capital intend to own the proposed development?*

BUILDING ELEVATIONS

Ledg Capital is proposing a "minimalistic" style of architecture for the building's elevations along with a color scheme not used in the surrounding residential communities. The flat front elevations frankly look cheap against the backdrop of the established area homes that adhere to specific styles of elevations. There is no continuity, consistency or congruity between the proposed elevations with any of the existing residential communities.

This "minimalist style" can be seen in a few locations in Redmond and at a low income building in Bend next to Lava Lanes Bowl. The buildings are simply flat front boxes with no overhangs and few changes in roof pitch. Ledg Capital calls the slightly recessed entrance a "porch" in one document. It is not a porch, it's a recessed entrance.

Developers throughout Central Oregon have created multifamily communities that complement the established residential communities they are built near and fit in with their surroundings. This community does not.

The Applicant Response to the Burden of Proof Statement Site and Design Review, Variance and Partition Application prepared by Becon, LLC Page 7, Section 8.0141 Architectural Design Standard for Single Family Dwellings, Duplexes, Tri-plexes and Four-plexes, Item 2, Intent:

Applicant Response

The houses cumulatively establish an architectural language that is modern in its clean line and pure forms but also relates to the traditional bungalow forms of 20th century's American houses..."

- There is no traditional bungalow form appearing on any of the submitted elevations. All buildings are flat fronted with no overhangs, with eaves reduced to 2" "for aesthetic purposes" (Page 9) and only one roof pitch.
- There is no window trim consistent with homes in adjacent communities.
- The brighter exterior paint color scheme is not consistent with homes in the surrounding communities.

See attached image of a Central Oregon multifamily development with elevations more consistent and complementary to surrounding established homes designs and elevations.

LANDSCAPING | HARDSCAPING | LIGHT POLLUTION

The Szabo Landscape plan shows pavers and another plan shows cobblestones. Cobblestones and some types of pavers are not easy to navigate with baby strollers, walkers, wheelchairs, canes, crutches or any mobility device.

- *Aren't cobblestones and pavers adverse to ease of use for the mobility impaired?*
- It should be assumed that children and pets would be residents of the proposed development. The Landscape Plan notes "courtyards" but there don't appear to be any grassy areas for play or areas for dogs.
- *Where are the green play spaces and dog walk areas?*
- *Does Ledg Capital expect that dogs will be walked outside the community into the adjacent residential neighborhoods?*
- *Do the street lights noted in the Landscape Plan adhere to existing City requirements?*

- *What is the estimated increase of light pollution from the development?*
- *The Landscape Plan notes that it is schematic in nature. Does Ledge Capital intend to comply with this Landscape Plan?*
- *The addition of adequate parking lot lighting on a piece of property that has been devoid of lighting for years creates light pollution all night long for adjacent homes and homes that sit at higher elevations. Parking lot lighting creates greater light pollution than residential home front entry lighting.*
- *What will be done to prevent this additional light pollution from happening?*

HEAT SIGNATURE

Lack of substantial ground vegetation and flat elevations increases the heat signature near the units which increases the need for air conditioning.

- *With flat fronts absorbing heat and no overhangs to alter the angle of the sun's rays, the units are going to experience substantial heat increases during the hot summer months straining energy resources.*
- *Does Ledge Capital intend to increase the amount of vegetation to reduce the heat signature and reduce each unit's energy consumption?*

GARAGES AND STORAGE

There are no garages nor additional storage units in this community. The majority of single or dual parent households with children want storage for bikes, tricycles, outdoor toys and play areas for their children.

- *The lack of garages and storage will become problematic with bulky items spilling over to patios and balconies.*

LENGTH OF STAY | RESIDENT TURNOVER

Given that there are no garages, no storage, no play yards, no pedestrian or bike paths, no close proximity to stores, pharmacies, medical facilities or shopping, no greenbelt and no public transportation, it can be assumed there will be substantial resident turnover with few long term residents. This turnover or churn, means a constantly changing community dynamic which requires consistent community management.

- *What is the on-site management structure?*
- *How many people will be on the management team?*
- *Does Ledge Capital intend to hire a local vetted property management company?*

QUIET TIMES | COMMUNITY RULES

Many of the surrounding residential communities are part of established Homeowner Associations with lengthy and stringent CC&Rs related to quiet times, resident conduct, exterior maintenance, allowed landscaping, dog walking etiquette, outdoor decorations, etc.

- *Does Ledge Capital intend to conform to these same community rules of good citizenship and being a good neighbor to the adjacent communities?*
- *Are there community rules that are consistent with the CC&Rs required of surrounding homeowners?*

EGRESS | EMERGENCY RESPONSE

It appears there is only one means of egress into and out of the community.

- *With only one means of egress, what happens in the event of an emergency evacuation such as a wildfire?*
- *For any type of emergency response call, will fire trucks, paramedics, police and other first responders be able to safely access the community without blocking the only means of egress?*

NUMBER OF UNITS AND PARKING SPOTS | ELECTRIC VEHICLE PARKING

There is inconsistency in the documents regarding the number of units and number of parking spaces.

- *What is the actual number of units?*
- *What is the actual number of parking spaces?*
- *On-street parking should be kept within the community, not allowed to spill over into the surrounding residential communities, clogging streets, creating noise and negatively impacting property values.*
- *One of the site plans shows parking spots set aside for electric vehicles (EVs). If this is low income to moderately low income housing, the price of a used electric vehicle is in excess of \$25,000 and a new electric vehicle is approximately \$55,000.*
- *Why is valuable parking space being limited to electric vehicles that are by their very nature very expensive?*

See attached images of what full parking lots and spillover on-street parking looks like from a multifamily community.

We need additional housing at all price points in Redmond. However, that housing needs to be created and provided in ways that enhance the City, complement existing neighborhoods, create long term communities and contribute to the tax base that keeps City, County and other public services viable long term for all citizens.

Thank you.

Sincerely,

Ellen Michaels

From: [Craig Nelson](#)
To: [Linda Nelson](#); [Kyle Roberts](#)
Subject: Hemholtz Cottages - 4/11 planning commission
Date: Saturday, March 26, 2022 6:35:39 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Kyle,

I am writing in advance of the planning commission meeting on April 11th. I have participated in the various steps of the process, culminating in the sales presentation by LEDG a few weeks back.

I am skeptical in most of what the LEDG team presented, especially the sudden switch from multi-income units to luxury units at \$2,000 or more in rent. The bottom line, the type of income required is NOT the issue.

We know it is inevitable that this property will be developed at some point.

We remain concerned with a couple of key issues.

1. Traffic - there is no access from Hemholtz, forcing over 800 additional trips through our neighborhood - down my street for a good portion of those. There is enough traffic now with residents of our neighborhood - adding the traffic from this project will make it unacceptable and much higher risk of traffic issues in the streets.

Question: Will the City consider access from Hemholtz?

Question: Has the City's traffic planning group done analysis on the impact of this project on our neighborhood streets.

Question: Has the City budgeted for additional traffic enforcement of speed, parking, accidents, etc based on this project?

2. Parking - I believe the developer is expecting "overflow" parking of 51 spots on the neighborhood streets (this may have been updated based on latest changes from 90+ to 80+ units). This is most likely a conservative estimate - did they take into account visitor, units that have more occupants than the developer is expecting (highly likely outcome), and the most likely need for more than 50 spots. I believe they are estimating less than 2 spots per unit. We all know, regardless of affordable or luxury housing, there will be 2+ cars per unit. I do not want cars constantly parked in front of my house (I am right up the street and it will impact me) and taking spots for my guests, etc.

Question: Has the City done the analysis on the parking impact?

Question: Does the City really believe these units will have less than 2 cars on avg?

Question: Has the City considered measures such as "no overnight parking or permit parking"? Permit parking would exclude vehicles in the development - there should be enough parking to cover the expected occupants - guests would be excluded from parking in the neighborhood.

Question: Has the City budgeted for parking enforcement, for abandon vehicle tows, etc?

Crime - I have worked around law enforcement for over 30 years, including the City of Redmond and Bend, along with Deschutes County. My concern is that cars and lack of garages attract crime. I believe, regardless of affordable or luxury units, a lack of garages, cars and belongings exposed, cars on the neighborhood streets will increase the risk of crime in the neighborhood.

Question: has the planning commission consulted with the Police Department on their concerns with increased crime, or the potential for an increase?

Question: has the City budgeted for increased patrols of the development and surrounding neighborhoods?

City and County tax revenue - my understanding is the developer has asked for reduced tax implications for them

and the occupants. If this was a single family dwelling project, that would not occur - and increase revenues to the City.

Question: Has the City done an analysis of the impact for various tax scenarios?

Question: If the project is affordable or luxury units, is the City giving tax reductions?

In summary, it seems like there are many costs that will fall to the City and at the same time, the developer is looking for tax relief. Regardless of the type of housing, parking, traffic, crime, and city revenue are risks the planning commission and council should be concerned with. I am concerned these have not been adequately addressed by the City and it has relied on developer and their "experts". I have to tell you, the Sales Pitch by the developer increased my skepticism and decreased any support for this project.

A project with similar housing units - single family residential houses - would generate support from me. It is inevitable that land will be developed but rental properties are not a part of the current landscape - and, as a new homeowner on 43rd street as of November 2020, I would NEVER have bought the house if I knew this was coming.

I appreciate the request for input. Unfortunately, my wife and I will not be in town for this meeting. I know my neighbors will be there in force and will raise similar concerns that I have here. I ask the City really do the analysis, look at the impact, and look for rental unit development in a more appropriate, similar area. Consider development of a residential housing project in place of this one.

Thank you.

Craig Nelson
925-628-2362

From: climbingscott@comcast.net
To: [Kyle Roberts](#)
Subject: RE: Cottages on Helmholtz Public Hearing Notice
Date: Monday, April 04, 2022 1:24:21 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[Canyon Trails.pdf](#)

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Roberts:

My name is Scott Phillips and live at 4204 SW Salmon Ave, Redmond. I am located very near the Helmholtz Cottages that are under consideration of approval at 43rd and Salmon.

I would like to point out that the design of the "cottages" that LEDG Capital wants to build do not conform to architectural codes set forth by the City of Redmond. Chapter 8, specifically 8.0141, lists all of the design characteristics that the City of Redmond requires of the architecture for single family dwellings all the way up to four-plexes. The design of the LEDG units do not meet much of the code.

Section 1:

They do not enhance the visual environment and character of the community.

It does not preserve and protect property values for either public nor private infrastructure investments.

They do not convey a sense of balance, integrity or character to the adjoining neighborhoods.

They do not elevate the attractiveness and quality of life for surrounding developments.

The LEDG units are not variable enough in design to differentiate them from row houses in a poverty stricken area of a big city like Chicago, IL

During Deborah McMahon's presentation about the high density overlay on December 12, 2017, she showed a couple of examples of what the architecture would look like. They had variable roof lines and walls that did not simply come together in the shape of a simple box as LEDG proposes. You also sent me examples of cottage styles that are much more appealing than the LEDG design. I attached them to this e-mail.

Regards,

Below is my original email I sent on February 7, 2022 concerning the Helmholtz development. All of what I said is still valid.

I have some discussion points about the project that I'd like to express with great concern:

Notification of the neighborhood: The initial letters from the City of Redmond were sent to homes that were only 100 feet from the subject property. This only included about 20 homes. The most recent letters were sent to homes within 250 feet (and I still didn't get a letter). I find that inadequate notification of a project that will affect three different neighborhood developments and more than 150 homes.

High Density Overlay: I am unfamiliar with the process of how a High-Density Overlay is applied to a section of property. This section of Redmond is not a good fit for such a designation and the overlay should be reconsidered for this property.

Housing Type: The neighborhoods surrounding the proposed development are mostly owner-occupied housing except for a few duplexes and rental houses dispersed throughout the area. This area is not the right place for low-income rental units such as these. Despite what an out of state development firm professes. I would much rather see a local developer build single-family, owner-occupied housing in that area.

Building Design: I'm not an architect or a structural engineer but the design of the buildings seems to be susceptible to snow load damage between the connected cottages. They are also going to be prone to wind damage and driving rain with 2" eaves around the perimeter of the buildings. I'm not convinced that the building design was done by someone who knows Central Oregon weather. Lastly, the design of the buildings does not match the architectural design of the surrounding neighborhoods.

Storage: One thing all the homes that are in the surrounding neighborhoods provide are garages and adequate driveway parking for vehicles and storage for personal belongings. According to the "Design Submission" dated 10-6-2021, the cottages have no garages and no storage for personal belongings except for very small, fenced areas for each dwelling. Without proper management there is potential for dilapidated vehicles in their parking lots and our streets and overflow from the fenced areas. This would become a blight on the adjoining neighborhoods.

Parking: The number of parking spaces for the development is inadequate. There should be a minimum of one parking space per bedroom. That would bring the parking requirements to 270 spaces to meet demand of future demographics of the occupants. Yes, even low-income families have several cars in their household. They may not be able to afford their own house, but they spend their money on more cars with an abundant amount of used car dealerships out there and low costs to purchase them.

Traffic: The infrastructure around the Helmholtz Cottages is inadequate to support the increased flow of traffic that the developer calculates in their documentation. My guess is that they low-balled the figures, and you can add at least 50% more to the numbers, conservatively. Salmon Ave is not set up to handle another 800-1200 trips per day. The intersection at Salmon and 37th already sees many people running those stop signs (as discussed with neighbors near the intersection) and then the jog at 36th St is too busy now. Not to mention the curves on Salmon east of 36th. The entire length of Salmon will become a serious safety concern.

Property Values: My neighbors and I have invested a lot of money, time and sweat equity in the homes we live in around here. Some of us would like to call them our "forever" home. Many are seriously considering moving if these cottages are approved, which is unfortunate. These cottages will not help with our property values and the equity we have in them. We have a lot of "Pride of Ownership" in our homes around here.

Conclusion: I will end this letter with a few bullet points:

- I feel that the City of Redmond is trying to pass this development without due process of adequately informing all interested individuals.
- An out-of-town developer does not know what is best for a community. I believe that they are just trying to get a foothold into a new state that they haven't built in yet. I'm sure that money is the main driver here, not community involvement.
- The main theme of the development does not fit the area in which it is proposed. Dwelling ownership, building design and property development design all do not fit the surrounding neighborhoods or Central Oregon, for that matter.
- The land should be changed to single-family, owner-occupied dwellings with codes upheld for garages in the design. Preferably built by a local builder that has a stake in Central Oregon and has a reputation to uphold.
- Lastly, I am adamantly against the approval of the Helmholtz Cottages as proposed by LEDG Capital, LLC. The City of Redmond should not approve the development.

Sincerely,
Scott Phillips
Cell: 458-256-8904
E-Mail: climbingscott@comcast.net

From: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Sent: Thursday, March 17, 2022 4:16 PM
Subject: Cottages on Helmholtz Public Hearing Notice

Hello,

Notice is hereby given that a public hearing for the application below will be heard by the Planning Commission on Monday, **April 11th, 2022 at 6:30 pm** in the City Council Chambers at the Redmond City Hall located at 411 SW 9th Street, Redmond, OR.

Project #/ Name:	711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP) Cottages on Helmholtz
Applicant/Owner:	LEDG Capital LLC / Jamie Garza Et Al
Request:	Site and Design proposal for an 89-unit detached multi-family development and a two-lot partition
Location:	2052 SW Helmholtz Way Redmond, OR 97756
Tax Lot Number(s):	1513190000701
Applicable Criteria:	Redmond Code, Chapter 8 Developmental Regulations, Article I – Zoning Standards; Article II – Land Use Procedures; Article III – Land Division Standards, Land Partitioning; and Article IV – Site and Design Review Standards
Staff Contact:	Kyle Roberts – 541.923.7758 or kyle.roberts@redmondoregon.gov

Questions, concerns or requests for plans can be directed to the staff person listed above. You are invited to submit written comments to the staff contact on or before 12 PM on April 4th, 2022.

-
Any interested person may appear at the hearing and give testimony. Failure to raise an issue in person at a hearing or in writing precludes appeal by that person the Land Use Board of Appeals (LUBA) and that failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue precludes appeal to LUBA based on that issue. A copy of the application, all documents and evidence relied upon the applicant and applicable criteria are available for inspection at no cost and copies will be provided at a reasonable cost. A copy of the staff report will be available for review at no cost seven (7) days prior to the hearing and copies provided at a reasonable cost. The City of Redmond does not discriminate on the basis of disability status in the admission or access to, or treatment, or employment in its programs or activities.



Kyle Roberts, AICP | City of Redmond
Interim Planning Director

phone 541.923.7758
cell 541.233.8180
email kyle.roberts@redmondoregon.gov

411 SW 9th Street Redmond, Oregon 97756



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Please consider the environment before printing this email.

DISCLOSURE NOTICE:

Messages to and from this email address may be subject to Oregon Public Records Law.

From: [Wendy Robertson](#)
To: [Kyle Roberts](#)
Subject: New subdivision on Helmholtz near SW 45th
Date: Friday, April 01, 2022 9:26:58 AM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Kyle Roberts,

I live in the Emerald View Estates which will be adjacent to the proposed home development. I am all for high density housing, we need it. But in considering a high density housing project I feel the city has perhaps not considered all the requirements that must go along with high density rental homes.

- No direct access to Helmholtz puts our streets at risk with a much larger volume of cars passing through all day and night
- Where is the public transportation that can accomodate these rental homes. Kids getting to school, parents getting to jobs
- Parking does not appear to be adequate for such a subdivisions. If parking begins to move onto the other subdivision streets this puts all at risk. Dogs or balls being chased by kids where you cannot see around parked cars.

These are just a few concerns. I believe the city planners need to continue to work with the developer to address these issues. Redmond is growing and I am all for it. But without proper planning up front the city will be doing clean up for years after to address issue that certainly can be more easily addressed NOW. It is much easier to get developers to put in appropriate parking, to assist with costs for access to a more main thoroughfare to town along with other items to be considered. This developer will make a substantial sum of money off this project as well as Redmond with future taxes.

I am very interested in understanding your point of view and what type of detailed planning has occurred with our city planners and this developer.

Sincerely,
Wendy Robertson
4457 SW Majestic Ave
Redmond OR

From: [Barbara Russell](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Sunday, April 3, 2022 1:56:04 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I will not be able to attend the meeting on 04/11/2022 - but I wanted to voice my main concern of all the building that is going on in Central Oregon, and the lack of our water supply. Our lakes are all way down, like our snowpack in the mountains. I know of people who are waiting to have new wells drilled, and the waitlist is 6 months out!! Yet, more homes are being built?? This is ridiculous and scary. Drought conditions are to continue in the next few years at least! Please take our water shortage into deep consideration - this should be number one on the list of concerns.

Also, from what I understand there will not be an access to Helmholtz from the subdivision, and residents will have to go through an existing neighborhood that is already crowded. Our infrastructure is very lacking and our back stress are already very crowded. Sometimes it can take up to a full 10 minutes to cross or turn left from Helmholtz on to 126.

This location is not a very good place to put in an additional 89 homes along with the 160 additional cars on the road in this already very congested area.

*Barbara Russell
3545 SW Valleyview Dr
Redmond*

From: Sharon Sharon
To: Kyle Roberts
Subject: Re: Cottages on Helmholtz Public Hearing Notice
Date: Sunday, April 3, 2022 7:46:47 PM
Attachments: image001.png
image002.png
image003.png

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

City Planning Commissioners, and City Councilors of Redmond Oregon,
I own a home in Redmond Oregon at 4233 SW Salmon Ave. We received a letter from you regarding a proposal for a 89 unit multifamily development at 2052 SW Helmholtz Way.
Our home is separated from this proposed complex by only TWO HOMES.

Please explain why there is no road access off of SW Helmholtz? I thought the physical address had to have an access to the actual street listed as the address. Isn't this true? This access alone would reduce traffic through the neighborhoods significantly.

How would you feel if you lived in this neighborhood? If your children could no longer play near the street because traffic has increased exponentially?
Or if you work from home like so many of us do anymore, no longer peaceful, with interruptions from street noise, foot traffic, and strange cars parked in front of your house used as "overflow parking"? Please put yourself in our shoes.

The homes in this neighborhood range in value from \$500,000 to over \$900,000 at this time. The impact to our property values would be significant.

The increased traffic (estimated at over 800 cars per day), noise, street parking, crime, vandalism, pet waste, litter, and most of all, lower property values, are all my reasons to be wholeheartedly OPPOSED TO THIS DEVELOPMENT. This is so wrong!

Please deny this proposed development and their major variance request, and allow only single family homes with garages that are comparable to the others in the neighborhood. Thank you for your consideration.

From a concerned home owner,
Sharon Hadley

From: Kyle Roberts <kyle.roberts@redmondoregon.gov>
Sent: Thursday, March 17, 2022 4:15 PM
Subject: Cottages on Helmholtz Public Hearing Notice

Hello,

Notice is hereby given that a public hearing for the application below will be heard by the Planning Commission on Monday, **April 11th, 2022 at 6:30 pm** in the City Council Chambers at the Redmond City Hall located at 411 SW 9th Street, Redmond, OR.

Project #/ Name:	711-21-000281-PLNG (SP), 711-21-000282-PLNG (RMP) Cottages on Helmholtz
Applicant/Owner:	LEDG Capital LLC / Jamie Garza Et Al
Request:	Site and Design proposal for an 89-unit detached multi-family development and a two-lot partition
Location:	2052 SW Helmholtz Way Redmond, OR 97756
Tax Lot Number(s):	1513190000701
Applicable Criteria:	Redmond Code, Chapter 8 Developmental Regulations, Article I – Zoning Standards; Article II – Land Use Procedures; Article III – Land Division Standards, Land Partitioning; and Article IV – Site and Design Review Standards
Staff Contact:	Kyle Roberts – 541.923.7758 or kyle.roberts@redmondoregon.gov

Questions, concerns or requests for plans can be directed to the staff person listed above. You are invited to submit written comments to the staff contact on or before 12 PM on April 4th, 2022.

Any interested person may appear at the hearing and give testimony. Failure to raise an issue in person at a hearing or in writing precludes appeal by that person the Land Use Board of Appeals (LUBA) and that failure to provide sufficient specificity to afford the decision maker an opportunity to respond to the issue precludes appeal to LUBA based on that issue. A copy of the application, all documents and evidence relied upon the applicant and applicable criteria are available for inspection at no cost and copies will be provided at a reasonable cost. A copy of the staff report will be available for review at no cost seven (7) days prior to the hearing and copies provided at a reasonable cost. The City of Redmond does not discriminate on the basis of disability status in the admission or access to, or treatment, or employment in its programs or activities.



Kyle Roberts, AICP | City of Redmond
Interim Planning Director

phone 541.923.7758
cell 541.233.8180
email kyle.roberts@redmondoregon.gov

411 SW 9th Street Redmond, Oregon 97756



WWW.REDMONDOREGON.GOV

Please consider the environment before printing this email.

DISCLOSURE NOTICE:

Messages to and from this email address may be subject to Oregon Public Records Law.

