AGENDA

Coburg Planning Commission
Virtual Special Meeting

March 31, 2021 at 7:00 p.m.
City Hall, 91136 N Willamette St.
Coburg, OR 97408

7:00p	1.	CALL MEETING TO ORDER To help prevent the spread of COVID-19 and to protect our more vulnerable members of the community, the City of Coburg will be holding public meetings virtually. Everyone is encouraged to please attend the meeting online or by phone. Written testimony can also be submitted but must be submitted by 3:00 pm to the City Recorder on the date of the meeting. To participate in the public comment portions of the meeting, contact City Recorder to register at sammy.egbert@ci.coburg.or.us or call 541-682-7852.	Chair Thompson
7:00p	2.	ROLL CALL	Chair Thompson
7:05p	3	AGENDA REVIEW	Chair Thompson
7:10p	4.	APPROVAL OF MINUTES – January 20, 2021 & February 23, 2021	Chair Thompson
7:15p	5.	PUBLIC TESTIMONY Five minute limit each unless extended time approved prior to meeting by Chair.	
7:20p	6.	COMMISSION BUSINESS | Public Hearing • SR-01-21 Kendall Auto Group Site Design Review | *Consider Approval*	Henry Hearley
8:20p	7.	CITY UPDATES • City Administration Report | *Information only*	
8:30p	8.	ADJOURNMENT	Chair Thompson

The next regular meeting of the Coburg Planning Commission is scheduled for April 21 at 7:00pm and will take place virtually. If you need a disability accommodation to participate in this event, please notify the City of Coburg at least five days in advance. Call Coburg City Hall at 541-682-7852 or email sammy.egbert@ci.coburg.or.us to request reasonable accommodation or for more information.

COBURG PLANNING COMMISSION MEMBERS

Paul Thompson, Chair
William Wood, Vice Chair
Jonathan Derby
Seth Clark
Judith Behney
John Marshall
Marissa Doyle

COUNCIL LIAISON: Nancy Bell

Coburg Planning Commission
Regular Session
January 20th, 2021 – 7 P.M.
Via Video Conference

COMMISSIONERS PRESENT: Chair Paul Thompson, John Marshall, Jon Derby, Marissa Doyle, Seth Clark, Commissioners.

COMMISSIONERS ABSENT: William Wood, Judith Behney, Commissioners.

STAFF PRESENT: Anne Heath, City Administrator, Henry Hearley, LCOG Associate Planner, Megan Winner, Planning Technician, Economic Development Assitant

RECORDED BY: Alex Sullivan, LCOG

CALL MEETING OF THE COBURG PLANNING COMMISSION TO ORDER

Mr. Thompson called the meeting to order.

Ms. Heath took the roll and stated there was a quorum.

REVIEW OF AGENDA AND MINUTES FROM DECEMBER

Mr. Thompson asked if there were any changes to the agenda, there were none. There were also no minutes to review for this meeting, pending edits being made.

PUBLIC TESTIMONY

There were no public comments at that time.

COMMISSION BUSINESS

The first matter of business was the subdivision 02-20. Mr. Hearley stated that there was a revised packet of findings submitted.

With there being no more findings, Mr. Thompson closed the public hearing of subdivision 02-20.

Mr. Thompson then continued to begin the discussion to approve the findings.

MOTION: John Marshall moved to approve the findings of subdivision 02-20.
SECOND: Marissa seconded the motion.
VOTE: It was passed unanimously.

The subdivision was approved and had entered the 14 day appeal period.

GOAL SETTING FOR THE PLANNING COMMISSION

Ms. Heath began speaking about how each commission had been asked to think about goals for this upcoming year.

Mr. Thompson talked about planning commission training to stay up to code on land use laws.

Ms. Heath asked when these trainings were to happen and if there was any feedback on that.

The commissioners came to an agreement that there should be a series of training instead of just one day.

Mr. Marshall asked where the planning commission had been lacking if there were any areas they were lacking in.

Mr. Thompson then suggested an annual update on City Council goals for the upcoming year.

Ms. Heath recorded that and agreed.

Mr. Thompson asked Ms. Heath if she would draft the committee goals.

CITY UPDATES

Ms. Heath said that the city administrator's report was in the packet, which concerned the COVID restrictions and how city hall is dealing with that. Public meetings are continuing to be on zoom, and there were no big changes on that front.

The projects are still on track, including the water projects and the bore under I-5, and the design is happening for the water design across Roberts Rd. The third well on Stallings Lane was also slated for summer and in the design phase. Pipe and mainline repairs are being aligned with street projects at this time as well.

The hiring for the planning and community development director was slated to start at this time as well.

Mr. Thompson also gave the update that schools will begin to go back to the hybrid model of going back to in classroom teachings.

Mr. Thompson asked if there were any closing comments.

There were none.

Mr. Thompson asked if there would be a planning commission next month, and Ms. Heath said there was a work session on the 23rd of January.

The meeting was adjourned at 6:42pm.

APPROVED by the Planning Commission of the City of Coburg this 17th day of March, 2021.

_____

Paul Thompson, Planning Commission Chair

ATTEST:

_____

Sammy L. Egbert, City Recorder

City Council & Planning Work Session
February 23, 2021
Coburg City Hall
91136 North Willamette St., Coburg, Oregon
Virtual via Zoom

COUNCILORS PRESENT: Ray Smith, Mayor; Nancy Bell, Mark Alexander, John Lehmann, Patricia McConnell, John Fox

COUNCILORS ABSENT: Kyle Blain

COMMISSIONERS PRESENT: Paul Thompson, Chair; Marissa Doyle, John Marshall

COMMISSIONERS ABSENT: Judith Behney, Seth Clark, Jon Derby, William Wood,

STAFF PRESENT: Anne Heath, City Administrator; Sammy Egbert, City Recorder; Henry Hearley, LCOG Associate ; Brian Harmon, Public Works Director; Gary Darnielle Attorney.

1. Call Work Session to Order
Mayor Smith convened the joint work session of the Planning Commission and City Council at 6:05 p.m.

2. Roll Call
Ms. Egbert called roll for the Planning Commission and City Council.

3. Annexation
Mr. Darnielle laid out what should not be discussed. He explained that the annexation was a legislative matter, and the zone change was a judicial matter. Both areas had their own rules so it could be a hard conversation to maneuver around. Mr. Darnielle reminded everyone that if they had questions on the zone change, they had to be general.

Mr. Hearley shared that the annexation application was submitted to the City on September 6, 2020 and the zone change application was submitted November 5, 2020. The hearing of the ordinances would happen in April and May and potentially June. The application was a request to annexation the subject property into Coburg City limits. He stated that the annexation and zone change would happen at the same time. Since both were being done together the zone change did not have to go the Planning Commission unless they wanted to know more.

Mr. Hearley said that the Master Plan overlay would be given to the property. This meant that any further development would have to go through an application process. A traffic study would also be required.

Mr. Darnielle noted that an annexation agreement was required by the City code. At the meeting they would address zoning and utility needs. Mr. Darnielle mentioned that the annexation determined the impact and land dedication fees. He shared that this agreement was different then a normal one because the applicant was not who would be developing the property. At this time there was no development being planned. As a result, the City could not bind the application to specifics around development. Mr. Darnielle said that if the property failed to be developed than the City could withdraw the property.

Mr. Darnielle shared that they still had to talk to the applicant's real estate attorney about the provisions. One concern was around a provision that talked about marketing the property for sale and commencing development in a five-year period. The City wanted to make sure that more was done to sell the property than just putting up a sign saying it was for sale. There would be more specifics on what triggered extending the five-year period. The Planning Commission and City Council had to come to a consensus on the City's expectations for development time frame.

4. Public Comment

Kevin Dwyer, resident of Diamond Ridge, was curious on how this timeline would handle the renovation of the I-5 interchange. He wanted to know why they would develop this property when there was still space on the East side of I-5 and property to the North away from residential space.

Mayor Smith replied that the issue with the I-5 interchange was based on funding. They were looking at two years for development and it would not get funded in that time. The annexation would be developed before that. Commissioner Thompson said that regional and State funds were dedicated through 2024 and there were projects being put forward through 2027.

Mayor Smith said that the property east of I-5 was a Lane County regional demand. It was 107 acres with 20 acre minimum lot sizes of light industrial which was hard to get in the area.

Mayor Smith said that the North property was originally an annexation candidate, but it was eliminated. Mr. Darnielle remembered there was a severe wetland issue. Mayor Smith added that the West region had floodplain issues.

Mayor Smith mentioned that the State law required the City to plan for growth.

5. Discussion

Councilor Lehmann stated that the annexation agreement included language regarding the start of development. He wanted to know if it said anything about a completion date. Mr. Darnielle responded that without knowing the type of development it was hard to set an end date. It could be a staged development which takes longer. Councilor Lehmann stated they should have some type of language around it, so a developer does not do something small to

start the project and then do nothing else. Mayor Smith asked what incentive there was to for the developer to start. Mr. Darnielle was unsure how much control the developer would have once construction began. He emphasized that these parameters were best defined when they were looking at a developer.

Commissioner Thompson wanted to know if asides from withdrawing land for no development what else could crop up before development where the City might want to reopen the annexation. Mr. Darnielle responded that that would probably only happen if the applicant decided to develop the land. In that case both parties would have to agree on reopening the annexation.

Councilor Lehmann asked what types of utility services and facilities the City was working on anticipation for the development. Mayor Smith replied that they did not know what the development would be. They had the I-5 bore in the works and they were looking at an additional bore for the water system. Councilor Lehmann asked about the water tank. Mayor Smith replied that that would be included in the water master plan during the engineering phase.

Commissioner Marshall asked if they could include the interchange into the annexation development. Mayor Smith responded that the prioritization of interstate projects was hard. It was common for a high priority project, like the I-5 interchange, to have a four-to-six-year timeline. Councilor Fox knew that the interchange had been talked about for a long time but was always put off. If they developed the east side, then the interchange would become more important. Mayor Smith said that the I-5 ramp design was almost done. All they needed was infrastructure funding. He agreed with Councilor Fox that adding more development just increased their priority. Commissioner Thompson brought up that there were five regional priorities near Coburg that together cost close to one billion dollars. What they needed to do was lobby to the legislature, not ODOT. There was some confusion because the legislature passed a bill which told ODOT where to spend money on highway infrastructure. ODOT themselves did not have the money to make those decisions. He said that a similar bill might happen again in a few years.

Ms. Heath said that a Master Planned Development and transportation analysis was required for development. Mayor Smith stated that the Master Plan allowed them to get into more details and be flexible.

Mayor Smith noted that the City has tried to expand their noticing to the citizens and developers to try and get information out before their public hearing. He emphasized that the public hearings would lead to a lot of work from staff. This annexation had been in the works for fifteen years and was very detailed.

Councilor Lehmann asked in what circumstance the annexation would go to the Planning Commission. Mr. Hearley replied that the Commission could look at it if they wanted. That would include another public hearing and review. He said they would only look at the zone change, not the annexation. Commissioner Thompson asked what the Planning Commissions role would be. Mr. Hearley mentioned that the code was unclear, but they would normally make a recommendation to City Council. However, the code made it sound like the Commission made the decision. Mr. Darnielle added that City Council had the authority to appeal the Planning Commission's decision. He agreed that the code was confusing.

Councilor Lehmann wanted the Planning Commission to look at the zoning change. Mayor Smith agreed. Commissioner Thompson wanted the City Council to have the final say. Commissioner Marshall did not see a reason for the Commission to see the zoning change if it was light industrial and would not change to campus industrial. Commissioner Thompson understood what he was saying and did not disagree. However, he saw the value of the Commission looking at it. He thought that they should allow for every opportunity for public comment. The more times and place for the community to speak the better.

Councilor Alexander, Councilor Bell, Councilor McConnell, and Councilor Fox wanted the zoning change to go the Planning Commission. Councilor Lehmann agreed and said they would need to vote at a regular City Council meeting for it to go to the Commission.

Councilor Lehmann noted that under the section D of the provisions it said that applicants planned to subdivide the property for light industrial. He asked what qualification or criteria the City had over that provision. Mr. Darnielle replied that if the developer did a partition of the property it would go before the City.

Ramon Fisher, the applicant, said that they had a lot of people calling them about the property. He thanked the City and acknowledged how long the process had been.

Patrick Wingard was looking at the Consolidated Land Use Application Proceedings and thought it seemed clear that City Council made the final decision. He thought that the Planning Commission made a recommendation. Mr. Wingard wanted them to be careful with who made the decision. He would send what he found to Ms. Heath and Mr. Hearley. Mr. Darniell mentioned that they legally had some concerns with the code. He said they would have the Planning Commission decide and then have the City Council verify the Commission decision officially.

Commissioner Thompson asked if they could do a joint Planning Commission and City Council meeting. Mr. Darnielle thought that would create a lot of problems.

Mayor Smith thought staff had enough to work with. Ms. Heath said they would report to City Council to give direction to the Planning Commission.

6. Adjournment
Mayor Smith adjourned the meeting at 7:32 p.m.

(Minutes recorded by Lydia Dysart)

APPROVED by the Mayor and Council of the City of Coburg this 13th day of April, 2021.

_____
Ray Smith, Mayor

ATTEST:

_____
Sammy L. Egbert, City Recorder

APPROVED by the Planning Commission of the City of Coburg this 31st day of April, 2021.

_____
Paul Thompson, Planning Commission Chair

ATTEST:

_____
Sammy L. Egbert, City Recorder

CITY OF COBURG PLANNING
PO BOX 8316 Coburg, OR 97408

STAFF REPORT
Kendall Auto Site Design Review
SR 01-21

Report Date: March 24, 2021

I. BASIC DATA

Property Owners: ML Coburg, LLC
James Patrick McNutt
2245 Lawrence Street
Eugene, OR 97402

Applicant Consultant: Teresa Bishow, AICP, Bishow Consulting LLC

Assessors' Map Lot#: Assessor's Map and Tax Lot 16-03-33-40 TL # 400, 300 and 500.

Situs Address: 90895 Roberts Road, Coburg, OR

Comprehensive Plan Designation: Light Industrial

Current Zoning: Light Industrial (Architecturally Controlled Overlay)

II. REQUEST

The proposal is for a site design review for the minor alteration and repurpose of a 33,648 square foot building to house the proposed and new Kendall Automotive Group autobody repair shop and pain detail facility. The paved portion of the site will serve as required off-street parking and outdoor vehicle storage.

III. BACKGROUND

The subject property is zoned Light Industrial and contains a Comprehensive Plan Map designation of Light Industrial. The subject property contains existing access and frontage onto Roberts Road. The east property line of Tax Lot 500 abuts the Interstate 5 ROW. The subject property presently contains two existing structures, the west building fronts Roberts Road and is about 15,700 square feet and was built in 1978. The east building was built in 1976 and contains about 17,200 square feet on the ground level and about 2,040 square feet on the second level.

The west building will be renovated for use a paint and detail facility. Building renovations will include new paint booths. The east building will be renovated for use as an auto body

repair and frame repairs and include the addition of specialized technicians and equipment used to straighten damaged automobile frames.

The site currently contains 16 painted off-street parking spaces that are located adjacent to the east building. Historically, additional paved areas of the site were used for vehicle circulation and parking. The paved area to the rear of Tax Lot 500 is leaded to Country RV and will remain that way and there are no proposed changes to this portion of the property.

The subject site was last occupied in May of 2019 and had about 20 employees working at the site.

IV. APPROVAL CRITERIA AND ANALYSIS FOR SITE DESIGN REVIEW

Article VII – District Regulations. Light Industrial District (LI)

1. Purpose.

The purpose of the LI District is to provide areas for manufacturing, assembly, packaging, wholesaling, related activities, and limited commercial uses that support local industry and are compatible with the surrounding commercial and residential districts. The LI District is intended to promote a high quality of life through a diverse economy and strong tax base, transition between higher and lower intensity uses, encourage multi-modal forms of transportation that utilize bicycle and pedestrian access for employees and customers, and appropriately scaled non-polluting industrial uses that fit the small town, historic character of the community.

FINDING: The proposed development includes the repurposes of two existing structures, with the new addition of a covered breezeway connecting the two structures. The proposed uses to occur on the site and not dissimilar to the uses currently being conducted on nearby properties and in the general light industrial area (an area heavy on Recreational Vehicle manufacturing, repair, and sales). The proposed use will require light assembly of automobile parts and related uses such as painting and detailing of recently assembled automobiles. The property and the proposed uses fit well with the surrounding uses and properties of that area. As such, staff find the proposal matches the purpose and character of the zoning district.

2. Uses and Structures.

a. Permitted Principal Uses and Structures

(2) Manufacturing and assembly, and associated sales of products manufactured or assembled on-site

(i) Boat building and repairs

(ii) Cabinet and sash and door shop

(iii) Electrical and electronic equipment

(iv) Food products, except the rendering or refining of fats or oils and meat packing plants

(v) Furniture manufacture and assembly

(vi) Ice

(vii) Paint shop

(viii) Plumbing supplies

(ix) Pottery

(x) Soft drinks

(xi) Trailers, campers and recreational vehicles

(xii) Upholstery

(xiii) Vehicle maintenance and repair facilities

(xiv) Recreational vehicle sales lots, including sales of vehicles manufactured off-site

FINDING: Structures and uses that involve the manufacturing and assembly of products on site is an outright permitted use in the underlying zone. Additionally, uses such as a paint shop, upholstery and vehicle repair and maintenance facilities are also all outright permitted uses. Staff find the proposed structures and uses are an outright permitted use in the underlying zoning designation.

3. Maximum Height Standards The maximum structural height shall be 45 feet, except as follows:

a. Increased height may be approved for Wireless Communication facilities, subject to the provisions of ARTICLE VIII.P

FINDING: The two existing structures are currently 24- feet and the proposal will not change the existing height. The max height of 45-feet is not exceeded.

4. Lot Requirements

b. For parcels served by public sewers:

(1) The minimum lot area for properties lying east of Interstate 5 shall be 20 acres. Otherwise, no minimum lot area or width is required.

(2) The maximum allowable lot coverage is 80 percent

(3) A minimum of 15 percent of the total area of the site shall be landscaped in accordance with ARTICLE VIII, Supplementary District Regulations. Water quality treatment areas may be incorporated into required landscape area.

FINDING: The subject property is served by public sewers and is not located east of Interstate 5. The lot coverage is approximately 30 percent and the total area to be landscaped, including existing landscaped areas is approximately 21 percent.

5. Minimum Yard Requirements (measured from the building foundation to the respective property line.)

a. Front Yards: 20 feet minimum; within which there shall be landscaping that conforms to the provisions of Article VIII. Front setback yards may contain roof overhangs (roof drains required), awnings, canopies, pedestrian seating and pedestrian pathways but shall not contain any storage of equipment, materials, vehicles, etc. Landscaping shall be in accordance with ARTICLE VIII.I of this Code.

FINDING: The west building (abutting Roberts Road) has a present front yard setback ranging from six-feet and nine-inches to twelve-feet and three-inches. This is a legally existing non-conformity. The proposal will not enlarge or worsen the existing front yard setbacks. The west building will retain its existing footprint and only the interior of the west building will be renovated to better suit the proposed uses.

b. Side and Rear Yards Adjacent to Streets: See Front Yards.

c. Interior Side Yards and Rear Yards: 10 feet minimum.

FINDING: As seen on the applicant's site plan (**Attachment A – Applicant's Materials**), the side yards and rear yard setbacks exceed 10-feet. Criterion met.

d. Where an industrial use abuts a residential district, a 25 foot setback is the minimum area that shall be required between any development and any adjacent Residential District. Additional setback up to 200 feet may be required where the proposed activity would have a significant impact on adjacent residential property in the form of noise, dust, smoke, vibration or other negative impact that is perceptible beyond the property boundaries. A 25-foot landscaped horizontal buffer zone shall be required between development and any adjacent Residential District. This buffer shall be included within any required yard setbacks. This area shall provide landscaping to screen buildings, parking, and service and delivery areas. The buffer may contain pedestrian seating and pedestrian pathways but shall not contain any off-street parking, or storage of equipment, materials, vehicles, etc. Landscaping shall be in accordance with ARTICLE VIII.H of this Code.

FINDING: The subject property does not abut a residential district; therefore this criterion is not applicable.

e. Water quality treatment areas may be provided within setback yards, subject to City approval.

FINDING: A new water treatment swale is proposed at the rear of the property.

f. Construction of pathways and fence breaks in yard setbacks may be required to provide pedestrian connections to adjacent neighborhoods or uses, or other districts.

g. Additional setbacks on public street frontages may be required to provide for planned widening of an adjacent, street consistent with the City's Transportation

System Plan and Parks and Open Space Master ARTICLE VII 39 Coburg Development Code Plan.

h. All developments shall meet applicable fire and building code standards, which may require setbacks different from those listed above.

FINDING: Staff are not aware of any additional fire and building code standards that have not already been addressed. The Coburg Fire Chief has been very involved in this proposal and in directing the applicant's team to submit a proposal that is acceptable to the Coburg Fire Department.

ARTICLE VIII. SUPPLEMENTARY DISTRICT REGULATIONS

L. Design Standards and Guidelines

1. Purpose The design standards in this section are intended to ensure that new development contributes to the overall livability of the community by:

a. Preserving and enhancing the small town and historic character of the Coburg;

b. Ensuring architectural compatibility;

c. Providing a physical setting that is safe and inviting for walking and other pedestrian activity;

d. Promoting design that is aesthetically pleasing and consistent with the values of the community as expressed in the Comprehensive Plan.

2. Applicability These standards apply to all new development and substantial improvements, unless otherwise stated within the Coburg Zoning Code. Substantial improvements shall include the following:

a. Additions that consist of more than 33% of the total floor area of the primary structure and are visible from a public-right-of-way; or

b. Additions that consist of more than 50% of the total floor area of the primary structure and are not visible from a public-right-of-way.

FINDING: The proposal does not include an increase to the interior of the building floor areas. The new addition of the covered breezeway between the two buildings will add about 2,451 square feet or about 7.3 percent of the existing building area. The proposed new breezeway between the buildings will offer protection from the weather and elements but will not result in an actual addition to the buildings. Therefore, the proposed building alterations are not considered a "substantial improvement" and thus the Design Standards and Guidelines in ARTICLE VIII are not applicable.

ARTICLE VIII.B.2 OFF-STREET PARKING REQUIREMENTS

B. Parking Regulation

2. Off-Street Parking Requirements.

a. Parking Area Design.

(2) Groups of three or more parking spaces, except those in conjunction with single-family or two-family dwellings on a single lot, shall be served by a service drive so that no backward movements or other maneuvering of a vehicle within a street, other than an alley, shall be required. Service drives shall be designed and constructed to facilitate the flow of traffic, provide maximum safety in traffic access and egress and maximum safety of pedestrians, bicycles, and vehicular traffic on the site.

FINDING: The proposed parking spaces are accessed by private service drives on the north and south side of the buildings. Access and use of the off-street parking spaces can occur without requiring any backward movement or other maneuvering in the street. Pedestrian and bicycle access is provided from Roberts Street to the main building entrances.

b. Parking Space Required The number of off-street parking spaces required shall be no fewer than as set forth below.

Table VIII(B)(2)(b): Parking Space Required	
Residential Types	
Dwelling, single-family	One for each dwelling unit on a single lot
Dwelling, two-family or multiple family	One for each dwelling unit; where fractioned next highest full unit
Hotels, motels, motor hotels, etc.	0.75 for each guest room
Rooming or boarding houses	One for each guest room
Accessory dwelling unit	One for each dwelling unit
Institutional Types	
Hospitals	One for each bed; where fractioned, highest full unit, plus 2 for each nurses' station
Churches, clubs, lodges	1 for every 75 square feet of main assembly area
Libraries, museums, art galleries	1 for each 300 square feet of gross floor area
Nursing homes, homes for the aged	One for each six beds for the aged, group care homes, asylums, etc.
Schools	
Elementary or junior high schools	1 for each teaching station
High schools	1 for each teaching station
Commercial Types	
Retail establishments except as otherwise specified in this Code	1 for each 400 square feet of retail floor area, except one space per 1,000 sq. ft. for bulk retail (e.g., auto sales, nurseries, lumber and construction materials, furniture, appliances, and similar sales)
Barber and beauty shops	1 for each 200 square feet of floor area
Health Clubs, Gyms, Continuous Entertainment (e.g., bowling alleys)	One for every 300 square feet of floor area
Office buildings, businesses and professional offices	One for every 500 square feet of floor area
Recreational or entertainment establishments	
Spectator type auditoriums, assembly halls, theaters, stadiums, places of public assembly, etc.	One for each six seats
Participating skating rinks, dance halls, etc.	One for each 300 square feet of floor area
Establishments for the sale and consumption on the premise of food and beverage	One for each 200 square feet of floor area

3. Parking Requirements for Uses Not Specified

The parking space requirements for buildings and uses not set forth herein shall be determined by the Planning Commission, and such determination shall be based upon the requirements for the most comparable building or use specified herein.

FINDING: Table VIII(B)(2)(b) lists four types of land uses: 1) residential, 2) Intuitional, 3) Commercial, and 4) Recreational. The above table does not include minimum off-street parking requirements for industrial uses, including businesses engaged in motor vehicle repair and painting. As such, the Development Code defers such a determination for off-street parking requirements to Planning Commission and is based on the requirements for the most comparable building or use.

Staff agree with the applicant in that the table listed above does not include manufacturing and assembly of materials or any vehicle repair facilities and similarly, agree that is the closest determination is to be used that would likely be one space per 1,000 square feet for "bulk retail" (e.g., auto sales, nurseries, lumber and construction materials, furniture, appliances and similar sales).

If applying the "bulk retail" determination, this would equate to a total minimum of 34 off-street parking spaces, based on a total of 33,648 square feet. The applicant is requesting Planning Commission to consider their proposal to provide a minimum of 30-off street parking spaces. This reasonable request is based on the projected number of employees (25) and rental cars (5) that are periodically parked on-site while waiting to shuttle customers. As seen on the applicant's Site Plan (**Attachment A**), the designated off-street parking spaces would be located on the southside of the subject property along an existing chain link fence and retaining wall. In addition, the applicant will be installing two ADA compliant parking spaces near the main customer entrance.

The additional existing paved areas of the site have the ability to allow about 68 customer vehicles to be temporarily stored on-site while waiting to be repaired or waiting for delivery back to the customer.

If Planning Commission is looking for staff direction as to the number of minimum off-street parking spaces, staff think the applicant's proposal for 30 off-street parking spaces is reasonable and acceptable for the proposed uses expected to occur on the site.

5. Bicycle Parking

> ***a. Bicycle parking requirements shall apply to all developments that require a site plan or amended site plan for new development, changes of use, and building expansions and remodels that require a building permit, as follows:***

(2) Non-Residential Parking. There shall be a minimum of one bicycle space for every seven motor vehicle spaces. At least half of all bicycle parking spaces shall be sheltered. Bicycle parking provided in outdoor areas shall be located near the building entrance, similar to vehicle parking spaces, unless existing development on site precludes that option. Fractions shall be rounded to the nearest whole number.

FINDING: Based on 30 off-street parking spaces, the applicant is proposing is install five bicycle parking spaces, of which at least three will be sheltered. As seen on the site plan, there are five bicycle parking spaces shown: two near the main customer entrance and three near the covered the covered breezeway between the two buildings. Staff find this criterion met.

b. Bicycle Parking Facilities Design Standards

(1) Bicycle parking facilities shall either be stationary racks which accommodate bicyclist's locks securing the frame and both wheels, or lockable rooms or enclosures in which the bicycle is stored.

FINDING: As seen in the applicant's bicycle parking detail, the bicycle parking facilities can accommodate a bicyclist's locking mechanism securing the frame and both wheels.

(2) Bicycle parking spaces shall provide a convenient place to lock a bicycle and shall be at least six feet long, two feet wide, and seven feet high. Upright bicycle storage structures are exempted from the parking space length standard.

(3) A 5-foot aisle for bicycle maneuvering shall be provided and maintained beside or between each row of bicycle parking.

(4) Bicycle racks or lockers shall be anchored to the surface or to a structure.

(5) Covered bicycle parking facilities may be located within a building or structure, under a building eave, stairway, entrance, or similar area, or under a special structure to cover the parking. The cover shall leave a minimum 7- foot overhead clearance and shall extend over the entire parking space. If a bicycle storage area is provided within a building, a sign shall be placed at the area indicated that it is for bicycle parking only.

(6) Bicycle parking shall not interfere with pedestrian circulation.

FINDING: As seen in the applicant's bicycle parking detail (**Attachment A**), the standards for bicycle parking spaces are met. The proposed covered bicycle parking will be located under a building eave, near the entrance to both buildings under the covered breezeway.

6. Vehicular Parking Area Improvements All public or private parking areas, which contain four or more parking spaces, and outdoor vehicles sales areas, shall be improved according to the following:

a. All vehicular parking areas shall have a durable, dust-free surfacing of asphaltic concrete, Portland cement concrete, or other approved materials as specified by the Planning Official.

(1) Vehicular parking areas as a part of a proposed development shall incorporate driveway designs and methods that reduce storm water run-off. Design methods include, but are not limited to: porous concrete, turf pavers, plastic grid systems, or ribbon driveways.

b. All vehicular parking areas, except those in conjunction with a single-family or duplex dwelling, shall be graded so as not to drain storm water over the public sidewalk or onto any abutting public or private property.

c. All vehicular parking areas, except those required in conjunction with a single family or two-family dwelling, shall provide a substantial bumper or curb stop which will prevent cars from encroachment on abutting private or public property.

d. All vehicular parking areas and service drives shall be enclosed along any interior property which abuts any residential district, with a 70 percent opaque, site-obscuring fence, wall or hedge not less than three (3) feet nor more than six (6) feet in height but adhering to the visual clearance and front and interior yard requirements established for the district in which it is located. If the fence, wall or hedge is not located on the property line, said area between the fence, wall or hedge and the property line shall be landscaped with lawn or low-growing evergreen ground cover. All plant vegetation in this area shall be adequately maintained by a permanent irrigation system, and said fence, wall or hedge shall be maintained in good condition. Screening or plantings shall be of such size as to provide the required degree of screening within 24 hours after installation. Adequate provisions shall be maintained to protect wall, fences, or plant materials from being damaged by vehicles using said parking areas. Any lights provided to illuminate any public or private parking area or vehicle sales area shall be so arranged as to reflect the light away from any abutting or adjacent residential district or use.

e. Any lights provided to illuminate any public or private parking area or vehicular sales area shall be shielded and so arranged as to reflect the light away from any abutting or adjacent property or public right of way.

f. All vehicular parking spaces shall be appropriately and substantially marked. [Adopted A-133L 10/5/99]

FINDING: As shown on the applicant's site plan, the vehicular parking spaces have been designed to conform with the standards above. The applicant will be installing a new sight-obscuring slats in the existing chain link fence to screen the 30 off-street parking spaces and new shrubs will be planted in the existing landscape beds along Roberts Road. Criterion met.

C. Pedestrian and Bicycle Access and Circulation.

1. Internal pedestrian circulation shall be provided within new commercial office, and multi-family residential developments through the clustering of buildings, construction of hard surface walkways, landscaping, or similar technique.

2. Pedestrian access to transit facilities shall be provided from new commercial, employment, and multi-family residential development while existing developments shall provide safe and accessible pedestrian access to transit facilities when a site changes uses or is retrofitted.

3. Internal pedestrian and bicycle systems shall connect with external existing and planned systems, including local and regional travel routes and activity centers such as schools, commercial areas, parks and employment centers.

FINDING: Internal pedestrian connection is provided for with the proposed covered breezeway between the two buildings. The proposal is not within a new commercial office or multi-family residential development and is determined not to be a substantial change. Therefore, staff find this criterion not applicable.

D. Sign Regulations See Coburg Sign Ordinance A-155 (reprinted 01/30/01)

FINDING*:* The applicant is not proposing any signs at this time. The applicant may submit for a sign permit sometime in the future.

E. Streets, Alleys and Other Public Way Standards

1. Improvements to City Streets shall conform to the standards as set forth in this section.

FINDING: The applicant is not proposing any improvements to City streets nor are improvements to City streets required as part of the proposal.

5. Sewage. All buildings within the city limits must connect to the city sewer system.

FINDING: Both buildings are already connected to city sewer. The existing on-site septic tanks will remain and will be accessible to Public Works staff. The location of the existing septic tanks are shown on the Boundary and Topographic Survey.

6. Water Supply. All lots and parcels in any land division shall be served by the Coburg Water system.

FINDING: The lots are served by the Coburg water system and have sufficient water pressures for the intended use. Based on inquiry from Mr. Chad Dillon, of Omlid and Swinney, Chad Minter, Fire Chief, there are no objections with one fire line serving both buildings so long as they are sized to supply both buildings simultaneously, in the event of a fire.

After consultation with the City, Chad Dillon determined the hydraulic demand of the sprinkler system through a single fire line would not be an issue. Mr. Dillon recommended that the single fire line be appropriately sized and isolated from the City water supply via an approved DCDA in

a vault near the point of connection. Refer to the Utility Plan for design of the backflow for both buildings and the single fire line.

7. Surface Drainage. Drainage facilities shall be provided within any new subdivision and connect the subdivision drainage to drainageways outside the subdivision. Design of the drainage system within the subdivision shall take into account the capacity and grade necessary to maintain unrestricted flow from areas draining through the subdivision and to allow extension of the system to serve such areas.

FINDING: The proposal does not involve a subdivision request. However, based on observations following heavy rainfall and an assessment of the existing stormwater drainage system by the applicant, problems were identified with the existing surface drainage system. As selected areas of damaged pavement are replaced and new pavement is added, slight changes to the grading will occur to help provide better surface drainage. As shown on the Site Plan, a new stormwater treatment swale will also be installed on the east side of the subject property.

I. Screening Standards for Multi-Family, Commercial and Industrial Development

1. Unless otherwise specified in this code, screening shall be required:

a. When commercial or industrial districts abut residential districts

FINDING: The subject properties do not abut a residential district.

b. For outdoor mechanical devices

FINDING: There are no proposed changes to the location of ground level outdoor mechanical devices subject to screening requirements. Additional landscaping is proposed in the front yard setbacks on Roberts Road that will assist in the screening of existing ground utilities that are above ground.

c. For outdoor storage yards and areas

FINDING: The proposed development includes outdoor storage areas for motor vehicles. As shown on the Site Plan, outdoor storage areas will be screened per the Coburg Development Code. The applicant is proposing to install new site obscuring slats in the existing chain link fence along the north and south sides of the property. In addition, the applicant will be planting bushes in the existing landscaping beds that front Roberts Road. These proposed site improvements will provide better screening for the paved areas and increase the aesthetics of the site.

d. For trash receptacles

FINDING: Trash and recycling receptables will be handled in a covered area on the west side of the east building. Existing walls provide for a screen along the north, east and south sides of the receptables (see Floor Plan A101). Visibility of trash and recycling receptables from Roberts

Roads will be obscured or prevented entirely due to the location behind the west building and the landscaping on Roberts Road.

e. For multi-family developments

FINDING: The proposal does not include multi-family developments. Not applicable.

f. Parking areas with more than two off-street spaces

FINDING: As shown on the Site Plan, a parking area for employees and company shuttle is provided for on the south side of the property. New site obscuring slats will be installed on the existing chain link fence and new landscaping installed in the front yard setback will provide screening.

2. Screening shall be a non-see through or sight-obscuring fence, evergreen hedge, or decorative wall (i.e., masonry or similar quality material) shall be erected along and immediately adjacent to the abutting property line.

FINDING: The proposed screening for the 30 off-street parking spaces will be a combination of sight obscuring fencing and retaining walls along the southern property line.

3. Trash receptacles. Trash receptacles shall be oriented away from adjacent buildings and shall be completely screened with an evergreen hedge or solid fence or wall of not less than feet in height.

FINDING: Trash receptables orient towards the interior of the site and away from the street and adjacent properties. Each end of the trash receptable area is screened with at least a four-foot wall.

4. Parking lots. Parking areas with more than two off street spaces shall be screened with an evergreen hedge or fence at least four feet high. To the greatest extent practicable, such parking areas should be situated away from neighboring residential units and shall be located to the rear or side of the multi-family development. Parking areas with five or more spaces shall be landscaped and provide the required number of parking spaces in accordance with Section VIII of this Code.

FINDING: The presence of the two existing buildings aid in significantly screening the parking lot area from the street and adjacent properties. Additionally, the new site obscuring slats will be installed in the existing chain link fence and new bushes will be planted in the front yard landscape beds.

5. The following screening standards shall apply:

a. Such a fence, wall or other structure shall screen at least 70 percent of the view between the districts. A hedge shall, within one year of planting, screen 70 percent of the view between the districts.

b. The maximum allowable height of fences and walls is six feet, as measured from the lowest grade at the base of the wall or fence, except that retaining walls and terraced walls may exceed six feet when permitted as part of a site development approval, or when approved to construct streets and sidewalks.

c. A building permit is required for walls exceeding six feet in height, in conformance with the Uniform Building Code.

d. If vegetation is used, it must remain living after planting and shall be continuously maintained by the property owner. If the vegetation fails to survive or is otherwise not maintained in good condition, the property owner shall replace them with an equivalent species and size within 180 days.

e. Any fence, hedge and wall shall comply with vision clearance standards in ARTICLE VIII.A and provide for pedestrian circulation where required.

FINDING: The applicant is employing a variety of methods to comply with screening standards. Walls will provide screening at the ends of the trash and recycling area. New sight obscuring slats will be installed in the existing chain link fence on the north and south sides of the property. New shrubs will be planted in the landscape areas on Roberts Road. No proposed walls exceed six feet in height.

The proposed screening is located away from driveways and vehicle access lanes. Pedestrian circulation is maintained around the trash and recycling areas with a minimum 5-foot clear width.

ARTICLE XI. LAND USE REVIEW AND SITE DESIGN REVIEW

E. Site Design Review - Application Submission Requirements

2. Site Design Review Information. In addition to the general submission requirements for a Type III review ARTICLE X.D an applicant for Site Design Review shall provide the following additional information, as deemed applicable by the City Planning Official. The Planning Official may deem applicable any information that he or she needs to review the request and prepare a complete staff report and recommendation to the approval body:

c. Architectural drawings. Architectural drawings showing one or all of the following shall be required for new buildings and major remodels:

(1) Building elevations (as determined by the City Planning Official) with building height and width dimensions;

(2) Building materials, colors and type;

(3) The name of the architect or designer.

FINDING: The applicant has hired an architectural firm to complete the architectural drawings. The proposal does not involve exterior improvement, other than the covered breezeway. See

Attachment A, for the architectural drawings, submitted as part of the site design review process.

e. Landscape plan. A landscape plan may be required and at the direction of the City Planning Official shall show the following:

(1) The location and height of existing and proposed fences, buffering or screening materials;

(2) The location of existing and proposed terraces, retaining walls, decks, patios, shelters, and play areas;

(3) The location, size, and species of the existing and proposed plant materials (at time of planting);

(4) Existing and proposed building and pavement outlines;

(5) Specifications for soil at time of planting, irrigation if plantings are not drought-tolerant (may be automatic or other approved method of irrigation) and anticipated planting schedule;

(6) Other information as deemed appropriate by the City Planning Official. An arborist's report may be required for sites with mature trees that are protected under The City's tree Ordinance.

FINDING: The applicant has hired a landscape architect to complete the landscape plan. The existing site does currently contain some pre-existing landscape design features in existing landscape beds along the frontage of Roberts Robert, existing bushes, trees and bark/mulch. To upgrade the landscape features, the applicant will be adding four different species of shrubs and one species of tree, as seen on the Landscape Plan (**Attachment A**). An underground irrigation system will be installed as part of the landscape plan and will be constructed by the contractor hired to complete the improvements. As such, staff finds the applicant has sufficiently addressed the landscaping plan requirements. Criterion met.

i. Traffic Impact Study, when required, shall be prepared in accordance with the road authority's requirements. See ARTICLE X., Section I, for relevant standards.

FINDING: The City did require a traffic impact study be completed by the applicant as part of the proposal. The applicant has hired a qualified and registered traffic engineer to complete that assessment (see **Attachment B**). In the applicant's traffic study, it is found that all studied intersections operate within the mobility standards with and without the development traffic and the addition of development traffic does not substantially increase queuing conditions. The two intersection that were studied in the TIA were Roberts Road @ Coburg Industrial Way and Pearl Street @ Coburg Industrial Way. Roberts Road takes access off of Pearl Street, which is under the jurisdiction of Lane County. Pearl Street is functionally classified as an Urban Minor Arterial.

The applicant's TIA was reviewed by Lane County Transportation Planning (LCTP) (**Attachment C**) and following the review, LCTP raised several concerns that require action of the applicant.

The peak hour trip generation exceeds the threshold for requiring a TIA as per County approved study scope, as such LCTP is requesting the applicant provide an updated TIA prepared per Lane Code 15.697. Further, considering the business model and location, the majority of trips are anticipated to arrive from Interstate 5 and the assumed trip distribution of 65% of the trips coming from Interstate 5 seems low. As LCTP contends, a realistic assumption of the trip distribution is important because it influences the assessment of the left turn demand for the westbound left turn movement that in turn will affect queue length and the signal operation. LCTP is concerned that inadequate left turn capacity or green splits may exacerbate rear-end and angle crash experiences at the intersection. It is for these reasons, LCTP requests the following additional information:

- Substantiate the trip distribution assumptions by existing businesses data or other verifiable data.
- Update the TIA with a reasonable trip distribution; and
- Provide recommended solutions for any signal operation impacts.

The applicant is aware of LCTP's comments and has indicated to staff they can sufficiently address them.

The applicant's traffic engineer responded to LCTP's comments on March 18, 2021 (see **Attachment D**). In the response, the applicant's traffic engineer states inbound traffic to the subject site will not exclusively rely on Interstate 5, rather some of traffic anticipated will use Coburg Road to access the site (about 35% of traffic). Also, as requested by LCTP, the analysis was redone using the suggested figures by LCTP and the traffic engineer found the findings and results to be reasonable and unchanged. LCTP has reviewed the response by the applicant's traffic engineer and found the supplemental information to be acceptable and LCTP has no further issues or concerns with the applicant's TIA (**Attachment E**).

F. Site Design Review Approval Criteria. The review authority shall make written findings with respect to all of the following criteria when approving, approving with conditions, or denying an application:

1. The application is complete, as determined in accordance with ARTICLE X Types of Applications and ARTICLE XI.E, above.

FINDING: The application for site design review submitted by Kendall Auto Group has been found to be complete for processing. The application was deemed complete on March 3, 2021. Criterion met.

2. The application complies with all of the applicable provisions of the underlying Land Use District and Supplementary District Regulations (ARTICLE VII & VIII), including: building and yard setbacks, lot area and dimensions, density and floor area, lot coverage, building height, building orientation, architecture, and other special standards as may be required for certain land uses;

FINDING: As found and discussed in this staff report, the application complies with all of the applicable provisions of the underling Land Use District (Light Industrial) and the Supplementary District Regulations. Criterion met.

3. The applicant shall be required to upgrade any existing development that does not comply with the applicable land use district standards, in conformance with ARTICLE VI, Non-Conforming Uses;

FINDING: The intent of the non-conforming provisions of the code is to ensure the gradual transition of non-conforming uses into full compliance with the code.

According to Article VI, D. Non-Conforming Structures, where a lawful structure exists but could not be built under the terms of the current code due to restrictions such as setbacks, it may continue to remain provided:

> *"1. No such non-conforming structure may be enlarged or altered in a way which increases its non-conformity, but any structure or portion thereof may be altered to decrease its non-conformity."*

The subject property is zoned LI with a minimum 20-foot front yard setback. The west building on the site has a front yard setback that ranges from 7 to 12 feet. The Site Design Review application does not propose any alterations to the building façade facing Roberts Road. Approval of the Site Design Review will not increase the non-conforming front yard setback. The Site Design Review application does propose new landscaping, including trees, in the front yard setback to help improve the appearance of the site.

4. The application complies with all of ARTICLE VII District Regulations and ARTICLE VIII Supplementary District Regulations and other standards as applicable;

FINDING: As discussed and found in this staff report, the proposal complies with the District Regulations of ARTICLE VII and VIII Supplementary District Regulations and other standards as applicable.

5. Existing conditions of approval required as part of a prior Land Division (ARTICLE XII), Conditional Use Permit (ARTICLE XIII), Master Planned Development (ARTICLE XIV) or other approval shall be met.

FINDING: There are no existing conditions of approval required to be met. Criterion not applicable.

V. CONDITIONS OF APPROVAL

Condition of Approval #1: Prior to the commencement of construction activities, the applicant shall submit for and obtain the required building permits.

Condition of Approval #2: Details of utility connections, including wastewater system design, pretreatment and waterline details shall be reviewed during the building permit process, and approved prior to occupancy.

VI. INFORMATIONAL ITEM

As mentioned in ODOT's referral comment, an ODOT Miscellaneous Permit must be obtained for any work that is to be performed in the highway right of way and for connection to state highway drainage facilities (**Attachment F**).

VII. ATTACHMENTS

Attachment A – Applicant's materials

Attachment B – Applicant's Traffic Impact Analysis (TIA)

Attachment C – Lane County Transportation Planning (LCTP) Comments

Attachment D – Applicant's Traffic Engineer's Response to LCTP Comments

Attachment E – LCTP concurrence with TIA

Attachment F – ODOT Comments

Attachment G – Notice Materials

Attachment H – Letter of Support

VII. DECISION

FINAL ORDER & DECISION
of the
PLANNING COMMISSION of the City of Coburg

SR-01-21 KENDALL AUTO SITE REVIEW

A. The Planning Commission finds the following:

1. The Planning Commission has reviewed all materials relevant to the **Kendall Auto Site Review** that has been submitted by the applicant regarding this matter for at Assessors Map 16-03-33-40 TL # 400, 300 and 500 including the criteria, findings, and conclusions within the proposed final order and attached staff report.

2. On **March 31, 2021** the Planning Department recommended **CONDITIONAL** approval of the proposal after sending neighbor notice to adjacent properties on March 9, 2021, and agency referral on February 25, 2021. Notice was sent in accordance with O.R.S. 197.195(3) and Coburg Zoning Ordinance No. A-200-H, Article X.C.

3. A Notice of Appeal shall be filed with the City Planning Official or designee within 14 days of the date the Notice of Decision was mailed.

