CITY OF SEBASTOPOL CITY COUNCIL
AGENDA ITEM REPORT FOR MEETING OF: November 5, 2024

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To: Honorable Mayor and City Councilmembers
From: John Jay, Associate Planner
Subject: 7621 Healdsburg Ave - Approval of Use Permit and Major Tentative Map

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RECOMMENDATIONS:

Adopt a resolution approving a Conditional Use Permit for 100% residential within the Commercial Office District and approve a Major Tentative Map.

EXECUTIVE SUMMARY:

The project proposes to construct seven 1120 square foot and five 1148 square foot townhomes each with 1 car garage. Additionally, there will be 1 car parking space per unit on site along the rear of the site with entrance from Murphy Avenue. The project also includes one apartment building with six 760 square foot and six 590 square foot one bedroom apartment units. The apartment units would be accessible from Healdsburg Avenue with 18 parking spaces in the rear of the building along with an ADA elevator access on the western side of the building. The project site is approximately 1.44 acres and is currently vacant and is surrounded by a mix of commercial and residential uses.

The project entitlements include a conditional use permit for 100% residential within a Commercial Office district and tentative map to subdivide one parcel into 12 Townhome lots and one lot that includes one apartment building with 12 apartments, parking lot, and common space.

As the project includes the subdivision of land, the City Council is the final review authority of the Conditional Use Permit and Major Tentative Map. The design review and tree permits will be reviewed after the City Council decision by the Design Review/Tree Board.

BACKGROUND AND DISCUSSION:

The proposed project intends to increase the housing stock within the City of Sebastopol by developing a currently vacant site into 24 residential housing units that mix attached townhomes and apartments. The project would also achieve a list of General Plan goals as noted in the staff report, as well as helping Sebastopol reach its Regional Housing Needs Allocation (RHNA) goals for the next cycle. As stated in the project description, if approved the applicant proposes to construct seven 1120 square foot and five 1148 square foot townhomes each with 1 car garage. Additionally there will be 1 car parking space per unit on site along the rear of the site with entrance from Murphy Avenue. The project also includes one apartment building with six 760 square foot and six 590 square foot one bedroom apartment units. The apartment units would be accessible from Healdsburg Avenue with 18 parking spaces in the rear of the building along with an ADA elevator access on the western side of the building.

The project also includes the removal of onsite trees. As part of the applicant's documents, there is an Arborist report noting there are 59 trees of which 29 are proposed to be removed, 18 can be retained with moderate or less impact, 7 trees can be retained with a significant impact, and 5 fruit trees to be removed without requiring mitigation. Considering the proximity of construction activities, type of activities, tree species, and tree condition - the following ratings are used to estimate the amount of impact on tree health and stability. Most trees will tolerate a (1) rating, many trees could tolerate a (2) rating with careful consideration and mitigation, but trees with a (3)

rating are poor candidates for preservation due to their very close proximity to construction or because they are located within the footprint of construction and cannot be preserved.

- (3) A significant impact on long term tree integrity can be expected as a result of proposed development.
- (2) A moderate impact on long term tree integrity can be expected ds a result of proposed development.
- (1) A minor impact on long term tree integrity can be expected as a result of proposed development.
- (0) No impact expected if protected per recommendations.

STAFF ANALYSIS:

Through the City's preapplication conference, the applicant met with the various City departments to go over the very early stages of the proposal, which included a site plan which showed an internal connection through the site with ingress and egress onto Murphy and Healdsburg Avenue. After that meeting with city staff, modifications were made to the site vehicle access.

The revised site plan is instead configured to have an entrance from Healdsburg to the apartment units with parking behind this structure. This site access no longer connects to the upper units/Murphy Avenue. The entrance from Murphy Avenue serves the townhomes on the southern portion of the site, it then dead ends on the eastern portion of the site where the trash enclosure will be located and where emergency vehicles would have to back up and turn around. This iteration of the project was then presented to the Planning Commission as well as the Design Review Board under a preliminary review and these two groups provided much guided feedback. The project submitted for their review was 15 townhome units at the rear of the property and a mixed use building along the frontage of Healdsburg which was comprised of ground floor commercial, and 2nd floor residential, both the Design Review Board and Planning Commission encouraged the applicant to develop a project that was 100% residential.

Lastly, as the project was revised, a request of the Planning Director was to move the Healdsburg driveway to the western side of the site, which was done by the applicant. The project was subject to a traffic study and the study conditions require the driveway to be relocated back to the eastern side of the site. The applicant has made his change as part of the required conditions of that study and is part of the attached Tentative Map.

Site analysis

There are constraints to the site itself as it is heavily wooded as well as having steep slopes. As you analyze the site and move away from Healdsburg Avenue, the topography starts to climb up the hill towards Murphy Ave and with that requires an immense amount of grading work to be done. The applicant has provided a grading plan with earthwork quantities within the application.

The Healdsburg/ Murphy intersection is also one of the intersections identified in the General Plan as needing to be upgraded to either a traffic signal or potential roundabout. As this is a CalTrans right-of-way, future developments will need to include intersection analysis to determine when and if a signal is warranted. As the current proposal has two forms of entrance and exiting the site, traffic on and off the site was studied as part of the project and included in the report. A component of the review for this project was the traffic configuration which required both site and intersection-specific traffic analysis to ensure appropriate safety and queuing of vehicles. This review, along with the consideration for the California Environmental Quality Act (CEQA) exemption for in-fill development, were two of the guiding reasons why the traffic study was warranted. The traffic study conducted determined that the project will meet the applicable significance thresholds for vehicle miles traveled

and has a recommendation to have the driveway on Healdsburg Ave placed on the eastern side of the site and no traffic signal has been required.

Housing

As the project provides more than 5 units of residential housing on the site, it is subject to the city's inclusionary housing requirements. Set forth in Section 17.250.050 the percentage requirement is as follows

1. Fifteen percent of the units shall be inclusionary units affordable to households earning 120 percent or less of AMI; or (3.6 units)

2. Ten percent of the units shall be inclusionary units affordable to households earning 80 percent or less of AMI; or (2.4 units)

3. Five percent of the units shall be inclusionary units affordable to households earning 50 percent or less of AMI. (1.2 units)

Currently the applicant has not determined what inclusionary unit rates they would be using or where those units would be located on the site. Staff is recommending a condition of approval that prior to final map recordation, the applicant include the inclusionary percentage along with location of said units on the final map and those inclusionary requirements would be subject to the current requirements at time of recordation.

General Plan Consistency:

This project is consistent with the following General Plan policies as shown below.

- *Goal LU1 - Maintain Sebastopol as a unique, charming, and environmentally sensitive small town that provides residents, businesses, and visitors with opportunities to enjoy a high quality of life.*
- *Policy LU 1-2: Avoid urban sprawl by concentrating development within the City limits; favor infill development over annexation.*
- *Policy LU 5-5: Strongly encourage residential development in a balanced and efficient pattern that reduces sprawl, preserves open space, and creates convenient connections to other land uses.*
- *Policy LU 6-1: Promote increased residential densities.*
- *Policy LU 6-2: Promote compact urban form that provides residential opportunities in close proximity to jobs, services, and transit.*
- *Policy LU 7-1: Maintain an inventory of developable and appropriately zoned office, commercial, industrial, and mixed-use land sufficient to attract and provide regional services.*
- *Policy LU 7-6: Encourage mixed-use developments throughout the city.*
- *Policy LU 7-7: In mixed use, commercial, office, and other non-residential developments, encourage non-residential uses on the ground floor while allowing residential uses on the ground floor where appropriate.*
- *Housing Element Policy C-4: The City will encourage development of new housing to meet a range of income levels, including market-rate housing, and a variety of housing sizes and types.*
- *Housing Element Goal D-1: Promote Housing Affordability for both Renters and Homeowners*

Zoning Ordinance Consistency:

The project site has two zoning districts located within the property. The Office Commercial (CO) district fronts Healdsburg Avenue and the rear, southern part of the parcel with access to Murphy Avenue is zoned Multi-family Residential (R7). The project intends to develop the Commercially zoned part of the project with twelve one bedroom apartment units. However, 100% residential projects within a Commercial Zoning district that are not affordable housing require a conditional use permit to be approved. The Planning Commission considered the

conditional use permit at their August 27, 2024 meeting, where they provided a recommendation of approval to the City Council. The second/southern half of the parcel that is zoned Multi-Family Residential (R7) and is subject to the R7 development standards as well as the small lot subdivisions standards set forth in Chapter 17.230 of the Sebastopol Municipal Code.

Environmental Review: The project is categorically exempt from further environmental review pursuant to CEQA Guidelines Section 15332 as an infill project. The project is on site that is 1.26 acres in size, surrounded by urban uses. In order to qualify for the infill exemption, the project must also meet each of the following criteria:

1. Be consistent with the applicable general plan and zoning designation, as well as all applicable general plan policies and zoning regulations.
2. The project site must not have value as habitat for endangered, rare or threatened species.
3. The project must not result in any significant effects relating to traffic, noise, air quality, or water quality.
4. The site must be able to be adequately served by all required utilities and public services.

The project satisfies all of these criteria. As described above, a traffic study was completed showing that the project would not have a significant effect on traffic. A copy of the traffic study is included as an exhibit.

Required Findings, which are made and attached as Resolution Findings of Approval

The required findings of the project for a Major Subdivision (5 or more parcels), are subject to the State Subdivision Map Act and the findings in SMC Section 16.28.070 and 17.230.090 as follows:

A. In recommending approval or conditional approval or in approving or conditionally approving a tentative map, the Planning Commission or City Council as applicable shall find:

1. That the proposed subdivision, together with the provisions for its design and improvement, is consistent with the General Plan, any applicable specific plan, and other applicable provisions of this code; and

2. Except for condominium conversion projects where no new structures are added, that the design of the proposed subdivision provides, to the extent feasible, for future passive or natural heating or cooling opportunities in the subdivision, as described in the State Subdivision Map Act and any guidelines promulgated by the City Council.

B. In making recommendations or in disapproving, or in approving at a lower density a housing development which is in compliance with the applicable plans, zoning and development policies in effect at the time the project's application was determined to be complete, the Planning Commission or City Council, as applicable shall make written findings based upon substantial evidence in the record that both of the following conditions exist:

1. The housing development project would have a specific, adverse impact upon the public health or safety unless the project is disapproved or approved upon the condition that the project be developed at a lower density.

2. There is no feasible method to satisfactorily mitigate or avoid the adverse impact identified other than disapproval of the housing development project or approval upon condition that the project be developed at a lower density.

C. (not appliable to this development)

D. The Planning Commission may recommend, and the City Council may deny, approval of the tentative map on any grounds provided by law including, without limitation, a finding that the discharge of waste from the proposed subdivision into an existing community sewer system would result in, or add to, violation of existing requirements prescribed by a State regional water quality control board. A tentative map shall be denied if any of the following findings are made:

1. That the proposed map is not consistent with the General Plan, applicable specific plans, or other applicable provisions of this code;

2. That the design or improvement of the proposed subdivision is not consistent with the General Plan, applicable specific plans, or other applicable provisions of this code;

3. That the site is not physically suitable for the type of development;

4. That the site is not physically suitable for the proposed density of development;

5. That the design of the subdivision or the proposed improvements are likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat. Notwithstanding the foregoing, the City Council may approve such a tentative map if an environmental impact report was prepared with respect to the project and a finding was made pursuant to Section 21081 of CEQA that specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the environmental impact report;

6. That the design of the subdivision or the type of improvements are likely to cause serious public health problems;

7. That the design of the subdivision or the type of improvements will conflict with easements of record or easements established by court judgment, acquired by the public at large, for access through or use of property within the proposed subdivision. In this connection, the City Council may approve a map if they find that alternate easements for access or for use will be provided and that those will be substantially equivalent to ones previously acquired by the public. This subsection shall apply only to easements of record or to easements established by judgment of a court of competent jurisdiction, and no authority is hereby granted to the Planning Commission to determine that the public at large has acquired easements for access through or use of property within the proposed subdivision;

8. That all requirements of the California Environmental Quality Act and the rules and procedures adopted by the City Council pursuant thereto have not been met;

9. That the applicant has failed to submit complete or adequate information;

10. Subject to Section 66474.4 of the State Subdivision Map Act, that the land is subject to a contract entered into pursuant to the California Land Conservation Act of 1965 (commencing with Section 51200 of the Government Code) and that the resulting parcels following a subdivision of the land would be too small to sustain their agricultural use.

Section 17.230.090 - Findings for approval of small lot subdivisions.

Small lot subdivisions conforming to these provisions shall only be approved if the following findings can be made in an affirmative manner:

A. The subject property is physically suitable for the type of development proposed;

B. The proposed development would be compatible with existing and permissible land uses within the district and the general area in which the proposed use is to be located;

C. The proposed development, including the density, site design, and design of units, is compatible with the existing neighborhood and nearby uses;

D. Approval of the proposed development will not be detrimental to the public health, safety, convenience, or general welfare; and

E. Approval of the proposed development is consistent with the General Plan.

Section 17.415.030 – Findings for a conditional use permit

A. The proposed use is consistent with the General Plan and all applicable provisions of this title.

B. The establishment, maintenance, and operation of the use applied for will not, under the circumstances of the particular case (location, size, design, and operating characteristics), be detrimental to the health, safety, peace, morals, comfort, or general welfare of persons residing or working in the area of such use or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the City.

COMMUNITY OUTREACH:

This item has been noticed in accordance with the Ralph M. Brown Act and was available for public viewing and review at least 72 hours prior to the scheduled meeting date.

FISCAL IMPACT:

The city anticipates generating revenue through building permit fees and development impact fees, which are designed to offset the city's expenditures incurred during the planning and development stages. Additionally, we expect an increase in tax revenue and associated expenses once these units become occupied.