From: [Billy Swankie](#)
To: [Kyle Roberts](#)
Subject: Cottages on Helmholtz
Date: Thursday, March 31, 2022 2:48:45 PM

[EXTERNAL]: This email originated from outside of the city. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Kyle

We received a letter regarding the proposed development "Cottages on Helmholtz". My wife and I recently moved to Redmond and in particular the Majestic Ridge area for the tranquility and the neighborhood. We looked at a lot of neighborhoods in central Oregon but were drawn to the feel of the neighborhood, the slower pace of things and being on the outskirts of Redmond but still accessible to the city.

We do have significant concerns regarding the proposal for high density housing off of Helmholtz. We knew that development was underway on many of the areas near Majestic Ridge but assumed it would be single family housing similar to all the other projects currently underway nearby. High density housing does not make sense this far outside of the city where there are no close amenities. There are many other vacant areas of Redmond much closer to the city center where high density housing makes more sense.

We do have many concerns listed below about this proposal:

- High density housing does not fit with the existing neighborhood nor the other developments underway nearby. Majestic ridge is arguably one of the highest tax brackets in Redmond, putting high density housing here will negatively affect home values and dissuade future residents in these higher tax brackets from considering living in Redmond. We would not have moved to Majestic Ridge if it was known that Redmond was even considering putting high density housing on the edge of the urban growth boundary.
- High density housing will significantly increase the amount of traffic on residential streets inside the neighborhood. Further, it is very concerning that the proposed development is not being connected to Helmholtz. This is a safety risk to existing residents who frequently walk the neighborhood and their children who play outside. For young couples like ourselves it is very upsetting, we would not have picked a busy street connected to an apartment complex to start our family on.
- Parking for residents of the high density development and their guests will inevitably spill onto the surrounding residential streets. These streets are already narrow, were never designed for high traffic and are not suitable to be lined with parked cars.

We have talked with many of our neighbors who all share our concerns and so far have fallen on deaf ears with the city of Redmond. We plan to attend the upcoming hearing along with many others from our neighborhood but wanted to share our many concerns with this proposal. We hope that you will take our concerns and many in the neighborhood to heart and rezone this lot to align with the neighborhoods surrounding it. We hope that our elected officials take our concerns seriously as we are all very motivated and organized voters unhappy with the direction of Redmond.

Thanks
Billy Swankie

From: [Keely Thompson](#)
To: [Kyle Roberts](#)
Subject: Fwd: Emerald View Estates - No High Density Development - Message from Emerald View Estates - [#XN7004015]
Date: Monday, April 04, 2022 8:13:09 AM
Attachments: [2022-3.16 Helmholtz Site Plan Exhibit1001.pdf](#)

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Hello Kyle,

We request that our opposition to the Cottages on Helmholtz be read and included in the public comment records. We also are opposed to any high-density, tiny home, low income development adjacent to Emerald View Estates. At this time, we are referencing the potential for this to occur at 2382 SW Helmholtz Way - a project that if it goes further may not require public notification or Council review.

Sincerely,

Dan & Keely Thompson
2462 SW 43rd Place
Redmond, OR 97756

----- Original Message -----

From: Keely Thompson <nharborhouse@comcast.net>
To: "George.Endicott@redmondoregon.gov" <George.Endicott@redmondoregon.gov>, "Jay.Patrick@redmondoregon.gov" <Jay.Patrick@redmondoregon.gov>, "Ed.Fitch@redmondoregon.gov" <Ed.Fitch@redmondoregon.gov>, "Shannon.Wedding@redmondoregon.gov" <Shannon.Wedding@redmondoregon.gov>, "Krisanna.Endicott@redmondoregon.gov" <Krisanna.Endicott@redmondoregon.gov>, "Clifford.Evelyn@redmondoregon.gov" <Clifford.Evelyn@redmondoregon.gov>, "Cat.Zwicker@redmondoregon.gov" <Cat.Zwicker@redmondoregon.gov>
Date: 04/04/2022 8:07 AM
Subject: Emerald View Estates - No High Density Development - Message from Emerald View Estates - [#XN7004015]

Dear Mayor and Council:

We are opposed to high-density development near and into our neighborhood, Emerald View Estates.

We are referencing the proposed Cottages on Helmholtz, and the potential development of tiny homes on private property at 2382 SW Helmholtz Way.

It's difficult for us to image that leaders of Redmond could possibly allow developments of this nature that would:

- * Allow for increased traffic into and onto neighborhood streets, resulting in safety issues for people, children and pets;
- * Destroy majestic views and home values;
- * Introduce evening light pollution from high-density parking areas;
- * Allow street parking of overflow vehicles and RVs in front of our homes; and
- * Not provide immediate access onto Helmholtz Way - a major thoroughfare road, that would keep hundreds of vehicle trips off of our neighborhood streets.

Walking through similar developments, we note pet waste, garbage, junk storage and overall poorly kept grounds.

The location is wrong. There is no close access to essential services, schools, shopping or places of work.

The attached information was submitted via The Management Trust, of the Emerald View Estates subdivision, to all homeowners in our subdivision.

We are not able to attend the April Planning Commission meeting; however, we want our voices and objections heard and to go on record.

Respectfully,

Dan & Keely Thompson
2462 SW 43rd Place
Redmond, OR 97756

----- Original Message -----

From: The Management Trust Oregon <no-reply@managementtrust.com>
To: nharborhouse@comcast.net
Date: 04/01/2022 9:05 AM
Subject: Emerald View Estates - No High Density Development - Message from Emerald View Estates - [#XN7004015]

Please do not reply to this message.



Dear Danny A & Keely A Thompson,

Good morning Emerald View Estates -

Below is a message I have been asked to send by the Board.

Emerald View Estates Neighbors:

The attached information from the City, sent only to a select number of homeowners about an upcoming public hearing to discuss high density development near our neighborhood, is important.

If approved by the City, hundreds of small-scale rental homes will be constructed adjacent to our neighborhood. This means hundreds of cars will be driving on our neighborhood streets to get into and out of the proposed Cottages on Helmholtz.

There is no Helmholtz Way access planned for the development. Overflow parking of cars, trucks and recreational vehicles is a concern. There is no form of public transportation, so access to essential services; for example busing to medical services and shopping, and work transportation is a concern. Consider the money we've all invested in our homes - how might our property values change with the introduction of affordable, high density rental homes next to our neighborhood? There are other concerns. Go to <https://www.speakupredmond.com> to learn more. Most importantly, speak up!

Also important: an "under the radar" project was discussed for the potential development of tiny homes on the property adjacent to the Cottages, at 2382 SW Helmholtz Way. Keep informed about this project.

Contact Kyle Roberts and your elected officials.

Kyle Roberts, City of Redmond Interim Planning Director

kyle.roberts@redmondoregon.gov

541-923-7758 phone

541-233-8180 cell

Planning Commission Meeting: Monday, April 11 at 6:30 pm

Keely Thompson - 2462 SW 43rd Place

Sincerely,

Melissa Curry

Emerald View Estates

Professionally Managed By:

The Management Trust Oregon

Community Management. Built Differently.

(503) 670-8111 | managementtrust.com

Please note this message is part of a broadcast update which has been sent to all members of the association. Replies have been disabled for this communication, which is being provided to all owners individually for informational and tracking purposes. If you have a question specific to your account, please contact our office at (503) 670-8111, or log in to the owner portal my.managementtrust.com and use the 'Submit A Request' page to send a message to your Community Management Support team. We look forward to

serving you and we appreciate our continued partnership with your community!



Please note this email is not being monitored for emergency items. If you are contacting us after hours, please call (503) 670-8111 to be routed to our after hours support line. Nothing contained in this message should be considered legal advice. This message, including any attachments, may include privileged, confidential, and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient(s) is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

From: [Tammy Phillips](#)
To: [Kyle Roberts](#)
Cc: [Scott Phillips](#); [Tyler Lampella](#)
Subject: Cottages on Helmholtz Project #/711-21-000281-PLNG 9SP0 ETC.
Date: Monday, April 04, 2022 11:08:24 AM

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Kyle Roberts,

I am e-mailing in regards to the public hearing for the. Application of the Cottages on Hemholtz 711-21-000281-PLNG (SP),&!!-@!-000282-PLNG (RMP).

My husband and I moved to this beautiful neighborhood to have our retirement home built. We love the beautiful mountain views, openness, quietness and wonderful neighbors.

I have listened to the presentation for this project. I have tried finding other developments this company has built to see what they looked like in person and after a few years. But I was unable to locate any properties by this company. Even though they have stated they have built many projects. My husband asked the presenter if he could have a list of the properties they had built so we could look at them. He didn't say "no" but he didn't say "yes" either. Needless to say he never received a list of addresses.

After reviewing the city council meeting 12-12-17 regarding the presentation by Deborah McMahon planning manager, a few things stand out. She states in her presentation things needed for high density.

#1 Access to services

#2 Near busier streets for transit.

#3 Better utilization of land

Just so you are all aware, this area is NOT close to services and streets for transit. And might that area ,since it is odd shaped, be better served as a city park.

It was also presented in the presentation at the city council meeting that there would be a higher standards of design and architectural features. In fact an illustrative example was shown that showed how the design triplex that showed buffering and blending options. These dwellings do not look similar to the ones in the city council meeting presentation. I would not call the Hemholtz cottages a high standard design. The Cottages on Hemholtz design is very plain and does NOT fit cohesively within the existing neighborhood. There is no garage for the renters to put all their outside belongings in.

Another issue I see with this project is access. There is no direct access off of Hemholtz. Even though it backs up to Hemholtz. That means a lot more traffic thru the existing neighborhood. And those neighborhood streets weren't designed for such high flow traffic. And along with traffic is parking issues. I feel they are trying to cram so many residents in here that the lack of parking will overflow onto the streets. They say two parking spots per unit. But it also states there will be plenty off site parking. Which to me and in reality translates to parking up and down the streets in front of our houses.

I feel this builder does not have a vested interest in our city, or the city's best interest in mind..

I am opposed to this project proposal because the design does not blend into the existing neighborhood. In fact it does not seem to qualify using the Chapter 8 Development regulation Section 8.0141. No services available, excessive traffic in the existing neighborhood and parking issues. Along with not being close to transit. No garages for people to store their Central Oregon toys in.

Thank you very much for your time. I hope the Planning Commission takes all the information it receives from concerned neighbors into account when deciding on this project.

Sincerely,

Tammy Phillips
4204 SW Salmon Ave.

COTTAGES ON HEMHOLZ

Kyle Roberts

I am a retired Builder/Developer who lives in Majestic Ridge. I have developed a number of Multifamily/Condo Projects as well as Single Family Homes. I was surprised to learn that you were considering approval of a large high density project without proper consideration of the traffic issues. I have often had to pay for or improve arterials to accommodate access to higher density projects. It is a violation of basic planning principles to permit primary or exclusive access to higher density projects through low density quiet single family neighborhoods. The only reason the comprehensive plan calls for Multi-Family zoning for this property is because of its access to an arterial like Helmholtz. It is a violation of the intent of the comprehensive plan to deny access to Helmholtz. There is a reason why nearly all higher density projects have relatively easy access to an arterial. There may need to be improvement made to Helmholtz to accommodate safe access. This possibly includes things like a lower speed limit and left turn lanes similar to the intersection of 35th and Highland. From the point of view of the occupants of the new project, access to Helmholtz makes their commute to work much more direct whether to the Redmond industrial area east of Hwy 97, Bend, Prineville, or Sisters. Access for Emergency vehicles is much faster from Helmholtz and evacuation in the event of a large fire is much safer since we live in an area subject to wildfires.

The very reason for arterials is to provide for the efficient and safe movement of traffic. Routing an additional 800 vehicles per day into the Majestic Ridge area will result in crowded and unsafe streets. For example, access to Salmon Avenue requires zigzagging through narrow streets with parked vehicles often on both sides. This will be a dangerous bottleneck with the additional traffic. At this point residents including the elderly can be seen walking their dogs, jogging, cycling etc. on a daily basis throughout our neighborhood. Children catch buses to and from school and can often be seen running and playing on sidewalks and streets. These activities should be able to continue safely, but the addition of so many vehicles especially in the morning and afternoon will make that impossible. Our city should honor and protect the safety of all residents not just new developments.

Either access to Helmholtz is accommodated or the property must be down zoned to low density single family.

Garry and Diane Wilson
4104 SW Salmon Place
Redmond, OR 97756



Date:	October 12, 2021
To:	Mike Caccavano, PE City of Redmond
From:	Joe Bessman, PE
Project Reference No.:	1618
Project Name:	Cottages on Helmholtz Transportation Impact Analysis



The purpose of this memorandum is to provide a Transportation Impact Analysis for the proposed cottage development at 2052 Helmholtz Way in western Redmond, Oregon. This report was prepared to respond to City requirements within Redmond Development Code 8.2815 and follows the site pre-application conference and scoping materials.

AREA AND PROPERTY DESCRIPTION

The site of the proposed development is a 7.52-acre parcel that is zoned for *Standard Residential (R-4)*, identified as map taxlot 1513190000701, as shown in Figure 1. The site currently contains a single-family residence that will be demolished and replaced with 98 cottage units (97 for tenants and one designated as an office), consisting of a mix of two- and three-bedroom units. Of the overall units, 42 will be an attached product, with the remainder detached. The plans include 195 on-site parking stalls along with adjacent on-street parking that supports over 50 additional vehicles and is intended to support guest parking. As separately discussed, this parking ratio is effectively 2.5 stalls per unit, but the inclusion of on-street supply will require City Engineer approval as separately discussed herein. Effectively, the size of the units and layout are similar to an apartment development, but with additional separation and buffering between units than a comparable apartment complex or townhome development.

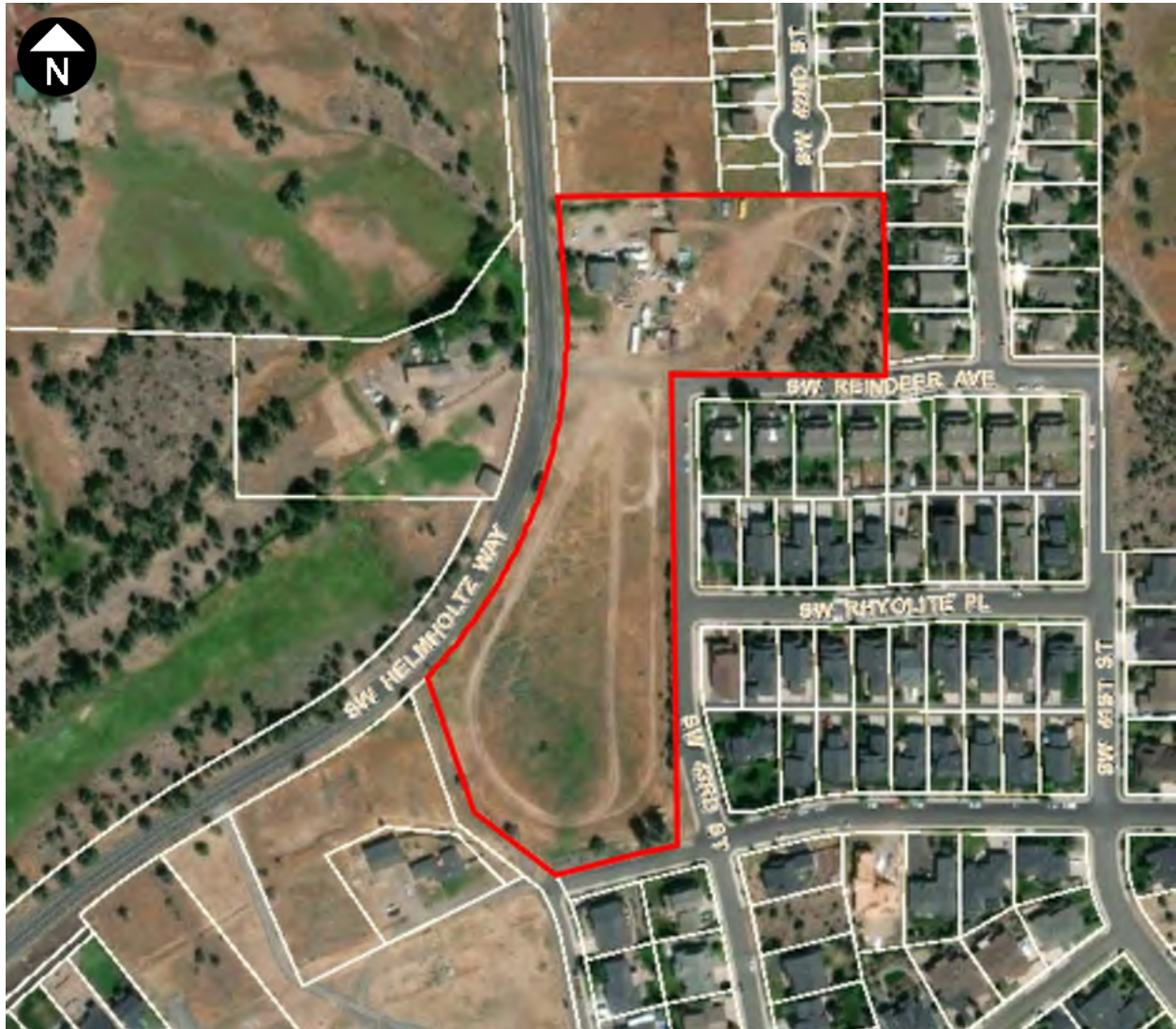


Figure 1. Site Vicinity Map. Source: Deschutes County DIAL.

Access is provided to the property from the local streets that surround the site. Access routes include a new roadway connection between SW 42nd Avenue and Reindeer Avenue, frontage and access along SW 43rd Street (with access aligned with SW Rhyolite Place), and a southern connection onto SW Salmon Avenue. No vehicular access is planned to SW Helmholtz Way given the Arterial classification of the street. The proposed site layout is provided in Figure 2; this shows how the site integrates into the surrounding roadway system for access.



Figure 2. Preliminary site layout. Source: BECON Engineering dated 7/27/21.

EXISTING TRANSPORTATION FACILITIES

The primary transportation corridors in the site vicinity include SW Helmholtz Way and SW Salmon Avenue. SW Quartz Avenue will also serve as a primary connection when it is extended between SW 38th Street and SW 41st Street and connects with SW Helmholtz Way. Figure 3 illustrates the functional classification map for the City of Redmond highlighting the various roles these major streets serve.



Figure 3. Functional Classification Map.

Source: Draft Redmond Transportation System Plan Dated: December 2020

Figure 3 shows that the extension of SW Salmon Avenue is identified as a *Minor Collector*, SW Helmholtz Way is a *Minor Arterial*, and SW Quartz Avenue is a *Major Collector*. The City's roadway cross-section standards (see Table 9-1) identify the various characteristics for these classifications of facilities. This shows that SW Salmon Avenue should include a 60-foot right-of-way, and the western frontage along the SW Helmholtz corridor should support a 100-foot right-of-way (60-feet is available today, requiring a 20-foot dedication along the site frontage).

Table 9-1: City of Redmond Roadway Cross-Section Standards

Functional Class	Width (ft)		Right of Way*	Travel Lanes	Sidewalks	Bike Lanes**	Parking**
	Pavement (standard)	Pavement (minimum)*					
Local Residential Grid	36 ft	28/32 ft	60 ft	2***	5 ft.	shared	both sides (unstriped)
Local Industrial	40 ft	38 ft	60 ft	2***	5 ft.	shared	optional (unstriped)
Industrial Collector	40 ft	38 ft	80 ft	2	5 ft.	6 ft.	none
Minor Collector	40 ft	36 ft****	60 ft	2	5 ft.	shared	both sides (8 ft)
Major Collector	36-50 ft	38 ft****	80 ft	2	5 ft.	6 ft.	none
Minor Arterial (3-lane)	50 ft	48 ft	100 ft	3	7 ft.	6 ft.	none
Minor Arterial (5-lane)	74 ft	72 ft	100 ft	5	7 ft.	6 ft.	none

Notes:

*The standard paved width for a residential street in the local grid is 36' in 60' ROW. Two reduced cross-sections that can be approved through an annexation agreement only. These are:

Reduced Local 1: 32' in 50' ROW (with 5' utility easements on each side)

Reduced Local 2: 28' in 40' ROW (with 10' utility easements on each side - used in conjunction with alleys adjacent to single family residential only)

** In certain cases, bike lanes may be reduced to 5 ft, parking may be reduced to 7 ft, and travel lanes to 11 ft at the discretion of the City Engineer

*** unstriped travel lanes

**** 36 ft in existing build-out areas

Figure 4. City of Redmond adopted roadway cross-section standards.

PEDESTRIAN AND CYCLIST NETWORK

The existing pedestrian and cyclist network is somewhat limited within this developing area, as the roadway system has not been fully developed. The subject property provides a link between several local streets, but there are missing connections along key corridors within the vicinity. Currently there are no pedestrian or cyclist facilities along the SW Helmholtz Way corridor, and with the missing sections of SW Quartz Avenue this also omits key connections. In general, the site will be served on an interim basis from the SW Salmon Avenue corridor and the network of local streets. Most of the local streets within this urbanizing area have been constructed within the past five years and are built to an urban standard complete with curb-tight sidewalks, accessible ramps, and streets that are conducive to shared on-street bicycle use.

TRANSIT SERVICE

The City of Redmond does not have its own fixed route transit system within City boundaries. On-demand transit services are provided to the site with 24-hour advance notice, though this service is limited to weekdays between 6:30 a.m. and 6:00 p.m.

Regional (inter-community) transit service is provided through Cascades East Transit's *Community Connector* system, with service from Redmond to Madras, Prineville, Sisters, and Bend. Buses travel to and from Bend at approximately 90-minute headways on weekdays and more limited service on Saturday. No service is available on Sunday. Service to Madras, Sisters, and Prineville is more limited throughout the day, and generally only available during the commute periods. Regional transit service is provided from the Redmond Transit Hub located at SW 6th Street and SW Kalama Avenue.

Since March 21, 2020, fares have been eliminated for all Cascade East Transit services with the exception of recreation services. This was done to reduce passenger interaction with fareboxes and maintain social distance safety due to COVID-19.

Previously, fares within Zones 2 and 3 (see Figure 5) were \$1.50 for a single ride without transfers. Multizone fares were \$3.75 per ride without transfers. Discounted fares were available for disabled riders and senior citizens. Monthly passes were also available and provide a lower per-ride cost.

Regional transit service is available outside of Central Oregon to Portland, Eugene, Ontario, Chemult, Salem, and Prairie City through RIDE daily. These services are available from the Bend Hawthorne station.

RIDE SHARING

Ride sharing is available within Central Oregon through online providers such as UBER and LYFT. The service boundary for

LYFT is more limited, providing on-demand service throughout Bend, Redmond, Prineville, Terrebonne, and Sisters. Uber service boundaries include Warm Springs, Madras, and La Pine. These on-demand ride sharing services are available all days and hours, with ride costs based on distances.