4. The applicant will need to satisfy the conditions as contained herein.

5. If no appeal is filed within 14 days of the date Notice of Decision was mailed, the decision shall become final.

_____

Mr. Paul Thompson, Chair, Coburg Planning Commission

Dated Signed: _____

Date Mailed: _____

ATTACHMENT A

Planning Department
TYPE II
Land Use Application – Limited Land Use

Date Received _____

(For official use only)
Application Number _____ Date Paid & Receipt # _____

Application Type *(CHECK ONE)*

- ☐ Appeal to Planning Commission
- ☐ Change in Use
- ☐ Code Interpretation/Determination
- ☐ Master Planning – Minor Modification
- ☐ Property Line Consolidation
- ☑ Site Review – commercial/industrial
- ☐ Site Review – historic structure
- ☐ Site Review – manufactured home park
- ☐ Site Review – Minor
- ☐ Temporary Use Permit
- ☐ Variance – Building Permit Residential Design Standard
- ☐ Other Limited Land Use:

IMPORTANT: Any application determined to need Planning Commission, i.e. becomes Type III, must be submitted 45 days prior to the next Planning Commission meeting to meet notice requirements.

PRINT *CLEARLY AND COMPLETE ALL SPACES*

Applicant Information

Name Kendall Auto Group, Duane Farnham Regional Manager Daytime Phone 541-335-4000

Mailing Address P.O. Box 1318 Eugene OR 97440 Email dfarnham@kendallauto.com

Contact Person Teresa Bishow Contact Daytime Phone 541-514-1029

teresa@bishowconsulting.com

Site Information

Street Address 90895 Roberts Road COBURG, OR 97408

Map & Tax Lot # _____ Total Area **(sq. ft./acres)** 115,748 SF / 2.66 Acres

If more than one lot:

Map and Tax Lot # 16-03-33-40 TL 400 Total Area 0.60 Acres

Map and Tax Lot # 16-03-33-40 TL 500 Total Area _ (Portion Only)

Map and Tax Lot # 16-03-33040 TI 300 Total Area __ (Portion Only)

If applicable:

Present Use(s) of Property Two existing buildings are vacant (portion of tax lot 500 used for RV sales not in this application.)

Proposed Use(s) of Property Kendall Collision Center - vehicle repair and paint booths

For appeal, associated land use application number **(e.g. SR-04-18)** NA

CITY OF COBURG | P.O. BOX 8316 | 91136 NORTH WILLAMETTE STREET | COBURG, OREGON 97408
541-682-7850| coburgoregon.org

Property Owner Information

Name ML Coburg, LLC Daytime Phone 541-521-7773

Mailing Address 2245 Lawrence Street, Eugene OR 97405 Email michaelwmcnutt@gmail.com

Contact Person Michael W McNutt, Managing Partner Contact Daytime Phone 541-521-7773

Is there more than one applicant or site associated with this application? If so, check here. ❑ *ATACH A SEPARATE SHEET WITH ADDITIONAL APPLICANT AND SITE INFORMATION)*

ATTACH THE FOLLOWING DOCUMENTAION WITH YOUR APPLICATION: *OFFICIAL COMPLETENESS CHECK*

Written legal description of the property(ies) ❑ _____

Copy of Assessor's Map, highlight property(ies) *(8.5" x11" or 11" x 17" SIZE)* ❑ _____

* Written statement addressing **all** applicable Zoning District Criteria ❑ _____

Site Plan and/or Engineered Drawings (see site plan checklist) ❑ _____

Preliminary Title Report and supporting documentation ❑ _____

Septic Approval from Lane County Sanitarian ❑ _____

Is the property in the flood plain? **YES** ❑ **NO**❑

** Written Statements must be in the form of factual statements or findings of fact and supported by evidence. List the findings criteria In the Coburg Zoning Code (Ord. A-200-H) and develop evidence that supports it.*

I hereby certify that the statements and information contained in this application, including the attached drawings and the required findings of fact, are in all respects true and correct. I understand that all property pins must be shown on the drawings and visible upon site inspection. In the event that the pins are not shown or their location found to be incorrect, the owner assumes full responsibility.

I further understand that if this request is subsequently contested, the burden will be on me to establish: that I produced sufficient factual evidence at the hearing to support this request; that the evidence adequately justifies the granting of the request; that the findings of fact furnished by me are adequate, and further that all structures or improvements are properly located on the ground. Failure in this regard will result most likely in not only the request being set aside, but also possibly in any structures being built in reliance thereon being required to be removed at my expense. If I have any doubts, I am advised to seek competent professional advice and assistance.

Duane O Farnham Date: 2/12/2021

Applicant Signature

As owner of the property involved in this request, I have read and understood the complete application and its consequences to me as a property owner.

Michael W McNutt Date: 2-12-2021

Property Owner Signature #1

MICHAEL W. McNUTT

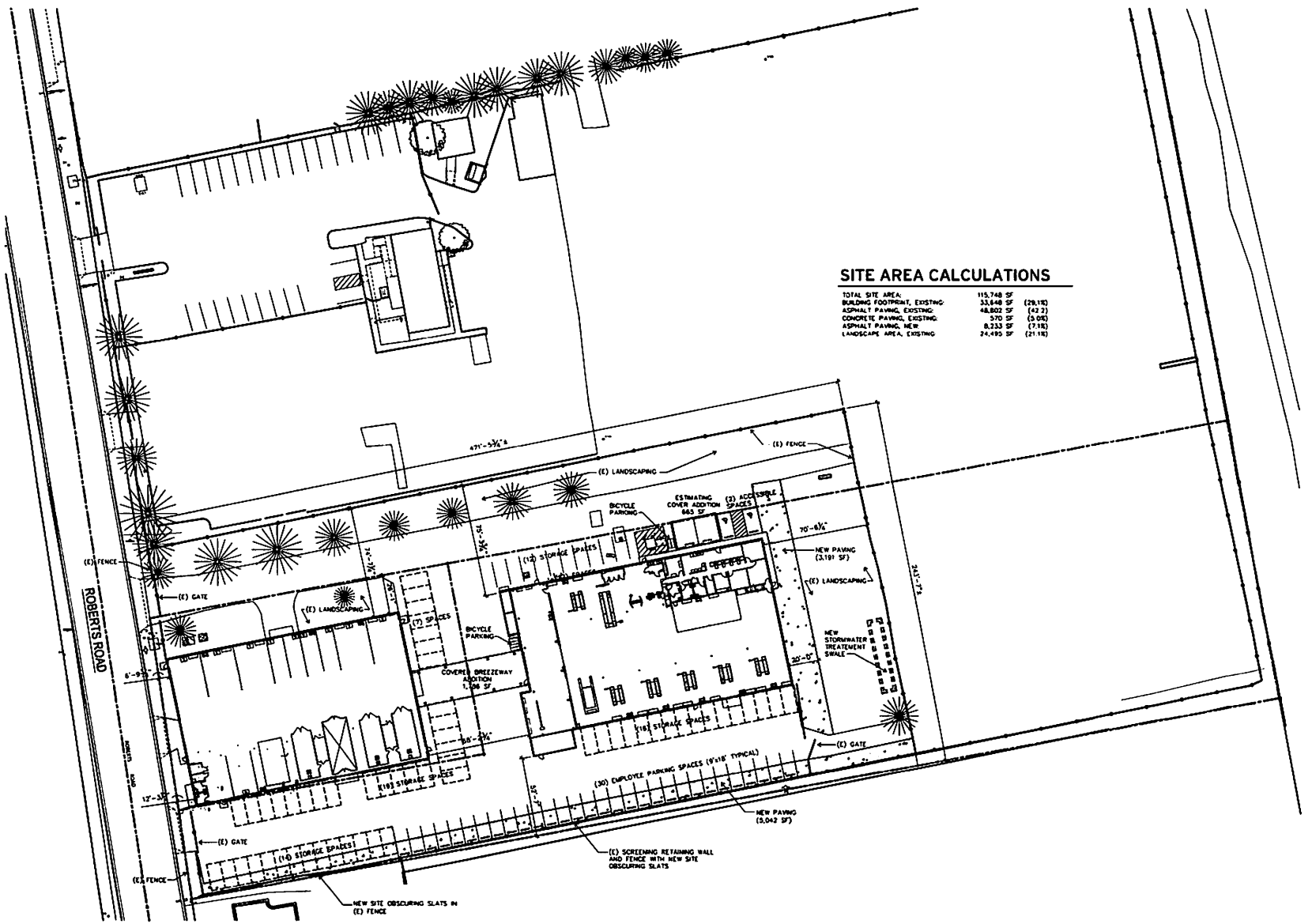
Print Name

_____ Date: _____

Property Owner Signature #2

_____

Print Name



A1 / A001 SITE PLAN
1"=30'

Robertson | Sherwood | Architects, LLC
132 EAST BROADWAY, SUITE 540
EUGENE, OREGON 97401
541-342-0377
www.robertsonsherwood.com

KENDALL AUTO GROUP
KENDALL COLLISION CENTER
90895 ROBERTS ROAD
COBURG, OREGON 97408

MARK	DATE	DESCRIPTION

ISSUE DATE: 15 FEBRUARY 2021
ISSUE: SITE DESIGN REVIEW
PROJECT NO: 2034
DRAWN BY: SS
CHECKED BY:

SITE PLAN

A001

BISHOW CONSULTING
PLANNING & DEVELOPMENT SERVICES
P.O. Box 50721
Eugene, OR 97405

KENDALL COLLISION CENTER
SITE DESIGN REVIEW APPLICATION

Submitted To:
City of Coburg
P.O. Box 8316
Coburg, OR 97408

Submitted For:
Kendall Auto Group
P.O. Box 1318
Eugene, OR 97440

Pre-Application Meeting: January 14, 2021

Submittal Date: February 15, 2021

1.0 PROJECT SUMMARY

Project Name:	**KENDALL COLLISION CENTER**
Project Proposal:	Establish a new collision repair facility in the City of Coburg.
Application Type:	Site Design Review
Location:	90895 Roberts Road, Coburg OR 97408-9459
Assessor Map:	16-03-33-40. Refer to Exhibit D – Assessor Map.
Tax Lots:	Tax Lot 400 plus portions of Tax lots 300 and 500
Total Area:	115,748 SF or @ 2.66 Acres
Zoning:	LI/X Light Industrial with Architecturally Controlled overlay
Plan Designation:	Light Industrial
Existing Use:	Vacant – Formerly occupied by Mill Log Equipment Company
Pre-Application Meeting:	January 14, 2021

Property Owner:
ML Coburg, LLC
James Patrick McNutt
2245 Lawrence St
Eugene, OR 97402

Applicant:
Kendall Auto Group
Duane Farnham, Regional Mngr
P.O. Box 1318
Eugene, OR 97440
dfarnham@kendallauto.com

Land Use Planner:
Teresa Bishow, AICP
Bishow Consulting LLC
P.O. Box 50721
Eugene, OR 97405
teresa@bishowconsulting.com

Architect:
Scott Stolarczyk, AIA
Roberts|Sherwood|Architects pc
132 East Broadway, Suite 540
Eugene, OR 97401
sstolarczyk@robertsonsherwood.com

Civil Engineer:
Matt Keenan, PE
kpff Consulting Engineers
800 Willamette St, Ste 400
Eugene, OR 97401
matt.keenan@kpff.com

Landscape Architect:
David Dougherty, ASLA
Dougherty Landscape Arch
474 Willamette St, Ste 305
Eugene, OR 97401
davidd@dladesign.com

Traffic Engineer:
Kelly Sandow, PE
Sandow Engineering
160 Madison St, Ste A
Eugene, OR 97401
kellysandow@sandowengineering.com

Contractor:
Dave Bakke, President/CEO
Chambers Construction
3028 Judkins Rd #1
Eugene, OR 97403
dbakke@chambers-gc.com

2.0 PROJECT DETAILS

2.1 Proposed Use and Site Development

This is a request to establish a Kendall Collision Center in the buildings formerly used by the Mill Log Equipment Company on 90895 Roberts Road. The west building will be renovated for use as a paint and detail facility. Building renovations will include new paint booths using state of the art equipment. The east building will be renovated for use for auto body and frame repairs. Interior building renovations will include the creation of auto body technician stalls and the use of specialized equipment including a frame straightening machine and alignment machine. The paved portion of the site will include required off-street parking and outdoor vehicle storage.

The subject property includes all of tax lot 400 and portions of tax lots 300 and 500 inside the existing chain link fence providing security for the site. The rear of tax lot 500 outside (east) of the chain link fence is leased to Country RV and is not included in this request. The southern portion of tax lot 300 inside the chain link fence, including a landscape bed and vehicle driveway, is included in this application. Refer to Exhibit A – Vicinity Map, Exhibit B- Aerial Photo and Exhibit D – Assessor Map.

The Kendall Collision Center operates in a manner similar to other industrial users. The motor vehicles delivered to the site will be partially disassembled (taken apart). Damaged or broken parts will be repaired or replaced as the vehicle is re-assembled. As needed, once re-assembled, the vehicle will be partially or fully re-painted.

The proposed facility requires a specialized labor force and equipment not readily available at a standard service station. The type of work is similar to that performed by other businesses in Coburg's industrial corridor including Marathon Coach and Camping World.

The Kendall Collision Center front office support team will prepare repair estimates, work with insurance companies, and keep customers informed of repair progress. For further information, please refer to Exhibit E – Letter from Duane Farnham, Kendall Auto Group Regional Manager.

Kendall Collision Center Wheel Alignment Machine

2.2 Property Location and Zoning

The project site is in the City of Coburg City and thus the Coburg Urban Growth Boundary. The *City of Coburg Comprehensive Plan* designates the subject property as Light Industrial. Consistent with the plan designation, the subject property is zoned Light Industrial and is within an Architecturally Controlled Area. Refer to Exhibit C – Zoning Map.

The project site is in an area known as Coburg's industrial corridor along I-5 on the east side of Roberts Road. Refer to Exhibit B – Aerial Photo.

Future Kendall Collision Center at 90895 Roberts Road, Coburg OR

2.3 Existing Conditions

The project site is relatively flat with no significant natural features. The city did not identify any Statewide Goal 5 resources on the subject property.

The project site has frontage and access on Roberts Road. The east property line of tax lot 500 abuts I-5 ROW.

According to Lane County records, the project site contains two buildings formerly occupied by Mill Log Equipment Company. The west building fronting Roberts Road is about 15,700 square feet and was built in 1978. The east building was built in 1976 and contains about 17,200 square feet on the ground floor with about 2,040 square feet on the second level. The ground floor wall height is 20 feet and the upper floor wall height is 8 feet.

The site currently contains 16 painted off-street parking spaces located adjacent to the east building. Historically, additional paved areas of the site were used for vehicle circulation and parking. The paved area to the rear of tax lot 500 is leased to Country RV. This application does not propose any changes or improvements to the rear portion of tax lot 500 used for RV sales and outdoor storage.

For more information regarding existing site conditions, refer to the Boundary and Topographic Survey.

2.4 Key Prior Land Use Decisions

Partition Plat No. 93-P0362 re-platted the tax lots as Parcels 1 and 2 also known as tax lots 400 and 500. The Kendall Collision Center Site Design Review application consists of all of tax lot 400 and the portion of tax lots 500 and 300 inside the existing chain link fence. A written description of the lease area will be provided.

2.5 Land Use and Development Requirements

This is a request for Site Design Review approval according to the application procedures in Article XI of the Coburg Development Code. Section 3.0 lists applicable criteria and the applicant's findings demonstrating compliance.

RV Country is located north of the site and leases the rear portion of tax lot 500. The subject property includes the driveway and landscaping inside the chain link fence.

3.0 SITE DESIGN REVIEW APPROVAL CRITERIA AND FINDINGS

This section lists the applicable approval criteria for reviewing the proposed application followed by findings demonstrating compliance. Coburg Development Code provisions are shown in ***bold italics*** followed by findings demonstrating compliance.

ARTICLE XI, Section F.

> ***Site Design Review Approval Criteria. The review authority shall make written findings with respect to all of the following criteria when approving, approving with conditions, or denying an application:***
>
> ***1. The application is complete, as determined in accordance with ARTICLE X Types of Applications and ARTICLE XI.E, above.***

This application provides the information necessary to demonstrate compliance with the approval criteria.

> ***2. The application complies with all of the applicable provisions of the underlying land use district and supplementary district regulations (ARTICLE VII & VIII), including: Building and yard setbacks, lot area dimensions, density and floor area, lot coverage, building height, building orientation, architecture, and other special standards as may be required for certain land uses;***
>
> ***ARTICLE VII - E. Light Industrial District (LI)***
>
> ***2. Uses and Structures***
> ***a. Permitted Principal Uses and Structures***
> ***(2) Manufacturing and assembly, and associated sales of products manufactured or assembled on-site***
> ***(vii) Paint shop***
> ***(xiii) Vehicle maintenance and repair facilities***
> ***(xiv) Recreational vehicle sales lots, including sales of vehicles manufactured off-site.***

According to ARTICLE VII.E.2.a.(2), the proposed Kendall Collision Center is a permitted principal use as it will operate a paint shop and vehicle repair facility. The vehicles will be dis-assembled and re-assembled on-site as damaged parts are repaired or fully replaced. The existing use of the rear of the site for recreational vehicle sales is also a permitted principal use. and this use will continue per a lease between the property owner and Country RV.

Kendall Collision Center uses specialized equipment such as the frame alignment machine shown above. At the proposed new body and frame repair facility the vision is to create 17 body technician stalls. This will improve efficiencies in repairs and accommodate the company's growth.

Kendall Collision Center uses state of the art paint booths and water based paints to be as environmentally friendly as possible. At the new site a paint and detail facility will be created. Per National regulations, the new paint booths will have a 98.4% efficiency rating with minimal amount of paint smells or particulates entering the atmosphere.

ARTICLE VII.E.3 Maximum Height Standards

Maximum Building Height – 45 feet
Existing Building Heights - Less than 45 feet

This request does not include any building alterations or additions that will increase the height of the existing buildings.

ARTICLE VII.E.4 Lot Requirements

The subject property is connected to city sewers thus the maximum coverage is 80 percent. The minimum required landscape area is 15 percent.

The Site Plan contains about 79 percent coverage and 21 percent landscape area. The specific Site Area Calculations are below:

Building Footprint	33,648 SF	29.1%
Asphalt Paving	48,802 SF	42.2%
Concrete Paving	570 SF.	0.5%
Asphalt Paving (new)	8,233 SF	7.1%
Landscape Area	24,495 SF	21.1%
TOTAL SITE AREA	115,748 SF	100%

There are no proposed changes to the existing lot sizes or dimensions.

ARTICLE VII.E.5 Minimum Yard Requirements

Front Yards – Minimum 20 feet
Interior Side and Rear Yards – Minimum 10 feet

The site has frontage on Roberts Road with an existing front yard building setback ranging from about 6'-9" to 12'-3". The proposed change in use does not include any building additions or alterations that will impact the front yard setback or worsen the legal non-conforming building setback. Along the north property line of tax lots 400 and 500, the interior side yards for both buildings exceed 20 feet and range from 26'-1" to 21'-9". The distance from the buildings to the north boundary of the subject property (chain link fence) ranges from about 74'-7" to 75'-4".

The subject property includes all or a portion of three tax lots under the same ownership. The proposed covered breezeway between the two buildings will cross over a common property line between tax lots 400 and 500. This breezeway is vital for weather protection for movement of materials, equipment and employees between the two buildings.

The proposed small building addition on the north side of the east building will provide a place for employees to view damaged vehicles and prepare cost estimates for customers. The small addition will slightly cross over a common property line between tax lot 500 and 300. From a practical standpoint, the interior yard area between the east building addition and the chain link fence on the north side of the subject property will be about 53'-11". This substantial setback will ensure the small addition will not adversely impact the use of the remaining area of tax lot 300 or hinder fire and emergency vehicle access.

ARTICLE VII.E.6 Compliance with Design Standards and Guidelines

Per ARTICLE VIII.L.2. Applicability, the Design Standards and Guidelines all to all new development and substantial improvements. The code defines "substantial improvements" as:

a. Additions that consist of more than 33% of the total floor area of the primary structure and area visible from a public-right-of-way; or
b. Additions that consist of more than 50% of the total floor area of the primary structure and are not visible from a public-right-of-way.

This application does not include an increase to the interior of the building floor area. Per the building code, the new estimate cover addition to the east building will increase the building area 2,451 square feet or about 7.3% of the existing building area. The proposed new breezeway between the buildings will offer protection from the weather but will not result in a building addition. The building alterations are not considered a "substantial improvement" and thus the Design Standards and Guidelines in ARTICLE VIII are not applicable.

ARTICLE VII.E.7 Parking and Access Requirements

Please refer to findings below demonstrating compliance with parking and access requirements.

As demonstrated above, this application complies with applicable provisions of Article VII. Below are findings demonstrating compliance with Article VIII.

3. The applicant shall be required to upgrade any existing development that does not comply with the applicable land use district standards, in conformance with ARTICLE VI, Non-Conforming Uses;

There are no non-conforming uses on the site. The proposed development will comply with applicable standards to the extent practicable and will not increase or worsen any non-conforming situations.

4. The application complies with all of ARTICLE VII District Regulations and ARTICLE VIII Supplementary District Regulations and other standards as applicable;

The findings above demonstrate compliance with ARTICLE VII District Regulations. The findings below demonstrate compliance with ARTICLE VIII Supplementary District Regulations and other applicable standards.

ARTICLE VIII.B.2 Off-Street Parking Requirements

Parking Area Design.

(2) Groups of three or more parking spaces, except those in conjunction with single-family or two-family dwellings on a single lot, shall be served by a service drive so that no backward movements or other maneuvering of a vehicle within a street, other than an alley, shall be required. Service drives shall be designed and constructed to facilitate the flow of traffic, provide maximum safety in traffic access and egress and maximum safety of pedestrians, bicycles, and vehicular traffic on the site.

Proposed parking spaces are accessed by private service drives on the north and south side of the buildings. Access and use of the off-street parking spaces can occur without requiring any backward movements or other maneuvering in the street. Pedestrian and bicycle access is provided from Roberts Street to the main building entrances. Internal pedestrian circulation is provided between the two buildings.

ARTICLE VIII.B.3 Parking Requirements for Uses Not Specified

Table VIII(B)(2)(b): Parking Spaces Required lists four types of land uses: 1) Residential, 2) Institutional, 3) Commercial, and 4) Recreational. There are no parking requirements for industrial land uses including businesses engaged in motor vehicle repairs and painting. Accordingly, the code states the number of required parking spaces is to be based on the requirements for the most comparable building or use.

None of the uses listed in Table VIII(B)(2)(b) include manufacturing and assembly of materials or any vehicle repair facilities. There are no parking requirements specified for industrial buildings containing large open spaces to accommodate specialized equipment, materials, and tools to manufacture, assemble, and repair large items. The closest use is bulk retail items with a ratio of 1 parking space per 1,000 square feet of floor space.

The two buildings have a combined total of 33,648 gross square feet. If the number of required parking spaces is based on that applied to bulk retail uses the minimum number of parking spaces would be 34 spaces.

This application includes requests that the proposed use requires a minimum of 30 off-street parking spaces. This is based on the projected number of employees (25) and rental cars (5) periodically parked on-site while waiting to shuttle customers. As shown on the Site Plan, the designated off-street parking spaces will be located on the southside of the subject property along an existing chain link fence and retaining wall. In addition, there will be 2 ADA compliant parking spaces near the main customer entrance.

The additional paved areas of the site will allow about 68 customer vehicles to temporarily be stored on-site while waiting to be repaired or waiting for delivery back to customers.

ARTICLE VIII.B.5 Bicycle Parking

> ***a. Bicycle parking requirements shall apply to all developments that require a site plan or amended site plan for new development, changes of use, and building expansions and remodels that require a building permit, as follows:***
> ***(1) Multi-Family….***
> ***(2) Non-Residential Parking. There shall be a minimum of one bicycle space for every seven motor vehicle spaces. At least half of all bicycle parking spaces shall be sheltered. Bicycle parking provided in outdoor areas shall be located near the building entrance, similar to vehicle parking spaces, unless existing development on site precludes that option. Fractio`ns shall be rounded to the nearest whole number.***

The Site Plan shows a total of 30 employee and 2 ADA designated parking spaces.

According to the above code section, a minimum of 5 bicycle parking spaces are required with at least 3 sheltered. The Site Plan shows at least 5 bicycle parking spaces - 2 near the main customer entrance and 3 - 4 near the covered breezeway between the two buildings.

b. Bicycle Parking Facilities Design Standards

(1) Bicycle parking facilities shall either be stationary racks which accommodate bicyclist's locks securing the frame and both wheels, or lockable rooms or enclosures in which the bicycle is stored.

(2) Bicycle parking spaces shall provide a convenient place to lock a bicycle and shall be at least six feet long, two feet wide, and seven feet high. Upright bicycle storage structures are exempted from the parking space length standard.

(3) A 5-foot aisle for bicycle maneuvering shall be provided and maintained beside or between each row of bicycle parking.

(4) Bicycle racks or lockers shall be anchored to the surface or to a structure.

(5) Covered bicycle parking facilities may be located within a building or structure, under a building eave, stairway, entrance, or similar area, or under a special structure to cover the parking. The cover shall leave a minimum 7-foot overhead clearance and shall extend over the entire parking space. If a bicycle storage area is provided within a building, a sign shall be placed at the area indicated that it is for bicycle parking only.

(6) Bicycle parking shall not interfere with pedestrian circulation.

The applicant proposes to provide exterior bike parking spaces in compliance with the above standards. As shown on the Site Plan, the bike parking spaces are located close to building entrance and will not interfere with pedestrian circulation. Each space will be at least six feet long and two feet wide with at least seven feet of clearance. A least half of the bike parking spaces will be covered.

ARTICLE VIII.B.6. Vehicular Parking Area Improvements

All public or private parking areas, which contain four or more parking spaces, and outdoor vehicles sales areas, shall be improved according to the following:

a. All vehicular parking areas shall have a durable, dust-free surfacing of asphaltic concrete, Portland cement concrete, or other approved materials as specified by the Planning Official.

(1) Vehicular parking areas as a part of a proposed development shall incorporate driveway designs and methods that reduce storm water run-off. Design methods include, but are not limited to: porous concrete, turf pavers, plastic grid systems, or ribbon driveways.

b. All vehicular parking areas, except those in conjunction with

a single-family or duplex dwelling, shall be graded so as not to drain storm water over the public sidewalk or onto any abutting public or private property.

c. All vehicular parking areas, except those required in conjunction with a single family or two family dwelling, shall provide a substantial bumper or curb stop which will prevent cars from encroachment on abutting private or public property.

d. All vehicle parking areas and service drives shall be enclosed along any interior property which abuts any residential district…

e. Any lights provided to illuminate any public or private parking area or vehicular sales area shall be shielded and so arranged as to reflect the light away from any abutting or adjacent property or public right of way.

f. All vehicular parking spaces shall be appropriately and substantially marked. [Adopted A-133L 10/5/99]

As shown on the Site Plan, the proposed off-street parking spaces are designed to comply with the above standards. New site obscuring slats will be installed in the existing chain link fence to screen the 30 employee parking spaces and new shrubs will be planted in the existing landscape beds on Roberts Road.

ARTICLE VIII.C. <u>Pedestrian and Bicycle Access and Circulation</u>

1. Internal pedestrian circulation shall be provided within new commercial office, and multi-family residential developments through the clustering of buildings, construction of hard surface walkways, landscaping, or similar technique.

2. Pedestrian access to transit facilities shall be provided from new commercial, employment, and multi-family residential development while existing developments shall provide safe and accessible pedestrian access to transit facilities when a site changes uses or is retrofitted.

3. Internal pedestrian and bicycle systems shall connect with external existing and planned systems, including local and regional travel routes and activity centers such as schools, commercial areas, parks and employment centers.

The requirements for internal pedestrian circulation, pedestrian access to transit facilities, and connections to external pedestrian and bicycle systems are not applicable to the proposed change in use.

The proposed site plan includes a new covered pedestrian breezeway between the two buildings.

ARTICLE VIII.D. <u>Sign Regulations. See Coburg Sign Ordinance A-155-A.</u>

This request does not include any proposed signage. The applicant will apply for the necessary sign permits at a later date in compliance with Coburg sign regulations.

ARTICLE VIII.E. ***<u>Streets, Alleys and Other Public Way Standards.</u>***

1. Improvements to City Streets shall conform to the standards as set forth in this section.

The applicant is not proposing any improvements within the public right-of-way.

ARTICLE VIII.F. ***<u>Other Public Improvements.</u>***

5. Sewage. All buildings within city limits must connect to the City sewer system.

The two buildings are connected to the city sewer. The existing on-site septic tanks will remain and will be accessible at all times to city staff. Please refer to the Boundary and Topographic Survey showing the location of the existing septic tanks.

6. Water Supply. All lots and parcels in any land division shall be served by the Coburg water system.

The lots are served by the Coburg water system and there is sufficient water pressure for the intended use.

Based on an inquiry from Chad Dillon, Omlid and Swinney, Chad Minter, Coburg Fire District had no objection with one fire line serving both buildings as long as they were sized to supply both buildings simultaneously in the event of a fire. After consultation with city staff, Chad Dillon determined the hydraulic demand of the sprinkler systems through a single fire line would not be an issue. Chad Dillon recommended that the single fire line be appropriately sized and isolated from the municipal water source via an approved DCDA in a vault near the point of connection. Please refer to the Utility Plan for the design of the backflow for both buildings and the single fire line.

7. Surface Drainage. Drainage facilities shall be provided within any new subdivision . . .

The requested changes in use does not involve a new subdivision. This standard is not applicable.

Based on observations following a heavy rain and an assessment of the existing stormwater drainage system, problems were identified with the existing surface drainage. As selected areas of damaged pavement are replaced and new pavement is added, slight changes to the grading will occur to help provide better surface drainage. As shown on the Site Plan, a new stormwater treatment swale will also be installed on the east side of the subject property.

ARTICLE VIII.I. ***<u>Screening Standards for Multi-Family, Commercial, and Industrial Development.</u>***

1. Unless otherwise specified in this code, screening shall be required:

a. When commercial or industrial districts abut residential districts.

The development site is not adjacent to a residential district. This criterion does not apply.

b. For outdoor mechanical devices.

There are no proposed changes to the location of ground level outdoor mechanical devices subject to screening requirements. Additional landscaping will be provided in the front yard setback on Roberts Road that will help screen existing outdoor above ground utility boxes.

c. For outdoor storage yards and areas.

The proposed development includes outdoor storage areas for motor vehicles. As shown on the Site Plan, outdoor storage areas will be screened per the Coburg code. The applicant proposes to install new site obscuring slats in the existing chain link fence along the north and south sides of the subject property. In addition, additional bushes will be planted in the existing landscape beds adjacent to Roberts Road. These site improvements will provide better screening for the existing paved areas and increase the attractiveness of the site.

d. For trash receptacles.

Trash and recycling will be handled in a covered area on the west side of the east building. Walls will provide a screen along the north, east and south sides of the receptacles. Please refer to the Floor Plan A101. Visibility of the trash and recycling area from Roberts Road will be obscured or prevented entirely due to the location behind the west building and the landscaping on Roberts Road.

e. For multi-family developments.

The request does not include multi-family development. This criterion is not applicable.

f. Parking areas with more than two off-street spaces.

The Site Plan shows a parking area for employees and company shuttle vehicles on the south side of the property. New site obscuring slats will be installed on the existing chain link fence and new landscaping installed in the front yard setback will provide screening.

2. Screening shall be a non-see through or sight-obscuring fence, evergreen hedge, or decorative wall (i.e., masonry or similar quality material) shall be erected along and immediately adjacent to the abutting property line.

The proposed screening for the 30 space parking area will be a combination of sight-obscuring fence and retaining wall along the southern property line.

3. Trash receptacles. Trash receptacles shall be oriented away from adjacent buildings and shall be completely screened with an evergreen hedge or solid fence or wall of not less than four feet in height.

Trash receptacles orient towards the interior of the site and away from the street and adjacent properties. Each end of trash receptable area is screened with at least a 4-foot-tall wall.

4. Parking lots. Parking areas with more than two off street spaces shall be screened with an evergreen hedge or fence at least four feet

high. To the greatest extent practicable, such parking areas should be situated away from neighboring residential units and shall be located to the rear or side of the multi-family development. Parking areas with five or more spaces shall be landscaped and provide the required number of parking spaces in accordance with Article VIII of this Code.

The existing two buildings will significantly help screen the parking area from the street and adjacent properties. In addition, new site obscuring slats will be installed in the existing chain link fence and new bushes will be planted in the front yard landscape beds.

5. The following screening standards shall apply:

a. Such a fence, wall or other structure shall screen at least 70 percent of the view between the districts. A hedge shall, within one year of planting, screen 70 percent of the view between the districts.

b. The maximum allowable height of fences and walls is six feet, as measured from the lowest grade at the base of the wall or fence, expect that retaining walls and terraced walls may exceed six feet when permitted as part of a site development approval, or when approved to construct streets and sidewalks.

d. If vegetation is used, it must remain living after planting and shall be continuously maintained by the property owner. If the vegetation fails to survive or is otherwise not maintained in good condition, the property owner shall replace them with an equivalent species and size within 180 days.

e. Any fence, hedge and wall shall comply with vision clearance standards in ARTICLE VIII.A and provide for pedestrian circulation where required.

A variety of measures are proposed to comply with screening standards. Walls will provide screening at the ends of the trash and recycling area. New sight obscuring slats will be installed in the existing chain link fence on the north and south side of the property. New shrubs will be planted in the landscape areas on Roberts Road.

Proposed screening is located away from driveways and vehicle access lanes. Pedestrian circulation is maintained around the trash and recycling area with minimum 5-foot clear width.

5. Existing Conditions of approval required as part of a prior Land Division (ARTICLE XII), Conditional Use Permit (ARTICLE XIII), Master Planned Development (ARTICLE XIV) or other approval shall be met.

There are no Conditions of approval from prior land use decisions applicable to this application.

4.0 CONCLUSION

The Kendall Collision Center Site Design Review application complies with the approval criteria. This written narrative, exhibits and plans provide substantial evidence to support approval of the application.

Approval of the proposed Kendall Collision Center will result in renovations and upgrades to an existing developed industrial site. The business will compliment other uses in the vicinity and stimulate the local economy. The Kendall Collision Center will also offer Coburg residents a convenient location for collision repair services.

Sincerely,

Teresa Bishow
Teresa Bishow, AICP

"Once the shock of the accident has worn off, everyone involved is deemed to be safe and unharmed, the mess at the accident site is cleaned up and the two trucks have cleared the cars out of the roadway, the next step of the process is getting the damaged vehicle in our hands. We begin by taking the stress of your shoulders. Our crew handles the entire process from start to finish, which includes dealing with insurance companies." Duane Farnham, Kendall Auto Group Regional Manager.

END OF WRITTEN NARRATIVE

BISHOW CONSULTING
PLANNING & DEVELOPMENT SERVICES
375 West 4th Avenue, Suite 204, Eugene
P.O. Box 50721, Eugene OR 97405
541-514-1029

Teresa Bishow, AICP
Teresa@BishowConsulting.com

February 24, 2021

Henry Hearley
Associate Planner, LCOG

Sent Via E-mail: HHearley@lcog.org

RE: KENDALL COLLISION CENTER SITE DESIGN REVIEW SUPPLEMENTAL INFORMATION

On February 15, 2021 a Site Design Review application was submitted for the Kendall Collision Center on 90895 Roberts Road. The application submittal included:

- Written Narrative dated February 15 with Exhibits A through G
- Boundary and Topographic Site Survey – Two Sheets Dated February 5, 2021
- Sheet A001 Site Plan – Issued February 15, 2021
  Sheet A101 Floor Plan – Issued February 15, 2021

By February 22, 2021, the following exhibit and drawings were submitted:

- Kendall Collision Center lease and site design review area description and boundary map
- Landscape Plan – Issued February 18, 2021
- REVISED Sheet A101 Floor Plan – Issued February 22, 2021 to correct labels for the east and west buildings
- Sheet A201 – Building Addition Images – Issued February 22, 2021

Due to further investigation of existing site conditions and proposed improvements including a better stormwater drainage system, the following drawings are hereby submitted:

- REVISED Sheet A001 Site Plan – Issued February 22, 2021
- REVISED Landscape Plan – Issued February 24, 2021
- Sheet C1.0 Utility and Stormwater Management Plan – Issued February 24, 2021
- Sheet C1.1 Civic Details – Issued February 24, 2021

To ensure consistency with the civil plans, the Site Plan and Landscape Plan

were revised to:

1. Remove proposed new pavement along the east side of the east building and retain existing lawn.
2. Increase length of the stormwater swale.
3. Update the Site Area Calculations on the Site Plan.
4. Update the Landscape Plan to clarify that there are no proposed changes to the existing landscape bed on the east side of the site.

The civil plans will result in upgrades to the site and address utilities, grading, replacement of damaged pavement, additional pavement for parking and on-site storage, and stormwater drainage.

The applicant has worked diligently to provide materials demonstrating compliance with the city approval criteria. Timely review is vital to the success of the project going forward.

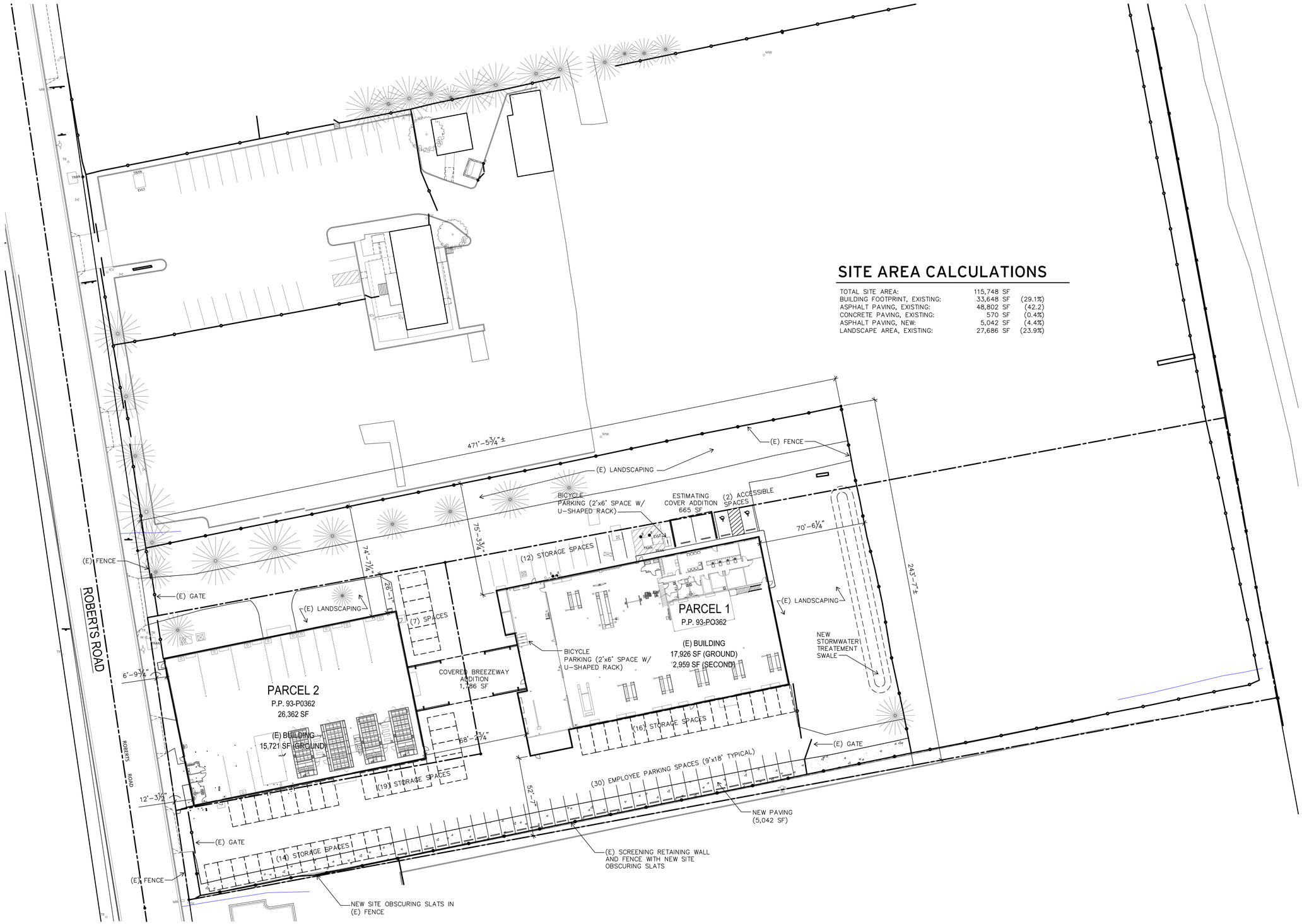
Can you verify the application is “complete” and ready for processing?

Can you let me know when I need to post information on the site regarding the pending application? Does the City prepare the sign?

Thanks.
Sincerely,
Teresa Bishow
Teresa Bishow, AICP

Existing shrubs and trees along the east side of the site will remain.

A portion of the lawn area will be used for new stormwater swale.



A1 / A001 SITE PLAN
1"= 30'

NORTH

Robertson | Sherwood | Architects PC
132 EAST BROADWAY, SUITE 540
EUGENE, OREGON 97401
541-342-8077
www.robertsonsherwood.com

KENDALL AUTO GROUP
KENDALL COLLISION CENTER

90895 ROBERTS ROAD
COBURG, OREGON 97408

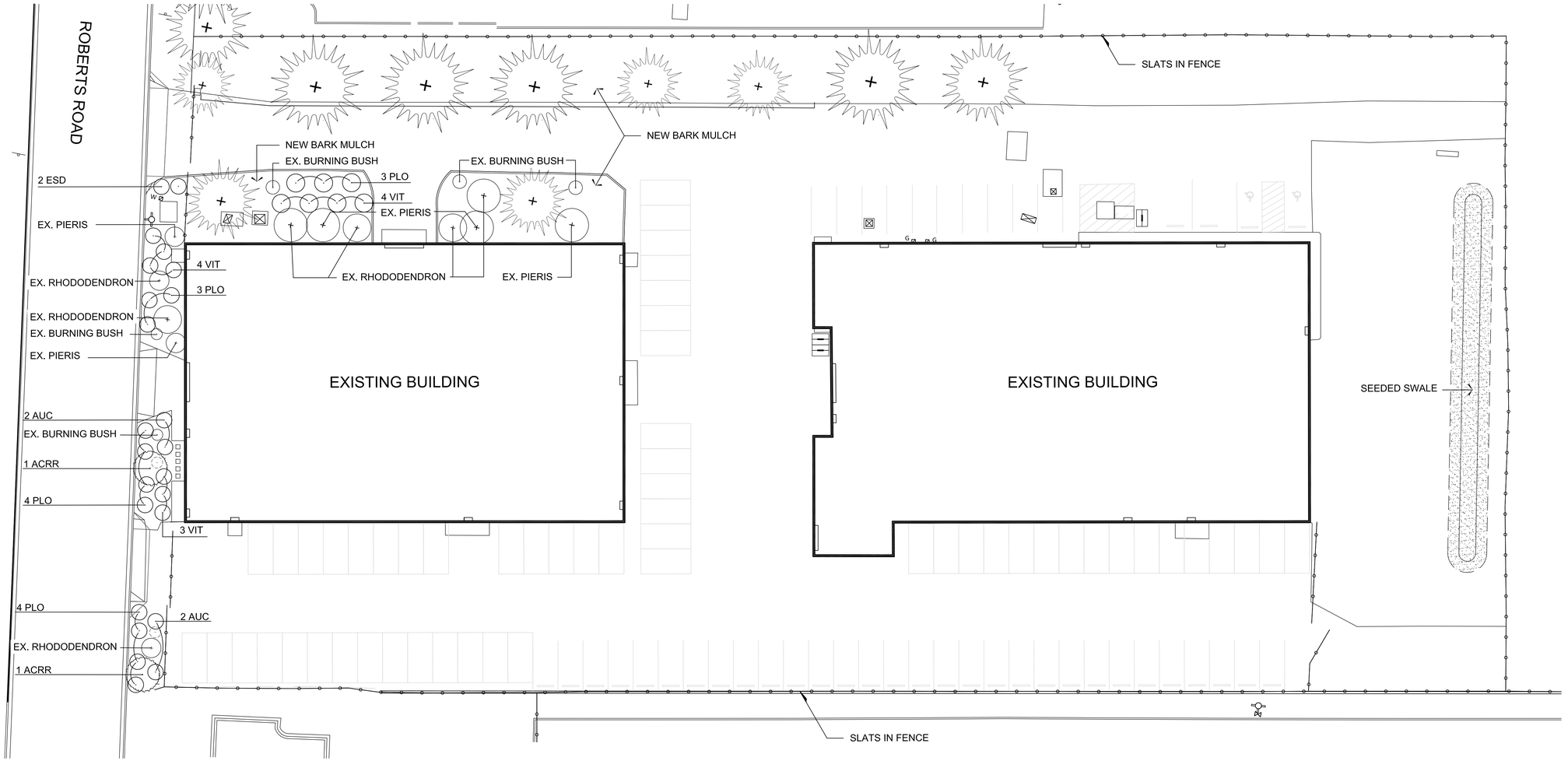
MARK	DATE	DESCRIPTION

ISSUE DATE: 15 MARCH 2021
ISSUE: SITE DESIGN REVIEW

PROJECT NO: 2034
DRAWN BY: SS
CHECKED BY:

SITE PLAN

A001



LEGEND

- EXISTING DECIDUOUS TREES
- EXISTING CONIFEROUS TREES
- EXISTING SHRUBS TO REMAIN
- TREE TO BE REMOVED
- PROPOSED SHRUBS
- STEP STONES
- SEEDED SWALE (NATIVE WATER QUALITY SEED MIX BY SUNMARK SEEDS)

LANDSCAPE GUIDELINES

A. VERIFICATIONS
1. VERIFY LOCATION OF ALL UTILITIES AND PROTECT DURING CONSTRUCTION.
2. PROTECT ALL EXISTING TREES, VEGETATION AND UTILITIES TO REMAIN DURING CONSTRUCTION.