OPTIONS:

- Approve the proposed resolution as attached in the staff report
- Direct staff to make reasons for denial and schedule a meeting at a date certain

ATTACHMENTS:

Resolution 24-xx Findings of Approval
Exhibit A – Tentative Map
Exhibit B – Conditions of Approval
Exhibit C – Standard Conditions of Approval

Exhibit D – Traffic Study

Application Materials
Planning Commission Resolution 24-06 with recommendations to City Council

Staff presentation
Applicant presentation

APPROVALS:
Department Head Approval: Approval Date: 10/23/24
CEQA Determination (Planning): Approval Date: 10/23/24
The project is categorically exempt from the requirements of CEQA pursuant to Section 15332 In-fill Development Projects

Administrative Services (Financial) Approval Date: 10/30/24
Costs authorized in City Approved Budget: ☐ Yes ☐ No ☑ N/A
Account Code (f applicable) _____
City Attorney Approval: Approval Date: 10/30/24
City Manager Approval: Approval Date: 10/29/24

RESOLUTION NO. XXXX-2024

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SEBASTOPOL APPROVING A USE PERMIT AND TENTATIVE MAP FOR THE PROPERTY AT 7621 HEALDSBURG AVE (APN 004-291-019)

WHEREAS, the City of Sebastopol completed a comprehensive General Plan update with adoption of a new General Plan on November 15, 2016; and

WHEREAS, the City of Sebastopol completed a Housing Element Update to the General Plan with adoption of a new Housing Element on January 3, 2023, and Certified by the State of California Department of Housing and Community Development (HCD) on March 7, 2023; and,

WHEREAS, pursuant to the California Environmental Quality Act (CEQA, codified at Public Resources Code § 21000 et seq.) and the State CEQA Guidelines (14 CCR, § 15000 et seq.), on November 15, 2016, the City Council certified and adopted an Environmental Impact Report (EIR) for the Sebastopol General Plan (the "Project"; State Clearinghouse No. 2016032001); and

WHEREAS, an application for a Conditional Use Permit for residential development in a Commercial Office district and a Tentative Map for an 12-Unit townhome project and 12 unit apartment building known as Pacific Knolls (the "Project"), was filed on May 8, 2024, by Kathy Austin / Pacific Knolls LLC, which consists of subdividing one vacant parcels into 12 townhome lots and one parcel to include; to be developed with 12 townhome units, landscaped areas, and parking. Parking will be provided via a surface parking lot on site as well as garage parking for all of the units; and

WHEREAS, the project, as conditioned, is consistent with the General Plan, in that it conforms to the following goals and policies:

- *Goal LU1 - Maintain Sebastopol as a unique, charming, and environmentally sensitive small town that provides residents, businesses, and visitors with opportunities to enjoy a high quality of life, in that the project will provide housing opportunities that are environmentally friendly with the low water landscape, and improvements to existing pedestrian facilities.*
- *Policy LU 1-2: Avoid urban sprawl by concentrating development within the City limits; favor infill development over annexation, in that the project is an infill development as it intends to develop a vacant parcel within city limits.*
- *Policy LU 1-7: Encourage new development to be contiguous to existing development, whenever possible, in that the project reflects similar characteristics to the existing development of the building to the west as it's the same owner and developer.*

- *Policy LU 5-5: Strongly encourage residential development in a balanced and efficient pattern that reduces sprawl, preserves open space, and creates convenient connections to other land uses, in that the project provides pedestrian access to an adjacent bus line, and is within walking distance of a major shopping center.*
- *Policy LU 6-1: Promote increased residential densities in that the project provides 12 townhome units on the R7 Multifamily zoned portion of the lot and also provides 12 apartments on the Commercial Office zoned portion of the site.*
- *Policy LU 6-2: Promote compact urban form that provides residential opportunities in close proximity to jobs, services, and transit, in that the project is a compact design of townhomes located in close proximity to a large shopping center, bus stop and two schools.*
- *Policy CIR 1-5: When analyzing impacts to the circulation network created by new development or roadway improvements, consider the needs of all users, including those with disabilities, ensuring that pedestrians, bicyclists, and transit riders are considered preeminent to automobile drivers in that the project provides connectivity to an adjacent to a bus transit line.*
- *Housing Element Goal D-1: Promote Housing Affordability for both Renters and Homeowners; Housing Element Policy C-4: The City will encourage development of new housing to meet a range of income levels, including market-rate housing, and a variety of housing sizes and types. The project is consistent with this Goal and Policy in that it includes both market-rate and affordable housing units and both rental and ownership opportunities. The number and affordability level of the units offered as affordable will be not less than required by the City's Inclusionary Housing program, with final numbers determined at the time of or prior to final map recordation and guaranteed affordable in perpetuity.*

WHEREAS, granting a Conditional Use Permit for the Project is appropriate as it complies with SMC 17.415.030 as detailed below:

1. The proposed use is consistent with the General Plan and all applicable provisions of this title in that residential development in a Commercial Office zoning district is allowed with the approval of a Conditional Use Permit.

2. The establishment, maintenance, and operation of the use applied for will not, under the circumstances of the particular case (location, size, design, and operating characteristics), be detrimental to the health, safety, peace, morals, comfort, or general welfare of persons residing or working in the area of such use or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the City in that:

    i. The proposed use of a residential development is compatible with the surrounding uses of residential and office.

ii. The Project maintains the existing trees and screening to the adjoining residential areas, as well as appropriate setbacks from adjoining properties.
iii. The Project is consistent with the R7 Multi-family housing zoning requirements.
iv. The Project, with the approval of a Use Permit, is consistent with the Commercial Office Zoning District.
v. The Project underwent a Traffic Study to ensure that traffic effects on the Healdsburg and Murphy Avenue intersection would not warrant a new traffic signal.

WHEREAS, granting a Tentative Map for the Project is appropriate as it complies with SMC 16.28.070(A) in that:

1. The proposed subdivision, together with the provisions for its design and improvement, is consistent with the General Plan as detailed above, and other applicable provisions of SMC Chapter 16 and the State Subdivision Map Act (SMA); and
2. The design of the proposed subdivision provides, to the extent feasible, for future passive or natural heating or cooling opportunities in the subdivision, as described in the State Subdivision Map Act and any guidelines promulgated by the City Council.
   i. The Project is required to comply with the California Green Building Standard Code (CalGreen) requirements for energy efficient buildings and appliances, including Tier 2 standards required by the City of Sebastopol (which are higher than the base State requirements for green design). CalGreen Standards require that buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant - emitting finish materials. The project also incorporates many sustainable features which help reduce energy consumption, such as:
      - Low water use landscape
      - Native Plant materials
      - Accessible/adaptable features in all buildings

WHEREAS, on May 3, 2022, the Development Review Team which consists of the Planning Director, Police Chief, Fire Chief, Building Official, City Engineer, Public Works Superintendent and Associate Planner conducted a preapplication conference of the proposed project and provided comments to the applicant; and,

WHEREAS, on December 21, 2022, the Design Review Board conducted a preliminary review of the proposed project and provided comments to the applicant; and,

WHEREAS, on January 10, 2023, the Planning Commission conducted a preliminary review of the proposed project; and,

WHEREAS, on August 27, 2024, the Planning Commission held a duly noticed public hearing to review the proposed residential development with the including entitlements of a use permit and tentative map, heard a staff report and public testimony, and deliberated; and,

WHEREAS, on August 27, 2024, the Planning Commission adopted Resolution 24-06 recommending the City Council approve the Conditional Use Permit and Tentative Map subject to Exhibit A, Findings in Resolution 24-06, Exhibit B Specific Conditions of Approval, and Exhibit C Standard Conditions of Approval; and

WHEREAS, the proposed project is categorically exempt from further environmental review pursuant to CEQA Guidelines Section 15332 as an infill project. The proposed project meets all criteria of Section 15332, and a traffic study was prepared to ensure that the project would not have result in significant traffic impacts; and

WHEREAS, on November 5, 2024, the City Council held a duly noticed public hearing to consider the proposed tentative map and conditional use permit; and

WHEREAS, the City Council has considered the staff reported dated November 5, 2024, including all attachments thereto, as well as all oral comments and reports made during the November 5, 2024 public hearing.

NOW, THEREFORE, BE IT RESOLVED THAT, the above recitals are true and correct and incorporated herein by refence.

BE IT FURTHER RESOLVED THAT, the City Council of the City of Sebastopol, California does hereby find the proposed project exempt from further environmental review pursuant to CEQA Guidelines Section 15332 as an infill project.

BE IT FURTHER RESOLVED THAT the City Council of the City of Sebastopol, California, does hereby approve for the proposed project at 7621 Healdsburg Avenue (APN 004-291-019), based on the findings above and subject to the Conditions of Approval in Exhibit B and Exhibit C:

1. A use permit for residential development in a Commercial Office district.
2. A tentative map for the creation of 12 Townhome units, one building including 12 apartment units, common areas, and on-site parking as shown in Exhibit A.

The above and foregoing Resolution was duly passed, approved and adopted at a meeting by the City Council on the 5th day of November 2024, by the following vote:

AYES:
NOES:

ABSTAIN:
ABSENT:

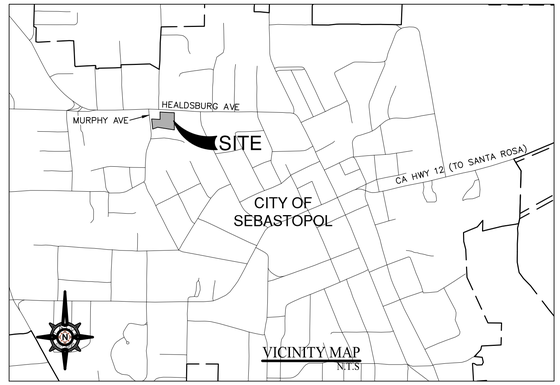
APPROVED : _____

Diana Gardner Rich, Mayor

ATTEST: _____
Mary Gourley, Assistant City Manager/City Clerk, MMC

APPROVED AS TO FORM: _____
Alex Mog, City Attorney

PACIFIC KNOLLS VESTING TENTATIVE MAP



ABBREVIATIONS:

AC	ASPHALT CONCRETE	LF	LINEAL FEET
ADA	AMERICANS WITH DISABILITIES ACT	LP	LOW POINT
BRA	BIO-RETENTION AREA	N	NORTH
DDCV	DOUBLE DETECTOR CHECK VALVE	NA	NOT APPLICABLE
DI	DRAINAGE INLET	R	RADIUS
<E>	EXISTING	S	SOUTH
E	EAST	SCH	SCHEDULE
EG	EXISTING GRADE	SD	STORM DRAIN
EVG	EDGE OF VALLEY GUTTER	SVC	SERVICE
FF	FINISHED FLOOR	SW	SIDEWALK
FL	FLOW LINE	TC	TOP OF CURB
HP	HIGH POINT	TG	TOP OF GRATE
INV	INVERT	TYP	TYPICAL
		W	WEST

PROJECT DATA:

APPLICANT AND PROPERTY OWNER:

PACIFIC REALTY DEVELOPMENT LLC
1555 GRANT AVENUE, NOVATO, CA 94945
(405) 686-0772

SITE ADDRESS:

7621 HEALDSBURG AVENUE
SEBASTOPOL, CA 95472

ASSESSOR PARCEL NUMBER: 004-291-019

PROJECT SURVEYOR / ENGINEER:

LACO ASSOCIATES
1550 AIRPORT BLVD., SUITE 120
SANTA ROSA, CA 95403
707-525-1222

BASIS OF ELEVATIONS:

THE BASIS OF ELEVATION FOR THIS SURVEY WAS ESTABLISHED FROM STATIC GPS OBSERVATIONS AT PROJECT POINT #1, ELEVATION = 140.79 FEET (NAVD88).

PROPOSED LAND USE: RESIDENTIAL MULTIFAMILY

ZONING DISTRICT: OFFICE COMMERCIAL (CO) & MULTIFAMILY RESIDENTIAL (R7)

EXISTING LOT SIZE: 1.28 ACRES

EXISTING LOT COVERAGE: 2% (1,000 SF)

LOTS FOR HEALDSBURG AVE APARTMENTS AND COMMON PARCEL ARE COMMON AREA PARCELS AND ALSO A PUBLIC UTILITY EASEMEMT DEDICATED THIS MAP.

NOTE:
THIS TENTATIVE MAP IS DESIGNED AS A SMALL LOT SUBDIVISION PER THE SEBASTOPOL PLANNING CODE CHAPTER 17.230.

LEGEND/ABBREVIATIONS:

- EXISTING CONTOUR LINE
- GRADE BREAK
- ROOF RIDGE LINE
- PROPOSED EASEMENT
- PROPOSED PROPERTY LINE
- OHP — EXISTING OVERHEAD POWER
- SDx — EXISTING STORM DRAIN
- STORM DRAIN PIPE
- SSx — EXISTING SEWER PIPE
- SEWER PIPE (8" SDR26 PVC)
- DOMESTIC WATER PIPE (2", SCH80 PVC) & FIRE WATER PIPE (6" SCH80 PVC)
- BRA AREA
- CONCRETE
- AC
- TURF CELL PAVER
- FLOW DIRECTION ARROW
- STORM DRAIN CLEANOUT
- 12"X12" CATCH BASIN W/ GRATE
- SD — STORM DRAIN MANHOLE
- SEWER CLEANOUT
- WATER METER
- FIRE HYDRANT
- DOUBLE DETECTOR CHECK VALVE
- PRESERVED TREE (28 TREES)
- X — DEMOLISHED TREE (40 TREES)

NO.	REVISION	DATE

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SURVEYORS | ENGINEERS | PLANNERS | GRANT WRITERS
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PACIFIC KNOLLS
SEBASTOPOL, CA
VESTING TENTATIVE MAP