Figure 5. Cascades East Transit Zone Map

ROADWAY SAFETY

This section provides a safety review of the transportation infrastructure serving the proposed development based on review of historical crash records submitted through the DMV and maintained by ODOT, as well as field review of area conditions, roadway and intersection geometrics, and available sight lines.

HISTORICAL CRASH REVIEW

Historical crash records were obtained through ODOT Crash Analysis and Reporting System (CARS) from the period between January 2015 and December 2019. This reflects the most recent five-year period available. Crashes that are required to be reported during this period include those that involve at least one motor vehicle, involve any level of personal injury, or that result in \$1,500 or more in property damage before 2018 or in \$2,500 or more in property damage after 2018.

Table 1 summarizes the number and severity of reported crashes at each of the study area intersections. The table also provides a crash rate per million entering vehicles, which is often used to assess whether a geometric or traffic control deficiency is present when the crash rate is greater than 1.0 per million entering vehicles. ODOT also provides crash rates separated by control type and the number of approaches, which better distinguish between varying intersection forms and are provided for reference.

Table 1. Crash Summary (January 2015 through December 2019)

Intersection	Number of Crashes	Crash Severity			Crash Rate per MEV	ODOT 90 th % Rate
		Fatal	Injury	Non-Injury		
SW Helmholtz Way / SW Obsidian Avenue	4	0	3	1	0.34	4ST: 0.408 <i>Urban</i>
SW 35 th Street/ SW Obsidian Avenue	4	0	2	2	0.63	4ST: 0.408 <i>Urban</i>
SW Helmholtz Way / SW Quartz Avenue	<i>Not Applicable</i>					
SW 42 nd Street / SW Quartz Avenue	0	0	0	0	0.00	3ST: 0.293 <i>Urban</i>
SW 35 th Street/ SW Quartz Avenue	0	0	0	0	0.00	4ST: 0.408 <i>Urban</i>
SW Helmholtz Way / SW 45 th Street	1	0	0	1	0.12	3ST: 0.293 <i>Urban</i>
SW Forked Horn Butte Road – Access / SW Salmon Avenue	0	0	0	0	0.00	3ST: 0.293 <i>Urban</i>
SW 43 rd Street / SW Salmon Avenue	0	0	0	0	0.00	4ST: 0.408 <i>Urban</i>
SW 43 rd Street / Site Access – SW Rhyolite Place	0	0	0	0	0.00	3ST: 0.293 <i>Urban</i>
SW Reindeer Avenue / Site Access	0	0	0	0	0.00	n/a
SW 42 nd Street/ SW Reindeer Avenue	<i>Not Applicable</i>					
SW 35 th Street/ SW Salmon Avenue	1	0	1	0	0.31	3ST: 0.293 <i>Urban</i>

4ST: Four-legged stop-controlled, 3ST: Three-legged stop-controlled

As shown in Table 1, all of the intersections experienced a crash rate less than 1.0 crashes per million entering vehicles and all are below ODOT's 90th percentile crash rates with the exception of SW 35th Street/SW Obsidian Avenue, and SW 35th Street/SW Salmon Avenue. Table 2 summarizes the types of collisions that occurred at the study intersections with reported crashes.

Table 2. Reported Collision Types (January 2015 through December 2019)

Intersection	Rear-End	Turning	Angle	Fixed-Object	Non-Collision
SW Helmholtz Way / SW Obsidian Avenue	0	1	2	0	1
SW 35 th Street/ SW Obsidian Avenue	0	0	4	0	0
SW Helmholtz Way / SW 45 th Street	0	0	0	1	0
SW 35 th Street/ SW Salmon Avenue	0	0	1	0	0

SW 35th Street / SW Obsidian Avenue

The crash records show that there were four crashes reported at the SW 35th Street/SW Obsidian Avenue intersection, which resulted in a crash rate of 0.62. This is higher than the statewide average for similar urban, stop-controlled, four-legged intersections. The reported crashes are detailed below:

- On July 15, 2014 at 8:00 a.m. a southbound passenger vehicle struck a parked vehicle. No injuries resulted and the crash database showed that this incident was due to inattention.
- On November 26, 2016 at 8:00 p.m. an angle collision occurred between a westbound and southbound vehicle. The crash occurred on a rainy day and resulted in property damage only.
- On May 20, 2017 at 11:00 a.m. a westbound passenger vehicle was struck by a northbound motorist that stopped at the stop sign then proceeded through the intersection without the right-of-way. The collision involved a third vehicle that was waiting to enter the intersection. The crash resulted in moderate injuries to the westbound driver.
- The fourth crash occurred at 7:00 a.m. on July 8, 2017 when a northbound vehicle collided with a westbound vehicle. The crash records indicate that the northbound driver was drowsy and passed the stop sign without yielding the right-of-way. No personal injuries resulted from the collision.

Overall, review of the crash data indicates fairly low historical crashes have occurred at this intersection. The number and types of crashes do not reflect any types of crash pattern or current safety deficiencies. Further assessment of this intersection was completed in January 2021. Based on sight lines, adjacent development patterns, and changing travel patterns this report recommends conversion of the intersection to all-way stop control. This treatment is typically applied as a crash mitigation, with crash reductions of about 60% from various studies, with reductions in all crash types.

SW 35th Street / SW Salmon Avenue

The single crash reported at the SW 35th Street/SW Salmon Avenue intersection occurred at 4:00 p.m. on October 29, 2019. The crash cause was cited as a vision obscuration, and resulted in minor injuries. The crash records state that a southbound motorist turning left onto SW Salmon Avenue was unable to see approaching traffic, and when entering the road was struck by a westbound motorist. It was unclear within the crash records if parked vehicles or other obstructions that have since been removed had limited sight lines, as no obstructions were noted. Accordingly, no mitigation or further action is proposed.

No other crash patterns were observed that would identify any safety deficiencies; reported crashes within the site vicinity reflect very low rates common with low-volume urbanizing areas.

INTERSECTION SIGHT DISTANCE

Sight distance information and requirements are based on the standard reference *A Policy on Geometric Design of Highways and Streets, 7th Edition* published by the American Association of State Highway and Transportation Officials (AASHTO) in 2018, commonly referred to as the *Green Book*.

Intersection Sight Triangles

For minor-street stop-control intersections, intersection sight triangles are based on guidance cited within Conditions B1 (left-turn from minor road) and B2 (right-turn from minor road) of the *Green Book*. All distances are measured from a vertex point located 14.5 feet from the major-road travel way along the center of the approaching travel lane, accounting for comfortable positioning distance from the travel way (6.5 feet) and the distance from the front of the vehicle to the driver eye (8.0 feet). The assumed eye height is 3.5 feet above the departing road for passenger vehicles. The object height is also 3.5 feet above the major road, providing enough space on the approaching vehicle to recognize it. Based on a statutory residential speed of 25 mph and level terrain, Figure 6 illustrates the recommended intersection sight distance measurements required at the new access connections, each of which occurs along the local street system.

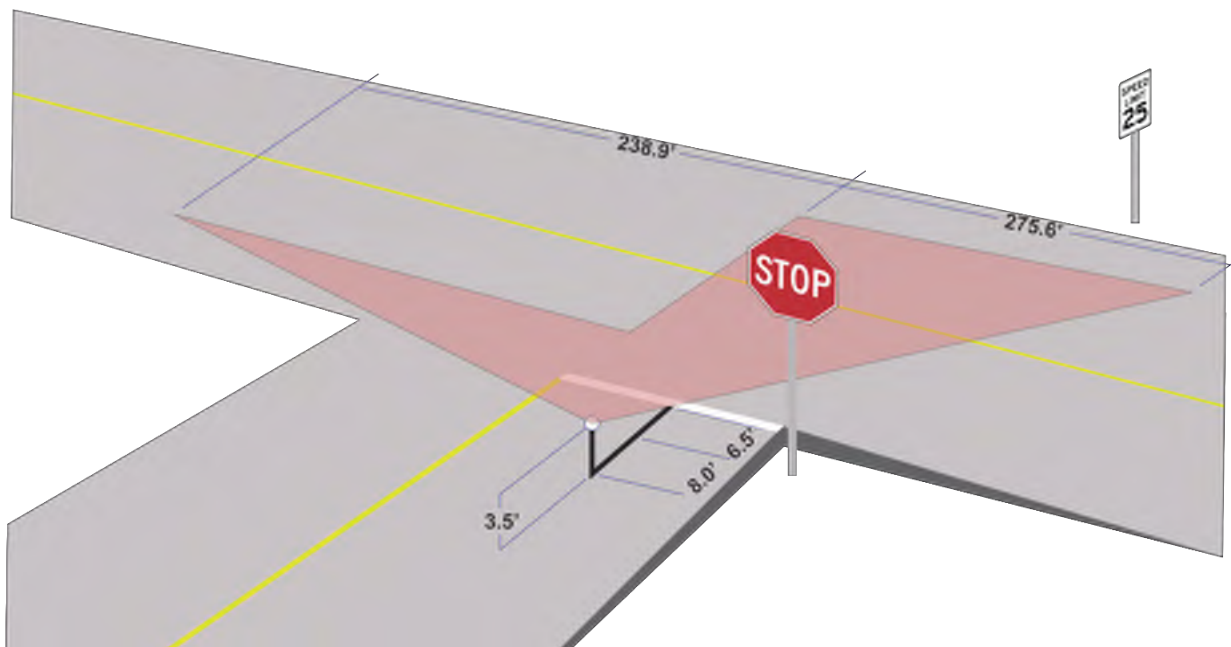


Figure 6. Recommended Intersection Sight Distance Dimensions.

Intersection sight distance was field reviewed in October 2021 at the following locations:

- SW 42nd Street terminus (see Figure 7)
- SW 42nd Street connection to SW Reindeer Avenue (see Figures 8 and 9)
- SW Reindeer Avenue/SW 43rd Street access (see Figures 10 and 11)
- SW 43rd Street/SW Rhyolite Place access (see Figures 12, 13, and 14)



Figure 7. SW 42nd Street terminus.



Figure 8. SW 42nd Street connection to SW Reindeer Avenue facing east.



Figure 9. SW 42nd Street connection to SW Reindeer Avenue facing west.



Figure 10. SW Reindeer Avenue/SW 43rd Street access facing east.



Figure 11. SW Reindeer Avenue/SW 43rd Street intersection looking toward the future access.



Figure 12. SW 43rd Street/SW Rhyolite Place access facing north.



Figure 13. SW 43rd Street/SW Rhyolite Place access facing east.



Figure 14. SW 43rd Street/SW Rhyolite Place access facing south.

Field review at these locations did not identify any existing constraints that would preclude these connections. Each of the accesses provided reasonable sight lines consistent with the residential area that surrounds the site and AASHTO recommendations. Note that the vegetation adjacent to Rhyolite Place (see Figures 12 and 14) will be removed as part of the project's frontage improvements to tie in with the adjacent sections.

TRAFFIC OPERATIONS

This section of the report describes the impacts of the site on the transportation system.

TRIP GENERATION ESTIMATES

The most recent edition of the standard reference *Trip Generation Manual 11th Edition*, published by the Institute of Transportation Engineers (ITE) was used to calculate the trip generation of the proposed development. For this unique development type there were two land use categories that would best apply to the proposed development. These include the following:

- **Land Use 210: Single-Family Detached Housing** – *A single-family detached housing site includes any single-family detached homes on an individual lot. A typical site surveyed is a suburban subdivision.*
- **Land Use 215: Single-Family Attached Housing** – *Single-family attached housing includes any single-family housing unit that shares a wall with an adjoining unit, whether the walls are for living space, a vehicle garage, or storage space.*

Land Use 215 is a new category in the 11th Edition and is specifically intended for the attached cottage style homes making up a portion of the proposed development. It includes “duplexes (defined as a single structure with two distinct dwelling units, typically joined side-by-side and each with at least one outside entrance) and townhouses/rowhouses (defined as a single structure with three or more distinct dwelling units, joined side-by-side in a row and each with an outside entrance).”

The existing land use of the site is that of one single-family residence, which will provide a trip credit to reduce the impact of the proposed development. There are no vested trips applied to this analysis, nor are there pass-by trips available for residential uses. Table 3 details the trip generation estimates based on the application of the above categories based on the preliminary site layout; the specific unit count is still being finalized by the project team.

Table 3. Trip Generation Comparison (General Urban/Suburban)

Land Use	ITE Code	Size	Daily Trips	Weekday PM Peak Hour		
				Total	In	Out
Existing Use						
Single-Family Detached Housing	210	1	9	1	1	0
Proposed Use						
Single-Family Detached Housing	210	56 units	528 <i>(9.43/unit)</i>	53 <i>(0.94/unit)</i>	33 <i>(63%)</i>	20 <i>(37%)</i>
Single-Family Attached Housing	215	42 units	302 <i>(7.20/unit)</i>	24 <i>(0.57/unit)</i>	14 <i>(57%)</i>	10 <i>(43%)</i>
Total Proposed Trips			830	77	47	30
Net Impact of Redevelopment						
Change in Trips <i>(Proposed – Existing)</i>			+821	+76	+46	+30

As shown in Table 1, the proposed development is expected to add 821 weekday daily trips, including 76 trips during the weekday p.m. peak hour to the transportation system. Redmond Development Code requires a Transportation Impact Analysis for all new developments expected to generate more than 20 weekday p.m. peak hour trip ends. Therefore, a traffic study is required to support this application.

TRIP DISTRIBUTION AND TRIP ASSIGNMENT

The trip distribution patterns for residential developments are based on employment, educational, and retail centers. From this portion of western Redmond the trip distribution patterns will primarily be oriented toward the Salmon Avenue corridor as a connection over the Dry Canyon toward the City core, or north along the SW 35th Street corridor to SW Highland Avenue and SW Obsidian Avenue. As connections along SW Quartz Avenue are completed, trips are expected to reroute to SW Helmholtz Way to access SW Highland Avenue. The estimated near-term trip distribution pattern is shown in Figure 15 based on the current roadway layout with some of the planned near-term roadway connections in place.

Redmond Development Code 8.3035.8B requires TIA's to study:

1. All site access intersections
2. Nearest intersecting collector or arterial street upstream and downstream of the development.
3. Any other collector or arterial street intersection that would experience an increase of 25 additional peak hour trips.
4. Additional intersections requested by staff.

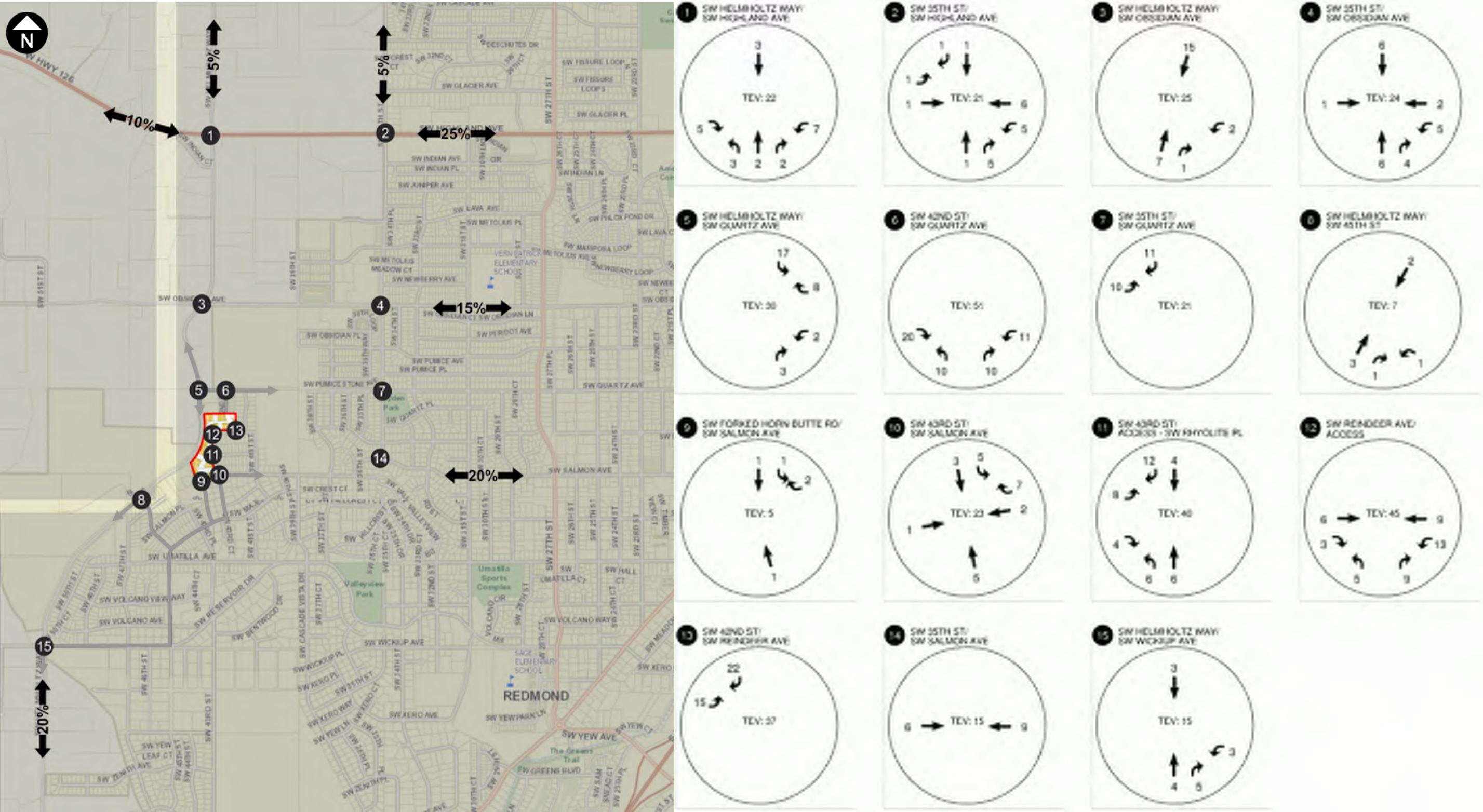


Figure 15. Estimated Vehicular Trip Distribution Pattern, Weekday PM Peak Hour.
Map Source: Deschutes County DIAL.

The requirements identify the following major street (collector and arterial) intersections for inclusion as *study intersections* within the forthcoming TIA:

- Intersection 3 – SW Helmholtz Way / SW Obsidian Avenue (*>25 trips*)
- Intersection 4 – SW 35th Street / SW Obsidian Avenue (*>25 trips*)
- Intersection 5 – SW Helmholtz Way / SW Quartz Avenue (*>25 trips*)
- Intersection 6 – SW 42nd Street / SW Quartz Avenue (*>25 trips*)
- Intersection 7 – SW 35th Street / SW Quartz Avenue (*included in original scope*)
- Intersection 8 – SW Helmholtz Way / SW 45th Street (*requested by City*)
- Intersection 9 – SW Forked Horn Butte Road – Access / SW Salmon Avenue (*site access*)
- Intersection 10 – SW 43rd Street / SW Salmon Avenue (*>25 trips*)
- Intersection 11 – SW 43rd Street / Access – SW Rhyolite Place (*site access*)
- Intersection 12 – SW Reindeer Avenue / Access (*site access*)
- Intersection 13 – SW 42nd Street / SW Reindeer Avenue (*site access*)
- Intersection 14 – SW 35th Street / SW Salmon Avenue (*included in original scope*)

ANALYSIS YEARS

Redmond Development Code 8.2815(6) requires operational analysis of the following year conditions:

- Year 2021 – Existing conditions
- Year 2023 – Estimated completion year
- Year 2028 – Five-year forecast beyond final phase

OPERATIONAL ANALYSIS

Traffic operations analysis were prepared using Synchro 10 software and implementing the Highway Capacity Manual 6th Edition operations methods for the stop-controlled study intersections. All traffic operations within this report reflect peak fifteen-minute conditions.

The City of Redmond Development Code 8.2815(1) contains the City's operational requirements for intersections. Performance standards in the City of Redmond vary based on intersection control type as summarized below:

- LOS "E" or better during the peak fifteen minutes of the peak hours of the average weekday.
- Unsignalized minor street approaches should operate with a volume-to-capacity ratio of 0.90 or less and with a 95th percentile queue of less than four vehicles during the peak hour.

Study intersections, traffic control, roadway jurisdiction, and operational standards/mobility targets throughout the study area are summarized in Table 4.

Table 4. Study Area Intersection Operational Standards and Mobility Targets

Intersection	Traffic Control	Jurisdiction	Performance/ Mobility Standard
SW Helmholtz Way / SW Obsidian Avenue	TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW 35 th Street / SW Obsidian Avenue	Existing TWSC (Planned AWSC)	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW Helmholtz Way / SW Quartz Avenue	Planned TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW 42 nd Street / SW Quartz Avenue	TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW 35 th Street / SW Quartz Avenue	TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW Helmholtz Way / SW 45 th Street	TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW Forked Horn Butte Road – Access / SW Salmon Avenue	TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW 43 rd Street / SW Salmon Avenue	TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW 43 rd Street / Site Access – SW Rhyolite Place	TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW Reindeer Avenue / Site Access	TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW 42 nd Street / SW Reindeer Avenue	TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft
SW 35 th Street / SW Salmon Avenue	TWSC	City of Redmond	$v/c < 0.90$ 95 th % Queue < 100 ft

Year 2021 Existing Traffic Conditions

The existing year 2021 traffic conditions reflect the current operations throughout the study area during the weekday p.m. peak hour. This analysis is used to calibrate operational models to field conditions, and in conjunction with historical safety information, is intended to help understand and prioritize transportation system improvement needs.

Traffic counts were reviewed at the SW 35th Street/SW Obsidian Avenue and SW 35th Street/SW Quartz Avenue intersections from October 28, 2020 and at the SW Helmholtz Way/SW Obsidian Avenue intersection from June 2, 2021. In addition, traffic counts were collected at the remaining study intersections in late September 2021 during the weekday p.m. peak period from 4:00 to 6:00 p.m.

To assess the impact of COVID-19 on traffic volumes, traffic data collected by ODOT on US 97 between 2019 and 2021 was reviewed. ODOT has been publishing regular reports tracking volume data throughout the state. The *Observed Statewide Traffic Volume Patterns: Related to COVID-19 Monitoring* dated November 6, 2020 reports the average weekday traffic volume on US 97 for the week of October 26th to November 1st to be 1-percent higher in 2020 than 2019. The most recent published report of the *Observed Statewide Traffic Volume Patterns: Related to COVID-19 Monitoring* dated July 27, 2021 reports the average weekday traffic volume on US 97 for the week of May 31st to June 6th to be 8-percent higher in 2021 than 2020, but nearly 6-percent lower than 2019 volumes.

The September 2021 counts are reflective of early fall school conditions. The latest data from the most recent ODOT reporting from July 27, 2021 shows a 1% variation between US 97 traffic volumes in 2019 and those in 2021.