B. PRODUCTS
1. TOPSOIL AT PLANT BEDS: IMPORTED SANDY LOAM WITH 10% HUMUS AND CHARACTERISTIC OF LOAMS OF THE AREA. FREE OF ROCK, SUBSOIL, CLODS, LUMPS, PLANTS, ROOTS, STICKS, WEEDS, SEEDS AND OTHER DELETERIOUS SUBSTANCES.
2. GROWING MEDIUM AT STORMWATER FACILITY TO BE ¼ COMPOST, ¼ LOAM, ½ SAND, AVAILABLE FROM REXIUS AS 'PRO-SWALE MIX' OR FROM LANE FOREST PRODUCTS AS 'WATER QUALITY GROWING MIX'.
3. SOIL AMENDMENTS
   a. FERTILIZER: 15-5-10-10 COMMERCIAL FERTILIZER.
   B. ORGANIC MATERIAL: 'GARDEN COMPOST' AVAILABLE FROM REXIUS OR LANE FOREST PRODUCTS.
4. MULCH: SHREDDED FIR BARK; SCREENED AT 5/8" MINUS AT PLANT BEDS.
5. PLANTING TABLETS: SCOTT'S AGRIFORM FERTILIZER TABLETS.
6. PLANT MATERIAL
   a. PROVIDE ONLY HEALTHY, FULL PLANT MATERIAL AT SIZES INDICATED.
   b. PLANT SUBSTITUTIONS TO BE APPROVED BY LANDSCAPE ARCHITECT.
7. MATERIALS
   a. STAKES: SOFTWOOD LUMBER, POINTED END, UNIFORMLY SIZED, 2" X 2" MIN. CAPABLE OF AT LEAST 2 YEARS BURIAL. STAKES TO BE PAINTED BLACK.
   b. GUY WIRES: NO. 10 GA. ANNEALED, GALVANIZED STEEL WIRE.
   c. SEED MIX FOR SWALE: NATIVE WATER QUALITY SEED MIX BY SUNMARK SEEDS.

C. PLANTING
1. SET PLANTS IN PITS OR BEDS, PARTLY FILLED WITH PREPARED PLANT MIX, AT A MIN. OF 6" DEPTH UNDER EACH PLANT. REMOVE BURLAP, ROPES AND WIRES FROM ROOT BALLS.
2. APPLY PLANTING TABLETS PER MANUFACTURER'S HIGH RATES.
3. BACKFILL SOIL MIXTURE AND COMPACT IN LAYERS. MAINTAIN PLANT MATERIAL IN VERTICAL POSITION.
4. SATURATE SOIL WITH WATER WHEN PIT OR BED IS HALF FULL WITH TOPSOIL AND AGAIN WHEN FULL.

D. MULCHING: MULCH ALL PLANT BEDS TO A MINIMUM DEPTH OF 3" WITHIN 24 HOURS OF PLANTING. TAPER MULCH TO 1" AT PAVING EDGES.

E NOTIFY LANDSCAPE ARCHITECT 48 HOURS PRIOR TO PLANT MATERIAL LAYOUT REVIEW.

F. MAINTENANCE: CONTRACTOR TO MAINTAIN ALL PLANT MATERIAL THROUGH FINAL COMPLETION INCLUDING WEEDING, PRUNING, MAINTAINING GUYS AND STAKES AND REPLACEMENT OF MULCH.

G. PLANT LIST QUANTITIES ARE FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR TO VERIFY ACTUAL QUANTITIES SHOWN ON PLAN.

H. PROVIDE ONE YEAR WARRANTY FOR ALL PLANT MATERIAL. ACTIVE UPON APPROVAL OF SUBSTANTIAL COMPLETION.

IRRIGATION SYSTEM DESCRIPTION

1. IRRIGATION SYSTEM TO BE DESIGN BUILD BY CONTRACTOR.
2. AUTOMATIC, UNDERGROUND IRRIGATION SYSTEM WILL BE PROVIDED FOR ALL LANDSCAPE AREAS.
3. SYSTEM TO PROVIDE HEAD TO HEAD COVERAGE.
4. SYSTEM TO PROVIDE SEPARATE ZONES FOR DIFFERENT SOLAR ORIENTATIONS.
5. HEAD LAYOUT WILL MINIMIZE OVERSPRAY ONTO PAVED SURFACES.
6. MAIN LINE IS TO HAVE MANUAL DRAIN VALVES.

GENERAL NOTES

1. EXISTING SHRUBS AND TREES IN THE LANDSCAPE BED ALONG THE EAST SIDE OF THE PROPERTY ARE PROPOSED TO REMAIN.

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	COMMENTS
TREES					
ACRR	2	Acer rubrum 'Red Sunset'	Red Sunset Maple	2" cal.	Matching, limbed up to approx. 6 ft
SHRUBS					
AUC	4	Arbutus unedo 'Compacta'	Strawberry Tree	5 gal.	matching, full
ESD	2	Escallonia 'Dwarf'	Dwarf Escallonia	3 gal	matching, full
PLO	14	Prunus laurocerasus 'Otto Luyken'	Otto Luyken English Laurel	5 gal.	matching, full
VIT	11	Viburnum tinus 'Spring Bouquet'	Spring Bouquet Viburnum	5 gal	matching, full

LANDSCAPE PLAN

0 5 10 20 40 80

NORTH

Robertson | Sherwood | Architects PC
132 EAST BROADWAY, SUITE 540
EUGENE, OREGON 97401
541-342-8077
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474 Willamette Street
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Eugene, Oregon 97401
P 541.683.5803
F 541.683.8183
www.DLAdesign.com

REGISTERED 279 David J. Dougherty OREGON LANDSCAPE ARCHITECT

KENDALL AUTO GROUP
KENDALL COLLISION CENTER
90895 ROBERTS ROAD
COBURG, OREGON 97408

MARK	DATE	DESCRIPTION

ISSUE DATE: 24 FEBRUARY 2021
ISSUE: S.R. CHECK SET
PROJECT NO: 2034
DRAWN BY: DEFA
CHECKED BY: DJD

HUNTCO
SITE FURNISHINGS

Bike racks, lockers, benches and architectural site furnishings since 1980.

Tradition & Innovation

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FAX 503.274.2055
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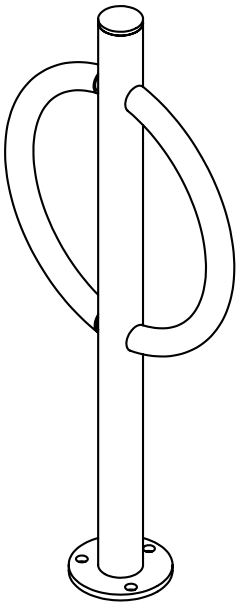
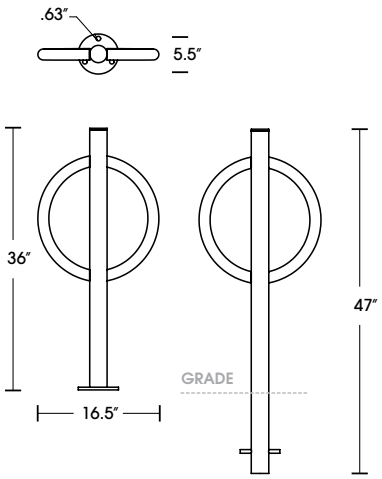
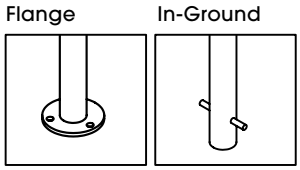
MAIL P.O. Box 10385
Portland, Or. 97296-0385

THE MINIMALIST CIRCLE

Clean-cut, spare, uncluttered. The Minimalist Circle is a great bike parking solution without a large footprint.







CONSTRUCTION/MATERIAL

- 2" Sch. 40 Steel Pipe
- 1.50" Round Steel Tubing
- 5.5" Steel flange

DIMENSIONS

- 16.5" Length
- 5.5" Width
- 36" Height

MOUNTING OPTIONS

- ☑ Flange Mount (Shown)
  (3) .63" Mounting Holes
- ☐ In-Ground
  11" Leg Extension

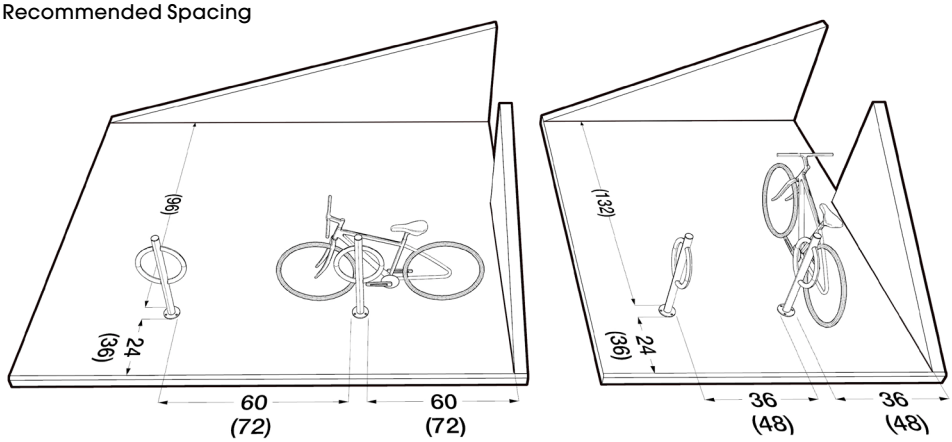
FINISH OPTIONS

- ☐ T304 Stainless Steel
  #4 Satin Finish
- ☐ Hot Dipped Galvanized
- ☐ Powder Coating
  # Standard Colors
- ☐ Thermoplastic Coating
  #

RECOMMENDED LAYOUT

NOTES:

"Bike" is 70"
Minimum Spacing
(#) Recommended Spacing



CONTRACTOR: Chambers Construction

JOB: Kendall Subaru

NOTES: Bicycle Rack Submittal Sheet

Manufactured in the Pacific Northwest

CHAIN LINK FENCE
SITE DESIGN REVIEW &
KENDALL LEASE BOUNDARY

SHALLOW SWALE

CURB & GUTTER

SAWCUT

SAWCUT

6.00'

REPLACE EXIST.
CONC. DRIVEWAY

FP

FP - 8"

FP FDC

FP DDCV
TRAFFIC RATED VLT

FP - STUB

EXISTING
BUILDING

CONC. PAVEMENT TO MATCH
BUILDING DOOR ELEVATIONS

EX. ROOF DRAIN DOWNSPOUTS
TO DAYLIGHT AT SURFACE.
PLUG PIPE CONNECTIONS.

EXISTING
BUILDING

SAWCUT

SAWCUT

4.00'

NEW AC PAVING

CURB & GUTTER

EXISTING EDGE OF PAVEMENT

REPLACE EXIST.
CONC. DRIVEWAY

6.00'

14.00'

FG: VARIES, 404.00-403.00
TREATMENT AREA: 1900 SF
ROCK DEPTH: 2-6'
DEPTH TO WELL DRAINING SOIL: APPROX. 6'

SD OF

SD - 10" PVC

SHALLOW SWALE

SD CB-1

ROBERTS ROAD

SCALE 1 INCH = 20 FEET
20 0 20 40

SHEET NOTES

1. ON-SITE PIPE BEDDING AND BACKFILL FOR ALL UTILITIES SHALL BE DONE PER DETAIL 1/C1.1.
2. INSTALL THRUST BLOCK ON FIRE AND WATER LINES PER DETAIL 2/C1.1.

UTILITY KEY NOTES

NOTE	DESCRIPTION	DETAIL REF.
1	TAP WATER MAIN BEHIND CURB. COORDINATE WITH CITY OF COBURG FOR CONNECTION.	
IF	INFILTRATION FACILITY	4 & 5 /C1.1

SHEET LEGEND

REPAIR EXISTING ASPHALT PAVEMENT

NEW ASPHALT PAVEMENT

UTILITY LABEL LEGEND

STRUCTURE LABEL

UTILITY TYPE (SD=STORM DRAINAGE, S=SANITARY SEWER, W=WATER, FP=FIRE PROTECTION)
STRUCTURE TYPE CALLOUT
ID NUMBER (WHERE APPLICABLE)

XX XX-XX
N=XXXX.XX
E=XXXX.XX — LOCATION (WHERE APPLICABLE)
RIM=
IE IN = XX.X
IE OUT = XX.X — STRUCTURE INFO (WHERE APPLICABLE)

PIPE LABEL

UTILITY LENGTH
UTILITY SIZE
XXLF - XX" XX — UTILITY TYPE
S=X.XX% — SLOPE (WHERE APPLICABLE)

STRUCTURE TYPE

CALLOUT	DESCRIPTION	DETAIL REF.
CB	CATCH BASIN	3/C1.1
DDCV	DOUBLE DETECTOR CHECK VALVE	6/C1.1
FDC	FIRE DEPARTMENT CONNECTION	
FH	FIRE HYDRANT	
OF	OUTFALL	
STUB	STUB	

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Eugene, OR 97401
O: 541.684.4902
F: 541.684.4909
www.kpff.com

REGISTERED PROFESSIONAL ENGINEER
56481
DIGITALLY SIGNED
OREGON
JUL. 19, 2002
MATTHEW M. KEENAN
EXPIRATION DATE: 6/30/21

KENDALL AUTO GROUP
KENDALL COLLISION CENTER

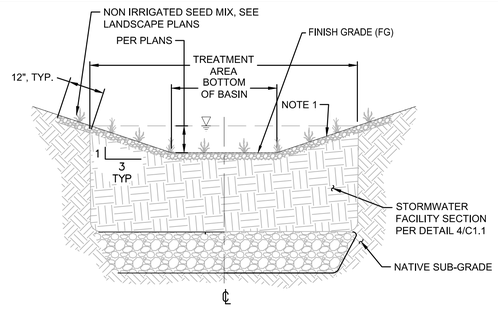
90985 ROBERTS ROAD
COBURG, OREGON 97408

MARK	DATE	DESCRIPTION

ISSUE DATE: 24 FEBRUARY 2021
ISSUE: SITE REVIEW
PROJECT NO: 2034
DRAWN BY: WM
CHECKED BY: MK

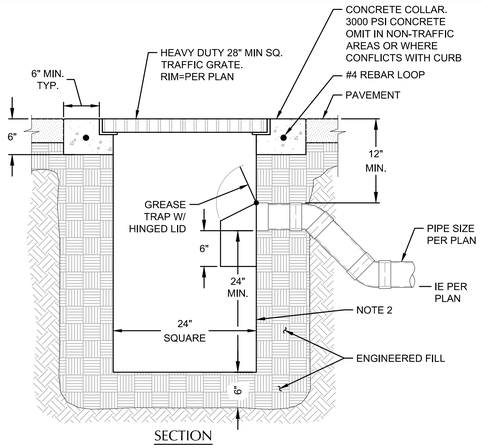
UTILITY AND STORMWATER MANAGEMENT PLAN

C1.0



5 INFILTRATION FACILITY

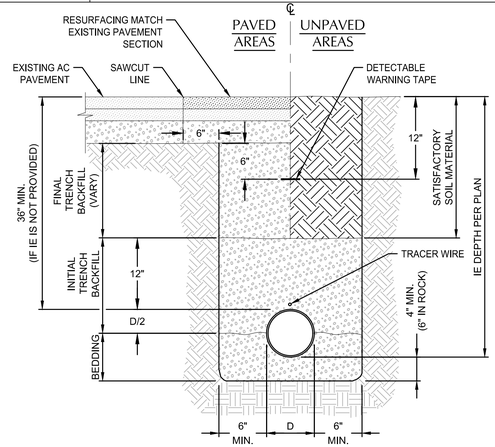
SCALE: NTS



NOTES:
1. CONTRACTOR TO WIDEN EXCAVATION AS REQUIRED TO OBTAIN COMPACTION WITH CONTRACTORS COMPACTION EQUIPMENT.
2. 1/4" STEEL PLATE, BITUMINOUS COATED. AS MANUFACTURED BY GIBSON STEEL BASINS OR APPROVED EQUAL.

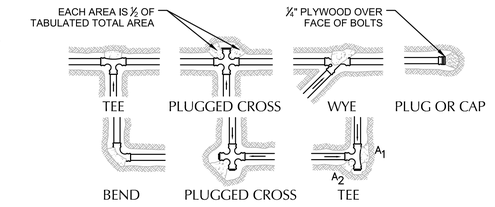
3 TRAPPED CATCH BASIN

SCALE: NTS



1 TYPICAL PIPE BEDDING AND BACKFILL

SCALE: NTS



1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
3. THE REQUIRED THRUST BEARING AREAS FOR SPECIAL CONNECTIONS ARE SHOWN ENCIRCLED ON THE PLAN; e.g. (15) INDICATES 15 SQUARE FEET BEARING AREA REQUIRED.
4. IF NOT SHOWN ON PLANS REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED BELOW, ADJUST IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS (ES) STATED IN THE SPECIAL SPECIFICATIONS.
5. BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN ON THIS STANDARD DETAIL.

BEARING AREA OF THRUST BLOCK IN SQUARE FOOT

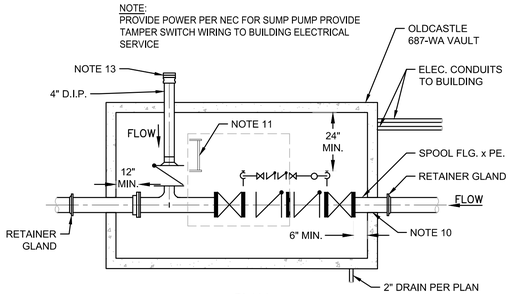
			TEE PLUGGED ON RUN				
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	A1	A2	45° BEND	22½° BEND	11¼° BEND
4	1.0	1.4	1.9	1.4	1.0		
6	2.1	3.0	4.3	3.0	1.6	1.0	
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2

NOTE:
ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 p.s.i. AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 p.s.i., TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURE AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150)X(2000/ SOIL BEARING STRESS)X(TABLE VALUE).

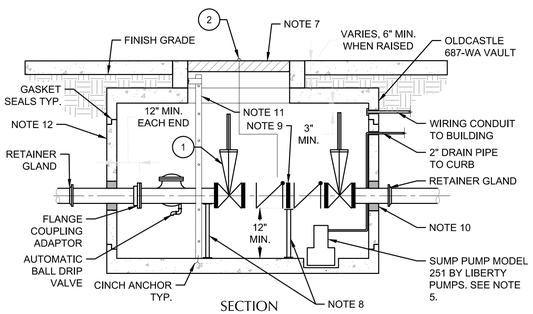
2 THRUST BLOCK

SCALE: NTS

NOTE:
PROVIDE POWER PER NEC FOR SUMP PUMP PROVIDE TAMPER SWITCH WIRING TO BUILDING ELECTRICAL SERVICE



PLAN



SECTION

CONTRACTOR RESPONSIBILITIES

1. CONTRACTOR TO CONFIRM CONCRETE VAULT SIZING BASED ON CLEARANCES AND REQUIREMENTS SHOWN ABOVE AND SIZE OF BACKFLOW PREVENTER SELECTED. VAULT SELECTED TO BE SMALLEST SIZE POSSIBLE. SIZE SHOWN ON PLANS FOR REFERENCE ONLY.
2. CONTRACTOR TO DESIGN BALLAST, AS NECESSARY.
3. CONTRACTOR SHALL PROVIDE POWER TO SUMP PUMP AND HIGH WATER DETECTOR IN VAULT FROM BUILDING.
4. CONTRACTOR TO PROVIDE A HIGH WATER ALARM NEAR THE MAIN ALARM PANEL INSIDE THE BUILDING. PROVIDE COMM LINES FROM VAULT TO BUILDING FOR ALARM PANEL CONNECTION.
5. VAULT DRAINAGE FROM SUMP PUMP SHALL DAYLIGHT TO CURB.

NOTES:
1. DETECTOR DOUBLE CHECK VALVE ASSEMBLY (DDC) VAULT OR ENCLOSURE SHALL BE INSTALLED NO MORE THAN 10 FEET FROM POINT OF CONNECTION, OR IN AN ALTERNATE LOCATION APPROVED BY EWEB.
2. DDC MAY BE INSTALLED VERTICALLY, PROVIDED THAT THE DDC IS:
   2.a. RECOMMENDED BY THE MANUFACTURER FOR VERTICAL INSTALLATION
   2.b. APPROVED IN A VERTICAL ORIENTATION AS LISTED ON THE CURRENTLY APPROVED BACKFLOW PREVENTION ASSEMBLIES LIST SPECIFIED BY OREGON HEALTH AUTHORITY.
3. ALL CLEARANCES PICTURED APPLY TO OUTSIDE, IN-BUILDING, AND VERTICAL INSTALLATIONS.
4. DDC INSTALLED BELOW GROUND IS PROTECTED FROM FREEZING DUE TO LOCAL SOIL TEMPERATURE.
5. EWEB REQUIRES VAULT INSTALLATION TO HAVE A SUMP PUMP AND HIGH WATER ALARM NEAR THE MAIN ALARM PANEL (EACH WIRED TO A SEPARATE CIRCUIT) IN THEIR SERVICE AREA. TEMPORARY DEWATERING OF VAULT IS REQUIRED UNTIL PERMANENT SUMP PUMP AND HIGH WATER ALARM ARE INSTALLED.
   5.a. SUMP PUMP TO BE LIBERTY PUMP MODEL 251 OR APPROVED EQUAL.
6. COMPACTED GRAVEL OR UNDISTURBED BASE.
7. HATCH, MINIMUM 3' X 3', SPRING ASSISTED, GALVANIZED OR STEEL DIAMOND PLATE. HATCH TO BE H-40 RATED.
   7.a. IF VAULT IS IN A PEDESTRIAN TRAFFIC AREA, METAL SURFACES SHALL HAVE FACTORY APPLIED NON-SKID COATING.
8. DDC 2½" OR LARGER SHALL HAVE VALVE SUPPORTS.
9. DDC INSTALLED BELOW GROUND LEVEL SHALL HAVE WATERTIGHT PLUGS OR CAPS INSTALLED ON THE TEST PORTS.
10. WATERTIGHT GROUT SHALL BE USED TO SEAL OPENINGS.
11. IF VAULT DEPTH EXCEEDS 4', USE OSHA APPROVED FIXED LADDER.
12. REINFORCED CONCRETE VAULT (ASTM C-875).
13. EXTEND TO FIRE DEPARTMENT PUMPER CONNECTION.

ADDITIONAL CONSIDERATIONS FOR FIRE SERVICES:
1. FIRE SERVICE ASSEMBLIES SHALL BE INSTALLED WITHIN 10' OF EWEB POINT OF CONNECTION (GENERALLY LOCATED AT THE PROPERTY LINE) AND SHALL BE DIRECTLY INLINE WITH SERVICE TAP LOCATION SUCH THAT THE POINT OF CONNECTION IN INLINE WITH ASSEMBLY.
2. ALL PIPING PRECEDING THE DOUBLE CHECK VALVE SHALL BE CONSTRUCTED OF POTABLE APPROVED MATERIAL PER OPSC TABLE 6-4.
3. NO OUTLETS OR CONNECTIONS (INCLUDING HYDRANTS) WILL BE PERMITTED ON FIRE SERVICE LINES PRIOR TO BACKFLOW PREVENTION ASSEMBLIES.
4. ABOVE GROUND ENCLOSURES FOR FIRELINES SHALL INCLUDE INSULATION AND/OR HEAT SOURCE DESIGNED TO KEEP ENCLOSURE AT A MINIMUM TEMPERATURE OF 40 F (NFPA 8.16.4.1.3).
5. WHERE NON-FOOD GRADE ANTIFREEZE, CORROSION INHIBITORS, OR OTHER CHEMICALS ARE ADDED TO A FIRE PROTECTION SYSTEM A REDUCED PRESSURE DETECTOT ASSEMBLY SHALL BE USED.

REFERENCE: OREGON PLUMBING SPECIALTY CODE, CHAPTER 6 WATER SUPPLY AND DISTRIBUTION, 603.4.6.3; 603.4.6.4; 603.3.3; 603.3.4; 603.3.8; 603.4.18.3; TABLE 6-4
REFERENCE: OREGON ADMINISTRATIVE RULES 331-061-0070 (5) (12) (15); 333-061-0071 (9)
REFERENCE: OREGON ADMINISTRATIVE RULES CHAPTER 437, DIVISION 2, 1910.27

(X) KEY NOTES

1 APPROVED 6" DETECTOR DOUBLE CHECK VALVE ASSEMBLY INCLUDING FACTORY SUPPLIED SHUT-OFF VALVES: AS LISTED ON THE CURRENTLY APPROVED BACKFLOW PREVENTION ASSEMBLIES LIST SPECIFIED BY OREGON HEALTH AUTHORITY AND PER PROJECT SPECIFICATIONS.

2 REMOTE READER, METER REGISTER AND TOUCH PAD PROVIDED BY EWEB.

PLUMBING FROM THE CONNECTION TO POTABLE WATER SUPPLY LINE TO THE ASSEMBLY REQUIRES A PLUMBING PERMIT AND MUST BE INSPECTED BEFORE COVERING.

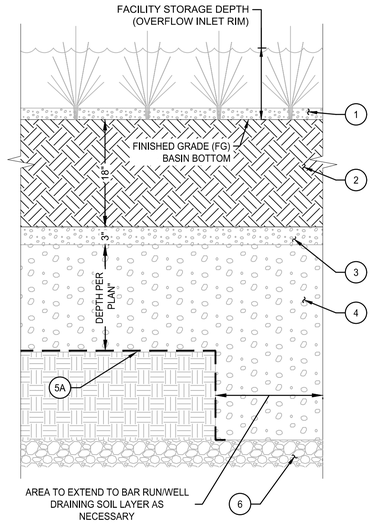
SERVICE TAPS CANNOT ALWAYS BE INSTALLED AT A LOCATION DESIRED BY THE CUSTOMER BECAUSE OF UNDERGROUND OBSTACLES THAT BECOME KNOWN ONLY AFTER EXCAVATION FOR THE INSTALLATION OF THE SERVICE TAP. AS A RESULT, EWEB REQUIRES THAT THE SERVICE TAP BE INSTALLED BEFORE THE CUSTOMER INSTALLS ANY VAULTS.

AS INITIAL TEST PERFORMED BY A STATE CERTIFIED BACKFLOW ASSEMBLY TESTER IS REQUIRED AT THE TIME OF INSTALLATION, AT LEAST ANNUALLY THEREAFTER OR MORE FREQUENTLY AS REQUIRED BY WATER SUPPLIER.

COPIES OF COMPLETED TEST REPORT SHALL BE FURNISHED TO:
THE OWNER
THE WATER SUPPLIER, EWEB
THE BUILDING OFFICIAL

6 DOUBLE DETECTOR CHECK VALVE & VAULT

SCALE: NTS



1 SEE LANDSCAPE ARCHITECTURE PLANS FOR SEEDING AND TOPSOIL

2 STORMWATER FACILITY GROWING MEDIA PER SPECS.

3 DRAINAGE LENS COURSE (¾" - NO. 4 OPEN GRADED AGGREGATE).

4 ROCK STORAGE, DRAINAGE FILL PER SPECS.

5A DRAINAGE FABRIC, WRAP UP SIDES AND OVERLAP TOP DRAINAGE LENS 12" MIN.

6 BAR RUN / WELL DRAINING GRAVEL LAYER. STORMWATER FACILITIES SHALL BE EXCAVATED UNTIL WELL DRAINING GRAVEL LAYER IS REACHED, INSTALL DRAINAGE FILL TO TOP OF WELL DRAINING GRAVEL LAYER, INCREASE DEPTH AS NEEDED. IF WELL DRAINING GRAVEL LAYER IS ENCOUNTERED AT AN ELEVATION ABOVE THE PROPOSED BOTTOM OF DRAINAGE FILL, REDUCE DRAINAGE FILL DEPTH AND INSTALL ONLY TO THE TOP OF THE WELL DRAINING GRAVEL LAYER.

4 TYPICAL STORMWATER FACILITY SECTION

SCALE: NTS

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REGISTERED PROFESSIONAL ENGINEER
56481
DIGITALLY SIGNED
OREGON
JULY 19, 2005
MATTHEW M. KEENAN
EXPIRATION DATE: 6/30/21

KENDALL AUTO GROUP
KENDALL COLLISION CENTER
90985 ROBERTS ROAD
COBURG, OREGON 97408

MARK	DATE	DESCRIPTION

ISSUE DATE: 24 FEBRUARY 2021
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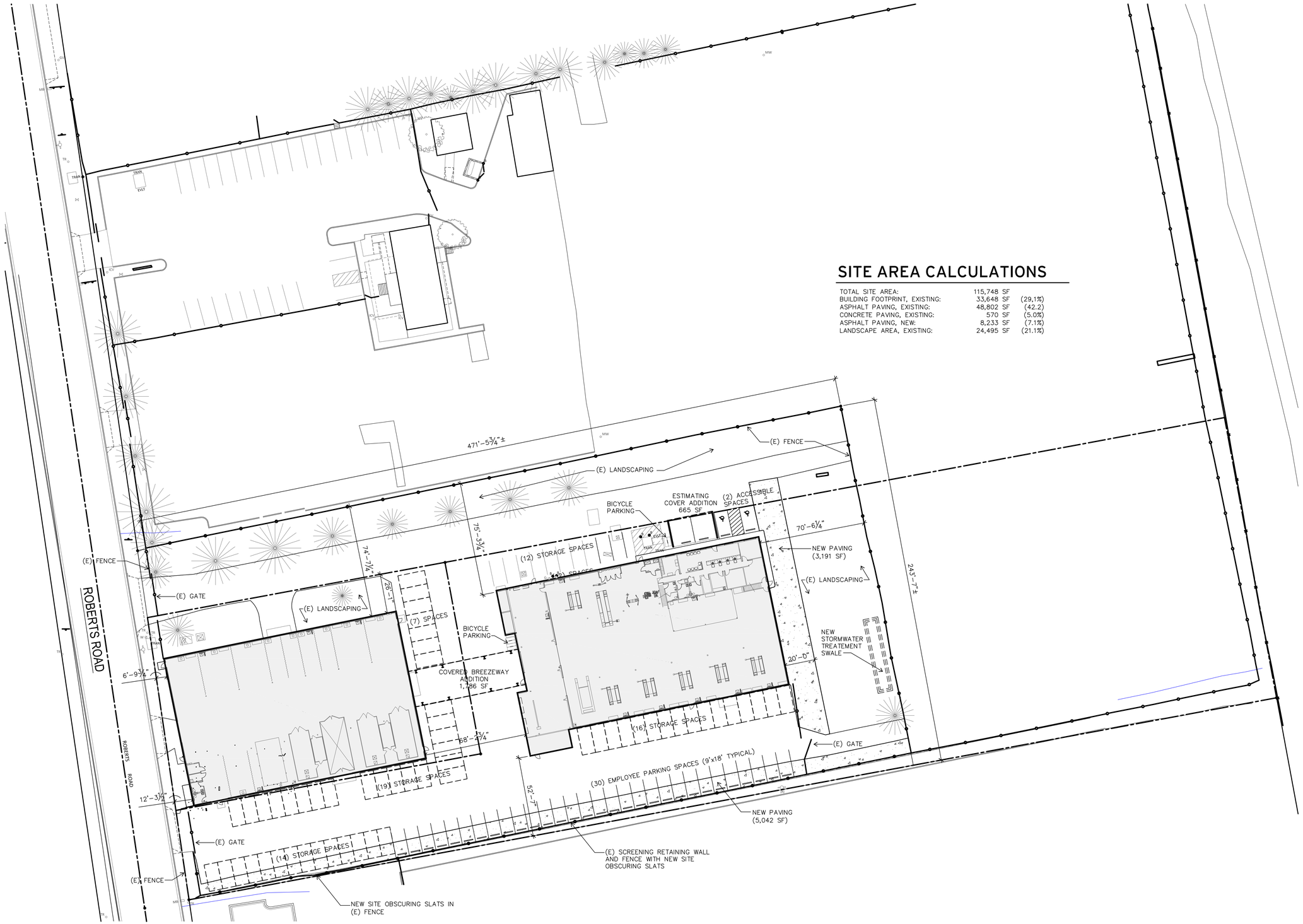
CIVIL DETAILS

C1.1



SITE AREA CALCULATIONS

TOTAL SITE AREA:	115,748 SF	
BUILDING FOOTPRINT, EXISTING:	33,648 SF	(29.1%)
ASPHALT PAVING, EXISTING:	48,802 SF	(42.2)
CONCRETE PAVING, EXISTING:	570 SF	(5.0%)
ASPHALT PAVING, NEW:	8,233 SF	(7.1%)
LANDSCAPE AREA, EXISTING:	24,495 SF	(21.1%)

A1 / A001 SITE PLAN
1"= 30'

NORTH

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541-342-8077
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ISSUE: SITE DESIGN REVIEW

PROJECT NO: 2034
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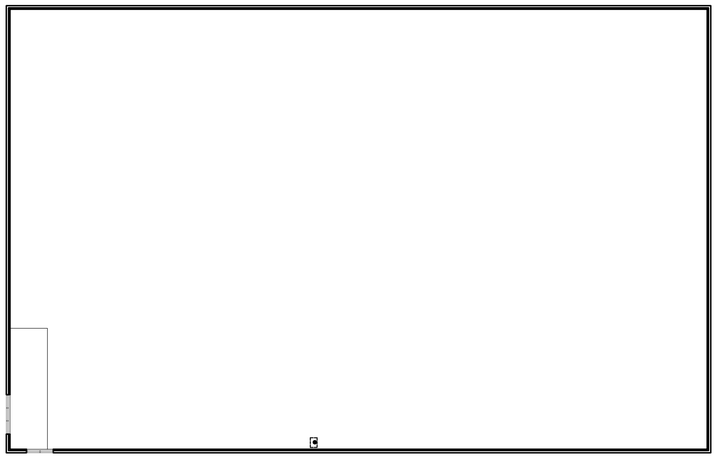
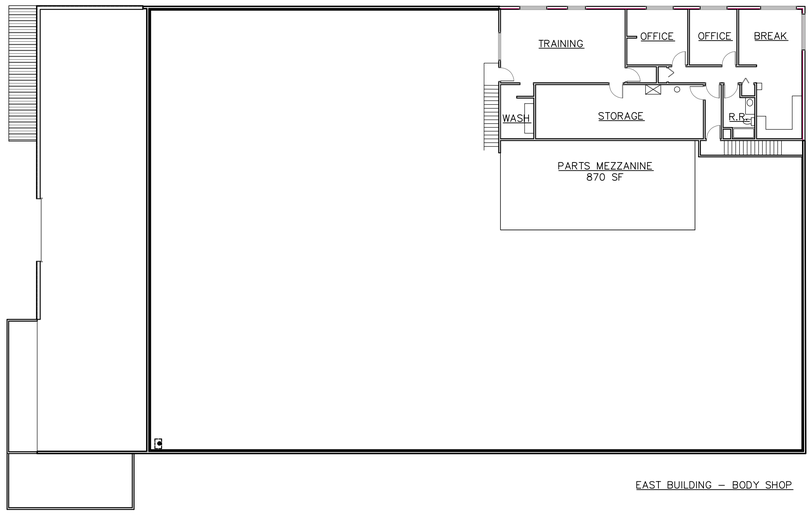
SITE PLAN

A001



WEST BUILDING – PAINT SHOP



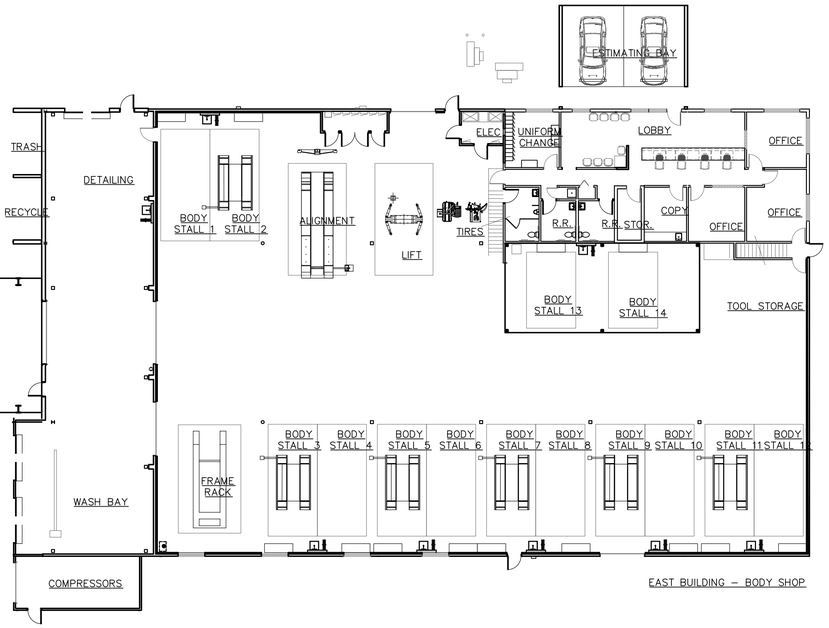
EAST BUILDING – BODY SHOP

C1
A101
SECOND FLOOR PLAN
1/16"= 1'-0"

NORTH

WEST BUILDING – PAINT SHOP

COVERED BREEZEWAY



EAST BUILDING – BODY SHOP

A1
A101
FIRST FLOOR PLAN
1/16"= 1'-0"

NORTH

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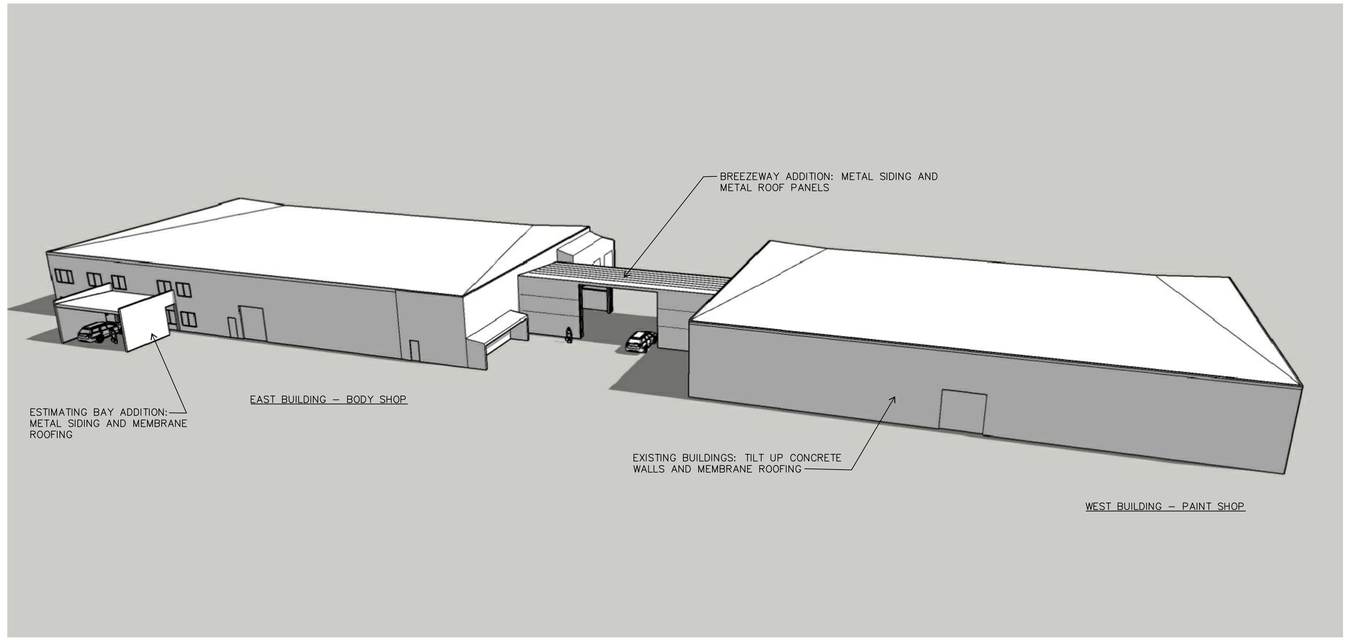
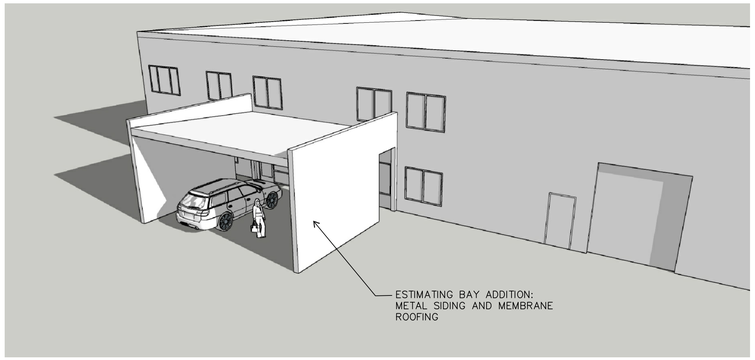
FLOOR PLAN

A101



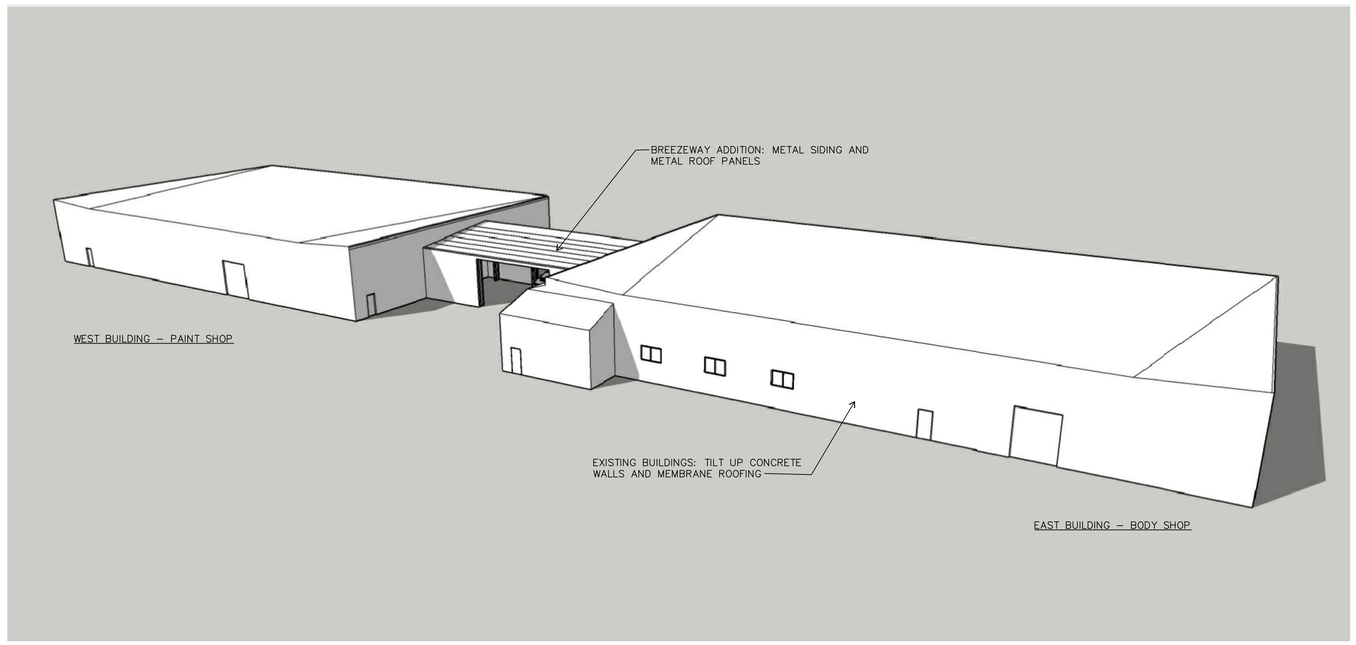
C1 A201 VIEW FROM NORTHWEST

NOT TO SCALE



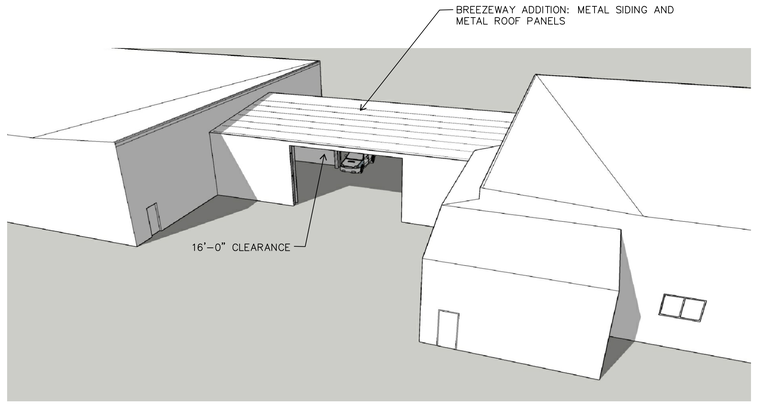
C4 A201 VIEW OF ESTIMATING BAY ADDITION

NOT TO SCALE



A1 A201 VIEW FROM SOUTHEAST

NOT TO SCALE



A4 A201 VIEW OF BREEZEWAY ADDITION

NOT TO SCALE

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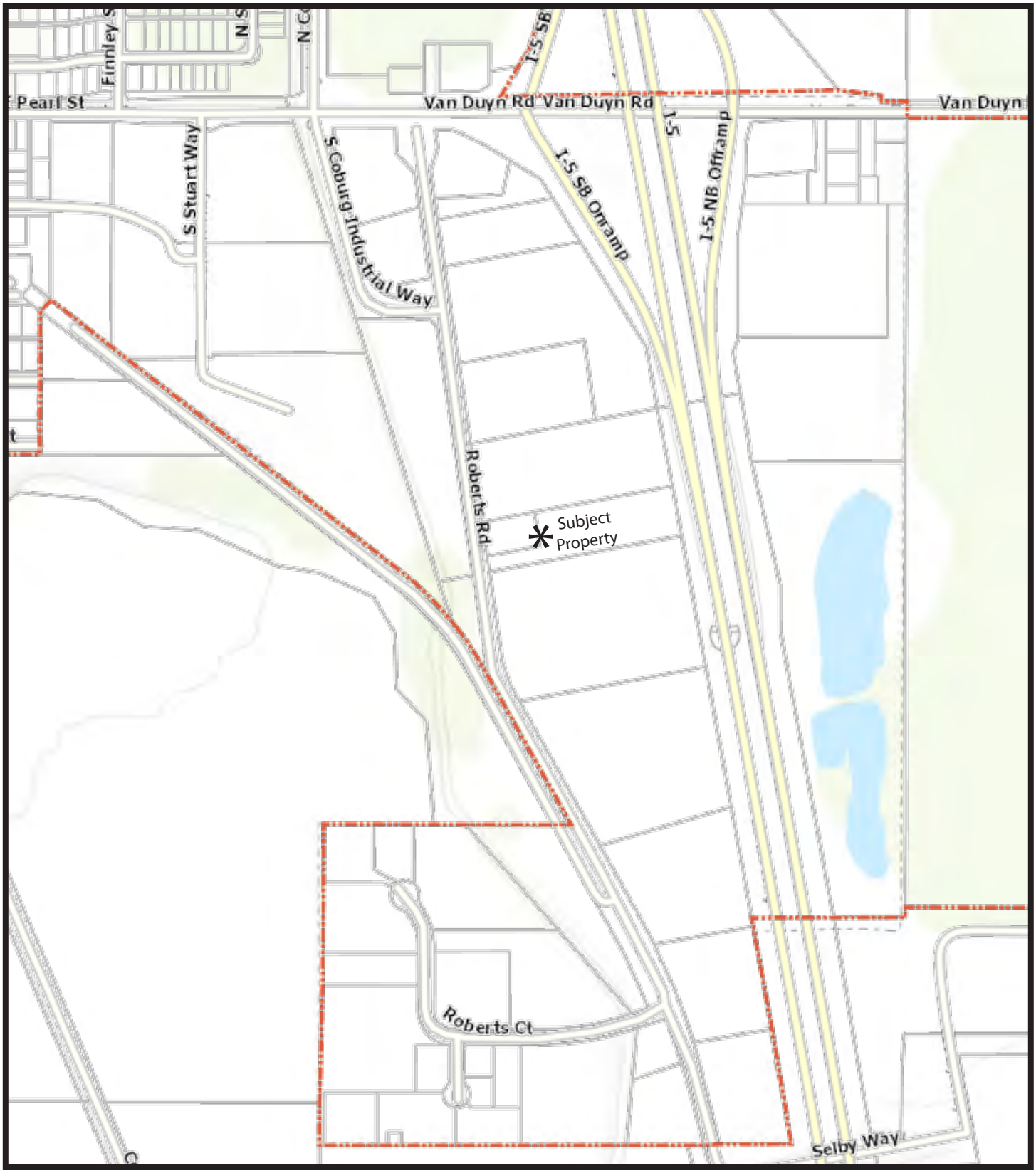
MARK	DATE	DESCRIPTION