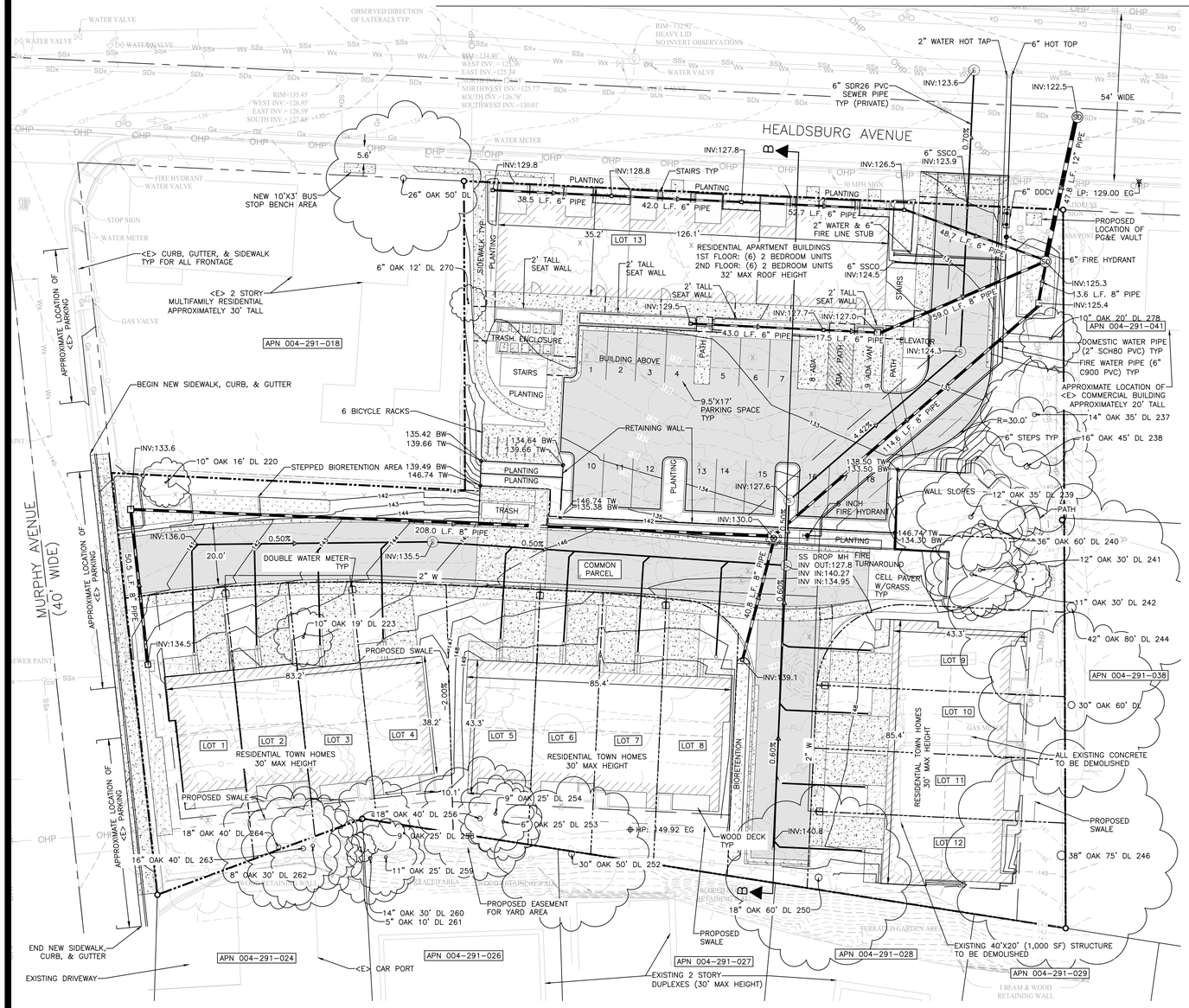
JOB NO. 9272.02
DATE OCTOBER 2024
DESIGNER CCM
CHECKED CCM DRAWN CLM

SHEET 1 OF 2

Oct 15,2024-1:00pm
C:\Users\lacocm\appdata\local\temp\AcPublish_26296\ 9272.02 TENTATIVE MAP.dwg

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL. AERIAL IMAGERY PROVIDED BY GOOGLE© UNLESS OTHERWISE NOTED. Imagery © 2016,CAPCOG,Digital Globe,Texas Orthoimagery Program, USDA Farm Service Agency.

PACIFIC KNOLLS VESTING TENTATIVE MAP



NOTE:
THE IMPROVEMENTS SHOWN ARE PROVIDED TO SHOW THE INTENT OF THE PROPOSED DESIGN AND ARE NOT INTENDED FOR CONSTRUCTION. UPON APPROVAL OF THE TENTATIVE MAP AND RECEIPT OF FINAL CONDITIONS OF APPROVAL FROM THE CITY, FINAL SUBDIVISION IMPROVEMENT PLANS MUST BE PREPARED AND APPROVED BY THE CITY BEFORE CONSTRUCTION OF THE IMPROVEMENTS.

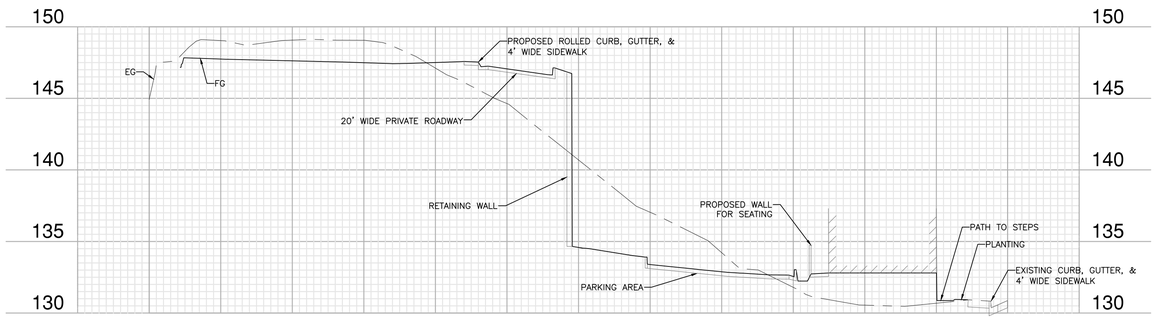
0' 10' 20' 40' 60'
SCALE: 1" 20'

PROJECT DATA TABLE

LOT	LOT SIZE (SF)	GARAGE AREA (SF)	FIRST FLOOR BUILDING AREA (SF)	SECOND FLOOR BUILDING AREA (SF)	TOTAL BUILDING FLOOR AREA (SF)	FLOOR AREA RATIO	LOT COVERAGE	MAX ALLOWABLE LOT COVERAGE	PROPOSED PARKING SPACES	REQUIRED PARKING SPACES
1	2,995	236	813	700	1513	43%	29%	65%	2	2
2	1,746	236	785	700	1485	72%	48%	65%	2	2
3	1,617	236	785	700	1485	77%	52%	65%	2	2
4	2,165	236	785	700	1485	58%	39%	65%	2	2
5	2,222	236	813	700	1513	57%	40%	65%	2	2
6	1,708	236	785	700	1485	73%	49%	65%	2	2
7	1,742	236	785	700	1485	72%	48%	65%	2	2
8	2,024	236	785	700	1485	62%	42%	65%	2	2
9	1,872	236	813	700	1513	68%	43%	65%	2	2
10	1,649	236	785	700	1485	76%	48%	65%	2	2
11	1,671	236	785	700	1485	75%	47%	65%	2	2
12	2,445	236	785	700	1485	51%	32%	65%	2	2
13	20,505	0	3,559	5,077	8636	42%	20%	NA	18	18
COMMON PARCEL	11,336	NA	NA	NA	NA	NA	NA	NA	NA	NA

EARTHWORK DATA*	
CUT	1502
FILL	1141
OFF-HAUL	362

*EARTHWORK NUMBERS ARE PRELIMINARY AND MEASURED FROM FINISHED SURFACE TO EXISTING GROUND, AND DOES NOT ACCOUNT FOR SUBGRADE, CONSOLIDATION OR FOUNDATIONS.



SECTION B-B
VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=20'

NO.	REVISION	DATE

LACO
SURVEYORS | ENGINEERS | PLANNERS | GRANT WRITERS
lacoassociates.com

PACIFIC KNOLLS
SEBASTOPOL, CA
VESTING TENTATIVE MAP

JOB NO. 9272.02
DATE OCTOBER 2024
DESIGNER CCM
CHECKED CCM DRAWN CLM
SHEET 2 OF 2

Oct 15,2024 1:00pm
C:\Users\lacoa\Appdata\Local\Temp\AcPublish_26296\9272.02 TENTATIVE MAP.dwg

THIS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL. AERIAL IMAGERY PROVIDED BY GOOGLE© UNLESS OTHERWISE NOTED. Imagery © 2016,CAPCOG,Digital Globe,Texas Orthoimagery Program, USDA Farm Service Agency.

EXHIBIT B
RECOMMENDED CONDITIONS OF APPROVAL
Conditional Use Permit, Vesting Tentative Map 7621 Healdsburg Ave
004-291-019, File# **2023-078**

PLANNING:

1. Plans and elevations shall be in substantial conformance with plans prepared by Kathy Austin and LACO Associates and stamped received on May 8th, 2024, as revised on August 13th, 2024, and on file at the City of Sebastopol Planning Department, except as modified herein.

2. The Use shall be in substantial conformance with the proposed operations as described in the application materials prepared by Kathy Austin, and stamped received on May 8th, 2024, as revised on August 13th, 2024, and on file at the City of Sebastopol Planning Department, except as modified herein.

3. The project's open spaces shall be maintained by the property owner, not by the City.

4. The project site includes protected trees intended to remain. Protective measures are required for these trees. All final tree protection measures shall be submitted for review and approval by the City Arborist prior to issuance of Improvement Plans.

5. A Tree Removal permit is required for any trees proposed for removal.

6. Design Review approval is required by the Design Review Board for the design of the units, site features, landscaping, and other amenities.

7. The Vesting Tentative Map shall expire 24 months after its approval or conditional approval unless an extension is approved as provided in SMC 16.28.100 and in accordance with the State Subdivision Map Act

8. The Planning Director shall interpret applicable requirements in the event of any redundancy or conflict in the conditions of approval.

9. This approval does not include any signs. Any new signs that will identify the use of this property are subject to the prior approval of the Design Review Board or City staff, as appropriate.

10. All other approvals than the Vesting Tentative Map shall be valid for three years, except that the applicant may request a one (1) year extension of this approval from the Planning Director, pursuant to Section 17.250.050 of the Zoning Ordinance.

11. Project will fully comply with the Inclusionary Housing requirements set forth in Section 17.250 of the Sebastopol Municipal Code, and an Affordable Housing Agreement shall be executed and recorded prior to or concurrent with issuance of Building Permits or the recording of the Final Map, whichever occurs first.

PUBLIC WORKS:

12. The applicant shall label all onsite sewer lines as private.

13. The applicant shall install a three-valve tree to the City's 3 inch water main.

14. Fire Hydrants will be part of the private onsite system. The City will provide hydrant testing to ensure fire protection.

15. All projects are subject to Impact Fees as adopted by the City Council at the time the preliminary application was submitted, which are due at the time of issuance of the Building Permit unless otherwise stipulated by the City or required by California Law.

ENGINEERING:

TENTATIVE MAP/FINAL MAP

16. Revise final Tentative Map to show the driveway for the Healdsburg Avenue apartments lot on the east side of property in conformance with Traffic Study Recommendations and Conclusions.

17. Show all proposed easements on revised Tentative Map that run through the subservient lot for utilities, drainage, pedestrian access, etc., and clearly indicate whether public or private. Also clearly indicate that all private shared-use facilities (e.g., water lines, sewer collectors, storm drains, pathways, etc.) shall be subject to joint maintenance and repair responsibilities.

18. Remove from revised Tentative Map reference to "Propose Easement For Yard Area" shown along the southerly boundary of Lots 2-5.

19. Each parcel shall be numbered or lettered clearly, including common areas and the apartments lot.

20. Prepare and submit for review and approval joint maintenance agreement (JMA) for the maintenance, repair, replacement, etc. of the private common use facilities, including, but not limited to, pedestrian access, water and sewer utilities, storm drain, LID measures, etc. The approved JMA shall be recorded with the Sonoma County Recorder's Office concurrent with an approved Final Map.

21. After approval of the Tentative Map, a Final Map prepared by a licensed surveyor and civil engineer, shall be prepared and submitted for the review and approval of the City Engineer. The Final Map shall conform to the requirements of the Subdivision Map Act and local ordinances. Upon recording the map, the subdivision is valid.

22. Prior to the recording of the Final Map, the Developer shall complete the required construction of the subdivision improvements in accordance with the approved Improvement Plans, except when the Developer alternatively elects to secure the completion of the required construction by posting with the City of Sebastopol the required securities in the form required and accepted by the City. In this case the Developer shall execute, and enter into, an Improvement Agreement with the City of Sebastopol, agreeing therein to complete the required construction within 24 months after the filing of the Final Map. The fully executed agreement shall be recorded with the Final Map.

23. The Developer shall execute a covenant running with the land on behalf of itself and its successors, heirs and assigns agreeing to annex this subdivision into the existing City of Sebastopol Lighting Assessment District.

SUBDIVISION IMPROVEMENTS

24. Prepare and submit site improvement plans including designs for water distribution and sanitary sewer collection systems that do not require easements and/or joint maintenance agreements wherever possible. This shall include evaluating water and sewer connections to Murphy Avenue for Lots 1 – 12 including the existing sewer collector and ganging banks of water meters from one or more service connections from Murphy Avenue water main.

25. If the proposed project intends to reuse existing water and sewer services, Developer shall verify and provide proof thereof to the City Engineer that existing water and sewer services are adequate for reuse for proposed Project. Otherwise, existing water and sewer services connected into the property shall be removed to the point of connection at the city water and sewer mains, respectively, in accordance with City of Sebastopol Standard specifications and Details.

26. The Project is subject to the City of Sebastopol storm water low impact development requirements. Developer shall prepare and submit Storm Water Low Impact Development Submittal (SWLIDS) package for review and approval. In addition, Developer shall execute a Stormwater BMP Facilities Maintenance/Monitoring Agreement on behalf of itself and its successors, heirs and assigns accepting responsibilities and financial obligation for all maintenance, repair and replacement, therefore. The Agreement shall be recorded with the Sonoma County Recorder's Office.

27. The Project shall install Murphy Avenue frontage improvements along the property, including curb, gutter, driveway approach, etc. in accordance with improvement plans prepared by a registered civil engineer in conformance with City Street Standard Details and Specifications, and submitted for city engineer review and approval. Improvements plans shall include but not be limited to street and utility information, all concrete curbs, gutters, sidewalk, walkways, storm drain system, striping and signing, paving, water lines and sewer lines, tree preservation plan, erosion and sediment control, Storm Water Pollution Prevention Plan, and any necessary transitions for the portion of the public street fronting the project, if applicable. All improvements shall be designed in accordance with the City of Sebastopol Standard Details and Specifications.

28. The developer shall prepare and submit storm drainage design calculations supporting the proposed storm drain design.

29. The developer shall prepare and submit the Engineer's Estimate of Cost of the required subdivision improvements, including contingency, for review and approval of the City Engineer. The estimate of costs shall include the cost of labor pursuant to Section 1720 et seq. of the Labor Code of California.

GENERAL:

30. Applicant shall apply for any permits required for permanent work or temporary traffic control that encroaches onto Caltrans' Right-of-Way (ROW). The proposed project will add a new driveway connection off SR-116, it will require an encroachment permit. As part of the encroachment permit submittal process, you may be asked by the Office of Encroachment Permits to submit a completed encroachment permit application package, digital set of plans clearly delineating Caltrans' ROW, digital copy of signed, dated and stamped (include stamp expiration date) traffic control plans, this comment letter, your response to the comment letter, and where applicable, the following items: new or amended Maintenance Agreement (MA), approved Design Standard Decision Document (DSDD), approved encroachment exception request, and/or airspace lease agreement.

31. Site landscaping shall be generally consistent with the Landscape Plan included as part of the plans stamped received on May 8th, 2024, as revised on August 13th, 2024 on file with the Sebastopol Planning Department. The final landscape plan shall be stamped by a licensed landscape architect and filed with the Planning Department prior to occupancy. Plans for any irrigation of the site shall be incorporated into the landscape plan. All planting associated with a building, as shown on the approved plan, shall be installed prior to occupancy of that building. Upon the request of an Applicant to receive a Temporary Certificate of Occupancy and at discretion of the Planning Director, landscape installation may be suitably guaranteed by posting a cash bond equal to 100% of the cost and installation of any landscape improvements.