Traffic volumes on US 97 do not appear to have been impacted by COVID-19 during the collection of the October 2020 counts and September 2021 counts, but were lower and potentially impacted during the collection of June 2021 traffic counts. Therefore, a 6-percent volume adjustment was applied to the traffic counts collected in June 2021 to approximate COVID-19 impacts and no adjustments were made to the October 2020 and September 2021 counts, particularly within this urbanizing portion of the City.

The October 2020 counts were also adjusted with a growth rate to approximate current 2021 traffic volumes. Based on the projected area growth, a 2.7-percent annual growth rate was applied.

Figure 16 depicts the existing 2021 traffic volumes applied within the existing conditions analysis. Results of the existing conditions analysis are presented in Table 5. This shows that all the study area intersections currently meet City standards.

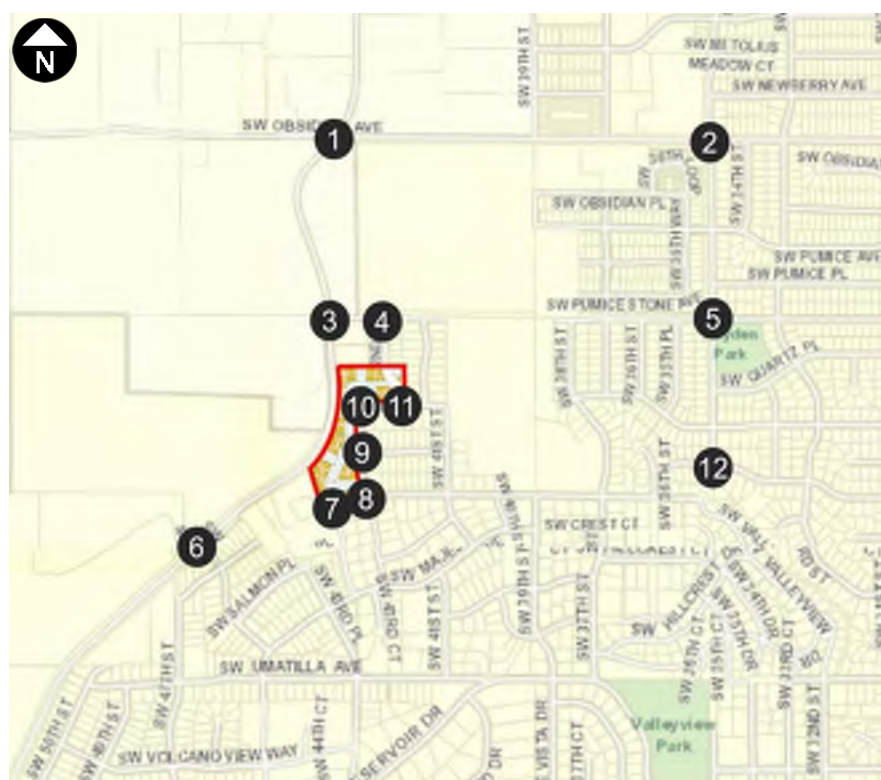


Figure 16. Existing Traffic Volumes, Weekday PM Peak Hour

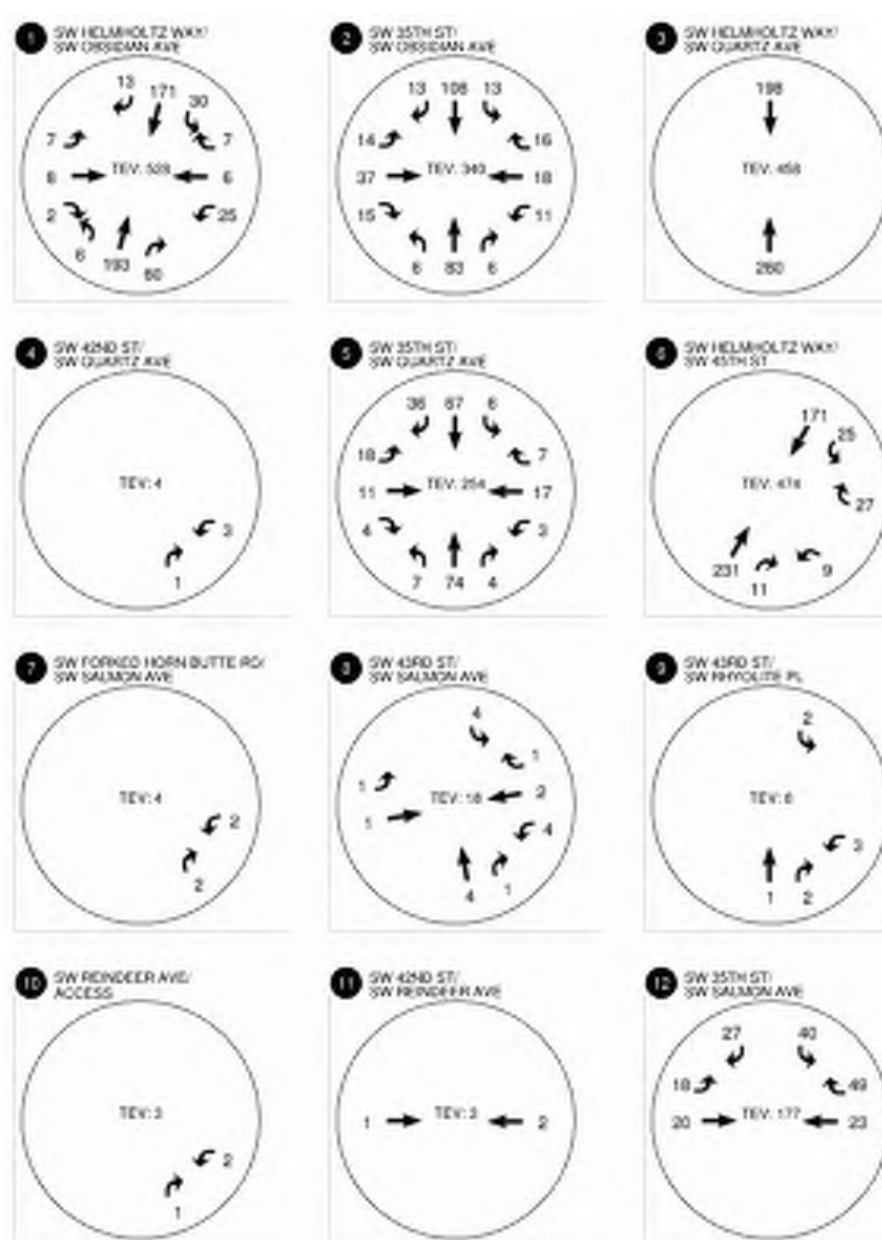


Table 5. Summary of Existing Intersection Operations, Weekday PM Peak Hour

Intersection	Performance/ Mobility Standard	LOS	Delay (s/veh)	v/c Ratio	95 th % Queue	Acceptable?
SW Helmholtz Way / SW Obsidian Avenue	v/c < 0.90 95 th % Queue < 100 ft	WB LTR: LOS C	WB LTR: 15.0	WB LTR: 0.12	WB LTR: 25 ft	Yes
SW 35 th Street / SW Obsidian Avenue	v/c < 0.90 95 th % Queue < 100 ft	SB LTR: LOS B	SB LTR: 11.7	SB LTR: 0.24	SB LTR: 25 ft	Yes
SW Helmholtz Way / SW Quartz Avenue	v/c < 0.90 95 th % Queue < 100 ft	Not Applicable				
SW 42 nd Street / SW Quartz Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB LR: LOS A	NB LR: 8.3	NB LR: 0.01	NB LR: 0 ft	Yes
SW 35 th Street / SW Quartz Avenue	v/c < 0.90 95 th % Queue < 100 ft	EB LTR: LOS B	EB LTR: 11.0	EB LTR: 0.07	EB LTR: 25 ft	Yes
SW Helmholtz Way / SW 45 th Street	v/c < 0.90 95 th % Queue < 100 ft	WB LR: LOS B	WB LR: 10.8	WB LR: 0.07	WB LR: 25 ft	Yes
SW Forked Horn Butte Road – Access / SW Salmon Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB LR: LOS A	NB LR: 8.3	NB LR: 0.01	NB LR: 0 ft	Yes
SW 43 rd Street / SW Salmon Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB LTR: LOS A	NB LTR: 9.2	NB LTR: 0.01	NB LTR: 0 ft	Yes
SW 43 rd Street / Site Access – SW Rhyolite Place	v/c < 0.90 95 th % Queue < 100 ft	WB LR: LOS A	WB LR: 8.6	WB LR: 0.01	WB LR: 0 ft	Yes
SW Reindeer Avenue / Site Access	v/c < 0.90 95 th % Queue < 100 ft	Not Applicable				
SW 42 nd Street / SW Reindeer Avenue	v/c < 0.90 95 th % Queue < 100 ft	Not Applicable				
SW 35 th Street / SW Salmon Avenue	v/c < 0.90 95 th % Queue < 100 ft	SB LR: LOS A	SB LR: 9.4	SB LR: 0.09	SB LR: 25 ft	Yes

Year 2023 Background Traffic Conditions

Background traffic conditions are presented to provide the basis for comparison to “with-site” conditions. This comparative analysis provides an understanding of area transportation needs that are attributable to the proposed development. These conditions consider the regional traffic growth and specific approved developments within the site vicinity.

Growth Forecasts

The City’s 2020 Transportation System Plan includes existing 2017 and forecast 2040 traffic volumes at major intersections around the City. Two of these intersections are located along the SW Helmholtz Way corridor near the study area. This part of the City is slated for higher growth, and the annual growth rates show a weighted rate of about 2.7 percent (see Table 6). This growth rate is applied within this analysis to account for the near-term growth within the area.

Table 6. Forecast Travel Growth (Redmond TSP, Volume II)

Intersection	Year 2018 TEV	Year 2040 TEV	Annual Growth Rate
SW Highland Avenue (OR 126)/ Helmholtz Way	1,489 Vehicles	2,446 Vehicles	2.5%
SW Helmholtz Way/ SW Reservoir Dr	455 Vehicles	836 Vehicles	3.1 %
Weighted Average Growth	1,944	3,282	2.7%

In addition to regional growth, there were several “pipeline” projects identified within the vicinity of the project. Traffic from these projects were added to the future travel forecasts based on an estimated percentage build-out of the projects. These are summarized in Table 7 along with the estimated level of development assumed in the analysis scenarios. Other regional projects and smaller-scale developments will be accounted for within the high growth rates that are included within this analysis.

The regional growth was applied to the existing traffic volumes and approved and pending developments were added to forecast year 2023 “No-Build” conditions within the site vicinity. The resulting volumes are depicted in Figure 17. The analysis results are summarized in Table 8.

Table 7. Approved/Pending Development Trip Assumptions

Development	Size	Trip Generation Weekday PM Peak Hour	Estimated Level of Development		
			2021	2023	2028
Ward Commons Cottages	19 units	19	0%	100%	100%
Summerhaven Phases 2-3	24 units	24	0%	60%	100%
Lavawood	25 units	25	0%	100%	100%
Feather Ridge Subdivision	195 units	145	0%	50%	100%
Copper Ridge Phase 5	12 units	12	0%	100%	100%
Summit Crest Phase 5	42 units	42	0%	100%	100%
Obsidian Trails Phases 6-7	48 units 35.9 ksf commercial	163	0%	100%	100%
Crossings at the Metolius (Obsidian Master Plan) Phases 2-3	84 units	52	0%	100%	100%

Planned and Funded Projects

The extension of SW Quartz Avenue from SW 37th Street to SW Helmholtz Way is identified as a project in the TSP. Although not currently funded in the City's five-year CIP, it is being built with adjacent development from its existing terminus on the east end to SW Helmholtz Way. As such, it was assumed to be in place in the 2023 background conditions.

This SW Quartz Avenue connection to SW Helmholtz Way is expected to change some of the travel patterns on SW Obsidian and SW 35th Street as a more direct route will be available to many motorists through SW Quartz Avenue. Traffic volumes were adjusted and redistributed accordingly. No other improvements were assumed to be in place by 2023.

Year 2023 With Project Conditions

Year 2023 conditions with the proposed cottage development were prepared by adding the no-build conditions with site generated trips. This analysis includes the extension of Quartz Avenue and the intersection modifications to support the new access approaches. The resulting volumes are also depicted in Figure 17 and the operational analysis of "with-site" conditions is also summarized in Table 8.

Year 2028 Planning Analysis

Analysis of conditions five years beyond build-out were also assessed to assist with long-range planning efforts. This future scenario was developed through the application of continued regional growth and inclusion of planned development trips. The forecast volumes for the 2028 background and 'with site' scenarios are depicted in Figure 18 and the results of the analysis are summarized in Table 8.



Figure 17. Future Year 2023 Traffic Volumes, Weekday PM Peak Hour.

Table 8. Summary of Build-out Year Traffic Operations, Weekday PM Peak Hour

Intersection	Performance/ Mobility Standard	2023 Background Conditions			2023 With Project Conditions			Acceptable?
		LOS	v/c Ratio	95 th % Queue	LOS	v/c Ratio	95 th % Queue	
SW Helmholtz Way / SW Obsidian Avenue	v/c < 0.90 95 th % Queue < 100 ft	WB: LOS C 18.1 s	WB LTR: 0.23	WB LTR: 25 ft	WB: LOS C 19.1 s	WB LTR: 0.25	WB LTR: 25 ft	Yes
SW 35 th Street / SW Obsidian Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB: LOS B 14.6 s	NB LTR: 0.30	NB LTR: 50 ft	NB: LOS C 15.2 s	NB LTR: 0.33	NB LTR: 50 ft	Yes
SW Helmholtz Way / SW Quartz Avenue	v/c < 0.90 95 th % Queue < 100 ft	Not Applicable			WB LR: LOS B 13.4 s	WB LR: 0.11	WB LR: 25 ft	Yes
SW 42 nd Street / SW Quartz Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB: LOS A 8.7 s	NB LR: 0.01	NB LR: 0 ft	NB: LOS A 9.2 s	NB LR: 0.03	NB LR: 25 ft	Yes
SW 35 th Street / SW Quartz Avenue	v/c < 0.90 95 th % Queue < 100 ft	EB: LOS B 12.9 s	EB LTR: 0.20	EB LTR: 25 ft	EB: LOS B 13.5 s	EB LTR: 0.23	EB LTR: 25 ft	Yes
SW Helmholtz Way / SW 45 th Street	v/c < 0.90 95 th % Queue < 100 ft	WB: LOS B 11.4 s	WB LR: 0.10	WB LR: 25 ft	WB: LOS B 11.6 s	WB LR: 0.10	WB LR: 25 ft	Yes
SW Forked Horn Butte Road – Access / SW Salmon Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB: LOS A 8.3 s	NB LR: 0.01	NB LR: 0 ft	SB: LOS A 8.8 s	NB LR: 0.01	NB LR: 0 ft	Yes
SW 43 rd Street / SW Salmon Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB: LOS A 9.2 s	NB LTR: 0.01	NB LTR: 0 ft	NB: LOS A 9.4 s	NB LTR: 0.02	NB LTR: 0 ft	Yes
SW 43 rd Street / Site Access – SW Rhyolite Place	v/c < 0.90 95 th % Queue < 100 ft	WB: LOS A 8.6 s	WB LR: 0.01	WB LR: 0 ft	WB: LOS A 9.1 s	WB LR: 0.01	WB LR: 0 ft	Yes
SW Reindeer Avenue / Site Access	v/c < 0.90 95 th % Queue < 100 ft	Not Applicable			NB: LOS A 8.6 s	NB LR: 0.02	NB LR: 25 ft	Yes
SW 42 nd Street / SW Reindeer Avenue	v/c < 0.90 95 th % Queue < 100 ft	Not Applicable			SB: LOS A 8.4 s	SB LR: 0.03	SB LR: 25 ft	Yes
SW 35 th Street / SW Salmon Avenue	v/c < 0.90 95 th % Queue < 100 ft	SB LR: LOS A 9.8 s	SB LR: 0.13	SB LR: 25 ft	SB LR: LOS A 9.9 s	SB LR: 0.14	SB LR: 25 ft	Yes



Figure 18. Future Year 2028 Projected Traffic Volumes, Weekday PM Peak Hour.

Table 9. Summary of Year 2028 Intersection Operations, Weekday PM Peak Hour

Intersection	Performance/ Mobility Standard	2028 Background Conditions			2028 With Project Conditions			Acceptable?
		LOS	v/c Ratio	95 th % Queue	LOS	v/c Ratio	95 th % Queue	
SW Helmholtz Way / SW Obsidian Avenue	v/c < 0.90 95 th % Queue < 100 ft	WB: LOS C 22.6 s	WB LTR: 0.32	WB LTR: 50 ft	WB: LOS C 24.3 s	WB LTR: 0.35	WB LTR: 50 ft	Yes
SW 35 th Street / SW Obsidian Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB: LOS C 16.7 s	NB LTR: 0.37	NB LTR: 50 ft	NB: LOS C 17.5 s	NB LTR: 0.40	NB LTR: 50 ft	Yes
SW Helmholtz Way / SW Quartz Avenue	v/c < 0.90 95 th % Queue < 100 ft	Not Applicable			WB: LOS C 15.1 s	WB LR: 0.11	WB LTR: 25 ft	Yes
SW 42 nd Street / SW Quartz Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB: LOS A 8.8 s	NB LR: 0.01	NB LR: 0 ft	NB: LOS A 9.4 s	NB LR: 0.03	NB LR: 25 ft	Yes
SW 35 th Street / SW Quartz Avenue	v/c < 0.90 95 th % Queue < 100 ft	EB: LOS B 14.2 s	EB LTR: 0.25	EB LTR: 25 ft	EB: LOS B 14.9 s	EB LTR: 0.28	EB LTR: 50 ft	Yes
SW Helmholtz Way / SW 45 th Street	v/c < 0.90 95 th % Queue < 100 ft	WB: LOS B 12.3 s	WB LR: 0.13	WB LR: 25 ft	WB: LOS B 12.5 s	WB LR: 0.13	WB LR: 25 ft	Yes
SW Forked Horn Butte Road – Access / SW Salmon Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB: LOS A 8.3 s	NB LR: 0.01	NB LR: 0 ft	SB: LOS A 8.8 s	NB LR: 0.01	NB LR: 0 ft	Yes
SW 43 rd Street / SW Salmon Avenue	v/c < 0.90 95 th % Queue < 100 ft	NB: LOS A 9.2 s	NB LTR: 0.01	NB LTR: 0 ft	NB: LOS A 9.4 s	NB LTR: 0.02	NB LTR: 25 ft	Yes
SW 43 rd Street / Site Access – SW Rhyolite Place	v/c < 0.90 95 th % Queue < 100 ft	WB: LOS A 8.6 s	WB LR: 0.01	WB LR: 0 ft	WB: LOS A 9.1 s	WB LR: 0.01	WB LR: 0 ft	Yes
SW Reindeer Avenue / Site Access	v/c < 0.90 95 th % Queue < 100 ft	Not Applicable			NB: LOS A 8.6 s	NB LR: 0.02	NB LR: 25 ft	Yes
SW 42 nd Street / SW Reindeer Avenue	v/c < 0.90 95 th % Queue < 100 ft	Not Applicable			SB: LOS A 8.4 s	SB LR: 0.03	SB LR: 25 ft	Yes
SW 35 th Street / SW Salmon Avenue	v/c < 0.90 95 th % Queue < 100 ft	SB: LOS B 10.1 s	SB LR: 0.16	SB LR: 25 ft	SB: LOS B 10.2 s	SB LR: 0.16	SB LR: 25 ft	Yes

INTERSECTION MITIGATION

All of the study area intersections are located within residentially-zoned lands, with most of the area's streets built out to a residential standard with two-lanes, minor-street stop-control. The proposed plan completes missing streets connections, and together with the planned completion of Quartz Avenue west to Helmholtz supports area connectivity needs similar to built-out areas to the east. All of the study intersections are shown to operate acceptably, and the following measures are recommended:

- The Forked Horn Butte Road/Salmon Avenue access should be connected with aligned and perpendicular intersection angles to the extent possible.
- All private accesses should be designed with concrete curb aprons to distinguish between the public street and the site entrance.
- Stop-sign control should be provided on minor-street approaches to clarify right-of-way. This will include stop-signs on the eastbound access with Rhyolite Place, the Reindeer Avenue access, and the access from Forked Horn Butte/Salmon Avenue.
- Street frontages should be improved to City standards, as identified in the project civil plans. This will support on-street parking along all of the abutting streets.

MUTCD SIGNAL WARRANTS

Traffic signal warrants are the criteria identified within the Manual on Uniform Traffic Control Devices that describe the minimum conditions under which a traffic signal should be further considered. There are nine separate warrant criteria as listed below:

1. Warrant 1, Eight-Hour Vehicular Volume
2. Warrant 2, Four-Hour Vehicular Volume
3. Warrant 3, Peak Hour
4. Warrant 4, Pedestrian Volume
5. Warrant 5, School Crossing
6. Warrant 6, Coordinated Signal System
7. Warrant 7, Crash Experience
8. Warrant 8, Roadway Network
9. Warrant 9, Intersection Near a Grade Crossing

Within this study there were no intersections identified that would require signalization due to operational issues or that support adequate volumes to meet the minimum warrant criteria. Accordingly, further review of signal warrants was not conducted.

LEFT-TURN LANE WARRANTS

Turn lane warrants are reviewed based on guidance within the ODOT Transportation Planning and Analysis Unit's publication *Analysis Procedures Manual*. Left-turn lane warrants are based on the posted roadway speed, bidirectional traffic volume, and percentage of the total volume turning left. The left-turn lane warrants are essentially a cost-benefit calculation of the safety benefits provided by separating through and turning traffic versus the construction costs. Left-turn lane warrants do not apply to stop-controlled minor-street approaches.

A summary of the study area intersections and the applicability of left-turn lane warrants is summarized in Table 10. It should be noted that the adopted Transportation System Plan identifies a project to widen NW/SW Helmholtz Way from SW Canal Boulevard to NW Maple Avenue to add a center turn lane throughout. This analysis reviews the left-turn lane warrant applicability in year 2023 with development of the site to help identify the specific timing, though it is expected that any major intersection with Helmholtz Way will warrant left-turn lanes.