ISSUE DATE: 22 FEBRUARY 2021
ISSUE: SITE DESIGN REVIEW

PROJECT NO: 2034
DRAWN BY: SS
CHECKED BY:

BUILDING ADDITION IMAGES

A201



scale 1" = 500'

0 125 250 500 Feet

N

KENDALL COLLISION CENTER
SITE DESIGN REVIEW

Map 16-03-33-40 Tax Lots 400, 500 (partial) & 300 (partial)
90895 Roberts Road

VICINITY MAP
EXHIBIT A

2/12/21

scale 1" = 300'

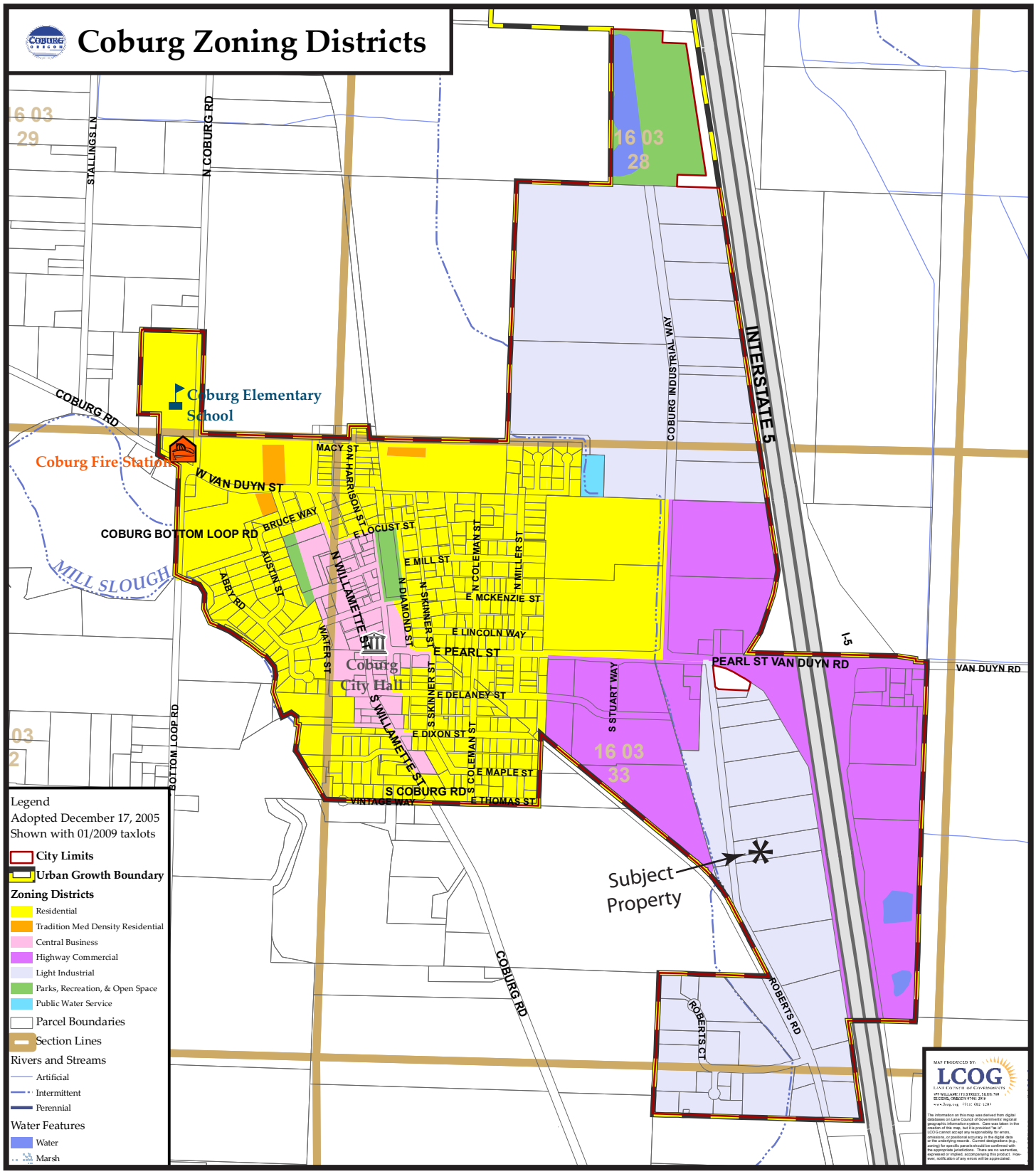
0 75 150 300 Feet

N

KENDALL COLLISION CENTER
SITE DESIGN REVIEW
Map 16-03-33-40 Tax Lots 400, , 500 (partial) & 300 (partial)
90895 Roberts Road

AERIAL PHOTO
EXHIBIT B

2/12/21



scale 1" = 1000'

0 250 500 1000 Feet

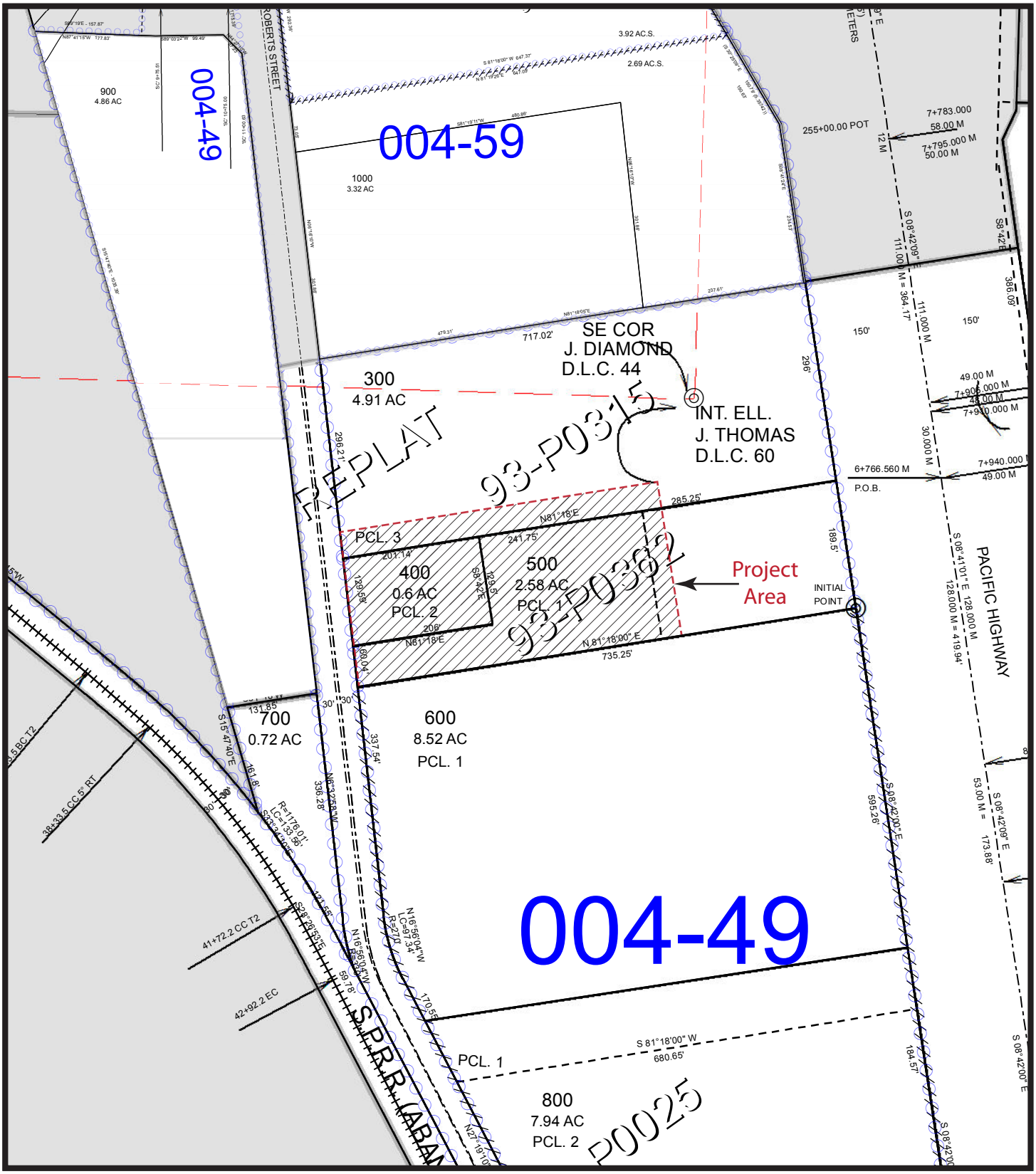
N

Kendall Collision Center
Site Design Review

Map 16-03-33-40 Tax Lots 400, 500 (partial) & 300 (partial)
90895 Roberts Road

Zoning Map
Exhibit C

2/12/21



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KENDALL COLLISION CENTER
SITE DESIGN REVIEW

Map 16-03-33-40 Tax Lots 400, 500 (partial) & 300 (partial)
90895 Roberts Road

ASSESSOR MAP
EXHIBIT D

2/12/21

EXHIBIT E

KENDALL
Administrative Offices
P.O. Box 1318
Eugene, OR 97440
Phone: 541.335.4000
Fax: 541.335.4098
kendallauto.com

To Whom It May Concern,

Kendall Ford Collision Center has been in business since the 1950's. We are one of the largest collision repair facilities in Southern Oregon and we take great pride in not only the quality of work we do, but our customer satisfaction level as well. There are many factors involved in making a collision repair facility as successful as ours. It starts with the front office where we have a highly qualified and experienced Body Shop Manager, Kevin Hurley, and it filters down through the shop from there. Kevin has been with the company for 15 plus years and has surrounded himself with some of the most highly skilled and qualified employees and technicians in the business. It is because of this level of dedication to our industry that we feel putting our new collision repair facility in Coburg will benefit not only the city, but the surrounding businesses as well. Allow me to help you understand exactly what it is we do on a day to day basis so as to help you grasp our need for a large facility such as the one we are hoping to occupy at 90895 Roberts Road, Coburg, Oregon.

I think it would be safe to assume that some or all of you on the Coburg City Council have had the need to use a collision repair facility at one point in your lives due to an accident that may or may not have been your fault. There is a saying in our industry that is somewhat sad, but true none the less, that goes like this: "We meet by accident." It is at this point where our expertise comes into play and we begin to make our customers lives better again.

Once the shock of the accident has worn off, everyone involved is deemed to be safe and unharmed, the mess at the accident sight is cleaned up and the tow trucks have cleared the cars out of the roadway, the next step of the process is getting the damaged vehicles in our hands. We begin by taking all the stress of your shoulders. Our crew handles the entire process from start to finish, which includes dealing with insurance companies.

Once the damaged vehicle reaches our facility, this is where our expertise begins. Kendall Collision Center currently employs 27 people at our Eugene location. We have eight people in the office part of our facility whose role consists of writing the estimate, getting approval from the insurance company to start the repair process, ordering any necessary parts needed for the repair, making sure the repair process goes as planned from start to finish and keeping in constant contact with the vehicle owners so they are confident and reassured that their vehicle will be back in their possession and on the road when promised.

After our front office support team finishes their initial process, the damaged vehicle will then be assigned to one of our eight highly qualified collision repair technicians. The technician's job is to remove all the damaged parts, fix any structural damage that may have been caused by the accident and replace any and all parts that were damaged and in need of replacing. When this part is finishes, the vehicle is now ready to be moved to our paint facility. The vehicle is now reassigned to one of our five painters.

The painters job is to prime any area that has body work done to it, prep and sand all areas that either have had new parts installed or fixed due to accident damage and then apply color to those areas. After this process is completed, our customers vehicles look like the accident never happened. Kendall Collision Center has, without a doubt, the most highly experienced paint crew in the area with over 100 years of painting knowledge between all of then combined.

Now that the painters have completed all procedures necessary to assure the vehicle looks as good, or better, than pre-accident condition, the vehicle is now sent over to our detail department. Our detailers

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will make sure the vehicle is cleaned and ready to be delivered back to one of our satisfied customers. At this point, our front end support team will take back over and finish the process. They will call the customer and inform them that their vehicle is done and ready to be picked up. When the owner arrives to pick up their vehicle, one of our support members will do a final inspection with the customer present and then send them off with a quality repair job and a big smile on their face.

At Kendall Collision Center, we have an average of around 250 cars filter through our facility on a monthly basis. The majority of these vehicles usually have no more than 3-4 damaged panels on them, which is the size of job we prefer to do. This size job can be run through our shop and back to our customers typically within the same week. A small percentage of the jobs we do are larger than 3-4 panels if the accident was more serious and the vehicles frame was damaged. We also do a lot of smaller repairs, such as painting only the front or rear bumper damaged in an accident.

The facility on Roberts Road in Coburg is a very desirable location for our collision repair facility for many reasons. The main one being the size of the buildings themselves as well as how open and unobstructed the interior of each building is. This will allow us to lay out our facility the way we envision so as to create repair efficiencies necessary for us to not only handle the work load we currently have but continue to grow and meet our goals we have set for our collision facility as we look into our future.

Our initial vision is to make the West building our body and frame repair facility. On this side we will create 24 body technician stalls. This will allow each one of our guys to have plenty of space for each one to efficiently do their job without getting in each other's way. In this West building, we will also have enough space to have our frame straightening machines and our alignment machine as well.

In the East building, we envision turning this into paint and detail facility. Our plan is to install four brand new paint booths in this building. These new booths will state of the art, full down draft paint booths. Why is this important? Well, todays paint booths are required to have a very high level of efficiency and filtration. The filters installed in these new booths are required, by National law, to have a minimum 98.4% efficiency rating. What this means is that there will be minimal amount of paint smells, and or paint particulates, entering our atmosphere. They are also much safer for the health and welfare of the painters due to their level of efficiency as well.

I think it is also very important to mention that about 8-10 years ago, Kendall Collision Center made the decision to switch from the conventional solvent based paint to a much more environmentally friendly water based paint system manufactured by Axalta Coating Systems and distributed by Industrial Finishes & Systems, Inc. By using the water based paint system, Kendall Collision Center would be considered a compliant shop for VOC's (Volatile Organic Compounds) in any county in the Nation that is mandated by the National Rule on VOC's. Basically what this means is that between the state of the art paint booths and the water based paint, Kendall Collision Center is being as environmentally friendly as we can possibly be for the nature of our industry.

There are a few other businesses in the area that, while they have found a different niche in the industry, they still do paint and body work similar to our collision repair facility. Marathon Coach builds very high end luxury coaches in Coburg and they have several large paint booths in their facility being used on a daily basis. Camping World, directly to the South of where we want to have our business located,

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also does repair and paint procedures daily doing motorhome and travel trailer repair. It is for this reason, we feel like Kendall Collision Center would be a great fit in the neighborhood.

The facility on Roberts Road that we would be occupying for our business would primarily be a labor only facility. What I mean by this is we still plan on having most of our support crew on location at our Eugene facility where they would write the estimates and take care of all the details necessary to create a repair order and then transport the vehicles to our Coburg facility for the repair process.

We believe Kendall Collision Center would be a great addition to the Coburg Business District. As you can see, we have a great vision for this new to us facility and look forward to the opportunity to be a business partner in your community. Thank you for taking the time to listen to our plans, visions and goals.

Respectfully,

Duane Farnham
Kendall Auto Group
Regional Manager

CITY ATTACHMENT B

EXHIBIT G

TRAFFIC IMPACT ANALYSIS

KENDALL COLLISION CENTER

Coburg, Oregon

February 15, 2021

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Eugene, Oregon 97402
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SANDOW ENGINEERING

Traffic Impact Analysis

Kendall Collision Center

RENEWAL 06/30/22

Coburg, Oregon
February 15, 2021

Kelly Sandow PE

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project # 5875

EXECUTIVE SUMMARY

This report provides the Traffic Impact Analysis and findings prepared for the proposed Kendall Collision Center in Coburg, Oregon. The subject site is located on Assessor's Map 16-03-34-00 tax lots 400 and 500. The parcels are currently developed with two buildings utilized for light industrial uses. The applicant is proposing to remodel of the existing buildings for use for the collision center.

The analysis evaluates the transportation impacts as per the City of Coburg criteria, evaluating adjacent roadway and intersection operations with the addition of development traffic for the year of opening and 5 years into the future.

The following report recommendations are based on the information and analysis documented in this report.

FINDINGS

- All studied intersections operate within the mobility standards with and without the development traffic.
- The addition of development traffic does not substantially increase queuing conditions.

CONTENTS

LIST OF APPENDICES

1.0 BACKGROUND

1.1 SITE INFORMATION

This report provides the Traffic Impact Analysis and findings prepared for the proposed Kendall Collision Center in Coburg, Oregon . The subject site is located on Assessor's Map 16-03-34-00 tax lots 400 and 500. The subject site is located on Assessor's Map 16-03-34-00 tax lots 400 and 500. The parcels are currently developed with two buildings utilized for light industrial uses. The applicant is proposing to remodel of the existing buildings for use for the collision center.

The site currently has two access connections. One is located north of the buildings and one is located south of the buildings. Each access is full-movement and will remain in its current location and use with the proposed development. Appendix A contains the preliminary site plan.

1.2 ANALYSIS SCOPE

The traffic study is performed in accordance with the City of Coburg standards and criteria. A turning movement/intersection analysis was performed for the adjacent intersections anticipated to be most impacted by the development. The following intersections are included in the study:

- Robert Road @ Coburg Industrial Way
- Pearl Street @ Coburg Industrial Way

The operational analysis was performed at the study area intersections for the weekday AM Peak Hour (7-9 AM) and PM peak hour (4-6 PM). The operational analysis is performed for the following conditions:

- Existing conditions, the year 2021
- Year of completion, the year 2022, with and without the proposed development
- Five-year planning horizon, the year 2027, with and without the proposed development

2.0 EXISTING ROADWAY CONDITIONS

2.1 STREET NETWORK

Streets included within the study are Roberts Road, Coburg Industrial Way, and Pearl Street. The roadway characteristics within the study area are included in Table 1. Figure 1 provides a map of the site location and study area. Figure 2 illustrates the study area intersection geometry and access control. Figure 3 provides the adjacent roadway street classification.

TABLE 1: ROADWAY CHARACTERISTICS WITHIN STUDY AREA

Characteristic	Roberts Road	Coburg Industrial Way	Pearl Street
Jurisdiction	City of Coburg	City of Coburg	Lane County
Functional Classification	Local/Collector	Collector	Arterial
Lanes per Direction	1	1	1-2
Center Left Turn lane	None	None	None
Restrictions in the Median	None	None	None
Bikes Lanes Present	None	None	Yes
Sidewalks Present	No	Yes	Yes
Transit Route	No	North of Pearl St	West of Coburg Industrial Way
On-Street Parking	Yes	No	No
Vertical or Horizontal Sight Limitations	None	None	None

2.2 CRASH ANALYSIS

A crash estimation was performed for the study area intersections. The analysis investigates crash data available for the most recent 5 years, 1/1/2015-12/31/2019, to determine a crash rate in crashes per million entering vehicles and the type of crashes that occurred. The crash rate is compared to the statewide crash rate of 1,080. The crash data is provided in Appendix B. The data is summarized in Table 2.

TABLE 2: INTERSECTION CRASH RATES

Location	Number of Crashes	Types of Crashes						ADT	Crash Rate*
		Head	Rear	Side	Turn	Other	Pedestrian/ Bike		
Roberts Rd at Coburg Industrial Way	0	0	0	0	0	0	0	2,200	0.00
Pearl Street at Coburg Industrial Way	6	0	3	0	2	1	0	10,610	0.31

***(crashes/million entering vehicles)**

As illustrated within Table 2, the crash rate is not exceeded the statewide crash rate. Therefore, there is no mitigation required.

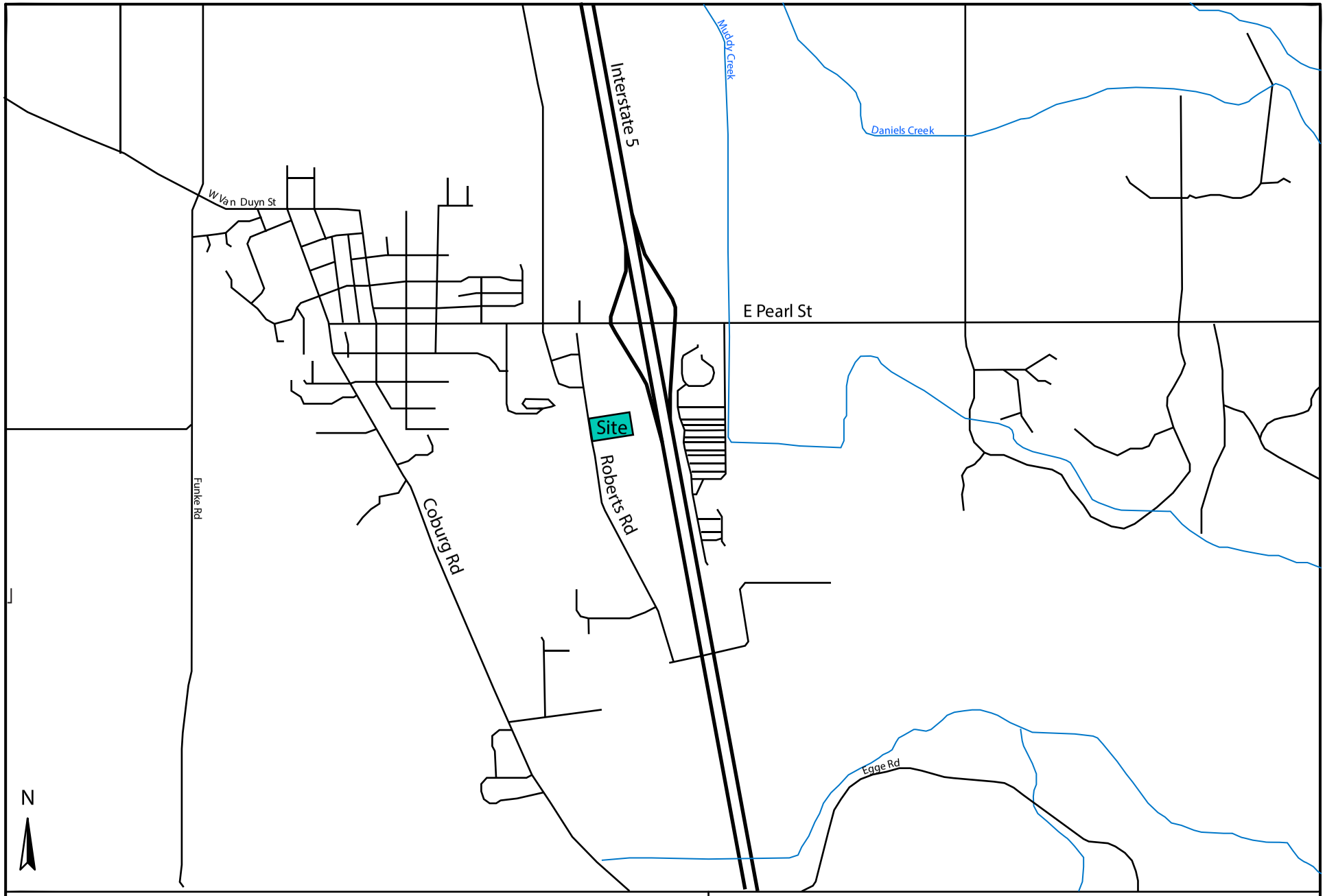

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Figure 1: Site Location and Vicinity Map

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Figure 2: Existing Lane Configuration and Traffic Control

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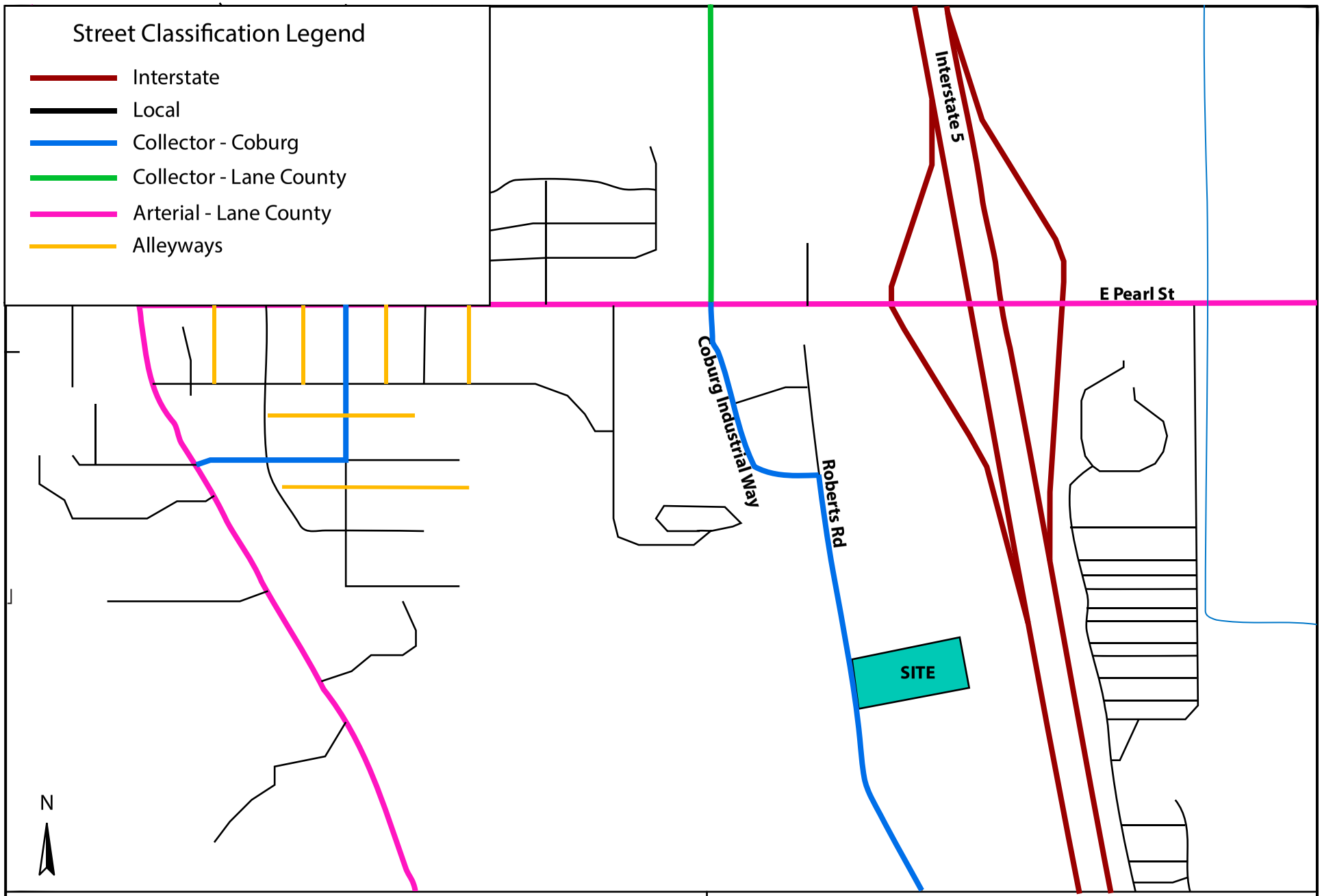

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Figure 3: Street Classification

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3.0 DEVELOPMENT TRIP GENERATION AND DISTRIBUTION

The trips anticipated to be generated by the proposed development are estimated using the ITE Trip Generation Manuals 10th Edition. The ITE Land Use Code most closely matching the proposed Kendall Collision Center is 942- Automobile Care Center. The AM and PM Peak Hour Trip Generation is illustrated in Table 3.

TABLE 3: TRIP GENERATION PEAK HOUR

ITE Land Use	Size	Trip Generation					
		Rate	Trips	%IN	%OUT	IN	OUT
PM Peak Hour Trips							
942- Automobile Care Center	36.719	*Eqn1	100	48%	52%	48	52
AM Peak Hour Trips							
942- Automobile Care Center	36.719	2.25	83	66%	34%	55	28

*Eqn1=2.41(x)+11.83

The existing travel patterns from the traffic counts are used to estimate how the development trips will use the surrounding transportation system to access the site. The trips are distributed through the study area based on those existing travel patterns as described below:

- 35% to/from West via Pearl
- 65% to/from east via I-5

The traffic volumes were distributed within the study area according to the percentages above and are illustrated in Figure 4 for the AM and Figure 5 for the PM.

4.0 BACKGROUND TRAFFIC VOLUMES

4.1 INTERSECTION COUNTS

As part of the analysis, peak hour turning movement counts were collected at the intersections. Traffic counts were performed for the weekday peak period of 7:00-9:00 AM and 4:00 PM to 6:00 PM. The turning movement counts illustrate that the peak of the count periods occurred between 4:15 PM and 5:15 PM and 7:15 AM and 8:15 AM .

The traffic volumes are included in Appendix C.

4.2 VOLUME ADJUSTMENT

Traffic volumes were collected in January and February of 2021. During this time, traffic volumes are generally affected by Covid-19 shutdowns. Therefore, the traffic volumes are adjusted to represent traffic levels during pre Covid-19 times. ODOT has been collecting traffic volumes on state highways during the Covid-19 shutdowns and comparing the traffic volumes to pre Covid-19 data. Statewide the current volumes are, on average, 11% lower during the count times than the same time in the year 2020 (pre Covid-19). Therefore, a factor of 1.11 was applied to the counted data to represent pre Covid-19 volumes.

4.3 FUTURE YEAR BACKGROUND VOLUMES

The proposed site development is projected to be completed by the year 2022. Consistent with the traffic impact analysis criteria, the intersections were evaluated for the year of completion, the year 2022, and a 5-year planning horizon, the year 2027. To account for naturally occurring traffic increased between the count year and the future analysis year, an annual growth rate was applied. The growth rate was determined using the population forecast projections for Coburg from the Lane County Coordinated Population Forecast 2015 through 2065 from the Population Research Center at Portland State University. The forecast illustrates a 2020 population of 1,083 and a 2025 population of 1,151. This equates to approximately 1.3% per year of growth. The 1.3% per year was applied to the year 2021 volumes to estimate the year 2022 and the year 2027 background volumes.

4.4 FINAL TRAFFIC VOLUMES

The existing traffic volumes were adjusted according to the methodology described above. Appendix C provides the traffic volume calculations. The development trips are added to the background traffic to volume to represent the build conditions. Figures 4 illustrates the year 2021 background traffic volumes for the AM and PM peak hour. Figure 5 illustrates the year 2022 AM peak hour traffic volumes and Figure 6 illustrates the year 2022 PM Peak hour volumes. Figure 7 illustrates the year 2027 AM peak hour traffic volumes and Figure 8 illustrates the year 2027 PM Peak hour volumes.

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Figure 4: AM Peak Hour Development Trip Distribution

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Figure 5: PM Peak Hour Development Trip Distribution

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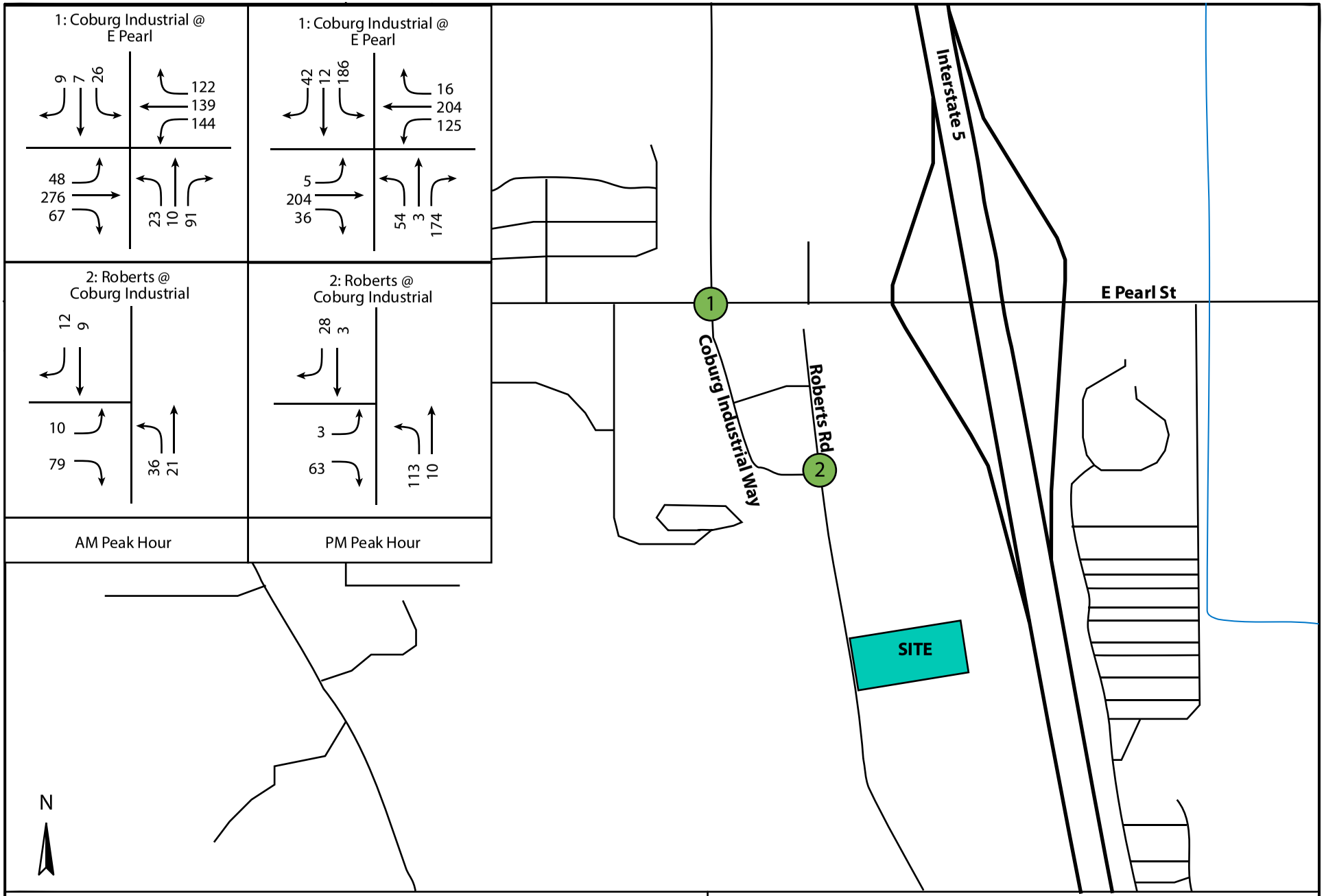

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Figure 6: Year 2021 Peak Hour Background Traffic Volumes

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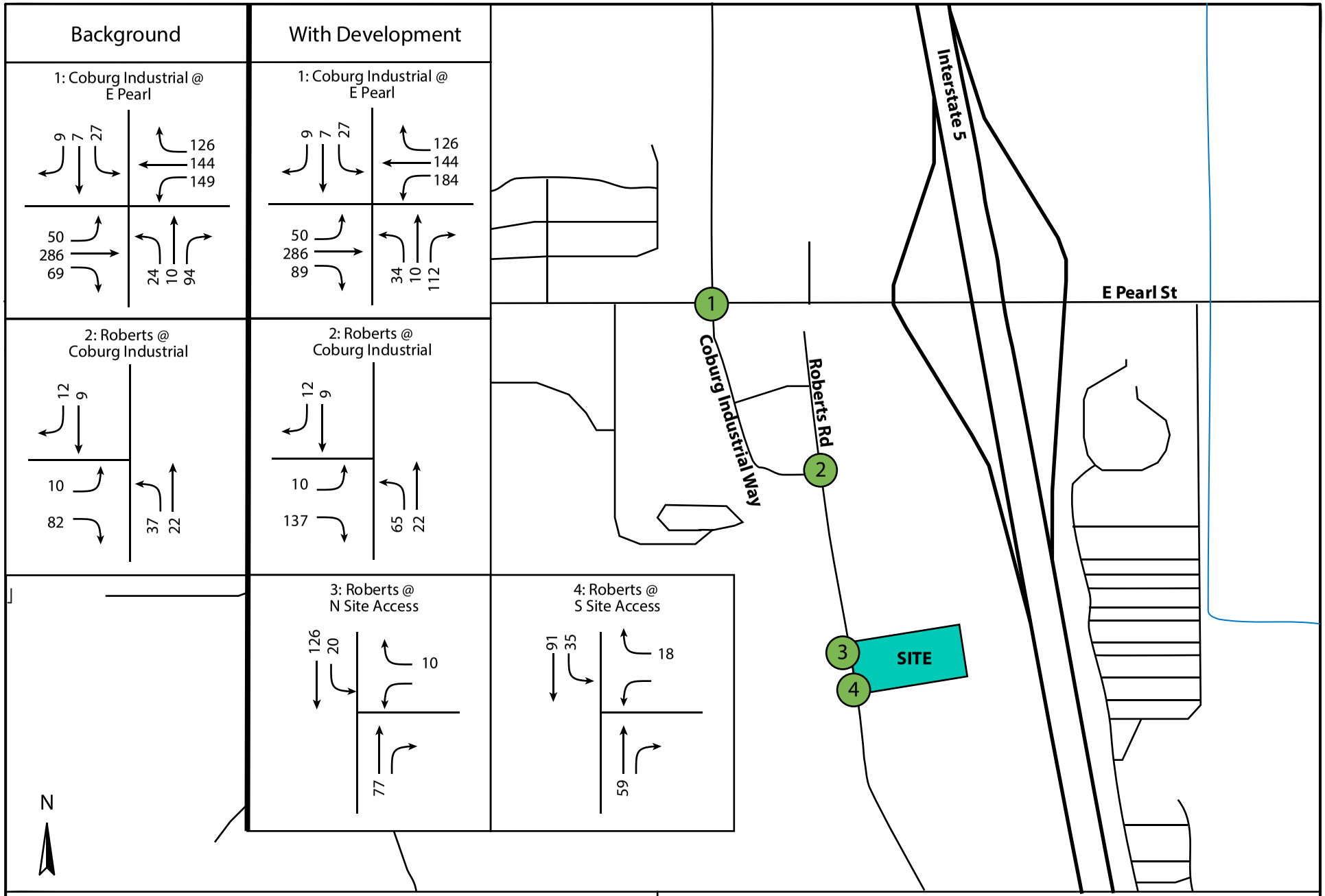

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Figure 7: Year 2022 AM Peak Hour Traffic Volumes

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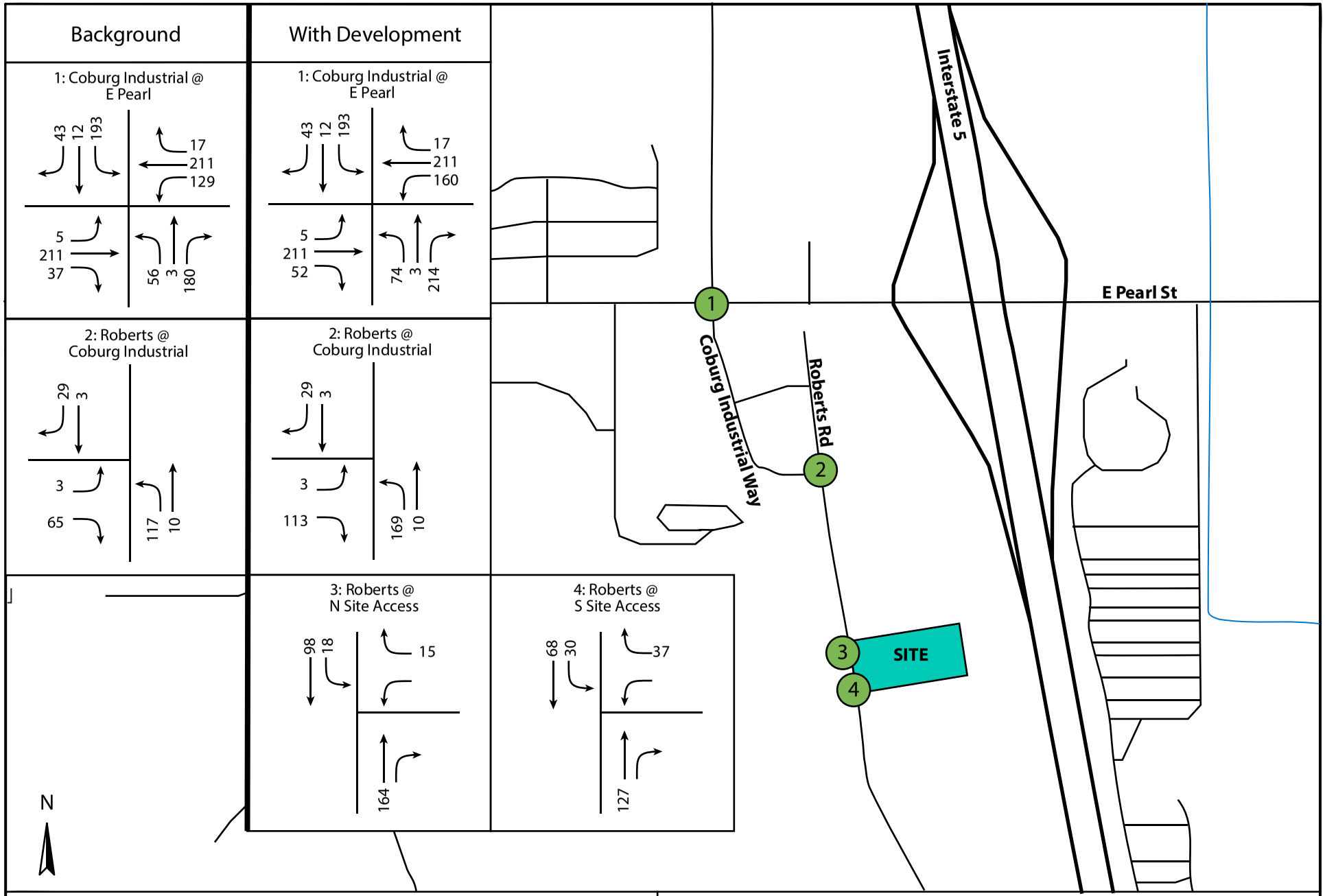

Kendall Collision, Coburg, Oregon

Figure 8: Year 2022 PM Peak Hour Traffic Volumes

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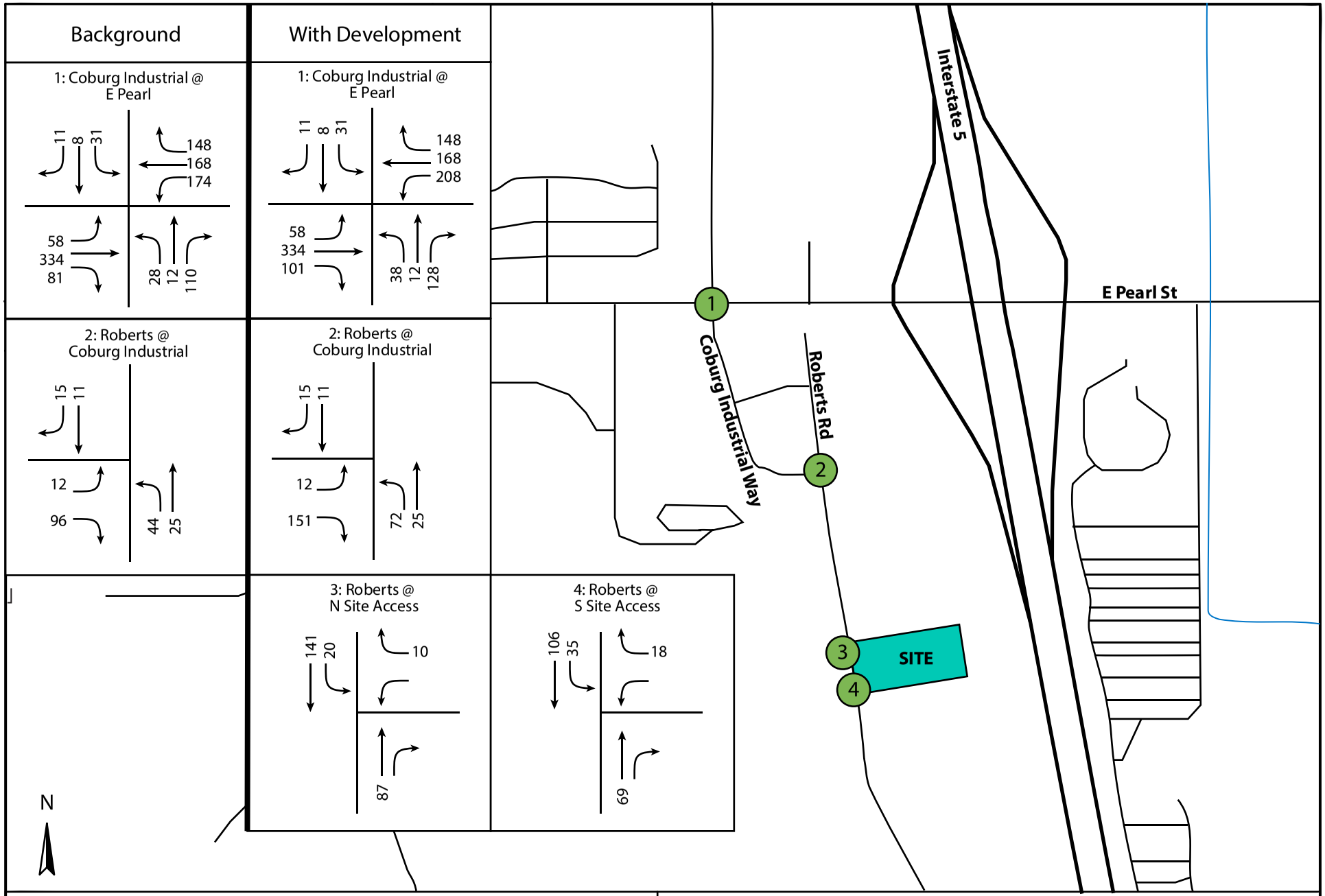

Kendall Collision, Coburg, Oregon

Figure 9 Year 2027 AM Peak Hour Traffic Volumes

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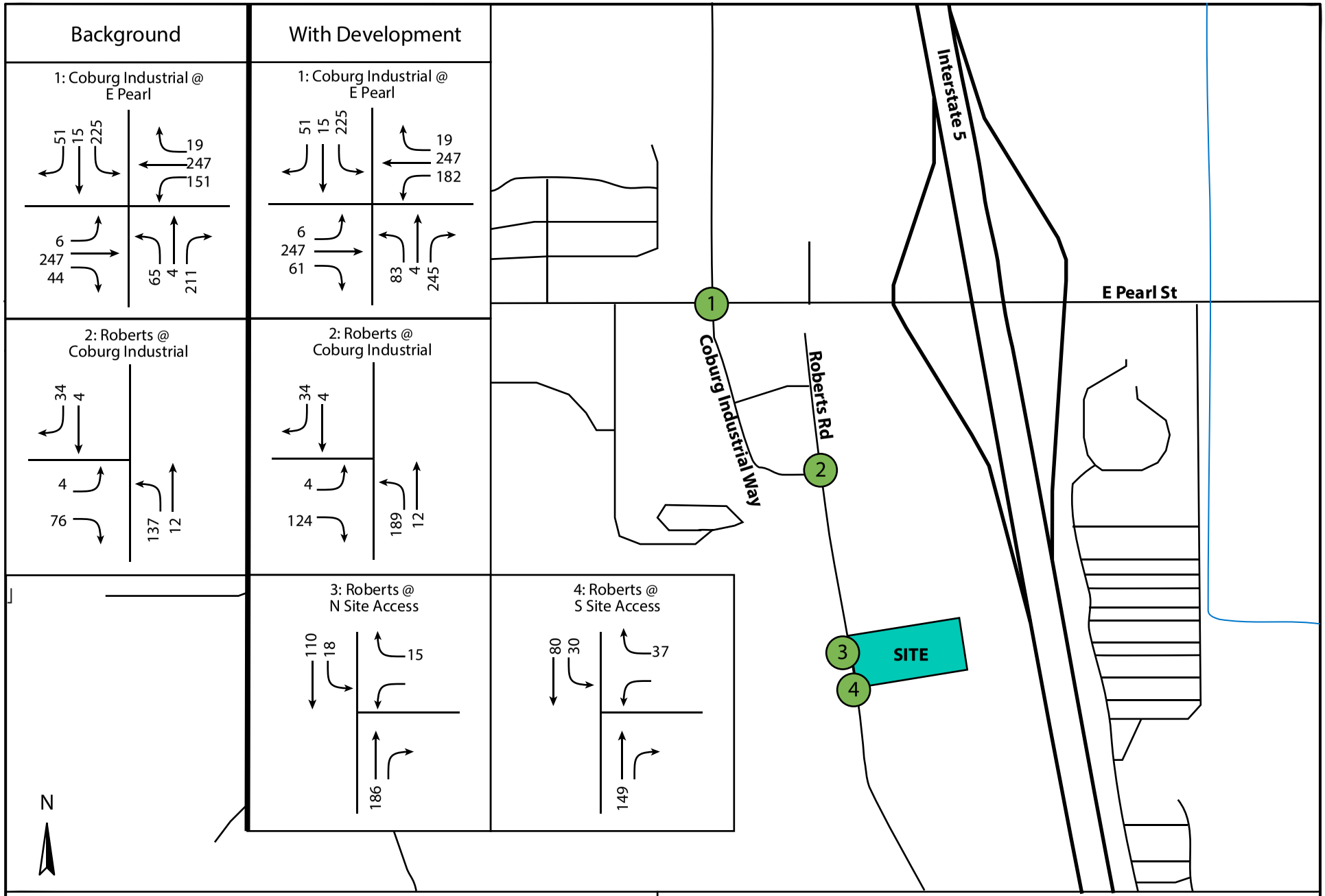

Kendall Collision, Coburg, Oregon

Figure 10: Year 2027 PM Peak Hour Traffic Volumes

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FIGURE 4 –AM PEAK HOUR DEVELOPMENT TRIPS

FIGURE 5 – PM PEAK HOUR DEVELOPMENT TRIPS

FIGURE 6 – YEAR 2021 PEAK HOUR BACKGROUND TRAFFIC VOLUMES

FIGURE 7 – YEAR 2022 AM PEAK HOUR TRAFFIC VOLUMES WITH DEVELOPMENT

FIGURE 8 – YEAR 2022 PM PEAK HOUR BACKGROUND TRAFFIC VOLUMES

FIGURE 9 – YEAR 2027 AM PEAK HOUR TRAFFIC VOLUMES WITH DEVELOPMENT

FIGURE 10 – YEAR 2027 PM PEAK HOUR TRAFFIC VOLUMES WITH DEVELOPMENT

5.0 INTERSECTION ANALYSIS

5.1 PERFORMANCE MEASURES

The measure of performance for intersections in this analysis is based on the Highway Capacity Manual (HCM) defined level of service (LOS). LOS is a concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or along a roadway segment. It was developed to quantify the quality of service of transportation facilities.