Building Department:

32. The project shall comply with the Green Building regulations contained in the Sebastopol Municipal Code that are in effect at the time the preliminary application was submitted.

EXHIBIT C
STANDARD CONDITIONS OF APPROVAL
Conditional Use Permit, Vesting Tentative Map 7621 Healdsburg Ave
004-291-019, File# **2023-078**

1. All plans shall include a brief description of the project on the cover sheet.

2. All submitted building permit plan check sets shall include a plan sheet incorporating these conditions of approval.

3. Except as otherwise noted in these conditions of approval, the plans submitted to the Building Department for plan check shall be in substantial conformance to those approved by the review body. If any changes are made to submitted plans which were approved by the review body the applicant shall work with the Planning Department to determine if the changes are significant enough to once again be seen by the review body, or if staff can approve the changes. Any changes that have not been approved by Planning staff are not approved. Construction or demolition work that does not conform to the Planning approval is not valid and shall be subject to stop work orders and may require removal.

4. Site landscaping shall be generally consistent with the Landscape Plan included as part of "Exhibit A" on file with the Sebastopol Planning Department. The final landscape plan shall be stamped by a licensed landscape architect and filed with the Planning Department prior to occupancy. Plans for any irrigation of the site shall be incorporated into the landscape plan. All planting shown on the approved plan shall be installed prior to occupancy of the proposed project. Upon the request of an Applicant to receive a Temporary Certificate of Occupancy and at discretion of the Planning Director, landscape installation may be suitably guaranteed by posting a cash bond equal to l00% of the cost and installation of any landscape improvements.

5. Acceptance of the construction drawings and specifications does not release the applicant and owner from correction of mistakes, errors, or omissions contained therein. If, during the course of construction, the field conditions or other previously unknown conditions require a modification or a departure from the accepted plans, the applicant shall provide the modifications or departure and specify the correction of mistakes errors, or omissions in compliance with the CBC and City Standards.

6. The City of Sebastopol and its agents, officers and employees shall be defended, indemnified, and held harmless from any claim, action or proceedings against the City, or its agents, officers and employees to attach, set aside, void, or annul the approval of this application or the environmental determination which accompanies it, or which otherwise arises out of or in connection with the City's action on this application, including but not limited to, damages, costs, expenses, attorney's fees, or expert witness fees.

7. A Construction Management Plan (CMP) shall be submitted to the City as part of the Building Permit and/or Grading Permit and shall be incorporated into the plans, unless waived by staff. The City's CMP template, provided by the Planning Department, may be used for small, infill projects. Revisions to the CMP to increase or add on time to the construction timeline shall be coordinated with the Building Official and any additional requests will be at the applicant's responsibility.

   This CMP shall be a binding document. Failure to adhere to the CMP may result in a

"Stop Work Notice" being placed on the project. An electronic copy of the APPROVED CMP shall be submitted to the City, and may be posted to the city's website. The CMP shall be updated as project conditions warrant. Updates to the CMP shall be provided to the City for review and approval. The CMP shall include but not be limited to:

a) Work schedule (start of construction date, road or lane closure intent/dates, important milestones and proposed final dates)
b) Construction Hours
c) Travel routes and turn-around locations with staff approval
    - Impact to state highways
d) Road and/or lane closures (Applicant to provide information on how many anticipated road closures, and the reasons for each road closure).
e) Worker auto parking space locations/construction parking
f) Phasing (if applicable)
g) If construction improvements are located in areas of slopes 15% or greater, the Contractor shall provide safe temporary hard surface stair access to the improvements, unless waived by the Building Official. This access shall be shown on the CMP.
h) Projects that require a grading permit shall comply with the City's grading ordinance.

The CMP may be more stringent if the project is located close to schools or in impacted neighborhoods. A CMP may be required to be modified if a neighborhood becomes "impacted" during the course of the construction. Impacted neighborhoods are defined as areas in geographic proximity (i.e. using the same streets for access) with a significant number of simultaneous construction projects.

The hours of construction activity shall be limited 7:00 a.m. to 8:00 p.m., Monday through Friday, 8:00 a.m. to 5:00 p.m. on Saturdays with staff approval, depending on scope of work being done, or unless modified by a project's Specific Conditions of Approval.

A **24-inch by 36-inch** weatherproof copy with items A-F posted on site. The remaining Construction Management Plan shall be made available on site. The Construction Management Plan shall be posted on the site as part of the job site signage and should include:

a) Address of the project site.
b) Permitted hours of construction and of deliveries/off-haul.
c) Name, e-mail address and direct phone number of the General Contractor.
d) Name, e-mail address and direct phone number of the person responsible for managing the project.
e) Name and direct phone number of the party to call in case of an emergency.
f) City of Sebastopol Building Department (707-823-8597).

8. All construction materials, debris and equipment shall be stored on site. If that is not physically possible, an encroachment permit shall be obtained from the Public Works Department prior to placing any construction materials, debris, debris boxes or unlicensed equipment in the right-of-way. The fee for using the right-of-way for storage of construction materials or equipment is $10.00 per day. A minimum of 11' passable auto traffic clearance (paved travel way) shall be maintained at all times along the roadway. The placing of portable restroom facilities in the City right-of-way will not be permitted.

9. All portions of the job site shall be maintained in an organized and professional condition. All trash, debris, construction scraps and broken/deteriorated machinery shall be removed from the site by the end of each week. If off loaded construction materials are not used within 2 weeks, they shall be screened from public view. All sidewalks, driveways and public/private roadways fronting the subject site shall be broom cleaned at the end of each business day.

10. A pre-construction meeting is required with city staff for projects that:

    a) Require a City encroachment permit, a Caltrans encroachment permit, or a City grading permit; or
    b) Have 5 dwelling units or more; or
    c) Have a total of 5,000 square feet of building or more; or
    d) Have a creek setback requirement; or
    e) Are required to have a pre-construction meeting under a specific condition of approval.

11. All permits and/or inspection fees required shall be paid in full prior to final occupancy being granted unless otherwise stipulated by the City.

12. All required construction signage and any required tree-protection shall be posted and available for City inspection at the time of the Pre-construction meeting or, if no pre-construction meeting is required, prior to commencing construction. If these measures are not in place at the time of the pre-construction meeting, a re- inspection fee will be required, and issuance of building permit will be delayed.

13. The Planning Director shall interpret applicable requirements in the event of any redundancy or conflict in conditions of approval.

Planning Department Standard Conditions of Approval:

14. This approval is valid for a period of three (3) years during which time the rights granted must be exercised. However, the applicant may request one (1) one-year extension of this Use Permit from the Planning Director, pursuant to Zoning Ordinance §17.400.100.

15. The light source for all exterior lighting fixtures shall be shielded from adjacent properties. Cut sheets for all exterior lighting shall be submitted as part of the Design Review or other planning application.

16. For projects with new foundations or retaining walls less than 10’ away from a required setback property lines shall be physically identified (string line or equal), and the applicant shall submit a letter or certificate from a licensed surveyor that confirms that the structure complies with the approved setbacks prior to placing the foundation. For any project that includes new foundations or retaining walls more than 10’ away from a required setback, the applicant may apply for a waiver from this requirement from the City Engineer and Planning Department.

17. For any project that includes new structures within 2 feet of the allowed height limit, a letter or certificate from a surveyor confirming that the height of the roof complies with the approved plans shall be submitted to the Planning Department at the earliest point possible.

18. All landscape and irrigation plans must be designed in accordance with the most current City of Sebastopol landscape requirements. Prior to providing water service for new landscape areas, or improved or modified landscape areas, the Planning Department must review and approve the project's working drawings for planting and irrigation systems. Any question regarding the City of Sebastopol current water conservation and Landscape Ordinance should be directed to the Planning Department.

    New construction and rehabilitated (renovations or changes made to sites with an existing irrigation system) landscape projects will be affected by these requirements if the altered landscape area is greater than 500 square feet.

19. For any new housing unit development, the developer/owner shall submit the total amount of fees and exactions associated with the project prior to issuance of certificate of occupancy or final inspection.

Engineering and Public Works Department Standard Conditions of Approval:

20. All projects are subject to Impact Fees as adopted by the City Council, which are due at the time of issuance of the Building Permit unless otherwise stipulated by the City.

21. An Encroachment Permit is required from the Public Works Department for any and all work within the public right-of-way. If the work is within a CalTrans right-of way, an Encroachment Permit from CalTrans shall also be procured by the applicant. Encroachment Permit shall not be issued until the City Engineer approves the applicant's site improvement plans.

22. Construction within the public right-of-way is limited to that necessary to support the lot's use. This may include but is not limited to: driveways, sidewalks and any utility connections. For all improvements within the public right of way, the applicant shall submit plans to adequately describe the work. Plans shall include but not be limited to drainage details, cross-sections, driveway/roadway grades and utility locations as necessary.

23. The applicant shall prepare and submit site improvement plans for the construction of all improvements including water, sanitary sewer, storm drain, water quality facilities, roadway improvements, curbs, gutters, sidewalks, elevated or structural pedestrian walkways, landscaping, landscape irrigation, signing, striping, joint trench and streetlights. All design and construction shall conform to the latest edition of the City of Sebastopol Design and Construction Standards and other applicable codes, standards, guidelines and specifications. Public improvement drawings shall be drafted in the City-approved sheet format.

24. Once approved by the City Engineer, the applicant shall submit PDF files of the signed improvement plans. As-Built record drawings shall also be submitted as PDF files.

25. Deviations from City Standards and applicable Code requirements shall be approved by the City Engineer. The applicant's engineer shall request all design exceptions in writing.

26. Any improvements, public or private, damaged during construction shall be replaced,

by the applicant, in-kind or with new improvements. All cracked, broken, or uplifted sidewalk, driveway and/or curb and gutter fronting the property shall be replaced. Applicant shall coordinate with the Public Works Department prior to the first submittal of project improvement plans to identify the extents and limits of replacement.

27. An erosion and sediment control plan are required as part of the building permit application. The plan shall be prepared by a certified erosion control specialist and in full compliance with CASQA standards, The plan is subject to review and approval by the Engineering Department prior to the issuance of the building or grading permit. No modifications to the approved plans shall be made without approval of the City Engineer.

28. Mailbox plans and locations shall be approved by the Sebastopol Postmaster prior to improvement plan approval. The developer shall provide a letter and exhibit showing mailbox locations from the Sebastopol Postmaster approving mailbox locations.

29. City Public Water and Sewer and Drainage utility easements as required by the City Engineer utility companies shall be provided within the development. Easement locations shall be subject to review and approval by the City Engineer.

Roadway Improvements:

30. The improvement plans for the first phase of development shall include and provide for the construction of all offsite improvements as required to support full project build-out. Each subsequent phase of development shall construct sufficient onsite roadway and utility improvements to support the cumulative development proposed to be constructed as approved by the City Engineer.

31. Road closures, if permitted by the Project Approval, will only be permitted with prior authorization from the Public Works Department consistent with the City's road closure policy. Signs containing details of the proposed closure must be posted 48 hours in advance. Coordinate road closures with the Sebastopol Public Works Department. Contact the Public Works Department at 707-823-5331 to obtain a road closure permit.

32. An emergency vehicle access, meeting the requirements of the Sebastopol Fire Department shall be constructed.

33. All private driveway areas less than 24-foot wide shall require the approval of the Sebastopol Fire Department.

34. Sidewalk warps shall be provided to allow a clear five-foot walkway at all locations, including areas where mailboxes, street furniture, streetlights, street signs and fire hydrants are to be installed, or as otherwise approved by the City Engineer.

35. The structural section of all public road improvements shall be designed using a soil investigation which provides the basement soils R-value and expansion pressure test results. A copy of Geotechnical report and structural section calculations shall be submitted with the first improvement plan check.

36. The structural section of the private on-site drive aisles and parking areas shall meet the requirements and recommendations of the geotechnical report for the project.

37. Retaining walls and retaining curbs may be required to protect damage to trees as determined by a licensed Arborist. All retaining structures shall be designed and

constructed to minimize damage to trees.

38. Pedestrian curb ramps, meeting City standards and current accessibility requirements, shall be provided at all intersections and crosswalks where sidewalks are proposed.

Drainage Improvements:

39. All project related flooding impacts shall be mitigated by the project developer. Drainage improvements shall be designed by a Civil Engineer registered in the State of California in accordance with the Sonoma County Water Agency's Flood Management Design Manual (FMDM). Public and private drainage improvements shall be shown on the improvement plans and the City Engineer may require the applicant to acquire the review and recommendations by the Sonoma County Water Agency (Sonoma Water) prior to approval by the City Engineer. Private storm drain easements will be required for any portions of the private storm drain not entirely located with the lot being served or for any portion of a private utility located on an adjacent parcel.

40. No lot-to-lot drainage will be allowed between the project site and any adjacent parcels. No concentrated drainage may discharge across sidewalks. All site drains must be connected to the public storm drain system or discharged through the face of curb or to an established waterway.

41. Plans and certifications shall demonstrate compliance of all improvements, including building finished floor elevations, with the City's Flood Ordinance, to the satisfaction of the Building Official and City Engineer. Building finished floor elevations shall be constructed at a minimum of 2 foot above the 100-year storm event water surface elevation as determined by the City and certified by the project engineer. The Engineer of Record shall provide a signed and stamped letter indicating the project meets the requirements of the Ordinance before plan approval.

Stormwater Quality:

42. Projects that create or replace 10,000 square feet or more of impervious surface area are subject to design and construction requirements of the most recent edition of City of Sebastopol Low Impact Development (LID) Technical Design Manual. Improvement plans with required LID design features shall be approved by the City Engineer.

43. Projects that will disturb 1.0 acre or more of developed or undeveloped land shall provide evidence that a Notice of Intent (NOI) has been submitted by the applicant and received by the State Water Resources Control Board for a General Construction Activity Storm Water Permit. Two copies of the project Storm Water Pollution Protection Plan (SWPPP) shall be provided to the City prior to issuing a grading permit, encroachment permit, or building permit.

44. For required LID features constructed on private property or on street frontage, the owner shall provide a Declaration Letter to the City Manager regarding the owner's commitment to ongoing maintenance of said LID features (LID Declaration) prior to occupancy.

Grading:

45. The improvement plans shall include a site-grading plan prepared by a Civil Engineer registered in the State of California as part of the required improvement drawings. Lots shall be generally designed to drain to public and private streets or parking areas, unless otherwise approved in the interest of tree preservation or other unusual circumstances.