Table 10. Summary of Left-Turn Lane Warrant Applicability

Intersection	Left-Turn Lane Warrants Applicable?	Notes	Met?
SW Helmholtz Way / SW Obsidian Avenue	Yes	Left-turn lanes are reviewed herein.	Yes SB
SW 35 th Street / SW Obsidian Avenue	No	The City of Redmond is planning to convert this intersection to AWSC; these warrants do not apply.	No
SW Helmholtz Way / SW Quartz Avenue	Yes	Left-turn lanes are reviewed herein.	Yes SB
SW 42 nd Street / SW Quartz Avenue	Yes	Left-turn lanes are reviewed herein.	No
SW 35 th Street / SW Quartz Avenue	Yes	Left-turn lanes are reviewed herein.	No
SW Helmholtz Way / SW 45 th Street	Yes	Left-turn lanes are reviewed herein.	Yes SB
SW Forked Horn Butte Road – Access / SW Salmon Avenue	No	SW Salmon Avenue has been fully built-out to the east as a two-lane residential <i>Minor Collector</i> .	No
SW 43 rd Street / SW Salmon Avenue	No	SW Salmon Avenue has been fully built-out to the east as a two-lane residential <i>Minor Collector</i> .	No
SW 43 rd Street / Site Access – SW Rhyolite Place	No	Both SW 43 rd Street and SW Rhyolite Place are local streets and would not be subject to left-turn lane warrants.	No
SW Reindeer Avenue / Site Access	No	Reindeer Avenue is a local street and would not be subject to turn lane warrants.	No
SW 42 nd Street / SW Reindeer Avenue	No	Both SW 42 nd Street and SW Reindeer Avenue are local streets and would not be subject to turn lane warrants.	No
SW 35 th Street / SW Salmon Avenue	No	SW Salmon Avenue has been fully built-out as a two-lane residential <i>Minor Collector</i> , with an offset continuation of Salmon Avenue immediately west.	No

Figure 19 illustrates the left-turn lane warrants the study intersections, showing that with the increasing travel along SW Helmholtz Way the southbound left-turn lanes are warranted along this corridor at every major intersection. City of Redmond plans identify a three-lane cross-section for SW Helmholtz Way to support this turn lane need, with a fee in-lieu paid for the Cottages on Helmholtz frontage.

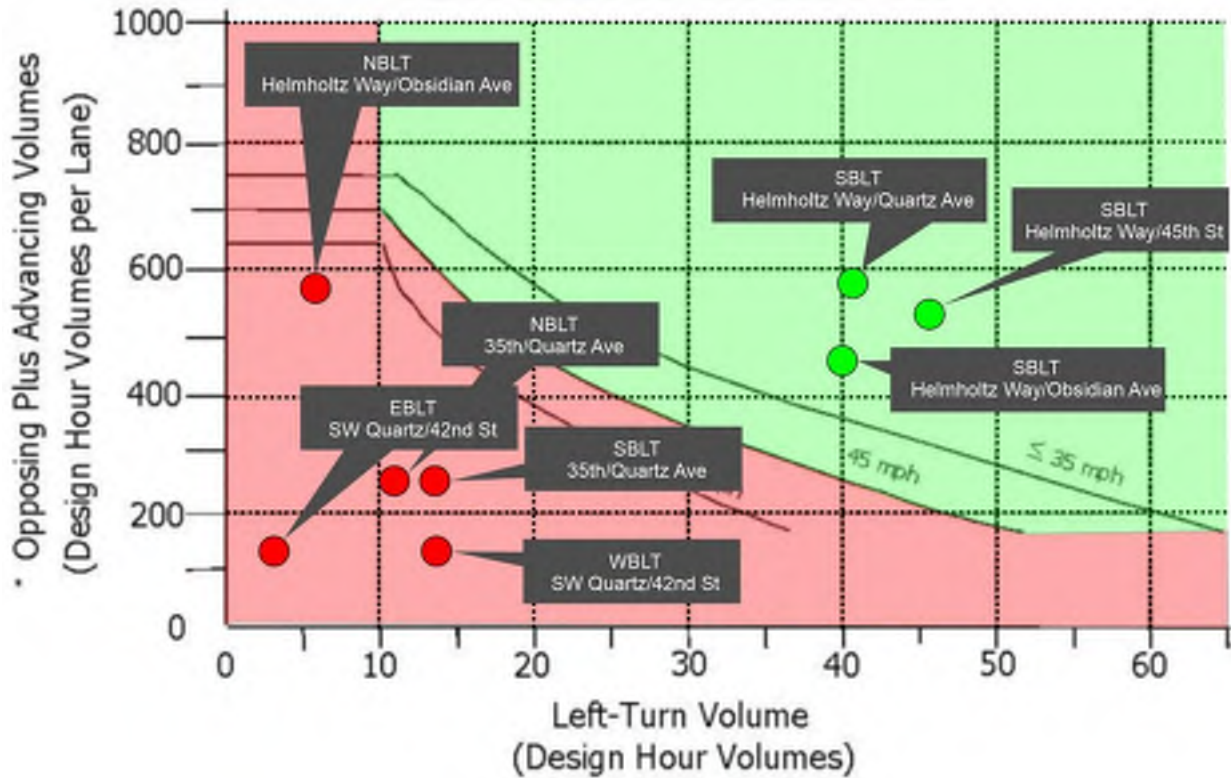


Figure 19. Left-Turn Lane Warrant Criteria:
2023 'With Project' Traffic Volumes, Weekday PM Peak Hour.

RIGHT-TURN LANE WARRANTS

The purpose of a right-turn lane is to improve safety and capacity of a roadway by reducing the speed differential between through vehicles and decelerating vehicles. Within an urban environment, facility design considerations should include the increased pedestrian crossing distance, higher resultant through speeds, and right-of-way/streetscape impacts. Right turn lanes are typically reviewed based on the ODOT methodology for rural highways; as such, discretion and engineering judgement is required in applying these criteria to urban roadways. Based on the facility characteristics there were no study intersections that were identified for right-turn deceleration lanes, nor are there any intersections within the study area that would warrant right-turn deceleration lanes.

PARKING SUPPLY

The City of Redmond's parking requirements are contained within RDC 8.0500. The requirement for apartments includes two parking stalls per dwelling unit, one additional space for the building manager, and 1 guest space for every 10 dwelling units, unless an alternate plan is presented and approved by the City Engineer. With 97 rentable units planned this requires 194 tenant stalls, 10 guest stalls, and an on-site manager stall for a total of 205 parking stalls. The proposed site includes 195 parking stalls (1.99 stalls/unit), which is 10 fewer than is required. While the City does not include on-street parking stalls within their counts, a substantial on-street parking supply is available within the public right-of-way and is intended for temporary guest use. The proposed site is located within a well isolated area of the City.

The subject property provides approximately 185 feet of frontage along SW Salmon Avenue, 650 feet along SW 43rd Street, 325 feet along SW Reindeer Avenue, and 270 feet (on each side) of SW 42nd Street, for a total of approximately 1,700 lineal feet of frontage. Assuming that 25% of this area precludes parking due to sight lines, fire hydrants, mailboxes, or driveways, this would leave enough space to park 51 vehicles, or five times the amount otherwise required by Code.

In terms of functional needs, the current version of the ITE Parking Generation Manual, 5th Edition provides parking demand information on a total unit basis within its *Multifamily Housing (Low-Rise)* classification, which includes townhomes, condominiums, and low-rise apartments within urban/suburban areas with no nearby rail transit. This shows the peak parking demand occurs during the overnight hours (11:00 p.m. to 6:00 p.m.), which is when many guests will have left. This data shows an 85th percentile parking rate of 1.52 stalls per unit, or 1.61 stalls per unit on Saturdays. This parking ratio is easily exceeded with the proposed design that provides 1.99 stalls per unit on-site, or closer to 2.5 stalls per unit including the adjacent on-street parking along the local residential streets.

FINDINGS AND RECOMMENDATIONS

This report for the proposed Cottages on Helmholtz multifamily housing project shows that the continuation of the street network surrounding the site will support area build-out plans and provided much-needed street connectivity within the area. With the planned completion of Quartz Avenue the site complies with all City of Redmond transportation requirements. The following reflects key findings of the report:

- The site is planned to contain 98 units that are located within a combination of small two-bedroom, three-bedroom attached or detached units. One of the units will serve as the leasing office.
- The site layout provides improvements along SW Salmon Avenue, SW 43rd Street, SW Reindeer Avenue, and SW 42nd Street, improving these bordering streets to City standards. Fee in-lieu payments will be provided for improvements to SW Helmholtz Way so that this project can be completed as part of a broader corridor project.
- Trip generation estimates show that the site will generate about 821 weekday daily trips, including 76 trips during the weekday p.m. peak hour. These trips are primarily destined east toward the core area services.
- The overall safety review shows that clear sight lines are available at each of the new connections/roadway extensions. There were two intersections that experienced a crash rate above ODOT's 90th percentile for similar locations:

- o SW 35th Street/SW Obsidian Avenue: The City of Redmond plans to convert this intersection to all-way stop-control which is expected to resolve the issues noted.
- o SW 35th Street/SW Salmon Avenue: Only a single crash was reported at this low-volume intersection and the cited crash cause (vision obscuration) was not present during field review. No mitigation is recommended.
- All of the intersections within the study area operate acceptably today, in the future without the proposed development, and in the future with the proposed Cottages. Even five-years beyond site build-out all of the study area intersections operate acceptably.
- Left-turn lanes are warranted in the southbound direction along the SW Helmholtz Way corridor at all major intersections (SW Obsidian Avenue, SW Quartz Avenue, and SW 45th Street). The City has identified this corridor as a future three-lane section that will support these new turn lanes. The project is providing a payment to the City for frontage improvements along SW Helmholtz Way to bring the facility into compliance with the identified cross-section.
- There are no locations within the study area that meet signal warrants or right-turn deceleration lane warrants.
- City Engineer approval is requested for the site to reduce the required parking from 205 stalls to 195 stalls. There is space along the adjacent streets to support over 50 additional parked vehicles beyond the off-street parking identified, easily meeting the guest parking needs.
- Frontage improvements are proposed surrounding the site, bringing all of the adjacent streets into compliance with City standards. A fee in-lieu payment is proposed for the SW Helmholtz Way corridor to allow these improvements to occur as part of a broader improvement project.
- All of the private site accesses will be constructed with concrete driveway aprons to discern between the private and public street systems.
- Stop signs will be installed on all minor approaches to clearly designate right-of-way.
- The project will contribute toward the City of Redmond's overall transportation needs through payment of Transportation SDC fees. These fees account for the regional impacts to the City's major street (and highway) system.

Overall, the Cottages on Helmholtz reflect planned development within an area zoned to allow the proposed project. This report shows that the project complies with the City of Redmond's transportation requirements identified within RDC 8.2815. Please let me know if you have any questions or require any additional information to complete your review at (503) 997-4473 or via email at joe@transightconsulting.com.

Attachments:

- Traffic Counts
- Crash Summaries
- Existing Year 2021 Level of Service Worksheets
- Future Year 2023 Level of Service Worksheets (Without Project)
- Future Year 2023 Level of Service Worksheets (With Project)
- Future Year 2028 Level of Service Worksheets (Without Project)
- Future Year 2028 Level of Service Worksheets (With Project)



Data Provided by K-D-N.com 503-594-4224	
N/S street	SW 27th St
E/W street	SW Highland Ave
City, State	Redmond OR
Site Notes	
Location	44.269245 - -121.199353
Start Date	Wednesday, June 02, 2021
Start Time	04:00:00 PM
Weather	
Study ID #	
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	04:45:00 PM
PHF (15-Min Int)	0.94

Eastbound
SW Highland Ave
Heavy Vehicle 1.0%

In	582	Out	692
U-Turn	0		
Left	60		
Thru	475		
Right	47		
Bicycles	0		

Southbound SW 27th St Heavy Vehicle 1.0%				
In	301	Out	384	
Bicycles	Right	Thru	Left	U-Turn
0	37	141	123	0
Peds 0				
SW 27th St at SW Highland Ave				
Peak Hour Summary				
04:35 PM to 05:35 PM				
Peds 0				
U-Turn	Left	Thru	Right	Bicycles
0	50	184	83	1

In	317	Out	319
Heavy Vehicle 0.6%			
SW 27th St Northbound			

Bicycles	0
Right	140
Thru	605
Left	131
U-Turn	0

Westbound
SW Highland Ave
Heavy Vehicle 2.1%

In	876	Out	681
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Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
50	184	83	0	123	141	37	0	60	475	47	0	131	605	140	0	317	301	582	876	319	384	692	681
Percent Heavy Vehicles																							
2.0%	0.0%	1.2%	0.0%	0.0%	1.4%	2.7%	0.0%	0.0%	1.1%	2.1%	0.0%	0.0%	3.0%	0.0%	0.0%	0.6%	1.0%	1.0%	2.1%	0.9%	0.0%	2.9%	0.9%
PHV- Bicycles																PHV - Pedestrians							
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum		
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB			
0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
All Vehicle Volumes																							
	Northbound SW 27th St				Southbound SW 27th St				Eastbound SW Highland Ave				Westbound SW Highland Ave				15 Min	1 HR					
Time	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum					
04:00:00 PM	2	12	8	0	5	11	2	0	7	47	2	0	11	42	13	0							
04:05:00 PM	5	8	9	0	10	15	4	0	3	35	3	0	11	38	11	0							
04:10:00 PM	4	26	6	0	4	12	4	0	7	42	7	0	9	44	5	0	484						
04:15:00 PM	8	10	4	0	8	12	3	0	2	41	7	0	14	43	13	0	487						
04:20:00 PM	4	20	12	0	6	6	2	0	5	32	1	0	16	51	10	0	500						
04:25:00 PM	7	16	10	0	8	6	8	0	1	48	2	0	11	48	13	0	508						
04:30:00 PM	1	17	10	0	7	10	2	0	2	36	2	0	8	43	8	0	489						
04:35:00 PM	7	7	4	0	8	16	2	0	4	31	4	0	18	48	17	0	490						
04:40:00 PM	4	23	6	0	8	13	2	0	4	49	3	0	8	37	9	0	478						
04:45:00 PM	6	14	5	0	12	12	5	0	6	54	1	0	11	42	10	0	510						
04:50:00 PM	4	20	12	0	13	10	3	0	10	44	3	0	9	46	5	0	523						
04:55:00 PM	3	14	5	0	16	10	4	0	3	52	9	0	7	59	16	0	555	2025					
05:00:00 PM	0	9	7	0	7	12	3	0	1	47	4	0	14	47	16	0	544	2030					
05:05:00 PM	9	10	9	0	14	9	5	0	4	27	2	0	13	46	19	0	532	2045					
05:10:00 PM	3	16	5	0	10	13	2	0	2	48	7	0	11	53	9	0	513	2054					
05:15:00 PM	5	16	4	0	14	12	4	0	6	27	3	0	9	57	7	0	510	2053					
05:20:00 PM	4	15	10	0	7	15	5	0	10	39	5	0	7	52	9	0	521	2066					
05:25:00 PM	2	12	7	0	7	12	2	0	4	31	5	0	16	59	12	0	511	2057					
05:30:00 PM	3	28	9	0	7	7	0	0	6	26	1	0	8	59	11	0	512	2076					
05:35:00 PM	6	10	12	0	17	14	3	0	9	10	1	0	9	47	10	0	482	2058					
05:40:00 PM	0	21	9	0	11	20	0	0	9	14	0	0	12	46	11	0	466	2045					
05:45:00 PM	7	15	11	0	14	14	6	0	1	6	0	0	11	24	10	0	420	1986					
05:50:00 PM	7	22	17	0	12	18	2	0	6	14	1	0	3	38	16	0	428	1963					
05:55:00 PM	6	14	11	0	14	6	4	0	1	7	0	0	15	47	14	0	414	1904					



Data Provided by K-D-N.com 503-594-4224	
N/S street	SW 35th St
E/W street	SW Obsidian Ave
City, State	Redmond OR
Site Notes	
Location	44.261956 - -121.209524
Start Date	Wednesday, October 28, 2020
Start Time	04:00:00 PM
Weather	
Study ID #	
Peak Hour Start	04:50:00 PM
Peak 15 Min Start	05:15:00 PM
PHF (15-Min Int)	0.82

Eastbound
SW Obsidian Ave
Heavy Vehicle 0.0%



In 67	Out 31	U-Turn	0
		Left	16
		Thru	34
		Right	17
		Bicycles	1

Southbound SW 35th St Heavy Vehicle 0.0%				
In 138	Out 126			
Bicycles	Right	Thru	Left	U-Turn
3	12	112	11	0
Peds 8				
22690 SW 35th St at SW Obsidian Ave				
Peak Hour Summary				
04:50 PM to 05:50 PM				
Peds 3				
U-Turn	Left	Thru	Right	Bicycles
1	7	93	5	1

In 107	Out 143
Heavy Vehicle 1.9%	
SW 35th St Northbound	

Bicycles	0
Right	16
Thru	12
Left	12
U-Turn	0

Westbound
SW Obsidian Ave
Heavy Vehicle 0.0%

In 40	Out 50
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Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
7	93	5	2	11	112	12	0	16	34	17	0	12	12	16	0	107	135	67	40	143	125	31	50
Percent Heavy Vehicles																							
0.0%	1.1%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	0.7%	0.8%	0.0%	0.0%

PHV- Bicycles																PHV - Pedestrians						
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk					Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB		
0	1	0	0	2	1	0	0	0	0	1	0	0	0	0	0		3	8	15	7		

All Vehicle Volumes																		
Time	Northbound SW 35th St				Southbound SW 35th St				Eastbound SW Obsidian Ave				Westbound SW Obsidian Ave				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:00:00 PM	0	10	1	0	0	5	1	0	2	3	1	0	1	1	1	0		
04:05:00 PM	0	4	1	0	2	6	0	0	0	2	1	0	3	0	0	0		
04:10:00 PM	0	11	0	0	0	11	0	0	1	2	1	0	0	0	0	0	71	
04:15:00 PM	0	5	0	0	0	9	0	0	1	3	0	0	1	1	0	0	65	
04:20:00 PM	2	10	1	0	0	6	0	0	0	3	1	0	4	2	0	0	75	
04:25:00 PM	0	4	1	0	3	6	1	0	1	2	4	0	2	0	1	0	74	
04:30:00 PM	0	5	0	0	2	13	2	0	0	4	0	0	0	3	1	0	84	
04:35:00 PM	0	6	0	0	2	10	0	0	1	6	1	0	2	1	0	0	84	
04:40:00 PM	0	2	1	0	1	4	1	0	2	1	0	0	1	1	1	0	74	
04:45:00 PM	0	6	1	0	0	2	0	0	3	1	0	0	0	2	3	0	62	
04:50:00 PM	1	7	1	1	1	14	0	0	2	5	1	0	0	4	2	0	72	
04:55:00 PM	1	6	0	0	1	6	2	0	2	3	0	0	3	2	2	0	85	304
05:00:00 PM	0	10	1	0	2	12	0	0	0	3	0	0	2	0	1	0	98	309
05:05:00 PM	1	6	0	0	0	3	1	0	0	3	1	0	1	0	0	0	75	306
05:10:00 PM	1	7	0	1	0	6	0	0	0	3	2	0	0	0	1	0	68	301
05:15:00 PM	0	10	2	0	1	11	0	0	0	3	4	0	2	2	2	0	74	318
05:20:00 PM	0	3	0	0	0	9	3	0	1	2	2	0	0	2	2	0	82	313
05:25:00 PM	0	13	0	0	3	15	4	0	3	2	4	0	0	1	1	0	107	334
05:30:00 PM	0	12	0	0	1	4	1	0	1	1	0	0	0	0	0	0	90	324
05:35:00 PM	0	10	1	0	0	8	0	0	2	1	1	0	0	0	2	0	91	320
05:40:00 PM	2	3	0	0	2	7	0	0	2	3	1	0	2	0	1	0	68	328
05:45:00 PM	1	6	0	0	0	17	1	0	3	5	1	0	2	1	2	0	87	349
05:50:00 PM	1	6	0	0	1	13	2	0	3	1	1	0	0	3	1	0	94	342
05:55:00 PM	0	4	0	0	1	5	0	0	1	3	0	0	1	1	2	0	89	332



Data Provided by K-D-N.com 503-594-4224	
N/S street	SW 35th St
E/W street	SW Quartz Ave
City, State	Redmond OR
Site Notes	
Location	44.258310 - -121.209439
Start Date	Wednesday, October 28, 2020
Start Time	04:00:00 PM
Weather	
Study ID #	
Peak Hour Start	04:50:00 PM
Peak 15 Min Start	05:15:00 PM
PHF (15-Min Int)	0.76

Eastbound
SW Quartz Ave
Heavy Vehicle 0.0%

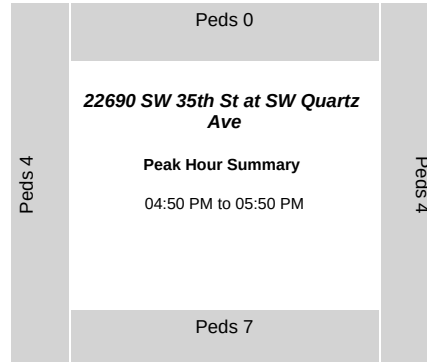


In 32	Out 58	U-Turn	1
		Left	21
		Thru	7
		Right	3
		Bicycles	3

Southbound
SW 35th St
Heavy Vehicle 0.9%

In 110		Out 111		
Bicycles	Right	Thru	Left	U-Turn

2 29 72 7 0



U-Turn Left Thru Right Bicycles

1 7 81 7 1

In	96	Out	83
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Heavy Vehicle 0.0%
SW 35th St
Northbound

Westbound
SW Quartz Ave
Heavy Vehicle 0.0%

In 36	Out 21
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Bicycles	0
Right	8
Thru	21
Left	7
U-Turn	0

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
7	81	7	1	7	72	29	0	21	7	3	1	7	21	8	0	96	108	32	36	83	110	58	21
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%

PHV- Bicycles																PHV - Pedestrians						
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk					Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB		
0	1	0	0	1	1	0	0	0	3	0	0	0	0	0	0	6	7	0	4	4	15	

All Vehicle Volumes																		
Time	Northbound SW 35th St				Southbound SW 35th St				Eastbound SW Quartz Ave				Westbound SW Quartz Ave				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:00:00 PM	1	5	1	0	0	3	2	0	2	2	0	0	1	2	0	0		
04:05:00 PM	0	4	0	0	0	4	3	0	1	1	1	0	0	2	1	0		
04:10:00 PM	0	7	0	0	2	5	1	0	1	1	0	0	0	0	1	0	54	
04:15:00 PM	1	3	0	0	2	5	3	0	2	2	0	0	0	0	0	0	53	
04:20:00 PM	3	10	0	0	1	4	3	0	1	1	0	0	1	5	0	0	65	
04:25:00 PM	0	4	1	0	0	5	4	0	4	4	1	0	3	2	0	0	75	
04:30:00 PM	0	4	0	0	1	6	5	0	0	0	0	0	0	0	0	0	73	
04:35:00 PM	0	6	1	0	0	6	7	0	2	2	1	0	0	1	0	0	70	
04:40:00 PM	2	2	1	0	0	4	1	0	2	2	0	0	0	1	1	0	58	
04:45:00 PM	0	2	0	0	0	0	0	0	2	2	0	0	0	0	0	0	48	
04:50:00 PM	0	8	0	0	1	8	2	0	0	0	0	0	0	5	1	0	47	
04:55:00 PM	0	5	0	0	0	5	3	0	1	1	1	0	0	2	3	0	52	239
05:00:00 PM	1	7	2	0	0	5	1	0	3	1	0	0	1	0	0	0	67	241
05:05:00 PM	0	3	0	0	0	4	3	0	1	1	1	0	1	1	0	0	57	239
05:10:00 PM	1	7	0	0	1	3	2	0	0	0	0	0	0	0	0	0	50	235
05:15:00 PM	0	11	0	0	2	10	3	0	2	2	0	0	0	3	1	0	63	251
05:20:00 PM	2	5	0	0	0	5	3	0	0	0	0	0	1	2	0	0	66	240
05:25:00 PM	0	12	0	1	1	9	5	0	4	0	1	1	0	2	1	0	89	249
05:30:00 PM	0	10	0	0	0	3	0	0	2	0	0	0	0	2	0	0	72	250
05:35:00 PM	0	8	3	0	0	6	0	0	3	1	0	0	3	1	0	0	79	249
05:40:00 PM	1	0	2	0	0	4	3	0	2	1	0	0	0	2	2	0	59	250
05:45:00 PM	2	5	0	0	2	10	4	0	3	0	0	0	1	1	0	0	70	272
05:50:00 PM	0	9	1	0	0	6	5	0	0	1	1	0	1	0	0	0	69	271
05:55:00 PM	1	6	0	0	0	5	1	0	0	1	1	0	0	0	0	0	67	265