LOS is based on average delay, defined as the average total elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line. The average delay is measured in seconds per vehicle per hour and then translated into a grade or "level of service" for each intersection. LOS ranges from A to F, with A indicating the most desirable condition and F indicating the most unsatisfactory condition.

The LOS criteria, as defined by the Highway Capacity Manual, for signalized intersections, are provided in Table 4.

TABLE 4: HCM LEVEL OF SERVICE FOR INTERSECTIONS

	Stopped Delay Per Vehicle (Seconds per Vehicle)	
	Unsignalized Intersections	**Signalized Intersections**
A	≤ 10.0	≤ 10
B	> 10.0 and ≤ 15.0	> 10 and ≤ 20
C	> 15.0 and ≤ 25.0	> 20 and ≤ 35
D	> 25.0 and ≤ 35.0	> 35 and ≤ 55
E	> 35.0 and ≤ 50.0	> 55 and ≤ 80
F	> 50.0	> 80

The City of Coburg has a mobility standard of LOS D for intersections within their jurisdiction.

Pearl Street is Lane County jurisdiction west of the previous Roberts Road connection to Pearl Street. Lane County has an LOS standard of E and a v/c Standard of 0.85. The v/c is a standard ratio of adjusted intersection volume to the maximum volume an intersection can accommodate in an hour.

5.2 INTERSECTION ANALYSIS RESULTS

A performance analysis was conducted for the studied intersections for the Year 2021, 2022, and 2027 conditions during the AM and PM peak hours. The intersection evaluation was performed using Synchro 10. The results are shown in Table 5. The SYNCHRO outputs are provided in Appendix D

TABLE 5: INTERSECTION PERFORMANCE: WEEKDAY AM AND PM PEAK HOUR

Intersection	Mobility Standard LOS, v/c	2021 Background	2022 Background	2022 Build	2027 Background	2027 Build
			AM			
Coburg Industrial Way @ Pearl St	E, 0.85	C, 0.41	C, 0.41	C, 0.41	D, 0.42	D, 0.42
Roberts Rd @ Coburg Industrial Way	D	A	A	A	A	A
Roberts Rd @ N Driveway	D	N/A	N/A	A	N/A	A
Roberts Rd @ S Driveway	D	N/A	N/A	A	N/A	A
			PM			
Coburg Industrial Way @ Pearl St	E, 0.85	C, 0.39	C, 0.9	C, 0.39	C, 0.40	D, 0.40
Roberts Rd @ Coburg Industrial Way	D	A	A	A	A	A
Roberts Rd @ N Driveway	D	N/A	N/A	A	N/A	A
Roberts Rd @ S Driveway	D	N/A	N/A	A	N/A	A

As illustrated in Table 5 the additional of development trips do not impact the operation of the studied intersections.

6.0 QUEUE ANALYSIS

A queuing analysis was conducted for the studied intersections. The analysis was performed using SimTraffic 10, a microsimulation software tool that uses the HCM defined criteria to estimate the queuing of vehicles within the study area. The average and 95th percentile queuing results are illustrated in Table 6 for the AM Peak hour and Table 7 for the PM peak hour. All results are rounded to 25 feet to represent the total number of vehicles in the

queue, as one vehicle typically occupies 25 feet of space. The SimTraffic outputs are provided in Appendix E

TABLE 6: INTERSECTION QUEUING: WEEKDAY AM PEAK HOUR

Intersection			Available Storage (Feet)	2021 Background (Feet)		2022 Background (Feet)		2022 Build (Feet)		2027 Background (Feet)		2027 Build (Feet)	
				Average	95th	Average	95th	Average	95th	Average	95th	Average	95th
Roberts Rd @ Coburg Industrial Way	EB	LTR	500+	50	75	50	75	50	75	50	75	50	75
	NB	LTR	500+	25	25	25	50	25	25	25	25	25	25
	SB	LTR	480	0	0	25	25	25	25	0	0	0	0
Coburg Industrial Way @ Pearl St	EB	L	125	50	125	50	125	75	125	75	150	75	150
		T	360	150	250	150	225	150	250	175	275	175	300
		TR	360	100	200	100	200	125	200	125	225	150	250
	NB	L	225	25	75	25	75	25	75	25	75	50	100
		TR	500+	50	75	50	100	50	100	50	100	50	100
	SB	L	250	25	75	50	75	25	75	50	75	50	75
		TR	500+	25	50	25	50	25	50	25	50	25	50
	WB	L	250	100	175	100	175	125	225	125	200	150	250
		T	725	50	100	50	100	50	125	75	125	75	150
		TR	725	50	100	50	125	75	125	75	150	75	150
Roberts Rd @ N Access	NB	TR	500+	N/A	N/A	N/A	N/A	0	0	N/A	N/A	0	0
	SB	LT	500+	N/A	N/A	N/A	N/A	25	25	N/A	N/A	25	25
	WB	LTR	200	N/A	N/A	N/A	N/A	25	50	N/A	N/A	25	50
Roberts Rd @ S Access	NB	TR	500+	N/A	N/A	N/A	N/A	0	0	N/A	N/A	0	0
	SB	LT	500+	N/A	N/A	N/A	N/A	25	25	N/A	N/A	25	25
	WB	LTR	200	N/A	N/A	N/A	N/A	25	50	N/A	N/A	25	50

TABLE 7: INTERSECTION QUEUING: WEEKDAY PM PEAK HOUR

Intersection			Available Storage (Feet)	2021 Background (Feet)		2022 Background (Feet)		2022 Build (Feet)		2027 Background (Feet)		2027 Build (Feet)	
				Average	95th	Average	95th	Average	95th	Average	95th	Average	95th
Roberts Rd @ Coburg Industrial Way	EB	LTR	500+	50	75	50	75	50	75	50	75	50	75
	NB	LTR	500+	25	50	25	50	25	50	25	50	25	50
	SB	LTR	480	0	0	0	0	0	0	0	0	25	25
Coburg Industrial Way @ Pearl St	EB	L	125	25	50	25	75	25	50	25	50	25	50
		T	360	125	200	125	200	125	200	150	225	150	225
		TR	360	75	150	75	125	75	150	75	175	100	200
	NB	L	225	50	100	50	100	75	125	50	100	75	125
		TR	500+	50	100	50	100	75	125	75	125	75	125
	SB	L	250	125	200	125	175	125	200	150	225	150	225
		TR	500+	25	75	25	50	25	50	25	75	25	75
	WB	L	250	100	175	100	200	125	200	100	200	125	225
		T	725	75	150	75	125	75	150	100	150	100	150
		TR	725	50	100	50	100	50	125	50	125	75	125
Roberts Rd @ N Access	NB	TR	500+	N/A	N/A	N/A	N/A	0	0	N/A	N/A	0	0
	SB	LT	500+	N/A	N/A	N/A	N/A	25	25	N/A	N/A	25	25
	WB	LTR	200	N/A	N/A	N/A	N/A	25	50	N/A	N/A	25	50
Roberts Rd @ S Access	NB	TR	500+	N/A	N/A	N/A	N/A	0	0	N/A	N/A	0	0
	SB	LT	500+	N/A	N/A	N/A	N/A	25	25	N/A	N/A	25	25
	WB	LTR	200	N/A	N/A	N/A	N/A	25	50	N/A	N/A	25	50

As demonstrated in Tables 6 and 7, the addition of development traffic does not increase the queuing conditions at the studied intersections.

7.0 CONCLUSION

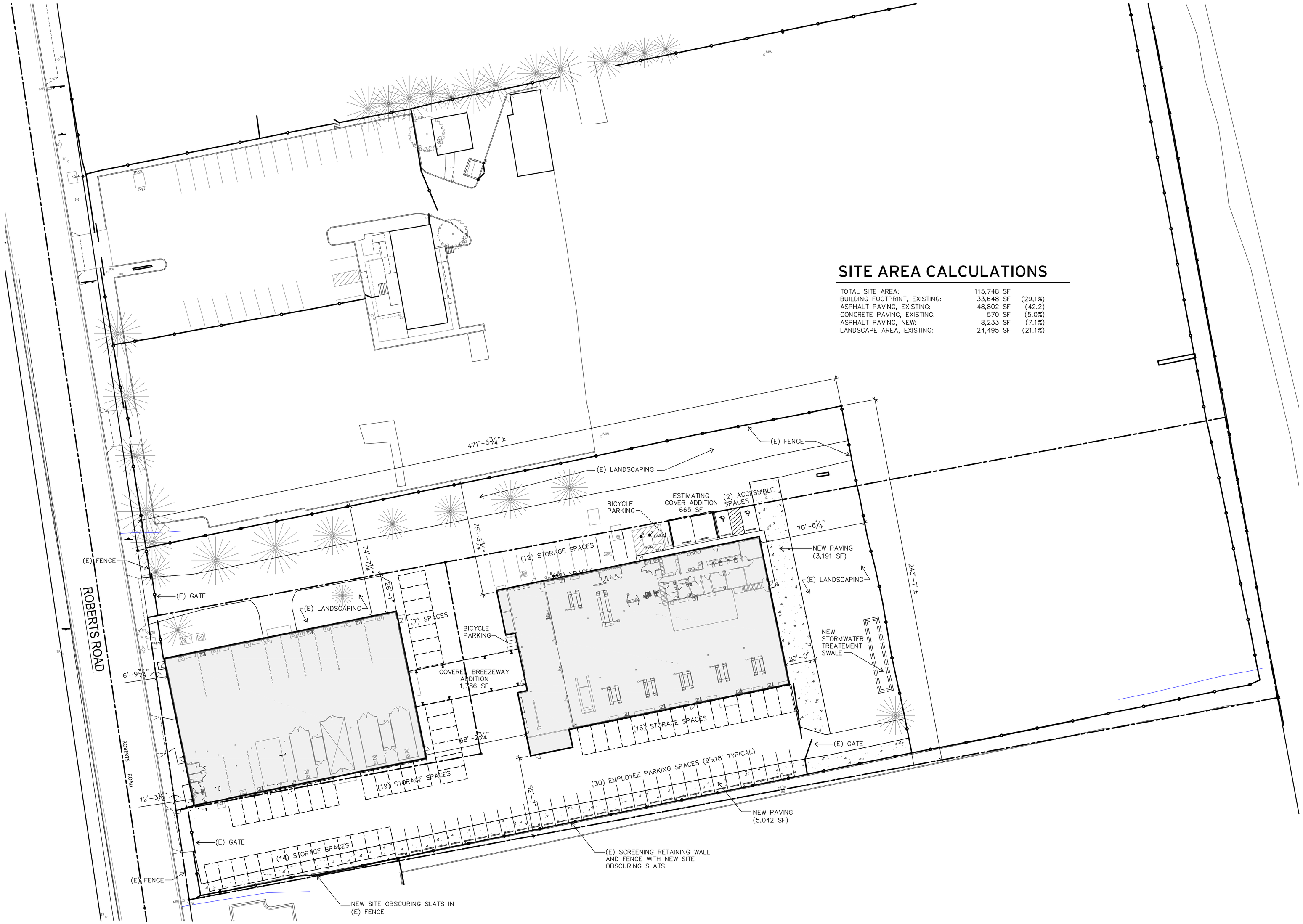
This report provides the Traffic Impact Analysis and findings prepared for the proposed Kendall Collision Center in Coburg, Oregon. The subject site is located on Assessor's Map 16-03-34-00 tax lots 400 and 500. The parcels are currently developed with two buildings utilized for light industrial uses. The applicant is proposing to remodel of the existing buildings for use for the collision center.

FINDINGS

- All studied intersections operate within the mobility standards with and without the development traffic.
- The addition of development traffic does not substantially increase queuing conditions.

APPENDIX A: SITE PLAN

Kendall Collision



SITE AREA CALCULATIONS

TOTAL SITE AREA:	115,748 SF	
BUILDING FOOTPRINT, EXISTING:	33,648 SF	(29.1%)
ASPHALT PAVING, EXISTING:	48,802 SF	(42.2)
CONCRETE PAVING, EXISTING:	570 SF	(5.0%)
ASPHALT PAVING, NEW:	8,233 SF	(7.1%)
LANDSCAPE AREA, EXISTING:	24,495 SF	(21.1%)

A1 / A001 SITE PLAN
1" = 30'

NORTH

Robertson | Sherwood | Architects PC
132 EAST BROADWAY, SUITE 540
EUGENE, OREGON 97401
541-342-8077
www.robertsonsherwood.com

KENDALL AUTO GROUP
KENDALL COLLISION CENTER

90895 ROBERTS ROAD
COBURG, OREGON 97408

MARK	DATE	DESCRIPTION

ISSUE DATE: 15 FEBRUARY 2021
ISSUE: SITE DESIGN REVIEW

PROJECT NO: 2034
DRAWN BY: SS
CHECKED BY:

SITE PLAN

A001

APPENDIX B: CRASH DATA

Kendall Collision

CRASH DATA SUMMARY 5875 Kendall Collision

NO DATA AVAILABLE

Roberts Rd @ Coburd Industrial											
YEAR	**PDO**	**INJURY**	**FATAL**	**HEAD**	**REAR**	**SIDE**	**TURN**	**OTHER**	**PED**	**BIKE**	**TOTAL**
2015											0
2016											0
2017											0
2018											0
2019											0
											0
TOTALS:	0	0	0	0	0	0	0	0	0	0	0

CHECK
OK
OK
OK
OK
OK
OK

P.M. PEAK HOUR	Number of Years, n	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
220	5	2200	803000.000	0.0	0.00

Coburg Industrial @ Pearl St											
YEAR	**PDO**	**INJURY**	**FATAL**	**HEAD**	**REAR**	**SIDE**	**TURN**	**OTHER**	**PED**	**BIKE**	**TOTAL**
2015											0
2016	2	2			2		1	1			4
2017											0
2018	1	1			1		1				2
2019											0
											0
TOTALS:	3	3	0	0	3	0	2	1	0	0	6

CHECK
OK
OK
OK
OK
OK
OK

P.M. PEAK HOUR	Number of Years, n	ADT	AVG. ANNUAL MILES (MILLIONS)	AVG. YEARLY CRASHES	CRASH RATE/ MILLION MILES
1061	5	10610	3872650.000	1200000.0	0.31

REAR	E-W & E-W 2	S-N & S-N
TURN	E-W & N-E	W-E & E-S
Other	W-E & E-W	

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

PEARL ST at COBURG INDUSTRIAL W, City of Coburg, Lane County, 01/01/2015 to 12/31/2019

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2018														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	2	1	1	0	1	0	1	0	0
YEAR 2018 TOTAL	**0**	**1**	**1**	**2**	**0**	**2**	**1**	**2**	**0**	**2**	**0**	**2**	**0**	**0**
YEAR: 2016														
BACKING	0	0	1	1	0	0	1	1	0	1	0	1	0	0
REAR-END	0	1	1	2	0	1	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR 2016 TOTAL	**0**	**2**	**2**	**4**	**0**	**2**	**1**	**4**	**0**	**4**	**0**	**4**	**0**	**0**
FINAL TOTAL	**0**	**3**	**3**	**6**	**0**	**4**	**2**	**6**	**0**	**6**	**0**	**6**	**0**	**0**

CITY OF COBURG, LANE COUNTY

PEARL ST at COBURG INDUSTRIAL W, City of Coburg, Lane County, 01/01/2015 to 12/31/2019

1 - 5 of 6 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / TYPE / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
01183	N	N	N		N	N	04/02/2016	16	COBURG INDUSTRIAL W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
NONE							SA	0	PEARL ST	E		TRF SIGNAL	N	DRY	REAR		PRVTE	E -W									000	00
N							4P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	21	M	OR-Y		026	000	29
N							44 8 13.51	-123 3 23.82																OR<25				
																02	NONE 0	STOP										
																	PRVTE	E -W									011	00
																	PSNGR CAR		01	DRVR	INJB	56	F	OR-Y		000	000	00
																								OR<25				
02725	N	N	N				07/26/2016	16	COBURG INDUSTRIAL W	INTER	CROSS	N	N	CLR	O-OTHER	01	NONE 9	BACK											10
NONE							TU	0	PEARL ST	E		TRF SIGNAL	N	DRY	BACK		N/A	W -E									000	00
N							4P			06	0		N	DAY	PDO		SEMI TOW		01	DRVR	NONE	00	Unk	UNK		000	000	00
N							44 8 13.51	-123 3 23.82																UNK				
																02	NONE 9	STOP										
																	N/A	E -W									012	00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00
																								UNK				
03729	N	N	N		N	N	10/04/2016	16	COBURG INDUSTRIAL W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 9	STRGHT											29
NONE							TU	0	PEARL ST	E		TRF SIGNAL	N	DRY	REAR		N/A	E -W									000	00
N							7A			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00
N							44 8 13.51	-123 3 23.82																UNK				
																02	NONE 9	STOP										
																	N/A	E -W									011	00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00
																								UNK				
01801	N	N	N				06/20/2018	18	COBURG INDUSTRIAL W	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 9	STRGHT											29
NONE							WE	0	PEARL ST	S		TRF SIGNAL	N	DRY	REAR		N/A	S -N									000	00
N							12P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00
N							44 8 13.52	-123 3 23.82																UNK				
																02	NONE 9	STOP										
																	N/A	S -N									012	00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00
																								UNK				
01066	N	N	N		N	N	03/25/2016	16	COBURG INDUSTRIAL W	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											04
CITY							FR	0	PEARL ST	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	E -W									000	00
N							1P			01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	21	F	OR-Y		020	000	04
N							44 8 13.51	-123 3 23.82																OR>25				
																02	NONE 0	TURN-L										
																	PRVTE	N -E									000	00
																	PSNGR CAR		01	DRVR	INJB	59	F	OR-Y		000	000	00
																								OR<25				

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R G S	J N V	I H L	C O R K	W	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01235	N	N	N		N	N		05/02/2018	16	COBURG INDUSTRIAL W	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT										013	04
STATE								WE	0	PEARL ST	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	W -E									000	013	00
N								6P			03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJB	22	F	OR-Y		000	000		00
N								44 8 13.51	-123 3 23.82																OR<25					
																	02	NONE 0	TURN-L											
																		PRVTE	E -S									000		00
																		PSNGR CAR		01	DRVR	INJC	48	M	OR-Y		020	000		04
																									OR<25					
																	03	NONE 1	STOP											
																		PRVTE	S -N									022		00
																		SEMI TOW		01	DRVR	NONE	58	M	OR-Y		000	000		00
																									OR<25					

APPENDIX C: TRAFFIC VOLUMES

Kendall Collison

SANDOW ENGINEERING

Intersection: 1: Coburg Industrial @ Pearl St **City:** Coburg, OR

Counter: Sandow Engineering **Date:** Thursday, January 28, 2021

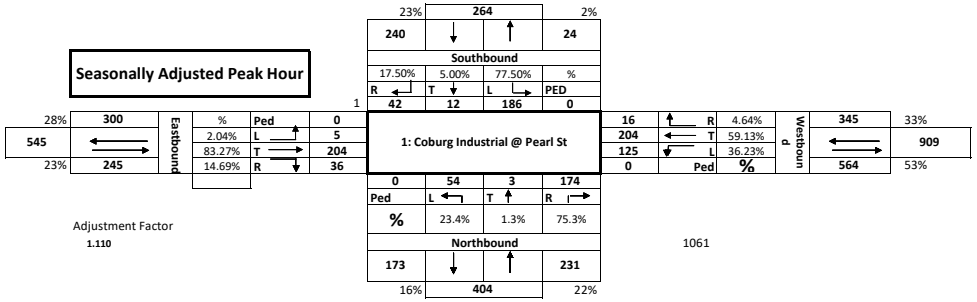
Total of All Vehicles

Time Period		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB
16:00	16:15	11	8	31	50	7	35	32	74	41	1	13	55	13	61	1	75	254		0	0	0	0
16:15	16:30	5	3	31	39	7	48	29	84	37	2	10	49	10	67	2	79	251		0	0	0	0
16:30	16:45	22	2	82	106	4	51	35	90	36	0	15	51	8	48	0	56	303		0	0	0	0
16:45	17:00	2	1	27	30	5	58	30	93	44	0	9	53	5	42	2	49	225	1033	0	0	0	0
17:00	17:15	13	6	46	65	0	47	31	78	57	1	20	78	13	47	1	61	282	1061	0	0	0	0
17:15	17:30	10	1	19	30	2	58	25	85	28	2	8	38	12	40	0	52	205	1015	0	0	0	0
17:30	17:45	2	3	8	13	4	57	14	75	17	2	15	34	8	52	1	61	183	895	0	0	0	0
17:45	18:00	1	1	9	11	2	46	27	75	23	1	11	35	5	38	1	44	165	835	0	0	0	0
18:00	18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
18:30	18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
18:45	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
Count Period Total		**66**	**25**	**253**		**31**	**400**	**223**		**283**	**9**	**101**		**74**	**395**	**8**		**1868**		**0**	**0**	**0**	**0**

PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB
Peak Volumes	**42**	**12**	**186**	**240**	**16**	**204**	**125**	**345**	**174**	**3**	**54**	**231**	**36**	**204**	**5**	**245**	**1061**		**0**	**0**	**0**	**0**
PHF	0.48	0.50	0.57	0.57	0.57	0.88	0.89	0.93	0.76	0.38	0.68	0.74	0.69	0.76	0.63	0.78	0.88					
Trucks	0	0	3		3	19	38		7	0	0		6	28	2							
% Trucks	0%	0%	2%		19%	9%	30%		4%	0%	0%		17%	14%	40%							

Seasonally Adjusted Peak Hour



Adjustment Factor

1.110

1061

1: Coburg Industrial @ Pearl St

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left		
4:00 PM		10	4	30		6	32	24		40	1	13		13	57	1	231	
4:15 PM		5	3	31		6	45	24		37	2	10		9	58	1	231	
4:30 PM		22	2	82		2	41	20		34	0	15		6	41	0	265	
4:45 PM		2	1	26		5	52	22		40	0	9		4	38	1	200	927
5:00 PM		13	6	44		0	47	21		56	1	20		11	39	1	259	955
5:15 PM		10	1	18		2	57	14		27	2	8		11	34	0	184	908
5:30 PM		2	2	8		3	54	6		16	2	14		6	42	0	155	798
5:45 PM		1	1	8		2	45	21		18	1	11		4	32	1	145	743
6:00 PM																	0	484
6:15 PM																	0	300
6:30 PM																	0	145
6:45 PM																	0	0
Total	0	65	20	247		0	26	373	152		0	268	9	100		0	64	341	5			
Peak Hour	**0**	**42**	**12**	**183**		**0**	**13**	**185**	**87**		**0**	**167**	**3**	**54**		**0**	**30**	**176**	**3**		**0**	

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Right	Thru	Left		Right	Thru	Left		Right	Thru	Left		Right	Thru	Left			
4:00 PM	1	4	1		1	3	8		1				0	4	0		23	
4:15 PM					1	3	5		0				1	9	1		20	
4:30 PM					2	10	15		2				2	7	0		38	
4:45 PM			1			6	8		4				1	4	1		25	106
5:00 PM			2			0	10		1				2	8	0		23	106
5:15 PM			1			1	11		1				1	6	0		21	107
5:30 PM		1			1	3	8		1		1		2	10	1		28	97
5:45 PM			1			1	6		5				1	6			20	92
6:00 PM																	0	69
6:15 PM																	0	48
6:30 PM																	0	20
6:45 PM																	0	0
Total	1	5	6		5	27	71		15	0	1		10	54	3			
Peak Hour	**0**	**0**	**3**		**3**	**19**	**38**		**7**	**0**	**0**		**6**	**28**	**2**		**0**	

Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound				SB	WB	NB	EB
	Right	Thru	Left		Right	Thru	Left		Right	Thru	Left		Right	Thru	Left					
4:00 PM																	0	0	0	0
4:15 PM																	0	0	0	0
4:30 PM																	0	0	0	0
4:45 PM																	0	0	0	0
5:00 PM																	0	0	0	0
5:15 PM																	0	0	0	0
5:30 PM																	0	0	0	0
5:45 PM																	0	0	0	0
6:00 PM																	0	0	0	0
6:15 PM																	0	0	0	0
6:30 PM																	0	0	0	0
6:45 PM																	0	0	0	0
Total	0	0	0		0	0	0		0	0	0		0	0	0					
Peak Hour	**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**					

Pedestrians

Time Period	NE				NW				SW				SE				SB	WB	NB	EB
	Left	Right	Total		Left	Right	Total		Left	Right	Total		Left	Right	Total					
4:00 PM																	0	0	0	0
4:15 PM																	0	0	0	0
4:30 PM																	0	0	0	0
4:45 PM																	0	0	0	0
5:00 PM																	0	0	0	0
5:15 PM																	0	0	0	0
5:30 PM																	0	0	0	0
5:45 PM																	0	0	0	0
6:00 PM																	0	0	0	0
6:15 PM																	0	0	0	0
6:30 PM																	0	0	0	0
6:45 PM																	0	0	0	0
Total	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
Peak Hour	**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**					

2

Intersection: 2: Roberts Rd @ Coburg Industrial **City:** Coburg, OR

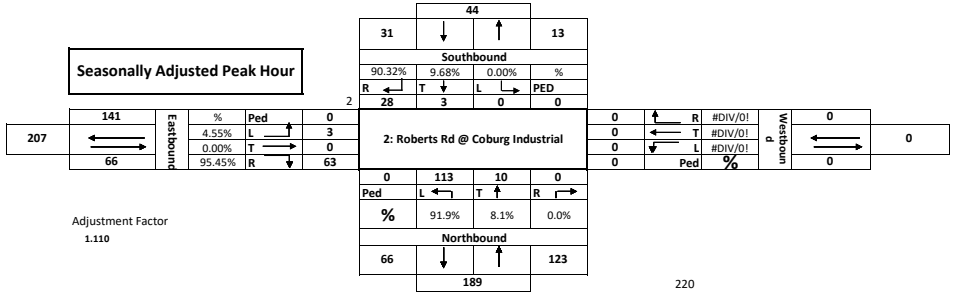
Counter: Sandow Engineering **Date:** Wednesday, January 27, 2021

Total of All Vehicles

Time Period		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB
16:00	16:15	2	0	0	2	0	0	0	0	0	0	17	17	8	0	0	8	27		0	0	0	0
16:15	16:30	2	0	0	2	0	0	0	0	0	1	11	12	11	0	1	12	26		0	0	0	0
16:30	16:45	11	2	0	13	0	0	0	0	0	3	14	17	13	0	2	15	45		0	0	0	0
16:45	17:00	8	1	0	9	0	0	0	0	0	2	31	33	17	0	0	17	59	157	0	0	0	0
17:00	17:15	4	0	0	4	0	0	0	0	0	3	46	49	16	0	0	16	69	199	0	0	0	0
17:15	17:30	2	0	0	2	0	0	0	0	0	2	8	10	11	0	0	11	23	196	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0	0	0	3	1	4	3	0	0	3	7	158	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0	0	0	0	4	4	3	0	0	3	7	106	0	0	0	0
18:00	18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
18:30	18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
18:45	19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
Count Period Total		**29**	**3**	**0**		**0**	**0**	**0**		**0**	**14**	**132**		**82**	**0**	**3**		**263**		**0**	**0**	**0**	**0**

PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB
Peak Volumes	**25**	**3**	**0**	**28**	**0**	**0**	**0**	**0**	**0**	**9**	**102**	**111**	**57**	**0**	**3**	**60**	**199**		**0**	**0**	**0**	**0**
PHF	0.57	0.38	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.75	0.55	0.57	0.84	0.00	0.38	0.88	0.72					
Trucks	0	0	0		0	0	0		0	0	6		6	0	0							
% Trucks	0%	0%	0%		0%	0%	0%		0%	0%	6%		11%	0%	0%							


Seasonally Adjusted Peak Hour
44
31
13
Southbound
90.32%
9.68%
0.00%
%
R
T
L
PED
2
28
3
0
0
141
207
66
Eastbound
%
Ped
0
4.55%
L
3
0.00%
T
0
95.45%
R
63
2: Roberts Rd @ Coburg Industrial
0
0
0
0
R
#DIV/0!
T
#DIV/0!
L
#DIV/0!
Ped
%
Westboun
d
0
0
0
0
0
Ped
0
113
10
0
L
T
R
%
91.9%
8.1%
0.0%
Northbound
66
123
189
220
Adjustment Factor
1.110

2: Roberts Rd @ Coburg Industrial

Pedestrians and Cars

Time Period	Southbound					Westbound					Northbound					Eastbound					15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left		Peds	Right	Thru	Left		Peds	Right	Thru	Left		Peds	Right	Thru	Left			
4:00 PM		2	0										0	17			8		0		27	
4:15 PM		2	0										1	11			11		1		26	
4:30 PM		11	2										3	14			13		2		45	
4:45 PM		8	1										2	31			17		0		59	157
5:00 PM		4											3	40			10				57	187
5:15 PM		2											2	5			6				15	176
5:30 PM		0											3	0			2				5	136
5:45 PM													0	3			2				5	82
6:00 PM																					0	25
6:15 PM																					0	10
6:30 PM																					0	5
6:45 PM																					0	0
Total	0	29	3	0		0	0	0	0		0	0	14	121		0	69	0	3			
Peak Hour	**0**	**25**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**96**	**0**	**0**	**51**	**0**	**3**	**0**	**187**	**344**

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Right	Thru	Left		Right	Thru	Left		Right	Thru	Left		Right	Thru	Left			
4:00 PM																	0	
4:15 PM																	0	
4:30 PM																	0	
4:45 PM																	0	0
5:00 PM											6		6				12	12
5:15 PM											3		5				8	20
5:30 PM											1		1				2	22
5:45 PM											1		1				2	24
6:00 PM																	0	12
6:15 PM																	0	4
6:30 PM																	0	2
6:45 PM																	0	0
Total	0	0	0		0	0	0		0	0	11		13	0	0			
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**6**	**0**	**0**	**0**	**12**	**12**

Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound			SB	WB	NB	EB
	Right	Thru	Left		Right	Thru	Left		Right	Thru	Left		Right	Thru	Left				
4:00 PM																0	0	0	0
4:15 PM																0	0	0	0
4:30 PM																0	0	0	0
4:45 PM																0	0	0	0
5:00 PM																0	0	0	0
5:15 PM																0	0	0	0
5:30 PM																0	0	0	0
5:45 PM																0	0	0	0
6:00 PM																0	0	0	0
6:15 PM																0	0	0	0
6:30 PM																0	0	0	0
6:45 PM																0	0	0	0
Total	0	0	0		0	0	0		0	0	0		0	0	0				
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Pedestrians

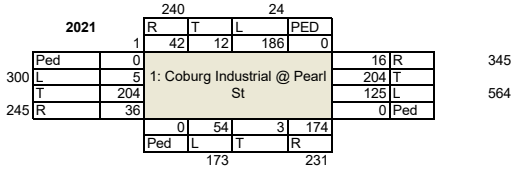
Time Period	NE				NW				SW				SE			SB	WB	NB	EB
	Left	Right	Total		Left	Right	Total		Left	Right	Total		Left	Right	Total				
4:00 PM			0				0				0				0	0	0	0	0
4:15 PM			0				0				0				0	0	0	0	0
4:30 PM			0				0				0				0	0	0	0	0
4:45 PM			0				0				0				0	0	0	0	0
5:00 PM			0				0				0				0	0	0	0	0
5:15 PM			0				0				0				0	0	0	0	0
5:30 PM			0			1	1				0				0	1	0	0	0
5:45 PM			0				0				0				0	0	0	0	0
6:00 PM			0				0				0				0	0	0	0	0
6:15 PM			0				0				0				0	0	0	0	0
6:30 PM			0				0				0				0	0	0	0	0
6:45 PM			0				0				0				0	0	0	0	0
Total	0	0	0		0	1	1		0	0	0		0	0	0	1	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

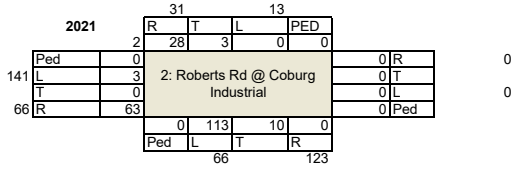
Global Peak Hour

Intersections						
		1: Coburg Industrial @ Pearl St	2: Roberts Rd @ Coburg Industrial			
Time Period		Volume	Volume	Volume	Volume	Total
4:00 PM	5:00 PM	1,033	157	-	0	**1190**
4:15 PM	5:15 PM	1,061	199	-	0	**1260**
4:30 PM	5:30 PM	1,015	196	-	0	**1211**
4:45 PM	5:45 PM	895	158	-	0	**1053**
5:00 PM	6:00 PM	835	106			**941**
		1061	199	0	0	1260

Peak Hour 4:15 PM
4:30 PM
4:45 PM
5:00 PM

5

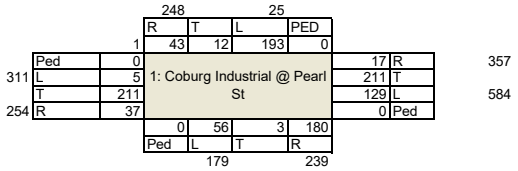


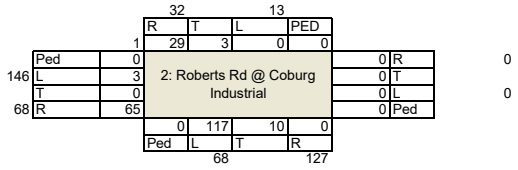


EDIT Highlighted

Base Year	2021
Target Year	2022
Years of Growth	1
Growth Rate Per Year	0.035
Growth Factor	1.04

2022 PM Volumes Background

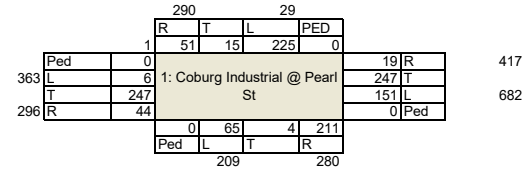


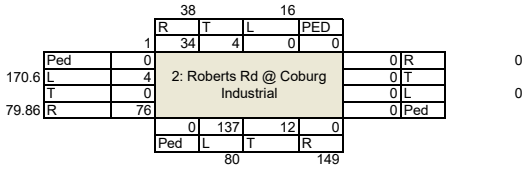


EDIT Highlighted

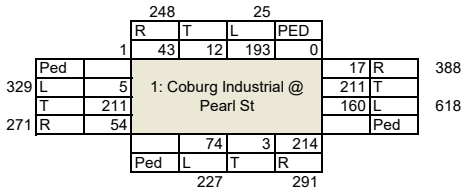
Base Year	2021
Target Year	2027
Years of Growth	6
Growth Rate Per Year	0.035
Growth Factor	1.21

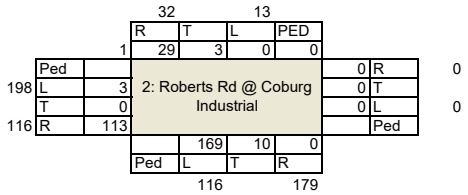
2027 PM Volumes Background

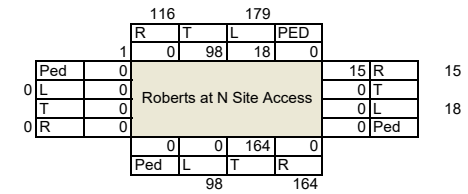


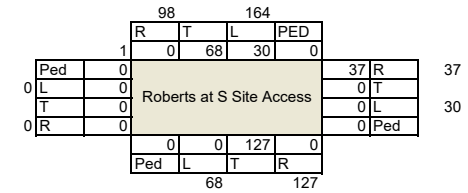


2022 Build

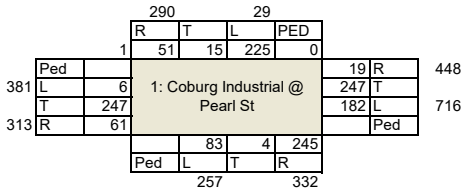


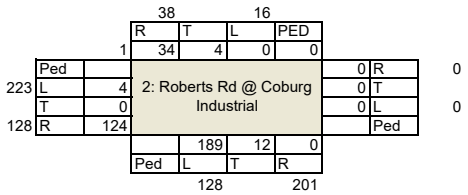


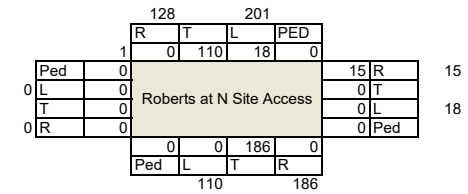


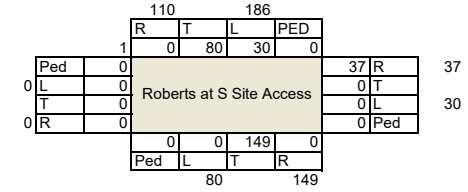


2027 Build









ODOT Covid table

1.11 Covid factor

		2021 Volumes		2020 Volumes		2019 Volu
Date	Corridor	Average Weekday	Average Weekend	Average Weekday	Average Weekend	Average Weekday
Week 3 Jan 11-17, 2021	I-5	507,038	426,720	556,810	486,137	554,363
	I-205	214,940	176,106	227,728	191,463	250,019
	I-405	108,821	81,586	130,873	101,455	137,314
	I-84	291,907	254,334	306,083	269,589	314,197
	US 97	130,299	103,343	119,900	97,346	130,708
	US197	2,462	2,022	2,143	1,655	2,359
	US20	20,960	19,172	19,445	16,728	20,748
	US26	41,382	46,008	38,656	43,455	43,756
	US30	9,982	9,820	8,881	8,347	9,965
	US395	22,540	16,678	21,450	17,913	27,294
	OR18	15,555	21,707	12,239	17,296	14,197
	OR22	27,159	20,963	26,999	21,009	28,069
	US101	65,700	65,830	64,015	59,399	68,823
Statewide Average		298,371	251,704	321,517	279,000	387,223
Week 4 Jan 18-24, 2021	I-5	516,523	405,508	589,181	498,062	565,165
	I-205	219,425	177,727	236,728	197,396	249,612
	I-405	110,619	56,998	133,415	104,080	135,553
	I-84	299,553	237,084	327,003	286,307	325,588
	US 97	125,881	90,133	135,928	104,449	135,782
	US197	2,506	1,911	2,499	1,916	2,620
	US20	21,773	18,043	21,279	17,234	21,191
	US26	44,449	42,857	44,746	43,311	45,746
	US30	10,413	9,035	10,293	9,627	10,306
	US395	21,594	16,000	24,781	17,787	26,077
	OR18	17,362	20,699	15,058	17,142	15,225
	OR22	27,439	20,777	28,191	21,808	27,860
	US101	66,431	54,503	66,549	56,168	70,000
Statewide Average		303,933	237,199	341,004	288,454	334,183

mes		2021 as % of 2020	
Average Weekend		Weekday Diff	Weekend Diff
471,889		(0.09)	(0.12)
199,730		(0.06)	(0.08)
101,804		(0.17)	(0.20)
265,519		(0.05)	(0.06)
97,810		0.09	0.06
1,953		0.15	0.22
16,345		0.08	0.15
43,118		0.07	0.06
8,815		0.12	0.18
20,930		0.05	(0.07)
17,567		0.27	0.26
20,089		0.01	(0.00)
62,252		0.03	0.11
274,360		(0.07)	(0.10)
491,281		(0.12)	(0.19)
205,575		(0.07)	(0.10)
106,953		(0.17)	(0.45)
277,736		(0.08)	(0.17)
106,798		(0.07)	(0.14)
2,041		0.00	(0.00)
18,648		0.02	0.05
46,469		(0.01)	(0.01)
9,928		0.01	(0.06)
18,732		(0.13)	(0.10)
19,776		0.15	0.21
21,594		(0.03)	(0.05)
65,239		(0.00)	(0.03)
286,415		(0.11)	(0.18)