46. The City of Sebastopol shall require a grading permit for projects that meet these requirements.

    a) Cut or fill exceeding 50 cubic yards
    b) Cut or fill greater than 3 feet in depth
    c) Cut creating a cut slope greater than 5 feet in height and steeper than 2 units horizontal to 1 unit vertical
    d) Fill intended to support a structure or surcharge greater than 1 foot in depth or placed on terrain with a natural slope steeper than 15 percent

47. When required by the Building Official the applicant shall submit to the City for review and approval, a detailed Geotechnical Report prepared by a Geotechnical Engineer registered in the State of California. The grading plan shall incorporate the recommendations of the approved Geotechnical Report.

48. Where soil or geologic conditions encountered during grading operations are different from those anticipated in the Geotechnical Report, or where such conditions warrant changes to the recommendations contained in the original soil investigation, a revised soil or geologic report shall be submitted for approval by the City Engineer. It shall be accompanied by an engineering and geological opinion as to the safety of the site from hazards of land slippage, erosion, settlement, and seismic activity.

49. Existing wells, septic tanks and/or underground fuel storage tanks that are defective or will no longer be in use shall be permanently destroyed or removed under permit and inspection by the Sonoma County Permit and Resource Management Department, Well and Septic Division and/or Sonoma County Environmental Health or other designated agency. Underground fuel storage tanks are subject to UST regulations of the State Water Resources Control Board.

50. The grading plan shall clearly show all existing survey monuments and property corners and shall state that they shall be protected and preserved. Should monuments be damaged or destroyed during construction, they shall be replaced by the developer.

51. Improvements plans shall include an erosion control (winterization) plan. The plan shall include an order of work and staging/scheduling component indicating when facilities must be installed and when they may be removed.

52. Sewer services and laterals shall be CCTV inspected to determine if the service needs to be removed and replaced. A copy of the CCTV report shall be provided to the City Engineer. A waiver for CCTV inspection may be waived by the City Engineer, if the sewer lateral has been replaced within ten years of the submittal of the improvement plans. A copy of the documentation evidencing such replacement shall be included in the submittal package.

53. If the proposed project is located in or adjacent to a waterway, within an area designated as habitat for threatened or endangered species, or other special status

area, it possibly falls under the jurisdiction of another agency such as the United States Army Corps of Engineers, the California Regional Water Quality Control, or the California Department of Fish & Wildlife, U. S. Fish & Wildlife Service, etc. These agencies shall be contacted to determine if the project lies within their respective jurisdictions. All necessary permits and/or approvals shall be obtained prior to the City issuing any permits. If permits are not required, a letter stating so shall be submitted to the City as part of the record.

54. Trees and vegetation shall be trimmed according to Section 8.12 of the Sebastopol Municipal Code. Trees and shrubs shall be kept trimmed so that the lowest branches projecting over public properties provide a clearance of not less than eight (8) feet over sidewalks and not less than twelve (12) feet over streets.

Fire Department. Standard Conditions of Approval:

55. The address shall be posted in accordance with requirements of the California Building Code and California Fire Code. The Fire Chief shall review and approve all requests for new addresses. Inspection and signoff of address posting shall be coordinated through Building Department.

56. Smoke and CO detectors shall be installed in accordance with the California Building Code. Final inspection and signoff of smoke detectors shall be coordinated through Building Department.

57. Noncombustible roofing shall be provided for:
    a. All new roofs shall be non-combustible.
    b. Roof Repairs or replacement:
        i. Less than 25% - no requirement
        ii. 25Hr to 50% - Class C minimum
        iii. 50% or more — Non-Combustible
    c. In no case shall the roofing material used to be less fire resistive than the existing roof.

    NOTE: A "noncombustible" roof is a Class A roof (for other than Group R Occupancies, a Class A or Class A assembly) as defined in the California Building Code and approved by the Building Department.

58. Prior to occupancy, a spark arrester shall be installed on the chimney(s) 3/8" mesh minimum.

Building Department Standard Conditions of Approval:

59. All construction shall comply with all applicable Title 24 Codes in effect at the time of building permit submittal. It is the responsibility of the designer(s) to ensure that all applicable Title 24 codes, as well as any applicable Sebastopol Municipal Codes are incorporated into the design.

60. The project shall comply with the Green Building regulations contained in the Sebastopol Municipal Code that are in effect at the time of building permit submittal.

END OF STANDARD CONDITIONS OF APPROVAL

Traffic Study for the Pacific Knolls Project

Prepared for the City of Sebastopol

Submitted by
W-Trans

July 24, 2024

TRAFFIC ENGINEERING
TRANSPORTATION PLANNING
Balancing Functionality and Livability since 1995
w-trans.com

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Table of Contents

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Introduction

This report presents an analysis of the potential transportation, traffic, and mobility impacts that would be associated with a proposed residential development to be located on the southeast corner of Healdsburg Avenue (SR 116) and Murphy Avenue in the City of Sebastopol. The traffic study was completed in accordance with the criteria established by the City of Sebastopol and is consistent with standard traffic engineering techniques.

Prelude

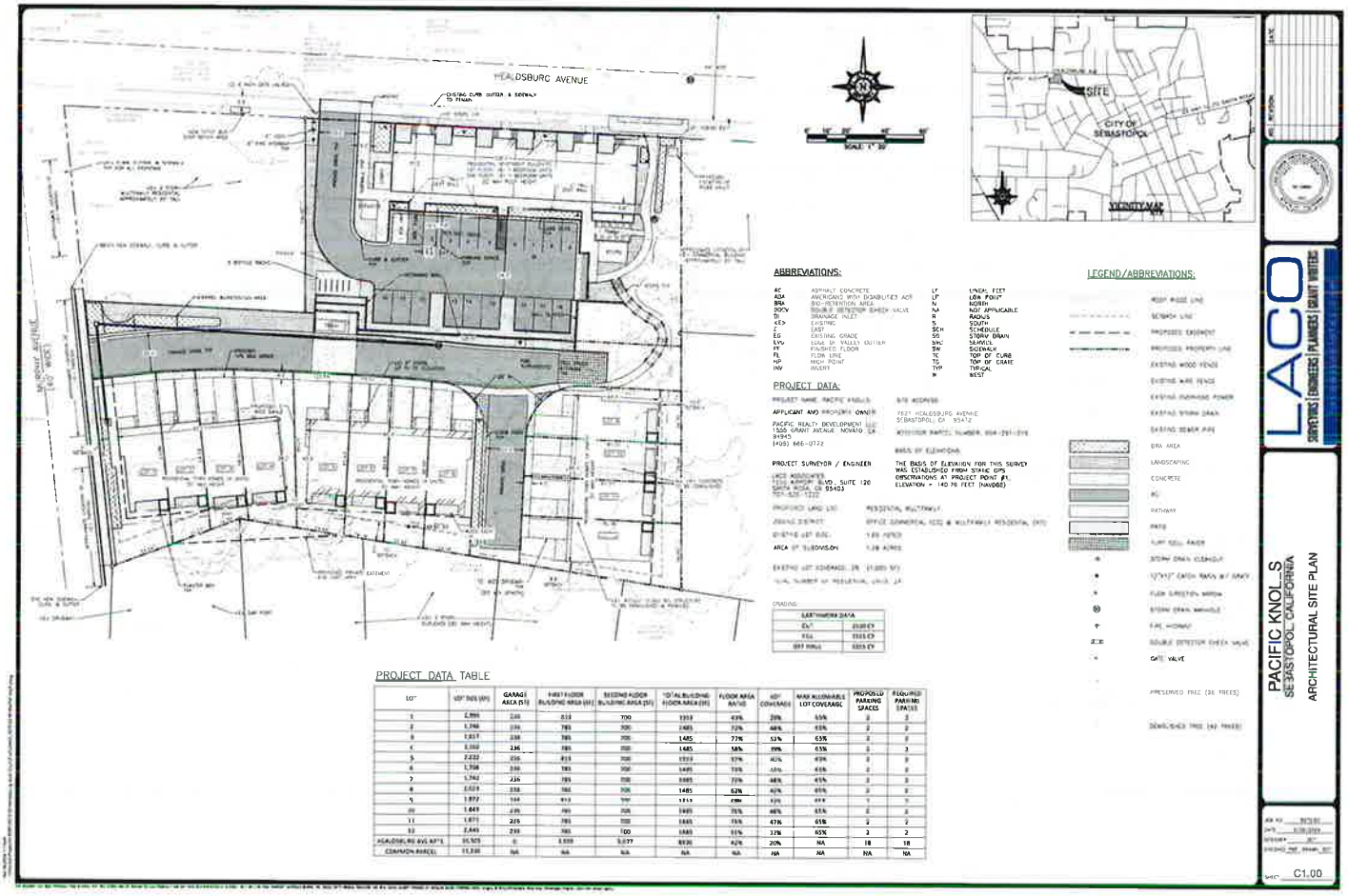
The purpose of a traffic impact study is to provide City staff and policy makers with data that they can use to make an informed decision regarding the potential transportation impacts of the proposed project, and any associated improvements that would be required to mitigate these impacts to an acceptable level under the California Environmental Quality Act (CEQA), the City's General Plan, or other policies. This report provides an analysis of those items that are identified as areas of environmental concern under the CEQA. Impacts associated with access for pedestrians, bicyclists, and to transit; the vehicle miles traveled (VMT) generated by the project; and safety concerns are addressed in the context of the CEQA criteria. While no longer a part of the CEQA review process, vehicular traffic service levels at key intersections were evaluated for consistency with General Plan policies by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on anticipated travel patterns specific to the proposed project, then analyzing the effect the new traffic would be expected to have on the study intersections and need for improvements to maintain acceptable operation.

The report is organized to provide background data that supports the various aspects of the analysis, followed by the assessment of CEQA issues and then evaluation of policy-related issues.

Project Profile

Project Description

The proposed residential project site is located on a vacant parcel near the intersection of Healdsburg Avenue/Murphy Avenue. Access would be provided via two new driveways, one on Healdsburg Avenue and one on Murphy Avenue. The project would include 24 residential units, including 12 townhomes with access only onto Murphy Avenue and 12 apartments with access only onto Healdsburg Avenue. The proposed project site plan is shown in Figure 1.



Source: LACO Associates 6/24

seb083.ai 6/24

Traffic Study for the Pacific Knolls Project
Figure 1 – Site Plan

Transportation Setting

Study Area and Periods

The study area varies depending on the topic. For pedestrian trips it consists of all streets within a half-mile of the project site that would lie along primary routes of pedestrian travel, or those leading to nearby generators or attractors. For bicycle trips it consists of all streets within one mile of the project site that would lie along primary routes of bicycle travel. For the safety and traffic operational analyses, it consists of the project frontage and the intersection of Healdsburg Avenue (SR 116)/Murphy Avenue and the project access points on both frontages.

Operating conditions during the a.m. and p.m. peak periods were evaluated to capture the highest potential impacts for the proposed project as well as the highest volumes on the local transportation network. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while an extended p.m. peak period between 2:00 and 6:00 p.m. was counted to capture afternoon traffic from the nearby schools including Analy High School as well as traffic typically reflecting the highest level of congestion during the homeward bound commute.

Study Intersection

Healdsburg Avenue (SR 116)/Murphy Avenue is a three-legged intersection with stop control on the northbound Murphy Avenue approach. Marked crosswalks exist on the west and south legs of the intersection. There are yield markings on the east and west legs approaching the intersection and Circular Rapid Flashing Beacons are present on the west leg which is the standard crosswalk warning device used in the City of Sebastopol. Class II bike lanes exist on SR 116, while there are sharrow markings on Murphy Avenue which is a city designated bike route.

The location of the study intersection and existing lane configurations and controls are shown in Figure 2.

Collision History

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is October 1, 2018, through September 30, 2023.

The calculated collision rate for the study intersections was compared to average collision rates for similar facilities statewide, as indicated in *2021 Collision Data on California State Highways*, California Department of Transportation (Caltrans). These average rates statewide are for intersections in the same environment (urban), with the same number of approaches, and the same controls. The study intersection of Healdsburg Avenue/Murphy Avenue had a calculated collision rate of 0.04 collisions per million vehicles entering (c/mve) based on the four reported crashes, which is below the statewide average collision rate of 0.13 c/mve for similar interactions. The collision rate calculations are provided in Appendix A.

Traffic Study for the Pacific Knolls Project

Figure 2 – Study Area, Existing Lane Configurations, Existing Traffic Volumes and Future Traffic Volumes

Circulation System

This section addresses the first transportation bullet point on the CEQA checklist, which relates to the potential for a project to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Pedestrian Facilities

Existing and Planned Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. Existing pedestrian facilities along the proposed project site frontage as well as within a one-quarter mile distance of the project site were reviewed.

A generally connected pedestrian network currently exists along SR 116 near the project site. However, there is no sidewalk on the north side of SR 116 west of its intersection with Lyding Lane until Soll Court. An enhanced crosswalk with Circular Rapid Flashing Beacons is present on the west leg of Healdsburg Avenue (SR 116)/Murphy Avenue, which connects to DuFranc Avenue to the northeast, providing pedestrian access to the West County-Joe Rodota Trail, located 550 feet north of the SR 116/DuFranc Avenue intersection.

Pedestrian Safety

The collision history for the study area was reviewed to determine if any trends or patterns may indicate a potential safety issue for pedestrians. Collision records available from SWITRS reports were reviewed for the most current five-year period available, which was October 1, 2018, through September 30, 2023, at the time of the analysis. During the five-year study period there were no reported collisions involving a pedestrian within a half mile of the project site.

Impact on Pedestrian Facilities

Given the proximity of commercial uses, it is reasonable to assume that some residents will want to walk, bicycle, and/or use transit for trips from and to the project site. Sidewalk connectivity is generally continuous throughout the surrounding neighborhood and along the project frontage. Per the site plan, there is a proposed pathway along the eastern edge of the site, connecting the existing sidewalk along the project frontage on Healdsburg Avenue and the proposed internal pedestrian network.

Finding – Pedestrian facilities serving the project site are adequate. The paths proposed and recommended as part of the project would provide adequate access to the existing pedestrian facilities. The project would not conflict with any existing plans or policies relative to pedestrian facilities.

Bicycle Facilities

Existing and Planned Bicycle Facilities

The *Highway Design Manual 7th Edition*, Caltrans, 2020, classifies bikeways into four categories:

- **Class I Multi-Use Path –** a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signage only for shared use with motor vehicles within the same travel lane on a street or highway.

- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, striped buffers, or on-street parking.

In the project vicinity there are several existing Class I, II, and III bikeway facilities, including the Class I multi-use bicycle and pedestrian West County-Joe Rodota Trail. There are existing Class II bicycle lanes along SR 116 between the north city limit and North Main Street, along Gravenstein Highway North and Healdsburg Avenue, along Covert Lane between Ragle Road and SR 116, and along High School Road-North Main Street between Occidental Road and SR 116. DuFranc Avenue to the northeast of the project site provides bicyclist access to the West County-Joe Rodota Trail, which extends north to Occidental Road and east to Analy High School and provides connection facilities to the Joe Rodota Trail. There are also existing Class III bike routes in the project vicinity including along Murphy Avenue, most of which feature sharrow pavement markings.