Data Provided by K-D-N.com 503-594-4224	
N/S street	SW 35th St
E/W street	SW Salmon Ave
City, State	Redmond OR
Site Notes	
Location	44.255296 - -121.209447
Start Date	Thursday, September 23, 2021
Start Time	04:00:00 PM
Weather	Sunny and 75
Study ID #	
Peak Hour Start	04:50:00 PM
Peak 15 Min Start	05:20:00 PM
PHF (15-Min Int)	0.76

Eastbound
SW Salmon Ave
Heavy Vehicle 0.0%



In 50	U-Turn	0
Out 38	Left	18
	Thru	20
	Right	0
	Bicycles	1

Southbound SW 35th St Heavy Vehicle 1.5%				
In 67	Out 68			
Bicycles	Right	Thru	Left	U-Turn
0	27	0	40	0
Peds 0				
35th at Salmon				
Peak Hour Summary				
04:50 PM to 05:50 PM				
Peds 0				
U-Turn	Left	Thru	Right	Bicycles
0	0	0	0	0

Bicycles	0
Right	49
Thru	23
Left	0
U-Turn	0

Westbound
SW Salmon Ave
Heavy Vehicle 0.0%

In 0	Out 0
------	-------

Heavy Vehicle NaN
SW 35th St
Northbound

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	0	0	0	40	0	27	0	18	20	0	0	0	23	49	0	0	67	38	72	0	67	50	60
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	NaN	1.5%	0.0%	0.0%	NaN	0.0%	2.0%	0.0%

PHV- Bicycles															PHV - Pedestrians						
Northbound				Southbound				Eastbound				Westbound				in Crosswalk				Sum	
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2	0	2

All Vehicle Volumes																		
Time	Northbound SW 35th St				Southbound SW 35th St				Eastbound SW Salmon Ave				Westbound SW Salmon Ave				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:00:00 PM	0	0	0	0	2	0	0	0	4	1	0	0	0	2	6	0		
04:05:00 PM	0	0	0	0	2	0	1	0	0	4	0	0	0	7	4	1		
04:10:00 PM	0	0	0	0	2	0	2	0	2	4	0	0	0	5	5	0	54	
04:15:00 PM	0	0	0	0	3	0	1	0	1	1	0	0	0	2	5	0	52	
04:20:00 PM	0	0	0	0	4	0	0	0	1	0	0	0	0	3	6	0	47	
04:25:00 PM	0	0	0	0	0	0	3	0	1	2	0	0	0	4	6	0	43	
04:30:00 PM	0	0	0	0	1	0	3	0	3	1	0	0	0	1	2	0	41	
04:35:00 PM	0	0	0	0	2	0	0	0	1	3	0	0	0	3	4	0	40	
04:40:00 PM	0	0	0	0	1	0	2	0	2	1	0	0	0	2	4	0	36	
04:45:00 PM	0	0	0	0	2	0	3	0	0	1	0	0	0	1	4	0	36	
04:50:00 PM	0	0	0	0	2	0	2	0	1	2	0	0	0	2	4	0	36	
04:55:00 PM	0	0	0	0	2	0	4	0	3	0	0	0	0	2	2	0	37	170
05:00:00 PM	0	0	0	0	1	0	1	0	0	1	0	0	0	2	1	0	32	161
05:05:00 PM	0	0	0	0	5	0	0	0	3	0	0	0	0	2	5	0	34	157
05:10:00 PM	0	0	0	0	3	0	1	0	2	4	0	0	0	2	2	0	35	151
05:15:00 PM	0	0	0	0	4	0	1	0	2	0	0	0	0	1	3	0	40	149
05:20:00 PM	0	0	0	0	7	0	4	0	0	1	0	0	0	5	7	0	49	159
05:25:00 PM	0	0	0	0	2	0	4	0	1	4	0	0	0	0	3	0	49	157
05:30:00 PM	0	0	0	0	5	0	3	0	2	1	0	0	0	2	7	0	58	166
05:35:00 PM	0	0	0	0	4	0	4	0	2	2	0	0	0	1	4	0	51	170
05:40:00 PM	0	0	0	0	0	0	2	0	1	3	0	0	0	1	8	0	52	173
05:45:00 PM	0	0	0	0	5	0	1	0	1	2	0	0	0	3	3	0	47	177
05:50:00 PM	0	0	0	0	2	0	1	0	3	1	0	0	0	1	2	0	40	174
05:55:00 PM	0	0	0	0	2	0	2	0	2	1	0	0	0	1	1	0	34	170



Heavy Vehicle 33.3%
SW 43rd St
Northbound

Eastbound
SW Rhyolite PI
Heavy Vehicle NaN

In	Out	
	0	1
U-Turn	0	1
Left	0	1
Thru	0	1
Right	0	1
Bicycles	0	1

		In	Out
Bicycles	0		
Right	0		
Thru	0		
Left	3		
U-Turn	0		

Westbound
SW Rhyolite PI
Heavy Vehicle 0.0%

PHV - Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	

[illegible]



**Southbound
SW 43rd St**
Heavy Vehicle 0.0%

In 5		Out 6	
Bicycles	Right	Thru	Left U-Turn

0 0 0 5 0

Peds 0	Peds 0					Peds 0
	<i>43rd St at Salmon Ave</i> Peak Hour Summary 04:50 PM to 05:50 PM					
	Peds 1					
	U-Turn	Left	Thru	Right	Bicycles	

U-Turn	Left	Thru	Right	Bicycles
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
21	21	21	21	21
22	22	22	22	22
23	23	23	23	23
24	24	24	24	24
25	25	25	25	25
26	26	26	26	26
27	27	27	27	27
28	28	28	28	28
29	29	29	29	29
30	30	30	30	30
31	31	31	31	31
32	32	32	32	32
33	33	33	33	33
34	34	34	34	34
35	35	35	35	35
36	36	36	36	36
37	37	37	37	37
38	38	38	38	38
39	39	39	39	39
40	40	40	40	40
41	41	41	41	41
42	42	42	42	42
43	43	43	43	43
44	44	44	44	44
45	45	45	45	45
46	46	46	46	46
47	47	47	47	47
48	48	48	48	48
49	49	49	49	49
50	50	50	50	50
51	51	51	51	51
52	52	52	52	52
53	53	53	53	53
54	54	54	54	54
55	55	55	55	55
56	56	56	56	56
57	57	57	57	57
58	58	58	58	58
59	59	59	59	59
60	60	60	60	60
61	61	61	61	61
62	62	62	62	62
63	63	63	63	63
64	64	64	64	64
65	65	65	65	65
66	66	66	66	66
67	67	67	67	67
68	68	68	68	68
69	69	69	69	69
70	70	70	70	70
71	71	71	71	71
72	72	72	72	72
73	73	73	73	73
74	74	74	74	74
75	75	75	75	75
76	76	76	76	76
77	77	77	77	77
78	78	78	78	78
79	79	79	79	79
80	80	80	80	80
81	81	81	81	81
82	82	82	82	82
83	83	83	83	83
84	84	84	84	84
85	85	85	85	85
86	86	86	86	86

0 0 3 1 0

In	4	Out	4
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Heavy Vehicle 25.0%
SW 43rd St
Northbound

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	3	1	0	5	0	0	0	1	1	0	0	4	1	2	0	4	5	2	7	4	6	1	7
Percent Heavy Vehicles																							
0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%	50.0%	0.0%	0.0%	16.7%	0.0%	14.3%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1

[illegible]



In	160	Out	276
Bicycles	Right	Thru	Left U-Turn

Eastbound
SW 45th St
Heavy Vehicle NaN

Westbound
SW 45th St
Heavy Vehicle 0.0%

In	270	Out	141
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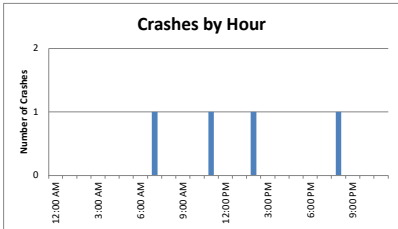
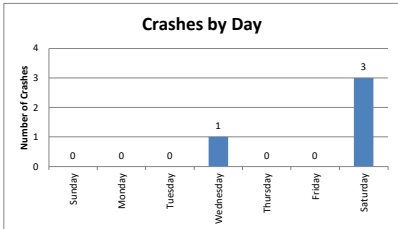
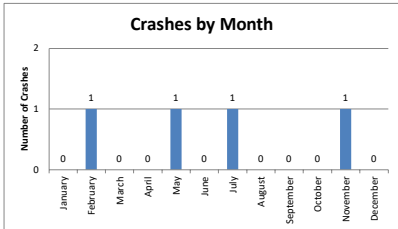
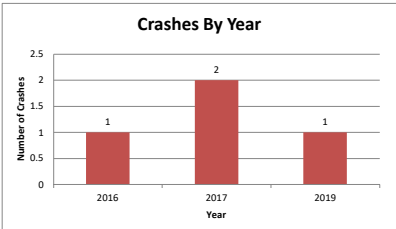
PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1

[illegible]

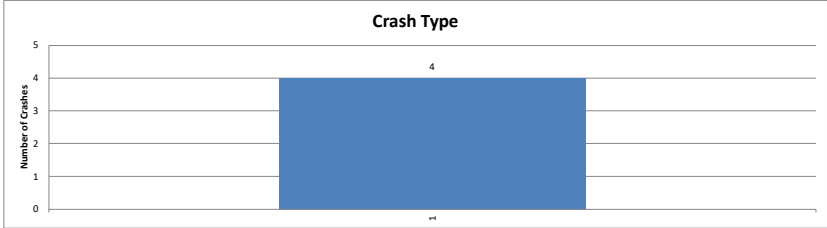
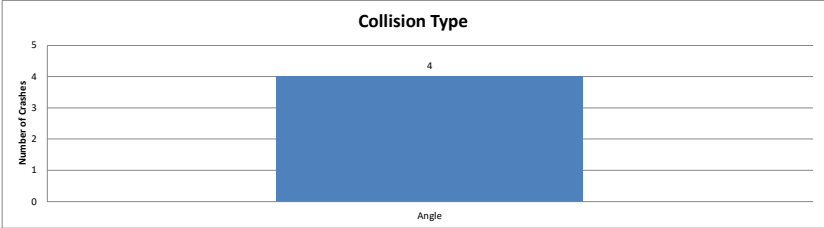
Project Name:
Project Number:
Query Information: Obsidian_35th
Date Queried:
Data Provider: ODOT Crash Analysis Reporting Unit
Analyst:
Summary Date: 10/13/2021
Text File Name:
Filters Applied: :: County: Deschutes Collision Type: Angle

SW Obsidian Avenue/
SW 35th Street
(January 2015 through December 2019)

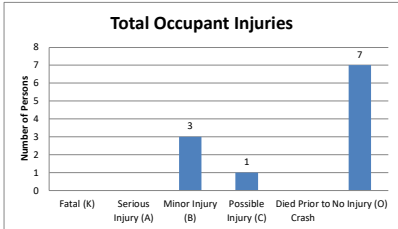
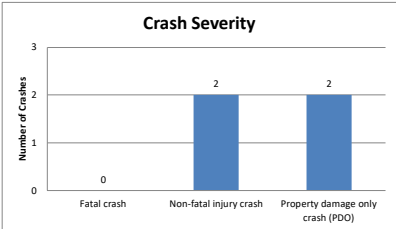
Crash Summary by Date and Time



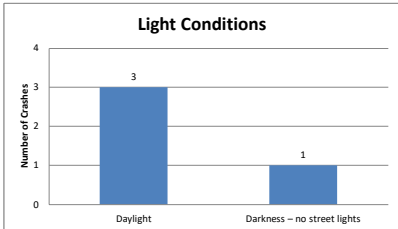
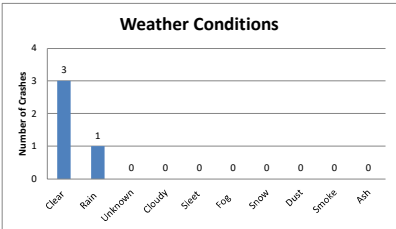
Crash Summary by Type



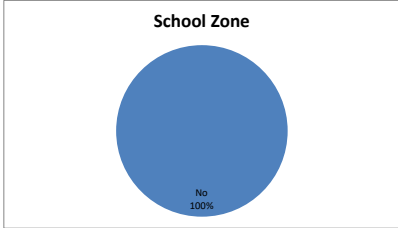
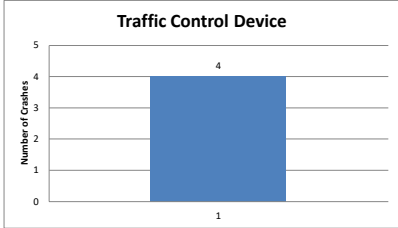
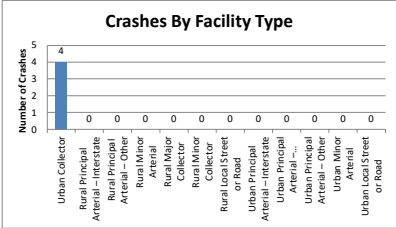
Crash Severity



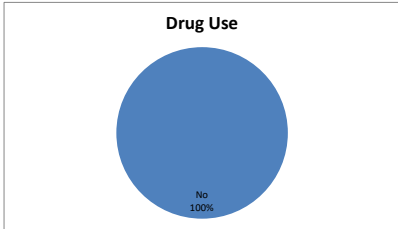
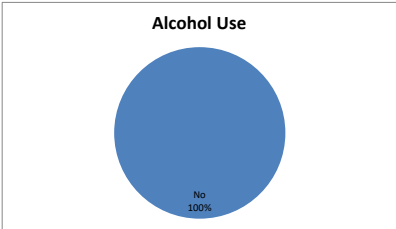
Crash Environment Characteristics



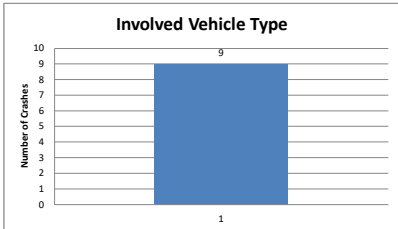
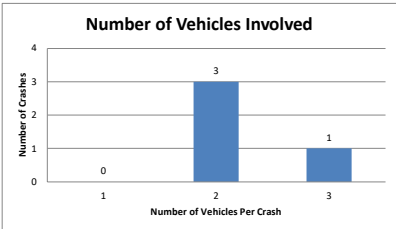
Crash Area Characteristics



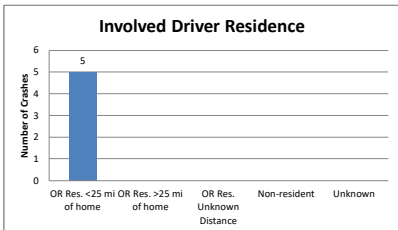
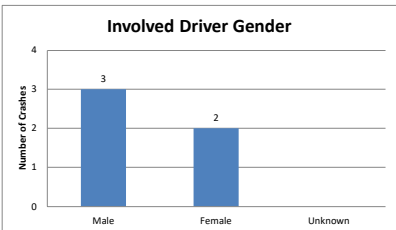
Driving Impairments



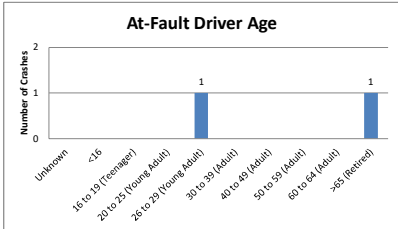
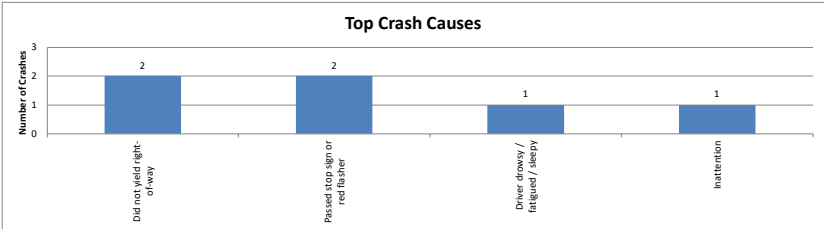
Vehicles and Occupants



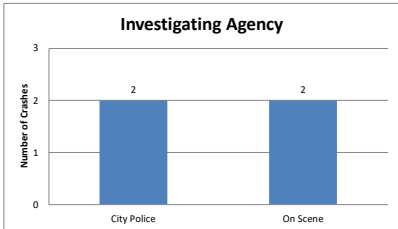
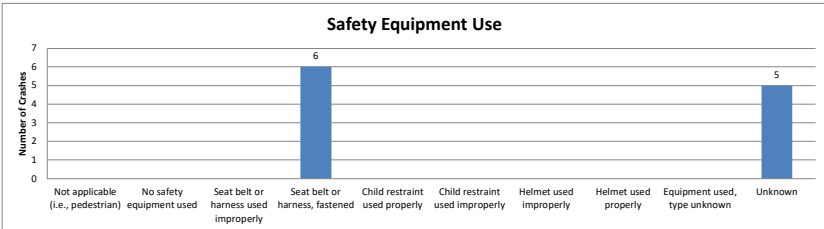
Involved Driver Characteristics



At-Fault Driver Characteristics



Other Crash Characteristics



Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	8	2	25	6	7	6	193	60	30	171	13
Future Vol, veh/h	7	8	2	25	6	7	6	193	60	30	171	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	33	0	0	0	0	2	0	1	2	6
Mvmt Flow	9	11	3	33	8	9	8	257	80	40	228	17
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	639	670	237	637	638	297	245	0	0	337	0	0
Stage 1	317	317	-	313	313	-	-	-	-	-	-	-
Stage 2	322	353	-	324	325	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.53	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.597	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	392	381	731	393	397	747	1333	-	-	1228	-	-
Stage 1	698	658	-	702	661	-	-	-	-	-	-	-
Stage 2	694	634	-	692	653	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	368	364	731	370	379	747	1333	-	-	1228	-	-
Mov Cap-2 Maneuver	368	364	-	370	379	-	-	-	-	-	-	-
Stage 1	693	633	-	697	656	-	-	-	-	-	-	-
Stage 2	672	630	-	652	628	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	14.8		15		0.2		1.1					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1333	-	-	389	410	1228	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.058	0.124	0.033	-	-				
HCM Control Delay (s)	7.7	0	-	14.8	15	8	0	-				
HCM Lane LOS	A	A	-	B	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0.1	-	-				

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	37	15	11	18	16	6	83	6	13	108	13
Future Vol, veh/h	14	37	15	11	18	16	6	83	6	13	108	13
Conflicting Peds, #/hr	3	0	8	8	0	3	7	0	15	15	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	18	47	19	14	23	21	8	106	8	17	138	17
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	47	0	0	74	0	0	247	176	80	230	175	44
Stage 1	-	-	-	-	-	-	101	101	-	65	65	-
Stage 2	-	-	-	-	-	-	146	75	-	165	110	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.51	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.009	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1573	-	-	1538	-	-	711	719	986	729	722	1032
Stage 1	-	-	-	-	-	-	910	813	-	951	845	-
Stage 2	-	-	-	-	-	-	861	834	-	842	808	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1569	-	-	1526	-	-	575	696	965	617	699	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	575	696	-	617	699	-
Stage 1	-	-	-	-	-	-	892	797	-	937	835	-
Stage 2	-	-	-	-	-	-	695	824	-	705	792	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.6			1.8			11.2			11.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	699	1569	-	-	1526	-	-	712				
HCM Lane V/C Ratio	0.174	0.011	-	-	0.009	-	-	0.241				
HCM Control Delay (s)	11.2	7.3	0	-	7.4	0	-	11.7				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.9				

Intersection						
Int Delay, s/veh	6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	3	0	0	1
Future Vol, veh/h	0	0	3	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	4	0	0	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1	0	9	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	8	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1635	-	1017	1090
Stage 1	-	-	-	-	1028	-
Stage 2	-	-	-	-	1020	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1635	-	1015	1090
Mov Cap-2 Maneuver	-	-	-	-	1015	-
Stage 1	-	-	-	-	1028	-
Stage 2	-	-	-	-	1018	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		7.2		8.3	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1090	-	-	1635	-	
HCM Lane V/C Ratio	0.001	-	-	0.002	-	
HCM Control Delay (s)	8.3	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	11	4	3	17	7	7	74	4	6	67	36
Future Vol, veh/h	18	11	4	3	17	7	7	74	4	6	67	36
Conflicting Peds, #/hr	7	0	0	0	0	7	4	0	4	4	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	26	16	6	4	24	10	10	106	6	9	96	51
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	297	280	126	284	302	120	151	0	0	116	0	0
Stage 1	144	144	-	133	133	-	-	-	-	-	-	-
Stage 2	153	136	-	151	169	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	659	632	930	672	614	937	1442	-	-	1485	-	-
Stage 1	864	782	-	875	790	-	-	-	-	-	-	-
Stage 2	854	788	-	856	763	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	619	618	926	646	600	927	1437	-	-	1479	-	-
Mov Cap-2 Maneuver	619	618	-	646	600	-	-	-	-	-	-	-
Stage 1	854	773	-	865	781	-	-	-	-	-	-	-
Stage 2	807	779	-	828	755	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Control Delay, s	11		10.7		0.6			0.4				
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1437	-	-	645	666	1479	-	-				
HCM Lane V/C Ratio	0.007	-	-	0.073	0.058	0.006	-	-				
HCM Control Delay (s)	7.5	0	-	11	10.7	7.4	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-				

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	27	231	11	25	171
Future Vol, veh/h	9	27	231	11	25	171
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	11	33	278	13	30	206
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	551	285	0	0	291	0
Stage 1	285	-	-	-	-	-
Stage 2	266	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	499	759	-	-	1282	-
Stage 1	768	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	486	759	-	-	1282	-
Mov Cap-2 Maneuver	486	-	-	-	-	-
Stage 1	768	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.8	0		1		
HCM LOS	B					
Minor Lane/Major Mvmt		NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)		-	-	666	1282	-
HCM Lane V/C Ratio		-	-	0.065	0.023	-
HCM Control Delay (s)		-	-	10.8	7.9	0
HCM Lane LOS		-	-	B	A	A
HCM 95th %tile Q(veh)		-	-	0.2	0.1	-