Intersection: 1: Coburg Industrial @ Pearl St **City:** Coburg, OR

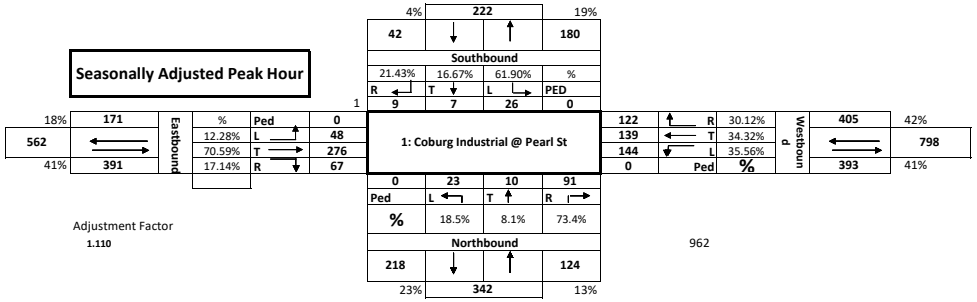
Counter: Sandow Engineering **Date:** Saturday, January 0, 1900

Total of All Vehicles

Time Period		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB
7:00	7:15	0	1	8	9	13	21	18	52	15	1	3	19	13	49	6	68	148		0	0	0	0
7:15	7:30	0	1	9	10	23	29	45	97	23	0	5	28	11	56	8	75	210		0	0	0	0
7:30	7:45	5	4	6	15	26	38	34	98	32	5	4	41	18	88	15	121	275		0	0	0	0
7:45	8:00	2	1	7	10	46	43	38	127	15	4	9	28	24	76	19	119	284	917	0	0	0	0
8:00	8:15	2	1	4	7	27	29	27	83	21	1	5	27	14	56	6	76	193	962	0	0	0	0
8:15	8:30	5	1	8	14	15	27	32	74	18	3	8	29	14	56	6	76	193	945	0	0	0	0
8:30	8:45	4	4	8	16	13	30	35	78	18	5	14	37	11	69	6	86	217	887	0	0	0	0
8:45	9:00	2	2	5	9	31	25	27	83	15	1	8	24	13	41	7	61	177	780	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
Count Period Total		**20**	**15**	**55**		**194**	**242**	**256**		**157**	**20**	**56**		**118**	**491**	**73**		**1697**		**0**	**0**	**0**	**0**

PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB
Peak Volumes	**9**	**7**	**26**	**42**	**122**	**139**	**144**	**405**	**91**	**10**	**23**	**124**	**67**	**276**	**48**	**391**	**962**		**0**	**0**	**0**	**0**
PHF	0.45	0.44	0.72	0.70	0.66	0.81	0.80	0.80	0.71	0.50	0.64	0.76	0.70	0.78	0.63	0.81	0.85					
Trucks	1	0	3		9	6	30		19	0	3		6	66	4							
% Trucks	11%	0%	12%		7%	4%	21%		21%	0%	13%		9%	24%	8%							


Seasonally Adjusted Peak Hour
4%
222
19%
42
180
Southbound
21.43%
16.67%
61.90%
%
R
T
L
PED
1
9
7
26
0
18%
171
562
41%
391
Eastbound
%
Ped
0
12.28%
L
48
70.59%
T
276
17.14%
R
67
1: Coburg Industrial @ Pearl St
122
R
30.12%
139
T
34.32%
144
L
35.56%
0
Ped
%
Westbound
405
42%
798
393
41%
0
23
10
91
Ped
L
T
R
%
18.5%
8.1%
73.4%
Northbound
218
124
23%
342
13%
Adjustment Factor
1.110
962

1: Coburg Industrial @ Pearl St

Pedestrians and Cars

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left		
7:00 AM		0	1	6		13	19	10		11	1	3		10	31	6	111	
7:15 AM		0	1	8		22	27	34		12	0	4		8	41	7	164	
7:30 AM		5	4	6		22	37	28		28	5	2		16	71	15	239	
7:45 AM		1	1	6		45	42	30		13	4	9		24	54	17	246	760
8:00 AM		2	1	3		24	27	22		19	1	5		13	44	5	166	815
8:15 AM		5	1	4		12	25	27		17	3	8		14	39	6	161	812
8:30 AM		3	4	4		12	26	27		16	5	13		11	54	6	181	754
8:45 AM		2	2	5		24	19	19		9	1	6		11	26	7	131	639
9:00 AM																	0	473
9:15 AM																	0	312
9:30 AM																	0	131
9:45 AM																	0	0
Total	0	18	15	42		0	174	222	197		0	125	20	50		0	107	360	69			
Peak Hour	**0**	**8**	**7**	**23**		**0**	**113**	**133**	**114**		**0**	**72**	**10**	**20**		**0**	**61**	**210**	**44**		**0**	

Trucks

Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Right	Thru	Left		Right	Thru	Left		Right	Thru	Left		Right	Thru	Left			
7:00 AM			2		0	2	8		4		0		3	18	0		37	
7:15 AM			1		1	2	11		11		1		3	15	1		46	
7:30 AM			0		4	1	6		4		2		2	17	0		36	
7:45 AM	1		1		1	1	8		2		0		0	22	2		38	157
8:00 AM			1		3	2	5		2		0		1	12	1		27	147
8:15 AM			4		3	2	5		1		0		0	17	0		32	133
8:30 AM	1		4		1	4	8		2		1		0	15	0		36	133
8:45 AM			0		7	6	8		6		2		2	15	0		46	141
9:00 AM																	0	114
9:15 AM																	0	82
9:30 AM																	0	46
9:45 AM																	0	0
Total	2	0	13		20	20	59		32	0	6		11	131	4			
Peak Hour	**1**	**0**	**3**		**9**	**6**	**30**		**19**	**0**	**3**		**6**	**66**	**4**		**0**	

Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound				SB	WB	NB	EB
	Right	Thru	Left		Right	Thru	Left		Right	Thru	Left		Right	Thru	Left					
7:00 AM																	0	0	0	0
7:15 AM																	0	0	0	0
7:30 AM																	0	0	0	0
7:45 AM																	0	0	0	0
8:00 AM																	0	0	0	0
8:15 AM																	0	0	0	0
8:30 AM																	0	0	0	0
8:45 AM																	0	0	0	0
9:00 AM																	0	0	0	0
9:15 AM																	0	0	0	0
9:30 AM																	0	0	0	0
9:45 AM																	0	0	0	0
Total	0	0	0		0	0	0		0	0	0		0	0	0					
Peak Hour	**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**					

Pedestrians

Time Period	NE				NW				SW				SE				SB	WB	NB	EB
	Left	Right	Total		Left	Right	Total		Left	Right	Total		Left	Right	Total					
7:00 AM																	0	0	0	0
7:15 AM																	0	0	0	0
7:30 AM																	0	0	0	0
7:45 AM																	0	0	0	0
8:00 AM																	0	0	0	0
8:15 AM																	0	0	0	0
8:30 AM																	0	0	0	0
8:45 AM																	0	0	0	0
9:00 AM																	0	0	0	0
9:15 AM																	0	0	0	0
9:30 AM																	0	0	0	0
9:45 AM																	0	0	0	0
Total	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	0
Peak Hour	**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**		**0**	**0**	**0**					

2

Intersection: 2: Roberts Rd @ Coburg Industrial **City:** Coburg, OR

Counter: Sandow Engineering **Date:** Saturday, January 0, 1900

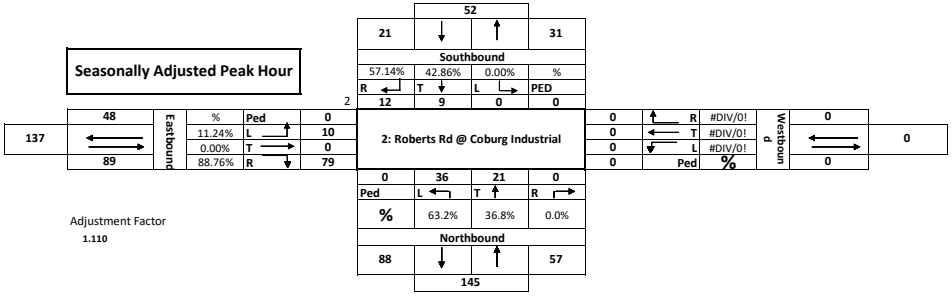
Total of All Vehicles

Time Period		Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume	Pedestrians			
		Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total	Right	Thru	Left	Approach Total			SB	WB	NB	EB
7:00	7:15	1	1	0	2	0	0	0	0	0	1	7	8	17	0	4	21	31		0	0	0	0
7:15	7:30	3	1	0	4	0	0	0	0	0	3	13	16	15	0	1	16	36		0	0	0	0
7:30	7:45	2	3	0	5	0	0	0	0	0	7	6	13	19	0	3	22	40		0	0	0	0
7:45	8:00	1	1	0	2	0	0	0	0	0	3	7	10	24	0	2	26	38	145	0	0	0	0
8:00	8:15	5	3	0	8	0	0	0	0	0	6	6	12	13	0	3	16	36	150	0	0	0	0
8:15	8:30	4	3	0	7	0	0	0	0	0	2	7	9	17	0	4	21	37	151	0	0	0	0
8:30	8:45	3	2	0	5	0	0	0	0	0	1	10	11	15	0	1	16	32	143	0	0	0	0
8:45	9:00	2	2	0	4	0	0	0	0	0	0	9	9	15	0	0	15	28	133	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
Count Period Total		**21**	**16**	**0**		**0**	**0**	**0**		**0**	**23**	**65**		**135**	**0**	**18**		**278**		**0**	**0**	**0**	**0**

PM Peak Hour Count Summary

	Southbound				Westbound				Northbound				Eastbound						Pedestrians			
	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach	Right	Thru	Left	Approach			SB	WB	NB	EB
Peak Volumes	**11**	**8**	**0**	**19**	**0**	**0**	**0**	**0**	**0**	**19**	**32**	**51**	**71**	**0**	**9**	**80**	**150**		**0**	**0**	**0**	**0**
PHF	0.55	0.67	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.68	0.62	0.80	0.74	0.00	0.75	0.77	0.94					
Trucks	8	0	0		0	0	0		0	3	13		7	0	2							
% Trucks	73%	0%	0%		0%	0%	0%		0%	16%	41%		10%	0%	22%							

Seasonally Adjusted Peak Hour



Adjustment Factor

1.110

2: Roberts Rd @ Coburg Industrial

Pedestrians and Cars

Time Period	Southbound					Westbound					Northbound					Eastbound					15 Minute Volume	Hourly Volume
	Peds	Right	Thru	Left		Peds	Right	Thru	Left		Peds	Right	Thru	Left		Peds	Right	Thru	Left			
7:00 AM		0	1										1	3			13		4		22	
7:15 AM		1	1										3	6			14		1		26	
7:30 AM		1	3										5	3			16		2		30	
7:45 AM		0	1										2	5			23		2		33	111
8:00 AM		1	3										6	5			11		2		28	117
8:15 AM		1	3										2	3			15		4		28	119
8:30 AM		2	2										1	7			15		1		28	117
8:45 AM		1	2										0	8			14		0		25	109
9:00 AM																					0	81
9:15 AM																					0	53
9:30 AM																					0	25
9:45 AM																					0	0
Total	0	7	16	0		0	0	0	0		0	0	20	40		0	121	0	16			
Peak Hour	**0**	**3**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**19**	**0**	**0**	**64**	**0**	**7**	**0**	**117**	**464**

Trucks

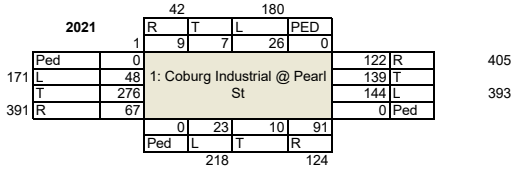
Time Period	Southbound				Westbound				Northbound				Eastbound				15 Minute Volume	Hourly Volume
	Right	Thru	Left		Right	Thru	Left		Right	Thru	Left		Right	Thru	Left			
7:00 AM	1										4		4				9	
7:15 AM	2										7		1				10	
7:30 AM	1									2	3		3		1		10	
7:45 AM	1									1	2		1				5	34
8:00 AM	4										1		2		1		8	33
8:15 AM	3										4		2				9	32
8:30 AM	1										3		0				4	26
8:45 AM	1										1		1				3	24
9:00 AM																	0	16
9:15 AM																	0	7
9:30 AM																	0	3
9:45 AM																	0	0
Total	14	0	0		0	0	0		0	3	25		14	0	2			
Peak Hour	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**13**	**0**	**7**	**0**	**2**	**0**	**26**	**125**

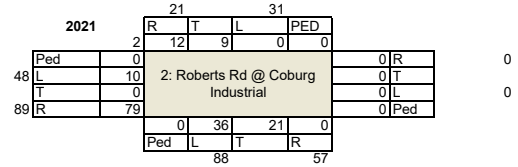
Bikes

Time Period	Southbound				Westbound				Northbound				Eastbound			SB	WB	NB	EB
	Right	Thru	Left		Right	Thru	Left		Right	Thru	Left		Right	Thru	Left				
7:00 AM																0	0	0	0
7:15 AM																0	0	0	0
7:30 AM																0	0	0	0
7:45 AM																0	0	0	0
8:00 AM																0	0	0	0
8:15 AM																0	0	0	0
8:30 AM																0	0	0	0
8:45 AM																0	0	0	0
9:00 AM																0	0	0	0
9:15 AM																0	0	0	0
9:30 AM																0	0	0	0
9:45 AM																0	0	0	0
Total	0	0	0		0	0	0		0	0	0		0	0	0				
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Pedestrians

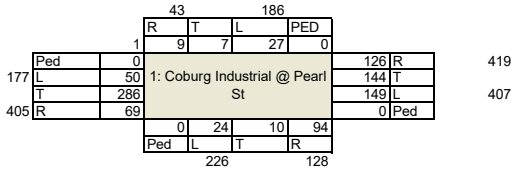
Time Period	NE				NW				SW				SE			SB	WB	NB	EB
	Left	Right	Total		Left	Right	Total		Left	Right	Total		Left	Right	Total				
7:00 AM			0				0				0				0	0	0	0	0
7:15 AM			0				0				0				0	0	0	0	0
7:30 AM			0				0				0				0	0	0	0	0
7:45 AM			0				0				0				0	0	0	0	0
8:00 AM			0				0				0				0	0	0	0	0
8:15 AM			0				0				0				0	0	0	0	0
8:30 AM			0			1	1				0				0	1	0	0	0
8:45 AM			0				0				0				0	0	0	0	0
9:00 AM			0				0				0				0	0	0	0	0
9:15 AM			0				0				0				0	0	0	0	0
9:30 AM			0				0				0				0	0	0	0	0
9:45 AM			0				0				0				0	0	0	0	0
Total	0	0	0		0	1	1		0	0	0		0	0	0	1	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

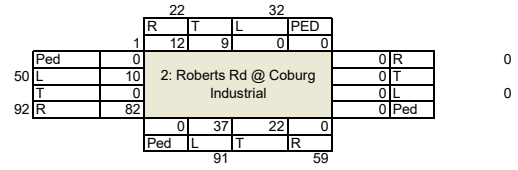




EDIT Highlighted	
Base Year	2021
Target Year	2022
Years of Growth	1
Growth Rate Per Year	0.035
Growth Factor	1.04

2022 AM Volumes Background

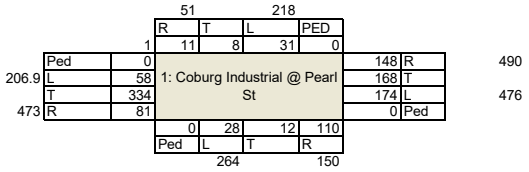


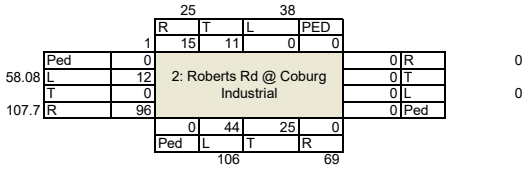


EDIT Highlighted

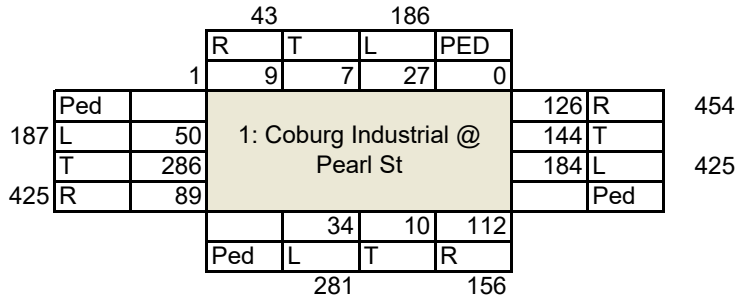
Base Year	2021
Target Year	2027
Years of Growth	6
Growth Rate Per Year	0.035
Growth Factor	1.21

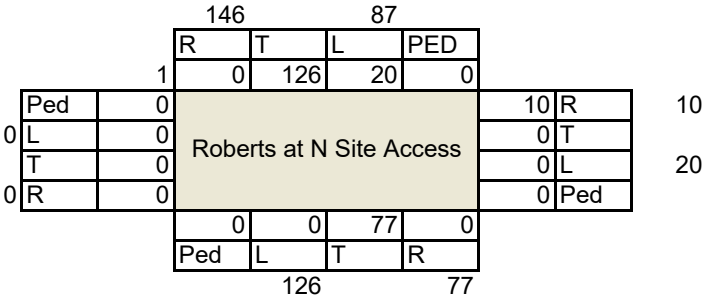
2027 AM Volumes Background

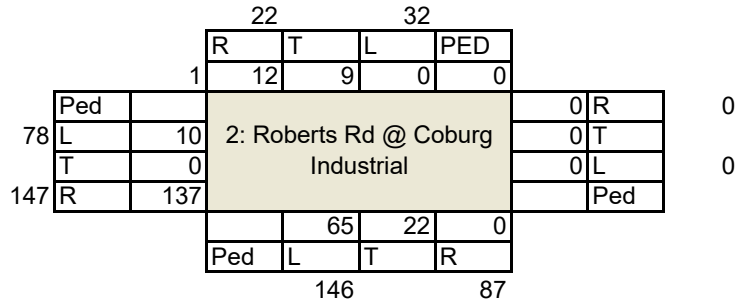


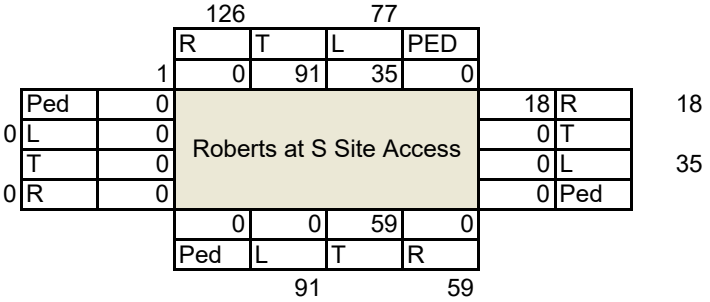


2022 Build


43
186
R
T
L
PED
1
9
7
27
0
Ped
187
L
50
T
286
425
R
89
1: Coburg Industrial @ Pearl St
126
R
454
144
T
184
L
425
Ped
34
10
112
Ped
L
T
R
281
156


146
87
R
T
L
PED
1
0
126
20
0
Ped
0
0
L
0
T
0
0
R
0
Roberts at N Site Access
10
R
10
0
T
0
L
20
0
Ped
0
0
77
0
Ped
L
T
R
126
77


22
32
R
T
L
PED
1
12
9
0
0
Ped
78
L
10
T
0
147
R
137
2: Roberts Rd @ Coburg Industrial
0
R
0
0
T
0
0
L
0
Ped
65
22
0
Ped
L
T
R
146
87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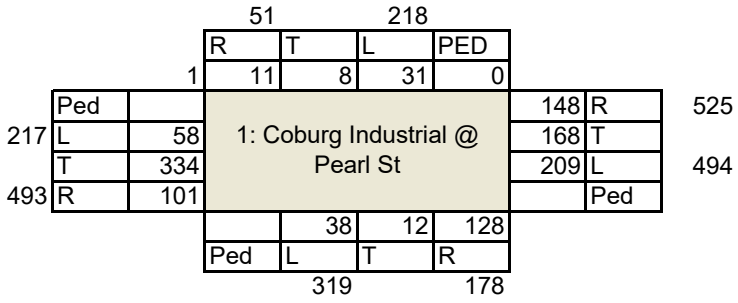
77
R
T
L
PED
1
0
91
35
0
Ped
0
0
L
0
T
0
0
R
0
Roberts at S Site Access
18
R
18
0
T
0
L
35
0
Ped
0
0
59
0
Ped
L
T
R
91
59

2027 Build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218
R
T
L
PED
1
11
8
31
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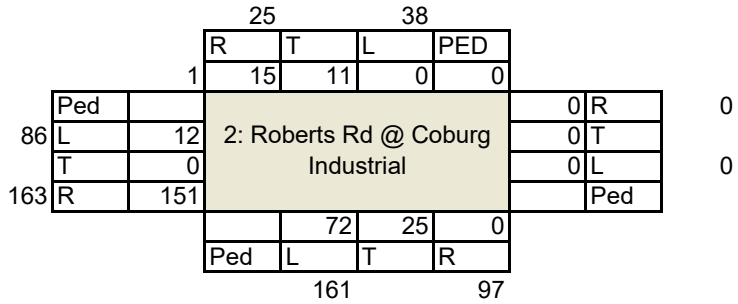
Ped
217
L
58
T
334
493
R
101
1: Coburg Industrial @ Pearl St
148
R
525
168
T
209
L
494
Ped
38
12
128
Ped
L
T
R
319
178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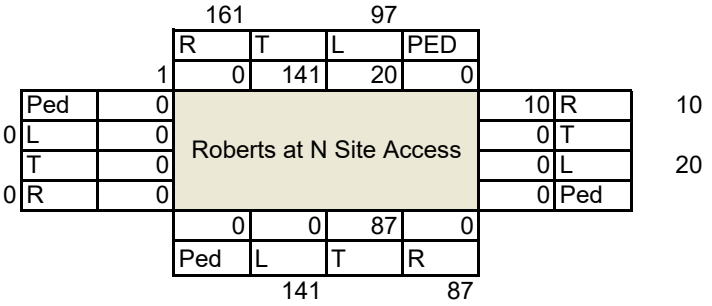
38
R
T
L
PED
1
15
11
0
0
Ped
86
L
12
T
0
163
R
151
2: Roberts Rd @ Coburg Industrial
0
R
0
0
T
0
0
L
0
Ped
72
25
0
Ped
L
T
R
161
97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97
R
T
L
PED
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141
20
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Ped
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0
L
0
T
0
0
R
0
Roberts at N Site Access
10
R
10
0
T
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20
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Ped
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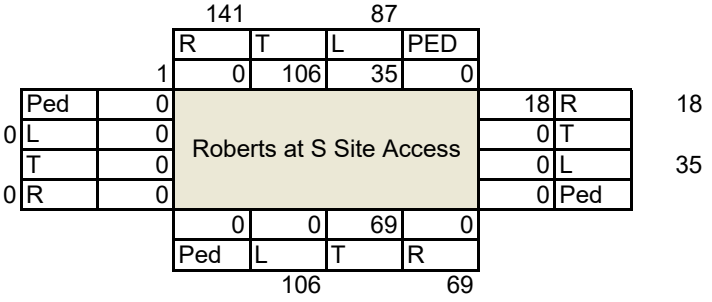
87
0
Ped
L
T
R
141
87


141
87
R
T
L
PED
1
0
106
35
0
Ped
0
0
L
0
T
0
0
R
0
Roberts at S Site Access
18
R
18
0
T
0
L
35
0
Ped
0
0
69
0
Ped
L
T
R
106
69

ODOT Covid table

1.11 Covid factor

		2021 Volumes		2020 Volumes		
Date	Corridor	Average Weekday	Average Weekend	Average Weekday	Average Weekend	Av We
Week 3 Jan 11-17, 2021	I-5	507,038	426,720	556,810	486,137	
	I-205	214,940	176,106	227,728	191,463	
	I-405	108,821	81,586	130,873	101,455	
	I-84	291,907	254,334	306,083	269,589	
	US 97	130,299	103,343	119,900	97,346	
	US197	2,462	2,022	2,143	1,655	
	US20	20,960	19,172	19,445	16,728	
	US26	41,382	46,008	38,656	43,455	
	US30	9,982	9,820	8,881	8,347	
	US395	22,540	16,678	21,450	17,913	
	OR18	15,555	21,707	12,239	17,296	
	OR22	27,159	20,963	26,999	21,009	
	US101	65,700	65,830	64,015	59,399	
Statewide Average		298,371	251,704	321,517	279,000	
Week 4 Jan 18-24, 2021	I-5	516,523	405,508	589,181	498,062	
	I-205	219,425	177,727	236,728	197,396	
	I-405	110,619	56,998	133,415	104,080	
	I-84	299,553	237,084	327,003	286,307	
	US 97	125,881	90,133	135,928	104,449	
	US197	2,506	1,911	2,499	1,916	
	US20	21,773	18,043	21,279	17,234	
	US26	44,449	42,857	44,746	43,311	
	US30	10,413	9,035	10,293	9,627	
	US395	21,594	16,000	24,781	17,787	
	OR18	17,362	20,699	15,058	17,142	
	OR22	27,439	20,777	28,191	21,808	
	US101	66,431	54,503	66,549	56,168	
Statewide Average		303,933	237,199	341,004	288,454	

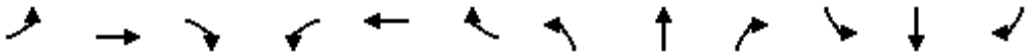
2019 Volumes			2021 as % of 2020	
verage eekday	Average Weekend		Weekday Diff	Weekend Diff
554,363	471,889		(0.09)	(0.12)
250,019	199,730		(0.06)	(0.08)
137,314	101,804		(0.17)	(0.20)
314,197	265,519		(0.05)	(0.06)
130,708	97,810		0.09	0.06
2,359	1,953		0.15	0.22
20,748	16,345		0.08	0.15
43,756	43,118		0.07	0.06
9,965	8,815		0.12	0.18
27,294	20,930		0.05	(0.07)
14,197	17,567		0.27	0.26
28,069	20,089		0.01	(0.00)
68,823	62,252		0.03	0.11
387,223	274,360		(0.07)	(0.10)
565,165	491,281		(0.12)	(0.19)
249,612	205,575		(0.07)	(0.10)
135,553	106,953		(0.17)	(0.45)
325,588	277,736		(0.08)	(0.17)
135,782	106,798		(0.07)	(0.14)
2,620	2,041		0.00	(0.00)
21,191	18,648		0.02	0.05
45,746	46,469		(0.01)	(0.01)
10,306	9,928		0.01	(0.06)
26,077	18,732		(0.13)	(0.10)
15,225	19,776		0.15	0.21
27,860	21,594		(0.03)	(0.05)
70,000	65,239		(0.00)	(0.03)
334,183	286,415		(0.11)	(0.18)

APPENDIX D: SYNCHRO OUTPUTS

Kendall Collison

HCM 6th Signalized Intersection Summary
3: Pearl St & Coburg Industrial Way

02/12/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	276	67	144	139	122	23	10	91	26	7	9
Future Volume (veh/h)	48	276	67	144	139	122	23	10	91	26	7	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1641	1422	1627	1463	1695	1654	1573	1750	1463	1586	1750	1600
Adj Flow Rate, veh/h	56	325	79	169	164	144	27	12	107	31	8	11
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	8	24	9	21	4	7	13	0	21	12	0	11
Cap, veh/h	323	412	99	274	445	365	40	72	641	86	318	437
Arrive On Green	0.04	0.19	0.19	0.11	0.26	0.26	0.03	0.47	0.47	0.03	0.48	0.48
Sat Flow, veh/h	1563	2162	518	1394	1680	1378	1498	152	1354	2931	667	918
Grp Volume(v), veh/h	56	201	203	169	157	151	27	0	119	31	0	19
Grp Sat Flow(s),veh/h/ln	1563	1351	1329	1394	1611	1447	1498	0	1506	1465	0	1585
Q Serve(g_s), s	2.7	13.3	13.7	8.7	7.5	8.1	1.7	0.0	4.2	1.0	0.0	0.6
Cycle Q Clear(g_c), s	2.7	13.3	13.7	8.7	7.5	8.1	1.7	0.0	4.2	1.0	0.0	0.6
Prop In Lane	1.00		0.39	1.00		0.95	1.00		0.90	1.00		0.58
Lane Grp Cap(c), veh/h	323	258	253	274	427	383	40	0	713	86	0	754
V/C Ratio(X)	0.17	0.78	0.80	0.62	0.37	0.39	0.67	0.00	0.17	0.36	0.00	0.03
Avail Cap(c_a), veh/h	367	496	488	359	762	685	135	0	713	203	0	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	36.2	36.3	25.9	28.1	28.4	45.3	0.0	14.2	44.7	0.0	13.1
Incr Delay (d2), s/veh	0.3	5.1	5.8	2.2	0.5	0.7	17.5	0.0	0.5	2.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.6	4.7	2.9	2.9	2.8	0.8	0.0	1.4	0.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	41.3	42.1	28.1	28.7	29.0	62.9	0.0	14.7	47.2	0.0	13.1
LnGrp LOS	C	D	D	C	C	C	E	A	B	D	A	B
Approach Vol, veh/h		460			477			146			50	
Approach Delay, s/veh		40.2			28.6			23.6			34.3	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	49.0	15.3	22.4	7.0	49.2	8.3	29.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	44.5	16.5	34.5	8.5	42.5	6.5	44.5
Max Q Clear Time (g_c+I1), s	3.0	6.2	10.7	15.7	3.7	2.6	4.7	10.1
Green Ext Time (p_c), s	0.0	0.7	0.2	2.2	0.0	0.1	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	79	36	21	9	12
Future Vol, veh/h	10	79	36	21	9	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	22	10	41	16	0	73
Mvmt Flow	11	84	38	22	10	13

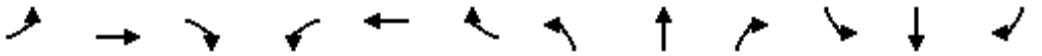
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	115	17	23	0	-	0
Stage 1	17	-	-	-	-	-
Stage 2	98	-	-	-	-	-
Critical Hdwy	6.62	6.3	4.51	-	-	-
Critical Hdwy Stg 1	5.62	-	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-	-
Follow-up Hdwy	3.698	3.39	2.569	-	-	-
Pot Cap-1 Maneuver	835	1039	1373	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	878	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	812	1039	1373	-	-	-
Mov Cap-2 Maneuver	812	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	878	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	4.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1373	-	1007	-	-
HCM Lane V/C Ratio	0.028	-	0.094	-	-
HCM Control Delay (s)	7.7	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

HCM 6th Signalized Intersection Summary
3: Pearl St & Coburg Industrial Way

02/12/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	204	36	125	204	16	54	3	174	186	12	42
Future Volume (veh/h)	5	204	36	125	204	16	54	3	174	186	12	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1204	1559	1518	1340	1627	1491	1750	1750	1695	1723	1750	1750
Adj Flow Rate, veh/h	6	232	41	142	232	18	61	3	198	211	14	48
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	40	14	17	30	9	19	0	0	4	2	0	0
Cap, veh/h	197	329	57	264	686	53	77	10	663	293	173	593
Arrive On Green	0.01	0.13	0.13	0.11	0.24	0.24	0.05	0.45	0.45	0.09	0.50	0.50
Sat Flow, veh/h	1147	2522	439	1277	2909	224	1667	22	1464	3183	347	1189
Grp Volume(v), veh/h	6	135	138	142	123	127	61	0	201	211	0	62
Grp Sat Flow(s),veh/h/ln	1147	1481	1480	1277	1546	1587	1667	0	1486	1591	0	1536
Q Serve(g_s), s	0.4	7.4	7.6	7.8	5.6	5.7	3.1	0.0	7.3	5.5	0.0	1.8
Cycle Q Clear(g_c), s	0.4	7.4	7.6	7.8	5.6	5.7	3.1	0.0	7.3	5.5	0.0	1.8
Prop In Lane	1.00		0.30	1.00		0.14	1.00		0.99	1.00		0.77
Lane Grp Cap(c), veh/h	197	193	193	264	365	374	77	0	673	293	0	766
V/C Ratio(X)	0.03	0.70	0.72	0.54	0.34	0.34	0.80	0.00	0.30	0.72	0.00	0.08
Avail Cap(c_a), veh/h	262	565	565	352	771	792	225	0	673	579	0	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.8	35.4	35.5	26.4	27.0	27.0	40.2	0.0	14.7	37.6	0.0	11.1
Incr Delay (d2), s/veh	0.1	4.5	4.9	1.7	0.5	0.5	16.7	0.0	1.1	3.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.8	2.9	2.4	2.0	2.1	1.6	0.0	2.4	2.2	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	39.9	40.4	28.1	27.5	27.6	56.9	0.0	15.9	40.9	0.0	11.3
LnGrp LOS	C	D	D	C	C	C	E	A	B	D	A	B
Approach Vol, veh/h		279			392			262			273	
Approach Delay, s/veh		40.0			27.8			25.4			34.2	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	43.1	14.1	15.6	8.4	47.0	5.2	24.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	15.5	32.5	11.5	42.5	5.5	42.5
Max Q Clear Time (g_c+I1), s	7.5	9.3	9.8	9.6	5.1	3.8	2.4	7.7
Green Ext Time (p_c), s	0.4	1.2	0.2	1.5	0.0	0.3	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

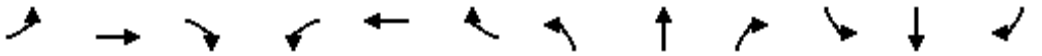
Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	63	113	10	3	28
Future Vol, veh/h	3	63	113	10	3	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	11	6	0	0	0
Mvmt Flow	4	88	157	14	4	39

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	352	24	43	0	-	0
Stage 1	24	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Critical Hdwy	6.4	6.31	4.16	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.399	2.254	-	-	-
Pot Cap-1 Maneuver	650	1027	1540	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	583	1027	1540	-	-	-
Mov Cap-2 Maneuver	583	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	734	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1540	-	993	-	-
HCM Lane V/C Ratio	0.102	-	0.092	-	-
HCM Control Delay (s)	7.6	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	286	69	149	144	126	24	10	94	27	7	9
Future Volume (veh/h)	50	286	69	149	144	126	24	10	94	27	7	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1641	1422	1627	1463	1695	1654	1573	1750	1463	1586	1750	1600
Adj Flow Rate, veh/h	59	336	81	175	169	148	28	12	111	32	8	11
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	8	24	9	21	4	7	13	0	21	12	0	11
Cap, veh/h	327	423	101	277	456	374	41	69	636	88	314	432
Arrive On Green	0.04	0.20	0.20	0.12	0.27	0.27	0.03	0.47	0.47	0.03	0.47	0.47
Sat Flow, veh/h	1563	2166	515	1394	1680	1378	1498	147	1359	2931	667	918
Grp Volume(v), veh/h	59	208	209	175	162	155	28	0	123	32	0	19
Grp Sat Flow(s),veh/h/ln	1563	1351	1330	1394	1611	1447	1498	0	1505	1465	0	1585
Q Serve(g_s), s	2.8	13.9	14.3	9.1	7.7	8.3	1.8	0.0	4.5	1.0	0.0	0.6
Cycle Q Clear(g_c), s	2.8	13.9	14.3	9.1	7.7	8.3	1.8	0.0	4.5	1.0	0.0	0.6
Prop In Lane	1.00		0.39	1.00		0.95	1.00		0.90	1.00		0.58
Lane Grp Cap(c), veh/h	327	264	260	277	437	393	41	0	704	88	0	745
V/C Ratio(X)	0.18	0.79	0.81	0.63	0.37	0.40	0.68	0.00	0.17	0.36	0.00	0.03
Avail Cap(c_a), veh/h	369	490	482	355	753	677	134	0	704	200	0	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	36.4	36.5	25.9	28.1	28.3	45.8	0.0	14.7	45.2	0.0	13.5
Incr Delay (d2), s/veh	0.3	5.2	5.8	2.4	0.5	0.6	17.9	0.0	0.5	2.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.8	4.9	3.1	3.0	2.9	0.8	0.0	1.5	0.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	41.6	42.3	28.3	28.6	28.9	63.7	0.0	15.2	47.8	0.0	13.6
LnGrp LOS	C	D	D	C	C	C	E	A	B	D	A	B
Approach Vol, veh/h		476			492			151			51	
Approach Delay, s/veh		40.4			28.6			24.2			35.0	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	49.0	15.7	23.1	7.1	49.2	8.4	30.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	44.5	16.5	34.5	8.5	42.5	6.5	44.5
Max Q Clear Time (g_c+I1), s	3.0	6.5	11.1	16.3	3.8	2.6	4.8	10.3
Green Ext Time (p_c), s	0.0	0.7	0.2	2.3	0.0	0.1	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	33.1
HCM 6th LOS	C

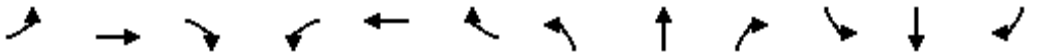
Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	82	37	22	9	12
Future Vol, veh/h	10	82	37	22	9	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	22	10	41	16	0	73
Mvmt Flow	11	87	39	23	10	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	118	17	23	0	-	0
Stage 1	17	-	-	-	-	-
Stage 2	101	-	-	-	-	-
Critical Hdwy	6.62	6.3	4.51	-	-	-
Critical Hdwy Stg 1	5.62	-	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-	-
Follow-up Hdwy	3.698	3.39	2.569	-	-	-
Pot Cap-1 Maneuver	832	1039	1373	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	875	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	808	1039	1373	-	-	-
Mov Cap-2 Maneuver	808	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	875	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	4.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1373	-	1008	-	-
HCM Lane V/C Ratio	0.029	-	0.097	-	-
HCM Control Delay (s)	7.7	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	211	37	129	211	17	56	3	180	193	12	43
Future Volume (veh/h)	5	211	37	129	211	17	56	3	180	193	12	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1204	1559	1518	1340	1627	1491	1750	1750	1695	1723	1750	1750
Adj Flow Rate, veh/h	6	240	42	147	240	19	64	3	205	219	14	49
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	40	14	17	30	9	19	0	0	4	2	0	0
Cap, veh/h	197	337	58	267	703	55	81	10	655	300	168	589
Arrive On Green	0.01	0.13	0.13	0.12	0.24	0.24	0.05	0.45	0.45	0.09	0.49	0.49
Sat Flow, veh/h	1147	2526	435	1277	2904	228	1667	21	1465	3183	341	1194
Grp Volume(v), veh/h	6	139	143	147	127	132	64	0	208	219	0	63
Grp Sat Flow(s),veh/h/ln	1147	1481	1481	1277	1546	1586	1667	0	1486	1591	0	1535
Q Serve(g_s), s	0.4	7.7	8.0	8.2	5.8	5.9	3.3	0.0	7.8	5.8	0.0	1.9
Cycle Q Clear(g_c), s	0.4	7.7	8.0	8.2	5.8	5.9	3.3	0.0	7.8	5.8	0.0	1.9
Prop In Lane	1.00		0.29	1.00		0.14	1.00		0.99	1.00		0.78
Lane Grp Cap(c), veh/h	197	198	198	267	374	384	81	0	665	300	0	757
V/C Ratio(X)	0.03	0.70	0.72	0.55	0.34	0.34	0.79	0.00	0.31	0.73	0.00	0.08
Avail Cap(c_a), veh/h	261	558	558	348	762	782	222	0	665	572	0	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.9	35.7	35.8	26.4	27.0	27.0	40.6	0.0	15.3	38.0	0.0	11.6
Incr Delay (d2), s/veh	0.1	4.5	4.9	1.8	0.5	0.5	15.8	0.0	1.2	3.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.0	3.1	2.5	2.1	2.2	1.6	0.0	2.6	2.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	40.2	40.7	28.2	27.5	27.5	56.4	0.0	16.5	41.3	0.0	11.8
LnGrp LOS	C	D	D	C	C	C	E	A	B	D	A	B
Approach Vol, veh/h		288			406			272			282	
Approach Delay, s/veh		40.3			27.8			25.9			34.7	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	43.0	14.5	16.0	8.7	47.0	5.2	25.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	15.5	32.5	11.5	42.5	5.5	42.5
Max Q Clear Time (g_c+I1), s	7.8	9.8	10.2	10.0	5.3	3.9	2.4	7.9
Green Ext Time (p_c), s	0.4	1.3	0.2	1.5	0.0	0.3	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	65	117	10	3	29
Future Vol, veh/h	3	65	117	10	3	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	11	6	0	0	0
Mvmt Flow	4	90	163	14	4	40

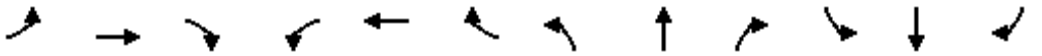
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	364	24	44	0	-	0
Stage 1	24	-	-	-	-	-
Stage 2	340	-	-	-	-	-
Critical Hdwy	6.4	6.31	4.16	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.399	2.254	-	-	-
Pot Cap-1 Maneuver	639	1027	1539	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	571	1027	1539	-	-	-
Mov Cap-2 Maneuver	571	-	-	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	725	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1539	-	992	-	-
HCM Lane V/C Ratio	0.106	-	0.095	-	-
HCM Control Delay (s)	7.6	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.4	-	0.3	-	-

HCM 6th Signalized Intersection Summary
3: Pearl St & Coburg Industrial Way

02/12/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	286	89	184	144	126	34	10	112	27	7	9
Future Volume (veh/h)	50	286	89	184	144	126	34	10	112	27	7	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1641	1422	1627	1463	1695	1654	1573	1750	1463	1586	1750	1600
Adj Flow Rate, veh/h	59	336	105	216	169	148	40	12	132	32	8	11
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	8	24	9	21	4	7	13	0	21	12	0	11
Cap, veh/h	342	416	128	301	508	416	50	56	616	86	296	406
Arrive On Green	0.04	0.20	0.20	0.14	0.30	0.30	0.03	0.45	0.45	0.03	0.44	0.44
Sat Flow, veh/h	1563	2035	626	1394	1680	1378	1498	125	1377	2931	667	918
Grp Volume(v), veh/h	59	221	220	216	162	155	40	0	144	32	0	19
Grp Sat Flow(s),veh/h/ln	1563	1351	1310	1394	1611	1447	1498	0	1502	1465	0	1585
Q Serve(g_s), s	3.0	15.5	16.0	11.6	7.7	8.4	2.6	0.0	5.8	1.1	0.0	0.7
Cycle Q Clear(g_c), s	3.0	15.5	16.0	11.6	7.7	8.4	2.6	0.0	5.8	1.1	0.0	0.7
Prop In Lane	1.00		0.48	1.00		0.95	1.00		0.92	1.00		0.58
Lane Grp Cap(c), veh/h	342	276	268	301	487	438	50	0	671	86	0	702
V/C Ratio(X)	0.17	0.80	0.82	0.72	0.33	0.36	0.79	0.00	0.21	0.37	0.00	0.03
Avail Cap(c_a), veh/h	381	468	454	339	720	647	128	0	671	191	0	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.5	37.7	37.9	26.1	26.9	27.1	47.8	0.0	16.8	47.4	0.0	15.6
Incr Delay (d2), s/veh	0.2	5.4	6.2	6.3	0.4	0.5	23.8	0.0	0.7	2.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.4	5.5	4.2	3.0	2.9	1.3	0.0	2.0	0.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	43.0	44.0	32.4	27.3	27.6	71.5	0.0	17.6	50.0	0.0	15.7
LnGrp LOS	C	D	D	C	C	C	E	A	B	D	A	B
Approach Vol, veh/h		500			533			184			51	
Approach Delay, s/veh		41.9			29.5			29.3			37.2	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	49.0	18.3	24.8	7.8	48.6	8.5	34.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	44.5	16.5	34.5	8.5	42.5	6.5	44.5
Max Q Clear Time (g_c+I1), s	3.1	7.8	13.6	18.0	4.6	2.7	5.0	10.4
Green Ext Time (p_c), s	0.0	0.9	0.2	2.4	0.0	0.1	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	137	65	22	9	12
Future Vol, veh/h	10	137	65	22	9	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	22	10	41	16	0	73
Mvmt Flow	11	146	69	23	10	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	178	17	23	0	-	0
Stage 1	17	-	-	-	-	-
Stage 2	161	-	-	-	-	-
Critical Hdwy	6.62	6.3	4.51	-	-	-
Critical Hdwy Stg 1	5.62	-	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-	-
Follow-up Hdwy	3.698	3.39	2.569	-	-	-
Pot Cap-1 Maneuver	768	1039	1373	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	821	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	729	1039	1373	-	-	-
Mov Cap-2 Maneuver	729	-	-	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	821	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	5.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1373	-	1010	-	-
HCM Lane V/C Ratio	0.05	-	0.155	-	-
HCM Control Delay (s)	7.8	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	18	59	0	35	91
Future Vol, veh/h	0	18	59	0	35	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	20	64	0	38	99

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	239	64	0	0	64	0
Stage 1	64	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	749	1000	-	-	1538	-
Stage 1	959	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	730	1000	-	-	1538	-
Mov Cap-2 Maneuver	730	-	-	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	833	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	2.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1000	1538	-
HCM Lane V/C Ratio	-	-	0.02	0.025	-
HCM Control Delay (s)	-	-	8.7	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

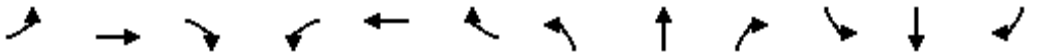
Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	77	0	20	126
Future Vol, veh/h	0	10	77	0	20	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	84	0	22	137