According to the *Draft Sonoma County Active Transportation Plan* (2024), Class I bicycle facilities are planned on Analy Avenue between North Main Street and Sunset Avenue (in front of and through Analy High School), along Bodega Avenue between Pleasant Hill Road and Nelson Way, on Ragle Road between Covert Lane and Bodega Avenue, along SR 116 between Mill Station Road/West County Trail and Keating Avenue and connecting Willow Street/South Main Street to the Joe Rodota Trail. Class III routes are planned along various streets within one mile of the project vicinity. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area. Table 1 summarizes the existing and planned bicycle facilities in the project vicinity, as contained in the *Draft Sonoma County Active Transportation Plan*.

Table 1 – Bicycle Facility Summary

Status Facility	Class	Length (miles)	Begin Point	End Point
Existing				
West County/Rodota Trail	I	1.68	Occidental Rd	N Main St
Covert Ln	II	0.50	Ragle Rd	SR 116
SR 116 (Gravenstein Hwy N)	II	0.52	North City Limit	Covert Ln
SR116 (Healdsburg Ave)	II	0.64	Covert Ln	N Main St
High School Rd/N Main St	II	1.56	Occidental Rd	SR 116
Valentine Ave	III	0.60	Ragle Rd	Murphy Ave
Danmar Dr/Norlee St	III	0.48	SR 116	Covert Ln
Washington Ave	III	0.56	Willard Libby Park	Bodega Ave
Ragle Rd	III	0.52	Covert Ln	Bodega Ave
Pleasant Hill Ave	III	0.50	Covert Ln	Bodega Ave
Zimpher Dr	III	0.21	Covert Ln	Valentine Ave
Murphy Ave	III	0.38	SR 116	Valentine Ave
Planned				
Analy Ave	I	0.18	N Main St	Sunset Ave
Bodega Ave	I	0.34	Pleasant Hill Rd	Nelson Wy
Ragle Rd	I	0.52	Covert Ln	Bodega Ave
SR 116	I/IV	1.29	Mill Station Rd/West County Trail	Keating Ave
Willow St Connection	I	0.07	Willow St/S Main St	Joe Rodota Trail
Dutton Ave	III	0.16	Huntley St	Bodega Ave
Florence Ave	III	0.05	Huntley St	Wilton Ave
Huntley St	III	0.22	Murphy Ave	Florence Ave
Johnson St	III	0.27	Eddie Ln	Laguna Pkwy
McKinley Ave	III	0.22	Morris St	Petaluma Ave
Sunset Ave	III	0.13	Taft St	Johnson St
Washington Ave	III	0.44	Willard Libby Park	Murphy Ave
Wilton Ave	III	0.23	Florence Ave	N Main St

Source: *Draft Sonoma County Active Transportation Plan*, Sonoma County Transportation Authority, 2024

Impact on Bicycle Facilities

The project as proposed would not result in the construction of any new bicycle facilities nor would it impact the ability of the City or Caltrans to construct any planned facilities.

Bicyclist Safety

Collision records for the study area were reviewed to determine if there had been any bicyclist-involved crashes during the five-year study period between January 1, 2019, and December 31, 2023. There were no reported collisions involving bicyclists in the study area, therefore no remedial action is recommended.

Finding – Existing and planned bicycle facilities would provide adequate access for bicyclists traveling to and from the project site. The project would not conflict with any policies or plans for bicycle facilities.

Transit Facilities

Existing Transit Facilities

Sonoma County Transit

Sonoma County Transit (SCT) provides fixed-route bus service in Sebastopol and surrounding areas. SCT Route 20 and Route 24 both have stops within a half mile of the project site. Route 20 runs from the Coddingtown Mall in the City of Santa Rosa to Monte Rio in West County. Route 24 runs from the Sebastopol Transit Hub to the intersection of SR 116/Mill Station Road. Existing transit routes and details regarding their operation are summarized in Table 2.

Table 2 – Transit Routes

Transit Agency Route	Distance to Stop (mi)[1]	Service			Connections
		Days of Operation	Time	Frequency	
Sonoma County Transit					
Route #20	< 0.1	Mon-Fri Sat-Sun	6:30 a.m. - 9:30 p.m. 6:30 a.m. - 9:30 p.m.	50 – 80 min 50 – 105 min	Monte Rio Coddingtown/Santa Rosa
Route #24	< 0.1	Mon-Fri Sat	7:45 a.m. - 6:30 p.m. 7:45 a.m. - 5:30 p.m.	45 – 55 min 45 – 55 min	Sebastopol SR 116/Mill Station Rd

Notes: [1] Defined as the shortest walking distance between the project site and the nearest bus stop
Source: sctransit.com/maps-schedules

Two to three bicycles can be carried on most SCT buses, and bike rack space is provided on a first-come, first-served basis. Additional bicycles are allowed on SCT buses at the discretion of the bus operator.

Dial-a-ride, also known as paratransit or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. SCT Paratransit is designed to serve the needs of individuals with disabilities within the City of Sebastopol and the greater Sonoma County area.

Impact on Transit Facilities

Given the size of the proposed project, there is unlikely to be substantial new demand for transit service generated by the development, though it is likely that some residents or visitors will occasionally choose to use transit. The existing pedestrian facilities are adequate to provide access from the project site to the transit stops and there are sufficient routes and headways to accommodate the nominal additional demand.

Finding – Existing public transit routes are adequate to accommodate the additional demand generated by the project, and existing bus stops are accessible via continuous sidewalks. Transit facilities serving the project site are

therefore considered to be adequate and the project would not conflict with any programs or policies regarding transit.

Significance Finding – The proposed project would have a less-than-significant impact relative to pedestrian, bicycle, and transit modes as it would be consistent with existing plans, policies, and programs for these modes.

Vehicle Miles Traveled (VMT)

The potential for the project to conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) was evaluated based the project's anticipated Vehicle Miles Traveled (VMT). This is the second bullet point in the CEQA checklist.

Background

The Vehicle Miles Traveled (VMT) associated with a project is the primary basis for determining traffic impacts under CEQA. Because the City of Sebastopol has not yet adopted standards of significance for evaluating VMT, guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018, was used (referred to herein as the Technical Advisory). These criteria are consistent with those applied by Caltrans as outlined in the *Vehicle Miles Traveled-Focused Transportation Impact Study Guide*, California Department of Transportation, May 2020.

Significance Threshold

The OPR Technical Advisory provides VMT threshold guidance for several land use types. Residential uses are assessed using a home-based VMT per capita metric, with VMT significance thresholds set at a level of 15 percent below the citywide or regional average. The Technical Advisory indicates that it may be appropriate to apply a countywide, rather than regional, average if most people both live and work within the smaller geographic area. According to data contained in the *Sonoma County Travel Behavior Study*, Fehr & Peers, 2020, approximately 98 percent of Sebastopol's vehicle trips remain within Sonoma County. Use of a common model to produce both project-level and threshold values also allows for a clear "apples to apples" assessment. Accordingly, the applied significance threshold was based on the Sonoma County per-capita VMT average rather than the nine-County Bay Area regional average.

SCTA operates and maintains the regional travel demand model that produces baseline VMT estimates. The VMT thresholds and projections applied in this analysis reflect the SCTM19 model updated in December 2021, which remains the current version as of the June 2024 timeframe of this analysis. Based on output from the SCTA model, the existing average residential VMT per capita in the County of Sonoma is 16.60 miles. VMT significance thresholds are set at 15 percent below this level, or 14.11 miles. Accordingly, the project would have a potentially significant impact on VMT if its projected residential VMT per Capita exceeds 14.11 miles.

Project VMT Assessment

VMT per Capita

The SCTA model includes traffic analysis zones (TAZ) covering geographic areas throughout Sonoma County. The Pacific Knolls project site is located within TAZ 808, which has a baseline VMT per capita of 16.46 miles. For the project to achieve the applied threshold of 14.11 VMT per capita, its projected VMT per capita would need to be reduced by at least 14.3 percent.

Consideration was given to whether adjustments to the baseline per-capita VMT estimates produced by the SCTA model are warranted to reflect the project's characteristics. SCTA has developed and made available a VMT Reduction Tool to assist in making project-specific VMT adjustments as well as quantify VMT mitigation measures. One of the characteristics having the greatest influence on VMT levels, thereby requiring adjustments to baseline values, pertains to the residential density of a development. The SCTA VMT Reduction Tool indicates that average residential densities exceeding 9.1 units per acre can be expected to effectively reduce per capita VMT. The residential density of the proposed project is 18.8 dwelling units per acre, which based on the SCTA VMT Reduction

Tool results in a VMT reduction of 23.3 percent below baseline VMT per capita values. Applying this percentage reduction yields an adjusted value of 12.62 VMT per capita, which is below the applicable significance threshold of 14.11 VMT per capita. Upon including adjustments to account for the project's residential density, the project would therefore be considered to have a less-than-significant impact on VMT. A summary of the VMT analysis is shown in Table 3.

Table 3 – Vehicle Miles Traveled Analysis Summary

VMT Metric	Countywide VMT per Capita		Project VMT per Capita		
	Average	Significance Threshold[1]	Unadjusted (TAZ 808)	Adjusted (Density)[2]	Threshold Met?
Residential VMT per Capita (Countywide Baseline)	16.60	14.11	16.46	12.62	Yes

Notes: VMT Rate is measured in VMT per Capita, or the number of daily miles driven per resident; TAZ=Traffic Analysis Zone; du/acre=dwelling units per acre; [1] equal to 15 percent below Countywide average; [2] includes adjustments for residential density per methodology contained in the SCTA VMT Reduction Tool

Finding – The project would be expected to result in a less-than-significant VMT impact.

Safety Issues

The potential for the project to impact safety was evaluated in terms of the adequacy of sight distance and need for turn lanes at the project access locations, as well as the adequacy of stacking space in the left-turn lane at the study intersection. This section addresses the third transportation bullet on the CEQA checklist which is whether or not the project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Site Access

Access to the site would be provided by two new driveways: one on Murphy Avenue that provides access to only the townhome units and one on Healdsburg Avenue (SR 116) that provides access to only the apartment units. It is understood that the project designers explored an interior project access that connected both driveways; however, the change in topography was challenging so this concept was abandoned.

Queuing

The City of Sebastopol does not prescribe thresholds of significance regarding queue lengths. However, an increase in queue length due to project traffic was considered a potentially significant impact if the increase would cause the queue to extend out of a dedicated turn lane into a through traffic lane, or the back of queue into a visually restricted area, such as a blind corner. If queues would already be expected to extend past a dedicated turn lane or into a visually restricted area without project traffic, the addition of project traffic was considered to constitute a potentially adverse effect only if it would cause a new unacceptable conditions; in other words, if the queue were already beyond the turn lane and the project would cause it to stack into an adjacent intersection or a visually restricted area, and that would not occur without the project, that would be considered an impact.

Queuing in the existing westbound left-turn lane on Healdsburg Avenue at the study intersection was evaluated using a methodology contained in "*Estimating Maximum Queue Length at Unsignalized Intersections*," John T. Gard, *ITE Journal*, November 2001. Queuing was evaluated here to determine if left-turn movements out of the project would be in conflict with queued vehicles in the westbound left-turn lane. Maximum queue lengths were estimated by assuming vehicle lengths of 25 feet and multiplying that by the number of vehicles expected to queue.

Based on Future plus Project volumes, the maximum queue in the Healdsburg Avenue westbound left-turn lane was determined to be two vehicles, or 50 feet during the a.m. peak hour, and three vehicles, or 75 feet during the p.m. peak period. The westbound left-turn lane has approximately 150 feet of storage space preceding the proposed driveway on Healdsburg Avenue. Therefore, the existing turn lane is adequate to accommodate the anticipated queue length and the maximum anticipated queue would not be expected to conflict with left turns out of the project driveway at this location.

Queuing calculations for the study intersection are provided in Appendix C.

Finding – The existing storage space in the turn lanes at the study intersection is adequate to accommodate the maximum anticipated queue.

Driveway Conflicts

Murphy Avenue Access – The project access would be located approximately 120 feet south of the south leg crosswalk at SR 116. Given the stop control on Muphy Avenue and low traffic volumes, the addition of the driveway would not result in significant conflicts with traffic on Muphy Avenue.

SR 116 (Healdsburg Avenue) Access – The project access is proposed approximately 160 feet east of Murphy Avenue and slightly offset to the east with DuFranc Avenue. Turn movements at the driveway were assessed as follows.

- Left turns into the site should operate acceptably as vehicles could queue in the center two-way left-turn lane to make the left turn and should not interfere with left turns onto DuFranc Avenue as the movements do not overlap.
- Left-turn movements onto Healdsburg Avenue from the site could be made by turning into the two-way left-turn lane before merging onto westbound Healdsburg Avenue. However, this movement would present several points of conflict. Exiting vehicles from the project would be turning into the two-way left-turn lane where vehicles are entering for left-turns onto Murphy Avenue. Also, these exiting vehicles would present conflicts with left-turn movements into and out of DuFranc Avenue. A point of access further to the east of the project site would be more optimal.

Significance Finding – The proposed location of the driveway on Murphy Avenue is considered acceptable. The driveway on SR 116 (Healdsburg Avenue) presents conflicts and therefore results in a potential safety impact.

Recommendation – Restricted access to right-turn in/right-turn out only was considered, but was not recommended, since this is the only access for this portion of the project. The project driveway on SR 116 should be relocated to the eastern side of the project site to minimize conflicts with other vehicle movements to and from Healdsburg Avenue.

Significance after Mitigation – With the driveway located to maximize separation from Dufranc Avenue, the project's impact on safety would be less than significant.

Sight Distance

Sight distances along Healdsburg Avenue and Murphy Avenue at the proposed new project driveways were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. Though Caltrans does not indicate a recommended sight distance for driveways in urban areas, for safety reasons the stopping sight distance was evaluated using the approach travel speed as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a following driver to stop if there is a vehicle waiting to turn into a side street or driveway was evaluated based on the stopping sight distance criterion and approach speed on the major street. Based on a posted speed limit of 30 mph for Healdsburg Avenue, the minimum stopping sight distance needed is 200 feet; for a posted speed limit of 25 mph on Murphy Avenue, the required minimum stopping sight distance is 150 feet.

Using both field measurements and aerial imagery it was determined that sight distance at the driveway on Healdsburg Avenue is more than 250 feet in each direction and exceeds the stopping sight distance needed for vehicles traveling five mph above the posted speed limit of 30 mph. The sight distance at the driveway location on Murphy Avenue was measured at 150 feet or more in each direction which meets the stopping sight distance requirement for the *prima facie* speed limit of 25 mph. As landscaping and signage can impede sight lines, any landscaping or signage placed within the vision triangle at the driveway should be less than three feet in height or more than seven feet above the pavement surface to maintain a clear line of sight.