Intersection						
Int Delay, s/veh	6.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	2	0	0	2
Future Vol, veh/h	0	0	2	0	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	3	0	0	3
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2	0	8	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	6	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1634	-	1018	1088
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1634	-	1016	1088
Mov Cap-2 Maneuver	-	-	-	-	1016	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	1020	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		7.2		8.3	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1088	-	-	1634	-	
HCM Lane V/C Ratio	0.003	-	-	0.002	-	
HCM Control Delay (s)	8.3	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	4	2	1	0	4	1	4	0	0
Future Vol, veh/h	1	1	0	4	2	1	0	4	1	4	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	100	0	0	50	0	0	25	0	0	0	0
Mvmt Flow	1	1	0	5	2	1	0	5	1	5	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	1	0	0	16	17	1	20	17	4
Stage 1	-	-	-	-	-	-	3	3	-	14	14	-
Stage 2	-	-	-	-	-	-	13	14	-	6	3	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.75	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.75	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.75	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.225	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1631	-	-	1635	-	-	1004	834	1090	998	881	1085
Stage 1	-	-	-	-	-	-	1025	849	-	1011	888	-
Stage 2	-	-	-	-	-	-	1013	840	-	1021	897	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1629	-	-	1635	-	-	1001	830	1090	988	877	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1001	830	-	988	877	-
Stage 1	-	-	-	-	-	-	1024	848	-	1009	884	-
Stage 2	-	-	-	-	-	-	1010	837	-	1013	896	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.6			4.1			9.2			8.7		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	872	1629	-	-	1635	-	-	988				
HCM Lane V/C Ratio	0.007	0.001	-	-	0.003	-	-	0.005				
HCM Control Delay (s)	9.2	7.2	0	-	7.2	0	-	8.7				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	0	1	2	2	0
Future Vol, veh/h	3	0	1	2	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	50	0	0
Mvmt Flow	7	0	2	5	5	0
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	15	5	0	0	7	0
Stage 1	5	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1009	1084	-	-	1627	-
Stage 1	1023	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1006	1084	-	-	1627	-
Mov Cap-2 Maneuver	1006	-	-	-	-	-
Stage 1	1023	-	-	-	-	-
Stage 2	1015	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	8.6	0		7.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 1006		1627	-	
HCM Lane V/C Ratio	-	- 0.007		0.003	-	
HCM Control Delay (s)	-	- 8.6		7.2	0	
HCM Lane LOS	-	- A		A	A	
HCM 95th %tile Q(veh)	-	- 0		0	-	

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	20	23	49	40	27
Future Vol, veh/h	18	20	23	49	40	27
Conflicting Peds, #/hr	0	0	0	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	4
Mvmt Flow	23	25	29	61	50	34
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	90	0	-	0	133	60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	73	-
Critical Hdwy	4.1	-	-	-	6.4	6.24
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.336
Pot Cap-1 Maneuver	1518	-	-	-	866	1000
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	955	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1518	-	-	-	853	1000
Mov Cap-2 Maneuver	-	-	-	-	853	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	955	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.5	0		9.4		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1518	-	-	-	907	
HCM Lane V/C Ratio	0.015	-	-	-	0.092	
HCM Control Delay (s)	7.4	0	-	-	9.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.3	

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	9	2	39	6	16	7	221	53	40	215	13
Future Vol, veh/h	8	9	2	39	6	16	7	221	53	40	215	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	33	0	0	0	0	2	0	1	2	6
Mvmt Flow	11	12	3	52	8	21	9	295	71	53	287	17
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	765	786	296	758	759	331	304	0	0	366	0	0
Stage 1	402	402	-	349	349	-	-	-	-	-	-	-
Stage 2	363	384	-	409	410	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.53	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.597	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	323	326	676	326	338	715	1268	-	-	1198	-	-
Stage 1	629	604	-	671	637	-	-	-	-	-	-	-
Stage 2	660	615	-	623	599	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	293	306	676	300	317	715	1268	-	-	1198	-	-
Mov Cap-2 Maneuver	293	306	-	300	317	-	-	-	-	-	-	-
Stage 1	623	572	-	665	631	-	-	-	-	-	-	-
Stage 2	626	609	-	575	567	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	17.3		18.1		0.2		1.2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1268	-	-	318	356	1198	-	-				
HCM Lane V/C Ratio	0.007	-	-	0.08	0.228	0.045	-	-				
HCM Control Delay (s)	7.9	0	-	17.3	18.1	8.1	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.3	0.9	0.1	-	-				

Intersection												
Int Delay, s/veh	9.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	38	30	15	46	17	28	89	8	15	118	47
Future Vol, veh/h	41	38	30	15	46	17	28	89	8	15	118	47
Conflicting Peds, #/hr	3	0	8	8	0	3	7	0	15	15	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	53	49	38	19	59	22	36	114	10	19	151	60
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	84	0	0	95	0	0	403	304	91	362	312	80
Stage 1	-	-	-	-	-	-	182	182	-	111	111	-
Stage 2	-	-	-	-	-	-	221	122	-	251	201	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.51	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.009	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1526	-	-	1512	-	-	562	611	972	598	606	986
Stage 1	-	-	-	-	-	-	824	751	-	899	807	-
Stage 2	-	-	-	-	-	-	786	797	-	758	739	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1522	-	-	1500	-	-	398	574	951	475	570	977
Mov Cap-2 Maneuver	-	-	-	-	-	-	398	574	-	475	570	-
Stage 1	-	-	-	-	-	-	788	717	-	863	794	-
Stage 2	-	-	-	-	-	-	585	784	-	598	706	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.8			1.4			14.6			14		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	535	1522	-	-	1500	-	-	628				
HCM Lane V/C Ratio	0.3	0.035	-	-	0.013	-	-	0.367				
HCM Control Delay (s)	14.6	7.5	0	-	7.4	0	-	14				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0	-	-	1.7				

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	64	0	3	35	0	1
Future Vol, veh/h	64	0	3	35	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	85	0	4	47	0	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	85	0	140	85
Stage 1	-	-	-	-	85	-
Stage 2	-	-	-	-	55	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1524	-	858	980
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	973	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1524	-	855	980
Mov Cap-2 Maneuver	-	-	-	-	855	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	970	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.6		8.7	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	980	-	-	1524	-	
HCM Lane V/C Ratio	0.001	-	-	0.003	-	
HCM Control Delay (s)	8.7	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	43	16	3	34	15	11	101	4	12	82	42
Future Vol, veh/h	22	43	16	3	34	15	11	101	4	12	82	42
Conflicting Peds, #/hr	7	0	0	0	0	7	4	0	4	4	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	31	61	23	4	49	21	16	144	6	17	117	60

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	406	371	151	406	398	158	181	0
Stage 1	185	185	-	183	183	-	-	-
Stage 2	221	186	-	223	215	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-
Pot Cap-1 Maneuver	559	562	901	559	543	893	1407	-
Stage 1	821	751	-	823	752	-	-	-
Stage 2	786	750	-	784	729	-	-	-
Platoon blocked, %								-
Mov Cap-1 Maneuver	492	543	898	486	525	884	1402	-
Mov Cap-2 Maneuver	492	543	-	486	525	-	-	-
Stage 1	808	738	-	810	740	-	-	-
Stage 2	703	738	-	691	717	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	12	0.7	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1402	-	-	572	592	1434	-
HCM Lane V/C Ratio	0.011	-	-	0.202	0.125	0.012	-
HCM Control Delay (s)	7.6	0	-	12.9	12	7.5	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.8	0.4	0	-

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	42	272	12	47	198
Future Vol, veh/h	9	42	272	12	47	198
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	11	51	328	14	57	239
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	688	335	0	0	342	0
Stage 1	335	-	-	-	-	-
Stage 2	353	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	415	712	-	-	1228	-
Stage 1	729	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	393	712	-	-	1228	-
Mov Cap-2 Maneuver	393	-	-	-	-	-
Stage 1	729	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.4	0		1.5		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	623	1228	-	
HCM Lane V/C Ratio	-	-	0.099	0.046	-	
HCM Control Delay (s)	-	-	11.4	8.1	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	

Intersection						
Int Delay, s/veh	6.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	2	0	0	2
Future Vol, veh/h	0	0	2	0	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	3	0	0	3
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2	0	8	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	6	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1634	-	1018	1088
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1634	-	1016	1088
Mov Cap-2 Maneuver	-	-	-	-	1016	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	1020	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		7.2		8.3	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1088	-	-	1634	-	
HCM Lane V/C Ratio	0.003	-	-	0.002	-	
HCM Control Delay (s)	8.3	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	4	2	1	0	4	1	4	0	0
Future Vol, veh/h	1	1	0	4	2	1	0	4	1	4	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	100	0	0	50	0	0	25	0	0	0	0
Mvmt Flow	1	1	0	5	2	1	0	5	1	5	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	1	0	0	16	17	1	20	17	4
Stage 1	-	-	-	-	-	-	3	3	-	14	14	-
Stage 2	-	-	-	-	-	-	13	14	-	6	3	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.75	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.75	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.75	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.225	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1631	-	-	1635	-	-	1004	834	1090	998	881	1085
Stage 1	-	-	-	-	-	-	1025	849	-	1011	888	-
Stage 2	-	-	-	-	-	-	1013	840	-	1021	897	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1629	-	-	1635	-	-	1001	830	1090	988	877	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1001	830	-	988	877	-
Stage 1	-	-	-	-	-	-	1024	848	-	1009	884	-
Stage 2	-	-	-	-	-	-	1010	837	-	1013	896	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.6			4.1			9.2			8.7		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	872	1629	-	-	1635	-	-	988				
HCM Lane V/C Ratio	0.007	0.001	-	-	0.003	-	-	0.005				
HCM Control Delay (s)	9.2	7.2	0	-	7.2	0	-	8.7				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	0	1	2	2	0
Future Vol, veh/h	3	0	1	2	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	50	0	0
Mvmt Flow	7	0	2	5	5	0
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	15	5	0	0	7	0
Stage 1	5	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1009	1084	-	-	1627	-
Stage 1	1023	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1006	1084	-	-	1627	-
Mov Cap-2 Maneuver	1006	-	-	-	-	-
Stage 1	1023	-	-	-	-	-
Stage 2	1015	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	8.6	0	7.2			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	1006	1627	-	
HCM Lane V/C Ratio	-	-	0.007	0.003	-	
HCM Control Delay (s)	-	-	8.6	7.2	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	22	25	77	64	28
Future Vol, veh/h	19	22	25	77	64	28
Conflicting Peds, #/hr	0	0	0	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	4
Mvmt Flow	24	28	31	96	80	35
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	127	0	-	0	157	79
Stage 1	-	-	-	-	79	-
Stage 2	-	-	-	-	78	-
Critical Hdwy	4.1	-	-	-	6.4	6.24
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.336
Pot Cap-1 Maneuver	1472	-	-	-	839	976
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	950	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1472	-	-	-	825	976
Mov Cap-2 Maneuver	-	-	-	-	825	-
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	950	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.5	0		9.8		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1472	-	-	-	866	
HCM Lane V/C Ratio	0.016	-	-	-	0.133	
HCM Control Delay (s)	7.5	0	-	-	9.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.5	

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	9	2	41	6	16	7	228	54	40	230	13
Future Vol, veh/h	8	9	2	41	6	16	7	228	54	40	230	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	33	0	0	0	0	2	0	1	2	6
Mvmt Flow	11	12	3	55	8	21	9	304	72	53	307	17
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	795	816	316	787	788	340	324	0	0	376	0	0
Stage 1	422	422	-	358	358	-	-	-	-	-	-	-
Stage 2	373	394	-	429	430	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.53	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.597	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	308	314	658	312	326	707	1247	-	-	1188	-	-
Stage 1	613	592	-	664	631	-	-	-	-	-	-	-
Stage 2	652	609	-	608	587	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	278	294	658	286	305	707	1247	-	-	1188	-	-
Mov Cap-2 Maneuver	278	294	-	286	305	-	-	-	-	-	-	-
Stage 1	607	559	-	658	625	-	-	-	-	-	-	-
Stage 2	619	604	-	560	555	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	17.9		19.1		0.2		1.2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1247	-	-	304	339	1188	-	-				
HCM Lane V/C Ratio	0.007	-	-	0.083	0.248	0.045	-	-				
HCM Control Delay (s)	7.9	0	-	17.9	19.1	8.2	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.3	1	0.1	-	-				

Intersection												
Int Delay, s/veh	10.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	41	39	30	20	48	17	28	95	12	15	124	47
Future Vol, veh/h	41	39	30	20	48	17	28	95	12	15	124	47
Conflicting Peds, #/hr	3	0	8	8	0	3	7	0	15	15	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	53	50	38	26	62	22	36	122	15	19	159	60
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	96	0	0	425	322	92	387	330	83
Stage 1	-	-	-	-	-	-	183	183	-	128	128	-
Stage 2	-	-	-	-	-	-	242	139	-	259	202	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.51	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.009	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1522	-	-	1510	-	-	543	597	971	575	592	982
Stage 1	-	-	-	-	-	-	823	750	-	881	794	-
Stage 2	-	-	-	-	-	-	766	784	-	750	738	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1518	-	-	1498	-	-	375	558	950	444	554	973
Mov Cap-2 Maneuver	-	-	-	-	-	-	375	558	-	444	554	-
Stage 1	-	-	-	-	-	-	787	716	-	846	777	-
Stage 2	-	-	-	-	-	-	558	768	-	581	705	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.8			1.8			15.2			14.7		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	524	1518	-	-	1498	-	-	608				
HCM Lane V/C Ratio	0.33	0.035	-	-	0.017	-	-	0.392				
HCM Control Delay (s)	15.2	7.5	0	-	7.4	0	-	14.7				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.1	-	-	1.9				

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	20	270	48	41	232
Future Vol, veh/h	27	20	270	48	41	232
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	31	23	310	55	47	267
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	699	338	0	0	365	0
Stage 1	338	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	409	709	-	-	1205	-
Stage 1	727	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	390	709	-	-	1205	-
Mov Cap-2 Maneuver	390	-	-	-	-	-
Stage 1	727	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	13.4	0		1.2		
HCM LOS	B					
Minor Lane/Major Mvmt		NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)		-	-	482	1205	-
HCM Lane V/C Ratio		-	-	0.112	0.039	-
HCM Control Delay (s)		-	-	13.4	8.1	0
HCM Lane LOS		-	-	B	A	A
HCM 95th %tile Q(veh)		-	-	0.4	0.1	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	64	20	14	35	10	11
Future Vol, veh/h	64	20	14	35	10	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	85	27	19	47	13	15
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	112	0	184	99
Stage 1	-	-	-	-	99	-
Stage 2	-	-	-	-	85	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1490	-	810	962
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	943	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1490	-	799	962
Mov Cap-2 Maneuver	-	-	-	-	799	-
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	931	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.1		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	877	-	-	1490	-	
HCM Lane V/C Ratio	0.032	-	-	0.013	-	
HCM Control Delay (s)	9.2	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	43	16	3	34	15	11	101	4	12	82	53
Future Vol, veh/h	32	43	16	3	34	15	11	101	4	12	82	53
Conflicting Peds, #/hr	7	0	0	0	0	7	4	0	4	4	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	46	61	23	4	49	21	16	144	6	17	117	76

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	414	379	159	414	414	158	197	0
Stage 1	193	193	-	183	183	-	-	-
Stage 2	221	186	-	231	231	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-
Pot Cap-1 Maneuver	552	556	892	552	532	893	1388	-
Stage 1	813	745	-	823	752	-	-	-
Stage 2	786	750	-	776	717	-	-	-
Platoon blocked, %								-
Mov Cap-1 Maneuver	485	537	889	479	514	884	1383	-
Mov Cap-2 Maneuver	485	537	-	479	514	-	-	-
Stage 1	799	732	-	809	739	-	-	-
Stage 2	703	737	-	684	705	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	12.1	0.7	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1383	-	-	555 582	1434	-	-
HCM Lane V/C Ratio	0.011	-	-	0.234 0.128	0.012	-	-
HCM Control Delay (s)	7.6	0	-	13.5 12.1	7.5	0	-
HCM Lane LOS	A	A	-	B B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9 0.4	0	-	-

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	42	275	13	47	200
Future Vol, veh/h	10	42	275	13	47	200
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	12	51	331	16	57	241
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	694	339	0	0	347	0
Stage 1	339	-	-	-	-	-
Stage 2	355	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	412	708	-	-	1223	-
Stage 1	726	-	-	-	-	-
Stage 2	714	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	390	708	-	-	1223	-
Mov Cap-2 Maneuver	390	-	-	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.6	0		1.5		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		612	1223	
HCM Lane V/C Ratio	-	-		0.102	0.046	
HCM Control Delay (s)	-	-		11.6	8.1	
HCM Lane LOS	-	-		B	A	
HCM 95th %tile Q(veh)	-	-		0.3	0.1	

Intersection												
Int Delay, s/veh	5.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	2	0	1	2	1	1	0
Future Vol, veh/h	0	0	0	2	0	2	0	1	2	1	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	3	0	2	3	2	2	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	2	0	0	11	11	2	13	10	2
Stage 1	-	-	-	-	-	-	2	2	-	8	8	-
Stage 2	-	-	-	-	-	-	9	9	-	5	2	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1632	-	-	1634	-	-	1012	888	1088	1009	889	1088
Stage 1	-	-	-	-	-	-	1026	898	-	1019	893	-
Stage 2	-	-	-	-	-	-	1017	892	-	1022	898	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1634	-	-	1009	886	1088	1003	887	1088
Mov Cap-2 Maneuver	-	-	-	-	-	-	1009	886	-	1003	887	-
Stage 1	-	-	-	-	-	-	1026	898	-	1019	891	-
Stage 2	-	-	-	-	-	-	1013	890	-	1017	898	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.6			8.6			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1011	1632	-	-	1634	-	-	941				
HCM Lane V/C Ratio	0.005	-	-	-	0.002	-	-	0.003				
HCM Control Delay (s)	8.6	0	-	-	7.2	0	-	8.8				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	5.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	2	0	4	4	8	0	9	1	9	3	0
Future Vol, veh/h	1	2	0	4	4	8	0	9	1	9	3	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	100	0	0	50	0	0	25	0	0	0	0
Mvmt Flow	1	2	0	5	5	10	0	11	1	11	4	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	16	0	0	2	0	0	26	30	2	31	25	11
Stage 1	-	-	-	-	-	-	4	4	-	21	21	-
Stage 2	-	-	-	-	-	-	22	26	-	10	4	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.75	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.75	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.75	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.225	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1615	-	-	1634	-	-	990	820	1088	982	872	1076
Stage 1	-	-	-	-	-	-	1024	849	-	1003	882	-
Stage 2	-	-	-	-	-	-	1002	830	-	1016	897	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1613	-	-	1634	-	-	984	816	1088	967	868	1075
Mov Cap-2 Maneuver	-	-	-	-	-	-	984	816	-	967	868	-
Stage 1	-	-	-	-	-	-	1023	848	-	1001	878	-
Stage 2	-	-	-	-	-	-	995	827	-	1001	896	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			1.8			9.4			8.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	837	1613	-	-	1634	-	-	940				
HCM Lane V/C Ratio	0.015	0.001	-	-	0.003	-	-	0.016				
HCM Control Delay (s)	9.4	7.2	0	-	7.2	0	-	8.9				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	4	3	0	0	6	7	2	2	4	12
Future Vol, veh/h	8	0	4	3	0	0	6	7	2	2	4	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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	44	44	44	44	44	44	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0	0	0	50	0	0	0
Mvmt Flow	18	0	9	7	0	0	14	16	5	5	9	27
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	80	82	23	84	93	19	36	0	0	21	0	0
Stage 1	33	33	-	47	47	-	-	-	-	-	-	-
Stage 2	47	49	-	37	46	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	913	812	1060	908	801	1065	1588	-	-	1608	-	-
Stage 1	988	872	-	972	860	-	-	-	-	-	-	-
Stage 2	972	858	-	984	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	905	802	1060	892	791	1065	1588	-	-	1608	-	-
Mov Cap-2 Maneuver	905	802	-	892	791	-	-	-	-	-	-	-
Stage 1	979	869	-	963	852	-	-	-	-	-	-	-
Stage 2	963	850	-	973	858	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.9		9.1			2.9			0.8			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1588	-	-	951	892	1608	-	-				
HCM Lane V/C Ratio	0.009	-	-	0.029	0.008	0.003	-	-				
HCM Control Delay (s)	7.3	0	-	8.9	9.1	7.2	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-				

Intersection						
Int Delay, s/veh	4.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	3	15	9	5	10
Future Vol, veh/h	6	3	15	9	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	5	23	14	8	15
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	14	0	72	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1617	-	937	1074
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	968	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1617	-	924	1074
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	954	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		4.5		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1019	-	-	1617	-	
HCM Lane V/C Ratio	0.023	-	-	0.014	-	
HCM Control Delay (s)	8.6	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection

Int Delay, s/veh 7.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	1	2	0	0	22
Future Vol, veh/h	15	1	2	0	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	2	3	0	0	34

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	3	0	0 51 3
Stage 1	-	-	- 3 -
Stage 2	-	-	- 48 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1632	-	- 963 1087
Stage 1	-	-	- 1025 -
Stage 2	-	-	- 980 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1632	-	- 950 1087
Mov Cap-2 Maneuver	-	-	- 950 -
Stage 1	-	-	- 1011 -
Stage 2	-	-	- 980 -

Approach	EB	WB	SB
HCM Control Delay, s	6.8	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1632	-	-	-	1087
HCM Lane V/C Ratio	0.014	-	-	-	0.031
HCM Control Delay (s)	7.2	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	28	34	77	64	28
Future Vol, veh/h	19	28	34	77	64	28
Conflicting Peds, #/hr	0	0	0	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	4
Mvmt Flow	24	35	43	96	80	35
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	139	0	-	0	176	91
Stage 1	-	-	-	-	91	-
Stage 2	-	-	-	-	85	-
Critical Hdwy	4.1	-	-	-	6.4	6.24
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.336
Pot Cap-1 Maneuver	1457	-	-	-	818	961
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	943	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1457	-	-	-	804	961
Mov Cap-2 Maneuver	-	-	-	-	804	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	943	-
Approach	EB	WB		SB		
HCM Control Delay, s	3	0		9.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1457	-	-	-	846	
HCM Lane V/C Ratio	0.016	-	-	-	0.136	
HCM Control Delay (s)	7.5	0	-	-	9.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	

Intersection												
Int Delay, s/veh	47.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	102	514	45	99	557	54	72	22	14	5	22	103
Future Vol, veh/h	102	514	45	99	557	54	72	22	14	5	22	103
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	260	-	-	260	-	-	-	-	100	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	3	5	4	2	0	0	5	0	40	0	1
Mvmt Flow	107	541	47	104	586	57	76	23	15	5	23	108