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	265	84	0	0	84	0
Stage 1	84	-	-	-	-	-
Stage 2	181	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	724	975	-	-	1513	-
Stage 1	939	-	-	-	-	-
Stage 2	850	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	712	975	-	-	1513	-
Mov Cap-2 Maneuver	712	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	836	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	975	1513	-
HCM Lane V/C Ratio	-	-	0.011	0.014	-
HCM Control Delay (s)	-	-	8.7	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	211	54	160	211	17	74	3	214	193	12	43
Future Volume (veh/h)	5	211	54	160	211	17	74	3	214	193	12	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1204	1559	1518	1340	1627	1491	1750	1750	1695	1723	1750	1750
Adj Flow Rate, veh/h	6	240	61	182	240	19	84	3	243	219	14	49
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	40	14	17	30	9	19	0	0	4	2	0	0
Cap, veh/h	197	328	82	288	785	62	106	8	636	295	158	552
Arrive On Green	0.01	0.14	0.14	0.14	0.27	0.27	0.06	0.43	0.43	0.09	0.46	0.46
Sat Flow, veh/h	1147	2350	585	1277	2904	228	1667	18	1468	3183	341	1194
Grp Volume(v), veh/h	6	149	152	182	127	132	84	0	246	219	0	63
Grp Sat Flow(s),veh/h/ln	1147	1481	1454	1277	1546	1586	1667	0	1486	1591	0	1535
Q Serve(g_s), s	0.4	8.9	9.2	10.7	6.0	6.1	4.6	0.0	10.3	6.2	0.0	2.1
Cycle Q Clear(g_c), s	0.4	8.9	9.2	10.7	6.0	6.1	4.6	0.0	10.3	6.2	0.0	2.1
Prop In Lane	1.00		0.40	1.00		0.14	1.00		0.99	1.00		0.78
Lane Grp Cap(c), veh/h	197	207	203	288	418	429	106	0	644	295	0	710
V/C Ratio(X)	0.03	0.72	0.75	0.63	0.30	0.31	0.79	0.00	0.38	0.74	0.00	0.09
Avail Cap(c_a), veh/h	256	524	514	327	715	733	209	0	644	537	0	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.6	37.8	38.0	27.1	26.7	26.7	42.4	0.0	17.7	40.6	0.0	13.8
Incr Delay (d2), s/veh	0.1	4.7	5.4	3.2	0.4	0.4	12.3	0.0	1.7	3.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.4	3.5	3.4	2.2	2.3	2.2	0.0	3.6	2.5	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	42.5	43.3	30.4	27.1	27.1	54.7	0.0	19.4	44.3	0.0	14.1
LnGrp LOS	C	D	D	C	C	C	D	A	B	D	A	B
Approach Vol, veh/h		307			441			330			282	
Approach Delay, s/veh		42.8			28.4			28.4			37.5	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	44.3	17.2	17.3	10.4	47.0	5.2	29.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	15.5	32.5	11.5	42.5	5.5	42.5
Max Q Clear Time (g_c+I1), s	8.2	12.3	12.7	11.2	6.6	4.1	2.4	8.1
Green Ext Time (p_c), s	0.4	1.5	0.1	1.6	0.1	0.3	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	113	169	10	3	29
Future Vol, veh/h	3	113	169	10	3	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	11	6	0	0	0
Mvmt Flow	4	157	235	14	4	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	508	24	44	0	-	0
Stage 1	24	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Critical Hdwy	6.4	6.31	4.16	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.399	2.254	-	-	-
Pot Cap-1 Maneuver	528	1027	1539	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	624	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	447	1027	1539	-	-	-
Mov Cap-2 Maneuver	447	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	624	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1539	-	994	-	-
HCM Lane V/C Ratio	0.153	-	0.162	-	-
HCM Control Delay (s)	7.8	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0.6	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	37	127	0	30	68
Future Vol, veh/h	0	37	127	0	30	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	138	0	33	74

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	278	138	0	0	138	0
Stage 1	138	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	712	910	-	-	1446	-
Stage 1	889	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	695	910	-	-	1446	-
Mov Cap-2 Maneuver	695	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	866	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	2.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	910	1446	-
HCM Lane V/C Ratio	-	-	0.044	0.023	-
HCM Control Delay (s)	-	-	9.1	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	164	0	18	98
Future Vol, veh/h	0	15	164	0	18	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	178	0	20	107

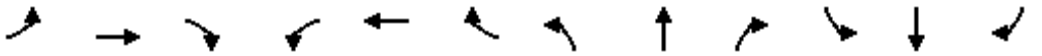
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	325	178	0	0	178	0
Stage 1	178	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	669	865	-	-	1398	-
Stage 1	853	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	659	865	-	-	1398	-
Mov Cap-2 Maneuver	659	-	-	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	867	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	865	1398	-
HCM Lane V/C Ratio	-	-	0.019	0.014	-
HCM Control Delay (s)	-	-	9.2	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

HCM 6th Signalized Intersection Summary
3: Pearl St & Coburg Industrial Way

02/12/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	334	81	174	168	148	28	12	110	31	8	11
Future Volume (veh/h)	58	334	81	174	168	148	28	12	110	31	8	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1641	1422	1627	1463	1695	1654	1573	1750	1463	1586	1750	1600
Adj Flow Rate, veh/h	68	393	95	205	198	174	33	14	129	36	9	13
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	8	24	9	21	4	7	13	0	21	12	0	11
Cap, veh/h	339	476	114	287	509	423	45	65	598	92	286	413
Arrive On Green	0.05	0.22	0.22	0.13	0.30	0.30	0.03	0.44	0.44	0.03	0.44	0.44
Sat Flow, veh/h	1563	2163	518	1394	1669	1387	1498	147	1358	2931	647	935
Grp Volume(v), veh/h	68	244	244	205	191	181	33	0	143	36	0	22
Grp Sat Flow(s),veh/h/ln	1563	1351	1329	1394	1611	1446	1498	0	1506	1465	0	1582
Q Serve(g_s), s	3.4	17.4	17.7	11.0	9.4	10.1	2.2	0.0	5.9	1.2	0.0	0.8
Cycle Q Clear(g_c), s	3.4	17.4	17.7	11.0	9.4	10.1	2.2	0.0	5.9	1.2	0.0	0.8
Prop In Lane	1.00		0.39	1.00		0.96	1.00		0.90	1.00		0.59
Lane Grp Cap(c), veh/h	339	298	293	287	491	440	45	0	663	92	0	699
V/C Ratio(X)	0.20	0.82	0.83	0.71	0.39	0.41	0.74	0.00	0.22	0.39	0.00	0.03
Avail Cap(c_a), veh/h	369	461	454	333	709	637	126	0	663	188	0	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.5	37.5	37.6	26.0	27.7	27.9	48.6	0.0	17.5	48.0	0.0	16.0
Incr Delay (d2), s/veh	0.3	6.7	7.7	5.9	0.5	0.6	20.7	0.0	0.7	2.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	6.1	6.2	4.0	3.6	3.5	1.1	0.0	2.1	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	44.2	45.3	32.0	28.2	28.5	69.4	0.0	18.2	50.7	0.0	16.0
LnGrp LOS	C	D	D	C	C	C	E	A	B	D	A	B
Approach Vol, veh/h		556			577			176			58	
Approach Delay, s/veh		42.8			29.7			27.8			37.5	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	49.0	17.6	26.8	7.5	49.2	9.1	35.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	44.5	16.5	34.5	8.5	42.5	6.5	44.5
Max Q Clear Time (g_c+I1), s	3.2	7.9	13.0	19.7	4.2	2.8	5.4	12.1
Green Ext Time (p_c), s	0.0	0.9	0.2	2.5	0.0	0.1	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

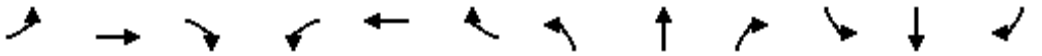
Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	96	44	25	11	15
Future Vol, veh/h	12	96	44	25	11	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	22	10	41	16	0	73
Mvmt Flow	13	102	47	27	12	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	141	20	28	0	-	0
Stage 1	20	-	-	-	-	-
Stage 2	121	-	-	-	-	-
Critical Hdwy	6.62	6.3	4.51	-	-	-
Critical Hdwy Stg 1	5.62	-	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-	-
Follow-up Hdwy	3.698	3.39	2.569	-	-	-
Pot Cap-1 Maneuver	807	1035	1367	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	779	1035	1367	-	-	-
Mov Cap-2 Maneuver	779	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	857	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	4.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1367	-	999	-	-
HCM Lane V/C Ratio	0.034	-	0.115	-	-
HCM Control Delay (s)	7.7	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	247	44	151	247	19	65	4	211	225	15	51
Future Volume (veh/h)	6	247	44	151	247	19	65	4	211	225	15	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1204	1559	1518	1340	1627	1491	1750	1750	1695	1723	1750	1750
Adj Flow Rate, veh/h	7	281	50	172	281	22	74	5	240	256	17	58
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	40	14	17	30	9	19	0	0	4	2	0	0
Cap, veh/h	201	377	66	279	788	61	94	13	611	333	163	556
Arrive On Green	0.01	0.15	0.15	0.13	0.27	0.27	0.06	0.42	0.42	0.10	0.47	0.47
Sat Flow, veh/h	1147	2518	442	1277	2906	226	1667	30	1457	3183	348	1188
Grp Volume(v), veh/h	7	164	167	172	149	154	74	0	245	256	0	75
Grp Sat Flow(s),veh/h/ln	1147	1481	1479	1277	1546	1586	1667	0	1488	1591	0	1536
Q Serve(g_s), s	0.5	9.7	10.0	10.0	7.1	7.2	4.0	0.0	10.5	7.2	0.0	2.5
Cycle Q Clear(g_c), s	0.5	9.7	10.0	10.0	7.1	7.2	4.0	0.0	10.5	7.2	0.0	2.5
Prop In Lane	1.00		0.30	1.00		0.14	1.00		0.98	1.00		0.77
Lane Grp Cap(c), veh/h	201	222	221	279	419	430	94	0	624	333	0	718
V/C Ratio(X)	0.03	0.74	0.76	0.62	0.35	0.36	0.79	0.00	0.39	0.77	0.00	0.10
Avail Cap(c_a), veh/h	260	524	523	328	715	734	209	0	624	537	0	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	37.3	37.4	26.9	27.0	27.0	42.8	0.0	18.6	40.0	0.0	13.7
Incr Delay (d2), s/veh	0.1	4.8	5.2	2.6	0.5	0.5	13.7	0.0	1.9	3.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.7	3.8	3.1	2.6	2.7	2.0	0.0	3.7	2.9	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	42.1	42.6	29.5	27.5	27.5	56.5	0.0	20.4	43.8	0.0	14.0
LnGrp LOS	C	D	D	C	C	C	E	A	C	D	A	B
Approach Vol, veh/h		338			475			319			331	
Approach Delay, s/veh		42.2			28.2			28.8			37.0	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	43.0	16.5	18.3	9.7	47.5	5.3	29.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	15.5	32.5	11.5	42.5	5.5	42.5
Max Q Clear Time (g_c+I1), s	9.2	12.5	12.0	12.0	6.0	4.5	2.5	9.2
Green Ext Time (p_c), s	0.4	1.5	0.1	1.8	0.1	0.4	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

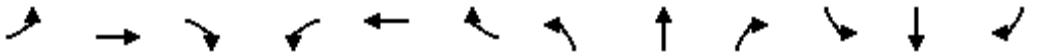
Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	76	137	12	4	34
Future Vol, veh/h	4	76	137	12	4	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	11	6	0	0	0
Mvmt Flow	6	106	190	17	6	47

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	427	30	53	0	-	0
Stage 1	30	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Critical Hdwy	6.4	6.31	4.16	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.399	2.254	-	-	-
Pot Cap-1 Maneuver	588	1019	1527	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	514	1019	1527	-	-	-
Mov Cap-2 Maneuver	514	-	-	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	683	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	7.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	971	-	-
HCM Lane V/C Ratio	0.125	-	0.114	-	-
HCM Control Delay (s)	7.7	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.4	-	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	334	101	209	168	148	38	12	128	31	8	11
Future Volume (veh/h)	58	334	101	209	168	148	38	12	128	31	8	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1641	1422	1627	1463	1695	1654	1573	1750	1463	1586	1750	1600
Adj Flow Rate, veh/h	68	393	119	246	198	174	45	14	151	36	9	13
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	8	24	9	21	4	7	13	0	21	12	0	11
Cap, veh/h	358	468	140	308	555	461	54	54	579	90	269	389
Arrive On Green	0.05	0.23	0.23	0.15	0.33	0.33	0.04	0.42	0.42	0.03	0.42	0.42
Sat Flow, veh/h	1563	2050	614	1394	1669	1387	1498	127	1375	2931	647	935
Grp Volume(v), veh/h	68	258	254	246	191	181	45	0	165	36	0	22
Grp Sat Flow(s),veh/h/ln	1563	1351	1312	1394	1611	1446	1498	0	1502	1465	0	1582
Q Serve(g_s), s	3.5	19.2	19.6	13.7	9.5	10.1	3.2	0.0	7.5	1.3	0.0	0.9
Cycle Q Clear(g_c), s	3.5	19.2	19.6	13.7	9.5	10.1	3.2	0.0	7.5	1.3	0.0	0.9
Prop In Lane	1.00		0.47	1.00		0.96	1.00		0.92	1.00		0.59
Lane Grp Cap(c), veh/h	358	309	300	308	535	480	54	0	633	90	0	659
V/C Ratio(X)	0.19	0.83	0.85	0.80	0.36	0.38	0.84	0.00	0.26	0.40	0.00	0.03
Avail Cap(c_a), veh/h	384	441	429	318	679	609	121	0	633	180	0	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.1	38.8	39.0	26.3	26.7	26.9	50.6	0.0	19.9	50.2	0.0	18.2
Incr Delay (d2), s/veh	0.3	9.1	10.6	13.1	0.4	0.5	27.2	0.0	1.0	2.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.0	7.0	5.5	3.6	3.5	1.6	0.0	2.7	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	47.9	49.6	39.4	27.1	27.4	77.8	0.0	20.9	53.0	0.0	18.3
LnGrp LOS	C	D	D	D	C	C	E	A	C	D	A	B
Approach Vol, veh/h		580			618			210			58	
Approach Delay, s/veh		46.5			32.1			33.1			39.9	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	49.0	20.2	28.6	8.3	48.5	9.3	39.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	44.5	16.5	34.5	8.5	42.5	6.5	44.5
Max Q Clear Time (g_c+I1), s	3.3	9.5	15.7	21.6	5.2	2.9	5.5	12.1
Green Ext Time (p_c), s	0.0	1.0	0.1	2.5	0.0	0.1	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	151	72	25	11	15
Future Vol, veh/h	12	151	72	25	11	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	22	10	41	16	0	73
Mvmt Flow	13	161	77	27	12	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	201	20	28	0	-	0
Stage 1	20	-	-	-	-	-
Stage 2	181	-	-	-	-	-
Critical Hdwy	6.62	6.3	4.51	-	-	-
Critical Hdwy Stg 1	5.62	-	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-	-
Follow-up Hdwy	3.698	3.39	2.569	-	-	-
Pot Cap-1 Maneuver	745	1035	1367	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	703	1035	1367	-	-	-
Mov Cap-2 Maneuver	703	-	-	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	804	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	5.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1367	-	1000	-	-
HCM Lane V/C Ratio	0.056	-	0.173	-	-
HCM Control Delay (s)	7.8	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	18	69	0	35	106
Future Vol, veh/h	0	18	69	0	35	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	20	75	0	38	115

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	266	75	0	0	75	0
Stage 1	75	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	723	986	-	-	1524	-
Stage 1	948	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	703	986	-	-	1524	-
Mov Cap-2 Maneuver	703	-	-	-	-	-
Stage 1	948	-	-	-	-	-
Stage 2	818	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	986	1524	-
HCM Lane V/C Ratio	-	-	0.02	0.025	-
HCM Control Delay (s)	-	-	8.7	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

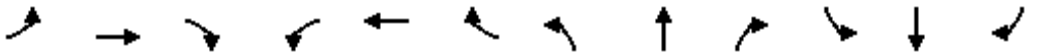
Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	87	0	10	141
Future Vol, veh/h	0	10	87	0	10	141
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	95	0	11	153

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	270	95	0	0	95	0
Stage 1	95	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	719	962	-	-	1499	-
Stage 1	929	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	713	962	-	-	1499	-
Mov Cap-2 Maneuver	713	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	848	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	962	1499	-
HCM Lane V/C Ratio	-	-	0.011	0.007	-
HCM Control Delay (s)	-	-	8.8	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	247	61	182	247	19	83	4	245	225	15	51
Future Volume (veh/h)	6	247	61	182	247	19	83	4	245	225	15	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1204	1559	1518	1340	1627	1491	1750	1750	1695	1723	1750	1750
Adj Flow Rate, veh/h	7	281	69	207	281	22	94	5	278	256	17	58
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	40	14	17	30	9	19	0	0	4	2	0	0
Cap, veh/h	202	369	89	299	866	67	118	11	591	329	152	520
Arrive On Green	0.01	0.16	0.16	0.15	0.30	0.30	0.07	0.40	0.40	0.10	0.44	0.44
Sat Flow, veh/h	1147	2366	571	1277	2906	226	1667	26	1461	3183	348	1188
Grp Volume(v), veh/h	7	174	176	207	149	154	94	0	283	256	0	75
Grp Sat Flow(s),veh/h/ln	1147	1481	1456	1277	1546	1586	1667	0	1487	1591	0	1536
Q Serve(g_s), s	0.5	10.9	11.3	12.7	7.3	7.4	5.4	0.0	13.6	7.6	0.0	2.8
Cycle Q Clear(g_c), s	0.5	10.9	11.3	12.7	7.3	7.4	5.4	0.0	13.6	7.6	0.0	2.8
Prop In Lane	1.00		0.39	1.00		0.14	1.00		0.98	1.00		0.77
Lane Grp Cap(c), veh/h	202	231	227	299	460	473	118	0	602	329	0	672
V/C Ratio(X)	0.03	0.75	0.77	0.69	0.32	0.33	0.80	0.00	0.47	0.78	0.00	0.11
Avail Cap(c_a), veh/h	256	495	487	310	676	694	197	0	602	508	0	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.1	39.2	39.4	27.5	26.5	26.5	44.5	0.0	21.3	42.5	0.0	16.2
Incr Delay (d2), s/veh	0.1	4.9	5.6	6.2	0.4	0.4	11.6	0.0	2.6	4.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.2	4.3	4.2	2.7	2.8	2.5	0.0	4.9	3.1	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	44.2	44.9	33.7	26.9	26.9	56.0	0.0	23.9	46.6	0.0	16.5
LnGrp LOS	C	D	D	C	C	C	E	A	C	D	A	B
Approach Vol, veh/h		357			510			377			331	
Approach Delay, s/veh		44.3			29.7			31.9			39.8	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	43.8	19.1	19.7	11.4	47.0	5.4	33.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	38.5	15.5	32.5	11.5	42.5	5.5	42.5
Max Q Clear Time (g_c+I1), s	9.6	15.6	14.7	13.3	7.4	4.8	2.5	9.4
Green Ext Time (p_c), s	0.4	1.7	0.1	1.9	0.1	0.4	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	124	189	12	4	34
Future Vol, veh/h	4	124	189	12	4	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	11	6	0	0	0
Mvmt Flow	6	172	263	17	6	47

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	573	30	53	0	-	0
Stage 1	30	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Critical Hdwy	6.4	6.31	4.16	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.399	2.254	-	-	-
Pot Cap-1 Maneuver	484	1019	1527	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	400	1019	1527	-	-	-
Mov Cap-2 Maneuver	400	-	-	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	586	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	7.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	972	-	-
HCM Lane V/C Ratio	0.172	-	0.183	-	-
HCM Control Delay (s)	7.8	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.6	-	0.7	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	37	149	0	30	80
Future Vol, veh/h	0	37	149	0	30	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	40	162	0	33	87

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	315	162	0	0	162	0
Stage 1	162	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	678	883	-	-	1417	-
Stage 1	867	-	-	-	-	-
Stage 2	875	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	662	883	-	-	1417	-
Mov Cap-2 Maneuver	662	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	854	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	2.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	883	1417	-
HCM Lane V/C Ratio	-	-	0.046	0.023	-
HCM Control Delay (s)	-	-	9.3	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	186	0	18	110
Future Vol, veh/h	0	15	186	0	18	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	16	202	0	20	120

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	362	202	0	0	202	0
Stage 1	202	-	-	-	-	-
Stage 2	160	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	637	839	-	-	1370	-
Stage 1	832	-	-	-	-	-
Stage 2	869	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	627	839	-	-	1370	-
Mov Cap-2 Maneuver	627	-	-	-	-	-
Stage 1	832	-	-	-	-	-
Stage 2	855	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	839	1370	-
HCM Lane V/C Ratio	-	-	0.019	0.014	-
HCM Control Delay (s)	-	-	9.4	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

APPENDIX E: QUEUING OUTPUTS

Kendall Collision

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	288	238	190	81	125	40	72	5	54	23
Average Queue (ft)	69	178	122	107	49	59	17	37	1	16	6
95th Queue (ft)	142	297	251	193	89	119	44	76	7	50	25
Link Distance (ft)		513	513		726	726		974			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	1	30		0							
Queuing Penalty (veh)	2	17		0							

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	234	204	178	93	127	63	81	6	75	54
Average Queue (ft)	40	134	86	85	44	40	19	31	0	28	6
95th Queue (ft)	109	218	174	152	85	90	55	67	5	66	32
Link Distance (ft)		513	513		726	726		974			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	19		0							
Queuing Penalty (veh)	0	9		0							

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	300	246	196	98	141	63	83	10	80	55
Average Queue (ft)	47	144	94	90	45	45	19	32	0	25	6
95th Queue (ft)	120	244	197	164	86	99	52	69	6	63	30
Link Distance (ft)		513	513		726	726		974			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	1	22		0							
Queuing Penalty (veh)	1	11		0							

Intersection: 5: Roberts Rd, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	64	27
Average Queue (ft)	39	4
95th Queue (ft)	65	25
Link Distance (ft)	974	264
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, Interval #2

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	63	39
Average Queue (ft)	31	3
95th Queue (ft)	59	25
Link Distance (ft)	974	264
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, All Intervals

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	75	54
Average Queue (ft)	33	3
95th Queue (ft)	62	25
Link Distance (ft)	974	264
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 19
Network wide Queuing Penalty, Interval #2: 9
Network wide Queuing Penalty, All Intervals: 12

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	59	194	146	171	143	114	97	93	170	190	61
Average Queue (ft)	13	126	67	101	83	45	51	54	76	134	27
95th Queue (ft)	65	201	150	177	163	121	97	94	192	202	64
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		20			0						
Queuing Penalty (veh)		1			0						

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	70	184	154	191	133	104	93	101	138	181	62
Average Queue (ft)	4	107	52	83	66	31	34	43	29	101	20
95th Queue (ft)	27	173	123	162	118	79	73	83	104	166	51
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	13		0							
Queuing Penalty (veh)	0	1		0							

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	89	200	158	199	162	142	102	110	172	192	74
Average Queue (ft)	6	111	56	87	70	34	38	45	40	109	22
95th Queue (ft)	39	181	131	166	131	92	81	86	133	179	55
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	15		0	0						
Queuing Penalty (veh)	0	1		0	0						

Intersection: 5: Roberts Rd, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	56	54
Average Queue (ft)	31	13
95th Queue (ft)	54	63
Link Distance (ft)	953	256
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, Interval #2

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	62	29
Average Queue (ft)	27	4
95th Queue (ft)	55	21
Link Distance (ft)	953	256
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, All Intervals

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	65	60
Average Queue (ft)	28	6
95th Queue (ft)	55	36
Link Distance (ft)	953	256
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 1
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, All Intervals: 1

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	109	222	200	193	97	105	57	77	6	70	36
Average Queue (ft)	54	156	122	102	48	53	23	37	1	34	11
95th Queue (ft)	134	236	226	191	96	115	60	78	9	79	36
Link Distance (ft)		513	513		726	726		974			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	25		0							
Queuing Penalty (veh)	0	15		0							

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	239	196	178	108	136	67	93	17	79	34
Average Queue (ft)	37	129	88	78	47	47	17	29	0	25	5
95th Queue (ft)	101	214	175	147	95	103	51	76	9	61	23
Link Distance (ft)		513	513		726	726		974			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	17									
Queuing Penalty (veh)	0	8									

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	252	212	205	114	150	71	104	23	84	41
Average Queue (ft)	41	136	96	84	47	48	19	31	1	27	7
95th Queue (ft)	110	222	191	160	96	106	53	77	9	66	27
Link Distance (ft)		513	513		726	726		974			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	19		0							
Queuing Penalty (veh)	0	10		0							

Intersection: 5: Roberts Rd, Interval #1

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	49	22	13
Average Queue (ft)	31	5	1
95th Queue (ft)	55	25	12
Link Distance (ft)	974	264	258
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Roberts Rd, Interval #2

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	57	34
Average Queue (ft)	29	2
95th Queue (ft)	52	27
Link Distance (ft)	974	264
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, All Intervals

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	60	44	13
Average Queue (ft)	29	3	0
95th Queue (ft)	53	27	6
Link Distance (ft)	974	264	258
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty, Interval #1: 15
Network wide Queuing Penalty, Interval #2: 8
Network wide Queuing Penalty, All Intervals: 10

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	62	199	162	181	135	101	95	82	162	178	52
Average Queue (ft)	14	125	75	113	80	49	45	47	59	128	19
95th Queue (ft)	57	195	162	181	141	100	93	86	165	188	49
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		17		0							
Queuing Penalty (veh)		1		0							

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	85	202	152	224	141	114	84	95	161	186	47
Average Queue (ft)	8	102	43	95	65	36	40	37	32	102	16
95th Queue (ft)	51	172	107	175	116	90	77	73	113	168	44
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	12		0							
Queuing Penalty (veh)	0	1		0							

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	92	215	180	228	152	130	100	103	181	191	52
Average Queue (ft)	10	108	51	99	68	39	41	40	38	108	17
95th Queue (ft)	53	180	125	177	124	93	81	77	128	175	45
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	13		0							
Queuing Penalty (veh)	0	1		0							

Intersection: 5: Roberts Rd, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	57	51
Average Queue (ft)	36	10
95th Queue (ft)	60	44
Link Distance (ft)	953	256
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, Interval #2

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	66	31
Average Queue (ft)	29	3
95th Queue (ft)	56	19
Link Distance (ft)	953	256
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, All Intervals

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	66	51
Average Queue (ft)	31	5
95th Queue (ft)	58	27
Link Distance (ft)	953	256
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 1
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, All Intervals: 1

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	262	198	194	81	131	62	95	18	72	33
Average Queue (ft)	66	161	115	139	41	56	24	46	3	30	9
95th Queue (ft)	142	252	206	214	88	126	67	91	18	76	32
Link Distance (ft)		513	513		726	726		948			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	28		0							
Queuing Penalty (veh)	0	16		0							

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	124	260	208	250	169	152	80	94	71	53
Average Queue (ft)	50	144	101	106	51	52	25	38	23	7
95th Queue (ft)	116	233	188	197	125	114	63	83	57	29
Link Distance (ft)		513	513		726	726		948		633
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	100			240			215		235	
Storage Blk Time (%)	0	20		1						
Queuing Penalty (veh)	0	10		1						

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	276	225	250	182	160	91	102	18	79	54
Average Queue (ft)	54	148	104	114	48	53	25	40	1	25	7
95th Queue (ft)	124	238	193	205	118	117	64	85	8	62	30
Link Distance (ft)		513	513		726	726		948			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	22		1							
Queuing Penalty (veh)	0	11		1							

Intersection: 5: Roberts Rd, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	58	10
Average Queue (ft)	38	2
95th Queue (ft)	61	16
Link Distance (ft)	948	531
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, Interval #2

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	81	56	9
Average Queue (ft)	38	3	0
95th Queue (ft)	64	24	8
Link Distance (ft)	948	531	258
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Roberts Rd, All Intervals

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	84	56	9
Average Queue (ft)	38	3	0
95th Queue (ft)	63	22	7
Link Distance (ft)	948	531	258
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Roberts Rd & S Site Access, Interval #1

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	30	16
Average Queue (ft)	9	2
95th Queue (ft)	32	18
Link Distance (ft)	460	207
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Roberts Rd & S Site Access, Interval #2

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	31
Average Queue (ft)	13	3
95th Queue (ft)	37	17
Link Distance (ft)	460	207
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Roberts Rd & S Site Access, All Intervals

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	35
Average Queue (ft)	12	2
95th Queue (ft)	36	17
Link Distance (ft)	460	207
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, Interval #1

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	30	6
Average Queue (ft)	10	1
95th Queue (ft)	33	9
Link Distance (ft)	432	531
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, Interval #2

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	19
Average Queue (ft)	8	2
95th Queue (ft)	30	13
Link Distance (ft)	432	531
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, All Intervals

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	24
Average Queue (ft)	9	1
95th Queue (ft)	31	12
Link Distance (ft)	432	531
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 17
Network wide Queuing Penalty, Interval #2: 11
Network wide Queuing Penalty, All Intervals: 12

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	44	210	177	184	128	117	118	91	121	175	48
Average Queue (ft)	10	130	86	115	69	49	67	53	48	128	24
95th Queue (ft)	48	225	184	196	130	109	122	95	137	183	51
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		20		0							
Queuing Penalty (veh)		1		0							

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	84	209	156	228	188	122	116	120	161	190	52
Average Queue (ft)	7	110	57	108	72	44	46	52	36	107	16
95th Queue (ft)	41	180	131	192	146	99	92	102	122	175	41
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		15		0	0						
Queuing Penalty (veh)		1		0	0						

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	84	234	195	232	198	135	126	125	163	199	52
Average Queue (ft)	8	115	64	110	72	45	51	52	39	112	18
95th Queue (ft)	43	193	147	193	142	102	102	101	126	179	44
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		16		0	0						
Queuing Penalty (veh)		1		0	0						

Intersection: 5: Roberts Rd, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	76	38
Average Queue (ft)	43	9
95th Queue (ft)	78	37
Link Distance (ft)	953	525
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, Interval #2

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	74	39
Average Queue (ft)	35	5
95th Queue (ft)	61	24
Link Distance (ft)	953	525
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, All Intervals

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	80	48
Average Queue (ft)	37	6
95th Queue (ft)	66	27
Link Distance (ft)	953	525
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Roberts Rd & SSite Access, Interval #1

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	12
Average Queue (ft)	22	3
95th Queue (ft)	43	17
Link Distance (ft)	409	185
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Roberts Rd & SSite Access, Interval #2

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	41	35
Average Queue (ft)	21	3
95th Queue (ft)	45	19
Link Distance (ft)	409	185
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Roberts Rd & SSite Access, All Intervals

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	41	35
Average Queue (ft)	21	3
95th Queue (ft)	45	18
Link Distance (ft)	409	185
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, Interval #1

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	30	19
Average Queue (ft)	14	4
95th Queue (ft)	38	22
Link Distance (ft)	467	525
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, Interval #2

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	35	36
Average Queue (ft)	12	3
95th Queue (ft)	36	19
Link Distance (ft)	467	525
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, All Intervals

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	35	36
Average Queue (ft)	12	3
95th Queue (ft)	36	20
Link Distance (ft)	467	525
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 1
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, All Intervals: 1

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	308	249	199	111	164	74	84	6	77	27
Average Queue (ft)	53	179	138	130	59	74	33	46	1	36	10
95th Queue (ft)	133	275	240	208	123	165	76	85	9	82	30
Link Distance (ft)		513	513		726	726		974			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	35		1							
Queuing Penalty (veh)	0	24		1							

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	314	259	198	122	157	87	92	16	76	36
Average Queue (ft)	52	158	111	94	51	57	22	38	0	28	8
95th Queue (ft)	123	266	216	168	102	127	58	79	6	65	30
Link Distance (ft)		513	513		726	726		974			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	23		0							
Queuing Penalty (veh)	1	13		0							

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	329	276	210	128	171	90	95	22	86	36
Average Queue (ft)	52	163	118	103	53	61	25	40	1	30	9
95th Queue (ft)	126	270	223	182	108	138	63	81	7	70	30
Link Distance (ft)		513	513		726	726		974			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	26		0							
Queuing Penalty (veh)	0	15		0							

Intersection: 5: Roberts Rd, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	55	19
Average Queue (ft)	36	3
95th Queue (ft)	55	23
Link Distance (ft)	974	264
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, Interval #2

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	71	37
Average Queue (ft)	32	2
95th Queue (ft)	55	22
Link Distance (ft)	974	264
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, All Intervals

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	71	51
Average Queue (ft)	33	3
95th Queue (ft)	55	22
Link Distance (ft)	974	264
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 24
Network wide Queuing Penalty, Interval #2: 13
Network wide Queuing Penalty, All Intervals: 16

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	16	204	197	196	131	99	98	116	165	204	52
Average Queue (ft)	2	142	97	121	72	54	55	65	78	151	25
95th Queue (ft)	18	231	197	198	137	100	106	122	190	227	55
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		24		0						0	
Queuing Penalty (veh)		2		0						0	

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	74	215	184	214	156	128	95	126	174	207	78
Average Queue (ft)	9	121	68	90	79	47	36	52	52	132	22
95th Queue (ft)	43	205	165	170	136	106	77	100	159	203	56
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	17		0					0	0	
Queuing Penalty (veh)	0	1		0					0	0	

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	76	242	221	224	157	128	113	142	185	218	78
Average Queue (ft)	7	126	75	97	77	49	41	55	58	136	23
95th Queue (ft)	39	213	175	180	136	105	86	106	168	210	56
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	19		0					0	0	
Queuing Penalty (veh)	0	1		0					0	0	

Intersection: 5: Roberts Rd, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	59	49
Average Queue (ft)	37	10
95th Queue (ft)	58	42
Link Distance (ft)	953	256
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, Interval #2

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	59	44
Average Queue (ft)	28	4
95th Queue (ft)	50	23
Link Distance (ft)	953	256
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, All Intervals

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	61	53
Average Queue (ft)	30	5
95th Queue (ft)	53	29
Link Distance (ft)	953	256
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 2
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, All Intervals: 1

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	114	329	256	260	172	135	93	98	10	70	36
Average Queue (ft)	74	232	163	171	65	66	42	56	2	36	10
95th Queue (ft)	151	334	285	283	172	133	100	109	12	76	36
Link Distance (ft)		513	513		726	726		948			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	2	37		6							
Queuing Penalty (veh)	4	25		6							

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	272	240	225	173	176	112	128	17	75	46
Average Queue (ft)	48	156	122	111	48	51	31	43	1	30	9
95th Queue (ft)	118	239	215	204	130	124	79	87	11	68	33
Link Distance (ft)		513	513		726	726		948			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	27		1	0						
Queuing Penalty (veh)	0	15		1	0						

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	124	329	272	262	240	191	120	131	27	83	50
Average Queue (ft)	54	175	132	126	52	55	34	46	1	31	9
95th Queue (ft)	128	278	237	232	141	127	85	94	11	70	34
Link Distance (ft)		513	513		726	726		948			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	1	30		2	0						
Queuing Penalty (veh)	1	18		2	0						

Intersection: 5: Roberts Rd, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	69	11
Average Queue (ft)	43	2
95th Queue (ft)	67	12
Link Distance (ft)	948	531
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, Interval #2

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	74	45
Average Queue (ft)	40	4
95th Queue (ft)	67	26
Link Distance (ft)	948	531
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, All Intervals

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	74	50
Average Queue (ft)	40	3
95th Queue (ft)	67	23
Link Distance (ft)	948	531
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Roberts Rd & S Site Access, Interval #1

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	18
Average Queue (ft)	14	3
95th Queue (ft)	39	19
Link Distance (ft)	460	207
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Roberts Rd & S Site Access, Interval #2

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	35	19
Average Queue (ft)	14	3
95th Queue (ft)	39	17
Link Distance (ft)	460	207
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Roberts Rd & S Site Access, All Intervals

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	35	31
Average Queue (ft)	14	3
95th Queue (ft)	39	18
Link Distance (ft)	460	207
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, Interval #1

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	30	6
Average Queue (ft)	10	1
95th Queue (ft)	32	10
Link Distance (ft)	432	531
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, Interval #2

Movement	WB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	10
95th Queue (ft)	33
Link Distance (ft)	432
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: N Site Access & Roberts Rd, All Intervals

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	6
Average Queue (ft)	10	0
95th Queue (ft)	33	5
Link Distance (ft)	432	531
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 35
Network wide Queuing Penalty, Interval #2: 16
Network wide Queuing Penalty, All Intervals: 21

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	84	195	184	218	157	113	104	140	168	209	47
Average Queue (ft)	18	142	96	141	83	63	53	89	90	157	22
95th Queue (ft)	76	206	184	236	159	118	99	149	208	211	51
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		26		0						0	
Queuing Penalty (veh)		2		0						0	

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	42	241	202	231	162	130	131	126	173	222	68
Average Queue (ft)	5	131	82	113	76	50	54	56	53	126	22
95th Queue (ft)	27	209	178	211	136	105	107	102	153	199	52
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		21		1					0	0	
Queuing Penalty (veh)		1		1					0	0	

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	97	241	212	242	194	134	131	143	181	235	68
Average Queue (ft)	8	134	86	120	78	53	53	64	62	134	22
95th Queue (ft)	44	209	180	219	142	109	106	119	170	206	52
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		22		1					0	0	
Queuing Penalty (veh)		1		1					0	0	

Intersection: 5: Roberts Rd, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	71	50
Average Queue (ft)	42	16
95th Queue (ft)	71	48
Link Distance (ft)	953	525
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Roberts Rd, Interval #2

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	78	46	8
Average Queue (ft)	37	5	0
95th Queue (ft)	66	26	5
Link Distance (ft)	953	525	233
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Roberts Rd, All Intervals

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	79	55	8
Average Queue (ft)	38	8	0
95th Queue (ft)	68	33	4
Link Distance (ft)	953	525	233
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Roberts Rd & SSite Access, Interval #1

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	43	19
Average Queue (ft)	23	6
95th Queue (ft)	52	26
Link Distance (ft)	409	185
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Roberts Rd & SSite Access, Interval #2

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	45	39
Average Queue (ft)	21	3
95th Queue (ft)	46	19
Link Distance (ft)	409	185
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Roberts Rd & SSite Access, All Intervals

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	50	40
Average Queue (ft)	22	4
95th Queue (ft)	48	21
Link Distance (ft)	409	185
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, Interval #1

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	30	25
Average Queue (ft)	15	4
95th Queue (ft)	40	22
Link Distance (ft)	467	525
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, Interval #2

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	18
Average Queue (ft)	10	1
95th Queue (ft)	33	12
Link Distance (ft)	467	525
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: N Site Access & Roberts Rd, All Intervals

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	31
Average Queue (ft)	11	2
95th Queue (ft)	35	15
Link Distance (ft)	467	525
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 2
Network wide Queuing Penalty, Interval #2: 2
Network wide Queuing Penalty, All Intervals: 2

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ATTACHMENT C

PUBLIC WORKS DEPARTMENT | TRANSPORTATION PLANNING
3040 N DELTA HIGHWAY | EUGENE, OR 97408

March 15, 2021

CITY FILE:	SR-01-21
APPLICANT:	Kendall Auto Group
OWNER:	ML Coburg, LLC
MAP & TAX LOT:	16-03-33-40-00400; 16-03-33-40-00300; 16-03-33-40-00500
ADDRESS:	90895 Roberts Road, Coburg, Oregon 97408-9459

PROPOSAL: **ESTABLISH A NEW COLLISION REPAIR FACILITY IN THE CITY OF COBURG.**

Thank you for the opportunity to review and comment on this proposal. Please accept the following comments from Lane County Transportation Planning:

COMMENTS FROM LANE COUNTY TRANSPORTATION PLANNING

CONDITIONS

Lane County Transportation Planning requests the following conditions prior to approval of the development proposal.

- Provide an updated Traffic Impact Analysis prepared as per Lane Code 15.697 requirements. The County will be amenable to requiring specific information regarding validation of the trip distribution by supplementary data submission in lieu of a full-scale revision.

FINDINGS

The subject property takes access off of Roberts Road, which is a street under the jurisdiction of the City of Coburg. Roberts Road takes access off of Pearl Street, which is under the jurisdiction of Lane County. Pearl Street is functionally classified as an Urban Minor Arterial.

The proposed development of a 1600 square-foot auto repair shop is estimated to generate or attract more than 100 peak hour trips. Although the subject property is takes access off a city street, the traffic generated by the development impacts the nearby intersection. A Traffic Impact Analysis (TIA) prepared in accordance with a County approved scope is needed to review the impact of the development.

Lane Code 15.697: Traffic Impact Analysis Requirements

(1) A traffic impact analysis may be required as part of a complete land use application if the proposal is expected to involve one or more of the following:

a. A development proposal that if approved, will result in an increase of peak hour traffic flow of 50 or more automobile trips outside an urban growth boundary, or 100 or more automobile trips inside an urban growth boundary. The increase in number of trips will be calculated based upon the methodology in the Institute of Traffic Engineers' *Trip Generation* manual for the year of publication specified in LM Chapter 15.450 and associated handbook and user's guide;

Staff cursorily reviewed the TIA prepared for the City of Coburg by Sandow Engineering. The following are general comments and requested responses in order to provide comprehensive development referral comments.

Although the development is on a city street, the primary access to the development site is via Pearl Street, which is maintained by Lane County. The Pearl St/ Coburg Industrial Way intersection has a significant crash history and the development proposal is expected to increase the crash exposure. The peak hour trip generation exceeds the threshold for requiring a TIA as per County approved study scope and Lane County was not provided an opportunity to prepare a scope of study for the development. Considering the business model and the location, the majority of trips are anticipated to arrive from I-5 and the assumed trip distribution of 65% trips coming from I-5 seems low. A realistic assumption of the trip distribution is important because it influences the assessment of the left turn demand for the westbound left turn movement that in turn will affect queue length and the signal operation. Lane County is concerned that inadequate left turn capacity or green splits may exacerbate rear-end and angle-crash experiences at the intersection. In order to validate the submitted TIA, the County requests the following supplementary information:

- Substantiate the trip distribution assumptions by existing business data or other verifiable data
- Update the TIA with a reasonable trip distribution
- Provide recommended solutions for any signal operations impacts

Lane Code 15.205: Facility Permits

Facility Permits are required for the placement of facilities and development within Lane County right-of-way. Facilities and development include, but are not limited to: road improvements; sidewalks; new or reconstructed driveway or road approach intersections; utility placements; excavation; clearing; grading; culvert placement or replacement; stormwater facilities; or any other facility, thing, or appurtenance [LC 15.205(1)].

ATTACHMENT D

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160 MADISON STREET SUITE A • EUGENE OREGON 97402 • 541.513.3376

DATE: March 18, 2021

TO: Lane County
Public Works Department, Transportation Planning

FROM: Kelly Sandow P.E.
Sandow Engineering

RE: Kendall Collision Center response to Lane County comments

RENEWAL 06/30/22

The following provides a response to the comments received from Lane County Date March 15, 2021. In summary the comments are:

1. Provide an updated Traffic Impact Analysis as per LC 15.697 requirements
2. Lane County requests the further justification of the trip distribution or a revised evaluation showing a redistribution of development trips with a higher percentage of trips to/from I-5.

Comment #1

The following demonstrates compliance with LC 15.697:

(1) A traffic impact analysis (TIA) may be required as part of a land use application or other development when the proposal is expected to involve one or more ofthe following: (a)-(h).

As Lane County is not the land use approval authority and direct access is not proposed to a Lane County roadway, the only possible trigger for Lane County requiring a TIA is (g), where a TIA is triggered when 25 or more development trips are added to a higher order Street. The project is estimated to add 25 or more trips to Pearl Street, Minor Arterial.

(2) The County Engineer or designee may waive TIA requirements specified in LC 15.697(1) above, when:

The applicant is not asking to wave the requirements of 15.697(1). This code criterion is not applicable.

(3) Traffic impact analyses must document compliance with the requirements and guidelines in LC 15.696 and must:
(a) Be prepared by a Professional Engineer licensed in the State of Oregon with expertise in traffic engineering; and

The report was prepared by Kelly Sandow PE. This code criterion met.

(b) Document compliance with:

(i) The Road Design Standards in LC 15.700 through 15.708; and

(ii)The Access requirements specified in LC 15.130 through 15.139; and

(iii) The goals and policies of the applicable transportation system plan; and

(iv) Statewide Planning Goal 12.

The applicant will not be constructing or reconstructing any roadways as art of this project. Therefore, the Road Design standards of LC 15.700 through 15.708 do not apply.

The site will not have direct access to a Lane County roadway. Therefore, the access standards of LC15.130 through 15.139 do not apply.

The development proposal meets the applicable standards of the transportation system plan. As there is no zone change or plan amendment requested, the standards of Statewide Planning Goal 12 do not apply.

(c) Evaluate all road facilities where direct access is proposed, including proposed access points, nearby intersections, and the nearest major intersection with a traffic signal;

Direct access to the site is via Roberts Road, there is no direct access proposed for this site. The analysis evaluated the nearest major intersection with a traffic signal, Pearl St at Coburg Industrial Park Wy. This code criterion is met.

(d) Address the requirements for pavement structure analysis in LC 15.707 if the analysis is required pursuant to LC 15.697(1)(d); and

The standard of LC 15.697 (1)(d) is the addition of vehicles over 26,000 pounds. The site was previously used by Mill-Log Company that routinely had daily vehicles over 26,000 pounds. The proposed Kendall Collision Center will have the occasional truck over 26,000 pounds. The number of trucks to the Kendall Collision Center will be substantially less than the previous use on site. Additionally, the Lane County Roadway within the project area is Pearl Street. Pearl Street serves as access to the truck stop south of Pearl Street and the large Coburg Industrial Park to the north. Both of which are accesses by a substantial number of trucks daily. Any trucks accessing the Kendall Collision Center will be negligible to the impact of Pearl Street. This code criterion is not applicable.

(e) Be approved as to scope prior to proceeding with the analysis, as specified in the TIA Guidelines of the County Engineering Department. The County Engineer may alter the study requirements based upon the anticipated impact of the proposal. For example, a queue length analysis (based upon 95% probability) may be required.

(4) The TIA must demonstrate the following:

(a) For plan amendments and zone changes, that the performance standard specified in LC 15.696(1) for the affected road(s) will not be exceeded as a result of the plan amendment or zone change, within 20 years from the date the analysis was completed;

This application is not a zone change or plan amendment. This code criterion does not apply.

(b) For other development, that the performance standard specified in LC 15.696(1) for the affected road(s) will be achieved immediately and for the next five years.

TIA evaluated current conditions (year 2021 and year 2022) and conditions for the Year 2027 . This code criterion is met.

(5) If the performance standard in LC 15.696(1) cannot be achieved or maintained as specified in LC 15.697(4) above, the analysis must propose one or more of the following:

(a) Road dedications and improvements for capacity increases;
(b) Implementation of demand management strategies;
(c) Other mitigation measures.

As per section 5.2 of the TIA, the intersection meets the performance standards. This code criterion is met.