Finding – Adequate sight distance exists at both the proposed and preferred driveway locations. This could be impacted by the design, however.

Recommendation – Any landscaping or signing proposed near the driveways should either be placed outside the vision triangle of drivers entering from the driveway or be trimmed to lie below three feet in height or above seven feet.

Significance Finding – Sufficient sight distance is anticipated to be available at the new driveways.

Capacity Analysis

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersection was analyzed using the "Two-Way Stop-Controlled" methodology published in the *Highway Capacity Manual* (HCM), 6th Edition, Transportation Research Board, 2016. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle. This methodology determines a level of service for each minor turning movement by estimating the average delay in seconds per vehicle. Results are presented for the stop-controlled approaches together with the weighted overall average delay for the intersection.

The ranges of delay associated with the various levels of service are indicated in Table 4.

Table 4 – Two-Way Stop-Controlled Intersection Level of Service Criteria	
LOS A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.
LOS B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.
LOS C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.
LOS D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.
LOS E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.
LOS F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.

Reference: *Highway Capacity Manual*, Transportation Research Board, 2016

Traffic Operation Standards

Caltrans

The study intersection of Healdsburg Avenue (SR 116)/Murphy Avenue is under the jurisdiction of Caltrans, but Caltrans does not have a standard of significance relative to operation as this is no longer a CEQA issue. The *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), published in May 2020, replaced the *Guide for the Preparation of Traffic Impact Studies*, 2002. As indicated in the TISG, the Department is transitioning away from requesting LOS or other vehicle operation analyses of land use projects and will instead focus on Vehicle Miles Traveled (VMT). Adequacy of operation was therefore evaluated using the City of Sebastopol's standards for intersections.

City of Sebastopol

The following criteria referenced in the *Draft Environmental Impact Report* (DEIR) *for the 2016 Sebastopol General Plan Update*, May 2016, De Novo Planning Group, were applied in order to determine if the project would have an adverse effect on operation at the three study intersections within the City limits:

- Utilize a Level of Service objective of LOS D at intersections to evaluate conditions and impacts, with primary focus on access and safety.
- At unsignalized intersections, level of service shall be determined for both controlled movements and for the overall intersection. Controlled movements operating at LOS E or F would be considered acceptable if:
  - The intersection is projected to operate at LOS D or better overall; and
  - The projected traffic volume on the controlled movement is relatively low (30 vehicles or less per hour on approaches with single lanes, 30 vehicles or less per hour on lanes serving left turns and through movements).
- For intersections already operating worse than LOS objectives, development projects should not contribute substantially to further decline in LOS (causing the LOS to decline by a letter grade from LOS E to LOS F) or by more than a five percent increase in delay for intersections currently operating at an unacceptable LOS.

It was also considered an adverse effect on operations if project traffic would cause an intersection operating acceptably at LOS D or better to operate unacceptably at LOS E or F. It is also noted Policy CIR 1-5 of the *City of Sebastopol 2040 General Plan*, November 2016, De Novo Planning Group, states that "when analyzing impacts to the circulation network created by new development or roadway improvements, consider the needs of all users, including those with disabilities, ensuring that pedestrians, bicyclists, and transit riders are considered preeminent to automobile drivers." In other words, there should be careful review to ensure that automobile improvements do not negatively affect the experiences of pedestrians, bicyclists, and transit riders.

Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Existing traffic counts were obtained for the study intersection on May 29, 2024, while area schools were in session.

Under Existing Conditions, the study intersection operates acceptably according to City General Plan standards during both the a.m. and p.m. peak hours. It should be noted that the p.m. peak hour captures the largest traffic volume in a single hour during the extended p.m. peak period between 2:00 and 6:00 p.m. The existing traffic volumes are shown in Figure 2. A summary of the intersection Level of Service calculations is presented in Table 5, and copies of the calculations are provided in Appendix B.

Table 5 – Existing Peak Hour Intersection Levels of Service

Study Intersection *Approach*	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. Healdsburg Ave (SR 116)/Murphy Ave	1.7	A	1.0	A
Northbound (Murphy Ave) Approach	*24.9*	*C*	*20.9*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Future Conditions

Future intersection turning movements were obtained from the Circulation Element of the *City of Sebastopol 2040 General Plan* which represents General Plan Buildout conditions. Under anticipated future volumes, the

northbound approach at Healdsburg Avenue/Murphy Avenue is expected to operate at LOS E during the p.m. peak hour, which would not be considered acceptable operation per City General Plan standards. Future volumes are shown in Figure 2, operating conditions are summarized in Table 6, and copies of the calculations are provided in Appendix B.

Table 6 – Future Peak Hour Intersection Levels of Service

Study Intersection *Approach*	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. Healdsburg Ave (SR 116)/Murphy Ave	3.2	A	2.0	A
NB (Murphy Ave) Approach	*34.1*	*D*	***37.1***	***E***

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics;* **Bold** text = deficient operation

Project Conditions

Trip Generation

The anticipated vehicle trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition, 2021. Since the site is currently undeveloped, there are no existing trips. The trip generation potential of the project as planned was developed using the published standard rates for Single Family Attached Housing (Land Use #215) and Multifamily Housing (Low-Rise) (Land Use #220), as the description of these land uses most closely matches the proposed project. Based on application of these rates, the proposed project is expected to generate an average of 167 trips per day, including 11 a.m. peak hour trips and 13 trips during the p.m. peak hour during the typical weekday peak hour. These results are summarized in Table 7.

Table 7 – Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Single Family (Attached)	12 du	7.20	86	0.48	6	2	4	0.57	7	4	3
Multifamily Housing	12 du	6.74	81	0.40	5	2	3	0.51	6	4	2
Total			**167**		**11**	**4**	**7**		**13**	**8**	**5**

Note: du = dwelling unit

Trip Distribution

The pattern used to allocate new project trips to the street network was determined by reviewing existing turning movements at the study intersection as well as employment patterns for residents of the City of Sebastopol as indicated by the 2010 Census. Since traffic conditions are generally most critical during the weekday p.m. peak hour, these distribution assumptions are primarily based on the expected trip routes during that time. The distribution assumptions shown in Table 8 were used.

Table 8 – Trip Distribution Assumptions				
Route	**Percent**	**Daily Trips**	**AM Trips**	**PM Trips**
SR 116 (To/From the North)	41%	68	5	5
SR 116 (To/From the South)	59%	99	6	8
TOTAL	**100%**	**167**	**11**	**13**

Existing plus Project Conditions

Upon the addition of project-generated traffic to the existing volumes, the study intersection is expected to operate acceptably during both peaks. It should also be noted that traffic signals are not warranted under Existing or Existing plus Project volumes. The analysis results are summarized in Table 9, and copies of the calculations are provided in Appendix B. Project traffic volumes, including at the driveways, and Existing plus Project volumes at the study intersection are shown in Figure 3.

Table 9 – Existing and Existing plus Project Peak Hour Intersection Levels of Service								
Study Intersection ***Approach***	**Existing Conditions**				**Existing plus Project**			
	AM Peak		**PM Peak**		**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. Healdsburg Ave (SR 116)/Murphy Ave	1.7	A	1.0	A	1.8	A	1.1	A
Northbound (Murphy Ave) Approach	*24.9*	*C*	*20.9*	*C*	*25.6*	*D*	*21.3*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Finding – The study intersection would be expected to operate acceptably per City standards with the addition of project traffic to existing volumes during both the a.m. and p.m. peak hours.

Future plus Project Conditions

Upon the addition of project-generated traffic to the anticipated future volumes, the northbound approach at Healdsburg Avenue (SR 116)/Murphy Avenue would be expected to continue operating unacceptably during the p.m. peak and deteriorate to LOS E during the a.m. peak. Future plus Project intersection operations are summarized in Table 10, and volumes are shown in Figure 3. Copies of the calculations are provided in Appendix B.

Table 10 – Future and Future plus Project Intersection Levels of Service								
Study Intersection ***Approach***	**Future Conditions**				**Future plus Project**			
	AM Peak		**PM Peak**		**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. Healdsburg Ave (SR 116)/Murphy Ave	3.2	A	2.0	A	3.4	A	2.1	A
NB (Murphy Ave) Approach	*34.1*	*D*	***37.1***	***E***	***35.2***	***E***	***38.2***	***E***

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; **Bold** = Unacceptable operation; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

The northbound approach of SR 116/Murphy Avenue would continue operating at LOS E with the addition of project traffic during the p.m. peak. However, the project's effect would be considered acceptable since the delay would be expected to increase by less than five percent. The project would cause operation to deteriorate from

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Traffic Study for the Pacific Knolls Project

Figure 3 – Project, Existing plus Project, and Future plus Project Traffic Volumes

LOS D to LOS E during the morning peak hour and the approach volumes exceed 30 vehicles, which would be considered unacceptable. However, as the increase in delay is only 1.2 seconds, or 3.5 percent, this would also be considered acceptable.

It is noted that the Peak Hour Volume traffic signal warrant would be met by the future volumes, both without and with the project, during both the a.m. and p.m. peak hours indicating that at some point in the future, a traffic signal may be needed at the intersection of SR 116/Murphy Avenue.

Given that the intersection would operate unacceptably without the project under anticipated future volumes, even though the project would contribute to unacceptable operation during the morning peak hour as well, this project on its own does not cause this condition. Further, Caltrans does not have a standard for operation, and even with the anticipated LOS E operation drivers would be experiencing delays that are relatively minor (less than 40 seconds) so Caltrans may not accept signalization of this location. Finally, model volumes are often overly conservative, in which case the volumes that would warrant signalization may never be achieved. The City may therefore prefer to defer any potential improvements at this location until such time as there is a demonstrated need for them.

Finding – Though the northbound approach of SR 116/Murphy Avenue would operate unacceptably under Future plus Project volumes or without project traffic added, the delay would not increase by more than five percent. Similarly, where operation would deteriorate from low LOS D to high LOS E during the morning peak hour, the 1.2-second increase in delay would not represent an adverse effect. Therefore, based on City standards, the addition of project traffic to future volumes would not result in an adverse effect.

Recommendation – Since the peak hour volumes at SR 116/Murphy Avenue would warrant a traffic signal under future volumes, the City may wish to monitor volumes to determine if traffic signal volume warrants are met for the intersection and signalization should be considered.

Driveway Operation

Although operation is generally not considered for private driveways, an analysis was performed to determine the amount of delay drivers exiting the site would be expected to encounter. For the driveway on Healdsburg Avenue (SR 116) the maximum calculated average delay would occur during the p.m. peak hour when 23.8 seconds of delay would be expected. Drivers exiting via the Murphy Avenue driveway would be expected to experience a maximum of 9.2 seconds of delay based on future a.m. peak hour volumes. These levels of delay would be well within what is expected for entry to a public street.

Conclusions and Recommendations

Conclusions

- The proposed project is expected to generate an average of 167 trips per day, including 11 a.m. peak hour trips and 13 trips during the p.m. peak hour on a typical weekday.
- The existing and planned pedestrian, bicycle, and transit facilities provide adequate access to and from the project site and the project does not conflict with any policies, plans or programs for these modes, therefore having a less-than-significant impact on these modes.
- The project is expected to meet the applicable significance threshold for vehicle miles traveled.
- Left-turn movements onto Healdsburg Avenue from the site would present several points of conflict including with vehicles entering the two-way left-turn lane approaching Murphy Avenue and vehicles making left-turn movements into and out of DuFranc Avenue.
- Sight distances at both the driveway on Healdsburg Avenue and the driveway on Murphy Avenue meet the stopping sight distance requirements for the posted speed limits on either roadway.
- Under existing conditions with and without the project, the study intersection operates acceptably and would continue to do so per City standards.
- The northbound approach at Healdsburg Avenue (SR 116)/Murphy Avenue is expected to operate unacceptably under Future and Future plus Project conditions. The addition of project traffic to future volumes would not result in an adverse impact, per the City's standards since the increase in delay would be less than five percent.
- A traffic signal installation at the intersection of SR 116 (Healdsburg Avenue)/Murphy Avenue is not currently warranted, but would be warranted under future volumes, without or with the project.
- The study driveways would be expected to operate with an acceptable level of delay based on project trips and future volumes.

Recommendations

- The driveway on SR 116 (Healdsburg Avenue) should be relocated to the eastern side of the project site to minimize conflicts with vehicle movements to and from Healdsburg Avenue. Restricted access to right-turn in/right-turn out only was considered, but was not recommended, since this is the only access for this portion of the project.
- The City may wish to monitor volumes at the intersection of Healdsburg Avenue (SR 116)/Murphy Avenue vis-à-vis traffic signal warrants to determine potential timing for a future traffic signal installation.