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	643	0	0	588	0	0	1667	1630	565	1621	1625	615
Stage 1	-	-	-	-	-	-	779	779	-	823	823	-
Stage 2	-	-	-	-	-	-	888	851	-	798	802	-
Critical Hdwy	4.15	-	-	4.14	-	-	7.1	6.55	6.2	7.5	6.5	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.55	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.55	-	6.5	5.5	-
Follow-up Hdwy	2.245	-	-	2.236	-	-	3.5	4.045	3.3	3.86	4	3.309
Pot Cap-1 Maneuver	928	-	-	977	-	-	78	100	528	67	103	493
Stage 1	-	-	-	-	-	-	392	402	-	318	391	-
Stage 2	-	-	-	-	-	-	341	372	-	329	399	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	928	-	-	977	-	-	~ 40	79	528	43	81	493
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 40	79	-	43	81	-
Stage 1	-	-	-	-	-	-	347	356	-	281	350	-
Stage 2	-	-	-	-	-	-	222	333	-	265	353	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			1.3			\$ 649.5			29.6		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	45	528	928	-	-	977	-	-	70	493
HCM Lane V/C Ratio	2.199	0.028	0.116	-	-	0.107	-	-	0.406	0.22
HCM Control Delay (s)	\$ 744.5	12	9.4	-	-	9.1	-	-	87.9	14.3
HCM Lane LOS	F	B	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	10.3	0.1	0.4	-	-	0.4	-	-	1.6	0.8

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

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	10	3	43	7	23	8	251	64	54	244	15
Future Vol, veh/h	9	10	3	43	7	23	8	251	64	54	244	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	33	0	0	0	0	2	0	1	2	6
Mvmt Flow	12	13	4	57	9	31	11	335	85	72	325	20
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	899	921	335	888	889	378	345	0	0	420	0	0
Stage 1	479	479	-	400	400	-	-	-	-	-	-	-
Stage 2	420	442	-	488	489	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.53	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.597	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	262	273	641	267	285	673	1225	-	-	1145	-	-
Stage 1	571	558	-	630	605	-	-	-	-	-	-	-
Stage 2	615	580	-	565	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	227	249	641	237	260	673	1225	-	-	1145	-	-
Mov Cap-2 Maneuver	227	249	-	237	260	-	-	-	-	-	-	-
Stage 1	564	514	-	622	598	-	-	-	-	-	-	-
Stage 2	571	573	-	504	510	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	20.6		22.6		0.2		1.4					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1225	-	-	260	301	1145	-	-				
HCM Lane V/C Ratio	0.009	-	-	0.113	0.323	0.063	-	-				
HCM Control Delay (s)	8	0	-	20.6	22.6	8.4	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.4	1.4	0.2	-	-				

Intersection												
Int Delay, s/veh	11											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	46	33	17	52	20	29	102	9	17	135	58
Future Vol, veh/h	48	46	33	17	52	20	29	102	9	17	135	58
Conflicting Peds, #/hr	3	0	8	8	0	3	7	0	15	15	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	62	59	42	22	67	26	37	131	12	22	173	74
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	96	0	0	109	0	0	467	352	103	418	360	90
Stage 1	-	-	-	-	-	-	212	212	-	127	127	-
Stage 2	-	-	-	-	-	-	255	140	-	291	233	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.51	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.009	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1510	-	-	1494	-	-	509	574	957	549	570	973
Stage 1	-	-	-	-	-	-	795	729	-	882	795	-
Stage 2	-	-	-	-	-	-	754	783	-	721	716	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1506	-	-	1483	-	-	331	534	936	413	530	964
Mov Cap-2 Maneuver	-	-	-	-	-	-	331	534	-	413	530	-
Stage 1	-	-	-	-	-	-	754	691	-	841	780	-
Stage 2	-	-	-	-	-	-	529	768	-	544	679	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.8			1.4			16.7			16.1		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	486	1506	-	-	1483	-	-	590				
HCM Lane V/C Ratio	0.369	0.041	-	-	0.015	-	-	0.456				
HCM Control Delay (s)	16.7	7.5	0	-	7.5	0	-	16.1				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	1.7	0.1	-	-	0	-	-	2.4				

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	75	0	4	41	0	1
Future Vol, veh/h	75	0	4	41	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	100	0	5	55	0	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	100	0	165	100
Stage 1	-	-	-	-	100	-
Stage 2	-	-	-	-	65	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1505	-	830	961
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	963	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1505	-	828	961
Mov Cap-2 Maneuver	-	-	-	-	828	-
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	960	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.7		8.8	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	961	-	-	1505	-	
HCM Lane V/C Ratio	0.001	-	-	0.004	-	
HCM Control Delay (s)	8.8	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	47	17	4	40	18	12	119	5	14	96	48
Future Vol, veh/h	25	47	17	4	40	18	12	119	5	14	96	48
Conflicting Peds, #/hr	7	0	0	0	0	7	4	0	4	4	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	36	67	24	6	57	26	17	170	7	20	137	69
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	472	431	176	469	462	185	210	0	0	181	0	0
Stage 1	216	216	-	212	212	-	-	-	-	-	-	-
Stage 2	256	215	-	257	250	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	506	520	872	508	500	862	1373	-	-	1407	-	-
Stage 1	791	728	-	795	731	-	-	-	-	-	-	-
Stage 2	753	729	-	752	704	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	432	500	869	431	481	853	1368	-	-	1402	-	-
Mov Cap-2 Maneuver	432	500	-	431	481	-	-	-	-	-	-	-
Stage 1	777	713	-	781	718	-	-	-	-	-	-	-
Stage 2	658	716	-	652	690	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	14.2		12.9		0.7		0.7					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1368	-	-	519	546	1402	-	-				
HCM Lane V/C Ratio	0.013	-	-	0.245	0.162	0.014	-	-				
HCM Control Delay (s)	7.7	0	-	14.2	12.9	7.6	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	1	0.6	0	-	-				

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	47	319	13	51	231
Future Vol, veh/h	11	47	319	13	51	231
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	13	57	384	16	61	278
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	792	392	0	0	400	0
Stage 1	392	-	-	-	-	-
Stage 2	400	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	361	661	-	-	1170	-
Stage 1	687	-	-	-	-	-
Stage 2	681	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	339	661	-	-	1170	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	687	-	-	-	-	-
Stage 2	639	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.3	0	1.5			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	560	1170	-	
HCM Lane V/C Ratio	-	-	0.125	0.053	-	
HCM Control Delay (s)	-	-	12.3	8.2	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.4	0.2	-	

Intersection						
Int Delay, s/veh	6.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	2	0	0	2
Future Vol, veh/h	0	0	2	0	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	3	0	0	3
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2	0	8	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	6	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1634	-	1018	1088
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1634	-	1016	1088
Mov Cap-2 Maneuver	-	-	-	-	1016	-
Stage 1	-	-	-	-	1026	-
Stage 2	-	-	-	-	1020	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		7.2		8.3	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1088	-	-	1634	-	
HCM Lane V/C Ratio	0.003	-	-	0.002	-	
HCM Control Delay (s)	8.3	-	-	7.2	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	5	2	1	0	5	1	5	0	0
Future Vol, veh/h	1	1	0	5	2	1	0	5	1	5	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	100	0	0	50	0	0	25	0	0	0	0
Mvmt Flow	1	1	0	6	2	1	0	6	1	6	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	1	0	0	18	19	1	23	19	4
Stage 1	-	-	-	-	-	-	3	3	-	16	16	-
Stage 2	-	-	-	-	-	-	15	16	-	7	3	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.75	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.75	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.75	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.225	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1631	-	-	1635	-	-	1001	831	1090	994	879	1085
Stage 1	-	-	-	-	-	-	1025	849	-	1009	886	-
Stage 2	-	-	-	-	-	-	1010	838	-	1020	897	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1629	-	-	1635	-	-	997	826	1090	982	874	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	997	826	-	982	874	-
Stage 1	-	-	-	-	-	-	1024	848	-	1007	882	-
Stage 2	-	-	-	-	-	-	1006	834	-	1010	896	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.6			4.5			9.2			8.7		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	861	1629	-	-	1635	-	-	982				
HCM Lane V/C Ratio	0.009	0.001	-	-	0.004	-	-	0.006				
HCM Control Delay (s)	9.2	7.2	0	-	7.2	0	-	8.7				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection						
Int Delay, s/veh	5.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	0	1	2	2	0
Future Vol, veh/h	4	0	1	2	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	50	0	0
Mvmt Flow	9	0	2	5	5	0
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	15	5	0	0	7	0
Stage 1	5	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1009	1084	-	-	1627	-
Stage 1	1023	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1006	1084	-	-	1627	-
Mov Cap-2 Maneuver	1006	-	-	-	-	-
Stage 1	1023	-	-	-	-	-
Stage 2	1015	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	8.6	0	7.2			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	1006	1627	-	
HCM Lane V/C Ratio	-	-	0.009	0.003	-	
HCM Control Delay (s)	-	-	8.6	7.2	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	25	29	91	74	33
Future Vol, veh/h	22	25	29	91	74	33
Conflicting Peds, #/hr	0	0	0	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	4
Mvmt Flow	28	31	36	114	93	41
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	150	0	-	0	182	93
Stage 1	-	-	-	-	93	-
Stage 2	-	-	-	-	89	-
Critical Hdwy	4.1	-	-	-	6.4	6.24
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.336
Pot Cap-1 Maneuver	1444	-	-	-	812	959
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	940	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1444	-	-	-	796	959
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	940	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.5	0		10.1		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1444	-	-	-	840	
HCM Lane V/C Ratio	0.019	-	-	-	0.159	
HCM Control Delay (s)	7.5	0	-	-	10.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6	

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	10	3	45	7	23	8	258	65	54	259	15
Future Vol, veh/h	9	10	3	45	7	23	8	258	65	54	259	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	33	0	0	0	0	2	0	1	2	6
Mvmt Flow	12	13	4	60	9	31	11	344	87	72	345	20
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	929	952	355	918	919	388	365	0	0	431	0	0
Stage 1	499	499	-	410	410	-	-	-	-	-	-	-
Stage 2	430	453	-	508	509	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.53	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.597	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	250	261	624	254	273	665	1205	-	-	1134	-	-
Stage 1	557	547	-	623	599	-	-	-	-	-	-	-
Stage 2	607	573	-	551	541	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	216	237	624	225	248	665	1205	-	-	1134	-	-
Mov Cap-2 Maneuver	216	237	-	225	248	-	-	-	-	-	-	-
Stage 1	550	503	-	616	592	-	-	-	-	-	-	-
Stage 2	563	566	-	490	498	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Control Delay, s	21.5		24.3		0.2			1.4				
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1205	-	-	248	285	1134	-	-				
HCM Lane V/C Ratio	0.009	-	-	0.118	0.351	0.063	-	-				
HCM Control Delay (s)	8	0	-	21.5	24.3	8.4	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.4	1.5	0.2	-	-				

Intersection												
Int Delay, s/veh	11.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	48	47	33	22	54	20	29	108	13	17	141	58
Future Vol, veh/h	48	47	33	22	54	20	29	108	13	17	141	58
Conflicting Peds, #/hr	3	0	8	8	0	3	7	0	15	15	0	7
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	0	0
Mvmt Flow	62	60	42	28	69	26	37	138	17	22	181	74
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	98	0	0	110	0	0	486	367	104	439	375	92
Stage 1	-	-	-	-	-	-	213	213	-	141	141	-
Stage 2	-	-	-	-	-	-	273	154	-	298	234	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.51	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.009	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1508	-	-	1493	-	-	495	563	956	532	559	971
Stage 1	-	-	-	-	-	-	794	728	-	867	784	-
Stage 2	-	-	-	-	-	-	737	772	-	715	715	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1504	-	-	1482	-	-	313	522	935	389	518	962
Mov Cap-2 Maneuver	-	-	-	-	-	-	313	522	-	389	518	-
Stage 1	-	-	-	-	-	-	754	690	-	826	766	-
Stage 2	-	-	-	-	-	-	506	754	-	529	678	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.8			1.7			17.5			17		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	479	1504	-	-	1482	-	-	574				
HCM Lane V/C Ratio	0.401	0.041	-	-	0.019	-	-	0.482				
HCM Control Delay (s)	17.5	7.5	0	-	7.5	0	-	17				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	1.9	0.1	-	-	0.1	-	-	2.6				

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	21	310	59	44	262
Future Vol, veh/h	34	21	310	59	44	262
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	39	24	356	68	51	301
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	793	390	0	0	424	0
Stage 1	390	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	360	663	-	-	1146	-
Stage 1	689	-	-	-	-	-
Stage 2	679	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	341	663	-	-	1146	-
Mov Cap-2 Maneuver	341	-	-	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	643	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.1	0		1.2		
HCM LOS	C					
Minor Lane/Major Mvmt		NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)		-	-	419	1146	-
HCM Lane V/C Ratio		-	-	0.151	0.044	-
HCM Control Delay (s)		-	-	15.1	8.3	0
HCM Lane LOS		-	-	C	A	A
HCM 95th %tile Q(veh)		-	-	0.5	0.1	-

Intersection						
Int Delay, s/veh	1.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	75	20	15	41	10	11
Future Vol, veh/h	75	20	15	41	10	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	100	27	20	55	13	15
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	127	0	209	114
Stage 1	-	-	-	-	114	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1472	-	784	944
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	934	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1472	-	773	944
Mov Cap-2 Maneuver	-	-	-	-	773	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	921	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		9.4	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	854	-	-	1472	-	
HCM Lane V/C Ratio	0.033	-	-	0.014	-	
HCM Control Delay (s)	9.4	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	47	17	4	40	18	12	119	5	14	96	59
Future Vol, veh/h	35	47	17	4	40	18	12	119	5	14	96	59
Conflicting Peds, #/hr	7	0	0	0	0	7	4	0	4	4	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	50	67	24	6	57	26	17	170	7	20	137	84
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	479	438	183	477	477	185	225	0	0	181	0	0
Stage 1	223	223	-	212	212	-	-	-	-	-	-	-
Stage 2	256	215	-	265	265	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	500	515	865	502	490	862	1356	-	-	1407	-	-
Stage 1	784	723	-	795	731	-	-	-	-	-	-	-
Stage 2	753	729	-	745	693	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	426	495	862	426	471	853	1351	-	-	1402	-	-
Mov Cap-2 Maneuver	426	495	-	426	471	-	-	-	-	-	-	-
Stage 1	770	709	-	781	718	-	-	-	-	-	-	-
Stage 2	658	716	-	645	679	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	14.9		13		0.7		0.6					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1351	-	-	503	537	1402	-	-				
HCM Lane V/C Ratio	0.013	-	-	0.281	0.165	0.014	-	-				
HCM Control Delay (s)	7.7	0	-	14.9	13	7.6	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	1.1	0.6	0	-	-				

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	47	322	14	51	233
Future Vol, veh/h	12	47	322	14	51	233
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	1
Mvmt Flow	14	57	388	17	61	281
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	800	397	0	0	405	0
Stage 1	397	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	357	657	-	-	1165	-
Stage 1	683	-	-	-	-	-
Stage 2	679	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	335	657	-	-	1165	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	683	-	-	-	-	-
Stage 2	637	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.5	0		1.5		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	550	1165	-	
HCM Lane V/C Ratio	-	-	0.129	0.053	-	
HCM Control Delay (s)	-	-	12.5	8.3	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.4	0.2	-	

Intersection												
Int Delay, s/veh	5.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	2	0	1	2	1	1	0
Future Vol, veh/h	0	0	0	2	0	2	0	1	2	1	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	3	0	2	3	2	2	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	3	0	0	2	0	0	11	11	2	13	10	2
Stage 1	-	-	-	-	-	-	2	2	-	8	8	-
Stage 2	-	-	-	-	-	-	9	9	-	5	2	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1632	-	-	1634	-	-	1012	888	1088	1009	889	1088
Stage 1	-	-	-	-	-	-	1026	898	-	1019	893	-
Stage 2	-	-	-	-	-	-	1017	892	-	1022	898	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1634	-	-	1009	886	1088	1003	887	1088
Mov Cap-2 Maneuver	-	-	-	-	-	-	1009	886	-	1003	887	-
Stage 1	-	-	-	-	-	-	1026	898	-	1019	891	-
Stage 2	-	-	-	-	-	-	1013	890	-	1017	898	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.6			8.6			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1011	1632	-	-	1634	-	-	941				
HCM Lane V/C Ratio	0.005	-	-	-	0.002	-	-	0.003				
HCM Control Delay (s)	8.6	0	-	-	7.2	0	-	8.8				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	2	0	5	4	8	0	10	1	10	3	0
Future Vol, veh/h	1	2	0	5	4	8	0	10	1	10	3	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	100	0	0	50	0	0	25	0	0	0	0
Mvmt Flow	1	2	0	6	5	10	0	12	1	12	4	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	16	0	0	2	0	0	28	32	2	34	27	11
Stage 1	-	-	-	-	-	-	4	4	-	23	23	-
Stage 2	-	-	-	-	-	-	24	28	-	11	4	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.75	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.75	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.75	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.225	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1615	-	-	1634	-	-	987	818	1088	978	870	1076
Stage 1	-	-	-	-	-	-	1024	849	-	1000	880	-
Stage 2	-	-	-	-	-	-	999	828	-	1015	897	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1613	-	-	1634	-	-	980	813	1088	961	865	1075
Mov Cap-2 Maneuver	-	-	-	-	-	-	980	813	-	961	865	-
Stage 1	-	-	-	-	-	-	1023	848	-	998	876	-
Stage 2	-	-	-	-	-	-	991	824	-	998	896	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			2.1			9.4			8.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	832	1613	-	-	1634	-	-	937				
HCM Lane V/C Ratio	0.016	0.001	-	-	0.004	-	-	0.017				
HCM Control Delay (s)	9.4	7.2	0	-	7.2	0	-	8.9				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	8	0	4	4	0	0	6	7	2	2	4	12
Future Vol, veh/h	8	0	4	4	0	0	6	7	2	2	4	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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	44	44	44	44	44	44	44	44	44	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0	0	0	50	0	0	0
Mvmt Flow	18	0	9	9	0	0	14	16	5	5	9	27

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	80	82	23	84	93	19	36	0	0	21	0	0
Stage 1	33	33	-	47	47	-	-	-	-	-	-	-
Stage 2	47	49	-	37	46	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	913	812	1060	908	801	1065	1588	-	-	1608	-	-
Stage 1	988	872	-	972	860	-	-	-	-	-	-	-
Stage 2	972	858	-	984	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	905	802	1060	892	791	1065	1588	-	-	1608	-	-
Mov Cap-2 Maneuver	905	802	-	892	791	-	-	-	-	-	-	-
Stage 1	979	869	-	963	852	-	-	-	-	-	-	-
Stage 2	963	850	-	973	858	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.9		9.1		2.9		0.8	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1588	-	-	951	892	1608	-
HCM Lane V/C Ratio	0.009	-	-	0.029	0.01	0.003	-
HCM Control Delay (s)	7.3	0	-	8.9	9.1	7.2	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-

Intersection						
Int Delay, s/veh	4.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	3	15	9	5	10
Future Vol, veh/h	6	3	15	9	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	5	23	14	8	15
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	14	0	72	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1617	-	937	1074
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	968	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1617	-	924	1074
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	954	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		4.5		8.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1019	-	-	1617	-	
HCM Lane V/C Ratio	0.023	-	-	0.014	-	
HCM Control Delay (s)	8.6	-	-	7.3	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection

Int Delay, s/veh 7.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	1	2	0	0	22
Future Vol, veh/h	15	1	2	0	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	2	3	0	0	34

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	3	0	0 51 3
Stage 1	-	-	- 3 -
Stage 2	-	-	- 48 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1632	-	- 963 1087
Stage 1	-	-	- 1025 -
Stage 2	-	-	- 980 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1632	-	- 950 1087
Mov Cap-2 Maneuver	-	-	- 950 -
Stage 1	-	-	- 1011 -
Stage 2	-	-	- 980 -

Approach	EB	WB	SB
HCM Control Delay, s	6.8	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1632	-	-	-	1087
HCM Lane V/C Ratio	0.014	-	-	-	0.031
HCM Control Delay (s)	7.2	0	-	-	8.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	31	38	91	74	33
Future Vol, veh/h	22	31	38	91	74	33
Conflicting Peds, #/hr	0	0	0	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	4
Mvmt Flow	28	39	48	114	93	41
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	162	0	-	0	202	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	97	-
Critical Hdwy	4.1	-	-	-	6.4	6.24
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.336
Pot Cap-1 Maneuver	1429	-	-	-	791	944
Stage 1	-	-	-	-	924	-
Stage 2	-	-	-	-	932	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1429	-	-	-	775	944
Mov Cap-2 Maneuver	-	-	-	-	775	-
Stage 1	-	-	-	-	906	-
Stage 2	-	-	-	-	932	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.1	0		10.2		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1429	-	-	-	820	
HCM Lane V/C Ratio	0.019	-	-	-	0.163	
HCM Control Delay (s)	7.6	0	-	-	10.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6	

Intersection												
Int Delay, s/veh	47.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	102	514	45	99	557	54	72	22	14	5	22	103
Future Vol, veh/h	102	514	45	99	557	54	72	22	14	5	22	103
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	260	-	-	260	-	-	-	-	100	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	3	5	4	2	0	0	5	0	40	0	1
Mvmt Flow	107	541	47	104	586	57	76	23	15	5	23	108

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	643	0	0	588	0	0	1667	1630	565	1621	1625	615
Stage 1	-	-	-	-	-	-	779	779	-	823	823	-
Stage 2	-	-	-	-	-	-	888	851	-	798	802	-
Critical Hdwy	4.15	-	-	4.14	-	-	7.1	6.55	6.2	7.5	6.5	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.55	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.55	-	6.5	5.5	-
Follow-up Hdwy	2.245	-	-	2.236	-	-	3.5	4.045	3.3	3.86	4	3.309
Pot Cap-1 Maneuver	928	-	-	977	-	-	78	100	528	67	103	493
Stage 1	-	-	-	-	-	-	392	402	-	318	391	-
Stage 2	-	-	-	-	-	-	341	372	-	329	399	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	928	-	-	977	-	-	~ 40	79	528	43	81	493
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 40	79	-	43	81	-
Stage 1	-	-	-	-	-	-	347	356	-	281	350	-
Stage 2	-	-	-	-	-	-	222	333	-	265	353	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			1.3			\$ 649.5			29.6		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	45	528	928	-	-	977	-	-	70	493
HCM Lane V/C Ratio	2.199	0.028	0.116	-	-	0.107	-	-	0.406	0.22
HCM Control Delay (s)	\$ 744.5	12	9.4	-	-	9.1	-	-	87.9	14.3
HCM Lane LOS	F	B	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	10.3	0.1	0.4	-	-	0.4	-	-	1.6	0.8

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