(7) Proposed dedications, improvements, demand management strategies and other measures pursuant to LC 15.697(5) must:

(a) Consider the safe operation of affected driveways and public street intersections;

(b) Propose access locations as appropriate, consistent with the access requirements in LC 15.130 through 15.139;

(c) Demonstrate that the proposed measures will be completed in a manner consistent with applicable state and local policies and standards; and

(d) Include a description of how and when the dedications, improvements and other measures will be performed.

There are no proposed dedications, improvements, or demand management strategies required or proposed for this project. This standard is not applicable.

(8) TIAs should be prepared prior to submittal of a land use application. Traffic impact analyses must be developed in coordination with the County and agencies such as ODOT or a city when the proposal requiring the analysis affects facilities in their respective jurisdiction. Dedications,

improvements, and other measures proposed pursuant to LC 15.697(4) must comply with adopted plans and requirements of the agency with jurisdiction for the affected facility.

The City of Coburg is the reviewing and approving jurisdiction. This standard is not applicable.

(9) In addition to the requirements in this subsection, the Highway Capacity Manual publication cited in LM 15.450 must be used as the guiding standard for completion of a TIA. The McTrans Highway Capacity Software package, or other approved software packages, may be used to complete the analysis. ODOT-approved software is acceptable where the study scope includes analysis of both State and County facilities.

The TIA used the current HCM Manual Methodology(HCM6) implemented in Synchro 10. This code criterion is met.

(10) Upon approval of the TIA and proposed dedications, improvements, and other measures, requirements must be completed at private expense, unless otherwise approved by the Director. Conditions may be assigned to ensure all requirements are completed. (Revised by Ordinance 10-04, Effective 6.4.04; 17-06, 1.11.18; 20-09, 12.10.20)

There are no proposed improvements, etc. This standard is not applicable.

As demonstrated above, the standards of LC 16.697 are met or are not applicable. Therefore, the TIA was prepared consistent with these criteria.

Comment #2

As demonstrated within the TIA the site is estimated to have 35% of trips to/from the west and 65% of trips to/from the east/I-5. Trips to/from the Kendall Collision Center during the peak hours will be employees for the AM peak hour and a mix of employees and customers for the PM peak hour. Therefore, during the AM peak hour, a majority of the inbound trips will be from residential neighborhoods and the outbound trips will be to a mix of residential and business areas. During the PM peak hour, a majority of outbound trips will be to residential neighborhoods and inbound trips will be from a mix of residential and business areas. A majority of employees and customers to Kendall Collision Center will be local to the area with only a small portion of trips from areas outside of a 25-mile radius.

Coburg Road is a shorter travel route for the following local areas/neighborhoods:

- Gilham area
- Coburg Road/Sheldon area
- Santa Clara
- River Road area

- Bethel area
- Junction City
- Harrisburg
- Areas north of Coburg and west of I-5

Likely areas to use I-5 are:

- South Eugene
- Churchill area
- Springfield
- Goshen
- Area south of Goshen
- Areas north of Coburg and east of I-5

As shown, there is a substantial amount of local area that will likely use Coburg Road and access the site from the west. Based on the demographics of area population, the trip distribution found within the TIA of 35% to/from the west is very reasonable. Therefore, the analysis, conclusions, and recommendations within the TIA are reasonable and should be maintained.

However, to be responsive to Lane County's comments and concerns, a supplemental analysis was prepared evaluating conditions where the development trips to/from the west are reduced from 35% to 10%. The details of the analysis are shown as an attachment, and the results are summarized in Table 1 for the intersection performance and Table 2 for the queuing condition.

TABLE 1: INTERSECTION PERFORMANCE

Intersection	Mobility Standard LOS, v/c	2027 Background	2027 Build from TIA	2027 Build with Redistribution of Dev Trips
		AM		
Coburg Industrial Way @ Pearl St	E, 0.85	D, 0.42	D, 0.42	D, 0.43
		PM		
Coburg Industrial Way @ Pearl St	E, 0.85	C, 0.40	D, 0.40	C, 0.41

TABLE 2: QUEUING RESULTS

Intersection			Available Storage (Feet)	2027 Background (Feet)		2027 Build from TIA (Feet)		2027 Build with Redistribution of Dev Trips (Feet)	
				Average	95th	Average	95th	Average	95th
AM Peak Hour									
Coburg Industrial Way @ Pearl St	EB	L	125	75	150	75	150	75	150
		T	360	175	275	175	300	175	300
		TR	360	125	225	150	250	125	250
	NB	L	225	25	75	50	100	50	75
		TR	500+	50	100	50	100	50	100
	SB	L	250	50	75	50	75	50	75
		TR	500+	25	50	25	50	25	50
	WB	L	350	125	200	150	250	150	225
		T	725	75	125	75	150	50	150
		TR	725	75	150	75	150	75	125
PM Peak Hour									
Coburg Industrial Way @ Pearl St	EB	L	125	25	50	25	50	25	50
		T	360	150	225	150	225	150	225
		TR	360	75	175	100	200	100	200
	NB	L	225	50	100	75	125	50	100
		TR	500+	75	125	75	125	75	150
	SB	L	250	150	225	150	225	150	225
		TR	500+	25	75	25	75	25	75
	WB	L	350	100	200	125	225	125	225
		T	650	100	150	100	150	75	175
		TR	650	50	125	75	125	50	125

As shown in Table 1, the intersection meets the LOS and v/c standards with the redistribution of trips. The redistribution of trips only marginally increased the v/c ratio and improves the LOS for the PM peak hour (due to the reduced northbound left turn volumes). As shown in Table 2, the queueing for the westbound approach, specifically the westbound left turn pocket, does not extend past the available storage for this approach. Therefore, the redistribution of development trips to reduce the trips to/from the west from 35% to 10% does not substantially impact the intersection operations.

CONCLUSION

As shown in this letter, the TIA meets the requirements of LC 15.697. Additionally, the trip distribution shown in the TIA is reasonable given the route options for reasonable origins/destinations for the site. However, if the development trips are redistributed with a higher percentage to/from I-5 the intersection of Pearl St at Coburg Industrial Way will meet the LOS and v/c standards and the queuing is not significantly increased during the peak hour. Therefore, the findings within the TIA are reasonable and unchanged.

ATTACHMENT A: REDISTRIBUTION ANALYSIS DATA

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Vehicle Volumes with Redistribution of Development Trips.

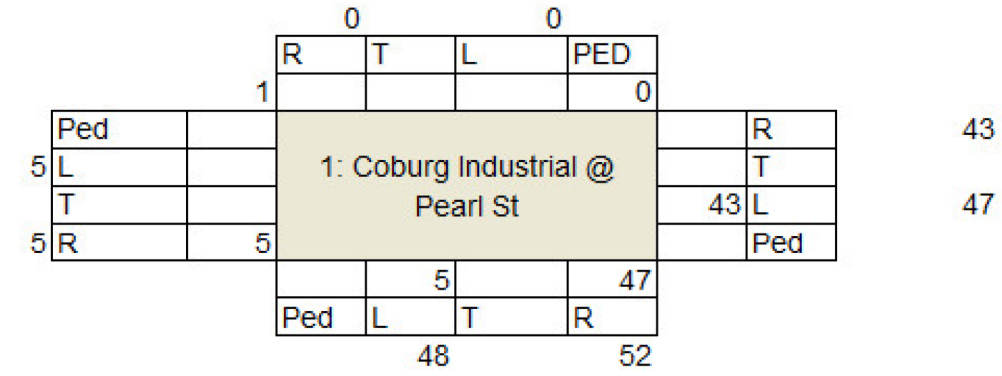
AM Dev Trips

			0		0				
			R	T	L	PED			
		1				0			
	Ped							R	49
3	L			1: Coburg Industrial @ Pearl St				T	
	T						49	L	25
6	R	6						Ped	
				3		25			
			Ped	L	T	R			
				55		28			

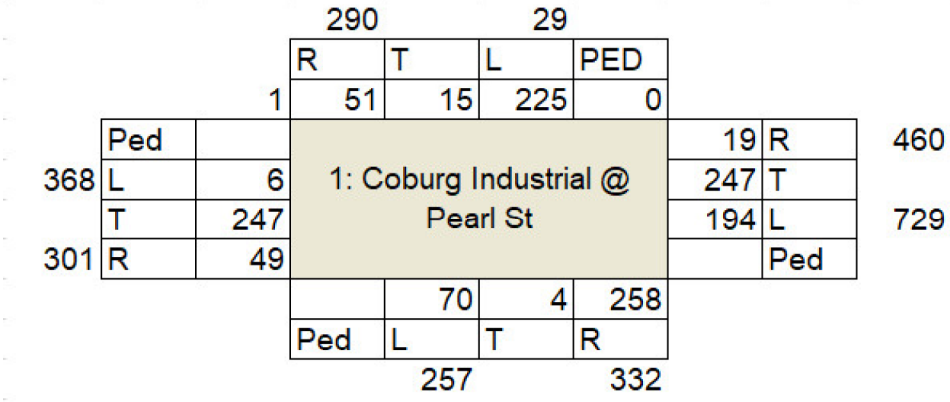
2027 Build AM

			51		218				
			R	T	L	PED			
		1	11	8	31	0			
	Ped						148	R	539
210	L	58	1: Coburg Industrial @ Pearl St				168	T	
	T	334					223	L	501
479	R	87						Ped	
				31	12	135			
			Ped	L	T	R			
				319		178			

Dev Trips PM



2027 Build PM



LOS, v/c, and Queuing Outputs

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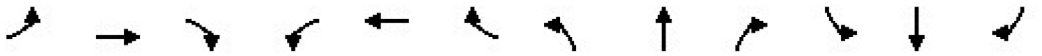
HCM 6th Signalized Intersection Summary
3: Pearl St & Coburg Industrial Way

03/17/2021



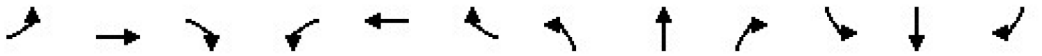
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	334	87	223	168	148	31	12	135	31	8	11
Future Volume (veh/h)	58	334	87	223	168	148	31	12	135	31	8	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1641	1422	1627	1463	1695	1654	1573	1750	1463	1586	1750	1600
Adj Flow Rate, veh/h	68	393	102	262	198	174	36	14	159	36	9	13
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	8	24	9	21	4	7	13	0	21	12	0	11
Cap, veh/h	355	470	121	331	565	470	47	49	561	92	263	380
Arrive On Green	0.05	0.22	0.22	0.16	0.34	0.34	0.03	0.41	0.41	0.03	0.41	0.41
Sat Flow, veh/h	1563	2129	547	1394	1669	1387	1498	122	1380	2931	647	935
Grp Volume(v), veh/h	68	248	247	262	191	181	36	0	173	36	0	22
Grp Sat Flow(s),veh/h/ln	1563	1351	1324	1394	1611	1446	1498	0	1502	1465	0	1582
Q Serve(g_s), s	3.4	17.7	18.0	13.9	9.0	9.6	2.4	0.0	7.8	1.2	0.0	0.8
Cycle Q Clear(g_c), s	3.4	17.7	18.0	13.9	9.0	9.6	2.4	0.0	7.8	1.2	0.0	0.8
Prop In Lane	1.00		0.41	1.00		0.96	1.00		0.92	1.00		0.59
Lane Grp Cap(c), veh/h	355	299	293	331	545	489	47	0	610	92	0	643
V/C Ratio(X)	0.19	0.83	0.84	0.79	0.35	0.37	0.76	0.00	0.28	0.39	0.00	0.03
Avail Cap(c_a), veh/h	380	420	412	442	793	712	96	0	610	148	0	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.4	37.5	37.6	24.8	25.0	25.2	48.5	0.0	20.1	47.9	0.0	18.0
Incr Delay (d2), s/veh	0.3	9.4	10.8	7.0	0.4	0.5	22.0	0.0	1.2	2.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	6.5	6.6	5.0	3.4	3.3	1.2	0.0	2.8	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	46.9	48.4	31.7	25.4	25.7	70.5	0.0	21.3	50.6	0.0	18.1
LnGrp LOS	C	D	D	C	C	C	E	A	C	D	A	B
Approach Vol, veh/h		563			634			209			58	
Approach Delay, s/veh		45.3			28.1			29.8			38.3	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	45.5	20.9	26.8	7.7	45.5	9.1	38.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	41.0	24.5	31.4	6.5	39.6	6.2	49.7
Max Q Clear Time (g_c+I1), s	3.2	9.8	15.9	20.0	4.4	2.8	5.4	11.6
Green Ext Time (p_c), s	0.0	1.0	0.5	2.3	0.0	0.1	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
3: Pearl St & Coburg Industrial Way

03/17/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	247	49	194	247	19	70	4	258	225	15	51
Future Volume (veh/h)	6	247	49	194	247	19	70	4	258	225	15	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1204	1559	1518	1340	1627	1491	1750	1750	1695	1723	1750	1750
Adj Flow Rate, veh/h	7	281	56	220	281	22	80	5	293	256	17	58
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	40	14	17	30	9	19	0	0	4	2	0	0
Cap, veh/h	204	376	74	321	890	69	101	10	558	334	148	506
Arrive On Green	0.01	0.15	0.15	0.16	0.31	0.31	0.06	0.38	0.38	0.11	0.43	0.43
Sat Flow, veh/h	1147	2468	485	1277	2906	226	1667	25	1462	3183	348	1188
Grp Volume(v), veh/h	7	167	170	220	149	154	80	0	298	256	0	75
Grp Sat Flow(s),veh/h/ln	1147	1481	1472	1277	1546	1586	1667	0	1487	1591	0	1536
Q Serve(g_s), s	0.5	9.8	10.1	12.5	6.7	6.8	4.3	0.0	14.1	7.1	0.0	2.7
Cycle Q Clear(g_c), s	0.5	9.8	10.1	12.5	6.7	6.8	4.3	0.0	14.1	7.1	0.0	2.7
Prop In Lane	1.00		0.33	1.00		0.14	1.00		0.98	1.00		0.77
Lane Grp Cap(c), veh/h	204	226	224	321	474	486	101	0	567	334	0	654
V/C Ratio(X)	0.03	0.74	0.76	0.69	0.31	0.32	0.79	0.00	0.53	0.77	0.00	0.11
Avail Cap(c_a), veh/h	257	510	507	401	796	817	211	0	567	543	0	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.2	36.8	36.9	25.2	24.2	24.2	42.1	0.0	21.7	39.6	0.0	15.7
Incr Delay (d2), s/veh	0.1	4.7	5.2	3.5	0.4	0.4	12.8	0.0	3.5	3.7	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.7	3.8	3.9	2.4	2.5	2.1	0.0	5.1	2.8	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	41.5	42.1	28.7	24.6	24.6	54.9	0.0	25.2	43.3	0.0	16.1
LnGrp LOS	C	D	D	C	C	C	D	A	C	D	A	B
Approach Vol, veh/h		344			523			378			331	
Approach Delay, s/veh		41.6			26.3			31.5			37.1	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	39.2	19.3	18.4	10.0	43.2	5.3	32.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	34.7	20.5	31.3	11.5	38.7	5.0	46.8
Max Q Clear Time (g_c+I1), s	9.1	16.1	14.5	12.1	6.3	4.7	2.5	8.8
Green Ext Time (p_c), s	0.4	1.7	0.3	1.8	0.1	0.4	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	33.2
HCM 6th LOS	C

2027 With Development
AM Revised Trips

Critical Movement	Adj Flow	Sat Flow	v/c
Eastbound Through	393	2129	0.184594
Westbound Left	262	1394	0.187948
Southbound Left	36	2931	0.012282
			0.384825

Cycle Length	120
Lost Time/phase	4
# phases	3
Total Lost Time	12
v/c	0.43

2027 With Development
AM Revised Trips

Critical Movement	Adj Flow	Sat Flow	v/c
Eastbound Through	281	2468	0.113857
Westbound Left	220	1277	0.172279
Southbound Left	256	3183	0.080427
			0.366563

Cycle Length	120
Lost Time/phase	4
# phases	3
Total Lost Time	12
v/c	0.41

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	124	321	272	218	182	135	87	89	72	31
Average Queue (ft)	62	221	162	145	63	63	49	48	34	11
95th Queue (ft)	136	337	296	249	182	131	97	85	76	36
Link Distance (ft)		513	513		726	726		948		633
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	100			240			215		235	
Storage Blk Time (%)	0	33		2						
Queuing Penalty (veh)	0	23		2						

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	125	285	251	246	153	167	87	93	12	85	41
Average Queue (ft)	56	164	116	123	44	55	25	41	1	30	10
95th Queue (ft)	132	256	211	212	110	118	66	80	7	69	33
Link Distance (ft)		513	513		726	726		948			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	26		0							
Queuing Penalty (veh)	0	14		0							

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	125	339	295	254	211	170	98	103	12	89	48
Average Queue (ft)	57	178	127	128	49	57	31	43	0	31	10
95th Queue (ft)	133	284	237	223	131	121	77	82	6	71	34
Link Distance (ft)		513	513		726	726		948			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)	0	28		1							
Queuing Penalty (veh)	0	16		1							

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	30	227	195	217	145	101	110	147	177	213	77
Average Queue (ft)	7	146	97	121	73	57	58	90	94	149	30
95th Queue (ft)	44	237	196	216	151	109	115	162	197	222	80
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		24		0				0		0	
Queuing Penalty (veh)		2		1				0		0	

Intersection: 3: Pearl St & Coburg Industrial Way, Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	74	226	207	235	229	132	106	168	170	217	64
Average Queue (ft)	6	128	78	124	71	43	46	63	52	133	24
95th Queue (ft)	39	209	172	221	163	102	91	120	152	202	53
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		20		1						0	
Queuing Penalty (veh)		1		1						0	

Intersection: 3: Pearl St & Coburg Industrial Way, All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	L	TR
Maximum Queue (ft)	74	246	225	241	237	135	120	178	193	235	82
Average Queue (ft)	6	133	82	124	72	47	49	69	62	137	25
95th Queue (ft)	40	217	179	220	160	105	98	134	167	208	61
Link Distance (ft)		514	514		728	728		953			633
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	100			240			215		235	235	
Storage Blk Time (%)		21		1				0		0	
Queuing Penalty (veh)		1		1				0		0	

ATTACHMENT E

HEARLEY Henry O

From: STANKA Danielle E <danielle.stanka@lanecountyor.gov>
Sent: March 19, 2021 8:55 AM
To: HEARLEY Henry O
Cc: BAJRACHARYA Shashi
Subject: RE: Referral Notice for Site Review in Coburg Oregon

Hi Henry,

Lane County Transportation Planning concurs with Sandow's Engineering response.

From: HEARLEY Henry O [mailto:HHEARLEY@Lcog.org]
Sent: Thursday, March 18, 2021 11:43 AM
To: STANKA Danielle E <danielle.stanka@lanecountyor.gov>; 'Teresa Bishow' <Teresa@bishowconsulting.com>
Cc: Damien Gilbert <damieng@branchengineering.com>; Brian Harmon <brian.harmon@ci.coburg.or.us>; VARTANIAN Sasha L <sasha.vartanian@lanecountyor.gov>; Kelly Sandow <kellysandow@sandowengineering.com>
Subject: RE: Referral Notice for Site Review in Coburg Oregon

[EXTERNAL ⚠]

Thanks, Danielle.

Henry

From: STANKA Danielle E <danielle.stanka@lanecountyor.gov>
Sent: March 18, 2021 11:41 AM
To: 'Teresa Bishow' <Teresa@bishowconsulting.com>; HEARLEY Henry O <HHEARLEY@Lcog.org>
Cc: Damien Gilbert <damieng@branchengineering.com>; Brian Harmon <brian.harmon@ci.coburg.or.us>; VARTANIAN Sasha L <sasha.vartanian@lanecountyor.gov>; Kelly Sandow <kellysandow@sandowengineering.com>
Subject: RE: Referral Notice for Site Review in Coburg Oregon

Thank you. We will review.

From: Teresa Bishow [mailto:Teresa@bishowconsulting.com]
Sent: Thursday, March 18, 2021 11:14 AM
To: HEARLEY Henry O <HHEARLEY@Lcog.org>
Cc: Damien Gilbert <damieng@branchengineering.com>; Brian Harmon <brian.harmon@ci.coburg.or.us>; STANKA

Danielle E <danielle.stanka@lanecountyor.gov>; VARTANIAN Sasha L <sasha.vartanian@lanecountyor.gov>; Kelly Sandow <kellysandow@sandowengineering.com>
Subject: FW: Referral Notice for Site Review in Coburg Oregon

[EXTERNAL ⚠]

Hi Henry,
Attached is Sandow Engineering's response to Lane County comments. Please let me know if there are further questions or feel free to contact Kelly directly.
Teresa
541-514-1029

From: Kelly Sandow <kellysandow@sandowengineering.com>
Date: Thursday, March 18, 2021 at 11:00 AM
To: Teresa Bishow <Teresa@bishowconsulting.com>, Duane Farnham <dfarnham@kendallauto.com>, 'Dave Bakke' <dbakke@chambers-gc.com>
Cc: Scott Stolarczyk <sstolarczyk@robertsonsherwood.com>, 'Matt Keenan' <Matt.Keenan@kpff.com>
Subject: RE: Referral Notice for Site Review in Coburg Oregon

Teresa, attached is the response to the comments from Lane County. Please forward on if you do not have any comments.

Kelly

KELLY SANDOW PE
SANDOWENGINEERING
Cell: 541.513.3376
Email: kellysandow@sandowengineering.com
Office: 160 Madison St. Suite A Eugene, Oregon 97402
Web: sandowengineering.com
Oregon DBE/WBE/ESB Certified: #8760

From: HEARLEY Henry O <HHEARLEY@Lcog.org>
Date: Monday, March 15, 2021 at 1:55 PM
To: Teresa Bishow <Teresa@bishowconsulting.com>
Cc: Damien Gilbert <damieng@branchengineering.com>, Brian Harmon <brian.harmon@ci.coburg.or.us>, STANKA Danielle E <danielle.stanka@lanecountyor.gov>, VARTANIAN Sasha L <sasha.vartanian@lanecountyor.gov>
Subject: FW: Referral Notice for Site Review in Coburg Oregon

Hi Teresa,

Please see Lane County's comments regarding the TIA. Please share with your team.

Henry

From: STANKA Danielle E <danielle.stanka@lanecountyor.gov>
Sent: March 15, 2021 1:18 PM
To: HEARLEY Henry O <HHEARLEY@Lcog.org>

Cc: BAJRACHARYA Shashi <shashi.bajracharya@lanecountyor.gov>
Subject: RE: Referral Notice for Site Review in Coburg Oregon

Hi Henry,

I've attached Lane County's comments for the Kendall Site Review. Sorry for the delay. Please let me know if you have any questions or concerns.

ATTACHMENT F

Oregon
Kate Brown, Governor

Department of Transportation
Region 1 Headquarters
123 NW Flanders Street
Portland, Oregon 97209
(503) 731.8200
FAX (503) 731.8259

March 1, 2021 ODOT #12011

ODOT Response

Project Name: Kendall Collison Center	**Applicant:** Kendall Auto Group
Jurisdiction: Lane Council of Governments	**Jurisdiction Case:**
Site Address: 90895 Roberts Road, Coburg, OR 97408	**Legal Description:** 16S 03W 3340 **Tax Lot(s):** 00400, 00500
State Highway: I 5	**Mileposts:** 198.86

The site of this proposed land use action is adjacent to Pacific Highway, I5. ODOT has permitting authority for this facility and an interest in ensuring that this proposed land use is compatible with its safe and efficient operation. **Please direct the applicant to the District Contact indicated below to determine permit requirements and obtain application information.**

COMMENTS/FINDINGS

Tax lot 500 is adjacent to I5 and lot 400 is served by two driveways to Roberts Road. These tax lots are also located within the Coburg Interchange area management boundary according to the Coburg/I5 Interchange Area Management Plan (IAMP). ODOT participates in land use reviews for development proposals within the boundary. Based on our review the proposed reuse of an industrial building as an auto collision repair facility would not increase site traffic enough to trigger the need for a traffic impact study according the provisions in the IAMP. An ODOT Miscellaneous Permit must be obtained for any work that is to be performed in the highway right of way and for connection to state highway drainage facilities.

Please send a copy of the Notice of Decision including conditions of approval to:

ODOT Region 2 Planning
Development Review
455 Airport Road SE, Bldg. B
Salem, Oregon 97301

ODOTR2PLANMGR@odot.state.or.us

Development Review Coordinator: Douglas Baumgartner, P.E.	Douglas.G.Baumgartner@odot.state.or.us
District 5 Contact: April Jones	541-726-2577

ATTACHMENT G

CITY OF COBURG • P.O. BOX 8316 • COBURG OREGON 97408 • 541-682-7850 FAX 541-485-0655

Dear Property Owner: As a property owner within 300-feet of site described below, the City is required to notify you of this pending limited land use action and invite you to provide written testimony on this matter.

Notice to mortgagee, lien holder, vendor, or seller: The City of Coburg Development Code requires that if you receive this notice it shall be promptly forwarded to the purchaser.

NOTICE OF A LAND USE REQUEST FOR SITE REVIEW

APPLICATION NUMBER:	SR-01-21
APPLICANT:	Kendall Auto Group
REQUEST:	**Site Design Review**
PROPERTY LOCATION:	Assessor's Map and Tax Lot 1603334000400 & 1603334000500; Situs Address: 90895 Roberts Road, Coburg, OR 97408
ZONING:	Light Industrial (LI)
PLAN DESIGNATION:	Light Industrial (LI)
APPLICABLE CRITERIA:	Article XI Land Use Review and Site Design Review; Light Industrial District Regulations; Article VIII Supplementary District Regulations.
MAILING DATE:	March 9, 2021

The proposal is for a site design review for the minor alteration and repurpose of a 33,648 square foot building to house the proposed and new Kendall Automotive Group autobody repair shop and pain detail facility. The paved portion of the site will serve as required off-street parking and outdoor vehicle storage. If approved, the buildings will house the proposed uses as described above.

As a TYPE III application, a public hearing is required in front of Planning Commission. You are invited to submit written comments on the Site Design Review or attend the remote public hearing via Zoom.

Written comments must be received at Coburg City Hall by **March 31, 2021 at 3PM**. Oral testimony is allowed and encouraged at the public hearing. Testimony must raise issues of sufficient specificity to enable the Planning Commission to respond to the issue.

Coburg Planning Commission will hold a public hearing **March 31, 2021 7:00p.m**., due to the current pandemic, the hearing will be held remotely. There will be no physical location available to the public. All persons are welcomed and encouraged to participate remotely via Zoom. The meeting will be live streamed on the City's website at https://www.coburgoregon.org/. To present oral testimony to the Planning Commission, you must sign up with the City Recorder by **March 31 at 3PM**. To sign up contact Sammy Egbert at 541-682-7852 or Sammy.egbert@ci.coburg.or.us.

Registered participants will be emailed information and directions on how to participate on the day of the hearing. To submit written testimony you may send a letter to City Hall at 91136 N Willamette Street, PO BOX 8316, Coburg, OR 97408, or submit via email to Sammy.egbert@ci.coburg.or.us. All microphones will be muted, and webcams turned off for presenters and members of the public, until called upon to speak. If participants disrupt the meeting, they will immediately be removed from the meeting.

Planning Commission will be the deciding authority body on the proposal. A decision by Planning Commission is appealable to City Council.

Copies of the application and pertinent Coburg ordinances are available for inspection at the Coburg City Hall. If you have questions, contact Henry Hearley, hhearley@lcog.org, 541-682-3089, 859 Willamette Street, Suite 500, Eugene, OR 97401.

The subject property has an address of 90895 Roberts Road Coburg, OR 97408. An easily understood geographic reference to the subject property can be described as the property lying on the west side of Interstate 5 and south of RV Country and north of Old Dominion Freight Line. See map below.

The land uses that could be authorized for this property must conform to the zoning designation of the underlying zone. The permitted uses in the Light Industrial District include:

(1) Commercial and Service

(2) Manufacturing and assembly, and associated sales of products manufactured or assembled on-site

(3) Processing

(4) Utilities

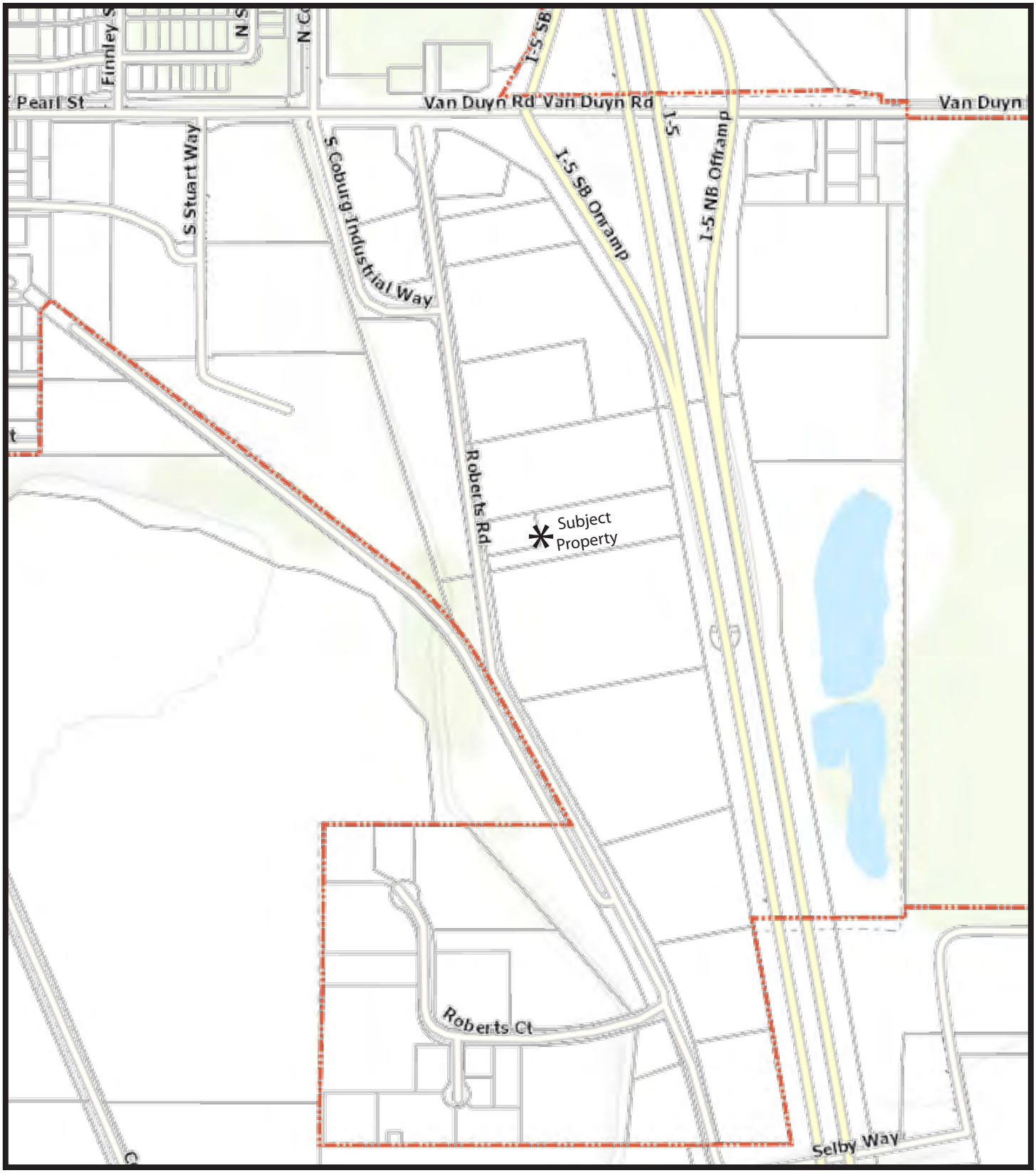
(5) Except where prohibited under subsection c(2) below, wholesaling, warehousing and storage not exceeding 250,000 square feet

(6) Agricultural, horticultural, and livestock uses that were legally established Prior to September 30, 2005

(7) Other (i) Accessory buildings and uses normal and incidental to the uses permitted in this district (ii) Animal hospitals and clinics (iii) Public parking areas and structures (iv) Residential structures and uses for on-site security and/or management personnel in conjunction with and as a part of a Light Industrial District permitted use does not exceed 1,000 square feet in total area.

(8) Transportation facilities, consistent with the City's Transportation System Plan and Parks and Open Space Master Plan

(9) Mobile food carts subject to obtaining a business license and certain standards in ARTICLE VIII.N.



scale 1" = 500'

0 125 250 500 Feet

N

KENDALL COLLISION CENTER
SITE DESIGN REVIEW

Map 16-03-33-40 Tax Lots 400, 500 (partial) & 300 (partial)
90895 Roberts Road

VICINITY MAP
EXHIBIT A

2/12/21

March 10, 2021

Coburg Planning Commission
PO Box 8316
Coburg, OR 97408

Dear Planners:

I support the application for the Kendall Auto Group's use of the building and property at 90895 Roberts Rd. in your city's Industrial area. The buildings are currently empty and the Kendall Group will improve both the buildings and the surrounding land. They will accommodate water runoff with bioswales and will improve the site substantially.

This will bring a significant number of full time employees to Coburg during the day and should be a benefit to the restaurants and possibly the grocery store as well.

They are well funded and will benefit the community in a number of unforseen ways.

Please grant them the ability to remodel and improve the Industrial area of Coburg.

Your truly,

Mike

Michael W. McNutt
Managing Partner of
90915 Roberts Rd. (Their neighboring Property)
90895 Roberts Rd.

COBURG CITY COUNCIL
MONTHLY REPORTS

TOPIC: City Administration Report

Meeting Date: February 9, 2021
Staff Contact: Anne Heath, City Administrator
Contact: 541-682-7871, anne.heath@ci.coburg.or.us

The following is an overview of important activities during the month of February, general administration, and upcoming work to be done. The information in this report is compiled by the City Administrator and Department Directors.

GENERAL ADMINISTRATION

Covid-19 Management

- Lane County was moved to high list. Because counties have been moving in and out of extreme, we have made the decision to wait until April 1 to make a decision as to whether we will make changes to the opening of City Hall and to public meetings. Until that point, all public meetings will continue on zoom. This decision was made by the Mayor, City Administrator and City Recorder in light of the different challenges we would still face in holding an in person meeting at this time.

WATER PROJECT UPDATE

- We are resurveying the area where the water line will travel up the hill to the reservoir. As surveys are backed up, this will be likely not be done until early April.
- Staff has had conversations with the neighbor of the newly purchased well property regarding a fence between the properties. As the property will be a public water source it is important to construct security fences, etc. However, the front end of the property could be a shared expense between the neighbor and the City. More to come on this.

Economic Development

- The City applied for two grants through a special opportunity with Travel Lane County. This was funding for the design of a bike kiosk as well as hanging baskets for the downtown. The bike kiosk grant was approved. The hanging basket project was not funded. There is a committee working on the bike kiosk project who will being meeting with the grantor later in the month.

- Rather than hanging baskets the Main Streets committee is considering some flower pots in the downtown this year. These will be less expensive and give the City the opportunity to plan for hanging pots next year which come at a higher price for installation and maintenance. As we do have some economic development funds for promotion of the City, we are applying some of those funds toward the downtown flower pots. The pots are being planted and grown by Johnson's Greenhouse.

Planning Position

- The one-month recruitment did not produce the amount of applications we would like to have received for a healthy interview process. Therefore, we have extended the recruitment until April 1. There were a couple of applications that we felt could be considered for interview, we have let them know that we will retain their application for the full process. In the near future and to the end of the fiscal year, the staff is very happy with the services we are receiving from Henry Hearley.

Work session for Transportation Utility Fee

- There will be a Council work session on March 30, to re-open the discussion regarding the Transportation Utility Fee. Council should mark their calendars for this very important discussion.

Budget Process

- The budget process calendar has been set for 2021-22 and the meeting calendar is attached to this packet. Staff have completed their presentation to the Council and the City Council Goals are presented in this packet for review and adoption. Next step for completion is department budgets.

Council 2020-21 Goals & Work Plan

- Attached to this report is the work plan goals for 2020-21 (current year). I have color coded the individual boxes to reflect where we are in achieving tasks including yellow for completed, green for in process, or white for not started yet. Council is reminded that the work plan is a living document for which some items may be present for a couple of years as the staff works at completing projects.

Zoning Code Review Committee

- The Committee held their first meeting in late February. Zoe of Urban Collaborative provided a presentation of the Coburg Build Out Scenario. The Committee has chosen to meet every two weeks in order to address the changes that need to be made to the code.

Nuisance Ordinance – Regarding Camping in Coburg

- City Administrator and Police Chief took part in an educational session through CIS regarding camping ordinances, and the laws regarding how the City manages unlawful camping. Staff will be bringing a possible change to the nuisance ordinance as a result of the information we received during this session.

Technical Memos

The City Administrator has asked for two separate technical memos for Council that are included in this packet

- **Which Body Makes the Decision on Zoning for Annexation** Because the conversation at the work session regarding which body would approve the annexation agreement, City Administrator requested a legal opinion on the matter. Anne Davies provided information to the Council so that an informed decision could be made in providing direction to the Planning Commission
- The City is working on updating the **Transportation Plan** to address transportation issues that will hamper the development of the west side of the available residential urban growth boundary. A memo from Jake Callister is part of the council Packet. Included in this memo is a timeline for moving this

Upcoming Meetings

ALL MEETINGS TO BE HELD BY ZOOM

Heritage Committee – 3/10/2021 – 6:00 p.m.
Park & Tree Committee – 3/16/2021 – 6:00 p.m.
Planning Commission – 3/17/2021– 7:00 p.m.
City Council Work Session – Transportation Utility Fee – 3/30/2021 – 6:00 -p.m.
Zoning Code Review Committee – 3/11/2021 – 5:00 p.m.

DEPARTMENTS AND OPERATIONS

City Recorder/Administration

- **COVID-19 Front Office**
  - Door remains locked to public at this time. Customers are allowed in by appointment only. We continue to help customers who come to the door for City, Planning, Police or Court business.
  - Filing and retention project is on hold until additional support staff is hired and trained to assist with workload.
  - All public meetings and most administrative meetings will continue to be held by zoom through March 2021. We are looking at different options and processes for allowing meetings to be held at City Hall and staying in compliance with the Covid restrictions.
- **City Recorder Administration**
  - Completed two public records requests
  - February 10th to March 9th we had eight Public Meetings. These were noticed, electronic and paper retention completed, minutes recorder scheduled and virtual meeting set up with invites to press and committee members.
  - Recruitment to fill the administrative assistant position has been pushed out to June/July. I am working with City Administrator to get some temporary help with projects and work load. Hope to have a temp start working 2-3 days a week in April.
- **Utility Billing this month**
  - Annual ACH (Auto Pay) recruitment was a success. Erin has signed up 24 new customers for auto pay. Total accounts signed up for ACH is 157.
  - February Utility Billing Stats
    - 594 Utility bills
    - 77 Past dues
    - 4 Door hangers for billing issues
    - 7 Active payment plans
    - 0 Change is service
    - 3 Leak forgiveness applications

Finance

- **See Finance Report under separate tab**

Planning & Economic Development

- ANX 01-20 & ZC 01-20: Annexation agreement complete and under applicants' review, public engagement with neighboring property owners taking places through virtual and in person meetings;
- SR 01-21: Site Review (industrial) application submitted. Kendall Auto Group is requesting to establish a new collision repair facility on Roberts Rd (site formerly occupied by Mill Log Equipment Company). The application is currently being reviewed for completeness;
- New address issued at 32872 E McKenzie St;
- Two Structural/Plumbing/Mechanical/Electrical Permits issued in February;
- Heritage Committee identified Historic Preservation Month themed activities for which to seek funding through the Certified Local Government (CLG) grant opportunity;
- Awarded $11,700 in additional funding for the Bike Hub Project through the Travel Oregon Destination Ready grant program. This was a competitive grant with a fast turnaround. Staff submitted two applications on behalf of Main Street, one was awarded and one was not. The project kick-off meeting with Travel Oregon and our partners (which include Travel Lane County, LCOG, and the members of our Park | Tree Committee) is March 30th;
- Awarded scholarship for staff member to attend virtual National Main Street Conference in April;
- Code Review Ad-Hoc Committee held first meeting, next meeting is March 11th;
- Main Street Committee projects, including a mural, flower baskets, bike hub, unified marketing campaign, and IOOF lease, are off and running!

Public Works

- **Streets and ROW.**
    - Trimmed overhanging trees on Coburg Loop Path
    - Removed and replaced 4 panels of sidewalks on Pearl St.
  - **Pot Holes**
    - 1 pot hole repaired
  - **Street Lights**
    - Replaced 6 bulbs on Willamette St
- **Water Utility**
  - **Projects**
    - Worked with City Engineering Staff on prioritizing water line replacement for upcoming Water Projects.
    - Worked with Crew on formulating plan to finish out water meter replacements
- **Sewer Utility**
  - **Collections**
    - **Pumping**
      - 1 commercial tank
    - **Inspections**
      - 9 inspections
        - Replaced one service panel

        - Identified 3 residential tanks to be pumped
    - **Callouts**
        - 9 callouts (7 collection system call outs & 2 plant call outs)
- **Treatment Plant**
    - Pulled two mixers that were showing leak seal failures. Found leak seal contactors were faulty
- **Parks Dept**
    - **Parks and Tree Committee**
        - Committee
            - Reviewed Committee work plan (projects for 2021)
            - Work session on debrief of Johnny Diamond Park and communication with City Staff
    - **Amenities**
        - Switched out light switch at Johnny Diamond Park for a timer switch
        - Replaced infant swing at Norma Pfieffer Park
        - Pulled weeds at Johnny Diamond Park total of 33hrs
- **Misc.**
    - **Vehicle Maintenance**
        - Serviced backhoe
    - **Locates**
        - 12 Locates
    - **Work Orders**
        - Crews turned in 47 work orders. Most of these are additional work done other than the daily work Public Works does.

Municipal Court

- **February 2021 Activity Measures:**
    - **Citations (Crimes and Violations)**
        - New Citations for February 16, 2021 Court Date: 60

    - **February 2021 Receipts Including Collections**,
        - **Total Fines**: $13,817.24 (total monies taken in for the month, nothing deducted), *compared to $ 10,809.10 in February of 2020*
        - **Net Fines**: $ 10,607.00 (City share only, NOT including collections), *compared to $7,011.00 in February of 2020*

    - **February 2021 Professional Credit Service Collections**:
        - **Total Collection Revenue**: $ 3,210.24 *compared to $3,798.10 in February of 2020*
        - **Turned over to collection**: $ 2,022.95 *compared to $4,813.00 in February of 2020*

Comparisons should only be considered when viewing the year-to-date amounts as court dates are not consistently held on the same dates each month, nor is there consistent cases presented to the court.

Other Information:

- **Upcoming Court Date: March 2, 2021 Regular Court Session**
  March 16, 2021 Jury Trial

Police Department

- Officers arrested a female for assault IV - APA (Abuse Prevention Act); the female bit the victim's nose requiring medical treatment.
- Officers investigated a burglary on E Delany; the suspect used stolen identification in Eugene.
- Officers investigated a theft from a vehicle at Old Dominion; a male broke into one of the employee's vehicles. The suspect fled the area in a Ford pickup stolen a couple hours earlier in Salem from a Costco.
- Officers contacted two suspicious males at the Shell gas station; both were from Eugene and admitted to being heroin addicts. They told me they came to Coburg to shower at the truck stop. One male had several cautions for assaulting and threatening to kill police; he also had outstanding warrants for his arrest and therefore, was arrested. During a search of the subject, we located four syringes loaded with heroin.
- Officers took a runaway juvenile (age 17) report. Several days later the runaway returned home.
- Officers were dispatched to a homeless man loitering around the Shell gas station. Officers contacted the male who was an admitted Heroin addict who was dropped off in Coburg. Officers transported the male to the White Bird Clinic.
- Officers arrested a male for DUII at the Dari Mart. The Drug Recognition Expert (DRE) determined it to be a medial issue.
- Officers arrested a male for DUII at Pearl and Finley Streets. It was determined the driver was under the influence of controlled substances.
- Officers worked with ODOT and Lane County Weight Masters performing truck inspections at the Marcola scales.
- Officers took a report for a stolen travel trailer which was taken from Eugene Camping World. The theft was reported five days after the theft occurred.
- Officers took a report of a theft from a vehicle. The vehicle was parked at the Truck N Travel employee parking lot. The theft occurred sometime within two weeks prior to the report.
- Officers investigated a criminal mischief at Pioneer Mobile Home Park. Someone slashed the tires of a tenant in the park.
- Officers took a report for a stolen vehicle and enclosed car trailer. The next day the enclosed trailer was recovered in the Northbound I5 rest area by Wilsonville. The pickup was recovered in Canby Oregon.
- Officers issued criminal citations to a postal worker for reckless driving, reckless endangering, criminal mischief and disorderly conduct for an incident that occurred during the fire district's burn to learn training session.
- Officers used money from the CHETT Program to buy a night stay at a motel for a victim of domestic violence.

- Officers took two unlawful entry into motor vehicle reports. Nothing was taken in one case and some change and misc. items taken in the other.
- Officers arrested a male resident on outstanding felony warrants for parole violations, theft and dangerous drugs.
- Officers are investigating a theft from a vehicle on E Delaney; officers are reviewing video.
- Officers assisted Coburg Fire with a semi-truck fire. The cause of the fire was caused by mechanical issues.
- Officers took two reports for two separate vehicles being broken into on January 9th. One vehicle was on Coleman Street and the other was on Christian Way; both vehicles where unlocked.
- Officers are investigating a physical harassment at a local business.
- Officers arrested male for DUII on Industrial Way. It was determined that the driver was under the influence of controlled substances.
- Officers worked at the Woodburn Port of Entry with ODOT to get their required truck inspections.
- Officers arrested a male on felony arrest warrants and driving on a suspended driver's license.
- Officers arrested a male at Coburg Crossings on felony arrest warrants.
- Officers received a report from Polk County Sheriff's Office that they recovered a vehicle stolen out of Coburg. The vehicle (Nissan 240 SW) was recovered on a roadway west of Salem. A Hispanic male was seen by the vehicle. The suspect fled in another vehicle before a deputy could arrive on scene.
- Officers investigated a DHS referral alleging a mother drinking and using drugs; the report was unfounded.
- Officers arrested a male subject at the Shell Gas Station on outstanding warrants.

Upcoming Events:

- No events