Study Participants and References

Study Participants

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References

2021 Collision Data on California State Highways, California Department of Transportation, 2023
City of Sebastopol 2040 General Plan, City of Sebastopol, 2016
Draft Environmental Impact Report (DEIR) *for the 2016 Sebastopol General Plan Update*, City of Sebastopol, 2016
Draft Sonoma County Active Transportation Plan, Sonoma County Transportation Authority, 2024
"Estimating Maximum Queue Length at Unsignalized Intersections," John T. Gard, ITE Journal, November 2001
Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, California Air Pollution Control Officers Association (CAPCOA), 2021
Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016
Highway Design Manual, 7th Edition, California Department of Transportation, 2020
Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions, ULI, 2009
SCTM19 – rev. 12/21 Travel Demand Model, SCTA, 2021
Sonoma County Transit, http://sctransit.com/
Sonoma County Travel Behavior Study, Fehr & Peers, 2020
Statewide Integrated Traffic Records System (SWITRS), California Highway Patrol, 2018-2023
Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory, California Governor's Office of Planning and Research (OPR), 2018
Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, 2021
Vehicle Miles Traveled-Focused Transportation Impact Study Guide, California Department of Transportation, 2020

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Appendix A

Collision Rate Calculations

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Intersection Collision Rate Worksheet

Traffic Study for the Pacific Knolls Project

Intersection # 1: Healdsburg Avenue (SR 116) & Murphy Avenue
Date of Count: Wednesday, May 29, 2024

Number of Collisions: 1
Number of Injuries: 0
Number of Fatalities: 0
Average Daily Traffic (ADT): 15500
Start Date: October 1, 2018
End Date: September 30, 2023
Number of Years: 5

Intersection Type: Tee
Control Type: Stop & Yield Controls
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times \text{Days per Year} \times \text{Number of Years}}$$

$$\text{Collision Rate} = \frac{1 \times 1{,}000{,}000}{15{,}500 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.04 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.13 c/mve**	**1.3%**	**47.3%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2021 Collision Data on California State Highways, Caltrans

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Appendix B

Intersection Level of Service Calculations

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HCM 6th TWSC
1: Murphy Ave & Healdsburg Ave 06/12/2024

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	752	63	17	552	34	62
Future Vol, veh/h	752	63	17	552	34	62
Conflicting Peds, #/hr	0	19	13	0	19	13
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	125	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	855	72	19	627	39	70

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	946	0	1594	923
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	684	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	725	-	118	327
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	714	-	111	318
Mov Cap-2 Maneuver	-	-	-	-	245	-
Stage 1	-	-	-	-	387	-
Stage 2	-	-	-	-	480	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	24.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	288	-	-	714	-
HCM Lane V/C Ratio	0.379	-	-	0.027	-
HCM Control Delay (s)	24.9	-	-	10.2	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.7	-	-	0.1	-

HCM 6th TWSC
1: Murphy Ave & Healdsburg Ave 06/12/2024

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	769	35	22	662	28	37
Future Vol, veh/h	769	35	22	662	28	37
Conflicting Peds, #/hr	0	27	19	0	27	19
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	125	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	793	36	23	682	29	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	856	0	1593	857
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	755	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	784	-	118	357
Stage 1	-	-	-	-	424	-
Stage 2	-	-	-	-	464	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	766	-	110	343
Mov Cap-2 Maneuver	-	-	-	-	245	-
Stage 1	-	-	-	-	415	-
Stage 2	-	-	-	-	440	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	20.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	293	-	-	766	-
HCM Lane V/C Ratio	0.229	-	-	0.03	-
HCM Control Delay (s)	20.9	-	-	9.8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.9	-	-	0.1	-

HCM 6th TWSC
1: Murphy Ave & Healdsburg Ave 06/12/2024

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	847	54	22	645	45	111
Future Vol, veh/h	847	54	22	645	45	111
Conflicting Peds, #/hr	0	27	19	0	27	19
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-		125		0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	873	56	23	665	46	114

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	956	0	1666	947
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	738	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	719	-	106	317
Stage 1	-	-	-	-	385	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	703	-	98	305
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	377	-
Stage 2	-	-	-	-	447	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	34.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	279	-	-	703	-
HCM Lane V/C Ratio	0.576	-	-	0.032	-
HCM Control Delay (s)	34.1	-	-	10.3	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	3.3	-	-	0.1	-

HCM 6th TWSC
1: Murphy Ave & Healdsburg Ave 06/12/2024

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	964	39	53	999	35	62
Future Vol, veh/h	964	39	53	999	35	62
Conflicting Peds, #/hr	0	27	19	0	27	19
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	125	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	994	40	55	1030	36	64

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1061	0	2208	1060
Stage 1	-	-	-	-	1041	-
Stage 2	-	-	-	-	1167	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	657	-	49	272
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	298	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	642	-	43	262
Mov Cap-2 Maneuver	-	-	-	-	154	-
Stage 1	-	-	-	-	333	-
Stage 2	-	-	-	-	264	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	37.1
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	209	-	-	642	-
HCM Lane V/C Ratio	0.478	-	-	0.085	-
HCM Control Delay (s)	37.1	-	-	11.1	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	2.3	-	-	0.3	-

HCM 6th TWSC
1: Murphy Ave & Healdsburg Ave 06/12/2024

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	753	64	18	553	36	64
Future Vol, veh/h	753	64	18	553	36	64
Conflicting Peds, #/hr	0	19	13	0	19	13
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	125	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	856	73	20	628	41	73

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	948	0	1599	925
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	687	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	724	-	117	326
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	499	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	713	-	110	317
Mov Cap-2 Maneuver	-	-	-	-	244	-
Stage 1	-	-	-	-	386	-
Stage 2	-	-	-	-	478	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	25.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	266	-	-	713	-
HCM Lane V/C Ratio	0.397	-	-	0.029	-
HCM Control Delay (s)	25.6	-	-	10.2	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.8	-	-	0.1	-

HCM 6th TWSC
1: Murphy Ave & Healdsburg Ave 06/12/2024

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	771	37	24	663	29	39
Future Vol, veh/h	771	37	24	663	29	39
Conflicting Peds, #/hr	0	27	19	0	27	19
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	125	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	795	38	25	664	30	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	860	0	1602	860
Stage 1	-	-	-	-	841	-
Stage 2	-	-	-	-	761	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	781	-	116	356
Stage 1	-	-	-	-	423	-
Stage 2	-	-	-	-	461	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	763	-	107	342
Mov Cap-2 Maneuver	-	-	-	-	243	-
Stage 1	-	-	-	-	414	-
Stage 2	-	-	-	-	436	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	21.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	291	-	-	763	-
HCM Lane V/C Ratio	0.241	-	-	0.032	-
HCM Control Delay (s)	21.3	-	-	9.9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.9	-	-	0.1	-

HCM 6th TWSC
1: Murphy Ave & Healdsburg Ave 06/12/2024

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	848	55	23	646	47	113
Future Vol, veh/h	848	55	23	646	47	113
Conflicting Peds, #/hr	0	27	19	0	27	19
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	125	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0			0	0	
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	874	57	24	666	48	116

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	958	0	1671	949
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	741	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	716	-	105	316
Stage 1	-	-	-	-	384	-
Stage 2	-	-	-	-	471	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	702	-	97	304
Mov Cap-2 Maneuver	-	-	-	-	230	-
Stage 1	-	-	-	-	378	-
Stage 2	-	-	-	-	445	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	35.2
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	278	-	-	702	-
HCM Lane V/C Ratio	0.593	-	-	0.034	-
HCM Control Delay (s)	35.2	-	-	10.3	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	3.5	-	-	0.1	-

HCM 6th TWSC
1: Murphy Ave & Healdsburg Ave 06/12/2024

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	986	41	55	1000	36	64
Future Vol, veh/h	986	41	55	1000	36	64
Conflicting Peds, #/hr	0	27	19	0	27	19
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	125	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	996	42	57	1031	37	66

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1065	0	2216	1063
Stage 1	-	-	-	-	1044	-
Stage 2	-	-	-	-	1172	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	654	-	46	271
Stage 1	-	-	-	-	339	-
Stage 2	-	-	-	-	294	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	639	-	42	261
Mov Cap-2 Maneuver	-	-	-	-	153	-
Stage 1	-	-	-	-	332	-
Stage 2	-	-	-	-	262	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	38.2
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	206	-	-	639	-
HCM Lane V/C Ratio	0.496	-	-	0.089	-
HCM Control Delay (s)	38.2	-	-	11.2	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	2.5	-	-	0.3	-

Appendix C

Queuing Calculations

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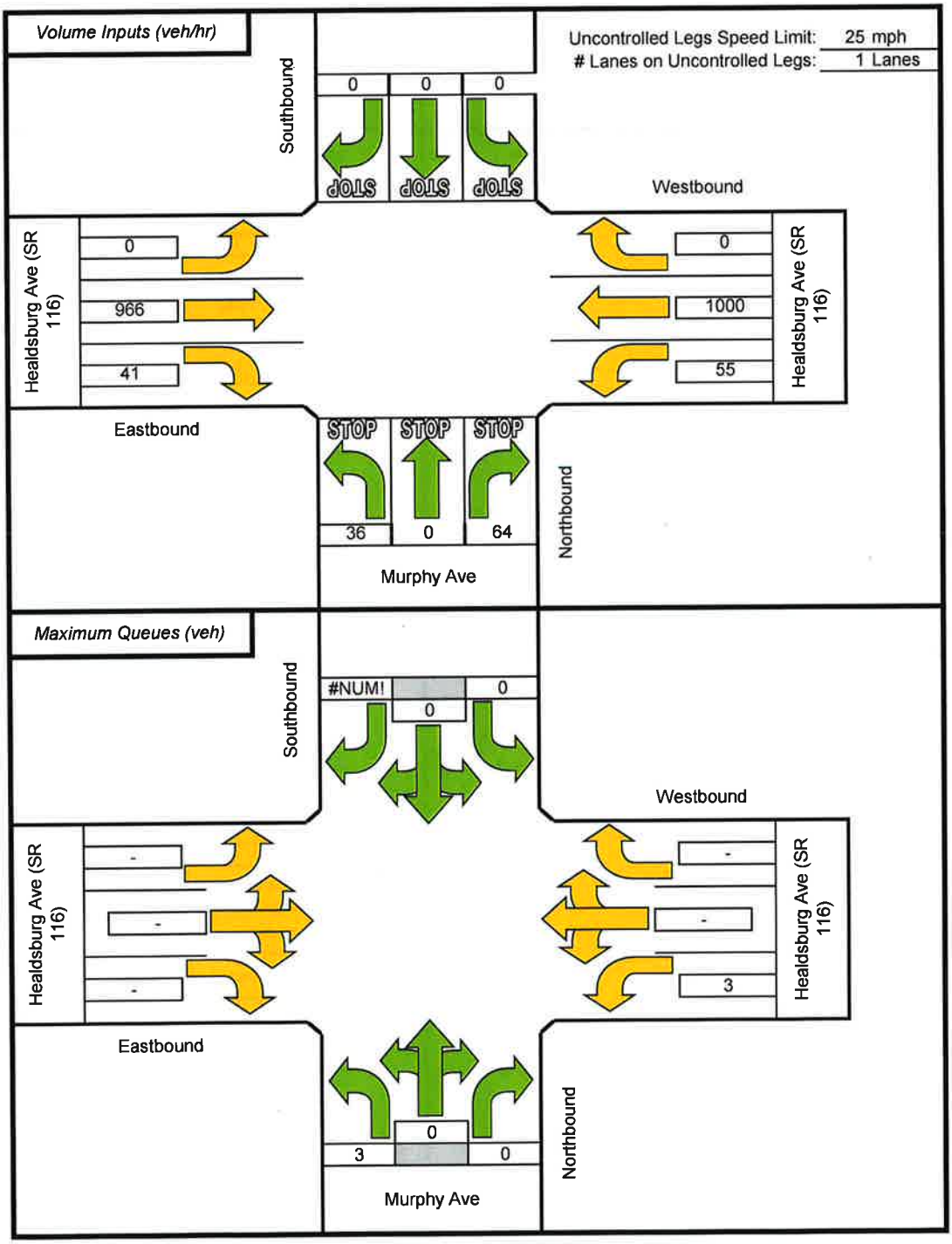
Maximum Queue Length
Two-Way Stop-Controlled Intersections

Through Street: Healdsburg Ave (SR 116)
Side Street: Murphy Ave

Scenario: Future plus Project PM
Stop Controlled Legs: North/South

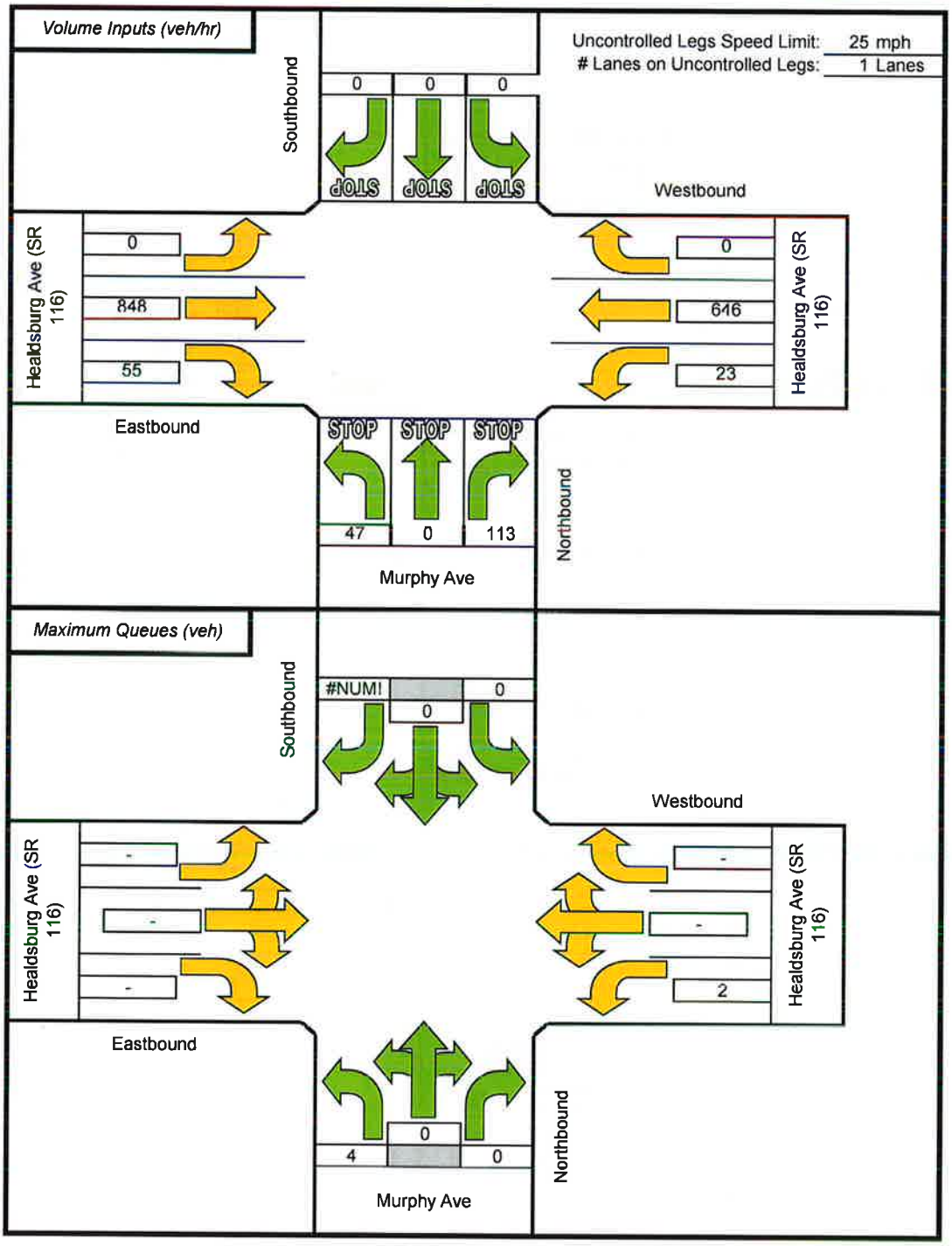


Source: John T. Gard, ITE Journal, November 2001, "Estimating Maximum Queue Length at Unsignalized Intersections"

Maximum Queue Length
Two-Way Stop-Controlled Intersections

Through Street: Healdsburg Ave (SR 116)
Side Street: Murphy Ave

Scenario: Future plus Project AM
Stop Controlled Legs: North/South



Source: John T. Gard, ITE Journal, November 2001, "Estimating Maximum Queue Length at Unsignalized Intersections"